

APPENDIX A. FIELD NOTES AND COCS

Field Logbook

K. McPeck
8/28/17

August 28, 2017

AOC3 Surface Water Sampling SWI

0750 Arrive South Park Marina: M. Yarnes, K. McPeck

mid 60's, sunny

high tide: 11:12 AM

0830 Health and safety meeting, boat safety

0845 Decan Niskin bottles

0900 board Gravity boat: Ed Sloan, John Schaefer
for Gravity

0915 Preserve inorganic As bottles (ultra-clean)

calibrate CTD, set-up Niskin bottle

Boat set-up (by Gravity)

1005 Depart South Park Marina

On-water health and safety briefing

1010 Assist positioning of other Gravity boat

1035 Arrive SWI

1045 Collect bottom grab 1 @ 12.2m

bottom depth: 13.2 m

Process bottom grab 1

Sonde file start time: 1044:14 sec

1128 Collect surface grab 1 @ 1m

Process surface grab 1

sonde file start time: 1127:01 sec

8.28.17

AOC3 SWS

K. McPeck

and process

1157 Collect bottom grab 2 @ 12.1 m

bottom depth: 13.1 m

sonde file start time: 1157:00 sec

1229 Collect surface grab 2 @ 1 m

sonde file start time: 1228:06 sec

Process surface grab 2

1305 Collect ~~surface~~^{bottom} grab 3 @ 11.9 m

bottom depth: 12.9 m

sonde file start time: 1304:11 sec

Process bottom grab 3

1334 collect surface grab 3 @ 1 m

sonde file start time: 1:33:10 sec

process surface grab 3

1405 collect bottom grab 4 @ 11.8 m

bottom depth: 12.8 m

sonde file start time: 2:05:06 sec

process bottom grab 4

1438 collect surface grab 4 @ 1 m

sonde file start time: 2:37:30 sec

process surface grab 4 & head

back to South Park Marina

1520 Arrived SWI to meet other boat

Rite in the Rain

4

8.28.17

K. McPeck

1545 Head back to marina, unload samples

1605 Depart marina

Kate McPeck
8/28/17

K. McPeck⁵
9/18/17
at

September 18, 2017

AOC3 Surface water sampling storm event 1

Weather: overcast, showers, 50s

0845 Arrive 1st Ave S boat ramp, meet

Granty, and USACE oversight

0900 Deon Nishin bottles,

mobilize sampling equipment, load boats

All crew members arrive:

Windward: Kate McPeck } SW1
Nina Mues } SW1

Thai Do

Suzanne Replinger

Aaron Edington

Amora Vandervort

Jenna Rheuban

Annika Fair - Fair Env. - SW3

Kristen Kerns - USACE (EPA oversight)

Shawn Hinz } Granty, SW2

Ed Sloan } SW2

Jeff Wilson

Chad Furulie } Granty, SW1

Tides: high: 10.97 Ft @ 4:33 AM

low: 0.19 Ft @ 10:52 AM

0935 Health & Safety briefing

Rite in the Rain.

6
9.18.17
10M

K. McPeak

- 0940 Boat health & safety
0945 Depart 1st Ave S boat ramp for SW1
1000 Arrive SW1
1000 Preserve inorganic As bottles
1010 Collect bottom grab 1 @ 9.6 m
bottom depth: 10.6 m
Process bottom grab 1
Sonde file start time: 1008
1042 Collect surface grab 1 @ 1m
process ^{sur} surface grab 1
Sonde file start time: 1041
1111 Collect bottom grab 2 @ 9.45 m
bottom depth: 10.4 m
Process bottom grab 2
Sonde file start time: 1109
1141 Collect surface grab 2 @ 1m
process surface grab 2
Sonde file start time: 1139
1209 Collect bottom grab 3 @ 9.8 m
bottom depth: 10.7 m
Process bottom grab 3
Sonde file start time: 1208
1237 Collect surface grab 3 @ 1m
process surface grab 3
Sonde file start time: 1235

19
9.18.17
PM

K. McPeak

- 1312 Collect bottom grab 4 @ 10.5 m
bottom depth: ~~10.5 m~~ or 11.4 m
Process bottom grab 4
Sonde file start time: 1311
1340 Collect surface grab 4 @ 1m
Process surface grab 4
Sonde file start time: 1337
1400 Head to Sea Freeze to check passive samplers
1405 Check passive samplers at Sea Freeze:
All straps present @ waterline
1410 Head back to 1st Ave S boat ramp
^{SW1} 1415 Arrive 1st Ave S boat ramp
unload, meet other Gravity boat
1420 Off-water
1445 Depart 1st Ave S boat ramp

~~K. McPeak
9.19.17
K. McPeak~~

Rite in the Rain

S. Replinger

10.19.2017

Storm event ST2 (>0.5" + <2000 cfs dam release)

0645 Arrive at 1st Ave S boat. Prep for field day.

Weather: Showers, E. breezy

Tides: high = 0544 10.2'

low = 1130 3.06'

high = 1723 10.89'

Crew:

S. Replinger (uw)

T. Do (uw)

A. Edgington (uw)

Annika Fain (Fain)

Ed Sivan

Pete Jenkins } Granty

K. McPeck (uw)

N. Mass (uw)

Jeff Wilson } Granty

Chad Furlie }

A. Vandervort (uw)

J. Rhevier (uw)

SW1

SW2

SW3

0705 Meet Granty. Load Sampling gear. Decon samplers.

0728 Health & Safety briefing.

0735 Depart boat ramp. Head to SW1.

0740 Preserve inorganic arsenic bottles for 3 samplers (Surface, bottom & FD). FD to be collected at bottom depth.

S. Replinger

10.19.2017⁹

0749 Arrive at SW1. Prep Niskin double sampler + YSI.

0811 Collect 1st surface sample at SW1.
Water depth = 12.6 m0812 Collect 1st surface ~~set~~ sample. Disregard ^{end of} data log.

0826 Finish processing grab.

0832 Collect 1st bottom sample at SW1. + FD.
Water depth = 12.5 m

Messenger did not trigger.

0835 Collect 1st bottom sample at SW1 - did not trigger on two addition attempts. Found second messenger to attempt.0845 4th attempt at bottom grab.
(disregard 1st data log from 0832).
Water depth = 12.5 m
Unsuccessful (messenger stuck).

0850 Head upstream to meet SW2 crew to get larger messenger.

0920 Return to SW1.

0925 5th attempt at bottom grab #1. Record new data log.
Water depth = 12.1 m
Unsuccessful.0929 6th attempt at bottom grab.
Unsuccessful.

Rite in the Rain

¹⁰ S. Replinger

10.19.2017

- 0930 Trawl/shoot equipment.
0947 7th attempt at bottom grab #1.
water depth = 12 m.
Success. Process sample.
- 1005 Finish processing grab.
1013 1st attempt - 2nd surface grab at SW1.
water depth = 11.7m
Note - large barge just passed, which
may influence profile.
Successful. Process sample.
- 1022 Finish processing sample.
1055 1st attempt - 2nd bottom grab sample.
water depth = 11.5 m
Unsuccessful.
Wait for barge to pass.
- 1045 2nd attempt - 2nd bottom grab at SW1.
water depth = 11.5 m
Successful. Process sample.
- 1058 Finish processing sample.
1105. Surface grab #3 (1st attempt)
water depth = 11.5 m.
Successful (1 of 2 Nukins closed.) Process sample.
- 1117 Finish processing sample.
Prep for next round.

S. Replinger

10.19.2017¹¹

- 1137 Bottom grab #3 at SW1 (1st attempt)
water depth = 11.4 m
Unsuccessful.
- 1140 Bottom grab #3 at SW1. (2nd attempt)
Successful. Process sample.
- 1155 Finish processing sample.
1201 Surface grab #4 (1st attempt).
water depth = 11.5 m
- 1214 Finish processing sample.
1034 Bottom grab #4 (1st attempt)
water depth = 11.8 m
Unsuccessful. Messenger did not trigger.
- 1237 Bottom grab #4 (2nd attempt)
Unsuccessful.
- 1239 Bottom grab #4 (3rd attempt).
Successful. Process grab.
- 1254 Finish processing sample. Label
jars and head back to boat ramp
to meet other crews.
- 1312 Arrive at 1st Ave S boat ramp. Unload supplies.
1330 Depart boat ramp. End of field day.

~~S. Replinger
10.19.2017~~

02.22.18

N. Maas

AOC3 WBI

- 0630 Arrive at boat launch
mid 20s, sunny
high tide: 9:11 am
SWI crew N. Maas, M. Yarnes
Renee Trudeau, Pete Jenkins
- 0715 Decon samplers
- 0730 Health and safety meeting, boat
safety
Board Gravity boat, head to SWI
- 0745 Arrive SWI, set up Niskin
and boat equipment
Add preservatives to As
- 0830 Collect bottom grab 1
water depth = 16 m
Process sample
- 0900 Collect surface grab 1
water depth = 16.2 m
Process sample
Boat depth measurements inconsistent
with leadline. (12 m measured at this
location.) Begin using leadline water
depth measurements
- 0915 Niskin broken, swap out for new

2.22.18

N. Maas

0940

Collect bottom grab 2
water depth: 16.4 m boat measurement
48 ft. leadline, 14.6 m

Process sample

1008

Collect surface grab 2
water depth = 16 m boat measurement
12.5 leadline

Process sample

1040

Collect bottom grab 3
water depth = 11.24 m
Process sample

1112

Collect surface grab 3
water depth = 10.54
Process sample

1140

Collect bottom grab 4
water depth = did not record
Process sample

1200

Troubleshoot boat problems
battery dead

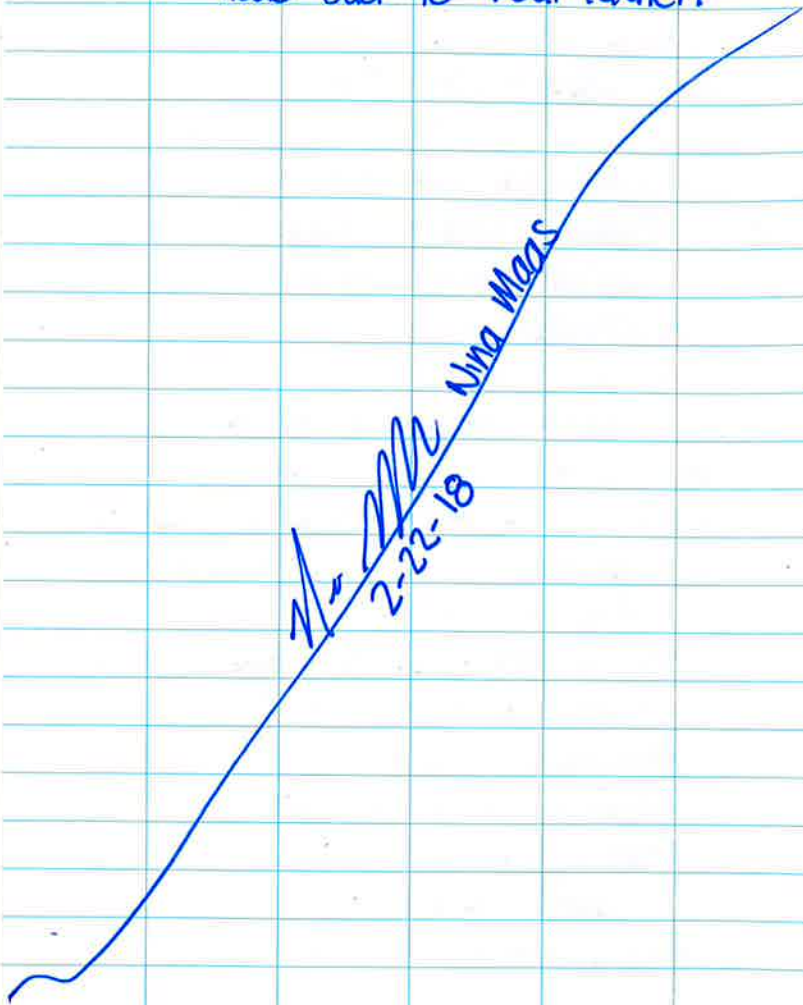
1240

Transfer boats due to battery
issues

1300

Set up on transfer boat complete,
head out to take last sample

- 1310 Collect surface grab 4
 water depth = did not record
 Process samples
 Head back to boat launch



K. McPeak
 3/8/18 15

3/8/18

Storm Event ST3

0950 Arrive 1st Ave S boat ramp, unload
 vehicles, meet Gravity

Weather: 40s, rain

Tides: High: 10.4' @ 0858

Low: 1.6' @ 1550

Crew: N. Mass (WW)

(for SWI) K. McPeak (WW)

Chad Furolic (Gravity)

Ed Sloan (Gravity)

1010 Decon samplers

1020 H+S briefing

1026 Depart 1st Ave S boat ramp for SWI

1044 Arrive SWI, set up to sample

1052 Collect bottom grab 1, attempt 1 (recorded by Gravity as "a")
 water depth: 13.6 m (water depth
 measured with lead line)

Failed attempt - YSI not started on time

1058 Collect bottom grab 1, attempt 2 (recorded by Gravity as "b")
 water depth: 13.6 m

Successful, process sample

1130 Collect surface grab 1

water depth: 13.0 m

Successful, process sample

K. McPeak
3/8/18

- 1155 Move off target to avoid tug
- 1204 Collect bottom grab 2, attempt 1
water depth: 12.9 m
Failed; messenger did not trigger
- 1208 Collect bottom grab 2, attempt 2, ^{water depth: 12.9 m}
successful, process sample
- 1230 Collect surface grab 2
water depth: 12.9 m
successful, process sample
- 1256 Move off target to avoid barge
- 1300 Collect bottom grab 3
water depth: 12.1 m
Successful, process sample
- 1327 Collect surface grab 3
water depth: 12.5 m
successful, process sample
- 1358 Collect bottom grab 4
water depth: 11.9 m
successful, process sample
- 1426 Move off target to avoid tugs
- 1434 Collect surface grab 4
water depth: 11.9 m
successful, process sample and head
back to 1st Ave S. boat ramp
- 1458 Arrive 1st Ave S boat ramp, unload,
off-water

4.3.2018

S. Replinger

Wet base flow 20515 - Arrive at 1st Ave S boat ramp. Unload
vehicles and meet Granty.Weather: clear, high 40sTides: 1:37am - low - 3.58 ft

7:25am - high - 10.81 ft.

2:00pm - low - 0.19 ft.

Crew: S. Replinger (ww)

T. Do (ww)

Annika Fain (Fain)

Shawn Hinz (Granty)

Henry Phaeuk (Granty)

K. McPeak (ww)

N. Mass (ww)

Chad Furlie (Granty)

Willie Hagnard (Granty)

J. Rouben (ww)

A. Vandenberg (ww)

SW1

SW2

SW3

0535 Decon equipment. Prep for sampling.

0555 H&S briefing

0605 Depart boat ramp. Head to SW1 to
conduct WB2 sampling, including
duplicate sample at bottom layer.

0620 Arrive at SW1. Prep for sampling.

Add preservative to inorganic
arsenic bottles.*Rite in the Rain*

4.3.2018

S. Replinger

- 0635 Collect 1st sample at Sivi - bottom - and dup.
Water depth = 8.2m
Successful. Process samples.
- 0658 Collect 1st sample at Sivi - surface.
Water depth = 8.4m
Successful. Process sample.
- 0731 Collect 2nd bottom sample at Sivi (+dup)
Water depth = 8.5m
Successful. Process sample + dup.
- 0753 Collect 2nd surface sample at Sivi.
Water depth = 8.4m
Successful. Process sample.
- 0844 Collect 3rd sample at Sivi - bottom (+dup).
Water depth = 8.5m
[Note that sample timing delayed due to barge passing through the area]
Successful. Processing sample.
- 0859 Collect 3rd sample at Sivi - surface.
Water depth = 8.4m
Successful. Process sample.
- 0940 Collect 4th grab at Sivi - bottom (+dup)
Water depth = 8.3m
Successful. Process sample.
Label jars w/ 0940

4.3.2018

S. Replinger

- 0955 Collect 4th grab at Sivi - surface.
Water depth = 8.3m
Successful. Process sample.
Label jars w/ 0955
- 1011 Finish processing sample; head back to boat ramp to meet other crews.
- 1025 Arrive at boat ramp. Offload supplies
- 1055 Depart boat ramp. End of field day.

S. Replinger
4.3.2018

04.07.18

TDO

1115 Arrive at boat ramp.

1130 Meet up w/ Gravity.

S. Hinz & E. Sloan SW1, SW2

Global: H. Phoenix SW1

Max Powell SW2

Annika Fair. - SW1

A. Edgington - SW2

J. Parker - SW1

M. Yarnes - SW2

A. Vandenberg } SW3

J. Rheuben }

T. Do - SW1

Deion and prep for sampling.

1145 H & S briefing.

1200 Head to SW1

1210 Collect 1st sample at surface (dup)

Water depth = 9.6m - good.

1236 Collect 1st sample at bottom

Water depth = 9.8m - good.

1309 Collect 2nd sample at surface (dup)

Water depth = 8.6m - good.

1335 Collect 2nd sample at bottom

Water depth = 8.5m - good.

04.07.18

TDO

1412 Collect 3rd sample at surface (dup)

Water depth = 8.5m - good

1435 Collect 3rd sample at bottom

Water depth = 8.5m - good

1510 Collect 4th sample at surface (dup)

Water depth = 8.6m - good

1535 Collect 4th sample at bottom

Water depth = 8.4m - good.

1545 Head back to boat ramp.

1555 At boat ramp. Off load.

1615 Depart boat ramp. End of on-water day.

~~TDO
04.07.18~~

07.30.2018 Dry Baseline 2 S. Replinger

0445 Arrive at boat ramp.

Weather: 70s-90s, clear + sunny

Crew: S. Replinger (uw)

T. Do (uw)

A. Fain (Fair Env.)

Sonia Rosales (City of Seattle)

Luke Tackto (Grant)

Jeff Wilson (Grant)

N. Moss (uw)

K. McPeck (uw)

S. Hinz (Grant)

Chad Furlie (Grant)

J. Rieber (uw)

A. Vandervort (uw)

} SW1

} SW2

} SW3

0450 Unload supplies, decom equipment, and prepare for sampling.

0530 Depart boat ramp and head to SW1 to collect sample + dup.

Conduct H&S briefing.

0535 Add arsenic preservative.

0545 Arrive at SW1. Prep to collect sample.

0550 Collect bottom grab #1

Water depth = 43 ft (13 m)

Unsuccessful. grab did not trigger.

07.30.2018

S. Replinger

0600 Collect bottom grab #1 (2nd attempt)

Water depth = 43 ft (13 m)

Successful. Collect sample.

0615 Collect surface grab #1

Water depth = 44 ft (13.4 m)

Successful. Collect sample + dup.

0655 Collect bottom grab #2

Water depth = 43 ft (13.1 m)

Successful. Collect sample.

0707 Collect surface grab #2

Water depth = 43.5 ft (13.3 m)

Successful. Collect sample + dup.

0753 Collect bottom grab #3

Water depth = 43 ft (13.1 m)

Successful. Collect sample.

0805 Collect surface grab #3

Water depth = 42.5 ft (12.9 m)

Successful. Collect sample + dup.

0852 Collect bottom grab #4

Water depth = 42 ft (12.8 m)

Successful. Collect sample.

0905 Collect surface grab #4

Water depth = 41 ft (12.5 m)

Successful. Collect sample + dup.

07.30.2018

S. Replinger

- 0915 Finish collecting samples. Label and OC all bottles.
0922. Head back to boat ramp.
- 0930 Arrive at boat ramp. Offload supplies. Prep samples + prep for passive sampler deployment.
- 0955 Kate/Nina to AKI, Anura/Jenna to deployment. WU to arrange carrier to Brooks + Anys. ~~Lead supp~~ (SR2)
- 1000 Depart boat ramp and head up to South Park Bridge to deploy passive samplers. Prep for deployment.
- 1040 Arrive at PSI to deploy samplers. Prep anchor lines. Water depth \approx 18 ft.
- 1112 Open trip blank for PSI (LDW18-PS1-DB2-TB)
- 1113 Attach 1st 5 samples to first frame with ysi.
- 1117 Deploy passive sampler frame #1 (LDW18-PS1-DB2-01 to 05)
- 1119 Attach 2nd 5 samples to frame #2.
- 1123 Deploy passive sampler frame #2 (LDW18-PS1-DB2-06 to 10).
- 1128 Deploy passive sampler frame #3 (LDW18-PS1-DB2-11 to 15). Wrap trip blank.

07.30.2018

S. Replinger

- 1132 Depart PSI (South Park Bridge location) and head to PS2 (Seafreeze).
- 1145 Arrive at PS2. Prep anchors + lines. Deploy PS2 frame #1 with YSI meter and 1st 5 samplers. (LDW18-PS2-DB2-01 to 05)
- 1200 Open trip blank for PS2.
- 1207 (see above)
- 1211 Deploy PS2 frame #2 and 2nd 5 passive samplers. (LDW18-PS2-DB2-06 to 10)
- 1215 Deploy PS2 frame #3 and 3rd set of 5 passive samplers. (LDW18-PS2-DB2-11 to 15) Close trip blank.
- 1218 Depart PS2
- 1220 Arrive at boat ramp. offload supplies.
- 1230 Depart boat ramp. End of field day

~~S. Replinger~~
07.30.2018

08.29.15

T-DO

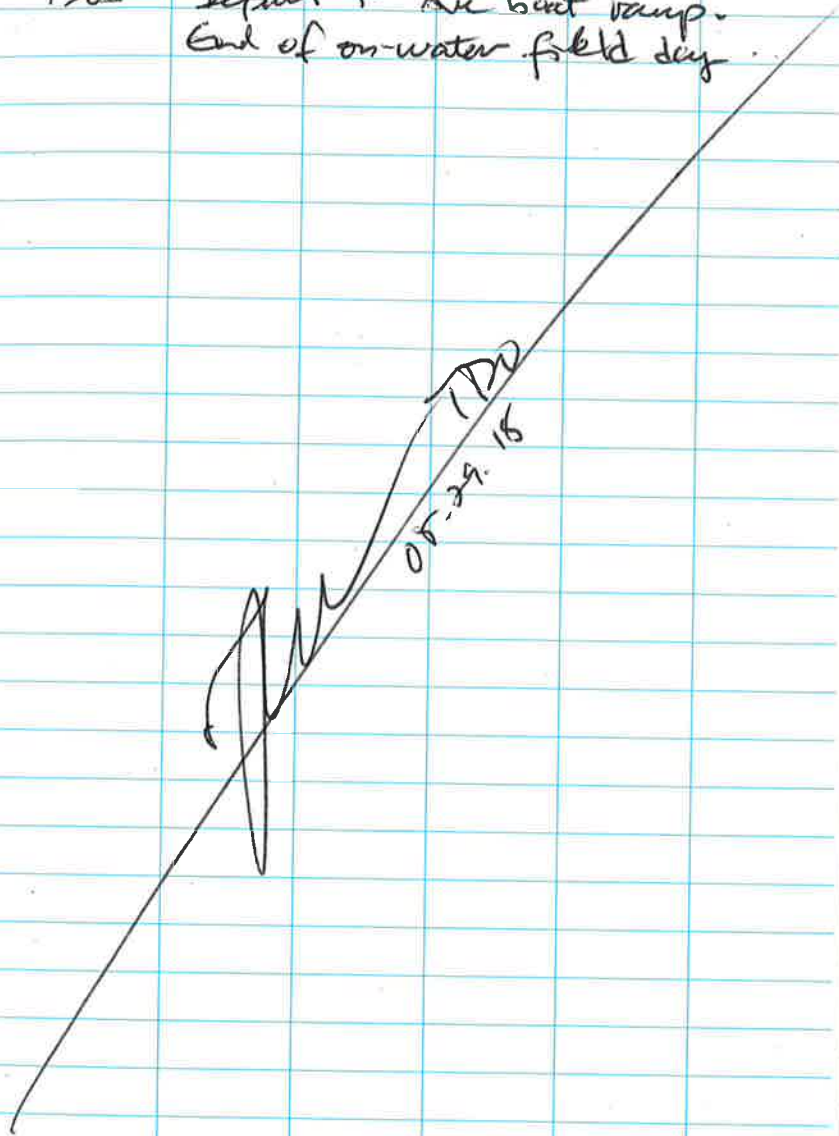
- 1100 Arrive at 1st Ave boat ramp.
Meet up w/ Gravity
J. Wilson & R. McEliece
and Annika Fain (Fairview).
Health & Safety briefing.
- 1105 Head upstream to PS1 - SoPark
bridge.
- 1120 Arrive at PS1.
- 1124 Open trip blank for PS1
- 1125 Pick up 1st frame (1-5), all present ^{TAG #}
- 1138 Pick up 2nd frame (6-10), all present.
- 1149 Pick up 3rd frame (11-15), all present.
- 1205 Depart PS1. Head to PS2
(Sea-Freeze).
- 1215 Arrive at PS2
- 1200 Close trip blank for PS1
- 1217 Open trip blank for PS2
- 1218 Pick up 1st frame (17-21), all present. ^{TAG #}
- 1230 Pick up 2nd frame (22-26), all present.
- 1240 Pick up 3rd frame (27-31), all present.
- 1245 Close trip blank for PS2
- 1255 Head back to boat ramp.
- 1300 Arrive at boat ramp. Offload
samples and eqpt.

08.29.15

T-DO

1305

Depart 1st Ave boat ramp.
End of on-water field day.



08.10.17 ADC3 - passive sampling ~~T.D.~~
Recon

1220 Arrive at 1st Ave S. boat launch.
 T.D. (wind).

Hi 70's, sunny.

Meet with Gravity: Shanon
 Hinz; Pete Jenkins.

Low tide at 13:30 -0.2 ft MLLW

1230 • 1st Ave S. bridge
 unable to access behind fender
 boards at proposed location but
 fender boards to north may be
 accessible by small boat.

-no fender boards below 10th
 board, depth to bottom ~28 ft.
 at southern boards, ~24 ft
 at northern boards. No tribal marks.

1240 • Sea-Freeze pier
 unable to access behind in large boat
 but looks too close to shore.
 Gravity can provide depth on
 that side (from side-scan sonar

08.10.17

T.D.

data). Depth to bottom ~14.5 ft.
 Can access back side in small
 boat. Use ratchet straps to
 attach to pilings, no vertical
 beams/bars to hang lines off. ^{No tribal}
 marks

1255 • South Park Bridge
 access behind fender bars at
 proposed area is good. Water
 depth is ~12 ft. -14 ft.

No fender boards below 10th
 board at 34'-35' minimum height
 for bridge clearance.

Northwest fenders also accessible
 at low tide, but only about
 5 ft. dep. (not suitable for
 frames - potential exposure
 at a lower low tide) No tribal marks

1335 • T105 pier
 Only ~20 ft. wide. Tight spacing
 Depth to bottom about 18 ft.

08.10.17

T.Do

Probably not suitable for 3 frames. Also, too public. Crabbers and fishermen may get lines caught up on samplers. Would also have to use ratchet straps. No tribal markers.

1340 Head back to boat ramp.

1355 Arrive at boat ramp. Disembark.
End of field day (recon).~~T.Do~~~~08.10.17~~

08.25.17 AOC3 - Passive sampler deployment T.Do

Low tide @ 1413 (1.7 ft MLLW)

Weather: sun, 70s.

0845 Arrive at 1st tree boat ramp.

T.Do, K. McPeck (LWW)

Ed. Sloan, Pete Jenkins (Gravity)

Kristen Kerns (USACE)

0855 Annika Fain (Fain Env.) arrives

0910 Elly Hale (EPA) arrives

0920 Health & Safety briefing.

0930 Leave boat ramp. Called bridge personnel to inform them of our arrival & plans.

DOT # 206.615.0799

(m) 206.549.2896

0940 Arrive at S. Park Bridge.

0945 Begin setting up frames.
Talked to Elly about tie-off points. Unack to tie off on horizontal fender boards as expected, so we'll thread through clasps/bolts around pilings.1030 Begin loading frames w/
passive samplers. TB1

082517.

T-DO

- 1100 Deploy 1st frame, load 2nd frame
 1130 Deploy 2nd frame w/sonde, load 3rd frame
 1200 Deploy 3rd frame.
 1205 Depart PSI location (S.P. Bridge)
 1220 Recon tie-off spots at ~~PS2~~ PS2 (Sea-Freeze)
 1230 Begin setting up ratchet straps at tie-off points
 1245 Begin loading passive sampler frames. TB2
 1305 Deploy 1st frame, load 2nd frame.
 1320 Deploy 2nd frame, load 3rd frame.
 1330 Deploy 3rd frame.
 Sonde on 2nd frame.
 1340 Depart PS2 (Sea-Freeze). Head back to boat ramp.
 1345 Back at boat ramp. Offload supplies
 End of on-water day.

T-DO
 08.25.17

08.28.17

AOC3 SW (DB1)

T-DO

0745

Arrive at S. Park Marina to meet up w/ boats, crews, & oversight, (10's, sunny. ^{high tide} @ 1112

0800

All crews arrive

Windward

Kate McPeel } SW1 crew
 Mike Yarnes }

Thai Do } SW2 crew
 Nina Maas }

Benit Bergquist } SW3 crew
 Jenna Rhenben }

Annika Fair - Fair Env.

Bill Gardner - USACE (EPA oversight.

Pete Jenkins - Gravity } SW2
 Chad Fumble - Gravity }

John Schaeffer - Gravity } SW1
 Ed Sloan - Gravity }

0810 Begin loading supplies and eqpt. on to boats.

0830 Health & Safety briefing to go over generic risks during sampling. Boat captains will go over H&S at sites.

Rite in the Rain

08.28.17

TIDD

- 0845 Go over eqpt. use; troubleshoot electronics; decon Niskins w/ acids & methanol
- 0930 Rig up Niskin samplers w/ weights and attach sondes.
- 1000 Finnika Fain & Bill Gardner will join us on SW2 crew b/c there's more room on the boat. Health & Safety briefing - boat emphasis
- 1005 Head to site (SW2 crew)
- 1010 On site. Because we only have 1 5-L Niskin instead of 2 planned, we will have to collect 2 grabs in order to get sample volume for duplicate sample. For representativeness, each grab will be aliquoted across 22 bottles (11 for sample and 11 for duplicate) by filling bottle 1, bottle 1 dup, bottle 2, bottle 2 dup, bottle 3, bottle 3 dup ...

08.28.17

TIDD

- 1029 Collect grab 1a for near bottom, 9.5m depth
- 1032 Process grab 1a.
- 1107 Misfire grab 1b for near bottom, 9.7m depth
- * 1110 Collect grab 1b for near bottom, 9.7m depth
- 1112 Process grab 1b.
- * 1138 Collect grab 1 for surface, 9.7m.
- 1140 Process grab 1 (surface)
Was not able to collect grabs before high tide (at 11:12)
- 1145 Called Susie to let her know of difficulties w/ duplicate sample taking too much time, and setback of electronics troubleshooting).
- 1155 Collect grab 2a (bottom) ^{9.7m} ~~9.6m~~
- 1157 ~~misfire to~~ Process grab
- * 1216 Collect grab 2b (bottom) 9.7m
- 1218 Process grab 2b (~~bottom~~ ^{surface}) ~~9.6m~~
- 1238 Misfire grab 2 (surface) 9.6m
- * 1240 Collect grab 2 (surface) 9.6m
- 1242 Process grab 2

08.28.17

T.D.D

- 1301 Collect grab 3a (near ^{bottom} ~~surface~~); 9.5m
- 1303 Process grab 3a
- *1324 Collect grab 3b (near bottom) 9.3m
- 1326 Process grab 3b
- 1335 A-frame hydraulics malfunctioned. Will have to deploy Niskin and sonde manually for remainder of samples. (Unable to trouble-shoot)
- *1359 Collect Grab 3 (surface), 9.1m
- 1401 Process grab 3
- 1424 Misfire grab 4a (bottom) 9.0m
- 1439 Collect grab 4a (bottom) 9.0m
- 1441 Process grab 4a
- *1459 Collect grab 4b (bottom) 9.0m
- 1501 Process grab 4b, use time of 1459 as sample time bc that is when the completed (final) composite grab was collected.
- *1524 Collect grab 4 (surface), 8.8m.
- 1526 Process grab 4, use time of 1524 as sample time. SWI crew arrived.
- 1545 Head back to marina. Offload

08.28.17

T.D.D

- supplies/capt and samples.
- 1600 Mike and Nina take ARI samples to lab, Kate and Thai take Brooks Applied & Arys samples back to office for courier pick-up.
- 1605 Depart marina. End of on water day.

T.D.D

08.28.17

Pse Amara:

Note: 2L bottle for TSS filled to brim w/ 4th aliquots. just made it w/ volumes jars too small

Rite in the Rain

09.19.2017

S. Replinger

AOC3 ST1

0845 Arrive at 1st Ave South Bridge boat ramp to meet up w/ boats, crews, & oversight for ST1.

Weather: overcast, showers, 60s

0900 All crew members arrive:

Winners

Kate McPeck } SW1
Nina Maas }

Thai Do } SW2
Aaron Edgington }
Suzanne Replinger }

Annara Vandervort } SW3
Jenna Rhedden }

Annika Fain - Fair Env

Kristen Korns - USACE (EPA oversight)

Shawn Hinz } SW2
Ed Sloan }

Jeff Wilson } SW1
Chad Forolie }

Tides: high = 10.47 ft @ 4:30 AM

low = 0.19 ft @ 10:52 AM

0920 Conduct w/ HLS briefing. Prep for sampling (decon) + load boats.

09.19.2017

S. Replinger

0930 Health & Safety briefing w/ boat crews

0950 Depart 1st Ave S. boat ramp. and head upstream to SW2.

1000 Arrive at SW2. Prep for sampling.
Water depth = 24.8 ft. (7.56m)

1008 Collect 1st grab at bottom (SW2)

1026 Finish processing grab. Get to SW2 position.

1031 Collect 1st grab at surface (SW2) + Dup.
Water depth = ~25 ft. (~~28.5m~~)

1054 Finish processing sample.

Check on passive sampler a PSI - all lines still in position.

1121 Collect 2nd grab at bottom (SW2).
Water depth = 7m

1138 Collect 2nd grab at surface (SW2) + Dup.
Water depth ~ 22.7 ft.

1223 Collect 3rd grab at bottom (SW2).
Water depth = 7.6m

1246 Collect 3rd grab at surface (SW2) + Dup.
Water depth ~ 24.5 ft.

1322 Collect 4th grab at bottom (SW2).
Water depth = 8.1m

Finish compositing bottom sample (SW2).

Rite in the Rain

09.19.2017

1346 Collect 4th grab at ^{Surface} station (SW2) + Dup. S. Replinger
Water depth ~ 26.5 ft

1410 Finish compositing grab for SW2 + Dup.
Head back to First Ave Bridge boat ramp to meet other crews.

1425 Arrive at boat ramp. Offload samples and equipment. Surf. samples.

1450 Kate + Nina + Aaron to take Axys samples from boat back to office.

Suzanne + Thai take rest of samples to meet up w/ Jenna + Amara to help finish at SW3 and surf samples

1455 Depart boat ramp
End of field day.

S. Replinger
9.19.2017

09.25.17

1000

Arrive at 1st Ave S. boat ramp. Meet up w/ Gravity. TDO
P/V Mazama
Chad Furlie } Gravity.
Ed Stan }
Kate McPeck } ZWW.
Thai Tao }

weather: overcast. 60's

Tide: Hi @ 0939 +9.7 ft. Max

Lo @ 1523 +5.3 ft. Min

1020 Annika Fain arrives. Conduct A&S briefing. Set off to recon outfalls for Abby.

1025 Check SD/PF 2503 near 1st Ave. Bridge.
checked in small, narrow channel lined with riprap and brushy vegetation - T. Do searched by land; not visible by water or land

1030 Recon SCS Refd Services off. Unable to locate, but area is under bldg pier, likely inaccessible. Location also obstructed by boathouse.

09.25.17

TDO

1055 ~~110~~ Recon OF 2226 near Kellogg Island
Checked out inlet/lagoon area. No
sign of OF. Cobble/rip-rap bank
Pier structure forming along east, so

1110 Recon OF 8134. Location near
T105 pier, could be blocked
by barge. Shortline all rip rap.
Unable to locate OF.

1120 Will try locations again at
lower tide. Head upriver to
S. Park bridge to see if tide is
low enough to retrieve sampler
frames.

1150 Arrive at S. Park bridge. Samplers
still submerged. Will wait 1/2 hr.

1155 Called DOT bridge staff to let them
know that we are here to

09.25.17 retrieve samplers. ~~both~~ ~~OV1~~
Begin retrieving frames at PS1.

1200 Called Abby to give her results
of OF recon. Will try to recon
later at lower tide.

1243 Pick up 1st frame, 2 missing

09.25.17

TDO

1305 Pick up 2nd frame, 1 missing

1321 Pick up 3rd frame, 1 missing

1327 Trip blank LW17-PS1-DB1-TB
sealed

1335 Depart S. Park bridge (PS1).
Head to Sea-Freeze (PS2).

1345 Back at SCS Refd services OF
to see if conditions changed
during falling tide. No change!

1354 At 2503.

1357 Head to Sea-Freeze (PS2).

1406 Pick up 1st frame, 0 missing

1422 Pick up 2nd frame, 0 missing
(Small stickleback in sonde cage)

1437 Pick up 3rd frame, 0 missing

1442 Trip blank LW17-PS2-DB1-TB
sealed

1450 Head downriver to check OF
site conditions at 2226 & 8134.

1500 At 2226 - no change & no OF/SD
visible. Access limited by barge

1510 At 8134 - no change - no OF/SD
visible. Access limited by barge
and shallow depth/rip rap.

Rate in the Rain

09.25.17

TDD

- 1515 Head back to 1st Ave S. boat ramp.
 1530 Arrive at boat launch. Offload supplies and samples.
 1540 Depart. End of on-water field day.

Kate McPoek - WW

Chad Furude - Gravity

Jeff Wilson - Gravity

0710 Arrive boat launch and load boat

0725 Health + safety briefing

0735 Depart 1st Ave S boat ramp for SWZ

0752 Arrive SWZ, prep. for sampling

0806 Collected bottom grab 1

0812 Process bottom grab 1

0841 Collect surface grab 1

0845 Process surface grab 1

0850 Depart to meet other boat to exchange messengers

0906 Exchange messengers w/ other boat crew

0910

0915

0920

0925

0930

0935

0940

0945

0950

0955

1000

10.09.17 SWZ STZ LDW sampling

K. McPoek¹⁹

0645 Arrive 1st Ave S bridge boat ramp

Weather: showers, ~50%, breezy

Tide: high: 0544 10.2'

Low: 1130 3.06'

High: 1723 10.89'

0705 Meet Gravity - R/V Mazama

STZ SWZ crew: Nina Masi - WW

Kate McPoek - WW

Chad Furude - Gravity

Jeff Wilson - Gravity

0710 decon Niskin bottles and load boots

0725 Health + safety briefing

0735 Depart 1st Ave S boat ramp for SWZ

0752 Arrive SWZ, prep. for sampling

0806 Collected bottom grab 1

water depth: 29.44 (8.8 m)

Sonde file time: 0805

0812 Process bottom grab 1

0841 Collect surface grab 1

water depth: 8.8 m

Sonde file time: 0839

0845 Process surface grab 1

0850 Depart to meet other boat to exchange

messengers

0906 Exchange messengers w/ other boat

crew

Kate in the Rain.

20

10.19.17

K. McPeck

- 0912 Head back to SW2
- 0925 Arrive SW2
- 0928 Collect bottom grab 2
water depth: 8.3 m
Sonde file time: 0927
- 0935 Process bottom grab 2
- 0956 Collect surface grab 2
water depth: 8.0 m
Sonde file time: 0954
- 0959 Process surface grab 2
- 1021 Collect bottom grab 3 attempt 1; unsuccessful -
water depth: 7.9 m did not trip
Sonde file time: 1021
~~Process bottom grab 3~~
- 1028 Collect bottom grab 3 attempt 2; successful
water depth: 7.9 m
Sonde file time: 1027
- 1032 Process bottom grab 3
- 1057 Collect surface grab 3
water depth: 7.5 m
Sonde file time: 1055
- 1101 Process surface grab 3
- 1129 Collect bottom grab 4
water depth: 7.6 m
Sonde file time: 1128

10.19.17

21
K. McPeck

- 1134 Process bottom grab 4
- 1159 Collect surface grab 4
water depth: 7.8 m
Sonde file time: 1157
- 1204 Process surface grab 4
- 1219 Depart SW2 for 1st Ave S boat ramp
- 1233 Arrive 1st Ave S boat ramp, unload boat,
off-water
- 1330 depart boat ramp

Rite in the Rain.

2-22-2018

S. Replinger

AOC3 WBI

0630 Arrive at 1st Ave S Boat Ramp to meet w/ Boats & Sampling crew.

Weather: clear & cold (20s)

Crews: SW1 N. Mass } Windward
M. Yarnes }

Pete Jenkins } Granby
Rene Truckle }

SW2 S. Replinger } Windward
A. Hinzley }

A. Edgington }
A. Fain (Fain Env) } Granby
Ed Sloan }
Mike Duffield }

SW3 J. Rheaumen } Windward
B. Bergquist }

Tides: high tide is at 9:11am (11.15 ft)

low tides at 2:58am (4.65 ft) and 9:09 pm (4.26 ft)

0700 Debon Nishin sampler and prep for sampling

0730 Conduct H&S briefing. Report boat ramp and head to SW2 to begin sampling. Add preservative to mercury.

0750 Arrive at SW2. Prep to take 1st sample. Arsenic jars.

2-22-2018

S. Replinger

08:08 Collect 1st surface grab at SW2 (sample + dup)

Water depth = 33.0 ft. (10 m)

Successful. Process sample + dup.

LDW18-SW2-WBI-S

LDW18-FD-WBI-S

0840 Collect 1st bottom grab at SW2.

Water depth = 31.8 ft (9.7 m)

Successful. Process sample.

LDW-SW2-WBI-B

0906 Collect 2nd surface grab at SW2 (sample + dup)

Water depth = 33 ft (10 m)

Successful. Process samples.

0938 Collect 2nd bottom sample at SW2.

Water depth = 33 ft (10 m)

Successful. Process sample.

1002 Collect 3rd surface sample at SW2 (sample + dup)

Water depth = 32 ft (9.7 m)

Successful. Process sample.

1033 Collect 3rd bottom sample at SW2.

Water depth = 32 ft. (~9.7 m)

Successful. Process sample.

1058 Collect 4th surface sample at SW2 (sample + dup)

Water depth = 31 ft (9.5 m)

Successful. Process grab and

label sample bottles.

Rite in the Rain.

2-22-2018

S. Replinger

- 1137 Collect 4th sample at SW2 - bottom.
Water depth = 30ft (9.1m)
Unsuccessful. (Nishin did not close)
- 1139 2nd attempt. at 4th grab.
Successful. Process grab
- 1151 Finish processing sample, label sample bottles. Head back to 1st Ave S Boat Ramp to meet rest of crews.
- 1215 Arrive at 1st Ave S boat ramp. Prep samples for lab delivery. Wait for SW1 boat.
- 1340 Depart boat ramp. End of field day

~~S. Replinger
2-22-2017~~

S. Replinger

3-5-2018

ACC3 ST3

0930 Arrive at 1st Ave S boat ramp. to meet crews & boats.

Weather: 40s, rainy

Crews: SW1 N. Mass } WW

K. McPeck }

C. Goralic } Granty

Ed Slaw }

SW2 T. Do } Windward

S. Replinger }

Teresa Mizuki (Fair Env)

Shawn Hinz } Granty

Charlie Kellogg }

SW3 J. Ruelben } WW

A. Vandervort }

Tides: 3:20am - low - 5.58 ft.

9:09am - high - 10.06 ft

4:02pm - low - 1.50 ft.

11:13pm - high - 9.03 ft.

1000 Decor Nishin samplers and prep for sampling

1015 Conduct H&S briefing

1020 Depart boat ramp and depart for SW2 to begin sampling. (Dup will be collected at bottom of SW2)

lots in the rain

3-8-2018

S. Replinger

- 1033 Arrive at SW2 and prep to take 1st samples. Add preservative to ocean jars.
- 1051 Collect 1st surface sample at SW2.
Water depth = 30 ft. (9.1 m)
Successful. Process sample.
- 1114 Collect 1st bottom sample + dup at SW2.
Water depth = 30 ft. (9.1 m)
Unsuccessful. Messenger did not trigger.
- 1121 (2nd attempt) for bottom sample. #1.
Water depth = 30.2 ft.
Successful. Process grab
- 1150 Collect 2nd surface sample at SW2.
Water depth = 29.6 ft.
Successful. Process sample.
- 1219 Collect 2nd bottom sample + dup at SW2.
Water depth = 29 ft.
Successful. Process sample.
- 1254 Collect 3rd surface sample at SW2.
Water depth = 28.4 ft.
Unsuccessful. Metal piece to trigger messenger disconnected.
- 1305 (2nd attempt) for surface sample.
Water depth = 27 ft.
Collect new profile. Successful. Process sample, & fix sampler.

3-8-2018

S. Replinger

- 1331 Collect 3rd bottom sample + dup at SW2
Water depth = 26.9 ft.
Successful. Process sample.
- 1354 Collect 4th surface sample at SW2.
Water depth = 26.5 ft.
Successful. Process sample.
- 1426 Collect 4th bottom sample + dup at SW2.
Water depth = 25.4 ft. (7.6 m)
Successful. Process sample.
- 1445 Finish processing sample.
- 1450 Arrive at boat ramp. Prep samples for lab delivery. Wait to meet up with SW1 and SW3 crews.
- 1550 Depart boat ramp. End of field day

S. Replinger
3-8-2018

4/3/2018

K. McPeck

AOC3 WBZ April 3, 2018

0525 Arrive 1st Ave S boat ramp, meet
crews and boats

Weather: 42°F, cloudy

Crew for SWZ: Nina Mass } Windward
Kate McPeck }
Chad Furusle - Gravity
Willie Haysward - Global Diving
and Salvage

Tides: high: 11.1 ft @ 0714

low: 0.2 ft @ 1348

0545 clean samplers and prep for sampling

0600 conduct health + safety briefing

0606 depart 1st Ave S boat ramp for SWZ

0624 arrive SWZ, prepare to collect first sample

0648 Collect 1st bottom sample, attempt 1

water depth: 35 ft (10.4 m)

unsuccessful; did not trigger

0651 Collect 1st bottom sample, attempt 2

water depth: 34 ft (10.4 m)

Successful, process sample

0712 Collect 1st surface sample

water depth: 34 ft (10.4 m)

Successful, process sample

0752 Collect 2nd bottom sample

water depth: 34 ft (10.4 m)

successful, process sample

4/3/18

K. McPeck²⁹0812 Collect 2nd surface sample
water depth: 33.5 ft (10.2 m)
successful, process sample0852 Collect 3rd bottom sample
water depth: 32.9 ft (10.0 m)
successful, process sample0914 Collect 3rd surface sample, attempt 1
water depth: 32.3 ft (9.8 m)
unsuccessful, did not trigger0919 Collect 3rd surface sample, attempt 2
water depth: 32.3 ft (9.8 m)
successful, process sample0951 Collect 4th bottom sample
water depth: 31.6 ft (9.6 m)
successful, process sample1018 Collect 4th surface sample
water depth: 30.0 ft (9.1 m)
successful, process sample1030 depart SWZ for 1st Ave S boat ramp
1044 arrive 1st Ave S boat ramp, unload

K. McPeck 4/3/18

Rite in the Rain

4/7/2018

m. yannes

AOC3 ST4 April 7, 2018

1100 met crew and boats at 1st Ave
boat ramp
Crew for SW2 Aaron, Mike Y

Weather: Cloudy, sporadic rain showers
56°F

1115 Decon. Samplers / Health & Safety

1150 Depart 1st Ave Bridge

1210 Arrive @ SW2, prep to collect 1st sample
Collect 1st bottom sample, attempt 1
water depth 7.2 meters
successful; process sample

1242 Collect 1st surface sample; attempt 1
successful; process sample
water depth 7.2 meters

1303 Collect 2nd bottom sample; attempt 1
successful; process sample
water depth 7.8 meters

1341 Collect 2nd surface sample; attempt 1
successful; process sample & sample 7 note*
water depth 7.6 m.

1403 Collect 3rd bottom sample; attempt 1
successful; process sample
water depth 7.9 m.

4/7/18

AOC3 surface water m. yannes

* sample #7 for 2nd surface sample for
dissolved metals was doubled for volume as
it was mistakenly skipped during the 1st
surface sample.

1447 Collect 3rd surface water sample; att 1
Successful; process sample
water depth 7.5m

1508 collect 4th bottom water sample; att 1
① Successful; process sample
water depth 7.4m

1544 collect 4th surface sample; att 1
② Successful; process sample
water depth 7.6m

1605 Headed back to 1st Ave Bridge ramp
1615 Arrive at 1st Ave Bridge ramp

4/7/18

Aaron

Mike Yannes

July 30, 2018

AOC3 Dry Barefoot Surface water sampling

0445 Arrive 1st Ave S boat ramp,

meet crews, prepare for sampling,

decon Niskin samplers

Weather: clear, 60s

Crew for SW2: N. Mass } Woodward
 K. McPeak }
 C. Furdole } Gravity
 S. Hinz }

Tides: high @ 0644 9.1'

low @ 1323 -0.5'

0515 H+S briefing

0524 depart 1st Ave S boat ramp for SW2

0538 arrive SW2, prepare to collect 1st sample

0542 collect 1st bottom sample, successful

water depth: 11.5 m (37.7 ft)

process sample

0600 Collect 1st surface sample, successful

water depth: 11.4 m (37.4 ft)

process sample

0613 depart SW2 ^{to meet} for SW1 boat + exchange
YSI

0625 Head back to SW2

0635 Arrive SW2

K. McPeak
7/30/18K. McPeak
7/30/18

0642 Collect 2nd bottom sample, successful

water depth: 10.3 m (33.8 ft)

process sample

0655 Collect 2nd surface sample, successful

water depth: 10.2 m (33.5 ft)

process sample

0741 Collect 3rd bottom sample, successful

water depth: 9.8 m (32.1 ft)

process sample

0800 Collect 3rd surface sample, successful

water depth: 9.8 m (32.1 ft)

process sample

0841 collect 4th bottom sample, unsuccessful -

water depth: 9.5 m (31.2 ft) did not trigger

0842 collect 2nd attempt 4th bottom sample,

successful; water depth: 9.5 m (31.2 ft)

process sample

0859 collect 4th surface sample, successful

water depth: 9.5 m (31.2 ft)

process sample

0912 Depart SW2

0925 Arrive 1st Ave S boat ramp, unload
boat, off-water~~K. McPeak~~
7/30/18

Note in the Rain

²
08-28.17

B. Bergquist

8/28/17 Green River Surface Water Sampling

8:30 AM Health & safety
meeting with
Gravity crew, Windward crew,
Bill Gardiner (USACE), Annika Fein
at South Park Marina

De-conned Niskin sampler w/
Alconox, ^{DI} HNO₃, and methanol,
~~then DE, BS~~

9:30 Arrive at Foster Links

collected equipment blank,
finished at 11:5.

Note: the last reagent-grade bottle of
water poured into the Niskin for the
PCB cong/dioxin sample had a
small piece of paper/label floating on
top. we removed it with a clean
hands/dirty hands glove.

08-28.17

³
B Bergquist

11:30

Depth to bottom = 4.5 m (14.9 ft)

Measured by dropping lead line to
surface of water, marking line at
bridge railing, then dropping to bottom
and marking line, then measuring
line.

11:48 Recorded water quality
parameters

11:57 Collected first Niskin grab
at ~2.30 m

12:22 Finished distributing aliquots
to first sample.

12:50 Depth to bottom 4.15 m

12:58 Recorded WQ parameters

13:03 collected 2nd Niskin grab
at ~2.1 m

13:33 Finished distributing aliquots to
2nd sample. *Note in the Rain*

4

08-28-17

B Bergquist

13:50

Depth = 4.05 m

13:57

Took WQ measurements

14:03

collected 3rd Niskin grab

14:27

Finished collecting 3rd set of aliquots

14:56

Depth = 3.96 m

15:06

collected 4th Niskin grab
at ~ 2 m

Accidentally poured PCB/D/F aliquot
into equip blank. will collect
equip blank at ARE.

5

08-28-17

B Bergquist

Could not get last 90 ml into the
TSS bottle.

15:56 Done filling bottles w/ last
aliquot

16:26 De-connected Niskin at ARE
along with graduated cylinder
and funnel

16:35 collected PCB/dioxin
rinse blank

Return to Windward.

End of sampling day

BB 8/28/17

J. RHEUBEN 9/19/17

9/19/2017 GREEN RIVER SURFACE H₂O
SAMPLING

09:00 AM MEET WITH GRAVITY, AMNIKA FEIN,
USACE/EPA OVERSIGHT @ 1ST AVES
BRIDGE UNDERPASS
(KRISTEN KEMNS)

HIGH TIDE @ 430

LOW TIDE @ 1052

HEALTH SAFETY MEETING + DECON. NISKIWI

0945 ARRIVE @ FOSTER LINKS
COLLECT EQUIPMENT BLANK

EQ BLK	9:55	10:02	1019	1042
	9:57	10:07	1030	1044
	10:00	10:12	1040	1024

1044 FINISH EQUIPMENT BLANK

1103 DEPTH TO BOTTOM = 3.47 m
DEPLOY LOC.

~~47.4025m~~

~~47.26155m~~

1115 WATER QUALITY PARAMETERS
TAKEN

JR HEUBEN

9/19/2017

1030 COLLECTED 1ST NISKIN GRAB

1155 FINISHED DISTRIBUTING 1ST SET OF ALIQUOTS.

1223 COLLECTED WATER QUAL PARA.
DEPTH = 3.5 m1230 DEPLOY 2ND NISKIN GRAB.
UNSUCCESSFUL BROKEN NISKIN BOTTLE.1250 MOBILIZE TO ARI TO WASH 2.5L
NISKIN BOTTLE.

△ NOTE - 2.5L NISKIN WILL BE
REPLOYED + 1/2 DISPENSED TO 2 2.5L
BOTTLES FOR REPRESENTATIVE SAMPLE.

1330 DEPLOY 2ND NISKIN GRAB 2A GRAB
COLLECTE H₂O QUAL PARAM
DEPTH ~ 3.37 m1400 SUCCESSFUL 2ND NISKIN GRAB
2B GRAB

9/19/2017

JR HEUBEN

1430 FINISHED DISTRIBUTING 2ND
SET OF ALIQUOTS.1440 COLLECTED WATER QUAL PARAMS.
DEPTH ~ 3.551445 DEPLOY 3A NISKIN GRAB +
DISPENSE TO 5/50 BOTTLES1455 DEPLOY 3B NISKIN GRAB -
DISPENSE TO 50/50 BOTTLES.1515 FINISHED DISTRIBUTING 3RD
SET ALIQUOTS.
ONLY ABLE TO DISPENSE
PARTIAL ALIQUOT TO ORGANO PESTICIDES
295 mL OF 3RD GRAB1535 COLLECT WATER QUAL PARAMS
DEPTH ~ 4.80 m JR
~ 4.08 m1541 DEPLOY 4A NISKIN GRAB +
DISPENSE TO 56/50 BOTTLES

9/19/2017

JR HEURSON

1545 DEPLOY 4TH NISKIN GRAB +
DISPENSE TO 50/50 BOTTLE

BEGIN DISTRIBUTING 4TH SET
ALQUOT

1545 END DISTRIBUTION OF 4TH

1620 RETURN TO WINDWARD
END FIELD

JR 9-19-17

10/19/2017 GREEN RIVER H₂O SAMPLING

0700AM MEET @ 1ST AVE BRIDGE

FEIN, GRAVITY, DECON/PREP NISKINS
H+S MEETING

0800AM ARRIVE @ FOSTER LINKS + SETUP

0812 AM BEGIN METHOD BLANK SAMPLE
EQ BLANK @ 0812

0910 COLLECT WATER QUALITY PARAMETERS
DEPTH ~ 16.5ft

0920 DEPLOY NISKIN GRAB (1)

0925 DISTRIBUTE ALQUOTS

0945 END ALIQUOT DISTRIBUTION

1000 COLLECT WATER QUAL PARAMETERS
DEPTH ~ 16.8ft

1015 DEPLOY NISKIN GRAB (2)

1020 DISTRIBUTE ALIQUOTS

1035 END ALIQUOT DISTRIBUTION

Rite in the Rain

12

10.19.2017

J RHEUBEN

1105 COLLECT H₂O QUAL PARAMS
DEPTH ~ 16.0 FT

1115 DEPLOY NISKIN GRAB (3)

1120 DISTRIBUTE ALIQUOTS

1135 END ALIQUOT DISTRIBUTION

1205 COLLECT H₂O QUAL PARAMS
DEPTH ~ 14.7 ft

1215 DEPLOY NISKIN GRAB (4)

1220 DISTRIBUTE ALIQUOTS

1240 END ALIQUOT DISTRIBUTION

1236 1231 1227 1228

1235 1230 1227 1220

1233 1229 1225

1300 RETURN TO 1ST AVE BRIDGE

1315 RETURN TO WINDWARD

J. RHEUBEN

10.19.17

B Buggied¹³

2/24/18 Green River Surface Water
Wet Base Flow #1 Sampling
High Tide at 9:11 AM

0658 Meet at 1st Ave Bridge
for Decontaminating Niskin and
Health and Safety

0800 Arrive @ Foster Links and
set up to collect rinsate
blank.

0850 Finish collecting rinsate
blank

0910 Depth = 22.5 ft

0925 collected 1st Niskin grab
Collect WQ parameters.

0950 Finish distributing aliquots

1010 WQ parameters

Depth = 21' 4"

1020 collected 2nd Niskin grab

Rite in the Rain

02.21.18

B. Bergquist

1150

WQ parameters taken
Depth = 21' 8"

1122

collected 3rd grab sample

1200

WQ parameters
Depth = 19' 8"

1206

collected 4th grab sample

1223

Finish distributing all
aliquots.

1230

Depart Foster Links

1242

Arrive back at boat ramp.

O

02.21.18

3/8/2018 GREEN RIVER SURFACE H₂O SAMPLING

1005

HEALTH + SAFETY MEETING, @ 1ST AVE
BOAT RAMP.

GRAVITY CREW, WINDWARD, FEINENV.

DECONNER NISKIN SAMPLERS (2x 3L)

w/ ALCONOX, DI H₂O², HNO₃, METHANOL

1040

ARRIVE @ FOSTER LINKS GOLF COURSE

1140

FINISH DISPENSING LDW18-RB-ST3

1155

BEGIN 1ST NISKIN SAMPLE COLLECTION
DEPTH = 20 FTMETER FOR PROBE NOT PRESENT
NO H₂O QUAL MEASURES TAKEN

1230

FINISH DISPENSING 1ST ALIQUOTS

1255

BEGIN 2ND NISKIN SAMPLE COLL
DEPTH 18 FT 10 in

WATER QUAL. PARAMS TAKEN

01321

FINISH DISPENSING 2ND ALIQUOT

1345

WATER QUAL PARAMETERS, 3RD NISKIN
WATER DEPTH 18' 4" DEPLOY

1400

FINISH DISPENSING 3RD ALIQUOT

J. RHEUBEN 3.8.18

1445 TAKE WATER QUAL PARAMS
WATER DEPTH = 17'10"

JE1450
1450

COLLECT 4TH NISKIN GRAB

1510 FINISH DISPENSING 4TH ALIQUOTS

J. RHEUBEN 3.8.18

4.3.18 GREEN RIVER WATER SAMPLING J. RHEUBEN

0515 ARRIVE @ 1ST AVE BOAT RAMP
GRAVITY CREW / SUB CONTRACTOR
WINDWARD CREW
ANNIKA FEIN

DECONNED 3 NISKIN SAMPLERS w/
ALCONOX, 2 RINSES OF DI,
HNO₃, 1 DI RINSE, AND METHANOL

0605 ARRIVE AT FOSTER LINKS GOLF
COURSE.

0650 FINISH RINSE BLANK AND
ACID ADDITION TO GR18-JW3-WBZ-M
AS BOTTLE

0715 COLLECT WATER QUALITY PARAMS
AND 1ST NISKIN GRAB SAMPLE
WATER DEPTH - 19'4"

0730 FINISH DISTRIBUTING 1ST ALIQUOTS

3rd 4.3.18

J. RHEUBEN

0810 COLLECT WATER QUALITY PARAMS
WATER DEPTH = 21ft 9in

0815 COLLECT 2ND NISKIN GRAB
SAMPLE

0830 FINISH DISTRIBUTING 2ND ALIQUOTS

0900 COLLECT WATER QUAL PARAMS
WATER DEPTH = 19' 5"

0910 COLLECT 3RD NISKIN GRAB
SAMPLE

0925 FINISH DISTRIBUTING 3RD ALIQUOT

1000 COLLECT WATER QUAL PARAMS
WATER DEPTH = 19' 10"

1005 COLLECT 4TH NISKIN GRAB
SAMPLE

4.3.18

J. RHEUBEN

1020 FINISH DISTRIBUTING 4TH ALIQUOT

1025 PACK + RETURN TO 1ST AVE BRIDGE

1120 RETURN TO WINDWARD +
UNPACK

JR 4.3.18

JR 4.3.18

- 4.7.18 GREEN RIVER SURFACE H₂O Sampling
- 1100 ARRIVE @ 1ST AVE BOAT RAMP
 DECONNED 2 3L NISKIN SAMPLER
 w/ ALCONOX, 3 RINSES of DI,
 HNO₃, 2 DI RINSES, AND METHANOL
 FOLLOWED BY 3 DI RINSES
- 1200 ARRIVE @ FOSTER LINKS GOLF
 COURSE.
- 1240 FINISH RINSE BLANK + ACID ADDITION
 TO SAMPLE BOTTLE.
- 1255 COLLECT WATER QUAL. PARAMS
 AND 1ST NISKIN GRAB SAMPLE
 WATER DEPTH = 20ft 10in
- 1320 FINISH DISTRIBUTION OF 1ST ALIQUOTS
 DECON. NISKIN w/ ALCONOX, 3 RINSE
 DI H₂O
- 1350 COLLECT WATER QUAL PARAMS AND
 2ND NISKIN GRAB SAMPLE
 WATER DEPTH = 23' 4"

4.7.2016

J. RHEUBEN

- 1420 FINISH DISTRIBUTING 2ND ALIQUOT.
DECON NISKIN w/ ALCONOX + 3x DI RINSE
- 1505 COLLECT WATER QUAL PARAMS
3RD NISKIN GRAB SAMPLE
WATER DEPTH = 21 FT (exact)
- 1515 FINISH DISTRIBUTING 3RD ALIQUOT.
DECON NISKIN w/ ALCONOX + 3x DI RINSE
- 1550 COLLECT WATER QUAL PARAMS
4TH NISKIN GRAB SAMPLE
WATER DEPTH = 19' 6"
- 1605 FINISH DISTRIBUTION 4TH ALIQUOTS
DECON NISKIN
- 1650 ARRIVE BACK @ WINDWARD

JR 4.7.18

- 7-30-18 GREEN RIVER H₂O Sampling J. RHEUBEN
- 0445 Meet @ 1st on boat ramp
w/ GRAVITY, FEIN ENV, WINDWARD,
City of Seattle Intern Sonia
- Decconned 2.5L NISKIN SAMPLERS
w/ ALCONOX, DI (2x), HNO₃, DI (2x)
Methanol
- 0515 ARRIVE @ FOSTER LINES GOLF COURSE
- 0535 BEGIN REAGENT BLANK SAMPLE
- 0556 FINISH RB SAMPLE DISTRIB
- 0610 COLLECT H₂O QUAL PARAMS
1ST NISKIN GRAB SAMPLE
DEPTH - 14.7 FT
- 0635 FINISH DISTRIBUTION OF ALIQUOTS
(1ST) DECON NISKIN w/ ALCONOX +
DI (3x)
- 0705 COLLECT H₂O QUAL PARAMS.
2ND NISKIN GRAB SAMPLE
Depth: 14.3ft

7-30-16

W RHEUBEN

0720 FINISH DISTRIBUTING 2ND ALIQUOT
 DECON NISKIN w/ ALCONOX + DI (3x)

0805 COLLECT WATER QUAL PARAMETERS FOR
 3RD NISKIN GRAB SAMPLE

WATER DEPTH = # 14.6 FT
 JR 7-30-16

0820 FINISH DISTRIBUTING 3RD ALIQUOT
 DECON NISKIN w/ ALCONOX + DI (3x)

0900 COLLECT WATER QUALITY PARAMS
 FOR 4TH NISKIN GRAB SAMPLE
 DEPTH - 13.6 FT

0920 FINISH DISTRIBUTING 4TH ALIQUOT

0925 DEPART FOSTER LINKS

JR 7-30-16

COCs

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3775

Project/Client Name: ADCC3
 Project Number: TASK 4 (DBI)
 Contact Name: AWADA VARDEVEDET
 Sampled By: B BERGQUIST, J PETERSEN

Ship to: ARL
 Atn: SUE DUCHITT
 Shipper: ARND DELID
 Form filled out by: IDB
 Shipping Date: 08.28.17
 Airbill Number: U/A
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions (lar tag number(s))
					TCC/DOC	TBT	TSS	PAHs	SVOCs / phthalates	Org. pesticides	Salinity	
08.28.17	11:09	US017-EB-DB1	6	H ₂ O	X	X	X	X	X	X	X	
08.28.17	15:52	GR17-SW3-DB1-M	6	H ₂ O	X	X	X	X	X	X	X	
/												
Total Number of Containers			12	Purchase Order / Statement of Work #								
1) Released by: <u>Ben Bergquist</u>				1) Rec'd by: <u>Beauregard Heald</u>				2) Released by:				2) Rec'd by:
Print name: <u>Ben Bergquist</u>				Print name:				Signature:				Company:
Signature: <u>Ben Bergquist</u>				Signature:				Company:				Company:
Company: <u>Windward Environmental</u>				Company: <u>ARL</u>				Date/Time:				Date/Time:
Date/Time: <u>8/28/17 16:40</u>				Date/Time: <u>8/28/17 16:40</u>				Date/Time:				Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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 Suite 401
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 Tel: (206) 378-1364
 Fax: (206) 217-9343

CHAIN-OF-CUSTODY/TEST REQUEST FORM

1 of 1

110 2960

Project/Client Name: ACC3
 Project Number: Task 4 IDE1
 Contact Name: America Vanderhoff
 Sampled By: KM, MY, TO, NM, AF, GB, JR

Ship to: Brooks Applied
 Atn: Amanda Rowell
 Shipper: Hand Delivered
 Form filled out by: AV
 Shipping Date: 08/28/17
 Airbill Number: N/A
 Turnaround requested: 510

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions [jar tag number(s)]
					Total metals	Dis metals	Inorg As	Hg	
08/28/17	1438	LDM17-SW1-DB-S	4	W	X	X	X	X	
08/28/17	1405	LDM17-SW1-DB-R	4	W	X	X	X	X	
08/28/17	1524	LDM17-SW2-DB-S	4	W	X	X	X	X	
08/28/17	1459	LDM17-SW2-DB-R	4	W	X	X	X	X	
08/28/17	1449	LDM17-FHDB1-R	4	W	X	X	X	X	
08/28/17	1109	LDM17-RB-DB	4	W	X	X	X	X	
08/28/17	1552	GR17-SW3-DB-M	4	W	X	X	X	X	
Total Number of Containers									
1) Released by: _____					2) Rec'd by: _____				
Print name: <u>America Vanderhoff</u>					Print name: <u>YAKED (15042202K)</u>				
Signature: <u>[Signature]</u>					Signature: <u>[Signature]</u>				
Company: <u>America Vanderhoff</u>					Company: <u>YAKED (15042202K)</u>				
Date/Time: <u>8/28/17 17:34</u>					Date/Time: <u>8/28/17 17:22</u>				

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

110 2938

Project/Client Name: DUNHAMISH AOC3 - ST1
 Project Number: TASK 4
 Contact Name: AMARA VANDERBILT
 Sampled By: WILBUARD

Ship to: ARI
 Attn: SUE DUBOINHO
 Shipper: HAUD DEL'D
 Form filled out by: TIDO
 Shipping Date: 09.19.17
 Shipper: ARI
 Airbill Number: _____
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) requested)						Comments / Instructions (jar tag number(s))
					TOC/DOC	TBT	TSS	PAHs	SVOCs/ PHTHALATE	OC-PESTIC	
09.19.17	1340	LDW17-SW1-ST1-S	6	H ₂ O	X	X	X	X	X	X	
	1312	LDW17-SW1-ST1-B	6		X	X	X	X	X	X	
	1346	LDW17-SW2-ST1-S	6		X	X	X	X	X	X	
	1346	LDW17-FD-ST1-S	6		X	X	X	X	X	X	
	1322	LDW17-SW2-ST1-B	6		X	X	X	X	X	X	
	1545	ARE17-SW3-ST1-M	6		X	X	X	X	X	X	NO QA/BO
	1040	LDW17-RB-ST1	6		X	X	X	X	X	X	
Total Number of Containers					41						
1) Released by: _____					2) Rec'd by: _____					2) Rec'd by: _____	
Print name: <u>THOMAS</u>					Print name: <u>De m</u>					Print name: _____	
Signature: _____					Signature: _____					Signature: _____	
Company: <u>WILBUARD ENV</u>					Company: <u>ARI</u>					Company: _____	
Date/Time: <u>09.19.17/16:25</u>					Date/Time: <u>9/19/2017 16:25</u>					Date/Time: _____	

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

10 2939

Project/Client Name: DUNAWISH AC03 - ST1 Ship to: AWYS
 Project Number: TASK 4 Attn: GEDALINA BROOKS Shipping Date: 09.19.17
 Contact Name: ANWARA VAIDYERUBIE Shipper: WARD DEP'D Airbill Number: ---
 Sampled By: WUJBUWARD Form filled out by: TDD Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)	Comments / Instructions (lar tag number(s))
09.19.17	1340	LDW17-SW1-ST1-S	1	H ₂ O	<input checked="" type="checkbox"/> PCB COLG & DIOXINS	
	1312	LDW17-SW1-ST1-B	1		<input checked="" type="checkbox"/>	
	1346	LDW17-SW2-ST1-S	1		<input checked="" type="checkbox"/>	
	1346	LDW17-STD-ST1-S	1		<input checked="" type="checkbox"/>	
	1322	LDW17-SW2-ST1-B	1		<input checked="" type="checkbox"/>	
	1545	GR17-SW3-ST1-M	1		<input checked="" type="checkbox"/>	
	1940	LDW17-RB-ST1	1		<input checked="" type="checkbox"/>	
Total Number of Containers						
1) Released by: <u>S. Vaidy</u>			1) Rec'd by: <u>WARD USARIENIK</u>		2) Rec'd by: _____	
Print name: <u>A. Vaidy</u>			Company: _____		Print name: _____	
Signature: _____			Company: <u>#736</u>		Signature: _____	
Company: <u>WUJBUWARD ENV</u>			Date/Time: <u>09.10.17 6:34PM</u>		Company: _____	
Date/Time: <u>09.19.17 5:24</u>			Date/Time: _____		Date/Time: _____	

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2940

Project/Client Name: DUNAKASHI AC03 - ST1
 Project Number: TASK 4
 Contact Name: ANARA VANDERBEEK
 Sampled By: WINDWARD

Ship to: BROOKS APPLIED
 Attn: ELIZABETH NARDOLIZIA Shipping Date: 09.17
 Shipper: HARD DEL'D Airbill Number:
 Form filled out by: TIDD Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Tests Requested (check test(s) required)				Comments / Instructions (lar tag numbers)
					TOTAL METALS	DISSOLVED METALS	INORG. AS.	MERCURY	
09.19.17		1340 LDW17-SW1-ST1-S	4	HO	X	X	X	X	
		1312 LDW17-SW1-ST1-B	4		X	X	X	X	
		1346 LDW17-SW2-ST1-S	4		X	X	X	X	
		1346 LDW17-ED-ST1-S	4		X	X	X	X	
		1322 LDW17-SW2-ST1-B	4		X	X	X	X	
		1345 GR17-SW3-ST1-M	4		X	X	X	X	
		1040 LDW17-PB-ST1	4		X	X	X	X	
Total Number of Containers			28						

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:


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CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 2941

Project/Client Name: DUWAMISH ADC3 - ST1

Ship to: ALS

Project Number: TASK 4

Attn: DEE GRUNDSTAFF

Shipping Date: _____

Contact Name: AUBRA WUNDERPURT

Shipper: _____

Airbill Number: _____

Sampled By: WUNDERPURT

Form filled out by: TIDO

Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)	Comments / Instructions (lar tag number(s))
09/19/17	1340	LDW17-SW1-ST1-S	1	H₂O	X	
	1312	LDW17-SW1-ST1-B	1		X	
	1346	LDW17-SW2-ST1-S	1		X	
	1346	LDW17-SD-5T1-S	1		X	
	1322	LDW17-SW2-ST1-B	1		X	
	1545	LR17-SW3-ST1-M	1		X	
	1040	LDW17-RB-5T1	1		X	
Total Number of Containers			7	Purchase Order / Statement of Work #		
1) Released by: <u>THAN BO</u>		1) Rec'd by: <u>Fred Dumhros</u>		2) Released by: _____		2) Rec'd by: _____
Print name: _____		Company: _____		Print name: _____		Company: _____
Signature: _____		Company: <u>WINDWARD ENV</u>		Signature: _____		Company: _____
Date/Time: <u>09/17/1625</u>		Date/Time: <u>09/19/17</u>		Date/Time: _____		Date/Time: _____

* Distribution: white copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2059

Project/Client Name: DULWAMISH ADC3 - ST2
 Project Number: TASK 4
 Contact Name: AWABA VANDERVOORT
 Sampled By: WINDWARD

Ship to: AXYS
 Attn: ANGELIKA BROOKS
 Shipper: HAZD DEL'D
 Form filled out by: TRD
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: SAP

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (lar tag number(s))
					PCB #	Dioxin	Heavy Metals	Other	
10-19-17	1201	LDW17-SW1-ST2-S	1	H2O	X				
	1239	LDW17-SW1-ST2-B	1		X				
	1239	LDW17-FD-ST2-B	1		X				
	1159	LDW17-SW2-ST2-S	1		X				
	1129	LDW17-SW2-ST2-B	1		X				
	1215	RD17-SW3-ST2-M	1		X				
	0945	LDW17-RB-ST2	1		X				
Total Number of Containers			<u>7</u>						
1) Released by: _____		1) Rec'd by: _____		Purchase Order / Statement of Work # _____				2) Rec'd by: _____	
Print name: <u>Angela Vandervoort</u>		Print name: <u>YARED LISANRICK</u>		Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Company: _____	
Signature: <u>[Signature]</u>		Company: <u>YARED LISANRICK</u>		Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Company: _____	
Company: <u>WINDWARD</u>		Company: <u>YC # 736</u>		Company: <u>YC # 736</u>		Company: <u>YC # 736</u>		Date/Time: _____	
Date/Time: <u>10-19-17/1428</u>		Date/Time: <u>10/19/17 14:28</u>		Date/Time: <u>10/19/17</u>		Date/Time: <u>10/19/17</u>		Date/Time: _____	

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

1 of 1

No 2962

Project/Client Name: DUWAMISH A023-ST2
 Project Number: TASK 4
 Contact Name: AMARA VANDERVOORT
 Sampled By: WINDWARD

Ship to: BROOKS APPLIED
 Atn: ELIZABETH VANDORCK Shipping Date: 10.19.17
 Shipper: HAUD DELD Airbill Number: _____
 Form filled out by: TDD Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Tests Requested (check test(s) required)				Comments / Instructions (Jar tag number(s))
					TOTAL METALS	DISSOLVED METALS	INORG. AS	Hg	
10.19.17	1201	LDW17-SW1-ST2-3	4	H ₂ O	X	X	X	X	
	1239	LDW17-SW1-ST2-B	4		X	X	X	X	
	1239	LDW17-FD-5T2-B	4		X	X	X	X	
	1159	LDW17-SW2-ST2-5	4		X	X	X	X	
	1129	LDW17-SW2-ST2-B	4		X	X	X	X	
	1215	GR17-SW3-ST2-H	4		X	X	X	X	
	0945	LDW17-RB-ST2	4		X	X	X	X	
Total Number of Containers			28						
Purchase Order / Statement of Work #									
1) Released by: _____					2) Rec'd by: _____				
Print name: <u>Amara Vandervoort</u>					Print name: <u>YARED LICARDIER</u>				
Signature: <u>[Signature]</u>					Signature: <u>[Signature]</u>				
Company: <u>WINDWARD</u>					Company: <u>YARED LICARDIER</u>				
Date/Time: <u>10.19.17 14:28</u>					Date/Time: <u>10/19/17 14:28</u>				

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____


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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2958

Project/Client Name: DUWAMISH AOC3 ST2
 Project Number: TASK 4
 Contact Name: AMARA MADDEPERERA
 Sampled By: WINDWARD

Ship to: AR1
 Attn: SUE DUBUICHOD
 Shipper: HAUD DELD
 Form filled out by: TBD
 Turnaround requested: STD

Shipping Date: 10/19/17
 Airbill Number: ---

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)						Comments / Instructions [lar tag number(s)]
					TOC/DOC	TBT	TSS	PAHs	SVDGS	OC PESTICIDES	
10/19/17	1201	LDW17-SW1-ST2-S	6	#D	X	X	X	X	X	X	
	1234	LDW17-SW1-ST2-B	6		X	X	X	X	X	X	
	1234	LDW17-SW1-ST2-B	6		X	X	X	X	X	X	
	1159	LDW17-SW2-ST2-S	6		X	X	X	X	X	X	
	1129	LDW17-SW2-ST2-B	6		X	X	X	X	X	X	
	1215	GR17-SW3-ST2-M	6		X	X	X	X	X	X	
	0945	LDW17-RB-ST2	6		X	X	X	X	X	X	
	1234	LDW17-FD-ST2-B	6		X	X	X	X	X	X	
Total Number of Containers			42	Purchase Order / Statement of Work #							

1) Released by: Suzanne Replinger
 Print name: Suzanne Replinger
 Signature: [Signature]
 Company: WINDWARD
 Date/Time: 10/19/17 1350

1) Rec'd by: [Signature]
 Print name: [Name]
 Signature: [Signature]
 Company: AR1
 Date/Time: 10/19/17 1353

2) Released by: [Signature]
 Print name: [Name]
 Signature: [Signature]
 Company: [Company]
 Date/Time: [Date/Time]

2) Rec'd by: [Signature]
 Print name: [Name]
 Signature: [Signature]
 Company: [Company]
 Date/Time: [Date/Time]

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: Duwamish AOC3-WB1
 Project Number: Task 4
 Contact Name: Amara Vanderbrugg
 Sampled By: Windward

Ship to: ART
 Atn: Sue Dunne
 Shipper: Hand delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: STO

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (lar tag number(s))
					Tox/DOC	TSS	PAHs	BEHP	Salinity	
2-22-2018	1310	LDW18-SW1-WB1-S	4	Water	X	X	X	X	X	
	1140	LDW18-SW1-WB1-B	4	Water	X	X	X	X	X	
	1058	LDW18-SW1-WB1-S	4	Water	X	X	X	X	X	
	1058+1345	LDW18-ED-WB1-S	4	Water	X	X	X	X	X	
	1139	LDW18-SW2-WB1-B	4	Water	X	X	X	X	X	
	1206	GR18-SW3-WB1-M	4	Water	X	X	X	X	X	
	0850	LDW18-R3-WB1	4	Water	X	X	X	X	X	
Total Number of Containers			28							

1) Released by: WINDWARD JR
 Print name: GENNA RHEURBA
 Signature: _____
 Company: _____
 Date/Time: 2/22/18 1353

1) Rec'd by: _____
 Purchase Order / Statement of Work # 2017-00210

2) Released by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

2) Rec'd by: _____
 Company: _____
 Date/Time: _____



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To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

* Distribution: White copies accompany shipment; yellow retained by consignee.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: Duwemish ACC3-WB1
 Project Number: TASK 4
 Contact Name: Anna Vandervoort
 Sampled By: Windward

Ship to: AXYS
 Attn: Gerardo Brooks
 Shipper: Hand Delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (lar tag numbers)
					PCB	Congeners			
02-22-2018	1310	LDW18-SW1-WB1-S	1	Water	X				
	1140	LDW18-SW1-WB1-R	1	Water	X				
	1058	LDW18-SW2-WB1-S	1	Water	X				
	1058	LDW18-FD-WB1-S	1	Water	X				
	1139	LDW18-SW2-WB1-R	1	Water	X				
	1206	SR18-SW3-WB1-M	1	Water	X				
	0850	LDW18-R2-WB1	1	Water	X				
Total Number of Containers			7						

1) Released by: THAY RD
 Print name: _____
 Signature: _____
 Company: WINDWARD ENV
 Date/Time: 02.23.18/1600

2) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

3) Rec'd by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 2979

Project/Client Name: Duwamish AOC3-WB1
 Project Number: TASK 4
 Contact Name: Amara Vandeventer
 Sampled By: Windward

Ship to: Brooks Applied
 Atr: Amara Royal
 Shipper: Hand delivered
 Form filled out by: AR
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)			Comments / Instructions (for tag number(s))
					Dis	Cu	As	
2-22-2018	1310	LDW18-SW1-WB1-S	2	water	X	X	X	
	1140	LDW18-SW1-WB1-B	2	water	X	X	X	
	1058	LDW18-SW2-WB1-S	2	water	X	X	X	
	1058	LDW18-FD-WB1-S	2	water	X	X	X	
	1139	LDW18-SW2-WB1-B	2	water	X	X	X	
	1206	GR18-SW3-WB1-M	2	water	X	X	X	
	0850	LDW18-R3-WB1	2	water	X	X	X	
Total Number of Containers			14					

1) Released by: _____
 Signature: Susan Pyinger
 Company: Windward Env
 Date/Time: 2-22-2018 / 14:48

1) Rec'd by: YIPRO LISANBUDRE
 Company: HL # 736
 Date/Time: 02/22/18 14:48

2) Released by: _____
 Signature: YIPRO LISANBUDRE
 Company: 736 YL#
 Date/Time: 02/22/18 3:46 PM

2) Rec'd by: Public Use
 Company: BAL
 Date/Time: 2/22/18 3:46 PM

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2973

Project/Client Name: Duwamish ACC3 ST3
 Project Number: Task 4
 Contact Name: Janae Vanderhoff
 Sampled By: W. Adward

Ship to: ARI
 Attn: Sue Dunihood
 Shipper: Hand-delivered
 Form filled out by: AFV
 Shipping Date: 03/05/18
 Airbill Number: 514
 Turnaround requested: 514

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (bar tag number(s))	
					TOC	TSS	PATHs	BEP	Salinity		
2/8/2018	14:44	LDW18-SW1-ST3-S	4	water	X	X	X	X	X		
		LDW18-SW1-ST3-B	4	water	X	X	X	X	X		
		LDW18-SW2-ST3-S	4	water	X	X	X	X	X		
		LDW18-SW2-ST3-B	4	water	X	X	X	X	X		
		LDW18-FD-ST3-R	4	water	X	X	X	X	X		
		GR18-SW2-ST3-M	4	water	X	X	X	X	X		
		LDW18-RB-ST3	4	water	X	X	X	X	X		
Total Number of Containers <u>28</u>											
1) Released by: _____		1) Rec'd by: <u>Stephanne Fisher</u>		Purchase Order / Statement of Work # <u>2017-00216</u>					2) Rec'd by: _____		
Print name: <u>THH TR</u>		Print name: _____		Signature: _____		Signature: _____		Company: _____		Company: _____	
Signature: _____		Signature: _____		Date/Time: _____		Date/Time: _____		Date/Time: _____		Date/Time: _____	
Company: <u>Windward Environmental LLC</u>		Company: <u>ARI</u>		Date/Time: <u>03/05/18/1610</u>		Date/Time: <u>3/8/18</u>		Date/Time: <u>1610</u>		Date/Time: _____	

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2972

Project/Client Name: Duwamish AOC3-ST3
 Project Number: TASK 4
 Contact Name: Anara Vandecast
 Sampled By: Windward

Ship to: AFUGS
 Attn: Georama Brooks
 Shipper: Hand Delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)			Comments / Instructions [Jar tag number(s)]
					PCB	Congruis		
3-8-2018	1358	LDW18-SW1-S13-B	1	water	X			
	1434	LDW18-SW1-S13-S	1	water	X			
	1354	LDW18-SW2-S13-S	1	water	X			
	1426	LDW18-SW2-S13-R	1	water	X			
	1426	LDW18-FD-S13-R	1	water	X			
	1450	GR18-SW3-S13-M	1	water	X			
	1440	LDW18-R3-S13	1	water	X			
Total Number of Containers			7					

* Distribution: White copies accompany shipment; yellow retained by consignee.

1) Released by: _____ Print name: <u>Anara Vandecast</u> Signature: _____ Company: <u>Windward</u> Date/Time: <u>3/8/18 10:47</u>	1) Rec'd by: _____ Print name: <u>Yves Desrosiers</u> Signature: _____ Company: <u>#736</u> Date/Time: <u>03/08/18 16:47</u>
Purchase Order / Statement of Work # <u>2017-0024</u>	
2) Released by: _____ Print name: _____ Signature: _____ Company: _____ Date/Time: _____	2) Rec'd by: _____ Print name: _____ Signature: _____ Company: _____ Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

112 2074

Project/Client Name: Duwamish Acc3 ST3
 Project Number: TASK 4
 Contact Name: Mara Vandergrast
 Sampled By: Windward

Ship to: Brooks Applied
 Attn: Amanda Rousal
 Shipper: Hand-Delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions [lar tag number(s)]
					Total Metals	Diss. Metals	org. on	Total Hg	
3-8-2018	1358	LDW18-SW1-ST3-B	4	water	X	X	X	X	
	1434	LDW18-SW1-ST3-S	4	water	X	X	X	X	
	1454	LDW18-SW2-ST3-S	4	water	X	X	X	X	
	1426	LDW18-SW2-ST3-B	4	water	X	X	X	X	
	1426	LDW18-ED-ST3-B	4	water	X	X	X	X	
	1450	GR18-SW3-ST3-M	4	water	X	X	X	X	
	1440	LDW18-RB-ST3	4	water	X	X	X	X	
Total Number of Containers									
					Purchase Order / Statement of Work #				
					2017-0027				

* Distribution: white copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3052

Project/Client Name: Duwamish Acc 3-WB2
 Project Number: TASK 4
 Contact Name: Amya Vandercort
 Sampled By: Windward

Ship to: ART
 Attn: Sue Finnigan
 Shipper: Head delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions [Jar tag number(s)]	
					Tox Doc	TSS	PAHs	BEHP	Schnitz		
4-3-2018	0955	LDW18-SW1-WB2-S	4	Water	X	X	X	X	X		
	0940	LDW18-SW1-WB2-B	4	Water	X	X	X	X	X		
	0940	LDW18-FD-WB2-B	4	Water	X	X	X	X	X		
	1018	LDW18-SW2-WB2-S	4	Water	X	X	X	X	X		
	0951	LDW18-SW2-WB2-B	4	Water	X	X	X	X	X		
	1005	GR18-SW3-WB2-M	4	Water	X	X	X	X	X		
	0650	LDW18-RR-WB2A	4	Water	X	X	X	X	X		
Total Number of Containers			28	Purchase Order / Statement of Work # <u>2017-0026</u>							
1) Released by: _____ Print name: <u>THP BD</u> Signature: _____ Company: <u>WINDWARD ENV.</u> Date/Time: <u>04.03.18/1105</u>			1) Rec'd by: _____ Print name: <u>BOGANNON FISK</u> Signature: _____ Company: <u>ART</u> Date/Time: <u>4/3/18</u>			2) Released by: _____ Print name: _____ Signature: _____ Company: _____ Date/Time: _____			2) Rec'd by: _____ Print name: _____ Signature: _____ Company: _____ Date/Time: _____		

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3054

Project/Client Name: Duwamish AOC3-WB2 Ship to: SCS AXIS
 Project Number: TASK 4 Attn: Geirane Brooks Shipping Date: 4/3/18
 Contact Name: Amara Vandenberg Shipper: Hand delivered Airbill Number:
 Sampled By: Vandenberg Form filled out by: AFV Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Tests Requested (check tests required)				Comments / Instructions [jar tag number(s)]
					PCB	Congruers			
4/3/2018	0955	LDW18-SW1-WB2-S	1	Water	X				
	0940	LDW18-SW1-WB2-B	1	Water	X				
	0940	LDW18-FW-WB2-B	1	Water	X				
	1018	LDW18-SW2-WB2-S	1	Water	X				
	0951	LDW18-SW2-WB2-B	1	Water	X				
	1005	GR18-SW3-WB2-M	1	Water	X				
	0650	LDW18-R3-WB2	1	Water	X				
Total Number of Containers			7						

1) Released by: Amara Vandenberg Rec'd by: YVES LISANBORNE Purchase Order / Statement of Work # 2017-0024
 Print name: Amara Vandenberg Signature: [Signature] Company: Windward Date/Time: 4/3/18 12:54
 Date/Time: 4/3/18 12:54 Date/Time: 04/03/18 12:54PM

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

110 3.55

Project/Client Name: Duwamish Acc3-WB2
 Project Number: TASK 4
 Contact Name: Mara Vanderhoff
 Sampled By: M. Vanderhoff

Ship to: Brucks Applied
 Attn: Amada Royal
 Shipper: Amada Royal
 Form filled out by: AFV
 Shipping Date: 4/3/18
 Airbill Number: 519
 Turnaround requested: 519

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Tests(s) Requested (check test(s) required)		Comments / Instructions (Jar tag number(s))
					Diss CO	Heavy AS	
4-3-2018	0955	LDW18-5W1-WB2-5	2	Water	X	X	
	0940	LDW18-5W1-WB2-B	2	Water	X	X	
	0940	LDW18-FD-WB2-B	2	Water	X	X	
	1018	LDW18-5W2-WB2-S	2	Water	X	X	
	0951	LDW18-5W2-WB2-B	2	Water	X	X	
	1005	SR18-5W3-WB2-M	2	Water	X	X	
	0650	LDW18-RB-WB2-	2	Water	X	X	
Total Number of Containers			14				
1) Released by: <u>Mara Vanderhoff</u>		1) Rec'd by: <u>YARED LISMAIBORKE</u>		Purchase Order / Statement of Work # <u>2017-6027-</u>		2) Rec'd by:	
Signature: <u>M. Vanderhoff</u>		Signature: <u>Y. Lismaiborke</u>		2) Released by:		2) Rec'd by:	
Company: <u>Windward</u>		Company: <u>#736</u>		Print name:		Company:	
Date/Time: <u>4/3/18 12:54</u>		Date/Time: <u>04/03/18 12:54PM</u>		Signature:		Date/Time:	

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt: <u> </u>	Laboratory W.O. #: <u> </u>
Condition upon receipt: <u> </u>	Time of receipt: <u> </u>
Cooler temperature: <u> </u>	Received by: <u> </u>



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3809

Project/Client Name: Duwomish Acc3 ST4
 Project Number: TASK 4
 Contact Name: Amaro Vandocroost
 Sampled By: Windward

Ship to: ART
 Attn: Sue Dunn, h.c.o.
 Shipper: Hand Delivered
 Form filled out by: AFV
 Shipping Date: _____
 Airbill Number: _____
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions [Jar tag number(s)]
					TOC/DOC	TSS	PAHs	BEHP	Salinity	
04-07-18	1510	LDW18-SW1-ST4-S	4	water	X	X	X	X	X	
	1510	LDW18-FD-ST4-S	4	water	X	X	X	X	X	
	1535	LDW18-SW1-ST4-B	4	water	X	X	X	X	X	
	1544	LDW18-SW2-ST4-S	4	water	X	X	X	X	X	
	1508	LDW18-SW2-ST4-R	4	water	X	X	X	X	X	
	1550	GR18-SW3-ST4-M	4	water	X	X	X	X	X	
	1240	LDW18-RB-ST4	4	water	X	X	X	X	X	
Total Number of Containers			28							
Purchase Order / Statement of Work # <u>2017-0026</u>										
1) Released by: _____			1) Rec'd by: _____			2) Released by: _____			2) Rec'd by: _____	
Print name: <u>Amaro Vandocroost</u>			Print name: <u>YKRO LISBANEURK</u>			Print name: _____			Print name: _____	
Signature: _____			Signature: _____			Signature: _____			Signature: _____	
Company: _____			Company: _____			Company: _____			Company: _____	
Date/Time: <u>4/9/18 0845</u>			Date/Time: <u>04/09/18 8:45 AM</u>			Date/Time: _____			Date/Time: _____	

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3810

Project/Client Name: Duwamish AOC3-514 Ship to: AFX US
 Project Number: TASK 4 Atn: Georgina Brooks Shipping Date: _____
 Contact Name: Amera Vanderwort Shipper: Hondalovered Airbill Number: _____
 Sampled By: W. Duward Form filled out by: AFV Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions (lar tag number(s))
					PCB	Congeners	
04-07-18	1510	LDW18-SW1-ST4-S	1	water	X		
	1510	LDW18-FD-ST4-S	1	water	X		
	1535	LDW18-SW1-ST4-B	1	water	X		
	1544	LDW18-SW2-ST4-S	1	water	X		
	1508	LDW18-SW2-ST4-B	1	water	X		
	1550	GR18-SW3-ST4-M	1	water	X		
	1240	LDW18-RB-ST4	1	water	X		
		Total Number of Containers	7				

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

2936

Project/Client Name: Durhamish 1003-514 Ship to: Brooks Applied
 Project Number: TASK 4 Attn: Amenda Royal Shipping Date: 04-07-18
 Contact Name: Amara Vondercoet Shipper: Hand Delivered Airbill Number: _____
 Sampled By: Windward Form filled out by: AFV Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)				Comments / Instructions (for tag number(s))
					Total Metals	Diss. Metals	Inorg. AS	Total Hg	
04-07-18	1510	LOW18-SW1-ST4-S	4	Water	X	X	X	X	
	1510	LOW18-FD-ST4-S	4	Water	X	X	X	X	
	1533	LOW18-SW1-ST4-B	4	Water	X	X	X	X	
	1544	LOW18-SW2-ST4-S	4	Water	X	X	X	X	
	1509	LOW18-SW2-ST4-B	4	Water	X	X	X	X	
	1550	GR18-SW3-ST4-M	4	Water	X	X	X	X	
	1240	LOW18-RB-ST4	4	Water	X	X	X	X	
Total Number of Containers			28						

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3193

Project/Client Name: Windward Ship to: ART

Project Number: ACC3 TEST 4 Atn: Sue Dunnington Shipping Date: _____

Contact Name: Amya Vonderhorst Shipper: Hand Delivered Airbill Number: N/A

Sampled By: Windward Form filled out by: AV Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (Jar tag number(s))
					TOC1	DOC	TSS	PAHs	BEHP	
07/30/08	0905	LDW18-SW1-082-S	4	Water	X	X	X	X	X	
	0905	LDW18-ED-082-S	4		X	X	X	X	X	
	0852	LDW18-SW1-082-R	4		X	X	X	X	X	
	0854	LDW18-SW2-082-S	4		X	X	X	X	X	
	0842	LDW18-SW3-082-R	4		X	X	X	X	X	
	0920	GE18-SW3-082-M	4		X	X	X	X	X	
	0556	LDW18-RR-082	4	Water	X	X	X	X	X	
Total Number of Containers			28	Purchase Order / Statement of Work #						
1) Released by: <u>Richard</u>					2) Released by: <u>Sue Dunnington</u>					2) Rec'd by: _____
Print name: <u>Richard</u>					Print name: _____					Company: _____
Signature: _____					Signature: _____					Company: _____
Company: <u>Windward Env.</u>					Company: <u>AVI</u>					Date/Time: _____
Date/Time: <u>7/30/18 1007</u>					Date/Time: <u>7/30/18 1027</u>					Date/Time: _____

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

3192

Project/Client Name: Windward
 Project Number: AOC 3 Task 4
 Contact Name: Amyra Vanderhoff
 Sampled By: Windward

Ship to: Brooks Airport
 Attn: Amade Royal
 Shipper: Head-Delivered
 Form filled out by: AV
 Shipping Date: N/A
 Airtail Number: N/A
 Turnaround requested: 510

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Tests Requested (check test(s) required)		Comments / Instructions (Jar tag numbers)
					DS	CS	
07/20/08	0905	LDW18-SW1-DBA-S	2	Water	X	X	
	0905	LDW18-FD-DBA-S	2		X	X	
	0852	LDW18-SW1-DBA-B	2		X	X	
	0859	LDW18-SWA-DBA-S	2		X	X	
	0842	LDW18-SWA-DBA-B	2		X	X	
	0920	GR18-SW2-DBA-M	2		X	X	
	0556	LDW18-RB-DBA	2	Water	X	X	
Total Number of Containers				14			
1) Released by: <u>Amyra Vanderhoff</u>				2) Released by: _____		2) Recd by: _____	
Print name: <u>Amyra Vanderhoff</u>				Print name: _____		Company: _____	
Signature: <u>[Signature]</u>				Signature: _____		Date/Time: _____	
Company: <u>Windward</u>				Company: _____		Date/Time: _____	
Date/Time: <u>7/30/18 11:32</u>				Date/Time: <u>08/30/18 11:37</u>			

* Distribution: White copies accompany shipment; yellow retained by consignee.

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

CHAIN-OF-CUSTODY/TEST REQUEST FORM

3 190

Project/Client Name: Windward
 Project Number: ABC 3 Task 4
 Contact Name: Amya Vandevorst
 Sampled By: Windward

Ship to: SGS AXYS
 Attn: Gerianne Braxton
 Shipper: Hand Delivered
 Form filled out by: AV
 Shipping Date: _____
 Airbill Number: N/A
 Turnaround requested: STD

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)					Comments / Instructions (jar tag number(s))
					PCB	Congruents				
07-20-2018	0905	LOW18-SU1-DB2-S	1	water	X					
	0905	LOW18-FD-DB2-S	1		X					
	0852	LOW18-SU1-DB2-B	1		X					
	0859	LOW18-SU2-DB2-S	1		X					
	0842	LOW18-SU3-DB2-B	1		X					
	0920	GR18-SU3-DB2-M	1		X					
	0556	LOW18-RB-DB2	1	water	X					
Total Number of Containers			7	Purchase Order / Statement of Work #						

* Distribution: White copies accompany shipment; yellow retained by consignee.

1) Released by: Amya Vandevorst
 Print name: Amya Vandevorst
 Signature: [Signature]
 Company: Windward
 Date/Time: 7/30/18 11:32

1) Rec'd by: Yared Isanevone
 Company: # 736
 Date/Time: 07/30/18 11:32

2) Released by: _____
 Print name: _____
 Signature: _____
 Company: _____
 Date/Time: _____

2) Rec'd by: _____
 Company: _____
 Date/Time: _____

To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Passive Sampler DB2** Ship to: **SGS Axyx Analytical** No. AOC320180829
 Project Number: **Task 4** Attn: **Georgina Brooks** Shipping Date: **9/4/18**
 Contact Name: **Amara Vandervort** Shipper: **FedEx** Airbill Number:
 Sampled By: **Windward** Form filled out by: **A. Vandervort** Turnaround requested: **Standard**

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions [Composite/Bag ID]
					PCB Congeners	Archive	
8/29/18	1125	LDW18-PS1-DB2-01	1	PES	X		
8/29/18	1125	LDW18-PS1-DB2-02	1	PES	X		
8/29/18	1125	LDW18-PS1-DB2-03	1	PES		X	
8/29/18	1125	LDW18-PS1-DB2-04	1	PES	X		
8/29/18	1125	LDW18-PS1-DB2-05	1	PES	X		
8/29/18	1138	LDW18-PS1-DB2-06	1	PES	X		
8/29/18	1138	LDW18-PS1-DB2-07	1	PES		X	
8/29/18	1138	LDW18-PS1-DB2-08	1	PES	X		
8/29/18	1138	LDW18-PS1-DB2-09	1	PES	X		
8/29/18	1138	LDW18-PS1-DB2-10	1	PES		X	
8/29/18	1149	LDW18-PS1-DB2-11	1	PES	X		
8/29/18	1149	LDW18-PS1-DB2-12	1	PES		X	
Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0090			

1) Released by: *Thai Do*
 Print name: **Thai Do**
 Signature:
 Company: **Windward Environmental LLC**
 Date/Time: **09:04:18/0800**

1) Rec'd by:
 Company:
 Date/Time:

2) Released by:
 Print name:
 Signature:
 Company:
 Date/Time:

2) Rec'd by:
 Company:
 Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignee.



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To be completed by Laboratory upon sample receipt:

Date of receipt:..	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Passive Sampler DB2** Ship to: **SGS Axys Analytical** No. AOC320180829
 Project Number: **Task 4** Attn: **Georgina Brooks** Shipping Date: **9/4/18**
 Contact Name: **Amara Vandevort** Shipper: **FedEx** Airbill Number:
 Sampled By: **Windward** Form filled out by: **A. Vandevort** Turnaround requested: **Standard**

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions [Composite/Bag ID]
					PCB Congeners	Archive	
8/29/18	1149	LDW18-PS1-DB2-13	1	PES		X	
8/29/18	1149	LDW18-PS1-DB2-14	1	PES	X		
8/29/18	1149	LDW18-PS1-DB2-15	1	PES		X	
8/29/18	1200	LDW18-PS1-DB2-TB	1	PES	X		
8/29/18	1218	LDW18-PS2-DB2-01	1	PES		X	
8/29/18	1218	LDW18-PS2-DB2-02	1	PES	X		
8/29/18	1218	LDW18-PS2-DB2-03	1	PES		X	
8/29/18	1218	LDW18-PS2-DB2-04	1	PES	X		
8/29/18	1218	LDW18-PS2-DB2-05	1	PES	X		
8/29/18	1230	LDW18-PS2-DB2-06	1	PES		X	
8/29/18	1230	LDW18-PS2-DB2-07	1	PES	X		
8/29/18	1230	LDW18-PS2-DB2-08	1	PES	X		
Total Number of Containers			12				

* Distribution: White copies accompany shipment; yellow retained by consignee.

1) Released by: Print name: Thal Do Signature: <i>[Signature]</i> Company: Windward Environmental LLC Date/Time: 09.04.18/0800	1) Rec'd by: Company: Date/Time:	2) Released by: Print name: Signature: Company: Date/Time:	2) Rec'd by: Company: Date/Time:
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To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



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CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Passive Sampler DB2**
 Project Number: **Task 4**
 Contact Name: **Amara Vandervort**
 Sampled By: **Windward**

Ship to: **SGS Axys Analytical**
 Attn: **Georgina Brooks**
 Shipper: **FedEx**
 Form filled out by: **A. Vandervort**

No. AOC320180829
 Shipping Date: **9/4/18**
 Airbill Number:
 Turnaround requested: **Standard**

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)		Comments / Instructions [Composite/Bag ID]
					PCB Congeners	Archive	
8/29/18	1230	LDW18-PS2-DB2-09	1	PES		X	
8/29/18	1230	LDW18-PS2-DB2-10	1	PES		X	
8/29/18	1240	LDW18-PS2-DB2-11	1	PES	X		
8/29/18	1240	LDW18-PS2-DB2-12	1	PES	X		
8/29/18	1240	LDW18-PS2-DB2-13	1	PES		X	
8/29/18	1240	LDW18-PS2-DB2-14	1	PES	X		
8/29/18	1240	LDW18-PS2-DB2-15	1	PES	X		
8/29/18	1245	LDW18-PS2-DB2-TB	1	PES	X		
Total Number of Containers			8	Purchase Order / Statement of Work # PO 2018-0090			

1) Released by: *Thal Do*
 Print name: **Thal Do**
 Signature: *[Signature]*
 Company: **Windward Environmental LLC**
 Date/Time: **09.04.18/0800**

1) Rec'd by:
 Company:
 Date/Time:

2) Released by:
 Print name:
 Signature:
 Company:
 Date/Time:

2) Rec'd by:
 Company:
 Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.



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To be completed by Laboratory upon sample receipt:

Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by: