ATTACHMENT 2

Field Notes, Collection Forms, and COCs

15 BB
12/16/2009 S. Replinger

1920 (SP2) ~~0720~~ - Arrive at Diagonal Ave to begin sampling. (beach collection)
Crew: S. Replinger, C Lorentz] Windward.
Kym Takasaki (USACE)
Weather: 50s, misty, calm.

SP2 ~~1925~~ Prepare to begin sampling at LDW-SS508.

SP2 ~~1935~~ Find target location. Coordinates put location just south of pier. Kym directs us to move sampling location south about 20 ft. to be between the two pipes.

SP2 1945 Begin sampling at LDW-SS508-010.

1957 Finish sampling at LDW-SS508, return to car.

2009 Depart Diagonal avenue for South Park Bridge (location LDW-SS523).

2015 Arrive at LDW-SS523.

2028 Target coordinates place sample in riprap. Relocate sample per Kym's guidance to patch of exposed sediment adjacent to CSO.

15 BB
12/16/2009 S. Replinger

2030 - Begin sampling at LDW-SS523-010. Collect additional sediment for duplicate sample (LDW-SS601-010).

2039 - Finish sampling and return to car.

2050 — Head to LDW-SS530 (RM 2.7) to continue sampling.

2105 - Arrive at LDW-SS530 (7th Ave S). Call Berit to clarify access issues at site. Locate sample target per Kym.

2123 - Begin sampling at LDW-SS530-010.

2132 - Finish sampling and return to car.

2139 - Head to LDW-SS509 to continue sampling.

2150 - Arrive at T-107 park to sample at LDW-SS509.

2200 - Begin sampling LDW-SS509-010.

2206 - Finish sampling at LDW-SS509. Return to car.

2220 — Depart T-107 park. End of field day.

S. Replinger 12.15.2009

12/16/09 Benr Bergquist

Time	Location	
0730	HI Manna	Prepare for departure at manna
		Sampling crew: Benr Bergquist
		Rick Berg
		Mike Yarnes
		Oversight: Kym Takasaki
		Boat: Dave Mullins (BSAGE)
		Weather: overcast, calm
0750		Slight delay - need to adjust bolt on VanVeen
0800		Leave HI and motor to first location
0803	LDW-SS505	Arrive at station
0807		First grab unsuccessful
0810		2nd grab - " debris
		Move boat towards barge
0813		3rd grab
		47.34.00656
		122 20.76326
0830		Motor to next location
0905	LDW-SS528	Slip 4 - Arrive at slip
0912		Successful grab
0924		Motor to next location

Time	Location	
0930	LDW-SS526	Arrive at location
0940		Successful grab
0957		Motor to next location
1001	LDW-SS525	Arrive at location
1008		3 unsuccessful grabs
1015		Successful grab
1029		Motor to next location
1038	LDW-SS519	Barge on target location so will collect sample north of barge. First check distance from target on S end of barge. Barge may move so hold off until tomorrow. Same distance from target N or S of barge
1046		Motor to next location
1053	LDW-SS515	Arrive at location
		Successful grab
1107		Leave location
1112		Motor into Slip 1 to check out access. Barge present
1122	LDW-SS501	Arrive at location

Time	Location	
1123	LDW-SS501	First grab - didn't close
1125		2nd grab - 9 cm
1128		3rd grab debris
1131		4th " debris
1132		5th rock
		6th empty
		Move our from ledge after 6 unsuccessful grabs
1139		Successful grab
1157		Motor back to manna
		Drop Kym off and take a restroom break/lunch
1235		Motor from manna
1245	LDW-SS504	First grab - washed out
1250		2nd grab - OK
1310	LDW-SS506	Arrive at location
1312		Successful grab
	LDW-SS507 ↓	
1333		Arrive at location
1334		Successful grab
		Field duplicate SS602 at this location
1350		Motor to next location
1359	LDW-SS510	Arrive at location

Time	Location	
1402	LDW-SS510	First grab - successful
1416	LDW-SS512	Arrive at location
1417		successful grab
1431	LDW-SS514	successful grab
1440		motor to next location
	LDW-SS519	Barge is gone so we'll attempt this location
1452		Arrive at SS519
1453		Successful grab
1504	LDW-SS516	on location
1506		1st grab - successful
1517		motor to next location
1520	LDW-SS517	on location outfall not visible (high tide)
1521		Successful grab
1528		motor to next location
1534	LDW-SS518	on location
1537		successful grab
1547		motor to next location
1551	LDW-SS521	Successful grab
1557		motor to next location
	LDW-SS522	Slip 3
1614		on location
1616		Successful grab
1629	LDW-SS524	on location
1633		Hydraulics line blew

Time	Location	
1633	LDW-SS524	While attempting to sample, van veen brought to surface ~~and~~ but possibly contaminated w/ hydraulic fluid
1652		Motor back to marina
1702		Arrive at marina and finish for the day.

B. Bergquist
12/16/09

Time	Location	
0740		1st Ave S. Bridge Crew: Bent Bergquist Rick Berg Mike Yarnes Motor to LDW-SS524 (weather: overcast calm)
0745	LDW-SS524	
0751		successful grab
0803		Motor to next location
0808	LDW-SS527	Arrive at location At last location, RB and MY cleaned off deck with Alconox and water in case of contamination from hydraulic fluid, prior to collecting sample LDW-SS524-010.
0810		collect rinsate blank LDW-SS527-RB
0817		successful grab
~~0~~		collect FD LDW-SS603-010
0830		Motor to next location
0840	LDW-SS532	First grab under penetrated
0843		second grab successful
0850		motor to next location
0856	LDW-SS-534	First grab - acceptable
0908		motor to next location

Time	Location	
0918	LDW-SS535	Arrive at location
0912		First grab - debris
		2nd grab - stick in jaws
0918		3rd grab - rust-colored cobble
		4th grab - nothing
0921		Will try moving just downstream
0923		5th grab - 10 cm - will keep this and then try one more grab
		Brown, silt to gravel debris no odor
0929		6th grab - acceptable about 20 ft downstream from pipe, same distance from shoreline as target. Use this instead of 5th grab
0930		Motor to next location
0942	LDW-SS536	Arrive at location
0944		First grab - acceptable
0956	LDW-SS537	Arrive at location
1007		Acceptable grab collected
1016		Motor to next location
1020	LDW-SS538	Successful grab
1030		Motor to next location

Time	Location	
1034	LDW-SS539	First grab - washed out
1037		2nd grab - acceptable
1045	LDW-SS540	At location
		Talked to Craig about LDW-SS535. He mapped the coordinates and they are 27 ft from target, to the N. Original target was placed visually near outfall; the sampled location is actually closer or just as close to the outfall, so OK.
1050		First grab - unacceptable
1053		2nd grab - underpenetration
1055		3rd grab - 10 cm - Keep in case but try another
1100		4th grab - unacceptable
1102		5th grab - large debris in jaws
1105		6th grab - acceptable
1110		Motor to Turning Basin Eat lunch and see if we can fit under bridge @ Boeing
11:51		Need about 1 ft more of clearance to get below

Time	Location	
		bridge, so Dave is taking down the davit.
1205	LOW-SS546	Arrive at location Coordinates on land, so location placed away from ledge just off outfall
1210		Acceptable grab collected
1225		Motor to next location. Tide went down so no need to lower davit again to get under bridge.
1235	LOW-SS547	Acceptable grab
1245		Saw bald eagle catch fish from LOW (Turning Basin area) and is feeding on west shore
1252	LOW-SS545	Successful grab collected
1302		Motor to next location
1307	LOW-SS543	acceptable grab collected
1315		Motor to next location
1326	LOW-SS542	First grab - acceptable
1336		Motor to next location
1339	LOW-SS541	acceptable grab collected
1346		Motor to next location
1408		Arrive in Slip 1

Time	Location	
1410	LOW-SS513	First grab - acceptable
1419		Motor to next location
1421	LOW-SS511	Acceptable grab collected
1429		Leave Slip 1. Last sample for the day. Still need one more sample from Slip 2, but waiting for permission to sample.
1445		Arrive at 1st N. S. Bridge Done for the day.

B. Berggurst

1/11/10

0850 1st Ave Bridge
Crew: Berit Bergquist
Rick Berg
Weather: Rain
Motor to LDW-SS547

0918 LDWSS547
1st grab insufficient penetration
0920 Acceptable grab
0938 Motor to next location
1001 Arrive at LDWSS520
1003 LDWSS520 Successful grab
1020 Arrive back at 1st Ave S Bridge
Sampling complete for day.

B. Bergquist
1/11/01

1/11/10

Time Location

1633 LDW-SS502 Crew: Berit Bergquist
Suzanne Replinger
EPA Oversight: Allison Hiltner
Lon Kissinger
Weather: overcast
Arrive at location and prepare for sampling
1704 Collect sample at LDW-SS502A
1716 Collect sample at LDW-SS502B
1725 Collect sample at LDW-SS502C
GPS location was located directly in swale, so location was moved slightly south.
1734 Collect sample at LDW-SS502-D
1743 Collect sample at LDW-SS502-E
Location was moved slightly south to be outside of swale
1750 Collect sample at LDW-SS502-F
1759 Collect sample at LDW-SS502-G
1805 Collect sample at LDW-SS502-H
Return to car to put samples in cooler and get more jars
1828 Collect sample at LDW-SS503-A with auger to 0.45 cm

1/11/10 B. Bergquist

1842 Collect sample at LOW-SS503-B, Auger could not penetrate to 45cm. Hit a rock at 41 cm, but Allison is OK with that attempt,

1907 collected sample at LOW-SS503-C. Penetration depth was 37 cm.

1915 Collected sample at LOW-SS503-D Penetrated to 45 cm

1926 Collected sample at LOW-SS503-E, Penetrated to 41 cm. Sediment was very wet, so we didn't think we could collect a representative sample placing the auger in the hole a third time (hole was caving in)

1936 Collected sample at LOW-SS503-F to depth of 45 cm

1951 Collected sample at LOW-SS503-G to depth of 45 cm

2003 Collected Sample at LOW-SS503-H to depth of 45 cm
Head back to car

2056 Arrive at LOW-SS529 and collect first sample from Segment A. We were able

1/11/10 B. Bergquist

to use option 1. Sampled to 45 cm

2107 Collected sample at LOW-SS529-B to depth of 45 cm

2121 Collected sample at LOW-SS529-D to 45 cm

2133 Collected sample at LOW-SS529-F to 45 cm

2149 Segment towards fence is very rocky and full of debris. Also, water side of segment is underwater. Decide to make another grid between A/B and C/D. OR sample two locations in C and two in D. Proceeding to check it out.
Will select location for H in segment D by throwing a rock to randomly pick low-intertidal location.

2157 Collected sample at LOW-SS529-H at new location to 45 cm depth

2208 Collected sample at LOW-SS529-E to 32 cm

2219 Collected sample at LOW-55529-C to 45 cm

2231 Selected G by throwing rock in segment C
Collected sample at LOW-55529G to depth of 45 cm.

2242 bone at LOW-55529
Finished sampling for the day. Return to car.

B. Bergquist
1/11/10

1/12/10 B. Bergquist

1816 Arrive at parking lot.
Field crew: Benit Bergquist
Chelsea Lorenz
Rick Berg
Weather: Rain
Walk to site at LOW-55544.
Tide is still high so we may not be able to cross the creek to get to the northern segments. We scoped out alternative crossing route and will have to wait until tide recedes. We decided to sample starting from the southern segments.

1829 Start sampling at LOW-55544-G
Collect sample from 10 cm depth

1830 Finish collecting sample.
Tide is too high to collect any samples S. of Hamm Creek. It is estimated to be about +2 ft and may not get low enough to sample targeted points

1/12/10 B. Bergquist

even at a 0 ft tide. Called Allison and left message to see if it's OK to move points inwards the shoreline. We decided to go ahead with this because we can't reach Allison and Kym is not here or available yet.

1905 Collect sample at LDW-SS544-H at 10 cm. Sampled as close to water as we could get (planned coordinated was moved).

1914 Collected sample at LDW-SS544-E as close to the water as possible - coordinates were moved.

1926 Collected sample for SS544-F closer to shoreline than targeted coordinates at 10 cm depth

1932 Collected sample LDW-SS544-D at 10 cm, sampled as close to water as we could - coordinates were moved

1/12/10 B. Bergquist

1938 Collected sample LDW-SS544-C @ 10 cm, moved upshore

1947 Collected sample at LDW-SS544B @ 10 cm depth, moved location upshore.

1957 Collected sample at LDW-SS544A at 10 cm. Moved location upshore Finished at this location

2029 Arrive at LDWSS531

2030 Sample at LDWSS531-G

2037 Sample at LDWSS531-E. All samples at this beach collected at ~~target~~ 10 cm depth

2045 Target coordinates placed LDWSS531-C in riprap, so location was sampled at base of riprap.

2050 Sample at LDWSS531-D

2057 Collect sample at LDWSS531-A Very hard substrate so we could only dig a hole down to 7 cm

2104 Collect sample at LDW-SS531-B

1/12/10 B. Bergquist

2110 Collected sample at LDW-SS531-F

2115 Collected sample at LDW-SS531-H
Finished at this site. Return to car.

2135 Arrive at LDW-SS533

2139 Collect sample at LDW-SS533G at location as far south as we could get and as close to the water, not at targeted location. Substrate was rocky, so we collected a surface sample by hand to a depth of 30cm

2150 Collect sample at LDW-SS533H using auger to 45 cm. Location was moved north and towards the shore, because targeted location was covered with water.

2200 Collected sample at LDW-SS533-C to 45 cm

2210 Collected sample at LDW-SS533-A to 45 cm.

2217 Location SS533-B was moved from target towards shoreline because it was underwater.
Collected sample to depth of 45 cm

2227 Collected sample at LDW-SS533-F to 45 cm

2239 Collected sample at LDW-SS533-E to 45 cm

2248 Location SS533D is underwater so it was moved to the south to the main part of the beach where human activity most likely to occur
Collected sample at LDW-SS533-D to 45 cm
Finished sampling at this location.
Sampling complete for the day

B. Bergquist
1/12/10

1·13·2010 S. Replinger

1035 - Arrive at LDW-SS531 to re-collect subsample A. Scout sampling location.
Crew: S. Replinger
C. Lorentz
Weather: cloudy, 50s.

1041 - Called Berit to tell her that sampling location target (as previously sampled on 1·12·2010) was under about 2 ft. of water and about 8 ft. from current water edge. Berit advised to collect sample.

1045 - Berit called again to say that she spoke with Kym Takasaki who was ok with moving sample location. to currently exposed area.

1059 - Collect sample from LDW-SS531-010-A. GPS unit was malfunctioning, so sample location marked on aerial map. New location is ~8 ft towards the bank from target.

1110 - Finish sampling

1115 - Depart LDW-SS531. End of field day.

S. Replinger 1·13·2010

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12-15-2009 Weather: 50s, misty

Sampling Method: hand collection Crew: SR, CL

GRAB DATA	Location ID: LDW-SS508			
Latitude: 47.56131		Longitude: 122.34482		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
~~0745~~ 1945	0	10	Y	

SAMPLE DATA	Sample ID: LDW-SS508-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	wood debris
gravel	drab olive	slight petroleum	organic root debris
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS523			
Latitude: 47.54164		Longitude: 122.33503		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments: collect additional sediment for duplicate sample.
2030	0	10	Y	location just above
				CSO in area of
				exposed sediment

SAMPLE DATA	Sample ID: LDW-SS523-010 and LDW-SS601-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	trace shell fragments
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt trace	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12·15·2009 Weather: 50s, light breeze

Sampling Method: hand collection Crew: SR, CL

GRAB DATA	Location ID: LDW-SS530			
Latitude: 47.53482		Longitude: 122.32518		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
21:23	0	10	Y	brick, wood, tires, bottles in sampling area.

SAMPLE DATA	Sample ID: LDW-SS530-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	trace shell fragments
clay	black		wood debris

GRAB DATA	Location ID: LDW-SS509			
Latitude: 47.56096		Longitude: 122.35033		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2200	0	10	Y	

SAMPLE DATA	Sample ID: LDW-SS509-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	wood debris
clay	black		some organic matter

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: overcast

Sampling Method: ~~LDW-SSSOS~~ single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SSSOS			
Latitude: 47 34.00656	Longitude: 122 20.76326			
Grab time	Bottom depth (~~m~~) ft	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0807	19 ft	0	N	no sediment in grab
0810	19 ft	0	N	debris in grab
0813	30 ft	15	Y	

SAMPLE DATA	Sample ID: LDW-SSSOS-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel trace	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	Shells
clay	black		

GRAB DATA	Location ID: LDW-SSS28			
Latitude: 47.53660	Longitude: 122.31892			
Grab time	Bottom depth (~~m~~) ft	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0912	13 ft	20	Y	

SAMPLE DATA	Sample ID: LDW-SSS28-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	organic/plant debris plastic trash bag on bottom
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: overcast / rain

Sampling Method: van veen - single Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS526			
Latitude: 47.53848		Longitude: 122.33038		
Grab time	Bottom depth ~~(m)~~ ft	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0933	8.4 ft	–	N	washed out
0938	8.0 ft	–	N	cobble - no sediment
0940	8.0 ft	13	Y	

SAMPLE DATA	Sample ID: LDW-SS526-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	plant debris, shells, wood fragments
gravel mostly	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt) some	(gray) Spots of red	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS525			
Latitude: 47.53925		Longitude: 122.33127		
Grab time	Bottom depth ~~(m)~~ ft-grm	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1002	17 ft	–	N	reject - no sediment
1006	2.3 m	–	N	reject
1008	3.1 m	8 cm	N	

SAMPLE DATA	Sample ID: LDW-SS525-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	worm tubes, shell fragments, glass and mottled material, sheen pockets
gravel mostly	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
silt some	gray	strong	
clay	black		

1011 3.7 m 9 cm N

1015 3.4 m 11 cm Y

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: overcast/rain/wind

Sampling Method: Single van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS515			
Latitude: 47.55471		Longitude: 122.34118		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1053	3.6	13	Y	

SAMPLE DATA	Sample ID: LDW-SS515-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
(cobble) and gravel	(brown surface)	(none)	H_2S
(gravel)	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
(silt)	(gray) mostly	strong	crab, shells, cobble, plant matter
clay	(black) some		

GRAB DATA	Location ID: LDW-SS501			
Latitude: 47.56904		Longitude: 122.34564		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1125	2.9	9 cm	N	
1128	—	—	N	washed out
1131	—	—	N	debris

SAMPLE DATA	Sample ID: LDW-SS501-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none)	H_2S
(gravel)	drab olive	slight	petroleum
sand (F) M C)	brown	moderate	other:
(silt)	(gray)	strong	shell fragments, plant debris, sheen pocket, rock flour
clay	black		

1132	—	—	N	debris
1134	—	—	N	rock - eel in grab
1137	—	—	N	empty
1139	5.8m	12 cm	Y	

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: Overcast, rain

Sampling Method: Single van Veen Crew: SB, RB, MY

GRAB DATA	Location ID: LDW-SS504			
Latitude: 47.56736		Longitude: 122.34833		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1245	—	—	N	washed out
1250	19.7	11	Y	

SAMPLE DATA	Sample ID: LDW-SS504-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	shell fragments, pebbles, wood fragments
gravel	drab olive	slight petroleum	
sand (F M C) top bottom	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS506			
Latitude: 47.56533		Longitude: 122.34645		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1312	13.4	15	Y	

SAMPLE DATA	Sample ID: LDW-SS506-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	Shell fragments, worms
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: cloudy, rain off and on

Sampling Method: Single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS507			
Latitude: 47.56311		Longitude: 122.34757		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1334	14.2	20	Y	

SAMPLE DATA	Sample ID: LDW-SS507-010 and LDW-SS602-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	Shell fragments, twigs, black streaks
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	Field duplicate
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-~~SS508~~ SS510			
Latitude: 47.55900		Longitude: 122.34471		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1402	14.0	17	Y	

SAMPLE DATA	Sample ID: LDW-SS510-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	Shells, polychaetes, organic matter
gravel some	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt) mostly	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling
Project no.: 04-08-06-29
Date: 12/16/09
Weather: partly cloudy, some rain
Sampling Method: Single van veen
Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS512			
Latitude: 47.55607		Longitude: 122.34490		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1417	5.9	13	Y	

SAMPLE DATA	Sample ID: LDW-SS512-010		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S slight
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	Shell fragments, worms
clay	black		

GRAB DATA	Location ID: LDW-SS514			
Latitude: 47.55587		Longitude: 122.34736		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1431	3.9	12	Y	

SAMPLE DATA	Sample ID: LDW-SS514-010		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	Shell fragments, wood fragments,
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: cloudy

Sampling Method: Single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS519			
Latitude: 47.54766		Longitude: 122.33938		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1453	11.2	20	Y	

SAMPLE DATA	Sample ID: LDW-SS519-010			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	Sheen pockets, plant matter
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

GRAB DATA	Location ID: LDW-SS516			
Latitude: 47.55238		Longitude: 122.34127		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1506	16.4	12	Y	

SAMPLE DATA	Sample ID: LDW-SS516-010			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	organic matter, plastic piece
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: overcast / rain off & on

Sampling Method: Single van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS517			
Latitude: 47.55197		Longitude: 122.34016		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1521	6.2	15	Y	

SAMPLE DATA	Sample ID: LDW-SS517-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel Some	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	Shell fragments
clay	black		

GRAB DATA	Location ID: LDW-SS518			
Latitude: 47.54899		Longitude: 122.33974		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1537	13.8	18	Y	

SAMPLE DATA	Sample ID: LDW-SS518-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	
clay	black		

(12)

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/16/09 Weather: overcast / showers

Sampling Method: Singe van veen Crew: BB, EB, MY

GRAB DATA	Location ID: LDW-SS521			
Latitude: 47.54754616 (BB)	Longitude: 122.33938 33796 (BB)			
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1551 (BB)	13.5-11.2	20	Y	

SAMPLE DATA	Sample ID: LDW-SS521-010		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS522			
Latitude: 47.54294	Longitude: 122.33033			
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1616	6.9	20		

SAMPLE DATA	Sample ID: LDW-SS522-010		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	plant matter
clay - Some clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: overcast

Sampling Method: Single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS524			
Latitude: 47.54155		Longitude: 122.33219		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0751	8.5	18	Y	

SAMPLE DATA	Sample ID:			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	clam, shell fragments
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

GRAB DATA	Location ID: LDW-SS527			
Latitude: 47.53831		Longitude: 122.32757		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0817	6.7	20	Y	

SAMPLE DATA	Sample ID: LDW-SS527-010, LDW-SS527-RB and LDW-SS603-010			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	sheen pockets
gravel some	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	rinsate blank and field duplicate
silt	gray	strong		
clay	black			

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: partly cloudy, calm

Sampling Method: Single van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS532			
Latitude: 47.53243		Longitude: 122.31831		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0840	—	—	N	underpenetration
0843	4.0	11	Y	

SAMPLE DATA	Sample ID: LDW-SS532-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	wood chunks, plant matter,
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS534			
Latitude: 47.53106		Longitude: 122.31725		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0856	11	13	Y	

SAMPLE DATA	Sample ID: LDW-SS534-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	many shell fragments, worms
gravel	drab olive	slight petroleum	sandier on top 2 inches
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling
Project no.: 04-08-06-29
Date: 12/17/09
Weather: partly cloudy, calm
Sampling Method: Single van veen
Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS535			
Latitude: 47.53002		Longitude: 122.31416		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
~~0912~~				
0912	–	–	N	debris
0915	–	–	N	stick in jaws
0918	–	–	N	rust colored debris/cobbles

SAMPLE DATA	Sample ID: LDW-SS535-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	glass and other debris
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS536			
Latitude: 47.52865		Longitude: 122.31319		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0944	8.4	12	Y	

SAMPLE DATA	Sample ID: LDW-SS536-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	plant matter
gravel	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

0919 – – N nothing
0923 – 10 Y
0929 3.7 12 Y

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: partly sunny

Sampling Method: Single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS537			
Latitude: 47.52773		Longitude: 122.31280		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1007	3.5	15	Y	

SAMPLE DATA	Sample ID: LDW-SS537-010			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none)	H_2S	worm tubes
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
(silt)	(gray)	strong		
clay	black			

GRAB DATA	Location ID: LDW-SS538			
Latitude: 47.52758		Longitude: 122.31032		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1020	5.5	14	Y	

SAMPLE DATA	Sample ID: LDW-SS538-010			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none)	H_2S	plant material, shell fragments
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
(silt)	(gray)	strong		
clay	black			

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: partly sunny

Sampling Method: single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS539			
Latitude: 47.52684		Longitude: 122.30993		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1034	—	—	N	washed out
1037	8.2	13	Y	

SAMPLE DATA	Sample ID: LDW-SS539-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	worm holes, organic matter, shell fragments
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS540			
Latitude: 47.52609		Longitude: 122.31016		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1050	—	—	N	
1053	—	—	N	underpenetration
1055	—	10	maybe	will try another

SAMPLE DATA	Sample ID: LDW-SS540-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	plant matter, shell fragments
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong	
clay	black		

1059	—	—	N	
1102	—	—	N	debris in jaws
1105	2.9	12	Y	keep this one

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: Slightly overcast

Sampling Method: Single van veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS546			
Latitude: 47.51185		Longitude: 122.29753		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1210	3.4	12	Y	

SAMPLE DATA	Sample ID: LDW-SS546-010		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	black pockets, plant material
gravel	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS547			
Latitude: 47.51167		Longitude: 122.30163		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1235	1	17	Y	

SAMPLE DATA	Sample ID: LDW-SS547-010		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	leaf litter, plant matter, bark chunks
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: Overcast

Sampling Method: Single Van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS545			
Latitude: 47.51275		Longitude: 122.30178		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1252	5.1	17	Y	

SAMPLE DATA	Sample ID: LDW-SS545-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	Shell fragments, worm tubes, organic matter
gravel	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS543			
Latitude: 47.51639		Longitude: 122.30469		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1307	3.3	20	Y	

SAMPLE DATA	Sample ID: LDW-SS543-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	none (H_2S)	worm tubes
gravel	drab olive	(slight) petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	(black)		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: cloudy

Sampling Method: Single van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS542			
Latitude: 47.52278		Longitude: 122.30859		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1326	4.1	19	Y	

SAMPLE DATA	Sample ID: LDW-SS542-010			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	worm holes
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

GRAB DATA	Location ID: LDW-SS541			
Latitude: 47.52540		Longitude: 122.30903		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1339	8.3	11	Y	

SAMPLE DATA	Sample ID: LDW-SS-541-010			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other: marine	
silt	gray	strong		
clay	black			

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 12/17/09 Weather: overcast

Sampling Method: Single Van Veen Crew: BB, RB, MY

GRAB DATA	Location ID: LDW-SS513			
Latitude: 47.55631		Longitude: 122.3379		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1410	6.6	14	Y	

SAMPLE DATA	Sample ID: LDW-SS513-010			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	Organic material
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

GRAB DATA	Location ID: LDW-SS511			
Latitude: 47.55683		Longitude: 122.34115		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1421	11.6	20	Y	

SAMPLE DATA	Sample ID: LDW-SS511-010			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	Sheen packets
gravel	drab olive	slight	petroleum	worms
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling
Project no.: 04-08-06-29
Date: 1/11/10
Weather: Rain
Sampling Method: single van veen
Crew: RB, BB

GRAB DATA	Location ID: LDW-SS547			
Latitude: 47.51139		Longitude: 122.30162		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
9:18	1	—	N	insufficient penetration
9:20	1	19	Y	

SAMPLE DATA	Sample ID: LDW-SS547-010		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	wood debris, nereites worm
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS520			
Latitude: 47.54742		Longitude: 122.33518		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
10:03	5.2	14	Y	

SAMPLE DATA	Sample ID: LDW-SS520-010		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	organic ~~debris~~ matter
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: overcast

Sampling Method: ~~trowel~~-hand collection Crew: SR, BB

GRAB DATA	Location ID: LDW-SS502-A			
Latitude: 2108306		Longitude: 1265730		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1704		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-A		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	Organic matter
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt) trace	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS502-B			
Latitude: 210801		Longitude: 1265763		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1716		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-B		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	grass on top, organic matter
gravel	drab olive	slight petroleum	
sand (F) M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: overcast

Sampling Method: hand sampling Crew: SR, BB

GRAB DATA	Location ID: LDW-SS502-C			
Latitude: 210729		Longitude: 1265810		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1725		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-C		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	root matter
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt trace	gray	strong	
clay cobble	black		

GRAB DATA	Location ID: LDW-SS502-D			
Latitude: 210763		Longitude: 1265800		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1734		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-D		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	Organic matter
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: Overcast

Sampling Method: hand sampling Crew: SR, BB

GRAB DATA	Location ID: LDW-SS502-E			
Latitude: 210671		Longitude: 1265840		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1743		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-E		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	trace organic matter
(gravel)	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt) trace	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS502-F			
Latitude: 210658		Longitude: 1265878		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1750		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-F		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	trace organic matter
(gravel)	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	gray	strong	
clay	(black)		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/14/10 **Weather:** overcast

Sampling Method: hand sampling - spoon **Crew:** SR, BB

GRAB DATA	Location ID: LDW-SS502-G			
Latitude: 210626		Longitude: 1265915		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1759		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-G		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	(none) H_2S	plant matter
gravel	drab olive	slight petroleum	Shell fragments
(sand) (F) (M) (C)	brown	moderate other:	
(silt)	gray	strong	
clay	black pockets		

GRAB DATA	Location ID: LDW-SS502-H			
Latitude: 210636		Longitude: 1265931		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1805		10		

SAMPLE DATA	Sample ID: LDW-SS502-010-H		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	Wood debris, organic
(gravel)	drab olive	slight petroleum	matter, brick
sand (F) (M) (C)	brown	moderate other:	fragments
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/11/10 **Weather:** overcast

Sampling Method: hand auger **Crew:** SR, BB

GRAB DATA	Location ID: LDW-SS503-A			
Latitude: 210546		Longitude: 1265917		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1828		~~10~~ 45	Y	

SAMPLE DATA	Sample ID: LDW-SS503-045-A		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	Brick fragments
(gravel)	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS503-B			
Latitude: 210581		Longitude: 1265934		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1847		41	Y	

SAMPLE DATA	Sample ID: LDW-SS503-041-B		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	brick fragments
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	(gray) red pockets	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: overcast

Sampling Method: hand auger Crew: SR, BB

GRAB DATA	Location ID: LDW-SS503-C			
Latitude: 120438		Longitude: 1265918		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1907		37		

SAMPLE DATA	Sample ID: LDW-SS503-037-C		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	wood debris at bottom of core
gravel	drab olive	slight petroleum	organic matter
sand (F M C)	brown pockets of red towards the bottom	moderate other:	shell fragments
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS503-D			
Latitude: 210450		Longitude: 1265959		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1915		45		

SAMPLE DATA	Sample ID: LDW-SS503-045-D		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	wood debris
gravel	drab olive	slight petroleum	
sand (F M C)	brown rusty red	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/11/10 **Weather:** Overcast

Sampling Method: hand auger **Crew:** SR, RB

GRAB DATA	Location ID: LDW-SS503-E			
Latitude: 210394		Longitude: 1265938		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1926		41	Y	

SAMPLE DATA	Sample ID: LDW-SS503-041-E		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
(gravel) trace	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS503-F			
Latitude: 210398		Longitude: 1265959		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1936		45		

SAMPLE DATA	Sample ID: LDW-SS503-045-F		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none (H_2S) slight	
(gravel) trace	drab olive	slight petroleum	wood debris
sand (F M C)	(brown)	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: overcast

Sampling Method: hand auger Crew: SR, BB

GRAB DATA	Location ID: LDW-SS503-G			
Latitude: 210224		Longitude: 1265939		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1951		45		

SAMPLE DATA	Sample ID: LDW-SS503-045-G		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	trace shell fragments
(gravel) trace	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS503-H			
Latitude: 210276		Longitude: 1265967		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2003		45		

SAMPLE DATA	Sample ID: LDW-SS503-045-H		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
(clay) on bottom	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: light rain

Sampling Method: hand auger Crew: SR, BB

GRAB DATA	Location ID: LDW-SS529-A			
Latitude: 198832		Longitude: 1272479		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2056		45		

SAMPLE DATA	Sample ID: LDW-SS529-045-A		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	
gravel trace	drab olive	slight	
sand (F M C)	brown	moderate	
silt	gray	strong	
clay	black		
		H_2S slight	
		petroleum	
		other:	

GRAB DATA	Location ID: LDW-SS529-B			
Latitude: 198802		Longitude: 1272466		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2107		45		

SAMPLE DATA	Sample ID: LDW-SS529-045-B		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	
gravel slight	drab olive	slight	
sand (F M C)	brown	moderate	
silt	gray	strong	
clay	black		
		H_2S	
		petroleum	
		other: slight	

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/11/10 **Weather:** Light rain

Sampling Method: Hand auger **Crew:** SR, BB

GRAB DATA	Location ID: LDW-SS529-C			
Latitude: 199813		Longitude: 1272521		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2219		45		

SAMPLE DATA	Sample ID: LDW-SS529-045-C		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
(gravel)	drab olive	slight petroleum	
sand (F (M) C)	(brown)	moderate other:	
silt	(gray)	strong	
(clay)	black		

GRAB DATA	Location ID: LDW-SS529-G			
Latitude: 199766		Longitude: 1272533		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2231		29		

SAMPLE DATA	Sample ID: LDW-SS529-029-G		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
(gravel) lots	drab olive	slight petroleum	brick fragments
sand (F (M) C)	(brown)	moderate other:	
silt	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/11/10 Weather: Rain

Sampling Method: hand auger Crew: SR, BB

GRAB DATA	Location ID: LDW-SSS29-D			
Latitude: 198730		Longitude: 1272525		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2121		45		

SAMPLE DATA	Sample ID: LDW-SSS29-045-D		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none)	H_2S
(gravel)	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
(silt) trace	(gray)	strong	Shell fragments
clay	black		

GRAB DATA	Location ID: LDW-SSS29-F			
Latitude: 198697		Longitude: 1272549		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2133		45		

SAMPLE DATA	Sample ID: LDW-SSS29-045-F		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none)	H_2S
(gravel)	drab olive	slight	petroleum
sand (F M C)	(brown)	moderate	other:
(silt)	gray	strong	
clay	(black)		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/14/10 Weather: Light rain

Sampling Method: hand auger Crew: SR, BB

GRAB DATA	Location ID: LDW-SS529-H			
Latitude: 199750		Longitude: 1272510		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2157		45		

SAMPLE DATA	Sample ID: LDW-SS529-045-H		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	brick fragments
(gravel)	drab olive	slight petroleum	
sand (F M C) trace fine	brown	moderate other:	
silt	(gray)	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS529-E			
Latitude: 199730		Longitude: 1272552		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2208		32		

SAMPLE DATA	Sample ID: LDW-SS529-032-E		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	brick fragments
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
silt	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: hand sampling Crew: BB, RB, CL

GRAB DATA	Location ID: LDW-SS531-A			
Latitude: 199353		Longitude: 1272320		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2057		7		Sample lost
				recollected 01/13/10

SAMPLE DATA	Sample ID: LDW-SS531-007-A		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS531-B			
Latitude: 199356		Longitude: 1272373		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2104		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-B		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	Shell fragments
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: hand sampling Crew: CL, BB, RB

GRAB DATA	Location ID: LDW-SS531-C			
Latitude: 198292		Longitude: 1272406		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2045		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-C		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS531-D			
Latitude: 199310		Longitude: 1272418		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2050		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-D		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
(cobble)	brown surface	(none) H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	(brown) w/ orange	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: hand sampling Crew: RB, CL, BB

GRAB DATA	Location ID: LDW-SS531-F			
Latitude: 198270		Longitude: 1272415		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2110		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-F		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS531-H			
Latitude: 198254		Longitude: 1272500		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2115		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-H		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
(cobble)	brown surface	(none) H_2S	glass
gravel	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
silt	(gray) orange	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: hand sampling Crew: BB, RB, CL

GRAB DATA	Location ID: LDW-SS531-G			
Latitude: 198223		Longitude: 1272466		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2030		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-G		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	organic matter
gravel	drab olive	slight petroleum	plant material
sand (F M C)	brown	moderate other:	
(silt)	(gray) some red	strong	
(clay)	black		

↳ iron staining

GRAB DATA	Location ID: LDW-SS531-E			
Latitude: 198279		Longitude: 1272426		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
2037		10		

SAMPLE DATA	Sample ID: LDW-SS531-010-E		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
(cobble)	(brown surface)	(none) H_2S	glass
gravel	drab olive	slight petroleum	
sand (F (M) (C))	brown	moderate other:	
silt	(gray)	strong	
clay	black		

gray and orange layers

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: auger Crew: BB, RB, CL

GRAB DATA	Location ID: LDW-SS533-C			
Latitude: 197530		Longitude: 1273228		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2200		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-C		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	Worm tubes
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS533-A			
Latitude: 197600		Longitude: 1273165		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2210		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-A		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown iron staining	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/12/10 **Weather:** partly cloudy

Sampling Method: auger **Crew:** CL, RB, BB

GRAB DATA	Location ID: LDW-SS533-B			
Latitude: 197627		Longitude: 1273167		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2217		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-B		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	(H_2S) mod
gravel	drab olive	slight	petroleum
sand (F M C) all	brown	moderate	other:
silt	gray	strong	plant debris
clay	black		

GRAB DATA	Location ID: LDW-SS533-F			
Latitude: 197465		Longitude: 1273291		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2227		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-F		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	piece of garbage
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: clear

Sampling Method: hand auger Crew: BB, RB, CL

GRAB DATA	Location ID: LDW-SS533-E			
Latitude: 197490		Longitude: 1273303		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2039		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-E		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS533-D			
Latitude: 197447		Longitude: 1273231		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2248		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-D		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	iron staining
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: cloudy

Sampling Method: auger and hand Crew: CL, RB, BB

GRAB DATA	Location ID: LDW-SS533-G			
Latitude: 197427		Longitude: 1273364		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2139		30		

SAMPLE DATA	Sample ID: LDW-SS533-030-G		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt)	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS533-H			
Latitude: 197439		Longitude: 1273337		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
2150		45		

SAMPLE DATA	Sample ID: LDW-SS533-045-H		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	(brown surface)	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
(silt)	(gray)	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: overcast

Sampling Method: hand sampling Crew: CL, BB, RB

GRAB DATA	Location ID: LDW-SS544-B			
Latitude: 1920104		Longitude: 1276374		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1947		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-B		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS544-A			
Latitude: 192114		Longitude: 1276311		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1957		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-A		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C) trace	brown	moderate / other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

Wind Ward environmental LLC

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling **Project no.:** 04-08-06-29

Date: 1/12/10 **Weather:** overcast, rain

Sampling Method: hand sampling **Crew:** BB, RB, CL

GRAB DATA	Location ID: LDW-SS544-D			
Latitude: 191963		Longitude: 1276376		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1932		10		

SAMPLE DATA	Sample ID: LDW-SS544-D10-D		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS544-C			
Latitude: 191994		Longitude: 1276333		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1938		10		

SAMPLE DATA	Sample ID: LDW-SS544-D10-C		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: Overcast, rain

Sampling Method: hand sampling Crew: RB, CL, RB

GRAB DATA	Location ID: LDW-SS544-E			
Latitude: 191886		Longitude: 1276331		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1914		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-E		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS544-F			
Latitude: 191914		Longitude: 1276385		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1926		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-F		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1/12/10 Weather: Rain, overcast

Sampling Method: hand sampling Crew: GL, RB, BB

GRAB DATA	Location ID: LDW-SS544-G			
Latitude: 191772		Longitude: 1276373		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1829		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-G		
Sediment type (%)	**Sediment color**	**Sediment odor**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: LDW-SS544-H			
Latitude: 191823		Longitude: 1276400		
Grab time	**Bottom depth (m)**	**Penetration depth (cm)**	**Acceptable grab (Y/N)**	**Comments:**
1907		10		

SAMPLE DATA	Sample ID: LDW-SS544-010-H		
Sediment type (%)	**Sediment color:**	**Sediment odor:**	**Comments:** (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	
gravel	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt	gray	strong	
clay	black		

SURFACE SOIL COLLECTION FORM

SURFACE SOIL COLLECTION FORM

Project Name: LDW Dioxin Surface Sediment Sampling Project no.: 04-08-06-29

Date: 1·13·2010 Weather: overcast, 50s

Sampling Method: hand collected Crew: SR, CL

GRAB DATA	Location ID: LDW-SS531			
Latitude: 1272319 E		Longitude: 198345 N		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1059	—	10	Y	Coordinates are approximate because GPS unit not functioning properly.

SAMPLE DATA	Sample ID: LDW-SS531-010-A		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	(none) H_2S	organic debris
(gravel)	drab olive	slight petroleum	
sand (F M C)	(brown)	moderate other:	
(silt) trace	gray	strong	
clay	black		

GRAB DATA	Location ID:			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:

SAMPLE DATA	Sample ID:		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

Beach Composite Sample Checklist

	Location ID	Targeted Depth	River Mile	Location Description	Beach Composite Subsamples A	B	C	D	E	F	G	H
	Beach Composite Samples											
1/11/10	LDW-SS502	0 to 10 cm	0.1 west	Swale area between where the mud starts and where the beach begins	10	→	→	→	→	→	→	→
1/11/10	LDW-SS503	0 to 45 cm	0.1 west	Beach area as far south as RM 0.2	45	41 ~~AB~~	37 ~~AB~~	45	41	45	45	45
1/11/10	LDW-SS529	0 to 45 cm	2.75 east	Entire beach identified on Map 1, plus an additional beach area immediately to the south	45	45	45	45	32	45	29	45
	LDW-SS531	0 to 10 cm	2.8 wets	Park area excluding gravel placement area in the vicinity of the stairs	07	10	→	→	→	→	→	→
	LDW-SS533	0 to 45 cm	3.0 west	Duwamish Waterway Park and the area immediately to the south	45	45	45	45	45	45	30	45
	LDW-SS544	0 to 10 cm	4.5 west	Beach area north of riprap	10	→	→	→	→	→	10 1829	10

Jar Requirements for each subsample

1 16-oz jar: sediment for compositing by ARI
1 8-oz jar: archive

Note - no lab QC samples, field duplicates, or rinsate blanks are needed

1 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2783

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: DAB, SR

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: Courier
Form filled out by: Marina Mitchell

Shipping Date: 12/17/09
Airbill Number: NA
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): Grain Size (PSEP)	TOC and % Solids	16 oz. archive	8 oz. EPA split archive				Comments / Instructions [Jar tag number(s)]
12/15/09	1945	LDW-SS508-010	4	Sediment	X	X	X	X				
	2030	LDW-SS523-010	4		X	X	X	X				
	2030	LDW-SS601-010	~~3~~ 4 mom 12.17.09		X	X	X	X②				xtra volume for GS QC
	2123	LDW-SS530-010	4		X	X	X	X				
	2200	LDW-SS509-010	4		X	X	X	X				
12/16/09	1139	LDW-SS501-010	3		X	X		X				
	1250	LDW-SS504-010	3		X	X		X				
	0813	LDW-SS505-010	3		X	X		X				
	①~~1313~~	LDW-SS506-010	3		X	X		X				①1312 mom 12.17.09
	1334	LDW-SS507-010	3		X	X		X				
	1402	LDW-SS510-010	3		X	X		X				
	1417	LDW-SS512-010	3		X	X		X				
	~~11~~	**Total Number of Containers**		Purchase Order / Statement of Work #								

1) Released by: mom 12.16.09	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell		Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 12.17.09 @ 1408	Date/Time: 12/17/09 1527	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

②8oz. archive NOT collected for LDW-SS601-010 mom 12.17.09

2 of 2 GB019

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 2785

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, SK, MY, RB

Ship to: ARI
Attn: Sue Dunnihoo
Shipper:
Form filled out by: Marina Mitchell

Shipping Date: 12/17/09
Airbill Number: n/a
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): Grain Size (PSEP)	TOC % solids	16 oz. archive	8 oz. EPA Split archive				Comments / Instructions [Jar tag number(s)]
12/16/09	1431	LDW-SS514-010	3	Sediment	X	X		X				
	1053	LDW-SS515-010	3		X	X		X				
	1506	LDW-SS516-010	3		X	X		X				
	1521	LDW-SS517-010	3		X	X		X				
	1537	LDW-SS518-010	3		X	X		X				
	1453	LDW-SS519-010	3		X	X		X				
	1551	LDW-SS521-010	3		X	X		X				
	1616	LDW-SS522-010	3		X	X		X				
	1015	LDW-SS525-010	4		X	X	X	X				
	0940	LDW-SS526-010	4		X	X	X	X				
	0912	LDW-SS528-010	3		X	X		X				
↓	1334	LDW-SS602-010	4	↓	X	X						X- Xtra volume for grain size (GS) QC
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell		Print name:	
Signature:	Company: ART	Signature:	Company:
Company: Windward		Company:	
Date/Time: 12/17/09 @1408	Date/Time: 12/17/09 1527	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

1 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2790

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, RB, MY

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: courier-hand
Form filled out by: Marina Mitchell

Shipping Date: 12/18/09
Airbill Number: n/a
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): Grain Size (PSEP)	TOC and % solids	8 oz. EPA Split and Archive	1L 8 oz. archive				Comments / Instructions [Jar tag number(s)]
12/17/09	1421	LDW-SS511-010	3	Sediment	X	X	X					
	1410	LDW-SS513-010	3		X	X	X					
	0751	LDW-SS524-010	3		X	X	X					
	0817	LDW-SS527-010	4		X	X	X	X				
	0843	LDW-SS532-010	3		X	X	X					
	0856	LDW-SS534-010	3		X	X	X					
	0929	LDW-SS535-010	3		X	X	X					
	0944	LDW-SS536-010	3		X	X	X					
	1007	LDW-SS537-010	3		X	X	X					
	1020	LDW-SS538-010	3		X	X	X					
	1037	LDW-SS539-010	3		X	X	X					
	1105	LDW-SS540-010	3		X	X	X					
		Total Number of Containers			Purchase Order / Statement of Work #							

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	Nikka Mulumba	Print name:	
Signature:		Signature:	
Company: Windward	Company: ARI	Company:	Company:
Date/Time: 12/18/09 @ 1337	Date/Time: 12/19/09 1450	Date/Time:	Date/Time:

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

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

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

2 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2433

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, RB, MY

Ship to: ARI
Attn: Sue Dunnihoo
Shipping Date: 12/18/09
Shipper: Windward by hand
Airbill Number: n/a
Form filled out by: Marina Mitchell
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): Grain Size (PSEP)	TOC & % solids	8oz. EPA split archive	16 oz. archive	SVOCs (8270)	PCBs (8082)	Metals (6020/7471A)	Comments / Instructions [Jar tag number(s)]
12/17/09	1339	LDW-SS541-010	3	Sediment	X	X	X					
	1326	LDW-SS542-010	3		X	X	X					
	1307	LDW-SS543-010	3		X	X	X					
	1252	LDW-SS545-010	3		X	X	X					
	1210	LDW-SS546-010	3		X	X	X					
	1235	LDW-SS547-010	4		X	X	X	X				HOLD until further notice
	0817	LDW-SS603-010	3		X	X	X①	X				
	0810	~~LDW-SS603-RB~~	4	WATER					X	X	X	
		LDW-SS527-RB										
		MSM 12-21-09										
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	Mikka Nulumba	Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 12/18/09 @ 1337	Date/Time: 12/18/09 1450	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

① An 8-oz. EPA split jar was not collected for LDW-SS603-010 MSM 12-18-09

1 of 5 QF68

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2793

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BHB, SRC, RB

Ship to: ARI 14 mcm 1.13.10
Attn: Sue Dunnihoo
Shipping Date: 1-13-2010
Shipper: courier
Airbill Number: n/a
Form filled out by: Marina Mitchell
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): Grain Size (PSEP)	TOC and % Solids	Dioxins @ AXYS	EPA 8oz. Split Analysis	16 oz. Chemistry archive	8 oz. Chemistry archive	16 oz for Compositing	Comments / Instructions [Jar tag number(s)]
1/11/10	0920	LDW-SS547-010	① 5 8	Sediment	X	X	X	X	X			Compositing
	1003	LDW-SS520-010	② 5 4		X	X	X	X	X	②		instructions to
	1704	LDW-SS502-010-A	2							X	X	follow - refrigerate
	1716	LDW-SS502-010-B	2							X	X	"16 oz. for compositing"
	1725	LDW-SS502-010-C	2							X	X	jars in interim.
	1734	LDW-SS502-010-D	2							X	X	
	1743	LDW-SS502-010-E	2							X	X	Archive the following
	1750	LDW-SS502-010-F	2							X	X	jars Frozen:
	1759	LDW-SS502-010-G	2							X	X	"Dioxins @ AXYS"
	1805	LDW-SS502-010-H	2							X	X	"EPA 8oz. Split"
	1828	LDW-SS503-045-A	2							X	X	"8 oz. chemistry archive"
	1847	LDW-SS503-041-B	2							X	X	"16 oz. Chemistry archive"
		Total Number of Containers	32	Purchase Order / Statement of Work #								mcm 1.13.10

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Suzanne Replinger	J. Peterson	Print name:	
Signature:		Signature:	
Company: Windward	ARI	Company:	Company:
Date/Time: 1.14.2010/1150	Date/Time: 1/14/10 1315	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

① Triplicate volume for Grain Size and duplicate volume for chemistry archive provided for lab QC. mcm 1.14.10 ② No 16 oz. chemistry archive for LDW-SS520-010. mcm 1.14.10

100808-26-10

2 of 5

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2369

Project/Client Name: Windward Environmental
Project Number: LDW-Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, SR, RB

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: Courier
Form filled out by: Marina Mitchell

Shipping Date: 1-14-2010
Airbill Number: n/a
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): 8 oz. archive	16 oz. for Compositing						Comments / Instructions [Jar tag number(s)]
1/11/10	1907	LDW-SS503-037-C	2	Sediment	X	X						Additional analytical instructions to follow under Seperate Cover, MRM 1-13-10
	1915	LDW-SS503-045-D			X	X						
	1926	LDW-SS503-041-E			X	X						
	1936	LDW-SS503-045-F			X	X						
	1951	LDW-SS503-045-G			X	X						
	2003	LDW-SS503-045-H			X	X						
	2056	LDW-SS529-045-A			X	X						
	2107	LDW-SS529-045-B			X	X						
	2219	LDW-SS529-045-C			X	X						
	2121	LDW-SS529-045-D			X	X						
	2208	LDW-SS529-032-E			X	X						
	2133	LDW-SS529-045-F			X	X						
		Total Number of Containers	24	Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Suzanne Replinger	J. Peterson	Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 1·14·2010/ 1150	Date/Time: 1/14/10 1315	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

3 of 5

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2795

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, SR, RB

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: courier
Form filled out by: Marina Mitchell

Shipping Date: 1-14-10
Airbill Number: n/a
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) 8 oz. Archive	16 oz. for Compositing						Comments / Instructions [Jar tag number(s)]
1/11/10	2231	LDW-SS529-029-G	2	Sediment	X	X						
↓	2157	LDW-SS529_045-H			X	X						
1/13/10	1059	LDW-SS531-010-A			X	X						
1/12/10	2104	LDW-SS531-010-B			X	X						
	2045	LDW-SS531-010-C			X	X						
	2050	LDW-SS531-010-D			X	X						
	2037	LDW-SS531-010-E			X	X						
	2110	LDW-SS531-010-F			X	X						
	2030	LDW-SS531-010-G			X	X						
	2115	LDW-SS531-010-H			X	X						
	2210	LDW-SS533-045-A			X	X						
↓	2217	LDW-SS533-045-B	↓	↓	X	X						
		Total Number of Containers	24	Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Syranne Replinger	J. Peterson	Print name:	
Signature:		Signature:	
Company: Windward	ARI	Company:	Company:
Date/Time: 1-14-2010/1150	Date/Time: 1/14/10 1315	Date/Time:	Date/Time:

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

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

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

№ 2796

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, RB, SR

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: Courier
Form filled out by: Marina Mitchell

Shipping Date: 1-14-2010
Airbill Number: n/a
Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	8 oz. Archive	16 oz. for Compositing						Comments / Instructions [Jar tag number(s)]
1/12/10	2200	LDW-SS533-045-C	2	Sediment	X	X						
↓	2248	LDW-SS533-045-D	↓	↓	X	X						
	~~2039~~ ①	LDW-SS533-045-E			X	X						① time = 2239
	2227	LDW-SS533-045-F			X	X						
	2139	LDW-SS533-030-G			X	X						
	2150	LDW-SS533-045-H			X	X						
	1957	LDW-SS544-010-A			X	X						
	1947	LDW-SS544-010-B			X	X						
	1938	LDW-SS544-010-C			X	X						
	1932	LDW-SS544-010-D			X	X						
	1914	LDW-SS544-010-E			X	X						
↓	1926	LDW-SS544-010-F	↓	↓	X	X						
		Total Number of Containers	24	Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Suzanne Replinger	J. Peterson	Print name:	
Signature: [signature]	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 1.14.2010 / 1150	Date/Time: 1/14/10 1315	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

① 2239 MOM 1.14.10

QF92:00007

5 of 5

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2797

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BBB, RB, SR

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: Courier
Form filled out by: Marina Mitchell

Shipping Date: 1-14-2010
Airbill Number: n/a
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) 8 oz. Archive	16 oz. for Composite					Comments / Instructions [Jar tag number(s)]
~~1829~~ ①	1829	LDW-SS544-010-G	2	Sediment	+	+					
~~1907~~ ①	1907	LDW-SS544-010-H	2	↓	+	+					
		Total Number of Containers	4	Purchase Order / Statement of Work #							

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Suzanne Replinger	J. Peterson	Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward	Date/Time: 1/14/10 1315	Company:	
Date/Time: 1-14-2010/1150		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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

① Sample Collection Date is 1/12/10. more 1-13-10

GT-92 0008

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Windward Env, LLC	Phone:	Date: 1-18-10	Ice Present?
Client Contact: Marina Mitchell		No. of Coolers:	Cooler Temps:
Client Project Name: LDW Dioxin Sampling			
Client Project #:	Samplers:		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Dioxins (Axys)	EPA Splitter Freezedrable	TOC & Total Solids	PSEP Grainsize	Chemistry (Archive)	Extra			Notes/Comments
LDW-SS502-010-comp	1-15-10	14:10	Soil	5	1	1	1	1	1				
LDW-SS503-043-comp	1-15-10	15:30	Soil	5	1	1	1	1	1				
LDW-SS529-041-comp	1-15-10	17:20	Soil	5	1	1	1	1	1				
LDW-SS531-010-comp	1-18-10	10:45	Soil	5	1	1	1	1	1				
LDW-SS533-043-comp	1-18-10	11:58	Soil	5	1	1	1	1	1				
LDW-SS544-010-comp	1-18-10	13:12	Soil	8	1	1	1	3	1	1			

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature)	(Signature)	(Signature)	(Signature)
	Printed Name: Brian Reno	Printed Name: Jonathon Walther	Printed Name:	Printed Name:
	Company: ARI Labs	Company: ARI	Company:	Company:
	Date & Time: 1-18-10 & 13:35	Date & Time: 1/18/10 1339	Date & Time:	Date & Time:

4033

1 of 4

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2784

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, SR

Ship to: Axys Analytical
Attn: Angela Whetung
Shipper: FedEx
Form filled out by: Marina Mitchell

Shipping Date: 12/21/09
Airbill Number:
Turnaround requested: 6 weeks

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required): Dioxins and Furans by EPA 1613							Comments / Instructions [Jar tag number(s)]
12/15/09	1945	LDW-SS508-010	1	Sediment	X				L14065		-1	
	2030	LDW-SS523-010	1		X						-2	
	2123	LDW-SS530-010	1		X						-3	
	2200	LDW-SS509-010	1		X						-4	
12/16/09	1139	LDW-SS501-010	1		X						-5	
	1250	LDW-SS504-010	1		X						-6	
	0813	LDW-SS505-010	1		X						-7	
①	~~1313~~	LDW-SS506-010	1		X						-8	①1312 MCM 12/17/09
	1334	LDW-SS507-010	1		X						-9	
	1402	LDW-SS510-010	1		X						-10	
	1417	LDW-SS512-010	1		X						-11	
	1431	LDW-SS514-010	1		X						-12	
		Total Number of Containers	12	Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	WKO Cedar	Print name:	
Signature:	Company: Axys	Signature:	Company:
Company: Windward Env.		Company:	
Date/Time: 12/21/09 @ 11:00	Date/Time: 22/12/09 11:25	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

2 of 4

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2786

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BAB, SR, MY, RB

Ship to: Axys Analytical
Attn: Angie Shefting
Shipper: FedEx
Form filled out by: Marina Mitchell

Shipping Date: 12/21/09
Airbill Number:
Turnaround requested: 6 week

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxins and Furans by EPA 1613							Comments / Instructions [Jar tag number(s)]
12/16/09	1053	LDW-SS515-010	1	Sediment	X				LI40665-	13		
	1506	LDW-SS516-010	1		X					-14		
	1521	LDW-SS517-010	1		X					-15		
	1537	LDW-SS518-010	1		X					-16		
	1453	LDW-SS519-010	1		X					-17		
	1551	LDW-SS521-010	1		X					-18		
	1616	LDW-SS522-010	1		X					-19		
	1015	LDW-SS525-010	1		X					-20		
	0940	LDW-SS526-010	1		X					-21		
	0912	LDW-SS528-010	1		X					-22		
12/17/09	1421	LDW-SS511-010	1		X					-23		
	1410	LDW-SS513-010	1		X					-24		
		Total Number of Containers	12		Purchase Order / Statement of Work #							

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	WKO Cedar	Print name:	
Signature:	Company: Axys	Signature:	Company:
Company: Windward	Date/Time: 22/12/09 11:25	Company:	
Date/Time: 12/21/09 @ 11:00		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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

3 of 4

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2787

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BBB, RB, MM

Ship to: Axys Analytical
Attn: Angie Whetung
Shipper: Fed Ex
Form filled out by: Marina Mitchell

Shipping Date: 12/21/09
Airbill Number:
Turnaround requested: 6 wks

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dx/F EPA 1613							Comments / Instructions [Jar tag number(s)]
12/17/09	0751	LDW-SS524-010	1	Sediment	X			L40665-25				
	0817	LDW-SS527-010	1		X						-26	
	843	LDW-SS532-010	1		X						-27	
	856	LDW-SS534-010	1		X						-28	
	929	LDW-SS535-010	1		X						-29	
	944	LDW-SS536-010	1		X						-30	
	1007	LDW-SS537-010	1		X						-31	
	1020	LDW-SS538-010	1		X						-32	
	1037	LDW-SS539-010	1		X						-33	
	1105	LDW-SS540-010	1		X						-34	
	1339	LDW-SS541-010	1		X						-35	
	1326	LDW-SS542-010	1		X						-36	
	~~1307~~	**Total Number of Containers**	12		Purchase Order / Statement of Work #							

mem 12.17.09

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	WK & Cedar	Print name:	
Signature:		Signature:	
Company: Windward	Company: AXYS	Company:	Company:
Date/Time: 12/21/09 @ 11:00	Date/Time: 22/12/09 11:25	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:

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

4057

4 of 4

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2789

Project/Client Name: Windward Environmental
Project Number: LDW Dioxin Sampling
Contact Name: Marina Mitchell
Sampled By: BTB, MY, RB

Ship to: Axys Analytical
Attn: Angie Wheeling
Shipper: FedEx
Form filled out by: M. Mitchell

Shipping Date: 12/21/09
Airbill Number:
Turnaround requested: 6 wk

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)]
					Dioxins + Furans (EPA 1613)						
12/17/09	1307	LDW-SS543-010	1	Sediment	X					U4065-37	
↓	1252	LDW-SS545-010	1	↓	X					-38	
	1210	LDW-SS546-010	1		X					-39	
	1235	LDW-SS547-010	1		X					-40	
											Amount 12/18/09
		Total Number of Containers	4	Purchase Order / Statement of Work #							

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Marina Mitchell	Print name: WKA Cedar	Print name:	
Signature:	Company: AXYS	Signature:	Company:
Company: Windward		Company:	
Date/Time: 12/21/09 @ 11:00	Date/Time: 22/12/09 11:25	Date/Time:	Date/Time:

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

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

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

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 01/18/10

ANALYTICAL RESOURCES INCORPORATED

ARI Project: QF92

4033

Laboratory: AXYS
Lab Contact: Diane Lascniak
Lab Address: 2045 Mills Road W.
Sydney, BC V8L 3S8
Phone: 250-655-5800
Fax:

ARI Client: Windward Environmental, LLC
Project ID: LDW Dioxin Sampling
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: PSDDA
Special Instructions:

Requested Turn Around: **02/01/10**
Fax Results (Y/N): **Email**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
10-1102-QF92A	LDW-SS502-010-comp L14159-1	01/15/10 14:10	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1103-QF92B	LDW-SS503-043-comp -2	01/15/10 15:30	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1104-QF92C	LDW-SS529-041-comp -3	01/15/10 17:20	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1105-QF92D	LDW-SS531-010-comp -4	01/15/10 10:45	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1106-QF92E	LDW-SS533-043-comp -5	01/15/10 11:58	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1107-QF92F	LDW-SS544-010-comp -6	01/18/10 13:12	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1108-QF92G	LDW-SS547-010 -7	01/11/10 09:20	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					
10-1109-QF92H	LDW-SS520-010 -8	01/11/10 10:03	Sediment	1	Dioxins/Furans 8290 (Su
Special Instructions: None					

Carrier	fedEx	Airbill	7931 9301 9597	Date	1/19/2010
Relinquished by	Nikka Mulumba	Company	ARI	Date	1/19/2010	Time	1232
Received by	M. Mash	Company	AXYS	Date	20-JAN-10	Time	11:00