

APPENDIX C: COLLECTION FORMS, FIELD NOTES, AND LABORATORY FORMS

ATTACHMENT C-1: BENTHIC INVERTEBRATE AND SEDIMENT COLLECTION FORMS

ATTACHMENT C-2: FIELD NOTES

ATTACHMENT C-3: LABORATORY BENTHIC INVERTEBRATE WEIGHT FORMS

ATTACHMENT C-4: CORRECTIVE ACTION FORMS

Attachment C-1: Benthic Invertebrate and Sediment Collection Forms

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/12/04 Station: B1a
 Start/Stop time: 1045 / 1350 X: _____
 Sampling Method: _____ Y: _____
 Weather: Sunny, warm Sample ID: _____
 Crew: MW, TD, SP, HA oversight TG, JN

Subsample #: <u>1-5</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u> H ₂ S					
gravel	<u>gray</u>	slight petroleum					
<u>sand C M F</u>	black	moderate other:					
silt clay	<u>brown</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>6-10</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u> H ₂ S					
gravel	<u>gray</u>	slight petroleum					
<u>sand C M F</u>	black	moderate other:					
silt clay	<u>brown</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S					
gravel	gray	slight petroleum					
sand C M F	black	moderate other:					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

~~GRAND #4 LAA 47 ST. 324 LOWB 122 SP. 449 KESJCA~~

SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW Project no. _____
 Date: 8/13/04 Station: Bla
 Start/Stop time: 0830/0954 X: in notebook
 Sampling Method: _____ Y: _____
 Weather: sunny, warm Sample ID: _____
 Crew: MAN, TD, SP, MG (SAC) Brad (ecology)

Subsample #: <u>11-15</u>		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
<input checked="" type="checkbox"/> cobble	drab olive	<input checked="" type="checkbox"/> none	H ₂ S	A clay in 3 rd sample mostly sandy-silt in other plots			
<input type="checkbox"/> gravel	gray	slight	petroleum				
<input type="checkbox"/> sand C M F	<input checked="" type="checkbox"/> black	moderate	other:				
<input checked="" type="checkbox"/> silt clay	<input checked="" type="checkbox"/> brown	strong					
<input checked="" type="checkbox"/> organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
<input type="checkbox"/> cobble	drab olive	<input type="checkbox"/> none	H ₂ S				
<input type="checkbox"/> gravel	gray	slight	petroleum				
<input type="checkbox"/> sand C M F	black	moderate	other:				
<input type="checkbox"/> silt clay	brown	strong					
<input type="checkbox"/> organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
<input type="checkbox"/> cobble	drab olive	<input type="checkbox"/> none	H ₂ S				
<input type="checkbox"/> gravel	gray	slight	petroleum				
<input type="checkbox"/> sand C M F	black	moderate	other:				
<input type="checkbox"/> silt clay	brown	strong					
<input type="checkbox"/> organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 08-13-04 Station: B2a
 Start/Stop time: 1045 - 11300 X: note book
 Sampling Method: _____ Y: _____
 Weather: sunny warm Sample ID: _____
 Crew: MW/TD/SP Mg/SAC

Subsample #: <u>1-5</u> Sample depth: _____ Penetration depth _____ Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:	Comments:
cobble	drab olive	<u>none</u> H ₂ S	<i>Mucky! Especially at lowest sample. Evidence of mottles + gleys</i>
gravel	gray	slight petroleum	
<u>sand & MF</u>	<u>black</u>	moderate other:	
<u>silt clay</u>	<u>brown</u>	strong	
<u>organic matter</u>	brown surface	overwhelming	
Subsample #: <u>6-10</u> Sample depth: _____ Penetration depth _____ Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:	Comments:
cobble	drab olive	<u>none</u> H ₂ S	<i>Same as above</i>
gravel	gray	slight petroleum	
<u>sand C MF</u>	<u>black</u>	moderate other:	
<u>silt clay</u>	<u>brown</u>	strong	
<u>organic matter</u>	brown surface	overwhelming	
Subsample #: <u>11-15</u> Sample depth: _____ Penetration depth _____ Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:	Comments:
cobble	drab olive	<u>none</u> H ₂ S	<i>did not have enough time to collect tissue on this transect</i>
gravel	gray	slight petroleum	
<u>sand & MF</u>	<u>black</u>	moderate other:	
<u>silt clay</u>	<u>brown</u>	strong	
<u>organic matter</u>	brown surface	overwhelming	

@ lowest elevation sample, cl. bits of wood

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW

Project no. _____

Date: 8/26/04

Station: 334

Start/Stop time: 0050 -

Sampling Method: _____

Weather: _____

Sample ID: _____

Crew: AK, TD, SP, Kevin Li (KC), SMC

Subsample #: <u>1-18</u>		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>ALONG MATS</u>			
gravel	<u>gray</u>	slight	petroleum				
<u>sand C M F</u>	black	moderate	other:				
<u>silt clay</u>	<u>brown</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: 8/14/04 Station: B49
 Start/Stop time: 1030-1300
 Sampling Method: _____ X: _____
 Weather: SUNNY Y: _____
 Crew: SP, PM, NA, MG Sample ID: _____

Subsample #: <u>1-5</u>		Sample depth: _____		Penetration depth: <u>10 cm</u>		Time: <u>1030-1300</u>	
Sampling gear: <u>PANNE, CONC</u>				Acceptable sample (circle)		yes no	
type:	color:	odor:				Comments:	
cobble	drab olive	none		H ₂ S		TOP OF TRANSECT GRAVELLY W/ LOT OF ORG. MATTER BOTTOM OF TRANSECT MUDDY	
<u>gravel</u>	gray <u>bottom</u>	slight		petroleum			
<u>sand C M F</u>	black	moderate		other:			
<u>silt clay</u>	<u>brown</u> <u>TOP</u>	strong					
<u>organic matter</u>	brown surface	overwhelming					
Subsample #: <u>6-10</u>		Sample depth: _____		Penetration depth: <u>10 cm</u>		Time: <u>1030-1300</u>	
Sampling gear: <u>PANNE, CO</u>				Acceptable sample (circle)		yes no	
type:	color:	odor:				Comments:	
cobble	drab olive	none		H ₂ S		TRANSECT "MUDDY" THROUGHOUT BUT ONLY SOFT AT THE BOTTOM	
<u>gravel</u>	gray	slight		petroleum			
<u>sand C M F</u>	black	moderate		other:			
<u>silt clay</u>	<u>brown</u>	strong					
<u>organic matter</u>	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____				Acceptable sample (circle)		yes no	
type:	color:	odor:				Comments:	
cobble	drab olive	none		H ₂ S			
gravel	gray	slight		petroleum			
sand C M F	black	moderate		other:			
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: 8/15/04 Station: B4a
 Start/Stop time: 930 - 1045 X: _____
 Sampling Method: _____ Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: CH, JF, TD, VLR

Subsample #: <u>11-15</u> Sample depth: _____ Penetration depth: <u>10cm</u> Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
Sampling gear: <u>PUMPE</u>			
type:	color:	odor:	Comments:
cobble	drab olive	none	TOP OF MANDREL WAS ORGANELY SAND BOTTOM SOFT SILTY ORGANIC SWIMMERS W/ SLIGHT ODOOR
<u>gravel</u>	<u>gray</u>	<u>slight</u>	
<u>sand C M F</u>	<u>black</u> bottom	moderate	
<u>silt clay</u>	<u>brown</u> TOP	strong	
<u>organic matter</u>	brown surface	overwhelming	
Subsample #: _____ Sample depth: _____ Penetration depth: _____ Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
Sampling gear: _____			
type:	color:	odor:	Comments:
cobble	drab olive	none	
gravel	gray	slight	
sand C M F	black	moderate	
silt clay	brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: _____ Sample depth: _____ Penetration depth: _____ Time: _____		Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
Sampling gear: _____			
type:	color:	odor:	Comments:
cobble	drab olive	none	
gravel	gray	slight	
sand C M F	black	moderate	
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: ADW Station: _____
 Start/Stop time: 9/24/04 X: BSa
720 - 1120 Y: _____
 Sampling Method: _____
 Weather: CLOUDY Sample ID: _____
 Crew: AK, TD, DP, BC, VHA

Subsample #: <u>1-30</u>		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none <u>SOME</u> H ₂ S					
gravel	gray	slight <u>OF RC</u> petroleum					
sand C M F	black <u>BOTTOM</u>	moderate <u>PHOSPH</u> other:					
silt clay	brown <u>SURFACE</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S					
gravel	gray	slight petroleum					
sand C M F	black	moderate other:					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S					
gravel	gray	slight petroleum					
sand C M F	black	moderate other:					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: 8/15/04 Station: B6a
 Start/Stop time: 1055 - 1315 X: _____
 Sampling Method: _____ Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: CH, JK, TD, WA

Subsample #: <u>1-5</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S		Comments:	
<u>gravel</u>	drab olive	<u>none</u>		petroleum		BOTTOM OK TRANSFER ORGANIC - LARGE CLONED BLOCK/BANK TOP SOFT SILTY SAND	
<u>sand C M F</u>	<u>gray</u>	slight		other:			
<u>silt clay</u>	<u>black</u> <u>bottom</u>	moderate					
organic matter	<u>brown</u> <u>top</u>	strong					
	brown surface	overwhelming					
Subsample #: <u>6-10</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S		Comments:	
<u>gravel</u>	drab olive	<u>none</u>		petroleum		AS 1-5	
<u>sand C M F</u>	<u>gray</u>	slight		other:			
<u>silt clay</u>	<u>black</u>	moderate					
organic matter	<u>brown</u>	strong					
	brown surface	overwhelming					
Subsample #: <u>11-15</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S		Comments:	
<u>gravel</u>	drab olive	<u>none</u>		petroleum		AS 1-5	
<u>sand C M F</u>	<u>gray</u>	slight		other:			
<u>silt clay</u>	<u>black</u>	moderate					
organic matter	<u>brown</u>	strong					
	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDN Bathing Project no. 04-08-06-21
 Date: 08-30-04 Station: B7a
 Start/Stop time: 1000 - 1400 X: _____
 Sampling Method: _____ Y: _____
 Weather: _____ Sample ID: _____
 Crew: TD, MW, FM

Subsample #: <u>1-10</u>		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	↑ gravel close to riprap v. mucky etc.			
gravel	gray	slight	petroleum				
<u>sand C M F</u>	<u>black</u>	moderate	other:				
silt clay	<u>brown</u>	strong					
<u>organic matter</u>	<u>brown surface</u>	overwhelming					
Subsample #: <u>10-10</u>		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<i>Same</i>			
gravel	gray	slight	petroleum				
<u>sand C M F</u>	<u>black</u>	moderate	other:				
silt clay	<u>brown</u>	strong					
<u>organic matter</u>	<u>brown surface</u>	overwhelming					
Subsample #: <u>11-15</u>		Sample depth: _____		Penetration depth _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<i>Same</i>			
gravel	gray	slight	petroleum				
<u>sand C M F</u>	<u>black</u>	moderate	other:				
silt clay	<u>brown</u>	strong					
<u>organic matter</u>	<u>brown surface</u>	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: 8/17/2004 Station: BCA-3, B8a
 Start/Stop time: _____ X: _____
 Sampling Method: Benthic Community Y: _____
 Weather: _____ Sample ID: _____
 Crew: Partly cloudy, sunshine, warm 80s
A Rodriguez, S. Pierce, Mary Ann Welsh

Subsample #: <u>BCA-3</u>		Sample depth: <u>10 cm</u>		Penetration depth: <u>10 cm</u>		Time: <u>11:00 am</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	Highest frame had greater % of gravel than sand			
<u>gravel</u>	gray	slight	petroleum				
<u>sand C M F</u>	black	moderate	other:				
silt clay	<u>brown</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>B8a</u>		Sample depth: <u>10 cm</u>		Penetration depth: _____		Time: <u>12:15</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	Very soft muddy sediment Dark black oily substance with strong odor at 2nd transect highest frame			
gravel	gray	slight	<u>petroleum</u>				
sand C M F	black	moderate	other:				
<u>silt clay</u>	<u>brown</u>	strong					
<u>organic matter</u>	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Benthic Project no. 04-08-06-21
 Date: 08-27-04 Station: LDW-B9a
 Start/Stop time: ~0800-1200 X: _____
 Sampling Method: Field tissue collection + sediment Y: _____
 Weather: overcast Sample ID: LDW-B9a-T
 Crew: MW, MGL, BB, Maureen

Subsample #: <u>1-5</u> Sample depth: _____ Penetration depth: _____ Time: _____		Acceptable sample (circle) yes no	
Sampling gear:			
type:	color:	odor:	Comments:
cobble	<u>drab olive</u>	<u>none</u>	clay content was higher up higher on beach. Lowest samples had high sand content. V. little debris. Fairly homogenous matrix.
gravel	gray	slight	
<u>sand (M F)</u>	black	moderate	
<u>silt clay</u>	brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>6-10</u> Sample depth: _____ Penetration depth: _____ Time: _____		Acceptable sample (circle) yes no	
Sampling gear:			
type:	color:	odor:	Comments:
cobble	<u>drab olive</u>	<u>none</u>	Same
gravel	gray	slight	
<u>sand (M F)</u>	black	moderate	
<u>silt clay</u>	brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>10-15</u> Sample depth: _____ Penetration depth: _____ Time: _____		Acceptable sample (circle) yes no	
Sampling gear:			
type:	color:	odor:	Comments:
cobble	<u>drab olive</u>	<u>none</u>	Same
gravel	gray	slight	
<u>sand (M F)</u>	black	moderate	
<u>silt clay</u>	brown	strong	
organic matter	brown surface	overwhelming	



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Benthic Invert Project no. 04-08-06-21
 Date: 8.25.04 Station: B10a
 Start/Stop time: 0710 - 0725 X: _____
 Sampling Method: by hand Y: _____
 Weather: overcast Sample ID: LDW-B10a-S
 Crew: Angelitas Tod, Shannon

Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: <u>250 ml glass beaker</u>						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S		Comments: <u>200 mL subsample taken from 15 frames on 3 transects</u>	
cobble	<u>drab olive</u>	<u>none</u>		petroleum			
gravel	gray	slight		other:			
<u>sand C M F</u>	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S			
cobble	drab olive	none		petroleum			
gravel	gray	slight		other:			
sand C M F	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:		H ₂ S			
cobble	drab olive	none		petroleum			
gravel	gray	slight		other:			
sand C M F	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/16/04 Station: BCA-1
 Start/Stop time: _____ X: _____
 Sampling Method: _____ Y: _____
 Weather: PARTLY CLOUDY Sample ID: _____
 Crew: TD, AM, HA

Subsample #: <u>1-5</u>		Sample depth: _____		Penetration depth: <u>10cm</u>		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none		SILTY SAND W/ LOTS OF WOOD DEBRIS BROWN OLD SULFATE TURNING BLACK A FEW CM DOWN. ODOUR AT UPPER PART OF TRANSECT.			
gravel	gray	slight					
sand C M F	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none					
gravel	gray	slight					
sand C M F	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none					
gravel	gray	slight					
sand C M F	black	moderate					
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 9/27/04 Station: 31b
 Start/Stop time: _____ X: _____
 Sampling Method: _____ Y: _____
 Weather: _____ Sample ID: _____
 Crew: _____

Subsample #: <u>7</u> Sample depth: <u>50</u> Penetration depth: <u>7.5</u> Time: <u>0945</u>		Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:	Comments:
cobble	drab olive	none H ₂ S	T 47 34. 068 122 20. 933
gravel	gray	slight petroleum	
sand C M F	black	moderate other:	
silt clay	brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>8</u> Sample depth: <u>52</u> Penetration depth: _____ Time: <u>0955</u>		Acceptable sample (circle) yes <u>no</u>	
type:	color:	odor:	Comments:
cobble	drab olive	none H ₂ S	47 34. 070 122 20. 935
gravel	gray	slight petroleum	
sand C M F	black	moderate other:	
silt clay	brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>9</u> Sample depth: <u>50-2</u> Penetration depth: <u>5 1/2, 7 1/2</u> Time: <u>1000</u>		Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:	Comments:
cobble	drab olive	<u>none</u> H ₂ S	T+C 47 34. 070 122 20. 930
gravel	<u>gray</u>	slight petroleum	
sand C M F	black	moderate other:	
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

HAD TO MOVE OUT INTO BR4 DUE TO
 WIND RECESS BOTTOM

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 9/27/09 Station: B1b
 Start/Stop time: _____ X: _____
 Sampling Method: VAN UCON Y: _____
 Weather: CLOUDY Sample ID: _____
 Crew: RC, DP, WA, MOGSON

Subsample #: <u>10</u>		Sample depth: <u>51</u>		Penetration depth: <u>63.72</u>		Time: <u>1015</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:		color:		odor:		Comments:	
cobble		drab olive		none		H ₂ S petroleum other: 47 34.070 122 20.928 T7C	
<u>gravel</u>		<u>gray</u>		slight			
<u>sand C M F</u>		black		moderate			
silt clay		brown		strong			
organic matter		brown surface		overwhelming			
Subsample #: <u>11</u>		Sample depth: <u>51</u>		Penetration depth: _____		Time: <u>1040</u>	
Sampling gear:						Acceptable sample (circle) yes <u>no</u>	
type:		color:		odor:		Comments:	
cobble		drab olive		none		H ₂ S petroleum other: 47 34.070 122 20.932	
gravel		gray		slight			
sand C M F		black		moderate			
silt clay		brown		strong			
organic matter		brown surface		overwhelming			
Subsample #: <u>12</u>		Sample depth: <u>51</u>		Penetration depth: <u>9.6</u>		Time: <u>1043</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:		color:		odor:		Comments:	
cobble		drab olive		none		H ₂ S petroleum other: 47 34.070 122 20.936 T7C	
<u>gravel</u>		<u>gray</u>		slight			
<u>sand C M F</u>		black		moderate			
silt clay		brown		strong			
organic matter		brown surface		overwhelming			



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 9/27/04 Station: B2b
 Start/Stop time: 1330 X: _____
 Sampling Method: VAV VLOW Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: RC, DP, YA, MOLLERSON

Subsample #: <u>1</u>		Sample depth: <u>40</u>		Penetration depth: <u>6, 8</u>		Time: <u>1330</u>		
Sampling gear:						Acceptable sample (circle) <u>yes</u> no		
type:	color:	odor:		Comments:				
cobble	drab olive	none		TTC 47 33.456 122 20,647				
gravel	gray	slight						H ₂ S
sand C M F	black	moderate						petroleum
silt clay	brown	strong						other:
organic matter	brown surface	overwhelming						
Subsample #: <u>2</u>		Sample depth: <u>42</u>		Penetration depth: <u>7.5, 9</u>		Time: <u>1357</u>		
Sampling gear:						Acceptable sample (circle) <u>yes</u> no		
type:	color:	odor:		Comments:				
cobble	drab olive	none		TTC 47 33.454 122 20.649				
gravel	gray	slight						H ₂ S
sand C M F	black	moderate						petroleum
silt clay	brown	strong						other:
organic matter	brown surface	overwhelming						
Subsample #: <u>3</u>		Sample depth: <u>42</u>		Penetration depth: _____		Time: <u>1415</u>		
Sampling gear:						Acceptable sample (circle) <u>yes</u> <u>no</u>		
type:	color:	odor:		Comments:				
cobble	drab olive	none		47 33.448 122 20.648				
gravel	gray	slight						H ₂ S
sand C M F	black	moderate						petroleum
silt clay	brown	strong						other:
organic matter	brown surface	overwhelming						

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 9/27/09 Station: B2b
 Start/Stop time: 1330 X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BC, DP, WA, MORSON

Subsample #: <u>4</u>		Sample depth: <u>52</u>		Penetration depth: <u>7.5, 6</u>		Time: <u>1420</u>	
Sampling gear:		<u>42 WA</u>		Acceptable sample (circle)		yes <input checked="" type="radio"/> no	
type:	color:	odor:	Comments:				
cobble	drab olive	none	H ₂ S	T+C 47.33.455 122.20.649			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>5</u>		Sample depth: <u>43</u>		Penetration depth:		Time: <u>1445</u>	
Sampling gear:				Acceptable sample (circle)		yes <input checked="" type="radio"/> no	
type:	color:	odor:	Comments:				
cobble	drab olive	none	H ₂ S	47.33.456 122.20.645			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>6</u>		Sample depth: <u>41</u>		Penetration depth: <u>7.7cm</u>		Time: <u>1447</u>	
Sampling gear:				Acceptable sample (circle)		yes <input checked="" type="radio"/> no	
type:	color:	odor:	Comments:				
cobble	drab olive	none	H ₂ S	T+I 47.33.455 122.20.649			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/10/04 Station: B3b
 Start/Stop time: 1420 - 1540 X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: RU, SW, DP, HR

Subsample #: <u>4</u>		Sample depth: <u>1'</u>		Penetration depth: <u>9 cm</u>		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
type:		color:		odor:		Comments:	
<input checked="" type="checkbox"/> cobble		drab olive		<input checked="" type="checkbox"/> none		T	
<input checked="" type="checkbox"/> gravel		gray <u>soften</u>		slight			
<input checked="" type="checkbox"/> sand C M F		black		moderate			
silt clay		brown <u>TOP</u>		strong			
organic matter		brown surface		overwhelming			
type:		color:		odor:		Comments:	
<input checked="" type="checkbox"/> cobble		drab olive		<input checked="" type="checkbox"/> none		T+C	
<input checked="" type="checkbox"/> gravel		gray <u>soften</u>		slight			
<input checked="" type="checkbox"/> sand C M F		black		moderate			
silt clay		brown <u>TOP</u>		strong			
organic matter		brown surface		overwhelming			
type:		color:		odor:		Comments:	
<input type="checkbox"/> cobble		drab olive		<input type="checkbox"/> none			
<input type="checkbox"/> gravel		gray		slight			
<input type="checkbox"/> sand C M F		black		moderate			
silt clay		brown		strong			
organic matter		brown surface		overwhelming			



SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no.: _____
 Date: 8/17/04 Station: B36
 Start/Stop time: 1035 ~ 1245 X: _____
 Sampling Method: van Voo Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BGR, JN, TD, WA

Subsample #: <u>6</u>		Sample depth: <u>13-14'</u>		Penetration depth: <u>13.15m</u>		Time: <u>1035</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments: <u>TTC</u> <u>YT 33.378</u> <u>122 20.392</u>			
cobble	drab olive	<u>none</u>	H ₂ S				
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>7</u>		Sample depth: <u>13-14'</u>		Penetration depth: <u>12.8m</u>		Time: <u>1120</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments: <u>TTC</u> <u>YT 33.375</u> <u>122 20.390</u>			
cobble	drab olive	<u>none</u>	H ₂ S				
<u>gravel</u>	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>8</u>		Sample depth: <u>11-12'</u>		Penetration depth: <u>12.9m</u>		Time: <u>1150</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments: <u>TTC</u> <u>YT 33.376</u> <u>122 20.390</u>			
cobble	drab olive	<u>none</u>	H ₂ S				
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u> <u>bottom</u>	moderate	other:				
<u>silt clay</u>	<u>brown</u> <u>top</u>	strong					
organic matter	brown surface	overwhelming					

TTC
TD
BGR

TTC
TD
BGR



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 9/28/04 Station: R46
 Start/Stop time: _____ X: _____
 Sampling Method: VIA VEDW Y: _____
 Weather: CLOUDY Sample ID: _____
 Crew: BC, TD, WA

Subsample #: <u>1</u>		Sample depth: <u>16</u>		Penetration depth: <u>16.5, 17.5</u>		Time: <u>830</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	<u>T-C</u> <u>47 33.056</u> <u>122 20.375</u>			
gravel	<input checked="" type="radio"/> gray	slight	petroleum				
<input checked="" type="radio"/> sand C M(F)	<input checked="" type="radio"/> black	moderate	other:				
<input checked="" type="radio"/> silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>15</u>		Penetration depth: <u>14 1/2, 14</u>		Time: <u>900</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	<u>T-C</u> <u>47 33.056</u> <u>122 20.376</u>			
gravel	<input checked="" type="radio"/> gray	slight	petroleum				
<input checked="" type="radio"/> sand C M(F)	<input checked="" type="radio"/> black	moderate	other:				
<input checked="" type="radio"/> silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>14</u>		Penetration depth: <u>13 1/2, 14</u>		Time: <u>0930</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	<u>T-C</u> <u>47 33.057</u> <u>122 20.376</u>			
gravel	<input checked="" type="radio"/> gray	slight	petroleum				
<input checked="" type="radio"/> sand C M(F)	<input checked="" type="radio"/> black	moderate	other:				
<input checked="" type="radio"/> silt clay	brown	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: _____ Project no. _____
 Date: NDW Station: B5b
 Start/Stop time: 9/28/04 X: MOVED SLOWLY
 Sampling Method: U/V W/V CON Y: _____
 Weather: _____ Sample ID: OUT FROM SHORE DUE TO WAVE O/L WATER
 Crew: CE, TD, WA

Subsample #: <u>1</u>		Sample depth: <u>6</u>		Penetration depth: <u>12, 12</u>		Time: <u>1225</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:				Comments:	
cobble	drab olive	none	H ₂ S	T+C 47 32. 976 122 20. 328			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>6</u>		Penetration depth: <u>9, 6</u>		Time: <u>1245</u>	
Sampling gear: _____						Acceptable sample (circle) yes no	
type:	color:	odor:				Comments:	
cobble	drab olive	none	H ₂ S	T+C 47 32. 977 122 20. 329			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>8</u>		Penetration depth: <u>10, 10</u>		Time: <u>1300</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:				Comments:	
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 32. 976 122 20. 329			
gravel	<u>gray</u>	slight	petroleum				
<u>sand C M F</u>	<u>black</u>	moderate	other:				
silt clay	brown	strong	<u>SUBMIT</u>				
organic matter	brown surface	overwhelming	<u>SLOW</u>				

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/18/04 Station: B6b
 Start/Stop time: 1305 X: _____
 Sampling Method: Van Veen Y: _____
 Weather: Sunny Sample ID: _____
 Crew: BG, MG, AA, VA

Subsample #: <u>1</u>		Sample depth: <u>13 1/2'</u>		Penetration depth: <u>12, 13cm</u>		Time: <u>1315</u>	
Sampling gear:				Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no			
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	T+C 47 32. 455 122 19. PP2			
gravel	<u>gray</u>	<u>slight</u>	petroleum				
sand C M F	<u>black</u> <u>bottom</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>12'</u>		Penetration depth: <u>15, 15cm</u>		Time: <u>1353</u>	
Sampling gear:				Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no			
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	MC 47 32. 453 122 19. PP2			
gravel	<u>gray</u>	<u>slight</u>	petroleum				
sand C M F	<u>black</u> <u>bottom</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>13'</u>		Penetration depth: <u>15, 15</u>		Time: <u>1425</u>	
Sampling gear:				Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no			
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	T+C 47 32. 453 122 19. PP2			
gravel	<u>gray</u>	<u>slight</u>	petroleum				
sand C M F	<u>black</u> <u>bottom</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/13/04 Station: B7b
 Start/Stop time: 1100 - 1650 X: _____
 Sampling Method: _____ Y: _____
 Weather: SUNNY, BREEZY Sample ID: _____
 Crew: CH, BC, BC, LM

Subsample #: <u>1</u> Sample depth: <u>24-25'</u> Penetration depth: <u>10, 10m</u> Time: <u>1404</u>		Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
Sampling gear: _____		_____	
type:	color:	odor:	Comments:
cobble	drab olive	<input checked="" type="radio"/> none	TTC 47 32, 129 122 19, 466
gravel	<input checked="" type="radio"/> gray	slight	
<input checked="" type="radio"/> sand C M F	black	moderate	
<input checked="" type="radio"/> silt clay	<input checked="" type="radio"/> brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>2</u> Sample depth: <u>24-25'</u> Penetration depth: <u>13m</u> Time: <u>1441</u>		Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
Sampling gear: _____		_____	
type:	color:	odor:	Comments:
cobble	drab olive	<input checked="" type="radio"/> none	T 47 32, 129 122 19 470
gravel	<input checked="" type="radio"/> gray	slight	
<input checked="" type="radio"/> sand C M F	black	moderate	
<input checked="" type="radio"/> silt clay	<input checked="" type="radio"/> brown	strong	
organic matter	brown surface	overwhelming	
Subsample #: <u>3</u> Sample depth: <u>27-25'</u> Penetration depth: <u>13m</u> Time: <u>15-1550</u>		Acceptable sample (circle) <input type="radio"/> yes <input type="radio"/> no	
Sampling gear: _____		_____	
type:	color:	odor:	Comments:
cobble	drab olive	<input checked="" type="radio"/> none	TTC 47, 32, 130 122 19, 471
gravel	<input checked="" type="radio"/> gray	slight	
<input checked="" type="radio"/> sand C M F	black	moderate	
<input checked="" type="radio"/> silt clay	<input checked="" type="radio"/> brown	strong	
organic matter	brown surface	overwhelming	

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: P/13/04 Station: B7B
 Start/Stop time: 1400 - 1650 X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: CK, BC, BA, PA

Subsample #: <u>4</u>		Sample depth: <u>24-25</u>		Penetration depth: <u>11, 11 cm</u>		Time: <u>1555</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 32. 130 122 19. 466			
gravel	<u>gray</u>	slight	petroleum				
<u>sand C M F</u>	black	moderate	other:				
<u>silt clay</u>	<u>brown</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>5</u>		Sample depth: <u>26-28'</u>		Penetration depth: _____		Time: <u>1648</u>	
Sampling gear:						Acceptable sample (circle) yes <u>no</u>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	47 32. 134 122 19. 469			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>6</u>		Sample depth: <u>26-28'</u>		Penetration depth: <u>13+13 cm</u>		Time: <u>1650</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	T+T 47 32. 129 122 19. 473			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

only 2 core samples in BC.

SURFACE SEDIMENT COLLECTION FORM

Project Name: ADW Project no. _____
 Date: 12/25-16/30 Station: BFB
 Start/Stop time: _____ X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BO, CH, TD, WA

Subsample #: <u>1</u>		Sample depth: <u>4'</u>		Penetration depth: <u>15, 16cm</u>		Time: <u>1245</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 31, 134 122 18, 339 339 ALGAL OW TOP			
gravel	<u>gray</u>	slight	petroleum				
<u>sand</u> C M F	<u>black</u> bottom	moderate	other:				
<u>silt</u> clay	<u>brown</u> TOP	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>5'</u>		Penetration depth: <u>17, 15</u>		Time: <u>1315</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	ALGAL OW TOP F+C 47 31, 134 122 18, 338			
gravel	<u>gray</u>	slight	petroleum				
<u>sand</u> C M F	<u>black</u> bottom	moderate	other:				
<u>silt</u> clay	<u>brown</u> TOP	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>5'</u>		Penetration depth: <u>15, 14</u>		Time: <u>1355</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C ALGAL OW TOP 47 31, 135 122 18, 337			
gravel	<u>gray</u>	slight	petroleum				
<u>sand</u> C M F	<u>black</u> bottom	moderate	other:				
<u>silt</u> clay	<u>brown</u> TOP	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/13/04 Station: B9b
 Start/Stop time: _____ X: _____
 Sampling Method: _____ Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: CH, BA, BC, VA

Subsample #: <u>9</u>		Sample depth: <u>10-12'</u>		Penetration depth: <u>15 2/5 cm</u>		Time: <u>1:00</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 31. 326 122 18. 433			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u> <u>BOTTOM</u>	moderate	other:				
<u>silt clay</u>	<u>brown</u> <u>TOP</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>10</u>		Sample depth: <u>10-12'</u>		Penetration depth: <u>15 2/5 cm</u>		Time: <u>12:10</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 31. 326 122 18. 428			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u> <u>BOTTOM</u>	moderate	other:				
<u>silt clay</u>	<u>brown</u> <u>TOP</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>11</u>		Sample depth: <u>10-12'</u>		Penetration depth: <u>15 2/5 cm</u>		Time: <u>1:50</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	T+C 47 31. 326 122 18. 427			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u> <u>BOTTOM</u>	moderate	other:				
<u>silt clay</u>	<u>brown</u> <u>TOP</u>	strong					
organic matter	brown surface	overwhelming					

Project Name: LDW Project no. _____
 Date: 8/19/04 Station: B106
 Start/Stop time: 0835 - 1210 X: _____
 Sampling Method: _____ Y: _____
 Weather: Sunny Sample ID: _____
 Crew: JD, BA, CH, WA

Subsample #: <u>1</u>		Sample depth: <u>11'</u>		Penetration depth: <u>11.11m</u>		Time: <u>0835</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	CFT ALGAL LAYER ON TOP 47 30. 984 122 1P. 364			
gravel	gray	<input type="radio"/> slight	petroleum				
<input checked="" type="radio"/> sand C/M/F	black	<input type="radio"/> moderate	other:				
silt clay	<input checked="" type="radio"/> brown	<input type="radio"/> strong					
organic matter	brown surface	<input type="radio"/> overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>9.2'</u>		Penetration depth: <u>11.11m</u>		Time: <u>0905</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	CFT 47 30. 984 122 1P. 364 ALGAL ON TOP			
gravel	gray	<input type="radio"/> slight	petroleum				
<input checked="" type="radio"/> sand C/M/F	black	<input type="radio"/> moderate	other:				
silt clay	<input checked="" type="radio"/> brown	<input type="radio"/> strong					
organic matter	brown surface	<input type="radio"/> overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>7.2'</u>		Penetration depth: <u>10.11m</u>		Time: <u>0935</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<input checked="" type="radio"/> none	H ₂ S	ALGAL ON TOP JTC 47 30. 984 122 1P. 365			
gravel	gray	<input type="radio"/> slight	petroleum				
<input checked="" type="radio"/> sand C/M/F	black	<input type="radio"/> moderate	other:				
silt clay	<input checked="" type="radio"/> brown	<input type="radio"/> strong					
organic matter	brown surface	<input type="radio"/> overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/20/04 Station: BCA-2
 Start/Stop time: 1005 - 1140 X: _____
 Sampling Method: VAN VERN Y: _____
 Weather: SO WINDY Sample ID: _____
 Crew: BO, TD, WA

Subsample #: <u>1</u>		Sample depth: <u>39'</u>		Penetration depth: <u>17 cm</u>		Time: <u>1015</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	<u>C</u> <u>47 32. 747</u> <u>122 20. 233</u>			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u>	moderate	other:				
<u>silt clay</u>	brown	strong	<u>slight</u>				
organic matter	brown surface	overwhelming	<u>slight</u>				
Subsample #: <u>2</u>		Sample depth: <u>39'</u>		Penetration depth: <u>17 cm</u>		Time: <u>1040</u>	
Sampling gear:						Acceptable sample (circle) <u>yes</u> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	<u>C</u> <u>47 32. 747</u> <u>122 20. 233</u>			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>39'</u>		Penetration depth: _____		Time: <u>1105</u>	
Sampling gear:						Acceptable sample (circle) yes <u>no</u>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>47 32. 747</u> <u>122 20. 232</u>			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/20/04 Station: BCA-2
 Start/Stop time: 1005 - 1140 X: _____
 Sampling Method: Van Veen Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: RG, JD, MK

Subsample #: <u>4</u>		Sample depth: <u>30"</u>		Penetration depth: <u>12cm</u>		Time: <u>1115</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	<u>C</u> <u>47.52.744</u> <u>122 20.232</u>			
gravel	<u>gray</u>	slight	petroleum				
sand C M F	<u>black</u>	moderate	other:				
<u>silt clay</u>	brown	strong					
<u>organic matter</u>	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear:						Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear:						Acceptable sample (circle) <input type="checkbox"/> yes <input type="checkbox"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: ADW Project no. _____
 Date: 8/20/04 Station: BCA-4
 Start/Stop time: 1240 - 1400 X: _____
 Sampling Method: VAN VOOB Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: RG, TD, WA

Subsample #: <u>1</u>		Sample depth: <u>32'</u>		Penetration depth _____		Time: <u>1240</u>	
Sampling gear: _____						Acceptable sample (circle) yes <input type="radio"/> no <input checked="" type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	DREDGE IN THE DREDGE ALGA DISCARD SAMPLE 47 33.060 122 20.720			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>31'</u>		Penetration depth _____		Time: <u>1250</u>	
Sampling gear: _____						Acceptable sample (circle) yes <input type="radio"/> no <input checked="" type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	MOUND STRAIN TO BC OUTSIDE DREDGE ALGA 47 33.652 122 20.720 POLLS			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>30'</u>		Penetration depth _____		Time: <u>1255</u>	
Sampling gear: _____						Acceptable sample (circle) yes <input type="radio"/> no <input checked="" type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	47 33.650 122 20.722			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/20/04 Station: BCA-4
 Start/Stop time: 1240-1400 X: _____
 Sampling Method: VAN USOW Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BO, TD, WA

Subsample #: <u>4</u>		Sample depth: _____		Penetration depth: _____		Time: <u>1305</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> <input checked="" type="radio"/> <u>no</u> <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>ROCKS</u> <u>47.33.650</u> <u>122.20.724</u>			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>5</u>		Sample depth: <u>36'</u>		Penetration depth: <u>10cm</u>		Time: <u>1320</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> <input checked="" type="radio"/> <u>no</u> <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	<u>C</u> <u>47.33.640</u> <u>122.20.723</u>			
gravel	<u>gray</u>	<u>slight</u>	petroleum				
<u>sand C M F</u>	<u>black</u> <u>with</u>	moderate	other:				
silt clay	<u>brown</u> <u>PO</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>6</u>		Sample depth: <u>36'</u>		Penetration depth: <u>10cm</u>		Time: <u>1325</u>	
Sampling gear: _____						Acceptable sample (circle) <u>yes</u> <input checked="" type="radio"/> <u>no</u> <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	<u>none</u>	H ₂ S	<u>STICKY SAND TO SCOUR</u> <u>C</u> <u>47.33.640</u> <u>122.20.723</u>			
gravel	<u>gray</u>	<u>slight</u>	petroleum				
<u>sand C M F</u>	<u>black</u> <u>bottom</u>	moderate	other:				
silt clay	<u>brown</u> <u>PO</u>	strong	<u>WYDID CARBONS</u>				
organic matter	brown surface	overwhelming					

7 35' 10cm 1345
SAND C/M GRAY BOTTOM WYDID CARBONS C
BROWN PO WYDID CARBONS 47.33.641
122.20.722



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/17/04 Station: BCA-5
 Start/Stop time: 1700 X: _____
 Sampling Method: Van Veen Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BC, JN, TD, MK

Subsample #: <u>1</u>		Sample depth: <u>15'</u>		Penetration depth: <u>13cm</u>		Time: <u>1700</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>47 32.956</u> <u>122 20.329</u> <u>BEUTLE community</u> <u>SHADOW ONLY</u> <u>3 SINGLE REPS</u>			
gravel	gray	slight	petroleum				
sand C M F	<u>black</u>	<u>moderate</u>	other: <u>oil</u>				
<u>silt clay</u>	brown	strong	<u>SHREW</u>				
<u>organic matter</u>	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>16'</u>		Penetration depth: _____		Time: <u>1720</u>	
Sampling gear:						Acceptable sample (circle) yes <input checked="" type="radio"/> no <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>47 32.957</u> <u>122 20.328</u>			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>16'</u>		Penetration depth: <u>9cm</u>		Time: <u>1725</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	<u>47 32.957</u> <u>122 20.327</u>			
gravel	gray	slight	petroleum				
sand C M F	<u>black</u> <u>REST</u>	<u>moderate</u>	other: <u>oil</u>				
<u>silt clay</u>	<u>brown</u> <u>TOP</u>	strong	<u>SHREW</u>				
<u>organic matter</u>	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/17/04 Station: BCA 5
 Start/Stop time: 1700 - X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BA, DN, TO, HA

Subsample #: <u>4</u>		Sample depth: <u>18"</u>		Penetration depth: <u>11cm</u>		Time: <u>1740</u>	
Sampling gear: _____						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S	47.32, 957 122.20, 827			
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong	SEASON				
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear: _____						Acceptable sample (circle) <input type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/20/04 Station: BCA-6
 Start/Stop time: 0825 - 0940 X: _____
 Sampling Method: VAV VETW Y: _____
 Weather: SUNNY Sample ID: BOWTIE COMMUNITY ONLY
 Crew: RG, JD, HA

Subsample #: <u>1</u>		Sample depth: <u>9.3'</u>		Penetration depth: _____		Time: <u>0835</u>	
Sampling gear: _____				Acceptable sample (circle)		yes <input checked="" type="radio"/> no <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S		47 30. 734 122 1P. 279			
gravel	gray	slight petroleum					
sand <input checked="" type="radio"/> CMF	black	moderate other:					
silt clay	brown TOP	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>2</u>		Sample depth: <u>9'</u>		Penetration depth: <u>14 cm</u>		Time: <u>0845</u>	
Sampling gear: _____				Acceptable sample (circle)		yes <input checked="" type="radio"/> no <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S		C 47 30. 734 122 1P. 278			
gravel	gray	slight petroleum					
sand <input checked="" type="radio"/> CMF	black	moderate other:					
silt clay	brown TOP	strong					
organic matter	brown surface	overwhelming					
Subsample #: <u>3</u>		Sample depth: <u>6.3'</u>		Penetration depth: <u>7 cm</u>		Time: <u>09</u>	
Sampling gear: _____				Acceptable sample (circle)		yes <input checked="" type="radio"/> no <input type="radio"/>	
type:	color:	odor:		Comments:			
cobble	drab olive	none H ₂ S		C 47 30. 734 122 1P. 280			
gravel	gray	slight petroleum					
sand <input checked="" type="radio"/> CMF	black	moderate other:					
silt clay	brown TOP	strong					
organic matter	brown surface	overwhelming					



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW Project no. _____
 Date: 8/20/04 Station: BCA-6
 Start/Stop time: 0825 - 0940 X: _____
 Sampling Method: VAN VEEN Y: _____
 Weather: SUNNY Sample ID: _____
 Crew: BO, TD, VLR

Subsample #: <u>4</u>		Sample depth: <u>6'</u>		Penetration depth: <u>11cm</u>		Time: <u>0925</u>	
Sampling gear:						Acceptable sample (circle) <input checked="" type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments: <u>C</u> <u>47 30.734</u> <u>122. W. 280</u>			
cobble	drab olive	<u>none</u>	H ₂ S				
gravel	<u>gray</u>	slight	petroleum				
<u>sand C M F</u>	black	moderate	other:				
silt clay	<u>brown</u> <u>TOP</u>	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear:						Acceptable sample (circle) <input type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					
Subsample #: _____		Sample depth: _____		Penetration depth: _____		Time: _____	
Sampling gear:						Acceptable sample (circle) <input type="radio"/> yes <input type="radio"/> no	
type:	color:	odor:		Comments:			
cobble	drab olive	none	H ₂ S				
gravel	gray	slight	petroleum				
sand C M F	black	moderate	other:				
silt clay	brown	strong					
organic matter	brown surface	overwhelming					

Attachment C-2: Field Notes

2

H. ANDERSON
 CREW: BILL, JOHN, DAVID, WALTER
 OVERBOARD: TOM

8/10/04

~~THE~~

0800 MET AT THE BOAT ON PIC 66
 0830 LEFT AFTER TOM CAME
 ON BOARD. WAITING FOR SPARROW
 0905 ON SPARROW B/B STARTED W/
 CLEANING THE GLASS

STATION B15

DEPTH 4PI GRAB

47° 34.075 N 122° 20.944 W

PIC 1, 2, 3 - WORKING THE GLASS

PIC 3 - 1 GRAB DISCUS SAMPLE

C

Grab #2

10:10 am

47° 34.071 N 122° 20.944 W

REJECTED GRAB MATERIAL IN

THE JARRS

GRAB #3 10:25

T 47° 34.080 N 122° 20.944 W

C

3

H. ANDERSON

Grab #4 @ 11:11
 T 47° 34.968 N 122° 20.948 W
 C

Grab #5 @ 11:30
 T 47° 34.080 N 122° 20.936 W
 Discarded 1 grab - No sample

Grab #6 @ 11:46
 T 47° 34.074 N 122° 20.935 W
 C

Grab #7 @ 11:11
 T 47° 34.066 N 122° 20.942 W
 Rejected 1 jar didn't close
 little sed. in 2nd grab

Grab #8 @ 12:22
 T 47° 34.070 N 122° 20.943 W
 EMPTY - REJECT

GRAB 5 - ALL SIMILAR GRAIN
 SIZE - SANDY, GREY W/ ORGANIC
 DEBRIS AND SHELLS/ROCKS

GRAB 6 - VERY FINE SAND -
 COMPACT W/ VERY FEW ORGANICS
 VERY DENSE, OR SOME SILTY
 NO WATER DARK GREY

T Grab #9 @ 12:34
 47° 34.069 N 122° 20.952 W
 7.5 m deep 1 grab empty
 1 grab kept

T Grab #10 @ 12:58
 47° 34.071 N 122° 20.937 W
 1 bucket 5.5 m on OMO 7.5 m
 GLOB SAND w/ some silt
 ALGAE AND ORGANIC DEBRIS

Grab #11 @ 1:16
 47° 34.074 N 122° 20.949 W
 Rejected empty
 Material caught in jaws
 → Sea Star + Debris

T Grab #12 @ 1:27
 47° 34.072 N 122° 20.950 W
 1 Rejected - empty
 1 kept

Grab #13 @ 1:45
 47° 34.078 N 122° 20.959 W
 GLOB SAND P ~ 8.5 m

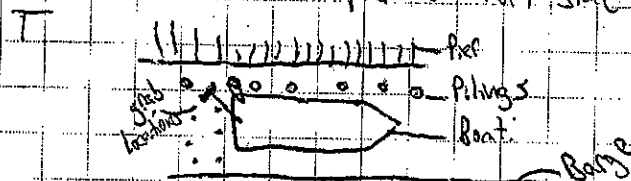
8/10/04

836 arrive @ 2:20 pm

U. M. ...
 W. ...

Grab #1
 47° 33.379 N 122° 20.387 W

b/t pier + Manson Barge
 Tied off to pier on Port side (SW)



7.5 m deep 1 grab empty (material in jaw)
 1 kept

Grab #2 @

47° 33.379 N 122° 20.387 W will always
 be same

T 7.5 m deep

GLOB SAND

SAND W/ LOW GLOB SAND

8 m deep

T 1 grab only after open

T 1 GLOB SAND
 9 m deep

6

T+C 8/10/04 U. Anderson
 bath OK
 10am & 10am

1540 LEFT STATION B3b
 GOT A TOTAL OK STRESSOR
 +1 BC sample + sediment
 substrate very sparsely
 w/ coarse sand and with
 lots of debris and rocks
 sheer

U. Anderson

7
8/17/04

825 LEFT 1ST Ave Lane
 CREW: BG, JN, TO, VA
 OVERLOOK DUSK WILLIAMS RC
 DID REST ON B3b ONCO
 AT 1010. DROPPED DEBRIS
 OFF AND WENT FOR B3b
 1225 LEFT B3b AND WENT TO
 B4b. AT
 1055 LEFT B4b AND WENT TO
 B5b

8/18/04

P00 med at 1st ave bank ramp
 crew: dloren, Jeff, Bill
 dferdin, chugie, jeth
 820 went to B5b
 1300 left B5b, had a break
 and went to B6b
 1705 OFF THE WATER

H. ANDERSEN

8/19/04

8/19/04

800 met at 1st ave beach
 ramp
 crew: CH, BO, TD, BG, HA
 Went to B10b and then
 RFB
 1645 finish and returned to
 1st ave

8/20/04

800 left 1st ave beach ramp
 crew: BG, TD, HA
 went to BCA-6
 825 left station
 740 left station
 1005 went to BCA 2
 1140 left BCA 2

H. ANDERSEN

8/25/04

8/25/04

CLAW SURVEY
 CREW: DP, BC, HA

500 MET AT 1ST AVE
 BOAT RAMP
 550 WENT TO BEACH C9
 STILL DARK. WAITED
 600 STARTED DIGGING @ C9
 650 DONE - 21 MYA Acanthia

SEDIMENT COARSE TO
 MEDIUM SAND. BROWN
 SURFACE, GRAY TO
 BLACK 20-25 cm DOWN
 SCATTERED ROCKS / GRANITE

700 Starts digging @ C6
 730 Done digging - 21 Mya Acanthia

Sediment coarse to medium sand.
 BROWN SURFACE GRAY TO
 BLACK AT 25-30 cm
 DENSER SEDIMENT. ANGLES
 W/ ROCKS AND GRANITE
 LEFT BEACH C6

750

V. ANDERSON

8/27/04

P 15

BEACH 9a

LANDED ON BEACH

CROW: AK, KG, KL, MA

WENT VASTRUM ON 1ST

TRANSACT JUST BELOW

CROWN SLIDE. UNDER 15 ~~FRAMES~~

AT BASE OF SLIDE APPROX

12 DOWN AND 1-2m BETWEEN

FRAMES

950

LEFT BEACH 9a

SEDIMENT: SILTY SAND W/

GRAVE BROWN SURFACE

BLACK JUST BELOW SURFACE

SHRUBS, SILTY

BEACH 5a

1003

LANDED

BOAT CORD

47 32.301 N

122 19. 192 W

DID 10 FRAMES ALONG

THE COAST OF THE WATER

CLOSE TO THE BOAT. SEDIMENT

CONSISTED OF MEDIUM SAND

V. ANDERSON

8/27/04

SURFACE UNDER OLY SAND

2-3 cm BELOW REDDISH

COLORED SEDIMENT

SILTY PART OF THE SEDIMENT

AT 5a AND THEN TOOK 2

KAWLS TO 9a WHILE WE

SITTING AT 2a

1225

LEFT 9a

BEACH 10a

ALL COULDS BY WATER

DROPPED UNDER MOUNTAIN

BEACH 10a

8/30/04

1145

SUNSHINE & 4000 WENT

TO THE BEACH. PLACED

10 FRAMES IN BETWEEN

DUE TO OF THE 4000'

TRANSACT WENT FROM

LOWER HW (MIN BEACH)

TO CROWN. SEDIMENT

FROM SILTY TO GRAVE

14

V. Anderson

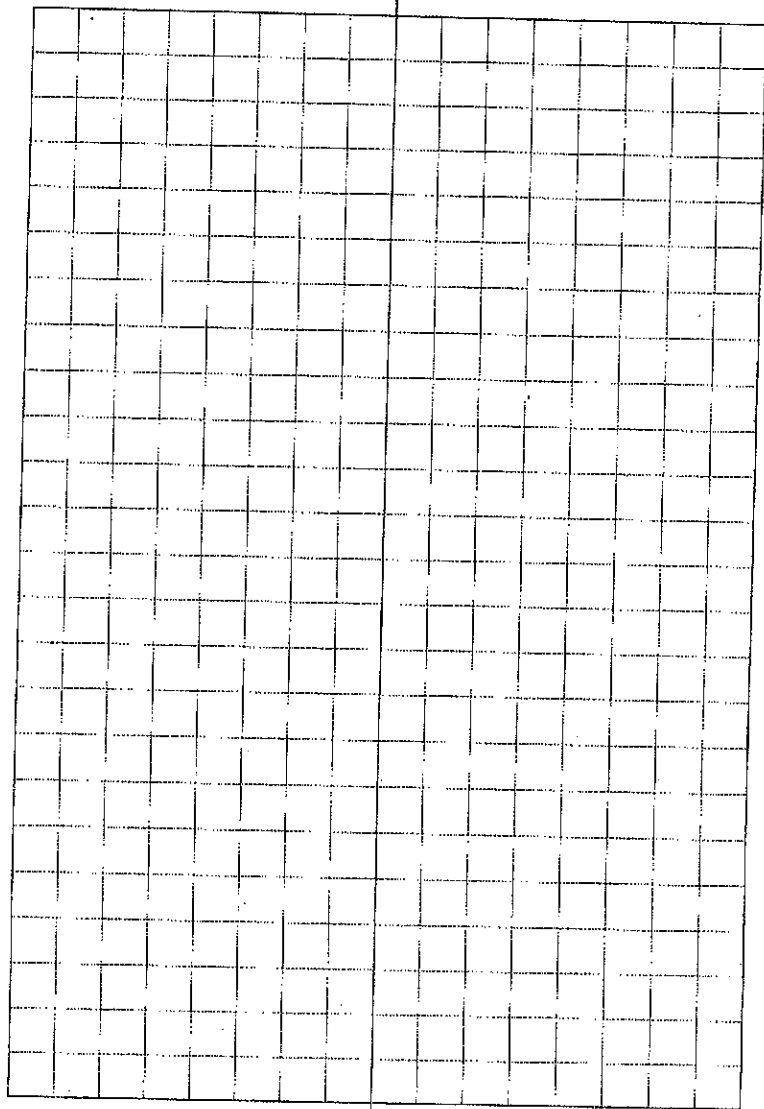
P/30/04

WITH MEDIAN SAND BROWN
SUNNY. ONLY (BLACK) BROWN
(5-10 am).

1425

LEFT BROWN

15



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Beach B3a

840 am 5 ft ELEVATION

850 PLACIDA 5 SURVEYING ACOR

1st TOP OF TRANSECT LAT/LONG

47 33 509 N

122 20 P32 W

BOTTOM OF TRANSECT LAT/LONG

47 33 514 N

122 20 P15 W

- 2nd transect

50' TO THE W ON BEACH

- 3rd TRANSECT

45' TO THE SOUTH

DUE TO CLAY MOUNDS COULD NOT

DO 30'

PIC 7+8 AT B3a TRANSECTS

LOOKING W & S OF 1st TRANSECT

12' between survey lines

Beach B1a

1045 am

65 ft elevation

1350 pm SPDR163 SIGUR 2nd TRF 50'

1st TOP OF TRANSECT:

47 34.018 N

122 21.080 W

BOTTOM OF TRANSECT:

47 34.013 N

122 21.021 W

2nd transect:

10m to N on beach
(30')

08-13-04

3rd transect:

10m (30') to ~~N~~ on beach
southlarge pile of rocks +
debris (unmovable)

@ 30' S

Adjusted transect to lie on

S side of debris pile

= 40' S of 1st transect

4

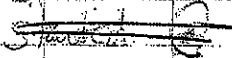
Beach 2a

8/13/04 cont

1042 am

1st transect : TOP
 47 33 393
 122 20 893

5' elevation



16' between
 sampling locations

Bottom: 47 33. 384
 122 20. 905

2nd 30' (10m) South of transect

3rd 30' (10m) N of transect
 collected sediment + porewater
 for this transect

1 pm - finished 1st + 2nd transect.
 did not collect tissue
 from 3rd transect (tide rose

3rd coords = 47 33 390 (too quick!)
 (at highest flag) 122 20 902

W

5

8/14/04

8:00 walk at beach named SP, FV,
~~etc~~ etc

8:30 pick up ME

8:45 ON BEACH B2a DOWN THE
 TISSUE SAMPLING ON LAST TRANSECT

10:20 LEFT THE BEACH

10:30 ON BEACH B4a

1st LAT 47 32, 949

TRANSCT LOWER 122 20, 995 BOTTOM

10:40 SET UP 2 TRANSECTS

1300 LEFT BEACH B2a

2nd transect 30' W OF TRANSECT

8' between sampling locations

TOP OF 1st TRANSECT

8/15/04

CHECK: CHECK HUNTER, SOMMA, TUNAI, HELL

9:30 ON BEACH B4a

TOP LAT 47 32, 949

LOWER 122 20, 999

10:45 LEFT BEACH

ELEVATION 1st transect 4'

369
 1055 OW BEACH B69
 BOTTOM LAT/LONG
 47 32 VGR N
 122 20 OYU W

1105 ELEVATION 9' - 5.5' = 3.5'

TOP LAT/LONG

47 32 444

122 20 085

135 LAT LONG

B 59

8/16/07

0955 OW BEACH

TOP OV TRANSFER

CREW AK,

47 32 349

TD VGR, LIA

122 19 884

ELEVATION AT 1015 AM

5 - 2.5 FT = 2.5 FT

BOTTOM LAT/LONG

8' BENTON

47 32 352

STAMPING

122 19 882

POINTS

LEAF BEACH

AT 1215

B5a

8/16/04

30' 2nd and 3rd transect
from 1st transect

BCA - 1

8/16/04

8/16/04

1230. 0w B5a

Bottom transect count

47 33.618 W

122 20.995 W

Top transect count

47 33.612 W

122 21.017 W

ELEVATION 3' AT 1250

LEFT ME BOAT AT

1340

10

08/17/04

B89

1st transect

TOP: 47 31 683

122 18 644

Bottom: 47 31 680

122 18 642

31.5' = length

2.5' = elevation

2nd transect 30' North of 1st transect

1st Transect only collected from first 3 flags
 & lowest flags on shoreline were flooded

2nd Transect placed 6 flags, 30' transect
 over sampled

Moved Benthic community analysis from
 the 1st transect to the 2nd transect
 due to flooded flagged areas

2nd Transect a dark black odorous sheen
 was noticed at the 2nd flag

Dropped 1/2 to a full square of sediment from 2nd transect

8/17/04

11

BCA3

10.47 am

4.6'

elevation 4.5'

TOP: 47 31 948

122 19 259

Bottom 47 31 954

122 19 251

8/25/04

crew: Angelita Rodriguez
 Tad Deshler → WW
 Shannon Pierce
 Krumm Li - King Country
 SAIC

leave 1st Ave S Bridge - 5:30am

Beach 9a -

no beach exposed -
 should come back at lowest
 minus tide - Friday?

Beach 10a - 6:45

1st transect

top: 47 30 683 length = 59'

122 18 077 top = 3'

bottom: 47 30 684 bottom = 6'

122 18 091

Finish sampling @ 0915

Beach 3a Redc 08-26-04

0656

TOP OF 1st transect elevation 5'

Lat 47 33 518 N

Long 122 20 834 W

Bottom of transect

Lat 47 33 521

Long 122 20 820

Length = 65' (Flags every 13')

3rd Transect moved 56' S from primary transect
 due to clay/rack mounds covering beach area

Primary Transect Sandy/clay brown - beige

2nd Transect 30ft N of primary transect
 Some sand mostly clay, algae mats over sed

3rd Transect Very soft sand/clay, brown/gray
 Dily sheen at lower flags

* No Benthic Community samples taken b/c
 they were collected previously on a different day

8/27/04 Beach 9a (OBISam)

Crew: MW, BR, MGL, Maureen (SARC)

Top of transect 1: 47 30 839
122 18 221

Elevation = 2.5'

Length = 5785 (flag every 17')

Bottom of transect 1: 47 30 833
122 18 238

2nd transect: 30' N 47 30 844
(flags every 16') 122 18 223

3rd transect: 30' S 47 30 836
122 18 216

11:35 am 17

Beach 7a

08/30/04

~~20~~ 1' elevation, 20 ft long47° 31.890 N
122° 19.150 WHeading ~~230°~~# 1 243 transect 30 ft N4S

2 30 ft long

47° 31.894 N
122° 19.155 W

3 16 ft long

47° 31.888 N
122° 19.144 W

H. Anderson

9/24/09

19

BS4
 720 47 32 3530 N TOP
 122 19 939 W
 CHURCH COORDINATES WIND
 SIMONSON 3124
 47 32 360 W
 122 19 940 W

ELEVATION 5 FT
 DISTANCE 46 FT

Incl TRANSECT 25 FT W
 380 TRANSECT 30 FT E

1120 LEFT BOAT
 CHECK: AR, TD, DP, BC, WA

DID 30 SQUARES
 FOR 1912 MASS

47 32 355 N BOTTOM
 122 19 940 W

HAWOLSCO

21

9/27/04

CREW : DP, KOKON BC, HR

BOAT : DAVE MULLINS

#12 LOT BOAT KAMP AFTER

LOADING BOAT

#40 PULST GRAB - HAN TO

MARE SECURITY C/PK

SITING DUE TO ROCKY

BOTTOM

1120 47 34.070 50-52' (#10)

122 20.936 50m T

1130 47 34.070 (#17)

122 20.929 50' T

1150 122 20.936 51' (#18)

47 34.070

12 15 47 34.069 #19

122 20.940 52' NO

1220 47 34.071 50' #20

122 20.930 NO

1225 47 34.070 50' #21

122 20.938 NO

1230 47 34.070 52' #22

122 20.930 T+T

END OF WORKING AT STATION

B16 12 50

H. ANDERSON

9/29/04

CLCW	BC, TD, HA
BOIT	DAVE MULLINS
P30	OW STATION BYB

Attachment C-3: Laboratory Benthic Invertebrate Weight Forms

Project Name:

LDW

Project no.

09-08-06-21

Date:

2/7/05

Station:

X:

Y:

UNKNOWN

Sample ID:

B1a - CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
<u>ANIMONIA</u>	<u>0.3</u>		
<u>CRUSTACEANS</u>	<u>0.2</u>		
<u>MISC</u>	<u>0.1</u>		
<u>TOTAL</u>	<u>0.5</u>		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-09-06-21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B2a - CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.6		
CRUSTACEANS	1.1		
MOLLUSCA	0.8		
MISC	<0.1		
TOTAL	2.5		

Comments:

LAB TISSUE FORM

Project Name:

Project no.

Date:

Station:

LDW

04-08-06-21

2/2/05

X:

Y:

TAXONOMY

Sample ID:

B3a - CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.9		
CRUSTACEANS	0.6		
MOLUSCA	0.3		
TOTAL	1.8		

Comments:



LAB TISSUE FORM

Project Name:

Project no.

Date:

Station:

LDW

04-08-06-21

2/7/05

X:

Y:

PAROSONY

Sample ID:

B7a COLES

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNECIDA	0.3		
CHRYSOMELIDS	0.9		
MISC	0.1		
TOTAL	1.2		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04.08-06-21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B9a - COME

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	1.0		
CRUSTACEANS	0.5		
MISC	0.1		
TOTAL	1.5		

Comments:

Project Name: LDW

Project no. 04-08-06-21

Date: 2/7/05

Station: _____

X: _____

Y: TAXO W00M4

Sample ID: BCA-3 PNAME

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANUSCIDA	1.0		
CHUSMELANS	1.1		
MOLLUSCA	1.2		
TOTAL	3.3		

Comments:

LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

11/21/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B1b VAN UREN

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	5.8		
CRUSTACEANS	2.5		
MOLLUSCA	2.8		
MISC	0.4		
TOTAL	11.5		

Comments:



LAB TISSUE FORM

Project Name: LDW

Project no. 04-08-06-21

Date: 1/21/05

Station: _____

X: _____

Y: TAXONOMY

Sample ID: B2b VAN VLEN

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
<u>ANNULIDA</u>	<u>3.4</u>		
<u>CHLUSITACEANS</u>	<u>3.5</u>		
<u>MOLLUSCA</u>	<u>8.9</u>		
<u>MISC</u>	<u>0.1</u>		
<u>TOTAL</u>	<u>15.9</u>		

Comments:

LAB TISSUE FORM

Project Name: LDW Project no. 04.08-06.21
 Date: 1/21/05 Station: _____
 X: _____
 Y: TAXONOMY
 Sample ID: B3b VAN VEON

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	10.4		
CRUSTACEANS	0.3		
MOLUSCA	6.5		
MISC	20.1		
TOTAL	17.2		

Comments:

LAB TISSUE FORM

Project Name:

Project no.

Date:

Station:

X:

Y:

Sample ID:

LDW

1/21/05

04-09-06-21

TAXONOMY

BYD VAN VEEN

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEA	11.4		
CAUSICILANUS	20.1		
MOLUSCA	7.5		
ECHINODERMS	0.1		
MISC.	20.1		
TO MR	19.0		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-09-06-21

Date:

1/21/05

Station:

X:

Y: TAXONOMY

Sample ID:

B5B VAN VLEW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELIDA	6.7 10.5		
CRUSTACEANS	0.7 1.3		
MOLUSCA	6.2		
MISC	<0.1		
TOTAL	18.0		

Comments:

LAB TISSUE FORM

Project Name: LDW Project no. 04-DP-06-21
 Date: 2/14/05 Station: _____
 X: _____
 Y: TAXONOMY
 Sample ID: B66 - VAN Veen

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	15.6		
CRUSTACEANS	0.5		
MOLUSCA	2.5		
MISC	0.1		
TOTAL	18.7		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-02-06-21

Date:

2/7/05

Station:

X:

Y:

MAZOWAMY

Sample ID:

BZ b VAN VIEW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	5.5		
CRUSTACEANS	0.5		
MOLLUSCA	23.0		
MISC	40.1		
TOTAL	29.0		

Comments:

Project Name:

LDW

Project no.

04.08 - 06.21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

Bpb VAN Veen

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
<u>ANNELEIDA</u>	<u>7.2</u>		
<u>CRUSTACEANS</u>	<u>19.7</u>		
<u>MOLLUSCA</u>	<u>20.5</u>		
<u>TOTAL</u>	<u>47.4</u>		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-0P-06-21

Date:

2/14/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B95 VAN VCCW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
<u>ANNEIDA</u>	<u>3.0</u>		
<u>CRUSTACEANS</u>	<u>7.5</u>		
<u>MOLUSCA</u>	<u>17.4</u>		
<u>TOTAL</u>	<u>27.9</u>		

Comments:

LAB TISSUE FORM

Project Name:

Project no.

Date:

Station:

X:

Y:

Sample ID:

LDW

2/7/05

04-08-06-21

TAXONOMY

B10B - VAN VIEW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	3.0		
CRUSTACEANS	20.7		
MISC	20.1		
TOTAL	23.7		

Comments:



LAB TISSUE FORM

Project Name: LDW

Project no. 04-08-06-21

Date: 2/14/05

Station: _____

X: _____

Y: TAXONOMY

Sample ID: BCA-2

VIEW VIEW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	12.4		
CRUSTACEANS	0.6		
MOLLUSCA	0.6		
MISC	0.1		
TOTAL	13.6		

Comments:

LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

BCA-4 VAN VEON

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	18.8		
CRUSTACEANS	1.7		
MOLLUSCA	15.1		
MISC	1.1		
TOTAL	36.7		

Comments:



LAB TISSUE FORM

Project Name: _____

Project no. _____

Date: _____

Station: _____

X: _____

Y: _____

Sample ID: _____

LDW
 2/14/05
 TADOWNY
 BCA-5
 VAN UCCW

04-04-06-21

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANWGDIA	1.0		
CAUSMCAW	1.6		
MDCLUSCA	1.8		
MISC	0.2		
TOTL	4.6		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-09-06-21

Date:

2/7/05

Station:

X:

Y:

PAXO WORM

Sample ID:

BCA-6 VAN VLEW

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	11.8		
CRUSTACEANS	19.7		
TOTAL	31.5		

Comments:



LAB TISSUE FORM

Project Name:

Project no.

Date:

Station:

X:

Y:

Sample ID:

LDW

1/26/05

04-08-06-21

TAXONOMY

B1b CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.1		
CRUSTACEANS	0.1		
MOLLUSCA	0.1		
TOTAL	0.1		

Comments:

LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

1/21/05

Station:

X:

Y:

TAXOWONG

Sample ID:

B2b CONE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULON	0.2		
CRUSTACEAN	0.1		
MOLUSCA	0.5		
MISC	<0.1		
TOTAL	0.7		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-09-06-21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B3b - CONCS

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELELLA	0.2		
CRUSTACEANS	0.1		
MISC	0.1		
TOTAL	0.2		

Comments:



LAB TISSUE FORM

Project Name: _____

LDW

Project no. _____

04-08-06-21

Date: _____

1/24/05

Station: _____

X: _____

Y: _____

TRAWLING

Sample ID: _____

B4b - COME

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELEIDA	0.5		
CRUSTACEANS	0.1		
MOLUSCA	1.2		
MISC	0.1		
TOTAL	1.7		

Comments:

Project Name: _____

Project
no. _____

Date: _____

Station: _____

LDW

04-08-06-21

1/24/05

X: _____

Y: _____

Sample ID: _____

TAXONOMY
BSb-CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNELED	0.4		
CRUSTACEANS	<0.1		
MOLLUSCA	0.1		
MISC	<0.1		
TOMZ	0.5		

Comments:

LAB TISSUE FORM

Project Name:

LDW

Project no.

04-07-06-21

Date:

1/24/05

Station:

X:

Y:

TAHO WONY

Sample ID:

B6b - CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNEIDA	0.6		
CRUSTACEANS	<0.1		
MOLLUSCA	<0.1		
MISC	<0.1		
TOTAL	0.6		

Comments:

LAB TISSUE FORM

Project Name:

LJW

Project no.

04-08-06-21

Date:

1/24/05

Station:

X:

Y:

TAXONOMY

Sample ID:

BBB-CORE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.1		
CRUSTACEAN	0.1		
MOLLUSCA	0.1		
MISC	0.1		
TOTAL	0.1		

Comments:

LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

2/7/05

Station:

X:

Y:

Taxonomy

Sample ID:

BBB-COKE

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
<u>ANNELEIDA</u>	<u>0.1</u>		
<u>CRUSTACEANS</u>	<u>0.1</u>		
<u>MISC</u>	<u>0.1</u>		
<u>TOTAL</u>	<u>0.2</u>		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

2/7/05

Station:

X:

Y:

TAXONOMY

Sample ID:

B9b- CORN

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.1		
CRUSTACEANS	0.1		
MISC	0.1		
TD MC	0.1		

Comments:

LAB TISSUE FORM

Project Name: _____

Project no. _____

Date: _____

Station: _____

X: _____

Y: _____

Sample ID: _____

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
ANNULIDA	0.2		
CRUSTACEANS	0.1		
MOLLUSCA	0.1		
MISC	0.1		
TOTAL	0.3		

Comments:



LAB TISSUE FORM

Project Name:

LDW

Project no.

04-08-06-21

Date:

2/7/05

Station:

X:

Y:

TADW004

Sample ID:

BCA-5

Invertebrate Group	Estimated weight (ww)	Invertebrate Group	Estimated weight (ww)
Amphipoda	20.1		
MISC	20.1		
TOTAL	20.1		

Comments:

Attachment C-4: Corrective Action Forms



CORRECTIVE ACTION FORM

Project Name and Number: LDW 09-08-06-21

Sample Dates Involved: 8/27/04 and 8/30/04

Measurement Parameter: _____

STATION LOCATION

Acceptable Data Range: _____

Problem Areas Requiring Corrective Action: VERY LITTLE INTERMITTENT MOATS WERE PRESENT AT THE TWO SAMPLING LOCATIONS B7a AND B9a

Measures Required to Correct Problem: STATION B7a WAS MOVED APPROXIMATELY 0.1 MILE TO THE NORTH OF THE ORIGINAL LOCATION AND B9a APPROXIMATELY 0.2 MILES TO THE SOUTH OF THE ORIGINAL LOCATION

Means of Detecting Problems and Verifying Correction: _____

Initiators Name:	<u>Jelli S. Anderson</u>	Date:	<u>8/30/04</u>
Project Officer:	_____	Date:	_____
QA Officer:	<u>Jad Baskin</u>	Date:	<u>10/4/04</u>



CORRECTIVE ACTION FORM

Project Name and Number:

LDW 04-OP-00-21

Sample Dates Involved:

8/12 THRU 9/24/04

Measurement Parameter:

SAMPLING PERIOD OF BENTHIC INDOCTEBIATES

Acceptable Data Range:

THE QAPP STATES THAT BENTHIC INDOCTEBIATES WOULD BE COLLECTED BETWEEN 8/9 AND 8/20/04

Problem Areas Requiring Corrective Action:

COLLECTION OF BENTHIC INDOCTEBIATES WAS VERY TIME CONSUMING AND IT WAS NOT POSSIBLE TO DO IT IN THAT TIME FRAME. ~~FEDER~~ SAMPLES WERE

Measures Required to Correct Problem:

LOST AT B1b, B2b, B4b & B5b DUE TO FEDER ON COLUMBUS

THE SAMPLING PERIOD WAS EXTENDED TO 9/24/04

Means of Detecting Problems and Verifying Correction:

Initiators Name:

Jell's chudwin

Date:

9/24/04

Project Officer:

Date:

QA Officer:

Jad Dall

Date:

10/4/04



CORRECTIVE ACTION FORM

Project Name and Number: 2DW 04-OP-06-21
Sample Dates Involved: 8/12 THRU 9/24/04
Measurement Parameter: SIEVE SIZE FOR SUBSTRATE BENTHIC COMMUNITY SAMPLES

Acceptable Data Range: 0.5 mm MESH SIEVE

Problem Areas Requiring Corrective Action: LARGE VOLUME OF SEDIMENT WAS RETAINED ON THE 0.5mm SIEVE (UP TO 16% FOR VAN VEEN QUAS)

Measures Required to Correct Problem: THE SIEVE SIZE WAS CHANGED TO 1.0 mm MESH

Means of Detecting Problems and Verifying Correction: _____

Initiators Name:	<u>Jelle B. Chuddeau</u>	Date:	<u>8/30/04</u>
Project Officer:		Date:	
QA Officer:	<u>Paul Quilley</u>	Date:	<u>8.30.04</u>

CORRECTIVE ACTION FORM

Project Name and Number:

LAW 04-08-06-21

Sample Dates Involved:

8/12 THRU 9/24/04

Measurement Parameter:

NUMBER OF REPLICATE SAMPLES
FOR THE SUBSTANTIAL COMMUNITY SAMPLES

Acceptable Data Range:

THE QAPP STATES THAT 5 REPLICATES
WOULD BE COLLECTED

Problem Areas Requiring Corrective Action:

BECAUSE OF LARGE
VOLUME OF SEDIMENT AND ORGANIC MATTER RETAINED
ON THE 1.0mm SIEVE THE NUMBER OF REPLICATES WAS

Measures Required to Correct Problem:

REDUCED TO 3.

Means of Detecting Problems and Verifying Correction:

Initiators Name:

Jill S. Anderson

Date:

8/30/04

Project Officer:

Paul R. Hyl

Date:

8.30.04

QA Officer:

Date:

CORRECTIVE ACTION FORM

Project Name and Number: LDW 04-OP-06-21
Sample Dates Involved: 8/12 THRU 9/24/04
Measurement Parameter: COLLECTION OF ADDITIONAL CORE
SAMPLES IN SUBSTRATE COMMUNITY SAMPLES

Acceptable Data Range:

Problem Areas Requiring Corrective Action: TO EVALUATE IF INFORMATION
ON THE BENTHIC COMMUNITY WAS LOST DUE TO THE INCREASE
IN SIEVE SIZE (FROM 0.5mm TO 1.0mm) A CORE SAMPLE TAKEN

Measures Required to Correct Problem: OUT OF THE JAW VEEN GRAB AND
SIEVE THROUGH & NESTED 1.0mm AND 0.5mm SIEVES WAS ADDED
AT EACH LOCATION.

Means of Detecting Problems and Verifying Correction:

Initiators Name: Jelli Buchanan Date: 8/30/04
Project Officer: _____ Date: _____
QA Officer: Jed Leck Date: 8.30.04