

SAF-RC-118
Columbia River Component of the RCBRA –
Tissues
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21

KW 2/1/10
INITIAL/DATE

COMMENTS:

SDG SEQ081409

SAF-RC-118

Rad only

Chem only

Rad & Chem

Complete

Partial

Sampling Location:

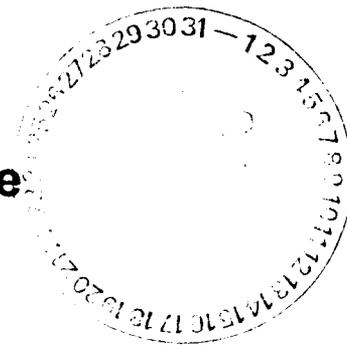
STURGEON 14 FILLET/CARCASS

STURGEON 15 FILLET/CARCASS

STURGEON 16 FILLET/CARCASS

RECEIVED
FEB 04 2010
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Analytical Chemistry Data Package Inorganics Analysis



**Project: Washington Closures Hanford
As Speciation Analysis of Tissue**

SDG 080609
SDG 081409
SDG 082009

PNNL Project No. 56166
MSL CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Marine Sciences Laboratory
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INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

As Speciation Analysis in Tissue

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Sample Custody Information

Laboratory Sample Log-In and Chain of Custody Forms for:	
SDG080609	10
SDG081409	22
SDG082009	40

BATTELLE MARINE SCIENCES LABORATORY

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Washington Closure Hanford
 Arsenic Speciation Study
 SDG 080609, SDG081409, and SDG082009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	AsB	DMA	MMA	As ³⁺⁵	Total As
								µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.
<i>Method Detection Limit (MDL)</i>								<i>0.002¹</i>	<i>0.005</i>	<i>0.007</i>	<i>0.01</i>	<i>0.01</i>
2981-113	J19266	SDG080609	08/06/09	07/28/09	09/17/09	091709-LCDRC	32.7	0.0510	0.005 U	0.007 U	0.01 U	0.0730
2981-114	J19265	SDG080609	08/06/09	07/28/09	09/17/09	091709-LCDRC	27.4	0.197	0.005 U	0.007 U	0.01 U	0.219
2981-115	J19268	SDG080609	08/06/09	07/29/09	09/17/09	091709-LCDRC	26.3	0.0369	0.00666	0.007 U	0.0101	0.0606
2981-116	J19267	SDG080609	08/06/09	07/29/09	09/17/09	091709-LCDRC	23.4	0.110	0.005 U	0.007 U	0.01 U	0.132
2981-117 R1	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	33.7	0.0727	0.0141	0.007 U	0.01 U	0.104
2981-117 R2	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	33.7	0.0661	0.0157	0.007 U	0.01 U	0.0989
2981-118	J19291	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	27.6	0.201	0.0101	0.007 U	0.01 U	0.228
2981-119	J192B2	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	25.7	0.134	0.0142	0.007 U	0.01 U	0.165
2981-120	J192B1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	22.1	0.439	0.005 U	0.007 U	0.01 U	0.461
2981-121	J192C2	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	29.5	0.0526	0.00828	0.007 U	0.01 U	0.0779
2981-122	J192C1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	25.0	0.146	0.005 U	0.007 U	0.01 U	0.168
2981-123	J192F1	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	22.3	0.402	0.005 U	0.007 U	0.01 U	0.424
2981-124	J192F2	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	25.3	0.153	0.005 U	0.007 U	0.01 U	0.175
2981-125	J192H2	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	27.0	0.0391	0.005 U	0.007 U	0.01 U	0.0611
2981-126	J192H3	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	33.6	0.0172	0.0170	0.007 U	0.01 U	0.0512
2981-127	J19304	SDG081409	08/14/09	08/05/09	09/17/09	091709-LCDRC	23.8	0.104	0.005 U	0.007 U	0.01 U	0.126
2981-128	J19305	SDG081409	08/14/09	08/05/09	09/17/09	091709-LCDRC	27.3	0.0339	0.005 U	0.007 U	0.01 U	0.0559
2981-129 R1	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	20.8	0.327	0.005 U	0.007 U	0.01 U	0.349
2981-129 R2	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	20.8	0.120	0.005 U	0.007 U	0.01 U	0.142
2981-130	J19315	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	26.7	0.0883	0.005 U	0.007 U	0.01 U	0.110
2981-131	J19325	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	24.5	0.0631	0.005 U	0.007 U	0.01 U	0.0851
2981-132	J19326	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	33.2	0.0184	0.00862	0.007 U	0.01 U	0.0441
2981-133	J193L2	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	22.4	0.218	0.005 U	0.007 U	0.01 U	0.240
2981-134	J193L3	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	26.1	0.0840	0.005 U	0.007 U	0.01 U	0.106
2981-135	J193M2	SDG081409	08/14/09	08/10/09	09/18/09	091809-LCDRC	28.6	0.0107	0.00942	0.007 U	0.01 U	0.0371
2981-136	J193M3	SDG081409	08/14/09	08/10/09	09/18/09	091809-LCDRC	32.0	0.0134	0.00549	0.007 U	0.01 U	0.0359
2981-137	J193N4	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC	22.3	0.620	0.005 U	0.007 U	0.01 U	0.642
2981-138	J193N5	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC	25.6	0.219	0.0177	0.007 U	0.01 U	0.254
2981-139	J19446	SDG082009	08/20/09	08/12/09	09/18/09	091809-LCDRC	39.4	0.0196	0.005 U	0.007 U	0.01 U	0.0416
2981-140	J19447	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	40.9	0.0131	0.005 U	0.007 U	0.0121	0.0372
2981-141	J19456	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	22.9	0.230	0.005 U	0.007 U	0.01 U	0.252
2981-142	J19457	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	26.2	0.0842	0.005 U	0.007 U	0.01 U	0.106
2981-143	J19466	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	24.1	0.133	0.005 U	0.007 U	0.01 U	0.155
2981-144	J19467	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	29.1	0.0341	0.00596	0.007 U	0.01 U	0.0571

QUALITY CONTROL SAMPLE RESULTS Average 27.4

Method Blank

Blank R1	09/17/09	091709-LCDRC	0.002 U	0.005 U	0.007 U	0.01 U	NA
Blank R2	09/18/09	091809-LCDRC	0.002 U	0.005 U	0.007 U	0.01 U	NA

Standard Reference Material

DORM-2 r1	09/17/09	091709-LCDRC	14.1	0.312	0.007 U	0.01 U	14.4
DORM-2 r2	09/18/09	091809-LCDRC	14.3	0.353	0.007 U	0.01 U	14.6

Certified Value

% Recovery	86%
% Recovery	87%

Blank Spike Results

LCS R1	09/17/09	091709-LCDRC	2.00	2.04	2.00	4.04	10.1
LCS R2	09/18/09	091809-LCDRC	2.00	1.94	1.86	3.79	9.59
Spike			2.00	2.00	2.00	4.00	10.0
% Rec			100%	102%	100%	101%	101%
% Rec			100%	97%	93%	95%	96%

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 Arsenic Speciation Study
 SDG 080609, SDG081409, and SDG082009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	AsB	DMA	MMA	As ³⁺	Total As
								µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.
<i>Method Detection Limit (MDL)</i>								<i>0.002¹</i>	<i>0.005</i>	<i>0.007</i>	<i>0.01</i>	<i>Cal.</i>
Replicate Analysis Results												
2981-117 R1	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	33.7	0.0727	0.0141	0.007 U	0.01 U	0.104
2981-117 R2	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	33.7	0.0661	0.0157	0.007 U	0.01 U	0.0989
RPD								NA	NA	NA	NA	NA
2981-129 R1	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	20.8	0.327	0.005 U	0.007 U	0.01 U	0.349
2981-129 R2	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	20.8	0.120	0.005 U	0.007 U	0.01 U	0.142
RPD								NA	NA	NA	NA	NA
Matrix Spike Accuracy												
2981-120	J192B1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	22.1	0.439	0.005 U	0.007 U	0.01 U	0.461
2981-120MS					09/17/09	091709-LCDRC	22.1	2.37	0.989	1.01	2.99	7.37
2981-120MSD					09/17/09	091709-LCDRC	22.1	2.45	1.14	1.21	2.96	7.76
Spike Amount, MS								NA	NA	NA	3.86	NA
Spike Amount, MSD								NA	NA	NA	3.97	NA
% Recovery, MS								NA	NA	NA	77%	NA
% Recovery, MSD								NA	NA	NA	76%	NA
RPD								NA	NA	NA	1%	NA
2981-137	J193N4	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC	22.3	0.620	0.005 U	0.007 U	0.01 U	0.642
2981-137MS					09/18/09	091809-LCDRC	22.3	2.64	1.01	1.07	3.31	8.03
2981-137MSD					09/18/09	091809-LCDRC	22.3	2.72	0.987	1.16	3.33	8.20
Spike Amount, MS								NA	NA	NA	3.90	NA
Spike Amount, MSD								NA	NA	NA	3.95	NA
% Recovery, MS								NA	NA	NA	85%	NA
% Recovery, MSD								NA	NA	NA	85%	NA
RPD								NA	NA	NA	1%	NA

NOTES: Arsenobetaine (AsB)
 Dimethylarsinic acid (DMA)
 Monomethylarsonic acid (MMA)
 Arsenate (V or As⁵⁺)
 Arsenite (III or As³⁺)
 Total Inorganic Arsenic = As³⁺⁵
 Total As = Sum of AsB, DMA, MMA, and As³⁺⁵
 Cal = Calculated Value

¹ Method detection limit (MDL) for AsB calculated from instrument detection limit converted to µg/g using the average sample mass and volume for this project.

U Not detected at or above MDL shown

NS Not spiked

N Outside Method DQOs for Blank Spikes (≤ 15%), MS/MSD (≤ 25%), SRM (≤ 25%) results

* Outside Method DQOs for Duplicates (≤ 25%)

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 Arsenic Speciation Study
 Wet Weight Conversion Table

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	AsB µg/g wet wt.	DMA µg/g wet wt.	MMA µg/g wet wt.	As ³⁺ µg/g wet wt.	Total As µg/g wet wt.
<i>Method Detection Limit (MDL)</i>							<i>0.00055</i>	<i>0.001</i>	<i>0.002</i>	<i>0.003</i>	<i>Cal.</i>
2981-113	J19266	SDG080609	08/06/09	07/28/09	09/17/09	091709-LCDRC	0.0167	0.001 U	0.002 U	0.003 U	0.0227
2981-114	J19265	SDG080609	08/06/09	07/28/09	09/17/09	091709-LCDRC	0.0541	0.001 U	0.002 U	0.003 U	0.0601
2981-115	J19268	SDG080609	08/06/09	07/29/09	09/17/09	091709-LCDRC	0.00970	0.00175	0.002 U	0.003 U	0.0165
2981-116	J19267	SDG080609	08/06/09	07/29/09	09/17/09	091709-LCDRC	0.0258	0.001 U	0.002 U	0.003 U	0.0318
2981-117 R1	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	0.0245	0.00476	0.002 U	0.003 U	0.0342
2981-117 R2	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	0.0223	0.00529	0.002 U	0.003 U	0.0326
2981-118	J19291	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	0.0556	0.00278	0.002 U	0.003 U	0.0633
2981-119	J192B2	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	0.0343	0.00363	0.002 U	0.003 U	0.0430
2981-120	J192B1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	0.0972	0.001 U	0.002 U	0.003 U	0.103
2981-121	J192C2	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	0.0155	0.00244	0.002 U	0.003 U	0.0230
2981-122	J192C1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC	0.0363	0.001 U	0.002 U	0.003 U	0.0423
2981-123	J192F1	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	0.0896	0.001 U	0.002 U	0.003 U	0.0956
2981-124	J192F2	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	0.0387	0.001 U	0.002 U	0.003 U	0.0447
2981-125	J192H2	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	0.0106	0.001 U	0.002 U	0.003 U	0.0166
2981-126	J192H3	SDG081409	08/14/09	08/04/09	09/17/09	091709-LCDRC	0.00577	0.00570	0.002 U	0.003 U	0.0165
2981-127	J19304	SDG081409	08/14/09	08/05/09	09/17/09	091709-LCDRC	0.0247	0.001 U	0.002 U	0.003 U	0.0307
2981-128	J19305	SDG081409	08/14/09	08/05/09	09/17/09	091709-LCDRC	0.00924	0.001 U	0.002 U	0.003 U	0.0152
2981-129 R1	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	0.0681	0.001 U	0.002 U	0.003 U	0.0741
2981-129 R2	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	0.0251	0.001 U	0.002 U	0.003 U	0.0311
2981-130	J19315	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	0.0236	0.001 U	0.002 U	0.003 U	0.0296
2981-131	J19325	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	0.0155	0.001 U	0.002 U	0.003 U	0.0215
2981-132	J19326	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	0.00612	0.00286	0.002 U	0.003 U	0.0140
2981-133	J193L2	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	0.0489	0.001 U	0.002 U	0.003 U	0.0549
2981-134	J193L3	SDG081409	08/14/09	08/06/09	09/18/09	091809-LCDRC	0.0219	0.001 U	0.002 U	0.003 U	0.0279
2981-135	J193M2	SDG081409	08/14/09	08/10/09	09/18/09	091809-LCDRC	0.00306	0.00269	0.002 U	0.003 U	0.0108
2981-136	J193M3	SDG081409	08/14/09	08/10/09	09/18/09	091809-LCDRC	0.00429	0.00176	0.002 U	0.003 U	0.0110
2981-137	J193N4	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC	0.138	0.001 U	0.002 U	0.003 U	0.144
2981-138	J193N5	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC	0.0559	0.00453	0.002 U	0.003 U	0.0655
2981-139	J19446	SDG082009	08/20/09	08/12/09	09/18/09	091809-LCDRC	0.00774	0.001 U	0.002 U	0.003 U	0.0137
2981-140	J19447	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	0.00538	0.001 U	0.002 U	#####	0.0133
2981-141	J19456	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	0.0526	0.001 U	0.002 U	0.003 U	0.0586
2981-142	J19457	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	0.0221	0.001 U	0.002 U	0.003 U	0.0281
2981-143	J19466	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	0.0321	0.001 U	0.002 U	0.003 U	0.0381
2981-144	J19467	SDG082009	08/20/09	08/17/09	09/18/09	091809-LCDRC	0.00993	0.00174	0.002 U	0.003 U	0.0167
QUALITY CONTROL SAMPLE RESULTS							<i>Average</i>				

Method Blank

Blank R1					09/17/09	091709-LCDRC	0.0006 U	0.0014 U	0.002 U	0.003 U	NA
Blank R2					09/18/09	091809-LCDRC	0.0006 U	0.0014 U	0.002 U	0.003 U	NA

Standard Reference Material

DORM-2 r1					09/17/09	091709-LCDRC					
DORM-2 r2					09/18/09	091809-LCDRC					

Certified Value

% Recovery
 % Recovery

Blank Spike Results

LCS R1					09/17/09	091709-LCDRC					
LCS R2					09/18/09	091809-LCDRC					
Spike											
% Rec											
% Rec											

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 Arsenic Speciation Study
 Wet Weight Conversion Table

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	AsB	DMA	MMA	As ³⁺⁵	Total As	
							µg/g wet wt.	µg/g wet wt.	µg/g wet wt.	µg/g wet wt.	µg/g wet wt.	
Method Detection Limit (MDL)							0.00055 ¹	0.001	0.002	0.003	Cal.	
Replicate Analysis Results												
2981-117 R1	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	0.0245	0.00476	0.002 U	0.003 U	0.0342	
2981-117 R2	J19292	SDG080609	08/06/09	07/30/09	09/17/09	091709-LCDRC	0.0223	0.00529	0.002 U	0.003 U	0.0326	
RPD							NA	NA	NA	NA	NA	
2981-129 R1	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	0.0681	0.001 U	0.002 U	0.003 U	0.0741	
2981-129 R2	J19314	SDG081409	08/14/09	08/05/09	09/18/09	091809-LCDRC	0.0251	0.001 U	0.002 U	0.003 U	0.0311	
RPD							NA	NA	NA	NA	NA	
Matrix Spike Accuracy												
2981-120	J192B1	SDG080609	08/06/09	08/03/09	09/17/09	091709-LCDRC						
2981-120MS					09/17/09	091709-LCDRC						
2981-120MSD					09/17/09	091709-LCDRC						
Spike Amount, MS												
Spike Amount, MSD												
% Recovery, MS												
% Recovery, MSD												
RPD												
2981-137	J193N4	SDG081409	08/14/09	08/11/09	09/18/09	091809-LCDRC						
2981-137MS					09/18/09	091809-LCDRC						
2981-137MSD					09/18/09	091809-LCDRC						
Spike Amount, MS												
Spike Amount, MSD												
% Recovery, MS												
% Recovery, MSD												
RPD												

NOTES: Arsenobetaine (AsB)
 Dimethylarsinic acid (DMA)
 Monomethylarsonic acid (MMA)
 Arsenate (V or As⁵⁺)
 Arsenite (III or As³⁺)
 Total Inorganic Arsenic = As³⁺⁵
 Total As = Sum of AsB, DMA, MMA, and As³⁺⁵
 Cal = Calculated Value

¹ Method detection limit (MDL) for AsB calculated from instrument detection limit converted to µg/g using the average sample mass and volume for this project

U Not detected at or above MDL shown

NS Not spiked

N Outside Method DQOs for Blank Spikes (≤ 15%), MS/MSD (≤ 25%), SRM (≤ 25%)

* Outside Method DQOs for Duplicates (≤ 25%)

QA/QC NARRATIVE

PROJECT: Washington Closures Hanford
PARAMETER: Arsenic Speciation - Total Inorganic Arsenic (TIA)
LABORATORY: Pacific Northwest National Laboratory (PNNL) operated by Battelle, Marine Sciences Laboratory (MSL), Sequim, Washington
MATRIX: Tissue Homogenate
SAMPLE CUSTODY AND PROCESSING: A total of 32 tissue samples were received at MSL in three shipments: 08/06/09, 08/14/09, and 08/20/09. All samples were received in good condition (i.e., no sample containers were broken or leaking). Samples were assigned a Battelle Central File (CF) identification number (2981) and were entered into the MSL sample tracking and project management system.

SAMPLE PROCESSING INFORMATION:

MSL Code:	SDG080609: 2981*113-122 SDG081409: 2981*123-138 SDG082009: 2981*139-144
Description:	Freshwater Fish Homogenate
Collection dates	July and August 2009
Laboratory arrival date	08/06/09, 08/14/09, 08/20/09
Cooler temperature on arrival	2.1, 2.5, and 1.2°C, respectively
Extraction Dates:	09/17/09 and 09/18/09
Analyses Dates:	09/17/09 and 09/18/09

METHODS: The tissue homogenate was processed and analyzed for total inorganic arsenic defined as the sum of arsenate (V or As⁵⁺) and arsenite (III or As³⁺) following MSL standard operating procedure MSL-I-037 ARSENIC SPECIATION USING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY - INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (HPLC-ICP-MS) IN AQUEOUS, SEDIMENT, AND TISSUE SAMPLES. This method was developed from guidance in EPA Method 1632 for the speciation of arsenic in waters. This method is applicable to the determination of total inorganic arsenic (As) and arsenic species in drinking, surface, groundwater, seawater, tissue and sediment extracts. The anionic or cationic arsenic species are separated by an anion ion exchange column on high-performance liquid chromatography (HPLC) followed by detection and quantification using inductively coupled plasma – mass spectrometry with a dynamic reaction cell accessory (ICP-DRC-MS). This method quantitatively determines organic species of arsenic including arsenobetaine (AsB), dimethylarsinic acid (DMA), monomethylarsonic acid (MMA), and can be set up to separate the inorganic oxidation states of 3+ and 5+. This allows risk assessment to be conducted on a chemical species of interest rather than just the total arsenic. This is particularly significant for arsenic as the toxicity is highly dependent on the chemical species, with the most toxic being the As³⁺ oxidation state. The data for the organic arsenic species were included along with the total inorganic arsenic determined as the sum of the inorganic oxidation states of 3+ and 5+. The quality control evaluated was conducted only on the total inorganic arsenic concentration identified in the table as As³⁺⁵.

Upon arrival at MSL, the wet tissue samples were stored at <-18°C until samples were lyophilized. Approximately 500 mg of dried, homogenized tissue was extracting using deionized water and tetramethyl ammonium hydroxide (TMAOH). An aliquot of the supernatant is subsequently analyzed for arsenic species using the HPLC coupled with the ICP-DRC-MS. Analytical results are reported in µg/g dry weight. These concentrations are then converted back to a wet weight concentration using the

QA/QC NARRATIVE

following formula: wet weight concentration = dry weight concentration * % dry weight / 100.

HOLDING TIMES:

Wet tissue samples were stored at either 4 °C, frozen, or at ≤ -18 °C from time of collection to analysis. Holding times are 28 days at 4 ± 2 °C and 180 days at ≤ -18 °C. Dry samples in plastic or glass jars may be stored at room temperature for 180 days. The samples were received 3-10 days after collection and stored at ≤ -18 °C and then lyophilized. With these storage requirements the samples were analyzed within the 180 days from collection.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	Range of Blank Spike Recovery	Range of MS/MSD Spike Recovery	SRM Percent Recovery	Replicate Precisions (RPD)	Achieved MDL (µg/g dry wt.)	Achieved MDL (µg/g wet wt.)
AsB	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.002 µg/g	0.0005 µg/g
DMA	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.005 µg/g	0.001 µg/g
MMA	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.007 µg/g	0.002 µg/g
As3+5	HPLC/ICP-DRC-MS	85-115%	75-125%	±25%	≤25%	0.01 µg/g	0.003 µg/g

NA - Data quality not applicable to the organic arsenic species for this project.

DETECTION LIMITS:

Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. The only exception is the MDL determined for the AsB, which was the instrument detection limit converted from µg/L to µg/g using the average sample mass and volume for these samples. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the QC sample criterion.

N Spikes outside the QC sample criterion.

METHOD BLANKS:

Method blanks were prepared and analyzed with the samples at a frequency of one each per analytical batch. Two analytical batches are reported for this data set. None of the arsenic species were detected in the method blanks.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY:

Laboratory control samples (LCS) were prepared and analyzed at a frequency of one each per analytical batch. The LCS consists of reagents spiked with the arsenic species of interest that are processed and analyzed with the samples. The LCS samples were within the QC criterion of 85-115% recovery.

REPLICATE PRECISION:

Laboratory duplicates were analyzed at a frequency of one each per 20 field samples or analytical batch. The samples did not contain detectable As³⁻⁵; therefore, precision was assessed using the matrix spike duplicates.

MATRIX SPIKE ACCURACY:

The analytical method calls for matrix spikes at a frequency of one each per 20 samples or analytical batch. A matrix spike duplicate was also added to provide a measure of precision. The matrix spikes were within the QC acceptance criterion of 75-125% for all total inorganic arsenic spikes.

QA/QC NARRATIVE

Analytical precision was assessed using the matrix spike duplicates and were within the QC acceptance criterion of <25% RPD.

STANDARD REFERENCE MATERIAL:

The standard reference material (SRM) Dorm-2 Dogfish Mussel was prepared and analyzed with each analytical batch. The SRM is not certified for total inorganic arsenic, but certified values are provided for AsB and total As. The concentrations for these two species were within the QC criterion of ±25% difference.

REFERENCES:

Francesconi, K.A. and Kuehnelt, D., 2004. Determination of arsenic species: A critical review of methods and application, 2000-2003. *Analyst*, 129: 373-395.

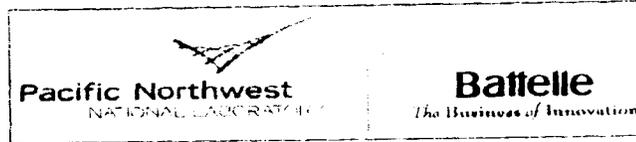
Gong, Z., Lu, X., Ma, M., Watt, C., Le, C., 2002. Arsenic speciation analysis. *Talanta*, 58: 77-96

Mandal, B.K., Ogra, Y., Suzuki, K.T., 2003. Speciation of arsenic in human nail and hair from arsenic-affected area by HPLC-inductively coupled argon plasma mass spectrometry. *Toxicol. Appl. Pharmacol.*, 189: 73-83.

U.S. EPA, 2000. Method 1632, Revision A (1632A), Chemical Speciation of Arsenic in Water and Tissue by Hydride Generation Quartz Furnace atomic Absorption Spectrometry.

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/6/2009
Batch: 10
Login Designee: Mcgahan



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19266	na	2981-113	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/28/09
J19265	na	2981-114	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/28/09
J19268	na	2981-115	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/29/09
J19267	na	2981-116	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/29/09
J19292	na	2981-117	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/30/09
J19291	na	2981-118	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/30/09
J192B2	na	2981-119	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192B1	na	2981-120	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192C2	na	2981-121	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192C1	na	2981-122	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-619	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 1 CARCASS		SAF No. RC-118		<i>11072109</i>		
Ice Chest No. <i>GLDS-052</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill # FDV 797823511495				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P				
		No. of Container(s)	1	0				
		Volume	60mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19266 <i>2981-113</i>	OTHER SOLID	<i>7/28/09</i>	<i>1100</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>7/28/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>7/28/09</i>	<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDV 797823511495</p> <p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i></p>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/5/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/5/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/5/09</i>	Received By/Stored In FDV 797823511495	Date/Time <i>8/5/09</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By <i>[Signature]</i>	Title						Date/Time <i>8/2/09 1430</i>
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By				Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-618	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>NA 7/9/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 1 FILLET	SAF No. RC-118					
Ice Chest No. <i>6WS-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air FDX# 7978235 114 95					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P			
		No. of Container(s)	1	0			
		Volume	60mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19265 <i>2981-114</i>	OTHER SOLID	<i>7/28/09</i>	<i>1100</i>	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West Wendy West</i>	Date/Time <i>7/28/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>7/28/09</i>	EAS LOCKED STORAGE SHANNAN JOHNSON FDX# 7978235 114 95 Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i>			S=Soil SE=Sediments SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trace WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/5/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/5/09 1:30</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/5/09 11:20</i>	Received By/Stored In FDX# 7978235 114 95	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>8/10/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-629	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 2 CARCASS		SAF No. RC-118		<i>N/A 72209</i>		
Ice Chest No. <i>6205-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill # FDX# 797823511499		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P			
		No. of Container(s)	1	0			
		Volume	60mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19268 <i>2981-115</i>	OTHER SOLID	<i>7/29/09</i>	<i>1500</i>	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>7/29/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>7/29/09</i>	<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX# 797823511495</p> <p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i></p>			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>28/5/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/5/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/5/09</i>	Received By/Stored In <i>FDX# 797823511495</i>	Date/Time <i>8/5/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>8/2/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-628	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 2 FILLET	SAF No. RC-118					<i>MA 72209</i>	
Ice Chest No. <i>GLWS-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air FDX # 797823511495						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	1	0		
				Volume	60mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19267 <i>2981-116</i>	OTHER SOLID	<i>7/29/09</i>	<i>1500</i>	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>7/29/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>7/29/09</i>	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX # 797823511495 Sampler unavailable to relinquish samples from EAS Refrigerator. Custodian removed samples shipping on <i>8/5/09</i>			S-Soil SE-Sediments SO-Solid SI-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue W1-Wipe L-Liquid V-Vegetation X-Other	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>8/5/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/5/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/5/09 1130</i>	Received By/Stored In FDX # 797823511495	Date/Time <i>8/5/09</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>08/06/09 1430</i>				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-639	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 3 CARCASS		SAF No. RC-118	NA 72309			
Ice Chest No. <i>GLDS-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill <i>797823511495</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P			
		No. of Container(s)	<i>10</i>	<i>1</i>			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromatogram Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19292 <i>2981-112</i>	OTHER SOLID	<i>7/30/09</i>	<i>1400</i>	X	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1400</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1400</i>	EAS LOCKED STORAGE SHANNAN JOHNSON FDX # 797823511495 Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian received samples for shipping on <i>8/5/09</i>			
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>7/30/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>7/30/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/5/09 1130</i>	Received By/Stored In FDX # 797823511495	Date/Time <i>8/5/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>8/6/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-638		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>AP 7/23/09</i>		Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 3 FILLET				SAF No. RC-118					
Ice Chest No. <i>605-052</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDA# 797823511495							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P						
		No. of Container(s)		<i>10</i> <i>4078209</i>	1						
		Volume		15mL	60mL						
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M							
Sample No.	Matrix *	Sample Date	Sample Time								
J19291 <i>2981-118</i>	OTHER SOLID	<i>7/30/09</i>	<i>1400</i>	X	X						
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>7/23/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>7/30/09</i>		<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian retrieved samples for shipping on <i>7/31/09</i></p>			
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>7/25/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>7/25/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>7/25/09 130</i>		Received By/Stored In FDA# 797823511495		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Matrix *</p> <ul style="list-style-type: none"> S=Soil Ss=Sediment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 			
LABORATORY SECTION		Reported By <i>Wendy West</i>		Title		Date/Time <i>08/06/09 1430</i>					
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-649	Page 1 of 1	
Collector Mason F. diNo		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N 44 72709	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 4 CARCASS		SAF No. RC-118				
Ice Chest No. GWS-052		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797823511495				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J192B2 2981.119	OTHER SOLID	8/3/09	1100	X	X			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From M.F. diNo 8-3-09 1100hrs		Date/Time		Received By/Stored In EAS LOCKED STORAGE 8-3-09		Date/Time 1100hrs		
Relinquished By/Removed From EAS LOCKED STORAGE 7/25/09		Date/Time 7/25/09		Received By/Stored In SHANNAN JOHNSON 8/5/09		Date/Time 1130		
Relinquished By/Removed From SHANNAN JOHNSON 8/5/09 1130		Date/Time 8/5/09 1130		Received By/Stored In FDX# 797823511495		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION				Title		Date/Time		
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By		Date/Time 08/06/09 1430

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-648	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>118 72709</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 4 FILLET	SAF No. RC-118	Method of Shipment FED EX				
Ice Chest No. <i>6WS-052</i>	Field Logbook No. EL-1638	COA BESRC6520	Bill of Lading/Airway Bill FDX: 797823511495				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	POSSIBLE SAMPLE HAZARDS/REMARKS N/A					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J192B1 <i>2981-120</i>	OTHER SOLID	<i>8/3/09</i>	<i>1000</i>	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/3/09</i> <i>1000</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/3/09</i>	EAS LOCKED STORAGE SHANNAN JOHNSON FDX: 797823511495 Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/12/09</i>			
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/15/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/15/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/15/09</i>	Received By/Stored In FDX: 797823511495	Date/Time <i>8/15/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>8/10/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-659	Page 1 of 1	
Collector <i>Mason F. d. mo</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 5 CARCASS		SAF No. RC-118		<i>NA 72705</i>		
Ice Chest No. <i>665-052</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FD 797823511495				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P	
					No. of Container(s)	0	1	
					Volume	15mL	60mL	
					Total Inorganic Arsenic		Chromium Hex in Solids - 1636M	
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J192C2 <i>2981.121</i>	OTHER SOLID	<i>8-3-09</i>	<i>1500</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>M. F. d. mo</i>		Date/Time <i>8-3-09 1500</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>8-3-09 1500</i>		<ul style="list-style-type: none"> S=Soil SE=Seiment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09 1130</i>		Received By/Stored In <i>FDX 797823511495</i>		Date/Time <i>8/5/09</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION				Title				Date/Time
FINAL SAMPLE Disposal Method				Disposed By				Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-658	Page 1 of 1
Collector <i>Mason Fidino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 5 FILLET	SAF No. RC-118	<i>NA 72704</i>				
Ice Chest No. <i>GLWS-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill # FDX# 7978235 11495					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J192C1 <i>2981.122</i>	OTHER SOLID	8-3-09	1400	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>M. F. Fidino</i>	Date/Time <i>8-3-09 1400</i>	Received By/Stored In <i>M. F. Fidino</i>	Date/Time <i>8-3-09 1400</i>	EAS LOCKED STORAGE #2 SHANNAN JOHNSON FDX# 7978235 11495 Sampler unavailable to relinquish samples from EAS Refrigerator EAS Custodian removed samples for shipping on <i>8/15/09</i>			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Timber WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>8/15/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/15/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/15/09</i>	Received By/Stored In <i>FDX# 7978235 11495</i>	Date/Time <i>8/15/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>	Title		Date/Time <i>08/06/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2781

Sample No(s): 123-38

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact?

Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$ or frozen? 2.5 $^\circ\text{C}$
(if multiple coolers, note temp. of each) _____ $^\circ\text{C}$

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: Plastic

Notes: _____

Completed By: [Signature] Date/Time: 08/14/09 1300

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: Deep freezer C-2

Other Notes: _____

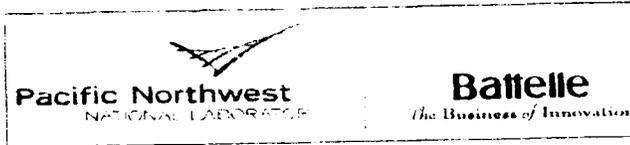
Completed By: [Signature] Date/Time: 08/14/09 1300

Storage Shelf: Deep freezer C-2

Battelle Marine Sciences Labs, 1529 West Sequim Bay Rd, Sequim, Washington 98362 PH: (360) 681-4565

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/14/2009
Batch: 11
Login Designee: Mcgahan



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J192F1	na	2981-123	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192F2	na	2981-124	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H2	na	2981-125	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H3	na	2981-126	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J19304	na	2981-127	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19305	na	2981-128	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19314	na	2981-129	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19315	na	2981-130	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19325	na	2981-131	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J19326	na	2981-132	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L2	na	2981-133	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L3	na	2981-134	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193M2	na	2981-135	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193M3	na	2981-136	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193N4	na	2981-137	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09
J193N5	na	2981-138	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09

Washington Closure Hanford				CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-668		Page 1 of 1			
Collector <i>Wendy West</i>				Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i>		Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues				Sampling Location STURGEON 6 FILLET		SAF No. RC-118				<i>NA 72209</i>			
Ice Chest No. <i>EAS SA 1016 W5678</i>				Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		<i>FDX 796850726969</i>			
Shipped To Battelle Marine Sciences				Offsite Property No. N/A				Bill of Lading/Air Bill No.		<i>N/A</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C	Freeze						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G	G/P						
				No. of Container(s)		0	1						
				Volume		15mL	60mL						
				Total Inorganic Arsenic			Chromium Hex in Solids - 1636M						
SAMPLE ANALYSIS													
Sample No.	Matrix *	Sample Date	Sample Time										
J192F1 <i>2781.123</i>	OTHER SOLID	<i>8/1/09</i>	<i>1000</i>	X	X								
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From		Date/Time <i>1000</i>		Received By/Stored In		Date/Time <i>1000</i>		<i>EAS LOCKED STORAGE #2</i> <i>SHANNAN JOHNSON</i> <i>FDX</i> sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>				S=Soil SE=Sediment SO=Solid SI=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
<i>Wendy West</i>		<i>8/1/09</i>		<i>Wendy West</i>		<i>8/1/09</i>							
<i>EAS LOCKED STORAGE #2</i>		<i>8/1/09</i>		<i>SHANNAN JOHNSON</i>		<i>8/1/09</i>							
<i>SHANNAN JOHNSON</i>		<i>8/1/09</i>		<i>SHANNAN JOHNSON</i>		<i>8/1/09</i>							
<i>SHANNAN JOHNSON</i>		<i>8/1/09</i>		<i>SHANNAN JOHNSON</i>		<i>8/1/09</i>							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
						<i>8/24/09 1330</i>							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
LABORATORY SECTION		Received By		Title		Date/Time							
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time							

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-669	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>72709</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 6 CARCASS		SAF No. RC-118					
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J192F2 <i>2981-124</i>	OTHER SOLID	<i>8/4/09</i>	<i>1145</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1145</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>1145</i>		
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>EDX</i>		Date/Time <i>08/14/09 1300</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION				Received By				Title
FINAL SAMPLE DISPOSITION				Disposal Method				Disposed By
								Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-678		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>8309</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 FILLET				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>ELWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C	Freeze			
				Type of Container		P/G	G/P			
				No. of Container(s)		0	1			
				Volume		15mL	60mL			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M				
				SAMPLE ANALYSIS						
Sample No.	Matrix *	Sample Date	Sample Time							
J192H2 2981-125	OTHER SOLID	8/14/09	1500	X	X					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solid DL=Dry Liquid T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1500</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500</i>		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i>		
EAS LOCKED STORAGE		<i>8/13/09</i>		SHANNAN JOHNSON		<i>8/13/09</i>				
SHANNAN JOHNSON		<i>1000</i>		EDU		<i>1300</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By				Title				Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-679	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>8309</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 CARCASS		SAF No. RC-118			
Ice Chest No. <i>GWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading / Bill No. FDX 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J192H3 <i>2781-126</i>	OTHER SOLID	<i>8/4/09</i>	<i>1510</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/4/09</i>	Received By/Stored In EAS LOCKED STORAGE		Date/Time <i>8/4/09</i>	<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i></p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/13/09</i>	Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>	Received By/Stored In FDX		Date/Time <i>8/13/09 1300</i>		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-688	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 8 FILLET		SAF No. RC-118		<i>AD 8309</i>		
Ice Chest No. <i>GW8028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Trailer # FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19304 <i>2981-127</i>	OTHER SOLID	<i>8/5/09</i>	<i>0930</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/5/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/5/09</i>	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i>			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>8/13/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time <i>8/14/09 1300</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-689	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 8 CARCASS		SAF No. RC-118		<i>N</i> <i>NA-8309</i>		
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Tr Bill No. <i>FDX 796859726969</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19305 <i>2981.128</i>	OTHER SOLID	<i>8/5/09</i>	<i>1000</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/5/09</i>	
EAS LOCKED STORAGE				EAS LOCKED STORAGE 2			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>	
SHANNAN JOHNSON				FDX			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/14/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/14/09 1300</i>	
Relinquished By/Removed From				Received By/Stored In			
Relinquished By/Removed From				Received By/Stored In			
Relinquished By/Removed From				Received By/Stored In			
LABORATORY SECTION	Received By	Title					Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By					Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-698		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AS 8309</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Al... No. FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
		Total Inorganic Arsenic			Chromium Hex in Solids - 1636M				
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
J19314 <i>2721-129</i>	OTHER SOLID	<i>8/5/09</i>	<i>1300</i>	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1300</i>		Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/13/09 1100</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1100</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>8/14/09 1300</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		sampler unavailable to relinquish samples from EAS Refrigerator EAS Custodian removed samples for shipping on <i>8/15/09</i>	
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-699	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>OK</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 9 CARCASS	SAF No. RC-118	Bill of Lading/In Bill No. FD 796859726969				
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Total Inorganic Arsenic		Chromium Hex in Solids - 1636M				
	SAMPLE ANALYSIS						
Sample No.	Matrix *	Sample Date	Sample Time				
J19315 <i>228/130</i>	OTHER SOLID	8/5/09	1400	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 8/5/09	Received By/Stored In <i>Wendy West</i>	Date/Time 8/5/09	sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i> .			S=Soil
EAS LOCKED STORAGE 2							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 8/12/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 8/12/09				
EAS LOCKED STORAGE 2							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 8/12/09	Received By/Stored In <i>FD</i>	Date/Time				
EAS LOCKED STORAGE 2							
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			SE=Sediment	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			SO=Solid	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			SI=Sludge	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			W=Water	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			O=Oil	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			A=Air	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			DS=Drum Solids	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			DL=Drum Liquids	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			T=Tissue	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			W1=Wipe	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			L=Liquid	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			V=Vegetation	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			X=Other	
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-708	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 10 FILLET	SAF No. RC-118	Bill of Lading/Air Bill No. FDX 796859726969				
Ice Chest No. <i>GLDS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19325 <i>2981-131</i>	OTHER SOLID	<i>8/16/09</i>	<i>0900</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>0910</i>		EAS LOCKED STORAGE 2		<i>0900</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
EAS LOCKED STORAGE		<i>8/13/09</i>		SHANNAN JOHNSON		<i>8/13/09 1000</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SHANNAN JOHNSON		<i>8/13/09 1000</i>		FDX			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>Shannan Johnson</i>		<i>8/14/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-718	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 11 FILLET		SAF No. RC-118	<i>MS609</i>			
Ice Chest No. <i>GWOS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill No. FD 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J193L2 2921-133	OTHER SOLID	8/16/09	1420	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 8/16/09	Received By/Stored In <i>Wendy West</i>	Date/Time 8/16/09	<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i></p>			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time 8/13/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 8/13/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 8/13/09	Received By/Stored In <i>FD</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-719	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON II CARCASS		SAF No. RC-118	N/A 8609			
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # PDX # 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J193L3 <i>2781-131</i>	OTHER SOLID	<i>8/16/09</i>	<i>1430</i>	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1430</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1430</i>	Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Timber WJ=Wipe L=Liquid V=Vegetation X=Other Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/18/09</i>			
EAS LOCKED STORAGE	<i>8/15/09</i>	SHANNAN JOHNSON	<i>8/15/09</i>				
SHANNAN JOHNSON	<i>8/15/09 1000</i>	EDY					
		<i>EDY</i>	<i>08/14/09 1300</i>				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-728		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>09/09/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 FILLET				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # <i>FDX 96859726969</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P		
					No. of Container(s)	0	1		
					Volume	15mL	60mL		
SAMPLE ANALYSIS					Total Inorganic Arsenic		Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time						
J193M2 <i>2981-135</i>	OTHER SOLID	<i>8/10/09</i>	<i>1130</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
<i>Wendy West</i>		<i>8/10/09</i>		<i>EAS LOCKED STORAGE</i>		<i>8/10/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
<i>EAS LOCKED STORAGE</i>		<i>8/13/09</i>		<i>SHANNAN JOHNSON</i>		<i>8/13/09 1000</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
<i>SHANNAN JOHNSON</i>		<i>8/13/09 1000</i>		<i>FDX</i>		<i>8/14/09 1300</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-729	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 12 CARCASS		SAF No. RC-118		<i>408609</i>		
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # PDX 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M
Sample No.	Matrix *	Sample Date	Sample Time				
J193M3 <i>881.136</i>	OTHER SOLID	<i>8/10/09</i>	<i>1200</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1200 8/10/09</i>		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time <i>1200 8/10/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>1000 8/10/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/10/09/1000</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/10/09/1000</i>		Received By/Stored In FED EX		Date/Time <i>8/14/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-738	Page 1 of 1
Collector <i>Wendy Wait</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 13 FILLET		SAF No. RC-118		<i>M2609</i>		
Ice Chest No. <i>GWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Trailer No. FDX 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J193N4 <i>2981.137</i>	OTHER SOLID	<i>8/11/09</i>	<i>0900</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy Wait</i>	Date/Time <i>0900</i>	Received By/Stored In <i>Wendy Wait</i>	Date/Time <i>0900</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab.			S=Soil SE=Sediment SQ=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>1000</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/11/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>01/12/09/000</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981

Sample No(s): 113 - 122

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: _____ Entire sample _____ Half of sample _____

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact? *Each sample has a custody seal that was intact. jmk 8/6/09*

Was cooler(s) temperature(s) within acceptable range of 4±2°C or frozen? 2.1 °C
(if multiple coolers, note temp. of each) _____ °C

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s):

Acceptable Other (explain): _____

Container type:

Teflon Poly Glass Cap. Vial Other: Plastic jars

Notes: _____

Completed By: *[Signature]*

Date/Time: 08/06/09 1430

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: _____

Other Notes: _____

Completed By: *[Signature]*

Date/Time: 08/06/09 1430

Storage Shelf: _____

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/20/2009
Batch: 12
Login Designee: Csuslick



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19446	-	2981-139	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	12-Aug-09
J19447	-	2981-140	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19456	-	2981-141	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19457	-	2981-142	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19466	-	2981-143	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19467	-	2981-144	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-748	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 14 FILLET	SAF No. RC-118	481009				
Ice Chest No. <i>WCH-08-D62</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 797863010890					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19446	2981-139	OTHER SOLID	8/12/09	0930	X	X	
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 8/12/09	Received By/Stored In <i>Wendy West</i>	Date/Time 8/12/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody</p>			
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 8/19/09	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 8/19/09				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 8/19/09	Received By/Stored In <i>EDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 8/20/09 1450				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-749	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 14 CARCASS		SAF No. RC-118		<i>1/10/09</i>		
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX 797863010890				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P			
		No. of Container(s)		0	1			
		Volume		15mL	60mL			
		Total Inorganic Arsenic			Chromium Hex in Solids - 1636M			
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J19447	<i>2981-140</i>	<i>8/17/09</i>	<i>1010</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/17/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/17/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>1245 8/18/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1245 8/18/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1245 8/18/09</i>		Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Caron Battelle MSL</i>		Date/Time <i>8/22/09 1450</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION				Title				Date/Time
Received By								
FINAL SAMPLE DISPOSITION				Disposal Method				Date/Time
Disposal Method								

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-758	Page 1 of 1
Collector <i>Mason Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 15 FILLET		SAF No. RC-118		Price Code <i>9K</i> <i>N</i> <i>1/18/09</i>	
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESRC6520		Data Turnaround 45 Days	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX 797863010890	
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M	
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J19456	<i>2981-141</i>	<i>8-17-09</i>	<i>1145</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Mason Fidino</i>		Date/Time <i>8-17-09 1145</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8-17-09 1145</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/19/09 1245</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09 1245</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09 1245</i>		Received By/Stored In <i>FDX</i>		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Yann B...</i>		Date/Time <i>8/19/09 1450</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-759	Page 1 of 1	
Collector <i>Mason Fidino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 15 CARCASS		SAF No. RC-118	<i>MD 81009</i>				
Ice Chest No. <i>WCH-08-062</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 797863010890						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19457	<i>2981-142</i>	<i>8-17-09</i>	<i>1200</i>	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Mason Fidino</i>		Date/Time <i>8-17-09 1200</i>	Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>8-17-09 1200</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Seaweed SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>1245</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09</i>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09</i>	Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Yuan Battelle</i>		Date/Time <i>8/20/09 1450</i>			
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By	Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-768	Page 1 of 1	
Collector M. F. d'ino	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 16 FILLET	SAF No. RC-118		ADG4009			
Ice Chest No. WCH-08-062	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 797863010090					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G	G/P			
			No. of Container(s)	0	1			
			Volume	15mL	60mL			
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time					
J19466	2981-143	OTHER SOLID	8-17-09	1435	X	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M. F. d'ino	Date/Time 8-17-09 1435	Received By/Stored In EAS LOCKED STORAGE	Date/Time 8-17-09 1435	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W/W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 1245 8/19/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 1245 8/19/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 1245 8/19/09	Received By/Stored In FDX	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In Yuan BATHIN MSL	Date/Time 8/21/09 1450					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-769	Page 1 of 1	
Collector M.F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 16 CARCASS			SAF No. RC-118		1/181009	
Ice Chest No. WCH-08-062		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air FDX# 797863010890			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE *MATRIX COMPOSED OF FISH*				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19467	2981744	OTHER SOLID	8-17-09	1500	X	X		
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M.F. dino		Date/Time 8-17-09 1500		Received By/Stored In EAS LOCKED STORAGE		Date/Time 8-17-09 1500		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 8/19/09 1245		Received By/Stored In SHANNAN JOHNSON		Date/Time 8/19/09 1245		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 8/19/09 1245		Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In Chen Battelle MSL		Date/Time 8/20/09 1450		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title					Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By					Date/Time	

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981

Sample No(s): 139-144

Project Manager: JB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present? *each jar had intact & custody seal - intact*

Was the custody seal intact? *11cc intact*

Was cooler(s) temperature(s) within acceptable range of 4±2°C or frozen? 1.2 °C
(if multiple coolers, note temp. of each)

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: _____

Notes: temp on - should be frozen

Completed By: [Signature] Date/Time: 8/20/09 1450

SAMPLE PRESERVATION

Sample(s) were preserved at MSL freeze

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: delivered to KIC for splitting; both freezing

Other Notes: _____

Completed By: [Signature] Date/Time: 8/20/09 1500

Storage Shelf: Clay freezer / Walkin

Analytical Chemistry Data Package Inorganics Analysis

**Project: Washington Closures Hanford
Chromium VI Analysis of Tissue**

**SDG 080609
SDG 081409 (a)**



PNNL Project No. 56166
MSL CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, WA 98382
PM: Jill Brandenberger
(360) 681-4564

SEQ081409

INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

Chromium VI Analysis in Tissue

Summary Table.....	3
QA/QC Narrative.....	4
MDL Summary.....	6

Sample Custody Information

Laboratory Sample Log-In and Chain of Custody Forms for:	
SDG080609	7
SDG081409	19

BATTELLE MARINE SCIENCES LABORATORY

1529 West Sequim Bay Road
 Sequim, Washington 98382
 (360) 681-4564

Washington Closure Hanford
 Chromium VI Study
 SDG 080609 and SDG081409(a)

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI	
								$\mu\text{g/g dry wt.}$	$\mu\text{g/g wet wt.}^1$
Method Detection Limit (MDL)								0.471	0.127
2981-113	J19266	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	32.7	0.471 U	0.127 U
2981-114	J19265	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	27.4	0.471 U	0.127 U
2981-114DUP	J19265DUP	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	27.4	0.792	0.217
2981-115	J19268	SDG080609	08/06/09	07/29/09	01/20/10	012010-LCDRC	26.3	0.471 U	0.127 U
2981-116	J19267	SDG080609	08/06/09	07/29/09	01/20/10	012010-LCDRC	23.4	0.471 U	0.127 U
2981-117	J19292	SDG080609	08/06/09	07/30/09	01/20/10	012010-LCDRC	33.7	0.471 U	0.127 U
2981-118	J19291	SDG080609	08/06/09	07/30/09	01/20/10	012010-LCDRC	27.6	0.471 U	0.127 U
2981-119	J192B2	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	25.7	0.471 U	0.127 U
2981-120	J192B1	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	22.1	0.580	0.128
2981-121	J192C2	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	29.5	0.471 U	0.127 U
2981-122	J192C1	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	25.0	0.864	0.216
2981-123	J192F1	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	22.3	0.735	0.164
2981-124	J192F2	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	25.3	0.471 U	0.127 U
2981-125	J192H2	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	27.0	0.471 U	0.127 U
2981-126	J192H3	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	33.6	0.471 U	0.127 U
2981-127	J19304	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	23.8	0.652	0.155
2981-128	J19305	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	27.3	0.471 U	0.127 U
2981-129	J19314	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	20.8	0.471 U	0.127 U
2981-130	J19315	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	26.7	0.471 U	0.127 U
2981-131	J19325	SDG081409	08/14/09	08/06/09	01/20/10	012010-LCDRC	24.5	1.14	0.279
2981-132	J19326	SDG081409	08/14/09	08/06/09	01/20/10	012010-LCDRC	33.2	0.471 U	0.127 U

QUALITY CONTROL SAMPLE RESULTS Average 26.9

Method Blank
 Blank R1 01/20/10 012010-LCDRC 0.471 U 0.127 U

Laboratory Control Sample
 LCS Cr+6 01/20/10 012010-LCDRC 3.12 --
 Spike Concentration 3.00 --
 % Recovery 104% --

Replicate Analysis Results
 2981-114 J19265 SDG080609 08/06/09 07/28/09 01/20/10 012010-LCDRC 27.4 0.471 U 0.127 U
 2981-114DUP J19265DUP SDG080609 08/06/09 07/28/09 01/20/10 012010-LCDRC 27.4 0.792 0.217
 RPD NA NA

Matrix Spike Accuracy
 2981-116 J19267 SDG080609 08/06/09 07/29/09 01/20/10 012010-LCDRC 23.4 0.471 U 0.127 U
 2981-116 MS (Cr+6) 3.07 --
 2981-116 MSD (Cr+6) 2.65 --
 Spike Amount, MS 2.96 --
 Spike Amount, MSD 3.03 --
 % Recovery, MS 104% --
 % Recovery, MSD 88% --
 RPD 17% --

Qualifiers:
¹ Wet weight detection limit calculated using the average sample percent dry weight (26.9%).
 NA Not applicable/appropriate. Sample concentration less than detection limit or reporting limit = 3*MDL.
 U Not detected at or above MDL, MDL reported in value field
 N Outside Method DQOs for Blank Spikes ($\leq 15\%$) and MS/MSD ($\leq 25\%$) results
 * Outside Method DQOs for Duplicates ($\leq 25\%$)

QA/QC NARRATIVE

PROJECT: Washington Closures Hanford SDG080609 and SDG081409a (partial batch)
PARAMETER: Chromium Speciation – Hexavalent Chromium (Cr VI)
LABORATORY: Pacific Northwest National Laboratory (PNNL) operated by Battelle, Marine Sciences Laboratory (MSL), Sequim, Washington
MATRIX: Tissue Homogenate
SAMPLE CUSTODY AND PROCESSING: The samples reported with SDG080609 and 081409a were received in two shipments. A total of 26 tissue samples were received at MSL in two shipments: 08/06/09 and 08/14/09. All samples were received in good condition (i.e., no sample containers were broken or leaking). Samples were assigned a Battelle Central File (CF) identification number (2981) and were entered into the MSL sample tracking and project management system. This narrative addressed only part of the SDG081409 samples due to an analytical batch size of 20 samples. See note below for sample numbers addressed in this narrative.

SAMPLE PROCESSING INFORMATION:

	SDG080609	SDG081409a (partial)
MSL Sample IDs :	2981*113-122	2981*123-132
Description :	Fish Homogenate	Fish Homogenate
Laboratory Arrival Date :	08/06/09	08/14/09
Cooler Temperature upon Arrival:	2.1°C	2.5°C
Extraction Dates:	01/20/10	
Analysis Dates:	01/20/10	

METHODS: The tissue homogenate was processed and analyzed for CrVI following a modification from the Environmental Protection Agency (EPA) Method 6800 Elemental and Speciated Isotope Dilution Mass Spectrometry. The modification occurs in the preparation method for the tissue matrix. The tissues were extracted for CrVI following adaptations from Wolf et al. (2007). The extracts were then analyzed following MSL standard operating procedure MSL-I-039 CHROMIUM SPECIATION USING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY - INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (HPLC-ICP-MS) IN AQUEOUS, SEDIMENT, AND TISSUE SAMPLES. The operation manual for chromium explicit SIDMS was provided by Applied Isotope Technologies and is briefly discussed in EPA Method 6800. Peaks are manually integrated for peak area and concentration is entered into the SIDMS software to conduct the isotopic dilution calculations.

Upon arrival at MSL, the wet tissue samples were stored at <-80°C until samples were lyophilized. Approximately 200 mg of dried, homogenized tissue was spiked with enriched isotopes of ⁵²Cr and ⁵³Cr to correct for interferences and potential interconversion between the oxidation states of Cr³⁺ and Cr⁶⁺. The tissues were extracted using a Na₂CO₃ and NaHCO₃ buffer, ultrasonication, and centrifugation. The extracts were then filtered through a 0.45µm Teflon syringe to removal particulates and analyzed by HPLC coupled with the ICP-DRC-MS. Analytical results are reported in µg/g dry weight. These concentrations are then converted back to a wet weight concentration using the following formula: wet weight concentration = dry weight concentration * % dry weight / 100.

HOLDING TIMES: Wet tissue samples were stored at ≤ -80°C upon arrival at MSL. Method 6800 does not provide a holding time for CrVI; however, it states that samples collected for speciation analysis must be isotopically spiked as soon as possible. Due to the lipid interference that occurred in the original method, the samples were isotopically spiked several months after collection. However, the storage of sample at ≤ -80°C sufficiently inhibits

QA/QC NARRATIVE

interconversion of the oxidation states over this period of time. The samples are not considered significantly impacted by delay in isotopically spiking the samples.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	Range of Blank Spike Recovery	Range of MS/MSD Spike Recovery	SRM Percent Recovery	Replicate Precisions (RPD)	Achieved MDL (µg/g dry wt.)	Achieved MDL (µg/g wet wt.)
CrVI	HPLC/ICP-DRC-MS	85-115%	75-125%	NA	≤25%	0.471 µg/g	0.127 µg/g

NA - Tissue standard reference materials certified for CrVI are not presently available.

DETECTION LIMITS: Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. Seven replicates of a fish tissue were used to generate the MDL for the dry weight concentration. The dry weight is then converted to a wet weight concentration using the average sample percent dry weight as discussed above. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the QC sample criterion.

N Spikes outside the QC sample criterion.

METHOD BLANKS:

Method blanks were prepared and analyzed with the samples at a frequency of one each per analytical batch. The data reported include one analytical batch with no detectable CrVI in the method blank.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY:

Laboratory control samples (LCS) were prepared and analyzed at a frequency of one each per analytical batch. The LCS consists of reagents spiked with the isotopically enriched standards for ⁵²Cr and ⁵³Cr. The LCS sample was within the QC criterion of 85-115% recovery.

REPLICATE PRECISION:

Laboratory duplicates were analyzed at a frequency of one each per 20 field samples or analytical batch. The sample selected for duplicate was less than three times the MDL and not appropriate for evaluation of the data set precision. Precision was assessed using the matrix spike duplicate.

MATRIX SPIKE ACCURACY:

A set of matrix spike duplicates was prepared at a frequency of one each per 20 samples or analytical batch. The matrix spikes were within the QC acceptance criterion of 75-125%. Analytical precision was assessed using the matrix spike duplicates and was within the QC acceptance criterion of ≤25% RPD.

REFERENCES:

U.S. EPA, 2007. Method 6800, Revision 0 (February 2007), ELEMENTAL AND SPECIATED ISOTOPE DILUTION MASS SPECTROMETRY, Environmental Protection Agency.

Wolf, Ruth E., J.M. Morrison, and M.B. Goldhaber. (2007). Simultaneous determination of Cr(III) and Cr(VI) using reversed-phased ion-pairing liquid chromatography with dynamic reaction cell inductively coupled plasma mass spectrometry. *J. Anal. At. Spectrom.*, 22: 1051-1060. DOI: 10.1039/b704597b

Hexavalent Chromium Worksheet

Dataset: 011510-LCDRC

Date of Preparation	Date of Analysis	Sample	52Cr	53Cr	Ratio 52Cr/53Cr	Fraction of 52Cr in sample (%)	Fraction of 53Cr in sample (%)	Fraction of Cr52 in enriched standard (%)	Fraction of Cr53 in enriched standard (%)	Sample (g)	Enriched standard used (g)	Cr Conc in enriched standard (ug/g)	Cr conc. In sample (ug/g)
1/15/10	1/15/10	Blank	2230	24634	0.0905	83.79	9.502	1.800	98.04	0.250	0.100	1.0958	0.037
1/15/10	1/15/10	LCS	110714	134161	0.8252	83.79	9.502	1.800	98.04	0.250	0.050	10.958	2.283
1/15/10	1/15/10	2981-112	3283	3870	0.8483	83.79	9.502	1.800	98.04	0.276	0.100	1.0958	0.427
1/15/10	1/15/10	2981-112 MS	21812	21872	0.9973	83.79	9.502	1.800	98.04	0.253	0.050	10.958	2.797
1/15/10	1/15/10	MDL R1	4769	3860	1.2355	83.79	9.502	1.800	98.04	0.252	0.100	1.0958	0.720
1/15/10	1/15/10	MDL R2	4415	4006	1.1021	83.79	9.502	1.800	98.04	0.255	0.100	1.0958	0.623
1/15/10	1/15/10	MDL R3	7363	5250	1.4025	83.79	9.502	1.800	98.04	0.250	0.100	1.0958	0.844
1/15/10	1/15/10	MDL R4	6913	4512	1.5321	83.79	9.502	1.800	98.04	0.250	0.100	1.0958	0.940
1/15/10	1/15/10	MDL R5	5411	3848	1.4062	83.79	9.502	1.800	98.04	0.250	0.100	1.0958	0.847
1/15/10	1/15/10	MDL R6	6962	4107	1.6952	83.79	9.502	1.800	98.04	0.249	0.100	1.0958	1.069
1/15/10	1/15/10	MDL R7	5851	4690	1.2475	83.79	9.502	1.800	98.04	0.252	0.100	1.0958	0.728

MDL

MDL Average = 0.824
 MDL Std. Dev. = 0.150
 MDL(3.143xSD) = 0.471 dry wet
 MDL wet wt. using avg. sample % dry wt 29% = 0.137 wet wt.

Spike Recovery

1/15/10	1/15/10	Blank	2230	24634	0.0905	83.79	9.502	1.800	98.04	0.250	0.100	1.0958	0.037
1/15/10	1/15/10	LCS	110714	134161	0.8252	83.79	9.502	1.800	98.04	0.250	0.050	10.958	2.283
													2.00
													112.3%
1/15/10	1/15/10	2981-112	3283	3870	0.8483	83.79	9.502	1.800	98.04	0.276	0.100	1.0958	0.427
1/15/10	1/15/10	2981-112 MS	21812	21872	0.9973	83.79	9.502	1.800	98.04	0.253	0.050	10.958	2.797
													1.98
													119.9%

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/6/2009
Batch: 10
Login Designee: Mcgahan



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19266	na	2981-113	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/28/09
J19265	na	2981-114	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/28/09
J19268	na	2981-115	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/29/09
J19267	na	2981-116	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/29/09
J19292	na	2981-117	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/30/09
J19291	na	2981-118	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	07/30/09
J192B2	na	2981-119	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192B1	na	2981-120	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192C2	na	2981-121	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09
J192C1	na	2981-122	other solid	Deep Freezer	Total Inorganic Arsenic, Cr	08/03/09

Collector *Wendy West* Company Contact **JOAN KESSNER** Telephone No. **375-4688** Project Coordinator **KESSNER, JH** Price Code **9K** Data Turnaround **45 Days**
N
NA 7/9/09

Project Designation **Columbia River Component of the RCBRA - Tissues** Sampling Location **STURGEON 1 FILLET** SAF No. **RC-118**
 Ice Chest No. **6WS-052** Field Logbook No. **EL-1638** COA **BESCRC6520** Method of Shipment **FED EX**

Shipped To **Battelle Marine Sciences** Offsite Property No. **NA** Bill of Lading/Air **FDX# 797823511495**

POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>	Preservation	Cool 4C	Freeze								
	Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Type of Container	P/G	G/P							
		No. of Container(s)	1	0							
		Volume	60mL	60mL							

SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M							
Sample No.	Matrix *	Sample Date	Sample Time									

J19265	<i>2781-114</i>	OTHER SOLID	<i>7/28/09</i>	<i>1100</i>	X	X						

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West Wendy West</i>	Date/Time <i>7/28/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>7/28/09</i>	EAS LOCKED STORAGE SHANNAN JOHNSON FDX# 797823511495 Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i>		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Time WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>7/28/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/5/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/5/09</i>	Received By/Stored In FDX# 797823511495	Date/Time <i>8/5/09</i>			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			

LABORATORY SECTION Received By *[Signature]* Title _____ Date/Time _____
 FINAL SAMPLE DISPOSITION Disposal Method _____ Disposed By _____ Date/Time *8/5/09 1430*

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-629	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>NA 72209</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 2 CARCASS			SAF No. RC-118			
Ice Chest No. <i>6205-052</i>		Field Logbook No. EL-1638		COA BESRCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill # FDX# 797823511495			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	1	0		
				Volume	60mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time					
<i>J19268 2981.115</i>	OTHER SOLID	<i>7/29/09</i>	<i>1500</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>7/29/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>7/29/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>28/5/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09 1130</i>		Received By/Stored In <i>FDX# 797823511495</i>		Date/Time <i>8/5/09</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i></p>
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION		Received By <i>[Signature]</i>		Title		Date/Time <i>8/2/09 1430</i>		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time		

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-628	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>MA 72209</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 2 FILLET		SAF No. RC-118			
Ice Chest No. <i>GLWS-052</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Batelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air FDX # 797823511495			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	1	0	
				Volume	60mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
<i>J19267 2981-116</i>	<i>OTHER SOLID</i>	<i>7/29/09</i>	<i>1500</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1500 7/29/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1500 7/29/09</i>	EAS LOCKED STORAGE		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>2/15/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>1130 2/15/09</i>	EAS LOCKED STORAGE			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>2/15/09 1130</i>	Received By/Stored In <i>FDX # 797823511495</i>	Date/Time	EAS LOCKED STORAGE			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION				Title		Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-639	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 3 CARCASS		SAF No. RC-118	<i>72309</i>			
Ice Chest No. <i>GLDS-052</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill # 797823511495					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	<i>10</i>	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
<i>J19292 2981-112</i>	<i>OTHER SOLID</i>	<i>7/30/09</i>	<i>1400</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Sign/Print Names		SPECIAL INSTRUCTIONS	
<i>Wendy West</i>		<i>1400</i>		Received By/Stored In			
<i>EAS LOCKED STORAGE</i>		<i>7/30/09</i>		<i>EAS LOCKED STORAGE</i>			
<i>SHANNAN JOHNSON</i>		<i>8/5/09</i>		<i>SHANNAN JOHNSON</i>			
<i>FDX # 797823511495</i>		<i>8/5/09</i>		<i>8/5/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-638	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 3 FILLET	SAF No. RC-118	Method of Shipment FED EX Bill of Lading/Air Bill No. FDX# 797823511495				
Ice Chest No. <i>6605-052</i>	Field Logbook No. EL-1638	COA BESCR6520					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>	Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>	Type of Container	P/G	G/P				
	No. of Container(s)	<i>10</i>	<i>1</i>				
	Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19291 <i>2981-118</i>	OTHER SOLID	<i>7/20/09</i>	<i>1400</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Sign/Print Names		Matrix * S=Soil SE=Sectoral SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solid DL=Dry Liquid T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other			
Date/Time <i>1400</i>		Received By/Stored In					
<i>Wendy West Joan Kessner</i>		<i>Wendy West Joan Kessner</i>					
Date/Time <i>7/20/09</i>		Date/Time <i>1400</i>					
EAS LOCKED STORAGE		EAS LOCKED STORAGE 2					
Date/Time <i>28/5/09</i>		Date/Time <i>7/20/09</i>					
Relinquished By/Removed From		Sign/Print Names		Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian retrieved samples for shipping on <i>8/15/09</i>			
Date/Time <i>1430</i>		Received By/Stored In					
<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>					
Date/Time <i>8/15/09</i>		Date/Time <i>1430</i>					
FDX# 797823511495		FDX# 797823511495					
Date/Time <i>1430</i>		Date/Time <i>1430</i>					
Relinquished By/Removed From		Received By/Stored In					
Date/Time		Date/Time					
Relinquished By/Removed From		Received By/Stored In					
Date/Time		Date/Time					
Relinquished By/Removed From		Received By/Stored In					
Date/Time		Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time			
	<i>[Signature]</i>			<i>08/06/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-649	Page 1 of 1
Collector Mason F. diNo	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 4 CARCASS		SAF No. RC-118	44 72709		
Ice Chest No. GWS-052	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill FDX# 797823511495				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J192B2 2981.119	OTHER SOLID	8/3/09	1100	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M.F. diNo 8-3-09 1100hrs	Date/Time	Received By/Stored In EAS LOCKED STORAGE	Date/Time 8-3-09 1100hrs	Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on 8/3/09			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetative X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 8/5/09 1130	Received By/Stored In SHANNAN JOHNSON	Date/Time 8/5/09 1130				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 8/5/09 1130	Received By/Stored In FDX# 797823511495	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By [Signature]	Title		Date/Time 08/06/09 1430			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-648		Page 1 of 1						
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>72709</i>		Data Turnaround 45 Days				
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 4 FILLET				SAF No. RC-118								
Ice Chest No. <i>625-052</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX								
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill FDX: 797823511495								
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P							
					No. of Container(s)	0	1							
					Volume	15mL	60mL							
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M								
Sample No.	Matrix *	Sample Date	Sample Time											
<i>J192B1 2981-120</i>	<i>OTHER SOLID</i>	<i>8/3/09</i>	<i>1000</i>	<i>X</i>	<i>X</i>									
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					Matrix *				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/3/09 1000</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/3/09</i>		EAS LOCKED STORAGE Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>					S=Soil SE=Sealant SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tank W1=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/5/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/5/09</i>								
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/11/09</i>		Received By/Stored In FDX: 797823511495		Date/Time <i>8/11/09</i>								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time								
LABORATORY SECTION		Received By <i>[Signature]</i>		Title		Date/Time <i>8/10/09 1430</i>								
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time								

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-659	Page 1 of 1
Collector <i>Mason E. d. mo</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 5 CARCASS		SAF No. RC-118		Price Code <i>9K</i> Data Turnaround 45 Days	
Ice Chest No. <i>6WS-052</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill NFD " 7978235 11495			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M
Sample No.	Matrix *	Sample Date	Sample Time				
J192C2 <i>2981-121</i>	OTHER SOLID	<i>8-3-09</i>	<i>1500</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>M. F. d. mo</i>		Date/Time <i>8-3-09 1500</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>8-3-09 1500</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/5/09 1130</i>		Received By/Stored In <i>FDR " 7978235 11495</i>		Date/Time <i>8/5/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Title			
FINAL SAMPLE DISPOSAL METHOD				Disposed By			
				Date/Time <i>08/09 1430</i>			
				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-658		Page 1 of 1		
Collector <i>Major Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>MS 72109</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 5 FILLET		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>GLWS-052</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797823511495						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J192C1 <i>2981.122</i>	OTHER SOLID	8-3-09	1400	X	X					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>M. F. Fidino</i>		Date/Time <i>8-3-09 1400</i>		Received By/Stored In <i>M. F. Fidino</i>		Date/Time <i>8-3-09 1400</i>		<p>EAS LOCKED STORAGE #2</p> <p>SHANNAN JOHNSON</p> <p>FDX# 797823511495</p> <p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/5/09</i></p>		<ul style="list-style-type: none"> S=Soil SE= Sediment SO=Solid SH=Sludge W= Water O=Oil A=Air DS=Drum Solids DI=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/5/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/5/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/7/09 1130</i>		Received By/Stored In FDX# 797823511495		Date/Time <i>8/7/09</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By <i>[Signature]</i>			Title			Date/Time <i>08/06/09 1430</i>			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

WCH-EE-011

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981

Sample No(s): 113 - 122

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact? *Each sample has a custody seal that was intact. jms*

Was cooler(s) temperature(s) within acceptable range of 4±2°C or frozen? 2.1 °C
(if multiple coolers, note temp. of each) _____ °C

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

8/6/09

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: Plastic jars

Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: _____

Other Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430

Storage Shelf: _____

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/14/2009
Batch: 11
Login Designee: Mcgahan



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J192F1	na	2981-123	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192F2	na	2981-124	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H2	na	2981-125	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H3	na	2981-126	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J19304	na	2981-127	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19305	na	2981-128	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19314	na	2981-129	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19315	na	2981-130	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19325	na	2981-131	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J19326	na	2981-132	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L2	na	2981-133	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L3	na	2981-134	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193M2	na	2981-135	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193M3	na	2981-136	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193N4	na	2981-137	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09
J193N5	na	2981-138	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-669	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 6 CARCASS		SAF No. RC-118	<i>72709</i>			
Ice Chest No. <i>GLCS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX# 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J192F2 <i>2981.124</i>	OTHER SOLID	<i>8/4/09</i>	<i>145</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1145</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/4/09</i>	EAS LOCKED STORAGE		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i> .	
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/13/09</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/13/09 1000</i>	SHANNAN JOHNSON			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From <i>[Signature]</i>	Date/Time <i>8/4/09 1300</i>	Received By/Stored In <i>[Signature]</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			Matrix *	
LABORATORY SECTION	Received By	Title		Date/Time		S-Soil SE-Sediment SO-Solid SL-Sludge W-Water O-Oil A-Air DS-Dryer Solids DL-Dryer Liquids T-Tissue W1-Wipe L-Liquid V-Vegetation X-Other	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-678	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 7 FILLET	SAF No. RC-118	8309				
Ice Chest No. <i>ELWS 028</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J192H2 <i>2981-125</i>	OTHER SOLID	<i>8/14/09</i>	<i>1500</i>	X	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1500</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1500</i>	EAS LOCKED STORAGE sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i>		Matrix * S=Sediment SO=Sediment SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>1500</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>1500</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>10/13/09</i>	Received By/Stored In <i>EDU</i>	Date/Time <i>1305</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-679		Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>8309</i>		Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 CARCASS				SAF No. RC-118							
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX							
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading / Bill No. FDX 796859726969							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation		Cool 4C	Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container		P/G	G/P							
			No. of Container(s)		0	1							
			Volume		15mL	60mL							
			Total Inorganic Arsenic		Chromium Hex in Solids - 1636M								
SAMPLE ANALYSIS													
Sample No.	Matrix *	Sample Date	Sample Time										
J192H3 <i>2781.126</i>	OTHER SOLID	<i>8/4/09</i>	<i>1510</i>	X	X								
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1510</i> <i>8/4/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>2</i> <i>8/4/09</i>		<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p>sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed sample for shipping on <i>8/13/09</i></p>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>2/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>2/13/09 1000</i>							
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		Received By/Stored In FDX		Date/Time <i>8/13/09 1300</i>							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
LABORATORY SECTION		Received By				Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-688		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>AD8309</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 8 FILLET			SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>GW8028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading No. <i>FDX# 796859726969</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time							
J19304 <i>2981-127</i>	OTHER SOLID	<i>8/5/09</i>	<i>0930</i>	X	X					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/5/09</i>		<p>sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i></p>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2		Date/Time <i>10/13/09</i>		SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>				
SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		EDY		Date/Time				
Date/Time		Date/Time		Date/Time		Date/Time				
Date/Time		Date/Time		Date/Time		Date/Time				
LABORATORY SECTION		Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-689	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 8 CARCASS		SAF No. RC-118		<i>N</i> <i>MS309</i>		
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Av. Bill No. FDX 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19305 <i>2981.12E</i>	OTHER SOLID	<i>8/5/09</i>	<i>1000</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/5/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/5/09</i>	EAS LOCKED STORAGE 2			
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/13/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/13/09 1000</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Wendy West</i>	Date/Time <i>08/14/09 1300</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-698		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>AK 8309</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 FILLET				SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Al FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P				
					No. of Container(s)	0	1				
					Volume	15mL	60mL				
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time								
<i>J19314 2781.129</i>	<i>OTHER SOLID</i>	<i>8/5/09</i>	<i>1300</i>	<i>X</i>	<i>X</i>						
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09 1300</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/5/09 1300</i>		EAS LOCKED STORAGE 2 SHANNAN JOHNSON SHANNAN JOHNSON FDX sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>			S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>FDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>8/14/09 1300</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION	Received By			Title			Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-699		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 CARCASS		SAF No. RC-118		<i>110 8309</i>					
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/BOL No. FD 796859726969							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J19315 2281-130</i>		<i>OTHER SOLID</i>		<i>8/5/09</i>		<i>1400</i>		<i>X X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09 1400</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/5/09 1400</i>		<ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other 			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>2/21/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/12/09 1300</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/12/09 1300</i>		Received By/Stored In <i>FDS</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed sampler for shipping on <i>8/15/09</i> .			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-708		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>8309</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 10 FILLET		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>GLDS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J19325 <i>2981-131</i>	OTHER SOLID	<i>8/16/09</i>	<i>0900</i>	X	X					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/16/09</i></p> <p>S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other</p>		
<i>Wendy West</i>		<i>0900</i>		EAS LOCKED STORAGE 2		<i>0900</i>				
EAS LOCKED STORAGE		<i>28/13/09</i>		SHANNAN JOHNSON		<i>8/16/09</i>				
SHANNAN JOHNSON		<i>8/13/09 1000</i>		FDX						
				<i>Shannon Johnson</i>		<i>8/14/09 1300</i>				
LABORATORY SECTION	Received By	Title				Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-709	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 10 CARCASS		SAF No. RC-118		<i>AP 8309</i>		
Ice Chest No. <i>GLAS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading B/L No. FD 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19326 <i>2981-132</i>	OTHER SOLID	<i>8/16/09</i>	<i>1030</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/16/09 030</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/16/09 030</i>	EAS LOCKED STORAGE 2			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/16/09 1000</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/16/09 1000</i>	EAS LOCKED STORAGE			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1000</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1000</i>	SHANNAN JOHNSON			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1000</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1000</i>	SHANNAN JOHNSON			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1300</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/18/09 1300</i>	SHANNAN JOHNSON			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/18/09</i>			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-718	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AP 8/6/09</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 11 FILLET		SAF No. RC-118			
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FD 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M
Sample No.	Matrix *	Sample Date	Sample Time				
J193L2 2921-133	OTHER SOLID	8/6/09	1420	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>8/6/09 1420</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>8/6/09 1420</i>	EAS LOCKED STORAGE EAS LOCKED STORAGE SHANNAN JOHNSON SHANNAN JOHNSON <i>8/13/09 1000</i> <i>8/13/09 1000</i> <i>8/14/09 1300</i>			S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>8/13/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FOY</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>FOY</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>FOY</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION				Received By			Title
FINAL SAMPLE DISPOSITION				Disposal Method			Disposed By

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-719		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>NO 8.09</i>		Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 11 CARCASS				SAF No. RC-118					
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/ATA No. PDX # 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G	GP				
				No. of Container(s)		0	1				
				Volume		15mL	60mL				
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time								
J193L3	<i>2781-131</i>	<i>8/16/09</i>	<i>1430</i>	X	X						
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1430</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/16/09</i>		S-Soil SE-Sediment SO-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WJ-Wipe L-Liquid V-Vegetation X-Other			
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/15/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/10/09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/10/09 1000</i>		Received By/Stored In <i>EDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>08/14/09 1300</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-728		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>180 8609</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESRCRC6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX 796859726969</i>							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J193M2 2281-135</i>		<i>OTHER SOLID</i>		<i>8/10/09</i>		<i>1130</i>		<i>X X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/10/09</i>		<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>1/14/09 1300</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>FDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-729		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N <i>408609</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # FDX 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
					SAMPLE ANALYSIS					Total Inorganic Arsenic
Sample No.	Matrix *	Sample Date	Sample Time							
J193M3 <i>881.136</i>	OTHER SOLID	8/10/09	1200	X	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 8/10/09		Received By/Stored In <i>Wendy West</i>		Date/Time 8/10/09		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON 8/10/09</p> <p>FED EX</p> <p>8/14/09 1300</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Substrate SO=Solid SI=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time 8/10/09		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time 8/10/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time 8/10/09		Received By/Stored In <i>FED EX</i>		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>FDX</i>		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time				

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-738		Page 1 of 1		
Collector <i>Wendy Wait</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 13 FILLET				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/ Air Bill No. FDX 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J193N4-2981-137	OTHER SOLID	8/11/09	0900	X	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy Wait</i>		Date/Time 8/11/09 0900		Received By/Stored In <i>Wendy Wait</i>		Date/Time 8/11/09 0900		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON 8/11/09 0900</p> <p>EDY</p> <p>8/11/09 1530</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 8/11/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 8/11/09 0900				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 8/11/09 1000		Received By/Stored In EDY		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By		Title		Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-739	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 13 CARCASS			SAF No. RC-118		<i>MD 8609</i>		
Ice Chest No. <i>GW5 028</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX# 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Preservation	Cool 4C	Freeze			
				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J193N5 2921-138</i>	OTHER SOLID	<i>8/11/09</i>	<i>1030</i>	X	X				
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/11/09</i>		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time <i>8/11/09</i>			
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>8/11/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/11/09 1000</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/12/09 1000</i>		Received By/Stored In FDY		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By			Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time		

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2781

Sample No(s): 123-38

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount:

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact?

Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$ or frozen? 2.5 $^\circ\text{C}$
(if multiple coolers, note temp. of each) _____ $^\circ\text{C}$

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial

Notes: _____

Completed By: [Signature] Date/Time: 08/14/09 1300

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: Deep freezer C-2

Other Notes: _____

Completed By: [Signature] Date/Time: 08/14/09 1300

Storage Shelf: Deep freezer C-2

BATTELLE MARINE SCIENCES LABORATORY

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Washington Closure Hanford
 Chromium VI Study
 SDG 080609 and SDG081409(a)

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI	
								$\mu\text{g/g dry wt.}$	$\mu\text{g/g wet wt.}^1$
Method Detection Limit (MDL)								0.471	0.127
2981-113	J19266	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	32.7	0.471 U	0.127 U
2981-114	J19265	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	27.4	0.471 U	0.127 U
2981-114DUP	J19265DUP	SDG080609	08/06/09	07/28/09	01/20/10	012010-LCDRC	27.4	0.792	0.217
2981-115	J19268	SDG080609	08/06/09	07/29/09	01/20/10	012010-LCDRC	26.3	0.471 U	0.127 U
2981-116	J19267	SDG080609	08/06/09	07/29/09	01/20/10	012010-LCDRC	23.4	0.471 U	0.127 U
2981-117	J19292	SDG080609	08/06/09	07/30/09	01/20/10	012010-LCDRC	33.7	0.471 U	0.127 U
2981-118	J19291	SDG080609	08/06/09	07/30/09	01/20/10	012010-LCDRC	27.6	0.471 U	0.127 U
2981-119	J192B2	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	25.7	0.471 U	0.127 U
2981-120	J192B1	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	22.1	0.580	0.128
2981-121	J192C2	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	29.5	0.471 U	0.127 U
2981-122	J192C1	SDG080609	08/06/09	08/03/09	01/20/10	012010-LCDRC	25.0	0.864	0.216
2981-123	J192F1	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	22.3	0.735	0.164
2981-124	J192F2	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	25.3	0.471 U	0.127 U
2981-125	J192H2	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	27.0	0.471 U	0.127 U
2981-126	J192H3	SDG081409	08/14/09	08/04/09	01/20/10	012010-LCDRC	33.6	0.471 U	0.127 U
2981-127	J19304	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	23.8	0.652	0.155
2981-128	J19305	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	27.3	0.471 U	0.127 U
2981-129	J19314	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	20.8	0.471 U	0.127 U
2981-130	J19315	SDG081409	08/14/09	08/05/09	01/20/10	012010-LCDRC	26.7	0.471 U	0.127 U
2981-131	J19325	SDG081409	08/14/09	08/06/09	01/20/10	012010-LCDRC	24.5	1.14	0.279
2981-132	J19326	SDG081409	08/14/09	08/06/09	01/20/10	012010-LCDRC	33.2	0.471 U	0.127 U

QUALITY CONTROL SAMPLE RESULTS

Average 26.9

Method Blank

Blank R1 01/20/10 012010-LCDRC 0.471 U 0.127 U

Laboratory Control Sample

LCS Cr+6 01/20/10 012010-LCDRC 3.12 --

Spike Concentration 3.00 --

% Recovery 104% --

Replicate Analysis Results

2981-114 J19265 SDG080609 08/06/09 07/28/09 01/20/10 012010-LCDRC 27.4 0.471 U 0.127 U

2981-114DUP J19265DUP SDG080609 08/06/09 07/28/09 01/20/10 012010-LCDRC 27.4 0.792 0.217

RPD NA NA

Matrix Spike Accuracy

2981-116 J19267 SDG080609 08/06/09 07/29/09 01/20/10 012010-LCDRC 23.4 0.471 U 0.127 U

2981-116 MS (Cr+6) 3.07 --

2981-116 MSD (Cr+6) 2.65 --

Spike Amount, MS 2.96 --

Spike Amount, MSD 3.03 --

% Recovery, MS 104% --

% Recovery, MSD 88% --

RPD 17% --

Qualifiers:

¹ Wet weight detection limit calculated using the average sample percent dry weight (26.9%).

NA Not applicable/appropriate. Sample concentration less than detection limit or reporting limit = 3*MDL.

U Not detected at or above MDL. MDL reported in value field

N Outside Method DQOs for Blank Spikes ($\leq 15\%$) and MS/MSD ($\leq 25\%$) results

* Outside Method DQOs for Duplicates ($\leq 25\%$)

**Analytical Chemistry Data Package
Inorganics Analysis**



**Project: Washington Closures Hanford
Chromium VI Analysis of Tissue**

SDG 081409 (b)
SDG 082009
SDG 091109
SDG 091809
SDG 092309
SDG 093009

PNNL Project No. 56166
MSL CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Marine Sciences Laboratory
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SEQ081409

INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

Chromium VI Analysis in Tissue

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Sample Custody Information

Laboratory Sample Log-In and Chain of Custody Forms for:

SDG081409	9
SDG082009	27
SDG091109	35
SDG091809	55
SDG092309	67
SDG093009	79

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Washington Closures Hanford
 Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI	
								$\mu\text{g/g dry wt.}$	$\mu\text{g/g wet wt.}^1$
<i>Method Detection Limit (MDL)</i>								<i>0.471</i>	<i>0.127</i>
2981-133	J193L2	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	22.4	0.471 U	0.127 U
2981-134	J193L3	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	26.1	0.471 U	0.127 U
2981-135	J193M2	SDG081409	08/14/09	08/10/09	01/25/10	012510-LCDRC	28.6	0.471 U	0.127 U
2981-136	J193M3	SDG081409	08/14/09	08/10/09	01/25/10	012510-LCDRC	32.0	0.471 U	0.127 U
2981-137	J193N4	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.471 U	0.127 U
2981-137R2	J193N4DUP	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.485	0.108
2981-138	J193N5	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	25.6	0.471 U	0.127 U
2981-139	J19446	SDG082009	08/20/09	08/12/09	01/25/10	012510-LCDRC	39.4	0.471 U	0.127 U
2981-140	J19447	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	40.9	0.471 U	0.127 U
2981-141	J19456	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	22.9	1.06	0.241
2981-142	J19457	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	26.2	0.471 U	0.127 U
2981-143	J19466	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	24.1	1.20	0.289
2981-144	J19467	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	29.1	0.471 U	0.127 U
2981-186	J19476	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	27.6	0.471 U	0.127 U
2981-188	J19477	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	30.2	0.471 U	0.127 U
2981-189	J19487	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	43.4	0.471 U	0.127 U
2981-191	J19486	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	34.0	0.471 U	0.127 U
2981-193	J19497	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	34.4	0.471 U	0.127 U
2981-196	J19496	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	26.6	0.654	0.174
2981-198	J194B7	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	32.6	0.472	0.154
2981-200	J194B8	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	39.1	0.471 U	0.127 U
2981-201	J194C8	SDG091109	09/11/09	09/09/09	01/22/10	012210-LCDRC	25.6	0.471 U	0.127 U
2981-202	J194C9	SDG091109	09/11/09	09/09/09	01/22/10	012210-LCDRC	32.6	0.471 U	0.127 U
2981-203	J19503	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	31.1	0.471 U	0.127 U
2981-204	J19504	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-204 R2	J19504DUP	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-205	J195R1	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	42.3	0.471 U	0.127 U
2981-206	J195R0	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	34.5	0.471 U	0.127 U
2981-207	J195T2	SDG091809	09/18/09	09/14/09	01/22/10	012210-LCDRC	36.7	0.471 U	0.127 U
2981-208	J195T3	SDG091809	09/18/09	09/14/09	01/22/10	012210-LCDRC	40.2	0.471 U	0.127 U
2981-209	J195Y0	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	37.7	0.471 U	0.127 U
2981-210	J195X9	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	32.2	0.471 U	0.127 U
2981-211	J19609	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	32.9	0.471 U	0.127 U
2981-212	J19610	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	38.7	0.471 U	0.127 U
2981-213	J19629	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	34.7	0.471 U	0.127 U
2981-214	J19628	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	28.9	0.497	0.143
2981-215	J19639	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	23.9	0.471 U	0.127 U
2981-218	J19640	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	29.7	0.471 U	0.127 U
2981-219	J19650	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	36.0	0.471 U	0.127 U
2981-220	J19649	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	29.2	0.471 U	0.127 U
2981-221	J19660	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	32.0	0.471 U	0.127 U
2981-222	J19659	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	28.7	0.582	0.167
2981-223	J195W5	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	21.7	0.471 U	0.127 U
2981-224	J195W6	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	25.7	0.471 U	0.127 U
2981-225	J195W7	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	19.3	0.902	0.174
2981-226	J195W8	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	1.13	0.242
2981-226R2	J195W8DUP	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	0.686	0.147
2981-227	J19666	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	22.2	0.911	0.202
2981-228	J19665	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	20.5	1.05	0.215

QUALITY CONTROL SAMPLE RESULTS

Average 30.3

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Washington Closures Hanford
 Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI µg/g dry wt.	Cr VI µg/g wet wt. ¹
Method Detection Limit (MDL)								0.471	0.127
Method Blank									
Blank R1					01/25/10	012510-LCDRC		0.471 U	0.127 U
Blank R2					01/22/10	012210-LCDRC		0.471 U	0.127 U
Blank R3					01/26/10	012610-LCDRC		0.471 U	0.127 U
Laboratory Control Sample									
LCS 1 Cr+6					01/25/10	012510-LCDRC		3.16	--
LCS 2 Cr+6					01/22/10	012210-LCDRC		3.06	--
LCS 3 Cr+6					01/26/10	012610-LCDRC		3.10	--
Spike Concentration								3.00	--
% Recovery								105%	--
% Recovery								102%	--
% Recovery								103%	--
Replicate Analysis Results									
2981-137	J193N4	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.471 U	0.127 U
2981-137R2	J193N4DUP	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.485	0.108
RPD								NA	NA
2981-204	J19504	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-204 R2	J19504DUP	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
RPD								NA	NA
2981-226	J195W8	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	1.13	0.242
2981-226R2	J195W8DUP	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	0.686	0.147
RPD								NA ²	NA ²
MDLR2	New MDL				01/26/10	012610-LCDRC	30.3	1.52	0.460
MDLR3	New MDL				01/26/10	012610-LCDRC	30.3	1.45	0.439
MDLR4	New MDL				01/26/10	012610-LCDRC	30.3	1.49	0.451
MDLR5	New MDL				01/26/10	012610-LCDRC	30.3	1.37	0.414
MDLR6	New MDL				01/26/10	012610-LCDRC	30.3	1.62	0.490
MDLR7	New MDL				01/26/10	012610-LCDRC	30.3	1.56	0.474
MDLR8	New MDL				01/26/10	012610-LCDRC	30.3	1.57	0.476
Average =								1.51	0.458
Std. Dev. =								0.0846	0.0256
MDL(3.143xSD) =								0.266	0.0806
RSD								5.6%	5.6%
Matrix Spike Accuracy									
2981-133	J193L2	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	22.4	0.471 U	0.127 U
2981-133 MS (Cr+6)								2.12	--
2981-133 MSD (Cr+6)								2.77	--
Spike Amount, MS								2.90	--
Spike Amount, MSD								2.83	--
% Recovery, MS								73% N	--
% Recovery, MSD								98%	--
RPD								27% *	--

BATTELLE MARINE SCIENCES LABORATORY

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Washington Closures Hanford
 Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI	
								µg/g dry wt.	µg/g wet wt. ¹
Method Detection Limit (MDL)								0.471	0.127
2981-203	J19503	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	31.1	0.471 U	0.127 U
2981-203 MS (Cr+6)								2.95	--
2981-203 MSD (Cr+6)								3.26	--
Spike Amount, MS								3.14	--
Spike Amount, MSD								2.97	--
% Recovery, MS								94%	--
% Recovery, MSD								110%	--
RPD								10%	--
2981-223	J195W5	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	21.7	0.471 U	0.127 U
2981-223 MS (Cr+6)								3.19	--
2981-223 MSD (Cr+6)								2.90	--
Spike Amount, MS								2.91	--
Spike Amount, MSD								2.94	--
% Recovery, MS								110%	--
% Recovery, MSD								99%	--
RPD								10%	--
Standard Reference Material (Liquid)									
SRM 2109					01/25/10	012510-LCDRC		0.111	--
SRM 2109					01/22/10	012210-LCDRC		NA	--
SRM 2109					01/26/10	012610-LCDRC		0.119	--
Certified Value (adjusted for dilution)								0.10	--
% Recovery								111%	--
% Recovery								NA	--
% Recovery								119%	--

Qualifiers:

- ¹ Wet weight detection limit calculated using a percent dry weight of 26.9%.
- ² Concentration less than 3 times MDL
- U Not detected at or above MDL, MDL reported in value field
- N Outside Method DQOs for Blank Spikes (≤ 15%) and MS/MSD (≤ 25%) results
- * Outside Method DQOs for Duplicates (≤ 25%)

QA/QC NARRATIVE

PROJECT: Washington Closures Hanford SDG081409b (partial batch), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

PARAMETER: Chromium Speciation – Hexavalent Chromium (Cr VI)

LABORATORY: Pacific Northwest National Laboratory (PNNL) operated by Battelle, Marine Sciences Laboratory (MSL), Sequim, Washington

MATRIX: Tissue Homogenate

SAMPLE CUSTODY AND PROCESSING: The samples addressed in this narrative were received in six separate shipments. Table 1 provides the details for the sample receipt and analysis. A total of 46 tissue samples were received at MSL. All samples were received in good condition (i.e., no sample containers were broken or leaking). Samples were assigned a Battelle Central File (CF) identification number (2981) and were entered into the MSL sample tracking and project management system. This narrative addressed only part of the SDG081409 samples due to an analytical batch size of 20 samples. See note below for sample numbers addressed in this narrative.

Table 1. Sample receipt, extraction, and analysis information.

SDG:	081409b	082009	091109	091809	092309	093009
MSL Sample IDs:	2981*133-138	2981*139-144	2981*185-202 (select)	2981*203-212	2981*213-222	2981*223-228
Collection Date:	08/06/09 08/10/09 08/11/09	08/12/09 08/17/09	09/03/09 09/08/09 09/09/09	09/10/09 09/14/09 09/15/09	09/16/09 09/17/09	09/21/09 09/24/09
Description:	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue
Laboratory Arrival Date:	08/14/09	08/20/09	09/11/09	09/18/09	09/23/09	09/30/09
Cooler Temp.	2.5°C	1.2°C	3.7°C	2.7°C	2.0°C	3.2°C
Extraction Date:	01/24/10	01/24/10	01/24/10 01/21/10	01/21/10	01/21/10	01/26/10
Analysis Date:	01/25/10	01/25/10	01/25/10 01/22/10	01/22/10	01/22/10	01/26/10

METHODS: The tissue homogenate was processed and analyzed for CrVI following a modification from the Environmental Protection Agency (EPA) Method 6800 Elemental and Speciated Isotope Dilution Mass Spectrometry. The modification occurs in the preparation method for the tissue matrix. The tissues were extracted for CrVI following adaptations from Wolf et al. (2007). The extracts were then analyzed following MSL standard operating procedure MSL-I-039 CHROMIUM SPECIATION USING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY - INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (HPLC-ICP-MS) IN AQUEOUS, SEDIMENT, AND TISSUE SAMPLES. The operation manual for chromium explicit SIDMS was provided by Applied Isotope Technologies and is briefly discussed in EPA Method 6800. Peaks are manually integrated for peak area and concentration is entered into the SIDMS software to conduct the isotopic dilution calculations.

Upon arrival at MSL, the wet tissue samples were stored at <-80°C until samples were lyophilized. Approximately 200 mg of dried, homogenized tissue was spiked with enriched isotopes of ⁵²Cr and ⁵³Cr to correct for interferences and potential interconversion between the oxidation states of Cr³⁺ and Cr⁶⁺. The tissues were extracted using a Na₂CO₃ and NaHCO₃ buffer, ultrasonication, and centrifugation. The extracts were then filtered through a 0.45µm Teflon syringe to removal particulates and analyzed by HPLC coupled with the ICP-MS. Analytical results are reported in µg/g dry weight. These concentrations are then converted back to a wet weight concentration using the following formula: wet weight concentration = dry weight concentration * % dry weight / 100.

QA/QC NARRATIVE

HOLDING TIMES: Wet tissue samples were stored at $\leq -80^{\circ}\text{C}$ upon arrival at MSL. Method 6800 does not provide a holding time for CrVI; however, it states that samples collected for speciation analysis must be isotopically spiked as soon as possible. Due to the lipid interference that occurred in the original method, the samples were isotopically spiked several months after collection. However, the storage of samples at $\leq -80^{\circ}\text{C}$ sufficiently inhibits interconversion of the oxidation states over this period of time. The results are not considered significantly impacted by the delay in isotopically spiking the samples.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	Range of Blank Spike Recovery	Range of MS/MSD Spike Recovery	SRM Percent Recovery	Replicate Precisions (RPD)	Achieved MDL ($\mu\text{g/g}$ dry wt.)	Achieved MDL ($\mu\text{g/g}$ wet wt.) ¹
CrVI	HPLC/ICP-DRC-MS	85-115%	75-125%	NA	$\leq 25\%$	0.471 $\mu\text{g/g}$	0.127 $\mu\text{g/g}$

NA - Tissue standard reference materials certified for CrVI are not presently available.

¹ Dry Weight MDL converted to a wet weight MDL using a percent dry weight of 26.9%.

DETECTION LIMITS: Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. Seven replicates of a fish tissue were used to generate the MDL for the dry weight concentration. The dry weight is then converted to a wet weight concentration using the average sample percent dry weight as discussed above. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the QC sample criterion.

N Spikes outside the QC sample criterion.

METHOD BLANKS: Method blanks were prepared and analyzed with the samples at a frequency of one each per analytical batch. Three analytical batches are reported with no detectable CrVI in the method blanks.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY: Laboratory control samples (LCS) were prepared and analyzed at a frequency of one each per analytical batch. The LCS consists of reagents spiked with the isotopically enriched Cr VI and Cr III standards for ⁵²Cr and ⁵³Cr. The LCS samples were within the QC criterion of 85-115% recovery.

REPLICATE PRECISION: Laboratory duplicates were analyzed at a frequency of one each per 20 field samples or analytical batch. The samples selected for duplication were less than three times the MDL and not appropriate for evaluation of the data set precision. Precision was assessed using the matrix spike duplicates prepared with each analytical batch and with seven replicates of a fish tissue prepared with the third analytical batch.

MATRIX SPIKE ACCURACY: A set of matrix spike duplicates was prepared at a frequency of one each per 20 samples or analytical batch. The matrix spikes were within the QC acceptance criterion of 75-125%, except for one MS in batch 012510-LCDRC at 73%. Acceptable accuracy for Cr VI was demonstrated by the LCS and an aqueous SRM certified for Cr VI. Analytical precision was assessed using the matrix spike duplicates and was within the QC acceptance criterion of $\leq 25\%$ RPD except for the one MS pair (27%). Acceptable precision was demonstrated on the seven replicate analyses on a non-SDG sample.

QA/QC NARRATIVE

**STANDARD
REFERENCE
MATERIAL:**

The aqueous NIST standard reference material (SRM) for Cr VI was used to verify the accuracy of the isotopic dilution method. This is not required in the method, but was added to confirm the quantification of the Cr VI species. Therefore, only two of the three batches contained an analysis of this standard with percent recoveries within 75-125% of the certified value for Cr VI.

REFERENCES:

U.S. EPA, 2007. Method 6800, Revision 0 (February 2007), ELEMENTAL AND SPECIATED ISOTOPE DILUTION MASS SPECTROMETRY, Environmental Protection Agency.

Wolf, Ruth E., J.M. Morrison, and M.B. Goldhaber. (2007). Simultaneous determination of Cr(III) and Cr(VI) using reversed-phased ion-pairing liquid chromatography with dynamic reaction cell inductively coupled plasma mass spectrometry. *J. Anal. At. Spectrom.*, 22: 1051-1060. DOI: 10.1039/b704597b

SAMPLE LOGIN

Project Manager: Brandenberger

Date Received: 8/14/2009

Batch: 11

Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J192F1	na	2981-123	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192F2	na	2981-124	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H2	na	2981-125	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H3	na	2981-126	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J19304	na	2981-127	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19305	na	2981-128	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19314	na	2981-129	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19315	na	2981-130	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19325	na	2981-131	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J19326	na	2981-132	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L2	na	2981-133	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L3	na	2981-134	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193M2	na	2981-135	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193M3	na	2981-136	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193N4	na	2981-137	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09
J193N5	na	2981-138	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-668	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 6 FILLET		SAF No. RC-118		<i>MA 72209</i>		
Ice Chest No. <i>EAS SA 1016 WSO 28</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		<i>FDX # 796859726969</i>		
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. <i>N/A</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J192F1 <i>281.123</i>	OTHER SOLID	<i>8/4/09</i>	<i>1000</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1000</i>	Received By/Stored In <i>EAS LOCK STORAGE #2</i>	Date/Time <i>1000</i>	<p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 			
Relinquished By/Removed From <i>EAS LOCKED STORAGE #2</i>	Date/Time <i>8/4/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/5/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/5/09</i>	Received By/Stored In <i>FDX</i>	Date/Time <i>8/5/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time <i>08/24/09 1330</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	<p>sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i></p>			
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-669	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 6 CARCASS		SAF No. RC-118	<i>72709</i>			
Ice Chest No. <i>GLCS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX 796859726969			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J192F2 <i>2981-124</i>	OTHER SOLID	<i>8/4/09</i>	<i>1145</i>	X	X			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1145</i>	Received By/Stored In <i>EAS LOCKED STORAGE</i>	Date/Time <i>1145</i>	<p>sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i></p>				Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dryn Solids DL=Dryn Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>8/13/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/13/09 1000</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>EDJ</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>[Signature]</i>	Date/Time <i>07/06/09 1300</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-678	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 FILLET		SAF No. RC-118	<i>8309</i>			
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
<i>J192H2 2981-125</i>	<i>OTHER SOLID</i>	<i>8/14/09</i>	<i>1500</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1500 8/14/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500 8/14/09</i>		
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>1000 8/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1000 8/13/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1000 8/13/09</i>		Received By/Stored In <i>EDY</i>		Date/Time <i>1000 8/13/09</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION				Received By				Title
FINAL SAMPLE DISPOSITION				Disposal Method				Disposed By
								Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-679		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>8309</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 CARCASS			SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/BL No. FDX 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.		Matrix *	Sample Date	Sample Time							
<i>J192H3 2981.126</i>		<i>OTHER SOLID</i>	<i>8/4/09</i>	<i>1510</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION		Sign/Print Names			SPECIAL INSTRUCTIONS					Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/4/09</i>	Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/4/09</i>	sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i> .					S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>2/15/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/10/09 1000</i>						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>		Date/Time <i>8/13/09 1300</i>						
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time						
LABORATORY SECTION		Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-688	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 8 FILLET		SAF No. RC-118		Price Code <i>9K</i> <i>AD8309</i>	
Ice Chest No. <i>GW81028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Materials/Air Bill # <i>FDX# 796859726969</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19304 <i>2981-127</i>	OTHER SOLID	<i>8/5/09</i>	<i>0930</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>0930 8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>0930 8/5/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>1000 8/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1000 8/13/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1000 8/13/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>1300 8/14/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

- Matrix *
- S=Soil
 - SE=Sediment
 - SO=Solid
 - SL=Sludge
 - W = Water
 - O=Oil
 - A=Air
 - DS=Drum Solids
 - DL=Drum Liquids
 - T=Tissue
 - W1=Wipe
 - L=Liquid
 - V=Vegetation
 - X=Other

Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on *8/13/09*

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-689	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 8 CARCASS		SAF No. RC-118	<i>N</i> <i>45309</i>		
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M
Sample No.	Matrix *	Sample Date	Sample Time				
J19305 <i>2981.128</i>	OTHER SOLID	<i>8/5/09</i>	<i>1000</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>	Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/5/09</i>	<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>.</p>	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/13/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/14/09 1300</i>		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Matrix *

- S=Soil
- SE=Sediment
- SO=Solid
- SP=Sludge
- W=Water
- O=Oil
- A=Air
- DS=Drum Solids
- DL=Drum Liquids
- T=Timber
- WJ=Wipe
- L=Liquid
- V=Vegetation
- X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-698		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>N/A 8309</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX 796859726969							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J19314 2781.129</i>		<i>OTHER SOLID</i>		<i>8/5/09</i>		<i>1300</i>		<i>X X</i>			
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1300</i>		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>		S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/13/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>08/14/09 1300</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-699		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>NO 8309</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 CARCASS		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>GLDS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading BLM No. FD 796859726969							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.	Matrix *	Sample Date		Sample Time							
<i>J19315</i>	<i>281.130</i>	<i>8/5/09</i>		<i>1400</i>		<i>X</i>		<i>X</i>			
CHAIN OF POSSESSION											
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
<i>Wendy West</i>		<i>8/5/09</i>		<i>Wendy West</i>		EAS LOCKED STORAGE 2		<i>8/5/09</i>			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
EAS LOCKED STORAGE		<i>2/21/09</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>		<i>8/12/09</i>			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
<i>SHANNAN JOHNSON</i>		<i>8/12/09</i>		<i>FDSP</i>		<i>FDSP</i>		<i>8/14/09</i>			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time					
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-708	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 10 FILLET		SAF No. RC-118		<i>8309</i>			
Ice Chest No. <i>GLDS 028</i>	Field Logbook No. EL-1638	COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19325 <i>2981-131</i>	OTHER SOLID	<i>8/6/09</i>	<i>0900</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>09/10</i>	Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>09/02</i>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/13/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09</i>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>8/14/09 1300</i>			
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By	Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-709		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AS 8309</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 10 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>GLAS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # <i>FD 796859726969</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J19326 <i>2981-132</i>	OTHER SOLID	<i>8/6/09</i>	<i>1030</i>	X	X					
CHAIN OF POSSESSION					Sign/Print Names				SPECIAL INSTRUCTIONS	Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/30</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/30</i>		SAMPLER UNAVAILABLE TO RELINQUISH SAMPLES FROM EAS REFRIGERATOR. EAS CUSTODIAN REMOVED SAMPLES FOR SHIPPING ON <i>8/13/09</i>		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE				EAS LOCKED STORAGE 2						
SHANNAN JOHNSON		<i>8/13/09 1000</i>		SHANNAN JOHNSON		<i>8/13/09</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-718	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>OK</i> <i>N</i> <i>105609</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 11 FILLET		SAF No. RC-118				
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FD 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J193L2 2981-133	OTHER SOLID	8/16/09	1420	X	X		
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1420	Received By/Stored In <i>Wendy West</i>	Date/Time 1420	EAS LOCKED STORAGE 2			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1000	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 09/10/09	EAS LOCKED STORAGE 2			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time 09/13/09 1000	Received By/Stored In <i>FOA</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>FOA</i>	Date/Time 09/14/09 1300				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>09/13/09</i>			
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Matrix *

- S=Soil
- SE=Sediment
- SO=Solid
- SL=Sludge
- W=Water
- O=Oil
- A=Air
- DS=Drum Solids
- DL=Drum Liquids
- T=Tissue
- Wl=Wipe
- L=Liquid
- V=Vegetation
- X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-719		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>NO 8/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 11 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Trailer No. PDX # 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
<i>J193L3 2781.134</i>	<i>OTHER SOLID</i>	<i>8/16/09</i>	<i>1430</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION					Sign/Print Names				SPECIAL INSTRUCTIONS	Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1430 8/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1430 8/16/09</i>		Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/18/09</i> .		S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/15/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09 1000</i>		Received By/Stored In <i>EDY</i>		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Edy</i>		Date/Time <i>08/14/09 1300</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-728		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>09/09/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 FILLET				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>GW2 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # <i>FDX 796859726969</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J193M2 <i>2981-135</i>	OTHER SOLID	<i>8/10/09</i>	<i>1130</i>	X	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/10/09 1130</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/10/09 1130</i>		<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>8/14/09 1300</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		Received By/Stored In FDX		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-729	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>103609</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 CARCASS			SAF No. RC-118				
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # <i>FDX 796859726969</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J193M3 281.136</i>	<i>OTHER SOLID</i>	<i>8/10/09</i>	<i>1200</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/10/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2				SHANNAN JOHNSON					
SHANNAN JOHNSON				FDX					
				<i>09/14/09</i>					
LABORATORY SECTION	Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-738		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 13 FILLET		SAF No. RC-118		<i>MJ2609</i>		Data Turnaround 45 Days	
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520				Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/ <i>FDX</i> # 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G	G/P		
				No. of Container(s)		0	1		
				Volume		15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J193N4 2281.137</i>	<i>OTHER SOLID</i>	<i>8/11/09</i>	<i>0900</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
<i>Wendy West</i>		<i>0900 8/11/09</i>		<i>EAS LOCKED STORAGE 2</i>		<i>8/11/09</i>			
<i>EAS LOCKED STORAGE 2</i>		<i>1000 8/13/09</i>		<i>SHANNAN JOHNSON</i>		<i>8/13/09 0900</i>			
<i>SHANNAN JOHNSON</i>		<i>0113/09/0900</i>		<i>FDX</i>					
				<i>Shannon Johnson</i>		<i>08/11/09 1530</i>			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-739		Page 1 of 1																																																													
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>MD 8609</i>																																																													
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 13 CARCASS		SAF No. RC-118		Data Turnaround 45 Days																																																															
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX																																																															
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX # 796859726969																																																																	
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze																																																															
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P																																																															
				No. of Container(s)	0	1																																																															
				Volume	15mL	60mL																																																															
				SAMPLE ANALYSIS	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M																																																															
Sample No.	Matrix *	Sample Date	Sample Time																																																																		
<i>J193N5 2981-138</i>	<i>OTHER SOLID</i>	<i>8/11/09</i>	<i>1030</i>	<i>X</i>	<i>X</i>																																																																
<table border="1"> <thead> <tr> <th colspan="2">CHAIN OF POSSESSION</th> <th colspan="2">Sign/Print Names</th> <th colspan="4">SPECIAL INSTRUCTIONS</th> <th colspan="2">Matrix *</th> </tr> </thead> <tbody> <tr> <td colspan="2">Relinquished By/Removed From <i>Wendy West</i></td> <td colspan="2">Date/Time <i>1030 8/11/09</i></td> <td colspan="2">Received By/Stored In <i>EAS LOCKED STORAGE 2</i></td> <td colspan="2">Date/Time <i>1030 8/11/09</i></td> <td colspan="2" rowspan="6"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other </td> </tr> <tr> <td colspan="2">Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i></td> <td colspan="2">Date/Time <i>8/11/09</i></td> <td colspan="2">Received By/Stored In <i>SHANNAN JOHNSON</i></td> <td colspan="2">Date/Time <i>8/11/09 1000</i></td> </tr> <tr> <td colspan="2">Relinquished By/Removed From <i>SHANNAN JOHNSON</i></td> <td colspan="2">Date/Time <i>8/13/09 1000</i></td> <td colspan="2">Received By/Stored In <i>FDY</i></td> <td colspan="2">Date/Time</td> </tr> <tr> <td colspan="2">Relinquished By/Removed From</td> <td colspan="2">Date/Time</td> <td colspan="2">Received By/Stored In</td> <td colspan="2">Date/Time</td> </tr> <tr> <td colspan="2">Relinquished By/Removed From</td> <td colspan="2">Date/Time</td> <td colspan="2">Received By/Stored In</td> <td colspan="2">Date/Time</td> </tr> <tr> <td colspan="2">Relinquished By/Removed From</td> <td colspan="2">Date/Time</td> <td colspan="2">Received By/Stored In</td> <td colspan="2">Date/Time</td> </tr> </tbody> </table>										CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *		Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1030 8/11/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>1030 8/11/09</i>		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other		Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/11/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/11/09 1000</i>		Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>FDY</i>		Date/Time		Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *																																																													
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Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/11/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/11/09 1000</i>																																																															
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>FDY</i>		Date/Time																																																															
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Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time																																																															
LABORATORY SECTION	Received By	Title	Date/Time	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.																																																																	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time																																																																		

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981 Sample No(s): 113-122 Project Manager: Braudenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact? *Each sample has a custody seal that was intact. jmk*

Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$ or frozen? 2.1 $^\circ\text{C}$
(if multiple coolers, note temp. of each) $^\circ\text{C}$

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

8/6/09

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: Plastic jars

Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: _____

Other Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430
Storage Shelf: _____

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/20/2009
Batch: 12
Login Designee: Csuslick

Project: **Washington Closure Hanford**


Pacific Northwest
NATIONAL LABORATORY


Battelle
The Business of Innovation

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19446	-	2981-139	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	12-Aug-09
J19447	-	2981-140	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19456	-	2981-141	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19457	-	2981-142	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19466	-	2981-143	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19467	-	2981-144	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-748	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 14 FILLET	SAF No. RC-118	<i>40 8,009</i>					
Ice Chest No. <i>WCH-08-062</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 797863010890						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time					
J19446 <i>2981-139</i>	OTHER SOLID	<i>8.12.09</i>	<i>0930</i>	X	X			
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>0930</i>	Received By/Stored In <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>0930</i>	<p>no samples for shipment to lab.</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody</p>				Matrix *
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>1245</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/19/09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>1245</i>	Received By/Stored In <i>FDX</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Battelle</i>	Date/Time <i>8/20/09 1450</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-749	Page 1 of 1	
Collector Wendy West		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 14 CARCASS		SAF No. RC-118		Price Code <i>OK</i> Data Turnaround 45 Days		
Ice Chest No. WCH-08-062		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX</i> 797863010890				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time					
J19447	2981-140	OTHER SOLID	8/17/09	1010	X	X		
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS	
Relinquished By/Removed From Wendy West		Date/Time 8/17/09		Received By/Stored In EAS LOCKED STORAGE		Date/Time 8/19/09		
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 8/19/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 8/19/09		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 8/19/09		Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In Chris Battelle MSL		Date/Time 8/20/09 1450		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-758		Page 1 of 1	
Collector <i>Mason Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>1/18/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 15 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX 797863010890					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19456	<i>2981-141</i>	<i>8-17-09</i>	<i>1145</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Mason Fidino</i>		Date/Time <i>8-17-09 1145</i>		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>8-17-09 1145</i>		<p>or described for shipment to lab.</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>8/19/09 1245</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/19/09 1245</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/19/09 1245</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>8/19/09 1450</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-759	Page 1 of 1
Collector <i>Mason F. Fazio</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 15 CARCASS	SAF No. RC-118	Method of Shipment FED EX				
Ice Chest No. <i>WCH-08-062</i>	Field Logbook No. EL-1638	COA BESCRC6520	Bill of Lading/Air Bill No. FDX 797863010890				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19457	<i>2981-142</i>	OTHER SOLID	<i>8-17-09</i>	<i>1200</i>	X	X	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Mason Fazio</i>		Date/Time <i>8-17-09 1200</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>8-17-09 1200</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/19/09 1245</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09 1245</i>		Received By/Stored In <i>FDX</i>		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Yuan Battelle MSU</i>		Date/Time <i>8/21/09 1450</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-768	Page 1 of 1	
Collector M. F. dino	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N MD4009	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 16 FILLET		SAF No. RC-118					
Ice Chest No. WCH-08-062	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 797863010090						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time					
J19466 2481-143	OTHER SOLID	8-17-09	1435	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. F. dino	Date/Time 8-17-09 1435	Sign/Print Names EAS LOCKED STORAGE	Date/Time 8-17-09 1435	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix *
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 8/19/09 1245	Received By/Stored In SHANNAN JOHNSON	Date/Time 8/19/09 1245					S=Soil
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 8/19/09 1245	Received By/Stored In FDX	Date/Time					SE=Sediment
Relinquished By/Removed From	Date/Time	Received By/Stored In Yuan Battelle MSL	Date/Time 8/21/09 1450					SO=Solid
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					SI=Sludge
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					W=Water
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-769	Page 1 of 1
Collector M.F.d:nd	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 16 CARCASS	SAF No. RC-118	Price Code N MS 81009				
Ice Chest No. WCH-08-0162	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill # FDX# 797863010890					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19487	2981744	OTHER SOLID	8-17-09	1500	X	X	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M.F.d:nd	Date/Time 8-17-09 1500	Received By/Stored In EAS LOCKED STORAGE	Date/Time 8-17-09 1500	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> Sr=Soil SE=Sediment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 8/19/09 1245	Received By/Stored In SHANNAN JOHNSON	Date/Time 8/19/09 1245				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 8/19/09 1245	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In Chann Battelle MSL	Date/Time 8/20/09 1450				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981

Sample No(s): 139-144

Project Manager: JB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present? *each jar had intact custody seal - ICE intact*

Was the custody seal intact?

Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$ or frozen? 1.2 °C
(if multiple coolers, note temp. of each)

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: _____

Notes: tamp on - should be frozen

Completed By: [Signature] Date/Time: 8/20/09 1450

SAMPLE PRESERVATION

Sample(s) were preserved at MSL freezer

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: delivered to KIC for splitting; both freezing

Other Notes: _____

Completed By: [Signature] Date/Time: 8/20/09 1500

Storage Shelf: Clay for / Walkin

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 9/11/2009
Batch: 15
Login Designee: Mcgahan



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195T9	na	2981-185	other solid	Deep Freezer B-1	MeHg	09/03/09
J19476	na	2981-186	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V0	na	2981-187	other solid	Deep Freezer B-1	MeHg	09/03/09
J19477	na	2981-188	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J19487	na	2981-189	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V2	na	2981-190	other solid	Deep Freezer B-1	MeHg	09/03/09
J19486	na	2981-191	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V1	na	2981-192	other solid	Deep Freezer B-1	MeHg	09/03/09
J19497	na	2981-193	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V4	na	2981-194	other solid	Deep Freezer B-1	MeHg	09/08/09
J195V3	na	2981-195	other solid	Deep Freezer B-1	MeHg	09/08/09
J19496	na	2981-196	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V5	na	2981-197	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B7	na	2981-198	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V6	na	2981-199	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B8	na	2981-200	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J194C8	na	2981-201	other solid	Deep Freezer B-1	TIA,HCr	09/09/09
J194C9	na	2981-202	other solid	Deep Freezer B-1	TIA,HCr	09/09/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-850	Page 1 of 1	
Collector M.F.dino	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 FILLET		SAF No. RC-118	1/18/09			
Ice Chest No. WCH-DB-0074	Field Logbook No. EL-1638	COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/ FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A								
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Preservation Freeze	Type of Container P	No. of Container(s) 1	Volume 60mL	
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195T9 2981.185	OTHER SOLID	9/13/09	1045	X				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From M.F.dino	Date/Time 9/13/09 1045	Received By/Stored In EAS LOCKED STORAGE 2	Date/Time 9/13/09 1045	01 samples for shipment to lab. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody				Matrix * S-Soil SE-Sediment SQ-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WI-Wipe L-Liquid V-Vegetation X-Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/16/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/16/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/16/09	Received By/Stored In FDX	Date/Time 9/16/09					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-778		Page 1 of 1	
Collector M.F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N 1/18/09	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	G/P		
					No. of Container(s)	0	1		
					Volume	15mL	60mL		
					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
J19476	2981-186	9/3/09	1045	X	X				
CHAIN OF POSSESSION									
Relinquished By/Removed From M.F. dino					Sign/Print Names EAS LOCKED STORAGE 2				
Date/Time 9/3/09 1045		Received By/Stored In EAS LOCKED STORAGE 2			Date/Time 9/3/09 1045		SPECIAL INSTRUCTIONS Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		
Relinquished By/Removed From EAS LOCKED STORAGE 2		Received By/Stored In SHANNAN JOHNSON			Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON		Received By/Stored In [Signature]			Date/Time 9/10/09				
Relinquished By/Removed From		Received By/Stored In [Signature]			Date/Time 9/11/09 1458				
Relinquished By/Removed From		Received By/Stored In			Date/Time				
Matrix *									
S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other									
LABORATORY SECTION	Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-851	Page 1 of 1		
Collector <i>M.F. dino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS			SAF No. RC-118		<i>483105</i>		
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill FDX 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P				
				No. of Container(s)	1				
				Volume	60mL				
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time						
J195V0 2981.187	OTHER SOLID	9/3/09	1100	X					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>M.F. dino</i>		Date/Time 9/3/09 1100		Sign/Print Names EAS LOCKED STORAGE		Date/Time 9/3/09 1100			
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/10/09 1100		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09 1100			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09 1100		Received By/Stored In EAS		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time 9/10/09 1458			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By			Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time		

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-779	Page 1 of 1
Collector M. Edino		Company Contact JOAN KESSNER		Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS			SAF No. RC-118	4/15/09	
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638	COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FD 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19477 2981.188	OTHER SOLID	9/3/09	1100	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M. Edino		Date/Time 9/3/09 1100		Sign/Print Names EAS LOCKED STORAGE 2		Date/Time 9/3/09 1100	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09 1017		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09 1000	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09 1000		Received By/Stored In EDX		Date/Time 9/10/09 1452	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-789	Page 1 of 1
Collector M. Fidino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N 1/29/09
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS		SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. WCH-DB-001-4		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19487	2781.189	9/3/09	1430	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From M. Fidino		Date/Time 9/3/09 1430		Received By/Stored In EAS LOCKED STORAGE		Date/Time 9/3/09	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/16/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/16/09	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/16/09		Received By/Stored In FDX		Date/Time 9/16/09	
Relinquished By/Removed From		Date/Time		Received By/Stored In FDX		Date/Time 9/16/09	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

- Matrix *
- S=Soil
 - SE=Sediment
 - SO=Solid
 - SI=Sludge
 - W = Water
 - O=Oil
 - A=Air
 - DS=Drum Solids
 - DL=Drum Liquids
 - T=Tissue
 - WI=Wipe
 - L=Liquid
 - V=Vegetation
 - X=Other

01 samples for shipment to lab.
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-853	Page 1 of 1	
Collector M. F. d'no	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N 4/83109	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS		SAF No. RC-118				
Ice Chest No. WCH-08-001-4	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading No. FD: 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P				
			No. of Container(s)	1				
			Volume	60mL				
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V2 2981.198	OTHER SOLID	9/3/09	1430	X				
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M.F.d.no 022	Date/Time 9/3/09 1430	Received By/Stored In EAS LOCKED STORAGE 2	Date/Time 9/3/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix * S-Soil SE-Sediment SO-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WJ-Wipe L-Liquid V-Vegetation X-Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/10/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In FD	Date/Time 9/10/09					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-788		Page 1 of 1		
Collector M. Fidino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N MS 8/8/09		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. WCH-03-001-4		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading or Bill No. FDX#797922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J19486	2981.191	9/3/09	1415	X	X					
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. Fidino		Date/Time 9/3/09 1415		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 		
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In FDX		Date/Time 10/2				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By		Title		Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-852	Page 1 of 1
Collector M. F. d'ino	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 18 FILLET	SAF No. RC-118	11/18/09				
Ice Chest No. WCH-08-001-4	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDV 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V1 2981.192	OTHER SOLID	9/3/09	1415	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M. F. d'ino	Date/Time 9/3/09 1415	Received By/Stored In EAS LOCKED STORAGE 2	Date/Time 9/3/09 1415	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dross Solids DL=Dross Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-799	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>81109</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS		SAF No. RC-118			
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX-797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool *C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19497 <i>2981.193</i>	OTHER SOLID	<i>9.8.09</i>	<i>1340</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1340 9.8.09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1340 9.8.09</i>	EAS LOCKED STORAGE 2		Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/10/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>10/10/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09</i>	Received By/Stored In <i>[Signature]</i>	Date/Time <i>10/10/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-855	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 19 CARCASS		SAF No. RC-118		<i>MS109</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/Air Bill No. FDY 797922488506				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P		
				No. of Container(s)	1		
				Volume	60mL		
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J195V4 <i>2981197</i>	OTHER SOLID	<i>9.8.09</i>	<i>1340</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Sign/Print Names		Date/Time	
<i>Wendy West</i>		<i>1340</i> <i>9.8.09</i>		EAS LOCKED STORAGE 2		<i>1340</i> <i>9.8.09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
EAS LOCKED STORAGE 2		<i>9/10/09</i>		<i>Wendy West</i>		<i>9/10/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SHANNAN JOHNSON		<i>9/10/09</i>		SHANNAN JOHNSON		<i>9/10/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Shannon Johnson</i>		<i>9/10/09</i>		<i>Shannon Johnson</i>		<i>9/10/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-854	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sample Location STURGEON 19 FILLET		SAF No. RC-118	<i>AD 83109</i>			
Ice Chest No. <i>WCH-DB-001-4</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill # <i>FDX # 797922488504</i>			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P			
				No. of Container(s)	1			
				Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V3 2981.195	OTHER SOLID	9.8.09	1230	X				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9.8.09	Received By/Stored In <i>Wendy West</i>	Date/Time 9.8.09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix * S-Soil SE-Sediment SO-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WI-Wipe L-Liquid V-Vegetation X-Other
EAS LOCKED STORAGE 2		EAS LOCKED STORAGE 2						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-798	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 FILLET		SAF No. RC-118	<i>81109</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS			
Sample No.	Matrix *	Sample Date	Sample Time				
J19496 2981.196	OTHER SOLID	9.8.09	1230	X	X		
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1230	Received By/Stored In <i>Wendy West</i>	Date/Time 1230	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			Matrix * S=Soil SE=Seeds/Seeds SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-856	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>11/13/09</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET			SAF No. RC-118			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # FDX# 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P			
				No. of Container(s)	1			
				Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M: Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V5 <i>2981-197</i>	OTHER SOLID	<i>9-8-09</i>	<i>1545</i>	<i>X</i>				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1545</i> <i>9-8-09</i>		Received By/Stored In EAS LOCKED STORAGE		Date/Time <i>1545</i> <i>9-8-09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>9/11/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/11/09</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/11/09</i>		Received By/Stored In <i>FDX</i>		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/11/09 1450</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-808	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET		SAF No. RC-118	<i>MA 8109</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
<i>J194B7 2981.198</i>	<i>OTHER SOLID</i>	<i>9.8.09</i>	<i>1545</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1545 9.8.09</i>		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time <i>1545 9.8.09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/11/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1600</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/11/09</i>		Received By/Stored In FDX		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>09/11/09 1450</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-857	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 20 CARCASS	SAF No. RC-118	Method of Shipment FED EX					
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCRC6520	Bill of Lading # FE 97922488504					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation Freeze						
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container P						
		No. of Container(s) 1						
		Volume 60mL						
SAMPLE ANALYSIS		Methyl Mercury by EPA 1630M; Mercury - 7473						
Sample No.	Matrix *	Sample Date	Sample Time					
J195V6 2981.199	OTHER SOLID	9.8.09	1600	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1600	Received By/Stored In <i>Wendy West</i>	Date/Time 1600	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>				Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKS</i>	Date/Time 9.8.09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9.8.09					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9.10.09	Received By/Stored In <i>FDX</i>	Date/Time 10.0					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-809	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N <i>JAD 8/10/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 20 CARCASS	SAF No. RC-118					
Ice Chest No. <i>WCH-DB-001-4</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M
Sample No.	Matrix *	Sample Date	Sample Time				
J194B8 <i>2987-200</i>	OTHER SOLID	<i>9.8.09</i>	<i>1400</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9.8.09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1400</i>	SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/10/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>10/1/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/10/09</i>	Received By/Stored In FDX	Date/Time <i>10/1/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-818	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>AS 81109</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 21 FILLET		SAF No. RC-118				
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P				
		No. of Container(s)	0	1				
		Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time					
J194C8 <i>2781-201</i>	OTHER SOLID	<i>9.9.09</i>	<i>1045</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1045</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1045</i>		
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/9/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/9/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/10/09</i>		Received By/Stored In EDX		Date/Time <i>10/11/09</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-819	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>AA 91109</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 21 CARCASS		SAF No. RC-118				
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P			
		No. of Container(s)		0	1			
		Volume		15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time					
J194C9 2981-202	OTHER SOLID	9.9.09	10:55	X	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9.9.09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>10:55</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2		EAS LOCKED STORAGE 29.9.09						
SHANNAN JOHNSON		SHANNAN JOHNSON						
SHANNAN JOHNSON		SHANNAN JOHNSON						
SHANNAN JOHNSON		SHANNAN JOHNSON						
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Central File #: 2981

Sample No(s): 185-204

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Approx. Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 3.7 °C
(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other explanation

Container type: Other Plastic Jars

Notes: _____

Completed By: [Signature] Date/Time: 09/11/09 1450

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Outside freezer - to be transferred to dry. vials & put in deep freeze

Other Notes: _____

Completed By: [Signature] Date/Time: 09/11/09 1450

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/18/2009 ✓
 Batch: 16
 Login Designee: Mcgahan



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19503 ✓	na	2981-203 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M ✓	09/10/09 ✓
J19504 ✓	na	2981-204	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R1 ✓	na	2981-205	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R0 ✓	na	2981-206	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195T2 ✓	na	2981-207	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09 ✓
J195T3 ✓	na	2981-208	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09
J195Y0 ✓	na	2981-209	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓
J195X9 ✓	na	2981-210	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19609 ✓	na	2981-211	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19610 ✓	na	2981-212 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓

✓ J19503 ✓
 ✓ J19504 ✓
 ✓ J195R1 ✓
 ✓ J195R0 ✓
 ✓ J195T2 ✓
 ✓ J195T3 ✓
 ✓ J195Y0 ✓
 ✓ J195X9 ✓
 ✓ J19609 ✓
 ✓ J19610 ✓

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-828	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 22 FILLET	SAF No. RC-118	Bill of Lading # FDX# 797941463127 <i>NO 82609</i>				
Ice Chest No. <i>AES-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>							
				Preservation	Cool °C	Freeze	
				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19503 <i>2981-203</i>	OTHER SOLID	<i>9/10/09</i>	<i>1100</i>	X	X		
CHAIN OF POSSESSION							
Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1100</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1100</i>	Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other			
Relinquished By/Removed From EAS LOCKED STORAGE2	Date/Time <i>9/17/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>9/17/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/17/09</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION				Received By			
FINAL SAMPLE DISPOSITION				Disposal Method			
				Title			
				Date/Time			
				Disposed By			
				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-829		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N <i>MSL</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 22 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. AFS-04-041		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # FDX# 797941463127				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J19504	2981.204	OTHER SOLID	9/10/09	1130	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9/10/09		Sign/Print Names EAS LOCKED STORAGE 2		Date/Time 9/10/09		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/17/09		SHANNAN JOHNSON		Date/Time 9/17/09				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/17/09		FOX		Date/Time				
Relinquished By/Removed From		Date/Time		Date/Time		Date/Time				
Relinquished By/Removed From		Date/Time		Date/Time		Date/Time				
Relinquished By/Removed From		Date/Time		Date/Time		Date/Time				
LABORATORY SECTION	Received By	Title	Date/Time							
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time							

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-839	Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days				
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 23 CARCASS			SAF No. RC-118		<i>AD82702</i>					
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX# 797941463127							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C:	Freeze						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P						
				No. of Container(s)	0	1						
				Volume	15mL	60mL						
				SAMPLE ANALYSIS	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M						
Sample No.	Matrix *	Sample Date	Sample Time									
<i>J195R1 2981.205</i>	<i>OTHER SOLID</i>	<i>9/10/09</i>	<i>1515</i>	<i>X</i>	<i>X</i>							
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1515 9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1515 9/10/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/17/09 950</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09 950</i>						
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/17/09 950</i>		Received By/Stored In <i>FDX</i>		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION	Received By	Title				Date/Time						
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time						

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-838	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 23 FILLET		SAF No. RC-118		<i>N</i> <i>11/22/09</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading / Air Bill No. FDX# 797941463127				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>							
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J195R0 <i>2981-206</i>	OTHER SOLID	<i>9/10/09</i>	<i>1500</i>	X	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Sign/Print Names		SPECIAL INSTRUCTIONS	
<i>Wendy West</i>		<i>1500</i> <i>9/10/09</i>		<i>EAS LOCKED STORAGE 2</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
Relinquished By/Removed From		Date/Time		Received By/Stored In			
<i>EAS LOCKED STORAGE 2</i>		<i>950</i> <i>9/17/09</i>		<i>SHANNAN JOHNSON</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
<i>SHANNAN JOHNSON</i>		<i>950</i> <i>9/17/09</i>		<i>FDX</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In			
				<i>Shannon Johnson</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Matrix *	
						<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-848	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 24 FILLET			SAF No. RC-118		<i>AD 83109</i>		
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading (Air Bill No.) FDX# 797941463127				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
				SAMPLE ANALYSIS	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J195T2 2981-207</i>	<i>OTHER SOLID</i>	<i>9/14/09</i>	<i>1130</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/14/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/14/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/17/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/17/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/17/09</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>09/18/09 1230</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By			Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-849		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>912</i> <i>N</i> <i>11/28/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 24 CARCASS			SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>AFS-04-04</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
				Sample No.	Matrix *	Sample Date	Sample Time			
J195T3	<i>2981-208</i>	OTHER SOLID	<i>9-13-09 9:14:09</i>	<i>1206</i>	X	X				
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1200 9-14-09 9:15:09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1206 9-14-09 9:15:09</i>		<p>SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB.</p> <p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 		
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9:50</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9:50</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9:50</i>		Received By/Stored In FDX		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/18/09 1230</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-879		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>ND 8/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 25 CARCASS		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>AFS-04-04</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. <i>FRK 797941463127</i>						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
<i>J195Y0 2981.209</i>	<i>OTHER SOLID</i>	<i>9.15.09</i>	<i>1130</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1130</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>1130</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>950</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FDL</i>		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>09/18/09</i>		Date/Time <i>1230</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-878		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>1/8 9/109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 25 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P		
					No. of Container(s)	0	1		
					Volume	15mL	60mL		
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J195X9 2781-210</i>	<i>OTHER SOLID</i>	<i>9.15.09</i>	<i>1100</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION									
Relinquished By/Removed From		Date/Time		Sign/Print Names		Date/Time		SPECIAL INSTRUCTIONS	
<i>Wendy West</i>		<i>9.15.09</i>		<i>Wendy West</i>		<i>9.15.09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
<i>EAS LOCKED STORAGE 2</i>		<i>9/17/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/17/09</i>			
<i>SHANNAN JOHNSON</i>		<i>9/17/09</i>		<i>FDX</i>					
				<i>Shannon Johnson</i>		<i>9/18/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Matrix *	
								<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-888	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 26 FILLET		SAF No. RC-118		<i>N</i> <i>MS 9/10/09</i>		
Ice Chest No. AFS-04-041		Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading # FDX# 707941463121		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	P	G/P	
				No. of Container(s)	0	1	1	
				Volume	15mL	60mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1631M; Mercury- 7473	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time					
J19609	2981-211	OTHER SOLID	9/15/09	1410	X	X	X	
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9/15/09 1410	Received By/Stored In <i>Wendy West</i>		Date/Time 9/15/09 1410	Perform Total Inorganic Arsenic out of Chromium Hex bottle.		S=Soil
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/17/09 950	Received By/Stored In SHANNAN JOHNSON		Date/Time 9/17/09 950			SE=Sediment
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/17/09 950	Received By/Stored In FDU		Date/Time			SO=Solid
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Shannon Johnson</i>		Date/Time 9/18/09 1230			SI=Sludge
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			W=Water
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			O=Oil
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			A=Air
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			DS=Dry Solids
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			DL=Dry Liquids
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			T=Tissue
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			WJ=Wipe
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			L=Liquid
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			V=Vegetation
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time			X=Other
LABORATORY SECTION	Received By		Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-889	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N MA 9/09	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 26 CARCASS		SAF No. RC-118			
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797941463127			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	CoCi 4C	Freeze	Freeze
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	P	G/P
				No. of Container(s)	0	1	1
				Volume	15mL	60mL	60mL
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1631M; Mercury - 7473	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time				
J19610 2981-212	OTHER SOLID	9-15-09	1430	X	X	X	
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9/15/09 1430	Received By/Stored In <i>Wendy West</i>		Date/Time 9/15/09 1430	Perform Total Inorganic Arsenic out of Chromium Hex bottle.	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/17/09 950	Received By/Stored In <i>Shannan Johnson</i>		Date/Time 9/17/09 950		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/17/09 950	Received By/Stored In <i>FDX</i>		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Shannan Johnson</i>		Date/Time 09/18/09 1230		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Central File #: 2981 Sample No(s): 203-212 Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER: (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amounts Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 2.7 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other Plastic

Notes: _____

Completed By: [Signature]

Date/Time: 09/18/09 1225

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Deep freezer D-1

Other Notes: _____

Completed By: [Signature]

Date/Time: 09/18/09 1225

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 9/23/2009
Batch: 17
Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19629	na	2981-213a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19628	na	2981-214a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19639	na	2981-215	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19698	na	2981-216	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19699	na	2981-217	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19640	na	2981-218	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19650	na	2981-219	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19649	na	2981-220	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19660	na	2981-221	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19659	na	2981-222	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-118-899		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>NO 9K09</i>		Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 CARCASS				SAF No. RC-118					
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/ Bill No. FDX# 796967152240						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	P	G/P			
					No. of Container(s)	0	1	1			
					Volume	15mL	60mL	60mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time								
J19629	<i>2981-213a6h</i>	OTHER SOLID	<i>9/16/09</i>	<i>1115</i>	X	X	X				
CHAIN OF POSSESSION					Sign/Print Names			SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/16/09</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab			Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2		<i>9/17/09</i>		SHANNAN JOHNSON		<i>9/27/09</i>					
SHANNAN JOHNSON		<i>9/21/09</i>		FOX							
						<i>9/23/09 1250</i>					
LABORATORY SECTION	Received By		Title				Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-898		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K <i>N</i> <i>11/9/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 FILLET			SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX 796967152240						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	refreeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P				
				No. of Container(s)	0	1	1				
				Volume	15mL	60mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time								
<i>J19628</i>	<i>2981.214a,b</i>	<i>9/16/09</i>	<i>1100</i>	<i>X</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION											
Relinquished By/Removed From <i>Wendy West</i>				Date/Time <i>1100 9/16/09</i>		Received By/Stored In <i>Wendy West</i>				Date/Time <i>1100 9/16/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2				Date/Time <i>1100 9/22/09</i>		Received By/Stored In SHANNAN JOHNSON				Date/Time <i>1100 9/22/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON				Date/Time <i>1100 9/22/09</i>		Received By/Stored In <i>FDX</i>				Date/Time <i>1100 9/22/09</i>	
Relinquished By/Removed From				Date/Time		Received By/Stored In <i>Shannon Johnson</i>				Date/Time <i>1252 09/23/09</i>	
Relinquished By/Removed From				Date/Time		Received By/Stored In				Date/Time	
Relinquished By/Removed From				Date/Time		Received By/Stored In				Date/Time	
SPECIAL INSTRUCTIONS Perform Total Inorganic Arsenic out of Chromium Hex bottle. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.											
Matrix *											
S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other											
LABORATORY SECTION		Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-966	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>NA 91009</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 28 FILLET			SAF No. RC-118				
Ice Chest No. <i>WCH-DB-003-2</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX # 796967152240				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P				
				No. of Container(s)	1				
				Volume	60mL				
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J19698 281-216</i>	<i>OTHER SOLID</i>	<i>9/16/09</i>	<i>1345</i>	<i>X</i>					
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1345</i> <i>9/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1345</i> <i>9/16/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>2 9/22/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>100</i> <i>9/22/09</i>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/23/09 1252</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
LABORATORY SECTION	Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-967	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 28 CARCASS			SAF No. RC-118	<i>AP 9/10/09</i>	
Ice Chest No. <i>WCH-08-063-2</i>		Field Logbook No. EL-1638	COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Bill No. FDX 796967152240		
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container P			
				No. of Container(s) 1			
				Volume 60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M; Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J19699 2981-217	OTHER SOLID	9/11/09	1400	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1400 9/11/09</i>	Sign/Print Names <i>Wendy West</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>1400 9/23/09</i>
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>100 9/23/09</i>	Sign/Print Names <i>Shannan Johnson</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>100 9/23/09</i>
Relinquished By/Removed From		Date/Time	Sign/Print Names		Received By/Stored In		Date/Time
Relinquished By/Removed From		Date/Time	Sign/Print Names		Received By/Stored In		Date/Time
Relinquished By/Removed From		Date/Time	Sign/Print Names		Received By/Stored In		Date/Time
LABORATORY SECTION				Received By			Date/Time
FINAL SAMPLE DISPOSITION				Disposal Method			Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-909	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Description Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 CARCASS	SAF No. RC-118	MA 9809				
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # <i>FDX# 796967152240</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS							
	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time				
J19640 2981-218	OTHER SOLID	<i>9/16/09</i>	<i>1400</i>	X	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From			Sign/Print Names		SPECIAL INSTRUCTIONS		
Date/Time <i>1400</i> <i>Wendy West</i>			Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>1400</i> <i>9/16/09</i>		
Date/Time <i>5/22/09</i> <i>EAS LOCKED STORAGE 2</i>			Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>100</i> <i>9/22/09</i>		
Date/Time <i>9/22/09</i> <i>SHANNAN JOHNSON</i>			Received By/Stored In <i>FDX</i>		Date/Time		
Date/Time			Received By/Stored In <i>[Signature]</i>		Date/Time <i>09/23/09 1250</i>		
Date/Time			Received By/Stored In		Date/Time		
Date/Time			Received By/Stored In		Date/Time		
Matrix *							
S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WT=Wipe L=Liquid V=Vegetation X=Other							
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.							
LABORATORY SECTION	Received By	Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-919		Page 1 of 1			
Collector <i>Woody West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>MA 9909</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 29 CARCASS		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *	Sample Date	Sample Time							
J19650 2981-219		OTHER SOLID	9/17/09	1215	X	X					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Woody West</i>		Date/Time <i>1215</i> <i>9/17/09</i>		Received By/Stored In <i>Woody West</i>		Date/Time <i>1215</i> <i>9/17/09</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>1215</i> <i>9/22/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>1215</i> <i>9/22/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1215</i> <i>9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>09/23/09 1250</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-918		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>09/09/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sample Location STURGEON 29 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J19649 2981-220</i>		<i>OTHER SOLID</i>		<i>9/17/09</i>		<i>1200</i>		<i>X K</i>			
CHAIN OF POSSESSION											
Relinquished By/Removed From				Date/Time		Received By/Stored In		Date/Time			
<i>Wendy West</i>				<i>1200</i>		<i>EAS LOCKED STORAGE 2</i>		<i>1200</i>			
<i>Wendy West</i>				<i>9/17/09</i>		<i>Wendy West</i>		<i>9/17/09</i>			
Relinquished By/Removed From				Date/Time		Received By/Stored In		Date/Time			
<i>EAS LOCKED STORAGE 2</i>				<i>9/22/09</i>		<i>SHANNAN JOHNSON</i>		<i>1200</i>			
<i>SHANNAN JOHNSON</i>				<i>9/22/09</i>		<i>FDX</i>		<i>1200</i>			
Relinquished By/Removed From				Date/Time		Received By/Stored In		Date/Time			
<i>Shannon Johnson</i>				<i>9/23/09</i>		<i>Shannon Johnson</i>		<i>1250</i>			
Relinquished By/Removed From				Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From				Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By				Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-929	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>1/2 99 04</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 30 CARCASS			SAF No. RC-118			
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # FDX# 796967152240			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool AC	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
<i>J19660 2981-221</i>	<i>OTHER SOLID</i>	<i>9/17/09</i>	<i>1500</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names			SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1500 9/17/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1500 9/17/09</i>	EAS LOCKED STORAGE 2 SHANNAN IOHNSON FDX Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>100 9/22/09</i>	Received By/Stored In SHANNAN IOHNSON	Date/Time <i>100 9/22/09</i>					
Relinquished By/Removed From SHANNAN IOHNSON	Date/Time <i>100 9/22/09</i>	Received By/Stored In FDX	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shanna</i>	Date/Time <i>09/23/09 1250</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-928		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>MA9909</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 30 FILLET				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>WCH-DB-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill # FDX # 796967152240				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P			
					No. of Container(s)	0	1			
					Volume	15mL	60mL			
					SAMPLE ANALYSIS	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time							
<i>J19659 2981 222</i>	<i>OTHER SOLID</i>	<i>9/17/09</i>	<i>1445</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/17/09</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2		<i>9/22/09</i>		SHANNAN JOHNSON		<i>9/22/09</i>				
SHANNAN JOHNSON		<i>9/22/09</i>		FDX						
				<i>Shannon Johnson</i>		<i>09/23/09 1250</i>				
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

LOG-IN CHECKLIST

Central File #: 2981

Sample No(s): 213-222

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

****See LIMS for archive/disposal information****

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

(Initial appropriate box when completed)

Yes No N/A

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 2.0 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?

Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain):

Container type: Teflon PE Glass Cap Vial Other

Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Deep freeze C-1

Other Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/30/2009
 Batch: 18
 Login Designee: Mcgahan



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195W5 ✓	na	2981-223 ✓	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09 ✓
J195W6 ✓	na	2981-224	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09
J195W7 ✓	na	2981-225	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09
J195W8 ✓	na	2981-226	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	0924/09 ✓
J19666 ✓	na	2981-227	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	0924/09
J19665 ✓	na	2981-228 ✓	other solid	Deep Freezer B-1	✓ Total Inorganic Cr Hex in Solids 1636M	0924/09
J19752 ✓	na	2981-229 ✓	other solid	Deep Freezer B-1	✓ Total Inorganic As	0924/09 ✓
J19751 ✓	na	2981-230	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X99 ✓	na	2981-231	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X96 ✓	na	2981-232	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ3 ✓	na	2981-233	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC9 ✓	na	2981-234	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XB0 ✓	na	2981-235	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XF3 ✓	na	2981-236 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0924/09 ✓

1/2/09
101.107

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 9/30/2009
Batch: 18
Login Designee: Mcgahan

Project: **Washington Closure Hanford**

Pacific Northwest
NATIONAL LABORATORY

Battelle
The Business of Innovation

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J18XF2 ✓	na	2981-237 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0924/09 ✓
J18XF1 ✓	na	2981-238	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC6 ✓	na	2981-239	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ1 ✓	na	2981-240	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XD0 ✓	na	2981-241	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ2 ✓	na	2981-242	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X97 ✓	na	2981-243	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC7 ✓	na	2981-244 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0925/09 ✓
J18XF5 ✓	na	2981-245	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XJ5 ✓	na	2981-246	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XC8 ✓	na	2981-247	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18X98 ✓	na	2981-248	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XF4 ✓	na	2981-249	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J19XJ4 ✓	na	2981-250 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0925/09 ✓

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-866	Page 1 of 1
Collector <i>Rylie Barron</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location SURGEON 17 VISCERA		SAF No. RC-118		Price Code <i>9K</i> <i>N</i> <i>AAA 8/31/09</i> Data Turnaround 45 Days	
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796986356875			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container G/P			
				No. of Container(s) 1			
				Volume 60mL			
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J195W5 <i>2981.223</i>	OTHER SOLID	<i>9/21/09</i>	<i>1420</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Rylie Barron R.R.</i>		Date/Time <i>9/21/09 1420</i>		Received By/Stored In <i>Rylie Barron R.R.</i>		Date/Time <i>9/21/09 1420</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/29/09 1045</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/29/09 1045</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/29/09 1045</i>		Received By/Stored In <i>FDX</i>		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/30/09 1500</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By				Title	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By	
						Date/Time	
						Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-868	Page 1 of 1
Collector Rylie Barron	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 19 VISCERA		SAF No. RC-118	N AD 83109			
Ice Chest No. APS-04-041	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading Air Bill No. FDX#796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	G/P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J195W7 2981-225	OTHER SOLID	9/21/09	1620	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From Rylie Barron	Date/Time 9/21/09	Received By/Stored In Rylie Barron	Date/Time 9/21/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 9/29/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/29/09				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/29/09	Received By/Stored In EDX	Date/Time 10/9/09				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-869	Page 1 of 1
Collector <i>Windy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 VISCERA		SAF No. RC-118	<i>NA 8309</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Invoice No. <i>FDX 796986356875</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container G/P				
			No. of Container(s) 1				
			Volume 60mL				
SAMPLE ANALYSIS			Chromium Hex in Solids 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J195W8 <i>2981-226</i>	OTHER SOLID	<i>9/24/09</i>	<i>1745</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Windy West</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>Windy West</i>	Date/Time <i>9/24/09</i>	<p>SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/24/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/29/09</i>	Received By/Stored In <i>FDX</i>	Date/Time <i>10/4/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-935	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>11/19/09</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 VICERA		SAF No. RC-118			
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDX# 796986356879				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	G/P		
				No. of Container(s)	1		
				Volume	60mL		
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19666 <i>2981-227</i>	OTHER SOLID	<i>9/24/09</i>	<i>1800</i>	<i>X</i>			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/24/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/29/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>10/25</i>	Received By/Stored In <i>FDX</i>		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/30/09 1500</i>		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-934	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>4/18/99</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sample Location <i>28 4/18/99</i> STURGEON <i>26</i> VICERA			SAF No. RC-118				
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading <i>FDX</i> 796986356875				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container G/P					
				No. of Container(s) 1					
				Volume 60mL					
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J19665 2981-228</i>	<i>OTHER SOLID</i>	<i>9/24/09</i>	<i>1810</i>	<i>X</i>					
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1810</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGEZ		Date/Time <i>9/29/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1045</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>11/21/09</i>		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION				Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By		Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-1079		Page 1 of 1				
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>MD 91709</i>				
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WAL 6 CARCASS		SAF No. RC-118		Data Turnaround 45 Days						
Ice Chest No. <i>AFS-D4-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX 796986356875</i>								
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C								
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G								
		No. of Container(s)		1								
		Volume		15mL								
SAMPLE ANALYSIS		Total Inorganic Arsenic										
Sample No.	Matrix *	Sample Date	Sample Time									
J19752 <i>2981-229</i>	OTHER SOLID	<i>9/24/09</i>	<i>1130</i>	<i>X</i>								
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1130</i> <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1130</i> <i>9/24/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>2 1045</i> <i>9/29/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>1045</i> <i>9/29/09</i>						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>1045</i> <i>9/29/09</i>		Received By/Stored In <i>FDX</i>		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500</i> <i>9/30/09</i>						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION	Received By		Title				Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-1078	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL 6 FILLET	SAF No. RC-118	<i>N</i> <i>MS 91709</i>				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading No. FDX# 796986356879					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS			Total inorganic Arsenic				
Sample No.	Matrix *	Sample Date	Sample Time				
J19751 <i>2881-230</i>	OTHER SOLID	<i>9/24/09</i>	<i>1115</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>11/5</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>11/5</i>	<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>9/24/09 1520</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids I=Issue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>9/29/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/29/09</i>	Received By/Stored In FDX	Date/Time <i>10/5</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-199	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>JLD 5/609</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL4-FILLET	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18X99 <i>2981-231</i>	OTHER SOLID	<i>9/24/09</i>	<i>1400</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/24/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE		Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/24/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>EDD</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>9/30/09</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-196		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> Data Turnaround <i>N</i> 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WALI-FILLET		SAF No. RC-118		<i>1/10/09</i>				
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. 1633		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796986356875						
POSSIBLE SAMPLE HAZARDS/REMARKS										
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Preservation		Cool 4C			
					Type of Container		P/G			
					No. of Container(s)		1			
					Volume		15mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic					
Sample No.		Matrix *		Sample Date		Sample Time				
<i>J18X96 2981-232</i>		<i>OTHER SOLID</i>		<i>9/24/09</i>		<i>1300</i>		<i>X</i>		
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In		Date/Time		Matrix * S=Soil SE=Sediment SO=Solid SI=Sledge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
<i>Wendy West</i>		<i>9/24/09 1300</i>		<i>Wendy West</i>		<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1300</i>		
<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1300</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>		<i>9/24/09 1300</i>		
<i>SHANNAN JOHNSON</i>		<i>9/24/09 1300</i>		<i>FDX</i>		<i>FDX</i>		<i>9/24/09 1300</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Received By/Stored In		Date/Time		
LABORATORY SECTION		Received By			Title			Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time		

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-253	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K <i>N</i> <i>4/8 5/19 09</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WAL3, CARCASS			SAF No. RC-118				
Ice Chest No. AFS-04-041		Field Logbook No. EL-1633		COA BESCRC6520		Method of Shipment FED EX		Bill of Lading/Airway Bill FDX # 796986356879	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS									
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Preservation	Cool 4C			
					Type of Container	P/G			
					No. of Container(s)	1			
					Volume	15mL			
SAMPLE ANALYSIS					Total Inorganic Arsenic				
Sample No.	Matrix *	Sample Date	Sample Time						
J18XJ3 2981-233	OTHER SOLID	<i>9/24/09</i>	<i>1045</i>	<i>X</i>					
CHAIN OF POSSESSION					Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>10/4/09</i>	Received By/Stored In <i>Wendy West</i>		Date/Time <i>10/4/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/24/09</i>	Received By/Stored In SHANNAN JOHNSON		Date/Time <i>10/4/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1/29/09</i>	Received By/Stored In <i>FDX</i>		Date/Time <i>10/4/09</i>				
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By		Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-200	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WALS-FILLET	SAF No. RC-118	N JAS 51809				
Ice Chest No. AFS-04-041	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"							
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time	Total Inorganic Arsenic			
J18XB0 2981-235	OTHER SOLID	9/24/09	1515	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1515	Received By/Stored In <i>Wendy West</i>	Date/Time 1515	SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB.			S=Soil
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/24/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/29/09				SE=Settlement
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/29/09	Received By/Stored In <i>FDX</i>	Date/Time 1245				SO=Solid
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				SI=Sludge
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				W=Water
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				O=Oil
LABORATORY SECTION				Received By	Title	Date/Time	A=Air
FINAL SAMPLE DISPOSITION				Disposal Method	Disposed By	Date/Time	DS=Drum Solids

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-233	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WAL3, FILLET	SAF No. RC-118	<i>4/18 51809</i>				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XF3 <i>2981-236</i>	OTHER SOLID	<i>9/24/09</i>	<i>1130</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1030</i> <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1130</i> <i>9/24/09</i>	<p><i>EAS LOCKED STORAGE 2</i></p> <p><i>SHANNAN JOHNSON</i></p> <p><i>FDX</i></p> <p><i>09/30/09 1530</i></p> <p><i>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</i></p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>1045</i> <i>9/24/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>1045</i> <i>9/24/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>1045</i> <i>9/24/09</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-232	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WAL2, FILLET		SAF No. RC-118	JPS 51609		
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. 1633	COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796986356875			
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Preservation	Cool 4C		
				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J18XF2 <i>2981-237</i>	OTHER SOLID	<i>9/24/09</i>	<i>0945</i>	X			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/24/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON		Date/Time <i>10/4/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>10/4/09</i>	Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-231	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K <i>N</i>	Data Turnaround 45 Days
Project Description Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WALI, FILLET		SAF No. RC-118		<i>825 5109</i>		
Ice Chest No. APS-04-041		Field Logbook No. 1633		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Invoice No. FDX 796986356875				
POSSIBLE SAMPLE HAZARDS/REMARKS					Preservation	Cool 4C		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G		
					No. of Container(s)	1		
					Volume	15mL		
					SAMPLE ANALYSIS			
Sample No.	Matrix *	Sample Date	Sample Time					
J18XF1 2981-238	OTHER SOLID	<i>9/24/09</i>	<i>0900</i>	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09 0900</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/24/09 0900</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09 1045</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/29/09 1045</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09 1045</i>		Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION					Title			Date/Time
FINAL SAMPLE DISPOSITION					Disposal Method			Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-216	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WALI-CARCASS		SAF No. RC-118	<i>AP 5/8/09</i>		
Ice Chest No. <i>APS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDX# 796986356875				
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
				Total Inorganic Arsenic			
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC6 <i>2981-239</i>	OTHER SOLID	<i>9/24/09</i>	<i>1330</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/24/09</i>		<i>Wendy West</i>		<i>9/24/09</i>	
EAS LOCKED STORAGE 2		<i>9/29/09</i>		SHANNAN JOHNSON		<i>9/29/09</i>	
SHANNAN JOHNSON		<i>10/4/09</i>		FDX			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>Shannon Johnson</i>		<i>9/30/09 1600</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab

- S-Soil
- SE-Sediment
- SO-Solid
- SL-Sludge
- W-Water
- O-Oil
- A-Air
- DS-Drum Solids
- DL-Drum Liquids
- T-Tissue
- WI-Wipe
- L-Liquid
- V-Vegetation
- X-Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-251	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALI, CARCASS	SAF No. RC-118	N AFS1109				
Ice Chest No. AFS-04-041	Field Logbook No. EL-1633	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading No. FDX#796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"							
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time	Preservation	Cool 4C		
J18XJ1 2981-240	OTHER SOLID	9/24/09	0915	Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
				Total Inorganic Arsenic			
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		0915 9/24/09		<i>Wendy West</i>		0915 9/24/09	
EAS LOCKED STORAGE 2		9/29/09		SHANNAN JOHNSON		1045	
SHANNAN JOHNSON		9/29/09		FDX		1045	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>[Signature]</i>		09/28/09 1500	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SPECIAL INSTRUCTIONS							
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab							
Matrix *							
S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other							
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-220	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WALS-CARCASS		SAF No. RC-118		Price Code <i>9K</i> <i>N</i> <i>1/15 51609</i>	
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. 1633		COA BESCR6520		Data Turnaround 45 Days	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Method of Shipment FED EX		Bill of Lading No. FDX# 796986356875	
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
				SAMPLE ANALYSIS			
Sample No.	Matrix *	Sample Date	Sample Time				
J18XD0 <i>2981-241</i>	OTHER SOLID	<i>9/24/09</i>	<i>1545</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>29/24/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>10/29/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09</i>		Received By/Stored In <i>FDV</i>		Date/Time <i>10/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/29/09 1800</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Collector *Wendy West* Company Contact **JOAN KESSNER** Telephone No. **375-4688** Project Coordinator **KESSNER, JH** Price Code **OK N** Data Turnaround **45 Days**

Project Designation **Columbia River Component of the RCBRA - Tissues** Sampling Location **300SA-WAL2, CARCASS** SAF No. **RC-118** *445109*

Ice Chest No. **AFS-04-041** Field Logbook No. **EL-1633** COA **BESCR6520** Method of Shipment **FED EX**

Shipped To **Battelle Marine Sciences** Offsite Property No. **N/A** Bill of Lading **FDX# 796986356875**

POSSIBLE SAMPLE HAZARDS/REMARKS Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Cool 4C																	
	Type of Container	P/G																	
	No. of Container(s)	1																	
	Volume	15mL																	

SAMPLE ANALYSIS					Total Inorganic Arsenic														
-----------------	--	--	--	--	-------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time																
J18XJ2 2981-242	OTHER SOLID	9/24/09	1000	X															

CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS										Matrix *			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX 9/24/09 1000 9/29/09 1045 9/29/09 1500 9/30/09 1500 Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.												S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WT=Wipe L=Liquid V=Vegetation X=Other			
<i>Wendy West</i>	1000	<i>Wendy West</i>	1000																
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																
EAS LOCKED STORAGE 2	9/29/09 1045	SHANNAN JOHNSON	1045																
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																
SHANNAN JOHNSON	9/29/09 1045	FDX																	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time																

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-197	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>JK</i> <i>N</i> <i>JAS 5/18/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL2-FILLET	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"							
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time	Total Inorganic Arsenic			
J18X97 <i>2981-213</i>	OTHER SOLID	<i>9/25/09</i>	<i>1100</i>	<i>X</i>			
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/25/09</i>		<i>Wendy West</i>		<i>9/25/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
EAS LOCKED STORAGE		<i>9/29/09</i>		SHANNAN JOHNSON		<i>9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SHANNAN JOHNSON		<i>9/29/09</i>		<i>[Signature]</i>		<i>9/30/09 1500</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SPECIAL INSTRUCTIONS							
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.							
Matrix *							
S=Sediment SE=Sediment SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other							
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-217	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL2-CARCASS	SAF No. RC-118	Date <i>1/15/09</i>				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/ <i>FDX</i> # 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC7 <i>2981-244</i>	OTHER SOLID	<i>9/25/09</i>	<i>1130</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1130</i> <i>9/25/09</i>	Received By/Stored In <i>EAS LOCKED STORAGE</i>	Date/Time <i>1130</i> <i>9/25/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>2</i> <i>10/15</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>10/15</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/29/09</i> <i>10/15</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>[Signature]</i>	Date/Time <i>9/25/09</i> <i>1500</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-235	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WALS, FILLET		SAF No. RC-118	<i>11051809</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Materials FDX# 796986356875				
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Preservation	Cool 4C				
		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS			Total Inorganic Arsenic				
Sample No.	Matrix *	Sample Date	Sample Time				
J18XF5 <i>2981-245</i>	OTHER SOLID	<i>9/23/09</i>	<i>11:30</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/23/09</i>	Sign/Print Names <i>Wendy West</i>		Date/Time <i>9/23/09</i>	Received By/Stored In <i>Wendy West</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/23/09</i>	Sign/Print Names SHANNAN JOHNSON		Date/Time <i>9/23/09</i>	Received By/Stored In <i>Shannan Johnson</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/23/09</i>	Sign/Print Names <i>Shannan Johnson</i>		Date/Time <i>9/23/09</i>	Received By/Stored In <i>Shannan Johnson</i>	
Relinquished By/Removed From		Date/Time	Sign/Print Names		Date/Time	Received By/Stored In	
Relinquished By/Removed From		Date/Time	Sign/Print Names		Date/Time	Received By/Stored In	
Relinquished By/Removed From		Date/Time	Sign/Print Names		Date/Time	Received By/Stored In	
Relinquished By/Removed From		Date/Time	Sign/Print Names		Date/Time	Received By/Stored In	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

- S=Soil
- SE=Sediment
- SO=Solid
- SH=Sludge
- W=Water
- O=Oil
- A=Air
- DS=Drum Solids
- DL=Drum Liquids
- T=Tissue
- WI=Wipe
- L=Liquid
- V=Vegetation
- X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-255	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>43 51909</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALS, CARCASS	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>							
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time	Preservation	Volume	Total Inorganic Arsenic	
J18XJ5	2981.246	OTHER SOLID	9/25/09	1700	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1700 9/25/09</i>		<i>Wendy West</i>		<i>1700 9/25/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>10/15 9/29/09</i>		<i>SHANNAN JOHNSON</i>		<i>10/15 9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>10/15 9/29/09</i>		<i>FDX</i>		<i>10/15 9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>[Signature]</i>		<i>10/15 9/29/09</i>		<i>[Signature]</i>		<i>10/15 9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>[Signature]</i>		<i>10/15 9/29/09</i>		<i>[Signature]</i>		<i>10/15 9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>[Signature]</i>		<i>10/15 9/29/09</i>		<i>[Signature]</i>		<i>10/15 9/29/09</i>	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	
SPECIAL INSTRUCTIONS							
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.							
Matrix *							
S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other							

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-218	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>4/25/09</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL3-CARCASS	SAF No. RC-118						
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESRCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading or Bill No. <i>PL</i> 796986356875						
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation Cool 4C						
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container P/G						
		No. of Container(s) 1						
		Volume 15mL						
		Total Inorganic Arsenic						
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J18XC8 <i>2981-247</i>	OTHER SOLID	<i>9/25/09</i>	<i>1230</i>	<i>X</i>				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1230</i> <i>9/25/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1230</i> <i>9/25/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>1245</i> <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>1245</i> <i>9/29/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>1045</i> <i>9/29/09</i>	Received By/Stored In FDX	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>09/30/09 1500</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-198	Page 1 of 1															
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>OK</i>	Data Turnaround <i>45 Days</i>																
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL3-FILLET		SAF No. RC-118		<i>N</i> <i>140 57809</i>																	
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX																			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/ATA Bill No. FD 796986356875																			
POSSIBLE SAMPLE HAZARDS/REMARKS																						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>								Preservation	Cool 4C													
								Type of Container	P/G													
								No. of Container(s)	1													
								Volume	15mL													
SAMPLE ANALYSIS								Total Inorganic Arsenic														
Sample No.	Matrix *	Sample Date	Sample Time																			
J18X98 <i>2981-248</i>	OTHER SOLID	<i>9/25/09</i>	<i>1200</i>	<i>X</i>																		
CHAIN OF POSSESSION								SPECIAL INSTRUCTIONS				Matrix *										
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/25/09</i>	Sign/Print Names <i>Wendy West</i>		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time <i>9/25/09</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other 										
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>10/45</i>																	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09</i>	Received By/Stored In <i>EDY</i>		Date/Time <i>10/45</i>																	
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time																	
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time																	
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time																	
LABORATORY SECTION	Received By	Title				Date/Time																
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time																

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-234		Page 1 of 1																																																			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>JAS 51809</i>																																																			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WALA, FILLET		SAF No. RC-118		Data Turnaround 45 Days																																																					
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. 1633		COA BESCR6520		Method of Shipment FED EX																																																					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>796986356875</i>																																																							
POSSIBLE SAMPLE HAZARDS/REMARKS																																																											
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Preservation		Cool 4C																																																					
				Type of Container		P/G																																																					
				No. of Container(s)		1																																																					
				Volume		15mL																																																					
SAMPLE ANALYSIS																																																											
Total Inorganic Arsenic																																																											
<table border="1"> <thead> <tr> <th>Sample No.</th> <th>Matrix *</th> <th>Sample Date</th> <th>Sample Time</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>J18XF4 <i>2981-249</i></td> <td>OTHER SOLID</td> <td><i>9/25/09</i></td> <td><i>1400</i></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </tbody> </table>										Sample No.	Matrix *	Sample Date	Sample Time							J18XF4 <i>2981-249</i>	OTHER SOLID	<i>9/25/09</i>	<i>1400</i>	X																																			
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Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Matrix *																																																			
<i>Wendy West</i>		<i>9/25/09 1400</i>		<i>Wendy West</i>		<i>9/25/09 1400</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WT=Wipe L=Liquid V=Vegetation X=Other 																																																			
EAS LOCKED STORAGE 2		<i>9/29/09 1045</i>		SHANNAN JOHNSON		<i>9/29/09 1045</i>																																																					
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				<i>Shannon Johnson</i>		<i>9/30/09 1500</i>																																																					
LABORATORY SECTION					SAMPLER INFORMATION																																																						
Received By		Title			Date/Time																																																						
FINAL SAMPLE DISPOSITION					Disposal Method																																																						
Disposal Method		Disposed By			Date/Time																																																						

Collector *Wendy West* Company Contact **JOAN KESSNER** Telephone No. **375-4688** Project Coordinator **KESSNER, JH** Price Code **9K** Data Turnaround **45 Days**
 Project Designation **Columbia River Component of the RCBRA - Tissues** Sampling Location **300SA-WAL4, CARCASS** SAF No. **RC-118**
DD 519 09

Ice Chest No. **AFS-04-041** Field Logbook No. **EL-1633** COA **BESCR6520** Method of Shipment **FED EX**

Shipped To **Battelle Marine Sciences** Offsite Property No. **N/A** Bill of Lading/Air Bill No. **FD 796986356875**

POSSIBLE SAMPLE HAZARDS/REMARKS Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Cool 4C																	
	Type of Container	P/G																	
	No. of Container(s)	1																	
	Volume	15mL																	

SAMPLE ANALYSIS		Total Inorganic Arsenic																	
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Sample No.	Matrix *	Sample Date	Sample Time																
J18XJ4 2981-250	OTHER SOLID	9/25/09	1415	X															

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/25/09	Received By/Stored In <i>Wendy West</i>	Date/Time 9/25/09	SPECIAL INSTRUCTIONS Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/29/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/29/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/29/09	Received By/Stored In FOX	Date/Time 10/15					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981 Sample No(s): 223-250 Batch: 18
Project Name: WA Closure Nanford Project Manager: Brandenberg

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Samples (see Compliance Agreement Checklist) PM Verification: _____

Filter: Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Custody seal present Seal intact? YES NO

Cooler temperature (acceptable range: 4±2°C or solids:frozen) 3.2 °C
(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Other (specify): _____

Container type: Other

Notes: _____

Completed By: [Signature] Date/Time: 09/30/09 1500

SAMPLE PRESERVATION

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

Sample(s) were preserved at MSL

Type: 0.2% HNO3 Notes: _____ Lot# _____

0.5% HCl (Hg samples) Notes: _____ Lot# _____

Refrigerated/Freezes Notes: deep freeze B-1

Other Notes: _____

Completed By: [Signature] Date/Time: 1530 09/30/09

Storage Shelf: B-1