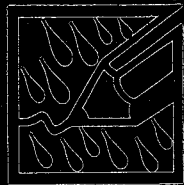


APPENDIX F
FIELD NOTEBOOKS

FIELD LEAD NOTES

Field Log

#1



"Rite in the Rain"®

ALL-WEATHER
ENVIRONMENTAL

No. 550-4F

Location Spokane Date 9/4/13
 Project / Client UCR Phase 2 Sed Study
Teck American

0800 - 1200 Crew arrives at URS office and makes final preparations for trip to trail.

12 - 1:00 Lunch

Mileage @ Departure from Spokane office 12537 @ 13:30 hr

Arrive at US Border on Rt 95
 at 16:30 hrs - Depart Border
 17:15 hrs

Arrive Trail 19:45 hrs
 mileage 12776

~~David R. Now~~ 9/4/13

Location Trail Boat Dock Date 9/5/13
 Project / Client UCR Phase 2 Sed Study
Teck American

0700 NRS assembled at Dock to prep for the day. Plan to sample 2 locations at Gemile
 3 observers at the Dock
 Was informed by EPA Representative that:

- EPA understood there would be 2 observers on sample Boat in Canada. This is not URS' understanding. Contacted Teck and URS-PM to work out this issue. Resolved to allow 2 observers on Safety Boat and 1 observer on Sampling Boat. When a sample is collected sample Boat will move to shore with Safety Boat so every one can observe sample collection
 - EPA indicated that it wants one additional 5 gal bucket
- David R. Now 9/5/13

Location Trail Date 9/5/13
 Project / Client UCR Phase 2 Sediment Study
Teck American

for the EPA-split samples. This is a deviation from the QAPP, but Teck instructed URS to accommodate this request

9:00 - 9:30 Conducted Safety Meeting with Entire Crew

Gravity ran a final operations check of sampling equipment and performed a rough dozen of grabs.

1030 Hrs Sampling Team departs dock for Gravelis

17:30 Met Boat at Dock to pick up today's samples. All reports indicate a successful sampling day.

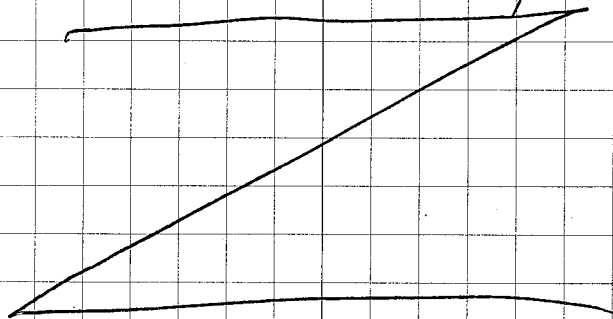
David R. How 9/5/13

Location Trail Date 9/5/13
 Project / Client UCR Phase 2 Sediment Study
Teck American

18:00 Departed Trail with Gary Panther to transport today's samples to Northport for storage in Ref. Truck.

20:00 Returned to Trail. Met with Gravity crew briefly. Met with JR Sugalski briefly. Scanned today's field notes.

2200 Hrs end of Day



David R. How 9/5/13

Location Trail Boat Launch Date 9/6/13
 Project / Client UCR Phase 2 Sed Study
Track American

07:30 Met at Boat Launch with
 Team. Held Brief conference
 call with URS - PM and URS
 sample team.

- conducted Safety Briefing
 on the dock

- 0800 hrs Boats departed the
 dock to sample locations
 G-3 and G-4

- 11:15 Arrive Mouthport to process
 samples for shipment to ALS
 1-cooler

2:30 PM Met Gary Farther in
 Rossland to pick up today's
 samples for transport to
 Mouthport

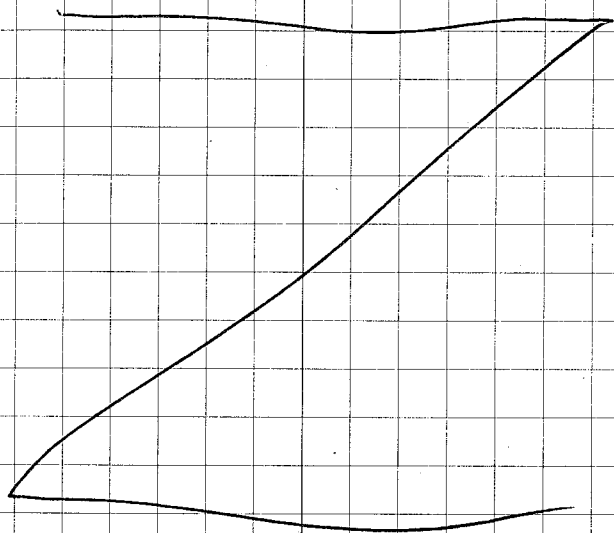
David R. Howe 9/6/13

Location Castlegon Date 9/6/13
 Project / Client UCR Phase 2 Sed Study
Track American

5:00 PM Arrive Castlegon
 and check in to hotel

Mileage 12922

7:45 Call URS - PM to
 discuss daily activities



David R. Howe 9/6/13

Location Lower Arrow Lake Date 9/7/13
 Project / Client UCR Phase 2 Seed Study
TECK AMERICAN

0800 Arrive at Scotty's Marina to
 Launch Boats

0830 Conducted Morning Safety
 Briefing

Gravity is delayed departing
 because of a problem with some
 equipment on the sample boat

0915 6s Boats Depart the Dock

0930 Return to Hotel to process
 sampling paperwork from first
 two days

17:15 6s Sampling Team Returns
 with samples and paperwork

17:30 Depart for Northport
 David R. Hone 9/7/13

Location Castlegar Date 9/7/13
 Project / Client UCR Phase 2 Seed Study
TECK AMERICAN

18:35 Depart Northport

19:35 Arrive Brock at Castlegar
 Mileage 13045

David R. Hone 9/7/13

Location Lower Arrow Lake Date 9/8/13
 Project / Client UCR Phase 2 Sediment Study
Teck American

0800 Hrs Crew Assembles at
 Scott's Marina for Sampling.
 Weather is ideal Broken Clouds
 $\approx 60^{\circ}\text{F}$ No wind

Conducted Safety Briefing
 and Boats Depart the dock
 at 0820 Hrs

1730 Hrs Sampling Crew Returns
 with Samples. Locations LAL-1
 LAL-2 and LAL-3 were
 moved because depth of the
 lake (>600 feet) exceeds the
 sampling equipment's abilities.
 The EPA representative
 and the CCT cultural resource
 observer both agreed with
 the relocation.

David P. Hone 9/8/13

Location Castlegan Date 9/9/13
 Project / Client UCR Phase 2 Sediment Study
Teck American

0700 Hrs EPA Representatives
 and Gravity Environmental
 Depart Castlegan for the U.S.

08:30 Hrs G. Pothon and JR Sigalski
 departed for U.S. to ship the
 samples to CAS. Remaining crew
 will remain in Castlegan until
 Tuesday 10-Sept-13.

Process and paperwork till
 1230 Hrs. Shut down for some
 RTR.

David P. Hone

Location Castlegar Date 9/10/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

0700 Hrs checked out of
 Hotel and headed for U.S.

0900 fuel in Northport WA
 Pickup Refor Truck and
 Head to Spokane

Mileage 13218

1130 Hrs Arrive Spokane
 Mileage 13333

1:30 - 6:00 Meeting at Tuck
 office

6:00 - 7:30 Move to 2-Rivons
 know and have dinner
 Then check in to Motel

D. Hore 9/10/13

Location 2-Rivons Date 9/11/13
 Project / Client UCR Phase 2 Sediment Study
Tuck American

Today spent at Motel Organizing
 equipment and Preparing for
 sampling that will resume with
 2 sampling crews on 9/12/13.

Met with NPS Personnel at
 Fort Spokane to Discuss The project
 and what they should expect from
 the crew as far as daily presence.

National Park Service
 U.S. Department of the Interior

Laurie Denison
 Administrative Technician

South District Office

Lake Roosevelt National Recreation Area
 44150 District Office Lane North
 Davenport, Washington 99122

~~509-633-3000 ext 00~~ 509 754-7887
 509-633-3834 fax
 Laurie_Denison@nps.gov



David R. Hore 9/11/13

Location Two Rivers Date 9/11/13
 Project / Client UCR Sediment Study - Phase 2
Truck American

3:00PM Placed Emergency Order
 for 160 250ml Bottles for
 Riosoto Samples

Bottles will be sent to White
 Willow Motel via Courier Services
 to arrive Thursday 9/12/13

David M. Hoen 9/11/13

Location 2 Rivers Boat Launch Date 9/12/13
 Project / Client UCR Phase 2 Sed Study
Truck American

0700 HRS Met Boats at 2 Rivers
 Boat Launch

0730 HRS conduct Safety Brief

0800 HRS Boats Depart Dock

1430 Kris McCaig of Truck called
 URS is not to fill an extra
 sample jar for the EPA
 split samples at the chemistry
 only locations. We are to
 place the extra material into
 a bucket and send it to
 ALS where it will be re-
 homogenized and an EPA
 Representative will collect
 the sample at that time!

David M. Hoen 9/12/13

Location 2 Rivers Date 9/12/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

Splits for CCT may be given to
 John Edwards
 Keith Holiday
 Don MacDonald
 or their designers

1600 hrs The field sampling team
 returned with 18 5gal buckets
 of IDW from sampling at four
 chemistry only locations from
 within CCT and STI managed
 areas. After placing a call to
 Tuck to discuss this volume, we
 came to understand that sediment
 IDW obtained from CCT+STI
 areas should be returned to
 the system. This will be done
 in the future. The 18 buckets
 will be sent to ALS for storage.

David R. How 9/12/13

Location 2-Rivers Marina Date 9/13/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

0700 hrs Meet at Dock
 NPS Personnel present at Dock
 to accept CCT samples and
 NPS samples

0730 hrs Safety Briefing

Discussed the placement of
 excess sediment back into the
 river on CCT + STI managed
 lands with Don MacDonald of
 NPS. All in agreement that
 excess sediment will be returned
 to the system. Also discussed
 with Keith Holiday and John
 Edwards. Tribal Representatives
 also present.

0800 hrs Boats Depart The
 Dock.

David R. How 9/13/13

Location Two Rivers Boat Launch Date 9/13/13
 Project / Client UCP Phase 2 Sed. Study
Teck American

The NPS personnel refused to sign the URS H+S form. Their dress did not conform to the specifications of the URS H+S Plan

Last Boat Back at the dock 1815 hrs. Completed GBio 7 Bioassay Locations today.

Also received word that our site cultural observer had to leave in the morning because he received word that his nephew was shot and killed this morning. He stayed with the team until his supervisor gave him the OK to leave. Dreadful news!!

David R. Hare 9/13/13

Location Two Rivers Marina Date 9/14/13
 Project / Client UCP Phase 2 Sed Study
Teck American

0700 hrs Met at Dock. Plans to use only one boat to sample two locations GB-C2 and Ref-6

The remaining boat crews performed maintenance on the tohoma.

Two URS staff (Mike Kelly and Melanie Young) notated out.

The remaining URS staff processed paperwork and prepared samples for transport to ALS via refrigerated truck on 9/15/13 as planned.

Boat Return to Dock at 3:15 PM

Processed Samples for Shipping finished 6:00 PM

David R. Hare 9/14/13

Location Two Rivers Date 9/15/13
 Project / Client VCR Phase 2 Sediment Study
Truck American

0700 hrs Met with Tobey Clark and Paul McCullough to review COC Transfer Procedure when transferring custody of samples in refrigerated truck to Portland-based NPS staff who will then deliver truck to AIS Global in Kelso, WA.

Remaining day spent doing paperwork, laundry, and resting.

~~David R. Howe 9/15/13~~

Location Two Rivers Marina Date 9/14/13
 Project / Client VCR Phase 2 Sed Study
Truck American

0700 MET at Dock. All Present Except The Poek service cultural Representative. Called Keith Holliday at NPS to check status of Rep. (7:20 AM)

Note: Discussion on the dock indicated the NPS handling of their split samples have three deviations from the QAPP:

- ① They are using a 2mm ^{SIEVE} ~~sieve~~ not a 5mm sieve
- ② Washing the sample through the ~~sieve~~ sieve
- ③ They are not covering the sample with water in the Buckets

319-504-3733
 0800 AM'S Laura McCullough from the NPS arrives to join the Traction Sampling Crew
 David R. Howe 9/14/13

Location 2 Rivers Marina Date 9/16/13
 Project / Client UCR Phase 2 Sed. Study
Tack American

0845 - ~~for~~ Laura McCullough is
 geared up and ready to go.
 Stone S. from Gravity Bricks
 Laura on Safety.

0850 Hrs Tixon Departs Dock

1130 Hrs The Tahoma Sampling crew
 finished their two locations and
 requested permission to move
 to location Red-8 to collect
 the Chem + Bioassay + NPS split.
 I contacted Keith Holliday at the
 NPS for approval to sample this
 location without NPS observers
 to accept the split. Keith stated
 it is OK to proceed so long as
 the EPA observer is there to
 witness the process and will
 indicate that URS followed the
 David R. Horn 9/16/13

Location 2 Rivers Marina Date 9/16/13
 Project / Client UCR Phase 2 Sed. Study
Tack American

prescribed procedures stated
 in the EPA-approved QAPP,
 and that we store the sample
 in the refrigerated truck
 until the NPS can pick it up.
 URS agreed to do this.

NOTE: The URS Tixon Sampling Team
 collected a Poronation Blank
 sample this morning "PW-7-E1"
 using the ceramic air stones.

1630 Hrs Tixon Returns to the
 Dock with the NPS cultural
 observer on board.

1700 Hrs Tahoma Returns to the
 Dock. Transferred Samples
 into the refrigerated truck

David R. Horn 9/16/13

26 Location 2-Rivers Area Date 9/17/13
Project / Client UCR Phase 2 Soel. Study
Took American

0730 NPS Personnel arrive To Take
custody of Split samples from
Location REF-8

1115 HRS Checked out of Hotel
and left for Grand Coulee.

Mileage 13609.

1315 HRS Arrive Spring Canyon
Boat launch. Our local POC
with the NPS is

Ken Kyde 509.754.7814
cell 509.631.7731

Chief of Resources

1600-1900 HRS Field Team met to
discuss split sampling procedures
and plan a consistent method to
use moving forward.

David R. Han 9/17/13

27 Location Spring Canyon Date 9/18/13
Project / Client UCR Phase 2 ~~UCR~~ Soel Study
Took American

0700 HRS Assembled at the dock
Two EPB observers, one NPS
observer, one CCT observer,
and NPS oversight personnel
Present.

0745 HRS Conducted Safety Briefing

0810 Boats Depart Dock. Show
Crew Organizing Supplies at
new location

List of Observers and Oversight

EPB: Burt Shephard
Mott Wilkening

USEE:

CCT: Eric Ooshima-Voss + Charles ^{Joseph}

NPS: Bill

Jon Edwards

Katherine Ferrell

BLM: Elizabeth ERBP

Location Spring Canyon Date 9/18/13
 Project / Client UCR Phase 2, Sed. Study
TRUCK AMERICAN

4:45 PM Both Boats Return
 To Dock. Completed scheduled
 sampling locations for the day

R/F-10 was rejected but success-
 fully sampled at R/F-10B

1700-1800 hrs checked samples
 and stored them in refrigerator
refrigerated truck

- Prep work for the next day

1900 ^{hrs} Discussed NPS split sample
 collection with Burt Shepard
 of EPA - specifically the effect
 of the smaller grain size on
 the toxicity. The NPS is now
 sieving off site not on the lake.

David R. Horn 9/18/13

Location Spring Canyon Date 9/19/13
 Project / Client UCR Phase 2 Sed Study
TRUCK AMERICAN

0700 ~~hrs~~ ^{Marilyn} Met at Dock. ~~Marilyn~~
~~SANDNER~~ ^{SANDNER} (?) from CH2M on site
 as EPA observer

0720 hrs Conduct Safety Brief

0745 Gravity adjusting hydraulic
 flow rates because of switch
 back to Lange Power Grab on
 Tieton for Bioassay Sampling

0800 Tahome Departs Dock

0810 Tieton Departs Dock

17:15 Tieton arrives at the dock
 Tahome is still working

17:45 NPS Boat Returns to dock

18:15 Tahome Returns to the Dock
 David R. Horn 9/19/13

Location Spring Canyon Date 9/19/13
 Project / Client UCR Phase 2 Seed Study
Truck American

Notes:

The sampling crew had very poor results collecting the sample at location Ref-8. ^{ORR 11/7/14}
 After 14 tries at this location obtained 3.5 gal. of sample that was split equally with the NPS. The crew then moved to Ref-89b. ^{ORR 11/7/14} The central point of the sample circle is just out of the water on the sampling area at Ref-89b. ^{ORR 11/7/14} is either bedrock and cobbles. No sample can be collected at this location.

1900 HAS Close up Trucks and Head to Motel

David Patton 9/19/13

Location Spring Canyon Date 9/20/13
 Project / Client UCR Phase 2 Seed Study
TRUCK AMERICAN

0700 HAS Meet at the dock and load supplies on the Boats

0730 HAS conduct Safety Brief

0755 HAS Boats Depart Dock show crew packing samples from 9/19/13 for transport to Lab.

1700 HAS Boats Return to Dock could not sample all scheduled locations. Need to sample location 8-CH on 9/21/13 with a single Boat.

Need to order Master Flex Tubing 96410-16. Other markings on package 36131173
 77050007 25 ft/roll

Location Spring Canyon Date 9/21/13
 Project / Client UCR Phase 2 Sed Study
Truck American

0600 Hrs Arrived at dock
 1 Hour early because of
 The scheduled start of the
 Grand Coulee Triathlon

Target sample for today 8-C1
 with duplicate for sediment
 and MS/MSD for porosity

0630 Hrs Tinton Departs
 The Dock

1145 Hrs Tinton Returns to Dock
 with samples from location 8-C1

Michelle and Sarah left for
 Portland, Bill + Tony will drive
 the refrigerated truck to Seattle
 Al and I will drive to Woodinville
 Mark will stay in Grand Coulee
 David R. Horn 9/21/13

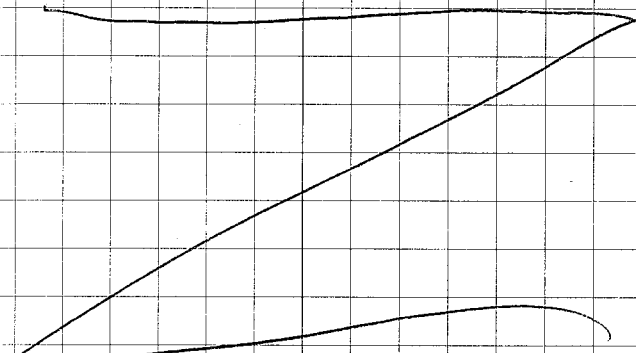
Location Woodinville, WA Date 9/22/13
 Project / Client UCR Phase 2 Sed Study
Truck American

Depart Woodinville for Grand
 Coulee 91419 HRS

Mileage 14024

1915 Hrs Arrive Grand Coulee
 Mileage 14237

~~1515 Hrs Arrive Rainbow Beach~~
~~Russell~~ DRA
~~Mileage 14334~~ 9/23/13



David R. Horn 9/23/13

Location Grand Coulee Date 9/23/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

1100 Hrs Spoke with Monko + Kris.

1200 Hrs Depart Grand Coulee

1515 Hrs Arrive @ Rainbow Beach
 Biscuit

Mileage 14334

1600 Hrs Met with Steve Saugen
 of Gravity at Gifford Campground.
 We agreed to meet at the Inchelium
 Boat launch at 0900 Hrs.

1700 Hrs Returned to Rainbow Beach
 along the way we measured
 cell reception. Only available
 with limited reception at the
 Medical Center in Inchelium

David R. Rose 9/23/13

Location Grand Coulee/Twin Lakes Date 9/23/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

Notes: During my conversation with
 Monko and Kris I reported
 that the Cultural Observer
 from the NPS stayed on the
 boat for 11 hours one day last
 week instead of 10 hours. This
 he did of his own free will
 even though we repeatedly
 offered to ferry him back
 to the dock early. The
 observer (Bill White) was
 more concerned with the
 successful completion of
 the project than complying
 with the 10 hour work
 day imposed on the project
 by the NPS.

David R. Rose 9/23/13

Location Inchelium, WA Date 9/24/13
 Project / Client UCR Phase 2 Seed Study
Track American

0700 HRS Group Assembly of
 The Inchelium Boat Launch

0720 HRS Conducted Safety
 Briefing. Loaded supplies
 onto Boats.

0745 HRS Contacted ALS
 for additional Resuscitation
 Bottles. Need to identify
 Delivery Location and Call ALS
 Back.

0810 HRS Boats Departed The
 Dock.

0830 HRS Met with Ali Desautel
 Director of The Inchelium Health
 Clinic to arrange for Permission
 to Ship and Receive FedEx
 Packages through The Clinic.
 David R. Lee 9/24/13

Location Inchelium Date 9/24/13
 Project / Client UCR Phase 2 Seed Study
Track American

The Clinic has agreed to
 allow this to take place.

10:45 HRS Scheduled FedEx
 Pickup for Wood. at The
 Clinic and Called Kris
 McCaig to Check in.

Resuscitation Kit inventory conducted
 32 - with ainstones
 43 - without ainstones

17:15 Tahoma Returns to the dock
 and unloads samples and crew

17:35 Tipton Returns to The dock
 and unloads samples and crew

1800 HRS Check in with Paul
 McCullough and Return to
 Camp.

David R. Lee 9/24/13

Location Inchelium Boat Launch Date 9/25/13
 Project / Client UCR Phase 2 Sed. Study
Truck America

0900 HRS Assembled at the Boat Launch. I discussed the impact of the potential Government shut down with the EPA and NPS representatives. They indicated that because their work is funded by Truck that the work will continue.

We also addressed the topic of additional observations from NPS F&W, etc. entering the Boats to observe operations while boated. I emphasized that while we do not intend to prevent those observations access they must conform to the established dress and safety standards mandated for this project.

Ward R. Howe 9/25/13

Location Inchelium Boat Launch Date 9/25/13
 Project / Client UCR Phase 2 Sed. Study
Truck America

0715 HRS Conducted Safety Briefing. completed loading of Boats

0745 HRS Boats Depart the dock

0830 HRS Dropped off samples at Medical Center for FedEx

0930 HRS Contacted Paul McCullough for daily phone conference

TR Sugalski will send 24 2-inch airspowers that are in Spokane to ALS for cleaning. ALS should get these back to us by Sunday.

Ward R. Howe 9/25/13

Location Inuchelium Date 9/25/13
 Project / Client UCR Phase 2 Seed Study
Track American

1330 HRS Picked up 12 cartons of supplies at The Inuchelium Health Clinic consisting of peroxide kits and peroxide containers. Transferred supplies into Box Truck and updated inventory

1500 HRS Reviewed yesterday's field notes with Gina Francis and answered her questions.

1640 Tinton Returns to Dock and Team Returned to Camp. I went to CCT community center to address questions from the URS project chemist.

1845 Returned to Boat launch
 Tahoma has not yet returned.
 David R. Hon 9/25/13

Location Inuchelium Boat Launch Date 9/25/13
 Project / Client UCR Phase 2 Seed Study
Track American

Contacted Boat on Sato phone they reported to being about 30 minutes from the dock and are running with partial power. Gravity's other crew is on standby if needed.

1900 HRS Second Gravity Safety Boat Departs Dock to head assistance.

1930 HRS All Personnel and samples Back at Dock safely.

2030 HRS Steve Saugen of Gravity called to say that the Tahoma will not be operational tomorrow (9/26/13) due to
 David R. Hon 9/25/13

Location South Twin Lake Date 9/25/13
 Project / Client UCR Phase 2 Sed. Study
Truck American

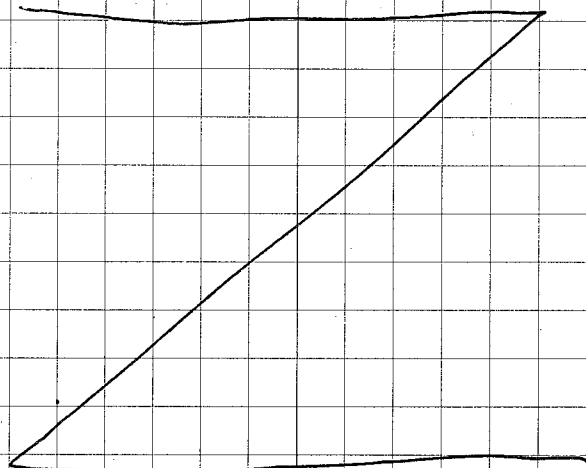
Mechanical problems. The crew will use the time to attempt repairs.

2100 HRS I spoke with the EPA oversight person (Audrea Lator) and we agreed that we can use the time to collect tributary samples at locations Trib-1 and Trib-3. I then notified the URS crew of the change in plan.

2130 HRS - I placed a call to NPS (Keith Holliday's cell phone) and left a message informing him of the change and requesting that the NPS team come to the dock at Inchelium in the morning to discuss

Location South Twin Lake Date 9/25/13
 Project / Client UCR Phase 2 Sed. Study
Truck American

The revised work schedule, so they could provide an observer for the sampling at Trib-3. They have not been attending the morning safety meetings since we began working out of the Inchelium boat launch.



David R. / Dan 9/25/13

Location Inclusion Boat Launch Date 9/26/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

0900 hrs crew assembled at the dock and discussed what caused the Tokoma to take on water yesterday and what measures are being implemented to help prevent this. Installation of a one way check valve in the bilge pump discharge hose and discontinuing to beach the boat on a windward shore.

0915 hrs conducted safety brief

0930 hrs crew splits into boat-sampling and trib-sampling teams. Trib-sampling team departs to assemble equipment from Tokoma to collect samples

0750 Park service boat arrives
 David R. Hon 9/26/13

Location Inclusion Date 9/26/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

at dock. I have a brief conversation with Keith Holliday to go over the plan for the day.

0955 hrs Tilton Departs the dock

0930 - 1030 hrs placed calls to Paul McCullough (URS P.M.), Kris McCaig, and Shawn Nierz (Gravity) to discuss what happened last night and assure everyone that our safety procedures worked as intended.

1030 - 1330 hrs traveled to location Trib-1 and assisted with the sediment and porewater sampling at this location

David R. Hon 9/26/13

Location Inchelium Date 9/26/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

1330 MET Mike Rosenfeld (URS)
 at the Health Canton and
 spent the afternoon discussing
 our operation and answering
 his questions. Mike is now
 conducting an audit of our
 operations for QC
 purposes

1715 HRS
 MET The Tiston at the dock
 to discuss today's sampling
 and to help process the
 samples as they come off
 the boat.

Wend R. Rose 9/26/13

Location Inchelium Boat Launch Date 9/27/13
 Project / Client UCR, Phase 2, Sed. Study
Tuck American

0700 HRS - Entire crew assembles
 at Boat Launch. THOMA Back
 in service. Weather turning cold-
 ER. No Wind River Calm.

Main topic during safety briefing
 was the cold and pending
 rain forecast to come in tomorrow.
 We will begin keeping our
 Mustang suits on the boats 9/28/13.

0740 HRS Transferred split sample
 from Trib-1 to NPS crew.

0750 HRS Tiston departs dock.
 I discussed the pending Govern-
 ment shutdown with Keith Holliday.
 He requested a list of all of
 our crew members and vehicles
 to pass along to the NPS
 Rangers. W. Rose 9/27/13

Location Inchoium Boat Launch Date 9/27/13
 Project / Client UCR, Phase 2 Sed. Study
Truck American

0805 Hrs Taboma departs The dock

1330 HRS No FedEx Pickup Today Because Today is Native American Day and the Health Clinic is closed. So we drove yesterday's samples to Colville for pickup.

1530 Tinton Returns to The dock and discharges crew and samples

1730 HRS Taboma Returns to The dock. Boat load status that a total of 8 grabbers of sediment was obtained at Ref-5. Boat proceeded to The Ref-5 ~~reservoir~~ location but only collected

David R. Hoon 9/27/13

Location Inchoium Boat Launch Date 9/27/13
 Project / Client UCR, Phase 2 Sed. Study
Truck American

rejected material. An insufficient volume of sediment was collected to provide NPS a split sample.

Two alternatives:

- ① Obtain a waiver from NPS acknowledging non-receipt of sample
- ② Return tomorrow with larger grab and see if it can collect sufficient volume of material

1740 Hrs Return to camp end of work day.

David R. Hoon

Location Inchelium Boat Launch Date 9/28/13
 Project / Client UCR Phase 2 Sed. Study
Teck American

0900 hrs Arrive at Boat Launch
 Discussed Ref-5 location with EPA/CH2M oversight personnel as follows. After review of pertinent sections of the EPA Approved QAPP URS determined that we have fulfilled the requirements for sample collection at this location with the exception of 1 volume for TGA and the NPS split. The NPS has agreed to sign a waiver of receipt for this split sample as specified in their permit. The EPA has discussed their desire to return to Ref-5 with a longer grab with the intention that the longer grab will produce sufficient volume to fulfill all analyses + split needs.
 D. Han 9/28/13

Location Inchelium Boat Launch Date 9/28/13
 Project / Client UCR Phase 2, Sed. Study

The URS Sampling Leads BOTH indicated that their experience collecting sediment at Ref-locations suggest that sampling with the longer grab would be just as problematic if not more so, given the substrate at these locations. This consists of glacial outwash containing a mixture of cobbles and sands. ~~within the wave~~ The Ref-locations are situated within the lake portion of the lake bottom that is periodically exposed as the lake ~~sur~~ level drops; or the active wave zone. The active wave zone washed away the fine grained materials leaving bands of cobbles and fines exposed at low water levels.

David K. Han 9/28/13

Location Inchelium Boat Launch Date 9/28/13
 Project / Client UCR, PHASE 2 Sed. Study
TECK AMERICAN

The URS Field ~~Lead~~ Lead will contact Teck to discuss this and ask for direction on this topic because these conditions will become more frequent as sampling progressed up stream.

0930 HRS Called Marko Ndzic of Teck to Brief him of the situation regarding Ref-5 and Ref-56. He will discuss this with Lora Buelow at the EPA on Monday, 9/30/13.

The ~~pending~~ pending Government shut down will impact our sampling schedule should it occur.

David R. Now 9/28/13

Location Inchelium Boat Launch Date 9/30/13
 Project / Client UCR, PHASE 2 Sed-study
TECK AMERICAN

0700 HRS Crew assembled at The Boat Launch to discuss the day's activities. We may be limited to which locations can be accessed because of wind. It is currently calm at the launch but we expect rough water at non-sheltered locations.

07:30 HRS Conducted safety brief and updated the crew regarding how the schedule may change should the federal government shut down. This appears likely.

0815 HRS Boats depart the dock

David R. Now 9/30/13

Location Daisy Boat Launch Date 9/30/13
 Project / Client UCR, Phase 2 Sed Sampling
Teck American

10:45 HRS Met Tipton at Daisy Boat Launch to hand off equipment for possible tributary sampling at Trib-3

1200 - 4900PM After not having any e-mail for 3 days I gained access and discovered that sampling at Trib-1 without CET oversight has caused a problem with the CET Cultural Resources Group. I spent this afternoon trying to express that their exclusion from this sampling was not intentional. This matter was discussed with the CET, Teck, EPA, and URS project staff.

1600 HRS The Boats Return to The Inchoitium Dock.

David R. Rose 9/30/13

Location Inchoitium Date 9/30/13
 Project / Client UCR Phase 2 Sed. Study
Teck American

We have progressed with our sampling to the extent that we will depart from the Kettle Falls Boat Launch on Tuesday + Wednesday. This has been communicated to the EPA, CH2M, CET, and STI plus the NPS.

1700 HRS Receive e-mail from Laura Buehler for of the EPA requesting a revised schedule that will be implemented should there be a government shutdown.

Returning to camp to prepare this schedule.

David R. Rose 9/30/13

Location Kettle Falls Date 10/01/13
 Project / Client UCR Phase 2 Seed Study
Tuck American

0730 HRS Arrive at Kettle Falls
 Boat Launch. Discussed
 the impact of the Government
 shut down with the crew.

The director of NPS has recommend-
 ed that the UCR Project be
 considered essential and there-
 fore we can continue to work on
 the National Recreation Area.

Contacted Eric Ooshewitz-Voss
 to confirm that he is not
 interested in observing at Trib-3
 as long as STI oversight is
 present. He agreed that is
 acceptable. We also confirmed
 that he will be on site Friday
 and Saturday.

David R. Hauer 10/01/13

Location Colville WA Date 10/01/13
 Project / Client UCR Phase 2 Seed Study
Tuck American

Organized lunches for the URS &
 quality crew from Sandy's in
 Kettle Falls.

Stopped in at the Comfort Inn
 to move our reservations up so
 we can check in on Thursday
 and select 3 room close
 together near the door for
 the shore crew.

Took shore crew to Don's Print
 shop to show them the FedEx
 drop site

1100 HRS Returned to Inclusion
 Community Center to use WIFI
 and make calls.

1930 HRS Sampling Crews Return
 David R. Hauer 10/01/13

Location Rainbow Beach Resort Date 10/02/13
 Project / Client UCR Phase 2 Sed Study
Truck American

Today is a scheduled Rest Day
 Will spend the day catching
 up on Paper work, moving
 Refrigerated Truck to Kettle
 Falls, Meeting with Monica Towel
 of EPA and conducting maintenance
 on the Gravity Boats.

Worked in Lobby of Comfort
 Inn to read email and
 call into the office.

David Nelson 10/02/13

Location Rainbow Beach Resort Date 10/03/13
 Project / Client UCR Phase 2 Sed Study
Truck American

0930 HRS checked out of the
 Rainbow Beach Resort and
 Moved Cam to the
 Comfort Inn in Odessa.
 Mileage 15037

Spent the Day setting up
 at the Comfort Inn catching
 up on email, and checking
 in with the URS project
 manager.

David Nelson 10/3/13

Location Kettle Falls Date 10/04/13
 Project / Client UCR Phase 2 Sed Study
Tack American

0730 Hrs crew assemblies at
 The Kettle Falls Boat Launch
 and preps for the day.

Signed off two split samples
 to NPS that were collected
 on Tuesday.

0800 Hrs
 Conducted Safety Brief.

Keith Hilliday of NPS signed off
 on waiver to collect sample at
 location Ref 5 and Ref-5b.

0815 Hrs Boats Depart The Dock

1630 Hrs Boats Return to Dock
 Sarah McDavid and I walk
 some of Nancy Creek to ID
 sample location.

David R. Brown 10/4/13

Location Kettle Falls Boat Launch Date 10/25/13
 Project / Client UCR Phase 2 Sed Study
Tack American

0730 Hrs crew assemblies at
 Boat Launch. Discuss today's
 sampling activities. Signed
 off last split sample to NPS
 that was collected early in
 the week. Will focus today's
 efforts on Bioassay sample
 locations.

0715 Hrs conducted safety
 Briefing

0805 Hrs Boats Depart The
 Dock

0930 Hrs Purchased flagging
 tape and hand pruners
 to investigator Nancy Creek.

1100 Hrs Depart Hotel for
 Nancy Creek. David R. Brown
 10/5/13

Location Macus Camp Ground Date 10/5/13
 Project / Client UCR Phase 2 Soel Study
Truck American

1300 HRS MET BOAT CREWS AT THE BEACH AND TOOK 12 BUCKETS OF SAMPLE FROM THEM AND PUT BUCKETS INTO REFRIGERATED TRUCK.

1530 HRS TIXON ARRIVES AT DOCK TO UNLOAD REMAINING SAMPLES

1615 HRS TAHOMA ARRIVES AT DOCK TO UNLOAD REMAINING SAMPLES

1900 HRS TRANSFER SAMPLES INTO REFRIGERATED TRUCK

David R. Hoar 10/5/13

Location Kettle Falls Boat Launch Date 10/7/13
 Project / Client UCR Phase 2 Soel Study
Truck American

0730 HRS CROW ASSEMBLES AT BOAT TO LOAD VAN FOR TRIBUTARY SAMPLING AT NANCY CREEK AND ONE BOAT TO SAMPLE ON THE LAKE.

0745 HRS CONDUCTED SAFETY BRIEFING

0800 HRS THE SHARON CROW AND THE TIXON BOAT CROW WITH EPA OVERSIGHT AND THE COT CULTURAL MONITOR MOVED TO NANCY CREEK TO SAMPLER LOCATION TRIB-2.

1000 HRS BEGAN COLLECTING POREWATER FROM THE LEXAN TUB. CONTACTED THE OTHER BOAT AND OBTAINED THE PERISTALTIC PUMP THAT WORKS WITH GRAVITY'S PORTABLE GENERATOR. EVEN WITH THE PUMP POREWATER COLLECTION PROCEEDS VERY SLOWLY.

David R. Hoar 10/7/13

Location Nancy Creek Date 13/7/13
 Project / Client UCR, Phase 2 Seed Study
Teck American

1145 HRS Completed sampling at
 Trib-2. Loaded samples and
 supplies into van and return to
 Kettle Falls Boat Launch

1630 HRS Returned to Kettle
 Falls Boat Launch to meet the
 boats coming in.

1730 HRS Depart Boat Launch

David R. Howe 10/7/13

Kettle Falls Boat Launch
 Location Kettle Falls Date 10/8/13
 Project / Client UCR, Phase 2 Seed Study
Teck American

0730 HRS Meet at Dock and Discuss
 Today's Sampling

0745 HRS Conduct Safety Brief

0810 HRS Boats depart the dock.

Spent morning processing
 paper work and Briefing
 Paul McCollough on project
 status. Paul briefed me on
 project budget.

1330 HRS Departed Hotel to
 recon sample locations at
 Trib-4 and 5.

Substituted Locations at Both
 Tribs and Returned to
 Colville.

David R. Howe 10/8/13

EPA
NUM

D004
D005
D018
D006
D019
D020
D021
D022
D007
D023
D024
D025
D026
D016
D027
D028
D029
D030
D012
D031

D032
D033
D034
D008
D013
D009
D014
D035
D036
D037
D038
D010
D011
D039
D015
D040
D041
D042
D017
D043

*Hazardo

 Incheilium Health Center

39 Shortcut Road

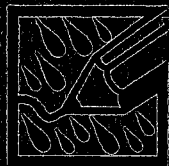
Incheilium, WA 99138

509-722-7006

Luke Roosevelt Community Health

Dates are
inconsistent,
Charles Flett
with Skp/W/ms

Field Lead



#2

Rain in the Rain

ALL-WEATHER
ENVIRONMENTAL
FIELD BOOK

NR 550-4F

Location Flat Creek Date 10/9/13
 Project / Client UCR Phase 2 Sed Study
Teck American

Apparently one of the two motors failed completely and needs to be replaced. A motor is available in Seattle but will require multiple days to replace.

1130 Hrs UPS Sampling Crew from The Tahona arrives at Flat Creek location. Plan is to assist with sampling and take Trib Sampling Equipment and Sample Trib-5 once Trib-4 is finished.

1230 Hrs Move to Trib-5

1245 Hrs Arrive at Trib-5 sample location and setup to sample

1545 Hrs Completed Sampling at Trib-5 location

David R. Hox 10/9/13

Location Colville WA Date 10/10/13
 Project / Client UCR Phase 2 Sed Study
Teck American

0800 Hrs No on-water sampling to be conducted today. Gravity Environmental to spend today and tomorrow repairing The Tahona and conducting general maintenance on remaining boats.

Half of UPS sampling team to rotate out today with replacement to arrive Sunday 10/13/13.

The remaining UPS staff, EPA oversight, ERT observer, and 2 Gravity crew move to 5-mile Creek to sample location Trib-6.

0930 Hrs Arrive at 5-mile Creek to select sampling location. Spoke with near-by resident to let them know what we are doing.

David R. Hox 10/10/13

6 Location 5-Mile Creek Date 10/10/13
Project / Client UCR Phase 2 Sed. study
Truck American

10:00 HRS Selected sampling location situated between RT. 95 and the BNSF RR tracks.

10:15 HRS Assembled sampling equipment for Trib-G. Conducted safety briefing to discuss the issues specific to this site.

10:30 HRS Transferred equipment across RT 95 and down steep slope \approx 50 yds to creek.

11:00 HRS Once sampling team is setup Bill Killion and Dave Hobb return to Colville to ship yesterday's samples and process paperwork.

David R. Howe 10/10/13

7 Location China Bend Boat Launch Date 10/14/13
Project / Client UCR Phase 2 Sed. Study
Truck American

0800 HRS Assemble at China Bend Boat Launch. Put boats in water and laid on today's work. This process took longer than usual because of the effort needed to outfit the Mazama for sampling.

0845 HRS Launched MAZAMA and conducted the safety meeting

0930 HRS Boats Departed the dock.

0940 HRS NPS personnel arrive to launch their boat.

Boats returned to dock at 1630 HRS collected Ringside samples.

David R. Howe 10/14/13

Location China Bend Boat Launch Date 10/15/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

0800 HRS Assemble at China Bend Boat Launch and Prep for the days activities

0825 HRS Conduct Safety Brief and Load Boats

0830 HRS NPS Personnel Arrive and Launch Boat

0840 HRS Sampling Crew Departs the Dock

0915 HRS Received a call from the Tipton Sampling Crew to Ask if they should collect a NPS split sample at location 2-R9, which is a RESERVE location for 3-B4. Because 3-B4 is within NPS managed areas I told them "yes" even though
 David R. How 10/15/13

Location Northpoint WA Date 10/15/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

RESERVE location 2-R9 is outside NPS managed areas.
 NOTE: Review of Table A1 in FSP indicates that Location 2-R9 is ~~within the NPS managed~~ ^{DRK} Area at River Mile 799, ~~or~~ ^{DRK} just at the edge of NPS managed AREA.

1530 HRS Moved to China Bend Boat Launch to Meet Crews. Mizama had docked and was processing sample.

141600 HRS Tipton still sampling just off the dock. NPS Boat pulled from water

1630 HRS Tipton Docks and processes sample
 David R. How 10/15/13

10

Location China Bend Boat Launch Date 10/15/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

1700 hrs Completed Collecting
 Ponemon Sample and Begin
 Processing Sediment

NOTE: The Tuck Sampling Team
 Projected Location 2-RYO after
 consultation with the EPA and
 NPS representatives because
 the grab sampler became stuck
 on a rock on the River bed.
 The decision was based on a
 high probability of losing the
 Grab sampler.

David R. Hore 10/15/13

11

Location China Bend Boat Launch Date 10/15/13
 Project / Client UCR Phase 2 Sed Study
Tuck American

0745 hrs Arrive at Boat Launch
 MET STEVE PARKER, STEVENS
 COUNTY COMMISSIONER who
 WAS ON SITE TO INQUIRE ABOUT
 OUR ACTIVITIES

Steve Parker
 District 3



Stevens County Commissioner

Office Address: 230 East Birch, Colville
 Mailing Address: 215 South Oak St., Colville WA 99114
 Email: commissioners@co.stevens.wa.us

Cell: 509-675-8659
 TTY: 800-833-6388

Office: 509-684-3751
 FAX 509-684-8310

David R. Hore 10/16/13

Location China Beach Boat Launch Date 10/16/13
 Project / Client UCR Phase 2 Sed Study
Toek American

0835 HRS Conduct Safety Brief.
 Discuss That Boat Captains can
 Refuse To Sample a location if
 They believe it will Risk The
 Loss of The Sample Grab. This
 has my full support, and that of the
 ERS Rep.

0850 HRS Boats Depart Dock.

Shore Crew Processed Large Volume
 of Paperwork from Yesterday.

1530 HRS Received Call that boat crews
 had returned to the Boat Launch

1600 HRS Drive at China Beach Boat
 Launch. All work for the day is
 completed and shore crew is
 checking in sample material.

David N. Rose 10/16/13

Location China Beach Boat Launch Date 10/16/13
 Project / Client UCR Phase 2 Sed Study
Toek American

Gravity Requested The possibility
 of working with a single boat
 crew on Saturday and having the
 second boat stand down. I
 told them I will evaluate the
 progress and we will discuss it
 on Thursday.

David N. Rose 10/16/13

Location China Bend Boat Launch Date 10/17/13
 Project / Client UCR Phase 2 Sed. Study
Track American

0945 Hrs arrive at Boat Launch
 to Drop for the day.

Provided adjusted schedule
 to COT and EPA will discuss
 with entire team once I
 confer with Steve S. of
 Gravity.

Government shut down is over.
 Regular NPS cultural observation
 (Bill White) returns to project.

I notified the crew that
 we will be working a single
 Boat crew on Saturday. Then
 Received a un-pleasant message
 from Guy Moore at the COT
 regarding my changing the
 work schedule.

David R. Horn 10/17/13

Location China Bend Boat Launch Date 10/17/13
 Project / Client UCR Phase 2 Sed. Study
Track American

Boats Depart The dock 0900 Hrs

16:00 Hrs Boats Return to China
 Bend Boat Launch. Off load crews
 and samples. Discuss today's
 activities with EPA oversight
 representatives. Decide to launch
 from Northport Boat Launch
 tomorrow AM.

18:26 Joe Wickman Called to
 discuss Observing Mon. on Tue.
 (509-732-8846)
 Confirmed for Tue 8:00 AM @
 Northport Boat Launch

David R. Horn 10/17/13

Location Northport Boat Launch Date 10/18/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

0800 HRS Assemble at the Boat Launch to launch the Boats and prep for the day, Heavy Fog this morning. Visibility ranging from 100 feet to about 1/2 mile.

0830 HRS Conducted Safety Brief focused on the foggy conditions, the dynamic river conditions as compared to the static Reservoir conditions we are leaving, and the fact that the River Banks are now private property - as well as the Northport Boat Launch and we need to respect that these changes

0915 HRS Discussed Procedure for Sampling @ Same Reservoir

Location Northport, WA Date 10/18/13 17

Project / Client UCR Phase 2, Sed. Study
Tuck American

Locations by Both Boats. They will leap-frog over locations if necessary. One sample location will not apply to Both Bioassay and Chem, only Locations.

0945 HRS Boats Depart from Dock

Returned to A-Frame lodging and sent TAI updated sampling status and communicated what the plan is for Bioassay splits and Reservoir stations assigned to Both Chem, only and Bioassay locations

1600 HRS First Boat Returns

1700 HRS Second Boat Returns

1830 HRS Finished Processing Samples and Pulled Last Boat
 David R. Han 10/18/13

18

Location Northport Boat Launch Date 10/19/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

0745 HRS Drive at Boat Launch
 to Prep for the Day. Single
 Boat to Work Today with Safety
 Boat and Chase Boat.

Plan to sample at Reservo
 stations for 2-CL until finished
 the 1-R6 if time allows.

0900 HRS Boats Depart The Dock.

1600 HRS Boats Return to Dock
 unload Crows and shut
 down for a day off on
 Sunday.

David R. Haze 10/19/13

19

Location Northport Boat Launch Date 10/21/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

07:45 HRS Assemble at Boat Launch
 to Prep for the day and launch
 the Boats.

0830 HRS Conducted safety
 Briefing and Discussed Fatigue
 and complacency, watching out
 for others, etc.

0845 HRS Extra Bottle of
 compressed Gas knives for
 MAZAMA.

0915 HRS Boats Depart Dock

1600 HRS MET TIBON and Crow
 at Boat Launch. Crow was
 checking in samples to show Crow.

1630 HRS MAZAMA Crow Returns
 and Checks in samples

David R. Haze 10/21/13

Location Northport Boat Launch Date 10/23/13
 Project / Client UCR Phase 2 Sed Study
Track American

0745 HRS Assemble AT Boat Launch
 to Prep for the day. Joe
 Wickman from Citizens for a
 Clean Columbia is at the launch
 to observe for the day.

0800 HRS Conducted safety Briefing
 emphasized watchful ness and not
 becoming complacent.

0840 HRS Boats Depart Launch

1400 HRS Received call from
 Kris McCarty at Track to discuss
 a problem with NPS over our work.
 spent the after noon responding
 to information requests related
 to Biorassay sampling conducted on
 NPS property.

Location Northport Boat Launch Date 10/23/13
 Project / Client UCR Phase 2 Sed Study
Track American

0745 HRS Crew assembles AT the
 Boat Launch to Prep for the day
 and load the Boats.

0810 HRS Conduct safety Brief
 Topic focused on exhaustion
 caused by long duration of
 project. Emphasized need to
 be vigilant and to pay attention
 to details.

0825 HRS Boats Depart the
 dock.

1540 HRS Boats Return to Dock
 unload samples and return to
 Lost Docks.

David R. Horn 10/23/13

Location China Beach Boat Launch Date 10/24/13
 Project / Client UCR Phase 2 Sed. Sampling
Tuck American

0800 HRS Crew and Boats
 Assemble at the China Beach
 Boat Launch to prep for the
 day.

0815 HRS Conduct final safety
 briefing of the project. ~~Focus~~
 Focus is on staying vigilant
 through the end of the day.

0830 HRS Boats depart dock.

1335 HRS Arrived at China Beach
 Boat Launch. MOZAMA has returned
 and is off loading samples and
 equipment. Support boat is on
 the trailer preparing to depart
 project.

1430 HRS Second Boat Arrives at
 Dock and unloads equipment
 David R. Hone 10/24/13

Location China Beach Boat Launch Date 10/24/13
 Project / Client UCR Phase 2 Sed. Study
Tuck American

1435 HRS Contacted Tuck office
 to inform them of sampling
 completion

1450 HRS Contacted URS Project
 Manager to notify him of
 sampling completion

1455 HRS Demobilize from Boat
 Launch and Return to Lazy
 Daze for Dinner.

David R. Hone 10/24/13

24 Location Northport Date 10/24/13
Project / Client UCR Phase 2 Sead Study
Teck American

NPS Split Samples:
SE-3-R8
SE-3-R9

To Be delivered To Keith
Holliday at NPS on Friday

David K. H. / 10/24/13

25 Location Northport, WA Date 10/25/13
Project / Client UCR, Phase 2 Sead Study
Teck American

1030 HRS Depart Northport
for Kettle Falls
Mileage 16455

1130 HRS Arrive Weatherman's
Yard in Kettle Falls to sample
Deion Rinsulation for Analysis

5 - 55-gallon drums of water
used pH measurements and
one composite sample. Will
collect one 16-oz jar of
sample water from each drum
to be composited at Lab and
analyzed for TCLP-RCRA 8 metals
pH Readings

1 - 3.89 and 3.85

2 - 3.13 and →

3 - 1.93 and 2.21

4 - 2.19 and 2.42

5 - 1.92 and 2.11

26

Location Kettle Falls Date 10/25/13Project / Client UCR Phase 2 seed study
Truck American1320 HRS Depart Weatherman's Yard
for Seattle2915 HRS Arrive Wardenville, WA
Mileage 16852

Donald R. Hor 10/25/13

Location _____ Date 10/26/13 27

Project / Client _____

0700 HRS Pick up Al Thatcher
and Drive to URS Seattle
office to unload Cargo Van
and Meet Bill Kiddin so
Bill and Al can deliver bulk
sediment samples to ALS in
Kelso, WA.0930 HRS Finish unloading
Cargo Van and depart
Building.1230 HRS Return Rental Van
to Enterprise in Kelso, WA.

Mileage 16902

Donald R. Hor 10/26/13

APPENDIX G
SEDIMENT GRAB LOCATIONS

Sediment Grab Locations
Upper Columbia River Phase 2 Sediment Study
September - October 2013

Station	Easting	Northing	River Mile	Water Depth	Time	Date	Grab Count	Notes
1-B1	453507.79	5427467.9	744	14	9:47:44	10/21/2013	1ST	Rejected Failed 5 & 6, cobbles
1-B1	453510.3	5427457.14	744	13	9:49:43	10/21/2013	2ND	Rejected Failed 5 & 6, cobbles
1-B1	453487.8	5427454.39	744	12	9:52:06	10/21/2013	3RD	Rejected Failed 5 & 6, cobbles & gravel
1-B1	453501.64	5427448.54	744	13	9:53:47	10/21/2013	4TH	Rejected Failed 5 & 6, rocks & trace sand
1-B1	453533.87	5427395.17	744	12	10:04:42	10/21/2013	5TH	Rejected Failed 5 & 6, cobbles & gravel
1-B1	453554.22	5427431.46	744	9	10:07:44	10/21/2013	6TH	Rejected Failed 5 & 6
1-B1	453527.92	5427391.51	744	9	10:10:17	10/21/2013	7TH	Rejected Failed 5 & 6, Did not close
1-B1	453551.22	5427421	744	9	10:12:24	10/21/2013	8TH	Rejected Failed 5 & 6
1-B1	453504.68	5427379.29	744	8	10:14:54	10/21/2013	9TH	Rejected Failed 5 & 6
1-B2	451645.96	5424106.33	742	25	9:40:46	10/22/2013	1ST	Rejected REJECTED FOR SAFETY AND EQUIPMENT CONCERNS
1-B3	449424.36	5422560.85	740	14	12:51:08	10/21/2013	1ST	Rejected Failed 5 & 6
1-B3	449396.85	5422553.93	740	15	12:53:14	10/21/2013	2ND	Rejected Failed 5 & 6
1-B3	449374.17	5422537.89	740	10	12:54:56	10/21/2013	3RD	Rejected Failed 5 & 6
1-B3	449377.02	5422539.64	740	11	12:57:22	10/21/2013	4TH	Rejected Failed 5 & 6
1-B3	449363.72	5422530.9	740	13	12:59:38	10/21/2013	5TH	Rejected Failed 5 & 6
1-B3	449359.39	5422522.99	740	14	13:01:26	10/21/2013	6TH	Rejected Failed 5 & 6
1-B3	449355.43	5422528.16	740	15	13:03:10	10/21/2013	7TH	Rejected Failed 5 & 6
1-B3	449343.28	5422523.59	740	15	13:04:53	10/21/2013	8TH	Rejected Failed 5 & 6
1-B3	449357.27	5422524.31	740	15	13:06:46	10/21/2013	9TH	Rejected Failed 5 & 6
1-B4	445730.81	5420988.71	737	14.5	12:53:28	10/23/2013	1ST	Rejected No recovery
1-B4	445726.15	5420962.66	737	15	12:55:22	10/23/2013	2ND	Rejected REJECT, 4 rocks
1-B4	445715.64	5420970.46	737	15	12:58:00	10/23/2013	3RD	Rejected REJECT, cobbles
1-B4	445702.48	5420969.37	737	14.6	13:00:09	10/23/2013	4TH	Rejected No recovery
1-B4	445659.13	5421001.01	737	15.4	13:02:21	10/23/2013	5TH	Rejected No recovery
1-B4	445696.81	5420982.93	737	14.1	13:04:44	10/23/2013	6TH	Rejected REJECT, cobbles
1-B4	445737.39	5420985.51	737	15.2	13:06:57	10/23/2013	7TH	Rejected No recovery
1-B4	445687.2	5420956.37	737	15.6	13:08:11	10/23/2013	8TH	Rejected No recovery
1-B4	445741.17	5420991.1	737	15.7	13:10:23	10/23/2013	9TH	Rejected REJECT, cobbles
1-B5	446335.77	5421178.89	737 NR		16:09:23	10/18/2013	10TH	Rejected Failed 6, vegetation, washout
1-B5	446342.04	5421188.12	737 NR		16:14:23	10/18/2013	11TH	Rejected Failed 5 & 6, gravel
1-B5	446339.85	5421172.88	737 NR		NR	10/18/2013	12TH	ACCEPTED Accepted
1-B5	446349.48	5421152.85	737	18	14:45:00	10/18/2013	1ST	Rejected Failed 6, weeds & gravel
1-B5	446346.26	5421167.29	737	6	14:53:54	10/18/2013	2ND	Rejected Failed 6, weeds & gravel
1-B5	446357.35	5421175.14	737	5	14:56:43	10/18/2013	3RD	Rejected Failed 5 & 6, gravel
1-B5	446365.96	5421166.48	737	8	14:59:16	10/18/2013	4TH	ACCEPTED ACCEPTED; MORE VOLUME NEEDED
1-B5	446355.65	5421172.26	737 NR		15:40:48	10/18/2013	5TH	Rejected Failed 6, vegetation & rocks
1-B5	446363.18	5421167.13	737 NR		15:44:42	10/18/2013	6TH	Rejected Failed 5 & 6, vegetation & rocks
1-B5	446387.26	5421178.57	737 NR		15:53:02	10/18/2013	7TH	Rejected Failed 6, silty sand
1-B5	446381.44	5421171.63	737 NR		15:54:26	10/18/2013	8TH	ACCEPTED Accepted
1-B5	446343.6	5421185.04	737 NR		16:06:12	10/18/2013	9TH	Rejected Failed 5 & 6, one rock
1-B6	446702.46	5420858.93	738 NR		13:23	10/21/2013	1ST	Rejected NO SAMPLING CONDUCTED BOTTON ALL COBBLES
1-C1	446814.02	5420452.26	738	22.2	13:17:39	10/22/2013	1ST	Rejected One cobble
1-C1	446825.87	5420470.59	738	22.3	13:19:44	10/22/2013	2ND	Rejected Cobbles and gravel
1-C1	446834.38	5420485.63	738	25.4	13:26:09	10/22/2013	3RD	Rejected REJECT, sieved and kept sediment
1-C1	446831.37	5420494.96	738	22.4	13:33:59	10/22/2013	4TH	Rejected Cobbles
1-C1	446809.5	5420472.01	738	23.7	13:36:58	10/22/2013	5TH	Rejected REJECT ROCKJAW
1-C1	446806.67	5420495.6	738	24.2	13:38:53	10/22/2013	6TH	Rejected 3 cobbles
1-C1	446822.71	5420491.48	738	23.7	13:41:06	10/22/2013	7TH	Rejected REJECT ROCKJAW, 3 cobbles
1-C1	446821.7	5420474.49	738	23	13:42:59	10/22/2013	8TH	Rejected REJECT ROCKJAW, sieved and saved fine material
1-C1	446824.59	5420471.72	738	24.2	13:47:10	10/22/2013	9TH	Rejected REJECT, signs of sediment loss
1-C2	447418.46	5421563.13	739	3	9:03	10/22/2013	1ST	Rejected NO SAMPLING CONDUCTED BOTTOM ALL COBBLES, shallow
1-C3	447758.13	5421931.84	739	37.6	12:45:27	10/21/2013	1ST	Rejected No recovery
1-C3	447808.06	5421910.67	739	24.7	12:48:55	10/21/2013	2ND	Rejected No recovery
1-C3	447820.18	5421930	739	28.6	12:51:52	10/21/2013	3RD	Rejected No recovery
1-C3	447820.4	5421904.55	739	26.5	12:54:43	10/21/2013	4TH	Rejected REJECT 4 ROCKS
1-C3	447800.86	5421937.03	739	29.9	12:57:45	10/21/2013	5TH	Rejected No recovery
1-C3	447778.96	5421939.2	739	29.6	13:00:36	10/21/2013	6TH	Rejected No recovery
1-C3	447773.87	5421915.69	739	28.1	13:03:02	10/21/2013	7TH	Rejected No recovery
1-C3	447802.52	5421894.41	739	25.6	13:05:25	10/21/2013	8TH	Rejected No recovery
1-C3	447772.43	5421886.41	739	25.7	13:07:34	10/21/2013	9TH	Rejected No recovery
1-C4	453054.18	5425711.39	743	22.1	9:50:05	10/21/2013	1ST	Rejected No recovery
1-C4	453060.84	5425705.38	743	20.7	9:55:06	10/21/2013	2ND	Rejected No recovery
1-C4	453051.09	5425721.28	743	21.7	9:59:04	10/21/2013	3RD	Rejected No recovery
1-C4	453044.71	5425719.39	743	20.5	10:01:46	10/21/2013	4TH	Rejected No recovery
1-C4	453038.04	5425719.96	743	20.7	10:04:24	10/21/2013	5TH	Rejected No recovery
1-C4	453024.75	5425725.17	743	20	10:07:10	10/21/2013	6TH	Rejected No recovery
1-C4	453042.3	5425685.18	743	21.2	10:09:32	10/21/2013	7TH	Rejected No recovery
1-C4	453074.03	5425717.67	743	21.9	10:13:03	10/21/2013	8TH	Rejected No recovery
1-C4	453032.52	5425712.85	743	20.3	10:15:28	10/21/2013	9TH	Rejected No recovery
1-R1	453454.6	5427297.27	744	10	10:28:33	10/21/2013	1ST	ACCEPTED ACCEPTED; MORE VOLUME NEEDED
1-R1	453452.03	5427290.77	744	5	10:40:23	10/21/2013	2ND	Rejected Failed 5 & 6, coarse gravel & 1 rock
1-R1	453455.61	5427303.63	744	7	10:45:34	10/21/2013	3RD	Rejected Failed 6, sandy gravel, incomplete closure
1-R1	453432.21	5427284.33	744	14	10:47:41	10/21/2013	4TH	ACCEPTED Accepted
1-R2	452637.44	5424691.02	742	6	13:55:38	10/21/2013	1ST	Rejected Failed 6
1-R2	452634.52	5424681.35	742	7	13:56:52	10/21/2013	2ND	Rejected Failed 6
1-R2	452629.69	5424707.91	742	5	13:58:18	10/21/2013	3RD	Rejected Failed 5 & 6
1-R2	452629.35	5424675.88	742	9	14:00:03	10/21/2013	4TH	Rejected Failed 6
1-R2	452614.77	5424713.51	742	4	14:01:53	10/21/2013	5TH	Rejected Failed 6, gravelly sand
1-R2	452607.49	5424703.46	742	3	14:09:27	10/21/2013	6TH	ACCEPTED Accepted
1-R3	453166.06	5426576.28	744	33.2	13:46:27	10/19/2013	1ST	Rejected Failed 5 & 6
1-R3	453185.56	5426537.17	744	35.6	13:50:45	10/19/2013	2ND	Rejected Failed 5 & 6
1-R3	453183.88	5426506.62	744	37.8	13:54:21	10/19/2013	3RD	Rejected Failed 5 & 6
1-R3	453205.05	5426514.36	744	42.6	13:58:42	10/19/2013	4TH	Rejected Failed 5 & 6
1-R3	453162.99	5426563.67	744	33.5	14:05:41	10/19/2013	5TH	Rejected Failed 5 & 6
1-R3	453209.56	5426547.6	744	44	14:08:49	10/19/2013	6TH	Rejected Failed 5 & 6
1-R3	453210.94	5426543.22	744	38.3	14:12:09	10/19/2013	7TH	Rejected Failed 5 & 6
1-R3	453198.68	5426517.67	744	36.9	14:15:29	10/19/2013	8TH	Rejected Failed 5 & 6
1-R3	453178.74	5426551.66	744	36.3	14:20:54	10/19/2013	9TH	Rejected Failed 5 & 6

1-R4	453041.2	5425063.08	743	22.4	10:53:58	10/21/2013	1ST	Rejected	No recovery
1-R4	453028.3	5425069.37	743	22.1	10:57:39	10/21/2013	2ND	Rejected	No recovery
1-R4	453051.57	5425066.09	743	22.4	11:01:07	10/21/2013	3RD	Rejected	No recovery
1-R4	453020.96	5425039.45	743	21.7	11:03:11	10/21/2013	4TH	Rejected	No recovery
1-R4	453009.71	5425044.69	743	21.2	11:17:33	10/21/2013	5TH	Rejected	No recovery
1-R4	453012.91	5425043.83	743	21	11:20:20	10/21/2013	6TH	Rejected	No recovery
1-R4	453018.25	5425055.08	743	20.8	11:22:52	10/21/2013	7TH	Rejected	No recovery
1-R4	453027.17	5425019.7	743	22.1	11:25:37	10/21/2013	8TH	Rejected	No recovery
1-R4	453041.42	5425064.55	743	20.6	11:29:07	10/21/2013	9TH	Rejected	No recovery
1-R5	453605.67	5427595.55	744	9.9	15:05:07	10/22/2013	1ST	ACCEPTED	ACCEPT 8
1-R6	450999.14	5423768.58	741	42.6	11:46:59	10/19/2013	1ST	Rejected	Failed 5 & 6
1-R6	451037.24	5423753.84	741	42.3	11:51:50	10/19/2013	2ND	Rejected	Failed 5 & 6
1-R6	450990.09	5423742.59	741	47.8	11:56:10	10/19/2013	3RD	Rejected	Failed 5 & 6
1-R6	451028.09	5423739.53	741	45.5	12:03:01	10/19/2013	4TH	Rejected	Failed 5 & 6, one cobble
1-R6	451038.47	5423737.57	741	44	12:07:06	10/19/2013	5TH	Rejected	Failed 5 & 6
1-R6	451047.82	5423761.59	741	42.4	12:11:27	10/19/2013	6TH	Rejected	Failed 5 & 6, gravel with trace sand
1-R6	451024.88	5423771.07	741	41.2	12:16:30	10/19/2013	7TH	Rejected	Failed 5 & 6, 2 cobbles
1-R6	450971.78	5423761.03	741	40.6	12:21:25	10/19/2013	8TH	Rejected	Failed 5 & 6
1-R6	451041.66	5423740.39	741	41.6	12:26:55	10/19/2013	9TH	Rejected	Failed 5 & 6
1-R7	448344.2	5422312.59	739	48.3	13:37:41	10/21/2013	1ST	Rejected	No recovery
1-R7	448327.67	5422273.54	739	48.4	13:43:37	10/21/2013	2ND	Rejected	No recovery
1-R7	448321.19	5422302.28	739	48.2	13:47:18	10/21/2013	3RD	Rejected	No recovery
1-R7	448343.47	5422307.17	739	48.4	13:53:22	10/21/2013	4TH	Rejected	No recovery
1-R7	448375.36	5422312.98	739	48.8	13:57:11	10/21/2013	5TH	Rejected	No recovery
1-R7	448365.7	5422297.3	739	48.5	14:02:41	10/21/2013	6TH	Rejected	No recovery
1-R7	448374.16	5422326.37	739	48.8	14:06:14	10/21/2013	7TH	Rejected	No recovery
1-R7	448367.57	5422343.32	739	37.1	14:10:13	10/21/2013	8TH	Rejected	No recovery
1-R7	448320.28	5422290.05	739	47.4	14:13:18	10/21/2013	9TH	Rejected	No recovery
1-R8	446291.73	5421192.46	737	15	14:50:11	10/21/2013	1ST	ACCEPTED	ACCEPTED, 3"
1-R8	446267.62	5421156.58	737	12.5	14:55:07	10/21/2013	2ND	ACCEPTED	ACCEPTED, 8"
1-R9	445889.85	5421160.91	737	32.8	9:25:15	10/22/2013	1ST	Rejected	No recovery
1-R9	445907.14	5421152.63	737	34.7	9:29:05	10/22/2013	2ND	Rejected	No recovery
1-R9	445916.32	5421108.32	737	28.2	9:32:09	10/22/2013	3RD	Rejected	No recovery
1-R9	445892.93	5421107.71	737	29.1	9:34:46	10/22/2013	4TH	Rejected	No recovery
1-R9	445900.22	5421131.08	737	32.8	9:38:04	10/22/2013	5TH	Rejected	No recovery
1-R9	445916.79	5421132.14	737	32.4	9:40:46	10/22/2013	6TH	Rejected	No recovery
1-R9	445899.87	5421158.88	737	33.6	9:43:30	10/22/2013	7TH	Rejected	No recovery
1-R9	445931.12	5421122.8	737	33.8	9:46:32	10/22/2013	8TH	Rejected	No recovery
1-R9	445887.72	5421132.66	737	34.2	9:48:44	10/22/2013	9TH	Rejected	No recovery
1-R10	446167.26	5420993.5	737	29	14:07:00	10/18/2013	1ST	Rejected	Rejected Because of Fast River Current
2-B1	441089.54	5417257.55	733	9	10:24:07	10/23/2013	1ST	Rejected	100% cobbles
2-B1	441095.77	5417258.09	733	9	10:25:58	10/23/2013	2ND	Rejected	Sand and gravel
2-B1	441079.59	5417249.14	733	11	10:27:38	10/23/2013	3RD	Rejected	Cobbles and small amount of sand
2-B1	441082.61	5417286.48	733	8	10:29:42	10/23/2013	4TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
2-B1	441090.99	5417284.65	733	9	10:44:11	10/23/2013	5TH	ACCEPTED	
2-B2	440350.3	5416799.6	732	25	12:53:30	10/23/2013	1ST	Rejected	Gravel and cobbles
2-B2	440356.07	5416802.61	732	25	12:56:02	10/23/2013	2ND	Rejected	One cobble
2-B2	440370.7	5416773.23	732	23	12:58:33	10/23/2013	3RD	Rejected	3 rocks
2-B2	440352.53	5416762.59	732	23	13:00:19	10/23/2013	4TH	Rejected	Gravel and cobbles
2-B2	440369.69	5416767.61	732	24	13:02:16	10/23/2013	5TH	Rejected	Rock
2-B2	440372.43	5416828.18	732	30	13:05:09	10/23/2013	6TH	Rejected	Cobbles and small amount of sand and gravel
2-B2	440343.7	5416806.06	732	20	13:13:27	10/23/2013	7TH	Rejected	2 rocks
2-B2	440350.1	5416807.62	732	19	13:15:05	10/23/2013	8TH	Rejected	Gravel and cobbles
2-B2	440369.25	5416812.82	732	21	13:16:33	10/23/2013	9TH	ACCEPTED	
2-B3	438639.29	5415157.1	731	15.1	14:07:24	10/23/2013	10TH	Rejected	
2-B3	438642.42	5415113.59	731	19.1	13:52:04	10/23/2013	1ST	Rejected	No recovery
2-B3	438637.42	5415102.53	731	18.7	13:53:48	10/23/2013	2ND	Rejected	No recovery
2-B3	438625.05	5415083.72	731	17.9	13:54:59	10/23/2013	3RD	Rejected	Cobbles
2-B3	438633.2	5415140.49	731	24.5	13:56:48	10/23/2013	4TH	Rejected	REJECT ROCKJAW, cobbles
2-B3	438618.37	5415142.79	731	19.8	13:58:21	10/23/2013	5TH	Rejected	Cobbles
2-B3	438604.14	5415142.18	731	18.4	13:59:34	10/23/2013	6TH	Rejected	REJECT ROCKJAW, one cobble
2-B3	438615.06	5415135.4	731	17.7	14:01:24	10/23/2013	7TH	Rejected	GRAB DID NOT CLOSE
2-B3	438628.06	5415143.1	731	17.8	14:03:42	10/23/2013	8TH	Rejected	Cobbles
2-B3	438619.36	5415139.06	731	17.5	14:05:32	10/23/2013	9TH	Rejected	Cobbles
2-B4	438170.47	5414345.96	730	44	13:03:14	10/17/2013	1ST	Rejected	Failed 5 & 6, water
2-B4	438158.74	5414334.19	730	45	13:09:20	10/17/2013	2ND	Rejected	Failed 5 & 6, water
2-B4	438174.04	5414300	730	41	13:14:25	10/17/2013	3RD	Rejected	Failed 5 & 6, cobble
2-B4	438131.09	5414324.49	730	43	13:19:56	10/17/2013	4TH	Rejected	Failed 5 & 6, rock
2-B4	438144.9	5414288.66	730	40	13:24:00	10/17/2013	5TH	Rejected	Failed 5 & 6, gravel & cobbles
2-B4	438178.43	5414299.1	730	41	13:28:39	10/17/2013	6TH	Rejected	Failed 5 & 6, water
2-B4	438204.29	5414312.04	730	41	13:32:20	10/17/2013	7TH	Rejected	Failed 5 & 6, gravel & cobbles
2-B4	438170.2	5414292.74	730	40	13:35:19	10/17/2013	8TH	Rejected	Failed 5 & 6, gravel & cobbles & sand
2-B4	438161.51	5414296.7	730	41	13:44:09	10/17/2013	9TH	Rejected	Failed 5 & 6, water
2-B5	436880.82	5413705.77	729 NR		11:02:00	10/17/2013	1ST	Rejected	REJECTED FOR SAFETY AND EQUIPMENT CONCERNS
2-B6	436541.0	5413587.12	729 NR		11:02:00	10/17/2013	1ST	Rejected	REJECTED FOR SAFETY AND EQUIPMENT CONCERNS
2-C1	439811.64	5415840.67	731	15.4	9:07:28	10/19/2013	1ST	ACCEPTED	Accepted, 3"
2-C1	439815.44	5415846.88	731	15.4	9:13:06	10/19/2013	2ND	Rejected	REJECT ROCKJAW
2-C1	439811.96	5415844	731	15.6	9:15:10	10/19/2013	3RD	Rejected	Failed 5 & 6, one cobble
2-C1	439810.06	5415843.3	731	15.9	9:17:45	10/19/2013	4TH	Rejected	Failed 6, san & gravel
2-C1	439804.11	5415820.38	731	13.2	9:19:55	10/19/2013	5TH	ACCEPTED	Accepted, 3"
2-C1	439795.5	5415821.64	731	13.9	9:28:54	10/19/2013	6TH	Rejected	Failed 6, silty sand w/ weeds, incomplete closure
2-C1	439808.31	5415822.94	731	13.2	9:31:46	10/19/2013	7TH	ACCEPTED	ACCEPTED, 7"
2-C2	439350.15	5416030.64	731	5	14:40:59	10/18/2013	1ST	Rejected	REJECT ROCKJAW
2-C2	439305.2	5415979.88	731	3.5	14:47:12	10/18/2013	2ND	Rejected	REJECT ROCKJAW
2-C2	439303.29	5415993.89	731	2.5	14:48:37	10/18/2013	3RD	Rejected	REJECT ROCKJAW
2-C2	439322.7	5416037.7	731	2.5	14:51:14	10/18/2013	4TH	Rejected	REJECT ROCKJAW
2-C2	439340.66	5416056.23	731	3.5	14:53:07	10/18/2013	5TH	Rejected	REJECT ROCKJAW
2-C2	439349.11	5416053.75	731	3.6	14:55:58	10/18/2013	6TH	Rejected	REJECT ROCKJAW
2-C2	439358.18	5416049.37	731	4.2	14:58:12	10/18/2013	7TH	Rejected	REJECT ROCKJAW
2-C2	439354.84	5416053.49	731	4.3	15:01:45	10/18/2013	8TH	Rejected	REJECT ROCKJAW
2-C2	439356.87	5416050.39	731	4.3	15:03:08	10/18/2013	9TH	Rejected	REJECT ROCKJAW
2-C3	438038.41	5414106.99	730	38.9	13:23:04	10/18/2013	1ST	Rejected	REJECT, EMPTY
2-C3	438017.84	5414086.17	730	43.4	13:25:45	10/18/2013	2ND	Rejected	REJECT, EMPTY

2-C3	438063.06	5414061.78	730	45.4	13:29:24	10/18/2013	3RD	Rejected	REJECT, EMPTY
2-C3	438060.78	5414095.62	730	44.2	13:32:18	10/18/2013	4TH	Rejected	REJECT, EMPTY
2-C3	438041.21	5414139.23	730	36.2	13:35:36	10/18/2013	5TH	Rejected	REJECT ROCKJAW
2-C3	438084.76	5414133.25	730	41.4	13:39:15	10/18/2013	6TH	Rejected	REJECT ROCKJAW
2-C3	438103.61	5414108.68	730	44.8	13:42:14	10/18/2013	7TH	Rejected	REJECT, EMPTY
2-C3	438095.66	5414079.93	730	47.4	13:45:38	10/18/2013	8TH	Rejected	REJECT, EMPTY
2-C3	438033.5	5414061.91	730	48.4	13:48:17	10/18/2013	9TH	Rejected	REJECT ROCKJAW
2-C4	437653.57	5414120.32	730	48.4	11:41:25	10/18/2013	1ST	Rejected	REJECT ROCKJAW
2-C4	437633.8	5414086.41	730	57.9	11:45:34	10/18/2013	2ND	Rejected	REJECT COBBLES
2-C4	437638.12	5414089.23	730	58.3	11:49:16	10/18/2013	3RD	Rejected	REJECT ROCKJAW
2-C4	437661.9	5414084.52	730	59.4	11:53:36	10/18/2013	4TH	Rejected	REJECT, EMPTY
2-C4	437675.99	5414148.38	730	28.6	11:57:17	10/18/2013	5TH	Rejected	REJECT ROCKJAW
2-C4	437690.54	5414141.09	730	37.2	12:00:53	10/18/2013	6TH	Rejected	REJECT ROCKJAW
2-C4	437670.1	5414136.66	730	34.5	12:04:39	10/18/2013	7TH	Rejected	REJECT ROCKJAW
2-C4	437659.23	5414127.41	730	38.7	12:07:16	10/18/2013	8TH	Rejected	REJECT ROCKJAW
2-C4	437627.4	5414117.43	730	41.8	12:09:08	10/18/2013	9TH	Rejected	REJECT ROCKJAW
2-R1	441059.61	5417084.4	732	22	8:42:15	10/23/2013	1ST	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
2-R1	441084.31	5417091.21	732	18	8:55:19	10/23/2013	2ND	Rejected	Gravel and trace sand
2-R1	441060.35	5417084.69	732	21	8:57:11	10/23/2013	3RD	ACCEPTED	
2-R2	440517.73	5417292.59	732	5	14:27:59	10/17/2013	1ST	Rejected	Failed 5 & 6, cobble
2-R2	440524.45	5417268.91	732	4.4	14:32:06	10/17/2013	2ND	Rejected	Failed 5 & 6, vegetation & water
2-R2	440565.05	5417338.75	732	17	14:34:56	10/17/2013	3RD	Rejected	Failed 5 & 6, cobble
2-R2	440556.48	5417321.93	732	17	14:37:07	10/17/2013	4TH	Rejected	Failed 5 & 6, cobble
2-R2	440537.56	5417325.8	732	12	14:38:41	10/17/2013	5TH	Rejected	Failed 5 & 6, cobble
2-R2	NR	NR	732	10	14:40	10/17/2013	6TH	Rejected	Failed 5 & 6, cobble & gravel
2-R2	440566.69	5417302.73	732	12	14:47:01	10/17/2013	7TH	Rejected	Failed 5 & 6, cobble
2-R2	440589.93	5417318.33	732	9	14:51:21	10/17/2013	8TH	Rejected	Failed 5 & 6, cobble & gravel
2-R2	440562.49	5417304.88	732	11	14:53:28	10/17/2013	9TH	Rejected	Failed 5 & 6, cobble
2-R3	440013.46	5416670.2	732	9	11:04:24	10/18/2013	1ST	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
2-R3	439999.85	5416664.29	732	5	11:24:39	10/18/2013	2ND	ACCEPTED	Accepted
2-R4	439386.05	5415631.22	731	38	15:18:17	10/17/2013	1ST	Rejected	Failed 5 & 6, cobbles
2-R4	439355.37	5415600.82	731	39	15:21:07	10/17/2013	2ND	Rejected	Failed 5 & 6, gravel
2-R4	439361.36	5415615	731	40	15:24:32	10/17/2013	3RD	Rejected	Failed 5 & 6, cobbles
2-R4	439375.62	5415641.45	731	40	15:28:47	10/17/2013	4TH	Rejected	Failed 5 & 6, cobbles
2-R4	439367.43	5415609.91	731	37	15:31:11	10/17/2013	5TH	Rejected	Failed 5 & 6, cobbles, insects
2-R4	439355.23	5415646	731	44	15:34:52	10/17/2013	6TH	Rejected	Failed 5 & 6, cobbles
2-R4	439352.72	5415611.63	731	43	15:37:45	10/17/2013	7TH	Rejected	Failed 5 & 6, cobbles
2-R4	439365.66	5415635.87	731	43	15:40:47	10/17/2013	8TH	Rejected	Failed 5 & 6, water
2-R4	439349.58	5415607.34	731	43	15:43:28	10/17/2013	9TH	Rejected	Failed 5 & 6
2-R5	438812.77	5415702.59	731	8.1	10:14:05	10/18/2013	1ST	Rejected	REJECT ROCKJAW
2-R5	438778.5	5415671.48	731	8	10:15:58	10/18/2013	2ND	Rejected	REJECT ROCKJAW
2-R5	438810.47	5415664.33	731	8.2	10:18:37	10/18/2013	3RD	Rejected	REJECT ROCKJAW
2-R5	438828.49	5415694.27	731	8.4	10:21:03	10/18/2013	4TH	Rejected	REJECT ROCKJAW
2-R5	438814.31	5415734.51	731	11.4	10:23:27	10/18/2013	5TH	Rejected	REJECT ROCKJAW
2-R5	438761.25	5415711.88	731	8.8	10:25:34	10/18/2013	6TH	Rejected	REJECT ROCKJAW
2-R5	438764.42	5415677.11	731	8.5	10:28:00	10/18/2013	7TH	Rejected	REJECT ROCKJAW
2-R5	438770.75	5415695.74	731	9.2	10:30:11	10/18/2013	8TH	Rejected	REJECT ROCKJAW
2-R5	438784.52	5415735.44	731	9.8	10:32:30	10/18/2013	9TH	Rejected	REJECT ROCKJAW
2-R6	438907.18	5415216.86	731	51	10:10:19	10/18/2013	1ST	Rejected	REJECT, Gravel & Cobbles
2-R6	438882.6	5415203.4	731	51	10:15:35	10/18/2013	2ND	Rejected	Failed 5 & 6, water
2-R6	438914.8	5415208.73	731	52	10:19:52	10/18/2013	3RD	Rejected	Failed 5 & 6, gravel & cobbles
2-R6	438923.18	5415206.32	731	52	10:24:02	10/18/2013	4TH	Rejected	Failed 5 & 6, water
2-R6	438914.51	5415190.49	731	51	10:27:13	10/18/2013	5TH	Rejected	Failed 5 & 6, large cobble in grab
2-R6	438907.17	5415231.31	731	50	10:32:43	10/18/2013	6TH	Rejected	Failed 5 & 6, gravel & cobbles
2-R6	438925.99	5415217.25	731	51	10:36:44	10/18/2013	7TH	Rejected	Failed 5 & 6, cobbles
2-R6	438946.03	5415196.39	731	46	10:40:10	10/18/2013	8TH	Rejected	Failed 5 & 6, cobbles
2-R6	438951.12	5415210.02	731	50	10:43:46	10/18/2013	9TH	Rejected	Failed 5 & 6, cobbles
2-R7	438398.81	5414825.99	730	23.4	14:51:55	10/17/2013	1ST	Rejected	REJECT, EMPTY
2-R7	438403.4	5414828.89	730	21.3	14:54:15	10/17/2013	2ND	Rejected	REJECT, EMPTY
2-R7	438398.14	5414810.2	730	23.4	14:56:58	10/17/2013	3RD	Rejected	REJECT, EMPTY
2-R7	438396.39	5414798.25	730	24.5	14:59:22	10/17/2013	4TH	Rejected	REJECT ROCKJAW, EMPTY
2-R7	438415.24	5414792.73	730	24	15:01:22	10/17/2013	5TH	Rejected	REJECT, EMPTY
2-R7	438360.64	5414773.25	730	16.5	15:04:19	10/17/2013	6TH	Rejected	REJECT EMPTY, COBBLES
2-R7	438395.51	5414753.16	730	25.5	15:07:42	10/17/2013	7TH	Rejected	REJECT COBBLES ROCKJAW
2-R7	438365.29	5414817.6	730	13.7	15:12:06	10/17/2013	8TH	Rejected	REJECT EMPTY, COBBLES
2-R7	438380.32	5414813.81	730	20.4	15:14:16	10/17/2013	9TH	Rejected	REJECT EMPTY, COBBLES
2-R9	437164.96	5413841.56	729	92	9:12:07	10/15/2013	1ST	Rejected	Failed 5 & 6, water
2-R9	437120.99	5413844.4	729	89	9:18:44	10/15/2013	2ND	Rejected	Did not close
2-R9	437126.53	5413822.24	729	85	9:24:55	10/15/2013	3RD	Rejected	Failed 5 & 6, water
2-R9	437129.36	5413830.98	729	89	9:31:17	10/15/2013	4TH	Rejected	Did not close
2-R9	437126.83	5413837.83	729	89	9:37:32	10/15/2013	5TH	Rejected	Failed 5 & 6, cobbles
2-R9	437141.07	5413829.43	729	88	9:43:45	10/15/2013	6TH	Rejected	Failed 5 & 6, only water
2-R9	437133.83	5413831.37	729	89	9:50:06	10/15/2013	7TH	Rejected	Failed 5 & 6, gravel & cobbles
2-R9	437114.3	5413819.37	729	87	9:56:36	10/15/2013	8TH	Rejected	Failed 5 & 6, gravel & cobbles
2-R9	437095.3	5413808.71	729	88	10:03:12	10/15/2013	9TH	Rejected	Failed 5 & 6, only water
2-R10	436519.1	5413693.48	729	98	10:28:35	10/15/2013	1ST	Rejected	Failed 5, only water, grab got suck on bottom
3-B1	432407.66	5410566.98	725	82	14:12:13	10/16/2013	1ST	Rejected	Failed 5 & 6
3-B1	432380.87	5410515.13	725	26	14:18:11	10/16/2013	2ND	Rejected	Failed 5 & 6, sand & gravel
3-B1	432405.54	5410521.83	725	76	14:25:47	10/16/2013	3RD	Rejected	Failed 5 & 6, rock
3-B1	432411.58	5410516.3	725	70	14:30:30	10/16/2013	4TH	Rejected	Failed 5 & 6, water
3-B1	432393.37	5410574.32	725	85	14:35:16	10/16/2013	5TH	Rejected	Failed 5 & 6, rock
3-B1	432383.16	5410546.65	725	82	14:39:44	10/16/2013	6TH	Rejected	Failed 5 & 6, cobble
3-B1	432369.58	5410505.55	725	77	14:44:06	10/16/2013	7TH	Rejected	Failed 5 & 6, sand
3-B1	432378.49	5410513.4	725	78	14:54:14	10/16/2013	8TH	Rejected	Failed 5 & 6, water
3-B1	432410.82	5410519.26	725	71	14:58:51	10/16/2013	9TH	Rejected	Failed 5 & 6, gravel & trace sand
3-B2	432199.29	5408532.96	724	62	12:47:46	10/16/2013	1ST	Rejected	Failed 5 & 6, cobble
3-B2	432214.37	5408512.17	724	61	12:53:55	10/16/2013	2ND	Rejected	Failed 5 & 6, cobbles & trace sand
3-B2	432175.93	5408532.81	724	63	13:01:32	10/16/2013	3RD	Rejected	Failed 5 & 6, only water
3-B2	432162.83	5408516.5	724	61	13:05:18	10/16/2013	4TH	Rejected	Failed 5 & 6, only water
3-B2	432189.93	5408495.51	724	62	13:09:23	10/16/2013	5TH	Rejected	Failed 5 & 6, only water
3-B2	432222.44	5408535.36	724	64	13:13:50	10/16/2013	6TH	Rejected	Failed 5 & 6, gravel & cobbles
3-B2	432227.71	5408515.61	724	63	13:17:50	10/16/2013	7TH	Rejected	Failed 5 & 6, only water
3-B2	432183.16	5408493.53	724	61	13:24:05	10/16/2013	8TH	Rejected	Failed 5 & 6, sand

3-B2	432176.99	5408494.7	724	60	13:34:52	10/16/2013	9TH	Rejected	Failed 5 & 6, only water
3-B3	431654.23	5408570.5	724	12	10:05:58	10/16/2013	10TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-B3	431656.13	5408568.9	724	12	10:19:51	10/16/2013	11TH	ACCEPTED	Accepted
3-B3	431668.77	5408594.46	724	12	9:12:30	10/16/2013	1ST	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-B3	431651.29	5408615.61	724	11	9:32:11	10/16/2013	2ND	Rejected	Failed 5 & 6
3-B3	431652.54	5408595.56	724	11	9:35:19	10/16/2013	3RD	Rejected	Failed 5 & 6, only water
3-B3	431661.18	5408583.21	724	12	9:40:22	10/16/2013	4TH	Rejected	Failed 6, cobbles & vegetation
3-B3	431658.27	5408581.95	724	12	9:43:36	10/16/2013	5TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-B3	431664.99	5408568.42	724	14	9:56:35	10/16/2013	6TH	Rejected	Failed 5 & 6, cobble in grab
3-B3	431661.56	5408561.56	724	15	9:58:21	10/16/2013	7TH	Rejected	Failed 5 & 6, cobble & gravel
3-B3	431648.62	5408594.21	724	12	10:01:12	10/16/2013	8TH	Rejected	Failed 5 & 6, vegetation
3-B3	431640.97	5408577.91	724	12	10:03:41	10/16/2013	9TH	Rejected	Failed 5 & 6, vegetation & gravel
3-B4	431048.45	5407532.68	723	48	13:54:26	10/14/2013	1ST	Rejected	Failed 5 & 6, gravel & cobbles, did not completely close
3-B4	431034.91	5407499.42	723	52	13:59:45	10/14/2013	2ND	Rejected	Failed 5 & 6, coarse gravel & cobbles
3-B4	431059.39	5407487.57	723	54	14:04:11	10/14/2013	3RD	Rejected	Failed 5 & 6, gravel & cobbles
3-B4	431028.82	5407475.03	723	53	14:08:00	10/14/2013	4TH	Rejected	Failed 5 & 6, rocks, gravel & cobbles
3-B4	431066.88	5407463.14	723	56	14:12:23	10/14/2013	5TH	Rejected	Failed 5
3-B4	431097.26	5407487.19	723	56	14:21:09	10/14/2013	6TH	Rejected	Failed 5 & 6, cobbles
3-B4	431065.17	5407473.27	723	55	14:24:20	10/14/2013	7TH	Rejected	Failed 5 & 6
3-B4	431060.4	5407466.68	723	55	14:27:42	10/14/2013	8TH	Rejected	Failed 5 & 6, two rocks
3-B4	431058.7	5407457.9	723	55	14:31:10	10/14/2013	9TH	Rejected	Failed 5 & 6
3-B5	430504.74	5407074.21	723	65	9:47:23	10/14/2013	1ST	Rejected	Did not close
3-B5	430509.46	5407043.77	723	63	9:53:41	10/14/2013	2ND	Rejected	Failed 5, cobbles
3-B5	430544.88	5407056.13	723	63	10:00:54	10/14/2013	3RD	Rejected	Did not close
3-B5	430506.7	5407051.76	723	64	10:06:26	10/14/2013	4TH	Rejected	Failed 5, cobbles & trace sand
3-B5	430523.81	5407038.35	723	63	10:15:14	10/14/2013	5TH	Rejected	Failed 5 & 6, cobbles
3-B5	430471.3	5407045.06	723	63	10:20:59	10/14/2013	6TH	Rejected	Failed 5, rocks
3-B5	430485.98	5407053.55	723	67	10:27:29	10/14/2013	7TH	Rejected	Failed 5 & 6
3-B5	430499.42	5407064.49	723	66	10:33:27	10/14/2013	8TH	Rejected	Failed 5 & 6, cobbles & gravel
3-B5	430490.9	5407067.86	723	66	10:38:42	10/14/2013	9TH	Rejected	Failed 5 & 6, one rock
3-B6	429286.44	5407494.73	722	36	14:02:50	10/15/2013	1ST	Rejected	Failed 5 & 6, only water
3-B6	429265.7	5407467.2	722	21	14:09:53	10/15/2013	2ND	Rejected	Failed 5 & 6, only water
3-B6	429239.64	5407459.26	722	51	14:12:29	10/15/2013	3RD	Rejected	Failed 5 & 6, only water
3-B6	429232.3	5407484.34	722	64	14:15:58	10/15/2013	4TH	Rejected	Failed 5, only water
3-B6	429300.32	5407483.09	722	31	14:19:35	10/15/2013	5TH	Rejected	Failed 5 & 6, only water
3-B6	429294.31	5407463.53	722	36	14:22:04	10/15/2013	6TH	Rejected	Failed 5 & 6, only water
3-B6	429264.69	5407431.61	722	58	14:25:40	10/15/2013	7TH	Rejected	Failed 5 & 6, one boulder
3-B6	429229.77	5407477.94	722	63	14:31:53	10/15/2013	8TH	Rejected	Failed 5 & 6, only water
3-B6	429313.2	5407465.18	722	38	14:36:15	10/15/2013	9TH	Rejected	Failed 5 & 6, only water
3-C1	431403.27	5407961.54	724	5.5	14:05:04	10/15/2013	1ST	Rejected	REJECT WASHOUT, Failed 6
3-C1	431411.37	5407940.87	724	6.1	14:10:00	10/15/2013	2ND	ACCEPTED	ACCEPT, 12"
3-C2	431983.2	5407757.77	724	71	12:44:27	10/15/2013	1ST	Rejected	REJECT EMPTY
3-C2	432033.55	5407767.19	724	71.2	12:53:24	10/15/2013	2ND	Rejected	REJECT COBBLES
3-C2	431997.41	5407802.14	724	61.7	12:57:18	10/15/2013	3RD	Rejected	REJECT COBBLE
3-C2	431957.86	5407753.57	724	70.6	13:00:54	10/15/2013	4TH	Rejected	REJECT EMPTY
3-C2	431985.57	5407722.71	724	72.3	13:05:59	10/15/2013	5TH	Rejected	REJECT COBBLE
3-C2	431977.14	5407741.22	724	75.5	13:10:14	10/15/2013	6TH	Rejected	REJECT COBBLES
3-C2	431969.02	5407789.53	724	68.8	13:14:42	10/15/2013	7TH	Rejected	REJECT COBBLES
3-C2	431991.49	5407778.4	724	65.9	13:18:26	10/15/2013	8TH	Rejected	REJECT COBBLES
3-C2	432009.68	5407736.61	724	75.8	13:23:51	10/15/2013	9TH	Rejected	REJECT EMPTY
3-C3	430239.82	5406972.79	723	47.8	8:50:48	10/15/2013	1ST	Rejected	REJECT EMPTY
3-C3	430282.19	5406971.8	723	47.2	8:58:27	10/15/2013	2ND	Rejected	REJECT EMPTY
3-C3	430209.03	5406961.21	723	46.1	9:02:51	10/15/2013	3RD	Rejected	REJECT EMPTY
3-C3	430257.77	5406928.66	723	47.6	9:07:27	10/15/2013	4TH	Rejected	REJECT EMPTY
3-C3	430245.38	5407010.3	723	53.3	9:14:51	10/15/2013	5TH	Rejected	REJECT EMPTY
3-C3	430235.86	5407000.52	723	48	9:18:39	10/15/2013	6TH	Rejected	REJECT COBBLE
3-C3	430222.67	5406969.06	723	47.1	9:22:40	10/15/2013	7TH	Rejected	REJECT EMPTY
3-C3	430245.83	5406977.66	723	47.8	9:26:41	10/15/2013	8TH	Rejected	REJECT EMPTY
3-C3	430221.15	5406972.53	723	50.3	9:29:52	10/15/2013	9TH	Rejected	REJECT 2 ROCKS
3-C4	428015.83	5407622.19	721	91	13:32:48	10/8/2013	1ST	Rejected	Failed 5 & 6
3-C4	428079.45	5407611.32	721	101	13:45:23	10/8/2013	2ND	ACCEPTED	Accepted, only 4.5" penetration
3-R1	432842.92	5411170.17	726	45	9:22:28	10/17/2013	1ST	Rejected	Failed 6, stick in grab caused winnowing
3-R1	432844.82	5411181.58	726	45	9:27:22	10/17/2013	2ND	Rejected	Failed 6, stick in grab caused winnowing
3-R1	432822.09	5411177.74	726	45	9:38:44	10/17/2013	3RD	ACCEPTED	Accepted
3-R1	432826.14	5411178.82	726	45	9:57:20	10/17/2013	4TH	Rejected	Did not close
3-R1	432839.24	5411179.56	726	45	10:00:01	10/17/2013	5TH	ACCEPTED	Accepted
3-R2	432023.79	5409818.93	725	39	11:08:33	10/14/2013	1ST	Rejected	Failed 5 & 6, cobbles
3-R2	432030.99	5409807.22	725	29	11:11:48	10/14/2013	2ND	Rejected	Failed 5, only water
3-R2	431995.14	5409793.8	725	20	11:15:43	10/14/2013	3RD	Rejected	Failed 5 & 6, only vegetation
3-R2	431980.46	5409797.15	725	12	11:20:31	10/14/2013	4TH	Rejected	REJECTED BUT ONE SCOOP COLLECTED
3-R2	431968.67	5409808.45	725	9	11:28:24	10/14/2013	5TH	ACCEPTED	Accepted
3-R2	431977.22	5409798.92	725	9	11:45:40	10/14/2013	6TH	ACCEPTED	Accepted
3-R2	431986.53	5409798.19	725	9	11:58:18	10/14/2013	7TH	ACCEPTED	Accepted
3-R3	432292.58	5409130.57	725	47.5	10:19:12	10/15/2013	1ST	Rejected	REJECT EMPTY
3-R3	432297.08	5409119.46	725	45.6	10:23:43	10/15/2013	2ND	Rejected	REJECT COBBLES TRACE OF SAND
3-R3	432294.54	5409171.28	725	45.5	10:27:08	10/15/2013	3RD	Rejected	REJECT EMPTY
3-R3	432323.06	5409138.9	725	25.2	10:40:16	10/15/2013	4TH	Rejected	REJECT GRAVEL
3-R3	432257.13	5409127.39	725	81.2	10:46:14	10/15/2013	5TH	ACCEPTED	ACCEPT, 8-10"
3-R5	431583.2	5407643.81	723	55	15:11:38	10/14/2013	1ST	Rejected	Failed 5 & 6, just water
3-R5	431543.95	5407622.28	723	54	15:14:57	10/14/2013	2ND	Rejected	Failed 5 & 6, did not close
3-R5	431573.01	5407647.44	723	54	15:19:15	10/14/2013	3RD	Rejected	Failed 5, cobbles
3-R5	431550.93	5407645.92	723	52	15:22:57	10/14/2013	4TH	Rejected	Failed 5 & 6, just water
3-R5	431529.56	5407631.71	723	52	15:25:57	10/14/2013	5TH	Rejected	Failed 5 & 6, gravel & cobbles
3-R5	431576.2	5407601.65	723	58	15:30:55	10/14/2013	6TH	Rejected	Failed 5 & 6, did not close
3-R5	431558.22	5407595.56	723	56	15:34:11	10/14/2013	7TH	Rejected	Failed 5 & 6, cobbles
3-R5	431612.63	5407613.07	723	58	15:39:55	10/14/2013	8TH	Rejected	Failed 5 & 6, just water
3-R5	431573.41	5407591.13	723	59	15:43:30	10/14/2013	9TH	Rejected	Failed 5 & 6, just water
3-R6	430830.15	5407411.25	723	69	11:06:59	10/15/2013	1ST	Rejected	Failed 5 & 6
3-R6	430835.95	5407397.87	723	65	11:12:03	10/15/2013	2ND	Rejected	Failed 5 & 6
3-R6	430802.22	5407383.6	723	69	11:16:28	10/15/2013	3RD	Rejected	Failed 5 & 6, small amount of sand & gravel
3-R6	430859.23	5407378.81	723	64	11:22:08	10/15/2013	4TH	Rejected	Failed 5, few rocks
3-R6	430822.52	5407363.26	723	66	11:26:02	10/15/2013	5TH	Rejected	Failed 5 & 6, one rock, some sand
3-R6	430870	5407408.57	723	63	11:32:47	10/15/2013	6TH	Rejected	Failed 5 & 6

3-R6	430836.37	5407398.94	723	64	11:37:01	10/15/2013	7TH	Rejected	Failed 5 & 6, one rock
3-R6	430812.19	5407369.55	723	66	11:41:15	10/15/2013	8TH	Rejected	Failed 5, one cobble
3-R6	430821.18	5407366.74	723	67	11:45:13	10/15/2013	9TH	Rejected	Failed 5, 3 cobbles
3-R7	430303.04	5407156.1	722	70	16:24:06	10/15/2013	10TH	Rejected	Failed 5 & 6, rock in grab
3-R7	430303.47	5407158.77	722	71	16:28:22	10/15/2013	11TH	ACCEPTED	Accepted
3-R7	430256.7	5407147.63	722	71	15:11:11	10/15/2013	1ST	Rejected	Failed 5 & 6, cobbles
3-R7	430290.33	5407139.51	722	73	15:16:11	10/15/2013	2ND	Rejected	Did not close
3-R7	430254.32	5407138.73	722	73	15:19:17	10/15/2013	3RD	Rejected	Did not close
3-R7	430283.74	5407148.68	722	77	15:24:42	10/15/2013	4TH	ACCEPTED	Accepted
3-R7	430302.59	5407153.75	722	74	15:37:34	10/15/2013	5TH	Rejected	Failed 5 & 6, stick in grab caused sample washout
3-R7	430302.04	5407148.77	722	71	15:42:50	10/15/2013	6TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-R7	430302.79	5407151.46	722	71	15:56:21	10/15/2013	7TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-R7	430313.55	5407156.36	722	70	16:08:02	10/15/2013	8TH	Rejected	Failed 5 & 6, large cobble in grab
3-R7	430304.61	5407153.27	722	71	16:12:05	10/15/2013	9TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-R8	429466.19	5407280.05	722	135	10:01:40	10/24/2013	1ST	Rejected	Did not close
3-R8	429457.07	5407274.69	722	134	10:07:36	10/24/2013	2ND	Rejected	One rock
3-R8	429447.95	5407280.18	722	130	10:12:54	10/24/2013	3RD	Rejected	Gravel with sand, sieved (signs of sediment loss)
3-R8	429434.32	5407274.27	722	135	10:23:00	10/24/2013	4TH	Rejected	One rock
3-R8	429441.08	5407278.23	722	133	10:28:14	10/24/2013	5TH	Rejected	REJECTED; MATERIAL COLLECTED, grab did not close completely
3-R8	429420.4	5407278.93	722	130	10:53:40	10/24/2013	6TH	Rejected	Gravel, signs of sediment loss
3-R8	429436.57	5407272.3	722	131	10:59:57	10/24/2013	7TH	Rejected	REJECTED; MATERIAL KEPT
3-R8	429441.52	5407273.24	722	126	11:25:50	10/24/2013	8TH	Rejected	One rock
3-R8	429430.21	5407270.24	722	126	11:31:59	10/24/2013	9TH	Rejected	100% gravel, signs of sediment loss
3-R9	428420.57	5407795.09	721	79	12:50:57	10/24/2013	1ST	Rejected	One cobble
3-R9	428429.38	5407806.66	721	74	12:54:17	10/24/2013	2ND	Rejected	No recovery
3-R9	428501.95	5407776.48	721	63	12:57:48	10/24/2013	3RD	Rejected	Did not close
3-R9	428506.64	5407821.67	721	44	13:01:42	10/24/2013	4TH	ACCEPTED	ACCEPTED; MORE VOLUME NEEDED
3-R9	428470.83	5407835.83	721	41	13:15:52	10/24/2013	5TH	ACCEPTED	
3-R10	427592.32	5407795.12	721	42	12:54:37	10/15/2013	1ST	Rejected	Failed 5 & 6, only water
3-R10	427593.54	5407771.77	721	62	12:59:27	10/15/2013	2ND	Rejected	Failed 5 & 6, only water
3-R10	427574.87	5407815.82	721	21	13:04:08	10/15/2013	3RD	Rejected	Failed 5 & 6, one rock
3-R10	427577.26	5407821.38	721	21	13:06:32	10/15/2013	4TH	Rejected	Failed 5 & 6, only water
3-R10	427590.55	5407777.68	721	61	13:12:06	10/15/2013	5TH	Rejected	Failed 5 & 6, gravel & sand
3-R10	427581.29	5407761.23	721	70	13:18:09	10/15/2013	6TH	Rejected	Failed 5 & 6, only water
3-R10	427608.26	5407777.59	721	67	13:24:47	10/15/2013	7TH	Rejected	Failed 5 & 6, gravel & sand
3-R10	427590.71	5407757.12	721	70	13:34:29	10/15/2013	8TH	Rejected	Failed 5 & 6, only water
3-R10	427553.62	5407757.58	721	69	13:38:06	10/15/2013	9TH	Rejected	Failed 5 & 6, only water
4-B1	424499.39	5393516.74	710	83.7	13:18:36	10/7/2013	1ST	Accepted	Accepted
4-B2	422267.61	5391562.17	708	85	9:59:20	10/5/2013	1ST	Rejected	Did not close
4-B2	422297.62	5391550.16	708	87	10:06:59	10/5/2013	2ND	Rejected	Acceptable portion of sample was saved for incorporation into next grab
4-B2	422302.77	5391536.94	708	87	10:31:26	10/5/2013	3RD	Rejected	Did not close
4-B2	422310	5391552.76	708	88	10:36:57	10/5/2013	4TH	ACCEPTED	Insufficient volume for complete sample, will be composited
4-B2	422268.61	5391545.46	708	87	10:52:15	10/5/2013	5TH	ACCEPTED	Accepted
4-B3	420546.15	5391416.47	707	43.2	11:07:06	10/5/2013	1ST	ACCEPTED	ACCEPTED, 10"
4-B3	420542.27	5391421.89	707	43.5	11:21:36	10/5/2013	2ND	ACCEPTED	ACCEPTED, 9"
4-B3	420545.89	5391413.31	707	43.3	11:34:44	10/5/2013	3RD	ACCEPTED	ACCEPTED, 9.5"
4-B3	420552.3	5391414.8	707	43.3	11:47:31	10/5/2013	4TH	ACCEPTED	ACCEPTED, 10"
4-B3	420542.67	5391417.95	707	43.2	11:59:50	10/5/2013	5TH	ACCEPTED	ACCEPTED, 10"
4-B4	418964.49	5390736.08	706	81	13:38:57	10/5/2013	1ST	ACCEPTED	Accepted, 8"
4-B5	418622.79	5389013.18	705	89	8:35:11	10/5/2013	1ST	ACCEPTED	Accepted, 8"
4-B6	423050.51	5391771.71	709	103	8:37:04	10/8/2013	1ST	Rejected	REJECTED; GRAB MALFUNCTIONED
4-B6	423049.44	5391762.78	709	99	9:05:18	10/8/2013	2ND	Rejected	REJECTED; GRAB MALFUNCTIONED
4-B6	423069.09	5391754.23	709	102	9:19:37	10/8/2013	3RD	Rejected	Did not close
4-B6	423102.47	5391739.07	709	89	9:34:05	10/8/2013	4TH	ACCEPTED	Accepted
4-C1	424176.92	5392319.97	710	70.4	13:01:04	10/7/2013	1ST	Rejected	REJECTED COARSE SAND WASHOUT
4-C1	424153.2	5392336.07	710	64.8	13:08:07	10/7/2013	2ND	Rejected	REJECT COARSE SAND WASHOUT
4-C1	424163.19	5392309.22	710	69.3	13:26:24	10/7/2013	3RD	Rejected	REJECT WASHOUT
4-C1	424123.54	5392317.74	710	65.6	13:36:35	10/7/2013	4TH	Rejected	REJECT WASHOUT
4-C1	424136.7	5392319.27	710	67.8	13:51:53	10/7/2013	5TH	Rejected	REJECT WASHOUT
4-C1	424162.35	5392361.21	710	61.4	14:04:34	10/7/2013	6TH	Rejected	REJECT ROCKIAW
4-C1	424158.24	5392338.05	710	64.3	14:11:03	10/7/2013	7TH	Rejected	REJECT, Failed 5 & 6
4-C1	424128.61	5392329.93	710	64.9	14:15:59	10/7/2013	8TH	Rejected	REJECT, Failed 5 & 6
4-C1	424136	5392324.89	710	65	14:23:03	10/7/2013	9TH	Rejected	REJECT, Failed 5 & 6
4-C2	418345.14	5392011.34	707	29	8:56:32	10/7/2013	1ST	Rejected	REJECT WOODY DEBRIS
4-C2	418313.68	5392009.61	707	28.4	9:01:17	10/7/2013	2ND	Rejected	REJECT WOODY DEBRIS
4-C2	418306.16	5391991.23	707	29.4	9:06:37	10/7/2013	3RD	Accepted	Accepted, failed 6
4-C2	418315.15	5391982.25	707	33.3	9:12:36	10/7/2013	4TH	Rejected	REJECT WOOD DEBRIS
4-C2	418304.84	5392001.62	707	28.8	9:16:45	10/7/2013	5TH	Rejected	REJECT WOOD DEBRIS
4-C2	418348.68	5392021.42	707	27.8	9:20:13	10/7/2013	6TH	Rejected	REJECT WOOD DEBRIS
4-C2	418373.93	5392015.08	707	28.7	9:23:12	10/7/2013	7TH	Rejected	REJECT WOOD DEBRIS
4-C2	418339.85	5391995.06	707	30.1	9:28:19	10/7/2013	8TH	Rejected	REJECT WOOD DEBRIS
4-C2	418344.74	5392008.86	707	28.8	9:31:51	10/7/2013	9TH	Rejected	REJECT WOOD DEBRIS
4-C3	419428.3	5390222.61	706	45.3	14:27:07	10/5/2013	1ST	ACCEPTED	ACCEPTED, 8"
4-C3	419431.28	5390226.47	706	45.3	14:41:43	10/5/2013	2ND	ACCEPTED	ACCEPTED, 9"
4-C4	419067.85	5388803.8	705	52.4	12:30:58	10/4/2013	1ST	ACCEPTED	ACCEPTED, 10"
4-C5	420013.1	5387632.83	704	59.8	14:17:15	10/4/2013	1ST	ACCEPTED	ACCEPTED, 12"
4-C6	419940.36	5386150.24	703	45	8:33:00	10/5/2013	1ST	ACCEPTED	Accepted
4-C6	419951.48	5386144.17	703	45.1	8:45:15	10/5/2013	2ND	ACCEPTED	Accepted
4-C6	419938.66	5386153.53	703	45.4	8:56:37	10/5/2013	3RD	ACCEPTED	Accepted
4-R1	424347.66	5394261.73	711	90.5	10:53:30	10/24/2013	1ST	Rejected	Highly winnowed
4-R1	424340.05	5394268.37	711	84.8	11:08:43	10/24/2013	2ND	ACCEPTED	
4-R5	419267.52	5391735.7	707	47.2	8:36:12	10/8/2013	1ST	ACCEPTED	ACCEPTED, 13"
5-B1	413946.67	5354594.21	678	62.4	8:15:22	9/28/2013	1ST	ACCEPTED	ACCEPTED, 10"
5-B1	413951.14	5354594.01	678	62.8	8:30:14	9/28/2013	2ND	ACCEPTED	ACCEPTED, 10"
5-B1	413955.14	5354595.27	678	62.7	8:46:53	9/28/2013	3RD	ACCEPTED	ACCEPTED, 10.5"
5-B1	413959.66	5354593.55	678	62.9	8:59:49	9/28/2013	4TH	ACCEPTED	ACCEPTED, 11"
5-B2	413351.4	5354542.05	678	83	10:26:29	9/28/2013	1ST	Accepted	Accepted
5-B3	412691.33	5354422	678	171	12:36:35	9/30/2013	1ST	Accepted	Accepted, 12"
5-B4	413420.5	5352206.64	677	113	13:24:58	9/27/2013	1ST	Accepted	Accepted
5-B5	413936.15	5351704.02	676	106	9:33:00	9/27/2013	1ST	Rejected	REJECTED; GRAB DID NOT CLOSE
5-B5	413957.79	5351687.92	676	106	9:39:40	9/27/2013	2ND	ACCEPTED	Accepted
5-B6	414416.73	5351559.3	676	106	11:34:22	9/27/2013	1ST	Accepted	
5-C1	412642.82	5357585.94	680	145	10:35:04	9/30/2013	1ST	Accepted	Accepted, 12"

5-C2	412148.51	5354419.25	678	82.2	10:24:56	9/30/2013	1ST	ACCEPTED	Accepted, 13"
5-C3	412739.47	5352655.47	677	161	8:19:00	9/28/2013	1ST	Accepted	Accepted
5-C4	413790.34	5350031.34	675	87.4	8:38:52	9/27/2013	1ST	ACCEPTED	ACCEPTED, sampler penetration 12"
6-B1	410864.38	5335481.46	665	38.5	8:24:03	9/25/2013	1ST	ACCEPTED	ACCEPTED
6-B1	410876.8	5335496.24	665	39.7	8:43:21	9/25/2013	2ND	ACCEPTED	ACCEPTED
6-B1	410854.64	5335486.62	665	34.3	8:58:06	9/25/2013	3RD	ACCEPTED	ACCEPTED
6-B1	410863.18	5335497.95	665	36.2	9:09:15	9/25/2013	4TH	ACCEPTED	ACCEPTED
6-B2	411251.08	5335708.55	665	189	9:48:45	9/25/2013	1ST	Rejected	REJECTED
6-B2	411270.11	5335720.56	665	189	10:00:51	9/25/2013	2ND	Rejected	REJECTED; GRAB MALFUNCTION
6-B2	411269.38	5335728.91	665	193	10:15:51	9/25/2013	3RD	Rejected	REJECTED; GRAB MALFUNCTION
6-B2	411272.52	5335725.11	665	196	10:37:37	9/25/2013	4TH	ACCEPTED	ACCEPTED
6-B3	411526.51	5335828.6	666	58.7	14:15:57	9/25/2013	10TH	Rejected	Failed 5 & 6
6-B3	411535.22	5335810.58	666	72.3	11:59:53	9/25/2013	1ST	Rejected	Failed 6
6-B3	411566.31	5335832.71	666	36.6	12:11:26	9/25/2013	2ND	Rejected	Failed 5 & 6
6-B3	411535.36	5335829.38	666	57.3	12:16:58	9/25/2013	3RD	Rejected	Failed 5 & 6, some sand & gravel
6-B3	411543.93	5335823.63	666	54.8	12:24:11	9/25/2013	4TH	Rejected	Failed 6, 90% washout
6-B3	411526.87	5335821.66	666	63.4	12:30:14	9/25/2013	5TH	Rejected	Failed 5 & 6, no recovery
6-B3	411527.25	5335803.55	666	68.7	12:40:13	9/25/2013	6TH	Rejected	Failed 5 & 6
6-B3	411527.48	5335811.91	666	67.3	12:46:19	9/25/2013	7TH	Rejected	Failed 6
6-B3	411507.57	5335818.79	666	98.4	13:41:14	9/25/2013	8TH	Rejected	No sample kept -- sediment returned to river
6-B3	411511.04	5335825.29	666	94.5	14:00:06	9/25/2013	9TH	Rejected	No sample kept -- sediment returned to river
6-B4	410694.79	5334113.02	665	39	8:17:44	9/26/2013	1ST	Rejected	Failed 5 & 6
6-B4	410686.03	5334123.22	665	38	8:40:56	9/26/2013	2ND	Rejected	REJECTED; GRAB DID NOT CLOSE
6-B4	410686.2	5334127.73	665	38	8:47:45	9/26/2013	3RD	ACCEPTED	ACCEPTED
6-B4	410686.51	5334130.57	665	38	9:19:41	9/26/2013	4TH	ACCEPTED	ACCEPTED; 2ND GRAB TAKEN FOR VOLUME
6-B5	411013.79	5333690.76	664	56.7	8:57:01	9/24/2013	1ST	Rejected	Failed 5 & 6
6-B5	411003.16	5333718.69	664	55.4	9:20:48	9/24/2013	2ND	ACCEPTED	ACCEPTED
6-B5	411011.81	5333727.19	664	55.3	9:45:23	9/24/2013	3RD	ACCEPTED	ACCEPTED
6-B5	411005.48	5333733.71	664	55	10:06:21	9/24/2013	4TH	ACCEPTED	ACCEPTED
6-B5	411004.63	5333748.87	664	55.6	10:26:15	9/24/2013	5TH	ACCEPTED	ACCEPTED
6-B6	411304.49	5333339.48	664	154	15:24:33	9/24/2013	1ST	Rejected	Failed 5 & 6; ROCKS IN JAWS
6-B6	411292.89	5333335.66	664	157	15:35:08	9/24/2013	2ND	ACCEPTED	ACCEPTED
6-C1	411008.34	5336019.64	666	87	8:15:31	9/25/2013	1ST	ACCEPTED	ACCEPTED
6-C2	411221.54	5336321.29	666	189	12:33:32	9/25/2013	1ST	Rejected	REJECTED; GRAB DID NOT CLOSE
6-C2	411208.42	5336331.22	666	190	12:44:43	9/25/2013	2ND	Rejected	REJECTED; GRAB DID NOT CLOSE
6-C2	411224.12	5336310.69	666	193	12:58:39	9/25/2013	3RD	Rejected	REJECTED; GRAB DID NOT CLOSE
6-C2	411236.31	5336306.01	666	192	14:05:59	9/25/2013	4TH	ACCEPTED	ACCEPTED
6-C3	410708.89	5333769.16	664	48.2	13:50:29	9/24/2013	1ST	ACCEPTED	ACCEPTED
6-C4	410959.35	5333330	664	163	12:00:14	9/24/2013	1ST	ACCEPTED	ACCEPTED, some overlying water, minor Fe staining
6-R3	410910.25	5336584.66	666	96.5	15:47:14	9/25/2013	1ST	Rejected	Failed 6
6-R3	410915.21	5336587.7	666	100	16:03:00	9/25/2013	2ND	ACCEPTED	ACCEPTED
6-R3	410894.27	5336540.14	666	103.2	16:24:39	9/25/2013	3RD	ACCEPTED	ACCEPTED
6-R3	410910.79	5336556.61	666	102.1	16:37:58	9/25/2013	4TH	ACCEPTED	ACCEPTED
6-R3	410892.85	5336578.13	666	94.3	16:49:55	9/25/2013	5TH	ACCEPTED	Failed 6, but still accepted
7-B1	397451.91	5315603.05	646	130	14:55	9/13/2013	1ST	ACCEPTED	ACCEPTED
7-B2	398078.45	5315204.09	646	223	17:04:55	9/16/2013	1ST	ACCEPTED	ACCEPTED
7-B3	398694.12	5315135.48	645	94	8:48:41	9/13/2013	1ST	ACCEPTED	ACCEPTED
7-B3	398697.22	5315141.37	645	94	9:28:13	9/13/2013	2ND	ACCEPTED	ACCEPTED
7-B3	398691.01	5315140.09	645	95.1	9:54:00	9/13/2013	3RD	ACCEPTED	ACCEPTED, split to tribes
7-B4	398625.21	5312029.23	643	47.3	10:44	9/13/2013	1ST	ACCEPTED	ACCEPTED
7-B4	398634.68	5312056.09	643	49.8	11:20	9/13/2013	2ND	ACCEPTED	ACCEPTED
7-B5	398830.11	5310721.55	643	236	13:48	9/13/2013	1ST	ACCEPTED	ACCEPTED
7-B6	398723.7	5311549.73	643	125	12:57	9/13/2013	1ST	ACCEPTED	ACCEPTED
7-C1	396292.83	5319468.45	648	96.5	8:53:47	9/16/2013	1ST	ACCEPTED	ACCEPTED
7-C2	397270.49	5320065.49	649	47.4	10:35:26	9/16/2013	1ST	ACCEPTED	ACCEPTED
7-C3	399050.65	5306928.97	640	106	12:56:05	9/12/2013	1ST	ACCEPTED	ACCEPTED
7-C4	399391.65	5307240.39	641	246	12:40:17	9/12/2013	1ST	Rejected	Failed 5 & 6, Sampler didn't close
7-C4	399383.17	5307268.96	641	243	12:59:15	9/12/2013	2ND	ACCEPTED	ACCEPTED
8-B1	363028.32	5310492.16	606	187	10:40:27	9/20/2013	1ST	Rejected	Failed 5 & 6
8-B1	363032.38	5310504.6	606	185	10:52:22	9/20/2013	2ND	ACCEPTED	GOOD GRAB
8-B1	363034.72	5310508.43	606	187	11:08:36	9/20/2013	3RD	Rejected	Sampler did not close
8-B1	363030.87	5310476.29	606	178	11:16:33	9/20/2013	4TH	ACCEPTED	Penetration at angle, but still good
8-B1	363046.52	5310473.92	606	182	11:36:43	9/20/2013	5TH	ACCEPTED	overfilled on one side, but still good
8-B1	363029.26	5310516.17	606	188.4	11:56:58	9/20/2013	6TH	Rejected	Failed 6
8-B1	363045.62	5310516.75	606	201	12:09:53	9/20/2013	7TH	ACCEPTED	Penetration at angle, but still good
8-B1	363047.44	5310507.95	606	194	12:31:23	9/20/2013	8TH	ACCEPTED	minor tilting upon retrieval, still good
8-B2	362178.61	5311941.03	605	145	8:35:41	9/19/2013	1ST	ACCEPTED	Accepted
8-B2	362220.17	5311888.57	605	143	9:42:39	9/19/2013	2ND	ACCEPTED	Accepted
8-B2	362223.51	5311911.09	605	142	10:06:09	9/19/2013	3RD	Rejected	Failed 6, did not close
8-B2	362206.89	5311905.57	605	143	10:12:52	9/19/2013	4TH	ACCEPTED	Accepted
8-B2	362221.81	5311924.53	605	144	10:36:54	9/19/2013	5TH	ACCEPTED	Accepted
8-B3	362315.44	5312466.9	605	198	13:35:43	9/19/2013	1ST	ACCEPTED	ACCEPTED
8-B4	362434.53	5313451.93	605	198	11:26:16	9/19/2013	1ST	ACCEPTED	ACCEPTED
8-B5	364252.88	5309098.01	608	131	11:06:10	9/20/2013	1ST	Rejected	Failed 5 & 6
8-B5	364219.35	5309073.8	608	44	11:21:16	9/20/2013	2ND	Rejected	Failed 5 & 6; ROCK IN GRAB
8-B5	364231.43	5309069.53	608	28	11:24:21	9/20/2013	3RD	Rejected	Failed 5 & 6; ROCK IN GRAB
8-B5	364195.96	5309079.73	608	44	11:29:10	9/20/2013	4TH	Rejected	Failed 5 & 6; ROCK IN GRAB
8-B5	364227.68	5309157.16	608	298	12:00:27	9/20/2013	5TH	ACCEPTED	GOOD GRAB
8-B6	364214.27	5309589.48	607	234	8:24:45	9/20/2013	1ST	Rejected	REJECTED; GRAB DID NOT CLOSE
8-B6	364197.3	5309594.91	607	235	8:44:06	9/20/2013	2ND	ACCEPTED	some turbidity
8-C1	366175.16	5308872.31	609	283	15:24:19	9/20/2013	1ST	Rejected	REJECTED; DID NOT CLOSE
8-C1	366185.79	5308880.33	609	286	15:44:53	9/20/2013	2ND	Rejected	REJECTED; DID NOT CLOSE
8-C1	366218.29	5308848.18	609	314	7:05:10	9/21/2013	3RD	ACCEPTED	ACCEPTED
8-C1	366233.6	5308881.31	609	286	7:34:47	9/21/2013	4TH	Rejected	Did not deploy
8-C1	366225.24	5308885.88	609	302	7:46:45	9/21/2013	5TH	Rejected	Did not deploy
8-C2	363847.05	5313253.24	605	40.5	8:44:53	9/20/2013	1ST	Rejected	Failed 6
8-C2	363848.56	5313282.12	605	43.2	8:53:09	9/20/2013	2ND	ACCEPTED	Slight winnowing at seam
8-C3	360362.02	5313734.8	603	178	15:01:23	9/18/2013	1ST	Rejected	Failed 5 & 6, only water
8-C3	360375.28	5313743.82	603	176	15:06:38	9/18/2013	2ND	Rejected	Failed 6, overfilled
8-C3	360369.44	5313737.98	603	174	15:24:13	9/18/2013	3RD	ACCEPTED	ACCEPTED
8-C4	361804.03	5313157.81	604	296	8:39:50	9/19/2013	1ST	Rejected	Failed 5 & 6, rock and sand/gravel
8-C4	361834.3	5313102.58	604	238	8:55:52	9/19/2013	2ND	Rejected	Failed 6, incomplete closure
8-C4	361822.12	5313107.9	604	230	9:09:00	9/19/2013	3RD	ACCEPTED	ACCEPTED

1B-C1	442912	5418855	734	2	14:41	10/22/2013	1ST	ACCEPTED	
1B-C2	442475.24	5418842.72	734	33.1	10:30:10	10/22/2013	1ST	Rejected	No recovery
1B-C2	442468.41	5418828.48	734	32.1	10:32:46	10/22/2013	2ND	Rejected	No recovery
1B-C2	442506.42	5418814.41	734	27.4	10:35:13	10/22/2013	3RD	Rejected	REJECT COBBLES
1B-C2	442473.04	5418802.65	734	28.4	10:38:03	10/22/2013	4TH	Rejected	No recovery
1B-C2	442459.84	5418802.09	734	29.2	10:40:06	10/22/2013	5TH	Rejected	No recovery
1B-C2	442445.69	5418808.41	734	32.3	10:42:10	10/22/2013	6TH	Rejected	No recovery
1B-C2	442440.07	5418832.46	734	32.8	10:45:01	10/22/2013	7TH	Rejected	No recovery
1B-C2	442456.28	5418812.63	734	29.7	10:47:28	10/22/2013	8TH	Rejected	No recovery
1B-C2	442470.96	5418827.66	734	30.2	10:50:09	10/22/2013	9TH	Rejected	No recovery
1B-C3	443176.26	5418971.53	735	1	11:41:55	10/22/2013	1ST	ACCEPTED	ACCEPT 8
1B-C4	441612.8	5418320.88	733	28.7	8:50:06	10/23/2013	1ST	Rejected	REJECT ROCKJAW, one cobble
1B-C4	441596.67	5418314.05	733	29.1	8:52:40	10/23/2013	2ND	Rejected	No recovery
1B-C4	441578.71	5418312.85	733	30.1	8:54:54	10/23/2013	3RD	Rejected	No recovery
1B-C4	441590.31	5418339.62	733	33.2	8:57:40	10/23/2013	4TH	Rejected	No recovery
1B-C4	441573.85	5418368.43	733	33.9	9:00:11	10/23/2013	5TH	Rejected	No recovery
1B-C4	441609.62	5418353.75	733	31.6	9:02:43	10/23/2013	6TH	Rejected	REJECT ROCKJAW, one rock
1B-C4	441630.97	5418359.47	733	32.9	9:05:26	10/23/2013	7TH	Rejected	No recovery
1B-C4	441589.82	5418333.26	733	31.7	9:08:12	10/23/2013	8TH	Rejected	No recovery
1B-C4	441570.18	5418309.28	733	29.8	9:10:30	10/23/2013	9TH	Rejected	No recovery
1B-R1	442945.93	5419142.95	735	34	10:29:43	10/22/2013	1ST	Rejected	No recovery - water
1B-R1	442940.37	5419206.54	735	21	10:33:38	10/22/2013	2ND	Rejected	3 large cobbles
1B-R1	442977.96	5419214.86	735	23	10:36:25	10/22/2013	3RD	Rejected	Cobbles and gravel
1B-R1	442971.16	5419213.63	735	22	10:39:10	10/22/2013	4TH	Rejected	No recovery - water
1B-R1	442938.14	5419217.65	735	19	10:40:39	10/22/2013	5TH	Rejected	One rock
1B-R1	442953.9	5419188.25	735	28	10:43:04	10/22/2013	6TH	Rejected	No recovery - water
1B-R1	442956.22	5419168.98	735	38	10:46:54	10/22/2013	7TH	Rejected	No recovery - water
1B-R1	442933	5419190.19	735	21	10:49:01	10/22/2013	8TH	Rejected	One cobble, trace sand
1B-R1	442935.82	5419201.12	735	19	10:52:02	10/22/2013	9TH	Rejected	Two rocks
1B-R2	442818	5418846	734	2	13:18	10/22/2013	1ST	ACCEPTED	
1B-R3	443089.75	5418973.73	735	3.5	9:52:41	10/23/2013	1ST	ACCEPTED	ACCEPT 5
1B-R4	443511.12	5419243.85	735	66.5	11:14:27	10/23/2013	1ST	Rejected	One gravel piece, few sand grains
1B-R4	443525.6	5419232.58	735	40.9	11:17:51	10/23/2013	2ND	Rejected	REJECT ROCKJAW, one large flat rock
1B-R4	443540.69	5419218	735	46.1	11:20:33	10/23/2013	3RD	Rejected	REJECT COBBLES
1B-R4	443573.64	5419225.55	735	26.8	11:26:23	10/23/2013	4TH	Rejected	No recovery
1B-R4	443557.67	5419224.21	735	32.2	11:28:26	10/23/2013	5TH	Rejected	No recovery
1B-R4	443533.03	5419215.78	735	43.2	11:31:05	10/23/2013	6TH	Rejected	REJECT ROCKJAW, cobbles
1B-R4	443510.29	5419267.53	735	36.6	11:35:13	10/23/2013	7TH	Rejected	No recovery
1B-R4	443528.83	5419229.47	735	37.9	11:41:06	10/23/2013	8TH	Rejected	REJECT ROCKJAW
1B-R4	443541.6	5419232.6	735	41.8	11:43:11	10/23/2013	9TH	Rejected	REJECT ROCKJAW, 100% gravel
2B-C1	434669.37	5412214.2	727	38.5	11:06:52	10/17/2013	1ST	Rejected	REJECT, EMPTY
2B-C1	434660.67	5412246.24	727	45.9	11:11:38	10/17/2013	2ND	Rejected	REJECT COBBLE, EMPTY
2B-C1	434686.34	5412241.73	727	37.2	11:15:39	10/17/2013	3RD	Rejected	REJECT ROCKJAW, EMPTY
2B-C1	434632.67	5412212.46	727	38	11:18:08	10/17/2013	4TH	Rejected	REJECT, EMPTY
2B-C1	434652.94	5412201.24	727	39.2	11:21:32	10/17/2013	5TH	Rejected	REJECT, EMPTY
2B-C1	434674.7	5412194.74	727	38.2	11:25:07	10/17/2013	6TH	Rejected	REJECT, EMPTY
2B-C1	434700.6	5412218.93	727	37.6	11:29:09	10/17/2013	7TH	Rejected	REJECT TRACE OF SAND, Failed 5 & 6
2B-C1	434694.85	5412219.75	727	38.4	11:35:38	10/17/2013	8TH	Rejected	REJECT ROCKJAW
2B-C1	434698.07	5412217.07	727	39.4	11:39:30	10/17/2013	9TH	Rejected	REJECT, EMPTY
2B-C2	434175.6	5411911.01	727	78.9	9:21:54	10/17/2013	1ST	Rejected	REJECT, EMPTY
2B-C2	434217.47	5411922.96	727	77.6	9:30:38	10/17/2013	2ND	Rejected	REJECT, EMPTY
2B-C2	434215.73	5411887.13	727	74.6	9:36:48	10/17/2013	3RD	Rejected	REJECT, EMPTY
2B-C2	434193.09	5411926.54	727	76.8	9:42:10	10/17/2013	4TH	Rejected	REJECT COBBLES
2B-C2	434147.77	5411928.67	727	74.8	9:46:49	10/17/2013	5TH	Rejected	REJECT, EMPTY
2B-C2	434191.57	5411950.46	727	72.1	9:52:04	10/17/2013	6TH	Rejected	REJECT ROCKJAW COBBLES
2B-C2	434221.57	5411944.96	727	69.6	9:57:36	10/17/2013	7TH	Rejected	REJECT ROCKJAW, EMPTY
2B-C2	434201.64	5411927.34	727	72.3	10:03:06	10/17/2013	8TH	Rejected	REJECT, EMPTY
2B-C2	434161.36	5411885.65	727	93.7	10:07:28	10/17/2013	9TH	Rejected	REJECT, EMPTY
2B-C3	433706.04	5411598.24	726	47.3	13:11:29	10/16/2013	1ST	Rejected	REJECT GRAVEL
2B-C3	433715.93	5411583.94	726	37.5	13:16:54	10/16/2013	2ND	Rejected	REJECT GRAVEL SAND
2B-C3	433708.42	5411587.77	726	39.4	13:19:54	10/16/2013	3RD	Rejected	REJECT, EMPTY
2B-C3	433694.7	5411563.76	726	26.8	13:26:43	10/16/2013	4TH	Rejected	EMPTY ROCKJAW
2B-C3	433718.09	5411606.88	726	50.1	13:30:35	10/16/2013	5TH	Rejected	REJECT, EMPTY
2B-C3	433635.82	5411605.5	726	80.1	13:35:15	10/16/2013	6TH	Rejected	REJECT, EMPTY
2B-C3	433661.51	5411574.11	726	39.8	13:41:00	10/16/2013	7TH	Rejected	REJECT, EMPTY
2B-C3	433665.84	5411567.82	726	36.9	13:44:21	10/16/2013	8TH	ACCEPTED	ACCEPTED, 4"
2B-C3	433670.04	5411567.6	726	34.8	13:51:05	10/16/2013	9TH	Rejected	REJECT ROCKJAW
2B-C4	435628.34	5413199.42	728	61.7	9:02:20	10/24/2013	1ST	Rejected	No recovery
2B-C4	435609.93	5413183.78	728	44.5	9:05:34	10/24/2013	2ND	Rejected	No recovery
2B-C4	435593.83	5413196.58	728	42.4	9:08:40	10/24/2013	3RD	Rejected	No recovery
2B-C4	435590.38	5413166.13	728	43.9	9:10:39	10/24/2013	4TH	Rejected	No recovery
2B-C4	435604.21	5413155.63	728	50.4	9:13:18	10/24/2013	5TH	Rejected	Sieved and kept sand
2B-C4	435613	5413153.72	728	53.8	9:18:30	10/24/2013	6TH	ACCEPTED	
2B-R1	435464.48	5412984.28	728	47.9	12:34:15	10/17/2013	1ST	Rejected	REJECT, EMPTY
2B-R1	435518.5	5412997.65	728	60	12:41:05	10/17/2013	2ND	Rejected	REJECT ROCKJAW, EMPTY
2B-R1	435500.05	5412968.55	728	74.4	12:44:49	10/17/2013	3RD	ACCEPTED	ACCEPT, 8"
2B-R1	435503.12	5412968.83	728	73.4	12:53:13	10/17/2013	4TH	Rejected	REJECT STICKJAW, EMPTY
2B-R1	435497.03	5412971.17	728	76.6	12:59:57	10/17/2013	5TH	ACCEPTED	ACCEPT, 6"
2B-R2	435848.24	5413607.56	728	30	9:23:43	10/24/2013	10TH	Rejected	One cobble
2B-R2	435844.38	5413585.09	728	26	9:00:23	10/24/2013	1ST	Rejected	Large cobbles
2B-R2	435827.78	5413585.15	728	29	9:02:50	10/24/2013	2ND	Rejected	No recovery
2B-R2	435805.48	5413575.65	728	32	9:05:24	10/24/2013	3RD	Rejected	No recovery
2B-R2	435848.5	5413583.94	728	31	9:09:44	10/24/2013	4TH	Rejected	Cobbles
2B-R2	435839.47	5413595.22	728	22	9:11:49	10/24/2013	5TH	Rejected	No recovery
2B-R2	435848.58	5413606.07	728	31	9:13:29	10/24/2013	6TH	Rejected	Sandy gravel, signs of sediment loss
2B-R2	435849.93	5413602.17	728	29	9:17:11	10/24/2013	7TH	Rejected	Trace sand and grave, signs of sediment loss
2B-R2	435845.51	5413592.74	728	24	9:20:00	10/24/2013	8TH	Rejected	Did not close
2B-R2	435851.22	5413590.72	728	25	9:21:31	10/24/2013	9TH	Rejected	Did not close
2B-R3	433881.97	5411725.39	727	77.8	11:04:02	10/16/2013	1ST	Rejected	REJECT, HELD OPEN BY ROCKS
2B-R3	433902.29	5411755.33	727	78.5	11:10:06	10/16/2013	2ND	Rejected	REJECT TRACE OF GRAVEL
2B-R3	433863.91	5411739.96	727	86.4	11:15:04	10/16/2013	3RD	Rejected	REJECT COBBLES
2B-R3	433918.06	5411728.67	727	79.5	11:25:12	10/16/2013	4TH	Rejected	REJECT COBBLES ROCK JAW
2B-R3	433900.83	5411692.72	727	56.8	11:30:19	10/16/2013	5TH	Rejected	REJECT, EMPTY

2B-R3	433839.65	5411728.97	727	84.6	11:34:55	10/16/2013	6TH	Rejected	REJECT COBBLES
2B-R3	433867.25	5411751.25	727	81.2	11:41:00	10/16/2013	7TH	Rejected	REJECT TRACE OF SAND, COBBLES
2B-R3	433877.8	5411774.78	727	81.7	11:46:41	10/16/2013	8TH	Rejected	REJECT, EMPTY
2B-R3	433875.2	5411757.06	727	94.6	11:54:11	10/16/2013	9TH	Rejected	REJECT ROCKJAW, LARGE COBBLE
2B-R4	433377.54	5411427.77	726	69.7	9:16:23	10/16/2013	1ST	Rejected	REJECT EMPTY
2B-R4	433398.15	5411479.93	726	70.4	9:22:12	10/16/2013	2ND	Rejected	REJECT EMPTY
2B-R4	433354.51	5411490.25	726	65.8	9:26:44	10/16/2013	3RD	Rejected	REJECT EMPTY
2B-R4	433329.26	5411442.95	726	49.2	9:30:52	10/16/2013	4TH	Rejected	REJECT EMPTY
2B-R4	433358.2	5411445.53	726	74.5	9:35:29	10/16/2013	5TH	Rejected	REJECT EMPTY, TRACE OF SAND
2B-R4	433348.45	5411409.35	726	61.2	9:40:38	10/16/2013	6TH	Rejected	REJECT EMPTY
2B-R4	433400.17	5411438.59	726	76.5	9:46:18	10/16/2013	7TH	Rejected	REJECT EMPTY
2B-R4	433339.98	5411428.16	726	44.8	9:52:29	10/16/2013	8TH	Rejected	REJECT EMPTY
2B-R4	433342.44	5411443.01	726	58.5	9:56:58	10/16/2013	9TH	Rejected	REJECT EMPTY HARD BOTTOM
3B-C1	426964.61	5407443.9	720	56	14:59:42	10/8/2013	1ST	Rejected	Failed 5 & 6
3B-C1	426935.36	5407440.7	720	54	15:04:00	10/8/2013	2ND	Rejected	Failed 5 & 6
3B-C1	426973.61	5407478.64	720	45	14:46:04	10/9/2013	3RD	Rejected	Did not close
3B-C1	426950.47	5407433.05	720	54	14:50:58	10/9/2013	4TH	Rejected	only water
3B-C1	427006.57	5407488.5	720	54	14:59:18	10/9/2013	5TH	Rejected	only water
3B-C1	426969.73	5407449.11	720	58	15:02:15	10/9/2013	6TH	Rejected	Failed 5
3B-C1	426983.51	5407432.64	720	62	15:07:03	10/9/2013	7TH	Rejected	only water
3B-C1	426951.17	5407482.83	720	72	15:11:51	10/9/2013	8TH	Rejected	Failed 5 & 6
3B-C1	426933.67	5407461.99	720	43	15:15:13	10/9/2013	9TH	Rejected	Did not close
3B-C2			719	NR		10/8/2013	1ST	Rejected	REJECT, Failed 6
3B-C2	426110.57	5404748.28	719	15	NR	10/8/2013	2ND	Rejected	REJECT, Failed 5 & 6
3B-C2	426113.74	5404770.72	719	44	12:59:35	10/8/2013	3RD	Rejected	REJECT, Failed 5 & 6
3B-C2	426133.81	5404744.78	719	14.8	13:07:59	10/8/2013	4TH	ACCEPTED	ACCEPTED, 11" PENETRATION
3B-C3	422914.36	5401203.25	715	80	11:29:36	10/8/2013	1ST	Rejected	REJECTED; GRAB DID NOT CLOSE
3B-C3	422937.97	5401182.31	715	82	11:37:55	10/8/2013	2ND	ACCEPTED	Accepted, 2" to 5" penetration
3B-C4	422125.21	5398718.23	714	46.2	10:36:39	10/8/2013	1ST	Rejected	REJECTED EMPTY
3B-C4	422143.35	5398748.53	714	48	10:41:13	10/8/2013	2ND	Rejected	REJECTED EMPTY
3B-C4	422186.73	5398717.63	714	48	10:48:09	10/8/2013	3RD	Rejected	REJECTED EMPTY
3B-C4	422135.75	5398669.64	714	47.8	10:54:17	10/8/2013	4TH	Rejected	REJECT TINY BIT OF SAND, failed 5 & 6
3B-C4	422099.05	5398703.32	714	43	10:58:56	10/8/2013	5TH	ACCEPTED	ACCEPTED, failed 5
3B-C4	422095.39	5398702.58	714	42.4	11:07:01	10/8/2013	6TH	ACCEPTED	Accepted, 8"
3B-R1	426261.89	5406851.48	720	82.1	10:18:55	10/14/2013	1ST	Rejected	REJECT COBBLE
3B-R1	426244.43	5406877.15	720	78.5	10:27:15	10/14/2013	2ND	Rejected	REJECT EMPTY
3B-R1	426242.3	5406841.47	720	82.3	10:33:27	10/14/2013	3RD	Rejected	REJECT COBBLES
3B-R1	426275.08	5406850.96	720	76.2	10:48:47	10/14/2013	4TH	Rejected	REJECT COBBLES
3B-R1	426246.81	5406816.43	720	81.6	10:52:52	10/14/2013	5TH	Rejected	REJECT 1 LARGE BOULDER
3B-R1	426248.59	5406834.2	720	82.1	10:58:08	10/14/2013	6TH	Rejected	REJECT COBBLES
3B-R1	426274.76	5406831.63	720	80.3	11:03:25	10/14/2013	7TH	Rejected	REJECT MINIMAL SAND
3B-R1	426287.27	5406846.93	720	77.9	11:11:40	10/14/2013	8TH	Rejected	REJECTED TOO COARSE
3B-R1	426293.09	5406848.05	720	81.3	11:29:30	10/14/2013	9TH	Rejected	REJECT MINIMAL SAND
3B-R2	425875.25	5403958.28	718	82.3	12:40:01	10/14/2013	1ST	Rejected	REJECT COBBLES
3B-R2	425869	5403929.27	718	82.2	12:44:43	10/14/2013	2ND	Rejected	REJECT COBBLES
3B-R2	425883.79	5403992.16	718	79.7	12:52:05	10/14/2013	3RD	Rejected	REJECT COBBLE
3B-R2	425908.85	5403952.87	718	77.9	12:58:51	10/14/2013	4TH	Rejected	REJECT MINIMAL SAND
3B-R2	425841.2	5403955.91	718	81.2	13:08:54	10/14/2013	5TH	Rejected	REJECTED MATERIAL 8
3B-R2	425847.95	5403960.36	718	81.2	13:21:17	10/14/2013	6TH	ACCEPTED	ACCEPTED
3B-R2	425849.5	5403960.67	718	82.2	13:39:03	10/14/2013	7TH	ACCEPTED	ACCEPTED
4B-C1	416961.07	5384343.21	701	113	13:35:59	10/4/2013	1ST	Accepted	Accepted
4B-C2	416740.61	5379558.83	698	73.2	8:46:50	10/4/2013	1ST	Rejected	REJECTED, OVER PENETRATION > 13"
4B-C2	416724.72	5379563.31	698	75.8	9:11:36	10/4/2013	2ND	ACCEPTED	ACCEPTED, 12"
4B-C3	413004.16	5373263.99	692	118	8:54:38	10/4/2013	1ST	ACCEPTED	Accepted, 11.5"
4B-C4	410842.42	5368239.76	688	42.3	9:00:36	10/1/2013	1ST	ACCEPTED	ACCEPTED, 9"
5B-C1	414804.09	5347922.58	674	222	8:05:12	9/27/2013	1ST	Accepted	Accepted
5B-C2	414102.12	5343193.65	671	178	13:30:01	9/26/2013	1ST	ACCEPTED	ACCEPTED
5B-C3	413655.93	5343212.01	671	19.4	15:20:42	9/26/2013	1ST	ACCEPTED	ACCEPTED
5B-C4	410881.55	5339275.8	668	142	11:30:14	9/26/2013	1ST	ACCEPTED	ACCEPTED
6B-C1	409906.96	5332427.52	663	181	9:17:03	9/24/2013	1ST	ACCEPTED	ACCEPTED
6B-C2	407027.24	5328227.84	659	143	9:12:33	9/14/2013	1ST	ACCEPTED	ACCEPTED
6B-C3	407582.5	5324288.34	657	144	9:44:03	9/16/2013	1ST	ACCEPTED	ACCEPTED
6B-C4	400538.85	5322330.34	652	195	11:03:10	9/16/2013	1ST	ACCEPTED	ACCEPTED
7B-C1	398664.02	5301326.36	637	272	14:46:41	9/16/2013	1ST	Rejected	Failed 5 & 6, no sediment
7B-C1	398667.21	5301329.01	637	271	15:01:12	9/16/2013	2ND	Rejected	Failed 5 & 6, no sediment
7B-C1	398693.71	5301339.09	637	269	15:15:56	9/16/2013	3RD	ACCEPTED	ACCEPTED
7B-C2	392535.06	5299892.81	632	220	9:39:56	9/12/2013	1ST	ACCEPTED	ACCEPTED
7B-C3	386078.7	5303882.69	626	76.5	10:45:10	9/12/2013	1ST	ACCEPTED	ACCEPTED
7B-C4	397022.96	5298004.92	634	175	13:23:40	9/16/2013	1ST	ACCEPTED	ACCEPTED
8B-C1	359196.83	5312370.95	602	298	8:46	9/18/2013	1ST	ACCEPTED	Accepted
8B-C2	355225.31	5311303.61	600	112	8:31:42	9/18/2013	1ST	ACCEPTED	ACCEPTED
8B-C3	353797.33	5311826.83	599	311	10:42:14	9/18/2013	1ST	ACCEPTED	ACCEPTED
8B-C4	352174.41	5312039.31	598	341	13:25:15	9/18/2013	1ST	ACCEPTED	ACCEPTED, 1 (layer still intact, overserved by EPA)
REF-1	416074.73	5380814.95	699	64	10:47:55	10/4/2013	1ST	Rejected	Did not close
REF-1	416071.7	5380816.74	699	63	10:52:47	10/4/2013	2ND	Rejected	Did not close
REF-1	416079.37	5380837.15	699	55	10:58:05	10/4/2013	3RD	Rejected	Failed 5 & 6
REF-1	416083.76	5380854.11	699	56	11:02:30	10/4/2013	4TH	ACCEPTED	Accepted
REF-1	416066.83	5380823.73	699	55	11:30:12	10/4/2013	5TH	Rejected	Did not close
REF-1	416084.09	5380867.38	699	54	11:36:41	10/4/2013	6TH	Rejected	Failed 5 & 6, Rocks in jaws
REF-1	416072.11	5380863.25	699	44	11:41:37	10/4/2013	7TH	Rejected	Failed 5 & 6, Rocks in jaws
REF-1	416070.06	5380804.48	699	56	11:49:05	10/4/2013	8TH	ACCEPTED	Accepted
REF-2	414942.78	5376758.63	696	70.8	12:30:54	10/1/2013	1ST	Rejected	REJECTED; GRAB DID NOT CLOSE
REF-2	414936.07	5376769.55	696	64	12:35:43	10/1/2013	2ND	ACCEPTED	Accepted, 8"
REF-2	414940.86	5376751.43	696	68	13:03:21	10/1/2013	3RD	ACCEPTED	Accepted, 6.5"
REF-3	412070.34	5370117.3	689	40.1	12:06:06	10/1/2013	10TH	Rejected	REJECTED ROCKJAW
REF-3	412088.89	5370104.01	689	37.8	12:11:08	10/1/2013	11TH	ACCEPTED	ACCEPTED, 7"
REF-3	412078.42	5370106.24	689	38.6	12:22:16	10/1/2013	12TH	ACCEPTED	ACCEPTED, 7"
REF-3	412110.13	5370103.1	689	28.3	11:05:09	10/1/2013	1ST	Rejected	REJECTED ROCKJAW, Failed 5 & 6
REF-3	412113.23	5370105.06	689	27.8	11:10:29	10/1/2013	2ND	Rejected	REJECTED EMPTY
REF-3	412118.08	5370096.41	689	26.4	11:15:25	10/1/2013	3RD	Rejected	REJECTED SILTY SAND ROCKJAW
REF-3	412112.99	5370161.35	689	32.8	11:23:19	10/1/2013	4TH	Rejected	REJECT ROCKJAW
REF-3	412077.1	5370142.54	689	42.5	11:26:47	10/1/2013	5TH	Rejected	REJECTED 3 ROCKS
REF-3	412117.32	5370099.08	689	22.4	11:33:08	10/1/2013	6TH	Rejected	REJECTED EMPTY

REF-3	412077.98	5370110.28	689	38.2	11:37:05	10/1/2013	8TH	ACCEPTED	ACCEPTED, 9.5"
REF-3	412072.54	5370112.13	689	38.8	11:51:29	10/1/2013	9TH	ACCEPTED	ACCEPTED, 8"
REF-4	411894.7	5356527.06	679	43.2	12:31:51	9/30/2013	1ST	Rejected	REJECTED ROCK JAW
REF-4	411896.85	5356533.82	679	38.4	12:35:27	9/30/2013	2ND	Rejected	REJECT ROCKJAW
REF-4	411920.12	5356517.92	679	48.6	12:38:26	9/30/2013	3RD	ACCEPTED	ACCEPTED, 10"
REF-4	411919.56	5356522.97	679	48.3	12:51:31	9/30/2013	4TH	ACCEPTED	ACCEPTED, 10"
REF-4	411912.38	5356511.52	679	49.3	13:02:44	9/30/2013	5TH	ACCEPTED	ACCEPTED, 8"
REF-4	411929.89	5356517.61	679	48	13:15:42	9/30/2013	6TH	ACCEPTED	ACCEPTED, 9"
Ref-5	414650	5352337.26	676	28.4	10:32:53	9/27/2013	1ST	Rejected	REJECTED COBBLES/SAND
Ref-5	414639.08	5352349.82	676	32.8	10:39:00	9/27/2013	2ND	Rejected	REJECTED COBBLES/SAND REMOVING WINGS AND MOVING LEGS
Ref-5	414615.44	5352359.86	676	45.5	11:00:43	9/27/2013	3RD	Rejected	REJECTED MIXED SAND AND COBBLES ADDING WEIGHT
Ref-5	414628.43	5352310.2	676	47.9	11:12:43	9/27/2013	4TH	ACCEPTED	ACCEPTED WINOWING ONE SIDE FINE GRAVELS/SAND/SILT
Ref-5	414619.98	5352309.8	676	50.8	11:29:42	9/27/2013	5TH	ACCEPTED	ACCEPTED WINOWING ONE SIDE FINE GRAVELS/SAND/SILT
Ref-5	414625.5	5352294.68	676	57.4	11:46:27	9/27/2013	6TH	Rejected	REJECTED COBBLES/SAND
Ref-5	414602.11	5352346.77	676	58.3	11:53:30	9/27/2013	7TH	ACCEPTED	ACCEPTED FINE/COARSE SAND SMALL GRAVELS 7
Ref-5	414609.22	5352319.25	676	54.9	12:06:32	9/27/2013	8TH	Rejected	REJECTED COBBLES/SAND
Ref-5	414602.8	5352342.24	676	58.6	12:12:32	9/27/2013	9TH	Rejected	REJECTED COBBLES
Ref-5B	411832.85	5354926.34	678	19.9	13:47:05	9/27/2013	1ST	Rejected	REJECTED ROCKS
Ref-5B	411876.86	5354905.09	678	52.4	13:50:08	9/27/2013	2ND	Rejected	REJECTED ROCK IN JAWS GOOD SEDIMENT
Ref-5B	411869.54	5354917.31	678	53.6	13:54:28	9/27/2013	3RD	Rejected	REJECTED ROCK
Ref-5B	411869.65	5354910.45	678	54	13:59:08	9/27/2013	4TH	Rejected	REJECTED ROCK IN JAWS
Ref-5B	411879.6	5354909.02	678	62.2	14:05:34	9/27/2013	5TH	Rejected	REJECTED ROCK JAWS
Ref-5B	411891.51	5354901.44	678	57	14:12:51	9/27/2013	6TH	Rejected	REJECTED OVERPENETRATION REMOVED WEIGHT
Ref-5B	411887.62	5354917.96	678	63.8	14:27:09	9/27/2013	7TH	Rejected	REJECTED WINOWED
Ref-5B	411872.56	5354932.54	678	54.7	14:37:55	9/27/2013	8TH	Rejected	REJECTED ROCKJAWS
Ref-5B	411871.11	5354904.49	678	61	14:43:13	9/27/2013	9TH	Rejected	REJECTED ROCKS
Ref-6	400823.34	5322821.3	652	21.6	10:44:49	9/14/2013	1ST	Rejected	Failed 5 & 6, rocks in sampler
Ref-6	400826.61	5322816.39	652	22.4	10:47:21	9/14/2013	2ND	Rejected	Failed 6, rocks in samples prevented closure
Ref-6	400847.04	5322799.93	652	44.5	11:05:32	9/14/2013	3RD	Accepted	Accepted
Ref-6	400848.62	5322795.56	652	25.6	11:50:53	9/14/2013	4TH	Rejected	Failed 5 & 6, rocks in sampler
Ref-6	400858.81	5322791.6	652	44.5	12:04:02	9/14/2013	5TH	ACCEPTED	4 & 6 (minimal washout)
Ref-6	400856.83	5322791.5	652	38	12:29:23	9/14/2013	6TH	Rejected	Failed 5 & 6, cobbles in sampler
Ref-6	400854.03	5322789.98	652	42	12:32:36	9/14/2013	7TH	ACCEPTED	ACCEPTED
REF-7	396875.06	5316368.18	646	79	15:28:07	9/13/2013	10TH	ACCEPTED	4 (Slight mounding)
REF-7	396875.4	5316372.23	646	81	15:49:28	9/13/2013	11TH	Rejected	Failed 6, no sediment
REF-7	396878.14	5316370.64	646	84	15:58:58	9/13/2013	12TH	Rejected	Failed 5 & 6
REF-7	396871.89	5316372.02	646	80	16:08:32	9/13/2013	13TH	Rejected	Failed 5 & 6
REF-7	396866.89	5316374.45	646	76	16:15:37	9/13/2013	14TH	ACCEPTED	ACCEPTED
REF-7	396852.34	5316351.4	646	34	11:22:57	9/13/2013	1ST	Rejected	Failed 5 & 6
REF-7	396850.88	5316373.36	646	44	11:39:59	9/13/2013	2ND	Rejected	No recovery
REF-7	396854.1	5316370.39	646	45.2	11:44:54	9/13/2013	3RD	Rejected	No recovery
REF-7	396874.56	5316348.78	646	68	11:51:03	9/13/2013	4TH	ACCEPTED	4 (minimal, 6 (minimal in corner)
REF-7	396877.68	5316356.12	646	67.7	13:37:10	9/13/2013	5TH	ACCEPTED	Failed 6 (penetration at angle)
REF-7	396879.3	5316358.72	646	75	13:56:32	9/13/2013	6TH	Rejected	Failed 5 & 6
REF-7	396886.61	5316350.57	646	78	14:04:14	9/13/2013	7TH	Rejected	Failed 5 & 6
REF-7	396855.47	5316357.62	646	55	14:37:48	9/13/2013	8TH	Rejected	Failed 5 & 6
REF-7	396859.07	5316319.31	646	70.01	14:50:51	9/13/2013	9TH	Rejected	No recovery
REF-8	391928.55	5299435.2	632	9	13:47:03	9/16/2013	1ST	Rejected	Failed 4 & 6
REF-8	391934.1	5299435.95	632	9	13:50:24	9/16/2013	2ND	Rejected	Failed 5 & 6
REF-8	391930.36	5299471.21	632	51.5	13:56:21	9/16/2013	3RD	ACCEPTED	Accepted
REF-8	391935.98	5299478.77	632	50.8	14:27:38	9/16/2013	4TH	ACCEPTED	Accepted
REF-8	391927.95	5299485.27	632	50.4	14:48:31	9/16/2013	5TH	ACCEPTED	Accepted
REF-8	391939.96	5299478.66	632	49.6	15:06:01	9/16/2013	6TH	Rejected	Failed 5 & 6
REF-8	391935.26	5299476.1	632	48.2	15:12:02	9/16/2013	7TH	ACCEPTED	Accepted
REF-9	360841.77	5313934.24	604	20.2	15:01:16	9/19/2013	10TH	Rejected	Rock in sampler
REF-9	360856.06	5313919.17	604	40.5	15:04:49	9/19/2013	11TH	Rejected	Rocks in sampler
REF-9	360881.44	5313943.04	604	5.4	15:11:26	9/19/2013	12TH	Rejected	Incomplete closure of sampler
REF-9	360881.26	5313941.98	604	5.1	15:16:17	9/19/2013	13TH	Rejected	Failed 4 & 6, extreme winnowing
REF-9	360848.1	5313934.45	604	34.5	13:23:16	9/19/2013	1ST	Rejected	Failed 5 & 6, sand & gravel on one side
REF-9	360851.09	5313922.15	604	36	13:48:35	9/19/2013	2ND	Rejected	Failed 5 & 6, no material to sample
REF-9	360861.78	5313929.37	604	26.8	13:54:36	9/19/2013	3RD	Rejected	Failed 5 & 6
REF-9	360880.52	5313941.26	604	6.4	14:00:21	9/19/2013	4TH	ACCEPTED	Accepted
REF-9	360880.27	5313942.95	604	6.6	14:20:16	9/19/2013	5TH	Rejected	Failed 5 & 6, rocks in sampler
REF-9	360881.18	5313942.17	604	6	14:26:13	9/19/2013	6TH	Rejected	Failed 5 & 6
REF-9	360880.92	5313942.26	604	5.6	14:30:13	9/19/2013	7TH	Rejected	Failed 5 & 6
REF-9	360867.62	5313936.1	604	30.1	14:40:26	9/19/2013	8TH	Rejected	Failed 6
REF-9	360861.24	5313928.87	604	27	14:47:10	9/19/2013	9TH	Rejected	Failed 6, empty
REF-9B	363041.31	5310356.52	607	23	16:37:11	9/19/2013	1ST	Rejected	Failed 5 & 6
REF-9B	363011.2	5310368.06	607	3.5	16:47:59	9/19/2013	2ND	Rejected	Failed 5 & 6
REF-9B	363016.15	5310392.33	607	43	16:53:25	9/19/2013	3RD	Rejected	Failed 5 & 6 (Cobbles)
REF-10	356105.17	5312524.64	601	6.8	10:04:10	9/18/2013	1ST	Rejected	Failed 5 & 6
REF-10	356105.12	5312524.49	601	6.8	10:05:45	9/18/2013	2ND	Rejected	Failed 5 & 6 (Cobbles)
REF-10	356109.64	5312524.12	601	5.9	10:09:02	9/18/2013	3RD	Rejected	Failed 5 & 6
REF-10	356103.5	5312529.02	601	6	10:11:08	9/18/2013	4TH	Rejected	Failed 5 & 6
REF-10	356057.45	5312465.95	601	29.8	10:19:30	9/18/2013	5TH	Rejected	Failed 5 & 6
REF-10	356040.71	5312482.55	601	27.4	10:24:42	9/18/2013	6TH	Rejected	Failed 5 & 6
REF-10	356051.02	5312479.42	601	24.8	10:28:38	9/18/2013	7TH	Rejected	Rejected
REF-10	356080.54	5312479.45	601	24.6	10:33:06	9/18/2013	8TH	Rejected	Failed 5 & 6
REF-10	356066.21	5312479.8	601	25	10:37:31	9/18/2013	9TH	Rejected	Failed 5 & 6
REF-10B	356566.12	5311262.28	601	29.1	13:53:46	9/18/2013	10TH	Rejected	Failed 5 & 6
REF-10B	356564.57	5311252.26	601	30	14:02:37	9/18/2013	11TH	Rejected	Failed 6
REF-10B	356547.38	5311268.42	601	16.8	14:10:49	9/18/2013	12TH	Rejected	Failed 5 & 6
REF-10B	356560.1	5311249.94	601	16.8	14:37:10	9/18/2013	13TH	Rejected	Failed 5 & 6
REF-10B	356509.56	5311214.36	601	44.6	14:44:49	9/18/2013	14TH	ACCEPTED	ACCEPTED
REF-10B	356566.39	5311254.65	601	28.9	11:19:25	9/18/2013	1ST	Rejected	Failed 6
REF-10B	356564.89	5311262.62	601	26.8	11:26:07	9/18/2013	2ND	Rejected	Failed 6
REF-10B	356575.35	5311257.41	601	28.4	11:34:08	9/18/2013	3RD	ACCEPTED	4 (winnowing in one corner), 6 (slight winnowing)
REF-10B	356564.58	5311266.27	601	27.5	12:10:45	9/18/2013	4TH	Rejected	Failed 6
REF-10B	356575.5	5311256.33	601	26.8	12:16:23	9/18/2013	5TH	ACCEPTED	4 (slight winnowing)
REF-10B	356572.83	5311247.02	601	28.2	13:07:59	9/18/2013	6TH	ACCEPTED	4 (slight winnowing), 6 (minimal at seam)
REF-10B	356577.41	5311257.07	601	28.4	13:32:19	9/18/2013	7TH	Rejected	Failed 6
REF-10B	356570.62	5311259.53	601	32.5	13:39:06	9/18/2013	8TH	Rejected	Failed 5 & 6
REF-10B	356569.61	5311259.81	601	28.4	13:47:27	9/18/2013	9TH	Rejected	Failed 6

External Tributary Reference Sample Locations										
Trib-1	409564.6	5365249.9	686	1	10:32	9/26/2013	All	Accepted	ACCEPTED, some overlying water	
Trib-2	417919.4	5389775.8	705	1	9:42	10/7/2013	all	Accepted	Accepted	
Trib-3	412684	5363469	685	1	9:05	10/1/2013	all	Accepted	Accepted	
Trib-4	428199.07	5408255.78	721	1	10:40	10/9/2013	all	Accepted	Accepted	
Trib-5	430709.3	5412498.3	726	1	13:14	10/9/2013	all	Accepted	Downstream extent	
Trib-5	430681.7	5412512.1	726	1	13:14	10/9/2013	all	Accepted	Upstream extent	
Trib-6	441385.54	5416571.09	732	1	10:45	10/10/2013	all	Accepted	Upstream extent	
Trib-6	441361.98	5416585.64	732	2	10:45	10/10/2013	all	Accepted	Downstream extent	
External Reference Sample Locations in Canada										
LAL-1	418705.15	5492239.22	Canada	45.3	9:44	9/8/2013	1ST	Rejected	Failed 5 & 6	
LAL-1	418672.41	5492260.34	Canada	51.1	9:48	9/8/2013	2ND	Rejected	Failed 5 & 6, winnowing	
LAL-1	418683.68	5492270.9	Canada	56	10:02	9/8/2013	3RD	Rejected	Failed 5 & 6	
LAL-1	418670.65	5492243.1	Canada	43.4	10:10	9/8/2013	4TH	Rejected	Failed 5 & 6	
LAL-1	418669.95	5492245.56	Canada	44.5	10:13	9/8/2013	5TH	Rejected	Failed 5 & 6	
LAL-1	418671.55	5492244.11	Canada	44.8	10:14	9/8/2013	6TH	Rejected	Failed 5 & 6	
LAL-1	418638.03	549229.99	Canada	60.8	10:20	9/8/2013	7TH	Accepted	Accepted	
LAL-2	418557.47	5492502.83	Canada	24	11:36:49	9/8/2013	1ST	Rejected	Failed 5 & 6	
LAL-2	418537.24	5492506.79	Canada	27.5	11:40:51	9/8/2013	2ND	ACCEPTED	Failed 4, edges low, middle humped. On hold.	
LAL-2	418523.05	5492568.16	Canada	52.1	12:18:07	9/8/2013	3RD	Rejected	Failed 5 & 6, incomplete closure	
LAL-2	418517	5492554.97	Canada	62	12:22:19	9/8/2013	4TH	Rejected	Failed 5 & 6, sand	
LAL-2	418525.8	5492567.06	Canada	62.3	12:33:13	9/8/2013	5TH	Rejected	Failed 5 & 6, mostly organic debris	
LAL-2	418542.85	5492573.66	Canada	39.4	12:44:16	9/8/2013	6TH	Rejected	Failed 4 & 6, sample washout, incomplete closure	
LAL-2	418545.79	5492670.51	Canada	26.4	12:50:09	9/8/2013	7TH	Rejected	Failed 5 & 6, incomplete closure	
LAL-2	418549.64	5492665.01	Canada	22.6	12:54:48	9/8/2013	8TH	Rejected	Failed 5 & 6, all sample was lost	
LAL-2	418587.31	5492640.95	Canada	39.6	13:22:58	9/8/2013	9TH	Rejected	Incomplete closure of sampler	
LAL-3	418379.62	5493652.97	Canada	7.1	15:21:23	9/8/2013	10TH	ACCEPTED	ACCEPTED, sample depth 5.5"	
LAL-3	418373.18	5493663.09	Canada	19	13:50:34	9/8/2013	1ST	Rejected	Failed 5 & 6	
LAL-3	418377.99	5493669.97	Canada	16	13:54:48	9/8/2013	2ND	ACCEPTED	ACCEPTED, sample penetration 5", need more volume	
LAL-3	418354.84	5493636.02	Canada	8	14:22:33	9/8/2013	3RD	Rejected	Failed 5 & 6	
LAL-3	418371.03	5493643.06	Canada	7	14:25:02	9/8/2013	4TH	Rejected	Failed 5 & 6	
LAL-3	418350.62	5493728.24	Canada	10	14:28:39	9/8/2013	5TH	ACCEPTED	ACCEPTED, sample penetration 4", need more volume	
LAL-3	418323.51	5493716.27	Canada	10	14:43:51	9/8/2013	6TH	Rejected	Failed 5 & 6, no recovery	
LAL-3	418321.05	5493720.5	Canada	10.4	14:47:00	9/8/2013	7TH	Rejected	Failed 5 & 6, rocks in sampler	
LAL-3	418379.48	5493661.36	Canada	7	14:52:42	9/8/2013	8TH	Rejected	Failed 5 & 6, no recovery, rock in sampler	
LAL-3	418376.28	5493643.62	Canada	7	15:01:44	9/8/2013	9TH	ACCEPTED	ACCEPTED	
LAL-4	435078.23	5466801.7	Canada	25.9	9:48:26	9/7/2013	1ST	Rejected	Failed 5 & 6	
LAL-4	435059.03	5466779.75	Canada	38.8	9:54:43	9/7/2013	2ND	Rejected	Failed 6, Winnowing	
LAL-4	435075.49	5466831.88	Canada	16.2	10:06:48	9/7/2013	3RD	ACCEPTED	GOOD GRAB	
LAL-4	435080.56	5466832.57	Canada	17.2	10:49:14	9/7/2013	4TH	ACCEPTED	GOOD GRAB	
LAL-5	435189.77	5466573.56	Canada	53.5	11:43	9/7/2013	1ST	Rejected	Failed 6, no sediment	
LAL-5	435187.02	5466554.9	Canada	66.3	NR	9/7/2013	2ND	ACCEPTED	GOOD GRAB	
LAL-6	435361.53	5466509.9	Canada	32.5	14:54:35	9/7/2013	10TH	ACCEPTED	GOOD GRAB	
LAL-6	435323.12	5466502.77	Canada	37.5	13:17:12	9/7/2013	1ST	ACCEPTED	COLLECTED BUT TAKING ANOTHER FOR VOLUME	
LAL-6	435347.26	5466492.34	Canada	39.4	13:32:29	9/7/2013	2ND	Rejected	Failed 5 & 6, incomplete closure	
LAL-6	435363.18	5466472.58	Canada	43.2	13:36:07	9/7/2013	3RD	Rejected	Failed 5 & 6, penetration at angle	
LAL-6	435302.81	5466460.51	Canada	43.2	13:44:13	9/7/2013	4TH	Rejected	Failed 5 & 6, incomplete closure	
LAL-6	435312.69	5466494.53	Canada	43.1	13:59:08	9/7/2013	5TH	Rejected	Rejected	
LAL-6	435300.62	5466500.57	Canada	40.8	14:06:47	9/7/2013	6TH	Rejected	Rejected	
LAL-6	435323.12	5466508.8	Canada	38.8	14:11:27	9/7/2013	7TH	ACCEPTED	Failed 5	
LAL-6	435324.76	5466525.81	Canada	28.8	14:45:22	9/7/2013	8TH	Rejected	Failed 6, incomplete closure	
LAL-6	435332.99	5466523.07	Canada	28.5	14:50:25	9/7/2013	9TH	Rejected	Failed 6, incomplete closure	
G-1	448615.6	5450398.77	Canada	26.3	11:53:33	9/5/2013	1ST	Rejected	Failed 5 & 6	
G-1	448669.81	5450412.02	Canada	19.3	12:00:32	9/5/2013	2ND	Rejected	Failed 5 & 6	
G-1	448679.45	5450402.39	Canada	9	12:06:01	9/5/2013	3RD	Rejected	Failed 5 & 6	
G-1	448666.2	5450386.72	Canada	9	12:12:19	9/5/2013	4TH	Rejected	Failed 6	
G-1	448666.53	5450380.65	Canada	10	12:53:01	9/5/2013	5TH	Rejected	Failed 6, REFUSAL DUE TO WINNOWING ON EDGES	
G-1	448664.06	5450379.42	Canada	10.1	13:33:48	9/5/2013	6TH	ACCEPTED	GOOD GRAB	
G-2	448698.6	5450338.71	Canada	16.3	15:32:50	9/5/2013	1ST	Rejected	Failed 6, ROCK IN GRAB	
G-2	448710.94	5450338.71	Canada	16.3	15:36:54	9/5/2013	2ND	ACCEPTED	GOOD GRAB	
G-3	448586.2	5450257.14	Canada	28.7	9:19:40	9/6/2013	1ST	Rejected	Failed 5, Sticks and some sand present	
G-3	448596.95	5450270.32	Canada	22.3	9:28:56	9/6/2013	2ND	ACCEPTED	GOOD GRAB	
G-4	448741.72	5450191.35	Canada	15.2	10:33:55	9/6/2013	1ST	Rejected	Vegetation present	
G-4	448733.79	5450176.27	Canada	13.2	10:39:07	9/6/2013	2ND	Rejected	Failed 6, penetration at angle	
G-4	448736.17	5450215.55	Canada	22.3	10:43:44	9/6/2013	3RD	Rejected	Failed 5 & 6	
G-4	448723.87	5450204.05	Canada	14.8	10:47:08	9/6/2013	4TH	ACCEPTED	GOOD GRAB, small pocket of gray area in sample at ~ 6"	

APPENDIX H
DAILY RINSATE SAMPLE COLLECTION FORMS

TAHOMA RINSATE FORMS

Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-7-C3-TA</u>	Sampling Vessel: <u>TAHOMA</u>
Date Collected: <u>9/12/13</u>	Time Collected: <u>1402</u>
Samplers: <u>MY/MK</u>	# Sample Containers: <u>6</u> (unfiltered Sample)
Equipment Evaluated: <u>Van Veen / tub / scoops</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>7B-C3</u> <u>7-C3</u>	
Additional Notes or Photos <u>-1 - VAN VEEN</u> <u>-2 - Scoop</u> <u>-3 - Tub</u>	

Field Supervisor Initials DA
Sample Lead Initials NW

Date: 9/13/13
Date: 9/12/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-REF-7</u> <i>see below</i> Date Collected: <u>9/13/13</u> Samplers: <u>VEITER/YOUNG/KELLY</u> Equipment Evaluated: <u>SEE BELOW</u>	Sampling Vessel: <u>TAHOMA</u> Time Collected: <u>1713</u> # Sample Containers: <u>10</u> (unfiltered Sample) Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)										
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium											
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center"><u>Saw 7-B3, REF-7</u></p>											
Additional Notes or Photos <p align="center"><u>added Hy to chain-of-custody</u></p> <table style="width:100%; border: none;"> <tr> <td style="width:50%;"><u>ER-REF-7-TA-1</u></td> <td><u>Van Veen</u></td> </tr> <tr> <td><u>ER-REF-7-TA-2</u></td> <td><u>Scoops</u></td> </tr> <tr> <td><u>ER-REF-7-TA-3</u></td> <td><u>Screen ^(M) Tub</u></td> </tr> <tr> <td><u>ER-REF-7-TA-4</u></td> <td><u>Tab ^(M) Screen</u></td> </tr> <tr> <td><u>ER-REF-7-TA-5</u></td> <td><u>MIXER</u></td> </tr> </table>		<u>ER-REF-7-TA-1</u>	<u>Van Veen</u>	<u>ER-REF-7-TA-2</u>	<u>Scoops</u>	<u>ER-REF-7-TA-3</u>	<u>Screen ^(M) Tub</u>	<u>ER-REF-7-TA-4</u>	<u>Tab ^(M) Screen</u>	<u>ER-REF-7-TA-5</u>	<u>MIXER</u>
<u>ER-REF-7-TA-1</u>	<u>Van Veen</u>										
<u>ER-REF-7-TA-2</u>	<u>Scoops</u>										
<u>ER-REF-7-TA-3</u>	<u>Screen ^(M) Tub</u>										
<u>ER-REF-7-TA-4</u>	<u>Tab ^(M) Screen</u>										
<u>ER-REF-7-TA-5</u>	<u>MIXER</u>										

Field Supervisor Initials DH
 Sample Lead Initials NW

Date: 9/19/13
 Date: 9/13/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-REF-8-TA</u>	Sampling Vessel: <u>TAHOMA</u>
Date Collected: <u>9/16/13</u>	Time Collected: <u>1620</u>
Samplers: <u>MW/AP/MS</u>	# Sample Containers: _____ (unfiltered Sample)
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date:	
<u>50</u> <u>7-C1, 7-C2, REF8</u>	
Additional Notes or Photos	
<u>ER-REF-8-TA-1</u>	<u>Van Veen</u>
<u>ER-REF-8-TA-2</u>	<u>SCOOPS</u>
<u>ER-REF-8-TA-3</u>	<u>TUB</u>
<u>ER-REF-8-TA-4</u>	<u>MIXER</u>

Field Supervisor Initials DA
Sample Lead Initials MW

Date: 9/17/13
Date: 9/16/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-REF106-TA</u>	Sampling Vessel: <u>TAHOMA</u>								
Date Collected: <u>9/18/13</u>	Time Collected: <u>1621</u>								
Samplers: <u>NETTER/PANTHER STEGNER</u>	# Sample Containers: (unfiltered Sample) <u>8</u>								
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)								
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc									
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium									
List all Locations Sampled by this Sampling Vessel on this Date: <u>86-C2, REF10, REF-106</u>									
Additional Notes or Photos <table style="width:100%; border: none;"> <tr> <td style="width:50%;"><u>ER-REF-106-TA-1</u></td> <td style="width:50%;"><u>Van VEEN</u></td> </tr> <tr> <td><u>ER-REF-106-TA-2</u></td> <td><u>SCOOPS</u></td> </tr> <tr> <td><u>ER-REF-106-TA-3</u></td> <td><u>TUB</u></td> </tr> <tr> <td><u>ER-REF-106-TA-4</u></td> <td><u>MIXER</u></td> </tr> </table>		<u>ER-REF-106-TA-1</u>	<u>Van VEEN</u>	<u>ER-REF-106-TA-2</u>	<u>SCOOPS</u>	<u>ER-REF-106-TA-3</u>	<u>TUB</u>	<u>ER-REF-106-TA-4</u>	<u>MIXER</u>
<u>ER-REF-106-TA-1</u>	<u>Van VEEN</u>								
<u>ER-REF-106-TA-2</u>	<u>SCOOPS</u>								
<u>ER-REF-106-TA-3</u>	<u>TUB</u>								
<u>ER-REF-106-TA-4</u>	<u>MIXER</u>								

Field Supervisor Initials <u>DA</u>	Date: <u>9/20/13</u>
Sample Lead Initials <u>MW</u>	Date: <u>9/18/13</u>

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-REF-9-TA</u>	Sampling Vessel: <u>TAHOMA</u>
Date Collected: <u>9/19/13</u>	Time Collected: <u>1709</u>
Samplers: <u>PANTHER/STEGNER</u>	# Sample Containers: <u>10</u> <small>(unfiltered Sample)</small>
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
<p>TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc</p> <p>TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium</p>	

List all Locations Sampled by this Sampling Vessel on this Date:

8-B2, REF-9

Additional Notes or Photos

RINSEATES AS FOLLOWS

<u>ER-REF-9-TA-1</u>	<u>Grab</u>
<u>ER-REF-9-TA-2</u>	<u>Scoop</u>
<u>ER-REF-9-TA-3</u>	<u>Screen</u>
<u>ER-REF-9-TA-4</u>	<u>Tub</u>
<u>ER-REF-9-TA-5</u>	<u>MIXER</u>

Field Supervisor Initials <u>DK</u>	Date: <u>9/20/13</u>
Sample Lead Initials <u>MW</u>	Date: <u>9/19/13</u>

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-SE-8-B1</u>	Sampling Vessel: <u>TAHOMA</u>
Date Collected: <u>9/20/13</u>	Time Collected: <u>1615</u>
Samplers: <u>PANTHER/STEGNER</u>	# Sample Containers: (unfiltered Sample) <u>8</u>
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	

List all Locations Sampled by this Sampling Vessel on this Date:

8-C2, 8-B1

Additional Notes or Photos

ER-SE-8-B1-TA-1 Power Grab*
ER-SE-8-B1-TA-2 Scoops
ER-SE-8-B1-TA-3 Tub
ER-SE-8-B1-TA-4 MIXER
ER-SE-8-B1-TA-5 MANUAL GRAB

* only used at 8-C2. Used manual grab at 8-B1. Sent to Tieton before ER collected. Time of transfer 1401.

* 1534- notified by Tieton they are returning power grab. will decon on TAHOMA + collect ER.

Field Supervisor Initials LN Date: 9/24/13
 Sample Lead Initials MV Date: 9/20/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-6-C3-TA</u>	Sampling Vessel: <u>TAHOMA</u>
Date Collected: <u>9/24/13</u>	Time Collected: <u>1613</u>
Samplers: <u>JR/MK</u>	# Sample Containers: (unfiltered Sample) <u>10</u>
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center"><u>6-B5, 6-C3</u></p>	
Additional Notes or Photos <p style="font-family: cursive;"> ER-6-C3-TA-1 Grap (Power) ER-6-C3-TA-2 Scoop ER-6-C3-TA-3 Large Tub ER-6-C3-TA-4 SMALL TUBS ER-6-C3-TA-5 MIXER </p>	

Field Supervisor Initials BA

Date: 9/24/13

Sample Lead Initials MW

Date: 9/24/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>SE-6-R3</u>	Sampling Vessel: <u>TAHOMA</u>								
Date Collected: <u>9/25/13</u>	Time Collected: <u>1905</u>								
Samplers: <u>RAPP/KELLY</u>	# Sample Containers: <u>8</u> (unfiltered Sample)								
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)								
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc									
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium									
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center" style="font-size: 1.2em;">6-B1, 6-B3, 6-R3</p>									
Additional Notes or Photos <table style="width:100%; border: none;"> <tr> <td style="width: 50%;">ER-6-R3-TA-1</td> <td>Grab (power)</td> </tr> <tr> <td>ER-6-R3-TA-2</td> <td>SCOOP</td> </tr> <tr> <td>ER-6-R3-TA-3</td> <td>TUB</td> </tr> <tr> <td>ER-6-R3-TA-4</td> <td>MIXER</td> </tr> </table>		ER-6-R3-TA-1	Grab (power)	ER-6-R3-TA-2	SCOOP	ER-6-R3-TA-3	TUB	ER-6-R3-TA-4	MIXER
ER-6-R3-TA-1	Grab (power)								
ER-6-R3-TA-2	SCOOP								
ER-6-R3-TA-3	TUB								
ER-6-R3-TA-4	MIXER								

Field Supervisor Initials ADH

Date: 9/25/13

Sample Lead Initials MW

Date: 9/25/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-REF-5B-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>9-27-13</u>	Time Collected: <u>1730</u> <i>not 9/28/13</i>
Samplers: <u>JR/MV/MK</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>5-C4; REF-5; REF-5b</u>	
Additional Notes or Photos <u>① GRAB ER-REF-5B-TA-1</u> <u>② TUB ER-REF-5B-TA-2</u> <u>③ SCOOP ER-REF-5B-TA-3</u> <u>④ MIXER ER-REF-5B-TA-4</u> <u>⑤ SCREEN ER-REF-5B-TA-5</u>	

Field Supervisor Initials JR

Date: 9/29/13

Sample Lead Initials JR

Date: 9-27-13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-5-B1-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>9-28-13</u>	Time Collected: <u>1105</u>
Samplers: <u>JR/mv/mk</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>5-B1</u>	
Additional Notes or Photos <u>① ER-5-B1-TA-1 (Van Veen)</u> <u>② ER-5-B1-TA-2 (Scoop)</u> <u>③ ER-5-B1-TA-3 (Tub)</u> <u>④ ER-5-B1-TA-4 (Mixer)</u>	

Field Supervisor Initials DA

Date: 11/11/13

Sample Lead Initials JM

Date: 9-28-13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-Ref-4-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>9-30-13</u>	Time Collected: <u>1514</u>
Samplers: <u>JR/MH/BM</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>5-C2, Ref-4</u>	
Additional Notes or Photos <u>① (Grab) ER-Ref-4-TA-1</u> <u>② (Tub) ER-Ref-4-TA-2</u> <u>③ (Scoop) ER-Ref-4-TA-3</u> <u>④ (Mixer) ER-Ref-4-TA-4</u>	

Field Supervisor Initials DA

Date: 10/01/13

Sample Lead Initials JL

Date: 9-30-13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: ER-Ref-3-TA Sampling Vessel: Tahoma
Date Collected: 10-1-13 Time Collected: 1530
Samplers: Rapp/Hale/Mavros # Sample Containers: 8
(unfiltered Sample)
Equipment Evaluated: see below Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

4B-C4; Ref-3

Additional Notes or Photos

- ① (grab) ER-Ref-3-TA-1
- ② ER-Ref-3-TA-2 (tub)
- ③ ER-Ref-3-TA-3 (scoop)
- ④ ER-Ref-3-TA-4 (mixer)

Field Supervisor Initials DA

Date: 10/2/13

Sample Lead Initials JA

Date: 10-1-13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-4-C5-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10-4-13</u>	Time Collected: <u>1544</u>
Samplers: <u>Rupp/Mavros/McDaniel</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>4B-C2; 4-C4; 4-C5</u>	
Additional Notes or Photos <u>ER-4-C5-TA-1 (grab)</u> <u>ER-4-C5-TA-2 (scoop)</u> <u>ER-4-C5-TA-3 (tub)</u> <u>ER-4-C5-TA-4 (mixer)</u>	

Field Supervisor Initials DA
Sample Lead Initials [Signature]

Date: 10/6/13
Date: 10-4-13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-4-C3-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10/5/13</u>	Time Collected: <u>1553</u>
Samplers: <u>JR/BM/SM</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	

List all Locations Sampled by this Sampling Vessel on this Date:
4-C6; 4-B3; 4-C3

Additional Notes or Photos

① ER-4-C3-TA-1 (grab)
 ② ER-4-C3-TA-2 (SCOOP)
 ③ ER-4-C3-TA-3 (TUB)
 ④ ER-4-C3-TA-4 (MIXER)

Field Supervisor Initials LOH

Date: 10/6/13

Sample Lead Initials JR

Date: 10/5/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-4-C1-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10/5th 7/13</u>	Time Collected: <u>1545</u>
Samplers: <u>JR/BM/SM</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>-see below-</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>4-C2; 4-C1</u>	
Additional Notes or Photos <u>① (grab) ER-4-C1-TA-1</u> <u>② (scoop) ER-4-C1-TA-2</u> <u>③ (mixer) ER-4-C1-TA-3</u> <u>④ (tub) ER-4-C1-TA-4</u> <u>⑤ (screen) ER-4-C1-TA-5</u>	

Field Supervisor Initials DA
Sample Lead Initials SM

Date: 10/8/13
Date: 10/7/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-3B-C2-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10/8/13</u>	Time Collected: <u>1610</u>
Samplers: <u>Rapp/Mavros/McDaniel</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>4-R5, 3B-C4, 3B-C2</u>	
Additional Notes or Photos <u>① ER-3B-C2-TA-1 (grab)</u> <u>② ER-3B-C2-TA-2 (scoop)</u> <u>③ ER-3B-C2-TA-3 (mixer)</u> <u>④ ER-3B-C2-TA-4 (tub)</u> <u>⑤ ER-3B-C2-TA-5 (screen)</u>	

Field Supervisor Initials DN

Date: 10/10/13

Sample Lead Initials JR

Date: 10/8/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-3B-R2-MA</u>	Sampling Vessel: <u>Nazama</u>
Date Collected: <u>10/14/13</u>	Time Collected: <u>1604</u>
Samplers: <u>TR/BM/MS</u>	# Sample Containers: <u>10</u> <i>(unfiltered Sample)</i>
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	

List all Locations Sampled by this Sampling Vessel on this Date:
3B-R1, 3B-R2

Additional Notes or Photos

① ER-3B-R2-MA-1 (grab)
 ② ER-3B-R2-MA-2 (scoop)
 ③ ER-3B-R2-MA-3 (tub)
 ④ ER-3B-R2-MA-4 (screen)
 ⑤ ~~ER-3B-R2-MA-5~~ n 10/14/13

Field Supervisor Initials MA
 Sample Lead Initials TR

Date: 10/15/13
 Date: 10/14/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: ER-3-C1-MA Sampling Vessel: Nuzuma
Date Collected: 10/15/13 Time Collected: 1525
Samplers: JR/BM/MS # Sample Containers: 6
Equipment Evaluated: see below (unfiltered Sample)
Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:
ER-3-C3, 3-R3, 3-C2, 3-C1

Additional Notes or Photos
① ER-3-C1-MA-1 (grab)
② ER-3-C1-MA-2 (scoop)
③ ER-3-C1-MA-3 (tub)

Field Supervisor Initials DA
Sample Lead Initials JM

Date: 10/15/13
Date: 10/15/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-2B-C3-MA</u>	Sampling Vessel: <u>Mazama</u>
Date Collected: <u>10/16/13</u>	Time Collected: <u>1546</u>
Samplers: <u>JR/BM/SM</u>	# Sample Containers: <u>6</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date:	
Additional Notes or Photos ① ER-2B-C3-MA-1 (grab) ② ER-2B-C3-MA-2 (scoop) ③ ER-2B-C3-MA-3 (tub)	

Field Supervisor Initials DA
Sample Lead Initials JR

Date: 10/18/13
Date: 10/16/13

Sample ID Format:
ER-LAL-4-TA Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-2-R7-MA</u>	Sampling Vessel: <u>mazama</u>
Date Collected: <u>10/17/13</u>	Time Collected: <u>1548</u>
Samplers: <u>JR/BM/SM</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>2B-C1, 2B-C2, 2B-R1, 2-R7</u>	
Additional Notes or Photos <u>① ER-2-R7-MA-1 (grab)</u> <u>② ER-2-R7-MA-2 (scoop)</u> <u>③ ER-2-R7-MA-3 (screen) (tub)</u> <u>④ ER-2-R7-MA-4 (tub)</u>	

Field Supervisor Initials DA

Date: 10/17/13

Sample Lead Initials JM

Date: 10/17/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-2-C2-MA-1</u>	Sampling Vessel: <u>Nazama</u>
Date Collected: <u>10/18/13</u>	Time Collected: <u>1536</u>
Samplers: <u>JR/BM/SM</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>grab</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>2-R5, 2-C4, 2-C3, 2-C2</u>	
Additional Notes or Photos	

Field Supervisor Initials LOA

Date: 10/19/13

Sample Lead Initials JR

Date: 10/18/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RIFP
 2013 Phase 2 Sediment Study

2-CI DATA 11/26/13

Sample Id: ER-~~R3~~-MA-1 to 4 Sampling Vessel: Mozama

Date Collected: 10/19/13 Time Collected: 1442

Samplers: Thecher, Stegner, Sgobbi # Sample Containers: 8
(unfiltered Sample)

Equipment Evaluated: See below Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

1-R3 (rejected) 1-R6 (rejected) 2-CI (accepted)

Additional Notes or Photos

2-CI
 ER-~~R3~~-MA-1 - grab

2-CI
 ER-~~R3~~-MA-2 - Scoop

2-CI
 ER-~~R3~~-MA-3 - tub

2-CI
 ER-~~R3~~-MA-4 - mixer

DATA
 11/26/13

Field Supervisor Initials LOH Date: 10/20/13
 Sample Lead Initials JS Date: 10/19/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RIFS
 2013 Phase 2 Sediment Study

Sample ID: ER-1-RS-MA Sampling Vessel: MAZAMA
 Date Collected: 10/21/13 Time Collected: 1615-land 2 g 1637-3
 Samplers: PANTHER/BILMANN # Sample Containers: 6
 (unfiltered Sample)
 Equipment Evaluated: SEE BELOW Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:
1-C4, 1-R4, 1-C3, 1-R7 1-R8

Additional Notes or Photos
Only one actual sample at 1-R8

<u>ER-1-RS-MA^A-1</u>	<u>-</u>	<u>grab</u>	<u>1615</u>
<u>ER-1-RS-MA^(B)-2</u>	<u>-</u>	<u>SCOOP</u>	<u>1615</u>
<u>ER-1-RS-MA-3</u>	<u>-</u>	<u>TUB</u>	<u>1637</u>

Field Supervisor Initials: DA Date: 10/22/13
 Sample Lead Initials: MW Date: 10/21/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River R/PS
2013 Phase 2 Sediment Study

Sample id: <u>ER-1-R5-MA</u>	Sampling Vessel: <u>MAZAMA</u>						
Date Collected: <u>10/22/13</u>	Time Collected: <u>1600</u>						
Samplers: <u>PANTHER BIELMANN</u>	# Sample Containers: <u>6</u> (unfiltered Sample)						
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)						
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc						
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium						
List all Locations Sampled by this Sampling Vessel on this Date: <u>1-R9, 1B-C2, 1B-C3, 1-C1 1-R5</u>							
Additional Notes or Photos <table><tr><td><u>ER-1-R5-MA-1</u></td><td><u>Grab</u></td></tr><tr><td><u>ER-1-R5-MA-2</u></td><td><u>SCOOP</u></td></tr><tr><td><u>ER-1-R5-MA-3</u></td><td><u>TUB</u></td></tr></table>		<u>ER-1-R5-MA-1</u>	<u>Grab</u>	<u>ER-1-R5-MA-2</u>	<u>SCOOP</u>	<u>ER-1-R5-MA-3</u>	<u>TUB</u>
<u>ER-1-R5-MA-1</u>	<u>Grab</u>						
<u>ER-1-R5-MA-2</u>	<u>SCOOP</u>						
<u>ER-1-R5-MA-3</u>	<u>TUB</u>						

Field Supervisor Initials RA

Date: 10/24/13

Sample Lead Initials MV

Date: 10/22/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-2-B3-MA</u>	Sampling Vessel: <u>MAZAMA</u>
Date Collected: <u>10/23/13</u>	Time Collected: <u>1430</u>
Sampler: <u>PANTHER/BIELMANN</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date:	
<u>1B-C4, 1B-R3, 1B-R4, 1-B4, 2-B3</u>	
Additional Notes or Photos	
<u>ER-2-B3-MA-1</u>	<u>Grab</u>
<u>ER-2-B3-MA-2</u>	<u>SCOOP</u>
<u>ER-2-B3-MA-3</u>	<u>Tub</u>
<u>ER-2-B3-MA-4</u>	<u>Screen</u>
<u>only sediment sample was at 1B-R3</u>	

Field Supervisor Initials DA

Date: 10/24/13

Sample Lead Initials MW

Date: 10/23/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RIFS
2013 Phase 2 Sediment Study**

Sample ID: <u>ER-4-R1-MA</u>	Sampling Vessel: <u>MAZAMA</u>												
Date Collected: <u>10/24/13</u>	Time Collected: <u>1222</u>												
Sampler: <u>PAWITZER/BIELMANN</u>	# Sample Containers: <u>6</u> <small>(unfiltered Sample)</small>												
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analytes: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)												
<p>TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc</p> <p>TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium</p>													
List all Locations Sampled by this Sampling Vessel on this Date:													
<u>ZB-C4, 4R-1</u>													
Additional Notes or Photos													
<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;"><u>ER-4-R1-MA-1</u></td> <td>grab</td> <td>ED</td> <td>10/28/13</td> </tr> <tr> <td><u>ER-4-R1-MA-2</u></td> <td>scoop</td> <td>ED</td> <td>10/28/13</td> </tr> <tr> <td><u>ER-4-R1-MA-3</u></td> <td>tub</td> <td>ED</td> <td>10/28/13</td> </tr> </table>		<u>ER-4-R1-MA-1</u>	grab	ED	10/28/13	<u>ER-4-R1-MA-2</u>	scoop	ED	10/28/13	<u>ER-4-R1-MA-3</u>	tub	ED	10/28/13
<u>ER-4-R1-MA-1</u>	grab	ED	10/28/13										
<u>ER-4-R1-MA-2</u>	scoop	ED	10/28/13										
<u>ER-4-R1-MA-3</u>	tub	ED	10/28/13										

Field Supervisor Initials DA

Date: 10/24/13

Sample Lead Initials MW

Date: 10/24/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



TIETON RINSATE FORMS

Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: ER-G-2-TT Sampling Vessel: Tieton
Date Collected: 9/5/13 Time Collected: 1620
Samplers: Weller, Kelly, Sugciski # Sample Containers: 2
(unfiltered Sample)
Equipment Evaluated: Soil Scoops Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:
G-1 & G-2

Additional Notes or Photos
Conducted on 2 plastic Soil Scoops
Upon completion of sample processing
at G-2.

Field Supervisor Initials DH Date: 9/7/13
Sample Lead Initials JS Date: 9/5/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-6-4-TI</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9/6/13</u>	Time Collected: <u>1141</u>
Samplers: <u>Ketter, Kelly, Sigelski</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>Van Keen sampler</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	

List all Locations Sampled by this Sampling Vessel on this Date:

6-3; 6-4

Additional Notes or Photos

Sampler was rinsed w/ site water, washed w/ ligonox, washed with site water, washed with Nitric acid, rinsed with site water, rinsed with DI and then blank collected from inside by pouring additional DI into the sampler.

Field Supervisor Initials JS
 Sample Lead Initials JS

Date: 9/6
 Date: 9/6/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-LAL-6-TI</u>	Sampling Vessel: <u>TIETON</u>
Date Collected: <u>9/7/13</u>	Time Collected: <u>1530</u>
Samplers: <u>SUGALSKI/KSLLY</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>LEXAN TUB</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>LAL-4 LAL-5 LAL-6</u>	
Additional Notes or Photos	

Field Supervisor Initials DH
Sample Lead Initials MV

Date: 9/8/13
Date: 9/7/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-LAL-3-TI</u> <u>EPA-3 DATA 9/9/13</u>	Sampling Vessel: <u>TIETON</u>
Date Collected: <u>9/8/13</u>	Time Collected: <u>1553</u>
Samplers: <u>SUKALSKI</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>SIEVE</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>SE-LAL 1, 2, 3</u> <u>DATA 9/9/13</u>	
Additional Notes or Photos <u>PHOTO 103-0388</u>	

Field Supervisor Initials DN Date: 9/8/13
 Sample Lead Initials MW Date: 9/8/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: 7-C4 Sampling Vessel: Tieton
Date Collected: 9/12/13 Time Collected: 1404 - 1412
Samplers: Parther, Sigalsh # Sample Containers: 8
(unfiltered Sample)
Equipment Evaluated: Tub, grab, scoops, mixer Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:
7B-C2, 7-C4

Additional Notes or Photos
1 - grab => ER-7-C4-TI-1 1404
2 - scoop => ER-7-C4-TI-2 1408
3 - tub => ER-7-C4-TI-3 1409
4 - mixer => ER-7-C4-TI-4 1412

Field Supervisor Initials DH

Date: 9/13/13

Sample Lead Initials JS

Date: 9/12/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-7-B1-TI</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9/13/13</u>	Time Collected: <u>1554</u>
Samplers: <u>Pantler, Stegner, Soggetti</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>grab, scoop, tub, mixer</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>7-B1, 7-B5, 7-B2, 7-B4, 7-B6</u>	
Additional Notes or Photos grab = 1 => ER-7-B1-TI-1 Scoop = 2 => ER-7-B1-TI-2 Tub = 3 => ER-7-B1-TI-3 Mixer = 4 => ER-7-B1-TI-3/4 JS 9/13/13	

Field Supervisor Initials LJA
 Sample Lead Initials JS

Date: 9/13/13
 Date: 9/13/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: ER-Ref-6-TI-1 to 5 ^{23. 9/13/13}
 Sampling Vessel: Tieton ¹⁴

Date Collected: 9/14/13 Time Collected: 1358

Samplers: Suzuki, Stegner, Butler # Sample Containers: 10
 (unfiltered Sample)

Equipment Evaluated: grab, scoop, tub, mixer Requested Analyses: Total TAL Metals (EPA 6020A)
Sieve Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

6B-C2 & Ref-6

Additional Notes or Photos

grab 1 - ER-Ref-6-TI-1
 Scoop 2 - ER-Ref-6-TI-2
 tub 3 - ER-Ref-6-TI-3
 mixer 4 - ER-Ref-6-TI-4
 Sieve 5 - ER-Ref-6-TI-5

Field Supervisor Initials DA

Date: 9/18/13

Sample Lead Initials JS

Date: 9/14/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-7B-C1-TI-1 to 4</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9/16/13</u>	Time Collected: <u>1600</u>
Samplers: <u>Pantler, Sugalski, Foley</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>Grab, Scoop, tub, mixer</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <div style="font-size: 1.5em; text-align: center; margin-top: 10px;"> 6B-C3, 6B-C4, 7B-C4, 7B-C1 </div>	
Additional Notes or Photos <div style="margin-top: 10px;"> Grab - ER-7B-C1-TI-1 Scoop - ER-7B-C1-TI-2 tub - ER-7B-C1-TI-3 mixer - ER-7B-C1-TI-4 </div>	

Field Supervisor Initials DA

Date: 9/18/13

Sample Lead Initials JF

Date: 9/16/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-8-C3-TI-1-104</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9/18/13</u>	Time Collected: <u>1648</u>
Samplers: <u>Sygalik, Bielmann, Palmieri</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>8-C3, 8B-C1, 8B-C3, 8B-C4</u>	
Additional Notes or Photos <u>ER-8-C3-TI-1 - Grab</u> <u>ER-8-C3-TI-2 - Scoop</u> <u>ER-8-C3-TI-3 - tub</u> <u>ER-8-C3-TI-4 - mixer</u>	

Field Supervisor Initials DA

Date: 9/20/13

Sample Lead Initials JL

Date: 9/18/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-8-B3-TI-1604</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9/19/13</u>	Time Collected: <u>1608</u>
Samplers: <u>Sogalski, Brelmann, Palmieri</u>	# Sample Containers: (unfiltered Sample) <u>8</u>
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>SE-8-C4, 8-B4, 8-B3</u>	
Additional Notes or Photos <u>ER-8-B3-TI-1 - Grab</u> <u>ER-8-B3-TI-2 - Scoop</u> <u>ER-8-B3-TI-3 - tub</u> <u>ER-8-B3-TI-4 - mixer</u>	

Field Supervisor Initials DA
 Sample Lead Initials [Signature]

Date: 9/20/13
 Date: 9/19/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: ER-8-BS-TI 1 to 4 Sampling Vessel: Tieton
Date Collected: 9/20/13 Time Collected: 1608
Samplers: McDonnell, Sugawski, Palmieri # Sample Containers: 10
(unfiltered Sample)
Equipment Evaluated: See Below Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

8-BS, 8-BG

Additional Notes or Photos

ER-8-BS-TI-1 - Grab
ER-8-BS-TI-2 - Scoop
ER-8-BS-TI-3 - Tub
ER-8-BS-TI-4 - Mixer
ER-8-BS-TI-5 - Sieve

Field Supervisor Initials LJA

Date: 9/24/13

Sample Lead Initials AS

Date: 9/20/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-8-C1-T1</u>	Sampling Vessel: <u>TIETON</u>
Date Collected: <u>9/21/13</u>	Time Collected: <u>1107</u>
Samplers: <u>AP/BM/MW</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>8-C1</u>	
Additional Notes or Photos <u>ER-8-C1-T1-1 - Grab</u> <u>ER-8-C1-T1-2 - SCOOP</u> <u>ER-8-C1-T1-3 - TUB</u> <u>ER-8-C1-T1-4 - MIXER</u>	

Field Supervisor Initials OA

Date: 9/24/13

Sample Lead Initials MW

Date: 9/21/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-T1: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-6-B6-Ti-1</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>092413</u>	Time Collected: <u>1700</u>
Samplers: <u>GDP</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>Grab</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>6-B6</u> <u>6-C4</u> <u>6B-C1</u>	
Additional Notes or Photos	

Field Supervisor Initials LDA

Date: 9/25/13

Sample Lead Initials JDE

Date: 24 SEP 2013

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-6-B6-TI-2</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>092413</u>	Time Collected: <u>1700</u>
Samplers: <u>GOP</u>	# Sample Containers: <u>2</u> (unfiltered Sample)
Equipment Evaluated: <u>Scoop</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>6-B6 6-64</u> <u>6B-C1</u>	
Additional Notes or Photos	

Field Supervisor Initials DA

Date: 9/25/13

Sample Lead Initials ARF

Date: 24 SEPT 2013

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>SEE BELOW</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>092513</u>	Time Collected: <u>1550</u>
Samplers: <u>Gof</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>SE-6-C1</u> <u>SE-6-B2</u> <u>SE-6-C2</u>	
Additional Notes or Photos <u>ER-6-C2-T1-1 Grab</u> <u>ER-6-C2-T1-2 Scoop</u> <u>ER-6-C2-T1-3 Tub</u> <u>ER-6-C2-T1-4 mixer</u>	

Field Supervisor Initials AK

Date: 9/27/13

Sample Lead Initials ARF

Date: 25 SEPT 13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-5B-C3-T1</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>9-26-13</u>	Time Collected: <u>1740</u>
Samplers: <u>Rapp/Vetter/Kelly</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>6-B4, 5B-C2, 5B-C3, 5B-C4</u>	
Additional Notes or Photos <u>① Grab ER-5B-C3-T1</u> <u>② Scoop ER-5B-C3-T2</u> <u>③ Tub ER-5B-C3-T3</u> <u>④ Mixer ER-5B-C3-T4</u>	

Field Supervisor Initials DAH
Sample Lead Initials JR

Date: 9/28/13
Date: 9-26-13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>5-B4 ^{inf 9/28/13}</u> Date Collected: <u>27 Sept 2013</u> Samplers: <u>JRF / GPP / OB</u> Equipment Evaluated: <u>DREDGE, SCOOP, TUB, MIXER</u>	Sampling Vessel: <u>LU TIETON</u> Time Collected: _____ # Sample Containers: <u>8</u> (unfiltered Sample) Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center"><u>5B-C1; 5-B5; 5-B6; 5B-4c</u> <u>5-B4 inf 9/28/13</u></p>	
Additional Notes or Photos <p align="center"> ER-5-B4-1 (GRAB) ER-5-B4-2 (SCOOP) ER-5-B4-3 (TUB) ER-5-B4-4 (MIXER) </p>	

Field Supervisor Initials JRF Date: 9/28/13
 Sample Lead Initials JRF Date: 9/27/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>See Below</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>092813</u>	Time Collected: <u>1150;</u>
Samplers: <u>Grant Pan Mon</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>S-B2</u> <u>S-C3</u>	
Additional Notes or Photos <u>ER-S-B2-Ti-1 = Grab</u> <u>ER-S-B2-Ti-2 = Sloop</u> <u>ER-S-B2-Ti-3 = TVB</u> <u>ER-S-B2-Ti-4 = Mixer</u>	

Field Supervisor Initials LJA Date: 9/28/13
 Sample Lead Initials JRF 9/28/13 Date: 9/28/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>5-B3</u>	Sampling Vessel: <u>RV TIETON</u>
Date Collected: <u>30 SEPT 2013</u>	Time Collected: <u>1:40</u>
Samplers: <u>OB, DC, JRF</u>	# Sample Containers: <u>0</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>S-C1 ; 5-B3</u>	
Additional Notes or Photos <u>ER-S-B3-T1-1 (GRAB)</u> <u>ER-S-B3-T1-2 (SCOOP)</u> <u>ER-S-B3-T1-3 (TUB)</u> <u>ER-S-B3-T1-4 (MIXER)</u>	

Field Supervisor Initials JRF

Date: 10/01/13

Sample Lead Initials JRF

Date: 9/30/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-Ref-2</u>	Sampling Vessel: <u>RV TIETON</u>
Date Collected: <u>1 OCT 2013</u>	Time Collected: <u>1500</u>
Samplers: <u>JRF, DC, OB</u>	# Sample Containers: <u>14</u> (unfiltered Sample)
Equipment Evaluated: <u>See Notes</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center"><u>Ref-2, Trb-3</u></p>	
Additional Notes or Photos <p><u>ER-Ref-2-T1-1 POWER GRAB</u></p> <p><u>ER-Ref-2-T1-2 SCOOP</u></p> <p><u>ER-Ref-2-T1-3 MIXER ^{DATE 10/2/13} TUB</u></p> <p><u>ER-Ref-2-T1-4 MIXER</u></p> <p><u>ER-Ref-2-T1-5 SCREEN</u></p> <p><u>ER-Ref-2-T1-6 SHOVEL</u></p> <p><u>ER-Ref-2-T1-7 PONAR</u></p>	

Field Supervisor Initials AA

Date: 10/2/13

Sample Lead Initials JRF

Date: 10 OCT 13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>See Below</u>	Sampling Vessel: <u>Tieton</u>								
Date Collected: <u>10-4-13</u>	Time Collected: <u>1545</u>								
Samplers: <u>GDP, OB, DC</u>	# Sample Containers: <u>8</u> (unfiltered Sample)								
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)								
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc									
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium									
List all Locations Sampled by this Sampling Vessel on this Date: <u>4B-C3 4B-C1</u> <u>Ref-1</u>									
Additional Notes or Photos <table style="width:100%; border: none;"> <tr> <td style="width: 60%;"><u>ER-4B-C1-Ti-1</u></td> <td><u>GRAB</u></td> </tr> <tr> <td><u>ER-4B-C1-Ti-2</u></td> <td><u>SCOOP</u></td> </tr> <tr> <td><u>ER-4B-C1-Ti-3</u></td> <td><u>TUB</u></td> </tr> <tr> <td><u>ER-4B-C1-Ti-4</u></td> <td><u>MIXER</u></td> </tr> </table>		<u>ER-4B-C1-Ti-1</u>	<u>GRAB</u>	<u>ER-4B-C1-Ti-2</u>	<u>SCOOP</u>	<u>ER-4B-C1-Ti-3</u>	<u>TUB</u>	<u>ER-4B-C1-Ti-4</u>	<u>MIXER</u>
<u>ER-4B-C1-Ti-1</u>	<u>GRAB</u>								
<u>ER-4B-C1-Ti-2</u>	<u>SCOOP</u>								
<u>ER-4B-C1-Ti-3</u>	<u>TUB</u>								
<u>ER-4B-C1-Ti-4</u>	<u>MIXER</u>								

Field Supervisor Initials ADH

Date: 10/6/13

Sample Lead Initials GP

Date: 10/4/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>SEE BELOW</u>	Sampling Vessel: <u>TIE TOM</u>
Date Collected: <u>100513</u>	Time Collected: <u>1542</u>
Samplers: <u>GOP, OB, DC</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>SEE BELOW</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>4-B-5</u> <u>4-B-2</u> <u>4-B-4</u>	
Additional Notes or Photos <u>ER-4-B4-Ti-1 - Grab</u> <u>ER-4-B4-Ti-2 - Scoop</u> <u>ER-4-B4-Ti-3 - TUB</u> <u>ER-4-B4-Ti-4 - MIXER</u>	

Field Supervisor Initials: LAH

Date: 10/06/13

Sample Lead Initials: GL

Date: 100513

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RI/FS
 2013 Phase 2 Sediment Study

ER-4-B1-TI-1605
 10/17/13

Sample Id: ~~ER-4-B1-1605~~ Sampling Vessel: Tieton

Date Collected: 10/17/13 Time Collected: 1545

Samplers: Suggs/GW # Sample Containers: 10
 (unfiltered Sample)

Equipment Evaluated: Grab, Scoop, Tub, Screen, Ponar Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

Trib-2 & 4-B1

Additional Notes or Photos

ER-4-B1-TI-1 - Grab
ER-4-B1-TI-2 - Scoop
ER-4-B1-TI-3 - Tub
ER-4-B1-TI-4 - Screen
ER-4-B1-TI-5 - Ponar

Field Supervisor Initials: DA Date: 10/8/13

Sample Lead Initials: JZ Date: 10/17/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2010 Phase 2 Sediment Study

Sample Id: <u>ER-3-C4-TI-1+03</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/8/13</u>	Time Collected: <u>1600</u>
Samplers: <u>Brethorn, Sugrisky, Caba Miller</u>	# Sample Containers: <u>6</u> (unfiltered Sample)
Equipment Evaluated: <u>Grab, Scoop, Tub</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>4-B6, 3B-C3, 3-C4</u>	
Additional Notes or Photos <u>ER-3-C4-TI-1 - Grab</u> <u>ER-3-C4-TI-2 - Scoop</u> <u>ER-3-C4-TI-3 - Tub</u>	

Field Supervisor Initials DA Date: 10/10/13
Sample Lead Initials JS Date: 10/8/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-3-B4-TI-1 toll</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/14/13</u>	Time Collected: <u>1557</u>
Samplers: <u>Segelstki, Bismann, Thoteler</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>3-B5 (no sample), 3-R2, 3-B4, 3-R5 (no sample)</u>	
Additional Notes or Photos <u>ER-3-B4-TI-1 - Grab</u> <u>ER-3-B4-TI-2 - Scoop</u> <u>ER-3-B4-TI-3 - Tub</u> <u>ER-3-B4-TI-4 - mixer</u>	

Field Supervisor Initials: RDH

Date: 10/15/13

Sample Lead Initials: [Signature]

Date: 10/14/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RI/FS
 2013 Phase 2 Sediment Study

Sample Id: ER-3-R7-TI-1 to 3 Sampling Vessel: Tieton

Date Collected: 10/15/13 Time Collected: 1652 & 1722

Samplers: Segelsh, Belmann, Stegner, Thetler # Sample Containers: 6
 (unfiltered Sample)

Equipment Evaluated: See below Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

<u>3-R7 (only acceptable sample)</u>	<u>3-R6</u>	<u>3-R10</u>	} rejected
	<u>2-R10</u>	<u>3-B6</u>	
	<u>2-R9</u>		

Additional Notes or Photos

Sample time

ER-3-R7-TI-1 - Grab - 1652

ER-3-R7-TI-2 - Scoop } 1722

ER-3-R7-TI-3 - Tub }

Field Supervisor Initials DA

Sample Lead Initials JS

Date: 10/15/13

Date: 10/15/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-3-B1-TI-1 to 4</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/16/13</u>	Time Collected: <u>1540</u>
Samplers: <u>Sugelsky, Theteler, Stegner</u>	# Sample Containers: <u>8</u> (unfiltered Sample)
Equipment Evaluated: <u>See Below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals Using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>3-B3, 3-B2, 3-B1</u>	
Additional Notes or Photos <u>ER-3-B1-TI-1 - Grab</u> <u>ER-3-B1-TI-2 - Scoop</u> <u>ER-3-B1-TI-3 - Tub</u> <u>ER-3-B1-TI-4 - mixer</u>	

Field Supervisor Initials KA

Date: 10/18/13

Sample Lead Initials JS

Date: 10/16/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RI/FS
 2013 Phase 2 Sediment Study

Sample Id: ER-2-B4-TI-1 Sampling Vessel: Tieton

Date Collected: 10/17/13 Time Collected: 1619

Samplers: Sugelski, Thatcher, Stegner # Sample Containers: 10
 (unfiltered Sample)

Equipment Evaluated: See below Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

2-10/17/13 2-R2 (no sample) 2-R4 (no sample)
2-B4 (2oz) 3-R1 (32oz + 15 gal)
2-B4 (only 2 oz)

Additional Notes or Photos

ER-2-B4-TI-1 - Grab
 ER-2-B4-TI-2 - Scoop
 ER-2-B4-TI-3 - tub
 ER-2-B4-TI-4 - mixer
 ER-2-B4-TI-5 - Screen

Field Supervisor Initials DA
 Sample Lead Initials JS

Date: 10/17/13
 Date: 10/17/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-1-B5-TI-1to5</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/18/13</u>	Time Collected: <u>1805</u>
Samplers: <u>Suzuki, Stegner, Thatcher</u>	# Sample Containers: <u>10</u> <small>(unfiltered Saltple)</small>
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
<p>TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc</p> <p>TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium</p>	

List all Locations Sampled by this Sampling Vessel on this Date:

2-R3, 1-R10 (abandoned), 2-R6 (Rejected)
1-B6
rejected on 10/22/13

Additional Notes or Photos

ER-1-B5-TI-1 - ~~Scoop~~ ^{10/18/13} grab
ER-1-B5-TI-2 - Scoop
ER-1-B5-TI-3 - Tub
ER-1-B5-TI-4 - mixer
ER-1-B5-TI-5 - Screen

Field Supervisor Initials EA

Date: 10/24/13

Sample Lead Initials JL

Date: 10/18/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River R/FS
 2013 Phase 2 Sediment Study

Sample Id: <u>ER-1-RZ-TI-1-03</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/21/13</u>	Time Collected: <u>1517</u>
Samplers: <u>Sogalski, Theleker, Stegner</u>	# Sample Containers: <u>6</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analysis: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date:	
<u>1-B3, 1-B1, 1-R1, 1-B3, 1-B6, 1-R2</u>	
Additional Notes or Photos	
<u>ER-1-RZ-TI-1 - Grab</u>	
<u>ER-1-RZ-TI-2 - Scoop</u>	
<u>ER-1-RZ-TI-3 - Tub</u>	

Field Supervisor Initials WA

Date: 10/22/13

Sample Lead Initials JF

Date: 10/21/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River R/FS
2013 Phase 2 Sediment Study

Sample ID: <u>ER-IB-CI-TI-1 to 5</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/22/13</u>	Time Collected: <u>1558</u>
Samplers: <u>Sogdini, Steiner, Theiler</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>IB-C1, IB-R2, IB-R1, 1-BZ</u>	
Additional Notes or Photos <u>ER-IB-CI-TI-1 = Ponar</u> <u>ER-IB-CI-TI-2 = Scoop</u> <u>ER-IB-CI-TI-3 = Tub</u> <u>ER-IB-CI-TI-4 = Mixer</u> <u>ER-IB-CI-TI-5 = Screen</u>	

Field Supervisor Initials DA

Date: 10/24/13

Sample Lead Initials JS

Date: 10/22/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River R/FS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-2-B2-TI-1 to 3</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/23/13</u>	Time Collected: <u>1428</u>
Samplers: <u>Sugelski, Thatcher, Stegner</u>	# Sample Containers: <u>6</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>2-B2, 2-R1, 2-B1</u>	
Additional Notes or Photos <u>ER-2-B2-TI-1 - Grab</u> <u>ER-2-B2-TI-2 - Scoop</u> <u>ER-2-B2-TI-3 - Tub</u>	

Field Supervisor Initials DH

Date: 10/24/13

Sample Lead Initials JS

Date: 10/23/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
Upper Columbia River RIFS
2013 Phase 2 Sediment Study

Sample Id: <u>ER-3-R9-TI-1 to 5</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/24/13</u>	Time Collected: <u>1427</u>
Sample #: <u>Siegelsh, Hatcher, Stegner</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <u>3-R9, 2B-R2, 3-R8</u>	
Additional Notes or Photos <u>ER-3-R9-TI-1 = Grab</u> <u>ER-3-R9-TI-2 = Scoop</u> <u>ER-3-R9-TI-3 = Tub</u> <u>ER-3-R9-TI-4 = Mixer</u> <u>ER-3-R9-TI-5 = Screen</u>	

Field Supervisor Initials DA

Date: 10/24/13

Sample Lead Initials [Signature]

Date: 10/24/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



TRIBUTARY RINSATE FORMS

Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study

Sample Id: <u>TRIB-1</u>	Sampling Vessel: <u>N/A</u>
Date Collected: <u>26 SEPT 2013</u>	Time Collected: <u>1654</u>
Samplers: <u>JHE/GDP</u>	# Sample Containers: <u>10</u> (unfiltered Sample)
Equipment Evaluated: <u>SEE NOTES</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A:	aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc
TAL Metals using EPA Method 6010C:	calcium, iron, magnesium, potassium, and sodium
List all Locations Sampled by this Sampling Vessel on this Date: <u>TRIB-1</u> <u>MUD 0008</u>	
Additional Notes or Photos <u>SAMPLE 10</u> <u>ER-TRIB-1-1</u> <u>ER-TRIB-1-2</u> <u>ER-TRIB-1-3</u> <u>ER-TRIB-1-4</u> <u>ER-TRIB-1-5</u>	

Field Supervisor Initials _____
Sample Lead Initials JHE

Date: _____
Date: 9/26/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



Daily Rinsate Sample Collection
 Upper Columbia River RI/FS
 2013 Phase 2 Sediment Study

ER-4-B1-TI-1605
 10/17/13

Sample Id: ~~ER-4-B1-1605~~ Sampling Vessel: Tieton

Date Collected: 10/17/13 Time Collected: 1545

Samplers: Suggs/GW # Sample Containers: 10
 (unfiltered Sample)

Equipment Evaluated: Grab, Scoop, Tub, Screen, Ponar Requested Analyses: Total TAL Metals (EPA 6020A)
 Total TAL Metals (EPA 6010C)

TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc

TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium

List all Locations Sampled by this Sampling Vessel on this Date:

Trib-2 & 4-B1

Additional Notes or Photos

ER-4-B1-TI-1 - Grab
ER-4-B1-TI-2 - Scoop
ER-4-B1-TI-3 - Tub
ER-4-B1-TI-4 - Screen
ER-4-B1-TI-5 - Ponar

Field Supervisor Initials: DA Date: 10/8/13

Sample Lead Initials: JZ Date: 10/17/13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-Ref-2</u>	Sampling Vessel: <u>RV TIETON</u>
Date Collected: <u>1 OCT 2013</u>	Time Collected: <u>1500</u>
Samplers: <u>JRF, DC, OB</u>	# Sample Containers: <u>14</u> (unfiltered Sample)
Equipment Evaluated: <u>See Notes</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	
List all Locations Sampled by this Sampling Vessel on this Date: <p align="center"><u>Ref-2, Trb-3</u></p>	
Additional Notes or Photos <p><u>ER-Ref-2-T1-1 POWER GRAB</u></p> <p><u>ER-Ref-2-T1-2 SCOOP</u></p> <p><u>ER-Ref-2-T1-3 MIXER ^{DATE 10/2/13} TUB</u></p> <p><u>ER-Ref-2-T1-4 MIXER</u></p> <p><u>ER-Ref-2-T1-5 SCREEN</u></p> <p><u>ER-Ref-2-T1-6 SHOVEL</u></p> <p><u>ER-Ref-2-T1-7 PONAR</u></p>	

Field Supervisor Initials AH

Sample Lead Initials JRF

Date: 10/2/13

Date: 10 OCT 13

Sample ID Format:
 ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
 ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-Trib-4-TI-1 to 3</u>	Sampling Vessel: <u>Tieton</u>
Date Collected: <u>10/9/13</u>	Time Collected: <u>1614</u>
Samplers: <u>Sugelsky, Beckman, Cabanillo</u>	# Sample Containers: <u>6</u> <small>(unfiltered sample)</small>
Equipment Evaluated: <u>See below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
<p>TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc</p> <p>TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium</p>	
List all Locations Sampled by this Sampling Vessel on this Date:	
<u>Trib-4</u>	
Additional Notes or Photos	
<p><u>ER-Trib-4-TI-1 - Scoop</u></p> <p><u>ER-Trib-4-TI-2 - Tub</u> ^{10/9/13} <u>Screen</u></p> <p><u>ER-Trib-4-TI-3 - Screen Tub</u> ^{10/9/13}</p>	

Field Supervisor Initials LJA
Sample Lead Initials JS

Date: 10/10/13
Date: 10/9/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-Trib-5-TA</u>	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10/9/13</u>	Time Collected: <u>1528</u>
Samplers: <u>Rupp/Mavros/McDaniel</u>	# Sample Containers: <u>8</u> <small>(unfiltered Sample)</small>
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
<p>TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc</p> <p>TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium</p>	

List all Locations Sampled by this Sampling Vessel on this Date:

Trib-5

Additional Notes or Photos

- ① ER-Trib-5-TA-1 (shovel)
- ② ER-Trib-5-TA-2 (scoop)
- ③ ER-Trib-5-TA-3 (tub)
- ④ ER-Trib-5-TA-4 (screen)

Field Supervisor Initials DA

Date: 10/14/13

Sample Lead Initials JR

Date: 10/19/13

Sample ID Format:
ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4
ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



**Daily Rinsate Sample Collection
Upper Columbia River RI/FS
2013 Phase 2 Sediment Study**

Sample Id: <u>ER-Trib-6-^{TI}FA</u> DATA 11/26/13	Sampling Vessel: <u>Tahoma</u>
Date Collected: <u>10/10/13</u>	Time Collected: <u>1400</u>
Samplers: <u>Rupp/Mavros/Beilman</u>	# Sample Containers: <u>8</u> <small>(unfiltered Sample)</small>
Equipment Evaluated: <u>see below</u>	Requested Analyses: <input checked="" type="checkbox"/> Total TAL Metals (EPA 6020A) <input checked="" type="checkbox"/> Total TAL Metals (EPA 6010C)
TAL Metals using EPA Method 6020A: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc	
TAL Metals using EPA Method 6010C: calcium, iron, magnesium, potassium, and sodium	

List all Locations Sampled by this Sampling Vessel on this Date:

Trib-6

DATA 11/26/13

Additional Notes or Photos

- ① ER-Trib-6-^{TI}FA-1 (shovel)
- ② ER-Trib-6-^{TI}FA-2 (seive)
- ③ ER-Trib-6-^{TI}FA-3 (tub)
- ④ ER-Trib-6-^{TI}FA-4 (scoop)

Field Supervisor Initials DA

Date: 10/14/13

Sample Lead Initials JR

Date: 10/10/13

Sample ID Format:

ER-LAL-4-TA: Daily Rinsate for vessel "Tahoma" at location LAL-4

ER-8-C3-TI: Daily Rinsate for vessel "Tieton" at location 8-C3



APPENDIX I
APPROVED CHANGE REQUESTS

Change Request Form
Upper Columbia River Phase 2 Sediment Study

Page: 1 of 2

Change No: 1

CHANGE REQUEST

Modify positions of sample locations LAL-4, LAL-5 and LAL-6

Applicable Reference:

FSP Map A-9. External Reference Locations in Canada

Description of Change:

Upstream relocation of sample locations LAL-4, LAL-5 and LAL-6 such that a 300 meter separation is achieved between the original sample location cluster and the relocated sample location cluster, while remaining approximately 100 meters from the shoreline.

Reason for Change:

Relocation of samples will avoid impacts to previously documented archaeological sites. See attached Figure for revised locations.

Impact on Present and Completed Work:

No impact is anticipated.

Requested By: Michael Kelly
(Scientist)

Date: 8/28/2013

Acknowledged By: David Hose
(Task Leader)

Date: 8/28/2013

APPROVAL

URS Project Manager: *Scott T. McFadden*

Date: 28 Aug 13

Teck Project Manager: *[Signature]*

Date: 08/29/13

EPA Project Manager: *[Signature]*

Date: 9/3/13

Points Move Request LAL4, 5 & 6

300m (+300ft) upriver/100m from shoreline

150 ft Buffer



0 25 50 100 150 Meters

Station_ID	X_UTM_11N	Y_UTM_11N
LAL-6	435329.3077	5466489.33150
LAL-5	435175.9442	5466578.76747
LAL-4	435055.5560	5466799.96003



Source: Esri, DigitalGlobe, GeoEye, Iacubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Change Request Form
Upper Columbia River Phase 2 Sediment Study

Page: 1 of 8

Change No: 2

CHANGE REQUEST

Creation of SOP for Tributary Sediment Sampling

Applicable Reference:

SOPs section (Attachment A2) of the Field Sampling Plan

Description of Change:

A new SOP (3-A) was prepared that details the procedures to be followed during tributary sampling activities. SOP 3-A is attached.

Reason for Change:

No SOP specific to tributary sampling was provided in the Final QAPP, dated March 2013.

Impact on Present and Completed Work:

None

Requested By: J.R. Flanders
(Scientist)

Date: 9/23/2013

Acknowledged By: David Hose
(Task Leader)

Date: 9/23/2013

APPROVAL

URS Project Manager: Paul T. McCullough

Date: 9/23/2013

Teck Project Manager: [Signature]

Date: 09/23/13

EPA Project Manager: [Signature]

Date: 9.23.13

STANDARD OPERATING PROCEDURE SOP-3A

TRIBUTARY SEDIMENT AND POREWATER SAMPLE COLLECTION

Scope and Applicability

The purpose of this standard operating procedure (SOP) is to describe the procedures used to collect surface sediment (i.e., 0-6 inches) and porewater from tributary reference locations that cannot be accessed using a boat-mounted sampler (e.g., refer to Photo 1).



Photo 1. Example of conditions associated with tributary reference sample locations encountered in 2005.

Procedures described in this SOP may be modified in the field by the Field Team Leader, sampling personnel, and the on-site EPA representative, based on site conditions. Any field modifications to this SOP will be documented in the field logbook.

Equipment and Materials

Representative samples should be collected with this procedure, which requires vigilant care and precision by each sample team member. Equipment required for tributary reference sampling includes the following:

- Decontaminated Ekman™ or Petite Ponar™ dredge
- Decontaminated stainless-steel shovel
- Decontaminated sampling tools (e.g., stainless-steel or Lexan scoops, trowels, or spoons)
- Laboratory pre-cleaned decontaminated ≤ 140 mL porewater extraction syringe, airstone, Tygon® or similar polyethylene tubing, and 0.45 μm hydrophilic filters
- Large Lexan tub
- Stainless steel paddle wheel mixer
- Stainless-steel ruler and/or tape measure
- Laboratory-supplied sample containers, insulated coolers, and wet ice
- Chain-of-custody forms, custody seals, sample labels
- Re-sealable plastic storage bags
- Digital camera
- Field logbook, sample collection forms, and pens
- Project-specific field sampling plan and health and safety plan
- Personal protective equipment (PPE) as specified within the health and safety plan

Procedures for Sediment Sample Collection and Processing

1. Locate the sample station using Map A8 in the Field Sampling Plan (FSP), and confirm the sample coordinates using a handheld GPS unit.
2. Assess substrate conditions at the sample location and determine if conditions are amenable to collection of fine-grained sediment (≤ 2 mm). A minimum area of fine-grained sediment 2-feet square and 6-inches deep is needed to provide sufficient volume of material for sampling purposes. If conditions are not amenable (e.g., the dominant substrate size is gravel and cobble, or the current prevents safely accessing the location), the Field Team Leader will discuss with the on-site EPA representative moving the sampling location to an area within the reference tributary that is amenable to sediment sampling. If accessing the sample location requires wading, ensure that the sampler has proper PPE (e.g., waders and flotation device).

3. Identify the final sample location on a site map, obtain location coordinates with the GPS unit, document site conditions, location coordinates, and digital site photos in the field logbook as described in SOP-5.
4. Label sediment and porewater sampling containers prior to filling in accordance with SOP-2.
5. All sampling activities will be conducted using the prescribed PPE including but not limited to nitrile gloves.
6. Assemble the porewater sampler by attaching the airstone to a ≤ 140 ml sampling syringe with tubing. All components of the porewater sampler that contact the sample will be precleaned by the analytical laboratory and stored in a re-sealable plastic storage bag until needed for sampling.
7. In order to provide the sampling team with a flexible approach in response to varied field conditions, porewater samples may be collected by one of two methods:
 - i. Sample collection from a sediment grab sampling device
 - ii. Direct porewater collection from accumulated sediment in the Lexan tub

Detailed description of sampling methodologies for each of these scenarios is provided below.

- a. Samples will be collected from within the grab sampler. Sediment samples will be collected using either an Ekman dredge or Petite Ponar grab sampler. An Ekman dredge is a lightweight sediment-sampling device with spring-activated jaws used to collect soft, fine grained sediment. A Petite Ponar dredge is a midweight sediment-sampling device with lever-activated weighted jaws that is used to collect more consolidated fine to coarse grained sediment. The following steps will be followed to collect a sediment sample depending on the sampler type selected:
 - i. **Ekman dredge:**
 1. Decontaminate the dredge prior to sampling following procedures described in SOP-4.
 2. Attach a nylon or wire rope and messenger line to the dredge. If the dredge is to be operated using a handle, attach the handle.
 3. Fix the jaws so that they are in the open position by placing trip cables over the release studs. Ensure that the hinged doors on the dredge top are free to open.

4. Lower the sampler through the water column to a point 4 to 6 inches above the sediment surface.
 5. Drop the sampler sharply onto the sediment. If a handle is used apply sufficient force to insert the sampler approximately 6 inches into the sediment. Repeated use of the sampler may be necessary to achieve the required depth if a handle is not available.
 6. If a handle is used, depress button to trigger the jaw release mechanism. If a handle is not available trigger the jaw release mechanism by lowering the messenger weight down the line.
 7. Raise the dredge at a slow and steady rate to prevent the doors from opening.
 8. Place the sample dredge into the Lexan tub. Open the doors on the top of the dredge, determine the sediment penetration depth achieved by the sampler and record this information on the field forms. The sampler should penetrate to between 4 and 6 inches below the sediment surface. However, penetration less than 4 inches can be retained and additional sediment collected until the sampler reaches the 6-inch depth.
 9. Collect a porewater sample from the top of the grab following procedures described in SOP-3. If porewater volume obtained from individual grabs is insufficient to collect a porewater sample, then it is allowable to collect porewater from the accumulated sediment in the Lexan tub.
 10. Repeat steps 3 – 8 to collect sediment volume sufficient for chemistry and bioassay analyses.
- ii. **Petite Ponar Grab Sampler:**
1. Decontaminate the grab sampler prior to sampling following procedures described in SOP-4.
 2. Attach a nylon or wire rope to the grab sampler.
 3. Arrange the grab sampler with the jaws in the open position, setting the trip bar so the sampler remains open when lifted from the top. If the sampler is so equipped, place the spring-loaded pin into the aligned holes in the trip bar.
 4. Lower the grab sampler slowly through the water column to a point 4 to 6 inches above the sediment surface.
 5. Drop the sampler sharply onto the sediment.

6. Pull up sharply on the line, triggering the jaw release mechanism to close the sampler.
7. Raise the dredge at a slow and steady rate to prevent doors from opening.
8. Place the sample dredge into the Lexan tub. Open the doors on the top of the dredge, determine the sediment penetration depth achieved by the sampler and record this information on the field forms. The sampler should penetrate to between 4 and 6 inches below the sediment surface. However, penetration less than 4 inches can be retained and additional sediment collected until the sampler reaches the 6-inch depth.
9. Collect a porewater sample from the top of the grab following procedures described in SOP-3. If porewater volume obtained from individual grabs is insufficient to collect a porewater sample, then it is allowable to collect porewater from the accumulated sediment in the Lexan tub.
10. Repeat steps 3 – 8 to collect sediment volume sufficient for chemistry and bioassay analyses.

If substrate conditions limit sampling success using either the Eckman dredge or the petite ponar grab samplers described above, sediment samples may be obtained by extracting sediment using a stainless steel shovel (or equivalent hand held tool):

1. Decontaminate the shovel prior to sampling following procedures described in SOP-4.
 2. Using the decontaminated stainless-steel shovel, excavate sediment from to a depth of 6-inches until adequate sediment volume is obtained for both chemistry and bioassay analyses.
 3. Place all excavated sediment into the Lexan tub.
 4. Collect porewater from the accumulated sediment in the Lexan tub following the procedure described in SOP-3.
8. Porewater will be expelled from the syringe into labeled, laboratory-provided sample containers (Table A-2 of the FSP). This water will be distributed unfiltered or filtered as specified by the analytical method. Porewater samples will be stored in a cooler with ice until they arrive at the analytical laboratory.
 9. The cultural resource monitor will examine the sediment to determine if cultural resources are present. If cultural resources are present, the field crew will follow instructions from the cultural resources monitor regarding what to do with the

- recovered sediment and cultural artifacts, as well as whether to abandon the sampling station.
10. Using a decontaminated stainless-steel paddle wheel mixer the sample will be homogenized in the Lexan tub until the texture and color of the sediment appears to be uniform.
 11. A qualified person will characterize the sediment and visually estimate the percentage of the homogenized material that is ≤ 2 mm in size as described in SOP-3.
 12. The sediment will be characterized as specified in the study design. Characteristics that will be recorded in the field logbook and/or data form include:
 - a. Sediment type (e.g., silt, sand)
 - b. Texture (e.g., fine-grain, coarse, poorly sorted sand)
 - c. Color
 - d. Presence/location/thickness of the redox potential boundaries (a visual indication of black is often adequate for documenting anoxia)
 - e. Presence of biological structures (e.g., amphipods, macrophytes)
 - f. Presence of debris (e.g., twigs, leaves)
 - g. Presence of shells
 - h. Stratification, if any
 - i. Presence of a sheen
 - j. Odor (e.g., hydrogen sulfide, oil, other).
 13. The homogenized sediment will be photographed. The photograph ID will be documented in the field so that the photograph can be subsequently labeled with station location, date, and time of sample.
 14. Once the cultural and geological evaluations are complete, rocks that are greater than or equal to ½-inch diameter ($\geq 1/2$ -in.) may be discarded from the homogenized sample after their approximate percent contribution to the homogenized volume has been determined and noted on the field collection form.
 15. The homogenized sediment will be placed into labeled, laboratory-provided, sample containers using a decontaminated stainless-steel or Lexan spoon/scoop. Sample containers for a field duplicate sample (if needed) will be filled from the same homogenized sediment as the primary sample.

16. The container for the acid volatile sulfides/simultaneously extracted metals (AVS/SEM) analysis should be filled first, as the results of this analysis are affected by excess oxygen exposure. The AVS/SEM container should be filled with sediment leaving no headspace, and the preservative should be distributed through the sample by inverting the container or by mixing.
17. Sediment samples designated for chemical analyses by the analytical laboratory will be placed directly in a cooler with wet ice. Bioassay samples will be stored in a chilled refrigerated truck until delivered to the analytical laboratory.
18. All pertinent field forms, chain of custody forms, quality assurance/quality control documentation, and logbooks entries will be completed before leaving the sample vicinity. Record any deviations from the specified sampling procedures in the field logbook.
19. All non-dedicated sampling equipment (e.g., dredge, Lexan tub, mixer and sampling scoops) will be decontaminated between sampling locations in accordance with decontamination procedures (see SOP-4).

Change Request Form
Upper Columbia River Phase 2 Sediment Study

Page: 1 of 5

Change No: 4

CHANGE REQUEST

Creation of SOP for collecting EPA-chemistry only split samples from ALS Laboratory in Kelso, WA

Applicable Reference:

SOPs section (Attachment A2) of the Field Samplin Plan

Description of Change:

A new SOP (No. 10) was prepared that details the procedures to be followed for collecting EPA-chemistry only split samples from sediment samples located at ALS in Kelso, WA. SOP-10 is attached.

Reason for Change:

No SOP specific to collecting EPA-split samples from ALS was provided in the Final QAPP, dated March 2013.

Impact on Present and Completed Work:

None

Requested By: J.R. Sugalski
(Scientist)

Date: 11/12/2013

Acknowledged By: David Hose
(Task Leader)

Date: 11/12/2013

APPROVAL

URS Project Manager: 

Date: 11/12/2013

Teck Project Manager: 

Date: 11/12/13

EPA Project Manager: 

Date: 11/12/13

STANDARD OPERATING PROCEDURE SOP 10

PROCESSING OF EPA CHEMISTRY SPLIT SAMPLES IN THE ALS LABORATORY

Scope and Applicability

This standard operating procedure (SOP) describes the general procedures for collecting EPA-chemistry only split samples at the ALS Laboratory (ALS) in Kelso, WA. EPA split samples were obtained in accordance with the Final Quality Assurance Project Plan (QAPP) for the Phase 2 Sediment Study dated March 2013 and shipped to ALS for temporary storage pending re-packaging from 5-gallon buckets to smaller containers and shipment to an EPA selected laboratory. This SOP applies to only the EPA-chemistry only split samples that were collected during the Phase 2 Sediment Field Program conducted from September 5, 2013 through October 24, 2013. The locations and designations of the chemistry only split samples are identified in Table 2-5 of the Quality Assurance Project Plan, Upper, Columbia River, Phase 2 Sediment Study, Split Sample Metals Analysis prepared by CH2M Hill and dated September 2013.

Equipment and Materials

Specific equipment and materials required to collect EPA split samples at the laboratory include the following:

- One Lexan tub
- One electric drill (preferably 18 volts)
- One stainless steel mixer paddle
- Two plastic scoop (s)
- Labeled Sample Containers (assumed to be provided by USEPA or their designee)
- Rubber hammer to close lid
- Six 5-gallon buckets to collect decontamination rinse water
- Three Spray bottles (DI, liquinox, Acid)
- 1L. Nitric Acid (10%)
- Liquinox
- Scrub brush
- Health and safety equipment (safety glasses, nitrile gloves, and coveralls or apron)

Procedures

The steps listed below should be followed to collect EPA chemistry only split samples at the laboratory:

1. Identify and locate sediment samples listed in Table 1.
2. Don appropriate health and safety equipment
3. Identify a suitable decontamination area and containers used to collect the rinse waters.
4. Decontaminate the following in accordance with SOP 4 of the QAPP (TAI, 2013).
 - a. Lexan tub
 - b. Two plastic scoops
 - c. One stainless steel homogenizer paddle
5. Each sample will be processed individually. Only one bucket should be open at a time.
6. Identify a sample to be processed and take the bucket to the processing area.
7. Remove bucket lid.
8. If sediment is primarily sand-sized particles the contents of the bucket may be emptied into a decontaminated Lexan tub for homogenization (**Proceed to step 10**). If sediment is primarily fine-grained particles and the bucket is approximately three quarters full, the material may be homogenized in the sample bucket (**Proceed to step 9**). If the bucket is more than three quarters full, the sediment may be emptied into a decontaminated Lexan tub for homogenization (**Proceed to Step 10**).
9. For material mixed in the sample bucket the following should occur:
 - a. Insert homogenizer paddle attached to drill into bucket.
 - b. Turn drill on and move paddle throughout the sample until the sample is satisfactorily mixed.
 - c. Using a decontaminated plastic scoop, remove sediment from the bucket and place into sample container(s). Label the sample containers if necessary.
 - d. Replace the lid on the bucket and return the bucket and remaining sediment to storage.
 - e. Decontaminate the mixing paddle and scoops in accordance with SOP 4 and proceed to the next sample (**Step 6**) until all samples have been processed.
10. For material mixed in the decontaminated Lexan tub the following should occur:
 - a. Place sediment into the decontaminated Lexan tub.
 - b. Use scoops to homogenize the material if the material is primarily sand sized particles. Use the decontaminated mixing paddle to homogenize the material if the sediment is primarily fine grained particles.
 - c. Mix the sample until it is satisfactorily mixed
 - d. Using a decontaminated plastic scoop, remove sediment from the bucket and place into sample container(s). Label the sample containers if necessary.

- e. Return the homogenized sediment to the bucket it originally came from.
 - f. Replace the lid on the bucket and return the bucket and sediment to storage.
 - g. Decontaminate the mixing paddle, Lexan tub and scoops in accordance with SOP 4 if used to mix the sample. Proceed to the next sample (**Step 6**) until all samples have been processed.
11. After all samples have been mixed and the necessary sample containers filled, ensure that the equipment used to homogenize the sample (tub, scoop and mixing paddle) have been decontaminated in accordance with SOP 4 of the QAPP. Using laboratory supplied Deionized (DI) water perform a final rinse of the equipment. After the final rinse is complete, pour additional DI water over the equipment and collect it in appropriate sample containers listed in the QAPP. Two containers will be filled for each piece of equipment and submitted for metals analysis by ALS in accordance with the QAPP. The equipment rinsate (ER) samples will have the following Sample IDs, where Station ID (Table 1) corresponds to the sample collected following the last decontamination of the sampling equipment:
- a. Lexan Tub – ER-Station ID-LAB-1
 - b. Homogenizing paddle – ER-Station ID-LAB-2
 - c. Scoop – ER-Station ID-LAB-3
12. Clean up area and ensure sample containers and buckets are stored properly.
13. Sign over custody of the sediment samples to the EPA or authorized representative.

Table 1: EPA Chemistry Only Split Sample Locations

Station ID	Location Priority	Proposed Analysis
8-C4	Primary	TAL Metals
Ref-4	Primary	TAL Metals
Ref-8	Primary	TAL Metals
6-R3	Reserve for 6-B3	TAL Metals
6B-C2	Primary	TAL Metals
7-B5	Primary	TAL Metals
5-B2	Primary	TAL Metals
5-B5	Primary	TAL Metals
5-B6	Primary	TAL Metals
5B-C3	Primary	TAL Metals
5-C3	Primary	TAL Metals
4-B3	Primary	TAL Metals
4-C6	Primary	TAL Metals
3-B3	Primary	TAL Metals
3-C4	Primary	TAL Metals
Trib-3	Primary	TAL Metals
2-B2	Primary	TAL Metals
1B-R2	Reserve for 1-B2	TAL Metals
1-R5	Reserve for 1-C1	TAL Metals
1-R8	Reserve for 1-C3	TAL Metals

References

CH2M Hill, 2013, Quality Assurance Project Plan, Upper, Columbia River, Phase 2 Sediment Study, Split Samples Metal Analysis. September 2013

TAI, 2013. Final Quality Assurance Project Plan for the Phase 2 Sediment Study. Prepared by Exponent and HDR HydroQual for Teck American Incorporated, Spokane, WA. March 2013.