UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

OFFICE OF ENVIRONMENTAL CLEANUP
EMERGENCY RESPONSE UNIT

Site Specific Sampling Plan

Project Name: Gorst Creek Removal Action Site ID: 10GL

Removal Action Phase: Stormwater Monitoring

Author: Jim Petersen Company: E & E Date Completed: June 8, 2016

This Site Specific Sampling Plan (SSSP) is prepared and used in conjunction with the Quality Assurance Plan (QAP) for the Emergency Response Unit for collecting samples during this Removal Program project. The information contained herein is based on the information available at the time of preparation. As better information becomes available, this SSSP will be adjusted.
When inadequate time is available for preparing the SSSP in advance of the sampling event, a Field Sampling Form may be prepared on-site immediately prior to sampling. This full length version of the SSSP is written after the sampling event and the completed Field Sampling Form attached to it.

1. Approvals

Name, Title	Telephone, Email, Address	Signature
Jeff Rodin, On-Scene Coordinator	206 553-6709, rodin.jeffry@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	JEFFRY RODIN Digitally signed by JEFFRY RODIN DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=JEFFRY RODIN, dnQualifier=0000010814 Date: 2016.06.09 14:16:39 -07'00'
Kathy Parker, ERU Quality Assurance Coordinator	206-553-0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	Kathy Parker Digitally signed by Kathy Parker DN: cn=Kathy Parker, o=EPA, ou=OSC, email=parker.kathy@epa.gov, c=US Date: 2016.06.09 13:59:19 -07'00'

I. Project Management and Organization

2. Personnel and Roles involved in the project:

Name	Telephone, Email, Company, Address	Project Role	Data Recipient
Jeff Rodin	206 553-6709, rodin.jeffry@epa.gov, USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	On Scene Coordinator	Yes
Jake Moersen	206 624-9537, jmoersen@ene.com, E & E 720 Third Avenue, Suite 1700 Seattle, Washington 98104	Superfund Technical Assessment and Response Team (START) Field Manager	Yes
Kathy Parker	206 553-0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	ERU Quality Assurance Coordinator	No
Mark Woodke	206 624-9537, mwoodke@ene.com, E & E 720 Third Ave, Suite 1700 Seattle, WA 98104	START Quality Assurance Reviewer	Yes

Christabel Escarez	253 922-2310, Christabel.excarez@Testamericainc.com, Test America, Inc., 5755 8th Street East, Tacoma, WA 98424	General Laboratory Contact	No

3. Physical Description and Site Contact Information:

Site Name	Bremerton Auto Wrecking Landfill/Gorst Creek Removal	
Site Location	4275 State Highway 3 SW, Port Orchard, Washington (See Figure 1).	
Property Size	Approximately 10 acres (See Figure 2).	
Site Contact	Not applicable	Phone Number: Not applicable
Nearest Residents	Within 0.25 miles	Direction: North and east
Primary Land Uses Surrounding the Site	Commercial, recreational, residential	

4. The proposed schedule of project work follows:

Activity	Estimated Start Date	Estimated Completion Date	Comments
SSSP Review/Approval	4/26/2016	6/8/2016	
Mobilize to / Demobilize from Site	4/25/2016	9/30/2016	Dates are approximate.
Sample Collection	5/24/2016	9/20/2016	Throughout the project as needed.
Laboratory Sample Receipt	5/25/2016	9/21/2016	
Laboratory Analysis	5/26/2016	9/28/2016	Various turnaround times depending on needs.
Data Validation	5/27/2016	9/29/2016	

5. Historical and Background Information

The Bremerton Auto Wrecking Landfill – Gorst Creek Removal Action property encompasses a triangular parcel centered over approximately 700 feet of the Gorst Creek Ravine (Figure 2). An auto wrecking yard (Airport Auto Wrecking, Too) borders the property to the northeast, and the Washington State Department of Transportation (WSDOT) owns the property adjacent to the landfill to the northwest (downstream), including State Highway 3 SW and an easement corridor on either side of the highway. Gorst Creek flows northwest under the property through an approximate 700 foot-long 24-inch corrugated steel culvert, then under State Highway 3 through a box culvert. The Gorst Creek Landfill was an active facility from the late 1950s until approximately 1987. In 1997, Gorst Creek backed up behind the landfill, flooded, and a portion of the northwest slope of the landfill failed, washing into Gorst Creek down slope of the landfill. Wastes were found approximately one-half mile downstream in Gorst Creek. The site is estimated to contain approximately 150,000 cubic yards of waste. Potential contaminants of concern associated with landfill operations include polychlorinated biphenyls (PCBs), target analyte list (TAL) metals, polynuclear aromatic hydrocarbons (PAHs; a subset of semivolatile organic compounds SVOCs), gasoline-range total petroleum hydrocarbons (TPHs), diesel-range TPHs, asbestos, and volatile organic compounds (VOCs). In 2011, EPA performed an Engineering Evaluation/Cost Analysis to determine

potential alternative actions to be taken at the site. Based on potential threats of site contaminants to human health and the environment, EPA decided to perform a time-critical removal action at the site which includes removal of the 150,000 cubic yards of waste.

This SSSP addresses stormwater monitoring and is the fourth of several that will be used to support the removal action. The following is the current list of the removal action SSSPs:

1. Baseline/background sampling.
2. Air sampling/monitoring.
3. Waste profile sampling (excavated material for the landfill and suspect ACM).
4. Stormwater/surface water monitoring.
5. Post-excavation confirmation sampling.

References:

Ecology and Environment, April 2012, Final Draft Engineering Evaluation/Cost Analysis, Bremerton Auto Wrecking Landfill - Gorst Creek Site, prepared for the United States Environmental Protection Agency, Seattle, Washington, Contract Number EP-S7-06-02, Technical Direction Document Number 11-11-0005.

Hart Crowser, Inc., October 2000, Site Hazard Assessment Gorst Landfill, prepared for the Department of the Navy, Engineering Field Activity Northwest, Naval Facilities Engineering Command, Contract Number N44255-98-D-4409.

Kitsap County Health Department, Various Dates, Site files for the Gorst Creek – Bremerton Auto Wrecking Landfill.

United States Environmental Protection Agency, January 2003, Geographic Information Query System for Gorst Creek – Bremerton Auto Wrecking Landfill.

6. Conceptual Site Model

Known site contaminants: VOCs, PAHs, PCBs, TAL metals and potentially asbestos. Stormwater-specific contaminants of concern: sediment (elevated turbidity) and acidity/alkalinity (high or low pH).

Transport Mechanisms: Disturbed soil, bare soil, and site activities can allow sediments to be mobilized during precipitation events and transported to streams.

Receptors: Streams and riparian areas can become degraded from sediments, adversely effecting wildlife and ecological receptors in the stream and creek flow function (i.e. susceptibility to flooding).

7. Decision Statement

The decision(s) to be made from this investigation is/are to:

Continually evaluate project adherence to the site-specific Stormwater Pollution Prevention Plan (SWPPP) for Bremerton Auto Wrecking Landfill, dated January 2016. Determine whether the construction practices and stormwater sediment control installations and procedures are effective. Monitoring results may be used to determine if additional or alternate best management practice (BMP) construction procedures or sediment control installations are needed to prevent sediment mobilization and impact to streams.

8. Action Level

Stormwater Quality Water Sampling

The SWPPP requires that water quality monitoring be conducted at least once per calendar week, and within 24-hours following discharge from the site. Discharge is when sufficient precipitation occurs to result in surface flow to migrate off the site boundary. Monitoring shall include turbidity measurement and pH measurement.

TURBIDITY

The turbidity benchmark stipulated in the project SWPPP is 25 nephelometric turbidity units (NTU) or less. If the turbidity is 26 to 249 NTU the following steps will be taken:

1. Review SWPPP for compliance with Washington Department of Ecology Construction

Stormwater General Permit Special Condition S9. (Refer to project SWPPP).
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark.
3. Document BMP implementation and maintenance in site log book.

If the turbidity exceeds 250 NTU at any time, the following steps will be conducted:
1. Washington Department of Ecology will be notified through contact with the site representative.
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark.
3. Document BMP implementation and maintenance in the site log book.
4. Continue to sample discharges daily until one of the following is true:
    - Turbidity is 25 NTU (or lower).
    - Compliance with the water quality limit for turbidity is achieved.
        - 1 - 5 NTU over background turbidity, if background is less than 50 NTU
        - 1% - 10% over background turbidity, if background is 50 NTU or greater
    - The discharge stops or is eliminated.

pH
There is no benchmark or target range for the pH specified in the project SWPPP or the Construction Stormwater General Permit. The pH will be monitored at the three discharge monitoring locations (site runoff [SW-1] and in the creek [SW-2 and SW-3] as called out in Attachment A) during the landfill removal project and recorded in the site log book. If any changes in pH resulting from site activities or contaminants are identified appropriate actions may be taken.

II. Data Acquisition and Measurement Objectives

9. Site Diagram and Sampling Areas

Sheet B-1 from the SWPP shows the site surface water monitoring locations and is included as Attachment A. Monitoring is conducted throughout the project area, to visually assess and evaluate the stormwater BMPs. There are three stormwater monitoring locations located in natural drainage channels where stormwater and surface water discharge from the site: one site runoff location (SW-1); and two creek monitoring locations (SW-2 and SW-3).

- Monitoring location SW-1 is located in a drainage located south and west of the Containment Cell area of the site, and flows northwestward under State Highway 3, then northeastward until it joins Gorst Creek. The drainage channel where SW-1 is located is normally dry, and is not expected to flow unless a heavy precipitation event occurs.
- Monitoring location SW-2 is located in Gorst Creek where the culvert beneath the Bremerton Auto Wrecking Landfill daylights at its downstream end, discharging water to the creek channel.
- Monitoring location SW-3 is located in Gorst Creek downstream of the State Highway 3 box culvert crossing.

Water quality parameters, including turbidity and pH shall be measured at SW-1, SW-2 and SW-3.

10. The Decision Rules

If the turbidity exceeds the benchmark stipulated in the project SWPPP of 25 NTU or less, the EPA Emergency and Rapid Response Services (ERRS) contractor will follow the required steps in the SWPPP and the Washington Department of Ecology Construction Stormwater General Permit Special Condition S9.

11. Information Needed for the Decision Rule

The following inputs to the decision are necessary to interpret the analytical results:

Turbidity and pH measurements at each monitoring point.

12. Sampling and Analysis

Sampling and analysis for stormwater monitoring will include measuring turbidity and pH at locations SW-1, SW-2, and SW-3 using portable measuring devices. Samples will be single point targeted grab samples from the stream at each location that has water. Samples will be measured using portable devices immediately after collection. Alternately, pH or turbidity may be monitored by placing the measuring device directly into the stream.

Turbidity will be measured using a Hanna Instruments HI 98703 Portable Turbidimeter, or equivalent. The meter will be calibrated, operated, and maintained according to manufacturer's instructions.

The pH of stormwater and surface water discharge will be measured using a Hanna Instruments HI 991001 pH/temperature meter, or equivalent, calibrated, operated, and maintained according to manufacturer's instructions. Alternately, pH may be measured using Macherey-Nagel pH-Fix 0 – 14 test strips, or equivalent.

13. Applicability of Data (place an X in front of the data categories needed, explain with comments)

__ ***A) Definitive data*** *is analytical data of sufficient quality for final decision-making. To produce definitive data on-site or off-site, the field or lab analysis will have passed full Quality Control (QC) requirements (continuing calibration checks, Method Detection Limit (MDL) study, field duplicate samples, field blank, matrix spikes, lab duplicate samples, and other method-specific QC such as surrogates) AND the analyst will have passed a Precision and Recovery (PAR) study AND the instrument will have a valid Performance Evaluation sample on file. This category of data is suitable for:* ***1) enforcement purposes, 2) determination of extent of contamination, 3) disposal, 4) RP verification or 5) cleanup confirmation.***
Comments: All chemical analyses at the off-site laboratory will produce definitive data.

___ ***B) Screening data with definitive confirmation*** *is analytical data that may be used* ***to support preliminary or intermediate decision-making*** *until confirmed by definitive data. However, even after confirmation, this data is often not as precise as definitive data. To produce this category of data, the analyst will have passed a PAR study to determine analytical error AND 10% of the samples are split and analyzed by a method that produced definitive data with a minimum of three samples above the action level and three samples below it.*
Comments:

_X_ ***C) Screening data*** *is analytical data which has not been confirmed by definitive data. The QC requirements are limited to an MDL study and continuing calibration checks. This data can be used for making decisions:* ***1) in emergencies, 2) for health and safety screening, 3) to supplement other analytical data, 4) to determine where to collect samples, 5) for waste profiling, and 6) for preliminary identification of pollutants****. This data is not of sufficient quality for final decision-making.*
Comments: The SWPPP will be modified if monitoring results determine that BMPs are found to be ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site

14. Special Sampling or Analysis Directions

In order to satisfy the SWPPP requirements and to provide immediate results, turbidity and pH values will be measured with portable pH and turbidity meters at monitoring points SW-1, SW-2, and SW-3.

15. Method Requirements

[Describe the restrictions to be considered in choosing an analytical method due to the need to meet specific regulations, policies, ARARs, and other analytical needs. Examples: 1) Methods must meet USEPA Drinking Water Program requirements. 2) Methods must achieve lower quantitation limits of less than 1/10 the action levels.3) Methods must be performed exactly as written without modification by the analytical laboratory.]

Turbidity Sampling

Requirements include calibrating the turbidity meter to sample site discharges for compliance with the Construction Stormwater General Permit (CSWGP). Sampling will be conducted at all discharge points at least once per calendar week, or within 24 hours of discharge associated with a rain event.

pH Sampling

pH monitoring will be conducted using a pH meter or wide range pH indicator paper.

16. Sample Collection Information

The applicable sample collection Standard Operating Procedures (SOPs) or methods will be followed and include:

Construction Stormwater General Permit Stormwater Pollution Prevention Plan (SWPPP) for Bremerton Auto Wrecking Landfill, January 2016.
Field Activity Logbook SOP
Hanna Instruments Quick Reference Guide for HI 991001 pH/temperature meter
Hanna Instruments HI 98703 Portable Turbidimeter Instruction Manual
Sampling Equipment Decontamination SOP
Site entry

17. Optimization of Sampling Plan (Maximizing Data Quality While Minimizing Time and Cost)

Monitoring and field screening analysis information is summarized in Table 1.

Table 1. Sampling and Analysis

Data Quality	Sampling Area	Matrix	Sampling Pattern	Sample Type	Number of Field Samples	Analyte or Parameter	EPA Method Number	Action Level	Method Quant. Limit	#/type of Sample Containers per Sample	Preservative (Ice to ≤6oC)	Hold Time (days unless otherwise noted) (to extraction/to analysis)	Field QC
Field Screening	All decision areas	Water	Targeted	Grab	At each of 3 stormwater monitoring event, with samples at each stormwater monitoring location if there is flow.	pH	Manufacturer's Instrument users manual	No site action level.	NA	NA	NA	NA	NA
					(SAME AS ABOVE)	Turbidity	Manufacturer's Instrument users manual	26–250 NTU and >250 NTU	NA	NA	NA	NA	NA

Note: For matrix spike and/or duplicate samples, no extra volume is required for air (unless co-located samples are collected), oil, product, or soil samples except soil VOC or NWTPH-Gx samples (triple volume). Triple volume is also required for organic water samples (double volume for inorganic).

Table 2. Common Sample Handling Information

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
Metals	Metals Not including Mercury or Hexachrome. Includes TAL, PP, RCRA lists)	Solid	EPA 6000 / 7000 Series	Glass Jar	200 g	n/a	None	6 months	SW-846 ch. 3
		Aqueous	EPA 6000 / 7000 Series	PTFE or HDPE	600 mL	HNO_3 to pH < 2	Not listed	6 months	SW-846 ch. 3
	Mercury	Solid	EPA 7471B	Glass Jar	200 g	n/a	≤ 6° C	28 days	SW-846 ch. 3
		Aqueous	EPA 7470A	PTFE or HDPE	400 mL	HNO_3 to pH < 2	Not listed	28 days	SW-846 ch. 3
	Hexavalent Chromium, (Hexachrome, Cr+6)	Solid	Lab-specific soil extraction modification, EPA 7196A	Glass Jar	100 g	n/a	≤ 6° C	28 days to extraction	SW-846 ch. 3
		Aqueous	EPA 218.6 (Drinking Water)	PTFE or HDPE	400 mL	n/a	≤ 6° C	24 hours	SW-846 ch. 3
	XRF	Solid (in situ; on the ground surface)	6200	none	n/a	none	none	Analyze Immediately	n/a
		Solid (ex situ)	6200	plastic bag	200 g	none	none	6 months	n/a
VOCs	VOCs / BTEX	Solid	EPA 5035 / 8260B	*	*	*	*	2 days to lab / 14 days	SW-846 ch. 4
		Aqueous	EPA 8260B	Amber Vial with Septa Lid	2 x 40 mL	HCl to pH< 2	≤ 6° C (headspace free)	14 days	SW-846 ch. 4
SVOCs	SVOCs / PAHs	Solid	EPA 8270D	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8270D	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
PCBs and Dioxins/Furans	PCBs	Solid	EPA 8082	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8082	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
	Dioxins/Furans	Solid	EPA 8280 or 8290	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8280 or 8290	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
Pesticides and Herbicides	Chlorinated Pesticides	Solid	EPA 8081	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8081	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
	Chlorinated Herbicides	Solid	EPA 8151	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8151	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
NWTPH	Gasoline-Range Organics	Solid	TPHs/NWTPH-Gx	Amber Glass Jar with Septa Lid	4 ounces	n/a	≤ 6° C (headspace free)	14 days	Method
		Aqueous	TPHs/NWTPH-Gx	Amber Vial with Septa Lid	2 x 40 mL	pH < 2 with HCl	≤ 6° C (headspace free)	7 days unpreserved 14 days preserved	Method
	Diesel-Range Organics	Solid	3510, 3540/3550, 8000	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	Method
		Aqueous	3510, 3540/3550, 8000	Glass Amber	2 x 1 L	pH < 2 with HCl	≤ 6° C	7 days unpreserved 14 days preserved	Method

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
Miscellaneous	pH	Solid	EPA 9045	Glass Jar	8 ounces	n/a	n/a	Analyze Immediately	SW-846 ch. 3
		Aqueous	EPA 9040	PTFE	25 mL	n/a	n/a	Analyze Immediately	SW-846 ch. 3
	Total Organic Carbon (TOC)	Solid	SW-846 9060	Glass Jar	100 mL	n/a	≤ 6° C	28 days	SW-846
		Aqueous	EPA 415.1	PTFE or HDPE	200 mL	store in dark HCL or H_2SO_4 to pH <2	≤ 6° C	7 days unpreserved 28 days preserved	Method
	Cyanide	Solid	SW-846 9013	Glass Jar	5 g	n/a	≤ 6° C	14 days	SW-846 ch. 3
		Aqueous	SW-846 9010C	PTFE or HDPE	500 mL	NaOH to pH > 12	≤ 6° C	14 days	SW-846 ch. 3
	Conductivity	Aqueous	EPA 120.1	PTFE or HDPE	100 mL	n/a	n/a	Analyze Immediately	Method
	Hardness	Aqueous	EPA 130.1	PTFE or HDPE	1 x 1 L	HNO3 to pH<2	≤ 6° C	28 days	Method
	Total Suspended Solids	Aqueous	EPA 160.2	PTFE or HDPE	100 mL	n/a	≤ 6° C	7 days	Method
	Total Dissolved Solids	Aqueous	EPA 160.1	PTFE or HDPE	100 mL	n/a	≤ 6° C	7 days	Method
	Nitrate/nitrite	Aqueous	EPA 353.2	PTFE or HDPE	1 x 250 mL	H_2SO_4 to pH <2	≤ 6° C	28 days	Method
	Nitrate	Aqueous	SW-846 9210A	PTFE or HDPE	1,000 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Nitrite	Aqueous	SW-846 9216	PTFE or HDPE	25 mL	n/a	≤ 6° C	48 hours	SW-846 ch. 3, Method
	Fluoride	Aqueous	SW-846 9214	PTFE or HDPE	300 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Chloride	Aqueous	SW-846 9250	PTFE or HDPE	50 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Sulfate	Aqueous	SW-846 9035	PTFE or HDPE	50 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Sulfide	Solid	SW-846 9215	Glass Jar	1 x 4 ounces	Fill sample surface with 2N zinc acetate until moistened.	≤ 6° C (headspace free)	7 days	SW-846 ch. 3
		Aqueous	SW-846 9031	PTFE or HDPE	100 mL	4 drops 2N zinc acetate/100 mL sample; NaOH to pH>9.	≤ 6° C (headspace free)	7 days	SW-846 ch. 3

Key:

* = See individual methods. We typically collect 3xEnCore-type samplers and 1x40 mL VOA vial per sample, keep at ≤ 6°C with no chemical preservative, and they must be at the lab within 48 hours of collection.

C	= Celsius	HNO_3	= nitric acid	SVOCs	= semivolatile organic compounds
Cr	= chromium	L	= liter	SW-846	= EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
EPA	= Environmental Protection Agency	mL	= milliliter	TAL	= Target Analyte List
g	=grams	n/a	= not applicable	TPH	= total petroleum hydrocarbons
H2SO4	= sulfuric acid	NaOH	= sodium hydroxide	VOA	= Volatile Organic Analysis
HCL	= hydrochloric acid	PCBs	= polychlorinated biphenyls	VOCs	= Volatile Organic Compounds
HDPE	= high-density polyethylene	PTFE	= polytetrafluoroethylene		
Hg	= mercury	RCRA	= Resource Conservation and Recovery Act		

III. Assessment and Response

A Sample Plan Alteration Form (SPAF) will be used to describe project discrepancies (if any) that occur between planned project activities listed in the final SSSP and actual project work. The completed SPAF will be approved by the OSC and QAC and appended to the original SSSP.

A Field Sampling Form (FSF) may be used to capture the sampling and analysis scheme for emergency responses in the field and then the FSF pages can be inserted into the appropriate areas of the final SSSP.

Corrective actions will be assessed by the sampling team and others involved in the sampling and a corrective action report describing the problem, solution, and recommendations will be forwarded to the OSC and the ERU QAC.

IV. Data Validation and Usability

The sample collection data will be entered into Scribe and Scribe will be used to print lab Chains of Custody. Results of field and lab analyses will be entered into Scribe as they are received and uploaded to Scibe.net when the sampling and analysis has been completed.

18. Data Validation or Verification will be performed by:

ERU's general recommendation on validation is that a minimum of CLP-equivalent stage IIA verification and validation be performed for every SSSP involving laboratory analyses. However, stage IIB is preferred if the lab can provide it. Dioxins should be validated at CLP-equivalent stage 4.

	Data Verification and Validation Stages						
Performed by:	I	IIA	IIB	III	IV	Verification	Other:
E and E QA Reviewer			100%		10%	100% Field Screening	
EPA Region 10 QA Office							
MEL staff							
Other:							