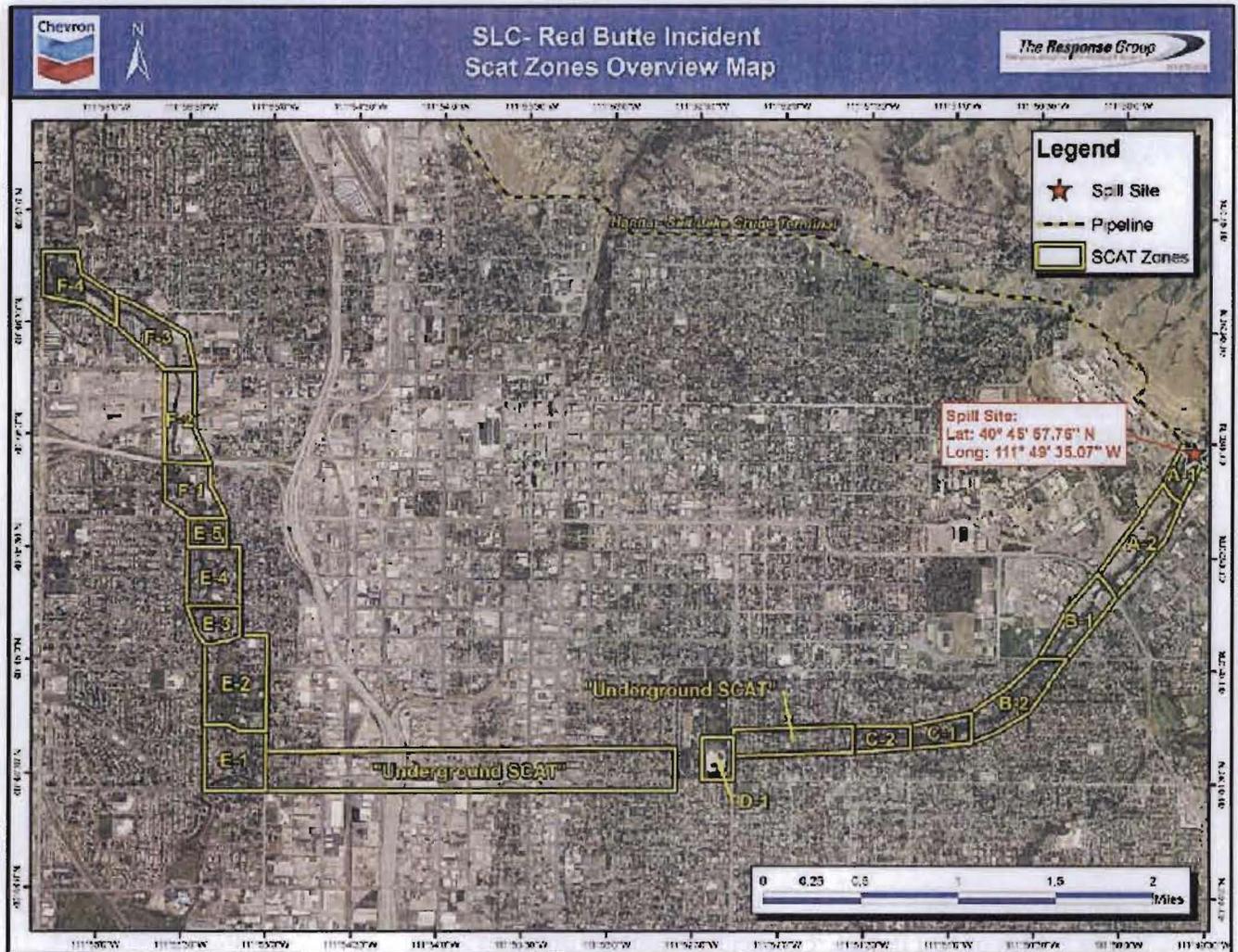


Appendix D
SLC Red Butte Creek Incident Water and
Sediment Sampling Plan



SLC Red Butte Creek Incident Water and Sediment Sampling Plan

Chevron Pipe Line
Salt Lake City, Utah

July 2010

DRAFT 9

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....3

1.0 INTRODUCTION.....4

 1.1 Purpose, Objectives, Scope, and Background.....4

2.0 PLAN IMPLEMENTATION.....7

 2.1 Plan Initiation.....7

 2.2 Reporting Relationship to Unified Command.....7

3.0 SAMPLING PROCEDURES.....8

 3.1 Overview.....8

 3.2 Safety.....8

 3.3 General Sampling guidance.....9

 3.4 Source Oil Sampling details.....10

 3.5 Water and Sediment sampling procedures.....11

 3.5.1 Sampling areas11

 3.5.2 Water sampling procedure details14

 3.5.3 Sediment Sampling procedure details.....14

4.0 CHEMICAL ANALYSES.....18

 4.1 Analytical Laboratory.....18

 4.2 Analytical Methods.....18

 4.3 Quality Control Samples.....19

 4.4 Chain-of-Custody.....19

5.0 Acronyms.....20

LIST OF TABLES

Table 1. Plan Initiation.....7

Table 2. Procedures applicable to all sampling events.....9

Table 3. Water sampling.....15

Table 4. Sediment sampling.....17

Table 5. Summary of Analytical Methods.....18

Table 6. Sam containers and volumes required for analyses.....18

LIST OF FIGURES

Figure 1. Map of Red Butte Creek incident response divisions5

Figure 2. Elevation Profile of Red Butte Creek.....6

Figure 3. Map of Red Butte Creek, Jordan River, Emigration Creek, and Parleys Creek6

Figure 4. Conceptual diagram of water and sediment sampling sites.....12

Figure 5. Map of Red Butte Creek Upstream of Spill Site.....13

Figure 6. Map of Jordan River Sampling Locations.....14

EXECUTIVE SUMMARY

This document describes the water and sediment sampling plan for the Red Butte Creek (RBC) incident. The sampling plan is a cooperative effort among state and federal trustees and Chevron Pipe Line personnel.

The focus is on hydrocarbons (BETX, TPH and PAHs). Data collected are intended for comparison to water quality benchmarks and sediment quality benchmarks developed for ecological receptors.

Up to four sampling events (Q3 2010, Q4 2010, Q1 2011 and Q2 2011) are planned.

Samples of the fresh and weathered crude oil were collected early in the response and have been submitted by the FOSC for analysis at the US Coast Guard Marine Safety Lab.

Water and sediment samples will be collected at both background and impacted sites as part of this plan. Sampling areas include

- Red Butte Creek upstream of the spill site (non-representative background),
- Divisions A, B, and C of Red Butte Creek downstream of the spill site, but above Liberty Pond,
- the Jordan River upstream of 1300 South and below 900 South,
- Emigration Creek and Parleys Creek.

Emigration Creek and Parleys Creek are considered representative of the background levels of hydrocarbons present in Red Butte Creek.

1.0 INTRODUCTION

1.1 Purpose, Objectives, Scope, and Background

Introduction: This plan is for the long-term monitoring of the potential impacts of the Salt Lake City (SLC) Red Butte Creek (RBC) incident. The focus is on assessing potential residual hydrocarbons (BTEX, PAHs and TPH) in the water and sediment associated with the incident. The sampling sites are in the RBC and Jordan River. Sites representing background conditions are upstream of the spill site on RBC, upstream of 1300 South culvert in the Jordan River, Emigration Creek and Parley's Creek. A total of four sampling events are planned over the next four quarters (as needed).

Purpose: To assess potential hydrocarbon impacts to Red Butte Creek and the Jordan River from the SLC RBC incident.

Objectives:

- 1) Collect and fingerprint source oil.
- 2) Collect water and sediment samples.
- 3) Analyze water and sediment samples for total and speciated hydrocarbon content.

Scope: A sampling team composed of agency representatives and Chevron Pipe Line personnel will cooperatively collect the water and sediments in four events (Q3 2010, Q4 2010, Q1 2011 and Q2 2011). A contract lab will analyze the samples. The sampling team will review the data.

Background: The Salt Lake City Red Butte Creek incident released approximately 800 barrels of a 33 API (= sp. gr. 0.825) crude oil on June 12, 2010. The cause of the incident is under investigation. As of July 16, 2010, a total of approximately 640 barrels are accounted for through recovery (590) and evaporation (50). For the purposes of the response, both impacted and additional downstream reaches of Red Butte Creek and the Jordan River have been divided into Divisions (Figure 1; Divisions A-F) and further divided into smaller geographically connected areas designated sequentially by number (e.g Division A1, A2, ...F5)

Red Butte Creek is a narrow rocky creek with a normal flow of about 5 cubic feet per second (cfs). The impacted reach drops about 750 feet over a reach of 18,000 feet, averaging approximately 4% average drop (Figure 2). Flow is regulated by the dam at Red Butte Reservoir.

One function of the impacted portion of Red Butte Creek is as an urban stormwater/irrigation water conveyance system. According to a recent USEPA technology evaluation study, storm water from urban areas typically contains from 10-88 mg/L TPH (www.epa.gov/etv/pubs/600s07003.pdf). For this reason, it is important that suitable background or reference sites be selected for comparison with the data to be obtained in this study. Sites at both Parley's and Emigration Creeks have been identified. Like Red Butte Creek, all have lengthy wildland reaches in the Wasatch front range, and then flow through residential/urban reaches before entering the Jordan River (Figure 3).

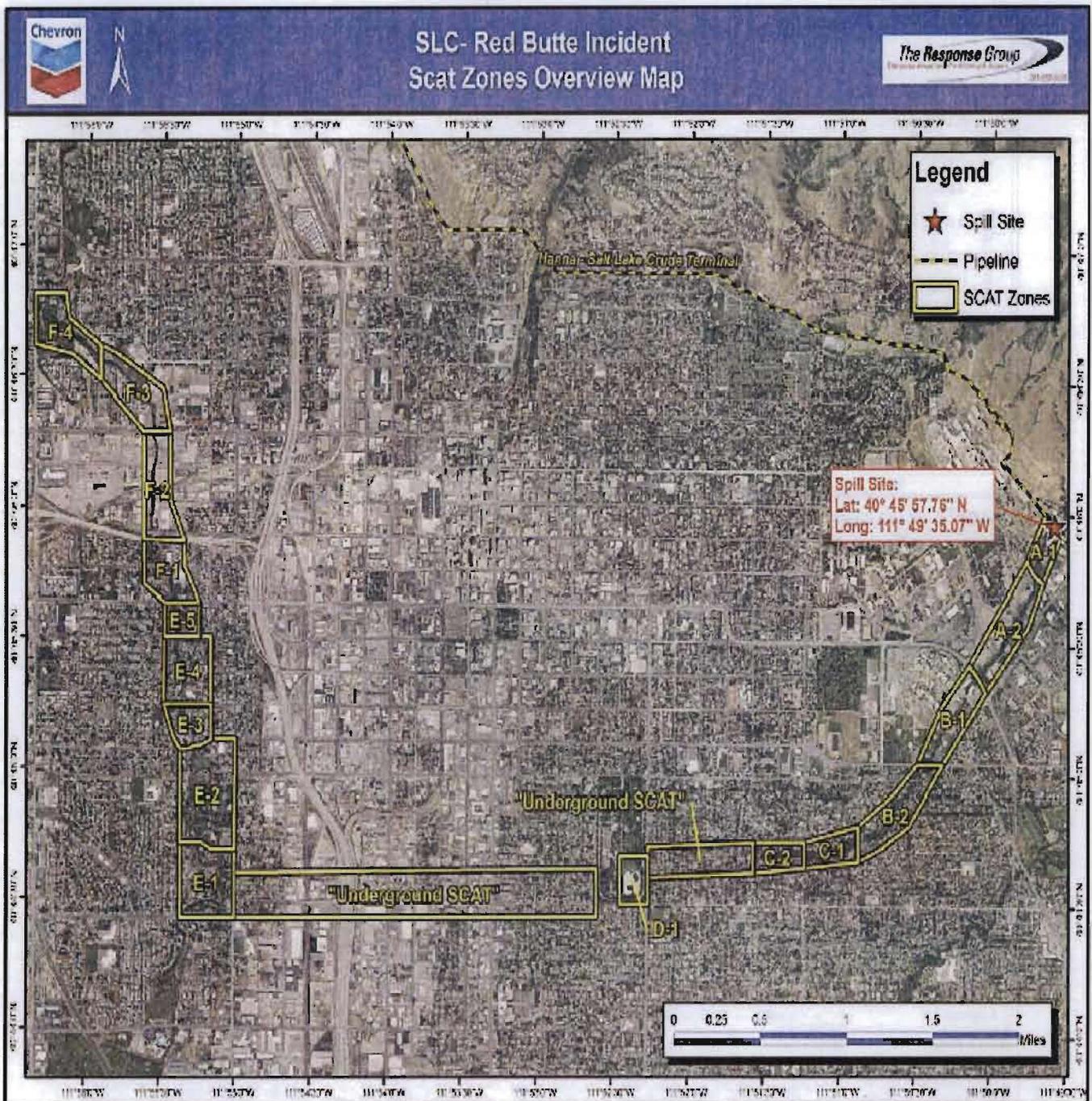


Figure 1 – Map of SLC Red Butte incident response showing Division designations. Divisions A, B, C are daylight reaches identified sequentially downstream from the release site. Division D is Liberty Park pond. Divisions E and F are the Jordan River reaches.

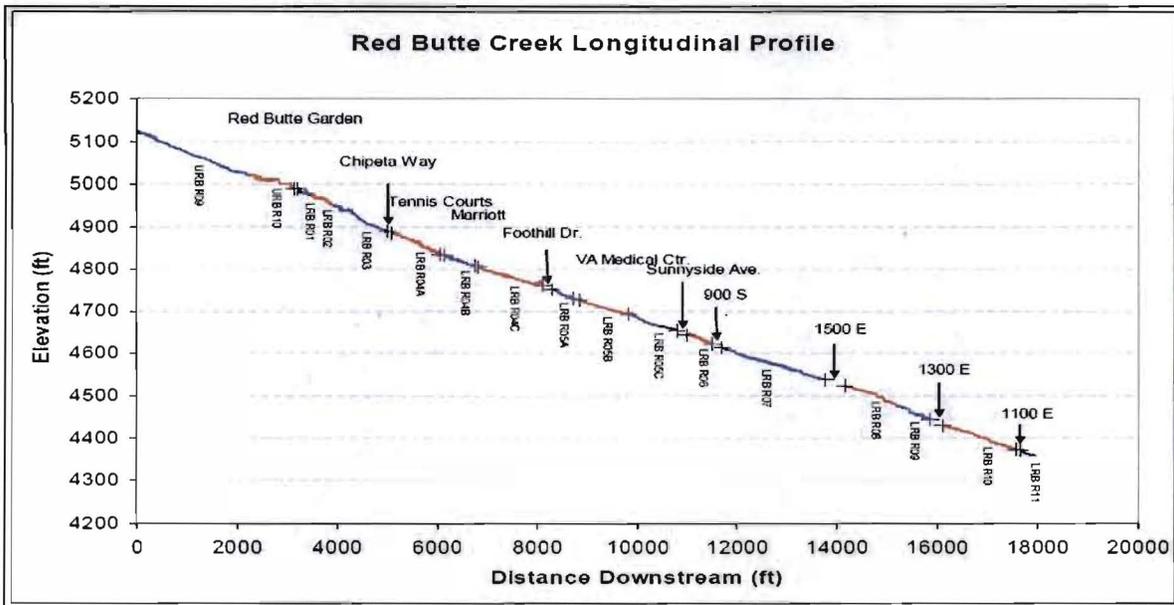


Figure 2. Elevation Profile of Red Butte Creek. Diagram from SLC Riparian Corridor Restoration Study Final Red Butte Creek Management Plan.

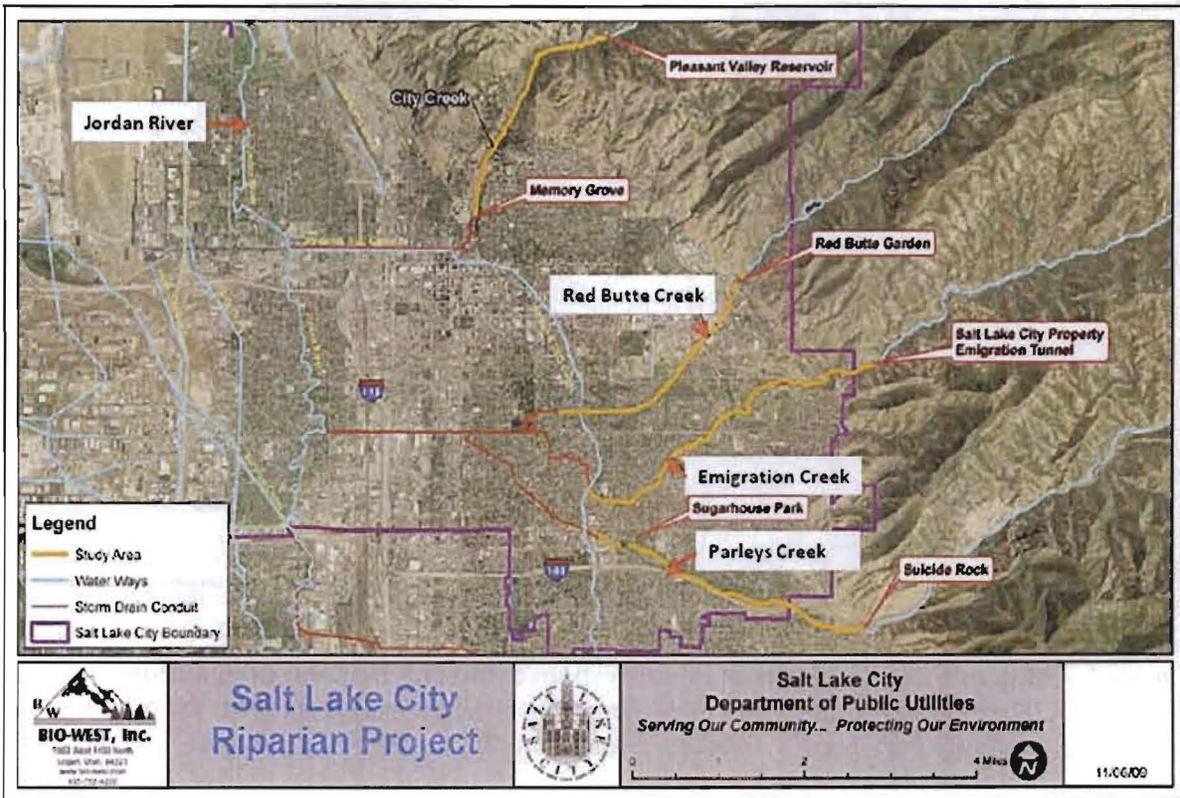


Figure 3. Map of Red Butte Creek, Jordan River, Emigration Creek, and Parleys Creek. Map annotated based on original from the “Salt Lake City Riparian Corridor Study.”

2.0 PLAN IMPLEMENTATION

2.1 Plan Initiation

The agencies and Chevron Pipe Line will assign personnel to the environmental monitoring team. The team is then responsible for finalizing the plan details, arranging the necessary logistics for sampling and analysis, completing the field collection, and preparing a final report summarizing the results.

Key steps for finalization of the environmental monitoring plan are shown in Table 1.

Table 1. Plan Initiation

Task	Assignment	Schedule
Form Sampling Team	Trustees, Chevron Pipe Line	July 2010
Review and finalize draft environmental monitoring sampling plan	Team	August 2010
Identify sampling sites (GPS coordinates)	Team	August 2010
Contract analytical laboratory and possible alternates	Team	August 2010
Finalize sampling schedule	Team	August 2010
Develop contact list	Team	August 2010
JSSP for field sampling activities	Team	August 2010

2.2 Reporting Relationship to Unified Command

2.2.1 Sampling Team

Sampling team members will be selected by the Environmental Unit leader in consultation with the key trustee agencies, and with the concurrence of the Unified Command (UC) for the response. Each sampling team member will identify a single point of contact within each of their respective organization for reporting purposes (Appendix 1; Tables 1, 2).

Initially, the sampling team will report to Unified Command as long as UC is active for the response.

After the UC stands down, the sampling team will report to their respective point of contacts.

3.0 SAMPLING PROCEDURES

3.1 Overview

This section describes methods for collecting source oil, water and sediment samples. The methods described below are guidelines. Changes can be made as necessary. Any changes in the collection methods should be documented and agreed within the team.

3.2 Safety

Safety is the most important consideration when implementing this sampling plan. All field team members will read and perform all work in accordance with the incident-specific job site safety plan (JSSP), and will receive a daily safety briefing before going into the field.

All individuals responding in the field must have appropriate HAZWOPER training and documentation.

Individuals involved in field sampling activities must wear the appropriate Personal Protective Equipment (PPE) as specified in the JSSP or by the designated Safety Officer. This will generally include: safety glasses, hard hat, steel toed boots and some type of protective clothing. In some cases higher levels of protection including fire-resistant clothing (e.g. Nomex), chemical protective clothing (e.g., Tyvek suits or rain gear), rubber boots or waders, sunscreen, and gloves may be necessary.

Nitrile or other suitable gloves must be worn by persons collecting samples. They should also be worn by anyone who may have incidental contact with oil or contaminated materials. More substantial gloves may be required for obtaining source crude oil samples or if continuous contact with oil is expected. Gloves should be changed regularly when contaminated to avoid chemical exposure as well as avoiding cross-contamination between samples.

Local conditions should be evaluated before and during field operations. By definition, field sampling events are considered non-essential and should be terminated immediately if local conditions warrant.

- Sampling should be terminated during inclement weather. The response guideline is to terminate operations during lightning storms and for 30 minutes after the last bolt.
- No sampling should be conducted from after sunset or before sunrise.
- While working on the shorelines or uneven terrain, be mindful of slippery surfaces and sharp objects.

Any incident or injury must be promptly reported to the designated Safety Officer and individual management immediately, and in accordance with the site-specific site safety plan.

Field team members collecting samples by boat will receive a boat safety briefing by the boat operator prior to leaving the dock. When on the water, all persons onboard will wear personal floatation devices at all times.

3.3 General Sampling Guidance

This plan refers to sample “areas” and sample “sites”. A sample “area” is the general vicinity where the sample is to be collected (e.g., RBC Division A1, Jordan River, etc). A sample “site” is precise geographic point specified by latitude/longitude coordinates where samples are collected (e.g., RBC Division A1 lat/lon).

An overview of the sampling procedures applicable to all samples collected as part of this plan are summarized in Table 2. More specific details for sampling each media (source crude oil, water, sediments) are provided later in this plan.

3.3 Field Sampling

The sampling team may collect samples as a group or designate a third-party service to collect the samples. If a third-party is used, agency and Chevron personnel should be on-hand during the sampling events to witness the sample collection procedures. If needed, team members or designees may split into two groups to collect the samples.

Table 2. Procedures applicable to all sample collection events

Procedure	Details
Recordkeeping	At the start of each sampling day, record the following information in a permanent field log book <ul style="list-style-type: none"> • Date • Sampling team members and contractors participating • Sample sites to be visited • Persons designated to fill the roles: <ul style="list-style-type: none"> ○ sample collector, ○ sample processor, and ○ recordkeeper for the sampling day.
Labeling	<ul style="list-style-type: none"> • Use permanent marker for filling out labels. • Prior to collecting a sample, fill out the container labels with the following information: <ul style="list-style-type: none"> • sample number, • sample type (e.g., source oil), • date and time, • sample site. GPS positions should be recorded as follows: lat NDD.ddddd; lon WDD.ddddd; WGS 84 datum. • collector and processor's name(s). • After the sample is collected, clean the outside of the container with a disposable wipe. • Affix the completed sample label, and cover label with clear tape. • Check the label it is readable and correct.
Cross contamination and decontamination	<ul style="list-style-type: none"> • Change gloves between sample collections. • If tools or sampling devices are re-used at multiple collections (even

	<p>between duplicates at the same site), clean the equipment with Alconox® and rinse with distilled water between each sample collection. Methanol may also be used to clean equipment, but appropriate precautions must be taken due to the flammability and toxicity of this solvent. When decontaminating sampling equipment, wash and rinse over a labeled plastic bucket with a lid for later disposal.</p>
Sample Storage	<ul style="list-style-type: none"> • Water and sediment samples should be immediately placed in an ice chest. Store at 4 degrees C until delivery at the lab. • Source oil sample(s) should be placed in a separate container. Chilling is not required, but recommended. Keep source oil samples away from any other samples.
Waste Handling	<ul style="list-style-type: none"> • Store all oily rags and materials in a plastic bag. • Dispose of accumulated wastes in accordance with the waste management plan prepared by the Environmental Unit.
Other Documentation	<ul style="list-style-type: none"> • Make a sketch in the field book showing the sampling sites. Record weather conditions, creek/river elevation, and any other pertinent information. • Photograph each sampling site and source. Prior to any sampling, and after marking the station, photograph or video the sampling site. Take video and/or the photos in both directions along the shore as well as from the waterline toward the backshore, and from the backshore to the waterline. Try to get permanent and distinctive landmarks in some photos and/or videos for future reference. • Keep a photo log so each photograph can be properly identified. • Take photographs as the samples are being collected to document the procedure.
Chain of Custody	<p>Chain-of-custody must be maintained at all times. Chain-of-custody means that the sample or data are under the possession and control of the person identified on the form for the period specified on the form. Possession and control can mean literally in possession, within sight, or in secure storage where the access is limited to the person in possession. The person taking possession and the person relinquishing possession need to sign the form when the transfer takes place.</p>

3.4 Source Oil Sampling

It is critical that all sources of spilled oil be identified and sampled to enable forensics analyses and toxicity testing of the source oil, as well as, comparison to oil that may be detected in samples collected from various media.

3.4.1 Source oil sampling details

Sampling site: The source oil was collected at the spill site on Red Butte Creek from the pipeline drainage. A sample of weathered oil recovered at Liberty Park pond was collected from the recovered oil tanks as well.

Timing: Both the source crude oil sample and the recovered oil samples were held at the Chevron Salt Lake City Refinery until transferred to the custody of the USEPA START contractor. Both samples were submitted to the USCG Marine Safety Lab for analysis. Preliminary analysis of the samples were received from the USEPA and distributed by email on July 29, 2010 to Chevron and the agencies.

3.5 Water and Sediment Sampling

Water and sediment samples are collected for two primary reasons: 1) to determine baseline (un-impacted) conditions, and 2) the concentration of petroleum components in the water as a result of the release in impacted area(s). Petroleum hydrocarbons (both baseline and post release) enter the water column from physical processes such as mixing, dispersion, dissolution, as well as by adsorption on suspended particles or other materials.

This incident involved an uncontrolled accidental release into a fast-moving narrow creek. That scenario made collection of a representative baseline (pre-impact) water or sediment samples problematic as there was not sufficient time before the impact spread downstream.

Baseline sampling in this incident is further complicated by the fact that the release occurred virtually at the wildland/urban interface. Immediately upstream of the spill site are wildland and preserved areas while immediately downstream the creek flows through the University of Utah campus and through heavily residential and light commercial areas. Thus, the immediate upstream areas have limited value as proxy baseline sites.

However, the nearby Emigration Creek and Parley's Creek both run through urban areas. Appropriate sampling sites in those creeks will serve as proxy for the pre-impact baseline of Red Butte Creek.

The petroleum hydrocarbons of interest in this spill include volatile aromatic compounds (e.g., benzene, toluene, ethylbenzene, and xylenes; BTEX), low molecular-weight PAHs, and other PAHs that may contribute to chronic toxicity (e.g., benzo[a]pyrene).

3.5.1 Sampling areas

Water and sediment samples will be collected from the following areas:

- Upstream of spill site on Red Butte Creek (Figure 5)
- Red Butte Creek Divisions A, B and C (see Figure 1)
- Jordan River above 1300 South Culvert (Figure 6)
- Jordan River below 900 South Culvert (Figure 6)
- Emigration Creek (Figure 3)
- Parleys Creek (Figure 3)

Exact sites will be determined by the Sampling Team as part of finalization of this plan.

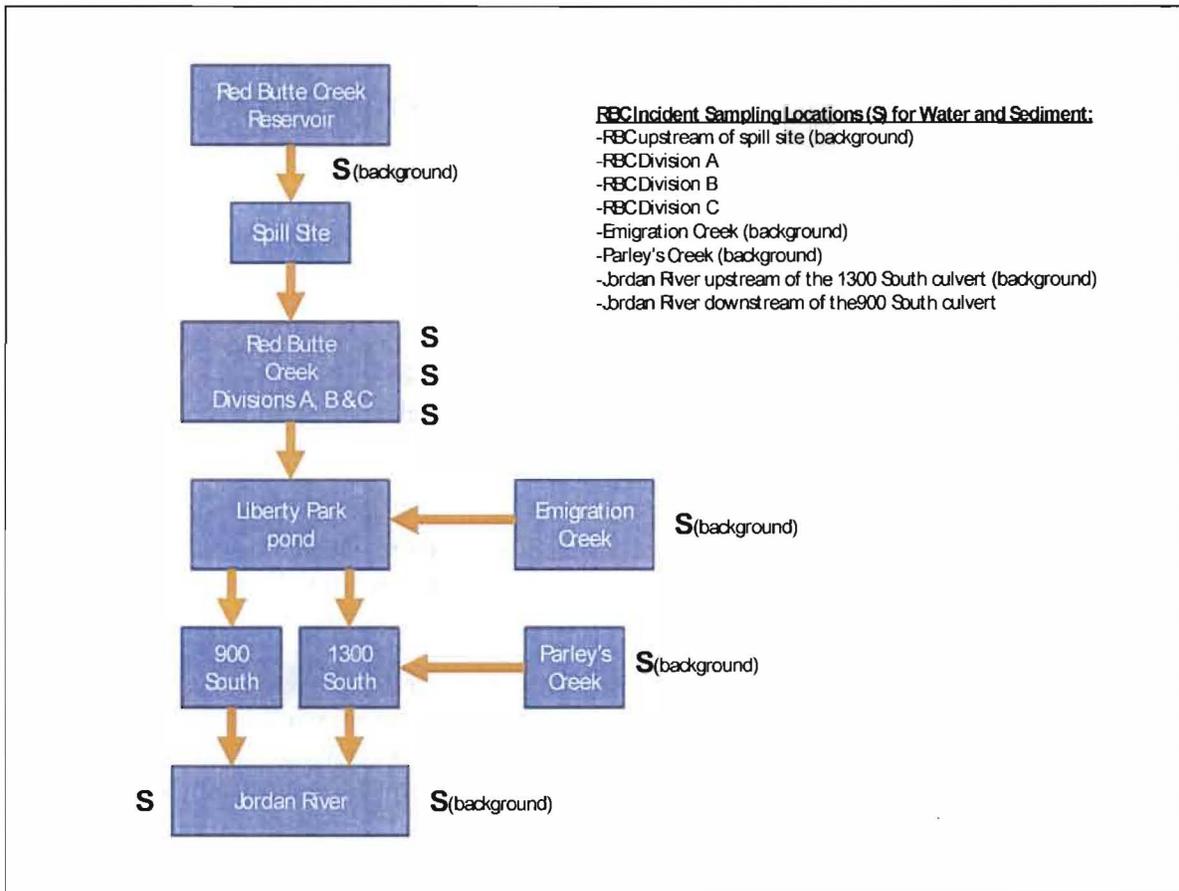


Figure 4. Conceptual diagram for water and sediment sampling sites

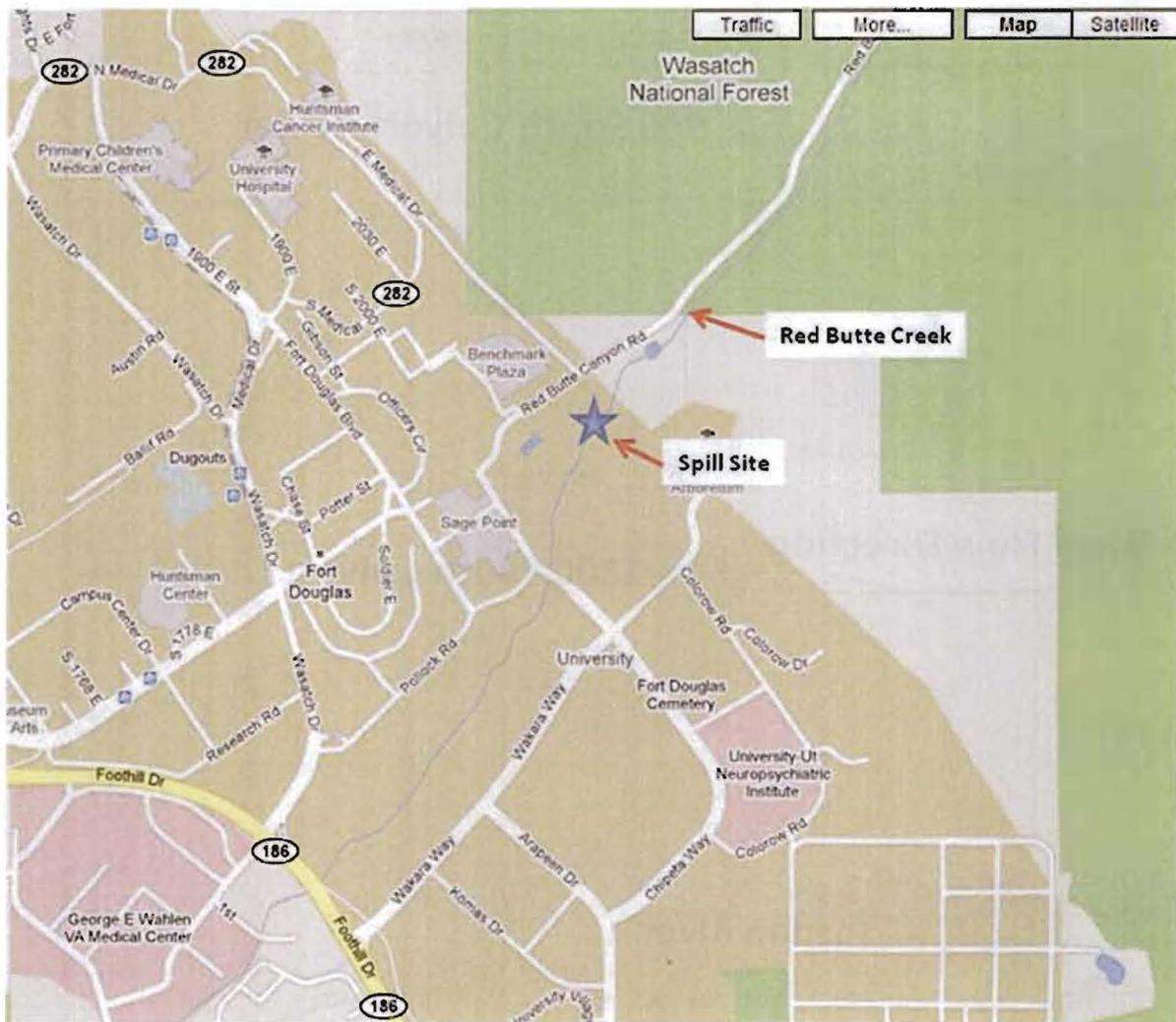


Figure 5. Map of Red Butte Creek Upstream of Spill Site. Upstream of the spill site on Red Butte Creek is the boundary for The University of Utah and the beginning of the Wasatch National Forest. Downstream of the spill site is urban

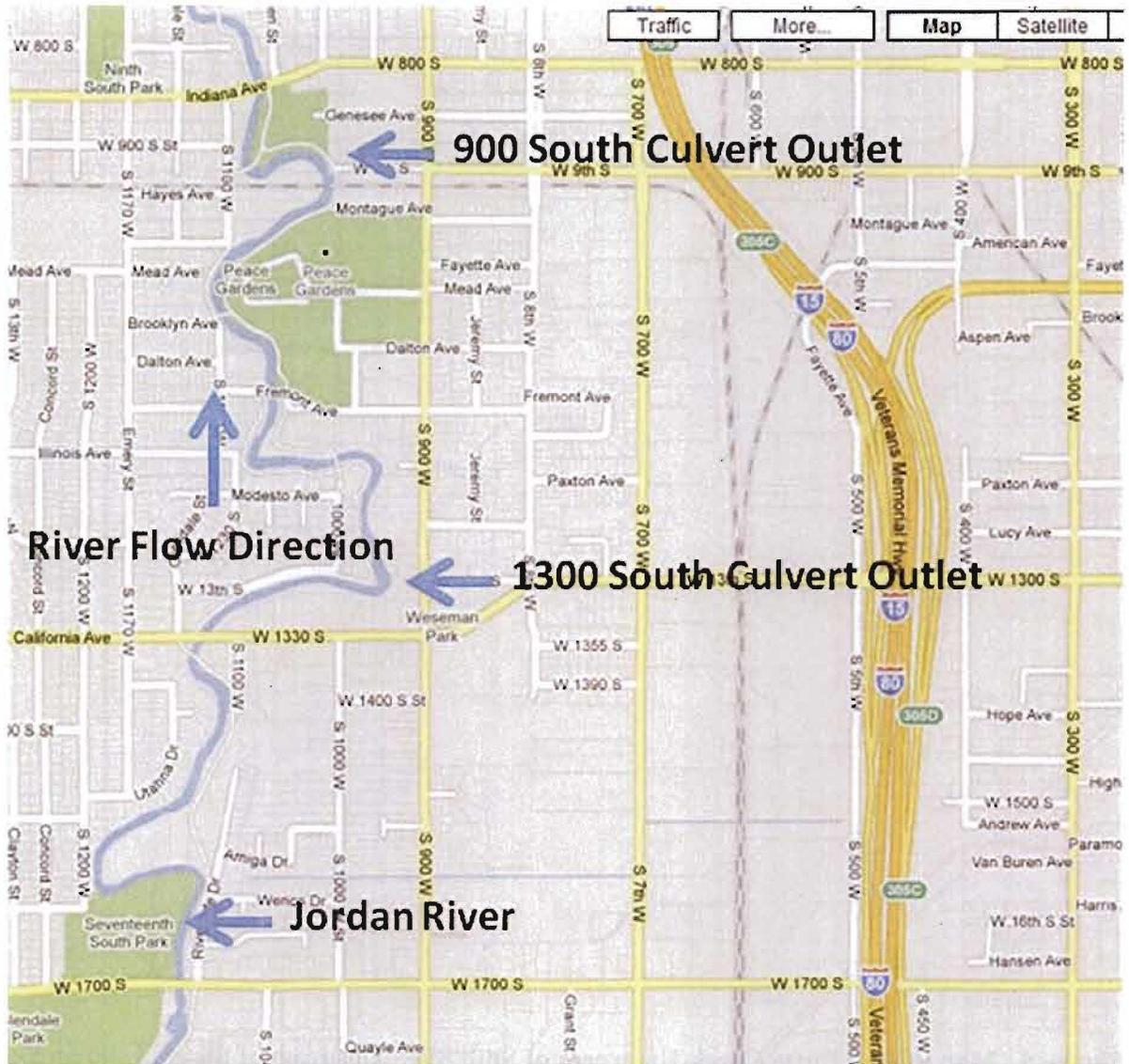


Figure 6 – Jordan River culvert outlet map – Red Butte Creek and Liberty Park have several outfalls into the Jordan River. The Jordan River flows northward into the Great Salt Lake.

3.5.2 Detailed Water Sampling Procedure

Table 4 summarizes the details for conducting water sampling for this plan.

3.5.4 Detailed Sediment Sampling Procedure

Sediment samples will be collected in both impacted and unimpacted areas. The purpose of sampling in unimpacted areas is to determine baseline conditions of oil components. The sampling of impacted areas is intended to determine what portion of the petroleum hydrocarbon mixture present in the sediments is a result of the spill by comparison to baseline conditions. If oil is

present in samples, fingerprinting may be conducted to determine the source.

Table 5 summarizes the sediment collection procedure.

Table 4 – Detailed water sampling procedure

Collection Site	In creek or river
Number and volume of sample containers	2 – 2.5 L bottles 2 – 40 mL VOA vials Additional bottles and vials for field duplicates and matrix spike samples based on the total samples collected each day.
Collection method	<ul style="list-style-type: none"> • Fill 2.5-liter, amber glass wide-mouth bottle directly from the shoreline by dipping the jar into water about two feet deep. Avoid disturbing bottom material during sample collection. If there is any visible floating oil, collect a sub-surface sample by lowering the jar beneath the surface, removing the lid and allowing the jar to fill completely, and replacing the lid while the jar is still under water. Attempt to keep the bottle at least one-foot beneath the surface while collecting the sample to prevent surface oil from entering the jar. • For river samples, the recommended sampler is the Ben Meadows Sub-Surface Grab Sampler with precleaned 2.5-liter, amber-glass wide-mouth bottles. • If a slick or sheen is present, visible oil on the water surface should be moved aside with a water hose, compressed air, or paddle. Care should be taken not to disperse oil into the water column.
Sample processing	<ul style="list-style-type: none"> • After collecting 2.5-liter sample, gently pour water into BTEX bottle to avoid bubble formation. Fill vial until meniscus forms over lip of vial. Cover with screw-cap lid, tighten lid and invert the bottle and tap end to check for air bubbles. If bubbles are present, pour out the sample and resample with a new BTEX vial. • After decanting water from bottle for BTEX sample, cover with screw-cap lid and tighten.
Sample storage	Immediately after collection, samples should be placed in a cooler and stored at 4° C until delivered to the analytical laboratory.
Quality control - trip blank	Before leaving for the field, the field team should prepare one trip blank and one field blank by filling two, 2.5 liter, wide-mouth amber sampling bottles and two 40 mL VOA bottles with distilled water. Trip blanks are to remain sealed and in the ice chest during sample collection. A third, empty bottle to hold the field blank should be taken along as well
Quality control - field blank	The field team will open their water-filled field blank at one sampling site of their choosing while samples are collected at that site exposing the sample to any airborne contaminants that could be present. After all the samples at that site are collected, the field blank jar will be poured into the empty field blank jar and seal the now-filled third jar. The filled jar will be sealed and placed in the ice chest with the rest of the samples.
Quality control - field duplicate and	A minimum of two additional samples should be collected each day at a single site. One of these will serve as the field duplicate. The other will

matrix spike samples	be used for a matrix spike. Additional samples for field duplicates and matrix spikes should be collected at the rate of one for every twenty (20) field samples.
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Table 5 – Detailed sediment sampling procedure

Collection site	Collect from creek or river edge
Number and volume of sample containers	<p>TPH – pre-cleaned 500 mL (16-oz) wide-mouth glass jars, screw-cap with PTFE liner.</p> <p>PAHs – pre-cleaned 500 mL wide-mouth glass jars, screw-cap with PTFE liner.</p> <p>TOC – pre-cleaned 250 mL (8-oz) wide-mouth glass jars, screw-cap with PTFE liner.</p> <p>Grain size – pre-cleaned 250 mL wide-mouth glass jars, screw-cap with PTFE liner.</p> <p>Archive sample - One additional set for each analysis will be collected for archive.</p> <p>Additional containers are needed for field duplicates (one for every twenty samples, with minimum of one per day)</p> <p>Total: 3 – 500 mL jars plus field duplicate(s) 3 – 250 mL jars plus field duplicate(s)</p>
Collection method	<ul style="list-style-type: none"> • At each site, select an area of mid-channel with sediments, and avoid gravel or cobble. Collect a composite sample from within a 20-ft stretch of mid-channel stream segment to make sure that sufficient volume has been collected. • Where practical, collect samples in areas with fine-grained sediments and avoid gravel or cobble beaches. If samples must be collected in areas with coarse-grained materials, remove the overlying gravel/cobble layer and sample the underlying finer-grained sediment. • Collect sediment with a pre-cleaned stainless steel spoon, removing only the top 2 cm. Place sediment into a pre-cleaned stainless steel bowl, collecting enough sediment to fill the four containers listed above ¾ full. • Field teams should be prepared to use Best Professional Judgment based on existing site-specific conditions regarding collection of sediment for chemical analysis.
Sample processing	<ul style="list-style-type: none"> • Form single composite sample by homogenizing samples. Once enough sediment has been collected, mix the subsamples thoroughly until the sediment appears homogeneous. Remove rocks and debris that are not representative of the typical sediment type being sampled. Use the spoon to fill the jars from the composite sample in the bowl.
Sample storage	Immediately after collection, samples should be placed in a cooler and stored at 4° C until delivered to the analytical laboratory.
Quality control - field duplicate	Generally, a duplicate sample should be collected for every twenty samples.

4.0 CHEMICAL ANALYSES

The sampling team will select a qualified analytical laboratory for the water and sediment samples.

4.1 Analytical Laboratory

The analytical laboratory will supply sample collection kits with appropriate preservatives, sample bottles, sample collection instructions, and chain of custody forms. The analytical laboratory will process samples in accordance with normal holding and turnaround times.

4.2 Analytical methods

Table 6 summarizes the sample matrices expected and required for each. Table 7 lists each analytical test method along with the number of required sample containers and sample volumes including archive samples.

Table 6. Summary of Analytical Methods

Analyte	Test method	Source crude oil	Water	Sediments
TPH	EPA 8015 GC/FID, ext. range		X	X
BTEX	EPA 8420 GC/MS/SIM	X	X	X
PAH	EPA 8270 mod-GC/MS/SIM	X	X	X
TOC	EPA 9060			X
Grain size	ASTM 1967			X
Total Solids	EPA 160.3			X
Moisture	ASTM D2216-05			X
Distillation	ASTM D2887	X		
SARA	ASTM D2007	X		
Density	ASTM D4052-09 (alt ASTM D287)	X		

Table 7 – Sample containers and volumes required for each matrix

Matrix	Method	Sample Volume	Containers per Site*
Source crude oil	EPA 8270 mod-GC/MS/SIM	500 mL	3
	EPA 8240 GC/MS/SIM	40 mL with HCl	3
Water	EPA 8270 mod-GC/MS/SIM	2.5 L	2
	EPA 8240 GC/MS/SIM	40 mL with HCl	2
Sediment	EPA 8015 GC/FID, ext. range	500 mL	3**
	EPA 8270 mod-GC/MS/SIM	250 mL	3**

* Includes one set of archived samples

** - number of sample containers per creek/river elevation or position

4.3 Quality Control Samples

In addition to collection of primary samples for characterizing field conditions (see Section 3.0), there are five types of samples that are considered quality control (QC) samples.

These QC samples are:

- Field replicates are unknown to the laboratory and are independently collected samples at the same station as the primary field sample (i.e., they are two separate composites collected at the same station and at the same time).
- Laboratory duplicate samples to check on the precision of the analyses.
- Matrix spike needed to verify recovery of the chemicals requested for analysis from the particular medium being tested.
- Rinsate from equipment to determine if there is contamination of equipment that might be carried over to another set of samples. Collection of equipment rinsates is discretionary and is only a concern with cross-contamination, which can be avoided by using disposable sampling gear when available, strictly adhering to decontamination procedures described in Section 3.0, and changing gear entirely when moving from a contaminated area to another area.
- "Trip" blanks simply accompany the samples in the cooler and require no handling. They are provided by the laboratory samples when BTEX samples are being collected for the analysis of volatile organic compound (VOC). Trip blanks are unnecessary for other kinds of analyses.
- Field blanks assess whether the opening, filling, and sealing of containers in the field result in contamination at levels relevant to the measurements.

For laboratory QC testing, QC samples are typically collected at five percent of the total number of samples. For example, if 40 sites are to be sampled, extra material is needed from two stations for laboratory duplicate samples and from two other stations for laboratory matrix spike samples. These QC samples are in addition to any field replicate samples.

4.4 Chain-of-Custody

Chain-of-custody (COC) must be maintained at all times. Chain-of-custody means that the sample or data are under the possession and control of the person identified on the form for the period specified on the form. Possession and control can mean literally in possession, within sight, or in secure storage where the access is limited to the person in possession. The person taking possession and the person relinquishing possession need to sign the form when the transition takes place.

Before shipping samples:

- Make sure that each chain-of-custody form is filled out completely and properly,
- Check that the sample identification on sample bottles matches the sample identification on the chain-of-custody, and
- Ensure that the date, time, type, matrix, container types, and analyses requested are clearly indicated.

After the chain-of-custody has been checked and verified, sign where indicated in the "Relinquish By" box at the bottom of the form. The original COC form always goes with the samples. Make sure that the date and time that you relinquished the samples are recorded on the COC form. Put the COC forms in a zip lock bag and place or tape the bag in the ice chest. Remember to put ice in the ice chest and tape the lid shut with duct tape. Ship the samples to the lab via over-night service.

When the ice chest is received at the lab, the person accepting the samples will sign his or her name in the "Received By" box on the bottom of the COC form. Request the laboratory to send a copy of the signed chain-of-custody back to the sender.

5.0 Acronyms

ASTM	American Society for Testing and Materials
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CFS	cubic feet per second
COC	Chain of custody
CPL	Chevron Pipe Line
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
FOSC	Federal On-scene Coordinator
g	grams
GC/MS/SIM	Gas Chromatography/Mass spectroscopy/Selective Ion Monitoring
GC/FID	Gas Chromatography/ Flame Ionization Detector
HAZWOPER	Hazardous Waste Operations (OSHA 33CFR1910.120)
HCl	hydrochloric acid
L	liters
mL	milliliters
PAH	Polycyclic Aromatic Hydrocarbons
PTFE	polytetrafluoroethylene (aka Teflon®)
RBC	Red Butte Creek
SARA	Saturates, aromatics, resins, asphaltenes
START	Superfund Technical Assessment & Response Team
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
VOC	Volatile Organic Compound

Appendix 1 – Contacts and Schedule for Sampling Events

Table 1. Sampling Team Members and Point of Contact list

Organization	Team Member(s)	Point of Contact
USEPA		
USFWS		
Utah DEQ		
Utah DEQ		
Salt Lake City		
(County?)		
Chevron		
Chevron		

Table 2 Detailed contact information for Sampling Team member and Point of Contact

Organization		
	<u>Sampling Team Member</u>	<u>Point of Contact</u>
Name		
Title		
Office Phone		
FAX		
Cell Phone		
E-Mail		

Table 3. Sampling Events

Event	Date Collected	Date Shipped	Date Received by Lab
Q3 2010			
Q4 2010			
Q1 2011			
Q2 2011			

Table 4 – Analytical Laboratory contact information

	Primary lab	Alternate lab
Facility name		
Address		
Phone		
Fax		
Business contact		
Technical contact		