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Final Report
Copper Water-Effect Ratio Study to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

Prepared for:

THE LOS ANGELES RIVER METALS TMDL IMPLEMENTATION GROUP

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GLOSSARY OF ACRONYMS

µg/L	Micrograms per Liter
ANOVA	Analysis of Variance
BLM	Biotic Ligand Model
BPA	Basin Plan Amendment
BWC	Burbank Western Channel
BWRP	Burbank Water Reclamation Plant
CA	California
$CaCO_3$	Calcium Carbonate
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COC	Chain of Custody
CTR	California Toxics Rule
Cu	Copper
DCTWRP	Donald C. Tillman Water Reclamation Plant
DIC	Dissolved Inorganic Carbon
DOC	Dissolved Organic Carbon
EC50	50% Effect Concentration. Concentration that adversely affects 50% of test species.
EPA	United States Environmental Protection Agency
ft/s	Feet per second
fWER	Final Water-Effect Ratio
HDPE	High Density PolyEthylene (type of plastic used for environmental sampling containers)
kg/day	Kilograms per day
LA	Los Angeles
LAGWRP	Los Angeles-Glendale Water Reclamation Plant
LAR	Los Angeles River
LARWQCB	Los Angeles Regional Water Quality Control Board
LC50	Median Lethal Effect Concentration. The estimated concentration resulting in 50% mortality.
LWA	Larry Walker Associates
MDL	Method Detection Limit
mg/L	Milligrams per Liter
MS4	Municipal Separate Storm Sewer System
MS/MSD	Matrix Spike/ Matrix Spike Duplicate
NA	Not Applicable
NS	No Sample
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
Pb	Lead
POTW	Publicly Owned Treatment Works
PPB	Parts per Billion or Micrograms per Liter
QA/QC	Quality Assurance/Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SM	Standard Method. Laboratory test methodology hand books.
SMAV	Species Mean Acute Value
SRM	Standard Reference Materials

SSO	Site-Specific Objective
sWER	Sample WER
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WER	Water-Effect Ratio
WQC	Water Quality Criteria
WRP	Water Reclamation Plant
Zn	Zinc

Executive Summary

The following report presents the results of the Los Angeles River Water-Effect Ratio Study (WER Study). The WER Study was conducted to support implementation of the Los Angeles River and Tributaries Total Maximum Daily Load for Metals (Metals TMDL) adopted by the Los Angeles Regional Water Quality Control Board (Regional Board) with an effective date of October 29, 2008. The Metals TMDL allows time for special studies that may serve to refine the estimate of loading capacity, waste load and/or load allocations, and other studies that may serve to optimize implementation efforts. The WER Study served as a special study and was conducted in accordance with the Regional Board-approved work plan (2010 Work Plan). The WER Study was funded by Los Angeles County, California Department of Transportation, and 34 cities located within the Los Angeles River (LA River) watershed. Technical review and public participation for the WER Study was an open process. Public participation in the development and implementation of the WER Study consisted of three components:

1. Stakeholder input through the Metals TMDL Technical Committee.
2. Review by a Technical Advisory Committee (TAC) of three independent advisors.
3. Regulatory agency cooperation and oversight.

The purpose of this study was to determine the WERs for copper in Reaches 1, 2, 3, and 4 of the LA River, as well as select tributaries: Compton Creek, Rio Hondo, Arroyo Seco, Verdugo Wash, Burbank Western Channel and Tujunga Wash. A WER is factor that reflects site-specific water quality conditions and is used to adjust the national water quality criteria (WQC). A previous WER study conducted in 2008 (2008 Study) for portions of the LA River watershed was adopted into the Metals TMDL in 2011. The 2008 Study was funded by the cities of Los Angeles and Burbank and focused on portions of the LA River and Burbank Western Channel.

The WER Study approach was based on USEPA's *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (Interim Guidance) and considered USEPA's *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (Streamlined Guidance). Per the Interim Guidance and consistent with the 2008 Study, the WER Study tested acute toxicity of *Ceriodaphnia dubia* (*C. dubia*), based on dissolved copper concentrations. *C. dubia* are a species of water flea that are recommended by the USEPA to be used in fresh water aquatic toxicity testing. The Interim Guidance states that WERs should be developed for dissolved and total metals. However, only dissolved WERs were developed for the WER Study. This is because dissolved metals concentrations more closely approximate the bioavailable fraction of the metal in the water column. Only dissolved WERs were developed for the 2008 Study. In both studies, the Regional Board and TAC concurred with the approach.

The approach for developing an environmentally conservative WER during the WER Study was to: (1) identify a critical condition (condition of lowest WER or condition when aquatic life is most threatened); (2) ensure sufficient data were collected to develop a representative and protective WER for each waterbody; and (3) evaluate final WER (fWER) protectiveness. In addition to WER testing, samples were analyzed for use in the Biotic Ligand Model (BLM), a computer model that predicts toxicity of trace metals to aquatic organisms.

The WER Study utilized 14 dry weather sites and 10 wet weather sites selected to correlate with the Metals TMDL Coordinated Monitoring Plan (CMP) sites and/or to target input from major tributaries. Dry weather samples were collected as manual time-weighted composites every six hours for a 24-hour period and then composited. Wet weather event samples were collected every four hours over a 12-hour period during targeted storm events and combined as either as time-weighted or as flow-weighted composites. Flow-weighted subsamples were collected based on the measured flow at each station through the use of Metals TMDL CMP auto-samplers. A total of 83 dry weather and 20 wet weather samples were collected at 14 and 10 sites, respectively, during the WER Study.

There were several occasions where sampling could not be completed as scheduled due to conditions within the various waterbodies. During Event 1A, Arroyo Seco was observed to have high turbidity inconsistent with normal conditions. The high turbidity affected several sampling events in that certain waterbodies were not sampled (i.e., Arroyo Seco and all main stem LA River sites downstream) and sample collection was rescheduled to a time when the turbidity levels were consistent with normal conditions. Several sampling events (1C and 4C) targeting Rio Hondo had to be rescheduled due to a lack of sufficient flow (or no flow). Event 1C was rescheduled and a sample was collected successfully, whereas Event 4C was rescheduled multiple times, but ultimately a sample was not collected resulting in one less sample collected compared to the other sites. In addition, WER testing was not initiated for Event 3C samples collected in Rio Hondo as irregular water quality conditions were observed during the fifth (T=24) subsample collection. Event 3C was rescheduled and a sample successfully collected. Field, laboratory, and other quality assurance and quality control (QA/QC) measures were included in the WER Study to assure data credibility.

Sample processing and toxicity testing procedures conformed to the requirements of USEPA guidance documents. Toxicity testing entailed exposing *C. dubia* to various copper concentrations (test treatments) added to WER Study sample water and laboratory water for 48 hours in order to determine the concentration of copper that caused 50% mortality to *C. dubia* (Effects Concentration 50 or EC50).

Sample WERs (sWERs) for each site were calculated following the USEPA's Interim Guidance and Streamlined Procedure WER calculation methods. The Interim Guidance calculation method utilizes the WER Study sample water EC50 as the numerator and the lab water EC50 as the denominator. The Streamlined Procedure calculation method utilizes the WER Study sample water EC50 as the numerator and the larger value of either the lab water EC50 or the Species Mean Acute Value (SMAV) as the denominator.[1] The Streamlined Procedure calculation method can result in a lower (more conservative) sWER than the Interim Guidance because choosing the higher of the lab water EC50 or SMAV may result in a larger denominator thereby decreasing the sWER value.

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[1] Species mean acute value" or "SMAV" means the geometric mean of the results of all acceptable flow-through acute toxicity tests (for which the concentrations of the test material were measured) with the most sensitive tested life stage of the species. For a species for which no such result is available for the most sensitive tested life stage, the SMAV is the geometric mean of the results of all acceptable acute toxicity tests with the most sensitive tested life stage.

Following the calculation of the sWERs, three distinct hydrologic conditions (summer dry weather, winter dry weather, and wet weather) were analyzed to determine when the LA River and its tributaries are most sensitive to elevated copper concentrations. The analyses (two-way analysis of variance) were based on the hardness-normalized EC50s and the sWERs. The results of the critical conditions analyses indicated that dry weather, regardless of season, is the critical condition; thus, a dry weather WER would be protective during both dry and wet weather.

The Interim Guidance requires at least three sWERs to calculate a final WER (fWER). The fWER is the geometric mean of the sWERs for a particular site. However, concern had been expressed by various stakeholders that three sWERs may not be a sufficient to adequately address potential variability during the critical condition. Therefore, six sWERs were obtained for each site during the critical conditions except for Rio Hondo (five sWERs). Statistical analyses were then performed to determine if enough samples had been collected. The analyses indicated that sufficient samples had been collected. **Table ES-1** presents Interim Guidance- and Streamlined Procedure-based fWERs, determined based on dry weather sWER.

Table ES-1. Final Water Effect Rations (fWERs) Calculated Using the Interim Guidance and Streamlined Procedure

Waterbody	Sampling Site	Number of Dry Weather sWERs	fWER based on Interim Guidance sWERs	fWER based on Streamlined Procedure sWERs
Main Stem Sites				
LA River Reach 1	LAR at Wardlow Rd	6	10.13	4.503
LA River Reach 2	LAR at Del Amo Blvd	6	9.987	4.441
LA River Reach 2	LAR at Washington Blvd	6	7.712	3.430
LA River Reach 3 (upstream of LAGWRP)	LAR at Figueroa St	6	8.281	3.402
LA River Reach 3 (downstream of LAGWRP)	LAR at Colorado Blvd	6	10.76	4.420
LA River Reach 3	LAR at Zoo Dr	6	12.02	4.440
LA River Reach 4	LAR at Upstream BWC	6	9.675	3.401
All LA River Main Stem Reaches[1]		42	9.700	3.971
Tributary Sites				
Compton Creek	Compton Creek at LAR	6	7.746	3.364
Rio Hondo	Rio Hondo at LAR	5	21.87	9.691
Arroyo Seco	Arroyo Seco at LAR	6	3.375	1.324
Verdugo Wash	Verdugo Wash at LAR	6	5.294	2.176
BWC (downstream of BWRP)	BWC at LAR	6	13.50	4.746
BWC (upstream of BWRP)	BWC Upstream of BWRP	6	15.04	5.441
Tujunga Wash	Tujunga Wash at LAR	6	22.89	8.279

[1] There were no significant differences between the individual main stem sites' sWERs, so one fWER for LA River Reaches 1, 2, 3, and 4 was calculated.

The Interim Guidance and Streamlined Procedure-based fWERs were also evaluated to ensure their protectiveness. The protectiveness of the Interim Guidance and Streamlined Procedure-based fWERs was evaluated by comparing fWER-adjusted copper criteria to No Observed Effect Concentrations (NOECs) estimated from the actual EC50s measured during sample collection.

This method provided an intuitive and straightforward assessment to determine the effect on *C. dubia* or other similarly sensitive species if copper concentrations in the WER Study samples were equal to a fWER adjusted copper criteria. To conduct the assessment, a ratio was calculated by dividing the measured EC50 for each sample by the product of the CTR hardness-adjusted criterion and the fWER for each site as follows:

$$Ratio = \frac{Measured\ EC50}{Hardness\ Adjusted\ CTR\ Criterion * fWER}$$

The average ratios for each waterbody were then compared to a conservative screening threshold ratio of 2.0. When the average ratio for a site was greater than 2.0, the fWER was considered protective. If the average ratio was less than 2.0, further investigation of the protectiveness of the fWER was conducted, including comparison to a copper-specific threshold ratio of 1.2. This second threshold is based on the steeper dose response for copper, with ratios greater than 1.2 indicating that the fWER is protective of the waterbody.

Ultimately, the Interim Guidance-based fWERs were not found to be consistently protective while the more conservative Streamlined Procedure-based fWERs were found to be consistently protective. Therefore, the recommended fWERs, presented in **Table ES-2**, are the Streamlined Procedure-based fWERs. In addition, the recommended fWER for the main stem of the LA River is based on combining all the data for Reaches 1, 2, 3, and 4 because no significant differences were detected among the individual sites. The resulting fWER of 3.971 is very similar to the fWER found in the 2008 study (3.960). In addition, the recommended fWERs for the tributary sites were calculated separately due to significant differences between tributary sites.

Table ES-2. Recommended fWERs

Waterbody	Recommended fWER
Main Stem Sites	
LAR Reaches 1 through 4	3.971
Tributary Sites	
Compton Creek	3.364
Rio Hondo	9.691
Arroyo Seco	1.324
Verdugo Wash	2.176
Burbank Western Channel downstream Burbank Water Reclamation Plant	4.746
Burbank Western Channel upstream of Burbank Water Reclamation Plant	5.441
Tujunga Wash	8.279

As mentioned previously, a computer model, the BLM, was used to provide additional information related to the WER Study. BLM analyses were conducted to provide a comparison of the BLM-predicted toxicity to the measured toxicity. BLM analyses were also conducted to provide a comparison of BLM-generated copper WQC to the WQC calculated during the WER Study. Results of the analyses indicate the BLM appears to effectively simulate EC50s and calculate copper WQC and thus could be used to supplement future WER testing.

Section 1. Introduction

1.1 TMDL BACKGROUND

The Los Angeles River and Tributaries Total Maximum Daily Load for Metals (Metals TMDL) was originally adopted on June 2, 2005 by the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), approved by the United States Environmental Protection Agency (USEPA) on December 22, 2005, and became effective on January 11, 2006. In conformance with a Los Angeles County Superior Court writ of mandate, the LARWQCB was required to perform a California Environmental Quality Act (CEQA) alternatives analysis. A revised Metals TMDL with alternatives analysis was prepared, circulated, and adopted by the LARWQCB on September 6, 2007 and approved by the State Water Resources Control Board (SWRCB) on June 17, 2008 and USEPA on October 29, 2008, which is the effective date for the Metals TMDL. The Metals TMDL was amended in 2010 to incorporate a copper water-effect ratio (WER) developed for the three water reclamation plants (WRPs) in the upper part of the Los Angeles River (LA River or LAR) watershed. The amended Metals TMDL was adopted by the LARWQCB on May 6, 2010. The amended Metals TMDL was subsequently approved by the SWRCB on April 19, 2011 and USEPA on November 3, 2011. The effective date of the amended Metals TMDL is November 3, 2011.

The Metals TMDL was developed to address listings presented in the 1998 and 2002 303(d) lists as well as additional listings identified during Metals TMDL development and subsequently added to the 2004/2006 303(d) list. The dry weather targets for copper are based on the California Toxics Rule (CTR) chronic criterion with the targets dependent on hardness to adjust for site-specific conditions as well as conversion factors to convert between dissolved and total recoverable metals. The dry weather copper targets are based on the 50th percentile hardness values. The default CTR conversion factors are used for copper in all areas of the LA River and its tributaries except for immediately downstream of the Donald C. Tillman (DCT) and LA-Glendale Water WRPs, where site-specific copper conversion factors are applied. Wasteload Allocations (WLAs) were calculated by multiplying the target by a critical flow. **Table 1** summarizes the dry weather TMDL targets and allocations. **Figure 1** presents the LA River reaches and tributaries assigned dry weather copper allocations.

For wet weather[2], a single hardness value (the average of hardness at a site in Reach 1) was utilized to calculate a dissolved target applied to all reaches and tributaries using the acute CTR equation. A conversion factor based on data collected in the LA River was utilized to translate the dissolved target to a total target of 17 μg/L. The municipal separate storm sewer system (MS4) wet weather WLA was based on the acute CTR total target, has units of kg/day as total recoverable metal, and is expressed by the following equation: WER x 1.5×10^{-8} x daily volume (L) – 9.5. This WLA was set equal to the total loading capacity during wet weather minus the load allocations for open space, direct air deposition, and the WLAs for publicly owned treatment works (POTWs).

[2] Wet weather was defined within the TMDL as when the daily maximum flow at Wardlow Road is equal to or greater than 500 cfs.

The implementation schedule in the Basin Plan Amendment (BPA) allows time for special studies that may serve to refine the estimate of loading capacity, waste load and/or load allocations, and other studies that may serve to optimize implementation efforts. The following report was prepared to present the results of the Los Angeles River Water-Effect Ratio Study (WER Study), which was conducted to support the implementation of the Metals TMDL. The WER Study was conducted in accordance with the LARWQCB-approved *Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL* (Work Plan) (LWA 2010 and **Appendix 1**).

Table 1. Los Angeles Metals TMDL Dry Weather Listings, Targets, and MS4 Wasteload Allocations for Copper

Reaches and Tributaries	**Total Copper**		**Critical Flow Used to Set MS4 Wasteload Allocations** (cfs)
	Target (ug/L)	**MS4 Allocation** (kg/day)	
LAR Reach 1	WER[1] x 23	WER[2] x 0.14	2.58
LAR Reach 2	WER[1] x 22	WER[2] x 0.13	3.86
LAR Reach 3		WER[2] x 0.06	4.84
above LAGWRP	WER[2] x 23		
below LAGWRP	WER[2] x 26		
LAR Reach 4	WER[2] x 26	WER[2] x 0.32	5.13
LAR Reach 5	WER[1] x 30	WER[1] x 0.05	0.75
LAR Reach 6	WER[1] x 30	WER[1] x 0.53	7.2
Arroyo Seco	WER[1] x 22	WER[1] x 0.01	0.25
Bell Creek	WER[1] x 30	WER[1] x 0.06	0.79
Burbank Western Channel		WER[2] x 0.18	3.3
above BWRP	WER[2] x 26		
below BWRP	WER[2] x 19		
Compton Creek	WER[1] x 19	WER[1] x 0.04	0.9
Rio Hondo Reach 1	WER[1] x 13	WER[1] x 0.01	0.5
Tujunga Wash	WER[2] x 26	WER[1] x 0.001	0.03
Verdugo Wash	WER[2] x 26	WER[1] x 0.15	3.3

1. WER(s) have a default value of 1.0 unless site-specific WER(s) are approved.
2. The WER for copper in this reach is 3.96.

LAR – Los Angeles River

LAGWRP – City of Los Angeles-Glendale Water Reclamation Plant

BWRP – City of Burbank Water Reclamation Plant

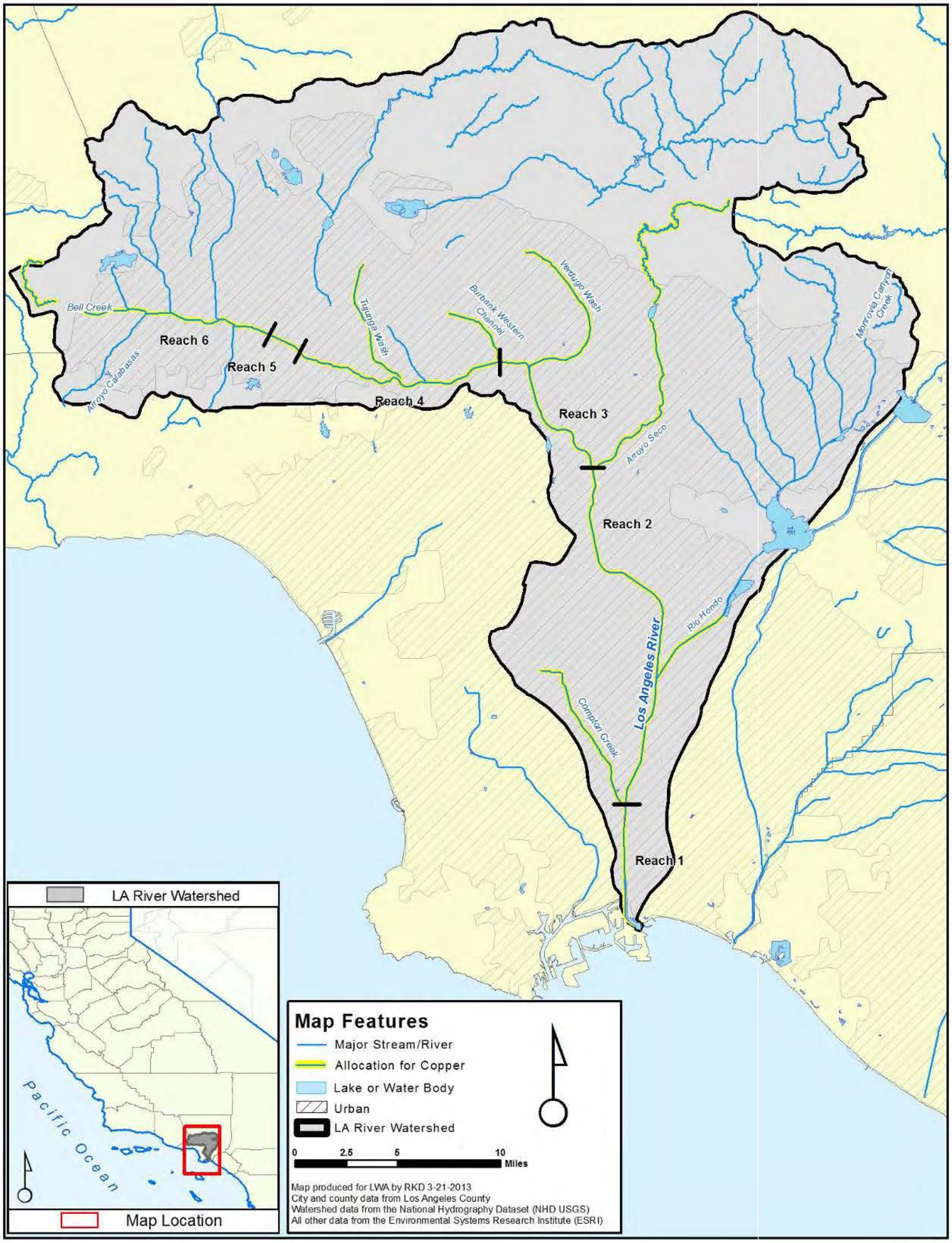

Figure 1. LA River Reaches and Tributaries Assigned Copper Allocations in the Metals TMDL

1.2 ENVIRONMENTAL SETTING

The LA River and its tributaries are located in Los Angeles County, California and drain approximately 843 square miles. The main surface water system drains from the San Gabriel Mountains in the northeast and the Santa Monica Mountains in the northwest toward the southeast where it flows through highly urbanized areas (including the City of Los Angeles) before emptying into the Pacific Ocean through the estuary. The Santa Susana Mountains and Santa Monica Mountains form the northwestern boundary of the watershed, while the eastern boundary is formed by the San Gabriel Mountains. Land uses in the LA River watershed can be generally categorized as forest, agriculture, high- and low-density residential, commercial, industrial, and open space. The current land use in the watershed is approximately 54% urban and 44% forest/open space, with the remaining comprised of agriculture, water and other land uses. For a more comprehensive description of the LA River watershed, see the LA River Metals TMDL Environmental Setting section (LARWQCB 2005) presented in the Work Plan (**Appendix 1**).

1.3 USEPA WATER-EFFECT RATIO PROTOCOLS AND PROCEDURES

The USEPA publishes national water quality criteria (WQC) for the protection of aquatic life consisting of a concentration, an averaging period, and a return frequency. The WQC for the protection of aquatic life are calculated mostly from laboratory-derived toxicity data. The USEPA compiles data from acceptable toxicity tests, which have been conducted in laboratory or well-characterized dilution water, from a wide range of species. Criteria are developed from the compiled data using the approach outlined in *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses* (Criteria Guidelines) (USEPA 1985). The Criteria Guidelines provide methods for calculating both acute and chronic criteria.

National WQC are intended to be protective of all waters of the United States. However, the Code of Federal Regulations (CFR) 40 CFR 131.11(b)(1)(ii) allows states to establish WQC that are "… modified to reflect site-specific conditions." The Water Quality Standards Handbook (USEPA 1994a) states that:

> *Site-specific criteria, as with all water quality criteria, must be based on a sound scientific rationale in order to protect the designated use. Existing guidance and practice are that EPA will approve site-specific criteria developed using appropriate procedures.*

Site-specific criteria are intended to provide the same level of protection intended for aquatic life as the national criteria but at a specific site, which may be defined as state, region, watershed, waterbody, or segment of waterbody (USEPA 1994a). Hence, derivation of site-specific criteria does not change the intended level of protection. The USEPA, through the Water Quality Standards Handbook (USEPA 1994a), developed a WER procedure for deriving site-specific criteria. Details of the WER procedure were found in Appendix L: *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (Interim Guidance) (USEPA 1994b).

The Interim Guidance presents detailed protocols for adjusting the concentration portion of national metals WQC to reflect site-specific receiving water conditions using the WER method (USEPA 1994b). A WER is a factor that can be used under the USEPA's system of WQC to customize national aquatic life criteria, which include the CTR aquatic life criteria established by USEPA in 2000 and used in the Metals TMDL, to reflect site-specific water column conditions. A WER is used to derive site-specific criteria that maintain the level of protection of aquatic life intended by the Criteria Guidelines and CTR. If the value of the WER exceeds 1.0, the site water reduces the toxic effects of the pollutant being tested. Conversely, if the WER value is less than 1.0, the toxic effects of the pollutant in site water would be greater than those in laboratory water and the site-specific WQC should be less than the CTR WQC. For example, if a WER developed using LA River water is greater than 1.0, the CTR metals WQC are lower than what is required to be protective for aquatic life in the LA River. Therefore, a site-specific objective (SSO) for the LA River may be set at a higher concentration than the CTR WQC and still be as protective of aquatic life beneficial uses as the CTR WQC. The site-specific acute and chronic criteria are calculated by multiplying the USEPA's ambient WQC values by a locally developed WER.

The WER method requires rigorous parallel toxicity tests using USEPA-specified laboratory water and site water to determine whether physical and chemical characteristics in the site water affect the bioavailability and, therefore, the toxicity of trace metals to aquatic organisms. Site water generally consists of receiving water, effluent, or simulated downstream water. Simulated downstream water is site water prepared by mixing upstream receiving water and effluent in a known ratio. As the focus of the WER Study was on in-stream conditions, only receiving water was collected and used for the WER Study. The quotient between site water and lab water toxicity values is expressed as a WER (toxicity obtained in the site water divided by toxicity in the lab water). A WER is expected to account for (1) the site-specific toxicity of a metal and (2) synergism, antagonism, and additivity with other constituents present in the site water (USEPA 1994a). Acute toxicity is measured as an effects concentration 50 (EC50), which represents an estimate of a concentration where 50% of the test organisms are adversely affected (i.e., mortality).

Because of the numerous copper WER studies that have been performed throughout the country since the mid-1990s, USEPA determined there were sufficient data to develop a more streamlined testing approach for situations where copper concentrations are elevated primarily by continuous point source effluents. In March 2001, USEPA published the *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (USEPA 2001). This USEPA protocol, referred to as the Streamlined Procedure, specifies sample collection methods, lists the analyses, requires toxicity tests on only one aquatic species, and reduces the number of samples to be collected relative to the Interim Guidance. Although, portions of the Streamlined Procedure provide useful and updated information that can be used to supplement the Interim Guidance, the WER Study design was based on procedures and methods outlined in the Interim Guidance.

1.4 WER STUDY OBJECTIVES

The objective of the WER Study was to determine the magnitude of the WERs for copper in the LA River Reaches 1, 2, 3, and 4 and tributaries discharging to those reaches (Compton Creek, Rio Hondo, Arroyo Seco, Verdugo Wash, Burbank Western Channel and Tujunga Wash) to support the cost effective implementation of the Metals TMDL through the adoption of SSOs.

The beneficial use of aquatic life habitat is protected from copper toxicity when copper WQC are attained. The WER connects the default national WQC to site-specific conditions (copper binding capacity) that also affect beneficial use of aquatic life habitat. It is important to know what copper concentrations in the LA River are protective of aquatic life. National WQC are based on toxicity data generated using laboratory dilution water. The WER will convert national WQC for copper to site-specific objectives based on observed toxicity in the LA River itself, rather than in laboratory dilution water. A copper WER developed for specific reaches and tributaries of the LA River may be used in the future to:

- Develop site-specific objectives
- Adjust the TMDL WLAs
- Evaluate the 303(d)-list copper impairment status of the LA River,
- Conduct Reasonable Potential Analyses (RPA) for copper, and
- Calculate maximum allowable copper concentrations in effluent for National Pollutant Discharge Elimination System (NPDES) permits such that aquatic life in the LA River will be protected.

The primary goals of the WER Study included:

1. Determining appropriate copper WER(s) for the LA River and its tributaries;
2. Supporting a regional approach for determining copper WERs and SSOs; and
3. Collecting data to evaluate use of the Biotic Ligand Model (BLM) to predict copper toxicity in the LA River and its tributaries.

1.5 PUBLIC PARTICIPATION

Technical review and public participation for the WER Study was an open process. Public participation in the development and implementation of the WER Study consisted of three components:

1. Stakeholder input through a Technical Committee;
2. Technical review by a Technical Advisory Committee; and
3. Regulatory agency cooperation and oversight.

A Technical Committee (TC) and Technical Advisory Committee (TAC) were developed to facilitate public participation and review. The TC consisted of stakeholders that were part of the Los Angeles River Metals TMDL Implementation Group while the TAC consisted of three experts with relevant experience not affiliated with the Implementation Group, the LARWQCB, or Larry Walker Associates. **Table 2** provides a list of the TAC members. In addition, LARWQCB staff were consulted at key times during the WER Study to ensure regulatory cooperation and oversight. TC and LARWQCB stakeholders were involved during the WER Study by participating in meetings to discuss the implementation of the WER Study, reviewing analytical results, and reviewing and providing comments on Draft and Final WER Study documents and reports. The TAC provided technical review and insight that was invaluable during the WER Study. The roles and responsibilities of the TAC include:

- Providing review and guidance during the implementation of the WER Study;
- Providing independent peer review of technical recommendations from stakeholders;
- Reviewing data generated through the implementation of the WER Study and discussing potential modifications to the WER Study, as appropriate; and
- Reviewing Draft and Final WER Study documents and reports.

Table 2. Technical Advisory Committee Members

Member	Affiliation	Expertise
Steve Bay	Southern California Coastal Water Research Project (SCCWRP)	Director of SCCWRP's Toxicology Laboratory, design of scientific studies and interpretation of data, sediment toxicity test methods, including sediment quality assessment methods, Toxicity Identification Evaluation (TIE) methods and evaluation of impacts of contaminants of emerging concern on fish.
Tyler Linton	Great Lakes Environmental Center (GLEC)	Derivation and revision of national water quality criteria and other chemical toxicity benchmarks, conducting biological evaluations on USEPA water quality criteria for assessing effects on Federally-listed aquatic and aquatic-dependent species, site-specific studies for the determination of water quality criteria, acute and chronic toxicity testing for NPDES compliance, water chemistry analysis, fish and invertebrate culture, data management, and statistical analysis.
Bob Santore	HDR/HydroQual	Site-specific criteria development using modeling approaches, WERs and recalculation methods, and water quality and chemical modeling. Evaluation of the bioavailability and toxicity of metals to aquatic organisms, including the development of the Biotic Ligand Model.

Section 2. Approach

The approach utilized for the WER Study is outlined in the Work Plan, which details the methods for conducting sampling, performing analytical and WER toxicity testing, and analyzing the results to identify the WER based on USEPA guidance. Copper WER samples were collected during dry weather (summer dry and winter dry seasons) and during wet weather. **Figure 2** presents the main stem reaches (1, 2, 3, and 4) and associated major tributaries (Compton Creek, Rio Hondo, Arroyo Seco, Verdugo Wash, Burbank Western Channel and Tujunga Wash) addressed during the WER Study. **Section 3.1** presents the sampling sites and sample collection schedule.

Development of an environmentally conservative WER is dependent on the interactions between the concentrations of the parameters that affect copper bioavailability, including the concentration of the metal and conditions in the waterbody. The approach to developing an environmentally conservative WER was to identify a critical condition and ensure sufficient data were collected to develop a representative and protective WER for each waterbody. The critical condition in a waterbody can be looked at in two ways: 1) the condition of the lowest WER or 2) the condition when aquatic life is in the most danger (which considers both WER and other factors such as flow conditions and metals concentrations). For the 2008 LA River Copper WER Study (LWA 2008), referred to herein as the 2008 Study, dry weather was identified as the condition with both the greatest danger to aquatic life (copper concentrations were highest and dilution was lowest) and also the condition of the lowest WER. This was also consistent with the standard regulatory assumption that the low effluent dilution dry period is the critical condition when considering the potential effect of effluent discharges on receiving waters. However, while the approach for the current study included considering the results of the 2008 Study, the critical condition was re-evaluated for each waterbody to confirm the previous findings.

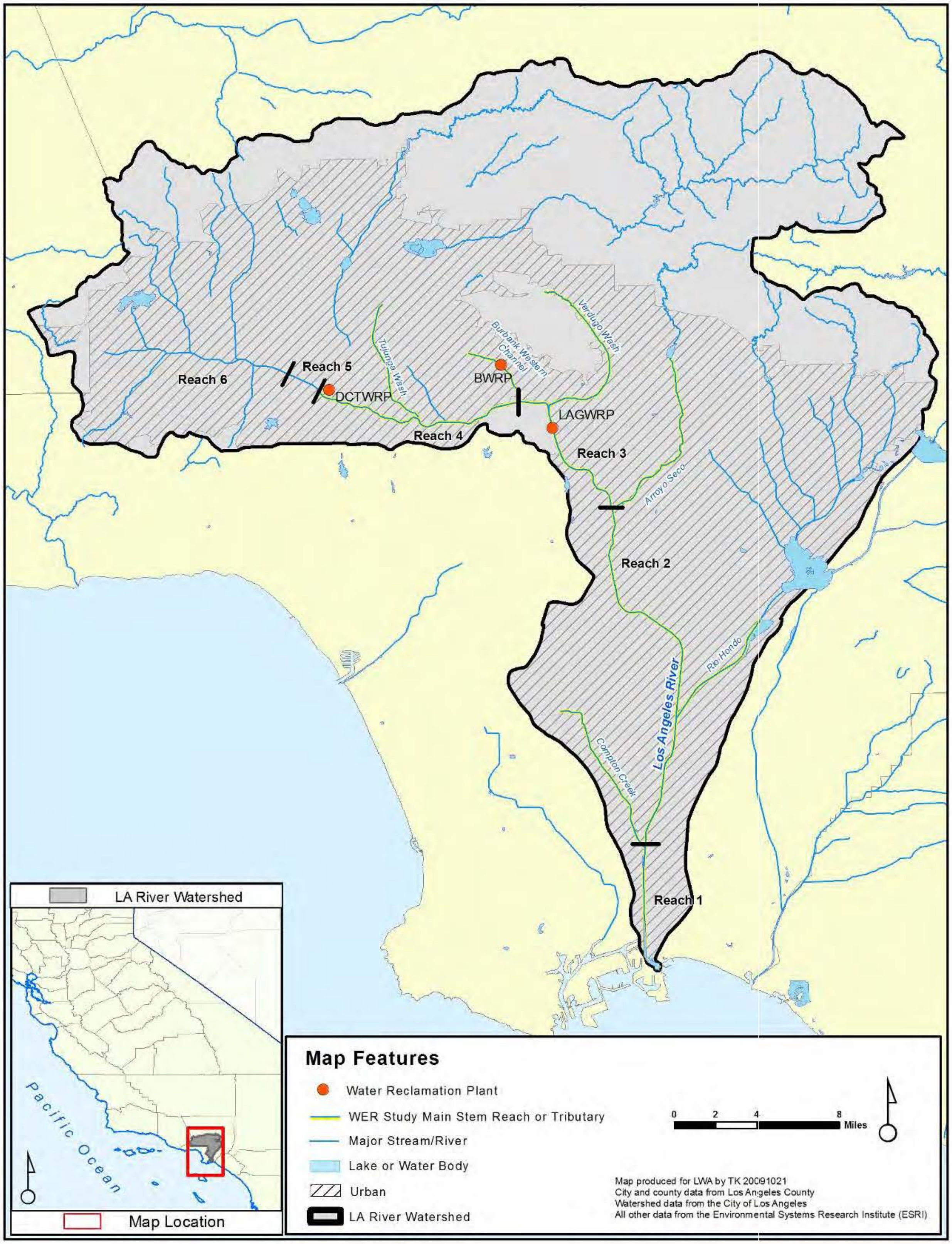

Figure 2. WER Study Main Stem Reaches and Tributaries

Per the Interim Guidance, a minimum of three WER samples are required to calculate a final WER (fWER). The fWER is calculated as the geometric mean of the three WER samples. During the 2008 Study, the use of three samples collected during the critical condition, with one additional confirming event each during winter wet weather and winter dry weather was utilized. Based on the results of the 2008 Study and a critical conditions analysis presented in the Work Plan, the first phase of sample collection called for six initial samples as follows: four samples collected during dry weather (summer and winter) and two samples collected during wet weather. For the purposes of the WER Study, the summer season was defined as May 1 to October 31 and winter as November 1 to April 30.

Per the Work Plan, an analysis was to be conducted after the six initial samples were collected to determine if there is a substantial difference between dry and wet weather WERs, or between summer dry weather and winter dry weather WERs. Whichever condition (wet or dry) or season (summer or winter) had the lowest WER value would be considered the critical condition. For example, if the dry weather WER is lower than the wet weather WER, then dry weather would be the critical condition. If it was determined that there is no difference between summer and winter dry weather WERs, then dry weather would be defined as the critical condition. However, if it was determined that summer and winter dry weather WERs were different, then the dry weather season with a lower WER would be considered the critical condition, and an additional sampling event was to be conducted in the identified critical season for a total of three WER samples.

Following the determination of the critical condition, an additional analysis was to be conducted to determine if enough WER samples had been collected to define the critical condition. If it was determined that enough samples had been collected, then no further samples would be collected, and the fWER would be calculated using available data. If it was determined that not enough samples were collected, additional samples were to be collected in the critical condition and the analyses and decision process would be repeated.

Figure 3 presents the decision making process for evaluating critical conditions and sample size and determining whether additional samples were needed. The results of the critical conditions and sample size analyses are presented in **Section 7.1**.

Four environmental testing laboratories conducted analytical work on water samples collected for the WER Study:

- Pacific EcoRisk (PER) Environmental Consulting and Testing, located in Fairfield, CA, conducted copper WER toxicity tests. PER specializes in toxicity testing of this nature and has successfully completed a copper WER study for a coalition of NPDES permittees in the San Francisco Bay region.
- Physis Environmental Laboratories, Inc. (Physis), located in Anaheim, CA, performed analyses for low-level dissolved copper and general water quality constituents such as Total Suspended Solids (TSS) and minerals.
- Columbia Analytical Services (CAS) located in Kelso, WA, performed analyses for Total Organic Carbon (TOC), Dissolved Organic Carbon (DOC), and Dissolved Inorganic Carbon (DIC).

- SunStar Laboratories, located in Lake Forest, CA, performed analyses for TOC, DOC, and DIC.

These laboratories are certified by the California Department of Health Services-Environmental Laboratory Accreditation Program (DHS-ELAP) to perform all analyses, in conformance with USEPA and California requirements.

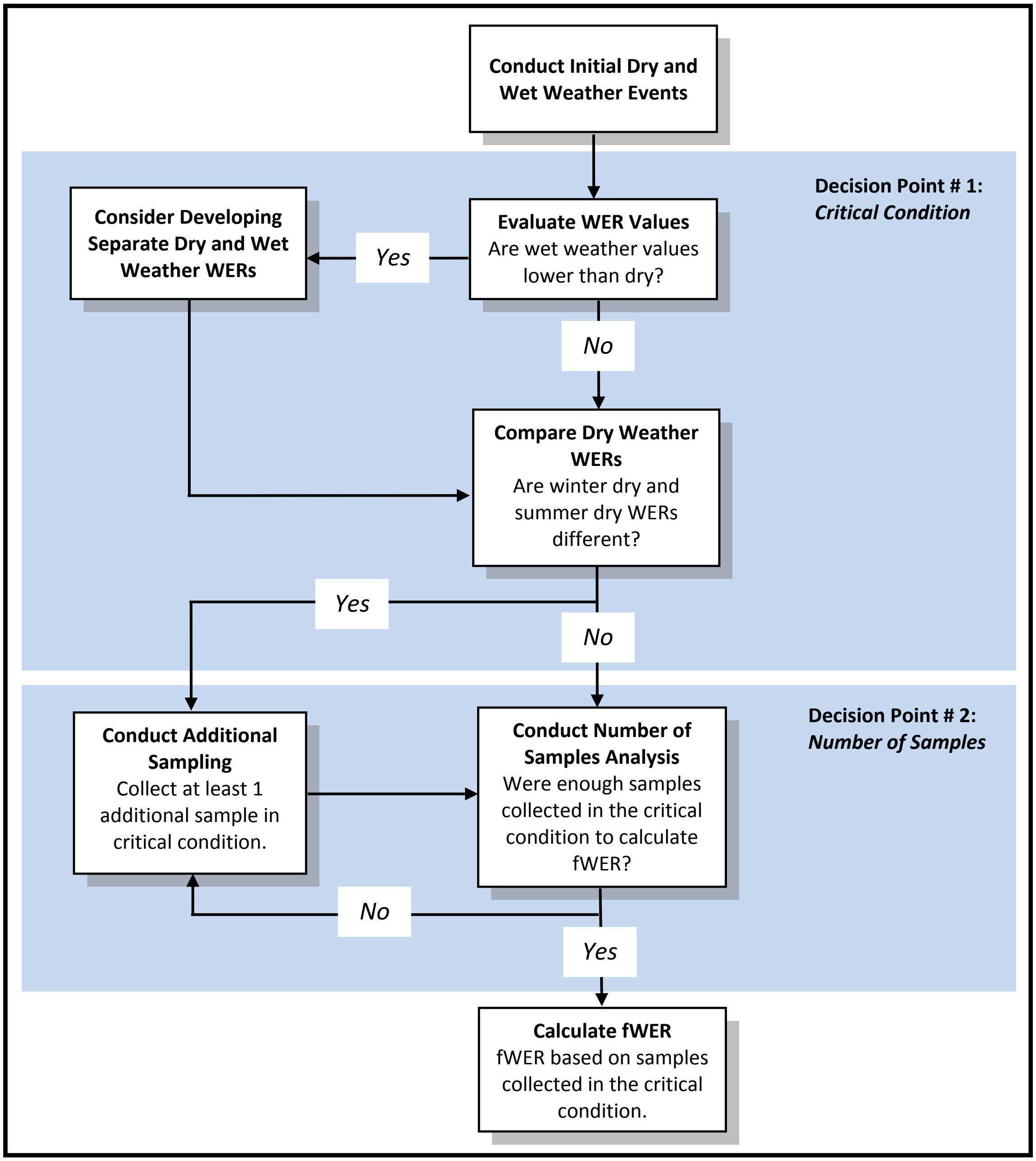

Figure 3. Decision Tree Flow chart

2.1 WATER-EFFECT RATIO SPECIES AND TEST SELECTION

Appendix I of the Interim Guidance suggests tests for determining WERs for metals. The suggested tests describe the species, duration, life stage, and end point. For the WER Study, WERs were determined using only acute toxicity tests. The development of WERs using only acute tests allowed for the adjustment of both the acute and chronic criteria; whereas a WER developed using chronic tests only allows for the adjustment of the chronic criterion. Additionally, chronic toxicity tests tend to result in higher WERs than acute toxicity tests, making the development of WERs from acute tests more conservative. Further, the 7-day chronic toxicity test for *Ceriodaphnia dubia (C. dubia)* requires that organisms be fed a substance that contains organic carbon, which interferes with the bioavailability of copper to test organisms and, therefore, impacts the WER. As suggested in the Interim Guidance, acute 48-hour copper toxicity tests using *C. dubia* were conducted side-by-side on water collected from sampling sites and USEPA-specified laboratory water.

The Interim Guidance states that WERs should be developed for dissolved and total metals. However, only dissolved WERs were developed for the WER Study. Dissolved metals concentrations more closely approximate the bioavailable fraction of the metal in the water column than do total recoverable metals concentrations. Only dissolved WERs were developed for the 2008 Study.

The use of a secondary species is recommended in the Interim Guidance to provide confirmation of the results of the primary species by testing the assumptions that similar WERs will be obtained using tests that have similar sensitivities to the test material. Essentially, the use of a secondary species, which must be in a different family than the primary species, is to confirm that the response observed for the primary species is consistent with the response observed in the secondary species. A secondary species was not utilized in the WER Study as copper is a well-studied toxicant, and it is widely understood that different organisms, regardless of sensitivity, respond similarly to copper over a wide range of conditions. As an example, regardless of site-specific conditions, an invertebrate and a fish would respond to any changes in conditions that affect bioavailability in the same way, and that the invertebrate would always be more sensitive than the fish. The Streamlined Procedure states that daphnids, such as *C. dubia*, are quite sensitive to copper and the most useful test organisms for WER studies. Furthermore, the Streamlined Procedures states that the Interim Guidance recommendation for a test with a second species has been dropped because the additional test has not been found to have value. Additionally, multiple studies have been conducted in California utilizing a single species for copper (EOA and LWA 2002; LWA 2008). As such, it was determined that a second aquatic test species was not necessary to verify copper WER results obtained from *C. dubia*. The decision to use a single species is supported by the TAC and Charles Delos of USEPA as documented in letters of support presented in the Work Plan (**Appendix 1**).

2.2 BIOTIC LIGAND MODEL

USEPA released a February 2007 revision document to the *Aquatic Life Ambient Freshwater Quality Criteria – Copper* (hereafter referred to as BLM-based 2007 Copper Criteria Document) utilizing the BLM to calculate copper WQC. The BLM-based 2007 Copper Criteria Document provides states with guidance in establishing water quality standards and does not constitute a regulation. The BLM is a computer model that predicts speciation and toxicity of trace metals to aquatic organisms based on concentrations of complexing ligands (e.g., organic carbon) and competing cations in sample water. The BLM-based 2007 Copper Criteria Document utilizes the BLM version 2.2.3 to develop copper water quality criteria. Water quality parameters required as inputs to the BLM were collected as part of the WER Study. BLM analyses were conducted to provide a comparison of:

- BLM-predicted copper EC50s to EC50s measured during individual toxicity tests.
- BLM-generated copper WQC to California Toxics Rule (CTR) hardness-based criteria adjusted by the sWERs.

Samples were collected for analysis of constituents utilized in the BLM. Constituents utilized by the BLM include temperature, pH, dissolved copper, calcium, magnesium, sodium, potassium, sulfate, chloride, total organic carbon (TOC), dissolved organic carbon (DOC), dissolved inorganic carbon (DIC), and humic acid. A discussion of the results of the BLM analysis is presented in **Section 8**.

2.3 CHEMICAL ANALYSES

The primary emphasis of the WER Study was the development of copper WERs. However, additional water chemistry and general parameter data were collected for use in the BLM and to further characterize the receiving water. Additional analyses included:

- Total and dissolved copper
- Total hardness as $CaCO_3$
- TSS
- TOC
- DOC
- DIC
- Potassium
- Magnesium
- Calcium
- Sodium
- Chloride
- Sulfate
- Total sulfide
- Alkalinity
- pH
- Conductivity
- Salinity
- Temperature
- Dissolved oxygen (DO)

Results of the analyses are presented in **Section 6.1**.

Section 3. Sampling Procedures

The following details where and when samples were collected for WER testing. Additionally, the sample collection and analysis methods are presented. More detailed information on the WER testing methods are presented in **Section 4**.

3.1 SAMPLING LOCATIONS AND COLLECTION SCHEDULE

Fourteen WER sampling sites were used to represent four reaches and six tributaries of the LA River. **Table 3** presents the name of the waterbody, sample location, and hydrologic condition targeted (dry or wet weather). **Figure 4** presents a map of the dry weather sample sites and **Figure 5** presents a map of the wet weather sample sites. Sampling location selection included efforts to co-locate WER Study sample sites with Metals TMDL Coordinated Monitoring Plan (CMP) sites where appropriate, and to bracket major inputs to the system from WRP discharge and tributaries. For safety purposes the dry weather and wet weather sampling locations were not always at the exact same location; however, the sites are in close proximity. The Work Plan (**Appendix 1**) presents descriptions and pictures.

Table 3. WER Study Sampling Locations

Waterbody	Waterbody Type	Sample Location	Site ID	Dry Weather Site	Wet Weather Site
Tujunga Wash	Tributary	Tujunga Wash at LAR	TW_AT_LAR	X	
		Tujunga Wash at Moorpark St	TW_AT_MOOR		X
LAR Reach 4	Main Stem	LAR at Upstream BWC	LAR_UP_BWC	X	
		LAR at Tujunga Ave	LAR_TUJ_AV		X
Burbank Western Channel	Tributary	BWC Upstream of BWRP	BWC_UP_BWRP	X	
		BWC at LAR	BWC_AT_LAR	X	
		BWC at Riverside Dr	BWC_AT_RIV		X
LAR Reach 3	Main Stem	LAR at Zoo Dr	LAR_ZOO	X	
Verdugo Wash	Tributary	Verdugo Wash at LAR	VD_AT_LAR	X	
		Verdugo Wash at N. Kenilworth Ave	VERD_AT_KEN		X
LAR Reach 3 (upstream of LAGWRP)	Main Stem	LAR at Colorado Blvd	LAR_CO	X	
LAR Reach 3 (downstream of LAGWRP)	Main Stem	LAR at Figueroa St	LAR_FIG	X	X
Arroyo Seco	Tributary	Arroyo Seco at LAR	AS_AT_LAR	X	
		Arroyo Seco at N. San Fernando Rd	AS_AT_LAR		X
LAR Reach 2	Main Stem	LAR at Washington Blvd	LAR_WASH	X	
Rio Hondo Reach 1	Tributary	Rio Hondo at LAR	RH_AT_LAR	X	
		Rio Hondo at Garfield Ave	RH_AT_LAR		X
LAR Reach 2	Main Stem	LAR at Del Amo Blvd	LAR_DEL	X	X
Compton Creek	Tributary	Compton Creek at LAR	CC_AT_LAR	X	
		Compton Creek at Del Amo Blvd	CC_AT_DEL		X
LAR Reach 1	Main Stem	LAR at Wardlow Rd	LAR_WARD	X	X

BWC – Burbank Western Channel

LAR – Los Angeles River

LAGWRP – Los Angeles Glendale Water Reclamation Plant

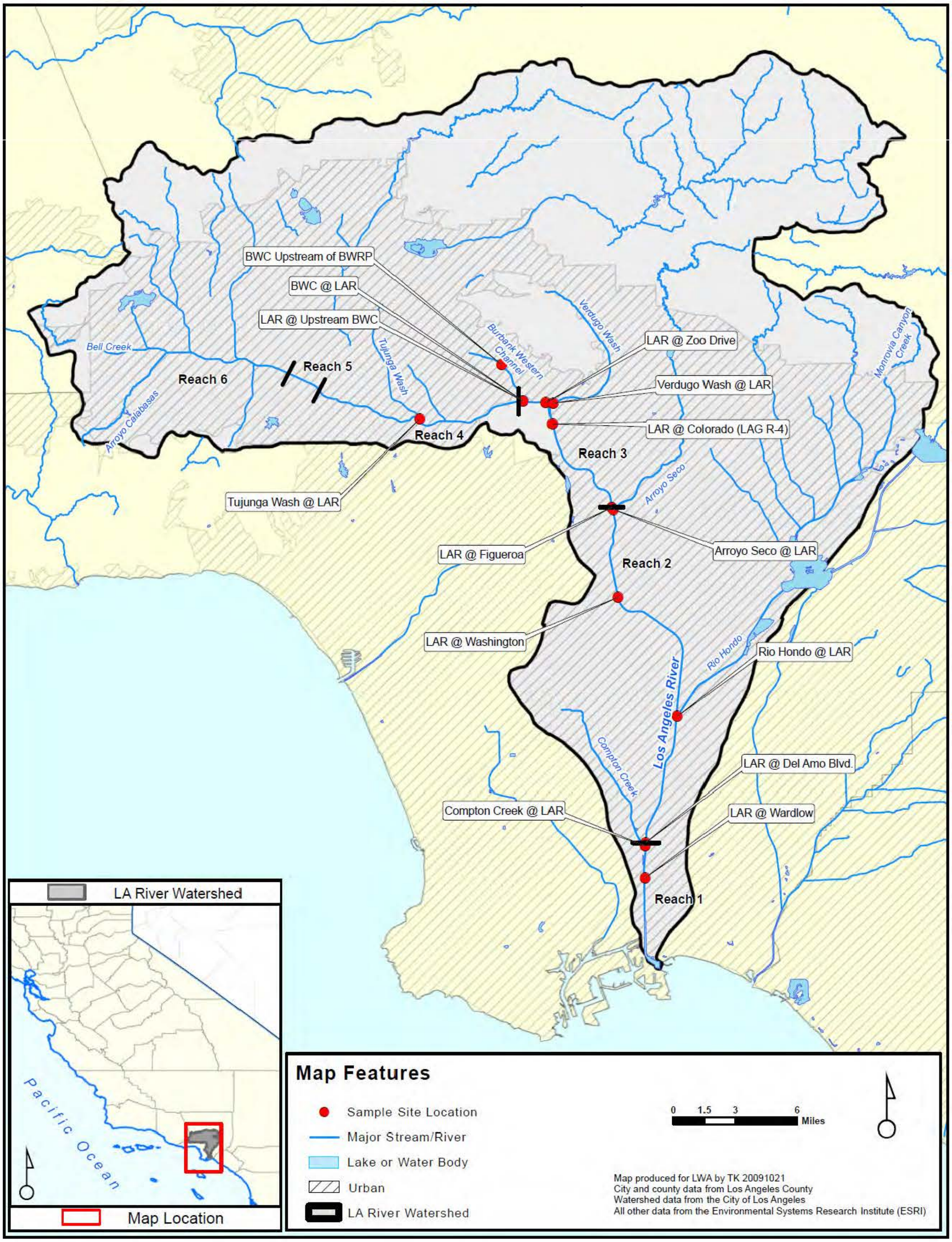

Figure 4. Dry Weather WER Sampling Sites

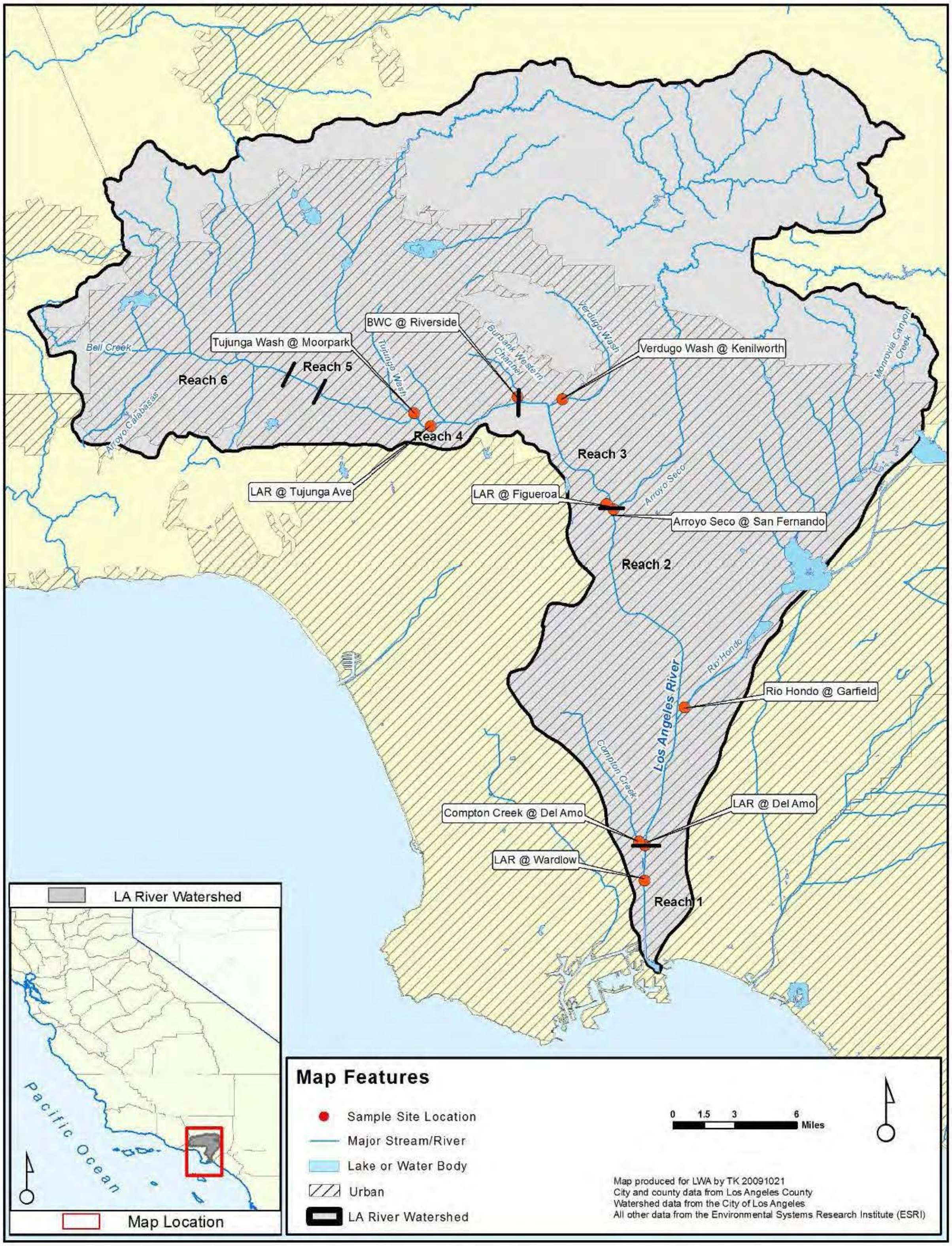

Figure 5. Wet Weather WER Sampling Sites

Dry weather samples were collected as manual time-weighted composites over a 24-hour period. Subsamples were collected every six hours for a 24-hour period and then composited to form a manually time-weighted sample. As such, two days were required to conduct collection and compositing of samples. However, because of the complex nature of conducting WER toxicity testing it was desirable to limit the number of samples submitted for testing on a given day. Therefore, three subsets of sites (four or five sites per subset) were utilized. Dry weather sampling events were scheduled approximately one month apart. **Table 4** presents the general grouping of sites for dry weather sample collection efforts. Dry weather conditions were those where measurable precipitation had not occurred during the seven days prior to a scheduled dry weather event, of if measurable precipitation had occurred, flow rates returned to levels typical of the season.

Wet weather event samples targeted flow conditions consistent with the definition of wet weather in the Metals TMDL defined as when the daily maximum flow at Wardlow Road is equal to or greater than 500 cfs. Wet weather samples were collected over a 12-hour period during targeted storm events either as time-weighted or as flow-weighted composites through the use of Metals TMDL CMP auto-samplers. Sample collection procedure depended on storm characteristics and sampling logistics. Time-weighted subsamples were collected every four hours for a 12-hour period and then composited to form a manually time-weighted sample. Flow-weighted subsamples were collected based on the measured flow at each station. **Table 5** presents the grouping of sites for wet weather sample collection efforts. For the purposes of triggering wet weather sample collection, any rainfall prediction for downtown Los Angeles of 0.1-0.5 inches in a 6- to 12-hour period was sufficient to mobilize for wet weather sampling. Alternatively, the analyses of the CMP staff was utilized. The sampling crew prepared to depart at the forecasted time of initial rainfall. The first of the four manual composite samples was targeted for collection within 2 hours of local rainfall. Publicly available meteorological forecasting systems were used for identifying and anticipating wet weather sample collection. The sampling decision protocol began when the sampling crew recognized an approaching storm, through weekly monitoring of forecasts. The National Weather Service's weather forecast for downtown Los Angeles was accessed on-line at: http://www.wrh.noaa.gov/lox/.

There were several occasions where sampling could not be completed as scheduled due to conditions within the various waterbodies. During Event 1A Arroyo Seco was observed to have high turbidity inconsistent with normal conditions of the waterbody. The high turbidity affected water quality throughout Arroyo Seco as well as the water quality of the LA River downstream of Arroyo Seco. The high turbidity levels within Arroyo Seco arose from the large volume of sediment stored behind the Devil's Gate Dam transported there following the Station Fire, which burned almost 100% of the upper Arroyo Seco Watershed. The high turbidity affected several sampling events in that certain waterbodies were not sampled (i.e., Arroyo Seco and all main stem LA River sites downstream) and sample collection was rescheduled to a time when the turbidity levels were consistent with normal conditions. TSS samples were collected in the LA River downstream of Arroyo Seco in May 2011 and June 2011 to assess how the large volume of sediment was affecting turbidity. Following the June TSS sampling, the data indicated the water quality in the LA River was not affected by the turbidity emanating from Arroyo Seco and normal sampling resumed in July 2011.

Several sampling events targeting the Rio Hondo had to be rescheduled due to a lack of sufficient flow (or no flow). Specifically, Rio Hondo lacked sufficient flow during several occasions including Event 1C and Event 4C. Event 1C was rescheduled and collected successfully, whereas sampling to address Event 4C was not ultimately successful resulting in one less sample collected as compared to the other sites. In addition, WER testing was not initiated for Event 3C samples collected in Rio Hondo as irregular water quality conditions were observed during the fifth (T=24) subsample collection. The Event 3C sample was rescheduled and successfully collected.

A total of 83 dry weather and 20 wet weather samples were collected at 14 and 10 sites, respectively, during the WER Study. **Table 6** lists the sampling events completed during the WER Study.

Table 4. WER Study Dry Weather Sampling Locations

Subset Group	Waterbody	Sample Location
A	Tujunga Wash	Tujunga Wash at LAR
	LAR Reach 4	LAR at Upstream BWC
	Burbank Western Channel	BWC Upstream of BWRP
	Burbank Western Channel	BWC at LAR
B	LAR Reach 3	LAR at Zoo Dr
	Verdugo Wash	Verdugo Wash at LAR
	LAR Reach 3 (upstream of LAGWRP)	LAR at Colorado Blvd
	LAR Reach 3 (downstream of LAGWRP)	LAR at Figueroa St
	Arroyo Seco	Arroyo Seco at LAR
C	LAR Reach 2	LAR at Washington Blvd
	Rio Hondo Reach 1	Rio Hondo at LAR
	LAR Reach 2	LAR at Del Amo Blvd
	Compton Creek	Compton Creek at LAR
	LAR Reach 1	LAR at Wardlow Rd

BWC – Burbank Western Channel
LAR – Los Angeles River
BWRP – Burbank Water Reclamation Plant

Table 5. WER Study Wet Weather Sampling Locations

Subset Group	Waterbody	Sample Location
Northern Waterbodies	Tujunga Wash	Tujunga Wash at Moorpark St
	Burbank Western Channel	BWC at Riverside Dr
	Verdugo Wash	Verdugo Wash at N. Kenilworth Ave
	LAR Reach 3	LAR @ Zoo Dr
Southern Waterbodies	Arroyo Seco	Arroyo Seco at N. San Fernando Rd
	Rio Hondo Reach 1	Rio Hondo at Garfield Ave
	Compton Creek	Compton Creek at LAR
LAR Main Stem (CMP Sites)	LAR Reach 4	LAR at Tujunga Ave
	LAR Reach 3 (downstream of LAGWRP)	LAR at Figueroa St
	LAR Reach 2	LAR at Del Amo Blvd
	LAR Reach 1	LAR at Wardlow Rd

BWC – Burbank Western Channel
LAR – Los Angeles River
LAGWRP – Los Angeles Glendale Water Reclamation Plant

Table 6. Los Angeles River Copper WER Study Dry and Wet Sampling Summary

Waterbody	Summer Dry				Winter Dry		Wet	
Main Stem Sites								
LAR Reach 1	Jul-11	Aug-11	Jun-12	Aug-12	Jan-12	Feb-12	Nov-11	Jan-12
	Event 2C	Event 3C	Event 6C	Event 7C	Event 4C	Event 1C	Event 1W	Event 2W-1
LAR Reach 2	Jul-11	Aug-11	Jun-12	Aug-12	Jan-12	Feb-12	Nov-11	Jan-12
	Event 2C	Event 3C	Event 6C	Event 7C	Event 4C	Event 1C	Event 1W	Event 2W-1
LAR Reach 3 (upstream of LAGWRP)	Jun-11	Aug-11	Jun-12	Aug-12	Mar-11	Dec-11	NS	NS
	Event 2B/2A[1]	Event 3B	Event 6B	Event 7B	Event 1B	Event 4B	NS	NS
LAR Reach 3 (downstream of LAGWRP)	Jun-11	Aug-11	Jun-12	Aug-12	Mar-11	Dec-11	Nov-11	Jan-12
	Event 2B	Event 3B	Event 6B	Event 7B	Event 1B	Event 4B	Event 1W	Event 2W-1
LAR Reach 4	Jun-11	Aug-11	Jun-12	Aug-12	Apr-11	Dec-11	Nov-11	Jan-12
	Event 2A	Event 3A	Event 6A	Event 7A	Event 1A	Event 4A	Event 1W	Event 2W-1
Tributary Sites								
Tujunga Wash	Jun-11	Aug-11	Jun-12	Aug-12	Apr-11	Dec-11	Nov-11	Dec-11
	Event 2A	Event 3A	Event 6A	Event 7A	Event 1A	Event 4A	Event 1W	Event 2W
Burbank Western Channel (upstream of BWRP)	Jun-11	Aug-11	Jun-12	Aug-12	Apr-11	Dec-11	NS	NS
	Event 2A	Event 3A	Event 6A	Event 7A	Event 1A	Event 4A	NS	NS
Burbank Western Channel (downstream of BWRP)	Jun-11	Aug-11	Jun-12	Aug-12	Apr-11	Dec-11	Nov-11	Dec-11
	Event 2A	Event 3A	Event 6A	Event 7A	Event 1A	Event 4A	Event 1W	Event 2W
Verdugo Wash	Jun-11	Aug-11	Jun-12	Aug-12	Mar-11	Dec-11	Nov-11	Dec-11
	Event 2B	Event 3B	Event 6B	Event 7B	Event 1B	Event 4B	Event 1W	Event 2W
Arroyo Seco	Aug-11	May-12	Jun-12	Aug-12	Dec-11	Feb-12	Nov-11	Dec-11
	Event 3B	Event 5	Event 6B	Event 7B	Event 4B	Event 1C	Event 1W	Event 2W
Rio Hondo Reach 1	Jun-11	May-12	Jun-12	Aug-12	Feb-12	Jan-12	Nov-11	Dec-11
	Event 2B	Event 5	Event 6C	Event 7C	Event 1C	NC	Event 1W	Event 2W
Compton Creek	Jun-11	Aug-11	Jun-12	Aug-12	Jan-12	Feb-12	Nov-11	Dec-11
	Event 2B	Event 3C	Event 6C	Event 7C	Event 4C	Event 1C	Event 1W	Event 2W

1. LAR @ Colorado Blvd sampled during Event 2B and LAR @ Zoo Dr sampled during Event 2A.

NS – Not Sampled as wet weather samples were not collected at these sites.

NC – Not Collected due to lack of flow. Multiple attempts were made to collect another winter dry weather sample at Rio Hondo, but in these instances the Rio Hondo was dry.

LAGWRP – Los Angeles Glendale Water Reclamation Plant

BWRP – Burbank Water Reclamation Plant

3.2 SAMPLE COLLECTION AND ANALYSIS

As previously stated, dry weather samples were collected as manual time-weighted composites over a 24-hour period with subsamples collected every six hours for a 24-hour period. Wet weather samples were collected as manual time-weighted composites over a 12-hour period with samples collected every four hours or as flow-weighted composites. Acute toxicity tests (48-hours) were conducted side-by-side on USEPA-specified laboratory water and site water samples. **Table 7** presents specifications for conducting acute toxicity tests using *C. dubia*. Additionally, samples were analyzed for copper, BLM, and general water quality constituents as presented in **Table 8** and **Section 6**.

Table 7. Acute Toxicity Test Specifications for Copper WERs using *Ceriodaphnia dubia*

Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source; Age:	In-house culture; < 24 hr
Test Duration:	48-hr
Test Temperature:	20°C
Dilution Water:	USEPA moderately hard synthetic water
Test Concentrations:	Varied per sample
Sample Volume/ Test Chambers:	15 ml per replicate in 30-ml plastic cups
Replicates/ No. of Organisms:	5 replicates, 5 organisms in each
Water Renewal:	None
Metals Sample Collection (From each dilution prior to test initiation and test termination)	Total at 0-hr_i Dissolved at 0-hr_i and 48-hr_f
Feeding:	None
Protocol:	EPA/821/R-02-012 (2002)
Acceptability Criterion:	Mean control survival ≥ 90%
Statistical Analysis Software:	CETIS®

hr_i = the time at which an initial metals sample is collected from test chambers prior to addition of test species.

hr_f = the time at which a final metals sample is collected from test chambers.

Table 8. Analytical Requirements for Toxicity and Analytical Chemistry

Analysis / Constituent	Method[1]	Detection Limit	Target RL	Hold Time
Toxicity Lab Testing[2]				
Acute *Ceriodaphnia dubia*	EPA 823/B-94/001 and EPA 821/R-02/012	N/A	N/A	Tests begun in 36 hours
Alkalinity	Titrimetric Method	10 mg/L	10 mg/L	Measured immediately upon receipt and as required during tests
Conductivity	Graphite electrode	2.5 umhos/cm	2.5 umhos/cm	
Total Residual Chlorine	Colorimetric Method	0.02	0.05	
Temperature	NIST calibrated thermometer or meter	0.1ºC	0.1ºC	
pH	Electrometric	0.01 units	0.01 units	
Dissolved Oxygen	Membrane	0.01 mg/L	0.1 mg/L	
Total Ammonia	Colorimetric Method	0.05 mg/L	0.1 mg/L	28 days
Hardness	SM2340C	1 mg/L	10 mg/L	28 days
Chemistry Lab Testing				
Cu, Total & Dissolved	EPA 200.8	0.4 µg/L	0.8 µg/L	6 months[3]
Hardness	SM 2340B	1 mg/L	5 mg/L	6 months
Total Suspended Solids	SM 2540D	0.1 mg/L	1.0 mg/L	7 days
TOC	SM 5310D	0.1 mg/L	0.5 mg/L	28 days
DOC	SM 5310B	0.1 mg/L	0.5 mg/L	Filter within 24 hours, 28 days
DIC	Calculation	0.1 mg/L	0.5 mg/L	
Calcium	EPA 200.7	0.01 mg/L	0.1 mg/L	6 months
Magnesium		0.01 mg/L	0.1 mg/L	
Sodium		0.02 mg/L	0.5 mg/L	
Potassium		0.06 mg/L	0.5 mg/L	
Sulfate	EPA 300.0	0.01 mg/L	0.05 mg/L	28 days
Chloride				

1. SM = Standard Methods for the Examination of Water and Wastewater, 20th Edition (AWWA, 1999).
2. Water for these analyses was collected from the 25 gallons of sample water composited at the toxicity testing laboratory.
3. Samples for dissolved metals analysis were filtered within 15 minutes of sample collection and preserved.

Manual subsamples were collected at approximately mid-stream, mid-depth at the location of greatest flow (where feasible) by direct submersion of the sample bottle. This was the preferred method for grab sample collection; however, due to monitoring site configurations and safety concerns, direct filling of sample bottles was not always feasible. Some LA River reaches and tributaries did not contain sufficient flow to collect samples by direct submersion. Intermediate containers were used in instances where flows were too shallow for direct submersion of toxicity subsample containers. In these instances, a 1-liter HDPE bottle (the same type as used for total suspended solids analysis) was used to fill the sample bottles. Alternatively, in the case of sheet flow where the use of a 1-liter HDPE bottle was not feasible, new, re-sealable plastic bags were utilized as an intermediate container. New and clean intermediate containers were used to collect each subsample at the various monitoring sites. In addition, during wet weather when flows in the LA River and its tributaries were too high to enter the channel for direct submersion, an intermediate 2.5 gallon HDPE bottle was used to collect the samples.

BLM samples collected as subsamples in the field are considered representative of both the conditions in the LA River and tributaries as well as comparable to WER results for evaluation of BLM predicted toxicity for all constituents except pH and temperature. It is reasonable to expect that the pH of the samples may drift between the time of collection, the onset of toxicity testing, and the completion of toxicity testing. As mentioned above, the BLM estimated EC50s and BLM derived WQC can be used to compare to WER testing results. Therefore, pH and temperature was measured several times throughout sample collection and WER testing for different uses. The occasions of pH measurements are presented in **Table 9**.

Table 9. BLM pH Measurement Occasions

pH and Temperature Measurement	Occasion of Measurement	Use
Field	During each subsample collection	Comparison of WER and BLM generated Water Quality Criteria
Composite	When toxicity subsamples were received by the toxicity lab	Comparison of WER and BLM generated EC50s
Initial test	After samples have been spiked, before introduction of organisms	
Final test	At the completion of the toxicity tests	

3.2.1 *Clean Sample Collection Techniques*

To prevent contamination of samples, USEPA Method 1669 (USEPA 1995) clean metal sampling techniques were used throughout all phases of the sampling and laboratory work, including equipment preparation, sample collection, and sample handling, storage, and testing. All sample bottles and test chambers were acid-rinsed prior to use. Filled sample containers were kept on ice until receipt at the laboratory. The protocol for clean metal sampling, based on USEPA Method 1669, is summarized below:

- Samples are collected in rigorously pre-cleaned sample bottles with any tubing specially processed to clean sampling standards;

- At least two persons, wearing clean, powder-free nitrile or latex gloves at all times, are required on a sampling crew;
- One person, referred to as “dirty hands”, opens only the outer bag of all double-bagged sample bottles;
- The other person, referred to as “clean hands”, reaches into the outer bag, opens the inner bag and removes the clean sample bottle;
- Clean hands rinses the bottle at least two times by submerging the bottle, removing the bottle lid, filling the bottle approximately one-third full, replacing the bottle lid, gently shaking and then emptying the bottle; Clean hands then collects the sample by submerging the bottle, removing the lid, filling the bottle and replacing the bottle cap while the bottle is still submerged;
- After the sample is collected, the sample bottle is double-bagged in the opposite order from which it was removed from the same double-bagging;
- Clean, powder-free gloves are changed whenever something not known to be clean has been touched; and
- The time of sample collection is recorded on the field log sheet.

3.2.2 *Dissolved Metals Field Filtration*

Dissolved metals filtration was conducted during each subsample collection in the field using a 50 mL plastic syringe with a 0.45µm filter to collect the dissolved metals samples into a 40 mL plastic tube. Prior to use during the first event a syringe, filter, and 40 mL plastic tube were lab-tested and determined to be clean for copper. Sampling kits containing a syringe, filter, and 40 mL plastic tube were placed in new, re-sealable plastic bags to prevent metals contamination. One kit was used each time a metals sample was collected. Dissolved metals collection consisted of removing 20 mL of sample water from a filled 250 mL HDPE bottle (total metals subsample) using the syringe and then filtering the water into a 40 mL plastic tube. After the 20 mL were collected in the plastic tube, it was stored on ice for delivery to the laboratory, where the subsamples were composited.

3.2.3 *Field Measurements and Observations*

Field measurements were collected and observations made at each sampling site after a sample was collected. **Table 10** presents the method used, range and project reporting limits for field measurements. Field measurements collected included dissolved oxygen, temperature, conductivity, pH, salinity, and flow. Measurements (except for flow) were collected at approximately mid-stream, mid-depth at the location of greatest flow (if feasible) with a Hydrolab DS4 multi-probe water quality meter, or comparable instrument(s). For measurements of relatively deep flows, the instrument(s) were placed directly into the flow path. For field measurements of shallow flows, water was collected in a rinsed intermediate container prior to measurement. Flow measurements were collected utilizing either a Marsh-McBirney FLO-MATE 2000 velocity meter, where water was sufficiently deep (>0.1 foot), or utilizing the “float” method. Additional details on the measurement techniques can be found in **Section 5.8.3** of the Work Plan.

Prior to the first day of each sampling event, water quality meters were calibrated using fresh calibration solutions. For all constituents, a two-point calibration was used. After each calibration, the sensor was checked to verify the accuracy was within 10% of the known value of a standard solution.

In addition to field measurements, site characteristic observations were made at each sampling station and noted on the field log form. Observations included water color, water odor, floating materials, wildlife presence, as well as observations of contact and non-contact recreation.

Table 10. Analytical Methods and Project Reporting Limits for Field Measurements

Parameter/Constituent	Method	Range	Project RL
Flow	Electromagnetic	-0.5 to +20 ft/s	0.05 ft/s
pH	Electrometric	0 – 14 pH units	NA
Temperature	High stability thermistor	-5 – 50 ^{o}C	NA
Dissolved oxygen	Membrane	0 – 50 mg/L	0.5 mg/L
Turbidity	Nephelometric	0 – 3000 NTU	0.2 NTU
Conductivity	Graphite electrodes	0 – 10 mmhos/cm	2.5 umhos/cm

RL – Reporting Limit NA – Not applicable

Section 4. Toxicity Testing Methods

Methods for holding and processing samples as well as toxicity test procedures for development of WERs conformed to the requirements of the following guidance documents:

- Interim Guidance on Determination and Use of Water-Effect Ratios for Metals. USEPA 1994. USEPA-823-B-94-001; and
- Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Fifth Edition. USEPA 2002. USEPA-821-R-02-012.

All WER toxicity testing was conducted by Pacific EcoRisk (PER), located in Fairfield, California (NELAP #04225CA).

4.1 TOXICITY LABORATORY SAMPLE PROCESSING

Upon arrival at PER, site water samples were analyzed for general water quality characteristics (temperature, pH, dissolved oxygen, alkalinity, hardness and total ammonia). Attempts were not made to remove ammonia from site water samples. Use of zeolite for ammonia removal can potentially remove constituents that provide ligands for metals and otherwise change the matrix of site water samples, possibly masking additive toxic effects from multiple constituents. Laboratory water used for the parallel toxicity tests was analyzed for the same constituents.

4.2 LABORATORY WATER AND DILUTION WATER PREPARATION

Dilution water used in laboratory water and reference toxicant tests was prepared prior to test initiation for each event. Laboratory water tests were performed using USEPA formula synthetic freshwater (prepared by the addition of reagent grade chemicals [calcium sulfate, magnesium sulfate, sodium bicarbonate, and potassium chloride] in specified proportions to de-ionized water). The use of reconstituted water as a "laboratory water" was consistent with guidance found in USEPA-823-B-94-001 and USEPA -821-R-02-012. Hardness of the dilution water was made to be within the range observed in LA River water samples at the time of sampling. A laboratory water test was set up for each sub-event. Hardness was not matched specifically for each sample and is not required by the Interim Guidance. Per the Interim Guidance, the hardness of the laboratory dilution water must be between 40 and 220 milligrams per liter (mg/L) as calcium carbonate ($CaCO_3$) and should be between 50 and 150 mg/L. Further, the hardness of the laboratory dilution water must not be above the hardness of the site water, unless the hardness of the site water is below 50 mg/L. Typically, as site waters were often near or above 220 mg/L, lab waters were chosen to be (1) no higher than the upper bound as presented in the Interim Guidance (i.e., 220 mg/L) and (2) as representative as possible for all samples tested.

4.3 COPPER SPIKING

Nominal definitive test copper concentrations were selected based on previous testing performed in the watershed and based on best professional judgment. The test treatment concentrations were selected so as to bracket the expected potential range of EC50 values for *C. dubia* survival. Test solutions at these concentrations were prepared by spiking aliquots of site water or laboratory water with copper (as $CuCl_2$, from a 1000 mg/L solution). Test solutions were allowed to sit undisturbed for at least three hours prior to test initiation to allow for copper partitioning to reach equilibrium with the test water matrix constituents. Allowing the samples to sit three hours is intended to avoid exposure of the test organisms to the ionic form of the metal of interest. Laboratory and site waters were spiked with between seven to 10 different concentrations of dissolved copper using a 0.65 to 0.99 dilution factor, per the Interim Guidance[3]. Individual dilutions from each sample were prepared in volumetric flasks or graduated cylinders.

New "working" stock solutions were prepared for each site and laboratory water for each test event. This "working" stock solution was used for preparation (or spiking) of individual test treatments via a serial dilution approach (*i.e.*, a large volume of water was spiked with copper to prepare test solution at the highest nominal copper concentration; an aliquot of that spiked water was then mixed [or diluted] with an aliquot of unspiked water to prepare test solution at the next lower copper concentration; an aliquot of this second copper-spiked test solution was then similarly mixed with an aliquot of unspiked water to prepare the next lower test solution; this process was repeated to prepare each of the copper concentration test solutions for each tested water). The water volume comprising each test treatment solution was then split between analytical chemistry sample bottles and replicate test chambers to minimize inter-replicate variability with respect to copper concentration.

4.4 TOXICITY TESTING PROCEDURE

The control treatment for each of the site waters consisted of an aliquot of the site water without any added metals. The *C. dubia* used in this testing were obtained from in-house cultures. The species taxonomy was verified by the supplier of the organism stock and a copy of the culture verification is maintained at the PER laboratory. Test organisms are cultured in moderately-hard water as per USEPA guidelines (USEPA 2002).

There were generally six replicates for each test treatment (five replicates for generation of test survival data and an additional replicate for measurement of daily test water quality [i.e., pH, DO, etc]). In some cases the number of replicates varied, but all tests met the minimum requirements for a WER test. Each replicate consisted of 15-mL of test solution in a 30-mL plastic cup. The tests were initiated by randomly allocating five neonate *C. dubia* (< 24 hrs old), into each replicate cup. Acclimation was not performed for this testing as less than 24-hour old neonates are used to initiate testing. The replicate cups were placed in a temperature-controlled room at 20˚C, under cool-white fluorescent lighting on a 16L:8D photoperiod with a light intensity of 50-100 ft candles.

Each day and at test termination, routine water quality characteristics (pH, DO, and conductivity) of the test solutions were measured in the water quality replicates. After 48 hours (plus or minus one hour), the tests were terminated and the number of live neonates in each replicate cup was determined. Survival data for each test treatment were analyzed and compared to the appropriate control treatment to determine key concentration-response endpoints (*e.g.*, EC50 values). Determination of a measured dissolved copper EC50 point estimate for each test was made

[3] As an example, to prepare seven different dissolved copper concentrations using a dilution factor of 0.7, each successive dilution in the series would contain 70% of the dissolved copper concentration in the previous dilution (e.g., starting with a dissolved copper concentration of 1 part per billion (ppb) or µg/L, successive dilution concentrations would be 0.7 ppb, 0.49 ppb, 0.343 ppb, 0.24 ppb, 0.168 ppb, and 0.118 ppb).

following USEPA guidance using the CETIS® statistical software. EC50 point estimates were made using the mean of the initial and final test treatment dissolved copper concentrations. EC50 point estimates were calculated using Trimmed Spearman-Karber statistical methods and the Maximum Likelihood Probit. Note that all WER calculations were conducted using the Trimmed Spearman-Karber EC50s, as the Trimmed Spearman-Karber method was the only method that could be performed for all tests.

4.5 REFERENCE TOXICANT TESTING

In order to assess the sensitivity of the test organisms to toxic stress, a reference toxicant test was performed on the laboratory culture of *C. dubia* concurrently with each site and lab water tests. The reference toxicant test was performed similarly to the site water tests except that test solutions consist of laboratory control water spiked with sodium chloride (NaCl) at test concentrations of 500, 1000, 2000, 3000, and 4000 mg/L. The resulting test response data were statistically analyzed to determine key dose-response point estimates (e.g., EC50); all statistical analyses were performed using the CETIS® software. These response endpoints were then compared to the "typical response" range established by the mean plus or minus 2 standard deviations generated by the reference toxicant test database for this species.

4.6 COLLECTION OF SITE WATER AND TEST SOLUTIONS

Samples of each test solution were collected for total and dissolved copper analysis immediately prior to test initiation and dissolved copper was collected again at test termination using "clean" techniques. Samples for total copper analysis were collected into pre-cleaned, 40-mL vials (supplied by the analytical lab); samples for dissolved copper analysis were filtered using 0.45 µm syringe filters (supplied by analytical lab). Lab water samples were also collected for analyses of TSS, TOC, DOC, hardness, and other BLM supporting analytes. These samples were then sealed and placed within insulated coolers and shipped via overnight delivery, on ice and under chain-of custody, to Physis Environmental Laboratories, Inc. (Physis).

4.7 MEASUREMENT OF TOXICITY TEST SOLUTIONS FOR COPPER

After toxicity testing was completed, in accordance with the Interim Guidance, only those concentrations used in determining the toxicity test endpoint were analyzed for initial and final dissolved copper concentrations. These included:

(i) All concentrations in which some, but not all, of the test organisms were adversely affected,
(ii) The highest concentration that did not adversely affect any test organisms,
(iii) The lowest concentration that adversely affected all of the test organisms, and
(iv) The controls.

Section 5. Quality Assurance / Quality Control

Quality assurance and quality control (QA/QC) measures were included in the WER Study to assure data credibility. QA/QC practices were maintained during all facets of the WER Study (sampling, testing, chemical analysis). Environmental and QA/QC data are provided in **Appendix 2** and **Appendix 3**, respectively. Each laboratory used was DHS-ELAP certified to perform all analyses in conformance with requirements.

Field QA/QC for this project included the following:

- Equipment blanks - The use of equipment blanks is intended to test whether contamination is introduced from the equipment. The filters used to collect dissolved copper were tested for copper contamination. In addition, equipment blanks were collected prior to the first sampling event by pouring lab water into toxicity sampling containers and then into sample containers. Equipment blanks were analyzed for total and dissolved copper, DOC, DIC, chloride and sulfate to evaluate laboratory cleaning procedures of toxicity sample containers.
- Field blanks - The use of field blanks is intended to test whether contamination is introduced from sample collection and handling, sample processing, analytical procedures, or the sample containers. Field blanks were collected by replicating sample collection methods utilizing lab water. Field blanks were analyzed for total and dissolved copper, TOC, DOC, DIC, calcium, magnesium, potassium, sodium, chloride, and sulfate.
- Trip Blanks - The use of trip blanks was added during the study to test whether blank water supplied by the analytical laboratory is free of the constituents of concern and if laboratory procedures could lead to contamination. Trip blanks were collected by submitting unopened lab water provided by the analytical laboratory. Trip blanks were analyzed for TOC and DOC.
- Field duplicates - The use of field duplicates is intended to test the precision of sample collection. Field duplicates were collected by taking a second set of samples at the same time as WER Study samples and submitting the duplicate blindly to the lab. Field duplicates were analyzed for all chemistry constituents.

Laboratory QA/QC for this project included the following:

- Use of the lowest available method detection limits (MDLs) for trace elements.
- Analysis of method blanks and laboratory duplicates.
- Use of matrix spikes (MS) to test analytical accuracy and matrix spike duplicates (MSD) to test analytical precision.
- Routine analysis of standard reference materials (SRMs).

Other QA/QC procedures included the following chain-of-custody procedures:

- Proper labeling of samples.
- Use of chain-of-custody (COC) forms for all samples.
- Prompt sample delivery to the laboratory.

Data verification was used to check analytical data before reporting. The data verification procedures included:

- Checking the adequacy of the QC results;
- Checking the data set for outlier values; and
- Conducting an in-house verification of all data analysis results.

Test acceptability requirements set forth in the *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA 2002) and the Interim Guidance were used to assess toxicity testing data for QA/QC purposes.

5.1 CHEMISTRY QA/QC

This QA/QC analysis summarizes the acceptability of data generated during sampling events. Hold times, analytical accuracy and precision, potential contamination, and conformance to data acceptability criteria were reviewed. Questionable raw data, results or missing data were identified and referred back to the originating lab for further investigation and qualification as appropriate.

Analytical chemistry accuracy and precision were monitored throughout sampling events of the WER Study using blanks, duplicates, and spikes. Accuracy was assessed through percent recovery analysis of external reference standards and matrix-spike experiments. Precision of methods was determined through the calculation of relative percent difference (RPD) between matrix duplicate and field duplicate analyses. **Table 11** presents data quality objectives used for data validation.

Potential contamination of environmental samples was investigated by collecting and analyzing lab, field, trip, and filter blanks, as well as reviewing method and procedure blanks to determine if contamination arose at the various stages of sampling and analysis.

Table 11. Data Quality Objectives

Constituent Group	Maximum RPD [1]	Spike Recovery Lower Limit [2]	Spike Recovery Upper Limit
Metals	30%	45%	150%
Other Water Chemistry Parameters	20%	70%	130%

RPD = relative percent difference

1. RPDs are used for assessing precision via field duplicates and MSD.
2. Spike recoveries are used for assessing accuracy via MS.

5.1.1 *Hold Times*

USEPA analytical hold time guidelines place requirements on sample filtration, preservation, and/or analysis. These guidelines were consistently met in 99.0% of the environmental samples. Chloride, sulfate, and TSS samples at the LAR_UP_BWC site during Event 1A were analyzed outside of the recommended hold time. TSS samples collected at four sites during Event 2C and TSS samples collected at four sites during Event 3A were analyzed outside of the recommended hold time. DOC and DIC samples at the BWC_UP_BWRP site during Event 4A were analyzed outside of the recommended hold time. These samples, approximately 1%, are qualified as "estimated" values.

5.1.2 *Blank Contamination*

The following equipment blank, method blank, field blank, and trip blank QA/QC issues were identified.

5.1.2.1 Equipment Blanks

The filters used for collecting dissolved copper samples were tested to ensure there was no copper contamination before sampling began. In addition, equipment blanks were performed before sampling began and analyzed for total and dissolved copper, DOC, DIC, chloride, and sulfate to evaluate toxicity laboratory cleaning procedures. There were no instances of contamination from the filters or the toxicity sample containers. As such, no environmental data were qualified based on equipment blank data.

5.1.2.2 Method Blanks

There were three instances where constituents were detected in the method blanks: TOC during Event 2B; DOC during Event 4C; and DOC during Event 6A. However, the blank concentrations were significantly lower than the environmental concentrations. TOC and DOC blank concentrations were between 23 and 84 times less than the environmental samples, for Event 2B and 4C, respectively. The DOC blank concentrations for Event 6A were 31 times less than the environmental samples. As such, no environmental data were qualified based on method blank data.

5.1.2.3 Field Blanks and Trip Blanks

Metals data are qualified with an upper limit on the true concentration if the sample concentration is less than five times the field blank concentration. There were two instances (Events 2B and 5) where the concentration of dissolved copper in the environmental sample was less than five times the field blank concentration. In addition, there was one instance (Event 3C) where the sample concentration of total copper was less than five times the field blank concentration. That equals 2% of the dissolved copper and 1% of the total copper environmental data qualified. The environmental samples from these events were qualified as an upper limit on the true concentration. **Table 12** presents data qualified as a result of field or trip blank contamination as well as the corresponding data qualifications.

Common water chemistry constituents (DOC, DIC, TOC, calcium, magnesium, sodium, potassium, chloride, and sulfate) are qualified with an upper limit on the true concentration if the sample concentration is less than ten times the field blank concentration. Only DOC, DIC, and TOC had sample concentrations that were less than ten times the blank concentration. For DOC, DIC, and TOC, there were 35 instances, 10 instances, and 25 instances where the sample concentration was less than ten times the blank concentration, respectively (**Table 12**). That equates to 5% of the data qualified for blank issues related to DOC, DIC, and TOC analysis. The environmental samples were qualified as an upper limit on the true concentration.

Following Event 1, LWA requested that the laboratory conducting the DOC and TOC analyses (Columbia Analytical Services [CAS]) perform a special study to attempt to determine the cause of the DOC in the field blanks for Sampling Events 1A and 1B. For the special study, CAS provided two separate samples (one which was refrigerated immediately after receipt and one that was stored at room temperature for 48 hours) that were returned unopened to CAS for DOC/TOC analysis as well as the results of the analyses. After performing the special study, CAS stated that filtering in the laboratory did not appear to contribute DOC to the samples. However, DOC concentrations of 1.55 mg/L and 1.38 mg/L and TOC concentrations of 1.03 mg/L and 0.83 mg/L were measured in the T=0 and T=48 samples, respectively. The blank water used in these tests was from the same source as the blank water used in Events 1A and 1B suggesting that either the blank water provided by the laboratory contained DOC/TOC or contamination was coming from the bottles or occurring at CAS.

Field blank samples for Event 2A were found to have DOC and TOC concentrations of 1.29 mg/L and 10.8 mg/L, respectively, and the field blank samples for Event 2B were found to have DOC and TOC concentrations of 1.92 mg/L and 10.8 mg/L, respectively. For Event 2C, an unopened bottle of CAS's blank water was submitted for DOC analysis along with DOC and TOC field blanks. The DOC concentrations in the field blank sample and the unopened blank water (considered a trip blank) were 2.32 mg/L and 1.62 mg/L, respectively, and the TOC concentration in the field blank was 8.8 mg/L.

Following Event 2, a new analytical laboratory, SunStar Laboratories, Inc., was chosen to perform DOC and TOC analyses for the project. Additionally, starting during Event 3A field filtering for DOC was ceased to remove the potential contamination source (even though the filters themselves were not found to be a source of contamination) and DOC and TOC samples were collected in 40 mL glass vials instead of 250 mL high density polyethylene (HDPE) bottles. Additionally, trip blanks were added to the study to evaluate whether field and/ or analytical laboratory methods were introducing DOC and TOC. Trip blanks were utilized during 15 events with detections of DOC during 11 of the events and detections of TOC during twelve of the events (**Table 12**) suggesting that analytical laboratory methods were introducing DOC and TOC contamination.

The qualification of DOC and TOC data based on blank contamination decreased as sample collection progressed. DOC, TOC, and dissolved copper blank contamination of environmental samples did not affect subsequent WER analyses and calculations. However, DOC could potentially affect BLM results as it is an input parameter to the model.

Table 12. Summary of Environmental Data Qualified as an Upper Limit due to Field Blank Contamination during WER Study Sampling Events

Event	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	Dissolved Inorganic Carbon (mg/L)	Dissolved Copper (µg/L)	Total Copper (µg/L)	# of Data Points Qualified
1A	3	0	0	0	0	3
1B	4	0	0	0	0	4
2A	5	5	0	0	0	10

Event	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	Dissolved Inorganic Carbon (mg/L)	Dissolved Copper (µg/L)	Total Copper (µg/L)	# of Data Points Qualified
2B	4	5	0	1	0	10
2C	3	3	0	0	0	6
3A	3	2	0	0	0	5
3B	5	3	0	0	0	8
3C	3	3	0	0	1	7
4A	0	2	0	0	0	2
4B	0	2	0	0	0	2
5	0	0	0	1	0	1
6B	0	0	4	0	0	4
6C	5	0	5	0	0	10
7A	0	0	1	0	0	1
Total	**35**	**25**	**10**	**2**	**1**	**73**

5.1.3 *Precision*

The purpose of analyzing duplicates is to demonstrate precision of sample collection and analytical methods. If the RPD for any analyte in laboratory or field duplicates is greater than 30% for metals or 20% for other water chemistry parameters *and* the absolute difference between duplicates is greater than the reporting limit, the analytical process was not performed adequately for the analyte and would be qualified. Laboratory and field duplicate samples were analyzed and several constituents required qualifications.

Chloride concentrations from Events 1W and 2A were qualified as estimates due to matrix interference stemming from MSD RPDs outside project specifications. In addition, sulfate concentrations from Events 2A and 6A were qualified as estimates due to matrix interference stemming from MSD RPDs outside project specifications. Total hardness as $CaCO_3$ concentrations from Event 5 and DOC concentrations from Events 6B and 7C were qualified as estimates due to analytical variability stemming from laboratory duplicate RPDs outside of project specifications (**Table 13**). Qualifications associated with precision resulted in the qualification of less than 2% of the total environmental data and did not affect subsequent WER analyses and calculations.

5.1.4 *Accuracy*

Percent recoveries of external reference standard measurements were deemed acceptable when measured values were between 45% and 150% for metals and 70-130% for other water chemistry parameters of certified concentration values. During event 7A, sulfate matrix spike percent recoveries were out of the acceptable range (142%) and the sulfate data were qualified (**Table 13**). Qualifications associated with accuracy resulted in the qualification of less than 1% of the total environmental data and did not affect subsequent WER analyses and calculations.

Table 13. Precision and Accuracy QA/QC Issues

Event	Constituent	MSD RPD	LD RPD	MS % Rec	RPD or % Rec	Program Qualifier	# of Data Points Qualified
1W	Chloride (mg/L)	X			34	MSD-RPD	10
2A	Chloride (mg/L)	X			25	MSD-RPD	5
	Sulfate (mg/L)	X			30	MSD-RPD	5
5	Total Hardness as $CaCO_3$ (mg/L)		X		25	Lab-RPD	2
6A	Sulfate (mg/L)	X			66	MSD-RPD	4
6B	Dissolved Organic Carbon (mg/L)		X		29.4	Lab-RPD	5
7A	Sulfate (mg/L)			X	142%	MS-UL	4
7C	Dissolved Organic Carbon (mg/L)		X		129	Lab-RPD	5

"X" indicates an issue with a matrix spike duplicate RPD, a laboratory duplicate RPD, or a matrix spike percent recovery.

MSD RPD – Matrix Spike Duplicate Relative Percent Difference

LD RPD – Laboratory Duplicate Relative Percent Difference

MS % Rec – Matrix Spike Percent Recovery

MSD-RPD – Qualifier indicating concentration is an estimate due to matrix interference.

Lab-RPD – Qualifier indicating concentration is an estimate due to analytical variability.

MS-UL – Qualifier indicating concentration is an estimate due to matrix interference.

5.1.5 *Chemistry QA/QC Summary*

Of the 1,411 discrete chemical tests completed, 134 (9.5%) were qualified due to QA/QC issues with the majority of the QA/ QC issues (73 of the 134 issues) stemming from field blank contamination of DOC, DIC, and TOC. The associated results do not affect subsequent WER analyses and calculations. However, DOC contamination could potentially affect the results of the BLM since it is an input parameter to the model.

5.2 TOXICITY TEST QA/QC

QA/QC test acceptability requirements set forth in the *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (USEPA 2002) and the Interim Guidance were used to assess toxicity data.

5.2.1 *Standard Test Conditions/ Test Acceptability Criteria*

Toxicity testing of ambient site waters with *C. dubia* incorporated standard QA/QC procedures to ensure that test results were valid, including use of negative controls, positive controls, test replicates, and measurement of water quality during testing. These QA/QC procedures are consistent with methods described in the USEPA guidelines. All measurements of water quality characteristics were performed as described in PER's Standard Operating Procedures. All toxicity data met associated QA/QC requirements.

5.2.2 *Toxicity Hold Times*

Table 14 provides sample collection dates and sample holding times. All WER toxicity tests were initiated within the 36-hour hold time except for Event 6A. Due to an insufficient number of *C. dubia* neonates, site samples BWC_AT_LAR and LAR_UP_BWC were initiated within 60 hrs of sample collection; site samples TW_AT_LAR and BWC_UP_BWRP were initiated within 76 hrs of sample collection. While the Interim Guidance specifies a 36-hr hold time requirement, the more recent Streamlined Procedure allows for copper WER testing to be initiated within 96-hrs of sample collection. As such, the results of these tests are considered valid and acceptable.

Table 14. WER Study Site Water Collection Date and Toxicity Testing Sample Holding Times

Event	Site ID	Collection Date	Holding Time (hrs)	Event	Site ID	Collection Date	Holding Time (hrs)
1A	TW_AT_LAR	4/20/2011	32	5	RH_AT_LAR	5/9/2012	31
1A	BWC_UP_BWRP	4/20/2011	30	5	AS_AT_LAR	5/9/2012	34
1A	BWC_AT_LAR	4/20/2011	29	6A	BWC_AT_LAR	6/5/2012	60
1A	LAR_UP_BWC	4/20/2011	30	6A	LAR_UP_BWC	6/5/2012	59
1B	LAR_CO	3/16/2011	28	6A	TW_AT_LAR	6/5/2012	76
1B	LAR_ZOO	3/16/2011	30	6A	BWC_UP_BWRP	6/5/2012	74
1B	VD_AT_LAR	3/16/2011	29	6B	LAR_ZOO	6/13/2012	30
1B	LAR_FIG	3/16/2011	27	6B	VD_AT_LAR	6/13/2012	30
1C	LAR_WASH	2/1/2012	31	6B	LAR_CO	6/13/2012	27
1C	LAR_DEL	2/1/2012	30	6B	LAR_FIG	6/13/2012	27
1C	LAR_WARD	2/1/2012	29	6B	AS_AT_LAR	6/13/2012	29
1C	AS_AT_LAR	2/1/2012	32	6C	LAR_WASH	6/20/2012	30
1C	CC_AT_LAR	2/1/2012	29	6C	LAR_DEL	6/20/2012	31
1C [1]	RH_AT_LAR	2/29/2012 [2]	33	6C	LAR_WARD	6/20/2012	30
2A	TW_AT_LAR	6/8/2011	32	6C	RH_AT_LAR	6/20/2012	30
2A	BWC_UP_BWRP	6/8/2011	32	6C	CC_AT_LAR	6/20/2012	29
2A	BWC_AT_LAR	6/8/2011	30	7A	TW_AT_LAR	8/8/2012	34
2A	LAR_UP_BWC	6/8/2011	30	7A	BWC_UP_BWRP	8/8/2012	28
2A	LAR_ZOO	6/8/2011	30	7A	BWC_AT_LAR	8/8/2012	30
2B	VD_AT_LAR	6/15/2011	31	7A	LAR_UP_BWC	8/8/2012	28
2B	LAR_CO	6/15/2011	30	7B	LAR_ZOO	8/15/2012	29
2B	LAR_FIG	6/15/2011	30	7B	VD_AT_LAR	8/15/2012	28
2B	RH_AT_LAR	6/15/2011	29	7B	LAR_CO	8/15/2012	26
2B	CC_AT_LAR	6/15/2011	29	7B	LAR_FIG	8/15/2012	26
2C	LAR_WASH	7/13/2011	28	7B	AS_AT_LAR	8/15/2012	27
2C	LAR_DEL	7/13/2011	28	7C	LAR_WASH	8/22/2012	32
2C	LAR_WARD	7/13/2011	27	7C	LAR_DEL	8/22/2012	30
3A	TW_AT_LAR	8/10/2011	33	7C	LAR_WARD	8/22/2012	27
3A	BWC_UP_BWRP	8/10/2011	32	7C	RH_AT_LAR	8/22/2012	28
3A	BWC_AT_LAR	8/10/2011	32	7C	CC_AT_LAR	8/22/2012	27
3A	LAR_UP_BWC	8/10/2011	32	1W	TW_AT_MOOR	11/12/2011	27
3B	LAR_ZOO	8/24/2011	32	1W	BWC_AT_RIV	11/12/2011	27
3B	VD_AT_LAR	8/24/2011	31	1W	VERD_AT_KEN	11/12/2011	29
3B	LAR_CO	8/24/2011	31	1W	AS_AT_LAR	11/12/2011	30
3B	LAR_FIG	8/24/2011	31	1W	RH_AT_LAR	11/12/2011	28

Event	Site ID	Collection Date	Holding Time (hrs)	Event	Site ID	Collection Date	Holding Time (hrs)
3B	AS_AT_LAR	8/24/2011	31	1W	CC_AT_DEL	11/12/2011	26
3C	LAR_WASH	8/31/2011	32	1W	LAR_TUJ_AV	11/12/2011	25
3C	LAR_DEL	8/31/2011	31	1W	LAR_FIG_ST	11/12/2011	23
3C	LAR_WARD	8/31/2011	31	1W	LAR_DEL	11/12/2011	25
3C	CC_AT_LAR	8/31/2011	31	1W	LAR_WARD	11/12/2011	26
4A	TW_AT_LAR	12/7/2011	30	2W	TW_AT_MOOR	12/12/2011	33
4A	BWC_UP_BWRP	12/7/2011	29	2W	BWC_AT_RIV	12/12/2011	34
4A	BWC_AT_LAR	12/7/2011	27	2W	VERD_AT_KEN	12/12/2011	34
4A	LAR_UP_BWC	12/7/2011	28	2W	AS_AT_LAR	12/12/2011	33
4B	LAR_ZOO	12/20/2011	30	2W	RH_AT_LAR	12/12/2011	33
4B	VD_AT_LAR	12/20/2011	30	2W	CC_AT_LAR	12/12/2011	33
4B	LAR_CO	12/20/2011	30	2W-1	LAR_TUJ_AV	1/22/2012	23
4B	LAR_FIG	12/20/2011	30	2W-1	LAR_FIG_ST	1/22/2012	22
4B	AS_AT_LAR	12/20/2011	30	2W-1	LAR_DEL	1/22/2012	23
4C	LAR_WASH	1/4/2012	30	2W-1	LAR_WARD	1/22/2012	26
4C	LAR_DEL	1/4/2012	29				
4C	LAR_WARD	1/4/2012	29				
4C	CC_AT_LAR	1/4/2012	29				

1. Rio Hondo, as part of Event 1C, was rescheduled for January 31 – February 1, 2012, but the site was dry. Rio Hondo was resampled on February 28 – 29, 2012.
2. 2012 was a leap year so sampling concluded on February 29, 2012.

5.2.3 *Interim Guidance Section I Toxicity QA/ QC*

Section I of the Interim Guidance outlines requirements and considerations related to calculating and interpreting results of the toxicity testing. **Table 15** presents the parts of Section I relevant to evaluating the acceptability of toxicity tests. Additional discussion regarding the remaining parts of Section I is presented in **Section 6.4**.

Table 15. Interim Guidance Section I (Calculating and Interpreting the Results) Summary Related to Toxicity Test Quality

Section	Requirement	Notes
I.2.a	If the procedures used deviated from those specified above, particularly in terms of acclimation, randomization, temperature control, measurement of metal, and/or disease or disease-treatment, the test should be rejected; if deviations were numerous and/or substantial, the test may be rejected.	No procedures deviated for any of the test exposures in any test.
I.2.b	Most tests are unacceptable if more than 10 percent of the organisms in the controls were adversely affected, but the limit is higher for some tests; for the tests recommended in Appendix I, the references given should be consulted.	There was ≥90 test organism survival in all control treatments except in the Event 7B lab water test control treatment (88% survival).
I.2.c.1	The percent of the organisms adversely affected must have been <50%, and should have been <37%, in at least one treatment other than the control.	With the exception of the Event 7B lab water test, requirement was met for all other tests.
I.2.c.2	In laboratory dilution water the percent of the organisms adversely affected must have been >50%, and should have been >63%, in at least one treatment. In site water the percent of the organisms adversely affected should have been greater than >63%, in at least one treatment.	Requirement met in all tests.
I.2.c.3	If there was an inversion in the data (i.e., if a lower concentration killed or affected a greater percentage of the organisms than a higher concentration), it must not have involved more than two concentrations that killed or affected between 20% and 80% of the test organisms.	There were no instances of an inverted dose response.
I.2.d	Determine whether there was anything about the test results that would make them questionable.	None of the test results were considered unusual.
I.2.e	If solutions were not renewed every 24 hours, the concentration of dissolved metal must not have decreased by more than 50 percent from the beginning to the end of a static test or from the beginning to the end of a renewal in a renewal test in test concentrations that were used in the calculation of the results of the test.	Dissolved copper concentrations did not decrease by >50% exposure except for the sample collected at Arroyo Seco during Event 2C. As such, no EC50 was calculated for this site.
I.5	The acceptability of the dilution water must be evaluated by comparing results obtained with tests using a dilution water in one or more other laboratories.	Requirement met in all tests.
I.5.a	If, after taking into account known effect of hardness on toxicity, the new values for the endpoints of both of the tests are (1) >1.5 higher than the respective means of the values from the other laboratories or (2) >1.5 lower than the respective means of values from the other laboratories or (3) lower than the respective lowest values from other laboratories or (4) higher than the respective highest values from other laboratories, the new and old data must be carefully evaluated to determine whether the dilution water used in the WER determination was acceptable.	Requirement met in all tests.
I.5.b	If, after taking into account known effect of hardness on toxicity, the new values for the endpoints of the two tests are not either both higher or both lower in comparison than data from other laboratories and if both of the new values are within a factor of 2 of the respective means or are within the ranges of the values, the dilution water used in the WER determination is acceptable.	Requirement met in all tests.
I.5.c	A control chart approach may be used if sufficient data are available.	Not applicable
I.5.d	If the comparisons do not indicate the dilution water, test method, etc., are acceptable, the tests probably should be considered unacceptable, unless other toxicity data indicate that they are acceptable.	Not applicable as the comparisons indicate the dilution water, test method, etc., are acceptable.

5.3 QA/QC CONCLUSIONS

All results are complete with sufficient quality assurance data to support the validity of the reported chemical and toxicological data required to develop a copper WER. The QA/QC issues discussed above do not affect the WER calculations. The consistent exceedances of DOC may be problematic for use of the BLM and should be considered when utilizing the BLM to predict copper EC50s and calculate WQC as presented in USEPA's 2007 Copper Water Quality Criteria.

Section 6. Results

The following presents a summary of the chemistry analysis, toxicity testing, and WER calculation methods and results. Additionally, analysis and reporting requirements outlined in Section I and J of the Interim Guidance are presented.

6.1 CHEMISTRY RESULTS

Table 16 and **Table 17** present summary statistics for dissolved copper, DOC, hardness (as $CaCO_3$) and TSS data measured in ambient samples during dry and wet weather, respectively.

Table 16. Summary Statistics of Dry Weather Dissolved Copper, Hardness (as $CaCO_3$), Dissolved Organic Carbon, and Total Suspended Solids Concentrations Measured During LA River Copper WER Sampling

Site ID	Dissolved Copper (µg/L)			DOC (mg/L)			Hardness (mg/L as $CaCO_3$)			TSS (mg/L)		
	n	Avg	Std Dev	n	Avg	Std Dev	n	Avg	Std Dev	n	Avg	Std Dev
Main Stem Sites												
LAR_CO	6	6.4	1.3	6	7.3	1.5	6	260.1	48.7	6	17.0	10.5
LAR_DEL	6	4.8	0.7	6	7.9	1.4	6	270.2	26.8	6	19.6	8.1
LAR_FIG	6	5.3	0.8	6	6.6	1.2	6	269.3	36.5	6	11.8	5.6
LAR_UP_BWC	6	6.7	1.0	6	7.4	1.3	6	272.0	70.1	6	15.7	10.6
LAR_WARD	6	4.6	0.7	6	8.4	1.6	6	258.2	29.0	6	27.5	11.6
LAR_WASH	6	4.6	0.9	6	6.9	0.9	6	270.4	23.2	6	12.6	7.8
LAR_ZOO	6	7.1	1.1	6	7.4	1.5	6	253.5	46.8	6	15.8	10.7
Tributary Sites												
AS_AT_LAR	6	1.6	0.1	6	5.2	1.3	6	339.9	80.8	6	14.5	21.6
BWC_AT_LAR	6	12.6	2.5	6	7.1	0.9	6	266.5	23.1	6	4.8	1.9
BWC_UP_BWRP	6	13.3	4.3	6	13.2	3.2	6	300.1	33.1	6	7.0	2.0
CC_AT_LAR	6	1.9	1.0	6	13.8	12.0	6	223.9	59.6	6	9.9	8.6
RH_AT_LAR	5	25.5	8.3	5	37.4	14.4	5	374.1	130.1	5	20.2	11.3
TW_AT_LAR	6	15.4	8.6	6	20.1	10.7	6	257.6	174.6	6	5.1	3.2
VD_AT_LAR	6	5.4	2.3	6	7.2	3.1	6	333.7	22.1	6	16.5	10.2

Table 17. Summary Statistics of <u>Wet Weather</u> Dissolved Copper, Hardness (as CaCO3), Dissolved Organic Carbon, and Total Suspended Solids Concentrations Measured During LA River Copper WER Sampling

Site ID	Dissolved Copper (µg/L)			DOC (mg/L)			Hardness (CaCO3) (mg/L)			TSS (mg/L)		
	n	Avg	Std Dev	n	Avg	Std Dev	n	Avg	Std Dev	n	Avg	Std Dev
Main Stem Sites												
LAR_DEL	2	9.2	1.4	2	10.3	1.0	2	96.7	48.2	2	116.4	9.8
LAR_FIG	2	6.9	0.5	2	9.9	4.4	2	120.7	28.1	2	193.8	105.0
LAR_TUJ_AV	2	8.2	2.4	2	9.0	0.6	2	100.9	21.7	2	232.3	194.8
LAR_WARD	2	11.5	2.9	2	12.5	2.1	2	58.9	15.6	2	100.6	34.1
Tributary Sites												
AS_AT_LAR	2	5.6	1.6	2	8.4	0.1	2	143.9	90.3	2	55.0	4.2
BWC_AT_RIV	2	15.2	6.2	2	9.7	1.9	2	93.8	57.7	2	51.5	24.8
CC_AT_DEL	2	10.9	1.7	2	10.5	3.6	2	53.4	3.8	2	31.1	18.2
RH_AT_LAR	2	13.2	1.8	2	9.7	1.9	2	35.6	3.8	2	25.7	2.6
TW_AT_MOOR	2	13.1	1.5	2	11.4	2.3	2	35.9	8.6	2	94.1	88.9
VERD_AT_KEN	2	5.7	0.9	2	8.2	0.8	2	104.3	90.2	2	34.4	36.2

6.2 TOXICITY TESTING RESULTS

EC50 values were determined following the protocols set forth in the *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA 2002). Statistical analysis was performed using CETIS® software based on the Automated Decision Tree presented in USEPA 2002. CETIS® allows the selection of the regression analysis to be performed. Per the decision tree, probit analysis was initially performed in all cases and if the data did not conform to the assumptions of the Probit Method (i.e. two or more partial responses) CETIS® would provide an error message indicating that "two or more partial responses" are required; in these cases (per the decision tree) the Spearman-Karber Method was used.

The Spearman-Karber Method contained in the CETIS® software is based on the USEPA's Trimmed Spearman-Karber v1.5 Application and is used in the recommended "Automatically Minimize Trim Level" option. In this option, data that does not meet the assumption of the Probit Method, but which does meet the assumption of the Spearman-Karber Method, is evaluated by following the assumptions required for the Spearman-Karber Method (complete mortality at one of the treatment concentrations and no partial responses [0% trim] and 100% survival in the lowest treatment concentration). If the assumptions for use of the Spearman-Karber Method are not met, the CETIS® program automatically applies the minimum trim level needed and performs the analysis conforming to the Trimmed Spearman-Karber Method; all print outs indicate that the Trimmed Spearman-Karber Method was performed regardless of whether the Spearman-Karber Method or Trimmed Spearman-Karber analyses was applied.

Table 18, **Table 19**, and **Table 20** present dissolved copper EC50 results for the main stem sites, tributary sites, and lab water, respectively, and dissolved copper EC50 results normalized to a standard hardness of 200 mg/L as $CaCO_3$. EC50 results are normalized to a standard hardness throughout the report to allow for a comparison of EC50s between sites and events. The choice of a standard hardness of 200 mg/L as $CaCO_3$ is arbitrary and does not affect the calculation of WER values. Copper spiking results are presented in **Appendix 4**. The methodology used for normalizing hardness is presented below (USEPA 2001):

$$EC50_{\text{at 200 mg/L as CaCO3}} = EC50_{\text{at Sample Hardness}} \times \left(\frac{200\ mg/L\ as\ CaCO_3}{Sample\ Hardness}\right)^{0.9422}$$

Table 18. LA River Copper WER Study Dissolved Copper EC50s – Main Stem Sites

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Dis Cu EC50 (µg/L)	Lower EC50 95th CL (µg/L)	Upper EC50 95th CL (µg/L)	Normalized Dis Cu EC50[1] (µg/L)
LAR Reach 1 at Wardlow Rd	Dry	Summer	2C	249	200	184	216	163
			3C	234	225	210	241	194
			6C	214	242	221	264	227
			7C	200	233	219	248	233
		Winter	1C	286	221	196	249	158
			4C	260	238	232	244	186
	Wet		1W	69	116	110	122	316
			2W-1	44	87.5	81.6	93.8	364
LAR Reach 2 at Washington Blvd	Dry	Summer	2C	262	159	152	166	123
			3C	242	198	186	211	165
			6C	241	183	175	192	154
			7C	223	182	171	193	164
		Winter	1C	280	174	167	181	127
			4C	266	192	178	206	147
LAR Reach 2 at Del Amo Blvd	Dry	Summer	2C	254	224	213	236	179
			3C	239	217	205	230	184
			6C	226	287	273	302	256
			7C	211	208	194	223	198
		Winter	1C	286	221	209	234	158
			4C	263	223	208	239	172
	Wet		1W	128	126	118	134	192
			2W-1	63	98.8	96	102	293
LAR Reach 3 (downstream of LAGWRP) at Figueroa St	Dry	Summer	2B	284	152	145	160	109
			3B	234	176	165	188	152
			6B	249	178	165	192	145
			7B	222	166	161	170	151
		Winter	1B	278	221	204	240	162
			4B	218	169	158	180	156
	Wet		1W	146	135	127	143	182
			2W-1	98	127	120	135	249

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Dis Cu EC50 (µg/L)	Lower EC50 95th CL (µg/L)	Upper EC50 95th CL (µg/L)	Normalized Dis Cu EC50[1] (µg/L)
LAR Reach 3 (upstream of LAGWRP) at Colorado Blvd	Dry	Summer	2B	291	148	143	154	104
			3B	220	239	225	253	219
			6B	232	222	208	236	193
			7B	202	235	226	244	233
		Winter	1B	275	265	248	283	196
			4B	206	225	210	240	219
LAR Reach 3 at Zoo Dr	Dry	Summer	2A	297	231	222	240	159
			3B	212	217	209	225	205
			6B	224	218	203	234	196
			7B	195	200	187	213	205
		Winter	1B	271	235	219	252	177
			4B	194	189	180	199	195
LAR Reach 4 Upstream BWC	Dry	Summer	2A	298	194	182	207	133
			3A	217	161	154	169	149
			6A	234	182	172	192	157
			7A	201	203	190	216	202
		Winter	1A	360	175	165	186	101
			4A	238	169	159	180	144
LAR Reach 4 at Tujunga Ave	Wet		1W	87	117	107	127	256
			2W-1	109	102	96	108	181

1. Normalized using a hardness of 200 mg/L as $CaCO_3$

Dis Cu: dissolved copper

CL: Confident Limit

BWC: Burbank Western Channel

LAGWRP: Los Angeles Glendale Water Reclamation Plant

1A	4/19-4/20, 2011	2B	6/14-6/15, 2011	4A	12/6-12/7, 2011	6B	6/12-6/13, 2012
1B	3/15-3/16, 2011	2C	7/12-7/13, 2011	4B	12/19-12/20, 2011	6C	6/19-6/20, 2012
1C	1/31-2/1, 2012	3A	8/9-8/10, 2011	4C	1/3-1/4, 2012	7A	8/7-8/8, 2012
1C (RH)	2/28-2/29, 2012	3B	8/23-8/24, 2011	5	5/8-5/9, 2012	7B	8/14-8/15, 2012
2A	6/7-6/8, 2011	3C	8/30-8/31, 2011	6A	6/5-6/6, 2012	7C	8/21-8/22, 2012
1W	11/12, 2011	2W-1	1/21, 2012				

Table 19. LA River Copper WER Study Dissolved Copper EC50s – Tributary Sites

Waterbody and Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Dis Cu EC50 (µg/L)	Lower EC 50 95th CL (µg/L)	Upper EC50 95th CL (µg/L)	Normalized Dis Cu EC50[1] (µg/L)
Compton Creek at LAR	Dry	Summer	2B	211	97.7	91.4	104	92.9
Compton Creek at LAR	Dry	Summer	3C	213	186	174	199	175
Compton Creek at LAR	Dry	Summer	6C	201	111	105	117	111
Compton Creek at LAR	Dry	Summer	7C	283	371	344	400	268
Compton Creek at LAR	Dry	Winter	1C	126	86.5	81	92.3	134
Compton Creek at LAR	Dry	Winter	4C	185	123	117	130	132
Compton Creek at LAR	Wet	Winter	1W	48	92.9	86.8	99.4	356
Compton Creek at LAR	Wet	Winter	2W	51	82.8	78.2	87.5	300
Rio Hondo at LAR	Dry	Summer	2B	305	516	489	544	347
Rio Hondo at LAR	Dry	Summer	5	407	941	832	1060	481
Rio Hondo at LAR	Dry	Summer	6C	449	564	512	622	263
Rio Hondo at LAR	Dry	Summer	7C	364	649	591	713	369
Rio Hondo at LAR	Dry	Winter	1C	159	587	547	630	729
Rio Hondo at LAR	Wet	Winter	1W	44	94	88	100	392
Rio Hondo at LAR	Wet	Winter	2W	31	71	67.3	74.8	411
Arroyo Seco at LAR	Dry	Summer	3B	353	70.1	65.2	75.3	41.0
Arroyo Seco at LAR	Dry	Summer	5	168	118	112	124	139
Arroyo Seco at LAR	Dry	Summer	6B	362	86.3	80	93	49.3
Arroyo Seco at LAR	Dry	Summer	7B	343	67.3	63	72	40.5
Arroyo Seco at LAR	Dry	Winter	1C	317	83.9	78	90.3	54.4
Arroyo Seco at LAR	Dry	Winter	4B	329	81.8	76.2	87.9	51.2
Arroyo Seco at LAR	Wet	Winter	1W	225	157	145	170	140.5
Arroyo Seco at LAR	Wet	Winter	2W	73	162	148	178	418.7
Verdugo Wash at LAR	Dry	Summer	2B	322	118	109	127	75.3
Verdugo Wash at LAR	Dry	Summer	3B	292	155	146	165	109
Verdugo Wash at LAR	Dry	Summer	6B	279	229	214	246	167
Verdugo Wash at LAR	Dry	Summer	7B	310	232	215	250	154
Verdugo Wash at LAR	Dry	Winter	1B	339	96.7	88.5	103	58.8
Verdugo Wash at LAR	Dry	Winter	4B	308	75.8	70.6	81.4	50.5
Verdugo Wash at Kenilworth Ave	Wet	Winter	1W	157	91.5	85.1	98.3	115
Verdugo Wash at Kenilworth Ave	Wet	Winter	2W	33	97.9	91.8	104	535
Burbank Western Channel at LAR	Dry	Summer	2A	258	256	245	268	201
Burbank Western Channel at LAR	Dry	Summer	3A	232	293	274	314	255
Burbank Western Channel at LAR	Dry	Summer	6A	240	209	196	223	176
Burbank Western Channel at LAR	Dry	Summer	7A	234	237	228	246	204
Burbank Western Channel at LAR	Dry	Winter	1A	260	254	239	271	198
Burbank Western Channel at LAR	Dry	Winter	4A	240	218	206	232	184
Burbank Western Channel at Riverside Dr	Wet	Winter	1W	138	170	157	185	241
Burbank Western Channel at Riverside Dr	Wet	Winter	2W	46	88.6	83.7	93.8	354

Waterbody and Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Dis Cu EC50 (µg/L)	Lower EC 50 95th CL (µg/L)	Upper EC50 95th CL (µg/L)	Normalized Dis Cu EC50[1] (µg/L)
Burbank Western Channel (upstream of BWRP)	Dry	Summer	2A	266	295	274	319	226
			3A	274	377	361	394	280
			6A	319	421	389	455	271
			7A	240	375	356	395	316
		Winter	1A	297	237	221	254	163
			4A	275	233	222	244	173
Tujunga Wash at LAR	Dry	Summer	2A	117	291	274	309	482
			3A	162	318	298	340	388
			6A	426	527	474	587	259
			7A	472	554	514	598	247
		Winter	1A	140	552	531	574	773
			4A	120	127	120	135	206
Tujunga Wash at Moorpark St	Wet		1W	29	85.7	80.5	91.2	529
			2W	35	112	103	122	579

1. Normalized using a hardness of 200 mg/L as $CaCO_3$

Dis Cu: dissolved copper

CL: Confidence Limit

BWRP: Burbank Water Reclamation Plant

1A	4/19-4/20, 2011	2B	6/14-6/15, 2011	4A	12/6-12/7, 2011	6B	6/12-6/13, 2012
1B	3/15-3/16, 2011	2C	7/12-7/13, 2011	4B	12/19-12/20, 2011	6C	6/19-6/20, 2012
1C	1/31-2/1, 2012	3A	8/9-8/10, 2011	4C	1/3-1/4, 2012	7A	8/7-8/8, 2012
1C (RH)	2/28-2/29, 2012	3B	8/23-8/24, 2011	5	5/8-5/9, 2012	7B	8/14-8/15, 2012
2A	6/7-6/8, 2011	3C	8/30-8/31, 2011	6A	6/5-6/6, 2012	7C	8/21-8/22, 2012
1W	11/12, 2011	2W	12/12, 2011				

Table 20. LA River Copper WER Study Dissolved Copper EC50s – Lab Water

Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Dis Cu EC50 (µg/L)	Lower EC 50 95th CL (µg/L)	Upper EC50 95th CL (µg/L)	Normalized Dis Cu EC50[1] (µg/L)
Dry	Summer	2A	112	6.16	5.66	6.70	10.6
		2B	210	21.1	19.1	23.4	20.2
		2C	217	25.1	23.1	27.2	23.2
		3A	161	10.6	9.39	12.0	13.0
		3B	205	31.4	29.2	33.8	30.7
		3C	204	22.5	21	24.0	22.1
		5	163	16.6	15.3	18	20.1
		6A	217	21.4	20	23	19.8
		6A	217	25.4	23	28	23.5
		6B	217	26	24.3	28	24.1
		6C	196	23.9	22	27	24.4
		7A	197	18.1	16.6	19.8	18.4
		7B	191	9.05	1.13	12.1	9.45
		7C	192	11.4	10.2	12.8	11.8
	Winter	1A	138	12	10.90	13.3	17.0
		1B	218	16.1	14.10	18.3	14.8
		1C	122	7.08	6.82	7.36	11.3
		1C	155	15.9	14.4	17.6	20.2
		4A	118	7.87	7.30	8.49	12.9
		4B	193	13.1	12	14.2	13.5
		4C	182	24.9	22.60	27.5	27.2
Wet		1W	41	1.85	1.730	1.980	8.23
		2W	42	0.96	0.716	1.290	4.18
		2W-1	42	1.44	1.340	1.550	6.27

1. Normalized using a hardness of 200 mg/L as $CaCO_3$

Dis Cu: dissolved copper

CL: Confidence Limit

1A	4/19-4/20, 2011	2B	6/14-6/15, 2011	4A	12/6-12/7, 2011	6B	6/12-6/13, 2012
1B	3/15-3/16, 2011	2C	7/12-7/13, 2011	4B	12/19-12/20, 2011	6C	6/19-6/20, 2012
1C	1/31-2/1, 2012	3A	8/9-8/10, 2011	4C	1/3-1/4, 2012	7A	8/7-8/8, 2012
1C (RH)	2/28-2/29, 2012	3B	8/23-8/24, 2011	5	5/8-5/9, 2012	7B	8/14-8/15, 2012
2A	6/7-6/8, 2011	3C	8/30-8/31, 2011	6A	6/5-6/6, 2012	7C	8/21-8/22, 2012
1W	11/12, 2011	2W	12/12, 2011	2W-1	1/21, 2012		

6.3 SAMPLE WATER-EFFECT RATIO CALCULATIONS

Table 21 and **Table 22** present sample WERs (sWER) calculated for each site and event per the Interim Guidance as follows:

$$sWER\_interim = \frac{Site\ Water\ EC50}{Hardness\text{-}normalized\ Lab\ Water\ EC50}$$

Additionally, **Table 21** and **Table 22** present sWERs calculated per USEPA's 2001 Streamlined Procedure for developing a WER for copper in freshwater as follows:

a. If the lab water hardness-normalized EC50 is greater than the hardness-normalized Species Mean Acute Value (SMAV)[4] for copper, the sWER equals the site water EC50 divided by the lab water EC50.

$$sWER\_streamlined = \frac{Site\ Water\ EC50}{Hardness\text{-}normalized\ Lab\ Water\ EC50}$$

b. If the lab water, hardness-normalized EC50 is less than the hardness-normalized SMAV, the sWER equals the site water EC50 divided by the SMAV.

$$sWER\_streamlined = \frac{Site\ Water\ EC50}{Hardness\text{-}normalized\ SMAV}$$

The Streamlined Procedure calculation method can result in a more conservative (lower) sWER because choosing the higher of the lab water EC50 or the SMAV may result in a larger denominator used in the calculation as compared to the Interim Guidance, and therefore a lower sWER. Both the Interim Guidance and Streamlined Procedure calculation methods are considered herein to facilitate identification of appropriate fWERs. One reason for the difference between the Interim Guidance and Streamlined Procedure is that the purpose of the lab water EC50 is to provide a comparison to a water that is intended to serve as a surrogate for conditions used to derive the copper WQC. However, the average DOC in the data used in the WQC document is generally higher that what is contained in lab water created following USEPA protocol.

The SMAV for *C. dubia* at a hardness concentration equal to 200 mg/L as $CaCO_3$ is 42.48 µg/L. The SMAV value used was obtained from Appendix B of the Streamlined Procedure. The SMAV presented in the Streamlined Procedure was calculated by tabulating available toxicity data, normalizing for hardness differences using the 1985 and 1995 USEPA hardness slope for copper, and calculating the geometric mean of all EC50 results for each species.

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4 Species mean acute value" or "SMAV" means the geometric mean of the results of all acceptable flow-through acute toxicity tests (for which the concentrations of the test material were measured) with the most sensitive tested life stage of the species. For a species for which no such result is available for the most sensitive tested life stage, the SMAV is the geometric mean of the results of all acceptable acute toxicity tests with the most sensitive tested life stage.

Table 21. LA River Copper WER Dissolved Copper EC50 and sWER Values – Main Stem Sites

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Normalized Dis Cu EC50[1] (µg/L)		Normalized SMAV (µg/L)	sWER	
					Site Water	Lab Water		Interim Guidance	Streamlined Procedure
LAR Reach 1 at Wardlow Rd	Dry	Summer	2C	249	163	23.2	42.48	7.000	3.830
			3C	234	194	22.1	42.48	8.787	4.568
			6C	214	227	24.4	42.48	9.321	5.345
			7C	200	233	11.8	42.48	19.67	5.484
		Winter	1C	286	158	11.3	42.48	13.99	3.714
			4C	260	186	27.2	42.48	6.830	4.375
	Wet		1W	69	316	8.23	42.48	38.40	7.442
			2W-1	44	364	4.18	42.48	87.24	8.577
LAR Reach 2 at Washington Blvd	Dry	Summer	2C	262	123	23.2	42.48	5.304	2.902
			3C	242	165	22.1	42.48	7.492	3.894
			6C	241	154	24.4	42.48	6.302	3.613
			7C	223	164	11.8	42.48	13.87	3.866
		Winter	1C	280	127	11.3	42.48	11.24	2.983
			4C	266	147	27.2	42.48	5.393	3.455
LAR Reach 2 at Del Amo Blvd	Dry	Summer	2C	254	179	23.2	42.48	7.694	4.209
			3C	239	184	22.1	42.48	8.308	4.319
			6C	226	256	24.4	42.48	10.50	6.021
			7C	211	198	11.8	42.48	16.693	4.655
		Winter	1C	286	158	11.3	42.48	13.99	3.714
			4C	263	172	27.2	42.48	6.331	4.055
	Wet		1W	128	192	8.23	42.48	23.30	4.516
			2W-1	63	293	4.18	42.48	70.24	6.906
LAR Reach 3 (downstream of LAGWRP) at Figueroa St	Dry	Summer	2B	284	109	20.2	42.48	5.421	2.571
			3B	234	152	30.7	42.48	4.948	3.573
			6B	249	145	24.1	42.48	6.014	3.408
			7B	222	151	9.45	42.48	15.92	3.541
		Winter	1B	278	162	14.8	42.48	10.92	3.814
			4B	218	156	13.5	42.48	11.50	3.668
	Wet		1W	146	182	8.23	42.48	22.05	4.275
			2W-1	98	249	4.18	42.48	59.54	5.854
LAR Reach 3 (upstream of LAGWRP) at Colorado Blvd	Dry	Summer	2B	291	104	20.2	42.48	5.158	2.447
			3B	220	219	30.7	42.48	7.122	5.143
			6B	232	193	24.1	42.48	8.017	4.544
			7B	202	233	9.45	42.48	24.63	5.480
		Winter	1B	275	196	14.8	42.48	13.22	4.621
			4B	206	219	13.5	42.48	16.15	5.151
LAR Reach 3 at Zoo Dr	Dry	Summer	2A	297	159	10.6	42.48	14.96	3.746
			3B	212	205	30.7	42.48	6.696	4.835
			6B	224	196	24.1	42.48	8.138	4.612
			7B	195	205	9.45	42.48	21.67	4.821
		Winter	1B	271	177	14.8	42.48	11.89	4.155
			4B	194	195	13.5	42.48	14.36	4.578

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Normalized Dis Cu EC50[1] (µg/L)		Normalized SMAV (µg/L)	sWER	
					Site Water	Lab Water		Interim Guidance	Streamlined Procedure
LAR Reach 4 Upstream BWC	Dry	Summer	2A	298	133	10.6	42.48	12.53	3.136
			3A	217	149	13.0	42.48	11.47	3.509
			6A	234	157	19.8	42.48	7.921	3.695
			7A	201	202	18.4	42.48	11.01	4.756
		Winter	1A	360	101	17.0	42.48	5.909	2.368
			4A	238	144	12.9	42.48	11.09	3.377
LAR Reach 4 at Tujunga Ave	Wet		1W	87	256	8.23	42.48	31.13	6.034
			2W-1	109	181	4.18	42.48	43.26	4.254

1. Normalized using a hardness of 200 mg/L as CaCO3

Dis Cu: dissolved copper

CL: Confident Limit

BWC: Burbank Western Channel

LAGWRP: Los Angeles Glendale Water Reclamation Plant

1A	4/19-4/20, 2011	2B	6/14-6/15, 2011	4A	12/6-12/7, 2011	6B	6/12-6/13, 2012
1B	3/15-3/16, 2011	2C	7/12-7/13, 2011	4B	12/19-12/20, 2011	6C	6/19-6/20, 2012
1C	1/31-2/1, 2012	3A	8/9-8/10, 2011	4C	1/3-1/4, 2012	7A	8/7-8/8, 2012
1C (RH)	2/28-2/29, 2012	3B	8/23-8/24, 2011	5	5/8-5/9, 2012	7B	8/14-8/15, 2012
2A	6/7-6/8, 2011	3C	8/30-8/31, 2011	6A	6/5-6/6, 2012	7C	8/21-8/22, 2012
1W	11/12, 2011	2W-1	1/21, 2012				

Table 22. LA River Copper WER Dissolved Copper EC50 and sWER Values – Tributary Sites

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Normalized Dis Cu EC50[1] (µg/L)		Normalized SMAV (µg/L)	sWER	
					Site Water	Lab Water		Interim Guidance	Streamlined Procedure
Compton Creek at LAR	Dry	Summer	2B	211	92.9	20.2	42.48	4.610	2.187
			3C	213	175	22.1	42.48	7.937	4.126
			6C	201	111	24.4	42.48	4.535	2.601
			7C	283	268	11.8	42.48	22.58	6.297
		Winter	1C	126	134	11.3	42.48	11.85	3.147
			4C	185	132	27.2	42.48	4.864	3.116
	Wet		1W	48	356	8.23	42.48	43.29	8.390
			2W	51	300	6.27	42.48	47.89	7.063
Rio Hondo at LAR	Dry	Summer	2B	305	347	20.2	42.48	17.21	8.161
			5	407	481	20.1	42.48	23.94	11.34
			6C	449	263	24.4	42.48	10.81	6.196
			7C	364	369	11.8	42.48	31.16	8.689
		Winter	1C	159	729	20.2	42.48	36.04	17.15
	Wet		1W	44	392	8.23	42.48	47.54	9.215
			2W	31	411	6.27	42.48	65.64	9.681
Arroyo Seco at LAR	Dry	Summer	3B	353	41.0	30.7	42.48	1.338	0.966
			5	168	139	20.1	42.48	6.909	3.273
			6B	362	49.3	24.1	42.48	2.049	1.161
			7B	343	40.5	9.45	42.48	4.284	0.953
		Winter	1C	317	54.4	11.3	42.48	4.819	1.280
			4B	329	51.2	13.5	42.48	3.778	1.205
	Wet		1W	225	140.5	8.23	42.48	17.06	3.307
			2W	73	418.7	6.27	42.48	66.83	9.856
Verdugo Wash at LAR	Dry	Summer	2B	322	75.3	20.2	42.48	3.738	1.773
			3B	292	109	30.7	42.48	3.537	2.554
			6B	279	167	24.1	42.48	6.951	3.939
			7B	310	154	9.45	42.48	16.24	3.614
		Winter	1B	339	58.8	14.8	42.48	3.962	1.384
			4B	308	50.5	13.5	42.48	3.725	1.188
Verdugo Wash at Kenilworth Ave	Wet		1W	157	115	8.23	42.48	13.96	2.71
			2W	33	535	6.27	42.48	85.33	12.58
Burbank Western Channel at LAR	Dry	Summer	2A	258	201	10.6	42.48	18.93	4.740
			3A	232	255	13.0	42.48	19.59	5.997
			6A	240	176	19.8	42.48	8.882	4.143
			7A	234	204	18.4	42.48	11.13	4.812
		Winter	1A	260	198	17.0	42.48	11.65	4.669
			4A	240	184	12.9	42.48	14.19	4.321
Burbank Western Channel at Riverside Dr	Wet		1W	138	241	8.23	42.48	29.26	5.676
			2W	46	354	6.27	42.48	56.47	8.329

Waterbody and Sample Site	Event Type	Season	Event	Hardness (mg/L as $CaCO_3$)	Normalized Dis Cu EC50[1] (µg/L)		Normalized SMAV (µg/L)	sWER	
					Site Water	Lab Water		Interim Guidance	Streamlined Procedure
Burbank Western Channel (Upstream of BWRP)	Dry	Summer	2A	266	226	10.6	42.48	21.20	5.308
			3A	274	280	13.0	42.48	21.55	6.596
			6A	319	271	23.5	42.48	11.53	6.383
			7A	240	316	18.4	42.48	17.20	7.434
		Winter	1A	297	163	17.0	42.48	9.592	3.844
			4A	275	173	12.9	42.48	13.34	4.063
Tujunga Wash at LAR	Dry	Summer	2A	117	482	10.6	42.48	45.33	11.35
			3A	162	388	13.0	42.48	29.83	9.129
			6A	426	259	23.5	42.48	10.99	6.084
			7A	472	247	18.4	42.48	13.44	5.807
		Winter	1A	140	773	17.0	42.48	45.38	18.18
			4A	120	206	12.9	42.48	15.88	4.837
Tujunga Wash at Moorpark St	Wet		1W	29	529	8.23	42.48	64.20	12.44
			2W	35	579	6.27	42.48	92.36	13.62

2. Normalized using a hardness of 200 mg/L as $CaCO_3$

Dis Cu: dissolved copper

CL: Confidence Limit

1A	4/19-4/20, 2011	2B	6/14-6/15, 2011	4A	12/6-12/7, 2011	6B	6/12-6/13, 2012
1B	3/15-3/16, 2011	2C	7/12-7/13, 2011	4B	12/19-12/20, 2011	6C	6/19-6/20, 2012
1C	1/31-2/1, 2012	3A	8/9-8/10, 2011	4C	1/3-1/4, 2012	7A	8/7-8/8, 2012
1C (RH)	2/28-2/29, 2012	3B	8/23-8/24, 2011	5	5/8-5/9, 2012	7B	8/14-8/15, 2012
2A	6/7-6/8, 2011	3C	8/30-8/31, 2011	6A	6/5-6/6, 2012	7C	8/21-8/22, 2012
1W	11/12, 2011	2W	12/12, 2011				

6.4 INTERIM GUIDANCE SECTION I AND J REPORTING

Section I and J of the Interim Guidance outline requirements and considerations related to calculating, interpreting, and reporting the results. The PER Toxicity Testing Reports contain information on how these requirements were addressed. **Table 23** and **Table 24** summarize information from the PER Reports related to the requirements as outlined in Interim Guidance Sections I (Calculating and Interpreting the Results) and J (Reporting the Results), respectively. The PER Reports can be made available to any interested party by contacting Chris Minton of Larry Walker Associates at chrism@lwa.com. Additionally, when the results of this study are considered for a regulatory action, the PER Reports will be provided as part of the administrative record. Generally the requirements of Section I include:

- Evaluating the acceptability of each toxicity test (addressed in **Section 5.2.3**).
- Determining whether the effects, symptoms, and time course of toxicity was the same in the side-by-side tests in the site water and the laboratory dilution water.
- Calculating the results of each test.
- Evaluating the acceptability of the laboratory dilution water.
- Calculating the sample WERs (sWERs).

- Investigating the WER.

Section J of the Interim Guidance contains information on reporting the WER results. Generally the requirements of Section J include:

- Reporting of the experimental determination of the WERs.
- Reporting of the derivation of the fWER.

Table 23. Interim Guidance Section I (Calculating and Interpreting the Results) Summary

Section	Requirement	Notes
I.1	To prevent roundoff error in subsequent calculations, at least four significant digits must be retained in all endpoints, WERs, and fWERs. This requirement is not based on mathematics or statistics and does not reflect the precision of the value; its purpose is to minimize concern about the effects of rounding off on a site-specific criterion.	All relevant calculations retained at least four significant digits.
I.3	Determine whether the effects, symptoms, and time course of toxicity was the same in the side-by-side tests in the site water and the laboratory dilution water. For example, did mortality occur in one acute test, but immobilization in the other? Did most deaths occur before 24 hours in one test, but after 24 hours in the other? In sublethal tests, was the most sensitive effect the same in both tests? If the effects, symptoms, and/or time course of toxicity were different, it might indicate that the test is questionable or that additivity, synergism, or antagonism occurred in site water. Such information might be particularly useful when comparing tests that produced unusually low or high WERs with tests that produced moderate WERs.	The measured effect utilized in the WER Study suggested by the Interim Guidance is mortality (LC50). As such, no sublethal effects (i.e. growth or reproduction) will be measured and a comparison between types of effects will not be possible. The Interim Guidance recommended 48-hour *C. dubia* acute test does not allow for a detailed evaluation of time-course effects as there are only two points (at t=24 and 48 hours) when effects are measured. Further, the side-by-side tests are conducted utilizing different spiked copper concentrations (i.e., site waters are spiked at higher levels of copper than lab waters). As such, there does not seem to be comparable levels of exposure by which to conduct a comparison. Even if a detailed evaluation could be conducted for tests with similar levels of copper, Section I part 3 does not provide further guidance as to what should be done with the information. If additivity, synergism, and antagonism are occurring in the site water, the individual sWERs for the site water are incorporating the effect in an empirical way. The toxicity of copper in the site water is equal to the toxicity associated with the metal + additivity, synergism, and antagonism effects associated with all other components in the site water that could potentially reduce or increase the toxicity of copper. A similar evaluation was not conducted for the 2008 Study and the reasoning was accepted by the TAC for that study (two members of which were authors of the Interim Guidance) and LARWQCB staff. As such, time course effects are not be addressed in this report.

Section	Requirement	Notes
I.4.a	If the data for the most sensitive effect are dichotomous, the endpoint must be calculated as a LC50, EC50, EC25, etc., using methods described by the USEPA (1993a) or ASTM (1993a). If two or more treatments affected between 0 and 100% in both tests in a side-by-side pair, probit analysis must be used to calculate results of both tests, unless the probit model is rejected by the goodness of fit test in one or both of the acute tests. If probit analysis cannot be used, either because fewer than two percentages are between 0 and 100% or because the model does not fit the data, computational interpolation may be used; graphical interpolation must not be used.	Requirement met in all tests.
I.4.a.1	The same endpoint (LC50, EC25, etc.) and the same computational method must be used for both tests used in the calculation of a WER.	Requirement met in all tests except for Event 7B lab water test; a Spearman-Karber analysis could not be performed because the trim required would be greater than 50%.
I.4.a.2	The selection of the percentage used to define the endpoint might be influenced by the percent effect that occurred in the tests and the correspondence with the CCC and/or CMC.	Noted
I.4.a.3	If no treatment killed or affected more than 50% of the test organisms and the test was otherwise acceptable, the EC50 should be reported to be greater than the highest test concentration.	At least one treatment affected greater than 50 percent of the test organism in all tests.
I.4.a.4	If no treatment other than the control killed less than 50% of the test organisms and the test was otherwise acceptable, the EC50 should be reported to be less than the lowest test concentration.	At least one treatment affected less than 50 percent of the test organisms in all tests.
I.4.b	If the data for the most sensitive effect are not dichotomous, the endpoint must be calculated using a regression-type method, such as linear interpolation (USEPA 1993b,c) or a nonlinear regression method (Barnthouse et al. 1987; Suter et al. 1987; Bruce and Versteeg 1992). The selection of the percentage used to define the endpoint might be influenced by the percent effect that occurred in the tests and the correspondence with the CCC and/or CMC. The endpoints in the side-by-side tests must be based on the same amount of the same adverse effect so that the WER is a ratio of identical endpoints. The same computational method must be used for both tests used in the calculation of the WER.	The same computational method was used for both tests used in the calculation of the WERs using the Interim Guidance calculation method.
I.4.c	Both total recoverable and dissolved results should be calculated for each test.	Not applicable. Only dissolved results were calculated per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.4.d	Results should be based on the time-weighted average measured metal concentrations.	Requirement met in all tests.
I.6	If all the necessary tests and the laboratory dilution water are acceptable, a WER must be calculated by dividing the endpoint obtained using site water by the endpoint obtained using laboratory dilution water.	The calculation of WERs is discussed in **Section 6.3**. Both the Interim Guidance and Streamlined Procedure calculation method are considered.

Section	Requirement	Notes
I.6.a	If both a primary test and a secondary test were conducted using both waters, WERs must be calculated for both tests.	Not applicable. Only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.6.b	Both total recoverable and dissolved WERs must be calculated.	
I.6.c	If the detection limit of the analytical method used to measure the metal is above the endpoint in laboratory dilution water, the detection limit must be used as the endpoint. If the detection limit of the analytical method used is above the endpoint in site water, a WER cannot be determined.	Not applicable. All measurements were below the endpoint.
I.7	Investigation of the WER.	
I.7.a	The results of the chemical measurements of hardness, alkalinity, pH, TSS, TOC, total recoverable metal, dissolved metal, etc., on the effluent and the upstream water should be examined and compared with previously available values for the effluent and upstream water, respectively, to determine whether the samples were representative and to get some indication of the variability in the composition, especially as it might affect the toxicity of the metal and the WER, and to see if the WER correlates with one or more of the measurements.	A comparison to standard parameters is presented in **Section 6.5**. The comparison indicates conditions sampled during the WER Study are representative.
I.7.b	The WERs obtained with the primary and secondary tests should be compared to determine if the WER obtained with the secondary test confirmed the WER obtained with the primary test. Equally sensitive tests are expected to give WERs that are similar (e.g., within a factor of 3), whereas a test that is less sensitive will probably give a smaller WER than a more sensitive test.	Not applicable. Only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.7.c	If the WER is larger than 5, it should be investigated.	
I.7.c.1	If the endpoint obtained using the laboratory dilution water was lower than previously reported lowest value or was more than a factor of two lower than an existing Species Mean Acute Value in a criteria document, additional tests in the laboratory dilution water are probably desirable.	An investigation of WERs larger than 5 is presented in **Section 7.4.2** and suggests additional testing is not necessary.
I.7.c.2	If a total recoverable WER was larger than 5 but the dissolved WER was not, is the metal one whose WER is likely to be affected by TSS and/or TOC and was the concentration of TSS and/or TOC high? Was there a substantial difference between the total recoverable and dissolved concentrations of the metal in the downstream water?	Not applicable. Only dissolved results were calculated per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.7.c.3	If both the total recoverable and dissolved WERs were larger than 5, is it likely that there is nontoxic dissolved metal in the downstream water?	

Section	Requirement	Notes
I.7.d	The adverse effects and the time-course of effects in the side-by-side tests should be compared. If they are different, it might indicate that the site-water test is questionable or that additivity, synergism, or antagonism occurred in the site water. This might be especially important if the WER obtained with the secondary test did not confirm the WER obtained with the primary test or if the WER was very large or small.	The Interim Guidance recommended 48-hour *C. dubia* acute test does not allow for a detailed evaluation of time-course effects as there are only two points (at t=24 and 48 hours) when effects are measured. Further, the side-by-side tests are conducted utilizing different spiked copper concentrations (i.e., site waters are spiked at higher levels of copper than lab waters). As such, there does not seem to be comparable levels of exposure by which to conduct a comparison. Even if a detailed evaluation could be conducted for tests with similar levels of copper, Section I part 7(d) does not provide further guidance as to what should be done with the information. If additivity, synergism, and antagonism are occurring in the site water, the individual sWERs for the site water are incorporating the effect in an empirical way. The toxicity of copper in the site water is equal to the toxicity associated with copper + additivity, synergism, and antagonism effects associated with all other components in the site water that could potentially reduce or increase the toxicity of copper. Lastly, only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.8	If at least one WER determined with the primary test was confirmed by a WER that was simultaneously determined with the secondary test, the cmcFWER and/or the cccFWER should be derived as described in section A.5.	Not applicable. Only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
I.9	All data generated during the determination of the WER should be examined to see if there are any implications for the national or site-specific aquatic life criterion.	Outside the scope of the 2010 Work Plan.
I.9.a	If there are data for a species for which data were not previously available or unusual data for a species for which data were available, the national criterion might need to be revised.	Not applicable
I.9.b	If the primary test gives an LC50 or EC50 in laboratory dilution water that is the same as the national CMC, the resulting site-specific CMC should be similar to the LC50 that was obtained with the primary test using downstream water. Such relationships might serve as a check on the applicability of the use of WERs.	Noted
I.9.c	If data indicate that the site-specific criterion would not adequately protect a critical species, the site-specific criterion probably should be lowered.	**Section 7.4** presents an evaluation of the fWER to ensure it is adequately protective.

Table 24. Interim Guidance Section J (Reporting the Results) Summary

Number	Requirement	Location in Report
A report of the experimental determination of a WER must include the following:		
J.1	Name(s) of the investigator(s), name and location of the laboratory, and dates of initiation and termination of the tests.	Investigators are various members of consulting firms and analytical laboratories and as such are not called specifically by name within the report, rather company names are used. Name and locations of laboratories are included in **Section 2**. Dates of initiation and termination of the tests are presented in **Section 5.2.2**.
J.2	A description of the laboratory dilution water, including source, preparation, and any demonstrations that an aquatic species can survive, grow, and reproduce in it.	**Section 4**.
J.3	The name, location, and description of the discharger, a description of the effluent, and the design flows of the effluent and the upstream water.	Reporting requirement is not applicable to non-wastewater dischargers.
J.4	A description of each sampling station, date, and time, with an explanation of why they were selected, and the flows of the upstream water and the effluent at the time the samples were collected.	**Section 3** and 2010 Work Plan.
J.5	The procedures used to obtain, transport, and store the samples of the upstream water and the effluent.	**Section 3** and 2010 Work Plan.
J.6	Any pretreatment, such as filtration, of the effluent, site water, and/or laboratory dilution water.	**Section 3**, **Section 4**, and 2010 Work Plan.
J.7	Results of all chemical and physical measurements on upstream water, effluent, actual and/or simulated downstream water, and laboratory dilution water, including hardness (or salinity), alkalinity, pH, and concentrations of total recoverable metal, dissolved metal, TSS, and TOC.	**Section 6.1**, **Appendix 2**, **Appendix 3**, and **Appendix 4**
J.8	Description of the experimental design, test chambers, depth and volume of solution in the chambers, loading and lighting, and numbers of organisms and chambers per treatment.	**Section 4** and reports prepared by PER.
9	Source and grade of the metallic salt, and how the stock solution was prepared, including any acids or bases used.	**Section 4** and reports prepared by PER.
J.10	Source of the test organisms, scientific name and how verified, age, life stage, means and ranges of weights and/or lengths, observed diseases, treatments, holding and acclimation procedures, and food.	**Section 4** and reports prepared by PER.
J.11	The average and range of the temperature, pH, hardness (or salinity), and the concentration of dissolved oxygen (as % saturation and as mg/L) during acclimation, and the method used to measure them.	Raw data are available in reports prepared by PER.
J.12	The following must be presented for each toxicity test:	
J.12.a	The average and range of the measured concentrations of dissolved oxygen, as % saturation and as mg/L.	Available in reports prepared by PER.
J.12.b	The average and range of the test temperature and the method used to measure it.	
J.12.c	The schedule for taking samples of test solutions and the methods used to obtain, prepare, and store them.	

J.12.d	A summary table of the total recoverable and dissolved concentrations of the metal in each treatment, including all controls, in which they were measured.	**Appendix 4**
J.12.e	A summary table of the values of the toxicological variable(s) for each treatment, including all controls, in sufficient detail to allow an independent statistical analysis of the data.	Raw data are available in reports prepared by PER.
J.12.f	The endpoint and the method used to calculate it.	**Section 6** and reports prepared by PER.
J.12.g	Comparisons with other data obtained by conducting the same test on the same metal using laboratory dilution water in the same and different laboratories; such data may be from a criteria document or from another source.	Reports prepared by PER.
J.12.h	Anything unusual about the test, any deviations from the procedures described above, and any other relevant information.	**Section 5.2** and reports prepared by PER.
J.13	All differences, other than the dilution water and the concentrations of metal in the test solutions, between the side-by-side tests using laboratory dilution water and site water.	Reports prepared by PER.
J.14	Comparison of results obtained with the primary and secondary tests.	Not applicable. Only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
J.15	The WER and an explanation of its calculation.	**Section 6.3** and **Section 7.3**.
	A report of the derivation of a FWER must include the following:	
1	A report of the determination of each WER that was determined for the derivation of the FWER; all WERs determined with secondary tests must be reported along with all WERs that were determined with the primary test.	**Section 6.3** and **Section 7.3**. Only a primary test was conducted per the 2010 Work Plan as agreed upon by the TAC and LARWQCB staff.
2	The design flow of the upstream water and the effluent and the hardness used in the derivation of the permit limits if the criterion for the metal is hardness-dependent.	Not applicable as permit limits are not presented in the report.
3	A summary table must be presented that contains the following for each WER that was derived:	
3.a	The value of the WER and the two endpoints from which it was calculated.	**Section 6.3** and **Section 7.3**.
3.b	The highest WER calculated from the WER.	A separate “highest WER” was not calculated
3.c	The test and species that was used.	**Section 4**.
3.d	The date the samples of effluent and site water were collected.	**Section 3.1**.
3.e	The flows of the effluent and upstream water when the samples were taken.	Not applicable as downstream water was used as the site water. Therefore, wastewater effluent and upstream flow rates were not considered as part of the WER Study.
3.f	The following information concerning the laboratory dilution water, effluent, upstream water, and actual and/or simulated downstream water: hardness (salinity), alkalinity, pH, and concentrations of total recoverable metal, dissolved metal, TSS, and TOC.	**Section 6.1**, **Appendix 2**, **Appendix 3**, and **Appendix 4**
4	A detailed explanation of how the FWER was derived from the WERs that are in the summary table.	**Section 7**.

6.5 COMPARISON TO STANDARD PARAMETERS

The Interim Guidance suggests parameters collected during WER Study sampling events should be compared to historical concentrations of these same parameters. Historical dry and wet weather data were compared to WER Study data. LA River Reaches 1, 2, 3, and 4 dry weather data compared included hardness (as $CaCO_3$), TSS, DOC, and dissolved and total copper. **Table 25** through **Table 28** present summaries of the dry and wet weather historical and WER Study data for LA River Reaches 1, 2, 3, and 4, respectively. **Table 29** through **Table 34** present summaries of the dry and wet weather historical and WER Study data for the tributaries included in the WER Study. The tributary dry and wet weather data compared included hardness (as $CaCO_3$) and dissolved and total copper. Note that TSS and DOC data were not readily available for the majority of the tributaries and as such are not presented herein. The comparisons indicate that the WER Study parameters TSS, DOC, and hardness, compared to standard parameters, are within the expected range for the sites. For total copper concentrations, dry weather concentrations are lower than the historical concentrations and wet weather concentrations are mostly lower than or within the same range as the historical concentrations. For dissolved copper concentrations, dry weather concentrations are lower than the historical concentrations and wet weather concentrations are mostly the same or lower than the historical concentrations. The differences in WER Study dissolved and total copper concentrations compared to historical concentrations are likely due to copper control and treatment measures implemented by municipalities and other agencies within the LA River watershed.

Table 25. Los Angeles River Reach 1 Data Comparison – Historical Data to WER Study Data

Dry Weather										
	Historical Data					WER Study Data				
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)
n	69	100	101	20	19	6	6	6	6	6
n Detected	69	89	92	20	19	6	6	6	6	6
Mean	255	9.7	12.2	42.1	9.8	258.2	4.6	5.8	27.5	8.4
Median	250	9.3	11	32	9.5	259	4.5	5.8	29	8.0
Min Detected	172	3.7	5.1	13	7.5	221.6	3.7	4.7	14	6.9
Max Detected	434	20	27.2	174	12.6	301.1	5.5	6.8	39.4	11
Std Dev	47	3.5	4.7	36.2	1.4	29	0.7	0.8	11.6	1.6
Up 95% Conf. Limit about the Mean	266.1	10.4	13.1	58	10.4	281.4	5.2	6.4	36.8	9.6
Low 95% Conf. Limit about the Mean	243.9	8.9	11.2	26.2	9.2	235	4	5.2	18.3	7.1
95th Percentile	328.4	16.6	21.5	90.4	11.9	293.9	5.5	6.7	38.9	10.6
Date Range	3/01- 2/12	3/01- 2/12	3/01- 2/12	3/06- 12/07	3/06- 12/07	7/11- 8/12	7/11- 8/12	7/11- 8/12	7/11- 8/12	7/11- 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	22	26	26	2	2	2
Mean	69.8	9.8	48.7	58.9	11.5	24.7
Min Detected	36	3.25	10	47.8	9.5	24
Max Detected	177	19	140	69.9	13.6	25.4
Up 95% Conf. Limit about the Mean	86.4	11.1	61.2	-	-	-
Low 95% Conf. Limit about the Mean	53.3	8.44	36.1	-	-	-
Date Range	1/01- 4/12	1/01- 4/12	1/01- 4/12	11/11 – 1/12	11/11 – 1/12	11/11 – 1/12

Table 26. Los Angeles River Reach 2 Data Comparison – Historical Data to WER Study Data

	Dry Weather									
	Historical Data					WER Study Data				
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)
n	138	199	201	40	40	12	12	12	12	12
n Detected	138	178	185	40	40	12	12	12	12	12
Mean	262.2	10.2	13.2	26.6	8.8	270.3	4.7	6.2	16.1	7.4
Median	258.5	9.1	12	18.5	8.6	269	4.6	6	17.4	7.1
Min Detected	96.2	2.3	3.8	8	6.5	237.6	3.4	5	2.2	5.8
Max Detected	456	25	39	162	15	315.8	5.9	9.2	32.1	10
Std Dev	47.9	4.7	6.1	31.1	1.7	23.9	0.8	1.2	8.4	1.2
Up 95% Conf. Limit about the Mean	270.2	10.9	14.1	36.3	9.4	283.8	5.1	6.9	20.8	8.1
Low 95% Conf. Limit about the Mean	254.3	9.5	12.3	17	8.3	256.8	4.3	5.6	11.3	6.7
95th Percentile	340.9	20	24	53.9	12.7	306.1	5.8	8.1	27.4	9.3
Date Range	3/01- 2/12	3/01- 2/12	3/01- 2/12	3/06- 12/07	3/06- 12/07	7/11- 8/12	7/11- 8/12	7/11- 8/12	7/11- 8/12	7/11- 8/12

	Wet Weather					
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	6	13	13	2	2	2
Mean	142.9	11.7	29.3	96.7	9.1	20.4
Min Detected	74.30	5.00	9.00	62.6	8.2	19.2
Max Detected	274.0	26.0	72.0	130.8	10.1	21.5
Up 95% Conf. Limit about the Mean	201.2	15.2	42.0	-	-	-
Low 95% Conf. Limit about the Mean	84.49	8.18	16.6	-	-	-
Date Range	1/01- 4/12	1/01- 4/12	1/01- 4/12	11/11 – 1/12	11/11 – 1/12	11/11 – 1/12

Table 27. Los Angeles River Reach 3 Data Comparison – Historical Data to WER Study Data

Dry Weather										
	Historical Data					WER Study Data				
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)
n	125	189	189	40	40	18	18	18	18	18
n Detected	125	170	179	40	40	18	18	18	18	18
Mean	273	11.7	14.9	28	8.5	261	6.3	8.2	14.9	7.1
Median	269	11	14	15	8.4	244.4	6.1	8.3	15	7.0
Min Detected	170	2.5	3.4	6	6.6	206.7	4.3	5.8	2	4.7
Max Detected	448	30	38	378	11.8	335.4	8.7	10.2	32.6	10
Std Dev	56	5	6.2	61.2	1.2	42.2	1.3	1.3	9	1.4
Up 95% Conf. Limit about the Mean	282.8	12.4	15.8	47	8.9	280.4	6.8	8.8	19	7.7
Low 95% Conf. Limit about the Mean	263.2	10.9	14	9	8.2	241.5	5.7	7.6	10.7	6.5
95th Percentile	386.4	20.8	26	35.4	10.5	324.4	8.3	10	27.8	9.4
Date Range	3/01- 2/12	3/01- 2/12	3/01- 2/12	3/06- 12/07	3/06- 12/07	3/11- 8/12	3/11- 8/12	3/11- 8/12	3/11- 8/12	3/11- 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	26	35	35	2	2	2
Mean	122.8	9.6	43.3	120.7	6.94	28.68
Min Detected	43.2	3.0	6.0	100.80	6.58	24.47
Max Detected	295.0	43.7	172.0	140.60	7.29	32.88
Up 95% Conf. Limit about the Mean	148.9	12.1	54.6	-	-	-
Low 95% Conf. Limit about the Mean	96.80	7.14	32.1	-	-	-
Date Range	1/01- 12/07	1/01- 12/07	1/01- 12/07	11/11 – 1/12	11/11 – 1/12	11/11 – 1/12

Table 28. Los Angeles River Reach 4 Data Comparison – Historical Data to WER Study Data

Dry Weather										
	Historical Data					WER Study Data				
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	TSS (mg/L)	DOC (mg/L)
n	62	94	94	14	14	6	6	6	6	6
n Detected	62	84	89	14	14	6	6	6	6	6
Mean	241.7	12.5	18.8	30.6	9.7	272	6.7	8.2	15.7	7.4
Median	237	13	15	21	9.6	239.2	6.6	7.7	15	7.1
Min Detected	102	4.2	5.5	14	8	208.5	5.5	6.1	2.7	6.3
Max Detected	512	32.6	82	101	13.4	386.1	8.5	12.1	29	9.9
Std Dev	61.2	4.9	12.2	23.4	1.3	70.1	1	2.1	10.6	1.3
Up 95% Conf. Limit about the Mean	257	13.5	21.3	42.8	10.4	328.1	7.5	9.9	24.2	8.5
Low 95% Conf. Limit about the Mean	226.5	11.5	16.3	18.3	9	215.8	5.9	6.6	7.3	6.4
95th Percentile	327.6	19.9	40.6	68.5	11.6	372.3	8.1	11.2	28.4	9.3
Date Range	3/01- 2/12	3/01- 2/12	3/01- 2/12	4/06- 5/07	4/06- 5/07	4/11- 8/12	4/11- 8/12	4/11- 8/12	4/11- 8/12	4/11- 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	23	28	28	2	2	2
Mean	116.7	11.3	47.8	100.9	8.2	24.9
Min Detected	54.7	3.5	18	85.5	6.5	19.9
Max Detected	309	49.9	140	116.2	9.8	29.9
Up 95% Conf. Limit about the Mean	141.0	14.7	59.3	-	-	-
Low 95% Conf. Limit about the Mean	92.39	7.91	36.3	-	-	-
Date Range	1/01- 4/12	1/01- 4/12	1/01- 4/12	11/11 – 1/12	11/11 – 1/12	11/11 – 1/12

Table 29. Arroyo Seco Data Comparison – Historical Data to WER Study Data

	Dry Weather					
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	34	34	34	6	6	6
n Detected	34	29	33	6	6	6
Mean	354.7	6.6	9.1	339.9	1.6	2.5
Median	353	6	7	367.5	1.6	2.2
Min Detected	151	2	2	179.7	1.4	1.7
Max Detected	475	17	29	390.1	1.7	3.6
Std Dev	57.9	3.8	5.4	80.8	0.1	0.8
Up 95% Conf. Limit about the Mean	374.2	8	10.9	404.5	1.7	3.1
Low 95% Conf. Limit about the Mean	335.3	5.2	7.2	275.2	1.4	1.8
95th Percentile	432.1	13.8	16.6	389.9	1.7	3.5
Date Range	1/05 - 11/07	1/05 - 11/07	1/05 - 11/07	7/11 - 8/12	7/11 - 8/12	7/11 - 8/12
	Wet Weather					
	Historical Data			**WER Study Data**		
	Hardness (mg/L as $CaCO_3$)	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**	**Hardness (mg/L as $CaCO_3$)**	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**
n	2	2	2	2	2	2
Mean	234.5	6.1	11.5	143.9	5.6	14.1
Min Detected	203	5.3	8.1	80	4.4	10.8
Max Detected	266	7	15	207.7	6.7	17.4
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Table 30. Burbank Western Channel Data Comparison – Historical Data to WER Study Data

Dry Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	45	44	45	6	6	6
n Detected	45	44	45	6	6	6
Mean	206.8	30.6	37.6	266.5	12.6	13.8
Median	203.0	30.0	34.0	254.8	12.4	13.4
Min Detected	142.0	10.0	4.0	248.1	10.1	11.2
Max Detected	335.0	57.0	177.0	298.5	17.2	18.8
Std Dev	31.8	10.6	25.0	23.1	2.5	2.7
Up 95% Conf. Limit about the Mean	216.1	33.7	44.9	285.0	14.6	16.0
Low 95% Conf. Limit about the Mean	197.5	27.4	30.3	248.0	10.6	11.7
95th Percentile	242.4	46.0	60.2	297.2	16.1	17.7
Date Range	1/05 - 11/07	1/05 - 11/07	1/05 - 11/07	4/11 - 8/12	4/11 - 8/12	4/11 - 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	3	3	3	2	2	2
Mean	182.3	28.3	32.5	93.8	15.2	28.2
Min Detected	136	18.8	24.5	53.0	10.8	24.8
Max Detected	207	40	44	134.6	19.6	31.7
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Table 31. Compton Creek Data Comparison – Historical Data to WER Study Data

Dry Weather						
	Historical Data			**WER Study Data**		
	Hardness (mg/L as $CaCO_3$)	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**	**Hardness (mg/L as $CaCO_3$)**	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**
n	34	33	34	6	6	6
n Detected	34	29	34	6	5	6
Mean	193	8.8	12.1	223.9	1.9	3.0
Median	209	8	10	228.4	1.9	3.6
Min Detected	69.4	3	4	127.9	0.6	1.3
Max Detected	271	19	28	306.7	3.4	4.1
Std Dev	53.4	4.9	6.4	59.6	1.0	1.3
Up 95% Conf. Limit about the Mean	210.9	10.6	14.3	271.7	2.7	4.0
Low 95% Conf. Limit about the Mean	175	7	9.9	176.2	1.1	1.9
95th Percentile	252.5	18.6	25	293.8	3.1	4.0
Date Range	1/05 - 11/07	1/05 - 11/07	1/05 - 11/07	6/11 - 8/12	6/11 - 8/12	6/11 - 8/12

Wet Weather						
	Historical Data			**WER Study Data**		
	Hardness (mg/L as $CaCO_3$)	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**	**Hardness (mg/L as $CaCO_3$)**	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**
n	2	2	2	2	2	2
Mean	83.7	8.4	15.8	53.4	10.9	20.8
Min Detected	32.4	8	13	50.7	9.7	20.7
Max Detected	135	8.8	18.6	56	12.1	21
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Table 32. Rio Hondo Data Comparison – Historical Data to WER Study Data

Dry Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	31	30	31	5	5	5
n Detected	31	30	31	5	5	5
Mean	228.0	18.7	25.4	374.1	25.5	29.9
Median	221.0	17.0	23.0	406.1	25.2	29.4
Min Detected	77.7	8.0	11.0	163.3	15.6	18.0
Max Detected	369.0	42.0	52.0	501.3	34.6	39.8
Std Dev	80.2	7.7	9.7	130.1	8.3	9.7
Up 95% Conf. Limit about the Mean	256.3	21.5	28.8	488.1	32.8	38.4
Low 95% Conf. Limit about the Mean	199.8	16.0	22.0	260.1	18.2	21.4
95th Percentile	363.0	30.8	44.0	490.7	34.2	39.7
Date Range	1/05 - 11/07	1/05 - 11/07	1/05 - 11/07	6/11 - 8/12	6/11 - 8/12	6/11 - 8/12
Wet Weather						
	Historical Data			**WER Study Data**		
	Hardness (mg/L as $CaCO_3$)	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**	**Hardness (mg/L as $CaCO_3$)**	**Cu Dis. (µg/L)**	**Cu Total (µg/L)**
n	2	2	2	2	2	2
Mean	82.5	9.5	14.1	35.6	13.2	23.1
Min Detected	57	6	10	32.9	12.0	22.6
Max Detected	108	12.9	18.1	38.2	14.4	23.5
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Table 33. Tujunga Wash Data Comparison – Historical Data to WER Study Data

Dry Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	31	31	31	6	6	6
n Detected	31	29	30	6	6	6
Mean	173.1	21.0	38.0	257.6	15.4	17.4
Median	166.0	18.0	24.0	167.1	12.3	13.4
Min Detected	104.0	6.0	8.0	119.9	7.6	9.4
Max Detected	394.0	49.0	207.0	513.3	29.9	33.4
Std Dev	57.6	10.5	39.5	174.6	8.6	9.9
Up 95% Conf. Limit about the Mean	193.4	24.9	52.1	397.3	22.3	25.3
Low 95% Conf. Limit about the Mean	152.8	17.2	23.8	117.9	8.5	9.5
95th Percentile	259.0	41.0	99.0	496.5	27.8	31.5
Date Range	1/05 - 11/07	1/05 - 11/07	1/05 - 11/07	4/11 - 8/12	4/11 - 8/12	4/11 - 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	2	2	2	2	2	2
Mean	98.1	5.0	7.0	35.9	13.1	36.4
Min Detected	65.2	4.0	4.0	29.8	12.1	34.2
Max Detected	131	6.0	10.0	41.9	14.1	38.7
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Table 34. Verdugo Wash Data Comparison – Historical Data to WER Study Data

Dry Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	34	34	34	6	6	6
n Detected	34	28	33	6	6	6
Mean	334.8	9.2	14.9	333.7	5.4	7.4
Median	341.5	8.4	11	331.7	5.4	7.7
Min Detected	248	4	4	301.3	1.6	2.0
Max Detected	395	23	108	361.7	8.5	10.9
Std Dev	37.9	4	17.5	22.1	2.3	3.1
Up 95% Conf. Limit about the Mean	347.6	10.6	20.9	351.3	7.3	9.9
Low 95% Conf. Limit about the Mean	322.1	7.7	8.9	316.0	3.6	4.9
95th Percentile	388.7	14.7	21.8	359.7	8.1	10.6
Date Range	1/01- 4/12	1/01- 4/12	1/01- 4/12	3/11 - 8/12	3/11 - 8/12	3/11 - 8/12

Wet Weather						
	Historical Data			WER Study Data		
	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)	Hardness (mg/L as $CaCO_3$)	Cu Dis. (µg/L)	Cu Total (µg/L)
n	2	2	2	2	2	2
Mean	219.5	7.5	11.9	104.3	5.7	12.6
Min Detected	174	7.1	11	40.5	5.1	8.5
Max Detected	265	8	12.8	168.0	6.4	16.7
Date Range	3/05 - 12/07	3/05 - 12/07	3/05 - 12/07	11/11 - 12/11	11/11 - 12/11	11/11 - 12/11

Section 7. WER Analysis

The following presents the analyses conducted to identify a critical condition and ensure sufficient data were collected to develop a representative and protective WER for each waterbody. Additionally, the fWER calculations and evaluation of their protectiveness are presented prior to recommending a fWER.

7.1 EVALUATION OF CRITICAL CONDITIONS

Specific hydrologic and seasonal conditions that may impact copper WERs were evaluated for this analysis. The analysis was based on the measured hardness-normalized EC50s and sWERs presented in **Table 21** and **Table 22** from the WER Study. All discussion of EC50s from this point forward refers to hardness-normalized EC50s. For the purpose of identifying critical conditions, the sWERs are the primary parameter of concern because site-specific objectives or TMDL target adjustments will ultimately be based on the WERs. However, the hardness-normalized EC50s provide information to support determination of a critical condition and were evaluated mainly to confirm the patterns in sWERs. The specific conditions evaluated were hydrologic wet and dry periods, and winter and summer seasonality. The overall purpose of the analysis was to identify the conditions when WERs are lowest and the river is most sensitive to elevated copper concentrations.

The principal method used to evaluate these conditions was Analysis of Variance (ANOVA). All analyses were performed with a statistical confidence level of 95% (i.e., significance was determined based on p-values <0.05). ANOVA assumptions of residual normality were evaluated for each test based on inspection of the model residual distributions for gross violations of the assumption. EC50s and sWERs were transformed to their natural logarithms for the ANOVAs based on the evaluation of model residuals. Interactions between the effects of sites and event type or site and season were evaluated for all models and found not to be significant in every case, indicating that the effects of event types and season were consistent for the different main stem and tributary sites. All results presented are based on ANOVAs without their interaction terms (e.g., Site x Event or Site x Season). The results of the ANOVA analyses for critical conditions in the main stem and tributaries are discussed below.

Differences in hydrological conditions were evaluated separately for main stem river sites and tributary sites:

- Differences in sWERs and EC50s due to hydrologic conditions (wet and dry) were evaluated using a 2-way ANOVA with event type (wet or dry) and sampling sites as factors (Event Type x Site).
- Differences in dry weather sWERs and EC50s due to seasonal factors were evaluated using a 2-way ANOVA with season (summer and winter) and sampling sites as factors (Season x Site).
- If the effect of sites was not significant for a 2-way ANOVA, the analysis was repeated after removing that factor to confirm the effect of the season or hydrologic event type factors.

The results of the ANOVA analysis of wet and dry weather conditions indicated the following:

- Dry weather sWERs and EC50s were significantly lower than wet weather WERs for the main stem sites. There were no significant differences detected between the individual main stem sites' sWERs. There were significant differences detected between site EC50s, but the relative pattern of higher and lower sWERs and EC50s was similar for the main stem sites. A one-way ANOVA confirmed that dry weather sWERs and EC50s were also significantly lower than wet weather sWERs and EC50s when results were combined for all main stem sites. Results of these analyses are presented in **Table 35** and **Table 36**.
- Dry weather sWERs and EC50s for the tributary sites were significantly lower than wet weather sWERs. However, there were significant differences among the tributary sites. Results of these analyses are presented in **Table 37**.
- The dry weather sWERs and EC50s were significantly and consistently lower than wet weather WERs for tributary and LA River main stem sites, indicating that dry weather represents the critical condition for the WER study. The results for EC50s consistently followed the same pattern of significance as the sWERs, with the exception that there were significant differences detected between main stem sites for EC50 results but not for main stem sWERs.

Based on these results, the effects of seasonal differences were also evaluated for sWERs and EC50s collected under dry weather conditions. Season was not a significant effect for sWERs or EC50s for any of the ANOVA models. The results are summarized below:

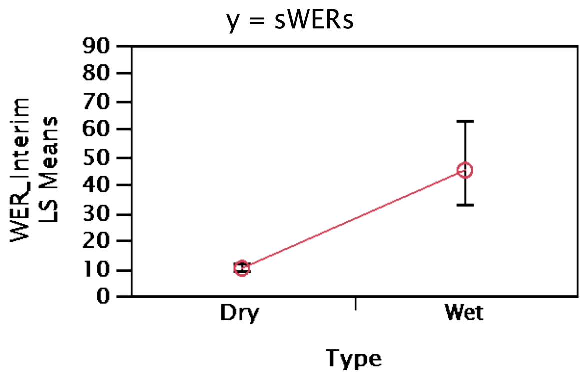
- The two-way ANOVA model for seasonality and main stem site effects on sWERs was not significant overall (p-value = 0.7176). The two-way ANOVA model of EC50s was significant overall (p-value = 0.0436), but the effect of season was not significant within the model (p-value = 0.2946). After removing the site effect from the two-way ANOVA models, the one-way ANOVA confirmed that season was not a significant effect for the main stem sites as a group for dry weather sWERs or EC50s (p-values = 0.5145 and 0.3402, respectively). Results of these analyses are presented in **Table 38** and **Table 39**.
- The two-way ANOVA for seasonality and tributary site effects was significant overall for sWERs and EC50s (p-values <0.0001), with large and significant differences observed between sites. However, the seasonal effect was not significant for sWERs or EC50s (p-values = 0.9695 and 0.2880, respectively) (**Table 40**).

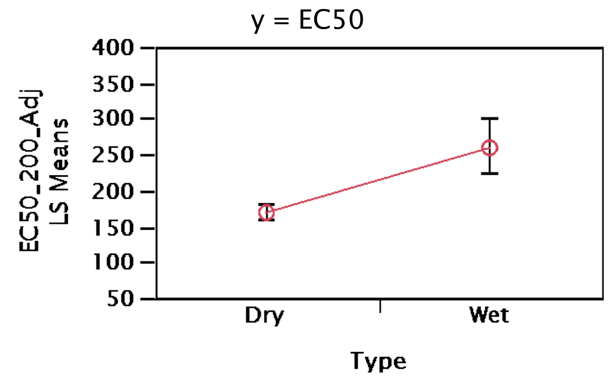
Table 35. Two-way Analysis of Variance, Event Type (Dry vs. Wet) and Waterbody (main stem sites)

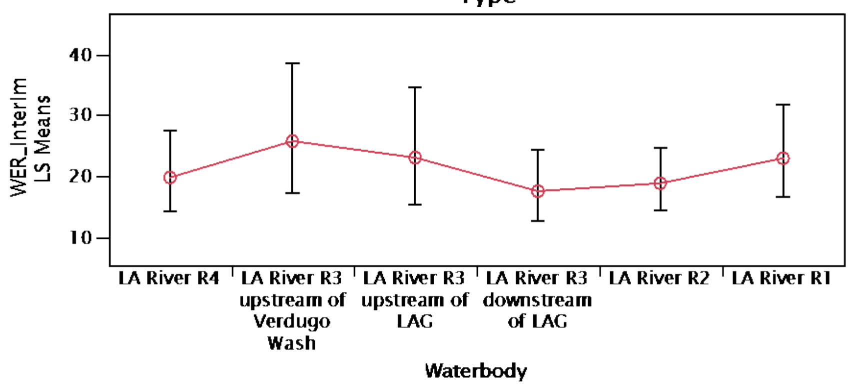
Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	6	15.2165	2.5361	13.0494	<.0001*
	Error	43	8.3568	0.1943		
	C. Total	49	23.5733			
Ln(EC50)	Model	6	1.7372	0.2895	7.4938	<.0001*
	Error	43	1.6613	0.0386		
	C. Total	49	3.3985			

	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Event Type	1	1	14.366215	73.9214	<.0001*
		Waterbody	5	5	0.779849	0.8025	0.5541
	Ln(EC50)	Event Type	1	1	1.130606	29.2631	<.0001*
		Waterbody	5	5	0.773756	4.0054	0.0045*

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.







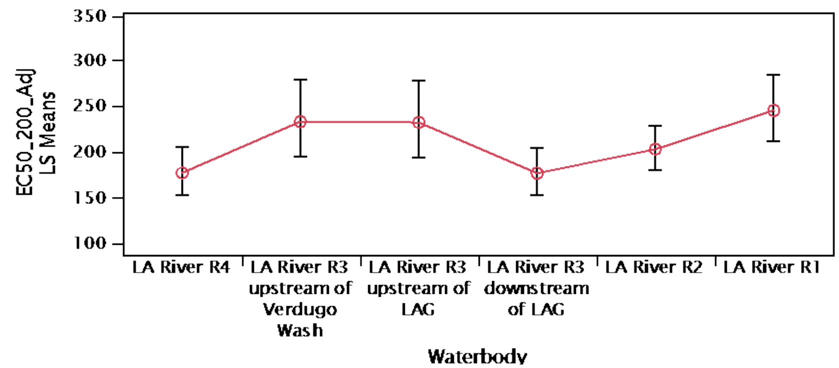


Table 36. One-way Analysis of Variance, Event Type (Dry vs. Wet; main stem sites)

Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	1	14.4367	14.4367	75.8440	<.0001*
	Error	48	9.1367	0.1903		
	C. Total	49	23.5733			

	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Type	1	1	14.4367	75.8440	<.0001*

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.

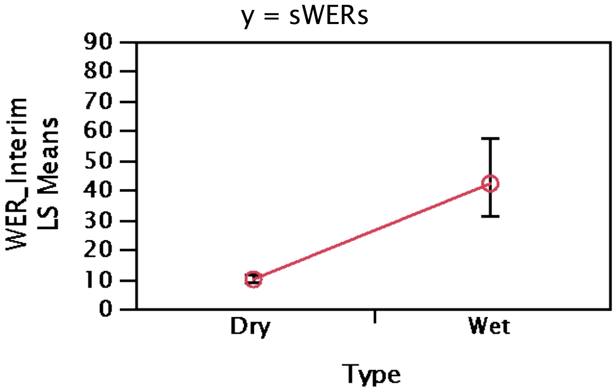
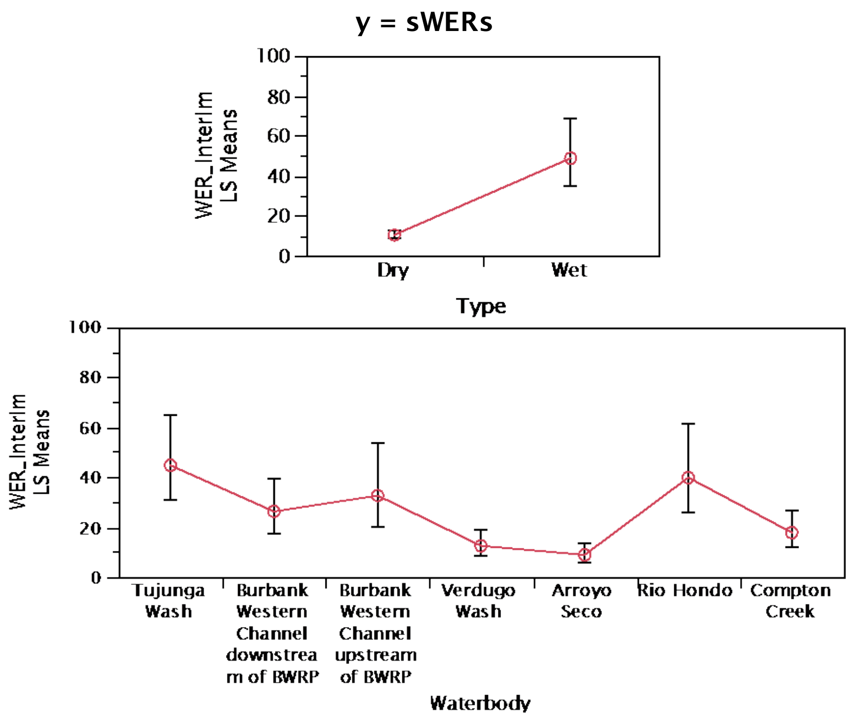


Table 37. Two-Way Analysis of Variance, Event Type (Dry vs. Wet) and Waterbody (tributary sites)

Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	7	38.1367	5.4481	16.7086	<.0001*
	Error	45	14.6730	0.3261		
	C. Total	52	52.8097			
Ln(EC50)	Model	7	20.5003	2.9286	14.3716	<.0001*
	Error	45	9.1700	0.2038		
	C. Total	52	29.6703			

	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Event Type	1	1	21.1331	64.8122	<.0001*
		Waterbody	6	6	17.4812	8.9354	<.0001*
	Ln(EC50)	Event Type	1	1	4.1834	20.5291	<.0001*
		Waterbody	6	6	16.5382	13.5264	<.0001*

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.



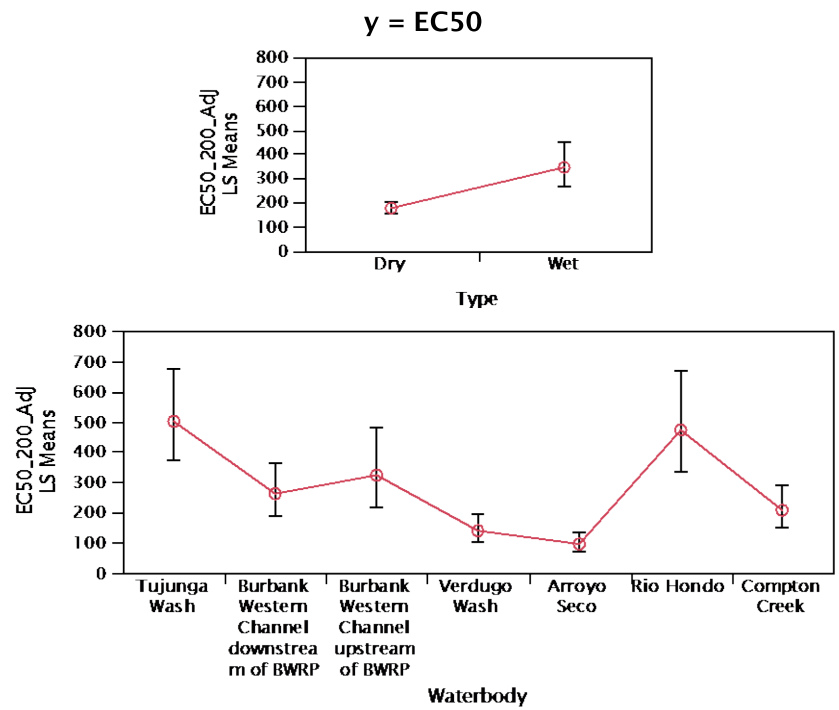
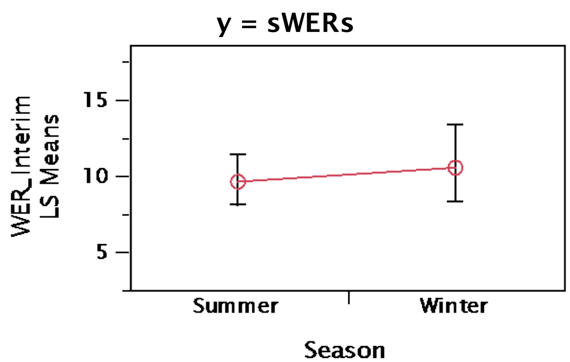


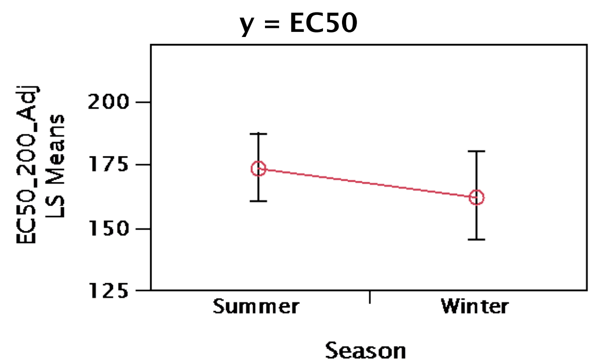
Table 38. Two-Way Analysis of Variance, Season (Summer vs. Winter) and Site (main stem sites and dry events).

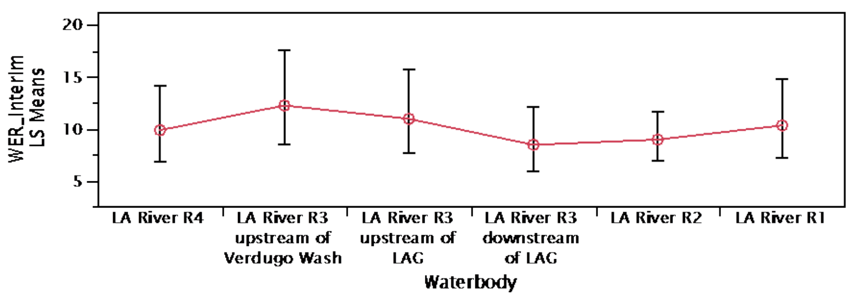
Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	6	0.700303	0.11672	0.6138	0.7176
	Error	35	6.654987	0.19014		
	C. Total	41	7.355291			
Ln(EC50)	Model	6	0.573497	0.09558	2.4556	0.0436*
	Error	35	1.362330	0.03892		
	C. Total	41	1.935827			

	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Event Type	1	1	0.078707	0.4139	0.5242
		Waterbody	5	5	0.621596	0.6538	0.6606
	Ln(EC50)	Event Type	1	1	0.044073	1.1323	0.2946
		Waterbody	5	5	0.529423	2.7203	0.0353

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.







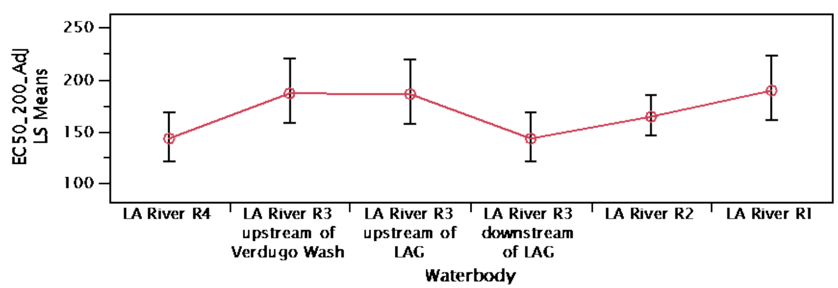
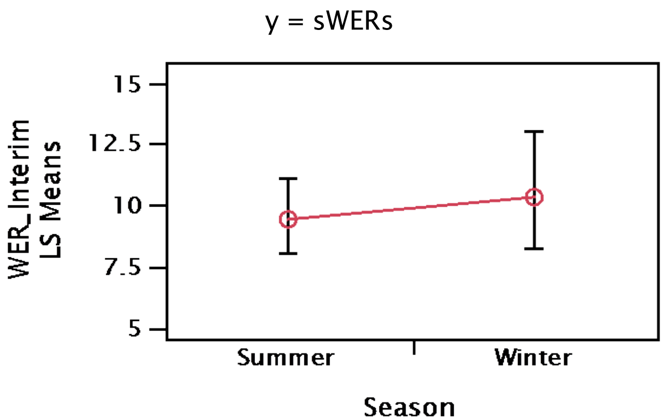


Table 39. One-Way Analysis of Variance, Season (Summer vs. Winter; main stem sites and dry events)

Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	1	0.0787069	0.078707	0.4327	0.5145
	Error	40	7.2765837	0.181915		
	C. Total	41	7.3552905			
Ln(EC50)	Model	1	0.0440734	0.044073	0.9319	0.3402
	Error	40	1.8917536	0.047294		
	C. Total	41	1.9358270			

	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Season	1	1	0.07870686	0.4327	0.5145
	Ln(EC50)	Season	1	1	0.04407337	0.9319	0.3402

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.



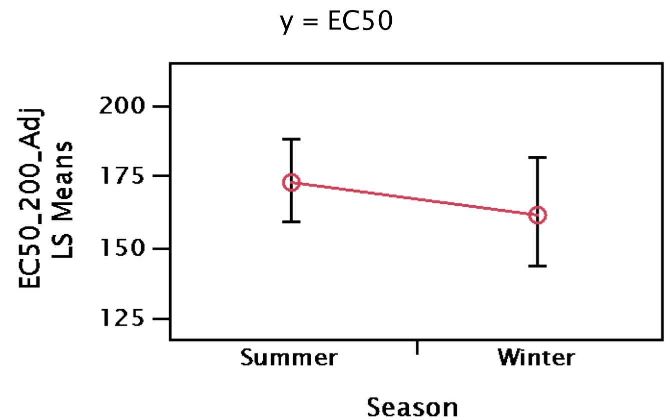
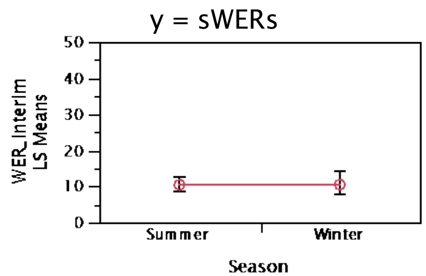


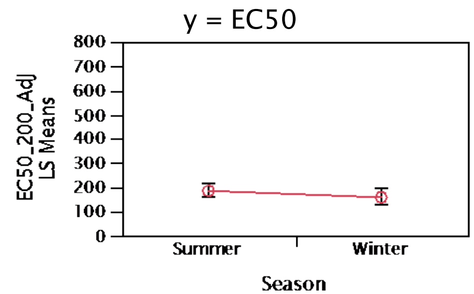
Table 40. Two-Way Analysis of Variance, Season (Summer vs. Winter) and Site (tributary sites and dry events)

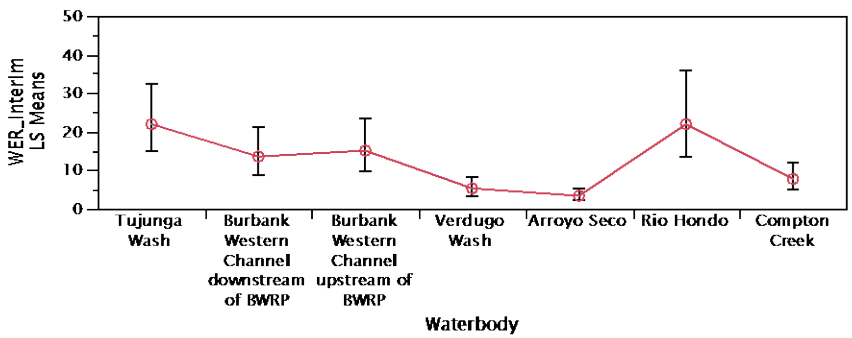
Model Y	Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Ln(sWER)	Model	7	18.5759	2.6537	9.0506	<.0001*
	Error	33	9.6758	0.2932		
	C. Total	40	28.2517			
Ln(EC50)	Model	7	17.7470	2.5353	16.4144	<.0001*
	Error	33	5.0970	0.1545		
	C. Total	40	22.8440			

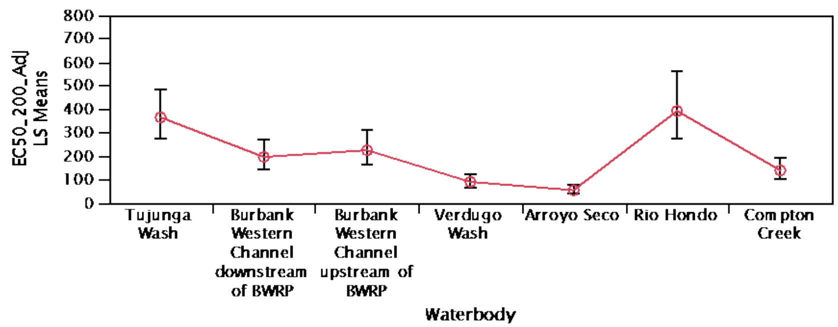
	Model Y	Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Effect Tests	Ln(sWER)	Season	1	1	0.000437	0.0015	0.9695
		Waterbody	6	6	18.5402	10.5387	<.0001*
	Ln(EC50)	Season	1	1	0.1801	1.1662	0.2880
		Waterbody	6	6	17.3642	18.7371	<.0001*

Nparm: Number of parameters associated with the effect. Continuous effects have one parameter. Nominal effects have one less parameter than the number of levels. **DF**: Degrees of freedom for the effect test.









7.2 EVALUATION OF THE NUMBER OF SAMPLES TO CHARACTERIZE THE CRITICAL CONDITION WER

Per the Interim Guidance, only three samples are required to calculate a fWER. However, concern has been expressed by various stakeholders that this may not be a sufficient number of samples to adequately address potential variability of the sWERs collected during the critical condition. The following analysis was performed to characterize the variability and confidence limits of the fWERs calculated from the complete study data set for the critical condition (dry weather events).

The acceptable variability of sWERs during the defined critical condition is not explicitly defined in the Interim Guidance, but there is language indicating that sWERs within a factor of three (3) are considered similar as indicated on page 61 of the Interim Guidance: "Equally sensitive tests are expected to give WERs that are similar (e.g., *within a factor of 3*), whereas a test that is less sensitive will probably give a smaller WER than a more sensitive test (see Appendix D)". All of the sWERs were developed using the same test species and testing methods and are considered equally sensitive tests. To conduct a more statistically rigorous evaluation of sufficient sample size, the Interim Guidance was used to develop a criterion for an adequate WER characterization based on the 95% lower confidence limits (LCL) of the final geometric mean sWERs as well as the EC50s. The 95% one-sided LCL is the value that is expected to be less than the "true" geometric mean 95% of the time. The metric evaluated was the ratio of the 95% LCL and the geometric mean for the study data. The criterion used for adequate sample size was a geometric mean/LCL or EC50/LCL ratio less than three to be consistent with the Interim Guidance. Smaller ratios indicate "better" confidence (narrower confidence limits).

Confidence limits were calculated for dry weather using the standard deviations of the natural log-transformed WER. The confidence limits were based on log-transformed sWERs to be consistent with the normality assumption of the analysis and the lognormal distribution of sWERs. The results of this analysis are provided in **Table 41**. Based on the criterion of a geometric mean/LCL ratio less than three, the results indicate that for the critical condition of dry events, enough samples have been collected to characterize the fWER for all individual main stem and tributary sites with sufficient confidence. The geometric mean/LCL ratio is less than or equal to 1.61 for all individual main stem reach sWERs, and less than or equal to 1.72 for all individual tributary WERs. The LCLs are within 42% of the geometric mean sWERs for all individual tributaries, and within 38% of the geometric mean WERs for all individual main stem reaches. If the main stem reaches are grouped together as is warranted by the analyses presented earlier in this memo, the geometric mean/LCL ratio is 1.1 and the LCL is within 11% of the geometric mean WER.

The results for EC50s are similar and slightly less variable (**Table 42**). Geometric mean EC50s/LCL ratios are less than or equal to 1.51 for all individual tributary sites, less than or equal to 1.28 for individual main stem reaches, and 1.06 for combined main stem results. The LCLs are within 34% of the geometric mean EC50 for all individual tributary sites, within 22% of the geometric mean EC50 for all individual main stem reaches, and within 6% for combined LA River results.

Table 41. Analysis of Confidence in Geometric Mean and Adequate Sample Size: Interim sWERs

Site Category	Reach or Tributary	N	Mean Ln(WER)	Std Dev Ln(WER)	CV Ln(WER)	Geometric Mean WER	One-sided Lower 95% Confidence Limit (LCL)	Ratio of Geometric Mean to LCL	Difference Between Geometric Mean and One-sided LCL
Tributary Sites	Tujunga Wash	6	3.13	0.63	0.20	22.9	13.7	1.67	40%
	Burbank Western Channel (downstream of BWRP)	6	2.60	0.31	0.12	13.5	10.4	1.30	23%
	Burbank Western Channel (upstream of BWRP)	6	2.71	0.33	0.12	15.0	11.4	1.32	24%
	Verdugo Wash	6	1.67	0.60	0.36	5.3	3.2	1.65	40%
	Arroyo Seco	6	1.22	0.60	0.50	3.4	2.1	1.61	38%
	Rio Hondo	5	3.08	0.48	0.16	21.9	13.8	1.58	37%
	Compton Creek	6	2.05	0.65	0.32	7.7	4.5	1.72	42%
Main Stem Sites	LA River Reach 4	6	2.27	0.29	0.13	9.7	7.6	1.27	21%
	LA River Reach 3	6	2.49	0.43	0.17	12.0	8.4	1.43	30%
	LA River Reach 3 (upstream of LAGWRP)	6	2.38	0.58	0.24	10.8	6.7	1.61	38%
	LA River Reach 3 (downstream of LAGWRP)	6	2.11	0.48	0.23	8.3	5.6	1.48	32%
	LA River Reach 2	12	2.17	0.39	0.18	8.8	7.2	1.22	18%
	LA River Reach 1	6	2.31	0.42	0.18	10.1	7.2	1.41	29%
	Combined LA River Sites	42	2.27	0.42	0.19	9.7	8.7	1.11	10%

BWRP: Burbank Water Reclamation Plant

LAGWRP: Los Angeles Glendale Water Reclamation Plant

Table 42. Analysis of Confidence in Geometric Mean and Adequate Sample Size: Hardness-adjusted EC50s

Site Category	Reach or Tributary	N	Mean Ln(EC50)	Std Dev Ln(EC50)	CV Ln(EC50)	Geometric Mean EC50	One-sided Lower 95% Confidence Limit (LCL)	Ratio of Geometric Mean to LCL	Difference Between Geometric Mean and One-sided Lower Confidence Limit (LCL)
Tributary Sites	Tujunga Wash	6	5.86	0.50	0.085	351.7	233.6	1.51	34%
	Burbank Western Channel (downstream of BWRP)	6	5.31	0.13	0.024	201.6	181.4	1.11	10%
	Burbank Western Channel (upstream of BWRP)	6	5.44	0.27	0.050	231.1	185.0	1.25	20%
	Verdugo Wash	6	4.53	0.50	0.110	92.4	61.3	1.51	34%
	Arroyo Seco	6	4.03	0.46	0.114	56.3	38.6	1.46	31%
	Rio Hondo	5	6.02	0.38	0.064	411.7	285.3	1.44	31%
	Compton Creek	6	4.96	0.37	0.075	142.9	105.1	1.36	26%
Main Stem Sites	LA River Reach 4	6	4.97	0.23	0.046	144.5	119.8	1.21	17%
	LA River Reach 3	6	5.24	0.10	0.019	188.6	173.8	1.09	8%
	LA River Reach 3 (upstream of LAGWRP)	6	5.24	0.30	0.057	187.8	146.9	1.28	22%
	LA River Reach 3 (downstream of LAGWRP)	6	4.97	0.14	0.029	144.6	128.6	1.12	11%
	LA River Reach 2	12	5.11	0.20	0.038	165.8	149.8	1.11	10%
	LA River Reach 1	6	5.25	0.16	0.031	191.3	167.3	1.14	13%
	Combined LA River Sites	42	5.13	0.22	0.042	168.7	159.4	1.06	6%

BWRP: Burbank Water Reclamation Plant

LAGWRP: Los Angeles Glendale Water Reclamation Plant

7.3 CALCULATION OF FINAL WERS

The results of the critical conditions analyses indicated that dry weather, regardless of season, is the critical condition. Thus, to calculate fWERs protective under both dry and wet weather conditions, only the dry weather sWERs are considered. Per the Interim Guidance, the fWER can be calculated as the geometric mean[5] of the three or more sWER samples. **Table 43** presents a summary of the fWERs calculated as the geometric mean of all of the sWERs using both the Interim Guidance and Streamlined Procedure methodologies. Additionally, because there were no significant differences detected among the individual main stem sites' sWERs, those data were combined to calculate one fWER for LA River Reaches 1, 2, 3, and 4. Unlike the main stem sites, fWER values were calculated for each tributary site separately.

Table 43. Summary of Final WERs (fWER)

Waterbody	Sampling Site	Number of Dry Weather sWERs	fWER based on Interim Guidance sWERs	fWER based on Streamlined Procedure sWERs
Main Stem Sites				
LAR Reach 1	LAR @ Wardlow Rd	6	10.13	4.503
LAR Reach 2	LAR @ Del Amo Blvd	6	9.987	4.441
LAR Reach 2	LAR @ Washington Blvd	6	7.712	3.430
LAR Reach 3 (upstream of LAGWRP)	LAR @ Figueroa St	6	8.281	3.402
LAR Reach 3 (downstream of LAGWRP)	LAR @ Colorado Blvd	6	10.76	4.420
LAR Reach 3	LAR @ Zoo Dr	6	12.02	4.440
LAR Reach 4	LAR @ Upstream BWC	6	9.675	3.401
All LAR Main stem Reaches[1]		42	9.700	3.971
Tributary Sites				
Compton Creek	Compton Creek @ LAR	6	7.746	3.364
Rio Hondo	Rio Hondo @ LAR	5	21.87	9.691
Arroyo Seco	Arroyo Seco @ LAR	6	3.375	1.324
Verdugo Wash	Verdugo Wash @ LAR	6	5.294	2.176
BWC (downstream of BWRP)	BWC @ LAR	6	13.50	4.746
BWC (upstream of BWRP)	BWC Upstream of BWRP	6	15.04	5.441
Tujunga Wash	Tujunga Wash @ LAR	6	22.89	8.279

1. There were no significant differences between the individual main stem sites sWERs and the data were pooled to calculate one fWER for LA River Reaches 1, 2, 3, and 4.

BWRP: Burbank Water Reclamation Plant

LAGWRP: Los Angeles Glendale Water Reclamation Plant

[5] The geometric mean is the *n*th root, of a product of *n* factors ($\text{Geometric mean} = \sqrt[n]{y_1 * y_2 * y_3 * \ldots y_n}$) and is a measure of the central tendency of a data set that minimizes the effects of extreme values. The geometric mean provides a better estimate of the central value of log normally distributed data than the arithmetic mean.

7.4 EVALUATION OF FINAL WERS

The following presents information to evaluate the fWERs presented in **Table 43**. The evaluation includes a comparison of the fWERs presented in **Table 43** to similar studies conducted in California and the Los Angeles River. Additionally, the fWERs are evaluated in the context of their expected protectiveness.

7.4.1 *Comparison to Previous Studies*

A number of copper WER studies have been completed in California. **Table 44** presents the fWERs calculated using the Interim Guidance and Streamlined Procedure for several freshwater copper WER studies that utilized the same test species (*C. dubia*) and collected samples during dry weather in a manner similar to the WER Study. The summary indicates that similar studies produce similar fWERs. **Table 45** presents the fWERs for the 2008 Study completed by POTWs in the LA River and Burbank Western Channel. The 2008 Study results were used to amend the LA River Metals TMDL in 2010. Rather than using a fWER for each site, the amended TMDL set one fWER equal to the geometric mean of the Streamlined Procedure-calculated sWERs for LA River Reaches 1, 2, and 3. The fWER results for the two studies are similar.

Table 44. Summary of Results of Freshwater WER Studies Conducted Using *C. dubia*

Study Name	Waterbodies	Number of Samples Used to Calculate fWER	fWER based on Interim Guidance sWERs	fWER based on Streamlined Procedure sWERs
2008 Grass Valley Copper and Zinc WERs	Wolf Creek	3	Not Readily Available	6.37
2006 Calleguas Creek Copper WER	CCW Reach 2	4	8.241	7.185
Chollas Creek Copper, Lead, and Zinc WERs[1]	Chollas Creek	4 to 5	19.94 to 30.18	4.64 to 5.56

1. Multiple sites were utilized, thus the range of calculated fWERs for the sites are presented.

Table 45. Summary of 2008 LA River Copper Study fWERs and Current Study fWERs

Waterbodies	Number of Samples Used to Calculate fWER		fWER based on Interim Guidance sWERs		fWER based on Streamlined Procedure sWERs	
	2008 Study	Current Study	2008 Study	Current Study	2008 Study	Current Study
LAR Reaches 1, 2, 3, 4[1]	12	42	9.602	9.700	3.960	3.971
LAR Reach 1	4	6	11.10	10.13	4.577	4.503
LAR Reach 2[2]	4	6	9.343	7.712-9.987	3.851	3.430-4.441
LAR Reach 3[2]	4	6	8.534	8.281-12.02	3.518	3.402-4.420
LAR Reach 4	3	6	14.20	9.675	6.071	3.401
BWC (below BWRP)	3	6	13.27	13.50	5.676	4.746

1. The 2010 LA River Metals TMDL Amendment incorporated an fWER based on samples collected in Reaches 1, 2, and 3.
2. Multiple sites were utilized in the current study, as such the range of calculated fWERs for all sites within the reach are presented.

7.4.2 *Investigation of WERs Larger than Five*

Of the 103 sWERs presented in **Table 21** and **Table 22**, 90 sWERs (87%) calculated utilizing the Interim Guidance and 37 sWERs (36%) calculated utilizing the Streamlined Procedure were larger than five. Section I part 7.c of the Interim Guidance discusses investigating WER results larger than five. The following three avenues of investigation are suggested:

7.c.1. If the endpoint obtained using the laboratory dilution water was lower than previously reported lowest value or was more than a factor of two lower than an existing Species Mean Acute Value in a criteria document, additional tests in the laboratory dilution water are probably desirable.

7c.2. If a total recoverable WER was larger than five but the dissolved WER was not, is the metal one whose WER is likely to be affected by TSS and/or TOC and was the concentration of TSS and/or TOC high? Was there a substantial difference between the total recoverable and dissolved concentrations of the metal in the downstream water?

7.c.3. If both the total recoverable and dissolved WERs were larger than 5, is it likely that there is nontoxic dissolved metal in the downstream water?

Although not directly applicable to the suggested avenues of investigation, as presented in **Section 7.4.1** (**Table 44** and **Table 45**), a number of copper WER studies completed in California resulted in WERs greater than five. The results of these studies suggest that WERs larger than five are not anomalous.

Aside from conducting an investigation, it should be noted the Interim Guidance does not indicate what to do with WERs larger than five based on the results of the investigation. The Streamlined Procedure does not contain a provision to conduct an investigation of WERs larger than five. This is likely partially due to the fact that the Interim Guidance was developed before a significant number of site-specific studies were conducted. As such, there were concerns that site-specific criteria might be higher than would be appropriately protective because of variability or error in toxicological measurements. Lab water EC50s calculated in site-specific studies could be significantly lower than those used in development of the criteria, which could drive up the value of the WER, hence the requirement in the Interim Guidance to investigate WERs larger than five and the requirement in the Streamlined Procedure to use the larger of the lab water EC50 or SMAV to calculate the WER. Because only dissolved WERs were developed per the Work Plan as determined in conjunction with the TAC and LARWQCB staff, a comparison between total and dissolved WERs is not applicable to the WER Study and no additional discussion is provided regarding Section I parts 7.c.2 and 7.c.3. Thus the following considers the suggested avenue of investigation identified in Section I parts 7.c.1. Specifically, the following evaluates whether the endpoint obtained using the laboratory dilution water (or lab water in the case of the WER Study) was lower than previously reported lowest value, was more than a factor of two lower than an existing SMAV in a criteria document, and if so, whether it has any meaning with regard to calculating WERs for the LA River. Additionally, the Interim Guidance indicates that a comparison of test results between laboratories provides a check on all aspects of the test procedure. Furthermore, acceptability of lab water must be evaluated by comparing lab water results obtained through the WER Study to comparable lab dilution water used in other relevant studies. If the results differ by more than a factor of 1.5 from the values from the other studies, new and old data must be evaluated to determine whether the lab water used in the WER determination is acceptable. The EC50s from various studies used to calculate the SMAV presented in the Streamlined Procedure may be used as results from comparable studies.

The difference between hardness-normalized lab water EC50s generated for the dry weather tests and the hardness-normalized SMAV, is greater than a factor of 1.5 for all but one dry weather events with an average difference of 2.5. The authors of the Streamlined Procedure noted that such differences are fairly common and that the lab water EC50s are usually less than the SMAV while still within a reasonable range. The lab water EC50s do fall within the observed range of EC50s used to calculate the SMAV. Note that only lab water EC50s generated for the dry weather tests are considered as the wet weather data are not utilized in calculating the fWERs.

The differences between the lab water EC50s and SMAV may be partly attributed to differences in the lab water used in the WER Study and waters used in development of the SMAV (*e.g.*, natural vs. lab water). Other constituents that affect copper toxicity may have been present in lab waters used to generate the SMAV that were not present in the lab water used in the WER Study. As described in **Section 4.2**, lab water used in the WER Study was reconstituted water created according to USEPA guidance. Lab waters used in developing the SMAV included “natural” waters obtained from lakes that may have higher levels of constituents that affect copper toxicity, such as DOC, that were not present at comparable levels in the lab water used in the WER Study. Lower lab water EC50s may result in an artificially high WER as shown in the equation below.

$$sWER = \frac{\text{Site Water EC50}}{\text{Hardness-normalized Lab Water EC50}}$$

However, using the SMAV to calculate WERs, as opposed to using lab water EC50s, addresses the potential for an artificial inflation of WER values caused by differences in the lab water and/or species sensitivity. The authors of the Streamlined Procedure noted concern about the values of the lab-water EC50 used for calculating WERs as lab water EC50s, which are typically within a reasonable range, are usually less than the SMAV. The lower lab water EC50s would create a slight bias toward increasing the WER. The potential for high biasing the WER was intended to be eliminated in the Streamlined Procedure by requiring that the greater of the lab water EC50 or the SMAV be used in the WER calculation. As noted in the Streamlined Procedure, “This stipulation tends to slightly depress the WER under the Streamlined Procedure.”

7.4.3 *Protectiveness of Final WERs*

The protectiveness of the Interim Guidance and Streamlined Procedure-based fWERs was evaluated by comparing fWER-adjusted copper criteria to No Observed Effect Concentrations (NOECs) that were estimated from the actual EC50s measured during sample collection. This method provides an intuitive and straightforward screening-level assessment of whether the fWERs would have been protective for the samples analyzed for the study *if ambient concentrations of copper in those samples had equaled the fWER-adjusted criteria*. In other words, if copper concentrations in the samples were equal to the SSO, would we expect to see toxicity to Ceriodaphnia or other similarly sensitive species?

To evaluate the protectiveness of fWERs presented in **Table 43**, results for wet weather samples were compared to the acute SSO and results for dry weather samples were compared to the chronic SSO. This approach is intended to be consistent with the Metals TMDL, which applies the chronic objective during dry weather and the acute objective during wet weather.

The diagnostic ratio was calculated by dividing the measured EC50 for each sample by the product of the CTR hardness-adjusted criterion and the fWER for each site as follows and taking the average of the ratios for the site:

$$Ratio = \frac{Measured\ EC50}{Hardness\ Adjusted\ CTR\ Criterion * fWER}$$

The average ratios for each waterbody were first compared to a conservative screening threshold ratio of 2.0. When the average ratio for a sample was greater than 2.0, the fWER was considered protective for that waterbody. The use of the threshold ratio of 2.0 in this context is based on the process for determining final WQC as outlined in USEPA's 1984 Criteria Guidelines. These Guidelines require the final acute value (FAV) to be divided by two to determine the criterion maximum concentration (CMC), also known as the acute criterion. In the criteria development process, the FAV is the effect concentration associated with a hypothetical genus that represents the 5th percentile of overall sensitivity (e.g., more sensitive than 95% of all genera based on currently available data), and the factor of 2 is used to adjust the value to an approximate NOEC that is the CMC and acute criterion. Dividing the FAV by two is conservative to provide the intended level of protection for the CMC for a wide variety of chemicals. Because the dose-response for copper (and other trace metals) is typically "steeper" than many other chemicals (e.g., the actual ratio between the NOEC and EC50 is approximately 1.2 for copper), the ratio of 2.0 serves as a conservative initial screening threshold to assess the protectiveness of the proposed copper fWERs and SSOs.

If the average EC50/SSO ratio was less than 2.0, further investigation of the protectiveness of the fWER was warranted, including comparison to a copper-specific threshold ratio of 1.2. This second threshold is based on the steeper dose response for copper, with ratios greater than 1.2 indicating that the SSO is less than the NOEC and still provides the level of protection intended for the acute or chronic criterion. If average ratios were less than 1.2, this would be interpreted as a level of protection lower than intended for the criteria.

Table 46 presents the average ratios for each individual site as well as for the combined main stem sites, and **Figure 6** illustrates the EC50/SSO ratios for the LA River and tributaries based on Interim Guidance and Streamlined Procedure WERs and compares the ratios to the level of protection benchmarks of 2.0 and 1.2 described above. The key findings of the evaluation are summarized below.

- The average ratios calculated using the Interim Guidance for the LA River and most tributaries were less than 1.2, and several tributaries had average ratios below 1.0 (i.e., average EC50s were below the SSO) during dry or wet weather conditions. This clearly indicates that the Interim Guidance fWERs would not provide the level of protection intended for the criterion, and no additional investigation was conducted.

- Average ratios calculated using the Streamlined Procedure fWERs were greater than the 2.0 threshold for all sites in dry and wet weather, with the exception of Rio Hondo during wet weather. This indicates that the Streamlined Procedure fWERs provides the intended level of protection and a substantial margin of safety for those sites by generating site-specific objectives that are below the NOEC.

Table 46. Comparison of the Ratio of EC50 Results to Adjusted CTR Copper Criteria Using fWERs Calculated Using Interim Guidance and Streamlined Procedure sWERs

Waterbody	Sampling Site	Average Ratios for Dry Weather Based on Chronic CTR Criteria Adjusted by fWERs		Average Ratios for Wet Weather Based on Acute CTR Criteria Adjusted by fWERs	
		Interim	Streamlined	Interim	Streamlined
Main Stem Sites					
LAR Reach 1	LAR @ Wardlow Rd	1.20	2.69	1.30	2.93
LAR Reach 2	LAR @ Del Amo Blvd	1.20	2.70	0.94	2.12
LAR Reach 2	LAR @ Washington Blvd	1.20	2.69		
LAR Reach 3 (upstream of LAGWRP)	LAR @ Figueroa St	1.11	2.69	1.01	2.45
LAR Reach 3 (downstream of LAGWRP)	LAR @ Colorado Blvd	1.13	2.74		
LAR Reach 3	LAR @ Zoo Dr	0.98	2.66		
LAR Reach 4	LAR @ Upstream BWC	0.96	2.73	0.87	2.49
All LAR Main stem Reaches[1]		1.12	2.72	1.01	2.48
Tributary Sites					
Compton Creek	Compton Creek @ LAR	1.22	2.80	1.64	3.78
Rio Hondo	Rio Hondo @ LAR	1.30	2.93	0.71	1.60
Arroyo Seco	Arroyo Seco @ LAR	1.17	2.99	3.21	8.18
Verdugo Wash	Verdugo Wash @ LAR	1.24	3.01	2.38	5.78
BWC (below BWRP)	BWC @ LAR	0.94	2.69	0.85	2.43
BWC (above BWRP)	BWC Upstream of BWRP	1.01	2.78		
Tujunga Wash	Tujunga Wash @ LAR	1.07	2.96	0.94	2.59

1. There were no significant differences between the individual main stem sites sWERs and the data were pooled to calculate one fWER for LA River Reaches 1, 2, 3, and 4.

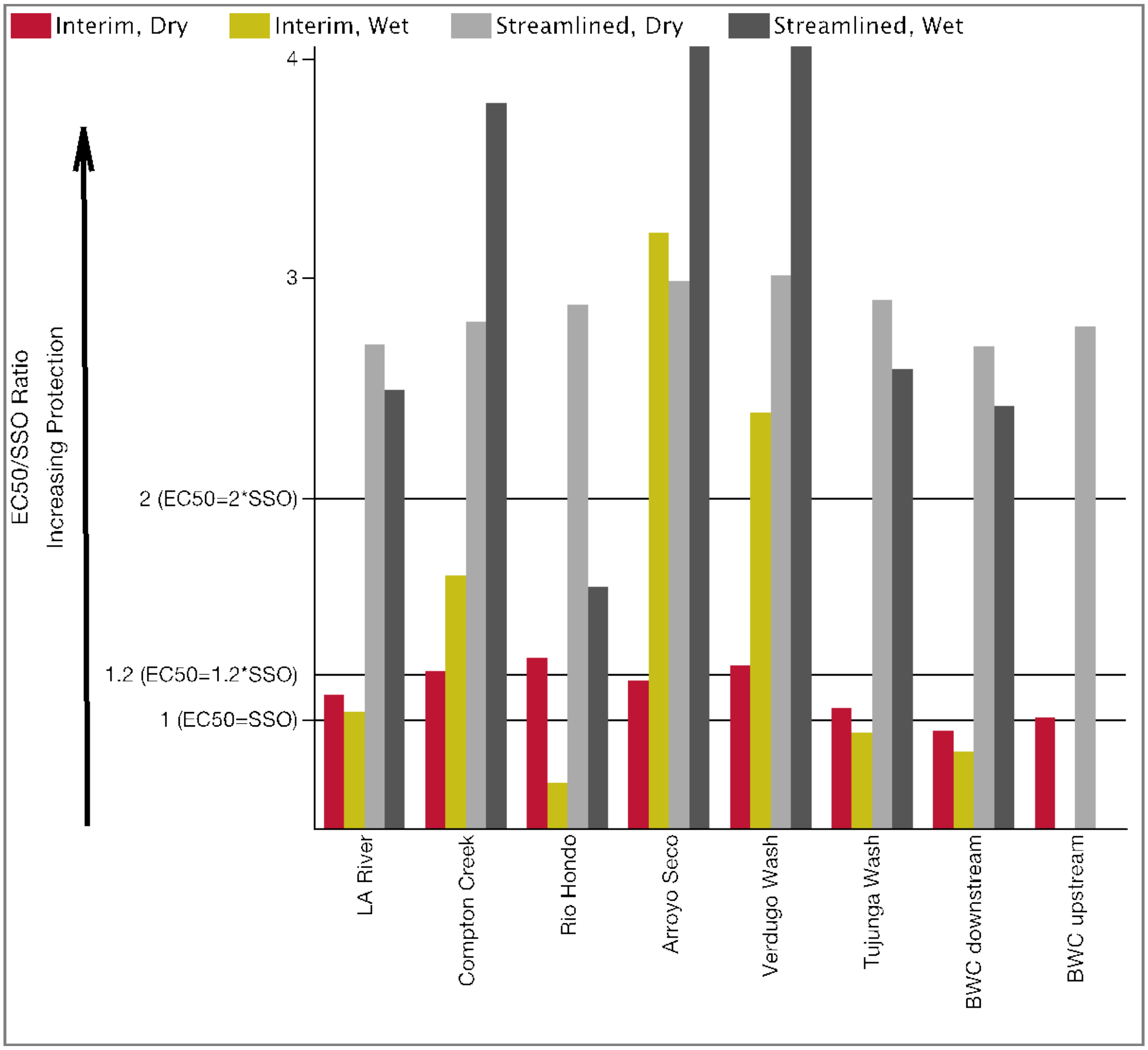


Figure 6. Distribution of Ratios of Sample EC50 Results to Adjusted CTR Copper Criteria

Because the wet weather average ratio for Rio Hondo was between 2.0 and 1.2, additional investigation was conducted to confirm that the intended level of protectiveness would be provided by the Streamlined Procedure fWER for Rio Hondo (9.691). The average ratio (1.6) indicated that the SSO would be expected to be less than the NOEC in wet weather, and the dose response data for individual toxicity tests were evaluated to determine whether the fWER would be protective for the two wet weather samples tested for this tributary. The approach used for the first sample (Event 1W) was to compare the ratio of the EC50 to the EC10 (considered to approximate the NOEC) for the sample to the copper-specific threshold ratio (1.2) as well as the EC50 to SSO ratio. The sample EC50/EC10 ratio (94 µg/L/77 µg/L) for the first wet weather event (1W) was 1.22, confirming that the sample dose response conformed to a "typical" copper dose response, and that the fWER would result in a SSO below the EC10 and NOEC and is therefore as protective as intended for the criterion. This relationship is illustrated in **Figure 7**.

An EC10 could not be calculated for the second Rio Hondo wet weather event (Event 2W). In this case, the ratio of the EC50 (71 µg/L) to the sample-specific NOEC (≥51 µg/L) was compared to the copper-specific threshold ratio (1.2) and the EC50 to SSO ratio. The sample EC50/EC10 ratio (71 µg/L/51 µg/L) for the second wet weather event (2W) was 1.39, again confirming that the sample dose response conformed to a "typical" copper dose response, and that the fWER would result in a SSO below the EC10 and NOEC and is therefore as protective as intended for the criterion. A visual examination of the dose-response and SSO is provided in **Figure 8**, which also illustrates that the fWER is protective in this case.

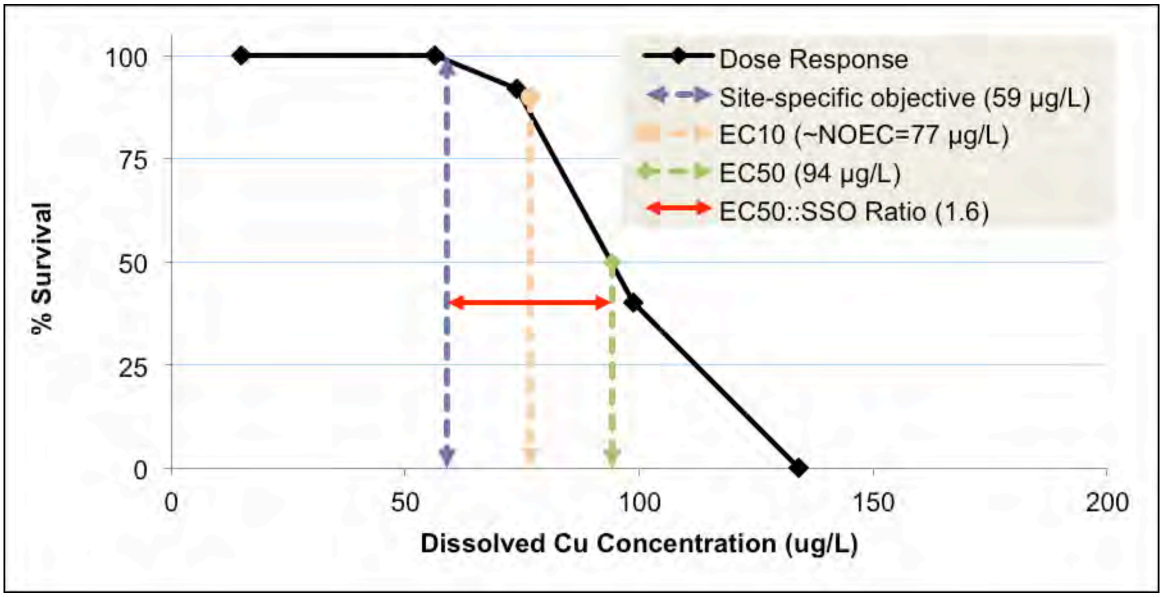


Figure 7. Rio Hondo Event 1W Dose Response Curve

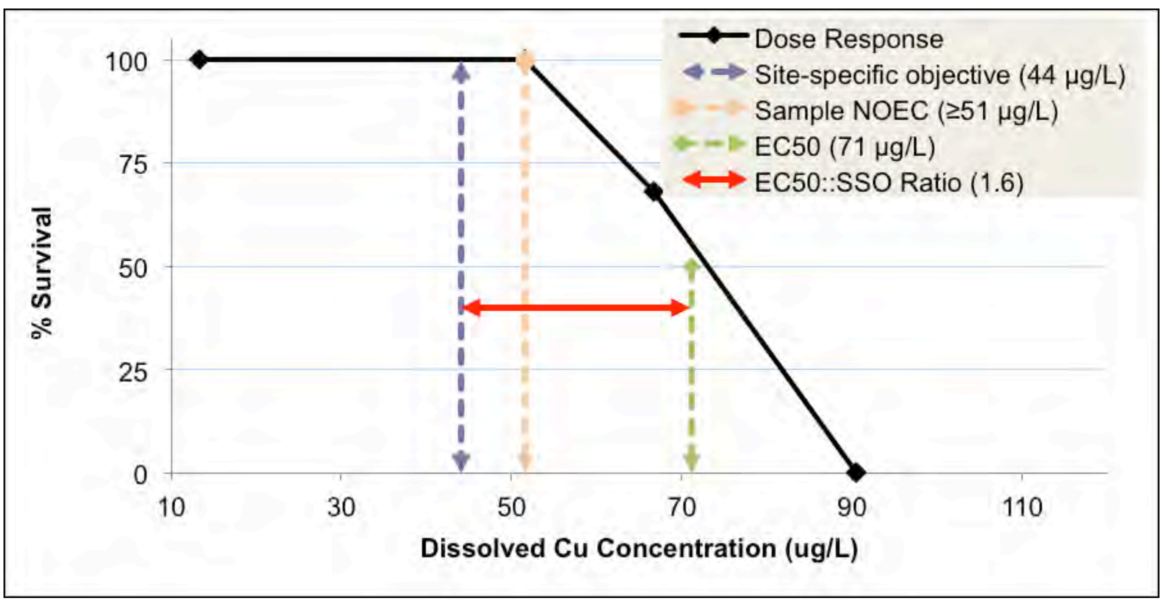


Figure 8. Rio Hondo Event 2W Dose Response Curve

7.4.4 *Summary*

The fWERs presented in **Table 43** were evaluated by comparing fWERs from the WER Study to fWERs from previously conducted studies (**Section 7.4.1**), investigating WERs larger than five (**Section 7.4.2**), and determining the protectiveness of fWERs (**Section 7.4.3**).

WER Study fWERs were compared to fWERs from three previous freshwater copper WER studies conducted in a similar manner as the WER Study [conducted in California using the same test species (*C. dubia*)]. The comparison indicated that similar studies yield similar fWERs (**Table 44**). In addition, WER Study fWERs were compared to the fWERs from the 2008 Study for copper conducted in the LA River. This comparison indicated that fWERs for the WER Study and the 2008 Study are similar (**Table 45**).

The Interim Guidance discusses investigating WERs larger than five as there were concerns during Interim Guidance development that site-specific criteria might be higher than would be appropriately protective. This may be due to variability or error in toxicological measurements including lab water EC50s calculated in site-specific studies being significantly lower than those used in development of the criteria. The use of the Streamlined Procedure approach to calculate the sWERs (i.e., utilizing the higher of the lab water hardness-normalized EC50 and the hardness-normalized SMAV) addresses the potential for an artificial inflation of WER values caused by differences in the lab water and/or species sensitivity. Further, use of the Streamlined Procedure approach to calculate the WERs overcomes concerns in the Interim Procedure about using too low lab water EC50s to derive too high WERs (i.e., WERs larger than five). The potential for high biasing the WER was intended to be eliminated in the Streamlined Procedure by requiring that the greater of the lab water EC50 or the SMAV be used in the WER calculation.

The protectiveness of the Interim Guidance and Streamlined Procedure-based fWERs was evaluated by comparing fWER-adjusted copper criteria to No Observed Effect Concentrations (NOECs) that were estimated from the actual EC50s measured during sample collection. The key findings of the evaluation are.

- The average ratios calculated using the Interim Guidance for the LA River and most tributaries were less than 1.2, and several tributaries had average ratios below 1.0 (i.e., average EC50s were below the SSO) during dry or wet weather conditions. This clearly indicated that the Interim Guidance fWERs would not provide the level of protection intended for the criterion, and no additional investigation was conducted.
- Average ratios calculated using the Streamlined Procedure fWERs were greater than the 2.0 threshold for all sites in dry and wet weather, with the exception of Rio Hondo during wet weather. This indicated that the Streamlined Procedure fWERs provide the intended level of protection and a substantial margin of safety for those sites by generating site-specific objectives that are below the NOEC.

Because the wet weather average ratio for Rio Hondo was between 2.0 and 1.2, an additional investigation was conducted and indicated that the fWER for Rio Hondo would result in a SSO as protective as intended for the criterion.

7.5 RECOMMENDED FINAL WER

The fWERs in the WER Study were calculated based on two USEPA approaches (the Interim Guidance and the Streamlined Procedure). The fWERs in the WER Study are within the range of those in similar studies conducted in California. Furthermore, the fWERs generated using data collected during the 2008 Study are very similar to those of the WER Study. The Streamlined Procedure-based fWERs were consistently observed to be protective of aquatic life; therefore, the recommended fWERs presented in **Table 47** are the Streamlined Procedure-based fWERs. In addition, the recommended fWER for the main stem of the LA River is based on combining all the dry weather sWER data for Reaches 1, 2, 3, and 4. The reasoning is there were no significant differences detected among the individual main stem sites sWERs. Additionally, the Streamlined Procedure fWER for those sites is almost exactly the same as the fWER incorporated into the 2010 Metals TMDL Amendment based on the 2008 Study results. It is recommended to calculate the fWERs for the tributary sites independent of one another due to differing sWERs between tributary sites. The fWERs for the tributary sites in **Table 47** were calculated using the Streamlined Procedure for each site because the sWERs differ among different tributary sites.

Table 47. Recommended fWERs

Waterbody	Recommended fWER
Main Stem Sites	
LAR Reaches 1 through 4	3.971
Tributary Sites	
Compton Creek	3.364
Rio Hondo	9.691
Arroyo Seco	1.324
Verdugo Wash	2.176
BWC downstream BWRP	4.746
BWC upstream of BWRP	5.441
Tujunga Wash	8.279

Section 8. Biotic Ligand Model Analysis

USEPA released a February 2007 revision document to the *Aquatic Life Ambient Freshwater Quality Criteria – Copper* (hereafter referred to as BLM-based 2007 Copper Criteria Document) utilizing the BLM version 2.2.3 (March 2007) to calculate copper water quality criteria (WQC). The BLM is a computer model that predicts speciation and toxicity of trace metals to aquatic organisms based on concentrations of complexing ligands (e.g., organic carbon) and competing cations in sample water. The BLM-based 2007 Copper Criteria Document provides states with guidance in establishing water quality standards and does not constitute a regulation.

Water quality parameters required as inputs to the BLM were collected as part of the WER Study. **Appendix 5** presents the BLM analysis, the input parameters used, and the results. BLM analyses were conducted to provide a comparison of:

- BLM-predicted copper EC50s to EC50s measured during individual toxicity tests.
- BLM-generated copper WQC to California Toxics Rule (CTR) hardness-based criteria adjusted by the sWERs.

The following is a brief summary of the results.

8.1 COMPARISON OF BLM PREDICTED EC50S AND MEASURED EC50S

As stated previously, toxicity tests were conducted to determine EC50s for copper in the LA River main stem and its tributaries. The BLM version 2.2.3 was used to model the analytical data, presented in Table A-1 of **Appendix 5**, to predict copper EC50s for *Ceriodaphnia dubia* (*C. dubia)* for each sampling event and location.

Observed and predicted EC50s for copper for each individual sample as well as a ratio between these results are presented in **Figure 9**. The dotted-lines in **Figure 9** illustrate a deviation factor of two from a 1:1 association between toxicity test and BLM results. The ratio between the measured and predicted copper EC50 results provides an indication of how closely the BLM predicted the EC50 compared to the toxicity test results. The closer the EC50 is to the 1:1 line, the closer the BLM predicted the toxicity test EC50. If the ratio of predicted to measured EC50 is below the 1:1 line (i.e., the ratio is less than one) the BLM predicted an EC50 that was lower than the measured EC50. If the ratio is above the 1:1 line (i.e., the ratio is greater than one), the BLM predicted an EC50 that was higher than the measured EC50. Summary statistics for predicted and measured copper EC50 ratios are presented in **Table 48**.

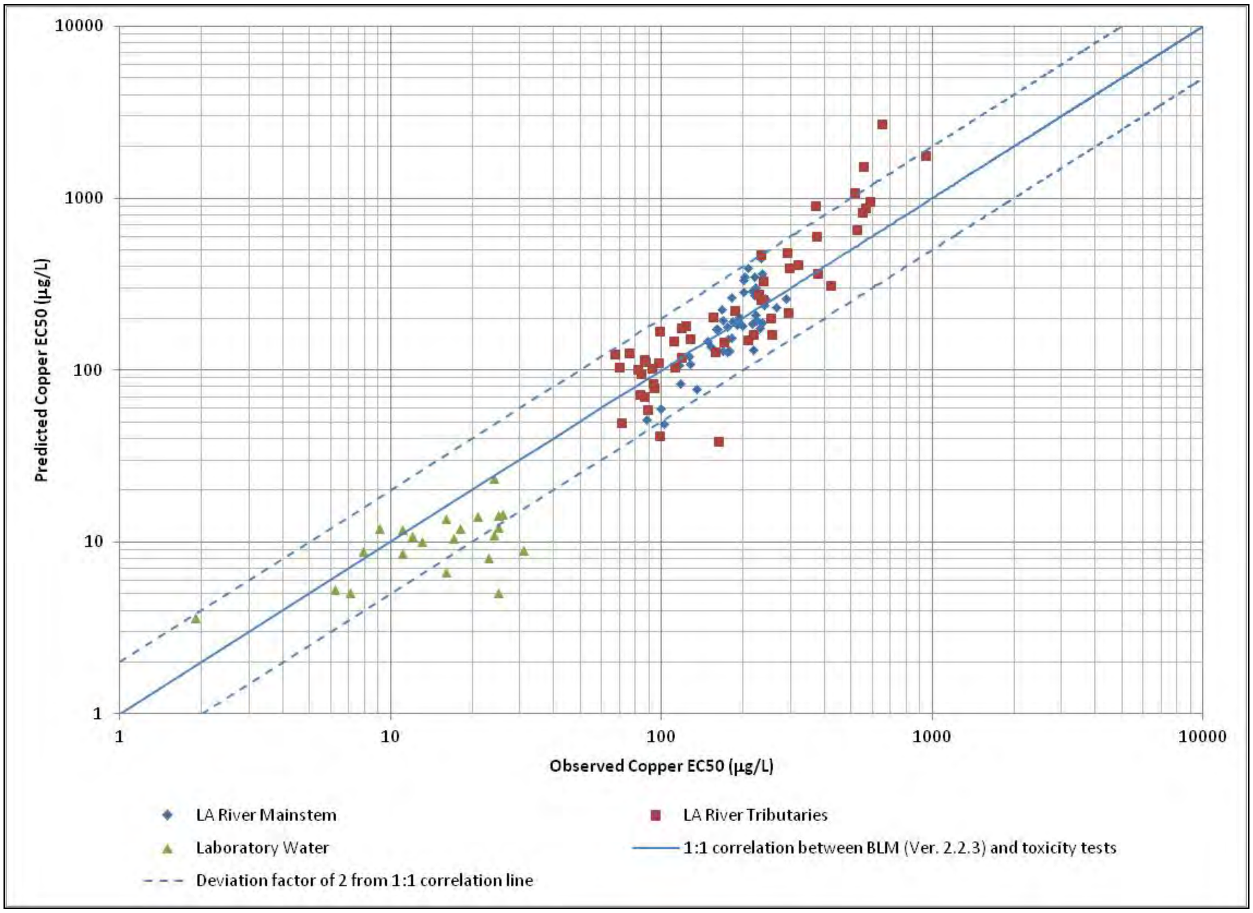


Figure 9. Observed and Predicted (BLM Version 2.2.3) Copper EC50 Results

Table 48. Summary Statistics for Predicted (BLM Version 2.2.3) to Observed Copper EC50 Ratios

Site	n	Mean	Median	Range	Standard Deviation
Los Angeles River Main Stem	50	1.1	1.0	0.5-1.9	0.3
Los Angeles River Tributaries	53	1.3	1.2	0.2-4.2	0.6
All Los Angeles River Sites	103	0.8	0.7	0.2-1.9	0.4
Laboratory Water	24	1.1	1.0	0.2-4.2	0.5
All Sites	127	1.2	1.1	0.2-4.2	0.5

The BLM generally performed well in predicting EC50s for copper. Nearly all (122 of 127) predicted EC50s for copper were within a deviation factor of two when compared to the observed EC50s. The median differences between predicted and observed EC50s for copper were -1%, 21%, and -30% for LA River main stem, LA River tributaries, and laboratory water, respectively.

The BLM appears to underestimate EC50s for copper compared to the observed EC50s for copper for wet weather samples. It should be noted that the wet weather sample size is significantly smaller than the dry weather sample size given that the majority of samples were collected during the critical condition (dry weather). A summary comparing predicted and measured EC50s for copper during dry and wet weather events is presented in Table 49.

Table 49. Summary Statistics for Predicted (BLM Version 2.2.3) to Observed Copper EC50 Ratios for Wet and Dry Weather

Site		n	Mean	Median	Range	Standard Deviation
Los Angeles River Main Stem	Dry	42	1.12	1.04	0.60-1.92	0.33
	Wet	8	0.71	0.66	0.48-0.95	0.18
Los Angeles River Tributaries	Dry	41	1.44	1.33	0.63-4.18	0.63
	Wet	12	0.76	0.83	0.24-1.11	0.23

8.2 COMPARISON OF WER- AND BLM-BASED COPPER CRITERIA

As part of this analysis, copper water quality criteria were derived for each sampling event at each sampling location using the BLM. These BLM-derived copper criteria were compared to the copper criteria calculated using the sWER and CTR hardness-adjusted criteria equation.

The BLM version 2.2.3 was used to model the analytical data, presented in Table A-1 of **Appendix 5**, to predict the CMC (or acute criterion) for each sampling event and location. Sample-specific CMCs for copper calculated from the sWERs and CTR hardness-based equation and BLM-derived CMCs for copper are presented in **Figure 10**. The dotted-line in **Figure 10** represents a deviation factor of two from a 1:1 association between CTR hardness-based equation and sWER-calculated and BLM-derived CMCs for copper. The ratio between the calculated and BLM-derived CMCs for copper provides an indication of how closely the BLM derived CMCs compare to the CTR hardness-based equation and sWERs. The closer the ratio is to one, the closer the two criteria match. If the ratio is less than one, the BLM derived a CMC that was lower than sWER-derived CMC. If the ratio is greater than one, the BLM derived a CMC that was higher than the sWER-derived CMC. A summary comparing calculated and BLM-derived CMCs for copper is presented in **Table 50**.

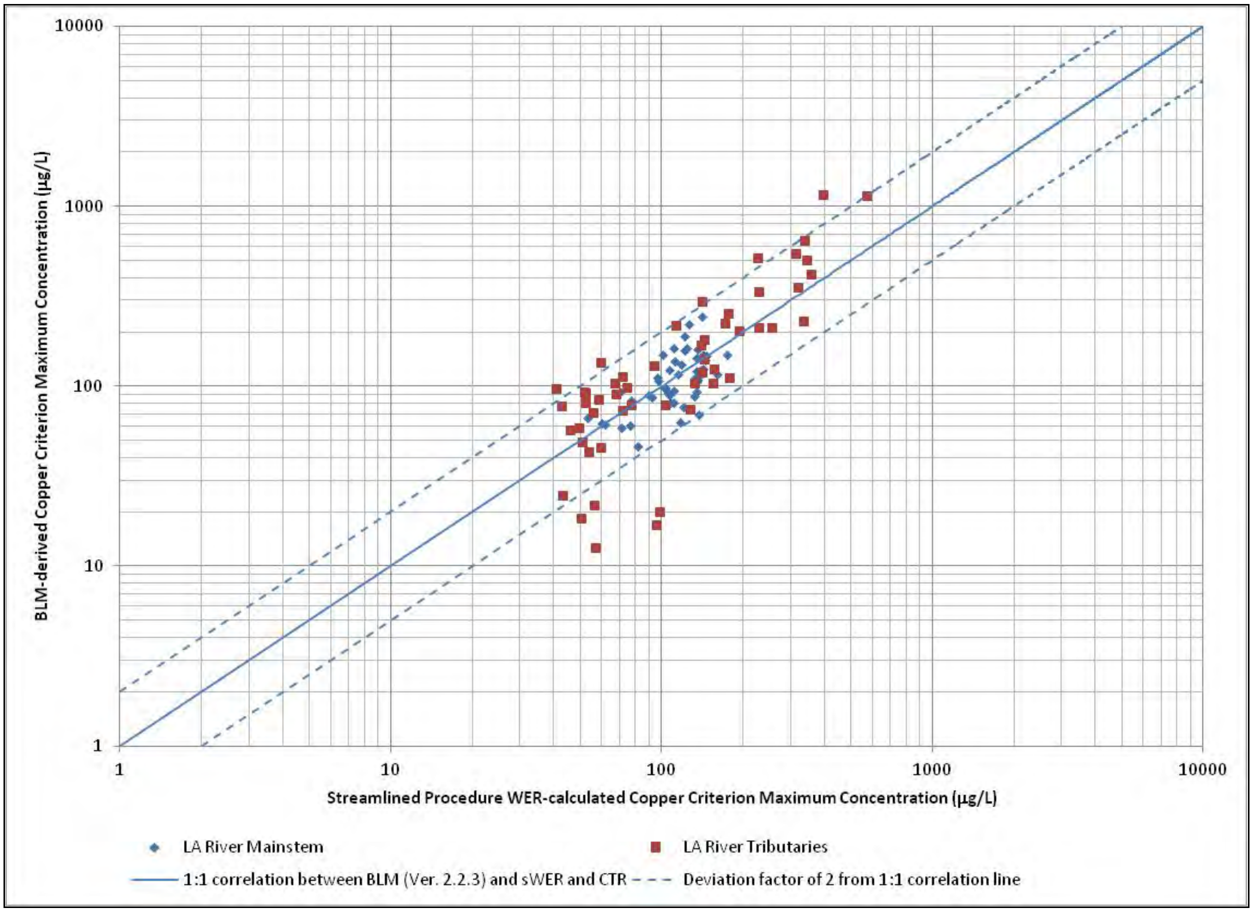


Figure 10. Comparison of Copper Criteria for Los Angeles River Samples

Table 50. Summary Statistics for Streamlined Procedure WER-calculated and BLM-derived Copper Criteria (µg/L)

Site	Result Type	n	Mean (µg/L)	Median (µg/L)	Range (µg/L)	Std Dev (µg/L)
Los Angeles River Main Stem	Streamlined Procedure WER criteria	50	115	117	53-174	27
	BLM criteria	50	113	109	46-245	41
Los Angeles River Tributaries	Streamlined Procedure WER criteria	53	146	103	41-572	115
	BLM criteria	53	198	105	13-1,164	240
All Los Angeles River Sites	Streamlined Procedure WER criteria	103	131	115	41-572	86
	BLM criteria	103	157	109	13-1,164	179

In general, the BLM and sWER-derived CMCs appear closely associated. Nearly all (98 of 103) BLM-derived CMCs were within a deviation factor of two compared to the CMCs derived using the sWERs. The median difference between BLM-derived and sWER-based CMCs for copper was approximately -5%.

8.3 CONCLUSIONS

In the 2008 Study, the BLM version 2.1.2 was used to assess the ability of the BLM to simulate EC50s and CMCs for copper in comparison with observed results from toxicity testing. In that study, the BLM generally predicted EC50s that were on average twice as high, and up to four times higher, than the measured EC50s. The BLM-based criteria results deviated from sWER and CTR hardness-based criteria by a factor of 1.3 on average to slightly more than 2. The differences between the predicted and observed EC50s and CMCs from the 2008 Study are likely due to the BLM versions and not using a site-specific sensitivity adjustment. The variance between BLM versions 2.1.2 and 2.2.3 is estimated to be no more than 10 percent (personal comm. Robert Santore, Hydroqual). A re-evaluation of 2008 Study data using BLM version 2.2.3 and the site-specific sensitivity adjustment may reaffirm the findings of this analysis.

Predicted EC50s and BLM-derived CMCs for copper were compared to the Copper WER Study toxicity test results and sWER- and CTR hardness-based equation CMCs, respectively, for the LA River main stem and its tributaries. In summary, the BLM appears to effectively simulate EC50s and calculate copper WQC when compared to toxicity test-based EC50s and sWER-based copper WQC, respectively. Based on this analysis, the BLM with the site-specific sensitivity adjustments could be used to supplement future WER testing.

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Appendix 1

Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

M A R C H 3 1 , 2 0 1 0

Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

Prepared for:

THE CITY OF LOS ANGELES BUREAU OF SANITATION WATERSHED PROTECTION DIVISION

Prepared by:

LARRY WALKER ASSOCIATES
SANTA MONICA, CA

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GLOSSARY OF ACRONYMS

µg/L	Micrograms per Liter
AWWA	American Water Works Association
BLM	Biotic Ligand Model
BMP	Best Management Practice
BPA	Basin Plan Amendment
BWC	Burbank Western Channel
BWRP	Burbank Water Reclamation Plant
CA	California
$CaCO_3$	Calcium Carbonate
CCC	Criterion Continuous Concentration
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CMC	Criterion Maximum Concentration
COC	Chain of Custody
CTR	California Toxics Rule
Cu	Copper
DCTWRP	Donald C. Tillman Water Reclamation Plant
DIC	Dissolved Inorganic Carbon
DOC	Dissolved Organic Carbon
EC50	50% Effect Concentration. The concentration which adversely affects 50% of the test species.
EPA	United States Environmental Protection Agency
FHDPE	Fluorinated High Density PolyEthylene (type of plastic used for environmental sampling containers)
ft/s	Feet per second
fWER	Final Water-Effect Ratio
GMAV	Genus Mean Acute Value
H_2SO_4	Sulfuric Acid
HDPE	High Density PolyEthylene (type of plastic used for environmental sampling containers)
HNO_3	Nitric Acid
kg/day	Kilograms per day
LA	Los Angeles
LAGWRP	Los Angeles-Glendale Water Reclamation Plant
LAR	Los Angeles River
LARF	Name of the flow gage at Firestone Boulevard
LART	Name of the flow gage at Tujunga Avenue
LARWQCB	Los Angeles Regional Water Quality Control Board
LC50	Median Lethal Effect Concentration. The estimated concentration resulting in 50% mortality.
LWA	Larry Walker Associates
MDL	Method Detection Limit
mg/L	Milligrams per Liter
MGD	Million Gallons per Day
MS/MSD	Matrix Spike/ Matrix Spike Duplicate
NA	Not Applicable

NaOH	Sodium Hydroxide
NIST	National Institute of Standard and Technology
NA	Not Applicable
NaOH	Sodium hydroxide
NOEC	No Observed Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
Pb	Lead
POTW	Publicly Owned Treatment Works
PPB	Parts per Billion or Micrograms per Liter
QA/QC	Quality Assurance/Quality Control
RL	Reporting Limit
RPA	Reasonable Potential Analysis
RPD	Relative Percent Difference
SC	Stakeholder Committee
SIP	Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California; a.k.a.: State Implementation Policy
SM	Standard Method. Laboratory test methodology hand books.
SMAV	Species Mean Acute Value
SPDA	Name of the flow gage on the Los Angeles River below the Sepulveda Dam
SRM	Standard Reference Materials
SSO	Site-Specific Objective
Study	The Recalculation and WER Study for the Los Angeles River
sWER	Sample WER
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Loads
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WEF	Water Environment Federation
WER	Water-Effect Ratio
WQC	Water Quality Criteria
WRP	Water Reclamation Plant
Zn	Zinc

Section 1. Introduction

1.1 BACKGROUND ON LA RIVER METALS TOTAL MAXIMUM DAILY LOAD

The Los Angeles River and Tributaries Total Maximum Daily Load (TMDL) for Metals was originally adopted on June 2, 2005 by the Los Angeles Regional Water Quality Control Board (LARWQCB), approved by the US Environmental Protection Agency (USEPA) on December 22, 2005, and became effective on January 11, 2006. In conformance with a Los Angeles County Superior Court writ of mandate the LARWQCB was required to perform a California Environmental Quality Act (CEQA) alternatives analysis. A revised TMDL with alternatives analysis was prepared, circulated, and adopted by the LARWQCB on September 6, 2007 and adopted by the SWRCB on June 17, 2008. The effective date of the current Los Angeles River and Tributaries Metals TMDL is October 29, 2008.

The TMDL was developed to address metals listings presented in the 1998 and 2002 303(d) lists as well as additional listings identified during TMDL development and subsequently added to the 2004/2006 303(d) list. Figure 1 presents the Los Angeles River (LA River or LAR) reaches and tributaries that were listed for copper, lead, and zinc on the 1998, 2002, and 2004/2006 303(d) lists. Additional listings exist for cadmium and selenium, but are not addressed in this Work Plan. Dry weather allocations for copper, lead, and zinc were assigned to all LA River reaches and tributaries with listings. Additionally, allocations were assigned to reaches and tributaries upstream of reaches with listings. Figure 2 presents the LA River reaches and tributaries assigned allocations for copper, lead, and zinc. Table 1 summarizes the copper, lead, and zinc listings, TMDL targets, and allocations. **Appendix 1** presents excerpts from the TMDL describing the environmental setting, beneficial use designations, California Toxic Rule (CTR) Water Quality Criteria for metals, and problem identification.

The Metals TMDL Basin Plan Amendment (BPA) provides the following information on targets and allocations:

> *The dry-weather targets for copper and lead are based on chronic California Toxics Rule (CTR) criteria. The dry-weather targets for zinc are based on acute CTR criteria. Copper, lead and zinc targets are dependent on hardness to adjust for site specific conditions and conversion factors to convert between dissolved and total recoverable metals. Copper and lead targets are based on 50th percentile hardness values. Zinc targets are based on 10th percentile hardness values. Site-specific copper conversion factors are applied immediately downstream of the DC Tillman and LA-Glendale water reclamation plants (WRP). CTR default conversion factors are used for copper, lead, and zinc in all other cases.*
>
> *Dry-weather waste load allocations for storm water are equal to storm drain flows (critical flows minus median POTW flows minus median open space flows) multiplied by reach-specific numeric targets, minus the contribution from direct air deposition.*

The implementation schedule in the BPA allows time for special studies that may serve to refine the estimate of loading capacity, waste load and/or load allocations, and other studies that may serve to optimize implementation efforts. The LARWQCB will re-consider the TMDL in 2011 in light of the findings of these studies. The following Work Plan is designed to meet the 2011 date for consideration. The Work Plan is focused on addressing the three metals that affect compliance during dry-weather conditions and received dry-weather allocations within the TMDL: copper, lead, and zinc. However, the results may be applicable during both dry and wet-weather conditions, as discussed in subsequent sections of the Work Plan.

The City of Los Angeles Bureau of Sanitation (BOS) Watershed Protection Division (WPD) has taken the lead role in the development of this Work Plan. The Los Angeles River Metals TMDL Implementation Group is taking the lead role in the implementation of this Work Plan to develop appropriate water quality criteria for the protection of the aquatic life beneficial use, which can be used to evaluate targets, loading capacity, waste load and/or load allocations, and insure implementation efforts efficiently and effectively address metals toxicity in the LA River and tributaries.

Table 1. Los Angeles Metals TMDL Dry Weather Listings, Targets, and Allocations for Copper, Lead, and Zinc

WRPs, Reaches, and Tributaries	Listings [1]			Critical Flow [2] (cfs)	Total Copper		Total Lead		Total Zinc	
	Copper	Lead	Zinc		Target [2] (ug/L)	Allocation [2] (kg/day)	Target [2] (ug/L)	Allocation [2] (kg/day)	Target [2] (ug/L)	Allocation [2] (kg/day)
LAR Reach 1	X	X	X [3]	2.58	23	0.14	12	0.07		
LAR Reach 2	X	X		3.86	22	0.13	11	0.07		
LAR Reach 3	X	X		4.84		0.06		0.03		
above LAGWRP					23		12			
below LAGWRP					26		12			
LAR Reach 4	X	X		5.13	26	0.32	10	0.12		
LAR Reach 5	X	X		0.75	30	0.05	19	0.03		
LAR Reach 6				7.2	30	0.53	19	0.33		
Arroyo Seco				0.25	22	0.01	11	0.01		
Bell Creek				0.79	30	0.06	19	0.04		
BWC	X			3.3		0.15		0.07		
above BWRP					26		14			
below BWRP					19		9.1			
Compton Creek	X	X		0.9	19	0.04	8.9	0.02		
Monrovia Canyon Creek		X					8.2			
Rio Hondo Reach 1	X	X	X	0.5	13	0.01	5	0.006	131	0.16
Tujunga Wash	X			0.03	20	0.001	6.6	10		
Verdugo Wash				3.3	23	0.18	12	0.1		

1 Listings identified on the 1998, 2002, and 2004/2006 303(d) lists.

2 Targets information obtained from LA River Metals TMDL Basin Plan Amendment (BPA) dry-weather numeric targets table, pg. 3 and allocations information from LA River Metals TMDL BPA storm water dry-weather WLAs table, pg. 8.

3 LAR Reach 1 is on the 2002 303(d) list for zinc; however, it was found not to be a dry-weather impairment during the LAR Metals TMDL process. See section 2.2.1 of the LA River Metals TMDL.

LAR – Los Angeles River BWC – Burbank Western Channel LAGWRP – City of Los Angeles Glendale Water Reclamation Plant

BWRP – City of Burbank Water Reclamation Plant

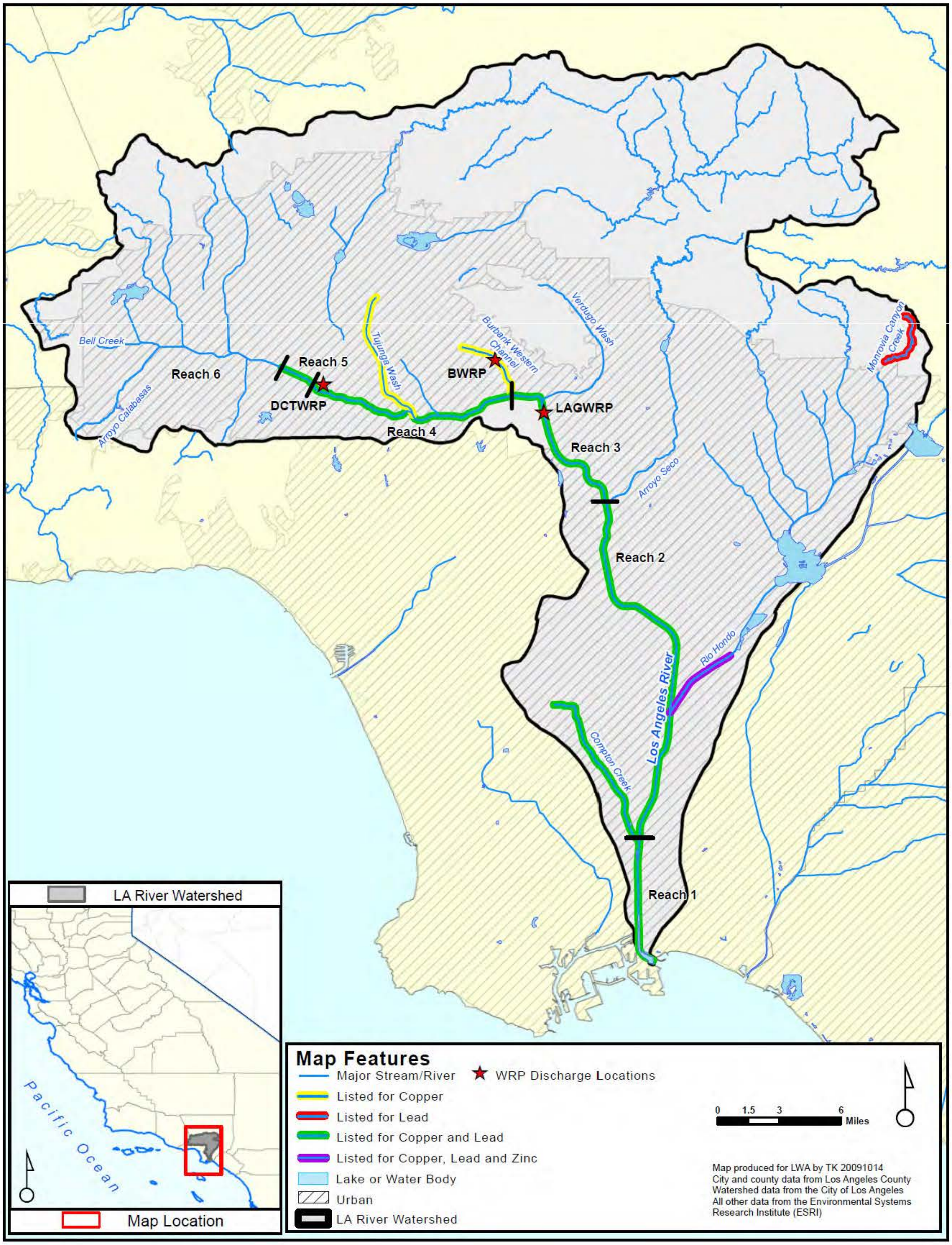

Figure 1. 1998, 2002, and 2004/2006 303(d) Dry Weather Listings for Copper, Lead, and Zinc Addressed in the Los Angeles River Metals TMDL

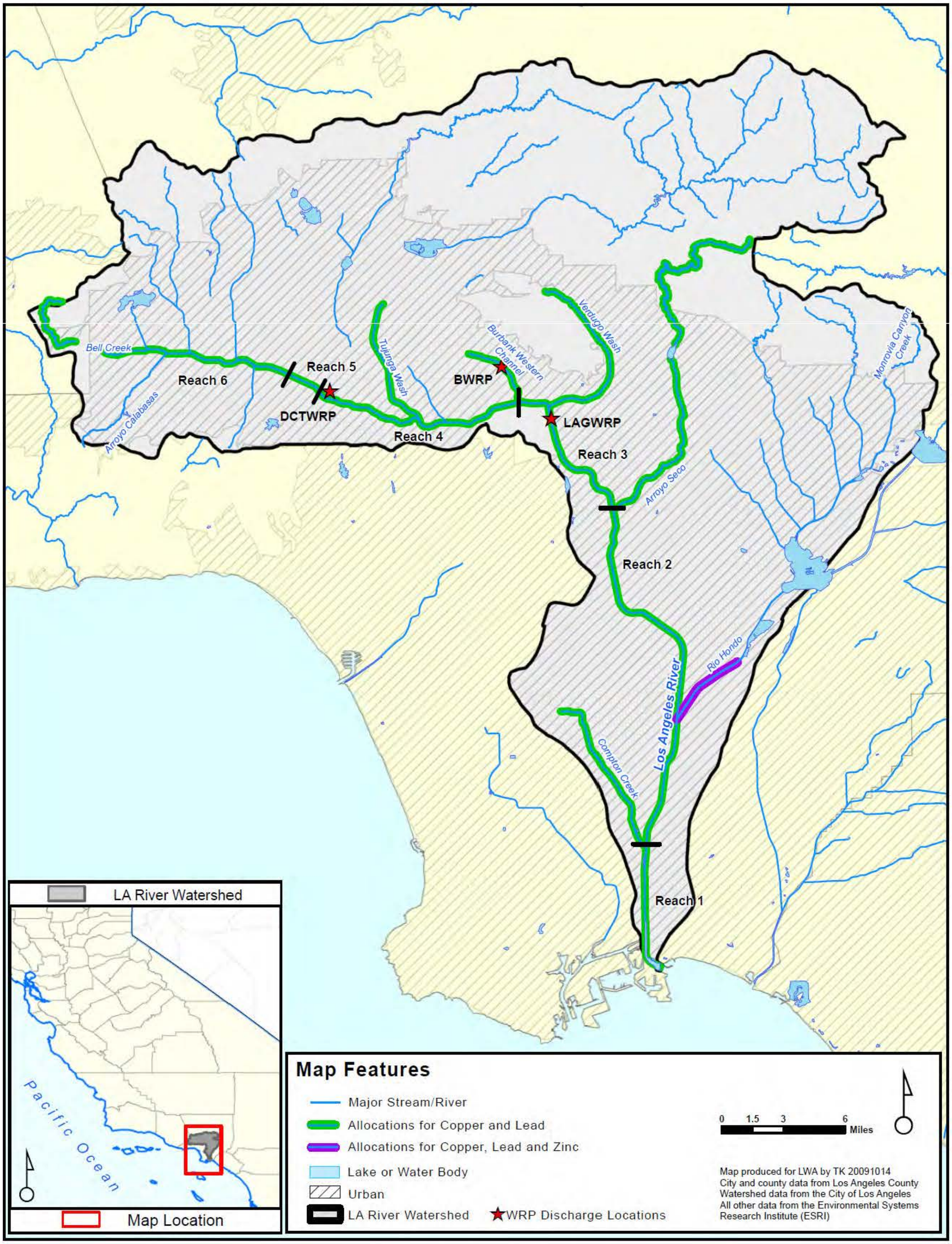

Figure 2. Reaches Assigned Copper, Lead, and/or Zinc Dry Weather Allocations in the Los Angeles River Metals TMDL

1.2 STUDY GOAL

To support the community's long-term vision of enhanced habitat in the LA River, it is essential to establish criteria that appropriately protect beneficial uses. The results from this Study will ultimately help the community set priorities for different implementation actions, such as stream habitat enhancement, and Best Management Practices (BMPs) to reduce urban runoff lead, copper, and zinc loads. This Work Plan is intended to utilize approved guidance in support of the LA River Metals TMDL implementation efforts. Utilization of approved USEPA guidance will not change the level of protection intended by the CTR or the Metals TMDL. As such, the primary goal of the Work Plan is to:

> Address dry weather allocations for lead, copper, and zinc by utilizing multiple approaches that can be used to re-evaluate targets and allocations in the Metals TMDL, propose NPDES permit limits, and/or evaluate water quality data in the context of 303(d) listings.

As the lead project proponent, the Los Angeles River Metals TMDL Implementation Group will coordinate the implementation of this Work Plan.

Section 2. Public Participation Plan

Technical review and public participation for this Study will be an open process. Public participation in the development and implementation of this Work Plan will have two components:

1. Stakeholder input solicited through workshops and existing public review processes.
2. Technical review by a Technical Advisory Committee (TAC).

A Stakeholder Committee (SC) and Technical Advisory Committee (TAC) have been developed by the City of Los Angeles in conjunction with LARWQCB staff. The SC includes LARWQCB, SWRQCB, and USEPA Region 9 staff, and other local, state and federal agencies, and non-governmental organizations (NGOs). Stakeholders are encouraged to participate in the stakeholder process by reviewing and providing comments on the Draft and Final Work Plans and the analytical results and study conclusions presented in subsequent reports, and participating in meetings to discuss work products.

The TAC consists of three outside experts with relevant experience. Table 2 provides a list of the TAC members. The TAC will provide technical review and insight, and is invaluable when developing and supporting the approach presented in the Work Plan, evaluation of data, and final conclusions. The roles and responsibilities of the TAC include:

- Review and provide comment on the Draft Work Plan.
- Provide independent peer review of technical recommendations from stakeholders.
- Review preliminary data generated through the implementation of the Work Plan as appropriate and discuss potential modifications, as appropriate.
- Review Draft and Final project documents.

Table 2. Technical Advisory Committee Members

Member	Affiliation	Expertise
Steve Bay	Southern California Coastal Water Research Project (SCCWRP)	Director of SCCWRP's Toxicology Laboratory, design of scientific studies and interpretation of data, sediment toxicity test methods, including sediment quality assessment methods, Toxicity Identification Evaluation (TIE) methods and evaluation of impacts of contaminants of emerging concern on fish.
Tyler Linton	Great Lakes Environmental Center (GLEC)	Derivation and revision of national water quality criteria and other chemical toxicity benchmarks, conducting biological evaluations on USEPA water quality criteria for assessing effects on Federally-listed aquatic and aquatic-dependent species, site-specific studies for the determination of water quality criteria, acute and chronic toxicity testing for NPDES compliance, water chemistry analysis, fish and invertebrate culture, data management, and statistical analysis.
Bob Santore	HydroQual	Site-specific criteria development using modeling approaches, WERs and recalculation methods, and water quality and chemical modeling. Evaluation of the bioavailability and toxicity of metals to aquatic organisms, including the development of the Biotic Ligand Model.

In addition to the TAC and those on the SC, public participation and comments will be solicited through public workshops designed to support the LARWQCB's participation requirements for BPAs.

To date, the TAC and SC have participated in review and comment on a draft version of the Work Plan dated May 20, 2009. The TAC and SC reviewed and submitted comments on the May 20, 2009 version of the Work Plan. Responses to these comments were incorporated into a November 2, 2009 draft version of the Work Plan. The TAC and LARWQCB staff reviewed and commented on this version of the Work Plan. Responses to these comments, as well as additional input from the TAC and LARWQCB, have been incorporated into this version of the Work Plan. In addition, the TAC and Charles Delos of USEPA have provided letters of support of the approach contained in this document (**Appendix 2**).

Section 3. Work Plan Approach

The USEPA publishes national water quality criteria (WQC) for the protection of aquatic life consisting of a concentration, an averaging period, and a return frequency. The WQC for the protection of aquatic life are calculated mostly from laboratory-derived toxicity data. The USEPA compiles data from acceptable toxicity tests, which have been conducted in laboratory or well-characterized dilution water, from a wide range of species. Criteria are developed from the compiled data using the approach outlined in *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses* (Criteria Guidelines) (USEPA 1985c). The Criteria Guidelines provide methods for calculating both acute and chronic criteria.

National WQC are intended to be protective of all waters of the United States. However, the Code of Federal Regulations (CFR) 40 CFR 131.11(b)(1)(ii) allows States to establish WQC that are "… modified to reflect site-specific conditions." The Water Quality Standards Handbook (USEPA 1994a) states that:

> *Site-specific criteria, as with all water quality criteria, must be based on a sound scientific rationale in order to protect the designated use. Existing guidance and practice are that EPA will approve site-specific criteria developed using appropriate procedures.*

Site-specific criteria are intended to provide the same level of protection intended for aquatic life as the national criteria but at a specific site. Hence, derivation of site-specific criteria does not change the intended level of protection. A site may be defined as state, region, watershed, waterbody, or segment of waterbody (USEPA 1994a). As described in the Water Quality Standards Handbook (USEPA 1994a), USEPA has developed three procedures for deriving site-specific criteria:

1. Recalculation Procedure. This method is intended to take into account relevant differences between the sensitivity of species in the national dataset and those at the site. However, Recalculation can consist of any updates or revisions in the data set (not necessarily site specific updates) and therefore be conducted such that it is effectively an update to the national WQC.
2. Water-Effect Ratio Procedure. This method provides for the use of a water-effect ratio (WER) to take into account observed differences between the toxicity of metals in laboratory dilution water and in site water.
3. Resident Species Procedure. This method is intended to take account differences for both the aquatic organisms present at a site and differences in toxicity of site water and lab water.

The following subsections provide additional information about the three procedures.

3.1 RECALCULATION PROCEDURE

The Recalculation Procedure provides a method for adjusting the national dataset used to develop criteria based on more recent studies and/or for species that are present in the waterbody.

The *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (USEPA 1994b), referred to as the "Interim Guidance" in this Work Plan, outlines the procedure in Appendix B. The Recalculation Procedure consists of the following six steps.

A. Corrections are made to the national dataset. Note that only corrections approved by USEPA may be made.
B. Additions are made to the national dataset. Note that only additions approved by USEPA may be made.
C. The deletion process may be applied if desired.
D. If the new dataset does not satisfy the applicable Minimum Data Requirements (MDRs), additional pertinent data must be generated; if the new data are approved by the USEPA, the Recalculation Procedure must be started again at step B with the addition of the new data.
E. The new criterion maximum concentration (CMC) or criterion continuous concentration (CCC) or both are determined. The CMC and CCC are generally referred to as the acute and chronic criterion, respectively.
F. A report is written.

The first four steps (A, B, C, and D) are utilized to develop an appropriate dataset that satisfies the MDRs as outlined in the Criteria Guidance. Steps A and B are required, while step C is optional and can be used if desired for further modification of the dataset. Steps E and F are the process of using the dataset to generate new WQC and a report for review.

3.2 WATER-EFFECT RATIO PROCEDURE

The 1994 Interim Guidance presents detailed protocols for adjusting the concentration portion of national metals WQC to reflect site-specific receiving water conditions using the "Water-Effect Ratio" (WER) method (USEPA 1994b). A WER is a factor that can be used under the USEPA's system of WQC to customize national aquatic life criteria, which include the California Toxics Rule (CTR) aquatic life criteria established by USEPA in 2000 (USEPA 2000) and used in the Metals TMDL, to reflect site-specific water column conditions. The WER is used to derive site-specific criteria that maintain the level of protection of aquatic life intended by the Criteria Guidelines and CTR. If the value of the WER exceeds 1.0, the site water reduces the toxic effects of the pollutant being tested. Conversely, the WER can be less than 1.0, in which case the toxic effects of the pollutant in site water would be greater than that in laboratory water and the site-specific WQC should be less than the WQC. For example, if a WER developed using LA River water is greater than 1.0, the CTR metals WQC are lower than what is required to be protective for aquatic life in the LA River. Therefore, a site-specific objective (SSO) for the LA River may be set at a higher concentration than the national WQC and still be as protective of aquatic life beneficial uses as the CTR. The site-specific acute and chronic USEPA criteria are calculated by multiplying the USEPA's ambient WQC values by a locally developed WER.

The WER method requires rigorous parallel toxicity tests using USEPA-specified laboratory water and "site water" to determine whether physical and chemical characteristics in the site water affect the bioavailability and, therefore, the toxicity of trace metals to aquatic organisms. Site water is generally used to describe receiving water, effluent, or simulated downstream water. Simulated downstream water is site water prepared by mixing upstream receiving water and effluent in a known ratio. Only receiving water will be collected in the current study as the focus of the study is on in-stream conditions. The difference in toxicity values is expressed as a WER (toxicity obtained in the site water divided by toxicity in the lab water). A WER is expected to account for (a) the site-specific toxicity of a metal and (b) synergism, antagonism, and additivity with other constituents present in the site water (USEPA 1994b). Acute toxicity is measured as an effects concentration 50 (EC50), which represents an estimate of a concentration where 50% of the test organisms are adversely affected (i.e., reduced growth or reproduction or mortality). In some cases, depending on WER results, toxicity in site water may also be compared to the Species Mean Acute Value (SMAV).

In March 2001, the USEPA published a streamlined national procedure for developing a WER for copper in freshwater bodies (USEPA 2001). Because of the numerous copper WER studies that have been performed throughout the country since the mid-1990s, the USEPA determined there were sufficient data to develop a more straightforward testing approach for situations where copper concentrations are elevated primarily by continuous point source effluents - such as a publicly owned treatment works (POTW) outfall. This USEPA protocol, referred to as the "Streamlined Procedure", specifies sample collection methods, lists the analyses to perform, requires toxicity tests on only one aquatic species, and reduces the number of samples to be collected relative to the Interim Guidance. The Streamlined Procedure is specifically applicable to situations where copper concentrations are elevated primarily by continuous point source effluents, although, portions of the Streamlined Procedure provide useful and updated information that can be used to supplement the Interim Guidance. However, this Work Plan is based on procedures and methods outlined in the Interim Guidance

3.3 RESIDENT SPECIES PROCEDURE

As discussed in the Water Quality Standards Handbook (USEPA 1994a), the Resident Species Procedure accounts for both resident species sensitivity and differences in the biological availability of metals and/or toxicity due to physical and chemical characteristics of site waters. The Resident Species procedure involves conducting acute toxicity tests with resident species in water from the site. Essentially, the Resident Species Procedure is a combination of the Recalculation and WER Procedures. Tests must be conducted with enough species (8) to meet the MDRs outlined in the Criteria Guidelines. Once a complete dataset has been developed using tests in site water on species present at the site, a site-specific objective can be calculated based on the site-specific toxicity data. If significant seasonal variations occur (as they do in southern California), more frequent testing may be required to establish data for this procedure that accounts for varying flow conditions and water quality.

3.4 RECOMMENDED APPROACH

The following subsections outline the recommended approach to utilizing the aforementioned procedures to develop appropriate criteria for lead, copper, and zinc.

3.4.1 Recommended Approach for Lead

The USEPA Ambient WQC for Lead (USEPA, 1985b) was published in 1984. WQC documents are developed using toxicity data from USEPA validated studies that were conducted using knowledge of, and experiments on, the characteristics of the compounds in water, and that met the test acceptability standards established by the Criteria Guidelines (USEPA 1985c). USEPA translates these studies into national criteria. The 1984 lead criteria document utilized 24 measured freshwater LC50s resulting in the calculation of 10 species mean acute values (SMAVs) which also represented the 10 genus mean acute values (GMAVs) utilized to calculate the freshwater acute criterion. At the time the lead WQC were published, comparatively few lead toxicity studies were available to generate the 10 GMAVs used to calculate the freshwater lead acute WQC compared to other metals of concern (41 and 35 GMAVs used to calculate the copper (USEPA, 1985a) and zinc (USEPA, 1987) aquatic life criteria, respectively).

Following the publication of WQC documents, studies continue to be conducted that provide additional information for previously tested species and new information on additional species or water quality conditions that impact the criteria. These studies and additional knowledge result in the need to update the WQC. The lead WQC has not been revised since 1984 (more than 20 years), and as previously mentioned encompasses comparatively few GMAVs, and therefore is in need of revision.

As presented above, the Recalculation Procedure described in Appendix B of the Interim Guidance provides an approach for recalculating, and therefore updating, the lead WQC. The Recalculation Procedure has been utilized to develop WQC that have been approved by USEPA, namely, cyanide WQC in San Francisco Bay and cadmium WQC in Colorado. The Interim Guidance states that a list of approved toxicity data will be available from the USEPA for constituents for which USEPA has developed criteria. An updated lead toxicity dataset is currently under review by USEPA and at the completion of the review an approved list will be obtained. Therefore, the recommended approach for developing appropriate lead criteria for consideration in the Metals TMDL is the Recalculation Procedure. As the entire approved USEPA dataset will be utilized, the recalculation of the lead criteria would result in a de facto recalculation of the national criteria and could be applied to the entire LA region, if so desired.

3.4.2 Recommended Approach for Copper

Unlike the lead WQC criteria, copper WQC have been updated multiple times and as recently as 2007 (USEPA 2007). Further, extensive WER testing has been completed for copper throughout the country since the mid-1990s and a copper WER study has already been completed for the DC Tillman WRP (DCTWRP), the LA-Glendale WRP (LAGWRP), and the Burbank WRP (BWRP), as well as portions of the LA River and Burbank Western Channel. The Los Angeles River Copper Water-Effect Ratio Study (LWA 2008) completed by the City of Los Angeles and City of Burbank in June 2008, found that for dry weather conditions copper WERs (developed using USEPA protocols) in several LA River Reaches (1, 2, 3, and 4) and the Burbank Western Channel were higher than 1.0. Table 3 and Table 4 present sample WERs (sWERs) calculated for the five events conducted under the previous study (LWA 2008) using both the Streamlined Procedure (Table 3) and Interim Guidance (Table 4) methods of calculation, respectively. The sWERs are calculated for each event for site water (e.g., sWERs represent a WER for a single sample collected at a single site at a single point in time). The study results have been submitted to the LARWQCB for consideration to modify the implementation provisions for copper in the Basin Plan. LARWQCB comments on the May 20, 2009 Draft Work Plan, as presented in a letter dated July 15, 2009, indicate that the results of the June 2008 study will be used in permitting actions for DCTWRP, LAGWRP, and BWRP. Applicable data from the previous study will be used in the current study. The previous study sample locations are presented in Figure 3.

Given that the previous LA River Copper WER Study 1) demonstrated that copper WERs developed using USEPA protocols could be successfully determined in the LA River, and 2) the results were supported by stakeholders and the TAC for that study, the recommended approach for copper in this Work Plan is to utilize the WER approach. This Work Plan will build on the previous study's results to address concerns raised by the LARWQCB and develop information to allow for the adoption of SSOs based on WERs through a Basin Plan Amendment (BPA). As a preliminary evaluation, a WER sample was collected in each of the six tributaries to Reaches 1, 2, 3, and 4 and Burbank Western Channel by the City of Los Angeles in September and October 2008. A single WER sample was collected in each of these tributaries. Sampling, WER testing, and chemical analysis followed protocols similar to those utilized in the previous copper WER study. Table 5 presents the results.

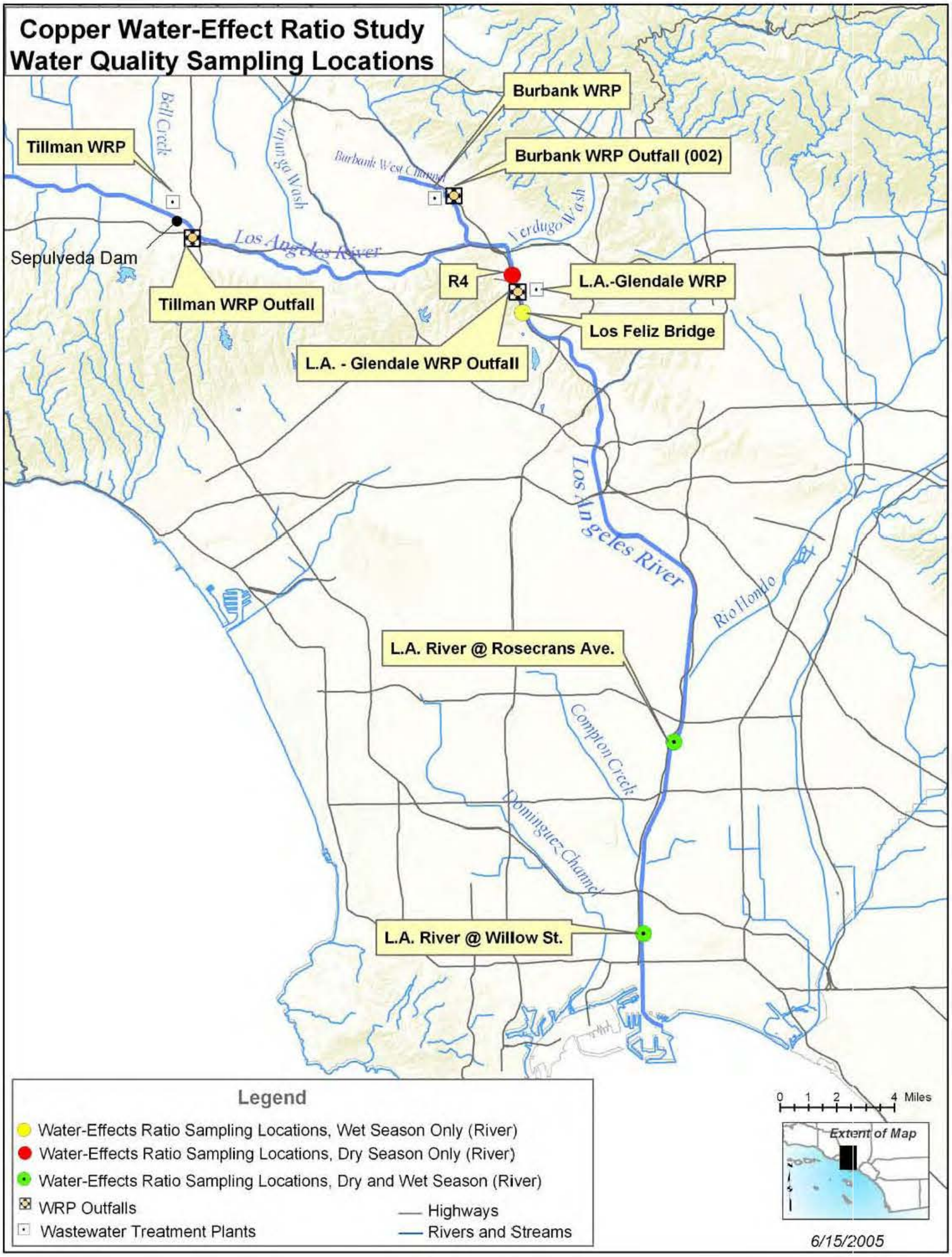

Figure 3. LA River Copper WER Study Sampling Locations

Table 3. LA River Copper WER Study Copper sWERs Calculated Using the Streamlined Procedure (LWA 2008)

Sampling Site	Waterbody	sWER				
		Dry Season			Wet Season	
		Event 1	Event 2	Event 3	Event 4[1]	Event 5
DCTWRP	LAR Reach 4	7.028	5.562	5.725	---	---
BWRP	Burbank Western Channel	7.274	4.998	5.030	---	---
SDW[2]	LAR Reach 3	3.992	3.442	3.286	---	---
LAR at Los Feliz Blvd	LAR Reach 3	---	---	---	4.298	3.391
LAR at Rosecrans Ave	LAR Reach 2	4.583	4.496	3.229	4.062	3.306
LAR at Willow Ave	LAR Reach 1	6.547	4.986	4.142	4.644	3.244

--- Dashed line indicates samples were not collected at this site during the event.
1 Event 4 was a wet weather sampling event.
2 Simulated downstream water (SDW) was created using 7Q10 approach per the Streamlined Procedure by mixing LAGWRP effluent with upstream water.

Table 4. LA River Copper WER Study Copper sWERs Calculated Using the Interim Guidance (LWA 2008)

Sampling Site	Waterbody	sWER				
		Dry Season			Wet Season	
		Event 1	Event 2	Event 3	Event 4[1]	Event 5
DCTWRP	LAR Reach 4	12.55	15.14	15.05	---	---
BWRP	Burbank Western Channel	12.99	13.61	13.22	---	---
SDW[2]	LAR Reach 3	7.130	9.370	8.638	---	---
LAR at Los Feliz Blvd	LAR Reach 3	---	---	---	14.15	9.19
LAR at Rosecrans Ave	LAR Reach 2	8.184	12.24	8.490	13.37	8.96
LAR at Willow Ave	LAR Reach 1	11.69	13.57	10.89	15.29	8.79

--- Dashed line indicates samples were not collected at this site during the event.
1 Event 4 was a wet weather sampling event.
2 Simulated downstream water (SDW) was created using 7Q10 approach per the Streamlined Procedure by mixing LAGWRP effluent with upstream water.

Table 5. Preliminary LA River WER Study Copper sWERs Calculated Using the Interim Guidance

Sampling Site	Waterbody	sWER
Tujunga Wash @ LAR	Tujunga Wash	>8.607
BWC Upstream of BWRP	Burbank Western Channel	2.675
Verdugo Wash @ LAR	Verdugo Wash	2.307
Arroyo Seco @ LAR	Arroyo Seco	1.613
Rio Hondo @ LAR	Rio Hondo	>7.422
Compton Creek @ LAR	Compton Creek	3.151

3.4.3 Recommended Approach for Zinc

Rio Hondo Reach 1 is the only listing for zinc on the 303(d) list and is the only waterbody in the Metals TMDL that received a dry-weather zinc allocation. The supporting information for the zinc listing is provided in the 1996 Water Quality Assessment Documentation (LARWQCB). LARWQCB staff provided the data that are believed to have been utilized to develop the zinc listing for Rio Hondo Reach 1 on the 1996 303(d) list. It is unclear whether the data represent total or dissolved measurements. However, the total or dissolved chronic and acute CTR zinc criteria are not appreciably different. For example, the acute, chronic, dissolved and total CTR criteria calculated using the TMDL target hardness of 111 mg/L hardness ($CaCO_3$) are as follows:

- Acute Dissolved Zinc Criterion = 128 ug/L
- Acute Total Zinc Criterion = 131 ug/L
- Chronic Dissolved Zinc Criterion = 129 ug/L
- Chronic Total Zinc Criterion = 131 ug/L

Table 6 presents summary information on the data that are believed to have been utilized to establish the 303(d) zinc listing in Rio Hondo Reach 1. The percent exceedance presented in Table 6 is based on a comparison of the historical zinc data to the Metals TMDL zinc target (131 ug/L total zinc). The Metals TMDL zinc target was calculated using the CTR hardness based zinc acute criterion using the 10^{th} percentile hardness data in Rio Hondo (141 mg/L as $CaCO_3$). Hardness measurements were not available for the historical zinc listing data. As such, a comparison could not be made between the historical zinc data to the acute CTR criterion.

Table 6. Summary Information for Zinc Water Quality Data Collected in Rio Hondo Reach 1 used to Develop the 1996 303(d) Listing

Summary Information	
Number of Samples	56
Number of Detects	38
Minimum (ug/L)	30
Maximum (ug/L)	1340
Average (ug/L)	169
Median (ug/L)	115
Standard Deviation	219
95% confidence interval	72.1
Upper 95%	241
Lower 95%	97.0
Number of Exceedances of the TMDL Target[1]	14

1 Exceedances were evaluated based on measured zinc concentration and the TMDL Target for Rio Hondo Reach 1 (131 ug/L). Hardness measurements were not available for the historical zinc listing data. As such, a comparison between the historical zinc data and CTR criterion could not be made.

Recent zinc data were collected monthly in Rio Hondo Reach 1 by the City of Los Angeles WPD between January 2005 and December 2007. Of the 33 samples collected 32 dissolved and 33 total zinc data are available. None of these samples exceeded the CTR dissolved or total acute or chronic zinc aquatic life criteria. These data do not suggest an impairment of the aquatic life beneficial use due to zinc. It should be noted that total zinc exceeded the total TMDL target in two of 31 dry weather samples collected, which is not a sufficient number to warrant a listing based on the State's Listing Policy (SWRCB 2004). The dissolved data were significantly below what would be a corresponding dissolved TMDL target. However, the TMDL target is based on a fixed hardness for total zinc rather than the hardness measured at the time of sample collection. Additionally, the default CTR default conversion factor is used to translate dissolved zinc criteria to total criteria. As such, the TMDL target does not accurately reflect the relevant exposure conditions based on the hardness present at the time of sample collection. When considering impairment of the aquatic life beneficial use, dissolved zinc data should be compared to the dissolved CTR zinc aquatic life criteria not a fixed total TMDL target. Table 7 presents summary information for the Rio Hondo Reach 1 zinc data collected by WPD.

Given that the recent zinc data do not suggest an aquatic life impairment, it may not be necessary to reconsider the zinc criteria in Rio Hondo. The WPD data could support the removal of the zinc listing for Rio Hondo based on the State's Listing Policy (SWRCB 2004). If these data are considered insufficient for removal of the listing, monthly data collected in Rio Hondo as part of the Metals TMDL monitoring program, in conjunction with the WPD data, could be used to determine whether the listing could be removed. Given the effort (both cost and time) required to reconsider criteria, the recommended approach to address zinc in this Work Plan is to reconsider the need for a zinc listing and TMDL based on the City of Los Angeles WPD data.

Table 7. Summary Information for Zinc Water Quality Data Collected in Rio Hondo by the City of Los Angeles WPD between January 2005 and December 2007[1]

Summary Information	All Data (n = 33)		Dry Weather Data (n = 31)		Wet Weather Data (n = 2)	
	Dissolved Zinc	Total Zinc	Dissolved Zinc	Total Zinc	Dissolved Zinc	Total Zinc
Number of Samples	32	33	30	31	2	2
Number of Detects	32	33	30	31	2	2
Minimum (ug/L)	4	8	4	13	7.0	8.0
Maximum (ug/L)	105	171	105	171	27.9	65.4
Average (ug/L)	27.6	53.9	28	55	17	37
Median (ug/L)	21.0	45.0	21	45		
Standard Deviation	21.6	36.6	22	37		
95% confidence interval	7.79	12.98	8	14		
Upper 95%	35.4	66.9	37	69		
Lower 95%	19.8	40.9	20	41		
Number of Exceedances[2]						
Acute Criteria	0	0	0	0	0	0
Chronic Criteria	0	0	0	0	0	0

1 A total of 33 samples were analyzed for total and dissolved zinc. One dissolved zinc value was not reported due to an analytical error.
2 Exceedances were evaluated by comparing the measured zinc concentration to the California Toxic Rule hardness based zinc aquatic life criteria.

Section 4. Recalculation Procedure for Lead

The following section details how the Recalculation Procedure will be used to update the lead criteria. As mentioned previously, the first four steps of the Recalculation Procedure are utilized to develop a dataset, and to insure that the developed dataset meets the WQC calculation data requirements as outlined in the Criteria Guidelines:

A. Corrections are made to the national dataset.
B. Additions are made to the national dataset.
C. The deletion process may be applied if so desired.
D. If the new dataset does not satisfy the applicable Minimum Data Requirements (MDRs), additional pertinent data must be generated; if the new data are approved by the USEPA, the Recalculation Procedure must be started again at step B with the addition of the new data.

An approved lead toxicity test dataset that meets the MDRs and WQC calculation data requirements will be requested from USEPA. These data will be made available by USEPA for this study in the form of draft tables containing acute and chronic toxicity data. As the USEPA dataset will be utilized in this study, only the final two steps of the Recalculation Procedure are necessary and will be conducted as part of this Work Plan:

E. The new CMC (acute) or CCC (chronic) or both are determined.
F. A report is written.

For this Work Plan, both CMC and CCC criteria will be calculated utilizing the criteria calculation procedures outlined in the Criteria Guidelines, per the Recalculation Procedure.

4.1 CMC CALCULATION PROCEDURE

Sections IV and V of the Criteria Guidelines present the approach to determining the final acute value (FAV) and final acute equation, respectively. The first eight steps of determining the FAV focus on developing an appropriate dataset. As the entire approved USEPA dataset will be utilized, the process for calculating the FAV for this Work Plan will start at the ninth step (step I in Section IV of the Criteria Guidelines) as follows:

I. For each species for which at least one acute value is available, the species mean acute value (SMAV) should be calculated as the geometric mean[1] of the results.
J. For each genus for which one or more SMAVs are available, the genus mean acute value (GMAV) should be calculated as the geometric mean of the SMAVs available for the genus.
K. Order the GMAVs from high to low.
L. Assign ranks, R, to the GMAVs from "1" for the lowest to "N" for the highest. If two or more GMAVs are identical, arbitrarily assign them successive ranks.
M. Calculate the cumulative probability, P, for each GMAV as R/(N+1).

[1] The geometric mean of N numbers is the N^{th} root of the product of the N numbers.

N. Select the four GMAVs that have cumulative probabilities closest to 0.05 (if there are less than 59 GMAVs, these will always be the four lowest GMAVs).
O. Using the selected GMAVs and Ps, calculate the final acute value (FAV) based on equations specified in the Criteria Guidelines.
P. If for a commercially or recreationally important species the geometric mean of the acute values from flow-through tests in which the concentrations of the test material were measured is lower than the FAV, then that geometric mean should be used as the FAV instead of the calculated FAV.

The CMC is then set equal to one-half the FAV (CMC = FAV/2) as stated in Section XI of the Criteria Guidelines.

A final acute equation is developed when enough data are available to show that acute toxicity to two or more species are similarly related to a water quality characteristic (e.g., hardness). Section V of the Criteria Guidelines will be utilized to develop the final acute equation. The steps are not presented in this Work Plan due to their length.

4.2 CCC CALCULATION PROCEDURE

Sections VI and VII of the Guidelines present the approach to determining the final chronic value (FCV) and final chronic equation, respectively. The approach to calculating the FCV is dependent on the available chronic toxicity data. The FCV may be calculated in the same manner as the FAV or by utilizing the final Acute-to-Chronic Ratio (FACR). An Acute-to-Chronic Ratio (ACR) is a way of relating the acute and chronic toxicity of a pollutant to aquatic organisms. In general, ACRs are calculated by dividing the acute toxicity results by the chronic toxicity results from the same species. The ACR represents the ratio of the concentration of a constituent that is acutely toxic to that which results in chronic toxicity. Allowances are provided if the acute tests were not conducted as part of the same study. If chronic toxicity data are available for species in the eight families as required by the Criteria Guidelines, then the FCV can be calculated in the same manner as the FAV. Alternatively, the FACR can be used, if available. The 1984 lead WQC used a FACR to calculate the FCV. When using the FACR, the FCV is simply the FAV divided by the FACR. The CCC is then set equal to the FCV (CCC = FCV) as stated in Section XI of the Criteria Guidelines. The approved toxicity dataset will be evaluated using section VI of the Criteria Guidelines to determine whether the FCV will be calculated utilizing the same methods as the FAV or utilizing the ACR method.

A final chronic equation is developed when enough data are available to show that chronic toxicity to two or more species is similarly related to a water quality characteristic (e.g., hardness). Section VII of the Criteria Guidelines will be utilized to develop the final chronic equation.

4.3 RECALCULATION REPORT

A Lead Recalculation Report will be developed upon completion of the Work Plan components discussed immediately above. As outlined in the Recalculation Procedure presented in the Interim Guidance the report of the results must include:

1. A list of all species of aquatic invertebrates, amphibians, and fishes that are known to "occur at the site", along with the source of the information.
2. A list of all aquatic plant, invertebrate, amphibian, and fish species that are critical species at the site, including all species that occur at the site and are listed as threatened or endangered under section 4 of the Endangered Species Act.
3. A site-specific version of Table 1 from a criteria document produced by the USEPA after 1984.
4. A site-specific version of Table 3 from a criteria document produced by the USEPA after 1984.
5. A list of all species that were deleted.
6. The new calculated FAV, CMC, and/or CCC.
7. The lowered FAV, CMC, and/or CCC, if one or more were lowered to protect a specific species.

The Lead Recalculation Report will provide the information outlined in the Interim Guidance as listed above to support recalculated acute and chronic lead water quality objectives for the LA River watershed. As the entire approved USEPA dataset will be utilized, the recalculation of the lead criteria would result in a de facto recalculation of the national criteria and could be applied to the entire LA region, if so desired.

Section 5. Water-Effect Ratio for Copper

The following section comprises the WER experimental design, and includes the details of the WER sampling program. This Work Plan will build on the results of the previous copper WER Study (LWA 2008) to develop WERs in the watershed. In-stream water will be used for WER testing and will be collected during the critical condition for aquatic life. The determination of the critical condition is discussed below. The following section also discusses species and test selection for the determination of WERs, details of the toxicity testing including hardness of laboratory water, calculation of the final WERs, and sample collection.

5.1 SPECIES AND TEST SELECTION

The Interim Guidance suggests tests for determining WERs for metals (Appendix I). The suggested tests describe the species, duration, life stage, and end point. For this study, WERs will be determined using only acute toxicity tests. The development of WERs using only acute tests will allow the adjustment of both the acute and chronic criteria; whereas a WER developed using chronic tests allows adjustment of the chronic criterion only. Additionally, chronic toxicity tests tend to result in higher WERs than acute toxicity tests, making the development of WERs from acute tests more conservative. Further, the 7-day chronic toxicity test for *C. dubia* requires that organisms be fed a substance that contains organic carbon, which will interfere with the bioavailability of copper to test organisms and impact the WER.

The Interim Guidance states that WERs should be developed for dissolved and total metals. However, only dissolved WERs will be developed for this study. Dissolved metals concentrations more closely approximate the bioavailable fraction of the metal in the water column than does total recoverable. Only dissolved WERs were developed for the recently completed Los Angeles River Copper WER Study (LWA 2008) as determined in conjunction with the previous TAC and LARWQCB.

As suggested in the Interim Guidance, acute 48-hour copper toxicity tests using *Ceriodaphnia dubia* (*C. dubia*) will be conducted side-by-side on USEPA-specified laboratory water and water collected from sampling sites to determine the copper WER for each site. Table 8 presents specifications for conducting acute toxicity tests using *C. dubia*.

The use of a secondary species is recommended in the Interim Guidance to provide confirmation of the results of the primary species by testing the assumptions that similar WERs will be obtained using tests that have similar sensitivities to the test material. Essentially, the use of a secondary species, which must be in a different family than the primary species, is to confirm that the response observed for the primary species is consistent with the response observed in the secondary species. We evaluated this recommendation and found that copper is a well-studied toxicant, and it is well known that different organisms, regardless of sensitivity, respond similarly to copper over a wide range of conditions. As an example, regardless of site specific conditions, an invertebrate and a fish would respond to any changes in conditions that affect bioavailability in the same way, and that the invertebrate would always be more sensitive than the fish. As such, it was determined that a second aquatic test species is not necessary to verify copper WER results obtained from *C. dubia*. The decision to use a single species is supported by the TAC and Charles Delos of USEPA (see letters of support in **Appendix 2**).

Multiple studies conducted under peer review have been conducted in California utilizing a single species for copper (EOA and LWA 2002; LWA 2008). Only one species was used in the San Francisco Bay "Copper and Nickel North of the Dumbarton Bridge Step 1: Impairment Assessment Report" (EOA and LWA 2002). This decision was supported by Dr. Glen Thursby of USEPA. Additionally, only *C. dubia* were utilized in the recently completed copper WER study for portions of the LA River and Burbank Western Channel (LWA 2008). This decision was supported by that TAC, LARWQCB, and Charles Delos of USEPA.

Table 8. Acute Toxicity Test Specifications for Copper WERs using Ceriodaphnia dubia

Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source; Age:	In-house culture; < 24 hr
Test Duration:	48-hr
Test Temperature:	20°C
Dilution Water:	USEPA moderately hard synthetic water
Test Concentrations:	To be determined
Sample Volume/ Test Chambers:	15 ml per replicate in 30-ml plastic cups
Replicates/ No. of Organisms:	5 replicates, 5 organisms in each
Water Renewal:	None
Metals Sample Collection (collected from each dilution prior to test initiation and prior to test termination)	Dissolved at 0-hr_i and 48-hr_f
Feeding:	None
Protocol:	EPA/821/R-02-012 (2002)
Acceptability Criterion:	Mean control survival ≥ 90%
Statistical Analysis Software:	CETIS, version 1.6.3E

hr_i = the time at which an initial metals sample is collected from test chambers prior to addition of test species.
hr_f = the time at which a final metals sample is collected from test chambers.

5.2 TOXICITY TESTING

Methods for holding and processing samples, and toxicity test procedures for development of WERs, are provided in the following guidance documents:

- Interim Guidance on the Determination and Use of Water-Effect Ratios for Metals. USEPA.1994. EPA-823-B-94-001.
- Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Fifth Edition. USEPA 2002. EPA-821-R-02-012.

Upon arrival at the toxicity testing laboratory, site water samples will be analyzed for general water quality characteristics (temperature, pH, dissolved oxygen, alkalinity, hardness and total ammonia). Attempts will not be made to remove ammonia from site water samples. Use of zeolite for ammonia removal will potentially remove constituents that provide ligands for metals and otherwise change the matrix of site water samples, possibly masking additive toxic effects from multiple constituents. Laboratory water used for the parallel toxicity tests will be analyzed for the same constituents.

Dilution water used in laboratory water and reference toxicant tests will be prepared prior to test initiation. Laboratory water tests will be performed using USEPA formula synthetic freshwater (prepared by the addition of reagent grade chemicals [calcium sulfate, magnesium sulfate, sodium bicarbonate, and potassium chloride], in specified proportions to de-ionized water). The use of reconstituted water as a "laboratory water" is consistent with guidance found in EPA/821/R-02-012 and EPA/823/B-94-001. Hardness of the dilution water will be made to be within the range observed in LA River water samples at the time of sampling. Hardness will not be matched specifically for each sample and is not required by the Interim Guidance. Per the Interim Guidance the hardness of the laboratory dilution water must be between 40 and 220 mg/L as $CaCO_3$ and should be between 50 and 150 mg/L. Further, the hardness of the laboratory dilution water must not be above the hardness of the site water, unless the hardness of the site water is below 50 mg/L. Typically, as site waters may often be near or above 220 mg/L, the lab waters are chosen to be 1) no higher than the upper bound as presented in the Interim Guidance (i.e., 220 mg/L) and 2) as representative as possible for all samples tested. However, measured hardness at the tributary sites often exceeds the limit of 220 mg/L. Calculated LC50 values for lab and site waters are hardness adjusted for WER calculation. However, most of the toxicity data used to develop the hardness based equation was generated in waters with hardness in the range of 25 mg/L to 400 mg/L, and as indicated in the CTR, the formulas are therefore most accurate in this range. Internal studies completed by Nautilus Environmental, a toxicity testing laboratory located in San Diego California, found that copper toxicity to *C. dubia* decreased steadily with increasing hardness up to 400 mg/L and that above this level, copper toxicity begins to increase as hardness increases. This appears to be an additive effect that is likely due to increased sensitivity of *C. dubia* to elevated water hardness beyond their typical habitat range. Since the hardness equation may not accurately reflect the negative effect of high hardness waters, and the proposed test organisms are sensitive to high hardness, the hardness adjusted lab water LC50 used to calculate the WER does not appropriately reflect conditions in the site water. Because of this, in instances where hardness in site waters exceeds 400 mg/L ($CaCO_3$), an alternative test species will be used. *Daphnia magna*, a suggested test species in the Interim Procedure Appendix I, is more tolerant to high hardness levels and is a suitable substitution for *C. dubia* in these instances (Cowgill and Milazzo 1990). Additionally, lab water hardness will be set to match site water for any tests with *Daphnia magna*. Lab water tests at a maximum standard hardness of 400 mg/L will also be run concurrently and used for WER calculations if there is no noticeable difference in results between the standard and high hardness lab water tests. In all other instances (e.g., site water hardness is less than 400 mg/L) *C. dubia* will be used, and lab waters will be chosen to be no higher than the upper bound as presented in the Interim Guidance (i.e., 220 mg/L) and as representative as possible for all samples tested with hardness less than 400 mg/L.

The control treatment for each of the site waters will consist of an aliquot of the site water without any added metals. Test solutions at these concentrations will be prepared by spiking 1.5 L aliquots of the site water and lab waters with copper salt from American Chemical Society

(ACS)-grade. The copper salt used for spiking will be copper chloride. Spiked test solutions will be thoroughly mixed and allowed to sit for approximately three hours prior to test initiation per the Interim Guidance. Allowing the samples to sit three hours is intended to avoid exposure of the test organisms to the ionic form of the metal of interest. Initial test water quality characteristics (pH, DO, salinity) will be determined for each test treatment prior to use in the tests.

Laboratory water will be spiked with seven to ten different concentrations of dissolved copper, and site water samples will be spiked with eight to nine different concentrations of dissolved copper using a 0.65 to 0.99 dilution factor, per the Interim Guidance[2]. It is possible that more concentrations may be required to ensure that a proper concentration-response curve is attained. Individual dilutions from each sample will be prepared in volumetric flasks or graduated cylinders. Subsequently, five replicate test chambers for each dilution will be prepared, including a set of controls (unspiked laboratory and site water). A subsample of each test concentration will be collected from dilution beakers prior to test initiation for analysis of dissolved metals. Subsamples of each dilution will also be collected from the exposure chambers at the end of the exposure period. Subsamples from each replicate test chamber will be composited prior to collection. For determination of the dissolved metal fraction, samples will be filtered immediately following collection through a 0.45 μm filter. Filtered samples will be preserved with nitric acid.

Subsamples for analysis of copper will be collected at the toxicity testing laboratory and submitted to analytical chemistry laboratory. The transportation schedule for the samples will meet specified holding times provided in Table 16. All chemistry results will be thoroughly reviewed upon completion of the toxicity testing. Samples will be re-analyzed if QA/QC measurements are outside reasonable limits or anomalous results are suspected.

In accordance with the Interim Guidance, only those concentrations used in determining the toxicity test endpoint will be analyzed for initial and final dissolved copper concentrations. These include:

- (i) all concentrations in which some, but not all, of the test organisms were adversely affected,
- (ii) the highest concentration that did not adversely affect any test organisms,
- (iii) the lowest concentration that adversely affected all of the test organisms, and
- (iv) the controls.

5.3 BIOTIC LIGAND MODEL (BLM)

The Biotic Ligand Model (BLM) is a software program that predicts speciation and toxicity of trace metals to aquatic organisms based on the concentrations of complexing compounds (e.g.,

[2] As an example, to prepare seven different dissolved copper concentrations using a dilution factor of 0.7, each successive dilution in the series would contain 70% of the dissolved copper concentration in the previous dilution (e.g., starting with a dissolved copper concentration of 1 part per billion (ppb) or μg/L, successive dilution concentrations would be 0.7 ppb, 0.49 ppb, 0.343 ppb, 0.24 ppb, 0.168 ppb, and 0.118 ppb).

organic carbon) and competing cations. BLM data will be collected under this Work Plan for two purposes: 1) to evaluate the BLM's ability to predict toxicity of LA River samples as compared to the WER samples, and 2) for additional analyses of toxicity in the LA River and tributaries.

Samples will be collected under this Work Plan for analysis of constituents utilized in the BLM. Constituents utilized by the BLM include temperature, pH, dissolved copper, calcium, magnesium, sodium, potassium, sulfate, chloride, and dissolved organic carbon (DOC), and humic acid. A discussion of BLM collection procedures and timing is presented in Section 5.8.

5.4 CRITICAL CONDITION

Development of an environmentally conservative WER is dependent on the interactions between the concentrations of the parameters that affect copper bioavailability, including the concentration of the metal and conditions in the waterbody. The critical condition can be looked at in two ways – the condition of the lowest WER or the condition when aquatic life is in the most danger (which considers both WER and other factors such as flow conditions and metals concentrations). For the recently completed LA River Copper WER Study (LWA 2008), dry weather was identified as the condition with both the greatest danger to aquatic life (copper concentrations were highest and dilution was lowest) and also the condition of the lowest WER. This is also the condition under the standard regulatory assumption that the low effluent dilution, dry period is the critical condition when considering the potential effect of effluent discharges on receiving waters. The approach to evaluating WERs during the critical condition will build off the results of the previous study; however, as described below, the critical condition assumptions are reevaluated under this Work Plan.

The LA River Copper WER Study Work Plan (LWA 2005) conducted a critical condition evaluation based on the results of the BLM, described above. The BLM was run using the available data collected in the LA River near the Donald C. Tillman and Los Angeles-Glendale Water Reclamation Plants (DCTWRP and LAGWRP) between March 2001 and April 2002. The BLM was run for copper toxicity to *C. dubia*. The model output included dissolved copper LC50 values predicted to occur under wet and dry season conditions monitored in the LA River. Data were available for three sites:

1. Tillman Upstream (upstream of the Donald C. Tillman WRP)
2. Tillman Downstream (downstream of the Donald C. Tillman WRP)
3. Glendale downstream (downstream of the LA-Glendale WRP)

A total of eight sampling events were considered (six in the dry season and two in the wet season). The results of this BLM analysis suggested that the dry season represents the critical condition for aquatic life copper toxicity (lower WERs) in the LA River (see analysis in Appendix B of the LA River Copper WER Study Work Plan – LWA 2005) when flows are low and the influence of POTWs is greatest. Another condition that could be critical in urbanized systems such as the LA River watershed may occur during the high-flows following a storm event and the subsequent influx of stormwater runoff to the stream.

Due to the above scenario, the 2005 Work Plan included a WER sampling event to evaluate copper bioavailability in the LA River under storm flow conditions to confirm that the low-flow regime is the critical condition most appropriate for developing copper WERs. This was accomplished by sampling during storm flow conditions in the segments of the LA River downstream (Reaches 1, 2, and 3) of the three POTW (DC Tillman WRP, LA Glendale WRP, and Burbank WRP) discharges which were the focus of the previous copper WER Study. Wet weather testing was included to capture conditions in which the lowest proportion of effluent and the largest proportion of stormwater runoff was present, and represents the runoff condition that is most different from the presumptive critical dry weather low flow condition. This testing was included to validate the critical conditions assumption. The 2005 Work Plan proceeded under the standard regulatory assumption that the low effluent dilution, dry period is the critical condition.

Four dry weather events and one wet weather event were conducted as part of the previous copper WER Study (LWA 2008). All available information was considered to determine if a critical condition could be identified during development of the final report. Though the sWERs that formed the basis of the recommended final WERs (fWERs) in the previous study were calculated per the Streamlined Procedure, the sWERs utilized to conduct the critical conditions analysis were calculated per the Interim Guidance because the Interim Guidance approach provides a more objective basis for these comparisons as they are not biased by additional policy-based factors introduced by the Streamlined Procedure methodology. The sWERs for each individual site (Table 9) were not statistically different for the four dry weather condition sampling events (Events 1, 2, 3, and 5) indicating that the within site sWERs should be the same under dry weather conditions when the LA River is experiencing low flows. The sWERs for wet weather (Event 4) were significantly higher statistically than dry weather sWERs. Additionally, dissolved copper concentrations were higher during dry weather (Table 10). Lastly, flow in the LA River (Table 11) was significantly higher during the wet weather event (Event 4). The increase in flow combined with lower dissolved copper concentrations indicates a higher assimilative capacity for copper during wet weather. This indicates that dry weather conditions represent the critical condition for aquatic life protection from copper in the study area (*e.g.*, lowest sWER, more biologically available copper, and lowest flow volume available for dilution of treatment plant effluent).

Table 9. LA River Copper Study Copper sWERs Calculated Using the Interim Guidance (LWA 2008)

Sampling Site	Waterbody	sWER				
		Dry Season			Wet Season	
		Event 1	Event 2	Event 3	Event 4[1]	Event 5
DCTWRP	LAR Reach 4	12.55	15.14	15.05	---	---
BWRP	Burbank Western Channel	12.99	13.61	13.22	---	---
SDW[2]	LAR Reach 3	7.130	9.370	8.638	---	---
LAR at Los Feliz Blvd	LAR Reach 3	---	---	---	14.15	9.19
LAR at Rosecrans Ave	LAR Reach 2	8.814	12.24	8.490	13.37	8.96
LAR at Willow Ave	LAR Reach 1	11.69	13.57	10.89	15.29	8.79

--- Dashed line indicates samples were not collected at this site during the event.
1 Event 4 was a wet weather sampling event.
2 Simulated downstream water (SDW) was created using 7Q10 approach per the Streamlined Procedure by mixing LAGWRP effluent with upstream water.

Table 10. LA River Copper WER Study Dissolved Copper Concentrations (ug/L)

Event #	DCTWRP Effluent	BWRP Effluent	SDW[1]	LA River at Los Feliz	LA River at Rosecrans	LA River at Willow
1	28.6	65.5	11.5	---	8.14	9.09
2	22.1	17.4	8.68	---	7.09	6.44
3	24.7	55.9	11.5	---	8.87	12.9
4	---	---	---	2.63	3.13	3.59
5	---	---	---	14.2	38.7	33.9

--- Dashed line indicates samples were not collected at this site during the event.
1 Simulated downstream water (SDW) was created using 7Q10 approach per the Streamlined Procedure by mixing LAGWRP effluent with upstream water.

Table 11. LA River Copper WER Study Average Flow Rates in the LA River (cfs) [1,2]

Event #	LA River at Los Feliz[1]	LA River at Rosecrans[2]	LA River at Willow[3]
1	---	105	134
2	---	118	134
3	---	97	144
4	4,468	10,335	14,071
5	138	155	186

--- Dashed line indicates flow measurements were not collected at this site during the event.
1 Event 4 flows were obtained from the flow gage located at Tujunga Boulevard eight miles upstream of Los Feliz. Event 5 flows were measured in the river by field staff.
2 Event 1, 2, 3, and 5 flows were measured in the river by field staff. Event 4 flows were obtained from the flow gage located at Firestone Boulevard approximately three miles upstream of LA River at Rosecrans.
3 Flows were obtained from the flow gage located at Wardlow Road approximately one mile upstream of LA River at Willow.

Similar to the previous study, a critical condition evaluation was conducted for this Work Plan based on BLM data collected approximately monthly at eight sampling locations (Table 12) in the LA River between March 2006 and February 2008 by the City of Los Angeles WPD Status and Trends Monitoring Program. The BLM was used to estimate dissolved copper WERs. **Appendix 3** contains the approach and results of the analysis. Two conditions were considered in the evaluation of critical conditions: 1) hydrologic wet and dry periods, and 2) winter and summer seasonality.

1. **Hydrologic wet and dry periods**. In evaluating the hydrologic condition at the time of sample collection, two factors were considered to determine if a sampling event occurred during wet or dry weather. Wet weather sampling events were classified as those events where flow in the Los Angeles River exceeded flow triggers at flow monitoring stations near the sampling points **and** there was precipitation accumulation of at least 0.1 inches within three days prior to sampling. If sampling events did not meet both criteria, then the sampling event was classified as a dry weather event. Because the Status and Trends program did not specifically target "wet weather" events both criteria are used to ensure sampling data were collected in what could be considered wet weather conditions.

   The Los Angeles River TMDL Coordinated Monitoring Plan (CMP) Technical Committee developed flow triggers at several locations in the Los Angeles River for the purpose of identifying Los Angeles River flow conditions as either wet or dry to meet TMDL requirements based on the TMDL's definition of wet conditions as 500 cubic feet per second (cfs) at Wardlow Avenue. Flow triggers were developed as the 90.8th percentile flow from County flow gage records.

2. **Winter and summer seasonality**. Summer is generally defined in the LA region as April 1 to October 31, and winter is generally defined as November 1 to March 31.

Table 12. City of Los Angeles Watershed Protection Division BLM Sampling Locations (March 2006 – February 2008)

Waterbody	Sample Location
LA River Reach 6	White Oak Ave
LA River Reach 4	Sepulveda Blvd
	Tujunga Ave
LA River Reach 3	Colorado Blvd
LA River Reach 2	Figueroa St
	Washington Blvd
	Rosecrans Ave
LA River Reach 1	Willow St

There were insufficient data available to conduct a one-way ANOVA test for each site where BLM data were collected to determine if there is a significant difference in predicted copper WER values between wet and dry weather events, with the exception of White Oak Ave. and Sepulveda Blvd. The ANOVA test indicates a significant difference between wet and dry weather sampling events at White Oak Ave., but not at Sepulveda Blvd. The ANOVA test at White Oak Ave. indicates that wet weather predicted copper WERs are significantly higher than dry weather WERs. The analysis did not indicate a statistically significant critical sampling period for a copper WER study for all locations, however, it did show that predicted wet weather WERs are not lower than predicted dry weather WERs.

Two-way ANOVA tests for sampling location and seasonal dry weather conditions (summer dry weather and winter dry weather) indicate that significant differences in predicted copper WER results are primarily due to differences between sampling stations and not seasonality. Only predicted copper WER results at Washington Blvd. and Rosecrans Ave. were significantly different due to seasonality. In both of those instances, winter dry weather conditions resulted in lower predicted copper WER results than summer dry weather conditions.

5.5 NUMBER OF SAMPLES TO CHARACTERIZE CRITICAL CONDITION

Per the Interim Guidance, a minimum of three samples are required to calculate a final WER (fWER). The fWER is calculated as the geometric mean of the three samples (USEPA 1994b). During the previous LA River Copper WER Study (LWA 2008), the TAC and LARWQCB approved the use of three events collected during the critical condition, with one confirming event each during winter wet weather and winter dry weather. A similar approach will be taken in this Work Plan. Based on the results of the critical conditions analysis, initially two dry weather samples will be collected in each of the two dry weather seasons (summer and winter) and two samples will be collected during wet weather. For the purposes of this Work Plan, the summer season will be defined as May 1 to October 31, and winter as November 1 to April 30. Concern has been expressed that this may not be a sufficient number of samples to adequately address potential variability of the WERs collected during the critical condition. **Appendix 3** presents an analysis to evaluate whether the approach is an appropriate starting point in terms of number of samples collected. Ultimately, the determination of adequate sample size will take place after actual WER samples have been collected as discussed below.

The primary purpose of conducting wet weather sampling is to confirm the assumption that dry weather represents the critical condition. As such, the two wet weather samples will be compared to the four dry weather samples to confirm that wet weather WERs are not lower than dry weather WERs. This determination will be made in coordination with the TAC and LARWQCB. If it is determined during the course of this Study that wet weather conditions may be critical, the Work Plan could be amended to address those conditions. Alternatively, the current study design can be utilized to only develop dry weather WERs. It is possible that such findings may result in development of seasonal SSOs to account for observed variation in copper bioavailability under different conditions.

An analysis will be conducted after the four dry weather samples are collected to determine if there is a substantial difference between summer dry weather and winter dry weather WER samples. This determination will be made in coordination with the TAC and LARWQCB. If it is decided that there is no substantial difference in the dry weather WERs, then dry weather is the critical condition. A total of four WER samples will have been collected in the critical condition. If it is determined that summer and winter dry weather WERs are substantially different, then the lower dry weather season is the critical condition. An additional sampling event would be conducted in the critical season for a total of three samples in the critical condition.

Following the determination of critical condition, either three or four WER samples will have been collected in the critical condition. An analysis will be conducted using these samples and other appropriate data to determine if enough samples have been collected in the critical condition. The data and analyses will be provided to the TAC and LARWQCB, and the determination of whether adequate data have been collected will be made in coordination with the TAC and LARWQCB. If it is determined that enough samples have been collected, then no further samples will be collected and the final WER (fWER) will be calculated. If it is determined that not enough samples were collected, then one or more additional samples will be collected in the critical condition, and the analyses and decision process will be repeated. Figure 4 presents the decision making process for evaluating critical conditions and sample size.

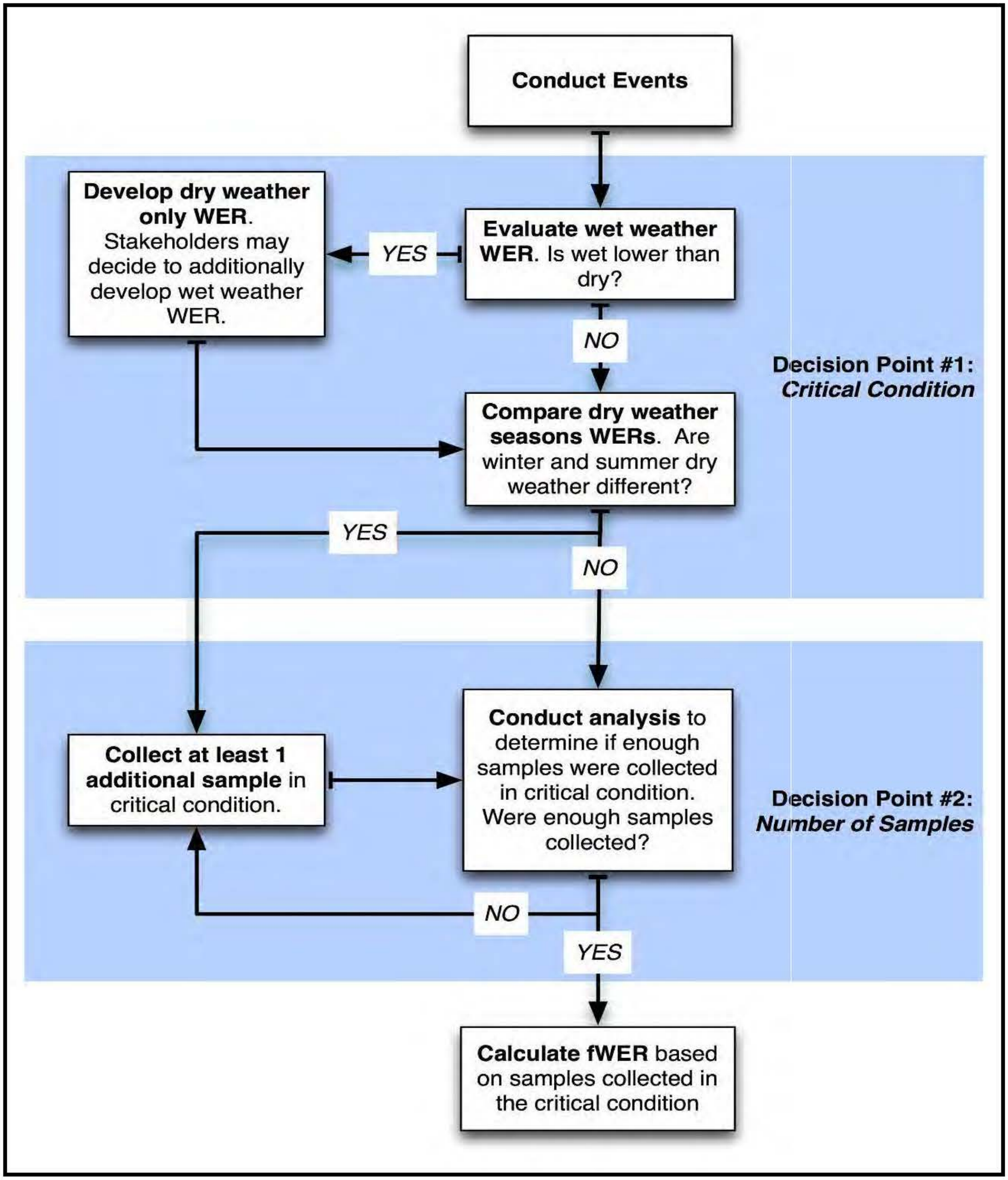

Figure 4. Decision Flow Chart

5.6 SAMPLING LOCATIONS AND COLLECTION SCHEDULE

Samples will be collected as presented in Table 13, which includes the name of the water body, sample location, and sampling condition targeted (dry or wet weather). Sampling location selection included efforts to co-locate WER sample sites with LA River Metals TMDL Coordinated Monitoring Plan (CMP) sites where appropriate, and to bracket major inputs to the system from WRP discharge and tributaries. For safety purposes the dry weather and wet weather sampling locations are not always at the exact same location; however, the sites are in close proximity. Figure 5 presents a map of the dry weather sample sites, and Figure 6 presents a map of the wet weather sample sites. **Appendix 4** presents descriptions of the sites and driving directions to the sites.

Table 13. WER Study Sampling Locations

Waterbody	Water Body Type	Sample Location	Dry Weather Site	Wet Weather Site
Tujunga Wash	Tributary	Tujunga Wash @ LAR	X	
		Tujunga Wash @ Moorpark St		X
LAR Reach 4	Main Stem	LAR @ Upstream BWC	X	
		LAR @ Tujunga Ave		X
Burbank Western Channel	Tributary	BWC Upstream of BWRP	X	
		BWC @ LAR	X	
		BWC @ Riverside Dr		X
LAR Reach 3	Main Stem	LAR @ Zoo Dr	X	
Verdugo Wash	Tributary	Verdugo Wash @ LAR	X	
		Verdugo Wash @ N. Kenilworth Ave		X
LAR Reach 3 (upstream of LAGWRP)	Main Stem	LAR @ Colorado Blvd (LAG R-4)	X	
LAR Reach 3 (downstream of LAGWRP)	Main Stem	LAR @ Figueroa St	X	X
Arroyo Seco	Tributary	Arroyo Seco @ LAR	X	
		Arroyo Seco @ N. San Fernando Rd		X
LAR Reach 2	Main Stem	LAR @ Washington Blvd	X	
Rio Hondo Reach 1	Tributary	Rio Hondo @ LAR	X	
		Rio Hondo @ Garfield Ave		X
LAR Reach 2	Main Stem	LAR @ Del Amo Blvd	X	X
Compton Creek	Tributary	Compton Creek @ LAR	X	
		Compton Creek @ Del Amo Blvd		X
LAR Reach 1	Main Stem	LAR @ Wardlow Rd	X	X

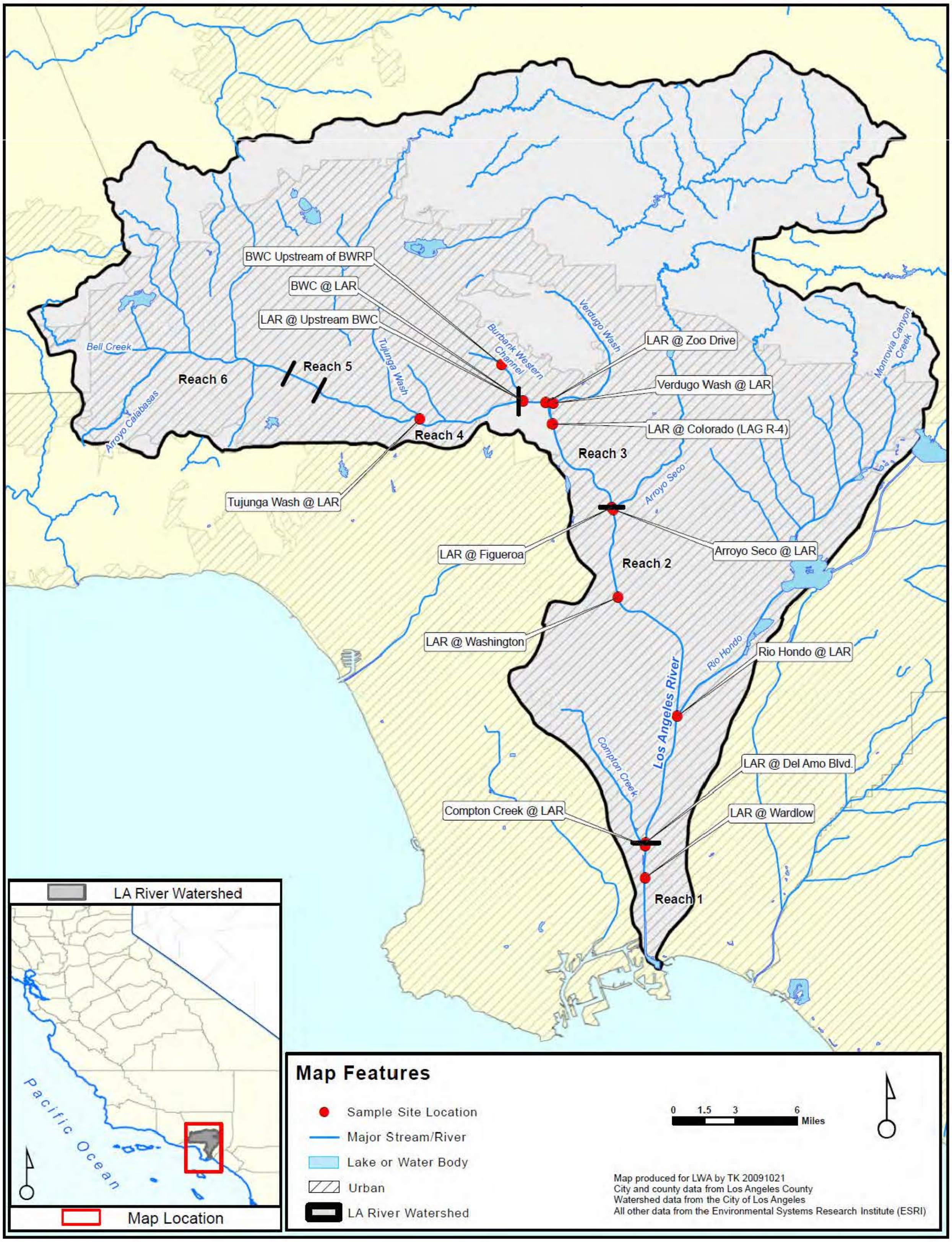

Figure 5. Dry Weather WER Sampling Sites

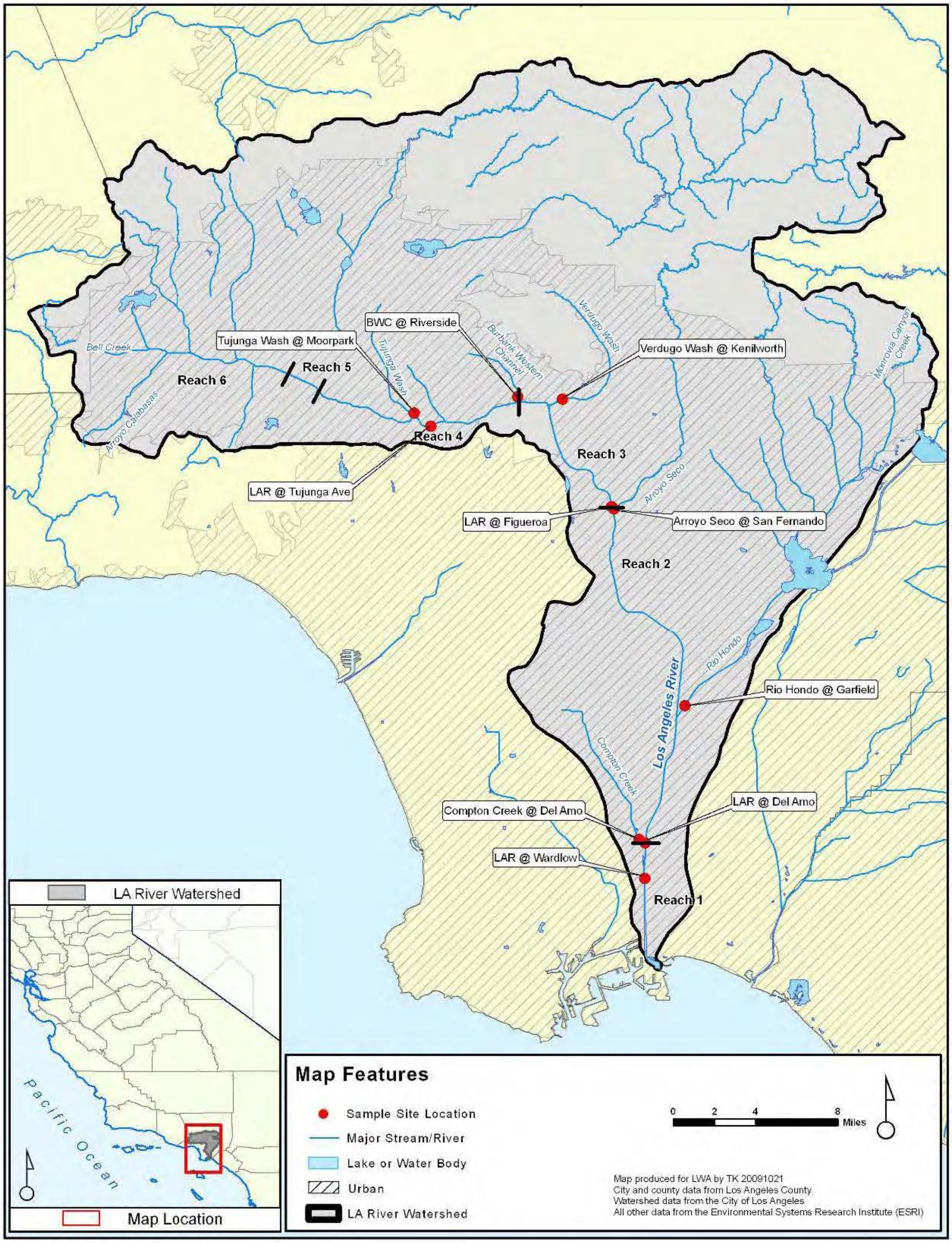

Figure 6. Wet Weather WER Sampling Sites

Dry-weather samples will be collected as manual time-weighted composites over a 24-hour period. Subsamples will be collected every six hours for a 24-hour period and then mixed together to form a manually time-weighted composited sample. As such, two days will be required to conduct collection and compositing of samples. However, because of the difficulty of conducting WER toxicity testing it was desirable to limit the number of samples submitted for testing on a given day. Therefore, three subsets of sites (four or five sites per subset) are proposed. Dry weather sampling events will be scheduled approximately one month apart. The TAC and LARWQCB staff will be apprised of any changes to the interval between sampling events. The number of days between sampling efforts may be modified given unforeseen considerations. If measurable precipitation occurs during the seven days prior to a scheduled dry weather event, stream gage data within the watershed will be reviewed to determine if flow rates have returned to levels typical of the season. Table 14 presents the grouping of sites for dry weather sample collection efforts.

Because a large proportion of the LA River flow is composed of effluent from the three WRPs during dry weather, the staff at each of the three WRPs will be consulted before each of the dry weather sampling events to verify that the treatment facilities are operating normally, that maintenance which would affect effluent quality or quantity is not being performed, and that unusual influent characteristics are not expected to be present during sample collection.

The wet season wet weather events samples will be collected as manual time-weighted composites over a 12-hour period during targeted storm events. Subsamples will be collected every four hours for a 12-hour period and then mixed together to form a manually time-weighted composited sample. The targeted storm events for wet weather sampling will be selected based on a reasonable probability that the events will result in substantially increased flows in the LA River for at least 12 hours. There is the potential opportunity to utilize wet weather samples collected through the LA River Metals TMDL CMP on the mainstem of the LA River. Utilizing these samples would have the benefit of lowering sampling cost. Note that CMP wet weather samples are collected as flow weighted composites over the course of a storm event. Sufficient precipitation is needed to produce runoff and increase flow. The decision to sample a storm event will be made in consultation with weather forecasting information services after a quantitative precipitation forecast (QPF) has been determined and in consultation with CMP staff. All efforts will be made to collect wet weather samples from all sites during a single targeted storm event. However, safety or other factors may make it infeasible to collect samples from the same storm event.

For the purpose of triggering wet weather sampling preparation, field staff can estimate that any rainfall prediction for downtown Los Angeles of 0.1-0.5 inches in a 6- to 12-hour period would be sufficient to mobilize for wet weather sampling, or by utilizing the analyses of the CMP staff. The sampling crew should prepare to depart at the forecasted time of initial rainfall. The first of the four manual composite samples should be targeted for collection within 2 hours of local rainfall.

Publicly available meteorological forecasting systems are suggested for identifying and anticipating storm event sampling for the Study. The sampling decision protocol begins when the sampling crew recognizes an approaching storm, through weekly monitoring of forecasts.

The National Weather Service's weather forecast for downtown Los Angeles can be accessed on-line at:

http://www.wrh.noaa.gov/lox/ then click on "Los Angeles" on the area map

From the forecast page, the link to "Quantitative Precipitation Forecast" provides forecasted precipitation in inches for the next 24 hours, in 3-hour increments for the first 12 hours and in 6-hour increments for the last 12 hours.

Table 15 presents the sampling schedule. The schedule is dependent on weather conditions and may be modified to capture desired flow conditions in the LA River.

Table 14. WER Study Dry Weather Sampling Locations

Subset Group	Waterbody	Sample Location
A	Tujunga Wash	Tujunga Wash @ LAR
	LAR Reach 4	LAR @ Upstream BWC
	Burbank Western Channel	BWC Upstream of BWRP
	Burbank Western Channel	BWC @ LAR
B	LAR Reach 3	LAR @ Zoo Dr
	Verdugo Wash	Verdugo Wash @ LAR
	LAR Reach 3 (upstream of LAGWRP)	LAR @ Colorado Blvd (LAG R-4)
	LAR Reach 3 (downstream of LAGWRP)	LAR @ Figueroa St
	Arroyo Seco	Arroyo Seco @ LAR
C	LAR Reach 2	LAR @ Washington Blvd
	Rio Hondo Reach 1	Rio Hondo @ LAR
	LAR Reach 2	LAR @ Del Amo Blvd
	Compton Creek	Compton Creek @ LAR
	LAR Reach 1	LAR @ Wardlow Rd

Table 15. Sample Collection Timing

Waterbody	Sample Location	Wet Season Dry Weather	Dry Season Dry Weather	Wet Season Wet Weather[1]
		Nov-Apr	May-Oct	Nov-Apr
Tujunga Wash	Tujunga Wash @ LAR	X	X	
	Tujunga Wash @ Moorpark St			X
LAR Reach 4	LAR @ Upstream BWC	X	X	
	LAR @ Tujunga Ave			X
Burbank Western Channel	BWC Upstream of BWRP	X	X	
	BWC @ LAR	X	X	
	BWC @ Riverside Dr			X
LAR Reach 3	LAR @ Zoo Dr	X	X	
Verdugo Wash	Verdugo Wash @ LAR	X	X	
	Verdugo Wash @ N. Kenilworth Ave			X
LAR Reach 3 (upstream of LAGWRP)	LAR @ Colorado Blvd (LAG R-4)	X	X	
LAR Reach 3 (downstream of LAGWRP)	LAR @ Figueroa St	X	X	X
Arroyo Seco	Arroyo Seco @ LAR	X	X	
	Arroyo Seco @ N. San Fernando Rd			X
LAR Reach 2	LAR @ Washington Blvd	X	X	
Rio Hondo Reach 1	Rio Hondo @ LAR	X	X	
	Rio Hondo @ Garfield Ave			X
LAR Reach 2	LAR @ Del Amo Blvd	X	X	X
Compton Creek	Compton Creek @ LAR	X	X	
	Compton Creek @ Del Amo Blvd			X
LAR Reach 1	LAR @ Wardlow Rd	X	X	X

1 The wet season wet weather events will be conducted during a targeted storm event.

5.7 PARAMETERS TO BE ANALYZED

Acute toxicity tests (48-hours) will be conducted side-by-side on USEPA-specified laboratory water (adjusted to site water hardness) and site water samples to determine the WER for each site. Additionally, samples will also be analyzed for copper and BLM and general water quality constituents as presented in Table 16.

Table 16. Analytical Requirements for Toxicity and Analytical Chemistry

Analysis / Constituent	Method[1]	Detection Limit	Target RL	Holding Time	Required Sample Volume[2]	Sample Bottles and Preservative	Lab
Acute *Ceriodaphnia dubia*	EPA/821/R-02/012 and EPA 822/R-01/005	N/A	N/A	Tests begun in36 hours	10 - 20 gallons	5 gallon FHDPE jerrican	Toxicity testing laboratory
Alkalinity	Titrimetric Method	10 mg/L	10 mg/L	Measured immediately upon receipt and as required during tests			
Conductivity	Graphite electrode	2.5 umhos/cm	2.5 umhos/cm				
Total Residual Chlorine	Colorimetric Method	0.02	0.05				
Temperature	NIST calibrated thermometer or meter	0.1ºC	0.1ºC				
pH	Electrometric	0.01 units	0.01 units				
Dissolved Oxygen	Membrane	0.01 mg/L	0.1 mg/L				
Total Ammonia	Colorimetric Method	0.05 mg/L	0.1 mg/L	28 days		H_2SO_4	
Hardness	Titrimetric Method, SM 2340B	10 mg/L / 1 mg/L	10 mg/L / 1 mg/L	6 months	10 – 20 gallons/ included with metals sample	5 gallon/250 mL, Measured immediately upon receipt at the toxicity testing laboratory / ph < 2	Toxicity testing/ Analytical chemistry laboratory
Cu, Total & Dissolved	EPA 200.8	0.4 µg/L	0.8 µg/L	6 months[3]	250 mL	HDPE, HNO_3	Analytical chemistry laboratory
Total Suspended Solids	SM 2540D	0.1 mg/L	1.0 mg/L	7 days	1L	HDPE	
TOC	SM 5310D	0.1 mg/L	0.5 mg/L	28 days	250 mL	glass, H_2SO_4	
DOC	SM 5310B	0.1 mg/L	0.5 mg/L	Filter within 24 hours, 28 days	250 mL	glass	
DIC	Calculation	0.1 mg/L	0.5 mg/L				

Continued on next page

Analysis / Constituent	Method[1]	Detection Limit	Target RL	Holding Time	Required Sample Volume[2]	Sample Bottles and Preservative	Lab
Calcium	EPA 200.7	0.01 mg/L	0.1 mg/L	6 months	250 mL	HDPE	Analytical chemistry laboratory
Magnesium		0.01 mg/L	0.1 mg/L				
Sodium		0.02 mg/L	0.5 mg/L				
Potassium		0.06 mg/L	0.5 mg/L				
Sulfate	EPA 300.0	0.01 mg/L	0.05 mg/L	28 days	100 mL	HDPE	
Chloride							

1 SM = Standard Methods for the Examination of Water and Wastewater, 20th Edition (AWWA, 1999).
2 Water for these analyses will be collected from the 25 gallons of sample composited at the toxicity testing laboratory.
3 Samples for dissolved metals analysis will be filtered within 15 minutes of sample collection and preserved.

5.8 SAMPLE COLLECTION PROCEDURES

As mentioned previously, dry weather samples for WER and analytical testing for BLM constituents will be collected as manual time-weighted composites over a 24-hour period. Subsamples will be collected every six hours for a 24-hour period. Wet weather samples for WER constituents will be collected as manual time-weighted composites over a 12-hour period. Subsamples will be collected every four hours for a 12-hour period. The subsamples will then be mixed together at the toxicity testing laboratory facility to form a manually composited sample for WER testing. Equal portions will be used from each subsample to form the sample for a specific site as the samples are time based composites.

Samples for the BLM constituents, TSS, and total and dissolved copper will also be collected as manual time-weighted composites over the 12 or 24-hour period. Subsamples will be collected as 250 mL grab samples for TSS and BLM constituents, 200 mL (250 mL minus 50 mL) grab samples for total copper, and 20 – 50 mL grab samples for dissolved copper. Dissolved copper sample collection procedures are discussed in detail in Section 5.8.2. BLM constituents, TSS and total and dissolved copper samples will be manually composited in the analytical chemistry laboratory by lab staff. Sample volumes are presented in Table 18.

BLM samples collected as subsamples in the field are considered representative of both the conditions in the LA River and tributaries as well as comparable to WER results for evaluation of BLM predicted toxicity for all constituents except pH. It is reasonable to expect that the pH of the samples may drift between the time of collection, the onset of toxicity testing, and the completion of toxicity testing. As mentioned above, the BLM derived WERs can be used to compare to WER testing results, as well as for additional analyses of the LA River and tributaries. Therefore, pH will be measured several times throughout sample collection and WER testing for different uses. The occasions of pH measurements are presented in Table 17. Following the completion of toxicity testing, the pH values measured will be sent to the TAC who will determine if a call should be scheduled to discuss the results.

Table 17. BLM pH Measurement Occasions

pH Measurement	Occasion of Measurement	Use
Field pH	During each subsample collection	BLM analyses of LA River.
Composite pH	After toxicity subsamples have been composited	BLM generated values for comparison to WERs.
Initial test pH	After samples have been spiked, before introduction of organisms	BLM generated values for comparison to WERs.
Final test pH	At the completion of the toxicity tests	BLM generated values for comparison to WERs.

Table 18. Sample Volume Requirements for TSS and Copper Analytical Testing

Constituent	Subsample Volume (mL)	Total Sample Volume (mL)	
		Dry Weather	Wet Weather
TSS	250	1250	1000
Total Copper	200	1000	800
Dissolved Copper	20 - 50	100-250	80-200
TOC	250	1250	1000
DOC, DIC	250	1250	1000
Calcium, Magnesium, Sodium, Potassium	250	1250	1000
Sulfate, Chloride	250	1250	1000

Subsamples will be collected at approximately mid-stream, mid-depth at the location of greatest flow (where feasible) by direct submersion of the sample bottle. This is the preferred method for grab sample collection; however, due to monitoring site configurations and safety concerns, direct filling of sample bottles may not always be feasible. Monitoring site configuration will dictate grab sample collection technique. Grab samples will be collected directly into the appropriate bottles whenever feasible. Clean sampling techniques will be used and are described in the following section.

Some LA River reaches and tributaries may not contain sufficient flow to collect samples by direct submersion. Intermediate containers will be used in instances where flows are too shallow for direct submersion of toxicity subsample containers and in instances where sheet flow is present. In these instances, a 1-liter HDPE bottle (the same type as used for total suspended solids analysis) will be used to fill the sample bottles. Alternatively, if sheet flow does not allow for use of a 1-liter HDPE bottle, clean Ziploc bags will be utilized as an intermediate container. Blank samples have been collected in and on Ziploc bags in previous studies and no metals of interest were detected. It is considered very important to not scoop up algae, sediment, or other particulate matter on the bottom of the channel because such debris is not representative of surface flows. To prevent collection of such debris, either (1) a location should be found where the channel bottom is relatively clean, or (2) a clean Ziploc bag should be placed on the bottom of the channel and the water sample collected from on top of the bag. A fresh Ziploc bag pre-rinsed with site water should be used at each site, when required.

On March 12, 2007, new Federal regulations (40 Code of Federal Regulations [CFR] Parts 122 and 136), were promulgated requiring that any dissolved metals analysis conducted for compliance with the Clean Water Act needs to be filtered within 15 minutes of collection. For grab samples, filtration is required within 15 minutes of collection and before adding preservatives. Field filtration methods are described below.

5.8.1 Clean Sample Collection Techniques

To prevent contamination of samples, clean metal sampling techniques using USEPA protocols outlined in USEPA Method 1669[3] will be used throughout all phases of the sampling and

[3] USEPA. April 1995. *Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels.* EPA 821-R-95-034.

laboratory work, including equipment preparation, sample collection, and sample handling, storage, and testing. All containers and test chambers will be acid-rinsed prior to use. Filled sample containers will be kept on ice until receipt at the laboratory.

The protocol for clean metal sampling, based on USEPA Method 1669, is summarized below:

- Samples are collected in rigorously pre-cleaned sample bottles with any tubing specially processed to clean sampling standards.
- At least two persons, wearing clean, powder-free nitrile or latex gloves at all times, are required on a sampling crew.
- One person, referred to as “dirty hands”, opens only the outer bag of all double-bagged sample bottles.
- The other person, referred to as “clean hands”, reaches into the outer bag, opens the inner bag and removes the clean sample bottle.
- Clean hands rinses the bottle at least two times by submerging the bottle, removing the bottle lid, filling the bottle approximately one-third full, replacing the bottle lid, gently shaking and then emptying the bottle. Clean hands then collects the sample by submerging the bottle, removing the lid, filling the bottle and replacing the bottle cap while the bottle is still submerged.
- After the sample is collected, the sample bottle is double-bagged in the opposite order from which it was removed from the same double-bagging.
- Clean, powder-free gloves are changed whenever something not known to be clean has been touched.
- The time of sample collection is recorded on the field log sheet.

In order to reduce potential contamination, sampling personnel will adhere to the following rules:

- No smoking.
- Never sample near a running vehicle. Do not park vehicles in the immediate vicinity of the sample collection area (even non-running vehicles).
- Do not eat or drink during sample collection.
- Do not breathe, sneeze or cough in the direction of an open sample bottle.

Each person on the field crew will wear clean clothing that is free of dirt, grease, or other substances that could contaminate the sampling apparatus or sample bottles.

5.8.2 Dissolved Metals Field Filtration

A 50mL plastic syringe with a 0.45µm filter attached will be used to collect and filter the dissolved metals sample in the field. The apparatus will be pre-cleaned and double bagged in zip-lock plastic bags, and the filter material will be tested for copper contamination. To collect the sample for dissolved metals, first collect the total metals sample using clean sampling techniques. The dissolved sample will be taken from this container. Directly prior to collecting the dissolved sample, shake the total metals sample. To collect the dissolved metals sample using clean sampling techniques, remove the syringe from the bag and place the tip of the syringe into the bottle containing the total metals sample and draw up 50 mL of sample into the syringe. Next, remove the filter from the zip-lock bag and screw it tightly into the tip of the syringe. Then put the tip of the syringe with the filter into the clean dissolved metals container and push the sample through the filter taking care not to touch the inside surface of the sample container with the apparatus. The sample volume needs to be a minimum of 20 mL. If the filter becomes clogged prior to generating 20 mL of sample, remove and dispose of the used filter and replace it with a new clean filter. Continue to filter the sample. When 20 mL has been collected, cap the sample bottle tightly and store on ice for delivery to the laboratory.

5.8.3 Field Measurements and Observations

Field measurements (listed in Table 19) will be collected and observations made at each sampling site after a sample is collected. Because the composite samples are not flow weighted, a flow measurement may not be taken after each sample is collected if taking such a measurement will impede collection of the next site's sample on time. All field measurement results and field observations will be recorded on a field log sheet similar to the one presented in **Appendix 5**.

Field measurements will include dissolved oxygen, temperature, conductivity, pH, turbidity, and flow. Measurements (except for flow) will be collected at approximately mid-stream, mid-depth at the location of greatest flow (if feasible) with a Hydrolab DS4 multi-probe meter, or comparable instrument(s). For measurements of relatively deep flows, the sensors will be placed directly into the flow path. For measurements of shallow flows, water will be collected in a rinsed intermediate container prior to measurement.

Prior to the first day of each sampling event, water quality meters will be calibrated using fresh calibration solutions. For all constituents except turbidity, a two-point calibration will be used. For turbidity, a three-point calibration will be used. After each calibration, the sensor will be checked to verify the accuracy was within 10% of the known value of a standard solution. Otherwise, this process will be repeated until the calibration is verified.

In addition to field measurements, observations shall be made at each sampling station and noted on the field log form. Observations will include color, odor, floating materials, and wildlife, as well as observations of contact and non-contact recreation.

The following section describes the field methods that will be used to measure flow rates. The method of flow rate measurement will be dependent on the depth/flow at the sampling site, as described below.

Table 19. Analytical Methods and Project Reporting Limits for Field Measurements

Parameter/Constituent	Method	Range	Project RL
Flow	Electromagnetic	-0.5 to +20 ft/s	0.05 ft/s
pH	Electrometric	0 – 14 pH units	NA
Temperature	High stability thermistor	-5 – 50 ^{o}C	NA
Dissolved oxygen	Membrane	0 – 50 mg/L	0.5 mg/L
Turbidity	Nephelometric	0 – 3000 NTU	0.2 NTU
Conductivity	Graphite electrodes	0 – 10 mmhos/cm	2.5 umhos/cm

RL – Reporting Limit NA – Not applicable

5.8.3.1 Velocity Meter Flow Measurements

For the mainstem LA River and most of its tributaries, the water is deep enough (>0.1-foot) to allow for use of a velocity meter. For these cases, velocity will be measured at approximately equal increments across the width of the flowing water using a Marsh-McBirney Flo-Mate ® velocity meter[4], which uses an electromagnetic velocity sensor. A "flow pole" will be used to measure the water depth at each measurement point and to properly align the sensor so that the depth of each velocity measurement is 0.6 * total depth, which is representative of the average velocity. The distance between velocity measurements taken across the stream is dependent on the total width. No more than 10% of the flow will pass through any one cross section.

5.8.3.2 Shallow Sheet Flow Measurements

If the depth of flow does not allow for the measurement of flow with a velocity meter (<0.1-foot) a "float" will be used to measure the velocity of the flowing water. The width, depth, velocity, cross section, and corresponding flow rate will be estimated as follows:

Sheet flow width: The width (W) of the flowing water (not the entire part of the channel that is damp) is measured using a tape measure at the "top", "middle", and "bottom" of a marked-off distance – generally 10 feet (e.g., for a 10-foot marked-off section, W_{Top} is measured at 0-feet, W_{Mid} is measured at 5 feet, and W_{Bottom} is measured at 10 feet).

Sheet flow depth: The depth of the sheet flow is measured at the top, middle, and bottom of the marked-off distance. Specifically, the depth (D) of the sheet flow is measured at 25%, 50%, and 75% of the flowing width (e.g., $D_{50\%}^{Mid}$ is the depth of the water at middle of the section in the middle of the sheet flow) at each of the width measurement locations. It is assumed that the depth at the edge of the sheet flow (i.e., at 0% and 100% of the flowing width) is zero.

Representative cross-section: Based on the collected depth and width measurements, the representative cross-sectional area across the marked-off sheet flow is approximated as follows:

$$\text{Re}\mathit{presentative\ Cross\ Section} =$$
$$\mathit{Average}\ \{[\frac{W_{Top}}{4} \times (\frac{D_{25\%}^{Top}}{2} + \frac{(D_{50\%}^{Top} + D_{25\%}^{Top})}{2} + \frac{(D_{75\%}^{Top} + D_{50\%}^{Top})}{2} + \frac{D_{75\%}^{Top}}{2})],$$
$$[\frac{W_{Mid}}{4} \times (\frac{D_{25\%}^{Mid}}{2} + \frac{(D_{50\%}^{Mid} + D_{25\%}^{Mid})}{2} + \frac{(D_{75\%}^{Mid} + D_{50\%}^{Mid})}{2} + \frac{D_{75\%}^{Mid}}{2})],$$
$$[\frac{W_{Bottom}}{4} \times (\frac{D_{25\%}^{Bottom}}{2} + \frac{(D_{50\%}^{Bottom} + D_{25\%}^{Bottom})}{2} + \frac{(D_{75\%}^{Bottom} + D_{50\%}^{Bottom})}{2} + \frac{D_{75\%}^{Bottom}}{2})]\}$$

Sheet flow velocity: Velocity is calculated based on the amount of time it took a float to travel the marked-off distance (typically 10-feet or more). Floats are normally pieces of leaves, litter, or floatables (suds, etc.). The time it takes the float to travel the marked-off distance is measured at least three times. Then average velocity is calculated as follows:

[4] For more information, see http://marsh-mcbirney.com/Products/2000.htm

$$\text{Average Surface Velocity} = \frac{\text{Distance Marked off for Float Measurement}}{\text{Average Time for Float to Travel Marked off Distance}}$$

Flow Rate calculation: For sheet flows, based on the above measurements/estimates, the estimated flow rate, Q, is calculated by:

$$Q = f \times (\text{Representative Cross Section}) \times (\text{Average Surface Velocity})$$

The coefficient *f* is used to account for friction effects of the channel bottom. That is, the float travels on the water surface, which is the most rapidly-traveling portion of the water column. The average velocity, not the surface velocity, determines the flow rate, and thus *f* is used to "convert" surface velocity to average velocity. In general, the value of *f* typically ranges from 0.60 – 0.90 (USGS 1982). Based on flow rate measurements taken during the LA River Bacteria Source Identification Study (CREST 2008) a value of 0.75 will be used for *f*.

5.8.3.3 Flow Gage Measurements

In addition to measuring flow, flows will be obtained from flow gages in the vicinity of the sampling sites, if available. Table 20 presents the location of flow gages located on the LA River and tributaries.

Table 20. LA River and Tributary Flow Gages

Waterbody	Water Body Type	Gage Location	Gage ID
LAR Reach 4	Main Stem	LA River below Sepulveda Dam	LARS
Tujunga Wash	Tributary	Tujunga Wash below Hansen Dam	TJWH
LAR Reach 4	Main Stem	LA River above Tujunga Ave	LART
Burbank Western Channel	Tributary	Burbank Western Channel at Riverside Drive	E285-R
Verdugo Wash	Tributary	Verdugo Wash at Estelle Ave	VDWE
LAR Reach 3	Main Stem	LA River above Arroyo Seco Channel	LARA
LAR Reach 2	Main Stem	LA River above Firestone Blvd	LARF
Rio Hondo	Tributary	Rio Hondo Above Stewart and Gray Road	RHDS
Compton Creek	Tributary	Compton Creek near Green Leaf Drive	F37B-R
LAR Reach 1	Main Stem	LA River above Wardlow Road	LARW

5.9 QUALITY ASSURANCE / QUALITY CONTROL

Quality assurance and quality control (QA/QC) measures are built into the WER Study to assure data will be credible. Field QA/QC for this project includes the following:

- Equipment blanks. The use of equipment blanks is intended to test whether contamination is introduced from the filtering equipment. Equipment blanks will be collected prior to the first sampling event, and analyzed for total and dissolved copper, DOC, DIC, chloride and sulfate to evaluate laboratory cleaning procedures of toxicity sample containers.
- Field blanks. The use of field blanks is intended to test whether contamination is introduced from sample collection and handling, sample processing, analytical procedures, or the sample containers. Field blanks will be analyzed for total and dissolved copper, DOC, DIC, chloride and sulfate. Field blanks will be submitted blind to the laboratory.
- Field duplicates. The use of field duplicates is intended to test the precision of sample collection. Field duplicates will be analyzed for all chemistry constituents.
- Use of "clean" sampling techniques to minimize sample contamination. "Clean" techniques involve the use of clean gloves during sample collection and handling.
- Use of sampling equipment and containers that are acid-washed to be "trace-metal clean" prior to each use.
- Proper collection, handling, and preservation of samples.
- Maintenance of a field log.

Chain-of-custody procedures for this project include the following:

- Proper labeling of samples.
- Use of chain-of-custody (COC) forms for all samples (See **Appendix 6** for an example COC).
- Prompt sample delivery to the laboratory.

Laboratory QA/QC for this project includes the following:

- Use of the lowest available method detection limits (MDLs) for trace elements.
- Analysis of method blanks and laboratory duplicates.
- Use of matrix spikes (to test analytical accuracy) and matrix spike duplicates (to test analytical precision) (MS/MSD).
- Routine analysis of standard reference materials (SRMs) and method blanks.

Quality control samples for the WER Study will include laboratory filter blanks, laboratory method blanks, matrix spike/matrix spike duplicates, and duplicates for appropriate chemistry analyses. Field blanks will be collected under field conditions to best simulate field procedures. Laboratory water will be used to rinse the composite bottle as a check for contamination. Laboratory and field duplicate samples will be collected to check for constancy in field and laboratory procedures. MS/MSD samples will be collected to check for precision and accuracy. Extra water will be necessary for field duplicate (FD) analyses. The analytical chemistry laboratory should regularly conduct MS/MSD and lab duplicate analyses. Field-generated quality control samples (field duplicates and field blanks) will be submitted “blind” to the laboratory. Table 21 presents the location of QA/QC sample collection. If additional events are needed, the QA/QC schedule will be extended for the same sampling locations.

Table 21. Quality Assurance and Quality Control Sample Collection Schedule

Sample Location	Pre-Event	Dry Weather												Wet Weather
		1			2			3			4			
		A	B	C	A	B	C	A	B	C	A	B	C	
Field filtering equipment and jerricans	EB													
Tujunga Wash @ LAR		FB/ FD			FB/ FD			FB/ FD			FB/ FD			FB/ FD
LAR @ Zoo Dr			FB/ FD			FB/ FD			FB/ FD			FB/ FD		
LAR @ Washington Blvd				FB/ FD			FB/ FD			FB/ FD			FB/ FD	

EB – Equipment Blank FB – Field Blank FD – Field Duplicate

Data verification will be used to check analytical data before reporting. The data verification procedures include:

- Checking the adequacy of the QC results;
- Checking the data set for outlier values; and
- Conducting an in-house verification of all data analysis results

Data will be reviewed to address quality assurance issues. Table 22 presents data quality objectives used for data validation.

Table 22. Data Quality Objectives

Constituent Group	Maximum RPD	Spike Recovery Lower Limit	Spike Recovery Upper Limit
Metals	30%	45%	150%
Other Water Chemistry Parameters	20%	70%	130%

RPD = relative percent difference

Test acceptability requirements set forth in the Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (USEPA 2002) and the Interim Guidance (USEPA 1994b) will be used to assess toxicity testing data for QA/QC purposes.

5.10 MONITORING EVENT PREPARATION

Monitoring event preparation will include mobilizing field equipment, placing bottle orders, and contacting the necessary personnel regarding site access and scheduling. The following steps will be completed prior to the sampling event:

1. Contact laboratories or other suppliers to obtain sample containers.
2. Confirm scheduled monitoring date with the field crew and set up sampling day itinerary, including courier pickup/drop-off.
3. Contact POTW operations staff to verify that the treatment facilities are operating normally.
4. Mobilize sampling equipment.
5. Prepare sample container labels.
6. Prepare field log sheet to indicate the type of field measurements, field observations and samples to be collected.
7. Calibrate field measurement instruments.

The following equipment will be mobilized prior to each sampling event:

- First aid kit
- Safety harnesses and safety lines
- Life vests
- Cellular phone
- Field log / sampling summary sheets on waterproof paper
- Nitrile or latex powder-free gloves
- Flow meter
- Coolers for all sample bottles
- Multiparameter meter (temperature, pH, DO, and Conductivity)
- Camera
- GPS
- Clipboard
- Chain of custody forms
- Sample bottles
- Compositing bottles
- Labels for sample and compositing bottles
- Measuring cups
- Field filtering equipment
- Ice
- Field kit (containing duct tape, utility knife, zip-lock bags, rubber bands, tie-wraps, sharpie pens, pencils, screw driver, and other miscellaneous supplies)
- Zip Lock bags
- Flow Meter

5.10.1 Bottle Order

Four weeks prior to the sampling event, fluorocarbon-lined high-density polyethylene (FDPE) containers used for toxicity testing will be sent to the analytical chemistry laboratory for cleaning to support clean sampling for metals. The analytical chemistry laboratory will run equipment blanks on a subset of the containers prior to the sample collection date. The analytical chemistry laboratory will send bottles for chemistry collected in the field directly to the sampling crew.

Bottles required for chemistry analyses collected immediately prior to, during, and immediately following WER testing will be sent directly to the toxicity testing laboratory by the analytical chemistry laboratory.

5.10.2 Sample Bottle Labeling

Custom bottle labels should be produced using blank waterproof labels and labeling software. Labels will be placed on the appropriate bottles in a dry environment; applying labels to wet sample bottles should be avoided. Labels should be placed on sides of bottles rather than on bottle caps. Labels should include the following information:

- Program Name
- Station ID
- Sample ID
- Date
- Collection Time
- Sampling Personnel
- Analytical Requirements
- Preservative Requirements
- Analytical Laboratory

5.11 SAMPLE DELIVERY

Samples will be stored and transported at 4±2°C. The 5-gallon containers containing the water samples for WER testing will be shipped to the toxicity testing laboratory for analysis. Samples will be sent to the toxicity testing laboratory priority overnight on the same day that the 24-hour composite sample collection process is completed. The individual sample containers containing the water samples for chemical analysis will be shipped to the analytical chemistry laboratory for analysis.

Contacts for each laboratory participating in the Work Plan will be presented here:

- Toxicity Testing Laboratory: To be determined
- Analytical Chemistry Laboratory: To be determined

5.12 CALCULATING AND INTERPRETING WER RESULTS

Section I of the Interim Guidance presents information on calculating and interpreting results. The steps outlined in Section I will be utilized to guide calculation and interpretation of the toxicity testing results. Generally the requirements of Section I include:

- Evaluating the acceptability of each toxicity test individually.
- Determining whether the effects, symptoms, and time course of toxicity was the same in the side-by-side tests in the site water and the laboratory dilution water.
- Calculating the results of each test.
- Evaluating the acceptability of the laboratory dilution water.
- Calculating the sample WERs (sWERs).
- Investigating the WER.

The following subsections discuss several of the requirements of Section I. Not all requirements are discussed here as they are fairly straight forward and do not require additional discussions.

5.12.1 Evaluating Effects

Section I part 3 of the Interim Guidance indicates the effects, symptoms, and time course of toxicity should be evaluated to determine if they are the same in the side-by-side tests of the site water and the lab water and provides the following examples for consideration:

- Did mortality occur in one acute test, but immobilization in the other?
- Did most deaths occur before 24 hours in one test, but after 24 hours in the other?
- In sublethal tests, was the most sensitive effect the same in both tests?

Part 3 states that "If the effects, symptoms, and/or time course of toxicity were different, it might indicate that the test is questionable or that additivity, synergism, or antagonism occurred in site water. Such information might be particularly useful when comparing tests that produced unusually low or high WERs with tests that produced moderate WERs."

The measured effect utilized in this Work Plan suggested by the Interim Guidance is mortality (LC50). As such, no sublethal effects (i.e. growth or reproduction) will be measured and a comparison between types of effects will not be possible. The Interim Guidance recommended 48-hour *C. dubia* acute test does not allow for a detailed evaluation of time-course effects as there are only two points (at t=24 and 48 hours) when effects are measured. Further, the side-by-side tests are conducted utilizing different spiked copper concentrations (i.e., site waters are spiked at higher levels of copper than lab waters). As such, there does not seem to be comparable levels of exposure by which to conduct a comparison. Even if a detailed evaluation could be conducted for tests with similar levels of copper, Section I part 3 does not provide further guidance as to what should be done with the information. If additivity, synergism, and antagonism are occurring in the site water, the individual sWERs for the site water are incorporating the effect in an empirical way. The toxicity of copper in the site water is equal to the toxicity associated with the metal + additivity, synergism, and antagonism effects associated with all other components in the site water that could potentially reduce or increase the toxicity of copper. A similar evaluation was not conducted for the LA River Copper WER Study (LWA 2008) and the reasoning was accepted by the TAC (two members of which were authors of the Interim Guidance) and LARWQCB. As such, time course effects will not be addressed in the Work Plan or report.

5.12.2 Calculating LC50s of Each Test

Section I part 4 of the Interim Guidance describes how the endpoints of each test shall be calculated. As acute toxicity tests will be utilized, LC50s will be the endpoints calculated. The Interim Guidance states that LC50s must be calculated using methods described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms - Fourth Edition* (USEPA 1993) or *Guide for Conducting Acute Toxicity Tests with Fishes, Macroinvertebrates, and Amphibians* (ASTM 1993). The USEPA 1993 reference was updated in 2002 as such, LC50 values will be determined following the protocols set forth in USEPA's 2002 *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition.* Statistical analysis will be performed using CETIS software based on the Automated Decision Tree (USEPA 2002). CETIS allows the selection of the regression analysis to be performed. Per the decision tree, Probit analysis will be initially performed in all cases. If the data do not meet the assumptions of the Probit method (i.e.

two or more partial responses), the non-parametric Trimmed Spearman-Karber Method will be used.

The Spearman-Karber method contained in the CETIS software is based on the USEPA's Trimmed Spearman-Karber v1.5 Application and is used in the recommended "Automatically Minimize Trim Level" option. In this option, data that does not meet the assumption of the Probit method, but which does meet the assumption of the Spearman-Karber Method, is evaluated by following the assumptions required for the Spearman-Karber Method (complete mortality at one of the treatment concentrations and no partial responses [0% trim] and 100% survival in the lowest treatment concentration). If the assumptions for use of the Spearman-Karber Method are not met, the CETIS program automatically applies the minimum trim level needed and performs the analysis conforming to the Trimmed Spearman-Karber Method.

5.12.3 Calculating Sample WERs

Section I part 6 of the Interim Guidance describes how WERs are calculated for each sample. Per the Interim Guidance the sample WERs (sWERs) must be calculated by dividing the LC50 obtained using site water by the LC50 obtained using lab water:

$$sWER = \frac{\text{Hardness-normalized Site Water LC50}}{\text{Hardness-normalized Lab Water LC50}}$$

5.12.4 Investigation of the WERs

Section I part 7 of the Interim Guidance discusses investigating WER results. The suggested investigation is presented in four parts (7a through 7d). Parts 7a and 7c are discussed below. Part 7b discusses comparisons between the primary and secondary species; however, only one species will be utilized to develop copper WERs. Part 7d is not discussed below as it contains the same investigative requirements as Section I part 3, which is discussed above in section 5.12.1 (Evaluating Effects).

5.12.4.1 Comparison to Standard Parameters

Section I part 7a suggests that parameters collected during WER sampling events be compared to previously available data to determine whether the WER samples were representative. Similar to previously conducted WER studies, including the LA River Copper WER Study (LWA 2008), the following chemical parameters collected through this study will be compared to previously collected data to evaluate whether the parameters are within the expected range for the sites:

- Hardness
- pH
- Dissolved and total copper
- Total suspended solids

5.12.4.2 Investigation of WERs Larger than Five

Section I part 7c states that if a WER is larger than five, it should be investigated. The following three avenues of investigation are suggested:

7c 1. If the endpoint obtained using the laboratory dilution water was lower than the previously reported lowest value or was more than a factor of two lower than an existing Species Mean Acute Value in a criteria document, additional tests in the laboratory dilution water are probably desirable.

7c 2. If a total recoverable WER was larger than five but the dissolved WER was not, is the metal one whose WER is likely to be affected by TSS and/or TOC and was the concentration of TSS and/or TOC high? Was there a substantial difference between the total recoverable and dissolved concentrations of the metal in the downstream water?

7c 3. If both the total recoverable and dissolved WERs were larger than 5, is it likely that there is nontoxic dissolved metal in the downstream water?

Aside from conducting an investigation, it should be noted the Interim Guidance does not indicate what to do with WERs larger than five based on the results of the investigation. Section I 7c 2 and 3 are not applicable as only dissolved WERs will be calculated through this study.

Of the 21 sWERs presented in the previous LA River Copper WER study (LWA 2008), 21 calculated utilizing the Interim Guidance were larger than five. The Interim Guidance was developed before a number of site-specific studies were conducted. As such, there were concerns that site-specific criteria might be larger than appropriately protective because of variability or error in toxological measurements.

An initial review of available information on WER studies conducted around the nation indicates that freshwater copper WERs commonly exceed five. Table 23 presents a summary of the references reviewed. These data would not have been available for consideration during the development of the Interim Guidance.

Table 23. Results of Freshwater WER Studies for Development of Copper WERs

Water-Effect Ratios Presented	Location	Reference
0.98 to 12.53	States of AZ, CA, CO, NM, NV, and OR	Parametrix 2006
2.07 to 8.39	Texas	USEPA 2008
14.7	Quinnipiac River Basin, CN	Connecticut DEP 1996 as cited in Hall et. al 1997

Similar to the previous LA River Copper WER study (LWA 2008), the Section I part 7c1 investigation will be conducted on sWERs greater than five. For Section I parts 7c 2 and 3, only dissolved WERs will be developed. As such, a comparison between total and dissolved WERs is not applicable to this study.

5.12.5 Calculating Final WERs

The Interim Guidance suggests that the final WER (fWER) is calculated as the geometric mean of some or all of the sWERs. The geometric mean is a measure of the central tendency of a data set that minimizes the effects of extreme values and is calculated as the *n*th root of a product of *n* factors. The equation for the geometric mean is:

$$\text{Geometric mean} = \sqrt[n]{y_1 * y_2 * y_3 * \ldots y_n}$$

All sWERs collected at a site during the critical condition will be utilized to calculate a site's fWER. If there are no differences between the critical condition data and one or both of the other two conditions (summer season dry weather and winter season wet weather) all similar data at a site will be used to calculate the site's fWER. If sWERs at sites within the same reach or in adjacent reaches are similar, site sWERs could be combined to calculate an fWER for multiple sites and/or multiple reaches. To determine if there are differences in sWERs between conditions and sites, an appropriate approach (statistical or otherwise) will be conducted. For those mainstem LA River sites where sWERs are similar to adjacent LA River mainstem sites, fWERs could be calculated as the geometric mean of similar sWERs from the similar sites.

Section 6 discusses the approach for evaluating the fWERs in the context of SSOs that insure the protection of downstream aquatic life beneficial uses to levels intended by the CTR criteria.

5.13 REPORTING WER RESULTS

A Water-Effect Ratio Report will be developed to present all the information generated through the WER portion of this Work Plan. Section J of the Interim Guidance presents information on reporting the WER results. Specifically, Section J presents information on:

- Reporting of the experimental determination of the WERs, as well as
- Reporting of the derivation of the final fWER

The Water-Effect Ratio Report based on this Work Plan will report the information as required in Section J.

Section 6. Implementation of Work Plan Results

Following the completion of the Recalculation Report and the WER Report, an Implementation Report will be developed that will determine how the information generated will be used to modify the Basin Plan. Further, the Implementation Report will summarize additional analysis conducted to support the implementation of SSOs. The Implementation Report is intended to embody the policy requirements of implementing SSOs. The following will be included in the Implementation Report:

1. A determination of SSOs for lead and copper for each reach and tributary addressed in the Work Plan based on the results presented in the Recalculation Report, WER Report, and other relevant data [e.g., study results from the LA River Cu WER Study (LWA 2008)].
2. An environmental analysis of the impacts of implementing the SSOs.
3. An analysis of the factors set forth in California Water Code (CWC) section 13241.
4. An anti-degradation review, as appropriate.
5. An approach to implementing the SSOs in NPDES permits in the watershed.
6. An anti-backsliding review, as appropriate.
7. Monitoring and reporting requirements.

The following subsections provide additional detail.

6.1 SSO DETERMINATION AND ENVIRONMENTAL ANALYSIS

Establishment of different water quality objectives (WQO) for portions of a waterbody is consistent with state and federal WQC development processes. Waterbodies are often separated into multiple reaches due to varying characteristics. Different WQO are assigned to reaches based on site-specific characteristics. A similar process was used in the Metals TMDL where targets were developed for different reaches based on the different hardness values observed within the reaches. Downstream objectives must be considered when implementing SSOs in NPDES permits and/or TMDLs to evaluate potential impacts to downstream beneficial uses. Per 40 CFR 131.10(b) "… the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters." Note that the Metals TMDL did utilize different targets and allocations for reaches and tributaries upstream of other waters that received allocations. Through either the WQOs or TMDL process, the requirements of 40 CFR 131.10(b) will be met.

An environmental analysis of the impacts of implementing the fWERs as an SSO, including potential downstream impacts, will be conducted. SSOs will be determined for copper based on the sWERs and fWERs presented in the WER Report. The analysis will include consideration of current conditions and reasonable potential future conditions in analyzing the potential impacts. Further, consideration will be given to evaluate whether conditions allow for the establishment of different SSOs for different sites or reaches of the same waterbody.

Because the lead recalculation and subsequent hardness based WQC are applicable to all reaches, an environmental analysis evaluating the effect of different SSOs will not be necessary.

6.2 CALIFORNIA WATER CODE SECTION 13241

When establishing water quality objectives in water quality control plans, Regional Boards must consider the following six factors identified in CWC Section 13241:

a. Past, present and probable beneficial uses of water.
b. Environmental characteristics of the hydrographic unit under consideration; including the quality of water available thereto.
c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area.
d. Economic considerations.
e. The need for developing housing within the region.
f. The need to develop and use recycled water.

These six factors will be considered in the context of the SSOs determined and be evaluated as part of the Implementation Report.

6.3 ANTI-DEGRADATION

Anti-degradation policies have been adopted at both the federal and State level. These policies are intended to protect existing water quality.

The federal anti-degradation policy, originally adopted in 1975, is expressed as a regulation in 40 CFR 131.12. The Federal regulation requires that "water quality shall be maintained and protected". More specifically, the Federal regulation requires the States to develop and adopt a statewide anti-degradation policy and identify the methods for implementing such policy. The anti-degradation policy and implementation methods shall, at a minimum, be consistent with ensuring that existing water uses and the level of water quality necessary to protect these uses shall be maintained and protected. Where the quality of waters exceed levels necessary to support beneficial uses, measures shall be taken to ensure that water quality is maintained and protected unless the State finds that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

The State policy for maintaining high quality waters in California was adopted in 1968 as a resolution of the State Water Board (Resolution No. 68-16). The State policy requires that changes in water quality not unreasonably affect beneficial uses. The State policy sets forth the following requirements:

1. *Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.*

2. *Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*

An anti-degradation analysis will be conducted in the context of the SSOs determined and evaluated as part of the Implementation Report. It is assumed that the WERs will be used to develop SSOs that will be adopted as part of a Basin Plan amendment. However, if the WER is applied to a specific discharger, then anti-degradation review is not required because it is already part of the adopted water quality standard as WERs are part of the CTR copper criteria.

6.4 NPDES PERMIT AND TMDL IMPLEMENTATION APPROACH

The SSOs will be used during the development of NPDES permits in the LA River watershed. The Implementation Report could include either an approach to implementing the SSOs within POTW and/or MS4 NPDES permits and the Metals TMDL, or could develop recommended language for use in future NPDES permits and TMDL revisions. Such an approach could include the development of effluent limits and allocations for existing discharges in compliance with all applicable laws and regulations, including federal and state anti-degradation policies and anti-backsliding requirements. Given such requirements, effluent limits may not necessarily be set equivalent to the WER-adjusted criteria. The appropriateness of including such an approach, development of recommended language, and/or effluent limits and allocations should be discussed with the SC prior to inclusion as part of the Implementation Report.

6.5 ANTI-BACKSLIDING

The Federal anti-backsliding policy is expressed as a regulation in 40 CFR 122.44(l). Anti-backsliding requirements apply when a permit is reissued and requires that interim effluent limitations, standards or conditions be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit. Exceptions are provided in 40 CFR 122.44(l)(i) and include consideration of information that was not available at the time of permit issuance which would have justified the application of a less stringent effluent limitation at the time of permit issuance. As anti-backsliding considerations are only required to determine if newly developed effluent limitations based on the WER/SSO violate the policy or fit within one of the exceptions, such a consideration would only need to be done within the context of the Implementation Report if effluent limitation were generated as part of the report. As such, an anti-backsliding analysis will likely only be conducted as part of the Implementation Report if effluent limitations for NPDES permits are generated.

6.6 MONITORING PROGRAM

Follow up monitoring to evaluate the SSOs is prudent to ensure the SSOs maintain the level of protection intended by the CTR. The monitoring portion of the Implementation Report will consider the available data in determining the frequency, location, and types of tests necessary to evaluate the SSOs. Monitoring and reporting could be coordinated with the existing Metals TMDL monitoring program or other existing programs.

Section 7. Work Plan Reports

To summarize, the results of the efforts outlined in the previous sections of the Work Plan will be utilized to generate the following three study reports:

1. Lead Recalculation Report – This report will summarize the data utilized, the analysis conducted, and the results of the recalculation of the lead criteria following the Recalculation Procedure as outlined in Section 4 of the Work Plan.
2. Water-Effect Ratio Report – This report will summarize the sampling activities, detail the analysis conducted per the Work Plan, provide the information required by the Interim Guidance, and present the resulting sWERs and fWERs as outlined in Section 5 of the Work Plan. This report is intended to embody the technical requirements of developing a SSO based on the Interim Guidance.
3. Implementation Report – This report will summarize additional analysis conducted to support the implementation of the SSOs as outlined in Section 6. This report is intended to embody the policy based requirements of implementing a SSO based on the results of conducting a WER Study.

Note that no zinc Report will be developed. Given that the recommended approach to address zinc in this Work Plan is to reconsider the need for a zinc listing and TMDL based on existing data and monitoring programs, no further work will be done concerning zinc under this Work Plan. Therefore, no report for zinc will be generated through this Work Plan.

Section 8. Work Plan Schedule

Table 24 presents the schedule for implementing the Work Plan and developing the Final Reports.

Table 24. Recalculation and Water-Effect Ratio Work Plan Implementation Schedule

Task No.	Task	Completion Date
1	Conduct two dry weather wet season events	Nov - Apr
2	Conduct two wet weather wet season events	Nov - Apr
3	Conduct two dry weather dry season events	May - Oct
4	Convene SC and TAC Midcourse WER Progress Meeting	3 months after 1st round of sampling[1]
5	Submit Draft Lead Recalculation Report	TBD
6	Convene SC and TAC Meeting to review Draft Lead Recalculation Report	1 month after T5
7	SC and TAC comment submittal on Draft Lead Recalculation Report	1 month after T6
8	Finalize Lead Recalculation Report	1 month after T7
9	Submit Draft WER Study Report	5 months after last sampling event[2]
10	Convene SC and TAC Meeting to review Draft WER Study Report	1 month after T9
11	SC and TAC comment submittal on Draft WER Study Report	1 month after T10
12	Finalize WER Study Report	1 month after T11
13	Submit draft Implementation Report	2 months after T12
14	Convene SC and TAC Meeting to review draft Implementation Report	1 month after T13
15	SC and TAC comment submittal on draft Implementation Report	1 month after T14
16	Finalize Implementation Report	1 month after T15

1 1st round of sampling includes two dry weather samples collected in each of the two dry weather seasons (summer and winter) and two samples collected during wet weather.
2 If additional events are needed the timeline for submission of the Draft WER Study Report will need to be adjusted accordingly.

Section 9. Adoption and Approval Process

There is a multi-stage process that must take place before revised criteria developed through this Work Plan become effective. The Study Reports generated through the Work Plan will be formally submitted to LARWQCB after the reports have been finalized following Stakeholder, TAC, and LARWQCB staff review. LARWQCB must hold a public hearing with documents made available to LARWQCB Members and public. The necessary documents include: a technical staff report; a Substitute Environmental Document (SED) that includes the environmental checklist required under the California Environmental Quality Act (CEQA) (23 CCR §3777); and a draft of the proposed amendment(s) to the Basin Plan. Additionally, these documents will be submitted to the SWRCB to go through a formal peer review process. Once the Notice of Filing has been provided, the LARWQCB may not take any action until after 45 days has elapsed, allowing for public comment. Upon completion of the public comment period, LARWQCB staff will respond to comments, revise the documentation as appropriate and submit the package to the LARWQCB Members for consideration at a public meeting. After the LARWQCB approves the Basin Plan Amendment, the LARWQCB files a CEQA Notice of Decision with the Secretary of Resources for public inspection of at least 30 days. (23 CCR §3781.)

Following the LARWQCB's approval, the SWRCB reviews the LARWQCB's submittal for completeness and compliance with the Office of Administrative Law's (OAL) requirements, as well as technical, policy, and legal consistency. The SWRCB may approve the amendment to the Basin Plan or return it to the LARWQCB for further consideration and resubmission to the LARWQCB at a later date.

Following the SWRCB's approval, the OAL is the final reviewing agency for regulatory actions in California prior to USEPA review. Basin Plan Amendments must be approved by the OAL (Gov. Code § 11353). Government Code 11349.3 defines the OAL approval process. After approval by OAL, the SWRCB transmits the amendment and administrative record with Chief Counsel's Certification to USEPA Region 9 for approval. The Basin Plan Amendment (and revised criteria) is not effective until the state has received a letter from USEPA stating that the criteria have been approved. However, as the WER is inherently part of the CTR it is not clear if USEPA must approve SSOs based on WERs that are developed per USEPA guidance. If USEPA does not have to approve a WER based SSO, then the criteria would be effective after OAL approval.

As lead would be submitted as recalculated criteria, the criteria are not effective until USEPA amends the CTR lead water quality criteria as it applies to the watershed or region. The amendment can and should be done concurrently with USEPA approval of the Basin Plan Amendment. If the criteria is more stringent then the CTR criteria, it is not necessary for the CTR to be amended as the CTR does not apply when state regulations contain a criteria that is more stringent then that contained in the CTR. (40 CFR §131.38(c))

Section 10. References

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Appendix 1

Los Angeles River Metals TMDL Environmental Setting and Problem Identification Excerpts

TOTAL MAXIMUM DAILY LOADS FOR METALS
LOS ANGELES RIVER AND TRIBUTARIES

U.S. Environmental Protection Agency
Region 9

California Regional Water Quality Control Board
Los Angeles Region

June 2, 2005

listings approved in 2003 are not required to be addressed per the Consent Decree; however, where appropriate, this TMDL addresses those listings as well.

This report presents the TMDLs for metals and summarizes the analyses performed by EPA and the Regional Board to develop this TMDL. This report does not address the metals TMDLs required for four lakes in the Los Angeles River watershed as part of Analytical Unit #20. These four lakes (Lake Calabasas, Echo Lake, Lincoln Park Lake and Peck Road Lake) are not hydrologically connected to the Los Angeles River or the listed tributaries. The TMDLs for these lakes are not scheduled in the Consent Decree but must be established by March 22, 2012. This report does not address metals impairments for Los Angeles Harbor or San Pedro Bay required under Analytical Units #75 and #78, respectively. These TMDLs have not been specifically scheduled in the Consent Decree, but are required to be completed by 2012.

The proposed TMDL for metals will be adopted as an amendment to the Regional Board's *Water Quality Control Plan for the Los Angeles Region* (Basin Plan). The Secretary of Resources has certified the basin planning process as exempt from certain requirements of the California Environmental Quality Act (CEQA), including preparation of an initial study, negative declaration, and environmental impact report (California Code of Regulations, Title 14, Section 15251(g)). The Basin Plan amendment and supporting documents, including this staff report and the CEQA checklist are considered substitute documents to an initial study, negative declaration, or environmental impact report. Regional Board staff held a CEQA Scoping meeting on April 23, 2004 in order to receive stakeholder input on the scope and content of the TMDL documents. Regional Board Staff presented an overview of reasonably foreseeable means of compliance with the TMDL in order to facilitate the scoping discussion and to identify possible impacts of the TMDL implementation.

1.2 Environmental Setting

The Los Angeles River flows for 55 miles from the Santa Monica Mountains at the western end of the San Fernando Valley to Queensway Bay located between the Port of Long Beach and the City of Long Beach. It drains a watershed with an area of 834 square miles. Approximately 44% of the watershed area can be classified as forest or open space. These areas are primarily within the headwaters of the Los Angeles River in the Santa Monica, Santa Susana, and San Gabriel Mountains, including the Angeles National Forest, which comprises approximately 200 square miles of the watershed. Approximately 36% of the land use can be categorized as residential, 10% as industrial, 8% as commercial, and 3% as agriculture, water and other. The more urban uses are found in the lower portions of the watershed.

The natural hydrology of the Los Angeles River Watershed has been altered by channelization and the construction of dams and flood control reservoirs. The Los Angeles River and many of its tributaries are lined with concrete for most or all of their lengths. Soft-bottomed segments of the Los Angeles River occur where groundwater upwelling prevented armoring of the river bottom. These areas typically support riparian habitat.

The mainstem of the Los Angeles River begins by definition at the confluence of Arroyo Calabasas (which drains the northeastern portion of the Santa Monica Mountains) and Bell Creek (which drains the Simi Hills). McCoy Canyon Creek and Dry Canyon Creek (listed for selenium) are tributary to Arroyo Calabasas. The river flows east from its origin along the southern edge of the San Fernando Valley. The Los Angeles River also receives flow from Browns Canyon, Aliso Canyon Wash (listed for selenium) and Bull Creek which drain the Santa Susana Mountains. The lower portions of Arroyo Calabasas and Bell Creek are channelized. Browns Canyon, Aliso Creek and Bull Creek are completely channelized.

Reach 5 of the Los Angeles River runs through Sepulveda Basin. There are no listings for metals in Reach 5 of the Los Angeles River. The Sepulveda Basin is a 2,150-acre open space designed to collect floodwaters during major storms. Because the area is periodically inundated, it remains in natural or semi-natural conditions and supports a variety of low-intensity land uses. The D.C. Tillman Wastewater Reclamation Plant (WRP), a publicly owned wastewater treatment works (POTW) operated by the City of Los Angeles, discharges to Reach 5 indirectly via two lakes in the Sepulveda Basin that are used for recreation and wildlife habitat. The POTW has a treatment design capacity of 80 million gallons per day (mgd) and contributes a substantial flow to the Los Angeles River. Most of the POTW flow discharges directly to Reach 4 of the Los Angeles River just below the Sepulveda Dam.

Reach 4 of the Los Angeles River runs from Sepulveda Dam to Riverside Drive. This section of the river is listed for lead. Pacoima Wash and Tujunga Wash are the two main tributaries to this reach. Both tributaries drain portions of the Angeles National Forest in the San Gabriel Mountains. Pacoima Wash is channelized below Lopez Dam to the Los Angeles River. Tujunga Wash (listed for copper) is channelized for the 10-mile reach below Hansen Dam. Some of the discharge from Hansen Dam is diverted to spreading grounds for groundwater recharge, but most of the flow enters the channelized portion of the stream.

Reach 3 of the Los Angeles River, which runs from Riverside Drive to Figueroa Street, is not listed for metals. The two major tributaries to this reach are the Burbank Western Channel and Verdugo which drain the Verdugo Mountains. Both tributaries are channelized. The Western Channel receives flow from the Burbank Water Reclamation Plant, a POTW with a design capacity of 9 mgd. The Burbank Western Channel is listed for cadmium.

At the eastern end of the San Fernando Valley, the Los Angeles River turns south around the Hollywood Hills and flows through Griffith Park and Elysian Park in an area known as the Glendale Narrows. This area is fed by natural springs during periods of high groundwater. The river is channelized and the sides are lined with concrete. The river bottom in this area is unlined because the water table is high and groundwater routinely discharges into the channel, in varying volumes depending on the height of the water table. The Los Angeles-Glendale Water Reclamation Plant, operated by the City of Los Angeles, has a design capacity of 20 mgd and discharges to the Los Angeles River in the Glendale Narrows.

Reach 2 of the Los Angeles River, which runs from Figueroa Street to Carson Street, is listed for lead. The first major tributary below the Glendale Narrows is the Arroyo Seco, which drains areas of Pasadena and portions of the Angeles National Forest in the San Gabriel Mountains. In wet periods, rising stream flows in the Los Angeles River above Arroyo Seco have been related to the increase of rising groundwater. There is up to 3,000 acre-feet of recharge from the Pollock

Well Field area that adds to the rising groundwater. For the 2000-01 water year, the total rising groundwater flow was estimated at 3,900 acre-feet (ULARA Watermaster Report, 2000-2001 Water Year, May 2002).

The next major tributary is the Rio Hondo. The Rio Hondo and its tributaries drain a large area in the eastern portion of the watershed. Flow in the Rio Hondo is managed by the Los Angeles County Department of Public Works (LACDPW). At Whittier Narrows, flow from the Rio Hondo can be diverted to the Rio Hondo Spreading Grounds. During dry weather, virtually all the water in the Rio Hondo goes to groundwater recharge, so little or no flow exits the spreading grounds to Reach 1 of the Rio Hondo. During storm events, Rio Hondo flow that is not used for spreading, reaches the Los Angeles River. This flow is comprised of both storm water and treated wastewater effluent from the Whittier Narrows Water Reclamation Plant. Reach 1 of the Rio Hondo is listed for copper, lead, and zinc. Monrovia Canyon Creek is also listed for lead. This creek, located in the foothills of the San Gabriel Mountains in the National Forest, is a tributary to Sawpit Creek which runs into Peck Lake and ultimately to Rio Hondo Reach 2 above the spreading grounds.

Reach 1 of the Los Angeles River, which runs from Carson Street to the estuary, was listed for lead in 1998. Listings for aluminum, copper, cadmium, and zinc were added in 2002 based on exceedances of standards in storm water samples. Compton Creek (listed for copper and cadmium) is the last large tributary to the system before the river enters the estuary. The creek is channelized for most of its 8.5 mile length.

The tidal portion of the Los Angeles River begins at Willow Street and runs approximately three miles before joining with Queensway Bay located between the Port of Long Beach and the City of Long Beach. In this reach, the channel has a soft bottom with concrete-lined sides. Sandbars accumulate in the portion of the river where tidal influence is limited.

During dry weather, most of the flow in the Los Angeles River is comprised of wastewater effluent from the Tillman, Los Angeles-Glendale and Burbank treatment plants. In the dry season, POTW mean monthly discharges totaled 70% to 100% of the monthly average flow in the river. The median daily flow in the Los Angeles River is 94 mgd (145 cfs), based on flows measured at the LACDPW Wardlow station over a 12-year period (October 1998 through December 2000). During wet weather, the river’s flow may increase by two to three orders of magnitude due to storm water runoff. Average daily flows greater than 322 mgd (501 cfs) were observed 10% of the time. In months with rain events, POTW monthly average discharges together were less than 20% of the monthly average flow in the river.

The high flows in the wet season originate as storm runoff both from the areas of undeveloped open space in the mountains of the tributaries’ headwaters and from the urban land uses in the flat low-lying areas of the watershed. Rainfall in the headwaters flows rapidly because the watershed and stream channels for the most part are steep. In the urban areas, about 5,000 miles of storm drains in the watershed convey storm water flows and urban runoff to the Los Angeles River. The watershed produces storm flow in the river with a sharply peaked hydrograph where flow increases quite rapidly after the beginning of rain events in the watershed, and declines rapidly after rainfall ceases. The Los Angeles River metals TMDL therefore accounts for differences in both flow and the relative contributions of pollutant sources between wet and dry periods.

1.3 Elements of a TMDL

Guidance from USEPA (2002a) identifies seven elements of a TMDL. Sections 2 through 8 of this document are organized such that each section describes one of the elements, with the analysis and findings of this TMDL for that element. The elements are:

- Section 2: Problem Identification. This section reviews the metals data used to add the waterbody to the 303(d) list, and summarizes existing conditions using that evidence along with any new information acquired since the listing. This element identifies those reaches that fail to support all designated beneficial uses; the beneficial uses that are not supported for each reach; the water quality objectives (WQOs) designed to protect those beneficial uses; and, in summary, the evidence supporting the decision to list each reach, such as the number and severity of exceedances observed.

- Section 3: Numeric Targets. For this TMDL, the numeric targets are based upon the WQOs described in the California Toxics Rule (CTR).

- Section 4: Source Assessment. This section develops the estimate of current metals loadings from point sources and non-point sources into the Los Angeles River.

- Section 5: Linkage Analysis. This analysis shows how the sources of metals compounds into the waterbody are linked to the observed conditions in the impaired waterbody. The linkage analysis addresses the critical conditions of stream flow, loading, and water quality parameters.

- Section 6: TMDL and Pollutant Allocation. This section identifies the total allowable loads that can be discharged without causing water quality exceedances. Each pollutant source is allocated a quantitative load of metals that it can discharge without exceeding the numeric targets. Allocations are designed such that the waterbody will not exceed numeric targets for any of the compounds or related effects. Allocations are based on critical conditions, so that the allocated pollutant loads may be expected to attain water quality standards at all times.

- Section 7: Implementation. This section describes the plans, regulatory tools, or other mechanisms by which the waste load allocations and load allocations are to be achieved.

- Section 8: Monitoring. This TMDL includes a requirement for monitoring the waterbody to ensure that the water quality standards are attained. If the monitoring results demonstrate the TMDL has not succeeded in removing the impairments, then revised allocations will be developed. It also describes special studies to address uncertainties in assumptions made in the development of this TMDL and the process by which new information may be used to refine the TMDL. While the TMDL identifies the goals for a monitoring program, the Executive Officer will issue subsequent orders to identify the specific requirements and the specific entities that will develop and implement a monitoring program and submit technical reports.

2. PROBLEM IDENTIFICATION

This section provides an overview of water quality standards for the Los Angeles River and reviews water quality data used in the 1998 water quality assessment, the 2002 303(d) listing and any additional data which may be pertinent to the assessment of condition.

2.1 Water Quality Standards

California state water quality standards consist of the following elements: 1) beneficial uses; 2) narrative and/or numeric water quality objectives; and 3) an antidegradation policy. In California, beneficial uses are defined by the Regional Water Quality Control Boards (Regional Boards) in the Water Quality Control Plans (Basin Plans). Numeric and narrative objectives are specified in each region's Basin Plan. These are designed to be protective of the beneficial uses in each waterbody in the region or State Water Quality Control Plans.

For certain toxic pollutants, the EPA has established numeric criteria that serve as water quality standards for California's inland surface waters. (40 CFR 131.38.) EPA established the numeric criteria in the California Toxics Rule (CTR) at levels that reflect when toxic pollutants are present in toxic amounts. In other words, if a pollutant is present in a surface waterbody at a level higher than a CTR criterion, then the surface waterbody is toxic. The federal water quality criteria established by the CTR are equivalent to state water quality objectives and they serve the same purpose. For the Los Angeles region, numeric objectives for toxics can be found in the CTR (40 CFR 131.38).

2.1.1. Beneficial Uses. The Basin Plan for the Los Angeles Region (1994) defines 14 beneficial uses for the Los Angeles River. These uses are summarized in Table 2-1. The Basin Plan (1994) identifies beneficial uses as existing (E), potential (P), or intermittent (I) uses. Those uses that are most likely to be impacted by metals loadings to the Los Angeles River are the beneficial uses associated with aquatic life (i.e., wildlife habitat, warm freshwater water habitat, rare threatened or endangered species, wetland habitat, and marine habitat) and water supply (i.e., groundwater recharge).

Existing use designations for warm freshwater, wildlife, wetland, and rare, threatened or endangered species habitats (WARM, WILD, WET, and RARE) apply over much of the mainstem and Compton Creek in the lower part of the watershed. The WARM designation applies as either an intermittent or potential use to the remaining listed tributaries. The WILD designation is for the protection of fish and wildlife. This use applies to much of the mainstem of the Los Angeles River, as an intermittent use in Rio Hondo, and as potential use in the remainder of the tributaries. Water quality objectives developed for the protection of fish and wildlife are applicable to the reaches with the WARM, WILD, WET and RARE designations.

Table 2-1. Beneficial uses in listed reaches of the Los Angeles River (LARWQCB, 1994)

STREAM REACH	MUN	GWR	REC1	REC2	WILD	WARM	SHELL	RARE	MIGR	SPWN	WET	MAR	IND	PROC
Aliso Canyon Wash	P*	I	I[1]	I	E	I								
Dry Canyon Creek	P*	I	I[1]	I	E	I								
McCoy Canyon Creek	P*	I	I	I	E	I								
Monrovia Canyon Creek	I	I	I	I	E	I					E			
Los Angeles River (Reach 4)	P*	E	E	E	E	E					E		P	
Tujunga Wash	P*	I	P[1]	I	P	P								
Burbank Western Channel	P*		P[1]	I	P	P								
Los Angeles River (Reach 2)	P*	E	E[1]	E	P	E							P	
Rio Hondo (Reach 1)	P*	I	P[1]	E	I	P								
Compton Creek	P*	E	E[1]	E	E	E					E			
Los Angeles River (Reach 1)	P*	E	E[1]	E	E	E	P[1]	E	P	P		E	P	P

*Municipal designations marked with an asterisk are conditional.
E: Existing beneficial use, P: Potential beneficial use, I: Intermittent beneficial use, 1: Use restricted by LACDPW

The municipal supply (MUN) use designation applies to several tributaries to the Los Angeles River and all groundwater in the Los Angeles River watershed. Other waterbodies within Region 4 also have a conditional designation for MUN. These waterbodies are indicated with an asterisk in the Basin Plan. Conditional designations are not recognized under federal law and are not water quality standards requiring TMDL development at this time. (See Letter from Alexis Strauss [USEPA] to Celeste Cantú [State Board], Feb. 15, 2002.) The ground water recharge (GWR) use designation applies to the Los Angeles River and its tributaries as either an existing or intermittent beneficial use.

2.1.2 Water Quality Objectives (WQOs). Narrative water quality objectives are specified by the 1994 Regional Board Basin Plan. The following narrative standards are most pertinent to the metals TMDL:

> *Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.*

Toxic substances shall not be present at levels that will bioaccumulate in aquatic life resources to levels which are harmful to aquatic life or human health.

All waters shall be maintained free of toxic substance in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

The Regional Board's narrative toxicity objective reflects and implements national policy set by Congress. The Clean Water Act states that, "it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." (33 U.S.C. 1251(a)(3).) In 2000, EPA established numeric water quality objectives for several pollutants addressed in this TMDL in the CTR. The listed pollutants covered by CTR objectives include selenium, cadmium, copper, lead, and zinc (Table 2-2). The freshwater CTR values for cadmium, copper, lead, and zinc are based on the dissolved fraction and are hardness dependent (USEPA 2000b). The freshwater CTR standard for selenium is based on the total recoverable metals concentration.

EPA expressed the CTR criteria as concentrations. Therefore, whenever a pollutant is present in a surface waterbody at a concentration in excess of a CTR criterion, the surface waterbody is toxic. EPA did not differentiate between wet and dry weather conditions in establishing the CTR. The CTR criteria therefore apply at all times to inland surface waters. This result is reached on both legal and technical grounds. Legally, the result is compelled because the CTR establishes water quality criteria (i.e., objectives) to protect aquatic life in all of California's inland surface waters. (See, 40 CFR 131.38(a), (c)(1), and (d)(1).) There is no exception for wet weather conditions in the CTR. Moreover, aquatic life is also present in wet weather conditions. The CTR is legally necessary to protect these uses in wet weather conditions. It would be illogical and illegal to conclude that the CTR does not apply in wet weather.

From a technical perspective, it would be equally inappropriate to find a wet weather exception in the CTR. Because the CTR criteria are expressed as concentrations, the volume of water is irrelevant. The concentration-based criteria essentially account for dilution in wet-weather conditions. In high-volume, wet-weather conditions, if the concentration of a toxic pollutant in a water body exceeds the CTR criterion, the water body is toxic.

The CTR establishes short-term (acute) and long-term (chronic) aquatic life criteria for metals in both freshwater and saltwater. The acute criterion, defined in the CTR as the Criteria Maximum Concentration, equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. The chronic criterion, defined in the CTR as the Criteria Continuous Concentration, equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.

CTR freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can impact the toxicity of some metals. Hardness is used as a surrogate for a number of water quality characteristics, which affect the toxicity of metals in a variety of ways. Increasing hardness generally has the effect of decreasing the toxicity of metals. Water quality criteria to protect aquatic life may be calculated at different concentrations of hardness measured in milligrams per liter (mg/L) as calcium carbonate ($CaCO_3$). The CTR lists freshwater aquatic life criteria based on a hardness value of 100 mg/L and provides hardness dependent equations to calculate the freshwater aquatic life metals criteria using site-specific hardness data.

Table 2-2. Water quality objectives established in CTR. Values in table are based on a hardness value of 100 mg/L as calcium carbonate. Metals values reported as µg/L.

Metal	Freshwater Chronic	Freshwater Acute
Cadmium (dissolved)	2.2	4.3
Copper (dissolved)	9	13
Lead (dissolved)	2.5	65
Selenium (total recoverable metals)	5	Reserved
Zinc (dissolved)	120	120

The formula for calculating the hardness-adjusted acute and chronic objectives for cadmium, copper, lead, and zinc in the CTR take the form of the following equations:

$$CMC = WER * ACF * EXP[(m_a)(\ln(hardness)+b_a] \qquad \text{Equation (1)}$$
$$CCC = WER * CCF * EXP[(m_c)(\ln(hardness)+b_c] \qquad \text{Equation (2)}$$

Where:

CMC = Criteria maximum concentration
CCC = Criteria continuous concentration
WER = Water Effects Ratio (assumed to be 1)
ACF = Acute conversion factor (to convert from the total recoverable metals concentration to the dissolved fraction)
CCF = Chronic conversion factor (to convert from the total recoverable metals concentration to the dissolved fraction)
m_A = slope factor for acute criteria
m_C = slope factor for chronic criteria
b_A = y intercept for acute criteria
b_C = y intercept for chronic criteria

The CTR allows for the adjustment of criteria through the use of a water-effect ratio (WER) to assure that the metals criteria are appropriate for the site-specific chemical conditions under which they are applied. A WER represents the correlation between metals that are measured and metals that are biologically available and toxic. A WER is a measure of the toxicity of a material in site water divided by the toxicity of the same material in laboratory dilution water. No site-specific WER has been developed for the Los Angeles River. Therefore, a WER default value of 1.0 is assumed.

The coefficients needed for the calculation of objectives are provided in the CTR for most metals (Table 2-3). The conversion factors for cadmium and lead are hardness-dependent. The following equations can be used to calculate the conversion factors based on site-specific hardness data:

$$\text{Cadmium ACF} = 1.136672 - [(\ln\{hardness\})(0.041838)] \qquad \text{Equation (3)}$$
$$\text{Cadmium CCF} = 1.101672 - [(\ln\{hardness\})(0.041838)] \qquad \text{Equation (4)}$$

$$\text{Lead ACF} = 1.46203 - [(\ln\{hardness\})(0.145712)] \quad \text{Equation (5)}$$
$$\text{Lead CCF} = 1.46203 - [(\ln\{hardness\})(0.145712)] \quad \text{Equation (6)}$$

Table 2-3. Coefficients used in formulas for calculating CTR standards.

Metal	ACF	m_A	b_A	CCF	m_C	b_C
Cadmium	0.944*	1.128	-3.6867	0.909*	0.7852	-2.715
Copper	0.960	0.9422	-1.700	0.960	0.8545	-1.702
Lead	0.791*	1.2730	-1.460	0.791*	1.2730	-4.705
Zinc	0.978	0.8473	0.884	0.986	0.8473	0.884

* The ACF and CCF for cadmium and lead are hardness dependent. Conversion factors in this table are based on a hardness of 100 mg/L as $CaCO_3$.

2.1.3 Antidegradation. State Board Resolution 68-16, "Statement of Policy with Respect to Maintaining High Quality Water" in California, known as the "Antidegradation Policy," protects surface and ground waters from degradation. Any actions that can adversely affect water quality in all surface and ground waters must be consistent with the maximum benefit to the people of the state, must not unreasonably affect present and anticipated beneficial use of such water, and must not result in water quality less than that prescribed in water quality plans and policies. Furthermore, any actions that can adversely affect surface waters are also subject to the federal Antidegradation Policy (40 CFR 131.12). The proposed TMDL will not degrade water quality, and will in fact improve water quality as it is designed to achieve compliance with existing, numeric water quality standards.

2.2 Water Quality Data Review

This review section summarizes water quality data used to develop this TMDL. The summary includes data considered by the Regional Board and EPA in developing the 1998 and the 2002 303(d) listings for metals and additional data submitted by the City of Los Angeles, the City of Burbank and the County of Los Angeles.

The receiving water data collected by the City of Los Angeles and the City of Burbank as part of NPDES monitoring requirements for D.C. Tillman WRP, the Los Angeles-Glendale WRP, and the Burbank WRP were reviewed to evaluate dry-weather conditions. The City of Los Angeles measures metals and hardness in receiving waters from several locations upstream and downstream of its treatment plants (Figure 1) on a quarterly basis. The data from the Tillman and Glendale receiving water stations represent six locations sampled from February 1998 to November 2002. The City of Burbank samples water quality in the Burbank Western Channel on a quarterly basis. The data from the Burbank WRP represent four stations sampled from November 1998 to December, 2003. Data from these programs were compared to the hardness adjusted dissolved criteria in the CTR using the hardness value for each sample. As both agencies analyze for concentrations of total recoverable metals, the comparison of their data to the dissolved criteria provides a conservative assessment of water quality impairment. These NPDES monitoring programs provide water quality information for Reaches 3, 4 and 5 of the Los Angeles River and the Burbank Western Channel, the results of which are summarized in Tables 2-4 and 2-5.

Table 2-4. Summary of dry-weather chronic metals criteria exceedances. Values in table reflect number of samples exceeding the chronic criteria over the total number of samples (Values below detection levels counted as zero). Source: City of Los Angeles and City of Burbank WRP NPDES receiving water monitoring.

Metals by Reach	LA River Reach 5	LA River Reach 4	LA River Reach 3	Burbank Western Channel
Cadmium	0/16	0/36	0/54	1/96
Copper	1/17	18/34	6/51	41/96
Lead	2/17	12/34	6/48	2/96
Zinc	0/17	0/34	0/51	1/96

Table 2-5. Summary of dry-weather acute metals criteria exceedances. Values in table reflect number of samples exceeding the acute criteria over the total number of samples (Values below detection levels counted as zero). Source: City of Los Angeles and City of Burbank WRP NPDES receiving water monitoring.

Metals by Reach	LA River Reach 5	LA River Reach 4	LA River Reach 3	Burbank Western Channel
Cadmium	0/16	0/34	0/42	0/96
Copper	0/18	4/36	0/51	10/96
Lead	0/17	0/34	0/48	0/96
Zinc	0/17	0/34	0/51	1/96

In January 2002, the City of Los Angeles began their Watershed Monitoring Program (WMP) which involves the monthly collection of water quality data at eight stations along the Los Angeles River (Figure 2). In this program, water quality samples are analyzed for both total recoverable and dissolved metals at eight stations along the entire length of the River. The data that were assessed were collected through May 2003, which included 17 samples collected at each station. These data provide information on spatial variability in water quality in all six reaches of the Los Angeles River (Figures 3a-3d) and can be used in conjunction with median hardness data (Table 3-1) to assess compliance with chronic CTR criteria. As with the POTW receiving water data, concentrations of total recoverable metals are compared to the dissolved criteria (adjusted using median hardness values) to provide a conservative assessment of water quality impairment. The results of this comparison are summarized in Table 2-6.

Table 2-6. Summary of dry weather chronic metals criteria exceedances. Values in table reflect number ofsamples exceeding the criteria over the total number of samples. Median hardness values for each reach (Table 3-1) were used to assess compliance with CTR criteria. Source: City of Los Angeles WMP.

Metals by Reach	LA River Reach 5	LA River Reach 4	LA River Reach 3	LA River Reach 2	LA River Reach 1
Hardness (mg/L as $CaCO_3$)	400	246	278	268	282
Cadmium	0/17	0/17	0/34	0/34	0/17
Copper	2/17	4/17	4/34	5/34	2/17
Lead	0/17	6/17	6/34	5/34	3/17
Zinc	0/17	0/17	0/34	0/34	0/17

To assess wet-weather impairments, storm water data collected by LACDPW as part of the NPDES municipal storm water permit monitoring requirements were evaluated. The LACDPW has been sampling approximately five storms per year at the Wardlow gage station since 1996. LACDPW samples hardness and metals (both dissolved and total recoverable metals) from composite storm water samples. The results of these data are summarized in Table 2-7.

Table 2-7. Summary of wet-weather acute and chronic metals criteria exceedances. Values in table reflect number of samples exceeding the criteria over the total number of samples (Values below detection levels counted as zero). Source: NPDES MS4 Monitoring at LACDPW Wardlow station between 1996 and 2002.

Metal	Number >Detection Level	Number > Chronic Criteria	Number > Acute Criteria
Cadmium (dissolved)	3/42	3/42	3/42
Copper (dissolved)	32/42	19/42	13/42
Lead (dissolved)	11/42	11/42	4/42
Selenium (total recoverable)	1/42	NA	0/42
Zinc (dissolved)	18/42	6/42	6/42

2.2.1. Summary of Results

Cadmium – The Burbank Western Channel is on the 1998 303(d) list for cadmium. In the 2002 303(d) list, a cadmium listing was added for Reach 1 of the Los Angeles River based on storm water data. Cadmium was detected in only 1 of 96 samples in any of the NPDES receiving water samples from Burbank Western Channel (Table 2-4). For a large number of samples, the reported detection limits were greater than the chronic criteria. However, the most recent data have detection limits that are below the chronic criteria and contain no exceedances. Cadmium was detected in 3 out of 42 storm water samples collected at Los Angeles River Reach 1 (Table 2-6). All three samples exceeded both the chronic and acute criteria. There were no exceedances of cadmium in Reaches 3, 4, or 5 of Los Angeles River based on data collected by the City of Los Angeles.

In summary, there is no evidence that cadmium is being exceeded in Burbank Western Channel or any other reach during dry weather. There are occasional exceedances of the cadmium standard in storm water samples. A wet-weather TMDL is required for cadmium in Reach 1. Wet-weather allocations will be applied to all upstream reaches because discharges of cadmium in upstream reaches may cause or contribute to an exceedance of water quality standards in Reach 1.

Copper – The 1998 303(d) listings for copper are in Tujunga Wash, Rio Hondo (Reach 1), and Compton Creek. In the 2002 303(d) list, a copper listing was added for Reach 1 of the Los Angeles River based on storm water data. Copper was detected in 32 out of 42 storm water samples - 19 samples exceeded the chronic criteria and 13 samples exceeded the acute criteria. A review of the City's WMP data indicates a dry-weather impairment in Reach 1 as well. The City's WMP data indicates dry-weather impairments in Reaches 1, 2, 3, 4, and 5 of the river. The data from the POTWs (Tables 2-4 and 2-5) indicate that there are dry-weather exceedances of both the chronic and acute criteria in the Los Angeles River (Reaches 3, 4 and 5) and in the Burbank Western Channel.

In summary, TMDLs are required for Tujunga, Rio Hondo, Compton, and LA Reach 1 to address the 1998 and 2002 303(d) listings. Data also indicate the need to develop TMDLs to address impairments in Reaches 2, 3, 4 and 5 of the LA River and the Burbank Western Channel.

Lead – The lead listings are from the 1998 303(d) list and are for Monrovia Canyon Creek, Rio Hondo (Reach 1), Compton Creek, and the Los Angeles River (Reaches 1, 2 and 4). There are no new data for Monrovia Canyon, Rio Hondo or Compton Creek.

A review of the dry-weather data for the Los Angeles River indicates occasional exceedances of the chronic standard in Los Angeles River (Reaches 3, 4, and 5) and Burbank Western Channel (Tables 2-4 and 2-6). The reported detection limits for lead in many of the samples from the Burbank Western Channel were higher than the chronic standard, complicating the assessment for 38 out of 96 of the samples. High detection levels were not an issue in comparing reported data with the acute standard (Table 2-5). There were no exceedances of the acute standard in samples from the Burbank Western Channel or Reaches 3, 4 or 5 of the Los Angeles River. There were exceedances of both the acute and chronic standard in Reach 1 of the Los Angeles River during storms (Table 2-6). Of the 11 samples with lead concentrations greater than the detection limit, 11 samples exceeded the chronic criteria and 4 samples exceeded the acute criteria.

In summary, TMDLs are required for Monrovia Canyon Creek, Rio Hondo (Reach 1), Compton Creek, and LA River Reaches 1, 2 and 4 to address the 1998 303(d) listings. Data also indicate the need develop TMDLs to address impairments in Reaches 3 and 5 of the LA River.

Zinc – The Rio Hondo is listed for zinc on the 1998 303(d) list. There are no new data for the Rio Hondo. In 2002, a listing for dissolved zinc was added for Reach 1 of the Los Angeles River, based on the LACDPW storm water data. There do appear to be some exceedances of the zinc standard during storms (Table 2-6). Of the 18 samples with zinc concentrations greater than the detection limit, 6 samples exceeded the chronic and acute criteria. There do not appear to be any exceedances of the acute or chronic zinc criteria in Reaches 3, 4 and 5 of the Los Angeles River (Tables 2-4 and 2-5). There was one incidence of elevated zinc in the Burbank Western Channel.

With the possible exception of Rio Hondo, there are no dry-weather impairments associated with zinc. Zinc occasionally exceeds the acute criteria in storm water samples. A dry-weather TMDL is required for zinc in the Rio Hondo (Reach 1). A wet-weather TMDL is required for LA River Reach 1. Wet-weather allocations will be applied to all upstream reaches because discharges of zinc in upstream reaches may cause or contribute to an exceedance of water quality standards in Reach 1.

Aluminum – This is not part of analytical unit #13, but aluminum was added in 2002 based on LACDPW storm water data. The total recoverable metals values for aluminum were compared to the maximum contaminant level (MCL) of 1 mg/L. The MCL was exceeded in only 2 out of 26 storm water samples collected since the year 2000. Although the MCL has been incorporated into the Basin Plan to protect the MUN beneficial use, conditional designations are not recognized under federal law and are not water quality standards requiring TMDL development at this time. (See Letter from Alexis Strauss [USEPA] to Celeste Cantú [State Board], Feb. 15, 2002.)

Selenium – Aliso Canyon Wash was listed for selenium on the 1998 303(d) list. In 2002, two more tributaries (McCoy Canyon Creek and Dry Canyon Creek) were listed for selenium. We analyzed selenium data collected by the City of Calabasas on a monthly basis between July 2000 and July 2002 as part of a 319h grant provided by the Regional Board. At the two stations in

McCoy Canyon Creek, the CTR value of 5 µg/l was exceeded in 27 out of 29 samples. The maximum measured value was 44 µg/l. The selenium values were lower at the two Dry Canyon Creek stations. At these stations, values greater than 5 µg/l were observed in 12 out of 54 samples. We also assessed selenium data collected by the City of Los Angeles at eight stations along the Los Angeles River in 2002 and 2003 as part of their Watershed Monitoring Program. Selenium values greater than 5 µg/l were observed in 14 out of 136 samples. All of these were from the Los Angeles River Reach 6 (where 14 out of 17 exceeded the CTR value). None of the other samples from any of the downstream stations on the Los Angeles River exceeded the CTR value. The selenium issue seems to be confined to the upper reaches of the watershed and tributaries draining to Reach 6. Because there is little industrial activity in this area, we believe that the selenium in the waterbody originates from natural sources such as marine shales (EDAW, 2003). A concentration-based load allocation is therefore being assigned to Reach 6 and its tributaries. Separate studies are underway to evaluate whether selenium levels represent a natural condition for this watershed.

Conclusions. Our review of the data indicates that there are occasional exceedances of copper and lead during dry-weather conditions in reaches1, 2, 3, 4, and 5 and some tributaries. A single exceedance for cadmium was identified in the Burbank Western Channel during dry weather. There are also occasional exceedances of CTR criteria in storm water for copper, lead and to a lesser extent for zinc and cadmium. High selenium values were only observed at stations located in the upper portion of the watershed, which we believe are associated with natural sources. Finally, we find that a TMDL for aluminum is not warranted to protect a conditional use. Table 2-8 presents a summary of the data review used to determine which reaches and tributaries require TMDLs.

Table 2-8. Summary of recent data review. Values reflect percent excedances of CTR criteria by NPDES receiving water data unless otherwise noted.

Listed Waterbody Segment (Dry)	Data Source	Cadmium	Copper	Lead	Zinc	Aluminum	Selenium
Aliso Canyon Wash							No new data
Dry Canyon Creek	319h grant						93%
McCoy Canyon Creek	319h grant						22%
Los Angeles River Reach 6	319h grant						10%
Los Angeles River Reach 5	NPDES, WMP	0%	6%, 12%[1]	12%	0%		
Los Angeles River Reach 4 (Sepulveda Dam to Riverside Dr.)	NPDES, WMP	0%	53%, 24%[1]	35%	0%		
Tujunga Wash (from Hansen Dam to Los Angeles River)		No new data					
Burbank Western Channel	NPDES	1%	4%	2%			
Los Angeles River Reach 3	NPDES, WMP	0%	12%	13%, 18%[1]			
Los Angeles River Reach 2	WMP	0%	15%[1]	No new			

Listed Waterbody Segment (Dry)	Data Source	Cadmium	Copper	Lead	Zinc	Aluminum	Selenium
(from Figueroa St. to Carson St.)				data			
Monrovia Canyon Creek				No new data			
Rio Hondo Reach 1 (from the Santa Ana Fwy to Los Angeles River)			No new data	No new data	No new data		
Compton Creek			No new data	No new data			
Los Angeles River Reach 1 (from Carson St. to estuary)	WMP	0%	12%[1]	18%[1]	0%		
Listed Waterbody Segment (Wet)		**Cadmium**	**Copper**	**Lead**	**Zinc**	**Aluminum**	**Selenium**
Los Angeles River Reach 1 (from Carson St. to estuary)	Storm Water	7%	31%	10%	14%	8%	0%

1 – WMP samples compared to dissolved CTR criteria using median hardness values.

Dry-weather TMDLs will be developed for the following pollutant waterbody combinations:

- Copper for the Los Angeles River Reaches 1, 2, 3, 4, and 5, Burbank Western Channel, Rio Hondo Reach 1, Compton Creek and Tujunga Wash. Allocations will be developed for upstream reaches and tributaries to meet TMDLs in downstream reaches. No copper allocation will be assigned to Monrovia Canyon creek because its flow does not reach the mainstem of the river during dry weather.
- Lead for the Los Angeles River Reaches 1, 2, 3, 4, and 5, Burbank Western Channel, Rio Hondo Reach 1, Compton Creek, and Monrovia Canyon Creek. Allocations will be developed for upstream reaches and tributaries to meet TMDLs in downstream reaches.
- Zinc for Rio Hondo Reach 1.
- Selenium for Reach 6, Aliso Creek, Dry Canyon Creek and McCoy Canyon Creek.

Wet-weather TMDLs will be developed for cadmium, copper, lead and zinc for the Los Angeles River Reach 1. Allocations will be developed for upstream reaches and tributaries that drain to the river in order to meet the TMDL for Reach 1. Discharges to these upstream reaches cause or contribute to exceedances of water quality standards in Reach1, and therefore, contribute to the impairment in Reach. Applying allocations to upstream reaches will also address impairments in Reach 2, Compton Creek and Tujunga Wash.

Appendix 2

TAC and USEPA Letters of Support

SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
A Public Agency for Environmental Research

March 8, 2010

Chris Minton
Larry Walker Associates
720 Wilshire Blvd, Suite 204
Santa Monica, CA 90405

Subject: Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

Dear Mr. Minton,

As a member of the Technical Advisory Committee for the project on "Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL", I have evaluated the scientific merit of the work plan to conduct the project. I have reviewed the most recent draft work plan dated November 2, 2009 and agree with the approach contained therein for conducting a recalculation of the lead criteria and developing a water-effect ratio (WER) for copper. Specifically, I agree with the approach of utilizing a single species to calculate a WER for copper.

Please feel free to contact me if you have any questions.

Sincerely,

Steven Bay
Principal Scientist
steveb@sccwrp.org

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Operations
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Columbus
OH 43212

614 487-1040
614 487-1920 fax

March 1, 2010

Chris Minton
Larry Walker Associates
720 Wilshire Blvd, Suite 204
Santa Monica, CA 90405

Subject: Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

Dear Mr. Minton,

I have had the opportunity to review several drafts of the Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL. I have reviewed the most recent draft dated November 2, 2009 and agree with the approach contained therein for conducting a recalculation of the lead criteria and developing a water-effect ratio (WER) for copper. With regards to the latter, I agree with the approach to utilizing a single species to calculate a WER for copper for reasons communicated during various conference calls.

Please feel free to contact me if you have any questions.

Sincerely,

Tyler K. Linton

Tyler K. Linton, Ph.D.
Principal Researcher
Great Lakes Environmental Center, Inc.
Columbus, Operation

HydroQual
Environmental Engineers & Scientists

February 24, 2010

Chris Minton
Larry Walker Associates
720 Wilshire Blvd, Suite 204
Santa Monica, CA 90405

Subject: Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL

Dear Mr. Minton,

I have had the opportunity to review several drafts of the Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL. I have reviewed the most recent draft dated November 2, 2009 and agree with the approach contained therein for conducting a recalculation of the lead criteria and developing a water-effect ratio (WER) for copper. Specifically, I agree with the approach to utilizing a single species to calculate a WER for copper.

Please feel free to contact me if you have any questions.

Very truly yours,

HYDROQUAL, INC.

Robert Santore
Associate

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
WATER

March 5, 2010

Chris Minton
Larry Walker Associates
720 Wilshire Blvd, Suite 204
Santa Monica, CA 90405

Dear Mr. Minton,

This is in follow-up to past phone conversations about use of a single species for developing copper Water-Effect Ratios, such as in the November 2, 2009, draft "Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL."

I believe that testing with a single species is a better use of analytical resources and is the preferable study design. In its 2001 guidance, "Streamlined Water-Effect Ratio Procedure for Discharges of Copper", EPA dropped the tests with a second species. This is because experience with the 1994 Interim Guidance generally showed the tests with a second species not to be useful.

Do not hesitate to contact me if you have further questions.

Sincerely,

Charles Delos

Charles Delos
Environmental Scientist
Health and Ecological Criteria Division

Appendix 3

Critical Sampling Conditions Memo

Memorandum

LARRY WALKER ASSOCIATES

DATE:	October 30, 2009
TO:	Chris Minton, LWA
SUBJECT:	Evaluation of Los Angeles River Critical Sampling Conditions for Copper Water-Effect Ratios
cc:	Claus Suverkropp, LWA Tracy Krueger, LWA

Gorman Lau, P.E.

707 Fourth Street, Suite 200
Davis, CA 95616
530.753.6400 (phone)
530.753.7030 (fax)
gormanl@lwa.com

The following technical memorandum has been prepared to present the results of an evaluation of data collected by the City of Los Angeles Watershed Protection Division Status and Trends Monitoring Program to evaluate the critical condition for conducting copper WER testing in the Los Angeles River and tributaries. This technical memorandum is organized into the following sections:

- Analytical Methodology
- Predicted Dissolved Copper LC50 and WER Results
- Critical Condition Analyses
- Number of Samples to Characterize the Critical Condition WER
- Conclusions and Next Steps

ANALYTICAL METHODOLOGY

This critical condition evaluation for data collected from the Los Angeles River is based on Biotic Ligand Model (BLM) output results. The BLM is a software program that predicts speciation and toxicity (EC50) of trace metals to aquatic organisms based on concentrations of complexing ligands (e.g., organic carbon) and competing cations in sample water. The BLM was used to simulate EC50 and WER results using data from grab samples collected approximately monthly at eight sampling locations in the Los Angeles River between March 2006 and February 2008 by the City of Los Angeles Watershed Protection Division Status and Trends Monitoring Program.

BLM data were collected for the following parameters in the Los Angeles River:

- Temperature
- pH
- Dissolved organic carbon
- Calcium
- Magnesium
- Sodium
- Potassium
- Sulfate
- Chloride
- Alkalinity
- Sulfide

Water quality samples were not analyzed for humic acid, which is a required parameter for the BLM. A default value of 10% is recommended by the BLM documentation for most natural waters, and was used in this evaluation of the Los Angeles River. It should be noted that while sulfide was analyzed, it is not used in the current version of the BLM. Sulfide analyses may be used in future versions of the BLM.

BLM data were collected from the following sites in the Los Angeles River (Table 1, Figure 1):

Table 1. Los Angeles River Biotic Ligand Model Monitoring Locations

Waterbody	Sample Location
Los Angeles River Reach 6	White Oak Avenue
Los Angeles River Reach 4	Sepulveda Boulevard
	Tujunga Avenue
Los Angeles River Reach 3	Colorado Boulevard
Los Angeles River Reach 2	Figueroa Street
	Washington Boulevard
	Rosecrans Avenue
Los Angeles River Reach 1	Willow Street

These data were used to predict the dissolved copper EC50s and WERs for *Ceriodaphnia dubia* (*C. dubia*) for each individual sampling event. The EC50 endpoint used in this analysis was mortality, which is also known as the LC50 (LC50 is the concentration that results in mortality for half of the test organisms). The current version of the BLM does not produce LC50 results for *C. dubia* when used to simulate copper toxicity rather it develops copper criteria. BLM Version 2.1.2 (June 2005) is the most recent version of the BLM that provides copper EC50 results. Per a conversation on 06/01/07 with HydroQual, Inc. (developer of the BLM), the BLM results between Versions 2.1.2 and 2.2.3 vary by no more than 10% and are not considered significantly different for conducting such an analysis. Given that the critical condition analysis is focused on the relative magnitude of LC50 and WER values, the absolute predicted value is not considered critical. The output LC50s from the BLM were hardness-normalized to 200 mg/L as $CaCO_3$ prior to analyses to allow for a comparison of results. The methodology used for normalizing hardness is presented in USEPA's *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (EPA/822/R-01/005, March 2001).

Sensitivity analyses were also performed to determine the relative importance of each water quality parameter on predicted dissolved copper LC50 results.

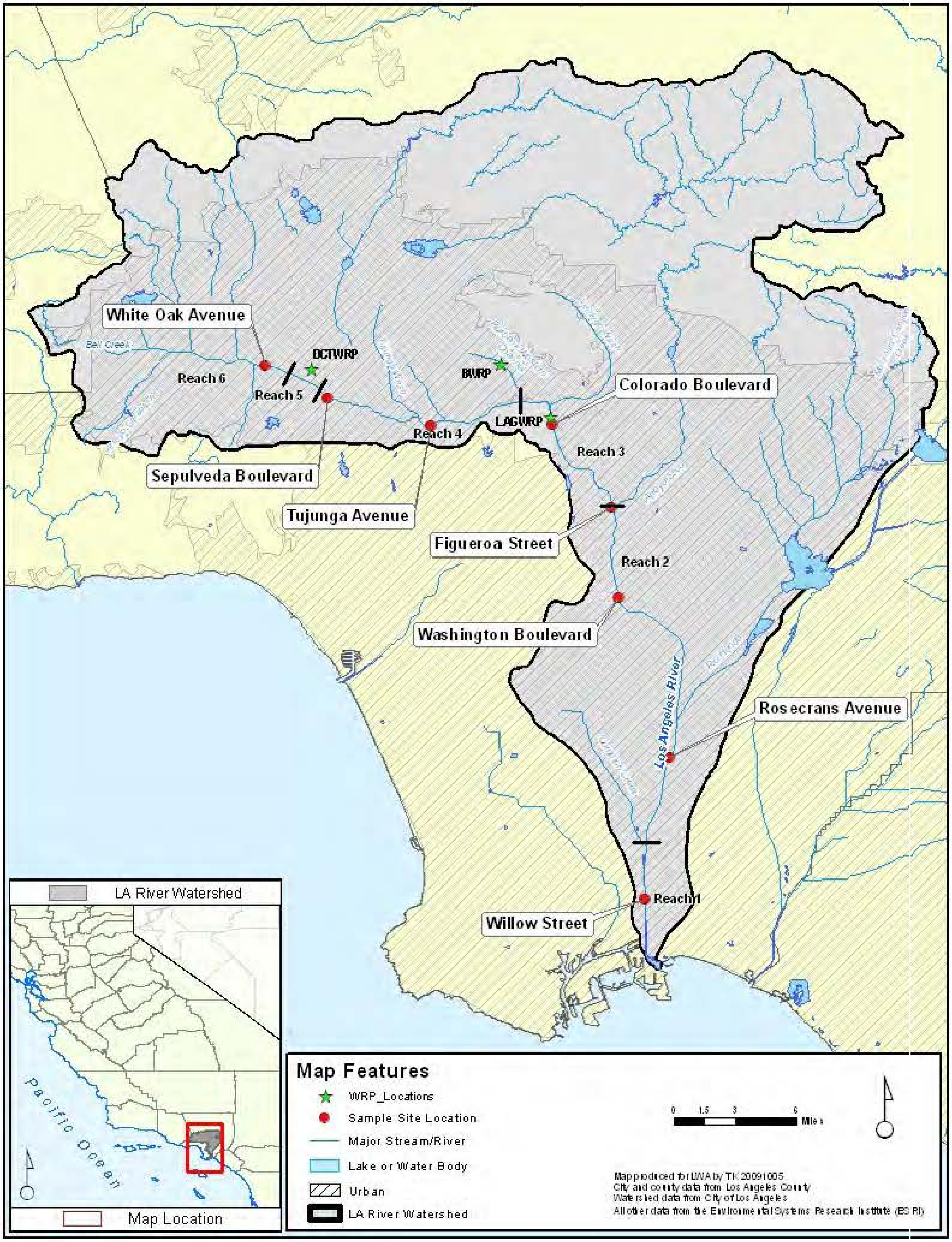


Figure 1. City of Los Angeles Watershed Protection Division Status and Trends Biotic Ligand Model Monitoring Locations

PREDICTED DISSOLVED COPPER LC50 AND WER RESULTS

This section presents the predicted dissolved copper LC50 values from the BLM output and estimates the predicted copper WER values. This section is divided into the following sections:

- Predicted Dissolved Copper LC50 Results
- Predicted Copper WER Results
- Sensitivity Analyses

Predicted Dissolved Copper LC50 Results

Summary statistics for predicted dissolved copper LC50 results are presented in Table 2. Analyses were conducted to evaluate differences between adjacent reaches and sites. Analysis of variance (ANOVA) tests indicate significant differences between all adjacent reaches in the Los Angeles River moving from upstream to downstream (i.e. Reach 6 compared to Reach 4, Reach 4 compared to Reach 3, etc.) with the exception of Reaches 3 and 4, which were not significantly different. It is possible that Reaches 3 and 4 may have similar characteristics because three wastewater treatment plants discharge effluent into those sections of the Los Angeles River.

Table 2. Predicted Dissolved Copper LC50 Results in the Los Angeles River Summary Statistics

Los Angeles River Reach	Site	Number of Samples	Mean (μg/L)	Standard Deviation (μg/L)	Range (μg/L)
6	White Oak Ave.	22	99	97	34-434
4	Sepulveda Blvd.	22	185	70	120-375
	Tujunga Ave.	15	234	107	136-528
3	Colorado Blvd.	22	170	55	67-263
2	Figueroa St.	22	145	54	68-285
	Washington Blvd.	22	292	165	103-831
	Rosecrans Ave.	22	361	126	125-660
1	Willow St.	22	420	127	187-785

(1) Data from March 2006 to February 2008 were collected by the City of Los Angeles Watershed Protection Division as part of its Status and Trends Monitoring Program.

(2) Predicted dissolved copper LC50 results were simulated using the Biotic Ligand Model Version 2.1.2.

(3) Predicted dissolved copper LC50 results are hardness-normalized to 200 mg/L as $CaCO_3$.

Predicted dissolved copper LC50 results were not significantly different within individual reaches with the exception of Reach 2. In Reach 2, predicted dissolved copper LC50 results were significantly different between Figueroa St. and Washington Blvd. There was no significant difference between LC50 results at Colorado Blvd. (Reach 3) and Figueroa St. (Reach 2). The Figueroa St. sampling site is upstream of the confluence of Arroyo Seco with the Los Angeles River, which is upstream of the Washington Blvd. sampling site. It is possible that the confluence of Arroyo Seco with the Los Angeles River between Figueroa St. and Washington Blvd. may cause the significant difference in the predicted dissolved copper LC50 results.

Predicted Copper WER Results

Once predicted dissolved copper LC50 values were developed using the BLM, it is possible to estimate the WER. Based on the *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (1994), the WER is calculated as follows:

$$\text{WER} = \frac{\text{Site Water LC50}}{\text{Laboratory Water LC50}}$$

The BLM was used to simulate dissolved copper LC50 for moderately-hard laboratory water with a constituent makeup as outlined in the *Aquatic Life Ambient Freshwater Quality Criteria – Copper* (2007 Revision) (Copper Criteria Document). Both site water and laboratory water LC50s were hardness-adjusted to 200 mg/L as $CaCO_3$. Summary statistics for predicted copper WER results are presented in Table 3.

Table 3. Predicted Copper Water-Effect Ratios in the Los Angeles River Summary Statistics

Los Angeles River Reach	Site	Number of Samples	Mean	Standard Deviation	Range
6	White Oak Ave.	22	6.9	6.7	2.3-29.9
4	Sepulveda Blvd.	22	12.7	4.8	8.3-25.8
	Tujunga Ave.	15	16.1	7.4	9.4-36.5
3	Colorado Blvd.	22	11.7	3.8	4.6-18.2
2	Figueroa St.	22	10.0	3.7	4.7-19.7
	Washington Blvd.	22	20.1	11.4	7.1-57.3
	Rosecrans Ave.	22	24.9	8.7	8.6-45.5
1	Willow St.	22	29.0	8.8	12.9-54.1

(1) Data from March 2006 to February 2008 were collected by the City of Los Angeles Watershed Protection Division as part of its Status and Trends Monitoring Program.

(2) Predicted dissolved copper LC50 results were simulated using the Biotic Ligand Model Version 2.1.2.

(3) Predicted dissolved copper LC50 results are hardness-normalized to 200 mg/L as CaCO3.

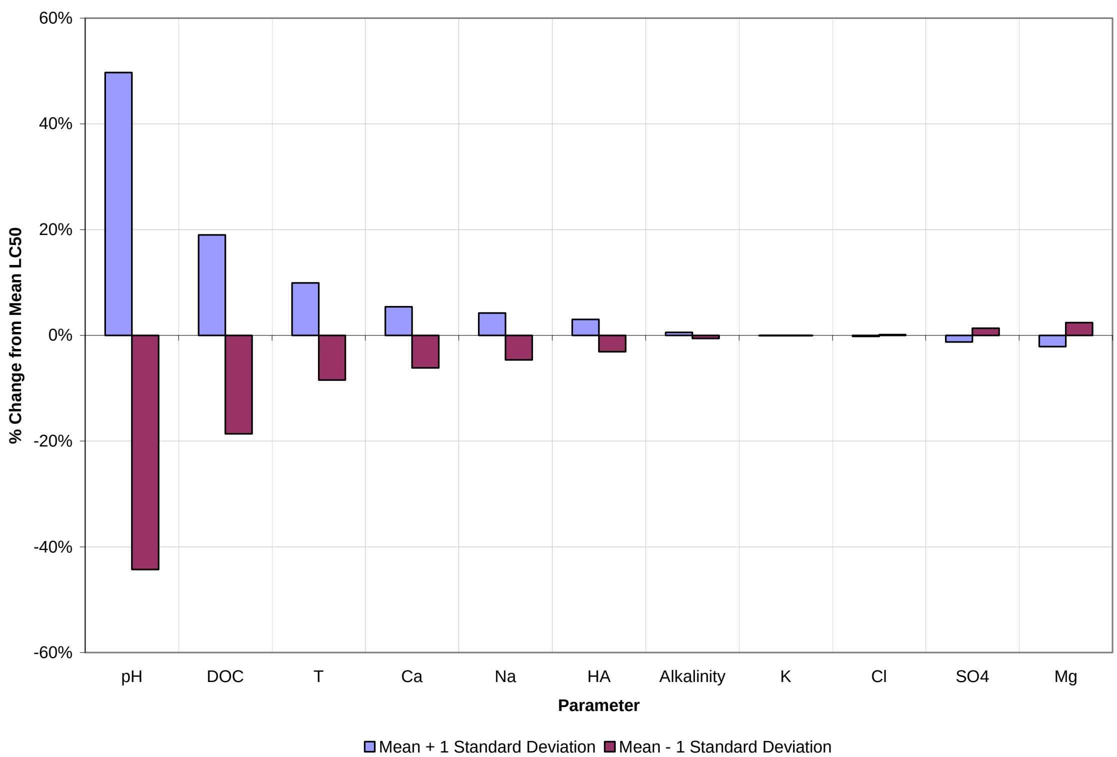
(4) The predicted Water-Effect Ratio is the result of predicted dissolved copper LC50 results that are hardness-normalized to 200 mg/L as $CaCO_3$ divided by the dissolved copper LC50 result of laboratory water that is hardness-normalized to 200 mg/L as $CaCO_3$. Laboratory water characteristics are from the Copper Criteria Document (2007).

Student t-test analyses indicate that predicted copper WER results are significantly different ($p>0.05$) for each reach of the Los Angeles River. Predicted copper WER results were not significantly different ($p<0.05$) within individual reaches with the exception of Reach 2 similar to what was seen in the student t-test analyses for predicted dissolved copper LC50 results. There was no significant difference ($p<0.05$) between predicted copper WER results at Colorado Blvd. (Reach 3) and Figueroa St. (Reach 2). However, there was significant difference ($p>0.05$) between Figueroa St. and Washington Blvd. and Figueroa St. and Rosecrans Ave.

Sensitivity Analyses

Sensitivity analyses were performed to determine the relative importance of each water quality parameter to predicted dissolved copper LC50. Sensitivity analyses were conducted by setting the values of the BLM input parameters to the mean values for the input parameters. Each parameter value was adjusted by plus/minus one standard deviation individually to calculate the predicted dissolved copper LC50. By varying each parameter individually, it is possible to evaluate the influence of each parameter on the predicted dissolved copper LC50 values. The results of the sensitivity analyses are presented in Figure 2.

Figure 2. BLM Parameter Sensitivity Analyses



Based on the sensitivity analyses, predicted dissolved copper LC50 in the Los Angeles River is most sensitive to pH and dissolved organic carbon.

CRITICAL CONDITION ANALYSIS

This section summarizes an evaluation of specific hydrologic and seasonal conditions that may impact predicted copper WERs. This section focuses the discussion on predicted copper WERs instead of predicted copper LC50 values because predicted copper WERs are the final result of interest and the value with which stakeholders are most familiar. Since the predicted copper WERs are generated using hardness-adjusted predicted copper LC50s for site and laboratory water and standard laboratory water, statistical analyses using the predicted copper WERs will not differ from analyses using predicted copper LC50s. Analyses of the following conditions are presented in this section:

- Hydrologic wet and dry periods
- Winter and summer seasonality

Hydrologic Wet and Dry Periods

In evaluating the hydrologic condition at the time of sample collection, two factors were considered to determine if a sampling event occurred during a wet or dry period. Wet weather sampling events were classified as those events where flow in the Los Angeles River exceeded flow triggers at flow monitoring stations near the sampling points **and** there was precipitation accumulation of at least 0.1 inches within three days prior to sampling. If sampling events did not meet both criteria, then the sampling event was classified as a dry weather event. Because the Status and Trends program did not specifically target “wet weather” events both criteria are used to ensure sampling data were collected in what could be considered wet weather conditions.

The Los Angeles River Total Maximum Daily Load (TMDL) Monitoring Program Technical Committee developed flow triggers at several locations in the Los Angeles River for the purpose of identifying Los Angeles River flow conditions as either wet or dry to meet TMDL requirements based on the TMDL’s definition of wet conditions as 500 cubic feet per second (cfs) at Wardlow Avenue. Flow triggers were developed as the 90.8th percentile flow from County flow gage records. The flow stations and triggers used for each sampling location are presented in Table 4.

Table 4. Flow Gages, Flow Triggers, and Number of Sampling Events Exceeding Flow Trigger

Los Angeles River Reach	Status and Trends Sampling Site	Flow Gage	Flow Trigger Gage	Total Number of Samples	Number of Samples Exceeding Flow Trigger at Sampling Time
6	White Oak Ave.	Adj. LAR Sepulveda (1)	White Oak 44 cfs	22	8
4	Sepulveda Blvd.	LAR Sepulveda	Adj. White Oak 95 cfs(3)	22	8
	Tujunga Ave.	LAR Tujunga	Tujunga 232 cfs	15	1
3	Colorado Blvd.	Adj. Tujunga (2)	Tujunga 232 cfs	22	2
2	Figueroa St.	LAR Arroyo Seco	Figueroa 314 cfs	22	1
	Washington Blvd.	LAR Firestone	Figueroa 314 cfs	22	0
	Rosecrans Ave.	LAR Wardlow	Wardlow 495 cfs	22	1
1	Willow St.	LAR Wardlow	Wardlow 495 cfs	22	1

(1) Adj. LAR Sepulveda (White Oak Ave.) = LAR Sepulveda Flow – DC Tillman Effluent Flow

(2) Adj. Tujunga (Colorado Blvd.) = LAR Tujunga Flow + Burbank Western Channel Flow + Verdugo Wash Flow

(3) Adj. White Oak Trigger (Sepulveda Blvd.) = White Oak Ave. Trigger + Average Daily DC Tillman Effluent Flow (32.2 MGD March 2006-February 2008)

The County of Los Angeles (County) maintains flow monitoring equipment in the Los Angeles River at Tujunga Avenue, the confluence with Arroyo Seco, Firestone Boulevard, and Wardlow Avenue and several locations in the Los Angeles River tributaries. The U.S. Army Corp of Engineers maintains a flow monitoring station at Sepulveda Dam. Flows at each sampling location at the sample collection time were approximated based on the flow gage data collected by the County and the U.S. Army Corp of Engineers.

The rainfall gages used for each sampling location are presented in Table 5. The number of precipitation-influenced sampling events is also presented in Table 5. Sampling for the Status and Trends program for BLM parameters typically occurred during non-precipitation days (only 3-6 precipitation events were captured at a site out of a maximum of 22 events).

Table 5. Rainfall Gages and Number of Precipitation-Influenced Sampling Events

Los Angeles River Reach	Site	Rainfall Gage #	Rainfall Gage Elevation (ft)	Total Number of Samples	Number of Samples with Precipitation
6	White Oak Ave.	238	720	22	6
4	Sepulveda Blvd.			22	6
	Tujunga Ave.			15	3
3	Colorado Blvd.	210C	1,250	22	5
2	Figueroa St.	716	306	22	6
	Washington Blvd.			22	6
	Rosecrans Ave.			22	6
1	Willow St.	AL314	25	22	5

Based on the presence of precipitation within three days prior to sampling and the exceedance of a nearby flow trigger at the time of sample collection, each sampling event was classified as wet or dry weather. Note that some events that exceeded the flow triggers in the upper portion of the Los Angeles River (Reaches 5 and 6) did not have precipitation preceding the flows that were above the triggers. As such, these samples were not considered to have been collected during a “wet weather” event. Summary statistics for predicted copper WERs for each of these conditions is presented in Table 6.

Table 6. Predicted Water-Effect Ratios in the Los Angeles River during Wet and Dry Weather Sampling Events

Los Angeles River Reach	Site	Event Type	Number of Samples	Mean	Standard Deviation	Range
6	White Oak Ave.	Wet	5	11.7	12.7	2.5 – 29.9
		Dry	17	5.4	1.8	2.3 – 8.2
4	Sepulveda Blvd.	Wet	5	13.5	8.8	8.6 – 25.8
		Dry	17	12.5	4.1	8.3 – 21.4
	Tujunga Ave.	Wet	1	–	–	15.9
		Dry	14	16.1	7.6	9.4 – 36.5
3	Colorado Blvd.	Wet	2	12.1	–	11.9 – 12.3
		Dry	20	11.7	4.0	4.6 – 18.2
2	Figueroa St.	Wet	1	–	–	6.1
		Dry	21	10.2	3.7	4.7 – 19.7
	Washington Blvd.	Wet	0	–	–	–
		Dry	22	20.1	11.4	7.1 – 57.3
	Rosecrans Ave.	Wet	1	–	–	18.3
		Dry	21	25.2	8.8	8.6 – 45.5
1	Willow St.	Wet	1	–	–	24.8
		Dry	21	29.2	9.0	12.9 – 54.1

(1) Data from March 2006 to February 2008 were collected by the City of Los Angeles Watershed Protection Division as part of its Status and Trends Monitoring Program.

(2) Predicted dissolved copper LC50 results were simulated using the Biotic Ligand Model Version 2.1.2.

(3) Predicted dissolved copper LC50 results are hardness-normalized to 200 mg/L as $CaCO_3$.

(4) The predicted Water-Effect Ratio is the result of predicted dissolved copper LC50 results that are hardness-normalized to 200 mg/L as $CaCO_3$ divided by the dissolved copper LC50 result of laboratory water that is hardness-normalized to 200 mg/L as $CaCO_3$. Laboratory water characteristics are from the Copper Criteria Document (2007).

There were insufficient data available to conduct a one-way ANOVA test for each site to determine if there is significant difference in predicted copper WER values between wet and dry weather events, with the exception of White Oak Ave. and Sepulveda Blvd. White Oak Ave. is the most upstream site and not influenced by wastewater. The ANOVA test indicates a significant difference between wet and dry weather sampling events at White Oak Ave., but not at Sepulveda Blvd. The ANOVA test at White Oak Ave indicates that wet weather predicted copper WERs are significantly higher than dry weather WERs.

At White Oak Ave., the two highest predicted wet weather copper WER results occurred when sampling was conducted during the same day as precipitation, whereas the two lowest predicted wet weather copper WER results were collected during sampling that occurred two days after precipitation events. The two lowest predicted wet weather copper WERs are within the range of the predicted dry weather WERs. For Sepulveda Blvd, the highest three predicted wet weather WERs occurred when sampling was conducted during the same day as precipitation, while the two lowest predicted wet weather WERs occurred in samples collected two days after precipitation. Note that two of the WERs collected at Sepulveda Blvd. during the same day as precipitation (3/21/06 and 12/18/07) do not differ significantly from two collected two days after precipitation (2/13/07 and 2/5/08). The two lowest predicted wet weather WERs are within the range of the dry weather WERs.

Although the ANOVA test did not find a significant difference between the wet and dry weather sampling events at Sepulveda Blvd., predicted wet weather WERs are not lower than predicted dry weather WERs. This is also true for the other sampling sites where both wet and dry weather events were collected, but had insufficient data to conduct an ANOVA test. Additionally, predicted WERs from wet weather events conducted during actual precipitation are higher than predicted WERs from defined wet weather events that occur days after precipitation has ended, which more resemble dry weather WER values. Table 7 summarizes the flow and precipitation conditions within three days prior to the sampling time along with the predicted copper WERs from that sampling event.

Table 7. Flow and Precipitation Conditions Near Sampling Time

Sample Location	Sample Date & Time	Parameter during Sampling Time	3 Days Prior	2 Days Prior	Day Before	Day of Sampling	Predicted WER
White Oak Ave.	03/21/06 9:45	Precip. (in.)	0.04	0.00	0.39	0.04	5.4
		Flow (cfs)	23	15	50	57	
	02/13/07 8:55	Precip. (in.)	0.00	0.59	0.00	0.00	2.5
		Flow (cfs)	21	666	48	52	
	12/18/07 10:00	Precip. (in.)	0.00	0.00	0.04	0.66	29.9
		Flow (cfs)	34	28	31	372	
	01/22/08 10:25	Precip. (in.)	0.00	0.00	0.00	0.12	16.8
		Flow (cfs)	21	20	19	202	
	02/05/08 9:45	Precip. (in.)	0.00	0.20	0.00	0.00	3.7
		Flow (cfs)	43	2,647	107	47	
Sepulveda Blvd.	03/21/06 10:45	Precip. (in.)	0.04	0.00	0.39	0.04	11.9
		Flow (cfs)	93	90	127	134	
	02/13/07 9:30	Precip. (in.)	0.00	0.59	0.00	0.00	9.0
		Flow (cfs)	90	738	120	123	

Sample Location	Sample Date & Time	Parameter during Sampling Time	3 Days Prior	2 Days Prior	Day Before	Day of Sampling	Predicted WER
Sepulveda Blvd.	12/18/07 10:50	Precip. (in.)	0.00	0.00	0.04	0.66	11.9
		Flow (cfs)	84	79	82	419	
	01/22/08 11:00	Precip. (in.)	0.00	0.00	0.00	0.12	25.8
		Flow (cfs)	72	72	72	254	
	02/05/08 10:20	Precip. (in.)	0.00	0.20	0.00	0.00	8.6
		Flow (cfs)	95	2,700	160	95	
Tujunga Ave.	03/21/06 11:30	Precip. (in.)	0.04	0.00	0.39	0.04	15.9
		Flow (cfs)	108	109	105	454	
Colorado Blvd.	12/19/07 10:25	Precip. (in.)	0.00	0.00	0.74	0.08	12.3
		Flow (cfs)	101	102	853	1,223	
	01/23/08 9:00	Precip. (in.)	0.00	0.00	0.04	0.74	11.9
		Flow (cfs)	121	126	991	247	
Figueroa St.	12/19/07 8:40	Precip. (in.)	0.00	0.00	0.63	0.43	6.1
		Flow (cfs)	78	78	532	729	
Rosecrans Ave.	12/19/07 12:50	Precip. (in.)	0.00	0.00	0.63	0.43	18.3
		Flow (cfs)	120	123	163	1,118	
Willow St.	12/19/07 13:50	Precip. (in.)	0.00	0.00	0.55	0.12	24.8
		Flow (cfs)	117	123	180	900	

Winter and Summer Seasonality

The next step in the critical condition analysis is to determine if seasonality affects predicted copper WER values. Summer is generally defined in the Los Angeles region as April 1 to October 31 and winter is generally defined as November 1 to March 31. This section provides an analysis of any potential seasonal trends during dry weather conditions that may affect predicted copper WER results. Summary statistics for predicted copper WER results in winter and summer during dry weather conditions at each sampling site are presented in Table 8.

Table 8. Predicted Water-Effect Ratios in the Los Angeles River during Dry Weather Winter and Summer Sampling Events

Los Angeles River Reach	Site	Event Type	Number of Samples	Mean	Standard Deviation	Range
6	White Oak Ave.	Winter	5	5.0	2.1	3.1 – 8.0
		Summer	12	5.6	1.8	2.3 – 8.2
4	Sepulveda Blvd.	Winter	5	11.6	4.0	8.3 – 17.3
		Summer	12	12.9	4.5	8.4 – 21.4
	Tujunga Ave.	Winter	5	12.8	2.6	9.4 – 15.8
		Summer	9	18.0	8.9	11.8 – 36.5
3	Colorado Blvd.	Winter	8	12.1	3.9	7.3 – 17.9
		Summer	12	11.4	4.2	4.6 – 18.2
2	Figueroa St.	Winter	9	11.8	3.9	7.1 – 19.7
		Summer	12	9.0	3.4	4.7 – 15.0
	Washington Blvd.	Winter	10	14.9	4.7	7.1 – 20.5
		Summer	12	24.5	13.5	10.2 – 57.3
	Rosecrans Ave.	Winter	9	20.0	6.6	8.6 – 28.7
		Summer	12	29.1	8.3	19.0 – 45.5
1	Willow St.	Winter	9	25.1	7.0	12.9 – 33.6
		Summer	12	32.2	9.5	21.6 – 54.1

(1) Data from March 2006 to February 2008 were collected by the City of Los Angeles Watershed Protection Division as part of its Status and Trends Monitoring Program.

(2) Predicted dissolved copper LC50 results were simulated using the Biotic Ligand Model Version 2.1.2.

(3) Predicted dissolved copper LC50 results are hardness-normalized to 200 mg/L as $CaCO_3$.

(4) The predicted Water-Effect Ratio is the result of predicted dissolved copper LC50 results that are hardness-normalized to 200 mg/L as $CaCO_3$ divided by the dissolved copper LC50 result of laboratory water that is hardness-normalized to 200 mg/L as $CaCO_3$. Laboratory water characteristics are from the Copper Criteria Document (2007).

ANOVA tests for each sampling location only indicate that there is a significant difference for predicted copper WER results between winter and summer during dry weather sampling events at Rosecrans Ave. and Washington Blvd.

NUMBER OF SAMPLES TO CHARACTERIZE THE CRITICAL CONDITION WER

Per the Interim Guidance, three samples are required to calculate a final WER (fWER). Concern has been expressed that this may not be a sufficient number of samples to adequately address potential variability of the WERs collected during the critical condition. The following analysis was performed to get a sense of the expected variability of predicted WERs with three and greater samples. However, regardless of the analysis of predicted WERs, ultimately, the determination of adequate sample size will take place after actual WER samples have been collected, the approach to which is discussed in the following section. Therefore, the collection of three samples during the critical condition is the starting point of the process, rather than the final conclusion.

A prospective power analysis was conducted to estimate the ability of the study to adequately characterize WERs for the critical condition. Statistical power describes the probability that a study will detect a statistically significant effect that actually exists. For example, a power of 90% (or 0.9) means that a study (if conducted repeatedly over time) will find a significant difference that does exist 9 times out of 10. Power analysis is most often used when the concern is simply with correctly accepting or rejecting a null hypothesis. However, for this study the issue is less about determining whether there is or is not a difference (e.g., is the WER greater than one), but rather with how precise the estimate of the WER is. For example, for all sites a sample size of three will give more than 90% power (with 95% confidence) to reject the null hypothesis that the real dry season WER is equal to one.

The number of samples needed to adequately characterize WERs is not specifically addressed in USEPA's Interim Guidance. For the purpose of this analysis, the power of the study to adequately characterize WERs for the critical condition was evaluated using the 95% one-sided lower confidence limits of the geometric mean WER and a statistical power of 0.9. The 95% one-sided lower confidence limit (LCL) of the geometric mean WER defines the range that is expected to contain the hypothetical "true" geometric mean 95% of the time, and at the same time defines the highest WER that provides confidence that it is lower than the true WER upon which the site-specific objective would be based on. In other words, the geometric mean WER is the best estimate of the "true" WER and the 95% LCL defines the upper limit of WERs that are lower than the "true" geometric mean WER. The specific question evaluated using the power analysis was "What is the lower limit of the WERs that the study can be expected to determine with at least 95% confidence and 90% power?"

The expected WERs used for this analysis were based on BLM estimates for dry weather presented previously in this memorandum. The power analysis was based on a range of the number of samples for each location and the expected magnitude and variability of the WERs. The magnitude and variability of WERs was estimated based on the BLM results. These data characterize the variability and range of expected WERs in the LA River reaches and tributaries. The power of the study to characterize dry weather WERs was evaluated using the mean and standard deviations of the log-transformed WERs. Calculation of the expected LCLs was based on log-transformed WERs to be consistent with the normality assumption of the power analysis and the lognormal distribution of WERs. The LCLs calculated for each site are presented in Table 9.

The results of the power analysis show that the collection of only 3 samples during dry weather conditions would be sufficient to establish that geometric mean WERs are greater than one. The final determination that the sample size is sufficient will depend on the actual WER data collected by the study, the approach to which is discussed in the following section. This analysis provides only a starting point with a minimum number of samples.

Table 9. Expected One-Sided 95% Lower Confidence Limits of Dry Weather WERs at Specified Study Sample Sizes (one-sided alpha = 0.05, power = 0.9)

LA River Reach	Site	Geometric Mean WER	Mean (Ln WER)	Std Deviation (Ln WER)	Expected LCL of WER at specified sample size			
					n=3	n=4	n=5	n=6
6	White Oak Ave.	5.1	1.639	0.360	1.9	2.5	2.9	3.1
4	Sepulveda Blvd.	12.0	2.483	0.298	5.2	6.7	7.4	7.9
	Tujunga Ave.	15.2	2.718	0.344	5.8	7.7	8.7	9.4
3	Colorado Blvd.	11.0	2.398	0.375	3.9	5.3	6.0	6.5
2	Figueroa St.	9.6	2.262	0.357	3.6	4.8	5.4	5.8
	Washington Blvd.	23.7	3.167	0.370	8.5	11.5	13.1	14.1
	Rosecrans Ave.	18.1	2.896	0.461	5.0	7.3	8.6	9.5
1	Willow St.	28.0	3.331	0.303	12.0	15.4	17.2	18.3

CONCLUSIONS AND NEXT STEPS

A summary of the conclusions based on the analysis indicate:

- Predicted copper WER results were not significantly different ($p<0.05$) within individual reaches with the exception of Reach 2 (Figueroa St. and Washington Blvd. and Figueroa St. and Rosecrans Ave).
- Predicted wet weather WERs are not lower than predicted dry weather WERs. It appears that the timing of sample collection during a defined wet weather event can affect the value of the predicted WER.
- Predicted dissolved copper LC50 and WERs do not indicate a statistically significant critical dry weather sampling period for a copper WER study for all

locations. At Rosecrans Ave. and Washington Blvd., predicted copper WERs appear to be lower during winter dry weather conditions.

- Collection of three samples during the critical condition is a starting point for the determination of sample size.

Based on the critical conditions and number of samples analysis, initially two dry weather samples will be collected in each of the two dry weather seasons (summer and winter) and two samples will be collected during wet weather (a total of six samples). This is the proposed approach because neither dry weather season, nor wet weather was identified as significantly different at all sites.

However, wet weather WERs were not lower than dry weather WERs, and the focus of wet weather sampling will be to confirm this assumption. As such, the wet weather samples will be compared to the four dry weather samples to confirm that wet weather WERs are not lower than dry weather WERs. If it is determined that wet weather conditions are critical, the current study design can be utilized to develop dry-weather only WERs. Alternatively, an analysis could be conducted to determine the additional samples needed to develop wet weather WERs.

Additionally, an analysis will be conducted after the four dry weather samples are collected to determine if there is a substantial difference between summer dry weather and winter dry weather WER samples. This determination will be made in coordination with the TAC and LARWQCB. If it is decided that there is not a substantial difference in dry weather seasons WERs, then dry weather, regardless of season, is the critical condition. A total of four WER samples will have been collected in the critical condition. If it is determined that summer and winter dry weather WERs are substantially different, then the lower dry weather season is the critical condition. An additional sampling event would be conducted in the critical season for a total of three samples in the critical condition.

Following the determination of critical condition, either three or four WER samples will have been collected in the critical condition. Analyses will be conducted using these samples and other appropriate data to determine if enough samples have been collected in the critical condition. The data and analyses will be provided to the TAC and LARWQCB for discussion, and the determination of adequate data will again be made in coordination with the TAC and LARWQCB. If it is determined that enough samples have been collected, then no further samples will be collected and the final WER (fWER) will be calculated. If it is determined that not enough samples were collected, then one or more additional samples will be collected in the critical condition, and the analyses and decision process will be repeated.

Figure 3 presents the decision making process for evaluating critical conditions and sample size.

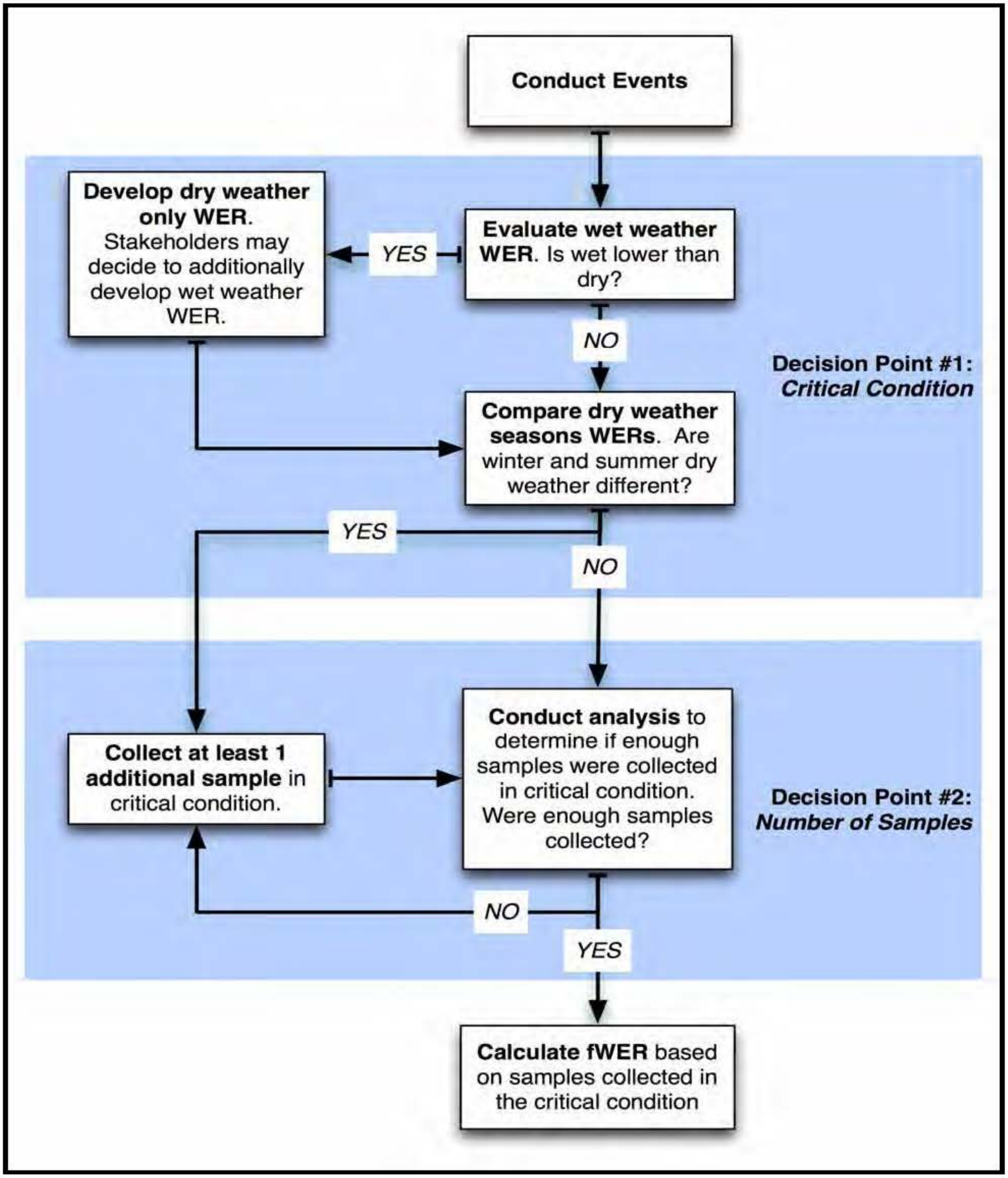


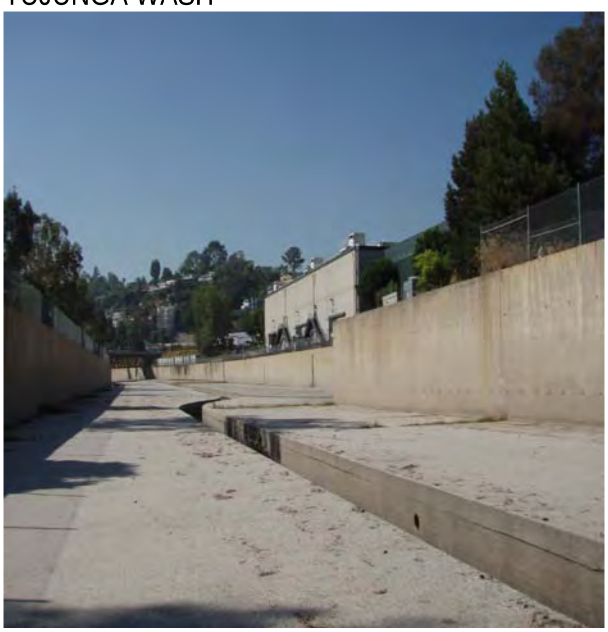
Figure 3. Decision Flow Chart

Appendix 4

Sampling Site Descriptions and Driving Directions

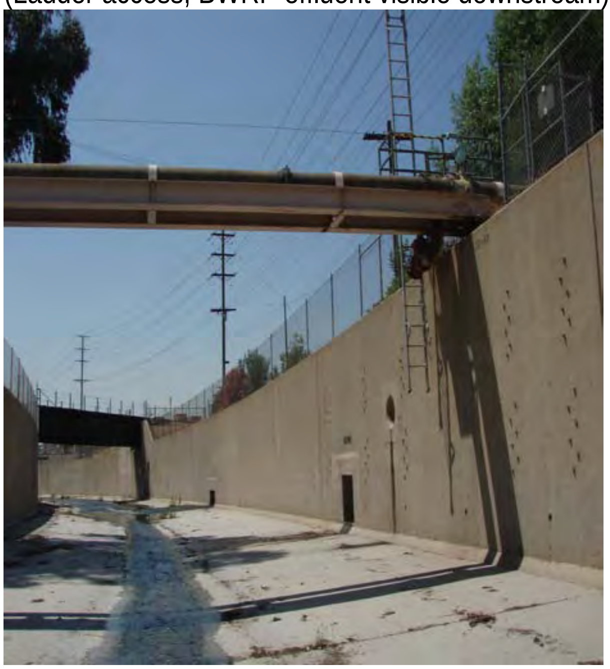
Site ID	TW_AT_LAR
Waterbody & Waterbody Type	Tujunga Wash - Tributary
Latitude	34.145081
Longitude	-118.388672
Site Description	Tujunga Wash at LAR Reach 4
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Exit onto CA-134 West toward Ventura (on right) • Exit on Lankershim Blvd. toward North Hollywood • Turn left onto Lankershim Blvd. • Turn right onto Aqua Vista St. Drive to the end and turn left through County gate. • Access River through Ramp • Drive upstream along LAR to Tujunga Wash (right fork)
Thomas Guide Page(s)	563, A5
Access Issues	• Access via Aqua Vista St. ramp (Ramp 4-4 from BIS study)

TUJUNGA WASH



Site ID	BWC_UP_BWRP
Waterbody & Waterbody Type	Burbank Western Channel - Tributary
Latitude	34.183389
Longitude	-118.318442
Site Description	BWC immediately upstream of BWRP discharge (about 300-feet) at its confluence with Lockheed Channel
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Exit Burbank Blvd. • Left on Burbank Blvd. • Left on N Lake St. and enter BWRP on left • Access channel by ladder from BWRP
Thomas Guide Page(s)	533, E5
Access Issues	• Need to obtain permission to access channel through BWRP and will need key or access code for night time sampling

BWC upstream of BWRP
(Ladder access, BWRP effluent visible downstream)



Lockheed Channel on the Left, BWC on Right

Site ID	BWC_AT_LAR
Waterbody & Waterbody Type	Burbank Western Channel - Tributary
Latitude	34.157308
Longitude	-118.301708
Site Description	BWC upstream of confluence with LAR
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Exit onto Western Ave., keep left at the fork and follow signs for Western Ave. West and merge onto Western Ave. West • Left onto Rancho Ave. • Park on Rancho Ave and walk upstream to BWC
Thomas Guide Page(s)	563, A5
Access Issues	• Access through park

BWC upstream of confluence with LAR

Site ID	LAR_UP_BWC
Waterbody & Waterbody Type	LAR Reach 4 – Main stem
Latitude	34.156842
Longitude	-118.300844
Site Description	LAR upstream of Burbank Western Channel confluence
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Exit onto Western Ave., keep left at the fork and follow signs for Western Ave. West and merge onto Western Ave. West • Left onto Rancho Ave. • Park on Rancho Ave and walk upstream to BWC
Thomas Guide Page(s)	563, A5
Access Issues	• Access through park

LAR Upstream of BWC

Site ID	LAR_ZOO
Waterbody & Waterbody Type	LAR Reach 3 – Main Stem
Latitude	34.15568300
Longitude	-118.28127
Site Description	LAR Reach 3 at Zoo Drive off of Interstate-5 North
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Take the CA-134/Ventura Fwy. exit toward Pasadena • Keep right at the fork and follow signs for Zoo Dr. • Turn left at Zoo Dr. and access via bike path entrance on the right (pictured below)
Thomas Guide Page(s)	564, B4 & B3
Access Issues	• Access through bike path gate and fence • Sample across from two large electrical towers

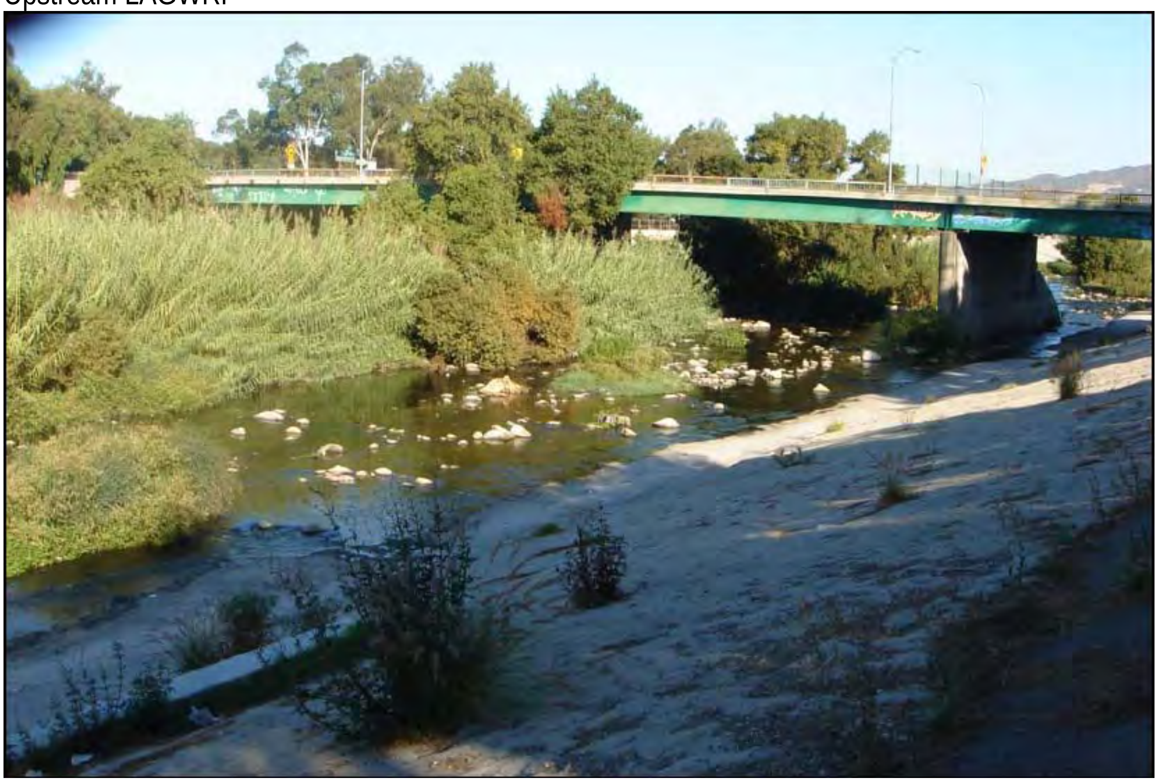
LAR at ZOO Dr

Site ID	VD_AT_LAR
Waterbody & Waterbody Type	Verdugo Wash - Tributary
Latitude	34.154017
Longitude	-118.277772
Site Description	Verdugo Wash upstream of confluence with LAR
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn slight right onto CA-2 North • Merge onto CA-2 North • Exit onto CA-134 West toward Ventura • Take Exit 6 toward San Fernando Rd. • Turn left at Fairmont Ave. • Turn right at San Fernando Rd. • Turn right at Highland Ave. • Turn right at W. Glenoaks Blvd. • Access gate is on the right, just past Kenilworth Ave. • Drive Downstream and sample just before drop off
Thomas Guide Page(s)	564, C3 & C4
Access Issues	• Gate past Kenilworth Ave. • Drive downstream and sample just before drop off

VERDUGO WASH upstream of LAR

Site ID	LAR_ CO
Waterbody & Waterbody Type	LAR Reach 3 – Main Stem
Latitude	34.140272
Longitude	-118.276172
Site Description	LAR Reach 3 at Colorado (LAG-R4)
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn left onto N. San Fernando Rd. • Turn left onto CA-2 South ramp and merge onto CA-2 South • Exit onto Interstate-5 North toward Sacramento • Take exit for Colorado St. • Keep right at the fork and follow signs for Edenhurst Ave. • Turn left at Colorado Blvd. • Turn left at Colorado Blvd./Edenhurst Ave. • Access through LAGWRP
Thomas Guide Page(s)	564, C5 & C6
Access Issues	• Need to obtain permission to access channel through LAGWRP and will need key to access river from the plant and an access code for night time sampling

Upstream LAGWRP



Site ID	LAR_FIG
Waterbody & Waterbody Type	LAR Reach 3 – Main Stem
Latitude	34.081481
Longitude	-118.227439
Site Description	LAR Reach 3 upstream of N. Figueroa St. and downstream of LAGWRP
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Access is on the right just past CA-110 Fwy. on N. San Fernando Rd. • Sample upstream of ramp
Thomas Guide Page(s)	594, J7
Access Issues	• L.A. County key did not work at access gate • Army Corps key opens gate • Ramp 2-1 from BSI Study

LAR Upstream of Figueroa

Site ID	AS_AT_LAR
Waterbody & Waterbody Type	Arroyo Seco - Tributary
Latitude	34.080044
Longitude	-118.225353
Site Description	Arroyo Seco – Upstream of Arroyo Seco and LAR confluence
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Access is on the right just past CA-110 Fwy. on N. San Fernando Rd. • Either enter through gate and drive down Ramp to LAR • Walk downstream to Arroyo Seco and walk up Arroyo Seco.
Thomas Guide Page(s)	594, J7
Access Issues	• L.A. County key did not work at access gate • Army Corps key opens gate • Ramp 2-1 from BSI Study

Arroyo Seco

Site ID	LAR_ WASH
Waterbody & Waterbody Type	LAR Reach 2 – Main Stem
Latitude	34.017359
Longitude	-118.223287
Site Description	LAR Reach 2 at Washington Blvd.
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Turn slight left onto W. Avenue 26 • Turn right to merge onto Interstate-5 South • Take the Soto St. Exit, head South on Soto St. • Turn right onto Washington Blvd.
Thomas Guide Page(s)	674, J1
Access Issues	•

Site ID	RH_AT_LAR
Waterbody & Waterbody Type	Rio Hondo - Tributary
Latitude	33.9323833
Longitude	-118.17485
Site Description	Rio Hondo
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Turn slight left onto W. Avenue 26 • Turn right to merge onto Interstate-5 South • Take the exit onto Interstate-710 South towards Long Beach • Exit Firestone Exit • Turn left on firestone and cross freeway. • Turn right into gate on East side of Rio Hondo • Drive down bike path to Garfield • Sample downstream of Garfield
Thomas Guide Page(s)	705, F6
Access Issues	• Sample close to Garfield where flow path is best.

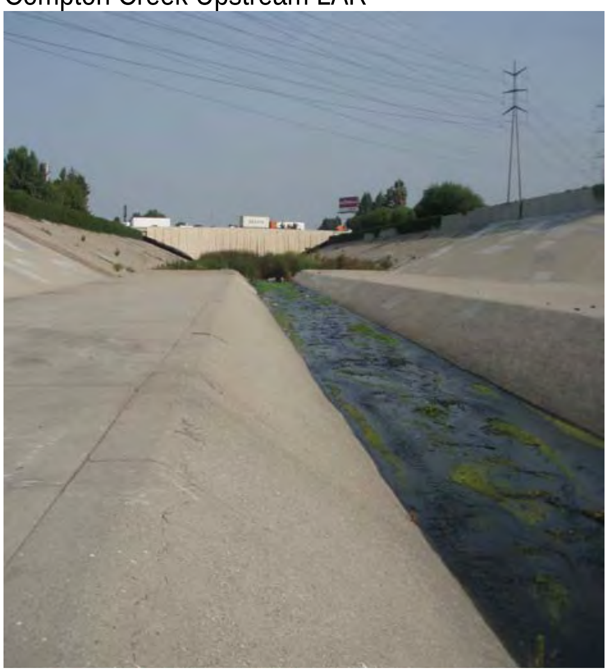
Rio Hondo Upstream of LAR

Site ID	LAR_ DEL
Waterbody & Waterbody Type	LAR Reach 2 – Main Stem
Latitude	33.846697
Longitude	-118.2033
Site Description	LAR Reach 2 at Del Amo Blvd.
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Turn slight left onto W. Avenue 26 • Turn right to merge onto Interstate-5 South • Take the exit onto Interstate-710 South towards Long Beach • Exit toward Del Amo Blvd. • Turn left at S. Susana Rd. • Turn left at W. Del Amo Blvd. • Access at LAR and W. Del Amo Blvd. via ramp • Walk upstream to Del Amo Blvd
Thomas Guide Page(s)	765, C4
Access Issues	• Access via ramp, do not drive in river

LAR_REACH_2 at Del Amo

Site ID	CC_AT_LAR
Waterbody & Waterbody Type	Compton Creek - Tributary
Latitude	33.842072
Longitude	-118.204531
Site Description	Compton Creek immediately upstream of confluence with LAR
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Turn slight left onto W. Avenue 26 • Turn right to merge onto Interstate-5 South • Take the exit onto Interstate-710 South towards Long Beach • Exit toward Del Amo Blvd. • Turn left at S. Susana Rd. • Turn left at W. Del Amo Blvd. • Access at LAR and W. Del Amo Blvd. via ramp • Walk downstream to Compton Creek
Thomas Guide Page(s)	765, C4
Access Issues	• Access via ramp, do not drive in river

Compton Creek Upstream LAR



Site ID	LAR_ WARD
Waterbody & Waterbody Type	LAR Reach 1 – Main Stem
Latitude	33.821289
Longitude	- 118.205433
Site Description	LAR Reach 1 at Wardlow
Driving Directions	• In Los Angeles, head NE on Media Center Dr. toward N. San Fernando Rd. • Turn right onto N. San Fernando Rd. • Turn slight left onto W. Avenue 26 • Turn right to merge onto Interstate-5 South • Take the exit onto Interstate-710 South toward Long Beach • Take the Interstate-405 South exit toward San Diego • Follow signs for Wardlow Rd. and merge onto W. Wardlow Rd. • Turn right at Maine Ave. • Turn right at W. 33rd Way • Turn right at Golden Ave. • Turn left on W. 34th St. • Go through gate and access LAR via bicycle path
Thomas Guide Page(s)	795, C1
Access Issues	• Access at end of W. 34th St. via gate

LAR at Wardlow

Access Gate

Appendix 5

Example Field Log Sheet

LA River WER – Field Log

GENERAL INFORMATION

Station: __________________ Site ID: ___________________ Date: _____________

Personnel: ____

OBSERVATIONS – Note time of observation

Weather: ____

Floating material or debris: ____

Oil (extent): ___________________________Water color or odor: ____________________

Photograph No. (if taken): _______________ Recreation uses observed: ___________________________

Other Notes (presence of algae, wildlife observations, etc.):

WATER QUALITY PARAMETERS

	Time	Temp (^{0}C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm^c)	Salinity (ppt)
T = 0 hrs						
T = 6 hrs						
T = 12 hrs						
T = 18 hrs						
T = 24 hrs						

ENVIRONMENTAL SAMPLES

Sample ID	Analyses	Bottle	Time	Date
	Copper WER Composite	1 of 5 - 5 Gallon		
	Copper WER Composite	2 of 5 - 5 Gallon		
	Copper WER Composite	3 of 5 - 5 Gallon		
	Copper WER Composite	4 of 5 - 5 Gallon		
	Copper WER Composite	5 of 5 - 5 Gallon		
	Dis-metals Composite	1 of 5 - 50 mL HDPE		
	Dis-metals Composite	2 of 5 - 50 mL HDPE		
	Dis-metals Composite	3 of 5 - 50 mL HDPE		
	Dis-metals Composite	4 of 5 - 50 mL HDPE		
	Dis-metals Composite	5 of 5 - 50 mL HDPE		
	Tot-metals/Hardness Composite	1 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	2 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	3 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	4 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	5 of 5 - 250 mL HDPE		
	TSS Composite	1 of 5 - 250 mL HDPE		
	TSS Composite	2 of 5 - 250 mL HDPE		
	TSS Composite	3 of 5 - 250 mL HDPE		
	TSS Composite	4 of 5 - 250 mL HDPE		
	TSS Composite	5 of 5 - 250 mL HDPE		

QA/QC SAMPLES – SEE NEXT PAGE

Station: ________________ Site ID:____________________ Date: ______________

FIELD BLANKS

Sample ID	Analyses	Bottle	Time	Date
	Dis-metals Composite	1 of 5 - 50 mL HDPE		
	Dis-metals Composite	2 of 5 - 50 mL HDPE		
	Dis-metals Composite	3 of 5 - 50 mL HDPE		
	Dis-metals Composite	4 of 5 - 50 mL HDPE		
	Dis-metals Composite	5 of 5 - 50 mL HDPE		
	Tot-metals/Hardness Composite	1 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	2 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	3 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	4 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	5 of 5 - 250 mL HDPE		
	Total Organic Carbon	250 mL glass		
	Dissolved Organic and Inorganic Carbon	250 mL glass		
	Calcium, Magnesium, Sodium, Potassium	250 mL HDPE		
	Sulfate, Chloride	250 mL HDPE		
	Total Sulfide	125 mL HDPE		

FIELD DUPLICATES

Sample ID	Analyses	Bottle	Time	Date
	Dis-metals Composite	1 of 5 - 50 mL HDPE		
	Dis-metals Composite	2 of 5 - 50 mL HDPE		
	Dis-metals Composite	3 of 5 - 50 mL HDPE		
	Dis-metals Composite	4 of 5 - 50 mL HDPE		
	Dis-metals Composite	5 of 5 - 50 mL HDPE		
	Tot-metals/Hardness Composite	1 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	2 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	3 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	4 of 5 - 250 mL HDPE		
	Tot-metals/Hardness Composite	5 of 5 - 250 mL HDPE		
	TSS Composite	1 of 5 - 250 mL HDPE		
	TSS Composite	2 of 5 - 250 mL HDPE		
	TSS Composite	3 of 5 - 250 mL HDPE		
	TSS Composite	4 of 5 - 250 mL HDPE		
	TSS Composite	5 of 5 - 250 mL HDPE		

Station: _______________ Site ID: _________________ Date: _____________

Flow Measurement 1 **Date:** ____________________ **Time:** _________________

Dist (ft)																						
Depth (ft)																						
Flow (cfs)																						

Wet Channel Width (ft): ____________ Mid Channel Depth (ft): ___________ Calculated Flow (cfs): ______________ Nearest Gage Flow* (cfs): ________________

Flow Measurement 2 **Date:** ____________________ **Time:** _________________

Dist (ft)																						
Depth (ft)																						
Flow (cfs)																						

Wet Channel Width (ft): ____________ Mid Channel Depth (ft): ___________ Calculated Flow (cfs): ______________ Nearest Gage Flow* (cfs): ________________

Flow Measurement 3 **Date:** ____________________ **Time:** _________________

Dist (ft)																						
Depth (ft)																						
Flow (cfs)																						

Wet Channel Width (ft): ____________ Mid Channel Depth (ft): ___________ Calculated Flow (cfs): ______________ Nearest Gage Flow* (cfs): ________________

Flow Measurement 4 **Date:** ____________________ **Time:** _________________

Dist (ft)																						
Depth (ft)																						
Flow (cfs)																						

Wet Channel Width (ft): ____________ Mid Channel Depth (ft): ___________ Calculated Flow (cfs): ______________ Nearest Gage Flow* (cfs): ________________

Flow Measurement 5 **Date:** ____________________ **Time:** _________________

Dist (ft)																						
Depth (ft)																						
Flow (cfs)																						

Wet Channel Width (ft): ____________ Mid Channel Depth (ft): ___________ Calculated Flow (cfs): ______________ Nearest Gage Flow* (cfs): ________________

* If channel is not accessible check associated gage for flow date. Associated flow gage presented in LA River Cu WER Work Plan

Station: ______________ Site ID: ________________ Date: ____________

Flow Measurement 1						
*Specify units	**Units**	**Flow 1**	**Flow 2**	**Flow 3**	**Flow 4**	**Flow 5**
Date						
Time						
Width at **Top**:	in or ft					
Width at **Middle**:	in or ft					
Width at **Bottom**:	in or ft					
Depth at 25% of **Top**:	in or ft					
Depth at 50% of **Top**:	in or ft					
Depth at 75% of **Top**:	in or ft					
Depth 25% of **Middle**:	in or ft					
Depth at 50% of **Middle**:	in or ft					
Depth at 75% of **Middle**:	in or ft					
Depth at 25% of **Bottom**:	in or ft					
Depth at 50% of **Bottom**:	in or ft					
Depth at 75% of **Bottom**:	in or ft					
Distance Marked-off:	in or ft					
Time 1:	mm:ss.ss					
Time 2:	mm:ss.ss					
Time 3:	mm:ss.ss					

Appendix 6

Example Chain of Custody Form

LARRY WALKER ASSOCIATES

720 Whilshire Blvd, Suite 204, Santa Monica, CA 90401 (Phone: 310-394-1036 - Fax: 310-394-8959)

CHAIN-OF-CUSTODY RECORD **DATE:** **Lab ID:**

DESTINATION LAB:

ADDRESS:

PHONE:

FAX:

SAMPLED BY:

PROJECT:

LWA CONTACT:

LWA PROJECT MANAGER:

Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container #	Container Type	Container Pres.	Copper WER Toxicity Testing (C. dubia)	Total Ammonia	Hardness	Alkalinity	Total Residual Chlorine	Temp, pH, Dissolved Oxygen			Notes
			SW	5	5-Gallon FLPE										Perform analysis and collect subsamples from composited sample into bottles provided by LWA. Collection of BLM constituents (DOC, DIC, Ca, Mg, Na, K, chloride, sulfate, and total sulfide) should occur immediately prior to the addition of test species.
			SW	5	5-Gallon FLPE										
			SW	5	5-Gallon FLPE										
			SW	5	5-Gallon FLPE										
			SW	5	5-Gallon FLPE										
			SW	5	5-Gallon FLPE										

SENDER COMMENTS:

PLEASE CALL IF THERE ARE ANY QUESTIONS

LABORATORY COMMENTS:

RELINQUISHED BY		RELINQUISHED BY	
Signature:		Signature:	
Print:		Print:	
Company:		Company:	
Date:	Time:	Date:	Time:

RECEIVED BY		RECEIVED BY	
Signature:		Signature:	
Print:		Print:	
Company:		Company:	
Date:	Time:	Date:	Time:

Appendix 2

Environmental Data

Appendix 2 - Environmental Data

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	85.3	mg/L		EPA 200.8	0.1	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	114.8	mg/L		EPA 300.0	0.05	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Copper (Cu)	Dissolved	=	12.7	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	13.6	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	46.2	mg/L		9060	2	RL		CAS
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	<	7.7	mg/L	UL - FB	9060	1	RL		CAS
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	21.6	mg/L		EPA 200.8	0.1	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	16.2	mg/L		EPA 200.8	10	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	99.7	mg/L		EPA 200.8	10	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	107.0	mg/L		EPA 300.0	0.05	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Total Hardness as $CaCO_3$	NA	=	293.3	mg/L		SM 2340 B	5	RL		Physis
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Total Organic Carbon	NA	=	6.5	mg/L		9060	1	RL		CAS
1A	BWC_AT_LAR	Receiving Water	Dry	4/20/2011	Total Suspended Solids	NA	=	3.2	mg/L		SM 2540 D	5	RL	J	Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	72.7	mg/L		EPA 200.8	0.1	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	122.6	mg/L		EPA 300.0	0.05	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Copper (Cu)	Dissolved	=	7.8	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	9.3	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	45.9	mg/L		9060	2	RL		CAS
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	<	12.3	mg/L	UL - FB	9060	1	RL		CAS
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	34.0	mg/L		EPA 200.8	0.1	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	7.9	mg/L		EPA 200.8	10	RL	J	Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	79.6	mg/L		EPA 200.8	10	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	125.5	mg/L		EPA 300.0	0.05	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Total Hardness as $CaCO_3$	NA	=	322.7	mg/L		SM 2340 B	5	RL		Physis
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Total Organic Carbon	NA	=	10.0	mg/L		9060	3	RL		CAS
1A	BWC_UP_BWRP	Receiving Water	Dry	4/20/2011	Total Suspended Solids	NA	=	6.0	mg/L		SM 2540 D	5	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	95.4	mg/L		EPA 200.8	0.1	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	121.5	mg/L	Est-Hold Time	EPA 300.0	0.05	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	6.1	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	37.3	mg/L		9060	2	RL		CAS
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	<	7.5	mg/L	UL - FB	9060	1	RL		CAS
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	34.4	mg/L		EPA 200.8	0.1	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	11.9	mg/L		EPA 200.8	10	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	119.3	mg/L		EPA 200.8	10	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	274.2	mg/L	Est-Hold Time	EPA 300.0	0.05	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Total Hardness as $CaCO_3$	NA	=	386.1	mg/L		SM 2340 B	5	RL		Physis
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Total Organic Carbon	NA	=	6.0	mg/L		9060	1	RL		CAS
1A	LAR_UP_BWC	Receiving Water	Dry	4/20/2011	Total Suspended Solids	NA	=	2.7	mg/L	Est-Hold Time	SM 2540 D	5	RL	J	Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	51.8	mg/L		EPA 200.8	0.1	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	81.7	mg/L		EPA 300.0	0.05	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Copper (Cu)	Dissolved	=	11.8	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	12.2	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	25.4	mg/L		9060	2	RL		CAS
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	=	26.4	mg/L		9060	1	RL		CAS
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	9.6	mg/L		EPA 200.8	0.1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	17.2	mg/L		EPA 200.8	10	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	67.4	mg/L		EPA 200.8	10	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	69.4	mg/L		EPA 300.0	0.05	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Total Hardness as $CaCO_3$	NA	=	154.7	mg/L		SM 2340 B	5	RL		Physis
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Total Organic Carbon	NA	=	26.2	mg/L		9060	3	RL		CAS
1A	TW_AT_LAR	Receiving Water	Dry	4/20/2011	Total Suspended Solids	NA	=	1.5	mg/L		SM 2540 D	5	RL	J	Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Calcium (Ca)	NA	=	72.8	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Chloride by IC	NA	=	109.8	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Copper (Cu)	Dissolved	=	7.7	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Copper (Cu)	Total	=	8.1	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	32.9	mg/L		EPA 415.1	1	RL		CAS
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	<	7.6	mg/L	UL - FB	9060	1	RL		CAS
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Magnesium (Mg)	NA	=	26.5	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Potassium (K)	NA	=	12.2	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	106.5	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Sulfate	NA	=	176.5	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Total Hardness as $CaCO_3$	NA	=	304.3	mg/L		SM 2340 B	5	RL		Physis
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Total Organic Carbon	NA	=	7.5	mg/L		9060	1	RL		CAS
1B	LAR_CO	Receiving Water	Dry	3/16/2011	Total Suspended Solids	NA	=	2.0	mg/L		SM 2540 D	5	RL	J	Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Calcium (Ca)	NA	=	71.7	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Chloride by IC	NA	=	111.4	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Copper (Cu)	Dissolved	=	6.2	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Copper (Cu)	Total	=	7.1	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	38.5	mg/L		EPA 415.1	1	RL		CAS
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	<	7.2	mg/L	UL - FB	9060	1	RL		CAS
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Magnesium (Mg)	NA	=	26.8	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Potassium (K)	NA	=	12.4	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	108.3	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Sulfate	NA	=	164.0	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Total Hardness as $CaCO_3$	NA	=	309.3	mg/L		SM 2340 B	5	RL		Physis
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Total Organic Carbon	NA	=	6.6	mg/L		9060	1	RL		CAS
1B	LAR_FIG	Receiving Water	Dry	3/16/2011	Total Suspended Solids	NA	=	3.0	mg/L		SM 2540 D	5	RL	J	Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Calcium (Ca)	NA	=	73.1	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Chloride by IC	NA	=	108.7	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Copper (Cu)	Dissolved	=	7.9	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Copper (Cu)	Total	=	8.5	µg/L		EPA 200.8	1	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	31.7	mg/L		EPA 415.1	1	RL		CAS
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	<	8.6	mg/L	UL - FB	9060	1	RL		CAS
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Magnesium (Mg)	NA	=	26.6	mg/L		EPA 200.8	0.1	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Potassium (K)	NA	=	12.9	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	112.4	mg/L		EPA 200.8	10	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Sulfate	NA	=	183.4	mg/L		EPA 300.0	0.05	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Total Hardness as $CaCO_3$	NA	=	299.0	mg/L		SM 2340 B	5	RL		Physis
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Total Organic Carbon	NA	=	7.4	mg/L		9060	1	RL		CAS
1B	LAR_ZOO	Receiving Water	Dry	3/16/2011	Total Suspended Solids	NA	=	2.1	mg/L		SM 2540 D	5	RL	J	Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Calcium (Ca)	NA	=	82.2	mg/L		EPA 200.8	0.1	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Chloride by IC	NA	=	106.3	mg/L		EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Copper (Cu)	Dissolved	=	4.7	µg/L		EPA 200.8	1	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Copper (Cu)	Total	=	7.1	µg/L		EPA 200.8	1	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	49.0	mg/L		EPA 415.1	1	RL		CAS
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	<	5.9	mg/L	UL - FB	9060	1	RL		CAS
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Magnesium (Mg)	NA	=	36.4	mg/L		EPA 200.8	0.1	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	61.7	mg/L		EPA 200.8	10	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Sulfate	NA	=	109.4	mg/L		EPA 300.0	0.05	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Total Hardness as $CaCO_3$	NA	=	361.7	mg/L		SM 2340 B	5	RL		Physis
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Total Organic Carbon	NA	=	5.9	mg/L		9060	1	RL		CAS
1B	VD_AT_LAR	Receiving Water	Dry	3/16/2011	Total Suspended Solids	NA	=	12.1	mg/L		SM 2540 D	5	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	92.3	mg/L		EPA 200.8	0.1	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	71.9	mg/L		EPA 300.0	0.05	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	1.5	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	1.8	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	37.0	mg/L		SM 5310 B	4	RL		SunStar
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	4.0	mg/L		SM 5310 B	1	RL		SunStar
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	31.0	mg/L		EPA 200.8	0.1	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	52.4	mg/L		EPA 200.8	10	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	115.4	mg/L		EPA 300.0	0.05	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Total Hardness as $CaCO_3$	NA	=	351.9	mg/L		SM 2340 B	5	RL		Physis
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	3.8	mg/L		SM 5310 B	1	RL		SunStar
1C	AS_AT_LAR	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	1.3	mg/L		SM 2540 D	5	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	43.6	mg/L		EPA 200.8	0.1	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	21.4	mg/L		EPA 300.0	0.05	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	2.4	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	25.0	mg/L		SM 5310 B	4	RL		SunStar
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	7.8	mg/L		SM 5310 B	1	RL		SunStar
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	6.6	mg/L		EPA 200.8	0.1	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	=	5.0	mg/L		EPA 200.8	10	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	28.2	mg/L		EPA 200.8	10	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	35.7	mg/L		EPA 300.0	0.05	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Total Hardness as $CaCO_3$	NA	=	127.9	mg/L		SM 2340 B	5	RL		Physis
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	8.1	mg/L		SM 5310 B	1	RL		SunStar
1C	CC_AT_LAR	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	9.7	mg/L		SM 2540 D	5	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	78.2	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	104.0	mg/L		EPA 300.0	0.05	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	5.1	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	5.7	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		SM 5310 B	4	RL		SunStar
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	6.7	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	29.0	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	=	12.0	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	109.1	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	152.1	mg/L		EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Total Hardness as $CaCO_3$	NA	=	315.8	mg/L		SM 2340 B	5	RL		Physis
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	7.7	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_DEL	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	10.0	mg/L		SM 2540 D	5	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	76.3	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	104.4	mg/L		EPA 300.0	0.05	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	4.9	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	5.7	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	29.0	mg/L		SM 5310 B	4	RL		SunStar
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	7.7	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	28.0	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	=	11.7	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	105.8	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	152.5	mg/L		EPA 300.0	0.05	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Total Hardness as $CaCO_3$	NA	=	301.1	mg/L		SM 2340 B	5	RL		Physis
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	9.1	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_WARD	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	14.0	mg/L		SM 2540 D	5	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	78.5	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	103.6	mg/L		EPA 300.0	0.05	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	4.7	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	5.7	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	36.0	mg/L		SM 5310 B	4	RL		SunStar
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	6.3	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	28.7	mg/L		EPA 200.8	0.1	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	=	12.1	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	107.6	mg/L		EPA 200.8	10	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	148.6	mg/L		EPA 300.0	0.05	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Total Hardness as $CaCO_3$	NA	=	298.1	mg/L		SM 2340 B	5	RL		Physis
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	7.5	mg/L		SM 5310 B	1	RL		SunStar
1C	LAR_WASH	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	3.2	mg/L		SM 2540 D	5	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Calcium (Ca)	Total	=	50.8	mg/L		EPA 200.8	0.1	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Chloride by IC	NA	=	79.1	mg/L		EPA 300.0	0.05	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Copper (Cu)	Dissolved	=	32.9	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Copper (Cu)	Total	=	39.3	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		SM 5310 B	4	RL		SunStar
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Dissolved Organic Carbon	NA	=	33.0	mg/L		SM 5310 B	1	RL		SunStar
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Magnesium (Mg)	Total	=	8.5	mg/L		EPA 200.8	0.1	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Potassium (K)	Total	=	8.9	mg/L		EPA 200.8	10	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Sodium (Na)	Total	=	63.7	mg/L		EPA 200.8	10	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Sulfate	NA	=	67.7	mg/L		EPA 300.0	0.05	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Total Hardness as $CaCO_3$	NA	=	163.3	mg/L		SM 2340 B	5	RL		Physis
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Total Organic Carbon	NA	=	41.0	mg/L		SM 5310 B	1	RL		SunStar
1C	RH_AT_LAR	Receiving Water	Dry	2/29/2012	Total Suspended Solids	NA	=	9.5	mg/L		SM 2540 D	5	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	60.0	mg/L		EPA 200.8	0.1	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	55.4	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	4.4	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	10.8	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	25.0	mg/L		SM 5310 B	4	RL		SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	8.4	mg/L		SM 5310 B	1	RL		SunStar
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	19.1	mg/L		EPA 200.8	0.1	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	35.3	mg/L		EPA 200.8	10	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	80.5	mg/L		EPA 300.0	0.05	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	207.7	mg/L		SM 2340 B	5	RL		Physis
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	16.0	mg/L		SM 5310 B	1	RL		SunStar
1W	AS_AT_LAR	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	52.0	mg/L		SM 2540 D	5	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	14.3	mg/L		EPA 200.8	0.1	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	11.7	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	19.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	24.8	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	11.0	mg/L		SM 5310 B	4	RL		SunStar
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	2.8	mg/L		EPA 200.8	0.1	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	12.4	mg/L		EPA 200.8	10	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	12.7	mg/L		EPA 300.0	0.05	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	134.6	mg/L		SM 2340 B	5	RL		Physis
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	1	RL		SunStar
1W	BWC_AT_RIV	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	34.0	mg/L		SM 2540 D	5	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	17.2	mg/L		EPA 200.8	0.1	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	9.5	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	12.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	20.7	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	10.0	mg/L		SM 5310 B	4	RL		SunStar
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	13.0	mg/L		SM 5310 B	1	RL		SunStar
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	2.5	mg/L		EPA 200.8	0.1	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	11.7	mg/L		EPA 200.8	10	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	12.5	mg/L		EPA 300.0	0.05	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	50.7	mg/L		SM 2340 B	5	RL		Physis
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	19.0	mg/L		SM 5310 B	1	RL		SunStar
1W	CC_AT_DEL	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	18.2	mg/L		SM 2540 D	5	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	34.9	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	44.6	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	10.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	21.5	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	9.6	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	11.5	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	6.5	mg/L		EPA 200.8	10	RL	J	Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	43.7	mg/L		EPA 200.8	10	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	69.2	mg/L		EPA 300.0	0.05	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	130.8	mg/L		SM 2340 B	5	RL		Physis
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	14.0	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_DEL	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	109.5	mg/L		SM 2540 D	5	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	38.6	mg/L		EPA 200.8	0.1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	46.1	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	7.3	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	24.5	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	6.8	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	12.2	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	6.6	mg/L		EPA 200.8	10	RL	J	Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	45.6	mg/L		EPA 200.8	10	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	76.0	mg/L		EPA 300.0	0.05	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	140.6	mg/L		SM 2340 B	5	RL		Physis
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	13.0	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_FIG	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	119.5	mg/L		SM 2540 D	5	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	25.0	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	32.7	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	9.8	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	19.9	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	9.2	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	6.8	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	5.8	mg/L		EPA 200.8	10	RL	J	Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	33.5	mg/L		EPA 200.8	10	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	47.7	mg/L		EPA 300.0	0.05	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	85.5	mg/L		SM 2340 B	5	RL		Physis
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	14.0	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_TUJ_AV	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	94.5	mg/L		SM 2540 D	5	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	20.4	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	21.0	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	13.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	24.0	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	14.0	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	5.2	mg/L		EPA 200.8	0.1	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	22.3	mg/L		EPA 200.8	10	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	31.1	mg/L		EPA 300.0	0.05	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	69.9	mg/L		SM 2340 B	5	RL		Physis
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	20.0	mg/L		SM 5310 B	1	RL		SunStar
1W	LAR_WARD	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	76.5	mg/L		SM 2540 D	5	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	12.6	mg/L		EPA 200.8	0.1	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	13.0	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	14.4	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	23.5	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	4.1	mg/L		SM 5310 B	4	RL		SunStar
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	2.3	mg/L		EPA 200.8	0.1	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	11.0	mg/L		EPA 200.8	10	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	11.5	mg/L		EPA 300.0	0.05	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	38.2	mg/L		SM 2340 B	5	RL		Physis
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	1	RL		SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
1W	RH_AT_LAR	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	23.8	mg/L		SM 2540 D	5	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	33.4	mg/L		EPA 200.8	0.1	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	45.4	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	14.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	34.2	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	18.0	mg/L		SM 5310 B	4	RL		SunStar
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	9.8	mg/L		SM 5310 B	1	RL		SunStar
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	9.5	mg/L		EPA 200.8	0.1	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	8.3	mg/L		EPA 200.8	10	RL	J	Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	43.6	mg/L		EPA 200.8	10	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	47.7	mg/L		EPA 300.0	0.05	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	29.8	mg/L		SM 2340 B	5	RL		Physis
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	15.0	mg/L		SM 5310 B	1	RL		SunStar
1W	TW_AT_MOOR	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	31.2	mg/L		SM 2540 D	5	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	44.9	mg/L		EPA 200.8	0.1	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	44.3	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	5.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	8.5	µg/L		EPA 200.8	0.1	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	21.0	mg/L		SM 5310 B	4	RL		SunStar
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	7.6	mg/L		SM 5310 B	1	RL		SunStar
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	14.4	mg/L		EPA 200.8	0.1	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	36.9	mg/L		EPA 200.8	10	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	70.3	mg/L		EPA 300.0	0.05	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Total Hardness as $CaCO_3$	NA	=	168.0	mg/L		SM 2340 B	5	RL		Physis
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	12.0	mg/L		SM 5310 B	1	RL		SunStar
1W	VERD_AT_KEN	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	8.8	mg/L		SM 2540 D	5	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	78.2	mg/L		EPA 200.8	0.1	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	113.3	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	17.2	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	18.8	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	46.9	mg/L		415.1	4	RL		CAS
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	<	7.1	mg/L	UL - FB	9060	1	RL	J	CAS
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	22.5	mg/L		EPA 200.8	0.1	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	17.5	mg/L		EPA 200.8	10	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	104.6	mg/L		EPA 200.8	10	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	114.1	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Total Hardness as $CaCO_3$	NA	=	298.5	mg/L		SM 2340 B	5	RL		Physis
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	<	17.0	mg/L	UL - FB	9060	1	RL		CAS
2A	BWC_AT_LAR	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	3.5	mg/L		SM 2540 D	5	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	66.8	mg/L		EPA 200.8	0.1	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	146.8	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	12.4	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	15.0	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	42.8	mg/L		415.1	4	RL		CAS
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	<	12.6	mg/L	UL - FB	9060	1	RL		CAS
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	29.9	mg/L		EPA 200.8	0.1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	9.7	mg/L		EPA 200.8	10	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	99.6	mg/L		EPA 200.8	10	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	112.7	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Total Hardness as $CaCO_3$	NA	=	306.0	mg/L		SM 2340 B	5	RL		Physis
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	<	22.5	mg/L	UL - FB	9060	1	RL		CAS
2A	BWC_UP_BWRP	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	6.4	mg/L		SM 2540 D	5	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	80.6	mg/L		EPA 200.8	0.1	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	117.2	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	6.9	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	7.8	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	29.6	mg/L		415.1	4	RL		CAS
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	<	7.6	mg/L	UL - FB	9060	1	RL		CAS
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	32.3	mg/L		EPA 200.8	0.1	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	12.3	mg/L		EPA 200.8	10	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	119.8	mg/L		EPA 200.8	10	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	239.6	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Total Hardness as $CaCO_3$	NA	=	330.7	mg/L		SM 2340 B	5	RL		Physis
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	<	17.6	mg/L	UL - FB	9060	1	RL		CAS
2A	LAR_UP_BWC	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	6.2	mg/L		SM 2540 D	5	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	81.5	mg/L		EPA 200.8	0.1	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	126.8	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	7.0	µg/L		EPA 200.8	0.25	RL	J	Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	9.5	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	32.5	mg/L		415.1	4	RL		CAS
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	<	7.1	mg/L	UL - FB	9060	1	RL		CAS
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	30.9	mg/L		EPA 200.8	0.1	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	13.1	mg/L		EPA 200.8	10	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	117.6	mg/L		EPA 200.8	10	RL	J	Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	234.6	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Total Hardness as $CaCO_3$	NA	=	322.5	mg/L		SM 2340 B	5	RL		Physis
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	<	17.5	mg/L	UL - FB	9060	1	RL		CAS
2A	LAR_ZOO	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	18.2	mg/L		SM 2540 D	5	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	35.2	mg/L		EPA 200.8	0.1	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	50.0	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	8.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	9.4	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	26.6	mg/L		415.1	4	RL		CAS
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	<	14.6	mg/L	UL - FB	9060	1	RL		CAS
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	9.4	mg/L		EPA 200.8	0.1	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	6.6	mg/L		EPA 200.8	10	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	54.8	mg/L		EPA 200.8	10	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	45.0	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Total Hardness as $CaCO_3$	NA	=	132.1	mg/L		SM 2340 B	5	RL		Physis
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	<	23.8	mg/L	UL - FB	9060	1	RL		CAS
2A	TW_AT_LAR	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	2.9	mg/L		SM 2540 D	5	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	80.6	mg/L		EPA 200.8	0.1	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	73.1	mg/L		EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	<	1.2	µg/L	UL - FB	EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	1.4	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	47.2	mg/L		415.1	4	RL		CAS
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	<	9.2	mg/L	UL - FB	9060	1	RL		CAS
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	12.8	mg/L		EPA 200.8	0.1	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	6.7	mg/L		EPA 200.8	10	RL	J	Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	78.9	mg/L		EPA 200.8	10	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	70.9	mg/L		EPA 300.0	0.05	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Total Hardness as $CaCO_3$	NA	=	254.9	mg/L		SM 2340 B	5	RL		Physis
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	<	21.6	mg/L	UL - FB	9060	1	RL		CAS
2B	CC_AT_LAR	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	2.5	mg/L		SM 2540 D	5	RL	J	Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	86.2	mg/L		EPA 200.8	0.1	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	109.0	mg/L		EPA 300.0	0.05	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	5.0	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	7.9	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	38.8	mg/L		415.1	4	RL		CAS
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	<	6.8	mg/L	UL - FB	9060	1	RL		CAS
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	28.5	mg/L		EPA 200.8	0.1	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	12.5	mg/L		EPA 200.8	10	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	104.8	mg/L		EPA 200.8	10	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	167.9	mg/L		EPA 300.0	0.05	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Total Hardness as $CaCO_3$	NA	=	335.4	mg/L		SM 2340 B	5	RL		Physis
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	<	15.7	mg/L	UL - FB	9060	1	RL		CAS
2B	LAR_CO	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	24.9	mg/L		SM 2540 D	5	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	82.0	mg/L		EPA 200.8	0.1	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	113.1	mg/L		EPA 300.0	0.05	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	4.6	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	6.0	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	38.9	mg/L		415.1	4	RL		CAS
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	<	6.3	mg/L	UL - FB	9060	1	RL		CAS
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	27.5	mg/L		EPA 200.8	0.1	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	112.1	mg/L		EPA 200.8	10	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	161.2	mg/L		EPA 300.0	0.05	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Total Hardness as $CaCO_3$	NA	=	317.4	mg/L		SM 2340 B	5	RL		Physis
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	<	15.9	mg/L	UL - FB	9060	1	RL		CAS
2B	LAR_FIG	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	14.4	mg/L		SM 2540 D	5	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	93.9	mg/L		EPA 200.8	0.1	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	223.2	mg/L		EPA 300.0	0.05	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	15.6	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	18.0	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	23.8	mg/L		415.1	4	RL		CAS
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	=	23.2	mg/L		9060	1	RL		CAS
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	31.3	mg/L		EPA 200.8	0.1	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	14.7	mg/L		EPA 200.8	10	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	170.4	mg/L		EPA 200.8	10	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	274.6	mg/L		EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Total Hardness as $CaCO_3$	NA	=	351.6	mg/L		SM 2340 B	5	RL		Physis
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	<	34.0	mg/L	UL - FB	9060	1	RL		CAS
2B	RH_AT_LAR	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	19.1	mg/L		SM 2540 D	5	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	81.9	mg/L		EPA 200.8	0.1	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	120.9	mg/L		EPA 300.0	0.05	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	4.9	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	6.3	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	39.2	mg/L		415.1	4	RL		CAS
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	<	5.9	mg/L	UL - FB	9060	1	RL		CAS
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	39.3	mg/L		EPA 200.8	0.1	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	5.4	mg/L		EPA 200.8	10	RL	J	Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	73.0	mg/L		EPA 200.8	10	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	134.9	mg/L		EPA 300.0	0.05	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Total Hardness as $CaCO_3$	NA	=	353.7	mg/L		SM 2340 B	5	RL		Physis
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	<	15.2	mg/L	UL - FB	9060	1	RL		CAS
2B	VD_AT_LAR	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	12.4	mg/L		SM 2540 D	5	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	114.1	mg/L		EPA 200.8	0.1	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	85.7	mg/L		EPA 300.0	0.05	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	1.7	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	3.2	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	53.2	mg/L		415.1	4	RL		CAS
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	<	5.4	mg/L	UL - FB	9060	1	RL		CAS
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	34.9	mg/L		EPA 200.8	0.1	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	55.0	mg/L		EPA 200.8	10	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	120.9	mg/L		EPA 300.0	0.05	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Total Hardness as $CaCO_3$	NA	=	431.2	mg/L		SM 2340 B	5	RL		Physis
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	<	14.3	mg/L	UL - FB	9060	1	RL		CAS
2C	AS_AT_LAR	Receiving Water	Dry	7/13/2011	Total Suspended Solids	NA	=	89.9	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	72.2	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	107.2	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	5.0	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	31.2	mg/L		415.1	4	RL		CAS
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	<	8.6	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	26.7	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	=	11.6	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	99.1	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	151.3	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Total Hardness as $CaCO_3$	NA	=	279.2	mg/L		SM 2340 B	5	RL		Physis
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	<	15.3	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_DEL	Receiving Water	Dry	7/13/2011	Total Suspended Solids	NA	=	23.5	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	68.3	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	108.7	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	5.3	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	27.9	mg/L		415.1	4	RL		CAS

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	<	9.4	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	25.9	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	=	11.9	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	100.2	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	152.2	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Total Hardness as $CaCO_3$	NA	=	272.2	mg/L		SM 2340 B	5	RL		Physis
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	<	15.3	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_WARD	Receiving Water	Dry	7/13/2011	Total Suspended Solids	NA	=	39.4	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	74.8	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	104.5	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	3.4	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	5.2	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	35.3	mg/L		415.1	4	RL		CAS
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	<	7.3	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	25.7	mg/L		EPA 200.8	0.1	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	=	11.2	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	95.9	mg/L		EPA 200.8	10	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	147.5	mg/L		EPA 300.0	0.05	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Total Hardness as $CaCO_3$	NA	=	292.7	mg/L		SM 2340 B	5	RL		Physis
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	<	13.7	mg/L	UL - FB	9060	1	RL		CAS
2C	LAR_WASH	Receiving Water	Dry	7/13/2011	Total Suspended Solids	NA	=	19.1	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	21.1	mg/L		EPA 200.8	0.1	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	15.7	mg/L		EPA 300.0	0.05	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	6.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	17.4	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	14.0	mg/L		SM 5310 B	4	RL		SunStar
2W	AS_AT_LAR	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	8.3	mg/L		SM 5310 B	1	RL		SunStar
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	6.0	mg/L		EPA 200.8	0.1	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	=	6.0	mg/L		EPA 200.8	10	RL	J	Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	10.9	mg/L		EPA 200.8	10	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	24.6	mg/L		EPA 300.0	0.05	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Total Hardness as $CaCO_3$	NA	=	80.0	mg/L		SM 2340 B	5	RL		Physis
2W	AS_AT_LAR	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	28.0	mg/L		SM 5310 B	1	RL		SunStar
2W	AS_AT_LAR	Receiving Water	Wet	12/12/2011	Total Suspended Solids	NA	=	58.0	mg/L		SM 2540 D	5	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	15.3	mg/L		EPA 200.8	0.1	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	15.3	mg/L		EPA 300.0	0.05	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	10.8	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	31.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	10.0	mg/L		SM 5310 B	4	RL		SunStar
2W	BWC_AT_RIV	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	8.3	mg/L		SM 5310 B	1	RL		SunStar
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	3.7	mg/L		EPA 200.8	0.1	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	14.9	mg/L		EPA 200.8	10	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	16.9	mg/L		EPA 300.0	0.05	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Total Hardness as $CaCO_3$	NA	=	53.0	mg/L		SM 2340 B	5	RL		Physis
2W	BWC_AT_RIV	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	12.0	mg/L		SM 5310 B	1	RL		SunStar
2W	BWC_AT_RIV	Receiving Water	Wet	12/12/2011	Total Suspended Solids	NA	=	69.0	mg/L		SM 2540 D	5	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	18.1	mg/L		EPA 200.8	0.1	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	10.8	mg/L		EPA 300.0	0.05	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	9.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	21.0	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	13.0	mg/L		SM 5310 B	4	RL		SunStar
2W	CC_AT_DEL	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	7.9	mg/L		SM 5310 B	1	RL		SunStar
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	2.7	mg/L		EPA 200.8	0.1	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	12.8	mg/L		EPA 200.8	10	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	15.2	mg/L		EPA 300.0	0.05	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Total Hardness as $CaCO_3$	NA	=	56.0	mg/L		SM 2340 B	5	RL		Physis
2W	CC_AT_DEL	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
2W	CC_AT_DEL	Receiving Water	Wet	12/12/2011	Total Suspended Solids	NA	=	44.0	mg/L		SM 2540 D	5	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Calcium (Ca)	NA	=	10.4	mg/L		EPA 200.8	0.1	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Chloride by IC	NA	=	9.0	mg/L		EPA 300.0	0.05	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Copper (Cu)	Dissolved	=	12.0	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Copper (Cu)	Total	=	22.6	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	6.8	mg/L		SM 5310 B	4	RL		SunStar
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	8.3	mg/L		SM 5310 B	1	RL		SunStar
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Magnesium (Mg)	NA	=	1.6	mg/L		EPA 200.8	0.1	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Sodium (Na)	NA	=	7.7	mg/L		EPA 200.8	10	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Sulfate	NA	=	7.1	mg/L		EPA 300.0	0.05	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Total Hardness as $CaCO_3$	NA	=	32.9	mg/L		SM 2340 B	5	RL		Physis
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
2W	RH_AT_LAR	Receiving Water	Wet	12/13/2011	Total Suspended Solids	NA	=	27.5	mg/L		SM 2540 D	5	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	13.6	mg/L		EPA 200.8	0.1	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	5.3	mg/L		EPA 300.0	0.05	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	12.1	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	38.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	11.0	mg/L		SM 5310 B	4	RL		SunStar
2W	TW_AT_MOOR	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	13.0	mg/L		SM 5310 B	1	RL		SunStar
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	2.5	mg/L		EPA 200.8	0.1	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	6.8	mg/L		EPA 200.8	10	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	6.2	mg/L		EPA 300.0	0.05	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Total Hardness as $CaCO_3$	NA	=	41.9	mg/L		SM 2340 B	5	RL		Physis
2W	TW_AT_MOOR	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	22.0	mg/L		SM 5310 B	1	RL		SunStar
2W	TW_AT_MOOR	Receiving Water	Wet	12/12/2011	Total Suspended Solids	NA	=	157.0	mg/L		SM 2540 D	5	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Calcium (Ca)	NA	=	11.4	mg/L		EPA 200.8	0.1	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Chloride by IC	NA	=	7.6	mg/L		EPA 300.0	0.05	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Copper (Cu)	Dissolved	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Copper (Cu)	Total	=	16.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Dissolved Inorganic Carbon	NA	=	8.1	mg/L		SM 5310 B	4	RL		SunStar
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Dissolved Organic Carbon	NA	=	8.7	mg/L		SM 5310 B	1	RL		SunStar
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Magnesium (Mg)	NA	=	2.8	mg/L		EPA 200.8	0.1	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Sodium (Na)	NA	=	6.2	mg/L		EPA 200.8	10	RL	J	Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Sulfate	NA	=	8.4	mg/L		EPA 300.0	0.05	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Total Hardness as $CaCO_3$	NA	=	40.5	mg/L		SM 2340 B	5	RL		Physis
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Total Organic Carbon	NA	=	15.0	mg/L		SM 5310 B	1	RL		SunStar
2W	VERD_AT_KEN	Receiving Water	Wet	12/13/2011	Total Suspended Solids	NA	=	60.0	mg/L		SM 2540 D	5	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	18.2	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	16.3	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	8.2	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	19.2	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Dissolved Inorganic Carbon	NA	=	12.0	mg/L		SM 5310 B	4	RL		SunStar
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	5.0	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	20.0	mg/L		EPA 200.8	10	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	27.3	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Total Hardness as $CaCO_3$	NA	=	62.6	mg/L		SM 2340 B	5	RL		Physis
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_DEL	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	123.3	mg/L		SM 2540 D	5	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	27.8	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	24.7	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	6.6	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	32.9	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Dissolved Inorganic Carbon	NA	=	14.0	mg/L		SM 5310 B	4	RL		SunStar
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	13.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	7.2	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	=	5.4	mg/L		EPA 200.8	10	RL	J	Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	22.8	mg/L		EPA 200.8	10	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	45.9	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Total Hardness as $CaCO_3$	NA	=	100.8	mg/L		SM 2340 B	5	RL		Physis
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	21.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_FIG	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	268.0	mg/L		SM 2540 D	5	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	30.9	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	19.9	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	6.5	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	30.0	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Dissolved Inorganic Carbon	NA	=	13.0	mg/L		SM 5310 B	4	RL		SunStar
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	10.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	9.3	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	18.9	mg/L		EPA 200.8	10	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	64.9	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Total Hardness as $CaCO_3$	NA	=	116.2	mg/L		SM 2340 B	5	RL		Physis
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	18.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_TUJ_AV	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	370.0	mg/L		SM 2540 D	5	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	14.4	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	12.0	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	9.5	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	25.4	µg/L		EPA 200.8	0.25	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Dissolved Inorganic Carbon	NA	=	8.2	mg/L		SM 5310 B	4	RL		SunStar
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	3.1	mg/L		EPA 200.8	0.1	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	8.9	mg/L		EPA 200.8	10	RL	J	Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	18.3	mg/L		EPA 300.0	0.05	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Total Hardness as $CaCO_3$	NA	=	47.8	mg/L		SM 2340 B	5	RL		Physis
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	1	RL		SunStar
2W-1	LAR_WARD	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	124.7	mg/L		SM 2540 D	5	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	69.2	mg/L		EPA 200.8	0.1	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	114.8	mg/L		EPA 300.0	0.05	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Copper (Cu)	Dissolved	=	12.4	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	13.1	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	38.0	mg/l		SM 5310 B	4	RL		SunStar
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	<	6.8	mg/l	UL - FB	SM 5310 B	1	RL		SunStar
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	19.5	mg/L		EPA 200.8	0.1	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	15.3	mg/L		EPA 200.8	10	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	104.8	mg/L		EPA 200.8	10	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	102.6	mg/L		EPA 300.0	0.05	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Total Hardness as $CaCO_3$	NA	=	249.3	mg/L		SM 2340 B	5	RL		Physis
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	<	8.2	mg/l	UL - FB	SM 5310 B	1	RL		SunStar
3A	BWC_AT_LAR	Receiving Water	Dry	8/10/2011	Total Suspended Solids	NA	=	4.0	mg/L	EST-Hold Time	SM 2540 D	5	RL	J	Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	69.3	mg/L		EPA 200.8	0.1	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	143.8	mg/L		EPA 300.0	0.05	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Copper (Cu)	Dissolved	=	13.2	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	15.9	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	43.0	mg/l		SM 5310 B	4	RL		SunStar
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	<	14.0	mg/l	UL - FB	SM 5310 B	1	RL		SunStar
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	29.0	mg/L		EPA 200.8	0.1	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	10.7	mg/L		EPA 200.8	10	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	106.6	mg/L		EPA 200.8	10	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	118.6	mg/L		EPA 300.0	0.05	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Total Hardness as $CaCO_3$	NA	=	293.5	mg/L		SM 2340 B	5	RL		Physis
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	=	16.0	mg/l		SM 5310 B	1	RL		SunStar
3A	BWC_UP_BWRP	Receiving Water	Dry	8/10/2011	Total Suspended Solids	NA	=	5.1	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	58.9	mg/L		EPA 200.8	0.1	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	94.9	mg/L		EPA 300.0	0.05	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Copper (Cu)	Dissolved	=	6.2	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	7.3	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	23.0	mg/l		SM 5310 B	4	RL		SunStar
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	<	6.7	mg/l	UL - FB	SM 5310 B	1	RL		SunStar
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	19.6	mg/L		EPA 200.8	0.1	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	11.1	mg/L		EPA 200.8	10	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	90.8	mg/L		EPA 200.8	10	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	152.3	mg/L		EPA 300.0	0.05	RL		Physis
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Total Hardness as $CaCO_3$	NA	=	228.1	mg/L		SM 2340 B	5	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	<	8.9	mg/l	UL - FB	SM 5310 B	1	RL		SunStar
3A	LAR_UP_BWC	Receiving Water	Dry	8/10/2011	Total Suspended Solids	NA	=	29.0	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	37.7	mg/L		EPA 200.8	0.1	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	60.8	mg/L		EPA 300.0	0.05	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Copper (Cu)	Dissolved	=	12.8	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	14.6	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	34.0	mg/l		SM 5310 B	4	RL		SunStar
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	=	16.0	mg/l		SM 5310 B	1	RL		SunStar
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	20.8	mg/L		EPA 200.8	0.1	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	10.4	mg/L		EPA 200.8	10	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	58.9	mg/L		EPA 200.8	10	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	69.0	mg/L		EPA 300.0	0.05	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Total Hardness as $CaCO_3$	NA	=	179.4	mg/L		SM 2340 B	5	RL		Physis
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	=	17.0	mg/l		SM 5310 B	1	RL		SunStar
3A	TW_AT_LAR	Receiving Water	Dry	8/10/2011	Total Suspended Solids	NA	=	5.5	mg/L	EST-Hold Time	SM 2540 D	5	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	104.0	mg/L		EPA 200.8	0.1	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	83.3	mg/L		EPA 300.0	0.05	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	1.4	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	1.7	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	44.0	mg/L		SM 5310 B	4	RL		SunStar
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	<	4.8	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	32.0	mg/L		EPA 200.8	0.1	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	52.4	mg/L		EPA 200.8	10	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	130.0	mg/L		EPA 300.0	0.05	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Total Hardness as $CaCO_3$	NA	=	389.4	mg/L		SM 2340 B	5	RL		Physis
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	<	5.2	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	AS_AT_LAR	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	11.9	mg/L		SM 2540 D	5	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	63.7	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	96.3	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	6.7	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	8.8	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	26.0	mg/L		SM 5310 B	4	RL		SunStar
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	<	6.9	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	20.1	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	=	12.2	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	91.2	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	141.9	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Total Hardness as $CaCO_3$	NA	=	239.5	mg/L		SM 2340 B	5	RL		Physis
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	=	8.1	mg/L		SM 5310 B	1	RL		SunStar
3B	LAR_CO	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	23.3	mg/L		SM 2540 D	5	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	67.0	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	100.5	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	5.8	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	8.6	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	32.0	mg/L		SM 5310 B	4	RL		SunStar
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	<	6.3	mg/L	UL - FB	SM 5310 B	1	RL		SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	21.7	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	=	12.5	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	95.6	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	139.7	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Total Hardness as $CaCO_3$	NA	=	254.2	mg/L		SM 2340 B	5	RL		Physis
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	<	7.2	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	LAR_FIG	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	19.4	mg/L		SM 2540 D	5	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	63.2	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	92.5	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	6.8	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	9.2	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	25.0	mg/L		SM 5310 B	4	RL		SunStar
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	<	6.7	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	19.4	mg/L		EPA 200.8	0.1	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	=	12.5	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	93.0	mg/L		EPA 200.8	10	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	146.1	mg/L		EPA 300.0	0.05	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Total Hardness as $CaCO_3$	NA	=	236.9	mg/L		SM 2340 B	5	RL		Physis
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	=	7.6	mg/L		SM 5310 B	1	RL		SunStar
3B	LAR_ZOO	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	32.6	mg/L		SM 2540 D	5	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	74.8	mg/L		EPA 200.8	0.1	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	116.4	mg/L		EPA 300.0	0.05	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	5.9	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	8.4	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		SM 5310 B	4	RL		SunStar
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	<	6.5	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	34.3	mg/L		EPA 200.8	0.1	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	=	5.8	mg/L		EPA 200.8	10	RL	J	Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	70.9	mg/L		EPA 200.8	10	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	115.0	mg/L		EPA 300.0	0.05	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Total Hardness as $CaCO_3$	NA	=	322.0	mg/L		SM 2340 B	5	RL		Physis
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	<	7.4	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3B	VD_AT_LAR	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	30.0	mg/L		SM 2540 D	5	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	69.3	mg/L		EPA 200.8	0.1	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	113.2	mg/L		EPA 300.0	0.05	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	0.6	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	<	1.3	µg/L	UL - FB	EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	48.0	mg/L		SM 5310 B	4	RL		SunStar
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	=	13.0	mg/L		SM 5310 B	1	RL		SunStar
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	14.1	mg/L		EPA 200.8	0.1	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	9.4	mg/L		EPA 200.8	10	RL	J	Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	111.3	mg/L		EPA 200.8	10	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	98.4	mg/L		EPA 300.0	0.05	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Total Hardness as $CaCO_3$	NA	=	230.6	mg/L		SM 2340 B	5	RL		Physis
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	<	13.0	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	CC_AT_LAR	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	3.6	mg/L		SM 2540 D	5	RL	J	Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	67.1	mg/L		EPA 200.8	0.1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	104.0	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	=	7.2	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	35.0	mg/L		SM 5310 B	4	RL		SunStar
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	<	8.7	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	22.1	mg/L		EPA 200.8	0.1	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	10.6	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	98.0	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	134.1	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Total Hardness as $CaCO_3$	NA	=	255.5	mg/L		SM 2340 B	5	RL		Physis
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	<	9.0	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_DEL	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	21.6	mg/L		SM 2540 D	5	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	60.1	mg/L		EPA 200.8	0.1	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	103.8	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	5.4	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	=	6.8	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	25.0	mg/L		SM 5310 B	4	RL		SunStar
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	<	8.2	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	22.8	mg/L		EPA 200.8	0.1	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	10.9	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	95.6	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	145.5	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Total Hardness as $CaCO_3$	NA	=	245.7	mg/L		SM 2340 B	5	RL		Physis
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	<	9.3	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_WARD	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	36.6	mg/L		SM 2540 D	5	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	65.3	mg/L		EPA 200.8	0.1	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	103.0	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	5.9	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	=	9.2	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		SM 5310 B	4	RL		SunStar
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	<	7.1	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	22.0	mg/L		EPA 200.8	0.1	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	11.0	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	93.0	mg/L		EPA 200.8	10	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	142.1	mg/L		EPA 300.0	0.05	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Total Hardness as $CaCO_3$	NA	=	255.9	mg/L		SM 2340 B	5	RL		Physis
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	<	7.6	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
3C	LAR_WASH	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	18.8	mg/L		SM 2540 D	5	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	124.5	mg/L		EPA 200.8	0.1	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	277.7	mg/L		EPA 300.0	0.05	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	11.9	µg/L		EPA 200.8	0.25	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	=	15.0	µg/L		EPA 200.8	0.25	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	37.0	mg/L		SM 5310 B	4	RL		SunStar
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	=	40.0	mg/L		SM 5310 B	1	RL		SunStar
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	42.8	mg/L		EPA 200.8	0.1	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	19.3	mg/L		EPA 200.8	10	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	223.8	mg/L		EPA 200.8	10	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	390.8	mg/L		EPA 300.0	0.05	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Total Hardness as $CaCO_3$	NA	=	471.0	mg/L		SM 2340 B	5	RL		Physis
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	=	43.0	mg/L		SM 5310 B	1	RL		SunStar
3C	RH_AT_LAR	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	16.2	mg/L		SM 2540 D	5	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	68.4	mg/L		EPA 200.8	0.1	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	99.6	mg/L		EPA 300.0	0.05	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Copper (Cu)	Dissolved	=	12.4	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Copper (Cu)	Total	=	14.6	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	43.0	mg/L		SM 5310 B	4	RL		SunStar
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	=	6.2	mg/L		SM 5310 B	1	RL		SunStar
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	19.9	mg/L		EPA 200.8	0.1	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	16.0	mg/L		EPA 200.8	10	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	94.5	mg/L		EPA 200.8	10	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	105.8	mg/L		EPA 300.0	0.05	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Total Hardness as $CaCO_3$	NA	=	251.6	mg/L		SM 2340 B	5	RL		Physis
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	<	6.3	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
4A	BWC_AT_LAR	Receiving Water	Dry	12/7/2011	Total Suspended Solids	NA	=	7.7	mg/L		SM 2540 D	5	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	65.0	mg/L		EPA 200.8	0.1	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	94.2	mg/L		EPA 300.0	0.05	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Copper (Cu)	Dissolved	=	9.7	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Copper (Cu)	Total	=	11.9	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	41.0	mg/L	EST-Hold Time	SM 5310 B	4	RL		SunStar
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	=	10.0	mg/L	EST-Hold Time	SM 5310 B	1	RL		SunStar
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	29.3	mg/L		EPA 200.8	0.1	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	9.2	mg/L		EPA 200.8	10	RL	J	Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	71.5	mg/L		EPA 200.8	10	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	101.6	mg/L		EPA 300.0	0.05	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Total Hardness as $CaCO_3$	NA	=	282.4	mg/L		SM 2340 B	5	RL		Physis
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	=	12.0	mg/L		SM 5310 B	1	RL		SunStar
4A	BWC_UP_BWRP	Receiving Water	Dry	12/7/2011	Total Suspended Solids	NA	=	5.9	mg/L		SM 2540 D	5	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	63.3	mg/L		EPA 200.8	0.1	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	96.9	mg/L		EPA 300.0	0.05	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Copper (Cu)	Dissolved	=	7.0	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Copper (Cu)	Total	=	8.5	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		SM 5310 B	4	RL		SunStar
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	=	6.5	mg/L		SM 5310 B	1	RL		SunStar
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	20.3	mg/L		EPA 200.8	0.1	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	11.9	mg/L		EPA 200.8	10	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	99.4	mg/L		EPA 200.8	10	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	153.7	mg/L		EPA 300.0	0.05	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Total Hardness as $CaCO_3$	NA	=	239.1	mg/L		SM 2340 B	5	RL		Physis
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	<	6.5	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
4A	LAR_UP_BWC	Receiving Water	Dry	12/7/2011	Total Suspended Solids	NA	=	13.3	mg/L		SM 2540 D	5	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	29.4	mg/L		EPA 200.8	0.1	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	45.6	mg/L		EPA 300.0	0.05	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Copper (Cu)	Dissolved	=	7.6	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Copper (Cu)	Total	=	9.4	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	30.0	mg/L		SM 5310 B	4	RL		SunStar
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	=	7.5	mg/L		SM 5310 B	1	RL		SunStar
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	11.7	mg/L		EPA 200.8	0.1	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	6.5	mg/L		EPA 200.8	10	RL	J	Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	48.6	mg/L		EPA 200.8	10	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	36.2	mg/L		EPA 300.0	0.05	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Total Hardness as $CaCO_3$	NA	=	119.9	mg/L		SM 2340 B	5	RL		Physis
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	=	7.7	mg/L		SM 5310 B	1	RL		SunStar
4A	TW_AT_LAR	Receiving Water	Dry	12/7/2011	Total Suspended Solids	NA	=	3.0	mg/L		SM 2540 D	5	RL	J	Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	91.0	mg/L		EPA 200.8	0.1	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	77.2	mg/L		EPA 300.0	0.05	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	1.7	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	2.4	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	45.0	mg/L		SM 5310 B	4	RL		SunStar
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	4.7	mg/L		SM 5310 B	1	RL		SunStar
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	29.5	mg/L		EPA 200.8	0.1	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	51.2	mg/L		EPA 200.8	10	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	119.6	mg/L		EPA 300.0	0.05	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Total Hardness as $CaCO_3$	NA	=	344.9	mg/L		SM 2340 B	5	RL		Physis
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	<	5.2	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
4B	AS_AT_LAR	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	1.5	mg/L		SM 2540 D	5	RL	J	Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	56.5	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	102.7	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	8.3	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	9.5	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	39.0	mg/L		SM 5310 B	4	RL		SunStar
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	7.3	mg/L		SM 5310 B	1	RL		SunStar
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	17.5	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	=	12.3	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	102.4	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	106.4	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Total Hardness as $CaCO_3$	NA	=	216.0	mg/L		SM 2340 B	5	RL		Physis
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	=	8.0	mg/L		SM 5310 B	1	RL		SunStar
4B	LAR_CO	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	6.0	mg/L		SM 2540 D	5	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	59.0	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	93.5	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	6.0	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	8.0	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	40.0	mg/L		SM 5310 B	4	RL		SunStar
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	6.6	mg/L		SM 5310 B	1	RL		SunStar
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	19.6	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	=	12.2	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	97.7	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	106.0	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Total Hardness as $CaCO_3$	NA	=	227.0	mg/L		SM 2340 B	5	RL		Physis
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	=	6.9	mg/L		SM 5310 B	1	RL		SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
4B	LAR_FIG	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	7.9	mg/L		SM 2540 D	5	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	56.2	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	105.2	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	8.7	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	10.2	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		SM 5310 B	4	RL		SunStar
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	7.6	mg/L		SM 5310 B	1	RL		SunStar
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	16.5	mg/L		EPA 200.8	0.1	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	108.7	mg/L		EPA 200.8	10	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	108.2	mg/L		EPA 300.0	0.05	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Total Hardness as $CaCO_3$	NA	=	206.7	mg/L		SM 2340 B	5	RL		Physis
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	=	7.1	mg/L		SM 5310 B	1	RL		SunStar
4B	LAR_ZOO	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	6.8	mg/L		SM 2540 D	5	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	76.4	mg/L		EPA 200.8	0.1	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	86.7	mg/L		EPA 300.0	0.05	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	1.6	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	2.0	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	52.0	mg/L		SM 5310 B	4	RL		SunStar
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	4.0	mg/L		SM 5310 B	1	RL		SunStar
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	33.1	mg/L		EPA 200.8	0.1	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	57.3	mg/L		EPA 200.8	10	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	98.8	mg/L		EPA 300.0	0.05	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Total Hardness as $CaCO_3$	NA	=	326.3	mg/L		SM 2340 B	5	RL		Physis
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	<	4.5	mg/L	UL - FB	SM 5310 B	1	RL		SunStar
4B	VD_AT_LAR	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	0.9	mg/L		SM 2540 D	5	RL	J	Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	56.7	mg/L		EPA 200.8	0.1	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	72.8	mg/L		EPA 300.0	0.05	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	3.4	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	3.7	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	=	42.0	mg/L		SM 5310 B	4	RL		SunStar
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	8.1	mg/L		SM 5310 B	1	RL		SunStar
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	14.3	mg/L		EPA 200.8	0.1	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	7.1	mg/L		EPA 200.8	10	RL	J	Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	80.3	mg/L		EPA 200.8	10	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	68.1	mg/L		EPA 300.0	0.05	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Total Hardness as $CaCO_3$	NA	=	197.4	mg/L		SM 2340 B	5	RL		Physis
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	8.2	mg/L		SM 5310 B	1	RL		SunStar
4C	CC_AT_LAR	Receiving Water	Dry	1/4/2012	Total Suspended Solids	NA	=	5.2	mg/L		SM 2540 D	5	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	71.0	mg/L		EPA 200.8	0.1	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	104.0	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	5.7	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	=	31.0	mg/L		SM 5310 B	4	RL		SunStar
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	6.7	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	24.8	mg/L		EPA 200.8	0.1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	11.0	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	96.1	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	146.9	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Total Hardness as $CaCO_3$	NA	=	277.3	mg/L		SM 2340 B	5	RL		Physis
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	6.1	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_DEL	Receiving Water	Dry	1/4/2012	Total Suspended Solids	NA	=	11.9	mg/L		SM 2540 D	5	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	68.1	mg/L		EPA 200.8	0.1	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	104.8	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	=	29.0	mg/L		SM 5310 B	4	RL		SunStar
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	6.9	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	24.9	mg/L		EPA 200.8	0.1	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	10.7	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	95.4	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	147.6	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Total Hardness as $CaCO_3$	NA	=	272.3	mg/L		SM 2340 B	5	RL		Physis
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	7.1	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_WARD	Receiving Water	Dry	1/4/2012	Total Suspended Solids	NA	=	16.3	mg/L		SM 2540 D	5	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	69.4	mg/L		EPA 200.8	0.1	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	102.7	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	5.2	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	6.1	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		SM 5310 B	4	RL		SunStar
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	5.8	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	24.2	mg/L		EPA 200.8	0.1	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	11.1	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	93.9	mg/L		EPA 200.8	10	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	144.9	mg/L		EPA 300.0	0.05	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Total Hardness as $CaCO_3$	NA	=	277.6	mg/L		SM 2340 B	5	RL		Physis
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	6.0	mg/L		SM 5310 B	1	RL		SunStar
4C	LAR_WASH	Receiving Water	Dry	1/4/2012	Total Suspended Solids	NA	=	2.2	mg/L		SM 2540 D	5	RL	J	Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Calcium (Ca)	NA	=	48.9	mg/L		EPA 200.8	0.1	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	43.3	mg/L		EPA 300.0	0.05	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	1.7	µg/L	UL - FB	EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Copper (Cu)	Total	=	3.3	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Dissolved Inorganic Carbon	NA	=	28.0	mg/L		SM 5310 B	4	RL		SunStar
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	=	7.7	mg/L		SM 5310 B	1	RL		SunStar
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Magnesium (Mg)	NA	=	14.1	mg/L		EPA 200.8	0.1	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Sodium (Na)	NA	=	30.3	mg/L		EPA 200.8	10	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	47.8	mg/L		EPA 300.0	0.05	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Total Hardness as $CaCO_3$	NA	=	179.7	mg/L	EST-Lab RPD	SM 2340 B	1	RL		Physis
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Total Organic Carbon	NA	=	8.0	mg/L		SM 5310 B	1	RL		SunStar
5	AS_AT_LAR	Receiving Water	Dry	5/9/2012	Total Suspended Solids	NA	=	10.9	mg/L		SM 2540 D	5	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Calcium (Ca)	NA	=	127.2	mg/L		EPA 200.8	0.1	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	336.6	mg/L		EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	25.2	µg/L	UL - FB	EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Copper (Cu)	Total	=	29.4	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Dissolved Inorganic Carbon	NA	=	62.0	mg/L		SM 5310 B	4	RL		SunStar
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	=	49.0	mg/L		SM 5310 B	1	RL		SunStar
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Magnesium (Mg)	NA	=	31.6	mg/L		EPA 200.8	0.1	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Potassium (K)	NA	=	46.0	mg/L		EPA 200.8	10	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Sodium (Na)	NA	=	230.0	mg/L		EPA 200.8	10	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	237.9	mg/L		EPA 300.0	0.05	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Total Hardness as $CaCO_3$	NA	=	448.3	mg/L	EST-Lab RPD	SM 2340 B	1	RL		Physis
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Total Organic Carbon	NA	=	60.0	mg/L		SM 5310 B	1	RL		SunStar
5	RH_AT_LAR	Receiving Water	Dry	5/9/2012	Total Suspended Solids	NA	=	39.3	mg/L		SM 2540 D	5	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Calcium (Ca)	NA	=	65.8	mg/L		EPA 200.8	0.1	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	108.9	mg/L		EPA 300.0	0.05	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	10.7	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	11.8	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	61.0	mg/L		EPA 415.3	4	RL		SunStar
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	6.3	mg/L		EPA 415.3	1	RL		SunStar
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	NA	=	20.2	mg/L		EPA 200.8	0.1	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Potassium (K)	NA	=	16.7	mg/L		EPA 200.8	10	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Sodium (Na)	NA	=	104.7	mg/L		EPA 200.8	10	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	101.0	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Total Hardness as $CaCO_3$	NA	=	258.0	mg/L		SM 2340 B	1	RL		Physis
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Total Organic Carbon	NA	=	7.6	mg/L		EPA 415.3	1	RL		SunStar
6A	BWC_AT_LAR	Receiving Water	Dry	6/5/2012	Total Suspended Solids	NA	=	3.8	mg/L		SM 2540 D	5	RL	J	Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Calcium (Ca)	NA	=	83.2	mg/L		EPA 200.8	0.1	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	241.2	mg/L		EPA 300.0	0.05	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	18.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	21.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	65.0	mg/L		EPA 415.3	4	RL		SunStar
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	11.0	mg/L		EPA 415.3	1	RL		SunStar
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	NA	=	33.1	mg/L		EPA 200.8	0.1	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Potassium (K)	NA	=	14.1	mg/L		EPA 200.8	10	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Sodium (Na)	NA	=	156.9	mg/L		EPA 200.8	10	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	124.5	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Total Hardness as $CaCO_3$	NA	=	345.7	mg/L		SM 2340 B	1	RL		Physis
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Total Organic Carbon	NA	=	17.0	mg/L		EPA 415.3	1	RL		SunStar
6A	BWC_UP_BWRP	Receiving Water	Dry	6/5/2012	Total Suspended Solids	NA	=	8.0	mg/L		SM 2540 D	5	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Calcium (Ca)	NA	=	58.6	mg/L		EPA 200.8	0.1	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	127.1	mg/L		EPA 300.0	0.05	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	8.5	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	12.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	46.0	mg/L		EPA 415.3	4	RL		SunStar
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	6.3	mg/L		EPA 415.3	1	RL		SunStar
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	NA	=	21.6	mg/L		EPA 200.8	0.1	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Sodium (Na)	NA	=	113.4	mg/L		EPA 200.8	10	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	154.7	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Total Hardness as $CaCO_3$	NA	=	239.2	mg/L		SM 2340 B	1	RL		Physis
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Total Organic Carbon	NA	=	8.6	mg/L		EPA 415.3	1	RL		SunStar
6A	LAR_UP_BWC	Receiving Water	Dry	6/5/2012	Total Suspended Solids	NA	=	26.6	mg/L		SM 2540 D	5	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Calcium (Ca)	NA	=	145.9	mg/L		EPA 200.8	0.1	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	616.4	mg/L		EPA 300.0	0.05	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	29.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	33.4	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	44.0	mg/L		EPA 415.3	4	RL		SunStar
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	18.0	mg/L		EPA 415.3	1	RL		SunStar
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	NA	=	21.1	mg/L		EPA 200.8	0.1	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Potassium (K)	NA	=	21.1	mg/L		EPA 200.8	10	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Sodium (Na)	NA	=	353.1	mg/L		EPA 200.8	10	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	115.6	mg/L	EST-MSD RPD	EPA 300.0	0.05	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Total Hardness as $CaCO_3$	NA	=	446.2	mg/L		SM 2340 B	1	RL		Physis
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Total Organic Carbon	NA	=	27.0	mg/L		EPA 415.3	1	RL		SunStar
6A	TW_AT_LAR	Receiving Water	Dry	6/5/2012	Total Suspended Solids	NA	=	9.7	mg/L		SM 2540 D	5	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	97.3	mg/L		EPA 200.8	0.1	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	100.0	mg/L		EPA 300.0	0.05	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	1.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	1.9	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	86.0	mg/L		EPA 415.3	4	RL		SunStar
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	4.5	mg/L	EST-Lab RPD	EPA 415.3	1	RL		SunStar
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	36.6	mg/L		EPA 200.8	0.1	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	5.3	mg/L		EPA 200.8	10	RL	J	Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	66.5	mg/L		EPA 200.8	10	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	129.9	mg/L		EPA 300.0	0.05	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Total Hardness as $CaCO_3$	NA	=	390.1	mg/L		SM 2340 B	1	RL		Physis
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	5.5	mg/L		EPA 415.3	1	RL		SunStar
6B	AS_AT_LAR	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	3.9	mg/L		SM 2540 D	5	RL	J	Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	63.4	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	121.2	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	5.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	8.9	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	62.0	mg/L		EPA 415.3	4	RL	UL - FB	SunStar
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	5.3	mg/L		EPA 415.3	1	RL	EST-Lab-	SunStar
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	21.9	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	13.9	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	111.7	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	138.2	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Total Hardness as $CaCO_3$	NA	=	246.1	mg/L		SM 2340 B	1	RL		Physis
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	7.7	mg/L		EPA 415.3	1	RL		SunStar
6B	LAR_CO	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	27.0	mg/L		SM 2540 D	5	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	67.3	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	122.2	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	4.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	6.2	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	67.0	mg/L		EPA 415.3	4	RL	UL - FB	SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	4.7	mg/L		EPA 415.3	1	RL	EST-Lab-	SunStar
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	23.9	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	13.7	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	114.0	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	142.3	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Total Hardness as $CaCO_3$	NA	=	265.2	mg/L		SM 2340 B	1	RL		Physis
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	6.6	mg/L		EPA 415.3	1	RL		SunStar
6B	LAR_FIG	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	12.8	mg/L		SM 2540 D	5	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	61.8	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	118.4	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	6.6	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	10.0	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	60.0	mg/L		EPA 415.3	4	RL	UL - FB	SunStar
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	5.0	mg/L		EPA 415.3	1	RL	EST-Lab-	SunStar
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	21.9	mg/L		EPA 200.8	0.1	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	14.1	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	115.0	mg/L		EPA 200.8	10	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	140.5	mg/L		EPA 300.0	0.05	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Total Hardness as $CaCO_3$	NA	=	241.0	mg/L		SM 2340 B	1	RL		Physis
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	7.6	mg/L		EPA 415.3	1	RL		SunStar
6B	LAR_ZOO	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	19.7	mg/L		SM 2540 D	5	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	67.0	mg/L		EPA 200.8	0.1	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	123.4	mg/L		EPA 300.0	0.05	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	7.0	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	9.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	14.0	mg/L		EPA 415.3	4	RL	UL - FB	SunStar
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	7.8	mg/L		EPA 415.3	1	RL	EST-Lab-	SunStar
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	31.4	mg/L		EPA 200.8	0.1	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	7.1	mg/L		EPA 200.8	10	RL	J	Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	76.7	mg/L		EPA 200.8	10	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	120.2	mg/L		EPA 300.0	0.05	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Total Hardness as $CaCO_3$	NA	=	301.3	mg/L		SM 2340 B	1	RL		Physis
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	8.0	mg/L		EPA 415.3	1	RL		SunStar
6B	VD_AT_LAR	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	20.9	mg/L		SM 2540 D	5	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	65.7	mg/L		EPA 200.8	0.1	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	75.0	mg/L		EPA 300.0	0.05	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	1.9	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	3.7	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Dissolved Inorganic Carbon	NA	=	64.0	mg/L	UL - FB	EPA 415.3	4	RL		SunStar
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Dissolved Organic Carbon	NA	=	6.9	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	13.8	mg/L		EPA 200.8	0.1	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	5.6	mg/L		EPA 200.8	10	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	81.0	mg/L		EPA 200.8	10	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	116.2	mg/L		EPA 300.0	0.05	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Total Hardness as $CaCO_3$	NA	=	226.1	mg/L		SM 2340 B	1	RL		Physis
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Total Organic Carbon	NA	=	8.9	mg/L		EPA 415.3	1	RL		SunStar
6C	CC_AT_LAR	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	25.5	mg/L		SM 2540 D	5	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	51.8	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	120.1	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	4.2	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	5.1	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Dissolved Inorganic Carbon	NA	=	57.0	mg/L	UL - FB	EPA 415.3	4	RL		SunStar
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Dissolved Organic Carbon	NA	=	7.0	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	25.4	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	111.5	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	155.4	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Total Hardness as $CaCO_3$	NA	=	251.9	mg/L		SM 2340 B	1	RL		Physis
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Total Organic Carbon	NA	=	12.0	mg/L		EPA 415.3	1	RL		SunStar
6C	LAR_DEL	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	18.4	mg/L		SM 2540 D	5	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	45.3	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	120.9	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	3.7	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	4.7	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Dissolved Inorganic Carbon	NA	=	51.0	mg/L	UL - FB	EPA 415.3	4	RL		SunStar
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Dissolved Organic Carbon	NA	=	7.0	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	25.1	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	112.5	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	156.5	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Total Hardness as $CaCO_3$	NA	=	236.2	mg/L		SM 2340 B	1	RL		Physis
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Total Organic Carbon	NA	=	12.0	mg/L		EPA 415.3	1	RL		SunStar
6C	LAR_WARD	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	21.4	mg/L		SM 2540 D	5	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	66.0	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	120.6	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	4.2	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	6.8	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Dissolved Inorganic Carbon	NA	=	64.0	mg/L	UL - FB	EPA 415.3	4	RL		SunStar
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Dissolved Organic Carbon	NA	=	6.6	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	24.0	mg/L		EPA 200.8	0.1	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	13.3	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	110.5	mg/L		EPA 200.8	10	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	152.1	mg/L		EPA 300.0	0.05	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Total Hardness as $CaCO_3$	NA	=	260.7	mg/L		SM 2340 B	1	RL		Physis
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	1	RL		SunStar
6C	LAR_WASH	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	16.4	mg/L		SM 2540 D	5	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	145.0	mg/L		EPA 200.8	0.1	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	556.2	mg/L		EPA 300.0	0.05	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	19.1	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	23.1	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Dissolved Inorganic Carbon	NA	=	94.0	mg/L	UL - FB	EPA 415.3	4	RL		SunStar
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Dissolved Organic Carbon	NA	=	26.0	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	30.5	mg/L		EPA 200.8	0.1	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	362.5	mg/L		EPA 200.8	10	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	225.2	mg/L		EPA 200.8	10	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	338.0	mg/L		EPA 300.0	0.05	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Total Hardness as $CaCO_3$	NA	=	501.3	mg/L		SM 2340 B	1	RL		Physis
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Total Organic Carbon	NA	=	46.0	mg/L		EPA 415.3	1	RL		SunStar
6C	RH_AT_LAR	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	18.2	mg/L		SM 2540 D	5	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	65.5	mg/L		EPA 200.8	0.1	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	107.3	mg/L		EPA 300.0	0.05	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	10.1	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	11.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	78.0	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	8.4	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	19.5	mg/L		EPA 200.8	0.1	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	15.8	mg/L		EPA 200.8	10	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	100.2	mg/L		EPA 200.8	10	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	96.5	mg/L	EST-MS-UL	EPA 300.0	0.05	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Total Hardness as $CaCO_3$	NA	=	248.1	mg/L		SM 2340 B	1	RL		Physis
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Total Organic Carbon	NA	=	9.6	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_AT_LAR	Receiving Water	Dry	8/8/2012	Total Suspended Solids	NA	=	6.8	mg/L		SM 2540 D	5	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	64.1	mg/L		EPA 200.8	0.1	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	150.9	mg/L		EPA 300.0	0.05	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	18.4	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	27.9	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	110.0	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	19.0	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	22.6	mg/L		EPA 200.8	0.1	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	14.0	mg/L		EPA 200.8	10	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	117.9	mg/L		EPA 200.8	10	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	108.0	mg/L	EST-MS-UL	EPA 300.0	0.05	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Total Hardness as $CaCO_3$	NA	=	250.3	mg/L		SM 2340 B	1	RL		Physis
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Total Organic Carbon	NA	=	21.0	mg/L		EPA 415.3	1	RL		SunStar
7A	BWC_UP_BWRP	Receiving Water	Dry	8/8/2012	Total Suspended Solids	NA	=	10.5	mg/L		SM 2540 D	5	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	50.7	mg/L		EPA 200.8	0.1	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	110.1	mg/L		EPA 300.0	0.05	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	6.3	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	7.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	54.0	mg/L	UL - FB	EPA 415.3	1	RL		SunStar
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	9.9	mg/L		EPA 415.3	1	RL		SunStar
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	18.8	mg/L		EPA 200.8	0.1	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	107.9	mg/L		EPA 200.8	10	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	132.0	mg/L	EST-MS-UL	EPA 300.0	0.05	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Total Hardness as $CaCO_3$	NA	=	208.5	mg/L		SM 2340 B	1	RL		Physis
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	1	RL		SunStar
7A	LAR_UP_BWC	Receiving Water	Dry	8/8/2012	Total Suspended Solids	NA	=	16.6	mg/L		SM 2540 D	5	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	156.8	mg/L		EPA 200.8	0.1	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	728.0	mg/L		EPA 300.0	0.05	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	21.4	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	25.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	120.0	mg/L		EPA 415.3	3	RL		SunStar
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	38.0	mg/L		EPA 415.3	3	RL		SunStar
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	23.1	mg/L		EPA 200.8	0.1	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	23.5	mg/L		EPA 200.8	10	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	403.9	mg/L		EPA 200.8	10	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	119.2	mg/L	EST-MS-UL	EPA 300.0	0.05	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Total Hardness as $CaCO_3$	NA	=	513.3	mg/L		SM 2340 B	1	RL		Physis
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Total Organic Carbon	NA	=	43.0	mg/L		EPA 415.3	3	RL		SunStar
7A	TW_AT_LAR	Receiving Water	Dry	8/8/2012	Total Suspended Solids	NA	=	7.7	mg/L		SM 2540 D	5	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	87.2	mg/L		EPA 200.8	0.1	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	118.2	mg/L		EPA 300.0	0.05	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	1.5	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	3.6	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	43.0	mg/L		EPA 415.3	4	RL		SunStar
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	5.7	mg/L		EPA 415.3	1	RL		SunStar
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	35.2	mg/L		EPA 200.8	0.1	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	83.8	mg/L		EPA 200.8	10	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	171.4	mg/L		EPA 300.0	0.05	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Total Hardness as $CaCO_3$	NA	=	383.1	mg/L		SM 2340 B	1	RL		Physis
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	6.0	mg/L		EPA 415.3	1	RL		SunStar
7B	AS_AT_LAR	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	57.5	mg/L		SM 2540 D	5	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	52.1	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	116.1	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	5.2	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	7.7	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		EPA 415.3	4	RL		SunStar
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	19.0	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	=	12.9	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	106.9	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	127.3	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Total Hardness as $CaCO_3$	NA	=	219.2	mg/L		SM 2340 B	1	RL		Physis
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_CO	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	19.0	mg/L		SM 2540 D	5	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	59.8	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	118.2	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	4.3	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	5.8	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	38.0	mg/L		EPA 415.3	4	RL		SunStar
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	8.5	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	21.9	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	=	13.4	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	111.9	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	131.9	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Total Hardness as $CaCO_3$	NA	=	242.6	mg/L		SM 2340 B	1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	8.5	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_FIG	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	13.0	mg/L		SM 2540 D	5	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	52.8	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	113.3	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	5.6	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	7.9	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		EPA 415.3	4	RL		SunStar
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	9.3	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	18.6	mg/L		EPA 200.8	0.1	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	108.8	mg/L		EPA 200.8	10	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	125.7	mg/L		EPA 300.0	0.05	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Total Hardness as $CaCO_3$	NA	=	214.9	mg/L		SM 2340 B	1	RL		Physis
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	9.6	mg/L		EPA 415.3	1	RL		SunStar
7B	LAR_ZOO	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	15.5	mg/L		SM 2540 D	5	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	64.9	mg/L		EPA 200.8	0.1	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	166.0	mg/L		EPA 300.0	0.05	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	8.5	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	10.9	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	38.0	mg/L		EPA 415.3	4	RL		SunStar
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	13.0	mg/L		EPA 415.3	1	RL		SunStar
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	35.3	mg/L		EPA 200.8	0.1	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	=	8.0	mg/L		EPA 200.8	10	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	96.5	mg/L		EPA 200.8	10	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	137.0	mg/L		EPA 300.0	0.05	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Total Hardness as $CaCO_3$	NA	=	337.0	mg/L		SM 2340 B	1	RL		Physis
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	13.0	mg/L		EPA 415.3	1	RL		SunStar
7B	VD_AT_LAR	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	22.5	mg/L		SM 2540 D	5	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	93.4	mg/L		EPA 200.8	0.1	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	126.3	mg/L		EPA 300.0	0.05	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	1.9	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	3.4	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	61.0	mg/L		EPA 415.3	4	RL		SunStar
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	38.0	mg/L	EST-Lab RPD	EPA 415.3	5	RL		SunStar
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	17.8	mg/L		EPA 200.8	0.1	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	14.9	mg/L		EPA 200.8	10	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	134.1	mg/L		EPA 200.8	10	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	114.8	mg/L		EPA 300.0	0.05	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Total Hardness as $CaCO_3$	NA	=	306.7	mg/L		SM 2340 B	1	RL		Physis
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	31.0	mg/L		EPA 415.3	5	RL		SunStar
7C	CC_AT_LAR	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	13.1	mg/L		SM 2540 D	1	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	51.7	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	117.2	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	4.4	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	6.7	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	29.0	mg/L		EPA 415.3	4	RL		SunStar
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	10.0	mg/L	EST-Lab RPD	EPA 415.3	1	RL		SunStar

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	22.4	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	12.8	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	112.7	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	141.2	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Total Hardness as $CaCO_3$	NA	=	241.2	mg/L		SM 2340 B	1	RL		Physis
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	1	RL		SunStar
7C	LAR_DEL	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	32.1	mg/L		SM 2540 D	1	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	44.2	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	124.1	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	5.9	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	28.0	mg/L		EPA 415.3	4	RL		SunStar
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	11.0	mg/L	EST-Lab RPD	EPA 415.3	1	RL		SunStar
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	23.2	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	13.6	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	117.6	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	139.3	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Total Hardness as $CaCO_3$	NA	=	221.6	mg/L		SM 2340 B	1	RL		Physis
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	11.0	mg/L		EPA 415.3	1	RL		SunStar
7C	LAR_WARD	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	37.4	mg/L		SM 2540 D	1	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	58.4	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	118.0	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	4.2	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	5.8	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	31.0	mg/L		EPA 415.3	4	RL		SunStar
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	8.3	mg/L	EST-Lab RPD	EPA 415.3	1	RL		SunStar
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	21.7	mg/L		EPA 200.8	0.1	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	13.2	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	111.3	mg/L		EPA 200.8	10	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	135.9	mg/L		EPA 300.0	0.05	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Total Hardness as $CaCO_3$	NA	=	237.6	mg/L		SM 2340 B	1	RL		Physis
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	8.4	mg/L		EPA 415.3	1	RL		SunStar
7C	LAR_WASH	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	15.7	mg/L		SM 2540 D	1	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	122.1	mg/L		EPA 200.8	0.1	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	314.3	mg/L		EPA 300.0	0.05	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	34.6	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	39.8	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	25.0	mg/L		EPA 415.3	4	RL		SunStar
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	56.0	mg/L	EST-Lab RPD	EPA 415.3	5	RL		SunStar
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	23.0	mg/L		EPA 200.8	0.1	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	30.7	mg/L		EPA 200.8	10	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	250.6	mg/L		EPA 200.8	10	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	284.7	mg/L		EPA 300.0	0.05	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Total Hardness as $CaCO_3$	NA	=	406.1	mg/L		SM 2340 B	1	RL		Physis
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	48.0	mg/L		EPA 415.3	5	RL		SunStar
7C	RH_AT_LAR	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	14.8	mg/L		SM 2540 D	1	RL		Physis

Event #	ProjectSiteID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetectLimitType	LabQual	AnalyzingLab

Lab Qualifiers (identified in LabQual column) for Analytical Labs (identified in AnalyzingLab column)	
Lab Qualifiers for CAS	
J	Constituent detected at a concentration below the RL and above the MDL, reported value is estimated.
Lab Qualifiers for Physis	
J	Constituent detected at a concentration below the RL and above the MDL, reported value is estimated.
ND	Constituent not detected at the indicated RL.
Project Qualifiers (identified in the ProjQual column) assigned by WER Study Project Staff	
EST-MS-UL	Qualifier indicating matrix interference.
EST-Hold Time	Estimated due to hold time exceedance.
EST-Lab RPD	Estimated due to analytical variability.
EST-MSD RPD	Qualifier indicating matrix interference.
UL-FB	Qualifier indicating upper limit of detection based on detected concentration in field blank.

Detection Limit Type (identified in DetectLimit column)	
RL	Reporting Limit

Appendix 3

Quality Assurance/Quality Control Data

Appendix 3 - QA/QC Data

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1A		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	995.7	µg/L		EPA 200.8	0.25	RL		Physis	BS1
1A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	1.0	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1A		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	989.4	µg/L		EPA 200.8	0.25	RL		Physis	BS2
1A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	1.0	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1A	TAHOE	TAHOE_1A = 0,6,12,18,24 COMP (dis)	Field Blank	Blank Water	Dry	4/20/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	4/20/2011	Copper (Cu)	Total	=	0.1	µg/L		EPA 200.8	0.25	RL	J	Physis	R1
1A	TAHOE	TAHOE_1A = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	4/20/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A-3	Field Blank	Blank Water	Dry	4/20/2011	Calcium (Ca)	NA	=	0.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
1A	TAHOE	TAHOE_1A-3	Field Blank	Blank Water	Dry	4/20/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A-3	Field Blank	Blank Water	Dry	4/20/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A-3	Field Blank	Blank Water	Dry	4/20/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A-3	Field Blank	Blank Water	Dry	4/20/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1A	TAHOE	TAHOE_1A-4	Field Blank	Blank Water	Dry	4/20/2011	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
1A	TAHOE	TAHOE_1A-4	Field Blank	Blank Water	Dry	4/20/2011	Sulfate	NA	=	2.3	mg/L		EPA 300.0	0.05	RL		Physis	R1
1A	TAHOE	TAHOE-1A-1	Field Blank	Blank Water	Dry	4/20/2011	Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	SMPL
1A	TAHOE	TAHOE-1A-2	Field Blank	Blank Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	=	2.5	mg/L		9060	0.5	RL		CAS	SMPL
1A	TAHOE	TAHOE-1A-2	Field Blank	Blank Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	<	2	mg/L		9060	2	RL	ND	CAS	SMPL
1A	DUPREE	DUPREE-1A = 0,6,12,18,24 COMP (dis)	Field Duplicate	Receiving Water	Dry	4/20/2011	Copper (Cu)	Dissolved	=	11.9	µg/L		EPA 200.8	0.25	RL		Physis	R1
1A	DUPREE	DUPREE-1A = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	11.9	µg/L		EPA 200.8	0.25	RL		Physis	R1
1A	DUPREE	DUPREE-1A = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	4/20/2011	Total Hardness as CaCO3	NA	=	153.0	mg/L		SM 2340 B	5	RL		Physis	R1
1A	DUPREE	DUPREE-1A-1	Field Duplicate	Receiving Water	Dry	4/20/2011	Total Organic Carbon	NA	=	22.8	mg/L		9060	2.5	RL		CAS	SMPL
1A	DUPREE	DUPREE-1A-2	Field Duplicate	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	=	28.0	mg/L		9060	1	RL		CAS	SMPL
1A	DUPREE	DUPREE-1A-2	Field Duplicate	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	25.9	mg/L		9060	2	RL		CAS	SMPL
1A	DUPREE	DUPREE-1A-3	Field Duplicate	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	9.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
1A	DUPREE	DUPREE-1A-3	Field Duplicate	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	53.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
1A	DUPREE	DUPREE-1A-3	Field Duplicate	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	67.4	mg/L		EPA 200.8	10	RL		Physis	R1
1A	DUPREE	DUPREE-1A-3	Field Duplicate	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	17.0	mg/L		EPA 200.8	10	RL		Physis	R1
1A	DUPREE	DUPREE-1A-3	Field Duplicate	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	67.4	mg/L		EPA 200.8	10	RL		Physis	R1
1A	DUPREE	DUPREE-1A-4	Field Duplicate	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	83.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
1A	DUPREE	DUPREE-1A-4	Field Duplicate	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	70.5	mg/L		EPA 300.0	0.05	RL		Physis	R1
1A	DUPREE	DUPREE-1A-5	Field Duplicate	Receiving Water	Dry	4/20/2011	Total Suspended Solids	NA	=	1.6	mg/L		SM 2540 D	5	RL	J	Physis	R1
1A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	25.0	mg/L		9060	0.5	RL		CAS	LCS1
1A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	25.0	mg/L		9060	0.5	RL		CAS	LCS2
1A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	25.1	mg/L		9060	2	RL		CAS	LCS1
1A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	25.1	mg/L		9060	0.5	RL		CAS	LCS1
1A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	25.1	mg/L		9060	0.5	RL		CAS	LCS1
1A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	25.1	mg/L		9060	2	RL		CAS	LCS1
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Matrix Spike	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	140.1	mg/L		EPA 300.1	0.05	RL		Physis	MS1
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Matrix Spike	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	131.0	mg/L		EPA 300.4	0.05	RL		Physis	MS1
1A		Lab Water-1A-1	Matrix Spike	Lab Water	Dry		Total Organic Carbon	NA	=	25.9	mg/L		9060	0.5	RL		CAS	MS1
1A		Lab Water-1A-2	Matrix Spike	Lab Water	Dry		Dissolved Organic Carbon	NA	=	25.9	mg/L		9060	0.5	RL		CAS	MS1
1A	LAR_UP_BWC	LAR_UP_BWC-1A = 0,6,12,18,24 COMP (tot)	Matrix Spike	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	105.0	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1A	LAR_UP_BWC	LAR_UP_BWC-1A-2	Matrix Spike	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	=	32.5	mg/L		9060	0.5	RL		CAS	MS1
1A	LAR_UP_BWC	LAR_UP_BWC-1A-2	Matrix Spike	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	162.0	mg/L		9060	2	RL		CAS	MS1
1A	TAHOE	TAHOE-1A-1	Matrix Spike	Blank Water	Dry	4/20/2011	Total Organic Carbon	NA	=	25.4	mg/L		9060	0.5	RL		CAS	MS1
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Matrix Spike Replicate	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	140.2	mg/L		EPA 300.2	0.05	RL		Physis	MS2
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Matrix Spike Replicate	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	131.0	mg/L		EPA 300.5	0.05	RL		Physis	MS2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1A	LAR_UP_BWC	LAR_UP_BWC-1A = 0,6,12,18,24 COMP (tot)	Matrix Spike Replicate	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	104.4	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1A		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
1A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB2
1A		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	2	mg/L		9060	2	RL	ND	CAS	MB1
1A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
1A		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
1A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
1A		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	2	mg/L		9060	2	RL	ND	CAS	MB1
1A		Lab Water-1A-1	Project Sample	Lab Water	Dry	4/21/2011	Total Organic Carbon	NA	=	0.6	mg/L		9060	0.5	RL		CAS	SMPL
1A		Lab Water-1A-2	Project Sample	Lab Water	Dry	4/21/2011	Dissolved Organic Carbon	NA	=	0.8	mg/L		9060	0.5	RL		CAS	SMPL
1A		Lab Water-1A-2	Project Sample	Lab Water	Dry	4/21/2011	Dissolved Inorganic Carbon	NA	=	18.3	mg/L		9060	2	RL		CAS	SMPL
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Chloride by IC	NA	=	114.8	mg/L		EPA 300.3	0.05	RL		Physis	R2
1A	BWC_AT_LAR	BWC_AT_LAR-1A-4	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Sulfate	NA	=	106.9	mg/L		EPA 300.6	0.05	RL		Physis	R2
1A		Lab Water-1A-1	Project Sample Replicate	Lab Water	Dry		Total Organic Carbon	NA	=	0.3	mg/L		9060	0.5	RL		CAS	DUP1
1A		Lab Water-1A-2	Project Sample Replicate	Lab Water	Dry		Dissolved Organic Carbon	NA	=	1.1	mg/L		9060	0.5	RL		CAS	DUP1
1A	LAR_UP_BWC	LAR_UP_BWC-1A = 0,6,12,18,24 COMP (tot)	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Copper (Cu)	Total	=	6.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
1A	LAR_UP_BWC	LAR_UP_BWC-1A = 0,6,12,18,24 COMP (tot)	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Total Hardness as CaCO3	Total	=	383.9	mg/L		SM 2340 B	5	RL		Physis	R2
1A	LAR_UP_BWC	LAR_UP_BWC-1A-2	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Dissolved Organic Carbon	NA	=	8.1	mg/L		9060	0.5	RL		CAS	DUP1
1A	LAR_UP_BWC	LAR_UP_BWC-1A-2	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Dissolved Inorganic Carbon	NA	=	37.4	mg/L		9060	2	RL		CAS	DUP1
1A	LAR_UP_BWC	LAR_UP_BWC-1A-3	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Magnesium (Mg)	NA	=	35.0	mg/L		EPA 200.8	0.1	RL		Physis	R2
1A	LAR_UP_BWC	LAR_UP_BWC-1A-3	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Calcium (Ca)	NA	=	101.3	mg/L		EPA 200.8	0.1	RL		Physis	R2
1A	LAR_UP_BWC	LAR_UP_BWC-1A-3	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Potassium (K)	NA	=	12.2	mg/L		EPA 200.8	10	RL		Physis	R2
1A	LAR_UP_BWC	LAR_UP_BWC-1A-3	Project Sample Replicate	Receiving Water	Dry	4/20/2011	Sodium (Na)	NA	=	121.5	mg/L		EPA 200.8	10	RL		Physis	R2
1B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1B	TAHOE	TAHOE-1B = 0,6,12,18,24 COMP (dis)	Field Blank	Blank Water	Dry	3/16/2011	Copper (Cu)	Dissolved	<	0.8	µg/L		EPA 200.8	0.8	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	3/16/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	3/16/2011	Copper (Cu)	Total	<	0.8	µg/L		EPA 200.8	0.8	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-1	Field Blank	Blank Water	Dry	3/16/2011	Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	SMPL
1B	TAHOE	TAHOE-1B-2	Field Blank	Blank Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	=	2.1	mg/L		9060	0.5	RL		CAS	SMPL
1B	TAHOE	TAHOE-1B-2	Field Blank	Blank Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	<	0.5	mg/L		EPA 415.1	0.5	RL	ND	CAS	SMPL
1B	TAHOE	TAHOE-1B-3	Field Blank	Blank Water	Dry	3/16/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-3	Field Blank	Blank Water	Dry	3/16/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-3	Field Blank	Blank Water	Dry	3/16/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-3	Field Blank	Blank Water	Dry	3/16/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-3	Field Blank	Blank Water	Dry	3/16/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1B	TAHOE	TAHOE-1B-4	Field Blank	Blank Water	Dry	3/16/2011	Chloride by IC	NA	=	0.0	mg/L		EPA 300.0	0.05	RL	J	Physis	R1
1B	TAHOE	TAHOE-1B-4	Field Blank	Blank Water	Dry	3/16/2011	Sulfate	NA	=	0.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
1B	DUPREE	DUPREE-1B = 0,6,12,18,24 COMP (dis)	Field Duplicate	Receiving Water	Dry	3/16/2011	Copper (Cu)	Dissolved	=	8.0	µg/L		EPA 200.8	0.8	RL		Physis	R1
1B	DUPREE	DUPREE-1B = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	3/16/2011	Total Hardness as CaCO3	NA	=	296.5	mg/L		SM 2340 B	5	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1B	DUPREE	DUPREE-1B = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	3/16/2011	Copper (Cu)	Total	=	8.3	µg/L		EPA 200.8	0.8	RL		Physis	R1
1B	DUPREE	DUPREE-1B-1	Field Duplicate	Receiving Water	Dry	3/16/2011	Total Organic Carbon	NA	=	7.7	mg/L		9060	0.5	RL		CAS	SMPL
1B	DUPREE	DUPREE-1B-2	Field Duplicate	Receiving Water	Dry	3/16/2011	Dissolved Organic Carbon	NA	=	7.9	mg/L		9060	0.5	RL		CAS	SMPL
1B	DUPREE	DUPREE-1B-2	Field Duplicate	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	33.5	mg/L		415.1	0.5	RL		CAS	SMPL
1B	DUPREE	DUPREE-1B-3	Field Duplicate	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	110.5	mg/L		EPA 200.8	10	RL		Physis	R1
1B	DUPREE	DUPREE-1B-3	Field Duplicate	Receiving Water	Dry	3/16/2011	Magnesium (Mg)	NA	=	26.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
1B	DUPREE	DUPREE-1B-3	Field Duplicate	Receiving Water	Dry	3/16/2011	Potassium (K)	NA	=	12.8	mg/L		EPA 200.8	10	RL		Physis	R1
1B	DUPREE	DUPREE-1B-3	Field Duplicate	Receiving Water	Dry	3/16/2011	Sodium (Na)	NA	=	110.5	mg/L		EPA 200.8	10	RL		Physis	R1
1B	DUPREE	DUPREE-1B-3	Field Duplicate	Receiving Water	Dry	3/16/2011	Calcium (Ca)	NA	=	71.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
1B	DUPREE	DUPREE-1B-4	Field Duplicate	Receiving Water	Dry	3/16/2011	Chloride by IC	NA	=	110.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
1B	DUPREE	DUPREE-1B-4	Field Duplicate	Receiving Water	Dry	3/16/2011	Sulfate	NA	=	185.5	mg/L		EPA 300.0	0.05	RL		Physis	R1
1B	DUPREE	DUPREE-1B-5	Field Duplicate	Receiving Water	Dry	3/16/2011	Total Suspended Solids	NA	=	1.8	mg/L		SM 2540 D	5	RL	J	Physis	R1
1B		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	26.0	mg/L		9060	0.5	RL		CAS	LCS1
1B		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	26.6	mg/L		9060	0.5	RL		CAS	LCS1
1B		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	25.3	mg/L		415.1	0.5	RL		CAS	LCS1
1B	LAR_ZOO	LAR_ZOO-1B-2	Matrix Spike	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	285.0	mg/L		415.1	0.5	RL		CAS	MS1
1B		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
1B		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
1B		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	0.5	mg/L		EPA 415.1	0.5	RL	ND	CAS	MB1
1B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Dissolved	<	0.8	µg/L		EPA 200.8	0.8	RL	ND	Physis	B1
1B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.8	µg/L		EPA 200.8	0.8	RL	ND	Physis	B1
1B	LAR_ZOO	LAR_ZOO-1B-2	Project Sample Replicate	Receiving Water	Dry	3/16/2011	Dissolved Inorganic Carbon	NA	=	32.8	mg/L		415.1	0.5	RL		CAS	DUP1
1C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	21.0	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	21.2	µg/L		EPA 200.8	10	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	21.8	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	21.5	µg/L		EPA 200.8	10	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	924.8	µg/L		EPA 200.8	0.25	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.4	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	977.9	µg/L		EPA 200.8	0.25	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS1
1C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	22.1	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	21.1	µg/L		EPA 200.8	10	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	21.6	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	21.3	µg/L		EPA 200.8	10	RL		Physis	BS2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	917.7	µg/L		EPA 200.8	0.25	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	986.8	µg/L		EPA 200.8	0.25	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	19.6	µg/L		EPA 200.8	10	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS2
1C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1C	TAHOE	TAHOE-1C = 0,6,12,18,24 (dis)	Field Blank	Blank Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL	J	Physis	R1
1C	TAHOE	TAHOE-1C = 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	2/1/2012	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C = 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	2/1/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-1	Field Blank	Blank Water	Dry	2/1/2012	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	TAHOE	TAHOE-1C-2	Field Blank	Blank Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1C	TAHOE	TAHOE-1C-2	Field Blank	Blank Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C	TAHOE	TAHOE-1C-3	Field Blank	Blank Water	Dry	2/1/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-3	Field Blank	Blank Water	Dry	2/1/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-3	Field Blank	Blank Water	Dry	2/1/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-3	Field Blank	Blank Water	Dry	2/1/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-4	Field Blank	Blank Water	Dry	2/1/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
1C	TAHOE	TAHOE-1C-4	Field Blank	Blank Water	Dry	2/1/2012	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A=0,6,12,18 (dis)	Field Blank	Blank Water	Dry	2/29/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A=0,6,12,18 (tot)	Field Blank	Blank Water	Dry	2/29/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A=0,6,12,18 (tot)	Field Blank	Blank Water	Dry	2/29/2012	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A-1	Field Blank	Blank Water	Dry	2/29/2012	Total Organic Carbon	NA	=	0.9	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	TAHOE	TAHOE-1C-A-2	Field Blank	Blank Water	Dry	2/29/2012	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1C	TAHOE	TAHOE-1C-A-2	Field Blank	Blank Water	Dry	2/29/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	TAHOE	TAHOE-1C-A-3	Field Blank	Blank Water	Dry	2/29/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A-3	Field Blank	Blank Water	Dry	2/29/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A-3	Field Blank	Blank Water	Dry	2/29/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A-3	Field Blank	Blank Water	Dry	2/29/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1C	TAHOE	TAHOE-1C-A-4	Field Blank	Blank Water	Dry	2/29/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
1C	TAHOE	TAHOE-1C-A-4	Field Blank	Blank Water	Dry	2/29/2012	Sulfate	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
1C	DUPREE	DUPREE-1C = 0,6,12,18,24 (dis)	Field Duplicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	4.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
1C	DUPREE	DUPREE-1C = 0,6,12,18,24 (tot)	Field Duplicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	5.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
1C	DUPREE	DUPREE-1C = 0,6,12,18,24 (tot)	Field Duplicate	Receiving Water	Dry	2/1/2012	Total Hardness as CaCO3	NA	=	310.6	mg/L		SM 2340 B	5	RL		Physis	R1
1C	DUPREE	DUPREE-1C-1	Field Duplicate	Receiving Water	Dry	2/1/2012	Total Organic Carbon	NA	=	7.3	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	DUPREE	DUPREE-1C-2	Field Duplicate	Receiving Water	Dry	2/1/2012	Dissolved Inorganic Carbon	NA	=	35.0	mg/L		SM 5310 B	4	RL		SunStar	
1C	DUPREE	DUPREE-1C-2	Field Duplicate	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	6.2	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	DUPREE	DUPREE-1C-3	Field Duplicate	Receiving Water	Dry	2/1/2012	Calcium (Ca)	NA	=	78.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
1C	DUPREE	DUPREE-1C-3	Field Duplicate	Receiving Water	Dry	2/1/2012	Potassium (K)	NA	=	12.0	mg/L		EPA 200.8	10	RL		Physis	R1
1C	DUPREE	DUPREE-1C-3	Field Duplicate	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	NA	=	28.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
1C	DUPREE	DUPREE-1C-3	Field Duplicate	Receiving Water	Dry	2/1/2012	Sodium (Na)	NA	=	107.4	mg/L		EPA 200.8	10	RL		Physis	R1
1C	DUPREE	DUPREE-1C-4	Field Duplicate	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	104.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
1C	DUPREE	DUPREE-1C-4	Field Duplicate	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	149.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
1C	DUPREE	DUPREE-1C-5	Field Duplicate	Receiving Water	Dry	2/1/2012	Total Suspended Solids	NA	=	3.6	mg/L		SM 2540 D	5	RL	J	Physis	R1
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (dis)	Matrix Spike	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	100.4	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (dis)	Matrix Spike	Lab Water	Dry	2/29/2012	Copper (Cu)	Dissolved	=	133.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (tot)	Matrix Spike	Lab Water	Dry	2/29/2012	Copper (Cu)	Total	=	136.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Matrix Spike	Lab Water	Dry	2/29/2012	Sulfate	NA	=	72.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Matrix Spike	Lab Water	Dry	2/29/2012	Chloride by IC	NA	=	88.6	mg/L		EPA 300.0	0.05	RL		Physis	MS1
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (tot)	Matrix Spike	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	101.5	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1C	DUPREE	DUPREE-1C-4	Matrix Spike	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	130.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1
1C	DUPREE	DUPREE-1C-4	Matrix Spike	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	175.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (dis)	Matrix Spike Replicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	100.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (tot)	Matrix Spike Replicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	101.2	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1C	DUPREE	DUPREE-1C-4	Matrix Spike Replicate	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	129.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1C	DUPREE	DUPREE-1C-4	Matrix Spike Replicate	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	174.3	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (dis)	Matrix Spike Replicate	Lab Water	Dry	2/29/2012	Copper (Cu)	Dissolved	=	132.4	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (tot)	Matrix Spike Replicate	Lab Water	Dry	2/29/2012	Copper (Cu)	Total	=	138.5	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Matrix Spike Replicate	Lab Water	Dry	2/29/2012	Chloride by IC	NA	=	88.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Matrix Spike Replicate	Lab Water	Dry	2/29/2012	Sulfate	NA	=	72.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1C		2020618-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C		2020621-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1C		2020621-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1C		2030136-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C		2030138-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1C		2030138-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C		QAQC	Method Blank	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1C		QAQC	Method Blank	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
1C	TAHOE	2020618-DUP1	Project Sample Replicate	Lab Water	Dry	2/1/2012	Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	LAR_WARD	2020621-DUP1	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	=	7.8	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (dis)	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Dissolved	=	1.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
1C	AS_AT_LAR	AS_AT_LAR-1C = 0,6,12,18,24 (tot)	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Copper (Cu)	Total	=	1.8	µg/L		EPA 200.8	0.25	RL		Physis	R2
1C	AS_AT_LAR	AS_AT_LAR-1C-3	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Calcium (Ca)	Total	=	91.8	mg/L		EPA 200.8	0.1	RL		Physis	R2
1C	AS_AT_LAR	AS_AT_LAR-1C-3	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
1C	AS_AT_LAR	AS_AT_LAR-1C-3	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Magnesium (Mg)	Total	=	31.1	mg/L		EPA 200.8	0.1	RL		Physis	R2
1C	AS_AT_LAR	AS_AT_LAR-1C-3	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Sodium (Na)	Total	=	52.3	mg/L		EPA 200.8	10	RL		Physis	R2
1C	DUPREE	DUPREE-1C-4	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Chloride by IC	NA	=	103.8	mg/L		EPA 300.0	0.05	RL		Physis	R2
1C	DUPREE	DUPREE-1C-4	Project Sample Replicate	Receiving Water	Dry	2/1/2012	Sulfate	NA	=	148.8	mg/L		EPA 300.0	0.05	RL		Physis	R2
1C		2030136-DUP1	Project Sample Replicate	Blank Water	Dry		Total Organic Carbon	NA	=	13.3	mg/L		SM 5310 B	0.5	RL		SunStar	
1C		2030138-DUP1	Project Sample Replicate	Blank Water	Dry		Dissolved Organic Carbon	NA	=	6.3	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (dis)	Project Sample Replicate	Lab Water	Dry	2/29/2012	Copper (Cu)	Dissolved	=	33.4	µg/L		EPA 200.8	0.25	RL		Physis	R2
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (tot)	Project Sample Replicate	Lab Water	Dry	2/29/2012	Copper (Cu)	Total	=	38.7	µg/L		EPA 200.8	0.25	RL		Physis	R2
1C	RH_AT_LAR	RH_AT_LAR-1C=0,6,12,18 (tot)	Project Sample Replicate	Lab Water	Dry	2/29/2012	Total Hardness as CaCO3	NA	=	161.3	mg/L		SM 2340 B	5	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Project Sample Replicate	Lab Water	Dry	2/29/2012	Chloride by IC	NA	=	77.9	mg/L		EPA 300.0	0.05	RL		Physis	R2
1C	RH_AT_LAR	RH_AT_LAR-1C-4	Project Sample Replicate	Lab Water	Dry	2/29/2012	Sulfate	NA	=	67.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
1C	TAHOE	TAHOE-1C-1-1	Trip Blank	Blank Water	Dry	2/1/2012	Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C	TAHOE	TAHOE-1C-2-1	Trip Blank	Blank Water	Dry	2/1/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1C	TAHOE	TAHOE-1C-A-1-1	Trip Blank	Blank Water	Dry	2/29/2012	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
1C	TAHOE	TAHOE-1C-A-2-1	Trip Blank	Blank Water	Dry	2/29/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1W		Blank Spike	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	2.1	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1W		Blank Spike	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1W		Blank Spike	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	2.0	µg/L		EPA 200.8	0.1	RL		Physis	BS1
1W		Blank Spike	QAQC	Blank Water	Wet		Potassium (K)	NA	=	1.9	µg/L		EPA 200.8	10	RL		Physis	BS1
1W		Blank Spike	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	2.1	µg/L		EPA 200.8	10	RL		Physis	BS1
1W		Blank Spike	QAQC	Blank Water	Wet		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	1.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	2.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Potassium (K)	NA	=	1.8	µg/L		EPA 200.8	10	RL		Physis	BS2
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	2.0	µg/L		EPA 200.8	10	RL		Physis	BS2
1W		Blank Spike Replicate	QAQC	Blank Water	Wet		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
1W	TAHOE	TAHOE-1W=0,4,8 (dis)Composite	Field Blank	Blank Water	Wet	11/12/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W=0,4,8 (tot)Composite	Field Blank	Blank Water	Wet	11/12/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W=0,4,8 (tot)Composite	Field Blank	Blank Water	Wet	11/12/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-1	Field Blank	Blank Water	Wet	11/12/2011	Total Organic Carbon	NA	=	0.8	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	TAHOE	TAHOE-1W-2	Field Blank	Blank Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1W	TAHOE	TAHOE-1W-2	Field Blank	Blank Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	TAHOE	TAHOE-1W-4	Field Blank	Blank Water	Wet	11/12/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-4	Field Blank	Blank Water	Wet	11/12/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-4	Field Blank	Blank Water	Wet	11/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-4	Field Blank	Blank Water	Wet	11/12/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-5	Field Blank	Blank Water	Wet	11/12/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
1W	TAHOE	TAHOE-1W-5	Field Blank	Blank Water	Wet	11/12/2011	Sulfate	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
1W	DUPREE	DUPREE-1W=0,4,8 (dis)Composite	Field Duplicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	14.0	µg/L		EPA 200.8	0.25	RL		Physis	R1
1W	DUPREE	DUPREE-1W=0,4,8 (tot)Composite	Field Duplicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	28.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
1W	DUPREE	DUPREE-1W=0,4,8 (tot)Composite	Field Duplicate	Receiving Water	Wet	11/12/2011	Total Hardness as CaCO3	NA	=	30.1	mg/L		SM 2340 B	5	RL		Physis	R1
1W	DUPREE	DUPREE-1W-1	Field Duplicate	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	15.0	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	DUPREE	DUPREE-1W-1-2	Field Duplicate	Receiving Water	Wet	11/12/2011	Dissolved Inorganic Carbon	NA	=	20.0	mg/L		SM 5310 B	4	RL		SunStar	
1W	DUPREE	DUPREE-1W-1-2	Field Duplicate	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	9.4	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	DUPREE	DUPREE-1W-4	Field Duplicate	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	34.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
1W	DUPREE	DUPREE-1W-4	Field Duplicate	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	9.8	mg/L		EPA 200.8	0.1	RL		Physis	R1
1W	DUPREE	DUPREE-1W-4	Field Duplicate	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	8.6	mg/L		EPA 200.8	10	RL		Physis	R1
1W	DUPREE	DUPREE-1W-4	Field Duplicate	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	44.7	mg/L		EPA 200.8	10	RL		Physis	R1
1W	DUPREE	DUPREE-1W-5	Field Duplicate	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	45.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
1W	DUPREE	DUPREE-1W-5	Field Duplicate	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	47.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
1W	DUPREE	DUPREE-1W-6	Field Duplicate	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	35.5	mg/L		SM 2540 D	5	RL		Physis	R1
1W	LAR_DEL	LAR_DEL-1W-5	Matrix Spike	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	54.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1
1W	LAR_DEL	LAR_DEL-1W-5	Matrix Spike	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	78.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (dis)Composite	Matrix Spike	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	1136.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (tot)Composite	Matrix Spike	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	1222.3	µg/L		EPA 200.8	0.25	RL		Physis	MS1
1W	LAR_DEL	LAR_DEL-1W-5	Matrix Spike Replicate	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	58.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1W	LAR_DEL	LAR_DEL-1W-5	Matrix Spike Replicate	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	78.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (dis)Composite	Matrix Spike Replicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	1121.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (tot)Composite	Matrix Spike Replicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	1224.7	µg/L		EPA 200.8	0.25	RL		Physis	MS2
1W		1111722-BLK1	Method Blank	Blank Water	Wet		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1W		1111722-BLK1	Method Blank	Blank Water	Wet		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1W		1111805-BLK1	Method Blank	Blank Water	Wet		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
1W		Method Blank	QAQC	Blank Water	Wet		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Copper (Cu)	NA	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
1W		Method Blank	QAQC	Blank Water	Wet		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
1W	RH_AT_LAR	1111722-DUP1	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	11.0	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	TW_AT_MOOR	1111805-DUP1	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Total Organic Carbon	NA	=	15.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	CC_AT_DEL	CC_AT_DEL-1W-6	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Total Suspended Solids	NA	=	19.2	mg/L		SM 2540 D	5	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W=4 (tot)	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Total Hardness as CaCO3	Total	=	130.6	mg/L		SM 2340 B	5	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-4	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Calcium (Ca)	NA	=	35.3	mg/L		EPA 200.8	0.1	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-4	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Magnesium (Mg)	NA	=	11.7	mg/L		EPA 200.8	0.1	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-4	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Potassium (K)	NA	=	6.6	mg/L		EPA 200.8	10	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-4	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Sodium (Na)	NA	=	43.9	mg/L		EPA 200.8	10	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-5	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Chloride by IC	NA	=	44.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
1W	LAR_DEL	LAR_DEL-1W-5	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Sulfate	NA	=	69.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (dis)Composite	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Dissolved	=	14.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
1W	TW_AT_MOOR	TW_AT_MOOR-1W=0,4,8 (tot)Composite	Project Sample Replicate	Receiving Water	Wet	11/12/2011	Copper (Cu)	Total	=	34.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
1W		Lab Water-1W-3	Project Sample	Lab Water	Wet		Calcium (Ca)	Total	=	6.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
1W		Lab Water-1W-3	Project Sample	Lab Water	Wet		Magnesium (Mg)	Total	=	5.8	mg/L		EPA 200.8	0.1	RL		Physis	R1
1W		Lab Water-1W-3	Project Sample	Lab Water	Wet		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
1W		Lab Water-1W-3	Project Sample	Lab Water	Wet		Sodium (Na)	Total	=	14.7	mg/L		EPA 200.8	10	RL		Physis	R1
1W		Lab Water-1W-4	Project Sample	Lab Water	Wet		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
1W		Lab Water-1W-4	Project Sample	Lab Water	Wet		Sulfate	NA	=	38.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
1W		Lab Water-1W-5	Project Sample	Lab Water	Wet		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
1W		Lab Water-1W-1	Project Sample	Lab Water	Wet		Total Organic Carbon	NA	=	1.5	mg/L		SM 5310 B	0.5	RL		SunStar	
1W		Lab Water-1W-2	Project Sample	Lab Water	Wet		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
1W		Lab Water-1W-2	Project Sample	Lab Water	Wet		Dissolved Organic Carbon	NA	=	0.9	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	TAHOE	TAHOE-1W-1-1	Trip Blank	Blank Water	Wet	11/12/2011	Total Organic Carbon	NA	=	0.9	mg/L		SM 5310 B	0.5	RL		SunStar	
1W	TAHOE	TAHOE-1W-2-1	Trip Blank	Blank Water	Wet	11/12/2011	Dissolved Organic Carbon	NA	=	0.7	mg/L		SM 5310 B	0.5	RL		SunStar	
2A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.4	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2A		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	999.6	µg/L		EPA 200.8	0.25	RL		Physis	BS1
2A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	20.7	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.5	µg/L		EPA 200.8	10	RL		Physis	BS1
2A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.4	µg/L		EPA 200.8	10	RL		Physis	BS1
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	21.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	996.0	µg/L		EPA 200.8	0.25	RL		Physis	BS2
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	20.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.8	µg/L		EPA 200.8	10	RL		Physis	BS2
2A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.5	µg/L		EPA 200.8	10	RL		Physis	BS2
2A	TAHOE	TAHOE-2A 0,6,12,18,24 (dis)	Field Blank	Blank Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	0.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
2A	TAHOE	TAHOE-2A 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	6/8/2011	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2A	TAHOE	TAHOE-2A 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	6/8/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-1	Field Blank	Blank Water	Dry	6/8/2011	Total Organic Carbon	NA	=	10.8	mg/L		9060	0.5	RL		CAS	SMPL
2A	TAHOE	TAHOE-2A-2	Field Blank	Blank Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	SMPL
2A	TAHOE	TAHOE-2A-2	Field Blank	Blank Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	=	1.3	mg/L		9060	0.5	RL		CAS	SMPL
2A	TAHOE	TAHOE-2A-3	Field Blank	Blank Water	Dry	6/8/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-3	Field Blank	Blank Water	Dry	6/8/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-3	Field Blank	Blank Water	Dry	6/8/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-3	Field Blank	Blank Water	Dry	6/8/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-4	Field Blank	Blank Water	Dry	6/8/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
2A	TAHOE	TAHOE-2A-4	Field Blank	Blank Water	Dry	6/8/2011	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
2A	DUPREE	DUPREE-2A (dis)	Field Duplicate	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	8.7	µg/L		EPA 200.8	0.25	RL		Physis	R1
2A	DUPREE	DUPREE-2A (tot)	Field Duplicate	Receiving Water	Dry	6/8/2011	Copper (Cu)	Total	=	9.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
2A	DUPREE	DUPREE-2A (tot)	Field Duplicate	Receiving Water	Dry	6/8/2011	Total Hardness as CaCO3	NA	=	128.2	mg/L		SM 2340 B	5	RL		Physis	R1
2A	DUPREE	DUPREE-2A-1	Field Duplicate	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	23.5	mg/L		9060	1	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-1	Field Duplicate	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	23.5	mg/L		9060	0.2	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-2	Field Duplicate	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	27.0	mg/L		415.1	4	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-2	Field Duplicate	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	=	13.7	mg/L		9060	0.5	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-2	Field Duplicate	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	27.0	mg/L		415.1	2	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-2	Field Duplicate	Receiving Water	Dry	6/8/2011	Dissolved Organic Carbon	NA	=	13.7	mg/L		9060	0.07	RL		CAS	SMPL
2A	DUPREE	DUPREE-2A-3	Field Duplicate	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	34.7	mg/L		EPA 200.8	0.1	RL		Physis	R1
2A	DUPREE	DUPREE-2A-3	Field Duplicate	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	9.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
2A	DUPREE	DUPREE-2A-3	Field Duplicate	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	6.2	mg/L		EPA 200.8	10	RL		Physis	R1
2A	DUPREE	DUPREE-2A-3	Field Duplicate	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	54.2	mg/L		EPA 200.8	10	RL		Physis	R1
2A	DUPREE	DUPREE-2A-4	Field Duplicate	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	50.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
2A	DUPREE	DUPREE-2A-4	Field Duplicate	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	45.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
2A	DUPREE	DUPREE-2A-5	Field Duplicate	Receiving Water	Dry	6/8/2011	Total Suspended Solids	NA	=	2.6	mg/L		SM 2540 D	5	RL		Physis	R1
2A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	24.6	mg/L		415.1		RL		CAS	LCS1
2A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.5	mg/L		9060	0.5	RL		CAS	LCS1
2A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS1
2A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.5	mg/L		9060	0.5	RL		CAS	LCS2
2A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS2
2A		Lab Control Sample	QAQC	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS3
2A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	23.9	mg/L		9060	0.5	RL		CAS	LCS3
2A		Lab Control Sample	QAQC	Lab Water	Dry		Total Organic Carbon	NA	=	23.8	mg/L		9060	0.5	RL		CAS	LCS4
2A	DUPREE	DUPREE-2A (dis)	Matrix Spike	Lab Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	1107.7	mg/L		EPA 200.8	0.25	RL		Physis	MS1
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Matrix Spike	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	57.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Matrix Spike	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	52.4	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2A	DUPREE	DUPREE-2A-1	Matrix Spike	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	51.2	mg/L		9060	0.5	RL		CAS	MS2
2A	DUPREE	DUPREE-2A-1	Matrix Spike	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	77.4	mg/L		9060	1	RL		CAS	MS3
2A	TW_AT_LAR	TW_AT_LAR-2A-2	Matrix Spike	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	72.8	mg/L		415.1	4	RL		CAS	MS1
2A	DUPREE	DUPREE-2A (dis)	Matrix Spike Replicate	Lab Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	1114.1	mg/L		EPA 200.8	0.25	RL		Physis	MS2
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Matrix Spike Replicate	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	60.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Matrix Spike Replicate	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	55.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2A		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	MB1
2A		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2A		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB2
2A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB2
2A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB4
2A		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB3
2A		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB3
2A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
2A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
2A	DUPREE	DUPREE-2A (dis)	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Copper (Cu)	Dissolved	=	8.8	µg/L		EPA 200.8	0.25	RL		Physis	R2
2A	DUPREE	DUPREE-2A (tot)	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Total Hardness as CaCO3	Total	=	130.2	µg/L		SM 2340 B	5	RL		Physis	R2
2A	DUPREE	DUPREE-2A-1	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	25.2	mg/L		9060	0.5	RL		CAS	DUP2
2A	DUPREE	DUPREE-2A-1	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Total Organic Carbon	NA	=	23.9	mg/L		9060	1	RL		CAS	DUP3
2A	DUPREE	DUPREE-2A-3	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Calcium (Ca)	NA	=	33.2	µg/L		EPA 200.8	0.1	RL		Physis	R2
2A	DUPREE	DUPREE-2A-3	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Magnesium (Mg)	NA	=	9.1	µg/L		EPA 200.8	0.1	RL		Physis	R2
2A	DUPREE	DUPREE-2A-3	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Potassium (K)	NA	=	6.2	µg/L		EPA 200.8	10	RL		Physis	R2
2A	DUPREE	DUPREE-2A-3	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Sodium (Na)	NA	=	53.5	mg/L		EPA 200.8	10	RL		Physis	R2
2A	TW_AT_LAR	TW_AT_LAR-2A-2	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Dissolved Inorganic Carbon	NA	=	25.9	mg/L		415.1	4	RL		CAS	DUP1
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Chloride by IC	NA	=	50.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
2A	TW_AT_LAR	TW_AT_LAR-2A-4	Project Sample Replicate	Receiving Water	Dry	6/8/2011	Sulfate	NA	=	45.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
2B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	18.6	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	102.6	µg/L		EPA 200.8	0.25	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	18.5	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	18.2	µg/L		EPA 200.8	10	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	18.8	µg/L		EPA 200.8	10	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2B		Blank Spike	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	=	122.5	mg/L		SM 2340 B	5	RL		Physis	BS1
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	18.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	102.1	µg/L		EPA 200.8	0.25	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	18.8	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	18.3	µg/L		EPA 200.8	10	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	18.9	µg/L		EPA 200.8	10	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2B		Blank Spike Replicate	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	=	122.9	mg/L		SM 2340 B	5	RL		Physis	BS2
2B	TAHOE	TAHOE-2B 0,6,12,18,24 (dis)	Field Blank	Blank Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	0.5	µg/L		EPA 200.8	0.25	RL		Physis	R1
2B	TAHOE	TAHOE-2B 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	6/15/2011	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2B	TAHOE	TAHOE-2B 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	6/15/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
2B	TAHOE	TAHOE-2B-1	Field Blank	Blank Water	Dry	6/15/2011	Total Organic Carbon	NA	=	10.8	mg/L		9060	0.5	RL		CAS	SMPL
2B	TAHOE	TAHOE-2B-2	Field Blank	Blank Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	SMPL
2B	TAHOE	TAHOE-2B-2	Field Blank	Blank Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	=	1.9	mg/L		9060	0.5	RL		CAS	SMPL
2B	TAHOE	TAHOE-2B-3	Field Blank	Blank Water	Dry	6/15/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2B	TAHOE	TAHOE-2B-3	Field Blank	Blank Water	Dry	6/15/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2B	TAHOE	TAHOE-2B-3	Field Blank	Blank Water	Dry	6/15/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2B	TAHOE	TAHOE-2B-3	Field Blank	Blank Water	Dry	6/15/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2B	TAHOE	TAHOE-2B-4	Field Blank	Blank Water	Dry	6/15/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
2B	TAHOE	TAHOE-2B-4	Field Blank	Blank Water	Dry	6/15/2011	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
2B	DUPREE	DUPREE-2B (dis)	Field Duplicate	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	4.7	µg/L		EPA 200.8	0.25	RL		Physis	R1
2B	DUPREE	DUPREE-2B (tot)	Field Duplicate	Receiving Water	Dry	6/15/2011	Copper (Cu)	Total	=	6.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
2B	DUPREE	DUPREE-2B (tot)	Field Duplicate	Receiving Water	Dry	6/15/2011	Total Hardness as CaCO3	NA	=	354.5	mg/L		SM 2340 B	5	RL		Physis	R1
2B	DUPREE	DUPREE-2B-1	Field Duplicate	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	=	14.7	mg/L		9060	0.5	RL		CAS	SMPL
2B	DUPREE	DUPREE-2B-2	Field Duplicate	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	38.8	mg/L		415.1	4	RL		CAS	SMPL
2B	DUPREE	DUPREE-2B-2	Field Duplicate	Receiving Water	Dry	6/15/2011	Dissolved Organic Carbon	NA	=	6.2	mg/L		9060	0.5	RL		CAS	SMPL
2B	DUPREE	DUPREE-2B-3	Field Duplicate	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	80.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
2B	DUPREE	DUPREE-2B-3	Field Duplicate	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	39.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
2B	DUPREE	DUPREE-2B-3	Field Duplicate	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	5.5	mg/L		EPA 200.8	10	RL		Physis	R1
2B	DUPREE	DUPREE-2B-3	Field Duplicate	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	72.2	mg/L		EPA 200.8	10	RL		Physis	R1
2B	DUPREE	DUPREE-2B-4	Field Duplicate	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	125.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
2B	DUPREE	DUPREE-2B-4	Field Duplicate	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	114.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
2B	DUPREE	DUPREE-2B-5	Field Duplicate	Receiving Water	Dry	6/15/2011	Total Suspended Solids	NA	=	14.8	mg/L		SM 2540 D	5	RL		Physis	R1
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	24.6	mg/L		415.1	0	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.5	mg/L		9060	0.5	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Total Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.5	mg/L		9060	0.5	RL		CAS	LCS2
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Total Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS2
2B		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	24.2	mg/L		9060	0.5	RL		CAS	LCS3
2B		Lab Control Sample	Lab Control Sample	Lab Water	NA		Dissolved Inorganic Carbon	NA	=	24.6	mg/L		415.1	0	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	NA		Dissolved Organic Carbon	NA	=	25.2	mg/L		9060	0.5	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	NA		Total Organic Carbon	NA	=	25.7	mg/L		9060	0.5	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	NA		Total Organic Carbon	NA	=	25.5	mg/L		9060	0.5	RL		CAS	LCS1
2B		Lab Control Sample	Lab Control Sample	Lab Water	NA		Total Organic Carbon	NA	=	25.4	mg/L		9060	0.5	RL		CAS	LCS1
2B	CC_AT_LAR	CC_AT_LAR=2B-2	Matrix Spike	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	164.0	mg/L		415.1	4	RL		CAS	MS1
2B	DUPREE	DUPREE-2B-1	Matrix Spike	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	=	41.1	mg/L		9060	0.5	RL		CAS	MS1
2B		Lab Water-2B-2	Matrix Spike	Lab Water	NA		Dissolved Inorganic Carbon	NA	=	158.0	mg/L		415.1	4	RL		CAS	MS1
2B		Lab Water-2B-2	Matrix Spike	Lab Water	NA		Dissolved Organic Carbon	NA	=	28.0	mg/L		9060	0.5	RL		CAS	MS1
2B	RH_AT_LAR	RH_AT_LAR-2B (dis)	Matrix Spike	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	118.6	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
2B		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	NA		Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	NA		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2B		Method Blank	QAQC	Blank Water	NA		Total Organic Carbon	NA	=	0.2	mg/L		9060	0.5	RL		CAS	MB1
2B		Method Blank	QAQC	Blank Water	NA		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2B		Method Blank	QAQC	Blank Water	NA		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB3
2B		Lab Water-2B-1	Project Sample	Lab Water	NA		Total Organic Carbon	NA	=	1.6	mg/L		9060	0.5	RL		CAS	SMPL
2B		Lab Water-2B-2	Project Sample	Lab Water	NA		Dissolved Inorganic Carbon	NA	=	32.8	mg/L		415.1	4	RL		CAS	SMPL
2B		Lab Water-2B-2	Project Sample	Lab Water	NA		Dissolved Organic Carbon	NA	=	1.6	mg/L		9060	0.5	RL		CAS	SMPL
2B	CC_AT_LAR	CC_AT_LAR=2B-2	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Dissolved Inorganic Carbon	NA	=	45.6	mg/L		415.1	4	RL		CAS	DUP1
2B	DUPREE	DUPREE-2B-1	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Total Organic Carbon	NA	=	14.7	mg/L		9060	0.5	RL		CAS	DUP1
2B		Lab Water-2B-2	Project Sample Replicate	Receiving Water	NA		Dissolved Inorganic Carbon	NA	=	31.7	mg/L		415.1	4	RL		CAS	DUP1
2B		Lab Water-2B-2	Project Sample Replicate	Receiving Water	NA		Dissolved Organic Carbon	NA	=	1.6	mg/L		9060	0.5	RL		CAS	DUP1
2B	RH_AT_LAR	RH_AT_LAR-2B (dis)	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Copper (Cu)	Dissolved	=	15.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B (tot)	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Total Hardness as CaCO3	Total	=	347.7	mg/L		SM 2340 B	5	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-3	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Calcium (Ca)	NA	=	93.8	mg/L		EPA 200.8	0.1	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-3	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Magnesium (Mg)	NA	=	31.4	mg/L		EPA 200.8	0.1	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-3	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Potassium (K)	NA	=	14.7	mg/L		EPA 200.8	10	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-3	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Sodium (Na)	NA	=	169.8	mg/L		EPA 200.8	10	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-4	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Chloride by IC	NA	=	242.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
2B	RH_AT_LAR	RH_AT_LAR-2B-4	Project Sample Replicate	Receiving Water	Dry	6/15/2011	Sulfate	NA	=	297.5	mg/L		EPA 300.0	0.05	RL		Physis	R2
2C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
2C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
2C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
2C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2C	TAHOE	TAHOE-2C = 0,6,12,18,24 COMP (dis)	Field Blank	Blank Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2C	TAHOE	TAHOE-2C = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	7/13/2011	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2C	TAHOE	TAHOE-2C = 0,6,12,18,24 COMP (tot)	Field Blank	Blank Water	Dry	7/13/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
2C	TAHOE	TAHOE-2C-1	Field Blank	Blank Water	Dry	7/13/2011	Total Organic Carbon	NA	=	8.9	mg/L		9060	0.5	RL		CAS	SMPL
2C	TAHOE	TAHOE-2C-2	Field Blank	Blank Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	SMPL
2C	TAHOE	TAHOE-2C-2	Field Blank	Blank Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	2.3	mg/L		9060	0.5	RL		CAS	SMPL
2C	TAHOE	TAHOE-2C-3	Field Blank	Blank Water	Dry	7/13/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2C	TAHOE	TAHOE-2C-3	Field Blank	Blank Water	Dry	7/13/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
2C	TAHOE	TAHOE-2C-3	Field Blank	Blank Water	Dry	7/13/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2C	TAHOE	TAHOE-2C-3	Field Blank	Blank Water	Dry	7/13/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2C	TAHOE	TAHOE-2C-4	Field Blank	Blank Water	Dry	7/13/2011	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
2C	TAHOE	TAHOE-2C-4	Field Blank	Blank Water	Dry	7/13/2011	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
2C	DUPREE	DUPREE-2C = 0,6,12,18,24 COMP (dis)	Field Duplicate	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	1.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
2C	DUPREE	DUPREE-2C = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	2.9	µg/L		EPA 200.8	0.25	RL		Physis	R1
2C	DUPREE	DUPREE-2C = 0,6,12,18,24 COMP (tot)	Field Duplicate	Receiving Water	Dry	7/13/2011	Total Hardness as CaCO3	NA	=	434.4	mg/L		SM 2340 B	5	RL		Physis	R1
2C	DUPREE	DUPREE-2C-1	Field Duplicate	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	14.3	mg/L		9060	0.5	RL		CAS	SMPL
2C	DUPREE	DUPREE-2C-2	Field Duplicate	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	51.8	mg/L		415.1	4	RL		CAS	SMPL
2C	DUPREE	DUPREE-2C-2	Field Duplicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	7.1	mg/L		9060	0.5	RL		CAS	SMPL
2C	DUPREE	DUPREE-2C-3	Field Duplicate	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	113.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
2C	DUPREE	DUPREE-2C-3	Field Duplicate	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	35.0	mg/L		EPA 200.8	0.1	RL		Physis	R1
2C	DUPREE	DUPREE-2C-3	Field Duplicate	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2C	DUPREE	DUPREE-2C-3	Field Duplicate	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	55.6	mg/L		EPA 200.8	10	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2C	DUPREE	DUPREE-2C-4	Field Duplicate	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	86.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
2C	DUPREE	DUPREE-2C-4	Field Duplicate	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	122.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
2C	DUPREE	DUPREE-2C-5	Field Duplicate	Receiving Water	Dry	7/13/2011	Total Suspended Solids	NA	=	47.8	mg/L		SM 2540 D	5	RL		Physis	R1
2C		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	25.2	mg/L		415.1	0	RL		CAS	LCS1
2C		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	25.7	mg/L		9060	0.5	RL		CAS	LCS1
2C		Lab Control Sample	Lab Control Sample	Lab Water	Dry		Total Organic Carbon	NA	=	25.6	mg/L		9060	0.5	RL		CAS	LCS1
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Matrix Spike	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	95.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Matrix Spike	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	130.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2C	LAR_WASH	LAR_WASH-2C = 0,6,12,18,24 COMP (dis)	Matrix Spike	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	100.9	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2C	LAR_WASH	LAR_WASH-2C-1	Matrix Spike	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	40.5	mg/L		9060	0.5	RL		CAS	MS1
2C	LAR_WASH	LAR_WASH-2C-2	Matrix Spike	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	33.5	mg/L		9060	0.5	RL		CAS	MS1
2C	LAR_WASH	LAR_WASH-2C-2	Matrix Spike	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	87.2	mg/L		415.1	4	RL		CAS	MS1
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Matrix Spike Replicate	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	94.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Matrix Spike Replicate	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	129.7	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2C	LAR_WASH	LAR_WASH-2C = 0,6,12,18,24 COMP (dis)	Matrix Spike Replicate	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	102.1	µg/L		EPA 200.8	0.25	RL		Physis	MS2
2C		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	MB1
2C		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
2C		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		9060	0.5	RL	ND	CAS	MB1
2C		Lab Water-2C-1	Project Sample	Lab Water	Dry		Total Organic Carbon	NA	=	1.7	mg/L		SM 5310 B	0.5	RL		SunStar	
2C		Lab Water-2C-2	Project Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	38.0	mg/L		SM 5310 B	4	RL		SunStar	
2C		Lab Water-2C-2	Project Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	2.3	mg/L		SM 5310 B	0.5	RL		SunStar	
2C	AS_AT_LAR	AS_AT_LAR-2C-1	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	14.2	mg/L		9060	0.5	RL		CAS	DUP1
2C	AS_AT_LAR	AS_AT_LAR-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	5.4	mg/L		9060	0.5	RL		CAS	DUP1
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Chloride by IC	NA	=	85.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
2C	AS_AT_LAR	AS_AT_LAR-2C-4	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Sulfate	NA	=	120.1	mg/L		EPA 300.0	0.05	RL		Physis	R2
2C	DUPREE	DUPREE-2C-1	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	14.2	mg/L		9060	0.5	RL		CAS	DUP1
2C	DUPREE	DUPREE-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	7.1	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_DEL	LAR_DEL-2C-1	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	15.3	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_DEL	LAR_DEL-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	8.1	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_WARD	LAR_WARD-2C-1	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Total Organic Carbon	NA	=	15.6	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_WARD	LAR_WARD-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	9.9	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_WASH	LAR_WASH-2C = 0,6,12,18,24 COMP (dis)	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Copper (Cu)	Dissolved	=	3.4	µg/L		EPA 200.8	0.25	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C = 0,6,12,18,24 COMP (tot)	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Copper (Cu)	Total	=	5.3	µg/L		EPA 200.8	0.25	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C = 0,6,12,18,24 COMP (tot)	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Total Hardness as CaCO3	Total	=	293.2	mg/L		SM 2340 B	5	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C-1	Project Sample Replicate	Lab Water	Dry	7/13/2011	Total Organic Carbon	NA	=	13.7	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_WASH	LAR_WASH-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	=	34.4	mg/L		415.1	4	RL		CAS	DUP1
2C	LAR_WASH	LAR_WASH-2C-2	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	7.2	mg/L		9060	0.5	RL		CAS	DUP1
2C	LAR_WASH	LAR_WASH-2C-3	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Calcium (Ca)	NA	=	76.3	mg/L		EPA 200.8	0.1	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C-3	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Magnesium (Mg)	NA	=	25.6	mg/L		EPA 200.8	0.1	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C-3	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Potassium (K)	NA	=	11.3	mg/L		EPA 200.8	10	RL		Physis	R2
2C	LAR_WASH	LAR_WASH-2C-3	Project Sample Replicate	Receiving Water	Dry	7/13/2011	Sodium (Na)	NA	=	95.8	mg/L		EPA 200.8	10	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2C	TAHOE	TAHOE-2-2C	Project Sample Replicate	Blank Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	1.6	mg/L		9060	0.5	RL		CAS	DUP1
2C	TAHOE	TAHOE-2C-1	Project Sample Replicate	Blank Water	Dry	7/13/2011	Total Organic Carbon	NA	=	8.6	mg/L		9060	0.5	RL		CAS	DUP1
2C	TAHOE	TAHOE-2C-2	Project Sample Replicate	Blank Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	2.1	mg/L		9060	0.5	RL		CAS	DUP1
2C	TAHOE	TAHOE-2-2C	Trip Blank	Blank Water	Dry	7/13/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.1	4	RL	ND	CAS	SMPL
2C	TAHOE	TAHOE-2-2C	Trip Blank	Blank Water	Dry	7/13/2011	Dissolved Organic Carbon	NA	=	1.6	mg/L		9060	0.5	RL		CAS	SMPL
2W		Blank Spike	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Copper (Cu)	Total	=	1010.2	µg/L		EPA 200.8	0.25	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	20.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Potassium (K)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
2W		Blank Spike	QAQC	Blank Water	Wet		Sulfate	NA	=	0.7	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	20.1	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Copper (Cu)	Total	=	1004.8	µg/L		EPA 200.8	0.25	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	20.1	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Potassium (K)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS2
2W		Blank Spike Replicate	QAQC	Blank Water	Wet		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2W	TAHOE	TAHOE-2W=0,4,8,12(dis)	Field Blank	Blank Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W	TAHOE	TAHOE-2W=0,4,8,12(tot)	Field Blank	Blank Water	Wet	12/12/2011	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W	TAHOE	TAHOE-2W=0,4,8,12(tot)	Field Blank	Blank Water	Wet	12/12/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
2W	TAHOE	TAHOE-2W-1	Field Blank	Blank Water	Wet	12/12/2011	Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	TAHOE	TAHOE-2W-2	Field Blank	Blank Water	Wet	12/12/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
2W	TAHOE	TAHOE-2W-2	Field Blank	Blank Water	Wet	12/12/2011	Dissolved Organic Carbon	NA	=	0.4	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	DUPREE	DUPREE-2W=0,4,8,12(dis)	Field Duplicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	11.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W	DUPREE	DUPREE-2W=0,4,8,12(tot)	Field Duplicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	38.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W	DUPREE	DUPREE-2W=0,4,8,12(tot)	Field Duplicate	Receiving Water	Wet	12/12/2011	Total Hardness as CaCO3	NA	=	43.0	mg/L		SM 2340 B	5	RL		Physis	R1
2W	DUPREE	DUPREE-2W-1	Field Duplicate	Receiving Water	Wet	12/12/2011	Total Organic Carbon	NA	=	22.0	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	DUPREE	DUPREE-2W-2	Field Duplicate	Receiving Water	Wet	12/12/2011	Dissolved Inorganic Carbon	NA	=	13.0	mg/L		SM 5310 B	4	RL		SunStar	
2W	DUPREE	DUPREE-2W-2	Field Duplicate	Receiving Water	Wet	12/12/2011	Dissolved Organic Carbon	NA	=	14.0	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	DUPREE	DUPREE-2W-4	Field Duplicate	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	10.7	mg/L		EPA 200.8	0.1	RL		Physis	R1
2W	DUPREE	DUPREE-2W-4	Field Duplicate	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	2.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
2W	DUPREE	DUPREE-2W-4	Field Duplicate	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
2W	DUPREE	DUPREE-2W-4	Field Duplicate	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	6.7	mg/L		EPA 200.8	10	RL		Physis	R1
2W	DUPREE	DUPREE-2W-5	Field Duplicate	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	5.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
2W	DUPREE	DUPREE-2W-5	Field Duplicate	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	6.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
2W	DUPREE	DUPREE-2W-6	Field Duplicate	Receiving Water	Wet	12/12/2011	Total Suspended Solids	NA	=	169.0	mg/L		SM 2540 D	5	RL		Physis	R1
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Matrix Spike	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	13.4	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Matrix Spike	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	17.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(dis)	Matrix Spike	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	111.5	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(tot)	Matrix Spike	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	137.3	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Matrix Spike Replicate	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	13.3	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Matrix Spike Replicate	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	17.6	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(dis)	Matrix Spike Replicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	111.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(tot)	Matrix Spike Replicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	135.8	µg/L		EPA 200.8	0.25	RL		Physis	MS2
2W		1121506-BLK1	Method Blank	Blank Water	Wet		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
2W		1121508-BLK1	Method Blank	Blank Water	Wet		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
2W		1121508-BLK1	Method Blank	Blank Water	Wet		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
2W		Method Blank	QAQC	Blank Water	Wet		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2W		Method Blank	QAQC	Blank Water	Wet		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
2W		Method Blank	QAQC	Blank Water	Wet		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
2W	TW_AT_MOOR	1121506-DUP1	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Total Organic Carbon	NA	=	21.7	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	TW_AT_MOOR	1121508-DUP1	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Dissolved Organic Carbon	NA	=	12.8	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Chloride by IC	NA	=	10.9	mg/L		EPA 300.0	0.05	RL		Physis	R2
2W	CC_AT_DEL	CC_AT_DEL-2W-5	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Sulfate	NA	=	15.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(dis)	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Dissolved	=	12.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(tot)	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Copper (Cu)	Total	=	39.0	µg/L		EPA 200.8	0.25	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W=0,4,8,12(tot)	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Total Hardness as CaCO3	Total	=	42.0	mg/L		SM 2340 B	5	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W-4	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Calcium (Ca)	NA	=	13.0	mg/L		EPA 200.8	0.1	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W-4	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Magnesium (Mg)	NA	=	2.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W-4	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
2W	TW_AT_MOOR	TW_AT_MOOR-2W-4	Project Sample Replicate	Receiving Water	Wet	12/12/2011	Sodium (Na)	NA	=	6.7	mg/L		EPA 200.8	10	RL		Physis	R2
2W		Lab Water-2W-3	Project Sample	Blank Water	Wet		Calcium (Ca)	Total	=	6.7	mg/L		EPA 200.8	0.1	RL		Physis	
2W		Lab Water-2W-3	Project Sample	Blank Water	Wet		Magnesium (Mg)	Total	=	5.9	mg/L		EPA 200.8	0.1	RL		Physis	
2W		Lab Water-2W-3	Project Sample	Blank Water	Wet		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	
2W		Lab Water-2W-3	Project Sample	Blank Water	Wet		Sodium (Na)	Total	=	12.9	mg/L		EPA 200.8	10	RL		Physis	
2W		Lab Water-2W-4	Project Sample	Blank Water	Wet		Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	
2W		Lab Water-2W-4	Project Sample	Blank Water	Wet		Sulfate	NA	=	38.6	mg/L		EPA 300.0	0.05	RL		Physis	
2W		Lab Water-2W-5	Project Sample	Blank Water	Wet		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	
2W		Lab Water-2W-1	Project Sample	Blank Water	Wet		Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
2W		Lab Water-2W-2	Project Sample	Blank Water	Wet		Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
2W		Lab Water-2W-2	Project Sample	Blank Water	Wet		Dissolved Inorganic Carbon	NA	=	10.0	mg/L		SM 5310 B	4	RL		SunStar	
2W	TAHOE	TAHOE-2W-1-1	Trip Blank	Blank Water	Wet	12/12/2011	Total Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
2W	TAHOE	TAHOE-2W-2-1	Trip Blank	Blank Water	Wet	12/12/2011	Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1		Blank Spike	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	19.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Potassium (K)	NA	=	18.5	µg/L		EPA 200.8	10	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	19.0	µg/L		EPA 200.8	0.1	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	17.5	µg/L		EPA 200.8	10	RL		Physis	BS1
2W-1		Blank Spike	QAQC	Blank Water	Wet		Copper (Cu)	Total	=	982.8	µg/L		EPA 200.8	0.25	RL		Physis	BS1
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Calcium (Ca)	NA	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Potassium (K)	NA	=	18.5	µg/L		EPA 200.8	10	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	=	18.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Sodium (Na)	NA	=	17.4	µg/L		EPA 200.8	10	RL		Physis	BS2
2W-1		Blank Spike Replicate	QAQC	Blank Water	Wet		Copper (Cu)	Total	=	982.7	µg/L		EPA 200.8	0.25	RL		Physis	BS2
2W-1	TAHOE	TAHOE-2W-1-1	Field Blank	Blank Water	Wet	1/21/2012	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	TAHOE	TAHOE-2W-1-2	Field Blank	Blank Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	0.6	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	DUPREE	DUPREE-2W-1 (dis)	Field Duplicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1 (tot)	Field Duplicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	30.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1 (tot)	Field Duplicate	Receiving Water	Wet	1/21/2012	Total Hardness as CaCO3	NA	=	118.5	mg/L		SM 2340 B	5	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2W-1	DUPREE	DUPREE-2W-1-1	Field Duplicate	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	DUPREE	DUPREE-2W-1-4	Field Duplicate	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	33.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-4	Field Duplicate	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	=	5.1	mg/L		EPA 200.8	10	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-4	Field Duplicate	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	9.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-4	Field Duplicate	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	18.9	mg/L		EPA 200.8	10	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-5	Field Duplicate	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	19.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-5	Field Duplicate	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	64.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-1-6	Field Duplicate	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	448.8	mg/L		SM 2540 D	5	RL		Physis	R1
2W-1	DUPREE	DUPREE-2W-2-1	Field Duplicate	Receiving Water	Wet	1/21/2012	Dissolved Inorganic Carbon	NA	=	13.0	mg/L		SM 5310 B	4	RL		SunStar	
2W-1	DUPREE	DUPREE-2W-2-1	Field Duplicate	Receiving Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	12.0	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	LAR_FIG	LAR_FIG-2W-5	Matrix Spike	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	30.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2W-1	LAR_FIG	LAR_FIG-2W-5	Matrix Spike	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	51.4	mg/L		EPA 300.0	0.05	RL		Physis	MS1
2W-1	LAR_WARD	LAR_WARD-2W (dis)	Matrix Spike	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	110.3	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2W-1	LAR_WARD	LAR_WARD-2W (tot)	Matrix Spike	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	123.9	µg/L		EPA 200.8	0.25	RL		Physis	MS1
2W-1	LAR_FIG	LAR_FIG-2W-5	Matrix Spike Replicate	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	29.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2W-1	LAR_FIG	LAR_FIG-2W-5	Matrix Spike Replicate	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	50.9	mg/L		EPA 300.0	0.05	RL		Physis	MS2
2W-1	LAR_WARD	LAR_WARD-2W (dis)	Matrix Spike Replicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	109.9	µg/L		EPA 200.8	0.25	RL		Physis	MS2
2W-1	LAR_WARD	LAR_WARD-2W (tot)	Matrix Spike Replicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	122.5	µg/L		EPA 200.8	0.25	RL		Physis	MS2
2W-1		2012413-BLK1	Method Blank	Blank Water	Wet		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
2W-1		2012421-BLK1	Method Blank	Blank Water	Wet		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
2W-1		2012421-BLK1	Method Blank	Blank Water	Wet		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
2W-1		Method Blank	QAQC	Blank Water	Wet		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
2W-1		Method Blank	QAQC	Blank Water	Wet		Total Hardness as CaCO3	Total	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
2W-1	LAR_WARD	2012413-DUP1	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Total Organic Carbon	NA	=	1.3	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	TAHOE	2012421-DUP1	Project Sample Replicate	Lab Water	Wet	1/21/2012	Dissolved Organic Carbon	NA	=	0.8	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1	LAR_FIG	LAR_FIG-2W-5	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Chloride by IC	NA	=	25.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
2W-1	LAR_FIG	LAR_FIG-2W-5	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Sulfate	NA	=	46.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
2W-1	LAR_TUJ_AV	LAR_TUJ_AV-2W-6	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Total Suspended Solids	NA	=	421.0	mg/L		SM 2540 D	5	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W (dis)	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Dissolved	=	9.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W (tot)	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Copper (Cu)	Total	=	25.3	µg/L		EPA 200.8	0.25	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W (tot)	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Total Hardness as CaCO3	Total	=	49.3	mg/L		SM 2340 B	5	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W-4	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Calcium (Ca)	NA	=	14.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W-4	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W-4	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Magnesium (Mg)	NA	=	3.1	mg/L		EPA 200.8	0.1	RL		Physis	R2
2W-1	LAR_WARD	LAR_WARD-2W-4	Project Sample Replicate	Receiving Water	Wet	1/21/2012	Sodium (Na)	NA	=	8.8	mg/L		EPA 200.8	10	RL		Physis	R2
2W-1		Lab Water-2W-3	Project Sample	Blank Water	Wet	1/23/2012	Magnesium (Mg)	Total	=	5.8	mg/L		EPA 200.8	0.1	RL		Physis	
2W-1		Lab Water-2W-3	Project Sample	Blank Water	Wet	1/23/2012	Sodium (Na)	Total	=	9.4	mg/L		EPA 200.8	10	RL		Physis	
2W-1		Lab Water-2W-3	Project Sample	Blank Water	Wet	1/23/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	
2W-1		Lab Water-2W-4	Project Sample	Blank Water	Wet	1/23/2012	Sulfate	NA	=	39.2	mg/L		EPA 300.0	0.05	RL		Physis	
2W-1		Lab Water-2W-5	Project Sample	Blank Water	Wet	1/23/2012	Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	
2W-1		Lab Water-2W-3	Project Sample	Blank Water	Wet	1/23/2012	Calcium (Ca)	Total	=	6.4	mg/L		EPA 200.8	0.1	RL		Physis	
2W-1		Lab Water-2W-4	Project Sample	Blank Water	Wet	1/23/2012	Chloride by IC	NA	=	0.9	mg/L		EPA 300.0	0.05	RL		Physis	
2W-1		Lab Water-2W-2	Project Sample	Blank Water	Wet	1/23/2012	Dissolved Inorganic Carbon	NA	=	8.3	mg/L		SM 5310 B	4	RL		SunStar	

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
2W-1		Lab Water-2W-1	Project Sample	Blank Water	Wet	1/23/2012	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
2W-1		Lab Water-2W-2	Project Sample	Blank Water	Wet	1/23/2012	Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
3A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3A	TAHOE	TAHOE-3A=0,6,12,18,24 COMP (DIS)	Field Blank	Blank Water	Dry	8/10/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A=0,6,12,18,24 COMP (TOT)	Field Blank	Blank Water	Dry	8/10/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A=0,6,12,18,24 COMP (TOT)	Field Blank	Blank Water	Dry	8/10/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-1	Field Blank	Blank Water	Dry	8/10/2011	Total Organic Carbon	NA	=	0.9	mg/L		SM 5310 B	0.5	RL		SunStar	
3A	TAHOE	TAHOE-3A-2	Field Blank	Blank Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	=	1.5	mg/L		SM 5310 B	0.5	RL		SunStar	
3A	TAHOE	TAHOE-3A-3	Field Blank	Blank Water	Dry	8/10/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-3	Field Blank	Blank Water	Dry	8/10/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-3	Field Blank	Blank Water	Dry	8/10/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-3	Field Blank	Blank Water	Dry	8/10/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-4	Field Blank	Blank Water	Dry	8/10/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
3A	TAHOE	TAHOE-3A-4	Field Blank	Blank Water	Dry	8/10/2011	Sulfate	NA	=	1.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
3A	TAHOE	TAHOE-3A-5	Field Blank	Blank Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
3A	DUPREE	DUPREE-3A=0,6,12,18,24 COMP (DIS)	Field Duplicate	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	12.3	µg/L		EPA 200.8	0.25	RL		Physis	R1
3A	DUPREE	DUPREE-3A=0,6,12,18,24 COMP (TOT)	Field Duplicate	Receiving Water	Dry	8/10/2011	Copper (Cu)	Dissolved	=	14.7	µg/L		EPA 200.8	0.25	RL		Physis	R1
3A	DUPREE	DUPREE-3A=0,6,12,18,24 COMP (TOT)	Field Duplicate	Receiving Water	Dry	8/10/2011	Total Hardness as CaCO3	NA	=	178.3	mg/L		SM 2340 B	5	RL		Physis	R1
3A	DUPREE	DUPREE-3A-1	Field Duplicate	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	=	17.0	mg/L		SM 5310 B	0.5	RL		SunStar	
3A	DUPREE	DUPREE-3A-2	Field Duplicate	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	=	15.0	mg/L		SM 5310 B	0.5	RL		SunStar	
3A	DUPREE	DUPREE-3A-3	Field Duplicate	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	37.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
3A	DUPREE	DUPREE-3A-3	Field Duplicate	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	10.3	mg/L		EPA 200.8	10	RL		Physis	R1
3A	DUPREE	DUPREE-3A-3	Field Duplicate	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	21.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
3A	DUPREE	DUPREE-3A-3	Field Duplicate	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	59.2	mg/L		EPA 200.8	10	RL		Physis	R1
3A	DUPREE	DUPREE-3A-4	Field Duplicate	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	60.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
3A	DUPREE	DUPREE-3A-4	Field Duplicate	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	68.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
3A	DUPREE	DUPREE-3A-5	Field Duplicate	Receiving Water	Dry	8/10/2011	Total Suspended Solids	NA	=	6.0	mg/L		SM 2540 D	5	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3A	DUPREE	DUPREE-3A-6	Field Duplicate	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		SM 5310 B	4	RL		SunStar	
3A	BWC_AT_LAR	BWC_AT_LAR-3A=0,6,12,18,24 COMP (TOT)	Matrix Spike	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	120.6	µg/L		EPA 200.8	0.25	RL		Physis	MS1
3A	DUPREE	DUPREE-3A-4	Matrix Spike	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	71.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3A	DUPREE	DUPREE-3A-4	Matrix Spike	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	78.0	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3A		Lab Water-3A-4	Matrix Spike	Lab Water	Dry		Chloride by IC	NA	=	4.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3A		Lab Water-3A-4	Matrix Spike	Lab Water	Dry		Sulfate	NA	=	174.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3A	BWC_AT_LAR	BWC_AT_LAR-3A=0,6,12,18,24 COMP (TOT)	Matrix Spike Replicate	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	120.2	µg/L		EPA 200.8	0.25	RL		Physis	MS2
3A	DUPREE	DUPREE-3A-4	Matrix Spike Replicate	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	71.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3A	DUPREE	DUPREE-3A-4	Matrix Spike Replicate	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	78.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3A		Lab Water-3A-4	Matrix Spike Replicate	Lab Water	Dry		Chloride by IC	NA	=	4.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3A		Lab Water-3A-4	Matrix Spike Replicate	Lab Water	Dry		Sulfate	NA	=	174.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3A		1081113-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/l		SM 5310 B	0.5	RL	ND	SunStar	
3A		1081202-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/l		SM 5310 B	4	RL	ND	SunStar	
3A		1081202-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/l		SM 5310 B	0.5	RL	ND	SunStar	
3A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3A		Lab Water-3A-3	Project Sample	Lab Water	Dry		Calcium (Ca)	NA	=	26.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
3A		Lab Water-3A-3	Project Sample	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3A		Lab Water-3A-3	Project Sample	Lab Water	Dry		Magnesium (Mg)	NA	=	22.7	mg/L		EPA 200.8	0.1	RL		Physis	R1
3A		Lab Water-3A-3	Project Sample	Lab Water	Dry		Sodium (Na)	NA	=	49.5	mg/L		EPA 200.8	10	RL		Physis	R1
3A		Lab Water-3A-4	Project Sample	Lab Water	Dry		Chloride by IC	NA	=	3.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
3A		Lab Water-3A-4	Project Sample	Lab Water	Dry		Sulfate	NA	=	152.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
3A		Lab Water-3A-5	Project Sample	Lab Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
3A	TW_AT_LAR	1081113-DUP1	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Total Organic Carbon	NA	=	17.0	mg/l		SM 5310 B	0.5	RL		SunStar	
3A	BWC_AT_LAR	1081202-DUP1	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Dissolved Inorganic Carbon	NA	=	38.4	mg/l		SM 5310 B	4	RL		SunStar	
3A	BWC_AT_LAR	1081202-DUP1	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Dissolved Organic Carbon	NA	=	6.5	mg/l		SM 5310 B	0.5	RL		SunStar	
3A	BWC_AT_LAR	BWC_AT_LAR-3A=0,6,12,18,24 COMP (TOT)	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Copper (Cu)	Total	=	13.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
3A	BWC_AT_LAR	BWC_AT_LAR-3A=0,6,12,18,24 COMP (TOT)	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Total Hardness as CaCO3	NA	=	250.7	mg/L		SM 2340 B	5	RL		Physis	R2
3A	BWC_AT_LAR	BWC_AT_LAR-3A-3	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Calcium (Ca)	NA	=	67.7	mg/L		EPA 200.8	0.1	RL		Physis	R2
3A	BWC_AT_LAR	BWC_AT_LAR-3A-3	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Potassium (K)	NA	=	15.1	mg/L		EPA 200.8	10	RL		Physis	R2
3A	BWC_AT_LAR	BWC_AT_LAR-3A-3	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Magnesium (Mg)	NA	=	19.3	mg/L		EPA 200.8	0.1	RL		Physis	R2
3A	BWC_AT_LAR	BWC_AT_LAR-3A-3	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Sodium (Na)	NA	=	103.1	mg/L		EPA 200.8	10	RL		Physis	R2
3A	DUPREE	DUPREE-3A-4	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Chloride by IC	NA	=	60.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
3A	DUPREE	DUPREE-3A-4	Project Sample Replicate	Receiving Water	Dry	8/10/2011	Sulfate	NA	=	68.5	mg/L		EPA 300.0	0.05	RL		Physis	R2
3A		Lab Water-3A-3	Project Sample Replicate	Lab Water	Dry	8/16/2011	Calcium (Ca)	NA	=	26.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
3A		Lab Water-3A-3	Project Sample Replicate	Lab Water	Dry	8/16/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3A		Lab Water-3A-3	Project Sample Replicate	Lab Water	Dry	8/16/2011	Magnesium (Mg)	NA	=	22.7	mg/L		EPA 200.8	0.1	RL		Physis	R2
3A		Lab Water-3A-3	Project Sample Replicate	Lab Water	Dry	8/16/2011	Sodium (Na)	NA	=	49.9	mg/L		EPA 200.8	10	RL		Physis	R2
3A		Lab Water-3A-4	Project Sample Replicate	Lab Water	Dry	8/16/2011	Chloride by IC	NA	=	3.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
3A		Lab Water-3A-4	Project Sample Replicate	Lab Water	Dry	8/16/2011	Sulfate	NA	=	151.5	mg/L		EPA 300.0	0.05	RL		Physis	R2
3B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Dissolved	=	102.1	µg/L		EPA 200.8	0.25	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Dissolved	=	101.6	µg/L		EPA 200.8	0.25	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3B	TAHOE	TAHOE-3B = 0,6,12,18,24 (dis) COMP	Field Blank	Blank Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
3B	TAHOE	TAHOE-3B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	8/24/2011	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
3B	TAHOE	TAHOE-3B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	8/24/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
3B	TAHOE	TAHOE-3B-1	Field Blank	Blank Water	Dry	8/24/2011	Total Organic Carbon	NA	=	0.8	mg/L		SM 5310 B	0.5	RL		SunStar	
3B	TAHOE	TAHOE-3B-2	Field Blank	Blank Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	=	0.9	mg/L		SM 5310 B	0.5	RL		SunStar	
3B	TAHOE	TAHOE-3B-3	Field Blank	Blank Water	Dry	8/24/2011	Calcium (Ca)	NA	=	0.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
3B	TAHOE	TAHOE-3B-3	Field Blank	Blank Water	Dry	8/24/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3B	TAHOE	TAHOE-3B-3	Field Blank	Blank Water	Dry	8/24/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
3B	TAHOE	TAHOE-3B-3	Field Blank	Blank Water	Dry	8/24/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3B	TAHOE	TAHOE-3B-4	Field Blank	Blank Water	Dry	8/24/2011	Chloride by IC	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B	TAHOE	TAHOE-3B-4	Field Blank	Blank Water	Dry	8/24/2011	Sulfate	NA	=	0.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B	TAHOE	TAHOE-3B-5	Field Blank	Blank Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
3B	DUPREE	DUPREE-3B = 0,6,12,18,24 (dis) COMP	Field Duplicate	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	6.9	µg/L		EPA 200.8	0.25	RL		Physis	R1
3B	DUPREE	DUPREE-3B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	8/24/2011	Copper (Cu)	Total	=	9.7	µg/L		EPA 200.8	0.25	RL		Physis	R1
3B	DUPREE	DUPREE-3B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	8/24/2011	Total Hardness as CaCO3	NA	=	234.2	mg/L		SM 2340 B	5	RL		Physis	R1
3B	DUPREE	DUPREE-3B-1	Field Duplicate	Receiving Water	Dry	8/24/2011	Total Organic Carbon	NA	=	7.9	mg/L		SM 5310 B	0.5	RL		SunStar	
3B	DUPREE	DUPREE-3B-2	Field Duplicate	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	=	6.9	mg/L		SM 5310 B	0.5	RL		SunStar	
3B	DUPREE	DUPREE-3B-3	Field Duplicate	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	62.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
3B	DUPREE	DUPREE-3B-3	Field Duplicate	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	=	12.3	mg/L		EPA 200.8	10	RL		Physis	R1
3B	DUPREE	DUPREE-3B-3	Field Duplicate	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	19.2	mg/L		EPA 200.8	0.1	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3B	DUPREE	DUPREE-3B-3	Field Duplicate	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	91.2	mg/L		EPA 200.8	10	RL		Physis	R1
3B	DUPREE	DUPREE-3B-4	Field Duplicate	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	91.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B	DUPREE	DUPREE-3B-4	Field Duplicate	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	144.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B	DUPREE	DUPREE-3B-5	Field Duplicate	Receiving Water	Dry	8/24/2011	Total Suspended Solids	NA	=	19.1	mg/L		SM 2540 D	5	RL		Physis	R1
3B	DUPREE	DUPREE-3B-6	Field Duplicate	Receiving Water	Dry	8/24/2011	Dissolved Inorganic Carbon	NA	=	24.0	mg/L		SM 5310 B	4	RL		SunStar	
3B	AS_AT_LAR	AS_AT_LAR-3B = 0,6,12,18,24 (dis) COMP	Matrix Spike	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	102.4	µg/L		EPA 200.8	0.25	RL		Physis	MS1
3B	DUPREE	DUPREE-3B-4	Matrix Spike	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	115.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3B	DUPREE	DUPREE-3B-4	Matrix Spike	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	166.4	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3B		Lab Water-3B-4	Matrix Spike	Lab Water	Dry		Chloride by IC	NA	=	5.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3B		Lab Water-3B-4	Matrix Spike	Lab Water	Dry		Sulfate	NA	=	210.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3B	AS_AT_LAR	AS_AT_LAR-3B = 0,6,12,18,24 (dis) COMP	Matrix Spike Replicate	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	101.8	µg/L		EPA 200.8	0.25	RL		Physis	MS2
3B	DUPREE	DUPREE-3B-4	Matrix Spike Replicate	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	115.9	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3B	DUPREE	DUPREE-3B-4	Matrix Spike Replicate	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	167.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3B		Lab Water-3B-4	Matrix Spike Replicate	Lab Water	Dry		Chloride by IC	NA	=	5.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3B		Lab Water-3B-4	Matrix Spike Replicate	Lab Water	Dry		Sulfate	NA	=	210.5	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3B		Method Blank	QAQC	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
3B		Method Blank	QAQC	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
3B		Method Blank	QAQC	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
3B		Lab Water-3B-1	Project Sample	Lab Water	Dry		Total Organic Carbon	NA	=	3.8	mg/L		SM 5310 B	0.5	RL		SunStar	
3B		Lab Water-3B-2	Project Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	36.0	mg/L		SM 5310 B	4	RL		SunStar	
3B		Lab Water-3B-2	Project Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	4.4	mg/L		SM 5310 B	0.5	RL		SunStar	
3B		Lab Water-3B-3	Project Sample	Lab Water	Dry		Calcium (Ca)	NA	=	32.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
3B		Lab Water-3B-3	Project Sample	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3B		Lab Water-3B-3	Project Sample	Lab Water	Dry		Magnesium (Mg)	NA	=	28.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
3B		Lab Water-3B-3	Project Sample	Lab Water	Dry		Sodium (Na)	NA	=	70.8	mg/L		EPA 200.8	10	RL		Physis	R1
3B		Lab Water-3B-4	Project Sample	Lab Water	Dry		Chloride by IC	NA	=	4.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B		Lab Water-3B-4	Project Sample	Lab Water	Dry		Sulfate	NA	=	200.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
3B		Lab Water-3B-5	Project Sample	Lab Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
3B	AS_AT_LAR	AS_AT_LAR-3B = 0,6,12,18,24 (dis) COMP	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Copper (Cu)	Dissolved	=	1.3	µg/L		EPA 200.8	0.25	RL		Physis	R2
3B	AS_AT_LAR	AS_AT_LAR-3B-2	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Dissolved Organic Carbon	NA	=	4.5	mg/L		SM 5310 B	0.5	RL		SunStar	
3B	AS_AT_LAR	AS_AT_LAR-3B-3	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Calcium (Ca)	NA	=	103.9	mg/L		EPA 200.8	0.1	RL		Physis	R2
3B	AS_AT_LAR	AS_AT_LAR-3B-3	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
3B	AS_AT_LAR	AS_AT_LAR-3B-3	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Magnesium (Mg)	NA	=	32.3	mg/L		EPA 200.8	0.1	RL		Physis	R2
3B	AS_AT_LAR	AS_AT_LAR-3B-3	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Sodium (Na)	NA	=	52.7	mg/L		EPA 200.8	10	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3B	DUPREE	DUPREE-3B-4	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Chloride by IC	NA	=	91.9	mg/L		EPA 300.0	0.05	RL		Physis	R2
3B	DUPREE	DUPREE-3B-4	Project Sample Replicate	Receiving Water	Dry	8/24/2011	Sulfate	NA	=	145.1	mg/L		EPA 300.0	0.05	RL		Physis	R2
3B		Lab Water-3B-3	Project Sample Replicate	Lab Water	Dry		Sodium (Na)	NA	=	72.2	mg/L		EPA 200.8	10	RL		Physis	R2
3B		Lab Water-3B-3	Project Sample Replicate	Lab Water	Dry		Calcium (Ca)	NA	=	33.9	mg/L		EPA 200.8	0.1	RL		Physis	R2
3B		Lab Water-3B-3	Project Sample Replicate	Lab Water	Dry		Potassium (K)	NA	=	5.1	mg/L		EPA 200.8	10	RL		Physis	R2
3B		Lab Water-3B-3	Project Sample Replicate	Lab Water	Dry		Magnesium (Mg)	NA	=	28.9	mg/L		EPA 200.8	0.1	RL		Physis	R2
3B		Lab Water-3B-4	Project Sample Replicate	Lab Water	Dry		Chloride by IC	NA	=	4.8	mg/L		EPA 300.0	0.05	RL		Physis	R2
3B		Lab Water-3B-4	Project Sample Replicate	Lab Water	Dry		Sulfate	NA	=	199.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
3C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	mg/L		EPA 200.8	0.1	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	mg/L		EPA 200.8	0.1	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	mg/L		EPA 200.8	10	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	mg/L		EPA 200.8	10	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA		0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA		0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA		0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA		0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA		0.2	µg/L		EPA 200.8	10	RL		Physis	BS1
3C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA		0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	0.2	mg/L		EPA 200.8	0.1	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	0.2	mg/L		EPA 200.8	0.1	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	0.2	mg/L		EPA 200.8	10	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	0.2	mg/L		EPA 200.8	10	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA		0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA		0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA		0.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA		0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA		0.2	µg/L		EPA 200.8	10	RL		Physis	BS2
3C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA		0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
3C	TAHOE	TAHOE-3C 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	8/31/2011	Copper (Cu)	Total	=	0.4	µg/L		EPA 200.8	0.25	RL		Physis	R1
3C	TAHOE	TAHOE-3C 0,6,12,18,24 (dis)	Field Blank	Blank Water	Dry	8/31/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C 0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	8/31/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C-1	Field Blank	Blank Water	Dry	8/31/2011	Total Organic Carbon	NA	=	3.6	mg/L		SM 5310 B	0.05	RL		SunStar	
3C	TAHOE	TAHOE-3C-2	Field Blank	Blank Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	=	1.2	mg/L		SM 5310 B	0.05	RL		SunStar	
3C	TAHOE	TAHOE-3C-3	Field Blank	Blank Water	Dry	8/31/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C-3	Field Blank	Blank Water	Dry	8/31/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C-3	Field Blank	Blank Water	Dry	8/31/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C-3	Field Blank	Blank Water	Dry	8/31/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3C	TAHOE	TAHOE-3C-4	Field Blank	Blank Water	Dry	8/31/2011	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C	TAHOE	TAHOE-3C-4	Field Blank	Blank Water	Dry	8/31/2011	Sulfate	NA	=	0.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C	TAHOE	TAHOE-3C-5	Field Blank	Blank Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
3C	DUPREE	DUPREE-3C	Field Duplicate	Receiving Water	Dry	8/31/2011	Copper (Cu)	Total	=	8.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
3C	DUPREE	DUPREE-3C	Field Duplicate	Receiving Water	Dry	8/31/2011	Copper (Cu)	Dissolved	=	6.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
3C	DUPREE	DUPREE-3C	Field Duplicate	Receiving Water	Dry	8/31/2011	Total Hardness as CaCO3	NA	=	253.6	mg/L		SM 2340 B	5	RL		Physis	R1
3C	DUPREE	DUPREE-3C-1	Field Duplicate	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	=	8.1	mg/L		SM 5310 B	0.5	RL		SunStar	
3C	DUPREE	DUPREE-3C-2	Field Duplicate	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	=	7.1	mg/L		SM 5310 B	0.5	RL		SunStar	
3C	DUPREE	DUPREE-3C-3	Field Duplicate	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	64.5	mg/L		EPA 200.8	0.1	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3C	DUPREE	DUPREE-3C-3	Field Duplicate	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	22.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
3C	DUPREE	DUPREE-3C-3	Field Duplicate	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	11.0	mg/L		EPA 200.8	10	RL		Physis	R1
3C	DUPREE	DUPREE-3C-3	Field Duplicate	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	94.1	mg/L		EPA 200.8	10	RL		Physis	R1
3C	DUPREE	DUPREE-3C-4	Field Duplicate	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	101.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C	DUPREE	DUPREE-3C-4	Field Duplicate	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	140.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C	DUPREE	DUPREE-3C-5	Field Duplicate	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	22.3	mg/L		SM 2540 D	5	RL		Physis	R1
3C	DUPREE	DUPREE-3C-6	Field Duplicate	Receiving Water	Dry	8/31/2011	Dissolved Inorganic Carbon	NA	=	32.0	mg/L		SM 5310 B	4	RL		SunStar	
3C		Lab Water-3C-4	Matrix Spike	Lab Water	Dry		Chloride by IC	NA		5.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3C		Lab Water-3C-4	Matrix Spike	Lab Water	Dry		Sulfate	NA		200.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3C	LAR_WARD	LAR_WARD-3C-4	Matrix Spike	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	127.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3C	LAR_WARD	LAR_WARD-3C-4	Matrix Spike	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	167.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
3C	RH_AT_LAR	RH_AT_LAR-3C	Matrix Spike	Receiving Water	Dry	8/30/2011	Copper (Cu)	Total	=	117.5	µg/L		EPA 200.8	0.25	RL		Physis	MS1
3C		Lab Water-3C-4	Matrix Spike Replicate	Lab Water	Dry		Chloride by IC	NA		5.3	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3C		Lab Water-3C-4	Matrix Spike Replicate	Lab Water	Dry		Sulfate	NA		200.7	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3C	LAR_WARD	LAR_WARD-3C-4	Matrix Spike Replicate	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	127.7	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3C	LAR_WARD	LAR_WARD-3C-4	Matrix Spike Replicate	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	167.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
3C	RH_AT_LAR	RH_AT_LAR-3C	Matrix Spike Replicate	Receiving Water	Dry	8/30/2011	Copper (Cu)	Total	=	116.0	µg/L		EPA 200.8	0.25	RL		Physis	MS2
3C		1090108-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
3C		1090108-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
3C		1090109-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
3C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Dissolved	<	0.25	mg/L		EPA 200.8	0.25	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
3C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
3C		Lab Water-3C-1	Project Sample	Lab Water	Dry		Total Organic Carbon	NA	=	1.7	mg/L		SM 5310 B	0.5	RL		SunStar	
3C		Lab Water-3C-2	Project Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	36.0	mg/L		SM 5310 B	4	RL		SunStar	
3C		Lab Water-3C-2	Project Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	1.7	mg/L		SM 5310 B	0.5	RL		SunStar	
3C		Lab Water-3C-3	Project Sample	Lab Water	Dry		Calcium (Ca)	NA		32.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
3C		Lab Water-3C-3	Project Sample	Lab Water	Dry		Magnesium (Mg)	NA		27.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
3C		Lab Water-3C-3	Project Sample	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
3C		Lab Water-3C-3	Project Sample	Lab Water	Dry		Sodium (Na)	NA		67.5	mg/L		EPA 200.8	10	RL		Physis	R1
3C		Lab Water-3C-4	Project Sample	Lab Water	Dry		Chloride by IC	NA		4.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C		Lab Water-3C-4	Project Sample	Lab Water	Dry		Sulfate	NA		190.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
3C		Lab Water-3C-5	Project Sample	Lab Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
3C	RH_AT_LAR	1090108-DUP1	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Dissolved Organic Carbon	NA	=	40.2	mg/L		SM 5310 B	0.5	RL		SunStar	
3C	RH_AT_LAR	1090109-DUP1	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Total Organic Carbon	NA	=	38.4	mg/L		SM 5310 B	0.5	RL		SunStar	
3C		Lab Water-3C-3	Project Sample Replicate	Lab Water	Dry		Calcium (Ca)	NA		32.7	mg/L		EPA 200.8	0.1	RL		Physis	R2
3C		Lab Water-3C-3	Project Sample Replicate	Lab Water	Dry		Magnesium (Mg)	NA		27.8	mg/L		EPA 200.8	0.1	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
3C		Lab Water-3C-3	Project Sample Replicate	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
3C		Lab Water-3C-3	Project Sample Replicate	Lab Water	Dry		Sodium (Na)	NA		68.0	mg/L		EPA 200.8	10	RL		Physis	R2
3C		Lab Water-3C-4	Project Sample Replicate	Lab Water	Dry		Chloride by IC	NA		4.3	mg/L		EPA 300.0	0.05	RL		Physis	R2
3C		Lab Water-3C-4	Project Sample Replicate	Lab Water	Dry		Sulfate	NA		190.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
3C	LAR_WARD	LAR_WARD-3C-4	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Chloride by IC	NA	=	103.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
3C	LAR_WARD	LAR_WARD-3C-4	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Sulfate	NA	=	145.8	mg/L		EPA 300.0	0.05	RL		Physis	R2
3C	LAR_WASH	LAR_WASH-3C-5	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Total Suspended Solids	NA	=	21.8	mg/L		SM 2540 D	5	RL		Physis	R2
3C	RH_AT_LAR	RH_AT_LAR-3C	Project Sample Replicate	Receiving Water	Dry	8/30/2011	Copper (Cu)	Total	=	15.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
3C	RH_AT_LAR	RH_AT_LAR-3C	Project Sample Replicate	Receiving Water	Dry	8/30/2011	Total Hardness as CaCO3	NA	=	481.9	mg/L		SM 2340 B	5	RL		Physis	R2
3C	RH_AT_LAR	RH-AT_LAR-3C-3	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Calcium (Ca)	NA	=	120.9	mg/L		EPA 200.8	0.1	RL		Physis	R2
3C	RH_AT_LAR	RH-AT_LAR-3C-3	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Magnesium (Mg)	NA	=	41.8	mg/L		EPA 200.8	0.1	RL		Physis	R2
3C	RH_AT_LAR	RH-AT_LAR-3C-3	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Potassium (K)	NA	=	18.9	mg/L		EPA 200.8	10	RL		Physis	R2
3C	RH_AT_LAR	RH-AT_LAR-3C-3	Project Sample Replicate	Receiving Water	Dry	8/31/2011	Sodium (Na)	NA	=	218.9	mg/L		EPA 200.8	10	RL		Physis	R2
4A		Blank spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	20.4	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1001.1	µg/L		EPA 200.8	0.25	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	20.1	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.9	µg/L		EPA 200.8	10	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.9	µg/L		EPA 200.8	10	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	19.8	µg/L		EPA 200.8	10	RL		Physis	BS1
4A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	995.5	µg/L		EPA 200.8	0.25	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.3	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	19.7	µg/L		EPA 200.8	10	RL		Physis	BS2
4A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4A	TAHOE	Tahoe-4A=0, 6, 12, 18,24 Comp (dis)	Field Blank	Blank Water	Dry	12/6/2011	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
4A	TAHOE	Tahoe-4A=0, 6, 12, 18,24 Comp (tot)	Field Blank	Blank Water	Dry	12/6/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
4A	TAHOE	Tahoe-4A=0, 6, 12, 18,24 Comp (tot)	Field Blank	Blank Water	Dry	12/6/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
4A	TAHOE	TAHOE-4A-1=0,6,12,18,24	Field Blank	Blank Water	Dry	12/7/2011	Total Organic Carbon	NA	=	0.7	mg/L		SM 5310 B	0.5	RL		SunStar	
4A	TAHOE	TAHOE-4A-2=0,6,12,18,24	Field Blank	Blank Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
4A	TAHOE	TAHOE-4A-2=0,6,12,18,24	Field Blank	Blank Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4A	TAHOE	Tahoe-4A-3	Field Blank	Blank Water	Dry	12/7/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
4A	TAHOE	Tahoe-4A-3	Field Blank	Blank Water	Dry	12/7/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
4A	TAHOE	Tahoe-4A-3	Field Blank	Blank Water	Dry	12/7/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4A	TAHOE	Tahoe-4A-3	Field Blank	Blank Water	Dry	12/7/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4A	TAHOE	Tahoe-4A-4	Field Blank	Blank Water	Dry	12/7/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4A	TAHOE	Tahoe-4A-4	Field Blank	Blank Water	Dry	12/7/2011	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (dis)	Field Duplicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Dissolved	=	8.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Field Duplicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Total	=	9.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Field Duplicate	Receiving Water	Dry	12/6/2011	Total Hardness as CaCO3	NA	=	121.0	mg/L		SM 2340 B	5	RL		Physis	R1
4A	DUPREE	DUPREE-4A-1=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	=	7.7	mg/L		SM 5310 B	0.5	RL		SunStar	
4A	DUPREE	DUPREE-4A-2=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	30.0	mg/L		SM 5310 B	4	RL		SunStar	
4A	DUPREE	DUPREE-4A-2=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	=	7.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4A	DUPREE	Dupree-4A-3	Field Duplicate	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	29.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
4A	DUPREE	Dupree-4A-3	Field Duplicate	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	11.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
4A	DUPREE	Dupree-4A-3	Field Duplicate	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	6.5	mg/L		EPA 200.8	10	RL		Physis	R1
4A	DUPREE	Dupree-4A-3	Field Duplicate	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	48.6	mg/L		EPA 200.8	10	RL		Physis	R1
4A	DUPREE	Dupree-4A-4	Field Duplicate	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	45.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
4A	DUPREE	Dupree-4A-4	Field Duplicate	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	36.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
4A	DUPREE	Dupree-4A-5	Field Duplicate	Receiving Water	Dry	12/7/2011	Total Suspended Solids	NA	=	3.7	mg/L		SM 2540 D	5	RL		Physis	R1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (dis)	Matrix Spike	Receiving Water	Dry	12/6/2011	Copper (Cu)	Dissolved	=	1075.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Matrix Spike	Receiving Water	Dry	12/6/2011	Copper (Cu)	Total	=	1094.9	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4A		Lab Water-4A-4	Matrix Spike	Lab Water	Dry		Chloride by IC	NA	=	3.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4A		Lab Water-4A-4	Matrix Spike	Lab Water	Dry		Sulfate	NA	=	116.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Matrix Spike	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	51.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Matrix Spike	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	41.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (dis)	Matrix Spike Replicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Dissolved	=	1082.9	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Matrix Spike Replicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Total	=	1098.4	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4A		Lab Water-4A-4	Matrix Spike Replicate	Lab Water	Dry		Chloride by IC	NA	=	3.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4A		Lab Water-4A-4	Matrix Spike Replicate	Lab Water	Dry		Sulfate	NA	=	117.3	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Matrix Spike Replicate	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	51.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Matrix Spike Replicate	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	41.5	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4A		1120822-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4A		1120902-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4.0	RL	ND	SunStar	
4A		1120902-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4A		2010913-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4.0	RL	ND	SunStar	
4A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
4A		Lab Water-4A-1	Project Sample	Lab Water	Dry		Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4A		Lab Water-4A-2	Project Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	0.6	mg/L		SM 5310 B	0.5	RL		SunStar	
4A		Lab Water-4A-2	Project Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	25.0	mg/L		SM 5310 B	4	RL		SunStar	
4A		Lab Water-4A-3	Project Sample	Lab Water	Dry		Calcium (Ca)	NA	=	19.1	mg/L		EPA 200.8	0.1	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4A		Lab Water-4A-3	Project Sample	Lab Water	Dry		Magnesium (Mg)	NA	=	16.7	mg/L		EPA 200.8	0.1	RL		Physis	R1
4A		Lab Water-4A-3	Project Sample	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4A		Lab Water-4A-3	Project Sample	Lab Water	Dry		Sodium (Na)	NA	=	37.8	mg/L		EPA 200.8	10	RL		Physis	R1
4A		Lab Water-4A-4	Project Sample	Lab Water	Dry		Chloride by IC	NA	=	2.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
4A		Lab Water-4A-4	Project Sample	Lab Water	Dry		Sulfate	NA	=	110.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
4A		Lab Water-4A-5	Project Sample	Lab Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
4A	TAHOE	1120822-DUP1	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Total Organic Carbon	NA	=	0.7	mg/L		SM 5310 B	0.5	RL		SunStar	
4A	TAHOE	1120902-DUP1	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4A	BWC_UP_BWRP	2010913-DUP1	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Dissolved Inorganic Carbon	NA	=	40.6	mg/L		SM 5310 B	4.0	RL		SunStar	
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (dis)	Project Sample Replicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Dissolved	=	8.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Project Sample Replicate	Receiving Water	Dry	12/6/2011	Copper (Cu)	Total	=	9.7	µg/L		EPA 200.8	0.25	RL		Physis	R2
4A	DUPREE	Dupree-4A=0, 6, 12, 18, 24 Comp (tot)	Project Sample Replicate	Receiving Water	Dry	12/6/2011	Total Hardness as CaCO3	NA	=	119.5	mg/L		SM 2340 B	5	RL		Physis	R2
4A	DUPREE	Dupree-4A-3	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Calcium (Ca)	NA	=	29.6	mg/L		EPA 200.8	0.1	RL		Physis	R2
4A	DUPREE	Dupree-4A-3	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Magnesium (Mg)	NA	=	11.6	mg/L		EPA 200.8	0.1	RL		Physis	R2
4A	DUPREE	Dupree-4A-3	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Potassium (K)	NA	=	6.6	mg/L		EPA 200.8	10	RL		Physis	R2
4A	DUPREE	Dupree-4A-3	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Sodium (Na)	NA	=	48.9	mg/L		EPA 200.8	10	RL		Physis	R2
4A		Lab Water-4A-3	Project Sample Replicate	Lab Water	Dry		Calcium (Ca)	NA	=	18.9	mg/L		EPA 200.8	0.1	RL		Physis	R2
4A		Lab Water-4A-3	Project Sample Replicate	Lab Water	Dry		Magnesium (Mg)	NA	=	16.6	mg/L		EPA 200.8	0.1	RL		Physis	R2
4A		Lab Water-4A-3	Project Sample Replicate	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
4A		Lab Water-4A-3	Project Sample Replicate	Lab Water	Dry		Sodium (Na)	NA	=	37.6	mg/L		EPA 200.8	10	RL		Physis	R2
4A		Lab Water-4A-4	Project Sample Replicate	Lab Water	Dry		Chloride by IC	NA	=	2.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
4A		Lab Water-4A-4	Project Sample Replicate	Lab Water	Dry		Sulfate	NA	=	109.9	mg/L		EPA 300.0	0.05	RL		Physis	R2
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Chloride by IC	NA	=	45.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
4A	TW_AT_LAR	TW_AT_LAR-4A-4	Project Sample Replicate	Receiving Water	Dry	12/7/2011	Sulfate	NA	=	36.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
4A	TAHOE	TAHOE-4A-1-1	Trip Blank	Blank Water	Dry	12/7/2011	Total Organic Carbon	NA	=	1.4	mg/L		SM 5310 B	0.5	RL		SunStar	
4A	TAHOE	TAHOE-4A-2-1	Trip Blank	Blank Water	Dry	12/7/2011	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4B	TAHOE	TAHOE-4B-4	Field Blank	Blank Water	Dry	12/20/2011	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-4	Field Blank	Blank Water	Dry	12/20/2011	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-3	Field Blank	Blank Water	Dry	12/20/2011	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-3	Field Blank	Blank Water	Dry	12/20/2011	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-3	Field Blank	Blank Water	Dry	12/20/2011	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-3	Field Blank	Blank Water	Dry	12/20/2011	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B-2-1	Trip Blank	Blank Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	0.1	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	TAHOE	TAHOE-4B-2	Field Blank	Blank Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	2.2	mg/L		SM 5310 B	4	RL		SunStar	
4B	TAHOE	TAHOE-4B-2	Field Blank	Blank Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	TAHOE	TAHOE-4B-1-1	Trip Blank	Blank Water	Dry	12/20/2011	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	TAHOE	TAHOE-4B-1	Field Blank	Blank Water	Dry	12/20/2011	Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	TAHOE	TAHOE-4B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	12/20/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	12/20/2011	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1
4B	TAHOE	TAHOE-4B = 0,6,12,18,24 (dis) COMP	Field Blank	Blank Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
4B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.4	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	998.9	µg/L		EPA 200.8	0.25	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	20.1	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	20.0	mg/L		EPA 200.8	0.1	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.6	mg/L		EPA 200.8	0.1	RL		Physis	BS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.1	mg/L		EPA 200.8	10	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.0	mg/L		EPA 200.8	10	RL		Physis	BS1
4B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.4	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	994.4	µg/L		EPA 200.8	0.25	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	20.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.9	mg/L		EPA 200.8	0.1	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.5	mg/L		EPA 200.8	0.1	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.1	mg/L		EPA 200.8	10	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	19.9	mg/L		EPA 200.8	10	RL		Physis	BS2
4B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
4B	LAR_ZOO	LAR_ZOO-4B-4	Matrix Spike	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	130.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4B	LAR_ZOO	LAR_ZOO-4B-4	Matrix Spike	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	130.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4B	LAR_ZOO	LAR_ZOO-4B-4	Matrix Spike Replicate	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	129.7	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4B	LAR_ZOO	LAR_ZOO-4B-4	Matrix Spike Replicate	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	132.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4B	LAR_ZOO	LAR_ZOO-4B-4	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	105.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B-4	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	108.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B-3	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	55.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B-3	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	16.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B-3	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	=	13.0	mg/L		EPA 200.8	10	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B-3	Project Sample Replicate	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	108.2	mg/L		EPA 200.8	10	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (tot) COMP	Matrix Spike	Receiving Water	Dry	12/19/2011	Copper (Cu)	Total	=	109.0	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (tot) COMP	Matrix Spike Replicate	Receiving Water	Dry	12/19/2011	Copper (Cu)	Total	=	108.0	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	12/19/2011	Copper (Cu)	Dissolved	=	10.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	12/19/2011	Total Hardness as CaCO3	NA	=	206.2	mg/L		SM 2340 B	5	RL		Physis	R2
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (dis) COMP	Matrix Spike	Receiving Water	Dry	12/19/2011	Copper (Cu)	Total	=	107.7	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (dis) COMP	Matrix Spike Replicate	Receiving Water	Dry	12/19/2011	Copper (Cu)	Total	=	107.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4B	LAR_ZOO	LAR_ZOO-4B = 0,6,12,18,24 (dis) COMP	Project Sample Replicate	Receiving Water	Dry	12/19/2011	Copper (Cu)	Dissolved	=	8.6	µg/L		EPA 200.8	0.25	RL		Physis	R2
4B		Lab Water-4B-5	Project Sample	Lab Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
4B		Lab Water-4B-4	Matrix Spike	Lab Water	Dry		Chloride by IC	NA	=	4.9			EPA 300.0	0.05	RL		Physis	MS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4B		Lab Water-4B-4	Matrix Spike	Lab Water	Dry		Sulfate	NA	=	194.4			EPA 300.0	0.05	RL		Physis	MS1
4B		Lab Water-4B-4	Matrix Spike Replicate	Lab Water	Dry		Chloride by IC	NA	=	4.8			EPA 300.0	0.05	RL		Physis	MS2
4B		Lab Water-4B-4	Matrix Spike Replicate	Lab Water	Dry		Sulfate	NA	=	194.3			EPA 300.0	0.05	RL		Physis	MS2
4B		Lab Water-4B-4	Project Sample	Lab Water	Dry		Chloride by IC	NA	=	4.4			EPA 300.0	0.05	RL		Physis	R1
4B		Lab Water-4B-4	Project Sample	Lab Water	Dry		Sulfate	NA	=	184.5			EPA 300.0	0.05	RL		Physis	R1
4B		Lab Water-4B-4	Project Sample Replicate	Lab Water	Dry		Chloride by IC	NA	=	4.4			EPA 300.0	0.05	RL		Physis	R2
4B		Lab Water-4B-4	Project Sample Replicate	Lab Water	Dry		Sulfate	NA	=	183.8			EPA 300.0	0.05	RL		Physis	R2
4B		Lab Water-4B-3	Project Sample	Lab Water	Dry		Calcium (Ca)	NA	=	32.2			EPA 200.8	0.1	RL		Physis	R1
4B		Lab Water-4B-3	Project Sample	Lab Water	Dry		Magnesium (Mg)	NA	=	27.0			EPA 200.8	0.1	RL		Physis	R1
4B		Lab Water-4B-3	Project Sample	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4B		Lab Water-4B-3	Project Sample	Lab Water	Dry		Sodium (Na)	NA	=	65.1			EPA 200.8	10	RL		Physis	R1
4B		Lab Water-4B-3	Project Sample Replicate	Lab Water	Dry		Calcium (Ca)	NA	=	31.7			EPA 200.8	0.1	RL		Physis	R2
4B		Lab Water-4B-3	Project Sample Replicate	Lab Water	Dry		Magnesium (Mg)	NA	=	26.8			EPA 200.8	0.1	RL		Physis	R2
4B		Lab Water-4B-3	Project Sample Replicate	Lab Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
4B		Lab Water-4B-3	Project Sample Replicate	Lab Water	Dry		Sodium (Na)	NA	=	65.0			EPA 200.8	10	RL		Physis	R2
4B		Lab Water-4B-2	Project Sample	Lab Water	Dry		Dissolved Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4B		Lab Water-4B-2	Project Sample	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	45.0	mg/L		SM 5310 B	4	RL		SunStar	
4B		Lab Water-4B-1	Project Sample	Lab Water	Dry		Total Organic Carbon	NA	=	0.6	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	DUPREE	DUPREE-4B-5	Field Duplicate	Receiving Water	Dry	12/20/2011	Total Suspended Solids	NA	=	5.9	mg/L		SM 2540 D	5	RL		Physis	R1
4B	DUPREE	DUPREE-4B-4	Field Duplicate	Receiving Water	Dry	12/20/2011	Chloride by IC	NA	=	104.5	mg/L		EPA 300.0	0.05	RL		Physis	R1
4B	DUPREE	DUPREE-4B-4	Field Duplicate	Receiving Water	Dry	12/20/2011	Sulfate	NA	=	107.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
4B	DUPREE	DUPREE-4B-3	Field Duplicate	Receiving Water	Dry	12/20/2011	Calcium (Ca)	NA	=	55.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
4B	DUPREE	DUPREE-4B-3	Field Duplicate	Receiving Water	Dry	12/20/2011	Magnesium (Mg)	NA	=	16.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
4B	DUPREE	DUPREE-4B-3	Field Duplicate	Receiving Water	Dry	12/20/2011	Potassium (K)	NA	=	12.9	mg/L		EPA 200.8	10	RL		Physis	R1
4B	DUPREE	DUPREE-4B-3	Field Duplicate	Receiving Water	Dry	12/20/2011	Sodium (Na)	NA	=	109.1	mg/L		EPA 200.8	10	RL		Physis	R1
4B	DUPREE	DUPREE-4B-2	Field Duplicate	Receiving Water	Dry	12/20/2011	Dissolved Inorganic Carbon	NA	=	32.0	mg/L		SM 5310 B	4	RL		SunStar	
4B	DUPREE	DUPREE-4B-2	Field Duplicate	Receiving Water	Dry	12/20/2011	Dissolved Organic Carbon	NA	=	7.6	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	DUPREE	DUPREE-4B-1	Field Duplicate	Receiving Water	Dry	12/20/2011	Total Organic Carbon	NA	=	8.3	mg/L		SM 5310 B	0.5	RL		SunStar	
4B	DUPREE	DUPREE-4B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	12/20/2011	Copper (Cu)	Total	=	10.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
4B	DUPREE	DUPREE-4B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	12/20/2011	Total Hardness as CaCO3	NA	=	202.9	mg/L		SM 2340 B	5	RL		Physis	R1
4B	DUPREE	DUPREE-4B = 0,6,12,18,24 (dis) COMP	Field Duplicate	Receiving Water	Dry	12/20/2011	Copper (Cu)	Dissolved	=	8.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
4B		1122220-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	0.4	mg/L		SM 5310 B	0.5	RL		SunStar	
4B		1122220-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4B		1122207-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Inorganic Carbon	NA	=	32.8	mg/L		SM 5310 B	4	RL		SunStar	
4B		1122207-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Organic Carbon	NA	=	7.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4B		1122207-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
4B		1122207-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	TAHOE	TAHOE-4C-4	Field Blank	Blank Water	Dry	1/4/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C	TAHOE	TAHOE-4C-4	Field Blank	Blank Water	Dry	1/4/2012	Sulfate	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C	TAHOE	TAHOE-4C-3	Field Blank	Blank Water	Dry	1/4/2012	Calcium (Ca)	NA	=	0.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
4C	TAHOE	TAHOE-4C-3	Field Blank	Blank Water	Dry	1/4/2012	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
4C	TAHOE	TAHOE-4C-3	Field Blank	Blank Water	Dry	1/4/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4C	TAHOE	TAHOE-4C-3	Field Blank	Blank Water	Dry	1/4/2012	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4C	TAHOE	TAHOE-4C-2-1	Trip Blank	Blank Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	TAHOE	TAHOE-4C-2	Field Blank	Blank Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
4C	TAHOE	TAHOE-4C-2	Field Blank	Blank Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	TAHOE	TAHOE-4C-1-1	Trip Blank	Blank Water	Dry	1/4/2012	Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	TAHOE	TAHOE-4C-1	Field Blank	Blank Water	Dry	1/4/2012	Total Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4C	TAHOE	TAHOE-4C=0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	1/4/2012	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
4C	TAHOE	TAHOE-4C=0,6,12,18,24 (tot)	Field Blank	Blank Water	Dry	1/4/2012	Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4C	TAHOE	TAHOE-4C=0,6,12,18,24 (dis)	Field Blank	Blank Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
4C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.4	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4C		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	984.5	µg/L		EPA 200.8	0.25	RL		Physis	BS1
4C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.5	µg/L		EPA 200.8	0.1	RL		Physis	BS1
4C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.0	µg/L		EPA 200.8	10	RL		Physis	BS1
4C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	982.1	µg/L		EPA 200.8	0.25	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.4	µg/L		EPA 200.8	0.1	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.1	µg/L		EPA 200.8	10	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS2
4C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
4C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	5	mg/L		SM 2340 B	5	RL	ND	Physis	B1
4C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
4C	LAR_WASH	LAR_WASH-4C-4	Matrix Spike	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	115.3	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4C	LAR_WASH	LAR_WASH-4C-4	Matrix Spike	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	157.3	mg/L		EPA 300.0	0.05	RL		Physis	MS1
4C	LAR_WASH	LAR_WASH-4C-4	Matrix Spike Replicate	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	115.4	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4C	LAR_WASH	LAR_WASH-4C-4	Matrix Spike Replicate	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	157.9	mg/L		EPA 300.0	0.05	RL		Physis	MS2
4C	LAR_WASH	LAR_WASH-4C-4	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	102.8	mg/L		EPA 300.0	0.05	RL		Physis	R2
4C	LAR_WASH	LAR_WASH-4C-4	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	145.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
4C		Lab Water-4C-5	Project Sample	Lab Water	Dry	1/5/2012	Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
4C		Lab Water-4C-4	Project Sample	Lab Water	Dry	1/5/2012	Chloride by IC	NA	=	4.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C		Lab Water-4C-4	Project Sample	Lab Water	Dry	1/5/2012	Sulfate	NA	=	174.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C		Lab Water-4C-3	Project Sample	Lab Water	Dry	1/5/2012	Calcium (Ca)	NA	=	31.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
4C		Lab Water-4C-3	Project Sample	Lab Water	Dry	1/5/2012	Magnesium (Mg)	NA	=	25.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
4C		Lab Water-4C-3	Project Sample	Lab Water	Dry	1/5/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
4C		Lab Water-4C-3	Project Sample	Lab Water	Dry	1/5/2012	Sodium (Na)	NA	=	62.0	mg/L		EPA 200.8	10	RL		Physis	R1
4C		Lab Water-4C-2	Project Sample	Lab Water	Dry	1/5/2012	Dissolved Inorganic Carbon	NA	=	31.0	mg/L		SM 5310 B	4	RL		SunStar	
4C		Lab Water-4C-2	Project Sample	Lab Water	Dry	1/5/2012	Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4C		Lab Water-4C-1	Project Sample	Lab Water	Dry	1/5/2012	Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
4C	DUPREE	DUPREE-4C-5	Field Duplicate	Receiving Water	Dry	1/4/2012	Total Suspended Solids	NA	=	3.4	mg/L		SM 2540 D	5	RL		Physis	R1
4C	DUPREE	DUPREE-4C-4	Field Duplicate	Receiving Water	Dry	1/4/2012	Chloride by IC	NA	=	102.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C	DUPREE	DUPREE-4C-4	Field Duplicate	Receiving Water	Dry	1/4/2012	Sulfate	NA	=	144.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
4C	DUPREE	DUPREE-4C-3	Field Duplicate	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	71.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
4C	DUPREE	DUPREE-4C-3	Field Duplicate	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	24.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
4C	DUPREE	DUPREE-4C-3	Field Duplicate	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	11.2	mg/L		EPA 200.8	10	RL		Physis	R1
4C	DUPREE	DUPREE-4C-3	Field Duplicate	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	94.7	mg/L		EPA 200.8	10	RL		Physis	R1
4C	DUPREE	DUPREE-4C-3	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Calcium (Ca)	NA	=	70.4	mg/L		EPA 200.8	0.1	RL		Physis	R2
4C	DUPREE	DUPREE-4C-3	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Magnesium (Mg)	NA	=	24.2	mg/L		EPA 200.8	0.1	RL		Physis	R2
4C	DUPREE	DUPREE-4C-3	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Potassium (K)	NA	=	11.2	mg/L		EPA 200.8	10	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
4C	DUPREE	DUPREE-4C-3	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Sodium (Na)	NA	=	94.4	mg/L		EPA 200.8	10	RL		Physis	R2
4C	DUPREE	DUPREE-4C-2	Field Duplicate	Receiving Water	Dry	1/4/2012	Dissolved Inorganic Carbon	NA	=	36.0	mg/L		SM 5310 B	4	RL		SunStar	
4C	DUPREE	DUPREE-4C-2	Field Duplicate	Receiving Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	4.3	mg/L		SM 5310 B	0.5	RL		SunStar	
4C	DUPREE	DUPREE-4C-1	Field Duplicate	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	5.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Field Duplicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	6.0	µg/L		EPA 200.8	0.25	RL		Physis	R1
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Field Duplicate	Receiving Water	Dry	1/4/2012	Total Hardness as CaCO3	NA	=	278.7	mg/L		SM 2340 B	5	RL		Physis	R1
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Matrix Spike	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	104.1	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Matrix Spike Replicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	103.3	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Total	=	6.0	µg/L		EPA 200.8	0.25	RL		Physis	R2
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (tot)	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Total Hardness as CaCO3	NA	=	277.7	mg/L		SM 2340 B	5	RL		Physis	R2
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (dis)	Field Duplicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis	R1
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (dis)	Matrix Spike	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	104.1	µg/L		EPA 200.8	0.25	RL		Physis	MS1
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (dis)	Matrix Spike Replicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	103.2	µg/L		EPA 200.8	0.25	RL		Physis	MS2
4C	DUPREE	DUPREE-4C=0,6,12,18,24 (dis)	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
4C		2010902-DUP1	Project Sample Replicate	Lab Water	Dry		Dissolved Inorganic Carbon	NA	=	30.9	mg/L		SM 5310 B	4	RL		SunStar	
4C		2010902-DUP1	Project Sample Replicate	Lab Water	Dry		Dissolved Organic Carbon	NA	=	0.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4C		2010902-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
4C		2010902-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	LAR_WASH	2010606-DUP1	Project Sample Replicate	Receiving Water	Dry	1/4/2012	Total Organic Carbon	NA	=	6.2	mg/L		SM 5310 B	0.5	RL		SunStar	
4C		2010606-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
4C	TAHOE	2010604-DUP1	Project Sample Replicate	Lab Water	Dry	1/4/2012	Dissolved Organic Carbon	NA	=	16.4	mg/L		SM 5310 B	0.5	RL		SunStar	
4C		2010604-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
5	TAHOE	Tahoe-5-4	Field Blank	Blank Water	Dry	5/9/2012	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-4	Field Blank	Blank Water	Dry	5/9/2012	Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-3	Field Blank	Blank Water	Dry	5/9/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-3	Field Blank	Blank Water	Dry	5/9/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-3	Field Blank	Blank Water	Dry	5/9/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-3	Field Blank	Blank Water	Dry	5/9/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
5	TAHOE	Tahoe-5-3	Project Sample Replicate	Blank Water	Dry	5/9/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
5	TAHOE	Tahoe-5-3	Project Sample Replicate	Blank Water	Dry	5/9/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
5	TAHOE	Tahoe-5-3	Project Sample Replicate	Blank Water	Dry	5/9/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
5	TAHOE	Tahoe-5-3	Project Sample Replicate	Blank Water	Dry	5/9/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
5	TAHOE	TAHOE-5-2-1	Trip Blank	Blank Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
5	TAHOE	TAHOE-5-2	Field Blank	Blank Water	Dry	5/9/2012	Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
5	TAHOE	TAHOE-5-2	Field Blank	Blank Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
5	TAHOE	TAHOE-5-1-1	Trip Blank	Blank Water	Dry	5/9/2012	Total Organic Carbon	NA	=	0.3	mg/L		SM 5310 B	0.5	RL		SunStar	
5	TAHOE	TAHOE-5-1	Field Blank	Blank Water	Dry	5/9/2012	Total Organic Carbon	NA	=	0.5	mg/L		SM 5310 B	0.5	RL		SunStar	
5	TAHOE	Tahoe-5 (Tot) (0, 6, 12, 18, 24)	Field Blank	Blank Water	Dry	5/9/2012	Total Hardness as CaCO3	NA	=	1.3	mg/L		SM 2340 B	0.5	RL		Physis	R1
5	TAHOE	Tahoe-5 (Tot) (0, 6, 12, 18, 24)	Field Blank	Blank Water	Dry	5/9/2012	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
5	TAHOE	Tahoe-5 (Tot) (0, 6, 12, 18, 24)	Project Sample Replicate	Blank Water	Dry	5/9/2012	Total Hardness as CaCO3	NA	=	1.0	mg/L		SM 2340 B	0.5	RL		Physis	R2
5	TAHOE	Tahoe-5 (Tot) (0, 6, 12, 18, 24)	Project Sample Replicate	Blank Water	Dry	5/9/2012	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
5	TAHOE	Tahoe-5 (Diss) (0, 6, 12, 18, 24)	Field Blank	Blank Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
5	TAHOE	Tahoe-5 (Diss) (0, 6, 12, 18, 24)	Matrix Spike	Blank Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	10.2	µg/L		EPA 200.8	0.25	RL		Physis	MS1
5	TAHOE	Tahoe-5 (Diss) (0, 6, 12, 18, 24)	Matrix Spike Replicate	Blank Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	10.2	µg/L		EPA 200.8	0.25	RL		Physis	MS2
5	TAHOE	Tahoe-5 (Diss) (0, 6, 12, 18, 24)	Project Sample Replicate	Blank Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
5	RH_AT_LAR	RH_AT_LAR-5-4	Matrix Spike	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	383.3	mg/L		EPA 300.0	0.05	RL		Physis	MS1
5	RH_AT_LAR	RH_AT_LAR-5-4	Matrix Spike	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	278.8	mg/L		EPA 300.0	0.05	RL		Physis	MS1
5	RH_AT_LAR	RH_AT_LAR-5-4	Matrix Spike Replicate	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	384.9	mg/L		EPA 300.0	0.05	RL		Physis	MS2
5	RH_AT_LAR	RH_AT_LAR-5-4	Matrix Spike Replicate	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	280.6	mg/L		EPA 300.0	0.05	RL		Physis	MS2
5	RH_AT_LAR	RH_AT_LAR-5-4	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	329.4	mg/L		EPA 300.0	0.05	RL		Physis	R2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
5	RH_AT_LAR	RH_AT_LAR-5-4	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	232.3	mg/L		EPA 300.0	0.05	RL		Physis	R2
5	RH_AT_LAR	RH_AT_LAR-5-3	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Sodium (Na)	Total	=	227.7	mg/L		EPA 200.8	10	RL		Physis	R2
5	RH_AT_LAR	RH_AT_LAR-5-3	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Calcium (Ca)	Total	=	124.4	mg/L		EPA 200.8	0.1	RL		Physis	R2
5	RH_AT_LAR	RH_AT_LAR-5-3	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Magnesium (Mg)	Total	=	31.2	mg/L		EPA 200.8	0.1	RL		Physis	R2
5	RH_AT_LAR	RH_AT_LAR-5-3	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Potassium (K)	Total	=	45.5	mg/L		EPA 200.8	10	RL		Physis	R2
5		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.4	µg/L		EPA 200.8	10	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.3	µg/L		EPA 200.8	0.1	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	10.1	µg/L		EPA 200.8	0.25	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	19.6	µg/L		EPA 200.8	10	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.6	µg/L		EPA 200.8	0.1	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	19.4	µg/L		EPA 200.8	10	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.3	µg/L		EPA 200.8	10	RL		Physis	BS1
5		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.5	µg/L		EPA 200.8	0.1	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	10.1	µg/L		EPA 200.8	0.25	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	19.6	µg/L		EPA 200.8	10	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.6	µg/L		EPA 200.8	0.1	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	19.5	µg/L		EPA 200.8	10	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
5		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
5		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
5		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
5		Lab Water-5-5	Project Sample	Blank Water	Dry	5/10/2012	Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
5		Lab Water-5-4	Project Sample	Blank Water	Dry	5/10/2012	Chloride by IC	NA	=	3.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
5		Lab Water-5-4	Project Sample	Blank Water	Dry	5/10/2012	Sulfate	NA	=	138.6	mg/L		EPA 300.0	0.05	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
5		Lab Water-5-3	Project Sample	Blank Water	Dry	5/10/2012	Calcium (Ca)	Total	=	26.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
5		Lab Water-5-3	Project Sample	Blank Water	Dry	5/10/2012	Magnesium (Mg)	Total	=	23.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
5		Lab Water-5-3	Project Sample	Blank Water	Dry	5/10/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
5		Lab Water-5-3	Project Sample	Blank Water	Dry	5/10/2012	Sodium (Na)	Total	=	52.5	mg/L		EPA 200.8	10	RL		Physis	R1
5		Lab Water-5-2	Project Sample	Blank Water	Dry	5/10/2012	Dissolved Inorganic Carbon	NA	=	26.0	mg/L		EPA 415.3	4	RL		SunStar	
5		Lab Water-5-2	Project Sample	Blank Water	Dry	5/10/2012	Dissolved Organic Carbon	NA	=	0.8	mg/L		EPA 415.3	0.5	RL		SunStar	
5		Lab Water-5-1	Project Sample	Blank Water	Dry	5/10/2012	Total Organic Carbon	NA	=	0.8	mg/L		EPA 415.3	0.5	RL		SunStar	
5	DUPREE	DUPREE-5-5	Field Duplicate	Receiving Water	Dry	5/9/2012	Total Suspended Solids	NA	=	11.0	mg/L		SM 2540 D	5	RL		Physis	R1
5	DUPREE	DUPREE-5-4	Field Duplicate	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	48.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
5	DUPREE	DUPREE-5-4	Field Duplicate	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	43.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
5	DUPREE	DUPREE-5-4	Matrix Spike	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	57.4	mg/L		EPA 300.0	0.05	RL		Physis	MS1
5	DUPREE	DUPREE-5-4	Matrix Spike	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	53.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
5	DUPREE	DUPREE-5-4	Matrix Spike Replicate	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	58.1	mg/L		EPA 300.0	0.05	RL		Physis	MS2
5	DUPREE	DUPREE-5-4	Matrix Spike Replicate	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	54.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
5	DUPREE	DUPREE-5-4	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Sulfate	NA	=	48.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
5	DUPREE	DUPREE-5-4	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Chloride by IC	NA	=	43.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
5	DUPREE	DUPREE-5-3	Field Duplicate	Receiving Water	Dry	5/9/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
5	DUPREE	DUPREE-5-3	Field Duplicate	Receiving Water	Dry	5/9/2012	Sodium (Na)	NA	=	30.6	mg/L		EPA 200.8	10	RL		Physis	R1
5	DUPREE	DUPREE-5-3	Field Duplicate	Receiving Water	Dry	5/9/2012	Calcium (Ca)	NA	=	49.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
5	DUPREE	DUPREE-5-3	Field Duplicate	Receiving Water	Dry	5/9/2012	Magnesium (Mg)	NA	=	14.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
5	DUPREE	DUPREE-5-2	Field Duplicate	Receiving Water	Dry	5/9/2012	Dissolved Inorganic Carbon	NA	=	28.0	mg/L		SM 5310 B	4	RL		SunStar	
5	DUPREE	DUPREE-5-2	Field Duplicate	Receiving Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	=	7.9	mg/L		SM 5310 B	0.5	RL		SunStar	
5	DUPREE	DUPREE-5-1	Field Duplicate	Receiving Water	Dry	5/9/2012	Total Organic Carbon	NA	=	8.2	mg/L		SM 5310 B	0.5	RL		SunStar	
5	DUPREE	DUPREE-5 (Tot) (0, 6,12, 18, 24)	Field Duplicate	Receiving Water	Dry	5/9/2012	Total Hardness as CaCO3	NA	=	178.2	mg/L		SM 2340 B	0.5	RL		Physis	R1
5	DUPREE	DUPREE-5 (Tot) (0, 6,12, 18, 24)	Field Duplicate	Receiving Water	Dry	5/9/2012	Copper (Cu)	Total	=	3.3	µg/L		EPA 200.8	0.25	RL		Physis	R1
5	DUPREE	DUPREE-5 (Diss) (0, 6,12, 18, 24)	Field Duplicate	Receiving Water	Dry	5/9/2012	Copper (Cu)	Dissolved	=	1.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
5	DUPREE	2051125-DUP1	Project Sample Replicate	Receiving Water	Dry	5/9/2012	Dissolved Organic Carbon	NA	=	7.6	mg/L		SM 5310 B	0.5	RL		SunStar	
5		2051125-BLK1	Method Blank	Blank Water	Dry		Dissolved Inorganic Carbon	NA	<	4	mg/L		SM 5310 B	4	RL	ND	SunStar	
5		2051125-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
5		2051124-DUP1	Project Sample Replicate	Lab Water	Dry		Total Organic Carbon	NA	=	1.1	mg/L		SM 5310 B	0.5	RL		SunStar	
5	TAHOE	2051124-BLK1	Method Blank	Blank Water	Dry	5/9/2012	Total Organic Carbon	NA	<	0.5	mg/L		SM 5310 B	0.5	RL	ND	SunStar	
6A	TW_AT_LAR	TW_AT_LAR-6A-3	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Calcium (Ca)	Total	=	142.8	mg/L		EPA 200.8	0.1	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A-3	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	Total	=	20.5	mg/L		EPA 200.8	0.1	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A-3	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Potassium (K)	Total	=	20.5	mg/L		EPA 200.8	10	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A-3	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Sodium (Na)	Total	=	344.7	mg/L		EPA 200.8	10	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(tot)	Matrix Spike	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	136.1	µg/L		EPA 200.8	0.25	RL		Physis	MS1
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(tot)	Matrix Spike Replicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	135.7	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(tot)	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	33.3	µg/L		EPA 200.8	0.25	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(tot)	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Total Hardness as CaCO3	NA	=	440.9	mg/L		SM 2340 B	0.5	RL		Physis	R2
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(dis)	Matrix Spike	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	132.1	µg/L		EPA 200.8	0.25	RL		Physis	MS1
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(dis)	Matrix Spike Replicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	132.7	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6A	TW_AT_LAR	TW_AT_LAR-6A=0,6,12,18,24(dis)	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	30.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
6A	TAHOE	TAHOE-6A-4	Field Blank	Blank Water	Dry	6/5/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A	TAHOE	TAHOE-6A-4	Field Blank	Blank Water	Dry	6/5/2012	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
6A	TAHOE	TAHOE-6A-3	Field Blank	Blank Water	Dry	6/5/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6A	TAHOE	TAHOE-6A-3	Field Blank	Blank Water	Dry	6/5/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6A	TAHOE	TAHOE-6A-3	Field Blank	Blank Water	Dry	6/5/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6A	TAHOE	TAHOE-6A-3	Field Blank	Blank Water	Dry	6/5/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6A	TAHOE	TAHOE-6A-2-1	Trip Blank	Blank Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	TAHOE	TAHOE-6A-2	Field Blank	Blank Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	4.2	mg/L		EPA 415.3	4	RL		SunStar	

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
6A	TAHOE	TAHOE-6A-2	Field Blank	Blank Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	TAHOE	TAHOE-6A-1-1	Trip Blank	Blank Water	Dry	6/5/2012	Total Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	TAHOE	TAHOE-6A-1	Field Blank	Blank Water	Dry	6/5/2012	Total Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	TAHOE	TAHOE-6A=0,6,12,18,24(dis)	Field Blank	Blank Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
6A	TAHOE	TAHOE-6A=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	6/5/2012	Copper (Cu)	Total	=	0.2	µg/L		EPA 200.8	0.25	RL		Physis	R1
6A	TAHOE	TAHOE-6A=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	6/5/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R1
6A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1035.7	µg/L		EPA 200.8	0.25	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.5	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
6A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1032.5	µg/L		EPA 200.8	0.25	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.4	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.3	µg/L		EPA 200.8	10	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.4	µg/L		EPA 200.8	10	RL		Physis	BS2
6A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
6A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
6A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Matrix Spike	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	144.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Matrix Spike	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	179.1	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Matrix Spike replicate	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	143.5	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Matrix Spike Replicate	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	166.5	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	121.1	mg/L		EPA 300.0	0.05	RL		Physis	R2
6A	LAR_UP_BWC	LAR_UP_BWC-6A-4	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	152.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
6A		Lab Water-6A-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	=	0.9	mg/L		SM 2540 D	5	RL		Physis	R1
6A		Lab Water-6A-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	=	0.6	mg/L		SM 2540 D	5	RL		Physis	R1
6A		Lab Water-6A-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	12.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A		Lab Water-6A-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	485.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A		Lab Water-6A-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	4.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A		Lab Water-6A-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	190.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	34.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	82.7	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	=	14.0	mg/L		EPA 200.8	10	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	219.0	mg/L		EPA 200.8	10	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	34.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	30.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	=	5.1	mg/L		EPA 200.8	10	RL		Physis	R1
6A		Lab Water-6A-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	75.7	mg/L		EPA 200.8	10	RL		Physis	R1
6A		Lab Water-6A-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	99.0	mg/L		EPA 415.3	4	RL		SunStar	

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
6A		Lab Water-6A-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	1.2	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		Lab Water-6A-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	56.0	mg/L		EPA 415.3	4	RL		SunStar	
6A		Lab Water-6A-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		Lab Water-6A-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	1.1	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		Lab Water-6A-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	1.0	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	DUPREE	DUPREE-6A-5	Field Duplicate	Receiving Water	Dry	6/5/2012	Total Suspended Solids	NA	=	10.0	mg/L		SM 2540 D	5	RL		Physis	R1
6A	DUPREE	DUPREE-6A-4	Field Duplicate	Receiving Water	Dry	6/5/2012	Chloride by IC	NA	=	609.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A	DUPREE	DUPREE-6A-4	Field Duplicate	Receiving Water	Dry	6/5/2012	Sulfate	NA	=	114.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
6A	DUPREE	DUPREE-6A-3	Field Duplicate	Receiving Water	Dry	6/5/2012	Calcium (Ca)	NA	=	146.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A	DUPREE	DUPREE-6A-3	Field Duplicate	Receiving Water	Dry	6/5/2012	Magnesium (Mg)	NA	=	21.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
6A	DUPREE	DUPREE-6A-3	Field Duplicate	Receiving Water	Dry	6/5/2012	Potassium (K)	NA	=	21.1	mg/L		EPA 200.8	10	RL		Physis	R1
6A	DUPREE	DUPREE-6A-3	Field Duplicate	Receiving Water	Dry	6/5/2012	Sodium (Na)	NA	=	356.8	mg/L		EPA 200.8	10	RL		Physis	R1
6A	DUPREE	DUPREE-6A-2	Field Duplicate	Receiving Water	Dry	6/5/2012	Dissolved Inorganic Carbon	NA	=	44.0	mg/L		EPA 415.3	4	RL		SunStar	
6A	DUPREE	DUPREE-6A-2	Field Duplicate	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	18.0	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	DUPREE	DUPREE-6A-1	Field Duplicate	Receiving Water	Dry	6/5/2012	Total Organic Carbon	NA	=	27.0	mg/L		EPA 415.3	0.5	RL		SunStar	
6A	DUPREE	DUPREE-6A=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Total	=	33.5	µg/L		EPA 200.8	0.25	RL		Physis	R1
6A	DUPREE	DUPREE-6A=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	6/5/2012	Total Hardness as CaCO3	NA	=	446.3	mg/L		SM 2340 B	0.5	RL		Physis	R1
6A	DUPREE	DUPREE-6A=0,6,12,18,24(dis)	Field Duplicate	Receiving Water	Dry	6/5/2012	Copper (Cu)	Dissolved	=	31.3	µg/L		EPA 200.8	0.25	RL		Physis	R1
6A	TW_AT_LAR	2060812-DUP1	Project Sample Replicate	Receiving Water	Dry	6/5/2012	Dissolved Organic Carbon	NA	=	18.3	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		2060812-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.2	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		2060727-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	16.2	mg/L		EPA 415.3	0.5	RL		SunStar	
6A		2060727-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
6B	TAHOE	TAHOE-6B-4	Field Blank	Blank Water	Dry	6/13/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
6B	TAHOE	TAHOE-6B-4	Field Blank	Blank Water	Dry	6/13/2012	Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B-3	Field Blank	Blank Water	Dry	6/13/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B-3	Field Blank	Blank Water	Dry	6/13/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B-3	Field Blank	Blank Water	Dry	6/13/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B-3	Field Blank	Blank Water	Dry	6/13/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B-2-1	Trip Blank	Blank Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	0.6	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	TAHOE	TAHOE-6B-2	Field Blank	Blank Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	7.8	mg/L		EPA 415.3	4	RL		SunStar	
6B	TAHOE	TAHOE-6B-2	Field Blank	Blank Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	0.2	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	TAHOE	TAHOE-6B-1-1	Trip Blank	Blank Water	Dry	6/13/2012	Total Organic Carbon	NA	=	0.1	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	TAHOE	TAHOE-6B-1	Field Blank	Blank Water	Dry	6/13/2012	Total Organic Carbon	NA	=	0.2	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	TAHOE	TAHOE-6B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	6/13/2012	Copper (Cu)	Total	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
6B	TAHOE	TAHOE-6B = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	6/13/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R1
6B	TAHOE	TAHOE-6B = 0,6,12,18,24 (dis) COMP	Field Blank	Blank Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
6B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.2	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1019.7	µg/L		EPA 200.8	0.25	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS1
6B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1000.4	µg/L		EPA 200.8	0.25	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.3	µg/L		EPA 200.8	10	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
6B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
6B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
6B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
6B	LAR_ZOO	LAR_ZOO-6B-3	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Calcium (Ca)	Total	=	61.1	mg/L		EPA 200.8	0.1	RL		Physis	R2
6B	LAR_ZOO	LAR_ZOO-6B-3	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	Total	=	22.0	mg/L		EPA 200.8	0.1	RL		Physis	R2
6B	LAR_ZOO	LAR_ZOO-6B-3	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Potassium (K)	Total	=	14.2	mg/L		EPA 200.8	10	RL		Physis	R2
6B	LAR_ZOO	LAR_ZOO-6B-3	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Sodium (Na)	Total	=	115.2	mg/L		EPA 200.8	10	RL		Physis	R2
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (tot) COMP	Matrix Spike	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	109.3	µg/L		EPA 200.8	0.25	RL		Physis	MS1
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (tot) COMP	Matrix Spike Replicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	109.8	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	9.9	µg/L		EPA 200.8	0.25	RL		Physis	R2
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (dis) COMP	Matrix Spike	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	106.2	µg/L		EPA 200.8	0.25	RL		Physis	MS1
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (dis) COMP	Matrix Spike Replicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	105.1	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6B	LAR_ZOO	LAR_ZOO-6B = 0,6,12,18,24 (dis) COMP	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	6.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
6B		Lab Water-6B-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	=	0.5	mg/L		SM 2540 D	5	RL		Physis	R1
6B		Lab Water-6B-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	4.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
6B		Lab Water-6B-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	189.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
6B		Lab Water-6B-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	35.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
6B		Lab Water-6B-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	30.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
6B		Lab Water-6B-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	=	5.2	mg/L		EPA 200.8	10	RL		Physis	R1
6B		Lab Water-6B-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	76.1	mg/L		EPA 200.8	10	RL		Physis	R1
6B		Lab Water-6B-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	69.0	mg/L		EPA 415.3	4	RL		SunStar	
6B		Lab Water-6B-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.7	mg/L		EPA 415.3	0.5	RL		SunStar	
6B		Lab Water-6B-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	0.7	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	DUPREE	DUPREE-6B-5	Field Duplicate	Receiving Water	Dry	6/13/2012	Total Suspended Solids	NA	=	15.4	mg/L		SM 2540 D	5	RL		Physis	R1
6B	DUPREE	DUPREE-6B-4	Field Duplicate	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	122.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
6B	DUPREE	DUPREE-6B-4	Field Duplicate	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	144.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
6B	DUPREE	DUPREE-6B-4	Matrix Spike	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	145.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6B	DUPREE	DUPREE-6B-4	Matrix Spike	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	163.3	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6B	DUPREE	DUPREE-6B-4	Matrix Spike Replicate	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	144.6	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6B	DUPREE	DUPREE-6B-4	Matrix Spike Replicate	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	163.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6B	DUPREE	DUPREE-6B-4	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Chloride by IC	NA	=	120.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
6B	DUPREE	DUPREE-6B-4	Project Sample Replicate	Receiving Water	Dry	6/13/2012	Sulfate	NA	=	142.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
6B	DUPREE	DUPREE-6B-3	Field Duplicate	Receiving Water	Dry	6/13/2012	Calcium (Ca)	NA	=	57.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
6B	DUPREE	DUPREE-6B-3	Field Duplicate	Receiving Water	Dry	6/13/2012	Magnesium (Mg)	NA	=	20.8	mg/L		EPA 200.8	0.1	RL		Physis	R1
6B	DUPREE	DUPREE-6B-3	Field Duplicate	Receiving Water	Dry	6/13/2012	Potassium (K)	NA	=	13.3	mg/L		EPA 200.8	10	RL		Physis	R1
6B	DUPREE	DUPREE-6B-3	Field Duplicate	Receiving Water	Dry	6/13/2012	Sodium (Na)	NA	=	109.6	mg/L		EPA 200.8	10	RL		Physis	R1
6B	DUPREE	DUPREE-6B-2	Field Duplicate	Receiving Water	Dry	6/13/2012	Dissolved Inorganic Carbon	NA	=	59.0	mg/L		EPA 415.3	4	RL		SunStar	
6B	DUPREE	DUPREE-6B-2	Field Duplicate	Receiving Water	Dry	6/13/2012	Dissolved Organic Carbon	NA	=	5.1	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	DUPREE	DUPREE-6B-1	Field Duplicate	Receiving Water	Dry	6/13/2012	Total Organic Carbon	NA	=	7.4	mg/L		EPA 415.3	0.5	RL		SunStar	
6B	DUPREE	DUPREE-6B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Total	=	9.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
6B	DUPREE	DUPREE-6B = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	6/13/2012	Total Hardness as CaCO3	NA	=	241.8	mg/L		SM 2340 B	0.5	RL		Physis	R1
6B	DUPREE	DUPREE-6B = 0,6,12,18,24 (dis) COMP	Field Duplicate	Receiving Water	Dry	6/13/2012	Copper (Cu)	Dissolved	=	6.6	µg/L		EPA 200.8	0.25	RL		Physis	R1
6B		2061427-DUP1	Project Sample Replicate	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
6B		2061427-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
6B		2061426-DUP1	Project Sample Replicate	Blank Water	Dry		Total Organic Carbon	NA	=	1.1	mg/L		EPA 415.3	0.5	RL		SunStar	
6B		2061426-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
6C	TAHOE	TAHOE-6C-4	Field Blank	Blank Water	Dry	6/20/2012	Chloride by IC	NA	=	0.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C	TAHOE	TAHOE-6C-4	Field Blank	Blank Water	Dry	6/20/2012	Sulfate	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C	TAHOE	TAHOE-6C-3	Field Blank	Blank Water	Dry	6/20/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6C	TAHOE	TAHOE-6C-3	Field Blank	Blank Water	Dry	6/20/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
6C	TAHOE	TAHOE-6C-3	Field Blank	Blank Water	Dry	6/20/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6C	TAHOE	TAHOE-6C-3	Field Blank	Blank Water	Dry	6/20/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
6C	TAHOE	TAHOE-6C-2-1	Trip Blank	Blank Water	Dry	6/21/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	TAHOE	TAHOE-6C-2	Field Blank	Blank Water	Dry	6/23/2012	Dissolved Inorganic Carbon	NA	=	5.9	mg/L		EPA 415.3	4	RL		SunStar	
6C	TAHOE	TAHOE-6C-2	Field Blank	Blank Water	Dry	6/24/2012	Dissolved Organic Carbon	NA	=	0.7	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	TAHOE	TAHOE-6C-1-1	Trip Blank	Blank Water	Dry	6/20/2012	Total Organic Carbon	NA	=	0.7	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	TAHOE	TAHOE-6C-1	Field Blank	Blank Water	Dry	6/22/2012	Total Organic Carbon	NA	=	0.7	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	TAHOE	TAHOE-6C = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	6/20/2012	Copper (Cu)	Total	=	0.3	µg/L		EPA 200.8	0.25	RL		Physis	R1
6C	TAHOE	TAHOE-6C = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	6/20/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R1
6C	TAHOE	TAHOE-6C = 0,6,12,18,24 (dis) COMP	Field Blank	Blank Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
6C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1002.6	µg/L		EPA 200.8	0.25	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.5	µg/L		EPA 200.8	0.1	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.3	µg/L		EPA 200.8	10	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	19.8	µg/L		EPA 200.8	10	RL		Physis	BS1
6C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	20.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	989.7	µg/L		EPA 200.8	0.25	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.3	µg/L		EPA 200.8	0.1	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	19.9	µg/L		EPA 200.8	10	RL		Physis	BS2
6C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
6C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
6C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
6C	LAR_WASH	LAR_WASH-6C-4	Matrix Spike	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	143.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6C	LAR_WASH	LAR_WASH-6C-4	Matrix Spike	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	174.2	mg/L		EPA 300.0	0.05	RL		Physis	MS1
6C	LAR_WASH	LAR_WASH-6C-4	Matrix Spike Replicate	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	144.7	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6C	LAR_WASH	LAR_WASH-6C-4	Matrix Spike Replicate	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	175.9	mg/L		EPA 300.0	0.05	RL		Physis	MS2
6C	LAR_WASH	LAR_WASH-6C-4	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	119.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C-4	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	150.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C-3	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Calcium (Ca)	Total	=	64.7	mg/L		EPA 200.8	0.1	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C-3	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	Total	=	23.8	mg/L		EPA 200.8	0.1	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C-3	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Potassium (K)	Total	=	13.3	mg/L		EPA 200.8	10	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C-3	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Sodium (Na)	Total	=	109.9	mg/L		EPA 200.8	10	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (tot) COMP	Matrix Spike	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	104.0	µg/L		EPA 200.8	0.25	RL		Physis	MS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (tot) COMP	Matrix Spike Replicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	105.8	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	6.9	µg/L		EPA 200.8	0.25	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Total Hardness as CaCO3	NA	=	262.1	mg/L		SM 2340 B	0.5	RL		Physis	R2
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (dis) COMP	Matrix Spike	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	101.9	µg/L		EPA 200.8	0.25	RL		Physis	MS1
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (dis) COMP	Matrix Spike Replicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	102.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2
6C	LAR_WASH	LAR_WASH-6C = 0,6,12,18,24 (dis) COMP	Project Sample Replicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	4.2	µg/L		EPA 200.8	0.25	RL		Physis	R2
6C		Lab Water-6C-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	=	4.0	mg/L		SM 2540 D	5	RL		Physis	R1
6C		Lab Water-6C-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	4.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C		Lab Water-6C-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	185.5	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C		Lab Water-6C-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	34.5	mg/L		EPA 200.8	0.1	RL		Physis	R1
6C		Lab Water-6C-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	28.6	mg/L		EPA 200.8	0.1	RL		Physis	R1
6C		Lab Water-6C-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	=	5.3	mg/L		EPA 200.8	10	RL		Physis	R1
6C		Lab Water-6C-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	72.1	mg/L		EPA 200.8	10	RL		Physis	R1
6C		Lab Water-6C-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	63.0	mg/L		EPA 415.3	4	RL		SunStar	
6C		Lab Water-6C-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.6	mg/L		EPA 415.3	0.5	RL		SunStar	
6C		Lab Water-6C-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	DUPREE	DUPREE-6C-5	Field Duplicate	Receiving Water	Dry	6/20/2012	Total Suspended Solids	NA	=	17.0	mg/L		SM 2540 D	5	RL		Physis	R1
6C	DUPREE	DUPREE-6C-4	Field Duplicate	Receiving Water	Dry	6/20/2012	Chloride by IC	NA	=	120.3	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C	DUPREE	DUPREE-6C-4	Field Duplicate	Receiving Water	Dry	6/20/2012	Sulfate	NA	=	151.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
6C	DUPREE	DUPREE-6C-3	Field Duplicate	Receiving Water	Dry	6/20/2012	Calcium (Ca)	NA	=	65.0	mg/L		EPA 200.8	0.1	RL		Physis	R1
6C	DUPREE	DUPREE-6C-3	Field Duplicate	Receiving Water	Dry	6/20/2012	Magnesium (Mg)	NA	=	23.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
6C	DUPREE	DUPREE-6C-3	Field Duplicate	Receiving Water	Dry	6/20/2012	Potassium (K)	NA	=	13.1	mg/L		EPA 200.8	10	RL		Physis	R1
6C	DUPREE	DUPREE-6C-3	Field Duplicate	Receiving Water	Dry	6/20/2012	Sodium (Na)	NA	=	110.7	mg/L		EPA 200.8	10	RL		Physis	R1
6C	DUPREE	DUPREE-6C-2	Field Duplicate	Receiving Water	Dry	6/26/2012	Dissolved Inorganic Carbon	NA	=	63.0	mg/L		EPA 415.3	4	RL		SunStar	
6C	DUPREE	DUPREE-6C-2	Field Duplicate	Receiving Water	Dry	6/27/2012	Dissolved Organic Carbon	NA	=	6.6	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	DUPREE	DUPREE-6C-1	Field Duplicate	Receiving Water	Dry	6/25/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	0.5	RL		SunStar	
6C	DUPREE	DUPREE-6C = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Total	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis	R1
6C	DUPREE	DUPREE-6C = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	6/20/2012	Total Hardness as CaCO3	NA	=	255.6	mg/L		SM 2340 B	0.5	RL		Physis	R1
6C	DUPREE	DUPREE-6C = 0,6,12,18,24 (dis) COMP	Field Duplicate	Receiving Water	Dry	6/20/2012	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
6C		2062126-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Organic Carbon	NA	=	3.9	mg/L		EPA 415.3	0.5	RL		SunStar	
6C		2062126-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
6C		2062120-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	0.6	mg/L		EPA 415.3	0.5	RL		SunStar	
6C		2062120-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7A	TAHOE	TAHOE-7A-4	Field Blank	Blank Water	Dry	8/8/2012	Sulfate	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A	TAHOE	TAHOE-7A-4	Field Blank	Blank Water	Dry	8/8/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A	TAHOE	TAHOE-7A-3	Field Blank	Blank Water	Dry	8/8/2012	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A-3	Field Blank	Blank Water	Dry	8/8/2012	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A-3	Field Blank	Blank Water	Dry	8/8/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A-3	Field Blank	Blank Water	Dry	8/8/2012	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A-2-1	Trip Blank	Blank Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	0.3	mg/L		EPA 415.3	0.5	RL		SunStar	
7A	TAHOE	TAHOE-7A-2	Field Blank	Blank Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	7.2	mg/L		EPA 415.3	0.5	RL		SunStar	
7A	TAHOE	TAHOE-7A-2	Field Blank	Blank Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
7A	TAHOE	TAHOE-7A-1-1	Trip Blank	Blank Water	Dry	8/8/2012	Total Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
7A	TAHOE	TAHOE-7A-1	Field Blank	Blank Water	Dry	8/8/2012	Total Organic Carbon	NA	=	0.8	mg/L		EPA 415.3	0.5	RL		SunStar	
7A	TAHOE	TAHOE-7A = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	8/8/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A = 0,6,12,18,24 (tot) COMP	Field Blank	Blank Water	Dry	8/8/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R1
7A	TAHOE	TAHOE-7A = 0,6,12,18,24 (dis) COMP	Field Blank	Blank Water	Dry	8/8/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7A		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.3	µg/L		EPA 200.8	0.1	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
7A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
7A		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.8	µg/L		EPA 200.8	10	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.3	µg/L		EPA 200.8	0.1	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	972.7	µg/L		EPA 200.8	0.25	RL		Physis	BS1
7A		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.2	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.9	µg/L		EPA 200.8	10	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	948.0	µg/L		EPA 200.8	0.25	RL		Physis	BS2
7A		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7A		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
7A		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Matrix Spike	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	141.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Matrix Spike	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	168.0	mg/L		EPA 300.0	0.05	RL		Physis	MS1
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Matrix Spike Replicate	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	146.4	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Matrix Spike Replicate	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	173.2	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	110.2	mg/L		EPA 300.0	0.05	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-4	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	133.0	mg/L		EPA 300.0	0.05	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-3	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	18.0	mg/L		EPA 200.8	0.1	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-3	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	12.1	mg/L		EPA 200.8	10	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-3	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	48.2	mg/L		EPA 200.8	0.1	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A-3	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	103.5	mg/L		EPA 200.8	10	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A = 0,6,12,18,24 (tot) COMP	Matrix Spike	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	107.3	µg/L		EPA 200.8	0.25	RL		Physis	MS1
7A	LAR_UP_BWC	LAR_UP_BWC-7A = 0,6,12,18,24 (tot) COMP	Matrix Spike Replicate	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	108.6	µg/L		EPA 200.8	0.25	RL		Physis	MS2
7A	LAR_UP_BWC	LAR_UP_BWC-7A = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Total Hardness as CaCO3	NA	=	209.8	mg/L		SM 2340 B	0.5	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A = 0,6,12,18,24 (tot) COMP	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	7.5	µg/L		EPA 200.8	0.25	RL		Physis	R2
7A	LAR_UP_BWC	LAR_UP_BWC-7A = 0,6,12,18,24 (dis) COMP	Project Sample Replicate	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	6.3	µg/L		EPA 200.8	0.25	RL		Physis	R2
7A		Lab Water#2-7A-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	140.0	mg/L		EPA 415.3	4	RL		SunStar	
7A		Lab Water#2-7A-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	1.1	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		Lab Water#2-7A-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		Lab Water#1-7A-2	Project Sample	Blank Water	Dry		Dissolved Inorganic Carbon	NA	=	61.0	mg/L		EPA 415.3	4	RL		SunStar	
7A		Lab Water#1-7A-2	Project Sample	Blank Water	Dry		Dissolved Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		Lab Water#1-7A-1	Project Sample	Blank Water	Dry		Total Organic Carbon	NA	=	1.0	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		Lab Water #2-7A-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
7A		Lab Water #2-7A-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	533.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A		Lab Water #2-7A-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	18.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A		Lab Water #2-7A-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	42.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A		Lab Water #2-7A-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	=	15.3	mg/L		EPA 200.8	10	RL		Physis	R1
7A		Lab Water #2-7A-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	227.6	mg/L		EPA 200.8	10	RL		Physis	R1
7A		Lab Water #2-7A-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	86.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A		Lab Water #1-7A-5	Project Sample	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
7A		Lab Water #1-7A-4	Project Sample	Blank Water	Dry		Chloride by IC	NA	=	4.6	mg/L		EPA 300.0	0.05	RL		Physis	R1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
7A		Lab Water #1-7A-4	Project Sample	Blank Water	Dry		Sulfate	NA	=	177.9	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A		Lab Water #1-7A-3	Project Sample	Blank Water	Dry		Calcium (Ca)	Total	=	32.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A		Lab Water #1-7A-3	Project Sample	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7A		Lab Water #1-7A-3	Project Sample	Blank Water	Dry		Sodium (Na)	Total	=	69.5	mg/L		EPA 200.8	10	RL		Physis	R1
7A		Lab Water #1-7A-3	Project Sample	Blank Water	Dry		Magnesium (Mg)	Total	=	27.0	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A	DUPREE	DUPREE-7A-5	Field Duplicate	Receiving Water	Dry	8/8/2012	Total Suspended Solids	NA	=	5.1	mg/L		SM 2540 D	5	RL		Physis	R1
7A	DUPREE	DUPREE-7A-4	Field Duplicate	Receiving Water	Dry	8/8/2012	Chloride by IC	NA	=	748.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A	DUPREE	DUPREE-7A-4	Field Duplicate	Receiving Water	Dry	8/8/2012	Sulfate	NA	=	119.8	mg/L		EPA 300.0	0.05	RL		Physis	R1
7A	DUPREE	DUPREE-7A-3	Field Duplicate	Receiving Water	Dry	8/8/2012	Magnesium (Mg)	NA	=	23.0	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A	DUPREE	DUPREE-7A-3	Field Duplicate	Receiving Water	Dry	8/8/2012	Calcium (Ca)	NA	=	159.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
7A	DUPREE	DUPREE-7A-3	Field Duplicate	Receiving Water	Dry	8/8/2012	Potassium (K)	NA	=	23.8	mg/L		EPA 200.8	10	RL		Physis	R1
7A	DUPREE	DUPREE-7A-3	Field Duplicate	Receiving Water	Dry	8/8/2012	Sodium (Na)	NA	=	410.3	mg/L		EPA 200.8	10	RL		Physis	R1
7A	DUPREE	DUPREE-7A-2	Field Duplicate	Receiving Water	Dry	8/8/2012	Dissolved Inorganic Carbon	NA	=	110.0	mg/L		EPA 415.3	2.5	RL		SunStar	
7A	DUPREE	DUPREE-7A-2	Field Duplicate	Receiving Water	Dry	8/8/2012	Dissolved Organic Carbon	NA	=	41.0	mg/L		EPA 415.3	2.5	RL		SunStar	
7A	DUPREE	DUPREE-7A-1	Field Duplicate	Receiving Water	Dry	8/8/2012	Total Organic Carbon	NA	=	43.0	mg/L		EPA 415.3	2.5	RL		SunStar	
7A	DUPREE	DUPREE-7A = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	8/8/2012	Total Hardness as CaCO3	NA	=	505.1	mg/L		SM 2340 B	0.5	RL		Physis	R1
7A	DUPREE	DUPREE-7A = 0,6,12,18,24 (tot) COMP	Field Duplicate	Receiving Water	Dry	8/8/2012	Copper (Cu)	Total	=	25.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
7A	DUPREE	DUPREE-7A = 0,6,12,18,24 (dis) COMP	Field Duplicate	Receiving Water	Dry	8/8/2012	Copper (Cu)	Dissolved	=	21.4	µg/L		EPA 200.8	0.25	RL		Physis	R1
7A		2080908-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Organic Carbon	NA	=	9.7	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		2080908-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7A		2080906-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	0.5	RL		SunStar	
7A		2080906-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7B	TAHOE	TAHOE-7B-4	Field Blank	Blank Water	Dry	8/15/2012	Chloride by IC	NA	=	0.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B	TAHOE	TAHOE-7B-4	Field Blank	Blank Water	Dry	8/15/2012	Sulfate	NA	=	0.2	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B	TAHOE	TAHOE-7B-3	Field Blank	Blank Water	Dry	8/15/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B-3	Field Blank	Blank Water	Dry	8/15/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B-3	Field Blank	Blank Water	Dry	8/15/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B-3	Field Blank	Blank Water	Dry	8/15/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B-3	Project Sample Replicate	Blank Water	Dry	8/15/2012	Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
7B	TAHOE	TAHOE-7B-3	Project Sample Replicate	Blank Water	Dry	8/15/2012	Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
7B	TAHOE	TAHOE-7B-3	Project Sample Replicate	Blank Water	Dry	8/15/2012	Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
7B	TAHOE	TAHOE-7B-3	Project Sample Replicate	Blank Water	Dry	8/15/2012	Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
7B	TAHOE	TAHOE-7B-2-1	Trip Blank	Blank Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	TAHOE	TAHOE-7B-2=0,6,12,18,24	Field Blank	Blank Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	2.3	mg/L		EPA 415.3	4	RL		SunStar	
7B	TAHOE	TAHOE-7B-2=0,6,12,18,24	Field Blank	Blank Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	TAHOE	TAHOE-7B-1-1	Trip Blank	Blank Water	Dry	8/15/2012	Total Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	TAHOE	TAHOE-7B-1=0,6,12,18,24	Field Blank	Blank Water	Dry	8/15/2012	Total Organic Carbon	NA	=	0.6	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	8/15/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	8/15/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Matrix Spike	Blank Water	Dry	8/15/2012	Copper (Cu)	Total	=	105.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Matrix Spike Replicate	Blank Water	Dry	8/15/2012	Copper (Cu)	Total	=	105.0	µg/L		EPA 200.8	0.25	RL		Physis	MS2
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Project Sample Replicate	Blank Water	Dry	8/15/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R2
7B	TAHOE	TAHOE-7B=0,6,12,18,24(tot)	Project Sample Replicate	Blank Water	Dry	8/15/2012	Total Hardness as CaCO3	NA	=	0.1	mg/L		SM 2340 B	0.5	RL		Physis	R2
7B	TAHOE	TAHOE-7B=0,6,12,18,24(dis)	Field Blank	Blank Water	Dry	8/15/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7B	TAHOE	TAHOE-7B=0,6,12,18,24(dis)	Project Sample Replicate	Blank Water	Dry	8/15/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R2
7B		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.7	µg/L		EPA 200.8	0.1	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	988.7	µg/L		EPA 200.8	0.25	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
7B		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.4	µg/L		EPA 200.8	10	RL		Physis	BS1
7B		Blank Spike	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	Total	=	19.9	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	1019.5	µg/L		EPA 200.8	0.25	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	=	20.0	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	Total	=	20.0	µg/L		EPA 200.8	10	RL		Physis	BS2
7B		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	Total	=	20.6	µg/L		EPA 200.8	10	RL		Physis	BS2
7B		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	Total	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
7B		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	Total	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
7B	LAR_ZOO	LAR_ZOO-7B-4	Matrix Spike	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	140.0	mg/L		EPA 300.0	0.05	RL		Physis	MS1
7B	LAR_ZOO	LAR_ZOO-7B-4	Matrix Spike	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	150.3	mg/L		EPA 300.0	0.05	RL		Physis	MS1
7B	LAR_ZOO	LAR_ZOO-7B-4	Matrix Spike Replicate	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	140.0	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7B	LAR_ZOO	LAR_ZOO-7B-4	Matrix Spike Replicate	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	149.5	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7B	LAR_ZOO	LAR_ZOO-7B-4	Project Sample Replicate	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	115.4	mg/L		EPA 300.0	0.05	RL		Physis	R2
7B	LAR_ZOO	LAR_ZOO-7B-4	Project Sample Replicate	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	127.6	mg/L		EPA 300.0	0.05	RL		Physis	R2
7B		Lab Water-7B-5	Project Sample	Blank Water	Dry	8/16/2012	Total Suspended Solids	NA	<	5	mg/L		SM 2540 D	5	RL	ND	Physis	R1
7B		Lab Water-7B-4	Project Sample	Blank Water	Dry	8/16/2012	Sulfate	NA	=	170.1	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B		Lab Water-7B-4	Project Sample	Blank Water	Dry	8/16/2012	Chloride by IC	NA	=	4.6	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B		Lab Water-7B-3	Project Sample	Blank Water	Dry	8/16/2012	Magnesium (Mg)	NA	=	27.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
7B		Lab Water-7B-3	Project Sample	Blank Water	Dry	8/16/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R1
7B		Lab Water-7B-3	Project Sample	Blank Water	Dry	8/16/2012	Calcium (Ca)	NA	=	31.3	mg/L		EPA 200.8	0.1	RL		Physis	R1
7B		Lab Water-7B-3	Project Sample	Blank Water	Dry	8/16/2012	Sodium (Na)	NA	=	65.4	mg/L		EPA 200.8	10	RL		Physis	R1
7B		Lab Water-7B-2	Project Sample	Blank Water	Dry	8/16/2012	Dissolved Inorganic Carbon	NA	=	37.0	mg/L		EPA 415.3	4	RL		SunStar	
7B		Lab Water-7B-2	Project Sample	Blank Water	Dry	8/16/2012	Dissolved Organic Carbon	NA	=	1.0	mg/L		EPA 415.3	0.5	RL		SunStar	
7B		Lab Water-7B-1	Project Sample	Blank Water	Dry	8/16/2012	Total Organic Carbon	NA	=	0.9	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	DUPREE	DUPREE-7B-5	Field Duplicate	Receiving Water	Dry	8/15/2012	Total Suspended Solids	NA	=	13.8	mg/L		SM 2540 D	5	RL		Physis	R1
7B	DUPREE	DUPREE-7B-4	Field Duplicate	Receiving Water	Dry	8/15/2012	Chloride by IC	NA	=	113.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B	DUPREE	DUPREE-7B-4	Field Duplicate	Receiving Water	Dry	8/15/2012	Sulfate	NA	=	125.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
7B	DUPREE	DUPREE-7B-3	Field Duplicate	Receiving Water	Dry	8/15/2012	Magnesium (Mg)	NA	=	18.8	mg/L		EPA 200.8	0.1	RL		Physis	R1
7B	DUPREE	DUPREE-7B-3	Field Duplicate	Receiving Water	Dry	8/15/2012	Potassium (K)	NA	=	13.2	mg/L		EPA 200.8	10	RL		Physis	R1
7B	DUPREE	DUPREE-7B-3	Field Duplicate	Receiving Water	Dry	8/15/2012	Sodium (Na)	NA	=	108.5	mg/L		EPA 200.8	10	RL		Physis	R1
7B	DUPREE	DUPREE-7B-3	Field Duplicate	Receiving Water	Dry	8/15/2012	Calcium (Ca)	NA	=	52.2	mg/L		EPA 200.8	0.1	RL		Physis	R1
7B	DUPREE	DUPREE-7B-2=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	8/15/2012	Dissolved Inorganic Carbon	NA	=	34.0	mg/L		EPA 415.3	4	RL		SunStar	
7B	DUPREE	DUPREE-7B-2=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	8/15/2012	Dissolved Organic Carbon	NA	=	8.8	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	DUPREE	DUPREE-7B-1=0,6,12,18,24	Field Duplicate	Receiving Water	Dry	8/15/2012	Total Organic Carbon	NA	=	10.0	mg/L		EPA 415.3	0.5	RL		SunStar	
7B	DUPREE	DUPREE-7B=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	8/15/2012	Copper (Cu)	Total	=	8.4	µg/L		EPA 200.8	0.25	RL		Physis	R1
7B	DUPREE	DUPREE-7B=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	8/15/2012	Total Hardness as CaCO3	NA	=	216.7	mg/L		SM 2340 B	0.5	RL		Physis	R1
7B	DUPREE	DUPREE-7B=0,6,12,18,24(dis)	Field Duplicate	Receiving Water	Dry	8/15/2012	Copper (Cu)	Dissolved	=	8.0	µg/L		EPA 200.8	0.25	RL		Physis	R1
7B		2081703-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Organic Carbon	NA	=	12.2	mg/L		EPA 415.3	0.5	RL		SunStar	
7B		2081703-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7B	DUPREE	2081702-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	9.9	mg/L		EPA 415.3	0.5	RL		SunStar	

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
7B		2081702-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7C	TAHOE	TAHOE-7C-4	Field Blank	Blank Water	Dry	8/22/2012	Chloride by IC	NA	<	0.25	mg/L		EPA 300.0	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-4	Field Blank	Blank Water	Dry	8/22/2012	Sulfate	NA	<	0.25	mg/L		EPA 300.0	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-3	Field Blank	Blank Water	Dry	8/22/2012	Calcium (Ca)	NA	<	0.25	mg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-3	Field Blank	Blank Water	Dry	8/22/2012	Magnesium (Mg)	NA	<	0.25	mg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-3	Field Blank	Blank Water	Dry	8/22/2012	Potassium (K)	NA	<	0.25	mg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-3	Field Blank	Blank Water	Dry	8/22/2012	Sodium (Na)	NA	<	0.25	mg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C-3	Project Sample Replicate	Blank Water	Dry	8/22/2012	Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
7C	TAHOE	TAHOE-7C-3	Project Sample Replicate	Blank Water	Dry	8/22/2012	Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	R2
7C	TAHOE	TAHOE-7C-3	Project Sample Replicate	Blank Water	Dry	8/22/2012	Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
7C	TAHOE	TAHOE-7C-3	Project Sample Replicate	Blank Water	Dry	8/22/2012	Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	R2
7C	TAHOE	TAHOE-7C-2-1	Trip Blank	Blank Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	0.3	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	TAHOE	TAHOE-7C-2	Field Blank	Blank Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	<	4	mg/L		EPA 415.3	4	RL	ND	SunStar	
7C	TAHOE	TAHOE-7C-2	Field Blank	Blank Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	0.3	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	TAHOE	TAHOE-7C-1-1	Trip Blank	Blank Water	Dry	8/22/2012	Total Organic Carbon	NA	=	0.3	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	TAHOE	TAHOE-7C-1	Field Blank	Blank Water	Dry	8/22/2012	Total Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	8/22/2012	Copper (Cu)	Total	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Field Blank	Blank Water	Dry	8/22/2012	Total Hardness as CaCO3	NA	<	0.25	mg/L		SM 2340 B	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Matrix Spike	Blank Water	Dry	8/22/2012	Copper (Cu)	Total	=	100.8	µg/L		EPA 200.8	0.25	RL		Physis	MS1
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Matrix Spike Replicate	Blank Water	Dry	8/22/2012	Copper (Cu)	Total	=	103.2	µg/L		EPA 200.8	0.25	RL		Physis	MS2
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Project Sample Replicate	Blank Water	Dry	8/22/2012	Copper (Cu)	Total	=	0.1	µg/L		EPA 200.8	0.25	RL		Physis	R2
7C	TAHOE	TAHOE-7C=0,6,12,18,24(tot)	Project Sample Replicate	Blank Water	Dry	8/22/2012	Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	R2
7C	TAHOE	TAHOE-7C=0,6,12,18,24(dis)	Field Blank	Blank Water	Dry	8/22/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R1
7C	TAHOE	TAHOE-7C=0,6,12,18,24(dis)	Matrix Spike	Blank Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	100.7	µg/L		EPA 200.8	0.25	RL		Physis	MS1
7C	TAHOE	TAHOE-7C=0,6,12,18,24(dis)	Matrix Spike Replicate	Blank Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	98.8	µg/L		EPA 200.8	0.25	RL		Physis	MS2
7C	TAHOE	TAHOE-7C=0,6,12,18,24(dis)	Project Sample Replicate	Blank Water	Dry	8/22/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	R2
7C		Blank Spike	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.1	µg/L		EPA 200.8	0.1	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.5	µg/L		EPA 200.8	0.1	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.6	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	989.6	µg/L		EPA 200.8	0.25	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Potassium (K)	NA	=	19.7	µg/L		EPA 200.8	10	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.2	µg/L		EPA 200.8	10	RL		Physis	BS1
7C		Blank Spike	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS1
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Calcium (Ca)	NA	=	19.6	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	=	19.8	µg/L		EPA 200.8	0.1	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Chloride by IC	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Copper (Cu)	Total	=	989.3	µg/L		EPA 200.8	0.25	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Potassium (K)	NA	=	20.1	µg/L		EPA 200.8	10	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sodium (Na)	NA	=	20.3	µg/L		EPA 200.8	10	RL		Physis	BS2
7C		Blank Spike Replicate	QAQC	Blank Water	Dry		Sulfate	NA	=	0.5	mg/L		EPA 300.0	0.05	RL		Physis	BS2
7C		Method Blank	QAQC	Blank Water	Dry		Calcium (Ca)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Magnesium (Mg)	NA	<	0.1	mg/L		EPA 200.8	0.1	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Chloride by IC	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Potassium (K)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Sodium (Na)	NA	<	10	mg/L		EPA 200.8	10	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Sulfate	NA	<	0.05	mg/L		EPA 300.0	0.05	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Total Hardness as CaCO3	NA	<	0.5	mg/L		SM 2340 B	0.5	RL	ND	Physis	B1
7C		Method Blank	QAQC	Blank Water	Dry		Total Suspended Solids	NA	<	1	mg/L		SM 2540 D	1	RL	ND	Physis	B1
7C	LAR_WASH	LAR_WASH-7C-4	Matrix Spike	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	149.5	mg/L		EPA 300.0	0.05	RL		Physis	MS1

Event #	ProjectSiteID	SampleID	SampleType	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab	DataType
7C	LAR_WASH	LAR_WASH-7C-4	Matrix Spike	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	159.7	mg/L		EPA 300.0	0.05	RL		Physis	MS1
7C	LAR_WASH	LAR_WASH-7C-4	Matrix Spike Replicate	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	143.8	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7C	LAR_WASH	LAR_WASH-7C-4	Matrix Spike Replicate	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	158.3	mg/L		EPA 300.0	0.05	RL		Physis	MS2
7C	LAR_WASH	LAR_WASH-7C-4	Project Sample Replicate	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	117.7	mg/L		EPA 300.0	0.05	RL		Physis	R2
7C	LAR_WASH	LAR_WASH-7C-4	Project Sample Replicate	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	139.9	mg/L		EPA 300.0	0.05	RL		Physis	R2
7C		Lab Water-7C-5	Project Sample	Blank Water	Dry	8/23/2012	Total Suspended Solids	NA	<	1	mg/L		SM 2540 D	1	RL	ND	Physis	R1
7C		Lab Water-7C-4	Project Sample	Blank Water	Dry	8/23/2012	Sulfate	NA	=	178.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
7C		Lab Water-7C-4	Project Sample	Blank Water	Dry	8/23/2012	Chloride by IC	NA	=	5.0	mg/L		EPA 300.0	0.05	RL		Physis	R1
7C		Lab Water-7C-3	Project Sample	Blank Water	Dry	8/23/2012	Magnesium (Mg)	Total	=	28.9	mg/L		EPA 200.8	0.1	RL		Physis	R1
7C		Lab Water-7C-3	Project Sample	Blank Water	Dry	8/23/2012	Potassium (K)	Total	=	5.1	mg/L		EPA 200.8	10	RL		Physis	R1
7C		Lab Water-7C-3	Project Sample	Blank Water	Dry	8/23/2012	Sodium (Na)	Total	=	68.0	mg/L		EPA 200.8	10	RL		Physis	R1
7C		Lab Water-7C-3	Project Sample	Blank Water	Dry	8/23/2012	Calcium (Ca)	Total	=	34.1	mg/L		EPA 200.8	0.1	RL		Physis	R1
7C		Lab Water-7C-2	Project Sample	Blank Water	Dry	8/23/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		EPA 415.3	4	RL		SunStar	
7C		Lab Water-7C-2	Project Sample	Blank Water	Dry	8/23/2012	Dissolved Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
7C		Lab Water-7C-1	Project Sample	Blank Water	Dry	8/23/2012	Total Organic Carbon	NA	=	0.5	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	DUPREE	DUPREE-7C-5	Field Duplicate	Receiving Water	Dry	8/22/2012	Total Suspended Solids	NA	=	20.3	mg/L		SM 2540 D	1	RL		Physis	R1
7C	DUPREE	DUPREE-7C-4	Field Duplicate	Receiving Water	Dry	8/22/2012	Chloride by IC	NA	=	115.4	mg/L		EPA 300.0	0.05	RL		Physis	R1
7C	DUPREE	DUPREE-7C-4	Field Duplicate	Receiving Water	Dry	8/22/2012	Sulfate	NA	=	135.7	mg/L		EPA 300.0	0.05	RL		Physis	R1
7C	DUPREE	DUPREE-7C-3	Field Duplicate	Receiving Water	Dry	8/22/2012	Calcium (Ca)	NA	=	60.4	mg/L		EPA 200.8	0.1	RL		Physis	R1
7C	DUPREE	DUPREE-7C-3	Field Duplicate	Receiving Water	Dry	8/22/2012	Magnesium (Mg)	NA	=	22.0	mg/L		EPA 200.8	0.1	RL		Physis	R1
7C	DUPREE	DUPREE-7C-3	Field Duplicate	Receiving Water	Dry	8/22/2012	Potassium (K)	NA	=	13.1	mg/L		EPA 200.8	10	RL		Physis	R1
7C	DUPREE	DUPREE-7C-3	Field Duplicate	Receiving Water	Dry	8/22/2012	Sodium (Na)	NA	=	113.6	mg/L		EPA 200.8	10	RL		Physis	R1
7C	DUPREE	DUPREE-7C-2	Field Duplicate	Receiving Water	Dry	8/22/2012	Dissolved Inorganic Carbon	NA	=	33.0	mg/L		EPA 415.3	4	RL		SunStar	
7C	DUPREE	DUPREE-7C-2	Field Duplicate	Receiving Water	Dry	8/22/2012	Dissolved Organic Carbon	NA	=	9.0	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	DUPREE	DUPREE-7C-1	Field Duplicate	Receiving Water	Dry	8/22/2012	Total Organic Carbon	NA	=	8.6	mg/L		EPA 415.3	0.5	RL		SunStar	
7C	DUPREE	DUPREE-7C=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	8/22/2012	Copper (Cu)	Total	=	5.8	µg/L		EPA 200.8	0.25	RL		Physis	R1
7C	DUPREE	DUPREE-7C=0,6,12,18,24(tot)	Field Duplicate	Receiving Water	Dry	8/22/2012	Total Hardness as CaCO3	NA	=	234.8	mg/L		SM 2340 B	0.5	RL		Physis	R1
7C	DUPREE	DUPREE-7C=0,6,12,18,24(dis)	Field Duplicate	Receiving Water	Dry	8/22/2012	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis	R1
7C		2082333-DUP1	Project Sample Replicate	Receiving Water	Dry		Dissolved Organic Carbon	NA	=	1.2	mg/L		EPA 415.3	0.5	RL		SunStar	
7C		2082333-BLK1	Method Blank	Blank Water	Dry		Dissolved Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	
7C		2082329-DUP1	Project Sample Replicate	Receiving Water	Dry		Total Organic Carbon	NA	=	0.4	mg/L		EPA 415.3	0.5	RL		SunStar	
7C		2082329-BLK1	Method Blank	Blank Water	Dry		Total Organic Carbon	NA	<	0.5	mg/L		EPA 415.3	0.5	RL	ND	SunStar	

Lab Qualifiers (identified in LabQual column) for Analytical Labs (identified in AnalyzingLab column)	
Lab Qualifiers for CAS	
ND	Constituent not detected at the indicated RL.
Lab Qualifiers for Physis	
J	Constituent detected at a concentration below the RL and above the MDL, reported value is estimated.
ND	Constituent not detected at the indicated RL.
Lab Qualifiers for SunStar	
ND	Constituent not detected at the indicated RL.

Detection Limit Type (identified in DetectLimit column)	
RL	Reporting Limit

Appendix 4

Copper Spiking Data

Appendix 4 - Copper Spiking Data

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-0-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	12.8	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	12.42	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-168-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	154.78	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	151.68	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-240-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	199.65	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	205.45	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-343-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	270.75	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	277.03	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-490-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	367.32	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuDis-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	339.1	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuTot-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	12.8	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuTot-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	158.14	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuTot-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	226.18	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuTot-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	332.6	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_AT_LAR	BWC_AT_LAR-1A-CuTot-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	467.22	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-0-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	8.46	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	8.03	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-168-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	140.18	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	153.47	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-240-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	206.24	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	217.91	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-343-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	293.45	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	320.15	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-490-Tf	Receiving Water	Dry	4/22/2011	Copper (Cu)	Dissolved	=	430.86	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuDis-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	441.69	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuTot-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	8.42	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuTot-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	153.72	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuTot-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	210.47	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuTot-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	301.49	µg/L		EPA 200.8	0.25	RL		Physis
1A	BWC_UP_BWRP	BWC_UP_BWRP-1A-CuTot-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	443.44	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-0-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	6.21	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	5.52	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-118-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	104.21	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-118-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	98.37	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-168-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	144.62	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	137.7	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-240-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	205.47	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	191.22	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-343-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	307.71	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuDis-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	277.76	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuTot-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	5.71	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuTot-118-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	104.23	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuTot-168-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	144.39	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuTot-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	209.15	µg/L		EPA 200.8	0.25	RL		Physis
1A	LAR_UP_BWC	LAR_UP_BWC-1A-CuTot-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	306.78	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-0-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	0.38	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-0-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1A	Lab Water	LW1A-CuDis-13.4-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	11.16	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-13.4-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	11.15	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-19.2-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	15.83	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-19.2-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	17.19	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-24.0-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	21.03	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-24.0-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	20.7	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1A	Lab Water	LW1A-CuDis-6.6-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	5.29	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-6.6-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	5.5	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-9.4-Tf	Lab Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	7.66	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuDis-9.4-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	7.33	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuTot-0-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1A	Lab Water	LW1A-CuTot-13.4-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	=	11.3	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuTot-19.2-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	=	16.33	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuTot-24.0-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	=	20.81	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuTot-6.6-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	=	5.72	µg/L		EPA 200.8	0.25	RL		Physis
1A	Lab Water	LW1A-CuTot-9.4-Ti	Lab Water	Dry	4/21/2011	Copper (Cu)	Total	=	7.71	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-0-Tf	Receiving Water	Dry	4/22/2011	Copper (Cu)	Dissolved	=	12.31	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	11.26	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-240-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	245.09	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	217.03	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-343-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	359.29	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	322.79	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-490-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	506.29	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	441.28	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-700-Tf	Receiving Water	Dry	4/23/2011	Copper (Cu)	Dissolved	=	709.81	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-700-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	893.39	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuDis-700-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Dissolved	=	676.63	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuTot-0-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	11.41	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuTot-240-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	223.49	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuTot-343-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	328.88	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuTot-490-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	463.66	µg/L		EPA 200.8	0.25	RL		Physis
1A	TW_AT_LAR	TW_AT_LAR-1A-CuTot-700-Ti	Receiving Water	Dry	4/21/2011	Copper (Cu)	Total	=	642.76	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-0-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	10.7	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	10.44	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-168-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	153.97	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	155.88	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-240-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	216.16	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	209.86	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-343-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	300.5	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	297.95	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-490-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	417.74	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuDis-490-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	388.43	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuTot-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	10.45	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuTot-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	155.49	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuTot-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	213.9	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuTot-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	302.03	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_CO	LAR_CO-1B-CuTot-490-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	429.2	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-0-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	8.88	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	8.27	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-168-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	149.08	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	150.47	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-240-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	216.2	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	207.41	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-343-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	309.84	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuDis-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	307.77	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuTot-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	8.8	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuTot-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	156.06	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuTot-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	215.61	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_FIG	LAR_FIG-1B-CuTot-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	323.57	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-0-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	8.63	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	8.59	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-168-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	157.28	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	159.19	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-240-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	227.8	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	222.54	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-343-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	309.78	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuDis-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	309.8	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuTot-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	8.73	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuTot-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	165.58	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuTot-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	233.22	µg/L		EPA 200.8	0.25	RL		Physis
1B	LAR_ZOO	LAR_ZOO-1B-CuTot-343-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	326.32	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-0-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	0.22	µg/L		EPA 200.8	0.25	RL	J	Physis
1B	Lab Water	LW1B-CuDis-0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	0.058	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-13.4-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	12.08	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-13.4-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	12.05	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-19.2-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	16.88	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-19.2-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	17.1	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-24.0-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	23.01	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-24.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	21.23	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-30.0-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	27.54	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-30.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	25.99	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-40.0-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	36.22	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-40.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	35.53	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-6.6-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	5.29	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-6.6-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	5.08	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-9.4-Tf	Lab Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	7.71	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuDis-9.4-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	7.71	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	0.19	µg/L		EPA 200.8	0.25	RL	J	Physis
1B	Lab Water	LW1B-CuTot-13.4-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	12.18	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-19.2-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	17.56	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-24.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	21.72	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-30.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	26.52	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-40.0-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	36.3	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-6.6-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	5.38	µg/L		EPA 200.8	0.25	RL		Physis
1B	Lab Water	LW1B-CuTot-9.4-Ti	Lab Water	Dry	3/17/2011	Copper (Cu)	Total	=	7.79	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDis-0-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	6.64	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDis-118-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	95.22	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDis-168-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	130.04	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDis-240-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	202.28	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDis-82-Tf	Receiving Water	Dry	3/19/2011	Copper (Cu)	Dissolved	=	67.66	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDiss-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	6.69	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDiss-118-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	100.34	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDiss-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	135.25	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDiss-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	194.07	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuDiss-82-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Dissolved	=	72.36	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuTot-0-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	7.53	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuTot-118-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	108.09	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuTot-168-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	145.73	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuTot-240-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	199.36	µg/L		EPA 200.8	0.25	RL		Physis
1B	VD_AT_LAR	VD_AT_LAR-1B-CuTot-82-Ti	Receiving Water	Dry	3/17/2011	Copper (Cu)	Total	=	79.19	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	2.54	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	2.22	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	89.4	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	99.43	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-168-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	130.51	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	139.63	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-58-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	45.09	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-58-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	47.93	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-82-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	67.9	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuDis-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	70.49	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuTot-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	2.74	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuTot-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	107.37	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuTot-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	153.8	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuTot-58-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	51.57	µg/L		EPA 200.8	0.25	RL		Physis
1C	AS_AT_LAR	AS_AT_LAR-1C-CuTot-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	76.67	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	4.1	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	3.46	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	86.28	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	93.95	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-168-Tf	Receiving Water	Dry	2/3/2012	Copper (Cu)	Dissolved	=	121.18	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	125.72	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-58-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	47.43	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-58-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	48.64	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-82-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	64.37	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuDis-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	68.35	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuTot-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	4.72	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuTot-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	105.07	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuTot-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	149.13	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuTot-58-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	53.82	µg/L		EPA 200.8	0.25	RL		Physis
1C	CC_AT_LAR	CC_AT_LAR-1C-CuTot-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	75.72	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuDis-0-Ti	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	5.49	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuDis-118-Ti	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	101.89	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuDis-168-Ti	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	144.03	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuDis-240-Ti	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	203.73	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuDis-343-Ti	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	292.18	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	5.91	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	6	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	99.36	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	108.72	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-168-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	141.18	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	153.94	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-240-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	188.6	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-240-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	219.7	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-343-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	278.6	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_DEL	LAR_DEL_-1C-CuTot-343-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	294.91	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	7.53	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	5.73	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	106.53	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	102.06	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-168-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	142.83	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	143.1	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-240-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	214.07	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-240-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	210.85	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-343-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	296.67	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-343-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	285.57	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-490-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	447.25	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-490-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	389.93	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-82-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	78.93	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuDis-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	72.88	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	6.06	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	109.4	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1C	LAR_WARD	LAR_WARD-1C-CuTot-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	153.16	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-240-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	226.13	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-343-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	313.94	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-490-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	449.27	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WARD	LAR_WARD-1C-CuTot-82-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	78.59	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	6.07	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-0-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	5.4	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	103.04	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-118-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	105.39	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-168-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	141.14	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-168-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	145.45	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-240-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	210.08	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-240-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	212.78	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-343-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	291.03	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuDis-343-Tf	Receiving Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	301.45	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuTot-0-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	6.05	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuTot-118-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	110.25	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuTot-168-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	152.34	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuTot-240-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	225.82	µg/L		EPA 200.8	0.25	RL		Physis
1C	LAR_WASH	LAR_WASH-1C-CuTot-343-Ti	Receiving Water	Dry	2/2/2012	Copper (Cu)	Total	=	313.82	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-0-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuDis-0-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuDis-0-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuDis-0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuDis-11.0-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	8.26	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-11.0-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	11.61	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-11.0-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	9.3	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-11.0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	9.94	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-13.7-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	11.31	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-13.7-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	12.93	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-13.7-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	12.05	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-13.7-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	12.69	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-19.6-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	17.31	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-19.6-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	18.85	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-19.6-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	17.73	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-19.6-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	18.24	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-28.0-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	27.63	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-28.0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	26.22	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-40.0-0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	38.18	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-40.0-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	42.56	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-7.1-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	6.05	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-7.1-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	6.15	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-8.9-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	7.06	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-8.9-Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	7.99	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-8.9-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	7.73	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-8.9-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	8.03	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-9.9- Tf	Lab Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	9.03	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-9.9-Tf	Lab Water	Dry	2/4/2012	Copper (Cu)	Dissolved	=	7.4	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-9.9-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Dissolved	=	8.14	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuDis-9.9-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	9.01	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-0-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuTot-0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
1C	Lab Water	LW1C-CuTot-11.0-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	8.93	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-11.0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	9.86	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-13.7-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	11.93	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1C	Lab Water	LW1C-CuTot-13.7-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	12.82	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-19.6-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	17.2	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-19.6-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	18.21	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-28.0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	26.34	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-40.0-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	38.24	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-7.1-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	6.19	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-8.9-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	7.55	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-8.9-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	7.84	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-9.9-Ti	Lab Water	Dry	2/2/2012	Copper (Cu)	Total	=	7.8	µg/L		EPA 200.8	0.25	RL		Physis
1C	Lab Water	LW1C-CuTot-9.9-Ti	Lab Water	Dry	3/1/2012	Copper (Cu)	Total	=	8.97	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-0-Tf	Receiving Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	36.76	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-0-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	38.88	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-1000-Tf	Receiving Water	Dry	3/2/2012	Copper (Cu)	Dissolved	=	917.04	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-1000-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	907.39	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-343-Tf	Receiving Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	350.29	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-343-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	338.77	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-490-Tf	Receiving Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	487.24	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-490-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	466.54	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-700-Tf	Receiving Water	Dry	3/3/2012	Copper (Cu)	Dissolved	=	689.3	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuDis-700-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Dissolved	=	651.6	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuTot-0-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Total	=	40.86	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuTot-1000-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Total	=	965.13	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuTot-343-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Total	=	363.95	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuTot-490-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Total	=	499.24	µg/L		EPA 200.8	0.25	RL		Physis
1C	RH_AT_LAR	RH_AT_LAR-1C-CuTot-700-Ti	Receiving Water	Dry	3/1/2012	Copper (Cu)	Total	=	698.22	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	4.91	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	5.63	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	103.77	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	123.56	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-343-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	147.08	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	175.91	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-490-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	219.68	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-490-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	254.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-700-Tf	Receiving Water	Wet	11/14/2011	copper (Cu)	Dissolved	=	337.37	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuDis-700-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	359.7	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	9.75	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	217.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuTot-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	321.96	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuTot-490-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	461.54	µg/L		EPA 200.8	0.25	RL		Physis
1W	AS_AT_LAR	AS_AT_LAR-1W-CuTot-700-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	634.22	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	19.47	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	19.59	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	106.96	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	114.86	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	144.28	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	153.52	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	190.38	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	214.34	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-343-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	267.15	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuDis-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	299.53	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	23.28	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuTot-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	132.48	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	176.63	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	248.32	µg/L		EPA 200.8	0.25	RL		Physis
1W	BWC_AT_RIV	BWC_AT_RIV-1W-CuTot-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	342.16	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	13.16	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	13.78	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	80.61	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	94.43	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	110.32	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	127.46	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	152.9	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	181.03	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-82-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	59.15	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuDis-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	71.71	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuTo-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	20.12	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuTo-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	125.15	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuTo-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	169.35	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuTo-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	238.93	µg/L		EPA 200.8	0.25	RL		Physis
1W	CC_AT_DEL	CC_AT_DEL-1W-CuTo-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	93.22	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	10.25	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	10.53	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	81.2	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	101.03	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	108.84	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	135.55	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-343-Tf	Receiving Water	Wet	11/14/2011	copper (Cu)	Dissolved	=	153.55	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuDis-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	185.43	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	24.82	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	175.92	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	250.65	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_DEL	LAR_DEL-1W-CuTot-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	333.34	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	7.97	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	7.71	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	81.9	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	97.86	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	117.62	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	137.46	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-343-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	159.55	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuDis-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	189.56	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	21.34	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	161.55	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	222.25	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_FIG	LAR_FIG-1W-CuTot-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	324.38	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	10.73	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	9.98	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	66.8	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	80.59	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	89.68	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	108.97	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	119.99	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	148.67	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-343-Tf	Receiving Water	Wet	11/14/2011	copper (Cu)	Dissolved	=	177.46	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	209.67	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-82-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	49.81	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuDis-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	60.22	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	25.11	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	127.14	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	172.84	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	246.71	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-343-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	338.3	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_TUJ_AV	LAR_TUJ_AV-1W-CuTot-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	97.38	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	13.65	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	14.11	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	74.07	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	87.13	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	98.57	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	117.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	132.35	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	160.14	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	29.63	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuTot-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	136.34	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	179.19	µg/L		EPA 200.8	0.25	RL		Physis
1W	LAR_WARD	LAR_WARD-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	245.72	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-0-Tf	Lab Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	0.1	µg/L		EPA 200.8	0.25	RL	J	Physis
1W	Lab Water	LW1W-CuDis-0-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
1W	Lab Water	LW1W-CuDis-1.6-Tf	Lab Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	1.49	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-1.6-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	1.45	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-2.4-Tf	Lab Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	1.72	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-2.4-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	1.94	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-3.4-Tf	Lab Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	2.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuDis-3.4-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	2.89	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuTot-0-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Total	=	0.08	µg/L		EPA 200.8	0.25	RL	J	Physis
1W	Lab Water	LW1W-CuTot-1.6-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Total	=	1.65	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuTot-2.4-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Total	=	2.07	µg/L		EPA 200.8	0.25	RL		Physis
1W	Lab Water	LW1W-CuTot-3.4-Ti	Lab Water	Wet	11/13/2011	copper (Cu)	Total	=	2.93	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	14.5	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	15.41	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	92.82	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	104.61	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	126.34	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	141.68	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-58-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	52.67	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-58-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	59.79	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-82-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	70.44	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuDis-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	77.14	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuTo-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	21.86	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuTo-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	130.69	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuTo-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	177.19	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuTo-58-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	75.61	µg/L		EPA 200.8	0.25	RL		Physis
1W	RH_AT_LAR	RH_AT_LAR-1W-CuTo-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	98.95	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	14.72	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	14.8	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	79.6	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	99.04	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	107.69	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	132.57	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-58-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	48.58	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-58-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	56.45	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-82-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	61.71	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuDis-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	75.33	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	25.76	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuTot-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	133.26	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	177.18	µg/L		EPA 200.8	0.25	RL		Physis
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuTot-58-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	75.79	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
1W	TW_AT_MOOR	TW_AT_MOOR-1W-CuTot-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	100.79	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-0-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	6.42	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	6.84	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-118-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	65.36	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	83.1	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-168-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	91.49	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	114.79	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-240-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	133.9	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	161.48	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-82-Tf	Receiving Water	Wet	11/15/2011	copper (Cu)	Dissolved	=	49.06	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuDis-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Dissolved	=	59.77	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuTot-0-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	11.36	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuTot-118-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	122.37	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuTot-168-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	164.45	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuTot-240-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	230.9	µg/L		EPA 200.8	0.25	RL		Physis
1W	VERD_AT_KEN	VERD_AT_KEN-1W-CuTot-82-Ti	Receiving Water	Wet	11/13/2011	copper (Cu)	Total	=	85.58	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-0-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	17.07	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	15.31	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-240-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	210.26	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	213.26	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-343-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	273.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	281.79	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-490-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	371.89	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuDis-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	364.01	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuTot-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	16.99	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuTot-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	231.72	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuTot-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	341.83	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_AT_LAR	BWC_AT_LAR-2A-CuTot-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	486.24	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-0-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	13.23	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	11.67	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-240-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	203.27	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	202.69	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-343-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	303.39	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	291.45	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-490-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	448.11	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuDis-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	426.12	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuTot-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	13.37	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuTot-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	221.54	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuTot-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	320.99	µg/L		EPA 200.8	0.25	RL		Physis
2A	BWC_UP_BWRP	BWC_UP_BWRP-2A-CuTot-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	457.05	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-0-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	7.06	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	6.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-168-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	143.42	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-168-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	150.36	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-240-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	202.74	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	209.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-343-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	290.21	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuDis-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	291.99	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuTot-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	6.9	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuTot-168-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	156.37	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuTot-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	219.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_UP_BWC	LAR_UP_BWC-2A-CuTot-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	319.2	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-0-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	7.37	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	7.13	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-168-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	131.48	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-168-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	137.04	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-240-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	197.08	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	201.95	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-343-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	280.93	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuDis-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	286.42	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuTot-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	7.81	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuTot-168-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	160.52	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuTot-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	230.23	µg/L		EPA 200.8	0.25	RL		Physis
2A	LAR_ZOO	LAR_ZOO-2A-CuTot-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	323.03	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuDis-0-Tf	Lab Water	Dry	6/11/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2A	Lab Water	LW2A-CuDis-13.4-Tf	Lab Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	9.53	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuDis-4.6-Tf	Lab Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	4.22	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuDis-6.6-Tf	Lab Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	3.84	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuDis-9.4-Tf	Lab Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	6.27	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuTot-0-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2A	Lab Water	LW2A-CuTot-13.4-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Total	=	11.05	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuTot-4.6-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Total	=	4.03	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuTot-6.6-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Total	=	5.05	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LW2A-CuTot-9.4-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Total	=	7.47	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LWA2A-CuDis-0-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2A	Lab Water	LWA2A-CuDis-13.4-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	11.04	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LWA2A-CuDis-4.6-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	4.15	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LWA2A-CuDis-6.6-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	5.03	µg/L		EPA 200.8	0.25	RL		Physis
2A	Lab Water	LWA2A-CuDis-9.4-Ti	Lab Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	7.59	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TW_AT_LAR-2A-CuDis-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	8.37	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TW_AT_LAR-2A-CuDis-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	215.07	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TW_AT_LAR-2A-CuDis-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	318.07	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TW_AT_LAR-2A-CuDis-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Dissolved	=	428.89	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuDis-0-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	9.44	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuDis-240-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	222.81	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuDis-343-Tf	Receiving Water	Dry	6/11/2011	Copper (Cu)	Dissolved	=	321.09	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuDis-490-Tf	Receiving Water	Dry	6/10/2011	Copper (Cu)	Dissolved	=	433.78	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuTot-0-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	8.7	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuTot-240-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	229.17	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuTot-343-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	331.91	µg/L		EPA 200.8	0.25	RL		Physis
2A	TW_AT_LAR	TWA_AT_LAR-2A-CuTot-490-Ti	Receiving Water	Dry	6/9/2011	Copper (Cu)	Total	=	456.49	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-0-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	1.4	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	1.18	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-118-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	100.04	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	100.74	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-168-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	143.39	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	133.91	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-240-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	208.13	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	204.45	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-82-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	74.7	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuDis-82-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	72.33	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuTot-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	1.45	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuTot-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	108.47	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuTot-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	148.97	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuTot-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	216.91	µg/L		EPA 200.8	0.25	RL		Physis
2B	CC_AT_LAR	CC_AT_LAR-2B-CuTot-82-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	77.57	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO_2B-CuTot-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	7.81	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO_2B-CuTot-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	113.94	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO_2B-CuTot-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	157.17	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO_2B-CuTot-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	230.63	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2B	LAR_CO	LAR_CO-2B-CuDis-0-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	5.22	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	4.6	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-118-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	86.36	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	97.46	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-168-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	116.77	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	134.47	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-240-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	172.48	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_CO	LAR_CO-2B-CuDis-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	197.04	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-0-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	4.44	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	4.16	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-118-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	94.82	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	102.16	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-168-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	128.3	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	138.95	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-240-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	183.75	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuDis-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	202.3	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuTot-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	5.72	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuTot-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	110.3	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuTot-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	156.54	µg/L		EPA 200.8	0.25	RL		Physis
2B	LAR_FIG	LAR_FIG-2B-CuTot-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	220.85	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-0-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
2B	Lab Water	LW2B-CuDis-0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2B	Lab Water	LW2B-CuDis-13.4-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	10.83	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-13.4-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	11.74	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-19.2-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	16.32	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-19.2-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	17.08	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-24.0-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	20.97	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-24.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	22.27	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-30.0-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	26.79	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-30.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	27.68	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-40.0-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	38.78	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-40.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	38.38	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-6.6-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	4.74	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-6.6-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	5.16	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-9.4-Tf	Lab Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	7.39	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuDis-9.4-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	7.87	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
2B	Lab Water	LW2B-CuTot-13.4-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	11.65	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-19.2-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	17.21	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-24.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	22.11	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-30.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	27.6	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-40.0-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	38.12	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-6.6-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	5.16	µg/L		EPA 200.8	0.25	RL		Physis
2B	Lab Water	LW2B-CuTot-9.4-Ti	Lab Water	Dry	6/16/2011	Copper (Cu)	Total	=	7.97	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-0-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	16.72	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	15.08	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-343-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	316.15	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-343-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	314.3	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-490-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	463.55	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-490-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	451.37	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-700-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	667.65	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuDis-700-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	640.26	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuTot-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	15.48	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuTot-343-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	322.66	µg/L		EPA 200.8	0.25	RL		Physis
2B	RH_AT_LAR	RH_AT_LAR-2B-CuTot-490-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	465.05	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2B	RH_AT_LAR	RH_AT_LAR-2B-CuTot-700-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	659.84	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-0-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	5.64	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	4.71	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-118-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	110.74	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	120.59	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-168-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	130.59	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	138.74	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-240-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	189.95	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	199.49	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-82-Tf	Receiving Water	Dry	6/18/2011	Copper (Cu)	Dissolved	=	65.66	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuDis-82-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Dissolved	=	70.11	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuTot-0-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	5.64	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuTot-118-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	132	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuTot-168-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	152.43	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuTot-240-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	219.31	µg/L		EPA 200.8	0.25	RL		Physis
2B	VD_AT_LAR	VD_AT_LAR-2B-CuTot-82-Ti	Receiving Water	Dry	6/16/2011	Copper (Cu)	Total	=	79.02	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-0-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	2.9	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	1.75	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDIS-1000-Tf	Receiving Water	Dry	7/15/2011	Copper (Cu)	Dissolved	=	364.16	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-118-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	28.37	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-118-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	67.94	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-168-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	42.54	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	91.46	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-240-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	80.05	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	130.2	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDIS-343-Tf	Receiving Water	Dry	7/15/2011	Copper (Cu)	Dissolved	=	107.99	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDIS-490-Tf	Receiving Water	Dry	7/15/2011	Copper (Cu)	Dissolved	=	158.08	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDIS-58-Tf	Receiving Water	Dry	7/15/2011	Copper (Cu)	Dissolved	=	17.28	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDIS-700-Tf	Receiving Water	Dry	7/15/2011	Copper (Cu)	Dissolved	=	250.33	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-82-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	22.57	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuDis-82-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	48.88	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuTot-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	4.51	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuTot-118-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	113.08	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuTot-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	156.41	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuTot-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	224.35	µg/L		EPA 200.8	0.25	RL		Physis
2C	AS_AT_LAR	AS_AT_LAR-2C-CuTot-82-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	79.97	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-0-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	5.77	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	4.32	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-168-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	131.18	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	144.18	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-240-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	184.16	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	206.08	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-343-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	258.72	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-343-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	284.89	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-490-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	366.05	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuDis-490-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	399.54	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuTot-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	5.59	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuTot-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	164.29	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuTot-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	236.09	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuTot-343-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	336.2	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_DEL	LAR_DEL-2C-CuTot-490-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	474.61	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-0-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	6.47	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	4.54	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-168-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Total	=	123.43	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	132.2	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2C	LAR_WARD	LAR_WARD-2C-CuDis-240-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	9.07	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	7.99	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-343-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	251.88	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-343-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	272.51	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-490-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	365.94	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuDis-490-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	385.19	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuTot-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	5.36	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuTot-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	155.4	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuTot-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	9.92	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuTot-343-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	337.83	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WARD	LAR_WARD-2C-CuTot-490-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	489.28	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDis-0-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	4.6	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDIS-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	3.89	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDis-168-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	125.5	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDIS-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	137.81	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDis-240-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	163.85	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDIS-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	189.36	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDis-343-Tf	Receiving Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	251.24	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuDIS-343-TI	Receiving Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	273.73	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuTot-0-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	5.22	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuTot-168-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	162.57	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuTot-240-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	230.67	µg/L		EPA 200.8	0.25	RL		Physis
2C	LAR_WASH	LAR_WASH-2C-CuTot-343-Ti	Receiving Water	Dry	7/14/2011	Copper (Cu)	Total	=	331.05	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-0-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	1.53	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2C	Lab Water	LW2C-CuDis-13.4-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	12.95	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-13.4-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	13.16	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-19.2-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	18.9	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-19.2-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	19.16	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-24.0-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	23.56	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-24.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	23.69	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-30.0-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	29.85	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-30.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	29.51	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-40.0-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	42.02	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-40.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	40.8	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-9.4-Tf	Lab Water	Dry	7/16/2011	Copper (Cu)	Dissolved	=	8.8	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuDis-9.4-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Dissolved	=	8.9	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	0.05	µg/L		EPA 200.8	0.25	RL	J	Physis
2C	Lab Water	LW2C-CuToT-13.4-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	12.78	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-19.2-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	18.9	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-24.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	23.81	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-30.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	29.22	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-40.0-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	40.55	µg/L		EPA 200.8	0.25	RL		Physis
2C	Lab Water	LW2C-CuToT-9.4-Ti	Lab Water	Dry	7/14/2011	Copper (Cu)	Total	=	8.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	6.95	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	7.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	53.81	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	68.19	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-168-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	75.41	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	94.72	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-240-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	100.88	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	127.97	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-343-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	149.41	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-343-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	181.44	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-490-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	202.53	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2W	AS_AT_LAR	AS_AT_LAR-2W-CuDis-490-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	278.57	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	17.56	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	119.06	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	161.94	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	229.1	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-343-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	335.86	µg/L		EPA 200.8	0.25	RL		Physis
2W	AS_AT_LAR	AS_AT_LAR-2W-CuTot-490-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	490.22	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	11.58	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	12.34	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	67.13	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	77.22	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-168-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	90.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	104.69	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-240-Tf	Receiving Water	Wet	12/15/2011	Copper (Cu)	Dissolved	=	129.37	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	148.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-82-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	50.44	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuDis-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	59.04	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	25.89	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	125.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuTot-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	160.87	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuTot-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	232.86	µg/L		EPA 200.8	0.25	RL		Physis
2W	BWC_AT_RIV	BWC_AT_RIV-2W-CuTot-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	96.12	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	10.11	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	9.86	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	74.88	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	83.3	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-168-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	99.55	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	112.84	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-82-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	55.77	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuDis-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	62.12	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	18.06	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	120.96	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuTot-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	164.64	µg/L		EPA 200.8	0.25	RL		Physis
2W	CC_AT_DEL	CC_AT_DEL-2W-CuTot-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	90.25	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL_2W-CuTot-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	42.27	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL_2W-CuTot-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	200.52	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL_2W-CuTot-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	281.28	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL_2W-CuTot-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	340.25	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-0-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	9.37	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	8.31	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-172-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	70.53	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	94.21	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-245-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	99.07	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	127.22	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-350-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	129.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_DEL	LAR_DEL-2W-CuDis-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	162.62	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuDis-0-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	9.1	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG2W-CuDis-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	6.91	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuDis-245-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	85.58	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG2W-CuDis-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	114.72	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuDis-350-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	121.22	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG2W-CuDis-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	159.02	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuDis-500-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	172.55	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG2W-CuDis-500-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	235.95	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuTot-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	36.54	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2W	LAR_FIG	LAR_FIG-2W-CuTot-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	281.49	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuTot-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	361.21	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_FIG	LAR_FIG-2W-CuTot-500-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	524.14	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-0-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	8.43	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	7.45	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-172-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	46.58	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	68.03	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-245-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	66.04	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	92.7	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-350-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	90.31	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	123.83	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-500-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	127.17	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuDis-500-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	175.36	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuTot-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	39.84	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuTot-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	194.01	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuTot-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	274.15	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuTot-350-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	349.48	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_TUJ_AV	LAR_TUJ_AV-2W-CuTot-500-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	508.2	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-0-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	10.84	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	9.67	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-120-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	62.18	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-120-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	75.81	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-172-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	82.17	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	102.71	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-245-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	117.29	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	144.97	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-84-Tf	Receiving Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	45.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR_WARD-2W-CuDis-84-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	55.68	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR-WARD-2W-CuTot-0-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	34.75	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR-WARD-2W-CuTot-120-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	145.11	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR-WARD-2W-CuTot-172-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	193.34	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR-WARD-2W-CuTot-245-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	267.32	µg/L		EPA 200.8	0.25	RL		Physis
2W	LAR_WARD	LAR-WARD-2W-CuTot-84-Ti	Receiving Water	Wet	1/23/2012	Copper (Cu)	Total	=	110.71	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-0.6-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	0.2	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuDis-0.6-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	0.51	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-0.8-Tf	Lab Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	0.72	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-0.8-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	0.07	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuDis-0.8-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	0.75	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-0.8-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	0.5	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-0-Tf	Lab Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	0.18	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuDis-0-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
2W	Lab Water	LW2W-CuDis-0-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	0.18	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuDis-0-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuDis-1.2-Tf	Lab Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	1.04	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.2-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	0.64	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.2-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	1.12	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.2-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	0.55	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.6-Tf	Lab Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	1.46	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.6-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	1.72	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.7-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	1.06	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-1.7-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	0.87	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-2.4-Tf	Lab Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	1.94	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-2.4-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	1.54	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-2.4-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	2.23	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-2.4-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	1.69	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2W	Lab Water	LW2W-CuDis-3.4-Tf	Lab Water	Wet	12/15/2011	Copper (Cu)	Dissolved	=	2.67	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-3.4-Tf	Lab Water	Wet	1/25/2012	Copper (Cu)	Dissolved	=	2.46	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-3.4-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	2.95	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuDis-3.4-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Dissolved	=	2.51	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-0.6-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	0.65	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-0.8-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	0.84	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-0.8-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	0.8	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-0-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	0.19	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuTot-0-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	0.13	µg/L		EPA 200.8	0.25	RL	J	Physis
2W	Lab Water	LW2W-CuTot-1.2-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	1.13	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-1.2-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	1.07	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-1.6-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	1.77	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-1.7-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	1.15	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-2.4-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	2.29	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-2.4-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	2.23	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-3.4-Ti	Lab Water	Wet	12/14/2011	Copper (Cu)	Total	=	2.82	µg/L		EPA 200.8	0.25	RL		Physis
2W	Lab Water	LW2W-CuTot-3.4-Ti	Lab Water	Wet	1/23/2012	Copper (Cu)	Total	=	2.87	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	13.31	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	13.12	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	85.49	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	95.33	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-58-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	49.16	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-58-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	53.68	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-82-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	63.63	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuDis-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	69.81	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	21.57	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	127.64	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuTot-58-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	71.09	µg/L		EPA 200.8	0.25	RL		Physis
2W	RH_AT_LAR	RH_AT_LAR-2W-CuTot-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	92	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	13.33	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	13.09	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	62.39	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	74.9	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-168-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	83.41	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	100.34	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-240-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	110.06	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	140.18	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-343-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	158.97	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-343-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	187.11	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-82-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	48.98	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuDis-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	56.23	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	35.56	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	144.57	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	178.79	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	259.59	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-343-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	360.4	µg/L		EPA 200.8	0.25	RL		Physis
2W	TW_AT_MOOR	TW_AT_MOOR-2W-CuTot-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	106.52	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-0-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	6.87	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	7.23	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-118-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	59.42	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	70.36	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-168-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	80.77	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	98.25	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-240-Tf	Receiving Water	Wet	12/15/2011	Copper (Cu)	Dissolved	=	118.12	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	140.22	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-82-Tf	Receiving Water	Wet	12/16/2011	Copper (Cu)	Dissolved	=	45.75	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuDis-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Dissolved	=	52.49	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuTot-0-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	12.67	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuTot-118-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	118.33	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuTot-168-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	162.34	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuTot-240-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	227.14	µg/L		EPA 200.8	0.25	RL		Physis
2W	VERD_AT_KEN	VERD_AT_KEN-2W-CuTot-82-Ti	Receiving Water	Wet	12/14/2011	Copper (Cu)	Total	=	88.91	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-0-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	13.05	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	11.97	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-168-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	154.26	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-168-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	156.87	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-240-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	217.24	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	230.88	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-343-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	303.45	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	319.55	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-490-Tf	Receiving Water	Dry	8/12/2011	Copper (Cu)	Dissolved	=	433.31	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuDis-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	428.3	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuTot-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	12.64	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuTot-168-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	162.4	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuTot-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	237.92	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuTot-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	329.14	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_AT_LAR	BWC_AT_LAR-3A-CuTot-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	471.02	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-0-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	15.37	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	14.52	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-240-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	226.31	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	231.29	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-343-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	314.26	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	323.21	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-490-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	452.22	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	454.39	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-58-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	65.27	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-58-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	63.77	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-700-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	635.41	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuDis-700-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	651.67	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	15.46	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	238.98	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	335.2	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	467.64	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-58-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	67.59	µg/L		EPA 200.8	0.25	RL		Physis
3A	BWC_UP_BWRP	BWC_UP_BWRP-3A-CuTot-700-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	660.29	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-0-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	7.66	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	7.94	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-168-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	126.58	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-168-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	137.79	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-240-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	172.79	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	190.69	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-343-Tf	Receiving Water	Dry	8/12/2011	Copper (Cu)	Dissolved	=	249.96	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuDis-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	269.68	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuTot-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	9.4	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuTot-168-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	157.25	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuTot-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	237.13	µg/L		EPA 200.8	0.25	RL		Physis
3A	LAR_UP_BWC	LAR_UP_BWC-3A-CuTot-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	317.38	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-0-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	0.05	µg/L		EPA 200.8	0.25	RL	J	Physis
3A	Lab Water	LW3A-CuDis-0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	0.08	µg/L		EPA 200.8	0.25	RL	J	Physis
3A	Lab Water	LW3A-CuDis-13.4-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	12.62	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
3A	Lab Water	LW3A-CuDis-13.4-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	12.91	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-19.2-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	19.02	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-19.2-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	19.15	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-24.0-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	23.83	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-24.0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	23.51	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-30.0-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	34.38	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-30.0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	33.28	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-4.6-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	3.38	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-4.6-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	3.91	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-6.6-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	5.88	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-6.6-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	6.21	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-9.4-Tf	Lab Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	8.44	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuDis-9.4-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	8.75	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
3A	Lab Water	LW3A-CuTot-13.4-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	12.87	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-19.2-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	19.93	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-24.0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	22.53	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-30.0-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	33.06	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-4.6-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	3.91	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-6.6-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	6.13	µg/L		EPA 200.8	0.25	RL		Physis
3A	Lab Water	LW3A-CuTot-9.4-Ti	Lab Water	Dry	8/11/2011	Copper (Cu)	Total	=	8.67	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-0-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	13.88	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	13.04	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-240-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	230.93	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	227.47	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-343-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	314.16	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	314.15	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-490-Tf	Receiving Water	Dry	8/13/2011	Copper (Cu)	Dissolved	=	439.63	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuDis-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Dissolved	=	442.68	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuTot-0-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	14.06	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuTot-240-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	232.75	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuTot-343-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	328.48	µg/L		EPA 200.8	0.25	RL		Physis
3A	TW_AT_LAR	TW_AT_LAR-3A-CuTot-490-Ti	Receiving Water	Dry	8/11/2011	Copper (Cu)	Total	=	463.27	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-0-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	1.13	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	1	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-118-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	63.85	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-118-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	79.38	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-168-Tf	Receiving Water	Dry	8/26/2011	Copper (Cu)	Dissolved	=	100.01	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	112.78	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-58-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	34.73	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-58-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	40.33	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-82-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	48.76	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuDIS-82-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	57.97	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuTOT-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	1.49	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuTOT-118-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	100.97	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuTOT-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	144.29	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuTOT-58-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	49.37	µg/L		EPA 200.8	0.25	RL		Physis
3B	AS_AT_LAR	AS_AT_LAR-3B-CuTOT-82-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	71.69	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-0-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	7.43	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	6.49	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-240-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	183.92	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	188	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-343-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	249.89	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	261.15	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuDIS-490-Tf	Receiving Water	Dry	8/26/2011	Copper (Cu)	Dissolved	=	343.84	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
3B	LAR_CO	LAR_CO-3B-CuDIS-490-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	366.25	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuTOT-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	9.75	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuTOT-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	229.45	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuTOT-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	316.65	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_CO	LAR_CO-3B-CuTOT-490-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	450.81	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-0-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	7.13	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	6.24	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-168-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	119.14	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	127.28	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-240-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	162.03	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	178.83	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-343-Tf	Receiving Water	Dry	8/26/2011	Copper (Cu)	Dissolved	=	235.22	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuDIS-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	251.37	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuTOT-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	8.9	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuTOT-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	148.52	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuTOT-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	212.1	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_FIG	LAR_FIG-3B-CuTOT-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	305.83	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-0-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	7.2	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-0-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	6.65	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-240-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	169.38	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-240-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	182.49	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-343-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	242.21	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-343-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	263.55	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-490-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	344.81	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuDIS-490-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	364.76	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuTOT-0-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	8.66	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuTOT-240-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	223.38	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuTOT-343-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	313	µg/L		EPA 200.8	0.25	RL		Physis
3B	LAR_ZOO	LAR_ZOO-3B-CuTOT-490-Tl	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	457.38	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-0-Tf	Lab Water	Dry	8/27/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
3B	Lab Water	LW3B-CuDIS-0-Ti	Lab Water	Dry	8/25/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
3B	Lab Water	LW3B-CuDIS-24-Tf	Lab Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	20.9	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-24-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	20.77	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-30-Tf	Lab Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	26.34	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-30-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	25.71	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-40-Tf	Lab Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	34.88	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuDIS-40-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	34.45	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuTOT-0-Ti	Lab Water	Dry	8/25/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
3B	Lab Water	LW3B-CuTOT-24-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Total	=	20.67	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuTOT-30-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Total	=	26.01	µg/L		EPA 200.8	0.25	RL		Physis
3B	Lab Water	LW3B-CuTOT-40-Tl	Lab Water	Dry	8/25/2011	Copper (Cu)	Total	=	34.41	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-0-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	6.34	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	5.93	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-118-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	83.58	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-118-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	95.73	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-168-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	115.39	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	131.93	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-240-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	160.97	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	185.15	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-343-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	231.83	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	264.42	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-82-Tf	Receiving Water	Dry	8/27/2011	Copper (Cu)	Dissolved	=	62.11	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuDIS-82-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Dissolved	=	68.98	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-0-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	7.65	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-118-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	108.44	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-168-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	150.21	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-240-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	219.47	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-343-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	305.42	µg/L		EPA 200.8	0.25	RL		Physis
3B	VD_AT_LAR	VD_AT_LAR-3B-CuTOT-82-Ti	Receiving Water	Dry	8/25/2011	Copper (Cu)	Total	=	78.01	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-0-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	1.4	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	0.76	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-168-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	124.72	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-168-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	137.68	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-240-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	175.08	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	195.63	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-343-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	241.07	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuDis-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	273.63	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuTot-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	1.48	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuTot-168-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	149.61	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuTot-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	213.99	µg/L		EPA 200.8	0.25	RL		Physis
3C	CC_AT_LAR	CC_AT_LAR-3C-CuTot-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	306.92	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-0-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	5.82	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	5.49	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-240-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	160.6	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	186.85	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-343-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	217.9	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	253.88	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-490-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	331.48	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuDis-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	369.55	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuTot-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	6.49	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuTot-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	214.87	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuTot-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	314.1	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_DEL	LAR_DEL-3C-CuTot-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	448.95	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-0-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	5.84	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	5.05	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-240-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	155.39	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	173.9	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-343-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	202.41	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	248.58	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-490-Tf	Receiving Water	Dry	9/2/2011	Copper (Cu)	Dissolved	=	316.27	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuDis-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	348.21	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuTot-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	6.28	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuTot-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	215.04	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuTot-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	313.32	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WARD	LAR_WARD-3C-CuTot-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	438.85	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-0-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	6.44	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	6.16	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-168-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	115.82	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-168-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	134.1	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-240-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	152.9	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	179.58	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-343-Tf	Receiving Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	208.26	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	247.64	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-490-Tf	Receiving Water	Dry	9/2/2011	Copper (Cu)	Dissolved	=	306.78	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuDis-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	353.4	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuTot-0-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	8.98	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuTot-168-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	158.89	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuTot-240-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	225.47	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuTot-343-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	324.15	µg/L		EPA 200.8	0.25	RL		Physis
3C	LAR_WASH	LAR_WASH-3C-CuTot-490-Ti	Receiving Water	Dry	9/1/2011	Copper (Cu)	Total	=	460.65	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
3C	Lab Water	LW3C-CuDis-0-Tf	Lab Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	0.16	µg/L		EPA 200.8	0.25	RL	J	Physis
3C	Lab Water	LW3C-CuDis-0-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
3C	Lab Water	LW3C-CuDis-16.5-Tf	Lab Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	13.7	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-16.5-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	14.98	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-23.5-Tf	Lab Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	19.28	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-23.5-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	20.75	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-33.6-Tf	Lab Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	27.18	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-33.6-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	29.2	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-42.0-Tf	Lab Water	Dry	9/3/2011	Copper (Cu)	Dissolved	=	36.48	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuDis-42.0-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Dissolved	=	38.79	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuTot-0-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Total	=	0.38	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuTot-16.5-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Total	=	14.66	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuTot-23.5-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Total	=	20.51	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuTot-33.6-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Total	=	28.85	µg/L		EPA 200.8	0.25	RL		Physis
3C	Lab Water	LW3C-CuTot-42.0-Ti	Lab Water	Dry	9/1/2011	Copper (Cu)	Total	=	38.56	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-0-Tf	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	12.65	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	12.84	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-168-Tf	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	158.83	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	162.55	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-240-Tf	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	215.8	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	248.34	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-343-Tf	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	292.85	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuDis-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	302.99	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuTot-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	14.21	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuTot-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	169.59	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuTot-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	245.16	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_AT_LAR	BWC_AT_LAR-4A-CuTot-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	346.85	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-0-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	10.63	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	10.23	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-168-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	137.62	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	149.47	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-240-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	190.92	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	208.46	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-343-Tf	Receiving Water	Dry	12/9/2011	Copper (Cu)	Dissolved	=	287.73	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuDis-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	303.05	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuTot-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	12.25	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuTot-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	166.98	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuTot-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	241.03	µg/L		EPA 200.8	0.25	RL		Physis
4A	BWC_UP_BWRP	BWC_UP_BWRP-4A-CuTot-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	337.12	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-0-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	7.33	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	7.37	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-118-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	99.83	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-118-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	109.56	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-168-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	135.02	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	147.95	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-240-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	189.56	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	211.71	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-343-Tf	Receiving Water	Dry	12/9/2011	Copper (Cu)	Dissolved	=	259.89	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuDis-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	301.5	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuTot-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	8.58	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuTot-118-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	115.9	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuTot-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	159.33	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuTot-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	227.7	µg/L		EPA 200.8	0.25	RL		Physis
4A	LAR_UP_BWC	LAR_UP_BWC-4A-CuTot-343-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	327.04	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-0-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
4A	Lab Water	LW4A-CuDis-0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4A	Lab Water	LW4A-CuDis-10.1-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	8.91	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-10.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	9.35	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-11.2-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	9.88	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-11.2-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	10.64	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-14.0-Tf	Lab Water	Dry	12/9/2011	Copper (Cu)	Dissolved	=	13.06	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-14.0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	13.24	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-3.0-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	2.38	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-3.0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	2.67	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-5.1-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	4.34	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-5.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	4.83	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-7.3-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	5.64	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-7.3-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	6.02	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-9.1-Tf	Lab Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	7.2	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuDis-9.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	7.89	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4A	Lab Water	LW4A-CuTot-10.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	9.39	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-11.2-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	10.52	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-14.0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	13.33	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-3.0-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	2.72	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-5.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	4.84	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-7.3-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	6.15	µg/L		EPA 200.8	0.25	RL		Physis
4A	Lab Water	LW4A-CuTot-9.1-Ti	Lab Water	Dry	12/8/2011	Copper (Cu)	Total	=	7.99	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-0-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	9.06	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	8.15	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-118-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	110.32	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-118-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	110.78	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-168-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	148.12	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	152.01	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-240-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	207.78	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	211.71	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-82-Tf	Receiving Water	Dry	12/10/2011	Copper (Cu)	Dissolved	=	81.58	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuDis-82-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Dissolved	=	80.63	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuTot-0-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	9.09	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuTot-118-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	120.17	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuTot-168-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	164.04	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuTot-240-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	239.52	µg/L		EPA 200.8	0.25	RL		Physis
4A	TW_AT_LAR	TW_AT_LAR-4A-CuTot-82-Ti	Receiving Water	Dry	12/8/2011	Copper (Cu)	Total	=	86.32	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-0-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	2.46	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	2.07	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-118-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	80.96	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	94.7	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-168-Tf	Receiving Water	Dry	12/22/2011	Copper (Cu)	Dissolved	=	118.32	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	135.08	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-58-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	44.51	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-58-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	47.65	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-82-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	60.73	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuDis-82-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	68.78	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuTot-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	2.45	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuTot-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	110.87	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuTot-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	157.13	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuTot-58-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	54.76	µg/L		EPA 200.8	0.25	RL		Physis
4B	AS_AT_LAR	AS_AT_LAR-4B-CuTot-82-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	78.44	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-0-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	8.88	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	8.67	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
4B	LAR_CO	LAR_CO-4B-CuDis-168-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	151.79	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	154.68	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-240-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	214.8	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	222.24	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-343-Tf	Receiving Water	Dry	12/22/2011	Copper (Cu)	Dissolved	=	295.44	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuDis-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	310.6	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuTot-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	9.19	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuTot-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	163.16	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuTot-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	234.74	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_CO	LAR_CO-4B-CuTot-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	329.6	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-0-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	8.49	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	7.13	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-118-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	108.29	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	110.38	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-168-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	149.54	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	152.34	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-240-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	212.32	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	219.77	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-343-Tf	Receiving Water	Dry	12/22/2011	Copper (Cu)	Dissolved	=	289.48	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuDis-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	301.7	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuTot-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	8.74	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuTot-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	119.21	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuTot-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	167.73	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuTot-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	239.66	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_FIG	LAR_FIG-4B-CuTot-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	330.36	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-0-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	9.71	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	9.41	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-168-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	148.42	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	152.11	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-240-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	209.2	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	218.54	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-343-Tf	Receiving Water	Dry	12/22/2011	Copper (Cu)	Dissolved	=	287.39	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuDis-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	301.68	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuTot-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	10.25	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuTot-168-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	162.46	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuTot-240-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	227.99	µg/L		EPA 200.8	0.25	RL		Physis
4B	LAR_ZOO	LAR_ZOO-4B-CuTot-343-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	327.03	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-0-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4B	Lab Water	LW4B-CuDIs-0-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4B	Lab Water	LW4B-CuDIs-13.4-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	12.56	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-13.4-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	12.48	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-19.2-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	18.58	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-19.2-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	18.6	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-24.0-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	23.42	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-24.0-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	22.99	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-6.6-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	5.96	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-6.6-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	5.93	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-9.4-Tf	Lab Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	9.02	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuDIs-9.4-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	8.76	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuTot-0-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4B	Lab Water	LW4B-CuTot-13.4-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	=	12.6	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuTot-19.2-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	=	18.61	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuTot-24.0-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	=	23	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuTot-6.6-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	=	5.98	µg/L		EPA 200.8	0.25	RL		Physis
4B	Lab Water	LW4B-CuTot-9.4-Ti	Lab Water	Dry	12/21/2011	Copper (Cu)	Total	=	9.01	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-0-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	1.9	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	1.69	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-118-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	101.87	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	108.06	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-58-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	49.93	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-58-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	49.86	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-82-Tf	Receiving Water	Dry	12/23/2011	Copper (Cu)	Dissolved	=	70.71	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuDis-82-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Dissolved	=	72.44	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuTot-0-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	2	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuTot-118-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	111.22	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuTot-58-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	52.24	µg/L		EPA 200.8	0.25	RL		Physis
4B	VD_AT_LAR	VD_AT_LAR-4B-CuTot-82-Ti	Receiving Water	Dry	12/21/2011	Copper (Cu)	Total	=	76.38	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-0-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	4.02	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	3.3	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-118-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	101.99	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	102.35	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-168-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	138.5	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	141.82	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-240-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	201.63	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	215.41	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-82-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	75.97	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuDis-82-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	72.12	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuTot-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	3.71	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuTot-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	111.88	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuTot-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	157.84	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuTot-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	230.46	µg/L		EPA 200.8	0.25	RL		Physis
4C	CC_AT_LAR	CC_AT_LAR-4C-CuTot-82-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	78.85	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuDis-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	5.81	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuDis-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	108.14	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuDis-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	148.37	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuDis-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	214.24	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuDis-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	296.56	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuTot-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	6.32	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuTot-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	113.42	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuTot-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	158.69	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuTot-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	230.86	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL -4C-CuTot-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	327.91	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL-4C-CuDis-0-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	6.41	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL-4C-CuDis-118-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	106.67	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL-4C-CuDis-168-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	145.29	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL-4C-CuDis-240-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	203.88	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_DEL	LAR_DEL-4C-CuDis-343-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	298.59	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-0-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	6.65	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	5.75	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-168-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	143.12	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	149.55	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-240-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	201.32	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	207.12	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-343-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	284.5	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuDis-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	283.9	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuTot-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	6.23	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuTot-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	159.64	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuTot-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	233.64	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WARD	LAR_WARD-4C-CuTot-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	323.49	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuDis-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	5.62	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
4C	LAR_WASH	LAR_WASH -4C-CuDis-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	111.18	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuDis-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	155.39	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuDis-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	225.36	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuDis-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	308.67	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuTot-0-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	5.83	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuTot-118-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	115.76	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuTot-168-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	161.53	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuTot-240-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	226.18	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH -4C-CuTot-343-Ti	Receiving Water	Dry	1/5/2012	Copper (Cu)	Total	=	327.87	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH-4C-CuDis-0-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	7.19	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH-4C-CuDis-118-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	117.21	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH-4C-CuDis-168-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	163.71	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH-4C-CuDis-240-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	235.71	µg/L		EPA 200.8	0.25	RL		Physis
4C	LAR_WASH	LAR_WASH-4C-CuDis-343-Tf	Receiving Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	332.6	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-0-Tf	Lab Water	Dry	1/7/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4C	Lab Water	LW4C-CuDis-0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4C	Lab Water	LW4C-CuDis-13.4-Tf	Lab Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	13.1	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-13.4-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	12.21	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-19.2-Tf	Lab Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	18.53	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-19.2-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	17.67	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-24.0-Tf	Lab Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	24.39	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-24.0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	22.41	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-30.0-Tf	Lab Water	Dry	1/7/2012	Copper (Cu)	Dissolved	=	32.53	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuDis-30.0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Dissolved	=	28.69	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuTot-0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
4C	Lab Water	LW4C-CuTot-13.4-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Total	=	12.63	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuTot-19.2-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Total	=	17.73	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuTot-24.0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Total	=	22.73	µg/L		EPA 200.8	0.25	RL		Physis
4C	Lab Water	LW4C-CuTot-30.0-Ti	Lab Water	Dry	1/5/2012	Copper (Cu)	Total	=	28.59	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-0-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	2.08	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-0-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	1.99	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-118-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	66.84	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-118-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	81.99	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-168-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	96.61	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-168-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	115.11	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-240-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	130.96	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuDis-240-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	160.89	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuTot-0-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	3.16	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuTot-118-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	108.72	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuTot-168-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	148.32	µg/L		EPA 200.8	0.25	RL		Physis
5	AS_AT_LAR	AS_AT_LAR-5-CuTot-240-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	210.56	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-0-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
5	Lab Water	LW5-CuDis-0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
5	Lab Water	LW5-CuDis-13.4-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	10.25	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-13.4-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	10.53	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-19.2-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	15.28	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-19.2-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	15.8	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-24.0-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	19.09	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-24.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	19.68	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-30.0-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	25.11	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-30.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	24.91	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-4.6-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	3.19	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-4.6-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	3.51	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-40.0-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	33.12	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-40.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	33.11	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
5	Lab Water	LW5-CuDis-6.6-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	4.45	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-6.6-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	4.95	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-9.4-Tf	Lab Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	7.03	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuDis-9.4-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	7.64	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
5	Lab Water	LW5-CuTot-13.4-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	10.72	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-19.2-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	15.87	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-24.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	19.64	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-30.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	25.2	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-4.6-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	3.41	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-40.0-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	33.99	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-6.6-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	4.86	µg/L		EPA 200.8	0.25	RL		Physis
5	Lab Water	LW5-CuTot-9.4-Ti	Lab Water	Dry	5/10/2012	Copper (Cu)	Total	=	7.53	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-0-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	27.99	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-0-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	26	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-1000-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	963.81	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-1000-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	941.23	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-700-Tf	Receiving Water	Dry	5/12/2012	Copper (Cu)	Dissolved	=	690.11	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuDis-700-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Dissolved	=	679.24	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuTot-0-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	29.58	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuTot-1000-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	981.12	µg/L		EPA 200.8	0.25	RL		Physis
5	RH_AT_LAR	RH_AT_LAR-5-CuTot-700-Ti	Receiving Water	Dry	5/10/2012	Copper (Cu)	Total	=	702.55	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	10.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	10.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	9.85	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	9.85	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-118-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	106.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-118-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	106.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	105.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	105.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-168-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	142.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-168-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	142.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	141.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	141.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-240-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	187.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-240-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	187.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	187.37	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	187.37	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	238.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	238.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	236.18	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	236.18	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	321.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	321.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	323.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	323.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	10.65	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	10.65	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	113.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	113.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	153.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	153.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	217.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	217.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	325.24	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	325.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	460.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_AT_LAR	BWC_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	460.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-0-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	19.79	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-0-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	19.79	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	17.96	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	17.96	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-1000-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	1015.17	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-1000-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	1015.17	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	862.33	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	862.33	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-343-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	297.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-343-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	297.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	289.41	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	289.41	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-490-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	463.6	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-490-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	463.6	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	449.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	449.39	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-700-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	668.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-700-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	668.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	613.33	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuDis-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	613.33	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	19.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	19.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	953.74	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	953.74	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	309.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	309.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	480.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	480.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	667.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	BWC_UP_BWRP	BWC_UP_BWRP-6A-CuTot-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	667.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-0-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	8.77	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-0-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	8.77	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	7.8	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	7.8	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-118-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	83.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-118-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	83.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	87.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	87.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-168-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	117.78	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-168-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	117.78	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	121.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	121.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-240-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	160.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-240-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	160.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	169.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	169.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-343-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	221.32	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-343-Tf	Receiving Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	221.32	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	233.35	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuDis-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	233.35	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	10.76	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-0-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	10.76	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	107.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-118-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	107.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	147.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-168-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	147.51	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	207.73	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-240-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	207.73	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	293.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	LAR_UP_BWC	LAR_UP_BWC-6A-CuTot-343-Ti	Receiving Water	Dry	6/7/2012	Copper (Cu)	Total	=	293.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	0.13	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	0.09	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	0.13	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	0.09	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	0.05	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	0.08	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	0.05	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-0-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	0.08	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuDis-100-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	74.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-100-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	74.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-100-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	97.22	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-100-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	97.22	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-11.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	10.34	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-11.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	10.34	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-11.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	16.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-11.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	16.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-12.7-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	8.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-12.7-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	8.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-12.7-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	9	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-12.7-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	9	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-16.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	7.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-16.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	7.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-16.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	11.52	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-16.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	11.52	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	13.16	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	13.86	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	13.16	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	13.86	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	13.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	13.63	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	13.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-18.1-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	13.63	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-24.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	15.37	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-24.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	15.37	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-24.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	23.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-24.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	23.88	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	18.15	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	18.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	18.15	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	18.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	18.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	19.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-25.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	18.94	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6A	Lab Water	LW6A-CuDis-25.9-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	19.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.3-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	22.56	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.3-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	22.56	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.3-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	33.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.3-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	33.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	25.44	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	28.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	25.44	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	28.06	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	26.72	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	27.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	26.72	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-34.6-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	27.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	30.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	38.5	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	30.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Tf	Lab Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	38.5	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	32.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	35.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	32.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-43.2-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	35.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-49.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	33.16	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-49.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	33.16	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-49.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	48.55	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-49.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	48.55	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-5.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	3.26	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-5.8-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	3.26	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-5.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	5.21	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-5.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	5.21	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-57.6-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	44.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-57.6-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	44.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-57.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	44.93	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-57.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	44.93	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-70.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	51.56	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-70.0-Tf	Lab Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	51.56	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-70.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	68.92	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-70.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	68.92	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-8.9-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	5.93	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-8.9-Tf	Lab Water	Dry	6/9/2012	Copper (Cu)	Dissolved	=	5.93	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-8.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	5.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuDis-8.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Dissolved	=	5.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuTot-0-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	0.06	µg/L		EPA 200.8	0.25	RL	J	Physis
6A	Lab Water	LW6A-CuTot-100-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	97.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-100-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	97.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-11.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	16.81	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-11.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	16.81	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-12.7-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	9.18	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-12.7-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	9.18	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-16.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	11.56	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-16.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	11.56	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6A	Lab Water	LW6A-CuTot-18.1-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	14.03	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-18.1-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	13.48	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-18.1-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	14.03	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-18.1-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	13.48	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-24.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	23.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-24.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	23.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-25.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	19.22	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-25.9-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	18.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-25.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	19.22	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-25.9-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	18.49	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.3-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	33.8	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.3-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	33.8	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	26.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.6-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	26.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	26.31	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-34.6-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	26.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-43.2-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	32.77	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-43.2-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	2.01	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-43.2-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	32.77	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-43.2-Ti	Lab Water	Dry	6/8/2012	Copper (Cu)	Total	=	2.01	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-49.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	47.95	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-49.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	47.95	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-5.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	5.46	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-5.8-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	5.46	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-57.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	46.14	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-57.6-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	46.14	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-70.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	68.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-70.0-Ti	Lab Water	Dry	6/6/2012	Copper (Cu)	Total	=	68.28	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-8.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	5.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	Lab Water	LW6A-CuTot-8.9-Ti	Lab Water	Dry	6/7/2012	Copper (Cu)	Total	=	5.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	29.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	35.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	29.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	35.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	29.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	29.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	29.9	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	29.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	917.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	1100.35	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	917.61	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	1100.35	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	927.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	935.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	927.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	935.62	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1500-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	1329.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1500-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	1329.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1500-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	1341.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-1500-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	1341.45	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-168-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	167.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-168-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	167.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-168-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	170.03	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-168-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	170.03	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-240-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	230.78	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-240-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	230.78	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-240-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	235.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-240-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	235.66	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	329.73	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	326.84	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	329.73	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	326.84	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	337.3	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	315.7	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	337.3	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	315.7	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	453.83	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	515.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	453.83	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	515.94	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	470.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	475.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	470.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	475.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	638.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	745.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Tf	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	638.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Tf	Receiving Water	Dry	6/10/2012	Copper (Cu)	Dissolved	=	745.99	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	656.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	677.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Dissolved	=	656.36	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuDis-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Dissolved	=	677.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	31.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	30.75	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	31.24	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-0-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	30.75	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1000-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	972.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	965.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1000-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	972.97	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1000-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	965.71	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1500-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	1394.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-1500-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	1394.98	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-168-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	174.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-168-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	174.19	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-240-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	245.05	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-240-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	245.05	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	351.14	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	325.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	351.14	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-343-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	325.42	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	478.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	489.01	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	478.54	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-490-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	489.01	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-700-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	682.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	691.6	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-700-Ti	Receiving Water	Dry	6/6/2012	Copper (Cu)	Total	=	682.1	µg/L		EPA 200.8	0.25	RL		Physis
6A	TW_AT_LAR	TW_AT_LAR-6A-CuTot-700-Ti	Receiving Water	Dry	6/8/2012	Copper (Cu)	Total	=	691.6	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-0-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	1.58	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	1.5	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-118-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	81.38	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-118-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	92.83	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-168-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	123.01	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-168-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	133.35	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-82-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	53.27	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuDis-82-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	64.38	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuTot-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	1.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuTot-118-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	100.18	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuTot-168-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	141.47	µg/L		EPA 200.8	0.25	RL		Physis
6B	AS_AT_LAR	AS_AT_LAR-6B-CuTot-82-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	69.95	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-0-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	6.83	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	5.62	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-240-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	152.83	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	181.29	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-343-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	219.08	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	294.65	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-490-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	369.33	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuDis-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	406.19	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuTot-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	9.51	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuTot-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	219.43	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuTot-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	351.31	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_CO	LAR_CO-6B-CuTot-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	503.34	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-0-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	5.71	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	4.56	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-168-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	130.52	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-168-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	139.05	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-240-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	183.7	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	195.93	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-343-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	252.27	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	315.9	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-490-Tf	Receiving Water	Dry	6/15/2012	Copper (Cu)	Dissolved	=	404.76	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuDis-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	442.17	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuTot-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	5.54	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuTot-168-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	155.64	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuTot-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	221.03	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuTot-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	358.24	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_FIG	LAR_FIG-6B-CuTot-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	507.84	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-0-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	7.03	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	6.24	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-240-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	174.87	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	191.29	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-343-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	228.03	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuDis-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	292.5	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuTot-0-TI	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	10.04	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuTot-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	240	µg/L		EPA 200.8	0.25	RL		Physis
6B	LAR_ZOO	LAR_ZOO-6B-CuTot-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	351.36	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-0-Tf	Lab Water	Dry	6/16/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6B	Lab Water	LW6B-CuDis-0-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6B	Lab Water	LW6B-CuDis-18.1-Tf	Lab Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	15.18	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-18.1-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	16.2	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-25.9-Tf	Lab Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	23.02	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-25.9-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	23.3	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-34.6-Tf	Lab Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	30.91	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-34.6-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	31.89	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuDis-43.2-Tf	Lab Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	39.19	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6B	Lab Water	LW6B-CuDis-43.2-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	39.26	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuTot-0-TI	Lab Water	Dry	6/14/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6B	Lab Water	LW6B-CuTot-18.1-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Total	=	15.95	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuTot-25.9-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Total	=	23.42	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuTot-34.6-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Total	=	31.52	µg/L		EPA 200.8	0.25	RL		Physis
6B	Lab Water	LW6B-CuTot-43.2-Ti	Lab Water	Dry	6/14/2012	Copper (Cu)	Total	=	39.26	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-0-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	7.5	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-0-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	7.05	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-240-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	159.19	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	187.96	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-343-Tf	Receiving Water	Dry	6/16/2012	Copper (Cu)	Dissolved	=	215	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	296.06	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-490-Tf	Receiving Water	Dry	6/15/2012	Copper (Cu)	Dissolved	=	397.55	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuDis-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Dissolved	=	418.15	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuTot-0-TI	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	8.76	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuTot-240-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	220.25	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuTot-343-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	341.9	µg/L		EPA 200.8	0.25	RL		Physis
6B	VD_AT_LAR	VD_AT_LAR-6B-CuTot-490-Ti	Receiving Water	Dry	6/14/2012	Copper (Cu)	Total	=	492.97	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-0-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	2.34	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	2.04	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-118-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	61.56	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-118-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	81.75	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-168-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	83.23	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	115.31	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-240-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	122.49	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuDis-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	160.08	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuTot-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	4.6	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuTot-118-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	106.65	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuTot-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	153.88	µg/L		EPA 200.8	0.25	RL		Physis
6C	CC_AT_LAR	CC_AT_LAR-6C-CuTot-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	209.35	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-0-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	4.34	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	3.85	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-240-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	174.61	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	193.04	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-343-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	237.02	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	264.92	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-490-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	350.98	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuDis-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	386.86	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuTot-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	5.24	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuTot-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	232.4	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuTot-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	337.19	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_DEL	LAR_DEL-6C-CuTot-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	478.95	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-0-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	3.95	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	3.79	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-118-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	93.05	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-118-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	96.64	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-168-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	128.47	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	136	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-240-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	175.22	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	189.15	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-343-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	235.23	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	263.91	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-490-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	341.08	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	377.95	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuDis-700-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	498.37	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6C	LAR_WARD	LAR_WARD-6C-CuDis-700-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	522.58	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	4.5	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-118-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	111.05	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	157.39	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	224.18	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	329.91	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	464.3	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WARD	LAR_WARD-6C-CuTot-700-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	666.23	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-0-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	5.06	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	4.48	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-168-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	110.86	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	131.05	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-240-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	145.07	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	178.14	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-343-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	209.3	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuDis-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	252.16	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuTot-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	6.98	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuTot-168-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	157.8	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuTot-240-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	225.87	µg/L		EPA 200.8	0.25	RL		Physis
6C	LAR_WASH	LAR_WASH-6C-CuTot-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	333.43	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-0-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6C	Lab Water	LW6C-CuDis-0-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6C	Lab Water	LW6C-CuDis-12.7-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	10.75	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-12.7-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	11.86	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-18.1-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	16.45	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-18.1-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	17.8	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-25.9-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	23.75	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-25.9-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	25.1	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-34.6-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	31.32	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-34.6-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	34.25	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-43.2-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	40.31	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-43.2-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	43.06	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-57.6-Tf	Lab Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	53.28	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuDis-57.6-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	56.96	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-0-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
6C	Lab Water	LW6C-CuTot-12.7-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	12.09	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-18.1-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	17.78	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-25.9-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	24.81	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-34.6-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	33.34	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-43.2-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	43.07	µg/L		EPA 200.8	0.25	RL		Physis
6C	Lab Water	LW6C-CuTot-57.6-Ti	Lab Water	Dry	6/21/2012	Copper (Cu)	Total	=	56.64	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-0-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	21.99	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	20.06	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-1000-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	955.6	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-1000-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	954.18	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-343-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	336.79	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	337.67	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-490-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	476.57	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	478.97	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-700-Tf	Receiving Water	Dry	6/23/2012	Copper (Cu)	Dissolved	=	676.29	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuDis-700-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Dissolved	=	682.05	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuTot-0-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	23.38	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuTot-1000-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	1017.39	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuTot-343-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	359.08	µg/L		EPA 200.8	0.25	RL		Physis
6C	RH_AT_LAR	RH_AT_LAR-6C-CuTot-490-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	504.2	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
6C	RH_AT_LAR	RH_AT_LAR-6C-CuTot-700-Ti	Receiving Water	Dry	6/21/2012	Copper (Cu)	Total	=	715.23	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-0-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	10.65	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	10.52	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-168-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	155.09	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-168-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	158.08	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-240-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	209.86	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-240-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	215.04	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-343-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	285.43	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuDis-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	282.69	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuTot-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	10.89	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuTot-168-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	166.71	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuTot-240-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	232.78	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_AT_LAR	BWC_AT_LAR-7A-CuTot-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	331.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-0-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	22.43	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	19.8	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-1000-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	401.82	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	510.69	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-490-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	206.17	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-490-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	260.87	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-700-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	285.42	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuDis-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	362.58	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuTot-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	71.16	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuTot-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	909.21	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuTot-490-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	435.23	µg/L		EPA 200.8	0.25	RL		Physis
7A	BWC_UP_BWRP	BWC_UP_BWRP-7A-CuTot-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	702.63	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-0-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	8.35	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	6.84	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-168-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	135.42	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-168-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	139.54	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-240-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	189.02	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-240-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	198.63	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-343-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	260.71	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuDis-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	274.65	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuTot-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	7.76	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuTot-168-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	155.79	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuTot-240-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	222.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	LAR_UP_BWC	LAR_UP_BWC-7A-CuTot-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	311.81	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-0-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	0.57	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-0-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuDis-0-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	0.08	µg/L		EPA 200.8	0.25	RL	J	Physis
7A	Lab Water	LW7A-CuDis-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuDis-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuDis-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuDis-102.4-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	98.48	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-102.4-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	98.34	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-12.7-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	11.29	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-12.7-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	11.38	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-128-Tf	Lab Water	Dry	9/11/2012	Copper (Cu)	Dissolved	=	113.72	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-128-Ti	Lab Water	Dry	9/9/2012	Copper (Cu)	Dissolved	=	116.06	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-18.1-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	16.55	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-18.1-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	16.67	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-19.0-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	10.68	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-19.0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	17.74	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-25.9-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	24.11	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-25.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	24.39	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
7A	Lab Water	LW7A-CuDis-27.2-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	18.98	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-27.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	25.88	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-33.6-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	29.95	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-33.6-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	31.36	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-34.6-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	32.21	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-34.6-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	32.13	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-38.8-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	23.74	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-38.8-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	36.38	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-41.9-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	37.93	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-41.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	39.48	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7ACuDis-43.2-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	40.35	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-43.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	40.04	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-48.6-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	28.65	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-48.6-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	43.69	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-52.4-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	47.94	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-52.4-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	49.94	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-57.1-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	32.19	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-57.1-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	53.13	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-65.5-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	60.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-65.5-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	62.27	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-67.2-Tf	Lab Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	41.46	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-67.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	63.41	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-81.9-Tf	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	71.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuDis-81.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	78.14	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuTot-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuTot-0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7A	Lab Water	LW7A-CuTot-102.4-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	95.43	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-12.7-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	11.17	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-128-Ti	Lab Water	Dry	9/9/2012	Copper (Cu)	Total	=	115.66	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-18.1-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	16.92	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-19.0-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	16.97	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-25.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	24.16	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-27.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	24.91	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-33.6-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	31.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-36.4-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	32.7	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-38.8-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	35.35	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-41.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	38.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-43.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	40.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-48.6-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	44.93	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-52.4-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	48.84	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-57.1-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	52.01	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-65.5-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	61.2	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-67.2-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	61.21	µg/L		EPA 200.8	0.25	RL		Physis
7A	Lab Water	LW7A-CuTot-81.9-Ti	Lab Water	Dry	8/9/2012	Copper (Cu)	Total	=	77.17	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-0-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	24.37	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-0-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	24.84	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	22.96	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	24.14	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1000-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	908.51	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1000-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	941.8	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	921.99	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	922.32	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1500-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	1396.64	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-1500-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	1402.17	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-2000-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	1751.53	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-2000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	1829.85	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-2500-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	2174.71	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-2500-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	2220.1	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-343-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	317.82	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	322.83	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-490-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	460.32	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-490-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	466.17	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-700-Tf	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	581.98	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-700-Tf	Receiving Water	Dry	8/11/2012	Copper (Cu)	Dissolved	=	648.28	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	642.44	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuDis-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Dissolved	=	561.5	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	25.02	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-0-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	24.45	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	968.11	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-1000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	929.84	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-1500-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	1418.93	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-2000-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	1893.6	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-2500-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	2348.23	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-343-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	340.18	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-490-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	485.7	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	685.98	µg/L		EPA 200.8	0.25	RL		Physis
7A	TW_AT_LAR	TW_AT_LAR-7A-CuTot-700-Ti	Receiving Water	Dry	8/9/2012	Copper (Cu)	Total	=	560.74	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-0-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	2.27	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	1.81	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-118-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	59.05	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-118-Ti	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	77.37	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-168-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	80.92	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-168-Ti	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	109.78	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-82-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	42.8	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuDis-82-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	54.91	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuTot-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	3.7	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuTot-118-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	110.64	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuTot-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	157.49	µg/L		EPA 200.8	0.25	RL		Physis
7B	AS_AT_LAR	AS_AT_LAR-7B-CuTot-82-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	77.81	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7BCuDis-0-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	6.13	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuDis-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	5.51	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7BCuDis-168-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	131.87	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuDis-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	144.93	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7BCuDis-240-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	189.95	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuDis-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	207.72	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7BCuDis-343-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	263.83	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuDis-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	289.9	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7BCuDis-490-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	381.65	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuDis-490-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	417.72	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuTot-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	8.38	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuTot-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	168.5	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuTot-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	238.7	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuTot-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	339.8	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_CO	LAR_CO-7B-CuTot-490-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	489.78	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-0-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	4.84	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	4.16	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-168-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	131.58	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	143.56	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-240-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	184.62	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
7B	LAR_FIG	LAR_FIG-7B-CuDis-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	203.27	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-343-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	254.29	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuDis-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	278.5	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuTot-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	6.03	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuTot-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	163.24	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuTot-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	231.96	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_FIG	LAR_FIG-7B-CuTot-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	322.14	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-0-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	6.14	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	5.76	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-168-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	133.47	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	143.4	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-240-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	185.22	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	202.63	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-343-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	256.23	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuDis-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	281.75	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuTot-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	7.97	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuTot-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	166.71	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuTot-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	233.01	µg/L		EPA 200.8	0.25	RL		Physis
7B	LAR_ZOO	LAR_ZOO-7B-CuTot-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	331.71	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-0-Tf	Lab Water	Dry	8/18/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7B	Lab Water	LW7B-CuDis-0-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7B	Lab Water	LW7B-CuDis-12.7-Tf	Lab Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	13.02	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-12.7-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	13.72	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-18.1-Tf	Lab Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	18.41	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-18.1-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	19.17	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-8.9-Tf	Lab Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	8.24	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuDis-8.9-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	8.73	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuTot-0-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7B	Lab Water	LW7B-CuTot-12.7-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Total	=	13.59	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuTot-18.1-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Total	=	19.35	µg/L		EPA 200.8	0.25	RL		Physis
7B	Lab Water	LW7B-CuTot-8.9-Ti	Lab Water	Dry	8/16/2012	Copper (Cu)	Total	=	8.81	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-0-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	9.44	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	9.47	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-168-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	136.6	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	157.65	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-240-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	193.37	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	218.51	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-343-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	261.4	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	299.93	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-490-Tf	Receiving Water	Dry	8/18/2012	Copper (Cu)	Dissolved	=	377.11	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuDis-490-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Dissolved	=	430.61	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuTot-0-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	10.55	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuTot-168-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	164.68	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuTot-240-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	230.51	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuTot-343-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	325.45	µg/L		EPA 200.8	0.25	RL		Physis
7B	VD_AT_LAR	VD_AT_LAR-7B-CuTot-490-Ti	Receiving Water	Dry	8/16/2012	Copper (Cu)	Total	=	499.73	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-0-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	2.12	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	2	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-343-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	236.98	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	267.99	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-490-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	337.74	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	378.47	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-700-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	504.49	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuDis-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	566.54	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuTot-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	3.07	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
7C	CC_AT_LAR	CC_AT_LAR-7C-CuTot-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	311.59	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuTot-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	448.22	µg/L		EPA 200.8	0.25	RL		Physis
7C	CC_AT_LAR	CC_AT_LAR-7C-CuTot-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	660.52	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-0-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	4.83	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	4.22	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-118-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	76.45	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-118-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	87.91	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-168-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	105.01	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-168-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	121.12	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-240-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	141.95	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	167.33	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-343-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	190.87	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	232.92	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-490-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	255.36	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuDis-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	317.12	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	6.82	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-118-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	108.56	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-168-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	158.11	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	226.98	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	315.11	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_DEL	LAR_DEL-7C-CuTot-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	466.3	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-0-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	4.73	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	3.96	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-240-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	143.3	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	159.82	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-343-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	188.71	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	221.82	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-490-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	258.84	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	306.81	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-700-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	376.7	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuDis-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	440.5	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuTot-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	6.23	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuTot-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	211.2	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuTot-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	301.33	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuTot-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	443.94	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WARD	LAR_WARD-7C-CuTot-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	616.79	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-0-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	4.59	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	4.24	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-118-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	108.09	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-118-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	115.89	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-168-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	150.83	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-168-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	166.85	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-240-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	207.58	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	232.89	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-343-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	292.87	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuDis-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	324.91	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuTot-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	5.45	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuTot-118-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	127.83	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuTot-168-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	191.86	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuTot-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	273.86	µg/L		EPA 200.8	0.25	RL		Physis
7C	LAR_WASH	LAR_WASH-7C-CuTot-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	392.83	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-0-Tf	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7C	Lab Water	LW7C-CuDis-0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7C	Lab Water	LW7C-CuDis-12.8-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	4.45	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-12.8-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	4.87	µg/L		EPA 200.8	0.25	RL		Physis

Event #	ProjectSiteID	SampleID	SampleSource	EventType	SampleDate	Constituent	Fraction	Sign	Result	Units	ProjQual	Method	DetectLimit	DetecLimitType	LabQual	AnalyzingLab
7C	Lab Water	LW7C-CuDis-18.2-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	6.4	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-18.2-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	6.78	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-24.3-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	9.39	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-24.3-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	9.95	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-32.4-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	13.04	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-32.4-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	13.29	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-43.2-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	18.12	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-43.2-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	18.52	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-54.0-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	23.95	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-54.0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	24.55	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-60.0-Tf	Lab Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	27.74	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuDis-60.0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	27.05	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	<	0.25	µg/L		EPA 200.8	0.25	RL	ND	Physis
7C	Lab Water	LW7C-CuTot-12.8-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	5.03	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-18.2-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	7.06	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-24.3-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	9.81	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-32.4-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	13.49	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-43.2-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	18.45	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-54.0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	24.26	µg/L		EPA 200.8	0.25	RL		Physis
7C	Lab Water	LW7C-CuTot-60.0-Ti	Lab Water	Dry	8/23/2012	Copper (Cu)	Total	=	26.67	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-0-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	42.75	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	36.06	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-1000-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	930.27	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-1000-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	918.21	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-1500-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	1417.02	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-1500-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	1340.55	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-240-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	248.04	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	239.77	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-343-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	341.04	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	329.71	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-490-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	471.03	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	466.64	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-700-Tf	Receiving Water	Dry	8/25/2012	Copper (Cu)	Dissolved	=	645.72	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuDis-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Dissolved	=	629.1	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-0-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	40.02	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-1000-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	977.34	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-1500-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	1446.29	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-240-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	252.25	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-343-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	350.71	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-490-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	490.91	µg/L		EPA 200.8	0.25	RL		Physis
7C	RH_AT_LAR	RH_AT_LAR-7C-CuTot-700-Ti	Receiving Water	Dry	8/23/2012	Copper (Cu)	Total	=	672.34	µg/L		EPA 200.8	0.25	RL		Physis

Lab Qualifiers (identified in LabQual column) for Analytical Labs (identified in AnalyzingLab column)	
Lab Qualifiers for Physis	
J	Constituent detected at a concentration below the RL and above the MDL, reported value is estimated.
ND	Constituent not detected at the indicated RL.

Detection Limit Type (identified in DetectLimit column)	
RL	Reporting Limit

Appendix 5

Biotic Ligand Model Results Memorandum

Memorandum

DATE: June 27, 2013

TO: Chris Minton, Larry Walker Associates

COPY TO:

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SUBJECT: **Comparison of Biotic Ligand Model (BLM) Results with Toxicity Testing Data for the Copper Water-Effect Ratio (WER) Study for the Los Angeles River and its Tributaries**

The United States Environmental Protection Agency (USEPA) released a February 2007 revision document to the *Aquatic Life Ambient Freshwater Quality Criteria – Copper* (Copper Criteria Document) utilizing the Biotic Ligand Model (BLM) version 2.2.3 (March 2007) to calculate copper water quality criteria. The BLM is a software program developed by HydroQual, Inc. that predicts speciation and toxicity (EC50s) of trace metals to aquatic organisms based on concentrations of complexing ligands (i.e., organic carbon) and competing cations in water. The Copper Criteria Document provides states with guidance for establishing water quality standards and does not constitute a regulation.

Data utilized to run the BLM were collected as part of the implementation of the *Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL* (Work Plan). This memorandum presents the results of the BLM analysis and the following information:

- Summary of Sampling
- Comparison of Measured and Predicted EC50s
- Comparison of Water Effect Ratio- (WER) and BLM-Derived Copper Criteria
- Observations

SUMMARY OF SAMPLING

Copper toxicity tests were conducted, using water quality samples collected from various locations in the Los Angeles River and its tributaries, for *Ceriodaphnia dubia* (*C. dubia*). The purpose of the copper toxicity tests was to determine the site-specific EC50 concentration, or the concentration at which one-half of the organisms are adversely affected, at each sampling location. In addition to collecting samples for toxicity testing, water quality samples were collected and analyzed for parameter inputs to the BLM. These analytical results are presented in Table A-1 of Appendix A.

A schedule of sampling events is presented in Table 1. For additional details on the sampling locations, schedule, and collection methods, please see the Work Plan and Los Angeles River Copper Water Effect Ratio Final Report.

Table 1. Copper Water Effect Ratio Study Sampling Events

Sampling Location	Summer (Dry)				Winter (Dry)		Wet	
Los Angeles River Mainstem								
LAR Reach 1 @ Wardlow Rd	Jul-11 (2C)	Aug-11 (3C)	Jun-12 (6C)	Aug-12 (7C)	Jan-12 (4C)	Feb-12 (1C)	Nov-11 (1W)	Jan-12 (2W-1)
LAR Reach 2 @ Del Amo Blvd	Jul-11 (2C)	Aug-11 (3C)	Jun-12 (6C)	Aug-12 (7C)	Jan-12 (4C)	Feb-12 (1C)	Nov-11 (1W)	Jan-12 (2W-1)
LAR Reach 2 @ Washington Blvd	Jul-11 (2C)	Aug-11 (3C)	Jun-12 (6C)	Aug-12 (7C)	Jan-12 (4C)	Feb-12 (1C)	NS	NS
LAR Reach 3 @ Figueroa St (downstream of LAGWRP)	Jun-11 (2B)	Aug-11 (3B)	Jun-12 (6B)	Aug-12 (7B)	Mar-11 (1B)	Dec-11 (4B)	Nov-11 (1W)	Jan-12 (2W-1)
LAR Reach 3 @ Colorado Blvd (upstream of LAGWRP)	Jun-11 (2B)	Aug-11 (3B)	Jun-12 (6B)	Aug-12 (7B)	Mar-11 (1B)	Dec-11 (4B)	NS	NS
LAR Reach 3 @ Zoo Dr	Jun-11 (2A)	Aug-11 (3B)	Jun-12 (6B)	Aug-12 (7B)	Mar-11 (1A)	Dec-11 (4B)	NS	NS
LAR Reach 4 Upstream of BWC	Jun-11 (2A)	Aug-11 (3A)	Jun-12 (6A)	Aug-12 (7A)	Apr-11 (1A)	Dec-11 (4A)	Nov-11 (1W)	Jan-12 (2W-1)
Los Angeles River Tributaries								
Tujunga Wash	Jun-11 (2A)	Aug-11 (3A)	Jun-12 (6A)	Aug-12 (7A)	Apr-11 (1A)	Dec-11 (4A)	Nov-11 (1W)	Dec-11 (2W)
BWC (upstream of BWRP)	Jun-11 (2A)	Aug-11 (3A)	Jun-12 (6A)	Aug-12 (7A)	Apr-11 (1A)	Dec-11 (4A)	NS	NS
BWC (downstream of BWRP)	Jun-11 (2A)	Aug-11 (3A)	Jun-12 (6A)	Aug-12 (7A)	Apr-11 (1A)	Dec-11 (4A)	Nov-11 (1W)	Dec-11 (2W)
Verdugo Wash	Jun-11 (2B)	Aug-11 (3B)	Jun-12 (6B)	Aug-12 (7B)	Mar-11 (1B)	Dec-11 (4B)	Nov-11 (1W)	Dec-11 (2W)
Arroyo Seco	Aug-11 (3B)	May-12 (5)	Jun-12 (6B)	Aug-12 (7B)	Dec-11 (4B)	Feb-12 (1C)	Nov-11 (1W)	Dec-11 (2W)
Rio Hondo	Jun-11 (2B)	May-12 (5)	Jun-12 (6C)	Aug-12 (7C)	Feb-12 (1C)	NC	Nov-11 (1W)	Dec-11 (2W)
Compton Creek	Jun-11 (2B)	Aug-11 (3C)	Jun-12 (6C)	Aug-12 (7C)	Jan-12 (4C)	Feb-12 (1C)	Nov-11 (1W)	Dec-11 (2W)

NC – Not sampled due to lack of flow. Several attempts were made to collect another winter dry weather sample, but there was no flow in Rio Hondo during these attempts.

NS – Not sampled because wet weather samples were required at these locations.

COMPARISON OF MEASURED AND PREDICTED EC50s FOR COPPER

As stated previously, toxicity tests were conducted to determine EC50s for copper in the Los Angeles River mainstem and its tributaries. The BLM version 2.2.3 was used to model the analytical data, presented in Table A-1 of Appendix A, to predict copper EC50s for *C. dubia* for each sampling event and location. The following assumptions were used for the BLM:

- The temperature measurement at the initiation of toxicity testing was used in the BLM because it best represents the initial conditions during toxicity testing and allows for comparison between the observed and predicted copper EC50s. In general, the temperature measured in the field during sample collection was 2.5% higher (median) than the temperature at the initiation of toxicity testing. Sensitivity analyses indicate that the difference in these temperatures will result in a negligible difference in predicted copper EC50s.
- The pH measurement at the initiation of toxicity testing was used in the BLM because it best represents the initial conditions during toxicity testing and allows for comparison between the observed and predicted copper EC50s. While there were differences in pH between the field and laboratory measurements on a sample-specific level, there was no net pH drift (median) when considering all samples together. pH is one of the most sensitive parameters of the BLM, and increases in pH typically increase the predicted copper EC50.
- Because the 2007 Copper Criteria Document and the BLM User Guide suggest that humic acid does not need to be measured, it was not analyzed in any of the sampling events. Note that although humic acid was included as part of the BLM to consider the quality of organic carbon in the sample, the quality of organic carbon in the sample was determined post-BLM development to not be a significant factor in determining copper toxicity. Following the 2007 Copper Criteria Document, humic acid was assumed to be 10% for mainstem and tributary samples and 1% for laboratory water. Because of the lack of sensitivity to humic acids these concentrations will not impact the predicted copper EC50s.
- Sulfide is not currently an active parameter in the BLM version 2.2.3 and does not impact the predicted copper EC50s. It was included in the development of the BLM with an expectation that it may be included in future versions of the model. Because sulfide is not currently incorporated into the BLM for modeling purposes, sulfide was not analyzed in any of the sampling events. A placeholder of 0.05 mg/L was used in the BLM to make the model run.
- For parameters that were not detected during analyses, the method detection limit (MDL) was used in the BLM.
- DOC is one of the most sensitive parameters of the BLM, and increases in DOC typically increase the predicted copper EC50. As part of this study, field blanks for DOC were collected during each sampling event, and DOC was detected in several field blanks. All environmental samples for DOC were detected above the reporting limit (typically 0.5 mg/L). Environmental sample results for DOC

were “corrected” by subtracting the corresponding field blank DOC concentrations to remove DOC associated with field blank contamination. The corrected DOC concentrations were used in the BLM.

- In laboratory water samples, there were detected DOC concentrations that were significantly higher than expected due to the nature of laboratory water. For samples with DOC concentrations above 0.5 mg/L (the typical reporting limit), DOC concentrations were capped at 0.5 mg/L for the BLM.
- A user specified parameter file for *C. dubia* provided by Robert Santore (HDR/HydroQual, developer of the BLM) on June 21, 2013 was used. The difference between the user-specified and default *C. dubia* parameter files was a modification of the critical accumulation factor, which specifies the sensitivity of the simulated organism. The default parameter file was calibrated using average sensitivity to simulate the apparent sensitivity of *C. dubia* used by Pacific EcoRisk (toxicity testing laboratory for this study) although a given organism population may be more or less sensitive.

Observed and predicted EC50s for copper for each individual sample as well as a ratio between these results are presented in Figure 1 and Table A-2 of Appendix A. The dotted-lines in Figure 1 illustrate a deviation factor of two from a 1:1 association between toxicity test and BLM results. The ratio between the measured and predicted copper EC50 results provides an indication of how closely the BLM predicted the EC50 compared to the toxicity test results. The closer the EC50 is to the 1:1 line, the closer the BLM predicted the toxicity test EC50. If the ratio of predicted to measured EC50 is below the 1:1 line (i.e., the ratio is less than one) the BLM predicted an EC50 that was lower than measured EC50. If the ratio is above the 1:1 line (i.e., the ratio is greater than one), the BLM predicted an EC50 that was higher than the measured EC50. Summary statistics for predicted and measured copper EC50 ratios are presented in Table 2.

Figure 1. Observed and Predicted (BLM Version 2.2.3) Copper EC50 Results

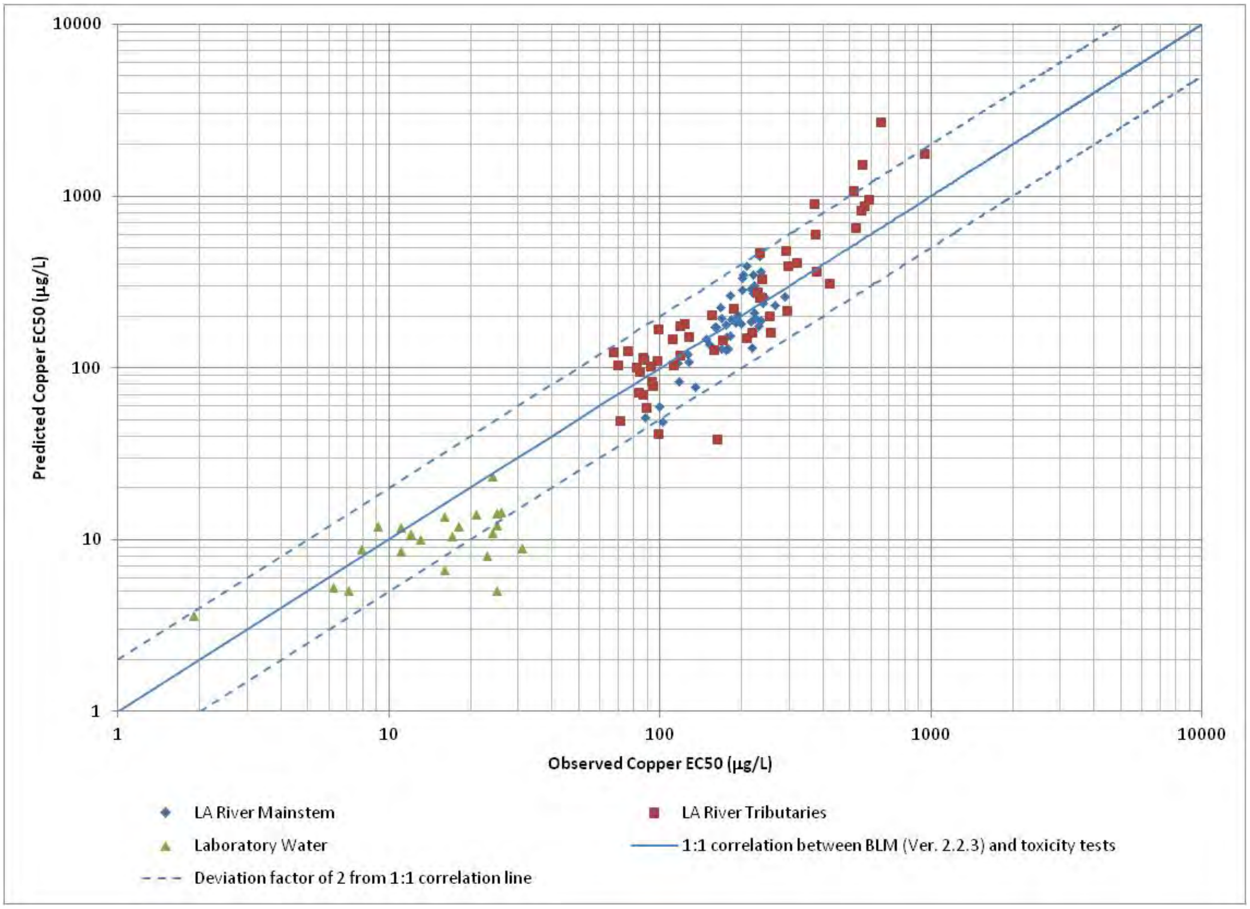

Table 2. Summary Statistics for Predicted (BLM Version 2.2.3) to Observed Copper EC50 Ratios

Site	n	Mean	Median	Range	Standard Deviation
Los Angeles River Mainstem	50	1.1	1.0	0.5-1.9	0.3
Los Angeles River Tributaries	53	1.3	1.2	0.2-4.2	0.6
All Los Angeles River Sites	103	0.8	0.7	0.2-1.9	0.4
Laboratory Water	24	1.1	1.0	0.2-4.2	0.5
All Sites	127	1.2	1.1	0.2-4.2	0.5

COMPARISON OF WER- AND BLM-DERIVED COPPER CRITERIA

The 2007 Copper Criteria Document uses a BLM based approach (rather than a hardness equation) to calculate copper water quality criterion using site-specific parameter data. As part of this analysis, copper water quality criteria were derived for each sampling event at each sampling location using the BLM. These BLM-derived copper criteria were compared to the copper criteria calculated using the sample WER (sWER) and California Toxics Rule (CTR) hardness-adjusted criteria equation.

A prior analysis of BLM and copper sWER data from the *2008 Los Angeles River Copper Water Effect Ratio Study* (2008 Study) indicated that the BLM more closely predicts sWER-based copper criteria using sWERs developed using the USEPA's *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (March 2001, Streamlined Procedure) when compared to sWER-based copper criteria using sWERs developed using the USEPA's *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (February 1994, Interim Procedure). Thus, for the purpose of this evaluation, the Streamlined Procedure derived sWERs are used to develop site-specific copper criteria for comparison to BLM-derived copper criteria.

The BLM version 2.2.3 was used to model the analytical data, presented in Table A-1 of Appendix A, to predict copper criterion maximum concentration (CMC, or acute criterion) for each sampling event and location. The following assumptions were used for the BLM:

- For most sampling events, multiple temperature measurements were collected, and recorded in field logs, over the sampling period to characterize water quality conditions at a sampling location. The average temperature measurements for each sampling event at each sampling location were used in the BLM. The field temperature is used instead of the temperature measurement at the initiation of toxicity testing (as in the case of predicting copper EC50s) because the site-specific temperature is more representative of the conditions under which a copper criterion would be applied.
- For most sampling events, multiple pH measurements were collected, and recorded in field logs, over the sampling period to characterize water quality conditions at a sampling location. These average pH measurements for each sampling event at each sampling location were used in the BLM. As in the case of temperature, the site-specific pH was used because it is more representative of the conditions under which a copper criterion would be applied. The average pH was determined by converting individual pH measurements to dissolved hydrogen ion values to calculate the average dissolved hydrogen ion value and then converted back to pH. This calculation methodology for pH is used because pH is a log-transformed descriptor of hydrogen ions in water.
- As discussed previously, humic acid was not analyzed in any of the sampling events. For mainstem and tributary sites, humic acid was assumed to be 10%, which is the assumed humic acid concentration in the 2007 Copper Criteria Document.

- As discussed previously, a placeholder of 0.05 mg/L for sulfide was used in the BLM to make the model run.
- For parameters that were not detected during analyses, the method detection limit (MDL) was used in the BLM.
- As discussed previously, DOC concentrations corrected for field blank contamination were used in the BLM.
- Other sample- or site-specific assumptions are presented in Table A-1 of Appendix A.

Sample-specific CMCs for copper calculated from the sWERs and CTR hardness-based equation and BLM-derived CMCs for copper are presented in Figure 2 and Table A-3 in Appendix A. The dotted-line in Figure 2 represents a deviation factor of two from a 1:1 association between CTR hardness-based equation and sWER-calculated and BLM-derived CMCs for copper. The ratio between the calculated and BLM-derived CMCs for copper provides an indication of how closely the BLM derived CMCs compare to the CTR hardness-based equation and sWERs. The closer the ratio is to one, the closer the two criteria match. If the ratio is less than one, the BLM derived a CMC that was lower than sWER-derived CMC. If the ratio is greater than one, the BLM derived a CMC that was higher than the sWER-derived CMC. A summary comparing calculated and BLM-derived CMCs for copper is presented in Table 3.

Figure 2. Comparison of Copper Criteria for Los Angeles River Samples

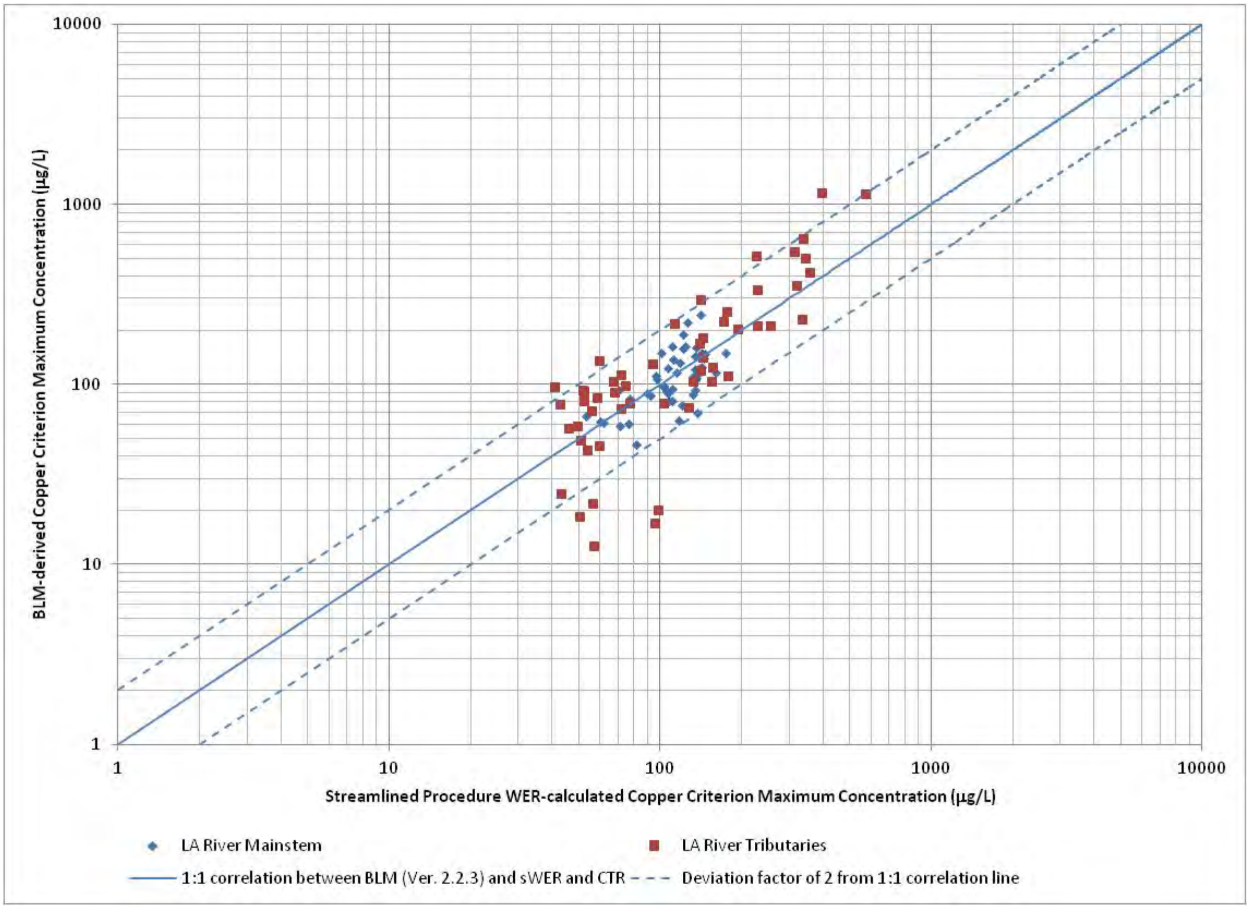

Table 3. Summary Statistics for Streamlined Procedure WER-calculated and BLM-derived Copper Criteria

Site	Result Type	n	Mean	Median	Range	Standard Deviation
Los Angeles River Mainstem	Streamlined Procedure WER criteria	50	115	117	53-174	27
	BLM criteria	50	113	109	46-245	41
Los Angeles River Tributaries	Streamlined Procedure WER criteria	53	146	103	41-572	115
	BLM criteria	53	198	105	13-1,164	240
All Los Angeles River Sites	Streamlined Procedure WER criteria	103	131	115	41-572	86
	BLM criteria	103	157	109	13-1,164	179

OBSERVATIONS

Predicted EC50s and BLM-derived CMCs for copper were compared to the Copper WER Study toxicity test results and sWER- and CTR hardness-based equation CMCs, respectively, for the Los Angeles River mainstem and its tributaries. This analysis resulted in the following observations:

- The BLM generally performed well in predicting EC50s for copper. Nearly all (122 of 127) predicted EC50s for copper were within a deviation factor of two when compared to the observed EC50s. The median differences between predicted and observed EC50s for copper were -1%, 21%, and -30% for Los Angeles River mainstem, Los Angeles River tributaries, and laboratory water, respectively.
- The BLM appears to underestimate EC50s for copper compared to the observed EC50s for copper for wet weather samples. It should be noted that the wet weather sample size is significantly smaller than the dry weather sample size given that the majority of samples were collected during the critical condition (dry weather).
- In general, the BLM and sWER-derived CMCs appear closely associated. Nearly all (98 of 103) BLM-derived CMCs were within a deviation factor of two compared to the CMCs derived using the sWERs. The median difference between BLM-derived and sWER-based CMCs for copper was approximately -5%.

In the 2008 Study, the BLM version 2.1.2 was used to assess the ability of the BLM to predict EC50s and CMCs for copper in comparison with observed results from toxicity testing. In that study, the BLM generally predicted EC50s that were on average twice as high, and up to four times higher, than the measured EC50s. The BLM-based criteria results deviated from sWER and CTR hardness-based criteria by a factor of 1.3 on average to slightly more than 2. The differences between the predicted and observed EC50s and CMCs from the 2008 Study are likely due to the BLM versions and not using a site-specific sensitivity adjustment. The variance between BLM versions 2.1.2 and 2.2.3 is estimated to be no more than 10 percent (personal comm. Robert Santore, Hydroqual). A re-evaluation of 2008 Study data using BLM version 2.2.3 and the site-specific sensitivity adjustment may reaffirm the findings of this analysis.

In summary, the BLM appears to effectively simulate EC50s and calculate copper water quality criteria when compared to toxicity test-based EC50s and sWER-based copper water quality criteria, respectively. Based on this analysis, the BLM with the site-specific sensitivity adjustments could be used to supplement future WER testing.

APPENDIX A.

Table A-1. Los Angeles River Copper WER Study Sample Results and BLM Input Parameters [1,2]

Site	Event	Field T [3]	Lab T [4]	Field pH [5]	Lab pH [6]	DOC [7]	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
LAR_TUJ_AV	1W	12.5	21.0	7.89	7.64	8.68	25	6.8	34	5.8	33	55
LAR_TUJ_AV	2W-1	12.5 [8]	19.6	7.89 [8]	7.25	9.58	31	9.3	19	<5 [9]	20	52
LAR_UP_BWC	1A	21.2	19.9	8.49	8.3	5.01	95	34	119	12	122	156
LAR_UP_BWC	2A	22.5	20.6	8.67	8.56	6.31	81	32	120	12	117	141
LAR_UP_BWC	3A	25.5	20.0	8.63	8.68	5.20	59	20	91	11	95	166
LAR_UP_BWC	4A	11.8	20.3	8.64	8.52	6.50	63	20	99	12	97	149
LAR_UP_BWC	6A	22.7	19.9	8.21	8.36	5.90	59	22	113	13	127	119
LAR_UP_BWC	7A	27.3	20.1	8.36	8.78	9.49	51	19	108	13	110	113
LAR_ZOO	1B	19.9	19.8	8.66	8.47	6.52	73	27	112	13	109	144
LAR_ZOO	2A	22.2	20.6	8.70	8.48	5.81	81	31	118	13	127	145
LAR_ZOO	3B	24.6	20.1	8.55	8.62	5.83	63	19	93	13	93	111
LAR_ZOO	4B	12.8	20.3	8.64	8.28	7.38	56	17	109	13	105	136
LAR_ZOO	6B	24.6	20.1	8.46	8.38	4.83	62	22	115	14	118	121
LAR_ZOO	7B	26.7	19.9	8.41	8.59	8.86	53	19	109	13	113	127
LAR_CO	1B	20.2	19.8	8.79	8.99	5.52	73	27	107	12	110	151
LAR_CO	2B	22.2	20.4	8.51	8.49	4.88	86	28	105	13	109	170
LAR_CO	3B	25.3	20.1	8.81	8.93	6.03	64	20	91	12	96	118
LAR_CO	4B	12.8	20.3	8.68	8.40	7.08	56	17	102	12	103	151
LAR_CO	6B	25.5	20.1	8.44	8.90	5.13	63	22	112	14	121	139
LAR_CO	7B	26.9	19.9	8.27	8.84	9.56	52	19	107	13	116	136

Site	Event	Field T (3)	Lab T (4)	Field pH (5)	Lab pH (6)	DOC (7)	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
LAR_FIG	1B	20.3	19.8	8.74	8.59	5.12	72	27	108	12	111	166
LAR_FIG	1W	14.6	21.0	7.89	7.81	6.28	39	12	46	6.6	46	88
LAR_FIG	2B	23.2	20.4	8.56	8.52	4.38	82	28	112	13	113	173
LAR_FIG	2W-1	14.6 (8)	19.6	7.89 (8)	7.60	12.6	28	7.2	23	5.4	25	57
LAR_FIG	3B	24.8	20.1	8.77	8.45	5.43	67	22	96	13	101	137
LAR_FIG	4B	14.6	20.3	8.55	8.11	6.38	59	20	98	12	93	157
LAR_FIG	6B	24.7	20.1	8.42	8.43	4.53	67	24	114	14	122	146
LAR_FIG	7B	26.9	19.9	8.43	8.43	8.06	60	22	112	13	118	147
LAR_DEL	1C	14.4	19.1	8.76	8.96	6.70	78	29	109	12	104	168
LAR_DEL	1W	15.4	21.0	7.79	7.87	9.08	35	11	44	6.5	45	80
LAR_DEL	2C	24.3	20.9	8.99	9.09	6.28	72	27	99	12	107	141
LAR_DEL	2W-1	15.4 (8)	19.6	7.79 (8)	7.29	10.6	18	5.0	20	<5 (9)	16	42
LAR_DEL	3C	23.4	20.1	8.28	8.85	7.50	67	22	98	11	104	144
LAR_DEL	4C	15.2	19.9	8.62	9.17	6.70	71	25	96	11	104	170
LAR_DEL	6C	22.8	20.2	8.91	8.97	6.28	52	25	112	13	120	129
LAR_DEL	7C	26.3	19.7	8.72	8.92	9.72	52	22	113	13	117	134
LAR_WASH	1C	15.2	19.1	8.44	8.46	6.30	79	29	108	12	104	161
LAR_WASH	2C	23.7	20.9	8.77	8.68	4.98	75	26	96	11	105	142
LAR_WASH	3C	24.1	20.1	8.15	8.56	5.90	65	22	93	11	103	156
LAR_WASH	4C	14.9	19.9	8.14	8.66	5.80	69	24	94	11	103	172
LAR_WASH	6C	23.4	20.2	8.36	8.60	5.88	66	24	111	13	121	140
LAR_WASH	7C	25.5	19.7	8.58	8.64	8.02	58	22	111	13	118	140

Site	Event	Field T [3]	Lab T [4]	Field pH [5]	Lab pH [6]	DOC [7]	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
LAR_WARD	1C	15.2	19.1	8.79	9.18	7.70	76	28	106	12	104	163
LAR_WARD	1W	14.4	21.0	7.93	7.52	13.5	20	5.2	22	<5 [9]	21	52
LAR_WARD	2C	25.1	20.9	9.06	9.21	7.08	68	26	100	12	109	129
LAR_WARD	2W-1	14.4 [8]	19.6	7.93 [8]	7.24	10.6	14	3.1	8.9	<5 [9]	12	35
LAR_WARD	3C	23.9	20.1	7.91	8.91	7.00	60	23	96	11	104	137
LAR_WARD	4C	14.5	19.9	8.99	9.42	6.90	68	25	95	11	105	164
LAR_WARD	6C	23.0	20.2	8.88	8.99	6.28	45	25	113	13	121	118
LAR_WARD	7C	26.2	19.7	8.73	8.98	10.7	44	23	118	14	124	124
TW_AT_MOOR	1W	12.7	21.0	8.27	7.41	9.28	33	9.5	44	8.3	45	29
TW_AT_MOOR	2W	10.7	20.1	8.12	7.63	12.4	14	2.5	6.8	<5 [9]	5.3	34
TW_AT_LAR	1A	17.7	19.9	8.06	8.80	23.5	52	9.6	67	17	82	117
TW_AT_LAR	2A	19.5	20.6	8.86	8.86	13.7	35	9.4	55	6.6	50	119
TW_AT_LAR	3A	22.1	20.0	8.36	8.63	14.5	38	21	59	10	61	97
TW_AT_LAR	4A	5.6	20.3	8.47	8.28	7.50	29	12	49	6.5	46	123
TW_AT_LAR	6A	19.8	19.9	8.43	8.39	17.6	146	21	353	21	616	117
TW_AT_LAR	7A	25.3	20.1	8.08	8.43	37.6	157	23	404	24	728	147
BWC_UP_BWRP	1A	17.3	19.9	8.79	8.78	9.51	73	34	80	7.9	123	202
BWC_UP_BWRP	2A	16.8	20.6	8.80	8.66	11.7	67	30	100	9.7	147	187
BWC_UP_BWRP	3A	19.5	20.0	8.52	8.48	12.5	69	29	107	11	144	168
BWC_UP_BWRP	4A	7.8	20.3	8.47	8.43	10.0	65	29	72	9.2	94	187
BWC_UP_BWRP	6A	18.3	19.9	8.68	8.39	10.6	83	33	157	14	241	176
BWC_UP_BWRP	7A	22.2	20.1	8.51	8.56	18.6	64	23	118	14	151	159

Site	Event	Field T (3)	Lab T (4)	Field pH (5)	Lab pH (6)	DOC (7)	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
BWC_AT_RIV	1W	15.5	21.0	8.10	8.05	10.5	14	2.8	12	<5 (9)	12	110
BWC_AT_RIV	2W	11.3	20.1	7.80	7.54	7.73	15	3.7	15	<5 (9)	15	40
BWC_AT_LAR	1A	22.7	19.9	8.61	8.81	5.21	85	22	100	16	115	200
BWC_AT_LAR	2A	22.8	20.6	8.72	8.39	5.81	78	23	105	18	113	202
BWC_AT_LAR	3A	26.1	20	8.61	8.92	5.30	69	19	105	15	115	86
BWC_AT_LAR	4A	17.2	20.3	8.60	8.35	6.20	68	20	95	16	100	180
BWC_AT_LAR	6A	23.6	19.9	8.11	8.32	5.90	66	20	105	17	109	190
BWC_AT_LAR	7A	27.6	20.1	8.37	8.59	7.99	66	20	100	16	107	187
VERD_AT_KEN	1W	15.0	21.0	8.24	7.97	7.08	45	14	37	<5 (9)	44	97
VERD_AT_KEN	2W	10.6	20.1	7.87	7.29	8.13	11	2.8	6.2	<5 (9)	7.6	31
VD_AT_LAR	1B	19.5	19.8	8.93	8.58	3.82	82	36	62	<5 (9)	106	199
VD_AT_LAR	2B	20.8	20.4	8.58	8.57	3.98	82	39	73	5.4	121	165
VD_AT_LAR	3B	24.9	20.1	8.81	8.87	5.63	75	34	71	5.8	116	155
VD_AT_LAR	4B	10.6	20.3	8.70	8.76	3.78	76	33	57	<5 (9)	87	191
VD_AT_LAR	6B	25.1	20.1	8.77	8.86	7.63	67	31	77	7.1	123	135
VD_AT_LAR	7B	26.5	19.9	8.76	8.87	12.6	65	35	97	8.0	166	153
RH_AT_LAR	1C	12.3	19.6	8.48	8.54	33.0	51	8.5	64	8.9	79	110
RH_AT_LAR	1W	14.4	21.0	6.70	7.51	10.5	13	2.3	11	<5 (9)	13	32
RH_AT_LAR	2B	23.0	20.4	8.95	9.18	21.1	94	31	170	15	223	110
RH_AT_LAR	2W	11.0	20.1	7.37	7.41	7.73	10	1.6	7.7	<5 (9)	9.0	28
RH_AT_LAR	5	23.3	19.9	8.63	8.46	49.0	127	32	230	46	337	173
RH_AT_LAR	6C	21.7	20.2	8.50	8.46	25.3	145	31	225	363	556	166

Site	Event	Field T [3]	Lab T [4]	Field pH [5]	Lab pH [6]	DOC [7]	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
RH_AT_LAR	7C	21.7	19.7	8.50	8.89	55.7	122	23	251	31	314	143
AS_AT_LAR	1C	12.5	19.1	8.36	8.39	4.00	92	31	52	<5 [9]	72	180
AS_AT_LAR	1W	14.4	21.0	6.89	8.07	7.88	60	19	35	<5 [9]	55	124
AS_AT_LAR	2W	11.1	20.1	7.19	7.27	7.73	21	6.0	11	6.0	16	46
AS_AT_LAR	3B	24.0	20.1	8.60	8.44	3.93	104	32	52	<5 [9]	83	187
AS_AT_LAR	4B	12.0	20.3	8.48	8.30	4.48	91	30	51	<5 [9]	77	183
AS_AT_LAR	5	19.6	19.9	8.58	8.45	7.70	49	14	30	<5 [9]	43	108
AS_AT_LAR	6B	24.0	20.1	8.50	8.43	4.33	97	37	67	5.3	100	200
AS_AT_LAR	7B	27.7	19.9	8.39	8.3	5.26	87	35	84	<5 [9]	118	167
CC_AT_DEL	1W	14.7	21.0	6.91	7.42	12.5	17	2.5	12	<5 [9]	9.5	46
CC_AT_DEL	2W	11.7	20.1	7.17	7.74	7.33	18	2.7	13	<5 [9]	11	51
CC_AT_LAR	1C	14.4	19.1	8.51	7.98	7.80	44	6.6	28	5.0	21	111
CC_AT_LAR	2B	23.4	20.4	8.58	8.22	7.28	81	13	79	6.7	73	196
CC_AT_LAR	3C	22.3	20.1	8.55	7.98	11.8	69	14	111	9.4	113	184
CC_AT_LAR	4C	14.0	19.9	8.33	8.24	8.10	57	14	80	7.1	73	190
CC_AT_LAR	6C	24.3	20.2	8.46	8.29	6.18	66	14	81	5.6	75	142
CC_AT_LAR	7C	25.4	19.7	8.09	8.15	37.7	93	18	134	15	126	262
LAB_WATER	1A	20.0	19.9	8.17	8.57	0.5 [10]	9.7	26	58	<5 [9]	4.4	76
LAB_WATER	1B	20.0	19.9	8.26	8.57	0.5 [10]	16	48	104	8.8	7.0	119
LAB_WATER	1C-1	20.0	19.1	8.62	8.30	0.29	20	18	41	<5 [9]	2.6	90
LAB_WATER	1C-2	20.0	19.6	8.45	8.33	0.34	25	23	53	<5 [9]	3.5	108
LAB_WATER	1W	20.0	21.0	7.86	7.87	0.5 [10]	6.3	5.8	14.7	<5 [9]	0.92	35

Site	Event	Field T (3)	Lab T (4)	Field pH (5)	Lab pH (6)	DOC (7)	Ca	Mg	Na	K	Cl	Alk
		ºC	ºC	Std Units	Std Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L as $CaCO_3$
LAB_WATER	2A	20.0	20.6	8.04	8.09	0.5 (10)	15	21	31	<5 (9)	3.1	47
LAB_WATER	2B	20.0	20.9	8.64	8.53	0.5 (10)	38	33	73	5.9	5.0	142
LAB_WATER	2C	20.0	20.9	8.59	8.43	0.5 (10)	27	38	85	6.6	5.8	130
LAB_WATER	2W-1	20.0	19.6	7.56	7.6	0.16	6.7	5.9	13	<5 (9)	0.92	31
LAB_WATER	2W	20.0	20.1	7.86	7.65	0.20	6.4	5.8	9.4	<5 (9)	0.92	29
LAB_WATER	3A	20.0	20.0	8.35	8.25	0.5 (10)	27	23	50	<5 (9)	3.7	122
LAB_WATER	3B	20.0	20.1	8.07	8.15	0.5 (10)	33	28	71	<5 (9)	4.8	160
LAB_WATER	3C	20.0	20.1	8.07	8.09	0.5 (10)	32	27	68	<5 (9)	4.4	147
LAB_WATER	4A	20.0	20.3	8.50	8.37	0.5 (10)	19	17	38	<5 (9)	2.6	83
LAB_WATER	4B	20.0	20.3	8.35	8.31	0.48	32	27	65	<5 (9)	4.4	144
LAB_WATER	4C	20.0	19.9	8.37	8.28	0.21	31	26	62	<5 (9)	4.1	136
LAB_WATER	5	20.0	19.9	8.59	8.42	0.5 (10)	26	23	53	<5 (9)	3.7	116
LAB_WATER	6A	20.0	19.9	8.57	8.54	0.5 (10)	34	30	76	5.1	4.9	165
LAB_WATER	6B	20.0	20.2	8.54	8.55	0.5 (10)	35	31	76	5.2	4.9	161
LAB_WATER	6C	20.0	20.2	8.56	8.45	0.5 (10)	35	89	72	5.3	4.6	149
LAB_WATER	7A-1	20.0	20.1	8.53	8.42	0.5 (10)	32	27	70	<5 (9)	4.6	149
LAB_WATER	7A-2	20.0	20.1	8.35	8.4	0.5 (10)	43	87	228	15	19	345
LAB_WATER	7B	20.0	19.9	8.53	8.46	0.5 (10)	31	27	65	<5 (9)	4.6	140
LAB_WATER	7C	20.0	19.7	8.63	8.43	0.5 (10)	34	29	68	5.1	5.0	141

(1) Humic acid of 1% was used for laboratory water simulations and 10% for Los Angeles River samples. The rationale is that the laboratory water would have less organic materials than site waters.

(2) Sulfide is currently included in the BLM, but not used as part of the model to predict EC50 concentrations or criteria. A placeholder sulfide concentration of 0.05 mg/L was used in the BLM.

(3) Multiple field temperature measurements were made during each sampling event at each sampling location. The average temperature measurement was calculated and used for BLM simulations when predicting water quality criteria for copper.

(4) The temperature measurement at the initiation of toxicity testing was used for BLM simulations when predicting EC50s for copper.

(5) Multiple field pH measurements were made during each sampling event at each sampling site. The average pH, which was used in BLM simulations when predicting water quality criteria for copper, was calculated by converting individual pH measurements to dissolved hydrogen ion concentrations, determining the average dissolved hydrogen ion concentrations, and converting the average dissolved hydrogen ion concentration back to an average pH.

(6) The pH measurement at the initiation of toxicity testing was used for BLM simulations when predicting EC50s for copper.

(7) Dissolved organic carbon (DOC) was detected in several field blanks. Analytical results for DOC were corrected by subtracting the corresponding field blank analytical result. The corrected DOC concentrations were used for the BLM.

(8) Temperature and pH were not measured during the Event 2W at the Los Angeles mainstem locations. The measurement from Event 1W at the same location was used for the BLM.

(9) Constituent was not detected at the method detection limit (MDL). The MDL was used for the BLM.

(10) DOC concentrations in laboratory water were capped at 0.5 mg/L.

Table A-2. Observed and Predicted (BLM Version 2.2.3) EC50s for Copper

Site	Event	Observed EC50 (μg/L)	Predicted EC50 (μg/L)	Predicted to Observed Ratio
LAR_TUJ_AV	1W	117	84	0.72
LAR_TUJ_AV	2W-1	102	49	0.48
LAR_UP_BWC	1A	175	128	0.73
LAR_UP_BWC	2A	194	205	1.06
LAR_UP_BWC	3A	161	174	1.08
LAR_UP_BWC	4A	169	196	1.16
LAR_UP_BWC	6A	182	155	0.85
LAR_UP_BWC	7A	203	351	1.73
LAR_ZOO	1B	235	190	0.81
LAR_ZOO	2A	231	176	0.76
LAR_ZOO	3B	217	187	0.86
LAR_ZOO	4B	189	183	0.97
LAR_ZOO	6B	218	132	0.60
LAR_ZOO	7B	200	284	1.42
LAR_CO	1B	265	232	0.88
LAR_CO	2B	148	148	1.00
LAR_CO	3B	239	240	1.00
LAR_CO	4B	225	194	0.86
LAR_CO	6B	222	209	0.94
LAR_CO	7B	235	366	1.56
LAR_FIG	1B	221	165	0.75
LAR_FIG	1W	135	78	0.58
LAR_FIG	2B	152	138	0.91
LAR_FIG	2W-1	127	108	0.85
LAR_FIG	3B	176	152	0.86
LAR_FIG	4B	169	130	0.77
LAR_FIG	6B	178	130	0.73
LAR_FIG	7B	166	227	1.37
LAR_DEL	1C	221	178	1.03
LAR_DEL	1W	126	174	1.09
LAR_DEL	2C	224	180	0.91

Site	Event	Observed EC50 (μg/L)	Predicted EC50 (μg/L)	Predicted to Observed Ratio
LAR_DEL	2W-1	99	192	1.00
LAR_DEL	3C	217	193	1.05
LAR_DEL	4C	223	267	1.46
LAR_DEL	6C	287	274	1.24
LAR_DEL	7C	208	120	0.95
LAR_WASH	1C	174	281	1.26
LAR_WASH	2C	159	60	0.60
LAR_WASH	3C	198	288	1.33
LAR_WASH	4C	192	303	1.36
LAR_WASH	6C	183	261	0.91
LAR_WASH	7C	182	391	1.88
LAR_WARD	1C	221	348	1.57
LAR_WARD	1W	116	107	0.92
LAR_WARD	2C	200	334	1.67
LAR_WARD	2W-1	88	52	0.59
LAR_WARD	3C	225	275	1.22
LAR_WARD	4C	238	343	1.44
LAR_WARD	6C	242	262	1.08
LAR_WARD	7C	233	446	1.92
TW_AT_MOOR	1W	85.7	70	0.82
TW_AT_MOOR	2W	112	105	0.93
TW_AT_LAR	1A	552	831	1.51
TW_AT_LAR	2A	291	483	1.66
TW_AT_LAR	3A	318	413	1.30
TW_AT_LAR	4A	127	153	1.21
TW_AT_LAR	6A	527	657	1.25
TW_AT_LAR	7A	554	1,519	2.74
BWC_UP_BWRP	1A	237	328	1.39
BWC_UP_BWRP	2A	295	394	1.33
BWC_UP_BWRP	3A	377	363	0.96
BWC_UP_BWRP	4A	233	256	1.10
BWC_UP_BWRP	6A	421	312	0.74

Site	Event	Observed EC50 (μg/L)	Predicted EC50 (μg/L)	Predicted to Observed Ratio
BWC_UP_BWRP	7A	375	601	1.60
BWC_AT_RIV	1W	170	146	0.86
BWC_AT_RIV	2W	89	59	0.67
BWC_AT_LAR	1A	254	202	0.79
BWC_AT_LAR	2A	256	162	0.63
BWC_AT_LAR	3A	293	216	0.74
BWC_AT_LAR	4A	218	161	0.74
BWC_AT_LAR	6A	209	151	0.72
BWC_AT_LAR	7A	237	257	1.08
VERD_AT_KEN	1W	92	102	1.11
VERD_AT_KEN	2W	98	42	0.42
VD_AT_LAR	1B	97	111	1.14
VD_AT_LAR	2B	118	118	1.00
VD_AT_LAR	3B	155	205	1.32
VD_AT_LAR	4B	76	126	1.66
VD_AT_LAR	6B	229	276	1.21
VD_AT_LAR	7B	232	471	2.03
AS_AT_LAR	1C	84	96	1.14
AS_AT_LAR	1W	157	128	0.81
AS_AT_LAR	2W	162	38	0.24
AS_AT_LAR	3B	70	104	1.48
AS_AT_LAR	4B	82	101	1.23
AS_AT_LAR	5	118	175	1.48
AS_AT_LAR	6B	86	115	1.33
AS_AT_LAR	7B	67	124	1.85
RH_AT_LAR	1C	587	960	1.63
RH_AT_LAR	1W	94	78	0.83
RH_AT_LAR	2B	516	1,071	2.08
RH_AT_LAR	2W	71	49	0.69
RH_AT_LAR	5	941	1,758	1.87
RH_AT_LAR	6C	564	884	1.57
RH_AT_LAR	7C	649	2,712	4.18

Site	Event	Observed EC50 (μg/L)	Predicted EC50 (μg/L)	Predicted to Observed Ratio
CC_AT_DEL	1W	93	84	0.90
CC_AT_DEL	2W	83	72	0.87
CC_AT_LAR	1C	87	112	1.28
CC_AT_LAR	2B	98	167	1.71
CC_AT_LAR	3C	186	223	1.20
CC_AT_LAR	4C	123	182	1.48
CC_AT_LAR	6C	111	148	1.33
CC_AT_LAR	7C	371	908	2.45
LAB_WATER	1A	12	11	0.91
LAB_WATER	1B	16	14	0.86
LAB_WATER	1C-1	7.1	5.0	0.71
LAB_WATER	1C-2	16	6.7	0.42
LAB_WATER	1W	1.9	3.6	1.90
LAB_WATER	2A	6.2	5.3	0.85
LAB_WATER	2B	21	14	0.67
LAB_WATER	2C	25	12	0.49
LAB_WATER	2W	0.96	0.78	0.81
LAB_WATER	2W	1.4	1.0	0.69
LAB_WATER	3A	11	8.6	0.78
LAB_WATER	3B	31	8.9	0.29
LAB_WATER	3C	23	8.1	0.35
LAB_WATER	4A	7.9	8.8	1.11
LAB_WATER	4B	13	10	0.77
LAB_WATER	4C	25	5.1	0.20
LAB_WATER	5	17	10	0.62
LAB_WATER	6A	25	14	0.57
LAB_WATER	6B	26	14	0.56
LAB_WATER	6C	24	11	0.46
LAB_WATER	7A-1	18	12	0.67
LAB_WATER	7A-2	24	24	0.98
LAB_WATER	7B	9.1	12	1.32
LAB_WATER	7C	11	12	1.08

Table A-3. Copper Criterion Maximum Concentration Using Hardness-based Equation and BLM

Site	Event	Hardness (mg/L as $CaCO_3$)	Streamlined Procedure sWER	WER & Hardness-based Copper CMC (μg/L)	BLM-calculated Copper CMC (μg/L)	% Difference
LAR_TUJ_AV	1W	87	6.0	71	59	-20%
LAR_TUJ_AV	2W-1	109	4.3	62	61	-1%
LAR_UP_BWC	1A	360	2.4	106	90	-19%
LAR_UP_BWC	2A	298	3.1	118	132	11%
LAR_UP_BWC	3A	217	3.5	98	106	8%
LAR_UP_BWC	4A	238	3.4	103	98	-5%
LAR_UP_BWC	6A	234	3.7	111	81	-37%
LAR_UP_BWC	7A	201	4.8	123	163	24%
LAR_ZOO	1B	271	4.2	143	125	-14%
LAR_ZOO	2A	297	3.7	140	123	-14%
LAR_ZOO	3B	212	4.8	132	110	-20%
LAR_ZOO	4B	194	4.6	115	116	1%
LAR_ZOO	6B	224	4.6	133	88	-51%
LAR_ZOO	7B	195	4.8	122	158	23%
LAR_CO	1B	275	4.6	161	116	-39%
LAR_CO	2B	291	2.4	90	89	-1%
LAR_CO	3B	220	5.1	145	139	-5%
LAR_CO	4B	206	5.2	137	113	-21%
LAR_CO	6B	232	4.5	135	93	-45%
LAR_CO	7B	202	5.5	143	149	4%
LAR_FIG	1B	278	3.8	134	105	-28%
LAR_FIG	1W	146	4.3	82	46	-78%
LAR_FIG	2B	284	2.6	92	86	-7%
LAR_FIG	2W-1	98	5.9	77	84	8%
LAR_FIG	3B	234	3.6	107	122	13%
LAR_FIG	4B	218	3.7	103	97	-6%
LAR_FIG	6B	249	3.4	108	81	-34%
LAR_FIG	7B	222	3.5	101	149	32%
LAR_DEL	1C	286	3.7	134	121	-11%
LAR_DEL	1W	128	4.5	77	60	-28%

Site	Event	Hardness (mg/L as $CaCO_3$)	Streamlined Procedure sWER	WER & Hardness-based Copper CMC (μg/L)	BLM-calculated Copper CMC (μg/L)	% Difference
LAR_DEL	2C	254	4.2	136	160	15%
LAR_DEL	2W-1	63	6.9	60	62	4%
LAR_DEL	3C	239	4.3	132	110	-20%
LAR_DEL	4C	263	4.1	136	109	-24%
LAR_DEL	6C	226	6.0	174	149	-17%
LAR_DEL	7C	211	4.7	126	220	43%
LAR_WASH	1C	280	3.0	106	92	-15%
LAR_WASH	2C	262	2.9	97	111	13%
LAR_WASH	3C	242	3.9	120	76	-58%
LAR_WASH	4C	266	3.5	117	63	-85%
LAR_WASH	6C	241	3.6	111	95	-17%
LAR_WASH	7C	223	3.9	111	162	32%
LAR_WARD	1C	286	3.7	134	143	6%
LAR_WARD	1W	69	7.4	71	93	24%
LAR_WARD	2C	249	3.8	122	189	36%
LAR_WARD	2W-1	44	8.6	53	66	20%
LAR_WARD	3C	234	4.6	137	70	-97%
LAR_WARD	4C	260	3.4	112	138	19%
LAR_WARD	6C	214	5.3	147	146	0%
LAR_WARD	7C	200	5.5	142	245	42%
TW_AT_MOOR	1W	29	12.4	52	93	44%
TW_AT_MOOR	2W	35	13.6	68	90	25%
TW_AT_LAR	1A	140	18.2	336	231	-45%
TW_AT_LAR	2A	117	11.4	177	255	31%
TW_AT_LAR	3A	162	9.1	193	202	5%
TW_AT_LAR	4A	120	4.8	77	79	3%
TW_AT_LAR	6A	426	6.1	320	354	10%
TW_AT_LAR	7A	472	5.8	337	648	48%
BWC_UP_BWRP	1A	297	3.8	144	181	20%
BWC_UP_BWRP	2A	266	5.1	172	225	24%
BWC_UP_BWRP	3A	274	6.6	229	212	-8%

Site	Event	Hardness (mg/L as $CaCO_3$)	Streamlined Procedure sWER	WER & Hardness-based Copper CMC (μg/L)	BLM-calculated Copper CMC (μg/L)	% Difference
BWC_UP_BWRP	4A	275	4.1	142	120	-18%
BWC_UP_BWRP	6A	319	6.4	256	212	-21%
BWC_UP_BWRP	7A	240	7.4	228	336	32%
BWC_AT_RIV	1W	138	5.7	103	78	-32%
BWC_AT_RIV	2W	46	8.3	54	43	-25%
BWC_AT_LAR	1A	260	4.7	154	103	-49%
BWC_AT_LAR	2A	258	4.7	156	125	-24%
BWC_AT_LAR	3A	232	6.0	178	111	-61%
BWC_AT_LAR	4A	240	4.3	132	104	-28%
BWC_AT_LAR	6A	240	4.1	127	74	-71%
BWC_AT_LAR	7A	234	4.8	144	141	-2%
VERD_AT_KEN	1W	157	2.7	56	71	22%
VERD_AT_KEN	2W	33	12.6	60	46	-30%
VD_AT_LAR	1B	339	1.4	59	85	31%
VD_AT_LAR	2B	322	1.8	72	73	2%
VD_AT_LAR	3B	292	2.6	94	130	27%
VD_AT_LAR	4B	308	1.2	46	57	19%
VD_AT_LAR	6B	279	3.9	139	170	18%
VD_AT_LAR	7B	310	3.6	141	294	52%
AS_AT_LAR	1C	317	1.3	51	49	-5%
AS_AT_LAR	1W	225	3.3	95	17	-463%
AS_AT_LAR	2W	73	9.9	98	20	-392%
AS_AT_LAR	3B	353	1.0	43	78	45%
AS_AT_LAR	4B	329	1.2	50	59	15%
AS_AT_LAR	5	168	3.3	72	113	36%
AS_AT_LAR	6B	362	1.2	52	81	35%
AS_AT_LAR	7B	343	1.0	41	96	58%
RH_AT_LAR	1C	159	17.2	357	419	15%
RH_AT_LAR	1W	44	9.2	57	13	-349%
RH_AT_LAR	2B	305	8.2	314	546	43%
RH_AT_LAR	2W	31	9.7	43	25	-74%

Site	Event	Hardness (mg/L as $CaCO_3$)	Streamlined Procedure sWER	WER & Hardness-based Copper CMC (μg/L)	BLM-calculated Copper CMC (μg/L)	% Difference
RH_AT_LAR	5	407	11.3	572	1140	50%
RH_AT_LAR	6C	449	6.2	343	505	32%
RH_AT_LAR	7C	364	8.7	394	1164	66%
CC_AT_DEL	1W	48	8.4	56	22	-159%
CC_AT_DEL	2W	51	7.1	50	18	-173%
CC_AT_LAR	1C	126	3.1	53	92	43%
CC_AT_LAR	2B	211	2.2	59	136	56%
CC_AT_LAR	3C	213	4.1	113	217	48%
CC_AT_LAR	4C	185	3.1	75	98	24%
CC_AT_LAR	6C	201	2.6	67	105	35%
CC_AT_LAR	7C	283	6.3	226	517	56%