

***Navajo Nation –Chinle Wash Watershed –  
Preliminary Surface Water Quality  
Assessment Report (Integrated 305(b)  
Report and 303(d) Listing)***



(Photograph of Nazlini Wash on July 21, 2009)

Prepared by:

Navajo Nation Environmental Protection Agency  
Water Quality Program  
Post Office Box 339  
Window Rock, Arizona 86515  
(928) 871-7690

February 8, 2016

**TABLE OF CONTENTS**

1.0 Background and Purpose ..... 1

2.0 Chinle Wash Watershed ..... 2

3.0 Chinle Wash Watershed Surface Water Quality Data Collection Activities ..... 6

4.0 Chinle Wash Watershed Surface Water Quality Data Assessment ..... 7

5.0 References..... 114

**FIGURES**

2.0. Chinle Wash Watershed.....3

Detailed Geographic Locations of Watershed Sample Sites.....3

**TABLES**

2.0 Atlas of Assessed Surface Water Bodies with Known Lengths/Areas.....6

Sample Site Water Quality Data Assessment Tables.....8

**PHOTOGRAPHS**

Photographs of Sample Sites.....8 to 103

## 1.0 Background and Purpose

The objective of the United States Clean Water Act (USCWA) is to "*restore and maintain* the chemical, physical, and biological integrity of the Nation's Waters" (USGPO, 1988). In order to meet this objective, and exert its sovereign authority to protect its water resources, the Navajo Nation codified the Navajo Nation Clean Water Act (NNCWA 1999) in July 1999. The importance of water to the Navajo Nation is clearly demonstrated by the adoption of the NNCWA, with the Navajo Nation being only one of a few tribes or states to adopt a clean water act. The NNCWA provides the legislative authority to allow the Navajo Nation to fulfill the USCWA requirements.

In order to *restore and maintain* the chemical, physical, and biological integrity of the Nation's Water, states and federally recognized tribes adopt water quality standards which protect the uses of the Nation's water bodies. Water quality standards are narrative and numeric criteria used as benchmarks to determine if a designated use for a water body is being attained. NNCWA Section 103(a)(2)(A) provides for "the establishment of water quality standards to protect fish and wildlife and the domestic, cultural, agricultural and recreational uses of the waters of the Navajo Nation." This is consistent with the "fishable and swimmable goal" set forth in USCWA Sections 101(a)(2) and 303(c)(2). NNCWA Sections 201(b) and (c) requires that designated uses be established for public water supplies, the protection and propagation of fish and wildlife, recreational purposes, agricultural (including livestock watering), industrial, cultural, and other uses, and to establish criteria to protect the designated uses.

The Navajo Nation first codified the 1999 Navajo Nation Water Quality Standards (1999 NNWQS) in July 1999 (NNEPA 1999). On January 20, 2006 the US Environmental Protection Agency (USEPA) approved the Navajo Nation's application to administer the Water Quality Standards and Certification Programs under the federal Clean Water Act's Sections 303 and 401. On March 26, 2009, the USEPA approved the 2007 Navajo Nation Surface Water Quality Standards (2007 NNSWQS ) (NNEPA 2008). Revisions to the 2007 NNSWQS have been made and are contained within the draft 2015 NNSWQS (NNEPA 2015). The draft 2015 NNSWQS are awaiting public review and comment.

The Navajo Environmental Protection National Pollutant Discharge Elimination System / Water Quality Program (NNEPA WQP) is responsible for implementing the requirements of the USCWA and the NNCWA within the Navajo Nation.

This report is intended to fulfill USCWA Section 305(b) reporting requirements, USCWA Section 303(d) listing requirements, USEPA's USCWA Section 106 Tribal Guidance, Chapter 8 and Appendix A, assessment reporting requirements, and FY 2015 National Water Program Guidance Measures WQ-SP14b.N11. It also fulfills assessment reporting requirements in the Fiscal Year 2015 Work Plan.

The purpose of this report is to assess Chinle Wash watershed surface water quality data obtained by the NNEPA WQP by:

1. Presenting the surface water quality data;
2. Comparing the surface water quality data to the latest version of the NNSWQS to see if standards are being met; and
3. Determine if uses designated for Chinle Wash watershed surface waters are being supported using the methods described in the February 20, 2008 NNEPA document entitled: "Guidance for Assessing the Quality of Navajo Nation Surface Waters to Determine Impairment" (Integrated 305(b) Reporting and 303(d) Listing) (NNEPA Impairment Guidance);

The Navajo Nation Chinle Wash Watershed Preliminary Surface Water Quality Assessment Report is intended to be a living document, which can be updated to include the latest surface water quality data. The NNEPA WQP welcomes all comments that will assist in revising this report in the future.

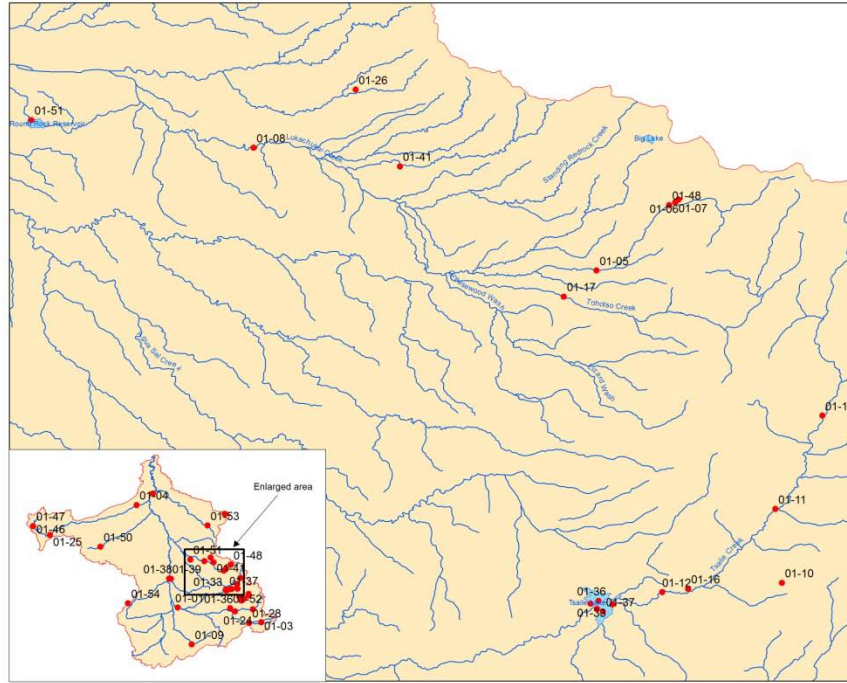
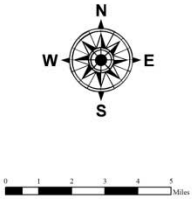
## 2.0 Chinle Wash Watershed

The Chinle Wash Watershed (Figure 2.0) is located on 4181 square miles within the Navajo Nation. The United States Geological Survey (USGS) 8-digit Hydrologic Unit Code (HUC) for the Chinle Wash Watershed is 14080204 (USGS 1987). The NNEPA WQP watershed code for the Chinle Wash Watershed is 01. Detailed geographic locations of watershed sampling sites are provided in additional maps following Figure 2.0. An atlas of water bodies with known lengths and areas assessed by the NNEPA WQP within this watershed are listed in Table 2.0. Table 2.0 does not represent all sampled surface waters in the watershed. There are a minimum of 334 miles of streams (rivers, washes, arroyos, or creeks) and a minimum of 2136 acres of lakes or reservoirs in this watershed.



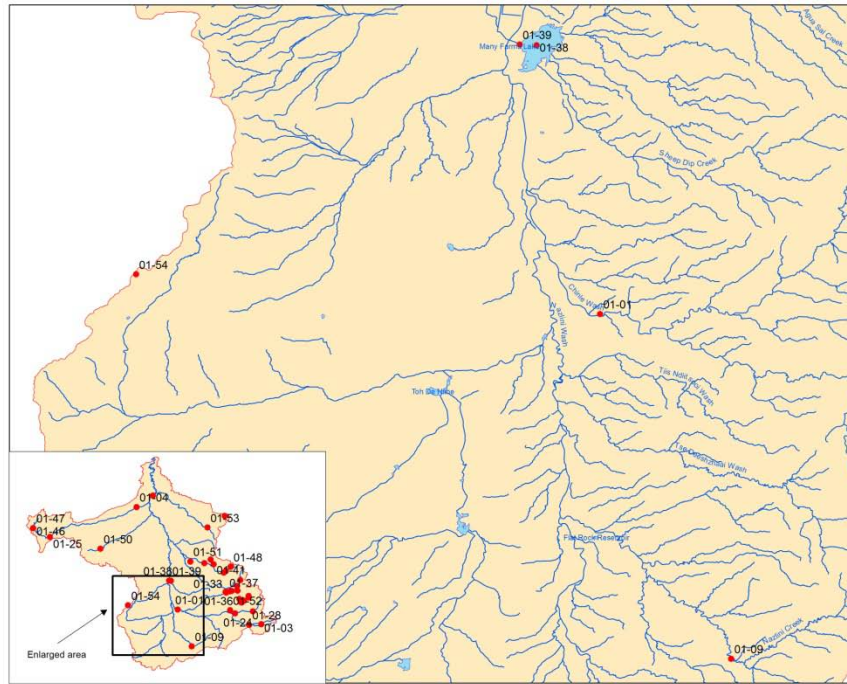
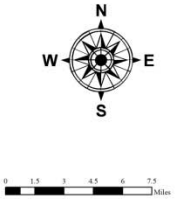
### Chinle Wash Watershed

- Navajo Nation
- Waterbodies
- Water Quality Sample Sites
- Chinle Wash Watershed Boundary



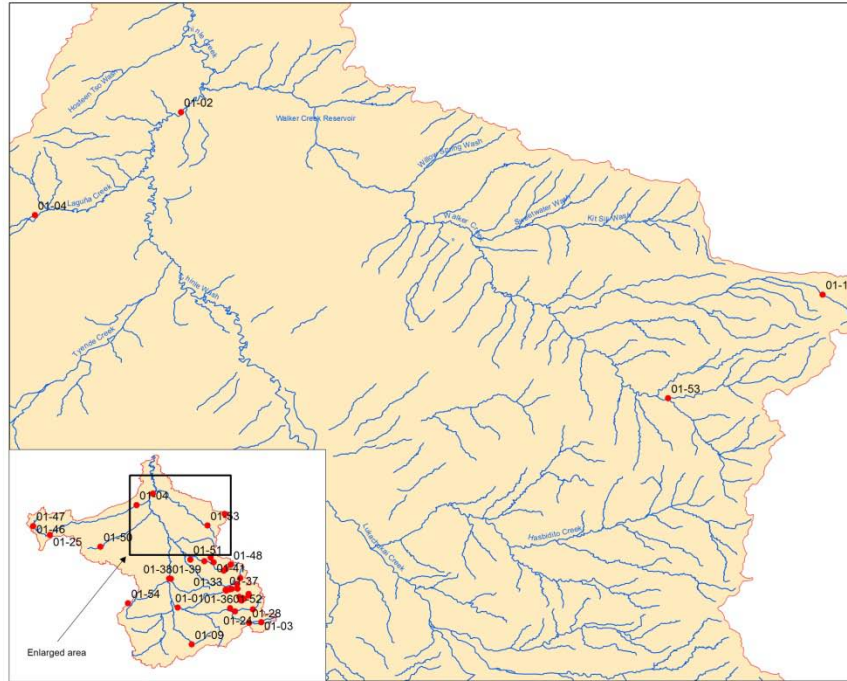
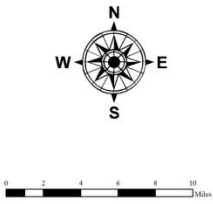
### Chinle Wash Watershed

- Navajo Nation
- Waterbodies
- Water Quality Sample Sites
- Chinle Wash Watershed Boundary



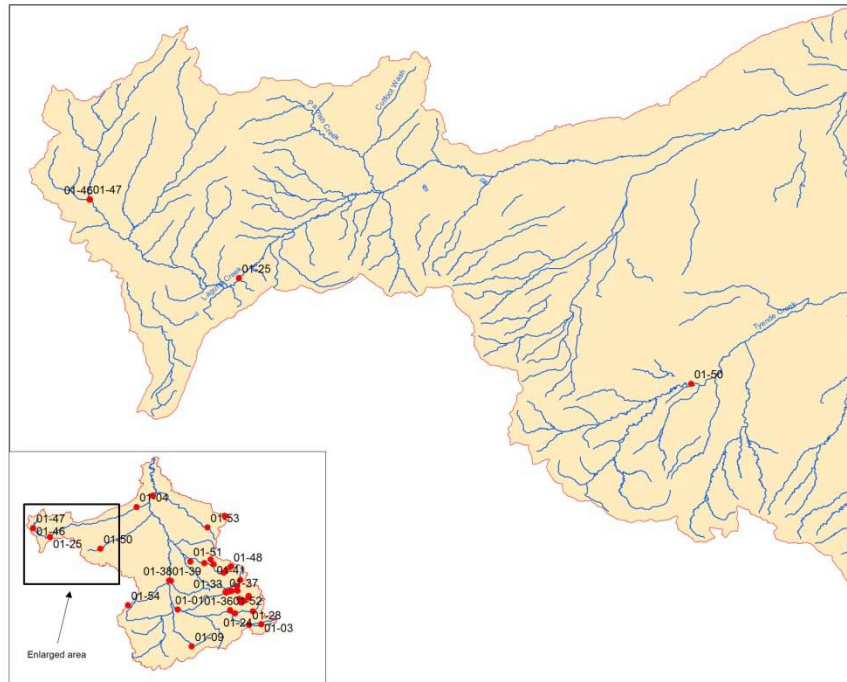
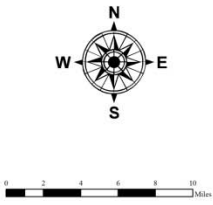
### Chinle Wash Watershed

- Navajo Nation
- Waterbodies
- Water Quality Sample Sites
- Chinle Wash Watershed Boundary



### Chinle Wash Watershed

- Navajo Nation
- Waterbodies
- Water Quality Sample Sites
- Chinle Wash Watershed Boundary



**Table 2.0 – Atlas of Assessed Surface Water Bodies with Known Lengths/Areas**  
(from Navajo Nation Department of Water Resources - March 31, 2009)

<b>Surface Water Body Name Within The Navajo Nation</b>	
<b>Streams (Rivers, Washes, Arroyos, Creeks)</b>	<b>Length (miles)</b>
Chinle Wash	129.71 miles
Crystal Creek	21.42 miles
Laguna Creek	59.37 miles
Lukachukai Wash	27.52 miles
Nazlini Wash	22.45 miles
Tsaile Creek	17.24 miles
Tohtso Creek	12 miles
Wheatfields Creek	22.98 miles
Whiskey Creek	21.88 miles
<b>Total Stream Miles Assessed (minimum)</b>	<b>334.57 miles</b>
<b>Lakes (Lake or Reservoir)</b>	<b>Area (acres)</b>
Wheatfields Lake	218.34 acres
Tsaile Lake	260.11 acres
Many Farms Lake	1604.02 acres
Round Rock Lake	54.08 acres
<b>Total Lake Acres Assessed (minimum)</b>	<b>2136.55 acres</b>

### 3.0 Chinle Wash Watershed Surface Water Quality Data Collection Activities

Monitoring and water quality sampling of the Chinle Wash Watershed was conducted using professional experience and in accordance with the NNEPA WQP June 1, 2012 “Quality Assurance Plan for Surface Water Data Collection” or previous quality assurance plans. Measurements of physical/ chemical characteristics and stream discharge were made. Samples were obtained and submitted to an analytical laboratory for analyses. Quality Assurance and Quality Control samples were also obtained.



#### 4.0 Chinle Watershed Surface Water Quality Data Assessment

The following tables provide detailed information on each sample site. When available a site photograph is provided. The sample site name used for sampling is provided along with the alias used to locate the sample site on the watershed maps in Section 2.0 and a location description. The total number of years sampled is provided along with years sampled during the assessment period. The assessment period is the consecutive time period where a minimum number of samples must be obtained in order to determine designated use support. In most instances it is a three year consecutive period where a minimum of five samples must be obtained. (Please refer to the NNEPA Impairment Guidance). Water quality data at each site was compared to the numeric standards in the 2007 NNSWQS. Uses designated for each water body in the 2007 NNSWQS are listed in each table. These uses are Domestic Water Supply (Dom), Primary Human Contact (PrHC), Secondary Human Contact (ScHC), Fish Consumption (FC), Aquatic & Wildlife Habitat (Acute and Chronic) (A&WHbt (A) and A&WHbt (C)), Agricultural Water Supply (AgWS), and Livestock Watering (LW). Exceedances of the numeric standard are provided for any analyte for both the individual analyte and for the analytes corresponding to each designated use. Also provided are the percentages of exceedances from the number of samples obtained. The letter “n” refers to the number of samples obtained.

In some instances sample site locations may not be located at a Water of the Navajo Nation such as a canal but has been given the designated uses associated with the nearest known surface water listed in the 2007 NNSWQS. In those instances the water quality data obtained is used to determine the geographic distribution within the watershed of the analytes sampled.

Analytes are listed in each table only if they have been found to have exceeded the numeric standard at any surface water sample site within the watershed. If, for example, aluminum is listed as an analyte at “Site X” but did not exceed the numeric standard at “Site X”, it is listed because it did exceed the numeric standard at another location within the watershed, “Site A”. The purpose of this is to try to understand the distribution of the analyte within the watershed.

The category of designated use support from the NNEPA Impairment Guidance may be found at the end of each table. Designated use support categories are determined, in part, by comparing the analytical result at each sample site to the 2007 NNSWQS. As mentioned in Section 1.0 revisions to the 2007 NNSWQS have been made and are contained within the draft 2015 NNSWQS. The draft 2015 NNSWQS contain new numeric standards and also new interpretations of how numeric standards support designated

uses. Additionally the NNEPA Impairment Guidance is scheduled for revision as well to reflect the changes in the 2015 NNSWQS. Once the 2015 NNSWQS are approved and the NNEPA Impairment Guidance is updated, the designated use support category assigned to the water bodies in this section may change. The NNEPA WQP also anticipates being able to list surface waters as impaired once primacy is granted by USEPA for federal Clean Water Act Section 303(d).

To obtain the complete set of surface water quality analytical data from this watershed used in these tables please call 505-368-1037.

### **Site 01CHINLEWA01**



Site	Alias	Location
01CHINLEWA01	01-01	Chinle Wash @ Chinle

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1999-2013	10	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	6	2	5	2
ScHC	5	1	4	1
A&WHbt (A)	8	2	6	2
A&WHbt (C)	17	4	13	4
AgWS	2	2	2	2
LW	2	1	2	1

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	1	7	14.3%	1	5	20.0%
Lead (T)	5	7	71.4%	4	5	80.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	5	7	71.4%	4	5	80.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	7	7	100.0%	5	5	100.0%
Copper (D)	0	10	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Selenium (T)	1	10	10.0%	1	5	20.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	7	7	100.0%	5	5	100.0%
Cadmium (D)	0	10	0.0%	0	5	0.0%
Copper (D)	0	10	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Lead (D)	1	10	10.0%	1	5	20.0%
Mercury (T)	6	10	60.0%	5	5	100.0%
Selenium (T)	3	10	30.0%	2	5	40.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	1	8	12.5%	1	5	20.0%
Boron (T)	0	7	0.0%	0	5	0.0%
Chromium (T)	0	7	0.0%	0	5	0.0%
Selenium (T)	1	10	10.0%	1	5	20.0%
Vanadium (D)	0	10	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	7	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Gross alpha (Adj)	0	7	0.0%	0	5	0.0%
Lead (T)	2	7	28.6%	2	5	40.0%
Selenium (T)	0	10	0.0%	0	5	0.0%
Vanadium (D)	0	10	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## **Site 01CHINLEWA02**

Site	Alias	Location
01CHINLEWA02	01-02	Chinle Wash @ Hwy 160

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000-2013	6	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	2	2	2	2
PrHC	6	2	6	2
ScHC	4	1	4	1
A&WHbt (A)	5	1	5	1
A&WHbt (C)	11	3	11	3
AgWS	3	3	3	3
LW	4	3	4	3

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	1	5	0.2	1	5	0.2
Mercury (T)	0	6	0.0	0	5	0.0
Thallium (T)	1	5	0.2	1	5	0.2

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	2	5	40.0%	2	5	40.0%
Lead (T)	4	5	80.0%	4	5	80.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	4	5	80.0%	4	5	80.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	5	5	100.0%	5	5	100.0%
Copper (D)	0	6	0.0%	0	5	0.0%
Cyanide (T)	0	6	0.0%	0	5	0.0%
Selenium (T)	0	6	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	5	5	100.0%	5	5	100.0%
Cadmium (D)	0	6	0.0%	0	5	0.0%
Copper (D)	0	6	0.0%	0	5	0.0%
Cyanide (T)	0	6	0.0%	0	5	0.0%
Lead (D)	0	6	0.0%	0	5	0.0%
Mercury (T)	5	6	83.3%	5	5	100.0%
Selenium (T)	1	6	16.7%	1	5	20.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	6	0.0%	0	5	0.0%
Boron (T)	1	5	20.0%	1	5	20.0%
Chromium (T)	1	5	20.0%	1	5	20.0%
Selenium (T)	0	6	0.0%	0	5	0.0%
Vanadium (D)	1	6	16.7%	1	5	20.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	1	5	20.0%	1	5	20.0%
Cyanide (T)	0	6	0.0%	0	5	0.0%
Gross alpha (Adj)	0	5	0.0%	0	5	0.0%
Lead (T)	2	5	40.0%	2	5	40.0%
Selenium (T)	0	6	0.0%	0	5	0.0%
Vanadium (D)	1	6	16.7%	1	5	20.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.
- Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.
- Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)

**Site 01CRYSTALC03**



Site	Alias	Location
01CRYSTALC03	01-03	Crystal Creek nr Crystal

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2013	28	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	3	1	2	1
A&WHbt (C)	12	3	6	2
AgWS	0	0	0	0
LW	1	1	1	1

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	11	0.0	0	5	0.0
Mercury (T)	0	18	0.0	0	5	0.0
Thallium (T)	0	11	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	11	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	3	9	33.3%	2	5	40.0%
Copper (D)	0	20	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	9	9	100.0%	5	5	100.0%
Cadmium (D)	0	20	0.0%	0	5	0.0%
Copper (D)	0	20	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Lead (D)	0	20	0.0%	0	5	0.0%
Mercury (T)	2	18	11.1%	0	5	0.0%
Selenium (T)	1	18	5.6%	1	5	20.0%



Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	13	0.0%	0	5	0.0%
Boron (T)	0	10	0.0%	0	5	0.0%
Chromium (T)	0	11	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%
Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Gross alpha (Adj)	1	9	11.1%	1	5	20.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

### **Site 01LAGUNACR04**

Site	Alias	Location
01LAGUNACR04	01-04	Laguna Creek nr Dennehotso

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1999	1	1999	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	-	--	--	-	--
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	--	--	--	--	--
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01LUKACHUK05**



Site	Alias	Location
01LUKACHUK05	01-05	Lukachukai Creek d/s N13

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2013	24	2011-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
Dom	0	0	0	0
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	3	2	2	2
A&WHbt (C)	12	4	7	3
AgWS	0	0	0	0
LW	1	1	1	1

Analyte	Domestic Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	11	0.0	0	5	0.0
Mercury (T)	0	17	0.0	0	5	0.0
Thallium (T)	0	12	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	12	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	2	10	20.0%	1	5	20.0%
Copper (D)	0	17	0.0%	0	5	0.0%
Cyanide (T)	1	16	6.3%	1	5	20.0%
Selenium (T)	0	17	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	9	10	90.0%	5	5	100.0%
Cadmium (D)	0	17	0.0%	0	5	0.0%
Copper (D)	0	17	0.0%	0	5	0.0%
Cyanide (T)	1	16	6.3%	1	5	20.0%
Lead (D)	0	17	0.0%	0	5	0.0%
Mercury (T)	1	17	5.9%	1	5	20.0%
Selenium (T)	1	17	5.9%	0	5	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	13	0.0%	0	5	0.0%
Boron (T)	0	10	0.0%	0	5	0.0%
Chromium (T)	0	11	0.0%	0	5	0.0%
Selenium (T)	0	17	0.0%	0	5	0.0%
Vanadium (D)	0	16	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	1	16	6.3%	1	5	20.0%
Gross alpha (Adj)	0	9	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	17	0.0%	0	5	0.0%
Vanadium (D)	0	16	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## **Site 01LUKACHUK06**

Site	Alias	Location
01LUKACHUK06	01-06	Lukachukai Creek tributary waterfall

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2000	10	1997-1999	6

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
Dom	0	0	0	0
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Domestic Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	2	0.0	0	2	0.0
Mercury (T)	0	4	0.0	0	3	0.0
Thallium (T)	0	2	0.0	0	2	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	2	0.0%	0	2	0.0%
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	4	0.0%	0	3	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	2	0.0%	0	2	0.0%
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	4	0.0%	0	3	0.0%
Lead (D)	0	2	0.0%	0	2	0.0%
Mercury (T)	0	4	0.0%	0	3	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	2	0.0%	0	2	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	0	2	0.0%	0	2	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%



Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	4	0.0%	0	3	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	4	0.0%	0	3	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? **No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01LUKACHUK07

Site	Alias	Location
01LUKACHUK07	01-07	Lukachukai Creek @ Wagon Wheel Picnic area

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1997-1998	4	1997-1998	4

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
Dom	0	0	0	0
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Domestic Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	1	0.0%	0	1	0.0%
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	--	-	--	--	-	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	--	--	--	--	--	--
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%
Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01LUKACHUK08**

Site	Alias	Location
01LUKACHUK08	01-08	Lukachukai Creek @ USGS gage

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000-2001	2	2000-2001	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	1	1	1	1
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	1	1	1	1
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	1	2	0.5	1	2	0.5
Thallium (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	2	0.0%	0	2	0.0%
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	2	0.0%	0	2	0.0%
Mercury (T)	1	2	50.0%	1	2	50.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	0	1	0.0%	0	1	0.0%
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01NAZLINIC09**



Site	Alias	Location
01NAZLINIC09	01-09	Nazlini Wash

Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1999-2013	16	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	9	2	5	1
A&WHbt (C)	15	4	8	3
AgWS	0	0	0	0
LW	2	1	1	1

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	10	0.0	0	5	0.0
Mercury (T)	0	16	0.0	0	5	0.0
Thallium (T)	0	10	0.0	0	5	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	8	9	88.9%	5	5	100.0%
Copper (D)	0	16	0.0%	0	5	0.0%
Cyanide (T)	1	14	7.1%	0	5	0.0%
Selenium (T)	0	16	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	9	9	100.0%	5	5	100.0%
Cadmium (D)	0	16	0.0%	0	5	0.0%
Copper (D)	0	16	0.0%	0	5	0.0%
Cyanide (T)	2	14	14.3%	1	5	20.0%
Lead (D)	0	16	0.0%	0	5	0.0%
Mercury (T)	3	16	18.8%	2	5	40.0%
Selenium (T)	1	16	6.3%	0	5	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	12	0.0%	0	5	0.0%
Boron (T)	0	10	0.0%	0	5	0.0%
Chromium (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	16	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	10	0.0%	0	5	0.0%
Cyanide (T)	2	14	14.3%	1	5	20.0%
Gross alpha (Adj)	0	9	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	16	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.
- Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.
- Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)

**Site 01SPRINGTS10**

Site	Alias	Location
01SPRINGTS10	01-10	R7500 Spring

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1997	1	1997	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--



Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	--	-	--	--	-	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	--	--	--	--	--	--
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01TSAILECR11**

Site	Alias	Location
01TSAILECR11	01-11	Tsaile Creek nr jct of Rds 7500 & 7700

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1996-2009	11	1997-1999	7

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	2	0.0	0	1	0.0
Mercury (T)	0	4	0.0	0	3	0.0
Thallium (T)	0	2	0.0	0	1	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	3	0.0%	0	2	0.0%
Lead (T)	0	2	0.0%	0	1	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	2	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	0	1	0.0%	0	1	0.0%
Copper (D)	0	4	0.0%	0	2	0.0%
Cyanide (T)	0	2	0.0%	0	1	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	0	1	0.0%	0	1	0.0%
Cadmium (D)	0	4	0.0%	0	2	0.0%
Copper (D)	0	4	0.0%	0	2	0.0%
Cyanide (T)	0	2	0.0%	0	1	0.0%
Lead (D)	0	4	0.0%	0	2	0.0%
Mercury (T)	0	4	0.0%	0	3	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	0	1	0.0%	0	1	0.0%
Chromium (T)	0	3	0.0%	0	2	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%
Vanadium (D)	0	2	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	3	0.0%	0	2	0.0%
Cyanide (T)	0	2	0.0%	0	1	0.0%
Gross alpha (Adj)	0	1	0.0%	0	1	0.0%
Lead (T)	0	2	0.0%	0	1	0.0%
Selenium (T)	0	4	0.0%	0	3	0.0%
Vanadium (D)	0	2	0.0%	0	1	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? **No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01TSAILECR12**



Trash.



Car being washed in creek.

Site	Alias	Location
01TSAILECR12	01-12	Tsaile Creek d/s from N12

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1996-2013	26	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	7	1	4	1
A&WHbt (C)	14	3	8	2
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	10	0.0	0	5	0.0
Mercury (T)	0	18	0.0	0	5	0.0
Thallium (T)	0	10	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	11	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	7	9	77.8%	4	5	80.0%
Copper (D)	0	18	0.0%	0	5	0.0%
Cyanide (T)	0	15	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	9	9	100.0%	5	5	100.0%
Cadmium (D)	0	18	0.0%	0	5	0.0%
Copper (D)	0	18	0.0%	0	5	0.0%
Cyanide (T)	0	15	0.0%	0	5	0.0%
Lead (D)	0	18	0.0%	0	5	0.0%
Mercury (T)	4	18	22.2%	3	5	60.0%
Selenium (T)	1	18	5.6%	0	5	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	12	0.0%	0	5	0.0%
Boron (T)	0	9	0.0%	0	5	0.0%
Chromium (T)	0	11	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	0	15	0.0%	0	5	0.0%
Gross alpha (Adj)	0	9	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**

- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

### Site 01TSAILECR13

Site	Alias	Location
01TSAILECR13	01-13	Tsaile Creek d/s from Tsaile Lake dam

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000	1	2000	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	-	--	--	-	--
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%



Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01TOHCHINL14

Site	Alias	Location
01TOHCHINL14	01-14	Toh Chin Lini Canyon

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995	1	1995	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
SchC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	-	--	--	-	--
Selenium (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- Was the minimum number of samples to determine designated use support obtained during the assessment period? **No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01SPRINGTS15

Site	Alias	Location
01SPRINGTS15	01-15	Tsaile Spring

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1996-1997	4	1996-1997	4

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
SchC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- Was the minimum number of samples to determine designated use support obtained during the assessment period? **No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01TSAILETR16

Site	Alias	Location
01TSAILETR16	01-16	Tsaile Creek tributary

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995	3	1995	3

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
SchC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--
Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	3	0.0%	0	3	0.0%
Cyanide (T)	--	-	--	--	-	--
Selenium (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	3	0.0%	0	3	0.0%
Copper (D)	0	3	0.0%	0	3	0.0%
Cyanide (T)	--	--	--	--	--	--
Lead (D)	0	3	0.0%	0	3	0.0%
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- Was the minimum number of samples to determine designated use support obtained during the assessment period? **No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01TOHTSOCR17

Site	Alias	Location
01TOHTSOCR17	01-17	Tohtso Creek @ N13

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2013	16	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	5	1	4	1
A&WHbt (C)	9	2	8	2
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	6	0.0	0	5	0.0
Mercury (T)	0	10	0.0	0	5	0.0
Thallium (T)	0	7	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	7	0.0%	0	5	0.0%
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	5	6	83.3%	4	5	80.0%
Copper (D)	0	10	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Selenium (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	6	6	100.0%	5	5	100.0%
Cadmium (D)	0	10	0.0%	0	5	0.0%
Copper (D)	0	10	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Lead (D)	0	10	0.0%	0	5	0.0%
Mercury (T)	3	10	30.0%	3	5	60.0%
Selenium (T)	0	10	0.0%	0	5	0.0%



Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	8	0.0%	0	5	0.0%
Boron (T)	0	5	0.0%	0	5	0.0%
Chromium (T)	0	6	0.0%	0	5	0.0%
Selenium (T)	0	10	0.0%	0	5	0.0%
Vanadium (D)	0	9	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	6	0.0%	0	5	0.0%
Cyanide (T)	0	9	0.0%	0	5	0.0%
Gross alpha (Adj)	0	6	0.0%	0	5	0.0%
Lead (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	10	0.0%	0	5	0.0%
Vanadium (D)	0	9	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## **Site 01WHEATFIE18**





Site	Alias	Location
01WHEATFIE18	01-18	Wheatfields Creek

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2013	26	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	2	1	0	0
A&WHbt (C)	9	3	6	2
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	11	0.0	0	5	0.0
Mercury (T)	0	18	0.0	0	5	0.0
Thallium (T)	0	12	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	11	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	2	9	22.2%	0	5	0.0%
Copper (D)	0	19	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	7	9	77.8%	5	5	100.0%
Cadmium (D)	0	19	0.0%	0	5	0.0%
Copper (D)	0	19	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Lead (D)	0	19	0.0%	0	5	0.0%
Mercury (T)	1	18	5.6%	1	5	20.0%
Selenium (T)	1	18	5.6%	0	5	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	12	0.0%	0	5	0.0%
Boron (T)	0	10	0.0%	0	5	0.0%
Chromium (T)	0	11	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Gross alpha (Adj)	0	8	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	15	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## **Site 01WHEATFIE19**

Site	Alias	Location
01WHEATFIE19	01-19	Wheatfields Creek ab lake diversion

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-1998	9	1996-1998	8

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	2	0.0	0	2	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	2	0.0%	0	2	0.0%
Lead (T)	0	1	0.0%	0	1	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	2	0.0%	0	2	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	0	2	0.0%	0	2	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01WHEATFIE20**

Site	Alias	Location
01WHEATFIE20	01-20	Wheatfields Creek ab forest road ab upper gage

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1997	1	1997	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	-	--	--	-	--
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	--	-	--	--	-	--
Cyanide (T)	--	-	--	--	-	--
Selenium (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--



- Was the minimum number of samples to determine designated use support obtained during the assessment period? No.
- Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.
- Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.

## Site 01WHEATFIE21

Site	Alias	Location
01WHEATFIE21	01-21	Wheatfields Creek @ N12

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000	1	2000	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	-	--	--	-	--
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

## **Site 01WHEATFIE22**

Site	Alias	Location
01WHEATFIE22	01-22	Wheatfields Creek tributary below Wheatfields Lake dam

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000	1	2000	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	-	--	--	-	--
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01WHISKEYC23**



Site	Alias	Location
01WHISKEYC23	01-23	Whiskey Creek nr upper gage

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2013	27	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	1	1	0	0
A&WHbt (C)	10	3	4	3
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	11	0.0	0	5	0.0
Mercury (T)	0	18	0.0	0	5	0.0
Thallium (T)	0	11	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	11	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	10	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	1	9	11.1%	0	5	0.0%
Copper (D)	0	20	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	6	9	66.7%	2	5	40.0%
Cadmium (D)	0	20	0.0%	0	5	0.0%
Copper (D)	0	20	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Lead (D)	0	20	0.0%	0	5	0.0%
Mercury (T)	2	18	11.1%	1	5	20.0%
Selenium (T)	2	18	11.1%	1	5	20.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	13	0.0%	0	5	0.0%
Boron (T)	0	10	0.0%	0	5	0.0%
Chromium (T)	0	11	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	16	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	0	16	0.0%	0	5	0.0%
Gross alpha (Adj)	0	9	0.0%	0	5	0.0%
Lead (T)	0	10	0.0%	0	5	0.0%
Selenium (T)	0	18	0.0%	0	5	0.0%
Vanadium (D)	0	16	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## **Site 01WHISKEYC24**

Site	Alias	Location
01WHISKEYC24	01-24	Whiskey Creek nr old lower gage

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1995-2000	5	1998-2000	3

\*Note that not all analytes were necessarily sampled each sample event.



Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	2	0.0	0	2	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	-	--	--	-	--
Lead (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	3	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	3	0.0%	0	2	0.0%
Copper (D)	0	3	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	3	0.0%	0	2	0.0%
Mercury (T)	0	2	0.0%	0	2	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

**Site 01LAGUNACR25**



Site	Alias	Location
01LAGUNACR25	01-25	Laguna Creek nr Tsegi

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000-2013	14	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	3	1	3	1
A&WHbt (A)	10	1	5	1
A&WHbt (C)	19	4	12	4
LW	3	3	2	2

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	11	0.0	0	5	0.0
Mercury (T)	0	14	0.0	0	5	0.0
Thallium (T)	0	11	0.0	0	5	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	3	11	27.3%	3	5	60.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	10	10	100.0%	5	5	100.0%
Copper (D)	0	14	0.0%	0	5	0.0%
Cyanide (T)	0	13	0.0%	0	5	0.0%
Selenium (T)	0	14	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	10	10	100.0%	5	5	100.0%
Cadmium (D)	0	14	0.0%	0	5	0.0%
Copper (D)	0	14	0.0%	0	5	0.0%
Cyanide (T)	1	13	7.7%	1	5	20.0%
Lead (D)	0	14	0.0%	0	5	0.0%
Mercury (T)	7	14	50.0%	5	5	100.0%
Selenium (T)	1	14	7.1%	1	5	20.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	11	0.0%	0	5	0.0%
Cyanide (T)	1	13	7.7%	1	5	20.0%
Gross alpha (Adj)	1	11	9.1%	0	5	0.0%
Lead (T)	1	11	9.1%	1	5	20.0%
Selenium (T)	0	14	0.0%	0	5	0.0%
Vanadium (D)	0	13	0.0%	0	5	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## Site 01BIGCAVEC26

Site	Alias	Location
01BIGCAVEC26	01-26	Big Cave Creek

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1998-1999	2	1998-1999	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
SchC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
LW	1	1	1	1

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	--	-	--	--	-	--
Cyanide (T)	--	-	--	--	-	--
Selenium (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	1	1	100.0%	1	1	100.0%
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- Was the minimum number of samples to determine designated use support obtained during the assessment period? No.

- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

## **Site 01CRYSTALC28**

Site	Alias	Location
01CRYSTALC28	01-28	Crystal Creek at N12

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2000	1	2000	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--
Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	-	--	--	-	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	-	--	--	-	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%



Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? No.
- Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.
- Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.

**Site 01WHEATLAK30**



Site	Alias	Location
01WHEATLAK30	01-30	Wheatfields Lake west shore

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1997-2005	6	2003-2005	3

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**
- **Additional Wheatfields Lake surface water quality assessment information may be found in the July 2006 fish tissue study entitled: "Methylmercury and Other Environmental Contaminants in Water and Fish Collected from Four Recreational Fishing Lakes on the Navajo Nation, 2004".**

**Site 01WHEATLAK31**

Site	Alias	Location
01WHEATLAK31	01-31	Wheatfields Lake north shore

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2005	4	2004-2005	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period			
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded		
FC	0	0	0	0		
PrHC	0	0	0	0		
ScHC	0	0	0	0		
A&WHbt (A)	0	0	0	0		
A&WHbt (C)	0	0	0	0		
AgWS	0	0	0	0		
LW	0	0	0	0		
	Fish Consumption					
	All samples			Assessment period		
Analyte	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**

- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**
- **Additional Wheatfields Lake surface water quality assessment information may be found in the July 2006 fish tissue study entitled: "Methylmercury and Other Environmental Contaminants in Water and Fish Collected from Four Recreational Fishing Lakes on the Navajo Nation, 2004".**

### **Site 01TSAILELA32**

Site	Alias	Location
01TSAILELA32	01-32	Tsaile Lake--east shore

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2005	4	2004-2005	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01TSAILELA33

Site	Alias	Location
01TSAILELA33	01-33	Tsaile Lake--west shore

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2005	5	2003-2005	3

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0



Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	--	-	--	--	-	--
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01WHEATLAK34**

Site	Alias	Location
01WHEATLAK34	01-34	Wheatfields Lake north end

Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2013	8	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	2	2	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	8	0.0	0	3	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	8	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Selenium (T)	0	8	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	8	0.0%	0	3	0.0%
Copper (D)	0	8	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Lead (D)	0	8	0.0%	0	3	0.0%
Mercury (T)	1	8	12.5%	0	3	0.0%
Selenium (T)	1	8	12.5%	0	3	0.0%
Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	8	0.0%	0	3	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	5	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**
- **Additional Wheatfields Lake surface water quality assessment information may be found in the July 2006 fish tissue study entitled: "Methylmercury and Other Environmental Contaminants in Water and Fish Collected from Four Recreational Fishing Lakes on the Navajo Nation, 2004".**

**Site 01WHEATLAK35**

Site	Alias	Location
01WHEATLAK35	01-35	Wheatfields Lake south end

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2013	8	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	1	1	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	8	0.0	0	3	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	8	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Selenium (T)	0	8	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	8	0.0%	0	3	0.0%
Copper (D)	0	8	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Lead (D)	0	8	0.0%	0	3	0.0%
Mercury (T)	1	8	12.5%	0	3	0.0%
Selenium (T)	0	8	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	8	0.0%	0	3	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	5	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? No.
- Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.
- Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.
- Additional Wheatfields Lake surface water quality assessment information may be found in the July 2006 fish tissue study entitled: "Methylmercury and Other Environmental Contaminants in Water and Fish Collected from Four Recreational Fishing Lakes on the Navajo Nation, 2004".

### Site 01TSAILELA36

Site	Alias	Location
01TSAILELA36	01-36	Tsaile Lake--middle

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2009	8	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	1	1	1	1
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	8	0.0	0	3	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	8	0.0%	0	3	0.0%
Cyanide (T)	0	4	0.0%	0	2	0.0%
Selenium (T)	0	8	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	8	0.0%	0	3	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	4	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	4	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	8	0.0%	0	3	0.0%
Vanadium (D)	0	4	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**



**Site 01TSAILELA37**

Site	Alias	Location
01TSAILELA37	01-37	Tsaile Lake nr south end of dam

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2013	9	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	1	1	1	1
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	9	0.0	0	3	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	9	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Selenium (T)	0	9	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	9	0.0%	0	3	0.0%
Copper (D)	0	9	0.0%	0	3	0.0%
Cyanide (T)	0	5	0.0%	0	2	0.0%
Lead (D)	0	9	0.0%	0	3	0.0%
Mercury (T)	1	9	11.1%	1	3	33.3%
Selenium (T)	0	9	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	9	0.0%	0	3	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	9	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	5	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	9	0.0%	0	3	0.0%
Vanadium (D)	0	5	0.0%	0	2	0.0%

- Was the minimum number of samples to determine designated use support obtained during the assessment period? No.
- Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.
- Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.

### Site 01MANYFARM38

Site	Alias	Location
01MANYFARM38	01-38	Many Farms Lake in middle

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2009	6	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	4	2	3	2
AgWS	1	1	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	6	0.0	0	2	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	6	0.0%	0	2	0.0%
Cyanide (T)	0	3	0.0%	0	2	0.0%
Selenium (T)	0	6	0.0%	0	2	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	6	0.0%	0	2	0.0%
Copper (D)	2	6	33.3%	2	2	100.0%
Cyanide (T)	0	3	0.0%	0	2	0.0%
Lead (D)	0	6	0.0%	0	2	0.0%
Mercury (T)	2	6	33.3%	1	2	50.0%
Selenium (T)	0	6	0.0%	0	2	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	1	6	16.7%	0	2	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	6	0.0%	0	2	0.0%
Vanadium (D)	0	3	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	3	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	6	0.0%	0	2	0.0%
Vanadium (D)	0	3	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01MANYFARM39**

Site	Alias	Location
01MANYFARM39	01-39	Many Farms Lake nr south end of dam

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2001-2009	7	2008-2009	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	1	1	0	0
A&WHbt (C)	8	4	1	1
AgWS	1	1	1	1
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	7	0.0	0	2	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	1	7	14.3%	0	3	0.0%
Cyanide (T)	0	3	0.0%	0	2	0.0%
Selenium (T)	0	7	0.0%	0	3	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	1	7	14.3%	0	3	0.0%
Copper (D)	3	7	42.9%	0	3	0.0%
Cyanide (T)	0	3	0.0%	0	2	0.0%
Lead (D)	1	7	14.3%	0	3	0.0%
Mercury (T)	3	7	42.9%	1	3	33.3%
Selenium (T)	0	7	0.0%	0	3	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	1	7	14.3%	1	2	50.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	7	0.0%	0	1	0.0%
Vanadium (D)	0	3	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	3	0.0%	0	2	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	7	0.0%	0	3	0.0%
Vanadium (D)	0	3	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### Site 01GOODLCKW41

Site	Alias	Location
01GOODLCKW41	01-41	Windmill #11K-243

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	--	-	--	--	-	--
Thallium (T)	--	-	--	--	-	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	0	1	0.0%	0	1	0.0%
Lead (T)	--	--	--	--	--	--
Selenium (T)	--	--	--	--	--	--
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

## **Site 01BUBBLING46**

Site	Alias	Location
01BUBBLING46	01-46	Bubbling Spring Canyon

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2002	1	2002	1

\*Note that not all analytes were necessarily sampled each sample event.



Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	1	1	1	1
A&WHbt (C)	1	1	1	1
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	1	1	100.0%	1	1	100.0%
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	1	1	100.0%	1	1	100.0%
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01LAGUNAHE47**

Site	Alias	Location
01LAGUNAHE47	01-47	Laguna Creek in Navajo National Monument

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2002	1	2002	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	1	1	1	1
A&WHbt (C)	1	1	1	1
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	1	0.0	0	1	0.0
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	0	1	0.0	0	1	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	1	0.0%	0	1	0.0%
Lead (T)	0	1	0.0%	0	1	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	1	1	100.0%	1	1	100.0%
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	1	1	100.0%	1	1	100.0%
Cadmium (D)	--	--	--	--	--	--
Copper (D)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Lead (D)	--	--	--	--	--	--
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	--	--	--	--	--	--
Boron (T)	0	1	0.0%	0	1	0.0%
Chromium (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01LUKACHUK48**

Site	Alias	Location
01LUKACHUK48	01-48	Lukachukai Creek d/s fr Wagon Wheel Picnic area

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
1999-2000	2	1999-2000	2

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
Dom	0	0	0	0
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Domestic Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
--	--	-	--	--	-	--
--	--	-	--	--	-	--
--	--	-	--	--	-	--
--	--	-	--	--	-	--
--	--	-	--	--	-	--
--	--	-	--	--	-	--

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	2	0.0	0	2	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	2	0.0%	0	2	0.0%
Copper (D)	0	2	0.0%	0	2	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	2	0.0%	0	2	0.0%
Mercury (T)	0	2	0.0%	0	2	0.0%
Selenium (T)	0	2	0.0%	0	2	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	2	0.0%	0	2	0.0%
Vanadium (D)	0	2	0.0%	0	2	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01WHEATLAK49**

Site	Alias	Location
01WHEATLAK49	01-49	Wheatfileds Lake middle nr dam

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2004	1	2004	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	0	0	0	0
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	-	--	--	-	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	-	--	--	-	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	--	--	--	--	--	--
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%



Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	--	--	--	--	--	--
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	--	--	--	--	--	--

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**
- **Additional Wheatfields Lake surface water quality assessment information may be found in the July 2006 fish tissue study entitled: "Methylmercury and Other Environmental Contaminants in Water and Fish Collected from Four Recreational Fishing Lakes on the Navajo Nation, 2004".**

**Site 01AASAYIIW50**



Black Mesa in the background.

Site	Alias	Location
01AASAYIIW50	01-50	Aasayii Wash

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2006-2013	6	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	1	1	1	1
A&WHbt (A)	3	1	3	1
A&WHbt (C)	12	4	10	4
LW	1	1	1	1

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	6	0.0	0	5	0.0
Mercury (T)	0	6	0.0	0	5	0.0
Thallium (T)	0	6	0.0	0	5	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	1	6	16.7%	1	5	20.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	3	5	60.0%	3	5	60.0%
Copper (D)	0	6	0.0%	0	5	0.0%
Cyanide (T)	0	6	0.0%	0	5	0.0%
Selenium (T)	0	6	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	5	5	100.0%	5	5	100.0%
Cadmium (D)	0	6	0.0%	0	5	0.0%
Copper (D)	0	6	0.0%	0	5	0.0%
Cyanide (T)	1	6	16.7%	1	5	20.0%
Lead (D)	0	6	0.0%	0	5	0.0%
Mercury (T)	4	6	66.7%	3	5	60.0%
Selenium (T)	2	6	33.3%	1	5	20.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	6	0.0%	0	5	0.0%
Cyanide (T)	1	6	16.7%	1	5	20.0%
Gross alpha (Adj)	0	5	0.0%	0	5	0.0%
Lead (T)	0	6	0.0%	0	5	0.0%
Selenium (T)	0	6	0.0%	0	5	0.0%
Vanadium (D)	0	6	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

### **Site 01RNDROCKL51**

Site	Alias	Location
01RNDROCKL51	01-51	Round Rock Lake

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2006	1	2006	1

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	1	1	1	1
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	--	--	--	--	--	--
Mercury (T)	0	1	0.0	0	1	0.0
Thallium (T)	--	--	--	--	--	--

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	--	--	--	--	--	--

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	--	--	--	--	--	--
Cadmium (D)	0	1	0.0%	0	1	0.0%
Copper (D)	0	1	0.0%	0	1	0.0%
Cyanide (T)	0	1	0.0%	0	1	0.0%
Lead (D)	0	1	0.0%	0	1	0.0%
Mercury (T)	1	1	100.0%	1	1	100.0%
Selenium (T)	0	1	0.0%	0	1	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	1	0.0%	0	1	0.0%
Boron (T)	--	--	--	--	--	--
Chromium (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	--	--	--	--	--	--
Cyanide (T)	0	1	0.0%	0	1	0.0%
Gross alpha (Adj)	--	--	--	--	--	--
Lead (T)	--	--	--	--	--	--
Selenium (T)	0	1	0.0%	0	1	0.0%
Vanadium (D)	0	1	0.0%	0	1	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? No.**
- **Category of Designated Use Support: Category 3 – There is insufficient data to determine if any designated use is supported.**
- **Recommendation is to use data obtained at this site to understand geographic distribution of listed analytes in the watershed.**

### **Site 01WHEATFIE52**

Site	Alias	Location
01WHEATFIE52	01-52	Wheatfields Creek in upper Canyon de Chelly

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2012-2013	5	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
PrHC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	2	1	2	1
A&WHbt (C)	3	2	3	2
AgWS	0	0	0	0
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	5	0.0	0	5	0.0
Mercury (T)	0	5	0.0	0	5	0.0
Thallium (T)	0	5	0.0	0	5	0.0

Analyte	Primary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Arsenic (T)	0	5	0.0%	0	5	0.0%
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	2	5	40.0%	2	5	40.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	2	5	40.0%	2	5	40.0%
Cadmium (D)	0	5	0.0%	0	5	0.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Lead (D)	0	5	0.0%	0	5	0.0%
Mercury (T)	1	5	20.0%	1	5	20.0%
Selenium (T)	0	5	0.0%	0	5	0.0%

Analyte	Agricultural Water Supply					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (D)	0	5	0.0%	0	5	0.0%
Boron (T)	0	5	0.0%	0	5	0.0%
Chromium (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	5	0.0%	0	5	0.0%
Vanadium (D)	0	5	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Gross alpha (Adj)	0	5	0.0%	0	5	0.0%
Lead (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	5	0.0%	0	5	0.0%
Vanadium (D)	0	5	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality**

standards will be conducted to determine if appropriate for the surface water body.

- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

### Site 01ALCOVECA53

Site	Alias	Location
01ALCOVECA53	01-53	Alcove Canyon

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2012-2013	5	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	0	0	0	0
A&WHbt (C)	7	2	7	2
LW	0	0	0	0

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	5	0.0	0	5	0.0
Mercury (T)	0	5	0.0	0	5	0.0
Thallium (T)	0	5	0.0	0	5	0.0



Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	0	5	0.0%	0	5	0.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	3	5	60.0%	3	5	60.0%
Cadmium (D)	0	5	0.0%	0	5	0.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Lead (D)	0	5	0.0%	0	5	0.0%
Mercury (T)	4	5	80.0%	4	5	80.0%
Selenium (T)	0	5	0.0%	0	5	0.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Gross alpha (Adj)	0	5	0.0%	0	5	0.0%
Lead (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	0	5	0.0%	0	5	0.0%
Vanadium (D)	0	5	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the**

**designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

### **Site 01FISHPTSP54**

Site	Alias	Location
01FISHPTSP54	01-54	Unnamed spring near Fish Point

Total		Assessment period	
Year(s) sampled	Sample Events	Year(s) sampled*	Sample Events*
2012-2013	5	2012-2013	5

\*Note that not all analytes were necessarily sampled each sample event.

Designated Use	All samples		Assessment period	
	Total exceedances	Total analytes exceeded	Total exceedances	Total analytes exceeded
FC	0	0	0	0
ScHC	0	0	0	0
A&WHbt (A)	7	2	7	2
A&WHbt (C)	15	3	15	3
LW	3	2	3	2

Analyte	Fish Consumption					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Beryllium (T)	0	5	0.0	0	5	0.0
Mercury (T)	0	5	0.0	0	5	0.0
Thallium (T)	0	5	0.0	0	5	0.0

Analyte	Secondary Human Contact					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Lead (T)	0	5	0.0%	0	5	0.0%

Analyte	Aquatic and Wildlife Habitat (Acute)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	4	5	80.0%	4	5	80.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	3	5	60.0%	3	5	60.0%

Analyte	Aquatic and Wildlife Habitat (Chronic)					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Aluminum (T)	5	5	100.0%	5	5	100.0%
Cadmium (D)	0	5	0.0%	0	5	0.0%
Copper (D)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Lead (D)	0	5	0.0%	0	5	0.0%
Mercury (T)	5	5	100.0%	5	5	100.0%
Selenium (T)	5	5	100.0%	5	5	100.0%

Analyte	Livestock Watering					
	All samples			Assessment period		
	Exceedances	n	Percent	Exceedances	n	Percent
Chromium (T)	0	5	0.0%	0	5	0.0%
Cyanide (T)	0	5	0.0%	0	5	0.0%
Gross alpha (Adj)	1	5	20.0%	1	5	20.0%
Lead (T)	0	5	0.0%	0	5	0.0%
Selenium (T)	2	5	40.0%	2	5	40.0%
Vanadium (D)	0	5	0.0%	0	5	0.0%

- **Was the minimum number of samples to determine designated use support obtained during the assessment period? Yes.**
- **Category of Designated Use Support: Category 5b – At least one designated use is not supported and a review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body.**
- **Category 5b is specific to only the analytes listed above with 2 or more exceedances during the assessment period for the individual designated use. For analytes with 1 or less exceedances during the assessment period the designated use is supported for those analytes. (Note that not all analytes with 0 exceedances are listed in these tables but are contained in the complete analytical data set.)**

## 5.0 References

United States Government Printing Office (USGPO). March 1988. The Clean Water Act

As Amended By The Water Quality Act Of 1987 Public Law 100-4.

NNEPA. July 23, 1999. Navajo Nation Clean Water Act.

NNEPA. November 9, 1999. Navajo Nation Water Quality Standards.

NNEPA. May 13, 2008. Navajo Nation Surface Water Quality Standards 2007

NNEPA. 2015. Draft - 2015 Navajo Nation Surface Water Quality Standards.

United States Geological Survey. 2013. National Hydrography Dataset.