

Screening Values used in Evaluation of San Juan River Water Quality Samples

[Screening values](#) are taken from Agency for Toxic Substance and Disease Registry (ATSDR) comparison values (CVs) for drinking water when available. When ATSDR values were not available, [EPA Regional Screening Levels \(RSLs\)](#) for residential tap water were used. Total metal data was used for assessment of human-health based effects. Agricultural Screening Values are derived from National Academy of Science (NAS) Water Quality Criteria, 1972 (the Blue Book). Those guidelines are reprinted in [EPA's Guidelines for the Reuse of Waters for Irrigation](#). Dissolved metal values were used for the assessment of agricultural use waters. Contaminants that do not exceed screening values are not considered to pose a risk of adverse health effects. Estimated results values below the laboratory's reporting limit are not included in this analysis but will be further evaluated by DWQ. These results generally show low level concentrations and are not expected to significantly affect the analysis outcome.

Analyte	CAS #	Units	Drinking Water CV (ppb)			Irrigation Waters (ug/L) [NAS, 1972]		Utah WQ Standards for San Juan River [Dissolved metals]							
			Health-Based Comparison Value for Water Ingestion (CV) [Total Metals]	CV Type and Source	Livestock Water (ug/L)	Long-Term	Short-Term	1C (Domestic)	3B (warm water fish) [1-hour]	3B (warm water fish) [4-day]	4 (agriculture)				
Hardness	-	mg/L			180 mg/L (UA)										Hardness
Aluminum	7429-90-5	ug/L	10,000	Child Intermediate EMEG	5,000 (NAS)	5,000	20,000			750	87				Aluminum
Antimony	7440-36-0	ug/L	4	Child RMEG	No Data Available	No Data Available	No Data Available								Antimony
Arsenic	7440-38-2	ug/L	3	Child RMEG & Chronic EMEG	200 (NAS)	100	2,000	10	340	150	100				Arsenic
Barium	7440-39-3	ug/L	2,000	Child Intermediate EMEG	No Data Available	No Data Available	No Data Available	1000							Barium
Beryllium	7440-41-7	ug/L	20	Child RMEG & Chronic EMEG	No Data Available	No Data Available	No Data Available	<4							Beryllium
Cadmium	7440-43-9	ug/L	5	Child Intermediate EMEG	50 (NAS)	10	50	10	2	0.25	10				Cadmium
Calcium	7440-70-2	ug/L	-	No CVs available	500,000 (UA)	No Data Available	No Data Available								Calcium
Chromium	7440-47-3	ug/L	60	Child RSL, non-cancer, Cr(VI)	1,000 (NAS)	100	1,000	50	16 (VI);	11 (VI);				100	Chromium
Cobalt	7440-48-4	ug/L	100	Child Intermediate EMEG	1,000 (NAS)	50	5,000								Cobalt
Copper	7440-50-8	ug/L	100	Child Intermediate EMEG	500 (NAS)	200	5,000		13	9	200				Copper
Iron	7439-89-6	ug/L	14,000	Child RSL, non-cancer	Limit Not Considered Necessary (NAS)	5,000	20,000		1000	1000					Iron
Lead	7439-92-1	ug/L	15	Child non-carcinogenic RSL	100 (NAS)	5,000	10,000	15	65	2.5	100				Lead
Magnesium	7439-95-4	ug/L	-	No CVs available	250,000 (UA)	No Data Available	No Data Available								Magnesium
Manganese	7439-96-5	ug/L	500	Child RMEG	Limit Not Considered Necessary (NAS)	200	10,000								Manganese
Molybdenum	7439-98-7	ug/L	50	Child RMEG	No Data Available	10	50								Molybdenum
Nickel	7440-02-0	ug/L	200	Child RMEG	No Data Available	200	2,000		468	52					Nickel
Potassium	7440-22-4	ug/L	-	No CVs available	No Data Available	No Data Available	No Data Available								Potassium
Selenium	7782-49-2	ug/L	50	Child RMEG	50 (NAS)	20	20	50	18.4	4.6	50				Selenium
Silver	7440-22-4	ug/L	50	Child RMEG	No Data Available	No Data Available	No Data Available	50	1.6	-					Silver
Sodium	7440-23-5	ug/L	-	No CVs available	1,000,000 (UA)	No Data Available	No Data Available	No Data Available							Sodium
Thallium	7440-28-0	ug/L	0.2	Child non-carcinogenic RSL	No Data Available	No Data Available	No Data Available								Thallium
Vanadium	7440-62-2	ug/L	100	Child Intermediate EMEG	100 (NAS)	100	1,000								Vanadium
Zinc	7440-66-6	ug/L	3,000	Child Intermediate EMEG	25,000 (NAS)	2,000	10,000		120	120					Zinc
Mercury	7439-97-6	ug/L	0.63	Child non-carcinogenic RSL, elemental Hg, ug/L	10 (NAS)	No Data Available	No Data Available	2	-	0.012					Mercury
TDS		mg/L			1200 (Utah)	500,000-1,000,000 (NAS)									
pH					6.5-9 (Utah)	4.5-9 (NAS)									

RMEG: ATSDR Reference Dose Media Evaluation Guide
 EMEG: ATSDR Environmental Media Evaluation Guide
 RSL: EPA Regional Screening Level

Comparison of San Juan River Raw Water Data with Finished Drinking Water Screening Values - Total Metals

The total metals analysis provides results for metals that are both dissolved and present as very small particles. This result is considered more protective of public health because the sampling data show both the dissolved and particle form of each metal tested. The comparison value (CV) is a health-based limit for exposure through ingestion. These values are typically based on short-term health exposure. Further analysis of this dataset was provided by UDOH in this [Statement of Evaluation](#) to evaluate recreational exposure.

In addition to the environmental screening levels, DEQ's Division of Drinking Water (DDW) also compared the measured levels of total metals and dissolved metals from the San Juan River water samples to the EPA-established drinking water Maximum Contaminant Levels (MCLs) for metals. For drinking water quality, it is more protective of public health to use the total metals result to determine how safe water is to drink. Because of this, MCLs are compared against the total metals analysis when treated waters are assessed for safety.

The sampling results from August 8, 2015, through August 15, 2015 so far indicate that:

- The total metals in the untreated river water samples have exceeded the drinking water MCLs for aluminum, arsenic, iron, manganese, and the action level of lead.
- The dissolved metals in the untreated river water samples meet these drinking water MCLs.

Therefore, it is likely that the suspended particles in the river water contributed to the MCL exceedance of aluminum, arsenic, iron, manganese, and lead.

Drinking water systems that can properly treat surface water and meet the required turbidity standards established by the EPA can successfully remove the suspended particles during the water treatment process. As the dissolved metals data meet MCLs, DDW finds that the San Juan River can be a viable water source if adequate treatment (e.g., filtration, precipitation, etc.) exists to remove the suspended particles and to meet turbidity standards.

DEQ continues to coordinate with three San Juan County water systems regulated by the State of Utah (Mexican Hat, Bluff, and Sand Island) in regards to monitoring the public drinking water wells located near the San Juan River. It is important to note that none of these three water systems draw their source waters directly from the San Juan River. Mexican Hat's long-term monitoring strategy includes taking metals samples from its wells this week, and continuing periodic metals sampling as needed beginning in six months' time.

The compliance sampling data for all public water systems regulated by State of Utah are available from DDW. To obtain the data from DDW, fill out the [request form](#) and fax the form to [\(801\)536-4211](tel:8015364211).

Public water systems located on tribal lands are being managed by their appropriate authorities, for example, Navajo Tribal Utilities Authority (NTUA).

Residents with a private well can call a [certified drinking water lab](#) to get it tested. The laboratories provide the required bottles, sampling instructions and return instructions.

These data are provisional and subject to change and are undergoing DWQ's quality assurance and quality control procedures. Data are released in the interest of providing timely data to the public. Neither DWQ nor the State of Utah may be held liable for any damages resulting from its use.

		No Exceedence		Above Screening Level		Prior to Plume Arrival		Estimated Plume Arrival		Post Plume Arrival																	
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		Health Based Comparison Values for Water Ingestion		10,000	4	3	2,000	20	5	(blank)	60	100	14,000	15	(blank)	500	0.63	50	200	(blank)	50	(blank)	0.2	100	3,000		
Monitoring Location	Site Description	Collection Date	Collection Time	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
4954000	San Juan R @ US160 Xing in CO	8/8/2015	1:23 PM	47,400	ND	12.5	1,300	3.42	1.27	336	23.9	22.8	41.4	24,800	44.5	56,300	2,320	ND	ND	40.5	12,200	ND	ND	38,600	ND	61.2	147
		8/9/2015	12:02 PM	33,900	ND	12.3	702	2.62	0.907	108	17.4	16.8	59.3	29,400	151	20,300	1,100	ND	ND	23	9,040	ND	ND	29,800	ND	50.5	160
		8/9/2015	3:05 PM	26,700	ND	13.5	606	2.08	0.734	92.8	14.2	13.5	63	28,600	185	17,200	942	ND	ND	18.2	7,530	ND	ND	27,000	ND	41.6	172
		8/9/2015	6:00 PM	24,600	ND	10	532	ND	0.68	86.2	13.7	12.4	47.6	24,100	111	15,800	870	ND	ND	16.8	7,040	ND	ND	26,100	ND	37.8	138
		8/9/2015	9:02 PM	31,000	ND	9.59	554	2.25	0.632	78.8	15.5	14.7	49.7	26,500	83.5	15,300	887	ND	ND	18.4	7,180	ND	ND	29,500	ND	41.5	137
		8/10/2015	9:11 AM	39,900	ND	11	1,730	3.97	1.15	90.8	21	24.8	69.6	35,400	73.5	20,200	1,450	ND	ND	29.7	8,240	ND	ND	36,600	ND	48.2	668
		8/10/2015	2:06 PM	43,700	ND	12.3	889	4.04	0.884	86.7	23.7	25.4	69.7	39,100	69.3	20,100	1,390	ND	ND	30.8	8,890	ND	ND	38,500	ND	53.4	897
		8/11/2015	8:50 AM	77,000	ND	19.9	1,230	6.66	1.2	109	29.5	37	104	54,800	82.2	24,900	1,930	0.187	ND	39.4	11,800	ND	ND	42,900	ND	69.4	223
		8/11/2015	1:17 PM	56,900	ND	14.2	971	4.97	0.916	95	21.8	27.3	76.7	40,300	62.6	20,000	1,440	ND	ND	29.6	9,650	ND	ND	37,400	ND	51.8	159
		8/12/2015	9:50 AM	31,100	ND	11.1	766	3.16	0.905	164	16.1	18.6	43.7	22,600	47.4	24,700	1,250	ND	ND	28.9	7,900	ND	ND	32,700	ND	43.7	131
		8/12/2015	2:04 PM	28,500	ND	9.21	683	2.52	0.641	146	13.2	14.5	34.3	18,100	35.8	24,500	1,130	ND	ND	22	7,370	ND	ND	28,700	ND	41.4	96.2
		8/13/2015	10:01 AM	38,700	ND	12	1,110	5.62	0.941	124	14.9	28.9	79.3	31,100	66.5	22,500	1,670	0.153	ND	28.9	8,540	ND	ND	45,000	ND	51	177
		8/14/2015	2:33 PM	44,300	0.413	12.5	918	4.89	0.984	114	23.7	27.1	70.5	39,100	64.3	22,400	1,360	ND	ND	34.5	10,400	ND	ND	54,800	ND	60	197
		8/15/2015	12:04 PM	14,200	ND	4.7	262	ND	ND	68.1	8.75	6.18	18.2	12,300	17.4	12,700	368	ND	ND	8.78	5,160	ND	ND	27,700	ND	25.7	58.9
4953990	San Juan R @ Town of Montezuma	8/8/2015	2:54 PM	67,300	ND	20.2	1,590	6.36	2.49	390	38.8	41.1	82.4	50,400	91.5	59,100	3,010	0.222	ND	75.8	17,700	ND	ND	51,700	ND	82.8	286
		8/10/2015	10:13 AM	32,300	ND	11.5	1,960	2.72	0.707	93.7	17.3	18.3	56.4	29,700	79.3	20,100	1,130	ND	ND	23.5	7,450	ND	ND	34,600	ND	43.8	821
		8/10/2015	2:58 PM	39,100	ND	11.8	1,700	3.71	0.881	97.1	22.1	23.2	67.3	35,800	75.8	22,500	1,400	ND	ND	29.6	8,490	ND	ND	34,900	ND	49	658
		8/11/2015	9:44 AM	52,800	ND	12.6	918	4.27	0.998	99.7	23.1	25.1	67.9	40,200	62.9	22,500	1,410	ND	ND	29.3	9,630	ND	ND	36,900	ND	55.2	166
		8/11/2015	2:20 PM	54,700	ND	15	1,060	5.16	1.04	102	24.2	29.1	80.3	44,700	70.2	24,000	1,570	ND	ND	32.4	9,470	ND	ND	38,600	ND	58.4	183
		8/12/2015	10:37 AM	31,500	ND	10.2	720	3.62	0.855	108	14.7	19.5	51.7	24,400	49.1	18,400	1,190	ND	ND	22.7	7,040	ND	ND	33,000	ND	38.6	131
		8/12/2015	2:57 PM	35,000	ND	10.7	725	3.97	0.916	130	17	19.5	51.4	26,500	54.1	20,500	1,120	ND	ND	27.7	8,290	ND	ND	34,500	ND	40.8	144
		8/13/2015	4:46 PM	23,700	ND	10.1	722	3.57	0.708	127	9.33	17.3	47.9	17,800	44.3	20,800	1,270	ND	ND	19.3	6,730	ND	ND	34,200	ND	34.2	109
		8/14/2015	9:55 AM	62,000	ND	16	1,400	7.03	1.41	153	29.9	39.8	106	54,300	90.8	32,900	2,060	0.247	ND	48.4	12,700	ND	ND	59,500	ND	76.4	265
8/15/2015	11:31 AM	29,200	ND	8.5	566	2.65	0.806	90.2	15.5	15	39.3	24,900	36.5	19,700	862	ND	ND	18.7	7,880	ND	ND	39,400	ND	43.3	114		
4953250	San Juan R @ Sand Island	8/8/2015	4:19 PM	55,700	ND	15.9	1,090	5.21	1.99	252	32.4	34.3	80.8	47,800	74.7	33,800	1,700	0.158	ND	65.8	13,300	2.14	ND	58,800	ND	64.7	242
		8/10/2015	11:15 AM	27,000	ND	13.2	1,530	2.3	0.788	104	15.9	15.6	60	28,500	140	21,200	1,090	ND	ND	22.1	7,830	ND	ND	30,900	ND	44.3	664
		8/10/2015	3:58 PM	28,700	ND	10.7	726	2.61	0.713	99.9	16.1	17.3	54.7	27,700	84.7	20,400	1,170	ND	ND	22.3	7,290	ND	ND	33,200	ND	40.9	960
		8/11/2015	10:53 AM	47,800	ND	11.5	913	3.87	1.01	98.9	21.7	22.6	61.6	37,000	63.5	22,200	1,310	ND	ND	27.7	9,340	ND	ND	36,400	ND	52.7	167
		8/11/2015	3:01 PM	48,700	ND	12	900	4.23	1.04	102	21	23.6	64.2	36,800	63.4	22,400	1,400	ND	ND	28	9,460	ND	ND	38,200	ND	51.5	163
		8/12/2015	11:12 AM	45,400	ND	14.9	971	5.16	0.94	109	20	27.9	76.7	34,600	67.4	21,900	1,670	ND	ND	30.3	8,430	ND	ND	38,400	ND	51.4	176
		8/12/2015	5:06 PM	30,600	ND	10.3	718	3.61	0.712	90.9	13.6	19.2	53.4	23,700	49.1	17,300	1,190	ND	ND	21.7	6,840	ND	ND	33,200	ND	38	126
		8/13/2015	11:28 AM	19,300	ND	8.77	661	2.52	0.744	168	8.79	13.6	33.6	12,900	35.6	22,800	1,190	ND	ND	18.8	6,830	ND	ND	31,600	ND	32.9	92.7
		8/14/2015	11:02 AM	66,300	ND	16.8	1,460	7.48	1.4	148	29.8	41.8	116	58,200	96	35,600	2,160	0.27	ND	49.2	12,500	ND	ND	55,700	ND	77.4	288
		8/15/2015	10:30 AM	37,600	ND	11.2	826	4.1	0.984	108	20.7	22.2	57.6	32,300	54	23,100	1,230	0.163	ND	27.8	9,220	ND	ND	51,000	ND	53.5	160
4953000	San Juan R @ Mexican Hat US163 Xing	8/8/2015	5:40 PM	63,400	ND	16.3	1,540	7.23	1.5	167	29.4	41.5	103	51,900	86.7	30,600	2,800	0.18	ND	47.8	14,400	ND	ND	63,900	ND	70.5	261
		8/10/2015	11:53 AM	90,800	ND	20.6	2,300	7.61	1.53	314	43.1	40.2	72.8	43,400	82.1	57,000	3,230	ND	ND	70.9	19,700	ND	ND	46,100	ND	80	843
		8/10/2015	4:44 PM	80,600	ND	22.7	1,910	6.12	1.27	254	36.8	32.8	69.8	38,100	171	49,400	2,430	ND	ND	58.4	18,100	ND	ND	52,600	ND	83.3	815
		8/11/2015	11:31 AM	111,000	ND	22.2	2,430	8.13	1.39	259	43.5	38.5	74.3	47,300	102	57,400	2,710	0.175	ND	64.6	22,200	ND	ND	57,800	ND	88.4	209
		8/11/2015	3:43 PM	56,400	0.345	13.3	1,350	5.09	1.09	150	23.5	25.3	61	35,900	75.1	30,100	1,660	ND	ND	34.2	11,700	ND	ND	41,600	ND	57.2	168
		8/12/2015	12:09 PM	54,700	ND	17.5	1,350	6.77	1.17	186	23.2	33.2	80.8	37,500	82.9	33,300	2,170	ND	ND	38.9	10,700	ND	ND	44,400	ND	63.7	190
		8/12/2015	5:50 PM	71,400	ND	22.7	2,010	8.74	1.55	282	28.5	40.1	82.4	38,600	101	47,900	3,070	0.18	ND	51.7	14,000	ND	ND	55,600	ND	78.5	210
		8/13/2015	12:05 PM	44,700	ND	16.5	1,450	5.44	1.25	246	18.3	25	49.5	21,600	62.5	41,900	1,840	ND	ND	39.2	12,500	ND	ND	48,800	ND	66.1	145
		8/14/2015	11:43 AM	124,000	ND	37.2	4,320	15.2	3.74	720	51.1	59.6	84.2	46,900	166	105,000	5,630	0.372	ND	111	30,400	2.41	ND	78,600	ND	115	270
		8/15/2015	9:43 AM	63,700	ND	16.8	1,620	7.29	1.46	207																	

Comparison of San Juan River Raw Water Data with Screening Values for Domestic Source Water - Dissolved Metals

Dissolved metals results should always be less than the total metals result. This is because dissolved metals are a subset of total metals; they make up part of the total metals result. Dissolved metals are usually considered more mobile and biologically available (can be absorbed by the body). The screening values used in this table are from [Utah's water quality standards](#) protective of source water for domestic use.

For drinking water quality, it is best to use the total metals analysis result to determine how safe the water is to drink because the MCL is based on the total metals analysis and the total metals results are considered to be more protective of public health.

The [Water Quality Interpretation Tool](#) developed by Utah State University Extension Services allows users to enter their water quality data online and receive interpretation of those data pertaining to drinking water, irrigation water, livestock water, and environmental water state standards. The explanation of results from this tool provides information on the analyte health effects, the susceptible populations, and typical routes of exposure.

		No Exceedence	Above Screening Level	Prior to Plume Arrival							Estimated Plume Arrival							Post Plume Arrival									
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		Utah Domestic Source Criteria		(blank)	10	1,000	4	10	(blank)	50	(blank)			15	(blank)		2	(blank)			50	(blank)					
Monitoring Location	Site Description	Collection Date	Collection Time	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
4954000	San Juan R @ US160 Xing in CO	8/8/2015	1:23 PM	217	ND	ND	222	ND	ND	51.5	ND	ND	2.24	ND	ND	7,850	2.94	ND	ND	2,960	ND	ND	32,200	ND	4.86	15.3	
		8/9/2015	12:02 PM	258	ND	ND	274	ND	ND	50.6	ND	ND	2.48	119	ND	6,860	2.69	ND	2.01	ND	2,610	ND	ND	28,500	ND	ND	18.5
		8/9/2015	9:02 PM	329	ND	ND	341	ND	ND	46	ND	ND	3.47	198	ND	6,300	4.14	ND	ND	2,380	ND	ND	30,000	ND	ND	15.4	
		8/10/2015	9:11 AM	172	ND	ND	233	ND	ND	44.6	ND	ND	3.21	103	ND	6,010	ND	ND	2.03	ND	2,510	ND	ND	34,100	ND	ND	19.7
		8/10/2015	2:06 PM	1050	ND	ND	220	ND	ND	44.2	ND	ND	3.35	732	ND	6,020	12.8	ND	ND	2,720	ND	ND	35,100	ND	ND	18	
		8/11/2015	8:50 AM	3290	ND	ND	451	ND	ND	39.8	ND	ND	4.85	1520	ND	5,050	19	ND	ND	3,000	ND	ND	43,700	ND	ND	19.1	
		8/11/2015	1:17 PM	720	ND	ND	334	ND	ND	41.7	ND	ND	3.03	366	ND	5,110	5.1	ND	ND	2,910	ND	ND	37,000	ND	ND	14.9	
		8/12/2015	9:50 AM	104	0.59	ND	178	ND	ND	52.1	ND	ND	2.39	ND	ND	7,200	ND	ND	ND	2,790	ND	ND	30,300	ND	ND	14.8	
		8/12/2015	2:04 PM	155	0.55	ND	151	ND	ND	47.9	ND	ND	2.61	ND	ND	6,970	ND	ND	ND	2,740	ND	ND	27,300	ND	ND	16.5	
		8/13/2015	10:01 AM	257	ND	ND	213	ND	ND	48.3	ND	ND	3.67	148	ND	6,480	3.16	ND	ND	2,870	ND	ND	42,500	ND	ND	21.9	
8/14/2015	2:33 PM	ND	ND	ND	72.3	ND	ND	53.4	ND	ND	3.86	ND	ND	6,610	ND	ND	3.65	3.14	3,660	ND	ND	52,400	ND	ND	ND		
8/15/2015	12:04 PM	ND	ND	ND	65.2	ND	ND	52.8	ND	ND	ND	ND	ND	7,910	ND	ND	2.25	ND	2,610	ND	ND	25,900	ND	ND	ND		
4953990	San Juan R @ Town of Montezuma	8/8/2015	2:54 PM	136	ND	ND	223	ND	ND	71.5	ND	ND	2.72	ND	ND	9,920	ND	ND	2.62	ND	3,840	ND	ND	43,500	ND	ND	21
		8/10/2015	10:13 AM	218	ND	ND	262	ND	ND	49.8	ND	ND	3.24	144	ND	7,700	3.22	ND	2.03	ND	2,690	ND	ND	32,100	ND	ND	17.3
		8/10/2015	2:58 PM	ND	ND	ND	200	ND	ND	48.6	ND	ND	2.48	ND	ND	7,350	ND	ND	2.32	ND	2,590	ND	ND	31,800	ND	ND	14.6
		8/11/2015	9:44 AM	462	ND	ND	314	ND	ND	44.6	ND	ND	2.66	227	ND	6,490	3.31	ND	ND	2,640	ND	ND	37,100	ND	ND	12.9	
		8/11/2015	2:20 PM	1400	ND	ND	298	ND	ND	44.8	ND	ND	3.47	668	ND	6,570	9.99	ND	ND	2,960	ND	ND	38,300	ND	ND	14.3	
		8/12/2015	10:37 AM	ND	0.8	ND	202	ND	ND	48.3	ND	ND	2.49	ND	ND	7,230	ND	ND	ND	2,670	ND	ND	31,900	ND	ND	13.5	
		8/12/2015	2:57 PM	375	0.82	ND	176	ND	ND	48.9	ND	ND	4.34	296	ND	7,500	2.28	ND	ND	2,840	ND	ND	33,800	ND	ND	15.9	
		8/13/2015	4:46 PM	330	ND	ND	240	ND	ND	49.4	ND	ND	3.75	192	ND	8,080	5.3	ND	ND	2,620	ND	ND	32,900	ND	ND	32.7	
		8/14/2015	9:55 AM	ND	ND	ND	85.1	ND	ND	55.1	ND	ND	3.79	ND	ND	7,810	ND	ND	2.84	ND	3,510	ND	ND	53,000	ND	ND	ND
8/15/2015	11:31 AM	ND	ND	ND	73.6	ND	ND	55	ND	ND	4.38	ND	ND	8,570	3.36	ND	2.43	ND	3,160	ND	ND	35,800	ND	ND	ND		
4953250	San Juan R @ Sand Island	8/8/2015	4:19 PM	214	ND	ND	294	ND	ND	73.7	ND	ND	3.86	104	ND	9,240	2.55	ND	3.3	ND	4,110	ND	ND	51,200	ND	ND	19
		8/10/2015	11:15 AM	124	ND	ND	192	ND	ND	53.2	ND	ND	2.07	ND	ND	8,400	ND	ND	2.38	ND	2,860	ND	ND	28,400	ND	ND	13.7
		8/10/2015	3:58 PM	108	ND	ND	184	ND	ND	48.4	ND	ND	ND	ND	ND	7,830	ND	ND	2.26	ND	2,670	ND	ND	30,600	ND	ND	13.2
		8/11/2015	10:53 AM	684	ND	ND	278	ND	ND	45.8	ND	ND	2.87	328	ND	6,930	4.12	ND	ND	2,720	ND	ND	36,800	ND	ND	13.7	
		8/11/2015	3:01 PM	158	ND	ND	251	ND	ND	45.3	ND	ND	2.69	ND	ND	6,650	ND	ND	ND	2,760	ND	ND	36,600	ND	ND	14.9	
		8/12/2015	11:12 AM	623	1.08	ND	205	ND	ND	46.8	ND	ND	3.44	310	ND	6,980	4.47	ND	ND	2,910	ND	ND	37,800	ND	ND	14.5	
		8/12/2015	5:06 PM	605	1.78	ND	260	ND	ND	46.6	ND	ND	2.98	314	ND	7,070	5.16	ND	ND	2,790	ND	ND	33,500	ND	ND	13.2	
		8/13/2015	11:28 AM	509	ND	ND	156	ND	ND	53.6	ND	ND	3.1	275	ND	8,210	8.9	ND	ND	2,960	ND	ND	29,200	ND	ND	20.4	
		8/14/2015	11:02 AM	ND	ND	2.03	78.6	ND	ND	53.2	ND	ND	3.31	ND	ND	8,260	7.02	ND	5.31	2.38	3,270	ND	ND	49,500	ND	5.88	ND
8/15/2015	10:30 AM	ND	ND	ND	83.5	ND	ND	55.7	ND	ND	2.27	ND	ND	8,400	ND	ND	3.93	ND	3,460	ND	ND	46,700	ND	ND	ND		
4953000	San Juan R @ Mexican Hat US163 Xing	8/8/2015	5:40 PM	264	ND	ND	308	ND	ND	49.2	ND	ND	3.95	144	ND	5,750	2.81	ND	3.15	ND	4,150	ND	ND	62,600	ND	ND	14.2
		8/10/2015	11:53 AM	325	ND	ND	299	ND	ND	44.6	ND	ND	2.95	140	ND	7,840	2.55	ND	2.43	ND	3,410	ND	ND	43,600	ND	7.59	17.6
		8/10/2015	4:44 PM	149	ND	ND	265	ND	ND	44.2	ND	ND	2.48	ND	ND	7,870	ND	ND	2.63	ND	3,350	ND	ND	41,900	ND	6.67	18.5
		8/11/2015	11:31 AM	907	ND	ND	391	ND	ND	37.2	ND	ND	3.13	382	ND	6,720	4.55	ND	2.46	ND	3,290	ND	ND	51,300	ND	7.82	12.4
		8/11/2015	3:43 PM	1790	ND	ND	445	ND	ND	43.6	ND	ND	5.28	787	ND	7,190	11.6	ND	ND	3,110	ND	ND	41,400	ND	4.55	17.4	
		8/12/2015	12:09 PM	125	1.41	ND	245	ND	ND	59.8	ND	ND	3.34	ND	ND	7,860	ND	ND	2.27	ND	3,090	ND	ND	42,100	ND	ND	14.2
		8/12/2015	5:50 PM	105	2.23	ND	185	ND	ND	48.9	ND	ND	3.19	ND	ND	7,220	ND	ND	2.64	ND	3,160	ND	ND	48,700	ND	ND	16.1
		8/13/2015	12:05 PM	293	ND	2.06	201	ND	ND	42.6	ND	ND	3.46	143	ND	7,210	3.54	ND	2.33	ND	3,300	ND	ND	44,400	ND	7.13	19.8
		8/14/2015	11:43 AM	120	ND	2.33	157	ND	ND	46.2	ND	ND	5.86	ND	ND	10,500	2.43	ND	5.87	ND	4,290	ND	ND	68,000	ND	8.06	ND
8/15/2015	9:43 AM	135	ND	ND	117	ND	ND	53.7	ND	ND	8.56	ND	ND	9,030	7.42	ND	3.28	ND	3,620	ND	ND	51,900	ND	5.65	6.18		
4952940	San Juan R @ Clay Hills	8/13/2015	2:42 PM	643	ND	ND	411	ND	ND	52.3	ND	ND	4.36	388	ND	7,500	13.8	ND	2.16	ND	3,090	ND	ND	47,000	ND	4.99	19.2
		8/14/2015	2:33 PM	ND	ND	ND	121	ND	ND	51.1	ND	ND	3.6	ND	ND	8,230	ND	ND	3.3	ND	3,690	ND	ND	49,800	ND	5.38	ND
		8/15/2015	2:30 PM	119	ND	ND	136	ND	ND	43.1	ND	ND	2.6	ND	ND	8,990	ND	ND	4.27	ND	3,620	ND	ND	66,300	ND	5.48	ND

These data are provisional and subject to change and are undergoing DWQ's quality assurance and quality control procedures. Data are released in the interest of providing timely data to the public. Neither DWQ nor the State of Utah may be held liable for any damages resulting from its use.

Comparison of San Juan River Raw Water Data with Screening Values for Agricultural Uses (Stock watering and Irrigation) – Dissolved Metals

The Utah Department of Agriculture and Food (UDAF) is lifting any advisories against using San Juan River water for crop irrigation and livestock watering.

Based on the latest DEQ evaluation of the San Juan River water sample data, Utah State University's veterinary toxicologist reports that the river's highest levels of contamination posed no adverse effects on plants, soils and animals, only short-term and minimal exposure risks. The UDAF advises farmers and ranchers to remain cautious and report any changes in the health of their crops and livestock.

		No Exceedence	Above Screening	Prior to Plume Arrival		Estimated Plume Arrival					Post Plume Arrival																						
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Sulfate	Total Dissolved Solids				
		Livestock Water	5,000	(blank)	200	(blank)	50	500	1,000	500	(blank)	100	250,000	(blank)	10	(blank)	50	(blank)	1,000,000	(blank)	100	25,000	(blank)	1,200	(blank)	500,000	(blank)	1,200	(blank)	500,000			
		Irrigation Water Short-term NAS, 1972	5,000	(blank)	100	(blank)	10	(blank)	100	50	200	5000	(blank)	200	(blank)	10	200	(blank)	20	(blank)	1000	(blank)	1000	2,000	(blank)	1000	10,000	(blank)	500,000	(blank)			
		Irrigation Water Long-term NAS, 1972	20,000	(blank)	2,000	(blank)	50	(blank)	1,000	5,000	20,000	10,000	(blank)	10,000	(blank)	50	2,000	(blank)	20	(blank)	1000	(blank)	1000	10,000	(blank)	1000	10,000	(blank)	500,000	(blank)			
		Utah DWQ Agricultural Use Criteria 4	(blank)	100	(blank)	10	(blank)	100	(blank)	200	(blank)	100	(blank)	100	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	1,200			
Monitoring Location	Site Description	Collection Date	Collection Time	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L				
4954000	San Juan R @ US160 Xing in CO	8/8/2015	1:23:00 PM	217	ND	ND	222	ND	ND	51.5	ND	ND	2.24	ND	ND	7,850	2.94	ND	ND	2,960	ND	ND	32,200	ND	4.86	15.3	111	460					
		8/9/2015	12:02:00 PM	258	ND	ND	274	ND	ND	50.6	ND	ND	2.48	119	ND	6,860	2.69	ND	2,011	ND	2,610	ND	ND	28,500	ND	18.5	120	400					
		8/9/2015	3:05:00 PM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
		8/9/2015	6:00:00 PM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
		8/9/2015	9:02:00 PM	329	ND	ND	341	ND	ND	46	ND	ND	3.47	198	ND	6,300	4.14	ND	ND	2,380	ND	ND	30,000	ND	ND	15.4	97.3	430					
		8/10/2015	9:11:00 AM	172	ND	ND	233	ND	ND	44.6	ND	ND	3.21	103	ND	6,010	ND	ND	2,03	ND	2,510	ND	ND	34,100	ND	ND	19.7	99.7	380				
		8/10/2015	2:06:00 PM	1,050	ND	ND	220	ND	ND	44.2	ND	ND	3.35	732	ND	6,020	12.8	ND	ND	2,720	ND	ND	35,100	ND	ND	18	102	490					
		8/11/2015	8:50:00 AM	3,290	ND	ND	451	ND	ND	39.8	ND	ND	4.85	1520	ND	5,050	19	ND	ND	3,000	ND	ND	43,700	ND	ND	19.1	100	380					
		8/11/2015	1:17:00 PM	720	ND	ND	334	ND	ND	41.7	ND	ND	3.03	366	ND	5,110	5.1	ND	ND	2,910	ND	ND	37,000	ND	ND	14.9	99.2	290					
		8/12/2015	9:50:00 AM	104	0.586	ND	178	ND	ND	52.1	ND	ND	2.39	ND	ND	7,200	ND	ND	ND	2,790	ND	ND	30,300	ND	ND	14.8	118	620					
		8/12/2015	2:04:00 PM	155	0.548	ND	151	ND	ND	47.9	ND	ND	2.61	ND	ND	6,970	ND	ND	ND	2,740	ND	ND	27,300	ND	ND	16.5	102	450					
		8/13/2015	10:01:00 AM	257	ND	ND	213	ND	ND	48.3	ND	ND	3.67	148	ND	6,480	3.16	ND	ND	2,870	ND	ND	42,500	ND	ND	21.9	121	450					
8/14/2015	2:33:00 PM	ND	ND	ND	72.3	ND	ND	53.4	ND	ND	3.86	ND	ND	6,610	ND	ND	3.65	3.14	3,660	ND	ND	52,400	ND	ND	15	135	720						
8/15/2015	12:04:00 PM	ND	ND	ND	65.2	ND	ND	52.8	ND	ND	ND	ND	ND	7,910	ND	ND	2.25	ND	2,610	ND	ND	25,900	ND	ND	ND	106	580						
4953990	San Juan R @ Town of Montezuma	8/8/2015	2:54:00 PM	136	ND	ND	223	ND	ND	71.5	ND	ND	2.72	ND	ND	9,920	ND	ND	2.62	ND	3,840	ND	ND	43,500	ND	ND	21	195	610				
		8/10/2015	10:13:00 AM	218	ND	ND	262	ND	ND	49.8	ND	ND	3.24	144	ND	7,700	3.22	ND	2.03	ND	2,690	ND	ND	32,100	ND	ND	17.3	115	610				
		8/10/2015	2:58:00 PM	ND	ND	ND	200	ND	ND	48.6	ND	ND	2.48	ND	ND	7,350	ND	ND	2.32	ND	2,590	ND	ND	31,800	ND	ND	14.6	108	460				
		8/11/2015	9:44:00 AM	462	ND	ND	314	ND	ND	44.8	ND	ND	2.66	227	ND	6,490	3.31	ND	ND	2,640	ND	ND	37,100	ND	ND	12.9	110	460					
		8/11/2015	2:20:00 PM	1,400	ND	ND	298	ND	ND	44.6	ND	ND	3.47	668	ND	6,570	9.99	ND	ND	2,960	ND	ND	38,300	ND	ND	14.3	110	620					
		8/12/2015	10:37:00 AM	ND	0.799	ND	202	ND	ND	48.3	ND	ND	2.49	ND	ND	7,230	ND	ND	ND	2,670	ND	ND	31,900	ND	ND	13.5	114	560					
		8/12/2015	2:57:00 PM	375	0.822	ND	176	ND	ND	48.9	ND	ND	4.34	296	ND	7,500	2.28	ND	ND	2,840	ND	ND	33,800	ND	ND	15.9	123	460					
		8/13/2015	4:46:00 PM	330	ND	ND	240	ND	ND	49.4	ND	ND	3.75	192	ND	8,080	5.3	ND	ND	2,620	ND	ND	32,900	ND	ND	32.7	125	370					
		8/14/2015	9:55:00 AM	ND	ND	ND	85.1	ND	ND	55.1	ND	ND	3.79	ND	ND	7,810	ND	ND	2.84	ND	3,510	ND	ND	53,000	ND	ND	ND	154	480				
8/15/2015	11:31:00 AM	ND	ND	ND	73.6	ND	ND	55	ND	ND	4.38	ND	ND	8,570	3.36	ND	2.43	ND	3,160	ND	ND	35,800	ND	ND	ND	139	440						
4953250	San Juan R @ Sand Island	8/8/2015	4:19:00 PM	214	ND	ND	294	ND	ND	73.7	ND	ND	3.86	104	ND	9,240	2.55	ND	3.3	ND	4,110	ND	ND	51,200	ND	ND	19	226	640				
		8/10/2015	11:15:00 AM	124	ND	ND	192	ND	ND	53.2	ND	ND	2.07	ND	ND	8,400	ND	ND	2.38	ND	2,860	ND	ND	28,400	ND	ND	13.7	124	370				
		8/10/2015	3:58:00 PM	108	ND	ND	184	ND	ND	48.4	ND	ND	ND	ND	7,830	ND	ND	2.26	ND	2,670	ND	ND	30,600	ND	ND	13.2	118	490					
		8/11/2015	10:53:00 AM	684	ND	ND	278	ND	ND	45.8	ND	ND	2.87	328	ND	6,930	4.12	ND	ND	2,720	ND	ND	36,800	ND	ND	13.7	114	390					
		8/11/2015	3:01:00 PM	158	ND	ND	251	ND	ND	45.3	ND	ND	2.69	ND	ND	6,650	ND	ND	ND	2,760	ND	ND	36,600	ND	ND	14.9	112	360					
		8/12/2015	11:12:00 AM	623	1.08	ND	205	ND	ND	46.8	ND	ND	3.44	310	ND	6,980	4.47	ND	ND	2,910	ND	ND	37,800	ND	ND	14.5	112	450					
		8/12/2015	5:06:00 PM	605	1.78	ND	260	ND	ND	46.6	ND	ND	2.98	314	ND	7,070	5.16	ND	ND	2,790	ND	ND	33,500	ND	ND	13.2	109	410					
		8/13/2015	11:28:00 AM	509	ND	ND	156	ND	ND	53.6	ND	ND	3.1	275	ND	8,210	8.9	ND	ND	2,960	ND	ND	29,200	ND	ND	20.4	121	450					
		8/14/2015	11:02:00 AM	ND	ND	2.03	78.6	ND	ND	53.2	ND	ND	3.31	ND	ND	8,260	7.02	ND	5.31	2.38	3,270	ND	ND	49,500	ND	5.88	ND	146	630				
8/15/2015	10:30:00 AM	ND	ND	ND	83.5	ND	ND	55.7	ND	ND	2.27	ND	ND	8,400	ND	ND	3.93	ND	3,460	ND	ND	46,700	ND	ND	ND	164	540						
4953000	San Juan R @ Mexican Hat US163 Xing	8/8/2015	5:40:00 PM	264	ND	ND	308	ND	ND	49.2	ND	ND	3.95	144	ND	5,750	2.81	ND	3.15	ND	4,150	ND	ND	62,600	ND	ND	14.2	154	730				
		8/10/2015	11:53:00 AM	325	ND	ND	299	ND	ND	44.6	ND	ND	2.95	140	ND	7,840	2.55	ND	2.43	ND	3,410	ND	ND	43,600	ND	7.59	17.6	126	590				
		8/10/2015	4:44:00 PM	149	ND	ND	265	ND	ND	44.2	ND	ND	2.48	ND	ND	7,870	ND	ND	2.63	ND	3,350	ND	ND	41,900	ND	6.67	18.5	132	660				
		8/11/2015	11:31:00 AM	907	ND	ND	391	ND	ND	37.2	ND	ND	3.13	382	ND	6,720	4.55	ND	2.46	ND	3,290	ND	ND	51,300	ND	7.82	12.4	117	980				
		8/11/2015	3:43:00 PM	1,790	ND	ND	445	ND	ND	43.6	ND	ND	5.28	787	ND	7,190	11.6	ND	ND	3,110	ND	ND	41,400	ND	4.55	17.4	129	600					
		8/12/2015	12:09:00 PM	125	1.41	ND	245	ND	ND	59.8	ND	ND	3.34	ND	ND	7,860	ND	ND	2.27	ND	3,090	ND	ND	42,100	ND	ND	14.2	157	450				
		8/12/2015	5:50:00 PM	105	2.23	ND	185	ND	ND	48.9	ND	ND	3.19	ND	ND	7,220	ND	ND	2.64	ND	3,160	ND	ND	48,700	ND	ND	16.						

Comparison of San Juan River Raw Water Data with Screening Values for Aquatic Life Use (Warm-water Fishery) – Dissolved Metals

Most metals were screened against two different standards: the acute criterion that established thresholds that should not be exceeded to protect organisms from short term exposure, and the chronic criterion that protects against long-term exposure. The acute criterion is most relevant to the immediate threat of the plume to fish and wildlife.

The screening analysis for dissolved aluminum was adjusted to account for observed pH and hardness in the San Juan River. Given current conditions, the 4-day aquatic life use criteria is not applicable when determining use support and aluminum was only compared to the 1-hr acute criteria.

Based on these results, aluminum is the only metal that is of potential threat to fish and wildlife. Aluminum exceedences have not been observed since August 11th, 2015.

Overall, DEQ concludes that any elevated concentration in metals that were caused from the mine release plume is not sufficiently high to threaten fish and wildlife.

No Exceedence		Above Screening Level		Prior to Plume Arrival			Estimated Plume Arrival					Post Plume Arrival																	
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc		
Utah Aquatic Life Use Criteria 1-hr				750	(blank)	340	(blank)	2	(blank)	570	(blank)	13	1,000	65	(blank)					468	(blank)	18.4	1.6	(blank)				120	
Utah Aquatic Life Use Criteria 4-day				87	(blank)	150	(blank)	0.25	(blank)	74	(blank)	9	1,000	2.5	(blank)					0.01	(blank)	52	(blank)	4.6	(blank)				120
Monitoring Location	Site Description	Collection Date	Collection Time	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
4954000	San Juan R @ US160 Xing in CO	8/8/2015	1:23:00 PM	217	ND	ND	222	ND	ND	52	ND	ND	2	ND	ND	7,850	3	ND	ND	ND	2,960	ND	ND	32,200	ND	5	15		
		8/9/2015	12:02:00 PM	258	ND	ND	274	ND	ND	51	ND	ND	2	119	ND	6,860	3	ND	2	ND	2,610	ND	ND	28,500	ND	ND	19		
		8/9/2015	9:02:00 PM	329	ND	ND	341	ND	ND	46	ND	ND	3	198	ND	6,300	4	ND	ND	ND	2,380	ND	ND	30,000	ND	ND	15		
		8/10/2015	9:11:00 AM	172	ND	ND	233	ND	ND	45	ND	ND	3	103	ND	6,010	ND	ND	2	ND	2,510	ND	ND	34,100	ND	ND	20		
		8/10/2015	2:06:00 PM	1,050	ND	ND	220	ND	ND	44	ND	ND	3	732	ND	6,020	13	ND	ND	ND	2,720	ND	ND	35,100	ND	ND	18		
		8/11/2015	8:50:00 AM	3,290	ND	ND	451	ND	ND	40	ND	ND	5	1,520	ND	5,050	19	ND	ND	ND	3,000	ND	ND	43,700	ND	ND	19		
		8/11/2015	1:17:00 PM	720	ND	ND	334	ND	ND	42	ND	ND	3	366	ND	5,110	5	ND	ND	ND	2,910	ND	ND	37,000	ND	ND	15		
		8/12/2015	9:50:00 AM	104	1	ND	178	ND	ND	52	ND	ND	2	ND	ND	7,200	ND	ND	ND	ND	2,790	ND	ND	30,300	ND	ND	15		
		8/12/2015	2:04:00 PM	155	1	ND	151	ND	ND	48	ND	ND	3	ND	ND	6,970	ND	ND	ND	ND	2,740	ND	ND	27,300	ND	ND	17		
		8/13/2015	10:01:00 AM	257	ND	ND	213	ND	ND	48	ND	ND	4	148	ND	6,480	3	ND	ND	ND	2,870	ND	ND	42,500	ND	ND	22		
		8/14/2015	2:33:00 PM	ND	ND	ND	72	ND	ND	53	ND	ND	4	ND	ND	6,610	ND	ND	4	3	3,660	ND	ND	52,400	ND	ND	ND		
		8/15/2015	12:04:00 PM	ND	ND	ND	65	ND	ND	53	ND	ND	ND	ND	ND	7,910	ND	ND	2	ND	2,610	ND	ND	25,900	ND	ND	ND		
		4953990	San Juan R @ Town of Montezuma	8/8/2015	2:54:00 PM	136	ND	ND	223	ND	ND	72	ND	ND	3	ND	ND	9,920	ND	ND	3	ND	3,840	ND	ND	43,500	ND	ND	21
				8/10/2015	10:13:00 AM	218	ND	ND	262	ND	ND	50	ND	ND	3	144	ND	7,700	3	ND	2	ND	2,690	ND	ND	32,100	ND	ND	17
				8/10/2015	2:58:00 PM	ND	ND	ND	200	ND	ND	49	ND	ND	2	ND	ND	7,350	ND	ND	2	ND	2,590	ND	ND	31,800	ND	ND	15
8/11/2015	9:44:00 AM			462	ND	ND	314	ND	ND	45	ND	ND	3	227	ND	6,490	3	ND	ND	ND	2,640	ND	ND	37,100	ND	ND	13		
8/11/2015	2:20:00 PM			1,400	ND	ND	298	ND	ND	45	ND	ND	3	668	ND	6,570	10	ND	ND	ND	2,960	ND	ND	38,300	ND	ND	14		
8/12/2015	10:37:00 AM			ND	1	ND	202	ND	ND	48	ND	ND	2	ND	ND	7,230	ND	ND	ND	ND	2,670	ND	ND	31,900	ND	ND	14		
8/12/2015	2:57:00 PM			375	1	ND	176	ND	ND	49	ND	ND	4	296	ND	7,500	2	ND	ND	ND	2,840	ND	ND	33,800	ND	ND	16		
8/13/2015	4:46:00 PM			330	ND	ND	240	ND	ND	49	ND	ND	4	192	ND	8,080	5	ND	ND	ND	2,620	ND	ND	32,900	ND	ND	33		
8/14/2015	9:55:00 AM			ND	ND	ND	85	ND	ND	55	ND	ND	4	ND	ND	7,810	ND	ND	3	ND	3,510	ND	ND	53,000	ND	ND	ND		
8/15/2015	11:31:00 AM			ND	ND	ND	74	ND	ND	55	ND	ND	4	ND	ND	8,570	3	ND	2	ND	3,160	ND	ND	35,800	ND	ND	ND		
4953250	San Juan R @ Sand Island	8/8/2015	4:19:00 PM	214	ND	ND	294	ND	ND	74	ND	ND	4	104	ND	9,240	3	ND	3	ND	4,110	ND	ND	51,200	ND	ND	19		
		8/10/2015	11:15:00 AM	124	ND	ND	192	ND	ND	53	ND	ND	2	ND	ND	8,400	ND	ND	2	ND	2,860	ND	ND	28,400	ND	ND	14		
		8/10/2015	3:58:00 PM	108	ND	ND	184	ND	ND	48	ND	ND	ND	ND	ND	7,830	ND	ND	2	ND	2,670	ND	ND	30,600	ND	ND	13		
		8/11/2015	10:53:00 AM	684	ND	ND	278	ND	ND	46	ND	ND	3	328	ND	6,930	4	ND	ND	ND	2,720	ND	ND	36,800	ND	ND	14		
		8/11/2015	3:01:00 PM	158	ND	ND	251	ND	ND	45	ND	ND	3	ND	ND	6,650	ND	ND	ND	ND	2,760	ND	ND	36,600	ND	ND	15		
		8/12/2015	11:12:00 AM	623	1	ND	205	ND	ND	47	ND	ND	3	310	ND	6,980	4	ND	ND	ND	2,910	ND	ND	37,800	ND	ND	15		
		8/12/2015	5:06:00 PM	605	2	ND	260	ND	ND	47	ND	ND	3	314	ND	7,070	5	ND	ND	ND	2,790	ND	ND	33,500	ND	ND	13		
		8/13/2015	11:28:00 AM	509	ND	ND	156	ND	ND	54	ND	ND	3	275	ND	8,210	9	ND	ND	ND	2,960	ND	ND	29,200	ND	ND	20		
		8/14/2015	11:02:00 AM	ND	ND	2	79	ND	ND	53	ND	ND	3	ND	ND	8,260	7	ND	5	2	3,270	ND	ND	49,500	ND	6	ND		
4953000	San Juan R @ Mexican Hat US163 Xing	8/8/2015	5:40:00 PM	264	ND	ND	308	ND	ND	49	ND	ND	4	144	ND	5,750	3	ND	3	ND	4,150	ND	ND	62,600	ND	ND	14		
		8/10/2015	11:53:00 AM	325	ND	ND	299	ND	ND	45	ND	ND	3	140	ND	7,840	3	ND	2	ND	3,410	ND	ND	43,600	ND	8	18		
		8/10/2015	4:44:00 PM	149	ND	ND	265	ND	ND	44	ND	ND	2	ND	ND	7,870	ND	ND	3	ND	3,350	ND	ND	41,900	ND	7	19		
		8/11/2015	11:31:00 AM	907	ND	ND	391	ND	ND	37	ND	ND	3	382	ND	6,720	5	ND	2	ND	3,290	ND	ND	51,300	ND	8	12		
		8/11/2015	3:43:00 PM	1,790	ND	ND	445	ND	ND	44	ND	ND	5	787	ND	7,190	12	ND	ND	ND	3,110	ND	ND	41,400	ND	5	17		
		8/12/2015	12:09:00 PM	125	1	ND	245	ND	ND	60	ND	ND	3	ND	ND	7,860	ND	ND	2	ND	3,090	ND	ND	42,100	ND	ND	14		
		8/12/2015	5:50:00 PM	105	2	ND	185	ND	ND	49	ND	ND	3	ND	ND	7,220	ND	ND	3	ND	3,160	ND	ND	48,700	ND	ND	16		
		8/13/2015	12:05:00 PM	293	ND	2	201	ND	ND	43	ND	ND	3	143	ND	7,210	4	ND	2	ND	3,300	ND	ND	44,400	ND	7	20		
		8/14/2015	11:43:00 AM	120	ND	2	157	ND	ND	46	ND	ND	6	ND	ND	10,500	2	ND	6	ND	4,290	ND	ND	68,000	ND	8	ND		
		8/15/2015	9:43:00 AM	135	ND	ND	117	ND	ND	54	ND	ND	9	ND	ND	9,030	7	ND	3	ND	3,620	ND	ND	51,900	ND	6	6		
4952940	San Juan R @ Clay Hills	8/13/2015	2:42:00 PM	643	ND	ND	411	ND	ND	52	ND	ND	4	388	ND	7,500	14	ND	2	ND	3,090	ND	ND	47,000	ND	5	19		
		8/14/2015	2:33:00 PM	ND	ND	ND	121	ND	ND	51	ND	ND	4	ND	ND	8,230	ND	ND	3	ND	3,690	ND	ND	49,800	ND	5	ND		
		8/15/2015	2:30:00 PM	119	ND	ND	136	ND	ND	43	ND	ND	3	ND	ND	8,990	ND	ND	4	ND	3,620	ND	ND	66,300	ND	5	ND		

These data are provisional and subject to change and are undergoing DWQ's quality assurance and quality control procedures. Data are released in the interest of providing timely data to the public. Neither DWQ nor the State of Utah may be held liable for any damages resulting from its use.