

Rim Fire Monitoring Results (performed by MID)																			
Sample Date			10/15/13	11/19/13	11/20/13	11/21/13	11/22/13	11/25/13	12/4/13	12/18/13	1/8/14	1/29/14	1/31/14	2/9/14	2/27/14	3/3/14	4/10/14	4/30/14	11/3/14
	Units	DLR	Ward's Ferry Bridge	Ward's Ferry Bridge 15:43 Rain start at 17:00	Ward's Ferry Bridge 16:43	Ward's Ferry Bridge 16:00	Ward's Ferry Bridge 14:14	Ward's Ferry Bridge 1343	Ward's Ferry Bridge 13:45	Ward's Ferry Bridge 1345	Ward's Ferry Bridge 12:30	Ward's Ferry Bridge 1450	Ward's Ferry Bridge 12:42 After ~0.8 1" of rain	Ward's Ferry Bridge	Ward's Ferry Bridge 1410	Ward's Ferry Bridge 1422	Ward's Ferry Bridge 1420	Ward's Ferry Bridge 1530 w/UCD	Ward's Ferry Bridge 1400 w/UCD
Rain	inches	-		0	0.75	0.07	0.01	0	0	0	0	0	1.28 +0.16	After 4 days of light rain	1.8	3.5" in 5 days	0	0	0.85" on 10/31-11/1
Comments:	NA	-	Back ground Sample Tuolumne River @ Ward's Ferry Bridge	Clear Green River	Clear Green River	Clear Green River	Muddy Brown	Dark, Clear River	Clear, Green, White, Deeper than Oct	Very little flow, clear, no ppt for 10 days	Dark, Clear River	Clear, green river	Muddy river, higher flow & Gage gephth	Oatmeal Stout River	Mud, moderate flow, collected at on line peak ntu	dark chocolate	Snow melt runoff, very turbid, dark brown water	Dark brown water	Dark green slightly mirky
USGS Gage Depth		-	NA	USGS Working	USGS Working	USGS Working			USGS Working on Gage	Out of the water	Out of the water	Out of the water	9.2	10.3	10.4	9	11.5	~11.7	8.5
pH	su	-	6.9	7.12	7.18	7.09	7.24	7.2	6.7	7.4	6.3	7.3	7.46	7.56	7.56 (on line=8	7.6	7.23	7.04	7.26
Alkalinity	mg/L CaCO3	-	10.4	7.2	7.2	10.96	16.4	11.1	7.9	21.2	6	10.2	16.4	32.4	170.2	31.6	15.8	8.4	15.6
Calcium	mg/L CaCO3	-	9.6	9	9	8.4	11	8	7	15	8	7	12	25	48-52	26	12	8	12
Conductivity	uS/cm	-	29.8	20.6	20.3	25.4	35.4	31.2	19.7	47.9	17.49	23.7	40.9	72.4	117.6	70.5	34.6	20.1	35.9
Total Dissolved Solids	mg/L	-	35	12.4	12.2	15.3	18.2	18.5	14	29.1	10.2	15.1	24.8	42.8	71.6	41.8	20.2	11.8	21.6
Turbidity	ntu	-	0.29	1.03	0.308	0.6	21.7	2.4	1.7	0.5	0.81	0.46	21.7	94	4,400	27	39	8	7
Total Suspended Solids	mg/L	-	<1 mg/L	0.7	0.5	1.5	11.0	1.5	0.7	0.6	1.7	0.8	12	106	4700	76	-	-	
Total Settleable Solids	ml/L	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	6 mls/L	47 (1)	<1	-	-	<1 ml/L
TOC	mg/L	-	1.55	1.97	1.55	1.72	2.34	1.84	1.63	1.07	1.52	1.36	2.77	4.85	~70 mg/L	4.69	3.09	-	2.00
DOC	mg/L	-	1.85	2.11	1.68	1.73	2.3	1.92	1.7	1.25	1.46	1.34	2.36	4.4	12	4.04	2.57	-	1.91
UV-254	cm ⁻¹	-	0.036	0.037	0.038	0.044	0.1	0.043	0.036	0.031	0.029	0.024	0.057	0.173	0.265	0.115	0.072	-	0.052
SUVA (2)	L/mg-M	-	1.95	1.75	2.26	2.54	2.90	2.24	2.12	2.48	1.99	1.79	2.42	3.93	2.21	2.85	2.80	-	2.72
RAW Water SUVA	L/mg-M	-	2.17	2.08	2.08	2.08	2.21	2.18	2.11	2.18	1.60	1.56	1.61	1.38	1.69	1.76	1.88	-	1.88
Raw Color	units	-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	5-Jan	-	<5
Color	units	-	-	-	-	-	-	-	-	-	-	-	-	30	>40:<45	15	15-20	-	<5
BSK Laboratory Results:																			
Aluminum	mg/L	0.05	ND	ND	ND	ND	0.71	0.33	0.19	ND	ND	ND	0.62		100	1.5			
Antimony	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Arsenic	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		11	ND			
Barium	ug/L	5.0	8.2	6.1	5.9	8.3	28	17	9.6	14	6.7	6.6	18		2000	42			
Beryllium	ug/L	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		3.8	ND			
Cadmium	ug/L	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		1.4	ND			
Calcium	mg/L	0.1	3.2	2.2	2.3	2.8	4.7	4.1	2.7	5.6	1.7	2.4	4.3		72	11			
Chromium	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		150	ND			
Cobalt	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		85	ND			
Copper	ug/L	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.5		160	8.2			
Hardness	mg/L	0.41	11	7.4	7.5	9.3	16	13	9.0	19.0	5.5	8	15		290	35			

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Iron	mg/L	0.030	0.031	0.057	0.081	0.093	0.7	0.34	0.21	0.053	0.088	0.035	0.75		97	1.3			
Lead	ug/L	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		56	ND			
Magnesium	mg/L	0.10	0.64	0.45	0.45	0.57	0.9	0.73	0.52	1.2	0.3	0.46	0.95		27	2			
Manganese	mg/L	0.01	ND	ND	ND	ND	0.039	0.026	0.013	ND	ND	ND	0.031		6.6	0.093			
Mercury	ug/L	0.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Molybdenum	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Nickel	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		100	ND			
Potassium	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		20	ND			
Selenium	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Silica	mg/L	0.40							9	NA	4.7	8.5			190	16			
Silver	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Sodium	mg/L	1.0	1.6	1.8	1.6	1.2	1.6	1.5	1.2	2.3	NA	1.2	1.7		3.1	3			
Thallium	ug/L	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
Vanadium	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		300	ND			
Zinc	ug/L	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		320	ND			
Titanium	ug/L	50	NA	NA		1.1	28	11	4.5	NA	1	ND	ND		4200	85			
Ammonia	mg/L									0.14	0.14	ND	ND						
Chloride	mg/L	1	NA	ND	ND	1.1	1.2	1.1	ND	1.4	ND	ND	2.3		1.3	1.4			
TOTAL Nitrogen-IC	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		3.6	ND			
Nitrate	mg/L	0.22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		0.43	0.35			
Nitrite	mg/L	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND			
TKN	mg/L	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		3.1	ND			
Nutrients																			
Phosphorous	mg/L		ND	ND	ND	0.14	0.1	0.1	ND	ND	ND	ND	ND		1.4	0.49			
Sulfate	mg/L		ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND		5.1	2			
Sulfide	mg/L	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND			0.07			
8270	ug/L		ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND			ND			
Cyanide	mg/L	0.0050	NA	ND	ND	NA	ND	NA	ND	NA	NA	ND	ND			ND			
Color, apparent			NA	NA	NA	NA	NA	NA	10	NA	5	ND	NA		NA	NA			
Bromide	mg/L	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		ND	NA			
8 Nitrosomines	ng/L	20.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		ND	NA			

(1) Did not settle after 5 days in imhoff.

(2) Higher SUVA is more hydrophobic, easier to remove DOC. SUVA <2 water is mostly hydrophilic, 2-4 mix of both hydrophilic and -phobic, >4 mostly hydrophobic