Metal Concentrations from Four Main Adits in Upper Cem
(There is more recent data, but it hasn't been added to thi
Metal Data is in ug/l.

NEW SITE DESCR	NEW SITE DESIGNATIO	DATE	FLOW_CFS	Q GPM	PH	TEMP_C	field Cond.	AL_TOT	AL_DIS
American Tunnel	CC1	7/21/2005	0.212	95	4.3	7.9	2410	7070	7670
American Tunnel	CC1	9/21/2005	0.2	90	4.8	8.3	2460	7670	7570
American Tunnel	CC1	10/4/2006	0.187	84	4.2	8.0	2500	6890	6470
American Tunnel	CC1	05/19/09	0.318	143	4.9	7.6	2338	5680	5360
American Tunnel	CC1	06/16/09	0.309	139	5.2	7.7	2426	5520	5530
American Tunnel	CC1	07/14/09	0.231	103	5.1	7.7	2445	5510	5250
American Tunnel	CC1	08/18/09	0.212	95	5.0	7.7	2425	5380	5240
American Tunnel	CC1	09/22/09	0.221	99	5.2	7.7	2409	5510	5280
American Tunnel	CC1	11/17/09	0.278	125	5.1	7.7	2511	5470	4830
American Tunnel	CC19	2/17/10	0.178	80	5.19	7.63	1957	5480	5180
American Tunnel	CC19	3/18/10	0.204	92	4.46	7.62	2428	4960	4810
American Tunnel	CC19	4/13/10	0.204	92	5.38	7.61	2450	5100	4710
American Tunnel	CC19	6/2/10	0.24	108	5.29	7.52	1430	5070	4200
American Tunnel	CC19	7/13/10	0.24	108	5.26	7.78	2352	5310	4590
American Tunnel	CC19	9/14/10	0.268	120	4.47	7.8	2451	4970	4930
American Tunnel	CC19	11/2/10	0.24	108	5.17	7.7	2386	5360	4660
Ave 2009-2010			0.242	109				5332	
Ave Loading- lb/day									7

Number is 1/2 reporting limit

NEW SITE DESCR	NEW SITE DESIGNATIO	Date	FLOW_CFS	Q GPM	PH	TEMP_C	field Cond.	AL_TOT	AL_DIS
Gold King 7 level	CC0	7/20/05	0.0934	42	2.6	9.1	3440	56600	64800
Gold King 7 level	CC0	9/20/05	0.301	135	2.9	9.1	2970	40200	42400
Gold King 7 level	CC0	10/3/06	0.7	314	3.0	9.1	2740	31700	29400
Gold King 7 level	CC-	5/20/09	0.423	190	2.3	8.8	3076	58300	59000
Gold King 7 level	CC-	6/17/09	0.498	224	3.2	8.2	2481	32900	33400
Gold King 7 level	CC-	7/14/09	0.436	196	3.2	8.2	2476	31800	31900
Gold King 7 level	CC-	8/18/09	0.358	161	3.3	8.1	2381	28500	28600
Gold King 7 level	CC-	9/22/09	0.151	68	3.9	8.0	2175	21500	21600
Gold King 7 level	CC06	3/18/10			4.96	7.96	1953	8310	7670
Gold King 7 level	CC06	4/14/10	0.333	149	5.13	7.98	1955	7840	7220
Gold King 7 level	CC06	6/2/10	0.558	250	2.82	8.5	3084	61600	57700
Gold King 7 level	CC06	7/14/10	0.485	218	3.03	8.19	2443	30200	29800
Gold King 7 level	CC06	9/14/10	0.449	202	3.52	8	2250	24200	25700

Gold King 7 level	CC 06	11/3/10	0.473	212	4.13	8	2064	18600	17300
Ave 2009-2010			0.416	187				29432	
Ave Loading- lb/day								0	

Red and Bonita Water Samples

Location	Date	Flow GPM	CFS	pH	Cond.	Lab Cond.	By:	Al T	Al D
Red & Bonita Mine	5/19	4.49	0.010	3.01		879.00	DMG	12630.0	11270.0
Red & Bonita@cul	/9/0	30-60	0.067-0.134	3.2	1109		ARSG	4800	4910
Red & Bonita@cul	18/0	74.35	0.166	3.27	1063		ARSG		-9.0
Red & Bonita@cul	1/20	210	0.467	3.08	1450		UOS	3420	3400
Red & Bonita@cul	0/20	224	0.499	3.72	1570		UOS	3570	3800
Red & Bonita@cul	4/20	233	0.519	3.8	1800		UOS	3250	3230
Red & Bonita@cul	9/20	336	0.748	5.86	2074		EPA	4030	3320
Red & Bonita@cul	/17/	314	0.698	6.40	2051		EPA	3040	1840
Red & Bonita@cul	/14/	298	0.663	6.50	2090		EPA	3380	2000
Red & Bonita@cul	/18/	303	0.675	6.22	2098		EPA	3500	2640
Red & Bonita@cul	/22/	336	0.748	6.35	2114		EPA	3520	2440
Red & Bonita@cul	/18/			5.95	2169		EPA	3780	3270
Red & Bonita@cul	/18/10			5.44	2181		EPA	4410	3920
Red & Bonita@cul	/18/10			5.76	2207		EPA	3960	2690
Red & Bonita@cul	/14/	181	0.403	5.94	2288		EPA	3820	2280
Red & Bonita@cul	/02/	219	0.488	5.94	2207		EPA	3850	2770
Red & Bonita@cul	/13/	232	0.516	5.89	2173		EPA	4050	2140
Red & Bonita@cul	/14/	243	0.541	6.14	2188		EPA	3920	2970
Red & Bonita@cul	/02/	206	0.459	6.46	2164		EPA	3990	2000
Ave 2009-2010		267	0.594					3788	
Ave Loading- lb/day								9	

NEW SITE DESCR	**NEW SITE DESIGNATION**	DATE	LOW_CFS	Q_GPM	PH	TEMP_C	field Cond.	AL_TOT	AL_DIS
Mogul	CCC	7/21/1993	0.031	14	3.12	5.94	1105	-9	6300
Mogul	CCC	10/1/1996	0.020	9	2.89	-9.00	1098	5243	5002
Mogul	CCC	6/25/1997	0.060	27	2.61		722	3259	3695
Mogul	CCC	6/30/04	0.056	25	3.25	6.2	178	12700	
Mogul	CCC	7/20/2005	0.047	21	3.11	7.1	1390	8210	8690
Mogul	CCC	9/20/2005	0.060	27	2.85	5.7	1510	7790	8150
Mogul	CCC	9/21/2005	0.06	27	2.85	5.7	1510	7790	8150

Mogul	CCC	10/4/2006	0.025	11	3.32	4.9	1380	4730	4640
Mogul	CCC	10/4/2006	0.025	11	3.32	4.9	1380	4720	4660
Mogul	CCC	05/20/09	0.259	116	3.11	5.19	1274	2880	2850
Mogul	CCC	06/17/09	0.108	48	3.63	4.92	1254	3360	3150
Mogul	CCC	07/15/09	0.178	80	3.52	5.31	1296	3610	3630
Mogul	CCC	08/19/09	0.109	49	3.50	5.23	1344	3530	3580
Mogul	CCC	09/23/09	0.109	49	3.72	4.95	1347	3250	3320
Mogul	CCC	11/18/09	0.123	55	3.50	4.86	1365	3130	3140
Mogul	CCC	2/18/10	0.154	69	3.54	4.76	1345	2910	2910
Mogul	CCC	3/18/10			3.36	5.13	1327	2720	2610
Mogul	CCC	4/14/10			3.38	5.08	1322	2420	2510
Mogul	CCC	6/3/10	0.138	62	3.58	4.38	785	2520	2390
Mogul	CCC	7/14/10	0.095	43	3.48	5.33	1315	3250	3110
Mogul	CCC	9/15/10	0.109	49	3.48	5.3	1357	3440	3700
		Duplicate							
Mogul	CCC	11/4/10	0.102	46	3.38	5.1	1364	3180	3230
Ave 2009-2010			0.135	60.605				3092	
Ave Loading- lb/day								0	

ent Creek
s spreadsheet.)

CD_TOT	CD_DIS	CU_TOT	CU_DIS	FE_TOT	FE_DIS	MN_TOT	MN_DIS	PB_TOT	PB_DIS
3.9	4.9	7.2	19	133000	139000	39000	41200	4.0	3.7
4.5	4.8	23.8	18.6	137000	140000	42200	46200 J	5.9	3.2 J
3.5	3.6	11.1	11	152000	132000	50800	50700 J	16.8	8
2.6	2.6	7.9	7.3	142000	139000	49400	48900	4.7	2.3
2.5	2.5	7	6.4	133000	135000	46600	47200	3.9	1.9
2.5	2.4	6.2	6.1	144000	143000	49800	49200	3.3	2
2.5	2.3	6.3	6	141000	141000	52000	48800	3.2	1.8
2.5	2.4	6.6	6.6	152000	144000	50700	49200	3.6	1.9
2.3	2.4	6.5	5.4	155000	129000	52000	44900	3.3	1.7
2.3	2.2	5.9	5.7	143000	148000	46400	49500	3.4	1.4
2.3	2.3	8.9	8.3	143000	145000	48300	50300	5.4	1.8
2.4	2.5	6.6	6.2	161000	159000	50400	49700	4.1	2
2.3	2.2	5	<10.0	150000	136000	47800	44500	4.2	2.2
2.1	2.2	5	<10.0	148000	157000	47800	49900	4	2.5
2.1	2	2	<4.0 U	147000	164000	47400	51400	3.6	2.5
2.3	2.5	2	<4.0 U	148000	142000	50400	49100	3	1.5
2		6		146692		49154		4	
0.003		0.008		190		64		0.005	

CD_TOT	CD_DIS	CU_TOT	CU_DIS	FE_TOT	FE_DIS	MN_TOT	MN_DIS	PB_TOT	PB_DIS
156	169	10700	8940	169000	204000	52000	49300	2.3	9.5
128	128	7200	7860	145000	139000	81000	84200 J	44.4	43.8 J
88.8	68.1	7570	7490	125000	108000	51100	51900 J	45.2	42
111	110	10600	10100	244000	240000	30200	30200	24.7	25.3
59.9	71.6	5680	5520	107000	102000	28700	27700	18.1	19.7
61.4	60.8	5710	5520	101000	91900	32200	31800	21.5	22.6
66.2	66.6	7150	7310	96700	90400	34400	34200	24.9	26.1
64.4	62.7	5630	5440	86000	80800	34900	33900	16.3	14.6
38.3	35.9	2410	2620	55300	52300	28000	26500	1.9	1
41.4	41	4060	2690	54000	47400	26700	26200	1.8	<1.0
136	133	12300	12100	243000	213000	29500	27100	21.3	20.7
61.5	63.2	5360	4970	87400	81900	29500	29600	19.6	18.9
57.5	56.9	5480	5540 D	72100	75200	29300	31700	21.8	21.1

52.9	53.3	4020	3900 D	67600	65800	31000	30700	6.9	6.5

68	6218	110373	30400	16
0.00	0	0	0	0.00

Cd T	Cd D	Cu T	Cu D	Fe T	Fe D	Mn T	Mn D	Pb T	Pb D
101.00	97.00	1429	1359	41450	38770	27730	26120	143	110
32.50	32.00	250	250	24400	23900	20400	20900	128	130
	-9.0		-9.0	-9.0	-9.0		-9.0		-9.0
23.7	24.4	53	64	55000	37700	27200	25700 J	61	55.5 J
25.8	27	94	87	43200	47200	20500	23000	68	72
27.1	27.7	51	46	72800	71400	31900	30300 J	32.8	28.4
33.3	33.1	51	41	86700	80500	33200	32300	71.2	8.1
34.8	34.4	5	<3.0	76700	81200	27900	30800	39.5	4.1
34.9	34.5	6	4	87700	85800	32300	32100	36.5	7.6
34.6	34.5	7	5	88000	85800	32500	32700	34.0	9.1
35.9	37.5	4	<3.0	96700	94100	34600	33700	41.4	15.4
37.7	37.3	9	9	96100	91600	35700	35000	37.2	4.6
37.5	38.1	47.1	41.8	82300	83100	34100	35200	47.2	4.3
37.6	36.5	14.2	11.2	93500	85600	35100	32900	55.9	58.7
37.3	40.9	18	13.8	97600	87100	36300	32500	55.3	2.1
40.4	38.6	14.3	10.7	89400	83100	33000	31700	57.7	8.9
37.1	37.2	5	<10	78700	81900	31100	32400	40.0	10.7
35.5	34.1	17.8	13.6	81600	81100	32700	35700	38.4	6.2
38	38	11.3	<4	96500	92700	35300	34100	60.9	7.9

37	16	88577	33369	47
0.09	0.04	219	82	0.12

CD_TOT	CD_DIS	CU_TOT	CU_DIS	FE_TOT	FE_DIS	MN_TOT	MN_DIS	PB_TOT	PB_DIS
-9.0	210.0	-9.0	10000.0	-9	65000	-9	-9	-9	230
148.0	156.0	6422.8	6453.4	51192	48397	9743	9731	206	182
98.0	119.0	4567.0	5395.0	39240	44750	200	7195	200	259
627.0		1690.0		49800		37700		295	
204.0	201.0	209.0	193.0	47400	31800	26000	28700	311 J	313
184.0	192.0	77.8	79.2	48900	31600	31700 J	34300 J	306 J	313 J
184.0	192.0	77.8	79.2	48900	31600	31700	34300	306	313

97.5	94.0	47.3	42.5	39100	34500	29200	27900 J	278	276
86.5	88.8	41.7	39.4	39000	34600	27700	26300 J	259	242
41.3	40.6	33.9	32.5	33000	28800	27400	26700	147	142
57.2	51.8	50.4	54.2	30000	24800	26200	24200	174	160
62.1	63.0	45.5	44.1	34400	29200	29300	28200	202	207
60.8	61.8	31.4	31.7	32900	30100	30200	30300	212	227
58.4	58.5	30.9	29.1	33800	31000	31100	31600	238	241
50.1	52.5	21.6	24.0	34400	30300	32100	31000	213	219
43.2	43.5	16.9	16.2	31400	30800	29400	31100	184	189
40.8	39.3	17.9	18.3	33000	27500	30800	29100	189	182
41.4	41	19.7	19.9	29500	27400	29200	29100	181	178
40.3	38.9	22.6	22.3	26100	22000	25400	24100	168	153
54.3	56.3	31.6	32.2	28500	26000	29200	28500	193	186
57.2	55.7	23.4	22	33700	30200	30900	33100	232	219
54	54.2	14.7	14.5	31300	29600	31800	32900	231	238

51	28	31692	29462	197
0.00	0.00	0	0	0.00

ZN_TOT	ZN_DIS	DIS_OXY_MG	Flow cfs	Total AL lbs/day	Total Cd lbs/day	Total Cu lbs/day	Total Fe lbs/day
15600	17300		0.21	8.06	0.004	0.008	151.56
16200	16900		0.20	8.28	0.005	0.026	147.90
18600	19200 J		0.19	6.94	0.004	0.011	153.15
19200	19500	4.6	0.32	9.74	0.004	0.014	243.57
17900	17800	5.7	0.31	9.18	0.004	0.012	221.26
19900	20000	5.7	0.23	6.84	0.003	0.008	178.70
19600	19500	5.1	0.21	6.15	0.003	0.007	161.24
20500	20100	5.4	0.22	6.57	0.003	0.008	181.18
21400	17400	4.9	0.28	8.18	0.003	0.010	231.90
19000	19900	4.4	0.18	5.25	0.002	0.006	137.04
19700	20600	3.4	0.20	5.45	0.003	0.010	157.06
20600	18400	2.1	0.20	5.60	0.003	0.007	176.83
18700	17600	2.9	0.24	6.55	0.003	0.006	193.82
18300	19700	2.6	0.24	6.86	0.003	0.006	191.23
17800	20400	2.7	0.27	7.17	0.003	0.003	212.10
21000	21400		0.24	6.93	0.003	0.003	191.23
19508			0.24	6.94	0.003	0.008	190.99
25							

ZN_TOT	ZN_DIS	DIS_OXY_MG					
32900	41000		0.09	28.51	0.079	5.391	85.14
47200	46800		0.30	65.10	0.207	11.659	234.81
29900	30000 J		0.70	119.40	0.334	28.512	470.81
40300	40200		0.42	132.87	0.253	24.158	556.10
23800	21900		0.50	88.20	0.161	15.228	286.86
24800	24000		0.44	74.65	0.144	13.404	237.09
26300	24800		0.36	55.04	0.128	13.808	186.75
23000	22400		0.15	17.54	0.053	4.592	70.15
15200	15500						
14500	13000		0.33	14.06	0.074	7.279	96.81
44700	39300		0.56	185.06	0.409	36.951	730.01
23500	22500		0.49	78.86	0.161	13.996	228.21
19500	21700		0.45	58.50	0.139	13.247	174.29

20000	20700		0.47	47.37	0.135	10.237	172.15

25055
0

Zn T	Zn D	iss. Oxygen
18490	18200	
10400	10600	
	-9.0	
10800	11500	
10100	10400	
12200	12400 J	
15600	14300	7.1
13600	13600	7.6
15500	15000	8.1
15800	15000	7.8
16400	16100	9.5
17400	16400	9.1
16000	16900	8.7
16500	15500	7.9
17500	14200	7.5
15500	14700	7.9
14500	14700	6.6
15300	16500	6.9
16600	17200	

15862
39

ZN_TOT	ZN_DIS	S_OXY_MG
-9	38000	-9.00
28091	29435	
21250	25200	
139000		
44500	56000	
57400	51100	
57400	51100	

33900 J	35100 J	
32000 J	32600 J	
28200	26400	4.9
28000	25100	5.0
32900	31600	5.1
34800	33600	5.1
34200	34700	5.6
34700	32200	5.7
29400	31200	5.6
29200	28500	6
27800	25800	6.2
24500	22900	7.2
31300	29800	5.7
33600	36700	5.5
34500	37800	
31008		
0		

Total Mn lbs/day	Total Pb lbs/day	Total Zn lbs/day
44.44	0.005	17.78
45.56	0.006	17.49
51.19	0.017	18.74
84.74	0.008	32.93
77.52	0.006	29.78
61.80	0.004	24.70
59.46	0.004	22.41
60.43	0.004	24.44
77.80	0.005	32.02
44.47	0.003	18.21
53.05	0.006	21.64
55.35	0.005	22.62
61.76	0.005	24.16
61.76	0.005	23.65
68.39	0.005	25.68
65.12	0.004	27.13
64.00	0.005	25.40
26.20	0.001	16.57
131.17	0.072	76.43
192.47	0.170	112.62
68.83	0.056	91.85
76.94	0.049	63.81
75.59	0.050	58.22
66.43	0.048	50.79
28.47	0.013	18.76
47.87	0.003	26.00
88.62	0.064	134.29
77.03	0.051	61.36
70.83	0.053	47.14

78.94	0.018	50.93