

# Attachment 10

Results of Selected Water Samples  
from Lake Berryessa/Putah Creek  
by Reclamation  
and the State of California

# Baseline

Station ID BS\_MN\_06  
BHP059

Putah Crk below Monticello Dm  
12/11/97

CollectionDate by Quarter Q4 1997

Group	Analyte	Result	Units	RL	Qualifier
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	20000	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Hardness, total as CaCO3	177500	ug/l	3300	
inorg	Nitrate + Nitrite as N	270	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	39600	ug/l	10000	
inorg	TDS	250000	ug/l	10000	
inorg	TSS	<5000	ug/l	5000	
m	Aluminum	<100	ug/l	100	
m	Arsenic	<2	ug/l	2	
m	Barium	56	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	380	ug/l	100	
m	Cadmium	<1	ug/l	1	
m	Calcium (dissolved)	28700	ug/l	500	
m	Chromium	<10	ug/l	10	
m	Copper	<20	ug/l	20	
m	Iron	140	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	25700	ug/l	500	
m	Manganese	17	ug/l	10	
m	Mercury	<0.005	ug/l	0.005	
m	Molybdenum	<20	ug/l	20	
m	Nickel	<40	ug/l	40	
m	Potassium (dissolved)	1500	ug/l	50	
m	Selenium	<2	ug/l	2	
m	Silver	<1	ug/l	1	
m	Sodium (dissolved)	20100	ug/l	5000	
m	Thallium	<1	ug/l	1	
m	Zinc	<20	ug/l	20	

Station ID BS\_MN\_06  
BHP082

Putah Crk below Monticello Dm  
2/19/98

**CollectionDate by Quarter** Q1 1998

Group	Analyte	Result	Units	RL	Qualifier
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	4200	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Hardness, total as CaCO3	136200	ug/l	3300	
inorg	Nitrate + Nitrite as N	99	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	18800	ug/l	1000	
inorg	TDS	171000	ug/l	10000	
inorg	TSS	<5000	ug/l	5000	
m	Aluminum	2800	ug/l	100	
m	Arsenic	<2	ug/l	2	
m	Barium	72	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	170	ug/l	100	
m	Cadmium	<1	ug/l	1	
m	Calcium (dissolved)	18100	ug/l	500	
m	Chromium	<10	ug/l	10	
m	Copper	<20	ug/l	20	
m	Iron	3400	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	22100	ug/l	500	
m	Manganese	58	ug/l	10	
m	Mercury	<0.005	ug/l	0.005	
m	Molybdenum	<20	ug/l	20	
m	Nickel	<40	ug/l	40	
m	Potassium (dissolved)	1300	ug/l	50	
m	Selenium	<2	ug/l	2	
m	Silver	<1	ug/l	1	
m	Sodium (dissolved)	10000	ug/l	5000	
m	Thallium	<1	ug/l	1	
m	Zinc	<20	ug/l	20	

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP102

5/19/98

**CollectionDate by Quarter** Q2 1998

Group	Analyte	Result	Units	RL	Qualifier
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	15500	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Hardness, total as CaCO3	206000	ug/l	3300	
inorg	Nitrate + Nitrite as N	100	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	62000	ug/l	5000	

Wednesday, July 31, 2002

Page 2 of 22

inorg	TDS	284000	ug/l	10000
m	Aluminum	120	ug/l	100
m	Arsenic	<2.0	ug/l	2
m	Barium	50	ug/l	10
m	Beryllium	<2.0	ug/l	2
m	Boron (dissolved)	480	ug/l	100
m	Cadmium	<1.0	ug/l	1
m	Calcium (dissolved)	36100	ug/l	500
m	Chromium	<10	ug/l	10
m	Copper	<20	ug/l	20
m	Iron	110	ug/l	100
m	Lead	<1.0	ug/l	1
m	Magnesium (dissolved)	28100	ug/l	500
m	Manganese	<10	ug/l	10
m	Mercury	0.025	ug/l	0.005
m	Molybdenum	<20	ug/l	20
m	Nickel	<40	ug/l	40
m	Potassium (dissolved)	1500	ug/l	50
m	Selenium	<2.0	ug/l	2
m	Silver	<1.0	ug/l	1
m	Sodium (dissolved)	28800	ug/l	5000
m	Thallium	<1.0	ug/l	1
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP112

9/11/98

**CollectionDate by Quarter** Q3 1998

Group	Analyte	Result	Units	RL	Qualifier
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	13500	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Hardness, total as CaCO3	170000	ug/l	3300	
inorg	Nitrate + Nitrite as N	84	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	35400	ug/l	5000	
inorg	TDS	235000	ug/l	10000	
inorg	TSS	<5000	ug/l	5000	
m	Aluminum	<100	ug/l	100	
m	Arsenic	<2.0	ug/l	2	
m	Barium	42	ug/l	10	
m	Beryllium	<2.0	ug/l	2	
m	Boron (dissolved)	300	ug/l	100	
m	Cadmium	<1.0	ug/l	1	
m	Calcium (dissolved)	24600	ug/l	500	
m	Chromium	<10	ug/l	10	



m	Copper	<20	ug/l	20
m	Iron	110	ug/l	100
m	Lead	<1.0	ug/l	1
m	Magnesium (dissolved)	26400	ug/l	500
m	Manganese	<10	ug/l	10
m	Mercury	<0.005	ug/l	0.005
m	Molybdenum	<20	ug/l	20
m	Nickel	<40	ug/l	40
m	Potassium (dissolved)	1300	ug/l	50
m	Selenium	<0.0004	ug/l	0.000
m	Silver	<1.0	ug/l	1
m	Sodium (dissolved)	16800	ug/l	5000
m	Thallium	<1.0	ug/l	1
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP142

11/20/98

**CollectionDate by Quarter** Q4 1998

Group	Analyte	Result	Units	RL	Qualifier
	Gross Alpha (pCi/L)	<1.34	pCi/L	1.34	
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	3700	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<10	ug/l	10	
inorg	Fluoride	<500	ug/l	500	
inorg	Hardness, total as CaCO3	137000	ug/l	3300	
inorg	Nitrate + Nitrite as N	160	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	SUSPECT (Sample)
inorg	Sulfate	14400	ug/l	1000	
inorg	TDS	128000	ug/l	10000	
m	Aluminum	190	ug/l	100	
m	Antimony	<2.0	ug/l	2	
m	Arsenic	<2.0	ug/l	2	
m	Barium	39	ug/l	10	
m	Beryllium	<2.0	ug/l	2	
m	Boron (dissolved)	130	ug/l	100	
m	Cadmium	<1.0	ug/l	1	
m	Calcium (dissolved)	15600	ug/l	500	
m	Chromium	<10	ug/l	10	
m	Copper	<20	ug/l	20	
m	Iron	200	ug/l	100	
m	Lead	<1.0	ug/l	1	
m	Magnesium (dissolved)	23800	ug/l	500	
m	Manganese	<10	ug/l	10	
m	Mercury	0.003	ug/l	0.000	

m	Molybdenum	<20	ug/l	20
m	Nickel	<40	ug/l	40
m	Potassium (dissolved)	1300	ug/l	50
m	Selenium	<0.4	ug/l	0.4
m	Silver	<1.0	ug/l	1
m	Sodium (dissolved)	8400	ug/l	5000
m	Thallium	<1.0	ug/l	1
m	Uranium	<5.0	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP169

2/17/99

**CollectionDate by Quarter** Q1 1999

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Organ/L	+<0.1/	
bio	Fecal Coliform	2	MPN/100	2	
bio	Giardia	< 0.1	Organ/L	+<0.1/	
bio	Total Coliform	2	MPN/100	2	
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	4,600	ug/l	1000	
inorg	COD	<10,000	ug/l	10000	
inorg	Cyanide	<10	ug/l	10	
inorg	Fluoride	<500	ug/l	500	
inorg	Gross Alpha	<1.22	pCi/L	1.22	
inorg	Hardness, total as CaCO3	152,000	ug/l	3300	
inorg	Nitrate + Nitrite as N	55	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	21,000	ug/l	1000	
inorg	TDS	183,000	ug/l	10000	
m	Aluminum	200	ug/l	100	
m	Antimony	<2	ug/l	2	
m	Arsenic	<2	ug/l	2	
m	Barium	51	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	170	ug/l	100	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	16,700	ug/l	500	
m	Chromium	<2	ug/l	2	
m	Copper	1.9	ug/l	1	
m	Iron	240	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	26,700	ug/l	500	
m	Manganese	<10	ug/l	10	
m	Mercury	0.01	ug/l	0.001	
m	Molybdenum	<1	ug/l	1	

m	Nickel	<40	ug/l	40
m	Potassium (dissolved)	1,200	ug/l	50
m	Selenium	<0.4	ug/l	0.4
m	Silver	<1	ug/l	1
m	Sodium (dissolved)	9,000	ug/l	5000
m	Thallium	<1	ug/l	1
m	Uranium	<5	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP177

5/17/99

**CollectionDate by Quarter** Q2 1999

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Organ/L	+<0.1/	
bio	Fecal Coliform	<2	MPN/100	2	
bio	Giardia	<0.1	Organ/L	+<0.1/	
bio	Total Coliform	4	MPN/100	2	
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	6,600	ug/l	2000	
inorg	COD	<10,000	ug/l	10000	
inorg	Cyanide	<10	ug/l	10	
inorg	Fluoride	<500	ug/l	500	
inorg	Gross Alpha	<1.55	pCi/L	1.55	
inorg	Hardness, total as CaCO3	149,000	ug/l	3300	
inorg	Nitrate + Nitrite as N	89	ug/l	50	
inorg	Phosphorus, Total as P	<50	ug/l	50	
inorg	Sulfate	29,400	ug/l	1000	
inorg	TDS	195,000	ug/l	10000	
m	Aluminum	<100	ug/l	100	
m	Antimony	<2	ug/l	2	
m	Arsenic	<2	ug/l	2	
m	Barium	47	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	200	ug/l	100	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	19,200	ug/l	500	
m	Chromium	1.7	ug/l	1	
m	Copper	1.4	ug/l	1	
m	Iron	<100	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	24,500	ug/l	500	
m	Manganese	<10	ug/l	10	
m	Mercury	<0.01	ug/l	0.01	
m	Molybdenum	<1	ug/l	1	
m	Nickel	<40	ug/l	40	

m	Potassium (dissolved)	1,100	ug/l	50
m	Selenium	<0.4	ug/l	0.4
m	Silver	<1	ug/l	1
m	Sodium (dissolved)	11,500	ug/l	5000
m	Thallium	<1	ug/l	1
m	Uranium	<5	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP197

8/25/99

**CollectionDate by Quarter** Q3 1999

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Organ/L	0.1	
bio	Fecal Coliform	2	MPN/100	2	
bio	Giardia	<0.1	Organ/L	0.1	
bio	Total Coliform	8	MPN/100	2	
inorg	Ammonia as N	100	ug/l	100	
inorg	Chloride	5,000	ug/l	2000	
inorg	COD	<50,000	ug/l	50000	
inorg	Cyanide	<10	ug/l	10	
inorg	Fluoride	100	ug/l	100	
inorg	Gross Alpha	<0.913	pCi/L	0.913	
inorg	Hardness, total as CaCO3	143,000	ug/l	3300	
inorg	Nitrate + Nitrite as N	270	ug/l	100	
inorg	Phosphorus, Total as P	<100	ug/l	100	
inorg	Sulfate	20,000	ug/l	1000	
inorg	TDS	170,000	ug/l	10000	
m	Aluminum	<100	ug/l	100	
m	Antimony	<2	ug/l	2	
m	Arsenic	<2	ug/l	2	
m	Barium	46	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	100	ug/l	100	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	16,000	ug/l	500	
m	Chromium	2.2	ug/l	2	
m	Copper	1.6	ug/l	1	
m	Iron	<100	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	25,000	ug/l	500	
m	Manganese	<10	ug/l	10	
m	Mercury	0.01	ug/l	0.01	
m	Molybdenum	<1	ug/l	1	
m	Nickel	<40	ug/l	40	
m	Potassium (dissolved)	<1,000	ug/l	1000	

m	Selenium	<0.4	ug/l	0.4
m	Silver	<1	ug/l	1
m	Sodium (dissolved)	9,000	ug/l	1000
m	Thallium	<1	ug/l	1
m	Uranium	<5	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP217

11/9/99

**CollectionDate by Quarter** Q4 1999

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	0.4	Organ/L	0.1	
bio	Fecal Coliform	2	MPN/100	2	
bio	Giardia	0.2	Organ/L	0.1	
bio	Total Coliform	30	MPN/100	2	
inorg	Ammonia as N	<100	ug/l	100	
inorg	Chloride	4,000	ug/l	1000	
inorg	COD	<10,000	ug/l	10000	
inorg	Cyanide	<10	ug/l	10	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<1.39	pCi/L	1.39	
inorg	Hardness, total as CaCO3	143,000	ug/l	3300	
inorg	Nitrate + Nitrite as N	140	ug/l	100	
inorg	Phosphorus, Total as P	<100	ug/l	100	
inorg	Sulfate	20,000	ug/l	500	
inorg	TDS	170,000	ug/l	10000	
m	Aluminum	110	ug/l	100	
m	Antimony	<2	ug/l	2	
m	Arsenic	<2	ug/l	2	
m	Barium	45	ug/l	10	
m	Beryllium	<2	ug/l	2	
m	Boron (dissolved)	100	ug/l	100	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	16,000	ug/l	500	
m	Chromium	2	ug/l	1	
m	Copper	2.2	ug/l	1	
m	Iron	190	ug/l	100	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	25,000	ug/l	500	
m	Manganese	<10	ug/l	10	
m	Mercury	<0.01	ug/l	0.01	
m	Molybdenum	<1	ug/l	1	
m	Nickel	<40	ug/l	40	
m	Potassium (dissolved)	<1,000	ug/l	1000	
m	Selenium	<0.4	ug/l	0.4	

m	Silver	<1	ug/l	1
m	Sodium (dissolved)	9,000	ug/l	1000
m	Thallium	<1	ug/l	1
m	Uranium	<5	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP238

3/7/00

**CollectionDate by Quarter** Q1 2000

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	org/L	+<0.1/	
bio	Fecal Coliform	3	CFU/100	-	
bio	Giardia	<0.1	org/L	+<0.1/	
bio	Total Coliform	63	CFU/100	-	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	9000	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<1.0	pCi/L	1.0	
inorg	Hardness, total as CaCO3	170000	ug/l	3300	
inorg	Nitrate + Nitrite as N	<50	ug/l	50	
inorg	Phosphorus, Total as P	<10	ug/l	10	
inorg	Sulfate	23000	ug/l	1000	
inorg	TDS	190000	ug/l	15000	
m	Aluminum	46	ug/l	10	
m	Antimony	<1	ug/l	1	
m	Arsenic	<1	ug/l	1	
m	Barium	52	ug/l	5	
m	Beryllium	<1.1	ug/l	1.1	
m	Boron (dissolved)	190	ug/l	20	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	20000	ug/l	100	
m	Chromium	<2.1	ug/l	2.1	
m	Copper	1.2	ug/l	0.3	
m	Iron	55	ug/l	20	
m	Lead	0.22	ug/l	0.1	
m	Magnesium (dissolved)	29000	ug/l	100	
m	Manganese	5.3	ug/l	5	
m	Mercury	<0.01	ug/l	0.01	
m	Molybdenum	<1.5	ug/l	1.5	
m	Nickel	1.5	ug/l	1	
m	Potassium (dissolved)	1400	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver	<1	ug/l	1	



m	Sodium (dissolved)	9400	ug/l	100
m	Thallium	<0.1	ug/l	0.1
m	Uranium	<1	ug/l	1
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP259

5/16/00

**CollectionDate by Quarter** Q2 2000

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	org/L	0.1	
bio	Fecal Coliform	4	CFU/100	-	
bio	Giardia	<0.1	org/L	0.1	
bio	Total Coliform	13	CFU/100	-	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	5500	ug/l	500	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<1.0	pCi/L	1.0	
inorg	Hardness, total as CaCO3	150000	ug/l	3300	
inorg	Nitrate + Nitrite as N	58	ug/l	50	
inorg	Phosphorus, Total as P	<10	ug/l	10	
inorg	Sulfate	22000	ug/l	500	
inorg	TDS	210000	ug/l	15000	
m	Aluminum	59	ug/l	10	
m	Antimony	1.1	ug/l	1	
m	Arsenic	<1	ug/l	1	
m	Barium	50	ug/l	5	
m	Beryllium	<1	ug/l	1	
m	Boron (dissolved)	150	ug/l	25	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	18000	ug/l	100	
m	Chromium	2.4	ug/l	1	
m	Copper	15	ug/l	0.3	
m	Iron	84	ug/l	20	
m	Lead	0.1	ug/l	0.1	
m	Magnesium (dissolved)	26000	ug/l	100	
m	Manganese	<5	ug/l	5	
m	Mercury	<0.005	ug/l	0.005	
m	Molybdenum	1.8	ug/l	1.5	
m	Nickel	<10	ug/l	10	
m	Potassium (dissolved)	<100	ug/l	100	
m	Selenium	<0.4	ug/l	0.4	
m	Silver	<1	ug/l	1	
m	Sodium (dissolved)	8900	ug/l	100	

m	Thallium	<0.1	ug/l	0.1
m	Uranium	<5	ug/l	5
m	Zinc	<20	ug/l	20

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP280

8/15/00

**CollectionDate by Quarter** Q3 2000

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	org/L	+<0.1/	
bio	Fecal Coliform	<2	MPN/100	2	
bio	Giardia	<0.1	org/L	+<0.1/	
bio	Total Coliform	23	MPN/100	2	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	10000	ug/l	1000	
inorg	COD	110000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<2	pCi/L	2	
inorg	Hardness, total as CaCO3	160000	ug/l	3300	
inorg	Nitrate + Nitrite as N	160	ug/l	50	
inorg	Phosphorus, Total as P	10	ug/l	10	
inorg	Sulfate	49000	ug/l	5000	
inorg	TDS	240000	ug/l	15000	
m	Aluminum	120	ug/l	10	
m	Antimony	<1	ug/l	1	
m	Arsenic	<1	ug/l	1	
m	Barium	52	ug/l	5	
m	Beryllium	<0.5	ug/l	0.5	
m	Boron (dissolved)	170	ug/l	25	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	18000	ug/l	100	
m	Chromium	1.6	ug/l	1	
m	Copper	1.8	ug/l	0.3	
m	Iron	88	ug/l	20	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	29000	ug/l	100	
m	Manganese	<5	ug/l	5	
m	Mercury	<0.005	ug/l	0.005	
m	Molybdenum	<1.5	ug/l	1.5	
m	Nickel	1.9	ug/l	1	
m	Potassium (dissolved)	1600	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver	<1	ug/l	1	
m	Sodium (dissolved)	9400	ug/l	100	
m	Thallium	<0.1	ug/l	0.1	

m	Uranium	<1	ug/l	1
m	Zinc	4.3	ug/l	1

Station ID BS\_MN\_06 Putah Crk below Monticello Dm

BHP301 11/7/00

**CollectionDate by Quarter** Q4 2000

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	+<0.1/	
bio	Fecal Coliform	22	CFU/100	2	
bio	Giardia	<0.1	Org/L	+<0.1/	
bio	Total Coliform	22	CFU/100	2	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	5200	ug/l	200	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<2	pCi/L	2	
inorg	Hardness, total as CaCO3	160000	ug/l	3300	
inorg	Nitrate + Nitrite as N	110	ug/l	50	
inorg	Phosphorus, Total as P	18	ug/l	10	
inorg	Sulfate	21000	ug/l	500	
inorg	TDS	200000	ug/l	15000	
m	Aluminum	110	ug/l	10	
m	Antimony	<1	ug/l	1	
m	Arsenic	<1	ug/l	1	
m	Barium	52	ug/l	5	
m	Beryllium	<0.5	ug/l	0.5	
m	Boron (dissolved)	170	ug/l	20	
m	Cadmium	<0.5	ug/l	0.5	
m	Calcium (dissolved)	17000	ug/l	100	
m	Chromium	1.3	ug/l	1	
m	Copper	2	ug/l	0.3	
m	Iron	200	ug/l	20	
m	Lead	<1	ug/l	1	
m	Magnesium (dissolved)	28000	ug/l	100	
m	Manganese	7.7	ug/l	5	
m	Mercury	<0.005	ug/l	0.005	
m	Molybdenum	<1.5	ug/l	1.5	
m	Nickel	3.2	ug/l	1	
m					

m Zinc 4 ug/l 1  
 Station ID BS\_MN\_06 Putah Crk below Monticello Dm  
 BHP323 2/27/01

**CollectionDate by Quarter** Q1 2001

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	<0.1	
bio	Fecal Coliform	2	CFU/100	<2	
bio	Giardia	<0.1	Org/L	<0.1	
bio	Total Coliform	23	CFU/100	<2	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	12000	ug/l	100	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	130	ug/l	100	
inorg	Gross Alpha	<1:16	pCi/L	1.16	
inorg	Hardness, total as CaCO3	174500	ug/l	3300	
inorg	Nitrate + Nitrite as N	<50	ug/l	50	
inorg	Phosphorus, Total as P	16	ug/l	10	
inorg	Sulfate	40000	ug/l	1000	
inorg	TDS	220000	ug/l	15000	
m	Aluminum (dissolved)	<10	ug/l	10	
m	Antimony (dissolved)	<1	ug/l	1	
m	Arsenic (dissolved)	<1	ug/l	1	
m	Barium (dissolved)	48	ug/l	5	
m	Beryllium (dissolved)	<1	ug/l	1	
m	Boron	290	ug/l	20	
m	Cadmium (dissolved)	<0.5	ug/l	0.5	
m	Calcium (dissolved)	27000	ug/l	100	
m	Chromium (dissolved)	1.2	ug/l	0.3	
m	Copper (dissolved)	1.8	ug/l	1	
m	Iron (dissolved)	<20	ug/l	20	
m	Lead (dissolved)	<1	ug/l	1	
m	Magnesium (dissolved)	26000	ug/l	100	
m	Manganese (dissolved)	12	ug/l	5	
m	Mercury (dissolved)	0.0055	ug/l	0.005	
m	Molybdenum	<1	ug/l	1	
m	Nickel (dissolved)	<1	ug/l	1	
m	Potassium (dissolved)	<100	ug/l	100	
m	Selenium	0.420	ug/l	<0.4	
m	Silver (dissolved)	<1	ug/l	1	
m	Sodium (dissolved)	19000	ug/l	100	
m	Thallium (dissolved)	<1	ug/l	1	
m	Uranium (dissolved)	<1	ug/l	1	
m	Zinc (dissolved)	<1	ug/l	1	

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP348

5/16/01

**CollectionDate by Quarter** Q2 2001

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	<0.1	
bio	E.Coli	2	MPN/100	2	
bio	Fecal Coliform	2	MPN/100	2	
bio	Giardia	<0.1	Org/L	<0.1	
bio	Total Coliform	4	MPN/100	2	
inorg	Ammonia as N	450	ug/l	300	
inorg	Chloride	6600	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<1.03	pCi/L	1.03	
inorg	Hardness, total as CaCO3	171000	ug/l	3300	
inorg	Nitrate + Nitrite as N	<50	ug/l	50	
inorg	Phosphorus, Total as P	24	ug/l	10	
inorg	Sulfate	26000	ug/l	1000	
inorg	TDS	190000	ug/l	15000	
m	Aluminum (dissolved)	<10	ug/l	10	
m	Antimony (dissolved)	<1	ug/l	1	
m	Arsenic (dissolved)	<1	ug/l	1	
m	Barium (dissolved)	51	ug/l	5	
m	Beryllium (dissolved)	<1	ug/l	1	
m	Boron	200	ug/l	10	
m	Cadmium (dissolved)	<0.5	ug/l	0.5	
m	Calcium (dissolved)	19000	ug/l	100	
m	Chromium (dissolved)	<1	ug/l	1	
m	Copper (dissolved)	<0.3	ug/l	0.3	
m	Iron (dissolved)	<20	ug/l	20	
m	Lead (dissolved)	<1	ug/l	1	
m	Magnesium (dissolved)	30000	ug/l	100	
m	Manganese (dissolved)	7.1	ug/l	5	
m	Mercury (dissolved)	<0.005	ug/l	0.005	
m	Molybdenum	<1	ug/l	1	
m	Nickel (dissolved)	<1	ug/l	1	
m	Potassium (dissolved)	2200	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver (dissolved)	<1	ug/l	1	
m	Sodium (dissolved)	10000	ug/l	100	
m	Thallium (dissolved)	<1	ug/l	1	
m	Uranium (dissolved)	<1	ug/l	1	
m	Zinc (dissolved)	<1	ug/l	1	

Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP373

8/7/01

**CollectionDate by Quarter** Q3 2001

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	0.1	
bio	E.Coli	2	MPN/100	2	
bio	Fecal Coliform	2	MPN/100	2	
bio	Giardia	<0.1	Org/L	0.1	
bio	Total Coliform	110	MPN/100	2	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	5200	ug/l	500	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	<100	ug/l	100	
inorg	Gross Alpha	<1.01	pCi/L	1.01	
inorg	Hardness, total as CaCO3	172600	ug/l	15000	
inorg	Nitrate + Nitrite as N	<50	ug/l	50	
inorg	Phosphorus, Total as P	16	ug/l	10	
inorg	Sulfate	18000	ug/l	2000	
inorg	TDS	190000	ug/l	15000	
m	Aluminum (dissolved)	<10	ug/l	10	
m	Antimony (dissolved)	1.5	ug/l	1	
m	Arsenic (dissolved)	1.1	ug/l	1	
m	Barium (dissolved)	51	ug/l	5	
m	Beryllium (dissolved)	<1	ug/l	1	
m	Boron	180	ug/l	20	
m	Cadmium (dissolved)	<1	ug/l	1	
m	Calcium (dissolved)	18000	ug/l	100	
m	Chromium (dissolved)	<1	ug/l	1	
m	Copper (dissolved)	<1	ug/l	1	
m	Iron (dissolved)	<20	ug/l	20	
m	Lead (dissolved)	<1	ug/l	1	
m	Magnesium (dissolved)	31000	ug/l	100	
m	Manganese (dissolved)	<5	ug/l	5	
m	Mercury (dissolved)	<0.005	ug/l	0.005	
m	Molybdenum	<1	ug/l	1	
m	Nickel (dissolved)	1	ug/l	1	
m	Potassium (dissolved)	1600	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver (dissolved)	<1	ug/l	1	
m	Sodium (dissolved)	9900	ug/l	100	
m	Thallium (dissolved)	<1	ug/l	1	
m	Uranium (dissolved)	<1	ug/l	1	
m	Zinc (dissolved)	<1	ug/l	1	



Station ID BS\_MN\_06

Putah Crk below Monticello Dm

BHP398

11/7/01

**CollectionDate by Quarter** Q4 2001

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	0.1	
bio	E.Coli	<2	MPN/100	2	
bio	Fecal Coliform	<2	MPN/100	2	
bio	Giardia	<0.1	Org/L	0.1	
bio	Total Coliform	4	MPN/100	2	
inorg	Ammonia as N	<300	ug/l	300	
inorg	Chloride	5000	ug/l	500	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<20	ug/l	20	
inorg	Fluoride	110	ug/l	100	
inorg	Gross Alpha	<1.73	pCi/L	1.73	
inorg	Hardness, total as CaCO3	151100	ug/l	700	
inorg	Nitrate + Nitrite as N	76	ug/l	50	
inorg	Phosphorus, Total as P	<10	ug/l	10	
inorg	Sulfate	21000	ug/l	1000	
inorg	TDS	190000	ug/l	15000	
m	Aluminum (dissolved)	<10	ug/l	10	
m	Antimony (dissolved)	<1	ug/l	1	
m	Arsenic (dissolved)	1.1	ug/l	1	
m	Barium (dissolved)	44	ug/l	5	
m	Beryllium (dissolved)	<1	ug/l	1	
m	Boron	140	ug/l	20	
m	Cadmium (dissolved)	<0.5	ug/l	0.5	
m	Calcium (dissolved)	16000	ug/l	100	
m	Chromium (dissolved)	<1	ug/l	1	
m	Copper (dissolved)	1.2	ug/l	0.3	
m	Iron (dissolved)	<20	ug/l	20	
m	Lead (dissolved)	<1	ug/l	1	
m	Magnesium (dissolved)	27000	ug/l	100	
m	Manganese (dissolved)	<5	ug/l	5	
m	Mercury (dissolved)	<0.005	ug/l	0.005	
m	Molybdenum	<1	ug/l	1	
m	Nickel (dissolved)	1.6	ug/l	1	
m	Potassium (dissolved)	2200	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver (dissolved)	<1	ug/l	1	
m	Sodium (dissolved)	10000	ug/l	100	
m	Thallium (dissolved)	<1	ug/l	1	
m	Uranium (dissolved)	<1	ug/l	1	
m	Zinc (dissolved)	<1	ug/l	1	

Station ID BS\_MN\_06  
BHP424

Putah Crk below Monticello Dm  
2/11/02

**CollectionDate by Quarter** Q1 2002

Group	Analyte	Result	Units	RL	Qualifier
bio	Cryptosporidium	<0.1	Org/L	0.1	
bio	E.Coli	<2	MPN\100	2	
bio	Fecal Coliform	<2	MPN\100	2	
bio	Giardia	<0.1	Org/L	0.1	
bio	Total Coliform	<2	MPN\100	2	
inorg	Ammonia as N	<50	ug/l	50	
inorg	Chloride	12000	ug/l	1000	
inorg	COD	<3000	ug/l	3000	
inorg	Cyanide	<3	ug/l	3	
inorg	Fluoride	<50	ug/l	50	SUSPECT LOW BIAS
inorg	Gross Alpha	<1.57	pCi/L	1.57	
inorg	Nitrate + Nitrite as N	1860	ug/l	50	
inorg	Phosphorus, Total as P	120	ug/l	50	
inorg	Sulfate	31000	ug/l	2000	
inorg	TDS	203000	ug/l	2000	
m	Aluminum (dissolved)	7.7	ug/l	0.5	
m	Antimony (dissolved)	<0.5	ug/l	0.5	
m	Arsenic (dissolved)	1.0	ug/l	0.5	
m	Barium (dissolved)	51.7	ug/l	0.5	
m	Beryllium (dissolved)	<0.5	ug/l	0.5	
m	Boron	295	ug/l	2	
m	Cadmium (dissolved)	<0.25	ug/l	0.25	
m	Calcium (dissolved)	20000	ug/l	1000	
m	Chromium (dissolved)	2.9	ug/l	0.5	
m	Copper (dissolved)	1.2	ug/l	0.5	
m	Iron (dissolved)	12	ug/l	10	
m	Lead (dissolved)	<0.5	ug/l	0.5	
m	Magnesium (dissolved)	26000	ug/l	1000	
m	Manganese (dissolved)	7.1	ug/l	0.5	
m	Mercury (dissolved)	<0.005	ug/l	0.005	OUT OF HOLD TIME; BIASED
m	Molybdenum	0.62	ug/l	0.25	
m	Nickel (dissolved)	2	ug/l	1	
m	Potassium (dissolved)	1000	ug/l	1000	
m	Selenium	<0.4	ug/l	0.4	
m	Silver (dissolved)	<0.25	ug/l	0.25	
m	Sodium (dissolved)	13000	ug/l	1000	
m	Thallium (dissolved)	<1	ug/l	1	
m	Uranium (dissolved)	<0.5	ug/l	0.5	
m	Zinc (dissolved)	7	ug/l	1	

Station ID BS\_MN\_06  
BHP458

Putah Crk below Monticello Dm  
5/20/02

**CollectionDate by Quarter** Q2 2002

<b>Group</b>	<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>RL</b>	<b>Qualifier</b>
bio	Cryptosporidium	<0.1	Org/L	0.1	
bio	E.Coli	2	MPN\100	2	
bio	Fecal Coliform	2	MPN\100	2	
bio	Giardia	<0.1	Org/L	0.1	
bio	Total Coliform	8	MPN\100	2	
inorg	Ammonia as N	<50	ug/l	50	
inorg	Chloride	5300	ug/l	1000	
inorg	COD	<10000	ug/l	10000	
inorg	Cyanide	<10	mg/l	10	
inorg	Fluoride	<400	ug/l	400	
inorg	Gross Alpha	<0.632	pCi/L	0.632	
inorg	Nitrate + Nitrite as N	93	ug/l	10	
inorg	Phosphorus, Total as P	24	ug/l	10	
inorg	Sulfate	19000	ug/l	1000	
inorg	TDS	190000	ug/l	15000	
m	Aluminum (dissolved)	<10	ug/l	10	
m	Antimony (dissolved)	<1	ug/l	1	
m	Arsenic (dissolved)	1.4	ug/l	1	
m	Barium (dissolved)	48	ug/l	5	
m	Beryllium (dissolved)	<5	ug/l	5	
m	Boron	69	ug/l	20	
m	Cadmium (dissolved)	<0.5	ug/l	0.5	
m	Calcium (dissolved)	17000	ug/l	100	
m	Chromium (dissolved)	<1	ug/l	1	
m	Copper (dissolved)	1.1	ug/l	0.3	
m	Iron (dissolved)	<20	ug/l	20	
m	Lead (dissolved)	0.11	ug/l	0.1	
m	Magnesium (dissolved)	28000	ug/l	100	
m	Manganese (dissolved)	<5	ug/l	5	
m	Mercury (dissolved)	<0.005	ug/l	0.005	
m	Molybdenum	<1	ug/l	1	
m	Nickel (dissolved)	<40	ug/l	40	
m	Potassium (dissolved)	1100	ug/l	500	
m	Selenium	<0.4	ug/l	0.4	
m	Silver (dissolved)	<1	ug/l	1	
m	Sodium (dissolved)	9200	ug/l	100	
m	Thallium (dissolved)	<0.4	ug/l	0.4	
m	Uranium (dissolved)	<1	ug/l	1	
m	Zinc (dissolved)	<20	ug/l	20	



1885 North Kelly Road  
 Napa, CA 94558  
 Phone: (707) 258-4000  
 Fax: (707) 226-1001

LAB NUMBER  
C020145

CC DOHS.SR

**PAID**  
 CK. NO. Mastercard 790.00  
 DATE 2/6/02

**COLIFORM BACTERIA ANALYSIS**

**SAMPLING INSTRUCTIONS:**

**BOTTLE IS STERILE -  
 DO NOT OPEN OR RINSE BEFORE SAMPLING**

1. Pick a water tap that is commonly used. Do not use a swivel faucet.
2. Remove any tap attachments (filters, aerators, etc.).
3. Let the water run for a full 5 to 10 minutes.
4. Clean faucet with rubbing alcohol, inside and outside.
5. Open the cold water valve to a full steady stream.
6. Hold the sample container near the bottom.

**CARE MUST BE TAKEN IN THE FOLLOWING STEPS TO AVOID SPLASHING**

7. Reduce the flow of water to a 'pencil' stream.
8. Remove cap without touching the neck or the inside of cap.
9. Open the sample container - carefully insert opening into the water stream - **fill the container to the 100 ml line** - recap container and tighten. **RETURN TO THE LAB WITHIN 12 HOURS.**

**FEES:**  
**For Coliform Analysis Only**  
 Results available in 5 days ..... \$40.00  
 RUSH - Results faxed/verbal next day ..... add \$20.00  
 Payment must be received before analysis can begin.

- Check here if this is a next business day Rush analysis.
- Check here if this sample is used for regulatory purposes.
- Check here to have lab send copy to regulatory office.  
 NCEH  DOHS.SR  DOHS.BERK

**NOTE: 100ml of sample is required to perform this analysis accurately, therefore it is critical that the container be filled to the 100ml line.**

**CHAIN OF CUSTODY:**

Client: U.S. Bureau of Reclamation Phone: (707) 966-2111 Fax: (707) 966-0409  
 Address: 5520 Knoxville Rd. Napa, Ca. 94558 Type of Payment Enclosed: M/C  
 Project: Lake Berryessa Report ATTN: Clayton T. Dennis  
 Date of Sampling: 2-06-02 Time of Sampling: 0645 Sampled By: Clayton T. Dennis  
 Sample Location Description: in side tap, bureau headquarters

Submitted By: (Print & Sign) Clayton T. Dennis <i>Clayton T. Dennis</i>	Date 2-06-02 Time	Received By: <i>Charney</i>	CSI
---	-------------------------	--------------------------------	-----

RESULTS	Total Coliform	Fecal Coliform (E. Coli)
Date/Time Set: <u>2/6/02 915</u>	PRESENT <input type="checkbox"/>	PRESENT <input type="checkbox"/>
Date/Time Read Out: <u>2/7/02 950</u>	ABSENT <input checked="" type="checkbox"/>	ABSENT <input checked="" type="checkbox"/>
Analyst: <u>FS</u>		

**ONLY THE STATEMENT 'TOTAL COLIFORM ABSENT' MEANS THAT THE WATER MEETS THE BACTERIAL REQUIREMENTS OF THE STATE HEALTH AND SAFETY CODES FOR POTABLE WATER.**

Please fill in your name and mailing address on the back side of this form to insure that you receive your results promptly.



1885 North Kelly Road  
 Napa, CA 94558  
 Phone: (707) 258-4000  
 Fax: (707) 226-1001

LAB NUMBER

CO30366p  
 CCDOHS,SR

COLIFORM BACTERIA ANALYSIS

MAR 14 2002

**PAID**

CL NO. MC 40.00

DATE 3-11-02

SAMPLING INSTRUCTIONS:

**BOTTLE IS STERILE -  
 DO NOT OPEN OR RINSE BEFORE SAMPLING**

1. Pick a water tap that is commonly used. Do not use a swivel faucet.
2. Remove any tap attachments (filters, aerators, etc.).
3. Let the water run for a full 5 to 10 minutes.
4. Clean faucet with rubbing alcohol, inside and outside.
5. Open the cold water valve to a full steady stream.
6. Hold the sample container near the bottom.

CARE MUST BE TAKEN IN THE FOLLOWING STEPS TO AVOID SPLASHING

7. Reduce the flow of water to a 'pencil' stream.
8. Remove cap without touching the neck or the inside of cap.
9. Open the sample container - carefully insert opening into the water stream - **fill the container to the 100 ml line** - recap container and tighten. **RETURN TO THE LAB WITHIN 12 HOURS.**

**FEES:**  
 For Coliform Analysis Only  
 Results available in 5 days ..... \$40.00  
 RUSH - Results faxed/verbal next day ..... add \$20.00  
 Payment must be received before analysis can begin.

- Check here if this is a next business day Rush analysis.
- Check here if this sample is used for regulatory purposes.
- Check here to have lab send copy to regulatory office.
- NCEH  DOHS.SR  DOHS.BERK

**NOTE: 100ml of sample is required to perform this analysis accurately, therefore it is critical that the container be filled to the 100ml line.**

CHAIN OF CUSTODY:

Client: U.S. Bureau of Reclamation Phone: (707) 966-2111 Fax: (707) 966-0409  
 Address: 5520 Knoxville Rd. Napa, Ca. 94558 Type of Payment Enclosed: M/C  
 Project: Lake Berryessa Report ATTN: Clayton T. Dennis  
 Date of Sampling: 3-11-02 Time of Sampling: 0726 Sampled By: Clayton T. Dennis  
 Sample Location Description: Inside tap, water treatment plant

Submitted By: (Print & Sign) Clayton T. Dennis	Date 3-11-02 Time 912	Received By: <i>[Signature]</i>	CSI <input checked="" type="checkbox"/>
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RESULTS	Total Coliform	Fecal Coliform (E. Coli)
Date/Time Set: <u>3/11/02 1015</u>	PRESENT <input type="checkbox"/>	PRESENT <input type="checkbox"/>
Date/Time Read Out: <u>3/12/02 1220</u>	ABSENT <input checked="" type="checkbox"/>	ABSENT <input checked="" type="checkbox"/>
Analyst: <u>FG</u>		

**ONLY THE STATEMENT 'TOTAL COLIFORM ABSENT' MEANS THAT THE WATER MEETS THE BACTERIAL REQUIREMENTS OF THE STATE HEALTH AND SAFETY CODES FOR POTABLE WATER.**

Please fill in your name and mailing address on the back side of this form to insure that you receive your results promptly.