

US EPA ARCHIVE DOCUMENT

APPENDIX G

Quality Control Report

Appendix G
Quality Control Report
Masked Duplicates
Summer Baseflow 2005
Eagle Project

Parameter	Units	QALM009A	QALM009A Duplicate	QALM009D	QALM009D Duplicate
Metals/Inorganics					
Aluminum, Dissolved	µg/L	<50	<50	<50	<50
Antimony, Dissolved	µg/L	<5.0	<5.0	<5.0	<5.0
Arsenic, Dissolved	µg/L	<2.0	<2.0	<2.0	<2.0
Barium, Dissolved	µg/L	<20	<20	<20	<20
Beryllium, Dissolved	µg/L	<1.0	<1.0	<1.0	<1.0
Boron, Dissolved	µg/L	<100	<100	<100	<100
Cadmium, Dissolved	µg/L	<0.50	<0.50	<0.50	<0.50
Chromium, Dissolved	µg/L	<5.0	<5.0	<5.0	<5.0
Cobalt, Dissolved	µg/L	<10	<10	<10	<10
Copper, Dissolved	µg/L	<5.0	<5.0	<5.0	<5.0
Iron, Dissolved	µg/L	<20	<20	<20	<20
Lead, Dissolved	µg/L	<1.0	<1.0	<1.0	<1.0
Lithium, Dissolved	µg/L	<8.0	<8.0	<8.0	<8.0
Manganese, Dissolved	µg/L	<20	<20	<20	<20
Mercury, Dissolved	ng/L	0.111 B	0.111 B	0.450	0.300
Molybdenum, Dissolved	µg/L	<10	<10	<10	<10
Nickel, Dissolved	µg/L	<25	<25	<25	<25
Selenium, Dissolved	µg/L	<1.0	<1.0	<1.0	<1.0
Silver, Dissolved	µg/L	<0.20	<0.20	<0.20	<0.20
Strontium, Dissolved	µg/L	<50	<50	<50	<50
Zinc, Dissolved	µg/L	<10	<10	<10	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	44	45	62	66
Alkalinity, Carbonate	mg/L	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total	mg/L	45	46	62	66
Chloride	mg/L	14	13	<1.0	<1.0
Fluoride	mg/L	<0.10	<0.10	<0.10	0.12
Nitrogen, Ammonia	mg/L	<0.020	<0.020	<0.020	<0.020
Nitrogen, Nitrate	mg/L	0.22	0.22	<0.050	<0.050
Phosphorus, Total	mg/L	<0.0100	<0.0100	0.0121	0.0176
Sulfate	mg/L	<5.0	<5.0	4.3	4.2
Sulfide	mg/L	<1.0	<1.0	<1.0	<1.0
Major Cations					
Calcium, Dissolved	mg/L	14	13	18	18
Magnesium, Dissolved	mg/L	2.3	2.3	4.0	3.9
Potassium, Dissolved	mg/L	0.55	0.59	0.90	0.92
Sodium, Dissolved	mg/L	0.64	0.61	2.7	2.8
General Chemistry					
Hardness, (calculated) as CaCO ₃	mg/L	44	42	61	61
Residue, Dissolved @ 180°C	mg/L	<50	<50	74	66

B Estimated value because sample result is above the method detection limit of 0.10 ng/L but below the reporting limit of 0.25 ng/L.

Appendix G
Quality Control Report
Equipment Blanks
Summer Baseflow 2005
Eagle Project

Parameter	Units	EQBM001	EQBM002
Metals/Inorganics			
Aluminum, Dissolved	µg/L	<50	<50
Antimony, Dissolved	µg/L	<5.0	<5.0
Arsenic, Dissolved	µg/L	<2.0	<2.0
Barium, Dissolved	µg/L	<20	<20
Beryllium, Dissolved	µg/L	<1.0	<1.0
Boron, Dissolved	µg/L	<100	<100
Cadmium, Dissolved	µg/L	<0.50	<0.50
Chromium, Dissolved	µg/L	<5.0	<5.0
Cobalt, Dissolved	µg/L	<10	<10
Copper, Dissolved	µg/L	<5.0	<5.0
Iron, Dissolved	µg/L	<20	<20
Lead, Dissolved	µg/L	<1.0	<1.0
Lithium, Dissolved	µg/L	<8.0	<8.0
Manganese, Dissolved	µg/L	<20	<20
Mercury, Dissolved	ng/L	0.210 B	0.170 B
Molybdenum, Dissolved	µg/L	<10	<10
Nickel, Dissolved	µg/L	<25	<25
Selenium, Dissolved	µg/L	<1.0	<1.0
Silver, Dissolved	µg/L	<0.20	<0.20
Strontium, Dissolved	µg/L	<50	<50
Zinc, Dissolved	µg/L	<10	<10
Major Cations			
Calcium, Dissolved	mg/L	<0.50	<0.50
Magnesium, Dissolved	mg/L	<0.50	<0.50
Potassium, Dissolved	mg/L	<0.50	<0.50
Sodium, Dissolved	mg/L	<0.50	<0.50
General Chemistry			
Hardness, (calculated) as CaCO ₃	mg/L	<3.0	<3.0

B Estimated value because sample result is above the method detection limit of 0.10 ng/L but below the reporting limit of 0.25 ng/L.

Appendix G
Quality Control Report
Field Blanks
Summer Baseflow 2005
Eagle Project

Parameter	Units	FBKM001	FBKM002
Major Anions			
Alkalinity, Bicarbonate	mg/L	<2.0	<2.0
Alkalinity, Carbonate	mg/L	<2.0	<2.0
Alkalinity, Total	mg/L	<2.0	<2.0
Chloride	mg/L	<1.0	<1.0
Fluoride	mg/L	<0.10	<0.10
Nitrogen, Ammonia	mg/L	<0.020	<0.020
Nitrogen, Nitrate	mg/L	<0.050	<0.050
Phosphorus, Total	mg/L	<0.0100	<0.0100
Sulfate	mg/L	<5.0	<5.0
Sulfide	mg/L	<1.0	<1.0
General Chemistry			
Residue, Dissolved @ 180°C	mg/L	<50	<50

Appendix G
Quality Control Report
Charge Balance
Summer Baseflow 2005
Eagle Project

Ion	QALM009A	
	mg/L	meq/L
Sodium	0.64	0.03
Potassium	0.55	0.01
Calcium	14	0.70
Magnesium	2.3	0.19
Chloride	14	0.39
Alkalinity, Bicarbonate	44	0.72
Alkalinity, Carbonate	1.0	0.03
Sulfate	2.5	0.05
Iron	0.01	0.00
Copper	0.00	0.00
Aluminum	0.03	0.00
Manganese	0.01	0.00
Nitrate	0.22	0.00

Total Dissolved Solids: 79.3 mg/L

Ion Balance (Cations/Anions): 1.1

Ion	QALM031D	
	mg/L	meq/L
Sodium	0.96	0.04
Potassium	0.72	0.02
Calcium	12	0.60
Magnesium	2.4	0.20
Chloride	12	0.34
Alkalinity, Bicarbonate	40	0.66
Alkalinity, Carbonate	2.6	0.09
Sulfate	2.5	0.05
Iron	0.01	0.00
Copper	0.00	0.00
Aluminum	0.03	0.00
Manganese	0.01	0.00
Nitrate	0.088	0.00

Total Dissolved Solids: 73.3 mg/L

Ion Balance (Cations/Anions): 0.9