

November 1982

WRRRI Report No. 157
Appendix A

EFFECTS OF COAL BURNING IN NEW MEXICO
ON AIR QUALITY AND SURFACE WATER QUALITY:
RATON STUDY AREA

Technical Completion Report
Project No. 1345656

APPENDIX A. Chemical Analyses Data for Individual Precipitation Events

Raton HS Open 2-10-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.2E+01	5.2E-01
CO3--...			K....	2.7E+01	6.9E-01
SO4--...	1.3E+01	2.7E-01	Ca...	1.6E+01	8.0E-01
PO4---..			Mg...	2.7E+00	2.2E-01
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....	6.4E+01	1.8E+00			
F=.....					
Total Anions.....		2.1E+00	Total Cations.		2.2E+00
% Difference.....		7.30%			

General Conditions

pH (field).....
Conductivity.....
Kjeldahl N.....
SiO2.....

Metals Analysis in ppb

Ag.....	Fe.....
Al.....	Hg.....
As.....	Mn.....
Ba.....	Ni.....
Cd.....	Pb.....
Co.....	Se.....
Cr.....	V.....
Cu.....	

Raton HS Open 2-28-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	1.8E+00	7.8E-02
CO3--...			K....	1.5E+00	3.8E-02
SO4--...	5.4E+00	1.1E-01	Ca...	3.1E-01	1.5E-02
PO4-(P)...	1.0E+01	9.6E-01	Mg...	2.7E-01	2.2E-02
NO2-(N)...	3.0E-03	2.4E-04	NH3..	9.0E-01	
NO3-(N)...	4.3E+00	3.4E-01			
NOx.....					
Cl-.....	1.8E+00	5.1E-02			
F-.....	2.3E-03				
Total Anions.....		5.5E-01	Total Cations.		1.5E-01
% Difference.....		112.15%			

General Conditions

pH (field)..... 5.7E+00

Conductivity.....

Kjeldahl N.....

SiO2.....

Metals Analysis in ppb

Ag.....	0.0E+00	Fe.....	
Al.....	3.2E+01	Hg.....	
As.....		Mn.....	4.3E+02
Ba.....		Ni.....	
Cd.....	3.5E+00	Pb.....	4.2E+01
Co.....	1.0E+00	Se.....	
Cr.....	1.6E+00	V.....	5.0E+00
Cu.....	1.6E+01		

Raton HS Open 3- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3--...			Na...	7.0E-01	3.0E-02
CO3--...			K....	8.6E-01	2.2E-02
SO4--...	5.6E+00	1.2E-01	Ca...	1.6E+01	8.0E-01
PO4--...	1.0E-01	9.6E-03	Mg...	2.9E-01	2.4E-02
NO2-.....	7.8E-02	5.6E-03	NH3..	6.5E-02	
NO3-.....	3.9E+00	2.8E-01			
NOx.....					
Cl-.....	1.1E+00	3.1E-02			
F-.....	4.0E-03				
Total Anions.....		2.2E-01	Total Cations.		8.7E-01
% Difference.....		120.95%			

General Conditions

pH (field)..... 5.8E+00
 Conductivity.....
 Kjeldahl N..... 7.8E-02
 SiO2.....

Metals Analysis in ppb

Ag.....	5.7E-01	Fe.....	6.4E+01
Al.....	9.2E+00	Hg.....	
As.....		Mn.....	2.3E+02
Ba.....		Ni.....	
Cd.....	2.8E-01	Pb.....	7.3E-01
Co.....	3.0E-01	Se.....	1.3E+00
Cr.....	1.3E+00	V.....	5.0E+00
Cu.....	1.2E+01		

Raton HS Open		3-12-81	0		
Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-....			Na...	2.2E+00	9.6E-02
CO3--....			K....	1.6E+00	4.1E-02
SO4--....	9.5E+00	2.0E-01	Ca...	1.0E+01	5.0E-01
PO4---...	2.7E-02	2.6E-03	Mg...	1.0E+00	8.2E-02
NO2-.....			NH3..	1.0E-02	
NO3-.....	7.2E-01	5.3E-02			
NOx.....					
Cl-.....	7.1E-01	2.0E-02			
F-.....					
Total Anions.....		2.3E-01	Total Cations.		7.2E-01
% Difference.....		102.81%			

General Conditions

pH (field).....	7.5E+00
Conductivity.....	
Kjeldahl N.....	
SiO2.....	

Metals Analysis in ppb

Ag.....	2.1E+00	Fe.....	4.8E+01
Al.....	1.5E+01	Hg.....	
As.....		Mn.....	2.0E+02
Ba.....		Ni.....	
Cd.....	8.2E-01	Pb.....	2.1E+00
Co.....	2.1E+00	Se.....	1.6E+00
Cr.....	1.3E+00	V.....	5.0E+00
Cu.....	1.7E+00		

Raton BS Open 5- 5-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	2.3E+00	1.0E-01
CO3=...			K....	2.0E+00	5.1E-02
SO4=...	2.0E+01	4.2E-01	Ca...	1.9E+01	9.5E-01
PO4=...	8.1E-02	7.8E-03	Mg...	1.6E+00	1.3E-01
NO2=...	4.9E-02	3.6E-03	NH3..	8.4E-01	
NO3=...	1.1E+00	7.9E-02			
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		4.4E-01	Total Cations.		1.2E+00
% Difference.....		95.02%			

General Conditions

pH (field)..... 7.0E+00

Conductivity.....

Kjeldahl N..... 3.0E-01

SiO2.....

Metals Analysis in ppb

Ag.....	4.5E-02	Fe.....	1.9E+01
Al.....	1.7E+02	Hg.....	
As.....		Mn.....	2.3E+01
Ba.....	7.0E+01	Ni.....	2.2E+01
Cd.....	1.4E+00	Pb.....	1.0E+00
Co.....	1.2E+01	Se.....	
Cr.....	4.2E+00	V.....	
Cu.....	2.4E+01		

Raton HS Open 5-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.6E+00	7.0E-02
CO3--...			K....	5.8E-01	1.5E-02
SO4--...	1.3E+01	2.7E-01	Ca...	3.8E+00	1.9E-01
PO4--...	8.0E-02	7.5E-03	Mg...	3.0E-01	2.5E-02
NO2=...	3.4E-01	2.4E-02	NH3..	5.0E+00	
NO3=...	1.1E+00	7.9E-02			
NOx.....					
Cl=.....	2.0E+00	5.6E-02			
F=.....					
Total Anions.....		3.5E-01	Total Cations,		3.0E-01
% Difference.....		17.18%			

General Conditions

pH (field)..... 5.0E+00
 Conductivity.....
 Kjeldahl N..... 2.0E-02
 SiO2.....

Metals Analysis in ppb

Ag.....	7.5E-02	Fe.....	1.5E+01
Al.....	1.2E+01	Hg.....	2.2E-01
As.....		Mn.....	1.0E+02
Ba.....	4.2E+01	Ni.....	4.0E-01
Cd.....	2.8E+00	Pb.....	4.0E-01
Co.....	4.6E+00	Se.....	
Cr.....	8.5E-01	V.....	
Cu.....	1.2E+01		

Raton HS Open 5-29-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	3.0E+00	1.3E-01
CO3--...			K....	8.4E-01	2.1E-02
SO4--...	3.6E+00	7.5E-02	Ca...	2.7E+00	1.3E-01
PO4--...			Mg...	3.4E-01	2.8E-02
NO2=....	1.2E-02	2.6E-04	NH3..	1.7E+00	
NO3=....	5.0E-02	3.6E-03			
NOX.....	9.7E-02				
Cl=.....	3.1E+00	8.7E-02			
F=.....					
Total Anions.....		1.6E-01	Total Cations.		3.1E-01
% Difference.....		63.23%			

General Conditions

pH (field)..... 5.4E+00
 Conductivity.....
 Kjeldahl N..... 8.1E-01
 SiO2.....

Metals Analysis in ppb

Ag.....	3.0E-01	Fe.....	1.7E+01
Al.....	1.7E+01	Hg.....	4.0E-02
As.....		Mn.....	4.3E+01
Ba.....	1.8E+01	Ni.....	1.0E+00
Cd.....	9.1E-01	Pb.....	1.7E+00
Co.....	2.2E+00	Se.....	
Cr.....	1.2E+00	V.....	
Cu.....	9.7E+00		

Raton HS Open 6- 2-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	6.1E-01	2.7E-02
CO3--...			K....	5.0E-01	1.3E-02
SO4--...	2.4E-01	5.0E-03	Ca...	4.0E+00	2.0E-01
PO4---...	1.0E-02	9.6E-04	Mg...	2.9E-01	2.4E-02
NO2=.....	7.0E-02	4.9E-03	NH3..	6.0E-01	
NO3=.....	3.1E-01	2.2E-02			
NOx.....					
Cl=.....	2.0E+00	5.6E-02			
F=.....					
Total Anions.....		6.8E-02	Total Cations.		2.6E-01
% Difference.....		117.53%			

General Conditions

pH (field)..... 7.5E+00
 Conductivity.....
 Kjeldahl N..... 1.0E+00
 SiO2..... 7.5E-02

Metals Analysis in ppb

Ag.....	1.8E-01	Fe.....	9.5E+00
Al.....	6.0E+00	Hg.....	
As.....		Mn.....	3.3E+01
Ba.....		Ni.....	2.8E+00
Cd.....	1.0E+00	Pb.....	4.0E-01
Co.....	2.8E+00	Se.....	
Cr.....	8.5E-01	V.....	
Cu.....	1.2E+00		

Raton HS Open 6-30-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-			Na	8.2E-01	3.6E-02
CO3--			K	5.9E-01	1.5E-02
SO4--	7.2E+00	1.5E-01	Ca	5.5E+00	2.7E-01
PO4--			Mg	5.4E-01	4.4E-02
NO2-			NH3		
NO3-					
NOx					
Cl-	2.1E+00	5.9E-02			
F-					
Total Anions		2.1E-01	Total Cations		3.7E-01
% Difference		55.42%			

General Conditions

pH (field)..... 7.2E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2..... 7.1E-01

Metals Analysis in ppb

Ag..... 1.6E-01	Fe..... 2.6E+01
Al..... 6.4E+01	Hg..... 2.8E-01
As.....	Mn..... 6.5E+00
Ba..... 6.2E+00	Ni..... 2.9E+00
Cd..... 6.2E-01	Pb..... 4.2E+00
Co..... 8.1E+00	Se.....
Cr..... 1.7E+00	V.....
Cu..... 9.6E+00	

Raton HS Open 7- 2-81 0

Anion	ppm	Meg/L	Cation	ppm	Meg/L
HCO3-....			Na...	8.8E-01	3.8E-02
CO3--....			K....	6.2E-01	1.6E-02
SO4--....			Ca...	7.0E+00	3.5E-01
PO4---...			Mg...	5.4E-01	4.4E-02
NO2-.....			NH3..		
NO3-.....					
NOx.....					
Cl-.....					
F-.....					
Total Anions.....			Total Cations,		4.5E-01
% Difference.....	200.00%				

General Conditions

pH (field)..... 6.8E+00

Conductivity.....

Kjeldahl N.....

SiO2.....

Metals Analysis in ppb

Ag.....	4.1E-01	Fe.....	3.2E+02
Al.....	1.9E+01	Hg.....	
As.....		Mn.....	3.9E+01
Ba.....	6.2E+01	Ni.....	1.2E+00
Cd.....	1.4E+00	Pb.....	3.1E+00
Co.....	5.0E+00	Se.....	
Cr.....	8.0E-01	V.....	
Cu.....	2.0E+01		

Raton HS Open	7-16-81	0		
Anion	ppm	Meq/L	Cation	ppm Meq/L
HCO3=...			Na...	2.3E+01 1.0E+00
CO3--...			K....	
SO4--...			Ca...	1.4E+01 7.0E=01
PO4--...			Mg...	
NO2=.....			NH3..	
NO3=.....				
NOx.....				
Cl=.....				
F=.....				
Total Anions.....			Total Cations.	1.7E+00
% Difference.....	200.00%			

General Conditions

pH (field)..... 6.9E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	Fe.....
Al.....	Hg.....
As.....	Mn.....
Ba.....	Ni.....
Cd.....	Pb.....
Co.....	Se.....
Cr.....	V.....
Cu.....	

Raton HS Open 7-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.7E+00	7.4E-02
CO3--...			K....	1.4E+00	3.6E-02
SO4--...	1.0E+01	2.1E-01	Ca...	2.1E+00	1.0E-01
PO4--...	1.3E+00	4.2E-02	Mg...	3.3E-01	2.7E-02
NO2=...	2.9E-02	2.1E-03	NH3..	9.4E-01	
NO3=...	2.5E-01	4.7E-02			
NOx.....					
Cl=.....	1.1E+00	3.1E-02			
F=.....					
Total Anions.....		2.9E-01	Total Cations.		2.4E-01
% Difference.....		10.46%			

General Conditions

pH (field)..... 6.3E+00
 Conductivity.....
 Kjeldahl N..... 2.7E-01
 SiO2..... 2.5E-01

Metals Analysis in ppb

Ag.....	6.3E+01	Fe.....	6.3E-02
Al.....		Hg.....	3.5E-01
As.....	3.0E+00	Mn.....	5.6E+01
Ba.....	2.3E+01	Ni.....	2.8E+00
Cd.....	1.1E+00	Pb.....	1.4E-01
Co.....	1.4E+00	Se.....	
Cr.....	2.8E+00	V.....	
Cu.....	9.8E+00		

Raton HS Open 8- 7-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	4.7E-01	2.0E-02
CO3--...			K....	4.9E-01	1.3E-02
SO4--...	1.8E+00	3.8E-02	Ca...	1.5E+00	7.5E-02
PO4---...			Mg...	1.0E+00	8.2E-02
NO2-....			NH3..		
NO3-....					
NOx.....					
Cl-.....					
F-.....					
Total Anions.....		3.8E-02	Total Cations.		1.9E-01
% Difference.....		134.10%			

General Conditions

pH (field)..... 5.2E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.7E-01	Fe.....	2.0E+01
Al.....	7.1E+01	Hg.....	
As.....		Mn.....	1.7E+01
Ba.....	4.5E+00	Ni.....	1.1E+00
Cd.....	1.2E-01	Pb.....	2.2E-01
Co.....	8.0E-03	Se.....	
Cr.....	3.5E-01	V.....	
Cu.....	6.5E+00		

Raton HS Open 8-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.8E+01	7.8E-01
CO3--...			K....	1.7E-01	4.3E-03
SO4--...	2.6E+00	5.4E-02	Ca...	2.3E+00	1.1E-01
PO4--...			Mg...	1.4E-01	1.2E-02
NO2=.....			NH3..		
NO3=.....	3.2E-01	2.3E-02			
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		5.9E-02	Total Cations.		9.1E-01
% Difference.....		175.61%			

General Conditions

pH (field)..... 5.3E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.7E-02	Fe.....	3.4E+01
Al.....		Hg.....	1.0E-01
As.....		Mn.....	9.6E+00
Ba.....	5.7E+00	Ni.....	3.6E+00
Cd.....	5.4E-01	Pb.....	1.5E+00
Co.....	4.8E-01	Se.....	
Cr.....	3.1E-01	V.....	
Cu.....	2.8E+00		

Raton HS Open		8-18-81	0		
Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	4.3E-01	1.9E-02
CO3=...			K....	8.6E-01	2.2E-02
SO4=...	3.8E+00	7.9E-02	Ca...	2.2E+00	1.1E-01
PO4=...			Mg...	1.6E-01	1.3E-02
NO2=...			NH3..		
NO3=...					
NOX.....					
Cl=.....					
F=.....					
Total Anions.....		7.9E-02	Total Cations,		1.6E-01
% Difference.....		69.59%			

General Conditions

pH (field)..... 5.2E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	5.8E-02	Fe.....	4.7E+01
Al.....		Hg.....	
As.....		Mn.....	2.0E+01
Ba.....	7.4E+00	Ni.....	2.9E+00
Cd.....	6.7E-01	Pb.....	6.0E-02
Co.....	8.0E+00	Se.....	
Cr.....	4.5E-01	V.....	
Cu.....	2.9E+00		

Raton HS Open 8-28-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	6.9E-01	3.0E-02
CO3--...			K....	6.0E-01	1.5E-02
SO4--...	1.3E+01	2.7E-01	Ca...	5.3E+00	2.6E-01
PO4--=...			Mg...	3.8E-01	3.1E-02
NO2=.....			NH3..		
NO3=.....					
NOX.....					
Cl=.....	1.4E+00	3.9E-02			
F=.....					
Total Anions.....		3.1E-01	Total Cations.		3.4E-01
% Difference.....		9.45%			

General Conditions

pH (field)..... 5.5E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	8.0E-02	Fe.....	4.8E+01
Al.....		Hg.....	3.9E-01
As.....		Mn.....	3.5E+01
Ba.....	4.2E+01	Ni.....	3.1E+00
Cd.....		Pb.....	
Co.....	3.2E+00	Se.....	
Cr.....	2.5E+00	V.....	
Cu.....	1.3E+01		

Raton HS Open 9- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-		Na	...	
CO3--		K	
SO4--		Ca	...	
PO4--		Mg	...	
NO2-		NH3	..	
NO3-				
NOx				
Cl-				
F-				
Total Anions		Total Cations	..	
% Difference				

General Conditions

pH (field).....

Conductivity.....

Kjeldahl N.....

SiO2.....

Metals Analysis in ppb

Ag.....	2.7E-02	Fe.....	1.7E+01
Al.....		Hg.....	1.0E-01
As.....		Mn.....	3.3E+01
Ba.....	1.7E+01	Ni.....	1.7E+00
Cd.....		Pb.....	
Co.....	4.6E-01	Se.....	
Cr.....	8.6E-01	V.....	
Cu.....	7.4E+00		

Raton HS Open 9- 6-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	2.5E-01	1.1E-02
CO3--...			K....	6.1E-01	1.6E-02
SO4--...			Ca...	2.0E+00	1.0E-01
PO4--=...			Mg...		
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....					
F=.....					
Total Anions.....			Total Cations.		1.3E-01
% Difference.....	200.00%				

General Conditions

pH (field).....
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	5.8E-02	Fe.....	1.0E+01
Al.....		Hg.....	
As.....		Mn.....	1.7E+01
Ba.....	8.5E+00	Ni.....	
Cd.....		Pb.....	
Co.....	8.5E-01	Se.....	
Cr.....	4.4E-01	V.....	
Cu.....	5.8E+00		

Raton HS Open 9-13-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	9.5E+00	4.1E-01
CO3=...			K....	4.1E+00	1.0E-01
SO4=...	2.8E+01	5.8E-01	Ca...	1.6E+01	8.0E-01
PO4=...			Mg...	4.1E+00	3.4E-01
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....	1.3E+01	3.7E-01			
F=.....					
Total Anions.....		9.5E-01	Total Cations.		1.7E+00
% Difference.....		54.06%			

General Conditions

pH (field)..... 5.4E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.5E+00	Fe.....	5.2E+00
Al.....		Hg.....	
As.....		Mn.....	1.8E+01
Ba.....		Ni.....	8.0E+00
Cd.....		Pb.....	
Co.....	9.1E+00	Se.....	
Cr.....		V.....	
Cu.....			

Averages for Raton HS Open

Anion	ppm	Cation	ppm
HCO ₃ ⁻ ...		Na...	4.4E+00
CO ₃ ⁼ ...		K....	2.6E+00
SO ₄ ⁼ ...	9.1E+00	Ca...	7.2E+00
PO ₄ ⁼ ...	5.7E+00	Mg...	8.7E-01
NO ₂ ⁻	8.2-02 2.7E+00	NH ₃ ..	1.3E+00
NO ₃ ⁻	1.3 5.0E+00		
NOx.....	9.7E-02		
Cl ⁻	8.4E+00		
F ⁻	3.2E-03		
Total Anions.....	4.0E-01	Total Cations.	6.8E-01
% Difference.....	97.27%		

General Conditions

pH (field).....	6.1E+00
Conductivity.....	
Kjeldahl N.....	4.1E-01
SiO ₂	3.5E-01

Metals Analysis in ppb

Ag.....	4.0E+00	Fe.....	4.4E+01
Al.....	4.2E+01	Hg.....	2.1E-01
As.....	3.0E+00	Mn.....	7.7E+01
Ba.....	2.6E+01	Ni.....	4.1E+00
Cd.....	1.2E+00	Pb.....	4.4E+00
Co.....	3.6E+00	Se.....	1.5E+00
Cr.....	1.3E+00	V.....	5.0E+00
Cu.....	9.6E+00		

Standard Deviations for Raton HS Open

Anion	ppm	Cation	ppm
HCO ₃ ⁻ ...		Na...	6.7E+00
CO ₃ ⁼ ...		K....	6.4E+00
SO ₄ ⁼ ...	7.5E+00	Ca...	6.2E+00
PO ₄ ⁼ ...	3.7E+00	Mg...	1.1E+00
NO ₂ ⁻	1.2E-01	NH ₃ ..	1.4E+01
NO ₃ ⁻	1.6E+00		
NOx.....			
Cl ⁻	1.9E+01		
F ⁻	4.1E+01		
Total Anions.....	5.6E-01	Total Cations.	6.5E-01
% Difference.....	70.35%		

General Conditions

pH (field).....	7.3E+00
Conductivity.....	
Kjeldahl N.....	1.7E+01
SiO ₂	2.9E+01

Metals Analysis in ppb

Ag.....	1.6E+01	Fe.....	8.0E+01
Al.....	7.2E+01	Hg.....	1.4E+01
As.....		Mn.....	1.2E+02
Ba.....	3.6E+01	Ni.....	1.1E+01
Cd.....	8.0E+00	Pb.....	1.5E+01
Co.....	6.0E+00	Se.....	4.7E+01
Cr.....	5.2E+00	V.....	4.2E+01
Cu.....	1.1E+01		

Raton HS Closed 1-15-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...	6.7E+00	1.1E-01	Na...	2.9E+00	1.3E-01
CO3--...	0.0E+00	0.0E+00	K....	1.7E+00	4.3E-02
SO4--...	1.8E+00	3.8E-02	Ca...	5.6E-01	2.8E-02
PO4---...	0.0E+00	0.0E+00	Mg...	3.8E-02	3.1E-03
NO2=.....	2.3E-02	1.6E-03	NH3..	2.3E-01	
NO3=.....	2.2E-01	1.6E-02			
NOx.....					
Cl=.....	7.6E+00	2.1E-01			
F=.....					
Total Anions.....		3.7E-01	Total Cations.		2.0E-01
% Difference.....		58.27%			

General Conditions

pH (field).....	5.9E+00
Conductivity.....	6.0E+01
Kjeldahl N.....	2.7E-01
SiO2.....	

Metals Analysis in ppb

Ag.....	1.6E+00	Fe.....	6.5E+00
Al.....		Hg.....	1.0E+00
As.....	0.0E+00	Mn.....	0.0E+00
Ba.....	1.1E+01	Ni.....	0.0E+00
Cd.....	2.7E-01	Pb.....	4.4E-01
Co.....	0.0E+00	Se.....	
Cr.....	5.2E-01	V.....	3.6E+00
Cu.....	4.8E-01		

Raton HS Closed 1-16-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...	3.3E+00	5.4E-02	Na...	4.9E+00	2.1E-01
CO3--...	0.0E+00	0.0E+00	K....	7.9E-01	2.0E-02
SO4--...	2.5E+00	5.2E-02	Ca...	6.5E-01	3.2E-02
PO4---...	1.0E-02	9.6E-04	Mg...	7.0E-02	5.8E-03
NO2=.....	1.3E-01	9.2E-03	NH3..	9.0E-02	
NO3=.....	1.2E-01	8.4E-03			
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		1.1E-01	Total Cations.		2.7E-01
% Difference.....		83.74%			

General Conditions

pH (field)..... 5.7E+00
Conductivity.....
Kjeldahl N..... 2.3E+00
SiO2.....

Metals Analysis in ppb

Ag.....	1.1E-01	Fe.....	7.2E+00
Al.....		Hg.....	
As.....	0.0E+00	Mn.....	0.0E+00
Ba.....	3.2E+01	Ni.....	0.0E+00
Cd.....	7.9E-01	Pb.....	8.9E-01
Co.....	0.0E+00	Se.....	
Cr.....	2.5E-01	V.....	0.0E+00
Cu.....	1.5E+00		

Raton HS Closed 1-19-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...	2.5E+00	4.1E-02	Na...	2.4E+00	1.0E-01
CO3--...	0.0E+00	0.0E+00	K....	5.2E-01	1.3E-02
SO4--...	8.5E-01	1.8E-02	Ca...	5.0E-01	2.5E-02
PO4--...	1.0E-02	9.6E-04	Mg...	4.0E-02	3.3E-03
NO2=...	3.0E+02	2.4E-03	NH3..	2.3E-01	
NO3=...	1.8E-01	1.9E-02			
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		6.3E-02	Total Cations.		1.5E-01
% Difference.....		79.98%			

General Conditions

pH (field)..... 5.9E+00
Conductivity.....
Kjeldahl N..... 3.7E-01
SiO2.....

Metals Analysis in ppb

Ag.....	1.5E-01	Fe.....	1.5E+01
Al.....		Hg.....	
As.....	0.0E+00	Mn.....	2.9E+00
Ba.....	7.8E+00	Ni.....	0.0E+00
Cd.....	1.0E+00	Pb.....	1.8E+00
Co.....	0.0E+00	Se.....	
Cr.....	5.2E-01	V.....	0.0E+00
Cu.....	5.5E+00		

Raton HS Closed 3-19-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...	9.0E+00	1.5E-01	Na...	1.2E+00	5.2E-02
CO3--...	0.0E+00	0.0E+00	K....	8.1E-01	2.1E-02
SO4--...	4.4E+00	9.2E-02	Ca...	2.6E+00	1.3E-01
PO4--...			Mg...	7.0E-02	5.8E-03
NO2=....			NH3..		
NO3=....					
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		2.4E-01	Total Cations,		2.1E-01
% Difference.....		13.76%			

General Conditions

pH (field)..... 6.3E+00
Conductivity.....
Kjeldahl N.....
SiO2..... 1.6E-01

Metals Analysis in ppb

Ag.....		Fe.....	1.4E+01
Al.....		Hg.....	
As.....	1.6E+00	Mn.....	0.0E+00
Ba.....	1.5E+01	Ni.....	1.2E+02
Cd.....	0.0E+00	Pb.....	0.0E+00
Co.....	0.0E+00	Se.....	
Cr.....	8.3E+00	V.....	0.0E+00
Cu.....	1.2E+01		

Raton HS Closed 4-24-80 1

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-....	3.5E+00	5.7E-02	Na...	3.8E-01	1.7E-02
CO3--....	0.0E+00	0.0E+00	K....	2.2E-01	5.6E-03
SO4--....	2.3E-02	4.8E-04	Ca...	3.5E-01	1.7E-02
PO4--..	0.0E+00	0.0E+00	Mg...	5.0E-02	4.1E-03
NO2-....			NH3..		
NO3-....					
NOx.....					
Cl-.....	6.8E-01	1.9E-02			
F-.....					
Total Anions.....		7.7E-02	Total Cations.		4.4E-02
% Difference.....		55.14%			

General Conditions

pH (field)..... 6.9E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2..... 1.9E-02

Metals Analysis in ppb

Ag.....	1.0E-02	Fe.....	9.4E+00
Al.....		Hg.....	1.2E-02
As.....	0.0E+00	Mn.....	4.5E+00
Ba.....	0.0E+00	Ni.....	4.4E-01
Cd.....	4.3E-01	Pb.....	0.0E+00
Co.....	0.0E+00	Se.....	5.0E+00
Cr.....	4.3E-01	V.....	9.3E+00
Cu.....	5.9E+00		

Raton HS Closed 4-24-80 2

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...	5.2E+00	8.5E-02	Na...	2.4E-01	1.0E-02
CO3--...	0.0E+00	0.0E+00	K....	2.3E-01	5.9E-03
SO4--...	2.2E-02	4.6E-04	Ca...	2.0E-01	1.0E-02
PO4---...	5.0E-03	4.6E-04	Mg...	5.0E-02	4.1E-03
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....	5.3E+01	1.5E-02			
F=.....					
Total Anions.....		1.0E-01	Total Cations.		3.0E-02
% Difference.....		107.28%			

General Conditions

pH (field).....	6.9E+00
Conductivity.....	
Kjeldahl N.....	
SiO2.....	3.0E-02

Metals Analysis in ppb

Ag.....		Fe.....	5.4E+00
Al.....		Hg.....	1.0E-02
As.....	0.0E+00	Mn.....	4.0E+00
Ba.....	0.0E+00	Ni.....	1.9E-01
Cd.....	4.0E-02	Pb.....	0.0E+00
Co.....	0.0E+00	Se.....	5.0E+00
Cr.....	4.3E-01	V.....	1.3E+00
Cu.....	5.0E+00		

Averages for Raton HS Closed

24-apr-80

Anion	ppm	Cation	ppm
HCO3=...	4.4E+00	Na...	3.1E-01
CO3=...	0.0E+00	K....	2.3E-01
SO4=...	2.3E-02	Ca...	2.8E-01
PO4=...	7.5E-03	Mg...	5.0E-02
NO2=....		NH3..	
NO3=....			
NOx.....			
Cl=.....	6.1E-01		
F=.....			
Total Anions.....	8.9E-02	Total Cations.	3.7E-02
% Difference.....	8.12%		

General Conditions

pH (field)..... 6.9E+00
Conductivity.....
Kjeldahl N.....
SiO2..... 2.5E-02

Metals Analysis in ppb

Ag.....	1.0E-02	Fe.....	7.4E+00
Al.....		Hg.....	1.1E-02
As.....	0.0E+00	Mn.....	4.3E+00
Ba.....	0.0E+00	Ni.....	3.2E-01
Cd.....	2.3E-01	Pb.....	0.0E+00
Co.....	0.0E+00	Se.....	5.0E+00
Cr.....	4.3E-01	V.....	5.3E+00
Cu.....	5.4E+00		

Raton HS Closed 9-10-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	5.9E+00	2.6E-01
CO3--...			K....	4.6E-01	1.2E-02
SO4--...	8.0E+00	1.7E-01	Ca...	9.5E-01	4.7E-02
PO4---...	4.1E-02	3.9E-03	Mg...	2.0E-01	1.6E-02
NO2=.....			NH3..	7.1E+01	
NO3=.....					
NOx.....					
Cl=.....	1.1E+00	3.1E-02			
F=.....					
Total Anions.....		2.0E-01	Total Cations.		3.3E-01
% Difference.....		50.18%			

General Conditions

pH (field)..... 4.9E+00
 Conductivity..... 1.3E+02
 Kjeldahl N..... 7.1E+01
 SiO2.....

Metals Analysis in ppb

Ag.....	7.3E-01	Fe.....	
Al.....		Hg.....	7.0E-02
As.....		Mn.....	3.0E+00
Ba.....	1.0E+01	Ni.....	0.0E+00
Cd.....	2.1E-01	Pb.....	7.0E+00
Co.....		Se.....	0.0E+00
Cr.....	1.9E+00	V.....	
Cu.....	2.7E+01		

Raton HS Closed 9-11-80 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.4E-01	6.1E-03
CO3--...			K....	5.7E-01	1.5E-02
SO4--...	1.4E+00	2.9E-02	Ca...	2.0E-01	1.0E-02
PO4--...	2.2E-01	2.0E-02	Mg...	3.0E-02	2.5E-03
NO2-....	5.7E-02	3.9E-03	NH3..	7.5E-01	
NO3-....	1.9E-01	1.4E-02			
NOx.....					
Cl-.....	2.6E-01	7.3E-03			
F-.....	1.5E-01				
Total Anions.....		4.8E-02	Total Cations.		3.3E-02
% Difference.....		36.18%			

General Conditions

pH (field)..... 4.6E+00
 Conductivity..... 1.3E+01
 Kjeldahl N..... 7.5E-01
 SiO2.....

Metals Analysis in ppb

Ag.....	6.2E-01	Fe.....	
Al.....		Hg.....	
As.....		Mn.....	3.0E+00
Ba.....	1.2E+01	Ni.....	0.0E+00
Cd.....	3.0E-01	Pb.....	1.3E+00
Co.....		Se.....	0.0E+00
Cr.....	1.6E-01	V.....	
Cu.....	2.7E+00		

Raton HS Closed 3- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	8.2E-01	3.6E-02
CO3=...			K....	6.0E-01	1.5E-02
SO4=...	1.0E+00	2.1E-02	Ca...	4.8E-01	2.4E-02
PO4=...	2.7E-02	2.5E-03	Mg...	4.0E-02	3.3E-03
NO2=...	4.0E-02	2.9E-03	NH3..		
NO3=...	5.0E+00	3.6E-01			
NOx.....					
Cl=.....	1.0E+00	2.8E-02			
F=.....	4.2E-03				
Total Anions.....		1.3E-01	Total Cations.		7.8E-02
% Difference.....		50.69%			

General Conditions

pH (field)..... 5.0E+00
 Conductivity.....
 Kjeldahl N..... 2.7E-02
 SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	1.9E+03
Al.....	2.3E+02	Hg.....	
As.....		Mn.....	1.7E+02
Ba.....		Ni.....	
Cd.....	9.7E-01	Pb.....	5.3E+00
Co.....	4.0E+00	Se.....	2.8E+00
Cr.....	3.8E+00	V.....	5.0E+00
Cu.....			

Raton HS Closed 4-29-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	4.0E+00	1.7E-01
CO3--...			K....	3.8E+00	9.7E-02
SO4--...	1.2E+01	2.5E-01	Ca...	1.3E+01	6.5E-01
PO4--...			Mg...	5.0E-01	4.1E-02
NO2=...	9.8E-02	6.9E-03	NH3..	1.5E+00	
NO3=...	3.6E-01	2.6E-02			
NOX.....					
Cl=.....	2.3E+01	6.5E-01			
F=.....					
Total Anions.....		9.1E-01	Total Cations.		9.6E-01
% Difference.....		5.82%			

General Conditions

pH (field)..... 7.5E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.1E-01	Fe.....	7.0E+00
Al.....	1.2E+01	Hg.....	
As.....		Mn.....	7.1E+01
Ba.....	1.3E+02	Ni.....	7.0E-01
Cd.....	7.9E-01	Pb.....	1.4E+00
Co.....	7.0E-01	Se.....	
Cr.....	1.9E+00	V.....	
Cu.....	1.8E+01		

Raton HS Closed 5-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	6.1E-01	2.7E-02
CO3=-...			K....	6.6E-01	1.7E-02
SO4=-...	1.4E+01	2.9E-01	Ca...	3.8E+00	1.9E-01
PO4=-...	8.4E-02	8.7E-03	Mg...	3.2E-01	2.6E-02
NO2=...	1.0E-01	7.2E-03	NH3..	1.4E+00	
NO3=...	1.5E+00	1.4E-02			
NOX.....					
Cl=.....	4.5E+00	1.3E-01			
F=.....					
Total Anions.....		4.5E-01	Total Cations.		2.6E-01
% Difference.....		53.25%			

General Conditions

pH (field)..... 5.0E+00
 Conductivity.....
 Kjeldahl N..... 1.0E-02
 SiO2.....

Metals Analysis in ppb

Ag.....	1.6E-01	Fe.....	1.0E+01
Al.....	1.6E+01	Hg.....	2.2E-01
As.....		Mn.....	9.4E+01
Ba.....	6.2E+01	Ni.....	9.9E-01
Cd.....	1.6E+00	Pb.....	4.2E+00
Co.....	8.6E-01	Se.....	
Cr.....	7.7E-01	V.....	
Cu.....			

Raton HS Closed 5-29-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	3.5E-01	1.5E-02
CO3--...			K....	0.0E+00	0.0E+00
SO4--...	4.0E-01	8.3E-03	Ca...	1.0E-01	5.0E-03
PO4---...	0.0E+00	0.0E+00	Mg...	1.0E-01	8.2E-03
NO2-....	3.0E-02	6.8E-03	NH3..	7.0E-02	
NO3-....					
NOx.....					
Cl-.....	7.4E-02	2.1E-03			
F-.....					
Total Anions.....		1.1E-02	Total Cations.		2.8E-02
% Difference.....		87.92%			

General Conditions

pH (field)..... 4.9E+00
Conductivity.....
Kjeldahl N..... 2.0E-01
SiO2.....

Metals Analysis in ppb

Ag.....	9.4E+00	Fe.....	
Al.....	6.4E+00	Hg.....	1.2E-01
As.....		Mn.....	9.5E+00
Ba.....	0.0E+00	Ni.....	1.1E+00
Cd.....	9.5E-01	Pb.....	8.0E-01
Co.....	2.0E+00	Se.....	
Cr.....		V.....	
Cu.....	7.7E-01		

Raton HS Closed 5-30-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3--			Na...	9.8E-01	4.3E-02
CO3--			K....	5.0E-01	1.3E-02
SO4--	1.2E+00	2.5E-02	Ca...	2.1E-01	1.0E-02
PO4--	5.2E-02	4.6E-03	Mg...	1.0E-01	8.2E-03
NO2-	1.0E-02	7.2E-04	NH3..	1.2E+00	
NO3-	3.5E-01	2.5E-02			
NOx.....					
Cl-.....	8.6E-02	2.4E-03			
F-.....					
Total Anions.....		3.5E-02	Total Cations.		7.4E-02
% Difference.....		71.88%			

General Conditions

pH (field)..... 4.3E+00
 Conductivity.....
 Kjeldahl N..... 7.0E-01
 SiO2.....

Metals Analysis in ppb

Ag.....	2.2E-01	Fe.....	7.3E+00
Al.....	5.0E+00	Hg.....	
As.....		Mn.....	1.3E+01
Ba.....	1.1E+01	Ni.....	1.0E+00
Cd.....	6.3E-01	Pb.....	2.5E+00
Co.....	7.0E-01	Se.....	
Cr.....	5.5E-01	V.....	
Cu.....			

Raton HS Closed 6- 2-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	3.6E-01	1.6E-02
CO3--...			K....	5.0E-01	1.3E-02
SO4--...	8.0E-01	1.7E-02	Ca...	2.8E-01	1.4E-02
PO4--...	5.5E-02	5.7E-03	Mg...	1.0E-01	8.2E-03
NO2-....	3.0E-02	2.4E-03	NH3..	6.3E-01	
NO3-....	3.5E-01	2.5E-02			
NOx.....					
Cl-.....	6.5E-01	1.8E-02			
F-.....					
Total Anions.....		4.3E-02	Total Cations.		5.1E-02
% Difference.....		16.26%			

General Conditions

pH (field)..... 4.6E+00
 Conductivity.....
 Kjeldahl N..... 1.4E+00
 SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	4.7E+00
Al.....	4.3E+00	Hg.....	1.0E-01
As.....		Mn.....	9.9E+00
Ba.....	0.0E+00	Ni.....	1.3E+01
Cd.....	8.4E-01	Pb.....	1.8E+00
Co.....	3.1E-01	Se.....	
Cr.....	3.8E-01	V.....	
Cu.....	2.1E+00		

Raton HS Closed 7- 3-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-		Na...	9.0E-01	3.9E-02
CO3--		K....	6.0E-01	1.5E-02
SO4--		Ca...	5.3E+00	2.6E-01
PO4--		Mg...	6.0E-01	4.9E-02
NO2-		NH3..		
NO3-				
NOx				
Cl-				
F-				
Total Anions		Total Cations		3.7E-01
% Difference	200.00%			

General Conditions

pH (field)..... 6.8E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	8.9E-02	Fe.....	5.2E+02
Al.....	8.6E+00	Hg.....	
As.....		Mn.....	3.4E+01
Ba.....	4.1E+01	Ni.....	
Cd.....	9.7E-01	Pb.....	1.4E+00
Co.....	5.5E+00	Se.....	
Cr.....	1.5E+00	V.....	
Cu.....	3.4E+01		

Raton HS Closed 7-12-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-	...		Na...	8.2E-01	3.6E-02
CO3--	...		K....	1.2E+00	3.1E-02
SO4--	...		Ca...	4.6E+00	2.3E-01
PO4--	...		Mg...	6.0E-01	4.9E-02
NO2-		NH3..		
NO3-				
NOx				
Cl-	2.4E+00	6.8E-02			
F-				
Total Anions	6.8E-02	Total Cations	3.5E-01
% Difference	134.43%			

General Conditions

pH (field)..... 5.3E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2..... 2.9E-01

Metals Analysis in ppb

Ag.....	1.5E-01	Fe.....	5.2E+01
Al.....	7.9E+01	Hg.....	3.3E-01
As.....	1.4E+00	Mn.....	8.5E+01
Ba.....	4.0E+01	Ni.....	3.2E+00
Cd.....	4.8E-01	Pb.....	3.6E+00
Co.....	1.0E+00	Se.....	5.0E-01
Cr.....	1.7E+00	V.....	
Cu.....	1.9E+01		

Raton HS Closed 7-16-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-	...		Na...	8.0E-01	3.5E-02
CO3--	...		K....	5.9E+00	1.5E-01
SO4--	...		Ca...	1.7E+00	8.5E-02
PO4--	...		Mg...	4.4E-01	3.6E-02
NO2-		NH3..		
NO3-				
NOx				
Cl-				
F-				
Total Anions		Total Cations		3.1E-01
% Difference	200.00%			

General Conditions

pH (field)..... 6.8E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	Fe.....
Al.....	Hg..... 4.0E-01
As.....	Mn.....
Ba.....	Ni.....
Cd.....	Pb.....
Co.....	Se.....
Cr.....	V.....
Cu.....	

Raton HS Closed 7-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	4.3E-01	1.9E-02
CO3=...			K....	1.1E-01	2.8E-03
SO4=...	5.0E-01	1.0E-02	Ca...	1.0E-01	5.0E-03
PO4=...	2.9E-02	2.8E-03	Mg...	6.0E-02	4.9E-03
NO2=...	1.2E-02	8.5E-04	NH3..	1.0E-01	
NO3=...	1.7E-02	1.9E-03			
NOx.....					
Cl=.....	1.7E-01	4.8E-03			
F=.....					
Total Anions.....		1.7E-02	Total Cations.		3.1E-02
% Difference.....		61.46%			

General Conditions

pH (field)..... 6.2E+00
 Conductivity.....
 Kjeldahl N..... 2.1E-02
 SiO2..... 4.6E-02

Metals Analysis in ppb

Ag.....	4.3E-02	Fe.....	3.5E+01
Al.....		Hg.....	1.2E+00
As.....	5.4E-01	Mn.....	1.0E+01
Ba.....	8.2E+00	Ni.....	1.5E+00
Cd.....	1.2E+00	Pb.....	1.0E-01
Co.....	4.8E-01	Se.....	
Cr.....	6.9E-01	V.....	
Cu.....	3.2E+00		

Raton HS Closed		8- 2-81	0		
Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	2.9E-01	1.3E-02
CO3--...			K....	6.9E-01	1.8E-02
SO4--...	3.6E+00	7.5E-02	Ca...	2.6E+00	1.3E-01
PO4---...			Mg...	1.8E-01	1.5E-02
NO2-....			NH3..		
NO3-....	4.8E-01	3.4E-02			
NOx.....					
Cl-.....					
F-.....					
Total Anions.....		8.3E-02	Total Cations.		1.7E-01
% Difference.....		71.50%			

General Conditions

pH (field).....	4.5E+00
Conductivity.....	
Kjeldahl N.....	
SiO2.....	2.0E-01

Metals Analysis in ppb

Ag.....	8.7E-02	Fe.....	1.8E+01
Al.....	3.2E+01	Hg.....	3.0E-01
As.....		Mn.....	3.1E+01
Ba.....	1.5E+00	Ni.....	1.7E+00
Cd.....	8.8E-02	Pb.....	8.0E-01
Co.....	5.2E-01	Se.....	
Cr.....	9.7E-01	V.....	
Cu.....	3.8E+00		

Raton HS Closed 8- 7-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...		
CO3--...			K....		
SO4--...	2.8E+00	5.8E-02	Ca...		
PO4---...			Mg...		
NO2-....	3.3E-01	2.2E-02	NH3..		
NO3=.....					
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		6.6E-02	Total Cations.		
% Difference.....		200.00%			

General Conditions

pH (field)..... 5.0E+00

Conductivity.....

Kjeldahl N.....

SiO2..... 8.0E-02

Metals Analysis in ppb

Ag.....	4.2E-02	Fe.....	3.7E+00
Al.....	4.4E+01	Hg.....	1.0E+00
As.....		Mn.....	1.7E+01
Ba.....	3.8E+01	Ni.....	3.0E+00
Cd.....	1.4E-01	Pb.....	4.6E-01
Co.....	5.2E-01	Se.....	
Cr.....	8.5E-01	V.....	
Cu.....	9.3E+00		

Raton HS Closed 8-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	1.6E-01	7.0E-03
CO3--...			K....	2.0E-01	5.1E-03
SO4--...	3.1E+00	6.5E-02	Ca...	9.4E-01	4.7E-02
PO4--...			Mg...	8.0E-02	6.6E-03
NO2=,....			NH3..		
NO3=.....	3.2E+00	<i>2.3E-01</i>			
NOx.....					
Cl=.....					
F=.....					
Total Anions.....		1.2E-01	Total Cations.		6.6E-02
% Difference.....		55.71%			

General Conditions

pH (field)..... 4.4E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	2.0E-02	Fe.....	3.3E+01
Al.....		Hg.....	1.0E-01
As.....		Mn.....	1.7E+01
Ba.....	3.0E+00	Ni.....	2.3E+00
Cd.....	5.8E-01	Pb.....	6.0E-02
Co.....	4.8E-01	Se.....	
Cr.....	2.1E-01	V.....	
Cu.....	5.0E+00		

Raton HS Closed 8-18-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-			Na	1.3E-01	5.7E-03
CO3--			K	1.7E-01	4.3E-03
SO4--	2.0E+00	4.2E-02	Ca	9.4E-01	4.7E-02
PO4--			Mg	8.0E-02	6.6E-03
NO2-			NH3		
NO3-					
NOx					
Cl-					
F-					
Total Anions		4.2E-02	Total Cations		6.3E-02
% Difference		41.51%			

General Conditions

pH (field)..... 4.4E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2..... 9.8E-02

Metals Analysis in ppb

Ag.....	Fe.....	3.8E+01
Al.....	Hg.....	3.0E-01
As.....	Mn.....	1.8E+01
Ba..... 3.1E+00	Ni.....	2.7E+00
Cd..... 5.8E-01	Pb.....	6.0E-02
Co..... 4.8E-01	Se.....	
Cr..... 2.3E-01	V.....	
Cu..... 3.5E+00		

Raton HS Closed 9- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3--...			Na...	7.9E-01	3.4E-02
CO3--...			K....	9.7E-01	2.5E-02
SO4--...	5.6E+00	1.2E-01	Ca...	3.9E+00	1.9E-01
PO4---...			Mg...	3.4E-01	2.8E-02
NO2-.....			NH3..		
NO3-.....	2.9E-01	2.7E-02			
NOx.....					
Cl-.....	8.8E-01	2.5E-02			
F-.....					
Total Anions.....		1.5E-01	Total Cations.		2.8E-01
% Difference.....		63.38%			

General Conditions

pH (field)..... 5.1E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.2E-01	Fe.....	3.4E+01
Al.....		Hg.....	
As.....		Mn.....	3.4E+01
Ba.....		Ni.....	2.9E+00
Cd.....		Pb.....	
Co.....		Se.....	
Cr.....		V.....	
Cu.....			

Raton HS Closed 9- 6-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	3.0E-01	1.3E-02
CO3=-...			K....	6.7E-01	1.7E-02
SO4=-...	3.3E+00	6.9E-02	Ca...	1.9E+00	9.5E-02
PO4=-...			Mg...	1.7E-01	1.4E-02
NO2=.....			NH3..		
NO3=.....	1.2E-01	8.4E-03			
NOX.....					
Cl=.....	7.8E-01	2.2E-02			
F=.....					
Total Anions.....		9.3E-02	Total Cations.		1.4E-01
% Difference.....		39.97%			

General Conditions

pH (field)..... 5.5E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	1.4E+01
Al.....		Hg.....	1.0E-01
As.....		Mn.....	1.2E+01
Ba.....	1.2E+01	Ni.....	1.3E+00
Cd.....		Pb.....	
Co.....	4.6E-01	Se.....	
Cr.....	5.0E-01	V.....	
Cu.....	3.8E+00		

Averages for Raton HS Closed

Anion	ppm	Cation	ppm
HCO3=...	4.1E+00	Na...	1.3E+00
CO3--...	0.0E+00	K....	9.6E-01
SO4--...	3.2E+00	Ca...	2.0E+00
PO4---...	4.1E-02	Mg...	1.9E-01
NO2=,....	7.4E-02	NH3,,	7.0E+00
NO3=.....	8.8E-01		
NOx.....			
Cl=.....	2.9E+00		
F=.....	7.7E-02		
Total Anions.....	1.5E-01	Total Cations.	1.9E-01
% Difference.....	41.65%		

General Conditions

pH (field).....	5.5E+00
Conductivity.....	6.8E+01
Kjeldahl N.....	7.0E+00
SiO2.....	1.1E-01

Metals Analysis in ppb

Ag.....	7.6E-01	Fe.....	1.4E+02
Al.....	4.4E+01	Hg.....	3.5E-01
As.....	2.8E-01	Mn.....	2.9E+01
Ba.....	2.1E+01	Ni.....	1.8E+00
Cd.....	6.5E-01	Pb.....	1.7E+00
Co.....	9.5E-01	Se.....	2.2E+00
Cr.....	9.1E-01	V.....	3.9E+00
Cu.....	8.4E+00		

Standard Deviations for Raton HS Closed

Anion	ppm	Cation	ppm
HCO3=...	1.6E+00	Na...	1.7E+00
CO3=-...	0.0E+00	K....	1.4E+00
SO4=-...	3.9E+00	Ca...	2.9E+00
PO4=-...	5.9E-02	Mg...	1.9E-01
NO2=.....	8.9E-02	NH3..	2.8E+01
NO3=.....	1.5E+00		
NOx.....			
Cl=.....	5.9E+00		
F=.....	4.5E+01		
Total Anions.....	2.0E-01	Total Cations.	2.1E-01
% Difference.....	48.28%		

General Conditions

pH (field).....	9.6E-01
Conductivity.....	2.5E+02
Kjeldahl N.....	2.8E+01
SiO2.....	1.7E+01

Metals Analysis in ppb

Ag.....	6.2E+00	Fe.....	4.5E+02
Al.....	9.4E+01	Hg.....	7.8E+00
As.....	1.7E+01	Mn.....	4.2E+01
Ba.....	3.3E+01	Ni.....	5.5E+00
Cd.....	4.3E+00	Pb.....	5.0E+00
Co.....	5.4E+00	Se.....	2.3E+01
Cr.....	4.4E+00	V.....	2.6E+01
Cu.....	1.4E+01		

Stuarts Open 2-27-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	6.8E-02	3.0E-03
CO3--...			K....	5.4E-01	1.4E-02
SO4--...	4.7E+00	9.8E-02	Ca...	2.3E+00	1.1E-01
PO4---...	3.9E-01	3.6E-02	Mg...	3.4E-01	2.8E-02
NO2=....	0.0E+00	0.0E+00	NH3..	3.0E-02	
NO3=....	5.3E+00	3.8E-01			
NOX.....					
Cl=.....	1.6E+00	4.5E-02			
F=.....	2.3E-03				
Total Anions.....		2.4E-01	Total Cations.		1.6E-01
% Difference.....		40.63%			

General Conditions

pH (field).....	4.6E+00
Conductivity.....	
Kjeldahl N.....	1.3E-01
SiO2.....	

Metals Analysis in ppb

Ag.....	5.4E-01	Fe.....	1.9E+02
Al.....	7.8E+01	Hg.....	
As.....		Mn.....	1.7E+02
Ba.....		Ni.....	
Cd.....	2.6E-01	Pb.....	1.6E+00
Co.....	5.0E+00	Se.....	1.2E+00
Cr.....	1.3E+00	V.....	5.0E+00
Cu.....	6.0E+01		

Stuarts Open 3- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	6.8E-01	3.0E-02
CO3=...			K....	5.4E-01	1.4E-02
SO4=...	1.9E+00	4.0E-02	Ca...	3.2E-01	1.6E-02
PO4=...			Mg...	3.0E-02	2.5E-03
NO2=...			NH3..		
NO3=...					
NOx.....					
Cl=.....	5.0E-02	1.4E-03			
F=.....					
Total Anions.....		4.1E-02	Total Cations.		6.2E-02
% Difference.....		40.53%			

General Conditions

pH (field)..... 5.8E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	6.5E+01
Al.....	4.0E+01	Hg.....	
As.....		Mn.....	5.6E-01
Ba.....		Ni.....	
Cd.....	1.7E+00	Pb.....	1.2E+00
Co.....	1.7E+00	Se.....	2.1E+00
Cr.....	1.6E+00	V.....	5.0E+00
Cu.....	6.2E+00		

Stuarts Open 3-12-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	3.3E-01	1.4E-02
CO3--...			K....	1.5E-01	3.8E-03
SO4--...	2.7E+00	5.6E-02	Ca...	2.7E+00	1.3E-01
PO4---...	3.1E-02	9.8E-04	Mg...	6.5E-02	5.3E-03
NO2=...	4.2E-02	9.0E-03	NH3..	1.2E+00	
NO3=....	4.8E-01	3.4E-02			
NOx.....					
Cl=.....	1.3E-01	3.7E-03			
F=.....	2.8E-03				
Total Anions.....		7.0E-02	Total Cations.		1.6E-01
% Difference.....		77.89%			

General Conditions

pH (field)..... 6.5E+00
 Conductivity.....
 Kjeldahl N..... 1.2E+00
 SiO2.....

Metals Analysis in ppb

Ag.....	3.2E-01	Fe.....	3.0E+03
Al.....	2.6E+01	Hg.....	
As.....		Mn.....	3.2E-01
Ba.....		Ni.....	
Cd.....	6.5E-01	Pb.....	8.8E+00
Co.....	1.0E+00	Se.....	2.4E+00
Cr.....	1.3E+00	V.....	5.0E+00
Cu.....			

Stuarts Open 4-29-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	5.4E+00	2.3E-01
CO3--...			K....	8.4E+00	2.1E-01
SO4--...	2.0E+01	4.2E-01	Ca...	1.0E+01	5.0E-01
PO4--...			Mg...	1.6E+00	1.3E-01
NO2-....			NH3..		
NO3-....					
NOx.....					
Cl-.....	6.5E+01	1.8E+00			
F-.....					
Total Anions.....		2.3E+00	Total Cations.		1.1E+00
% Difference.....		70.24%			

General Conditions

pH (field)..... 7.1E+00
Conductivity.....
Kjeldahl N.....
SiO2.....

Metals Analysis in ppb

Ag.....	1.9E+01	Fe.....	4.1E+01
Al.....	2.1E+01	Hg.....	
As.....		Mn.....	7.8E+00
Ba.....	4.4E+01	Ni.....	2.3E+00
Cd.....	7.0E-01	Pb.....	6.0E-01
Co.....	5.5E+00	Se.....	
Cr.....	1.3E+00	V.....	
Cu.....	4.3E+01		

Stuarts Open 5- 5-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-			Na...	2.4E+00	1.0E-01
CO3--			K....	2.6E+00	6.7E-02
SO4--	1.1E+01	2.3E-01	Ca...	4.8E+00	2.4E-01
PO4--			Mg...	6.6E-01	5.4E-02
NO2-			NH3..		
NO3-					
NOx					
Cl-	1.0E+00	2.8E-02			
F-					
Total Anions		2.6E-01	Total Cations		4.6E-01
% Difference		57.43%			

General Conditions

pH (field)..... 7.2E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	5.6E+02
Al.....	2.6E+01	Hg.....	
As.....		Mn.....	1.4E+02
Ba.....	2.7E+01	Ni.....	9.9E-01
Cd.....	8.9E-01	Pb.....	2.8E+00
Co.....	4.0E+00	Se.....	
Cr.....	2.8E+00	V.....	
Cu.....			

Stuarts Open 5-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3--...			Na...	2.4E+00	1.0E-01
CO3--...			K....	9.4E-01	2.4E-02
SO4--...	1.4E+01	2.9E-01	Ca...	4.8E+00	2.4E-01
PO4--...			Mg...	6.6E-01	5.4E-02
NO2-.....			NH3..		
NO3-.....	2.0E+00	1.4E-01			
NOx.....					
Cl-.....	5.0E+00	1.4E-01			
F-.....					
Total Anions.....		4.6E-01	Total Cations.		4.2E-01
% Difference.....		9.62%			

General Conditions

pH (field)..... 4.8E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.2E-01	Fe.....	7.6E+02
Al.....	7.5E+01	Hg.....	
As.....		Mn.....	
Ba.....		Ni.....	7.0E+00
Cd.....	1.3E+00	Pb.....	1.1E+01
Co.....	2.4E+00	Se.....	
Cr.....	1.4E+00	V.....	
Cu.....	1.9E+01		

Stuarts Open 5-20-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-....			Na...		
CO3--....			K....		
SO4--....			Ca...		
PO4---....	3.4E-01	3.3E-02	Mg...		
NO2-.....	1.3E-01	8.9E-03	NH3..	4.2E+00	
NO3-.....	8.0E-01	5.6E-02			
NOx.....					
Cl-.....					
F-.....					
Total Anions.....		2.6E-02	Total Cations.		
% Difference.....		200.00%			

General Conditions

pH (field).....
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.2E-01	Fe.....	1.8E+01
Al.....	1.9E+01	Hg.....	
As.....		Mn.....	1.2E+02
Ba.....	3.4E+01	Ni.....	
Cd.....		Pb.....	5.8E+00
Co.....	6.4E+00	Se.....	
Cr.....	1.5E+00	V.....	
Cu.....	1.3E+01		

Stuarts Open 5-29-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	1.3E+00	5.7E-02
CO3--...			K....	1.1E+00	2.8E-02
SO4--...	1.6E+00	3.3E-02	Ca...	1.0E-01	5.0E-03
PO4---...	3.3E-01	3.0E-02	Mg...	1.0E-01	8.2E-03
NO2-....	2.0E-02	1.4E-03	NH3..	7.5E-01	
NO3-....	2.9E+00	2.7E-01			
NOx.....					
Cl-.....	1.7E+00	4.8E-02			
F-.....					
Total Anions.....		1.4E-01	Total Cations.		9.8E-02
% Difference.....		34.63%			

General Conditions

pH (field)..... 5.1E+00
Conductivity.....
Kjeldahl N..... 8.5E-02
SiO2.....

Metals Analysis in ppb

Ag.....		Fe.....	7.0E+00
Al.....	1.0E+01	Hg.....	1.2E-01
As.....		Mn.....	2.1E+01
Ba.....	3.5E+01	Ni.....	7.0E+00
Cd.....	2.8E-01	Pb.....	1.2E+00
Co.....	6.5E-01	Se.....	
Cr.....	6.0E-01	V.....	
Cu.....			

Stuarts Open 6- 2-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	1.2E+00	5.2E-02
CO3--...			K....	6.6E-01	1.7E-02
SO4--...	2.0E+00	4.2E-02	Ca...	3.6E+00	1.8E-01
PO4--...			Mg...	3.6E-01	3.0E-02
NO2-....	1.0E-01	7.2E-03	NH3..	1.6E+00	
NO3-....	4.9E-01	3.5E-02			
NOx.....					
Cl-.....	2.7E+00	7.6E-02			
F-.....					
Total Anions.....		1.3E-01	Total Cations.		2.8E-01
% Difference.....		74.07%			

General Conditions

pH (field).....	5.7E+00
Conductivity.....	
Kjeldahl N.....	2.0E-01
SiO2.....	2.5E-01

Metals Analysis in ppb

Ag.....	1.4E-02	Fe.....	3.1E+01
Al.....	1.6E+01	Hg.....	
As.....		Mn.....	4.3E+01
Ba.....	0.0E+00	Ni.....	5.5E+00
Cd.....	9.6E-01	Pb.....	2.7E+00
Co.....	3.2E+00	Se.....	
Cr.....	1.2E+00	V.....	
Cu.....	2.3E+01		

Stuarts Open 6-30-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	5.0E-01	2.2E-02
CO3--...			K....	8.6E-01	2.2E-02
SO4--...			Ca...	9.7E-01	4.8E-02
PO4---..			Mg...	2.7E-01	2.2E-02
NO2-.....			NH3..		
NO3-.....					
NOx.....					
Cl-.....					
F-.....					
Total Anions.....			Total Cations.	1.1E-01	
% Difference.....	200.00%				

General Conditions

pH (field)..... 7.0E+00
Conductivity.....
Kjeldahl N.....
SiO2.....

Metals Analysis in ppb

Ag.....	4.9E-01	Fe.....	9.2E+02
Al.....	8.2E+02	Hg.....	
As.....		Mn.....	4.6E+01
Ba.....	1.7E+03	Ni.....	1.6E+00
Cd.....	4.5E-01	Pb.....	3.9E+01
Co.....	4.9E+00	Se.....	
Cr.....	1.2E+01	V.....	
Cu.....	4.6E+01		

Stuarts Open 7-16-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...	4.2E-01	1.8E-02
CO3--...			K....	5.1E+00	1.3E-01
SO4--...	4.7E+00	9.8E-02	Ca...	2.0E+00	1.0E-01
PO4---...			Mg...	4.3E-01	3.5E-02
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....	6.6E+00	1.9E-01			
F=.....					
Total Anions.....		2.8E-01	Total Cations.		2.8E-01
% Difference.....		0.06%			

General Conditions

pH (field).....	6.4E+00
Conductivity.....	
Kjeldahl N.....	
SiO2.....	1.3E-01

Metals Analysis in ppb

Ag.....	Fe.....	6.2E+01	
Al.....	1.9E+01	Hg.....	
As.....	1.2E+00	Mn.....	
Ba.....	4.6E+01	Ni.....	1.3E+00
Cd.....	4.8E-01	Pb.....	9.2E+00
Co.....	1.0E+00	Se.....	5.0E-01
Cr.....		V.....	
Cu.....	3.3E+01		

Stuarts Open 8- 7-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3--...			Na...	2.3E-01	1.0E-02
CO3--...			K....	4.0E-01	1.0E-02
SO4--...			Ca...	6.9E-01	3.4E-02
PO4--...			Mg...	9.0E-02	7.4E-03
NO2-....			NH3..		
NO3-.....	4.2E-01	3.0E-02			
NOx.....					
Cl-.....	5.0E-02	1.4E-03			
F-.....					
Total Anions.....		8.2E-03	Total Cations.		6.2E-02
% Difference.....		153.40%			

General Conditions

pH (field)..... 5.2E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.0E-01	Fe.....	2.7E+01
Al.....	3.9E+00	Hg.....	3.0E-01
As.....		Mn.....	2.7E+01
Ba.....	5.9E-01	Ni.....	1.7E+00
Cd.....	5.3E-02	Pb.....	6.3E-01
Co.....		Se.....	
Cr.....	1.5E-01	V.....	
Cu.....	6.2E+00		

Stuarts Open 8-17-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	8.9E-01	3.9E-02
CO3--...			K....	1.2E+00	3.1E-02
SO4--...	2.7E+00	5.6E-02	Ca...	9.7E-01	4.8E-02
PO4---...			Mg...	1.0E-01	8.2E-03
NO2-....			NH3..		
NO3-....					
NOx.....					
Cl-.....					
F-.....					
Total Anions.....		5.6E-02	Total Cations.		1.3E-01
% Difference.....		76.57%			

General Conditions

pH (field)..... 4.1E+00
Conductivity.....
Kjeldahl N.....
SiO2.....

Metals Analysis in ppb

Ag.....	4.1E-02	Fe.....	5.4E+01
Al.....		Hg.....	
As.....		Mn.....	1.6E+01
Ba.....	3.9E+01	Ni.....	4.3E+00
Cd.....	5.8E-01	Pb.....	2.2E-01
Co.....	4.8E-01	Se.....	
Cr.....	7.3E-01	V.....	
Cu.....	8.6E+00		

Stuarts Open 8-28-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3=...			Na...		
CO3--...			K....		
SO4--...	6.6E+00	1.4E-01	Ca...	1.1E+00	5.5E-02
PO4---...			Mg...	4.7E-01	3.9E-02
NO2=.....			NH3..		
NO3=.....					
NOx.....					
Cl=.....	1.7E+00	4.8E-02			
F=.....					
Total Anions.....		1.9E-01	Total Cations.		9.4E-02
% Difference.....		65.86%			

General Conditions

pH (field)..... 6.9E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	4.6E-02	Fe.....	2.4E+01
Al.....		Hg.....	
As.....		Mn.....	3.5E+01
Ba.....	1.1E+01	Ni.....	3.1E+00
Cd.....	6.0E-01	Pb.....	
Co.....	8.5E-01	Se.....	
Cr.....	6.9E-01	V.....	
Cu.....	1.7E+01		

Stuarts Open 9- 4-81 0

Anion	ppm	Meq/L	Cation	ppm	Meq/L
HCO3-...			Na...	6.3E-01	2.7E-02
CO3--...			K....	1.1E+00	2.8E-02
SO4--...	4.4E+00	9.2E-02	Ca...	1.2E+00	6.0E-02
PO4---...			Mg...	3.1E-01	2.6E-02
NO2-.....			NH3..		
NO3-.....	5.0E-01	<i>3.6E-02</i>			
NOx.....					
Cl-.....	1.0E+00	2.8E-02			
F-.....					
Total Anions.....		1.3E-01	Total Cations.		1.4E-01
% Difference.....		9.67%			

General Conditions

pH (field)..... 5.1E+00
 Conductivity.....
 Kjeldahl N.....
 SiO2.....

Metals Analysis in ppb

Ag.....	1.6E-02	Fe.....	2.2E+01
Al.....		Hg.....	9.0E-02
As.....		Mn.....	2.4E+01
Ba.....	1.2E+01	Ni.....	1.3E+00
Cd.....		Pb.....	
Co.....	6.4E-01	Se.....	
Cr.....	4.4E-01	V.....	
Cu.....			

Averages for Stuarts Open

Anion	ppm	Cation	ppm
HCO ₃ -...		Na...	1.3E+00
CO ₃ --...		K....	1.8E+00
SO ₄ --...	6.4E+00	Ca...	2.5E+00
PO ₄ ---...	2.7E-01	Mg...	3.9E-01
NO ₂ -.....	5.8E-02	NH ₃ ..	1.6E+00
NO ₃ -.....	1.6E+00		
NOx.....			
Cl-.....	7.2E+00		
F-.....	2.5E-03		
Total Anions.....	3.1E-01	Total Cations.	2.5E-01
% Difference.....	18.82%		

General Conditions

pH (field).....	5.8E+00
Conductivity.....	
Kjeldahl N.....	4.0E-01
SiO ₂	1.9E-01

Metals Analysis in ppb

Ag.....	1.9E+00	Fe.....	3.9E+02
Al.....	9.6E+01	Hg.....	1.7E-01
As.....	1.2E+00	Mn.....	5.0E+01
Ba.....	1.8E+02	Ni.....	3.3E+00
Cd.....	6.8E-01	Pb.....	6.5E+00
Co.....	2.7E+00	Se.....	1.6E+00
Cr.....	1.9E+00	V.....	5.0E+00
Cu.....	2.5E+01		

Standard Deviations for Stuarts Open

Anion	ppm	Cation	ppm
HCO3=...		Na...	1.5E+00
CO3--...		K....	2.4E+00
SO4--...	5.8E+00	Ca...	2.6E+00
PO4---...	1.6E-01	Mg...	4.1E-01
NO2=.....	5.5E-02	NH3..	1.8E+01
NO3=.....	1.7E+00		
NOx.....			
Cl=.....	1.8E+01		
F=.....	3.6E+01		
Total Anions.....	5.8E-01	Total Cations.	2.8E-01
% Difference.....	41.87%		

General Conditions

pH (field).....	4.5E+00
Conductivity.....	
Kjeldahl N.....	2.0E+01
SiO2.....	3.7E+01

Metals Analysis in ppb

Ag.....	9.4E+00	Fe.....	7.8E+02
Al.....	2.4E+02	Hg.....	2.5E+01
As.....		Mn.....	6.1E+01
Ba.....	5.2E+02	Ni.....	8.7E+00
Cd.....	4.4E+00	Pb.....	1.2E+01
Co.....	4.1E+00	Se.....	2.2E+01
Cr.....	4.4E+00	V.....	3.7E+01
Cu.....	2.9E+01		