

National Atmospheric Deposition Program/National Trends Network
2003 Annual & Seasonal Data Summary for Site CO97
Part 1: Summary of Sample Validity and Completeness Criteria
(Printed 07/07/2004)

Site Identification		Sample Validity for Annual Period	
Site Name	Buffalo Pass - Summit	Number of samples	51
Site ID	CO97	Valid Samples	40
State	CO	with precipitation	37
County	Routt	with full chemistry**	33
Operating Agency	USFS-Routt NF	without chemistry	4
Sponsoring Agency	USFS	without precipitation	3
Latitude	40.5378	Invalid Samples	11
Longitude	-106.6764	with precipitation	11
Elevation	3234 m	missing precipitation data	0

Summary Period Information					
	<u>Annual*</u>	<u>Winter*</u>	<u>Spring*</u>	<u>Summer*</u>	<u>Fall*</u>
First summary period day	12/30/2002	12/03/2002	02/25/2003	06/03/2003	09/02/2003
Last summary period day	12/30/2003	02/25/2003	06/03/2003	09/02/2003	12/02/2003
Summary period duration	365	84	98	91	91
Number of samples	51	12	14	12	13
Measured precipitation (cm)	129.7	37.4	43.1	10.2	36.2
Valid samples with full chemistry**	33	11	11	4	7
Valid field pH measurements	19	3	5	3	5

NADP/NTN Completeness Criteria					
	<u>Annual*</u>	<u>Winter*</u>	<u>Spring*</u>	<u>Summer*</u>	<u>Fall*</u>
1.Summary period with valid samples (%)	77	92	93	46	77
2.Summary period with precip coverage (%)	100	100	100	100	100
3.Measured precipitation with valid samples (%)	84	79	92	50	89
4.Collector efficiency (%)	44	32	49	88	39
Precip with full chemistry and valid field pH (%)	54	22	39	41	78

* = Data do not meet NADP/NTN Completeness Criteria for this period.

** = Valid samples for which all Laboratory Chemical measurements were made (The ONLY samples described by the percentile distributions in the Statistical Summary of Precipitation Chemistry for Valid Samples).

*** = Measured precipitation for sample periods during which precipitation occurred and for which complete valid laboratory chemistry . data are available

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Part 2: Statistical Summary of Precipitation Chemistry for Valid Samples**

Precipitation-Weighted Mean Concentrations												
	Ca	Mg	K	Na	NH4	NO3	Cl	SO4	H(lab)	H fld)	pH(lab)	pH fld)
	mg/L											
Annual*	0.31	0.024	0.019	0.032	0.15	0.68	0.04	0.48	7.59E-03	9.29E-03	5.12	5.03
Winter*	0.05	0.007	0.005	0.015	0.08	0.64	0.02	0.41	1.13E-02	1.17E-02	4.95	4.93
Spring*	0.50	0.043	0.017	0.059	0.13	0.70	0.05	0.58	3.98E-03	6.85E-03	5.40	5.16
Summer*	0.12	0.014	0.018	0.013	0.34	1.14	0.05	0.54	9.33E-03	1.09E-02	5.03	4.96
Fall*	0.36	0.021	0.036	0.029	0.21	0.68	0.05	0.43	7.69E-03	9.06E-03	5.11	5.04
Deposition												
	Ca	Mg	K	Na	NH4	NO3	Cl	SO4	H(lab)	H fld)	pH(lab)	pH fld)
	kg/ha											
Annual*	3.96	0.311	0.247	0.415	1.91	8.78	0.52	6.24	9.84E-02	1.21E-01	--	--
Winter*	0.20	0.026	0.019	0.056	0.28	2.38	0.07	1.52	4.23E-02	4.38E-02	--	--
Spring*	2.14	0.185	0.073	0.254	0.56	3.00	0.22	2.48	1.71E-02	2.95E-02	--	--
Summer*	0.13	0.014	0.018	0.013	0.35	1.17	0.06	0.55	9.53E-03	1.11E-02	--	--
Fall*	1.31	0.076	0.130	0.105	0.77	2.46	0.18	1.55	2.79E-02	3.28E-02	--	--
Weekly Sample Concentrations												
	Ca	Mg	K	Na	NH4	NO3	Cl	SO4	H(lab)	H fld)	pH(lab)	pH fld)
	mg/L											
Minimum value	0.01	0.003	0.003	0.003	0.02	0.19	0.00	0.18	1.41E-04	4.17E-04	4.58	4.56
Percentile 10	0.02	0.003	0.003	0.003	0.02	0.29	0.01	0.21	3.27E-04	8.84E-04	4.76	4.61
Percentile 25	0.04	0.005	0.004	0.007	0.08	0.51	0.02	0.32	3.63E-03	6.03E-03	4.89	4.85
Percentile 50	0.09	0.010	0.007	0.013	0.12	0.74	0.03	0.44	9.55E-03	9.55E-03	5.02	5.02
Percentile 75	0.22	0.021	0.021	0.027	0.20	0.96	0.05	0.69	1.27E-02	1.41E-02	5.44	5.22
Percentile 90	0.79	0.058	0.034	0.058	0.47	1.52	0.10	0.89	1.76E-02	2.45E-02	6.52	6.07
Maximum value	1.55	0.142	0.120	0.238	0.63	1.89	0.12	1.18	2.63E-02	2.75E-02	6.85	6.38
Arithmetic mean	0.22	0.020	0.015	0.027	0.17	0.80	0.04	0.51	9.11E-03	1.03E-02	5.04	4.99
Arith. std dev	0.35	0.028	0.022	0.042	0.15	0.41	0.03	0.25	6.50E-03	7.61E-03	--	--
Below detection	1	3	4	3	4	0	2	0	--	--	--	--
Other Parameters						Annual and Seasonal Equivalence Ratios						
	Measured Precipitation*** mm	Conduc-tivity uS/cm	Equivalence Ratios			SO4 NO3	SO4+NO3 H	Cation Anion	SO4 NO3	SO4+NO3 H	Cation Anion	
			SO4 NO3	SO4+NO3 H	Cation Anion							
Minimum value	7.11	3.4	0.26	0.84	0.88	Annual*	0.92	2.76	1.58			
Percentile 10	9.19	3.7	0.51	1.24	0.94	Winter*	0.83	1.66	1.02			
Percentile 25	17.02	5.4	0.60	1.53	1.02	Spring*	1.07	5.83	1.73			
Percentile 50	27.94	7.0	0.81	2.39	1.10	Summer*	0.61	3.17	1.17			
Percentile 75	47.24	9.6	1.15	6.44	1.27	Fall*	0.81	2.58	1.95			
Percentile 90	60.86	12.6	1.59	93.17	1.95							
Maximum value	88.14	13.8	1.93	189.23	3.87							

Please see page 1 for footnotes.