

Electron Microprobe Data

Ruff ID: **R050142**

Mineral: **Goethite**

Locality: Park County, Colorado, USA

Weight Percents

Analysis	#2	#4	#5	#6	#7	#8	#9	#12	#15	#17	#18	#19	Average	StDev
Fe ₂ O ₃	86.26	86.12	87.07	86.34	86.80	87.13	86.41	86.22	86.58	86.10	86.10	86.73	86.49	0.37
Totals	86.26	86.12	87.07	86.34	86.80	87.13	86.41	86.22	86.58	86.10	86.10	86.73	86.49	0.37
H ₂ O*	13.74	13.88	12.93	13.66	13.20	12.87	13.59	13.78	13.42	13.90	13.90	13.27	13.51	0.37

Cation number normalized to 1 Oxygen and 1 (OH)

													ACN	StDev	NCN
Fe	0.99	0.99	1.00	1.00	0.99	0.99	0.99	1.00	0.99	0.99	0.99	0.99	0.99	0.00	1.00
Cation	0.99	0.99	1.00	1.00	0.99	0.99	0.99	1.00	0.99	0.99	0.99	0.99	0.99	0.00	1.00

Ideal Chemistry: FeO(OH)

Calculated Chemistry: FeO(OH)

minor amounts of Mn

Instrument: Cameca SX50

Sample Voltage: 15 kV

Acceleration Current: 10 nA

Beam Size: 10 microns

Date of Analysis: 05/05/2006

ACN: Average Number of Cations

NCN: Normalized Cation Numbers = ACN*1/0.99

StDev: Standard Deviation

* = calculated values

Microprobe Calibration Data

Xtal	El	Line	Pk(s)	Bkg(s)	Bkg(+)	Bkg(-)	Standards
LIF	Fe	Ka	20	10	350	-250	fayalite
LIF	Mn	Ka	20	10	300	-200	rhod-791