

Table 1. Minerals found in the Smoking Hills samples and their symbols and formulas.

Mineral Name	Symbol	Formula	Mineral Name	Symbol	Formula
<i>Silicates</i>			<i>Sulphate Groups</i>		
Quartz	Qtz	SiO ₂	Alunite Group:		
Cristobalite	Crs	SiO ₂	Alunite	Alu	KAl ₃ (SO ₄) ₂ (OH) ₆
Plagioclase Feldspar	Pl	NaAlSi ₃ O ₈ – CaAl ₂ Si ₂ O ₈	Natroalunite	Alu-N	NaAl ₃ (SO ₄) ₂ (OH) ₆
K-Feldspar	Kfs	KAlSi ₃ O ₈	Jarosite	Jrs	KFe ³⁺ (SO ₄) ₂ (OH) ₆
Zeolite Group:*			Hydronium Jarosite	Jrs-H	(H ₃ O)Fe ₃ (SO ₄) ₂ (OH) ₆
Heulandite-Ca	Hul-Ca	(Ca,Na) ₅ (Si ₂₇ Al ₉)O ₇₂ · 26H ₂ O	Natrojarosite	Jrs-N	NaFe ₃ (SO ₄) ₂ (OH) ₆
Heulandite-K	Hul-K	(K,Ca,Na) ₅ (Si ₂₇ Al ₉)O ₇₂ · 26H ₂ O	Chalcanthite Group:		
Indialite	Ind	Mg ₂ Al ₄ Si ₅ O ₁₈	Chalcanthite	Cht	CuSO ₄ · 5H ₂ O
<i>Phyllosilicates</i>			Siderotil	Sil	FeSO ₄ · 5H ₂ O
Muscovite	Ms	KAl ₂ (AlSi ₃ O ₁₀)(F,OH) ₂	Kieserite Group:		
Chlorite	Chl	(Mg,Fe) ₃ (Si,Al) ₄ O ₁₀ (OH) ₂ · (Mg,Fe) ₃ (OH) ₆	Kieserite	Kie	MgSO ₄ · H ₂ O
Kaolinite		Al ₂ (Si ₂ O ₅)(OH) ₄	Szomolnokite	Szk	FeSO ₄ · H ₂ O
Smectite**	Sm	(Na,Ca) _{0.3} (Al,Mg) ₂ Si ₄ O ₁₀ (OH) ₂ · nH ₂ O	Halotrichite Group:		
<i>Sulphates</i>			Halotrichite	Hlt	FeAl ₂ (SO ₄) ₄ · 22H ₂ O
Alunogen	Alg	Al ₂ (SO ₄) ₃ · 17H ₂ O	Pickeringite	Pck	MgAl ₂ (SO ₄) ₄ · 22H ₂ O
Bassanite	Bsn	2CaSO ₄ · H ₂ O	Melanterite Group:		
Barite	Brt	BaSO ₄	Melanterite	Mlt	FeSO ₄ · 7H ₂ O
Gypsum	Gp	CaSO ₄ · 2H ₂ O	Rozenite Group:		
Hexahydrate	Hdt	MgSO ₄ · 6H ₂ O	Rozenite	Rzn	FeSO ₄ · 4H ₂ O
Steklite	Skl	KAl(SO ₄) ₂	Voltaite Group:		
Mikasaite	Mks	Fe ₂ (SO ₄) ₃	Voltaite	Vlt	K ₂ Fe ²⁺ ₅ Fe ³⁺ ₃ Al(SO ₄) ₁₂ · 18H ₂ O
Millosevichite	Mlv	(Al,Fe ³⁺) ₂ (SO ₄) ₃	Magnesiovoltaite	Mg-Vlt	K ₂ Mg ₅ Fe ³⁺ ₃ Al(SO ₄) ₁₂ · 18H ₂ O
Tamarugite	Tmg	NaAl(SO ₄) ₂ · 6H ₂ O	<i>Oxides</i>		
<i>Sulphides</i>			Ferrihydrite	F-Hdr	Fe ³⁺ ₁₀ O ₁₄ (OH) ₂
Pyrite	Py	FeS ₂	Hematite	Hem	Fe ₂ O ₃

*Zeolite Group: Note could not differentiate between heulandite (Ca or K variety) with clinoptilolite (Ca or K variety) due to overlapping X-ray peaks

**Smectite formula provided is for montmorillonite