

Supplementary Materials: Evaluating the Use of an Object-Based Approach to Lithological Mapping in Vegetated Terrain

Stephen Grebby, Elena Field and Kevin Tansey

Table S1. Confusion matrix for the OBIA classification of the Li dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	8	0	0	8	-
AC	3490	0	0	0	3490	100.0
BG	6	1920	356	859	3141	61.1
LF	119	906	1916	752	3693	51.9
PL	472	366	179	1597	2614	61.1
Column total	4087	3200	2451	3208	12,946	
PA (%)	85.4	60.0	78.2	49.8		
Overall accuracy = 68.9%						
K = 0.59						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.

Table S2. Confusion matrix for the OBIA classification of the ATM 9 dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	0	0	0	0	-
AC	2933	309	62	149	3453	84.9
BG	431	1509	205	285	2430	62.1
LF	504	991	2130	353	3978	53.5
PL	219	391	54	2421	3085	78.5
Column total	4087	3200	2451	3208	12,946	
PA (%)	71.8	47.2	86.9	75.5		
Overall accuracy = 69.5%						
K = 0.59						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.

Table S3. Confusion matrix for the OBIA classification of the ATM PC dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	0	0	0	0	-
AC	2953	931	438	467	4789	61.7
BG	311	1142	134	414	2001	57.1
LF	375	548	1813	34	2770	65.4
PL	448	579	66	2293	3386	67.7
Column total	4087	3200	2451	3208	12,946	
PA (%)	72.3	35.7	74.0	71.5		
Overall accuracy = 63.3%						
K = 0.51						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.

Table S4. Confusion matrix for the OBIA classification of the ATM MNF dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	0	0	0	0	-
AC	3093	58	40	7	3198	96.7
BG	617	1635	241	815	3308	49.4
LF	192	1123	2089	129	3533	59.1
PL	185	384	81	2257	2907	77.6
Column total	4087	3200	2451	3208	12,946	
PA (%)	75.7	51.1	85.2	70.4		
Overall accuracy = 70.1%						
K = 0.60						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.

Table S5. Confusion matrix for the OBIA classification of the ATM-Li dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	0	0	0	0	-
AC	3650	0	19	0	3669	99.5
BG	8	2048	447	473	2976	68.8
LF	262	933	1873	786	3854	48.6
PL	167	219	112	1949	2447	79.6
Column total	4087	3200	2451	3208	12,946	
PA (%)	89.3	64.0	76.4	60.7		
Overall accuracy = 73.5%						
K = 0.65						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.

Table S6. Confusion matrix for the OBIA classification of the ATM-Li MNF dataset.

Mapped as	Validation Data				Row Total	UA (%)
	AC	BG	LF	PL		
Unclassified	0	0	0	0	0	-
AC	3898	4	41	8	3951	98.7
BG	39	2108	635	334	3116	67.6
LF	137	793	1667	1055	3652	45.6
PL	13	295	108	1811	2227	81.3
Column total	4087	3200	2451	3208	12,946	
PA (%)	95.4	65.9	68.0	56.4		
Overall accuracy = 73.3%						
K = 0.63						

AC: Alluvium-colluvium; BG: Basal Group; LF: Lefkara Formation; PL: Pillow Lavas.



© 2016 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons by Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).