

APPENDIX - IV
(1)

Major constituents of litho-units in Amliyara profile

(Values in wt%)

Sample No.	Litho unit	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	LOI	Total
1.	Duniorust 3.60 m	10.20	23.17	33.95	0.40	5.50	0.50	0.21	0.16	0.05	17.06	100.00
2.	Bauxitic laterite 1.50 m	22.15	26.50	19.96	0.14	4.67	3.15	0.31	0.23	0.09	22.78	99.98
3.	Bauxite 0.40 m	31.03	21.63	14.40	0.23	5.54	9.04	0.16	0.30	0.15	16.74	100.10
4.	Ferruginous Kaolinite 0.50 m	29.21	26.01	23.75	0.11	5.19	0.70	0.31	0.25	0.03	13.60	100.04
5.	Bentonite 4.25 m	31.15	14.97	12.92	0.76	3.00	25.39	0.50	0.20	0.03	10.94	99.94
6.	Weathered Basalt 0.20m	46.72	6.31	17.97	4.19	1.20	12.72	1.10	1.24	0.40	0.06	99.62
7.	Fresh Basalt	44.52	10.09	10.17	1.09	2.76	9.50	1.60	0.70	0.60	9.14	100.01
8.	Basalt at 60 m depth	43.46	10.19	19.77	1.04	2.50	9.50	1.40	0.75	0.50	9.92	99.99

APPENDIX - IV
(ii)

Major constituents of litho-units in Amliyara bore hole profile

(Values in wt%)

Sample No.	Litho unit	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	LOI	Total
9.	Duricrust 5.45 m	12.29	7.16	42.95	1.13	5.89	4.95	0.78	0.28	0.09	24.57	100.01
10.	Unindurated laterite 2.00 m	13.84	5.88	48.24	0.23	3.97	12.82	0.50	0.40	0.13	13.99	100.00
11.	Bauxitic laterite 1.30 m	21.49	22.06	24.19	0.10	3.97	0.50	0.43	0.73	0.25	10.10	99.90
12.	Ferruginous Kaolinite 1.30 m	37.06	11.79	26.65	0.14	1.17	7.50	0.41	0.54	0.62	14.00	100.04
13.	Weathered Basalt with Bentonite 1.00m	42.70	9.30	23.20	0.14	2.00	7.15	0.09	0.70	1.07	12.62	100.01
14.	Fresh Basalt	47.41	8.41	23.95	0.11	1.03	6.50	1.06	0.77	0.05	9.10	99.99

APPENDIX - IV
(iii)

Major constituents of litho-units in Amliyara quarry
(Values in wt%)

Sample No.	Litho unit	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	LOI	Total
15.	Reworked laterite 2.00 m	6.59	17.08	38.22	3.24	2.33	8.74	0.75	0.78	0.03	22.24	100.00
16.	Reworked Bauxite 2.00 m	8.38	45.67	11.40	1.17	3.11	2.55	0.32	0.85	0.03	26.53	100.01
17.	Calcareous, Siliceous, Clay materials along fractures	26.98	12.66	20.80	0.89	3.24	11.34	0.27	0.38	0.10	23.34	100.00

APPENDIX - IV
(iv)

Major constituents of litho-units in Manglau Profile
(Value in wt%)

Sample No.	Litho unit	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	LOI	Total
18.	Duriorust 2.00 m	13.04	13.15	49.92	2.35	3.04	0.57	1.51	0.75	0.20	14.50	99.99
19.	Bauxitic laterite 0.50 m	10.52	16.00	42.93	1.00	2.67	1.00	0.71	0.57	0.12	15.62	100.02
20.	Lateritic Bauxite, 3.00 m	21.50	20.10	23.95	0.73	4.34	3.14	0.55	0.97	0.04	24.60	100.00
21.	Lithomarge 2.50 m	32.72	20.93	12.79	0.56	4.62	0.71	0.55	0.97	0.04	10.12	100.01
22.	Transitio- nal zone 0.50 m	26.46	27.00	20.32	0.50	4.34	0.04	0.33	1.24	0.05	10.04	100.00
23.	Kaolinite 0.25 m	20.14	23.79	10.02	0.61	3.34	2.04	0.36	1.34	0.04	21.50	99.98
24.	Bentonite 0.40 m	30.32	29.52	15.93	0.90	1.67	2.62	0.45	0.00	0.09	17.54	100.00
25.	Bentonite with spheroidal structure 0.75 m	35.72	10.41	23.04	0.63	2.00	2.91	0.64	0.91	0.07	14.06	99.99
26.	Weathered Basalt 0.50 m	46.16	16.02	17.97	0.51	1.50	1.07	1.27	0.67	0.04	13.90	99.99
27.	Basalt	44.25	15.02	21.43	0.62	2.36	0.95	1.14	0.72	0.05	12.65	99.99

APPENDIX - IV
(v)

Major constituents of litho-units in Tarbhan profile
(Value in wt%)

Sample No.	Litho unit	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	LOI	Total
28.	Duricrust 2.50 m	7.06	12.41	51.57	1.02	7.12	1.49	0.43	0.33	0.10	18.49	100.02
29.	Unindurated laterite 2.00 m	19.07	26.07	20.08	0.68	6.02	1.37	0.23	0.14	0.18	25.34	99.98
30.	Lithomarge 2.50 m	32.93	24.44	9.52	0.43	5.69	2.35	0.18	0.21	0.36	23.08	99.99
31.	Ferruginous kaolinite 0.50 m	24.35	28.44	14.50	0.45	4.92	1.02	0.18	0.48	0.32	24.53	99.99
32.	Transitional zone 0.50 m	26.72	26.11	15.22	0.37	4.48	1.77	0.65	0.51	0.27	23.90	100.00
33.	Bentonite 0.60 m	26.92	24.72	18.10	0.39	4.39	2.26	1.25	0.60	0.33	20.95	99.99
34.	Basalt	25.12	22.47	25.02	0.41	5.15	1.13	1.09	0.72	0.36	18.51	99.98