

Appendix

Table 1 Lithology of the study area

Symbol	Lithology	Area (ha)	Area (%)
E1f	Silty shale, sandstone, marl, sandy limestone, limestone and conglomerate	13469.589	1.37
E2l	Nummulitic limestone	799.868	0.08
Ebv	Basaltic volcanic rocks	16811.561	1.71
Jbv	Basaltic volcanic	624.538	0.06
JKl	Crystalized limestone and calc- schist	16145.363	1.64
Jph	Phyllite, slate and meta-sandstone (Hamadan Phyllites)	3481.389	0.35
Juavt	Andesitic volcanic Tuff- Rhyolitic to rhyodacitic volcanic	15786.526	1.60
Jugr-di	Upper Jurassic granite including Shir Kuh Granite and Shah Kuh Granite to diorite intrusives	5960.734	0.60
K1m	Limestone, argillaceous limestone; tile red sandstone and gypsiferous marl	2201.224	0.22
Kabv	Andesitic Basaltic volcanic	47829.878	4.87
Kfsh	Dark grey argillaceous shale	121160.434	12.33
Klsm	Marl, shale, sandy limestone and sandy dolomite	5239.489	0.53
Klsol	Grey thick - bedded to massive orbitolina limestone	27673.897	2.81
KPef	Thinly bedded sandstone and shale with siltstone, mudstone limestone and conglomerate	69616.983	7.09
Kupl	Globotruncal limestone	17278.000	1.76
Kussh	Dark grey shale (Sanandaj shale) (Schist and phyllite)	108035.408	11.0
Murm	Ligh - red to brown marl and gypsiferous marl with sandstone intercalations	7187.282	0.73
Oatdg	Andesitic tuff Diorite Gabbro Granite	42012.985	4.27
Olc,s	Conglomerate and sandstone	6299.562	0.64
OMql	Massive to thick - bedded reefal limestone	8038.938	0.81
OMrb	Red Beds composed of red conglomerate, sandstone, marl, gypsiferous marl and gypsum	35118.544	3.57
PAgr	Granite	43.962	0.004
pCmb	Marble	1219.185	0.12
pd	Peridotite including harzburgite, dunite, lherzolite and websterite	6621.192	0.67
Pd	Red sandstone and shale with subordinate sandy limestone	1187.070	0.12
PeEf	Flysch turbidity, sandstone and calcareous mudstone	125508.143	12.78
Pel	Medium to thick - bedded limestone	2409.548	0.24
Plms	Marl, shale, sandstone and conglomerate	3433.387	0.35
Qal	Stream channel, braided channel and flood plain deposits	4031.707	0.41
Qcf	Clay flat	1143.609	0.11
Qft1	High level piedmont fan and valley terrace deposits	68214.902	6.94
Qft2	Low level piedmont fan and valley terrace deposits	88532.875	9.01
TRJvm	Meta - volcanic, phyllites, slate and meta- limestone	23837.657	2.42
TRKubl	Kuhe Bistoon limestone	84961.011	8.65