

Multicoloured sand with many well-rounded grains.

< .2 mm. .2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: 29 % 11 % 5 % 55 %

The larger grains, which range up to 2 mm., consist of quartz, felspar, red and purple fine-grained grits, and many fine-grained indeterminate grains.

Biotite and green amphibole are abundant in the heavy crop.

118. Sand from Yārdangs, three miles SW. of Camp cclxi a, Kuchā (17. D 2).

Multicoloured sand with many well-rounded grains.

< .2 mm. .2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: 34 % 7 % 4 % 55 %

The larger grains reach 1.5 mm. in diameter.

Of the heavy minerals, biotite and green amphibole are abundant and apatite is common.

Quartz and turbid red felspar are common among the large grains, which include purple grains of orthoclase + green amphibole, fine-grained quartz + felspar, and many indeterminate grains.

119. Camp ccxlviii a, about twelve miles NNW. (29. C 4).

Very fine light brown powder with irregular aggregates up to 5 mm. long.

< .2 mm. .2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: 94 % 2 % 3 % 1 %

The fine material contains gypsum and calcium carbonate. Green amphibole and biotite are abundant among the heavy minerals. Among the larger grains are muscovite, well-rounded quartz, turbid felspar, and the aggregates which consist of the powder cemented by gypsum.

120. Camp ccxlviii a, eight miles NNW. (29. C 4).

This consists of dark brown, branching aggregates, many of which are tubular, reaching 10 mm. in length, with a small amount of a light brown sand, most of which is smaller than .4 mm., but it includes one or two well-rounded quartz grains up to 1 mm. in diameter.

The aggregates consist of brown sand, similar to the loose sand but with more mica, cemented by calcium carbonate and gypsum. The sand consists of quartz, felspars, calcite, biotite, muscovite, and amphibole.

121. Sand specimen, 8½ miles from Camp xciii (29. D 4).

Light brown sand with much mica. The bulk of the sand is between .2 mm. and .05 mm. in diameter.

Of the heavy minerals, biotite, muscovite, and green amphibole are abundant; sphene, garnet, epidote, and zircon are common. There are many composite grains.

122. Coarse sand from old river-bed, 7½ miles NW. of L.A. site, Lou-lan (29. D 3).

Fine light brown sand with much mica; a few large grains reach 2 mm. in diameter.

< .2 mm. .2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: 80 % 8 % 4 % 8 %

Biotite, muscovite, and green amphibole are abundant in the heavy crop. A few grains of angular, green spinel were seen.

The large grains are generally fine-grained and indeterminate, but quartz and turbid felspar were identified.

123. Coarse sand from two miles to NE. of L.A. site, Lou-lan (29. D 3).

A multicoloured sand with subangular to well-rounded grains ranging up to 5 mm., with concretions and aggregates of the same size.

.2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: Few grains only. 6 % 94 %

All the grains smaller than .4 mm. are gypsum, and there are no simple heavy minerals. Among the larger grains are grey limestone containing brown mud, quartz, felspar, fine-grained gypsum, and compound grains. The aggregates consist of subangular quartz, orthoclase, green amphibole, rounded biotite, and muscovite, all cemented together by calcium carbonate.

124. Soil from between Yārdangs, four miles SE. of Fort L.E., Lou-lan (29. D 3).

A mixture of a well-rounded multicoloured sand ranging up to 2 mm. with irregular aggregates up to 4 mm. in size, and gypsum crystals and concretions up to 5 mm. The grains of the heavy crop are mostly opaque, but on crushing they reveal the presence of abundant garnet with some green amphibole and epidote. There are well-rounded grains of limestone, quartz, turbid orthoclase, microcline, and plagioclase, and gypsum concretions as well as fine-grained composite grains.

The aggregates consist of grains of quartz, orthoclase, plagioclase, muscovite, fresh and altered biotite, and green amphibole cemented by gypsum. There is little calcium carbonate, and the grains range from .1 mm. downwards in diameter.

125. Sand specimen from foot of dune, 4', six miles NW. of Camp xcv, Lop Desert (29. D 3).

A multicoloured sand, with grains ranging up to 1.5 mm. and some mica.

< .2 mm. .2-.4 mm. .4-.7 mm. > .7 mm.

Mechanical analysis: 32 % 5 % 27 % 36 %

Biotite and green amphibole are abundant and muscovite is common in the heavy minerals. The larger grains are well rounded and include, in addition to the many composite grains, quartz, red felspar, and limestone.

126. Sand from Camp ccxxxix a, near edge of 'shōr' area (32. A 3).

Fine light grey powder, smaller than .2 mm., with crystals of gypsum up to 2 mm., and aggregates and rounded dark grey grains up to 3 mm. The dark grey grains are fine-grained and indeterminate. The aggregates are grains of the powder cemented by gypsum. The powder itself contains little calcium carbonate, but abundant gypsum and some salt. The heavy crop consists mainly of biotite, muscovite, and green amphibole.