

14260

Residue from rock bag

316 grams

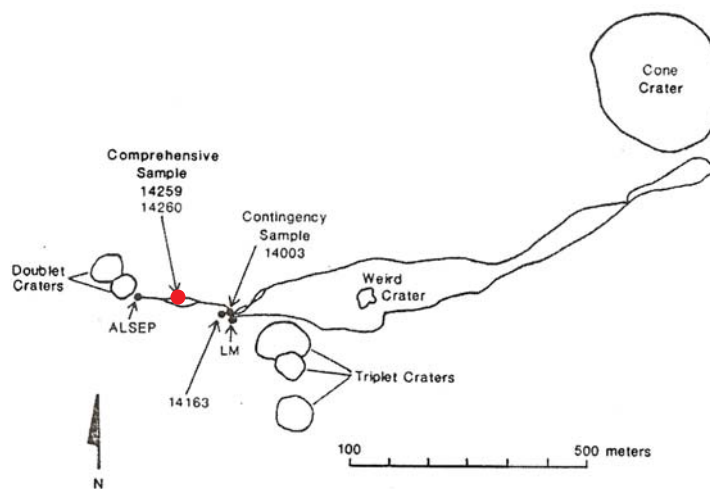


Figure 1: Location of 14260 on traverse map for Apollo 14.

Introduction

14260 is sort of a soil sample. It is soil collected along with numerous small rocks collected from the surface – within a circle drawn by the astronauts as part of an exercise to collect a comprehensive sample. However, it probably includes rock fragments abraded off of the larger samples in this “weigh bag”. 14259 is the proper comprehensive soil sample from this site.

Petrography

14260 is mature with $I_s/FeO = 72$ and with an average grain size of 117 microns. Finkelman (1973) reported a mineral mode.

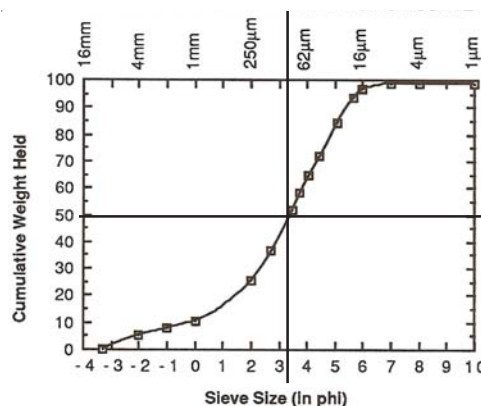
Kramer and Twedell (1977) cataloged the coarse-fine particles from 14260 and other Apollo 14 soils. Quaide and Wrigley (1972), Snyder et al. (1992) and Lindstrom et al. (1972) analyzed some of the particles.

Chemistry

14260 is not well analyzed. See the section on 14259 for an analysis of the regolith at this location.

Processing

14260 is the residue in weigh bag 1039, which also may have contained 14169 – 14188, 14264 – 14289, 14303? etc. See also discussion in Phinney et al. 1975.



average grain size = 113 microns

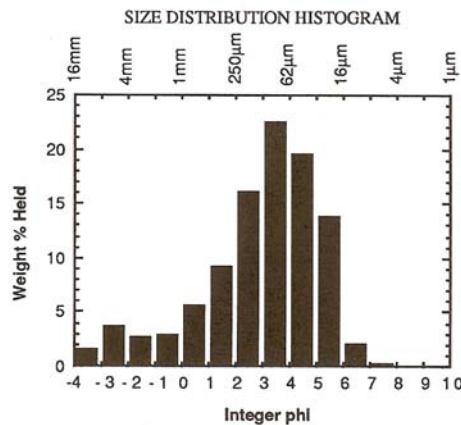


Figure 2: Grain size distribution for 14260 (Graf 1993, from data by McKay).

Table 1. Chemical composition of 14260.

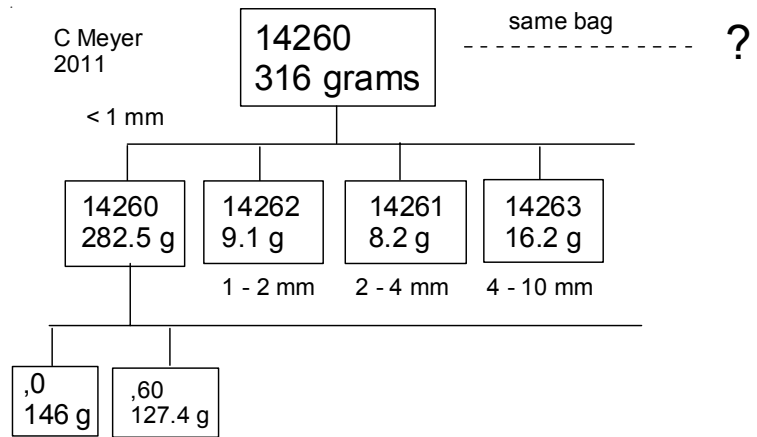
reference weight	Rhodes76 nonmagnetic	magnetic	
SiO2 %	47.75	47.11	(b)
TiO2	1.26	1.87	(b)
Al2O3	19	16.97	(b)
FeO	8.52	11.08	(b)
MnO	0.21	0.17	(b)
MgO	8.8	9.42	(b)
CaO	11.73	10.95	(b)
Na2O	0.8	0.68	(b)
K2O	0.52	0.49	(b)
P2O5	0.53	0.47	(b)
S %	0.06	0.12	(b)
<i>sum</i>			
Sc ppm	19.2	22.8	(a)
V			
Cr	1370	1640	(a)
Co	16.4	38.1	(a)
Ni	100	450	(a)
Cu			
Zn			
Ga			
Ge ppb			
As			
Se			
Rb			
Sr			
Y			
Zr			
Nb			
Mo			
Ru			
Rh			
Pd ppb			
Ag ppb			
Cd ppb			
In ppb			
Sn ppb			
Sb ppb			
Te ppb			
Cs ppm			
Ba			
La	71.4	66.5	(a)
Ce	183	172	(a)
Pr			
Nd			
Sm	31.5	28.9	(a)
Eu	2.69	2.4	(a)
Gd			
Tb	9	8.3	(a)
Dy			
Ho			
Er			
Tm			
Yb	23.7	21.7	(a)
Lu	3.4	3.06	(a)
Hf	23.9	23.8	(a)
Ta	2.9	3.8	(a)
W ppb			
Re ppb			
Os ppb			
Ir ppb			
Pt ppb			
Au ppb			
Th ppm	13.1	12.1	(a)
U ppm			

technique: (a) INAA, (b) XRF

Mineralogical Mode

Finkelman 1973

Olivine	5 %
Pyroxene	29
Plagioclase	15.5
Ilmenite	4
Glass	
Al-rich	6
Low-Al	32
Fe-metal	0.5
Other	5
K-rich	2.5



References for 14260

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