

76221

Soil

613 grams

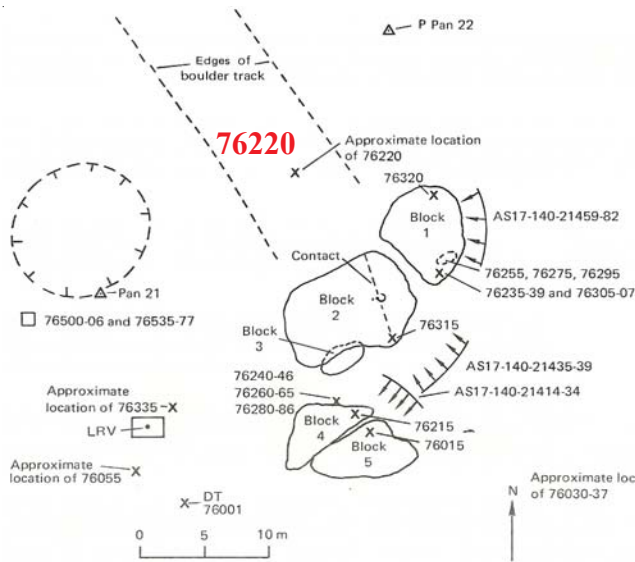


Figure 1: Map of station 6, Apollo 17.

Introduction

76220 was collected from the boulder track above the large station 6 boulder at the base of the North massif. This soil was from the highest point reached on the North massif.

Petrography

Morris (1978) determined the maturity index ($I_s/FeO = 66$).

Meyer (1973) reported 6 soil breccias, 4 agglutinates, 2 anorthosites, 5 feldspathic basalts, 5 feldspathic breccias – but no mare basalt particles in the 4 – 10 mm coarse fines.

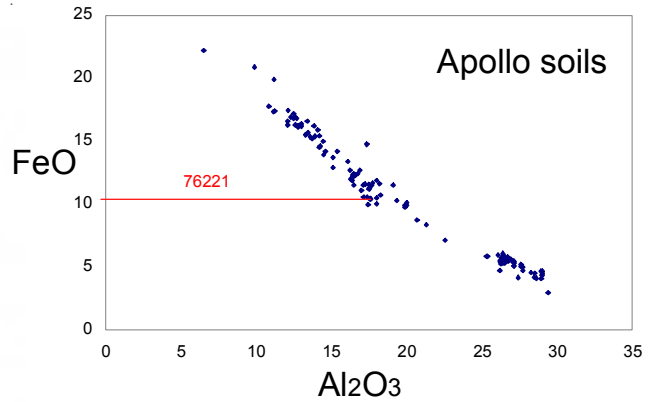


Figure 2: FeO content of 76221 compared with composition of Apollo soil samples.

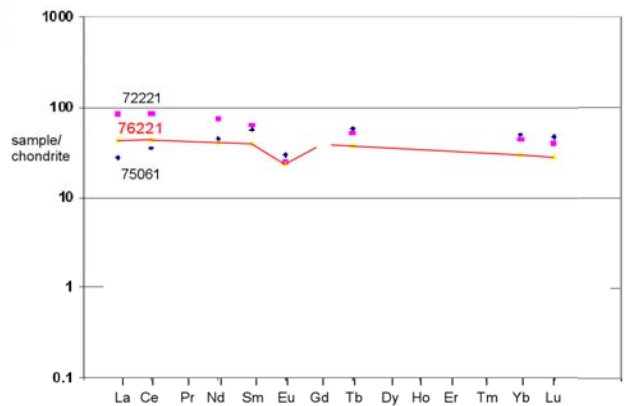


Figure 3: Normalized rare-earth-element content of 76221 compared with mare and highland soils.

Chemistry

Korotev and Kremser (1992) determined that the chemical composition of 76221 was very close to that of 76501 (figure 3).

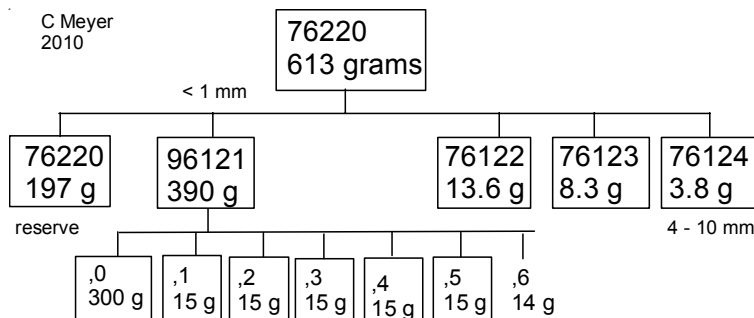


Table 1. Chemical composition of 76221.

reference	Korotev92		
weight			
SiO ₂ %			
TiO ₂			
Al ₂ O ₃			
FeO	10.9	10.3	(a)
MnO			
MgO			
CaO			
Na ₂ O	0.383	0.383	(a)
K ₂ O			
P ₂ O ₅			
S %			
sum			
Sc ppm	28.9	27	(a)
V			
Cr	1917	1888	(a)
Co	40.1	31.8	(a)
Ni	340	230	(a)
Cu			
Zn			
Ga			
Ge ppb			
As			
Se			
Rb			
Sr	166	160	
Y			
Zr	170	170	(a)
Nb			
Mo			
Ru			
Rh			
Pd ppb			
Ag ppb			
Cd ppb			
In ppb			
Sn ppb			
Sb ppb			
Te ppb			
Cs ppm			
Ba	123	132	(a)
La	9.34	10.3	(a)
Ce	25.8	27.7	(a)
Pr			
Nd	18	18	(a)
Sm	5.68	6.09	(a)
Eu	1.3	1.3	(a)
Gd			
Tb	1.34	1.36	(a)
Dy			
Ho			
Er			
Tm			
Yb	4.81	4.84	(a)
Lu	0.677	0.687	(a)
Hf	4.65	4.72	(a)
Ta	0.72	0.74	(a)
W ppb			
Re ppb			
Os ppb			
Ir ppb	12.3	6.7	(a)
Pt ppb			
Au ppb	5.3	2.1	(a)
Th ppm	1.5	1.72	(a)
U ppm	0.38	0.38	(a)
technique	(a) INAA		

References for 76221

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