73211

Soil

101 grams

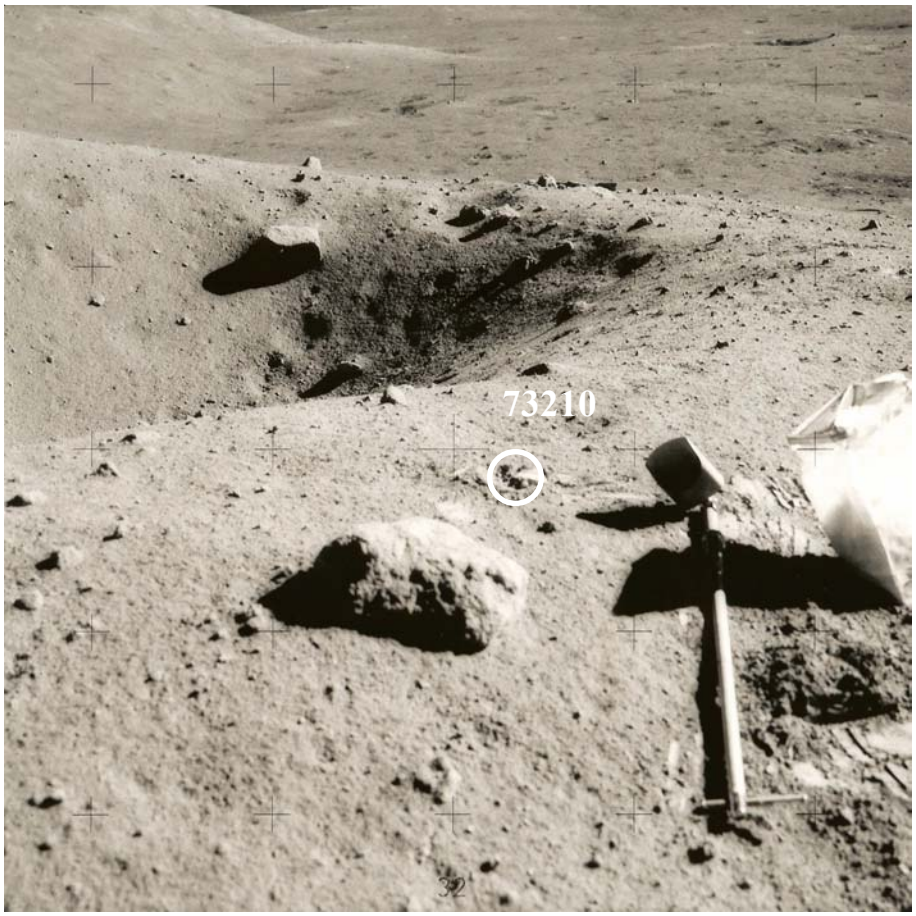

Figure 1: Photograph of 10 meter crater at station 3, Apollo 17 showing location of 73210. AS17-138-21160

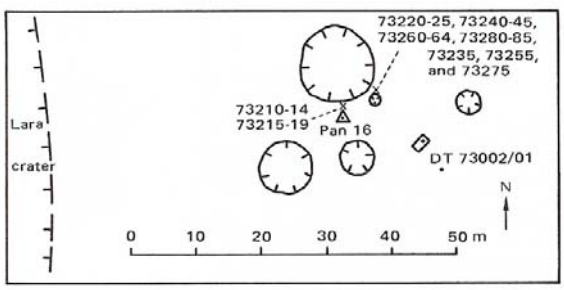

Figure 2: Map of station 3, Apollo 17, showing position of 10 meter crater with respect to ejecta blanket from Lara Crater.

Introduction

73210 is the soil collected along with 73125 – 73128, and returned in same bag. This soil sample is thus partly dust attached to the rocks and material abraded off of them during transit.

Petrography

Morris (1978) determined the maturity index (I_s/ FeO =39).

Chemistry

Korotev and Kremser (1992) determined the composition (REE are way high !).

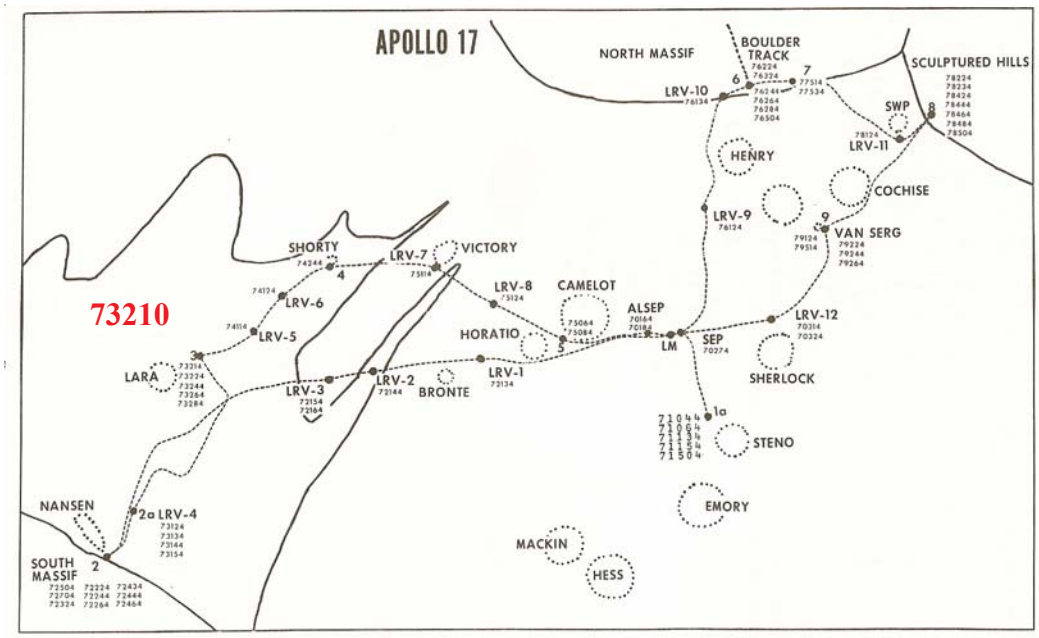

Figure 3: Location of station 3 at Lara Crater on landslide from South Massiff. S73-24071

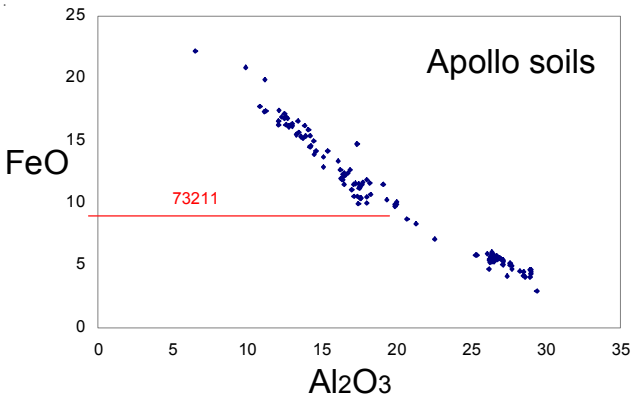

Figure 4: FeO content of 73211 compared with composition of Apollo soil samples.

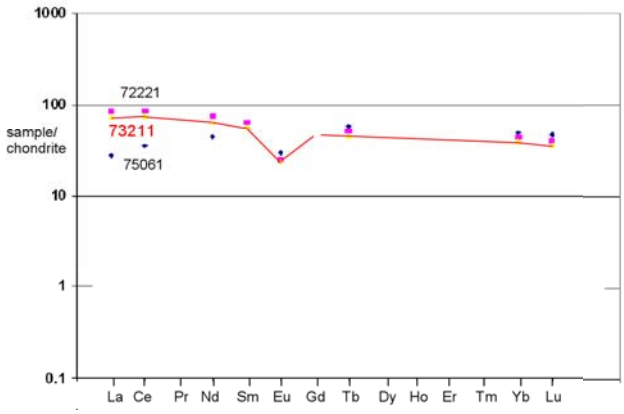

Figure 5: Normalized rare-earth-element diagram for 73211 compared with mare and highland soil samples from Apollo 17.

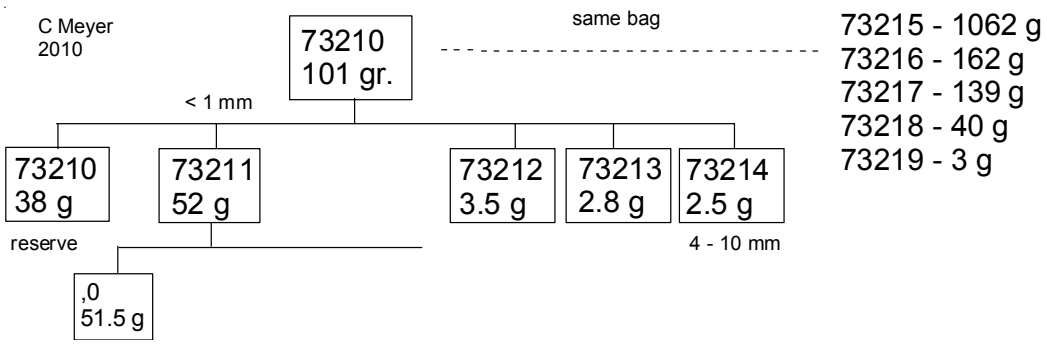

Table 1. Chemical composition of 73211.

reference	Korotev92		
weight			
SiO2 %			
TiO2			
Al2O3			
FeO	8.93	8.68	(a)
MnO			
MgO			
CaO			
Na2O	0.439	0.442	(a)
K2O			
P2O5			
S %			
sum			
Sc ppm	20.6	19.6	(a)
V			
Cr	1640	1500	(a)
Co	28.5	28	(a)
Ni	203	258	(a)
Cu			
Zn			
Ga			
Ge ppb			
As			
Se			
Rb			
Sr	163	156	(a)
Y			
Zr	230	270	(a)
Nb			
Mo			
Ru			
Rh			
Pd ppb			
Ag ppb			
Cd ppb			
In ppb			
Sn ppb			
Sb ppb			
Te ppb			
Cs ppm			
Ba	185	198	(a)
La	40.5	17.2	(a)
Ce	106	45.4	(a)
Pr			
Nd	72	29	(a)
Sm	20.3	8.31	(a)
Eu	1.52	1.33	(a)
Gd			
Tb	3.76	1.62	(a)
Dy			
Ho			
Er			
Tm			
Yb	11.1	6.29	(a)
Lu	1.47	0.864	(a)
Hf	6.2	7.27	(a)
Ta	0.8	0.87	(a)
W ppb			
Re ppb			
Os ppb			
Ir ppb	7.4	8.5	(a)
Pt ppb			
Au ppb	3.4	2.1	(a)
Th ppm	4.7	3.15	(a)
U ppm	0.97	0.69	(a)

technique: (a) INAA

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