15145	OLIVINE-NORMATIVE(?) MARE BASALT BRECCIA	ST. 2	15.1 g

INTRODUCTION: 15145 is a breccia which appears to be almost monomict and formed of coarse mare basalt clasts. It is light gray, subangular, and tough (Fig. 1). One piece of surface area is slickensided and has a little splash glass. Zap pits occur on this and other surfaces. 15145 was collected as part of the rake sample 5 m east of the boulder at Station 2 (See Fig. 15105-2).

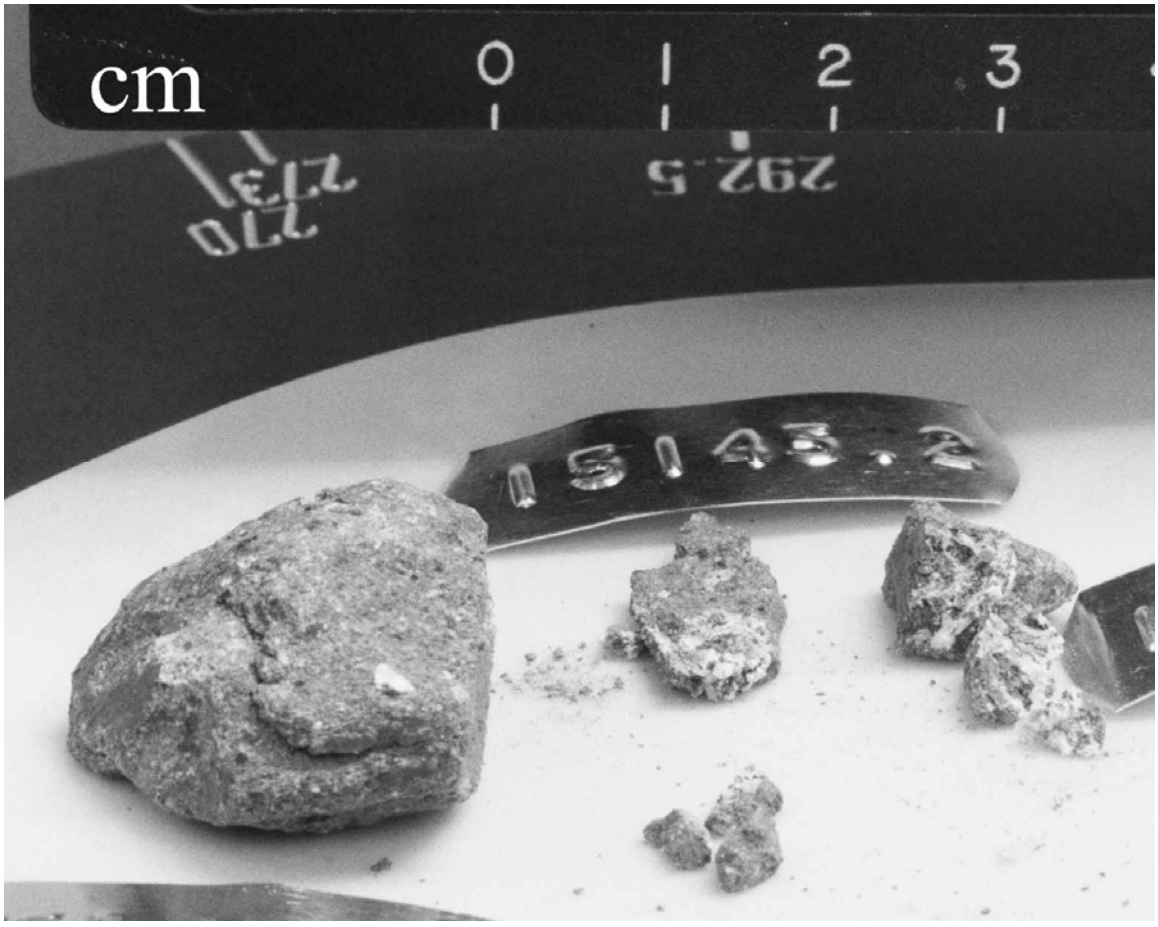

Figure 1. Sawing products of 15145. S-71-57439

PETROLOGY: 15145 consists predominantly of clasts of coarse mare basalts in a ground up, mainly mare-derived breccia (Fig. 2). It was briefly described by Dowty et al. (1973b). Very large pyroxenes (about 3 mm across) are commonly twinned, without obvious zoning. A few fine-grained and recrystallized mare basalt clasts are also present, along with a few glass spherules and chondrules.

CHEMISTRY: A partial analysis was made by Fruchter et al. (1973) (Table 1, Fig. 3). The Ti abundance suggests a dominantly olivine-normative basalt derivation; the high rare-earths suggest possible KREEP contamination.

PROCESSING AND SUBDIVISIONS: 15145 was sawn to produce daughters from one end (Fig. 1). Thin sections ,8 to ,10 were made from chip ,2. **,**0 is now 11.52 g and ,1 is 1.34 g.

Figure 2. Photomicrograph of thin section 15145,8.
Width about 2 mm. Transmitted light.

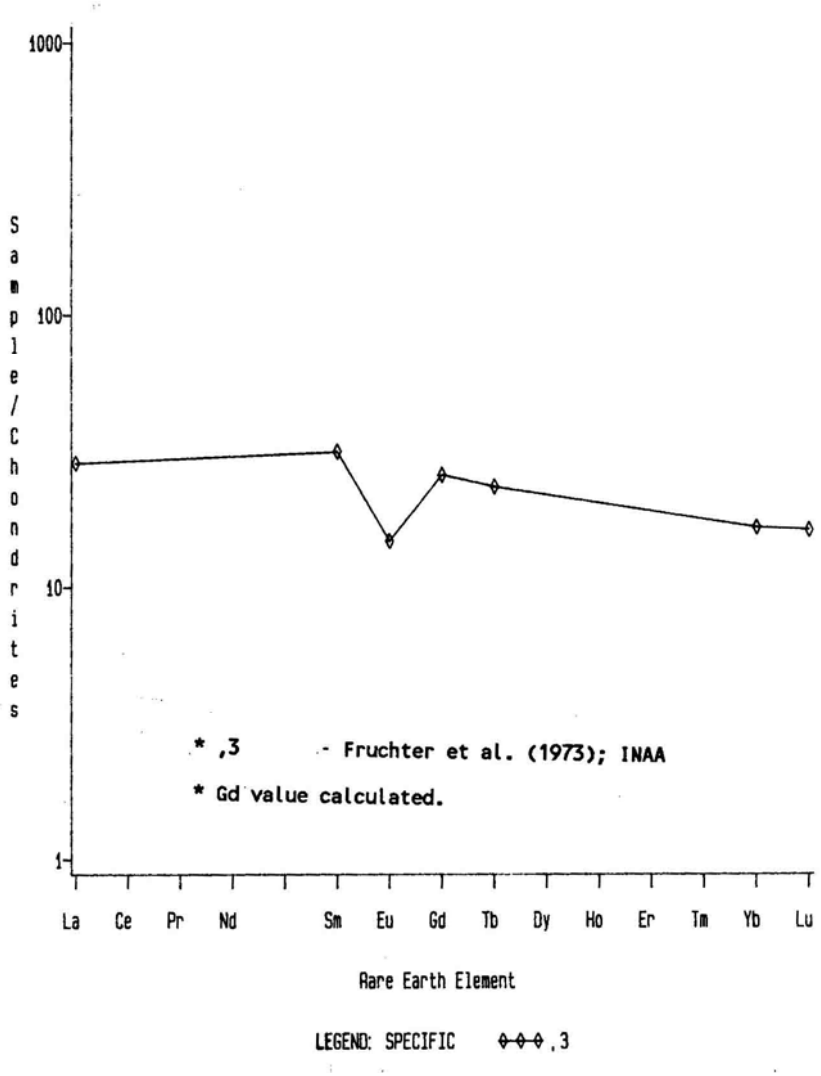

Figure 3. Rare earths in 15145.

TABLE 15145-1. Chemical analyses

		,3
Wt %	SiO2	
	TiO2	2.49
	Al2O3	8.12
	FeO	21.3
	MgO	
	CaO	
	Na2O	0.275
	K2O	
	P2O5	
(ppm)	Sc	37
	V	
	Cr	3950
	Mn	
	Co	64
	Ni	
	Rb	
	Sr	
	Y	
	Zr	
	Nb	
	Hf	3.8
	Ba	
	Th	0.36
	U	
	Pb	
	La	9.4
	Ce	
	Pr	
	Nd	
	Sm	5.7
	Eu	1.02
	Gd	
	Tb	1.1
	Dy	
	Ho	
	Er	
	Tm	
	Yb	3.3
	Lu	0.55
	Li	
	Be	
	B	
	C	
	N	
	S	
	F	
	Cl	
	Br	
	Cu	
	Zn	
(ppb)	I	
	At	
	Ga	
	Ge	
	As	
	Se	
	Mo	
	Tc	
	Ru	
	Rh	
	Pd	
	Ag	
	Cd	
	In	
	Sn	
	Sb	
	Te	
	Cs	
	Ta	560
	W	
	Re	
	Os	
	Ir	
	Pt	
	Au	
	Hg	
	Tl	
	Bi	
		(1)

Reference and method:

(1) Fruchter et al. (1973); INAA