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LUNAR HIGHLANDS NEWSLETTER

Transmitted with this Curatorial Newsletter is the first issue of the LUNAR HIGHLANDS NEWSLETTER. Please give it prompt attention because it invites sample requests that should be submitted before mid-February. As a chair of the LAPST subcommittee on the Highlands, Charles Meyer, Jr. wrote the first part of the Newsletter, which explains the Highlands initiative. Graham Ryder and Marc Norman wrote about the individual samples of the Highlands Suite and prepared the matrix of studies on them.

LSAPT BECOMES LAPST

For several years the Lunar Sample Analysis Planning Team has been spending ten to twenty percent of its efforts in advising NASA about the collection and curation of extraterrestrial samples other than the lunar ones, chiefly samples from Mars (in prospect) and the meteorites from Antarctica. In recognition of this purview, the name of the group has been changed to Lunar and Planetary Sample Team (LAPST). We expect there to be no change in the portion of the team's attention now being devoted to the lunar samples.

REQUESTS FOR SAMPLES

Please submit requests by February 7 for samples that will be needed March through June 1979. If any are needed by a certain time within that period, include the information in the requests as well. It is a good idea to include a schedule for your sample needs in any case. Recently we have found several cases in which no time of need was stated in the request, and as much as six or seven months lapsed between receipt of the request and the shipping of the samples. Our intention has always been to fill all approved requests outstanding during the 2-4 month periods between LAPST meetings. (During the past period, the annual physical inventory took nearly a month in November and December, and was followed by holiday vacations, encouraged for energy saving at JSC, to put allocations processing behind schedule.)

REQUESTS FOR SAMPLES (CONT'D.)

Some types of requests (for certain samples returned by Principal Investigators and for thin sections) may be filled shortly after receipt,without waiting for a review and recommendations by the LAPST. More information on how this works is contained in the last Newsletter, No. 21, issued in November 1978. Or inquire about it from the Curator, or just state explicitly in the request what sample condition is acceptable for the study.

CABINET ATMOSPHERE - SPECIFICATIONS

We plan to raise the maximum permissible levels for the lunar sample storage and processing cabinets from 50 ppm to 200 ppm each for O_2 and H_2O when the new curatorial facility is put into operation this spring. The situation was described in the last Curatorial Newsletter, No. 21, and comments were invited from PI's. Since there have been no objections to a change, we are going ahead with our plans. Any comments would still be welcome, however.

LUNAR CORES

The opening and dissection of cores is continuing according to the schedule on page 4 of Curatorial Newsletter 19. At present the dissection of 15011 is two-thirds completed. Spectral reflectance imaging is currently in progress on the stratigraphic remainders in dissected cores 14210, 14211, 74002, and 76001. This material will next be impregnated with epoxy as a permanent record of the core structure and stratigraphy. (It is planned to make the spectral reflectance data available for study; full descriptions of methods and data will be forthcoming.)

YELLOW GLASS CLOD IN CORE 15010

At a depth of 15 cm in drive tube 15010 (41.4 cm below lunar surface) an 8 mm diameter clod consisting of yellow glass shards was found. Preliminary characterization of this glassy material shows that it may be volcanic and represent an unusual basalt composition for the Apollo 15 site. In thin section the angular shards of clear yellow glass contain no vesicles or inclusions of soil or metal. R. Morris found $I_s/FeO = 1.3$. Electron microprobe analysis of 3 grains revealed very homogeneous composition: SiO_2 = 45.33%, TiO_2 = 4.22%, Al_2O_3 = 9.63%, FeO = 20.64%, MnO = .25%, MgO = 9.91%, CaO = 9.08%, Na_2O = .33%, K_2O = .24%, P_2O_5 = .16%. Chemically this glass is comparable to yellow glass grains found in green clods from the Apennine Front by Wood & Ryder (1977, 8th LSC Abstracts,p. 1027) and Ridley et al (1973, Physics of the Earth & Planetary Interiors, 7, p. 133-136).