The final reconstructed Lucy-target ephemeris (SPK) for the Dinkinesh flyby
was generated using data dependent on an SCLK kernel (version 29) that had
been frozen by the project before the encounter for uplink planning purposes.
Compared to later SCLK kernel versions, the version used in processing did not properly account for the drift in the spacecraft clock that occurred during the freeze period. This resulted in an ephemeris timing error of a few tenths of a second.

The instrument data products included in this submission were processed
using the final SPK noted above, but with a later version of the SCLK
kernel (version 33) and with attitude kernels (CKs) whose pointing timings
were derived directly from this later SCLK version. The net effect of all
this is that there are small errors in the geometry as calculated using NAIF
SPICE, and these errors are most significant, small as they are, at the time
of encounter close approach.

Product labels are affected to the extent they inherit geometric quantities from the data above.

The instrument data product portions affected are as follows:

(1) header data (keyword/value pairs) related to geometry (ALL products)
(2) L’Ralph LEISA "backplane" FITS extension that contains geometry information for each frame (UDP and CDP products)

(3) L’TES geometry arrays in CDP products.

To mitigate the effect of the geometry timing error, the user may choose to re-calculate the SPICE information using the latest kernel set published in the Lucy SPICE archive. Note that the erroneous SPK was not published to the archive, although SCLK versions 29 and 33 were.

During lien resolution, all data will be reprocessed using an updated SPK that corrects the aforementioned timing issue. The geometric reprocessing will use SPK lcy\_230815\_240201\_240101\_dinkinesh\_reconstruction\_final\_v2.bsp, which has been delivered to NAIF and appears in the Lucy SPICE archive.