LBT Observing Log for 2024 05 18 UT

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Telescope Operator: Steve Allanson

PEPSI Log

Plan:

```
iLocator for the first half of the night.
Then UM_TCrB program
      HR 5501,
      HD 134807
      TCrB
Then, not much time for an instrument change, so finish high-priority OSU BHB
      J18335
      J21072
      J20281
      J20205
      J22014
      J19095
Medium OSU BHB
      J20303
      J17551
      J17063
```

Summary:

```
iLocator for the first half of the night.
Then UM_TCrB program: HR 5501, HD 134807, TCrB
Then, not much time for an instrument change, so finish high-priority OSU_BHB: J18335, J21072, J20281, J20205, J22014, J19095
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Finally, medium priority OSU_BHB: J20303, J17551, J17063 (J17063 is a binary, the companion may contaminate the target).

DIMM and Guider seeing plots for the night are at the end of the log.

Issues:

Weather:

Clear, good seeing. Typically 1". Low winds.

Overview (times are given in UT):

02:17 **Sunset**. Starting with iLocator work. AO Log.

03:12 12 degree twilight.

03:47 18 degree twilight.

06:43 Taking over from iLocator+SHARK-Vis. Reconfiguring to PEPSI bino. Our first target will be HR 5501.

06:56 Preset to UM_HR 5501 (sensitivity calibrator for UM_TCrB)

06:58 Starting science.

07:00 DIMM reports 1". Inserting ND2 filter to guiders.

07:25 Preset to UM_HD 134807 (M-giant template for UM_TCrB)

07:30 Starting science.

07:57 Preset to the vicinity of TCrB. It has been requested that we perform a pointing correction nearby the source.

08:03 Preset to UM_TCrB.

08:04 Starting science.

08:28 0.8" from the DIMM.

09:05 1" from the DIMM.

09:09 Preset to OSU_BHB_J18335.

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09:11 Pointing check required.
09:15 Return to target.
09:16 Starting science.
09:28 Preset to OSU_BHB_J21072.
09:32 Starting science.
09:45 Preset to OSU_BHB_J20281.
09:48 Starting science. DIMM reports 1".
09:53 Preset to OSU BHB J20205.
09:55 There are several stars in the field. Performing a pointing check nearby to be sure we get
the correct science target.
09:57 Returning to the science target.
09:59 Starting science.
10:00 Odd jump on SX, star was not returning to the correct position on the fiber. Sending the
preset again.
10:06 Starting science. There is a reflection or nearby star that is confusing guiding on SX. It
seems stable now.
10:17 Preset to OSU_BHB_J22014.
10:20 Starting science.
10:23 Preset to OSU_BHB_J19095.
10:25 No GS found on DX, pointing check.
10:27 Returning to science target.
10:28 Starting science.
10:36 Preset to OSU_BHB_J20303.
10:39 Crowded field, pointing check required.
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- 10:41 Returning to science target.
- 10:42 Starting science.
- 10:45 18 degree twilight.
- 10:55 Preset to OSU_BHB_J17551.
- 11:00 Starting science.
- 11:16 Preset to OSU_BHB_J17063.
- 11:19 Pointing adjustment made on DX, target is bright and unambiguous. Target has faint visual binary.
- 11:20 **12 degree twilight**. Starting science.
- 11:23 End of observing. Taking PEPSI cals.

12:14 **Sunrise**.



