## V&V Summary Report L2 ASCDS Version: 8.4.5

Observation 13812 - L2 Version 2 Chandra X-Ray Center

L2 Processing Date: Nov 27 2014

See axaff13812N002\_VV001\_vvref2.pdf for the full report

| V&V Scientist              | Beth Sundheim   |
|----------------------------|-----------------|
| V&V Date (YYYY-MM-DD)      | 2014.12.02      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 159.54150122702 |

## Comments

Joint proposal with HST.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to  $0.4~\rm arcsecs$ ) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.

| seq_num  | 600995  | Sequence number                          |
|----------|---|--|
| obs_id   | 13812   | Observation id                           |
| title    | M51: Using the Kinematics of a Grand-Design Spiral to Understand the Physics of the Hot ISM, SNRs, and XRBs | Proposal title                           |
| observer | Dr. K.D. Kuntz  | Principal investigator                   |
| object   | M51   | Source name                              |
| dtycycle | 0   | <b>&amp;</b> #160                        |
| cycle    | P   | events from which exps? Prim/Second/Both |
| ra_targ  | 202.5   | Observer's specified target RA [deg]     |
| dec_targ | 47.2  | Observer's specified target Dec [deg]    |
| ra_nom   | 202.50918676729   | Nominal RA [deg]                         |
| dec_nom  | 47.180143446317   | Nominal Dec [deg]                        |
| roll_nom | 316.14989245509   | Nominal Roll [deg]                       |
| revision | 2   | Processing version of data               |
| ontime   | 159541.50122702   | Sum of GTIs [s]                          |
| livetime | 157456.97406075   | Livetime [s]                             |
| ontime5  | 159541.50122702   | Sum of GTIs [s]                          |
| ontime6  | 159532.0784058  | Sum of GTIs [s]                          |
| ontime7  | 159541.50122702   | Sum of GTIs [s]                          |
| ontime8  | 159532.07840574   | Sum of GTIs [s]                          |
| 12events | 1416347   | Number of level 2 events                 |

