

# V&V Summary Report

## L2 ASCDS Version : 8.4.3

Observation 13406 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Feb 9 2012

See axaff13406N003\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.786460362852

## Comments

Roll constraint met.

=== The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

=== WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. ===== The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than

a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

seq_num	702507	Sequence number
obs_id	13406	Observation id
title	THE FIRST SPATIALLY RESOLVED SPECTRUM OF AN AGN OUTFLOW IN AN EARLY-TYPE GALAXY: A DEEP HETG OBSERVATION OF MRK 3	Proposal title
observer	Dr Daniel Evans	Principal investigator
object	Markarian 3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	93.90125	Observer's specified target RA [deg]
dec_targ	71.0375	Observer's specified target Dec [deg]
ra_nom	93.914370009063	Nominal RA [deg]
dec_nom	71.035173357683	Nominal Dec [deg]
roll_nom	299.84421515368	Nominal Roll [deg]
revision	3	Processing version of data
ontime	21786.460369229	Sum of GTIs [s]
livetime	21434.590137531	Livetime [s]
ontime4	21786.501409233	Sum of GTIs [s]
ontime5	21786.419329226	Sum of GTIs [s]
ontime6	21786.378289223	Sum of GTIs [s]
ontime7	21786.460369229	Sum of GTIs [s]
ontime8	21786.337249219	Sum of GTIs [s]
ontime9	21786.296209216	Sum of GTIs [s]
l2events	178028	Number of level 2 events

