



# Spectroscopic Record Sheet



## Details on acquisitions

Object	St 33
Coordinates (J2000)	09:37:53.03 -56:07:56.60
Type	New candidate

Observation date	4.159/04/2024
Weather conditions	/
Observer	2SPOT
Location	Deep Sky Chile (CL)

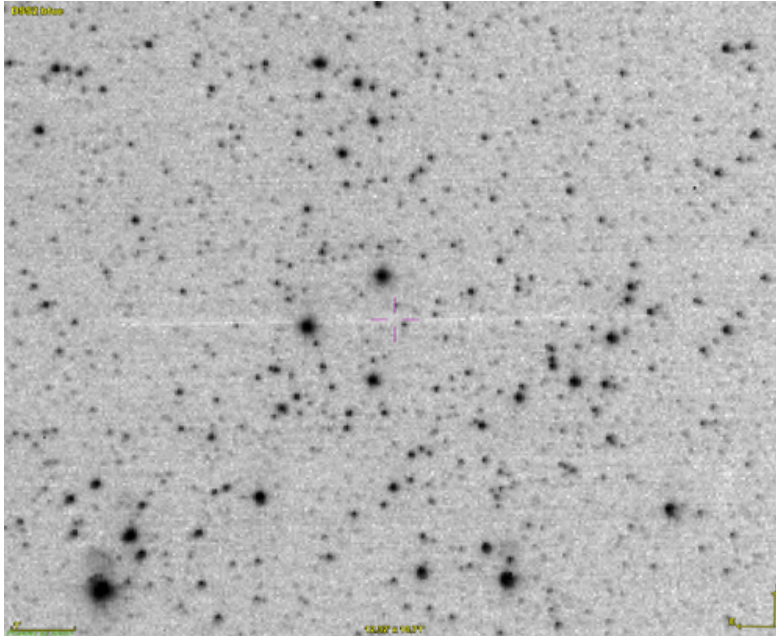
Mount	10 Micron GM3000 HPS
Telescope	Newton 300mm F/4
Spectroscope	Alpy 600 (23um slit)
Resolution (bin 1x1)	~1nm at 656 nm
Principal camera	Atik 414 EX
Dispersion (bin 1x1)	~0,3 nm/pixel at 656 nm
Cam temperature	-10°C
Binning	2x2
Guiding camera	ASI 178MM
Data acquisition Soft	Prism v11.2.3.21
Data processing soft	ISIS V6.1.1

Exposure on object	13 x 1200 s
Master Dark	Corrected
Master Flat	Corrected
Master Offset	Corrected
Neon-Argon calibration	Corrected
Reference star calib.	HD103101_A2V
Exposure on ref star	15 x 4 s
Ref star Sp. date	4.270/04/2024

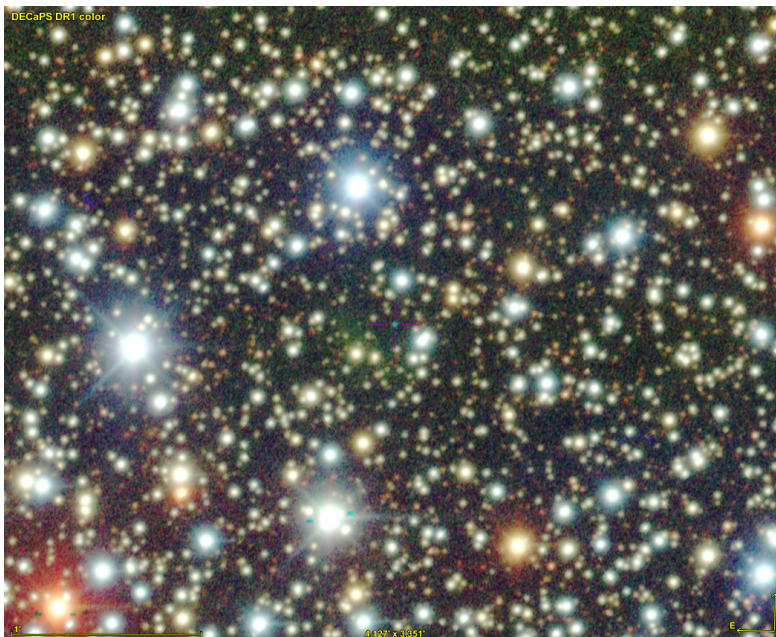


## Slit position and images

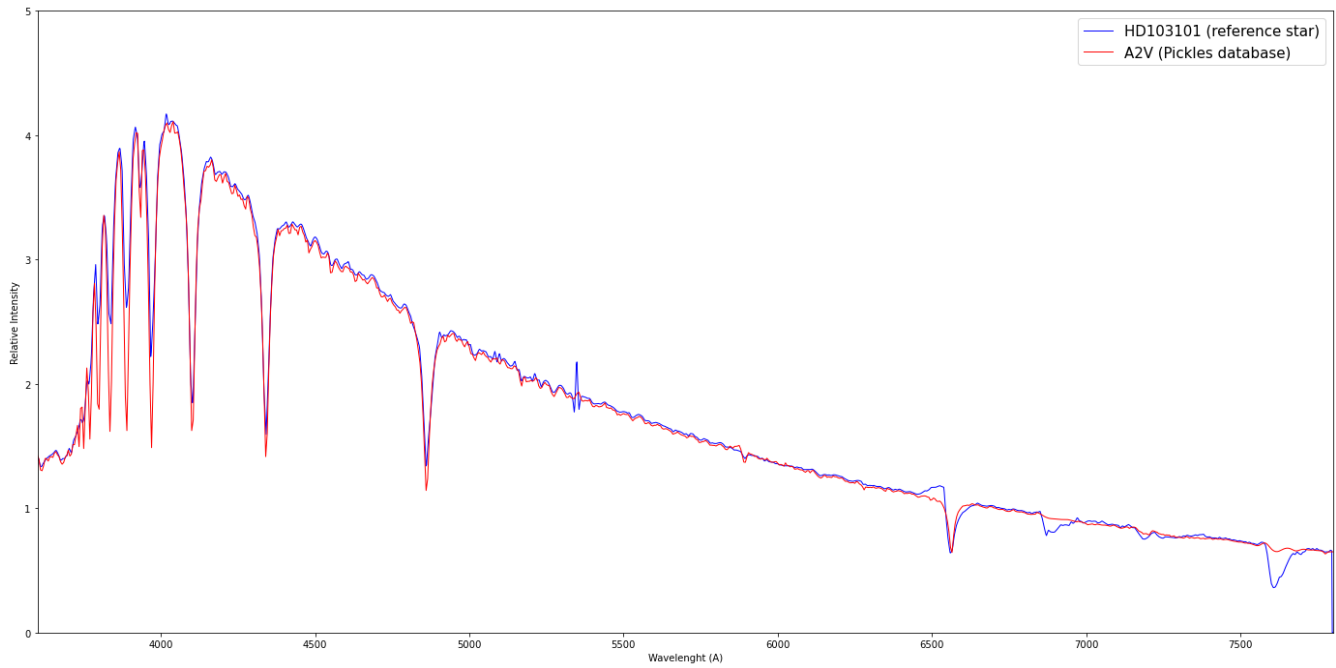
Slit position



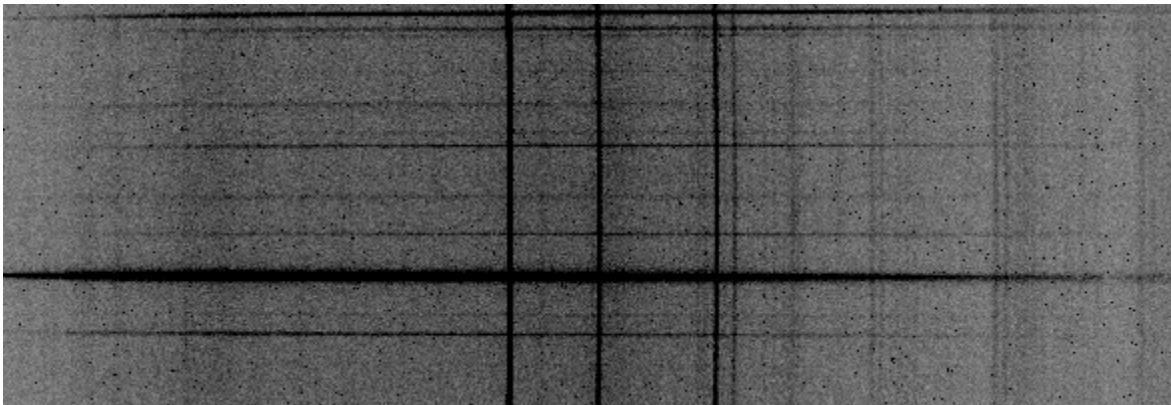
Object picture(s)



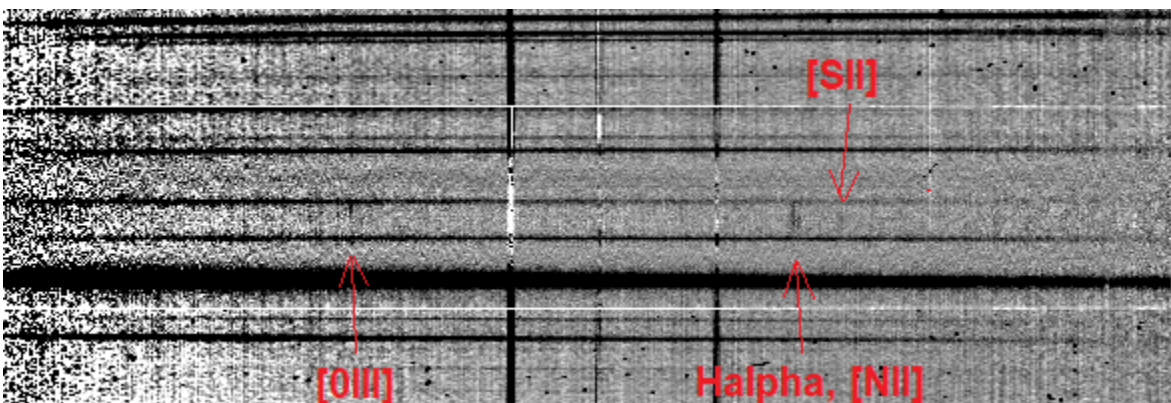
Instrumental response (red = theoretical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)



## 2D Raw spectrum

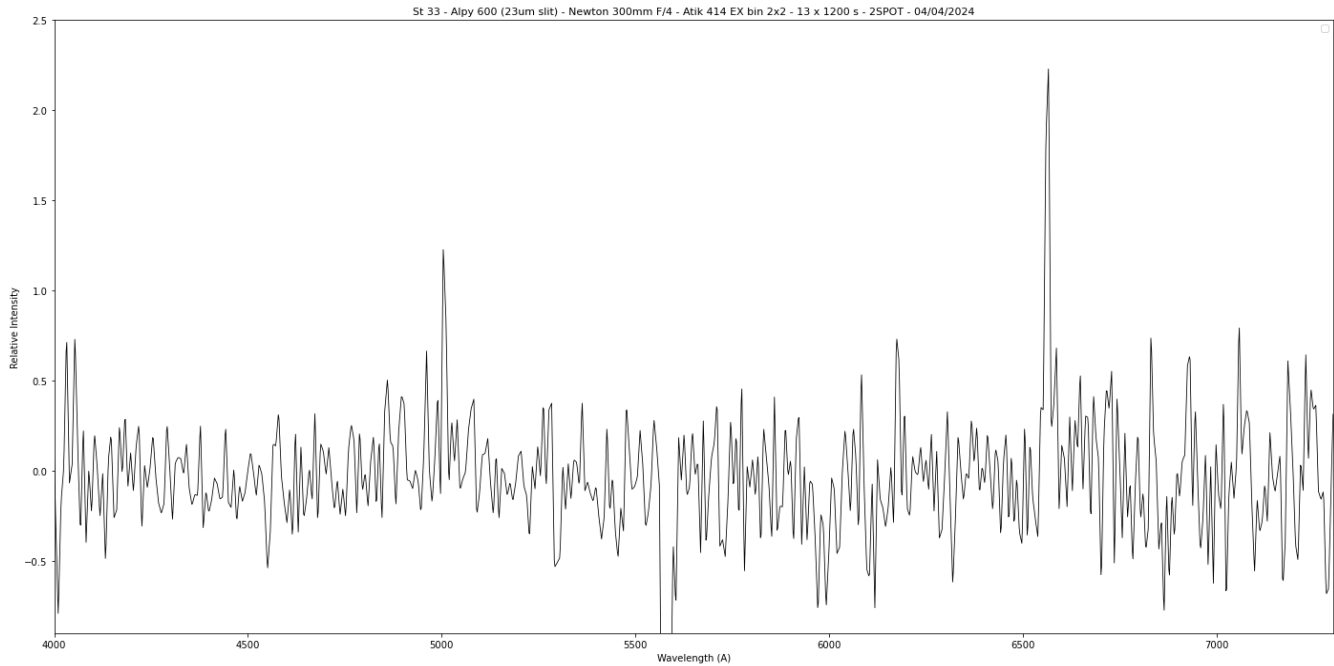


## 2D Processed spectrum





# Results



## Comments

[OIII], Halpha and [NII] lines detected.

St 33 shows some nebular lines of a true PN with a likely CSPN candidate