V coadd - Reticon coverage

```
  4601.604   31.7  0.124  0.24  4601.482 N II(5)4601.480(11)
  4602.242   11.3  0.042  0.25  4602.120 O II(93)4602.128(11),P
II(15)4602.071
                                                 (14)
  4607.272   33.0  0.131  0.24  4607.150 N II(5)4607.157(10)
  4609.593   26.3  0.087  0.28  4609.471 O II(93)4609.442(13),A
II(31)4609.560
                                                 (25)
  4610.326   10.8  0.049  0.21  4610.204 O II(92)4610.203(11)
  4613.960   25.4  0.092  0.26  4613.838 N II(5)4613.866(9)
  4621.437   12.1  0.070  0.16  4621.315
  4621.567   12.2  0.080  0.14  4621.445 N II(4)4621.394(10)
  4630.653   60.2  0.216  0.26  4630.531 N II(5)4630.543(14)
  4638.963   49.0  0.171  0.27  4638.840 O II(1)4638.857(19)
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W Section - Reticon coverage

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  4638.487    4.3  0.015  0.26  4638.373
  4638.967   50.7  0.175  0.27  4638.853 O II(1)4638.857(19)
  4641.926   66.1  0.238  0.26  4641.812 O II(1)4641.817(21)
  4643.200   34.9  0.141  0.23  4643.086 N II(5)4643.085(11)
```

4800.414	1.9	0.019	0.09	4800.386	(Si III(8.16)4800.428(8))
4802.283	1.3	0.014	0.09	4802.255	(O I(15)4802.132(8))
4802.471	4.7	0.022	0.20	4802.443	
4802.674	4.2	0.021	0.19	4802.646	
4802.853	7.7	0.030	0.24	4802.825	S III(-)4802.81(-)
4803.065	1.4	0.015	0.09	4803.037	(O I(15)4802.982(4))
4803.298	18.9	0.074	0.24	4803.270	N II(20)4803.289(10)
4806.028	17.5	0.077	0.21	4806.000	A II(6)4806.017(35)
4810.073	3.1	0.014	0.21	4810.045	Cl II(1)4810.06(29000)
4810.315	1.5	0.010	0.14	4810.287	N II(20)4810.306(4)
4813.362	17.9	0.075	0.22	4813.333	Si III(9)4813.330(15)
4815.568	23.9	0.107	0.21	4815.540	S II(9)4815.549(22)
4819.555	11.7	0.048	0.23	4819.527	Cl II(1)4816.471(16000),S II(52) 4819.575(15b)
4819.771	20.9	0.083	0.24	4819.743	Si III(9)4819.718(16)
4824.044	6.9	0.031	0.21	4824.016	S II(42)4824.066(16)

4850 Å Region

4819.538	12.1	0.047	0.25	4819.550	Cl II(1)4819.471(16000)
4819.770	24.0	0.088	0.26	4819.782	S II(46,52)4819.575(2n)
4824.060	6.6	0.029	0.21	4824.072	S II(52)4824.066(3)
4828.990	29.9	0.093	0.30	4829.002	Si III(9)4828.968(18)
4842.320	1.2	0.010	0.11	4842.332	Si II(24)4842.32(2h)
4843.411	3.5	0.011	0.30	4843.423	
4844.908	2.0	0.010	0.18	4844.920	O II(30)4845.01(1)
4847.820	7.0	0.028	0.24	4847.832	A II(6)4847.90(8)
4849.817	1.2	0.002	0.67	4849.829	
4855.554	1.4	0.011	0.12	4855.566	Fe II(25)4855.54(-)
4856.170	3.3	0.007	0.45	4856.182	
4857.047	1.4	0.003	0.40	4857.059	Cl II(74)4857.04(10)
4861.338				4861.350	Hβ 4861.332
4871.533	4.4	0.016	0.27	4871.545	O II(57)4871.58(5)
4878.062	1.1	0.007	0.15	4878.074	A II(112)4877.08(0n)
4879.890	12.5	0.053	0.22	4879.902	A II(14)4879.90(12)

5180 Å region

5149.502	1.5	0.009	0.15	5149.411	
5151.177	30.6	0.109	0.26	5151.085	C II(16)5151.09(13)
5156.194	34.5	0.142	0.23	5156.103	Fe II(-)5156.10(6)
5159.988	4.4	0.018	0.23	5159.896	Fe II(-)5159.93(4)
5160.208	14.2	0.045	0.29	5160.117	O II(32)5159.942(14)
5166.835	2.5	0.011	0.21	5166.744	
5169.110	12.7	0.050	0.24	5169.019	N II(61.23)5168.99(1)
5172.568	1.8	0.011	0.15	5172.476	N II(66)5172.346(4)
5173.037	2.2	0.007	0.30	5172.945	N II(66)5172.970(3)
5176.017	5.3	0.017	0.29	5175.925	N II(66)5175.89(6)
5179.568	2.4	0.014	0.16	5179.476	N II(70)5176.563(70)
5181.763	2.0	0.008	0.22	5181.671	
5183.693	1.3	0.005	0.24	5183.601	
5190.624	3.8	0.017	0.21	5190.532	
5194.003	11.9	0.050	0.22	5193.911	Fe III(5)5193.89(4)
5194.227	2.4	0.015	0.15	5194.135	
5197.300	1.7	0.006	0.26	5197.208	Si III(29)5197.264(5)
5197.637	1.1	0.007	0.15	5197.545	N II(66)5197.52(7)
5198.300	2.2	0.009	0.23	5198.208	
5198.746	1.6	0.006	0.25	5198.654	
5201.114	10.9	0.042	0.24	5201.021	S II(39)5201.024(20)
5202.497	6.9	0.029	0.22	5202.405	Si II(23)5202.413(500h)
5206.757	11.5	0.045	0.24	5206.665	O II(32)5206.63(19)

4663.046	3.8	0.020	0.18	4663.045	Al II(2)4663.054(0)
4665.894	2.6	0.009	0.26	4665.893	C III(5)4665.86(8)
4667.214	5.4	0.016	0.30	4667.213	N II(11)4667.206(5)
4668.586	4.1	0.016	0.23	4668.585	S II(36)4668.583(17)
4669.331	4.5	0.014	0.30	4669.330	O II(90)4669.266,.427(4,4)
4673.741	18.7	0.076	0.23	4673.740	O II(1)4673.738(13)
4674.904	3.9	0.015	0.25	4674.903	N II(11)4674.909(5)
4676.234	44.7	0.167	0.25	4676.233	O II(1)4676.236(19)
4677.051	3.1	0.013	0.23	4677.050	O II(91)4677.068(7)
4677.690	4.3	0.022	0.18	4677.689	S III(10)4677.67(0)
4678.145	8.2	0.036	0.22	4678.144	N II(61)4678.14(6)
4683.033	4.9	0.019	0.24	4683.032	Si III(13)4683.022(9)
4690.870	4.4	0.012	0.35	4690.869	O II(58)4690.896(5)
4691.399	4.4	0.021	0.20	4691.398	O II(58)4691.416(8)
4693.144	1.5	0.010	0.14	4693.143	
4694.663	9.2	0.035	0.25	4694.662	N II(61)4694.637(6)
4696.351	12.4	0.050	0.23	4696.350	O II(1)4696.347(11)
4699.016	16.7	0.068	0.23	4699.015	O II(40)4699.003(14)
4699.232	25.3	0.106	0.22	4699.231	O II(25,40)4699.220(16)
4701.194	8.8	0.036	0.23	4701.193	O II(58)4701.184(10)
4703.165	14.8	0.058	0.24	4703.164	O II(40)4703.163(13)
4705.353	41.9	0.150	0.26	4705.352	O II(25)4705.350(20)
4710.008	20.9	0.085	0.23	4710.007	O II(24)4710.012(15)
4713.205	262.1	0.406	0.61	4713.204	He I(12)4713.143,.373(3,1)
4716.277	11.8	0.053	0.21	4716.276	S II(9)4716.267(20)
4716.648	20.6	0.080	0.24	4716.647	Si III(8.09)4716.651(16)

4740 Å Region (added January 1993)

4710.115	21.2	0.082	0.24	4710.007	O II(24)4710.012(15)
4713.310	253.5	0.392	0.61	4713.202	He I(12)4713.143,.373(3,1)
4716.373	10.6	0.050	0.20	4716.265	S II(9)4716.267(20)
4716.754	19.7	0.082	0.22	4716.646	Si III(8.09)4716.651(16)
4726.981	7.5	0.025	0.28	4726.872	A II(14)4726.91(10)
4727.642	1.2	0.008	0.14	4727.533	
4730.593	1.6	0.008	0.17	4730.484	
4736.015	9.5	0.037	0.24	4735.906	A II(6)4735.93(15)
4738.081	2.9	0.017	0.16	4737.972	C II(1)4737.97(3)
4739.809	1.4	0.009	0.14	4739.700	
4741.796	4.2	0.019	0.21	4741.687	O II(25)4741.707(9)
4744.869	6.4	0.026	0.23	4744.760	C II(1)4744.77(5)
4746.862	0.8	0.006	0.13	4746.752	
4747.304	2.2	0.008	0.26	4747.195	(C II(1)4747.28(2))
4751.383	7.5	0.032	0.22	4751.273	O II(24)4751.271(13)
4752.761	6.8	0.015	0.44	4752.652	O II(24)4752.681(8)
4755.207	2.3	0.009	0.23	4755.098	S II(35)4755.091(16)
4764.975	6.0	0.029	0.20	4764.865	A II(15)4764.862(25)

4795 Å region

4764.910	6.7	0.029	0.22	4764.882	A II(15)4764.862(25)
4767.336	1.4	0.013	0.10	4767.308	
4774.250	2.8	0.015	0.17	4774.222	N II(20)4774.241(4)
4779.142	1.3	0.011	0.11	4779.114	S II(8)4779.094(16)
4779.752	7.9	0.041	0.18	4779.724	N II(20)4779.722(7)
4781.227	1.3	0.015	0.08	4781.199	N II(20)4781.190(4)
4788.157	14.1	0.056	0.24	4788.129	N II(20)4788.131(8)
4790.112	1.8	0.008	0.22	4790.084	
4791.122	1.3	0.015	0.08	4791.094	
4791.984	3.0	0.017	0.17	4791.956	(S II(46)4792.012(17))
4793.638	3.7	0.018	0.19	4793.610	N II(20)4793.650(4)
4793.879	1.3	0.008	0.15	4793.851	
4794.517	2.3	0.012	0.17	4794.489	Cl II(1)4794.55(99000)

4549.631	2.9	0.020	0.14	4549.511	S II(-)4549.572(17)
4552.507	10.0	0.044	0.21	4552.387	S II(40,48)4552.406(18)
4552.740	106.9	0.391	0.26	4552.620	N II(58)4552.527(7),Si III(2)4552.616 (30)
4552.958	5.0	0.015	0.31	4552.838	S II(-)4552.881(15)
4557.988	3.3	0.014	0.22	4557.868	
4567.963	95.6	0.356	0.25	4567.842	Si III(2)4567.823(25)
4574.335	3.0	0.017	0.16	4574.214	
4574.876	66.0	0.250	0.25	4574.755	Si III(2)4574.759(2)
4579.523	3.6	0.023	0.15	4579.402	A II(17)4579.346(25)
4590.014	5.5	0.031	0.17	4589.893	A II(31)4589.896(25)
4591.093	46.7	0.174	0.25	4590.972	O II(15)4590.972(21)
4596.278	43.5	0.140	0.29	4596.156	O II(15)4596.176(19)

4630 Å region

4601.551	36.0	0.131	0.26	4601.480	N II(5)4601.480(11)
4602.197	14.9	0.053	0.27	4602.126	O II(93)4602.128(11),P II(15) 4602.071(14)
4602.604	1.5	0.008	0.18	4602.533	N II(57.01)4602.53(3)
4607.218	33.3	0.126	0.25	4607.147	N II(5)4607.157(10)
4608.210	3.7	0.010	0.33	4608.139	N II(57.01)4608.085(3)
4609.440	9.2	0.042	0.21	4609.369	O II(93)4609.442(13)
4609.590	19.1	0.071	0.25	4609.519	A II(31)4609.560(25)
4610.264	11.7	0.045	0.24	4610.193	O II(92)4610.203(11)
4613.220	3.4	0.013	0.25	4613.149	O II(93)4613.137(6)
4613.670	4.6	0.016	0.27	4613.599	O II(93)4613.681(7)
4613.932	26.5	0.101	0.25	4613.861	N II(5)4613.866(9)
4619.244	82.1	0.036	2.14	4619.173	C II(50)4619.23(8h)
4620.749	9.0	0.015	0.56	4620.678	
4621.457	27.6	0.100	0.26	4621.386	N II(5)4621.394(10)
4625.695	4.4	0.006	0.69	4625.624	
4629.849	1.4	0.004	0.29	4629.778	
4630.561	8.5	0.015	0.53	4630.490	N II(5)4630.543(14)
4630.612	55.3	0.206	0.25	4630.541	
4631.357	1.9	0.007	0.24	4631.286	
4633.197	1.2	0.007	0.16	4633.125	
4635.428	1.2	0.011	0.11	4635.357	
4637.565	3.7	0.014	0.21	4637.494	
4638.924	53.4	0.177	0.28	4638.853	O II(1)4638.857(19)
4640.636	1.6	0.006	0.27	4640.565	
4641.885	72.5	0.251	0.27	4641.813	O II(1)4641.817(21)
4643.157	39.6	0.146	0.26	4643.086	N II(5)4630.085(5)
4647.500	16.1	0.059	0.25	4647.429	
4647.854	1.3	0.013	0.08	4647.783	
4649.210	88.5	0.299	0.28	4649.139	O II(1)4649.143(23)
4650.326	12.5	0.043	0.28	4650.255	C III(1)4650.25(13)
4650.912	49.2	0.175	0.26	4650.841	O II(1)4650.842(19)
4651.547	5.8	0.024	0.23	4651.476	C III(1)4651.47(11)
4654.599	5.5	0.019	0.27	4654.527	N II(11)4654.532(5)
4656.851	5.1	0.020	0.24	4656.779	S II(9)4656.777(19)
4658.007	4.2	0.017	0.23	4657.935	A II(15)4657.893(25)
4661.705	52.6	0.192	0.26	4661.633	O II(1)4661.635(20)
4663.113	2.5	0.009	0.25	4663.041	Al II(2)4663.054(0)

4685 Å region

4654.406	4.3	0.014	0.29	4654.405	
4654.581	2.9	0.017	0.16	4654.580	N II(11)4654.532(5)
4656.759	4.3	0.017	0.23	4656.758	S II(9)4656.777(19)
4657.934	4.9	0.022	0.21	4657.933	A II(15)4657.893(25)
4661.639	53.2	0.195	0.26	4661.638	O II(1)4661.635(20)

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  4390.682   13.4  0.065  0.19  4390.566 Mg II(10)4390.585(10)
  4395.854   21.4  0.106  0.19  4395.738 Fe III(4)4395.78(6)
[ 4396.044   20.6  0.098  0.20  4395.928 O II(26)4395.942(14)
  4411.295   19.5  0.080  0.23  4411.178 C II(39)4411.163(6)
[ 4411.623   18.1  0.075  0.23  4411.506 C II(39)4411.506(7)
  4414.959   22.1  0.084  0.25  4414.842
[ 4415.029   53.7  0.202  0.25  4414.912 O II(5)4414.901(26)
  4417.083   65.7  0.235  0.26  4416.966 O II(5)4416.973(24)
  4419.703   31.0  0.162  0.18  4419.586 Fe III(4)4419.59(10)
  4426.106   16.2  0.079  0.19  4425.989 A II(7)4426.005(25)
  4427.376    7.3  0.038  0.18  4427.259 N II(55)4427.236(5)
  4428.084    5.6  0.038  0.14  4427.967 N II(55)4427.964(4),Mg II(9)
                                          4427.995(7)
  4430.294   10.4  0.041  0.24  4430.177 A II(7)4430.192(20)
  4431.106   25.3  0.123  0.19  4430.989 Fe III(4)4430.95(15),A II(1)4431.004
                                          (15)
  4432.841   17.5  0.075  0.22  4432.724 N II(55)4432.735(8)
  4433.613    5.0  0.032  0.15  4433.496 N II(55)4433.475(5)
  4437.699  121.9  0.278  0.41  4437.582 He I(50)4437.549((1))
  4439.991    6.6  0.032  0.19  4439.874 S III(7)4439.87(1)
  4442.108    6.5  0.036  0.17  4441.991 N II(55)4442.018(6)
  4443.105   10.3  0.042  0.23  4442.988 O II(35)4443.007(14)
  4447.131   43.2  0.156  0.26  4447.014 N II(15)4447.033(12)
  4448.313   17.2  0.056  0.29  4448.195 O II(35)4448.186(15)
  4452.488   28.5  0.109  0.25  4452.370 O II(5)4452.374(17)
  4463.703   10.2  0.051  0.19  4463.585 S II(43)4463.579(20)
[ 4463.933    5.2  0.033  0.15  4463.815
  4464.560    5.3  0.035  0.14  4464.442 S II(-)4464.43(19)
  4465.441    4.2  0.030  0.13  4465.323
[ 4465.589    9.2  0.039  0.22  4465.471 O II(94)4465.417(16)
  4466.371   10.7  0.042  0.24  4466.253 O II(87)4466.241(14)
[ 4466.597    8.2  0.028  0.27  4466.479
  4470.038  191.5  0.144  1.25  4469.920 He I(15)4469.92(forbidden)
  4471.635  521.8  0.428  0.78  4471.517 He I(14,14)4471.477,.688(6,1)
  4472.076  265.6  0.108  2.31  4471.958
  4477.914    7.1  0.031  0.22  4477.796
[ 4478.072    4.1  0.041  0.09  4477.954 O II(88)4477.904(11)
  4480.057   41.8  0.151  0.26  4479.939 Al III(8,8)4479.891,.968(3,4)
  4481.243   90.1  0.344  0.25  4481.125 Mg II(4)4481.129(100)
[ 4481.453   65.3  0.277  0.22  4481.335 Mg II(4)4481.327(100)
  4483.537    7.6  0.040  0.18  4483.419 S II(43)4483.429(19)
  4486.118    5.1  0.032  0.15  4486.000
  4486.793    5.3  0.025  0.20  4486.674 S II(43)4486.636(16)
  4487.758    6.1  0.025  0.23  4487.639 O II(104)4487.716(6)
  4488.302   18.3  0.034  0.50  4488.183 O II(104)4488.192(2),N II(21)
                                          4488.16(0)
  4489.502   17.6  0.027  0.61  4489.383 O II(86)4489.462(10)
  4491.344   15.0  0.056  0.25  4491.226 O II(86)4491.237(12)
  4493.091    3.7  0.016  0.22  4492.972

V coadd - no Reticon coverage

  4499.311    3.6  0.021  0.16  4499.192 S III(7)4499.24((0)),P
II(11)4499.231
                                          (12)
  4507.726    7.9  0.025  0.30  4507.607 N II(21)4507.557(6)
  4512.682   38.0  0.170  0.21  4512.563 Al III(3)4512.535((8))
  4525.074   10.3  0.039  0.25  4524.955 S II(40)4524.947(21)
  4529.054   10.4  0.058  0.17  4528.934 Al III(3)4528.911(1)
  4529.306   51.5  0.202  0.24  4529.186 Al III(3)4529.176((10))
  4530.545   20.4  0.085  0.22  4530.435 N II(58)4530.410(9)
  4545.207    6.8  0.034  0.19  4545.087 A II(15)4545.045(25)
  4549.005    2.6  0.015  0.16  4548.885
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4435.466	2.5	0.014	0.17	4435.455	
4437.556	113.2	0.256	0.42	4437.545	He I(50)4437.549(1)
4439.393	2.1	0.008	0.24	4439.382	A II(120)4439.463(7)
4439.835	4.8	0.021	0.21	4439.824	S III(7)4439.87(1),A II(M) 4439.878(4)
4440.038	2.0	0.010	0.18	4440.027	A II(122)4440.122(4)
4442.001	7.2	0.032	0.21	4441.990	N II(55)4442.018(6)
4442.431	2.1	0.018	0.11	4442.420	
4442.973	10.2	0.043	0.22	4442.962	O II(35)4443.007(14)
4443.536	1.8	0.010	0.17	4443.525	O II(35)4443.516(7)
4446.998	39.3	0.144	0.26	4446.987	N II(15)4447.033(12)
4447.393	1.6	0.019	0.08	4447.382	
4447.675	1.8	0.020	0.08	4447.664	O II(35)4447.673(4)
4448.181	12.4	0.055	0.21	4448.170	O II(35)4448.186(15)
4448.451	1.6	0.008	0.19	4448.440	A II(127)4448.459(3)
4448.825	3.3	0.016	0.19	4448.814	A II(127)4448.881(18)
4449.725	1.5	0.007	0.21	4449.714	
4452.355	24.2	0.099	0.23	4452.344	O II(5)4452.374(17)
4452.668	1.6	0.018	0.08	4452.657	
4453.607	1.5	0.003	0.42	4453.596	
4455.159	1.5	0.012	0.12	4455.148	
4455.788	1.3	0.012	0.10	4455.777	
4456.331	2.6	0.013	0.19	4456.320	S II(43)4456.388(17)
4461.381	1.5	0.014	0.10	4461.370	
4463.564	9.2	0.039	0.22	4463.553	S II(43)4463.579(20)
4464.419	5.0	0.028	0.19	4464.408	S II(-)4464.43(19)
4465.397	8.5	0.038	0.21	4465.386	O II(94)4465.417(16)
4466.234	9.9	0.039	0.24	4466.223	O II(87)4466.241(14)
4466.454	5.2	0.030	0.16	4466.443	
4467.423	4.8	0.018	0.25	4467.412	O II(-)4467.475(12)
4467.876	5.5	0.023	0.22	4467.865	S III(7)4467.83((1)),O II(94) 4467.921(14)
4469.889	244.4	0.149	1.04	4469.878	He I(15)4469.92(forbiden)
4471.541	959.8	0.483	1.27	4471.530	He I(14,14)4471.477,.688(6,1)
4477.744	5.2	0.016	0.31	4477.732	
4477.847	3.3	0.016	0.19	4477.886	O II(88)4477.904(11)
4479.917	36.6	0.137	0.25	4479.905	Al III(8,8)4479.891,.968(3,4)
4480.826	2.4	0.026	0.09	4480.814	A II(104)4480.85(0n)
4481.123	102.4	0.350	0.28	4481.111	Mg II(4)4481.129(100)
4481.333	49.5	0.222	0.21	4481.321	Mg II(4)4481.327(100)
4481.732	6.6	0.020	0.30	4481.720	A II(39)4484.810(15)
4482.821	1.2	0.016	0.07	4482.809	(Si III(16)4482.884(34))
4483.400	5.0	0.026	0.18	4483.388	S II(43)4483.429(19)
4486.637	5.0	0.020	0.24	4486.625	S II(43)4486.636(16)
4487.738	5.0	0.015	0.30	4487.728	O II(104)4487.716(6)
4488.161	6.1	0.022	0.26	4488.149	(O II(104)4488.196(2),N II(21) 4488.16(0)
4489.396	6.4	0.022	0.28	4489.384	O II(86)4489.462(10)
4491.207	15.6	0.041	0.36	4491.195	O II(86)4491.237(12)
4492.939	4.8	0.017	0.26	4492.927	
4496.805	1.1	0.011	0.10	4496.793	
4497.120	1.6	0.010	0.14	4497.108	

V coadd - Reticon coverage

4378.131	6.0	0.032	0.18	4378.015	O II(102)4378.027(7)
4378.520	9.6	0.035	0.26	4378.404	O II(102)4378.427(8)
4379.762	8.1	0.037	0.20	4379.646	A II(7)4379.667(20)
4382.612	12.2	0.050	0.23	4382.496	
4384.748	8.9	0.040	0.21	4384.632	Mg II(10)4384.643(8)
4388.036	936.5	0.377	1.58	4387.920	}He I(51)4387.928((2))
4388.083	44.9	0.128	0.33	4387.967	

4361.652	15.9	0.078	0.19	4361.537	S III(4)4361.53(2)
4364.807	8.8	0.047	0.17	4364.692	Al III(9)4364.49(2n)
4367.001	46.5	0.204	0.21	4366.886	O III(2)4366.888(19)
4370.850	6.4	0.032	0.19	4370.735	A II(39)4370.751(15)
4371.434	14.0	0.063	0.21	4371.319	A II(1)4371.329(20)
4371.730	9.6	0.054	0.17	4371.615	O II(76)4371.618(10)
4372.303	24.8	0.064	0.36	4372.188	C II(45,46)4372.350(6,6)
4372.608	26.4	0.080	0.31	4372.493	C II(45,45)4372.487(7.7)
4372.929	10.3	0.060	0.16	4372.814	
4374.402	26.3	0.103	0.24	4374.286	C II(45)4374.272(9)
4375.102	4.9	0.029	0.16	4374.986	(N II(45)4374.98(2))
4376.681	11.0	0.030	0.35	4376.565	C II(45)4376.562(5h)

4410 Å region

4378.093	6.5	0.027	0.22	4378.043	O II(102)4378.027(7)
4378.486	9.3	0.032	0.27	4378.436	O II(102)4378.427(8)
4379.697	8.2	0.033	0.23	4379.647	A II(7)4379.74(8)
4383.257	2.6	0.011	0.21	4383.207	
4382.582	11.0	0.048	0.21	4382.532	
4384.714	4.5	0.029	0.14	4384.664	Mg II(10)4384.643(8)
4387.964	605.6	0.300	1.90	4387.914	}He I(51)4387.928((2))
4388.027	71.9	0.173	0.39	4387.977	
4390.629	13.3	0.053	0.24	4390.579	Mg II(10)4390.585(10)
4395.804	21.5	0.098	0.21	4395.754	Fe III(4)4395.78(6)
4396.002	17.4	0.077	0.21	4395.952	O II(26)4395.942(14)
4401.001	5.4	0.020	0.25	4400.951	A II(1)4401.02(7)
4404.190	1.8	0.011	0.15	4404.140	
4405.038	2.5	0.008	0.28	4404.988	
4406.008	3.8	0.018	0.19	4405.958	O II(26)4405.987(4)
4409.253	3.7	0.013	0.27	4409.203	C II(40)4409.161(2)
4410.037	10.0	0.039	0.24	4409.987	C II(40)4409.979(5)
4410.532	1.6	0.008	0.19	4410.482	
4411.225	17.4	0.069	0.24	4411.175	C II(39)4411.163(6)
4411.560	17.8	0.067	0.25	4411.510	C II(39)4411.506(7)
4414.948	68.6	0.241	0.27	4414.898	O II(5)4414.901(26)
4417.026	57.6	0.203	0.27	4416.976	O II(5)4416.973(24)
4418.930	1.9	0.010	0.18	4418.880	S III(4)4418.84(00)
4419.641	30.9	0.143	0.20	4419.591	Fe III(4)4419.59(10)
4426.057	15.5	0.073	0.20	4426.007	A II(7)4426.005(25)
4427.292	7.2	0.034	0.20	4427.242	N II(55)4427.236(5)
4428.024	7.8	0.032	0.23	4427.974	N II(55)4427.964(4),Mg II(9) 4427.995(7)
4430.237	7.9	0.036	0.21	4430.187	A II(7)4430.192(20)
4431.052	23.8	0.103	0.22	4431.001	Fe III(4)4430.95(15)
4431.890	1.8	0.018	0.09	4431.840	N II(55)4431.816(3)
4432.390	2.7	0.018	0.14	4432.340	S II(43)4432.372(18)
4432.782	19.3	0.070	0.26	4432.732	N II(55)4432.735(8)
4433.529	5.5	0.028	0.19	4433.479	N II(55)4433.475(5)
4434.026	7.4	0.029	0.24	4433.976	Mg II(9)4433.991(8)
4437.635	114.2	0.259	0.41	4437.584	He I(50)4437.549((1))
4439.924	5.1	0.024	0.20	4439.874	S III(7)4439.87(1)
4442.080	7.4	0.031	0.22	4442.030	N II(55)4442.018(6)
4443.062	8.4	0.035	0.23	4443.012	O II(35)4443.007(14)

4465 Å region

4432.355	1.5	0.012	0.12	4432.344	S II(43)4432.372(18)
4432.722	18.4	0.074	0.23	4432.711	N II(55)4432.735(8)
4433.474	7.4	0.034	0.21	4433.463	N II(55)4453.425(5)
4433.956	6.1	0.029	0.20	4433.945	Mg II(9)4433.991(8),A II (123)4433.841(10)

4332.704	10.9	0.051	0.20	4332.693	S III(4)4332.71(4),O II(65)4332.707

V coadd - coverage by Reticon

4273.204	5.6	0.030	0.17	4273.091	O II(68)4273.104(10)
4273.518	5.6	0.036	0.14	4273.405	Fe III(121)4273.42(7n)
4275.656	29.1	0.122	0.22	4275.543	O II(67)4275.556(15)
4276.094	8.7	0.045	0.18	4275.981	O II(67)4275.994(10)
4276.369	9.7	0.042	0.22	4276.256	O II(68)4276.281(10)
4276.825	20.9	0.076	0.26	4276.712	O II(54,67)4276.750(14)
4277.587	17.5	0.069	0.24	4277.474	O II(67,68)4277.493(13),A II(32) 4277.524(20)
4278.015	11.5	0.046	0.23	4277.902	O II(67)4277.901(11)
4278.615	7.1	0.031	0.21	4278.502	S II(49)4278.500(18)
4281.426	5.5	0.039	0.13	4281.313	O II(54)4281.318(10)
4282.702	6.2	0.034	0.17	4282.589	S II(-)4282.595(18)
4283.075	14.5	0.065	0.21	4282.962	O II(67)4282.954(13)
4283.829	10.8	0.052	0.20	4283.716	O II(67)4283.727(10)
4285.086	29.2	0.141	0.19	4284.973	S III(4)4284.991(5)
4285.795	17.9	0.062	0.27	4285.682	O II(78)4285.689(14)
4286.281	8.7	0.053	0.15	4286.167	Fe III(121)4286.13(10n)
4288.947	10.6	0.048	0.21	4288.833	O II(54)4288.819(12)
4291.371	16.7	0.065	0.24	4291.258	O II(55)4291.259(13)
4292.325	11.0	0.038	0.27	4292.212	O II(-)4292.219(12)
4294.513	16.2	0.087	0.17	4294.400	S II(49)4294.398(22)
4294.919	20.7	0.076	0.26	4294.806	O II(54)4294.792(14)
4296.975	11.3	0.053	0.20	4296.862	Fe III(121)4296.88(10n)
4297.844	9.0	0.025	0.34	4297.731	
4303.174	5.1	0.026	0.19	4303.060	O II(100)4302.858(8),03.07(7)
4303.929	29.4	0.094	0.29	4303.815	O II(54)4303.836(14)
4304.899	15.3	0.076	0.19	4304.785	Fe III(121)4304.81(10n)
4305.29	3.6	0.028	0.12	4305.414	O II(54)4305.390(9)
4307.364	12.7	0.055	0.22	4307.250	O II(53)4307.245(11)
4309.123	10.4	0.044	0.22	4309.009	O II(64)4308.999(10)
4310.480	17.6	0.077	0.21	4310.366	Fe III(121)4310.37(12)
4313.160	10.8	0.035	0.29	4313.046	C II(28)4313.100(6)
4313.545	10.1	0.059	0.16	4313.431	O II(78)4313.442(11)
4315.485	9.7	0.038	0.24	4315.371	O II(64,79)4315.393(7)
4315.948	7.6	0.023	0.31	4315.834	O II(78)4315.828(6)
4317.257	59.5	0.221	0.25	4317.143	C II(28)4317.260(8),O II(2)4317.138 (18)
4317.791	6.4	0.028	0.21	4317.677	O II(53)4317.700(19)
4318.696	10.9	0.033	0.31	4318.582	S II(49)4318.645(18)
4319.745	54.4	0.216	0.24	4319.631	O II(2)4319.628(18)
4325.881	20.7	0.089	0.22	4325.767	O II(2)4325.758(14)
4327.609	12.5	0.050	0.24	4327.495	O II(41)4327.465(11)
4328.657	8.7	0.031	0.27	4328.543	O II(61)4328.586(10)
4331.302	5.8	0.038	0.14	4331.188	A II(7)4331.199(25),O II(66,75) 4331.176(11)
4332.823	8.2	0.050	0.16	4332.709	S III(4)4332.71(4),O II(65)4332.707 (10)

V coadd - no Reticon coverage

4336.958	4.5	0.036	0.12	4336.843	O II(2)4336.860(16)
4345.663	35.0	0.132	0.25	4345.548	O II(2)4345.559(18)
4347.523	21.4	0.089	0.23	4347.408	O II(16)4347.416(18)
4348.182	20.3	0.110	0.17	4348.067	A II(7)4348.063(50)
4349.530	65.9	0.259	0.24	4349.415	O II(2)4349.426(22)
4351.385	38.6	0.154	0.24	4351.270	O II(16)4351.257(20)
4352.685	9.6	0.060	0.15	4352.570	
4353.706	7.5	0.029	0.24	4353.591	O II(76)4353.594(11)
4354.682	12.7	0.058	0.21	4354.567	S III(7)4354.56(2)

4266.696	6.6	0.028	0.22	4266.583	A II(7)4266.528(25)
4267.124	97.8	0.319	0.29	4267.011	C II(6)4267.003(18)
4267.385	100.4	0.334	0.28	4267.272	C II(6)4267.258(20)
4267.873	13.9	0.062	0.21	4267.760	S II(49)4267.759(21)

4300 Å region

4269.737	5.9	0.024	0.23	4269.726	S II(49)4269.724(18)
4270.489	1.8	0.006	0.26	4270.478	
4273.089	4.2	0.021	0.19	4273.078	O II(68)4273.104(10)
4273.399	6.2	0.032	0.18	4273.388	Fe III(121)4273.42(7n)
4274.219	2.6	0.014	0.18	4274.208	O II(67)4274.240(9)
4275.551	21.5	0.093	0.22	4275.540	O II(67)4275.556(15)
4275.986	8.7	0.038	0.22	4275.975	O II(67)4275.994(10)
4276.290	6.6	0.029	0.22	4276.279	O II(68)4276.281(10)
4276.731	15.5	0.062	0.23	4276.720	O II(54,67)4276.750(14)
4277.464	15.2	0.057	0.25	4277.453	O II(67,68)4277.493(13),A II(32) 4277.524(20)
4277.890	8.3	0.036	0.21	4277.879	O II(67)4277.901(11)
4278.505	5.4	0.020	0.26	4278.494	S II(49)4278.500(18)
4281.319	6.7	0.026	0.24	4281.308	O II(54)4281.318(10)
4282.604	5.8	0.028	0.19	4282.593	S II(-)4282.595(18)
4282.965	11.5	0.052	0.21	4282.954	O II(67)4282.954(13)
4283.254	2.4	0.016	0.14	4283.243	O II(67)4283.249(8)
4283.725	8.0	0.041	0.18	4283.714	O II(67)4283.727(10)
4284.971	24.5	0.122	0.19	4284.960	S III(4)4284.991(5)
4285.687	13.8	0.056	0.23	4285.676	O II(78)4285.689(14)
4286.167	8.5	0.044	0.18	4286.156	Fe III(121)4286.13(10n)
4288.817	8.4	0.040	0.19	4288.806	O II(54)4288.819(12)
4291.250	11.3	0.046	0.23	4291.239	O II(55)4291.259(13)
4291.685	2.6	0.006	0.41	4291.674	
4292.221	6.9	0.030	0.21	4292.210	O II(-)4292.219(12)
4294.405	14.3	0.080	0.17	4294.394	S II(49)4294.398(22)
4294.814	18.5	0.065	0.27	4294.803	O II(54)4294.792(14)
4295.821	1.6	0.006	0.24	4295.810	
4296.859	9.8	0.051	0.18	4296.848	Fe III(121)4296.88(10n)
4302.958	6.6	0.017	0.36	4302.947	O II(100)4302.858(8),4303.070(7)
4303.595	3.7	0.019	0.17	4303.584	O II(64)4303.623(10)
4303.818	19.7	0.078	0.24	4303.807	O II(54)4303.836(14)
4304.779	11.6	0.061	0.18	4304.768	Fe III(121)4304.81(10n)
4305.392	2.7	0.018	0.14	4305.381	O II(54)4305.390(9)
4307.248	10.8	0.047	0.22	4307.237	O II(53)4307.245(11)
4308.998	8.0	0.037	0.20	4308.987	O II(64)4308.999(10)
4310.369	14.5	0.069	0.20	4310.358	Fe III(121)4310.37(12)
4312.106	6.8	0.029	0.22	4312.095	O II(79)4312.107(10)
4313.056	7.7	0.035	0.20	4313.045	C II(28)4313.100(6)
4313.441	9.1	0.040	0.21	4313.430	O II(78)4313.442(11)
4315.396	7.2	0.033	0.21	4315.385	O II(64,79)4315.393(7)
4315.853	4.9	0.015	0.31	4315.842	O II(78)4315.828(6)
4317.151	50.3	0.197	0.24	4317.140	C II(28)4317.260(8),O II(2)4317.138 (18)
4317.703	6.3	0.026	0.23	4317.692	O II(53)4317.700(19)
4318.609	7.0	0.035	0.19	4318.598	S II(49)4318.645(18)
4319.635	45.4	0.186	0.23	4319.624	O II(2)4319.628(18)
4323.702	2.6	0.015	0.16	4323.691	
4325.759	18.9	0.084	0.21	4325.748	O II(2)4325.758(14)
4326.088	3.3	0.018	0.18	4326.077	C II(28)4326.156(5)
4327.467	10.1	0.040	0.24	4327.456	O II(41)4327.465(11)
4328.578	5.1	0.022	0.22	4328.567	O II(61)4328.586(10)
4329.849	7.7	0.019	0.37	4329.838	
4331.195	10.3	0.043	0.22	4331.184	O II(66,75)4331.176(11),A II(7) 4331.199(25)
4331.866	5.3	0.018	0.28	4331.855	O II(41)4331.861(10)

4161.494	3.0	0.026	0.11	4161.396	
4162.772	23.0	0.126	0.17	4162.674	S II(44,65)4162.665(24)
4164.831	29.2	0.139	0.20	4164.733	Fe III(118)4164.79(20)
4165.042	9.6	0.051	0.18	4164.944	S III(-)4164.96(0)
4166.939	11.7	0.079	0.14	4166.841	Fe III(118)4166.86(9)
4167.109	2.2	0.018	0.12	4167.011	

UL Section - same coverage as Reticon

4166.935	11.1	0.080	0.13	4166.854	Fe II(118)4166.86(9)
4167.101	3.7	0.021	0.16	4167.020	
4167.471	3.3	0.020	0.15	4167.390	Fe III(118)4167.41(4)
4168.517	12.3	0.050	0.23	4168.436	S II(44)4168.370(18)
4169.088	58.7	0.169	0.33	4169.006	He I(52)4168.971((1))
4169.328	31.4	0.098	0.30	4169.247	O II(19)4169.222(14)
4169.666	3.9	0.024	0.15	4169.584	
4171.672	6.1	0.047	0.12	4171.590	N II(43)4171.607(6)

VS section - same coverage as Reticon

4182.203	3.5	0.019	0.18	4182.092	
4182.817	2.8	0.018	0.15	4182.706	
4182.980	3.6	0.020	0.17	4182.869	
4185.567	28.0	0.128	0.21	4185.456	O II(36)4185.449(18)

V section - same coverage as Reticon

4185.514	14.6	0.088	0.16	4185.404	O II(36)4185.449(18)
4185.620	12.8	0.085	0.14	4185.510	
4189.885	38.4	0.152	0.24	4189.774	S II(44,65)4189.676(18),O II(36) 4189.789(19)
4192.645	7.4	0.032	0.21	4192.534	O II(42)4192.518(11)
4193.659	4.6	0.021	0.20	4193.548	S II(10)4193.493(15)
4196.772	5.1	0.024	0.20	4196.661	Fe III(22)4196.69(1),O II(42) 4196.701(9)
4200.075	8.2	0.033	0.24	4199.964	A II(124)4199.93(3),N II(49) 4199.980(5)
4200.326	4.0	0.022	0.17	4200.215	
4202.436	3.2	0.020	0.15	4202.325	
4210.775	3.3	0.019	0.16	4210.664	
4211.548	3.9	0.029	0.13	4211.437	
4211.726	2.7	0.023	0.11	4211.615	
4215.646	2.4	0.020	0.11	4215.535	Sr II(1)4215.524(300r)
4217.285	3.7	0.019	0.18	4217.174	S II(44)4217.179(17)
4222.347	21.0	0.108	0.18	4222.236	P III(3)4222.195(14)

V section - no Reticon

4225.003	3.6	0.020	0.16	4224.892	
4227.858	19.3	0.074	0.24	4227.746	N II(33)4227.743(8)
4235.692	6.5	0.045	0.14	4235.580	Fe III(-)4235.54(10)
4237.085	35.4	0.112	0.30	4236.974	N II(48,48)4236.91,37.05(8,7)
4238.044	5.1	0.019	0.25	4237.922	O II(-)4237.930(8)
4238.722	7.5	0.033	0.21	4238.630	
4241.893	32.3	0.132	0.23	4241.781	N II(48,48)4241.784(10,10)
4243.844	6.5	0.035	0.17	4243.732	Fe III(-)4243.85(8)
4246.870	12.4	0.062	0.19	4246.758	P III(3)4246.720(12)
4253.688	37.8	0.180	0.20	4253.576	S III(4)4253.593(9)
4254.103	31.6	0.076	0.39	4253.991	O II(101,101)4253.895,54.126(14,14)
4257.580	5.8	0.022	0.25	4257.468	S II(66)4257.379(17),O II(-)4257.549 (8)
4261.495	3.5	0.023	0.14	4261.383	

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  4154.112    5.4  0.015  0.33  4154.014
  4155.100    6.4  0.039  0.15  4155.002 Fe III(-)4154.98(8)
  4156.638   12.7  0.059  0.20  4156.540 O II(19)4156.530(12)
  4157.146    3.2  0.021  0.15  4157.048 (N II(50)4157.01(3))
  4158.836    2.3  0.030  0.07  4158.738

4190Å region

  4161.269    2.4  0.010  0.23  4161.289
  4162.278    2.7  0.016  0.15  4162.297 S II(65)4162.306(15)
  4162.658   25.2  0.119  0.20  4162.678 S II(44,65)4162.665(24)
  4164.697   11.7  0.076  0.14  4164.716
  4164.819   24.7  0.065  0.36  4164.838 Fe III(118)4164.79(20)
  4166.820   12.2  0.066  0.17  4166.839 Fe III(118)4166.86(9)
  4167.524    1.7  0.004  0.41  4167.543
  4168.393   10.6  0.043  0.23  4168.413 S II(44)4168.370(18),Fe III(118)
                                          4168.41(4)
  4169.043   87.4  0.188  0.44  4169.063}He I(52)4168.971(1)
  4169.376   12.5  0.014  0.83  4169.396
  4171.571   10.0  0.043  0.22  4171.590 N II(43)4171.607(6)
  4173.555    4.0  0.017  0.23  4173.575 N II(50)4173.572(3)
  4173.982    6.5  0.032  0.19  4174.001 S II(64)4174.002(19)
  4174.242   14.8  0.073  0.19  4174.262 S II(-)4174.265(21),Fe III(-)4174.27
                                          (10)
  4176.141   16.7  0.072  0.22  4176.161 N II(43)4176.161(8)
  4176.833    1.4  0.011  0.12  4176.853
  4178.835    2.6  0.012  0.20  4178.854 (Fe II(28)4178.855(8))
  4179.129    5.9  0.025  0.22  4179.148 Fe III(-)4179.25(5)
  4179.648    8.2  0.035  0.22  4179.667 N II(50)4179.674(5)
  4182.082    2.1  0.017  0.12  4182.102
  4184.107    3.1  0.014  0.21  4184.126 Fe III(22)4184.09(4)
  4185.432   27.8  0.119  0.22  4185.452 O II(36)4185.449(18)
  4186.743    2.9  0.008  0.33  4186.765
  4188.014    1.6  0.010  0.15  4188.034
  4189.100    4.4  0.020  0.20  4189.120 Fe III(-)4189.10(7)
  4189.752   37.3  0.135  0.26  4189.771 S II(44,65)4189.676(18),O II(36)
                                          4189.789(19)
  4190.080    2.2  0.013  0.15  4190.100 A I(7)4191.030(10)
  4191.153    1.9  0.008  0.23  4191.172
  4192.258    1.2  0.006  0.19  4192.277
  4192.503    5.8  0.028  0.20  4192.522 O II(42)4192.518(11)
  4193.485    4.4  0.021  0.20  4193.504 S II(10)4193.493(15)
  4194.039    1.6  0.009  0.18  4194.059
  4195.973    5.4  0.020  0.25  4195.993 N II(49)4195.974(8)
  4196.709    3.7  0.017  0.21  4196.729 Fe III(22)4196.69(1),O
II(42)4196.701
                                          (9)
  4199.960    7.6  0.034  0.21  4199.979 A II(124)4199.93(3),N II(49)
                                          4199.980(5)
  4200.158    2.4  0.017  0.14  4200.178
  4203.838    1.7  0.010  0.16  4203.857
  4207.488    2.1  0.012  0.17  4207.507 N II(74)4207.50(3)
  4208.866    1.3  0.007  0.17  4208.885
  4210.664    2.7  0.015  0.17  4210.684
  4215.528    2.0  0.011  0.17  4215.547 Sr II(1)4215.524(300r)
  4217.218    4.8  0.018  0.26  4217.237 S II(44)4217.179(17)
  4219.709    2.1  0.009  0.22  4219.729
  4221.656    2.0  0.009  0.22  4221.675 O II(-)4221.703(6)
  4222.227   20.4  0.090  0.21  4222.247 P III(3)4222.195(14)

U coadd - same coverage as Reticon

  4161.292    2.3  0.023  0.09  4161.194
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4071.340	12.1	0.063	0.18	4071.244	O II(48)4071.233(13)
4072.259	65.0	0.262	0.23	4072.163	O II(10)4072.167(22)
4073.155	8.9	0.049	0.17	4073.059	N II(38)4073.042(6)
4074.609	30.6	0.122	0.24	4074.513	C II(36)4074.518(10)
4074.931	21.7	0.094	0.22	4074.835	
4075.512	5.9	0.029	0.19	4075.416	C II(36)4075.395(4),Si II(3.01) 4075,451(20H)
4075.964	73.5	0.296	0.23	4075.868	O II(10)4075.862(23)
4076.261	14.6	0.063	0.22	4076.165	C II(35.01)4076.142(5)
4076.638	4.6	0.028	0.16	4076.542	C II(36)4076.526(4)
4078.946	28.1	0.124	0.21	4078.850	O II(10)4078.842(16)
4080.227	6.3	0.036	0.16	4080.131	P III(1)4080.084(11)
4081.095	12.7	0.071	0.17	4080.999	
4082.054	4.2	0.046	0.09	4081.958	
4082.406	8.7	0.043	0.19	4082.310	N II(38) 4082.270(5)
4084.003	18.1	0.076	0.22	4083.906	O II(49)4083.895(14)
4084.764	10.8	0.050	0.20	4084.667	O II(21)4084.652(12)
4085.221	29.7	0.129	0.22	4085.125	O II(10)4085.114(18)
4087.204	4.7	0.053	0.08	4087.108}	O II(48)4087.152(14)
4087.305	9.6	0.063	0.14	4087.208	
4088.976	14.8	0.066	0.21	4088.880	Si IV(1)4088.854(10)
4089.393	31.6	0.137	0.22	4089.297	O II(48)4089.285(18)
4093.038	18.0	0.083	0.20	4092.941	O II(10)4092.930(16)
4095.775	3.7	0.019	0.18	4095.678	O II(48)4095.642(14)
4096.639	5.0	0.028	0.17	4096.542	O II(21)4096.530(14)
4097.341	5.7	0.033	0.16	4097.244	O II(20,48)4097.254(16)
4110.901	12.2	0.064	0.18	4110.804	O II(20)4110.786(14)
4112.133	18.3	0.075	0.23	4112.036	O II(37)4112.022(14)
4113.962	5.7	0.039	0.14	4113.865	O II(37)4113.835(11)
4115.683	2.5	0.022	0.11	4115.586	Si III(12.04)4115.504(5h)
4116.215	10.9	0.045	0.23	4116.118	Si IV(1)4116.097(9)
4118.510	3.5	0.028	0.11	4118.413	
4118.850	5.2	0.019	0.25	4118.753	
4119.323	47.8	0.209	0.22	4119.226	O II(20)4119.216(21)
4120.384	26.6	0.126	0.20	4120.287	O II920)4120.279(16)
4120.953	215.9	0.399	0.51	4120.856	He I(16,16)4120.812,.993((3,1)),Fe III(118)4120.97(8)
4121.564	22.5	0.093	0.23	4121.467	O II(19)4121.464(13)
4122.116	11.7	0.066	0.17	4122.019	Fe III(118)4122.06(8)
4122.483	6.6	0.061	0.10	4122.386	
4122.873	13.3	0.073	0.17	4122.776	(Fe III(118)4122.98(8))
4128.160	31.1	0.149	0.20	4128.063	Si II(3)4128.067(300H)
4129.439	9.3	0.046	0.19	4129.341	O II(19)4129.321(10)
4130.983	32.0	0.152	0.20	4130.885	Si II(3)4130.893(500H)
4131.848	22.4	0.106	0.20	4131.750	(N II(43.01)4131.782(4))
4132.913	32.2	0.143	0.21	4132.815	O II(19)4132.801(16)
4133.965	2.6	0.015	0.16	4133.867	
4137.883	16.9	0.093	0.17	4137.785	(Fe III(118)4137.93(10))
4139.456	14.7	0.086	0.16	4139.358	Fe III(118)4139.37(8)
4140.265	4.3	0.019	0.21	4140.167	
4140.580	10.6	0.052	0.19	4140.482	Fe III(118)4140.51(8)
4140.898	5.4	0.025	0.20	4140.800	(O II(19)4140.703(7))
4141.200	8.1	0.026	0.29	4141.103	
4141.544	6.5	0.025	0.24	4141.446	
4142.356	9.1	0.047	0.18	4142.258	O II(106)4142.268(9)
4143.921	778.0	0.413	1.20	4143.823	He I(53)4143.759((2))
4145.174	18.8	0.065	0.27	4145.076	S II(44)4145.067(22)
4145.807	10.2	0.034	0.29	4145.709	N II(65)4145.776(6)
4146.221	6.0	0.025	0.23	4146.124	O II(106)4146.077(12)
4150.030	19.8	0.086	0.22	4149.932	Al III(5)4149.897((10))
4150.296	11.4	0.063	0.17	4150.198	Al III(5)4150.138((8))
4153.180	25.0	0.115	0.20	4153.082	S II(44)4153.064(23)
4153.413	36.2	0.160	0.21	4153.315	O II(19)4153.302(17)

3926.762	545.5	0.197	1.77	3926.671	He I(58)3926.530((1))
3928.688	27.4	0.116	0.22	3928.595	S III(8)3928.615(6),A II(10)3928.629 (25)
3932.003	3.5	0.031	0.11	3931.910	S II(29)3931.918(17)
3932.590	6.7	0.029	0.22	3932.497	A II(90)3932.548(15)
3933.360	16.3	0.096	0.16	3933.267	S II(55)3933.267(21)
3933.759	76.3	0.376	0.19	3933.666	Ca II(1)3933.664(400R)
3936.212	30.4	0.047	0.61	3936.119	He I(57)3935.914(1)
3945.144	34.7	0.148	0.22	3945.051	O II(6)3945.048(5),C II(32) 3945.003(5)
3946.359	3.0	0.026	0.11	3946.266	C II(32)3946.278(5)
3947.124	6.9	0.032	0.20	3947.031	S II(45)3946.932(19),Fe III(23,69) 3947.10(4)
3952.142	6.5	0.025	0.25	3952.049	C II(32)3952.058(9)
3953.907	6.1	0.036	0.16	3953.814	
3954.457	49.0	0.205	0.22	3954.364	O II(6)3954.366(19)
3955.941	23.0	0.105	0.21	3955.848	N II(6)3955.851(10)
3964.815	161.9	0.388	0.39	3964.721	He I(5)3964.727((4))
3966.759	5.3	0.038	0.13	3966.665	
3968.562	26.1	0.131	0.19	3968.468	Ca II(1)3968.470(350R)
3973.363	20.2	0.098	0.19	3973.269	O II(6)3973.260(23)
3980.397	5.7	0.026	0.21	3980.303	C II(37)3980.323(8)
3982.815	27.9	0.130	0.20	3982.721	O II(6)3982.715(17)
3983.874	14.3	0.070	0.19	3983.780	S III(8)3983.77(8)
3986.073	9.3	0.052	0.17	3985.979	S III(8)3985.97(2)
3991.015	4.1	0.031	0.12	3990.921	S II(45)3990.913(17)
3995.096	78.8	0.321	0.23	3995.002	N II(12)3994.988(15)
3997.315	3.5	0.028	0.12	3997.221	
3998.058	8.1	0.030	0.26	3997.964	Si II(20)3998.01(10HH)
3998.862	5.4	0.032	0.16	3998.768	S II(59)3998.757(18)
3999.893	5.7	0.017	0.32	3999.799	
4005.114	15.4	0.090	0.16	4005.020	
4007.366	24.0	0.023	0.96	4007.271	
4009.453	647.2	0.311	1.33	4009.358	He I(55)4009.270((1))
4017.372	2.9	0.018	0.15	4017.277	C II(27)4017.278(5)
4018.093	3.7	0.028	0.13	4017.998	
4022.423	8.9	0.054	0.16	4022.328	
4024.127	23.4	0.091	0.46	4024.038	He I(54)4023.986((1))
4025.142	52.3	0.088	0.56	4025.047	
4025.507	35.3	0.052	0.64	4025.412	
4026.087	811.5	0.233	3.27	4025.992	N II(39)4026.075(7)
4026.358	346.9	0.320	0.69	4026.253	He I(18.18)4026.189,.362((5,1))
4028.876	6.5	0.028	0.22	4028.781	S II(45)4028.750(21)
4032.843	7.6	0.027	0.26	4032.748	S II(59)4032.779(19)
4033.232	4.1	0.027	0.14	4033.137	O II(50)4033.155(7)
4035.180	24.6	0.113	0.20	4035.085	O II(50)4035.068(8)
4035.500	10.4	0.056	0.18	4035.405	A II(33)4035.47(6)
4039.265	7.6	0.032	0.22	4039.169	Fe III(45)4039.12(3)
4041.371	15.8	0.077	0.19	4041.276	N II(39)4041.311(11)
4041.445	20.5	0.099	0.19	4041.350	O II(50)4041.289(8)
4043.638	22.1	0.098	0.21	4043.542	N II(39)4043.529(9)
4044.976	12.0	0.025	0.44	4044.881	O II(50)4044.942(7)
4048.300	7.7	0.040	0.18	4048.205	O II(50)4048.214(10)
4053.190	10.1	0.063	0.15	4053.094	
4054.221	6.7	0.022	0.26	4054.125	O II(50)4054.081(8)
4054.658	3.6	0.018	0.18	4054.564	O II(50)4054.528(7)
4057.005	5.5	0.028	0.18	4056.909	N II(39)4056.901(4)
4059.440	9.6	0.057	0.16	4059.344	P III(1)4059.312(13)
4060.705	10.5	0.066	0.15	4060.609	O II(50)4060.599(12)
4061.145	11.0	0.050	0.21	4061.049	O II(50)4061.028(11)
4063.058	13.5	0.063	0.20	4062.962	O II(50)4062.936(13)
4069.729	44.2	0.187	0.22	4069.633	O II(10)4069.623(19)
4069.996	52.2	0.224	0.22	4069.900	O II(10)4069.886(20)

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  3876.744   23.9  0.104  0.22  3876.660 C II(33)3876.664(12)
  3878.129    6.2  0.022  0.27  3878.044 C II(33)3878.028(7),He I(59)3878.180
                                          ((1))
  3878.488   13.3  0.020  0.64  3878.404
  3879.735    5.8  0.031  0.17  3879.651 C II(33)3879.640(7)
  3880.662    4.6  0.021  0.20  3880.578 C II(33)3880.588(7)
  3882.280   25.0  0.114  0.21  3882.196 O II(12)3882.192(19)
  3882.568    3.9  0.024  0.16  3882.484 O II(11)3882.446(12)
  3883.194    3.8  0.025  0.14  3883.110 O II(12)3883.130(13)
  3885.831    5.2  0.010  0.47  3885.747
  3888.092    4.8  0.032  0.14  3888.008 D8 3887.993
  3889.090  279.1  0.240  1.09  3889.005 H8 3889.051

U coadd - covers same as Reticon

  3847.451    6.7  0.029  0.22  3847.360 N II(30)3847.409(5)
  3847.964    5.3  0.035  0.15  3847.873 O II(12)3847.893(13)
  3848.370    6.1  0.018  0.32  3848.279 Mg II(5)3848.24(7)
┌ 3850.673    3.2  0.027  0.11  3850.582 Mg II(5)3850.40(6),A II(10)3850.578
│                                          (30)
└ 3850.944   13.7  0.044  0.29  3850.853 O II(12)3850.797(13),S
II(50)3850.906
                                          (17)
  3851.156    7.0  0.046  0.14  3851.065 O II(12)3851.032(10)
  3851.565    4.1  0.026  0.15  3851.474 O II(13)3851.471(14)
  3853.770    9.7  0.057  0.16  3853.679 Si II(1)3853.664(100h)
  3855.215    4.4  0.040  0.10  3855.124 N II(30)3855.100(5)
┌ 3856.091   26.7  0.174  0.14  3856.000 Si II(1)3856.017(500h)
└ 3856.195   19.4  0.114  0.16  3856.104 O II(12)3856.134(15)
  3857.269   12.6  0.060  0.20  3857.178 O II(13)3857.166(16)
  3860.764    9.9  0.047  0.20  3860.673 S II(50)3860.608(18),S III(5)
                                           3860.64(3)
  3862.685   31.7  0.169  0.18  3862.594 Si II(1)3862.595(200h)
  3863.603   10.8  0.052  0.19  3863.512 O II(12)3863.502(16)
  3864.199    4.7  0.023  0.19  3864.108 O II(11)3864.125(10)
┌ 3864.524   14.6  0.082  0.17  3864.433 O II(12)3864.426(16)
└ 3864.743   14.6  0.067  0.20  3864.652 O II(12)3864.667(15)
┌ 3867.553   24.5  0.095  0.24  3867.462 He I(20)3867.477(2)
└ 3867.652  146.4  0.289  0.48  3867.561 He I(20)3867.631(1)
┌ 3871.840   27.4  0.056  0.46  3871.749 He I(60)3871.819((1))
│ 3872.081  186.8  0.056  3.12  3871.990
└ 3872.297   20.6  0.032  0.61  3872.206 A II(54)3872.15(5)
┌ 3875.890    3.4  0.022  0.15  3875.798 O II(13)3875.796(12)
│ 3876.252   63.5  0.182  0.33  3876.160 C II(33,33)3876.055,.187(9,12)
│ 3876.528   20.0  0.114  0.17  3876.437 C II(33)3876.408(12)
└ 3876.755   23.4  0.106  0.21  3876.663 C II(33)3876.664(12)
  3878.240   18.9  0.028  0.63  3878.148 C II(33)3878.028(7),He I(59)3878.180
                                          ((1))
  3879.737    4.6  0.023  0.19  3879.646 C II(33)3879.640(7)
  3882.279   20.2  0.102  0.19  3882.188 O II(12)3882.192(19)

U coadd -no reticon

  3907.547   10.8  0.054  0.19  3907.455 O II(11)3907.455(14)
┌ 3912.036   28.9  0.167  0.16  3911.944 O II(17)3911.957(19)
└ 3912.186   14.1  0.080  0.17  3912.094 O II(17)3912.107(15)
  3915.548    2.8  0.015  0.17  3915.452
  3917.887    4.3  0.036  0.11  3917.794
┌ 3919.037   80.8  0.327  0.23  3918.945 C II(4)3918.978(15)
└ 3919.382   28.7  0.133  0.20  3919.290 O II(17)3919.285(17)
  3920.747   97.0  0.378  0.24  3920.655 C II(4)3920.693(12)
┌ 3923.552   16.1  0.073  0.21  3923.459 S II(55)3923.460(20)
│ 3924.564   36.5  0.140  0.25  3924.471 Si III(8.14)3924.468(20)
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Gamma Pegasi

U coadded

3709.451	5.4	0.051	0.10	3709.363	S III(1)3709.371(5)
3712.859	7.3	0.041	0.17	3712.771	O II(3)3712.741(24)
3713.235	9.1	0.044	0.19	3713.147	Al III(4)3713.103((15))
3717.576	2.3	0.017	0.12	3717.488	
3717.829	6.2	0.040	0.14	3717.741	S III(6)3717.775(6)
3727.411	23.5	0.123	0.18	3727.323	O II(3)3727.320(26)
3732.993	25.0	0.072	0.33	3732.905	He I(24,24)3732.861,.992((1,1)
3739.836	8.6	0.054	0.15	3739.748	O II(31)3739.762(19)
3749.591	14.1	0.051	0.26	3749.502	O II(3)3749.486(29)
3757.730	3.7	0.049	0.07	3757.641	
3762.574	9.1	0.053	0.16	3762.485	O II(31)3762.465(18)
3791.498	27.8	0.147	0.18	3791.408	Si III(5)3791.41(20)
3796.206	9.2	0.047	0.18	3796.116	Si III(5)3796.114(25)
3806.025	6.1	0.023	0.25	3805.935	
[3806.598	63.7	0.281	0.21	3806.508	Si III(5)3806.544(30)
[3806.783	28.7	0.144	0.19	3806.693	
3819.664	360.6	0.475	1.82	3819.574	He I(22,22)3819.606,.761((4,1))

3860 Å region - Reticon

3828.493	2.2	0.009	0.23	3828.410	Fe III(70,95)3828.44(2)
3829.806	6.1	0.019	0.30	3829.723	N II(30)3829.793(6)
3831.496	2.3	0.018	0.12	3831.413	S II(-)3831.383(17)
3838.421	6.8	0.042	0.15	3838.337	S III(5)3838.316(6),N II(30) 3838.374(8)
3842.235	4.7	0.021	0.21	3842.152	N II(30)3842.183(5)
3842.450	2.2	0.018	0.12	3842.366	
3842.939	2.5	0.014	0.17	3842.856	O II(12)3842.815(14)
3843.666	3.1	0.026	0.11	3843.582	O II(13)3843.587(13)
3847.442	9.0	0.034	0.25	3847.358	N II(30)3847.409(5)
3847.978	5.3	0.035	0.14	3847.894	O II(12)3847.892(13)
3848.309	6.1	0.020	0.29	3848.225	Mg II(5)3848.24(7)
3850.622	6.1	0.025	0.23	3850.538	Mg II(5)3850.40(6),A II(10)3850.578 (30)
3850.902	10.2	0.038	0.25	3850.818	O II(12)3850.797(13),S II(50)3850.906 (17)
3851.122	10.3	0.057	0.17	3851.038	O II(12)3851.032(10)
3851.623	6.5	0.017	0.37	3851.539	O II(13)3851.471(14)
3853.752	9.1	0.053	0.16	3853.668	Si II(1)3853.664(100h)
3855.184	6.8	0.043	0.15	3855.100	N II(30)3855.100(5)
[3856.111	45.9	0.211	0.20	3856.027	Si II(1)3856.017(500h)
[3856.289	4.2	0.038	0.10	3856.205	O II(12)3856.134(15)
3857.236	9.7	0.053	0.17	3857.152	O II(13)3857.166(16)
3857.383	2.9	0.014	0.20	3857.299	
3860.187	2.8	0.013	0.20	3860.103	S II(41)3860.114(15)
3860.734	10.6	0.045	0.22	3860.650	S II(50)3860.608(18),S III(4)3860.64 (3)
3862.682	29.1	0.153	0.18	3862.598	Si II(1)3862.595(200h)
3863.578	10.0	0.055	0.17	3863.494	O II(12)3863.502(16)
3864.197	5.5	0.030	0.17	3864.113	O II(11)3864.125(10)
3864.513	19.1	0.082	0.22	3864.429	O II(12)3864.426(16)
3864.753	13.6	0.074	0.17	3864.669	O II(12)3864.667(15)
3867.621	174.2	0.354	0.46	3867.537	He I(20,20)3867.477,.631(2,1)
3868.995	4.9	0.029	0.16	3868.911	C II(33.01)3868.874(6h)
3872.029	195.2	0.095	1.93	3871.945	He I(60)3871.819((1))
3874.204	3.5	0.021	0.15	3874.120	O II(11)3874.092(11)
3876.260	82.7	0.182	0.43	3876.176	C II(33,33)3876.055,.187(9,12)
3876.523	11.6	0.078	0.14	3876.439	C II(33)3876.408(12)