

255744-45-47

Hück M<sub>g</sub> II

#						
o	63	1	00	54	14.050	
o	64	2	00	54	13.268	
o	65	3	00	54	13.230	
o	66	4	00	54	11.416	
o	67	5	00	54	11.358	
o	68	6	00	54	10.098	
o	69	7	00	54	08.705	
o	70	8	00	54	09.677	
N	71	9	00	54	07.006	
o	72	10	00	54	07.310	
o	73	11	00	54	06.880	
o	74	12	00	54	06.870	
o	75	13	00	54	12.829	
o	76	14	00	54	05.936	
o	77	15	00	54	05.564	
	78	16	00	54	01.698	
	79	17	00	54	02.257	
	80	18	00	54	00.106	
o	81	19	00	54	01.283	
(10)	82	20	00	54	00.538	
	83	21	00	53	59.282	
	84	22	00	53	56.615	
o	85	23	00	53	58.021	
	86	24	00	53	57.227	
o	87	25	00	53	55.006	
o	88	26	00	53	54.834	
	89	27	00	53	55.519	
	90	28	00	53	54.582	
	91	29	00	53	53.510	
o	92	30	00	53	52.088	
o	93	31	00	53	51.875	
	94	32	00	53	53.027	
(105)	95	33	00	53	51.825	
o	96	34	00	53	51.805	
o	97	35	00	53	51.308	
o	98	36	00	53	49.974	
o	99	37	00	53	49.153	
o	100	38	00	53	48.638	
o	101	39	00	53	47.265	
o	102	40	00	53	46.559	
o	103	40b	00	53	46.712	
o	104	41	00	53	46.899	
o	105	42	00	53	46.954	
(110)	106	43	00	53	45.679	
o	107	44	00	53	45.697	
o	108	45	00	53	45.009	
o	109	46	00	53	48.941	
o	110	47	00	53	44.784	

-28	23	20.00
-28	22	51.79
-28	25	35.80
-28	24	19.33
-28	25	12.24
-28	23	58.17
-28	22	48.26
-28	26	43.69
-28	22	30.62
-28	25	03.79
-28	25	13.24
-28	25	13.37
-28	26	42.56
-28	24	17.44
-28	24	29.65
-28	23	21.87
-28	25	47.11
-28	22	06.28
-28	25	56.93
-28	25	55.16
-28	23	41.25
-28	23	16.43
-28	24	15.38
-28	25	00.47
-28	22	50.07
-28	23	09.47
-28	26	51.17
-28	25	57.50
-28	24	11.32
-28	22	17.69
-28	23	10.35
-28	26	46.76
-28	25	01.83
-28	25	55.87
-28	26	33.91
-28	23	45.73
-28	24	16.22
-28	23	45.68
-28	22	36.32
-28	22	31.52
-28	24	53.36
-28	25	44.51
-28	23	50.83
-28	23	00.25
-28	24	40.51
-28	23	19.75
-28	26	56.04

slope EW		
-0.03	17	0.8908
S		0.445
-0.20	26	(0.6456) 50 (40)
per 20	20	0.4454
per 20	20	0.5248
per 20	20	0.1173
per 20	20	0.8257
0.35	13	10.8252 (50) 10
0.10	10	0.9819
per 20	20	0.2940
per 20	20	1.0014
0.00	*	0.9997
S	20	0.7634
0.02	25	0.6315
0.67	0	0.6886?
ICL S		
high	high 2.	0.3234 (7) 50
* 0.05	54	0.9637
* 0.19	9	(0.6273) (11) 50
-0.46	55	0.6274
0.38	39	(0.6350) (15) 50
-0.18	32	0.6465
-0.05	535	0.6403
-0.32	67	0.6394 (gg) N4 (0.5031) (100) (0.5342) (101)
	0.5957	
-0.01	25	(0.9118) (104)
-0.1	80	1.1688
0.61		0.5586
2.50	0.01	0.1866
ln 2.50	-0.240.958	58
S	0.08	8 0.823
-0.02	25	0.6583
S	0.4188	
0.02	17	0.6859)
0.30	14	0.6908
1.16	0	0.6866
S	0.2944	
0.5600		

C6  
B3

mxu141

ICL D3

92A 255744, 745, 747

oo 6. jpg

782	SPEC 1	$\text{Mg II}$	Fe26	OII + (PZAA) HII HK	0.8900	ZD	Handabz
724	SPEC 2	S		HGII H10 H9 H8 H K	0.445	ZD	4900 S3
685	SPEC 3			OII H10 H9 H8 H K	0.6456	-	
660	SPEC 4			OII H10 H9 H8 H K	0.7638	-	
636	SPEC 5			OII H10 H9 H8 H K	0.4504	+	Fe26 ZD
605	SPEC 6			OII H10 H9 H8 H K	0.5248	-	
579	SPEC 7			OII H10 H9 H8 H K	0.8257	-	
548	SPEC 8			OII H10 H9 H8 H K	0.8116	-	
528	SPEC 9	$\text{Mg I}$	Fe26	OII H9 HK	0.9819	-	
495	SPEC 10			OII H9 HK	0.2946	-	
468	SPEC 11			OII H9 HK	1.0010	ZR	absp a
462	SPEC 12a	Fe26 Mg II		OII H9 HK	0.9999	ZR	Fe26
406	SPEC 12b			OII H9 HK	0.6315	-	
239	SPEC 13	S		OII H9 HK	0.2946	-	Fe26 ZD
217	SPEC 14			OII H9 HK	0.3234	-	
158	SPEC 15			OII H9 HK	0.9632	-	
123	SPEC 16			OII H9 HK	1.5435	-	june ZD
188	SPEC 17			OII H9 HK	0.6273	-	june ZD
36	SPEC 18			OII H9 HK	0.2935	-	
48	SPEC 19			OII H9 HK	0.6274	-	
2	SPEC 20			OII H9 HK	0.6350	-	
2	SPEC 21			OII H9 HK	0.6439	-	june 21
2	SPEC 22			OII H9 HK	0.6403	-	
2	SPEC 23			OII H9 HK	0.6394	-	
2	SPEC 24			OII H9 HK	0.50	-	
2	SPEC 25			OII H9 HK	0.59	-	
2	SPEC 26			OII H9 HK	0.305	-	
2	SPEC 27			OII H9 HK	0.9108	-	
2	SPEC 28			OII H9 HK	1.1600	-	
2	SPEC 29			OII H9 HK	0.5586	-	18
2	SPEC 30			OII H9 HK	0.4888	0.1866	7912 8035
2	SPEC 31			OII H9 HK	0.721	-	
2	SPEC 32			OII H9 HK	0.61	-	
2	SPEC 33			OII H9 HK	0.958	-	
2	SPEC 34	5623 5040		OII H9 HK	0.2949	-	
2	SPEC 35			OII H9 HK	0.6553	-	june 34
2	SPEC 36			OII H9 HK	0.6856	-	
2	SPEC 37			OII H9 HK	0.6908	-	
2	SPEC 38			OII H9 HK	0.6856	-	
2	SPEC 39			OII H9 HK	0.2944	-	
2	SPEC 40			OII H9 HK	0.5800	-	
2	SPEC 41			OII H9 HK	0.6856	-	
2	SPEC 42			OII H9 HK	0.6908	-	
2	SPEC 43			OII H9 HK	0.6856	-	
2	SPEC 44			OII H9 HK	0.2944	-	
2	SPEC 45			OII H9 HK	0.5800	-	
2	SPEC 46			OII H9 HK	0.6856	-	
2	SPEC 47			OII H9 HK	0.6908	-	
44	A1B1S MAX	reduced c		OII H9 HK	0.6856	-	
46	A1B1S MAX	reduced b		OII H9 HK	0.6908	-	
47	A1B1S MAX	reduced d		OII H9 HK	0.6856	-	
44 46 47	A1B1S MAX	reduced		OII H9 HK	0.2944	-	

40b OII (HII) H9 H8  $\text{Mg II}$  B H? 0.823 <9.1>audrey.calmes-tanguyel (dr13, cnrs.fr) 1208  
aicha.halouani@plajin2.p3.fr

255763

1 端

W 0197	1 00	53 56.944
W 0198	2 00	53 03.395
W 0199	3 00	54 01.983
W 0200	4 00	53 56.142
N 0201	5 00	53 57.822
CN 0202	6 00	53 02.823
CC 0203	7 00	53 58.738
G 0203	8 00	53 06.144
O 0204	9 00	53 51.885
O 0205	10 00	53 52.495
O 0206	11 00	54 00.055
P 0206	12 00	54 05.401
O 0207	13 00	53 58.185
208	14 00	54 01.392
P 0208	15 00	54 03.263
N 0209	16 00	54 02.158
O 0210	17 00	54 03.111
O 0211	X 00	54 03.034
O 0212	18 00	54 04.792
N 0213	19 00	54 04.563
	(00	54 00.052
7	20 00	54 02.252
173	21 00	53 57.697
O 0214	22 00	54 11.585
215	23 00	54 11.773
216	24 00	54 01.498
O 217	25 00	54 14.560
O 218	26 00	54 10.351
48	27 00	54 06.942
- 175	28 00	53 55.433
219	29 00	54 07.124
N 220	30 00	53 58.853
165	X 00	54 12.818
2210	31 00	53 59.435
0222.504	32 00	53 55.557
O 223	33 00	54 03.849
N 224	34 00	54 14.278
O 225	35 00	54 06.667
O 226	36a 00	54 07.641
O 227	36b 00	54 07.603
O 228	37 00	54 12.895
N 229	38 00	54 09.972
N 230	39 00	54 03.419

-28	21	59.19
-28	21	40.54
-28	21	53.14
-28	22	24.38
-28	22	23.87
-28	22	09.76
-28	22	33.45
-28	22	11.27
-28	23	15.78
-28	23	29.87
-28	23	07.21
-28	22	52.59
-28	23	37.44
-28	23	32.90
-28	23	29.37
-28	23	45.00
-28	24	00.11
-28	24	15.48
-28	24	53.77
-28	25	11.91
-28	25	14.93
-28	25	46.93
-28	26	10.87
-28	25	22.33
-28	25	30.39
-28	26	18.80
-28	25	37.85
-28	26	05.55
-28	26	22.19
-28	27	18.11
-28	26	51.18
-28	27	30.48
-28	26	42.31
-28	27	46.35
-28	28	05.87
-28	27	44.96
-28	27	06.87
-28	27	46.97
-28	27	54.39
-28	27	52.16
-28	27	46.43
-28	28	06.35
-28	28	39.88

SPEC1	53 56.8	2159.0
SPEC2	54 00.4	2140.9
SPEC3	54 01.98	2153.5
SPEC4	54 02.82	2210.0

slope EW

n	0.4700
n	0.4674
n horiz	-0.53 15
n	0.8465
n	0.2999
n	2918
n	0.2886
n	0.4150
n	0.6888?
n	0.4475
n	0.6886
n	0.504
n	0.44
n	0.6297
n	?
n	0.2877
n	0.2860
n	0.2938
n	0.2866
n	0.2943
n	0.2939
n	0.3243
n	4
n	0.2928
n	*
n	0.2888
n	0.3536
n	0.6285
n	0.6205
n	0.2285
n	0.3460
n	4
n	0.7640
n	0.5038
n	0.2945
n	0.5608
n	0.2905
n	0.4927
e 7470	0.6820 13
e 7470	0.3049
n has chmp	0.02 0.2920

ICL-L2

255763

1.jps. myu 155

OK

36 a  
36 b

stray em 7470 abs 5495  
stray. em 7470 abs 5495

255739-41-42-43

dry  
min quant X

OK

#

861

04.05

?	81	1 00	54 14.547	-28 25 03.67
o	82	(2 00	54 13.268	-28 22 51.79
o	83	3 00	54 12.103	-28 23 11.19
o	84	(4 00	54 12.829	-28 26 42.68
o	85	5 00	54 10.671	-28 22 13.24
o	86	6 00	54 10.786	-28 23 51.37
N	86	7 00	54 08.938	-28 23 01.48
Y	87	8 00	54 07.847	-28 21 59.51
o	88	9 00	54 06.854	-28 22 25.96
o	89	10 00	54 07.043	-28 25 51.11
o	90	11 00	54 06.260	-28 24 08.49
o	91	(12 00	54 05.936	-28 24 17.56
o	92	(13 00	54 05.458	-28 24 29.40)
N	93	14 00	54 03.001	-28 26 29.56
N	94	15 00	54 00.888	-28 22 02.25
N	95	16 00	54 01.228	-28 24 28.25
N	96	17 00	54 01.512	-28 26 19.10
N	97	18 00	53 59.608	-28 23 11.15
N	98	(19 00	53 59.282	-28 23 41.38)
N	99	(20 00	53 58.367	-28 23 09.13
N	100	21 00	53 58.031	-28 24 15.13
N	101	22 00	53 57.038	-28 24 01.52
N	102	23 00	53 56.551	-28 25 45.80
N	103	24 00	53 55.657	-28 25 16.07
N	104	25 00	53 55.519	-28 26 51.30
N	105	26 00	53 54.603	-28 25 57.76
N	106	27 00	53 53.518	-28 24 11.32
N	107	28 00	53 51.895	-28 21 58.17
N	108	29 00	53 53.053	-28 26 47.64
N	109	30 00	53 53.017	-28 26 46.63
N	110	31 00	53 51.701	-28 25 00.94
N	111	32 00	53 50.366	-28 23 29.49
N	112	33 00	53 50.459	-28 25 28.65
N	113	34 00	53 49.868	-28 24 57.91
N	114	35 00	53 49.257	-28 24 39.52
N	115	36 00	53 48.228	-28 22 30.99
N	116	37 00	53 48.988	-28 26 58.59
N	117	38 00	53 48.262	-28 26 17.27
N	118	39 00	53 47.974	-28 26 47.24
N	119	40 00	53 47.345	-28 26 17.76
N	120	41 00	53 45.688	-28 23 50.75
N	121	42 00	53 44.964	-28 23 13.46
N	122	43 00	53 44.164	-28 22 14.00
N	123	44 00	53 43.952	-28 23 19.75
N	124	45 00	53 44.936	-28 27 02.26
N	125	46 00	53 44.440	-28 27 07.13

Slope	EW	0.6680
-0.0731	+0.6680	nm
0.6312	(2) 0.3	
-0.1350	0.7630	(4) 0.3
-0.6547	0.628	0.646
-0.3019	0.979	0.1265
-0.3527	1.102	*
-0.0330	0.6879	0.63
S	0.63	(13) 0.3
ICLS	0.305	0.637
0.305	0.637	(4) 0.3

0.0322 0.688

\* 0.2885

\* 0.627 (11) 0.3

0.25 -0.628 0.228 0.6278 0.6278 0.7741 0.4365

-0.32 60 20bj 0.6605 20bj 0.5031

0.5347 0.5133

0.9009 0.9009

-0.30 281 0.21 1.169 + 0.0731 0.6436

-0.53 60 1.022

0.17 15 0.8287

-0.23 55 0.8266

defect 0.797

S 20bj -0.048 0.6096

-0.17 15 1.3014

-0.22 30 1.214

bright 0.22 12 0.6885

-0.00 18 0.6863

0.4479

bright 1.4050 0.688

0.2929

0.5585

-0.20 24 0.8823

mav II

ICL-D4

39 41 42 43

64 64 5858

007. jPg.

 $\Sigma_{\text{Fe}} \text{C}_{\text{D}}$   
 0.4680

 39 A1 SMAX reduced  
 39 B1 SMAX reduced

 A1 A1 SMAX reduced  
 C1 A1 SMAX reduced.

(SPEC1)

OII

SPEC1

OII Hβ em KH

2D

SPEC2

S

693

Mg II OII H8 H8 KH

0.82125

SPEC3

OII

SPEC4

OII

637

H9 HK

0.76340

606

OII

577

Fe II

917

OII

SPEC7

H?

SPEC8

OIII

SPEC9

OII

SPEC10

OII

SPEC11

H8 KH Hδ

SPEC12

S

SPEC13

OII

SPEC14

[CLS]

SPEC15

S

SPEC16

OII HK

SPEC17

OII? H1

SPEC18

OII OIII Hβ Hδ

SPEC19

SPEC20

Mg II

SPEC21

Mg II

SPEC22

OII

SPEC23

OII OIII Hβ H8

SPEC24

OII

SPEC25

S

A3 SPEC26

S OII Hβ OIII

SPEC27

OII H10 H9 H8 H

SPEC28

KH — Hβα

SPEC29

OII HS H8e Hβα

SPEC30

S

SPEC31

S OII em 8087

SPEC32

OII H9 - H8e

SPEC33

OII H9

SPEC34

OII H10 H9 H8 KH AII

SPEC35

OII H9 K Hβ₂ OIII

SPEC36

OII K

SPEC37a

S OII

SPEC38

strong OII?

SPEC39

strong OII?

SPEC40

Fe II

SPEC41

OII H9 H8 KH H5

SPEC42

OII H9 H8 KH

SPEC43

H9 KH

SPEC44

KH HS Hβ

SPEC45

OII H9 Hβ (OIII 5007)

SPEC46

OII H9 H

SPEC37b

S OII Hβ₂ OIII 5007

SPEC39a

S OII H8 H

SPEC39b

S OII H8 H

SPEC40a

S OII H8 H

SPEC40b

S OII H8 H

SPEC41a

S OII H8 H

SPEC41b

S OII H8 H

SPEC42a

S OII H8 H

SPEC42b

S OII H8 H

SPEC43a

S OII H8 H

SPEC43b

S OII H8 H

SPEC44a

S OII H8 H

SPEC44b

S OII H8 H

SPEC45a

S OII H8 H

SPEC45b

S OII H8 H

SPEC46a

S OII H8 H

SPEC46b

S OII H8 H

SPEC47a

S OII H8 H

SPEC47b

S OII H8 H

SPEC48a

S OII H8 H

SPEC48b

S OII H8 H

SPEC49a

S OII H8 H

SPEC49b

S OII H8 H

SPEC50a

S OII H8 H

SPEC50b

S OII H8 H

SPEC51a

S OII H8 H

SPEC51b

S OII H8 H

SPEC52a

S OII H8 H

SPEC52b

S OII H8 H

SPEC53a

S OII H8 H

SPEC53b

S OII H8 H

SPEC54a

S OII H8 H

SPEC54b

S OII H8 H

SPEC55a

S OII H8 H

SPEC55b

S OII H8 H

SPEC56a

S OII H8 H

SPEC56b

S OII H8 H

SPEC57a

S OII H8 H

SPEC57b

S OII H8 H

SPEC58a

S OII H8 H

SPEC58b

S OII H8 H

SPEC59a

S OII H8 H

SPEC59b

S OII H8 H

SPEC60a

S OII H8 H

SPEC60b

S OII H8 H

SPEC61a

S OII H8 H

SPEC61b

S OII H8 H

SPEC62a

S OII H8 H

SPEC62b

S OII H8 H

SPEC63a

S OII H8 H

SPEC63b

S OII H8 H

SPEC64a

S OII H8 H

SPEC64b

S OII H8 H

SPEC65a

S OII H8 H

SPEC65b

S OII H8 H

SPEC66a

S OII H8 H

SPEC66b

S OII H8 H

SPEC67a

S OII H8 H

SPEC67b

S OII H8 H

SPEC68a

S OII H8 H

SPEC68b

S OII H8 H

SPEC69a

S OII H8 H

SPEC69b

S OII H8 H

SPEC70a

S OII H8 H

SPEC70b

S OII H8 H

SPEC71a

S OII H8 H

SPEC71b

S OII H8 H

SPEC72a

S OII H8 H

SPEC72b

S OII H8 H

SPEC73a

S OII H8 H

SPEC73b

S OII H8 H

SPEC74a

S OII H8 H

SPEC74b

S OII H8 H

SPEC75a

S OII H8 H

SPEC75b

S OII H8 H

SPEC76a

S OII H8 H

SPEC76b

S OII H8 H

SPEC77a

S OII H8 H

SPEC77b

S OII H8 H

SPEC78a

S OII H8 H

SPEC78b

S OII H8 H

SPEC79a

S OII H8 H

SPEC79b

S OII H8 H

SPEC80a

S OII H8 H

SPEC80b

S OII H8 H

SPEC81a

S OII H8 H

SPEC81b

S OII H8 H

SPEC82a

S OII H8 H

SPEC82b

S OII H8 H

SPEC83a

S OII H8 H

SPEC83b

S OII H8 H

SPEC84a

S OII H8 H

SPEC84b

S OII H8 H

SPEC85a

S OII H8 H

SPEC85b

S OII H8 H

SPEC86a

S OII H8 H

SPEC86b

S OII H8 H

SPEC87a

S OII H8 H

SPEC87b

S OII H8 H

SPEC88a

S OII H8 H

SPEC88b

S OII H8 H

SPEC89a

S OII H8 H

SPEC89b

S OII H8 H

SPEC90a

S OII H8 H

SPEC90b

## fars-pre-1. fits

255734

#				
50	(1	00	54	00.686
139	2	00	53	59.273
	arc			
	arc			
N	140	6	00	54
C	141	7	00	54
N	142	8	00	54
O	143	9	00	54
O	144	10	00	54
D	145	11	00	54
D	146	12	00	54
O	147	13	00	54
O	148	14	00	54
O	149	15	00	54
O	150	16	00	54
O	151	17	00	54
O	152	18	00	54
N	153	19	00	54
O	154	20	00	54
N	155	21	00	54
N	63	(22	00	54
O	156	23	00	54
O	157	24	00	54
O	158	25	00	54
O	159	26	00	54
O	160	27	00	53
O	161	28	00	53
O	162	29	00	53
O	163	30	00	53
O	164	31	00	53
O	165	32	00	53
O	166	33	00	53
O	167	34	00	53
O	168	35	00	53
O	169	36	00	53
N	170	37	00	53
O	171	38	00	53
O	172	39	00	53
O	108	(40	00	53
O	116	(41	00	53
O	173	42	00	53
O	174	43	00	53
O	175	44	00	53
i33	175	45	00	53
O	176	46	00	53
i36	177	47	00	53
O	178	48	00	53

## Revenue positions

-28	24	15.49	0.2903)	38(1)
-28	23	20.31	Slope EW 0.2926)	38(2)
-28	24	00.11	0.2884	38(5)
-28	23	02.67	0.2949	
-28	22	13.80	0.2958	
-28	22	56.37	0.6309	38(7)
-28	25	24.97	0.4677	38(9)
-28	24	53.93	*	
-28	22	52.71	0.4363	
-28	23	41.57	4 white -	
-28	24	58.38	0.2923	38(12)
-28	23	23.93	0.4537	
-28	24	21.86	0.4366	
-28	23	17.63	-0.35 53 0.9510	38(14)
-28	23	16.12	0.2984	
-28	23	33.49	0.1303	
-28	22	31.53	0.2950	
-28	22	59.49	-0.31 37 0.9792	38(17)
-28	23	22.91	0.2065	38(18)
-28	23	19.37	-0.07 19 0.8903)	38(19)
-28	22	12.38	0.1837	
-28	22	34.27	0.4151	
-28	21	51.71	*	
-28	21	37.60	0.4080	38(23)
-28	24	17.37	0.6450	38(25)
-28	23	04.81	*	38(26)
-28	23	35.80	0.4601	38(27)
-28	25	03.85	-0.10 18 0.6097	38(28)
-28	24	08.05	0.45 16 0.8248	
-28	24	40.04	0.4372	
-28	23	54.19	high 0.285 0.6827	38(31)
-28	25	06.24	0.28 15 0.6287	
-28	26	16.41 34	middle 0.44465	38(32)
-28	24	32.23	0.6069	38(34)
-28	25	26.14 35	0.6336	38(36)
-28	25	21.10 37	0.2911	38(37)
-28	24	36.25	0.65355	
-28	25	51.71 39	bullent *	
-28	24	58.04 40	-0.18 13 (0.829)	38(39)
-28	23	50.88	-0.23 16 0.6863	38(40)
-28	26	10.61	*	
-28	24	52.49	-0.25 56 0.8279	
-28	27	15.93	0.2288	
-28	24	53.36	-0.0316 (0.60187)	SLP.
-28	24	50.84	0.658	
-28	24	40.50	1.2 0 (0.6866)	

mpu2\_127

255 734

951 arc 2

046772 4160

3.37

402

127

008.jpg

as 60 → 100

Y

SPEC1

H 5126 K 5073 G 5550 H $\beta$   
H $\alpha$  5132 K0.208 X 1 (1)  
0.208 X 2 (1)

□

brillant SPEC2

4 arc

5 arc

□

6

O $\text{II}$  HK H $\delta$  H $\gamma$  H $\beta$  H $\alpha$ 

0.208 X 6 (5)

□

7

H $\alpha$  5188 K 50970.295 X  
(0.295) 8 (2)

□

8

H 5144 K 5096 H $\beta$  O $\text{III}$  ~~weak~~0.6303 0.6303  
0.6303 - 10 (9)

□

9 2D

O $\text{II}$  MK G H

0.4637 - 3 (3)

□

10

O $\text{II}$  HK H $\delta$  H $\gamma$  H $\beta$  H $\alpha$ 

0.4637 -

□

11

(low Z)?

0.4363 -

□

12

O $\text{II}$  H $\delta$  K H, H $\beta$ 

Piet Chile.

□

13 2D

BAL  $\sim$ 

0.2920 14 (12)

□

14 2D

8/20 dated HK H $\delta$  (7g b) H $\gamma$  —

0.4537 -

□

15

O $\text{II}$  KM ~~probable~~ H $\beta$  H $\alpha$  O $\text{III}$  5007

0.4356 -

□

16

HK G H $\delta$  H $\beta$ 

0.952 17 (4)

□

17 2D

low Z. ~~probable~~ O $\text{II}$  H $\delta$  H $\gamma$  H $\beta$  H $\alpha$ 

0.2946 X 0.9392 (0.225?)

□

18

O $\text{III}$  H $\beta$  H $\alpha$ 

0.1303

□

19

O $\text{II}$  K (M9) H $\alpha$ 

0.2946 X 0.9392 (0.225?)

□

20

O $\text{III}$  H $\beta$  H $\alpha$ 

0.2065 2 (18)

□

21

O $\text{III}$  H $\beta$  H $\alpha$ 

21 (18)

□

22 2D

O $\text{II}$  H $\delta$  H $\gamma$  H $\beta$  K H

20 (17)

□

23

O $\text{III}$  H $\beta$ 

19 (16)

□

24 2D

G 881 H 5429 H 5622 5809 G 8805 H H $\delta$  H $\gamma$  H $\beta$  H $\alpha$ 

0.4157

□

25 2D

choice?  $\sim$ 

0

□

26

HK H $\delta$  H $\beta$ 

0.408 - 25 (23)

□

27 2D

O $\text{II}$  H $\delta$  H $\gamma$  K H H $\delta$ 

0.6450 22 (16)

□

28 2D

brillant ~~as~~ ~~new~~ lines abs. blene.

0.4537 -

□

29

O $\text{II}$  H $\delta$  H $\gamma$  K H

0.6037 20 (17)

□

30

O $\text{II}$  H $\delta$  H H $\beta$  em.

0.6037 19 (16)

□

31

O $\text{II}$  H $\delta$  H $\gamma$  Fe 26

0.8243

□

32

O $\text{III}$  H $\beta$  H $\gamma$  O $\text{II}$ 

0.4572 -

□

33

O $\text{II}$  H $\delta$  K H H $\beta$  H $\alpha$ 

0.688 16 (13)

□

34

O $\text{II}$  H $\delta$  H $\gamma$  (K H)

0.6382

□

35 2D

fairly large. varies dabs fainter. low Z (blene)

1.54 09

□

36

O $\text{II}$  H $\delta$  H $\gamma$  O $\text{II}$  HK H $\delta$  H $\beta$  (O $\text{II}$  5004)

0.4082 13 (10)

□

37

 $\sim$ 

0.6386 0.6443 (8)

□

295 38

O $\text{II}$  H $\delta$  H $\gamma$  H $\beta$  HK H $\delta$  H $\beta$  H $\alpha$ 

0.2918 X 10 (7)

□

263 39 2D

probable. H G K (probable). H $\beta$ 

0.5355 8

□

235 40

H K G H $\delta$ 

8 (5)

□

209 41 2D

brillant low Z (blene)

0.8249 - 7 (6)

□

178 42 2D

probable O $\text{II}$  H $\delta$  H $\gamma$  H $\beta$  K H (probable), H $\delta$ 

1.6445

□

154 43

O $\text{II}$  H $\delta$  H $\gamma$ 

0.6863

□

130 44 2D

O $\text{II}$  H $\delta$  H $\gamma$  K H H $\delta$ 

0.8288 5 (26)

□

160 45

O $\text{II}$  H $\beta$  O $\text{III}$ 

0.23

□

13 (W) 46

O $\text{II}$  H $\delta$  H $\gamma$  K H

0.66 ③ faint 03

□

36 47 2D

fainter fainter H $\delta$  H $\gamma$  H $\beta$  H $\alpha$  (O $\text{II}$  cache noise)

0.687 ③ faint 03

□

03 (W) 48

HK profonds.

0.69 ③ faint 03

17b

8

O $\text{II}$ ? K H H $\beta$ 

2 arcs.

0.492

36 / 48

9

0.61-0.65

64

C. I.

4.8

C. I.

0.23

3.1

2.7

3 \*

5.1 w2.

(21)

log P <sub>per</sub> -1	6	00	54	03.273	-28 23 29.43	1.14 EW	0.2877
0 177	8	00	54	09.382	-28 24 44.90		0.4150
0 178	10	00	54	12.380	-28 25 19.29		0.4645
N 180	11	00	54	02.826	-28 22 10.07		0.2888
O 181	13	00	54	05.737	-28 21 59.50		0.2938
O 182	15	00	54	13.067	-28 23 55.78		0.4608
N 183	16	00	54	16.571	-28 24 46.79		0.435
I 184	20	00	54	15.883	-28 23 34.61		0.4146
I 185	21	00	54	09.613	-28 21 17.94		0.2031
O 186	22	00	54	18.881	-28 23 57.53	1.14 O	0.6013
O 187	24	00	54	16.541	-28 22 44.98		0.5142
O 188	29	00	53	58.707	-28 24 59.85		0.3634
O 189	30	00	53	54.031	-28 23 53.94		0.2976 69
O 190	32	00	53	56.654	-28 25 07.52		0.0126 0.6100
34(34) 191	33	08	53	49.955	-28 24 58.680		2.6222
O #	33	00	53	55.195	-28 24 59.44	0.0015 0.6369	Mg II

139

34	00 53 51.242	-28 24 59.09	21	0.607	oui	#
35	00 53 53.297	-28 25 52.17	?	0.6075	oui	192
36	00 53 54.418	-28 25 52.65				
37	00 53 53.369	-28 25 21.77				
38	00 53 52.624	-28 24 39.950		0.2941		193
39	00 53 52.981	-28 24 32.90	?	"		
40	00 53 55.195	-28 24 57.44	?			
41	00 53 50.217	-28 25 21.93		* 0.6075	0.532	194
42	00 53 49.976	-28 25 29.48				N
43	00 53 49.236	-28 25 36.20	-0.0635	0.6882	*	195
44	20	25	(OII?) H K H8 H9 H5 (abs 4593)			
45	20	26	OII H9 H8 H9 H5 (abs 4593)			
46	20	27	OII H9 H8 KH Hβ <sup>em</sup> <sub>4500-5500 Å</sub>			
47	20	28	OII H10 H9 K H Hα Hβ <sup>em</sup> <sub>4500-5500 Å</sub>			
48	20	29	br specke H9 H K G etc.			
49	20	30	H K G <sup>abs</sup> H β Nγb			
50	20	31	(OII?) K H H5 (OII unciel) (Hβ?)			
51	20	32	OII H9 H8 H K Hβ (OII 5007)			
52	20	33	OII H9 H8 H H5 H β OII			
53	20	34	OII H9 H8 K H G OII 5007			
54	20	35	OII H9 K H H5			
55	20	36	4507 OII H10 H9 H8 KH H5 lange. Hβ <sup>em</sup> <sub>4500-5500 Å</sub>			
56	20	37	feinble. point-éte 0.29 KH (H5) H8 Hβ lange			
57	20	38	H K & H5 G H β			
58	20	39	nien brillant			
59	20	40	OII H9 H8 K H (H5)			
60	20	41	OII H9 H8 K H non OII 5007			
61	20	42	brillant nien			
62	20	43	OII H8 M H5 H β OII 5007			
63			0.648 0.652 0.648			
64			0.650 0.652 0.648			
65			0.654 0.652 0.648			
66			0.656 0.652 0.648			
67			0.658 0.652 0.648			

235738

OK arc 1-1

mxu2 118  
255 738

Doublet 8165 8232 2D

12  
394

10.jpg

4	SPEC1 2D	? HK	Mg b		0.290	1
	SPEC2	arc	G	Mg b	0.29*	2
3	arc					2917
4	arc					4840
5		OII HK Hβ OIII 5007 Hα NII			0.288	5 (6) 4893
6		HK			0.2877	5081
7		HK G			\$0.2977	5128
8		OII HK etc Hβ e	grande galaxie	(revue)	0.4460	5081
9		OII HK			0.4455	2916
-	10	HK G Hβ			0.4675	2921
	11	MKG			0.289	3
	12	MKG Hδ Hβ Mg b			0.29212 (14)	"
	13	OII HK Hδ (Hβ?) Mg b	(E)		0.2938	0.95 que 17
424	14 2D 3D	Koekkoek HK Hδ Hβ F267	em 8006	em 8476	0.2922	14 (12m speciale)
	15	OII HK	em 7048	em 7338 7708 84508) 72	0.446	0.6013
	16	S OII			0.40723	0.5172
	17	m speciale que 20 255734 em 7384			0.98 ? 17. m speciale 9	20
		et series d'absorptions				
	18	OIII			0.2118	
510	19	OII H10 H9 H8 (series abs)			0.8919 m speciale que	
589	20	2D OII			22	
	21	OIII Hβ Hδ HK			0.2031	0.0765
	22	Hβ HK G	organique	Hβ Mg b	0.6013	
□	23	HK	organique	Hβ Mg b	0.40723	
	24	OII Hβ OIII	organique	Hβ Mg b	0.5172	

H12 H11 H10 H9 H8 K H

H8  
Hδ  
HK

wide deep 4948  
thin 5148  
wide 5304  
wide 5422  
rien à 6693  
7550-7560  
9181

em 6241  
abs 6419  
abs 6478  
abs 6811  
abs 8151  
abs 8619

11  
deep 4948  
HK  
rien à 5304  
rien à 5422

12  
deep 4948  
HK  
5304  
wide 5430-5650 G 5555  
Mg b  
rien à 7550

13 219222  
deep 4948  
HK  
5304  
rien à 5422 G  
Mg b  
7557 plus 7560

18/22  
5135  
0.11 13  
5086  
0.08 X

218 220  
219 221  
220 222 OK.  
221 223 non.  
221 222 facile.  
220 221 OK.  
219 220 facile.  
218 219 non  
219 222 OK.

(arc + 13)/2 - 11

7574  
5207  
5666?  
5555?  
5437  
5311

7278

thin 5141  
deep 4948

1.66 4.93

8338  
8281