

1649:xxx,proj,24478

HARVARD UNIVERSITY

Physics B

NAME *M. B. Shapley*

*Vitex Mail*

Harvard Co-operative Society



10152460, 10152461, 10152462

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Tail of SMC

## Index

Work on M W F 152 - 188 1-17  
 January 1945 MBShepley

Reexamination of fields between Clouds, 19-  
 begun Aug. 1953

- U M K N.  
 ① Tail SMC 2<sup>h</sup> 00.6 - 74.7  
 ② V S F 524 3<sup>h</sup> 15 - 71.9  
 ③ V S F 531 4<sup>h</sup> 30 - 72.9

Work on South Preceding corner of  
 LMC: Plates Centered 5<sup>h</sup> 04.1 - 70.4 PS3

Summer 1954 U M K N  
 & Winter 1955 U M K N

Preceding (West end of Bar)  
 region of Bar LMC

Summer Fall 1954  
 U M K N

Faint Variable edge SMC,  
 New variable found on  
 140 H plates

147







Examining plates with  
object of discovering  
variable stars

Project began January 1945







January 1945

mounted on machine

1. MF 29270 pos } MWF 182 RA 16 35  
MF 28973 neg } Dec -34.0
2. MF 15775 pos } MWF 188 RA 17 12  
MF 10615 neg } Dec -22.1

1. L 6, 1 ~ 2 ~ 3 ~ 4 ~ 5 ~ 6 ~ 7 ~ 8 ~ 9 ~ 10 ~ 11 ~ 12

2. L 6 consists of a new positive mounted with a good but previously used negative

6 ① ~ 2 ~ 3 ~ 4 ~ 5 ~ 6 ~ 7 ~ 8 ~ 9 ~ 10 ~ 11 ~ 12  
These seem to be more bright than dark suspects.  
Maybe all the dark spots that look like defects are not really defects.







Feb 1 — er, ? — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12

11:30-12:30 AM — er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Feb 2  
12:30-1:30 noon — er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12  
er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12It may be of advantage, to begin with, to make one  
tour of inspection for dark, another for bright.Feb 3  
11:45-12:15 — er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12Feb 11  
7:15-9:00 — er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12  
er, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12March 18 marked on  
Variable No 1, Plate MF 29270

Bright on: " " (positive)

Also examined were MF 29244 MF 29266  
5 9  
29260 29273  
2{ faint on  
negative  
28973It seems about the same brightness on all of these  
Other plates were examined as follows

Plate	Var no 1	Plate	Var no 1
MF 8526	faint	MF 28980	faint
8661	absent	28982	"
8721	absent	28983	very faint
9573	extremely faint	28999	faint
11465	absent	29001	medium faint
11671	absent	29081	medium bright
11828	medium faint	29169	" "
12216	very faint	29238	bright
13137	" "	29261	"
13247	absent	29264	" 29272 bright
13284	"	29265	" 29274 "
28971	very faint	29267	" 29275 "
		29268	" 29276 "







The conclusion is that No 1 is definitely variable  
and with a fairly long period.

It is not marked as one of the known variables  
Var No 2 varies more rapidly







October 13 1945

9

Var no 2, marked on positive 29270  
 1 28971 → var 1  
 Plate MF 28980 present present

	var 1	var 2	var 3
28982	faint	faint	faint
28993	very ft.	ft.	ft.
28999	ft	brighter	ft
29001	ft	bright	ft
29081	brighter	bright	ft
29159	br	br	ft
29238	br	fainter	ft.
29244	br	med	ft.
29245	br	med	ft
29260	br	br	ft
29261	br	br	ft
29262	br	br	ft
29264	br	br	ft
29265	br	br	ft
29266	br	br	ft { bright star even
29267	br	br	ft " near
29268	br	br	ft " position
29269	med-br	v br	ft " nova?
29270	br	br	(br star in inter mediate multi bet above + 3
29271	br	br	br
29272	br	br	br moves!
29273	br	br	br
4	br	br	br
5	br	br	br
6	br	br	br



10

Plate MF		Oct 13		
		var 1	var 2	var 3
8526		ft	ft	ft or absent
8661		ft	br	ft
8771		v ft	br	ft
9573		v ft	br	ft
11465		v ft	v br	ft
11671		v ft	br	ft
11828		br	br	ft
12261		ft	v br	ft
13137		ft	br	ft
13247		ft	br	ft
13284		ft or absent	br	ft

Oct 25 45

(29270 not bright) (monitor)

Plate		no 4	
28971		br	
28980		br	
28982		br	
28993		br	
28999		br	
29001		br	
29081		br	
29159		br	
29238	very	br	
29242	"		
29244		br	
29245		br	

Plate		no 4	
29260		br	
29261		br	
29262		br	image
29264		br	
29265	v	br	fuzzy
29266	v	br	
29267	v	br	not
29268	v	br	like
29269	v	br	other
29270	v	br	stars
29271	v	br	
29272	v	br	
29273			



Plate 29274      no 4  
                     ✓ br  
 29275            ✓ br  
 29276            ✓ br

MF 8526 not seen, plate defective in this region (off the edge of exp.)  
 8661            "  
 8771            "

9573            no 4 marked NGC 6139

11465          off the film

11671            "

11828            "

12216            "

13137            "

13247          br (barely on the exp.)

13284            off

why is no 4 faint on mounted negative 28973?

↑ what is NGC 6139? Cluster

this question remains unanswered

				Oct 27 '45	
Plate	no 6	no 7		no 6 br	no 7 ft or absent
MF 8526	med-ft	ft. or absent	12216	"	"
8661	med	"	13137	"	"
8771	med-br	"	13247	"	"
9573	br	"	13284	"	somewhat brighter
11465	br	"	28980	"	med? ft?
11671	br	"	28982	"	"? ft?
11828	br	"	28993	"	"
			28999	"	"



12 Plate

MF 29001

29081

29159

29238

29244

29245

29260

29261

29262

29264

5

6

7

8

9

29270

1

2

3

4

5

6

28971

no 6

br

"

"

"

"

br to med

med

br

"

"

"

ft

"

"

"

"

~~brighter~~

ft

Somewhat brighter

"

med

"

bright

no 7

med-ft

"

"

"

"

brighter ?

med

med ?

"

"

"

"

brighter

" ?

"

very bright maybe defect ?

~~med~~

2

2

2

ft ?

~~ft~~

no 7 is probably a defect

no 6 is a real variable



Nov 6 '45 13

	Plate	no 8	no 9
MF	8526	ft or absent	ft, = companion star
	8661	"	"
	8771	"	brighter than "
	9573	brighter?	split = comp *
	11465	"	brighter than "
	11671	ft or absent	= comp *
	11828	"	brighter than "
	12216	"	"
	13137	brighter	fainter than "
	13247	"	brighter " "
	13284	ft	" " "
	28971	ft or absent	" " "
	28980	"	much " " "
	82	"	very much " " "
	93	"	"
	99	"	"
	29001	"	"
	81	"	"
	29159	ft	"
	29238	somewhat brighter	"
	44	"	"
	45	"	"
	60	"	"
	61	"	"
	62	"	"



14 plate

no 8

no 9

F 29264

medium

much brighter than companion\*

65

"

"

66

"

"

67

"

"

68

"

"

69

"

"

70

"

"

71

"

"

72

"

"

73

"

" ← circle drawn  
around this

74

"

"

fixed. known var?

75

"

"

76

"

"

no 8 } real variables  
no 9 }















no 2  $\gamma$   $\hookrightarrow$  Plate 29244

$\gamma$ ,  $\beta$   $\hookrightarrow$  (positive mounted)  
29270

delta plate 29245-

no 2  $\hookrightarrow$   $\gamma$ ,  $\beta$   $\hookrightarrow$  48/1/1  $\hookrightarrow$   
 $\hookrightarrow$  Plate 29260

no 2  $\gamma$   $\hookrightarrow$  Plate 29262  
 $\gamma$ ,  $\beta$   $\hookrightarrow$  Plate 29269



no 2 ✓ C c 29271

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C c 29273



Reexamination of fields between  
Clouds of Magellanic

- |            |                   |
|------------|-------------------|
| ① Tail SMC | $2^h 00.6 - 74.9$ |
| ② VSF 524  | $3^h 15 - 71.9$   |
| ③ VSF 531  | $4^h 30 - 72.9$   |



Tail SMC.

Compared all <sup>(28)</sup> plates since 1942  
with H 22012 July 11-12, 1940.

Marked suspect a on #23344 July 6-7, 1942

b-c on A 23379 July 15-16, 1942

d on A 23371 July 13-14, 1942



2  
Tail Small Magellanic Cloud



22

	HV6351	"d"	6359	11547	11550	11548		11549	"a"	"b"	"c"
				(18)	(1)	(10)	(19)	(11)			
21904	29793.648	16.1	14.6	15.2	15.6	15.7	15.0	Σ16.5	16.5	14.6	15.2
21950	29807.634	16.3	14.8	14.2	15.4	15.0	14.9	16.5	16.5	14.6	15.3
21957	29808.626	15.2	14.9	14.6	15.4	15.3	15.0	16.4	16.3	14.7	15.4
21970	29811.653	16.0	14.7	14.7	15.4	15.0	15.0	16.5	16.5	14.8	15.3
21991	29818.647	15.5	14.9	14.9	15.4	15.0	15.0	16.6	16.5	14.5	15.6
21993	29821.627	15.3	14.9	15.2	15.2	15.4	15.5	16.7	16.4	14.7	15.4
22012	29822.628	16.4	14.0	15.0	15.2	15.6	15.0	16.4	16.5	14.5	15.3
22022	29825.639	15.5	14.9	14.6	15.5	15.6	15.0	16.7	16.6	14.6	15.4
22030	29826.638	15.4	15.0	14.9	15.3	15.1	15.3	16.5	Σ16.5	14.5	15.4
22047	29839.620	15.3	14.9	14.6	15.4	14.9	14.6	Σ16.5	16.5	14.6	15.7
22058	29842.638	15.4	14.8	15.2	15.6	15.2	15.6	Σ16.5	16.5	14.7	15.6
22070	29847.636	15.3	15.0	15.0	15.6	15.1	14.8	16.7	16.6	14.5	15.1
22075	29848.599	15.5	15.2	14.8	15.6	15.0	15.0	Σ16.5	16.5	14.6	15.4
22081	29849.493	15.4	14.9	14.9	15.6	15.5	15.0	Σ16.5	16.5	14.5	15.2
22098	29855.587	15.3	14.9	15.2	15.6	15.0	14.8	Σ16.7	16.5	14.5	15.3
22118	29867.511	15.9	15.3	15.2	15.6	15.1	15.4	Σ16.5	Σ16.5	14.5	15.2
22122	29868.538	15.6	14.9	14.8	15.7	14.9	15.2	Σ16.7	16.5	14.7	15.1
22130	29869.555	15.9	14.8	14.8	16.0	15.0	15.7	16.9	16.6	14.6	15.6
22140	29871.505	15.5	15.0	15.0	15.6	14.9	14.7	Σ16.7	16.5	14.6	15.4
22146	29872.537	15.5	15.2	14.9	15.7	15.1	14.9	Σ16.7	16.7	14.7	15.5
22152	29874.496	15.5	15.0	14.8	15.7	15.7	15.1	Σ16.5	16.4	14.5	15.6
22157	29876.489	15.2	15.3	14.7	15.7	15.0	15.6	Σ16.7	16.5	14.5	15.6
22163	29877.488	15.8	14.8	15.0	15.8	15.0	15.5	Σ16.7	16.6	14.5	15.5
22169	29878.494	15.7	15.0	14.8	15.7	15.6	15.3	16.7	16.5	14.6	15.6
22174	29881.502	15.7	14.9	14.4	15.7	15.0	15.1	16.6	16.5	14.6	15.4



1945phae.proj.24478

"	"
5.2	16.1
5.3	16.0
5.4	15.8
3	16.0
6	16.0
4	16.3
3	16.2
5.4	15.4
5.4	15.3
5.7	16.0
5.6	16.0
5.1	16.0
4	15.9
5.2	16.1
5.3	15.5
2	15.8
1	15.9
6	16.0
5.4	16.1
5.5	15.9
6	16.0
5	16.2
5	16.1
6	16.2
5.4	15.9



24

		HV635	"d"	6359	11547 (18)	11550 (11)	11548 (10)	9 (9)	11549 (11)	"a"	"b"	
✓ 22190	29896.446	15.5	15.0	15.2	15.9	15.0	15.2	16.5	16.4	14.6	15.6	1
✓ 22195	29897.502	15.8	15.0	15.0	15.5	15.5	15.3	16.5	16.5	14.9	15.4	15
✓ 22197	29902.400	16.0	15.1	15.0	15.5	15.6	15.5	16.5	16.6	14.3	15.4	1
✓ 22202	29903.376	16.0	15.1	15.0	15.7	15.3	15.3	16.5	16.6	14.7	15.2	12
✓ 22204	29903.400	15.9	15.0	14.9	15.7	15.3	14.8	16.6	16.6	14.9	15.4	1
✓ 22210	29906.276	15.9	14.3	14.6	15.5	15.3	15.3	16.5	16.6	14.7	15.3	1
✓ 22215	29911.333	15.9	15.1	15.0	15.9	15.0	15.0	16.6	16.6	14.3	15.4	1
✓ 22217	29911.415	15.7	14.6	14.6	15.6	15.4	14.9	16.4	16.5	14.4	15.3	15
✓ 22220	29912.451	16.0	15.0	14.4	15.9	15.2	15.3	def	16.6	14.5	15.4	1
✓ 22242	29925.383	15.6	14.9	14.6	15.8	15.0	16.0	16.2	16.6	14.6	15.2	15
✓ 22249	29926.370	15.9	14.9	14.6	15.5	15.3	15.5	16.6	16.5	14.8	15.3	15
✓ 22258	29927.362	15.9	15.0	14.6	15.8	15.3	15.4	16.6	16.6	14.5	15.4	1
✓ 22267	29928.368	5.5	15.0	14.9	15.9	15.3	15.0	Σ16.5	Σ16.5	14.6	15.3	
✓ 22268	29933.505	15.6	14.8	15.5	15.0	15.3	15.6	Σ16.5	Σ16.5	14.3	15.3	1
✓ 22273	29938.372	15.7	14.9	15.3	15.8	15.3	15.4	16.4	Σ16.6	15.0	15.3	1
✓ 22283	29951.264	15.7	15.2	15.2	16.0	15.6	15.3	16.6	Σ16.6	14.6	15.0	16
✓ 22323	29963.398	15.8	14.8	15.0	15.9	15.7	15.3	16.6	16.6	14.7	15.2	
✓ 22324	29968.278	16.0	15.0	15.0	16.2	15.6	14.7	16.6	16.7	14.4	15.4	1
✓ 22917	30264.374 (5x10)	—	14.9	15.0	15.4	15.2	15.6	16.4	16.4	14.4	15.4	15
✓ 22921	30267.408 (5x10)	—	14.4	14.8	15.6	15.2	15.2	16.5	16.4	14.5	15.0	1
✓ 22983	30314.332	15.6	15.0	14.9	15.3	15.0	15.0	Σ16.5	Σ16.5	14.7	15.4	1
✓ 22989	30316.339	15.8	14.8	15.0	15.7	15.0	15.4	Σ16.5	Σ16.5	14.4	15.4	1
✓ 22990	30318.291	def	14.4	15.3	15.6	15.4	15.3	Σ16.5	Σ16.5	14.4	15.4	
✓ 23013	30325.265	15.8	15.1	15.0	15.8	15.7	15.3	16.0	def	14.6	15.3	1
✓ 23298	30527.646	15.3	14.9	14.9	16.0	15.3	15.6	Σ16.5	Σ16.5	14.6	15.0	1



1945phae, proj. 2447S

5.6	15.6
5.4	15.9
5.4	16.0
5.2	15.9
5.4	16.1
5.3	15.4
5.4	16.0
5.3	15.9
5.4	16.0
5.2	15.2
5.3	15.2
5.4	15.4
5.3	15.5
5.3	16.2
5.3	16.1
5.0	16.0
5.2	16.1
5.4	15.9
5.4	15.4
5.0	15.8
5.4	16.0
5.4	15.9
5.4	16.2
5.3	15.3
5.0	15.0



26

	HV6351	"d"	6359	11547	11550	11548		11549	"a"	"b"
				(18)	(1)	(10)	(19)	(11)		
2332	30528.640									
23308	30529.639	15.3	14.6	14.7	16.2	15.8	16.1	$\Sigma 16.5$	$\Sigma 16.5$	14.3 15.2
23321	30532.646	15.8	15.0	14.8	15.9	15.2	15.3	$\Sigma 16.4$	$\Sigma 16.4$	14.4 15.3
23329	30533.640	15.7	14.7	14.8	15.9	15.5	15.0	$\Sigma 16.4$	$\Sigma 16.4$	14.2 15.4
23331	30534.655	15.9	15.0	15.0	15.9	15.3	15.8	$\Sigma 16.0$	$\Sigma 16.0$	14.6 15.3
23334	30536.652	15.6	15.0	15.0	15.6	14.9	15.6	$\Sigma 16.5$	$\Sigma 16.5$	14.6 15.3
23344	30547.641	15.4	15.0	14.9	15.9	15.3	14.9	$\Sigma 16.5$	$\Sigma 16.5$	14.7 15.3
23350	30548.653	15.4	15.0	14.9	16.0	15.0	14.9	$\Sigma 16.5$	$\Sigma 16.5$	14.5 15.3
23355	30549.640	15.4	14.8	14.6	15.7	15.0	15.2	16.6;	16.6;	14.4 15.3
23359	30550.653	15.5	14.8	14.6	15.8	15.4	15.6	$\Sigma 16.5$	$\Sigma 16.5$	14.5 15.3
23363	30551.655	15.6	14.9	14.7	15.6	15.5	15.6	$\Sigma 16.5$	$\Sigma 16.5$	14.4 15.2
23367	30553.656	15.4	15.0	14.9	15.6	15.1	14.9	$\Sigma 16.5$	$\Sigma 16.5$	14.1 15.3
23371	30554.659	15.5	15.1	14.7	15.6	15.0	15.0	$\Sigma 16.5$	16.6;	14.7 15.4
23375	30555.641	15.4	15.0	14.7	15.8	15.5	14.8	$\Sigma 16.5$	$\Sigma 16.5$	14.6 15.3
23379	30556.647	15.4	14.9	14.9	15.4	15.1	14.9	$\Sigma 16.5$	$\Sigma 16.5$	14.3 15.2
23382	30557.656	15.5	14.7	15.0	15.8	15.0	15.0	16.6;	$\Sigma 16.5$	14.8 15.4
23386	30560.656	15.4	15.0	15.2	15.8	14.8	15.6	16.6;	$\Sigma 16.5$	14.7 15.5
23393	30561.652	15.3	15.1	15.1	15.7	15.0	15.8	$\Sigma 16.5$	16.5;	14.5 15.3
23395	30562.633	15.6	14.6	15.2	15.8	15.3	15.0	$\Sigma 16.5$	16.5	14.4 15.5
23398	30565.653	15.8	14.9	14.9	15.8	15.1	15.3	16.7;	16.6;	14.5 15.3
23402	30575.585	15.6	14.7	14.9	16.1	15.2	15.3	$\Sigma 16.5$	16.5	14.5 15.5
23423	30590.577	15.5	15.0	14.9	16.1	15.3	15.2	$\Sigma 16.5$	$\Sigma 16.5$	14.4 15.5
23429	30605.476	15.4	14.6	14.9	16.1	15.0	15.0	$\Sigma 16.5$	$\Sigma 16.5$	14.5 15.5

Due to

Proposed  
for 10/1/1945Due to  
for 10/1/1945Not  
for 10/1/1945

2.0



1945phae.proj.2447S

"c"

151  
165  
156

2	15.2
3	15.7
4	16.1
3	16.0
3	15.9
3	16.0
3	15.9
3	15.9
3	16.0
2	15.4
3	15.1
4	15.1
3	15.1
2	15.2
4	15.4
5	16.1
3	15.7
5	15.8
3	15.9
5	16.2
5	15.9
5	16.1

12.0357668  
10.049254



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	HV6351	"d"	6359	11547	11550	11548	11549	"a"
				(18)	(1)	(10)	(19)	(11)
✓ 24406	31295.488	—	15.0	15.1	15.9	15.0	15.0	Σ16.5 16.5; 14.5
✓ 24408	31295.604	—	15.0	14.8	15.7	15.0	14.9	Σ16.5 16.5; 14.3
✓ 24416	31296.524	—	14.9	15.0	15.5	15.4	15.3	Σ16.5 Σ16.5 14.8
✓ 24565	31381.302	—	2f	15.0	15.2	15.5	16.0	Σ16.0 Σ16.0 14.9
✓ 25141	31741.251	—	14.8	14.7	16.1	15.3	15.6	16.4 16.4 14.9

examine two unlike  
images, you require  
about 2 hrs.

file??

Irregular

expung

too reliable  
for points

too faint  
- double point

file??



	"b"	"c"
5	15.3	15.8
3	15.2	15.8
8	15.4	15.9
9	15.1	15.5
9	15.4	16.1

15.1  
15.2  
15.3  
15.4  
15.5  
15.6  
15.7  
15.8  
15.9  
16.0  
16.1

15.1  
15.2  
15.3  
15.4  
15.5  
15.6  
15.7  
15.8  
15.9  
16.0  
16.1

Cluster Type 1  
20357668 / TP 0.49/2/154



30

MF 2705 ~~2705~~ ~~2705~~

OK

VS F 531

4

30

-72.9

N 11

N 11

#EB 2

N 4

N 5

N 8

N 1

N 5

N 9

8044

N 11

MF 30092

30404.299

12.0

13.0

15.3

12.7

ms

ms

ms

ms

ms

ms

30094

30404.366

12.0

13.0

15.0

13.0

15.0

15.0

ms

15.5

14.5

14.5

30734

30561.646

Σ15.2

13.8

15.2

13.9

14.8

15.0

ms

15.5

13.0

13.0

30823

30584.647

Σ16.0

13.1

15.0

12.0

14.9

15.1

ms

12.2

12.8

12.8

30835

30585.580

Σ15.6

13.0

15.1

13.0

15.0

15.4

ms

12.0

14.2

14.2

30837

30585.647

Σ16.1

13.0

15.1

14.0

15.0

15.2

16.3

11.8

14.4

14.4

30850

30588.573

Σ16.0

13.0

15.0

12.0

14.8

15.2

ms

11.6

14.6

14.6

30863

30589.573

Σ16.0

12.8

15.4

12.9

15.0

15.3

16.3

11.6

14.9

14.9

30865

30589.638

Σ16.0

12.8

15.1

11.8

14.8

15.1

ms

11.6

14.4

14.4

30866

30590.575

Σ16.0

13.1

15.1

13.4

15.1

15.1

ms

11.6

15.0

15.0

30868

30590.641

Σ16.0

13.0

15.2

13.8

14.8

15.2

ms

11.5

14.3

14.3

30874

30591.511

Σ16.0

13.0

15.1

13.8

15.1

15.4

ms

11.5

13.0

13.0

30876

30591.576

Σ16.0

13.0

15.0

13.8

15.1

15.4

16.4

11.5

13.0

13.0

30878

30591.641

Σ16.0

12.9

15.0

14.0

15.1

15.1

ms

11.5

13.6

13.6

30884

30592.556

Σ16.0

13.0

15.6

13.0

15.0

15.1

ms

11.5

14.9

14.9

30891

30593.567

Def

13.0

15.2

13.0

15.0

15.4

ms

11.5

14.9

14.9

30893

30593.637

Σ16.0

13.2

15.4

13.0

15.0

15.3

16.3

11.5

14.9

14.9

30904

30605.547

Σ16.0

12.9

15.3

13.9

14.8

15.4

ms

11.5

14.6

14.6

30906

30605.607

Σ15.2

12.9

15.0

13.1

14.9

15.2

ms

11.5

14.6

14.6

30915

30606.551

Σ15.6

13.1

15.5

13.2

15.0

15.3

ms

11.5

14.2

14.2

30917

30606.616

Σ16.0

12.8

15.3

13.8

14.9

15.3

ms

11.5

14.3

14.3

30942

30618.458

Σ16.0

12.8

15.2

13.5

15.0

15.2

ms

11.5

13.5

13.5

30944

30618.524

Σ16.0

12.8

15.4

14.0

15.1

15.1

16.4

11.6

13.5

13.5

30946

30618.591

Σ16.0

12.8

15.3

12.6

15.0

15.1

ms

11.6

13.5

13.5



14. 1932	N 12	N 7	SS. 1932
15.1	15.2	13.4	15.0:
15.2:	15.2:	13.2	15.3:
15.1	15.1	13.5	15.4
15.3:	15.1:	13.2	15.1
15.3	15.1	13.5	15.4
15.1	15.0	13.4	15.0
15.2	15.1	13.1	15.0
15.2	15.2	13.1	14.7
15.1	15.1	13.3	15.3
15.1	15.0	13.3	14.9
15.0	15.2:	13.6	15.5
15.2	15.2	13.3	15.4
15.1	15.2	13.2	15.2
15.2	15.1	13.4	15.3
15.0	15.1	13.5	15.4
15.1	15.1	13.4	15.4
15.1	15.3:	13.6	15.5
15.0	Σ15.0	13.4	15.5
15.3	Σ15.0	13.6	15.6
15.0	15.0	13.3	15.4
15.0	15.2	13.3	15.4
15.1	15.2	13.3	15.4
15.2	15.2	13.3	15.4



30 MF 2708 <sup>red</sup>  
~~no good~~

F30092 ✓ 30404.299

30094 ✓ 30404.366

30734 ✓ 30561.646

30823 ✓ 30584.647

30835 ✓ 30585.580

30837 ✓ 30585.647

30850 ✓ 30588.573

30863 ✓ 30589.573

30865 ✓ 30589.638

30866 ✓ 30590.575

30868 ✓ 30590.641

30874 ✓ 30591.511

30876 ✓ 30591.576

30878 ✓ 30591.641

30884 ✓ 30592.556

30891 ✓ 30593.567

30893 ✓ 30593.637

30904 ✓ 30605.547

30906 ✓ 30605.607

30915 ✓ 30606.551

30917 ✓ 30606.616

30942 ✓ 30618.458

30944 ✓ 30618.524

30946 ✓ 30618.591



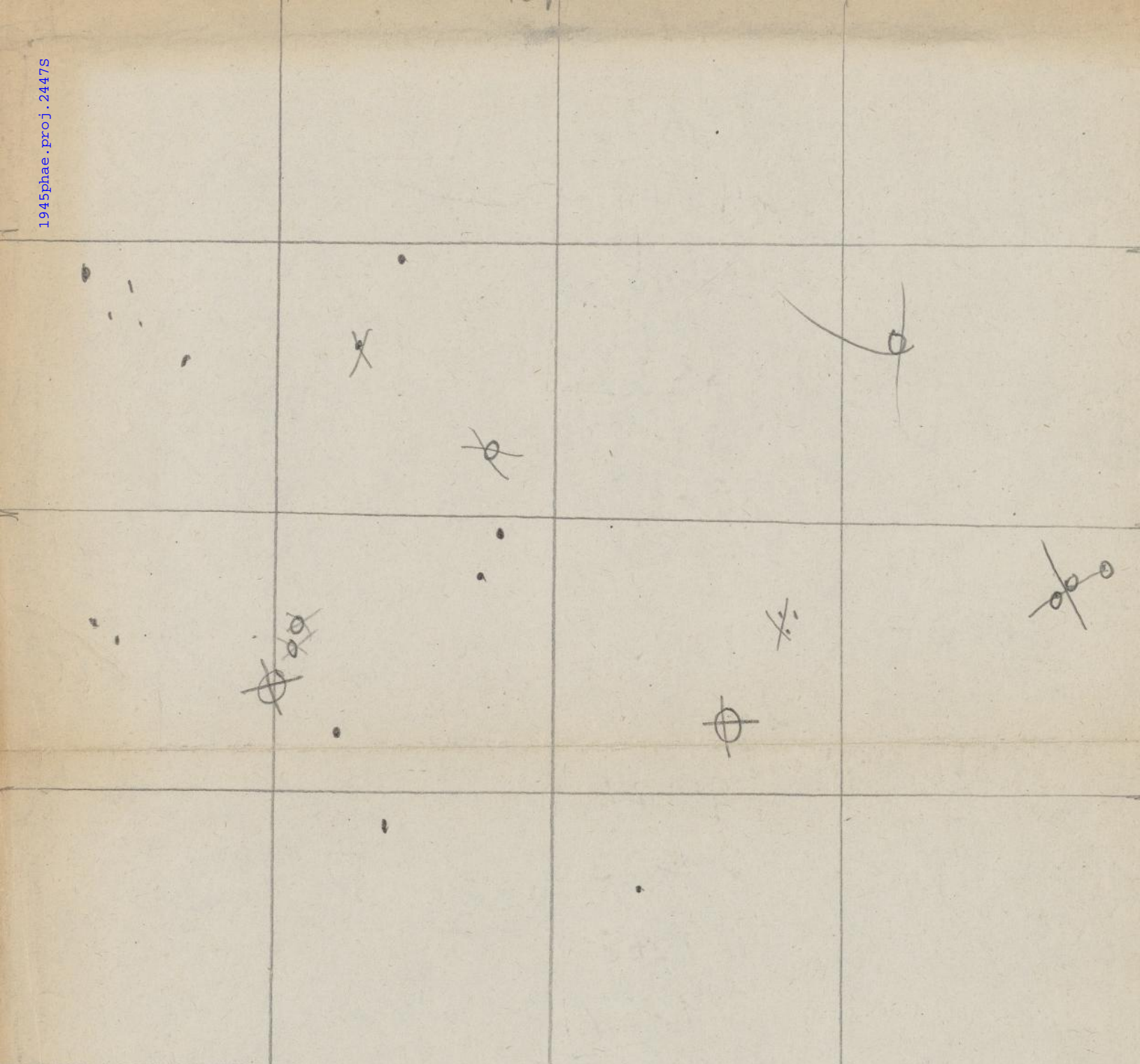




34

		#EB <sub>2</sub>	N <sub>4</sub>	N <sub>3</sub>	N <sub>8</sub>	N <sub>1</sub>	N <sub>5</sub>	N <sub>9</sub>	HV <sub>8049</sub>	N <sub>11</sub>
MF 30951 <sup>v</sup>	30619.468	Σ16.0	12.8	15.3	14.0	14.9	15.1	n.s.	11.0	14.7
30953 <sup>v</sup>	30619.534	Σ16.0	12.9	15.1	14.0	15.0	15.2	n.s.	11.0	14.8
30955 <sup>v</sup>	30619.599	Σ16.0	12.9	15.2	14.0	14.9	15.3	n.s.	11.0	13.9
30961 <sup>v</sup>	30620.491	Σ16.6	12.8	15.3	13.6	14.8	15.3	n.s.	11.0	14.9
30963 <sup>v</sup>	30620.559	Σ16.0	12.8	15.4	13.6	14.9	15.5	n.s.	11.0	15.0
30965 <sup>v</sup>	30620.627	Σ15.0	12.8	Σ15.0	13.9	15.0	Σ15.0	—	11.0	14.5
30971 <sup>v</sup>	30621.558									
30973	30621.626									
30978 <sup>v</sup>	30623.624	Σ15.0	12.8	Σ15.0	13.3	14.7	Σ15.0	—	11.0	14.3
30988 <sup>v</sup>	30638.408	Σ16.0	12.8	15.5	13.0	15.0	15.1	n.s.	11.0	14.5
30990 <sup>v</sup>	30638.473	Σ16.0	12.8	15.4	12.8	15.0	15.5	n.s.	11.0	14.9
30996 <sup>v</sup>	30639.400	Σ16.0	12.9	15.3	14.1	15.0	15.4	16.1	11.0	14.6
30998 <sup>v</sup>	30639.468	Σ16.0	13.0	15.1	14.0	14.9	15.5	n.s.	11.3	14.7
31000 <sup>v</sup>	30639.536	Σ16.0	13.1	15.5	12.7	15.1	15.7	n.s.	11.2	14.9
31002 <sup>v</sup>	30639.605	Σ16.0	12.7	15.6	12.3	15.0	15.5	n.s.	10.9	—
31008 <sup>v</sup>	30640.401	Σ16.0	12.8	15.6	13.0	14.9	15.4	n.s.	11.0	13.5
31065 <sup>v</sup>	30672.315	Σ16.0	12.7	15.5	12.0	15.0	15.4	n.s.	14.5	14.7
31076 <sup>v</sup>	30673.314	Σ16.0	12.7	15.4	13.5	14.8	15.4	n.s.	14.6	14.8
31086 <sup>v</sup>	30677.293	14.3	12.8	15.5	12.3	14.8	15.6	n.s.	14.7	13.7
31803	30920.661	Σ16.0	12.7	15.5	12.8	14.8	15.5	n.s.	10.8	14.9
31822	30933.631	Σ16.0	12.7	15.5	13.0	14.0	15.6	n.s.	10.9	13.5
31851	30943.609	Σ16.0	13.0	15.7	11.9	14.1	15.5	n.s.	11.0	14.5
31860	30948.612	Σ14.8	—					—	13.0	13.3
31861	30949.626	Σ16.0	12.7	15.7	13.1	14.2	15.4	n.s.	13.0	15.0
31870	30960.617	Σ16.0	12.8	15.6	14.0	14.4	15.7	n.s.	13.5	13.3





~~MF 29270 pos.~~  
 MF 28973 neg } MW 7 182 RA 16 35-  
 MF 15 775 pos } Dec -34.0  
 MF 10615 neg } MW 7 182 RA 17 12 22.1



no 3

v. br 29273

ft or absent

29244

29245

29264  
29262

bright

29266

29269

29271

absent

29276

29275

29274

29272

bright

29268

29267

absent

29265

29264

29261

29238

29159

29081

28999

pt → 29262

or 29266 → 29276

gn 22-23 -

1941 Jan 20-3

no 3a bright!

3 or 3a bright?

absent	28993	11465
"	28982	9573
"	28980	8771
"	28971	8661
"	13284	8526
"	13247	1924
"	13137	
"	12216	
"	1428	
"	11671	



14.1932 N12 N7 55.1932

15.2 15.1 13.2 15.3

15.3 15.2 13.3 15.3

15.3 15.2 13.7 15.5

15.3 15.2 13.4 15.3

15.2 15.3 13.5 15.3

15.0: 15.0 13.6: 15.015.1: 15.0 13.5 15.0:

15.2 15.4 13.5 15.6

15.0 15.0 13.4 15.6

15.1 15.2 13.3 15.8

15.2 15.3 13.5 15.6

15.3 15.4 13.4 15.8

15.3 15.2 13.3 14.9

15.3 15.3 13.2 15.7

15.3 15.1 13.4 15.7

15.2 15.3 13.6 15.8

15.1 15.3 13.7 15.6

15.3 15.4 13.4 15.7

15.2 15.1 13.1 15.5

15.1 15.2 13.7 15.5

— — 13.1 —

15.2 15.3 13.5 14.7

15.5: 15.4: 13.4 15.1



MF 30951<sup>v</sup> 30619.40830953<sup>v</sup> 30619.53430955<sup>v</sup> 30619.59930961<sup>v</sup> 30620.49130963<sup>v</sup> 30620.55930965<sup>v</sup> 30620.62730971<sup>v</sup> 30621.558

30973 30621.626

30978<sup>v</sup> 30623.62430988<sup>v</sup> 30638.40830990<sup>v</sup> 30638.47330996<sup>v</sup> 30639.40030998<sup>v</sup> 30639.46831000<sup>v</sup> 30639.53631002<sup>v</sup> 30639.60531008<sup>v</sup> 30640.40131065<sup>v</sup> 30672.31531076<sup>v</sup> 30673.31431086<sup>v</sup> 30677.293

31803 30920.661

31822 30933.631

31851 30943.609

31860 30948.612

31861 30949.626

31870 30960.617







38

		HEB <sub>2</sub>	N <sub>4</sub>	N <sub>3</sub>	N <sub>2</sub>	N <sub>1</sub>	N <sub>5</sub>	N <sub>9</sub>	HV8044	N <sub>11</sub>	
31877	30966.534	Σ16.0	12.8	15.8	13.1	14.2	15.7	ms	13.5	14.6	14.
31879	30961.621	Σ16.0	12.9	15.4	14.0	14.3	15.4	ms	13.5	14.8	14.
31899	30967.620	Σ16.0	12.9	15.6	12.6	14.3	15.2	ms	13.1	14.2	15.
31907	30967.533	Σ16.0	12.9	15.5	11.9	14.0	15.3	ms	14.0	14.5	15.
31919	30970.562	Σ16.0	13.0	15.3	12.5	14.0	15.5	ms	14.0	14.9	15.
31921	30970.634	Σ15.0	12.8	Σ15.0	14.1	14.3	Σ15.0	—	14.6	14.8	Σ
31932	30977.617	Σ16.0	12.7	15.5	13.0	14.1	15.6	ms	14.7	14.9	15.
31933	30978.622	Σ16.0	12.8	15.7	12.8	14.0	15.7	ms	14.7	15.0	15.
31946	30990.461	Σ16.0	12.9	15.8	12.7	14.1	15.4	16.3	15.0	13.0?	15.
31948	30990.548	Σ16.0	12.8	15.6	12.4	14.0	15.6	16.4	15.0	14.0	15.
31955	30994.461	Σ16.0	12.9	15.7	13.0	14.0	15.8	ms	15.2	13.0	15.
31979	31022.585										
31988	31052.308	Σ16.0	12.8	15.6	13.8	14.0	15.5	ms	ms	14.6	15.
31994	31052.570	Σ16.0	12.8	15.5	13.7	14.0	15.1	ms	ms	—	15.
31996	31053.314	16.5	13.0	15.4	13.5	13.5	15.3	ms	ms	14.5	15.
32002	31053.576										
32003	31054.318	16.5	13.0	15.5	13.0	13.7	15.5	ms	ms	14.5	15.
32009	31054.581										
32011	31055.563	16.5	13.0	15.5	14.2	13.9	15.3	16.5	16.5	—	1.
32015	31060.562	ms	12.8	15.3	13.1	13.0	15.3	16.5	16.5	—	15.
32018	31061.570										
32025	31062.550	Σ16.0	13.0	15.4	13.0	13.1	15.5	ms	16.5	—	1.
32026	31066.559	Σ16.5	13.0	15.8	12.4	13.3	15.5	ms	ms	14.3	1.
32027	31063.254	Σ16.5	13.0	15.9	13.9	14.1	16.0	ms	ms	14.1	1.
		Σ16.5	13.0	16.0	13.0	13.9	15.4	ms	16.5	13.9	1.



14. 1932 N<sub>12</sub> N<sub>7</sub> 55. 1932

15.1 15.2 13.4 15.8

14.9 15.3 13.3 14.9

15.1 15.3 13.2 15.6

15.1 15.3 13.5 15.6

15.2 15.3 13.6 15.3

15.0 15.0 13.2 15.0

15.1 15.1 13.2 15.6

15.3 15.3 13.3 15.8

15.2 15.3 13.3 15.5

15.3 15.3 13.3 15.7

15.4 15.3 13.3 15.2

15.3 15.3 13.4 14.8

15.2 15.3 13.2 15.7

15.3 15.2 13.6 14.8

---

15.3 15.3 13.4 14.8

---

15.3 15.2 13.5 15.5

15.2 15.3 13.6 15.0

15.3 15.4 13.3 15.9

15.3 15.4 14.0 15.8

15.3 15.4 13.3 15.5

15.2 15.0 13.4 15.5



38

31877	30964.534
31879	30961.621
31899	30963.620
31907	30964.533
31919	30970.562
31921	30970.634
31932	30977.617
31933	30978.622
31946	30990.461
31948	30990.548
31955	30994.461
31979	31022.585
31988	31052.308
31994	31052.570
31996	31053.314
32002	31053.576
32003	31054.318
32009	31054.587
32011	31055.563
32012	31060.56
32018	31061.57
32025	31062.55
32026	31066.55
32027	31063.55







		HEB2	N4	N3	N8	N1	N5	N9	HV5044	N11	14193-21	N
2033	31026.381	$\Sigma 16.0$	12.8	15.6	12.6	13.0	15.8	ms	ms	—	15.2	15
2034	31028	$\Sigma 16.0$	13.0	14.1	13.0	14.2	15.7	ms	16.4	—	15.2	15
2040	31050.505	$\Sigma 16.0$	13.0	15.4	12.7	13.1	15.5	ms	16.5	13.0	15.2	15
2044	31106.319	$\Sigma 16.0$	12.7	15.8	11.7	13.0	15.5	ms	16.5	—	15.3	15
2050	31107.318	16.6	12.7	15.7	14.2	13.0	15.7	ms	ms	—	15.3	15
2052	31107.387	$\Sigma 16.0$	12.7	15.8	12.3	13.5	15.5	ms	16.6	—	15.1	15
2056	31108.319	$\Sigma 16.0$	12.8	15.6	14.3	14.2	15.3	ms	ms	—	15.1	15
2058	31108.388	$\Sigma 16.0$	12.8	15.0	13.9	14.1	15.6	ms	16.5	—	15.2	15
2060	31108.457	$\Sigma 15.2$	12.8	14.9	12.0	14.1	15.1	ms	ms	—	15.2	15
2065	31109.318	$\Sigma 16.0$	12.8	15.3	14.3	13.6	15.5	ms	ms	—	15.5	15
2067	31109.387	$\Sigma 16.0$	12.9	15.4	14.5	13.7	15.6	ms	16.5	—	15.3	15
2069	31109.455	$\Sigma 16.0$	12.9	15.7	13.8	13.5	15.5	ms	ms	—	15.3	15
2075	31110.313	$\Sigma 16.0$	12.7	15.5	13.0	13.0	15.6	ms	16.5	—	15.2	15
2080	31118.317	$\Sigma 16.0$	12.7	15.5	13.0	13.4	15.6	ms	ms	—	15.3	15
2104	31141.299	$\Sigma 16.0$	12.7	15.4	12.7	13.2	15.5	ms	ms	—	15.3	15
2115	31143.301	$\Sigma 16.0$	12.7	15.7	14.5	12.4	15.2	ms	16.5	—	15.4	15

Irregular  
hot  
bar

double long  
long

See Bruce  
Long

Cannot identify

not a wave



1945 phase, proj. 24478

	N12	N7	55.1932
193	15.1	13.6	15.5
5, 2	15.2	13.7	15.7
2	15.3	13.7	15.5
3	15.3	14.0	15.5
3	15.1	14.0	15.9
7	15.2	13.7	def
1	15.2	14.0	15.5
2	15.3	13.7	15.5
2	15.3	13.4	15.6
5	15.3	13.4	15.7
3	15.3	13.4	15.2
3	15.3	13.4	15.7
2	15.3	14.0	15.4
3	15.3	13.3	15.9
3	15.4	13.4	15.3
4	15.5	13.4	15.5

not a variable

not a variable

cluster



44

EHB#2

F 3 2985	2431303	11.5
33049	31316	12.5
33064	31317	12.0
33076	31319	12.3
33108	31321	12.5
33128	31324	14.0
33185	31326	Σ16.0
33187	31328	Σ15.5
33195	31330	Σ15.5
33197	31330	Σ15.5
33206	31331	12.5
33213	31332	14.3
33282	31344	Σ15.6
33284	31344	Σ15.7
33301	31356	Σ15.7
33309	31358	Σ15.7
33311	31358	Σ15.7
34461	31657	Σ15.7
34538	31674	Σ15.7
34551	31675	Σ15.7
34559	31676	Σ15.7
34573	31677	Σ15.7
34607	31681	Σ15.7
34619	31682	Σ15.7
34621	31682	Σ15.7







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EHR#2

34634	24 31683	[15.7]
34636	31683	[15.7]
34638	31687	[15.7]
34692	31701	[15.7]
34694	31701	[15.7]
34703	31702	[15.7]
34705	31702	[15.7]
34760	31710	[15.7]
34762	31710	[15.7]
34764	31710	[15.7]
34777	31711	[15.7]
34788	31712	[15.7]
34790	31712	[15.7]
34796	31713	[15.7]
34798	31713	[15.7]
34800	31713	[15.7]
34819	31729	[15.7]
34821	31729	[15.7]
34827	31734	[15.7]
34829	31734	[15.7]
34831	31734	[15.7]
34837	31738	[15.7]
34838	31738	[15.7]
34885	31759	[15.7]
34889	31760	[15.7]
34891	31760	[15.7]







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EB#  
Σ15.7

MF 34893	2431760	Σ15.7
34895	31260	Σ15.7
34897	31761	Σ15.7
34899	31761	Σ15.7
34901	31761	Σ15.5
34908	31764	Σ15.7
34910	31764	Σ15.7
34912	31764	Σ15.7
34922	31771	11.0
34936	31783	Σ15.0
34938	31783	Σ15.7
34944	31785	Σ15.7
34946	31785	Σ15.7
34948	31785	Σ15.7
35091	31873	Σ15.0
35093	31873	Σ15.7
35098	31874	16.0
35105	31876	Σ15.7
35662	32035	Σ15.7
35670	32037	Σ15.0
35673	32039	Σ15.7
35675	32039	Σ15.7
35677	32040	Σ15.7
35679	32040	Σ15.7
35705	32053	Σ15.7
35719	32054	diff







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MF35731 2432055

HBX2

16.0i

35733 32655

 $\Sigma 15.7$ 

35766 32059

 $\Sigma 15.7$ 

35768 32059

 $\Sigma 15.7$ 

35780 32060

 $\Sigma 15.7$ 

35792 32061

 $\Sigma 16.5$ 

35794 32061

16.0i

36569 32392

16.3

36759 32473

 $\Sigma 15.7$ 

37576 32269

 $\Sigma 15.7$ 

37811 32828

 $\Sigma 15.0$ 

37894 32876

 $\Sigma 15.7$ 

37728 32804

 $\Sigma 15.7$ 

39396 33599

16.0i

35812 32063

16.0i

35824 32067

double exposure

35826 32067

 $\Sigma 15.5$ 

35830 32068

 $\Sigma 16.3$ 

35832 32069

 $\Sigma 16.3$ 

35834 32069

 $\Sigma 16.3$ 

35886 32098

 $\Sigma 16.3$ 

35938 32142

 $\Sigma 16.0$ 

Irregular











Region South Preceding  
LMC

Plates centered 5<sup>h</sup> 04.1 - 70.4

Winter 1955  
region changed to IV'  
reg IV on hydrogen region  
reg IV' set up.



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		VN279	VN137	VN280	HSV89	HSV858	SM350	VN232	VN163	SM1251	SM1252	VN2
17070	27658.609	16.7	14.8	16.0	14.7	14.1	16.0	16.2	15.7	14.9	15.8	16.0
17100	27670.574	16.7	15.3	16.0	14.4	14.0	16.3	16.6	15.8	14.8	16.2	17.0
17117	27681.594	16.6	14.8	16.0	14.0	14.1	16.0	16.3	15.8	14.8	16.0	16.0
17145	27691.588	15.9	15.2	16.2	15.9	14.2	16.3	16.2	16.1	15.1	16.1	16.3
17157	27694.591	16.0	14.9	16.0	14.1	14.2	16.4	16.3	15.5	15.2	16.0	16.0
17172	27700.556	16.5	14.8	15.5	15.7	14.3	16.6	16.1	15.3	15.1	15.9	16.0
17212	27728.464	15.0	14.5	15.9	15.7	14.2	16.3	15.9	15.8	15.5	15.8	16.0
17215	27730.521	15.1	14.6	15.8	15.8	14.0	16.1	16.4	16.4	15.4	16.2	16.0
17253	27756.336	15.9	15.0	16.1	15.3	14.0	16.1	16.3	16.2	15.0	16.0	16.0
17258	27776.524	16.3	15.2	16.0	16.0	14.4	16.0	16.4	16.3	15.2	16.2	16.0
17915	28134.555	15.9	15.0	16.0	15.6	14.1	16.0	16.2	16.2	15.0	15.9	15.0
17925	28135.597	16.0	15.0	16.1	15.4	14.1	16.5	16.4	16.2	15.2	15.8	16.0
18164	28157.461	16.2	15.3	16.1	16.1	14.2	15.7	16.5	15.5	15.3	16.2	16.0
18147	28158.640	15.9	15.0	15.9	14.9	14.2	16.3	16.3	16.3	15.2	16.3	16.0
19673	28758.570	16.4	15.1	16.2	15.1	14.1	16.4	16.4	16.0	15.1	16.2	16.0
19684	28759.614	15.0	15.0	15.9	14.2	14.3	16.0	16.3	15.2	14.9	16.3	15.0
19695	28761.607	16.0	14.9	15.9	14.9	14.2	16.5	16.0	16.0	15.0	16.2	16.0
19701	28762.619	16.4	15.2	16.0	15.0	14.3	16.4	16.2	16.4	15.0	16.3	16.0
19702	28763.589	15.3	15.2	16.0	14.9	14.2	16.4	16.4	16.5	15.2	16.3	16.0
19724	28776.584	15.8	15.0	16.2	15.2	14.2	15.9	16.3	15.9	15.1	16.3	16.0
19741	28780.585	16.4	15.0	16.1	15.8	14.2	16.3	16.3	15.4	15.0	16.2	16.0
19859	28863.399	15.2	15.4	16.3	14.8	14.2	16.3	16.3	16.3	15.1	16.3	16.0
20308	29100.648	15.9	15.0	15.9	15.2	14.2	15.9	16.2	15.6	15.3	15.8	15.0
20320	29102.617	16.5	15.1	15.9	14.7	14.2	16.4	16.3	16.0	15.4	15.9	16.0
20349	29109.650	16.0	15.0	16.1	15.8	14.2	16.3	16.2	15.8	15.3	15.6	16.0



	VN278	VN261	HSL954	SML606	VN237	VN262	VN293	VN336	VN294	VN273
25	16.3	16.0	16.3	14.2	15.8	16.9	16.7	16.2	14.9	14.7
2	17.0	16.9	16.1	14.7	15.7	16.9	15.9	16.9	14.9	14.7
15	16.4	16.2	15.9	14.4	15.2	16.9	16.9	16.3	14.9	14.6
16	16.3	16.7	16.0	14.2	15.7	16.9	16.9	16.4	14.9	14.4
5	16.3	15.8	15.8	14.8	15.6	16.8	16.8	16.3	16.0	14.6
9	16.0	16.9	15.8	14.4	15.5	16.0	16.9	16.0	14.8	14.6
17	16.5	16.4	16.2	14.9	15.6	16.5	16.0	16.7	14.9	14.8
6	16.3	16.9	16.1	14.6	15.2	16.9	17.0	16.9	14.9	14.9
15	16.3	15.8	16.0	14.3	15.6	16.9	17.0	16.2	14.9	14.5
6	16.3	16.7	16.2	14.7	15.5	16.9	16.0	16.7	15.2	14.3
5	15.8	16.9	15.7	14.7	15.7	17.0	17.0	16.2	15.5	15.0
15	16.4	17.1	15.8	14.5	16.0	16.3	16.8	16.0	15.0	14.6
16	16.3	16.3	16.3	14.5	15.9	16.8	16.9	16.0	15.1	14.9
3	16.2	17.0	16.6	14.8	15.1	17.0	16.0	15.7	14.8	14.6
6	16.6	16.4	16.8	14.7	15.6	16.9	16.0	16.4	14.9	14.8
6	15.8	16.8	17.0	14.9	15.6	16.1	16.5	16.0	14.9	14.7
2	16.5	16.8	16.9	14.3	15.5	17.0	15.9	16.1	15.6	14.3
3	16.5	16.9	16.9	14.6	16.0	16.2	16.6	16.9	15.0	14.9
3	16.0	16.9	16.9	14.8	15.9	16.9	16.9	16.9	14.9	14.9
3	16.5	15.9	16.8	14.6	15.4	16.6	17.0	17.0	15.6	14.6
2	16.5	16.0	16.9	14.6	15.6	16.9	17.0	16.4	15.2	14.9
3	16.0	16.9	16.7	15.0	15.8	16.6	16.9	16.7	14.9	14.7
5	15.7	17.0	17.0	14.3	15.8	16.1	17.0	15.8	14.9	14.7
7	17.0	16.9	16.3	14.2	15.7	17.0	17.0	16.1	14.9	14.9
5	16.2	15.8	17.0	14.1	15.6	17.0	16.5	16.2	14.9	14.8



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		(267)	VN227	(86)	WN53	862	861	VN253	857	VN252	VN188	V
		5558		5560		2304	2302		2289			
17070	27658.609	15.9	14.8	14.9	15.8	14.8	14.5	16.4	14.4	15.9	16.0	
17100	27670.574	15.6	14.7	14.7	15.9	15.0	14.7	16.2	14.5	<del>15.5</del> 15.5	15.9	
17117	27681.594	16.5	14.5	15.0	16.2	14.9	14.6	15.7	14.3	16.6	15.6	
17145	27691.588	15.4	14.7	14.9	15.2	15.0	14.3	16.2	14.2	16.1	<16.0	
17157	27694.591	15.7	14.7	14.7	15.3	14.9	14.8	15.7	14.5	16.4	16.1	
17172	27700.556	16.3	14.7	14.6	15.5	14.8	14.6	16.4	14.5	16.3	15.4	
17212	27728.464	15.9	14.8	14.5	15.7	15.4	14.5	15.9	14.5	16.4	15.6	
17215	27730.521	16.6	15.1	14.9	16.0	14.9	14.5	16.4	14.2	16.0	16.3	
17253	27756.336	15.5	14.5	14.5	15.1	14.8	14.5	16.1	14.0	16.0	15.6	
17255	27776.524	16.4	14.5	14.8	15.7	15.1	14.7	16.0	14.2	16.3	15.6	
17915	28134.555	16.1	14.6	14.7	15.0	14.8	14.7	16.4	14.8	15.7	16.5	
17925	28135.59	16.2	14.6	14.7	16.0	14.8	14.4	15.6	14.5	16.3	15.4	
18164	28157.46	15.5	14.7	14.8	16.5	15.0	14.8	16.5	14.0	15.7	15.4	
18147	28105.642	16.5	14.8	14.5	15.1	15.0	14.5	16.5	14.1	16.4	15.5	
19673	28758.571	15.6	14.6	14.6	16.5	14.9	14.9	16.4	14.2	15.4	16.2	
19684	28759.614	16.0	14.6	14.7	16.5	14.8	14.5	16.5	14.1	16.0	15.8	
19695	28761.60	15.7	14.6	14.7	16.4	14.7	14.4	15.8	14.2	15.5	16.0	
19701	28762.61	15.8	14.6	14.6	15.9	14.7	14.3	16.0	14.2	15.9	16.8	
19702	28763.58	16.4	14.6	14.7	15.8	15.3	14.4	16.3	14.6	16.4	<del>15.8</del> 15.8	
19724	28776.58	16.5	14.7	14.8	16.4	15.1	14.8	<del>16.6</del> 16.6	14.5	16.5	15.7	
19741	28780.58	15.7	14.6	14.9	15.9	14.9	14.4	16.4	14.3	15.8	15.6	
19859	28863.39	15.7	14.7	14.9	16.5	14.9	14.8	15.7	14.4	15.8	15.6	
20398	29100.64	16.3	14.6	15.0	15.8	14.6	14.6	16.4	14.0	15.7	15.7	
20320	29102.61	16.3	15.0	15.0	16.0	14.9	14.8	15.8	14.8	16.2	15.7	
20349	29109.65	16.5	14.6	14.6	16.1	14.6	14.5	16.3	14.5	16.3	16.1	



	VN 227	HU5568 (266)	HU5551 (615)	VN 85	Sas 6 164	HU 2272 (920)	UN43	HU5532 (249)	HU5527 (248)	VN 229	
108	15.8	14.6	15.8	14.4	14.9	16.5	15.7	15.4	15.4	14.8	15.6
0	15.9	14.4	15.5	14.5	15.1	16.4	15.8	16.6	15.5	14.9	15.9
6	15.6	14.8	15.5	14.7	14.8	16.3	15.9	15.5	15.4	14.9	16.5
20	15.4	14.7	15.3	14.3	14.8	16.4	15.6	15.3	15.1	14.8	15.6
1	15.8	14.6	15.2	14.6	15.0	16.5	15.4	15.5	15.3	14.8	16.5
4	16.0	14.6	15.6	14.3	14.8	16.2	14.8	16.1	14.9	14.6	15.9
6	15.6	14.8	15.3	14.5	15.1	16.2	15.5	16.1	15.3	14.6	16.1
3	16.0	14.8	15.4	14.5	14.8	16.4	15.8	16.3	15.3	14.8	16.4
8	15.9	14.8	15.4	14.5	14.8	16.3	15.5	16.2	15.0	14.8	16.2
5	16.0	14.9	15.3	14.5	14.8	16.3	15.0	16.0	15.2	14.6	16.0
5	15.2	14.4	15.6	14.6	14.8	16.4	15.9	16.2	14.9	15.2	15.8
4	15.4	14.6	15.6	14.4	14.5	16.3	16.0	15.9	15.2	14.8	15.9
4	15.4	14.4	15.2	14.7	14.6	16.5	15.2	16.1	15.3	14.7	16.5
5	15.9	14.8	15.4	14.7	14.7	16.5	15.9	15.6	15.3	14.9	16.0
2	15.6	14.6	15.7	14.8	14.8	16.5	15.8	15.9	15.2	14.8	16.6
8	15.8	14.7	15.8	14.7	14.8	16.6	14.9	16.5	15.1	14.7	15.4
0	15.5	14.8	15.2	14.6	14.6	16.2	15.8	15.9	14.9	14.5	16.1
3	15.7	14.5	15.4	14.8	15.2	16.2	16.0	15.2	15.1	14.6	16.0
4	15.8	14.6	14.9	14.7	14.9	16.2	16.2	16.0	15.1	14.9	15.3
5.7	15.8	14.8	15.3	14.7	14.8	16.4	15.4	16.2	15.2	14.9	15.8
6	15.6	14.6	15.8	14.7	14.9	16.3	15.2	15.2	14.9	14.6	15.7
26	15.6	14.6	15.7	14.7	14.8	16.3	15.3	15.9	15.1	14.6	15.8
5.7	15.7	14.6	15.2	14.6	14.8	16.1	16.0	16.4	15.4	14.8	16.4
5.7	15.6	14.9	15.3	14.7	14.8	16.5	15.7	16.0	15.1	14.7	16.0
1	15.3	14.6	15.0	14.6	14.6	16.2	16.0	15.3	14.8	14.7	15.6



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		HV5540 (752)	HV2201 (921)	VN89	HV2290 (898)	HV5554 (84)	HV5561 (611)	HV5544 (609)	HV2267 (896)	VN86	VN90	5538	VN47
17070	27658.609	15.9	14.8	14.8	14.9	14.0	15.7	14.0	15.7	16.0	15.2	15.8	15.8
17100	27670.574	15.6	14.7	14.8	15.9	13.8	15.8	14.0	15.1	15.4	15.2	15.9	16.1
17117	27681.594	15.8	14.3	14.9	15.9	14.0	15.9	14.6	15.5	15.6	15.3	15.8	15.9
17145	27691.588	15.6	14.0	14.8	14.9	13.9	15.5	14.3	15.8	15.0	15.1	16.0	15.1
17187	27694.591	15.8	14.6	14.8	16.2	13.7	15.7	14.2	14.7	16.0	15.1	15.9	15.1
17172	27700.556	15.3	14.2	14.8	15.8	14.3	15.3	14.3	15.7	15.7	15.6	15.7	16.1
17212	27728.464	15.8	14.6	14.8	14.8	13.8	15.6	14.4	14.9	15.6	15.3	15.9	15.9
17215	27730.521	15.8	14.2	14.8	16.3	13.7	15.9	14.4	15.3	16.1	15.2	15.9	16.1
17253	27756.336	15.6	14.6	14.7	16.3	13.9	15.9	14.5	15.0	15.7	15.1	15.9	16.0
17255	27776.524	15.6	14.2	14.8	14.7	13.9	15.5	14.6	15.8	15.7	15.1	15.9	15.9
17415	28034.555	15.8	14.3	14.7	16.2	13.8	15.4	14.1	15.8	16.1	15.5	15.8	15.9
17425	28035.59	15.7	14.2	14.6	14.8	13.7	15.5	14.3	15.9	15.3	15.2	15.9	15.9
18164	28157.46	16.1	14.3	14.7	15.0	14.1	15.7	14.1	15.0	15.2	15.2	15.7	15.9
18347	28205.642	16.0	14.7	14.9	15.5	13.8	15.9	14.3	15.8	15.9	15.4	15.8	15.9
19673	28758.57	15.9	14.8	14.9	16.2	13.8	15.6	14.3	14.5	15.2	15.1	15.8	15.9
19684	28759.61	16.0	14.6	14.8	15.1	13.5	15.8	14.5	14.8	15.6	15.2	15.9	15.9
19685	28761.60	15.9	15.0	14.7	16.0	13.7	15.7	14.4	15.1	15.9	15.2	15.7	15.7
19701	28762.61	15.9	14.7	14.7	16.1	13.5	15.8	14.4	15.7	15.3	15.2	15.8	15.8
19702	28763.58	16.1	14.6	14.7	14.9	13.6	15.7	14.2	15.8	15.3	15.5	15.9	15.9
19724	28776.58	16.0	14.8	14.9	16.1	13.9	16.0	14.4	15.1	16.0	15.2	15.8	15.9
19741	28780.58	15.8	14.8	14.7	16.4	13.4	15.8	14.4	15.7	15.7	15.3	15.8	15.9
19959	28863.39	15.8	14.9	14.9	14.9	13.8	15.6	14.3	15.4	15.5	15.3	15.6	15.9
20305	29100.64	15.7	14.8	14.8	15.5	13.6	15.6	14.3	15.3	15.8	15.4	15.5	15.7
20320	29102.61	15.6	14.9	14.9	15.9	13.6	15.9	14.6	14.9	15.3	14.9	15.5	15.8
20349	29109.65	15.4	14.5	14.6	16.1	13.6	15.5	14.5	14.6	15.4	15.1	15.5	15.6



55.3	VN 43	HV 22.64	HV 22.55	VN 44	HV 55.28	VN 111	VN 108	VN 170	HV 22.43	VN 233	HV 55.11
253	15.4	(55.9)	(720)		(249)		15.6 15.7	15.5 15.4	(163)	14.8 14.9	
15.1	15.5	14.8	14.8	14.6	15.2	16.7	15.8	15.2	13.3	15.0	15.9
15.1	16.5	14.7	15.0	14.7	15.9	16.2	16.3 15.9	15.0 14.9	13.6	15.1 15.1	16.0
15.1	15.5	14.7	14.9	14.8	15.5	16.5	15.9 15.9	15.3 15.4	13.5	15.0 15.0	15.7
16.0	15.5	14.7	14.9	14.7	15.7	16.6	15.7 15.8	15.4 15.3	13.6	15.0 15.0	15.9
5.7	15.7	14.5	14.9	14.8	15.9	16.6	15.8 15.9	15.1 15.1	14.0	14.8 14.9	15.7
5.7	16.0	14.6	14.8	14.4	15.8	16.5	15.4 15.4	15.4 15.4	13.9	15.0 15.0	15.8
5.9	15.9	14.4	14.5	14.6	15.8	16.4	15.3 15.3	15.1 15.2	13.5	15.2 15.1	16.0
5.9	16.4	15.2	15.3	14.8	15.6	15.8	15.8 15.8	15.8 15.6	13.5	15.2 15.2	16.0
6.0	16.1	14.7	14.9	15.0	15.3	15.9	15.4 15.5	15.3 15.3	14.0	14.9 14.9	16.4
5.9	15.9	14.8	15.9	15.0	15.8	16.4	15.5 15.6	15.1 15.1	13.5	14.8 15.0	16.5
5.9	16.0	14.5	15.1	14.8	15.6	16.5	15.7 15.7	15.5 15.4	14.1	15.1 15.1	15.7
5.9	16.0	14.3	15.1	14.6	15.6	15.8	15.5 15.6	15.3 15.3	14.3	15.0 15.0	15.8
5.8	16.2	14.5	15.0	14.3	15.7	16.5	16.0 16.0	15.4 15.4	14.3	15.0 14.9	16.2
5.8	15.7	14.6	14.3	14.6	15.8	16.0	15.2 15.3	15.5 15.3	14.1	14.8 15.0	15.6
5.9	16.0	14.5	15.2	14.0	15.3	16.0	15.8 15.8	15.0 15.0	14.2	14.9 15.0	16.4
5.9	16.3	14.5	14.9	14.1	15.1	16.4	15.9 15.9	15.2 15.2	14.4	15.0 15.0	15.5
5.7	16.0	14.3	14.8	13.8	15.6	16.4	15.7 15.6	15.5 15.4	14.3	14.8 14.8	16.4
5.8	15.1	14.8	15.0	13.6	15.7	16.2	15.6 15.6	15.5 15.5	14.7	14.9 14.9	16.2
5.9	15.9	14.8	15.0	14.0	15.9	16.4	15.9 15.9	15.0 15.0	14.6	14.9 14.9	15.8
5.9	16.0	14.6	15.4	14.0	15.7	16.7	15.7 15.8	15.7 15.7	14.0	15.2 15.2	15.8
5.9	15.1	14.4	15.1	14.3	15.5	16.4	16.0 16.0	15.2 15.2	14.2	15.0 14.9	15.9
5.9	16.0	14.8	15.3	14.1	15.6	16.4	16.0 16.0	15.2 15.2	14.4	15.1 15.1	15.7
5.7	16.1	14.5	14.3	14.4	15.7	16.4	15.8 15.8	15.0 14.9	14.0	14.8 14.8	15.6
5.8	15.9	14.5	14.2	14.5	15.7	15.6	16.0 15.9	15.2 15.2	14.3	15.2 15.1	16.4
5.6	15.4	14.4	14.4	14.6	15.5	16.0	15.9 15.8	15.0 15.1	14.5	14.9 14.9	16.0



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		VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN
		108	108	170	233	106	105	HU <sup>503</sup>	234	255	127	284			VN	VN
17070	27658.609	15.6	15.6	15.5	14.9	15.7	15.7	15.2	16.0	15.0	15.3	14.8			37	36
		15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9			15.9	15.9
17100	27670.574	16.3	15.9	15.0	15.1	15.9	15.6	15.1	15.5	15.6	16.0	15.9			15.7	16.0
17117	27681.594	15.9	16.0	15.3	15.0	15.7	15.6	15.3	15.9	15.7	15.5	14.8			15.8	16.0
17125	27691.588	15.7	15.9	15.4	15.0	15.7	14.8	15.1	16.2	15.7	16.0	14.8			15.8	16.4
17157	27694.591	15.8	16.0	15.1	14.8	16.0	15.7	15.5	15.6	16.0	15.1	14.9			15.9	15.9
17172	27700.556	15.4	15.7	15.4	15.0	15.9	15.8	15.2	15.8	15.9	15.7	14.7			15.8	15.9
17212	27728.464	15.3	15.9	15.3	15.2	15.9	15.7	15.8	15.9	15.2	15.8	14.8			15.9	15.8
17215	27730.521	15.8	15.1	15.8	15.2	15.9	15.7	15.3	15.6	16.0	15.0	15.0			15.8	15.9
17253	27756.336	15.4	15.5	15.3	14.9	15.5	15.4	15.2	16.0	15.4	16.2	14.8			15.9	15.8
17255	27776.524	15.5	16.2	15.1	14.9	15.7	15.6	15.1	15.1	15.1	15.9	14.8			15.9	15.9
17915	28134.555	15.7	16.3	15.5	15.1	15.6	15.4	15.1	14.9	15.0	15.5	14.8			15.6	15.8
17925	28138.59	15.5	15.4	15.3	15.0	15.0	15.6	15.1	15.7	15.5	15.5	14.8			15.9	15.8
18164	28157.46	16.0	16.4	15.4	15.0	16.0	14.8	15.3	15.9	15.0	15.4	14.8			15.9	15.9
18147	28155.642	15.2	16.2	15.5	14.8	16.0	15.0	15.5	16.2	15.6	15.9	14.9			15.9	15.9
19673	28758.57	15.8	16.2	15.0	14.9	15.9	15.5	15.5	15.6	15.3	15.9	14.9			15.9	15.9
19654	28759.61	15.9	15.1	15.2	15.0	15.7	15.6	15.2	15.8	15.6	15.9	14.9			15.6	15.9
19695	28761.60	15.7	16.1	15.5	14.8	15.9	15.4	15.3	15.7	16.1	15.0	14.8			15.9	15.9
19701	28762.61	15.6	15.1	15.5	14.9	16.0	15.0	15.2	15.3	16.0	15.5	14.9			15.8	15.8
19702	28763.58	15.9	15.8	15.0	14.9	16.1	15.1	15.1	15.5	15.7	15.3	15.2			16.0	15.9
19724	28776.58	15.7	16.2	15.7	15.2	15.5	15.6	15.6	15.2	15.9	15.7	14.9			15.9	15.8
19741	28780.58	16.0	16.2	15.2	15.0	15.7	15.1	15.2	14.8	15.3	15.8	14.7			15.9	15.8
19959	28863.39	16.0	15.5	15.2	15.1	16.1	15.7	15.5	14.9	15.9	15.9	14.9			16.0	15.8
20390	29100.64	15.8	16.0	15.0	14.8	16.0	15.8	15.2	15.6	16.0	14.9	14.8			15.7	15.8
20320	29102.61	16.0	15.2	15.2	15.2	16.2	15.1	15.5	15.6	15.3	15.3	14.9			15.8	15.8
20349	29109.65	15.9	15.7	15.0	14.9	15.9	14.9	15.0	15.6	15.8	15.0	14.7			15.9	15.8



1945 phase proj. 24478

VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	141
3.1	292	223	256	222	168	234	221	12.6	93	
16.4	16.0	15.8	15.3	15.4	15.8	15.5	16.2	15.0	15.9	
6.0	15.9	15.8	16.3	15.4	16.0	15.5	16.1	16.2	15.2	
6.0	15.9	16.2	15.9	15.7	16.2	15.9	16.2	15.5	16.0	
16.4	15.4	15.7	16.4	15.8	15.9		16.3	15.0	14.9	
5.9	15.5	15.5	15.8	15.8	16.5		16.1	16.2	15.5	
5.9	15.9	15.8	16.0	15.2	16.5		15.5	15.1	15.3	
5.8	16.2	16.2	15.9	15.7	16.0		15.8	15.3	15.5	
15.9	15.2	16.0	15.9	15.8	16.4		15.9	15.9	15.7	
15.8	16.0	16.1	16.2	15.8	16.4		16.4	15.5	15.9	
5.9	16.2	15.8	15.8	15.5	15.7		16.2	15.5	15.1	
5.8	16.1	16.1	16.3	15.5	16.4		15.3	15.7	15.9	
5.8	16.2	16.2	16.2	15.8	15.9		16.0	16.2	15.3	
5.9	16.2	15.3	15.2	15.4	16.2		16.3	15.9	15.1	
5.9	15.7	15.9	16.2	15.6	<del>16.5</del>		15.4	16.3	15.8	
5.9	16.0	16.2	16.0	15.5	16.3		16.2	15.1	15.5	
5.9	15.6	15.9	15.6	15.6	15.9		16.2	15.9	15.9	
5.9	16.2	16.2	16.2	15.6	16.5		16.2	16.1	15.5	
5.8	16.2	15.8	16.3	15.8	16.2		16.5	15.1	15.2	
5.9	15.5	16.2	15.5	15.8	<del>16.2</del>		15.7	15.5	15.3	
5.8	15.8	16.2	15.6	15.7	16.5		15.8	15.0	15.6	
5.8	16.0	15.7	15.2	15.8	16.4		15.8	16.2	15.5	
5.8	16.2	16.1	15.9	15.8	16.2		16.3	15.9	15.6	
5.8	15.9	16.3	15.9	15.7	16.1		15.5	15.6	15.2	
5.8	16.0	16.2	16.0	15.4	15.9		16.3	16.3	15.9	
5.8	15.9	16.2	16.1	15.8	16.2		16.2	15.3	15.4	



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		VN 90.0 142	VN 106	HV 8037	HV 5561 (6.11)	2289 (8.57)	5560 (8.6)	VN 227	VN 85	2264 (8.59)	HV 5532 (2.49)
17070	27650.609	15.2 15.2 15.2	15.7 15.7 15.7	15.2 15.4 15.6	15.7 15.7 15.2 15.5	14.4 14.3 14.2	14.8 14.8 14.8	15.8 15.8 15.8	14.4 14.2 14.1	14.8 14.8 14.7	15.4 15.4 15.4
17100	27670.574	15.2 15.3 15.7	15.9 15.9 15.9	15.1 15.2 15.4	15.8 15.8 15.8	14.5 14.4 14.2	14.7 14.7 14.8	15.9 15.9 15.9	14.5 14.6 14.6	14.7 14.7 14.8	15.5 15.4 15.2
17110	27681.594	15.3 15.4 15.4	15.7 15.8 15.8	15.3 15.5 15.7	15.9 15.8 15.6	14.3 14.4 14.5	15.0 14.9 14.8	15.6 15.8 15.9	14.7 14.5 14.4	14.7 14.8 14.8	15.4 15.4 15.4
17145	27691.588	15.1 15.1 15.2	15.7 15.7 15.7	15.1 15.2 15.2	15.5 15.6 15.7	14.2 14.1 13.9	14.9 14.8 14.6	15.4 15.9 15.9	14.3 14.3 14.2	14.7 14.7 14.8	15.1 15.2 15.2
17187	27694.591	15.1 15.2 15.3	16.0 15.9 15.9	15.5 15.4 15.3	15.7 15.6 15.6	14.5 13.9 13.9	14.7 14.8 14.9	15.8 15.8 15.8	14.6 14.5 14.4	14.5 14.6 14.6	15.3 15.3 15.2
17172	27700.556	15.6 15.6 15.6	15.9 15.7 15.5	15.2 15.8 15.0	15.3 15.3 15.4	14.5 14.4 14.4	14.6 14.7 14.9	16.0 16.0 16.0	14.3 14.2 14.2	14.6 14.7 14.8	15.9 15.0 15.1
17212	27728.464	15.3 15.4 15.4	15.9 15.8 15.6	15.8 15.7 15.6	15.6 15.6 15.6	14.5 14.5 14.5	14.5 14.6 14.8	15.6 15.7 15.9	14.5 14.5 14.5	14.4 14.6 14.8	15.3 15.5 15.7
17215	27730.521	15.2 15.1 15.1	15.9 16.0 16.0	15.3 15.5 15.7	15.9 15.8 15.8	14.2 14.3 14.4	14.9 14.8 14.8	16.0 16.0 16.0	14.5 14.4 14.3	15.2 15.0 14.9	15.3 15.5 15.7
17253	27756.336	15.1 15.1 15.1	15.5 15.5 15.6	15.2 15.4 15.6	15.9 15.9 15.8	14.0 14.5 14.5	14.5 14.5 14.6	15.9 15.9 16.0	14.5 14.5 14.4	14.7 14.7 14.6	15.0 15.1 15.3
17255	27776.524	15.1 15.2 15.2	15.7 15.6 15.6	15.1 15.1 15.2	15.5 15.5 15.5	14.2 14.4 14.5	14.8 14.8 14.8	16.0 16.0 15.9	14.5 14.4 14.0	14.8 14.7 14.6	15.2 15.3 15.4
17415	28034.555	15.5 15.6 15.7	15.6 15.8 16.0	15.1 15.3 15.5	15.4 15.4 15.4	14.8 14.8 14.8	14.7 14.8 14.9	15.2 15.8 15.9	14.6 14.6 14.6	14.5 14.4 14.3	14.9 15.2 15.4
17925	28038.59	15.2 15.3 15.3	15.0 15.4 15.5	15.1 15.2 15.2	15.5 15.4 15.3	14.5 14.6 14.7	14.7 14.8 14.9	15.4 15.6 15.7	14.4 14.5 14.6	14.3 14.5 14.6	15.2 15.3 15.4
18164	28157.46	15.2 15.2 15.3	16.0 16.0 16.0	15.3 15.5 15.6	15.7 15.8 15.8	14.0 13.9 13.9	14.8 14.8 14.7	15.4 15.6 15.8	14.7 14.6 14.6	14.5 14.4 14.2	15.3 15.3 15.3
18547	2805.648	15.4 15.6 15.7	16.0 16.2 16.4	15.5 15.6 15.7	15.9 15.9 15.8	14.1 14.3 14.4	14.5 14.6 14.7	15.9 15.9 15.9	14.7 14.7 14.7	14.6 14.6 14.6	15.3 15.2 15.2
19673	28758.57	15.1 15.1 15.2	15.9 15.9 16.0	15.5 15.5 15.6	15.6 15.5 15.4	14.2 14.3 14.4	14.6 14.7 14.8	15.6 15.7 15.8	14.8 14.7 14.7	14.5 14.6 14.6	15.2 15.2 15.2
19684	28759.61	15.2 15.2 15.2	15.7 15.5 15.4	15.2 15.2 15.3	15.8 15.7 15.6	14.1 14.0 13.8	14.7 14.7 14.6	15.8 15.8 15.8	14.7 14.7 14.7	14.5 14.5 14.6	15.1 15.1 15.2
19695	28761.60	15.2 15.2 15.3	15.9 15.8 15.8	15.3 15.3 15.4	15.7 15.7 15.7	14.2 13.9 13.7	14.7 14.7 14.7	5.5 15.5 15.5	14.6 14.6 14.5	14.3 14.4 14.4	14.9 15.0 15.1
19701	28762.61	15.2 15.2 15.2	16.0 15.8 15.6	15.2 15.2 15.3	15.8 15.7 15.6	14.2 14.2 14.1	14.6 14.7 14.8	15.7 15.7 15.7	14.8 14.6 14.5	14.8 14.8 14.8	15.1 15.2 15.2
19702	28763.58	15.5 15.4 15.3	16.1 16.1 16.2	15.1 15.2 15.4	15.7 15.8 15.8	14.6 14.7 13.9	14.7 14.6 14.6	15.8 15.8 15.8	14.7 14.7 14.7	14.8 14.7 14.7	15.1 15.1 15.2
19724	28776.58	15.2 15.2 15.2	15.5 15.7 15.9	15.6 15.5 15.4	16.0 15.9 15.8	14.5 14.1 13.9	14.3 14.7 14.6	15.8 15.9 15.9	14.7 14.7 14.8	14.6 14.6 14.7	15.2 15.2 15.3
19741	28780.58	15.3 15.3 15.2	15.7 15.8 15.8	15.2 15.1 15.0	15.8 15.9 15.9	14.3 14.2 14.1	14.9 14.8 14.7	15.6 15.7 15.9	14.7 14.7 14.7	14.4 14.5 14.6	14.9 14.9 15.0
19959	28863.39	15.3 15.3 15.3	16.1 16.1 16.0	15.5 15.5 15.4	15.6 15.6 15.7	14.4 14.5 14.5	14.9 14.8 14.7	15.6 15.6 15.7	14.7 14.6 14.6	14.8 14.7 14.6	15.1 15.2 15.3
20308	29100.64	15.4 15.4 15.3	16.0 16.0 16.0	15.2 15.2 15.3	15.6 15.7 15.7	14.0 13.9 13.8	15.0 14.9 14.7	15.7 15.7 15.6	14.6 14.6 14.6	14.5 14.5 14.4	15.4 15.4 15.4
20320	29102.61	14.9 15.1 15.2	16.2 16.2 16.2	15.5 15.6 15.7	15.9 15.8 15.7	14.9 14.7 14.3	15.0 14.9 14.8	15.6 15.6 15.7	14.7 14.7 14.8	14.5 14.5 14.5	15.1 15.1 15.1
20349	29109.65	15.1 15.4 15.6	15.9 15.8 15.6	15.0 15.1 15.1	15.5 15.3 15.0	14.5 14.2 13.8	14.6 14.7 14.8	15.3 15.5 15.7	14.6 14.6 14.5	14.4 14.4 14.5	14.8 15.0 15.2







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VN 279	VN 137	VN 280	HSL 89	HSL 858	SM 250	VN 232	VN 163	SM 251	SM 252	VN
15.8 15.8	15.0 15.1	16.2 16.2	HU 874	HU 5376	HU 375	16.2 16.3	16.2	14.9 14.9	15.7 15.8	16.0
15.8	15.2	16.3	16.0	14.1	16.3	16.3	16.2	14.9	15.7	16.0
15.9 15.9	14.9 15.0	16.0 16.0			16.7 16.6	16.2 16.2		14.9 14.9	15.7 15.8	16.0
15.9	15.1	15.9	15.0	14.3	16.5	16.3	16.0	14.9	15.9	16.0
15.5 15.5	14.9 15.0	15.7 15.8			16.7 16.7	16.4 16.4		14.9 15.0	15.8 15.9	16.0
15.4	15.2	15.8	15.2	14.3	16.6	16.3	15.3	15.2	15.9	16.0
15.2 15.1	14.9 14.9	15.8 15.8			16.2 16.1	16.1 16.1		14.9 15.0	15.7 15.7	16.0
15.0	15.0	15.8	14.2	14.3	16.1	16.1	16.2	15.0	15.8	16.0
15.5 15.7	15.3 15.3	16.1 16.0			16.5 16.5	16.3 16.2		15.1 15.0	15.7 15.8	16.0
15.9	15.2	15.9	15.0	14.2	16.4	16.2	16.2	14.9	15.8	16.0
15.9 15.9	14.9 15.0	15.8 16.0			16.6 16.5	16.0 16.2		15.2 15.2	16.1 16.1	16.0
15.9	15.0	16.3	14.9	14.2	16.5	16.3	15.3	15.1	16.1	16.0
16.2 16.1	14.9 15.0	15.9 15.9			16.3 16.3	16.3 16.2		15.1 15.2	15.9 16.1	16.0
15.9	15.0	15.9	14.8	14.2	16.2	16.1	16.2	15.3	16.3	16.0
15.6 15.8	15.1 15.1	15.8 15.8			16.7 16.6	16.2 16.2		14.9 15.1	15.7 15.8	16.0
15.9	15.1	15.8	15.5	14.2	16.6	16.2	16.4	15.2	16.0	16.0
unmarked										
16.0	15.0	15.8	15.3	14.3	16.5	16.4	16.3	15.4	15.7	16.0
16.0	15.1	15.2	15.8	14.4	16.6	16.4	16.4	15.0	15.8	16.0
16.2	15.3	16.0	15.8	14.4	16.2	16.4	16.4	15.0	15.7	16.0
15.3 15.4	15.0 15.0	16.2 15.8			16.6 16.6	16.3 16.3		15.2 15.3	15.6 15.7	16.0
15.5	15.0	15.4	15.8	14.2	16.5	16.4	15.8	15.7	15.8	16.0
15.6 15.7	15.0 15.2	16.2 16.3			16.8 16.7	16.5 16.4		15.2 15.1	16.0 15.9	16.0
15.8	15.5	16.4	15.4	14.3	16.7	16.3	16.5	15.1	15.8	16.0
16.3 16.1	15.0 15.0	15.8 15.8			16.8 16.7	16.3 16.3		15.0 15.1	15.4 15.4	16.0
15.9	14.9	15.9	15.1	14.2	16.6	16.3	16.4	15.2	15.5	16.0
14.8 14.9	15.0 15.0	16.1 15.9			15.9 16.0	16.3 16.4		14.9 15.1	15.8 15.8	16.0
15.0	15.0	15.8	15.2	14.2	16.2	16.4	15.2	15.3	15.8	16.0
14.8 14.9	15.2 15.1	16.0 16.2			16.4 16.5	16.4 16.3		14.9 15.0	15.9 15.9	16.0
14.9	15.1	16.3	16.0	14.2	16.5	16.3	16.4	15.0	16.0	16.0
14.9 15.0	15.0 15.0	16.1 16.0			16.5 16.4	16.5 16.5		15.0 15.0	15.7 15.6	16.0
15.2	15.0	15.9	15.4	14.1	16.4	16.5	16.4	15.0	15.6	16.0
15.7 15.7	15.0 14.9	15.9 15.9			16.3 16.3	16.5 16.4		15.2 15.1	15.7 15.6	16.0
15.8	14.9	15.9	14.0	14.2	16.2	16.4	16.5	15.1	15.5	16.0
15.6 15.7	15.0 15.0	16.3 16.3			16.5 16.5	16.5 16.5		15.1 15.2	16.0 16.0	16.0
15.8	15.0	16.2	15.0	14.0	16.5	16.5	15.9	15.4	16.0	16.0
16.1 16.0	14.7 14.8	15.8 15.8			15.9 15.9	16.3 16.3		15.0 15.0	15.7 15.7	16.0
15.9	14.9	15.9	15.4	14.2	15.9	16.3	16.4	15.0	15.8	16.0
15.3 15.4	14.9 14.7	15.9 15.9			16.3 16.4	16.4 16.3		15.0 15.1	15.8 15.8	16.0
16.6	14.6	15.9	15.3	14.1	16.4	16.2	15.8	15.1	15.8	16.0
14.7 14.9	14.9 14.9	15.8 15.9			16.7 16.7	16.3 16.3		15.2 15.2	15.8 15.8	16.0
15.0	14.9	15.9	16.0	14.0	16.6	16.2	15.3	15.1	15.9	16.0



	VN 278	VN 261	HSL 9515 MV 2250	SL 606	VN 237	VN 262	VN 293	VN 236	VN 294	VN 273
5.9	16.5	16.9	17.0	14.7	15.9	15.8	16.3	16.4	14.9	14.9
5.8	16.7	15.7	17.0	14.8	15.8	16.8	17.0	16.9	14.9	14.9
5.1	16.6	16.7	16.9	14.2	15.8	17.0	16.2	16.5	15.3	14.9
5.7	16.4	16.8	16.8	14.7	15.9	17.0	16.4	15.9	14.8	14.8
5.8	16.5	16.7	ms	14.3	15.6	16.4	16.2	16.3	14.8	14.8
5.1	16.6	16.4	ms	14.2	15.4	16.9	16.3	16.2	15.3	14.7
5.1	16.6	15.4	ms	14.0	15.7	16.2	16.8	16.3	15.2	15.0
5.8	16.4	16.8	ms	14.5	15.7	16.9	16.4	16.2	14.7	14.7

wound position

5.7	16.5	16.9	16.5	14.5	15.6	16.8	16.6	14.3	15.3	14.7
5.8	15.8	16.8	16.5	14.6	15.7	17.0	16.7	15.8	15.0	14.7
5.7	16.5	16.3	16.6	14.9	16.4	17.0	17.0	16.0	15.0	14.7
5.9	16.4	16.9	16.4	14.9	15.9	17.0	16.2	16.0	15.6	14.7
15.4	16.6	16.9	16.5	14.7	15.8	16.4	16.9	16.0	14.9	14.7
15.8	16.7	16.8	16.2	14.8	15.8	17.0	16.0	15.7	14.8	14.6
5.9	16.0	16.8	16.9	14.8	15.7	17.0	16.9	15.7	15.4	15.0
5.4	16.2	17.0	16.9	14.7	16.0	16.9	15.7	15.6	14.7	14.7
5.6	16.7	17.0	16.9	14.2	15.9	16.1	16.4	15.8	15.2	14.5
6.0	16.8	N.S.	17.0	14.2	16.0	17.0	16.7	15.7	15.2	14.8
5.7	16.7	17.0	16.9	14.7	15.7	16.8	16.8	15.5	15.0	14.8
5.8	16.4	17.1	17.0	14.5	15.6	17.0	16.4	15.5	14.7	14.7
5.6	16.9	16.9	17.0	14.7	15.4	17.0	16.9	15.6	14.9	14.7



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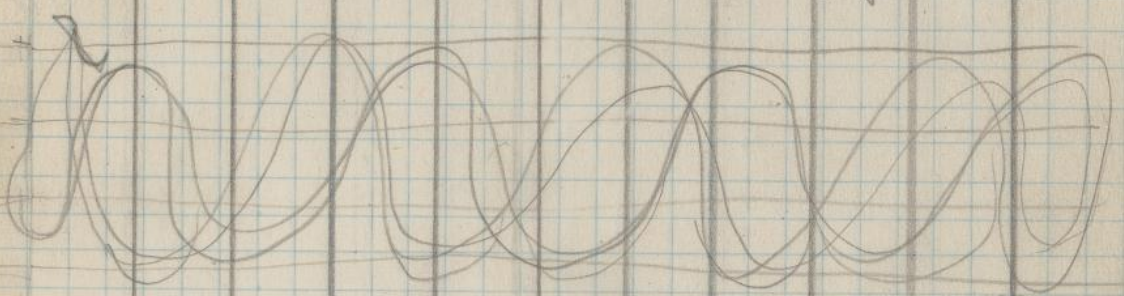
HU5558 (767)	VN 227	HU5560 (86)	VN 813	HU2304 (862)	HU2308 (861)	VN 253	HU2289 (857)	VN 252	VN 188	
20410 29134.637	16.0	14.6	14.9	16.0	14.9	14.2	16.3	14.5	15.7	15.5 16.6
20441 29142.596	16.5	14.6	14.8	15.0	14.9	14.5	16.4	14.5	16.4	15.6
20518 29188.591	16.5	14.5	14.8	16.0	14.8	14.4	16.0	14.5	16.2	16.2
20598 29229.272	16.5	14.5	14.7	16.0	15.0	14.6	16.4	14.4	16.4	15.8
21499 29586.337	16.2	14.6	14.6	16.0	14.7	14.5	16.2	14.3	16.3	16.0
21503 29587.337	16.5	14.5	14.7	16.0	15.0 15.1	14.8	16.2	14.0	16.2	15.6
21606 29674.309	16.1	14.4	14.6	15.5	14.6	14.5	15.5	14.1	15.6	15.5
21621 29680.348	15.8	14.6	14.7	16.5	14.9	14.8	16.4	14.7	15.9	15.7
21629 29697.280	15.3	14.6	14.7	16.0	14.7	14.7	16.1	14.7	15.2	15.2
21633 29698.256										
21634 29703.255										
21634 29712.237										
22306 29956.458	16.3	14.6	14.7	16.2	14.7	14.7	15.9	14.4	16.2	16.2
22320 29962.313	16.2	14.6	14.5	16.3	14.7	14.8	16.2	14.4	16.2	16.0
22330 29970.800	15.4	14.6	14.7	16.1	14.6	14.7	16.4	14.4	15.2	15.9
22340 29994.334	16.4	14.2	14.4	15.1	14.5	14.5	15.6	14.0	16.5	16.0
22404 30057.321	15.5	14.5	14.6	16.0	14.6	14.5	16.4	14.2	15.7	15.7
22409 30058.323	16.3	14.6	14.8	16.5	14.7	14.6	15.8	14.2	16.3	16.2
22985 30314.443	16.5	14.5	14.8	16.3	14.8	14.7	15.7	14.6	16.2	16.2
22992 30318.393	16.4	14.5	14.8	15.9	14.9	14.7	15.8	14.7	16.3	16.2
23000 30319.479	15.7	14.6	14.8	16.4	14.9	14.9	16.0	14.5	15.9	15.7
23008 30322.516	16.0	14.6	14.9	16.5	14.8	14.7	16.0	14.9	16.1	16.3
23011 30324.304	16.4	14.6	14.8	15.8	15.0	14.8	16.0	14.5	16.2	15.4
23015 30325.344	15.8	14.7	14.8	16.4	14.8	14.6	16.2	14.7	15.5	15.9
23033 30352.282	16.5	14.4	14.6	15.8	14.8	14.6	16.0	14.5	16.4	15.8



227	5568 (266)	5551 (615)	VN 85	avg 6	2272	43	5532 (249)	5527 (248)	2291	
15.7	14.6	15.5	14.6	14.8	16.4	15.4	15.4	14.8	15.8	1
15.6	14.9	14.9	14.8	14.9	16.4	16.0	15.3	15.0	14.5	16.0 2
15.4	14.8	15.9	14.7	14.8	16.4	14.9	15.4	15.3	14.8	16.3 2
15.8	14.4	15.8	14.8	14.8	16.3	16.0	15.4	14.8	14.6	16.3 3
16.0	14.6	15.6	14.8	14.7	16.3	15.7	15.5	15.1	14.8	16.0 2
15.9	14.8	15.8	14.7	14.9	16.3	15.9	16.2	14.9	14.8	16.4 2
15.9	14.6	15.1	14.7	14.8	16.2	16.0	16.3	15.1	14.8	16.2 2
14.9	14.8	15.5	14.8	15.0	16.3	16.0	16.3	15.3	14.8	16.0 2
15.3	14.7	15.5	14.5	14.8	16.4	16.0	15.6	15.4	14.7	15.4 0
15.4	14.5	15.4	14.7	14.9	16.4	16.0	16.0	15.1	14.5	16.1 1
15.5	14.6	15.0	14.8	14.9	16.4	14.9	16.2	15.4	14.7	16.1 1
15.6	14.6	15.3	14.5	14.5	14.3	15.6	15.2	15.3	14.5	15.6 2
15.6	14.6	15.5	14.8	14.9	16.3	15.0	16.2	15.5	14.8	15.9 2
15.6	14.8	15.9	14.7	14.9	16.2	15.4	15.5	15.0	14.8	16.2 2
15.8	14.8	15.4	14.7	14.9	16.2	15.9	16.3	15.1	14.7	16.0 3
15.6	14.7	15.3	14.6	14.9	16.3	15.1	15.6	15.0	14.7	16.2 2
15.9	14.8	15.8	14.8	14.9	16.3	15.6	16.3	15.5	14.8	15.6 2
15.8	14.9	16.0	14.7	14.8	16.4	16.1	16.4	15.1	14.7	16.4 9
15.9	14.8	15.4	14.7	14.8	16.3	15.5	16.1	15.3	14.6	15.8 2
15.7	14.6	15.4	14.8	14.9	16.3	15.8	16.3	15.4	14.6	16.0 0
15.7	14.7	15.7	14.8	15.0	16.4	15.7	16.4	15.2	14.7	15.8 3



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HV	HV5540	HV2301	VN89	HV2290	HV5554	HV5561	HV5544	HV2267	VN86	VN90	HV5538	VN
	(252)	(92)		(898)	(84)	(61)	(609)	(896)		15.2	(253)	
20420	29134.637	16 15.4	14.1	14.6	15.9	13.6	15.6	14.4	15.1	15.2	15.9	15.7
20441	29142.596	1 15.6	14.8	15.0	16.3	13.7	15.7	14.2	15.2	16.0	15.8	15.7
20518	29188.591	1 15.6	14.8	14.8	14.7	13.7	15.6	14.3	15.0	15.5	15.7	15.9
20598	29229.272	1 15.7	14.5	14.9	14.8	13.6	15.8	14.6	14.9	15.4	15.9	15.9
21499	29586.337	1 15.6	14.9	14.7	16.0	13.7	15.8	14.5	15.3	15.7	15.8	15.9
21503	29587.337	1 15.7	14.9	15.0	16.0	13.7	15.5	14.3	14.7	15.7	15.7	15.8
21606	29674.309	1 15.7	14.7	14.8	16.0	13.4	15.6	14.1	15.1	15.4	15.6	15.8
21621	29690.343	1 15.7	14.8	14.7	—	13.5	16.0	14.7	15.0	def	15.9	15.9
21629	29697.280											
21633	29698.256											
21637	29703.215											
21644	29722.229											
22306	29956.456	16 15.4	14.8	14.8	16.2	13.7	15.8	14.2	14.7	15.3	15.6	15.8
22320	29962.313	1 15.5	14.3	15.0	15.7	13.7	15.8	14.0	15.6	15.6	15.7	15.7
22330	29970.500	15 15.3	14.2	14.8	16.1	13.9	15.5	13.9	15.6	15.5	15.8	15.9
22340	29994.334	16 15.5	14.6	14.8	14.7	13.5	15.8	14.2	15.8	15.6	15.7	15.9
22404	30057.321	1 15.3	14.2	14.8	14.8	13.7	15.8	14.3	14.8	15.7	15.7	15.7
22409	30058.323	1 15.6	14.2	14.9	15.9	14.0	15.8	14.3	14.6	15.7	15.9	15.9
22985	30314.443	1 15.6	14.3	14.8	16.1	13.7	15.8	14.4	15.5	16.1	15.9	15.9
22992	30318.393	16 15.5	14.4	14.8	16.1	13.5	15.8	14.5	14.8	15.4	15.8	15.8
23000	30319.479	1 15.6	14.8	14.7	15.3	13.4	15.6	14.5	15.2	15.8	15.7	15.8
23008	30322.516	1 15.3	14.2	14.8	16.4	13.6	15.7	14.4	15.9	15.6	15.8	16.0
23011	30324.304	1 15.6	14.4	14.8	15.9	13.6	15.8	14.6	14.7	15.6	15.6	15.7
23015	30325.344	1 15.6	14.7	14.8	16.1	13.6	15.7	14.3	14.8	15.8	15.7	15.9
23033	30352.283	1 15.7	14.5	14.8	16.1	13.7	15.7	14.2	15.0	15.2	15.9	15.8



	VN 43	HV 2264	HV 2255	VN 44	HV 5528	VN 111	VN 108	VN 170	HV 2243	VN 233	VN 5511
38	16.1 16.2	(859)	(720)		(247)		15.7 15.7	15.3 15.3	(163)	14.9 14.8	
1	16.2	14.5	14.2	14.3	15.6	15.9	15.8	15.2	14.5	14.8	15.9
7	15.3 15.3						15.7 15.7	15.5 15.4		15.1 15.1	
	15.4	14.4	14.3	14.4	15.7	16.4	15.8	15.4	14.6	15.0	16.2
9	15.2	14.5	14.3	14.4	15.7	16.4	15.8 15.8	15.7 15.7	14.0	14.9 14.8	16.2
9	15.1	14.4	14.3	14.3	15.7	16.2	16.0 15.9	14.9 14.9	14.3	14.7 14.8	16.3
9	15.0	14.4	14.6	14.4	15.7	16.6	15.7 15.6	15.3 15.2	13.9	15.1 15.0	16.2
8	16.0	14.7	14.6	14.7	15.7	16.5	15.7 15.7	15.3 15.4	14.0	14.9 14.8	16.2
8	16.2	14.6	14.8	14.2	15.7	16.4	15.6 15.7	15.8 15.8	14.3	15.3 15.3	16.2
1	16.0	14.6	14.8	14.4	15.5	16.3	15.5 15.5	15.0 14.9	14.0	15.0 15.0	16.0
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	15.7	14.4	14.1	14.0	15.5	16.4	15.8 15.8	15.2 15.0	14.1	14.9 14.9	
	16.1	14.4	14.5	14.3	15.6	16.4	15.2 15.2	14.9 14.9	14.3	14.8 14.8	16.0
	16.3	14.7	14.5	14.0	15.8	15.8	16.1 16.0	14.9 14.9	14.3	14.9 14.8	16.1
	15.0	14.4	14.4	14.2	15.8	16.2	16.0 16.1	14.9 14.8	14.3	14.9 14.9	16.2
	16.3	14.6	14.5	14.6	15.5	15.9	16.0 15.9	15.4 15.2	14.4	14.9 14.8	16.2
	15.3	14.4	14.2	14.5	15.4	16.2	16.0 16.0	15.5 15.4	14.3	14.9 14.8	16.2
	16.2	14.6	14.8	14.7	15.5	15.9	16.0 15.9	15.2 15.2	14.3	14.8 14.7	16.3
	15.6	14.4	14.6	14.6	15.6	16.1	15.2 15.2	15.0 14.9	14.3	14.8 14.9	16.2
	16.1	14.5	14.7	14.5	15.6	16.3	15.7 15.6	15.3 15.2	14.2	15.0 15.0	15.2
	16.2	14.7	14.8	14.8	15.7	16.5	15.9 15.9	14.9 14.9	14.4	15.0 14.9	15.9
	15.9	14.6	14.8	14.8	15.6	16.5	15.3 15.4	15.2 15.1	14.5	14.8 14.8	16.2
	16.2	14.5	14.8	14.7	15.6	16.3	15.7 15.6	15.4 15.4	14.4	14.9 14.8	16.0
	16.2	14.6	14.8	14.7	15.7	16.5	15.7 15.6	15.0 15.1	14.3	14.9 14.9	16.3



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	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN
20440 29134.637	108	108a	170	233	106	105	NV503	234	255	127	254	37	36	292	22
20441 29142.596	15.7	15.7	15.3	14.9	15.8	15.3	15.2	15.8	15.2	15.3	14.8	15.9	15.8	16.2	15
20518 29188.591	15.7	16.3	15.5	15.1	16.2	14.9	15.4	15.7	16.2	14.9	14.8	15.8	15.9	15.9	16
20598 29229.272	15.8	15.9	15.7	14.9	16.0	14.7	15.0	15.7	15.4	15.6	14.6	15.9	15.8	15.7	15
21499 29586.337	16.0	15.7	14.9	14.7	15.8	15.2	15.3	15.7	16.0	15.1	14.6	15.8	15.9	16.2	16
21503 29587.337	15.7	16.2	15.3	15.1	15.9	15.1	15.2	16.1	15.7	15.7	14.7	15.8	15.8	16.0	16
21606 29674.309	15.7	15.6	15.3	14.9	15.8	15.1	15.2	14.9	15.9	15.0	14.9	15.9	15.9	16.4	16
21621 29690.343	15.6	16.1	15.8	15.3	15.7	15.6	15.4	15.7	16.2	15.0	14.8	15.8	15.8	15.4	16
21629 29697.280	15.5	15.7	15.0	15.0	15.9	14.9	15.2	15.5	16.0	15.5	14.6	15.7	15.7	15.5	16
21633 29698.256															
21637 29703.215															
21634 29722.231															
22306 29956.456	15.8	16.1	15.2	14.9	15.5	15.2	15.4	15.0	15.5	15.4	14.8	15.7	15.7	16.2	
22320 29962.313	15.2	15.9	14.9	14.8	16.1	15.3	15.4	15.7	15.7	14.9	14.7	15.9	15.9	15.7	
22330 29970.500	16.1	15.5	14.9	14.9	15.8	15.6	15.4	15.3	15.9	15.3	14.7	15.9	15.9	15.8	
22340 29994.334	16.0	15.8	14.9	14.9	15.8	14.9	15.1	15.5	15.6	15.7	14.6	16.0	15.9	16.0	
22404 30057.321	16.0	16.2	15.4	14.9	15.8	15.4	15.5	14.8	15.3	15.8	14.6	15.8	15.8	15.9	
22409 30058.323	16.0	16.1	15.5	14.9	16.0	14.8	15.3	14.9	15.6	15.7	14.5	15.9	15.8	15.9	
22985 30314.443	16.0	16.0	15.2	14.8	16.1	15.7	15.5	15.9	15.1	15.0	14.8	15.7	15.7	15.6	
22992 30318.393	15.2	15.9	15.0	14.8	15.6	15.1	15.3	15.9	16.1	15.3	14.7	15.8	15.8	15.7	
23000 30319.479	15.7	16.2	15.3	15.0	16.1	15.4	15.3	16.1	15.3	15.9	14.9	15.8	16.0	15.6	
23008 30322.516	15.9	16.2	14.9	15.0	15.9	15.1	15.2	15.9	16.0	14.8	14.7	15.9	15.8	15.5	
23011 30324.304	15.3	15.8	15.2	14.8	16.0	15.3	15.3	15.6	15.9	15.1	14.7	15.8	15.7	16.3	
23015 30325.344	15.7	16.2	15.4	14.9	def	15.6	15.6	14.9	15.2	15.5	14.8	15.7	15.6	16.2	
23023 30352.282	15.7	15.8	15.0	14.9	16.0	14.9	15.4	15.1	15.2	15.2	14.8	15.7	15.7	16.2	



VN	VN	VN	VN	VN	VN	VN	VN
223	256	222	168	221	126	93	
15.8	15.9	15.5	16.4	15.3	16.0	15.9	
16.2	15.6	15.5	16.2	16.5	15.7	15.8	
15.9	15.9	15.6	16.3	15.7	15.4	15.6	
16.2	15.9	15.8	16.3	15.7	16.2	15.1	
16.2	15.9	15.8	16.1	16.2	15.1	14.9	
16.3	16.3	15.7	16.2	15.7	15.5	15.3	
16.2	16.1	15.8	16.2	15.3	16.0	16.1	
16.4	16.2	def	16.4	16.4	15.4	15.6	

16.2	16.3	15.8	16.4	16.2	15.5	15.7	
16.3	16.4	15.8	15.7	16.2	16.0	15.4	
15.9	16.3	15.8	16.5	16.4	15.4	15.4	
16.1	16.1	15.8	16.4	16.5	15.7	15.8	
15.7	15.3	15.4	15.5	16.4	16.0	15.3	
16.1	15.6	15.5	16.2	16.4	14.8	15.0	
15.9	16.5	15.8	16.3	16.3	16.1	15.4	
16.4	16.3	15.5	16.3	16.4	16.1	16.0	
16.5	15.7	15.8	16.5	16.1	16.2	15.5	
16.4	16.1	15.9	16.5	15.7	15.9	15.6	
16.2	15.5	15.4	15.8	16.4	16.4	15.7	
16.3	16.1	15.9	16.4	16.2	15.0	16.0	
16.3	16.2	15.9	16.5	16.4	16.3	15.7	



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	VN 904	VN 106	HV 8037	HV 5561	HV 2289	HV 5560	VN 227	VN 55	HV 2264	HV 5532
20420 29134.637	15.2 15.3	15.9 15.8	15.2 15.3	15.6 15.6	14.5 14.4	14.9 14.8	15.7 15.7	14.6 14.6	14.5 14.5	15.4 15.2
20441 29142.596	15.3 15.2	16.2 16.2	15.4 15.4	15.7 15.7	14.5 14.4	14.8 14.7	15.6 15.7	14.7 14.6	14.4 14.5	15.0 15.0
20518 29188.591	15.3 15.3	16.0 16.0	15.0 15.1	15.6 15.6	14.5 14.6	14.8 14.8	15.4 15.6	14.7 14.7	14.5 14.6	15.3 15.2
20598 29229.272	15.5 15.4	15.8 15.7	15.3 15.3	15.8 15.7	14.4 14.5	14.7 14.6	15.8 15.8	14.8 14.7	14.4 14.5	15.3 15.1
21499 29586.337	15.2 15.2	15.9 15.8	15.2 15.3	15.8 15.8	14.3 14.3	14.6 14.7	16.0 16.0	14.8 14.7	14.4 14.4	15.1 15.1
21503 29587.337	15.3 15.3	15.8 15.8	15.2 15.2	15.5 15.7	14.0 14.1	14.7 14.7	15.9 15.8	14.7 14.6	14.7 14.7	15.0 15.0
21606 29674.309	15.1 15.0	15.7 15.6	15.4 15.4	15.6 15.6	14.1 14.2	14.6 14.7	15.9 15.9	14.7 14.7	14.6 14.7	15.1 15.2
21621 29690.343	15.5 15.4	15.9 15.9	15.2 15.3	15.8 15.8	14.7	14.7 14.6	14.8 14.8	14.8 14.6	14.6 14.6	15.3 15.3
21629 29697.250										
21633 29698.256										
21651 29703.255										
21654 29722.229										
22306 29956.456	15.0 15.0	15.5 15.5	15.4 15.4	15.8 15.7	14.0 14.1	14.7 14.7	15.3 15.5	14.5 14.5	14.4 14.5	15.4 15.3
22320 29962.313	15.3 15.2	16.1 16.2	15.4 15.4	15.8 15.7	14.4 14.4	14.8 14.5	15.4 15.6	14.7 14.7	14.4 14.4	15.1 15.0
22330 29970.500	15.1 15.1	15.8 15.9	15.4 15.4	15.5 15.6	14.4 14.1	14.7 14.6	15.5 15.6	14.8 14.7	14.7 14.7	15.4 15.3
22340 29994.334	14.8 15.0	15.8 15.8	15.1 15.2	15.8 15.9	14.0 13.9	14.4 14.4	15.6 15.6	14.5 14.6	14.4 14.6	15.3 15.2
22404 30057.321	15.2 15.2	15.8 15.9	15.3 15.4	15.8 15.8	14.2 14.2	14.6 14.7	15.6 15.7	14.8 14.8	14.6 14.6	15.5 15.4
22409 30058.323	15.5 15.5	16.0 16.0	15.3 15.3	15.8 15.8	14.2 14.1	14.9 14.8	15.6 15.6	14.7 14.7	14.4 14.5	15.0 15.1
22985 30314.443	15.1 15.2	16.1 16.1	15.5 15.4	15.8 15.8	14.6 14.6	14.8 14.8	15.8 15.8	14.7 14.7	14.6 14.5	15.1 15.2
22992 30318.393	15.3 15.3	15.6 15.6	15.2 15.5	15.8 15.8	14.9 14.6	14.8 14.7	15.6 15.7	14.6 14.7	14.4 14.4	15.0 15.1
23000 30319.479	15.3 15.3	16.1 16.1	15.3 15.4	15.6 15.7	14.5 14.6	14.8 14.8	15.9 15.8	14.8 14.7	14.5 14.6	15.5 15.4
23008 30322.576	15.3 15.2	15.9 15.9	15.2 15.4	15.7 15.7	14.7 14.6	14.9 14.8	15.8 15.8	14.7 14.7	14.7 14.7	15.1 15.2
23011 30324.304	15.1 15.2	16.0 16.1	15.3 15.3	15.8 15.8	14.5 14.6	14.8 14.8	15.9 15.9	14.7 14.7	14.6 14.6	15.3 15.2
23015 30325.344	15.1 15.1	def def	15.6 15.5	15.7 15.7	14.7 14.7	14.8 14.8	15.7 15.8	14.8 14.8	14.5 14.6	15.4 15.3
23033 30352.282	def def	16.0 16.1	15.4 15.4	15.7 15.8	14.5 14.5	14.6 14.7	15.7 15.7	14.8 14.7	14.6 14.7	15.2 15.1







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	VN279	VN137	VN280	HS-89	HS-858	SM1250	VN237	VN163	SM1251	SM1252	N 2
23347 30373.392	16.2 16.3	14.9 15.0	16.4 16.4	HV874 14.9	HV5516 14.2	HV5518 16.5 16.4	15.7	16.3 15.7	15.3 15.2	16.2 16.2	16.0
23351 30375.358	15.0 15.0	14.9 14.8	15.9 15.9			16.7 16.6	16.5 16.5	15.3 15.2	15.9 15.9		15.0
23446 30619.484	15.1 15.1	15.1 15.2	15.9 15.9			16.0 16.0	16.0 16.0	15.3 15.3	15.7 15.7		15.0
23448 30619.562	15.2	15.3	15.9	15.9	14.1	16.0	16.0	15.2	15.3	15.8	15.0
23464 30641.384	16.3 16.4	14.9 14.9	16.2 16.2	15.2	14.1	16.4 16.4	16.1	15.3	16.0	16.0	16.0
23485 30665.541	15.0 15.0	14.9 14.9	16.3 16.3	15.0	14.2	15.8 16.1	16.3	15.0	16.0	16.0	16.0
23490 30672.572	15.9 15.9	14.9 14.8	16.0 16.0	15.0	14.0	16.3 16.1	15.6	15.2	15.8	16.0	16.0
23518 30725.518	15.9 15.9	14.7 14.6	16.5 16.5	14.2	14.2	16.2 16.2	15.7	15.1	15.9	16.0	16.0
23528 30749.276	15.2 15.2	15.0 14.9	16.0 16.0	15.5	14.2	16.2 16.1	16.3	15.0	16.2	16.0	16.0
23905 30977.612	16.2 16.2	15.1 15.2	16.4 16.4	15.5	14.3	16.5 16.3	16.3	15.2	15.9	16.0	16.0
23922 30990.570	15.6 15.6	15.4 15.4	15.9 15.9	15.2	14.1	16.0 16.0	15.8	15.2	16.9	16.0	16.0
23973 31107.440	15.9 15.9	15.3 15.3	15.8 15.8	14.9	14.1	15.9 15.9	15.5	15.3	15.8	16.0	16.0
23981 31108.453	15.4 15.4	15.0 14.9	16.0 16.0	15.1	14.2	16.0 16.0	15.9	15.2	15.8	16.0	16.0
24449 31302.647	15.6 15.6	14.9 15.1	15.9 15.9	15.9	14.1	16.5 16.3	15.9	15.2	15.9	16.0	16.0
24505 31326.593	14.7 14.7	14.7 14.8	15.9 15.8	15.0	14.1	16.4 16.0	15.0	15.2	15.9	16.0	16.0
24525 31328.570	16.4 16.4	15.2 15.1	16.0 15.9	15.8	14.1	16.3 16.3	16.0	15.2	15.9	16.0	16.0
24530 31332.587	16.2 16.2	15.0 15.0	15.9 15.9	15.6	14.1	16.4 16.3	15.8	15.2	16.0	16.0	16.0
24623 31458.323	15.6 15.7	14.5 14.6	16.2 16.3	15.1	14.2	16.3 16.0	15.5	15.1	16.0	16.0	16.0
24976 31669.633	15.8 15.8	14.9 14.7	15.8 15.8	15.3	14.1	16.2 16.4	16.0	15.0	15.9	16.0	16.0
24983 31670.637	15.0 15.3	14.9 14.9	15.7 15.6	15.9	13.9	16.6 16.3	16.2	14.9	15.8	16.0	16.0
24993 31674.647	15.3 15.3	15.0 15.0	15.8 15.8	15.5	14.1	16.2 16.1	16.3	15.0	15.9	16.0	16.0
25005 31676.643	16.4 16.4	15.1 15.0	15.9 15.9	14.2	14.1	16.6 16.3	16.4	15.1	15.9	16.0	16.0
25010 31677.644	14.5 14.6	15.4 15.3	16.0 16.2	14.3	14.1	16.3 16.5	15.4	15.0	15.9	16.0	16.0
very faint photo 31680.626	15.0 15.0	15.0 15.0	15.0 15.0	14.6	14.1	15.0 15.0	15.0	15.0	15.0	15.0	15.0
25042 31680.622	15.7 15.7	15.3 15.3	16.1 16.0	15.1	14.0	15.9 16.4	16.4	14.9	15.9	16.0	16.0



52	275	VN261	SL95	SVL606	VN237	VN262	VN243	VN236	VN294	VN573
592			HV2238	HV5496						
1	6.5	15.9	17.0	14.2	15.5	17.0	16.3	15.8	14.6	14.7
9	5.8	15.8	17.1	14.3	15.9	16.8	16.9	15.7	14.9	14.4
8	15.6	Σ16.0	Σ16.0	14.7	15.8	Σ16.0	Σ16.0	15.8	14.8	14.8
0	16.0	16.2	Σ16.3	14.7	15.9	16.9	Σ16.3	15.9	15.0	15.0
0	16.7	15.9	ns	14.4	15.6	16.8	16.5	15.8	14.8	14.8
8	16.5	16.0	ns	14.4	15.6	16.4	16.4	15.8	15.0	15.0
9	16.9	16.8	ns	14.8	15.6	17.0	16.4	15.9	14.9	14.9
2	16.4	17.0	ns	14.4	15.6	16.9	16.8	16.0	14.7	14.7
9	Σ16.7	Σ16.7	ns	14.4	16.6	Σ16.7	Σ16.7	16.3	15.6	15.0
1	15.6	Σ16.0	ns	14.4	15.8	Σ16.0	Σ16.0	Σ16.0	14.9	14.9
5	15.7	16.3	ns	14.4	16.0	17.0	17.0	16.4	14.9	14.9
	Σ16.0	Σ16.0	ns	14.4	15.9	16.0	Σ16.0	Σ16.0	14.8	14.9
9	16.8	16.6	ns	14.8	15.8	16.3	15.5	16.7	15.0	14.9
	15.6	15.8	ns	14.2	15.4	16.9	16.3	15.7	14.8	14.8
9	16.8	15.9	ns	14.3	16.0	16.9	17.0	15.9	14.8	15.1
0	16.9	16.5	ns	14.7	15.9	16.9	15.9	15.9	14.9	14.9
0	16.6	15.8	ns	14.2	15.8	16.5	16.4	15.5	15.6	15.1
9	16.8	16.8	ns	14.3	15.8	16.8	16.1	15.6	15.0	15.1
8	16.8	16.7	ns	14.6	16.2	17.0	16.7	15.6	14.8	15.0
	16.4	16.8	ns	14.4	15.8	16.9	17.0	15.7	14.7	14.9
	16.9	17.0	ns	14.3	16.0	16.9	16.7	15.5	14.7	15.4
	17.0	17.0	ns	14.3	16.0	16.9	16.9	15.8	14.9	15.4
0	Σ15.0	Σ15.0	ns	14.3	Σ15.0	Σ15.0	Σ15.0	Σ15.0	14.8	14.9
9	16.8	17.0	ns	14.2	15.7	16.3	16.5	15.6	14.9	14.9



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	HV5540 (252)	HV2301 (921)	VN89	HV2290 (898)	HV5554 (84)	HV5561 (61)	HV5544 (609)	HV2267 (896)	VN86	W90	HV5535 (253)	VN4
23047 30373.392	15.7	14.8	14.9	16.0	13.5	15.7	14.3	15.2	14.9	15.8	15.9	16.3
23051 30375.35	15.6	14.8	14.9	14.9	13.7	15.7	14.6	14.9	15.8	15.3	15.8	16.0
23446 30619.43 (540)	15.6	14.3	14.8	15.1	13.6	15.6	14.3	15.5	14.8	15.2	15.8	16.4
23448 30619.56 (5410)												15.7
23464 30641.38	15.7	14.9	14.8	14.9	13.6	15.7	14.5	15.3	15.3	15.6	15.9	16.0
23485 30665.54	15.6	14.5	14.8	16.2	13.7	15.7	14.5	15.9	15.9	15.2	15.8	16.0
23490 30672.5	15.6	14.5	14.8	16.1	14.2	15.8	14.5	15.9	15.6	15.4	15.9	16.0
23518 30725.51	15.5	14.6	14.8	16.2	14.3	16.0	14.4	14.9	15.5	15.3	15.8	16.4
23528 30749.27	15.8	14.4	14.8	15.5	13.8	15.5	14.1	15.7	15.9	15.3	15.8	16.0
23905 30977.61	15.5	14.3	14.9	14.8	13.6	15.6	14.3	14.8	15.9	15.2	15.9	16.2
23922 30990.58	15.3	14.7	14.8	<del>15.4</del>	14.2	15.2	14.0	15.7	15.1	15.2	15.7	16.0
23973 31107.44	15.5	14.8	14.9	15.1	14.4	15.9	14.3	15.7	15.6	15.2	15.7	16.2
23981 31108.45	15.2	14.8	14.8	16.0	13.9	15.1	14.2	15.7	16.0	15.0	15.7	16.0
24449 31302.64	15.5	14.6	14.7	15.3	13.3	15.3	14.3	14.7	16.2	15.3	15.9	16.0
24505 31326.59	15.6	14.6	14.9	16.0	13.6	15.3	14.1	15.7	15.5	15.1	15.8	16.0
24525 31328.57	15.7	14.3	14.8	15.5	13.7	15.8	14.5	15.0	15.9	15.4	15.9	16.0
24530 31332.58	15.7	14.7	14.8	14.9	13.5	15.5	14.2	15.5	15.6	15.3	15.7	16.2
24623 31458.32	15.8	15.0	14.8	14.8	13.3	15.7	14.2	15.5	15.6	15.5	15.7	16.2
24976 31669.63	15.8	14.9	14.9	15.6	13.8	15.7	14.3	15.7	15.8	15.1	15.8	16.0
24983 31670.63	15.7	14.4	14.9	16.0	13.6	15.7	14.4	15.7	14.9	15.1	15.7	16.0
24993 31674.64	15.7	14.8	14.8	16.1	13.9	15.7	15.4	14.9	15.9	15.3	15.8	16.0
25005 31676.6	15.6	14.9	14.8	15.0	14.0	15.8	14.3	15.6	15.1	15.2	15.9	16.2
25010 31677.64	15.7	14.9	14.9	15.9	13.6	15.9	14.1	15.9	15.8	15.4	15.9	16.2
very special plate 31680.61	15.0	14.7	14.9	<del>15.0</del>	14.4	15.0	14.3	<del>15.0</del>	15.0	15.0	15.0	15.0
25042 31680.62	15.6	14.3	14.9	15.5	13.8	15.7	14.4	14.8	15.6	15.6	15.8	16.0



553	VN 43	HV 2264 (859)	HV 2255 (720)	VN 44	5528 (247)	VN 111	VN 108	VN 170	HV 2243 (163)	VN 233	HV 5311
5.9	16.3 <sup>16.3</sup>	14.6	14.4	14.6	15.4	16.3	15.3 <sup>15.3</sup>	15.7 <sup>15.6</sup>	14.3	15.1 <sup>15.0</sup>	15.6
5.8	16.0 <sup>16.2</sup>	14.6	14.8	14.7	15.7	15.7	16.2 <sup>15.9</sup>	15.6 <sup>15.4</sup>	14.4	15.0 <sup>14.9</sup>	16.3
5.8	15.7 <sup>15.7</sup>	14.8	14.3	14.8	15.9	15.8	15.7 <sup>15.5</sup>	15.5 <sup>15.5</sup>	14.3	15.2 <sup>15.1</sup>	16.4
5.9	16.0 <sup>16.1</sup>	14.4	14.0	14.4	15.7	16.5	15.5 <sup>15.6</sup>	15.1 <sup>15.2</sup>	14.5	15.0 <sup>15.0</sup>	15.9
5.9	15.6 <sup>15.8</sup>	14.6	14.4	14.6	15.9	16.5	16.2 <sup>16.2</sup>	15.5 <sup>15.4</sup>	14.4	15.1 <sup>15.1</sup>	16.4
6.0	15.2 <sup>15.2</sup>	14.5	14.3	14.4	15.6	16.5	16.0 <sup>15.8</sup>	15.8 <sup>15.6</sup>	14.3	15.0 <sup>14.8</sup>	16.4
6.0	16.3 <sup>16.3</sup>	14.9	14.5	14.6	15.7	15.7	16.3 <sup>16.1</sup>	15.6 <sup>15.6</sup>	14.5	14.8 <sup>14.9</sup>	16.3
6.8	15.7 <sup>15.7</sup>	14.9	14.3	14.6	15.9	16.5	15.9 <sup>15.7</sup>	15.6 <sup>15.6</sup>	14.4	15.0 <sup>14.9</sup>	16.6
6.9	16.0 <sup>16.1</sup>	14.6	14.8	14.5	15.8	16.5	16.2 <sup>16.3</sup>	15.5 <sup>15.5</sup>	14.4	15.1 <sup>15.0</sup>	15.4
7.1	16.0 <sup>15.9</sup>	14.7	14.8	14.6	15.7	15.7	15.4 <sup>15.5</sup>	15.3 <sup>15.3</sup>	14.2	14.8 <sup>14.9</sup>	15.7
7.8	16.2 <sup>16.2</sup>	14.9	14.8	14.7	15.6	16.3	16.3 <sup>16.0</sup>	15.2 <sup>15.1</sup>	14.5	14.8 <sup>14.8</sup>	15.9
7.9	15.7 <sup>15.7</sup>	14.7	14.8	14.6	15.8	16.1	16.0 <sup>16.0</sup>	15.3 <sup>15.3</sup>	14.1	15.0 <sup>14.9</sup>	15.9
8	16.1 <sup>16.0</sup>	14.6	14.5	14.3	15.6	15.9	16.0 <sup>15.9</sup>	15.5 <sup>15.4</sup>	14.4	14.9 <sup>14.8</sup>	16.3
8.6	16.0 <sup>16.0</sup>	14.3	14.2	14.3	15.7	15.6	15.9 <sup>15.9</sup>	15.2 <sup>15.5</sup>	14.2	14.7 <sup>14.6</sup>	16.3
8.7	15.8 <sup>15.7</sup>	14.4	13.9	14.1	15.7	16.6	15.6 <sup>15.5</sup>	15.7 <sup>15.6</sup>	14.4	15.1 <sup>15.0</sup>	15.7
8.7	16.2 <sup>16.2</sup>	14.6	14.2	14.3	15.7	15.9	16.1 <sup>16.1</sup>	15.8 <sup>15.6</sup>	14.3	15.0 <sup>14.9</sup>	16.0
8.7	15.3 <sup>15.4</sup>	14.5	14.0	14.4	15.6	15.7	15.9 <sup>15.9</sup>	14.9 <sup>14.9</sup>	14.2	14.8 <sup>14.8</sup>	15.3
9	15.6 <sup>15.3</sup>	14.4	14.5	14.4	15.6	16.6	15.7 <sup>15.7</sup>	15.5 <sup>15.4</sup>	14.1	14.9 <sup>14.8</sup>	16.1
9.8	15.9 <sup>16.0</sup>	14.3	14.4	14.3	15.6	16.0	15.9 <sup>16.0</sup>	15.7 <sup>15.6</sup>	14.4	14.8 <sup>14.9</sup>	16.3
9.8	15.6 <sup>15.6</sup>	14.3	14.6	14.4	15.5	16.4	15.9 <sup>15.8</sup>	15.9 <sup>15.7</sup>	14.0	14.8 <sup>14.8</sup>	16.3
9.8	16.2 <sup>16.2</sup>	14.4	14.4	14.3	15.7	15.6	16.2 <sup>16.0</sup>	15.1 <sup>15.0</sup>	14.4	15.0 <sup>14.9</sup>	16.0
9.8	15.5 <sup>15.7</sup>	14.5	14.6	14.4	15.8	16.1	16.1 <sup>16.0</sup>	15.1 <sup>15.2</sup>	14.3	14.9 <sup>14.8</sup>	16.2
10.0	15.2 <sup>15.0</sup>	14.7	14.8	14.4	15.0	15.0	15.0 <sup>15.0</sup>	14.9 <sup>14.9</sup>	14.4	15.0 <sup>14.9</sup>	15.0
10.8	16.0 <sup>15.8</sup>	14.4	14.5	14.4	15.6	16.0	15.8 <sup>15.8</sup>	15.7 <sup>15.4</sup>	14.2	14.9 <sup>14.9</sup>	16.1



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1945phae.proj.2447S

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		VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN
23017	30373.392	105	108	170	233	106	105	105	234	255	127	254	37	36	292	22	
23051	30375.35	15.3	15.2	15.7	15.1	15.9	15.8	15.2	15.9	15.0	def	14.8	15.8	15.8	15.6	16	
23051	30375.35	16.2	16.3	15.6	15.0	15.9	15.0	14.8	15.0	15.7	16.0	14.8	15.9	15.8	16.1	16	
23446	30619.43	15.7	15.8	15.5	15.2	15.7	15.6	15.5	15.8	16.0	14.9	14.8	15.9	15.9	16.3	15	
23446	30619.43																
23446	30619.43																
23464	30641.38	15.5	15.5	15.1	15.0	16.2	15.5	15.5	16.3	15.6	15.1	14.8	15.8	15.8	15.8	15	
23485	30660.57	16.2	16.2	15.5	15.1	15.9	15.6	15.5	15.6	16.0	15.9	14.9	15.8	15.7	15.9	16	
23490	30672.5	16.0	15.6	15.8	15.0	15.9	15.9	15.7	15.8	16.2	15.9	14.9	15.8	15.8	15.7	16	
23518	30725.51	16.3	15.7	15.6	14.8	15.9	15.2	15.3	15.3	15.8	15.0	15.0	15.8	15.7	16.3	16	
23528	30749.2	15.9	16.2	15.6	15.0	16.2	14.9	15.4	15.0	15.1	16.0	14.8	15.8	15.8	16.3	16	
23905	30977.61	16.2	15.5	15.5	15.1	16.0	15.9	15.7	16.2	16.2	15.9	14.8	15.9	15.8	16.2	16	
23922	30990.57	15.4	15.5	15.3	14.8	15.6	15.3	15.5	15.6	15.3	15.2	14.9	15.8	15.8	15.4	16	
23973	31107.44	16.2	16.2	15.2	14.8	15.7	15.2	15.2	16.2	16.3	15.1	14.9	15.8	15.7	16.2	16	
23981	31108.45	16.0	16.0	15.3	15.0	15.9	15.8	15.2	14.7	15.2	15.3	14.9	15.8	15.7	15.6	16	
24449	31302.64	16.0	16.2	15.5	14.9	15.6	15.6	15.6	15.7	16.0	15.6	14.7	15.8	15.8	16.2	16	
24508	31326.59	15.9	15.1	15.2	14.7	15.6	15.6	15.6	15.7	16.2	15.4	14.8	15.8	15.7	16.0	16	
24525	31328.57	15.6	16.2	15.7	15.1	15.9	15.7	15.6	16.2	15.4	15.7	14.9	15.9	15.8	15.7	16	
24530	31332.58	16.1	16.2	15.8	15.0	15.9	15.5	15.5	15.7	16.2	14.9	14.8	15.8	15.7	15.6	16	
24623	31458.32	15.9	16.0	14.9	14.8	16.0	15.1	15.4	15.8	15.6	15.9	14.9	15.7	15.7	15.5	16	
24976	31609.63	15.7	15.3	15.5	14.9	15.8	15.7	15.5	16.0	16.0	15.9	14.7	15.9	16.8	15.4	16	
24983	31620.63	15.9	15.8	15.7	14.8	15.7	14.8	15.1	14.9	16.3	15.6	14.7	15.8	15.8	15.7	16	
24993	31674.64	15.9	16.1	15.9	14.8	16.0	15.8	15.5	16.1	15.9	15.8	14.7	15.7	15.8	15.8	16	
25005	31676.6	16.2	15.8	15.1	15.0	15.9	15.0	15.6	15.7	15.7	16.1	14.8	15.9	15.9	16.2	16	
25010	31677.64	16.1	16.3	15.1	14.9	15.8	15.0	15.3	15.7	15.2	15.7	14.7	15.9	15.8	15.5	16	
25012	31680.61	15.0	15.0	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	16	
25012	31680.61	15.8	16.1	15.7	14.9	15.7	15.7	15.5	15.0	16.2	15.6	14.8	15.8	15.8	16.1	16	



	VN	VN	VN	VN	VN	VN	VN
2	223	256	222	168	221	126	93
6	16.2	15.9	15.5	16.4	15.7	15.5	15.2
1	16.3	15.8	15.8	15.9	16.4	16.2	15.6
31	15.81	16.01	15.2	16.21	15.4	15.5	15.1
8	15.9	16.5	15.9	16.6	16.5	16.4	15.5
9	15.9	16.0	15.5	16.3	16.4	16.2	15.3
7	16.3	15.7	15.8	16.3	16.4	15.5	15.3
3	15.6	15.9	15.6	16.4	16.4	16.2	15.2
3	16.5	15.8	15.5	16.4	16.5	15.8	15.5
2	16.3	15.6	15.6	16.4	15.9	15.8	15.8
4	16.0	15.5	15.8	16.0	15.8	15.8	15.5
2	16.2	15.7	15.6	16.4	16.5	15.2	15.3
2	16.0	16.0	15.7	16.0	15.6	15.8	15.1
0	16.0	15.9	15.8	15.5	16.4	15.2	15.0
7	16.2	15.8	15.8	16.2	16.4	14.9	15.5
6	16.1	16.4	15.9	16.4	16.0	15.9	15.6
6	16.4	16.4	15.8	16.0	16.4	15.6	15.1
5	15.8	16.2	15.9	15.9	16.3	15.7	15.5
1	15.8	15.4	15.7	15.8	16.3	15.9	15.5
1	16.0	15.7	15.8	16.2	16.4	16.1	15.4
8	16.3	15.5	15.6	16.3	16.3	16.0	15.7
2	16.2	16.4	15.8	15.8	16.3	15.7	15.5
5	16.2	16.3	15.6	16.3	16.4	15.3	15.6
1	16.4	16.4	15.7	15.8	16.3	16.2	15.7



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14.8

14.8

14.8

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14.7

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14.7

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25038 31681.633	14.9	14.9	15.9	15.4	14.1	16.5	16.7	16.3	16.3	15.1	15.8	16.
25033 31682.637	15.8	14.7	15.8	15.3	14.0	16.3	16.6	16.3	16.2	14.9	14.9	16.
25050 31697.559	15.0	14.8	15.9	16.0	14.1	15.8	15.8	16.3	16.2	15.4	15.9	16.
25060 31699.533	16.3	15.1	16.2	15.8	14.0	16.3	16.4	16.3	16.2	15.2	15.8	16.
25068 31701.534	15.5	14.9	15.8	14.0	14.0	16.5	16.1	16.3	16.2	15.0	15.9	16.
25076 31702.562	16.3	15.0	15.9	14.2	14.1	16.6	16.2	16.2	16.2	15.7	15.8	16.
25081 31703.629	16.4	14.8	16.2	14.6	14.1	16.0	16.3	15.0	16.4	15.0	15.7	16.
25085 31704.549	14.6	14.8	16.2	15.1	14.1	16.6	16.4	15.5	16.5	15.0	15.9	16.
25091 31708.613	15.2	15.5	16.0	15.6	14.1	16.6	16.1	15.4	16.1	15.3	15.8	16.
25097 31710.557	15.8	14.7	15.8	15.7	14.0	16.4	15.9	15.9	16.1	15.3	15.8	16.
25109 31712.517	15.2	14.7	15.8	15.3	14.0	16.1	16.2	16.4	16.2	15.0	15.9	16.
25113 31713.545	16.3	15.0	15.9	15.4	14.0	16.4	16.3	15.9	16.3	15.2	15.8	17.
25129 31734.511	15.8	14.9	15.7	15.7	14.0	15.8	16.0	15.9	16.0	14.9	15.8	16.
25134 31738.550	15.0	14.6	15.7	14.9	14.0	16.3	16.1	16.2	16.2	14.9	15.7	16.
25139 31740.447	15.8	14.7	16.3	14.0	14.0	15.9	16.3	15.4	16.3	15.1	15.9	16.
25214 31859.379	16.2	15.0	16.0	15.6	14.0	16.7	16.3	16.2	16.2	15.2	15.8	16.
25473 32027.600	16.2	15.3	16.4	16.0	14.0	16.1	16.3	16.4	16.3	14.9	15.8	16.
25565 32069.623	16.2	15.1	15.9	14.0	14.0	16.4	16.2	16.3	16.2	15.2	15.7	16.
26051 32507.394	15.7	15.0	15.9	15.4	14.0	16.7	15.9	16.0	16.0	15.3	15.8	16.
26081 32537.390	14.2	15.3	15.9	15.5	14.0	15.7	15.8	15.1	15.9	15.3	15.7	16.
26720 32977.263	14.9	14.8	16.2	15.7	14.0	16.3	15.8	15.5	15.7	15.3	15.6	16.
26975 33160.623	15.7	15.0	15.8	14.0	14.0	16.4	15.7	15.4	15.7	15.3	15.8	17.

ADH  
1744 blue + 2204



1	2	3	4	5	6	7	8	9	10
16.8	16.9	ns	14.4	15.9	16.9	17.0	15.8	14.9	15.0
16.2	16.8	ns	14.2	15.9	16.2	15.9	15.1	14.9	15.1
16.5	16.0	ns	14.3	15.8	16.8	16.9	15.7	15.0	15.4
16.6	16.7	ns	14.1	16.1	15.9	16.7	15.5	15.4	15.5
16.9	16.1	ns	14.2	15.6	16.9	15.6	15.6	15.6	15.1
16.9	16.6	ns	14.5	15.8	15.9	16.8	15.8	14.9	15.4
16.0	16.7	ns	14.7	15.9	16.9	17.0	16.1	14.9	15.2
16.7	16.7	ns	14.9	15.9	17.0	16.1	15.9	15.8	15.4
16.9	17.0	ns	14.6	16.0	16.9	16.8	15.8	14.8	15.3
16.4	16.8	ns	14.7	15.9	16.4	17.0	15.5	14.7	15.1
16.6	17.0	ns	14.6	16.2	16.9	16.9	15.5	14.8	15.4
17.0	17.0	ns	14.4	15.8	16.0	16.9	15.6	14.9	15.1
16.9	16.6	ns	14.4	16.3	16.8	16.3	15.6	14.8	15.1
16.9	16.7	ns	14.7	15.6	16.8	16.9	15.7	14.8	14.9
16.4	16.8	ns	14.9	15.6	15.7	16.3	15.6	15.1	15.1
16.5	16.0	ns	14.9	15.8	16.0	16.4	15.9	15.0	15.6
16.6	16.0	17.2	14.7	15.9	16.0	16.7	15.9	14.8	15.0
16.0	16.7	17.2	14.6	15.8	16.8	16.9	16.0	15.0	15.1
16.9	17.0	ns	14.4	15.6	16.9	15.8	15.6	15.0	15.4
16.3	16.7	17.2	14.8	15.6	16.7	16.8	15.6	14.7	15.1
16.8	16.2	ns	14.3	15.6	16.1	16.7	16.3	14.9	14.9

*[Handwritten notes on lined paper:]*

South  
Punch south  
Punch  
In regular  
south Punch  
south Punch  
south Punch  
south Punch  
In regu  
south Punch  
south Punch  
In regu  
IV



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	HV 5558 (267)	VN 227	HV 5560 (86)	VN 83	HV 2304 (862)	HV 2302 (861)	VN 253	HV 2289 (857)	VN 252	VN 158	VN 2
25038	31681.633	16.3	14.8	14.8	15.3	14.8	14.9	16.4	14.3	15.5	16.0
25033	31682.637	16.0	14.8	14.6	16.0	15.0	14.8	16.2	14.5	15.9	15.2
25050	31697.559	15.7	14.4	14.5	16.3	15.0	14.8	15.8	14.2	15.9	16.2
25060	31699.533	16.4	14.5	14.5	16.0	14.8	14.7	16.4	14.4	16.2	15.7
25068	31701.534	16.2	14.6	14.7	15.4	15.0	14.7	15.5	14.4	16.4	16.3
25076	31702.562	16.5	14.7	14.8	16.0	14.9	14.7	16.2	14.2	16.5	15.5
25081	31703.629	15.6	14.8	14.5	16.5	14.8	14.7	16.5	14.3	15.7	16.0
25085	31704.549	16.2	14.2	14.6	15.5	14.7	14.6	16.3	14.2	16.3	16.0
25091	31708.613	16.4	14.5	14.6	16.5	14.7	14.6	16.3	14.2	16.4	16.0
25097	31710.557	16.0	14.5	14.6	15.9	14.8	14.7	16.1	14.4	16.2	15.5
25109	31712.517	16.4	14.5	14.6	15.1	14.8	14.7	16.3	14.2	15.7	16.3
25113	31713.545	15.9	14.5	14.7	16.1	def.	14.7	15.8	14.5	16.0	16.0
25129	31734.511	15.7	14.6	14.6	16.2	14.7	14.7	16.0	14.2	15.7	15.4
25134	31738.550	16.1	14.6	14.5	16.0	14.8	14.7	16.3	14.2	16.0	15.5
25139	31740.447	16.2	14.5	14.6	15.6	14.7	14.5	15.9	14.3	15.5	16.1
25214	31859.379	16.5	14.6	14.7	16.0	14.8	14.8	15.8	14.4	16.4	15.9
25473	32027.600	15.5	14.6	14.5	15.2	14.6	14.5	16.4	14.1	15.9	16.0
25565	32069.623	16.6	14.6	14.8	14.9	14.8	14.6	16.2	14.2	16.5	15.8
26051	32507.394	16.2	14.8	14.8	16.2	14.9	14.8	16.5	14.5	16.0	16.0
26081	32537.390	15.9	14.4	14.7	16.0	14.7	14.5	15.4	14.2	16.2	15.1
26720	32977.263	15.3	14.7	14.6	16.2	14.9	14.6	15.6	14.4	15.9	16.1
26975	33160.623	16.5	14.8	14.9	15.1	14.7	14.6	15.7	14.4	16.3	15.7
<div> <div> <div>ADH</div> <div>1744 blue + 2204</div> </div> <div> <div>3034261</div> <div>3034261</div> </div> <div> <div>Blue</div> <div>Blue</div> </div> <div> <div>12434</div> <div>12434</div> </div> <div> <div>12432</div> <div>12432</div> </div> <div> <div>12431</div> <div>12431</div> </div> <div> <div>12429</div> <div>12429</div> </div> <div> <div>3034309</div> <div>3034309</div> </div> <div> <div>3034349</div> <div>3034349</div> </div> <div> <div>3034389</div> <div>3034389</div> </div> <div> <div>3034429</div> <div>3034429</div> </div> </div>											



N227	5568 <sup>✓</sup> (264)	5551 <sup>✓</sup> V85 (615)	2426 <sup>✓</sup> (164)	2272 <sup>✓</sup> 920A (920)	V43	5532 <sup>✓</sup> (249)	5527 <sup>✓</sup> V229 (249)			
15.5	14.7	15.5	14.4	14.9	16.2	15.2	16.3	14.7	14.6	16.3
15.4	14.8	15.4	14.5	14.8	16.2	15.7	15.4	14.8	14.6	15.9
15.7	14.9	15.3	14.6	14.8	16.2	14.9	16.0	14.9	14.9	16.0
15.9	14.9	15.0	14.6	14.9	16.2	15.8	16.1	14.8	14.7	15.7
15.6	14.9	15.2	14.7	14.9	16.4	16.0	16.2	14.8	14.7	16.0
15.6	14.8	15.2	14.8	15.0	16.4	14.9	16.0	14.8	14.7	16.3
15.6	14.7	15.7	14.6	15.1	16.4	15.3	15.9	14.8	14.6	15.7
15.4	14.6	15.6	14.5	15.1	16.3	15.7	16.0	14.7	14.7	15.9
15.2	def	15.4	14.6	14.9	16.4	14.9	15.8	14.9	14.7	15.8
15.3	14.8	14.8	14.6	14.9	16.3	15.9	15.1	14.8	14.7	16.2
15.4	14.8	15.3	14.6	14.8	16.3	16.2	16.3	14.9	14.7	15.6
15.4	14.6	15.4	14.8	14.9	16.4	14.9	15.7	14.9	14.5	16.0
15.7	14.8	15.1	14.7	14.9	16.2	15.8	15.8	15.0	14.8	15.9
15.5	14.8	15.4	14.5	15.0	16.1	16.0	15.2	14.8	14.6	15.9
15.4	14.7	15.3	14.7	14.9	16.2	15.4	16.0	15.0	14.8	16.1
15.4	14.7	15.2	14.8	14.9	16.2	16.0	16.3	15.2	14.8	16.3
15.2	14.7	15.0	14.4	14.8	16.3	16.2	15.9	14.6	14.7	16.2
15.2	14.7	15.4	14.5	15.0	16.2	16.1	16.1	14.9	14.7	16.3
15.6	14.7	15.0	14.5	15.0	16.2	15.4	16.2	15.0	14.7	16.1
15.3	14.4	15.1	14.7	15.1	16.2	16.1	15.9	15.2	14.7	16.2
15.4	14.6	14.9	14.4	14.7	16.1	16.1	16.2	14.6	14.2	16.0
15.5	14.9	15.4	14.6	15.0	16.2	15.9	16.1	14.8	14.5	15.9
more obs. see P136		more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136	more obs. see P136
blue	Not variable blue	yellow	yellow	blue	yellow	blue	blue	blue	blue	blue
	12529									



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	HV5540 (252)	HV2301 (921)	VN89	2290 (898)	5554 (54)	5561 (611)	5544 (609)	2267 (896)	VN56	VN90	HV558 (253)	VN4 K3
25028 31671.633	15.4	14.4	14.8	16.0	14.2	15.8	14.3	14.9	15.2	A15.1 15.8	15.9	16
25033 31682.637	15.9	14.1	14.8	16.0	14.2	15.8	14.3	14.8	15.3	15.1 15.8	15.8	15
25050 31697.559	15.8	14.7	14.9	16.3	14.1	15.9	14.1	14.7	15.3	15.4 15.9	15.9	16
25060 31699.533	15.6	14.0	14.8	15.8	14.1	15.6	14.1	14.8	15.9	15.6 15.8	15.8	16
25068 31701.534	15.7	14.6	14.8	16.2	14.3	15.8	14.0	15.5	15.5	15.3 15.7	15.7	16
25076 31702.562	15.7	14.6	14.8	15.1	14.1	15.8	14.4	15.7	15.4	15.2 15.6	15.8	16
25081 31703.629	15.8	14.9	14.8	16.0	14.1	15.8	14.3	15.9	15.7	15.3 15.7	15.9	16
25085 31704.549	15.6	14.9	14.8	16.1	14.0	15.8	14.4	15.7	15.8	15.5 15.6	15.9	15
25091 31708.613	15.8	14.6	14.8	16.3	14.1	15.7	14.2	15.0	15.6	15.2 15.7	15.8	15
25097 31710.557	15.7	14.5	14.8	15.6	13.9	15.8	14.4	15.5	15.8	15.3 15.7	15.8	15
25109 31712.517	15.5	14.6	14.8	16.4	14.0	15.7	14.3	15.7	15.1	15.5 15.8	15.8	16
25113 31713.545	15.6	14.8	14.9	15.1	14.0	15.7	14.0	15.1	15.4	15.2 15.9	15.8	15
25129 31734.511	15.9	15.0	14.8	16.2	13.8	15.4	14.2	15.7	15.5	15.2 15.8	15.4	16
25134 31738.550	15.6	14.3	def	16.3	13.8	15.6	14.3	15.1	14.9	15.3 15.6	15.9	15
25139 31740.447	15.6	14.6	14.9	16.1	14.0	15.6	14.4	14.9	15.5	15.5 15.7	15.8	16
25214 31859.379	15.5	14.8	14.9	16.2	14.3	15.6	14.3	14.9	15.2	15.4 15.8	15.7	16
25473 32027.600	15.5	14.8	14.8	14.7	13.9	15.8	14.3	15.2	15.5	15.1 15.6	15.7	15
25565 32069.623	15.6	14.3	14.9	16.1	13.7	15.8	14.2	15.7	15.7	15.2 15.9	15.7	16
26051 32507.394	15.4	14.4	14.9	16.2	13.7	15.8	14.6	16.0	15.2	15.4 15.6	15.8	16
26081 32537.390	15.5	14.3	14.7	15.1	13.6	15.8	14.2	14.8	15.9	15.3 15.9	15.7	15
26720 32977.263	15.5	14.7	14.7	14.9	14.0	15.6	14.3	15.5	15.7	15.1 15.7	15.7	16
26975 33160.623	15.6	14.4	14.7	16.2	13.7	15.8	14.0	15.6	15.3	15.2 15.7	15.6	16

Comparison of ADH  
1744 Blue + 2204 red

see  
Munroe  
Two months

Red

Blue

P. 270552  
x  
2.69615

Yellow

12427

12331

very Red

includ oddy

not know

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	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN	VN
25028 31671.633	108	108	170	233	106	105	106	234	255	127	254	37	36	292	
25033 31682.637	16.2	16.3	15.0	14.9	16.2	15.3	15.5	15.6	16.0	15.8	14.8	15.8	15.8	15.4	
25050 31697.559	16.0	16.2	15.5	15.0	def	15.7	15.5	16.0	16.2	16.2	14.7	15.9	15.8	15.7	
25060 31699.533	16.1	def	15.6	14.9	16.1	15.0	15.5	15.6	15.5	15.0	14.8	15.9	15.8	15.9	
25068 31701.534	15.7	15.5	15.2	15.1	15.9	15.7	15.6	16.1	15.9	15.7	14.8	15.7	15.8	15.5	
25076 31702.562	15.8	16.2	15.4	15.0	15.9	15.8	15.6	15.9	16.2	15.5	14.8	15.8	15.8	15.8	
25081 31703.629	16.0	16.4	15.8	15.0	15.8	15.9	15.4	15.1	15.7	15.9	14.9	15.9	15.8	16.0	
25085 31704.549	16.2	15.6	15.4	14.8	16.2	15.4	15.4	15.2	15.6	15.9	14.9	15.8	15.8	15.9	
25091 31708.613	16.1	16.2	15.9	15.1	15.9	15.7	15.4	15.4	15.9	15.5	def	15.8	15.9	15.8	
25097 31710.557	15.8	15.3	15.0	14.8	15.7	15.3	15.6	15.9	15.6	15.8	14.7	15.8	15.8	16.0	
25109 31712.517	15.7	15.8	15.6	15.0	15.9	def	15.4	14.9	16.2	15.9	14.7	15.9	15.9	16.0	
25113 31713.545	15.9	15.6	15.6	def	15.8	15.7	15.5	15.4	16.2	15.5	14.8	15.8	15.8	15.7	
25129 31734.511	15.6	16.1	15.0	14.9	16.0	14.9	15.0	15.9	16.0	15.7	14.7	15.9	15.8	16.0	
25134 31738.550	15.5	16.0	15.0	14.9	15.6	def	15.5	16.0	15.8	15.7	14.7	15.8	15.8	16.0	
25139 31740.447	16.0	16.1	15.5	15.0	15.6	15.0	15.3	14.7	16.1	16.0	14.8	15.8	15.8	15.6	
25214 31859.379	15.5	16.0	15.6	14.9	15.8	15.5	15.4	15.6	15.3	15.9	14.9	15.8	15.8	15.7	
25473 32027.600	15.6	15.4	15.3	14.8	15.7	14.7	14.4	15.5	15.4	15.6	14.7	15.7	15.7	15.5	
25565 32069.623	15.9	15.3	15.5	14.8	15.8	15.1	15.0	15.7	15.6	15.6	14.7	15.8	15.7	15.9	
26051 32507.394	16.2	16.1	15.7	14.9	15.6	15.4	15.3	15.8	16.0	15.5	14.9	15.8	15.8	15.9	
26081 32537.390	15.3	15.4	15.4	14.7	15.6	15.3	14.8	14.6	15.5	15.7	14.8	15.7	15.7	15.7	
26720 32977.263	15.8	15.8	15.4	14.8	15.6	15.4	15.2	15.5	15.5	16.0	14.8	15.6	15.6	15.8	
26975 33160.623	15.4	16.0	15.0	14.7	15.9	15.8	15.1	14.8	15.4	16.0	14.7	15.7	15.8	16.1	
	12406	12408	12409	12414	12410	12415	12421	12428	12416						
	0.183020	0.317820	0.21043	0.75222	0.173645	0.186405	0.141527	0.06579	0.254597	0.329790	0.330580				
	5.4638	5.14643	5.14643	5.14643	5.15888	5.15888	5.15888	5.15888	5.15888	5.15888	5.15888				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	1744	1744	1744	1744	1744	1744	1744	1744	1744	1744	1744				
	2204	2204	2204	2204	2204	2204	2204	2204	2204	2204	2204				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				
	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH	ADH				



VN	VN	VN	VN	VN	VN	VN
223	256	222	168	221	126	93
15.9	16.4	15.6	16.3	16.5	15.0	15.7
16.2	15.5	15.7	16.5	15.7	15.5	15.4
16.1	16.3	15.6	16.5	16.4	15.8	15.7
16.0	15.5	15.7	16.0	16.0	16.1	15.4
16.3	16.2	15.7	16.4	16.4	15.5	15.5
15.6	16.2	15.6	15.8	15.7	15.9	15.8
16.2	15.8	15.6	16.4	16.2	16.2	16.0
16.3	15.6	15.7	16.4	16.3	16.0	15.7
15.7	15.5	15.7	16.4	16.5	16.2	15.5
16.3	16.1	15.9	16.2	16.2	15.5	15.7
16.0	15.5	15.7	—	15.5	16.0	15.6
16.2	16.0	15.7	15.9	16.1	16.2	15.0
16.4	15.5	15.5	16.4	16.1	15.5	15.7
15.9	15.4	15.6	15.8	16.4	15.4	15.4
16.4	16.2	15.6	16.3	15.9	15.7	15.7
16.2	15.6	15.8	15.7	16.4	15.3	15.7
16.2	def	15.6	15.6	16.2	15.4	15.2
16.0	15.5	15.6	16.2	16.3	15.5	15.6
15.9	16.0	15.8	16.0	16.2	15.9	15.1
15.4	16.1	15.3	16.2	15.9	15.6	14.8
16.1	15.8	15.5	16.2	16.1	15.2	15.9

15.5 16.2 15.6 16.0 15.8 15.1 14.9  
 12418 12422 12417 12423 12430 12433

0.330580  
 0.330250  
 0.232606  
 4.29911  
 Not a variable  
 16.5 circumpolar  
 0.273532  
 3.65585  
 0.296356  
 3.37430  
 0.213760  
 4.6781  
 0.133525  
 7.48923



73	VN 109	VN 106	HV 8037	HV 5561	HV 2269	HV 5560	VN 227	VN 85	HV 2264	HV 5532
5032 31681.633	15.1 15.1 15.2	16.2 16.2 16.2	15.5 15.4 15.3	15.8 15.7 15.7	14.3 14.1 14.0	14.8 14.5 14.3	15.3 15.4 15.3	14.4 14.5 14.5	14.4 14.4 14.5	14.7 14.7 14.8
5033 31682.637	15.1 15.0 15.0	15.7 15.7 15.7	15.0 15.1 15.2	15.8 15.8 15.7	14.5 14.4 14.4	14.6 14.6 14.7	15.4 15.6 15.7	14.5 14.3 14.2	14.3 14.3 14.2	14.8 14.7 14.6
5050 31697.559	15.4 15.3 15.3	def 16.1 def	15.5 15.4 15.3	15.9 15.8 15.6	14.2 14.3 14.4	14.5 14.5 14.5	15.7 15.6 15.5	14.6 14.6 14.6	14.3 14.5 14.6	14.9 14.8 14.8
25060 31699.533	15.6 15.6 15.7	16.1 16.1 16.1	15.5 15.5 15.5	15.6 15.7 15.8	14.4 14.4 14.4	14.5 14.5 14.4	15.9 15.9 15.8	14.6 14.5 14.4	14.4 14.5 14.6	14.8 14.8 14.8
25068 31701.534	15.3 15.2 15.1	15.9 15.9 15.9	15.6 15.4 15.3	15.8 15.7 15.6	14.4 14.4 14.4	14.7 14.6 14.5	15.6 15.6 15.6	14.7 14.6 14.6	14.4 14.4 14.3	14.8 14.8 14.8
25076 31702.562	15.2 15.1 15.1	15.9 15.9 15.9	15.6 15.4 15.2	15.8 15.7 15.7	14.2 14.2 14.2	14.8 14.8 14.7	15.6 15.6 15.5	14.8 14.7 14.6	14.6 14.7 14.7	14.8 14.8 14.8
25081 31703.629	15.3 15.2 15.2	15.8 15.8 15.8	15.4 15.4 15.5	15.8 15.8 15.7	14.3 14.3 14.2	14.5 14.6 14.8	15.6 15.5 15.5	14.6 14.6 14.6	14.5 14.4 14.4	14.8 14.8 14.8
25085 31704.549	15.5 15.3 15.1	16.2 16.1 16.0	15.4 15.5 15.5	15.8 15.7 15.6	14.2 14.2 14.3	14.6 14.4 14.2	15.4 15.5 15.7	14.5 14.5 14.5	14.2 14.2 14.2	14.7 14.7 14.6
25091 31708.613	15.2 15.3 15.3	15.9 15.9 15.9	15.4 15.4 15.5	15.8 15.6 15.5	14.2 14.3 14.4	14.6 14.6 14.6	15.2 15.4 15.6	14.6 14.7 14.8	14.4 14.2 14.0	14.8 14.8 14.8
25097 31710.557	15.3 15.3 15.3	15.7 15.7 15.8	15.6 15.5 15.5	15.8 15.9 15.9	14.4 14.5 14.5	14.6 14.6 14.6	15.3 15.5 15.7	14.6 14.7 14.8	14.4 14.5 14.5	14.8 14.8 14.8
25109 31712.517	15.5 15.4 15.3	15.9 16.0 16.2	15.4 15.3 15.2	15.8 15.6 15.6	14.2 14.4 14.5	14.6 14.7 14.7	15.4 15.4 15.5	14.6 14.7 14.7	14.5 14.5 14.5	14.8 14.9 14.8
25113 31713.545	15.2 15.2 15.1	15.8 15.8 15.9	15.5 15.4 15.4	15.7 15.7 15.8	14.5 14.4 14.4	14.7 14.6 14.6	15.4 15.5 15.6	14.8 14.8 14.7	14.3 14.3 14.3	14.9 14.9 14.9
25129 31734.511	15.2 15.3 15.3	16.0 16.1 16.1	15.0 15.0 15.0	15.4 15.5 15.7	14.2 14.4 14.7	14.6 14.7 14.9	15.7 15.7 15.6	14.7 14.6 14.6	14.2 14.2 14.1	15.0 15.0 14.9
25134 31738.550	15.3 15.2 15.2	15.6 15.6 15.6	15.5 15.5 15.4	15.6 15.6 15.6	14.2 14.3 14.4	14.5 14.5 14.5	15.5 15.6 15.6	14.5 14.5 14.4	14.1 14.2 14.3	14.8 14.8 14.8
25139 31740.447	15.5 15.4 15.3	15.6 15.7 15.9	15.3 15.1 15.0	15.6 15.7 15.8	14.3 14.4 14.5	14.6 14.6 14.6	15.4 15.4 15.4	14.7 14.6 14.6	14.2 14.3 14.3	15.0 15.0 14.9
25214 31859.379	15.4 15.3 15.2	15.8 15.8 15.7	15.4 15.3 15.2	15.6 15.6 15.6	14.4 14.4 14.4	14.7 14.6 14.6	15.4 15.5 15.5	14.8 14.7 14.7	14.5 14.6 14.7	15.2 15.3 15.4
25473 32027.600	15.1 15.1 15.1	15.7 15.7 15.6	15.3 15.2 15.1	15.8 15.7 15.6	14.1 14.1 14.2	14.5 14.5 14.6	15.2 15.4 15.5	14.4 14.4 14.5	14.3 14.3 14.3	14.6 14.6 14.7
25565 32069.623	15.2 15.1 15.1	15.8 15.9 16.0	15.0 15.1 15.2	15.8 15.7 15.6	14.2 14.3 14.4	14.8 14.8 14.8	15.2 15.2 15.3	14.5 14.5 14.5	14.5 14.6 14.6	14.9 15.0 15.1
26051 32507.394	15.4 15.5 15.6	15.6 15.9 16.0	15.3 15.4 15.6	15.8 15.8 15.7	14.5 14.6 14.6	14.8 14.6 14.4	15.6 15.7 15.9	14.5 14.5 14.6	14.7 14.7 14.7	15.0 15.0 14.9
26081 32537.390	15.3 15.2 15.2	15.6 15.8 15.9	14.8 14.9 15.1	15.8 15.6 15.5	14.2 14.1 13.9	14.7 14.6 14.5	15.3 15.3 15.3	14.7 14.7 14.7	14.4 14.5 14.6	15.2 15.3 15.3
26720 32977.263	15.1 15.1 15.1	15.6 15.6 15.7	15.2 15.3 15.4	15.6 15.5 15.4	14.4 14.6 14.7	14.6 14.6 14.6	15.4 15.4 15.4	14.4 14.4 14.4	14.5 14.4 14.3	14.6 14.7 14.8
26975 33160.623	15.2 15.3 15.3	15.9 15.9 15.8	15.1 15.1 15.1	15.8 15.7 15.6	14.4 14.6 14.9	14.6 14.7 14.6	15.5 15.4 15.4	14.6 14.5 14.4	15.0 14.8 14.6	14.8 15.0 15.1
1744 blue + 2204 red	12425	12425	12425	12425	12425	12425	12425	12425	12425	12425



Dependence



17225	27746.482	16.5
17228	27747.424	16.0
17232	27749.409	16.5
17234	27749.489	16.5
17239	27750.440	16.5
17247	27755.362	16.0
17249	27755.452	16.0
17268	27786.315	16.2
17280	27799.286	16.5
17281	27799.331	16.5
17282	27799.379	16.5
17283	27799.446	16.5
17284	27799.482	16.5
17285	27799.532	16.5
17288	27800.320	16.5
17289	27800.377	16.5
17290	27800.414	16.5
17291	27800.472	16.5
17292	27800.507	16.5
17293	27800.555	16.5
17294	27801.283	15.6
17295	27801.321	15.6
17298	27802.499	16.3
17299	27802.552	16.3
17300	27807.283	16.3







301	27807.317	16.5:
302	27807.365	15.9
303	27807.399	15.9
17304	27807.443	15.9
17305	27807.476	15.9
17306	27807.516	16.3
17307	27807.544	16.3
17308	27808.282	16.5
17309	27808.317	15.8
17310	27808.368	15.9
17311	27808.402	—
17315	27811.274	16.3











Preceding End of Box

Summer 1954 U M K N



92

		2311	22 92	2 star	5550	2300	890	5557	5556	891	2293	5566	
	J.D.	263	260	523	262	54	261	107	90	259	275		
20539	29199.447	16.1	14.0	14.8	16.2	15.4	13.0	15.6	15.7	14.3	14.1	15	
20541	29202.385	16.3	14.3	15.1	16.3	16.0	13.4	15.7	16.2	13.4	14.3	15	
20547	29203.456	16.5	14.4	14.4	16.6	15.9	13.1	15.4	15.9	14.6	13.9	15	
20553	29204.484	16.7	14.0	14.7	16.8	15.9	12.9	15.3	15.5	14.8	13.9	15	
20556	29205.575	16.5	14.5	14.4	16.7	15.0	13.4	15.5	15.6	14.5	14.1	15	
20565	29217.448	16.6	14.0	14.6	16.2	15.4	13.4	15.7	16.4	15.5	14.2	15	
20572	29219.343	16.7	13.8	14.5	16.6	15.6	13.1	14.4	16.0	14.6	13.9	15	
20574	29220.400	16.9	14.1	14.2	16.5	15.6	13.2	15.0	15.6	14.8	14.2	15	
20578	29221.336	16.5	14.1	14.5	16.5	15.7	13.3	15.0	def	15.1	14.0	15	
20585	29222.409	16.4	14.4	14.4	16.6	15.5	13.3	15.1	15.4	14.8	14.0	15	
20589	29223.406	16.8	14.3	14.4	16.4	15.2	13.0	15.5	14.4	15.1	14.2	15	
20592	29224.395	16.3	15.1	15.0	16.2	15.6	13.4	15.4	13.4	15.4	14.3	15	
20596	29228.404	16.4	15.1	14.4	16.7	15.4	13.2	15.0	14.9	15.0	14.1	15	
20739	29349.242	16.1	15.0	14.6	16.1	15.9	13.3	15.3	15.1	15.0	14.0	15	
21380	29517.624	16.5	14.2	14.4	16.4	15.0	12.9	15.6	14.4	14.5	14.3	15	
21395	29518.630	16.6	14.6	15.0	16.5	15.6	13.3	15.4	14.5	14.6	14.0	15	
21400	29519.613	16.5	14.0	14.6	16.3	15.6	13.1	15.1	14.4	14.6	14.0	15	
21416	29526.598	16.5	15.0	14.2	16.2	15.7	13.1	15.5	16.0	14.9	14.3	15	
21445	29553.610	16.5	15.4	14.4	16.5	15.3	13.0	15.3	14.2	14.4	14.3	15	
21463	29574.385	16.6	14.8	14.0	16.2	15.4	12.9	15.1	15.0	14.5	13.9	15	
21469	29577.384	16.7	13.5	14.3	16.3	15.5	13.2	15.1	15.7	14.9	14.4	15	
21491	29584.400	16.8	14.5	14.5	16.2	15.9	13.1	15.2	14.5	14.7	14.0	15	
21496	29585.388	16.1	14.4	14.3	16.4	15.8	13.2	15.0	13.4	14.8	13.9	15	
21520	29600.430	16.7	13.7	14.5	15.9	15.2	13.2	14.9	14.9	15.4	13.9	15	
21522	29601.380	16.6	14.0	14.8	16.3	15.7	13.3	15.7	15.0	14.4	14.3	15	



	889	2295	258	803	998	255	283	53	740	5703	7342
179	118	257	258	803	998	255	283	53	740	5703	7342
15.1	15.1	16.1	14.0	15.4	15.3	16.0	15.3	15.5	15.1	16.9	15.2
	15.4				15.3	16.0	15.3	15.5	15.1	16.9	15.4
15.6	14.4	16.2	15.2	16.0	16.0	16.2	15.4	15.5	15.2	16.3	15.7
					16.0	16.2	15.4	15.5	15.2	16.3	15.7
15.1	14.1	16.3	14.8	16.2	16.3	16.0	15.8	13.8	15.1	6.9	15.5
					16.3	16.0	15.8	13.8	15.1	6.9	15.2
15.5	14.3	15.9	15.2	16.0	15.3	15.9	15.8	14.4	15.0	16.5	15.3
					15.3	15.9	15.8	14.4	15.0	16.5	15.3
15.0	14.6	15.7	15.1	15.9	15.6	15.5	15.2	14.4	15.0	6.9	15.4
					15.6	15.5	15.2	14.4	15.0	6.9	15.4
15.0	16.0	16.2	16.0	15.8	15.7	15.8	15.6	15.6	15.5	6.9	15.6
					15.7	15.8	15.6	15.6	15.5	6.9	15.6
15.2	15.0	16.3	16.2	15.4	15.9	14.9	15.4	14.0	15.1	16.3	15.0
	15.9				15.9	14.9	15.4	14.0	15.1	16.3	15.0
15.1	15.8	16.0	15.0	15.9	16.0	15.2	15.5	14.3	15.4	16.9	14.9
					16.0	15.2	15.5	14.3	15.4	16.9	14.9
15.2	15.7	15.7	14.1	15.8	15.8	15.4	15.4	14.0	15.4	6.9	15.2
					15.8	15.4	15.4	14.0	15.4	6.9	15.2
15.0	15.5	16.3	14.5	16.3	15.1	15.8	15.6	14.6	15.0	6.1	15.0
					15.1	15.8	15.6	14.6	15.0	6.1	15.0
15.4	15.9	16.3	14.8	16.3	15.5	15.6	15.5	15.0	15.1	17.0	15.2
					15.5	15.6	15.5	15.0	15.1	17.0	15.2
15.3	15.9	16.0	14.9	16.2	15.8	16.0	15.5	15.0	15.1	6.9	15.6
					15.8	16.0	15.5	15.0	15.1	6.9	15.6
15.2	13.8	15.9	15.4	15.5	15.5	16.0	15.5	15.6	15.3	14.4	15.0
					15.5	16.0	15.5	15.6	15.3	14.4	15.0
15.4	16.0	16.1	16.1	16.1	16.0	15.9	15.7	14.4	15.5	16.2	15.4
					16.0	15.9	15.7	14.4	15.5	16.2	15.4
15.6	15.0	16.3	15.8	15.7	15.7	16.4	15.0	15.6	15.2	16.8	15.0
					15.7	16.4	15.0	15.6	15.2	16.8	15.0
15.3	15.4	16.3	15.5	15.9	15.7	16.3	15.9	16.1	15.8	16.3	15.3
					15.7	16.3	15.9	16.1	15.8	16.3	15.3
15.2	15.0	15.8	15.4	15.4	15.5	15.7	15.1	15.7	15.4	16.6	15.0
					15.5	15.7	15.1	15.7	15.4	16.6	15.0
15.4	15.7	16.0	16.1	15.8	15.9	15.7	14.9	14.5	15.0	16.9	15.0
					15.9	15.7	14.9	14.5	15.0	16.9	15.0
15.2	15.8	16.0	15.7	16.1	15.1	15.5	15.2	15.4	15.0	16.9	15.0
					15.1	15.5	15.2	15.4	15.0	16.9	15.0
15.0	15.0	15.9	16.1	15.9	15.8	15.1	15.2	14.5	14.9	16.8	15.0
					15.8	15.1	15.2	14.5	14.9	16.8	15.0
15.4	15.8	16.0	15.6	15.7	15.4	15.7	15.5	15.3	15.0	16.9	15.3
					15.4	15.7	15.5	15.3	15.0	16.9	15.3
15.0	15.4	16.0	15.5	15.7	15.5	15.9	15.1	15.7	15.1	17.0	15.4
					15.5	15.9	15.1	15.7	15.1	17.0	15.4
15.1	15.8	16.0	15.2	15.4	15.8	15.0	15.1	15.6	15.2	16.5	15.3
					15.8	15.0	15.1	15.6	15.2	16.5	15.3
15.2	15.4	16.2	14.6	16.0	15.9	15.5	15.4	15.7	14.9	16.8	15.0
					15.9	15.5	15.4	15.7	14.9	16.8	15.0
15.2	15.7	16.4	14.1	16.1	15.7	15.6	15.4	15.5	15.2	16.5	15.2
					15.7	15.6	15.4	15.5	15.2	16.5	15.2



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		HV 2297	5547	2286	5548	2303	5581	5598	2324	5592	896	27
		266	284	267	286	577	625	295	579	294	154	8
	JD											
20539	29199.447	16.0	16.3	16.2	15.4	16.0	15.5	17.0	15.7	14.8	15.5	16
20541	29202.385	16.1	16.0	16.2	15.2	16.3	15.6	16.3	16.2	15.0	15.8	16
20547	29203.456	16.1	16.4	16.6	15.8	15.8	15.8	17.0	16.1	15.4	16.0	16
20553	29204.484	15.9	16.4	16.0	15.4	16.2	16.4	17.0	15.8	14.8	15.2	16
20556	29205.573	15.9	16.5	16.3	15.1	16.4	15.6	16.7	15.6	14.9	15.5	16
20565	29217.448	16.4	16.2	16.4	15.3	16.4	15.7	17.0	16.4	15.2	15.8	16
20572	29219.343	16.6	16.5	16.3	15.4	16.1	15.8	17.0	15.7	15.0	15.5	16
20574	29220.400	16.5	16.6	15.6	15.4	16.4	16.0	17.0	15.6	14.9	15.8	16
20578	29221.336	16.0	16.4	16.0	15.2	16.6	16.0	17.0	15.3	15.0	15.5	16
20585	29222.409	15.6	16.4	16.6	15.2	16.4	16.4	17.0	14.9	14.6	15.7	16
20589	29223.406	15.9	16.4	16.4	15.4	15.8	15.7	17.0	14.6	14.5	15.5	16
20592	29224.395	15.9	16.4	16.0	15.5	16.0	15.6	17.0	15.4	14.9	15.7	16
20596	29228.404	16.6	16.3	16.4	15.8	15.8	16.4	17.0	15.9	15.0	15.5	16
20739	29349.242	15.9	16.5	16.5	15.4	16.0	16.2	17.0	15.7	15.0	15.7	16
21380	29517.624	16.6	16.3	16.3	15.4	16.5	16.0	17.0	15.9	14.9	15.7	16
21395	29518.630	16.6	16.6	16.5	15.4	16.6	15.7	16.6	16.0	15.1	15.8	16
21400	29519.613	16.3	16.4	16.4	15.1	15.8	15.8	17.0	16.1	15.0	15.4	16
21416	29526.598	16.6	16.6	16.2	15.4	16.5	15.8	17.0	14.6	14.5	15.2	16
21445	29533.610	16.2	16.0	15.7	15.3	15.8	16.2	16.6	15.5	15.7	15.3	16
21463	29574.385	16.2	16.5	16.6	15.3	16.2	15.9	17.0	15.6	14.5	15.7	16
21469	29577.384	15.8	16.4	16.2	15.3	16.7	15.9	17.0	16.0	15.0	15.4	16
21491	29584.400	15.5	16.6	16.3	15.0	16.2	15.7	17.0	15.0	15.0	15.5	16
21496	29585.388	15.8	16.5	16.1	15.2	15.3	15.7	17.0	14.5	14.4	15.4	16
21520	29600.430	16.5	16.3	16.2	15.2	16.4	15.6	17.0	15.1	14.3	15.4	16
21522	29601.380	16.2	16.4	16.5	15.1	16.7	15.4	17.0	15.3	14.9	15.5	16



6	2305	2308	895	5595	5609	2327	898	2320	2319	11977		
1	802	578	91	804	808	271	57	270	580	121	5793	2412
	16.1 16.2			16.7	16.7							7342
5	16.3	16.0	16.0	16.7	16.7	17.0	15.4	16.5	16.2	16.0	16.9	15.2 15.3
	16.0 16.0											15.4
8	16.0	16.0	15.0	16.2	16.3	16.3	15.5	16.3	16.3	16.1	16.3	16.2 15.7
	16.0 16.0											15.7 15.8
0	16.3	16.2	14.6	16.2	16.6	16.7	16.0	16.7	15.2	16.1	16.9	15.5 15.3
	16.2 16.4											15.2
2	16.5	16.0	15.3	16.5	16.7	16.4	15.8	16.3	15.0	16.3	16.5	15.1 15.2
	16.3 16.4											15.3
5	16.5	16.1	15.3	16.8	blur	16.7	16.0	16.1	15.2	15.9	16.9	15.6 15.0
	16.1 16.3											15.4
8	16.5	16.2	15.3	16.7	16.8	16.9	16.0	16.8	16.1	16.1	16.9	15.1 15.4
	16.1 16.3											15.6
5	def	16.1	15.6	16.2	16.7	16.1	16.2	15.9	16.0	16.1	16.3	14.8 15.0
	16.0 16.1											15.2
8	16.3	16.5	15.8	16.6	16.6	16.5	16.3	16.0	15.4	16.0	16.9	14.8 14.9
	15.9 16.0											14.9
5	16.0	15.9	15.9	16.8	16.7	16.9	16.1	16.6	14.9	16.1	16.9	15.2 15.3
	16.2 16.4											15.2
7	16.6	16.2	16.0	16.7	16.6	16.7	15.6	16.8	14.8	16.0	16.1	14.9 15.0
	16.2 16.3											15.0
5	16.3	16.4	16.2	16.1	16.8	16.3	15.7	16.5	15.2	16.1	16.0	15.2 15.2
	15.6 15.8											15.2
7	16.0	16.1	16.2	16.2	16.7	16.6	15.8	15.8	15.6	16.1	16.9	15.6 15.6
	16.3 16.3											15.6
5	16.3	16.2	14.5	16.1	16.7	16.8	15.9	16.2	15.7	16.0	16.4	15.2 15.1
	16.0 16.1											15.0
7	16.2	16.0	16.0	16.4	16.7	16.9	15.9	16.0	16.0	16.0	16.2	15.7 15.5
	16.2 16.3											15.4
7	16.4	16.5	16.0	16.8	16.7	16.8	15.8	16.0	15.4	16.2	16.8	15.1 15.0
	16.2 16.2											15.0
8	16.2	16.2	16.1	16.4	16.6	16.3	16.0	16.2	14.8	16.4	16.3	15.5 15.4
	16.3 16.3											15.3
4	16.3	16.0	16.1	16.1	16.5	16.6	16.0	16.6	15.5	16.1	16.6	15.1 15.1
	16.2 16.1											15.0
2	15.7	16.2	14.5	blur	16.2	16.1	15.8	16.5	16.3	16.0	16.9	15.4 15.2
	15.9 16.0											15.0
3	16.1	16.1	14.8	16.7	16.8	16.8	15.3	16.4	14.6	15.8	16.9	14.2 15.4
	15.6 15.8											15.2
7	16.0	16.2	15.9	16.8	16.6	16.7	16.1	16.9	15.2	16.1	16.8	15.2 15.0
	16.0 16.0											14.5
4	16.1	15.9	14.4	16.3	16.7	16.1	15.8	16.3	15.7	16.0	16.9	15.3 15.3
	16.2 16.3											15.3
5	16.3	16.2	16.1	16.6	16.7	16.9	16.2	16.6	16.0	16.2	17.0	15.4 15.4
	15.2 15.7											15.4
4	15.8	16.0	16.3	16.7	16.6	16.8	16.2	15.8	15.7	15.9	16.5	15.2 15.3
	16.2 16.3											15.3
4	16.3	16.1	16.0	16.6	16.7	16.9	16.1	16.2	16.4	16.0	16.8	15.2 15.1
	16.0 16.2											15.0
5	16.3	16.1	16.0	16.9	16.7	16.2	15.9	16.5	16.0	15.9	16.5	15.2 15.2
	16.0 16.2											15.2



1945phae.proj.24475

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		15569	7	5574	2332	5628	5625	5630	910	2333	5616	2335	2340	2325	5642	119	
		624	TH	742	685	51	282	686	281	56	272	296	353	354	351	279	2
0539	29199.447	16.4	16.0	16.2	15.2	16.9	15.9	14.3	15.9	15.7	15.9	16.8	15.2	15.7	16.7	15.2	16
0541	29202.385	16.7	15.7	16.2	16.0	16.7	15.7	14.4	16.0	15.8	16.1	16.7	15.8	15.5	16.7	15.4	16
0547	29203.456	16.4	16.3	16.3	16.2	16.9	16.1	14.6	16.1	16.0	16.1	16.8	15.1	15.7	16.4	15.0	16
0553	29204.484	16.5	16.1	16.2	16.4	16.8	15.7	14.4	15.8	15.3	15.7	16.8	16.2	15.3	16.4	15.0	16
0556	29205.575	16.7	16.1	16.1	16.0	16.6	15.7	14.3	16.3	15.5	16.1	16.6	16.4	15.6	16.8	15.1	16
0565	29217.448	16.5	16.2	16.3	16.2	16.7	16.0	14.9	16.0	15.7	16.2	16.8	15.9	15.3	16.3	15.1	15
0572	29219.343	16.9	16.0	16.3	16.0	16.8	15.4	14.4	16.0	16.3	16.0	16.9	16.0	15.7	16.6	14.9	16
0574	29220.400	16.9	15.8	16.3	16.1	16.8	15.7	14.6	16.2	15.4	16.0	16.9	16.1	15.7	16.7	14.9	16
0578	29221.336	16.1	15.7	16.4	15.8	16.7	15.8	14.4	16.3	15.7	15.9	16.8	16.2	15.4	16.9	15.3	16
0585	29222.409	16.7	16.1	16.3	15.6	16.9	15.8	14.4	16.1	15.5	15.8	16.9	15.8	15.4	16.3	15.2	16
0589	29223.406	16.7	16.3	16.3	15.3	16.9	15.2	15.1	16.3	16.3	15.8	16.9	15.4	15.5	16.3	15.0	16
0592	29224.395	16.9	16.2	16.2	15.8	16.9	15.7	15.3	16.3	15.4	16.1	16.9	15.6	15.7	16.5	15.4	15
0596	29228.404	16.9	16.0	16.2	16.3	16.9	15.8	14.8	16.3	15.5	16.0	16.9	16.4	15.8	16.5	14.9	16
0739	29349.242	16.4	16.0	16.5	16.0	16.9	15.9	15.1	16.3	15.6	16.2	16.8	16.0	15.6	16.9	15.4	16
2380	29517.224	16.9	16.2	16.3	16.2	16.9	15.6	15.4	16.2	15.3	16.4	16.7	15.1	15.2	16.4	14.8	16
21395	29518.630	16.6	16.1	16.3	15.5	16.3	15.7	15.6	16.0	15.6	16.2	16.6	15.4	15.3	16.7	15.2	16
21400	29519.613	16.5	16.0	16.0	16.9	15.7	15.5	16.0	15.6	16.3	16.8	15.8	15.5	16.9	15.3	16	
21416	29526.598	16.8	16.4	16.3	16.0	16.5	15.7	15.7	16.2	15.3	16.1	16.9	15.9	15.7	16.3	15.2	16
21445	29553.410	16.5	16.3	16.3	15.4	16.9	16.1	15.5	16.1	15.4	16.2	16.9	16.1	15.4	16.8	15.3	16
21463	29574.385	16.9	15.9	16.2	16.2	16.9	15.9	15.4	16.0	15.3	16.2	16.8	15.8	15.7	16.8	14.9	16
21469	29577.384	16.8	15.9	16.0	15.8	16.9	15.9	15.4	16.0	16.3	16.1	16.8	16.0	15.4	16.6	15.4	16
21491	29584.400	16.3	16.0	16.4	15.8	16.9	15.8	15.4	16.3	15.4	16.2	16.9	16.3	15.9	16.9	15.1	16
21496	29585.388	16.6	15.9	16.2	16.1	16.8	15.8	15.2	15.9	16.2	16.0	16.8	16.3	15.7	16.0	15.0	16
21520	29600.430	16.9	16.1	16.3	16.4	16.9	16.1	15.1	16.0	15.2	16.0	16.7	16.0	15.6	16.2	15.0	16
21522	29601.380	16.9	16.2	16.1	16.6	16.9	16.0	15.5	16.0	16.0	16.3	16.8	16.2	15.6	16.3	15.2	16



64	11992	2373	5669	5674	5680	5708	2413	2394	5683	2389	3794	2418	97
79	280	813	375	646	645	377	288	816	376	285	3794	734	
5.2	16.0	16.9	16.0	16.0	17.0	14.7 <sup>15.2</sup> 15.2	16.9	16.7	16.5	15.5	16.9	15.2 <sup>15.3</sup> 15.4	
5.4	16.2:	<16.3	16.3:	15.9:	<16.3	15.2 <sup>15.3</sup> 15.3	16.2:	16.2:	<16.4	15.5	16.3	16.2 <sup>15.7</sup> 15.7 <sup>15.8</sup>	
5.0	16.2	16.9	16.0	16.0	16.9	14.6 <sup>15.2</sup> 15.2	16.7	16.4	16.4	15.3	16.9	15.5 <sup>15.3</sup> 15.2	
5.0	16.5	16.0	15.9	15.8	17.0	14.8 <sup>14.8</sup> 14.7	16.9	16.7	16.5	15.7	16.5	15.2 <sup>15.2</sup> 15.3	
5.1	16.8	16.8	16.0	15.9	<16.7	15.2 <sup>15.2</sup> 15.2	16.7:	15.8	16.4:	15.3	16.9	15.6 <sup>15.3</sup> 15.4	
5.1	15.9	16.1	15.7	15.6	16.9	14.8 <sup>14.8</sup> 14.8	17.0	16.0	16.3	15.4	16.9	15.6 <sup>15.4</sup> 15.6	
4.9	16.6	16.9	16.0	16.2	17.0	14.4 <sup>14.5</sup> 14.6	16.6	16.2	16.3	15.3	16.3	14.9 <sup>15.0</sup> 15.2	
4.9	16.5	16.1	16.5	16.2	17.0	14.9 <sup>14.9</sup> 14.8	16.8	16.4	16.3	15.6	16.9	14.9 <sup>14.9</sup> 14.9	
5.3	16.0	16.8	15.7	16.0	17.0	15.0 <sup>15.2</sup> 15.3	16.9	16.5	16.3	15.4	16.9	15.2 <sup>15.3</sup> 15.2	
5.2	16.6	16.9	15.8	16.0	17.0	14.8 <sup>14.9</sup> 15.1	16.1	15.8	16.5	15.4	16.1	14.9 <sup>15.0</sup> 15.0	
5.0	16.8	16.2	15.8	16.2	16.9	14.9 <sup>15.0</sup> 15.1	16.5	16.1	16.4	15.7	16.0	15.2 <sup>15.2</sup> 15.2	
5.4	15.8	16.7	16.0	15.8	<16.7	15.4 <sup>15.4</sup> 15.3	16.9	16.8	16.4	15.6	16.9	15.6 <sup>15.6</sup> 15.6	
4.9	16.1	16.9	15.7	15.6	17.0	14.9 <sup>15.0</sup> 15.1	16.9	16.2	16.4	15.6	16.4	15.2 <sup>15.1</sup> 15.0	
5.4	16.1	16.5	16.1	16.1	16.8	15.4 <sup>15.5</sup> 15.5	16.9	16.7	16.4	15.8	16.2	15.7 <sup>15.5</sup> 15.4	
4.8	16.3	16.2	15.6	16.2	17.0	14.8 <sup>15.0</sup> 15.1	16.2	16.1	16.3	15.8	16.8	15.1 <sup>15.0</sup> 15.0	
5.2	16.3	<16.3	16.1:	16.2	<16.3	14.7 <sup>15.1</sup> 15.2	16.3:	16.3:	def	15.3:	16.3	15.3 <sup>15.4</sup> 15.3	
5.3	16.9	16.8	15.9	15.9	16.9	14.5 <sup>14.6</sup> 14.8	16.9	16.6	16.4	15.6	16.6	15.1 <sup>15.1</sup> 15.0	
5.2	16.8	16.9	15.8	16.6	16.9	14.5 <sup>14.6</sup> 14.8	16.5	16.1	16.3	15.2	16.9	15.4 <sup>15.2</sup> 15.0	
5.3	16.2	16.6	15.9	16.0	16.7	15.2 <sup>15.1</sup> 15.1	16.6	16.6	16.3	15.7	16.9	15.2 <sup>15.4</sup> 15.3	
4.9	16.7	16.8	15.8	16.0	16.9	14.8 <sup>14.8</sup> 14.8	16.0	16.5	16.3	15.4	16.8	15.2 <sup>15.2</sup> 15.3	
5.4	16.2	16.9	15.8	15.7	16.9:	14.8 <sup>14.8</sup> 14.8	16.7	16.4	16.5	15.5	16.9	15.3 <sup>15.3</sup> 15.3	
5.1	16.4	16.9	15.9	15.7	16.8	14.4 <sup>14.8</sup> 15.2	16.9	16.3	16.4	15.4	17.0	15.4 <sup>15.4</sup> 15.4	
5.0	16.5	16.2	15.8	16.0	16.7	15.2 <sup>15.2</sup> 15.2	16.9	16.0	16.3	15.3	16.5	15.2 <sup>15.3</sup> 15.3	
5.0	16.1	16.8	15.9	16.0	16.4	14.9 <sup>14.8</sup> 14.9	16.9	15.9	16.2	15.3	16.8	15.2 <sup>15.1</sup> 15.0	
5.2	16.0	16.4	16.8	15.6	16.5	14.7 <sup>14.8</sup> 14.9	16.9	16.1	16.4	15.3	16.5	15.2 <sup>15.2</sup> 15.2	



J.D.	263	260	523	262	54	261	107	90	259	275	27
21555 29626.278	16.3	14.6	<sup>14.7</sup> 14.6	16.0	15.9	13.0	15.4	15.0	15.1	13.9	13
21557 29627.308	16.6	14.5	<sup>14.4</sup> 14.0	16.3	15.0	13.3	15.2	15.6	14.4	14.0	15
21561 29629.388	16.7	14.3	<sup>14.5</sup> 14.4	16.7	15.5	12.9	15.1	15.6	15.0	14.0	1
22099 29855.136	16.6	13.8	<sup>14.2</sup> 14.5	16.8	15.8	13.6	15.9	15.9	15.1	14.0	15
22131 29869.637	16.9	14.8	<sup>14.3</sup> 14.7	16.4	16.0	13.1	15.4	16.0	14.7	14.3	13
22175 29881.575	16.9	14.3	<sup>14.5</sup> 14.8	16.9	15.4	12.9	15.2	14.8	15.0	14.0	13
22225 29913.598	16.9	15.0	<sup>14.5</sup> 14.9	16.8	15.9	13.3	15.7	14.1	14.4	14.3	15
22251 29926.949	16.9	15.1	<sup>14.4</sup> 14.9	16.1	15.8	13.2	15.6	15.5	15.0	14.3	15
22260 29927.447	16.8	14.8	<sup>14.5</sup> 14.7	16.2	15.4	12.8	15.7	15.8	15.1	14.2	13
22269 29933.563	16.9	15.1	<sup>14.4</sup> 14.3	16.9	15.5	13.2	15.7	14.9	15.0	14.2	13
22277 29936.541	17.0	13.5	<sup>14.6</sup> 15.1	16.9	16.0	13.3	15.3	16.0	15.0	14.1	13
22278 29939.499	16.6	13.8	<sup>14.3</sup> 14.3	16.8	15.1	13.3	15.4	15.9	14.8	14.2	13
22305 29956.396	17.0	15.1	<sup>14.4</sup> 14.4	17.0	15.5	13.0	15.3	15.9	14.8	14.0	13
22343 29974.482	16.6	15.0	<sup>14.5</sup> 14.6	16.2	16.1	13.3	15.1	16.0	14.4	14.0	13
22360 30023.355	16.5	13.2	<sup>14.4</sup> 14.3	16.8	15.6	13.0	15.2	15.6	15.3	13.9	13
22995 30318.554	16.5	15.0	<sup>14.2</sup> 14.2	16.8	15.9	13.1	15.3	15.6	14.4	13.8	13
23029 30346.271											
23041 30372.271	16.5	<sup>14.1</sup> 14.8	<sup>14.2</sup> 14.3	<sup>16.2</sup> 16.0	15.2	13.4	15.2	15.8	14.7	13.9	13
23043 30372.324	16.5	15.1	<sup>14.3</sup> 15.7	16.5	15.0	13.3	15.6	15.6	14.9	13.7	13
23044 30373.270	16.5	15.1	<sup>14.2</sup> 15.5	16.8	15.2	13.5	15.5	15.4	15.1	14.0	13
23046 30373.325	16.9	15.1	<sup>14.4</sup> 15.6	16.8	15.5	12.9	15.5	15.5	15.0	13.8	13
23411 30584.644	16.7	15.2	<sup>14.4</sup> 15.6	16.9	<sup>15.7</sup> 15.5	13.3	15.2	14.4	14.4	14.2	13
23415 30585.640	16.9	15.2	<sup>14.6</sup> 15.6	16.9	15.8	13.1	15.6	14.5	14.4	14.2	13
23422 30589.627	16.8	15.3	<sup>14.4</sup> 15.5	16.8	15.9	13.3	15.3	15.4	14.8	13.8	13
23424 30590.621	16.8	15.3	<sup>14.2</sup> 15.7	16.9	15.9	13.5	15.4	15.4	15.2	13.8	13



7.5	279'	11.8	25.7	25.8	80.3	99.8	25.5	28.3	5.3	7.40	
3.9	15.0	15.2	16.3	14.3	15.6	15.4	15.4	15.3	15.3	15.2	15.2
4.0	15.1	15.6	16.3	14.6	15.6	15.7	15.6	15.2	15.1	15.1	15.1
4.0	15.6	15.8	15.8	15.0	16.0	16.0	16.0	15.3	15.8	15.2	15.2
4.0	15.3	15.1	16.0	15.6	16.1	15.4	16.0	15.8	15.9	15.4	15.4
4.3	15.4	15.7	16.6	14.4	15.8	15.9	16.2	15.8	15.8	15.4	15.4
4.0	15.4	15.3	16.2	16.1	16.0	16.1	16.1	15.5	15.4	15.2	15.2
4.3	15.5	15.9	16.0	14.2	16.4	15.9	15.2	15.5	15.5	15.4	15.4
4.3	15.3	14.2	16.1	16.1	15.7	15.7	14.9	15.5	14.8	15.4	15.4
4.2	15.4	14.4	16.0	16.1	15.9	16.0	15.2	15.5	15.0	15.1	15.1
4.2	15.6	15.4	16.3	15.9	16.2	16.1	16.3	15.7	16.1	15.4	15.4
4.1	15.6	15.8	16.5	14.4	16.0	15.9	15.5	15.4	13.8	15.4	15.4
4.2	15.5	16.0	16.4	14.5	16.0	15.7	15.1	15.3	13.9	15.0	15.0
4.0	15.4	15.0	16.5	16.1	15.7	15.7	16.0	15.2	14.3	15.2	15.2
4.0	15.4	15.6	16.2	16.0	15.7	15.6	16.1	15.3	15.3	15.1	15.1
4.9	15.4	15.8	16.0	15.7	15.6	15.7	16.3	15.7	15.0	15.1	15.1
4.8	15.3	14.8	16.0	14.0	16.0	15.8	15.1	15.2	15.9	14.9	14.9
4.9	15.5	15.2	16.2	15.8	15.3	15.5	15.5	15.4	14.3	15.4	15.4
4.7	15.0	15.1	16.2	15.8	15.1	15.6	15.5	15.4	14.1	15.0	15.0
4.0	15.5	15.3	16.0	16.0	15.3	15.5	15.3	15.1	14.3	15.4	15.4
4.8	15.0	15.3	16.0	16.0	15.6	15.5	15.6	15.1	14.6	14.8	14.8
4.2	15.0	15.6	16.1	14.2	15.8	15.7	15.3	15.4	14.9	14.9	14.9
4.2	15.7	15.8	15.9	14.7	15.6	15.8	15.4	15.2	15.1	15.1	15.1
4.8	15.4	15.6	16.4	15.1	15.9	15.8	16.2	15.4	15.7	15.1	15.1
4.8	15.5	15.7	16.6	15.4	15.9	15.6	16.2	15.5	15.6	15.2	15.2



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HV2297	5547	2286	5548	2303	5581	5598	2324	5592	896	2
266	284	267	286	577	625	295	579	294	154	8
J.D.	16.4	16.1	16.2	15.5	16.4	15.5	17.0	15.2	14.7	15.4
21555	29626	16.4	16.1	16.2	15.5	16.4	15.5	17.0	15.2	14.7
21557	29627.80	16.2	16.1	16.0	15.1	15.8	15.6	17.0	14.8	15.2
21561	29629.3	15.5	16.2	16.4	15.3	16.4	15.7	17.0	15.0	14.6
22099	29855.1	15.9	16.7	16.5	15.7	15.7	15.7	17.0	15.8	14.9
22131	29869.63	16.5	16.6	16.7	15.0	16.4	15.9	17.0	15.8	14.8
22175	29881.5	16.2	16.3	16.2	15.4	16.3	15.8	17.0	16.1	15.3
22225	29913.59	16.1	16.5	16.2	15.4	16.5	16.0	17.0	15.8	14.8
22251	29926.4	16.6	16.4	16.3	15.4	16.5	15.9	17.0	16.4	14.9
22260	29927.49	16.1	16.7	16.4	15.4	16.8	15.6	17.0	16.1	14.8
22269	29933.5	16.4	16.1	16.4	15.8	15.9	15.8	17.0	15.5	15.0
22277	29936.5	16.1	16.2	16.5	15.4	16.0	15.5	17.0	16.4	14.8
22278	29939.4	15.8	16.3	16.2	15.6	16.4	15.4	17.0	16.2	14.5
22305	29956.39	16.0	16.7	16.4	15.4	16.7	15.8	17.0	16.2	15.3
22343	29974.4	15.6	16.2	16.0	15.4	16.3	15.8	16.3	15.8	14.5
22360	30023.35	16.4	16.4	16.4	15.3	16.6	15.7	17.0	15.8	15.0
22995	30318.53	15.6	16.4	16.1	15.6	16.2	15.4	17.0	15.8	14.9
23029	30346.27									
23041	30372.2	15.6	16.4	16.4	14.8	16.3	15.2	16.7	16.0	14.6
23043	30372.32	15.2	16.2	16.3	14.9	16.1	15.7	17.0	15.7	14.5
23044	30373.27	15.5	16.2	16.1	15.1	16.2	15.9	17.0	16.0	15.1
23046	30373.32	15.6	16.7	16.0	15.4	def.	15.8	17.0	15.9	14.8
23411	30584.64	16.2	16.3	16.2	15.4	16.4	15.1	17.0	15.1	14.3
23415	30585.64	16.6	16.6	16.2	15.4	15.4	15.7	17.0	15.5	14.5
23422	30589.62	15.4	16.3	16.6	15.2	16.7	15.6	17.0	16.2	14.9
23424	30590.62	15.8	16.7	16.4	15.5	15.9	15.7	17.0	16.3	14.7



2	2305	2308	5595	5609	2329	8918	2320	2319	895	11977	
4	802	578	804	808	271	57	270	580	91	121	
4	15.6	16.1	16.8	16.8	16.9	16.0	16.7	15.3	16.1	16.0	15.2
2	15.8	16.0	16.8	16.8	16.1	15.7	16.8	15.7	15.8	16.1	15.6
3	16.4	16.1	16.3	16.7	16.7	15.3	16.3	16.0	14.3	16.1	15.2
5	16.3	16.2	16.9	16.8	16.2	15.5	16.1	16.1	16.0	16.0	15.4
3	16.2	16.2	16.9	16.9	17.0	15.6	16.3	15.3	16.2	16.2	15.4
4	16.0	16.2	16.9	16.9	16.8	15.2	16.9	16.0	16.0	16.1	15.3
6	16.4	16.2	16.2	16.8	17.0	16.5	16.7	16.5	14.4	16.2	15.2
5	16.4	16.1	16.5	16.8	16.9	16.4	16.0	15.9	14.4	16.2	15.4
8	16.1	16.1	16.7	16.9	16.4	16.4	16.2	16.2	14.9	16.1	15.7
8	16.2	16.3	16.9	16.8	17.0	15.8	16.8	16.1	16.1	16.2	15.6
6	16.3	16.2	16.9	16.9	16.4	16.1	16.9	14.9	14.8	16.2	15.3
1	15.8	16.1	16.2	16.7	16.9	16.3	16.9	14.9	14.8	16.2	15.0
4	16.4	16.3	16.3	16.8	16.8	15.9	16.2	15.1	15.4	16.2	15.3
4	16.0	16.0	16.3	16.3	16.0	15.8	16.0	15.4	15.3	16.1	15.8
6	16.1	16.2	16.0	16.6	17.0	15.6	15.8	15.4	16.0	16.1	15.2
4	16.0	16.1	16.1	16.6	16.8	16.2	16.3	15.9	15.7	16.0	15.4
1	16.0	16.0	16.3	16.6	16.4	15.6	16.8	15.4	15.8	15.6	15.7
4	16.2	16.1	16.5	16.5	16.2	15.5	16.7	15.5	15.8	15.8	15.6
3	16.3	16.1	16.7	16.9	16.2	15.5	16.8	15.2	16.0	16.0	15.4
3	16.2	15.7	16.6	16.7	16.6	15.7	16.8	14.6	16.0	15.8	15.7
2	15.8	15.8	16.2	16.8	16.9	16.2	17.0	15.0	14.3	15.9	15.2
5	15.5	16.0	16.6	16.8	16.7	15.8	16.0	15.1	14.8	16.0	15.5
5	16.4	16.2	16.2	Blur	16.0	15.4	16.9	15.8	15.5	15.9	15.4
3	15.9	16.0	16.5	16.9	16.1	15.5	15.9	15.9	15.8	16.2	15.7



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J.D.

55.69	7	5574	2321	5628	5625	5630	910	2333	5616	2335	2340	2325	5642	119
624	741	742	685	51	282	686	281	56	272	296	353	354	351	279
21555	29627.6	16.9	16.4	16.2	16.0	16.9	15.8	15.7	16.2	16.8	16.1	15.6	16.5	15.0
21557	29627.80	16.8	16.0	15.9	16.0	16.8	15.8	15.4	15.9	15.5	16.2	16.6	15.2	15.4
21561	29629.3	16.6	16.3	16.4	16.0	16.7	15.7	15.2	15.7	15.4	16.2	16.8	15.7	15.8
22099	29855.1	16.9	16.0	16.0	16.3	16.9	15.9	14.6	16.0	15.4	16.1	16.9	16.2	15.8
22131	29869.63	16.3	16.1	16.2	16.0	16.8	16.0	14.5	16.0	15.6	16.1	16.7	16.3	15.6
22175	29881.5	16.9	16.4	16.3	16.2	16.8	16.0	14.4	16.0	15.4	16.0	16.6	15.4	15.7
22225	29913.5	16.3	15.9	16.2	16.0	16.9	15.8	14.6	15.8	15.8	16.1	16.9	15.4	15.8
22251	29926.4	16.1	16.0	16.3	16.1	16.8	16.1	14.6	16.1	15.4	16.2	16.8	16.3	16.0
22260	29927.4	16.3	16.4	16.3	16.2	16.9	16.0	14.5	16.1	16.0	14.1	14.9	16.4	15.5
22269	29933.3	16.9	16.0	16.4	15.7	28	16.0	14.7	16.0	15.6	16.0	16.8	16.2	15.8
22277	29936.5	16.9	16.1	16.1	16.0	16.9	16.1	14.6	16.0	15.5	15.9	16.9	16.0	16.0
22278	29939.4	16.2	16.2	16.3	16.0	16.9	16.1	14.8	16.2	16.2	16.1	16.7	15.5	16.0
22305	29956.39	16.9	16.2	16.2	16.5	16.8	16.1	14.8	16.1	15.6	15.9	16.9	16.1	16.0
22343	29974.4	16.3	16.2	16.1	16.3	16.3	16.0	14.8	15.8	15.2	16.3	16.3	15.7	15.4
22360	30023.35	16.3	16.1	16.2	16.0	16.9	16.0	14.5	15.9	15.2	16.1	16.7	15.8	15.9
22995	30318.55	16.9	16.0	16.1	15.3	16.9	15.6	14.8	16.2	15.3	16.2	16.9	15.4	15.8
23029	30346.27	16.8	16.0	16.2	15.8	16.9	16.0	14.8	16.3	15.4	16.1	16.6	15.7	15.8
23041	30372.2	16.8	15.9	16.2	15.4	17.0	15.7	14.7	16.1	15.4	16.0	16.9	15.5	15.7
23043	30372.32	16.8	15.9	16.2	15.4	17.0	15.7	14.7	16.1	15.4	16.0	16.9	15.5	15.7
23044	30373.27	16.0	15.8	16.5	16.1	17.0	16.0	14.7	16.1	15.6	16.0	17.0	15.4	15.6
23046	30373.32	16.0	15.5	16.1	15.7	16.9	15.7	14.9	16.2	15.6	16.1	16.9	15.2	15.7
23411	30584.64	16.4	15.8	15.9	15.2	16.9	15.7	14.9	16.2	15.4	16.2	16.9	16.1	15.6
23415	30585.64	16.8	16.0	16.2	15.2	17.0	15.7	14.9	16.4	15.7	16.2	16.8	16.1	15.8
23422	30589.62	16.9	15.7	15.9	16.9	16.9	15.8	14.7	16.2	15.4	16.1	16.9	16.0	15.9
23424	30590.62	17.0	15.8	16.2	16.1	17.0	15.4	14.5	16.0	15.7	16.3	16.9	16.0	15.7



42	11992	2373	5669	5674	5680	5708	2413	2394	5683	2389	5701	
9	280	813	375	646	645	377	288	816	376	285	373	
0	15.7	16.6	15.9	15.7	16.5	<sup>15.0 15.1</sup> 15.2	16.8	16.3	16.5	14.6	16.8	<sup>15.2 15.4</sup> 14.8 15.1
5	16.2	16.5	15.9	15.8	16.4	<sup>15.0 15.2</sup> 15.4	16.4	16.4	16.5	15.6	16.9	<sup>15.7 15.0</sup> 15.6 15.7
2	16.5	16.5	15.8	15.7	16.5	<sup>14.8 14.8</sup> 14.9	16.9	15.7	16.3	15.4	16.9	<sup>15.2 15.1</sup> 15.0
9	16.7	16.9	15.9	15.9	17.0	<sup>15.1 15.1</sup> 15.1	16.9	16.3	16.3	15.5	16.8	<sup>15.4 15.3</sup> 15.3
6	16.9	16.2	15.9	15.9	17.0	<sup>14.7 14.7</sup> 15.0	16.2	16.1	16.4	15.5	17.0	<sup>15.4 15.3</sup> 15.3
1	16.6	16.9	16.8	15.8	<17.0	<sup>14.9 15.1</sup> 15.3	16.2	16.9	16.5	15.4	17.0	<sup>15.3 15.2</sup> 15.0
0	17.0	16.9	16.9	15.8	16.6	<sup>15.2 15.1</sup> 14.9	16.9	16.8	16.6	15.5	16.8	<sup>15.2 15.3</sup> 15.3
9	16.2	16.9	16.1	15.9	16.6	<sup>14.5 14.6</sup> 15.0	16.4	16.8	16.7	15.5	16.9	<sup>15.4 15.4</sup> 15.3
0	16.3	16.2	16.8	15.9	16.6	<sup>14.6 14.6</sup> 15.0	16.9	16.7	16.5	15.6	17.0	<sup>15.7 15.0 15.3</sup> 15.1
8	15.9	16.1	16.0	16.0	16.6	<sup>14.4 14.6</sup> 14.7	16.9	16.2	16.5	15.7	16.9	<sup>15.6 15.0</sup> 15.3
0	def.	16.9	16.0	15.7	16.9	<sup>14.6 14.7</sup> 14.8	16.4	16.6	16.5	15.4	17.0	<sup>15.3 15.4</sup> 15.4
9	16.9	16.6	15.9	15.9	16.9	<sup>14.5 14.7 14.6</sup> 15.5	16.7	16.5	16.5	15.4	17.0	<sup>15.0 15.0</sup> 15.0
9	16.9	16.4	16.0	15.8	17.0	<sup>14.8 14.9</sup> 15.1	16.9	16.8	16.7	15.4	16.9	<sup>15.3 15.3</sup> 15.4
8	<16.6	16.4	15.9	15.7	<16.6	<sup>14.6 14.8</sup> 14.9	<16.6	15.4	16.5	15.7	16.6	<sup>15.8 15.6</sup> 15.4
9	16.9	16.3	16.0	15.6	17.0	<sup>14.5 14.7 14.7</sup> 15.0	16.3	15.8	16.5	15.6	17.0	<sup>15.2 15.2</sup> 15.2
9	16.9	16.7	15.9	15.9	17.0	<sup>15.2 15.2</sup> 15.2	16.4	15.9	16.6	15.7	16.8	<sup>15.4 15.4</sup> 15.5
2	16.5	16.8	15.9	15.7	<17.0	<sup>14.6 15.3 15.1</sup> 15.3	16.8	15.7	16.6	15.6	17.0	<sup>15.7 15.6</sup> 15.3
4	16.4	16.8	16.0	15.8	16.9	<sup>15.2 15.2</sup> 15.2	16.9	15.8	16.6	15.8	17.0	<sup>15.6 15.6</sup> 15.6
7	17.0	17.0	16.1	16.0	16.9	<sup>14.8 15.0</sup> 15.2	17.0	16.2	16.6	15.7	16.2	<sup>15.4 15.5</sup> 15.6
9	16.7	16.9	15.8	15.9	16.5	<sup>15.0 15.1</sup> 15.1	17.0	16.0	16.5	15.7	16.4	<sup>15.7 15.7</sup> 15.6
3	16.3	16.8	15.9	16.0	17.0	<sup>15.4 15.4</sup> 15.4	16.9	15.9	16.5	15.8	17.0	<sup>15.2 15.4</sup> 15.5
3	16.9	16.2	16.1	15.8	<17.0	<sup>15.6 15.6</sup> 15.5	16.4	16.3	16.5	15.8	16.3	<sup>15.5 15.5</sup> 15.6
3	16.5	16.8	16.0	15.8	<17.0	<sup>15.4 15.4</sup> 15.4	16.3	16.2	16.6	15.7	17.0	<sup>15.4 15.4</sup> 15.6
4	16.0	17.0	16.0	15.9	<17.0	<sup>15.2 15.3</sup> 15.4	16.5	16.6	16.6	15.7	17.0	<sup>15.9 15.6</sup> 15.6



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J. D.	263	260	523	262	54	261	107	90	259	275	27
23427 30593.636	16.8	15.3 15.6	<sup>14.8</sup> 15.1	16.9	15.8	13.2	15.7	16.0	15.1	14.2	1
23428 30615.582	16.9	15.3 15.6	<sup>14.4</sup> 15.0	16.5	15.6	13.1	15.4	15.0	15.0	13.9	1
23449 30619.617	16.6	13.7 15.7	<sup>14.1</sup> 14.2	16.5	15.9	13.3	15.3	14.0	14.5	14.0	1
23450 30620.535	16.5	14.3	<sup>14.7</sup> 15.0	15.9	15.8	13.5	15.4	def.	14.6	14.3	1
23453 30624.618	16.4	14.2	<sup>15.0</sup> 14.6	16.9	15.8	13.1	15.4	15.7	14.8	14.0	1
23458 30639.589	16.9	13.8	<sup>14.4</sup> 14.4	16.3	15.7	13.1	15.4	14.7	15.1	14.0	1
23462 30640.598	16.3	13.6	<sup>14.4</sup> 14.6	16.5	15.7	13.4	15.5	15.0	14.8	14.0	1
23466 30641.571	16.9	13.9	<sup>14.5</sup> 14.5	16.8	15.6	13.1	15.5	15.2	15.0	14.2	1
23471 30647.582	16.5	14.3	<sup>14.0</sup> 14.1	16.3	15.8	13.0	15.1	15.7	14.8	14.1	1
23566 30766.273	16.9	15.3	<sup>14.6</sup> 15.0	16.5	15.5	13.2	15.6	16.0	15.0	14.3	1
23904 30977.564	16.9	15.1	<sup>14.3</sup> 14.8	def.	15.7	13.1	15.0	14.3	15.0	13.9	1
23953 31055.568	16.5	15.3	<sup>14.6</sup> 14.5	15.9	15.4	13.2	15.4	15.7	14.5	14.0	1
23954 31060.548	16.1	15.3	<sup>14.4</sup> 14.4	16.5	15.6	13.2	15.6	15.7	14.6	14.4	1
23959 31066.565	16.8	14.0	<sup>14.6</sup> 14.3	16.3	15.4	13.2	15.1	14.8	14.6	14.0	1
23968 31106.359	16.9	14.2	<sup>14.4</sup> 14.4	16.0	15.2	12.9	15.5	15.6	14.5	13.8	1
23971 31107.354	17.0	13.8	<sup>14.9</sup> 14.9	<del>16.0</del>	15.6	13.0	15.5	15.8	15.4	13.7	1
23979 31108.358	16.4	13.7	<sup>14.4</sup> 14.8	16.2	15.8	13.0	15.5	15.6	14.6	13.9	1
23987 31109.457	16.8	14.0	<sup>14.4</sup> 14.6	<del>16.2</del>	15.6	13.4	15.5	15.7	14.8	14.0	1
24425 31297.632	16.9	14.6	<sup>14.3</sup> 14.3	16.3	15.1	12.7	15.3	15.7	14.5	13.8	1
24446 31299.628	16.8	13.9	<sup>14.5</sup> 14.5	16.1	16.0	13.3	15.4	15.9	14.5	14.3	1
24451 31304.630	17.0	14.4	<sup>14.5</sup> 14.6	16.9	15.8	13.2	15.6	13.8	15.1	14.2	1
24467 31314.617	16.3	def.	<sup>14.4</sup> 14.4	16.1	15.2	13.4	15.5	15.8	15.4	14.0	1
24469 31316.606	16.4	15.1	<sup>14.4</sup> 14.6	16.3	15.6	13.1	15.8	16.0	15.4	14.0	1
24483 31317.599	16.6	15.1	<sup>14.4</sup> 14.5	16.5	15.8	13.3	15.4	16.0	15.6	14.3	1
24487 31318.637	16.2	13.9	<sup>14.6</sup> 15.1	16.9	15.7	13.1	15.5	14.4	15.1	14.0	1



279'	118	257	258	803	998	255	283	53	740		
15.6	14.0	16.0	15.9	16.1	15.9 <sup>15.5</sup>	16.0	15.6	14.7	14.9	1.0	15.5 <sup>15.5</sup> 15.6
15.6	15.3	16.3	14.3	15.5	15.5 <sup>15.5</sup>	15.9	15.1	15.6	15.0	7.0	15.7 <sup>15.6</sup> 15.4
15.1	14.2	16.0	16.0	15.8	15.7 <sup>15.8</sup>	15.2	15.4	15.6	15.0	1.9	15.4 <sup>15.3</sup> 15.1
15.5	14.0	16.3	16.2	16.4	15.9 <sup>15.9</sup>	15.8	15.4	15.6	15.2	6.7	15.4 <sup>15.5</sup> 15.6
15.5	14.4	16.0	16.1	15.4	15.4 <sup>15.5</sup>	15.5	15.5	15.6	15.4	6.7	15.4 <sup>15.4</sup> 15.3
15.3	15.7	16.2	15.8	15.8	15.8 <sup>15.8</sup>	15.9	15.5	15.6	15.3	7.0	15.4 <sup>15.3</sup> 15.3
15.1	15.7	15.8	16.0	16.1	15.8 <sup>15.8</sup>	16.0	15.3	15.7	15.1	6.7	15.1 <sup>15.0</sup> 15.0
15.4	15.7	15.8	15.9	16.0	15.7 <sup>15.7</sup>	16.3	15.7	14.8	15.1	7.0	15.6 <sup>15.4</sup> 15.2
15.5	13.8	16.2	16.1	15.8	15.7 <sup>15.8</sup>	15.2	15.3	15.2	15.1	6.8	15.4 <sup>15.3</sup> 15.2
15.4	16.0	16.2	15.3	16.3	15.7 <sup>15.7</sup>	16.3	15.8	15.9	15.4	1.0	15.3 <sup>15.2</sup> 15.1
15.3	15.7	16.0	16.1	15.8	15.8 <sup>15.7</sup>	15.7	15.6	14.4	15.2	1.9	15.4 <sup>15.5</sup> 15.7
15.6	15.6	15.9	15.1	15.7	15.7 <sup>15.7</sup>	16.0	15.6	15.5	15.2	1.9	15.6 <sup>15.6</sup> 15.5
15.5	14.8	16.4	15.9	16.0	15.9 <sup>15.8</sup>	16.0	15.8	15.6	15.3	1.7	15.6 <sup>15.6</sup> 15.6
15.6	15.4	16.0	16.0	15.9	15.7 <sup>15.7</sup>	15.4	15.5	15.6	15.3	6.9	15.4 <sup>15.4</sup> 15.4
15.4	15.8	16.0	15.8	16.3	15.9 <sup>16.0</sup>	15.8	15.6	13.8	15.2	6.9	15.5 <sup>15.4</sup> 15.3
15.4	15.5	16.2	16.0	16.4	15.8 <sup>15.8</sup>	15.9	15.5	14.0	15.2	1.9	15.3 <sup>15.3</sup> 15.4
15.4	15.5	16.2	16.1	16.2	15.7 <sup>15.7</sup>	16.2	15.7	14.3	15.4	7.0	15.3 <sup>15.4</sup> 15.4
15.3	14.4	16.5	15.7	15.6	15.4 <sup>15.5</sup>	16.4	15.5	14.5	15.2	7	15.7 <sup>15.7</sup> 15.7
15.1	14.6	16.0	14.1	15.6	15.7 <sup>15.6</sup>	15.8	15.0	14.0	15.1	6.3	15.8 <sup>15.7</sup> 15.7
15.2	15.3	15.9	14.2	16.2	15.9 <sup>15.9</sup>	16.3	15.7	14.6	15.1	7.0	15.5 <sup>15.5</sup> 15.6
15.5	15.8	16.5	15.5	15.4	15.4 <sup>15.4</sup>	15.3	15.3	15.3	15.1	6.9	15.4 <sup>15.3</sup> 15.2
15.4	15.7	16.0	15.8	15.5	15.6 <sup>15.6</sup>	15.6	15.3	14.0	15.1	7.0	15.6 <sup>15.6</sup> 15.6
15.6	14.1	16.0	16.1	15.8	15.8 <sup>15.7</sup>	15.4	15.7	14.4	15.3	6.9	15.6 <sup>15.6</sup> 15.4
15.4	13.9	16.0	15.8	15.7	15.6 <sup>15.6</sup>	15.3	15.4	14.6	15.2	7.0	15.7 <sup>15.7</sup> 15.7
15.2	14.5	16.3	14.6	16.2	15.7 <sup>15.6</sup>	15.8	15.4	15.4	15.1	6.0	15.2 <sup>15.3</sup> 15.4



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HV2297	5547	2286	5548	2303	5581	5598	2324	5592	896	23
266	284	267	286	377	625	295	579	294	154	8
	16.5 16.4	16.2 15.9	15.5 15.2					15.0 14.9		16.2
23427 30593.636	16.4	16.2	15.6	15.5	16.7	15.8	16.7	15.8	14.8	15.7
	16.2 16.2	16.3 16.3	15.2 15.3					15.1 15.0		16.1
23428 30595.532	16.2	16.2	16.3	15.3	16.0	15.4	17.0	15.9	14.8	15.3
	16.5 16.5	16.5 16.5	15.3 15.4					15.0 15.0		15.6
23449 30619.617	16.0	16.5	16.5	15.4	15.5	15.1	17.0	16.2	15.0	15.6
	16.4 16.5	16.0 16.0	15.3 15.4					15.2 15.2		15.1
23450 30620.535	16.4	16.5	16.0	15.5	16.4	15.4	16.7	16.1	15.2	15.6
	16.3 16.3	16.0 16.0	15.5 15.5					14.8 14.8		16.3
23453 30624.618	15.8	16.3	16.1	15.6	15.8	16.0	16.7	15.4	14.8	15.7
	16.3 16.4	16.3 16.3	15.5 15.5					14.6 14.5		16.1
23458 30639.589	16.4	16.4	16.3	15.5	15.9	15.8	17.0	14.6	14.3	15.6
	16.5 16.5	16.0 16.1	15.6 15.6					14.5 14.4		16.3
23462 30640.598	16.7	16.6	16.3	15.7	15.9	15.6	17.0	14.6	14.3	15.3
	16.4 16.4	16.4 16.4	15.3 15.2					14.8 14.6		16.3
23466 30641.581	16.5	16.4	16.5	15.1	16.7	15.5	17.0	14.7	14.4	15.6
	16.4 16.4	16.2 16.1	15.3 15.3					14.8 14.9		16.0
23471 30647.582	16.3	16.5	16.0	15.4	16.6	16.2	17.0	16.2	15.0	15.4
	16.4 16.3	16.3 16.3	15.5 15.7					15.0 14.8		15.9
23566 30766.273	16.6	16.3	16.3	15.9	15.9	16.4	17.0	16.2	14.6	15.7
	16.4 16.4	16.3 16.2	15.4 15.4					14.8 14.7		16.8
23904 30977.564	16.0	16.5	16.1	15.3	16.7	15.6	17.0	16.0	14.6	15.5
	16.0 16.0	16.0 15.9	15.3 15.3					14.8 14.9		15.9
23953 31055.568	16.2	16.1	15.9	15.3	16.6	15.7	16.7	15.7	15.0	15.6
	16.7 16.7	16.3 16.2	15.5 15.5					14.8 14.8		16.1
23954 31060.548	15.8	16.6	16.2	15.6	16.3	15.7	17.0	14.8	14.8	15.8
	15.8 15.9	16.0 16.0	15.3 15.2					14.6 14.8		16.3
23959 31066.565	16.3	16.0	16.0	15.2	16.2	15.4	16.3	15.8	14.9	15.3
	16.5 16.6	16.3 16.3	15.7 15.6					14.9 14.9		16.0
23968 31106.359	15.8	16.6	16.3	15.5	15.7	15.8	16.7	15.5	15.0	15.6
	16.4 16.5	16.7 16.7	15.4 15.5					14.8 14.8		16.4
23971 31107.354	15.7	16.5	16.7	15.5	16.2	15.7	16.7	15.7	14.9	15.8
	16.4 16.5	15.8 15.9	15.6 15.6					14.8 14.9		15.7
23979 31108.358	16.0	16.6	15.9	15.6	16.6	15.7	17.0	15.8	15.0	15.7
	16.2 16.2	16.3 16.2	15.5 15.5					15.1 14.9		15.7
23987 31109.457	16.0	16.1	16.1	15.5	16.7	16.6	17.0	15.9	14.8	15.6
	16.0 15.9	16.1 16.0	15.3 15.2					14.8 14.7		16.1
24425 31297.632	15.7	15.9	15.9	15.1	16.1	15.4	16.7	15.8	14.6	15.4
	16.6 16.6	16.3 16.4	15.7 15.6					14.8 14.6		16.1
24446 31299.628	16.5	16.5	16.4	15.5	16.6	15.3	16.7	16.5	14.5	15.6
	16.5 16.5	16.1 16.2	15.5 15.4					14.9 15.0		16.1
24451 31304.630	15.8	16.5	16.3	15.8	16.7	16.5	17.0	15.4	15.1	15.8
	16.5 16.5	15.8 15.9	15.4 15.4					14.7 14.8		16.1
24467 31314.617	15.8	16.5	15.9	15.4	16.7	15.5	17.0	15.9	14.9	15.5
	16.3 16.4	16.3 16.4	15.8 15.6					14.8 14.9		16.1
24469 31316.606	16.1	16.4	16.4	15.8	16.3	16.2	17.0	15.9	15.0	15.7
	16.2 16.3	15.9 15.9	15.4 15.3					14.8 14.8		15.7
24483 31317.579	16.3	16.5	16.0	15.3	16.4	15.5	17.0	15.5	14.8	15.7
	16.2 16.3	16.4 16.4	15.4 15.4					14.8 14.8		16.1
24487 31318.627	15.8	16.4	16.5	15.3	16.4	15.6	17.0	15.1	14.8	15.8



96	2305	2308	5595	5609	2327	894	2320	2319	895	11977	704	2410	109
4	802	578	804	808	271	57	270	580	91	121	73	734	
7	16.1	16.1	16.1	16.8	16.2	15.9	16.7	16.5	16.4	16.2	1.0	15.5	15.5
3	16.0	16.0	16.2	16.7	16.6	15.8	15.7	15.6	16.2	16.1	7.0	15.7	15.6
6	16.0	16.1	16.1	16.7	16.1	16.2	15.7	15.1	16.2	16.2	1.9	15.4	15.3
6	16.0	16.2	16.3	16.7	16.5	14.0	16.1	15.2	16.0	16.2	6.7	15.4	15.5
7	16.4	16.1	16.3	16.6	16.8	16.0	15.9	15.9	15.3	16.3	6.7	15.4	15.4
6	16.1	16.1	16.8	16.7	16.6	15.4	15.9	15.3	15.4	16.1	17.0	15.4	15.3
3	16.6	16.2	16.0	16.6	17.0	15.4	16.6	15.8	15.8	16.2	6.7	15.1	15.0
6	16.3	16.1	16.3	16.6	16.9	15.8	16.7	15.7	15.8	16.1	7.0	15.6	15.4
4	16.3	16.1	16.4	16.5	16.9	16.1	16.9	16.3	15.7	15.9	6.8	15.4	15.3
7	16.1	16.3	16.2	16.6	16.2	15.8	16.8	16.3	15.1	16.0	1.0	15.3	15.2
5	16.3	16.1	16.6	16.7	17.0	15.9	16.6	16.1	15.8	16.0	1.9	15.4	15.5
6	15.9	16.1	16.0	16.5	16.9	15.3	16.9	15.1	16.0	16.3	1.9	15.6	15.6
8	16.3	16.0	16.3	16.7	16.9	16.1	16.8	15.8	15.4	16.0	1.7	15.6	15.6
3	16.1	16.0	15.9	Blow	16.9	15.8	16.9	16.2	15.5	16.0	6.9	15.4	15.4
6	16.4	16.0	17.0	16.5	16.1	15.4	16.1	14.9	16.0	16.1	6.9	15.5	15.4
8	16.2	16.1	16.3	16.6	16.7	15.6	16.8	14.9	15.9	16.2	1.9	15.3	15.3
7	15.8	16.1	16.2	16.7	16.9	15.7	16.9	14.8	16.0	16.2	7.0	15.3	15.4
6	15.8	16.2	16.9	16.8	17.0	15.6	16.9	15.0	16.1	16.0	7	15.7	15.7
4	16.0	16.1	16.3	16.4	16.2	15.4	16.6	15.3	15.0	15.9	6.3	15.8	15.7
6	16.3	16.4	16.2	16.8	17.0	16.0	16.7	15.0	16.0	16.2	7.0	15.5	15.6
8	16.2	16.2	16.2	16.6	16.7	16.0	16.1	15.9	16.1	16.1	6.9	15.4	15.3
5	16.1	16.1	16.7	16.7	17.0	16.2	16.5	15.8	15.9	15.8	7.0	15.6	15.6
7	16.1	16.1	16.0	16.4	16.2	16.2	16.9	14.5	16.1	16.1	6.9	15.6	15.6
7	15.5	16.3	16.4	16.7	16.9	16.0	15.8	14.8	16.1	16.0	17.0	15.7	15.7
8	16.3	16.3	16.0	16.5	16.7	15.4	16.4	15.9	14.9	16.1	6.0	15.2	15.4



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J.D.

23427	30593.686	16.7	16.4	16.2	16.6	16.9	15.7	15.2	16.2	15.7	16.2	16.8	16.2	16.0	16.8	15.0
23430	30605.532	16.0	15.8	16.1	16.5	17.0	15.6	14.8	15.7	15.5	16.1	16.7	15.7	15.6	16.9	15.2
23449	30619.617	16.6	16.2	16.2	16.1	17.0	15.7	14.9	16.1	15.4	16.2	16.7	15.5	15.7	16.8	14.9
23450	30620.535	16.9	16.6	16.1	15.7	16.9	15.6	15.2	16.0	15.4	16.1	16.9	16.1	15.9	17.0	15.0
23453	30624.618	16.9	15.8	16.2	16.0	17.0	15.9	15.4	16.1	15.7	16.2	16.1	15.8	16.9	14.5	
23458	30639.589	17.0	16.5	16.3	15.9	16.8	15.5	14.9	15.9	15.5	16.3	16.9	16.4	15.6	17.0	14.9
23462	30640.598	16.2	16.3	16.3	15.9	16.9	15.6	14.9	15.8	15.5	16.1	16.8	16.2	15.6	16.3	15.0
23466	30641.581	16.5	16.2	16.2	15.8	16.9	15.5	14.6	16.1	15.4	16.2	16.9	15.5	15.5	16.1	14.9
23471	30647.582	17.0	16.0	16.1	15.6	16.9	15.5	15.0	16.2	15.6	16.3	16.9	16.2	15.7	16.7	14.8
23566	30766.273	16.9	16.0	16.3	16.0	16.9	15.5	15.4	16.1	15.5	16.3	16.8	16.2	15.8	16.9	14.9
23904	30997.564	16.2	16.2	16.2	15.7	16.9	15.6	15.0	16.2	15.4	16.1	16.9	15.8	15.6	16.9	15.3
23953	31055.568	17.0	15.4	16.3	15.6	17.0	15.8	15.2	16.0	15.8	16.1	16.9	15.4	15.7	16.8	15.1
23954	31060.548	16.9	16.1	16.1	15.9	16.9	15.8	15.1	16.1	15.4	16.0	16.9	16.3	15.6	16.8	15.2
23959	31066.565	16.8	16.0	16.2	16.1	16.7	15.7	15.2	16.2	15.4	16.2	16.6	16.1	15.7	16.7	15.4
23968	31106.359	17.0	16.1	16.2	15.2	16.9	15.8	15.1	16.1	15.8	16.1	16.9	16.2	15.8	17.0	15.5
23971	31107.354	16.9	16.4	16.2	15.4	16.9	15.9	15.4	16.2	15.7	16.2	16.9	16.6	15.8	16.4	15.0
23979	31108.358	17.0	16.3	16.2	15.6	16.9	15.7	15.3	16.2	15.6	16.1	17.0	16.2	16.1	17.0	15.0
23987	31109.457	16.0	15.8	16.2	15.9	16.8	15.7	15.4	16.1	15.4	16.2	16.9	15.6	15.9	16.9	15.0
24425	31297.632	16.0	15.8	16.0	15.1	17.0	15.8	15.4	16.2	15.5	16.1	16.8	16.2	15.7	16.9	15.4
24446	31299.628	17.0	16.1	16.1	15.7	17.0	15.7	15.0	16.2	15.6	16.2	17.0	15.7	15.8	16.8	14.9
24451	31304.630	16.9	16.4	16.1	16.6	16.9	15.8	14.8	16.0	15.5	16.0	16.8	16.3	15.8	16.2	15.1
24467	31314.617	16.8	16.1	16.1	15.8	16.9	15.7	14.6	16.0	15.5	16.2	16.8	16.0	15.8	16.7	15.0
24469	31316.606	16.8	16.0	16.1	16.2	16.9	15.7	14.8	16.0	15.4	16.0	16.9	15.4	15.7	16.8	14.9
24483	31317.599	16.9	15.7	16.2	16.2	16.9	15.7	15.0	16.2	15.6	16.1	16.9	15.5	15.7	16.8	15.2
24487	31318.627	16.8	16.0	16.0	16.0	16.9	15.5	15.0	16.0	15.5	16.1	16.7	16.3	15.6	16.9	15.0



1	11992	2373	5669	5674	5680	5708	2413	2391	5683	2389	5701	2410	109
9	280	813	375	646	645	377	288	816	376	285	373	734	
0	16.9	16.9	16.0	15.8	<17.0	<sup>15.0</sup> 15.1	16.4	16.2	16.6	15.4	17.0	<sup>15.5</sup> 15.6	
2	16.0	16.7	16.0	16.1	<17.0	<sup>14.9</sup> 14.9	16.7	16.0	16.6	15.7	17.0	<sup>15.7</sup> 15.6	
9	15.8	17.0	15.9	16.0	<17.0	<sup>15.0</sup> 15.2	16.9	16.4	16.3	15.7	16.9	<sup>15.4</sup> 15.3	
0	16.0	16.8	16.3	<sup>15.5</sup> 15.5	<16.7	<sup>15.3</sup> 15.2	16.8	16.8	16.5	15.6	<16.7	<sup>15.4</sup> 15.6	
5	16.6	16.2	15.9	<sup>15.6</sup> 15.6	16.6	<sup>14.5</sup> 14.5	16.7	16.7	16.4	15.4	16.7	<sup>15.4</sup> 15.3	
9	16.5	16.9	15.9	16.0	<17.0	<sup>15.3</sup> 15.3	16.9	15.9	16.6	15.4	<17.0	<sup>15.4</sup> 15.3	
0	16.7	16.6	15.9	15.9	17.0	<sup>14.8</sup> 14.7	16.9	16.5	16.5	15.4	16.7	<sup>15.1</sup> 15.0	
9	15.6	16.9	16.1	15.8	17.1	<sup>14.9</sup> 14.9	16.9	16.8	16.6	15.7	17.0	<sup>15.6</sup> 15.4	
8	16.3	16.8	15.8	15.8	16.9	<sup>15.0</sup> 15.0	17.0	16.0	16.6	15.7	16.8	<sup>15.4</sup> 15.3	
9	16.3	16.6	15.8	16.0	17.0	<sup>14.9</sup> 15.1	16.9	16.8	16.4	15.7	17.0	<sup>15.3</sup> 15.2	
3	15.9	17.0	15.8	16.0	16.5	<sup>15.1</sup> 15.0	16.8	16.8	16.8	15.6	16.9	<sup>15.4</sup> 15.5	
1	16.8	16.7	def.	<sup>16.2</sup> 16.4	<17.0	<sup>15.4</sup> 15.4	16.9	16.3	16.4	15.8	16.9	<sup>15.6</sup> 15.5	
2	16.9	16.9	16.2	16.0	<16.7	<sup>14.9</sup> 15.0	16.5	16.5	16.5	15.5	<16.7	<sup>15.6</sup> 15.6	
4	16.3	16.5	15.8	16.0	<16.7	<sup>14.9</sup> 15.2	16.0	15.7	16.5	15.6	16.9	<sup>15.4</sup> 15.4	
5	def.	17.0	16.9	16.0	17.1	<sup>14.8</sup> 14.9	16.8	16.7	16.4	15.6	16.9	<sup>15.5</sup> 15.3	
0	16.6	16.5	16.5	16.0	16.9	<sup>15.0</sup> 15.0	16.1	16.3	16.5	16.6	16.9	<sup>15.3</sup> 15.4	
0	16.9	16.9	15.9	15.8	16.8	<sup>14.9</sup> 14.9	16.9	16.0	16.4	15.6	17.0	<sup>15.3</sup> 15.4	
0	15.6	17.0	16.0	15.9	17.0	<sup>15.1</sup> 15.2	17.0	16.6	16.6	15.7	16.7	<sup>15.7</sup> 15.7	
4	16.4	16.9	15.8	<sup>16.2</sup> 16.2	16.8	<sup>15.4</sup> 15.4	16.1	16.9	16.4	15.8	16.3	<sup>15.8</sup> 15.7	
9	16.0	16.7	15.8	15.7	17.0	<sup>14.9</sup> 14.9	16.9	16.1	16.5	15.7	17.0	<sup>15.5</sup> 15.6	
1	16.2	17.0	16.0	15.9	16.8	<sup>14.8</sup> 14.8	16.8	16.7	16.6	15.7	16.9	<sup>15.4</sup> 15.3	
0	16.2	16.3	15.9	15.9	17.0	<sup>14.9</sup> 15.0	16.8	16.9	16.6	15.6	17.0	<sup>15.6</sup> 15.6	
9	16.7	16.9	16.0	15.8	<17.0	<sup>14.7</sup> 14.8	17.0	16.1	16.6	15.6	16.9	<sup>15.6</sup> 15.4	
2	16.0	16.9	16.1	15.8	17.0	<sup>15.1</sup> 15.2	16.2	16.5	16.6	15.6	17.0	<sup>15.7</sup> 15.7	
0	15.9	16.3	15.9	16.0	16.0	<sup>14.9</sup> 14.7	16.3	16.5	16.6	15.5	16.0	<sup>15.2</sup> 15.4	



	J. D.	263	260	523	262	54	261	107	90	259	275	277
24496	31324.624	15.8	14.2	<sup>14.9</sup> 14.6	15.8	15.8	13.5	15.5	15.0	15.3	14.3	13.5
24502	31325.615	16.9	14.4	<sup>14.2</sup> 14.2	16.4	15.3	13.0	15.4	14.5	14.4	14.0	13.5
24509	31326.634	16.9	14.4	<sup>14.4</sup> 14.5	16.8	15.5	13.3	15.5	14.4	14.5	14.3	13.5
24516	31327.634	16.9	15.1	<sup>14.5</sup> 14.9	16.8	15.8	13.3	15.6	15.4	15.1	14.3	13.5
24526	31328.617	16.3	15.0	<sup>14.3</sup> 14.4	17.0	15.8	13.1	15.5	15.4	14.9	14.0	13.5
24531	31332.625	16.3	15.3	<sup>14.9</sup> 15.0	16.1	15.4	13.2	15.4	16.2	14.5	14.0	13.5
24547	31348.570	16.5	14.8	<sup>14.5</sup> 14.5	<del>16.6</del>	15.8	13.3	def.	16.4	14.5	14.3	13.5
24591	31415.437	16.9	15.2	<sup>14.6</sup> 14.6	16.1	15.8	13.4	15.7	15.4	15.0	14.3	13.5
8x10				<sup>14.4</sup> 14.5								
24606	31438.363	16.9	14.8	14.5	16.8	15.8	13.3	15.7	15.8	15.2	13.8	13.5
24608	31439.328											
8x10				<sup>14.5</sup> 14.7								
24610	31439.379	16.4	15.4	14.9	16.6	15.8	13.0	15.2	15.3	15.1	14.0	13.5
24666	31496.277	16.4	14.3	<sup>14.3</sup> 14.4	16.8	15.8	13.1	15.5	13.9	15.0	14.0	13.5
24959	31657.649	16.4	15.0	<sup>14.5</sup> 14.5	16.2	15.8	12.9	15.5	15.8	15.3	def.	13.5
25140	31740.496	16.9	15.1	<sup>14.5</sup> 14.6	16.6	15.9	12.9	15.3	15.0	14.5	13.8	13.5
25169	31785.395	17.0	15.3	<sup>14.9</sup> 14.8	16.5	16.0	13.0	15.5	15.2	14.8	14.0	13.5
25174	31796.415	16.7	14.6	<sup>14.5</sup> 14.6	16.9	15.8	13.1	15.4	15.6	15.1	13.8	13.5
25443	32011.649	16.5	15.1	<sup>14.7</sup> 14.4	16.4	15.8	13.2	15.5	14.0	14.6	13.8	13.5
25444	32012.641	16.8	15.2	<sup>14.5</sup> 14.7	16.4	15.5	13.3	15.4	14.4	15.1	14.0	13.5
25462	32023.644	16.9	13.7	<sup>14.5</sup> 14.4	16.9	15.8	13.0	15.5	15.7	15.3	14.2	13.5
25472	32024.646	16.5	13.8	<sup>14.5</sup> 14.5	16.6	15.5	13.0	15.4	15.4	15.4	14.0	13.5
25474	32027.647	16.5	14.2	<sup>14.6</sup> 14.5	16.6	15.5	13.2	15.4	13.9	15.4	13.9	13.5
25477	32030.615	16.9	14.5	<sup>14.5</sup> 14.4	16.9	15.3	12.9	15.3	14.3	15.1	13.9	13.5
25484	32031.640	16.5	15.1	<sup>14.2</sup> 14.3	16.9	15.5	13.3	15.2	14.4	14.9	14.0	13.5
25501	32035.638	16.8	15.2	<sup>14.5</sup> 14.7	16.2	15.7	13.3	15.4	15.7	14.9	14.3	13.5
25509	32037.641	17.0	15.2	<sup>14.8</sup> 14.8	<del>15.7</del>	15.7	13.3	15.5	16.0	14.8	13.8	13.5



1	979	11.8	25.7	25.8	80.3	99.8	25.5	28.3	5.3	740	
3	15.3	15.2	16.0	15.3	15.8	15.8	15.8	15.7	15.8	15.6	5.7
0	15.3	15.3	15.9	15.1	15.4	15.9	16.0	15.5	16.0	15.2	0.6
3	15.4	15.1	16.0	15.4	15.6	15.7	16.0	15.6	15.7	15.2	7.0
3	15.3	15.3	16.4	15.6	15.8	15.7	15.8	15.7	15.6	15.5	6.0
0	15.2	15.6	16.4	15.2	15.9	15.7	14.9	15.7	15.6	15.4	0.7
0	15.4	15.9	16.2	16.2	16.1	15.8	15.9	15.7	15.0	15.1	7.0
3	15.7	15.3	16.2	15.6	16.1	16.0	16.5	15.6	15.0	15.4	7.0
3	15.6	16.2	16.5	14.8	16.1	15.9	16.1	15.6	15.5	15.3	6.9
8	15.4	15.8	16.5	15.7	16.0	15.9	16.2	15.5	15.6	15.3	6.8
0	15.4	15.8	16.1	15.8	15.7	15.7	15.9	15.5	15.7	15.0	7.0
0	15.5	14.8	15.9	16.1	16.2	16.0	15.9	15.8	15.4	15.3	6.9
	15.4	14.8	16.4	14.8	16.1	15.9	15.4	15.7	15.7	15.3	7.0
	15.7	15.6	15.8	15.8	15.8	15.8	16.1	15.8	15.8	15.4	0.4
0	15.7	14.8	16.4	16.3	16.3	16.0	15.7	15.8	15.8	15.4	8.9
3	def.	15.5	16.0	15.5	16.3	15.9	15.2	15.7	14.8	15.3	16.9
	15.6	15.4	16.5	14.4	16.0	16.0	15.5	15.4	15.8	15.3	6.9
	15.6	14.0	16.5	14.1	15.7	15.7	15.4	15.2	15.8	15.7	15.8
2	15.4	15.3	15.9	15.8	15.6	15.7	15.0	15.3	15.2	15.1	14.9
0	15.5	15.6	16.2	16.0	15.8	15.8	15.3	15.4	15.3	15.1	16.3
9	15.7	16.0	16.3	16.3	16.2	15.9	15.8	15.4	15.5	15.3	6.3
	15.7	15.9	15.8	15.8	16.0	15.8	16.1	15.6	15.7	15.3	6.0
0	15.3	15.8	15.8	15.8	15.8	15.7	16.3	15.3	15.4	15.1	1.7
3	15.7	15.8	16.3	14.4	15.9	15.9	15.5	15.4	14.5	15.2	7.0
8	15.4	15.3	16.0	15.3	16.2	15.5	15.4	15.5	15.0	15.1	16.7



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HV2297	5547	2286	5548	2303	5381	5598	2324	5592	896	23
246	284	267	286	577	625	295	579	294	154	8
24496	31324.624	15.9:	<sup>15.9</sup> 15.9 <sup>15.9</sup> 15.9 <sup>15.9</sup> 15.9	<sup>15.9</sup> 15.9	15.8:	<sup>15.9</sup> 15.9	15.9:	<sup>15.0</sup> 15.0	15.8:	15
24502	31325.615	16.0	<sup>16.3</sup> 16.4 <sup>16.4</sup> 16.2 <sup>16.4</sup> 16.2	<sup>15.7</sup> 15.4	15.7	15.8	17.0	<sup>14.9</sup> 15.0	15.7	15.8
24509	31326.634	16.4	<sup>16.4</sup> 16.4 <sup>16.5</sup> 16.6 <sup>16.5</sup> 16.6	<sup>15.4</sup> 15.4	16.6	15.7	17.0:	<sup>15.3</sup> 16.1	15.7	16.1
24516	31327.634	16.6	<sup>16.3</sup> 16.4 <sup>16.2</sup> 16.1 <sup>16.2</sup> 16.1	<sup>15.5</sup> 15.4	16.6	16.0	17.0	<sup>15.1</sup> 16.3	15.5	16.1
24526	31328.617	16.5	<sup>16.6</sup> 16.6 <sup>16.1</sup> 16.1 <sup>16.1</sup> 16.1	<sup>15.6</sup> 15.4	16.7	15.8	17.0	<sup>15.1</sup> 16.4	15.6	16.1
24531	31332.625	16.0	<sup>16.1</sup> 16.3 <sup>16.1</sup> 16.2 <sup>16.1</sup> 16.2	<sup>15.5</sup> 15.5	16.7	15.6	17.0	<sup>15.2</sup> 15.8	15.7	16.1
24547	31348.570	16.0	<sup>16.4</sup> 16.4 <sup>16.5</sup> 16.5 <sup>16.5</sup> 16.5	<sup>15.5</sup> 15.5	16.6	15.9	17.0	<sup>15.1</sup> 15.1	15.8	16.1
24591	31415.437	15.8	<sup>16.1</sup> 16.1 <sup>16.1</sup> 16.2 <sup>16.1</sup> 16.2	<sup>15.5</sup> 15.8	16.3	15.9	16.3	<sup>15.1</sup> 16.1	15.8	16.1
24606	31438.363	16.5	<sup>16.3</sup> 16.4 <sup>16.0</sup> 16.1 <sup>16.0</sup> 16.1	<sup>15.5</sup> 15.5	16.2	15.7	17.0	<sup>15.0</sup> 15.5	15.6	16.1
24608	31439.328									
24670	31439.379	16.0	<sup>16.0</sup> 16.5 <sup>16.3</sup> 16.2 <sup>16.3</sup> 16.2	<sup>15.4</sup> 15.5	16.3	15.7	17.0	<sup>15.0</sup> 14.8	15.5	16.1
24666	31496.277	15.8	<sup>16.6</sup> 16.6 <sup>16.0</sup> 16.0 <sup>16.0</sup> 16.0	<sup>15.4</sup> 15.6	16.1	15.8	17.0:	<sup>15.1</sup> 15.4	15.5	16.1
24959	31657.649	15.9	<sup>16.3</sup> 16.3 <sup>16.2</sup> 16.1 <sup>16.2</sup> 16.1	<sup>15.5</sup> 15.5	16.3	15.8	17.0	<sup>15.2</sup> 16.1	15.7	16.1
25140	31740.494	16.1	<sup>16.5</sup> 16.4 <sup>16.3</sup> 16.3 <sup>16.3</sup> 16.3	<sup>15.5</sup> 15.6	16.6:	15.6	17.0	<sup>15.0</sup> 15.2	15.6	16.1
25169	31785.395	16.2	<sup>16.5</sup> 16.6 <sup>16.3</sup> 16.4 <sup>16.3</sup> 16.4	<sup>15.4</sup> 15.5	16.6	15.7	17.0	<sup>15.3</sup> 14.9	15.6	16.1
25174	31796.415	16.0	<sup>16.3</sup> 16.3 <sup>16.2</sup> 16.2 <sup>16.2</sup> 16.2	<sup>15.4</sup> 15.4	16.4	15.7	17.0	<sup>14.9</sup> 15.5	15.6	16.1
25443	32011.649	16.0	<sup>16.3</sup> 16.3 <sup>16.1</sup> 16.2 <sup>16.1</sup> 16.2	<sup>15.2</sup> 15.3	15.6	15.6	17.0:	<sup>15.0</sup> 15.1	15.7	16.1
25444	32012.641	15.9	<sup>16.3</sup> 16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 16.3	<sup>15.6</sup> 15.5	16.4	15.8	17.2:	<sup>14.9</sup> 15.7	15.6	16.1
25462	32023.644	16.2	<sup>16.5</sup> 16.4 <sup>16.3</sup> 16.2 <sup>16.3</sup> 16.2	<sup>15.2</sup> 15.2	16.6	15.8	17.0	<sup>14.9</sup> 16.0	15.6	16.1
25472	32024.646	16.3	<sup>16.2</sup> 16.2 <sup>16.3</sup> 16.2 <sup>16.2</sup> 16.2	<sup>15.4</sup> 15.3	16.7	15.7	17.1:	<sup>14.8</sup> 16.0	15.6	16.1
25474	32027.647	16.0	<sup>16.2</sup> 16.1 <sup>16.3</sup> 16.3 <sup>16.3</sup> 16.3	<sup>15.4</sup> 15.5	16.5	15.6	17.0	<sup>15.0</sup> 16.0	15.8	16.1
25477	32030.615	16.1	<sup>16.4</sup> 16.4 <sup>16.1</sup> 16.2 <sup>16.1</sup> 16.2	<sup>15.4</sup> 15.5	15.8	15.7	17.0	<sup>15.0</sup> 14.9	15.5	16.1
25484	32031.640	15.9	<sup>16.3</sup> 16.4 <sup>16.2</sup> 16.3 <sup>16.2</sup> 16.3	<sup>15.5</sup> 15.4	16.2	15.6	17.2:	<sup>15.0</sup> 15.2	15.4	16.1
25501	32035.638	16.6	<sup>16.2</sup> 16.2 <sup>16.2</sup> 16.2 <sup>16.2</sup> 16.2	<sup>15.6</sup> 15.5	15.8	15.4	17.2:	<sup>15.1</sup> 14.6	15.4	16.1
25504	32037.641	15.5	<sup>16.1</sup> 16.1 <sup>16.1</sup> 16.1 <sup>16.1</sup> 16.1	<sup>15.3</sup> 15.3	16.5	15.8	17.0	<sup>15.0</sup> 14.8	15.4	16.1



96	2305	2308	5595	5609	2327	894	2320	2319	895	11977	701	2415	115
54	802	578	804	808	271	57	270	580	91	121	73	734	
5.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.8	15.9	5.7	15.7	
5.7	15.9	16.2	16.0	16.5	16.8	15.9	16.6	16.3	15.8	16.0	5.6	15.0	
5.7	16.1	16.3	16.0	16.4	16.9	15.9	16.3	16.2	15.7	16.0	7.0	15.5	
5.5	16.3	16.1	16.4	15.7	16.0	16.1	16.0	16.4	dy.	16.0	6.0	15.2	
5.6	16.3	16.3	16.8	16.6	16.3	16.2	16.3	16.5	16.1	16.1	5.7	15.3	
5.7	16.2	16.2	16.3	16.7	16.7	15.8	15.9	15.6	15.9	16.0	7.0	15.4	
5.8	16.3	16.3	16.2	16.7	16.9	16.0	16.7	15.9	15.4	16.1	7.0	15.5	
5.8	16.3	16.2	16.5	16.6	16.8	16.1	16.2	16.0	15.9	16.0	6.9	15.6	
5.6	16.3	16.2	16.9	16.7	17.0	15.9	15.9	14.4	14.9	16.0	6.8	15.3	
5.5	16.0	16.2	16.2	16.6	16.5	16.0	16.0	14.5	15.2	16.1	7.0	15.4	
5.5	16.4	16.3	16.5	16.5	16.2	15.8	15.8	15.1	16.0	15.8	6.9	15.3	
5.7	16.2	16.3	16.1	16.6	16.5	16.3	16.9	16.4	15.0	16.3	7.0	15.3	
5.6	16.2	16.3	16.3	16.6	16.6	15.9	16.2	15.9	16.3	16.2	6.4	15.4	
5.6	16.3	16.4	16.5	16.5	16.7	16.1	16.3	16.0	14.8	16.0	5.9	15.0	
5.6	16.0	16.4	16.7	16.6	16.2	16.1	16.5	16.0	15.8	16.1	16.9	15.6	
5.7	16.0	16.1	16.1	16.6	16.8	15.9	16.2	16.0	16.0	16.0	16.9	15.4	
5.6	16.2	16.2	16.5	16.7	16.3	16.0	16.8	16.0	16.1	16.2	15.8	15.4	
5.6	16.1	16.2	16.5	16.6	16.4	16.2	16.8	16.1	16.0	16.2	16.9	15.3	
5.6	16.1	16.2	16.7	16.6	16.6	16.0	16.0	16.2	16.2	16.2	16.3	15.4	
5.8	16.0	16.2	16.3	16.6	16.2	15.3	16.9	16.2	16.1	16.1	6.3	15.0	
5.5	16.5	16.4	16.8	16.6	17.0	15.9	16.1	16.0	15.4	16.1	16.0	15.4	
5.4	16.2	16.2	16.1	16.6	16.1	15.9	16.2	14.4	14.3	16.0	6.7	15.4	
5.4	16.2	16.2	16.9	16.6	16.3	16.4	16.2	15.2	15.9	16.1	7.0	15.7	
5.4	16.2	16.2	16.2	16.6	17.0	15.9	16.9	15.8	16.2	16.2	16.7	15.4	



110

1945phae.proj.2447

110

556	2447	5574	2321	2447	5628	5625	5630	910	2333	5616	2335	2340	2325	5642	14		
624	741	742	685	51	282	686	281	56	272	296	353	354	351	279	2		
24479	31324.624	<15.9	<15.9	<15.9	15.6	<15.9	15.7	15.5	<15.9	15.4	<15.9	<15.9	15.2	15.7	<15.9	14.9	<15.9
24502	31325.615	16.6	16.1	16.1	15.9	16.9	15.4	15.2	16.0	15.6	16.0	16.7	15.6	15.8	16.5	15.0	15.9
24509	31326.634	17.0	16.0	16.2	15.9	16.8	15.7	14.9	16.0	15.6	16.2	16.9	16.0	15.9	16.9	15.1	16.0
24516	31327.634	16.9	15.9	16.2	16.4	16.9	16.0	15.4	16.0	15.5	16.1	16.9	16.1	15.5	16.4	15.1	16.0
24526	31328.617	16.3	15.8	16.1	16.0	17.0	15.8	14.8	15.9	15.5	16.1	16.7	16.1	15.7	16.3	14.9	15.9
24531	31332.625	16.1	16.4	16.0	16.0	16.9	15.8	15.3	16.0	15.5	16.2	16.9	15.4	15.9	16.4	15.0	16.0
24547	31348.570	17.0	16.1	16.3	15.4	16.9	15.6	15.3	16.0	15.5	16.2	16.9	15.2	15.7	16.6	15.3	16.0
24591	31415.437	16.9	16.3	16.3	16.1	16.9	15.5	15.7	16.1	15.8	16.1	16.9	16.3	15.8	16.9	15.2	16.0
24606	31438.363	16.4	16.1	16.0	15.3	16.9	15.5	15.1	16.0	15.2	15.9	16.9	15.9	15.8	16.8	15.0	16.0
24608	31439.328																
24610	31439.379	16.7	15.8	16.0	15.5	16.9	15.7	15.4	16.1	15.4	16.1	16.9	16.2	15.8	16.8	15.1	16.0
24666	31491.277	16.7	16.1	16.2	16.2	17.0	16.0	15.4	16.2	15.5	16.0	16.9	16.3	15.5	16.3	15.0	16.0
24959	31657.649	16.3	16.0	16.1	16.1	17.0	15.7	15.5	16.0	15.4	16.1	16.9	15.4	15.8	16.5	14.8	16.0
25140	31740.494	16.3	15.8	16.3	16.2	16.9	15.9	15.2	16.1	15.4	16.1	16.9	16.1	15.6	16.1	14.9	16.0
25169	31785.395	16.8	15.9	16.1	16.0	17.0	16.2	15.0	16.2	15.7	15.9	16.9	15.4	15.8	16.2	15.0	16.0
25174	31796.415	16.9	15.8	16.0	15.4	16.9	15.7	14.5	16.2	15.2	16.0	16.7	16.2	15.7	16.9	15.3	16.0
25443	32011.649	16.2	15.8	16.2	15.4	16.9	15.5	14.4	16.0	15.5	16.0	16.9	16.2	15.7	16.4	15.1	16.0
25444	32012.641	16.4	15.8	16.2	15.8	17.0	16.0	14.6	16.2	15.4	15.9	16.8	15.8	15.8	16.8	14.9	16.0
25462	32023.644	17.0	16.1	16.2	15.3	17.0	16.0	14.5	16.0	15.5	16.0	16.5	15.9	15.7	16.8	15.4	16.0
25472	32024.646	16.3	16.1	16.2	15.5	16.9	15.7	14.5	16.0	15.6	15.9	16.6	15.9	15.8	16.2	14.9	16.0
25474	32027.647	17.0	16.4	16.3	16.2	17.0	15.8	14.6	16.0	15.4	16.0	16.6	16.2	15.9	16.9	15.0	16.0
25477	32030.615	16.6	15.8	16.2	16.3	16.9	15.7	14.8	16.2	15.5	15.9	16.6	15.3	15.9	16.5	14.7	16.0
25484	32031.640	16.9	15.8	16.1	16.0	16.9	15.7	14.6	16.0	15.9	15.8	16.7	15.7	15.8	16.7	15.1	16.0
25501	32035.638	16.9	16.1	16.1	15.3	16.8	15.5	14.8	16.0	15.4	15.9	16.5	16.2	15.7	16.0	15.3	16.0
25504	32037.641	16.5	16.2	16.2	15.4	16.9	15.5	14.9	15.8	15.2	15.8	16.5	15.3	15.6	16.9	15.0	16.0



42	1492	2373	5669	5674	5680	5708	2413	2394	5683	2389	5701	2415	115
79	280	813	375	646	645	377	288	816	376	285	373	734	
4.9	<15.9	<15.9	<15.9	<15.9	<15.9	<sup>15.3</sup> 15.1	<15.9	<15.9	<15.9	15.7	<15.7	<sup>15.7</sup> 15.7	
5.0	15.9	16.5	16.0	15.9	16.9	<sup>14.8</sup> 14.8	16.0	16.1	16.3	15.5	16.6	<sup>15.0</sup> 15.0	
5.1	16.4	16.8	15.8	15.8	<17.0	<sup>14.9</sup> 15.0	16.4	16.4	16.3	15.4	17.0	<sup>15.5</sup> 15.2	
5.1	16.9	16.0	16.1	<sup>15.8</sup> 15.5	16.9	<sup>14.8</sup> 15.0	16.9	15.7	16.5	15.6	16.0	<sup>15.4</sup> 15.2	
5.9	15.8	16.5	15.9	15.9	16.9	<sup>14.8</sup> 15.0	17.0	15.9	16.5	15.7	16.7	<sup>15.2</sup> 15.3	
6.0	16.1	16.9	16.0	16.0	<17.0	<sup>14.8</sup> 14.8	16.9	15.9	16.4	15.2	17.0	<sup>15.6</sup> 15.4	
6.3	16.9	16.9	16.1	15.7	16.9	<sup>15.0</sup> 15.3	16.9	15.7	16.6	15.5	<17.0	<sup>15.6</sup> 15.5	
6.2	16.8	16.9	16.1	15.7	16.7	<sup>14.8</sup> 14.9	16.8	16.1	16.5	15.6	16.9	<sup>15.3</sup> 15.6	
6.0	16.0	16.9	16.0	16.0	16.3	<sup>15.0</sup> 14.8	16.9	16.4	16.5	15.4	16.8	<sup>15.2</sup> 15.3	
6.1	16.3	16.1	16.0	15.9	16.8	<sup>15.1</sup> 15.2	16.3	16.5	16.6	15.7	17.0	<sup>15.7</sup> 15.4	
6.0	15.9	16.9	16.1	15.9	16.9	<sup>14.9</sup> 15.0	16.5	16.4	16.5	15.5	16.9	<sup>15.1</sup> 15.3	
6.8	16.0	16.4	15.9	15.8	17.0	<sup>14.8</sup> 14.8	16.0	15.6	16.6	15.4	17.0	<sup>15.2</sup> 15.3	
6.9	16.5	16.3	15.9	15.9	16.3	<sup>14.9</sup> 15.2	17.0	16.0	16.6	15.5	16.4	<sup>15.4</sup> 14.8	
6.0	16.1	16.5	15.9	15.8	16.9	<sup>14.8</sup> 14.9	16.9	16.0	16.4	15.7	16.9	<sup>15.2</sup> 15.0	
6.3	16.2	16.8	16.2	16.0	17.0	<sup>15.2</sup> 15.3	16.8	16.3	16.4	15.7	16.9	<sup>15.7</sup> 15.6	
6.1	15.9	16.2	16.0	16.0	17.0	<sup>14.6</sup> 14.8	16.8	16.4	16.4	15.4	16.9	<sup>15.2</sup> 15.3	
6.9	16.5	16.5	15.9	15.9	17.0	<sup>14.6</sup> 14.9	16.9	16.5	16.6	15.4	16.8	<sup>15.6</sup> 15.4	
6.4	16.4	16.9	16.0	15.9	16.7	<sup>15.0</sup> 15.2	16.9	16.5	16.5	15.5	16.9	<sup>15.6</sup> 15.4	
6.9	16.8	16.3	16.0	15.9	16.9	<sup>14.8</sup> 15.3	16.9	16.6	16.5	15.4	16.3	<sup>15.3</sup> 15.4	
6.0	16.8	16.3	16.0	15.8	16.8	<sup>14.8</sup> 14.8	16.8	16.5	16.5	15.4	16.3	<sup>15.2</sup> 15.1	
6.7	16.0	16.8	15.9	15.8	16.6	<sup>14.9</sup> 15.2	16.7	16.1	16.4	15.7	16.0	<sup>15.6</sup> 15.4	
6.1	16.7	16.4	16.1	15.9	16.6	<sup>14.9</sup> 15.3	17.0	16.3	16.4	15.7	16.7	<sup>15.7</sup> 15.4	
6.3	16.6	16.8	16.0	16.1	16.6	<sup>15.0</sup> 15.1	17.0	16.4	16.4	15.6	17.0	<sup>15.2</sup> 15.7	
6.0	16.0	16.2	16.0	16.0	16.5	<sup>14.8</sup> 15.0	16.2	16.3	16.3	15.5	16.7	<sup>15.2</sup> 15.1	



		263	260	523	262	54	261	107	90	259	275	27
25507	32042.646	16.6	13.5	14.3 14.3	16.1	15.3	13.4	15.3	15.7	14.5	14.2	15
25522	32053.628	16.9	15.0	14.3 14.2	16.7	15.6	13.4	15.9	15.9	14.7	14.3	15
25533	32056.622	16.6	15.2	14.4 14.4	16.9	15.9	13.2	15.8	16.0	15.1	14.3	15
25538	32058.600	16.6	15.0	14.4 14.4	16.4	15.9	13.4	15.4	15.4	15.0	14.3	15
25544	32059.506	16.7	15.2	14.5 14.4	16.2	15.3	13.0	15.2	15.1	14.9	14.4	15
25555	32061.610	16.5	15.4	14.3 14.4	16.5	15.6	12.9	15.6	13.9	15.0	14.3	15
25562	32067.621	16.8	14.2	14.2 14.4	16.0	15.6	12.8	15.6	14.8	14.9	14.3	15
25564	32069.566	16.9	14.2	14.8 14.6	16.3	15.9	13.2	15.6	15.1	15.1	14.1	15
25566	32070.603	16.3	14.3	14.5 14.5	16.7	15.8	13.1	15.6	15.8	15.4	14.2	15
25636	32129.569	16.6	13.5	14.8 14.7	16.7	15.5	13.2	15.5	15.6	15.5	14.0	15
25642	32151.341	17.0	13.8	14.2 14.3	16.0	15.6	12.8	15.4	14.5	14.8	13.9	15
25643	32152.357	16.6	14.4	14.4 14.4	16.2	15.4	13.2	15.4	14.6	15.1	13.8	15
26060	32509.306	16.7	15.1	14.2 14.3	16.7	15.7	13.4	15.9	13.6	14.9	14.2	15
26463	32779.640	16.8	15.1	14.7 14.8	16.4	16.0	13.3	15.4	15.9	15.2	14.3	15
26594	32838.602	17.0	15.0	14.8 14.7	16.2	16.1	13.5	15.5	14.5	14.9	14.4	15
26643	32882.270	16.7	15.0	14.4 14.4	16.5	15.5	13.2	15.6	15.7	14.4	14.3	15
26644	32882.314	16.7	14.6	14.2 14.3	16.7	15.5	13.4	15.4	15.6	14.4	14.3	15
26645	32884.277	16.8	15.0	14.5 14.5	16.9	15.6	13.2	15.5	15.4	14.6	14.3	15
26646	32884.322	17.0	15.3	14.4 14.5	16.9	15.9	13.1	15.4	15.7	14.9	14.3	15
26647	32884.365	17.0	15.3	14.6 14.5	16.8	15.9	13.1	15.6	15.4	14.5	14.3	15
26648	32884.417	16.9	15.3	14.4 14.6	16.9	15.9	13.1	15.3	15.3	14.3	14.3	15
26649	32888.287	16.6	15.2	14.4 14.4	16.3	15.6	13.3	15.3	14.1	15.0	14.0	15
26650	32888.332	16.8	15.0	14.2 14.2	16.3	15.9	13.1	15.5	13.9	14.9	13.9	15
26651	32888.384	16.8	14.8	14.2 14.3	16.3	15.6	13.2	15.5	13.8	14.2	13.8	15
26652	32888.426	16.9	15.1	14.3 14.3	16.3	15.7	13.2	15.7	13.7	14.5	14.0	15



5	279	118	257	258	803	998	255	283	53	740	273	2418
2	15.6	14.4	16.3	15.6	15.6	15.6	16.2	15.5	15.6	15.3	149	734
3	15.4	16.0	15.9	16.0	15.7	15.8	15.8	15.5	15.1	15.2	149	15.1 15.0
3	15.4	16.0	16.4	14.4	16.0	15.9	16.2	15.8	15.7	15.3	149	15.0
3	15.4	15.9	16.5	14.4	16.2	15.9	15.9	15.6	15.6	15.2	149	14.9
1	15.4	15.7	16.2	14.4	16.1	15.9	15.9	15.6	15.7	15.2	149	14.9
3	15.3	16.1	16.1	15.3	15.7	15.9	14.6	16.0	16.0	15.4	149	14.8
3	15.5	14.4	16.3	16.2	16.3	16.1	16.2	15.7	14.7	15.2	149	14.8
1	15.3	14.3	15.8	15.9	16.3	16.2	16.3	15.5	14.8	15.2	149	14.8
2	15.9	15.2	16.1	16.1	16.0	16.0	16.2	15.3	15.2	15.2	149	14.8
0	15.5	16.2	16.6	15.9	15.8	16.3	16.3	15.7	14.4	15.2	149	14.8
9	15.2	15.3	16.6	15.4	15.5	15.4	15.2	15.3	15.2	15.2	149	14.8
8	15.2	15.3	16.4	15.3	15.6	15.7	15.7	15.6	15.6	15.2	149	14.8
2	15.7	15.4	16.2	15.4	15.4	15.9	16.2	15.7	15.7	15.3	149	14.8
3	15.5	16.0	16.6	15.7	15.8	16.0	16.0	15.5	15.5	15.3	149	14.8
	15.8	14.4	16.3	14.4	15.7	15.9	16.0	15.7	15.4	15.3	149	14.8
3	15.5	16.2	16.4	14.3	15.8	15.7	15.1	15.8	14.4	14.9	149	14.8
3	15.0	15.9	16.4	14.3	15.8	15.5	14.8	15.5	14.4	15.0	149	14.8
3	15.2	16.6	16.0	15.7	16.3	16.0	15.4	15.4	14.8	14.9	149	14.8
3	15.4	15.9	15.7	14.4	16.1	16.0	15.4	15.5	14.8	15.0	149	14.8
3	15.2	15.8	15.8	14.3	16.3	15.8	15.4	15.4	14.5	15.1	149	14.8
3	15.1	15.8	15.9	14.0	16.0	15.9	15.3	15.3	14.9	15.1	149	14.8
	15.1	15.5	16.2	15.1	15.5	15.5	15.8	15.7	15.7	15.3	149	14.8
9	15.3	15.4	16.3	15.5	15.6	15.6	15.8	15.4	15.4	15.2	149	14.8
8	15.3	15.7	16.1	15.4	15.5	15.6	15.7	15.4	15.3	15.1	149	14.8
0	15.2	15.3	16.1	15.2	15.3	15.3	16.1	15.7	15.6	15.4	149	14.8



116

25507	32042.646	16.1	16.3	16.5	15.5	16.4	15.5	16.0	15.3	14.8	15.7	16
25522	32053.628	16.5	16.3	16.1	15.4	16.7	15.4	17.0	16.0	14.9	15.6	16
25533	32056.622	15.8	16.2	16.3	15.4	16.1	15.8	17.0	15.6	14.8	15.4	16
25538	32058.600	15.8	16.3	16.1	15.3	16.5	15.9	17.0	15.0	14.9	15.5	16
25544	32059.506	16.3	16.3	16.3	15.4	15.6	15.9	17.0	15.2	14.8	15.6	16
25555	32061.610	16.4	16.4	16.0	15.3	16.4	16.1	17.0	15.4	14.9	15.4	16
25562	32067.621	16.1	16.4	16.3	15.4	16.7	16.4	17.0	16.3	14.6	15.6	16
25564	32069.566	16.5	16.3	16.3	15.2	15.9	15.7	17.0	15.6	14.8	15.6	16
25566	32070.603	16.5	16.3	16.0	15.3	16.1	15.9	17.2	15.6	14.7	15.4	16
25636	32129.569	16.1	16.6	16.5	15.6	16.6	15.9	17.0	15.0	14.4	15.4	16
25642	32151.341	16.0	16.2	16.1	15.3	16.5	15.4	17.2	15.9	14.6	15.2	16
25643	32152.357	16.4	16.2	16.2	15.3	15.7	15.4	17.2	15.8	14.8	15.4	16
26060	32509.306	15.9	16.5	16.2	15.3	16.5	15.7	17.2	15.1	14.4	15.4	16
26463	32779.640	15.7	16.3	16.3	15.7	15.8	16.0	17.0	16.1	14.9	15.5	16
26594	32838.602	16.2	16.2	16.0	15.5	16.0	15.5	17.0	15.0	14.7	15.5	16
26643	32882.270	15.8	16.1	15.9	15.3	15.3	15.3	17.0	14.6	14.4	15.5	16
26644	32882.314	16.2	16.4	16.2	15.4	15.7	15.5	17.0	14.8	14.7	15.3	16
26645	32884.277	16.5	16.4	16.4	15.3	16.3	16.3	17.0	15.1	14.6	15.6	16
26646	32884.322	16.4	16.5	16.4	15.1	16.4	16.1	17.0	15.0	14.5	15.5	16
26647	32884.365	16.5	16.4	16.4	15.2	16.4	16.2	17.0	15.2	14.5	15.5	16
26648	32884.417	16.5	16.5	16.2	15.2	16.1	16.0	17.0	15.2	14.5	15.5	16
26649	32888.287	15.8	16.4	16.1	15.3	16.3	15.6	17.2	15.7	14.9	15.4	16
26650	32888.332	15.5	16.4	16.3	15.4	16.1	15.4	17.2	15.7	14.7	15.6	16
26651	32888.384	15.8	16.6	16.4	15.4	16.2	15.6	17.2	15.8	14.8	15.4	16
26652	32888.426	15.8	16.5	16.2	15.2	16.3	15.5	17.0	15.8	14.6	15.5	16



3	2305	2308	5595	5609	2327	898	2320	2319	895	11977	701	2418
4	802	578	804	808	271	57	270	580	91	121	373	734
7	16.2	16.2	16.1	16.4	16.1	15.9	16.8	16.3	15.6	16.2	14.9	15.1
6	16.2	16.2	16.1	16.5	16.8	15.7	16.0	15.7	16.1	16.1	6.9	14.9
4	15.9	16.3	16.8	16.7	17.0	15.9	16.9	16.0	14.4	16.1	14.9	14.8
5	16.1	16.3	16.3	16.7	16.6	16.0	15.8	16.1	14.9	16.1	6.6	15.2
6	16.3	16.3	16.3	16.4	16.9	16.1	16.0	16.0	15.1	16.1	6.9	15.2
4	16.0	16.3	16.9	16.5	16.1	16.2	16.9	16.4	15.9	16.0	6.5	14.9
6	16.0	16.3	16.2	16.7	16.9	15.9	16.7	14.5	16.0	16.1	6.4	15.3
6	16.0	16.2	16.3	16.6	16.5	15.6	16.2	15.2	14.5	16.0	7.0	15.3
4	16.0	16.1	16.9	16.6	16.7	16.1	16.6	15.4	14.8	16.0	16.3	15.3
4	16.3	16.3	16.4	16.5	16.4	15.6	16.7	16.3	16.3	16.2	17.0	15.0
2	16.0	16.1	16.0	16.6	16.2	15.8	16.2	15.7	15.4	16.1	17.0	15.4
4	16.0	16.1	16.1	16.5	16.5	15.9	16.5	15.8	15.7	15.9	16.5	15.5
4	15.8	16.2	16.1	16.6	16.9	15.4	16.6	15.6	14.4	15.7	16.5	14.9
5	16.1	16.1	16.1	16.6	16.9	16.4	16.8	16.0	14.8	16.0	6.8	15.5
5	16.4	16.1	16.7	16.6	17.0	15.8	15.7	15.5	16.2	16.2	17.0	15.4
5	15.8	16.1	16.6	16.5	16.3	16.1	15.8	16.2	15.6	15.7	16.2	15.2
3	15.7	16.1	16.4	16.6	16.4	16.3	16.1	16.5	15.5	15.8	16.1	15.1
6	16.1	16.2	16.3	16.4	16.9	16.0	16.6	15.9	15.1	16.0	7.0	15.2
5	16.3	16.2	16.3	16.4	17.0	15.8	16.7	16.2	15.0	15.9	7.0	14.9
5	16.2	16.2	16.4	16.4	16.9	16.0	16.6	15.8	15.0	15.9	7.0	15.0
5	16.3	16.3	16.3	16.4	16.9	15.8	16.6	15.8	14.8	15.9	7.0	15.1
4	15.8	16.3	16.2	16.6	16.7	15.7	16.4	14.4	15.5	16.0	13.9	15.2
6	15.7	16.2	16.2	16.5	16.9	15.5	16.5	14.3	15.8	15.9	16.0	14.9
4	16.0	16.2	16.3	16.5	16.7	15.7	16.4	14.9	15.9	16.0	16.0	14.8
5	16.0	16.0	16.2	16.6	16.8	15.6	16.8	15.2	15.8	16.0	5.9	14.9



25507	32042.646	16.2	16.0	16.1	16.4	16.9	15.4	14.6	16.1	15.4	16.0	16.5	16.1	15.8	16.9	14.7	16
25522	32053.628	16.9	16.2	16.2	16.1	17.0	15.7	14.8	16.1	15.4	16.0	16.8	15.2	15.8	16.8	15.0	1
25533	32056.622	16.5	16.2	16.3	16.5	16.8	15.5	14.8	16.0	15.4	16.1	16.5	16.1	15.9	16.8	15.0	
25538	32058.600	17.0	15.7	16.1	15.7	16.9	15.7	14.8	16.1	15.5	16.0	16.5	16.3	15.8	16.5	15.1	1
25544	32059.506	16.3	15.7	16.2	15.7	16.8	15.6	14.7	16.0	15.6	15.9	16.8	16.2	15.9	16.3	14.7	16
25555	32061.610	16.9	16.0	16.1	15.3	16.9	15.5	14.6	16.0	15.4	16.0	16.6	15.3	15.9	16.9	14.7	16
25562	32067.621	17.0	16.0	16.1	16.5	16.9	15.7	14.7	16.0	15.5	16.0	16.8	16.1	15.8	16.9	15.0	16
25564	32069.566	16.4	15.9	16.2	16.2	17.0	15.8	14.8	16.1	15.5	16.0	16.6	15.1	15.8	16.2	14.7	16
25566	32070.603	16.9	16.1	16.1	16.1	16.8	15.8	14.8	16.0	15.5	16.0	16.6	15.5	15.7	16.8	15.1	16
25636	32129.569	16.9	16.6	16.2	16.1	16.9	15.9	15.0	16.0	15.7	16.0	16.5	16.2	15.7	16.8	15.0	16
25642	32151.341	16.9	15.6	16.3	15.1	17.0	15.8	14.7	16.0	15.6	16.0	16.6	15.9	15.8	16.8	15.0	16
25643	32152.357	16.1	15.6	16.2	15.8	16.9	15.8	14.6	16.1	15.5	16.2	16.6	16.0	15.8	16.0	15.1	
26060	32509.306	17.0	15.9	16.0	15.8	17.0	15.6	14.9	16.0	15.8	16.0	16.6	16.0	15.7	16.8	14.9	1
26463	32779.640	16.7	16.1	16.2	16.3	16.8	15.7	14.6	16.0	15.5	16.1	16.9	16.3	15.9	16.9	15.0	16
26594	32838.602	17.0	16.0	16.1	15.8	17.0	15.8	14.4	16.0	15.5	16.0	16.7	15.4	15.7	16.9	15.1	16
26643	32882.270	16.9	15.8	16.0	16.1	16.9	15.7	14.8	16.0	15.4	16.0	16.6	15.9	15.7	16.9	15.2	1
26644	32882.314	16.9	15.8	16.1	16.3	16.9	15.8	15.0	15.9	15.4	15.9	16.7	16.2	15.8	16.9	15.1	1
26645	32884.277	16.5	15.8	16.2	16.1	16.9	15.8	15.0	16.0	15.5	16.0	16.6	16.0	15.8	16.3	15.2	1
26646	32884.322	16.4	16.0	16.1	16.3	16.8	15.6	14.8	15.9	15.4	16.0	16.6	16.1	15.8	16.2	15.0	1
26647	32884.365	16.4	15.8	16.2	16.2	16.9	15.6	15.0	15.9	15.4	15.9	16.6	15.8	15.8	16.2	14.9	1
26648	32884.417	16.4	15.8	16.2	16.1	16.9	15.7	14.9	16.0	15.5	15.9	16.5	15.9	15.9	16.3	15.1	1
26649	32888.287	16.2	16.2	16.1	15.4	16.8	15.7	14.9	16.0	15.4	15.9	16.7	15.8	15.9	16.4	15.3	1
26650	32888.332	16.4	16.3	16.1	15.4	16.9	15.7	14.9	15.9	15.4	15.9	16.7	15.8	15.9	16.4	15.0	1
26651	32888.384	16.4	16.4	16.3	15.8	16.8	15.6	14.8	15.9	15.4	16.0	16.8	15.7	15.8	16.3	15.0	1
26652	32888.426	16.3	16.2	16.0	15.4	16.9	15.5	14.6	16.0	15.6	15.9	16.5	15.8	15.8	16.3	14.9	19



1945phae.proj.24478	119 qv	2373	5669	5674	5680	5708	2413	2394	5683	5389	5701	2410
279	280	813	375	646	645	377	288	816	376	285	373	734
67	16.7	16.9	16.0	16.0	16.3	<sup>14.8</sup> 15.0	16.2	15.9	16.3	15.5	Def	<sup>15.1</sup> 15.0
5.0	16.8	16.3	16.0	16.0	16.4	<sup>14.8</sup> 15.2	16.6	16.6	16.6	15.7	16.9	<sup>14.9</sup> 14.9
0	16.5	16.0	16.0	16.0	16.4	<sup>14.5</sup> 14.8	16.9	16.1	16.3	15.3	16.9	<sup>14.9</sup> 14.8
1	16.0	<del>16.0</del>	15.9	15.9	16.5	<sup>14.9</sup> 15.0	16.4	16.0	16.4	15.4	16.6	<sup>15.5</sup> 15.2
7	16.1	16.5	16.0	16.0	16.4	<sup>15.0</sup> 14.9	16.9	16.0	16.3	15.6	16.9	<sup>15.4</sup> 15.2
7	16.9	16.8	16.0	15.9	16.7	<sup>14.9</sup> 14.9	16.6	16.6	16.4	15.4	16.5	<sup>15.3</sup> 15.1
0	16.4	16.8	16.0	16.0	16.8	<sup>15.2</sup> 14.8	16.8	16.0	16.5	15.7	16.4	<sup>15.5</sup> 15.3
7	16.2	16.4	16.1	16.1	16.9	<sup>14.8</sup> 15.0	16.9	16.4	16.5	15.4	17.0	<sup>15.3</sup> 15.3
1	16.3	16.8	15.9	16.0	17.0	<sup>14.9</sup> 14.8	16.1	16.5	16.5	15.3	16.3	<sup>15.3</sup> 15.3
5.0	16.4	16.8	15.9	15.9	17.1	<sup>14.9</sup> 14.7	16.9	15.9	16.5	15.4	17.0	<sup>15.2</sup> 15.0
0	16.4	16.9	16.0	16.1	17.0	<sup>15.0</sup> 15.1	16.4	16.2	16.6	15.8	17.0	<sup>15.3</sup> 15.4
1	16.4	16.4	16.0	16.0	17.0	<sup>15.4</sup> 15.0	16.9	16.4	16.5	15.6	16.5	<sup>15.5</sup> 15.5
9	16.3	16.7	16.0	15.9	16.6	<sup>15.0</sup> 15.0	17.0	16.4	16.6	15.7	16.5	<sup>15.4</sup> 14.9
0	16.5	16.0	15.9	15.8	16.9	<sup>14.6</sup> 15.1	16.8	16.4	16.7	15.6	16.8	<sup>15.3</sup> 15.5
5.1	16.9	16.9	16.5	16.0	<17.0	<sup>15.0</sup> 15.2	16.3	16.8	16.7	15.4	17.0	<sup>15.6</sup> 15.4
5.2	16.7	16.3	15.9	16.0	17.1	<sup>14.9</sup> 15.1	17.0	16.3	16.5	15.8	16.2	<sup>15.8</sup> 15.2
5.1	16.7	16.6	15.9	15.9	17.0	<sup>15.2</sup> 15.0	16.9	16.1	16.4	15.7	16.1	<sup>15.6</sup> 15.1
5.2	15.9	16.9	16.8	15.9	17.0	<sup>14.9</sup> 14.9	16.4	16.7	16.5	15.5	17.0	<sup>15.0</sup> 15.1
5.0	15.7	16.8	16.8	15.9	17.0	<sup>14.9</sup> 14.9	16.8	16.9	16.6	15.4	17.0	<sup>14.5</sup> 14.9
4.9	15.5	16.9	16.7	15.9	17.0	<sup>15.6</sup> 15.0	16.6	16.5	16.4	15.4	17.0	<sup>15.3</sup> 15.2
5.1	15.6	16.8	16.7	15.9	17.0	<sup>14.9</sup> 14.9	16.6	16.6	16.6	15.7	17.0	<sup>15.2</sup> 15.1
5.3	15.8	16.3	15.8	15.8	16.9	<sup>15.3</sup> 15.2	16.7	16.7	16.7	15.7	15.9	<sup>15.3</sup> 15.2
5.0	15.8	16.1	15.8	15.8	17.1	<sup>15.1</sup> 14.9	16.2	16.5	16.6	15.6	16.0	<sup>15.2</sup> 14.9
5.0	16.2	16.5	15.8	15.9	17.1	<sup>14.9</sup> 15.0	16.8	16.3	16.3	15.6	16.0	<sup>15.1</sup> 14.8
4.9	15.9	16.1	15.9	15.9	17.1	<sup>14.9</sup> 14.9	16.5	16.6	16.5	15.4	15.9	<sup>15.2</sup> 14.9



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J. D.	263	260	523	262	54	261	107	90	259	275	27	
26656	32891.285	16.8	15.1	<sup>14.2</sup> 14.2	16.8	15.0	13.3	15.5	14.5	14.6	14.3	1
26657	32891.329	16.9	14.3	<sup>14.3</sup> 14.3	16.7	15.1	13.3	15.6	14.6	14.6	14.2	1
26658	32891.376	16.8	14.8	<sup>14.4</sup> 14.4	16.6	15.0	13.3	15.5	14.8	14.2	13.9	1
26659	32891.428	16.8	15.0	<sup>14.3</sup> 14.3	16.9	15.2	13.2	15.4	14.5	14.1	14.0	1
26660	32891.472	16.8	13.9	<sup>14.4</sup> 14.4	16.6	15.5	13.0	15.4	15.6	15.2	14.4	13
26661	32891.516	16.9	13.7	<sup>14.4</sup> 14.4	16.7	15.5	13.0	15.3	15.7	15.1	14.0	1
26662	32891.560	16.7	13.5	<sup>14.5</sup> 14.3	16.5	def	13.4	15.5	<u>16.1</u>	15.0	14.3	15
26663	32891.604	16.8	<u>13.3</u>	<sup>14.2</sup> 14.3	16.5	15.4	13.0	15.5	15.5	15.2	14.0	13
26664	32891.648	16.8	13.8	<sup>14.2</sup> 14.4	16.9	15.7	13.2	15.1	15.8	15.4	14.5	13
26665	32891.692	16.7	14.0	<sup>14.1</sup> 14.2	16.7	15.8	13.3	15.6	15.2	15.0	14.0	15
26666	32891.736	16.5	<u>14.4</u>	<sup>14.4</sup> 14.5	16.7	15.8	13.0	15.6	15.4	<u>14.4</u>	13.9	13
26667	32891.780	16.5	13.8	<sup>14.3</sup> 14.4	16.7	15.7	13.3	15.6	15.4	13.9	<u>14.3</u>	1
26668	32891.824	16.6	13.9	<sup>14.1</sup> 14.3	16.7	15.7	12.9	15.7	15.2	15.0	13.9	15
26669	32891.868											
26670	32891.912											
26671	32891.956											
26672	32892.000											
26673	32892.044											
26674	32892.088											
26675	32892.132											
26676	32892.176											
26677	32892.220											
26678	32892.264											
26679	32892.308											
26680	32892.352											
26681	32892.396											
26682	32892.440											
26683	32892.484											
26684	32892.528											
26685	32892.572											
26686	32892.616											
26687	32892.660											
26688	32892.704											
26689	32892.748											
26690	32892.792											
26691	32892.836											
26692	32892.880											
26693	32892.924											
26694	32892.968											
26695	32893.012											
26696	32893.056											
26697	32893.100											
26698	32893.144											
26699	32893.188											
26700	32893.232											
26701	32893.276											
26702	32893.320											
26703	32893.364											
26704	32893.408											
26705	32893.452											
26706	32893.496											
26707	32893.540											
26708	32893.584											
26709	32893.628											
26710	32893.672											
26711	32893.716											
26712	32893.760											
26713	32893.804											
26714	32893.848											
26715	32893.892											
26716	32893.936											
26717	32893.980											
26718	32894.024											
26719	32894.068											
26720	32894.112											
26721	32894.156											
26722	32894.200											
26723	32894.244											
26724	32894.288											
26725	32894.332											
26726	32894.376											
26727	32894.420											
26728	32894.464											
26729	32894.508											
26730	32894.552											
26731	32894.596											
26732	32894.640											
26733	32894.684											
26734	32894.728											
26735	32894.772											
26736	32894.816											
26737	32894.860											
26738	32894.904											
26739	32894.948											
26740	32894.992											
26741	32895.036											
26742	32895.080											
26743	32895.124											
26744	32895.168											
26745	32895.212											
26746	32895.256											
26747	32895.300											
26748	32895.344											
26749	32895.388											
26750	32895.432											
26751	32895.476											
26752	32895.520											
26753	32895.564											
26754	32895.608											
26755	32895.652											
26756	32895.696											
26757	32895.740											
26758	32895.784											
26759	32895.828											
26760	32895.872											
26761	32895.916											
26762	32895.960											
26763	32896.004											
26764	32896.048											
26765	32896.092											
26766	32896.136											
26767	32896.180											
26768	32896.224											
26769	32896.268											
26770	32896.312											
26771	32896.356											
26772	32896.400											
26773	32896.444											
26774	32896.488											
26775	32896.532											
26776	32896.576											
26777	32896.620											
26778	32896.664											
26779	32896.708											
26780	32896.752											
26781	32896.796											
26782	32896.840											
26783	32896.884											
26784	32896.928											
26785	32896.972											
26786	32897.016											
26787	32897.060											
26788	32897.104											
26789	32897.148											
26790	32897.192											
26791	32897.236											
26792	32897.280											
26793	32897.324											
26794	32897.368											
26795	32897.412											
26796	32897.456											
26797	32897.500											
26798	32897.544											
26799	32897.588											
26800	32897.632											
26801	32897.676											
26802	32897.720											
26803	32897.764											
26804	32897.808											
26805	32897.852											
26806	32897.896											
26807	32897.940											
26808	32897.984											
26809	32898.028					</						



5	27.9'	11.8	25.7	25.8	80.3	99.8	25.5	28.3	5.3	74.0		20.1	24.18
3	15.6	13.9	16.2	15.9	16.0	15.9	16.1	15.6	15.7	15.4	5.8	73	734
2	15.2	13.8	16.0	15.8	16.0	16.0	16.1	15.6	15.9	15.1	5.9	15.0	15.2
9	15.2	13.8	16.2	15.7	15.9	15.9	16.2	15.7	15.7	15.3	6.0	15.0	15.0
0	15.4	14.0	16.2	15.8	16.0	16.0	16.3	15.8	16.0	15.4	6.0	15.0	15.0
4	15.3	15.2	16.0	15.8	15.8	15.9	16.1	15.3	14.1	15.1	6.5	14.8	14.9
0	15.6	14.5	16.0	16.0	16.0	16.2	16.3	15.4	14.3	15.2	6.2	14.8	14.9
3	15.5	14.4	16.1	16.0	15.8	16.1	16.3	15.7	14.4	15.4	6.2	14.8	14.9
0	15.3	14.2	16.0	16.0	16.0	16.0	16.2	15.3	14.5	15.2	6.8	14.9	14.9
5	15.4	13.8	15.8	15.8	15.5	15.8	16.1	15.2	14.0	15.1	6.9	14.9	14.9
0	15.1	14.0	16.1	16.1	15.5	15.4	15.3	15.3	15.2	15.2	6.2	15.0	15.0
9	15.4	14.4	16.3	16.3	15.9	16.0	16.0	15.4	15.3	15.3	6.5	15.0	15.0
3	15.4	14.3	16.1	16.1	15.8	15.8	15.8	15.8	15.6	15.4	6.8	15.0	15.0
9	15.3	14.1	16.1	16.0	15.6	15.5	15.7	15.7	15.7	15.3	6.8	15.0	15.0
8	15.7	15.2	15.9	16.0	16.0	16.0	16.3	15.5	15.7	15.3	6.8	15.0	14.8
9	15.4	15.2	15.9	15.9	16.1	16.1	16.1	15.5	15.7	15.1	6.7	15.0	15.2
3	15.4	14.5	16.4	16.3	16.3	15.9	15.4	15.5	15.6	15.2	7.0	14.8	14.9
7	15.3	14.4	16.1	16.1	16.3	15.9	16.3	15.7	16.0	15.4	7.0	14.9	14.9
3	15.7	14.9	16.0	16.0	16.3	15.8	16.3	15.6	15.8	15.5	6.9	15.0	15.0
8	15.4	14.0	16.2	16.2	16.1	15.8	16.1	15.6	15.7	15.4	7.0	15.0	15.2
9	15.3	14.2	15.9	14.0	15.7	15.8	15.7	15.6	15.5	15.4	7.0	15.0	15.2
0	15.4	14.8	16.1	14.9	15.9	15.8	15.9	15.3	14.4	15.5	7.0	15.0	15.0
<p>             HV 889 HV 2295 HV 2297 HV 2296 HV 5553 HV 2285 HV 5555 HV 892 HV 5565              30.337 1.12748 0.04728 1.010292 1.007917 1.006253 1.006253              25.7198 7.8444 22.3284 9.71100 12.631 15.921              Not              Not              30033 30000 14.10 15.7           </p>													



122

J. D.

H12297	5547	2286	5548	2303	5581	5598	2324	5592	896	23
266	284	267	286	577	625	295	579	294	154	8
26656	32891.285	15.9	16.4 <sup>16.4</sup> 16.3 <sup>16.3</sup> 15.4 <sup>15.4</sup>	15.8	15.7	<17.0	16.1	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.4	16.2
26657	32891.329	16.0	16.4 <sup>16.4</sup> 16.3 <sup>16.3</sup> 15.2 <sup>15.2</sup>	15.6	15.4	<17.0	16.2	14.9 <sup>14.9</sup> 15.0 <sup>15.0</sup>	15.4	16.3
26658	32891.376	16.0	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.2 <sup>15.2</sup>	15.5	15.4	17.2:	16.2	14.7 <sup>14.7</sup> 14.9 <sup>14.9</sup>	15.5	16.2
26659	32891.428	16.0	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.0 <sup>15.0</sup>	15.3	15.4	17.2:	16.1	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.4	16.2
26664	32915.292	15.3	16.3 <sup>16.3</sup> 15.9 <sup>15.9</sup> 15.3 <sup>15.3</sup>	16.4	15.3	17.2:	15.4	14.5 <sup>14.5</sup> 14.7 <sup>14.7</sup>	15.4	16.2
26665	32915.336	15.7	16.3 <sup>16.3</sup> 15.9 <sup>15.9</sup> 15.3 <sup>15.3</sup>	16.0	15.4	<17.2	15.7	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.4	16.0
26666	32915.379	16.0	16.3 <sup>16.3</sup> 16.0 <sup>16.0</sup> 15.7 <sup>15.7</sup>	16.3:	15.6	<17.0	15.6	15.0 <sup>15.0</sup> 15.1 <sup>15.1</sup>	15.4	16.3
26667	32915.437	15.9	16.3 <sup>16.3</sup> 16.1 <sup>16.1</sup> 15.5 <sup>15.5</sup>	16.1	15.5	17.2:	15.7	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.6	16.3
26668	32916.283	15.6	16.2 <sup>16.2</sup> 16.2 <sup>16.2</sup> 15.3 <sup>15.3</sup>	15.7	15.3	17.0	15.5	14.8 <sup>14.8</sup> 14.7 <sup>14.7</sup>	15.4	15.6
26669	32919.292	16.3	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.6 <sup>15.6</sup>	16.2	15.7	<16.0	15.9	14.5 <sup>14.5</sup> 15.0 <sup>15.0</sup>	15.2	16.0
26690	32919.335	16.3	16.3 <sup>16.3</sup> 16.2 <sup>16.2</sup> 15.7 <sup>15.7</sup>	16.5	15.9	16.9	16.0	15.0 <sup>15.0</sup> 15.2 <sup>15.2</sup>	15.6	16.0
26691	32919.383	16.4	16.3 <sup>16.3</sup> 16.2 <sup>16.2</sup> 15.7 <sup>15.7</sup>	16.7	15.9	<17.0	16.2	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.7	16.4
26692	32919.426	16.3	16.4 <sup>16.4</sup> 16.3 <sup>16.3</sup> 15.5 <sup>15.5</sup>	16.3	16.0	17.2:	16.2	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.4	16.3
26694	32940.307									
26695	32940.363									
26696	32940.413	16.6	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.5 <sup>15.5</sup>	15.4	15.9	<17.0	14.8	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.4	15.7
26697	32940.457	16.7	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.1 <sup>15.1</sup>	15.7	16.0	<17.0	14.8	14.5 <sup>14.5</sup> 14.7 <sup>14.7</sup>	15.4	15.7
26698	32941.291	16.5	16.3 <sup>16.3</sup> 16.3 <sup>16.3</sup> 15.6 <sup>15.6</sup>	15.7	15.6	<17.0	14.9	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.5	16.0
26699	32941.343	16.4	16.4 <sup>16.4</sup> 16.5 <sup>16.5</sup> 15.5 <sup>15.5</sup>	16.0	15.8	<17.0	14.8	14.6 <sup>14.6</sup> 14.7 <sup>14.7</sup>	15.5	16.0
26700	32941.385	16.4	16.3 <sup>16.3</sup> 16.4 <sup>16.4</sup> 15.5 <sup>15.5</sup>	16.0	15.9	<17.0	14.8	14.8 <sup>14.8</sup> 14.7 <sup>14.7</sup>	15.5	16.0
26701	32941.433	16.4	16.4 <sup>16.4</sup> 16.3 <sup>16.3</sup> 15.3 <sup>15.3</sup>	16.1	15.4	<17.0	14.6	14.6 <sup>14.6</sup> 14.6 <sup>14.6</sup>	15.5	15.8
26961	33150.635	15.5	16.2 <sup>16.2</sup> 16.3 <sup>16.3</sup> 15.0 <sup>15.0</sup>	16.2	16.0	<17.0	16.0	14.8 <sup>14.8</sup> 14.9 <sup>14.9</sup>	15.3	15.7
26966	33153.625	15.7	16.4 <sup>16.4</sup> 16.3 <sup>16.3</sup> 15.2 <sup>15.2</sup>	16.6	15.7	<17.0	15.8	14.6 <sup>14.6</sup> 14.7 <sup>14.7</sup>	15.4	16.1

PO.110479  
P9.05149

16.4-16.6

16.0-16.6

15.2

PO.20537  
P9.86599

Califany Permet  
Olyrae

PO.169035  
P5.91593

PO.019188  
P14.4701

Firm

Not a

19.5



96	2305	2308	5595	5609	2327	898	2320	2319	895	11977	201	2418	127
4	802	578	804	808	271	57	270	580	91	121	73	734	
4	16.2 16.3											15.0 15.1	
4	16.4	16.2	16.7	16.6	16.5	16.3	16.0	15.6	16.1	16.0	5.8	15.2	
4	16.3 16.2											15.0 15.0	
4	16.1	16.1	16.6	16.6	16.8	15.9	15.7	15.5	16.1	16.1	5.9	15.0	
5	16.2 16.3											15.0 15.0	
5	16.4	16.3	16.8	16.7	16.6	16.0	15.7	15.4	16.0	16.0	6.0	15.0	
4	16.2 16.3											15.0 14.9	
4	16.4	16.2	16.7	16.7	16.8	16.1	16.0	15.4	16.1	16.0	6.0	14.8	
4	16.2 16.3											14.8 14.9	
4	16.3	16.0	16.2	16.6	16.1	15.9	15.7	16.2	15.9	16.0	6.5	15.0	
4	16.0 16.2											15.1 15.1	
4	16.4	16.2	16.3	16.5	15.8	15.7	15.6	16.1	16.0	16.0	6.2	15.1	
4	16.3 16.4											15.0 14.9	
4	16.4	16.2	16.2	16.6	16.1	16.0	15.7	16.3	16.1	16.1	6.2	14.9	
6	16.3 16.3											15.0 15.0	
6	16.4	16.2	16.3	16.5	16.1	16.0	15.9	16.3	16.0	16.0	5.8	14.9	
4	15.6 15.6											15.5 15.3	
4	15.7	16.3	16.3	16.6	16.5	15.9	15.9	16.2	16.0	15.7	6.9	15.2	
2	16.0 16.2											15.2 15.2	
2	16.4	16.2	16.0	16.4	16.1	16.3	16.4	15.7	15.5	16.0	6.2	15.3	
6	16.0 16.1											14.8 14.9	
6	16.3	16.3	16.3	16.6	16.0	16.5	16.6	15.7	15.7	15.8	6.5	14.9	
7	16.1 16.2											15.0 15.0	
7	16.4	16.3	16.0	16.6	16.2	16.3	16.6	15.8	15.8	15.9	6.8	15.0	
4	16.2 16.3											15.2 15.1	
4	16.3	16.2	16.1	16.6	16.4	16.1	16.5	15.9	15.8	15.9	6.8	15.0	
4	15.7 15.8											15.0 14.8	
4	16.0	16.3	16.3	16.5	16.8	16.1	16.2	14.8	16.0	16.0	6.8	14.7	
4	15.6 15.7											15.2 15.2	
4	15.7	16.2	16.1	16.5	16.9	16.0	16.3	15.2	15.8	15.9	6.7	15.2	
5	16.0 16.0											15.0 14.9	
5	16.1	16.4	16.3	16.5	16.3	15.9	16.4	15.2	15.8	15.9	7.0	14.8	
5	16.0 16.1											14.8 14.9	
5	16.1	16.3	16.5	16.5	16.0	15.9	16.5	15.1	15.8	15.9	7.0	14.9	
5	16.0 16.1											14.9 15.0	
5	16.2	16.2	16.3	16.5	16.2	16.2	16.7	15.2	16.1	16.0	6.9	15.0	
5	15.8 15.9											15.2 15.2	
5	16.0	16.2	16.1	16.6	15.9	15.9	16.4	15.3	15.9	15.9	7.0	15.2	
5	15.7 15.8											15.1 15.1	
5	15.9	16.2	16.5	16.5	16.9	15.8	16.5	15.2	16.0	15.9	7.0	15.2	
5	16.1 16.2											15.0 15.0	
5	16.4	16.3	16.4	16.5	16.9	15.8	16.4	15.4	15.6	15.8	7.0	15.0	



J. D.

[illegible]



11992	2373	5669	5674	5680	5708	2413	2394	5683	2389	5701	2418	
280	813	375	646	645	377	288	816	376	285	373	734	
16.1	16.0	15.9	15.9	17.1:	14.9 15.1	15.2	15.9	16.2	16.6	15.5	15.8	15.0 15.1
15.9	16.0	15.9	15.9	17.2:	14.9 15.0	15.0	16.0	16.4	16.5	15.4	15.9	15.0 15.0
16.1	16.2	15.9	15.9	17.1	14.9 14.9	14.9	16.1	16.2	16.4	15.5	16.0	15.0 15.0
15.8	16.4	15.9	15.9	17.2	14.9 14.9	15.0	15.9	16.4	16.4	15.7	16.0	15.0 14.9
16.8	17.0	15.9	15.9	16.9	14.8 14.8	14.9	16.1	16.0	16.4	15.4	16.5	14.8 14.9
16.5	16.8	15.8	15.9	16.9	15.4 15.2	15.0	16.2	16.0	16.4	15.3	16.2	15.1 15.1
16.7	16.9	15.8	15.9	16.9:	14.9 14.9	14.8	16.2	16.2	16.5	15.4	16.2	15.0 14.9
16.8	16.9	15.8	15.9	17.0	14.9 15.0	15.0	15.9	15.9	16.5	15.4	15.8	15.0 15.0
16.9	16.9	16.7	15.8	17.0:	15.0 15.1	15.3	16.6	16.7	16.7	15.8	16.9	15.2 15.3
16.5	16.8	15.8	15.9	16.8	15.3 15.3	15.3	16.6	15.7	16.7	15.4	16.2	15.2 15.2
16.8	17.0	15.8	15.9	16.8	15.0 15.2	15.3	16.3	15.7	16.5	15.4	16.5	14.8 14.9
16.6	16.9	15.9	15.9	16.9	14.9 14.9	14.9	16.1	16.0	16.5	15.7	16.8	15.0 15.0
16.8	16.9	15.8	15.9	16.9	15.0 14.9	14.9	16.4	15.8	16.6	15.5	16.8	15.2 15.1

16.7	16.9	16.0	15.9	16.5	14.9 14.9	14.9	15.9	15.9	16.4	15.4	16.8	15.0 14.8
16.8	16.8	15.9	15.9	16.4	15.3 15.2	15.1	16.2	16.1	16.7	15.7	16.7	15.2 15.2
16.9	17.0	16.3	15.9	16.4	14.8 14.8	14.8	16.7	16.4	16.6	15.3	17.0	15.0 14.9
16.8	17.0	15.9	15.9	16.3	14.9 14.9	14.9	16.6	16.4	16.5	15.4	17.0	14.8 14.9
16.8	16.9	15.8	15.9	16.3	15.0 15.0	14.9	16.7	16.1	16.4	15.4	16.9	14.9 15.0
16.8	16.9	15.9	15.8	16.4	14.9 15.1	15.3	16.7	16.4	16.6	15.4	17.0	15.2 15.2
16.1	16.3	16.7	16.0	17.1	14.9 15.1	15.3	16.0	16.5	16.6	15.3	17.0	15.1 15.1
16.8	16.3	15.9	15.9	17.0	14.9 14.9	14.8	16.8	16.6	16.6	15.4	17.0	15.0 15.0

10.273787  
P3.65247

80.312757  
P3.19731

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	263	523	262	107	259	279 <sup>1</sup>	257	998	283	740
	HV 2311	5550	2300	5556	2293		2295	5553	5555	5565
17222										
17225	27746.482	16.7	14.0	16.6	15.3	15.1	15.6	15.9	16.2	15.5 15.4
17228	27747.424	16.6	15.1	16.5	15.4	15.2	15.7	16.2	16.0	15.3 15.1
17232	27749.409	16.2	14.4	16.9	15.5	15.1	15.8	16.2	15.7	15.7 15.5
17234	27749.489	16.4	14.0	16.9	15.5	15.1	15.4	16.1	15.6	15.5 15.4
17239	27750.440	def.	14.5	16.9	15.3	15.3	15.7	16.2	15.4	15.4 15.1
17247	27755.362	16.6	13.9	16.7	15.3	15.2	15.3	15.9	15.8	15.6 15.4
17249	27755.452	16.6	14.2	16.4	15.4	15.1	15.6	16.0	15.9	15.7 15.4
17268	27786.315	16.9	15.2	16.0	15.7	15.1	15.7	16.0	15.7	15.7 15.6
17280	27799.286	16.5	15.2	16.9	15.5	15.2	15.5	16.2	15.8	15.8 15.4
17281	27799.331	16.3	15.0	16.9	15.8	15.2	15.4	16.3	15.8	15.7 15.5
17282	27799.379	16.6	14.9	16.9	15.4	15.0	15.6	16.3	15.6	15.5 15.3
17283	27799.446	16.3	14.8	17.0	15.5	15.2	15.6	16.2	15.9	15.7 15.3
17284	27799.482	16.3	14.3	17.0	15.3	15.2	15.3	16.2	15.8	15.6 15.3
17285	27799.532	16.7	14.3	17.0	15.3	15.3	15.3	16.3	15.9	15.5 15.1
—17287	27800.283									
17288	27800.320	16.9	13.9	16.9	15.4	15.2	15.8	16.1	15.9	15.6 15.3
17289	27800.377	16.9	14.4	16.8	15.4	14.8	15.6	16.0	16.0	16.0 15.3
17290	27800.414	17.0	14.5	17.0	15.3	15.1	15.6	15.9	16.0	15.5 15.1
17291	27800.472	17.0	14.3	17.0	15.4	15.3	15.6	16.0	16.1	15.9 15.5
17292	27800.507	17.0	14.4	16.9	15.4	15.2	15.6	15.9	15.7	15.4 15.2
17293	27800.555	16.9	14.5	16.9	15.3	15.1	15.4	15.9	15.8	15.5 15.3
17294	27801.283	16.8	15.0	16.1	15.6	15.3	15.2	15.6	16.2	15.6 15.3
17295	27801.321	16.5	14.5	16.3	15.4	15.3	15.4	15.9	16.0	15.8 15.4



5548	2286	5581	2305	898	741	5625	910	5642	5669
286	267	625	802	57	741	686	56	279	375
5.4	15.4	15.8	16.1	16.0	16.4	16.3	16.2	15.0	15.4
5.1	15.2	15.3	16.3	16.1	16.2	16.2	15.9	15.7	15.3
5.5	15.7	15.6	16.1	16.1	16.0	15.9	15.7	15.7	15.4
5.4	15.6	15.5	16.2	16.1	16.0	15.9	15.9	15.7	15.5
5.1	15.3	15.3	16.2	16.0	16.0	16.0	15.2	15.4	15.3
5.4	15.1	15.2	15.9	15.9	15.8	15.8	16.1	16.0	15.6
5.4	15.5	15.6	16.0	16.0	16.1	16.1	16.0	16.0	15.4
5.6	15.6	15.5	16.3	16.4	16.3	16.3	15.7	15.7	15.1
5.4	15.7	15.5	16.2	16.4	16.1	16.2	16.0	15.9	15.3
5.5	15.7	15.6	16.2	16.3	16.2	16.2	16.0	16.0	15.5
5.3	15.5	15.4	16.3	16.4	16.1	16.1	16.0	15.9	15.7
5.3	15.5	15.5	16.2	16.3	16.1	16.1	16.2	16.2	15.8
5.3	15.7	15.5	16.3	16.4	16.1	16.1	16.2	16.3	15.9
5.1	15.5	15.4	16.3	16.4	16.2	16.1	16.2	16.2	15.9
5.5	15.6	15.7	16.3	16.3	15.8	15.7	15.9	14.8	15.2
5.2	15.7	15.6	16.2	16.4	15.4	15.7	16.1	14.5	15.3
5.3	15.4	15.4	16.1	16.2	15.4	15.6	16.3	14.4	15.0
5.3	15.3	15.3	16.3	16.3	15.6	15.8	16.1	14.5	15.4
5.4	15.6	16.2	15.7	15.8	15.7	15.7	16.0	14.8	15.5



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5680 5708 2418 2631 2640 5716 5733  
 645 377 734 825 877 958 658

17222

17225 27746.482 16.9 <sup>14.8 14.8 15.2 15.2</sup> 14.8 15.2 15.3 15.9 15.1 15.2

17228 27747.424 17.2 <sup>14.8 14.8 15.2 15.2</sup> 14.9 15.3 15.3 16.1 15.0 15.7

17232 27749.409 <17.0 <sup>14.8 14.9 15.0 15.1</sup> 15.1 15.3 15.4 16.0 14.6 15.2

17234 27749.489 <17.0 <sup>14.7 14.8 15.2 15.2</sup> 14.9 15.3 15.0 15.9 14.9 15.3

17239 27750.440 <17.0 <sup>14.8 15.0 15.1 15.1</sup> 15.2 15.2 15.4 15.8 14.7 15.7

17247 27755.362 16.9 <sup>14.8 15.0 15.2 15.2</sup> 15.2 15.3 15.4 16.0 14.9 15.3

17249 27755.452 <17.0 <sup>— — 14.9 15.1</sup> def. 15.3 15.4 16.1 14.8 15.5

17268 27786.315 16.3 <sup>14.8 14.9 15.4 15.3</sup> 15.0 15.2 15.1 15.8 15.0 15.7

17280 27799.286 16.4 <sup>14.8 14.8 15.0 15.1</sup> 14.7 15.3 15.3 15.9 15.0 15.4

17281 27799.331 16.3 <sup>14.9 14.9 15.1 15.4</sup> 14.8 15.3 15.4 15.9 14.8 15.6

17282 27799.379 <sup>14.8 14.8 15.2 15.3</sup> ay 14.9 15.3 15.4 15.9 14.6 15.4

17283 27799.446 16.5 <sup>15.3 15.3 15.3 15.4</sup> 15.4 15.4 15.0 16.1 15.0 15.8

17284 27799.482 16.4 <sup>14.8 15.0 15.2 15.2</sup> 15.2 15.2 15.4 16.2 15.0 15.9

17285 27799.532 16.4 <sup>14.8 15.0 15.2 15.3</sup> 15.1 15.3 15.3 16.0 15.1 15.4

— 17287 27800.283 <sup>15.0 14.9 15.4 15.4</sup> 14.9 15.4 15.5 15.9 15.0 16.8

17288 27800.320 16.4 <sup>15.2 15.1 15.3 15.2</sup> 15.0 15.2 15.5 15.7 15.1 15.7

17289 27800.377 16.4 <sup>14.7 14.9 15.2 15.3</sup> 15.1 15.3 15.2 15.8 14.7 15.7

17290 27800.414 16.5 <sup>14.8 14.9 15.5 15.4</sup> 15.0 15.3 15.5 15.5 15.0 15.4

17291 27800.472 16.4 <sup>14.9 15.0 15.5 15.4</sup> 15.1 15.4 15.5 15.7 15.0 15.8

17292 27800.507 16.5 <sup>15.2 15.2 15.3 15.4</sup> 15.3 15.5 15.4 15.6 14.9 15.3

17293 27800.555 16.5 <sup>14.9 14.9 15.2 15.3</sup> 15.0 15.3 15.4 15.8 15.1 15.1

17294 27801.283 16.4 <sup>14.7 14.8 15.2 15.3</sup> 14.9 15.2 15.4 15.8 15.1 15.3

17295 27801.321 16.3 14.9 15.2 15.4 15.8 15.1 15.3







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17298	27802.499	16.9	14.3 14.4	16.1	15.3	15.4	15.6	15.9	15.7 15.6	15.7	15.1	15.1
17299	27802.552	17.0	14.2 14.3	16.2	15.8	15.4	15.5	16.0	15.9 15.9	15.6	15.3	15.1
17300	27807.283	17.0	14.6 14.8	16.9	15.7	15.3	15.7	16.3	15.8 15.8	15.7	15.3	15.1
17301	27807.317	17.0	14.5 14.8	16.9	15.7	15.0	15.5	16.3	15.7 15.7	15.6	15.1	15.1
17302	27807.365	17.0	14.4 14.8	16.9	15.5	15.3	15.4	16.1	16.1 16.2	15.7	15.1	15.1
17303	27807.399	17.0	14.3 14.9	16.9	15.7	15.4	15.4	16.4	16.0 16.1	15.6	15.5	15.1
17304	27807.443	17.0	14.7 14.7	17.0	15.6	14.8	15.6	16.2	15.7 15.8	15.6	15.2	15.1
17305	27807.476	16.9	14.5 14.6	17.0	15.5	14.8	15.4	16.4	16.0 16.0	15.7	15.4	15.1
17306	27807.516	16.8	14.5 14.4	16.9	15.6	15.1	15.2	16.5	15.9 15.9	15.7	15.2	15.1
17307	27807.549	16.7	14.5 14.6	17.0	15.1	15.2	15.4	16.3	16.0 15.9	15.6	15.3	15.1
17308	27808.282	16.4	14.5 14.7	16.9	15.7	15.3	15.4	15.9	15.8 15.8	15.6	15.5	15.1
17309	27808.317	16.4	14.2 14.3	16.9	15.7	15.3	15.4	16.1	16.0 15.9	15.6	15.6	15.1
17310	27808.368	16.5	14.2 14.4	16.9	16.0	14.8	15.6	16.3	15.8 16.0	15.8	15.4	15.1
17311	27808.402	16.4	14.1 14.3	16.9	15.8	15.1	15.4	16.2	15.9 15.9	15.8	15.4	15.1
17315	27811.274	16.9	14.1 14.1	16.2	15.6	15.2	15.2	16.4	16.2 16.0	15.8	15.5	15.1
18016	28078.413	16.5	14.4 14.2	16.3	15.6	14.8	15.5	16.3	16.0 15.9	15.8	15.6	15.1

2311

and  
variable

2300 5556 2293

2295 5553 5555 5565 55

and  
not  
seen  
to be  
a  
 Cepheid

5550



24	286	267	625	802	57	741	5625	910	5642	5669
	15.6	16.3	16.1	16.3	16.1	16.6	14.8	15.4	15.2	15.9
5	15.4	16.3	16.1	16.1	def.	16.1	14.8	15.4	15.2	15.9
15	15.4	16.4	16.1	16.0	15.8	16.1	14.9	15.4	15.0	def.
15	15.3	16.2	15.8	15.7	16.0	15.5	14.9	15.3	14.9	16.0
15.1	15.5	16.3	15.5	16.0	16.3	16.0	14.8	15.4	15.0	16.0
15.1	15.4	16.1	15.3	16.0	16.1	15.6	14.5	15.4	14.8	16.0
15.5	15.5	16.3	15.7	15.8	16.1	15.6	14.7	16.0	14.9	16.0
15.2	15.4	16.2	15.8	16.0	16.1	15.7	14.7	16.0	14.9	16.0
15.4	15.5	16.1	15.7	16.0	16.0	15.6	14.5	16.1	15.0	15.9
15.2	15.3	16.1	15.8	15.8	15.8	15.6	14.6	16.0	15.1	16.0
15.3	15.1	16.0	15.7	15.8	16.0	15.6	14.6	16.1	14.9	15.9
15.5	15.2	16.4	16.4	15.8	15.8	15.9	14.5	15.3	15.0	16.0
15.6	15.4	16.4	16.2	16.1	15.9	16.0	14.4	15.5	15.1	16.1
15.4	15.4	16.3	16.4	16.1	15.9	15.8	14.5	15.4	15.1	15.9
15.4	15.4	16.5	16.4	16.2	16.1	16.0	14.6	15.2	14.8	16.0
15.5	15.4	16.5	15.9	16.1	15.4	16.0	14.4	15.5	15.2	16.0
15.4	15.2	16.0	15.7	16.1	15.8	15.6	def.	15.5	14.9	15.9

h<sub>2</sub> 6 - 69°  
umik  
78

5565 5548 2286 5581 2305 898

Imp



132

5680	5708	2418	2631	2640	5716	5733
645	377	734	875	877	958	658
17298	27802.499	16.4	15.2	15.5	15.0	15.7
17299	27802.552	16.4	15.0	15.3	15.0	15.5
17300	27807.283	16.5	15.0	15.2	15.2	15.9
17301	27807.317	16.4	14.9	15.3	15.3	16.0
17302	27807.365	16.4	14.9	15.3	15.4	15.3
17303	27807.399	16.4	14.9	15.2	15.3	15.9
17304	27807.443	16.4	14.7	15.7	15.5	16.0
17305	27807.476	16.5	15.0	15.6	15.3	16.2
17306	27807.516	16.6	15.2	15.5	15.5	16.1
17307	27807.549	16.6	15.1	15.6	15.5	16.1
17308	27808.282	16.5	15.0	15.4	15.3	15.5
17309	27808.317	16.6	14.9	15.3	15.7	15.5
17310	27808.368	16.6	14.8	15.1	15.2	15.7
17311	27808.402	16.6	14.9	15.2	15.5	15.6
17315	27811.274	16.8	15.3	15.5	15.5	16.0
18016	28078.413	16.9	15.0	15.4	15.3	16.0



Further observations on  
South preceding region  
reg IV & IV'

plates centered on MC 5<sup>h</sup>26-69<sup>o</sup>

Winter-Spring 1955 U.M.K.N.  
Continued from page 78

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JD

VN227	HV5560 (882)	HV2309 (822)	HV2307 (881)	VN253	HV2289 (857)	VN185	VN227	HV5551 (615)	VN85	Sw (1)
14.4	14.4	14.6	14.3	16.3	14.3	15.6	15.3	15.3	14.6	15
14.4	14.6	14.5	14.4	16.0	14.3	16.0	15.1	15.3	14.5	14
14.5	14.5	14.6	14.5	15.8	14.5	15.3	15.2	15.6	14.8	14
14.5	14.5	14.6	14.4	16.0	14.4	15.8	15.2	15.3	14.6	14
14.5	14.6	14.7	14.5	15.9	14.4	15.4	15.3	15.3	15.5?	14
14.5	14.6	14.7	14.6	15.9	14.5	15.7	15.1	15.9	14.8	14
14.5	14.6	14.7	14.4	15.8	14.4	15.8	15.2	15.1	14.8	14
14.5	14.6	14.7	14.6	15.0	14.5	<del>15.0</del>	15.0	15.0	14.9	15
14.5	14.5	14.6	14.4	15.9	14.3	15.8	15.1	15.2	14.6	14
14.5	14.6	14.7	14.4	16.0	14.6	15.9	15.1	15.7	14.5	14
14.5	14.5	14.6	14.4	16.0	14.5	15.8	15.2	15.9	14.7	14
14.4	14.5	14.8	14.5	16.0	14.5	15.8	15.1	15.7	14.6	14
14.5	14.5	14.7	14.4	16.1	14.6	15.6	15.0	15.1	14.8	14
14.5	14.6	14.8	14.5	15.8	14.4	15.3	15.1	15.9	crack	14
off the plate										
14.5	14.6	14.7	14.2	16.1	14.1	15.4	15.1	15.0	14.4	14
off the plate										
off the plate										
14.5	14.7	14.8	14.3	15.5	14.2	16.0	15.1	16.0	14.4	14
14.4	14.7	14.6	14.4	16.0	14.2	15.9	15.1	15.0	14.4	14
14.2	14.5	14.6	14.5	15.9	14.3	15.8	15.1	15.1	14.5	14
14.5	14.5	14.5	14.4	15.9	14.5	15.7	15.1	15.2	14.5	14
14.4	14.5	14.5	def	16.0	14.2	15.6	15.2	15.2	14.4	14
14.3	14.5	14.7	14.5	16.3	14.0	15.7	15.1	15.3	14.4	14
14.3	14.6	14.6	14.4	15.8	14.1	16.0	15.0	15.1	14.4	14



Sun 6 (164)	2272 920	VN 43	HV 5532 (249)	HV5532 (248)	VN 229	HV5540 (252)	VN89	HV5534 (84)	HV5561 (611)	HV5544 (609)	VN90	VN10 A	137
15.0	15.8	15.2	15.2	14.8	16.2	15.2	14.9	13.6	15.7	14.4	15.9	15.3	15.5
14.7	[16.0	[16.0	15.0	14.9	15.9	15.7	14.8	14.0	15.8	14.2	16.0	15.7	15.7
14.8	16.0	16.2	15.0	14.8	16.0	15.3	14.7	13.7	15.6	14.0	15.9	15.3	15.7
14.7	16.0	16.3	15.0	14.8	16.2	15.3	14.8	13.8	15.7	14.3	15.8	15.2	15.7
14.8	14.7	15.2	15.1	14.8	16.0	15.6	14.9	13.9	15.7	14.2	15.8	15.5	15.8
14.9	15.0	16.1	14.8	14.8	16.0	15.3	15.0	13.6	15.4	14.3	15.9	15.2	15.7
14.8	16.3	16.4	15.1	14.9	16.4	15.3	14.8	13.8	15.6	14.2	15.9	15.2	15.8
15.0	[15.0	[15.0	15.0	14.9	[15.0	[15.0	14.9	13.8	[15.0	14.4	[15.0	[15.0	[15.0
14.7	poor plate 15.9	15.3	14.9	14.7	16.2	15.7	14.9	13.9	15.5	14.0	15.9	15.4	15.8
14.7	16.2	16.2	15.0	14.7	16.4	15.7	14.9	13.7	15.8	14.3	15.9	15.6	15.8
14.8	15.1	16.2	15.1	14.7	16.4	15.7	14.8	13.7	15.7	14.4	15.9	15.4	15.8
14.8	15.2	15.9	15.1	14.8	15.2	15.7	15.0	13.8	15.8	14.3	15.7	15.5	15.8
14.8	16.0	16.2	15.1	14.8	15.3	15.8	14.9	14.2	15.8	14.4	15.9	15.7	15.8
cracked plate	15.7	—	15.1 15.0	[16.0	15.7	14.8	14.0	15.8	14.4	15.9	15.3	15.9	
14.7	15.6	16.0	15.0	14.8	16.2	15.7	15.0	13.7	15.6	14.3	15.9	15.3	15.7
14.8	14.9	15.1	15.0	14.8	15.9	15.8	15.0	13.7	15.4	14.3	15.8	15.5	15.8
14.5	16.2	16.2	14.8	14.8	16.0	15.5	14.9	14.1	15.7	14.3	15.8	15.5	15.8
14.8	15.0	16.2	15.0	14.8	16.3	15.7	14.8	14.0	15.6	14.3	15.9	15.4	15.8
14.7	15.2	16.0	15.1	14.8	16.4	15.7	14.9	14.1	15.8	14.3	16.0	15.6	15.8
14.7	15.5	16.3	14.9	14.8	15.9	15.6	14.8	14.3	15.7	14.3	15.9	15.4	15.7
14.6	15.8	15.4	14.8	14.8	16.4	15.7	14.8	14.1	15.8	14.2	15.9	15.3	15.8
14.8	14.8	15.9	14.9	14.8	15.4	15.7	14.9	14.2	15.7	14.4	15.8	15.7	15.8



138	VN 43	HV 2264 (859)	HV 2285 (720)	VN 44	HV 5526 (247)	HV 2243 (163)	VN 233	VN 250	VN 137	VN 273	VN 108	VN 170	VN 23
24425	15.2 15.2 15.3	14.6	14.4	14.3	15.4	14.3	15.1	15.7	15.0	15.1	16.0	15.5	16.0
24446	16.0 16.0 16.0	14.7	14.8	14.4	15.6	14.5	14.9	15.0	15.2	15.1	15.0	15.0	15.0
24451	16.2 16.0 16.0	14.6	14.7	14.4	15.2	14.3	15.1	15.9	15.1	15.2	16.0	15.8	16.2
24467	16.3 16.1 16.0	14.3	14.3	14.0	15.5	14.3	15.2	15.8	14.8	15.1	15.8	15.8	16.0
24469	16.3 16.0 16.0	14.5	14.4	14.3	15.5	14.4	15.0	15.7	15.1	15.2	15.7	15.4	15.8
24483	16.1 16.0 15.8	14.5	14.4	14.4	15.7	14.4	15.1	15.8	14.8	15.1	15.2	15.8	15.9
24487	16.4 16.2 16.1	14.4	14.4	14.4	15.5	14.4	14.9	def	15.1	15.4	16.0	15.8	15.9
24496	15.0 15.0 15.0	14.8	14.7	14.8	15.0	14.5	15.0						
24502	15.3 15.4 15.6	14.5	14.4	14.4	15.5	14.3	14.9	15.9	14.9	15.1	16.1	15.6	15.9
24509	16.1 16.1 16.0	14.6	14.3	14.4	15.7	14.4	15.2	15.9	15.2	15.4	16.0	15.9	15.9
24516	16.2 16.1 15.9	14.5	14.3	14.4	15.5	14.4	14.9	15.8	15.3	15.1	16.0	15.8	15.7
24526	15.9 15.9 16.0	14.8	14.3	14.4	15.6	14.4	15.0	15.9	14.8	15.7	15.7	15.8	16.0
24531	16.2 16.2 16.1	14.8	14.4	14.6	15.8	14.7	15.3	15.8	15.7	15.8	16.0	16.1	16.0
24547	15.7 15.7 15.8	def	14.3	14.5	15.7	def	def	15.9	15.1	15.4	16.0	15.7	16.0
24606	16.0 15.9 15.9	15.0	14.0	15.2	15.7	14.8	15.3	16.2	15.2	15.6	15.7	15.9	15.9
24666	15.1 15.2 15.3	14.5	14.3	14.6	15.6	14.6	15.2	15.8	15.3	15.8	16.1	15.4	15.8
24959	16.2 16.1 16.0	14.5	14.8	14.4	15.4	14.4	15.1	15.8	15.1	15.8	15.9	15.2	16.0
25140	16.2 16.1 16.0	14.3	14.9	14.4	15.6	14.5	15.0	16.0	15.0	15.2	15.7	15.9	16.1
25169	16.0 16.0 16.0	14.5	14.8	14.3	15.6	14.6	15.1	15.9	15.4	15.7	16.0	16.0	16.0
25774	16.3 16.2 16.1	14.4	14.7	14.2	15.4	14.3	15.3	16.0	15.0	15.9	16.1	15.7	16.0
25443	15.4 15.5 15.6	14.5	16.1	14.3	15.2	14.0	15.2	15.6	15.0	15.7	15.8	15.8	15.9
25444	15.9 16.0 16.0	14.3	16.1	14.2	15.2	14.1	15.1	16.0	15.1	15.8	15.9	15.9	16.0



VN7  
1945phae proj. 24478

6.0

5.8

6.2

6.0

5.8

5.9

5.9

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5.9

5.7

6.0

6.0

6.0

5.9

5.8

6.0

6.1

6.0

6.0

5.9

6.0



140

JD

	VN 227	HV 5560 (86)	HV 2204 (862)	HV 2302 (861)	VN 253	HV 2259 (857)	VN 188	VN 229	HV 5551	VN 85	
25462 32023.644	14.5	14.6	14.8	14.7	16.4	14.1	15.8	15.1	15.1	14.6	14
25472 32024.646	14.4	14.6	14.7	14.5	16.0	14.3	16.0	15.1	14.8	14.4	14
25474 32027.647	14.4	14.6	14.6	14.5	16.5	14.1	15.9	15.0	15.1	14.5	14
25477 32030.615	14.5	14.6	14.8	14.5	15.9	14.1	15.8	15.2	15.8	14.4	14
25484 32031.640	14.4	14.6	14.7	14.5	16.0	14.0	16.0	15.2	15.9	14.4	14
25501 32035.638	14.6	14.7	14.7	14.6	16.0	14.1	15.8	15.1	15.0	14.4	14
25504 32037.641	14.5	14.8	14.7	14.6	15.8	14.2	15.3	15.1	15.0	14.5	14
25507 32042.646	14.3	14.8	14.7	14.5	15.7	14.0	15.9	15.1	15.6	14.5	14
25522 32053.628	14.3	14.9	14.8	14.5	16.0	14.1	15.5	def	15.4	14.4	14
25533 32056.622	14.5	14.6	14.5	14.4	16.1	14.2	15.2	15.2	15.0	14.4	14
25538 32058.600	14.5	14.6	14.5	14.4	16.1	14.1	16.0	15.2	15.3	14.4	14
25544 32059.506	14.3	14.6	14.6	14.5	15.8	14.1	16.0	15.0	15.5	14.3	14
25555 32061.610	14.4	14.6	14.8	14.6	16.1	14.3	15.3	15.2	15.6	14.4	14
25562 32067.621	14.4	14.7	14.7	14.6	15.9	14.2	15.9	15.1	15.0	14.4	15
25564 32069.566	14.4	14.8	14.7	14.6	15.9	14.1	15.5	15.1	15.4	14.2	14
25566 32070.603	14.3	14.8	14.7	14.4	16.1	14.2	15.7	14.9	15.2	14.2	14
25636 32129.569	14.5	14.9	14.7	14.5	16.0	14.2	15.9	15.0	15.0	14.3	14
25642 32151.341	14.4	14.5	14.8	14.7	16.2	14.4	15.1	15.1	15.1	14.4	14
25643 32152.357	14.3	14.6	14.8	14.6	16.1	14.3	15.6	15.5	15.0	14.4	14

Wrong star



Sus 6	HV 2272	VN43	HV5330	HV 5527	VN 229	HV5540 (252)	VN89	HV5554 (84)	HV5561 (611)	HV5544 (609)	VN 90	VN 90A	4	HV 15538
14.8	15.0	16.4	14.7	14.7	16.4	15.4	14.8	14.0	15.8	14.4	15.8	15.2	15.8	
14.6	15.6	15.8	14.8	14.8	16.0	15.4	14.8	14.2	15.7	14.4	15.9	15.7	15.7	
14.7	16.2	15.9	14.9	14.8	16.4	15.6	14.8	14.3	15.6	14.4	15.8	15.2	15.8	
14.7	15.8	16.1	14.8	14.8	16.0	15.4	14.9	14.2	15.7	14.3	15.8	15.4	15.9	
14.9	16.2	15.9	14.8	14.8	16.3	15.7	15.0	14.1	15.7	14.3	15.9	15.7	15.8	
14.8	15.6	16.0	14.8	14.7	16.2	15.4	14.9	14.3	15.8	14.4	15.8	15.5	15.8	
14.7	16.2	15.9	14.8	14.7	15.5	15.6	15.0	14.2	15.7	14.3	15.9	15.5	15.8	
14.7	16.0	16.0	14.8	14.7	16.3	15.6	14.9	14.1	15.8	14.2	15.8	def	15.8	
14.6	16.0	16.1	15.1	14.8	16.3	15.6	15.0	14.2	15.8	14.4	15.9	15.4	15.9	
def	15.2	16.2	14.8	14.8	16.3	15.8	15.1	14.3	15.9	14.3	15.8	15.5	15.8	
14.9	15.9	16.1	15.0	14.9	15.6	15.1	15.0	14.3	15.6	14.2	15.9	15.5	15.8	
14.8	16.0	16.2	15.0	14.8	15.9	15.8	14.9	14.0	15.8	14.3	15.9	def	15.9	
14.8	15.0	16.3	15.0	14.9	16.4	15.4	14.9	13.9	15.8	14.3	15.8	15.4	15.8	
15.0	15.4	15.2	15.0	14.8	16.0	15.6	14.9	14.0	15.8	14.3	15.8	15.7	15.9	
14.9	16.0	16.4	15.0	14.8	16.4	15.6	15.0	14.2	15.8	14.4	15.9	15.6	15.9	
14.8	16.1	15.8	14.8	14.8	15.9	15.6	14.9	13.9	15.6	14.3	15.8	15.1	15.7	
14.9	16.0	16.3	15.1	14.8	15.9	15.8	14.9	14.0	15.6	14.3	15.8	15.8	15.8	
14.8	16.0	16.1	15.2	14.8	16.0	15.6	14.9	13.9	15.6	14.5	15.9	15.8	15.8	
14.9	16.2	15.8	15.2	14.9	16.2	15.6	15.0	14.0	15.8	14.4	15.9	15.6	15.8	

Not a variable

Not a variable

Not a variable

Not a variable



42

	VN43	HU2264 (559)	HU2255 (720)	VN44	HU5528 (247)	HU2293 (163)	VN233	VN280	VN137	VN273	VN108	VN170	VN235
25462	16.3	14.3	16.1	14.3	15.3	14.0	15.0	15.7	15.0	15.7	15.9	15.2	16.0
25472	15.9	14.5	16.2	14.4	15.3	14.0	15.0	15.7	15.0	15.3	16.0	15.7	def
25474	16.1	14.3	16.2	14.3	15.3	14.0	14.9	16.1	15.3	15.4	16.1	16.0	15.9
25477	15.1	14.5	16.2	14.3	15.3	14.0	15.1	15.8	14.9	15.7	15.9	15.8	15.9
25484	15.9	14.4	16.5	14.5	15.4	13.9	14.9	15.9	14.8	15.7	16.2	16.0	16.1
25501	def	14.4	16.3	14.3	15.3	14.0	15.0	15.8	15.0	15.2	def	15.9	15.9
25504	16.0	14.6	16.2	14.4	15.2	14.0	14.9	16.1	15.1	15.7	16.0	15.8	15.9
25507	15.9	14.5	16.3	14.2	15.2	14.1	15.0	16.2	15.3	15.1	16.0	15.7	16.2
25522	16.1	14.4	16.3	14.3	15.3	14.0	15.1	15.9	15.0	15.6	16.0	15.6	15.9
25533	16.2	14.4	16.3	14.4	15.4	14.1	15.1	15.9	15.8	15.8	16.1	15.9	16.1
25538	16.1	14.6	16.3	14.5	15.2	14.1	15.1	15.9	14.8	15.7	16.0	15.7	15.9
25544	16.0	14.5	16.3	14.5	15.2	14.0	15.1	15.9	14.9	15.8	16.3	15.9	16.0
25555	16.1	14.6	16.3	14.3	15.2	14.0	15.1	15.8	14.8	15.6	15.8	15.3	15.9
25562	15.7	14.5	16.3	14.5	15.2	14.1	15.0	16.0	15.0	15.4	15.9	15.9	15.8
25564	16.2	14.4	16.2	14.5	15.3	14.2	15.0	15.9	15.0	15.8	16.1	15.9	15.8
25566	def	14.4	16.4	14.5	15.2	14.0	15.0	15.7	14.9	15.4	16.0	15.7	15.9
25636	16.2	14.5	16.4	14.6	15.3	14.2	15.2	15.7	15.1	15.8	15.8	15.6	15.9
25642	16.2	14.4	16.0	14.4	15.3	14.4	15.2	15.9	14.9	15.7	16.1	16.0	15.9
25643	15.9	14.3	16.1	14.6	15.2	14.2	15.1	15.8	14.8	15.6	16.2	15.3	15.9

Irregular



1945phae.proj.24478  
 16.0  
 def  
 5.9  
 5.9  
 6.1  
 5.9  
 5.9  
 6.2  
 5.9  
 6.1  
 5.9  
 6.0  
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 5.8  
 5.8  
 5.9  
 5.9  
 5.9  
 5.9







Front variable edge of SMC

Position of new variables

$$\begin{aligned} H \quad 9300 + 5.5(60) &= 9300 + 330 = 9630 & 1500 + 6.7(60) &= 1500 + 402 = 1902 \\ 9900 - 4.5(60) &= 9900 - 270 = 9630 & 2100 - 3.3(60) &= 2100 - 198 = 1902 \end{aligned}$$

$$H = \bar{X} \quad 9630 \quad Y \quad 1902$$

$$\begin{aligned} C \quad 11700 + 1.4(60) &= 11700 + 84 = 11784 & 4600 + 8.1(60) &= 4600 + 486 = 5086 \\ 12300 - 5.6(60) &= 12300 - 336 = 11964 & 5100 - 1.9(60) &= 5100 - 114 = 4986 \end{aligned}$$

$$C = \bar{X} \quad 11784 \quad Y \quad 5086$$

$$\begin{aligned} D \quad 3300 + 5.2(60) &= 3300 + 312 = 3612 & 5100 + 5.3(60) &= 5100 + 318 = 5418 \\ 3900 - 4.7(60) &= 3900 - 282 = 3618 & 5700 - 4.7(60) &= 5700 - 282 = 5418 \end{aligned}$$

$$D = \bar{X} \quad 3618 \quad Y \quad 5418$$

$$\begin{aligned} E \quad 5100 + 4.3(60) &= 5100 + 258 = 5358 & Y &= 4500 \\ 5700 - 5.7(60) &= 5700 - 342 = 5358 \end{aligned}$$

$$E = \bar{X} \quad 5358 \quad Y \quad 4500$$

$$\begin{aligned} 8100 + 9.8(60) &= 8100 + 588 = 8688 & Y \quad 14100 + 2.2(60) &= 14100 + 132 = 14232 \\ 8700 - 0.2(60) &= 8700 - 12 = 8688 & Y \quad 14900 - 2.2(60) &= 14900 - 132 = 14768 \end{aligned}$$

$$G = \bar{X} \quad 8688 \quad Y \quad 14232$$



15L	HSL	HSL	HSL	HSL	HSL	SMLV	SMLV	SMLV
469	479	478	480	438	501	1299	1289	890
1383	1701	1707	1821	1834	1828			

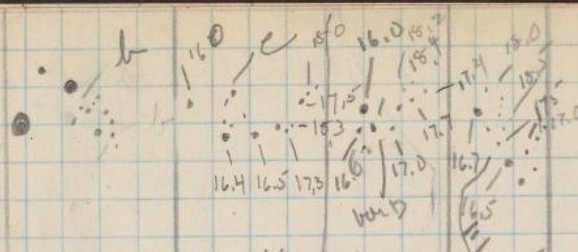
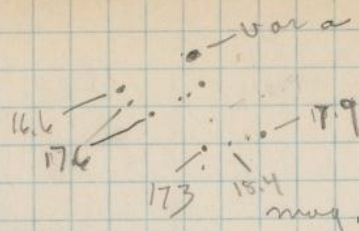
2114	34682.321	16.7	17.2	15.7	17.0	15.9	15.6
2115	.378	16.8	17.0	15.7	17.4	15.9	15.6
2116	429	16.7	17.0	15.6	17.0	16.0	15.7
2117	472	16.8	17.0	15.7	17.4	16.0	15.8
2118	34684.263	16.9	16.9	15.7	17.3	17.0	15.7
2119	.314	17.4	16.8	15.8	17.5	17.0	15.8
2120	.372	17.0	17.0	15.8	17.4	17.0	15.9
2121	405	17.2	17.0	16.0	17.5	17.0	16.0
2122	34685.262	15.8	17.0	16.4	17.6	16.7	16.2
2123	.312	16.10	16.9	16.5	17.4	16.6	15.7
2124	.368	15.8	17.2	16.4	17.5	16.7	15.9
2125	.415	16.0	17.1	16.2	17.5	16.8	15.8
2126	.44	16.2	17.0	16.3	17.4	16.7	15.6
2127	34689.263	17.1	16.8	15.7	17.5	17.0	16.4
2128	.311	17.0	17.0	16.0	17.2	16.7	16.4
2129	.365	16.9	17.2	15.7	17.1	16.7	16.2
2130	.413	16.8	17.0	15.6	17.4	16.7	16.0
2131	.408	17.1	17.0	15.8	17.3	16.7	15.6
2133	34690.267	16.0	17.0	16.3	17.3	16.8	15.6
2134	.319	16.2	17.1	16.6	17.4	16.4	15.7
2135	.370	16.0	16.9	16.4	17.4	16.5	15.7
2136	.418	16.0	17.2	16.5	17.5	16.4	15.7
2137	.462	16.3	17.0	16.4	17.5	16.5	15.6



18.0	17.9							
18.5	17.7	17.5	17.1	18.1	17.6	16.2		
18.5	18.1	17.5	17.8	18.3	17.8	16.8	17.7	
18.1	$\Sigma 18.2$	17.4	17.4	18.2	18.0	16.9	18.0	
18.1	18.0	17.7	17.2	18.3	17.8	16.7		
18.8	18.3	17.7	17.2	18.0	17.5	17.2		
17.9	$\Sigma 18.2$	17.8	17.0	18.0	17.6			
$\Sigma 18.2$	$\Sigma 18.2$	17.5	17.4	18.0	18.0	17.8		
18.3	18.1	17.4	17.2	18.0	17.4	17.8	17.4	
$\Sigma 18.2$	17.8	17.5	17.0	$\Sigma 18.1$	17.9	18.0		
$\Sigma 18.5$	18.2	17.9	17.1	$\Sigma 18.2$	18.0	17.9		
$\Sigma 18.5$	18.0	18.0	17.9	17.8	17.8	17.7	18.4	17.9
18.1	18.1	17.7	17.2	18.1	17.2	17.8		
18.4	18.2	17.7	17.1	18.3	17.9	17.9		
$\Sigma 18.2$	18.0	17.8	17.2	18.1	17.6	17.7		
$\Sigma 18.5$	18.2	17.6	17.1	18.3	17.9	16.9		
18.5	18.0	17.8	17.2	18.3	18.1	17.0		
17.9	18.0	17.6	17.2	$\Sigma 18.3$	17.8	16.9	17.7	17.5
18.4	18.0	17.5	17.3	18.2	17.3	16.8		
$\Sigma 18.5$	18.2	17.6	17.1	18.0	17.9	17.0		
18.2	18.0	17.8	17.3	$\Sigma 18.1$	17.7	16.6		
$\Sigma 18.2$	18.0	17.8	17.1	18.0	17.9	16.5		
$\Sigma 18.5$	18.0	17.4	16.9	18.2	17.9	16.3		
18.2	18.2	17.8	17.0	18.2	17.4	16.4		
18.0	18.0	17.8	17.0	18.3	17.6	16.4		

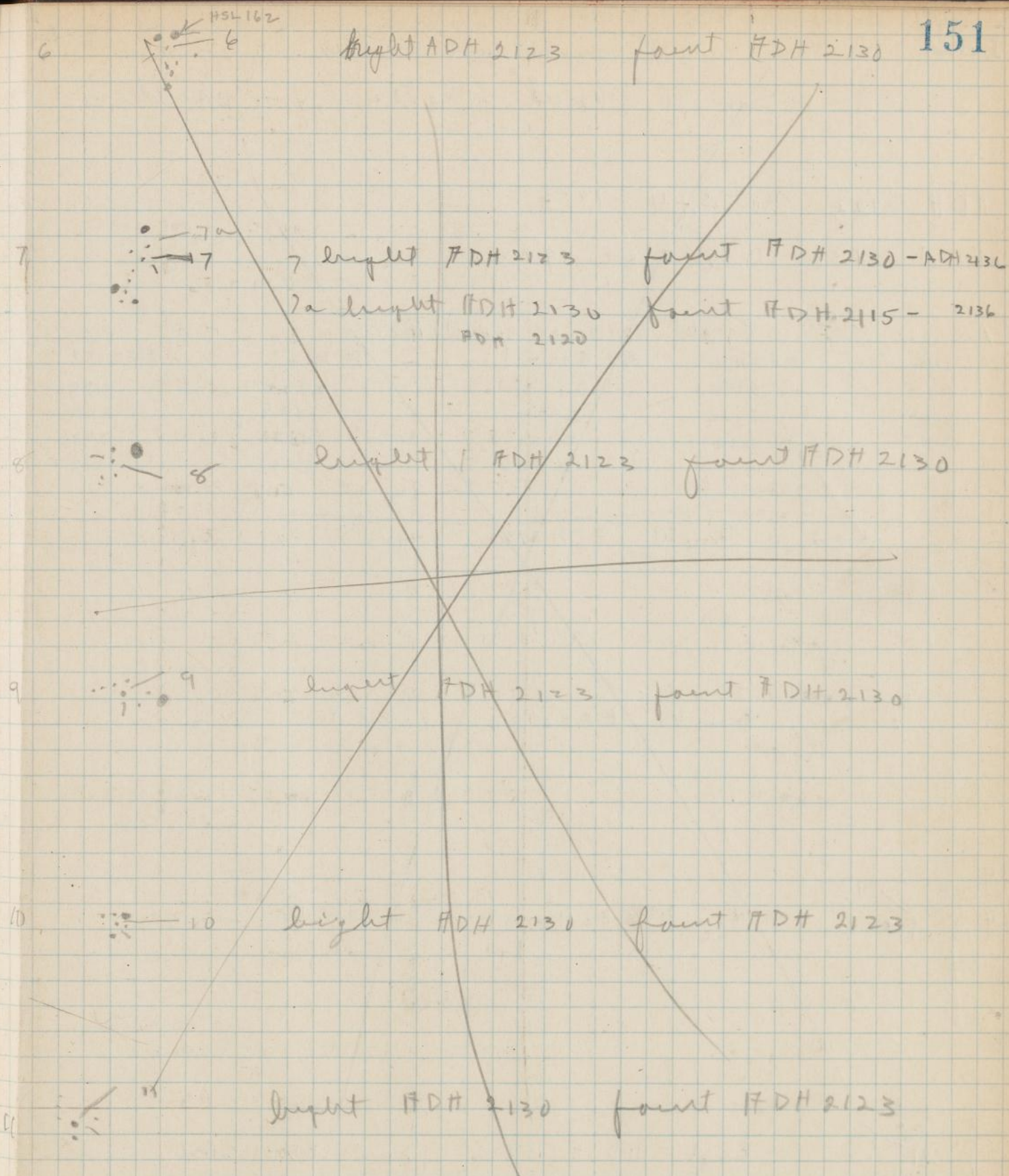


Ver. a



FDH	2114	34682.321	17.4	17.7	17.4	16.6	17.5
	2115	34682.378	17.6	18.0	17.2	16.5	17.7
	2116	34682.429	17.7	17.9:	17.0	16.7	17.6
	2117	34682.472	17.7	17.9:	17.2	17.1	17.6
	2118	34684.263	16.5:	Σ17.3	16.2:	17.0	Σ17.0
	2119	34684.314	16.6	17.7	15.8	17.4:	17.2:
	2120	34684.372	16.8	18.0:	15.8	17.2	17.5
	2121	34684.405	17.1	Σ17.4	15.9	17.2:	17.4:
	2122	34685.262	17.3	17.9:	16.8	16.0	17.4
-	2123	34685.312	16.6	17.9	17.2	15.9	17.5
	2124	34685.368	16.5	17.9	17.1	16.1	17.6
	2125	34685.415	16.5	17.8	17.0	16.3	17.7
	2126	34685.466	16.8	Σ17.9	17.4	16.4	17.6
	2127	34689.263	17.8	Σ17.9	15.9	16.7	16.7
-	2128	34689.311	17.5	17.50K	16.3	17.0	16.5
	2129	34689.365	17.8	Σ17.9	16.2	17.1	16.5
	2130	34689.413	17.7	17.9	16.0	17.0	16.4
	2131	34689.458	17.9	17.9	16.5	17.3	16.1
	2133	34690.267	17.5	18.2:	17.2	15.9	17.3
	2134	34690.319	17.6	17.8	16.9	15.9	17.4
	2135	34690.370	17.7	17.8	16.8	16.1	17.6
	2136	34690.418	17.7	18.0	17.2	16.0	17.7
	2137	34690.462	17.6	17.7	17.2	16.3	17.7







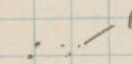
Examination 60<sup>m</sup> 14

Small Cloud plates for variables

FDH 2123 Nov. 3, 4 1953

FDH 2130 Nov 7-8 1953

1



FDH 2114  
2115  
2116  
2117

Bright

FDH 2118  
2119  
2120  
2121

Bright FDH 2123 faint FDH 2130

FDH 2122  
2123  
2124  
2125  
2126

FDH 2127  
2128  
2129  
2130  
2131

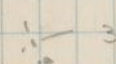
FDH 2133  
2134  
2135  
2136  
2137

2



Bright FDH 2130 faint FDH 2123

3



Bright FDH 2130 faint FDH 2123

4



Bright FDH 2130 faint FDH 2123

5



Bright FDH 2123 faint FDH 2130















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