



HAL
open science

Rotational and Rovibrational Spectroscopy of the $v_8=1$ and 2 Vibrational States of CH₃NC

Petr Pracna, Jiří Urban, Ondřej Votava, Štěpán Urban, Zuzana Meltzerová,
Veli-Matti Horneman

► **To cite this version:**

Petr Pracna, Jiří Urban, Ondřej Votava, Štěpán Urban, Zuzana Meltzerová, et al.. Rotational and Rovibrational Spectroscopy of the $v_8=1$ and 2 Vibrational States of CH₃NC. *Molecular Physics*, 2011, pp.1. 10.1080/00268976.2011.605775 . hal-00722801

HAL Id: hal-00722801

<https://hal.science/hal-00722801>

Submitted on 4 Aug 2012

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Rotational and Rovibrational Spectroscopy of the $v_8=1$ and 2 Vibrational States of CH₃NC

| | |
|--|--|
| Journal: | <i>Molecular Physics</i> |
| Manuscript ID: | TMPH-2011-0153.R1 |
| Manuscript Type: | Special Issue Paper - Dijon HRMS |
| Date Submitted by the Author: | 24-Jun-2011 |
| Complete List of Authors: | Pracna, Petr; J. Heyrovsky Institute of Physical Chemistry Urban, Jiří; J. Heyrovsky Institute of Physical Chemistry Votava, Ondřej; J. Heyrovsky Institute of Physical Chemistry Urban, Štěpán; Institute of Chemical Technology, Department of Analytical Chemistry Meltzerová, Zuzana; Institute of Chemical Technology, Department of Analytical Chemistry Horneman, Veli-Matti; University of Oulu, Department of Physics |
| Keywords: | methyl isocyanide, high-resolution FTIR spectroscopy, submillimeter wave spectroscopy, anharmonic and vibration-rotation resonances |
| <p>Note: The following files were submitted by the author for peer review, but cannot be converted to PDF. You must view these files (e.g. movies) online.</p> | |
| figures.zip | |

SCHOLARONE™
Manuscripts

For Peer Review Only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Rotational and Rovibrational Spectroscopy of the $\nu_8=1$ and 2 Vibrational States of CH_3NC

Deleted: of the

P. Pracna^{a*}; J. Urban^a; O. Votava^a; Z. Meltzerová^b; Š. Urban^b; V.-M. Horneman^c

^a *J. Heyrovský Institute of Physical Chemistry, v.v.i., Academy of Sciences of the Czech*

Republic, Dolejškova 3, 18223 Prague 8, Czech Republic; ^b *Department of Analytical*

Chemistry, Institute of Chemical Technology, Technická 5, 16628 Prague 6, Czech Republic;

^c *Department of Physics, University of Oulu, B.O.X 3000, 90014 University of Oulu, Finland*

* Corresponding author:

Petr Pracna

J. Heyrovský Institute of Physical Chemistry, v.v.i.

Academy of Sciences of the Czech Republic

Dolejškova 3, 182 23 Prague 8

Czech Republic

pracna@jh-inst.cas.cz

Phone: +420-26605 3426

Fax: +420-28658 2307

Dedicated to Prof. Gianfranco DiLorenzo in recognition of his many valuable contributions to
molecular spectroscopy

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Abstract

The lowest frequency vibration-rotation band ν_8 , corresponding to the degenerate CNC bending vibration of methyl isocyanide (CH_3NC) with band center at 267.3 cm^{-1} , was studied by FTIR spectroscopy between 215 and 320 cm^{-1} and rotational spectroscopy in the range from 201 to 383 GHz in order to describe the vibration-rotation dynamics with inclusion of all important anharmonic and vibration-rotation interactions. Assignments extended to higher- K rotational states in both vibration-rotation and rotational spectra reveal a resonance crossing with the $\nu_8 = 2$ overtone level due to a local anharmonic Fermi resonance. The simultaneous analysis of both types of data provides a fully quantitative reproduction of the experimental data as well as a preliminary characterization of the $\nu_8 = 2$ level. The parallel component of the overtone band $2\nu_8^0$ with band center at 524.6 cm^{-1} was assigned for the first time from spectra in the region from 480 to 585 cm^{-1} together with the hot bands $2\nu_8 - \nu_8$ in the region of the fundamental band.

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 2^0 \leftarrow 0$

Deleted: $\nu_8 = 2^{0,\pm 2} \leftarrow 1^{\pm 1}$

Formatted: Lowered by 6 pt

Keywords: methyl isocyanide; high-resolution FTIR spectroscopy; submillimeter wave spectroscopy; anharmonic and vibration-rotation resonances

1. Introduction

A systematic investigation of high-resolution rovibrational spectra of methyl isocyanide (CH_3NC) was initiated in the 1990's by Plíva and coworkers with the aim of providing a more detailed spectroscopic background for the quantitative understanding of the rovibrational structure in the context of the problem of monomolecular isomerization of CH_3NC to CH_3CN .

This reaction has been a subject of many kinetic investigations [1,2] because it demonstrated a substantial disagreement with the statistical behaviour (Rice-Ramsperger-Kassel-Marcus theory) for unimolecular reactions [3]. In their studies, Plíva and coworkers analyzed all fundamental vibrational levels [4-7] and determined the axial rotational constant A_0 and centrifugal distortion constant D_K^0 applying the method of combination loops to the $\nu_7+\nu_8$ combination band and the $(\nu_7+\nu_8)-\nu_8$ hot band [8]. Their scheduled studies of the series of vibrational levels $\nu_8 = 1, 2, \dots$ corresponding to the bending mode of the CNC chain,

however, have not continued after the analysis of the fundamental level $\nu_8 = 1$ [8]. This may be explained by the problems which are unavoidably encountered in studies of this low-frequency mode, as observed for example in the structurally similar molecule CH_3CCH [9-13]. The strongly prolate structure of such molecules with a large value of $A - B \approx 5 \text{ cm}^{-1}$ makes the intensities of transitions rapidly vanish with the growing value of K . These *high- K* rotational levels are at the same time those for which the onset of strong local anharmonic (Fermi) resonances occurs. As a result, it becomes difficult to describe these vibrational levels as isolated ones because of the impaired convergence of the corresponding effective Hamiltonians when higher rotational states are studied. It is necessary to use a global treatment from the lowest vibrational levels which has been previously applied only to CH_3CCH but not to CH_3CN [14,15] and CH_3NC .

A series of microwave investigations of the lowest vibrational levels was undertaken even earlier in the 1970's. These studies covered the vibrational ground state [16], the lowest excited vibrational levels $\nu_8 = 1-4$ [17-19], and the fundamental level $\nu_4 = 1$ [20]. All these

Deleted: 1

Deleted: v

Formatted: Font: Italic

Deleted: the levels

Deleted: lowest

1
2 studies were also confined only to the lower- K rotational states because of the limited
3
4 frequency range of microwave measurements.

5
6 Therefore the aim of the present investigations is to describe quantitatively these
7
8 anharmonic resonances in the CH_3NC molecule which are obviously crucial for understanding
9
10 the intramolecular vibrational redistribution of energy that plays an important role in the
11
12 mentioned kinetic studies. We have prepared ground for them by a reinvestigation of the
13
14 vibrational ground state of CH_3NC with a significant extension of the range of rotational
15
16 states up to $K=14$ [21]. Because the new rotational data were supplemented with ground state
17
18 combination differences generated from the fundamental ν_4 band, the $\nu_4=1$ level was also
19
20 subject to a refined analysis.

Deleted: in such manner

21
22 In the present paper we present a new analysis of the fundamental level $\nu_8=1$ based on
23
24 the newly measured FTIR spectra of the ν_8 band and rotational spectra measured in this
25
26 excited vibrational state, which both cross the region of the local Fermi resonance ($K=9$ and
27
28 10) and reach up to $K=16$ in the $\nu_8=1$ level. The combination of both types of data has been
29
30 found extremely effective in the search for the exact position of the resonance which will be
31
32 described in more detail in further sections. The current analysis provides also a preliminary
33
34 characterization of the $\nu_8=2$ level involved in the Fermi resonance.

35 36 37 38 **2. Experimental Details**

39
40 The synthesis procedure of CH_3NC and the details of rotational measurements with the
41
42 Prague High Resolution Microwave Spectrometer [22] were described in the previous study
43
44 [21]. The frequency range was extended up to 385 GHz in the present study by using a new
45
46 set of semiconductor frequency multipliers and amplifiers. The optical path length of
47
48 a conventional 280 cm long glass cell was doubled using a roof top mirror and THz polarizer
49
50 from TYDEX (www.tydex.ru) to increase sensitivity. The pressure of the sample was varied
51
52 according to transition intensities between 1.1 and 1.9 Pa and measured with a capacitance

1
2 gauge (Leybold) with relative uncertainty of about 5%. The uncertainty of measurements is
3
4 estimated to be better than 20 kHz for isolated lines with good signal-to-noise ratio.

5
6 The infrared experimental work was performed by using the Bruker IFS 120 HR Fourier
7
8 transform spectrometer in the Infrared Laboratory at the University of Oulu. The CH₃NC
9
10 sample was purified with cold traps before evaporating it into a White cell [23], which was
11
12 provided with 60 μm thick polypropylene windows. The instrument was equipped with a
13
14 Globar source and a multilayer Mylar beamsplitter made by Bruker Inc. Infrared radiation
15
16 was detected with a He cooled Si bolometer operating at 1.4-1.8 K. Two series of registration
17
18 were performed in different conditions. The absorption path lengths were 57.6 and 163.2 m
19
20 and the sample pressures 72.4 and 147.4 Pa (spectra A and B), respectively. With suitable
21
22 velocities for the detector 111 and 279 scans were performed in these measurements giving
23
24 the total registration times 33.7 and 42.8 hours, respectively. An overview of the regions of
25
26 the ν_8 and $2\nu_8$ bands is shown in Figure 1. During the measurements the sample gas was kept
27
28 at room temperature. The spectra were calibrated with peaks of residual H₂O [24] in the
29
30 region of the fundamental ν_8 band and also CO₂ in the region of the ν_8 overtone band [23b].
31
32 The spectral resolution for small well-separated lines was better than 0.0013 cm⁻¹ and 0.0023
33
34 cm⁻¹ in the regions of the ν_8 and $2\nu_8$ bands, respectively. The pressure shifts in these spectra
35
36 have been estimated to be within the estimated accuracy of the FTIR measurements [25,26].
37
38
39

Deleted: temperature

40 3. Results and Discussion

41
42 In spite that the first vibration-rotation study of the degenerate fundamental vibrational
43
44 level $\nu_8 = 1$ provided the basic characteristics from which the occurrence of the localized
45
46 Fermi resonance with the overtone level $\nu_8 = 2$ could have been inferred, its effect remained
47
48 neglected. The reason consists probably in difficulties of experimental observation of
49
50 transitions to the rotational levels perturbed by this resonance. The absorption intensities in
51
52 the fundamental band ν_8 decrease rapidly with the growing K rotational quantum number due
53
54
55
56
57
58
59
60

Deleted: suggest

1
2 to the large value of $A - B \approx 4.9 \text{ cm}^{-1}$ and the patterns of the weaker line series are thus
3
4 hidden among the stronger lines of the fundamental ν_8 band and also the accompanying hot
5
6 bands $2\nu_8 - \nu_8$ and $3\nu_8 - 2\nu_8$. This perhaps explains why the previous IR analysis [8] did not
7
8 reach these perturbed levels. The details of the rotational structures of the $\nu_8 = 1$ and 2 levels
9
10 around the resonant crossing and the accompanying vibration-rotation interactions are shown
11
12 in Figure 2. It also illustrates another typical feature of the rotational levels in $\nu_8 = 1, 2, \dots$
13
14 caused by the accidentally small value of the combination of constants $2(A - B - A\zeta)_8 \approx 0.08$
15
16 cm^{-1} . This makes the pairs of levels $\nu_8^l = 1^{-1}, K - 1 / \nu_8^l = 1^{+1}, K + 1$, which are coupled by the
17
18 q_{22} l -type resonance, systematically near-degenerate. The same effect couples the chains of
19
20 levels $\nu_8^l = 2^{-2}, K - 2 / \nu_8^l = 2^0, K / \nu_8^l = 2^{+2}, K + 2$ and also $\nu_8^l = 3^{-3}, K - 3 / \nu_8^l = 3^{-1}, K - 1 /$
21
22 $\nu_8^l = 3^{+1}, K + 1 / \nu_8^l = 3^{+3}, K + 3$. Such coincidence was, however, found useful in assigning
23
24 transitions perturbed by the Fermi resonance.
25
26

27
28 Because the propagation of assignments in the ν_8 band across the resonant region was
29
30 unmanageable in the stand-alone IR spectrum, we applied the strategy used before for the
31
32 propyne (CH_3CCH) molecule [9-12]. We first searched for higher- K transitions in the $l_8 = +1$
33
34 sublevel of $\nu_8 = 1$, having now access to the levels with $K \geq 12$ in rotational spectra extended
35
36 to the region of 380 GHz, which corresponds to $J \leq 18$. We could also assign the
37
38 corresponding weaker branches ${}^1\text{R}_K$ and ${}^1\text{P}_K$ with K up to 15 in the FTIR spectra, with the
39
40 lower state combination difference (LSCD) verification of assignments. Although these levels
41
42 are not directly perturbed by the Fermi resonance, the q_{22} l -type resonance makes the levels
43
44 $K=11$ and 12 of the $l_8 = +1$ sub levels sensitive to the Fermi resonance affecting $K=9$ and 10 of
45
46 the $l_8 = -1$ sublevel. This enabled estimating the value of the Fermi coupling term in the
47
48 preliminary fits with its value kept constrained and changed stepwise. The progressively
49
50 improved predictions of rotational transition frequencies with $K \geq 12$ in the $l_8 = -1$ sublevel
51
52 facilitated the search for them, of course at the price of recording wider frequency scans. With
53
54
55
56
57
58
59
60

Deleted: but

Deleted: also

Deleted: the

Deleted: to

1
2 a consistent, but still not quantitative fit of these rotational data we finally succeeded in
3
4 finding the ${}^{\text{P}}\text{P}_{12}$ and ${}^{\text{P}}\text{R}_{12}$ branches in the FTIR spectra, start fitting the Fermi coupling term
5
6 and finally assigning the resonant transitions for $K=9$ and 10 in the $l_8=-1$ sublevel, both in the
7
8 rotational and FTIR spectra.

10 This procedure would be difficult or even impossible without the simultaneous
11 preliminary analysis of the $\nu_8 = 2$ level. The beginning of assignments of the IR spectrum was
12 strongly facilitated by the available low- J rotational frequencies [17]. We first assigned the

15 parallel band $2\nu_8^0$ which is the strongest feature in the overtone region around 525 cm^{-1} .

18 Along with assignments of the overtone band we assigned also the $2\nu_8^0 - \nu_8$ hot band. Like in

21 the case of the $\nu_8 = 1$ level, we were not able to propagate assignments to the levels of the

23 Fermi resonance with $\nu_8 = 3^{+3}$ occurring for $K=10$ and 11 (cf. Figure 2) and beyond. We also

25 assigned transitions to the degenerate sublevel (E symmetry) from the hot band $2\nu_8^2 - \nu_8$ in

28 the FTIR spectrum. The branches ${}^{\text{T}}\text{R}_8$ and ${}^{\text{T}}\text{R}_9$ of the hot band $2\nu_8^{+2} - \nu_8^{+1}$ pertaining to the

31 levels in Fermi resonance $K = 9$ and 10 were in fact assigned before the assignments of the

33 perturbed branches ${}^{\text{P}}\text{P}_{10}$ and ${}^{\text{P}}\text{P}_{11}$ were accomplished in the fundamental band ν_8 , because the

35 former are stronger and provide clearer series in the Loomis-Wood diagrams. The effect of

37 the Fermi resonance on switching the positions of the ${}^{\text{T}}\text{R}_8$ and ${}^{\text{T}}\text{R}_9$ branches of the hot band is

39 illustrated in Figure 3 with the Loomis-Wood plot from the Loomis-Wood for Windows

41 (LWW) program [27]. The ${}^{\text{T}}\text{R}_8$ branch represents transitions to the $K=9$ levels of $\nu_8 = 2^{+2}$

43 which is above those of $\nu_8 = 1^{-1}$ (cf. figure 2) and thus is shifted towards higher wavenumbers.

45 The relative positions of the levels in resonance are interchanged for $K=10$, which puts the ${}^{\text{T}}\text{R}_9$

47 branch of the hot band below ${}^{\text{T}}\text{R}_8$. Since there were several concurrent series in the close

49 neighborhood of these two critical branches, their assignment was an iterative trial-and-error

51 procedure rather than a straightforward matter. This was also because, in the earlier stages of

Deleted: $\nu_8 = 2^0 \leftarrow 0$

Deleted:

Deleted:

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 2^0 \leftarrow 1^{\pm 1}$

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 2^{22} \leftarrow 1^{\pm 1}$

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 2^{+2} \leftarrow 1^{+1}$

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 1^{+1} \leftarrow 0$

Deleted: that

1
2 the analysis the fit of the lower state involved in the hot band was not yet strictly quantitative
3
4 and the lower state combination difference checking in the LWW program was thus not
5
6 convincing. The attempts to estimate the Fermi coupling term led to a wide variation of its
7
8 value between 0.5 and 0.8 cm^{-1} and the final value was established only with the assistance of
9
10 the simultaneous submillimeter wave (SMMW) measurements of rotational transitions in both
11
12 vibrational states and finding consistent IR and SMMW assignments, first for less perturbed
13
14 states $K \geq 11$ and finally for the two resonant cases of $K=9$ and 10.

Deleted: n

15
16 The analysis of the $v_8 = 1$ and 2 levels relies mostly on the assignments in the P and R
17
18 branches of the fundamental and hot bands, which provide clear patterns in the Loomis-Wood
19
20 diagrams. The Q branches of all perpendicular bands of the CNC bending mode are, on the
21
22 other hand, quite congested and resemble rather parallel bands. This is a consequence of the
23
24 mentioned smallness of $2(A - B - A\zeta)_8 \approx 0.08 \text{ cm}^{-1}$ which determines the distance between
25
26 adjacent P^+Q branches as shown in Figure 4. This leads to frequent overlaps of lines in the Q-
27
28 branch region and makes them in most cases useless for LSCD checking.

29
30 The prominent role of the Fermi resonance also explains why we have not succeeded so
31
32 far with assigning neither the vibrational-rotational IR nor the rotational SMMW transitions to
33
34 the levels in Fermi resonance, $K=10$ and 11 in $v_8 = 2^0$ and $K= 8$ and 9 in $v_8 = 2^{-2}$ and beyond.
35
36 At the present stage of the analysis, we have extended the assignments just below these Fermi
37
38 crossings. A fully quantitative analysis of all sublevels of the overtone level $v_8 = 2$ will
39
40 require extending the assignments to the $v_8 = 3$ level beyond the resonant crossings and
41
42 determining a precise value of the Fermi coupling term by a similar procedure as described
43
44 above.

45
46 The least-squares fit was performed with the standard effective Hamiltonian of
47
48 degenerate vibrational levels including the q_{22} l -type resonance, the Fermi coupling terms, and
49
50 the α -resonance ($\Delta k = \pm 2, \Delta l = \mp 1$). The last interaction needed to be included in order to
51
52 remove the remaining residuals of data corresponding to levels in the neighborhood of the

1
2 Fermi resonance. The definition of the matrix elements is given in the Appendix. The
3
4 statistical weights of experimental data in the least-squares fits were taken as proportional to
5
6 the inverse squares of their estimated experimental uncertainties. Overlapped IR lines were
7
8 given higher uncertainties based on the extent of discrepancy with the LSCD checks. We
9
10 merged the IR data from the two spectra in the following way. The lower- J transitions were in
11
12 general taken from the weaker spectrum A, while spectrum B, saturated in the central part of
13
14 the bands, was used for extending assignments towards higher J and K values. We have
15
16 assigned over 2700 transitions in the fundamental band, over 1200 transitions in the parallel
17
18 overtone band $2\nu_8^0$, and over 900 transitions in each of the still incomplete hot bands
19
20 $2\nu_8^0 - \nu_8$ and $2\nu_8^2 - \nu_8$. The new rotational transitions in vibrational levels $\nu_8 = 1^{\pm 1}, 2^0$, and
21
22 $2^{\pm 2}$ were measured for $J = 9, 14$, and 18 in the region between 201 and 385 GHz. We have
23
24 also recorded rotational spectra for $J = 6$ in the region around 140 GHz to compare with the
25
26 previous measurements [17] and found a remarkable consistency.
27
28

29 The fitted parameters of the effective Hamiltonian of the levels $\nu_8 = 1$ and 2 are given in
30
31 Table1 together with an overview of range of maximum J and K values of assigned transitions
32
33 and standard deviations of reproduction. The details of the data reproduction have been
34
35 deposited with the British Library under the Supplementary Publication scheme and are also
36
37 available in electronic form upon request from one of the authors (P.P.). The parameters of
38
39 the vibrational ground state were taken from the previous study [21] and kept fixed in this
40
41 work. The centrifugal distortion parameters of the $\nu_8 = 1$ level lie close to the ground state
42
43 values which confirms that no significant interactions were neglected in its analysis. The only
44
45 exceptions are the sextic constants H_J and H_K which are rather effective fitting parameters.
46
47 They could not be, however, kept fixed to the ground state value because of significant
48
49 deterioration of the fit of rotational data in such case. It should be also noted that the
50
51 rotational constant B and the quartic centrifugal distortion constants D_J and D_{JK} from the
52
53
54
55
56
57
58
59
60

Deleted: $\nu_8 = 2^0 \leftarrow 0$

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 2^0 \leftarrow 1^{\pm 1}$

Formatted: Lowered by 6 pt

Deleted: $2^{\pm 2} \leftarrow 1^{\pm 1}$

1
2 previous MW work [17] are closer to the present ones than those from the earlier IR study [8].

3
4 A similar agreement was observed also in the $\nu_8 = 2$ level. Its sextic centrifugal distortion
5
6 constants are on the contrary quite far from the ground state ones. They cannot be constrained
7
8 to the ground state values for the same reason as above and have to be accepted as effective
9
10 fitting parameters at the present stage of the analysis.

Deleted: terms

11 12 13 14 **4. Conclusion**

15
16 We have investigated the lowest vibrational levels $\nu_8 = 1$ and 2 corresponding to the
17
18 CNC bending vibration of methyl isocyanide from its vibrational-rotational FTIR and
19
20 SMMW rotational spectra. We extended significantly assignments in the fundamental ν_8 band
21
22 across the region of the Fermi resonance between the levels $\nu_8 = 1^{-1}$ and 2^{+2} and assigned for
23
24 the first time the overtone and hot bands to the $\nu_8 = 2^0$ and $2^{\pm 2}$ vibrational levels. The
25
26 vibrational-rotational data were analyzed simultaneously with the newly measured SMMW
27
28 rotational data whose assignments were also extended over the region of the Fermi resonance.

29
30 The reproduction of data is quantitative for the whole vibrational level $\nu_8 = 1^{\pm 1}$ and the
31
32 sublevel $\nu_8 = 2^{+2}$. The analysis of the sublevels $\nu_8 = 2^0$ and $\nu_8 = 2^{-2}$ provides preliminary results
33
34 and the quantitative fit of the data will require exploring the vibrational state $\nu_8 = 3$ and its
35
36 crossings with $\nu_8 = 2$ which will be the subject of a forthcoming paper.

Deleted: the

37
38
39 **Acknowledgments.** This work was supported by the Grant Agencies of the Czech Republic
40
41 and the Academy of Sciences of the Czech Republic (projects P206/10/2182 and
42
43 IAA400400706) and the Ministry of Education, Youth and Sports of the Czech Republic
44
45 (research programs MSM6046137307 and LC06071).
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Appendix. Definition of matrix elements of the effective vibration-rotation Hamiltonian

The diagonal matrix elements up to octic terms were taken in the form

$$\begin{aligned}
 E_{vr}^0(J, k, l) = & E_v + B_v J(J+1) + (A_v - B_v) K^2 - D_v^J J^2 (J+1)^2 - D_{JK}^v J(J+1) K^2 - D_K^v K^4 + \\
 & + H_v^J J^3 (J+1)^3 + H_{JK}^v J^2 (J+1)^2 K^2 + H_{KJ}^v J(J+1) K^4 + H_K^v K^6 + \\
 & + L_v^J J^4 (J+1)^4 + L_{JK}^v J^3 (J+1)^3 K^2 + L_{JK}^v J^2 (J+1)^2 K^4 + L_{JKK}^v J(J+1) K^6 + L_K^v K^8 + \\
 & + \left[-2A\zeta_v + \eta_v^J J(J+1) + \eta_K^v K^2 + \tau_v^J J^2 (J+1)^2 + \tau_{JK}^v J(J+1) K^2 + \tau_K^v K^4 \right] Kl. \quad (A1)
 \end{aligned}$$

Deleted: ¶

Obviously, the fourth line of equation (A1) vanishes for the non-degenerate vibrational

ground and $v_8 = 2^0$ states. For the definition of Hamiltonian off-diagonal matrix elements, it is more appropriate to use the signed quantum number k ($K=|k|$), because they can in general connect rotational states with different signs of k . The general form of the q_{22} l -type operator

Formatted: Subscript

Deleted: with $l = 0$

Formatted: Superscript

has the matrix elements

$$\begin{aligned}
 \langle v_i^{\pm 2}; J, k \pm 2 | \mathbf{H}_{22} + \mathbf{H}_{24} + \mathbf{H}_{26} | v_i^{\pm 1}; J, k \rangle = & \left[(v_i \mp l_i) (v_i \pm l_i + 2) \right]^{1/2} \times \\
 \times \left\{ \begin{aligned} & q_{22} + f_{22}^J J(J+1) + f_{22}^K \left[k^2 + (k \pm 2)^2 \right] + \\ & f_{22}^{JJ} J^2 (J+1)^2 + f_{22}^{JK} J(J+1) \left[k^2 + (k \pm 2)^2 \right] + f_{22}^{KK} \left[k^4 + (k \pm 2)^4 \right] \end{aligned} \right\} F_2^{\pm}(J, k) \quad (A2)
 \end{aligned}$$

The effects of the other vibration-rotation interactions within the studied vibrational level were neglected and are assumed to be absorbed into the effective values of the vibrationally diagonal parameters [28, 29]. The Fermi interaction between the $v_8 = 1$ and $v_8 = 2$ levels was described by the matrix element

$$\langle v_8 = 1^{\pm 1}, J, k | \mathbf{H}_{30} + \mathbf{H}_{32} | v_8 = 2^{\mp 2}, J, k \rangle = W_{12} + W_{12}^J J(J+1) + W_{12}^K k^2 \quad (A3)$$

The matrix elements of the α -type resonance were taken in the form

$$\langle v_8 = 1^{\pm 1}, J, k \pm 2 | \mathbf{H}_{22} | v_8 = 2^{\pm 2}, J, k \rangle = 1 / (2\sqrt{2}) \alpha_{8-88}^{BB} F_2^{\pm}(J, k) \quad (A4)$$

1
2 The notation of the matrix elements of rotational shifting operators was taken conventionally

3
4 as

$$F_n^{\pm}(J, k) = \prod_{i=1}^n [J(J+1) - (k \pm i \mp 1)(k \pm i)]^{1/2} \quad (\text{A5})$$

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review Only

References

- [1] D.L. Snavely, R.N. Zare, J.A. Miller and D.W. Chandler, *J. Phys. Chem.* **90**, 3544 (1986).
- [2] J.A. Miller and D.W. Chandler, *J. Chem. Phys.* **85**, 4502 (1986).
- [3] H.H. Harris and D.L. Bunker, *Chem. Phys. Lett.* **11**, 433 (1971).
- [4] C. He, J. Plíva, C.M. Faust, M. El-Shakre, L.P. Gold and R.A. Bernheim, *J. Mol. Spectrosc.* **160**, 491 (1993).
- [5] M. El-Shakre, C. He, L.P. Gold and R.A. Bernheim, *J. Mol. Spectrosc.* **161**, 109 (1993).
- [6] L. Le, J. Plíva, L.P. Gold and R.A. Bernheim, *J. Mol. Spectrosc.* **170**, 506 (1995).
- [7] C. He and R.A. Bernheim, *J. Mol. Spectrosc.* **155**, 365 (1992).
- [8] J. Plíva, L.D. Le, J.W.C. Johns, Z. Lu and R.A. Bernheim, *J. Mol. Spectrosc.* **173**, 423 (1995).
- [9] P. Pracna, Š. Urban, H.S.P. Müller, V.-M. Horneman and S. Klee, *J. Mol. Spectrosc.* **256**, 152 (2009).
- [10] P. Pracna, H.S.P. Müller, S. Klee and V.-M. Horneman, *Mol. Phys.* **102**, 1555 (2004).
- [11] H.S.P. Müller, P. Pracna and V.-M. Horneman, *J. Mol. Spectrosc.* **216**, 397 (2002).
- [12] P. Pracna, G. Graner, J. Cosléou, J. Demaison, G. Włodarczak, V.-M. Horneman and M. Koivusaari, *J. Mol. Spectrosc.* **206**, 150 (2001).
- [13] Š. Urban, P. Pracna and G. Graner, *J. Mol. Spectrosc.* **169**, 185 (1995).
- [14] M. Koivusaari, V.-M. Horneman and R. Anttila, *J. Mol. Spectrosc.* **152**, 377 (1992).
- [15] A.-M. Tolonen, M. Koivusaari, R. Paso, J. Schroderus, S. Alanko and R. Anttila, *J. Mol. Spectrosc.* **160**, 554 (1993).
- [16] A. Bauer and M. Bogey, *Acad. Sc. Paris, Sér. B* **271**, 892 (1970).
- [17] A. Bauer, M. Bogey and S. Maes, *J. Phys.* **32**, 763 (1971).
- [18] M. Godon and A. Bauer, *J. Mol. Struct.* **38**, 9 (1977).
- [19] A. Bauer, M. Godon and S. Maes, *J. Mol. Spectrosc.* **59**, 421 (1976).
- [20] A. Bauer and M. Godon, *Can. J. Phys.* **53**, 1154 (1975).

Deleted: ¶

Formatted: Font: Bold

- 1
2 [21] P. Pracna, J. Urban, O. Votava, Z. Meltzerová, Š. Urban, V.-M. Horneman and
3
4 B.J. Drouin, *J. Phys.Chem A* **115**, 1063 (2011).
5
6 [22] L. Nová Stříteská, M. Šimečková, P. Kania, P. Musil, L. Kolesniková, J. Koubek and
7
8 Š. Urban, *J. Mol. Struct.* **919**, 89 (2009).
9
10 [23a] T. Ahonen, P. Karhu and V.-M. Horneman, presented at the Fifteenth Colloquium on
11
12 High Resolution molecular spectroscopy, Glasgow, Scotland, 1997 (unpublished).
13
14 [23b] T. Ahonen, S. Alanko, V.-M. Horneman, M. Koivusaari, R. Paso, A.-M. Tolonen and
15
16 R. Anttila, *J. Mol. Spectrosc.* **181**, 279 (1997).
17
18 [24] V.-M. Horneman, R. Anttila, S. Alanko and J. Pietilä, *J.Mol.Spectrosc.* **234**, 238 (2005).
19
20 [24b] V.-M. Horneman, *J. Mol. Spectrosc.* **241**, 45 (2007).
21
22 [25] P. Kania, L. Stříteská, M. Šimečková and Š. Urban, *J. Mol. Struct.* **795**, 209 (2006).
23
24 [26] J. Cernicharo, C. Kahane, M. Guélin and J. Gomez-Gonzales, *Astron. Astrophys.* **189**,
25
26 L1 (1988).
27
28 [27] W. Lodyga, M. Kreglewski, P. Pracna and Š. Urban, *J. Mol. Spectrosc.* **243**, 218 (2007).
29
30 [28] Š. Urban, D. Papoušek and M. Garcia Hernandez, *J. Mol. Spectrosc.* **124**, 272 (1987).
31
32 [29] J.K.G. Watson, C. Gerke, H. Harder and K. Sarka, *J. Mol. Spectrosc.* **187**, 131 (1998).
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Deleted: M

Captions to figures

Figure 1. Overview of the FTIR spectra in the regions of the ν_8 and $2\nu_8$ bands of CH_3NC .

The spectra A and B were recorded at pressures of 72.4 and 147.4 Pa and pathlengths 57.6 and 163.2 m, respectively.

Formatted: Font: Times New

Formatted: Font: Times New
Roman, 12 pt, Not BoldFormatted: Font: Times New
Roman, 12 pt, Not Bold

Figure 2. The K -dependent part of the energy terms $E = E_{vib} + (A - B)K^2 \mp 2A\zeta Kl$ of the

$\nu_8 = 1, 2,$ and 3 vibrational levels of CH_3NC . The local Fermi resonances are indicated by ellipses, the global q_{22} l -type resonances by dashed lines, and the α -resonance by dotted lines.

For further details see text. The upper bounds of rotational states in the previous IR and MW studies are shown by dot-and-dashed lines.

Figure 3. The Loomis-Wood diagram of the LWW program (lower frame) with the 1R_K

branches of the fundamental ν_8^{+1} and hot $2\nu_8^{+2} - \nu_8^{+1}$ bands of CH_3NC . The regular spacing

of the 1R branches, corresponding to $2(A - B - A\zeta) \approx 0.08 \text{ cm}^{-1}$, is distorted at the Fermi

resonance crossing and inverts the positions of the 1R_8 and 1R_9 branches in the hot band. The

section of the IR spectrum corresponding to the „line“ in the frame in the Loomis-Wood

diagram (transitions $J=14 \leftarrow 13$) is shown in the upper frame.

Formatted: Lowered by 6 pt

Deleted: $\nu_8 = 1^{+1} \leftarrow 0$ Deleted: $\nu_8 = 2^{+2} \leftarrow 1^{+1}$

Figure 4. The Q-branch region of the fundamental ν_8 band and the hot bands $2\nu_8 - \nu_8$ of

CH_3NC . The heads of individual Q-branches are indicated by dots, the larger ones for $K-$

$l = 3n$. The two branches ${}^PQ_{10}$ and ${}^PQ_{11}$ of the ν_8 band, affected by the local Fermi

resonance, are apparently moved from the otherwise regular positions. The Q-branches of all

bands are blue degraded due to the difference of rotational constants $B' - B'' > 0$. (Spectrum A

recorded at pressure of 72.4 Pa and pathlength 57.6 m).

Deleted: $\nu_8 = 2^0 \leftarrow 1^{+1}$ and
 $\nu_8 = 2^{+2} \leftarrow 1^{+1}$

Formatted: Lowered by 6 pt

Deleted: o

Deleted: sn

1
2
3 **Caption to table**
4

5 **Table 1.** Energies, rotational, and centrifugal distortion parameters ^a (in cm⁻¹ units) of the
6
7 vibrational states $v_8 = 1$ and 2 of CH₃NC and their interaction terms.
8
9

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review Only

| Parameter | $v_8 = 1$ | | $v_8 = 2^{\pm 2}$ | | $v_8 = 2^0$ | | |
|-------------------------------------|--------------------|-----------------|-------------------|-----------------------------|---------------------|----------------------|-----------------|
| | Present work | IR ^b | MW ^c | Present work | MW ^c | Present work | MW ^c |
| E | 267.319414 (11) | 267.3173 (1) | | 545.295387 (20) | 20.259 ^d | 524.633133 (15) | |
| A | 5.24725371 (62) | 5.2472237 (77) | | 5.2461394 (17) | | 5.2481718 (15) | |
| B | 0.3366313467 (62) | 0.33662748 (1) | 0.3366314 | 0.337899924 (9) | 0.3378556 | 0.337942990 (13) | 0.3379431 |
| $D_J \times 10^7$ | 1.629558 (58) | 1.91921 (105) | 1.64 | 1.695440 (99) | 1.71 | 1.696839 (127) | 1.71 |
| $D_{JK} \times 10^6$ | 7.592406 (149) | 7.45032 (41) | 7.575 | 7.59672 (47) | 7.582 | 7.64033 (75) | 7.582 |
| $D_K \times 10^5$ | 8.55562 (76) | 8.5748 (5) | | 8.4745 (38) | | 8.2815 (42) | |
| $H_J \times 10^{14}$ | 0.458 (109) | | | -2.7357 ^d | | -2.7357 ^d | |
| $H_{JK} \times 10^{11}$ | 7.8727 (28) | | | 3.0044 (270) | | 13.3783 (210) | |
| $H_{KJ} \times 10^{10}$ | 2.0337 (75) | | | 1.5419 (39) | | 11.7281 (826) | |
| $H_K \times 10^{10}$ | 0.421 (232) | | | -2.464 (182) | | -4.867 (34) | |
| $L_J \times 10^{18}$ | 1.82 ^e | | | 1.82 ^e | | 1.82 ^e | |
| $L_{JK} \times 10^{16}$ | -9.71 ^e | | | -9.71 ^e | | -9.71 ^e | |
| $A\zeta$ | 4.8702548 (13) | 4.870139 (1) | 4.772 | 4.8720353 (14) | 4.772 | | |
| $\eta_J \times 10^4$ | 0.196017 (10) | 0.19116 (2) | 0.1967 | 0.196080 (9) | 0.1967 | | |
| $\eta_K \times 10^4$ | 3.37847 (33) | 3.4199 (5) | | 3.36375 (64) | | | |
| $\tau_J \times 10^9$ | -0.23476 (45) | | | | | | |
| $\tau_{JK} \times 10^9$ | -1.4869 (67) | | | | | | |
| $q_{22} \times 10^4$ | 2.315153 (41) | 2.30826 (5) | 2.314 | 2.324442 (25) | 2.316 | | |
| $q_{22}^J \times 10^9$ | -1.4399 (33) | | | -1.4605 (15) | | | |
| $q_{22}^{JJ} \times 10^{14}$ | 1.058 (59) | | | | | | |
| W_{12} | | | 0.79415 (22) | | | | |
| $W_{12}^J \times 10^6$ | | | -7.694 (63) | | | | |
| $\alpha_{8-88}^{BB} \times 10^5$ | | | 1.267 (34) | | | | |
| Range of J, K^f | 85,9 / 18,16 | na,9 / - | - / 6,6 | 55,12 / 18,15 | - / 6,6 | 70,9 / 18,9 | - / 6,6 |
| No. of data^f | 2705 / 96 | 478 / - | - / 55 | 966 / 42, 28 ^h | - / 52 | 2135 / 36 | - / 27 |
| St. deviation^{f,g} | 0.14 / 24 | 0.28 / - | - / na | 0.28 / 71, 191 ^h | - / na | 0.23 / 96 | - / na |

1 ^a Numbers in parentheses are one standard deviation in units of the last digit quoted.

2 ^b Ref. [8]. ^c Ref. [17].

3 ^d $E(v_8 = 2^{\pm 2}) - E(v_8 = 2^0)$

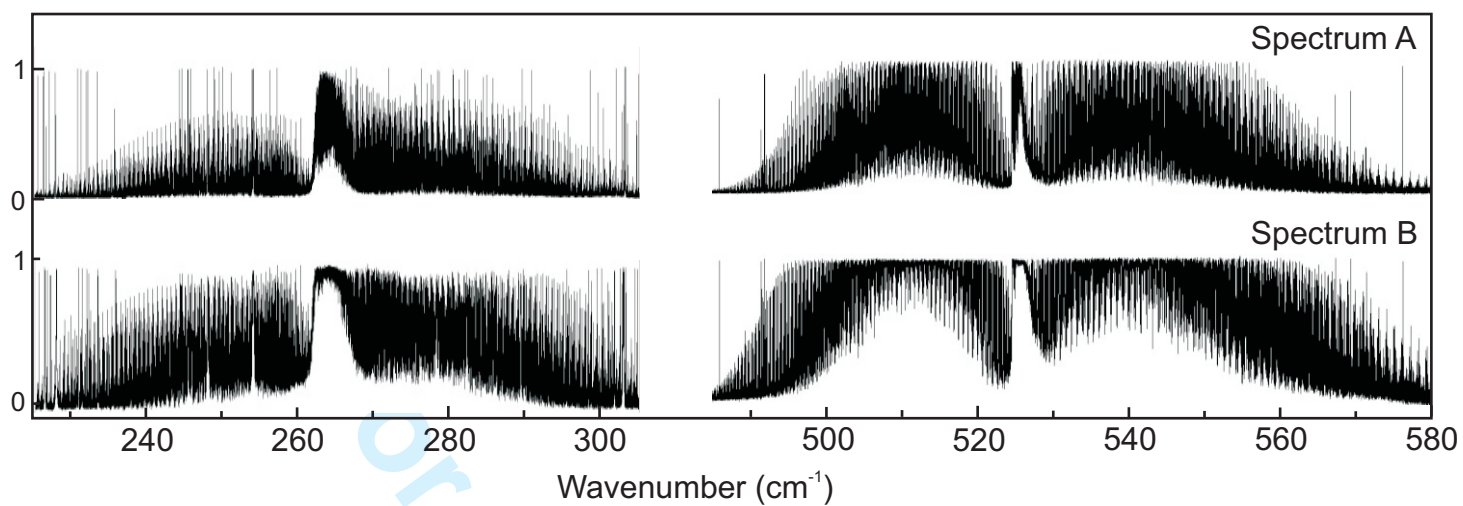
4 ^e Constrained to the ground state value. ^f Rovibrational / rotational data.

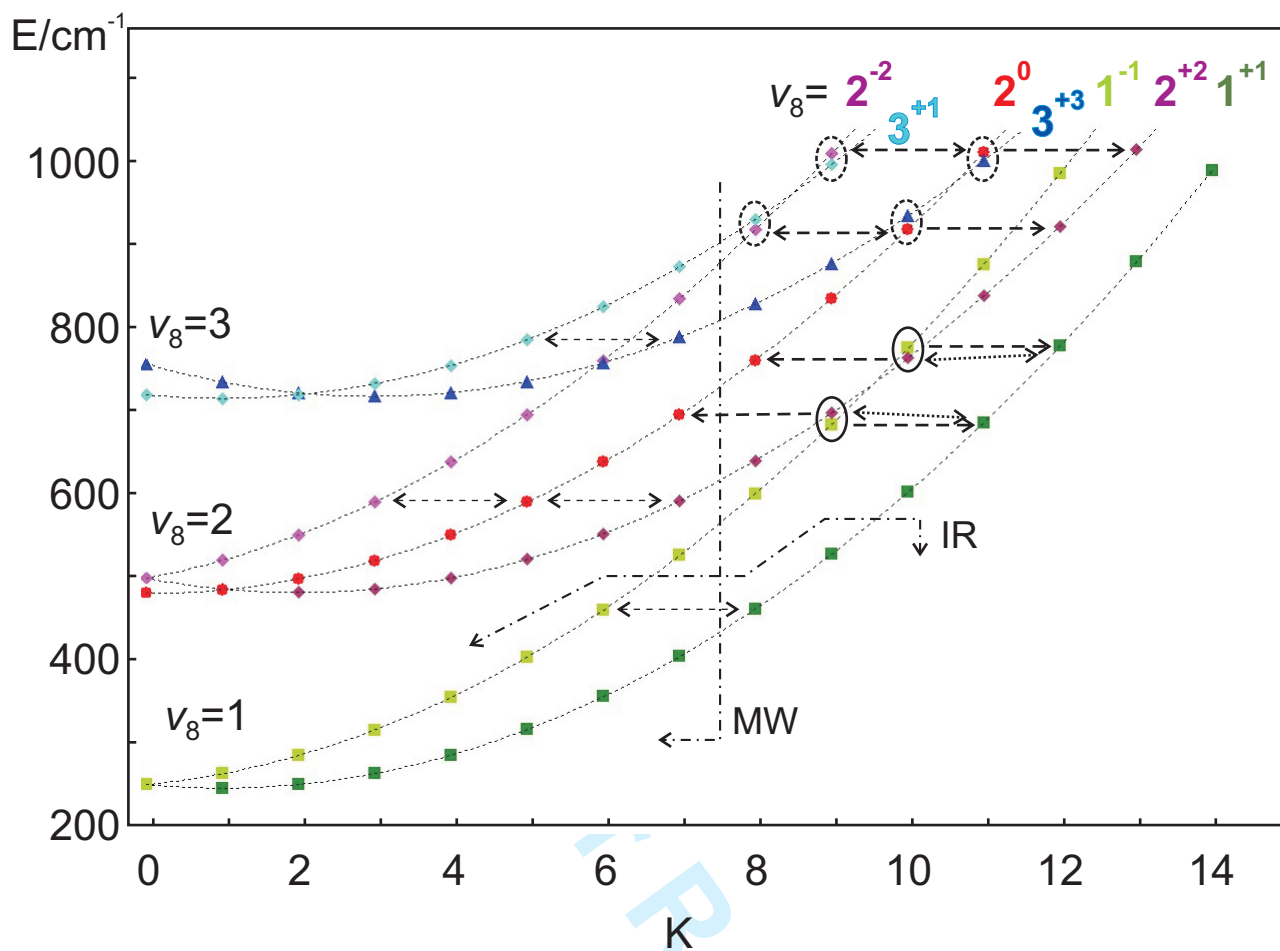
5 ^g $10^{-3} \text{ cm}^{-1} / \text{kHz}$ units

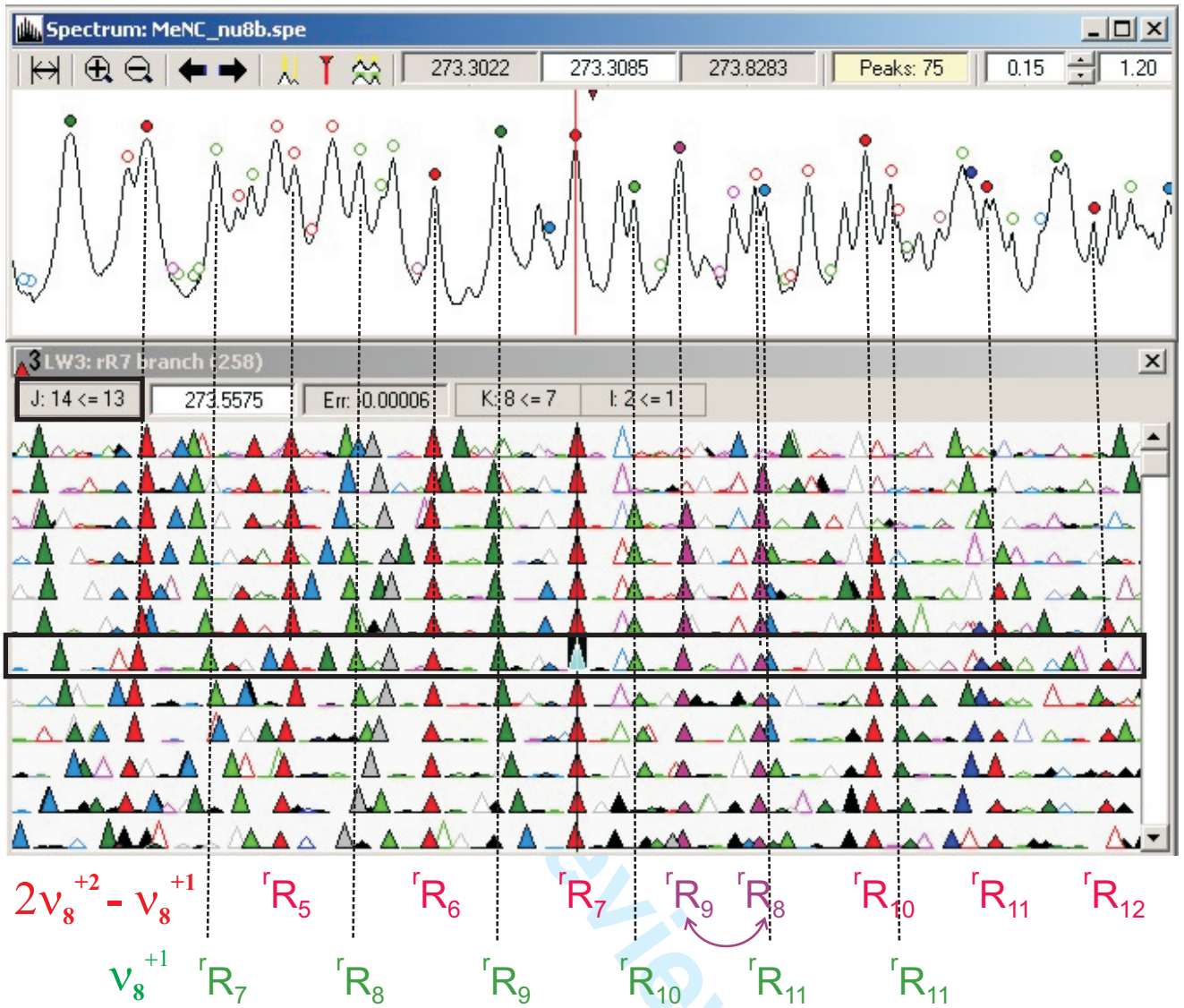
6 ^h $l=+2$ and -2 , respectively..

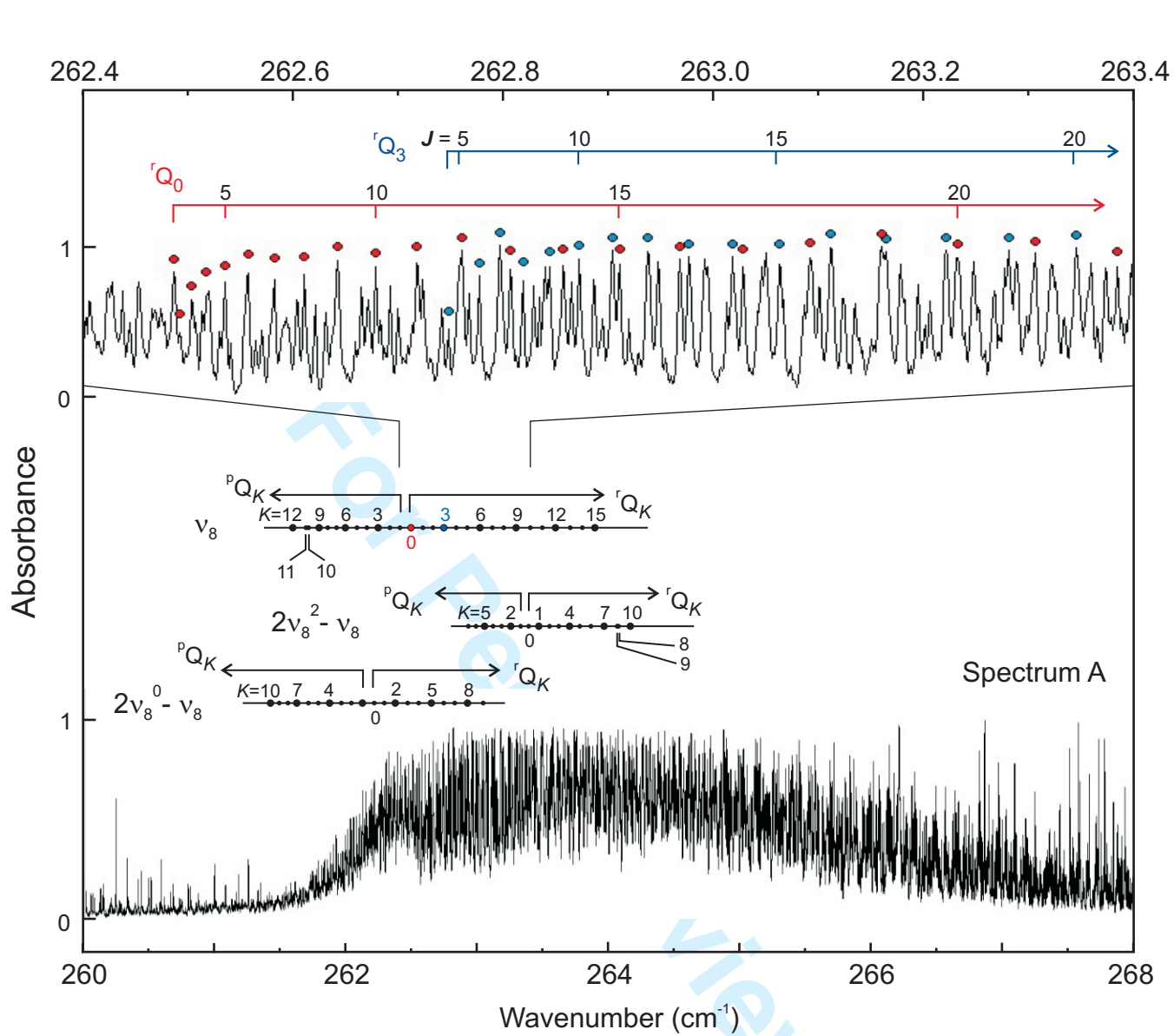
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49

For Peer Review Only









Supplementary material to the paper

Rotational and Rovibrational Spectroscopy of the $v_8=1$ and 2
Vibrational States of CH₃NC

by

Petr Pracna, Jiří Urban, Ondřej Votava, Zuzana Meltzerová, Štěpán Urban,
and Veli-Matti Horneman

File # 1 - rovibrational transition wavenumbers of the ν_4 band
spectrum A data # 1-1769
spectrum B 1770-2705

File # 2 - rovibrational transition wavenumbers of the overtone band $v_8=2(0)$
File # 3 - rovibrational transition wavenumbers of the hot band $v_8=2(0) < -1(\pm 1)$
File # 4 - rovibrational transition wavenumbers of the hot band $v_8=2(\pm 2) < 1(\pm 1)$
File # 5 - rotational transitions in the vibrational state $v_8=1$
File # 6 - rotational transitions in the vibrational state $v_8=2(+2)$
File # 7 - rotational transitions in the vibrational state $v_8=2(-2)$
File # 8 - rotational transitions in the vibrational state $v_8=2(0)$
File # 9 - rotational transitions in the vibrational state $v_8=1$ (Ref. [16])
File #10 - rotational transitions in the vibrational state $v_8=2$ (Ref. [16])

Format of the data output

Columns 1-3 : the spectroscopic label of a transition, i.e.
Column 1 : branch : o/p/q/r/s/t corresponding to $\Delta_K = -2/-1/0/+1/+2/+3$
P,Q,R corresponding to $\Delta_J = -1/0/+1$
Column 2-3 : Quantum numbers J,K of the lower state
Column 4 : experimental frequency (in cm⁻¹/MHz units)
Column 5 : difference observed - calculated (in cm⁻¹/MHz units)
Column 6 : experimental uncertainty (in cm⁻¹/MHz units)

Semigraphical representation of residuals (obs-calc) in units indicated in the
header line for each data file. When the limit value is set e.g. to 0.2 MHz
like for the file GS_fin.fre) the marker of the residual is positioned
on the left edge of the semigraphical strip when $\text{obs-calc} \leq -0.2$ MHz
and
on the right edge of the semigraphical strip when $\text{obs-calc} \geq +0.2$ MHz.

The position of the marker between the center and the edge of the
semigraphical strip is proportional otherwise. The marker is placed, for example,
on the center line when $|\text{obs-calc}| < 0.1 / 10$ (which is 0.020 MHz in the
current example).

The character of the marker depends on the ratio residual/uncertainty

v : residual \leq uncertainty

x : residual \leq uncertainty * 2

* : residual $>$ uncertainty * 2

- : experimental value removed from the fit (given zero weight), mostly for
overlapped lines

Final reproduction of data

| No. | Branch | I | Obs. | Obs-calc | Unc | | | |
|--------|--------|--------|-----------------|----------|---------|--|-------------|--|
| ----- | | | | | | | | |
| File # | 1 | nu8.wn | No. data : 2705 | .00200 | cm-1 -> | | -----0----- | |
| 1 | pP | 1 1 0 | 261.734913 | .000228 | .000500 | | . v . | |
| 2 | pP | 2 1 0 | 261.066408 | -.000262 | .000200 | | . x . | |
| 3 | pP | 3 1 0 | 260.401141 | -.000111 | .000200 | | . v . | |
| 4 | pP | 4 1 0 | 259.738269 | -.000104 | .000200 | | . v . | |
| 5 | pP | 5 1 0 | 259.077845 | -.000096 | .000200 | | . v . | |
| 6 | pP | 6 1 0 | 258.419938 | .000099 | .000200 | | . v . | |
| 7 | pP | 7 1 0 | 257.763854 | -.000069 | .000200 | | . v . | |
| 8 | pP | 8 1 0 | 257.109975 | -.000061 | .000200 | | . v . | |
| 9 | pP | 9 1 0 | 256.457895 | -.000118 | .000200 | | . v . | |
| 10 | pP | 10 1 0 | 255.807615 | -.000085 | .000200 | | . v . | |
| 11 | pP | 11 1 0 | 255.158915 | -.000048 | .000200 | | . v . | |
| 12 | pP | 12 1 0 | 254.511594 | -.000105 | .000200 | | . v . | |
| 13 | pP | 13 1 0 | 253.865947 | .000105 | .000200 | | . v . | |
| 14 | pP | 14 1 0 | 253.221327 | -.000033 | .000200 | | . v . | |
| 15 | pP | 15 1 0 | 252.578137 | -.000110 | .000200 | | . v . | |
| 16 | pP | 16 1 0 | 251.936295 | -.000224 | .000200 | | . x . | |
| 17 | pP | 17 1 0 | 251.296168 | -.000036 | .000200 | | . v . | |
| 18 | pP | 18 1 0 | 250.657260 | -.000076 | .000200 | | . v . | |
| 19 | pP | 19 1 0 | 250.019685 | -.000266 | .000300 | | . v . | |
| 20 | pP | 20 1 0 | 249.384103 | .000017 | .000200 | | . v . | |
| 21 | pP | 21 1 0 | 248.749722 | -.000051 | .000200 | | . v . | |
| 22 | pP | 22 1 0 | 248.116932 | -.000109 | .000200 | | . v . | |
| 23 | pP | 23 1 0 | 247.485878 | -.000039 | .000200 | | . v . | |
| 24 | pP | 24 1 0 | 246.856402 | -.000022 | .000200 | | . v . | |
| 25 | pP | 25 1 0 | 246.228762 | .000180 | .000200 | | . v . | |
| 26 | pP | 26 1 0 | 245.602401 | -.000007 | .000200 | | . v . | |
| 27 | pP | 27 1 0 | 244.977715 | -.000203 | .000200 | | . x . | |
| 28 | pP | 28 1 0 | 244.355241 | .000118 | .000200 | | . v . | |
| 29 | pP | 29 1 0 | 243.734030 | -.000006 | .000200 | | . v . | |
| 30 | pP | 30 1 0 | 243.114621 | -.000044 | .000200 | | . v . | |
| 31 | pP | 31 1 0 | 242.496975 | -.000046 | .000200 | | . v . | |
| 32 | pP | 32 1 0 | 241.881092 | -.000016 | .000200 | | . v . | |
| 33 | pP | 33 1 0 | 241.266919 | -.000016 | .000200 | | . v . | |
| 34 | pP | 34 1 0 | 240.654485 | -.000022 | .000200 | | . v . | |
| 35 | pP | 35 1 0 | 240.043819 | -.000009 | .000200 | | . v . | |
| 36 | pP | 36 1 0 | 239.434881 | -.000022 | .000200 | | . v . | |
| 37 | pP | 37 1 0 | 238.827715 | -.000021 | .000200 | | . v . | |
| 38 | pP | 38 1 0 | 238.222327 | -.000003 | .000200 | | . v . | |
| 39 | pP | 39 1 0 | 237.618689 | .000002 | .000200 | | . v . | |
| 40 | pP | 40 1 0 | 237.016845 | .000034 | .000200 | | . v . | |
| 41 | pP | 41 1 0 | 236.416694 | -.000009 | .000200 | | . v . | |
| 42 | pP | 42 1 0 | 235.818366 | .000001 | .000200 | | . v . | |
| 43 | pP | 43 1 0 | 235.221769 | -.000030 | .000200 | | . v . | |
| 44 | pP | 44 1 0 | 234.626958 | -.000049 | .000200 | | . v . | |
| 45 | pP | 45 1 0 | 234.033969 | -.000020 | .000200 | | . v . | |
| 46 | pP | 46 1 0 | 233.442678 | -.000068 | .000200 | | . v . | |
| 47 | pP | 47 1 0 | 232.853262 | -.000018 | .000200 | | . v . | |
| 48 | pP | 48 1 0 | 232.265522 | -.000068 | .000200 | | . v . | |
| 49 | pP | 49 1 0 | 231.679631 | -.000046 | .000200 | | . v . | |

| | | | | | | | | | |
|----|-----|----|----|---|---|------------|----------|---------|-------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 106 | pR | 36 | 1 | 0 | 288.454354 | -0.00011 | .000200 | . v . |
| 4 | 107 | pR | 37 | 1 | 0 | 289.186489 | -0.00091 | .000200 | . v . |
| 5 | 108 | pR | 38 | 1 | 0 | 289.920183 | -0.00088 | .000200 | . v . |
| 6 | 109 | pR | 39 | 1 | 0 | 290.655355 | -0.00078 | .000200 | . v . |
| 7 | 110 | pR | 40 | 1 | 0 | 291.391954 | -0.00108 | .000200 | . v . |
| 8 | 111 | pR | 41 | 1 | 0 | 292.130062 | -0.00088 | .000200 | . v . |
| 9 | 112 | pR | 42 | 1 | 0 | 292.869574 | -0.00119 | .000200 | . v . |
| 10 | 113 | pR | 43 | 1 | 0 | 293.610623 | -0.00060 | .000200 | . v . |
| 11 | 114 | pR | 44 | 1 | 0 | 294.353000 | -0.00113 | .000200 | . v . |
| 12 | 115 | pR | 45 | 1 | 0 | 295.096881 | -0.00097 | .000200 | . v . |
| 13 | 116 | pR | 46 | 1 | 0 | 295.842177 | -0.00093 | .000200 | . v . |
| 14 | 117 | pR | 47 | 1 | 0 | 296.588885 | -0.00097 | .000200 | . v . |
| 15 | 118 | pR | 48 | 1 | 0 | 297.337018 | -0.00089 | .000200 | . v . |
| 16 | 119 | pR | 49 | 1 | 0 | 298.086529 | -0.00108 | .000200 | . v . |
| 17 | 120 | pR | 50 | 1 | 0 | 298.837448 | -0.00117 | .000200 | . v . |
| 18 | 121 | pR | 51 | 1 | 0 | 299.589799 | -0.00085 | .000200 | . v . |
| 19 | 122 | pR | 52 | 1 | 0 | 300.343502 | -0.00082 | .000200 | . v . |
| 20 | 123 | pR | 53 | 1 | 0 | 301.098564 | -0.00096 | .000200 | . v . |
| 21 | 124 | pR | 54 | 1 | 0 | 301.855167 | .000066 | .000200 | . v . |
| 22 | 125 | pR | 55 | 1 | 0 | 302.612860 | -0.00041 | .000200 | . v . |
| 23 | 126 | pR | 56 | 1 | 0 | 303.371908 | -0.00143 | .000200 | . v . |
| 24 | 127 | pR | 57 | 1 | 0 | 304.132525 | -0.00018 | .000200 | . v . |
| 25 | 128 | pR | 58 | 1 | 0 | 304.894276 | -0.00093 | .000200 | . v . |
| 26 | 129 | pR | 59 | 1 | 0 | 305.657373 | -0.00146 | .000200 | . v . |
| 27 | 130 | pR | 60 | 1 | 0 | 306.421848 | -0.00137 | .000200 | . v . |
| 28 | 131 | pR | 61 | 1 | 0 | 307.187768 | .000010 | .000200 | . v . |
| 29 | 132 | pR | 62 | 1 | 0 | 307.954699 | -0.00131 | .000200 | . v . |
| 30 | 133 | pR | 63 | 1 | 0 | 308.722931 | -0.00261 | .000300 | . v . |
| 31 | 134 | pR | 64 | 1 | 0 | 309.492785 | -0.00049 | .000200 | . v . |
| 32 | 135 | pR | 65 | 1 | 0 | 310.263364 | -0.00384 | .000500 | . v . |
| 33 | 136 | pR | 66 | 1 | 0 | 311.035907 | -0.00018 | .000200 | . v . |
| 34 | 137 | pR | 67 | 1 | 0 | 311.808938 | -0.00416 | .000500 | . v . |
| 35 | 138 | pR | 68 | 1 | 0 | 312.583935 | -0.00093 | .000200 | . v . |
| 36 | 139 | pR | 69 | 1 | 0 | 313.360167 | .000231 | .000300 | . v . |
| 37 | 140 | pP | 2 | 2 | 0 | 260.982653 | -0.00108 | .000200 | . v . |
| 38 | 141 | pP | 3 | 2 | 0 | 260.317348 | -0.00055 | .000200 | . v . |
| 39 | 142 | pP | 4 | 2 | 0 | 259.654604 | -0.00025 | .000200 | . v . |
| 40 | 143 | pP | 5 | 2 | 0 | 258.994330 | -0.00065 | .000200 | . v . |
| 41 | 144 | pP | 6 | 2 | 0 | 258.336586 | -0.00056 | .000200 | . v . |
| 42 | 145 | pP | 7 | 2 | 0 | 257.681223 | -0.00074 | .000200 | . v . |
| 43 | 146 | pP | 8 | 2 | 0 | 257.028237 | -0.00033 | .000200 | . v . |
| 44 | 147 | pP | 9 | 2 | 0 | 256.377407 | -0.00057 | .000200 | . v . |
| 45 | 148 | pP | 10 | 2 | 0 | 255.728676 | -0.00094 | .000200 | . v . |
| 46 | 149 | pP | 11 | 2 | 0 | 255.082004 | -0.00069 | .000200 | . v . |
| 47 | 150 | pP | 12 | 2 | 0 | 254.437248 | -0.00011 | .000200 | . v . |
| 48 | 151 | pP | 13 | 2 | 0 | 253.794445 | .000228 | .000300 | . v . |
| 49 | 152 | pP | 14 | 2 | 0 | 253.152811 | -0.00034 | .000200 | . v . |
| 50 | 153 | pP | 15 | 2 | 0 | 252.512985 | -0.00068 | .000200 | . v . |
| 51 | 154 | pP | 16 | 2 | 0 | 251.874715 | -0.00053 | .000200 | . v . |
| 52 | 155 | pP | 17 | 2 | 0 | 251.237925 | -0.00008 | .000200 | . v . |
| 53 | 156 | pP | 18 | 2 | 0 | 250.602424 | -0.00087 | .000200 | . v . |
| 54 | 157 | pP | 19 | 2 | 0 | 249.968407 | -0.00072 | .000200 | . v . |
| 55 | 158 | pP | 20 | 2 | 0 | 249.335702 | -0.00129 | .000200 | . v . |
| 56 | 159 | pP | 21 | 2 | 0 | 248.704539 | -0.00031 | .000200 | . v . |
| 57 | 160 | pP | 22 | 2 | 0 | 248.074649 | -0.00061 | .000200 | . v . |
| 58 | 161 | pP | 23 | 2 | 0 | 247.446236 | -0.00033 | .000200 | . v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | |
|----|-----|----|----|---|---|------------|----------|---------|----|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 162 | pP | 24 | 2 | 0 | 246.819523 | .000253 | .000300 | .v | . |
| 4 | 163 | pP | 25 | 2 | 0 | 246.194010 | .000271 | .000300 | .v | . |
| 5 | 164 | pP | 26 | 2 | 0 | 245.569695 | -.000006 | .000200 | .v | . |
| 6 | 165 | pP | 27 | 2 | 0 | 244.947169 | -.000011 | .000200 | .v | . |
| 7 | 166 | pP | 28 | 2 | 0 | 244.326161 | -.000041 | .000200 | .v | . |
| 8 | 167 | pP | 29 | 2 | 0 | 243.706764 | -.000025 | .000200 | .v | . |
| 9 | 168 | pP | 30 | 2 | 0 | 243.088984 | .000022 | .000200 | .v | . |
| 10 | 169 | pP | 31 | 2 | 0 | 242.472732 | -.000009 | .000200 | .v | . |
| 11 | 170 | pP | 32 | 2 | 0 | 241.858134 | -.000009 | .000200 | .v | . |
| 12 | 171 | pP | 33 | 2 | 0 | 241.245170 | -.000014 | .000200 | .v | . |
| 13 | 172 | pP | 34 | 2 | 0 | 240.633855 | -.000025 | .000200 | .v | . |
| 14 | 173 | pP | 35 | 2 | 0 | 240.024210 | -.000032 | .000200 | .v | . |
| 15 | 174 | pP | 36 | 2 | 0 | 239.416255 | -.000028 | .000200 | .v | . |
| 16 | 175 | pP | 37 | 2 | 0 | 238.810010 | -.000002 | .000200 | .v | . |
| 17 | 176 | pP | 38 | 2 | 0 | 238.205389 | -.000051 | .000200 | .v | . |
| 18 | 177 | pP | 39 | 2 | 0 | 237.602549 | -.000026 | .000200 | .v | . |
| 19 | 178 | pP | 40 | 2 | 0 | 237.001403 | -.000021 | .000200 | .v | . |
| 20 | 179 | pP | 41 | 2 | 0 | 236.401993 | -.000001 | .000200 | .v | . |
| 21 | 180 | pP | 42 | 2 | 0 | 235.804272 | -.000019 | .000200 | .v | . |
| 22 | 181 | pP | 43 | 2 | 0 | 235.208296 | -.000023 | .000200 | .v | . |
| 23 | 182 | pP | 44 | 2 | 0 | 234.614074 | -.000010 | .000200 | .v | . |
| 24 | 183 | pP | 45 | 2 | 0 | 234.021564 | -.000026 | .000200 | .v | . |
| 25 | 184 | pP | 46 | 2 | 0 | 233.430806 | -.000035 | .000200 | .v | . |
| 26 | 185 | pP | 47 | 2 | 0 | 232.841815 | -.000024 | .000200 | .v | . |
| 27 | 186 | pP | 48 | 2 | 0 | 232.254536 | -.000052 | .000200 | .v | . |
| 28 | 187 | pP | 49 | 2 | 0 | 231.669036 | -.000053 | .000200 | .v | . |
| 29 | 188 | pP | 50 | 2 | 0 | 231.085320 | -.000025 | .000200 | .v | . |
| 30 | 189 | pP | 51 | 2 | 0 | 230.503323 | -.000035 | .000200 | .v | . |
| 31 | 190 | pP | 52 | 2 | 0 | 229.923055 | -.000074 | .000200 | .v | . |
| 32 | 191 | pP | 53 | 2 | 0 | 229.344602 | -.000058 | .000200 | .v | . |
| 33 | 192 | pP | 54 | 2 | 0 | 228.767943 | -.000008 | .000200 | .v | . |
| 34 | 193 | pP | 55 | 2 | 0 | 228.192964 | -.000039 | .000200 | .v | . |
| 35 | 194 | pP | 56 | 2 | 0 | 227.619907 | .000091 | .000200 | .v | . |
| 36 | 195 | pP | 57 | 2 | 0 | 227.048410 | .000018 | .000200 | .v | . |
| 37 | 196 | pP | 58 | 2 | 0 | 226.478612 | -.000118 | .000200 | .v | . |
| 38 | 197 | pP | 59 | 2 | 0 | 225.910824 | -.000006 | .000200 | .v | . |
| 39 | 198 | pP | 60 | 2 | 0 | 225.344596 | -.000096 | .000200 | .v | . |
| 40 | 199 | pP | 61 | 2 | 0 | 224.780295 | -.000021 | .000200 | .v | . |
| 41 | 200 | pP | 62 | 2 | 0 | 224.217732 | .000032 | .000200 | .v | . |
| 42 | 201 | pP | 63 | 2 | 0 | 223.656468 | -.000377 | .000500 | .v | . |
| 43 | 202 | pP | 64 | 2 | 0 | 223.097738 | -.000012 | .000200 | .v | . |
| 44 | 203 | pP | 65 | 2 | 0 | 222.540499 | .000085 | .000200 | .v | . |
| 45 | 204 | pP | 66 | 2 | 0 | 221.985047 | .000212 | .000200 | .x | . |
| 46 | 205 | pP | 67 | 2 | 0 | 221.431143 | .000130 | .000200 | .v | . |
| 47 | 206 | pP | 68 | 2 | 0 | 220.879152 | .000206 | .000200 | .x | . |
| 48 | 207 | pP | 69 | 2 | 0 | 220.330842 | .002209 | .003000 | . | v |
| 49 | 208 | pR | 2 | 2 | 0 | 264.350673 | .001932 | .002000 | . | v |
| 50 | 209 | pR | 3 | 2 | 0 | 265.028406 | -.001232 | .002000 | v. | . |
| 51 | 210 | pR | 4 | 2 | 0 | 265.712646 | -.000335 | .000300 | .x | . |
| 52 | 211 | pR | 5 | 2 | 0 | 266.399611 | .000920 | .001000 | . | v |
| 53 | 212 | pR | 6 | 2 | 0 | 267.085837 | -.000834 | .001000 | .v | . |
| 54 | 213 | pR | 7 | 2 | 0 | 267.776816 | .000001 | .000200 | .v | . |
| 55 | 214 | pR | 8 | 2 | 0 | 268.468989 | -.000017 | .000200 | .v | . |
| 56 | 215 | pR | 9 | 2 | 0 | 269.163051 | -.000074 | .000200 | .v | . |
| 57 | 216 | pR | 10 | 2 | 0 | 269.859002 | -.000045 | .000200 | .v | . |
| 58 | 217 | pR | 11 | 2 | 0 | 270.556623 | -.000033 | .000200 | .v | . |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | |
|---------------|------------|----------|---------|---------|
| 274 pR 68 2 0 | 312.572887 | -.000064 | .000200 | . v . |
| 275 pP 3 3 0 | 260.231953 | -.000078 | .000200 | . v . |
| 276 pP 4 3 0 | 259.569283 | -.000063 | .000200 | . v . |
| 277 pP 5 3 0 | 258.909158 | -.000071 | .000200 | . v . |
| 278 pP 6 3 0 | 258.251584 | -.000059 | .000200 | . v . |
| 279 pP 7 3 0 | 257.596504 | -.000034 | .000200 | . v . |
| 280 pP 8 3 0 | 256.943783 | -.000073 | .000200 | . v . |
| 281 pP 9 3 0 | 256.293487 | -.000041 | .000200 | . v . |
| 282 pP 10 3 0 | 255.645334 | -.000144 | .000200 | . v . |
| 283 pP 11 3 0 | 254.999650 | .000027 | .000200 | . v . |
| 284 pP 12 3 0 | 254.355783 | -.000090 | .000200 | . v . |
| 285 pP 13 3 0 | 253.714159 | .000023 | .000200 | . v . |
| 286 pP 14 3 0 | 253.074283 | -.000037 | .000200 | . v . |
| 287 pP 15 3 0 | 252.436285 | -.000047 | .000200 | . v . |
| 288 pP 16 3 0 | 251.800031 | -.000054 | .000200 | . v . |
| 289 pP 17 3 0 | 251.165529 | .000030 | .000200 | . v . |
| 290 pP 18 3 0 | 250.532435 | -.000067 | .000200 | . v . |
| 291 pP 19 3 0 | 249.903002 | .001968 | .003000 | . . . v |
| 292 pP 20 3 0 | 249.270962 | -.000082 | .000200 | . v . |
| 293 pP 21 3 0 | 248.642486 | -.000010 | .000200 | . v . |
| 294 pP 22 3 0 | 248.015269 | -.000094 | .000200 | . v . |
| 295 pP 23 3 0 | 247.389633 | .000003 | .000200 | . v . |
| 296 pP 24 3 0 | 246.765276 | -.000014 | .000200 | . v . |
| 297 pP 25 3 0 | 246.142328 | -.000018 | .000200 | . v . |
| 298 pP 26 3 0 | 245.520776 | -.000029 | .000200 | . v . |
| 299 pP 27 3 0 | 244.900667 | -.000013 | .000200 | . v . |
| 300 pP 28 3 0 | 244.281993 | .000005 | .000200 | . v . |
| 301 pP 29 3 0 | 243.664742 | -.000005 | .000200 | . v . |
| 302 pP 30 3 0 | 243.048955 | -.000021 | .000200 | . v . |
| 303 pP 31 3 0 | 242.434671 | -.000026 | .000200 | . v . |
| 304 pP 32 3 0 | 241.821935 | .000005 | .000200 | . v . |
| 305 pP 33 3 0 | 241.210692 | -.000003 | .000200 | . v . |
| 306 pP 34 3 0 | 240.600983 | -.000027 | .000200 | . v . |
| 307 pP 35 3 0 | 239.992893 | -.000002 | .000200 | . v . |
| 308 pP 36 3 0 | 239.386356 | -.000011 | .000200 | . v . |
| 309 pP 37 3 0 | 238.781416 | -.000025 | .000200 | . v . |
| 310 pP 38 3 0 | 238.178112 | -.000020 | .000200 | . v . |
| 311 pP 39 3 0 | 237.576425 | -.000029 | .000200 | . v . |
| 312 pP 40 3 0 | 236.976409 | -.000010 | .000200 | . v . |
| 313 pP 41 3 0 | 236.378023 | -.000016 | .000200 | . v . |
| 314 pP 42 3 0 | 235.781321 | -.000004 | .000200 | . v . |
| 315 pP 43 3 0 | 235.186294 | .000008 | .000200 | . v . |
| 316 pP 44 3 0 | 234.592913 | -.000018 | .000200 | . v . |
| 317 pP 45 3 0 | 234.001254 | -.000013 | .000200 | . v . |
| 318 pP 46 3 0 | 233.411294 | -.000008 | .000200 | . v . |
| 319 pP 47 3 0 | 232.823026 | -.000015 | .000200 | . v . |
| 320 pP 48 3 0 | 232.236458 | -.000033 | .000200 | . v . |
| 321 pP 49 3 0 | 231.651627 | -.000031 | .000200 | . v . |
| 322 pP 50 3 0 | 231.068518 | -.000026 | .000200 | . v . |
| 323 pP 51 3 0 | 230.487139 | -.000016 | .000200 | . v . |
| 324 pP 52 3 0 | 229.907472 | -.000023 | .000200 | . v . |
| 325 pP 53 3 0 | 229.329547 | -.000019 | .000200 | . v . |
| 326 pP 54 3 0 | 228.753342 | -.000029 | .000200 | . v . |
| 327 pP 55 3 0 | 228.178794 | -.000119 | .000200 | . v . |
| 328 pP 56 3 0 | 227.606182 | -.000011 | .000200 | . v . |
| 329 pP 57 3 0 | 227.035167 | -.000047 | .000200 | . v . |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | |
|---------------|------------|-----------|---------|---------|
| 722 pP 52 6 0 | 229.826094 | -0.000006 | .000200 | . . v . |
| 723 pP 53 6 0 | 229.250833 | .000023 | .000200 | . . v . |
| 724 pP 54 6 0 | 228.677123 | -0.000020 | .000200 | . . v . |
| 725 pP 55 6 0 | 228.105085 | -0.000022 | .000200 | . . v . |
| 726 pP 56 6 0 | 227.534691 | -0.000018 | .000200 | . . v . |
| 727 pP 57 6 0 | 226.966047 | .000090 | .000200 | . . v . |
| 728 pP 58 6 0 | 226.398824 | -0.000032 | .000200 | . . v . |
| 729 pP 59 6 0 | 225.833465 | .000053 | .000200 | . . v . |
| 730 pP 60 6 0 | 225.269578 | -0.000053 | .000200 | . . v . |
| 731 pP 61 6 0 | 224.707603 | .000086 | .000200 | . . v . |
| 732 pP 62 6 0 | 224.147098 | .000023 | .000200 | . . v . |
| 733 pR 15 6 0 | 273.026871 | -0.000029 | .000200 | . . v . |
| 734 pR 16 6 0 | 273.736567 | -0.000067 | .000200 | . . v . |
| 735 pR 17 6 0 | 274.448140 | -0.000035 | .000200 | . . v . |
| 736 pR 18 6 0 | 275.160026 | -.001424 | .002000 | v . . . |
| 737 pR 19 6 0 | 275.876701 | .000311 | .000500 | . . v . |
| 738 pR 20 6 0 | 276.592579 | -0.000349 | .000500 | . . v . |
| 739 pR 21 6 0 | 277.310957 | -0.000043 | .000200 | . . v . |
| 740 pR 22 6 0 | 278.030525 | -0.000021 | .000200 | . . v . |
| 741 pR 23 6 0 | 278.751161 | -0.000351 | .000300 | . . x . |
| 742 pR 24 6 0 | 279.473773 | -0.000075 | .000200 | . . v . |
| 743 pR 25 6 0 | 280.197135 | -0.000375 | .000300 | . . x . |
| 744 pR 26 6 0 | 280.922249 | -0.000212 | .000200 | . . x . |
| 745 pR 27 6 0 | 281.648625 | -0.000042 | .000200 | . . v . |
| 746 pR 28 6 0 | 282.375666 | -0.000437 | .000500 | . . v . |
| 747 pR 29 6 0 | 283.104848 | .000101 | .000200 | . . v . |
| 748 pR 30 6 0 | 283.834569 | -0.000013 | .000200 | . . v . |
| 749 pR 31 6 0 | 284.565587 | -0.000009 | .000200 | . . v . |
| 750 pR 32 6 0 | 285.297729 | -0.000051 | .000200 | . . v . |
| 751 pR 33 6 0 | 286.031175 | .000044 | .000200 | . . v . |
| 752 pR 34 6 0 | 286.765585 | -0.000061 | .000200 | . . v . |
| 753 pR 35 6 0 | 287.501263 | -0.000061 | .000200 | . . v . |
| 754 pR 36 6 0 | 288.238099 | -0.000071 | .000200 | . . v . |
| 755 pR 37 6 0 | 288.976144 | -0.000041 | .000200 | . . v . |
| 756 pR 38 6 0 | 289.715325 | -0.000050 | .000200 | . . v . |
| 757 pR 39 6 0 | 290.455723 | -0.000022 | .000200 | . . v . |
| 758 pR 40 6 0 | 291.197259 | -0.000042 | .000200 | . . v . |
| 759 pR 41 6 0 | 291.940000 | -0.000050 | .000200 | . . v . |
| 760 pR 42 6 0 | 292.683931 | -0.000065 | .000200 | . . v . |
| 761 pR 43 6 0 | 293.429104 | -0.000042 | .000200 | . . v . |
| 762 pR 44 6 0 | 294.175482 | -0.000023 | .000200 | . . v . |
| 763 pR 45 6 0 | 294.923022 | -0.000056 | .000200 | . . v . |
| 764 pR 46 6 0 | 295.671832 | -0.000038 | .000200 | . . v . |
| 765 pR 47 6 0 | 296.421851 | -0.000035 | .000200 | . . v . |
| 766 pR 48 6 0 | 297.173064 | -0.000063 | .000200 | . . v . |
| 767 pR 49 6 0 | 297.925557 | -0.000041 | .000200 | . . v . |
| 768 pR 50 6 0 | 298.679209 | -0.000092 | .000200 | . . v . |
| 769 pR 51 6 0 | 299.434172 | -0.000064 | .000200 | . . v . |
| 770 pR 52 6 0 | 300.190364 | -0.000042 | .000200 | . . v . |
| 771 pR 53 6 0 | 300.947769 | -0.000042 | .000200 | . . v . |
| 772 pR 54 6 0 | 301.706420 | -0.000030 | .000200 | . . v . |
| 773 pR 55 6 0 | 302.466257 | -0.000066 | .000200 | . . v . |
| 774 pR 56 6 0 | 303.227339 | -0.000090 | .000200 | . . v . |
| 775 pR 57 6 0 | 303.989640 | -0.000127 | .000200 | . . v . |
| 776 pR 58 6 0 | 304.753357 | .000024 | .000200 | . . v . |
| 777 pR 59 6 0 | 305.518076 | -0.000049 | .000200 | . . v . |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | |
|---------------|------------|----------|---------|----|
| 834 pP 61 7 0 | 224.678963 | .000277 | .001000 | .v |
| 835 pP 62 7 0 | 224.119258 | .000194 | .001000 | .v |
| 836 pP 63 7 0 | 223.560716 | -.000373 | .000200 | .x |
| 837 pP 64 7 0 | 223.004313 | -.000453 | .000200 | * |
| 838 pR 31 7 0 | 284.486354 | -.000066 | .000200 | .v |
| 839 pR 32 7 0 | 285.219755 | -.000235 | .000200 | .x |
| 840 pR 33 7 0 | 285.954797 | .000067 | .000200 | .v |
| 841 pR 34 7 0 | 286.690517 | -.000113 | .000200 | .v |
| 842 pR 35 7 0 | 287.427652 | -.000032 | .000200 | .v |
| 843 pR 36 7 0 | 288.166060 | .000172 | .000300 | .v |
| 844 pR 37 7 0 | 288.905206 | -.000034 | .000200 | .v |
| 845 pR 38 7 0 | 289.646091 | .000353 | .000500 | .v |
| 846 pR 39 7 0 | 290.387294 | -.000092 | .000200 | .v |
| 847 pR 40 7 0 | 291.130043 | -.000141 | .000200 | .v |
| 848 pR 41 7 0 | 291.874657 | .000519 | .001000 | .v |
| 849 pR 42 7 0 | 292.619525 | .000275 | .000500 | .v |
| 850 pR 43 7 0 | 293.365433 | -.000093 | .000200 | .v |
| 851 pR 44 7 0 | 294.112936 | -.000033 | .000200 | .v |
| 852 pR 45 7 0 | 294.861556 | -.000029 | .000200 | .v |
| 853 pR 46 7 0 | 295.611430 | .000052 | .000200 | .v |
| 854 pR 47 7 0 | 296.362275 | -.000078 | .000200 | .v |
| 855 pR 48 7 0 | 297.114437 | -.000076 | .000200 | .v |
| 856 pR 49 7 0 | 297.867835 | -.000027 | .000200 | .v |
| 857 pR 50 7 0 | 298.622358 | -.000045 | .000200 | .v |
| 858 pR 51 7 0 | 299.378201 | .000063 | .000200 | .v |
| 859 pR 52 7 0 | 300.134953 | -.000118 | .000200 | .v |
| 860 pR 53 7 0 | 300.893249 | .000047 | .000200 | .v |
| 861 pR 54 7 0 | 301.652522 | -.000011 | .000200 | .v |
| 862 pR 55 7 0 | 302.413194 | .000129 | .000200 | .v |
| 863 pR 56 7 0 | 303.174727 | -.000070 | .000200 | .v |
| 864 pR 57 7 0 | 303.937623 | -.000105 | .000200 | .v |
| 865 pR 58 7 0 | 304.701690 | -.000169 | .000200 | .v |
| 866 pR 59 7 0 | 305.466998 | -.000190 | .000200 | .v |
| 867 pP 8 8 0 | 256.496718 | -.000134 | .000200 | .v |
| 868 pP 9 8 0 | 255.847684 | -.000083 | .000200 | .v |
| 869 pP 10 8 0 | 255.201186 | .000016 | .000200 | .v |
| 870 pP 11 8 0 | 254.556784 | -.000244 | .000200 | .x |
| 871 pP 12 8 0 | 253.915535 | .000229 | .000500 | .v |
| 872 pP 13 8 0 | 253.275680 | -.000283 | .000200 | .x |
| 873 pP 14 8 0 | 252.638981 | .000023 | .000200 | .v |
| 874 pP 15 8 0 | 252.004479 | .000235 | .000300 | .v |
| 875 pP 16 8 0 | 251.371708 | -.000064 | .000200 | .v |
| 876 pP 17 8 0 | 250.741355 | -.000138 | .000200 | .v |
| 877 pP 18 8 0 | 250.113325 | -.000027 | .000200 | .v |
| 878 pP 19 8 0 | 249.487137 | -.000159 | .000200 | .v |
| 879 pP 20 8 0 | 248.863327 | .000057 | .000200 | .v |
| 880 pP 21 8 0 | 248.240676 | -.000542 | .001000 | .v |
| 881 pP 22 8 0 | 247.620845 | -.000239 | .000300 | .v |
| 882 pP 23 8 0 | 247.003037 | .000223 | .000200 | .x |
| 883 pP 24 8 0 | 246.386653 | .000299 | .000300 | .v |
| 884 pP 25 8 0 | 245.771237 | -.000417 | .000500 | .v |
| 885 pP 26 8 0 | 245.158719 | .000055 | .000200 | .v |
| 886 pP 27 8 0 | 244.547665 | .000327 | .000300 | .x |
| 887 pP 28 8 0 | 243.937848 | .000213 | .000200 | .x |
| 888 pP 29 8 0 | 243.329263 | -.000251 | .000300 | .v |
| 889 pP 30 8 0 | 242.723022 | .000079 | .000200 | .v |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|--|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 1114 | pP 61 11 0 | 224.617926 | .000138 | .001000 | | . | v | . |
| 4 | 1115 | pP 62 11 0 | 224.064633 | -.001576 | .001000 | | x | . | . |
| 5 | 1116 | pP 14 12 0 | 252.295752 | -.000661 | .001000 | | . | v | . |
| 6 | 1117 | pP 15 12 0 | 251.662749 | -.000525 | .001000 | | . | v | . |
| 7 | 1118 | pP 17 12 0 | 250.404932 | .000920 | .001000 | | . | . | v |
| 8 | 1119 | pP 18 12 0 | 249.778046 | .000230 | .000200 | | . | x | . |
| 9 | 1120 | pP 19 12 0 | 249.153521 | -.000335 | .001000 | | . | v | . |
| 10 | 1121 | pP 20 12 0 | 248.531719 | -.000373 | .001000 | | . | v | . |
| 11 | 1122 | pP 21 12 0 | 247.912747 | .000266 | .000200 | | . | x | . |
| 12 | 1123 | pP 23 12 0 | 246.680109 | .000569 | .000500 | | . | . | x |
| 13 | 1124 | pP 24 12 0 | 246.066797 | .000677 | .000500 | | . | . | x |
| 14 | 1125 | pP 27 12 0 | 244.237488 | -.000035 | .000200 | | . | v | . |
| 15 | 1126 | pP 28 12 0 | 243.631624 | -.000104 | .000200 | | . | v | . |
| 16 | 1127 | pP 29 12 0 | 243.027514 | -.000217 | .000200 | | . | x | . |
| 17 | 1128 | pP 30 12 0 | 242.425748 | .000259 | .000200 | | . | x | . |
| 18 | 1129 | rP 2 0 0 | 261.148011 | -.000113 | .000200 | | . | v | . |
| 19 | 1130 | rP 3 0 0 | 260.480755 | -.000133 | .000200 | | . | v | . |
| 20 | 1131 | rP 4 0 0 | 259.815263 | -.000105 | .000200 | | . | v | . |
| 21 | 1132 | rP 5 0 0 | 259.151484 | -.000083 | .000200 | | . | v | . |
| 22 | 1133 | rP 6 0 0 | 258.489412 | -.000076 | .000200 | | . | v | . |
| 23 | 1134 | rP 7 0 0 | 257.829051 | -.000083 | .000200 | | . | v | . |
| 24 | 1135 | rP 8 0 0 | 257.170407 | -.000103 | .000200 | | . | v | . |
| 25 | 1136 | rP 9 0 0 | 256.513522 | -.000095 | .000200 | | . | v | . |
| 26 | 1137 | rP 10 0 0 | 255.858362 | -.000098 | .000200 | | . | v | . |
| 27 | 1138 | rP 11 0 0 | 255.204945 | -.000096 | .000200 | | . | v | . |
| 28 | 1139 | rP 12 0 0 | 254.553277 | -.000085 | .000200 | | . | v | . |
| 29 | 1140 | rP 13 0 0 | 253.903605 | .000178 | .000300 | | . | v | . |
| 30 | 1141 | rP 14 0 0 | 253.255194 | -.000044 | .000200 | | . | v | . |
| 31 | 1142 | rP 15 0 0 | 252.608710 | -.000089 | .000200 | | . | v | . |
| 32 | 1143 | rP 16 0 0 | 251.964059 | -.000051 | .000200 | | . | v | . |
| 33 | 1144 | rP 17 0 0 | 251.321093 | -.000083 | .000200 | | . | v | . |
| 34 | 1145 | rP 18 0 0 | 250.679847 | -.000151 | .000200 | | . | v | . |
| 35 | 1146 | rP 19 0 0 | 250.040515 | -.000063 | .000200 | | . | v | . |
| 36 | 1147 | rP 20 0 0 | 249.402933 | .000014 | .000200 | | . | v | . |
| 37 | 1148 | rP 21 0 0 | 248.766911 | -.000111 | .000200 | | . | v | . |
| 38 | 1149 | rP 22 0 0 | 248.132909 | .000019 | .000200 | | . | v | . |
| 39 | 1150 | rP 23 0 0 | 247.500504 | -.000021 | .000200 | | . | v | . |
| 40 | 1151 | rP 24 0 0 | 246.869915 | -.000012 | .000200 | | . | v | . |
| 41 | 1152 | rP 25 0 0 | 246.241057 | -.000043 | .000200 | | . | v | . |
| 42 | 1153 | rP 26 0 0 | 245.613815 | -.000230 | .000300 | | . | v | . |
| 43 | 1154 | rP 27 0 0 | 244.988725 | -.000038 | .000200 | | . | v | . |
| 44 | 1155 | rP 28 0 0 | 244.364988 | -.000268 | .000300 | | . | v | . |
| 45 | 1156 | rP 29 0 0 | 243.743560 | .000036 | .000200 | | . | v | . |
| 46 | 1157 | rP 30 0 0 | 243.123541 | -.000029 | .000200 | | . | v | . |
| 47 | 1158 | rP 31 0 0 | 242.505373 | -.000022 | .000200 | | . | v | . |
| 48 | 1159 | rP 32 0 0 | 241.888975 | -.000024 | .000200 | | . | v | . |
| 49 | 1160 | rP 33 0 0 | 241.274358 | -.000026 | .000200 | | . | v | . |
| 50 | 1161 | rP 34 0 0 | 240.661546 | -.000005 | .000200 | | . | v | . |
| 51 | 1162 | rP 35 0 0 | 240.050478 | -.000022 | .000200 | | . | v | . |
| 52 | 1163 | rP 36 0 0 | 239.441202 | -.000030 | .000200 | | . | v | . |
| 53 | 1164 | rP 37 0 0 | 238.833729 | -.000020 | .000200 | | . | v | . |
| 54 | 1165 | rP 38 0 0 | 238.228031 | -.000019 | .000200 | | . | v | . |
| 55 | 1166 | rP 39 0 0 | 237.624109 | -.000027 | .000200 | | . | v | . |
| 56 | 1167 | rP 40 0 0 | 237.021932 | -.000075 | .000200 | | . | v | . |
| 57 | 1168 | rP 41 0 0 | 236.421626 | -.000039 | .000200 | | . | v | . |
| 58 | 1169 | rP 42 0 0 | 235.823064 | -.000044 | .000200 | | . | v | . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|---|---|---|--|
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | 1226 | rR | 23 | 0 | 0 | 279.084901 | .000079 | .000200 | . | v | . | |
| 4 | 1227 | rR | 24 | 0 | 0 | 279.796682 | -.000048 | .000200 | . | v | . | |
| 5 | 1228 | rR | 25 | 0 | 0 | 280.510134 | -.000085 | .000200 | . | v | . | |
| 6 | 1229 | rR | 26 | 0 | 0 | 281.225201 | -.000083 | .000200 | . | v | . | |
| 7 | 1230 | rR | 27 | 0 | 0 | 281.941859 | -.000060 | .000200 | . | v | . | |
| 8 | 1231 | rR | 28 | 0 | 0 | 282.660049 | -.000067 | .000200 | . | v | . | |
| 9 | 1232 | rR | 29 | 0 | 0 | 283.379779 | -.000091 | .000200 | . | v | . | |
| 10 | 1233 | rR | 30 | 0 | 0 | 284.101075 | -.000100 | .000200 | . | v | . | |
| 11 | 1234 | rR | 31 | 0 | 0 | 284.823927 | -.000097 | .000200 | . | v | . | |
| 12 | 1235 | rR | 32 | 0 | 0 | 285.548273 | -.000136 | .000200 | . | v | . | |
| 13 | 1236 | rR | 33 | 0 | 0 | 286.274234 | -.000092 | .000200 | . | v | . | |
| 14 | 1237 | rR | 34 | 0 | 0 | 287.001673 | -.000093 | .000200 | . | v | . | |
| 15 | 1238 | rR | 35 | 0 | 0 | 287.730614 | -.000110 | .000200 | . | v | . | |
| 16 | 1239 | rR | 36 | 0 | 0 | 288.461160 | -.000031 | .000200 | . | v | . | |
| 17 | 1240 | rR | 37 | 0 | 0 | 289.193066 | -.000096 | .000200 | . | v | . | |
| 18 | 1241 | rR | 38 | 0 | 0 | 289.926533 | -.000095 | .000200 | . | v | . | |
| 19 | 1242 | rR | 39 | 0 | 0 | 290.661481 | -.000103 | .000200 | . | v | . | |
| 20 | 1243 | rR | 40 | 0 | 0 | 291.397931 | -.000090 | .000200 | . | v | . | |
| 21 | 1244 | rR | 41 | 0 | 0 | 292.135843 | -.000089 | .000200 | . | v | . | |
| 22 | 1245 | rR | 42 | 0 | 0 | 292.875210 | -.000100 | .000200 | . | v | . | |
| 23 | 1246 | rR | 43 | 0 | 0 | 293.616036 | -.000111 | .000200 | . | v | . | |
| 24 | 1247 | rR | 44 | 0 | 0 | 294.358328 | -.000108 | .000200 | . | v | . | |
| 25 | 1248 | rR | 45 | 0 | 0 | 295.102052 | -.000117 | .000200 | . | v | . | |
| 26 | 1249 | rR | 46 | 0 | 0 | 295.847216 | -.000123 | .000200 | . | v | . | |
| 27 | 1250 | rR | 47 | 0 | 0 | 296.593824 | -.000112 | .000200 | . | v | . | |
| 28 | 1251 | rR | 48 | 0 | 0 | 297.341855 | -.000100 | .000200 | . | v | . | |
| 29 | 1252 | rR | 49 | 0 | 0 | 298.091285 | -.000100 | .000200 | . | v | . | |
| 30 | 1253 | rR | 50 | 0 | 0 | 298.842146 | -.000074 | .000200 | . | v | . | |
| 31 | 1254 | rR | 51 | 0 | 0 | 299.594360 | -.000092 | .000200 | . | v | . | |
| 32 | 1255 | rR | 52 | 0 | 0 | 300.347979 | -.000092 | .000200 | . | v | . | |
| 33 | 1256 | rR | 53 | 0 | 0 | 301.102983 | -.000087 | .000200 | . | v | . | |
| 34 | 1257 | rR | 54 | 0 | 0 | 301.859729 | .000289 | .000500 | . | v | . | |
| 35 | 1258 | rR | 55 | 0 | 0 | 302.617078 | -.000096 | .000200 | . | v | . | |
| 36 | 1259 | rR | 56 | 0 | 0 | 303.376152 | -.000109 | .000200 | . | v | . | |
| 37 | 1260 | rR | 57 | 0 | 0 | 304.136631 | -.000063 | .000200 | . | v | . | |
| 38 | 1261 | rR | 58 | 0 | 0 | 304.898419 | -.000045 | .000200 | . | v | . | |
| 39 | 1262 | rR | 59 | 0 | 0 | 305.661466 | -.000096 | .000200 | . | v | . | |
| 40 | 1263 | rR | 60 | 0 | 0 | 306.425854 | -.000125 | .000200 | . | v | . | |
| 41 | 1264 | rR | 61 | 0 | 0 | 307.191659 | -.000048 | .000200 | . | v | . | |
| 42 | 1265 | rR | 62 | 0 | 0 | 307.958728 | -.000008 | .000200 | . | v | . | |
| 43 | 1266 | rR | 63 | 0 | 0 | 308.727007 | -.000050 | .000200 | . | v | . | |
| 44 | 1267 | rR | 64 | 0 | 0 | 309.496408 | -.000253 | .000200 | . | x | . | |
| 45 | 1268 | rR | 65 | 0 | 0 | 310.267444 | -.000096 | .000200 | . | v | . | |
| 46 | 1269 | rR | 66 | 0 | 0 | 311.039675 | -.000007 | .000200 | . | v | . | |
| 47 | 1270 | rR | 67 | 0 | 0 | 311.812898 | -.000182 | .000200 | . | v | . | |
| 48 | 1271 | rR | 68 | 0 | 0 | 312.587596 | -.000128 | .000200 | . | v | . | |
| 49 | 1272 | rR | 69 | 0 | 0 | 313.363310 | -.000294 | .000200 | . | x | . | |
| 50 | 1273 | rR | 70 | 0 | 0 | 314.140257 | -.000454 | .000300 | . | x | . | |
| 51 | 1274 | rQ | 1 | 0 | 0 | 262.492446 | .001163 | .002000 | . | . | v | |
| 52 | 1275 | rQ | 2 | 0 | 0 | 262.498273 | -.000123 | .000200 | . | v | . | |
| 53 | 1276 | rQ | 3 | 0 | 0 | 262.509289 | .000225 | .000300 | . | v | . | |
| 54 | 1277 | rQ | 4 | 0 | 0 | 262.523317 | .000029 | .000200 | . | v | . | |
| 55 | 1278 | rQ | 5 | 0 | 0 | 262.540860 | -.000205 | .000200 | . | x | . | |
| 56 | 1279 | rQ | 6 | 0 | 0 | 262.562154 | -.000242 | .000200 | . | x | . | |
| 57 | 1280 | rQ | 7 | 0 | 0 | 262.587175 | -.000103 | .000200 | . | v | . | |
| 58 | 1281 | rQ | 8 | 0 | 0 | 262.615686 | -.000025 | .000200 | . | v | . | |
| 59 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|----------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 1506 | rQ | 65 | 9 | 0 | 270.035090 | -.000576 | .002000 | . v . . |
| 4 | 1507 | rQ | 66 | 9 | 0 | 270.256976 | .000796 | .001000 | . . v . |
| 5 | 1508 | rR | 9 | 9 | 0 | 269.997902 | .000065 | .000200 | . v . . |
| 6 | 1509 | rR | 10 | 9 | 0 | 270.697119 | .000051 | .000200 | . v . . |
| 7 | 1510 | rR | 11 | 9 | 0 | 271.399197 | .000060 | .000200 | . v . . |
| 8 | 1511 | rR | 12 | 9 | 0 | 272.104109 | .000032 | .000200 | . v . . |
| 9 | 1512 | rR | 13 | 9 | 0 | 272.811984 | .000058 | .000200 | . v . . |
| 10 | 1513 | rR | 14 | 9 | 0 | 273.522914 | .000191 | .000200 | . .v . . |
| 11 | 1514 | rR | 15 | 9 | 0 | 274.236441 | -.000067 | .000200 | . v . . |
| 12 | 1515 | rR | 16 | 9 | 0 | 274.953353 | .000028 | .000200 | . v . . |
| 13 | 1516 | rR | 17 | 9 | 0 | 275.673206 | -.000012 | .000200 | . v . . |
| 14 | 1517 | rR | 18 | 9 | 0 | 276.396262 | .000030 | .000200 | . v . . |
| 15 | 1518 | rR | 19 | 9 | 0 | 277.122487 | .000074 | .000200 | . v . . |
| 16 | 1519 | rR | 20 | 9 | 0 | 277.851914 | .000108 | .000200 | . .v . . |
| 17 | 1520 | rR | 21 | 9 | 0 | 278.584415 | -.000042 | .000200 | . v . . |
| 18 | 1521 | rR | 22 | 9 | 0 | 279.320383 | -.000028 | .000200 | . v . . |
| 19 | 1522 | rR | 23 | 9 | 0 | 280.059890 | .000180 | .000300 | . .v . . |
| 20 | 1523 | rR | 24 | 9 | 0 | 280.802370 | -.000026 | .000200 | . v . . |
| 21 | 1524 | rR | 25 | 9 | 0 | 281.548391 | -.000118 | .000200 | . v . . |
| 22 | 1525 | rR | 26 | 9 | 0 | 282.297938 | -.000145 | .000200 | . v . . |
| 23 | 1526 | rR | 27 | 9 | 0 | 283.051136 | -.000017 | .000200 | . v . . |
| 24 | 1527 | rR | 28 | 9 | 0 | 283.807698 | -.000050 | .000200 | . v . . |
| 25 | 1528 | rR | 29 | 9 | 0 | 284.567649 | -.000245 | .000200 | . x . . |
| 26 | 1529 | rR | 30 | 9 | 0 | 285.331491 | -.000122 | .000200 | . v . . |
| 27 | 1530 | rR | 31 | 9 | 0 | 286.099203 | .000280 | .000500 | . .v . . |
| 28 | 1531 | rR | 32 | 9 | 0 | 286.869672 | -.000167 | .000200 | . v . . |
| 29 | 1532 | rR | 33 | 9 | 0 | 287.644129 | -.000241 | .000200 | . x . . |
| 30 | 1533 | rR | 34 | 9 | 0 | 288.422406 | -.000116 | .000200 | . v . . |
| 31 | 1534 | rR | 35 | 9 | 0 | 289.204044 | -.000255 | .000200 | . x . . |
| 32 | 1535 | rR | 36 | 9 | 0 | 289.989601 | -.000097 | .000200 | . v . . |
| 33 | 1536 | rR | 37 | 9 | 0 | 290.778672 | -.000044 | .000200 | . v . . |
| 34 | 1537 | rR | 38 | 9 | 0 | 291.571027 | -.000317 | .000300 | . x . . |
| 35 | 1538 | rR | 39 | 9 | 0 | 292.366184 | -.001388 | .002000 | v . . . |
| 36 | 1539 | rR | 40 | 9 | 0 | 293.167332 | -.000055 | .000200 | . v . . |
| 37 | 1540 | rR | 41 | 9 | 0 | 293.970451 | -.000323 | .000300 | . x . . |
| 38 | 1541 | rR | 42 | 9 | 0 | 294.777555 | -.000161 | .000200 | . v . . |
| 39 | 1542 | rR | 43 | 9 | 0 | 295.588650 | .000457 | .001000 | . .v . . |
| 40 | 1543 | rR | 44 | 9 | 0 | 296.402064 | -.000122 | .000200 | . v . . |
| 41 | 1544 | rR | 45 | 9 | 0 | 297.219585 | -.000087 | .000200 | . v . . |
| 42 | 1545 | rR | 46 | 9 | 0 | 298.040525 | -.000104 | .000200 | . v . . |
| 43 | 1546 | rR | 47 | 9 | 0 | 298.864938 | -.000096 | .000200 | . v . . |
| 44 | 1547 | rR | 48 | 9 | 0 | 299.692723 | -.000139 | .000200 | . v . . |
| 45 | 1548 | rR | 49 | 9 | 0 | 300.524035 | -.000054 | .000200 | . v . . |
| 46 | 1549 | rR | 50 | 9 | 0 | 301.358640 | -.000049 | .000200 | . v . . |
| 47 | 1550 | rR | 51 | 9 | 0 | 302.197031 | .000393 | .001000 | . .v . . |
| 48 | 1551 | rR | 52 | 9 | 0 | 303.037672 | -.000237 | .000200 | . x . . |
| 49 | 1552 | rR | 53 | 9 | 0 | 303.882400 | -.000078 | .000200 | . v . . |
| 50 | 1553 | rR | 54 | 9 | 0 | 304.730304 | -.000014 | .000200 | . v . . |
| 51 | 1554 | rR | 55 | 9 | 0 | 305.581194 | -.000211 | .000200 | . x . . |
| 52 | 1555 | rR | 56 | 9 | 0 | 306.435541 | -.000171 | .000200 | . v . . |
| 53 | 1556 | rR | 57 | 9 | 0 | 307.293144 | -.000070 | .000200 | . v . . |
| 54 | 1557 | rR | 58 | 9 | 0 | 308.153932 | .000045 | .000200 | . v . . |
| 55 | 1558 | rR | 59 | 9 | 0 | 309.017710 | .000006 | .000200 | . v . . |
| 56 | 1559 | rR | 60 | 9 | 0 | 309.884975 | .000334 | .000200 | . .x . . |
| 57 | 1560 | rR | 61 | 9 | 0 | 310.755168 | .000495 | .000500 | . .v . . |
| 58 | 1561 | rR | 62 | 9 | 0 | 311.627855 | .000080 | .000200 | . v . . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|----|---|------------|----------|---------|---------|--|--|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | 1562 | rR | 10 | 10 | 0 | 270.759960 | .000083 | .000200 | . v . | | |
| 4 | 1563 | rR | 11 | 10 | 0 | 271.461637 | .000045 | .000200 | . v . | | |
| 5 | 1564 | rR | 12 | 10 | 0 | 272.166176 | .000022 | .000200 | . v . | | |
| 6 | 1565 | rR | 13 | 10 | 0 | 272.873585 | -.000009 | .000200 | . v . | | |
| 7 | 1566 | rR | 14 | 10 | 0 | 273.584044 | .000097 | .000200 | . v . | | |
| 8 | 1567 | rR | 15 | 10 | 0 | 274.297314 | .000065 | .000200 | . v . | | |
| 9 | 1568 | rR | 16 | 10 | 0 | 275.013687 | .000149 | .000200 | . v . | | |
| 10 | 1569 | rR | 17 | 10 | 0 | 275.732796 | -.000058 | .000200 | . v . | | |
| 11 | 1570 | rR | 18 | 10 | 0 | 276.455225 | -.000014 | .000200 | . v . | | |
| 12 | 1571 | rR | 19 | 10 | 0 | 277.180799 | .000066 | .000200 | . v . | | |
| 13 | 1572 | rR | 20 | 10 | 0 | 277.909230 | -.000149 | .000200 | . v . | | |
| 14 | 1573 | rR | 21 | 10 | 0 | 278.641101 | -.000118 | .000200 | . v . | | |
| 15 | 1574 | rR | 22 | 10 | 0 | 279.377465 | .001169 | .001000 | . . x | | |
| 16 | 1575 | rR | 23 | 10 | 0 | 280.114467 | -.000183 | .000200 | . v . | | |
| 17 | 1576 | rR | 24 | 10 | 0 | 280.857367 | .001045 | .001000 | . . x | | |
| 18 | 1577 | rR | 25 | 10 | 0 | 281.601080 | -.000272 | .000300 | . v . | | |
| 19 | 1578 | rR | 26 | 10 | 0 | 282.349691 | -.000084 | .000200 | . v . | | |
| 20 | 1579 | rR | 27 | 10 | 0 | 283.101944 | .000317 | .000300 | . . x | | |
| 21 | 1580 | rR | 28 | 10 | 0 | 283.856979 | .000040 | .000200 | . v . | | |
| 22 | 1581 | rR | 29 | 10 | 0 | 284.615863 | .000122 | .000200 | . v . | | |
| 23 | 1582 | rR | 30 | 10 | 0 | 285.378399 | .000340 | .000500 | . . v . | | |
| 24 | 1583 | rR | 31 | 10 | 0 | 286.143662 | -.000254 | .000200 | . x . | | |
| 25 | 1584 | rR | 32 | 10 | 0 | 286.913262 | -.000068 | .000200 | . v . | | |
| 26 | 1585 | rR | 33 | 10 | 0 | 287.686031 | -.000286 | .000200 | . x . | | |
| 27 | 1586 | rR | 34 | 10 | 0 | 288.461160 | -.001730 | .002000 | . v . | | |
| 28 | 1587 | rR | 35 | 10 | 0 | 289.243006 | -.000050 | .000200 | . v . | | |
| 29 | 1588 | rR | 36 | 10 | 0 | 290.026646 | -.000175 | .000200 | . v . | | |
| 30 | 1589 | rR | 37 | 10 | 0 | 290.814113 | -.000074 | .000200 | . v . | | |
| 31 | 1590 | rR | 38 | 10 | 0 | 291.605089 | -.000061 | .000200 | . v . | | |
| 32 | 1591 | rR | 39 | 10 | 0 | 292.399722 | .000014 | .000200 | . v . | | |
| 33 | 1592 | rR | 40 | 10 | 0 | 293.197706 | -.000146 | .000200 | . v . | | |
| 34 | 1593 | rR | 41 | 10 | 0 | 293.999380 | -.000191 | .000200 | . v . | | |
| 35 | 1594 | rR | 42 | 10 | 0 | 294.804679 | -.000176 | .000200 | . v . | | |
| 36 | 1595 | rR | 43 | 10 | 0 | 295.613428 | -.000259 | .000200 | . x . | | |
| 37 | 1596 | rR | 44 | 10 | 0 | 296.425843 | -.000208 | .000200 | . x . | | |
| 38 | 1597 | rR | 45 | 10 | 0 | 297.241958 | .000029 | .000200 | . v . | | |
| 39 | 1598 | rR | 46 | 10 | 0 | 298.061046 | -.000256 | .000200 | . x . | | |
| 40 | 1599 | rR | 47 | 10 | 0 | 298.884117 | -.000030 | .000200 | . v . | | |
| 41 | 1600 | rR | 48 | 10 | 0 | 299.710282 | -.000162 | .000200 | . v . | | |
| 42 | 1601 | rR | 49 | 10 | 0 | 300.540129 | -.000040 | .000200 | . v . | | |
| 43 | 1602 | rR | 50 | 10 | 0 | 301.373307 | .000008 | .000200 | . v . | | |
| 44 | 1603 | rR | 51 | 10 | 0 | 302.209780 | -.000029 | .000200 | . v . | | |
| 45 | 1604 | rR | 52 | 10 | 0 | 303.049706 | .000031 | .000200 | . v . | | |
| 46 | 1605 | rR | 53 | 10 | 0 | 303.892865 | -.000006 | .000200 | . v . | | |
| 47 | 1606 | rR | 54 | 10 | 0 | 304.740070 | .000697 | .000500 | . . x . | | |
| 48 | 1607 | rR | 55 | 10 | 0 | 305.589385 | .000231 | .000200 | . x . | | |
| 49 | 1608 | rR | 56 | 10 | 0 | 306.442572 | .000382 | .000200 | . . x . | | |
| 50 | 1609 | rR | 57 | 10 | 0 | 307.299329 | .000875 | .000200 | . . * | | |
| 51 | 1610 | rR | 11 | 11 | 0 | 271.522147 | .000038 | .000200 | . v . | | |
| 52 | 1611 | rR | 12 | 11 | 0 | 272.226287 | -.000023 | .000200 | . v . | | |
| 53 | 1612 | rR | 13 | 11 | 0 | 272.933472 | .000093 | .000200 | . v . | | |
| 54 | 1613 | rR | 14 | 11 | 0 | 273.643265 | -.000083 | .000200 | . v . | | |
| 55 | 1614 | rR | 15 | 11 | 0 | 274.356191 | -.000063 | .000200 | . v . | | |
| 56 | 1615 | rR | 16 | 11 | 0 | 275.070107 | -.002025 | .002000 | . x . | | |
| 57 | 1616 | rR | 17 | 11 | 0 | 275.790726 | -.000295 | .000300 | . v . | | |
| 58 | 1617 | rR | 18 | 11 | 0 | 276.513003 | .000043 | .000200 | . v . | | |
| 59 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

| | | | | | | | | | | |
|----|------|----|----|----|---|------------|----------|---------|---|--------|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 1730 | rR | 27 | 13 | 0 | 283.245415 | -.003155 | .003000 | x | . . . |
| 4 | 1731 | rR | 28 | 13 | 0 | 284.001340 | .000221 | .000200 | | . .x . |
| 5 | 1732 | rR | 14 | 14 | 0 | 273.809436 | .000264 | .000200 | | . .x . |
| 6 | 1733 | rR | 15 | 14 | 0 | 274.521137 | .000485 | .001000 | | . .v . |
| 7 | | | | | | | | | | |
| 8 | 1734 | rR | 16 | 14 | 0 | 275.235607 | .000577 | .000500 | | . .x . |
| 9 | 1735 | rR | 17 | 14 | 0 | 275.952873 | .000539 | .000500 | | . .x . |
| 10 | 1736 | rR | 18 | 14 | 0 | 276.673229 | .000632 | .000500 | | . .x . |
| 11 | 1737 | rR | 19 | 14 | 0 | 277.396617 | .000768 | .001000 | | . .v . |
| 12 | 1738 | rR | 20 | 14 | 0 | 278.120516 | -.001606 | .002000 | v | . . . |
| 13 | 1739 | rR | 21 | 14 | 0 | 278.850907 | -.000543 | .001000 | | .v . . |
| 14 | 1740 | rR | 22 | 14 | 0 | 279.584068 | .000201 | .000200 | | . .x . |
| 15 | 1741 | rR | 23 | 14 | 0 | 280.319391 | -.000015 | .000200 | | . .v . |
| 16 | 1742 | rR | 24 | 14 | 0 | 281.057431 | -.000671 | .001000 | | .v . . |
| 17 | 1743 | rR | 25 | 14 | 0 | 281.799692 | -.000296 | .000500 | | . .v . |
| 18 | 1744 | rR | 26 | 14 | 0 | 282.545289 | .000192 | .000200 | | . .v . |
| 19 | 1745 | rR | 28 | 14 | 0 | 284.045269 | .000153 | .000200 | | . .v . |
| 20 | 1746 | rR | 29 | 14 | 0 | 284.800105 | .000018 | .000200 | | . .v . |
| 21 | 1747 | rR | 30 | 14 | 0 | 285.557967 | -.000438 | .000500 | | . .v . |
| 22 | 1748 | rR | 31 | 14 | 0 | 286.319296 | -.000802 | .001000 | | .v . . |
| 23 | 1749 | rR | 32 | 14 | 0 | 287.085089 | -.000100 | .000200 | | . .v . |
| 24 | 1750 | rR | 33 | 14 | 0 | 287.853530 | -.000173 | .000200 | | . .v . |
| 25 | 1751 | rR | 15 | 15 | 0 | 274.571231 | -.000202 | .000200 | | . .x . |
| 26 | 1752 | rR | 16 | 15 | 0 | 275.283200 | -.002098 | .002000 | x | . . . |
| 27 | 1753 | rR | 17 | 15 | 0 | 276.002202 | .000130 | .000200 | | . .v . |
| 28 | 1754 | rR | 18 | 15 | 0 | 276.721752 | -.000032 | .000200 | | . .v . |
| 29 | 1755 | rR | 19 | 15 | 0 | 277.443936 | -.000525 | .001000 | | . .v . |
| 30 | 1756 | rR | 20 | 15 | 0 | 278.170105 | -.000031 | .000200 | | . .v . |
| 31 | 1757 | rR | 21 | 15 | 0 | 278.898440 | -.000399 | .000500 | | . .v . |
| 32 | 1758 | rR | 22 | 15 | 0 | 279.630803 | .000201 | .000200 | | . .x . |
| 33 | 1759 | rR | 23 | 15 | 0 | 280.365405 | -.000052 | .000200 | | . .v . |
| 34 | 1760 | rR | 24 | 15 | 0 | 281.103516 | .000080 | .000200 | | . .v . |
| 35 | 1761 | rR | 25 | 15 | 0 | 281.844650 | .000079 | .000200 | | . .v . |
| 36 | 1762 | rR | 26 | 15 | 0 | 282.588511 | -.000384 | .000500 | | . .v . |
| 37 | 1763 | rR | 27 | 15 | 0 | 283.335998 | -.000441 | .000500 | | . .v . |
| 38 | 1764 | rR | 29 | 15 | 0 | 284.841256 | -.000053 | .000200 | | . .v . |
| 39 | 1765 | rR | 30 | 15 | 0 | 285.598495 | -.000199 | .000200 | | . .v . |
| 40 | 1766 | rR | 31 | 15 | 0 | 286.357702 | -.001712 | .002000 | v | . . . |
| 41 | 1767 | rR | 32 | 15 | 0 | 287.123507 | .000011 | .000200 | | . .v . |
| 42 | 1768 | rR | 33 | 15 | 0 | 287.890660 | -.000305 | .001000 | | . .v . |
| 43 | 1769 | rR | 34 | 15 | 0 | 288.662718 | .000878 | .001000 | | . .v . |
| 44 | 1770 | rP | 51 | 0 | 0 | 230.516501 | .000023 | .000200 | | . .v . |
| 45 | 1771 | rP | 52 | 0 | 0 | 229.935806 | .000026 | .000200 | | . .v . |
| 46 | 1772 | rP | 53 | 0 | 0 | 229.356866 | .000002 | .000200 | | . .v . |
| 47 | 1773 | rP | 54 | 0 | 0 | 228.779714 | -.000018 | .000200 | | . .v . |
| 48 | 1774 | rP | 55 | 0 | 0 | 228.204357 | -.000025 | .000200 | | . .v . |
| 49 | 1775 | rP | 56 | 0 | 0 | 227.630812 | .000000 | .000200 | | . .v . |
| 50 | 1776 | rP | 57 | 0 | 0 | 227.059077 | .000053 | .000200 | | . .v . |
| 51 | 1777 | rP | 58 | 0 | 0 | 226.489000 | -.000014 | .000200 | | . .v . |
| 52 | 1778 | rP | 59 | 0 | 0 | 225.920827 | .000045 | .000200 | | . .v . |
| 53 | 1779 | rP | 60 | 0 | 0 | 225.354626 | .000298 | .000500 | | . .v . |
| 54 | 1780 | rP | 61 | 0 | 0 | 224.789607 | -.000041 | .000200 | | . .v . |
| 55 | 1781 | rP | 62 | 0 | 0 | 224.226672 | -.000071 | .000200 | | . .v . |
| 56 | 1782 | rP | 63 | 0 | 0 | 223.665702 | .000091 | .000200 | | . .v . |
| 57 | 1783 | rP | 64 | 0 | 0 | 223.106214 | -.000037 | .000200 | | . .v . |
| 58 | 1784 | rP | 65 | 0 | 0 | 222.548675 | .000016 | .000200 | | . .v . |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|----|---|------------|----------|---------|---------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 2009 | rR | 15 | 12 | 0 | 274.413275 | .000236 | .000200 | . .x . |
| 4 | 2010 | rR | 16 | 12 | 0 | 275.128428 | .000020 | .000200 | . .v . |
| 5 | 2011 | rR | 17 | 12 | 0 | 275.846434 | -.000318 | .000500 | . .v . |
| 6 | 2012 | rR | 18 | 12 | 0 | 276.568221 | .000115 | .000200 | . .v . |
| 7 | 2013 | rR | 19 | 12 | 0 | 277.292609 | .000101 | .000200 | . .v . |
| 8 | 2014 | rR | 20 | 12 | 0 | 278.020234 | .000241 | .000200 | . .x . |
| 9 | 2015 | rR | 21 | 12 | 0 | 278.751083 | .000481 | .000500 | . .v . |
| 10 | 2016 | rR | 22 | 12 | 0 | 279.484914 | .000543 | .001000 | . .v . |
| 11 | 2017 | rR | 24 | 12 | 0 | 280.962528 | .000986 | .001000 | . .v |
| 12 | 2018 | rR | 25 | 12 | 0 | 281.705406 | .000387 | .000500 | . .v . |
| 13 | 2019 | rR | 26 | 12 | 0 | 282.451909 | .000105 | .000200 | . .v . |
| 14 | 2020 | rR | 27 | 12 | 0 | 283.201909 | -.000024 | .000200 | . .v . |
| 15 | 2021 | rR | 28 | 12 | 0 | 283.955496 | .000059 | .000200 | . .v . |
| 16 | 2022 | rR | 29 | 12 | 0 | 284.712583 | .000236 | .000200 | . .x . |
| 17 | 2023 | rR | 30 | 12 | 0 | 285.473185 | .000493 | .001000 | . .v . |
| 18 | 2024 | rR | 31 | 12 | 0 | 286.236506 | .000009 | .000200 | . .v . |
| 19 | 2025 | rR | 32 | 12 | 0 | 287.001733 | -.002053 | .002000 | x . . . |
| 20 | 2026 | rR | 33 | 12 | 0 | 287.774755 | .000176 | .000200 | . .v . |
| 21 | 2027 | rR | 34 | 12 | 0 | 288.548855 | -.000037 | .000200 | . .v . |
| 22 | 2028 | rR | 35 | 12 | 0 | 289.327274 | .000533 | .001000 | . .v . |
| 23 | 2029 | rR | 36 | 12 | 0 | 290.107840 | -.000296 | .000200 | . .x . |
| 24 | 2030 | rR | 37 | 12 | 0 | 290.892734 | -.000352 | .000500 | . .v . |
| 25 | 2031 | rR | 38 | 12 | 0 | 291.679808 | -.001787 | .002000 | v . . . |
| 26 | 2032 | rR | 39 | 12 | 0 | 292.473799 | .000133 | .000200 | . .v . |
| 27 | 2033 | rR | 40 | 12 | 0 | 293.269063 | -.000235 | .000200 | . .x . |
| 28 | 2034 | rR | 41 | 12 | 0 | 294.068789 | .000303 | .000500 | . .v . |
| 29 | 2035 | rR | 42 | 12 | 0 | 294.871448 | .000222 | .000500 | . .v . |
| 30 | 2036 | rR | 43 | 12 | 0 | 295.677327 | -.000181 | .000200 | . .v . |
| 31 | 2037 | rR | 44 | 12 | 0 | 296.487234 | -.000087 | .000200 | . .v . |
| 32 | 2038 | rR | 45 | 12 | 0 | 297.298662 | -.001991 | .002000 | v . . . |
| 33 | 2039 | rR | 46 | 12 | 0 | 298.117337 | -.000153 | .000200 | . .v . |
| 34 | 2040 | rR | 47 | 12 | 0 | 298.937513 | -.000301 | .000200 | . .x . |
| 35 | 2041 | rR | 48 | 12 | 0 | 299.761547 | -.000059 | .000200 | . .v . |
| 36 | 2042 | rR | 49 | 12 | 0 | 300.589352 | .000502 | .000500 | . .x . |
| 37 | 2043 | rR | 50 | 12 | 0 | 301.419586 | .000063 | .000200 | . .v . |
| 38 | 2044 | rR | 51 | 12 | 0 | 302.253691 | .000086 | .000200 | . .v . |
| 39 | 2045 | rR | 52 | 12 | 0 | 303.088721 | -.002352 | .003000 | v . . . |
| 40 | 2046 | rR | 53 | 12 | 0 | 303.932030 | .000126 | .000200 | . .v . |
| 41 | 2047 | rR | 54 | 12 | 0 | 304.776216 | .000142 | .000200 | . .v . |
| 42 | 2048 | rR | 55 | 12 | 0 | 305.625242 | .001682 | .002000 | . .v |
| 43 | 2049 | rR | 56 | 12 | 0 | 306.474411 | .000075 | .000200 | . .v . |
| 44 | 2050 | rR | 57 | 12 | 0 | 307.328501 | .000123 | .000200 | . .v . |
| 45 | 2051 | rR | 58 | 12 | 0 | 308.185543 | -.000118 | .000200 | . .v . |
| 46 | 2052 | rR | 59 | 12 | 0 | 309.045509 | -.000650 | .001000 | . .v . |
| 47 | 2053 | rR | 60 | 12 | 0 | 309.910075 | .000229 | .000200 | . .x . |
| 48 | 2054 | rR | 61 | 12 | 0 | 310.777249 | .000551 | .000500 | . .x . |
| 49 | 2055 | rR | 62 | 12 | 0 | 311.647449 | .000761 | .000500 | . .x . |
| 50 | 2056 | pP | 52 | 1 | 0 | 229.932634 | .000029 | .000200 | . .v . |
| 51 | 2057 | pP | 53 | 1 | 0 | 229.353857 | .000055 | .000200 | . .v . |
| 52 | 2058 | pP | 54 | 1 | 0 | 228.776816 | .000039 | .000200 | . .v . |
| 53 | 2059 | pP | 55 | 1 | 0 | 228.201581 | .000053 | .000200 | . .v . |
| 54 | 2060 | pP | 56 | 1 | 0 | 227.628140 | .000085 | .000200 | . .v . |
| 55 | 2061 | pP | 57 | 1 | 0 | 227.056373 | .000015 | .000200 | . .v . |
| 56 | 2062 | pP | 58 | 1 | 0 | 226.486478 | .000042 | .000200 | . .v . |
| 57 | 2063 | pP | 59 | 1 | 0 | 225.918341 | .000053 | .000200 | . .v . |
| 58 | 2064 | pP | 60 | 1 | 0 | 225.351993 | .000080 | .000200 | . .v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|---------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 2402 | pR | 64 | 5 | 0 | 309.401709 | -.000006 | .000200 | . v . |
| 4 | 2403 | pR | 65 | 5 | 0 | 310.173410 | -.000031 | .000200 | . v . |
| 5 | 2404 | pR | 66 | 5 | 0 | 310.946358 | -.000025 | .000200 | . v . |
| 6 | 2405 | pR | 67 | 5 | 0 | 311.720397 | -.000136 | .000200 | . v . |
| 7 | 2406 | pR | 68 | 5 | 0 | 312.495685 | -.000200 | .000200 | . x . |
| 8 | 2407 | pR | 69 | 5 | 0 | 313.272391 | -.000041 | .000200 | . v . |
| 9 | 2408 | pR | 70 | 5 | 0 | 314.050130 | -.000037 | .000200 | . v . |
| 10 | 2409 | pR | 71 | 5 | 0 | 314.828714 | -.000368 | .000500 | . v . |
| 11 | 2410 | pR | 72 | 5 | 0 | 315.608561 | -.000607 | .001000 | . v . |
| 12 | 2411 | pR | 73 | 5 | 0 | 316.391459 | .001039 | .001000 | . . x |
| 13 | 2412 | pR | 74 | 5 | 0 | 317.172540 | -.000287 | .000500 | . v . |
| 14 | 2413 | pR | 75 | 5 | 0 | 317.956870 | .000487 | .000500 | . . v . |
| 15 | 2414 | pR | 76 | 5 | 0 | 318.740613 | -.000465 | .000500 | . v . |
| 16 | 2415 | pR | 77 | 5 | 0 | 319.526864 | -.000040 | .000200 | . v . |
| 17 | 2416 | pR | 78 | 5 | 0 | 320.314064 | .000211 | .000200 | . . x . |
| 18 | 2417 | pR | 79 | 5 | 0 | 321.102966 | .001051 | .001000 | . . x |
| 19 | 2418 | pR | 80 | 5 | 0 | 321.890977 | -.000104 | .000200 | . v . |
| 20 | 2419 | pP | 52 | 6 | 0 | 229.826169 | .000069 | .000200 | . v . |
| 21 | 2420 | pP | 53 | 6 | 0 | 229.250924 | .000114 | .000200 | . . v . |
| 22 | 2421 | pP | 54 | 6 | 0 | 228.677224 | .000081 | .000200 | . v . |
| 23 | 2422 | pP | 55 | 6 | 0 | 228.105164 | .000057 | .000200 | . v . |
| 24 | 2423 | pP | 56 | 6 | 0 | 227.534775 | .000066 | .000200 | . v . |
| 25 | 2424 | pP | 57 | 6 | 0 | 226.966044 | .000087 | .000200 | . v . |
| 26 | 2425 | pP | 58 | 6 | 0 | 226.398954 | .000098 | .000200 | . v . |
| 27 | 2426 | pP | 59 | 6 | 0 | 225.833574 | .000162 | .000200 | . . v . |
| 28 | 2427 | pP | 60 | 6 | 0 | 225.269721 | .000090 | .000200 | . v . |
| 29 | 2428 | pP | 61 | 6 | 0 | 224.707598 | .000081 | .000200 | . v . |
| 30 | 2429 | pP | 62 | 6 | 0 | 224.147190 | .000115 | .000200 | . . v . |
| 31 | 2430 | pP | 63 | 6 | 0 | 223.588382 | .000074 | .000200 | . v . |
| 32 | 2431 | pP | 64 | 6 | 0 | 223.031324 | .000103 | .000200 | . . v . |
| 33 | 2432 | pP | 65 | 6 | 0 | 222.478045 | .002229 | .003000 | . . . v |
| 34 | 2433 | pP | 66 | 6 | 0 | 221.922088 | -.000008 | .000200 | . v . |
| 35 | 2434 | pP | 67 | 6 | 0 | 221.368046 | -.002017 | .002000 | x . . . |
| 36 | 2435 | pP | 68 | 6 | 0 | 220.820101 | .000381 | .000500 | . . v . |
| 37 | 2436 | pP | 69 | 6 | 0 | 220.271096 | .000028 | .000200 | . v . |
| 38 | 2437 | pP | 70 | 6 | 0 | 219.724219 | .000110 | .000200 | . . v . |
| 39 | 2438 | pP | 71 | 6 | 0 | 219.177545 | -.001300 | .002000 | v . . . |
| 40 | 2439 | pP | 72 | 6 | 0 | 218.635420 | .000145 | .000200 | . . v . |
| 41 | 2440 | pP | 73 | 6 | 0 | 218.093917 | .000516 | .000500 | . . x . |
| 42 | 2441 | pP | 74 | 6 | 0 | 217.553740 | .000517 | .000500 | . . x . |
| 43 | 2442 | pP | 75 | 6 | 0 | 217.015415 | .000673 | .001000 | . . v . |
| 44 | 2443 | pP | 76 | 6 | 0 | 216.478548 | .000591 | .001000 | . . v . |
| 45 | 2444 | pP | 77 | 6 | 0 | 215.942867 | -.000001 | .000200 | . v . |
| 46 | 2445 | pP | 78 | 6 | 0 | 215.409604 | .000129 | .000200 | . . v . |
| 47 | 2446 | pP | 79 | 6 | 0 | 214.876032 | -.001746 | .002000 | v . . . |
| 48 | 2447 | pP | 80 | 6 | 0 | 214.346906 | -.000868 | .001000 | . v . . |
| 49 | 2448 | pP | 81 | 6 | 0 | 213.819637 | .000173 | .000200 | . . v . |
| 50 | 2449 | pP | 82 | 6 | 0 | 213.293300 | .000453 | .000500 | . . v . |
| 51 | 2450 | pP | 83 | 6 | 0 | 212.767243 | -.000677 | .001000 | . v . . |
| 52 | 2451 | pP | 84 | 6 | 0 | 212.244553 | -.000131 | .000200 | . v . . |
| 53 | 2452 | pP | 85 | 6 | 0 | 211.723478 | .000343 | .000500 | . . v . |
| 54 | 2453 | pR | 50 | 6 | 0 | 298.679248 | -.000053 | .000200 | . v . . |
| 55 | 2454 | pR | 51 | 6 | 0 | 299.434225 | -.000011 | .000200 | . v . . |
| 56 | 2455 | pR | 52 | 6 | 0 | 300.190397 | -.000009 | .000200 | . v . . |
| 57 | 2456 | pR | 53 | 6 | 0 | 300.947829 | .000018 | .000200 | . v . . |
| 58 | 2457 | pR | 54 | 6 | 0 | 301.706460 | .000010 | .000200 | . v . . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|---|---|------------|-----------|---------|--|---------|--|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | 2458 | pR | 55 | 6 | 0 | 302.466299 | -0.000024 | .000200 | | . v . | |
| 4 | 2459 | pR | 56 | 6 | 0 | 303.227398 | -0.000031 | .000200 | | . v . | |
| 5 | 2460 | pR | 57 | 6 | 0 | 303.989782 | .000015 | .000200 | | . v . | |
| 6 | 2461 | pR | 58 | 6 | 0 | 304.753314 | -0.000019 | .000200 | | . v . | |
| 7 | 2462 | pR | 59 | 6 | 0 | 305.518092 | -0.000033 | .000200 | | . v . | |
| 8 | 2463 | pR | 60 | 6 | 0 | 306.284143 | .000002 | .000200 | | . v . | |
| 9 | 2464 | pR | 61 | 6 | 0 | 307.051326 | -0.000050 | .000200 | | . v . | |
| 10 | 2465 | pR | 62 | 6 | 0 | 307.819779 | -0.000048 | .000200 | | . v . | |
| 11 | 2466 | pR | 63 | 6 | 0 | 308.589482 | -0.000008 | .000200 | | . v . | |
| 12 | 2467 | pR | 64 | 6 | 0 | 309.360355 | -0.000004 | .000200 | | . v . | |
| 13 | 2468 | pR | 65 | 6 | 0 | 310.132349 | -0.000081 | .000200 | | . v . | |
| 14 | 2469 | pR | 66 | 6 | 0 | 310.905627 | -0.000070 | .000200 | | . v . | |
| 15 | 2470 | pR | 67 | 6 | 0 | 311.680068 | -0.000087 | .000200 | | . v . | |
| 16 | 2471 | pR | 68 | 6 | 0 | 312.455813 | .000015 | .000200 | | . v . | |
| 17 | 2472 | pR | 69 | 6 | 0 | 313.231791 | -0.000828 | .001000 | | .v . | |
| 18 | 2473 | pR | 70 | 6 | 0 | 314.010566 | -0.000047 | .000200 | | . v . | |
| 19 | 2474 | pR | 71 | 6 | 0 | 314.789817 | .000046 | .000200 | | . v . | |
| 20 | 2475 | pR | 72 | 6 | 0 | 315.569974 | -0.001114 | .000200 | | . v . | |
| 21 | 2476 | pR | 73 | 6 | 0 | 316.351221 | -0.000335 | .000500 | | . v . | |
| 22 | 2477 | pR | 74 | 6 | 0 | 317.133495 | -0.000673 | .001000 | | .v . | |
| 23 | 2478 | pR | 75 | 6 | 0 | 317.918304 | .000389 | .000500 | | . . v . | |
| 24 | 2479 | pR | 76 | 6 | 0 | 318.702325 | -0.000466 | .000500 | | . v . | |
| 25 | 2480 | pR | 77 | 6 | 0 | 319.488813 | .000026 | .000200 | | . v . | |
| 26 | 2481 | pR | 78 | 6 | 0 | 320.276282 | .000388 | .000500 | | . . v . | |
| 27 | 2482 | pR | 79 | 6 | 0 | 321.063965 | -0.000141 | .000200 | | . v . | |
| 28 | 2483 | pR | 80 | 6 | 0 | 321.853411 | -0.000001 | .000200 | | . v . | |
| 29 | 2484 | pR | 81 | 6 | 0 | 322.644131 | .000326 | .000500 | | . . v . | |
| 30 | 2485 | pP | 52 | 7 | 0 | 229.788469 | .000068 | .000200 | | . v . | |
| 31 | 2486 | pP | 53 | 7 | 0 | 229.214254 | .000012 | .000200 | | . v . | |
| 32 | 2487 | pP | 54 | 7 | 0 | 228.641740 | .000072 | .000200 | | . v . | |
| 33 | 2488 | pP | 55 | 7 | 0 | 228.070350 | -0.000336 | .000500 | | . v . | |
| 34 | 2489 | pP | 56 | 7 | 0 | 227.501444 | .000138 | .000200 | | . v . | |
| 35 | 2490 | pP | 57 | 7 | 0 | 226.933805 | .000271 | .000200 | | . x . | |
| 36 | 2491 | pP | 58 | 7 | 0 | 226.367264 | -0.000116 | .000200 | | . v . | |
| 37 | 2492 | pP | 59 | 7 | 0 | 225.802961 | .000111 | .000200 | | . v . | |
| 38 | 2493 | pP | 60 | 7 | 0 | 225.240115 | .000166 | .000200 | | . v . | |
| 39 | 2494 | pP | 61 | 7 | 0 | 224.678783 | .000097 | .000200 | | . v . | |
| 40 | 2495 | pP | 62 | 7 | 0 | 224.119380 | .000316 | .000300 | | . . x . | |
| 41 | 2496 | pP | 63 | 7 | 0 | 223.560639 | -0.000450 | .001000 | | . v . | |
| 42 | 2497 | pP | 64 | 7 | 0 | 223.004978 | .000212 | .000200 | | . x . | |
| 43 | 2498 | pP | 65 | 7 | 0 | 222.450296 | .000197 | .000200 | | . v . | |
| 44 | 2499 | pP | 66 | 7 | 0 | 221.896829 | -0.000263 | .000500 | | . v . | |
| 45 | 2500 | pP | 67 | 7 | 0 | 221.345908 | .000160 | .000200 | | . v . | |
| 46 | 2501 | pP | 68 | 7 | 0 | 220.795992 | -0.000078 | .000200 | | . v . | |
| 47 | 2502 | pP | 69 | 7 | 0 | 220.248871 | .000809 | .001000 | | . . v . | |
| 48 | 2503 | pP | 70 | 7 | 0 | 219.701544 | -0.000181 | .000200 | | . v . | |
| 49 | 2504 | pP | 71 | 7 | 0 | 219.156977 | -0.000085 | .000200 | | . v . | |
| 50 | 2505 | pP | 72 | 7 | 0 | 218.613744 | -0.000330 | .000200 | | . x . | |
| 51 | 2506 | pP | 73 | 7 | 0 | 218.072595 | -0.000168 | .000200 | | . v . | |
| 52 | 2507 | pP | 74 | 7 | 0 | 217.533011 | -0.000119 | .000200 | | . v . | |
| 53 | 2508 | pP | 75 | 7 | 0 | 216.994789 | -0.000387 | .000200 | | . x . | |
| 54 | 2509 | pP | 76 | 7 | 0 | 216.458765 | -0.000137 | .000200 | | . v . | |
| 55 | 2510 | pR | 50 | 7 | 0 | 298.622444 | .000041 | .000200 | | . v . | |
| 56 | 2511 | pR | 51 | 7 | 0 | 299.378206 | .000068 | .000200 | | . v . | |
| 57 | 2512 | pR | 52 | 7 | 0 | 300.135050 | -0.000021 | .000200 | | . v . | |
| 58 | 2513 | pR | 53 | 7 | 0 | 300.893299 | .000097 | .000200 | | . v . | |
| 59 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|--------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 2514 | pR | 54 | 7 | 0 | 301.652504 | -.000029 | .000200 | . v . |
| 4 | 2515 | pR | 55 | 7 | 0 | 302.413159 | .000094 | .000200 | . v . |
| 5 | 2516 | pR | 56 | 7 | 0 | 303.174628 | -.000169 | .000200 | . v . |
| 6 | 2517 | pR | 57 | 7 | 0 | 303.937653 | -.000075 | .000200 | . v . |
| 7 | 2518 | pR | 58 | 7 | 0 | 304.701879 | .000020 | .000200 | . v . |
| 8 | 2519 | pR | 59 | 7 | 0 | 305.467234 | .000046 | .000200 | . v . |
| 9 | 2520 | pR | 60 | 7 | 0 | 306.233666 | -.000046 | .000200 | . v . |
| 10 | 2521 | pR | 61 | 7 | 0 | 307.001453 | .000023 | .000200 | . v . |
| 11 | 2522 | pR | 62 | 7 | 0 | 307.770453 | .000114 | .000200 | . .v . |
| 12 | 2523 | pR | 63 | 7 | 0 | 308.540542 | .000107 | .000200 | . .v . |
| 13 | 2524 | pR | 64 | 7 | 0 | 309.311563 | -.000152 | .000200 | . v . |
| 14 | 2525 | pR | 65 | 7 | 0 | 310.084163 | -.000012 | .000200 | . v . |
| 15 | 2526 | pR | 66 | 7 | 0 | 310.857795 | -.000015 | .000200 | . v . |
| 16 | 2527 | pR | 67 | 7 | 0 | 311.632342 | -.000275 | .000300 | . v . |
| 17 | 2528 | pR | 68 | 7 | 0 | 312.408557 | -.000032 | .000200 | . v . |
| 18 | 2529 | pR | 69 | 7 | 0 | 313.185605 | -.000117 | .000200 | . v . |
| 19 | 2530 | pR | 70 | 7 | 0 | 313.963923 | -.000086 | .000200 | . v . |
| 20 | 2531 | pR | 71 | 7 | 0 | 314.743529 | .000083 | .000200 | . v . |
| 21 | 2532 | pR | 72 | 7 | 0 | 315.524058 | .000033 | .000200 | . v . |
| 22 | 2533 | pR | 73 | 7 | 0 | 316.305672 | -.000069 | .000200 | . v . |
| 23 | 2534 | pR | 74 | 7 | 0 | 317.088644 | .000059 | .000200 | . v . |
| 24 | 2535 | pP | 52 | 8 | 0 | 229.745906 | .000262 | .000200 | . .x . |
| 25 | 2536 | pP | 53 | 8 | 0 | 229.172735 | .000027 | .000200 | . v . |
| 26 | 2537 | pP | 54 | 8 | 0 | 228.601078 | -.000239 | .000200 | . x . |
| 27 | 2538 | pP | 55 | 8 | 0 | 228.031672 | .000190 | .000200 | . .v . |
| 28 | 2539 | pP | 56 | 8 | 0 | 227.463436 | .000224 | .000200 | . .x . |
| 29 | 2540 | pP | 57 | 8 | 0 | 226.896468 | -.000049 | .000200 | . v . |
| 30 | 2541 | pP | 58 | 8 | 0 | 226.331255 | -.000149 | .000200 | . v . |
| 31 | 2542 | pP | 59 | 8 | 0 | 225.768157 | .000276 | .000200 | . .x . |
| 32 | 2543 | pP | 60 | 8 | 0 | 225.205787 | -.000169 | .000200 | . v . |
| 33 | 2544 | pP | 61 | 8 | 0 | 224.645778 | .000142 | .000200 | . .v . |
| 34 | 2545 | pP | 62 | 8 | 0 | 224.086870 | -.000057 | .000200 | . v . |
| 35 | 2546 | pP | 63 | 8 | 0 | 223.530043 | .000207 | .000200 | . .x . |
| 36 | 2547 | pP | 64 | 8 | 0 | 222.974431 | .000063 | .000200 | . v . |
| 37 | 2548 | pP | 65 | 8 | 0 | 222.420353 | -.000175 | .000200 | . v . |
| 38 | 2549 | pP | 66 | 8 | 0 | 221.868327 | .000006 | .000200 | . v . |
| 39 | 2550 | pP | 67 | 8 | 0 | 221.317670 | -.000082 | .000200 | . v . |
| 40 | 2551 | pP | 68 | 8 | 0 | 220.768299 | -.000526 | .000500 | . x . |
| 41 | 2552 | pP | 69 | 8 | 0 | 220.221677 | .000134 | .000200 | . .v . |
| 42 | 2553 | pP | 70 | 8 | 0 | 219.675382 | -.000528 | .000500 | . x . |
| 43 | 2554 | pP | 71 | 8 | 0 | 219.132322 | .000394 | .000500 | . .v . |
| 44 | 2555 | pP | 72 | 8 | 0 | 218.589953 | .000353 | .000500 | . .v . |
| 45 | 2556 | pP | 73 | 8 | 0 | 218.049112 | .000183 | .000500 | . .v . |
| 46 | 2557 | pP | 74 | 8 | 0 | 217.509480 | -.000437 | .000500 | . v . |
| 47 | 2558 | pP | 75 | 8 | 0 | 216.971022 | -.001542 | .002000 | v . . |
| 48 | 2559 | pP | 76 | 8 | 0 | 216.437228 | .000355 | .000200 | . .x . |
| 49 | 2560 | pP | 77 | 8 | 0 | 215.902889 | .000044 | .000200 | . v . |
| 50 | 2561 | pR | 50 | 8 | 0 | 298.557343 | -.000169 | .000200 | . v . |
| 51 | 2562 | pR | 51 | 8 | 0 | 299.313887 | -.000200 | .000200 | . v . |
| 52 | 2563 | pR | 52 | 8 | 0 | 300.072097 | .000274 | .000200 | . .x . |
| 53 | 2564 | pR | 53 | 8 | 0 | 300.830755 | .000031 | .000200 | . v . |
| 54 | 2565 | pR | 54 | 8 | 0 | 301.589419 | -.001371 | .002000 | v . . |
| 55 | 2566 | pR | 55 | 8 | 0 | 302.351977 | -.000048 | .000200 | . v . |
| 56 | 2567 | pR | 56 | 8 | 0 | 303.114652 | .000224 | .000200 | . .x . |
| 57 | 2568 | pR | 57 | 8 | 0 | 303.878083 | .000083 | .000200 | . v . |
| 58 | 2569 | pR | 58 | 8 | 0 | 304.642752 | .000010 | .000200 | . v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|--|---------|--|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | 2570 | pR | 59 | 8 | 0 | 305.408555 | -.000097 | .000200 | | . v . | |
| 4 | 2571 | pR | 60 | 8 | 0 | 306.175913 | .000182 | .000200 | | . .v . | |
| 5 | 2572 | pR | 61 | 8 | 0 | 306.943810 | -.000165 | .000200 | | . v. . | |
| 6 | 2573 | pR | 62 | 8 | 0 | 307.713172 | -.000213 | .000200 | | . x. . | |
| 7 | 2574 | pR | 63 | 8 | 0 | 308.483671 | -.000287 | .000300 | | . v. . | |
| 8 | 2575 | pR | 64 | 8 | 0 | 309.255716 | .000026 | .000200 | | . v . | |
| 9 | 2576 | pR | 65 | 8 | 0 | 310.028567 | -.000013 | .000200 | | . v . | |
| 10 | 2577 | pP | 52 | 9 | 0 | 229.697292 | .000277 | .000200 | | . .x . | |
| 11 | 2578 | pP | 53 | 9 | 0 | 229.125561 | .000170 | .000200 | | . .v . | |
| 12 | 2579 | pP | 54 | 9 | 0 | 228.555336 | .000058 | .000200 | | . v . | |
| 13 | 2580 | pP | 55 | 9 | 0 | 227.986826 | .000138 | .000200 | | . .v . | |
| 14 | 2581 | pP | 56 | 9 | 0 | 227.419893 | .000265 | .000200 | | . .x . | |
| 15 | 2582 | pP | 57 | 9 | 0 | 226.854383 | .000274 | .000200 | | . .x . | |
| 16 | 2583 | pP | 59 | 9 | 0 | 225.727530 | -.000196 | .000500 | | . v. . | |
| 17 | 2584 | pP | 60 | 9 | 0 | 225.166886 | .000007 | .000200 | | . v . | |
| 18 | 2585 | pP | 61 | 9 | 0 | 224.607995 | .000391 | .000500 | | . .v . | |
| 19 | 2586 | pP | 62 | 9 | 0 | 224.048225 | -.001686 | .002000 | | v . . | |
| 20 | 2587 | pP | 63 | 9 | 0 | 223.493884 | .000079 | .000200 | | . v . | |
| 21 | 2588 | pP | 64 | 9 | 0 | 222.939753 | .000461 | .000500 | | . .v . | |
| 22 | 2589 | pP | 65 | 9 | 0 | 222.386866 | .000486 | .000500 | | . .v . | |
| 23 | 2590 | pP | 66 | 9 | 0 | 221.835020 | -.000053 | .000200 | | . v . | |
| 24 | 2591 | pP | 67 | 9 | 0 | 221.285673 | .000296 | .000500 | | . .v . | |
| 25 | 2592 | pP | 68 | 9 | 0 | 220.736780 | -.000516 | .000500 | | . x . . | |
| 26 | 2593 | pP | 69 | 9 | 0 | 220.192151 | .001315 | .002000 | | . . .v | |
| 27 | 2594 | pP | 70 | 9 | 0 | 219.646211 | .000212 | .000500 | | . .v . | |
| 28 | 2595 | pP | 71 | 9 | 0 | 219.102058 | -.000733 | .000500 | | . x . . | |
| 29 | 2596 | pP | 72 | 9 | 0 | 218.561290 | .000076 | .000200 | | . v . | |
| 30 | 2597 | pP | 73 | 9 | 0 | 218.021432 | .000160 | .000500 | | . .v . | |
| 31 | 2598 | pP | 74 | 9 | 0 | 217.482621 | -.000345 | .000200 | | . x. . | |
| 32 | 2599 | pP | 75 | 9 | 0 | 216.947445 | .001145 | .002000 | | . . .v | |
| 33 | 2600 | pP | 76 | 9 | 0 | 216.411261 | -.000015 | .000200 | | . v . | |
| 34 | 2601 | pP | 77 | 9 | 0 | 215.877789 | -.000107 | .000200 | | . v. . | |
| 35 | 2602 | pP | 78 | 9 | 0 | 215.345933 | -.000227 | .000200 | | . x. . | |
| 36 | 2603 | pR | 50 | 9 | 0 | 298.483880 | .000059 | .000200 | | . v . | |
| 37 | 2604 | pR | 51 | 9 | 0 | 299.241248 | -.000026 | .000200 | | . v . | |
| 38 | 2605 | pR | 52 | 9 | 0 | 299.999814 | -.000045 | .000200 | | . v . | |
| 39 | 2606 | pR | 53 | 9 | 0 | 300.759634 | .000058 | .000200 | | . v . | |
| 40 | 2607 | pR | 54 | 9 | 0 | 301.520472 | .000043 | .000200 | | . v . | |
| 41 | 2608 | pR | 55 | 9 | 0 | 302.282392 | -.000026 | .000200 | | . v . | |
| 42 | 2609 | pR | 56 | 9 | 0 | 303.045304 | -.000241 | .000500 | | . v. . | |
| 43 | 2610 | pR | 57 | 9 | 0 | 303.809789 | -.000022 | .000200 | | . v . | |
| 44 | 2611 | pR | 58 | 9 | 0 | 304.575276 | .000058 | .000200 | | . v . | |
| 45 | 2612 | pR | 59 | 9 | 0 | 305.341758 | -.000007 | .000200 | | . v . | |
| 46 | 2613 | pR | 60 | 9 | 0 | 306.107786 | -.001665 | .002000 | | v . . . | |
| 47 | 2614 | pR | 61 | 9 | 0 | 306.878298 | .000020 | .000200 | | . v . | |
| 48 | 2615 | pR | 62 | 9 | 0 | 307.648082 | -.000161 | .000200 | | . v. . | |
| 49 | 2616 | pR | 63 | 9 | 0 | 308.419096 | -.000249 | .000500 | | . v. . | |
| 50 | 2617 | pR | 64 | 9 | 0 | 309.191409 | -.000174 | .000200 | | . v. . | |
| 51 | 2618 | pR | 65 | 9 | 0 | 309.965087 | .000133 | .000200 | | . .v . | |
| 52 | 2619 | pR | 66 | 9 | 0 | 310.739686 | .000230 | .000200 | | . .x . | |
| 53 | 2620 | pR | 67 | 9 | 0 | 311.515123 | .000037 | .000500 | | . v . | |
| 54 | 2621 | pR | 68 | 9 | 0 | 312.291899 | .000059 | .000500 | | . v . | |
| 55 | 2622 | pR | 69 | 9 | 0 | 313.069582 | -.000133 | .001000 | | . v. . | |
| 56 | 2623 | pR | 70 | 9 | 0 | 313.848762 | .000055 | .000500 | | . v . | |
| 57 | 2624 | pR | 71 | 9 | 0 | 314.628511 | -.000301 | .001000 | | . v. . | |
| 58 | 2625 | pR | 72 | 9 | 0 | 315.410504 | .000480 | .000500 | | . .v . | |
| 59 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|----|---|------------|----------|---------|-----------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 2626 | pR | 73 | 9 | 0 | 316.192033 | -.000306 | .000200 | . x . . |
| 4 | 2627 | pR | 74 | 9 | 0 | 316.975815 | .000064 | .000200 | . v . . |
| 5 | 2628 | pR | 75 | 9 | 0 | 317.759178 | -.001077 | .001000 | x . . . |
| 6 | 2629 | pR | 76 | 9 | 0 | 318.545188 | -.000657 | .000500 | . x . . |
| 7 | 2630 | pR | 77 | 9 | 0 | 319.332277 | -.000237 | .000200 | . x . . |
| 8 | 2631 | pP | 52 | 10 | 0 | 229.634798 | .000131 | .000200 | . .v . . |
| 9 | 2632 | pP | 53 | 10 | 0 | 229.064861 | .000194 | .000200 | . .v . . |
| 10 | 2633 | pP | 54 | 10 | 0 | 228.495938 | -.000206 | .000200 | . x . . |
| 11 | 2634 | pP | 55 | 10 | 0 | 227.929046 | -.000061 | .000500 | . v . . |
| 12 | 2635 | pP | 56 | 10 | 0 | 227.363511 | -.000052 | .000200 | . v . . |
| 13 | 2636 | pP | 57 | 10 | 0 | 226.799425 | -.000098 | .000200 | . v . . |
| 14 | 2637 | pP | 59 | 10 | 0 | 225.676226 | .000239 | .000200 | . .x . . |
| 15 | 2638 | pP | 60 | 10 | 0 | 225.116898 | .000390 | .000500 | . .v . . |
| 16 | 2639 | pP | 61 | 10 | 0 | 224.558442 | -.000125 | .000200 | . v . . |
| 17 | 2640 | pP | 62 | 10 | 0 | 224.002225 | .000055 | .002000 | . v . . |
| 18 | 2641 | pP | 63 | 10 | 0 | 223.447285 | -.000040 | .000500 | . v . . |
| 19 | 2642 | pP | 64 | 10 | 0 | 222.893202 | -.000838 | .001000 | .v . . . |
| 20 | 2643 | pP | 65 | 10 | 0 | 222.342330 | .000009 | .000200 | . v . . |
| 21 | 2644 | pP | 66 | 10 | 0 | 221.792481 | .000307 | .000500 | . .v . . |
| 22 | 2645 | pP | 67 | 10 | 0 | 221.244077 | .000471 | .001000 | . .v . . |
| 23 | 2646 | pP | 68 | 10 | 0 | 220.696652 | .000031 | .000200 | . v . . |
| 24 | 2647 | pP | 69 | 10 | 0 | 220.151305 | .000079 | .000200 | . v . . |
| 25 | 2648 | pP | 70 | 10 | 0 | 219.606170 | -.001256 | .001000 | x. . . . |
| 26 | 2649 | pP | 71 | 10 | 0 | 219.065043 | -.000181 | .000200 | . v . . |
| 27 | 2650 | pP | 72 | 10 | 0 | 218.524368 | -.000258 | .000200 | . x . . |
| 28 | 2651 | pP | 73 | 10 | 0 | 217.984866 | -.000768 | .000500 | .x . . . |
| 29 | 2652 | pR | 51 | 10 | 0 | 299.151953 | -.000133 | .000200 | . v . . |
| 30 | 2653 | pR | 52 | 10 | 0 | 299.910345 | -.001434 | .002000 | v |
| 31 | 2654 | pR | 53 | 10 | 0 | 300.672581 | .000009 | .000200 | . v . . |
| 32 | 2655 | pR | 54 | 10 | 0 | 301.434435 | -.000032 | .000200 | . v . . |
| 33 | 2656 | pR | 55 | 10 | 0 | 302.197006 | -.000458 | .000500 | . v . . |
| 34 | 2657 | pR | 56 | 10 | 0 | 302.962330 | .000764 | .001000 | . . v . |
| 35 | 2658 | pR | 57 | 10 | 0 | 303.726048 | -.000726 | .001000 | .v . . . |
| 36 | 2659 | pR | 58 | 10 | 0 | 304.493210 | .000122 | .000200 | . .v . . |
| 37 | 2660 | pR | 59 | 10 | 0 | 305.260943 | .000433 | .000500 | . .v . . |
| 38 | 2661 | pR | 60 | 10 | 0 | 306.028632 | -.000407 | .000500 | . v . . |
| 39 | 2662 | pR | 61 | 10 | 0 | 306.799258 | .000581 | .001000 | . . v . |
| 40 | 2663 | pR | 62 | 10 | 0 | 307.568599 | -.000823 | .001000 | .v . . . |
| 41 | 2664 | pR | 63 | 10 | 0 | 308.341229 | -.000045 | .000200 | . v . . |
| 42 | 2665 | pR | 64 | 10 | 0 | 309.114321 | .000089 | .000200 | . v . . |
| 43 | 2666 | pR | 65 | 10 | 0 | 309.886854 | -.001441 | .002000 | v |
| 44 | 2667 | pR | 66 | 10 | 0 | 310.663510 | .000050 | .000200 | . v . . |
| 45 | 2668 | pR | 67 | 10 | 0 | 311.438836 | -.000890 | .001000 | .v . . . |
| 46 | 2669 | pR | 68 | 10 | 0 | 312.216877 | -.000213 | .000200 | . x . . |
| 47 | 2670 | pR | 69 | 10 | 0 | 312.994714 | -.000836 | .001000 | .v . . . |
| 48 | 2671 | pR | 70 | 10 | 0 | 313.775569 | .000468 | .001000 | . .v . . |
| 49 | 2672 | pR | 71 | 10 | 0 | 314.555692 | -.000049 | .000200 | . v . . |
| 50 | 2673 | pR | 72 | 10 | 0 | 315.335676 | -.001790 | .002000 | v |
| 51 | 2674 | pR | 73 | 10 | 0 | 316.120086 | -.000185 | .000200 | . v . . |
| 52 | 2675 | pR | 74 | 10 | 0 | 316.903745 | -.000407 | .000200 | . * . . |
| 53 | 2676 | pP | 52 | 11 | 0 | 229.667844 | .000271 | .000200 | . .x . . |
| 54 | 2677 | pP | 53 | 11 | 0 | 229.099565 | -.000083 | .000200 | . v . . |
| 55 | 2678 | pP | 54 | 11 | 0 | 228.532844 | -.000490 | .001000 | . v . . |
| 56 | 2679 | pP | 55 | 11 | 0 | 227.969436 | .000772 | .001000 | . . v . |
| 57 | 2680 | pP | 56 | 11 | 0 | 227.405882 | .000208 | .000200 | . .x . . |
| 58 | 2681 | pP | 57 | 11 | 0 | 226.844334 | -.000072 | .000200 | . v . . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | |
|----|------|----|----|---|---|------------|-----------|---------|---|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 2736 | qP | 33 | 0 | 0 | 504.752511 | -0.00012 | .000200 | . | v |
| 4 | 2737 | qP | 34 | 0 | 0 | 504.204327 | -0.00012 | .000200 | . | v |
| 5 | 2738 | qP | 35 | 0 | 0 | 503.658951 | .000000 | .000200 | . | v |
| 6 | 2739 | qP | 36 | 0 | 0 | 503.116447 | .000055 | .000200 | . | v |
| 7 | 2740 | qP | 37 | 0 | 0 | 502.576695 | .000001 | .000200 | . | v |
| 8 | 2741 | qP | 38 | 0 | 0 | 502.039755 | -0.00132 | .000200 | . | v |
| 9 | 2742 | qP | 39 | 0 | 0 | 501.506022 | .000021 | .000200 | . | v |
| 10 | 2743 | qP | 40 | 0 | 0 | 500.975021 | -0.00044 | .000200 | . | v |
| 11 | 2744 | qP | 41 | 0 | 0 | 500.447203 | .000099 | .000200 | . | v |
| 12 | 2745 | qP | 42 | 0 | 0 | 499.922253 | .000108 | .000200 | . | v |
| 13 | 2746 | qP | 43 | 0 | 0 | 499.400312 | .000103 | .000200 | . | v |
| 14 | 2747 | qP | 44 | 0 | 0 | 498.881363 | .000044 | .000200 | . | v |
| 15 | 2748 | qP | 45 | 0 | 0 | 498.365550 | .000057 | .000200 | . | v |
| 16 | 2749 | qP | 46 | 0 | 0 | 497.852820 | .000070 | .000200 | . | v |
| 17 | 2750 | qP | 47 | 0 | 0 | 497.343150 | .000046 | .000200 | . | v |
| 18 | 2751 | qP | 48 | 0 | 0 | 496.836606 | .000035 | .000200 | . | v |
| 19 | 2752 | qP | 49 | 0 | 0 | 496.333196 | .000032 | .000200 | . | v |
| 20 | 2753 | qP | 50 | 0 | 0 | 495.832981 | .000088 | .000200 | . | v |
| 21 | 2754 | qP | 51 | 0 | 0 | 495.335781 | .000013 | .000200 | . | v |
| 22 | 2755 | qP | 52 | 0 | 0 | 494.841835 | .000036 | .000200 | . | v |
| 23 | 2756 | qP | 53 | 0 | 0 | 494.350997 | .000004 | .000200 | . | v |
| 24 | 2757 | qP | 54 | 0 | 0 | 493.863337 | -0.00019 | .000200 | . | v |
| 25 | 2758 | qP | 55 | 0 | 0 | 493.378855 | -0.00039 | .000200 | . | v |
| 26 | 2759 | qP | 56 | 0 | 0 | 492.897452 | -0.00159 | .000200 | . | v |
| 27 | 2760 | qP | 57 | 0 | 0 | 492.419469 | -0.00041 | .000200 | . | v |
| 28 | 2761 | qP | 58 | 0 | 0 | 491.944490 | -0.00104 | .000200 | . | v |
| 29 | 2762 | qP | 59 | 0 | 0 | 491.472788 | -0.00078 | .000200 | . | v |
| 30 | 2763 | qP | 60 | 0 | 0 | 491.004283 | -0.00042 | .000200 | . | v |
| 31 | 2764 | qP | 61 | 0 | 0 | 490.538882 | -0.00090 | .000200 | . | v |
| 32 | 2765 | qP | 62 | 0 | 0 | 490.076723 | -0.00084 | .000200 | . | v |
| 33 | 2766 | qP | 63 | 0 | 0 | 489.617784 | -0.00045 | .000200 | . | v |
| 34 | 2767 | qP | 64 | 0 | 0 | 489.162048 | .000011 | .000200 | . | v |
| 35 | 2768 | qP | 65 | 0 | 0 | 488.709343 | -0.00084 | .000200 | . | v |
| 36 | 2769 | qP | 66 | 0 | 0 | 488.259947 | -0.00051 | .000200 | . | v |
| 37 | 2770 | qP | 67 | 0 | 0 | 487.813814 | .000068 | .000200 | . | v |
| 38 | 2771 | qP | 68 | 0 | 0 | 487.370710 | .000042 | .000200 | . | v |
| 39 | 2772 | qP | 69 | 0 | 0 | 486.930755 | -0.00005 | .000200 | . | v |
| 40 | 2773 | qP | 70 | 0 | 0 | 486.494468 | .000451 | .000500 | . | v |
| 41 | 2774 | qP | 71 | 0 | 0 | 486.060374 | -0.00059 | .000200 | . | v |
| 42 | 2775 | qP | 72 | 0 | 0 | 485.630841 | .000837 | .001000 | . | v |
| 43 | 2776 | qP | 73 | 0 | 0 | 485.202979 | .000254 | .000200 | . | x |
| 44 | 2777 | qP | 74 | 0 | 0 | 484.778926 | .000338 | .000200 | . | x |
| 45 | 2778 | qP | 75 | 0 | 0 | 484.358170 | .000583 | .000500 | . | x |
| 46 | 2779 | qP | 76 | 0 | 0 | 483.940029 | .000313 | .000500 | . | v |
| 47 | 2780 | qP | 77 | 0 | 0 | 483.525929 | .000961 | .001000 | . | v |
| 48 | 2781 | qP | 78 | 0 | 0 | 483.114255 | .000921 | .001000 | . | v |
| 49 | 2782 | qP | 79 | 0 | 0 | 482.706118 | .001310 | .001000 | . | x |
| 50 | 2783 | qP | 80 | 0 | 0 | 482.299876 | .000495 | .000500 | . | v |
| 51 | 2784 | qP | 81 | 0 | 0 | 481.897628 | .000584 | .000500 | . | x |
| 52 | 2785 | qP | 82 | 0 | 0 | 481.498025 | .000235 | .000200 | . | x |
| 53 | 2786 | qP | 83 | 0 | 0 | 481.101928 | .000319 | .000200 | . | x |
| 54 | 2787 | qP | 84 | 0 | 0 | 480.709371 | .000879 | .000500 | . | x |
| 55 | 2788 | qP | 85 | 0 | 0 | 480.318689 | .000259 | .000500 | . | v |
| 56 | 2789 | qR | 1 | 0 | 0 | 525.984224 | -0.001520 | .002000 | . | v |
| 57 | 2790 | qR | 2 | 0 | 0 | 526.671276 | -0.000739 | .001000 | . | v |
| 58 | 2791 | qR | 3 | 0 | 0 | 527.362013 | -0.001396 | .002000 | . | v |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----|---|---|------------|-----------|---------|---------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 2792 | qR | 4 | 0 | 0 | 528.058628 | -0.001231 | .001000 | . x . |
| 4 | 2793 | qR | 5 | 0 | 0 | 528.760543 | -0.000739 | .000500 | . x . |
| 5 | 2794 | qR | 6 | 0 | 0 | 529.466110 | -0.001470 | .002000 | . v . |
| 6 | 2795 | qR | 7 | 0 | 0 | 530.178960 | .000320 | .001000 | . .v . |
| 7 | 2796 | qR | 8 | 0 | 0 | 530.893334 | -0.001000 | .001000 | . v . |
| 8 | 2797 | qR | 9 | 0 | 0 | 531.614639 | .000117 | .001000 | . v . |
| 9 | 2798 | qR | 10 | 0 | 0 | 532.337603 | -0.001451 | .001000 | . x . |
| 10 | 2799 | qR | 11 | 0 | 0 | 533.066905 | -0.000862 | .000500 | . x . |
| 11 | 2800 | qR | 12 | 0 | 0 | 533.799701 | -0.000792 | .000500 | . x . |
| 12 | 2801 | qR | 13 | 0 | 0 | 534.537308 | .000248 | .001000 | . v . |
| 13 | 2802 | qR | 14 | 0 | 0 | 535.277205 | -0.000088 | .000500 | . v . |
| 14 | 2803 | qR | 15 | 0 | 0 | 536.020128 | -0.000893 | .000500 | . x . |
| 15 | 2804 | qR | 16 | 0 | 0 | 536.767934 | -0.000144 | .000500 | . v . |
| 16 | 2805 | qR | 17 | 0 | 0 | 537.516236 | -0.002069 | .002000 | .x . |
| 17 | 2806 | qR | 18 | 0 | 0 | 538.271137 | -0.000421 | .000200 | . * . |
| 18 | 2807 | qR | 19 | 0 | 0 | 539.027795 | .000090 | .001000 | . v . |
| 19 | 2808 | qR | 20 | 0 | 0 | 539.784154 | -0.002479 | .003000 | v . |
| 20 | 2809 | qR | 21 | 0 | 0 | 540.548119 | -0.000126 | .000500 | . v . |
| 21 | 2810 | qR | 22 | 0 | 0 | 541.312297 | -0.000165 | .000300 | . v . |
| 22 | 2811 | qR | 23 | 0 | 0 | 542.078775 | -0.000447 | .000500 | . v . |
| 23 | 2812 | qR | 24 | 0 | 0 | 542.848207 | -0.000274 | .000200 | . x . |
| 24 | 2813 | qR | 25 | 0 | 0 | 543.619465 | -0.000743 | .000500 | . x . |
| 25 | 2814 | qR | 26 | 0 | 0 | 544.394067 | -0.000321 | .000200 | . x . |
| 26 | 2815 | qR | 27 | 0 | 0 | 545.170655 | -0.000360 | .000200 | . x . |
| 27 | 2816 | qR | 28 | 0 | 0 | 545.950163 | .000070 | .000300 | . v . |
| 28 | 2817 | qR | 29 | 0 | 0 | 546.731594 | -0.000037 | .000200 | . v . |
| 29 | 2818 | qR | 30 | 0 | 0 | 547.515247 | -0.000401 | .000300 | . x . |
| 30 | 2819 | qR | 31 | 0 | 0 | 548.302050 | -0.000112 | .000200 | . v . |
| 31 | 2820 | qR | 32 | 0 | 0 | 549.091232 | .000035 | .000200 | . v . |
| 32 | 2821 | qR | 33 | 0 | 0 | 549.882675 | -0.000102 | .000200 | . v . |
| 33 | 2822 | qR | 34 | 0 | 0 | 550.676922 | -0.000004 | .000200 | . v . |
| 34 | 2823 | qR | 35 | 0 | 0 | 551.473696 | .000027 | .000200 | . v . |
| 35 | 2824 | qR | 36 | 0 | 0 | 552.273022 | -0.000006 | .000200 | . v . |
| 36 | 2825 | qR | 37 | 0 | 0 | 553.075053 | .000026 | .000200 | . v . |
| 37 | 2826 | qR | 38 | 0 | 0 | 553.879690 | .000004 | .000200 | . v . |
| 38 | 2827 | qR | 39 | 0 | 0 | 554.687017 | -0.000006 | .000200 | . v . |
| 39 | 2828 | qR | 40 | 0 | 0 | 555.497215 | .000158 | .000200 | . v . |
| 40 | 2829 | qR | 41 | 0 | 0 | 556.309824 | .000021 | .000200 | . v . |
| 41 | 2830 | qR | 42 | 0 | 0 | 557.125276 | .000001 | .000200 | . v . |
| 42 | 2831 | qR | 43 | 0 | 0 | 557.943580 | .000096 | .000200 | . v . |
| 43 | 2832 | qR | 44 | 0 | 0 | 558.764443 | .000003 | .000200 | . v . |
| 44 | 2833 | qR | 45 | 0 | 0 | 559.588216 | .000063 | .000200 | . v . |
| 45 | 2834 | qR | 46 | 0 | 0 | 560.414554 | -0.000074 | .000200 | . v . |
| 46 | 2835 | qR | 47 | 0 | 0 | 561.243869 | -0.000002 | .000200 | . v . |
| 47 | 2836 | qR | 48 | 0 | 0 | 562.075866 | -0.000020 | .000200 | . v . |
| 48 | 2837 | qR | 49 | 0 | 0 | 562.910670 | -0.000005 | .000200 | . v . |
| 49 | 2838 | qR | 50 | 0 | 0 | 563.748213 | -0.000027 | .000200 | . v . |
| 50 | 2839 | qR | 51 | 0 | 0 | 564.588567 | -0.000013 | .000200 | . v . |
| 51 | 2840 | qR | 52 | 0 | 0 | 565.431654 | -0.000041 | .000200 | . v . |
| 52 | 2841 | qR | 53 | 0 | 0 | 566.277366 | -0.000216 | .000200 | . x . |
| 53 | 2842 | qR | 54 | 0 | 0 | 567.126209 | -0.000030 | .000200 | . v . |
| 54 | 2843 | qR | 55 | 0 | 0 | 567.977577 | -0.000083 | .000200 | . v . |
| 55 | 2844 | qR | 56 | 0 | 0 | 568.833924 | .002083 | .003000 | . . v . |
| 56 | 2845 | qR | 57 | 0 | 0 | 569.688759 | -0.000018 | .000200 | . v . |
| 57 | 2846 | qR | 58 | 0 | 0 | 570.548297 | -0.000164 | .000200 | . v . |
| 58 | 2847 | qR | 59 | 0 | 0 | 571.410855 | -0.000030 | .000200 | . v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|---|---|---|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | 2848 | qR | 60 | 0 | 0 | 572.276144 | .000101 | .000200 | . | v | . |
| 4 | 2849 | qR | 61 | 0 | 0 | 573.143879 | -.000046 | .000200 | . | v | . |
| 5 | 2850 | qR | 62 | 0 | 0 | 574.014894 | .000372 | .000500 | . | v | . |
| 6 | 2851 | qR | 63 | 0 | 0 | 574.888021 | .000196 | .000200 | . | v | . |
| 7 | 2852 | qR | 64 | 0 | 0 | 575.763727 | -.000096 | .000200 | . | v | . |
| 8 | 2853 | qR | 65 | 0 | 0 | 576.641836 | -.000670 | .001000 | . | v | . |
| 9 | 2854 | qR | 66 | 0 | 0 | 577.523410 | -.000454 | .000500 | . | v | . |
| 10 | 2855 | qR | 67 | 0 | 0 | 578.408274 | .000391 | .000500 | . | v | . |
| 11 | 2856 | qR | 68 | 0 | 0 | 579.294575 | .000023 | .000200 | . | v | . |
| 12 | 2857 | qR | 69 | 0 | 0 | 580.183467 | -.000392 | .001000 | . | v | . |
| 13 | 2858 | qR | 70 | 0 | 0 | 581.076374 | .000583 | .000500 | . | x | . |
| 14 | 2859 | qR | 71 | 0 | 0 | 581.970658 | .000323 | .000200 | . | x | . |
| 15 | 2860 | qR | 72 | 0 | 0 | 582.867281 | -.000196 | .001000 | . | v | . |
| 16 | 2861 | qP | 17 | 1 | 0 | 513.893543 | .000285 | .000200 | . | x | . |
| 17 | 2862 | qP | 18 | 1 | 0 | 513.300240 | .000234 | .000200 | . | x | . |
| 18 | 2863 | qP | 19 | 1 | 0 | 512.711099 | .001056 | .001000 | . | x | . |
| 19 | 2864 | qP | 20 | 1 | 0 | 512.123900 | .000668 | .000500 | . | x | . |
| 20 | 2865 | qP | 21 | 1 | 0 | 511.539707 | .000255 | .000200 | . | x | . |
| 21 | 2866 | qP | 22 | 1 | 0 | 510.959583 | .000985 | .001000 | . | v | . |
| 22 | 2867 | qP | 23 | 1 | 0 | 510.380925 | .000342 | .000300 | . | x | . |
| 23 | 2868 | qP | 24 | 1 | 0 | 509.805836 | .000497 | .000500 | . | v | . |
| 24 | 2869 | qP | 25 | 1 | 0 | 509.232925 | .000110 | .000200 | . | v | . |
| 25 | 2870 | qP | 26 | 1 | 0 | 508.662907 | -.000069 | .000200 | . | v | . |
| 26 | 2871 | qP | 27 | 1 | 0 | 508.095873 | .000072 | .000200 | . | v | . |
| 27 | 2872 | qP | 28 | 1 | 0 | 507.532173 | .000889 | .001000 | . | v | . |
| 28 | 2873 | qP | 29 | 1 | 0 | 506.969764 | .000335 | .000500 | . | v | . |
| 29 | 2874 | qP | 30 | 1 | 0 | 506.412721 | .002473 | .003000 | . | v | . |
| 30 | 2875 | qP | 31 | 1 | 0 | 505.853826 | .000066 | .000200 | . | v | . |
| 31 | 2876 | qP | 32 | 1 | 0 | 505.300194 | .000204 | .000200 | . | x | . |
| 32 | 2877 | qP | 33 | 1 | 0 | 504.749147 | .000181 | .000200 | . | v | . |
| 33 | 2878 | qP | 34 | 1 | 0 | 504.200147 | -.000570 | .001000 | . | v | . |
| 34 | 2879 | qP | 35 | 1 | 0 | 503.655308 | .000032 | .000200 | . | v | . |
| 35 | 2880 | qP | 36 | 1 | 0 | 503.112788 | .000114 | .000200 | . | v | . |
| 36 | 2881 | qP | 37 | 1 | 0 | 502.573053 | .000112 | .000200 | . | v | . |
| 37 | 2882 | qP | 38 | 1 | 0 | 502.036128 | .000019 | .000200 | . | v | . |
| 38 | 2883 | qP | 39 | 1 | 0 | 501.502296 | .000089 | .000200 | . | v | . |
| 39 | 2884 | qP | 40 | 1 | 0 | 500.971439 | .000177 | .000200 | . | v | . |
| 40 | 2885 | qP | 41 | 1 | 0 | 500.443325 | .000025 | .000200 | . | v | . |
| 41 | 2886 | qP | 42 | 1 | 0 | 499.918414 | .000069 | .000200 | . | v | . |
| 42 | 2887 | qP | 43 | 1 | 0 | 499.396477 | .000058 | .000200 | . | v | . |
| 43 | 2888 | qP | 44 | 1 | 0 | 498.877538 | -.000006 | .000200 | . | v | . |
| 44 | 2889 | qP | 45 | 1 | 0 | 498.361748 | .000011 | .000200 | . | v | . |
| 45 | 2890 | qP | 46 | 1 | 0 | 497.849040 | .000023 | .000200 | . | v | . |
| 46 | 2891 | qP | 47 | 1 | 0 | 497.339420 | .000022 | .000200 | . | v | . |
| 47 | 2892 | qP | 48 | 1 | 0 | 496.832847 | -.000047 | .000200 | . | v | . |
| 48 | 2893 | qP | 49 | 1 | 0 | 496.329530 | .000012 | .000200 | . | v | . |
| 49 | 2894 | qP | 50 | 1 | 0 | 495.829266 | -.000014 | .000200 | . | v | . |
| 50 | 2895 | qP | 51 | 1 | 0 | 495.332123 | -.000068 | .000200 | . | v | . |
| 51 | 2896 | qP | 52 | 1 | 0 | 494.838203 | -.000056 | .000200 | . | v | . |
| 52 | 2897 | qP | 53 | 1 | 0 | 494.347453 | -.000037 | .000200 | . | v | . |
| 53 | 2898 | qP | 54 | 1 | 0 | 493.859821 | -.000071 | .000200 | . | v | . |
| 54 | 2899 | qP | 55 | 1 | 0 | 493.375375 | -.000094 | .000200 | . | v | . |
| 55 | 2900 | qP | 56 | 1 | 0 | 492.894142 | -.000083 | .000200 | . | v | . |
| 56 | 2901 | qP | 57 | 1 | 0 | 492.416073 | -.000091 | .000200 | . | v | . |
| 57 | 2902 | qP | 58 | 1 | 0 | 491.941178 | -.000111 | .000200 | . | v | . |
| 58 | 2903 | qP | 59 | 1 | 0 | 491.469501 | -.000099 | .000200 | . | v | . |
| 59 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|--|-------|--|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | 2904 | qP | 60 | 1 | 0 | 491.000952 | -0.00147 | .000200 | | . v . | |
| 5 | 2905 | qP | 61 | 1 | 0 | 490.535652 | -0.00133 | .000200 | | . v . | |
| 6 | 2906 | qP | 62 | 1 | 0 | 490.073473 | -0.00187 | .000200 | | . v . | |
| 7 | 2907 | qP | 63 | 1 | 0 | 489.614610 | -0.00110 | .000200 | | . v . | |
| 8 | 2908 | qP | 64 | 1 | 0 | 489.158888 | -0.00078 | .000200 | | . v . | |
| 9 | 2909 | qP | 65 | 1 | 0 | 488.706444 | .000050 | .000200 | | . v . | |
| 10 | 2910 | qP | 66 | 1 | 0 | 488.256829 | -0.00173 | .000200 | | . v . | |
| 11 | 2911 | qP | 67 | 1 | 0 | 487.810602 | -0.00184 | .000200 | | . v . | |
| 12 | 2912 | qP | 68 | 1 | 0 | 487.367687 | -0.00057 | .000200 | | . v . | |
| 13 | 2913 | qP | 69 | 1 | 0 | 486.927973 | .000103 | .000200 | | . v . | |
| 14 | 2914 | qP | 70 | 1 | 0 | 486.491343 | .000182 | .000200 | | . v . | |
| 15 | 2915 | qP | 71 | 1 | 0 | 486.057652 | .000041 | .000200 | | . v . | |
| 16 | 2916 | qR | 26 | 1 | 0 | 544.390555 | .000064 | .000200 | | . v . | |
| 17 | 2917 | qR | 27 | 1 | 0 | 545.166986 | .000013 | .000200 | | . v . | |
| 18 | 2918 | qR | 28 | 1 | 0 | 545.945923 | .000009 | .000200 | | . v . | |
| 19 | 2919 | qR | 29 | 1 | 0 | 546.727342 | .000015 | .000200 | | . v . | |
| 20 | 2920 | qR | 30 | 1 | 0 | 547.511069 | -0.00160 | .000200 | | . v . | |
| 21 | 2921 | qR | 31 | 1 | 0 | 548.297541 | -0.00099 | .000200 | | . v . | |
| 22 | 2922 | qR | 32 | 1 | 0 | 549.086557 | -0.00025 | .000200 | | . v . | |
| 23 | 2923 | qR | 33 | 1 | 0 | 549.878182 | .000102 | .000200 | | . v . | |
| 24 | 2924 | qR | 34 | 1 | 0 | 550.672208 | .000050 | .000200 | | . v . | |
| 25 | 2925 | qR | 35 | 1 | 0 | 551.468749 | -0.00089 | .000200 | | . v . | |
| 26 | 2926 | qR | 36 | 1 | 0 | 552.268238 | .000093 | .000200 | | . v . | |
| 27 | 2927 | qR | 37 | 1 | 0 | 553.070132 | .000032 | .000200 | | . v . | |
| 28 | 2928 | qR | 38 | 1 | 0 | 553.874738 | .000016 | .000200 | | . v . | |
| 29 | 2929 | qR | 39 | 1 | 0 | 554.681903 | -0.00127 | .000200 | | . v . | |
| 30 | 2930 | qR | 40 | 1 | 0 | 555.492032 | -0.00010 | .000200 | | . v . | |
| 31 | 2931 | qR | 41 | 1 | 0 | 556.304785 | .000015 | .000200 | | . v . | |
| 32 | 2932 | qR | 42 | 1 | 0 | 557.120214 | -0.00016 | .000200 | | . v . | |
| 33 | 2933 | qR | 43 | 1 | 0 | 557.938385 | -0.00046 | .000200 | | . v . | |
| 34 | 2934 | qR | 44 | 1 | 0 | 558.759243 | -0.00141 | .000200 | | . v . | |
| 35 | 2935 | qR | 45 | 1 | 0 | 559.583070 | -0.00026 | .000200 | | . v . | |
| 36 | 2936 | qR | 46 | 1 | 0 | 560.409591 | .000017 | .000200 | | . v . | |
| 37 | 2937 | qR | 47 | 1 | 0 | 561.238760 | -0.00062 | .000200 | | . v . | |
| 38 | 2938 | qR | 48 | 1 | 0 | 562.070480 | -0.00365 | .000300 | | . x . | |
| 39 | 2939 | qR | 49 | 1 | 0 | 562.905478 | -0.00166 | .000200 | | . v . | |
| 40 | 2940 | qR | 50 | 1 | 0 | 563.743144 | -0.00075 | .000200 | | . v . | |
| 41 | 2941 | qR | 51 | 1 | 0 | 564.583483 | -0.00089 | .000200 | | . v . | |
| 42 | 2942 | qR | 52 | 1 | 0 | 565.426581 | -0.00119 | .000200 | | . v . | |
| 43 | 2943 | qR | 53 | 1 | 0 | 566.272503 | -0.00098 | .000200 | | . v . | |
| 44 | 2944 | qR | 54 | 1 | 0 | 567.121196 | -0.00076 | .000200 | | . v . | |
| 45 | 2945 | qR | 55 | 1 | 0 | 567.972563 | -0.00145 | .000200 | | . v . | |
| 46 | 2946 | qR | 56 | 1 | 0 | 568.826665 | -0.00239 | .000200 | | . x . | |
| 47 | 2947 | qR | 57 | 1 | 0 | 569.683810 | -0.00045 | .000200 | | . v . | |
| 48 | 2948 | qR | 58 | 1 | 0 | 570.543398 | -0.00156 | .000200 | | . v . | |
| 49 | 2949 | qR | 59 | 1 | 0 | 571.405990 | -0.00004 | .000200 | | . v . | |
| 50 | 2950 | qR | 60 | 1 | 0 | 572.271018 | -0.00149 | .000200 | | . v . | |
| 51 | 2951 | qR | 61 | 1 | 0 | 573.138879 | -0.00184 | .000200 | | . v . | |
| 52 | 2952 | qR | 62 | 1 | 0 | 574.009555 | -0.00120 | .000200 | | . v . | |
| 53 | 2953 | qR | 63 | 1 | 0 | 574.882527 | -0.00465 | .000500 | | . v . | |
| 54 | 2954 | qP | 3 | 2 | 0 | 522.626066 | .000223 | .000200 | | . x . | |
| 55 | 2955 | qP | 4 | 2 | 0 | 521.971115 | .000197 | .000200 | | . v . | |
| 56 | 2956 | qP | 5 | 2 | 0 | 521.321283 | .000136 | .000300 | | . v . | |
| 57 | 2957 | qP | 6 | 2 | 0 | 520.676607 | .000143 | .000300 | | . v . | |
| 58 | 2958 | qP | 7 | 2 | 0 | 520.037044 | .000252 | .000200 | | . x . | |
| 59 | 2959 | qP | 8 | 2 | 0 | 519.402299 | .000266 | .000200 | | . x . | |

| | |
|----|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | 2960 qP 9 2 0 518.772348 .000270 .000200 . .x . |
| 5 | 2961 qP 10 2 0 518.147059 .000261 .000200 . .x . |
| 6 | 2962 qP 11 2 0 517.526721 .000665 .000500 . .x . |
| 7 | 2963 qP 12 2 0 516.909937 .000237 .000200 . x . |
| 8 | 2964 qP 13 2 0 516.297999 .000430 .000300 . .x . |
| 9 | 2965 qP 14 2 0 515.690007 .000510 .000500 . .x . |
| 10 | 2966 qP 15 2 0 515.085478 .000164 .000200 . v . |
| 11 | 2967 qP 16 2 0 514.485366 .000518 .000500 . .x . |
| 12 | 2968 qP 17 2 0 513.888337 .000402 .000300 . .x . |
| 13 | 2969 qP 18 2 0 513.294323 -.000093 .000200 . v . |
| 14 | 2970 qP 19 2 0 512.704408 .000263 .000200 . .x . |
| 15 | 2971 qP 20 2 0 512.117656 .000668 .001000 . .v . |
| 16 | 2972 qP 21 2 0 511.533001 .000170 .000200 . v . |
| 17 | 2973 qP 22 2 0 510.951720 .000144 .000200 . v . |
| 18 | 2974 qP 23 2 0 510.373432 .000288 .000200 . .x . |
| 19 | 2975 qP 24 2 0 509.797785 .000310 .000200 . .x . |
| 20 | 2976 qP 25 2 0 509.224974 .000448 .003000 . .v . |
| 21 | 2977 qP 26 2 0 508.654484 .000213 .000200 . x . |
| 22 | 2978 qP 27 2 0 508.087097 .000402 .000300 . .x . |
| 23 | 2979 qP 28 2 0 507.521920 .000121 .000200 . v . |
| 24 | 2980 qP 29 2 0 506.959702 .000113 .000200 . v . |
| 25 | 2981 qP 30 2 0 506.400242 .000158 .000200 . v . |
| 26 | 2982 qP 31 2 0 505.843555 .000252 .000200 . .x . |
| 27 | 2983 qP 32 2 0 505.288094 -.001178 .002000 . v . |
| 28 | 2984 qP 33 2 0 504.738412 .000391 .000500 . .v . |
| 29 | 2985 qP 34 2 0 504.189790 .000211 .000200 . x . |
| 30 | 2986 qP 35 2 0 503.644071 .000096 .000200 . v . |
| 31 | 2987 qP 36 2 0 503.101427 .000186 .000200 . v . |
| 32 | 2988 qP 37 2 0 502.561688 .000282 .000200 . .x . |
| 33 | 2989 qP 38 2 0 502.024688 .000190 .000200 . v . |
| 34 | 2990 qP 39 2 0 501.490641 .000097 .000200 . v . |
| 35 | 2991 qP 40 2 0 500.959783 .000213 .000200 . x . |
| 36 | 2992 qP 41 2 0 500.431810 .000211 .000200 . x . |
| 37 | 2993 qP 42 2 0 499.906794 .000140 .000200 . v . |
| 38 | 2994 qP 43 2 0 499.384979 .000224 .000200 . x . |
| 39 | 2995 qP 44 2 0 498.866151 .000230 .000200 . x . |
| 40 | 2996 qP 45 2 0 498.350284 .000116 .000200 . v . |
| 41 | 2997 qP 46 2 0 497.837717 .000205 .000200 . x . |
| 42 | 2998 qP 47 2 0 497.328068 .000100 .000200 . v . |
| 43 | 2999 qP 48 2 0 496.821693 .000146 .000200 . v . |
| 44 | 3000 qP 49 2 0 496.318382 .000121 .000200 . v . |
| 45 | 3001 qP 50 2 0 495.818222 .000102 .000200 . v . |
| 46 | 3002 qP 51 2 0 495.321213 .000082 .000200 . v . |
| 47 | 3003 qP 52 2 0 494.827381 .000077 .000200 . v . |
| 48 | 3004 qP 53 2 0 494.336734 .000090 .000200 . v . |
| 49 | 3005 qP 54 2 0 493.849223 .000066 .000200 . v . |
| 50 | 3006 qP 55 2 0 493.365009 .000163 .000200 . v . |
| 51 | 3007 qP 56 2 0 492.883748 .000031 .000200 . v . |
| 52 | 3008 qP 57 2 0 492.405891 .000120 .000200 . v . |
| 53 | 3009 qP 58 2 0 491.931045 .000034 .000200 . v . |
| 54 | 3010 qP 59 2 0 491.459475 .000037 .000200 . v . |
| 55 | 3011 qP 60 2 0 490.991104 .000052 .000200 . v . |
| 56 | 3012 qP 61 2 0 490.525861 .000008 .000200 . v . |
| 57 | 3013 qP 62 2 0 490.063766 -.000075 .000200 . v . |
| 58 | 3014 qP 63 2 0 489.604965 -.000050 .000200 . v . |
| 59 | 3015 qP 64 2 0 489.149415 .000043 .000200 . v . |
| 60 | |

| | | | | | | | | | |
|----|------|----|----|---|---|------------|-----------|---------|---------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 3687 | qP | 61 | 7 | 0 | 490.379546 | -0.000099 | .000300 | . v . |
| 4 | 3688 | qP | 62 | 7 | 0 | 489.918835 | -0.000628 | .000200 | . * . |
| 5 | 3689 | qR | 7 | 7 | 0 | 530.089377 | -0.000072 | .000200 | . v . |
| 6 | 3690 | qR | 8 | 7 | 0 | 530.803600 | -0.000019 | .000200 | . v . |
| 7 | 3691 | qR | 9 | 7 | 0 | 531.521334 | -0.000094 | .000200 | . v . |
| 8 | 3692 | qR | 10 | 7 | 0 | 532.242410 | -0.00171 | .000200 | . v . |
| 9 | 3693 | qR | 11 | 7 | 0 | 532.966765 | -0.000070 | .000200 | . v . |
| 10 | 3694 | qR | 12 | 7 | 0 | 533.693106 | -0.000902 | .001000 | . v . |
| 11 | 3695 | qR | 13 | 7 | 0 | 534.423761 | -0.000231 | .000200 | . x . |
| 12 | 3696 | qR | 14 | 7 | 0 | 535.156612 | -0.00126 | .000200 | . v . |
| 13 | 3697 | qR | 15 | 7 | 0 | 535.891735 | -0.000508 | .000500 | . x . |
| 14 | 3698 | qR | 16 | 7 | 0 | 536.630451 | -0.000082 | .000200 | . v . |
| 15 | 3699 | qR | 17 | 7 | 0 | 537.371411 | -0.000241 | .000200 | . x . |
| 16 | 3700 | qR | 18 | 7 | 0 | 538.116013 | .000369 | .000500 | . .v . |
| 17 | 3701 | qR | 19 | 7 | 0 | 538.862553 | -0.000002 | .000200 | . v . |
| 18 | 3702 | qR | 20 | 7 | 0 | 539.612603 | .000181 | .000200 | . v . |
| 19 | 3703 | qR | 21 | 7 | 0 | 540.365073 | -0.000203 | .000200 | . x . |
| 20 | 3704 | qR | 22 | 7 | 0 | 541.121109 | -0.000031 | .000200 | . v . |
| 21 | 3705 | qR | 23 | 7 | 0 | 541.880259 | .000228 | .000500 | . v . |
| 22 | 3706 | qR | 24 | 7 | 0 | 542.641902 | -0.000057 | .000200 | . v . |
| 23 | 3707 | qR | 25 | 7 | 0 | 543.406895 | -0.000034 | .000200 | . v . |
| 24 | 3708 | qR | 26 | 7 | 0 | 544.172583 | -0.002359 | .000200 | * . . |
| 25 | 3709 | qR | 27 | 7 | 0 | 544.945906 | -0.000089 | .000200 | . v . |
| 26 | 3710 | qR | 28 | 7 | 0 | 545.720347 | .000264 | .000500 | . .v . |
| 27 | 3711 | qR | 29 | 7 | 0 | 546.497151 | -0.000049 | .000200 | . v . |
| 28 | 3712 | qR | 30 | 7 | 0 | 547.277280 | -0.000056 | .000200 | . v . |
| 29 | 3713 | qR | 31 | 7 | 0 | 548.060346 | -0.00137 | .000200 | . v . |
| 30 | 3714 | qR | 32 | 7 | 0 | 548.846440 | -0.00189 | .000200 | . v . |
| 31 | 3715 | qR | 33 | 7 | 0 | 549.635619 | -0.00145 | .000200 | . v . |
| 32 | 3716 | qR | 34 | 7 | 0 | 550.427870 | -0.000007 | .000200 | . v . |
| 33 | 3717 | qR | 35 | 7 | 0 | 551.223124 | .000168 | .000200 | . v . |
| 34 | 3718 | qR | 36 | 7 | 0 | 552.021140 | .000148 | .000200 | . v . |
| 35 | 3719 | qR | 37 | 7 | 0 | 552.823302 | .001330 | .002000 | . . v . |
| 36 | 3720 | qR | 38 | 7 | 0 | 553.625829 | -0.000056 | .000200 | . v . |
| 37 | 3721 | qR | 39 | 7 | 0 | 554.432022 | -0.000700 | .001000 | . v . |
| 38 | 3722 | qR | 40 | 7 | 0 | 555.242388 | -0.000083 | .000200 | . v . |
| 39 | 3723 | qR | 41 | 7 | 0 | 556.055149 | .000026 | .000200 | . v . |
| 40 | 3724 | qR | 42 | 7 | 0 | 556.870584 | -0.000082 | .000200 | . v . |
| 41 | 3725 | qR | 43 | 7 | 0 | 557.689089 | -0.000004 | .000200 | . v . |
| 42 | 3726 | qR | 44 | 7 | 0 | 558.510276 | -0.00115 | .000200 | . v . |
| 43 | 3727 | qR | 45 | 7 | 0 | 559.334415 | -0.00138 | .000200 | . v . |
| 44 | 3728 | qR | 46 | 7 | 0 | 560.161421 | -0.00147 | .000200 | . v . |
| 45 | 3729 | qR | 47 | 7 | 0 | 560.991060 | -0.00368 | .000300 | . x . |
| 46 | 3730 | qR | 48 | 7 | 0 | 561.824401 | .000279 | .000500 | . .v . |
| 47 | 3731 | qR | 49 | 7 | 0 | 562.659507 | -0.00135 | .000200 | . v . |
| 48 | 3732 | qR | 50 | 7 | 0 | 563.498063 | .000085 | .000200 | . v . |
| 49 | 3733 | qR | 51 | 7 | 0 | 564.339025 | -0.000096 | .000200 | . v . |
| 50 | 3734 | qR | 52 | 7 | 0 | 565.182906 | -0.00154 | .000200 | . v . |
| 51 | 3735 | qR | 53 | 7 | 0 | 566.031782 | .001994 | .003000 | . . v . |
| 52 | 3736 | qR | 54 | 7 | 0 | 566.879218 | -0.000076 | .000200 | . v . |
| 53 | 3737 | qR | 55 | 7 | 0 | 567.731479 | -0.000089 | .000200 | . v . |
| 54 | 3738 | qR | 56 | 7 | 0 | 568.586382 | -0.000219 | .000200 | . x . |
| 55 | 3739 | qR | 57 | 7 | 0 | 569.444300 | -0.000082 | .000200 | . v . |
| 56 | 3740 | qR | 58 | 7 | 0 | 570.304428 | -0.000473 | .000500 | . v . |
| 57 | 3741 | qR | 59 | 7 | 0 | 571.167826 | -0.000321 | .000200 | . x . |
| 58 | 3742 | qR | 60 | 7 | 0 | 572.034012 | -0.000099 | .000500 | . v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|-----------|--|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 3910 | pP | 3 | 1 | 1 | 260.134630 | .000099 | .000200 | . v . | |
| 4 | 3911 | pP | 4 | 1 | 1 | 259.472464 | -.000244 | .000300 | . v . | |
| 5 | 3912 | pP | 5 | 1 | 1 | 258.814199 | -.000131 | .000200 | . v . | |
| 6 | 3913 | pP | 6 | 1 | 1 | 258.159254 | -.000085 | .000200 | . v . | |
| 7 | 3914 | pP | 7 | 1 | 1 | 257.507512 | -.000148 | .000200 | . v . | |
| 8 | 3915 | pP | 8 | 1 | 1 | 256.857920 | -.001282 | .002000 | . v . | |
| 9 | 3916 | pP | 9 | 1 | 1 | 256.213726 | -.000136 | .000200 | . v . | |
| 10 | 3917 | pP | 10 | 1 | 1 | 255.571249 | -.000270 | .000200 | . x . | |
| 11 | 3918 | pP | 11 | 1 | 1 | 254.931745 | -.000297 | .000200 | . x . | |
| 12 | 3919 | pP | 12 | 1 | 1 | 254.294993 | -.000296 | .000200 | . x . | |
| 13 | 3920 | pP | 13 | 1 | 1 | 253.660950 | -.000156 | .000200 | . v . | |
| 14 | 3921 | pP | 14 | 1 | 1 | 253.029143 | -.000191 | .000200 | . v . | |
| 15 | 3922 | pP | 15 | 1 | 1 | 252.399731 | -.000079 | .000500 | . v . | |
| 16 | 3923 | pP | 16 | 1 | 1 | 251.772143 | -.000224 | .000200 | . x . | |
| 17 | 3924 | pP | 17 | 1 | 1 | 251.146650 | -.000192 | .000200 | . v . | |
| 18 | 3925 | pP | 18 | 1 | 1 | 250.522878 | -.000201 | .000200 | . x . | |
| 19 | 3926 | pP | 19 | 1 | 1 | 249.903002 | .002072 | .003000 | . . v . | |
| 20 | 3927 | pP | 20 | 1 | 1 | 249.280085 | -.000172 | .000200 | . v . | |
| 21 | 3928 | pP | 21 | 1 | 1 | 248.660721 | -.000219 | .000200 | . x . | |
| 22 | 3929 | pP | 22 | 1 | 1 | 248.042607 | -.000267 | .000200 | . x . | |
| 23 | 3930 | pP | 23 | 1 | 1 | 247.425851 | -.000120 | .000200 | . v . | |
| 24 | 3931 | pP | 24 | 1 | 1 | 246.809993 | -.000169 | .000200 | . v . | |
| 25 | 3932 | pP | 25 | 1 | 1 | 246.194010 | -.001385 | .002000 | . v . | |
| 26 | 3933 | pP | 26 | 1 | 1 | 245.581499 | -.000137 | .000200 | . v . | |
| 27 | 3934 | pP | 27 | 1 | 1 | 244.968687 | -.000177 | .000200 | . v . | |
| 28 | 3935 | pP | 28 | 1 | 1 | 244.355241 | -.001832 | .002000 | . v . | |
| 29 | 3936 | pP | 29 | 1 | 1 | 243.746088 | -.000179 | .000200 | . v . | |
| 30 | 3937 | pP | 30 | 1 | 1 | 243.136343 | -.000117 | .000200 | . v . | |
| 31 | 3938 | pP | 31 | 1 | 1 | 242.527564 | -.000109 | .000200 | . v . | |
| 32 | 3939 | pP | 32 | 1 | 1 | 241.919894 | -.000038 | .000200 | . v . | |
| 33 | 3940 | pP | 33 | 1 | 1 | 241.313177 | -.000092 | .000200 | . v . | |
| 34 | 3941 | pP | 34 | 1 | 1 | 240.707640 | -.000076 | .000200 | . v . | |
| 35 | 3942 | pP | 35 | 1 | 1 | 240.103269 | -.000039 | .000200 | . v . | |
| 36 | 3943 | pP | 36 | 1 | 1 | 239.500011 | -.000069 | .000200 | . v . | |
| 37 | 3944 | pP | 37 | 1 | 1 | 238.898049 | -.000018 | .000200 | . v . | |
| 38 | 3945 | pP | 38 | 1 | 1 | 238.297340 | .000037 | .000200 | . v . | |
| 39 | 3946 | pP | 39 | 1 | 1 | 237.697785 | -.000036 | .000200 | . v . | |
| 40 | 3947 | pP | 40 | 1 | 1 | 237.099763 | .000110 | .000200 | . v . | |
| 41 | 3948 | pP | 41 | 1 | 1 | 236.502838 | .000008 | .000200 | . v . | |
| 42 | 3949 | pP | 42 | 1 | 1 | 235.907374 | -.000005 | .000200 | . v . | |
| 43 | 3950 | pP | 43 | 1 | 1 | 235.313712 | .000385 | .000500 | . . v . | |
| 44 | 3951 | pP | 44 | 1 | 1 | 234.721032 | .000332 | .000500 | . . v . | |
| 45 | 3952 | pP | 45 | 1 | 1 | 234.129808 | .000288 | .000200 | . . x . | |
| 46 | 3953 | pP | 46 | 1 | 1 | 233.540032 | .000224 | .000200 | . . x . | |
| 47 | 3954 | pP | 47 | 1 | 1 | 232.951934 | .000348 | .000500 | . . v . | |
| 48 | 3955 | pP | 48 | 1 | 1 | 232.365024 | .000153 | .000200 | . . v . | |
| 49 | 3956 | pP | 49 | 1 | 1 | 231.779732 | .000052 | .000200 | . . v . | |
| 50 | 3957 | pP | 50 | 1 | 1 | 231.196086 | .000057 | .000200 | . . v . | |
| 51 | 3958 | pP | 51 | 1 | 1 | 230.614052 | .000119 | .000200 | . . v . | |
| 52 | 3959 | pP | 52 | 1 | 1 | 230.035113 | .001710 | .002000 | . . . v . | |
| 53 | 3960 | pP | 53 | 1 | 1 | 229.454958 | .000505 | .001000 | . . . v . | |
| 54 | 3961 | pP | 54 | 1 | 1 | 228.877215 | .000121 | .000500 | . . v . | |
| 55 | 3962 | pP | 55 | 1 | 1 | 228.301221 | -.000113 | .000200 | . . v . | |
| 56 | 3963 | pP | 56 | 1 | 1 | 227.726996 | -.000188 | .000200 | . . v . | |
| 57 | 3964 | pP | 57 | 1 | 1 | 227.154271 | -.000381 | .000200 | . . x . | |
| 58 | 3965 | pP | 58 | 1 | 1 | 226.583324 | -.000421 | .000200 | . . * . | |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

| | | | | | | | | | |
|----|------|-------|-----|------------|-----------|---------|---|----|----|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 3966 | pP 59 | 1 1 | 226.013949 | -0.000520 | .000200 | . | * | . |
| 4 | 3967 | pP 60 | 1 1 | 225.446103 | -0.000729 | .000500 | . | x. | . |
| 5 | 3968 | pP 61 | 1 1 | 224.880359 | -0.000478 | .000200 | . | * | . |
| 6 | 3969 | pR 1 | 1 1 | 263.495613 | -0.000700 | .001000 | . | v. | . |
| 7 | 3970 | pR 2 | 1 1 | 264.179892 | .000717 | .001000 | . | v. | . |
| 8 | 3971 | pR 3 | 1 1 | 264.865066 | -0.000390 | .000200 | . | x. | . |
| 9 | 3972 | pR 4 | 1 1 | 265.554564 | -0.000525 | .000200 | . | * | . |
| 10 | 3973 | pR 5 | 1 1 | 266.247809 | -0.000183 | .000200 | . | v. | . |
| 11 | 3974 | pR 6 | 1 1 | 266.943972 | -0.000094 | .000200 | . | v. | . |
| 12 | 3975 | pR 7 | 1 1 | 267.642229 | -0.000971 | .001000 | . | v. | . |
| 13 | 3976 | pR 8 | 1 1 | 268.345042 | -0.000224 | .000200 | . | x. | . |
| 14 | 3977 | pR 9 | 1 1 | 269.049926 | -0.000199 | .000200 | . | v. | . |
| 15 | 3978 | pR 10 | 1 1 | 269.757439 | -0.000188 | .000200 | . | v. | . |
| 16 | 3979 | pR 11 | 1 1 | 270.467446 | -0.000164 | .000200 | . | v. | . |
| 17 | 3980 | pR 12 | 1 1 | 271.177752 | -0.002157 | .002000 | . | x. | . |
| 18 | 3981 | pR 13 | 1 1 | 271.894146 | -0.000205 | .000200 | . | x. | . |
| 19 | 3982 | pR 14 | 1 1 | 272.610700 | -0.000063 | .000200 | . | v. | . |
| 20 | 3983 | pR 15 | 1 1 | 273.327968 | -0.001006 | .001000 | . | x. | . |
| 21 | 3984 | pR 16 | 1 1 | 274.048534 | -0.000286 | .000200 | . | x. | . |
| 22 | 3985 | pR 17 | 1 1 | 274.772438 | .002293 | .003000 | . | . | v. |
| 23 | 3986 | pR 18 | 1 1 | 275.492422 | -0.000382 | .000200 | . | x. | . |
| 24 | 3987 | pR 19 | 1 1 | 276.216408 | -0.000261 | .000200 | . | x. | . |
| 25 | 3988 | pR 20 | 1 1 | 276.942141 | .000514 | .001000 | . | v. | . |
| 26 | 3989 | pR 21 | 1 1 | 277.665834 | -0.001749 | .002000 | . | v. | . |
| 27 | 3990 | pR 22 | 1 1 | 278.394290 | -0.000169 | .000200 | . | v. | . |
| 28 | 3991 | pR 23 | 1 1 | 279.121683 | -0.000515 | .001000 | . | v. | . |
| 29 | 3992 | pR 24 | 1 1 | 279.850601 | -0.000154 | .000200 | . | v. | . |
| 30 | 3993 | pR 25 | 1 1 | 280.579753 | -0.000351 | .000200 | . | x. | . |
| 31 | 3994 | pR 26 | 1 1 | 281.310056 | -0.000173 | .000200 | . | v. | . |
| 32 | 3995 | pR 27 | 1 1 | 282.040919 | -0.000209 | .000200 | . | x. | . |
| 33 | 3996 | pR 28 | 1 1 | 282.772633 | -0.000173 | .000200 | . | v. | . |
| 34 | 3997 | pR 29 | 1 1 | 283.505124 | -0.000153 | .000200 | . | v. | . |
| 35 | 3998 | pR 30 | 1 1 | 284.238400 | -0.000161 | .000200 | . | v. | . |
| 36 | 3999 | pR 31 | 1 1 | 284.972547 | -0.000132 | .000200 | . | v. | . |
| 37 | 4000 | pR 32 | 1 1 | 285.707537 | -0.000121 | .000200 | . | v. | . |
| 38 | 4001 | pR 33 | 1 1 | 286.443412 | -0.000111 | .000200 | . | v. | . |
| 39 | 4002 | pR 34 | 1 1 | 287.180219 | -0.000084 | .000200 | . | v. | . |
| 40 | 4003 | pR 35 | 1 1 | 287.917955 | -0.000070 | .000200 | . | v. | . |
| 41 | 4004 | pR 36 | 1 1 | 288.656630 | -0.000086 | .000200 | . | v. | . |
| 42 | 4005 | pR 37 | 1 1 | 289.397043 | .000643 | .001000 | . | v. | . |
| 43 | 4006 | pR 38 | 1 1 | 290.137425 | .000324 | .000200 | . | x. | . |
| 44 | 4007 | pR 39 | 1 1 | 290.879049 | .000206 | .000200 | . | x. | . |
| 45 | 4008 | pR 40 | 1 1 | 291.621755 | .000109 | .000200 | . | v. | . |
| 46 | 4009 | pR 41 | 1 1 | 292.366184 | .000655 | .001000 | . | v. | . |
| 47 | 4010 | pR 42 | 1 1 | 293.110246 | -0.000263 | .000500 | . | v. | . |
| 48 | 4011 | pR 43 | 1 1 | 293.856192 | -0.000410 | .001000 | . | v. | . |
| 49 | 4012 | pR 44 | 1 1 | 294.603296 | -0.000525 | .001000 | . | v. | . |
| 50 | 4013 | pR 45 | 1 1 | 295.351762 | -0.000417 | .001000 | . | v. | . |
| 51 | 4014 | pR 46 | 1 1 | 296.101160 | -0.000526 | .001000 | . | v. | . |
| 52 | 4015 | pR 47 | 1 1 | 296.851767 | -0.000585 | .001000 | . | v. | . |
| 53 | 4016 | pR 48 | 1 1 | 297.603549 | -0.000636 | .001000 | . | v. | . |
| 54 | 4017 | pR 49 | 1 1 | 298.356108 | -0.001084 | .002000 | . | v. | . |
| 55 | 4018 | pR 50 | 1 1 | 299.110656 | -0.000721 | .001000 | . | v. | . |
| 56 | 4019 | pR 51 | 1 1 | 299.865501 | -0.001244 | .002000 | . | v. | . |
| 57 | 4020 | pR 52 | 1 1 | 300.622951 | -0.000348 | .000200 | . | x. | . |
| 58 | 4021 | pR 53 | 1 1 | 301.380758 | -0.000285 | .000200 | . | x. | . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|-----------|---------|--|---------|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4134 | rP 24 0 -1 | 246.819523 | -0.000984 | .001000 | | . v . | | |
| 4 | 4135 | rP 25 0 -1 | 246.204551 | -0.000185 | .000200 | | . v . | | |
| 5 | 4136 | rP 26 0 -1 | 245.589920 | -0.000145 | .000200 | | . v . | | |
| 6 | 4137 | rP 27 0 -1 | 244.977715 | .001251 | .002000 | | . . v . | | |
| 7 | 4138 | rP 28 0 -1 | 244.364988 | .001069 | .002000 | | . . v . | | |
| 8 | 4139 | rP 29 0 -1 | 243.752275 | -0.000152 | .000200 | | . v . | | |
| 9 | 4140 | rP 30 0 -1 | 243.141938 | -0.000059 | .000200 | | . v . | | |
| 10 | 4141 | rP 31 0 -1 | 242.532498 | -0.000145 | .000200 | | . v . | | |
| 11 | 4142 | rP 32 0 -1 | 241.924262 | -0.000127 | .000200 | | . v . | | |
| 12 | 4143 | rP 33 0 -1 | 241.317135 | -0.000125 | .000200 | | . v . | | |
| 13 | 4144 | rP 34 0 -1 | 240.711131 | -0.000153 | .000200 | | . v . | | |
| 14 | 4145 | rP 35 0 -1 | 240.106302 | -0.000192 | .000200 | | . v . | | |
| 15 | 4146 | rP 36 0 -1 | 239.502772 | -0.000148 | .000200 | | . v . | | |
| 16 | 4147 | rP 37 0 -1 | 238.900428 | -0.000166 | .000200 | | . v . | | |
| 17 | 4148 | rP 38 0 -1 | 238.299282 | -0.000266 | .000200 | | . x . | | |
| 18 | 4149 | rP 39 0 -1 | 237.699613 | -0.000198 | .000200 | | . v . | | |
| 19 | 4150 | rP 40 0 -1 | 237.101235 | -0.000179 | .000200 | | . v . | | |
| 20 | 4151 | rP 41 0 -1 | 236.504295 | -0.000088 | .000200 | | . v . | | |
| 21 | 4152 | rP 42 0 -1 | 235.908535 | -0.000211 | .000200 | | . x . | | |
| 22 | 4153 | rR 0 0 -1 | 262.898088 | .000496 | .000500 | | . .v . | | |
| 23 | 4154 | rR 1 0 -1 | 263.574483 | -.001572 | .002000 | | . v . . | | |
| 24 | 4155 | rR 2 0 -1 | 264.258228 | .001123 | .002000 | | . .v . | | |
| 25 | 4156 | rR 3 0 -1 | 264.939912 | -.000840 | .001000 | | . v . . | | |
| 26 | 4157 | rR 4 0 -1 | 265.627217 | .000195 | .000200 | | . v . | | |
| 27 | 4158 | rR 5 0 -1 | 266.316568 | .000614 | .001000 | | . .v . | | |
| 28 | 4159 | rR 6 0 -1 | 267.008350 | .000756 | .001000 | | . .v . | | |
| 29 | 4160 | rR 7 0 -1 | 267.701844 | -0.000146 | .000200 | | . v . | | |
| 30 | 4161 | rR 8 0 -1 | 268.399147 | -0.000034 | .000200 | | . v . | | |
| 31 | 4162 | rR 9 0 -1 | 269.099651 | .000467 | .001000 | | . .v . | | |
| 32 | 4163 | rR 10 0 -1 | 269.801574 | -0.000409 | .000300 | | . x . | | |
| 33 | 4164 | rR 11 0 -1 | 270.507335 | -0.000186 | .000200 | | . v . | | |
| 34 | 4165 | rR 12 0 -1 | 271.215526 | -0.000174 | .000200 | | . v . | | |
| 35 | 4166 | rR 13 0 -1 | 271.926149 | -0.000231 | .000200 | | . x . | | |
| 36 | 4167 | rR 14 0 -1 | 272.639238 | -0.000159 | .000200 | | . v . | | |
| 37 | 4168 | rR 15 0 -1 | 273.354247 | -0.000318 | .000200 | | . x . | | |
| 38 | 4169 | rR 16 0 -1 | 274.071684 | -0.000010 | .000200 | | . v . | | |
| 39 | 4170 | rR 17 0 -1 | 274.788440 | -.002157 | .002000 | | .x . . | | |
| 40 | 4171 | rR 18 0 -1 | 275.510921 | -0.000177 | .000200 | | . v . | | |
| 41 | 4172 | rR 19 0 -1 | 276.234999 | .001964 | .003000 | | . . v . | | |
| 42 | 4173 | rR 20 0 -1 | 276.954519 | -0.001748 | .002000 | | . v . . | | |
| 43 | 4174 | rR 21 0 -1 | 277.680377 | -0.000298 | .000200 | | . x . | | |
| 44 | 4175 | rR 22 0 -1 | 278.405579 | -0.000580 | .000500 | | . x . | | |
| 45 | 4176 | rR 23 0 -1 | 279.132458 | -0.000183 | .000200 | | . v . | | |
| 46 | 4177 | rR 24 0 -1 | 279.859872 | -0.000192 | .000200 | | . v . | | |
| 47 | 4178 | rR 25 0 -1 | 280.588170 | -0.000216 | .000200 | | . x . | | |
| 48 | 4179 | rR 26 0 -1 | 281.317383 | -0.000198 | .000200 | | . v . | | |
| 49 | 4180 | rR 27 0 -1 | 282.047427 | -0.000209 | .000200 | | . x . | | |
| 50 | 4181 | rR 28 0 -1 | 282.778355 | -0.000194 | .000200 | | . v . | | |
| 51 | 4182 | rR 29 0 -1 | 283.510116 | -0.000209 | .000200 | | . x . | | |
| 52 | 4183 | rR 30 0 -1 | 284.242709 | -0.000269 | .000200 | | . x . | | |
| 53 | 4184 | rR 31 0 -1 | 284.976345 | -0.000178 | .000200 | | . v . | | |
| 54 | 4185 | rR 32 0 -1 | 285.710725 | -0.000256 | .000200 | | . x . | | |
| 55 | 4186 | rR 33 0 -1 | 286.446077 | -0.000297 | .000200 | | . x . | | |
| 56 | 4187 | rR 34 0 -1 | 287.182467 | -0.000258 | .000200 | | . x . | | |
| 57 | 4188 | rR 35 0 -1 | 287.919773 | -0.000283 | .000200 | | . x . | | |
| 58 | 4189 | rR 36 0 -1 | 288.658078 | -0.000313 | .000200 | | . x . | | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|---|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4302 | rP 28 2 -1 | 244.411163 | .000089 | .000200 | . | v | . | |
| 4 | 4303 | rP 29 2 -1 | 243.795290 | .000115 | .000200 | . | v | . | |
| 5 | 4304 | rP 30 2 -1 | 243.180714 | .000061 | .000200 | . | v | . | |
| 6 | 4305 | rP 31 2 -1 | 242.567583 | .000066 | .000200 | . | v | . | |
| 7 | 4306 | rP 32 2 -1 | 241.955770 | -.000006 | .000200 | . | v | . | |
| 8 | 4307 | rP 33 2 -1 | 241.345496 | .000053 | .000200 | . | v | . | |
| 9 | 4308 | rP 34 2 -1 | 240.736604 | .000072 | .000200 | . | v | . | |
| 10 | 4309 | rP 35 2 -1 | 240.129090 | .000032 | .000200 | . | v | . | |
| 11 | 4310 | rP 36 2 -1 | 239.523041 | .000005 | .000200 | . | v | . | |
| 12 | 4311 | rP 37 2 -1 | 238.918482 | .000001 | .000200 | . | v | . | |
| 13 | 4312 | rP 38 2 -1 | 238.315360 | -.000048 | .000200 | . | v | . | |
| 14 | 4313 | rP 39 2 -1 | 237.713801 | -.000030 | .000200 | . | v | . | |
| 15 | 4314 | rP 40 2 -1 | 237.113638 | -.000127 | .000200 | . | v | . | |
| 16 | 4315 | rP 41 2 -1 | 236.515156 | -.000067 | .000200 | . | v | . | |
| 17 | 4316 | rP 42 2 -1 | 235.918147 | -.000071 | .000200 | . | v | . | |
| 18 | 4317 | rP 43 2 -1 | 235.322671 | -.000092 | .000200 | . | v | . | |
| 19 | 4318 | rP 44 2 -1 | 234.728740 | -.000128 | .000200 | . | v | . | |
| 20 | 4319 | rP 45 2 -1 | 234.136435 | -.000111 | .000200 | . | v | . | |
| 21 | 4320 | rP 46 2 -1 | 233.545621 | -.000184 | .000200 | . | v | . | |
| 22 | 4321 | rP 47 2 -1 | 232.956505 | -.000151 | .000200 | . | v | . | |
| 23 | 4322 | rP 48 2 -1 | 232.368742 | -.000365 | .000200 | . | x | . | |
| 24 | 4323 | rP 49 2 -1 | 231.783021 | -.000146 | .000200 | . | v | . | |
| 25 | 4324 | rP 50 2 -1 | 231.198669 | -.000175 | .000200 | . | v | . | |
| 26 | 4325 | rP 51 2 -1 | 230.615828 | -.000317 | .000200 | . | x | . | |
| 27 | 4326 | rP 52 2 -1 | 230.035113 | .000037 | .000500 | . | v | . | |
| 28 | 4327 | rP 53 2 -1 | 229.454958 | -.000685 | .000500 | . | x | . | |
| 29 | 4328 | rP 54 2 -1 | 228.877215 | -.000638 | .000500 | . | x | . | |
| 30 | 4329 | rP 55 2 -1 | 228.301221 | -.000489 | .000300 | . | x | . | |
| 31 | 4330 | rP 56 2 -1 | 227.726996 | -.000223 | .000200 | . | x | . | |
| 32 | 4331 | rP 57 2 -1 | 227.154271 | -.000114 | .000200 | . | v | . | |
| 33 | 4332 | rP 58 2 -1 | 226.583324 | .000114 | .000200 | . | v | . | |
| 34 | 4333 | rP 59 2 -1 | 226.013949 | .000249 | .000200 | . | x | . | |
| 35 | 4334 | rP 60 2 -1 | 225.446103 | .000248 | .000200 | . | x | . | |
| 36 | 4335 | rP 61 2 -1 | 224.880359 | .000678 | .000200 | . | * | . | |
| 37 | 4336 | rR 2 2 -1 | 264.413600 | .000807 | .000500 | . | x | . | |
| 38 | 4337 | rR 3 2 -1 | 265.095811 | -.000488 | .001000 | . | v | . | |
| 39 | 4338 | rR 4 2 -1 | 265.782955 | .000649 | .000500 | . | x | . | |
| 40 | 4339 | rR 5 2 -1 | 266.471277 | .000513 | .000500 | . | x | . | |
| 41 | 4340 | rR 6 2 -1 | 267.161628 | .000014 | .000300 | . | v | . | |
| 42 | 4341 | rR 7 2 -1 | 267.854921 | .000128 | .000200 | . | v | . | |
| 43 | 4342 | rR 8 2 -1 | 268.549147 | -.001083 | .002000 | . | v | . | |
| 44 | 4343 | rR 9 2 -1 | 269.247962 | .000115 | .000200 | . | v | . | |
| 45 | 4344 | rR 10 2 -1 | 269.947774 | .000210 | .000200 | . | x | . | |
| 46 | 4345 | rR 11 2 -1 | 270.649361 | .000063 | .000200 | . | v | . | |
| 47 | 4346 | rR 12 2 -1 | 271.353044 | .000083 | .000200 | . | v | . | |
| 48 | 4347 | rR 13 2 -1 | 272.058489 | .000024 | .000200 | . | v | . | |
| 49 | 4348 | rR 14 2 -1 | 272.765808 | .000082 | .000200 | . | v | . | |
| 50 | 4349 | rR 15 2 -1 | 273.474767 | .000107 | .000200 | . | v | . | |
| 51 | 4350 | rR 16 2 -1 | 274.185266 | .000077 | .000200 | . | v | . | |
| 52 | 4351 | rR 17 2 -1 | 274.897254 | .000016 | .000200 | . | v | . | |
| 53 | 4352 | rR 18 2 -1 | 275.611098 | .000355 | .000500 | . | v | . | |
| 54 | 4353 | rR 19 2 -1 | 276.325705 | .000060 | .000200 | . | v | . | |
| 55 | 4354 | rR 20 2 -1 | 277.041951 | .000056 | .000200 | . | v | . | |
| 56 | 4355 | rR 21 2 -1 | 277.759386 | -.000065 | .000200 | . | v | . | |
| 57 | 4356 | rR 22 2 -1 | 278.478349 | .000070 | .000200 | . | v | . | |
| 58 | 4357 | rR 23 2 -1 | 279.198398 | .000046 | .000200 | . | v | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|--|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4358 | rR 24 2 -1 | 279.919600 | -.000052 | .000200 | | . | v | . |
| 4 | 4359 | rR 25 2 -1 | 280.642187 | .000022 | .000200 | | . | v | . |
| 5 | 4360 | rR 26 2 -1 | 281.365894 | .000013 | .000200 | | . | v | . |
| 6 | 4361 | rR 27 2 -1 | 282.090812 | .000016 | .000200 | | . | v | . |
| 7 | 4362 | rR 28 2 -1 | 282.816874 | -.000034 | .000200 | | . | v | . |
| 8 | 4363 | rR 29 2 -1 | 283.544229 | .000011 | .000200 | | . | v | . |
| 9 | 4364 | rR 30 2 -1 | 284.272704 | -.000024 | .000200 | | . | v | . |
| 10 | 4365 | rR 31 2 -1 | 285.002449 | .000006 | .000200 | | . | v | . |
| 11 | 4366 | rR 32 2 -1 | 285.733315 | -.000050 | .000200 | | . | v | . |
| 12 | 4367 | rR 33 2 -1 | 286.465443 | -.000059 | .000200 | | . | v | . |
| 13 | 4368 | rR 34 2 -1 | 287.198710 | -.000148 | .000200 | | . | v | . |
| 14 | 4369 | rR 35 2 -1 | 287.933365 | -.000074 | .000200 | | . | v | . |
| 15 | 4370 | rR 36 2 -1 | 288.669079 | -.000170 | .000200 | | . | v | . |
| 16 | 4371 | rR 37 2 -1 | 289.406243 | -.000051 | .000200 | | . | v | . |
| 17 | 4372 | rR 38 2 -1 | 290.144413 | -.000165 | .000200 | | . | v | . |
| 18 | 4373 | rR 39 2 -1 | 290.883870 | -.000234 | .000200 | | . | x | . |
| 19 | 4374 | rR 40 2 -1 | 291.624743 | -.000134 | .000200 | | . | v | . |
| 20 | 4375 | rR 41 2 -1 | 292.366184 | -.000715 | .001000 | | . | v | . |
| 21 | 4376 | rR 42 2 -1 | 293.110246 | .000074 | .000200 | | . | v | . |
| 22 | 4377 | rR 43 2 -1 | 293.856192 | .001493 | .002000 | | . | . | v |
| 23 | 4378 | rR 44 2 -1 | 294.600296 | -.000185 | .000200 | | . | v | . |
| 24 | 4379 | rR 45 2 -1 | 295.347311 | -.000207 | .000200 | | . | x | . |
| 25 | 4380 | rR 46 2 -1 | 296.095600 | -.000210 | .000200 | | . | x | . |
| 26 | 4381 | rR 47 2 -1 | 296.845167 | -.000191 | .000200 | | . | v | . |
| 27 | 4382 | rR 48 2 -1 | 297.595866 | -.000294 | .000200 | | . | x | . |
| 28 | 4383 | rR 49 2 -1 | 298.347950 | -.000266 | .000200 | | . | x | . |
| 29 | 4384 | rR 50 2 -1 | 299.101220 | -.000303 | .000200 | | . | x | . |
| 30 | 4385 | rR 51 2 -1 | 299.855769 | -.000310 | .000200 | | . | x | . |
| 31 | 4386 | rR 52 2 -1 | 300.611543 | -.000338 | .000200 | | . | x | . |
| 32 | 4387 | rR 53 2 -1 | 301.368588 | -.000339 | .000200 | | . | x | . |
| 33 | 4388 | rR 54 2 -1 | 302.126845 | -.000369 | .000200 | | . | x | . |
| 34 | 4389 | rR 55 2 -1 | 302.886433 | -.000303 | .000200 | | . | x | . |
| 35 | 4390 | rR 56 2 -1 | 303.647085 | -.000405 | .000200 | | . | * | . |
| 36 | 4391 | rR 57 2 -1 | 304.409099 | -.000373 | .000200 | | . | x | . |
| 37 | 4392 | rR 58 2 -1 | 305.172130 | -.000546 | .000200 | | . | * | . |
| 38 | 4393 | rR 59 2 -1 | 305.936660 | -.000438 | .000200 | | . | * | . |
| 39 | 4394 | rR 60 2 -1 | 306.702247 | -.000484 | .000200 | | . | * | . |
| 40 | 4395 | rR 61 2 -1 | 307.469098 | -.000472 | .000200 | | . | * | . |
| 41 | 4396 | rR 62 2 -1 | 308.237262 | -.000347 | .000200 | | . | x | . |
| 42 | 4397 | rR 63 2 -1 | 309.006256 | -.000586 | .000200 | | . | * | . |
| 43 | 4398 | rR 64 2 -1 | 309.776648 | -.000613 | .000200 | | . | * | . |
| 44 | 4399 | rR 65 2 -1 | 310.548284 | -.000576 | .000200 | | . | * | . |
| 45 | 4400 | rR 66 2 -1 | 311.321081 | -.000551 | .000200 | | . | * | . |
| 46 | 4401 | rR 67 2 -1 | 312.095372 | -.000196 | .000500 | | . | v | . |
| 47 | 4402 | rR 68 2 -1 | 312.870301 | -.000362 | .000200 | | . | x | . |
| 48 | 4403 | rP 5 3 -1 | 259.112787 | -.001695 | .002000 | | . | v | . |
| 49 | 4404 | rP 6 3 -1 | 258.454801 | .000135 | .000200 | | . | v | . |
| 50 | 4405 | rP 7 3 -1 | 257.797580 | .000184 | .000200 | | . | v | . |
| 51 | 4406 | rP 8 3 -1 | 257.141786 | -.000825 | .010000 | | . | v | . |
| 52 | 4407 | rP 9 3 -1 | 256.490412 | .000173 | .000200 | | . | v | . |
| 53 | 4408 | rP 10 3 -1 | 255.840284 | .000085 | .000200 | | . | v | . |
| 54 | 4409 | rP 11 3 -1 | 255.192512 | .000112 | .000200 | | . | v | . |
| 55 | 4410 | rP 12 3 -1 | 254.546768 | .000025 | .000200 | | . | v | . |
| 56 | 4411 | rP 13 3 -1 | 253.903605 | .000478 | .000500 | | . | v | . |
| 57 | 4412 | rP 14 3 -1 | 253.261511 | .000064 | .000200 | | . | v | . |
| 58 | 4413 | rP 15 3 -1 | 252.621783 | .000180 | .000200 | | . | v | . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | | | | | | |
|------|----|----|------|------------|----------|---------|---|---|---|
| 4414 | rP | 16 | 3 -1 | 251.983539 | .000038 | .000200 | . | v | . |
| 4415 | rP | 17 | 3 -1 | 251.346932 | -.000122 | .000200 | . | v | . |
| 4416 | rP | 18 | 3 -1 | 250.712484 | .000293 | .000300 | . | v | . |
| 4417 | rP | 19 | 3 -1 | 250.078905 | .000052 | .000200 | . | v | . |
| 4418 | rP | 20 | 3 -1 | 249.446808 | -.000187 | .000300 | . | v | . |
| 4419 | rP | 21 | 3 -1 | 248.816816 | .000227 | .000200 | . | x | . |
| 4420 | rP | 22 | 3 -1 | 248.187812 | .000196 | .000200 | . | v | . |
| 4421 | rP | 23 | 3 -1 | 247.560264 | .000191 | .000200 | . | v | . |
| 4422 | rP | 24 | 3 -1 | 246.934049 | .000086 | .000200 | . | v | . |
| 4423 | rP | 25 | 3 -1 | 246.309391 | .000096 | .000200 | . | v | . |
| 4424 | rP | 26 | 3 -1 | 245.686194 | .000111 | .000200 | . | v | . |
| 4425 | rP | 27 | 3 -1 | 245.064483 | .000138 | .000200 | . | v | . |
| 4426 | rP | 28 | 3 -1 | 244.444058 | -.000040 | .000200 | . | v | . |
| 4427 | rP | 29 | 3 -1 | 243.825540 | .000180 | .000200 | . | v | . |
| 4428 | rP | 30 | 3 -1 | 243.208245 | .000098 | .000200 | . | v | . |
| 4429 | rP | 31 | 3 -1 | 242.592510 | .000034 | .000200 | . | v | . |
| 4430 | rP | 32 | 3 -1 | 241.978497 | .000137 | .000200 | . | v | . |
| 4431 | rP | 33 | 3 -1 | 241.365924 | .000112 | .000200 | . | v | . |
| 4432 | rP | 34 | 3 -1 | 240.754965 | .000120 | .000200 | . | v | . |
| 4433 | rP | 35 | 3 -1 | 240.145524 | .000057 | .000200 | . | v | . |
| 4434 | rP | 36 | 3 -1 | 239.537921 | .000232 | .000200 | . | x | . |
| 4435 | rP | 37 | 3 -1 | 238.931609 | .000091 | .000200 | . | v | . |
| 4436 | rP | 38 | 3 -1 | 238.327017 | .000056 | .000200 | . | v | . |
| 4437 | rP | 39 | 3 -1 | 237.724124 | .000098 | .000200 | . | v | . |
| 4438 | rP | 40 | 3 -1 | 237.122881 | .000164 | .000200 | . | v | . |
| 4439 | rP | 41 | 3 -1 | 236.523142 | .000101 | .000200 | . | v | . |
| 4440 | rP | 42 | 3 -1 | 235.925069 | .000066 | .000200 | . | v | . |
| 4441 | rP | 43 | 3 -1 | 235.328672 | .000066 | .000200 | . | v | . |
| 4442 | rP | 44 | 3 -1 | 234.733950 | .000095 | .000200 | . | v | . |
| 4443 | rP | 45 | 3 -1 | 234.140835 | .000080 | .000200 | . | v | . |
| 4444 | rP | 46 | 3 -1 | 233.549343 | .000034 | .000200 | . | v | . |
| 4445 | rP | 47 | 3 -1 | 232.959453 | -.000067 | .000200 | . | v | . |
| 4446 | rP | 48 | 3 -1 | 232.371849 | .000456 | .000500 | . | v | . |
| 4447 | rP | 49 | 3 -1 | 231.784752 | -.000178 | .000200 | . | v | . |
| 4448 | rP | 50 | 3 -1 | 231.200344 | .000210 | .000500 | . | v | . |
| 4449 | rP | 51 | 3 -1 | 230.617624 | .000616 | .001000 | . | v | . |
| 4450 | rP | 52 | 3 -1 | 230.035113 | -.000441 | .000500 | . | v | . |
| 4451 | rP | 53 | 3 -1 | 229.454958 | -.000817 | .001000 | . | v | . |
| 4452 | rP | 54 | 3 -1 | 228.877215 | -.000459 | .000500 | . | v | . |
| 4453 | rP | 55 | 3 -1 | 228.301221 | -.000031 | .000200 | . | v | . |
| 4454 | rR | 3 | 3 -1 | 265.171949 | .000570 | .000500 | . | x | . |
| 4455 | rR | 4 | 3 -1 | 265.857903 | .000577 | .000500 | . | x | . |
| 4456 | rR | 5 | 3 -1 | 266.544956 | -.000733 | .001000 | . | v | . |
| 4457 | rR | 6 | 3 -1 | 267.236798 | .000411 | .000500 | . | v | . |
| 4458 | rR | 7 | 3 -1 | 267.929355 | .000030 | .000200 | . | v | . |
| 4459 | rR | 8 | 3 -1 | 268.624427 | .000025 | .000200 | . | v | . |
| 4460 | rR | 9 | 3 -1 | 269.321690 | .000183 | .000200 | . | v | . |
| 4461 | rR | 10 | 3 -1 | 270.020616 | .000092 | .000200 | . | v | . |
| 4462 | rR | 11 | 3 -1 | 270.721458 | .000123 | .000200 | . | v | . |
| 4463 | rR | 12 | 3 -1 | 271.423909 | .000084 | .000200 | . | v | . |
| 4464 | rR | 13 | 3 -1 | 272.127961 | .000079 | .000200 | . | v | . |
| 4465 | rR | 14 | 3 -1 | 272.833594 | .000187 | .000200 | . | v | . |
| 4466 | rR | 15 | 3 -1 | 273.540500 | .000190 | .000200 | . | v | . |
| 4467 | rR | 16 | 3 -1 | 274.248619 | .000099 | .000200 | . | v | . |
| 4468 | rR | 17 | 3 -1 | 274.957963 | -.000017 | .000200 | . | v | . |
| 4469 | rR | 18 | 3 -1 | 275.668597 | -.000057 | .000200 | . | v | . |

| | | | | | | | | | |
|----|------|----|----|---|----|------------|----------|---------|---------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4470 | rR | 19 | 3 | -1 | 276.380565 | .000045 | .000200 | . v . |
| 4 | 4471 | rR | 20 | 3 | -1 | 277.093701 | .000130 | .000200 | . v . |
| 5 | 4472 | rR | 21 | 3 | -1 | 277.807820 | .000009 | .000200 | . v . |
| 6 | 4473 | rR | 23 | 3 | -1 | 279.239956 | .000038 | .000200 | . v . |
| 7 | 4474 | rR | 24 | 3 | -1 | 279.957914 | .000088 | .000200 | . v . |
| 8 | 4475 | rR | 25 | 3 | -1 | 280.677096 | .000096 | .000200 | . v . |
| 9 | 4476 | rR | 26 | 3 | -1 | 281.397980 | .000517 | .000500 | . x . |
| 10 | 4477 | rR | 27 | 3 | -1 | 282.119330 | .000097 | .000200 | . v . |
| 11 | 4478 | rR | 28 | 3 | -1 | 282.842720 | .000392 | .000500 | . v . |
| 12 | 4479 | rR | 29 | 3 | -1 | 283.566811 | .000050 | .000200 | . v . |
| 13 | 4480 | rR | 30 | 3 | -1 | 284.292445 | -.000100 | .000200 | . v . |
| 14 | 4481 | rR | 31 | 3 | -1 | 285.019566 | -.000120 | .000200 | . v . |
| 15 | 4482 | rR | 32 | 3 | -1 | 285.748255 | .000063 | .000200 | . v . |
| 16 | 4483 | rR | 33 | 3 | -1 | 286.478095 | .000030 | .000200 | . v . |
| 17 | 4484 | rR | 34 | 3 | -1 | 287.209366 | .000059 | .000200 | . v . |
| 18 | 4485 | rR | 35 | 3 | -1 | 287.941846 | -.000071 | .000200 | . v . |
| 19 | 4486 | rR | 36 | 3 | -1 | 288.675883 | -.000012 | .000200 | . v . |
| 20 | 4487 | rR | 37 | 3 | -1 | 289.411398 | .000159 | .000200 | . v . |
| 21 | 4488 | rR | 38 | 3 | -1 | 290.148423 | .000478 | .000500 | . v . |
| 22 | 4489 | rR | 39 | 3 | -1 | 290.886043 | .000034 | .000200 | . v . |
| 23 | 4490 | rR | 40 | 3 | -1 | 291.624743 | -.000684 | .001000 | . v . |
| 24 | 4491 | rR | 41 | 3 | -1 | 292.366184 | -.000010 | .000200 | . v . |
| 25 | 4492 | rR | 42 | 3 | -1 | 293.110246 | .001939 | .002000 | . . v . |
| 26 | 4493 | rR | 43 | 3 | -1 | 293.851748 | -.000010 | .000200 | . v . |
| 27 | 4494 | rR | 44 | 3 | -1 | 294.596303 | -.000241 | .000500 | . v . |
| 28 | 4495 | rR | 45 | 3 | -1 | 295.342787 | .000129 | .000200 | . v . |
| 29 | 4496 | rR | 46 | 3 | -1 | 296.089977 | -.000118 | .000200 | . v . |
| 30 | 4497 | rR | 47 | 3 | -1 | 296.838718 | -.000131 | .000200 | . v . |
| 31 | 4498 | rR | 48 | 3 | -1 | 297.588948 | .000033 | .000200 | . v . |
| 32 | 4499 | rR | 49 | 3 | -1 | 298.340219 | -.000067 | .000200 | . v . |
| 33 | 4500 | rR | 50 | 3 | -1 | 299.092854 | -.000102 | .000200 | . v . |
| 34 | 4501 | rR | 51 | 3 | -1 | 299.846893 | -.000026 | .000200 | . v . |
| 35 | 4502 | rR | 52 | 3 | -1 | 300.602272 | .000103 | .000200 | . v . |
| 36 | 4503 | rR | 53 | 3 | -1 | 301.358640 | -.000059 | .000200 | . v . |
| 37 | 4504 | rR | 54 | 3 | -1 | 302.116320 | -.000183 | .000200 | . v . |
| 38 | 4505 | rR | 55 | 3 | -1 | 302.875621 | .000047 | .000200 | . v . |
| 39 | 4506 | rR | 56 | 3 | -1 | 303.635841 | -.000065 | .000200 | . v . |
| 40 | 4507 | rR | 57 | 3 | -1 | 304.397452 | -.000039 | .000200 | . v . |
| 41 | 4508 | rR | 58 | 3 | -1 | 305.160387 | .000065 | .000200 | . v . |
| 42 | 4509 | rR | 59 | 3 | -1 | 305.924276 | -.000117 | .000200 | . v . |
| 43 | 4510 | rR | 60 | 3 | -1 | 306.689521 | -.000175 | .000200 | . v . |
| 44 | 4511 | rR | 61 | 3 | -1 | 307.455927 | -.000296 | .000500 | . v . |
| 45 | 4512 | rR | 62 | 3 | -1 | 308.223766 | -.000202 | .000300 | . v . |
| 46 | 4513 | rR | 63 | 3 | -1 | 308.993060 | .000139 | .000200 | . v . |
| 47 | 4514 | rR | 64 | 3 | -1 | 309.763219 | .000144 | .000200 | . v . |
| 48 | 4515 | rR | 65 | 3 | -1 | 310.534540 | .000117 | .000200 | . v . |
| 49 | 4516 | rR | 66 | 3 | -1 | 311.307418 | .000463 | .000500 | . .v . |
| 50 | 4517 | rR | 67 | 3 | -1 | 312.080907 | .000242 | .000500 | . v . |
| 51 | 4518 | rR | 68 | 3 | -1 | 312.856253 | .000711 | .000500 | . x . |
| 52 | 4519 | rR | 69 | 3 | -1 | 313.632013 | .000435 | .000200 | . * . |
| 53 | 4520 | rP | 6 | 4 | -1 | 258.530380 | .001118 | .002000 | . .v . |
| 54 | 4521 | rP | 7 | 4 | -1 | 257.872142 | -.000004 | .000200 | . v . |
| 55 | 4522 | rP | 8 | 4 | -1 | 257.216986 | -.000452 | .000500 | . v . |
| 56 | 4523 | rP | 9 | 4 | -1 | 256.564910 | -.000121 | .000200 | . v . |
| 57 | 4524 | rP | 10 | 4 | -1 | 255.916841 | .002035 | .002000 | . . x . |
| 58 | 4525 | rP | 12 | 4 | -1 | 254.620639 | .000263 | .000500 | . .v . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|---|-----|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4526 | rP 14 4 -1 | 253.333089 | .000014 | .000200 | . | v | . | |
| 4 | 4527 | rP 15 4 -1 | 252.691845 | .000062 | .000200 | . | v | . | |
| 5 | 4528 | rP 16 4 -1 | 252.051895 | -.000030 | .000200 | . | v | . | |
| 6 | 4529 | rP 17 4 -1 | 251.413359 | -.000066 | .000200 | . | v | . | |
| 7 | 4530 | rP 18 4 -1 | 250.775926 | -.000302 | .000300 | . | x. | . | |
| 8 | 4531 | rP 19 4 -1 | 250.140135 | -.000174 | .000200 | . | v | . | |
| 9 | 4532 | rP 20 4 -1 | 249.505561 | -.000101 | .000200 | . | v | . | |
| 10 | 4533 | rP 21 4 -1 | 248.872302 | -.000002 | .000200 | . | v | . | |
| 11 | 4534 | rP 22 4 -1 | 248.240676 | .000412 | .000500 | . | .v | . | |
| 12 | 4535 | rP 23 4 -1 | 247.609532 | -.000051 | .000200 | . | v | . | |
| 13 | 4536 | rP 24 4 -1 | 246.980254 | -.000056 | .000200 | . | v | . | |
| 14 | 4537 | rP 25 4 -1 | 246.352480 | -.000013 | .000200 | . | v | . | |
| 15 | 4538 | rP 26 4 -1 | 245.726167 | -.000013 | .000200 | . | v | . | |
| 16 | 4539 | rP 27 4 -1 | 245.101344 | -.000073 | .000200 | . | v | . | |
| 17 | 4540 | rP 28 4 -1 | 244.478286 | .000041 | .000200 | . | v | . | |
| 18 | 4541 | rP 29 4 -1 | 243.856616 | -.000082 | .000200 | . | v | . | |
| 19 | 4542 | rP 30 4 -1 | 243.236773 | -.000035 | .000200 | . | v | . | |
| 20 | 4543 | rP 31 4 -1 | 242.618582 | -.000015 | .000200 | . | v | . | |
| 21 | 4544 | rP 32 4 -1 | 242.002144 | .000057 | .000200 | . | v | . | |
| 22 | 4545 | rP 33 4 -1 | 241.387363 | .000072 | .000200 | . | v | . | |
| 23 | 4546 | rP 34 4 -1 | 240.774002 | -.000219 | .000200 | . | x | . | |
| 24 | 4547 | rP 35 4 -1 | 240.162940 | .000055 | .000200 | . | v | . | |
| 25 | 4548 | rP 36 4 -1 | 239.553274 | -.000014 | .000200 | . | v | . | |
| 26 | 4549 | rP 37 4 -1 | 238.945359 | -.000074 | .000200 | . | v | . | |
| 27 | 4550 | rP 38 4 -1 | 238.339257 | -.000065 | .000200 | . | v | . | |
| 28 | 4551 | rP 39 4 -1 | 237.734871 | -.000083 | .000200 | . | v | . | |
| 29 | 4552 | rP 40 4 -1 | 237.132262 | -.000067 | .000200 | . | v | . | |
| 30 | 4553 | rP 41 4 -1 | 236.531379 | -.000066 | .000200 | . | v | . | |
| 31 | 4554 | rP 42 4 -1 | 235.932281 | -.000019 | .000200 | . | v | . | |
| 32 | 4555 | rP 43 4 -1 | 235.334722 | -.000171 | .000200 | . | v | . | |
| 33 | 4556 | rP 44 4 -1 | 234.739194 | -.000027 | .000200 | . | v | . | |
| 34 | 4557 | rP 45 4 -1 | 234.145396 | .000115 | .000200 | . | v | . | |
| 35 | 4558 | rR 4 4 -1 | 265.930315 | -.000156 | .000200 | . | v | . | |
| 36 | 4559 | rR 5 4 -1 | 266.618581 | -.000185 | .000200 | . | v | . | |
| 37 | 4560 | rR 6 4 -1 | 267.309330 | -.000008 | .000200 | . | v | . | |
| 38 | 4561 | rR 7 4 -1 | 268.001814 | -.000247 | .000200 | . | x | . | |
| 39 | 4562 | rR 8 4 -1 | 268.696792 | -.000004 | .000200 | . | v | . | |
| 40 | 4563 | rR 9 4 -1 | 269.393388 | -.000008 | .000200 | . | v | . | |
| 41 | 4564 | rR 10 4 -1 | 270.091585 | -.000123 | .000200 | . | v | . | |
| 42 | 4565 | rR 11 4 -1 | 270.791545 | -.000036 | .000200 | . | v | . | |
| 43 | 4566 | rR 12 4 -1 | 271.492894 | .000023 | .000200 | . | v | . | |
| 44 | 4567 | rR 13 4 -1 | 272.195392 | -.000057 | .000200 | . | v | . | |
| 45 | 4568 | rR 14 4 -1 | 272.899068 | -.000135 | .000200 | . | v | . | |
| 46 | 4569 | rR 15 4 -1 | 273.604609 | .000559 | .001000 | . | .v | . | |
| 47 | 4570 | rR 16 4 -1 | 274.309883 | -.000047 | .000200 | . | v | . | |
| 48 | 4571 | rR 17 4 -1 | 275.016679 | -.000135 | .000200 | . | v | . | |
| 49 | 4572 | rR 18 4 -1 | 275.724548 | -.000148 | .000200 | . | v | . | |
| 50 | 4573 | rR 19 4 -1 | 276.433539 | -.000054 | .000200 | . | v | . | |
| 51 | 4574 | rR 20 4 -1 | 277.144879 | .001340 | .002000 | . | . v | . | |
| 52 | 4575 | rR 21 4 -1 | 277.854208 | -.000371 | .000500 | . | v. | . | |
| 53 | 4576 | rR 22 4 -1 | 278.566683 | -.000084 | .000200 | . | v | . | |
| 54 | 4577 | rR 23 4 -1 | 279.280024 | -.000134 | .000200 | . | v | . | |
| 55 | 4578 | rR 24 4 -1 | 279.995088 | .000281 | .000500 | . | .v | . | |
| 56 | 4579 | rR 25 4 -1 | 280.710689 | -.000077 | .000200 | . | v | . | |
| 57 | 4580 | rR 26 4 -1 | 281.428078 | -.000002 | .000200 | . | v | . | |
| 58 | 4581 | rR 27 4 -1 | 282.146807 | .000018 | .000200 | . | v | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|-----------|---------|---|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4582 | rR 28 4 -1 | 282.866809 | -0.000117 | .000200 | . | v | . | |
| 4 | 4583 | rR 29 4 -1 | 283.588380 | -0.000138 | .000200 | . | v | . | |
| 5 | 4584 | rR 30 4 -1 | 284.311475 | -0.000109 | .000200 | . | v | . | |
| 6 | 4585 | rR 31 4 -1 | 285.035857 | -0.000282 | .000500 | . | v | . | |
| 7 | 4586 | rR 32 4 -1 | 285.762121 | -0.000069 | .000200 | . | v | . | |
| 8 | 4587 | rR 33 4 -1 | 286.489674 | -0.000069 | .000200 | . | v | . | |
| 9 | 4588 | rR 34 4 -1 | 287.218726 | -0.000072 | .000200 | . | v | . | |
| 10 | 4589 | rR 35 4 -1 | 287.949334 | -0.000018 | .000200 | . | v | . | |
| 11 | 4590 | rR 36 4 -1 | 288.681441 | .000041 | .000200 | . | v | . | |
| 12 | 4591 | rR 37 4 -1 | 289.415181 | .000244 | .000200 | . | x | . | |
| 13 | 4592 | rR 38 4 -1 | 290.148423 | -0.001529 | .002000 | . | v | . | |
| 14 | 4593 | rR 39 4 -1 | 290.886043 | -0.000395 | .001000 | . | v | . | |
| 15 | 4594 | rR 40 4 -1 | 291.624743 | .000360 | .000300 | . | x | . | |
| 16 | 4595 | rR 41 4 -1 | 292.366184 | .002407 | .003000 | . | . | v | |
| 17 | 4596 | rR 42 4 -1 | 293.104221 | -0.000389 | .001000 | . | v | . | |
| 18 | 4597 | rR 43 4 -1 | 293.846828 | -0.000041 | .000200 | . | v | . | |
| 19 | 4598 | rR 44 4 -1 | 294.590335 | -0.000209 | .000500 | . | v | . | |
| 20 | 4599 | rR 45 4 -1 | 295.335490 | -0.000134 | .000300 | . | v | . | |
| 21 | 4600 | rR 46 4 -1 | 296.081954 | -0.000143 | .000300 | . | v | . | |
| 22 | 4601 | rR 47 4 -1 | 296.829870 | -0.000084 | .000200 | . | v | . | |
| 23 | 4602 | rR 48 4 -1 | 297.579118 | -0.000064 | .000200 | . | v | . | |
| 24 | 4603 | rR 49 4 -1 | 298.329624 | -0.000148 | .000200 | . | v | . | |
| 25 | 4604 | rR 50 4 -1 | 299.081629 | -0.000084 | .000200 | . | v | . | |
| 26 | 4605 | rR 51 4 -1 | 299.834899 | -0.000097 | .000200 | . | v | . | |
| 27 | 4606 | rR 52 4 -1 | 300.589283 | -0.000326 | .000200 | . | x | . | |
| 28 | 4607 | rR 53 4 -1 | 301.345322 | -0.000222 | .000200 | . | x | . | |
| 29 | 4608 | rR 54 4 -1 | 302.102608 | -0.000182 | .000200 | . | v | . | |
| 30 | 4609 | rR 55 4 -1 | 302.861231 | -0.000108 | .000200 | . | v | . | |
| 31 | 4610 | rR 56 4 -1 | 303.620915 | -0.000265 | .000200 | . | x | . | |
| 32 | 4611 | rR 57 4 -1 | 304.382185 | -0.000119 | .000200 | . | v | . | |
| 33 | 4612 | rR 58 4 -1 | 305.144479 | -0.000222 | .000200 | . | x | . | |
| 34 | 4613 | rR 59 4 -1 | 305.908090 | -0.000274 | .000200 | . | x | . | |
| 35 | 4614 | rR 60 4 -1 | 306.672985 | -0.000296 | .000200 | . | x | . | |
| 36 | 4615 | rR 61 4 -1 | 307.439362 | -0.000082 | .000200 | . | v | . | |
| 37 | 4616 | rR 62 4 -1 | 308.206623 | -0.000221 | .000200 | . | x | . | |
| 38 | 4617 | rR 63 4 -1 | 308.975382 | -0.000088 | .000200 | . | v | . | |
| 39 | 4618 | rP 7 5 -1 | 257.942702 | -0.002481 | .030000 | . | v | . | |
| 40 | 4619 | rP 8 5 -1 | 257.288746 | -0.001921 | .002000 | . | v | . | |
| 41 | 4620 | rP 9 5 -1 | 256.637842 | -0.000467 | .000200 | . | * | . | |
| 42 | 4621 | rP 10 5 -1 | 255.987686 | -0.000248 | .000200 | . | x | . | |
| 43 | 4622 | rP 11 5 -1 | 255.338849 | -0.000513 | .000200 | . | * | . | |
| 44 | 4623 | rP 12 5 -1 | 254.692555 | .000146 | .001000 | . | v | . | |
| 45 | 4624 | rP 13 5 -1 | 254.046299 | -0.000605 | .000300 | . | * | . | |
| 46 | 4625 | rP 14 5 -1 | 253.402437 | -0.000259 | .000200 | . | x | . | |
| 47 | 4626 | rP 15 5 -1 | 252.759353 | -0.000314 | .000200 | . | x | . | |
| 48 | 4627 | rP 16 5 -1 | 252.117413 | -0.000324 | .000200 | . | x | . | |
| 49 | 4628 | rP 17 5 -1 | 251.476472 | -0.000392 | .000200 | . | x | . | |
| 50 | 4629 | rP 18 5 -1 | 250.836711 | -0.000333 | .000200 | . | x | . | |
| 51 | 4630 | rP 19 5 -1 | 250.198254 | -0.000053 | .000300 | . | v | . | |
| 52 | 4631 | rP 20 5 -1 | 249.560433 | -0.000271 | .000200 | . | x | . | |
| 53 | 4632 | rP 21 5 -1 | 248.923978 | -0.000327 | .000200 | . | x | . | |
| 54 | 4633 | rP 22 5 -1 | 248.289171 | -0.000017 | .000300 | . | v | . | |
| 55 | 4634 | rP 23 5 -1 | 247.655223 | -0.000213 | .000200 | . | x | . | |
| 56 | 4635 | rP 24 5 -1 | 247.022932 | -0.000197 | .000200 | . | v | . | |
| 57 | 4636 | rP 25 5 -1 | 246.392054 | -0.000287 | .000200 | . | x | . | |
| 58 | 4637 | rP 27 5 -1 | 245.135462 | -0.000126 | .000200 | . | v | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|-----------|---------|---|----|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4638 | rP 28 5 -1 | 244.509520 | -0.000216 | .000200 | . | x | . | |
| 4 | 4639 | rP 29 5 -1 | 243.885395 | -0.000231 | .000200 | . | x | . | |
| 5 | 4640 | rP 30 5 -1 | 243.263067 | -0.000227 | .000200 | . | x | . | |
| 6 | 4641 | rP 31 5 -1 | 242.642465 | -0.000302 | .000200 | . | x. | . | |
| 7 | 4642 | rP 32 5 -1 | 242.023850 | -0.000216 | .000200 | . | x | . | |
| 8 | 4643 | rP 33 5 -1 | 241.407031 | -0.000175 | .000200 | . | v | . | |
| 9 | 4644 | rP 34 5 -1 | 240.791952 | -0.000244 | .000200 | . | x | . | |
| 10 | 4645 | rP 35 5 -1 | 240.178792 | -0.000251 | .000200 | . | x. | . | |
| 11 | 4646 | rP 36 5 -1 | 239.567422 | -0.000327 | .000200 | . | x. | . | |
| 12 | 4647 | rP 37 5 -1 | 238.958123 | -0.000190 | .000200 | . | v | . | |
| 13 | 4648 | rP 38 5 -1 | 238.350501 | -0.000232 | .000200 | . | x | . | |
| 14 | 4649 | rP 39 5 -1 | 237.744795 | -0.000208 | .000200 | . | x | . | |
| 15 | 4650 | rP 40 5 -1 | 237.140963 | -0.000155 | .000200 | . | v | . | |
| 16 | 4651 | rP 41 5 -1 | 236.538791 | -0.000282 | .000200 | . | x. | . | |
| 17 | 4652 | rP 42 5 -1 | 235.938627 | -0.000232 | .000200 | . | x | . | |
| 18 | 4653 | rP 43 5 -1 | 235.340234 | -0.000235 | .000200 | . | x | . | |
| 19 | 4654 | rP 44 5 -1 | 234.743721 | -0.000175 | .000200 | . | v | . | |
| 20 | 4655 | rP 45 5 -1 | 234.148927 | -0.000205 | .000200 | . | x | . | |
| 21 | 4656 | rP 46 5 -1 | 233.555881 | -0.000289 | .000200 | . | x. | . | |
| 22 | 4657 | rP 47 5 -1 | 232.964682 | -0.000322 | .000200 | . | x. | . | |
| 23 | 4658 | rP 48 5 -1 | 232.375343 | -0.000282 | .000200 | . | x. | . | |
| 24 | 4659 | rP 49 5 -1 | 231.787746 | -0.000283 | .000200 | . | x. | . | |
| 25 | 4660 | rP 50 5 -1 | 231.201986 | -0.000222 | .000200 | . | x | . | |
| 26 | 4661 | rP 51 5 -1 | 230.617624 | -0.000534 | .000300 | . | x. | . | |
| 27 | 4662 | rP 52 5 -1 | 230.035113 | -0.000760 | .000500 | . | x. | . | |
| 28 | 4663 | rP 53 5 -1 | 229.454958 | -0.000390 | .000200 | . | x. | . | |
| 29 | 4664 | rP 54 5 -1 | 228.877215 | .000637 | .001000 | . | .v | . | |
| 30 | 4665 | rP 55 5 -1 | 228.299433 | -0.000126 | .000300 | . | v | . | |
| 31 | 4666 | rP 56 5 -1 | 227.723932 | -0.000355 | .000200 | . | x. | . | |
| 32 | 4667 | rP 57 5 -1 | 227.150444 | -0.000314 | .000200 | . | x. | . | |
| 33 | 4668 | rP 58 5 -1 | 226.577935 | -0.001033 | .001000 | . | x. | . | |
| 34 | 4669 | rP 59 5 -1 | 226.008674 | -0.000241 | .000200 | . | x | . | |
| 35 | 4670 | rP 60 5 -1 | 225.440154 | -0.000441 | .000300 | . | x. | . | |
| 36 | 4671 | rP 61 5 -1 | 224.873809 | -0.000196 | .000200 | . | v | . | |
| 37 | 4672 | rP 62 5 -1 | 224.309239 | .000098 | .000200 | . | v | . | |
| 38 | 4673 | rR 5 5 -1 | 266.689385 | -0.000305 | .000200 | . | x. | . | |
| 39 | 4674 | rR 6 5 -1 | 267.379881 | -0.000285 | .000200 | . | x. | . | |
| 40 | 4675 | rR 7 5 -1 | 268.072216 | -0.000448 | .000200 | . | * | . | |
| 41 | 4676 | rR 8 5 -1 | 268.766650 | -0.000344 | .000200 | . | x. | . | |
| 42 | 4677 | rR 9 5 -1 | 269.462677 | -0.000280 | .000200 | . | x. | . | |
| 43 | 4678 | rR 10 5 -1 | 270.159934 | -0.000420 | .000200 | . | * | . | |
| 44 | 4679 | rR 11 5 -1 | 270.858501 | -0.000498 | .000200 | . | * | . | |
| 45 | 4680 | rR 12 5 -1 | 271.558602 | -0.000124 | .000700 | . | v | . | |
| 46 | 4681 | rR 13 5 -1 | 272.259493 | .000088 | .000500 | . | v | . | |
| 47 | 4682 | rR 14 5 -1 | 272.960662 | -0.000280 | .000200 | . | x. | . | |
| 48 | 4683 | rR 15 5 -1 | 273.663005 | -0.000282 | .000200 | . | x. | . | |
| 49 | 4684 | rR 16 5 -1 | 274.366098 | -0.000329 | .000200 | . | x. | . | |
| 50 | 4685 | rR 17 5 -1 | 275.070107 | -0.000277 | .000200 | . | x. | . | |
| 51 | 4686 | rR 18 5 -1 | 275.774762 | -0.000443 | .000200 | . | * | . | |
| 52 | 4687 | rR 19 5 -1 | 276.480627 | -0.000329 | .000200 | . | x. | . | |
| 53 | 4688 | rR 20 5 -1 | 277.187427 | -0.000289 | .000200 | . | x. | . | |
| 54 | 4689 | rR 21 5 -1 | 277.895242 | -0.000323 | .000200 | . | x. | . | |
| 55 | 4690 | rR 22 5 -1 | 278.604315 | -0.000270 | .000200 | . | x. | . | |
| 56 | 4691 | rR 23 5 -1 | 279.314637 | -0.000218 | .000200 | . | x | . | |
| 57 | 4692 | rR 24 5 -1 | 280.026156 | -0.000290 | .000200 | . | x. | . | |
| 58 | 4693 | rR 25 5 -1 | 280.739168 | -0.000255 | .000200 | . | x. | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|--|---|----|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4750 | rP 26 6 -1 | 245.792958 | -.000060 | .000500 | | . | v | . |
| 4 | 4751 | rP 27 6 -1 | 245.162856 | -.000298 | .000200 | | . | x. | . |
| 5 | 4752 | rP 28 6 -1 | 244.535903 | .000791 | .002000 | | . | . | v |
| 6 | 4753 | rP 29 6 -1 | 243.908518 | -.000410 | .000200 | | . | * | . |
| 7 | 4754 | rP 30 6 -1 | 243.284330 | -.000303 | .000200 | | . | x. | . |
| 8 | 4755 | rP 31 6 -1 | 242.662000 | -.000248 | .000200 | | . | x | . |
| 9 | 4756 | rP 32 6 -1 | 242.041515 | -.000277 | .000200 | | . | x. | . |
| 10 | 4757 | rP 33 6 -1 | 241.422912 | -.000363 | .000200 | | . | x. | . |
| 11 | 4758 | rP 34 6 -1 | 240.806392 | -.000312 | .000200 | | . | x. | . |
| 12 | 4759 | rP 35 6 -1 | 240.191809 | -.000274 | .000200 | | . | x. | . |
| 13 | 4760 | rP 36 6 -1 | 239.579128 | -.000283 | .000200 | | . | x. | . |
| 14 | 4761 | rP 37 6 -1 | 238.968422 | -.000262 | .000200 | | . | x. | . |
| 15 | 4762 | rP 38 6 -1 | 238.359839 | -.000059 | .000200 | | . | v | . |
| 16 | 4763 | rP 39 6 -1 | 237.752690 | -.000355 | .000200 | | . | x. | . |
| 17 | 4764 | rP 40 6 -1 | 237.147730 | -.000387 | .000200 | | . | x. | . |
| 18 | 4765 | rP 41 6 -1 | 236.544680 | -.000424 | .000200 | | . | * | . |
| 19 | 4766 | rP 42 6 -1 | 235.943631 | -.000364 | .000200 | | . | x. | . |
| 20 | 4767 | rP 43 6 -1 | 235.344580 | -.000201 | .000200 | | . | x | . |
| 21 | 4768 | rP 44 6 -1 | 234.746992 | -.000458 | .000200 | | . | * | . |
| 22 | 4769 | rP 45 6 -1 | 234.151647 | -.000345 | .000200 | | . | x. | . |
| 23 | 4770 | rP 46 6 -1 | 233.557912 | -.000484 | .000200 | | . | * | . |
| 24 | 4771 | rR 6 6 -1 | 267.447974 | -.000242 | .000200 | | . | x | . |
| 25 | 4772 | rR 7 6 -1 | 268.140118 | -.000335 | .000200 | | . | x. | . |
| 26 | 4773 | rR 8 6 -1 | 268.833807 | -.000367 | .000200 | | . | x. | . |
| 27 | 4774 | rR 9 6 -1 | 269.528502 | -.000595 | .000200 | | . | * | . |
| 28 | 4775 | rR 10 6 -1 | 270.225068 | .000102 | .001000 | | . | v | . |
| 29 | 4776 | rR 11 6 -1 | 270.921078 | -.000504 | .000200 | | . | * | . |
| 30 | 4777 | rR 12 6 -1 | 271.618590 | -.000225 | .000200 | | . | x | . |
| 31 | 4778 | rR 13 6 -1 | 272.316328 | -.000279 | .000200 | | . | x. | . |
| 32 | 4779 | rR 14 6 -1 | 273.014512 | -.000452 | .000200 | | . | * | . |
| 33 | 4780 | rR 15 6 -1 | 273.713473 | -.000469 | .000200 | | . | * | . |
| 34 | 4781 | rR 16 6 -1 | 274.413164 | -.000464 | .000200 | | . | * | . |
| 35 | 4782 | rR 17 6 -1 | 275.115859 | .001733 | .003000 | | . | . | v |
| 36 | 4783 | rR 18 6 -1 | 275.815130 | -.000416 | .000200 | | . | * | . |
| 37 | 4784 | rR 19 6 -1 | 276.517616 | -.000379 | .000200 | | . | x. | . |
| 38 | 4785 | rR 20 6 -1 | 277.220878 | -.000696 | .000500 | | . | x. | . |
| 39 | 4786 | rR 21 6 -1 | 277.926044 | -.000332 | .000200 | | . | x. | . |
| 40 | 4787 | rR 22 6 -1 | 278.632313 | -.000170 | .000200 | | . | v | . |
| 41 | 4788 | rR 23 6 -1 | 279.340968 | .000997 | .002000 | | . | . | v |
| 42 | 4789 | rR 24 6 -1 | 280.048324 | -.000580 | .000200 | | . | * | . |
| 43 | 4790 | rR 25 6 -1 | 280.759001 | -.000336 | .000200 | | . | x. | . |
| 44 | 4791 | rR 26 6 -1 | 281.469808 | -.001509 | .002000 | | . | v | . |
| 45 | 4792 | rR 27 6 -1 | 282.184795 | -.000090 | .000200 | | . | v | . |
| 46 | 4793 | rR 28 6 -1 | 282.899768 | -.000305 | .000200 | | . | x. | . |
| 47 | 4794 | rR 29 6 -1 | 283.616413 | -.000491 | .000200 | | . | * | . |
| 48 | 4795 | rR 30 6 -1 | 284.335144 | -.000256 | .000200 | | . | x. | . |
| 49 | 4796 | rR 31 6 -1 | 285.055405 | -.000166 | .000200 | | . | v | . |
| 50 | 4797 | rR 32 6 -1 | 285.777357 | -.000070 | .000200 | | . | v | . |
| 51 | 4798 | rR 33 6 -1 | 286.500704 | -.000265 | .000200 | | . | x. | . |
| 52 | 4799 | rP 9 7 -1 | 256.776285 | -.000556 | .000200 | | . | * | . |
| 53 | 4800 | rP 10 7 -1 | 256.127328 | .002216 | .003000 | | . | . | v |
| 54 | 4801 | rP 11 7 -1 | 255.472871 | -.000676 | .000200 | | . | * | . |
| 55 | 4802 | rP 12 7 -1 | 254.822342 | .000260 | .001000 | | . | . | v |
| 56 | 4803 | rP 13 7 -1 | 254.170550 | -.000308 | .000200 | | . | x. | . |
| 57 | 4804 | rP 14 7 -1 | 253.521042 | .000927 | .002000 | | . | . | v |
| 58 | 4805 | rP 15 7 -1 | 252.870307 | .000205 | .000500 | | . | v | . |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | |
|----|------|-------------|------------|----------|---------|---|----|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | 4916 | rP 34 -1 -1 | 241.509434 | -.000223 | .000200 | . | x | . |
| 4 | 4917 | rP 35 -1 -1 | 240.894232 | -.000216 | .000200 | . | x | . |
| 5 | 4918 | rP 36 -1 -1 | 240.280738 | -.000270 | .000200 | . | x. | . |
| 6 | 4919 | rP 37 -1 -1 | 239.669103 | -.000236 | .000200 | . | x | . |
| 7 | 4920 | rP 38 -1 -1 | 239.059214 | -.000226 | .000200 | . | x | . |
| 8 | 4921 | rP 39 -1 -1 | 238.451313 | .000000 | .000200 | . | v | . |
| 9 | 4922 | rP 40 -1 -1 | 237.844868 | -.000090 | .000200 | . | v | . |
| 10 | 4923 | rP 41 -1 -1 | 237.240315 | -.000060 | .000200 | . | v | . |
| 11 | 4924 | rP 42 -1 -1 | 236.637534 | -.000031 | .000200 | . | v | . |
| 12 | 4925 | rP 43 -1 -1 | 236.036463 | -.000064 | .000200 | . | v | . |
| 13 | 4926 | rP 44 -1 -1 | 235.437229 | -.000033 | .000200 | . | v | . |
| 14 | 4927 | rP 45 -1 -1 | 234.839608 | -.000161 | .000200 | . | v | . |
| 15 | 4928 | rP 46 -1 -1 | 234.244014 | -.000034 | .000200 | . | v | . |
| 16 | 4929 | rP 47 -1 -1 | 233.650082 | -.000017 | .000200 | . | v | . |
| 17 | 4930 | rP 48 -1 -1 | 233.057816 | -.000105 | .000200 | . | v | . |
| 18 | 4931 | rP 49 -1 -1 | 232.467481 | -.000033 | .000200 | . | v | . |
| 19 | 4932 | rP 50 -1 -1 | 231.878954 | .000078 | .000200 | . | v | . |
| 20 | 4933 | rP 51 -1 -1 | 231.291902 | -.000105 | .000200 | . | v | . |
| 21 | 4934 | rP 52 -1 -1 | 230.707031 | .000126 | .000200 | . | v | . |
| 22 | 4935 | rP 53 -1 -1 | 230.123668 | .000097 | .000200 | . | v | . |
| 23 | 4936 | rP 54 -1 -1 | 229.542129 | .000128 | .000200 | . | v | . |
| 24 | 4937 | rP 55 -1 -1 | 228.962633 | .000438 | .000300 | . | x | . |
| 25 | 4938 | rP 56 -1 -1 | 228.384272 | .000121 | .000200 | . | v | . |
| 26 | 4939 | rR 1 -1 -1 | 264.823318 | .002309 | .003000 | . | . | v |
| 27 | 4940 | rR 2 -1 -1 | 265.499389 | -.000867 | .001000 | . | v | . |
| 28 | 4941 | rR 3 -1 -1 | 266.180730 | -.000442 | .000200 | . | * | . |
| 29 | 4942 | rR 4 -1 -1 | 266.863559 | -.000194 | .000200 | . | v | . |
| 30 | 4943 | rR 5 -1 -1 | 267.547849 | -.000147 | .000200 | . | v | . |
| 31 | 4944 | rR 6 -1 -1 | 268.233326 | -.000569 | .000500 | . | x. | . |
| 32 | 4945 | rR 7 -1 -1 | 268.921428 | -.000018 | .000200 | . | v | . |
| 33 | 4946 | rR 8 -1 -1 | 269.610486 | -.000158 | .000200 | . | v | . |
| 34 | 4947 | rR 9 -1 -1 | 270.301348 | -.000137 | .000200 | . | v | . |
| 35 | 4948 | rR 10 -1 -1 | 270.994039 | .000075 | .000200 | . | v | . |
| 36 | 4949 | rR 11 -1 -1 | 271.687945 | -.000130 | .000200 | . | v | . |
| 37 | 4950 | rR 12 -1 -1 | 272.383730 | -.000084 | .000200 | . | v | . |
| 38 | 4951 | rR 13 -1 -1 | 273.081199 | .000023 | .000200 | . | v | . |
| 39 | 4952 | rR 14 -1 -1 | 273.780083 | -.000073 | .000200 | . | v | . |
| 40 | 4953 | rR 15 -1 -1 | 274.480608 | -.000140 | .000200 | . | v | . |
| 41 | 4954 | rR 16 -1 -1 | 275.182651 | -.000296 | .000500 | . | v. | . |
| 42 | 4955 | rR 17 -1 -1 | 275.887066 | .000319 | .000200 | . | x | . |
| 43 | 4956 | rR 18 -1 -1 | 276.592579 | .000435 | .000500 | . | v. | . |
| 44 | 4957 | rR 19 -1 -1 | 277.299060 | -.000071 | .000200 | . | v | . |
| 45 | 4958 | rR 20 -1 -1 | 278.007589 | -.000114 | .000200 | . | v | . |
| 46 | 4959 | rR 21 -1 -1 | 278.718072 | .000219 | .000200 | . | x | . |
| 47 | 4960 | rR 22 -1 -1 | 279.429509 | -.000068 | .000200 | . | v | . |
| 48 | 4961 | rR 23 -1 -1 | 280.143434 | .000566 | .001000 | . | v | . |
| 49 | 4962 | rR 24 -1 -1 | 280.857367 | -.000353 | .000500 | . | v. | . |
| 50 | 4963 | rR 25 -1 -1 | 281.574105 | -.000021 | .000200 | . | v | . |
| 51 | 4964 | rR 26 -1 -1 | 282.292023 | -.000059 | .000200 | . | v | . |
| 52 | 4965 | rR 27 -1 -1 | 283.011425 | -.000154 | .000200 | . | v | . |
| 53 | 4966 | rR 28 -1 -1 | 283.732452 | -.000161 | .000200 | . | v | . |
| 54 | 4967 | rR 29 -1 -1 | 284.454881 | -.000294 | .000200 | . | x. | . |
| 55 | 4968 | rR 30 -1 -1 | 285.179098 | -.000163 | .000200 | . | v | . |
| 56 | 4969 | rR 31 -1 -1 | 285.904762 | -.000100 | .000200 | . | v | . |
| 57 | 4970 | rR 32 -1 -1 | 286.631804 | -.000168 | .000200 | . | v | . |
| 58 | 4971 | rR 33 -1 -1 | 287.360332 | -.000252 | .000200 | . | x. | . |
| 59 | | | | | | | | |
| 60 | | | | | | | | |

| | | | | | | | | | |
|----|------|-------------|------------|-----------|---------|----|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 4972 | rR 34 -1 -1 | 288.090494 | -0.000197 | .000200 | . | v | . | |
| 4 | 4973 | rR 35 -1 -1 | 288.822162 | -0.000124 | .000200 | . | v | . | |
| 5 | 4974 | rR 36 -1 -1 | 289.555168 | -0.000193 | .000200 | . | v | . | |
| 6 | 4975 | rR 37 -1 -1 | 290.289720 | -0.000190 | .000200 | . | v | . | |
| 7 | 4976 | rR 38 -1 -1 | 291.025769 | -0.000155 | .000200 | . | v | . | |
| 8 | 4977 | rR 39 -1 -1 | 291.763239 | -0.000157 | .000200 | . | v | . | |
| 9 | 4978 | rR 40 -1 -1 | 292.502208 | -0.000110 | .000200 | . | v | . | |
| 10 | 4979 | rR 41 -1 -1 | 293.242509 | -0.000174 | .000200 | . | v | . | |
| 11 | 4980 | rR 42 -1 -1 | 293.984367 | -0.000115 | .000200 | . | v | . | |
| 12 | 4981 | rR 43 -1 -1 | 294.727699 | -0.000009 | .000200 | . | v | . | |
| 13 | 4982 | rR 44 -1 -1 | 295.472232 | -0.000120 | .000200 | . | v | . | |
| 14 | 4983 | rR 45 -1 -1 | 296.218230 | -0.000176 | .000200 | . | v | . | |
| 15 | 4984 | rR 46 -1 -1 | 296.965802 | -0.000060 | .000200 | . | v | . | |
| 16 | 4985 | rR 47 -1 -1 | 297.714708 | -0.000002 | .000200 | . | v | . | |
| 17 | 4986 | rR 48 -1 -1 | 298.464952 | .000009 | .000200 | . | v | . | |
| 18 | 4987 | rR 49 -1 -1 | 299.216635 | .000084 | .000200 | . | v | . | |
| 19 | 4988 | rR 50 -1 -1 | 299.969606 | .000080 | .000200 | . | v | . | |
| 20 | 4989 | rR 51 -1 -1 | 300.723933 | .000075 | .000200 | . | v | . | |
| 21 | 4990 | rR 52 -1 -1 | 301.479790 | .000251 | .000200 | . | x | . | |
| 22 | 4991 | rR 53 -1 -1 | 302.236876 | .000318 | .000200 | . | x | . | |
| 23 | 4992 | rP 4 2 1 | 260.857097 | -0.001088 | .002000 | . | v | . | |
| 24 | 4993 | rP 5 2 1 | 260.195694 | .000849 | .001000 | . | v | . | |
| 25 | 4994 | rP 6 2 1 | 259.535174 | .001423 | .002000 | . | v | . | |
| 26 | 4995 | rP 7 2 1 | 258.874718 | -0.000063 | .000200 | . | v | . | |
| 27 | 4996 | rP 8 2 1 | 258.217844 | .000031 | .000200 | . | v | . | |
| 28 | 4997 | rP 9 2 1 | 257.562759 | .000015 | .000200 | . | v | . | |
| 29 | 4998 | rP 10 2 1 | 256.909012 | -0.000487 | .000500 | . | v | . | |
| 30 | 4999 | rP 11 2 1 | 256.257850 | -0.000191 | .000300 | . | v | . | |
| 31 | 5000 | rP 12 2 1 | 255.608465 | .000083 | .000200 | . | v | . | |
| 32 | 5001 | rP 13 2 1 | 254.960543 | -0.000034 | .000200 | . | v | . | |
| 33 | 5002 | rP 14 2 1 | 254.314650 | -0.000071 | .000200 | . | v | . | |
| 34 | 5003 | rP 15 2 1 | 253.670835 | -0.000110 | .000200 | . | v | . | |
| 35 | 5004 | rP 16 2 1 | 253.029143 | -0.000264 | .000500 | . | v | . | |
| 36 | 5005 | rP 17 2 1 | 252.390278 | -0.000013 | .000200 | . | v | . | |
| 37 | 5006 | rP 18 2 1 | 251.753636 | -0.000166 | .000200 | . | v | . | |
| 38 | 5007 | rP 19 2 1 | 251.119994 | -0.000171 | .000200 | . | v | . | |
| 39 | 5008 | rP 20 2 1 | 250.486793 | -0.002826 | .003000 | v. | . | . | |
| 40 | 5009 | rP 21 2 1 | 249.862536 | .000117 | .000200 | . | v | . | |
| 41 | 5010 | rP 22 2 1 | 249.238885 | .000062 | .000200 | . | v | . | |
| 42 | 5011 | rP 23 2 1 | 248.618846 | -0.000240 | .000200 | . | x | . | |
| 43 | 5012 | rP 24 2 1 | 248.003452 | .000004 | .000200 | . | v | . | |
| 44 | 5013 | rR 2 2 1 | 265.571684 | .000156 | .000200 | . | v | . | |
| 45 | 5014 | rR 3 2 1 | 266.255232 | .000050 | .000200 | . | v | . | |
| 46 | 5015 | rR 4 2 1 | 266.941250 | -0.000064 | .000200 | . | v | . | |
| 47 | 5016 | rR 5 2 1 | 267.629753 | -0.000081 | .000200 | . | v | . | |
| 48 | 5017 | rR 6 2 1 | 268.320602 | -0.000031 | .000200 | . | v | . | |
| 49 | 5018 | rR 7 2 1 | 269.013705 | .000108 | .000200 | . | v | . | |
| 50 | 5019 | rR 8 2 1 | 269.708671 | .000061 | .000200 | . | v | . | |
| 51 | 5020 | rR 9 2 1 | 270.405582 | .000005 | .000200 | . | v | . | |
| 52 | 5021 | rR 10 2 1 | 271.104455 | .000021 | .000200 | . | v | . | |
| 53 | 5022 | rR 11 2 1 | 271.805103 | -0.000055 | .000200 | . | v | . | |
| 54 | 5023 | rR 12 2 1 | 272.507801 | .000026 | .000200 | . | v | . | |
| 55 | 5024 | rR 13 2 1 | 273.212452 | .000094 | .000200 | . | v | . | |
| 56 | 5025 | rR 14 2 1 | 273.919019 | -0.000007 | .000200 | . | v | . | |
| 57 | 5026 | rR 15 2 1 | 274.628125 | .000191 | .000200 | . | v | . | |
| 58 | 5027 | rR 16 2 1 | 275.338974 | -0.000298 | .000500 | . | v | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | | | | | |
|------|----|----|---|---|------------|----------|---------|----|
| 5084 | rR | 14 | 3 | 1 | 274.002791 | -.000049 | .000200 | .v |
| 5085 | rR | 15 | 3 | 1 | 274.714717 | .000147 | .000200 | .v |
| 5086 | rR | 16 | 3 | 1 | 275.428725 | .000174 | .000200 | .v |
| 5087 | rR | 18 | 3 | 1 | 276.863807 | .000178 | .000200 | .v |
| 5088 | rR | 19 | 3 | 1 | 277.585089 | .000113 | .000200 | .v |
| 5089 | rR | 20 | 3 | 1 | 278.309028 | -.000041 | .000200 | .v |
| 5090 | rR | 21 | 3 | 1 | 279.034633 | -.001452 | .002000 | .v |
| 5091 | rR | 22 | 3 | 1 | 279.766168 | -.000049 | .000200 | .v |
| 5092 | rR | 23 | 3 | 1 | 280.498629 | -.001034 | .002000 | .v |
| 5093 | rR | 24 | 3 | 1 | 281.236488 | -.000135 | .000200 | .v |
| 5094 | rR | 25 | 3 | 1 | 281.977166 | -.000124 | .000200 | .v |
| 5095 | rR | 26 | 3 | 1 | 282.721044 | -.000797 | .001000 | .v |
| 5096 | rR | 27 | 3 | 1 | 283.470184 | -.000250 | .000200 | .x |
| 5097 | rR | 28 | 3 | 1 | 284.222971 | -.000231 | .000200 | .x |
| 5098 | rR | 29 | 3 | 1 | 284.979913 | -.000333 | .000200 | .x |
| 5099 | rR | 30 | 3 | 1 | 285.741361 | -.000275 | .000200 | .x |
| 5100 | rR | 31 | 3 | 1 | 286.507146 | -.000264 | .000200 | .x |
| 5101 | rR | 32 | 3 | 1 | 287.277287 | -.000292 | .000200 | .x |
| 5102 | rR | 33 | 3 | 1 | 288.051842 | -.000284 | .000200 | .x |
| 5103 | rR | 34 | 3 | 1 | 288.830413 | -.000603 | .000300 | .* |
| 5104 | rR | 35 | 3 | 1 | 289.613835 | -.000363 | .000200 | .x |
| 5105 | rR | 36 | 3 | 1 | 290.401703 | .000093 | .000500 | .v |
| 5106 | rR | 37 | 3 | 1 | 291.192832 | -.000348 | .000200 | .x |
| 5107 | rR | 38 | 3 | 1 | 291.988631 | -.000206 | .000200 | .x |
| 5108 | rP | 6 | 4 | 1 | 259.668453 | .000068 | .000200 | .v |
| 5109 | rP | 7 | 4 | 1 | 259.010992 | .000267 | .000200 | .x |
| 5110 | rP | 8 | 4 | 1 | 258.355803 | .000247 | .000200 | .x |
| 5111 | rP | 9 | 4 | 1 | 257.702968 | .000125 | .000200 | .v |
| 5112 | rP | 10 | 4 | 1 | 257.053423 | .000874 | .001000 | .v |
| 5113 | rP | 11 | 4 | 1 | 256.404742 | .000104 | .000200 | .v |
| 5114 | rP | 12 | 4 | 1 | 255.759116 | .000039 | .000200 | .v |
| 5115 | rP | 13 | 4 | 1 | 255.117282 | .001445 | .002000 | .v |
| 5116 | rP | 14 | 4 | 1 | 254.474728 | -.000170 | .000500 | .v |
| 5117 | rP | 15 | 4 | 1 | 253.836386 | .000136 | .000200 | .v |
| 5118 | rP | 16 | 4 | 1 | 253.200014 | .000117 | .000200 | .v |
| 5119 | rP | 17 | 4 | 1 | 252.566250 | .000392 | .000300 | .x |
| 5120 | rP | 18 | 4 | 1 | 251.936295 | .002122 | .002000 | .x |
| 5121 | rP | 19 | 4 | 1 | 251.305077 | .000178 | .000200 | .v |
| 5122 | rP | 20 | 4 | 1 | 250.679847 | .001736 | .002000 | .v |
| 5123 | rP | 21 | 4 | 1 | 250.054363 | .000456 | .000500 | .v |
| 5124 | rP | 22 | 4 | 1 | 249.432614 | .000214 | .000200 | .x |
| 5125 | rP | 23 | 4 | 1 | 248.814016 | .000292 | .000200 | .x |
| 5126 | rP | 24 | 4 | 1 | 248.197980 | -.000042 | .000200 | .v |
| 5127 | rP | 25 | 4 | 1 | 247.585714 | .000261 | .000200 | .x |
| 5128 | rP | 26 | 4 | 1 | 246.976384 | .000201 | .000200 | .x |
| 5129 | rP | 27 | 4 | 1 | 246.370378 | -.000003 | .000200 | .v |
| 5130 | rP | 28 | 4 | 1 | 245.768210 | -.000008 | .000200 | .v |
| 5131 | rP | 29 | 4 | 1 | 245.169979 | .000118 | .000200 | .v |
| 5132 | rP | 30 | 4 | 1 | 244.575707 | .000240 | .000300 | .v |
| 5133 | rP | 31 | 4 | 1 | 243.985034 | -.000148 | .000200 | .v |
| 5134 | rP | 32 | 4 | 1 | 243.399331 | .000198 | .000500 | .v |
| 5135 | rP | 33 | 4 | 1 | 242.817151 | -.000278 | .000200 | .x |
| 5136 | rP | 34 | 4 | 1 | 242.239997 | -.000159 | .000200 | .v |
| 5137 | rP | 35 | 4 | 1 | 241.667150 | -.000229 | .000200 | .x |
| 5138 | rP | 36 | 4 | 1 | 241.098944 | -.000193 | .000200 | .v |
| 5139 | rP | 37 | 4 | 1 | 240.535341 | -.000110 | .000300 | .v |

| | | | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|--|---|----|----|--|
| 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | 5140 | rP | 38 | 4 | 1 | 239.976217 | -.000104 | .000500 | | . | v | . | |
| 4 | 5141 | rP | 39 | 4 | 1 | 239.421195 | -.000536 | .000200 | | . | * | . | |
| 5 | 5142 | rP | 40 | 4 | 1 | 238.871288 | -.000364 | .000200 | | . | x. | . | |
| 6 | 5143 | rR | 4 | 4 | 1 | 267.073689 | .000162 | .000200 | | . | v | . | |
| 7 | 5144 | rR | 5 | 4 | 1 | 267.762556 | .000131 | .000200 | | . | v | . | |
| 8 | 5145 | rR | 6 | 4 | 1 | 268.453998 | .000102 | .000200 | | . | v | . | |
| 9 | 5146 | rR | 7 | 4 | 1 | 269.148037 | .000123 | .000200 | | . | v | . | |
| 10 | 5147 | rR | 8 | 4 | 1 | 269.844589 | .000139 | .000200 | | . | v | . | |
| 11 | 5148 | rR | 9 | 4 | 1 | 270.543635 | .000163 | .000200 | | . | v | . | |
| 12 | 5149 | rR | 10 | 4 | 1 | 271.245114 | .000167 | .000200 | | . | v | . | |
| 13 | 5150 | rR | 11 | 4 | 1 | 271.949023 | .000180 | .000200 | | . | v | . | |
| 14 | 5151 | rR | 12 | 4 | 1 | 272.655365 | .000235 | .000200 | | . | x | . | |
| 15 | 5152 | rR | 13 | 4 | 1 | 273.363657 | -.000128 | .000300 | | . | v | . | |
| 16 | 5153 | rR | 14 | 4 | 1 | 274.074905 | .000112 | .000200 | | . | v | . | |
| 17 | 5154 | rR | 15 | 4 | 1 | 274.788440 | .000290 | .000200 | | . | .x | . | |
| 18 | 5155 | rR | 16 | 4 | 1 | 275.504003 | .000137 | .000200 | | . | v | . | |
| 19 | 5156 | rR | 17 | 4 | 1 | 276.222088 | .000120 | .000200 | | . | v | . | |
| 20 | 5157 | rR | 18 | 4 | 1 | 276.942141 | -.000360 | .001000 | | . | v. | . | |
| 21 | 5158 | rR | 19 | 4 | 1 | 277.665834 | .000303 | .000200 | | . | .x | . | |
| 22 | 5159 | rR | 20 | 4 | 1 | 278.391336 | .000195 | .000200 | | . | v | . | |
| 23 | 5160 | rR | 21 | 4 | 1 | 279.119585 | .000149 | .000200 | | . | v | . | |
| 24 | 5161 | rR | 22 | 4 | 1 | 279.850601 | .000065 | .000200 | | . | v | . | |
| 25 | 5162 | rR | 23 | 4 | 1 | 280.584718 | .000143 | .000200 | | . | v | . | |
| 26 | 5163 | rR | 24 | 4 | 1 | 281.321705 | .000004 | .000200 | | . | v | . | |
| 27 | 5164 | rR | 25 | 4 | 1 | 282.062200 | .000133 | .000200 | | . | v | . | |
| 28 | 5165 | rR | 26 | 4 | 1 | 282.805865 | .000035 | .000200 | | . | v | . | |
| 29 | 5166 | rR | 27 | 4 | 1 | 283.553153 | .000008 | .000200 | | . | v | . | |
| 30 | 5167 | rR | 28 | 4 | 1 | 284.304190 | .000031 | .000200 | | . | v | . | |
| 31 | 5168 | rR | 29 | 4 | 1 | 285.058912 | -.000097 | .000200 | | . | v | . | |
| 32 | 5169 | rR | 30 | 4 | 1 | 285.817789 | -.000027 | .000200 | | . | v | . | |
| 33 | 5170 | rR | 31 | 4 | 1 | 286.580531 | -.000149 | .000200 | | . | v | . | |
| 34 | 5171 | rR | 32 | 4 | 1 | 287.347378 | -.000304 | .000200 | | . | x. | . | |
| 35 | 5172 | rR | 33 | 4 | 1 | 288.118689 | -.000191 | .000200 | | . | v | . | |
| 36 | 5173 | rR | 34 | 4 | 1 | 288.893997 | -.000312 | .000200 | | . | x. | . | |
| 37 | 5174 | rR | 35 | 4 | 1 | 289.673616 | -.000366 | .000200 | | . | x. | . | |
| 38 | 5175 | rR | 36 | 4 | 1 | 290.457396 | -.000499 | .000200 | | . | * | . | |
| 39 | 5176 | rR | 37 | 4 | 1 | 291.245611 | -.000414 | .000200 | | . | * | . | |
| 40 | 5177 | rR | 38 | 4 | 1 | 292.037937 | -.000399 | .000200 | | . | x. | . | |
| 41 | 5178 | rR | 39 | 4 | 1 | 292.834279 | -.000505 | .000200 | | . | * | . | |
| 42 | 5179 | rR | 40 | 4 | 1 | 293.634873 | -.000439 | .000200 | | . | * | . | |
| 43 | 5180 | rR | 41 | 4 | 1 | 294.439419 | -.000443 | .000200 | | . | * | . | |
| 44 | 5181 | rR | 42 | 4 | 1 | 295.247890 | -.000482 | .000200 | | . | * | . | |
| 45 | 5182 | rR | 43 | 4 | 1 | 296.060281 | -.000494 | .000200 | | . | * | . | |
| 46 | 5183 | rR | 44 | 4 | 1 | 296.876624 | -.000386 | .000200 | | . | x. | . | |
| 47 | 5184 | rR | 45 | 4 | 1 | 297.696601 | -.000409 | .000200 | | . | * | . | |
| 48 | 5185 | rR | 46 | 4 | 1 | 298.520293 | -.000423 | .000200 | | . | * | . | |
| 49 | 5186 | rR | 47 | 4 | 1 | 299.347639 | -.000427 | .000200 | | . | * | . | |
| 50 | 5187 | rR | 48 | 4 | 1 | 300.178672 | -.000331 | .000200 | | . | x. | . | |
| 51 | 5188 | rR | 49 | 4 | 1 | 301.013130 | -.000342 | .000200 | | . | x. | . | |
| 52 | 5189 | rR | 50 | 4 | 1 | 301.851348 | -.000072 | .000200 | | . | v | . | |
| 53 | 5190 | rR | 51 | 4 | 1 | 302.692756 | -.000042 | .000200 | | . | v | . | |
| 54 | 5191 | rR | 52 | 4 | 1 | 303.537405 | -.000152 | .000200 | | . | v | . | |
| 55 | 5192 | rR | 53 | 4 | 1 | 304.385525 | -.000126 | .000200 | | . | v | . | |
| 56 | 5193 | rP | 7 | 5 | 1 | 259.077845 | .001825 | .002000 | | . | . | v. | |
| 57 | 5194 | rP | 8 | 5 | 1 | 258.419938 | -.001260 | .002000 | | . | v | . | |
| 58 | 5195 | rP | 9 | 5 | 1 | 257.769027 | .000111 | .000200 | | . | v | . | |
| 59 | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | | | | | | | | |
|------|----|----|---|---|------------|----------|---------|--|---|----|----|
| 5196 | rP | 10 | 5 | 1 | 257.119347 | .000195 | .000200 | | . | v | . |
| 5197 | rP | 11 | 5 | 1 | 256.472145 | .000260 | .000200 | | . | .x | . |
| 5198 | rP | 12 | 5 | 1 | 255.827078 | -.000015 | .000200 | | . | v | . |
| 5199 | rP | 13 | 5 | 1 | 255.184803 | .000046 | .000200 | | . | v | . |
| 5200 | rP | 14 | 5 | 1 | 254.546768 | .001906 | .002000 | | . | . | v. |
| 5201 | rP | 17 | 5 | 1 | 252.638981 | -.000777 | .001000 | | . | v. | . |
| 5202 | rP | 18 | 5 | 1 | 252.010791 | .001188 | .001000 | | . | .x | . |
| 5203 | rP | 19 | 5 | 1 | 251.382184 | .000259 | .000200 | | . | .x | . |
| 5204 | rP | 20 | 5 | 1 | 250.756889 | .000124 | .000200 | | . | v | . |
| 5205 | rP | 21 | 5 | 1 | 250.134335 | .000155 | .000200 | | . | v | . |
| 5206 | rP | 22 | 5 | 1 | 249.514300 | .000061 | .000200 | | . | v | . |
| 5207 | rP | 23 | 5 | 1 | 248.896995 | -.000033 | .000200 | | . | v | . |
| 5208 | rP | 24 | 5 | 1 | 248.282912 | .000267 | .000200 | | . | .x | . |
| 5209 | rP | 25 | 5 | 1 | 247.671340 | .000138 | .000200 | | . | v | . |
| 5210 | rP | 26 | 5 | 1 | 247.063203 | .000383 | .000200 | | . | .x | . |
| 5211 | rP | 27 | 5 | 1 | 246.457847 | .000216 | .000200 | | . | x | . |
| 5212 | rQ | 6 | 5 | 1 | 263.787174 | -.000479 | .001000 | | . | v. | . |
| 5213 | rQ | 7 | 5 | 1 | 263.808553 | .002554 | .003000 | | . | . | v |
| 5214 | rQ | 8 | 5 | 1 | 263.826541 | -.000373 | .001000 | | . | v. | . |
| 5215 | rQ | 9 | 5 | 1 | 263.849913 | -.000467 | .001000 | | . | v. | . |
| 5216 | rQ | 10 | 5 | 1 | 263.876133 | -.000242 | .000500 | | . | v | . |
| 5217 | rQ | 11 | 5 | 1 | 263.904917 | .000038 | .000200 | | . | v | . |
| 5218 | rQ | 12 | 5 | 1 | 263.936880 | .001007 | .001000 | | . | .x | . |
| 5219 | rQ | 13 | 5 | 1 | 263.971596 | .002257 | .003000 | | . | . | v |
| 5220 | rQ | 14 | 5 | 1 | 264.007654 | .002391 | .003000 | | . | . | v |
| 5221 | rQ | 15 | 5 | 1 | 264.043699 | .000062 | .000200 | | . | v | . |
| 5222 | rQ | 16 | 5 | 1 | 264.084754 | .000297 | .000200 | | . | .x | . |
| 5223 | rQ | 17 | 5 | 1 | 264.127761 | .000028 | .000200 | | . | v | . |
| 5224 | rQ | 18 | 5 | 1 | 264.173899 | .000418 | .000500 | | . | .v | . |
| 5225 | rQ | 19 | 5 | 1 | 264.222011 | .000279 | .000200 | | . | .x | . |
| 5226 | rQ | 20 | 5 | 1 | 264.272494 | -.000035 | .000300 | | . | v | . |
| 5227 | rQ | 21 | 5 | 1 | 264.326059 | .000129 | .000200 | | . | v | . |
| 5228 | rQ | 22 | 5 | 1 | 264.383605 | .001599 | .002000 | | . | . | v. |
| 5229 | rQ | 23 | 5 | 1 | 264.440847 | .000002 | .000200 | | . | v | . |
| 5230 | rQ | 24 | 5 | 1 | 264.502199 | -.000346 | .001000 | | . | v. | . |
| 5231 | rQ | 25 | 5 | 1 | 264.567215 | -.000002 | .000200 | | . | v | . |
| 5232 | rQ | 26 | 5 | 1 | 264.635029 | .000047 | .000200 | | . | v | . |
| 5233 | rQ | 27 | 5 | 1 | 264.705831 | -.000138 | .000500 | | . | v | . |
| 5234 | rQ | 28 | 5 | 1 | 264.780218 | -.000091 | .000300 | | . | v | . |
| 5235 | rQ | 29 | 5 | 1 | 264.858481 | .000344 | .000200 | | . | .x | . |
| 5236 | rQ | 30 | 5 | 1 | 264.939912 | .000327 | .000200 | | . | .x | . |
| 5237 | rQ | 31 | 5 | 1 | 265.024679 | -.000100 | .000200 | | . | v | . |
| 5238 | rQ | 32 | 5 | 1 | 265.113846 | .000009 | .000200 | | . | v | . |
| 5239 | rQ | 33 | 5 | 1 | 265.206598 | -.000267 | .000300 | | . | v. | . |
| 5240 | rQ | 34 | 5 | 1 | 265.303794 | -.000161 | .000200 | | . | v | . |
| 5241 | rQ | 35 | 5 | 1 | 265.404982 | -.000203 | .000200 | | . | x | . |
| 5242 | rQ | 36 | 5 | 1 | 265.510147 | -.000468 | .000300 | | . | x. | . |
| 5243 | rQ | 37 | 5 | 1 | 265.620305 | .000019 | .000300 | | . | v | . |
| 5244 | rQ | 38 | 5 | 1 | 265.734130 | -.000096 | .000300 | | . | v | . |
| 5245 | rQ | 39 | 5 | 1 | 265.852173 | -.000272 | .000200 | | . | x. | . |
| 5246 | rQ | 40 | 5 | 1 | 265.974895 | -.000044 | .000500 | | . | v | . |
| 5247 | rQ | 41 | 5 | 1 | 266.100967 | -.000725 | .000500 | | . | x. | . |
| 5248 | rQ | 42 | 5 | 1 | 266.232262 | -.000414 | .000200 | | . | * | . |
| 5249 | rQ | 43 | 5 | 1 | 266.367485 | -.000371 | .000200 | | . | x. | . |
| 5250 | rQ | 44 | 5 | 1 | 266.506789 | -.000401 | .000500 | | . | v. | . |
| 5251 | rR | 5 | 5 | 1 | 267.826344 | .000200 | .000200 | | . | v | . |

| | | | | | | | | | | | | |
|----|------|----|----|---|---|------------|----------|---------|--|---|---|---|
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | 5252 | rR | 6 | 5 | 1 | 268.517772 | .000140 | .000200 | | . | v | . |
| 4 | 5253 | rR | 7 | 5 | 1 | 269.211908 | .000193 | .000200 | | . | v | . |
| 5 | 5254 | rR | 8 | 5 | 1 | 269.908556 | .000178 | .000200 | | . | v | . |
| 6 | 5255 | rR | 9 | 5 | 1 | 270.607869 | .000267 | .000200 | | . | x | . |
| 7 | 5256 | rR | 10 | 5 | 1 | 271.309571 | .000201 | .000200 | | . | x | . |
| 8 | 5257 | rR | 11 | 5 | 1 | 272.013854 | .000194 | .000200 | | . | v | . |
| 9 | 5258 | rR | 12 | 5 | 1 | 272.721333 | .000877 | .001000 | | . | v | . |
| 10 | 5259 | rR | 13 | 5 | 1 | 273.429978 | .000237 | .000200 | | . | x | . |
| 11 | 5260 | rR | 14 | 5 | 1 | 274.141781 | .000279 | .000200 | | . | x | . |
| 12 | 5261 | rR | 15 | 5 | 1 | 274.855881 | .000149 | .000200 | | . | v | . |
| 13 | 5262 | rR | 16 | 5 | 1 | 275.572740 | .000308 | .000200 | | . | x | . |
| 14 | 5263 | rR | 17 | 5 | 1 | 276.291805 | .000194 | .000200 | | . | v | . |
| 15 | 5264 | rR | 18 | 5 | 1 | 277.013498 | .000210 | .000200 | | . | x | . |
| 16 | 5265 | rR | 19 | 5 | 1 | 277.737681 | .000186 | .000200 | | . | v | . |
| 17 | 5266 | rR | 20 | 5 | 1 | 278.465665 | .001386 | .002000 | | . | v | . |
| 18 | 5267 | rR | 21 | 5 | 1 | 279.193839 | .000142 | .000200 | | . | v | . |
| 19 | 5268 | rR | 22 | 5 | 1 | 279.925916 | .000093 | .000200 | | . | v | . |
| 20 | 5269 | rR | 23 | 5 | 1 | 280.661019 | .000274 | .000200 | | . | x | . |
| 21 | 5270 | rR | 24 | 5 | 1 | 281.397980 | -.000580 | .001000 | | . | v | . |
| 22 | 5271 | rR | 25 | 5 | 1 | 282.137389 | -.001990 | .003000 | | . | v | . |
| 23 | 5272 | rR | 26 | 5 | 1 | 282.883668 | .000348 | .000200 | | . | x | . |
| 24 | 5273 | rR | 27 | 5 | 1 | 283.630612 | .000106 | .000200 | | . | v | . |
| 25 | 5274 | rR | 28 | 5 | 1 | 284.381213 | .000151 | .000200 | | . | v | . |
| 26 | 5275 | rR | 29 | 5 | 1 | 285.134923 | -.000190 | .000500 | | . | v | . |
| 27 | 5276 | rR | 30 | 5 | 1 | 285.892796 | .000018 | .000200 | | . | v | . |
| 28 | 5277 | rR | 31 | 5 | 1 | 286.654120 | -.000051 | .000200 | | . | v | . |
| 29 | 5278 | rR | 32 | 5 | 1 | 287.419387 | -.000004 | .000200 | | . | v | . |
| 30 | 5279 | rR | 33 | 5 | 1 | 288.188511 | -.000016 | .000200 | | . | v | . |
| 31 | 5280 | rR | 34 | 5 | 1 | 288.961399 | -.000253 | .000200 | | . | x | . |
| 32 | 5281 | rR | 35 | 5 | 1 | 289.738570 | -.000251 | .000200 | | . | x | . |
| 33 | 5282 | rR | 36 | 5 | 1 | 290.519821 | -.000253 | .000200 | | . | x | . |
| 34 | 5283 | rR | 37 | 5 | 1 | 291.305459 | .000025 | .000500 | | . | v | . |
| 35 | 5284 | rR | 38 | 5 | 1 | 292.094536 | -.000371 | .000200 | | . | x | . |
| 36 | 5285 | rR | 39 | 5 | 1 | 292.888074 | -.000413 | .000200 | | . | * | . |
| 37 | 5286 | rR | 40 | 5 | 1 | 293.685470 | -.000684 | .000500 | | . | x | . |
| 38 | 5287 | rR | 41 | 5 | 1 | 294.487695 | -.000183 | .000200 | | . | v | . |
| 39 | 5288 | rR | 42 | 5 | 1 | 295.293279 | -.000341 | .000200 | | . | x | . |
| 40 | 5289 | rP | 10 | 6 | 1 | 257.184840 | -.000057 | .000200 | | . | v | . |
| 41 | 5290 | rP | 11 | 6 | 1 | 256.537495 | -.000601 | .001000 | | . | v | . |
| 42 | 5291 | rP | 12 | 6 | 1 | 255.894107 | .000259 | .000200 | | . | x | . |
| 43 | 5292 | rP | 13 | 6 | 1 | 255.252351 | .000210 | .000200 | | . | x | . |
| 44 | 5293 | rP | 14 | 6 | 1 | 254.611560 | -.001407 | .002000 | | . | v | . |
| 45 | 5294 | rP | 16 | 6 | 1 | 253.342525 | .000334 | .000200 | | . | x | . |
| 46 | 5295 | rP | 17 | 6 | 1 | 252.711223 | .000633 | .000500 | | . | x | . |
| 47 | 5296 | rP | 18 | 6 | 1 | 252.081453 | -.000070 | .000300 | | . | v | . |
| 48 | 5297 | rP | 19 | 6 | 1 | 251.455085 | .000077 | .000200 | | . | v | . |
| 49 | 5298 | rP | 20 | 6 | 1 | 250.831381 | .000312 | .000200 | | . | x | . |
| 50 | 5299 | rP | 21 | 6 | 1 | 250.210137 | .000396 | .000300 | | . | x | . |
| 51 | 5300 | rP | 22 | 6 | 1 | 249.591464 | .000394 | .000300 | | . | x | . |
| 52 | 5301 | rP | 23 | 6 | 1 | 248.975408 | .000295 | .000200 | | . | x | . |
| 53 | 5302 | rP | 24 | 6 | 1 | 248.362138 | .000201 | .000200 | | . | x | . |
| 54 | 5303 | rP | 25 | 6 | 1 | 247.751782 | .000160 | .000200 | | . | v | . |
| 55 | 5304 | rP | 26 | 6 | 1 | 247.146197 | .001941 | .002000 | | . | v | . |
| 56 | 5305 | rP | 27 | 6 | 1 | 246.540739 | .000801 | .001000 | | . | v | . |
| 57 | 5306 | rP | 28 | 6 | 1 | 245.939047 | .000273 | .000200 | | . | x | . |
| 58 | 5307 | rP | 29 | 6 | 1 | 245.340253 | -.000624 | .001000 | | . | v | . |
| 59 | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | |

| | | | | | | | |
|----|------|-------|-----|------------|----------|---------|--------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | 5308 | rP 30 | 6 1 | 244.746666 | .000302 | .000200 | . .X . |
| 4 | 5309 | rP 31 | 6 1 | 244.155524 | .000170 | .000200 | . .v . |
| 5 | 5310 | rP 32 | 6 1 | 243.566895 | -.001072 | .002000 | . .v . |
| 6 | 5311 | rP 33 | 6 1 | 242.984237 | -.000081 | .000200 | . .v . |
| 7 | 5312 | rP 34 | 6 1 | 242.404785 | .000266 | .000300 | . .v . |
| 8 | 5313 | rP 35 | 6 1 | 241.828741 | .000069 | .000200 | . .v . |
| 9 | 5314 | rP 36 | 6 1 | 241.257036 | .000162 | .000200 | . .v . |
| 10 | 5315 | rP 37 | 6 1 | 240.689260 | .000055 | .000200 | . .v . |
| 11 | 5316 | rP 38 | 6 1 | 240.125713 | -.000025 | .000200 | . .v . |
| 12 | 5317 | rR 6 | 6 1 | 268.580623 | .000200 | .000200 | . .v . |
| 13 | 5318 | rR 7 | 6 1 | 269.274669 | .000187 | .000200 | . .v . |
| 14 | 5319 | rR 8 | 6 1 | 269.971362 | .000206 | .000200 | . .x . |
| 15 | 5320 | rR 9 | 6 1 | 270.670534 | .000099 | .000200 | . .v . |
| 16 | 5321 | rR 10 | 6 1 | 271.372533 | .000224 | .000200 | . .x . |
| 17 | 5322 | rR 11 | 6 1 | 272.076949 | .000183 | .000200 | . .v . |
| 18 | 5323 | rR 12 | 6 1 | 272.783965 | .000170 | .000200 | . .v . |
| 19 | 5324 | rR 13 | 6 1 | 273.493598 | .000210 | .000200 | . .x . |
| 20 | 5325 | rR 14 | 6 1 | 274.205717 | .000181 | .000200 | . .v . |
| 21 | 5326 | rR 15 | 6 1 | 274.920423 | .000189 | .000200 | . .v . |
| 22 | 5327 | rR 16 | 6 1 | 275.637740 | .000258 | .000200 | . .x . |
| 23 | 5328 | rR 17 | 6 1 | 276.357477 | .000194 | .000200 | . .v . |
| 24 | 5329 | rR 18 | 6 1 | 277.079809 | .000160 | .000200 | . .v . |
| 25 | 5330 | rR 19 | 6 1 | 277.804900 | .000302 | .000200 | . .x . |
| 26 | 5331 | rR 20 | 6 1 | 278.532141 | -.000016 | .000200 | . .v . |
| 27 | 5332 | rR 21 | 6 1 | 279.262633 | .000272 | .000200 | . .x . |
| 28 | 5333 | rR 22 | 6 1 | 279.995088 | -.000171 | .000500 | . .v . |
| 29 | 5334 | rR 23 | 6 1 | 280.731052 | .000146 | .000200 | . .v . |
| 30 | 5335 | rR 24 | 6 1 | 281.469808 | .000439 | .000500 | . .v . |
| 31 | 5336 | rR 25 | 6 1 | 282.210924 | .000197 | .000200 | . .v . |
| 32 | 5337 | rR 26 | 6 1 | 282.955131 | .000068 | .000200 | . .v . |
| 33 | 5338 | rR 27 | 6 1 | 283.702428 | -.000044 | .000200 | . .v . |
| 34 | 5339 | rR 28 | 6 1 | 284.453464 | .000413 | .000500 | . .v . |
| 35 | 5340 | rR 29 | 6 1 | 285.206937 | .000034 | .000200 | . .v . |
| 36 | 5341 | rR 30 | 6 1 | 285.964033 | -.000097 | .000200 | . .v . |
| 37 | 5342 | rR 31 | 6 1 | 286.723780 | -.001055 | .002000 | . .v . |
| 38 | 5343 | rR 32 | 6 1 | 287.489142 | .000027 | .000200 | . .v . |
| 39 | 5344 | rR 33 | 6 1 | 288.257061 | -.000002 | .000200 | . .v . |
| 40 | 5345 | rR 34 | 6 1 | 289.029770 | .001009 | .002000 | . .v . |
| 41 | 5346 | rR 35 | 6 1 | 289.804451 | .000169 | .000300 | . .v . |
| 42 | 5347 | rR 36 | 6 1 | 290.583581 | -.000108 | .000200 | . .v . |
| 43 | 5348 | rR 37 | 6 1 | 291.366791 | -.000239 | .000200 | . .x . |
| 44 | 5349 | rR 38 | 6 1 | 292.154053 | -.000288 | .000200 | . .x . |
| 45 | 5350 | rR 39 | 6 1 | 292.945585 | -.000061 | .000200 | . .v . |
| 46 | 5351 | rR 40 | 6 1 | 293.740592 | -.000362 | .000500 | . .v . |
| 47 | 5352 | rR 41 | 6 1 | 294.539970 | -.000294 | .000200 | . .x . |
| 48 | 5353 | rR 42 | 6 1 | 295.342787 | -.000778 | .000500 | . .x . |
| 49 | 5354 | rR 43 | 6 1 | 296.150639 | -.000197 | .000200 | . .v . |
| 50 | 5355 | rR 44 | 6 1 | 296.961607 | -.000440 | .000200 | . *. . |
| 51 | 5356 | rP 9 | 7 1 | 257.900935 | -.000206 | .000500 | . .v . |
| 52 | 5357 | rP 10 | 7 1 | 257.251705 | -.000412 | .001000 | . .v . |
| 53 | 5358 | rP 11 | 7 1 | 256.606423 | .000721 | .001000 | . .v . |
| 54 | 5359 | rP 12 | 7 1 | 255.961374 | -.000515 | .001000 | . .v . |
| 55 | 5360 | rP 13 | 7 1 | 255.320450 | -.000223 | .000500 | . .v . |
| 56 | 5361 | rP 14 | 7 1 | 254.682479 | .000429 | .000500 | . .v . |
| 57 | 5362 | rP 15 | 7 1 | 254.046299 | .000283 | .000200 | . .x . |
| 58 | 5363 | rP 16 | 7 1 | 253.412802 | .000231 | .000200 | . .x . |
| 59 | | | | | | | |
| 60 | | | | | | | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

| | | | | | | | | | | | |
|------|----|----|---|---|------------|----------|---------|----|----|---|---|
| 5420 | rR | 41 | 7 | 1 | 294.596303 | .000852 | .002000 | . | . | v | . |
| 5421 | rR | 42 | 7 | 1 | 295.396274 | -.000385 | .000200 | . | x. | . | . |
| 5422 | rR | 43 | 7 | 1 | 296.201455 | -.000325 | .000200 | . | x. | . | . |
| 5423 | rR | 44 | 7 | 1 | 297.010424 | -.000381 | .000200 | . | x. | . | . |
| 5424 | rR | 45 | 7 | 1 | 297.823310 | -.000407 | .000200 | . | * | . | . |
| 5425 | rR | 46 | 7 | 1 | 298.640081 | -.000412 | .000200 | . | * | . | . |
| 5426 | rR | 47 | 7 | 1 | 299.460565 | -.000539 | .000200 | . | * | . | . |
| 5427 | rR | 48 | 7 | 1 | 300.284918 | -.000598 | .000200 | . | * | . | . |
| 5428 | rR | 49 | 7 | 1 | 301.113154 | -.000536 | .000200 | . | * | . | . |
| 5429 | rR | 50 | 7 | 1 | 301.945013 | -.000572 | .000200 | . | * | . | . |
| 5430 | rR | 51 | 7 | 1 | 302.780728 | -.000429 | .000200 | . | * | . | . |
| 5431 | rR | 52 | 7 | 1 | 303.619867 | -.000494 | .000200 | . | * | . | . |
| 5432 | rP | 39 | 8 | 1 | 239.735323 | -.000398 | .000200 | . | x. | . | . |
| 5433 | rP | 41 | 8 | 1 | 238.624318 | -.000054 | .000200 | . | v | . | . |
| 5434 | rP | 42 | 8 | 1 | 238.071724 | -.003079 | .003000 | x. | . | . | . |
| 5435 | rP | 43 | 8 | 1 | 237.528931 | -.000434 | .000200 | . | * | . | . |
| 5436 | rP | 44 | 8 | 1 | 236.987679 | -.000417 | .000200 | . | * | . | . |
| 5437 | rP | 45 | 8 | 1 | 236.450326 | -.000695 | .000500 | . | x. | . | . |
| 5438 | rP | 46 | 8 | 1 | 235.918244 | .000087 | .000500 | . | v | . | . |
| 5439 | rP | 47 | 8 | 1 | 235.388303 | -.001212 | .001000 | . | x. | . | . |
| 5440 | rP | 48 | 8 | 1 | 234.866000 | .000906 | .002000 | . | . | v | . |
| 5441 | rP | 49 | 8 | 1 | 234.344410 | -.000480 | .000200 | . | * | . | . |
| 5442 | rP | 50 | 8 | 1 | 233.828550 | -.000340 | .000200 | . | x. | . | . |
| 5443 | rP | 51 | 8 | 1 | 233.316313 | -.000764 | .000500 | . | x. | . | . |
| 5444 | rP | 52 | 8 | 1 | 232.807758 | -.001669 | .002000 | . | v | . | . |
| 5445 | rP | 53 | 8 | 1 | 232.305517 | -.000397 | .000200 | . | x. | . | . |
| 5446 | rP | 54 | 8 | 1 | 231.807491 | .000982 | .002000 | . | . | v | . |
| 5447 | rP | 55 | 8 | 1 | 231.311075 | -.000103 | .000200 | . | v | . | . |
| 5448 | rP | 56 | 8 | 1 | 230.819143 | -.000746 | .000500 | . | x. | . | . |
| 5449 | rP | 57 | 8 | 1 | 230.331780 | -.000824 | .001000 | . | v | . | . |
| 5450 | rP | 58 | 8 | 1 | 229.849808 | .000519 | .001000 | . | . | v | . |
| 5451 | rP | 59 | 8 | 1 | 229.369334 | -.000571 | .000500 | . | x. | . | . |
| 5452 | rP | 60 | 8 | 1 | 228.894866 | .000450 | .000200 | . | * | . | . |
| 5453 | rP | 61 | 8 | 1 | 228.423790 | .001006 | .001000 | . | . | x | . |
| 5454 | rP | 62 | 8 | 1 | 227.955176 | .000203 | .000200 | . | x | . | . |
| 5455 | rP | 63 | 8 | 1 | 227.491553 | .000607 | .000200 | . | * | . | . |
| 5456 | rR | 8 | 8 | 1 | 270.117303 | .000013 | .000200 | . | v | . | . |
| 5457 | rR | 9 | 8 | 1 | 270.816284 | -.000060 | .000200 | . | v | . | . |
| 5458 | rR | 10 | 8 | 1 | 271.518048 | .000012 | .000200 | . | v | . | . |
| 5459 | rR | 11 | 8 | 1 | 272.222451 | .000088 | .000200 | . | v | . | . |
| 5460 | rR | 12 | 8 | 1 | 272.929499 | .000176 | .000200 | . | v | . | . |
| 5461 | rR | 13 | 8 | 1 | 273.639009 | .000096 | .000200 | . | v | . | . |
| 5462 | rR | 14 | 8 | 1 | 274.351364 | .000233 | .000200 | . | x | . | . |
| 5463 | rR | 15 | 8 | 1 | 275.065904 | -.000074 | .000200 | . | v | . | . |
| 5464 | rR | 16 | 8 | 1 | 275.783294 | -.000162 | .000200 | . | v | . | . |
| 5465 | rR | 17 | 8 | 1 | 276.503406 | -.000161 | .000200 | . | v | . | . |
| 5466 | rR | 18 | 8 | 1 | 277.226130 | -.000188 | .000200 | . | v | . | . |
| 5467 | rR | 19 | 8 | 1 | 277.951566 | -.000153 | .000200 | . | v | . | . |
| 5468 | rR | 20 | 8 | 1 | 278.679907 | .000124 | .000200 | . | v | . | . |
| 5469 | rR | 21 | 8 | 1 | 279.410663 | .000134 | .000200 | . | v | . | . |
| 5470 | rR | 22 | 8 | 1 | 280.143674 | -.000305 | .000200 | . | x. | . | . |
| 5471 | rR | 23 | 8 | 1 | 280.880132 | -.000030 | .000200 | . | v | . | . |
| 5472 | rR | 24 | 8 | 1 | 281.618620 | -.000493 | .000500 | . | v. | . | . |
| 5473 | rR | 25 | 8 | 1 | 282.360448 | -.000425 | .000500 | . | v. | . | . |
| 5474 | rR | 26 | 8 | 1 | 283.104890 | -.000599 | .000500 | . | x. | . | . |
| 5475 | rR | 27 | 8 | 1 | 283.853165 | .000151 | .000200 | . | v | . | . |

| | | | | | | | | | | |
|----|------|----|----|---|---|------------|-----------|---------|--|---------|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 5476 | rR | 28 | 8 | 1 | 284.603326 | -0.000182 | .000200 | | . v . |
| 4 | 5477 | rR | 29 | 8 | 1 | 285.357083 | .000050 | .000200 | | . v . |
| 5 | 5478 | rR | 30 | 8 | 1 | 286.113573 | -0.000085 | .000200 | | . v . |
| 6 | 5479 | rR | 32 | 8 | 1 | 287.636810 | .000310 | .000500 | | . .v . |
| 7 | 5480 | rR | 33 | 8 | 1 | 288.401476 | -0.001388 | .002000 | | . v . . |
| 8 | 5481 | rR | 34 | 8 | 1 | 289.172437 | -0.000186 | .000500 | | . v . |
| 9 | 5482 | rR | 35 | 8 | 1 | 289.946019 | .000171 | .000200 | | . v . |
| 10 | 5483 | rR | 36 | 8 | 1 | 290.725593 | .002984 | .030000 | | . . .v |
| 11 | 5484 | rR | 37 | 8 | 1 | 291.501778 | -0.001191 | .002000 | | . v . . |
| 12 | 5485 | rR | 38 | 8 | 1 | 292.287008 | .000021 | .000200 | | . v . |
| 13 | 5486 | rR | 39 | 8 | 1 | 293.074215 | -0.000497 | .001000 | | . v . . |
| 14 | 5487 | rR | 40 | 8 | 1 | 293.865903 | -0.000287 | .000500 | | . v . . |
| 15 | 5488 | rR | 41 | 8 | 1 | 294.662321 | .000867 | .001000 | | . .v . |
| 16 | 5489 | rR | 42 | 8 | 1 | 295.460479 | -0.000053 | .000200 | | . v . |
| 17 | 5490 | rR | 43 | 8 | 1 | 296.263048 | -0.000393 | .000200 | | . x . |
| 18 | 5491 | rR | 44 | 8 | 1 | 297.069850 | -0.000341 | .000200 | | . x . |
| 19 | 5492 | rR | 45 | 8 | 1 | 297.880486 | -0.000296 | .000200 | | . x . |
| 20 | 5493 | rR | 46 | 8 | 1 | 298.694991 | -0.000218 | .000200 | | . x . |
| 21 | 5494 | rR | 47 | 8 | 1 | 299.514968 | .001509 | .002000 | | . . v . |
| 22 | 5495 | rR | 48 | 8 | 1 | 300.335056 | -0.000455 | .000200 | | . * . |
| 23 | 5496 | rR | 49 | 8 | 1 | 301.161040 | -0.000302 | .000200 | | . x . |
| 24 | 5497 | rR | 50 | 8 | 1 | 301.990778 | -0.000142 | .000200 | | . v . |
| 25 | 5498 | rR | 51 | 8 | 1 | 302.824048 | -0.000166 | .000200 | | . v . |
| 26 | 5499 | rR | 52 | 8 | 1 | 303.661054 | -0.000131 | .000200 | | . v . |
| 27 | 5500 | rR | 53 | 8 | 1 | 304.501256 | -0.000539 | .000200 | | . * . |
| 28 | 5501 | rR | 54 | 8 | 1 | 305.345605 | -0.000398 | .000200 | | . x . |
| 29 | 5502 | rR | 55 | 8 | 1 | 306.193495 | -0.000271 | .000200 | | . x . |
| 30 | 5503 | rR | 56 | 8 | 1 | 307.044826 | -0.000215 | .000200 | | . x . |
| 31 | 5504 | rR | 57 | 8 | 1 | 307.899578 | -0.000206 | .000200 | | . x . |
| 32 | 5505 | rR | 58 | 8 | 1 | 308.757868 | -0.000083 | .000200 | | . v . |
| 33 | 5506 | rR | 59 | 8 | 1 | 309.619621 | .000123 | .000200 | | . v . |
| 34 | 5507 | rR | 60 | 8 | 1 | 310.484603 | .000223 | .000200 | | . x . |
| 35 | 5508 | rR | 61 | 8 | 1 | 311.353527 | .0000972 | .000500 | | . .x . |
| 36 | 5509 | rR | 62 | 8 | 1 | 312.224882 | .0000901 | .000200 | | . * . |
| 37 | 5510 | rR | 63 | 8 | 1 | 313.100082 | .001468 | .000500 | | . . * . |
| 38 | 5511 | rR | 64 | 8 | 1 | 313.977592 | .001179 | .000200 | | . . * . |
| 39 | 5512 | rR | 9 | 9 | 1 | 270.783043 | -0.000165 | .000200 | | . v . |
| 40 | 5513 | rR | 10 | 9 | 1 | 271.484516 | -0.000265 | .000200 | | . x . |
| 41 | 5514 | rR | 11 | 9 | 1 | 272.188799 | -0.000214 | .000200 | | . x . |
| 42 | 5515 | rR | 12 | 9 | 1 | 272.895770 | -0.000133 | .000500 | | . v . |
| 43 | 5516 | rR | 13 | 9 | 1 | 273.604781 | -0.000672 | .000200 | | . * . |
| 44 | 5517 | rR | 14 | 9 | 1 | 274.317079 | -0.000587 | .000200 | | . * . |
| 45 | 5518 | rR | 15 | 9 | 1 | 275.032356 | -0.000187 | .000500 | | . v . |
| 46 | 5519 | rR | 16 | 9 | 1 | 275.749588 | -0.000502 | .000200 | | . * . |
| 47 | 5520 | rR | 17 | 9 | 1 | 276.470173 | -0.000138 | .000500 | | . v . |
| 48 | 5521 | rR | 18 | 9 | 1 | 277.191903 | -0.001313 | .001000 | | . x . . |
| 49 | 5522 | rR | 19 | 9 | 1 | 277.918697 | -0.000116 | .001000 | | . v . |
| 50 | 5523 | rR | 20 | 9 | 1 | 278.645520 | -0.001595 | .002000 | | . v . . |
| 51 | 5524 | rR | 21 | 9 | 1 | 279.377245 | -0.000895 | .001000 | | . v . . |
| 52 | 5525 | rR | 22 | 9 | 1 | 280.111561 | -0.000346 | .000200 | | . x . |
| 53 | 5526 | rR | 23 | 9 | 1 | 280.848596 | .000156 | .000200 | | . v . |
| 54 | 5527 | rR | 24 | 9 | 1 | 281.588485 | .000718 | .001000 | | . .v . |
| 55 | 5528 | rR | 25 | 9 | 1 | 282.329761 | -0.000161 | .000200 | | . v . |
| 56 | 5529 | rR | 26 | 9 | 1 | 283.075268 | .000326 | .000200 | | . .x . |
| 57 | 5530 | rR | 27 | 9 | 1 | 283.823092 | .000221 | .000200 | | . x . |
| 58 | 5531 | rR | 28 | 9 | 1 | 284.572974 | -0.000782 | .001000 | | . v . . |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

| | | | | | | | | | | | |
|----|------|----|----|----|----|------------|----------|---------|--------|--|--|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | 5588 | rR | 28 | 10 | 1 | 284.660065 | .000006 | .000200 | . v . | | |
| 4 | 5589 | rR | 29 | 10 | 1 | 285.414219 | .000124 | .000200 | . v . | | |
| 5 | 5590 | rR | 30 | 10 | 1 | 286.171337 | .000189 | .000200 | . v . | | |
| 6 | 5591 | rR | 31 | 10 | 1 | 286.931545 | .000280 | .000200 | . .x . | | |
| 7 | 5592 | rR | 32 | 10 | 1 | 287.694756 | .000258 | .000200 | . .x . | | |
| 8 | 5593 | rR | 33 | 10 | 1 | 288.461341 | .000439 | .000200 | . .* . | | |
| 9 | 5594 | rR | 34 | 10 | 1 | 289.230950 | .000420 | .000200 | . .* . | | |
| 10 | 5595 | rR | 35 | 10 | 1 | 290.003985 | .000545 | .000200 | . .* . | | |
| 11 | 5596 | rR | 36 | 10 | 1 | 290.778868 | -.000817 | .002000 | . v . | | |
| 12 | 5597 | rR | 37 | 10 | 1 | 291.561650 | .002328 | .002000 | . . x | | |
| 13 | 5598 | rR | 11 | 11 | 1 | 272.327755 | -.000074 | .000200 | . v . | | |
| 14 | 5599 | rR | 12 | 11 | 1 | 273.034460 | -.000055 | .000200 | . v . | | |
| 15 | 5600 | rR | 13 | 11 | 1 | 273.744032 | .000138 | .000200 | . v . | | |
| 16 | 5601 | rR | 14 | 11 | 1 | 274.455585 | -.000385 | .001000 | . v . | | |
| 17 | 5602 | rR | 15 | 11 | 1 | 275.171381 | .000635 | .001000 | . .v . | | |
| 18 | 5603 | rR | 16 | 11 | 1 | 275.887565 | -.000662 | .001000 | . v . | | |
| 19 | 5604 | rR | 17 | 11 | 1 | 276.608513 | .000095 | .000200 | . v . | | |
| 20 | 5605 | rR | 18 | 11 | 1 | 277.330794 | -.000531 | .001000 | . v . | | |
| 21 | 5606 | rR | 19 | 11 | 1 | 278.057786 | .000828 | .001000 | . .v . | | |
| 22 | 5607 | rR | 20 | 11 | 1 | 278.785074 | -.000250 | .000200 | . x . | | |
| 23 | 5608 | rR | 22 | 11 | 1 | 280.250489 | .000183 | .000500 | . v . | | |
| 24 | 5609 | rR | 23 | 11 | 1 | 280.986985 | .000034 | .000200 | . v . | | |
| 25 | 5610 | rR | 24 | 11 | 1 | 281.726332 | -.000056 | .000200 | . v . | | |
| 26 | 5611 | rR | 25 | 11 | 1 | 282.468592 | -.000047 | .001000 | . v . | | |
| 27 | 5612 | rR | 26 | 11 | 1 | 283.213163 | -.000564 | .002000 | . v . | | |
| 28 | 5613 | rR | 27 | 11 | 1 | 283.961590 | -.000090 | .000200 | . v . | | |
| 29 | 5614 | rR | 28 | 11 | 1 | 284.712583 | .000054 | .000200 | . v . | | |
| 30 | 5615 | rR | 29 | 11 | 1 | 285.466401 | .000094 | .000200 | . v . | | |
| 31 | 5616 | rR | 30 | 11 | 1 | 286.223199 | .000149 | .000200 | . v . | | |
| 32 | 5617 | rR | 31 | 11 | 1 | 286.983366 | .000567 | .001000 | . .v . | | |
| 33 | 5618 | rR | 32 | 11 | 1 | 287.746424 | .000828 | .002000 | . .v . | | |
| 34 | 5619 | rR | 33 | 11 | 1 | 288.511368 | -.000118 | .001000 | . v . | | |
| 35 | 5620 | pP | 1 | 1 | -1 | 262.653363 | .001068 | .001000 | . .x . | | |
| 36 | 5621 | pP | 2 | 1 | -1 | 261.980035 | -.001646 | .002000 | . v . | | |
| 37 | 5622 | pP | 3 | 1 | -1 | 261.313797 | .000082 | .000200 | . v . | | |
| 38 | 5623 | pP | 4 | 1 | -1 | 260.648479 | .000012 | .000200 | . v . | | |
| 39 | 5624 | pP | 5 | 1 | -1 | 259.986088 | .000054 | .000200 | . v . | | |
| 40 | 5625 | pP | 6 | 1 | -1 | 259.326564 | .000029 | .000200 | . v . | | |
| 41 | 5626 | pP | 7 | 1 | -1 | 258.670119 | .000004 | .000200 | . v . | | |
| 42 | 5627 | pP | 8 | 1 | -1 | 258.016976 | .000037 | .000200 | . v . | | |
| 43 | 5628 | pP | 9 | 1 | -1 | 257.367160 | -.000027 | .000200 | . v . | | |
| 44 | 5629 | pP | 10 | 1 | -1 | 256.721196 | .000141 | .000200 | . v . | | |
| 45 | 5630 | pP | 11 | 1 | -1 | 256.079023 | .000278 | .000200 | . .x . | | |
| 46 | 5631 | pP | 12 | 1 | -1 | 255.440367 | -.000091 | .000200 | . v . | | |
| 47 | 5632 | pP | 13 | 1 | -1 | 254.806594 | .000205 | .000200 | . x . | | |
| 48 | 5633 | pP | 14 | 1 | -1 | 254.176663 | -.000055 | .000200 | . v . | | |
| 49 | 5634 | pP | 15 | 1 | -1 | 253.551586 | -.000016 | .000200 | . v . | | |
| 50 | 5635 | pP | 16 | 1 | -1 | 252.931182 | .000010 | .000200 | . v . | | |
| 51 | 5636 | pP | 17 | 1 | -1 | 252.316010 | .000484 | .001000 | . .v . | | |
| 52 | 5637 | pP | 18 | 1 | -1 | 251.704777 | .000052 | .000200 | . v . | | |
| 53 | 5638 | pP | 2 | 2 | -1 | 261.908548 | .000302 | .000200 | . .x . | | |
| 54 | 5639 | pP | 3 | 2 | -1 | 261.240432 | .000133 | .000200 | . v . | | |
| 55 | 5640 | pP | 4 | 2 | -1 | 260.575185 | .000161 | .000200 | . v . | | |
| 56 | 5641 | pP | 5 | 2 | -1 | 259.912672 | .000171 | .000200 | . v . | | |
| 57 | 5642 | pP | 6 | 2 | -1 | 259.252972 | .000139 | .000200 | . v . | | |
| 58 | 5643 | pP | 7 | 2 | -1 | 258.596273 | .000129 | .000200 | . v . | | |
| 59 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|---|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5644 | pP 8 2 -1 | 257.942702 | .000125 | .000200 | . | v | . | |
| 4 | 5645 | pP 9 2 -1 | 257.292417 | .000122 | .000200 | . | v | . | |
| 5 | 5646 | pP 10 2 -1 | 256.645598 | .000123 | .000200 | . | v | . | |
| 6 | 5647 | pP 11 2 -1 | 256.002235 | -.000075 | .000200 | . | v | . | |
| 7 | 5648 | pP 12 2 -1 | 255.363022 | .000025 | .000200 | . | v | . | |
| 8 | 5649 | pP 13 2 -1 | 254.727776 | .000035 | .000200 | . | v | . | |
| 9 | 5650 | pP 14 2 -1 | 254.096883 | .000143 | .000200 | . | v | . | |
| 10 | 5651 | pP 15 2 -1 | 253.470230 | .000046 | .000200 | . | v | . | |
| 11 | 5652 | pP 16 2 -1 | 252.848235 | -.000011 | .000200 | . | v | . | |
| 12 | 5653 | pP 17 2 -1 | 252.231029 | -.000044 | .000200 | . | v | . | |
| 13 | 5654 | pP 18 2 -1 | 251.618755 | -.000031 | .000200 | . | v | . | |
| 14 | 5655 | pP 19 2 -1 | 251.011212 | -.000256 | .000200 | . | x | . | |
| 15 | 5656 | pP 20 2 -1 | 250.409181 | .000015 | .000200 | . | v | . | |
| 16 | 5657 | pP 21 2 -1 | 249.811835 | -.000051 | .000200 | . | v | . | |
| 17 | 5658 | pP 22 2 -1 | 249.219691 | .000094 | .000200 | . | v | . | |
| 18 | 5659 | pP 23 2 -1 | 248.632243 | .000013 | .000200 | . | v | . | |
| 19 | 5660 | pP 24 2 -1 | 248.049695 | .000015 | .000200 | . | v | . | |
| 20 | 5661 | pP 25 2 -1 | 247.471835 | .000017 | .000200 | . | v | . | |
| 21 | 5662 | pP 26 2 -1 | 246.898804 | .000318 | .000200 | . | x | . | |
| 22 | 5663 | pR 2 2 -1 | 265.287299 | .000517 | .000500 | . | x | . | |
| 23 | 5664 | pR 3 2 -1 | 265.971787 | .001484 | .002000 | . | v | . | |
| 24 | 5665 | pR 4 2 -1 | 266.656702 | .000152 | .000200 | . | v | . | |
| 25 | 5666 | pR 5 2 -1 | 267.344646 | -.000974 | .002000 | . | v | . | |
| 26 | 5667 | pR 6 2 -1 | 268.037562 | -.000067 | .000200 | . | v | . | |
| 27 | 5668 | pR 7 2 -1 | 268.732446 | -.000269 | .000500 | . | v | . | |
| 28 | 5669 | pR 8 2 -1 | 269.433600 | .002568 | .003000 | . | v | . | |
| 29 | 5670 | pR 9 2 -1 | 270.132889 | .000136 | .000200 | . | v | . | |
| 30 | 5671 | pR 10 2 -1 | 270.838195 | .000136 | .000200 | . | v | . | |
| 31 | 5672 | pR 11 2 -1 | 271.547258 | .000116 | .000200 | . | v | . | |
| 32 | 5673 | pR 12 2 -1 | 272.259493 | -.000702 | .001000 | . | v | . | |
| 33 | 5674 | pR 13 2 -1 | 272.979530 | .002124 | .003000 | . | v | . | |
| 34 | 5675 | pR 14 2 -1 | 273.700422 | .001472 | .002000 | . | v | . | |
| 35 | 5676 | pR 15 2 -1 | 274.425000 | .000014 | .000200 | . | v | . | |
| 36 | 5677 | pR 16 2 -1 | 275.155803 | .000161 | .000200 | . | v | . | |
| 37 | 5678 | pR 18 2 -1 | 276.631278 | .000098 | .000200 | . | v | . | |
| 38 | 5679 | pR 19 2 -1 | 277.376309 | .000162 | .000200 | . | v | . | |
| 39 | 5680 | pR 20 2 -1 | 278.125811 | -.000090 | .000200 | . | v | . | |
| 40 | 5681 | pR 21 2 -1 | 278.880016 | -.000370 | .000200 | . | x | . | |
| 41 | 5682 | pP 3 3 -1 | 261.165667 | .000354 | .000200 | . | x | . | |
| 42 | 5683 | pP 4 3 -1 | 260.500445 | .000401 | .000200 | . | * | . | |
| 43 | 5684 | pP 5 3 -1 | 259.837871 | .000384 | .000200 | . | x | . | |
| 44 | 5685 | pP 6 3 -1 | 259.178050 | .000308 | .000200 | . | x | . | |
| 45 | 5686 | pP 7 3 -1 | 258.521224 | .000294 | .000200 | . | x | . | |
| 46 | 5687 | pP 8 3 -1 | 257.867514 | .000322 | .000200 | . | x | . | |
| 47 | 5688 | pP 9 3 -1 | 257.216986 | .000296 | .000200 | . | x | . | |
| 48 | 5689 | pP 10 3 -1 | 256.570088 | .000486 | .000200 | . | * | . | |
| 49 | 5690 | pP 11 3 -1 | 255.926347 | .000228 | .000200 | . | x | . | |
| 50 | 5691 | pP 12 3 -1 | 255.286386 | -.000059 | .000500 | . | v | . | |
| 51 | 5692 | pP 13 3 -1 | 254.649531 | -.001256 | .002000 | . | v | . | |
| 52 | 5693 | pP 14 3 -1 | 254.019432 | .000082 | .000500 | . | v | . | |
| 53 | 5694 | pP 15 3 -1 | 253.389930 | -.002405 | .003000 | v | . | . | |
| 54 | 5695 | pP 16 3 -1 | 252.770333 | .000411 | .000200 | . | * | . | |
| 55 | 5696 | pP 17 3 -1 | 252.153101 | .000827 | .000500 | . | x | . | |
| 56 | 5697 | pP 18 3 -1 | 251.539851 | .000329 | .000200 | . | x | . | |
| 57 | 5698 | pP 19 3 -1 | 250.932712 | .000945 | .001000 | . | v | . | |
| 58 | 5699 | pP 20 3 -1 | 250.329611 | .000538 | .000200 | . | * | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|---|-----|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5700 | pP 21 3 -1 | 249.731850 | .000386 | .000200 | . | .X | . | |
| 4 | 5701 | pP 22 3 -1 | 249.139346 | .000416 | .000200 | . | * | . | |
| 5 | 5702 | pP 23 3 -1 | 248.552086 | .000662 | .000200 | . | * | . | |
| 6 | 5703 | pR 7 3 -1 | 268.655940 | .000164 | .000200 | . | v | . | |
| 7 | 5704 | pR 8 3 -1 | 269.354291 | .000487 | .000200 | . | * | . | |
| 8 | 5705 | pR 9 3 -1 | 270.055370 | .000144 | .000200 | . | v | . | |
| 9 | 5706 | pR 10 3 -1 | 270.759960 | -.000265 | .001000 | . | v. | . | |
| 10 | 5707 | pR 11 3 -1 | 271.469308 | .000313 | .000200 | . | .X | . | |
| 11 | 5708 | pR 12 3 -1 | 272.182079 | .000351 | .000200 | . | .X | . | |
| 12 | 5709 | pR 13 3 -1 | 272.899068 | .000454 | .000200 | . | * | . | |
| 13 | 5710 | pR 14 3 -1 | 273.620123 | .000295 | .000200 | . | .X | . | |
| 14 | 5711 | pR 15 3 -1 | 274.345880 | .000351 | .000200 | . | .X | . | |
| 15 | 5712 | pP 4 4 -1 | 260.424072 | .000495 | .000200 | . | * | . | |
| 16 | 5713 | pP 5 4 -1 | 259.761470 | .000468 | .000200 | . | * | . | |
| 17 | 5714 | pP 6 4 -1 | 259.101732 | .000520 | .000200 | . | * | . | |
| 18 | 5715 | pP 7 4 -1 | 258.444849 | .000511 | .000200 | . | * | . | |
| 19 | 5716 | pP 8 4 -1 | 257.790980 | .000446 | .000200 | . | * | . | |
| 20 | 5717 | pP 9 4 -1 | 257.141786 | .001811 | .002000 | . | .v. | . | |
| 21 | 5718 | pP 10 4 -1 | 256.493328 | .000473 | .000200 | . | * | . | |
| 22 | 5719 | pP 11 4 -1 | 255.849649 | .000266 | .000200 | . | .X | . | |
| 23 | 5720 | pP 12 4 -1 | 255.210125 | .000348 | .000200 | . | .X | . | |
| 24 | 5721 | pP 13 4 -1 | 254.574824 | .000566 | .000200 | . | * | . | |
| 25 | 5722 | pP 15 4 -1 | 253.316887 | .000563 | .000200 | . | * | . | |
| 26 | 5723 | pP 16 4 -1 | 252.694531 | .000241 | .000200 | . | x | . | |
| 27 | 5724 | pR 4 4 -1 | 266.502368 | -.000054 | .001000 | . | v | . | |
| 28 | 5725 | pR 5 4 -1 | 267.190780 | -.000178 | .001000 | . | v | . | |
| 29 | 5726 | pR 6 4 -1 | 267.883675 | .001241 | .001000 | . | .x | . | |
| 30 | 5727 | pR 7 4 -1 | 268.576376 | -.000628 | .002000 | . | v. | . | |
| 31 | 5728 | pR 8 4 -1 | 269.274669 | -.000176 | .001000 | . | v | . | |
| 32 | 5729 | pR 9 4 -1 | 269.976476 | .000330 | .000200 | . | .x | . | |
| 33 | 5730 | pR 10 4 -1 | 270.681199 | .000089 | .000200 | . | v | . | |
| 34 | 5731 | pR 11 4 -1 | 271.390244 | .000305 | .000200 | . | .x | . | |
| 35 | 5732 | pR 12 4 -1 | 272.104109 | .001273 | .001000 | . | .x | . | |
| 36 | 5733 | pR 13 4 -1 | 272.820418 | .000429 | .000200 | . | * | . | |
| 37 | 5734 | pP 5 5 -1 | 259.683642 | .000550 | .000200 | . | * | . | |
| 38 | 5735 | pP 6 5 -1 | 259.023805 | .000581 | .000200 | . | * | . | |
| 39 | 5736 | pP 7 5 -1 | 258.366848 | .000569 | .000200 | . | * | . | |
| 40 | 5737 | pP 8 5 -1 | 257.712834 | .000391 | .000200 | . | .x | . | |
| 41 | 5738 | pP 9 5 -1 | 257.062512 | .000584 | .000200 | . | * | . | |
| 42 | 5739 | pP 10 5 -1 | 256.415264 | .000296 | .000300 | . | .v | . | |
| 43 | 5740 | pP 11 5 -1 | 255.772347 | .000540 | .000200 | . | * | . | |
| 44 | 5741 | pP 12 5 -1 | 255.133287 | .000590 | .000200 | . | * | . | |
| 45 | 5742 | pP 13 5 -1 | 254.498622 | .000743 | .000200 | . | * | . | |
| 46 | 5743 | pP 14 5 -1 | 253.865947 | -.001626 | .003000 | . | v | . | |
| 47 | 5744 | pP 15 5 -1 | 253.242830 | .000862 | .000300 | . | * | . | |
| 48 | 5745 | pP 16 5 -1 | 252.621783 | .000567 | .000200 | . | * | . | |
| 49 | 5746 | pP 17 5 -1 | 252.005850 | .000427 | .000200 | . | * | . | |
| 50 | 5747 | pP 18 5 -1 | 251.395271 | .000615 | .000200 | . | * | . | |
| 51 | 5748 | pP 19 5 -1 | 250.789254 | .000311 | .000200 | . | .x | . | |
| 52 | 5749 | pP 20 5 -1 | 250.188192 | -.000085 | .010000 | . | v | . | |
| 53 | 5750 | pP 21 5 -1 | 249.593139 | .000511 | .000200 | . | * | . | |
| 54 | 5751 | pP 22 5 -1 | 249.002478 | .000536 | .000200 | . | * | . | |
| 55 | 5752 | pP 23 5 -1 | 248.416725 | .000573 | .000200 | . | * | . | |
| 56 | 5753 | pP 24 5 -1 | 247.835786 | .000611 | .000200 | . | * | . | |
| 57 | 5754 | pP 25 5 -1 | 247.260069 | .001147 | .000500 | . | * | . | |
| 58 | 5755 | pP 26 5 -1 | 246.688371 | .001078 | .000200 | . | * | . | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|------------|------------|----------|---------|--|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5756 | pP 27 5 -1 | 246.121298 | .001115 | .000200 | | . | . | * |
| 4 | 5757 | pQ 5 5 -1 | 263.060097 | .000883 | .000500 | | . | . | x |
| 5 | 5758 | pQ 6 5 -1 | 263.075706 | .000910 | .000500 | | . | . | x |
| 6 | 5759 | pQ 7 5 -1 | 263.094579 | .001155 | .001000 | | . | . | x |
| 7 | 5760 | pQ 8 5 -1 | 263.114153 | -.001149 | .002000 | | . | v | . |
| 8 | 5761 | pQ 9 5 -1 | 263.140770 | .000117 | .000500 | | . | v | . |
| 9 | 5762 | pQ 10 5 -1 | 263.173229 | .003513 | .003000 | | . | . | x |
| 10 | 5763 | pQ 11 5 -1 | 263.202936 | .000203 | .000500 | | . | v | . |
| 11 | 5764 | pQ 12 5 -1 | 263.240408 | .000470 | .000200 | | . | . | * |
| 12 | 5765 | pQ 13 5 -1 | 263.282149 | .000605 | .000200 | | . | . | * |
| 13 | 5766 | pQ 14 5 -1 | 263.326716 | -.001018 | .002000 | | . | v | . |
| 14 | 5767 | pQ 15 5 -1 | 263.379078 | .000423 | .000200 | | . | . | * |
| 15 | 5768 | pQ 16 5 -1 | 263.434521 | .000114 | .000500 | | . | v | . |
| 16 | 5769 | pQ 17 5 -1 | 263.495613 | .000558 | .000200 | | . | . | * |
| 17 | 5770 | pQ 18 5 -1 | 263.559664 | -.000957 | .002000 | | . | v | . |
| 18 | 5771 | pQ 19 5 -1 | 263.631871 | .000771 | .000300 | | . | . | * |
| 19 | 5772 | pQ 20 5 -1 | 263.707197 | .000740 | .000200 | | . | . | * |
| 20 | 5773 | pQ 21 5 -1 | 263.787174 | .000534 | .000200 | | . | . | * |
| 21 | 5774 | pP 6 6 -1 | 258.944295 | .000483 | .000200 | | . | . | * |
| 22 | 5775 | pP 7 6 -1 | 258.287287 | .000625 | .000200 | | . | . | * |
| 23 | 5776 | pP 8 6 -1 | 257.633647 | .000901 | .000300 | | . | . | * |
| 24 | 5777 | pP 9 6 -1 | 256.983228 | .000862 | .000200 | | . | . | * |
| 25 | 5778 | pP 10 6 -1 | 256.336487 | .000644 | .000200 | | . | . | * |
| 26 | 5779 | pP 11 6 -1 | 255.694025 | .000525 | .000200 | | . | . | * |
| 27 | 5780 | pP 12 6 -1 | 255.056103 | .000472 | .000200 | | . | . | * |
| 28 | 5781 | pP 13 6 -1 | 254.422969 | .000490 | .000200 | | . | . | * |
| 29 | 5782 | pP 14 6 -1 | 253.794445 | .000223 | .000200 | | . | x | . |
| 30 | 5783 | pP 15 6 -1 | 253.171861 | .000897 | .001000 | | . | . | v |
| 31 | 5784 | pP 16 6 -1 | 252.551489 | -.001259 | .002000 | | . | v | . |
| 32 | 5785 | pP 17 6 -1 | 251.936295 | -.003272 | .003000 | | x | . | . |
| 33 | 5786 | pP 18 6 -1 | 251.332017 | .000637 | .002000 | | . | . | v |
| 34 | 5787 | pP 19 6 -1 | 250.727682 | -.000445 | .000200 | | . | . | * |
| 35 | 5788 | pP 7 7 -1 | 258.205642 | .000279 | .000200 | | . | . | x |
| 36 | 5789 | pP 8 7 -1 | 257.551190 | .000252 | .000200 | | . | . | x |
| 37 | 5790 | pP 9 7 -1 | 256.901224 | .000367 | .000200 | | . | . | x |
| 38 | 5791 | pP 10 7 -1 | 256.257850 | .002140 | .002000 | | . | . | x |
| 39 | 5792 | pP 11 7 -1 | 255.616070 | .000193 | .000200 | | . | v | . |
| 40 | 5793 | pP 12 7 -1 | 254.981736 | .000265 | .000200 | | . | . | x |
| 41 | 5794 | pP 14 7 -1 | 253.729132 | .000661 | .000200 | | . | . | * |
| 42 | 5795 | pP 20 8 -1 | 249.642735 | .000215 | .000200 | | . | x | . |
| 43 | 5796 | pP 21 8 -1 | 248.999716 | .000105 | .000200 | | . | v | . |
| 44 | 5797 | pP 22 8 -1 | 248.356706 | -.001728 | .002000 | | . | v | . |
| 45 | 5798 | pP 23 8 -1 | 247.718719 | -.000304 | .000200 | | . | x | . |
| 46 | 5799 | pP 24 8 -1 | 247.080789 | -.000620 | .000500 | | . | x | . |
| 47 | 5800 | pP 25 8 -1 | 246.444495 | -.001127 | .001000 | | . | x | . |
| 48 | 5801 | pP 26 8 -1 | 245.811530 | -.000160 | .000200 | | . | v | . |
| 49 | 5802 | pP 27 8 -1 | 245.178298 | -.001343 | .001000 | | . | x | . |
| 50 | 5803 | pP 28 8 -1 | 244.548643 | -.000854 | .001000 | | . | v | . |
| 51 | 5804 | pP 29 8 -1 | 243.921218 | -.000063 | .000200 | | . | v | . |
| 52 | 5805 | pP 30 8 -1 | 243.294919 | -.000093 | .000200 | | . | v | . |
| 53 | 5806 | pP 31 8 -1 | 242.670890 | .000184 | .000200 | | . | v | . |

File # 5 MeNC_v8.fre No. data : 96 .20000 MHz -> |----+----0----+----|

| | | | | | | | | | |
|----|------|------------|-------------|-------|-------|--|---|---|---|
| 54 | | | | | | | | | |
| 55 | 5807 | qR 6 1 1 | 141091.5170 | .0205 | .0200 | | . | . | x |
| 56 | 5808 | qR 6 -1 -1 | 141479.9480 | .0338 | .0200 | | . | . | x |
| 57 | 5809 | qR 6 2 1 | 141335.1860 | .0223 | .0200 | | . | . | x |
| 58 | | | | | | | | | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----------|-------------|--------|-------|-----------|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5810 | qR | 6 3 1 | 141301.1900 | .0385 | .0200 | . . . x . | | |
| 4 | 5811 | qR | 6 4 1 | 141277.2210 | .0418 | .0200 | . . . * . | | |
| 5 | 5812 | qR | 6 5 1 | 141251.2220 | .0281 | .0200 | . . . x . | | |
| 6 | 5813 | qR | 6 6 1 | 141220.6550 | .0398 | .0200 | . . . x . | | |
| 7 | 5814 | qR | 6 0 -1 | 141229.8900 | .0117 | .0200 | . . . v . | | |
| 8 | 5815 | qR | 6 1 -1 | 141244.7980 | .0116 | .0200 | . . . v . | | |
| 9 | 5816 | qR | 6 2 -1 | 141236.9390 | .0133 | .0200 | . . . v . | | |
| 10 | 5817 | qR | 6 3 -1 | 141218.3810 | .0210 | .0200 | . . . x . | | |
| 11 | 5818 | qR | 6 4 -1 | 141191.6590 | -.0261 | .0200 | . . . x . | | |
| 12 | 5819 | qR | 6 5 -1 | 141157.7810 | -.0120 | .0200 | . . . v . | | |
| 13 | 5820 | qR | 6 6 -1 | 141117.0830 | .0010 | .0200 | . . . v . | | |
| 14 | 5821 | qR | 9 1 1 | 201549.4920 | .0111 | .0200 | . . . v . | | |
| 15 | 5822 | qR | 9 -1 -1 | 202104.0410 | .0291 | .0200 | . . . x . | | |
| 16 | 5823 | qR | 9 2 1 | 201959.5690 | .0176 | .0200 | . . . v . | | |
| 17 | 5824 | qR | 9 3 1 | 201886.0970 | .0082 | .0200 | . . . v . | | |
| 18 | 5825 | qR | 9 4 1 | 201840.3900 | -.0036 | .0200 | . . . v . | | |
| 19 | 5826 | qR | 9 5 1 | 201797.1290 | .0040 | .0200 | . . . v . | | |
| 20 | 5827 | qR | 9 6 1 | 201749.6730 | .0052 | .0200 | . . . v . | | |
| 21 | 5828 | qR | 9 7 1 | 201695.6710 | .0214 | .0200 | . . . x . | | |
| 22 | 5829 | qR | 9 8 1 | 201634.0510 | .0231 | .0200 | . . . x . | | |
| 23 | 5830 | qR | 9 9 1 | 201564.3200 | .0380 | .0200 | . . . x . | | |
| 24 | 5831 | qR | 14 1 1 | 302288.1880 | -.0041 | .0200 | . . . v . | | |
| 25 | 5832 | qR | 14 -1 -1 | 303118.7060 | .0078 | .0200 | . . . v . | | |
| 26 | 5833 | qR | 14 2 1 | 303023.6090 | .0109 | .0200 | . . . v . | | |
| 27 | 5834 | qR | 14 3 1 | 302901.3240 | .0042 | .1000 | . . . v . | | |
| 28 | 5835 | qR | 14 4 1 | 302808.4510 | .0159 | .0200 | . . . v . | | |
| 29 | 5836 | qR | 14 5 1 | 302726.3850 | .0025 | .0200 | . . . v . | | |
| 30 | 5837 | qR | 14 6 1 | 302643.4880 | -.0011 | .0200 | . . . v . | | |
| 31 | 5838 | qR | 14 7 1 | 302554.1970 | .0035 | .0200 | . . . v . | | |
| 32 | 5839 | qR | 14 8 1 | 302455.7080 | .0046 | .0200 | . . . v . | | |
| 33 | 5840 | qR | 14 9 1 | 302346.5130 | .0115 | .0200 | . . . v . | | |
| 34 | 5841 | qR | 14 10 1 | 302225.6990 | .0137 | .0200 | . . . v . | | |
| 35 | 5842 | qR | 14 11 1 | 302092.4530 | .0208 | .0200 | . . . x . | | |
| 36 | 5843 | qR | 14 12 1 | 301948.5530 | .0329 | .0200 | . . . x . | | |
| 37 | 5844 | qR | 14 13 1 | 301790.2700 | .0462 | .0200 | . . . * . | | |
| 38 | 5845 | qR | 14 14 1 | 301619.5960 | .0588 | .0200 | . . . * . | | |
| 39 | 5846 | qR | 18 1 1 | 382848.6960 | -.0255 | .0200 | . . . x . | | |
| 40 | 5847 | qR | 18 -1 -1 | 383898.9230 | .0000 | .0200 | . . . v . | | |
| 41 | 5848 | qR | 18 2 1 | 383836.9660 | -.0234 | .0200 | . . . x . | | |
| 42 | 5849 | qR | 18 3 1 | 383716.0680 | -.0298 | .0200 | . . . x . | | |
| 43 | 5850 | qR | 18 4 1 | 383595.6360 | -.0163 | .0200 | . . . v . | | |
| 44 | 5851 | qR | 18 5 1 | 383481.1670 | -.0399 | .0200 | . . . x . | | |
| 45 | 5852 | qR | 18 6 1 | 383366.0570 | -.0369 | .0200 | . . . x . | | |
| 46 | 5853 | qR | 18 7 1 | 383244.6070 | -.0487 | .0200 | . . . * . | | |
| 47 | 5854 | qR | 18 8 1 | 383113.2420 | -.0211 | .0200 | . . . x . | | |
| 48 | 5855 | qR | 18 9 1 | 382969.6170 | -.0377 | .0200 | . . . x . | | |
| 49 | 5856 | qR | 18 10 1 | 382812.3080 | -.0335 | .0200 | . . . x . | | |
| 50 | 5857 | qR | 18 11 1 | 382639.6490 | -.0186 | .0200 | . . . v . | | |
| 51 | 5858 | qR | 18 12 1 | 382456.5110 | -.0108 | .0200 | . . . v . | | |
| 52 | 5859 | qR | 18 13 1 | 382253.1980 | -.0377 | .0200 | . . . x . | | |
| 53 | 5860 | qR | 18 14 1 | 382035.1870 | -.0210 | .0200 | . . . x . | | |
| 54 | 5861 | qR | 18 16 1 | 381551.7020 | -.0183 | .0500 | . . . v . | | |
| 55 | 5862 | qR | 9 0 -1 | 201684.8580 | .0052 | .1000 | . . . v . | | |
| 56 | 5863 | qR | 9 1 -1 | 201731.2280 | .1754 | .2000 | v | | |
| 57 | 5864 | qR | 9 2 -1 | 201731.2280 | -.0923 | .1000 | v . . . | | |
| 58 | 5865 | qR | 9 3 -1 | 201711.0040 | -.0077 | .0200 | . . . v . | | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| | | | | | | | | | |
|----|------|----|----------|-------------|--------|-------|-------|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5866 | qR | 9 4 -1 | 201676.7440 | -.0205 | .0200 | . x . | | |
| 4 | 5867 | qR | 9 5 -1 | 201630.9600 | -.0213 | .0200 | . x . | | |
| 5 | 5868 | qR | 9 6 -1 | 201574.7290 | -.0168 | .0200 | . v . | | |
| 6 | 5869 | qR | 9 7 -1 | 201508.6170 | -.0294 | .0200 | . x . | | |
| 7 | 5870 | qR | 9 8 -1 | 201433.1170 | -.0329 | .0200 | . x . | | |
| 8 | 5871 | qR | 9 9 -1 | 201350.6590 | -.0402 | .0200 | . * . | | |
| 9 | 5872 | qR | 14 0 -1 | 302369.6860 | -.0085 | .0200 | . v . | | |
| 10 | 5873 | qR | 14 1 -1 | 302451.1790 | -.0052 | .0200 | . v . | | |
| 11 | 5874 | qR | 14 2 -1 | 302476.0990 | -.0044 | .0200 | . v . | | |
| 12 | 5875 | qR | 14 3 -1 | 302463.0240 | -.0126 | .0200 | . v . | | |
| 13 | 5876 | qR | 14 4 -1 | 302423.6790 | -.0111 | .0200 | . v . | | |
| 14 | 5877 | qR | 14 5 -1 | 302363.6500 | -.0203 | .0200 | . x . | | |
| 15 | 5878 | qR | 14 6 -1 | 302285.8230 | -.0087 | .0500 | . v . | | |
| 16 | 5879 | qR | 14 7 -1 | 302191.7760 | -.0161 | .0200 | . v . | | |
| 17 | 5880 | qR | 14 8 -1 | 302082.7070 | -.0216 | .0200 | . x . | | |
| 18 | 5881 | qR | 14 9 -1 | 301962.7570 | -.0139 | .0200 | . v . | | |
| 19 | 5882 | qR | 14 10 -1 | 301823.3410 | -.0170 | .0200 | . v . | | |
| 20 | 5883 | qR | 14 11 -1 | 301666.2200 | -.0208 | .0200 | . x . | | |
| 21 | 5884 | qR | 14 12 -1 | 301499.5170 | -.0085 | .0200 | . v . | | |
| 22 | 5885 | qR | 14 13 -1 | 301319.3410 | -.0048 | .0200 | . v . | | |
| 23 | 5886 | qR | 14 14 -1 | 301125.6980 | -.0141 | .0200 | . v . | | |
| 24 | 5887 | qR | 18 0 -1 | 382893.4550 | -.0246 | .0200 | . x . | | |
| 25 | 5888 | qR | 18 1 -1 | 382962.8360 | -.0144 | .0200 | . v . | | |
| 26 | 5889 | qR | 18 2 -1 | 382997.4230 | -.0245 | .0200 | . x . | | |
| 27 | 5890 | qR | 18 3 -1 | 382991.7300 | -.0160 | .0200 | . v . | | |
| 28 | 5891 | qR | 18 4 -1 | 382952.4320 | -.0239 | .0200 | . x . | | |
| 29 | 5892 | qR | 18 5 -1 | 382885.2790 | -.0129 | .0200 | . v . | | |
| 30 | 5893 | qR | 18 6 -1 | 382793.9350 | -.0265 | .0200 | . x . | | |
| 31 | 5894 | qR | 18 7 -1 | 382680.8510 | -.0016 | .0200 | . v . | | |
| 32 | 5895 | qR | 18 8 -1 | 382547.8090 | .0126 | .0200 | . v . | | |
| 33 | 5896 | qR | 18 9 -1 | 382400.4740 | .0230 | .0200 | . x . | | |
| 34 | 5897 | qR | 18 10 -1 | 382226.2560 | .0106 | .0200 | . v . | | |
| 35 | 5898 | qR | 18 11 -1 | 382030.8610 | .0354 | .0200 | . x . | | |
| 36 | 5899 | qR | 18 12 -1 | 381822.7260 | .0473 | .0200 | . * . | | |
| 37 | 5900 | qR | 18 13 -1 | 381597.1520 | .0035 | .0200 | . v . | | |
| 38 | 5901 | qR | 18 14 -1 | 381354.3450 | -.0036 | .0200 | . v . | | |
| 39 | 5902 | qR | 18 15 -1 | 381094.4820 | -.0016 | .0500 | . v . | | |

File # 6 MeNC_v82.fr+ No. data : 42 .50000 MHz -> |---+---0---+---|

| | | | | | | | | | |
|----|------|----|---------|-------------|--------|-------|---------|--|--|
| 41 | | | | | | | | | |
| 42 | 5903 | qR | 6 0 2 | 141829.4190 | -.0616 | .0200 | . * . | | |
| 43 | 5904 | qR | 6 1 2 | 141840.8460 | -.0195 | .0200 | . v . | | |
| 44 | 5905 | qR | 6 -2 -2 | 141832.8270 | .0408 | .0200 | . * . | | |
| 45 | 5906 | qR | 6 2 2 | 141858.9880 | .0701 | .0200 | . * . | | |
| 46 | 5907 | qR | 6 3 2 | 141844.4510 | .0705 | .0200 | . * . | | |
| 47 | 5908 | qR | 9 1 2 | 202640.6800 | -.0441 | .0200 | . * . | | |
| 48 | 5909 | qR | 9 2 2 | 202684.2340 | -.0103 | .0200 | . v . | | |
| 49 | 5910 | qR | 9 -2 -2 | 202607.9490 | .0473 | .0200 | . * . | | |
| 50 | 5911 | qR | 9 3 2 | 202642.7820 | .0728 | .0200 | . * . | | |
| 51 | 5912 | qR | 9 4 2 | 202629.4300 | .1120 | .0200 | . * . | | |
| 52 | 5913 | qR | 9 5 2 | 202607.4790 | .1667 | .1000 | . . x . | | |
| 53 | 5914 | qR | 9 6 2 | 202576.5840 | .1432 | .0200 | . . * . | | |
| 54 | 5915 | qR | 9 7 2 | 202536.7140 | .1058 | .0200 | . . * . | | |
| 55 | 5916 | qR | 9 8 2 | 202487.6660 | .0256 | .0200 | . . x . | | |
| 56 | 5917 | qR | 9 9 2 | 202427.1530 | -.0725 | .0200 | . * . | | |
| 57 | 5918 | qR | 14 0 2 | 303983.2340 | -.0651 | .0200 | . * . | | |
| 58 | 5919 | qR | 14 1 2 | 303986.1810 | -.0687 | .0200 | . * . | | |

| | | | | | | | | | |
|----|----------|--------------|------------|----|----|-------------|--------|-------|---------------------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 5920 | qR | 14 | 2 | 2 | 304122.4710 | -.1383 | .0200 | . * . . |
| 4 | 5921 | qR | 14 | -2 | -2 | 303873.7340 | -.0130 | .0200 | . v . . |
| 5 | 5922 | qR | 14 | 3 | 2 | 303998.5580 | -.0289 | .0200 | . x . . |
| 6 | 5923 | qR | 14 | 4 | 2 | 303967.3330 | .0718 | .0200 | . . * . . |
| 7 | 5924 | qR | 14 | 5 | 2 | 303927.9070 | .0749 | .0200 | . . * . . |
| 8 | 5925 | qR | 14 | 6 | 2 | 303876.8600 | .0783 | .0200 | . . * . . |
| 9 | 5926 | qR | 14 | 7 | 2 | 303813.2890 | .0684 | .0200 | . . * . . |
| 10 | 5927 | qR | 14 | 8 | 2 | 303736.5770 | .0303 | .0200 | . . x . . |
| 11 | 5928 | qR | 14 | 9 | 2 | 303642.8810 | -.0576 | .0200 | . . * . . |
| 12 | 5929 | qR | 14 | 10 | 2 | 303541.6600 | -.1149 | .0200 | . . * . . |
| 13 | 5930 | qR | 14 | 11 | 2 | 303430.4060 | -.3305 | .5000 | v |
| 14 | 5931 | qR | 18 | 0 | 2 | 385065.0680 | -.0041 | .0200 | . v . . . |
| 15 | 5932 | qR | 18 | 1 | 2 | 385038.3850 | -.1020 | .0200 | . . * . . . |
| 16 | 5933 | qR | 18 | 2 | 2 | 385326.6700 | -.3379 | .3000 | x |
| 17 | 5934 | qR | 18 | -2 | -2 | 384854.1550 | -.0730 | .0200 | . . * . . . |
| 18 | 5935 | qR | 18 | 3 | 2 | 385129.0250 | -.2447 | .2000 | x |
| 19 | 5936 | qR | 18 | 4 | 2 | 385062.0610 | -.5170 | .5000 | x |
| 20 | 5937 | qR | 18 | 5 | 2 | 385000.2420 | -.0866 | .0200 | . . * . . . |
| 21 | 5938 | qR | 18 | 6 | 2 | 384927.6790 | -.0526 | .0200 | . . * . . . |
| 22 | 5939 | qR | 18 | 7 | 2 | 384841.3310 | .0032 | .0200 | . v |
| 23 | 5940 | qR | 18 | 8 | 2 | 384739.4890 | .0256 | .0200 | . . x . . . |
| 24 | 5941 | qR | 18 | 9 | 2 | 384616.6870 | .0079 | .0200 | . v |
| 25 | 5942 | qR | 18 | 10 | 2 | 384486.4780 | .0198 | .0200 | . v |
| 26 | 5943 | qR | 18 | 11 | 2 | 384342.5930 | .0763 | .0200 | . . * . . . |
| 27 | 5944 | qR | 18 | 12 | 2 | 384175.7540 | -.1503 | .5000 | . v |
| 28 | | | | | | | | | |
| 29 | File # 7 | MeNC_v82.fr- | No. data : | 28 | | .50000 | MHz | -> | ----+----0----+---- |
| 30 | 5945 | qR | 6 | 1 | -2 | 141811.4390 | -.2525 | .0200 | * |
| 31 | 5946 | qR | 6 | 2 | -2 | 141786.7650 | -.1027 | .0200 | . . * . . . |
| 32 | 5947 | qR | 6 | 3 | -2 | 141755.3130 | .0033 | .0200 | . v |
| 33 | 5948 | qR | 6 | 4 | -2 | 141716.2170 | -.0374 | .0200 | . . x . . . |
| 34 | 5949 | qR | 6 | 5 | -2 | 141667.9780 | .1846 | .0200 | . . . * . . |
| 35 | 5950 | qR | 9 | 1 | -2 | 202606.7420 | -.3424 | .5000 | v |
| 36 | 5951 | qR | 9 | -1 | 2 | 202606.7420 | .1625 | .5000 | . . . v . . |
| 37 | 5952 | qR | 9 | 2 | -2 | 202577.7110 | -.1176 | .0200 | . . * . . . |
| 38 | 5953 | qR | 9 | 3 | -2 | 202542.0500 | -.0881 | .0200 | . . * . . . |
| 39 | 5954 | qR | 9 | 4 | -2 | 202502.2060 | -.0671 | .0200 | . . * . . . |
| 40 | 5955 | qR | 9 | 5 | -2 | 202465.7420 | -.0141 | .0200 | . v |
| 41 | 5956 | qR | 9 | 6 | -2 | 202469.2240 | .2601 | .0200 | . . . * . . |
| 42 | 5957 | qR | 9 | 7 | -2 | 201861.7800 | -.0996 | .0200 | . . * . . . |
| 43 | 5958 | qR | 9 | 8 | -2 | 202051.2350 | -.4109 | .0200 | * |
| 44 | 5959 | qR | 14 | 1 | -2 | 303966.6580 | -.3949 | .5000 | v |
| 45 | 5960 | qR | 14 | 2 | -2 | 303941.9890 | .0254 | .0200 | . . . x . . |
| 46 | 5961 | qR | 14 | 3 | -2 | 303913.9110 | .0452 | .0200 | . . . * . . |
| 47 | 5962 | qR | 14 | 4 | -2 | 303890.1460 | -.0727 | .0200 | . . * . . . |
| 48 | 5963 | qR | 14 | 5 | -2 | 303884.4750 | -.3031 | .0200 | * |
| 49 | 5964 | qR | 14 | 6 | -2 | 303905.6430 | -.2178 | .0200 | . * |
| 50 | 5965 | qR | 14 | 7 | -2 | 302686.3810 | .0438 | .0200 | . . . * . . |
| 51 | 5966 | qR | 18 | 1 | -2 | 385062.0610 | -.1458 | .2000 | . v |
| 52 | 5967 | qR | 18 | 2 | -2 | 385045.7910 | .3131 | .0200 | . . . * . . |
| 53 | 5968 | qR | 18 | 3 | -2 | 385023.1010 | .3907 | .0200 | * . |
| 54 | 5969 | qR | 18 | 4 | -2 | 384998.4270 | .2470 | .0200 | . . . * . . |
| 55 | 5970 | qR | 18 | 5 | -2 | 384972.2580 | .1024 | .0200 | . . . * . . |
| 56 | 5971 | qR | 18 | 7 | -2 | 383330.4260 | .1536 | .0200 | . . . * . . |
| 57 | 5972 | qR | 18 | 8 | -2 | 383263.7920 | -.0063 | .0200 | . v |
| 58 | | | | | | | | | |
| 59 | | | | | | | | | |
| 60 | | | | | | | | | |

| File # | MeNC_v80.fre | No. data | : 36 | .50000 | MHz | -> ---+---0---+--- |
|--------|--------------|----------|-------------|--------|-------|---------------------|
| 5973 | qR | 6 0 0 | 141804.8550 | .0046 | .0200 | . v . |
| 5974 | qR | 6 1 0 | 141801.7520 | -.0196 | .0200 | . v . |
| 5975 | qR | 6 2 0 | 141792.4380 | -.0026 | .0200 | . v . |
| 5976 | qR | 6 3 0 | 141777.0190 | .0590 | .0200 | . * . |
| 5977 | qR | 6 4 0 | 141755.3130 | -.1481 | .0200 | . * . |
| 5978 | qR | 6 6 0 | 141695.7640 | -.0972 | .0200 | . * . |
| 5979 | qR | 9 0 0 | 202528.9600 | -.0061 | .0200 | . v . |
| 5980 | qR | 9 1 0 | 202524.0210 | -.0451 | .0200 | . * . |
| 5981 | qR | 9 2 0 | 202509.1290 | -.0211 | .0200 | . x . |
| 5982 | qR | 9 3 0 | 202484.0970 | .0150 | .0200 | . v . |
| 5983 | qR | 9 4 0 | 202448.4590 | .0441 | .0200 | . * . |
| 5984 | qR | 9 5 0 | 202401.2110 | .0185 | .0200 | . v . |
| 5985 | qR | 9 6 0 | 202339.9490 | -.0760 | .0200 | . * . |
| 5986 | qR | 9 7 0 | 202257.3120 | -.2571 | .0200 | . * . |
| 5987 | qR | 9 8 0 | 202116.6100 | -.6533 | .5000 | x . . |
| 5988 | qR | 9 9 0 | 202569.8350 | -.1248 | .0200 | . * . |
| 5989 | qR | 14 0 0 | 303620.9680 | .0309 | .0200 | . .x . |
| 5990 | qR | 14 1 0 | 303612.0340 | -.0454 | .0200 | . * . |
| 5991 | qR | 14 2 0 | 303585.0010 | .0022 | .0200 | . v . |
| 5992 | qR | 14 3 0 | 303538.8860 | .0368 | .0200 | . .x . |
| 5993 | qR | 14 4 0 | 303471.6330 | .0391 | .0200 | . .x . |
| 5994 | qR | 14 5 0 | 303379.5790 | .0571 | .0200 | . * . |
| 5995 | qR | 14 6 0 | 303255.4460 | .1257 | .0200 | . . * . |
| 5996 | qR | 14 7 0 | 303086.1860 | .1875 | .5000 | . . v . |
| 5997 | qR | 14 8 0 | 302860.8450 | -.1127 | .0200 | . * . |
| 5998 | qR | 14 9 0 | 303852.0390 | -.1405 | .0200 | . * . |
| 5999 | qR | 18 0 0 | 384376.4600 | .0916 | .0200 | . . * . |
| 6000 | qR | 18 1 0 | 384364.0810 | -.0123 | .0200 | . v . |
| 6001 | qR | 18 2 0 | 384326.6650 | .0068 | .0200 | . v . |
| 6002 | qR | 18 3 0 | 384263.0090 | -.0871 | .0200 | . * . |
| 6003 | qR | 18 4 0 | 384171.2030 | .0085 | .0200 | . v . |
| 6004 | qR | 18 5 0 | 384048.2140 | .0427 | .0200 | . * . |
| 6005 | qR | 18 6 0 | 383890.9800 | .1550 | .0200 | . . * . |
| 6006 | qR | 18 7 0 | 383700.8870 | .2269 | .0200 | . . * . |
| 6007 | qR | 18 8 0 | 383494.1450 | -.0469 | .0200 | . * . |
| 6008 | qR | 18 9 0 | 384802.1580 | .1704 | .0200 | . . * . |

| File # | MeNC_v8.fr0 | No. data | : 55 | .20000 | MHz | -> ---+---0---+--- |
|--------|-------------|----------|-------------|--------|-------|---------------------|
| 6009 | qR | 1 1 1 | 40313.6300 | .0445 | .0300 | . .x . |
| 6010 | qR | 2 1 1 | 60470.1450 | .0550 | .0300 | . .x . |
| 6011 | qR | 3 1 1 | 80626.2700 | .0214 | .0600 | . .v . |
| 6012 | qR | 4 1 1 | 100781.9670 | .0209 | .0900 | . .v . |
| 6013 | qR | 5 1 1 | 120937.0960 | .0288 | .0600 | . .v . |
| 6014 | qR | 6 1 1 | 141091.4940 | -.0025 | .0600 | . v . |
| 6015 | qR | 1 -1 -1 | 40424.6120 | -.0121 | .0300 | . v . |
| 6016 | qR | 2 -1 -1 | 60636.6790 | .0414 | .0300 | . .x . |
| 6017 | qR | 3 -1 -1 | 80848.3040 | .0113 | .0600 | . .v . |
| 6018 | qR | 4 -1 -1 | 101059.4670 | -.0032 | .0900 | . v . |
| 6019 | qR | 5 -1 -1 | 121270.0740 | .0235 | .0600 | . .v . |
| 6020 | qR | 6 -1 -1 | 141479.9160 | .0018 | .0600 | . v . |
| 6021 | qR | 2 2 1 | 60556.5680 | .0049 | .0300 | . v . |
| 6022 | qR | 3 2 1 | 80745.9240 | .0179 | .0600 | . .v . |
| 6023 | qR | 4 2 1 | 100938.4770 | .0479 | .0900 | . .v . |
| 6024 | qR | 5 2 1 | 121134.7480 | .0202 | .0600 | . .v . |
| 6025 | qR | 6 2 1 | 141335.1840 | .0203 | .0600 | . .v . |

| | | | | | | | | | | | | | | | |
|----|----------|--------------|------------|-------------|--------|--------|--|------|---|------|---|------|---|------|--|
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | 6026 | qR | 3 3 1 | 80735.9300 | .0579 | .0600 | | . | . | v | . | | | | |
| 4 | 6027 | qR | 4 3 1 | 100922.5110 | .0307 | .0900 | | . | . | v | . | | | | |
| 5 | 6028 | qR | 5 3 1 | 121110.8400 | .0286 | .0600 | | . | . | v | . | | | | |
| 6 | 6029 | qR | 6 3 1 | 141301.1720 | .0205 | .0600 | | . | . | v | . | | | | |
| 7 | 6030 | qR | 6 3 1 | 141301.1900 | .0385 | .0200 | | . | . | x | . | | | | |
| 8 | 6031 | qR | 4 4 1 | 100908.4260 | .0498 | .0900 | | . | . | v | . | | | | |
| 9 | 6032 | qR | 5 4 1 | 121092.2260 | .0214 | .0600 | | . | . | v | . | | | | |
| 10 | 6033 | qR | 6 4 1 | 141277.1920 | .0128 | .0600 | | . | . | v | . | | | | |
| 11 | 6034 | qR | 5 5 1 | 121070.9360 | .0140 | .0600 | | . | . | v | . | | | | |
| 12 | 6035 | qR | 6 5 1 | 141251.2200 | .0261 | .0600 | | . | . | v | . | | | | |
| 13 | 6036 | qR | 6 6 1 | 141220.6420 | .0268 | .0600 | | . | . | v | . | | | | |
| 14 | 6037 | qR | 1 0 -1 | 40366.7470 | .0258 | .0300 | | . | . | v | . | | | | |
| 15 | 6038 | qR | 2 0 -1 | 60547.4510 | .0182 | .0300 | | . | . | v | . | | | | |
| 16 | 6039 | qR | 3 0 -1 | 80725.0220 | .0285 | .0600 | | . | . | v | . | | | | |
| 17 | 6040 | qR | 4 0 -1 | 100898.4540 | .0181 | .0900 | | . | . | v | . | | | | |
| 18 | 6041 | qR | 5 0 -1 | 121066.9460 | .0165 | .0600 | | . | . | v | . | | | | |
| 19 | 6042 | qR | 6 0 -1 | 141229.8880 | .0097 | .0600 | | . | . | v | . | | | | |
| 20 | 6043 | qR | 1 1 -1 | 40364.4300 | .0238 | .0300 | | . | . | v | . | | | | |
| 21 | 6044 | qR | 2 1 -1 | 60545.0880 | -.0483 | .0300 | | . | . | x | . | | | | |
| 22 | 6045 | qR | 3 1 -1 | 80724.1120 | .0086 | .0600 | | . | . | v | . | | | | |
| 23 | 6046 | qR | 4 1 -1 | 100900.7460 | .0139 | .0900 | | . | . | v | . | | | | |
| 24 | 6047 | qR | 5 1 -1 | 121074.4820 | .0155 | .0600 | | . | . | v | . | | | | |
| 25 | 6048 | qR | 6 1 -1 | 141244.7840 | -.0024 | .0600 | | . | . | v | . | | | | |
| 26 | 6049 | qR | 2 2 -1 | 60538.7450 | .0452 | .0300 | | . | . | x | . | | | | |
| 27 | 6050 | qR | 3 2 -1 | 80716.2480 | -.0054 | .0600 | | . | . | v | . | | | | |
| 28 | 6051 | qR | 4 2 -1 | 100892.1090 | .0220 | .0900 | | . | . | v | . | | | | |
| 29 | 6052 | qR | 5 2 -1 | 121065.7620 | -.0186 | .0600 | | . | . | v | . | | | | |
| 30 | 6053 | qR | 6 2 -1 | 141236.9400 | .0143 | .0600 | | . | . | v | . | | | | |
| 31 | 6054 | qR | 3 3 -1 | 80703.9700 | .0354 | .0600 | | . | . | v | . | | | | |
| 32 | 6055 | qR | 4 3 -1 | 100877.2980 | .0206 | .0900 | | . | . | v | . | | | | |
| 33 | 6056 | qR | 5 3 -1 | 121048.8560 | -.0103 | .0600 | | . | . | v | . | | | | |
| 34 | 6057 | qR | 6 3 -1 | 141218.3660 | .0060 | .0600 | | . | . | v | . | | | | |
| 35 | 6058 | qR | 4 4 -1 | 100857.2970 | .0142 | .0900 | | . | . | v | . | | | | |
| 36 | 6059 | qR | 5 4 -1 | 121025.3640 | -.0286 | .0600 | | . | . | v | . | | | | |
| 37 | 6060 | qR | 6 4 -1 | 141191.6760 | -.0091 | .0600 | | . | . | v | . | | | | |
| 38 | 6061 | qR | 5 5 -1 | 120995.8980 | -.0322 | .0600 | | . | . | v | . | | | | |
| 39 | 6062 | qR | 6 5 -1 | 141157.7700 | -.0230 | .0600 | | . | . | v | . | | | | |
| 40 | 6063 | qR | 6 6 -1 | 141117.0900 | .0080 | .0600 | | . | . | v | . | | | | |
| 41 | | | | | | | | | | | | | | | |
| 42 | File #10 | MeNC_v88.fr0 | No. data : | 79 | .50000 | MHz -> | | ---- | + | ---- | 0 | ---- | + | ---- | |
| 43 | 6064 | qR | 1 0 0 | 40524.5570 | .0557 | .0300 | | . | . | x | . | | | | |
| 44 | 6065 | qR | 2 0 0 | 60785.2150 | -.0614 | .0300 | | . | . | * | . | | | | |
| 45 | 6066 | qR | 3 0 0 | 81044.2500 | -.0323 | .0600 | | . | . | v | . | | | | |
| 46 | 6067 | qR | 4 0 0 | 101300.9220 | -.0106 | .0900 | | . | . | v | . | | | | |
| 47 | 6068 | qR | 5 0 0 | 121554.6780 | .0321 | .0600 | | . | . | v | . | | | | |
| 48 | 6069 | qR | 6 0 0 | 141804.8260 | -.0244 | .0600 | | . | . | v | . | | | | |
| 49 | 6070 | qR | 1 1 0 | 40523.7820 | .0693 | .1000 | | . | . | v | . | | | | |
| 50 | 6071 | qR | 2 1 0 | 60784.0120 | -.0665 | .0300 | | . | . | * | . | | | | |
| 51 | 6072 | qR | 3 1 0 | 81042.6040 | -.0527 | .0600 | | . | . | v | . | | | | |
| 52 | 6073 | qR | 4 1 0 | 101298.8250 | -.0300 | .0900 | | . | . | v | . | | | | |
| 53 | 6074 | qR | 5 1 0 | 121552.0980 | .0121 | .0600 | | . | . | v | . | | | | |
| 54 | 6075 | qR | 6 1 0 | 141801.6860 | -.0856 | .0600 | | . | . | x | . | | | | |
| 55 | 6076 | qR | 2 2 0 | 60780.4060 | -.0578 | .1000 | | . | . | v | . | | | | |
| 56 | 6077 | qR | 3 2 0 | 81037.7950 | .0474 | .0600 | | . | . | v | . | | | | |
| 57 | 6078 | qR | 4 2 0 | 101292.6180 | .0437 | .0900 | | . | . | v | . | | | | |
| 58 | 6079 | qR | 5 2 0 | 121544.3500 | .0127 | .0600 | | . | . | v | . | | | | |
| 59 | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | |

| | | | | | | | | | | |
|----|------|----|---------|-------------|--------|-------|--|---|---|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | 6080 | qR | 6 2 0 | 141792.4300 | -.0106 | .0600 | | . | v | . |
| 4 | 6081 | qR | 3 3 0 | 81029.8590 | .1686 | .2000 | | . | . | v |
| 5 | 6082 | qR | 4 3 0 | 101282.2620 | .0283 | .0900 | | . | . | v |
| 6 | 6083 | qR | 5 3 0 | 121531.5760 | .0422 | .0600 | | . | . | v |
| 7 | 6084 | qR | 6 3 0 | 141776.9780 | .0180 | .0600 | | . | . | v |
| 8 | 6085 | qR | 4 4 0 | 101268.1380 | .0558 | .0890 | | . | . | v |
| 9 | 6086 | qR | 5 4 0 | 121513.9440 | .0553 | .0600 | | . | . | v |
| 10 | 6087 | qR | 6 4 0 | 141755.3740 | -.0871 | .2000 | | . | . | v |
| 11 | 6088 | qR | 5 5 0 | 121491.8880 | .0331 | .0600 | | . | . | v |
| 12 | 6089 | qR | 6 5 0 | 141728.2300 | .0130 | .0600 | | . | . | v |
| 13 | 6090 | qR | 6 6 0 | 141695.7720 | -.0892 | .0600 | | . | x | . |
| 14 | 6091 | qR | 1 0 2 | 40520.0200 | .0049 | .0300 | | . | . | v |
| 15 | 6092 | qR | 2 0 2 | 60780.4060 | -.0691 | .1000 | | . | . | v |
| 16 | 6093 | qR | 3 0 2 | 81041.4470 | -.0303 | .0600 | | . | . | v |
| 17 | 6094 | qR | 4 0 2 | 101303.1510 | -.0485 | .0900 | | . | . | v |
| 18 | 6095 | qR | 5 0 2 | 121565.7660 | -.0477 | .0600 | | . | . | v |
| 19 | 6096 | qR | 6 0 2 | 141829.4300 | -.0506 | .0600 | | . | . | v |
| 20 | 6097 | qR | 1 1 2 | 40523.7820 | -.0788 | .1000 | | . | . | v |
| 21 | 6098 | qR | 2 1 2 | 60786.1370 | -.0094 | .0300 | | . | . | v |
| 22 | 6099 | qR | 3 1 2 | 81048.8670 | .0102 | .0600 | | . | . | v |
| 23 | 6100 | qR | 4 1 2 | 101312.1570 | .0277 | .0900 | | . | . | v |
| 24 | 6101 | qR | 5 1 2 | 121576.0840 | -.0098 | .0600 | | . | . | v |
| 25 | 6102 | qR | 6 1 2 | 141840.8400 | -.0255 | .0600 | | . | . | v |
| 26 | 6103 | qR | 2 -2 -2 | 60788.0220 | .1036 | .0300 | | . | . | * |
| 27 | 6104 | qR | 3 -2 -2 | 81050.0540 | .0652 | .0600 | | . | . | x |
| 28 | 6105 | qR | 4 -2 -2 | 101311.6080 | .0364 | .0900 | | . | . | v |
| 29 | 6106 | qR | 5 -2 -2 | 121572.5560 | .0113 | .0600 | | . | . | v |
| 30 | 6107 | qR | 6 -2 -2 | 141832.8240 | .0378 | .0600 | | . | . | v |
| 31 | 6108 | qR | 2 2 2 | 60789.7710 | -.0199 | .0300 | | . | . | v |
| 32 | 6109 | qR | 3 2 2 | 81054.6920 | .0235 | .0600 | | . | . | v |
| 33 | 6110 | qR | 4 2 2 | 101320.9440 | .0183 | .0900 | | . | . | v |
| 34 | 6111 | qR | 5 2 2 | 121588.9500 | .0505 | .0600 | | . | . | v |
| 35 | 6112 | qR | 6 2 2 | 141858.9320 | .0141 | .0600 | | . | . | v |
| 36 | 6113 | qR | 3 3 2 | 81052.0360 | .0624 | .0600 | | . | . | x |
| 37 | 6114 | qR | 4 3 2 | 101315.7210 | .0902 | .0900 | | . | . | x |
| 38 | 6115 | qR | 5 3 2 | 121579.7780 | .0438 | .0600 | | . | . | v |
| 39 | 6116 | qR | 6 3 2 | 141844.4600 | .0795 | .0600 | | . | . | x |
| 40 | 6117 | qR | 4 4 2 | 101310.4320 | .1119 | .0900 | | . | . | x |
| 41 | 6118 | qR | 5 4 2 | 121573.2860 | .1441 | .0600 | | . | . | * |
| 42 | 6119 | qR | 6 4 2 | 141836.4920 | .1138 | .0600 | | . | . | x |
| 43 | 6120 | qR | 5 5 2 | 121561.1380 | .1215 | .0600 | | . | . | * |
| 44 | 6121 | qR | 6 5 2 | 141822.1100 | .1252 | .0600 | | . | . | * |
| 45 | 6122 | qR | 6 6 2 | 141801.6860 | .4912 | .5000 | | . | . | v |
| 46 | 6123 | qR | 1 1 -2 | 40514.0590 | -.0838 | .0300 | | . | * | . |
| 47 | 6124 | qR | 2 1 -2 | 60771.7250 | -.0725 | .0300 | | . | * | . |
| 48 | 6125 | qR | 3 1 -2 | 81029.8590 | -.2929 | .2000 | | x | . | . |
| 49 | 6126 | qR | 4 1 -2 | 101289.2520 | -.1854 | .0900 | | . | * | . |
| 50 | 6127 | qR | 5 1 -2 | 121549.6580 | -.2214 | .0600 | | . | * | . |
| 51 | 6128 | qR | 6 1 -2 | 141811.4080 | -.2835 | .0600 | | * | . | . |
| 52 | 6129 | qR | 2 2 -2 | 60759.6020 | -.0657 | .0300 | | . | * | . |
| 53 | 6130 | qR | 3 2 -2 | 81014.2820 | -.0430 | .0600 | | . | . | v |
| 54 | 6131 | qR | 4 2 -2 | 101270.1330 | -.0794 | .0900 | | . | . | v |
| 55 | 6132 | qR | 5 2 -2 | 121527.5380 | -.0931 | .0600 | | . | . | x |
| 56 | 6133 | qR | 6 2 -2 | 141786.7660 | -.1017 | .0600 | | . | . | x |
| 57 | 6134 | qR | 3 3 -2 | 80993.7330 | -.0534 | .0600 | | . | . | v |
| 58 | 6135 | qR | 4 3 -2 | 101245.3590 | -.0305 | .0900 | | . | . | v |
| 59 | | | | | | | | | | |
| 60 | | | | | | | | | | |

| | | | | | | | | | | | | |
|------|----|---|---|----|-------------|--------|-------|--|---|----|---|--|
| 6136 | qR | 5 | 3 | -2 | 121499.0440 | -.0539 | .0600 | | . | v. | . | |
| 6137 | qR | 6 | 3 | -2 | 141755.3740 | .0643 | .2000 | | . | v. | . | |
| 6138 | qR | 4 | 4 | -2 | 101213.6070 | .0160 | .0900 | | . | v. | . | |
| 6139 | qR | 5 | 4 | -2 | 121463.0880 | .0092 | .0600 | | . | v. | . | |
| 6140 | qR | 6 | 4 | -2 | 141716.2400 | -.0144 | .0600 | | . | v. | . | |
| 6141 | qR | 5 | 5 | -2 | 121416.4100 | .1883 | .0600 | | . | . | * | |
| 6142 | qR | 6 | 5 | -2 | 141667.9880 | .1946 | .0600 | | . | . | * | |

99.it. step StDev : 1.39916E+00

| Data file | All / NZW | STD | cm-1 | MHz | Std/N |
|-----------------|-----------|------|----------|----------|----------|
| 1 nu8.wn | 2705 | 2705 | 1.40E-04 | 4.21E+00 | 5.07E-01 |
| 2 2nu80_a.wn | 1202 | 1202 | 2.29E-04 | 6.86E+00 | 7.98E-01 |
| 3 2nu80h.wn | 933 | 933 | 2.38E-04 | 7.15E+00 | 8.48E-01 |
| 4 2nu82h.wn | 966 | 966 | 2.84E-04 | 8.51E+00 | 9.57E-01 |
| 5 MeNC_v8.fre | 96 | 96 | 7.86E-07 | 2.36E-02 | 9.35E-01 |
| 6 MeNC_v82.fr+ | 42 | 42 | 2.35E-06 | 7.05E-02 | 2.71E+00 |
| 7 MeNC_v82.fr- | 28 | 28 | 6.38E-06 | 1.91E-01 | 6.45E+00 |
| 8 MeNC_v80.fre | 36 | 36 | 3.19E-06 | 9.56E-02 | 3.35E+00 |
| 9 MeNC_v8.fr0 | 55 | 55 | 1.03E-06 | 3.10E-02 | 4.68E-01 |
| 10 MeNC_v88.fr0 | 79 | 79 | 2.58E-06 | 7.74E-02 | 1.03E+00 |

| Adjusted parameters | cm-1 | error | MHz | err_% |
|---------------------|-------------------|-------|-------------------|-------|
| 2 B0 | 3.3532817044D-01 | | 1.0052885645D+04 | |
| 3 A0 | 5.2472340000D+00 | | 1.5730811786D+05 | |
| 4 DJ0 | 1.5651018040D-07 | | 4.6920571684D-03 | |
| 5 DJK0 | 7.5892924440D-06 | | 2.2752126363D-01 | |
| 6 DK0 | 8.5626000000D-05 | | 2.5670029009D+00 | |
| 7 HJ0 | -2.7357071869D-14 | | -8.2014438193D-10 | |
| 8 HJK0 | 7.9758079847D-11 | | 2.3910870803D-06 | |
| 9 HKJ0 | 2.0772630291D-10 | | 6.2274778941D-06 | |
| 11 LJ0 | 1.8231373120D-18 | | 5.4656281604D-14 | |
| 12 LJK0 | -9.7065996268D-16 | | -2.9099653609D-11 | |

| | | | | |
|-----------|---|-----------------------------------|-------------------|-----------|
| 31 E | 8 | 2.6731941492D+02 / 1.0717372D-05 | 8.0140344471D+06 | .000004 |
| 32 B | 8 | 3.3663134670D-01 / 6.1187973D-09 | 1.0091953887D+04 | .000002 |
| 33 A | 8 | 5.2472537062D+00 / 6.1679193D-07 | 1.5730870863D+05 | .000012 |
| 34 DJ0 | 8 | 1.6295581364D-07 / 5.7995373D-12 | 4.8852923916D-03 | .003559 |
| 35 DJK0 | 8 | 7.5924062782D-06 / 1.4930939D-10 | 2.2761461403D-01 | .001967 |
| 36 DK0 | 8 | 8.5556213459D-05 / 7.6249142D-09 | 2.5649107530D+00 | .008912 |
| 37 HJ0 | 8 | 4.5793795416D-15 / 1.0874666D-15 | 1.3728634489D-10 | 23.747030 |
| 38 HJK | 8 | 7.8727419942D-11 / 2.8285681D-14 | 2.3601886736D-06 | .035929 |
| 39 HKJ | 8 | 2.0337222392D-10 / 7.4696977D-13 | 6.0969458899D-06 | .367292 |
| 40 HK | 8 | 4.2087260364D-11 / 2.3229690D-11 | 1.2617443235D-06 | 55.194113 |
| 41 LJ0 | 8 | 1.8231373120D-18 | 5.4656281604D-14 | |
| 42 LJK0 | 8 | -9.7065996268D-16 | -2.9099653609D-11 | |
| 46 Adz | 8 | 4.8702548295D+00 / 1.3093806D-06 | 1.4600656664D+05 | .000027 |
| 47 EtaJ | 8 | 1.9601735000D-05 / 1.0485712D-09 | 5.8764523166D-01 | .005349 |
| 48 EtaK | 8 | 3.3784704701D-04 / 3.3329153D-08 | 1.0128399665D+01 | .009865 |
| 49 TauJ | 8 | -2.3476009823D-10 / 4.4965805D-13 | -7.0379306889D-06 | .191539 |
| 50 TauJK8 | 8 | -1.4869331287D-09 / 6.6615888D-12 | -4.4577133753D-05 | .448009 |

| | | | | |
|------|----|----------------------------------|------------------|---------|
| 56 E | 80 | 5.2463313292D+02 / 1.5325621D-05 | 1.5728105647D+07 | .000003 |
| 57 B | 80 | 3.3794298985D-01 / 1.2907825D-08 | 1.0131275959D+04 | .000004 |
| 58 A | 80 | 5.2481717736D+00 / 1.5176876D-06 | 1.5733623160D+05 | .000029 |

1
2
3 59 DJ0 80 1.6968392184D-07 / 1.2667753D-11 5.0869960011D-03 .007465
4 60 DJK080 7.6403276046D-06 / 7.4740078D-10 2.2905125925D-01 .009782
5 61 DK0 80 8.2815000637D-05 / 4.1680128D-08 2.4827312600D+00 .050329
6 62 HJ0 -2.7357071869D-14 -8.2014438193D-10
7 63 HJK 80 1.3378365448D-10 / 2.1048186D-13 4.0107330618D-06 .157330
8 64 HKJ 80 1.1728136350D-09 / 8.2603825D-12 3.5160068242D-05 .704322
9 65 HK 80 -4.8672887179D-08 / 3.4131431D-10 -1.4591764485D-03 .701241
10 66 LJ0 1.8231373120D-18 5.4656281604D-14
11 67 LJK0 -9.7065996268D-16 -2.9099653609D-11
12
13 71 E 82 5.4529538735D+02 / 2.0160421D-05 1.6347544451D+07 .000004
14 72 B 82 3.3789992395D-01 / 9.0557013D-09 1.0129984876D+04 .000003
15 73 A 82 5.2461393966D+00 / 1.7195550D-06 1.5727530247D+05 .000033
16 74 DJ 82 1.6954403699D-07 / 9.9316066D-12 5.0828023588D-03 .005858
17 75 DJK 82 7.5967189066D-06 / 4.6583712D-10 2.2774390337D-01 .006132
18 76 DK 82 8.4744950103D-05 / 3.7944518D-08 2.5405896895D+00 .044775
19 77 HJ0 -2.7357071869D-14 -8.2014438193D-10
20 78 HJK 82 3.0044396565D-11 / 2.6990821D-13 9.0070834953D-07 .898365
21 79 HKJ 82 1.5418565511D-10 / 3.9205368D-12 4.6223696534D-06 2.542738
22 80 HK 82 -2.4635382870D-09 / 1.8195403D-10 -7.3855019845D-05 7.385882
23 81 LJ0 1.8231373120D-18 5.4656281604D-14
24 82 LJK0 -9.7065996268D-16 -2.9099653609D-11
25 86 Azet82 4.8720352909D+00 / 1.3611844D-06 1.4605994353D+05 .000028
26 87 EtaJ82 1.9607980586D-05 / 8.8386197D-10 5.8783246964D-01 .004508
27 88 EtaK82 3.3637543720D-04 / 6.4417957D-08 1.0084281913D+01 .019151
28
29 146 q22 8 2.3151525205D-04 / 4.1240831D-09 6.9406526475D+00 .001781
30 147 q22J 8 -1.4399095035D-09 / 3.3116954D-12 -4.3167400937D-05 .229993
31 151 q22JJ8 1.0577217037D-14 / 5.9001782D-16 3.1709698944D-10 5.578195
32 155 q22 88 2.3244419105D-04 / 2.5292422D-09 6.9685015383D+00 .001088
33 156 q22J88 -1.4604537268D-09 / 1.5287093D-12 -4.3783301255D-05 .104674
34 177 Frm812 7.9415225965D-01 / 2.2133286D-04 2.3808085795D+04 .027870
35 178 FrJ812 -7.6939324159D-06 / 6.3344912D-08 -2.3065829106D-01 .823310
36 189 C28-88 1.5835826429D-06 / 4.1932097D-08 4.7474613296D-02 2.647926
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60