



Full wwPDB X-ray Structure Validation Report

Mar 31, 2014 – 05:25 PM BST

PDB ID : 1J4Z
Title : Structural and mechanistic basis for allostery in the bacterial chaperonin GroEL; see remark 400
Authors : Wang, J.
Deposited on : 2002-01-02
Resolution : 3.52 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

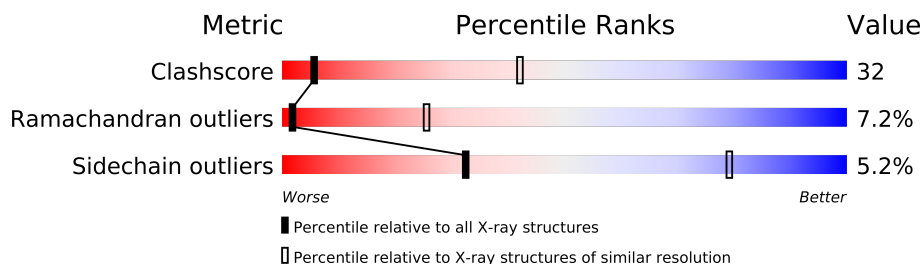
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : **NOT EXECUTED**
Percentile statistics : 21963
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23004

1 Overall quality at a glance

The reported resolution of this entry is 3.52 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	79885	1020 (3.68-3.36)
Ramachandran outliers	78287	1082 (3.70-3.34)
Sidechain outliers	78261	1082 (3.70-3.34)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	547	
1	B	547	
1	C	547	
1	D	547	
1	E	547	
1	F	547	
1	G	547	
1	H	547	
1	I	547	
1	J	547	
1	K	547	
1	L	547	
1	M	547	
1	N	547	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 53998 atoms, of which 0 are hydrogen and 0 are deuterium.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called GROEL PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	B	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	C	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	D	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	E	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	F	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	G	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	H	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	I	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	J	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	K	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	L	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	M	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			
1	N	525	Total	C	N	O	S	0	0	0
			3857	2400	667	770	20			

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
A	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
B	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
B	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
C	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
C	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
D	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
D	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
E	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
E	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
F	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
F	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
G	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
G	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
H	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
H	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
I	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
I	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
J	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
J	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
K	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
K	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
L	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
L	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
M	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
M	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
N	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
N	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5

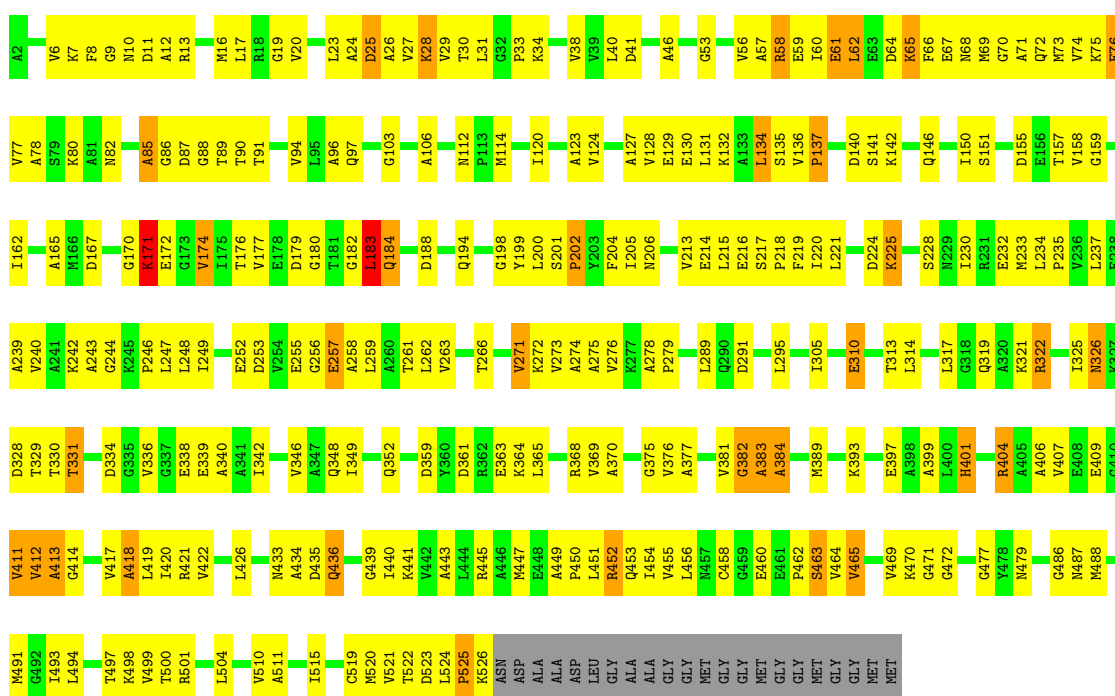
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

Note EDS was not executed.

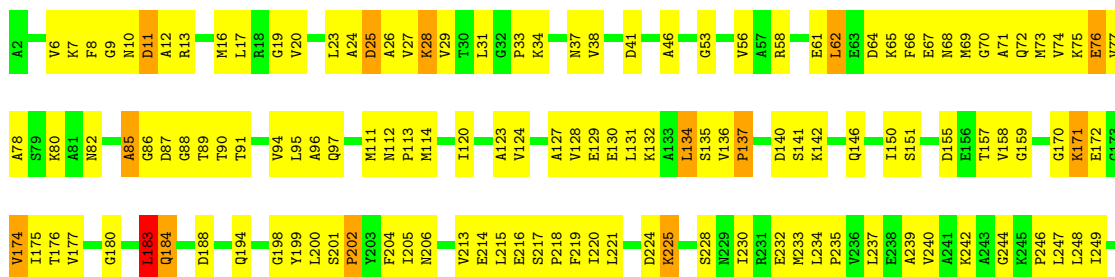
• Molecule 1: GROEL PROTEIN

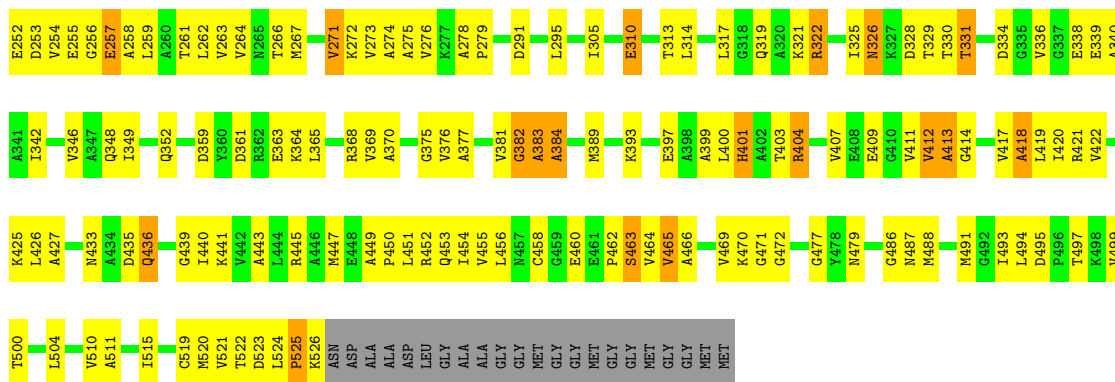
Chain A:



• Molecule 1: GROEL PROTEIN

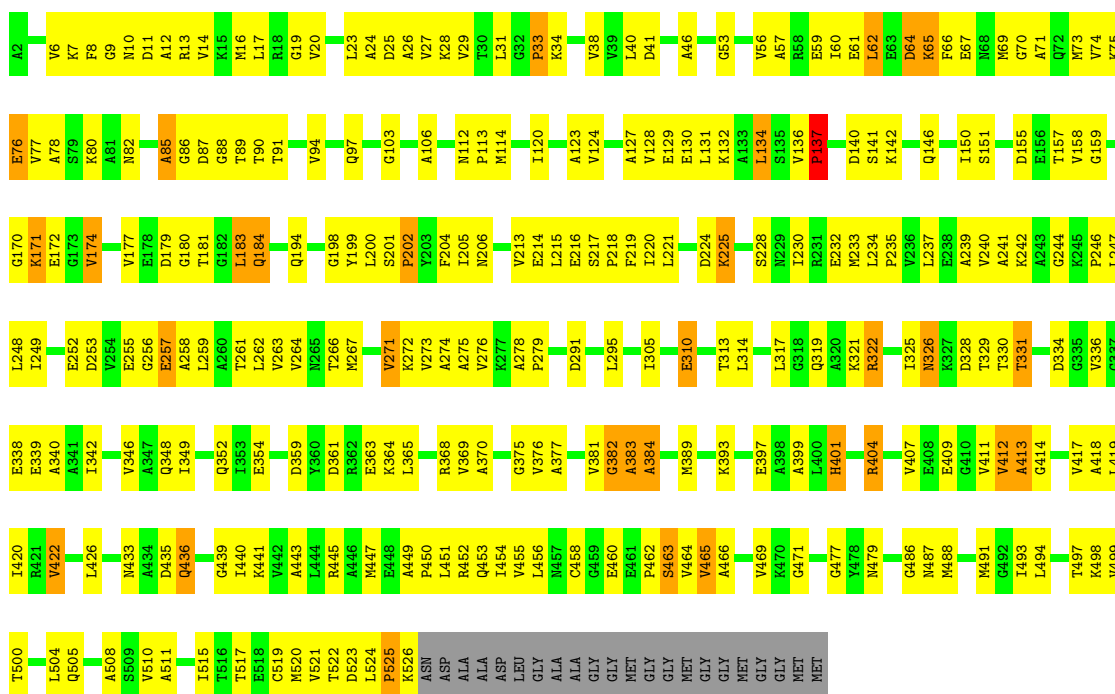
Chain B:





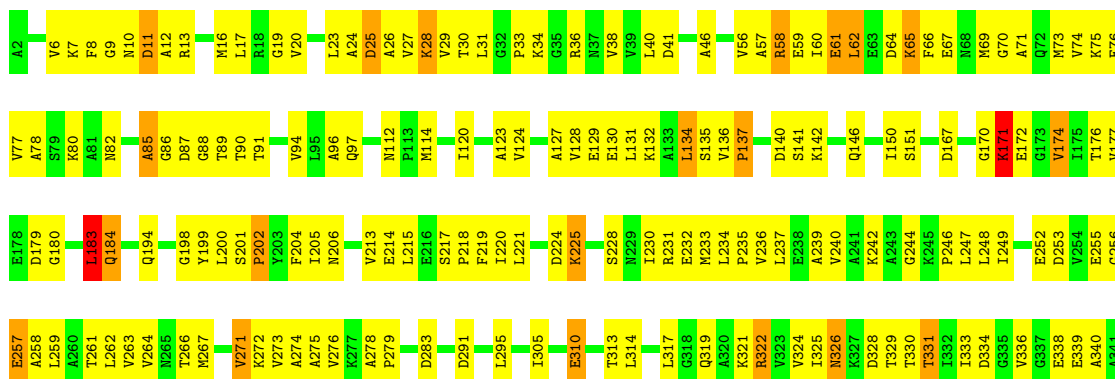
• Molecule 1: GROEL PROTEIN

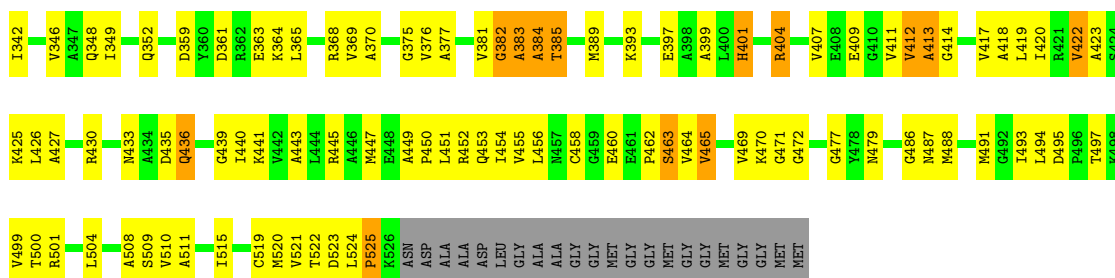
Chain C:



• Molecule 1: GROEL PROTEIN

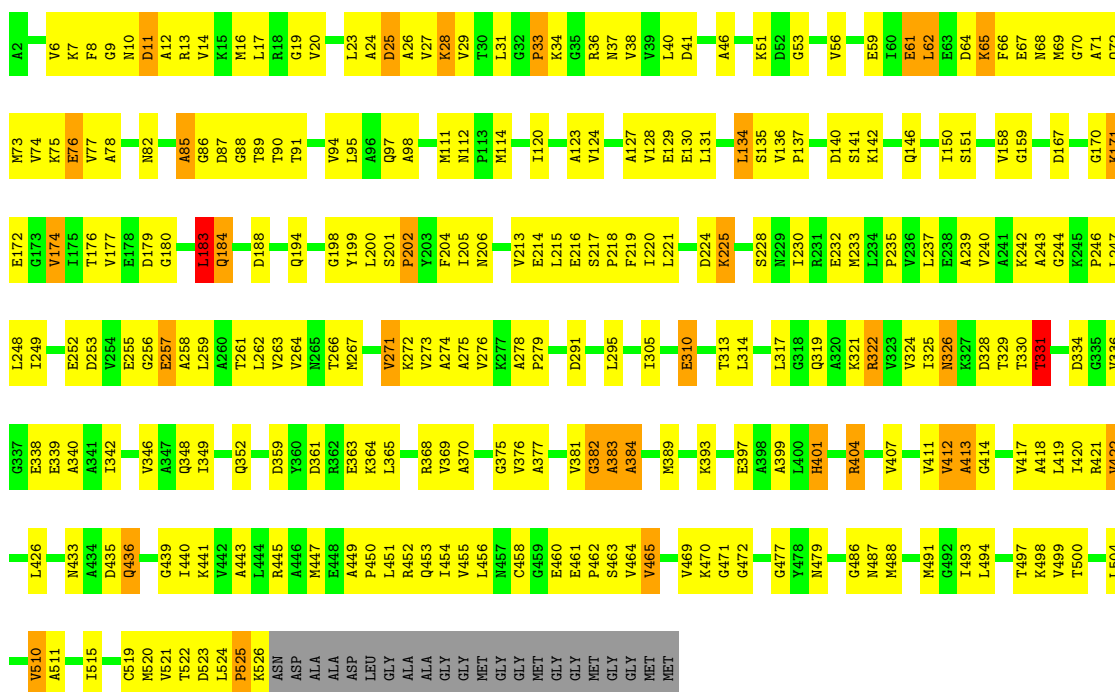
Chain D:





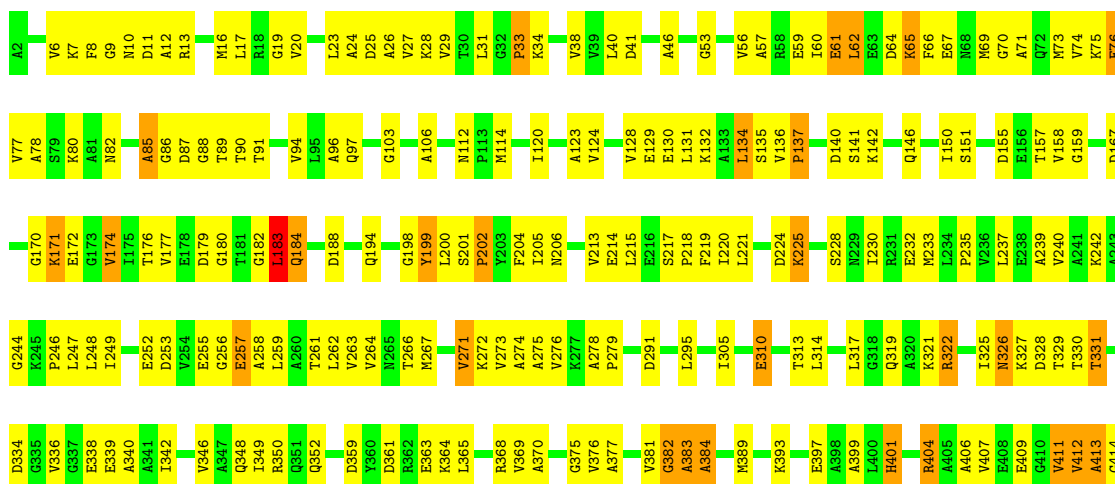
• Molecule 1: GROEL PROTEIN

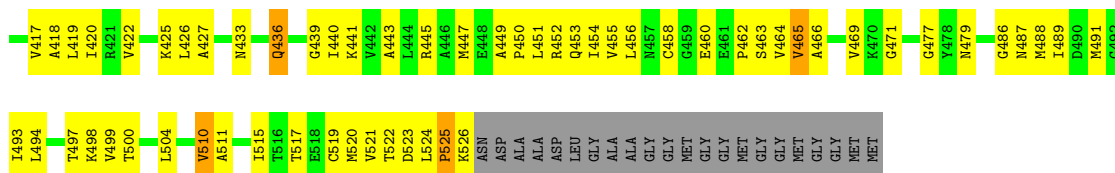
Chain E:



• Molecule 1: GROEL PROTEIN

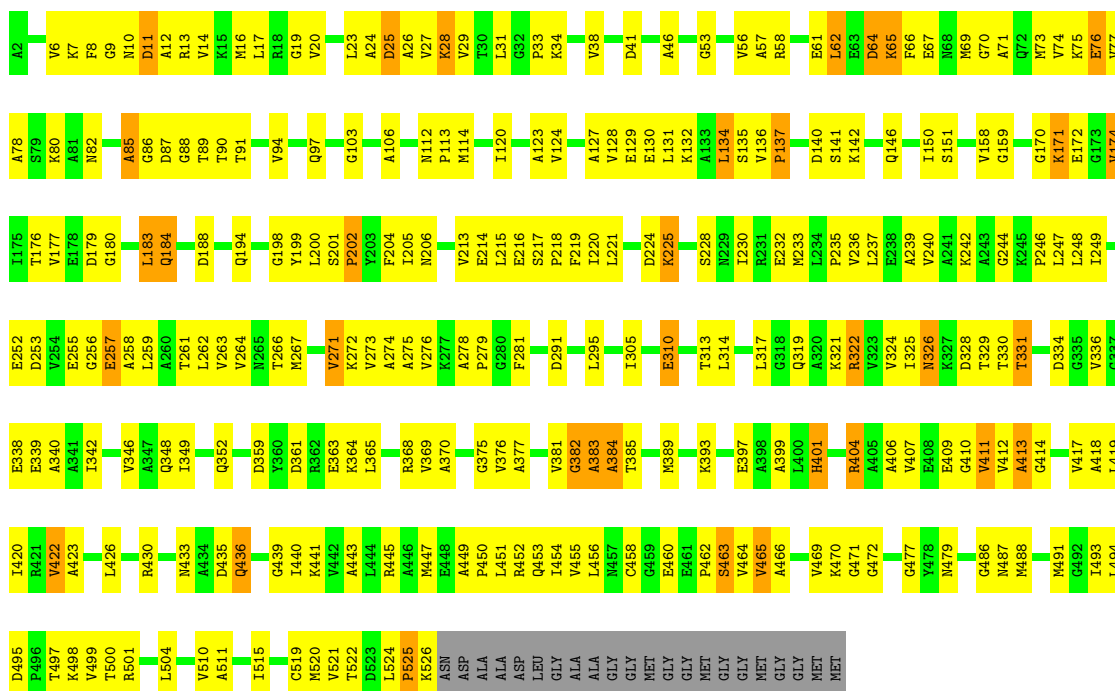
Chain F:





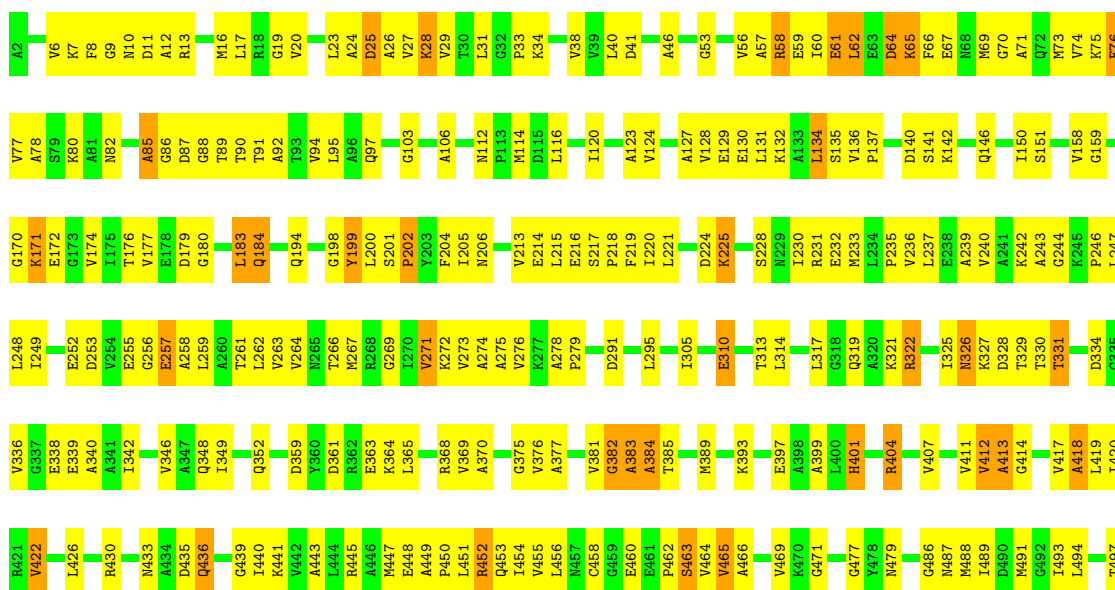
• Molecule 1: GROEL PROTEIN

Chain G:

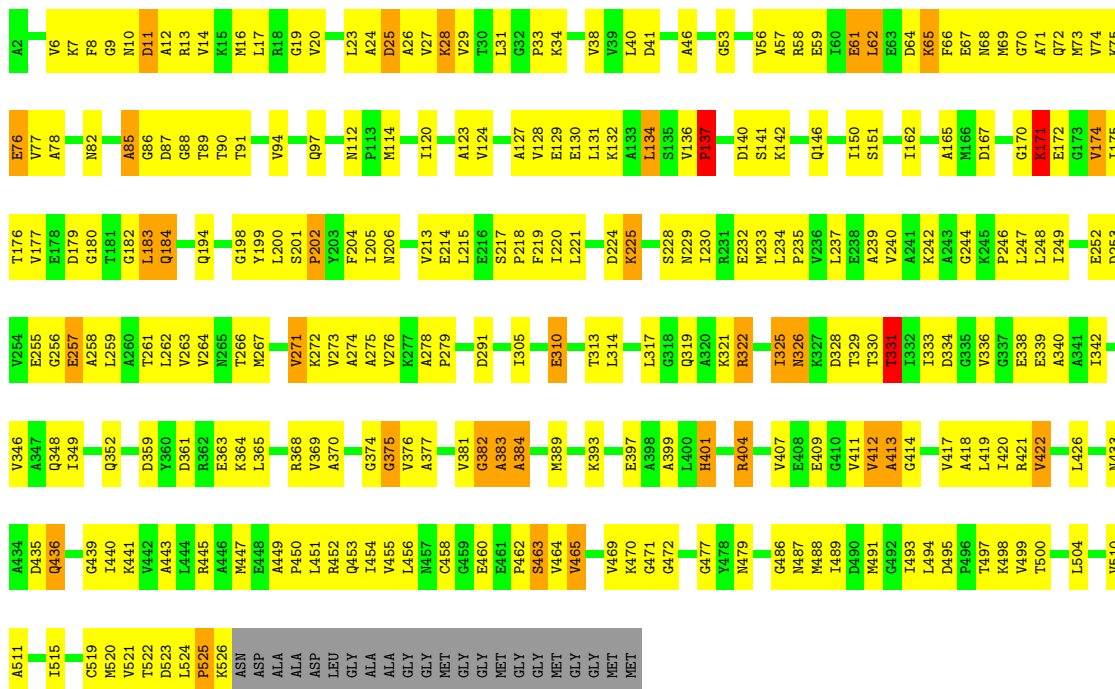


• Molecule 1: GROEL PROTEIN

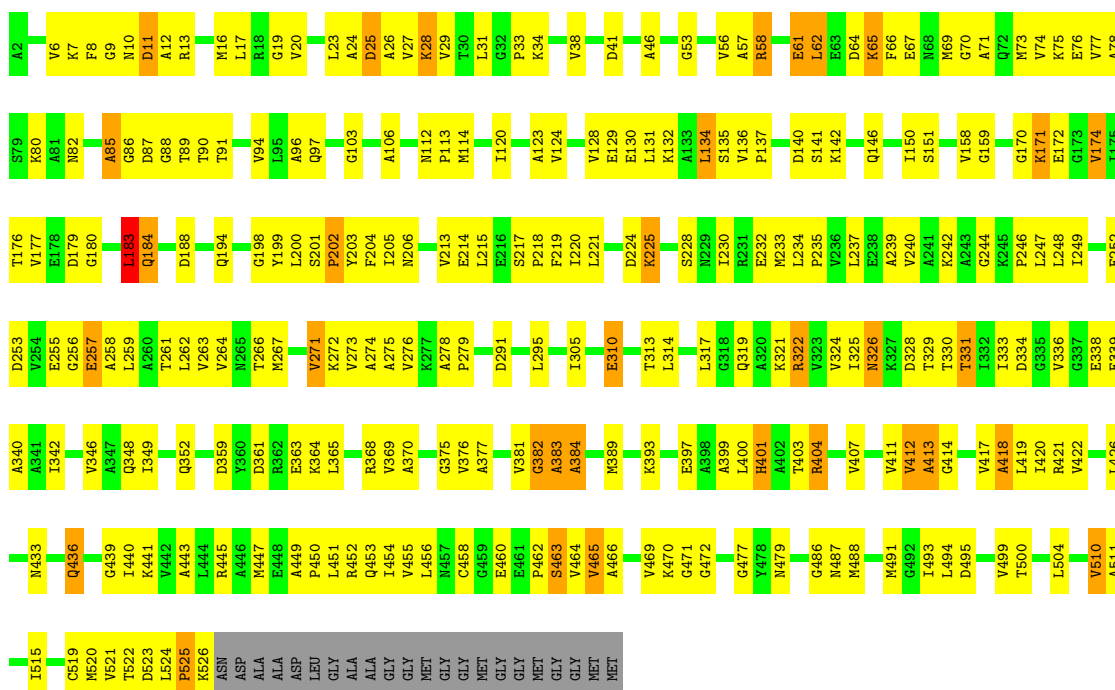
Chain H:



Chain I:

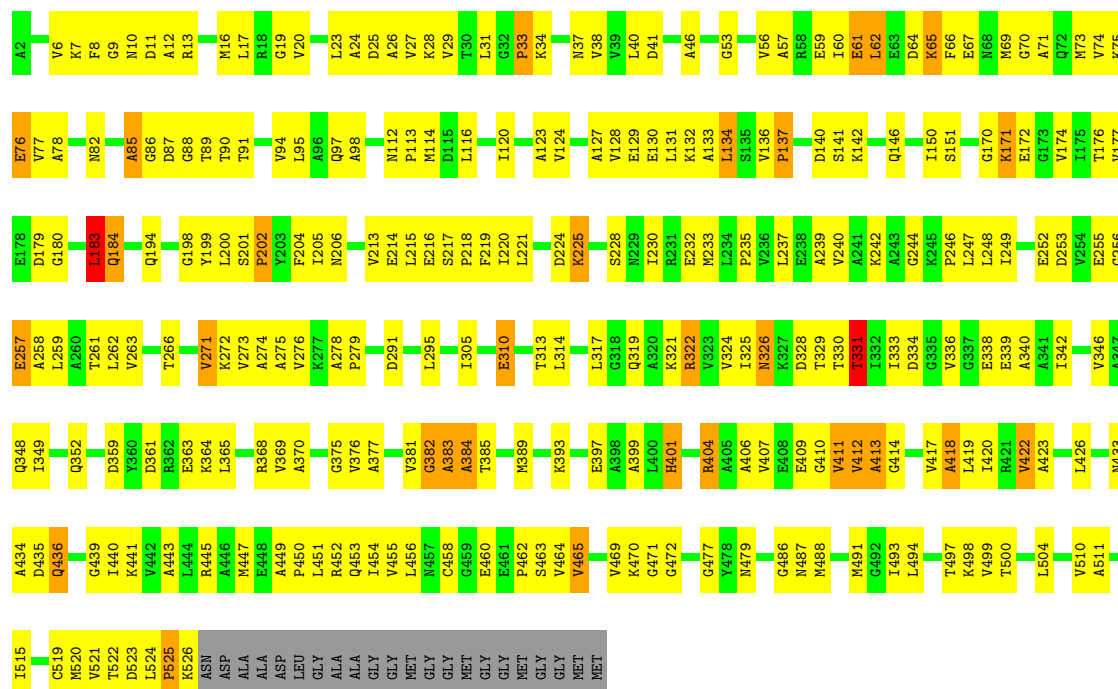


Chain J:



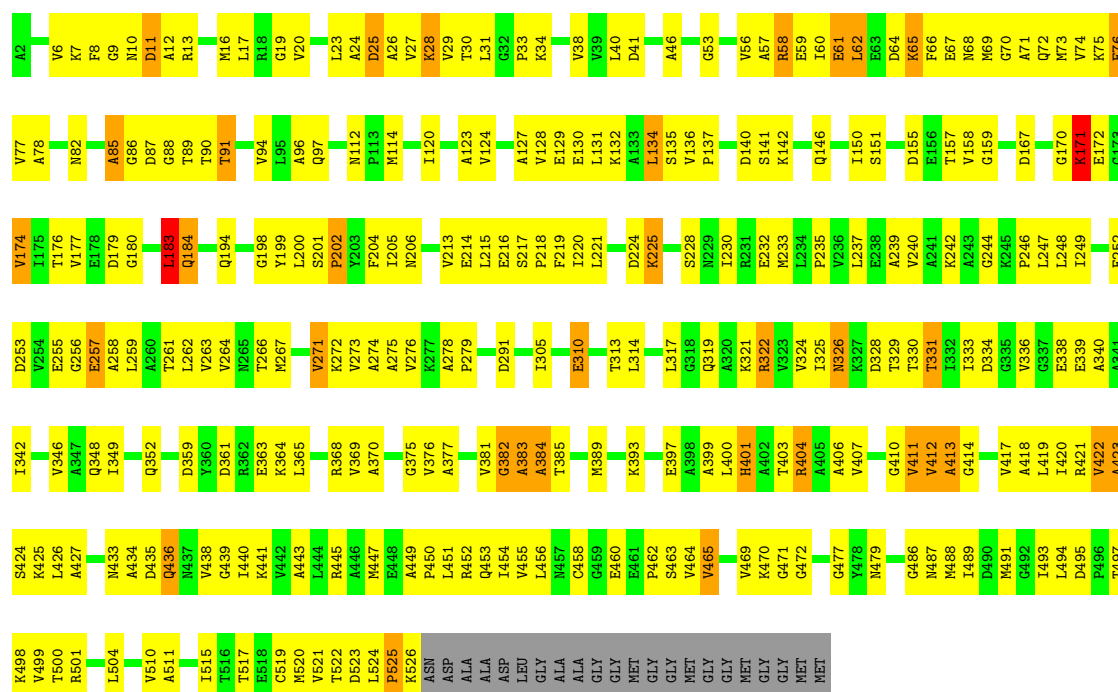
- Molecule 1: GROEL PROTEIN

Chain K:



- Molecule 1: GROEL PROTEIN

Chain L:



- Molecule 1: GROEL PROTEIN

Chain M:





4 Data and refinement statistics

EDS was not executed - this section will therefore be incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	137.67Å 264.24Å 294.80Å 90.00° 92.39° 90.00°	Depositor
Resolution (Å)	20.00 – 3.52	Depositor
% Data completeness (in resolution range)	76.5 (20.00-3.52)	Depositor
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.87 (at 3.56Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.291 , 0.298	Depositor
Wilson B-factor (Å ²)	61.4	Xtriage
Anisotropy	0.684	Xtriage
Estimated twinning fraction	0.069 for h,-k,-l	Xtriage
L-test for twinning	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	2 of 198920 reflections (0.001%)	Xtriage
Total number of atoms	53998	wwPDB-VP
Average B, all atoms (Å ²)	79.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.03% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.46	0/3885	0.65	0/5245
1	B	0.48	0/3885	0.65	0/5245
1	C	0.48	0/3885	0.66	0/5245
1	D	0.48	0/3885	0.65	0/5245
1	E	0.47	0/3885	0.66	0/5245
1	F	0.47	0/3885	0.66	0/5245
1	G	0.47	0/3885	0.66	0/5245
1	H	0.48	0/3885	0.66	0/5245
1	I	0.51	0/3885	0.68	0/5245
1	J	0.48	0/3885	0.66	0/5245
1	K	0.49	0/3885	0.66	0/5245
1	L	0.49	0/3885	0.66	0/5245
1	M	0.53	0/3885	0.68	0/5245
1	N	0.52	0/3885	0.67	0/5245
All	All	0.49	0/54390	0.66	0/73430

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3857	0	3989	264	0
1	B	3857	0	3989	252	0
1	C	3857	0	3989	251	1
1	D	3857	0	3989	261	0
1	E	3857	0	3989	248	0
1	F	3857	0	3989	244	1
1	G	3857	0	3989	261	0
1	H	3857	0	3989	261	0
1	I	3857	0	3989	246	0
1	J	3857	0	3989	254	0
1	K	3857	0	3989	258	0
1	L	3857	0	3989	262	0
1	M	3857	0	3989	259	0
1	N	3857	0	3989	258	0
All	All	53998	0	55846	3489	1

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 32.

All (3489) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:230:ILE:HD12	1:E:261:THR:HG21	1.32	1.10
1:D:230:ILE:HD12	1:D:261:THR:HG21	1.33	1.10
1:C:230:ILE:HD12	1:C:261:THR:HG21	1.32	1.10
1:A:183:LEU:H	1:A:383:ALA:HB3	1.16	1.09
1:G:230:ILE:HD12	1:G:261:THR:HG21	1.32	1.09
1:L:230:ILE:HD12	1:L:261:THR:HG21	1.33	1.09
1:K:230:ILE:HD12	1:K:261:THR:HG21	1.33	1.09
1:M:230:ILE:HD12	1:M:261:THR:HG21	1.33	1.09
1:H:183:LEU:H	1:H:383:ALA:HB3	1.19	1.08
1:A:230:ILE:HD12	1:A:261:THR:HG21	1.34	1.07
1:C:183:LEU:H	1:C:383:ALA:HB3	1.19	1.06
1:H:230:ILE:HD12	1:H:261:THR:HG21	1.34	1.06
1:N:183:LEU:H	1:N:383:ALA:HB3	1.18	1.06
1:B:183:LEU:H	1:B:383:ALA:HB3	1.18	1.06
1:J:230:ILE:HD12	1:J:261:THR:HG21	1.33	1.06
1:N:230:ILE:HD12	1:N:261:THR:HG21	1.32	1.06
1:F:230:ILE:HD12	1:F:261:THR:HG21	1.32	1.06
1:D:183:LEU:H	1:D:383:ALA:HB3	1.18	1.06
1:M:183:LEU:H	1:M:383:ALA:HB3	1.18	1.06
1:G:183:LEU:H	1:G:383:ALA:HB3	1.19	1.06
1:I:230:ILE:HD12	1:I:261:THR:HG21	1.33	1.05
1:J:183:LEU:H	1:J:383:ALA:HB3	1.21	1.05

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:230:ILE:HD12	1:B:261:THR:HG21	1.34	1.05
1:K:183:LEU:H	1:K:383:ALA:HB3	1.21	1.05
1:E:183:LEU:H	1:E:383:ALA:HB3	1.17	1.05
1:C:6:VAL:HG22	1:C:521:VAL:HG22	1.41	1.03
1:I:183:LEU:H	1:I:383:ALA:HB3	1.19	1.03
1:F:183:LEU:H	1:F:383:ALA:HB3	1.19	1.02
1:L:183:LEU:H	1:L:383:ALA:HB3	1.21	1.02
1:A:524:LEU:HD12	1:A:525:PRO:HD2	1.43	1.00
1:D:6:VAL:HG22	1:D:521:VAL:HG22	1.44	1.00
1:H:524:LEU:HD12	1:H:525:PRO:HD2	1.43	1.00
1:I:524:LEU:HD12	1:I:525:PRO:HD2	1.44	1.00
1:G:6:VAL:HG22	1:G:521:VAL:HG22	1.42	1.00
1:N:524:LEU:HD12	1:N:525:PRO:HD2	1.42	1.00
1:L:6:VAL:HG22	1:L:521:VAL:HG22	1.44	0.99
1:D:524:LEU:HD12	1:D:525:PRO:HD2	1.43	0.99
1:B:6:VAL:HG22	1:B:521:VAL:HG22	1.42	0.99
1:C:524:LEU:HD12	1:C:525:PRO:HD2	1.45	0.99
1:J:6:VAL:HG22	1:J:521:VAL:HG22	1.42	0.98
1:K:524:LEU:HD12	1:K:525:PRO:HD2	1.45	0.98
1:F:524:LEU:HD12	1:F:525:PRO:HD2	1.45	0.98
1:B:524:LEU:HD12	1:B:525:PRO:HD2	1.46	0.98
1:L:524:LEU:HD12	1:L:525:PRO:HD2	1.46	0.98
1:M:6:VAL:HG22	1:M:521:VAL:HG22	1.46	0.97
1:G:524:LEU:HD12	1:G:525:PRO:HD2	1.45	0.97
1:H:6:VAL:HG22	1:H:521:VAL:HG22	1.44	0.97
1:F:6:VAL:HG22	1:F:521:VAL:HG22	1.45	0.97
1:E:524:LEU:HD12	1:E:525:PRO:HD2	1.47	0.97
1:J:524:LEU:HD12	1:J:525:PRO:HD2	1.47	0.97
1:H:46:ALA:HB2	1:I:76:GLU:HG3	1.47	0.96
1:A:6:VAL:HG22	1:A:521:VAL:HG22	1.47	0.96
1:B:235:PRO:HG3	1:B:310:GLU:HA	1.49	0.95
1:N:6:VAL:HG22	1:N:521:VAL:HG22	1.45	0.94
1:K:6:VAL:HG22	1:K:521:VAL:HG22	1.48	0.94
1:M:524:LEU:HD12	1:M:525:PRO:HD2	1.49	0.93
1:E:6:VAL:HG22	1:E:521:VAL:HG22	1.48	0.93
1:A:183:LEU:N	1:A:383:ALA:HB3	1.84	0.92
1:A:183:LEU:H	1:A:383:ALA:CB	1.81	0.92
1:G:235:PRO:HG3	1:G:310:GLU:HA	1.52	0.92
1:M:183:LEU:H	1:M:383:ALA:CB	1.82	0.92
1:H:235:PRO:HG3	1:H:310:GLU:HA	1.52	0.91
1:A:235:PRO:HG3	1:A:310:GLU:HA	1.52	0.91
1:E:235:PRO:HG3	1:E:310:GLU:HA	1.50	0.91

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:183:LEU:N	1:M:383:ALA:HB3	1.85	0.91
1:C:235:PRO:HG3	1:C:310:GLU:HA	1.50	0.91
1:A:76:GLU:HG3	1:G:46:ALA:HB2	1.51	0.91
1:N:183:LEU:H	1:N:383:ALA:CB	1.83	0.90
1:B:183:LEU:H	1:B:383:ALA:CB	1.83	0.90
1:H:183:LEU:H	1:H:383:ALA:CB	1.84	0.90
1:C:183:LEU:H	1:C:383:ALA:CB	1.84	0.90
1:D:235:PRO:HG3	1:D:310:GLU:HA	1.53	0.90
1:N:235:PRO:HG3	1:N:310:GLU:HA	1.51	0.90
1:H:183:LEU:N	1:H:383:ALA:HB3	1.87	0.90
1:I:183:LEU:N	1:I:383:ALA:HB3	1.87	0.90
1:I:235:PRO:HG3	1:I:310:GLU:HA	1.52	0.90
1:E:183:LEU:N	1:E:383:ALA:HB3	1.86	0.90
1:I:183:LEU:H	1:I:383:ALA:CB	1.84	0.89
1:I:6:VAL:HG22	1:I:521:VAL:HG22	1.51	0.89
1:E:183:LEU:H	1:E:383:ALA:CB	1.84	0.89
1:B:183:LEU:N	1:B:383:ALA:HB3	1.86	0.89
1:G:183:LEU:N	1:G:383:ALA:HB3	1.87	0.89
1:I:85:ALA:HB1	1:I:499:VAL:HG12	1.52	0.89
1:F:235:PRO:HG3	1:F:310:GLU:HA	1.52	0.89
1:L:235:PRO:HG3	1:L:310:GLU:HA	1.52	0.89
1:J:235:PRO:HG3	1:J:310:GLU:HA	1.53	0.88
1:N:183:LEU:N	1:N:383:ALA:HB3	1.86	0.88
1:G:183:LEU:H	1:G:383:ALA:CB	1.85	0.88
1:G:19:GLY:O	1:G:71:ALA:HB2	1.71	0.88
1:C:183:LEU:N	1:C:383:ALA:HB3	1.87	0.88
1:D:183:LEU:N	1:D:383:ALA:HB3	1.87	0.88
1:H:76:GLU:HG3	1:N:46:ALA:HB2	1.55	0.88
1:D:183:LEU:H	1:D:383:ALA:CB	1.85	0.88
1:F:183:LEU:N	1:F:383:ALA:HB3	1.88	0.88
1:F:183:LEU:H	1:F:383:ALA:CB	1.86	0.88
1:M:235:PRO:HG3	1:M:310:GLU:HA	1.54	0.88
1:J:183:LEU:N	1:J:383:ALA:HB3	1.89	0.88
1:E:85:ALA:HB1	1:E:499:VAL:HG12	1.57	0.87
1:M:85:ALA:HB1	1:M:499:VAL:HG12	1.57	0.87
1:C:46:ALA:HB2	1:D:76:GLU:HG3	1.56	0.87
1:K:235:PRO:HG3	1:K:310:GLU:HA	1.53	0.87
1:J:183:LEU:H	1:J:383:ALA:CB	1.87	0.87
1:I:183:LEU:HD13	1:I:184:GLN:N	1.90	0.87
1:J:85:ALA:HB1	1:J:499:VAL:HG12	1.56	0.87
1:F:19:GLY:O	1:F:71:ALA:HB2	1.72	0.86
1:L:183:LEU:N	1:L:383:ALA:HB3	1.89	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:183:LEU:H	1:L:383:ALA:CB	1.87	0.86
1:G:85:ALA:HB1	1:G:499:VAL:HG12	1.56	0.86
1:F:266:THR:HB	1:F:272:LYS:HA	1.57	0.86
1:G:266:THR:HB	1:G:272:LYS:HA	1.58	0.86
1:F:449:ALA:HB3	1:F:450:PRO:HD3	1.58	0.86
1:K:183:LEU:H	1:K:383:ALA:CB	1.88	0.86
1:N:19:GLY:O	1:N:71:ALA:HB2	1.74	0.85
1:A:266:THR:HB	1:A:272:LYS:HA	1.58	0.85
1:F:85:ALA:HB1	1:F:499:VAL:HG12	1.57	0.85
1:K:183:LEU:N	1:K:383:ALA:HB3	1.90	0.85
1:L:46:ALA:HB2	1:M:76:GLU:HG3	1.58	0.85
1:M:183:LEU:HD13	1:M:184:GLN:N	1.92	0.85
1:A:19:GLY:O	1:A:71:ALA:HB2	1.76	0.85
1:I:19:GLY:O	1:I:71:ALA:HB2	1.76	0.85
1:H:183:LEU:HD13	1:H:184:GLN:N	1.92	0.85
1:L:19:GLY:O	1:L:71:ALA:HB2	1.76	0.85
1:K:19:GLY:O	1:K:71:ALA:HB2	1.77	0.85
1:H:19:GLY:O	1:H:71:ALA:HB2	1.74	0.84
1:D:266:THR:HB	1:D:272:LYS:HA	1.58	0.84
1:N:266:THR:HB	1:N:272:LYS:HA	1.60	0.84
1:C:8:PHE:HE1	1:C:519:CYS:HG	1.22	0.84
1:H:266:THR:HB	1:H:272:LYS:HA	1.60	0.84
1:E:19:GLY:O	1:E:71:ALA:HB2	1.76	0.84
1:M:266:THR:HB	1:M:272:LYS:HA	1.58	0.84
1:B:266:THR:HB	1:B:272:LYS:HA	1.59	0.84
1:A:85:ALA:HB1	1:A:499:VAL:HG12	1.57	0.83
1:B:46:ALA:HB2	1:C:76:GLU:HG3	1.59	0.83
1:H:85:ALA:HB1	1:H:499:VAL:HG12	1.58	0.83
1:H:511:ALA:O	1:H:515:ILE:HG13	1.79	0.83
1:C:19:GLY:O	1:C:71:ALA:HB2	1.77	0.83
1:L:85:ALA:HB1	1:L:499:VAL:HG12	1.61	0.83
1:A:449:ALA:HB3	1:A:450:PRO:HD3	1.60	0.83
1:H:131:LEU:HD12	1:H:422:VAL:HG21	1.60	0.83
1:M:511:ALA:O	1:M:515:ILE:HG13	1.78	0.83
1:I:183:LEU:HD13	1:I:184:GLN:H	1.42	0.83
1:N:85:ALA:HB1	1:N:499:VAL:HG12	1.58	0.83
1:I:321:LYS:O	1:I:322:ARG:HB2	1.78	0.83
1:J:266:THR:HB	1:J:272:LYS:HA	1.59	0.83
1:N:183:LEU:HD13	1:N:184:GLN:N	1.94	0.83
1:J:183:LEU:HD13	1:J:184:GLN:N	1.94	0.83
1:A:183:LEU:HD13	1:A:184:GLN:N	1.93	0.83
1:F:46:ALA:HB2	1:G:76:GLU:HG3	1.60	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:321:LYS:O	1:M:322:ARG:HB2	1.78	0.83
1:E:266:THR:HB	1:E:272:LYS:HA	1.58	0.83
1:M:131:LEU:HD12	1:M:422:VAL:HG21	1.59	0.83
1:D:19:GLY:O	1:D:71:ALA:HB2	1.77	0.83
1:E:511:ALA:O	1:E:515:ILE:HG13	1.78	0.82
1:I:266:THR:HB	1:I:272:LYS:HA	1.60	0.82
1:D:511:ALA:O	1:D:515:ILE:HG13	1.78	0.82
1:J:62:LEU:HD23	1:J:62:LEU:N	1.93	0.82
1:K:183:LEU:HD13	1:K:184:GLN:N	1.95	0.82
1:B:183:LEU:HD13	1:B:184:GLN:N	1.94	0.82
1:G:183:LEU:HD13	1:G:184:GLN:N	1.95	0.82
1:M:19:GLY:O	1:M:71:ALA:HB2	1.77	0.82
1:D:85:ALA:HB1	1:D:499:VAL:HG12	1.62	0.82
1:L:266:THR:HB	1:L:272:LYS:HA	1.60	0.81
1:J:321:LYS:O	1:J:322:ARG:HB2	1.80	0.81
1:H:183:LEU:HD13	1:H:184:GLN:H	1.43	0.81
1:J:183:LEU:HD13	1:J:184:GLN:H	1.45	0.81
1:A:321:LYS:O	1:A:322:ARG:HB2	1.80	0.81
1:A:511:ALA:O	1:A:515:ILE:HG13	1.81	0.81
1:J:511:ALA:O	1:J:515:ILE:HG13	1.78	0.81
1:D:131:LEU:HD12	1:D:422:VAL:HG21	1.63	0.81
1:F:511:ALA:O	1:F:515:ILE:HG13	1.81	0.81
1:N:511:ALA:O	1:N:515:ILE:HG13	1.79	0.81
1:F:321:LYS:O	1:F:322:ARG:HB2	1.79	0.81
1:K:82:ASN:HB2	1:K:89:THR:CG2	2.10	0.81
1:K:266:THR:HB	1:K:272:LYS:HA	1.61	0.81
1:L:183:LEU:HD13	1:L:184:GLN:N	1.95	0.81
1:I:62:LEU:N	1:I:62:LEU:HD23	1.95	0.81
1:N:321:LYS:O	1:N:322:ARG:HB2	1.80	0.81
1:J:19:GLY:O	1:J:71:ALA:HB2	1.80	0.81
1:B:131:LEU:HD12	1:B:422:VAL:HG21	1.63	0.81
1:E:62:LEU:HD23	1:E:62:LEU:N	1.96	0.81
1:C:511:ALA:O	1:C:515:ILE:HG13	1.80	0.81
1:D:46:ALA:HB2	1:E:76:GLU:HG3	1.61	0.81
1:H:321:LYS:O	1:H:322:ARG:HB2	1.81	0.80
1:C:82:ASN:HB2	1:C:89:THR:CG2	2.11	0.80
1:E:131:LEU:HD12	1:E:422:VAL:HG21	1.63	0.80
1:M:62:LEU:HD23	1:M:62:LEU:N	1.95	0.80
1:C:266:THR:HB	1:C:272:LYS:HA	1.61	0.80
1:H:519:CYS:HB3	1:N:38:VAL:HG22	1.63	0.80
1:B:511:ALA:O	1:B:515:ILE:HG13	1.79	0.80
1:K:85:ALA:HB1	1:K:499:VAL:HG12	1.64	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:449:ALA:HB3	1:J:450:PRO:HD3	1.64	0.80
1:J:46:ALA:HB2	1:K:76:GLU:HG3	1.63	0.80
1:C:183:LEU:HD13	1:C:184:GLN:N	1.96	0.80
1:L:511:ALA:O	1:L:515:ILE:HG13	1.80	0.80
1:B:321:LYS:O	1:B:322:ARG:HB2	1.81	0.80
1:F:82:ASN:HB2	1:F:89:THR:CG2	2.11	0.80
1:E:183:LEU:HD13	1:E:184:GLN:N	1.96	0.80
1:G:511:ALA:O	1:G:515:ILE:HG13	1.80	0.80
1:K:449:ALA:HB3	1:K:450:PRO:HD3	1.61	0.80
1:D:183:LEU:HD13	1:D:184:GLN:N	1.97	0.80
1:H:62:LEU:N	1:H:62:LEU:HD23	1.96	0.80
1:J:82:ASN:HB2	1:J:89:THR:CG2	2.12	0.80
1:F:62:LEU:N	1:F:62:LEU:HD23	1.96	0.80
1:E:321:LYS:O	1:E:322:ARG:HB2	1.81	0.80
1:F:183:LEU:HD13	1:F:184:GLN:N	1.97	0.80
1:C:85:ALA:HB1	1:C:499:VAL:HG12	1.64	0.79
1:J:131:LEU:HD12	1:J:422:VAL:HG21	1.65	0.79
1:L:131:LEU:HD12	1:L:422:VAL:HG21	1.64	0.79
1:G:183:LEU:HD13	1:G:184:GLN:H	1.46	0.79
1:G:321:LYS:O	1:G:322:ARG:HB2	1.80	0.79
1:N:131:LEU:HD12	1:N:422:VAL:HG21	1.63	0.79
1:K:321:LYS:O	1:K:322:ARG:HB2	1.80	0.79
1:K:183:LEU:HD13	1:K:184:GLN:H	1.48	0.79
1:L:321:LYS:O	1:L:322:ARG:HB2	1.81	0.79
1:B:19:GLY:O	1:B:71:ALA:HB2	1.81	0.79
1:I:131:LEU:HD12	1:I:422:VAL:HG21	1.65	0.79
1:E:449:ALA:HB3	1:E:450:PRO:HD3	1.64	0.79
1:B:85:ALA:HB1	1:B:499:VAL:HG12	1.64	0.79
1:C:321:LYS:O	1:C:322:ARG:HB2	1.81	0.79
1:A:183:LEU:HD13	1:A:184:GLN:H	1.45	0.79
1:C:183:LEU:HD13	1:C:184:GLN:H	1.48	0.79
1:N:62:LEU:N	1:N:62:LEU:HD23	1.97	0.78
1:H:82:ASN:HB2	1:H:89:THR:CG2	2.12	0.78
1:G:82:ASN:HB2	1:G:89:THR:CG2	2.12	0.78
1:K:46:ALA:HB2	1:L:76:GLU:HG3	1.65	0.78
1:B:82:ASN:HB2	1:B:89:THR:CG2	2.13	0.78
1:G:131:LEU:HD12	1:G:422:VAL:HG21	1.65	0.78
1:H:449:ALA:HB3	1:H:450:PRO:HD3	1.65	0.78
1:B:433:ASN:OD1	1:B:436:GLN:HB2	1.83	0.78
1:M:433:ASN:OD1	1:M:436:GLN:HB2	1.83	0.78
1:C:7:LYS:HD2	1:C:66:PHE:CE2	2.18	0.78
1:L:82:ASN:HB2	1:L:89:THR:CG2	2.13	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:183:LEU:HD13	1:B:184:GLN:H	1.46	0.78
1:C:131:LEU:HD12	1:C:422:VAL:HG21	1.66	0.78
1:M:82:ASN:HB2	1:M:89:THR:CG2	2.13	0.78
1:B:62:LEU:N	1:B:62:LEU:HD23	1.98	0.78
1:K:62:LEU:N	1:K:62:LEU:HD23	2.00	0.77
1:N:228:SER:O	1:N:257:GLU:HB3	1.84	0.77
1:G:7:LYS:HD2	1:G:66:PHE:CE2	2.19	0.77
1:E:183:LEU:HD13	1:E:184:GLN:H	1.47	0.77
1:A:433:ASN:OD1	1:A:436:GLN:HB2	1.84	0.77
1:M:183:LEU:HD13	1:M:184:GLN:H	1.45	0.77
1:A:131:LEU:HD12	1:A:422:VAL:HG21	1.66	0.77
1:G:433:ASN:OD1	1:G:436:GLN:HB2	1.84	0.77
1:N:183:LEU:HD13	1:N:184:GLN:H	1.47	0.77
1:B:228:SER:O	1:B:257:GLU:HB3	1.85	0.77
1:I:449:ALA:HB3	1:I:450:PRO:HD3	1.66	0.77
1:A:46:ALA:HB2	1:B:76:GLU:HG3	1.66	0.77
1:H:7:LYS:HD2	1:H:66:PHE:CE2	2.19	0.77
1:L:62:LEU:HD23	1:L:62:LEU:N	2.00	0.77
1:E:7:LYS:HD2	1:E:66:PHE:CE2	2.19	0.77
1:K:131:LEU:HD12	1:K:422:VAL:HG21	1.67	0.77
1:E:433:ASN:OD1	1:E:436:GLN:HB2	1.84	0.77
1:J:7:LYS:HD2	1:J:66:PHE:CE2	2.20	0.77
1:D:62:LEU:N	1:D:62:LEU:HD23	2.00	0.77
1:E:82:ASN:HB2	1:E:89:THR:CG2	2.15	0.77
1:G:62:LEU:HD23	1:G:62:LEU:N	2.00	0.77
1:L:183:LEU:HD13	1:L:184:GLN:H	1.46	0.77
1:C:228:SER:O	1:C:257:GLU:HB3	1.85	0.77
1:B:7:LYS:HD2	1:B:66:PHE:CE2	2.19	0.76
1:A:82:ASN:HB2	1:A:89:THR:CG2	2.14	0.76
1:C:449:ALA:HB3	1:C:450:PRO:HD3	1.67	0.76
1:A:62:LEU:N	1:A:62:LEU:HD23	1.98	0.76
1:K:7:LYS:HD2	1:K:66:PHE:CE2	2.20	0.76
1:D:449:ALA:HB3	1:D:450:PRO:HD3	1.66	0.76
1:K:228:SER:O	1:K:257:GLU:HB3	1.86	0.76
1:H:200:LEU:HG	1:H:275:ALA:O	1.86	0.76
1:F:131:LEU:HD12	1:F:422:VAL:HG21	1.66	0.76
1:D:183:LEU:HD13	1:D:184:GLN:H	1.49	0.76
1:J:228:SER:O	1:J:257:GLU:HB3	1.86	0.76
1:M:228:SER:O	1:M:257:GLU:HB3	1.85	0.76
1:N:7:LYS:HD2	1:N:66:PHE:CE2	2.21	0.76
1:F:433:ASN:OD1	1:F:436:GLN:HB2	1.85	0.76
1:I:82:ASN:HB2	1:I:89:THR:CG2	2.15	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:321:LYS:O	1:D:322:ARG:HB2	1.83	0.76
1:N:82:ASN:HB2	1:N:89:THR:CG2	2.15	0.76
1:G:228:SER:O	1:G:257:GLU:HB3	1.86	0.76
1:C:433:ASN:OD1	1:C:436:GLN:HB2	1.86	0.76
1:F:183:LEU:HD13	1:F:184:GLN:H	1.49	0.75
1:D:7:LYS:HD2	1:D:66:PHE:CE2	2.20	0.75
1:H:433:ASN:OD1	1:H:436:GLN:HB2	1.86	0.75
1:G:449:ALA:HB3	1:G:450:PRO:HD3	1.68	0.75
1:K:511:ALA:O	1:K:515:ILE:HG13	1.86	0.75
1:D:433:ASN:OD1	1:D:436:GLN:HB2	1.86	0.75
1:C:62:LEU:HD23	1:C:62:LEU:N	2.01	0.75
1:D:82:ASN:HB2	1:D:89:THR:CG2	2.16	0.75
1:J:433:ASN:OD1	1:J:436:GLN:HB2	1.86	0.75
1:H:228:SER:O	1:H:257:GLU:HB3	1.86	0.75
1:M:449:ALA:HB3	1:M:450:PRO:HD3	1.69	0.75
1:F:228:SER:O	1:F:257:GLU:HB3	1.86	0.75
1:M:7:LYS:HD2	1:M:66:PHE:CE2	2.21	0.74
1:L:449:ALA:HB3	1:L:450:PRO:HD3	1.69	0.74
1:L:7:LYS:HD2	1:L:66:PHE:CE2	2.22	0.74
1:A:228:SER:O	1:A:257:GLU:HB3	1.87	0.74
1:I:511:ALA:O	1:I:515:ILE:HG13	1.87	0.74
1:N:449:ALA:HB3	1:N:450:PRO:HD3	1.69	0.74
1:D:228:SER:O	1:D:257:GLU:HB3	1.87	0.74
1:B:449:ALA:HB3	1:B:450:PRO:HD3	1.69	0.74
1:K:200:LEU:HG	1:K:275:ALA:O	1.88	0.74
1:I:228:SER:O	1:I:257:GLU:HB3	1.87	0.74
1:A:7:LYS:HD2	1:A:66:PHE:CE2	2.22	0.74
1:E:228:SER:O	1:E:257:GLU:HB3	1.86	0.74
1:L:433:ASN:OD1	1:L:436:GLN:HB2	1.88	0.73
1:L:228:SER:O	1:L:257:GLU:HB3	1.87	0.73
1:J:249:ILE:HB	1:J:275:ALA:HB2	1.71	0.73
1:I:200:LEU:HG	1:I:275:ALA:O	1.89	0.73
1:I:7:LYS:HD2	1:I:66:PHE:CE2	2.24	0.73
1:L:200:LEU:HG	1:L:275:ALA:O	1.89	0.73
1:N:278:ALA:HB1	1:N:279:PRO:HD2	1.71	0.73
1:N:200:LEU:HG	1:N:275:ALA:O	1.89	0.73
1:J:200:LEU:HG	1:J:275:ALA:O	1.88	0.73
1:I:433:ASN:OD1	1:I:436:GLN:HB2	1.89	0.72
1:N:230:ILE:HD12	1:N:261:THR:CG2	2.17	0.72
1:K:66:PHE:CE1	1:K:522:THR:HG22	2.24	0.72
1:G:200:LEU:HG	1:G:275:ALA:O	1.88	0.72
1:I:319:GLN:O	1:I:336:VAL:HG23	1.89	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:200:LEU:HG	1:E:275:ALA:O	1.88	0.72
1:A:200:LEU:HG	1:A:275:ALA:O	1.89	0.72
1:K:433:ASN:OD1	1:K:436:GLN:HB2	1.90	0.72
1:I:249:ILE:HB	1:I:275:ALA:HB2	1.72	0.72
1:I:38:VAL:HG22	1:J:519:CYS:HB3	1.70	0.72
1:I:66:PHE:CE1	1:I:522:THR:HG22	2.25	0.72
1:N:433:ASN:OD1	1:N:436:GLN:HB2	1.89	0.72
1:B:235:PRO:CG	1:B:310:GLU:HA	2.20	0.72
1:B:7:LYS:HD2	1:B:66:PHE:HE2	1.56	0.71
1:F:200:LEU:HG	1:F:275:ALA:O	1.90	0.71
1:B:249:ILE:HB	1:B:275:ALA:HB2	1.73	0.71
1:H:278:ALA:HB1	1:H:279:PRO:HD2	1.73	0.71
1:I:278:ALA:HB1	1:I:279:PRO:HD2	1.72	0.71
1:B:6:VAL:CG2	1:B:521:VAL:HG22	2.20	0.71
1:L:249:ILE:HB	1:L:275:ALA:HB2	1.71	0.71
1:E:249:ILE:HB	1:E:275:ALA:HB2	1.72	0.71
1:A:27:VAL:HG12	1:A:90:THR:HG23	1.73	0.71
1:A:249:ILE:HB	1:A:275:ALA:HB2	1.73	0.71
1:A:278:ALA:HB1	1:A:279:PRO:HD2	1.73	0.71
1:F:7:LYS:HD2	1:F:66:PHE:CE2	2.26	0.71
1:E:27:VAL:HG12	1:E:90:THR:HG23	1.73	0.70
1:B:278:ALA:HB1	1:B:279:PRO:HD2	1.73	0.70
1:I:27:VAL:HG12	1:I:90:THR:HG23	1.71	0.70
1:D:200:LEU:HG	1:D:275:ALA:O	1.89	0.70
1:H:7:LYS:HD2	1:H:66:PHE:HE2	1.57	0.70
1:J:278:ALA:HB1	1:J:279:PRO:HD2	1.73	0.70
1:H:235:PRO:CG	1:H:310:GLU:HA	2.22	0.70
1:N:249:ILE:HB	1:N:275:ALA:HB2	1.74	0.70
1:D:249:ILE:HB	1:D:275:ALA:HB2	1.72	0.70
1:K:8:PHE:HE1	1:K:519:CYS:SG	2.14	0.70
1:N:66:PHE:CE1	1:N:522:THR:HG22	2.27	0.70
1:F:66:PHE:CE1	1:F:522:THR:HG22	2.26	0.70
1:I:235:PRO:CG	1:I:310:GLU:HA	2.22	0.70
1:H:249:ILE:HB	1:H:275:ALA:HB2	1.74	0.70
1:K:278:ALA:HB1	1:K:279:PRO:HD2	1.73	0.70
1:B:27:VAL:HG12	1:B:90:THR:HG23	1.74	0.70
1:A:66:PHE:CE1	1:A:522:THR:HG22	2.27	0.70
1:M:38:VAL:HG22	1:N:519:CYS:HB3	1.73	0.70
1:E:235:PRO:CG	1:E:310:GLU:HA	2.21	0.70
1:D:123:ALA:HB2	1:D:440:ILE:HG23	1.74	0.70
1:F:455:VAL:HG11	1:F:462:PRO:HA	1.74	0.70
1:N:455:VAL:HG11	1:N:462:PRO:HA	1.74	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:123:ALA:HB2	1:N:440:ILE:HG23	1.74	0.69
1:J:235:PRO:CG	1:J:310:GLU:HA	2.22	0.69
1:F:249:ILE:HB	1:F:275:ALA:HB2	1.73	0.69
1:N:330:THR:HG22	1:N:331:THR:N	2.07	0.69
1:M:278:ALA:HB1	1:M:279:PRO:HD2	1.72	0.69
1:G:235:PRO:CG	1:G:310:GLU:HA	2.21	0.69
1:C:235:PRO:CG	1:C:310:GLU:HA	2.22	0.69
1:L:235:PRO:CG	1:L:310:GLU:HA	2.22	0.69
1:H:82:ASN:HB2	1:H:89:THR:HG21	1.74	0.69
1:C:455:VAL:HG11	1:C:462:PRO:HA	1.73	0.69
1:B:200:LEU:HG	1:B:275:ALA:O	1.92	0.69
1:A:319:GLN:O	1:A:336:VAL:HG23	1.93	0.69
1:M:200:LEU:HG	1:M:275:ALA:O	1.93	0.69
1:A:326:ASN:HD22	1:A:329:THR:HB	1.57	0.69
1:A:235:PRO:CG	1:A:310:GLU:HA	2.22	0.69
1:F:235:PRO:CG	1:F:310:GLU:HA	2.22	0.69
1:K:235:PRO:CG	1:K:310:GLU:HA	2.22	0.69
1:G:66:PHE:CE1	1:G:522:THR:HG22	2.26	0.69
1:C:27:VAL:HG12	1:C:90:THR:HG23	1.74	0.69
1:M:326:ASN:HD22	1:M:329:THR:HB	1.55	0.69
1:C:200:LEU:HG	1:C:275:ALA:O	1.91	0.69
1:H:224:ASP:O	1:H:225:LYS:HB3	1.93	0.69
1:D:235:PRO:CG	1:D:310:GLU:HA	2.23	0.69
1:G:249:ILE:HB	1:G:275:ALA:HB2	1.75	0.69
1:C:7:LYS:HD2	1:C:66:PHE:HE2	1.56	0.68
1:C:249:ILE:HB	1:C:275:ALA:HB2	1.74	0.68
1:G:278:ALA:HB1	1:G:279:PRO:HD2	1.75	0.68
1:K:330:THR:HG22	1:K:331:THR:N	2.08	0.68
1:K:38:VAL:HG22	1:L:519:CYS:HB3	1.74	0.68
1:K:123:ALA:HB2	1:K:440:ILE:HG23	1.74	0.68
1:L:319:GLN:O	1:L:336:VAL:HG23	1.93	0.68
1:H:326:ASN:HD22	1:H:329:THR:HB	1.56	0.68
1:H:330:THR:HG22	1:H:331:THR:N	2.07	0.68
1:N:235:PRO:CG	1:N:310:GLU:HA	2.23	0.68
1:H:330:THR:HG22	1:H:331:THR:H	1.59	0.68
1:A:123:ALA:HB2	1:A:440:ILE:HG23	1.75	0.68
1:L:330:THR:HG22	1:L:331:THR:N	2.08	0.68
1:A:330:THR:HG22	1:A:331:THR:N	2.08	0.68
1:J:6:VAL:CG2	1:J:521:VAL:HG22	2.21	0.68
1:K:249:ILE:HB	1:K:275:ALA:HB2	1.73	0.68
1:E:455:VAL:HG11	1:E:462:PRO:HA	1.74	0.68
1:F:326:ASN:HD22	1:F:329:THR:HB	1.57	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:326:ASN:HD22	1:J:329:THR:HB	1.59	0.68
1:K:326:ASN:HD22	1:K:329:THR:HB	1.58	0.68
1:J:66:PHE:CE1	1:J:522:THR:HG22	2.29	0.68
1:A:38:VAL:HG22	1:B:519:CYS:HB3	1.76	0.68
1:G:224:ASP:O	1:G:225:LYS:HB3	1.94	0.68
1:K:230:ILE:HD12	1:K:261:THR:CG2	2.19	0.68
1:H:6:VAL:CG2	1:H:521:VAL:HG22	2.23	0.68
1:F:82:ASN:HB2	1:F:89:THR:HG21	1.76	0.68
1:M:249:ILE:HB	1:M:275:ALA:HB2	1.74	0.68
1:D:278:ALA:HB1	1:D:279:PRO:HD2	1.75	0.68
1:K:224:ASP:O	1:K:225:LYS:HB3	1.93	0.68
1:J:82:ASN:HB2	1:J:89:THR:HG21	1.75	0.68
1:B:8:PHE:HE1	1:B:519:CYS:HG	1.40	0.68
1:E:278:ALA:HB1	1:E:279:PRO:HD2	1.74	0.68
1:N:326:ASN:HD22	1:N:329:THR:HB	1.58	0.67
1:L:278:ALA:HB1	1:L:279:PRO:HD2	1.74	0.67
1:C:330:THR:HG22	1:C:331:THR:N	2.09	0.67
1:H:455:VAL:HG11	1:H:462:PRO:HA	1.76	0.67
1:L:230:ILE:HD12	1:L:261:THR:CG2	2.19	0.67
1:G:7:LYS:HD2	1:G:66:PHE:HE2	1.58	0.67
1:K:27:VAL:HG12	1:K:90:THR:HG23	1.75	0.67
1:C:319:GLN:O	1:C:336:VAL:HG23	1.93	0.67
1:M:414:GLY:O	1:M:417:VAL:HG22	1.94	0.67
1:G:82:ASN:HB2	1:G:89:THR:HG21	1.75	0.67
1:N:330:THR:HG22	1:N:331:THR:H	1.59	0.67
1:B:224:ASP:O	1:B:225:LYS:HB3	1.94	0.67
1:M:34:LYS:HG3	1:M:458:CYS:SG	2.35	0.67
1:C:278:ALA:HB1	1:C:279:PRO:HD2	1.75	0.67
1:M:6:VAL:CG2	1:M:521:VAL:HG22	2.22	0.67
1:D:330:THR:HG22	1:D:331:THR:N	2.10	0.67
1:F:278:ALA:HB1	1:F:279:PRO:HD2	1.76	0.67
1:B:319:GLN:O	1:B:336:VAL:HG23	1.94	0.67
1:H:66:PHE:CE1	1:H:522:THR:HG22	2.29	0.67
1:B:123:ALA:HB2	1:B:440:ILE:HG23	1.77	0.67
1:C:123:ALA:HB2	1:C:440:ILE:HG23	1.76	0.67
1:J:7:LYS:HD2	1:J:66:PHE:HE2	1.59	0.67
1:A:330:THR:HG22	1:A:331:THR:H	1.60	0.67
1:D:326:ASN:HD22	1:D:329:THR:HB	1.59	0.67
1:M:319:GLN:O	1:M:336:VAL:HG23	1.95	0.67
1:G:330:THR:HG22	1:G:331:THR:N	2.10	0.67
1:J:342:ILE:O	1:J:346:VAL:HG23	1.95	0.67
1:D:6:VAL:CG2	1:D:521:VAL:HG22	2.23	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:82:ASN:HB2	1:K:89:THR:HG21	1.76	0.67
1:K:342:ILE:O	1:K:346:VAL:HG23	1.94	0.67
1:A:455:VAL:HG11	1:A:462:PRO:HA	1.77	0.67
1:L:224:ASP:O	1:L:225:LYS:HB3	1.94	0.67
1:D:319:GLN:O	1:D:336:VAL:HG23	1.95	0.66
1:M:235:PRO:CG	1:M:310:GLU:HA	2.24	0.66
1:K:8:PHE:HE1	1:K:519:CYS:HG	1.37	0.66
1:A:224:ASP:O	1:A:225:LYS:HB3	1.96	0.66
1:G:342:ILE:O	1:G:346:VAL:HG23	1.96	0.66
1:D:230:ILE:HD12	1:D:261:THR:CG2	2.19	0.66
1:I:230:ILE:HD12	1:I:261:THR:CG2	2.19	0.66
1:C:66:PHE:CE1	1:C:522:THR:HG22	2.30	0.66
1:N:224:ASP:O	1:N:225:LYS:HB3	1.95	0.66
1:A:34:LYS:HG3	1:A:458:CYS:SG	2.35	0.66
1:J:330:THR:HG22	1:J:331:THR:N	2.11	0.66
1:C:6:VAL:CG2	1:C:521:VAL:HG22	2.22	0.66
1:E:266:THR:HG21	1:E:273:VAL:H	1.61	0.66
1:E:7:LYS:HD2	1:E:66:PHE:HE2	1.58	0.66
1:G:326:ASN:HD22	1:G:329:THR:HB	1.59	0.66
1:G:8:PHE:HE1	1:G:519:CYS:HG	1.43	0.66
1:H:342:ILE:O	1:H:346:VAL:HG23	1.95	0.66
1:D:224:ASP:O	1:D:225:LYS:HB3	1.94	0.66
1:B:82:ASN:HB2	1:B:89:THR:HG21	1.77	0.66
1:A:90:THR:O	1:A:94:VAL:HG12	1.96	0.66
1:G:319:GLN:O	1:G:336:VAL:HG23	1.95	0.66
1:M:27:VAL:HG12	1:M:90:THR:HG23	1.76	0.66
1:N:319:GLN:O	1:N:336:VAL:HG23	1.95	0.66
1:C:326:ASN:HD22	1:C:329:THR:HB	1.60	0.66
1:F:330:THR:HG22	1:F:331:THR:N	2.09	0.66
1:L:123:ALA:HB2	1:L:440:ILE:HG23	1.78	0.66
1:L:342:ILE:O	1:L:346:VAL:HG23	1.96	0.66
1:C:230:ILE:HD12	1:C:261:THR:CG2	2.19	0.66
1:H:76:GLU:HG3	1:N:46:ALA:CB	2.25	0.66
1:H:131:LEU:CD1	1:H:422:VAL:HG21	2.25	0.66
1:J:455:VAL:HG11	1:J:462:PRO:HA	1.77	0.66
1:J:414:GLY:O	1:J:417:VAL:HG22	1.95	0.66
1:G:266:THR:HG21	1:G:273:VAL:H	1.59	0.66
1:K:7:LYS:HD2	1:K:66:PHE:HE2	1.58	0.66
1:L:66:PHE:CE1	1:L:522:THR:HG22	2.31	0.66
1:B:326:ASN:HD22	1:B:329:THR:HB	1.61	0.66
1:I:198:GLY:O	1:I:276:VAL:HG12	1.95	0.66
1:C:224:ASP:O	1:C:225:LYS:HB3	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:27:VAL:HG12	1:J:90:THR:HG23	1.77	0.66
1:B:342:ILE:O	1:B:346:VAL:HG23	1.96	0.66
1:H:269:GLY:O	1:I:229:ASN:OD1	2.14	0.66
1:I:342:ILE:O	1:I:346:VAL:HG23	1.95	0.66
1:M:330:THR:HG22	1:M:331:THR:N	2.11	0.66
1:I:266:THR:HG21	1:I:273:VAL:H	1.61	0.65
1:B:330:THR:HG22	1:B:331:THR:N	2.10	0.65
1:D:198:GLY:O	1:D:276:VAL:HG12	1.96	0.65
1:I:330:THR:HG22	1:I:331:THR:N	2.10	0.65
1:J:224:ASP:O	1:J:225:LYS:HB3	1.95	0.65
1:K:417:VAL:HG11	1:K:477:GLY:HA3	1.78	0.65
1:B:266:THR:HG21	1:B:273:VAL:H	1.61	0.65
1:A:124:VAL:O	1:A:128:VAL:HG23	1.97	0.65
1:A:414:GLY:O	1:A:417:VAL:HG22	1.96	0.65
1:F:266:THR:HG21	1:F:273:VAL:H	1.60	0.65
1:C:82:ASN:HB2	1:C:89:THR:HG21	1.77	0.65
1:M:82:ASN:HB2	1:M:89:THR:HG21	1.79	0.65
1:A:82:ASN:HB2	1:A:89:THR:HG21	1.78	0.65
1:B:414:GLY:H	1:B:494:LEU:HA	1.61	0.65
1:L:82:ASN:HB2	1:L:89:THR:HG21	1.78	0.65
1:M:330:THR:HG22	1:M:331:THR:H	1.61	0.65
1:H:38:VAL:HG22	1:I:519:CYS:HB3	1.77	0.65
1:E:38:VAL:HG22	1:F:519:CYS:HB3	1.78	0.65
1:E:249:ILE:HB	1:E:275:ALA:CB	2.27	0.65
1:F:330:THR:HG22	1:F:331:THR:H	1.61	0.65
1:C:342:ILE:O	1:C:346:VAL:HG23	1.97	0.65
1:M:224:ASP:O	1:M:225:LYS:HB3	1.95	0.65
1:B:66:PHE:CE1	1:B:522:THR:HG22	2.30	0.65
1:K:198:GLY:O	1:K:276:VAL:HG12	1.97	0.65
1:J:249:ILE:HB	1:J:275:ALA:CB	2.27	0.65
1:L:414:GLY:H	1:L:494:LEU:HA	1.61	0.65
1:H:414:GLY:O	1:H:417:VAL:HG22	1.95	0.65
1:N:146:GLN:O	1:N:150:ILE:HG13	1.97	0.65
1:E:330:THR:HG22	1:E:331:THR:N	2.11	0.65
1:E:224:ASP:O	1:E:225:LYS:HB3	1.96	0.65
1:D:66:PHE:CE1	1:D:522:THR:HG22	2.32	0.65
1:B:249:ILE:HB	1:B:275:ALA:CB	2.27	0.65
1:L:330:THR:HG22	1:L:331:THR:H	1.61	0.65
1:C:330:THR:HG22	1:C:331:THR:H	1.61	0.65
1:B:230:ILE:HD12	1:B:261:THR:CG2	2.20	0.65
1:H:77:VAL:HG11	1:H:510:VAL:HG21	1.79	0.65
1:L:266:THR:HG21	1:L:273:VAL:H	1.62	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:82:ASN:HB2	1:N:89:THR:HG21	1.79	0.65
1:K:330:THR:HG22	1:K:331:THR:H	1.60	0.65
1:B:414:GLY:O	1:B:417:VAL:HG22	1.97	0.65
1:E:319:GLN:O	1:E:336:VAL:HG23	1.97	0.65
1:I:174:VAL:HB	1:I:376:VAL:HG13	1.79	0.65
1:L:326:ASN:HD22	1:L:329:THR:HB	1.62	0.65
1:N:266:THR:HG21	1:N:273:VAL:H	1.61	0.64
1:M:266:THR:HG21	1:M:273:VAL:H	1.62	0.64
1:G:330:THR:HG22	1:G:331:THR:H	1.62	0.64
1:G:123:ALA:HB2	1:G:440:ILE:HG23	1.79	0.64
1:N:524:LEU:CD1	1:N:525:PRO:HD2	2.22	0.64
1:D:266:THR:HG21	1:D:273:VAL:H	1.63	0.64
1:E:123:ALA:HB2	1:E:440:ILE:HG23	1.78	0.64
1:H:123:ALA:HB2	1:H:440:ILE:HG23	1.79	0.64
1:I:249:ILE:HB	1:I:275:ALA:CB	2.27	0.64
1:L:249:ILE:HB	1:L:275:ALA:CB	2.28	0.64
1:B:146:GLN:O	1:B:150:ILE:HG13	1.97	0.64
1:I:123:ALA:HB2	1:I:440:ILE:HG23	1.80	0.64
1:D:65:LYS:O	1:D:69:MET:HG3	1.97	0.64
1:C:8:PHE:HE1	1:C:519:CYS:SG	2.20	0.64
1:F:342:ILE:O	1:F:346:VAL:HG23	1.97	0.64
1:N:342:ILE:O	1:N:346:VAL:HG23	1.97	0.64
1:J:319:GLN:O	1:J:336:VAL:HG23	1.96	0.64
1:K:319:GLN:O	1:K:336:VAL:HG23	1.98	0.64
1:E:198:GLY:O	1:E:276:VAL:HG12	1.98	0.64
1:H:319:GLN:O	1:H:336:VAL:HG23	1.96	0.64
1:J:266:THR:HG21	1:J:273:VAL:H	1.63	0.64
1:N:27:VAL:HG12	1:N:90:THR:HG23	1.80	0.64
1:G:455:VAL:HG11	1:G:462:PRO:HA	1.80	0.64
1:C:241:ALA:HB1	1:D:231:ARG:NH1	2.13	0.64
1:F:230:ILE:HD12	1:F:261:THR:CG2	2.18	0.64
1:A:247:LEU:HB3	1:A:273:VAL:HG22	1.79	0.64
1:F:27:VAL:HG12	1:F:90:THR:HG23	1.79	0.64
1:D:342:ILE:O	1:D:346:VAL:HG23	1.97	0.64
1:C:524:LEU:CD1	1:C:525:PRO:HD2	2.26	0.64
1:M:131:LEU:CD1	1:M:422:VAL:HG21	2.28	0.64
1:N:77:VAL:HG11	1:N:510:VAL:HG21	1.80	0.64
1:A:29:VAL:C	1:A:31:LEU:H	2.02	0.64
1:I:455:VAL:HG11	1:I:462:PRO:HA	1.79	0.64
1:E:342:ILE:O	1:E:346:VAL:HG23	1.97	0.64
1:K:134:LEU:HD23	1:K:134:LEU:N	2.13	0.64
1:E:326:ASN:HD22	1:E:329:THR:HB	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:7:LYS:HD2	1:L:66:PHE:HE2	1.61	0.64
1:N:414:GLY:O	1:N:417:VAL:HG22	1.97	0.64
1:A:342:ILE:O	1:A:346:VAL:HG23	1.97	0.64
1:M:66:PHE:CE1	1:M:522:THR:HG22	2.33	0.63
1:C:249:ILE:HB	1:C:275:ALA:CB	2.29	0.63
1:N:414:GLY:H	1:N:494:LEU:HA	1.63	0.63
1:I:134:LEU:HD23	1:I:134:LEU:N	2.12	0.63
1:B:524:LEU:CD1	1:B:525:PRO:HD2	2.27	0.63
1:F:194:GLN:HG3	1:F:331:THR:HB	1.81	0.63
1:L:417:VAL:HG11	1:L:477:GLY:HA3	1.81	0.63
1:D:38:VAL:HG22	1:E:519:CYS:HB3	1.80	0.63
1:H:27:VAL:HG12	1:H:90:THR:HG23	1.79	0.63
1:F:224:ASP:O	1:F:225:LYS:HB3	1.97	0.63
1:K:146:GLN:O	1:K:150:ILE:HG13	1.98	0.63
1:L:6:VAL:CG2	1:L:521:VAL:HG22	2.25	0.63
1:E:414:GLY:H	1:E:494:LEU:HA	1.62	0.63
1:D:249:ILE:HB	1:D:275:ALA:CB	2.28	0.63
1:H:29:VAL:C	1:H:31:LEU:H	2.02	0.63
1:D:82:ASN:HB2	1:D:89:THR:HG21	1.81	0.63
1:B:330:THR:HG22	1:B:331:THR:H	1.62	0.63
1:G:146:GLN:O	1:G:150:ILE:HG13	1.98	0.63
1:J:146:GLN:O	1:J:150:ILE:HG13	1.99	0.63
1:E:230:ILE:HD12	1:E:261:THR:CG2	2.18	0.63
1:E:131:LEU:CD1	1:E:422:VAL:HG21	2.29	0.63
1:C:266:THR:HG21	1:C:273:VAL:H	1.64	0.63
1:E:66:PHE:CE1	1:E:522:THR:HG22	2.34	0.63
1:D:146:GLN:O	1:D:150:ILE:HG13	1.99	0.63
1:E:46:ALA:HB2	1:F:76:GLU:HG3	1.80	0.63
1:H:69:MET:HG2	1:N:41:ASP:OD1	1.98	0.63
1:E:82:ASN:HB2	1:E:89:THR:HG21	1.80	0.63
1:D:455:VAL:HG11	1:D:462:PRO:HA	1.79	0.63
1:I:224:ASP:O	1:I:225:LYS:HB3	1.97	0.63
1:A:359:ASP:O	1:A:363:GLU:HG2	1.99	0.63
1:D:524:LEU:CD1	1:D:525:PRO:HD2	2.25	0.63
1:L:247:LEU:HB3	1:L:273:VAL:HG22	1.79	0.63
1:E:330:THR:HG22	1:E:331:THR:H	1.63	0.63
1:K:455:VAL:HG11	1:K:462:PRO:HA	1.78	0.63
1:A:146:GLN:O	1:A:150:ILE:HG13	1.99	0.63
1:B:455:VAL:HG11	1:B:462:PRO:HA	1.80	0.63
1:H:131:LEU:HD12	1:H:422:VAL:CG2	2.28	0.63
1:I:7:LYS:HD2	1:I:66:PHE:HE2	1.64	0.63
1:N:249:ILE:HB	1:N:275:ALA:CB	2.29	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:6:VAL:CG2	1:F:521:VAL:HG22	2.25	0.63
1:D:247:LEU:HB3	1:D:273:VAL:HG22	1.80	0.63
1:I:330:THR:HG22	1:I:331:THR:H	1.63	0.63
1:L:146:GLN:O	1:L:150:ILE:HG13	1.99	0.63
1:D:414:GLY:H	1:D:494:LEU:HA	1.64	0.63
1:A:6:VAL:CG2	1:A:521:VAL:HG22	2.27	0.62
1:D:7:LYS:HD2	1:D:66:PHE:HE2	1.59	0.62
1:J:247:LEU:HB3	1:J:273:VAL:HG22	1.81	0.62
1:N:7:LYS:HD2	1:N:66:PHE:HE2	1.60	0.62
1:A:7:LYS:HD2	1:A:66:PHE:HE2	1.64	0.62
1:K:8:PHE:CE1	1:K:519:CYS:SG	2.92	0.62
1:I:179:ASP:HB3	1:I:389:MET:HE1	1.81	0.62
1:J:230:ILE:HD12	1:J:261:THR:CG2	2.19	0.62
1:K:249:ILE:HB	1:K:275:ALA:CB	2.30	0.62
1:L:198:GLY:O	1:L:276:VAL:HG12	1.99	0.62
1:M:198:GLY:O	1:M:276:VAL:HG12	1.99	0.62
1:L:8:PHE:HE1	1:L:519:CYS:HG	1.47	0.62
1:M:342:ILE:O	1:M:346:VAL:HG23	1.99	0.62
1:D:27:VAL:HG12	1:D:90:THR:HG23	1.80	0.62
1:H:359:ASP:O	1:H:363:GLU:HG2	2.00	0.62
1:M:7:LYS:HD2	1:M:66:PHE:HE2	1.62	0.62
1:J:330:THR:HG22	1:J:331:THR:H	1.63	0.62
1:N:90:THR:O	1:N:94:VAL:HG12	1.99	0.62
1:D:359:ASP:O	1:D:363:GLU:HG2	1.99	0.62
1:N:247:LEU:HB3	1:N:273:VAL:HG22	1.80	0.62
1:H:247:LEU:HB3	1:H:273:VAL:HG22	1.81	0.62
1:B:247:LEU:HB3	1:B:273:VAL:HG22	1.81	0.62
1:F:249:ILE:HB	1:F:275:ALA:CB	2.28	0.62
1:M:249:ILE:HB	1:M:275:ALA:CB	2.29	0.62
1:K:266:THR:HG21	1:K:273:VAL:H	1.63	0.62
1:H:198:GLY:O	1:H:276:VAL:HG12	1.99	0.62
1:E:146:GLN:O	1:E:150:ILE:HG13	2.00	0.62
1:M:146:GLN:O	1:M:150:ILE:HG13	2.00	0.62
1:I:326:ASN:HD22	1:I:329:THR:HB	1.65	0.62
1:C:247:LEU:HB3	1:C:273:VAL:HG22	1.80	0.62
1:I:414:GLY:O	1:I:417:VAL:HG22	2.00	0.62
1:K:359:ASP:O	1:K:363:GLU:HG2	2.00	0.62
1:E:359:ASP:O	1:E:363:GLU:HG2	2.00	0.62
1:J:77:VAL:HG11	1:J:510:VAL:HG21	1.82	0.62
1:D:131:LEU:CD1	1:D:422:VAL:HG21	2.29	0.62
1:B:198:GLY:O	1:B:276:VAL:HG12	1.99	0.62
1:B:90:THR:O	1:B:94:VAL:HG12	2.00	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:330:THR:HG22	1:D:331:THR:H	1.63	0.62
1:D:414:GLY:O	1:D:417:VAL:HG22	1.99	0.62
1:N:34:LYS:HG3	1:N:458:CYS:SG	2.39	0.62
1:M:255:GLU:O	1:M:257:GLU:N	2.32	0.62
1:M:46:ALA:HB2	1:N:76:GLU:HG3	1.81	0.62
1:J:198:GLY:O	1:J:276:VAL:HG12	1.99	0.62
1:N:8:PHE:HE1	1:N:519:CYS:SG	2.23	0.62
1:H:414:GLY:H	1:H:494:LEU:HA	1.63	0.62
1:I:146:GLN:O	1:I:150:ILE:HG13	1.99	0.62
1:A:198:GLY:O	1:A:276:VAL:HG12	1.99	0.62
1:M:414:GLY:H	1:M:494:LEU:HA	1.64	0.62
1:C:414:GLY:O	1:C:417:VAL:HG22	2.00	0.62
1:N:6:VAL:CG2	1:N:521:VAL:HG22	2.24	0.62
1:I:82:ASN:HB2	1:I:89:THR:HG21	1.81	0.62
1:J:221:LEU:HD23	1:J:249:ILE:HD12	1.82	0.62
1:A:249:ILE:HB	1:A:275:ALA:CB	2.29	0.62
1:K:29:VAL:C	1:K:31:LEU:H	2.01	0.62
1:J:123:ALA:HB2	1:J:440:ILE:HG23	1.82	0.62
1:D:134:LEU:HD23	1:D:134:LEU:N	2.15	0.62
1:M:124:VAL:O	1:M:128:VAL:HG23	2.00	0.61
1:N:124:VAL:O	1:N:128:VAL:HG23	1.99	0.61
1:I:124:VAL:O	1:I:128:VAL:HG23	2.00	0.61
1:H:34:LYS:HG3	1:H:458:CYS:SG	2.40	0.61
1:D:77:VAL:HG11	1:D:510:VAL:HG21	1.82	0.61
1:E:414:GLY:O	1:E:417:VAL:HG22	2.00	0.61
1:G:27:VAL:HG12	1:G:90:THR:HG23	1.82	0.61
1:L:34:LYS:HG3	1:L:458:CYS:SG	2.40	0.61
1:B:359:ASP:O	1:B:363:GLU:HG2	2.00	0.61
1:G:6:VAL:CG2	1:G:521:VAL:HG22	2.24	0.61
1:I:247:LEU:HB3	1:I:273:VAL:HG22	1.82	0.61
1:F:414:GLY:H	1:F:494:LEU:HA	1.64	0.61
1:K:451:LEU:O	1:K:453:GLN:N	2.32	0.61
1:H:134:LEU:N	1:H:134:LEU:HD23	2.16	0.61
1:L:455:VAL:HG11	1:L:462:PRO:HA	1.81	0.61
1:M:455:VAL:HG11	1:M:462:PRO:HA	1.83	0.61
1:F:319:GLN:O	1:F:336:VAL:HG23	2.00	0.61
1:H:249:ILE:HB	1:H:275:ALA:CB	2.29	0.61
1:K:34:LYS:HG3	1:K:458:CYS:SG	2.40	0.61
1:G:198:GLY:O	1:G:276:VAL:HG12	2.00	0.61
1:I:214:GLU:O	1:I:215:LEU:HD23	2.00	0.61
1:G:455:VAL:HG12	1:G:460:GLU:O	2.00	0.61
1:M:134:LEU:HD23	1:M:134:LEU:N	2.15	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:146:GLN:O	1:F:150:ILE:HG13	2.01	0.61
1:I:221:LEU:HD23	1:I:249:ILE:HD12	1.83	0.61
1:J:90:THR:O	1:J:94:VAL:HG12	2.01	0.61
1:C:146:GLN:O	1:C:150:ILE:HG13	2.00	0.61
1:F:409:GLU:O	1:F:497:THR:HB	2.01	0.61
1:G:247:LEU:HB3	1:G:273:VAL:HG22	1.82	0.61
1:M:65:LYS:O	1:M:69:MET:HG3	2.01	0.61
1:C:90:THR:O	1:C:94:VAL:HG12	2.00	0.61
1:K:414:GLY:H	1:K:494:LEU:HA	1.65	0.61
1:L:27:VAL:HG12	1:L:90:THR:HG23	1.80	0.61
1:H:524:LEU:CD1	1:H:525:PRO:HD2	2.25	0.61
1:E:247:LEU:HB3	1:E:273:VAL:HG22	1.81	0.61
1:N:131:LEU:CD1	1:N:422:VAL:HG21	2.31	0.61
1:I:90:THR:O	1:I:94:VAL:HG12	2.01	0.61
1:I:134:LEU:HD23	1:I:134:LEU:H	1.66	0.61
1:C:124:VAL:O	1:C:128:VAL:HG23	2.00	0.61
1:G:252:GLU:O	1:G:253:ASP:HB2	2.00	0.61
1:G:414:GLY:H	1:G:494:LEU:HA	1.65	0.61
1:G:414:GLY:O	1:G:417:VAL:HG22	2.01	0.61
1:M:247:LEU:HB3	1:M:273:VAL:HG22	1.82	0.61
1:B:77:VAL:HG11	1:B:510:VAL:HG21	1.81	0.61
1:I:417:VAL:O	1:I:418:ALA:C	2.38	0.61
1:K:90:THR:O	1:K:94:VAL:HG12	2.01	0.61
1:D:29:VAL:C	1:D:31:LEU:H	2.02	0.61
1:L:29:VAL:C	1:L:31:LEU:H	2.03	0.61
1:H:252:GLU:O	1:H:253:ASP:HB2	2.01	0.61
1:G:230:ILE:HD12	1:G:261:THR:CG2	2.18	0.61
1:N:77:VAL:HG11	1:N:510:VAL:CG2	2.31	0.61
1:E:65:LYS:O	1:E:69:MET:HG3	2.01	0.61
1:G:249:ILE:HB	1:G:275:ALA:CB	2.31	0.61
1:M:451:LEU:O	1:M:453:GLN:N	2.34	0.61
1:G:134:LEU:N	1:G:134:LEU:HD23	2.15	0.61
1:H:230:ILE:HD12	1:H:261:THR:CG2	2.20	0.60
1:H:266:THR:HG21	1:H:273:VAL:H	1.64	0.60
1:K:247:LEU:HB3	1:K:273:VAL:HG22	1.82	0.60
1:B:70:GLY:HA2	1:B:73:MET:HE3	1.83	0.60
1:K:66:PHE:HE1	1:K:522:THR:HG22	1.66	0.60
1:C:194:GLN:HG3	1:C:331:THR:HB	1.83	0.60
1:L:414:GLY:O	1:L:417:VAL:HG22	2.00	0.60
1:E:194:GLN:HG3	1:E:331:THR:HB	1.83	0.60
1:H:146:GLN:O	1:H:150:ILE:HG13	2.00	0.60
1:H:77:VAL:HG11	1:H:510:VAL:CG2	2.31	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:77:VAL:HG11	1:M:510:VAL:HG21	1.83	0.60
1:K:201:SER:O	1:K:202:PRO:O	2.20	0.60
1:J:29:VAL:C	1:J:31:LEU:H	2.03	0.60
1:L:124:VAL:O	1:L:128:VAL:HG23	2.01	0.60
1:A:266:THR:HG21	1:A:273:VAL:H	1.63	0.60
1:J:131:LEU:CD1	1:J:422:VAL:HG21	2.29	0.60
1:K:131:LEU:CD1	1:K:422:VAL:HG21	2.31	0.60
1:I:255:GLU:O	1:I:257:GLU:N	2.34	0.60
1:N:455:VAL:HG12	1:N:460:GLU:O	2.01	0.60
1:C:221:LEU:HD23	1:C:249:ILE:HD12	1.83	0.60
1:B:8:PHE:HE1	1:B:519:CYS:SG	2.23	0.60
1:J:414:GLY:H	1:J:494:LEU:HA	1.66	0.60
1:J:24:ALA:HB3	1:J:97:GLN:HE21	1.66	0.60
1:G:124:VAL:O	1:G:128:VAL:HG23	2.01	0.60
1:M:230:ILE:HD12	1:M:261:THR:CG2	2.19	0.60
1:A:221:LEU:HD23	1:A:249:ILE:HD12	1.82	0.60
1:J:38:VAL:HG22	1:K:519:CYS:HB3	1.83	0.60
1:J:359:ASP:O	1:J:363:GLU:HG2	2.01	0.60
1:D:34:LYS:HG3	1:D:458:CYS:SG	2.41	0.60
1:N:198:GLY:O	1:N:276:VAL:HG12	2.01	0.60
1:M:221:LEU:HD23	1:M:249:ILE:HD12	1.82	0.60
1:C:29:VAL:C	1:C:31:LEU:H	2.03	0.60
1:C:198:GLY:O	1:C:276:VAL:HG12	2.02	0.60
1:D:194:GLN:HG3	1:D:331:THR:HB	1.82	0.60
1:L:359:ASP:O	1:L:363:GLU:HG2	2.02	0.60
1:F:451:LEU:O	1:F:453:GLN:N	2.34	0.60
1:L:524:LEU:CD1	1:L:525:PRO:HD2	2.27	0.60
1:N:221:LEU:HD23	1:N:249:ILE:HD12	1.83	0.60
1:E:34:LYS:HG3	1:E:458:CYS:SG	2.42	0.60
1:J:194:GLN:HG3	1:J:331:THR:HB	1.83	0.60
1:H:417:VAL:HG11	1:H:477:GLY:HA3	1.83	0.60
1:G:417:VAL:O	1:G:418:ALA:C	2.39	0.60
1:H:124:VAL:O	1:H:128:VAL:HG23	2.02	0.60
1:C:202:PRO:O	1:C:204:PHE:N	2.33	0.60
1:G:34:LYS:HG3	1:G:458:CYS:SG	2.42	0.60
1:G:359:ASP:O	1:G:363:GLU:HG2	2.01	0.60
1:B:46:ALA:CB	1:C:76:GLU:HG3	2.32	0.60
1:I:66:PHE:HE1	1:I:522:THR:HG22	1.66	0.60
1:L:194:GLN:HG3	1:L:331:THR:HB	1.83	0.60
1:K:24:ALA:HB3	1:K:97:GLN:HE21	1.65	0.60
1:D:242:LYS:C	1:D:244:GLY:H	2.06	0.60
1:B:381:VAL:HG21	1:B:393:LYS:HA	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:524:LEU:CD1	1:I:525:PRO:HD2	2.25	0.60
1:F:198:GLY:O	1:F:276:VAL:HG12	2.02	0.60
1:M:201:SER:O	1:M:202:PRO:O	2.19	0.60
1:A:230:ILE:HD12	1:A:261:THR:CG2	2.20	0.60
1:B:255:GLU:O	1:B:257:GLU:N	2.35	0.60
1:F:7:LYS:HD2	1:F:66:PHE:HE2	1.64	0.60
1:F:417:VAL:HG11	1:F:477:GLY:HA3	1.84	0.60
1:H:134:LEU:H	1:H:134:LEU:HD23	1.67	0.60
1:A:134:LEU:N	1:A:134:LEU:HD23	2.17	0.60
1:H:218:PRO:HB3	1:H:246:PRO:HG2	1.84	0.60
1:N:359:ASP:O	1:N:363:GLU:HG2	2.01	0.60
1:D:131:LEU:HD12	1:D:422:VAL:CG2	2.31	0.59
1:M:134:LEU:HD23	1:M:134:LEU:H	1.66	0.59
1:B:252:GLU:O	1:B:253:ASP:HB2	2.02	0.59
1:D:218:PRO:HB3	1:D:246:PRO:HG2	1.84	0.59
1:N:255:GLU:O	1:N:257:GLU:N	2.36	0.59
1:F:255:GLU:O	1:F:257:GLU:N	2.35	0.59
1:N:194:GLN:HG3	1:N:331:THR:HB	1.84	0.59
1:M:29:VAL:C	1:M:31:LEU:H	2.05	0.59
1:F:90:THR:O	1:F:94:VAL:HG12	2.02	0.59
1:L:242:LYS:C	1:L:244:GLY:H	2.05	0.59
1:K:65:LYS:O	1:K:69:MET:HG3	2.01	0.59
1:A:77:VAL:HG11	1:A:510:VAL:HG21	1.83	0.59
1:K:414:GLY:O	1:K:417:VAL:HG22	2.03	0.59
1:I:65:LYS:O	1:I:69:MET:HG3	2.02	0.59
1:B:38:VAL:HG22	1:C:519:CYS:HB3	1.84	0.59
1:K:272:LYS:NZ	1:L:228:SER:HB3	2.17	0.59
1:I:131:LEU:CD1	1:I:422:VAL:HG21	2.32	0.59
1:I:29:VAL:C	1:I:31:LEU:H	2.05	0.59
1:M:194:GLN:HG3	1:M:331:THR:HB	1.84	0.59
1:F:414:GLY:O	1:F:417:VAL:HG22	2.03	0.59
1:E:134:LEU:HD23	1:E:134:LEU:N	2.17	0.59
1:K:6:VAL:CG2	1:K:521:VAL:HG22	2.26	0.59
1:H:221:LEU:HD23	1:H:249:ILE:HD12	1.84	0.59
1:L:221:LEU:HD23	1:L:249:ILE:HD12	1.84	0.59
1:H:194:GLN:HG3	1:H:331:THR:HB	1.83	0.59
1:I:381:VAL:HG21	1:I:393:LYS:HA	1.85	0.59
1:C:38:VAL:HG22	1:D:519:CYS:HB3	1.85	0.59
1:K:381:VAL:HG21	1:K:393:LYS:HA	1.83	0.59
1:E:255:GLU:O	1:E:257:GLU:N	2.35	0.59
1:L:131:LEU:CD1	1:L:422:VAL:HG21	2.31	0.59
1:C:414:GLY:H	1:C:494:LEU:HA	1.68	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:77:VAL:CG1	1:H:510:VAL:HG21	2.33	0.59
1:B:131:LEU:CD1	1:B:422:VAL:HG21	2.31	0.59
1:G:194:GLN:HG3	1:G:331:THR:HB	1.84	0.59
1:B:194:GLN:HG3	1:B:331:THR:HB	1.82	0.59
1:L:240:VAL:HG12	1:L:240:VAL:O	2.02	0.59
1:C:381:VAL:HG21	1:C:393:LYS:HA	1.85	0.59
1:I:242:LYS:C	1:I:244:GLY:H	2.06	0.59
1:I:252:GLU:O	1:I:253:ASP:HB2	2.02	0.59
1:G:131:LEU:CD1	1:G:422:VAL:HG21	2.32	0.59
1:F:488:MET:CE	1:F:493:ILE:HG21	2.33	0.59
1:M:240:VAL:O	1:M:240:VAL:HG12	2.03	0.59
1:B:240:VAL:HG12	1:B:240:VAL:O	2.03	0.59
1:N:214:GLU:O	1:N:215:LEU:HD23	2.03	0.59
1:L:134:LEU:HD23	1:L:134:LEU:N	2.18	0.59
1:B:131:LEU:HD12	1:B:422:VAL:CG2	2.32	0.59
1:I:414:GLY:H	1:I:494:LEU:HA	1.67	0.59
1:H:381:VAL:HG21	1:H:393:LYS:HA	1.84	0.59
1:J:255:GLU:O	1:J:257:GLU:N	2.36	0.59
1:J:65:LYS:O	1:J:69:MET:HG3	2.03	0.59
1:F:8:PHE:HE1	1:F:519:CYS:SG	2.26	0.59
1:H:488:MET:CE	1:H:493:ILE:HG21	2.33	0.59
1:L:252:GLU:O	1:L:253:ASP:HB2	2.02	0.59
1:K:252:GLU:O	1:K:253:ASP:HB2	2.03	0.59
1:J:218:PRO:HB3	1:J:246:PRO:HG2	1.85	0.59
1:C:451:LEU:O	1:C:453:GLN:N	2.36	0.59
1:B:65:LYS:O	1:B:69:MET:HG3	2.02	0.58
1:F:221:LEU:HD23	1:F:249:ILE:HD12	1.84	0.58
1:A:443:ALA:O	1:A:447:MET:HG3	2.03	0.58
1:H:90:THR:O	1:H:94:VAL:HG12	2.02	0.58
1:I:240:VAL:O	1:I:240:VAL:HG12	2.03	0.58
1:B:124:VAL:O	1:B:128:VAL:HG23	2.03	0.58
1:G:218:PRO:HB3	1:G:246:PRO:HG2	1.85	0.58
1:N:131:LEU:HD12	1:N:422:VAL:CG2	2.32	0.58
1:G:221:LEU:HD23	1:G:249:ILE:HD12	1.84	0.58
1:F:359:ASP:O	1:F:363:GLU:HG2	2.01	0.58
1:N:252:GLU:O	1:N:253:ASP:HB2	2.03	0.58
1:J:131:LEU:HD12	1:J:422:VAL:CG2	2.31	0.58
1:K:77:VAL:HG11	1:K:510:VAL:HG21	1.85	0.58
1:D:221:LEU:HD23	1:D:249:ILE:HD12	1.84	0.58
1:F:134:LEU:N	1:F:134:LEU:HD23	2.18	0.58
1:M:123:ALA:HB2	1:M:440:ILE:HG23	1.83	0.58
1:J:381:VAL:HG21	1:J:393:LYS:HA	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:242:LYS:C	1:M:244:GLY:H	2.07	0.58
1:C:218:PRO:HB3	1:C:246:PRO:HG2	1.84	0.58
1:N:381:VAL:HG21	1:N:393:LYS:HA	1.85	0.58
1:D:419:LEU:HD21	1:D:500:THR:HG22	1.84	0.58
1:C:77:VAL:HG11	1:C:510:VAL:HG21	1.84	0.58
1:H:455:VAL:HG12	1:H:460:GLU:O	2.03	0.58
1:G:417:VAL:HG11	1:G:477:GLY:HA3	1.85	0.58
1:D:8:PHE:HE1	1:D:519:CYS:SG	2.27	0.58
1:B:218:PRO:HB3	1:B:246:PRO:HG2	1.86	0.58
1:F:524:LEU:CD1	1:F:525:PRO:HD2	2.25	0.58
1:M:524:LEU:CD1	1:M:525:PRO:HD2	2.30	0.58
1:H:255:GLU:O	1:H:257:GLU:N	2.36	0.58
1:N:77:VAL:CG1	1:N:510:VAL:HG21	2.33	0.58
1:J:451:LEU:O	1:J:453:GLN:N	2.36	0.58
1:B:219:PHE:O	1:B:247:LEU:HD12	2.04	0.58
1:E:417:VAL:O	1:E:418:ALA:C	2.41	0.58
1:E:131:LEU:HD12	1:E:422:VAL:CG2	2.32	0.58
1:M:90:THR:O	1:M:94:VAL:HG12	2.04	0.58
1:C:201:SER:O	1:C:202:PRO:O	2.21	0.58
1:L:404:ARG:HH11	1:L:404:ARG:HG2	1.68	0.58
1:F:252:GLU:O	1:F:253:ASP:HB2	2.03	0.58
1:A:252:GLU:O	1:A:253:ASP:HB2	2.03	0.58
1:L:201:SER:O	1:L:202:PRO:O	2.22	0.58
1:F:124:VAL:O	1:F:128:VAL:HG23	2.03	0.58
1:N:247:LEU:O	1:N:273:VAL:HG13	2.04	0.58
1:M:62:LEU:CD2	1:M:62:LEU:N	2.66	0.58
1:I:447:MET:HE3	1:I:504:LEU:HD21	1.86	0.58
1:C:417:VAL:O	1:C:418:ALA:C	2.41	0.58
1:M:455:VAL:HG12	1:M:460:GLU:O	2.04	0.58
1:G:201:SER:O	1:G:202:PRO:O	2.22	0.58
1:B:77:VAL:CG1	1:B:510:VAL:HG21	2.34	0.58
1:G:255:GLU:O	1:G:257:GLU:N	2.37	0.58
1:K:221:LEU:HD23	1:K:249:ILE:HD12	1.86	0.58
1:G:134:LEU:H	1:G:134:LEU:HD23	1.69	0.58
1:F:134:LEU:HD23	1:F:134:LEU:H	1.69	0.58
1:E:242:LYS:C	1:E:244:GLY:H	2.06	0.58
1:K:255:GLU:O	1:K:257:GLU:N	2.36	0.58
1:E:417:VAL:HG12	1:E:469:VAL:HG11	1.85	0.58
1:J:417:VAL:HG11	1:J:477:GLY:HA3	1.86	0.58
1:I:8:PHE:HE1	1:I:519:CYS:HG	1.52	0.58
1:G:404:ARG:HG2	1:G:404:ARG:HH11	1.69	0.58
1:F:247:LEU:HB3	1:F:273:VAL:HG22	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:131:LEU:CD1	1:C:422:VAL:HG21	2.34	0.58
1:E:221:LEU:HD23	1:E:249:ILE:HD12	1.84	0.58
1:E:90:THR:O	1:E:94:VAL:HG12	2.04	0.58
1:A:194:GLN:HG3	1:A:331:THR:HB	1.85	0.58
1:I:194:GLN:HG3	1:I:331:THR:HB	1.85	0.58
1:A:414:GLY:H	1:A:494:LEU:HA	1.68	0.58
1:A:417:VAL:O	1:A:418:ALA:C	2.42	0.58
1:B:201:SER:O	1:B:202:PRO:O	2.21	0.58
1:E:486:GLY:CA	1:E:491:MET:HE2	2.34	0.58
1:L:381:VAL:HG21	1:L:393:LYS:HA	1.85	0.58
1:J:134:LEU:N	1:J:134:LEU:HD23	2.18	0.58
1:M:131:LEU:HD12	1:M:422:VAL:CG2	2.30	0.57
1:K:194:GLN:HG3	1:K:331:THR:HB	1.86	0.57
1:E:214:GLU:O	1:E:215:LEU:HD23	2.04	0.57
1:M:404:ARG:HG2	1:M:404:ARG:HH11	1.69	0.57
1:G:242:LYS:C	1:G:244:GLY:H	2.07	0.57
1:F:381:VAL:HG21	1:F:393:LYS:HA	1.85	0.57
1:F:201:SER:O	1:F:202:PRO:O	2.22	0.57
1:J:242:LYS:C	1:J:244:GLY:H	2.08	0.57
1:J:77:VAL:HG11	1:J:510:VAL:CG2	2.34	0.57
1:B:77:VAL:HG11	1:B:510:VAL:CG2	2.34	0.57
1:A:131:LEU:CD1	1:A:422:VAL:HG21	2.34	0.57
1:J:70:GLY:HA2	1:J:73:MET:CE	2.33	0.57
1:N:443:ALA:O	1:N:447:MET:HG3	2.04	0.57
1:A:348:GLN:O	1:A:352:GLN:HG2	2.04	0.57
1:H:242:LYS:C	1:H:244:GLY:H	2.08	0.57
1:M:381:VAL:HG21	1:M:393:LYS:HA	1.85	0.57
1:E:252:GLU:O	1:E:253:ASP:HB2	2.02	0.57
1:J:252:GLU:O	1:J:253:ASP:HB2	2.03	0.57
1:D:252:GLU:O	1:D:253:ASP:HB2	2.03	0.57
1:H:65:LYS:O	1:H:69:MET:HG3	2.04	0.57
1:C:255:GLU:O	1:C:257:GLU:N	2.37	0.57
1:J:8:PHE:HE1	1:J:519:CYS:SG	2.28	0.57
1:H:214:GLU:O	1:H:215:LEU:HD23	2.04	0.57
1:A:451:LEU:O	1:A:453:GLN:N	2.38	0.57
1:J:348:GLN:O	1:J:352:GLN:HG2	2.05	0.57
1:A:242:LYS:C	1:A:244:GLY:H	2.07	0.57
1:H:240:VAL:HG12	1:H:240:VAL:O	2.03	0.57
1:E:201:SER:O	1:E:202:PRO:O	2.22	0.57
1:C:359:ASP:O	1:C:363:GLU:HG2	2.04	0.57
1:A:255:GLU:O	1:A:257:GLU:N	2.36	0.57
1:J:240:VAL:HG12	1:J:240:VAL:O	2.04	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:272:LYS:HZ1	1:L:228:SER:HB3	1.68	0.57
1:F:65:LYS:O	1:F:69:MET:HG3	2.05	0.57
1:M:218:PRO:HB3	1:M:246:PRO:HG2	1.86	0.57
1:K:202:PRO:O	1:K:204:PHE:N	2.36	0.57
1:B:417:VAL:HG11	1:B:477:GLY:HA3	1.87	0.57
1:C:417:VAL:HG11	1:C:477:GLY:HA3	1.87	0.57
1:L:420:ILE:HD12	1:L:451:LEU:HD22	1.86	0.57
1:K:404:ARG:HG2	1:K:404:ARG:HH11	1.69	0.57
1:G:381:VAL:HG21	1:G:393:LYS:HA	1.85	0.57
1:D:240:VAL:HG12	1:D:240:VAL:O	2.04	0.57
1:N:24:ALA:HB3	1:N:97:GLN:HE21	1.70	0.57
1:C:179:ASP:HB3	1:C:389:MET:HE1	1.86	0.57
1:A:240:VAL:HG12	1:A:240:VAL:O	2.05	0.57
1:D:266:THR:HG22	1:D:271:VAL:O	2.04	0.57
1:N:273:VAL:HG12	1:N:274:ALA:N	2.19	0.57
1:F:46:ALA:CB	1:G:76:GLU:HG3	2.32	0.57
1:J:417:VAL:O	1:J:418:ALA:C	2.42	0.57
1:A:417:VAL:HG11	1:A:477:GLY:HA3	1.87	0.57
1:L:417:VAL:O	1:L:418:ALA:C	2.42	0.57
1:K:455:VAL:HG12	1:K:460:GLU:O	2.04	0.57
1:D:404:ARG:HG2	1:D:404:ARG:HH11	1.68	0.57
1:G:240:VAL:HG12	1:G:240:VAL:O	2.04	0.57
1:G:214:GLU:O	1:G:215:LEU:HD23	2.05	0.57
1:N:201:SER:O	1:N:202:PRO:O	2.22	0.57
1:K:242:LYS:C	1:K:244:GLY:H	2.07	0.57
1:E:524:LEU:CD1	1:E:525:PRO:HD2	2.28	0.57
1:H:8:PHE:HE1	1:H:519:CYS:SG	2.28	0.57
1:F:455:VAL:HG12	1:F:460:GLU:O	2.04	0.57
1:B:417:VAL:O	1:B:418:ALA:C	2.41	0.57
1:B:455:VAL:HG12	1:B:460:GLU:O	2.05	0.57
1:N:404:ARG:HH11	1:N:404:ARG:HG2	1.70	0.57
1:N:240:VAL:HG12	1:N:240:VAL:O	2.03	0.57
1:E:29:VAL:C	1:E:31:LEU:H	2.06	0.57
1:M:359:ASP:O	1:M:363:GLU:HG2	2.04	0.57
1:L:131:LEU:HD12	1:L:422:VAL:CG2	2.34	0.57
1:M:443:ALA:O	1:M:447:MET:HG3	2.05	0.57
1:F:348:GLN:O	1:F:352:GLN:HG2	2.05	0.57
1:F:123:ALA:HB2	1:F:440:ILE:HG23	1.86	0.57
1:K:41:ASP:OD1	1:L:69:MET:HG2	2.05	0.57
1:K:447:MET:HE3	1:K:504:LEU:HD21	1.86	0.57
1:M:383:ALA:O	1:M:384:ALA:HB3	2.05	0.57
1:J:524:LEU:CD1	1:J:525:PRO:HD2	2.27	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:29:VAL:C	1:F:31:LEU:H	2.07	0.57
1:N:451:LEU:O	1:N:453:GLN:N	2.38	0.57
1:C:240:VAL:O	1:C:240:VAL:HG12	2.04	0.57
1:K:348:GLN:O	1:K:352:GLN:HG2	2.05	0.57
1:I:201:SER:O	1:I:202:PRO:O	2.22	0.57
1:I:409:GLU:O	1:I:497:THR:HB	2.05	0.57
1:M:369:VAL:HG23	1:M:370:ALA:N	2.20	0.57
1:E:218:PRO:HB3	1:E:246:PRO:HG2	1.85	0.57
1:N:61:GLU:C	1:N:62:LEU:HD23	2.26	0.57
1:F:404:ARG:HG2	1:F:404:ARG:HH11	1.70	0.57
1:I:120:ILE:HG13	1:I:439:GLY:O	2.04	0.57
1:N:383:ALA:O	1:N:384:ALA:HB3	2.05	0.56
1:M:266:THR:HG22	1:M:271:VAL:O	2.05	0.56
1:M:77:VAL:HG11	1:M:510:VAL:CG2	2.35	0.56
1:C:272:LYS:NZ	1:D:228:SER:HB3	2.20	0.56
1:M:417:VAL:HG11	1:M:477:GLY:HA3	1.88	0.56
1:J:214:GLU:O	1:J:215:LEU:HD23	2.05	0.56
1:L:488:MET:CE	1:L:493:ILE:HG21	2.34	0.56
1:B:202:PRO:O	1:B:204:PHE:N	2.35	0.56
1:E:404:ARG:HH11	1:E:404:ARG:HG2	1.70	0.56
1:A:218:PRO:HB3	1:A:246:PRO:HG2	1.87	0.56
1:N:218:PRO:HB3	1:N:246:PRO:HG2	1.87	0.56
1:C:242:LYS:C	1:C:244:GLY:H	2.08	0.56
1:K:124:VAL:O	1:K:128:VAL:HG23	2.05	0.56
1:E:124:VAL:O	1:E:128:VAL:HG23	2.04	0.56
1:G:65:LYS:O	1:G:69:MET:HG3	2.05	0.56
1:D:465:VAL:O	1:D:469:VAL:HG23	2.05	0.56
1:B:404:ARG:HG2	1:B:404:ARG:HH11	1.68	0.56
1:B:134:LEU:HD23	1:B:134:LEU:N	2.19	0.56
1:M:252:GLU:O	1:M:253:ASP:HB2	2.04	0.56
1:C:443:ALA:O	1:C:447:MET:HG3	2.05	0.56
1:H:41:ASP:HB2	1:I:69:MET:CE	2.35	0.56
1:H:9:GLY:O	1:H:10:ASN:C	2.43	0.56
1:A:266:THR:HG22	1:A:271:VAL:O	2.06	0.56
1:M:77:VAL:CG1	1:M:510:VAL:HG21	2.36	0.56
1:J:247:LEU:O	1:J:273:VAL:HG13	2.04	0.56
1:J:273:VAL:HG12	1:J:274:ALA:N	2.20	0.56
1:D:77:VAL:HG11	1:D:510:VAL:CG2	2.35	0.56
1:H:8:PHE:HE1	1:H:519:CYS:HG	1.51	0.56
1:L:17:LEU:O	1:L:20:VAL:HG22	2.05	0.56
1:B:70:GLY:HA2	1:B:73:MET:CE	2.36	0.56
1:J:16:MET:SD	1:J:73:MET:HE1	2.46	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:214:GLU:O	1:B:215:LEU:HD23	2.05	0.56
1:K:417:VAL:O	1:K:418:ALA:C	2.43	0.56
1:D:417:VAL:O	1:D:418:ALA:C	2.43	0.56
1:N:134:LEU:H	1:N:134:LEU:HD23	1.70	0.56
1:B:242:LYS:C	1:B:244:GLY:H	2.08	0.56
1:C:252:GLU:O	1:C:253:ASP:HB2	2.03	0.56
1:A:381:VAL:HG21	1:A:393:LYS:HA	1.86	0.56
1:L:218:PRO:HB3	1:L:246:PRO:HG2	1.86	0.56
1:E:240:VAL:O	1:E:240:VAL:HG12	2.05	0.56
1:J:487:ASN:O	1:J:491:MET:HG3	2.04	0.56
1:I:383:ALA:O	1:I:384:ALA:HB3	2.05	0.56
1:H:41:ASP:OD1	1:I:69:MET:HG2	2.05	0.56
1:C:65:LYS:O	1:C:69:MET:HG3	2.06	0.56
1:D:255:GLU:O	1:D:257:GLU:N	2.38	0.56
1:K:77:VAL:HG11	1:K:510:VAL:CG2	2.36	0.56
1:A:66:PHE:HE1	1:A:522:THR:HG22	1.69	0.56
1:N:8:PHE:CE1	1:N:519:CYS:SG	2.98	0.56
1:J:134:LEU:H	1:J:134:LEU:HD23	1.70	0.56
1:I:202:PRO:O	1:I:204:PHE:N	2.36	0.56
1:F:218:PRO:HB3	1:F:246:PRO:HG2	1.86	0.56
1:A:202:PRO:O	1:A:204:PHE:N	2.37	0.56
1:F:230:ILE:CD1	1:F:261:THR:HG21	2.22	0.56
1:I:419:LEU:HD21	1:I:500:THR:HG22	1.86	0.56
1:I:131:LEU:HD12	1:I:422:VAL:CG2	2.35	0.56
1:I:417:VAL:HG12	1:I:469:VAL:HG11	1.86	0.56
1:D:443:ALA:O	1:D:447:MET:HG3	2.06	0.56
1:F:417:VAL:O	1:F:418:ALA:C	2.43	0.56
1:A:201:SER:O	1:A:202:PRO:O	2.23	0.56
1:H:404:ARG:HH11	1:H:404:ARG:HG2	1.70	0.56
1:I:218:PRO:HB3	1:I:246:PRO:HG2	1.88	0.56
1:B:451:LEU:O	1:B:453:GLN:N	2.39	0.56
1:C:348:GLN:O	1:C:352:GLN:HG2	2.06	0.56
1:D:348:GLN:O	1:D:352:GLN:HG2	2.06	0.56
1:A:247:LEU:O	1:A:273:VAL:HG13	2.06	0.56
1:E:77:VAL:HG11	1:E:510:VAL:HG21	1.87	0.56
1:G:66:PHE:HE1	1:G:522:THR:HG22	1.68	0.56
1:B:221:LEU:HD23	1:B:249:ILE:HD12	1.86	0.56
1:L:214:GLU:O	1:L:215:LEU:HD23	2.05	0.56
1:M:417:VAL:O	1:M:418:ALA:C	2.44	0.56
1:A:134:LEU:HD23	1:A:134:LEU:H	1.71	0.56
1:F:242:LYS:C	1:F:244:GLY:H	2.08	0.56
1:C:214:GLU:O	1:C:215:LEU:HD23	2.04	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:202:PRO:O	1:J:204:PHE:N	2.35	0.56
1:G:219:PHE:O	1:G:247:LEU:HD12	2.06	0.56
1:F:449:ALA:HB3	1:F:450:PRO:CD	2.33	0.56
1:A:77:VAL:CG1	1:A:510:VAL:HG21	2.36	0.56
1:N:66:PHE:HE1	1:N:522:THR:HG22	1.69	0.56
1:N:29:VAL:C	1:N:31:LEU:H	2.07	0.56
1:C:417:VAL:HG12	1:C:469:VAL:HG11	1.86	0.56
1:H:177:VAL:HG21	1:H:397:GLU:CG	2.36	0.56
1:E:348:GLN:O	1:E:352:GLN:HG2	2.06	0.56
1:F:266:THR:HG22	1:F:271:VAL:O	2.06	0.56
1:B:266:THR:HG22	1:B:271:VAL:O	2.05	0.56
1:L:255:GLU:O	1:L:257:GLU:N	2.38	0.56
1:B:29:VAL:C	1:B:31:LEU:H	2.09	0.56
1:L:417:VAL:HG12	1:L:469:VAL:HG11	1.87	0.56
1:J:443:ALA:O	1:J:447:MET:HG3	2.06	0.56
1:G:90:THR:O	1:G:94:VAL:HG12	2.05	0.56
1:D:451:LEU:O	1:D:453:GLN:N	2.38	0.56
1:A:404:ARG:HH11	1:A:404:ARG:HG2	1.71	0.56
1:C:134:LEU:N	1:C:134:LEU:HD23	2.20	0.56
1:G:266:THR:HG22	1:G:271:VAL:O	2.06	0.56
1:J:77:VAL:CG1	1:J:510:VAL:HG21	2.35	0.56
1:D:130:GLU:HB3	1:D:422:VAL:HG13	1.88	0.56
1:I:46:ALA:HB2	1:J:76:GLU:HG3	1.88	0.56
1:F:131:LEU:CD1	1:F:422:VAL:HG21	2.33	0.56
1:H:417:VAL:O	1:H:418:ALA:C	2.43	0.56
1:H:417:VAL:HG12	1:H:469:VAL:HG11	1.86	0.56
1:D:455:VAL:HG12	1:D:460:GLU:O	2.06	0.56
1:D:417:VAL:HG12	1:D:469:VAL:HG11	1.87	0.56
1:E:134:LEU:HD23	1:E:134:LEU:H	1.69	0.56
1:K:486:GLY:CA	1:K:491:MET:HE2	2.35	0.56
1:B:34:LYS:HG3	1:B:458:CYS:SG	2.46	0.56
1:L:38:VAL:HG22	1:M:519:CYS:HB3	1.87	0.56
1:I:359:ASP:O	1:I:363:GLU:HG2	2.06	0.56
1:F:499:VAL:CG2	1:F:500:THR:N	2.69	0.56
1:H:219:PHE:O	1:H:247:LEU:HD12	2.06	0.56
1:C:404:ARG:HG2	1:C:404:ARG:HH11	1.69	0.56
1:E:24:ALA:HB3	1:E:97:GLN:HE21	1.71	0.56
1:D:381:VAL:HG21	1:D:393:LYS:HA	1.87	0.56
1:F:174:VAL:HB	1:F:376:VAL:HG13	1.87	0.56
1:A:8:PHE:HE1	1:A:519:CYS:SG	2.29	0.56
1:L:266:THR:HG22	1:L:271:VAL:O	2.06	0.55
1:C:77:VAL:HG11	1:C:510:VAL:CG2	2.36	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:130:GLU:HB3	1:I:422:VAL:HG13	1.86	0.55
1:A:131:LEU:HD12	1:A:422:VAL:CG2	2.35	0.55
1:F:214:GLU:O	1:F:215:LEU:HD23	2.06	0.55
1:N:242:LYS:C	1:N:244:GLY:H	2.08	0.55
1:I:176:THR:HG21	1:I:333:ILE:HD11	1.88	0.55
1:C:41:ASP:OD1	1:D:69:MET:HG2	2.06	0.55
1:E:130:GLU:HB3	1:E:422:VAL:HG13	1.89	0.55
1:I:417:VAL:HG11	1:I:477:GLY:HA3	1.89	0.55
1:K:134:LEU:H	1:K:134:LEU:HD23	1.69	0.55
1:F:417:VAL:HG12	1:F:469:VAL:HG11	1.89	0.55
1:C:488:MET:CE	1:C:493:ILE:HG21	2.37	0.55
1:G:29:VAL:C	1:G:31:LEU:H	2.07	0.55
1:J:201:SER:O	1:J:202:PRO:O	2.23	0.55
1:E:381:VAL:HG21	1:E:393:LYS:HA	1.87	0.55
1:K:218:PRO:HB3	1:K:246:PRO:HG2	1.87	0.55
1:H:201:SER:O	1:H:202:PRO:O	2.23	0.55
1:C:361:ASP:O	1:C:365:LEU:HG	2.06	0.55
1:M:247:LEU:O	1:M:273:VAL:HG13	2.06	0.55
1:J:266:THR:HG22	1:J:271:VAL:O	2.06	0.55
1:G:131:LEU:HD12	1:G:422:VAL:CG2	2.36	0.55
1:I:77:VAL:HG11	1:I:510:VAL:HG21	1.88	0.55
1:G:348:GLN:O	1:G:352:GLN:HG2	2.06	0.55
1:N:17:LEU:O	1:N:20:VAL:HG22	2.06	0.55
1:M:219:PHE:O	1:M:247:LEU:HD12	2.06	0.55
1:A:449:ALA:HB3	1:A:450:PRO:CD	2.36	0.55
1:N:417:VAL:O	1:N:418:ALA:C	2.45	0.55
1:D:201:SER:O	1:D:202:PRO:O	2.24	0.55
1:G:179:ASP:HB3	1:G:389:MET:HE1	1.88	0.55
1:I:230:ILE:CD1	1:I:261:THR:HG21	2.23	0.55
1:J:419:LEU:HD21	1:J:500:THR:HG22	1.88	0.55
1:D:219:PHE:O	1:D:247:LEU:HD12	2.06	0.55
1:I:273:VAL:HG12	1:I:274:ALA:N	2.22	0.55
1:I:488:MET:CE	1:I:493:ILE:HG21	2.36	0.55
1:E:455:VAL:HG12	1:E:460:GLU:O	2.06	0.55
1:B:443:ALA:O	1:B:447:MET:HG3	2.07	0.55
1:A:417:VAL:HG12	1:A:469:VAL:HG11	1.87	0.55
1:G:451:LEU:O	1:G:453:GLN:N	2.40	0.55
1:H:202:PRO:O	1:H:204:PHE:N	2.35	0.55
1:C:112:ASN:OD1	1:C:114:MET:N	2.39	0.55
1:H:70:GLY:HA2	1:H:73:MET:HE3	1.87	0.55
1:F:273:VAL:HG12	1:F:274:ALA:N	2.21	0.55
1:F:419:LEU:HD21	1:F:500:THR:HG22	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:17:LEU:O	1:C:20:VAL:HG22	2.06	0.55
1:A:77:VAL:HG11	1:A:510:VAL:CG2	2.36	0.55
1:E:465:VAL:O	1:E:469:VAL:HG23	2.06	0.55
1:L:77:VAL:HG11	1:L:510:VAL:HG21	1.88	0.55
1:G:8:PHE:HE1	1:G:519:CYS:SG	2.29	0.55
1:A:465:VAL:O	1:A:469:VAL:HG23	2.07	0.55
1:F:417:VAL:HG21	1:F:488:MET:HG3	1.89	0.55
1:N:420:ILE:HD12	1:N:451:LEU:HD22	1.89	0.55
1:E:134:LEU:O	1:E:136:VAL:HG23	2.06	0.55
1:G:112:ASN:OD1	1:G:114:MET:N	2.40	0.55
1:K:240:VAL:O	1:K:240:VAL:HG12	2.06	0.55
1:L:77:VAL:CG1	1:L:78:ALA:N	2.70	0.55
1:J:417:VAL:HG12	1:J:469:VAL:HG11	1.87	0.55
1:B:417:VAL:HG23	1:B:418:ALA:H	1.72	0.55
1:H:465:VAL:O	1:H:469:VAL:HG23	2.06	0.55
1:I:443:ALA:O	1:I:447:MET:HG3	2.07	0.55
1:N:417:VAL:HG11	1:N:477:GLY:HA3	1.88	0.55
1:M:134:LEU:O	1:M:136:VAL:HG23	2.06	0.55
1:C:134:LEU:O	1:C:136:VAL:HG23	2.07	0.55
1:F:240:VAL:HG12	1:F:240:VAL:O	2.07	0.55
1:L:348:GLN:O	1:L:352:GLN:HG2	2.07	0.55
1:D:383:ALA:O	1:D:384:ALA:HB3	2.07	0.55
1:E:266:THR:HG22	1:E:271:VAL:O	2.07	0.55
1:F:131:LEU:HD12	1:F:422:VAL:CG2	2.36	0.55
1:M:417:VAL:HG12	1:M:469:VAL:HG11	1.88	0.55
1:F:34:LYS:HG3	1:F:458:CYS:SG	2.47	0.55
1:N:134:LEU:N	1:N:134:LEU:HD23	2.21	0.55
1:N:180:GLY:H	1:N:389:MET:HE2	1.72	0.55
1:N:499:VAL:CG2	1:N:500:THR:N	2.69	0.55
1:N:419:LEU:HD21	1:N:500:THR:HG22	1.88	0.55
1:M:130:GLU:HB3	1:M:422:VAL:HG13	1.89	0.55
1:H:66:PHE:HE1	1:H:522:THR:HG22	1.70	0.55
1:N:70:GLY:HA2	1:N:73:MET:HE3	1.88	0.55
1:K:453:GLN:O	1:K:456:LEU:N	2.35	0.55
1:A:519:CYS:HB3	1:G:38:VAL:HG22	1.88	0.55
1:I:404:ARG:HH11	1:I:404:ARG:HG2	1.71	0.55
1:J:404:ARG:HH11	1:J:404:ARG:HG2	1.71	0.55
1:F:24:ALA:HB3	1:F:97:GLN:HE21	1.71	0.55
1:K:87:ASP:CG	1:K:88:GLY:H	2.10	0.55
1:A:383:ALA:O	1:A:384:ALA:HB3	2.07	0.55
1:E:419:LEU:HD21	1:E:500:THR:HG22	1.88	0.55
1:J:219:PHE:O	1:J:247:LEU:HD12	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:266:THR:HG22	1:I:271:VAL:O	2.07	0.55
1:K:266:THR:HG22	1:K:271:VAL:O	2.07	0.55
1:A:420:ILE:HD12	1:A:451:LEU:HD22	1.89	0.55
1:N:488:MET:CE	1:N:493:ILE:HG21	2.37	0.55
1:D:417:VAL:HG11	1:D:477:GLY:HA3	1.88	0.55
1:F:443:ALA:O	1:F:447:MET:HG3	2.07	0.55
1:L:24:ALA:HB3	1:L:97:GLN:HE21	1.72	0.55
1:J:124:VAL:O	1:J:128:VAL:HG23	2.07	0.55
1:J:361:ASP:O	1:J:365:LEU:HG	2.07	0.55
1:J:383:ALA:O	1:J:384:ALA:HB3	2.06	0.54
1:K:524:LEU:CD1	1:K:525:PRO:HD2	2.28	0.54
1:M:419:LEU:HD21	1:M:500:THR:HG22	1.89	0.54
1:E:219:PHE:O	1:E:247:LEU:HD12	2.06	0.54
1:L:273:VAL:HG12	1:L:274:ALA:N	2.22	0.54
1:G:129:GLU:C	1:G:131:LEU:N	2.58	0.54
1:H:417:VAL:HG21	1:H:488:MET:HG3	1.89	0.54
1:D:214:GLU:O	1:D:215:LEU:HD23	2.06	0.54
1:N:348:GLN:O	1:N:352:GLN:HG2	2.07	0.54
1:E:383:ALA:O	1:E:384:ALA:HB3	2.07	0.54
1:A:524:LEU:CD1	1:A:525:PRO:HD2	2.26	0.54
1:D:77:VAL:CG1	1:D:510:VAL:HG21	2.36	0.54
1:F:130:GLU:HB3	1:F:422:VAL:HG13	1.90	0.54
1:I:77:VAL:CG1	1:I:78:ALA:N	2.70	0.54
1:K:417:VAL:HG12	1:K:469:VAL:HG11	1.89	0.54
1:E:443:ALA:O	1:E:447:MET:HG3	2.07	0.54
1:B:420:ILE:HD11	1:B:451:LEU:HB3	1.90	0.54
1:M:348:GLN:O	1:M:352:GLN:HG2	2.07	0.54
1:B:23:LEU:HD22	1:B:75:LYS:HB2	1.89	0.54
1:H:383:ALA:O	1:H:384:ALA:HB3	2.08	0.54
1:G:524:LEU:CD1	1:G:525:PRO:HD2	2.28	0.54
1:N:266:THR:HG22	1:N:271:VAL:O	2.07	0.54
1:B:273:VAL:HG12	1:B:274:ALA:N	2.23	0.54
1:D:41:ASP:OD1	1:E:69:MET:HG2	2.07	0.54
1:C:266:THR:HG22	1:C:271:VAL:O	2.08	0.54
1:N:70:GLY:HA2	1:N:73:MET:CE	2.37	0.54
1:K:214:GLU:O	1:K:215:LEU:HD23	2.07	0.54
1:H:180:GLY:H	1:H:389:MET:HE2	1.73	0.54
1:I:9:GLY:O	1:I:10:ASN:C	2.46	0.54
1:E:488:MET:CE	1:E:493:ILE:HG21	2.38	0.54
1:B:13:ARG:O	1:B:16:MET:N	2.41	0.54
1:A:214:GLU:O	1:A:215:LEU:HD23	2.06	0.54
1:K:417:VAL:HG21	1:K:488:MET:HG3	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:136:VAL:O	1:I:137:PRO:O	2.25	0.54
1:D:90:THR:O	1:D:94:VAL:HG12	2.07	0.54
1:K:23:LEU:CD2	1:K:75:LYS:HB2	2.38	0.54
1:N:409:GLU:O	1:N:497:THR:HB	2.07	0.54
1:H:348:GLN:O	1:H:352:GLN:HG2	2.07	0.54
1:B:177:VAL:HG21	1:B:397:GLU:CG	2.38	0.54
1:B:24:ALA:HB3	1:B:97:GLN:HE21	1.73	0.54
1:B:361:ASP:O	1:B:365:LEU:HG	2.08	0.54
1:G:383:ALA:O	1:G:384:ALA:HB3	2.07	0.54
1:F:219:PHE:O	1:F:247:LEU:HD12	2.08	0.54
1:F:266:THR:HG21	1:F:273:VAL:N	2.23	0.54
1:K:273:VAL:HG12	1:K:274:ALA:N	2.21	0.54
1:E:61:GLU:C	1:E:62:LEU:HD23	2.27	0.54
1:L:130:GLU:HB3	1:L:422:VAL:HG13	1.90	0.54
1:N:65:LYS:O	1:N:69:MET:HG3	2.08	0.54
1:L:90:THR:O	1:L:94:VAL:HG12	2.07	0.54
1:N:134:LEU:O	1:N:136:VAL:HG23	2.08	0.54
1:I:112:ASN:OD1	1:I:114:MET:N	2.40	0.54
1:E:361:ASP:O	1:E:365:LEU:HG	2.07	0.54
1:E:112:ASN:OD1	1:E:114:MET:N	2.40	0.54
1:M:273:VAL:HG12	1:M:274:ALA:N	2.23	0.54
1:K:465:VAL:O	1:K:469:VAL:HG23	2.07	0.54
1:C:417:VAL:HG21	1:C:488:MET:HG3	1.89	0.54
1:D:134:LEU:HD23	1:D:134:LEU:H	1.71	0.54
1:K:26:ALA:O	1:K:56:VAL:HG11	2.07	0.54
1:J:34:LYS:HG3	1:J:458:CYS:SG	2.46	0.54
1:G:206:ASN:HD21	1:G:214:GLU:H	1.56	0.54
1:B:134:LEU:H	1:B:134:LEU:HD23	1.73	0.54
1:N:305:ILE:O	1:N:305:ILE:HG22	2.08	0.54
1:B:180:GLY:H	1:B:389:MET:HE2	1.72	0.54
1:M:177:VAL:HG21	1:M:397:GLU:CG	2.37	0.54
1:H:266:THR:HG22	1:H:271:VAL:O	2.07	0.54
1:H:130:GLU:HB3	1:H:422:VAL:HG13	1.89	0.54
1:L:247:LEU:O	1:L:273:VAL:HG13	2.07	0.54
1:D:129:GLU:C	1:D:131:LEU:N	2.59	0.54
1:F:77:VAL:HG11	1:F:510:VAL:HG21	1.89	0.54
1:I:465:VAL:O	1:I:469:VAL:HG23	2.08	0.54
1:B:419:LEU:HD21	1:B:500:THR:HG22	1.90	0.54
1:N:325:ILE:HG22	1:N:330:THR:HA	1.90	0.54
1:C:455:VAL:HG12	1:C:460:GLU:O	2.08	0.54
1:J:369:VAL:HG23	1:J:370:ALA:N	2.22	0.54
1:E:179:ASP:HB3	1:E:389:MET:HE1	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:348:GLN:O	1:I:352:GLN:HG2	2.07	0.54
1:H:419:LEU:HD21	1:H:500:THR:HG22	1.90	0.54
1:I:247:LEU:O	1:I:273:VAL:HG13	2.07	0.54
1:G:77:VAL:CG1	1:G:78:ALA:N	2.71	0.54
1:C:131:LEU:HD12	1:C:422:VAL:CG2	2.36	0.54
1:L:455:VAL:HG12	1:L:460:GLU:O	2.08	0.54
1:N:487:ASN:O	1:N:491:MET:HG3	2.08	0.54
1:E:369:VAL:HG23	1:E:370:ALA:N	2.22	0.54
1:L:361:ASP:O	1:L:365:LEU:HG	2.07	0.54
1:G:361:ASP:O	1:G:365:LEU:HG	2.07	0.54
1:I:258:ALA:O	1:I:262:LEU:HG	2.08	0.54
1:C:177:VAL:HG21	1:C:397:GLU:CG	2.38	0.54
1:J:230:ILE:CD1	1:J:261:THR:HG21	2.23	0.54
1:M:70:GLY:HA2	1:M:73:MET:HE3	1.90	0.54
1:B:130:GLU:HB3	1:B:422:VAL:HG13	1.88	0.54
1:K:488:MET:CE	1:K:493:ILE:HG21	2.37	0.54
1:F:8:PHE:HE1	1:F:519:CYS:HG	1.53	0.54
1:H:479:ASN:OD1	1:H:493:ILE:HD11	2.08	0.54
1:G:134:LEU:O	1:G:136:VAL:HG23	2.08	0.54
1:H:112:ASN:OD1	1:H:114:MET:N	2.41	0.54
1:H:228:SER:HB3	1:N:272:LYS:NZ	2.23	0.54
1:B:247:LEU:O	1:B:273:VAL:HG13	2.08	0.54
1:L:219:PHE:O	1:L:247:LEU:HD12	2.08	0.54
1:G:453:GLN:O	1:G:456:LEU:N	2.38	0.54
1:N:24:ALA:O	1:N:26:ALA:N	2.41	0.54
1:A:8:PHE:HE1	1:A:519:CYS:HG	1.55	0.54
1:D:369:VAL:HG23	1:D:370:ALA:N	2.23	0.54
1:F:177:VAL:HG21	1:F:397:GLU:CG	2.37	0.54
1:I:6:VAL:CG2	1:I:521:VAL:HG22	2.33	0.53
1:E:77:VAL:CG1	1:E:78:ALA:N	2.71	0.53
1:I:272:LYS:NZ	1:J:228:SER:HB3	2.23	0.53
1:D:77:VAL:CG1	1:D:78:ALA:N	2.71	0.53
1:C:130:GLU:HB3	1:C:422:VAL:HG13	1.89	0.53
1:B:417:VAL:HG12	1:B:469:VAL:HG11	1.89	0.53
1:G:443:ALA:O	1:G:447:MET:HG3	2.07	0.53
1:K:443:ALA:O	1:K:447:MET:HG3	2.08	0.53
1:D:177:VAL:HG21	1:D:397:GLU:CG	2.38	0.53
1:M:26:ALA:O	1:M:56:VAL:HG11	2.08	0.53
1:E:6:VAL:CG2	1:E:521:VAL:HG22	2.30	0.53
1:G:266:THR:HG21	1:G:273:VAL:N	2.23	0.53
1:M:61:GLU:C	1:M:62:LEU:HD23	2.27	0.53
1:C:499:VAL:CG2	1:C:500:THR:N	2.70	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:66:PHE:HE1	1:F:522:THR:HG22	1.70	0.53
1:A:136:VAL:O	1:A:137:PRO:O	2.27	0.53
1:L:134:LEU:HD23	1:L:134:LEU:H	1.71	0.53
1:N:177:VAL:HG21	1:N:397:GLU:CG	2.38	0.53
1:D:124:VAL:O	1:D:128:VAL:HG23	2.07	0.53
1:H:17:LEU:O	1:H:20:VAL:HG22	2.08	0.53
1:E:12:ALA:HB1	1:E:520:MET:HG3	1.90	0.53
1:A:65:LYS:O	1:A:69:MET:HG3	2.09	0.53
1:C:46:ALA:CB	1:D:76:GLU:HG3	2.35	0.53
1:H:273:VAL:HG12	1:H:274:ALA:N	2.22	0.53
1:A:419:LEU:HD21	1:A:500:THR:HG22	1.89	0.53
1:K:131:LEU:HD12	1:K:422:VAL:CG2	2.35	0.53
1:H:205:ILE:HA	1:H:213:VAL:HG22	1.90	0.53
1:A:488:MET:CE	1:A:493:ILE:HG21	2.39	0.53
1:B:417:VAL:HG23	1:B:418:ALA:N	2.24	0.53
1:H:443:ALA:O	1:H:447:MET:HG3	2.08	0.53
1:K:23:LEU:HD22	1:K:75:LYS:HB2	1.90	0.53
1:E:177:VAL:HG21	1:E:397:GLU:CG	2.38	0.53
1:A:174:VAL:HB	1:A:376:VAL:HG13	1.90	0.53
1:N:112:ASN:OD1	1:N:114:MET:N	2.41	0.53
1:M:487:ASN:O	1:M:491:MET:HG3	2.08	0.53
1:C:369:VAL:HG23	1:C:370:ALA:N	2.24	0.53
1:C:230:ILE:CD1	1:C:261:THR:HG21	2.22	0.53
1:E:273:VAL:HG12	1:E:274:ALA:N	2.23	0.53
1:B:66:PHE:HE1	1:B:522:THR:HG22	1.73	0.53
1:A:205:ILE:HA	1:A:213:VAL:HG22	1.91	0.53
1:H:447:MET:HE3	1:H:504:LEU:HD21	1.90	0.53
1:H:87:ASP:CG	1:H:88:GLY:H	2.12	0.53
1:G:465:VAL:O	1:G:469:VAL:HG23	2.09	0.53
1:E:26:ALA:O	1:E:56:VAL:HG11	2.08	0.53
1:D:176:THR:HG21	1:D:333:ILE:HD11	1.91	0.53
1:K:258:ALA:O	1:K:262:LEU:HG	2.08	0.53
1:L:406:ALA:HB1	1:L:411:VAL:HG12	1.90	0.53
1:K:177:VAL:HG21	1:K:397:GLU:CG	2.38	0.53
1:A:369:VAL:HG23	1:A:370:ALA:N	2.24	0.53
1:D:77:VAL:HG13	1:D:78:ALA:N	2.23	0.53
1:B:488:MET:CE	1:B:493:ILE:HG21	2.39	0.53
1:B:305:ILE:HG22	1:B:305:ILE:O	2.09	0.53
1:N:23:LEU:CD2	1:N:75:LYS:HB2	2.38	0.53
1:K:361:ASP:O	1:K:365:LEU:HG	2.08	0.53
1:F:120:ILE:HG13	1:F:439:GLY:O	2.09	0.53
1:F:13:ARG:HA	1:F:16:MET:HE2	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:361:ASP:O	1:F:365:LEU:HG	2.09	0.53
1:B:348:GLN:O	1:B:352:GLN:HG2	2.08	0.53
1:L:383:ALA:O	1:L:384:ALA:HB3	2.09	0.53
1:L:419:LEU:HD21	1:L:500:THR:HG22	1.89	0.53
1:C:77:VAL:CG1	1:C:510:VAL:HG21	2.38	0.53
1:F:61:GLU:C	1:F:62:LEU:HD23	2.28	0.53
1:J:130:GLU:HB3	1:J:422:VAL:HG13	1.89	0.53
1:H:413:ALA:O	1:H:417:VAL:HG23	2.08	0.53
1:E:8:PHE:HE1	1:E:519:CYS:SG	2.31	0.53
1:F:202:PRO:O	1:F:204:PHE:N	2.36	0.53
1:G:177:VAL:HG21	1:G:397:GLU:CG	2.39	0.53
1:N:369:VAL:HG23	1:N:370:ALA:N	2.24	0.53
1:L:230:ILE:CD1	1:L:261:THR:HG21	2.22	0.53
1:M:70:GLY:HA2	1:M:73:MET:CE	2.39	0.53
1:N:219:PHE:O	1:N:247:LEU:HD12	2.08	0.53
1:L:9:GLY:O	1:L:10:ASN:C	2.47	0.53
1:A:46:ALA:CB	1:B:76:GLU:HG3	2.38	0.53
1:K:129:GLU:C	1:K:131:LEU:N	2.59	0.53
1:H:198:GLY:HA3	1:H:328:ASP:HA	1.90	0.53
1:L:443:ALA:O	1:L:447:MET:HG3	2.09	0.53
1:F:465:VAL:O	1:F:469:VAL:HG23	2.08	0.53
1:L:202:PRO:O	1:L:204:PHE:N	2.36	0.53
1:L:177:VAL:HG21	1:L:397:GLU:CG	2.39	0.53
1:H:361:ASP:O	1:H:365:LEU:HG	2.08	0.53
1:A:273:VAL:HG12	1:A:274:ALA:N	2.24	0.53
1:D:273:VAL:HG12	1:D:274:ALA:N	2.23	0.53
1:H:77:VAL:CG1	1:H:78:ALA:N	2.72	0.53
1:M:77:VAL:CG1	1:M:78:ALA:N	2.72	0.53
1:F:77:VAL:CG1	1:F:78:ALA:N	2.72	0.53
1:A:447:MET:HE3	1:A:504:LEU:HD21	1.90	0.53
1:A:455:VAL:HG12	1:A:460:GLU:O	2.09	0.53
1:J:488:MET:CE	1:J:493:ILE:HG21	2.39	0.53
1:K:413:ALA:O	1:K:417:VAL:HG23	2.08	0.53
1:F:134:LEU:O	1:F:136:VAL:HG23	2.09	0.53
1:D:361:ASP:O	1:D:365:LEU:HG	2.09	0.53
1:G:24:ALA:HB3	1:G:97:GLN:HE21	1.74	0.53
1:A:177:VAL:HG21	1:A:397:GLU:CG	2.38	0.53
1:L:26:ALA:O	1:L:56:VAL:HG11	2.08	0.53
1:A:361:ASP:O	1:A:365:LEU:HG	2.09	0.53
1:E:120:ILE:HG13	1:E:439:GLY:O	2.09	0.53
1:C:383:ALA:O	1:C:384:ALA:HB3	2.08	0.53
1:F:383:ALA:O	1:F:384:ALA:HB3	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:77:VAL:CG1	1:J:78:ALA:N	2.71	0.53
1:I:61:GLU:C	1:I:62:LEU:HD23	2.29	0.53
1:A:130:GLU:HB3	1:A:422:VAL:HG13	1.90	0.53
1:K:129:GLU:O	1:K:132:LYS:N	2.42	0.53
1:C:198:GLY:HA3	1:C:328:ASP:HA	1.91	0.53
1:C:205:ILE:HA	1:C:213:VAL:HG22	1.90	0.53
1:M:488:MET:CE	1:M:493:ILE:HG21	2.38	0.53
1:K:24:ALA:O	1:K:26:ALA:N	2.42	0.53
1:B:217:SER:N	1:B:218:PRO:CD	2.71	0.53
1:M:230:ILE:CD1	1:M:261:THR:HG21	2.23	0.53
1:A:9:GLY:O	1:A:10:ASN:C	2.47	0.53
1:E:417:VAL:HG11	1:E:477:GLY:HA3	1.91	0.53
1:L:77:VAL:HG13	1:L:78:ALA:N	2.25	0.53
1:H:61:GLU:C	1:H:62:LEU:HD23	2.29	0.53
1:N:130:GLU:HB3	1:N:422:VAL:HG13	1.91	0.53
1:C:66:PHE:HE1	1:C:522:THR:HG22	1.72	0.53
1:N:198:GLY:HA3	1:N:328:ASP:HA	1.91	0.53
1:D:205:ILE:HA	1:D:213:VAL:HG22	1.90	0.53
1:G:413:ALA:O	1:G:417:VAL:HG23	2.08	0.53
1:N:202:PRO:O	1:N:204:PHE:N	2.35	0.53
1:N:217:SER:N	1:N:218:PRO:CD	2.72	0.53
1:L:179:ASP:HB3	1:L:389:MET:HE1	1.91	0.53
1:I:24:ALA:HB3	1:I:97:GLN:HE21	1.74	0.53
1:B:17:LEU:O	1:B:20:VAL:HG22	2.09	0.52
1:K:112:ASN:OD1	1:K:114:MET:N	2.42	0.52
1:K:77:VAL:CG1	1:K:78:ALA:N	2.71	0.52
1:I:77:VAL:HG11	1:I:510:VAL:CG2	2.40	0.52
1:C:87:ASP:CG	1:C:88:GLY:H	2.12	0.52
1:J:206:ASN:HD21	1:J:214:GLU:H	1.56	0.52
1:L:447:MET:HE3	1:L:504:LEU:HD21	1.90	0.52
1:B:205:ILE:HA	1:B:213:VAL:HG22	1.91	0.52
1:C:465:VAL:O	1:C:469:VAL:HG23	2.08	0.52
1:H:217:SER:N	1:H:218:PRO:CD	2.72	0.52
1:N:206:ASN:HD21	1:N:214:GLU:H	1.57	0.52
1:G:202:PRO:O	1:G:204:PHE:N	2.35	0.52
1:F:26:ALA:O	1:F:56:VAL:HG11	2.09	0.52
1:M:23:LEU:CD2	1:M:75:LYS:HB2	2.39	0.52
1:I:369:VAL:HG23	1:I:370:ALA:N	2.24	0.52
1:F:369:VAL:HG23	1:F:370:ALA:N	2.24	0.52
1:A:183:LEU:CA	1:A:383:ALA:HB3	2.40	0.52
1:G:247:LEU:O	1:G:273:VAL:HG13	2.10	0.52
1:C:273:VAL:HG12	1:C:274:ALA:N	2.24	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:8:PHE:CE1	1:B:519:CYS:SG	3.00	0.52
1:C:134:LEU:H	1:C:134:LEU:HD23	1.74	0.52
1:D:202:PRO:O	1:D:204:PHE:N	2.38	0.52
1:G:406:ALA:HB1	1:G:411:VAL:HG12	1.90	0.52
1:E:9:GLY:O	1:E:10:ASN:C	2.47	0.52
1:B:369:VAL:HG23	1:B:370:ALA:N	2.24	0.52
1:E:230:ILE:CD1	1:E:261:THR:HG21	2.22	0.52
1:A:70:GLY:HA2	1:A:73:MET:CE	2.39	0.52
1:I:499:VAL:CG2	1:I:500:THR:N	2.72	0.52
1:H:499:VAL:CG2	1:H:500:THR:N	2.73	0.52
1:J:61:GLU:C	1:J:62:LEU:HD23	2.30	0.52
1:E:62:LEU:CD2	1:E:62:LEU:N	2.68	0.52
1:K:77:VAL:CG1	1:K:510:VAL:HG21	2.38	0.52
1:J:417:VAL:HG23	1:J:418:ALA:H	1.74	0.52
1:D:417:VAL:HG21	1:D:488:MET:HG3	1.91	0.52
1:L:420:ILE:CD1	1:L:451:LEU:HD22	2.39	0.52
1:H:134:LEU:O	1:H:136:VAL:HG23	2.09	0.52
1:G:417:VAL:HG12	1:G:469:VAL:HG11	1.90	0.52
1:F:420:ILE:HD12	1:F:451:LEU:HD22	1.92	0.52
1:E:451:LEU:O	1:E:453:GLN:N	2.42	0.52
1:M:440:ILE:O	1:M:443:ALA:N	2.42	0.52
1:B:134:LEU:O	1:B:136:VAL:HG23	2.08	0.52
1:K:17:LEU:O	1:K:20:VAL:HG22	2.09	0.52
1:G:273:VAL:HG12	1:G:274:ALA:N	2.22	0.52
1:B:266:THR:HG21	1:B:273:VAL:N	2.24	0.52
1:K:449:ALA:HB3	1:K:450:PRO:CD	2.35	0.52
1:B:16:MET:SD	1:B:73:MET:HE1	2.49	0.52
1:K:66:PHE:CE1	1:K:522:THR:CG2	2.92	0.52
1:G:417:VAL:HG21	1:G:488:MET:HG3	1.91	0.52
1:E:217:SER:N	1:E:218:PRO:CD	2.72	0.52
1:F:305:ILE:HG22	1:F:305:ILE:O	2.09	0.52
1:H:24:ALA:HB3	1:H:97:GLN:HE21	1.75	0.52
1:M:361:ASP:O	1:M:365:LEU:HG	2.09	0.52
1:M:220:ILE:HG23	1:M:248:LEU:HB3	1.92	0.52
1:B:183:LEU:CA	1:B:383:ALA:HB3	2.40	0.52
1:G:419:LEU:HD21	1:G:500:THR:HG22	1.92	0.52
1:A:219:PHE:O	1:A:247:LEU:HD12	2.10	0.52
1:C:82:ASN:HB2	1:C:89:THR:HG22	1.91	0.52
1:L:70:GLY:HA2	1:L:73:MET:HE3	1.91	0.52
1:L:198:GLY:HA3	1:L:328:ASP:HA	1.92	0.52
1:A:420:ILE:CD1	1:A:451:LEU:HD22	2.39	0.52
1:M:88:GLY:O	1:M:91:THR:N	2.43	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:417:VAL:HG21	1:L:488:MET:HG3	1.92	0.52
1:H:451:LEU:O	1:H:453:GLN:N	2.42	0.52
1:K:217:SER:N	1:K:218:PRO:CD	2.72	0.52
1:J:305:ILE:O	1:J:305:ILE:HG22	2.09	0.52
1:K:369:VAL:HG23	1:K:370:ALA:N	2.25	0.52
1:F:383:ALA:HB1	1:G:281:PHE:HZ	1.72	0.52
1:D:70:GLY:HA2	1:D:73:MET:CE	2.40	0.52
1:E:77:VAL:HG11	1:E:510:VAL:CG2	2.39	0.52
1:I:266:THR:HG21	1:I:273:VAL:N	2.24	0.52
1:A:77:VAL:CG1	1:A:78:ALA:N	2.73	0.52
1:F:77:VAL:CG1	1:F:510:VAL:HG21	2.40	0.52
1:C:129:GLU:C	1:C:131:LEU:N	2.61	0.52
1:F:129:GLU:C	1:F:131:LEU:N	2.63	0.52
1:B:447:MET:HE3	1:B:504:LEU:HD21	1.91	0.52
1:G:420:ILE:HD11	1:G:451:LEU:HB3	1.92	0.52
1:E:202:PRO:O	1:E:204:PHE:N	2.37	0.52
1:D:17:LEU:O	1:D:20:VAL:HG22	2.09	0.52
1:A:112:ASN:OD1	1:A:114:MET:N	2.43	0.52
1:D:247:LEU:O	1:D:273:VAL:HG13	2.08	0.52
1:K:46:ALA:CB	1:L:76:GLU:HG3	2.37	0.52
1:E:66:PHE:O	1:E:67:GLU:C	2.47	0.52
1:A:413:ALA:O	1:A:417:VAL:HG23	2.09	0.52
1:N:420:ILE:HD11	1:N:451:LEU:HB3	1.90	0.52
1:B:23:LEU:CD2	1:B:75:LYS:HB2	2.40	0.52
1:F:177:VAL:HG21	1:F:397:GLU:HG2	1.92	0.52
1:M:305:ILE:HG22	1:M:305:ILE:O	2.10	0.52
1:A:25:ASP:OD1	1:A:28:LYS:HE2	2.10	0.52
1:H:258:ALA:O	1:H:262:LEU:HG	2.10	0.52
1:M:174:VAL:HB	1:M:376:VAL:HG13	1.91	0.52
1:M:214:GLU:O	1:M:215:LEU:HD23	2.09	0.52
1:M:499:VAL:CG2	1:M:500:THR:N	2.73	0.52
1:M:13:ARG:O	1:M:16:MET:N	2.43	0.52
1:F:77:VAL:HG13	1:F:78:ALA:N	2.25	0.52
1:B:61:GLU:C	1:B:62:LEU:HD23	2.30	0.52
1:A:61:GLU:C	1:A:62:LEU:HD23	2.30	0.52
1:C:62:LEU:N	1:C:62:LEU:CD2	2.73	0.52
1:F:198:GLY:HA3	1:F:328:ASP:HA	1.91	0.52
1:J:17:LEU:O	1:J:20:VAL:HG22	2.10	0.52
1:J:120:ILE:HG13	1:J:439:GLY:O	2.09	0.52
1:G:369:VAL:HG23	1:G:370:ALA:N	2.24	0.52
1:G:230:ILE:CD1	1:G:261:THR:HG21	2.22	0.52
1:A:524:LEU:O	1:A:526:LYS:N	2.36	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:77:VAL:CG1	1:E:510:VAL:HG21	2.40	0.52
1:C:77:VAL:CG1	1:C:78:ALA:N	2.72	0.52
1:J:8:PHE:HE1	1:J:519:CYS:HG	1.55	0.52
1:F:38:VAL:HG22	1:G:519:CYS:HB3	1.91	0.52
1:L:465:VAL:O	1:L:469:VAL:HG23	2.10	0.52
1:N:417:VAL:HG12	1:N:469:VAL:HG11	1.92	0.52
1:C:34:LYS:HG3	1:C:458:CYS:SG	2.49	0.52
1:N:177:VAL:HG21	1:N:397:GLU:HG2	1.92	0.52
1:G:26:ALA:O	1:G:56:VAL:HG11	2.10	0.52
1:B:112:ASN:OD1	1:B:114:MET:N	2.43	0.52
1:H:23:LEU:CD2	1:H:75:LYS:HB2	2.40	0.52
1:H:369:VAL:HG23	1:H:370:ALA:N	2.24	0.52
1:C:272:LYS:HZ1	1:D:228:SER:HB3	1.75	0.52
1:I:82:ASN:HB2	1:I:89:THR:HG22	1.92	0.52
1:B:413:ALA:O	1:B:417:VAL:HG23	2.10	0.52
1:E:8:PHE:HE1	1:E:519:CYS:HG	1.57	0.52
1:A:217:SER:N	1:A:218:PRO:CD	2.72	0.52
1:G:305:ILE:O	1:G:305:ILE:HG22	2.10	0.52
1:E:17:LEU:O	1:E:20:VAL:HG22	2.10	0.52
1:I:305:ILE:HG22	1:I:305:ILE:O	2.10	0.52
1:A:120:ILE:HG13	1:A:439:GLY:O	2.10	0.52
1:A:179:ASP:HB3	1:A:389:MET:HE1	1.92	0.52
1:C:183:LEU:CA	1:C:383:ALA:HB3	2.39	0.51
1:M:183:LEU:CA	1:M:383:ALA:HB3	2.40	0.51
1:N:62:LEU:N	1:N:62:LEU:CD2	2.70	0.51
1:N:13:ARG:O	1:N:16:MET:N	2.43	0.51
1:B:198:GLY:HA3	1:B:328:ASP:HA	1.92	0.51
1:N:205:ILE:HA	1:N:213:VAL:HG22	1.91	0.51
1:M:413:ALA:O	1:M:417:VAL:HG23	2.09	0.51
1:B:206:ASN:HD21	1:B:214:GLU:H	1.58	0.51
1:I:205:ILE:HA	1:I:213:VAL:HG22	1.92	0.51
1:H:177:VAL:HG21	1:H:397:GLU:HG2	1.92	0.51
1:J:266:THR:HG21	1:J:273:VAL:N	2.25	0.51
1:E:77:VAL:HG13	1:E:78:ALA:N	2.25	0.51
1:I:77:VAL:CG1	1:I:510:VAL:HG21	2.40	0.51
1:I:77:VAL:HG13	1:I:78:ALA:N	2.23	0.51
1:L:205:ILE:HA	1:L:213:VAL:HG22	1.91	0.51
1:J:477:GLY:HA3	1:J:488:MET:SD	2.50	0.51
1:N:417:VAL:HG21	1:N:488:MET:HG3	1.92	0.51
1:G:488:MET:CE	1:G:493:ILE:HG21	2.40	0.51
1:M:206:ASN:HD21	1:M:214:GLU:H	1.57	0.51
1:H:305:ILE:HG22	1:H:305:ILE:O	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:177:VAL:HG21	1:J:397:GLU:CG	2.41	0.51
1:M:112:ASN:OD1	1:M:114:MET:N	2.43	0.51
1:B:383:ALA:O	1:B:384:ALA:HB3	2.09	0.51
1:F:77:VAL:HG11	1:F:510:VAL:CG2	2.40	0.51
1:K:247:LEU:O	1:K:273:VAL:HG13	2.09	0.51
1:L:77:VAL:CG1	1:L:510:VAL:HG21	2.40	0.51
1:I:66:PHE:CE1	1:I:522:THR:CG2	2.93	0.51
1:L:479:ASN:OD1	1:L:493:ILE:HD11	2.10	0.51
1:F:417:VAL:HG23	1:F:418:ALA:N	2.25	0.51
1:F:70:GLY:HA2	1:F:73:MET:CE	2.40	0.51
1:K:24:ALA:CB	1:K:97:GLN:HE21	2.23	0.51
1:E:486:GLY:HA3	1:E:491:MET:HE2	1.91	0.51
1:A:26:ALA:O	1:A:56:VAL:HG11	2.10	0.51
1:B:486:GLY:C	1:B:491:MET:HE2	2.31	0.51
1:K:383:ALA:O	1:K:384:ALA:HB3	2.10	0.51
1:L:77:VAL:HG11	1:L:510:VAL:CG2	2.41	0.51
1:J:198:GLY:HA3	1:J:328:ASP:HA	1.92	0.51
1:H:206:ASN:HD21	1:H:214:GLU:H	1.58	0.51
1:J:413:ALA:O	1:J:417:VAL:HG23	2.09	0.51
1:K:134:LEU:O	1:K:136:VAL:HG23	2.10	0.51
1:H:88:GLY:O	1:H:91:THR:N	2.44	0.51
1:L:420:ILE:HD11	1:L:451:LEU:HB3	1.91	0.51
1:L:451:LEU:O	1:L:453:GLN:N	2.43	0.51
1:J:26:ALA:O	1:J:56:VAL:HG11	2.09	0.51
1:F:217:SER:N	1:F:218:PRO:CD	2.74	0.51
1:D:349:ILE:HA	1:D:352:GLN:CG	2.40	0.51
1:B:338:GLU:C	1:B:340:ALA:H	2.14	0.51
1:N:361:ASP:O	1:N:365:LEU:HG	2.11	0.51
1:J:66:PHE:HE1	1:J:522:THR:HG22	1.73	0.51
1:C:23:LEU:CD2	1:C:75:LYS:HB2	2.39	0.51
1:N:414:GLY:N	1:N:494:LEU:HA	2.25	0.51
1:I:217:SER:N	1:I:218:PRO:CD	2.72	0.51
1:I:177:VAL:HG21	1:I:397:GLU:CG	2.40	0.51
1:K:406:ALA:HA	1:K:410:GLY:O	2.11	0.51
1:J:524:LEU:O	1:J:526:LYS:N	2.36	0.51
1:A:17:LEU:O	1:A:20:VAL:HG22	2.11	0.51
1:G:77:VAL:HG13	1:G:78:ALA:N	2.25	0.51
1:L:61:GLU:C	1:L:62:LEU:HD23	2.29	0.51
1:K:77:VAL:HG13	1:K:78:ALA:N	2.25	0.51
1:E:440:ILE:O	1:E:443:ALA:N	2.43	0.51
1:D:217:SER:N	1:D:218:PRO:CD	2.73	0.51
1:C:217:SER:N	1:C:218:PRO:CD	2.73	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:206:ASN:HD21	1:K:214:GLU:H	1.58	0.51
1:E:177:VAL:HG21	1:E:397:GLU:HG2	1.92	0.51
1:L:369:VAL:HG23	1:L:370:ALA:N	2.26	0.51
1:F:40:LEU:HD13	1:F:59:GLU:HG3	1.91	0.51
1:F:112:ASN:OD1	1:F:114:MET:N	2.43	0.51
1:A:230:ILE:CD1	1:A:261:THR:HG21	2.24	0.51
1:K:70:GLY:HA2	1:K:73:MET:HE3	1.92	0.51
1:B:88:GLY:O	1:B:91:THR:N	2.44	0.51
1:M:465:VAL:O	1:M:469:VAL:HG23	2.10	0.51
1:G:205:ILE:HA	1:G:213:VAL:HG22	1.92	0.51
1:M:325:ILE:HG22	1:M:330:THR:HA	1.93	0.51
1:G:447:MET:HE3	1:G:504:LEU:HD21	1.92	0.51
1:I:455:VAL:HG12	1:I:460:GLU:O	2.09	0.51
1:G:217:SER:N	1:G:218:PRO:CD	2.73	0.51
1:J:381:VAL:HG12	1:J:382:GLY:N	2.26	0.51
1:L:217:SER:N	1:L:218:PRO:CD	2.73	0.51
1:C:177:VAL:HG21	1:C:397:GLU:HG2	1.93	0.51
1:N:23:LEU:HD22	1:N:75:LYS:HB2	1.92	0.51
1:B:487:ASN:O	1:B:491:MET:HG3	2.10	0.51
1:K:305:ILE:O	1:K:305:ILE:HG22	2.10	0.51
1:C:409:GLU:O	1:C:497:THR:HB	2.10	0.51
1:D:120:ILE:HG13	1:D:439:GLY:O	2.11	0.51
1:H:77:VAL:HG13	1:H:78:ALA:N	2.26	0.51
1:D:62:LEU:CD2	1:D:62:LEU:N	2.72	0.51
1:I:206:ASN:HD21	1:I:214:GLU:H	1.59	0.51
1:L:381:VAL:HG12	1:L:382:GLY:N	2.26	0.51
1:B:177:VAL:HG21	1:B:397:GLU:HG2	1.93	0.51
1:I:23:LEU:HD22	1:I:75:LYS:HB2	1.93	0.51
1:K:179:ASP:HB3	1:K:389:MET:HE1	1.93	0.51
1:D:9:GLY:O	1:D:10:ASN:C	2.49	0.51
1:M:266:THR:HG21	1:M:273:VAL:N	2.24	0.51
1:I:413:ALA:O	1:I:417:VAL:HG23	2.10	0.51
1:A:66:PHE:O	1:A:67:GLU:C	2.49	0.51
1:G:198:GLY:HA3	1:G:328:ASP:HA	1.93	0.51
1:D:440:ILE:O	1:D:443:ALA:N	2.44	0.51
1:M:198:GLY:HA3	1:M:328:ASP:HA	1.93	0.51
1:H:330:THR:CG2	1:H:331:THR:N	2.74	0.51
1:L:414:GLY:N	1:L:494:LEU:HA	2.25	0.51
1:M:202:PRO:O	1:M:204:PHE:N	2.37	0.51
1:L:65:LYS:O	1:L:69:MET:HG3	2.11	0.51
1:B:26:ALA:O	1:B:56:VAL:HG11	2.10	0.51
1:F:338:GLU:C	1:F:340:ALA:H	2.14	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:230:ILE:CD1	1:K:261:THR:HG21	2.23	0.51
1:H:183:LEU:CA	1:H:383:ALA:HB3	2.41	0.51
1:H:230:ILE:CD1	1:H:261:THR:HG21	2.24	0.51
1:A:499:VAL:CG2	1:A:500:THR:N	2.73	0.51
1:E:266:THR:HG21	1:E:273:VAL:N	2.24	0.51
1:F:510:VAL:O	1:F:511:ALA:C	2.47	0.51
1:K:61:GLU:C	1:K:62:LEU:HD23	2.31	0.51
1:G:61:GLU:C	1:G:62:LEU:HD23	2.31	0.51
1:C:64:ASP:C	1:C:64:ASP:OD1	2.49	0.51
1:G:183:LEU:CA	1:G:383:ALA:HB3	2.41	0.50
1:N:266:THR:HG21	1:N:273:VAL:N	2.25	0.50
1:I:417:VAL:HG23	1:I:418:ALA:N	2.26	0.50
1:K:198:GLY:HA3	1:K:328:ASP:HA	1.93	0.50
1:D:447:MET:HE3	1:D:504:LEU:HD21	1.91	0.50
1:A:206:ASN:HD21	1:A:214:GLU:H	1.58	0.50
1:C:417:VAL:HG23	1:C:418:ALA:H	1.76	0.50
1:K:420:ILE:HD11	1:K:451:LEU:HB3	1.93	0.50
1:A:134:LEU:O	1:A:136:VAL:HG23	2.11	0.50
1:M:177:VAL:HG21	1:M:397:GLU:HG2	1.94	0.50
1:E:305:ILE:O	1:E:305:ILE:HG22	2.11	0.50
1:D:179:ASP:HB3	1:D:389:MET:HE1	1.93	0.50
1:I:17:LEU:O	1:I:20:VAL:HG22	2.11	0.50
1:H:247:LEU:O	1:H:273:VAL:HG13	2.11	0.50
1:B:499:VAL:CG2	1:B:500:THR:N	2.73	0.50
1:M:417:VAL:HG23	1:M:418:ALA:H	1.76	0.50
1:B:440:ILE:O	1:B:443:ALA:N	2.44	0.50
1:M:205:ILE:HA	1:M:213:VAL:HG22	1.92	0.50
1:E:205:ILE:HA	1:E:213:VAL:HG22	1.91	0.50
1:D:479:ASN:OD1	1:D:493:ILE:HD11	2.12	0.50
1:G:420:ILE:HD12	1:G:451:LEU:HD22	1.93	0.50
1:L:305:ILE:HG22	1:L:305:ILE:O	2.11	0.50
1:J:112:ASN:OD1	1:J:114:MET:N	2.45	0.50
1:A:77:VAL:HG13	1:A:78:ALA:N	2.26	0.50
1:K:219:PHE:O	1:K:247:LEU:HD12	2.10	0.50
1:C:219:PHE:O	1:C:247:LEU:HD12	2.10	0.50
1:C:419:LEU:HD21	1:C:500:THR:HG22	1.93	0.50
1:L:325:ILE:HG22	1:L:330:THR:HA	1.94	0.50
1:K:406:ALA:HB1	1:K:411:VAL:HG12	1.92	0.50
1:K:180:GLY:H	1:K:389:MET:HE2	1.77	0.50
1:A:313:THR:O	1:A:317:LEU:HD13	2.11	0.50
1:D:258:ALA:O	1:D:262:LEU:HG	2.11	0.50
1:E:499:VAL:CG2	1:E:500:THR:N	2.74	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:73:MET:O	1:C:76:GLU:N	2.44	0.50
1:C:77:VAL:HG13	1:C:78:ALA:N	2.25	0.50
1:K:419:LEU:HD21	1:K:500:THR:HG22	1.93	0.50
1:I:417:VAL:HG23	1:I:418:ALA:H	1.77	0.50
1:D:198:GLY:HA3	1:D:328:ASP:HA	1.93	0.50
1:J:325:ILE:HG22	1:J:330:THR:HA	1.94	0.50
1:J:455:VAL:HG12	1:J:460:GLU:O	2.11	0.50
1:E:206:ASN:HD21	1:E:214:GLU:H	1.59	0.50
1:L:453:GLN:O	1:L:456:LEU:N	2.41	0.50
1:J:217:SER:N	1:J:218:PRO:CD	2.73	0.50
1:N:349:ILE:HA	1:N:352:GLN:CG	2.42	0.50
1:F:9:GLY:O	1:F:10:ASN:C	2.49	0.50
1:C:305:ILE:O	1:C:305:ILE:HG22	2.12	0.50
1:F:17:LEU:O	1:F:20:VAL:HG22	2.11	0.50
1:A:23:LEU:HD22	1:A:75:LYS:HB2	1.94	0.50
1:F:180:GLY:H	1:F:389:MET:HE2	1.77	0.50
1:D:24:ALA:HB3	1:D:97:GLN:HE21	1.76	0.50
1:I:420:ILE:HD11	1:I:451:LEU:HB3	1.93	0.50
1:N:521:VAL:O	1:N:521:VAL:HG12	2.10	0.50
1:J:499:VAL:CG2	1:J:500:THR:N	2.74	0.50
1:M:77:VAL:HG13	1:M:78:ALA:N	2.26	0.50
1:B:82:ASN:HB2	1:B:89:THR:HG22	1.93	0.50
1:K:330:THR:CG2	1:K:331:THR:H	2.25	0.50
1:K:417:VAL:HG23	1:K:418:ALA:H	1.77	0.50
1:N:413:ALA:O	1:N:417:VAL:HG23	2.11	0.50
1:D:417:VAL:HG23	1:D:418:ALA:N	2.27	0.50
1:C:417:VAL:HG23	1:C:418:ALA:N	2.26	0.50
1:G:87:ASP:CG	1:G:88:GLY:H	2.14	0.50
1:L:88:GLY:O	1:L:91:THR:N	2.44	0.50
1:J:420:ILE:HD12	1:J:451:LEU:HD22	1.93	0.50
1:M:24:ALA:HB3	1:M:97:GLN:HE21	1.76	0.50
1:L:180:GLY:H	1:L:389:MET:HE2	1.77	0.50
1:M:23:LEU:HD22	1:M:75:LYS:HB2	1.92	0.50
1:J:23:LEU:HD22	1:J:75:LYS:HB2	1.94	0.50
1:M:179:ASP:HB3	1:M:389:MET:HE1	1.94	0.50
1:F:23:LEU:CD2	1:F:75:LYS:HB2	2.41	0.50
1:D:66:PHE:O	1:D:67:GLU:C	2.49	0.50
1:B:129:GLU:C	1:B:131:LEU:N	2.63	0.50
1:J:129:GLU:C	1:J:131:LEU:N	2.63	0.50
1:L:129:GLU:C	1:L:131:LEU:N	2.63	0.50
1:K:62:LEU:N	1:K:62:LEU:CD2	2.71	0.50
1:B:9:GLY:O	1:B:10:ASN:C	2.50	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:198:GLY:HA3	1:A:328:ASP:HA	1.92	0.50
1:K:325:ILE:HG22	1:K:330:THR:HA	1.94	0.50
1:D:488:MET:CE	1:D:493:ILE:HG21	2.42	0.50
1:D:420:ILE:HD12	1:D:451:LEU:HD22	1.93	0.50
1:F:381:VAL:HG12	1:F:382:GLY:N	2.26	0.50
1:K:404:ARG:CG	1:K:404:ARG:HH11	2.25	0.50
1:G:17:LEU:O	1:G:20:VAL:HG22	2.12	0.50
1:N:258:ALA:O	1:N:262:LEU:HG	2.12	0.50
1:F:247:LEU:O	1:F:273:VAL:HG13	2.12	0.50
1:E:70:GLY:HA2	1:E:73:MET:CE	2.42	0.50
1:B:77:VAL:CG1	1:B:78:ALA:N	2.74	0.50
1:L:510:VAL:O	1:L:511:ALA:C	2.49	0.50
1:G:77:VAL:HG11	1:G:510:VAL:CG2	2.42	0.50
1:I:198:GLY:HA3	1:I:328:ASP:HA	1.92	0.50
1:K:488:MET:HE3	1:K:493:ILE:HB	1.94	0.50
1:I:8:PHE:HE1	1:I:519:CYS:SG	2.34	0.50
1:F:69:MET:O	1:F:73:MET:HG3	2.12	0.50
1:D:87:ASP:CG	1:D:88:GLY:H	2.15	0.50
1:G:88:GLY:O	1:G:91:THR:N	2.44	0.50
1:J:420:ILE:HD11	1:J:451:LEU:HB3	1.93	0.50
1:G:381:VAL:HG12	1:G:382:GLY:N	2.27	0.50
1:N:26:ALA:O	1:N:56:VAL:HG11	2.11	0.50
1:D:151:SER:HB3	1:D:399:ALA:HA	1.92	0.50
1:L:112:ASN:OD1	1:L:114:MET:N	2.45	0.50
1:G:524:LEU:O	1:G:526:LYS:N	2.36	0.50
1:B:233:MET:C	1:B:235:PRO:HD2	2.32	0.50
1:G:499:VAL:CG2	1:G:500:THR:N	2.74	0.50
1:J:77:VAL:HG13	1:J:78:ALA:N	2.26	0.50
1:N:510:VAL:O	1:N:511:ALA:C	2.50	0.50
1:E:417:VAL:HG21	1:E:488:MET:HG3	1.94	0.50
1:K:130:GLU:HB3	1:K:422:VAL:HG13	1.93	0.50
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.92	0.50
1:D:417:VAL:HG23	1:D:418:ALA:H	1.77	0.50
1:M:217:SER:N	1:M:218:PRO:CD	2.75	0.50
1:J:486:GLY:C	1:J:491:MET:HE2	2.31	0.50
1:A:305:ILE:O	1:A:305:ILE:HG22	2.11	0.50
1:L:258:ALA:O	1:L:262:LEU:HG	2.12	0.50
1:F:87:ASP:CG	1:F:88:GLY:H	2.15	0.50
1:C:24:ALA:HB3	1:C:97:GLN:HE21	1.77	0.50
1:F:183:LEU:CA	1:F:383:ALA:HB3	2.41	0.50
1:I:219:PHE:O	1:I:247:LEU:HD12	2.12	0.50
1:N:449:ALA:O	1:N:450:PRO:C	2.50	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:23:LEU:HD22	1:C:75:LYS:HB2	1.94	0.50
1:J:417:VAL:HG23	1:J:418:ALA:N	2.26	0.50
1:E:325:ILE:HG22	1:E:330:THR:HA	1.93	0.50
1:N:87:ASP:CG	1:N:88:GLY:H	2.15	0.50
1:D:414:GLY:N	1:D:494:LEU:HA	2.27	0.50
1:M:404:ARG:HH11	1:M:404:ARG:CG	2.24	0.50
1:D:177:VAL:HG21	1:D:397:GLU:HG2	1.94	0.50
1:L:170:GLY:C	1:L:172:GLU:H	2.16	0.50
1:A:266:THR:HG21	1:A:273:VAL:N	2.27	0.49
1:I:272:LYS:HZ1	1:J:228:SER:HB3	1.76	0.49
1:L:66:PHE:HE1	1:L:522:THR:HG22	1.73	0.49
1:A:66:PHE:CE1	1:A:522:THR:CG2	2.95	0.49
1:F:325:ILE:HG22	1:F:330:THR:HA	1.94	0.49
1:J:465:VAL:O	1:J:469:VAL:HG23	2.13	0.49
1:F:8:PHE:CE1	1:F:519:CYS:SG	3.04	0.49
1:D:88:GLY:O	1:D:91:THR:N	2.44	0.49
1:H:453:GLN:O	1:H:456:LEU:N	2.37	0.49
1:J:349:ILE:HA	1:J:352:GLN:CG	2.42	0.49
1:E:349:ILE:HA	1:E:352:GLN:CG	2.42	0.49
1:A:258:ALA:O	1:A:262:LEU:HG	2.12	0.49
1:L:313:THR:O	1:L:317:LEU:HD13	2.12	0.49
1:J:259:LEU:O	1:J:263:VAL:HG23	2.12	0.49
1:I:183:LEU:CA	1:I:383:ALA:HB3	2.42	0.49
1:B:69:MET:O	1:B:73:MET:HG3	2.12	0.49
1:A:330:THR:CG2	1:A:331:THR:N	2.75	0.49
1:F:206:ASN:HD21	1:F:214:GLU:H	1.58	0.49
1:D:206:ASN:HD21	1:D:214:GLU:H	1.60	0.49
1:F:64:ASP:OD1	1:F:64:ASP:C	2.50	0.49
1:D:26:ALA:O	1:D:56:VAL:HG11	2.11	0.49
1:C:151:SER:HB3	1:C:399:ALA:HA	1.94	0.49
1:E:258:ALA:O	1:E:262:LEU:HG	2.11	0.49
1:D:230:ILE:CD1	1:D:261:THR:HG21	2.23	0.49
1:H:69:MET:SD	1:N:41:ASP:HB2	2.52	0.49
1:F:66:PHE:O	1:F:67:GLU:C	2.49	0.49
1:F:205:ILE:HA	1:F:213:VAL:HG22	1.93	0.49
1:G:404:ARG:CG	1:G:404:ARG:HH11	2.25	0.49
1:D:381:VAL:HG12	1:D:382:GLY:N	2.28	0.49
1:H:349:ILE:HA	1:H:352:GLN:CG	2.42	0.49
1:G:177:VAL:HG21	1:G:397:GLU:HG2	1.94	0.49
1:H:517:THR:HG23	1:N:37:ASN:O	2.11	0.49
1:C:70:GLY:HA2	1:C:73:MET:CE	2.43	0.49
1:N:77:VAL:CG1	1:N:78:ALA:N	2.74	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:9:GLY:O	1:K:10:ASN:C	2.51	0.49
1:N:129:GLU:C	1:N:131:LEU:N	2.64	0.49
1:M:82:ASN:HB2	1:M:89:THR:HG22	1.91	0.49
1:N:13:ARG:HA	1:N:16:MET:HE2	1.93	0.49
1:C:325:ILE:HG22	1:C:330:THR:HA	1.94	0.49
1:A:453:GLN:O	1:A:456:LEU:N	2.39	0.49
1:J:205:ILE:HA	1:J:213:VAL:HG22	1.94	0.49
1:C:241:ALA:HB1	1:D:231:ARG:HH12	1.76	0.49
1:F:417:VAL:HG23	1:F:418:ALA:H	1.77	0.49
1:D:413:ALA:O	1:D:417:VAL:HG23	2.12	0.49
1:J:41:ASP:OD1	1:K:69:MET:HG2	2.12	0.49
1:J:134:LEU:O	1:J:136:VAL:HG23	2.12	0.49
1:L:177:VAL:HG21	1:L:397:GLU:HG2	1.95	0.49
1:D:170:GLY:C	1:D:172:GLU:H	2.16	0.49
1:C:70:GLY:HA2	1:C:73:MET:HE3	1.94	0.49
1:J:46:ALA:CB	1:K:76:GLU:HG3	2.39	0.49
1:L:10:ASN:O	1:L:13:ARG:N	2.43	0.49
1:A:129:GLU:C	1:A:131:LEU:N	2.62	0.49
1:I:325:ILE:HG22	1:I:330:THR:HA	1.95	0.49
1:N:404:ARG:HH11	1:N:404:ARG:CG	2.25	0.49
1:C:404:ARG:CG	1:C:404:ARG:HH11	2.25	0.49
1:F:88:GLY:O	1:F:91:THR:N	2.45	0.49
1:K:338:GLU:C	1:K:340:ALA:H	2.15	0.49
1:K:120:ILE:HG13	1:K:439:GLY:O	2.13	0.49
1:L:57:ALA:O	1:L:60:ILE:N	2.43	0.49
1:I:338:GLU:C	1:I:340:ALA:H	2.16	0.49
1:D:70:GLY:HA2	1:D:73:MET:HE3	1.93	0.49
1:A:330:THR:CG2	1:A:331:THR:H	2.24	0.49
1:B:325:ILE:HG22	1:B:330:THR:HA	1.93	0.49
1:I:134:LEU:CD2	1:I:134:LEU:N	2.76	0.49
1:N:456:LEU:C	1:N:458:CYS:H	2.15	0.49
1:F:349:ILE:HA	1:F:352:GLN:CG	2.43	0.49
1:B:404:ARG:HH11	1:B:404:ARG:CG	2.25	0.49
1:B:420:ILE:HD12	1:B:451:LEU:HD22	1.93	0.49
1:F:24:ALA:O	1:F:26:ALA:N	2.46	0.49
1:I:26:ALA:O	1:I:56:VAL:HG11	2.11	0.49
1:M:151:SER:HB3	1:M:399:ALA:HA	1.93	0.49
1:L:23:LEU:HD22	1:L:75:LYS:HB2	1.95	0.49
1:I:361:ASP:O	1:I:365:LEU:HG	2.12	0.49
1:F:313:THR:O	1:F:317:LEU:HD13	2.12	0.49
1:N:183:LEU:CA	1:N:383:ALA:HB3	2.41	0.49
1:N:230:ILE:CD1	1:N:261:THR:HG21	2.22	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:70:GLY:HA2	1:I:73:MET:HE3	1.95	0.49
1:A:70:GLY:HA2	1:A:73:MET:HE3	1.95	0.49
1:M:10:ASN:O	1:M:13:ARG:N	2.45	0.49
1:D:499:VAL:CG2	1:D:500:THR:N	2.76	0.49
1:G:77:VAL:HG11	1:G:510:VAL:HG21	1.92	0.49
1:G:130:GLU:HB3	1:G:422:VAL:HG13	1.94	0.49
1:K:66:PHE:O	1:K:67:GLU:C	2.51	0.49
1:E:198:GLY:HA3	1:E:328:ASP:HA	1.94	0.49
1:E:420:ILE:HD11	1:E:451:LEU:HB3	1.93	0.49
1:D:8:PHE:CE1	1:D:519:CYS:SG	3.04	0.49
1:C:456:LEU:C	1:C:458:CYS:H	2.14	0.49
1:L:404:ARG:HH11	1:L:404:ARG:CG	2.25	0.49
1:E:487:ASN:O	1:E:491:MET:HG3	2.13	0.49
1:D:404:ARG:CG	1:D:404:ARG:HH11	2.25	0.49
1:A:24:ALA:HB3	1:A:97:GLN:HE21	1.76	0.49
1:E:25:ASP:OD1	1:E:28:LYS:HE2	2.12	0.49
1:M:73:MET:O	1:M:76:GLU:N	2.46	0.49
1:G:77:VAL:CG1	1:G:510:VAL:HG21	2.43	0.49
1:G:129:GLU:O	1:G:132:LYS:N	2.46	0.49
1:L:206:ASN:HD21	1:L:214:GLU:H	1.58	0.49
1:B:465:VAL:O	1:B:469:VAL:HG23	2.13	0.49
1:C:381:VAL:HG12	1:C:382:GLY:N	2.28	0.49
1:C:420:ILE:HD12	1:C:451:LEU:HD22	1.93	0.49
1:I:451:LEU:O	1:I:453:GLN:N	2.46	0.49
1:H:26:ALA:O	1:H:56:VAL:HG11	2.13	0.49
1:D:23:LEU:HD22	1:D:75:LYS:HB2	1.95	0.49
1:M:258:ALA:O	1:M:262:LEU:HG	2.13	0.49
1:G:338:GLU:C	1:G:340:ALA:H	2.15	0.49
1:H:151:SER:HB3	1:H:399:ALA:HA	1.95	0.49
1:B:258:ALA:O	1:B:262:LEU:HG	2.12	0.49
1:D:313:THR:O	1:D:317:LEU:HD13	2.12	0.49
1:C:338:GLU:C	1:C:340:ALA:H	2.15	0.49
1:M:313:THR:O	1:M:317:LEU:HD13	2.12	0.49
1:L:259:LEU:O	1:L:263:VAL:HG23	2.13	0.49
1:D:266:THR:HG21	1:D:273:VAL:N	2.26	0.49
1:K:73:MET:O	1:K:76:GLU:N	2.46	0.49
1:M:464:VAL:O	1:M:465:VAL:C	2.50	0.49
1:N:381:VAL:HG12	1:N:382:GLY:N	2.27	0.49
1:M:381:VAL:HG12	1:M:382:GLY:N	2.27	0.49
1:C:349:ILE:HA	1:C:352:GLN:CG	2.42	0.49
1:H:313:THR:O	1:H:317:LEU:HD13	2.13	0.49
1:E:174:VAL:HB	1:E:376:VAL:HG13	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:258:ALA:O	1:G:262:LEU:HG	2.13	0.49
1:J:338:GLU:C	1:J:340:ALA:H	2.16	0.49
1:G:9:GLY:O	1:G:10:ASN:C	2.50	0.49
1:G:13:ARG:O	1:G:16:MET:N	2.46	0.49
1:C:61:GLU:C	1:C:62:LEU:HD23	2.33	0.49
1:H:330:THR:CG2	1:H:331:THR:H	2.24	0.49
1:C:330:THR:CG2	1:C:331:THR:H	2.26	0.49
1:A:420:ILE:HD11	1:A:451:LEU:HB3	1.95	0.49
1:B:417:VAL:HG21	1:B:488:MET:HG3	1.95	0.49
1:I:134:LEU:O	1:I:136:VAL:HG23	2.12	0.49
1:K:456:LEU:C	1:K:458:CYS:H	2.15	0.49
1:J:453:GLN:O	1:J:456:LEU:N	2.40	0.49
1:M:349:ILE:HA	1:M:352:GLN:CG	2.43	0.49
1:I:34:LYS:HG3	1:I:458:CYS:SG	2.51	0.49
1:M:64:ASP:C	1:M:64:ASP:OD1	2.52	0.49
1:I:313:THR:O	1:I:317:LEU:HD13	2.13	0.49
1:D:112:ASN:OD1	1:D:114:MET:N	2.46	0.49
1:I:73:MET:O	1:I:76:GLU:N	2.46	0.48
1:A:69:MET:O	1:A:73:MET:HG3	2.12	0.48
1:H:266:THR:HG21	1:H:273:VAL:N	2.28	0.48
1:M:129:GLU:C	1:M:131:LEU:N	2.66	0.48
1:A:510:VAL:O	1:A:511:ALA:C	2.51	0.48
1:I:479:ASN:OD1	1:I:493:ILE:HD11	2.13	0.48
1:N:66:PHE:CE1	1:N:522:THR:CG2	2.95	0.48
1:K:510:VAL:O	1:K:511:ALA:C	2.52	0.48
1:I:88:GLY:O	1:I:91:THR:N	2.46	0.48
1:N:330:THR:CG2	1:N:331:THR:H	2.24	0.48
1:G:455:VAL:HG12	1:G:455:VAL:O	2.13	0.48
1:K:134:LEU:CD2	1:K:134:LEU:N	2.76	0.48
1:N:465:VAL:O	1:N:469:VAL:HG23	2.12	0.48
1:K:420:ILE:HD12	1:K:451:LEU:HD22	1.94	0.48
1:E:13:ARG:HA	1:E:16:MET:HE2	1.94	0.48
1:D:23:LEU:CD2	1:D:75:LYS:HB2	2.43	0.48
1:G:313:THR:O	1:G:317:LEU:HD13	2.13	0.48
1:M:25:ASP:OD1	1:M:28:LYS:HE2	2.13	0.48
1:I:85:ALA:HB1	1:I:499:VAL:CG1	2.36	0.48
1:M:9:GLY:O	1:M:10:ASN:C	2.50	0.48
1:L:62:LEU:CD2	1:L:62:LEU:N	2.72	0.48
1:L:330:THR:CG2	1:L:331:THR:N	2.76	0.48
1:L:134:LEU:O	1:L:136:VAL:HG23	2.12	0.48
1:H:381:VAL:HG12	1:H:382:GLY:N	2.28	0.48
1:A:349:ILE:HA	1:A:352:GLN:CG	2.42	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:404:ARG:HH11	1:H:404:ARG:CG	2.25	0.48
1:A:404:ARG:HH11	1:A:404:ARG:CG	2.26	0.48
1:J:176:THR:HG21	1:J:333:ILE:HD11	1.95	0.48
1:F:23:LEU:HD22	1:F:75:LYS:HB2	1.95	0.48
1:E:338:GLU:C	1:E:340:ALA:H	2.16	0.48
1:A:64:ASP:C	1:A:64:ASP:OD1	2.51	0.48
1:N:338:GLU:C	1:N:340:ALA:H	2.15	0.48
1:F:486:GLY:C	1:F:491:MET:HE2	2.33	0.48
1:N:499:VAL:HG22	1:N:500:THR:N	2.29	0.48
1:K:499:VAL:CG2	1:K:500:THR:N	2.77	0.48
1:H:62:LEU:N	1:H:62:LEU:CD2	2.68	0.48
1:I:129:GLU:C	1:I:131:LEU:N	2.64	0.48
1:K:127:ALA:HB1	1:K:422:VAL:HG11	1.96	0.48
1:J:70:GLY:HA2	1:J:73:MET:HE2	1.94	0.48
1:A:88:GLY:O	1:A:91:THR:N	2.46	0.48
1:A:325:ILE:HG22	1:A:330:THR:HA	1.94	0.48
1:C:330:THR:CG2	1:C:331:THR:N	2.76	0.48
1:D:330:THR:CG2	1:D:331:THR:H	2.26	0.48
1:D:330:THR:CG2	1:D:331:THR:N	2.76	0.48
1:D:134:LEU:O	1:D:136:VAL:HG23	2.12	0.48
1:D:453:GLN:O	1:D:456:LEU:N	2.36	0.48
1:K:381:VAL:HG12	1:K:382:GLY:N	2.28	0.48
1:A:177:VAL:HG21	1:A:397:GLU:HG2	1.96	0.48
1:E:23:LEU:HD22	1:E:75:LYS:HB2	1.95	0.48
1:C:120:ILE:HG13	1:C:439:GLY:O	2.13	0.48
1:E:313:THR:O	1:E:317:LEU:HD13	2.13	0.48
1:I:25:ASP:OD1	1:I:28:LYS:HE2	2.13	0.48
1:E:247:LEU:O	1:E:273:VAL:HG13	2.12	0.48
1:N:77:VAL:HG13	1:N:78:ALA:N	2.27	0.48
1:E:129:GLU:C	1:E:131:LEU:N	2.65	0.48
1:K:330:THR:CG2	1:K:331:THR:N	2.75	0.48
1:A:417:VAL:HG23	1:A:418:ALA:H	1.78	0.48
1:B:414:GLY:N	1:B:494:LEU:HA	2.28	0.48
1:N:27:VAL:C	1:N:29:VAL:H	2.17	0.48
1:J:24:ALA:O	1:J:26:ALA:N	2.46	0.48
1:C:453:GLN:O	1:C:456:LEU:N	2.39	0.48
1:G:349:ILE:HA	1:G:352:GLN:CG	2.43	0.48
1:H:40:LEU:HD13	1:H:59:GLU:HG3	1.94	0.48
1:M:338:GLU:C	1:M:340:ALA:H	2.16	0.48
1:J:180:GLY:H	1:J:389:MET:HE2	1.78	0.48
1:D:338:GLU:C	1:D:340:ALA:H	2.16	0.48
1:C:233:MET:C	1:C:235:PRO:HD2	2.34	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:9:GLY:O	1:C:10:ASN:C	2.51	0.48
1:D:129:GLU:O	1:D:132:LYS:N	2.47	0.48
1:C:247:LEU:O	1:C:273:VAL:HG13	2.12	0.48
1:J:449:ALA:HB3	1:J:450:PRO:CD	2.40	0.48
1:D:61:GLU:C	1:D:62:LEU:HD23	2.33	0.48
1:N:440:ILE:O	1:N:443:ALA:N	2.46	0.48
1:G:330:THR:CG2	1:G:331:THR:N	2.77	0.48
1:H:420:ILE:HD12	1:H:451:LEU:HD22	1.95	0.48
1:C:420:ILE:HD11	1:C:451:LEU:HB3	1.96	0.48
1:K:88:GLY:O	1:K:91:THR:N	2.46	0.48
1:D:183:LEU:CA	1:D:383:ALA:HB3	2.42	0.48
1:L:266:THR:HG21	1:L:273:VAL:N	2.27	0.48
1:E:479:ASN:OD1	1:E:493:ILE:HD11	2.13	0.48
1:N:9:GLY:O	1:N:10:ASN:C	2.50	0.48
1:M:464:VAL:O	1:M:466:ALA:N	2.47	0.48
1:E:420:ILE:HD12	1:E:451:LEU:HD22	1.96	0.48
1:C:420:ILE:CD1	1:C:451:LEU:HD22	2.44	0.48
1:H:23:LEU:HD22	1:H:75:LYS:HB2	1.96	0.48
1:I:177:VAL:HG21	1:I:397:GLU:HG2	1.96	0.48
1:L:338:GLU:C	1:L:340:ALA:H	2.16	0.48
1:A:338:GLU:C	1:A:340:ALA:H	2.16	0.48
1:B:68:ASN:HD21	1:B:72:GLN:HG3	1.78	0.48
1:J:69:MET:O	1:J:73:MET:HG3	2.12	0.48
1:N:73:MET:O	1:N:76:GLU:N	2.45	0.48
1:N:420:ILE:CD1	1:N:451:LEU:HD22	2.43	0.48
1:D:420:ILE:HD11	1:D:451:LEU:HB3	1.96	0.48
1:B:381:VAL:HG12	1:B:382:GLY:N	2.27	0.48
1:K:349:ILE:HA	1:K:352:GLN:CG	2.43	0.48
1:L:406:ALA:HA	1:L:410:GLY:O	2.14	0.48
1:J:170:GLY:C	1:J:172:GLU:H	2.17	0.48
1:J:313:THR:O	1:J:317:LEU:HD13	2.14	0.48
1:E:183:LEU:CA	1:E:383:ALA:HB3	2.42	0.48
1:L:66:PHE:O	1:L:67:GLU:C	2.52	0.48
1:D:488:MET:HE3	1:D:493:ILE:HB	1.96	0.48
1:M:220:ILE:HG23	1:M:248:LEU:HD23	1.95	0.48
1:H:338:GLU:C	1:H:340:ALA:H	2.17	0.48
1:J:171:LYS:HB2	1:J:407:VAL:HG11	1.96	0.48
1:C:266:THR:HG21	1:C:273:VAL:N	2.27	0.48
1:L:16:MET:SD	1:L:73:MET:HE1	2.53	0.48
1:I:449:ALA:HB3	1:I:450:PRO:CD	2.42	0.48
1:N:8:PHE:HE1	1:N:519:CYS:HG	1.49	0.48
1:H:325:ILE:HG22	1:H:330:THR:HA	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:488:MET:HE3	1:H:493:ILE:HB	1.95	0.48
1:J:456:LEU:C	1:J:458:CYS:H	2.16	0.48
1:E:233:MET:C	1:E:235:PRO:HD2	2.35	0.48
1:J:70:GLY:HA2	1:J:73:MET:HE3	1.94	0.48
1:F:66:PHE:CE1	1:F:522:THR:CG2	2.95	0.48
1:J:417:VAL:HG21	1:J:488:MET:HG3	1.96	0.48
1:G:477:GLY:HA3	1:G:488:MET:SD	2.54	0.48
1:I:381:VAL:HG12	1:I:382:GLY:N	2.28	0.48
1:C:24:ALA:O	1:C:26:ALA:N	2.47	0.48
1:N:313:THR:O	1:N:317:LEU:HD13	2.14	0.48
1:M:12:ALA:HB1	1:M:520:MET:HG3	1.96	0.48
1:L:174:VAL:HB	1:L:376:VAL:HG13	1.96	0.48
1:I:383:ALA:O	1:I:384:ALA:CB	2.62	0.47
1:L:310:GLU:N	1:L:310:GLU:OE1	2.47	0.47
1:E:510:VAL:O	1:E:511:ALA:C	2.52	0.47
1:G:325:ILE:HG22	1:G:330:THR:HA	1.96	0.47
1:F:330:THR:CG2	1:F:331:THR:H	2.26	0.47
1:M:330:THR:CG2	1:M:331:THR:H	2.27	0.47
1:F:70:GLY:HA2	1:F:73:MET:HE3	1.94	0.47
1:J:447:MET:HE3	1:J:504:LEU:HD21	1.94	0.47
1:F:404:ARG:CG	1:F:404:ARG:HH11	2.26	0.47
1:N:136:VAL:O	1:N:137:PRO:O	2.31	0.47
1:D:305:ILE:O	1:D:305:ILE:HG22	2.14	0.47
1:I:486:GLY:C	1:I:491:MET:HE2	2.34	0.47
1:H:239:ALA:O	1:H:314:LEU:HD11	2.14	0.47
1:N:140:ASP:O	1:N:142:LYS:N	2.47	0.47
1:D:25:ASP:OD1	1:D:28:LYS:HE2	2.13	0.47
1:C:259:LEU:O	1:C:263:VAL:HG23	2.14	0.47
1:J:183:LEU:CA	1:J:383:ALA:HB3	2.43	0.47
1:I:13:ARG:O	1:I:16:MET:N	2.47	0.47
1:J:62:LEU:N	1:J:62:LEU:CD2	2.66	0.47
1:F:82:ASN:HB2	1:F:89:THR:HG22	1.92	0.47
1:F:129:GLU:O	1:F:132:LYS:N	2.47	0.47
1:J:87:ASP:CG	1:J:88:GLY:H	2.18	0.47
1:F:414:GLY:N	1:F:494:LEU:HA	2.29	0.47
1:C:206:ASN:HD21	1:C:214:GLU:H	1.60	0.47
1:M:486:GLY:C	1:M:491:MET:HE2	2.34	0.47
1:J:23:LEU:CD2	1:J:75:LYS:HB2	2.44	0.47
1:L:40:LEU:HD13	1:L:59:GLU:HG3	1.96	0.47
1:D:174:VAL:HB	1:D:376:VAL:HG13	1.96	0.47
1:F:258:ALA:O	1:F:262:LEU:HG	2.13	0.47
1:A:57:ALA:O	1:A:60:ILE:N	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:16:MET:SD	1:A:73:MET:HE1	2.55	0.47
1:H:228:SER:HB3	1:N:272:LYS:HZ1	1.80	0.47
1:G:62:LEU:N	1:G:62:LEU:CD2	2.71	0.47
1:A:87:ASP:CG	1:A:88:GLY:H	2.18	0.47
1:L:8:PHE:HE1	1:L:519:CYS:SG	2.37	0.47
1:L:413:ALA:O	1:L:417:VAL:HG23	2.13	0.47
1:F:464:VAL:HG22	1:N:464:VAL:HG22	1.97	0.47
1:J:24:ALA:CB	1:J:97:GLN:HE21	2.28	0.47
1:N:171:LYS:HB2	1:N:407:VAL:HG11	1.96	0.47
1:H:310:GLU:OE1	1:H:310:GLU:N	2.47	0.47
1:A:73:MET:O	1:A:76:GLU:N	2.47	0.47
1:I:233:MET:C	1:I:235:PRO:HD2	2.35	0.47
1:C:8:PHE:CE1	1:C:519:CYS:SG	3.00	0.47
1:H:510:VAL:O	1:H:511:ALA:C	2.52	0.47
1:L:129:GLU:O	1:L:132:LYS:N	2.47	0.47
1:I:417:VAL:HG21	1:I:488:MET:HG3	1.97	0.47
1:J:66:PHE:CE1	1:J:522:THR:CG2	2.97	0.47
1:M:417:VAL:HG23	1:M:418:ALA:N	2.30	0.47
1:D:325:ILE:HG22	1:D:330:THR:HA	1.95	0.47
1:J:88:GLY:O	1:J:91:THR:N	2.48	0.47
1:I:214:GLU:C	1:I:215:LEU:HD23	2.35	0.47
1:K:451:LEU:C	1:K:453:GLN:N	2.66	0.47
1:F:420:ILE:CD1	1:F:451:LEU:HD22	2.44	0.47
1:M:120:ILE:HG13	1:M:439:GLY:O	2.15	0.47
1:K:259:LEU:O	1:K:263:VAL:HG23	2.14	0.47
1:M:259:LEU:O	1:M:263:VAL:HG23	2.15	0.47
1:A:310:GLU:OE1	1:A:310:GLU:N	2.47	0.47
1:B:77:VAL:HG13	1:B:78:ALA:N	2.28	0.47
1:K:70:GLY:HA2	1:K:73:MET:CE	2.44	0.47
1:B:66:PHE:CE1	1:B:522:THR:CG2	2.98	0.47
1:J:13:ARG:O	1:J:16:MET:N	2.47	0.47
1:I:66:PHE:O	1:I:67:GLU:C	2.53	0.47
1:A:477:GLY:HA3	1:A:488:MET:SD	2.55	0.47
1:N:453:GLN:O	1:N:456:LEU:N	2.41	0.47
1:E:453:GLN:O	1:E:456:LEU:N	2.38	0.47
1:E:404:ARG:CG	1:E:404:ARG:HH11	2.27	0.47
1:L:25:ASP:OD1	1:L:28:LYS:HE2	2.14	0.47
1:B:310:GLU:N	1:B:310:GLU:OE1	2.47	0.47
1:A:13:ARG:HA	1:A:16:MET:HE2	1.96	0.47
1:A:228:SER:CB	1:G:272:LYS:HZ3	2.28	0.47
1:G:66:PHE:CE1	1:G:522:THR:CG2	2.94	0.47
1:I:87:ASP:CG	1:I:88:GLY:H	2.17	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:330:THR:CG2	1:L:331:THR:H	2.26	0.47
1:G:423:ALA:HB2	1:G:447:MET:SD	2.55	0.47
1:J:440:ILE:O	1:J:443:ALA:N	2.48	0.47
1:B:456:LEU:C	1:B:458:CYS:H	2.17	0.47
1:N:64:ASP:C	1:N:64:ASP:OD1	2.53	0.47
1:I:151:SER:HB3	1:I:399:ALA:HA	1.95	0.47
1:K:40:LEU:HD13	1:K:59:GLU:HG3	1.96	0.47
1:B:170:GLY:C	1:B:172:GLU:H	2.18	0.47
1:N:174:VAL:HB	1:N:376:VAL:HG13	1.96	0.47
1:A:259:LEU:O	1:A:263:VAL:HG23	2.15	0.47
1:F:259:LEU:O	1:F:263:VAL:HG23	2.15	0.47
1:J:310:GLU:N	1:J:310:GLU:OE1	2.48	0.47
1:H:70:GLY:HA2	1:H:73:MET:CE	2.44	0.47
1:F:499:VAL:HG22	1:F:500:THR:N	2.29	0.47
1:H:129:GLU:C	1:H:131:LEU:N	2.63	0.47
1:D:127:ALA:HB1	1:D:422:VAL:HG11	1.97	0.47
1:E:127:ALA:HB1	1:E:422:VAL:HG11	1.97	0.47
1:E:421:ARG:NH2	1:E:469:VAL:O	2.47	0.47
1:I:510:VAL:O	1:I:511:ALA:C	2.50	0.47
1:J:200:LEU:HD21	1:J:276:VAL:HA	1.95	0.47
1:K:29:VAL:C	1:K:31:LEU:N	2.68	0.47
1:K:27:VAL:C	1:K:29:VAL:H	2.16	0.47
1:K:414:GLY:N	1:K:494:LEU:HA	2.29	0.47
1:A:417:VAL:HG23	1:A:418:ALA:N	2.29	0.47
1:F:27:VAL:C	1:F:29:VAL:H	2.18	0.47
1:G:27:VAL:C	1:G:29:VAL:H	2.18	0.47
1:J:451:LEU:C	1:J:453:GLN:N	2.68	0.47
1:A:381:VAL:HG12	1:A:382:GLY:N	2.29	0.47
1:K:176:THR:HG21	1:K:333:ILE:HD11	1.96	0.47
1:I:23:LEU:CD2	1:I:75:LYS:HB2	2.44	0.47
1:E:23:LEU:CD2	1:E:75:LYS:HB2	2.45	0.47
1:D:409:GLU:O	1:D:497:THR:HB	2.15	0.47
1:G:259:LEU:O	1:G:263:VAL:HG23	2.15	0.47
1:E:524:LEU:O	1:E:526:LYS:N	2.39	0.47
1:H:10:ASN:O	1:H:13:ARG:N	2.43	0.47
1:D:69:MET:O	1:D:73:MET:HG3	2.15	0.47
1:G:272:LYS:H	1:G:272:LYS:HD2	1.80	0.47
1:K:266:THR:HG21	1:K:273:VAL:N	2.27	0.47
1:H:66:PHE:O	1:H:67:GLU:C	2.52	0.47
1:E:27:VAL:CG1	1:E:90:THR:HG23	2.45	0.47
1:M:200:LEU:HD21	1:M:276:VAL:HA	1.97	0.47
1:I:330:THR:CG2	1:I:331:THR:H	2.28	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:488:MET:HE3	1:A:493:ILE:HB	1.97	0.47
1:H:414:GLY:N	1:H:494:LEU:HA	2.29	0.47
1:G:414:GLY:N	1:G:494:LEU:HA	2.30	0.47
1:F:440:ILE:O	1:F:441:LYS:C	2.52	0.47
1:E:381:VAL:HG12	1:E:382:GLY:N	2.29	0.47
1:J:404:ARG:CG	1:J:404:ARG:HH11	2.27	0.47
1:K:177:VAL:HG21	1:K:397:GLU:HG2	1.95	0.47
1:M:140:ASP:O	1:M:142:LYS:N	2.47	0.47
1:H:171:LYS:HB2	1:H:407:VAL:HG11	1.97	0.47
1:M:521:VAL:HG12	1:M:521:VAL:O	2.15	0.47
1:E:310:GLU:N	1:E:310:GLU:OE1	2.47	0.47
1:N:233:MET:C	1:N:235:PRO:HD2	2.35	0.47
1:I:85:ALA:CB	1:I:499:VAL:HG12	2.36	0.47
1:J:233:MET:C	1:J:235:PRO:HD2	2.35	0.47
1:K:233:MET:HB3	1:K:237:LEU:HG	1.97	0.47
1:H:129:GLU:O	1:H:132:LYS:N	2.48	0.47
1:L:13:ARG:HA	1:L:16:MET:HE2	1.96	0.47
1:J:9:GLY:O	1:J:10:ASN:C	2.53	0.47
1:E:200:LEU:HD21	1:E:276:VAL:HA	1.97	0.47
1:K:417:VAL:HG23	1:K:418:ALA:N	2.29	0.47
1:H:417:VAL:HG23	1:H:418:ALA:H	1.79	0.47
1:D:91:THR:O	1:D:94:VAL:CG1	2.63	0.47
1:N:451:LEU:C	1:N:453:GLN:N	2.68	0.47
1:H:456:LEU:C	1:H:458:CYS:H	2.17	0.47
1:C:214:GLU:C	1:C:215:LEU:HD23	2.36	0.47
1:D:12:ALA:HB1	1:D:520:MET:HG3	1.96	0.47
1:M:310:GLU:OE1	1:M:310:GLU:N	2.48	0.47
1:D:73:MET:O	1:D:76:GLU:N	2.48	0.47
1:C:13:ARG:O	1:C:16:MET:N	2.48	0.47
1:B:73:MET:O	1:B:76:GLU:N	2.48	0.47
1:E:87:ASP:CG	1:E:88:GLY:H	2.18	0.47
1:B:87:ASP:CG	1:B:88:GLY:H	2.19	0.47
1:J:330:THR:CG2	1:J:331:THR:H	2.27	0.47
1:L:87:ASP:CG	1:L:88:GLY:H	2.19	0.47
1:M:180:GLY:H	1:M:389:MET:HE2	1.80	0.47
1:L:23:LEU:CD2	1:L:75:LYS:HB2	2.45	0.47
1:L:176:THR:HG21	1:L:333:ILE:HD11	1.97	0.47
1:N:220:ILE:HG23	1:N:248:LEU:HB3	1.96	0.47
1:I:220:ILE:HG23	1:I:248:LEU:HB3	1.95	0.47
1:N:170:GLY:C	1:N:172:GLU:H	2.17	0.47
1:C:12:ALA:HB1	1:C:520:MET:HG3	1.96	0.47
1:K:313:THR:O	1:K:317:LEU:HD13	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:259:LEU:O	1:E:263:VAL:HG23	2.15	0.46
1:N:383:ALA:O	1:N:384:ALA:CB	2.63	0.46
1:C:41:ASP:HB2	1:D:69:MET:CE	2.46	0.46
1:E:70:GLY:HA2	1:E:73:MET:HE3	1.95	0.46
1:E:417:VAL:HG23	1:E:418:ALA:H	1.81	0.46
1:B:464:VAL:O	1:B:465:VAL:C	2.52	0.46
1:H:420:ILE:HD11	1:H:451:LEU:HB3	1.97	0.46
1:C:26:ALA:O	1:C:56:VAL:HG11	2.14	0.46
1:I:220:ILE:HG23	1:I:248:LEU:HD23	1.96	0.46
1:E:151:SER:HB3	1:E:399:ALA:HA	1.97	0.46
1:D:220:ILE:HG23	1:D:248:LEU:HD23	1.96	0.46
1:L:183:LEU:CA	1:L:383:ALA:HB3	2.44	0.46
1:M:233:MET:C	1:M:235:PRO:HD2	2.35	0.46
1:H:449:ALA:HB3	1:H:450:PRO:CD	2.41	0.46
1:G:449:ALA:HB3	1:G:450:PRO:CD	2.43	0.46
1:M:451:LEU:C	1:M:453:GLN:N	2.67	0.46
1:J:213:VAL:HB	1:J:325:ILE:CG1	2.45	0.46
1:B:330:THR:CG2	1:B:331:THR:H	2.28	0.46
1:I:213:VAL:HB	1:I:325:ILE:CG1	2.44	0.46
1:A:417:VAL:HG21	1:A:488:MET:HG3	1.97	0.46
1:D:412:VAL:CG2	1:D:413:ALA:N	2.78	0.46
1:C:413:ALA:O	1:C:417:VAL:HG23	2.14	0.46
1:G:136:VAL:O	1:G:137:PRO:O	2.33	0.46
1:K:486:GLY:HA3	1:K:491:MET:HE2	1.96	0.46
1:L:349:ILE:HA	1:L:352:GLN:CG	2.44	0.46
1:M:175:ILE:HA	1:M:377:ALA:HB3	1.97	0.46
1:J:177:VAL:HG21	1:J:397:GLU:HG2	1.97	0.46
1:D:12:ALA:O	1:D:520:MET:SD	2.73	0.46
1:I:64:ASP:C	1:I:64:ASP:OD1	2.54	0.46
1:G:151:SER:HB3	1:G:399:ALA:HA	1.97	0.46
1:L:291:ASP:OD2	1:L:368:ARG:HD2	2.15	0.46
1:J:220:ILE:HG23	1:J:248:LEU:HD23	1.97	0.46
1:D:383:ALA:O	1:D:384:ALA:CB	2.64	0.46
1:L:233:MET:C	1:L:235:PRO:HD2	2.36	0.46
1:M:16:MET:SD	1:M:73:MET:HE1	2.55	0.46
1:C:66:PHE:O	1:C:67:GLU:C	2.54	0.46
1:H:66:PHE:CE1	1:H:522:THR:CG2	2.97	0.46
1:C:88:GLY:O	1:C:91:THR:N	2.48	0.46
1:N:412:VAL:CG2	1:N:413:ALA:N	2.79	0.46
1:D:29:VAL:C	1:D:31:LEU:N	2.69	0.46
1:K:406:ALA:O	1:K:410:GLY:N	2.48	0.46
1:D:180:GLY:H	1:D:389:MET:HE2	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:406:ALA:HA	1:M:410:GLY:O	2.16	0.46
1:H:220:ILE:HG23	1:H:248:LEU:HB3	1.97	0.46
1:I:171:LYS:HB2	1:I:407:VAL:HG11	1.96	0.46
1:G:23:LEU:HD22	1:G:75:LYS:HB2	1.97	0.46
1:M:383:ALA:HB1	1:N:281:PHE:HZ	1.80	0.46
1:C:499:VAL:HG22	1:C:500:THR:N	2.30	0.46
1:K:213:VAL:HB	1:K:325:ILE:CG1	2.45	0.46
1:M:27:VAL:C	1:M:29:VAL:H	2.18	0.46
1:N:477:GLY:HA3	1:N:488:MET:SD	2.56	0.46
1:D:134:LEU:N	1:D:134:LEU:CD2	2.78	0.46
1:A:23:LEU:CD2	1:A:75:LYS:HB2	2.45	0.46
1:K:170:GLY:C	1:K:172:GLU:H	2.17	0.46
1:K:37:ASN:O	1:L:517:THR:HG23	2.15	0.46
1:L:171:LYS:HB2	1:L:407:VAL:HG11	1.96	0.46
1:G:174:VAL:HB	1:G:376:VAL:HG13	1.96	0.46
1:C:258:ALA:O	1:C:262:LEU:HG	2.14	0.46
1:E:171:LYS:HB2	1:E:407:VAL:HG11	1.97	0.46
1:B:524:LEU:O	1:B:526:LYS:N	2.38	0.46
1:G:13:ARG:HA	1:G:16:MET:HE2	1.97	0.46
1:C:272:LYS:H	1:C:272:LYS:HD2	1.80	0.46
1:K:13:ARG:O	1:K:16:MET:N	2.48	0.46
1:E:449:ALA:HB3	1:E:450:PRO:CD	2.40	0.46
1:N:16:MET:SD	1:N:73:MET:HE1	2.56	0.46
1:C:91:THR:O	1:C:94:VAL:CG1	2.64	0.46
1:K:417:VAL:HG11	1:K:477:GLY:CA	2.44	0.46
1:L:488:MET:HE3	1:L:493:ILE:HB	1.98	0.46
1:N:91:THR:O	1:N:94:VAL:HG13	2.16	0.46
1:F:456:LEU:C	1:F:458:CYS:H	2.18	0.46
1:M:406:ALA:HB1	1:M:411:VAL:HG12	1.97	0.46
1:A:151:SER:HB3	1:A:399:ALA:HA	1.97	0.46
1:H:259:LEU:O	1:H:263:VAL:HG23	2.16	0.46
1:N:524:LEU:O	1:N:526:LYS:N	2.38	0.46
1:N:233:MET:HB3	1:N:237:LEU:HG	1.98	0.46
1:H:73:MET:O	1:H:76:GLU:N	2.49	0.46
1:A:200:LEU:HD21	1:A:276:VAL:HA	1.98	0.46
1:J:8:PHE:CE1	1:J:519:CYS:SG	3.06	0.46
1:I:27:VAL:CG1	1:I:90:THR:HG23	2.42	0.46
1:J:330:THR:CG2	1:J:331:THR:N	2.78	0.46
1:D:479:ASN:CG	1:D:493:ILE:HD11	2.36	0.46
1:M:462:PRO:O	1:M:463:SER:C	2.53	0.46
1:G:417:VAL:HG23	1:G:418:ALA:N	2.30	0.46
1:M:8:PHE:HE1	1:M:519:CYS:HG	1.63	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:404:ARG:CG	1:I:404:ARG:HH11	2.28	0.46
1:I:456:LEU:C	1:I:458:CYS:H	2.19	0.46
1:B:313:THR:O	1:B:317:LEU:HD13	2.16	0.46
1:M:17:LEU:O	1:M:20:VAL:HG22	2.16	0.46
1:C:170:GLY:C	1:C:172:GLU:H	2.19	0.46
1:M:383:ALA:O	1:M:384:ALA:CB	2.63	0.46
1:I:183:LEU:O	1:I:184:GLN:HB2	2.15	0.46
1:N:273:VAL:CG1	1:N:274:ALA:N	2.79	0.46
1:M:510:VAL:O	1:M:511:ALA:C	2.53	0.46
1:H:82:ASN:HB2	1:H:89:THR:HG22	1.93	0.46
1:F:453:GLN:O	1:F:456:LEU:N	2.42	0.46
1:I:349:ILE:HA	1:I:352:GLN:CG	2.45	0.46
1:A:171:LYS:HB2	1:A:407:VAL:HG11	1.98	0.46
1:N:239:ALA:O	1:N:314:LEU:HD11	2.16	0.46
1:C:220:ILE:HG23	1:C:248:LEU:HD23	1.98	0.46
1:C:313:THR:O	1:C:317:LEU:HD13	2.16	0.46
1:H:103:GLY:O	1:H:106:ALA:HB3	2.16	0.46
1:A:233:MET:C	1:A:235:PRO:HD2	2.35	0.46
1:K:233:MET:C	1:K:235:PRO:HD2	2.36	0.46
1:G:510:VAL:O	1:G:511:ALA:C	2.54	0.46
1:I:412:VAL:HG23	1:I:413:ALA:N	2.31	0.46
1:G:82:ASN:HB2	1:G:89:THR:HG22	1.95	0.46
1:H:200:LEU:HD21	1:H:276:VAL:HA	1.97	0.46
1:N:449:ALA:HB3	1:N:450:PRO:CD	2.44	0.46
1:K:433:ASN:O	1:K:434:ALA:C	2.54	0.46
1:M:479:ASN:OD1	1:M:493:ILE:HD11	2.15	0.46
1:F:213:VAL:HB	1:F:325:ILE:CG1	2.46	0.46
1:B:213:VAL:HB	1:B:325:ILE:CG1	2.46	0.46
1:I:440:ILE:O	1:I:443:ALA:N	2.49	0.46
1:N:412:VAL:HG23	1:N:413:ALA:N	2.31	0.46
1:F:451:LEU:C	1:F:453:GLN:N	2.66	0.46
1:A:8:PHE:CE1	1:A:519:CYS:SG	3.07	0.46
1:L:120:ILE:HG13	1:L:439:GLY:O	2.15	0.46
1:H:448:GLU:O	1:H:452:ARG:HB2	2.16	0.46
1:F:171:LYS:HG2	1:F:171:LYS:H	1.53	0.46
1:M:183:LEU:O	1:M:184:GLN:HB2	2.16	0.46
1:A:10:ASN:O	1:A:13:ARG:N	2.44	0.46
1:L:73:MET:O	1:L:76:GLU:N	2.49	0.46
1:B:10:ASN:O	1:B:13:ARG:N	2.47	0.46
1:N:10:ASN:O	1:N:13:ARG:N	2.47	0.46
1:N:66:PHE:O	1:N:67:GLU:C	2.52	0.46
1:N:200:LEU:HD21	1:N:276:VAL:HA	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:200:LEU:HD21	1:F:276:VAL:HA	1.98	0.46
1:D:440:ILE:O	1:D:441:LYS:C	2.54	0.46
1:A:440:ILE:O	1:A:443:ALA:N	2.48	0.46
1:L:417:VAL:HG11	1:L:477:GLY:CA	2.44	0.46
1:H:464:VAL:O	1:H:465:VAL:C	2.53	0.46
1:E:330:THR:CG2	1:E:331:THR:H	2.28	0.46
1:N:417:VAL:HG23	1:N:418:ALA:H	1.80	0.46
1:C:488:MET:HE3	1:C:493:ILE:HB	1.98	0.46
1:H:64:ASP:OD1	1:H:64:ASP:C	2.54	0.46
1:N:151:SER:HB3	1:N:399:ALA:HA	1.97	0.46
1:H:120:ILE:HG13	1:H:439:GLY:O	2.16	0.46
1:K:140:ASP:O	1:K:142:LYS:N	2.49	0.46
1:G:486:GLY:C	1:G:491:MET:HE2	2.37	0.46
1:C:230:ILE:HG12	1:C:230:ILE:O	2.16	0.46
1:I:524:LEU:O	1:I:526:LYS:N	2.39	0.46
1:F:233:MET:C	1:F:235:PRO:HD2	2.36	0.46
1:E:412:VAL:CG2	1:E:413:ALA:N	2.78	0.46
1:N:127:ALA:HB1	1:N:422:VAL:HG11	1.97	0.46
1:B:66:PHE:O	1:B:67:GLU:C	2.55	0.46
1:K:200:LEU:HD21	1:K:276:VAL:HA	1.97	0.46
1:M:330:THR:CG2	1:M:331:THR:N	2.78	0.46
1:E:330:THR:CG2	1:E:331:THR:N	2.78	0.46
1:N:417:VAL:HG23	1:N:418:ALA:N	2.31	0.46
1:D:412:VAL:HG23	1:D:413:ALA:N	2.31	0.46
1:L:456:LEU:C	1:L:458:CYS:H	2.18	0.46
1:D:420:ILE:CD1	1:D:451:LEU:HD22	2.46	0.46
1:N:24:ALA:CB	1:N:97:GLN:HE21	2.28	0.46
1:F:440:ILE:O	1:F:443:ALA:N	2.49	0.46
1:M:369:VAL:HG23	1:M:370:ALA:H	1.80	0.46
1:B:349:ILE:HA	1:B:352:GLN:CG	2.45	0.46
1:N:140:ASP:C	1:N:142:LYS:H	2.19	0.46
1:D:486:GLY:C	1:D:491:MET:HE2	2.37	0.46
1:K:12:ALA:HB1	1:K:520:MET:HG3	1.97	0.46
1:F:140:ASP:O	1:F:142:LYS:N	2.49	0.46
1:K:151:SER:HB3	1:K:399:ALA:HA	1.97	0.46
1:J:383:ALA:O	1:J:384:ALA:CB	2.64	0.45
1:H:524:LEU:O	1:H:526:LYS:N	2.41	0.45
1:G:233:MET:HB3	1:G:237:LEU:HG	1.99	0.45
1:N:310:GLU:N	1:N:310:GLU:OE1	2.49	0.45
1:D:10:ASN:O	1:D:13:ARG:N	2.46	0.45
1:J:273:VAL:CG1	1:J:274:ALA:N	2.79	0.45
1:E:414:GLY:N	1:E:494:LEU:HA	2.28	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:82:ASN:HB2	1:E:89:THR:HG22	1.93	0.45
1:N:66:PHE:O	1:N:69:MET:N	2.48	0.45
1:N:82:ASN:HB2	1:N:89:THR:HG22	1.95	0.45
1:B:464:VAL:O	1:B:466:ALA:N	2.49	0.45
1:E:214:GLU:C	1:E:215:LEU:HD23	2.37	0.45
1:F:73:MET:O	1:F:76:GLU:N	2.49	0.45
1:H:134:LEU:N	1:H:134:LEU:CD2	2.78	0.45
1:G:464:VAL:O	1:G:465:VAL:C	2.53	0.45
1:B:217:SER:N	1:B:218:PRO:HD3	2.31	0.45
1:B:451:LEU:C	1:B:453:GLN:N	2.70	0.45
1:C:486:GLY:C	1:C:491:MET:HE2	2.37	0.45
1:G:12:ALA:HB1	1:G:520:MET:HG3	1.97	0.45
1:J:258:ALA:O	1:J:262:LEU:HG	2.15	0.45
1:L:239:ALA:O	1:L:314:LEU:HD11	2.15	0.45
1:L:220:ILE:HG23	1:L:248:LEU:HD23	1.98	0.45
1:E:383:ALA:O	1:E:384:ALA:CB	2.64	0.45
1:H:233:MET:HB3	1:H:237:LEU:HG	1.99	0.45
1:H:233:MET:C	1:H:235:PRO:HD2	2.36	0.45
1:E:477:GLY:HA3	1:E:488:MET:SD	2.56	0.45
1:H:8:PHE:CE1	1:H:519:CYS:SG	3.07	0.45
1:J:73:MET:O	1:J:76:GLU:N	2.49	0.45
1:G:200:LEU:HD21	1:G:276:VAL:HA	1.98	0.45
1:A:34:LYS:CG	1:A:458:CYS:SG	3.05	0.45
1:F:412:VAL:CG2	1:F:413:ALA:N	2.78	0.45
1:K:34:LYS:CG	1:K:458:CYS:SG	3.05	0.45
1:G:176:THR:HG22	1:G:177:VAL:N	2.32	0.45
1:D:220:ILE:HG23	1:D:248:LEU:HB3	1.97	0.45
1:E:170:GLY:C	1:E:172:GLU:H	2.20	0.45
1:A:170:GLY:C	1:A:172:GLU:H	2.18	0.45
1:D:272:LYS:NZ	1:E:228:SER:HB3	2.31	0.45
1:C:510:VAL:O	1:C:511:ALA:C	2.54	0.45
1:N:440:ILE:O	1:N:441:LYS:C	2.54	0.45
1:C:27:VAL:C	1:C:29:VAL:H	2.20	0.45
1:C:200:LEU:HD21	1:C:276:VAL:HA	1.99	0.45
1:A:421:ARG:NH2	1:A:469:VAL:O	2.48	0.45
1:A:479:ASN:OD1	1:A:493:ILE:HD11	2.16	0.45
1:L:417:VAL:HG23	1:L:418:ALA:N	2.32	0.45
1:L:29:VAL:C	1:L:31:LEU:N	2.69	0.45
1:E:369:VAL:HG23	1:E:370:ALA:H	1.82	0.45
1:F:10:ASN:O	1:F:13:ARG:N	2.48	0.45
1:E:13:ARG:O	1:E:16:MET:N	2.49	0.45
1:C:181:THR:HB	1:D:283:ASP:OD2	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:170:GLY:C	1:I:172:GLU:H	2.19	0.45
1:C:310:GLU:OE1	1:C:310:GLU:N	2.49	0.45
1:A:13:ARG:O	1:A:16:MET:N	2.50	0.45
1:L:70:GLY:HA2	1:L:73:MET:CE	2.46	0.45
1:L:82:ASN:HB2	1:L:89:THR:HG22	1.93	0.45
1:M:46:ALA:CB	1:N:76:GLU:HG3	2.45	0.45
1:E:455:VAL:HG12	1:E:455:VAL:O	2.16	0.45
1:M:453:GLN:O	1:M:456:LEU:N	2.39	0.45
1:I:330:THR:CG2	1:I:331:THR:N	2.77	0.45
1:C:464:VAL:O	1:C:465:VAL:C	2.54	0.45
1:H:217:SER:N	1:H:218:PRO:HD3	2.31	0.45
1:K:217:SER:N	1:K:218:PRO:HD3	2.31	0.45
1:J:64:ASP:C	1:J:64:ASP:OD1	2.54	0.45
1:D:171:LYS:HB2	1:D:407:VAL:HG11	1.98	0.45
1:N:272:LYS:HD2	1:N:272:LYS:H	1.81	0.45
1:D:419:LEU:HD21	1:D:500:THR:CG2	2.47	0.45
1:C:129:GLU:O	1:C:132:LYS:N	2.49	0.45
1:L:66:PHE:CE1	1:L:522:THR:CG2	2.99	0.45
1:B:330:THR:CG2	1:B:331:THR:N	2.78	0.45
1:E:46:ALA:CB	1:F:76:GLU:HG3	2.47	0.45
1:N:214:GLU:C	1:N:215:LEU:HD23	2.36	0.45
1:M:440:ILE:O	1:M:441:LYS:C	2.54	0.45
1:B:420:ILE:CD1	1:B:451:LEU:HD22	2.47	0.45
1:D:349:ILE:HA	1:D:352:GLN:HG3	1.98	0.45
1:H:220:ILE:HG23	1:H:248:LEU:HD23	1.97	0.45
1:G:23:LEU:CD2	1:G:75:LYS:HB2	2.47	0.45
1:G:12:ALA:O	1:G:520:MET:SD	2.75	0.45
1:A:220:ILE:HG23	1:A:248:LEU:HD23	1.97	0.45
1:N:259:LEU:O	1:N:263:VAL:HG23	2.16	0.45
1:D:310:GLU:OE1	1:D:310:GLU:N	2.50	0.45
1:F:272:LYS:HD2	1:F:272:LYS:H	1.82	0.45
1:G:73:MET:O	1:G:76:GLU:N	2.49	0.45
1:K:449:ALA:O	1:K:450:PRO:C	2.54	0.45
1:B:27:VAL:C	1:B:29:VAL:H	2.20	0.45
1:M:420:ILE:HD12	1:M:451:LEU:HD22	1.99	0.45
1:M:34:LYS:CG	1:M:458:CYS:SG	3.04	0.45
1:F:330:THR:CG2	1:F:331:THR:N	2.76	0.45
1:H:417:VAL:HG23	1:H:418:ALA:N	2.32	0.45
1:C:479:ASN:OD1	1:C:493:ILE:HD11	2.16	0.45
1:D:456:LEU:C	1:D:458:CYS:H	2.19	0.45
1:F:420:ILE:HD11	1:F:451:LEU:HB3	1.98	0.45
1:N:217:SER:N	1:N:218:PRO:HD3	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:64:ASP:OD1	1:K:64:ASP:C	2.54	0.45
1:D:57:ALA:O	1:D:60:ILE:N	2.45	0.45
1:F:57:ALA:O	1:F:60:ILE:N	2.47	0.45
1:M:40:LEU:HD13	1:M:59:GLU:HG3	1.99	0.45
1:G:103:GLY:O	1:G:106:ALA:HB3	2.17	0.45
1:E:140:ASP:O	1:E:142:LYS:N	2.50	0.45
1:I:13:ARG:O	1:I:14:VAL:C	2.54	0.45
1:G:233:MET:C	1:G:235:PRO:HD2	2.37	0.45
1:A:233:MET:HB3	1:A:237:LEU:HG	1.99	0.45
1:K:310:GLU:OE1	1:K:310:GLU:N	2.49	0.45
1:K:273:VAL:CG1	1:K:274:ALA:N	2.80	0.45
1:L:127:ALA:HB1	1:L:422:VAL:HG11	1.99	0.45
1:I:414:GLY:N	1:I:494:LEU:HA	2.30	0.45
1:M:488:MET:HE3	1:M:493:ILE:HB	1.98	0.45
1:A:417:VAL:HG11	1:A:477:GLY:CA	2.47	0.45
1:N:88:GLY:O	1:N:91:THR:N	2.49	0.45
1:M:447:MET:HE3	1:M:504:LEU:HD21	1.98	0.45
1:I:453:GLN:O	1:I:456:LEU:N	2.42	0.45
1:K:171:LYS:HB2	1:K:407:VAL:HG11	1.98	0.45
1:K:220:ILE:HG23	1:K:248:LEU:HD23	1.98	0.45
1:K:95:LEU:O	1:K:98:ALA:HB3	2.17	0.45
1:N:57:ALA:O	1:N:60:ILE:N	2.46	0.45
1:H:383:ALA:O	1:H:384:ALA:CB	2.65	0.45
1:B:259:LEU:O	1:B:263:VAL:HG23	2.17	0.45
1:K:183:LEU:O	1:K:184:GLN:HB2	2.17	0.45
1:A:521:VAL:HG12	1:A:521:VAL:O	2.16	0.45
1:K:82:ASN:HB2	1:K:89:THR:HG22	1.91	0.45
1:E:69:MET:O	1:E:73:MET:HG3	2.17	0.45
1:C:449:ALA:HB3	1:C:450:PRO:CD	2.42	0.45
1:F:417:VAL:HG11	1:F:477:GLY:CA	2.46	0.45
1:I:242:LYS:C	1:I:244:GLY:N	2.71	0.45
1:J:217:SER:N	1:J:218:PRO:HD3	2.32	0.45
1:J:420:ILE:CD1	1:J:451:LEU:HD22	2.47	0.45
1:A:349:ILE:HA	1:A:352:GLN:HG3	1.99	0.45
1:E:217:SER:N	1:E:218:PRO:HD3	2.31	0.45
1:B:24:ALA:O	1:B:26:ALA:N	2.50	0.45
1:E:12:ALA:O	1:E:520:MET:SD	2.74	0.45
1:N:103:GLY:O	1:N:106:ALA:HB3	2.16	0.45
1:M:170:GLY:C	1:M:172:GLU:H	2.19	0.45
1:M:57:ALA:O	1:M:60:ILE:N	2.45	0.45
1:M:68:ASN:HD21	1:M:72:GLN:HG3	1.82	0.45
1:N:183:LEU:O	1:N:184:GLN:HB2	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:272:LYS:H	1:H:272:LYS:HD2	1.82	0.45
1:I:129:GLU:O	1:I:132:LYS:N	2.50	0.45
1:C:127:ALA:HB1	1:C:422:VAL:HG11	1.99	0.45
1:B:449:ALA:HB3	1:B:450:PRO:CD	2.44	0.45
1:L:464:VAL:O	1:L:465:VAL:C	2.54	0.45
1:K:487:ASN:O	1:K:491:MET:HG3	2.16	0.45
1:F:13:ARG:O	1:F:16:MET:N	2.49	0.45
1:K:220:ILE:HG23	1:K:248:LEU:HB3	1.99	0.45
1:B:12:ALA:HB1	1:B:520:MET:HG3	1.98	0.45
1:I:232:GLU:HA	1:I:310:GLU:OE1	2.17	0.45
1:D:66:PHE:HE1	1:D:522:THR:HG22	1.77	0.45
1:D:510:VAL:O	1:D:511:ALA:C	2.56	0.45
1:E:417:VAL:HG23	1:E:418:ALA:N	2.32	0.45
1:L:214:GLU:C	1:L:215:LEU:HD23	2.38	0.45
1:J:214:GLU:C	1:J:215:LEU:HD23	2.37	0.45
1:N:91:THR:O	1:N:94:VAL:CG1	2.65	0.45
1:C:412:VAL:HG23	1:C:413:ALA:N	2.32	0.45
1:K:420:ILE:CD1	1:K:451:LEU:HD22	2.47	0.45
1:M:134:LEU:N	1:M:134:LEU:CD2	2.78	0.45
1:E:456:LEU:C	1:E:458:CYS:H	2.19	0.45
1:A:134:LEU:N	1:A:134:LEU:CD2	2.80	0.45
1:C:447:MET:HE3	1:C:504:LEU:HD21	1.98	0.45
1:N:220:ILE:HG23	1:N:248:LEU:HD23	1.97	0.45
1:E:220:ILE:HG23	1:E:248:LEU:HD23	1.99	0.45
1:B:409:GLU:O	1:B:497:THR:HB	2.17	0.45
1:A:406:ALA:HB1	1:A:411:VAL:HG12	1.98	0.45
1:G:220:ILE:HG23	1:G:248:LEU:HB3	1.98	0.45
1:L:499:VAL:CG2	1:L:500:THR:N	2.81	0.44
1:I:488:MET:HE3	1:I:493:ILE:HB	1.99	0.44
1:D:449:ALA:HB3	1:D:450:PRO:CD	2.42	0.44
1:N:213:VAL:HB	1:N:325:ILE:CG1	2.47	0.44
1:C:91:THR:O	1:C:94:VAL:HG13	2.17	0.44
1:M:414:GLY:N	1:M:494:LEU:HA	2.31	0.44
1:H:417:VAL:HG11	1:H:477:GLY:CA	2.47	0.44
1:G:91:THR:O	1:G:94:VAL:HG13	2.18	0.44
1:G:217:SER:N	1:G:218:PRO:HD3	2.32	0.44
1:A:220:ILE:HG23	1:A:248:LEU:HB3	2.00	0.44
1:A:239:ALA:O	1:A:314:LEU:HD11	2.16	0.44
1:A:383:ALA:O	1:A:384:ALA:CB	2.65	0.44
1:I:259:LEU:O	1:I:263:VAL:HG23	2.17	0.44
1:B:230:ILE:CD1	1:B:261:THR:HG21	2.25	0.44
1:F:233:MET:HB3	1:F:237:LEU:HG	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:499:VAL:HG22	1:M:500:THR:N	2.33	0.44
1:J:272:LYS:HD2	1:J:272:LYS:H	1.82	0.44
1:J:510:VAL:O	1:J:511:ALA:C	2.53	0.44
1:E:413:ALA:O	1:E:417:VAL:HG23	2.17	0.44
1:L:200:LEU:HD21	1:L:276:VAL:HA	1.99	0.44
1:M:420:ILE:HD11	1:M:451:LEU:HB3	1.98	0.44
1:L:501:ARG:O	1:L:504:LEU:N	2.50	0.44
1:K:412:VAL:CG2	1:K:413:ALA:N	2.80	0.44
1:E:447:MET:HE3	1:E:504:LEU:HD21	1.98	0.44
1:L:27:VAL:C	1:L:29:VAL:H	2.20	0.44
1:G:417:VAL:HG23	1:G:418:ALA:H	1.80	0.44
1:F:170:GLY:C	1:F:172:GLU:H	2.19	0.44
1:H:486:GLY:C	1:H:491:MET:HE2	2.38	0.44
1:N:120:ILE:HG13	1:N:439:GLY:O	2.16	0.44
1:J:239:ALA:O	1:J:314:LEU:HD11	2.16	0.44
1:N:40:LEU:HD13	1:N:59:GLU:HG3	1.98	0.44
1:C:383:ALA:O	1:C:384:ALA:CB	2.66	0.44
1:H:16:MET:SD	1:H:73:MET:HE1	2.57	0.44
1:E:412:VAL:HG23	1:E:413:ALA:N	2.32	0.44
1:J:129:GLU:O	1:J:132:LYS:N	2.50	0.44
1:C:29:VAL:C	1:C:31:LEU:N	2.70	0.44
1:G:8:PHE:CE1	1:G:519:CYS:SG	3.09	0.44
1:F:214:GLU:C	1:F:215:LEU:HD23	2.38	0.44
1:M:213:VAL:HB	1:M:325:ILE:CG1	2.47	0.44
1:B:214:GLU:C	1:B:215:LEU:HD23	2.37	0.44
1:A:479:ASN:CG	1:A:493:ILE:HD11	2.38	0.44
1:H:464:VAL:O	1:H:466:ALA:N	2.50	0.44
1:K:136:VAL:O	1:K:137:PRO:O	2.34	0.44
1:G:91:THR:O	1:G:94:VAL:CG1	2.65	0.44
1:C:112:ASN:HA	1:C:113:PRO:HD3	1.86	0.44
1:J:369:VAL:HG23	1:J:370:ALA:H	1.81	0.44
1:G:220:ILE:HG23	1:G:248:LEU:HD23	1.98	0.44
1:F:425:LYS:O	1:F:427:ALA:N	2.50	0.44
1:F:291:ASP:OD2	1:F:368:ARG:HD2	2.17	0.44
1:N:259:LEU:C	1:N:261:THR:H	2.21	0.44
1:D:233:MET:C	1:D:235:PRO:HD2	2.38	0.44
1:I:272:LYS:HD2	1:I:272:LYS:H	1.82	0.44
1:H:214:GLU:C	1:H:215:LEU:HD23	2.37	0.44
1:G:330:THR:CG2	1:G:331:THR:H	2.27	0.44
1:J:464:VAL:O	1:J:465:VAL:C	2.55	0.44
1:H:412:VAL:CG2	1:H:413:ALA:N	2.80	0.44
1:F:413:ALA:O	1:F:417:VAL:HG23	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:464:VAL:O	1:N:465:VAL:C	2.55	0.44
1:H:27:VAL:C	1:H:29:VAL:H	2.21	0.44
1:M:136:VAL:O	1:M:137:PRO:O	2.35	0.44
1:G:134:LEU:N	1:G:134:LEU:CD2	2.78	0.44
1:C:217:SER:N	1:C:218:PRO:HD3	2.33	0.44
1:E:24:ALA:O	1:E:26:ALA:N	2.51	0.44
1:F:376:VAL:HG12	1:F:377:ALA:N	2.31	0.44
1:J:176:THR:HG22	1:J:177:VAL:N	2.31	0.44
1:F:487:ASN:OD1	1:F:489:ILE:N	2.50	0.44
1:H:57:ALA:O	1:H:60:ILE:N	2.47	0.44
1:A:409:GLU:O	1:A:497:THR:HB	2.16	0.44
1:H:12:ALA:HB1	1:H:520:MET:HG3	1.99	0.44
1:L:497:THR:O	1:L:498:LYS:C	2.55	0.44
1:A:487:ASN:O	1:A:491:MET:HG3	2.18	0.44
1:J:259:LEU:C	1:J:261:THR:H	2.21	0.44
1:I:230:ILE:HG12	1:I:230:ILE:O	2.18	0.44
1:L:183:LEU:O	1:L:184:GLN:HB2	2.17	0.44
1:L:524:LEU:O	1:L:526:LYS:N	2.41	0.44
1:I:310:GLU:OE1	1:I:310:GLU:N	2.50	0.44
1:F:449:ALA:O	1:F:450:PRO:C	2.56	0.44
1:C:69:MET:O	1:C:73:MET:HG3	2.17	0.44
1:C:77:VAL:O	1:C:80:LYS:HB2	2.17	0.44
1:M:449:ALA:HB3	1:M:450:PRO:CD	2.44	0.44
1:A:29:VAL:C	1:A:31:LEU:N	2.69	0.44
1:L:213:VAL:HB	1:L:325:ILE:CG1	2.48	0.44
1:J:29:VAL:C	1:J:31:LEU:N	2.70	0.44
1:B:477:GLY:HA3	1:B:488:MET:SD	2.58	0.44
1:L:417:VAL:HG23	1:L:418:ALA:H	1.82	0.44
1:J:440:ILE:O	1:J:441:LYS:C	2.55	0.44
1:G:417:VAL:HG11	1:G:477:GLY:CA	2.47	0.44
1:L:64:ASP:OD1	1:L:64:ASP:C	2.55	0.44
1:M:95:LEU:O	1:M:98:ALA:HB3	2.17	0.44
1:L:12:ALA:HB1	1:L:520:MET:HG3	1.99	0.44
1:F:12:ALA:HB1	1:F:520:MET:HG3	1.99	0.44
1:C:40:LEU:HD13	1:C:59:GLU:HG3	1.99	0.44
1:I:12:ALA:HB1	1:I:520:MET:HG3	1.99	0.44
1:E:239:ALA:O	1:E:314:LEU:HD11	2.17	0.44
1:F:524:LEU:O	1:F:526:LYS:N	2.38	0.44
1:I:70:GLY:HA2	1:I:73:MET:CE	2.47	0.44
1:G:310:GLU:N	1:G:310:GLU:OE1	2.51	0.44
1:H:13:ARG:O	1:H:16:MET:N	2.50	0.44
1:K:272:LYS:H	1:K:272:LYS:HD2	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:510:VAL:O	1:B:511:ALA:C	2.54	0.44
1:L:13:ARG:O	1:L:16:MET:N	2.51	0.44
1:G:129:GLU:C	1:G:131:LEU:H	2.21	0.44
1:A:462:PRO:O	1:A:463:SER:C	2.56	0.44
1:A:217:SER:N	1:A:218:PRO:HD3	2.32	0.44
1:A:291:ASP:OD2	1:A:368:ARG:HD2	2.18	0.44
1:L:151:SER:HB3	1:L:399:ALA:HA	1.98	0.44
1:B:25:ASP:OD1	1:B:28:LYS:HE2	2.18	0.44
1:L:383:ALA:O	1:L:384:ALA:CB	2.65	0.44
1:D:233:MET:HB3	1:D:237:LEU:HG	1.98	0.44
1:I:499:VAL:HG22	1:I:500:THR:N	2.33	0.44
1:F:310:GLU:OE1	1:F:310:GLU:N	2.50	0.44
1:L:233:MET:HB3	1:L:237:LEU:HG	1.99	0.44
1:D:66:PHE:O	1:D:69:MET:N	2.51	0.44
1:F:273:VAL:CG1	1:F:274:ALA:N	2.80	0.44
1:M:13:ARG:HA	1:M:16:MET:HE2	1.98	0.44
1:M:127:ALA:HB1	1:M:422:VAL:HG11	2.00	0.44
1:B:16:MET:O	1:B:20:VAL:HG13	2.18	0.44
1:C:462:PRO:O	1:C:463:SER:C	2.56	0.44
1:A:213:VAL:HB	1:A:325:ILE:CG1	2.48	0.44
1:K:479:ASN:OD1	1:K:493:ILE:HD11	2.17	0.44
1:H:479:ASN:CG	1:H:493:ILE:HD11	2.38	0.44
1:F:488:MET:HE3	1:F:493:ILE:HB	1.98	0.44
1:L:134:LEU:CD2	1:L:134:LEU:N	2.80	0.44
1:C:451:LEU:C	1:C:453:GLN:N	2.70	0.44
1:E:242:LYS:C	1:E:244:GLY:N	2.71	0.44
1:G:214:GLU:C	1:G:215:LEU:HD23	2.37	0.44
1:C:487:ASN:O	1:C:491:MET:HG3	2.17	0.44
1:L:220:ILE:HG23	1:L:248:LEU:HB3	1.99	0.44
1:G:171:LYS:HB2	1:G:407:VAL:HG11	2.00	0.44
1:I:40:LEU:HD13	1:I:59:GLU:HG3	1.98	0.44
1:B:239:ALA:O	1:B:314:LEU:HD11	2.18	0.44
1:E:470:LYS:C	1:E:472:GLY:H	2.22	0.44
1:K:497:THR:O	1:K:498:LYS:C	2.55	0.44
1:H:170:GLY:C	1:H:172:GLU:H	2.20	0.44
1:H:230:ILE:HG12	1:H:230:ILE:O	2.18	0.44
1:G:383:ALA:O	1:G:384:ALA:CB	2.64	0.44
1:I:259:LEU:C	1:I:261:THR:H	2.20	0.44
1:D:11:ASP:OD1	1:D:11:ASP:N	2.48	0.44
1:M:272:LYS:HD2	1:M:272:LYS:H	1.82	0.44
1:B:129:GLU:O	1:B:132:LYS:N	2.51	0.44
1:E:488:MET:HE3	1:E:493:ILE:HB	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:13:ARG:HA	1:K:16:MET:HE2	2.00	0.44
1:B:13:ARG:HA	1:B:16:MET:HE2	2.00	0.44
1:A:464:VAL:O	1:A:465:VAL:C	2.55	0.44
1:M:501:ARG:O	1:M:504:LEU:N	2.51	0.44
1:J:134:LEU:CD2	1:J:134:LEU:N	2.80	0.44
1:C:136:VAL:O	1:C:137:PRO:O	2.35	0.44
1:I:420:ILE:HD12	1:I:451:LEU:HD22	2.00	0.44
1:D:259:LEU:O	1:D:263:VAL:HG23	2.17	0.44
1:K:259:LEU:C	1:K:261:THR:H	2.19	0.44
1:H:69:MET:HE1	1:N:41:ASP:N	2.33	0.44
1:M:13:ARG:O	1:M:14:VAL:C	2.57	0.44
1:B:41:ASP:OD1	1:C:69:MET:HG2	2.18	0.44
1:C:16:MET:SD	1:C:73:MET:HE1	2.57	0.44
1:E:479:ASN:CG	1:E:493:ILE:HD11	2.38	0.44
1:G:127:ALA:HB1	1:G:422:VAL:HG11	1.99	0.44
1:C:66:PHE:CE1	1:C:522:THR:CG2	2.98	0.44
1:A:278:ALA:HB1	1:A:279:PRO:CD	2.46	0.44
1:C:213:VAL:HB	1:C:325:ILE:CG1	2.48	0.44
1:L:440:ILE:O	1:L:441:LYS:C	2.55	0.44
1:G:440:ILE:O	1:G:441:LYS:C	2.56	0.44
1:F:464:VAL:O	1:F:465:VAL:C	2.55	0.44
1:E:41:ASP:OD1	1:F:69:MET:HG2	2.18	0.44
1:C:412:VAL:CG2	1:C:413:ALA:N	2.80	0.44
1:I:217:SER:N	1:I:218:PRO:HD3	2.32	0.44
1:M:112:ASN:HA	1:M:113:PRO:HD3	1.90	0.44
1:H:239:ALA:O	1:H:314:LEU:HD21	2.18	0.44
1:A:486:GLY:C	1:A:491:MET:HE2	2.38	0.44
1:B:220:ILE:HG23	1:B:248:LEU:HD23	1.99	0.44
1:B:155:ASP:OD1	1:B:157:THR:HB	2.18	0.44
1:H:259:LEU:C	1:H:261:THR:H	2.21	0.43
1:K:183:LEU:CA	1:K:383:ALA:HB3	2.46	0.43
1:G:232:GLU:HA	1:G:310:GLU:OE1	2.18	0.43
1:D:16:MET:SD	1:D:73:MET:HE1	2.58	0.43
1:D:272:LYS:H	1:D:272:LYS:HD2	1.83	0.43
1:D:272:LYS:HZ3	1:E:228:SER:CB	2.31	0.43
1:H:499:VAL:HG22	1:H:500:THR:N	2.33	0.43
1:E:272:LYS:HD2	1:E:272:LYS:H	1.83	0.43
1:B:499:VAL:HG22	1:B:500:THR:N	2.32	0.43
1:N:278:ALA:HB1	1:N:279:PRO:CD	2.44	0.43
1:H:278:ALA:HB1	1:H:279:PRO:CD	2.46	0.43
1:A:27:VAL:C	1:A:29:VAL:H	2.22	0.43
1:A:440:ILE:O	1:A:441:LYS:C	2.56	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:501:ARG:O	1:A:504:LEU:N	2.51	0.43
1:G:213:VAL:HB	1:G:325:ILE:CG1	2.48	0.43
1:L:440:ILE:O	1:L:443:ALA:N	2.51	0.43
1:N:464:VAL:O	1:N:466:ALA:N	2.50	0.43
1:G:464:VAL:O	1:G:466:ALA:N	2.51	0.43
1:G:479:ASN:OD1	1:G:493:ILE:HD11	2.18	0.43
1:A:134:LEU:O	1:A:135:SER:C	2.57	0.43
1:D:217:SER:N	1:D:218:PRO:HD3	2.33	0.43
1:E:349:ILE:HA	1:E:352:GLN:HG3	2.00	0.43
1:D:214:GLU:C	1:D:215:LEU:HD23	2.39	0.43
1:E:10:ASN:O	1:E:13:ARG:N	2.49	0.43
1:F:487:ASN:O	1:F:491:MET:HG3	2.18	0.43
1:F:151:SER:HB3	1:F:399:ALA:HA	1.99	0.43
1:C:103:GLY:O	1:C:106:ALA:HB3	2.18	0.43
1:G:170:GLY:C	1:G:172:GLU:H	2.20	0.43
1:G:25:ASP:OD1	1:G:28:LYS:HE2	2.19	0.43
1:C:239:ALA:O	1:C:314:LEU:HD11	2.17	0.43
1:B:264:VAL:O	1:B:267:MET:HB3	2.18	0.43
1:J:232:GLU:HA	1:J:310:GLU:OE1	2.18	0.43
1:L:41:ASP:HB2	1:M:69:MET:CE	2.48	0.43
1:G:13:ARG:O	1:G:14:VAL:C	2.53	0.43
1:L:16:MET:O	1:L:20:VAL:HG13	2.18	0.43
1:A:82:ASN:HB2	1:A:89:THR:HG22	1.93	0.43
1:H:213:VAL:HB	1:H:325:ILE:CG1	2.48	0.43
1:M:91:THR:O	1:M:94:VAL:CG1	2.66	0.43
1:I:440:ILE:O	1:I:441:LYS:C	2.57	0.43
1:D:91:THR:O	1:D:94:VAL:HG13	2.17	0.43
1:C:180:GLY:H	1:C:389:MET:HE2	1.84	0.43
1:F:349:ILE:HA	1:F:352:GLN:HG3	2.00	0.43
1:H:349:ILE:HA	1:H:352:GLN:HG3	2.00	0.43
1:B:180:GLY:N	1:B:389:MET:HE2	2.33	0.43
1:J:220:ILE:HG23	1:J:248:LEU:HB3	1.99	0.43
1:K:140:ASP:C	1:K:142:LYS:H	2.21	0.43
1:L:239:ALA:O	1:L:314:LEU:HD21	2.18	0.43
1:I:175:ILE:HA	1:I:377:ALA:HB3	1.99	0.43
1:E:291:ASP:OD2	1:E:368:ARG:HD2	2.17	0.43
1:L:486:GLY:C	1:L:491:MET:HE2	2.39	0.43
1:C:264:VAL:O	1:C:267:MET:HB3	2.19	0.43
1:B:230:ILE:HG12	1:B:230:ILE:O	2.18	0.43
1:M:233:MET:HB3	1:M:237:LEU:HG	2.01	0.43
1:C:10:ASN:O	1:C:13:ARG:N	2.48	0.43
1:G:69:MET:O	1:G:73:MET:HG3	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:447:MET:HE3	1:N:504:LEU:HD21	2.00	0.43
1:E:461:GLU:HA	1:E:462:PRO:HD3	1.90	0.43
1:M:417:VAL:HG21	1:M:488:MET:HG3	2.00	0.43
1:D:213:VAL:HB	1:D:325:ILE:CG1	2.48	0.43
1:J:27:VAL:C	1:J:29:VAL:H	2.21	0.43
1:H:497:THR:O	1:H:498:LYS:C	2.57	0.43
1:F:412:VAL:HG23	1:F:413:ALA:N	2.32	0.43
1:H:29:VAL:C	1:H:31:LEU:N	2.69	0.43
1:E:134:LEU:CD2	1:E:134:LEU:N	2.80	0.43
1:L:217:SER:N	1:L:218:PRO:HD3	2.32	0.43
1:E:13:ARG:O	1:E:14:VAL:C	2.57	0.43
1:A:180:GLY:H	1:A:389:MET:HE2	1.83	0.43
1:L:57:ALA:O	1:L:58:ARG:C	2.57	0.43
1:M:140:ASP:C	1:M:142:LYS:H	2.20	0.43
1:C:291:ASP:OD2	1:C:368:ARG:HD2	2.17	0.43
1:N:95:LEU:O	1:N:98:ALA:HB3	2.18	0.43
1:F:220:ILE:HG23	1:F:248:LEU:HD23	1.99	0.43
1:C:259:LEU:C	1:C:261:THR:H	2.20	0.43
1:E:233:MET:HB3	1:E:237:LEU:HG	2.00	0.43
1:J:233:MET:HB3	1:J:237:LEU:HG	1.99	0.43
1:H:273:VAL:CG1	1:H:274:ALA:N	2.81	0.43
1:L:272:LYS:HD2	1:L:272:LYS:H	1.84	0.43
1:I:421:ARG:NH2	1:I:469:VAL:O	2.51	0.43
1:K:129:GLU:C	1:K:131:LEU:H	2.22	0.43
1:E:88:GLY:O	1:E:91:THR:N	2.51	0.43
1:K:440:ILE:O	1:K:441:LYS:C	2.57	0.43
1:B:326:ASN:HB2	1:B:329:THR:HB	2.00	0.43
1:K:479:ASN:CG	1:K:493:ILE:HD11	2.38	0.43
1:B:412:VAL:CG2	1:B:413:ALA:N	2.80	0.43
1:B:493:ILE:O	1:B:493:ILE:HG22	2.17	0.43
1:G:451:LEU:C	1:G:453:GLN:N	2.72	0.43
1:G:406:ALA:HA	1:G:410:GLY:O	2.19	0.43
1:E:171:LYS:HG2	1:E:171:LYS:H	1.54	0.43
1:B:12:ALA:O	1:B:520:MET:SD	2.76	0.43
1:M:239:ALA:O	1:M:314:LEU:HD11	2.18	0.43
1:D:291:ASP:OD2	1:D:368:ARG:HD2	2.19	0.43
1:A:12:ALA:HB1	1:A:520:MET:HG3	2.00	0.43
1:K:470:LYS:C	1:K:472:GLY:H	2.22	0.43
1:B:383:ALA:O	1:B:384:ALA:CB	2.66	0.43
1:H:77:VAL:O	1:H:80:LYS:HB2	2.19	0.43
1:G:70:GLY:HA2	1:G:73:MET:CE	2.48	0.43
1:K:16:MET:SD	1:K:73:MET:HE1	2.58	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:449:ALA:O	1:G:450:PRO:C	2.56	0.43
1:L:433:ASN:O	1:L:434:ALA:C	2.56	0.43
1:D:501:ARG:O	1:D:504:LEU:N	2.51	0.43
1:M:87:ASP:CG	1:M:88:GLY:H	2.21	0.43
1:J:417:VAL:HG11	1:J:477:GLY:CA	2.46	0.43
1:E:440:ILE:O	1:E:441:LYS:C	2.57	0.43
1:G:456:LEU:C	1:G:458:CYS:H	2.21	0.43
1:M:242:LYS:C	1:M:244:GLY:N	2.72	0.43
1:N:180:GLY:N	1:N:389:MET:HE2	2.33	0.43
1:L:24:ALA:CB	1:L:97:GLN:HE21	2.31	0.43
1:K:214:GLU:C	1:K:215:LEU:HD23	2.38	0.43
1:G:487:ASN:O	1:G:491:MET:HG3	2.19	0.43
1:G:140:ASP:O	1:G:142:LYS:N	2.51	0.43
1:B:291:ASP:OD2	1:B:368:ARG:HD2	2.18	0.43
1:G:273:VAL:CG1	1:G:274:ALA:N	2.82	0.43
1:M:66:PHE:HE1	1:M:522:THR:HG22	1.79	0.43
1:N:113:PRO:HB3	1:N:515:ILE:O	2.18	0.43
1:I:412:VAL:CG2	1:I:413:ALA:N	2.79	0.43
1:A:214:GLU:C	1:A:215:LEU:HD23	2.39	0.43
1:K:464:VAL:O	1:K:465:VAL:C	2.56	0.43
1:G:349:ILE:HA	1:G:352:GLN:HG3	2.01	0.43
1:N:349:ILE:HA	1:N:352:GLN:HG3	2.01	0.43
1:M:349:ILE:HA	1:M:352:GLN:HG3	2.00	0.43
1:F:425:LYS:C	1:F:427:ALA:H	2.21	0.43
1:B:158:VAL:O	1:B:159:GLY:C	2.57	0.43
1:I:162:ILE:O	1:I:165:ALA:N	2.52	0.43
1:J:151:SER:HB3	1:J:399:ALA:HA	2.00	0.43
1:I:10:ASN:O	1:I:13:ARG:N	2.46	0.43
1:H:69:MET:CE	1:N:41:ASP:HB2	2.47	0.43
1:E:464:VAL:O	1:E:465:VAL:C	2.55	0.43
1:G:66:PHE:O	1:G:67:GLU:C	2.56	0.43
1:I:91:THR:O	1:I:94:VAL:HG13	2.18	0.43
1:N:330:THR:CG2	1:N:331:THR:N	2.74	0.43
1:K:412:VAL:HG23	1:K:413:ALA:N	2.34	0.43
1:H:493:ILE:O	1:H:493:ILE:HG22	2.17	0.43
1:E:213:VAL:HB	1:E:325:ILE:CG1	2.48	0.43
1:E:8:PHE:CE1	1:E:519:CYS:SG	3.09	0.43
1:B:462:PRO:O	1:B:463:SER:C	2.57	0.43
1:C:479:ASN:CG	1:C:493:ILE:HD11	2.38	0.43
1:D:242:LYS:C	1:D:244:GLY:N	2.71	0.43
1:L:404:ARG:NH1	1:L:404:ARG:CG	2.82	0.43
1:A:242:LYS:C	1:A:244:GLY:N	2.72	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:179:ASP:HB3	1:H:389:MET:HE1	2.01	0.43
1:E:176:THR:HG22	1:E:177:VAL:N	2.34	0.43
1:J:120:ILE:CG1	1:J:439:GLY:O	2.67	0.43
1:H:57:ALA:O	1:H:58:ARG:C	2.56	0.43
1:J:179:ASP:HB3	1:J:389:MET:HE1	2.00	0.43
1:F:171:LYS:HB2	1:F:407:VAL:HG11	2.00	0.43
1:G:239:ALA:O	1:G:314:LEU:HD11	2.18	0.43
1:G:120:ILE:HG13	1:G:439:GLY:O	2.18	0.43
1:L:230:ILE:O	1:L:230:ILE:HG12	2.18	0.43
1:F:230:ILE:O	1:F:230:ILE:HG12	2.17	0.43
1:F:232:GLU:HA	1:F:310:GLU:OE1	2.19	0.43
1:M:66:PHE:CE1	1:M:522:THR:CG2	3.02	0.43
1:A:451:LEU:C	1:A:453:GLN:N	2.72	0.43
1:H:501:ARG:O	1:H:504:LEU:N	2.51	0.43
1:J:96:ALA:O	1:J:97:GLN:C	2.57	0.43
1:E:451:LEU:C	1:E:453:GLN:N	2.72	0.43
1:F:134:LEU:N	1:F:134:LEU:CD2	2.80	0.43
1:J:486:GLY:CA	1:J:491:MET:HE2	2.49	0.43
1:F:242:LYS:C	1:F:244:GLY:N	2.72	0.43
1:D:369:VAL:HG23	1:D:370:ALA:H	1.84	0.43
1:B:64:ASP:OD1	1:B:64:ASP:C	2.56	0.43
1:K:57:ALA:O	1:K:60:ILE:N	2.47	0.43
1:I:239:ALA:O	1:I:314:LEU:HD11	2.18	0.43
1:D:239:ALA:O	1:D:314:LEU:HD11	2.18	0.43
1:K:259:LEU:C	1:K:261:THR:N	2.72	0.43
1:A:259:LEU:C	1:A:261:THR:H	2.21	0.43
1:A:16:MET:O	1:A:20:VAL:HG13	2.19	0.43
1:J:499:VAL:HG22	1:J:500:THR:N	2.34	0.43
1:A:272:LYS:HD2	1:A:272:LYS:H	1.84	0.43
1:L:273:VAL:CG1	1:L:274:ALA:N	2.82	0.43
1:B:77:VAL:O	1:B:80:LYS:HB2	2.19	0.43
1:I:200:LEU:HD21	1:I:276:VAL:HA	2.00	0.43
1:H:440:ILE:O	1:H:441:LYS:C	2.57	0.43
1:I:462:PRO:O	1:I:463:SER:C	2.58	0.43
1:B:240:VAL:O	1:B:240:VAL:CG1	2.67	0.43
1:K:404:ARG:CG	1:K:404:ARG:NH1	2.82	0.43
1:B:134:LEU:CD2	1:B:134:LEU:N	2.82	0.43
1:M:8:PHE:HE1	1:M:519:CYS:SG	2.42	0.43
1:F:176:THR:HG22	1:F:177:VAL:N	2.34	0.43
1:D:239:ALA:O	1:D:314:LEU:HD21	2.19	0.43
1:E:64:ASP:C	1:E:64:ASP:OD1	2.56	0.43
1:B:120:ILE:HG13	1:B:439:GLY:O	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:291:ASP:OD2	1:N:368:ARG:HD2	2.19	0.43
1:K:230:ILE:O	1:K:230:ILE:HG12	2.18	0.43
1:N:230:ILE:O	1:N:230:ILE:HG12	2.18	0.43
1:F:259:LEU:C	1:F:261:THR:H	2.21	0.43
1:M:69:MET:O	1:M:73:MET:HG3	2.19	0.43
1:J:272:LYS:NZ	1:K:228:SER:HB2	2.34	0.43
1:E:273:VAL:CG1	1:E:274:ALA:N	2.82	0.43
1:J:10:ASN:O	1:J:13:ARG:N	2.49	0.43
1:B:449:ALA:O	1:B:450:PRO:C	2.57	0.43
1:H:242:LYS:C	1:H:244:GLY:N	2.72	0.43
1:F:217:SER:N	1:F:218:PRO:HD3	2.33	0.43
1:A:376:VAL:HG12	1:A:377:ALA:N	2.33	0.43
1:N:369:VAL:HG23	1:N:370:ALA:H	1.83	0.43
1:A:24:ALA:O	1:A:26:ALA:N	2.51	0.43
1:F:295:LEU:HD13	1:F:295:LEU:C	2.40	0.43
1:N:425:LYS:C	1:N:427:ALA:H	2.22	0.43
1:C:171:LYS:HB2	1:C:407:VAL:HG11	2.00	0.43
1:M:291:ASP:OD2	1:M:368:ARG:HD2	2.19	0.43
1:C:174:VAL:HB	1:C:376:VAL:HG13	2.01	0.43
1:A:183:LEU:O	1:A:184:GLN:HB2	2.19	0.42
1:F:383:ALA:O	1:F:384:ALA:CB	2.66	0.42
1:I:16:MET:SD	1:I:73:MET:HE1	2.58	0.42
1:L:10:ASN:O	1:L:11:ASP:C	2.57	0.42
1:I:27:VAL:C	1:I:29:VAL:H	2.22	0.42
1:A:456:LEU:C	1:A:458:CYS:H	2.22	0.42
1:J:462:PRO:O	1:J:463:SER:C	2.58	0.42
1:B:421:ARG:NH2	1:B:469:VAL:O	2.49	0.42
1:K:349:ILE:HA	1:K:352:GLN:HG3	2.00	0.42
1:F:179:ASP:HB3	1:F:389:MET:HE1	2.01	0.42
1:I:486:GLY:CA	1:I:491:MET:HE2	2.49	0.42
1:J:239:ALA:O	1:J:314:LEU:HD21	2.18	0.42
1:E:239:ALA:O	1:E:314:LEU:HD21	2.18	0.42
1:E:40:LEU:HD13	1:E:59:GLU:HG3	2.00	0.42
1:B:140:ASP:O	1:B:142:LYS:N	2.51	0.42
1:H:291:ASP:OD2	1:H:368:ARG:HD2	2.19	0.42
1:C:259:LEU:C	1:C:261:THR:N	2.73	0.42
1:K:383:ALA:O	1:K:384:ALA:CB	2.67	0.42
1:D:10:ASN:O	1:D:11:ASP:C	2.58	0.42
1:F:85:ALA:HB1	1:F:499:VAL:CG1	2.41	0.42
1:M:273:VAL:CG1	1:M:274:ALA:N	2.82	0.42
1:G:70:GLY:HA2	1:G:73:MET:HE3	1.99	0.42
1:I:477:GLY:HA3	1:I:488:MET:SD	2.59	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:41:ASP:OD1	1:J:69:MET:HG2	2.19	0.42
1:N:69:MET:O	1:N:73:MET:HG3	2.19	0.42
1:J:412:VAL:CG2	1:J:413:ALA:N	2.82	0.42
1:F:479:ASN:CG	1:F:493:ILE:HD11	2.40	0.42
1:N:479:ASN:CG	1:N:493:ILE:HD11	2.40	0.42
1:H:91:THR:O	1:H:94:VAL:CG1	2.67	0.42
1:G:420:ILE:CD1	1:G:451:LEU:HD22	2.47	0.42
1:I:240:VAL:CG1	1:I:240:VAL:O	2.67	0.42
1:J:242:LYS:C	1:J:244:GLY:N	2.72	0.42
1:N:134:LEU:O	1:N:135:SER:C	2.56	0.42
1:M:24:ALA:O	1:M:26:ALA:N	2.52	0.42
1:F:369:VAL:HG23	1:F:370:ALA:H	1.83	0.42
1:G:369:VAL:HG23	1:G:370:ALA:H	1.84	0.42
1:M:17:LEU:O	1:M:20:VAL:N	2.53	0.42
1:L:12:ALA:O	1:L:520:MET:SD	2.77	0.42
1:J:376:VAL:HG12	1:J:377:ALA:N	2.34	0.42
1:B:151:SER:HB3	1:B:399:ALA:HA	2.00	0.42
1:C:140:ASP:O	1:C:142:LYS:N	2.52	0.42
1:B:376:VAL:HG12	1:B:377:ALA:N	2.34	0.42
1:F:259:LEU:C	1:F:261:THR:N	2.73	0.42
1:B:233:MET:HB3	1:B:237:LEU:HG	2.01	0.42
1:C:233:MET:HB3	1:C:237:LEU:HG	2.01	0.42
1:E:66:PHE:HE1	1:E:522:THR:HG22	1.82	0.42
1:M:477:GLY:HA3	1:M:488:MET:SD	2.60	0.42
1:J:421:ARG:NH2	1:J:469:VAL:O	2.51	0.42
1:B:412:VAL:HG23	1:B:413:ALA:N	2.34	0.42
1:L:479:ASN:CG	1:L:493:ILE:HD11	2.39	0.42
1:H:34:LYS:CG	1:H:458:CYS:SG	3.06	0.42
1:J:349:ILE:HA	1:J:352:GLN:HG3	1.99	0.42
1:C:349:ILE:HA	1:C:352:GLN:HG3	2.00	0.42
1:B:24:ALA:CB	1:B:97:GLN:HE21	2.33	0.42
1:A:369:VAL:HG23	1:A:370:ALA:H	1.83	0.42
1:B:369:VAL:HG23	1:B:370:ALA:H	1.84	0.42
1:C:239:ALA:O	1:C:314:LEU:HD21	2.19	0.42
1:B:171:LYS:HB2	1:B:407:VAL:HG11	2.00	0.42
1:H:140:ASP:O	1:H:142:LYS:N	2.52	0.42
1:C:158:VAL:O	1:C:159:GLY:C	2.56	0.42
1:A:40:LEU:HD13	1:A:59:GLU:HG3	2.00	0.42
1:M:171:LYS:H	1:M:171:LYS:HG2	1.54	0.42
1:G:230:ILE:HG12	1:G:230:ILE:O	2.19	0.42
1:G:259:LEU:C	1:G:261:THR:H	2.23	0.42
1:J:183:LEU:O	1:J:184:GLN:HB2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:232:GLU:HA	1:N:310:GLU:OE1	2.19	0.42
1:D:66:PHE:CE1	1:D:522:THR:CG2	3.00	0.42
1:L:41:ASP:OD1	1:M:69:MET:HG2	2.18	0.42
1:D:273:VAL:CG1	1:D:274:ALA:N	2.82	0.42
1:B:272:LYS:NZ	1:C:228:SER:HB2	2.35	0.42
1:B:273:VAL:CG1	1:B:274:ALA:N	2.82	0.42
1:C:16:MET:O	1:C:20:VAL:HG13	2.19	0.42
1:F:77:VAL:O	1:F:80:LYS:HB2	2.19	0.42
1:A:127:ALA:HB1	1:A:422:VAL:HG11	2.00	0.42
1:B:10:ASN:O	1:B:11:ASP:C	2.57	0.42
1:A:27:VAL:CG1	1:A:90:THR:HG23	2.46	0.42
1:A:91:THR:O	1:A:94:VAL:HG13	2.18	0.42
1:E:91:THR:O	1:E:94:VAL:HG13	2.20	0.42
1:M:91:THR:O	1:M:94:VAL:HG13	2.19	0.42
1:C:413:ALA:O	1:C:418:ALA:HB2	2.19	0.42
1:H:134:LEU:O	1:H:135:SER:C	2.58	0.42
1:L:91:THR:O	1:L:94:VAL:CG1	2.67	0.42
1:H:216:GLU:C	1:H:218:PRO:HD3	2.40	0.42
1:A:216:GLU:C	1:A:218:PRO:HD3	2.40	0.42
1:C:242:LYS:C	1:C:244:GLY:N	2.72	0.42
1:N:134:LEU:N	1:N:134:LEU:CD2	2.82	0.42
1:C:134:LEU:N	1:C:134:LEU:CD2	2.83	0.42
1:N:242:LYS:C	1:N:244:GLY:N	2.73	0.42
1:K:216:GLU:C	1:K:218:PRO:HD3	2.40	0.42
1:M:214:GLU:C	1:M:215:LEU:HD23	2.39	0.42
1:H:369:VAL:HG23	1:H:370:ALA:H	1.84	0.42
1:M:151:SER:CB	1:M:399:ALA:HA	2.49	0.42
1:B:140:ASP:C	1:B:142:LYS:H	2.23	0.42
1:E:11:ASP:OD1	1:E:11:ASP:N	2.50	0.42
1:J:295:LEU:C	1:J:295:LEU:HD13	2.40	0.42
1:G:64:ASP:OD1	1:G:64:ASP:C	2.57	0.42
1:J:140:ASP:C	1:J:142:LYS:H	2.23	0.42
1:E:259:LEU:C	1:E:261:THR:H	2.22	0.42
1:B:259:LEU:C	1:B:261:THR:H	2.22	0.42
1:A:77:VAL:O	1:A:80:LYS:HB2	2.19	0.42
1:B:66:PHE:O	1:B:69:MET:HB2	2.19	0.42
1:K:129:GLU:O	1:K:131:LEU:N	2.52	0.42
1:D:200:LEU:HD21	1:D:276:VAL:HA	2.01	0.42
1:H:326:ASN:HB2	1:H:329:THR:HB	2.02	0.42
1:M:412:VAL:CG2	1:M:413:ALA:N	2.82	0.42
1:J:414:GLY:N	1:J:494:LEU:HA	2.33	0.42
1:G:462:PRO:O	1:G:463:SER:C	2.58	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:420:ILE:CD1	1:E:451:LEU:HD22	2.49	0.42
1:J:134:LEU:O	1:J:135:SER:C	2.57	0.42
1:M:404:ARG:NH1	1:M:404:ARG:CG	2.82	0.42
1:G:376:VAL:HG12	1:G:377:ALA:N	2.35	0.42
1:E:140:ASP:C	1:E:142:LYS:H	2.23	0.42
1:A:239:ALA:O	1:A:314:LEU:HD21	2.19	0.42
1:M:264:VAL:O	1:M:267:MET:HB3	2.19	0.42
1:G:264:VAL:O	1:G:267:MET:HB3	2.19	0.42
1:G:291:ASP:OD2	1:G:368:ARG:HD2	2.19	0.42
1:A:69:MET:HG2	1:G:41:ASP:OD1	2.20	0.42
1:E:499:VAL:HG22	1:E:500:THR:N	2.34	0.42
1:D:77:VAL:O	1:D:80:LYS:HB2	2.20	0.42
1:E:73:MET:O	1:E:76:GLU:N	2.53	0.42
1:A:433:ASN:O	1:A:434:ALA:C	2.58	0.42
1:M:456:LEU:C	1:M:458:CYS:H	2.23	0.42
1:A:414:GLY:N	1:A:494:LEU:HA	2.32	0.42
1:G:440:ILE:O	1:G:443:ALA:N	2.52	0.42
1:F:479:ASN:OD1	1:F:493:ILE:HD11	2.19	0.42
1:D:8:PHE:HE1	1:D:519:CYS:HG	1.60	0.42
1:I:176:THR:HG21	1:I:333:ILE:CD1	2.50	0.42
1:L:369:VAL:HG23	1:L:370:ALA:H	1.85	0.42
1:I:420:ILE:CD1	1:I:451:LEU:HD22	2.49	0.42
1:C:220:ILE:HG23	1:C:248:LEU:HB3	2.01	0.42
1:B:175:ILE:HA	1:B:377:ALA:HB3	2.02	0.42
1:L:425:LYS:C	1:L:427:ALA:H	2.21	0.42
1:F:158:VAL:O	1:F:159:GLY:C	2.57	0.42
1:B:400:LEU:O	1:B:403:THR:HB	2.19	0.42
1:J:12:ALA:HB1	1:J:520:MET:HG3	2.01	0.42
1:I:470:LYS:C	1:I:472:GLY:H	2.23	0.42
1:J:230:ILE:O	1:J:230:ILE:HG12	2.19	0.42
1:K:384:ALA:C	1:K:385:THR:HG23	2.40	0.42
1:C:524:LEU:O	1:C:526:LYS:N	2.39	0.42
1:M:524:LEU:O	1:M:526:LYS:N	2.40	0.42
1:H:232:GLU:HA	1:H:310:GLU:OE1	2.20	0.42
1:G:16:MET:SD	1:G:73:MET:HE1	2.59	0.42
1:M:421:ARG:O	1:M:424:SER:OG	2.32	0.42
1:D:324:VAL:HB	1:D:331:THR:CG2	2.50	0.42
1:D:464:VAL:O	1:D:465:VAL:C	2.57	0.42
1:C:464:VAL:O	1:C:466:ALA:N	2.52	0.42
1:L:34:LYS:CG	1:L:458:CYS:SG	3.07	0.42
1:F:497:THR:O	1:F:498:LYS:C	2.56	0.42
1:G:134:LEU:O	1:G:135:SER:C	2.58	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:12:ALA:O	1:K:520:MET:SD	2.77	0.42
1:E:295:LEU:C	1:E:295:LEU:HD13	2.40	0.42
1:L:264:VAL:O	1:L:267:MET:HB3	2.20	0.42
1:E:158:VAL:O	1:E:159:GLY:C	2.56	0.42
1:N:264:VAL:O	1:N:267:MET:HB3	2.19	0.42
1:J:158:VAL:O	1:J:159:GLY:C	2.58	0.42
1:E:259:LEU:C	1:E:261:THR:N	2.73	0.42
1:D:259:LEU:C	1:D:261:THR:H	2.21	0.42
1:D:183:LEU:O	1:D:184:GLN:HB2	2.20	0.42
1:E:232:GLU:HA	1:E:310:GLU:OE1	2.20	0.42
1:B:488:MET:HE3	1:B:493:ILE:HB	2.02	0.42
1:G:242:LYS:C	1:G:244:GLY:N	2.71	0.42
1:H:176:THR:HG22	1:H:177:VAL:N	2.35	0.42
1:G:112:ASN:HA	1:G:113:PRO:HD3	1.86	0.42
1:N:487:ASN:OD1	1:N:489:ILE:N	2.52	0.42
1:K:176:THR:HG22	1:K:177:VAL:N	2.35	0.42
1:C:497:THR:O	1:C:498:LYS:C	2.58	0.42
1:L:57:ALA:O	1:L:59:GLU:N	2.53	0.42
1:N:171:LYS:H	1:N:171:LYS:HG2	1.54	0.42
1:F:140:ASP:C	1:F:142:LYS:H	2.22	0.42
1:I:12:ALA:O	1:I:520:MET:SD	2.78	0.42
1:B:220:ILE:HG23	1:B:248:LEU:HB3	2.01	0.42
1:L:487:ASN:O	1:L:491:MET:HG3	2.19	0.42
1:G:140:ASP:C	1:G:142:LYS:H	2.23	0.42
1:I:374:GLY:O	1:I:375:GLY:O	2.37	0.42
1:H:158:VAL:O	1:H:159:GLY:C	2.58	0.42
1:K:239:ALA:O	1:K:314:LEU:HD11	2.20	0.42
1:I:70:GLY:O	1:I:72:GLN:N	2.53	0.42
1:C:41:ASP:HB2	1:D:69:MET:SD	2.59	0.42
1:K:232:GLU:HA	1:K:310:GLU:OE1	2.20	0.42
1:A:499:VAL:HG22	1:A:500:THR:N	2.34	0.42
1:C:13:ARG:HA	1:C:16:MET:HE2	2.01	0.42
1:G:129:GLU:O	1:G:131:LEU:N	2.53	0.42
1:I:29:VAL:C	1:I:31:LEU:N	2.72	0.42
1:C:87:ASP:CG	1:C:88:GLY:N	2.73	0.42
1:L:213:VAL:HG12	1:L:214:GLU:N	2.34	0.42
1:K:493:ILE:O	1:K:493:ILE:HG22	2.19	0.42
1:C:241:ALA:CB	1:D:231:ARG:HH12	2.32	0.42
1:C:216:GLU:C	1:C:218:PRO:HD3	2.40	0.42
1:F:24:ALA:CB	1:F:97:GLN:HE21	2.32	0.42
1:A:176:THR:HG22	1:A:177:VAL:N	2.35	0.42
1:B:112:ASN:HA	1:B:113:PRO:HD3	1.90	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:112:ASN:HA	1:J:113:PRO:HD3	1.88	0.42
1:D:151:SER:CB	1:D:399:ALA:HA	2.50	0.42
1:L:487:ASN:OD1	1:L:489:ILE:N	2.51	0.42
1:G:239:ALA:O	1:G:314:LEU:HD21	2.20	0.42
1:J:140:ASP:O	1:J:142:LYS:N	2.53	0.42
1:L:425:LYS:O	1:L:427:ALA:N	2.51	0.42
1:H:25:ASP:OD1	1:H:28:LYS:HE2	2.20	0.42
1:M:470:LYS:C	1:M:472:GLY:H	2.23	0.42
1:M:259:LEU:C	1:M:261:THR:H	2.21	0.42
1:M:259:LEU:C	1:M:261:THR:N	2.73	0.42
1:N:259:LEU:C	1:N:261:THR:N	2.73	0.42
1:I:233:MET:HB3	1:I:237:LEU:HG	2.02	0.42
1:H:13:ARG:HA	1:H:16:MET:HE2	2.02	0.42
1:H:69:MET:O	1:H:73:MET:HG3	2.19	0.42
1:M:232:GLU:HA	1:M:310:GLU:OE1	2.20	0.42
1:A:273:VAL:CG1	1:A:274:ALA:N	2.83	0.42
1:I:273:VAL:CG1	1:I:274:ALA:N	2.82	0.42
1:C:272:LYS:N	1:C:272:LYS:HD2	2.35	0.42
1:K:499:VAL:HG22	1:K:500:THR:N	2.35	0.42
1:J:66:PHE:O	1:J:67:GLU:C	2.58	0.42
1:L:449:ALA:HB3	1:L:450:PRO:CD	2.44	0.42
1:I:91:THR:O	1:I:94:VAL:CG1	2.68	0.42
1:J:464:VAL:O	1:J:466:ALA:N	2.53	0.42
1:J:479:ASN:CG	1:J:493:ILE:HD11	2.39	0.42
1:J:91:THR:O	1:J:94:VAL:HG13	2.20	0.42
1:N:479:ASN:OD1	1:N:493:ILE:HD11	2.19	0.42
1:M:455:VAL:O	1:M:455:VAL:HG12	2.20	0.42
1:E:134:LEU:O	1:E:135:SER:C	2.58	0.42
1:F:404:ARG:NH1	1:F:404:ARG:CG	2.83	0.42
1:N:497:THR:O	1:N:498:LYS:C	2.58	0.42
1:E:220:ILE:HG23	1:E:248:LEU:HB3	2.02	0.42
1:L:68:ASN:HD21	1:L:72:GLN:HG3	1.84	0.42
1:J:234:LEU:N	1:J:235:PRO:HD2	2.35	0.41
1:A:228:SER:HB3	1:G:272:LYS:NZ	2.35	0.41
1:J:77:VAL:O	1:J:80:LYS:HB2	2.20	0.41
1:I:421:ARG:O	1:I:422:VAL:C	2.56	0.41
1:J:213:VAL:HG12	1:J:214:GLU:N	2.35	0.41
1:I:213:VAL:HB	1:I:325:ILE:HG13	2.02	0.41
1:H:412:VAL:HG23	1:H:413:ALA:N	2.34	0.41
1:H:440:ILE:O	1:H:443:ALA:N	2.53	0.41
1:N:488:MET:HE3	1:N:493:ILE:HB	2.01	0.41
1:D:417:VAL:HG11	1:D:477:GLY:CA	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:180:GLY:H	1:I:389:MET:HE2	1.84	0.41
1:H:420:ILE:CD1	1:H:451:LEU:HD22	2.50	0.41
1:N:96:ALA:O	1:N:97:GLN:C	2.58	0.41
1:M:376:VAL:HG12	1:M:377:ALA:N	2.35	0.41
1:D:57:ALA:O	1:D:58:ARG:C	2.58	0.41
1:J:174:VAL:HB	1:J:376:VAL:HG13	2.01	0.41
1:C:140:ASP:C	1:C:142:LYS:H	2.24	0.41
1:K:295:LEU:HD13	1:K:295:LEU:C	2.39	0.41
1:I:291:ASP:OD2	1:I:368:ARG:HD2	2.20	0.41
1:J:57:ALA:O	1:J:58:ARG:C	2.59	0.41
1:A:158:VAL:O	1:A:159:GLY:C	2.59	0.41
1:K:291:ASP:OD2	1:K:368:ARG:HD2	2.20	0.41
1:H:487:ASN:OD1	1:H:489:ILE:N	2.53	0.41
1:N:162:ILE:O	1:N:165:ALA:N	2.53	0.41
1:G:470:LYS:C	1:G:472:GLY:H	2.23	0.41
1:I:264:VAL:O	1:I:267:MET:HB3	2.20	0.41
1:A:259:LEU:C	1:A:261:THR:N	2.74	0.41
1:D:384:ALA:C	1:D:385:THR:HG23	2.40	0.41
1:A:69:MET:CE	1:G:41:ASP:HB2	2.51	0.41
1:J:240:VAL:HG11	1:J:247:LEU:HB2	2.03	0.41
1:N:421:ARG:O	1:N:422:VAL:C	2.59	0.41
1:K:112:ASN:HA	1:K:113:PRO:HD3	1.85	0.41
1:D:82:ASN:HB2	1:D:89:THR:HG22	1.95	0.41
1:K:324:VAL:HB	1:K:331:THR:HG23	2.02	0.41
1:A:412:VAL:HG23	1:A:413:ALA:N	2.34	0.41
1:G:501:ARG:O	1:G:504:LEU:N	2.52	0.41
1:M:217:SER:N	1:M:218:PRO:HD3	2.35	0.41
1:D:236:VAL:O	1:D:240:VAL:HG23	2.21	0.41
1:L:216:GLU:C	1:L:218:PRO:HD3	2.40	0.41
1:K:87:ASP:CG	1:K:88:GLY:N	2.73	0.41
1:E:180:GLY:H	1:E:389:MET:HE2	1.85	0.41
1:H:430:ARG:HG2	1:H:430:ARG:HH11	1.83	0.41
1:F:406:ALA:HB1	1:F:411:VAL:HG12	2.01	0.41
1:B:183:LEU:O	1:B:184:GLN:HB2	2.19	0.41
1:C:273:VAL:CG1	1:C:274:ALA:N	2.83	0.41
1:N:129:GLU:O	1:N:132:LYS:N	2.53	0.41
1:A:129:GLU:O	1:A:132:LYS:N	2.53	0.41
1:M:417:VAL:HG11	1:M:477:GLY:CA	2.49	0.41
1:M:479:ASN:CG	1:M:493:ILE:HD11	2.41	0.41
1:J:91:THR:O	1:J:94:VAL:CG1	2.68	0.41
1:D:27:VAL:C	1:D:29:VAL:H	2.23	0.41
1:K:447:MET:CE	1:K:504:LEU:CD2	2.99	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:180:GLY:H	1:G:389:MET:HE2	1.86	0.41
1:G:24:ALA:O	1:G:26:ALA:N	2.53	0.41
1:A:57:ALA:O	1:A:58:ARG:C	2.58	0.41
1:D:36:ARG:HG3	1:D:36:ARG:HH11	1.85	0.41
1:C:295:LEU:C	1:C:295:LEU:HD13	2.41	0.41
1:H:376:VAL:HG12	1:H:377:ALA:N	2.36	0.41
1:E:230:ILE:HG12	1:E:230:ILE:O	2.19	0.41
1:D:230:ILE:O	1:D:230:ILE:HG12	2.19	0.41
1:B:232:GLU:HA	1:B:310:GLU:OE1	2.19	0.41
1:G:272:LYS:N	1:G:272:LYS:HD2	2.36	0.41
1:A:228:SER:CB	1:G:272:LYS:NZ	2.82	0.41
1:M:66:PHE:O	1:M:69:MET:HB2	2.20	0.41
1:D:499:VAL:HG22	1:D:500:THR:N	2.36	0.41
1:A:41:ASP:OD1	1:B:69:MET:HG2	2.20	0.41
1:K:131:LEU:C	1:K:133:ALA:H	2.21	0.41
1:J:10:ASN:O	1:J:11:ASP:C	2.59	0.41
1:B:200:LEU:HD21	1:B:276:VAL:HA	2.03	0.41
1:A:91:THR:HA	1:A:94:VAL:CG1	2.50	0.41
1:A:326:ASN:HB2	1:A:329:THR:HB	2.02	0.41
1:L:438:VAL:C	1:L:440:ILE:N	2.74	0.41
1:A:412:VAL:CG2	1:A:413:ALA:N	2.81	0.41
1:D:34:LYS:CG	1:D:458:CYS:SG	3.09	0.41
1:E:24:ALA:CB	1:E:97:GLN:HE21	2.33	0.41
1:D:96:ALA:O	1:D:97:GLN:C	2.58	0.41
1:G:10:ASN:O	1:G:11:ASP:C	2.58	0.41
1:M:406:ALA:O	1:M:410:GLY:N	2.53	0.41
1:D:171:LYS:H	1:D:171:LYS:HG2	1.52	0.41
1:F:220:ILE:HG23	1:F:248:LEU:HB3	2.03	0.41
1:A:155:ASP:OD1	1:A:157:THR:HB	2.21	0.41
1:C:505:GLN:O	1:C:508:ALA:HB3	2.20	0.41
1:E:497:THR:O	1:E:498:LYS:C	2.58	0.41
1:A:230:ILE:O	1:A:230:ILE:HG12	2.19	0.41
1:A:228:SER:HB2	1:G:272:LYS:HZ3	1.85	0.41
1:M:272:LYS:NZ	1:N:228:SER:HB3	2.35	0.41
1:B:272:LYS:H	1:B:272:LYS:HD2	1.85	0.41
1:J:449:ALA:O	1:J:450:PRO:C	2.59	0.41
1:B:91:THR:O	1:B:94:VAL:HG13	2.20	0.41
1:D:123:ALA:CB	1:D:440:ILE:HG23	2.48	0.41
1:K:27:VAL:CG1	1:K:90:THR:HG23	2.48	0.41
1:D:324:VAL:HB	1:D:331:THR:HG23	2.03	0.41
1:J:324:VAL:HB	1:J:331:THR:CG2	2.51	0.41
1:F:447:MET:HE3	1:F:504:LEU:HD21	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:96:ALA:O	1:L:97:GLN:C	2.57	0.41
1:E:376:VAL:HG12	1:E:377:ALA:N	2.34	0.41
1:N:376:VAL:HG12	1:N:377:ALA:N	2.35	0.41
1:C:376:VAL:HG12	1:C:377:ALA:N	2.35	0.41
1:M:171:LYS:HB2	1:M:407:VAL:HG11	2.01	0.41
1:G:497:THR:O	1:G:498:LYS:C	2.59	0.41
1:D:264:VAL:O	1:D:267:MET:HB3	2.20	0.41
1:E:36:ARG:O	1:E:51:LYS:HG2	2.21	0.41
1:H:199:TYR:CZ	1:H:327:LYS:HA	2.56	0.41
1:L:470:LYS:C	1:L:472:GLY:H	2.24	0.41
1:L:259:LEU:C	1:L:261:THR:H	2.23	0.41
1:I:69:MET:O	1:I:73:MET:HG3	2.20	0.41
1:I:419:LEU:HD21	1:I:500:THR:CG2	2.49	0.41
1:M:66:PHE:O	1:M:67:GLU:C	2.58	0.41
1:C:13:ARG:O	1:C:14:VAL:C	2.58	0.41
1:G:77:VAL:O	1:G:80:LYS:HB2	2.21	0.41
1:M:433:ASN:N	1:M:433:ASN:OD1	2.53	0.41
1:E:91:THR:O	1:E:94:VAL:CG1	2.68	0.41
1:H:213:VAL:HG12	1:H:214:GLU:N	2.35	0.41
1:J:488:MET:HE3	1:J:493:ILE:HB	2.02	0.41
1:K:455:VAL:HG12	1:K:455:VAL:O	2.21	0.41
1:L:240:VAL:CG1	1:L:240:VAL:O	2.67	0.41
1:L:349:ILE:HA	1:L:352:GLN:HG3	2.02	0.41
1:J:264:VAL:O	1:J:267:MET:HB3	2.19	0.41
1:H:295:LEU:HD13	1:H:295:LEU:C	2.41	0.41
1:E:264:VAL:O	1:E:267:MET:HB3	2.21	0.41
1:D:40:LEU:HD13	1:D:59:GLU:HG3	2.01	0.41
1:I:140:ASP:O	1:I:142:LYS:N	2.54	0.41
1:H:384:ALA:C	1:H:385:THR:HG23	2.41	0.41
1:I:68:ASN:HD21	1:I:72:GLN:HG3	1.86	0.41
1:A:76:GLU:HG3	1:G:46:ALA:CB	2.35	0.41
1:D:129:GLU:C	1:D:131:LEU:H	2.24	0.41
1:J:200:LEU:CD2	1:J:276:VAL:HA	2.50	0.41
1:I:278:ALA:HB1	1:I:279:PRO:CD	2.45	0.41
1:A:91:THR:O	1:A:94:VAL:CG1	2.68	0.41
1:G:278:ALA:HB1	1:G:279:PRO:CD	2.48	0.41
1:G:326:ASN:HB2	1:G:329:THR:HB	2.02	0.41
1:J:477:GLY:HA3	1:J:488:MET:CG	2.51	0.41
1:L:412:VAL:CG2	1:L:413:ALA:N	2.83	0.41
1:F:464:VAL:O	1:F:466:ALA:N	2.54	0.41
1:H:87:ASP:CG	1:H:88:GLY:N	2.74	0.41
1:D:134:LEU:O	1:D:135:SER:C	2.59	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:488:MET:HE3	1:G:493:ILE:HB	2.01	0.41
1:G:479:ASN:CG	1:G:493:ILE:HD11	2.41	0.41
1:M:240:VAL:CG1	1:M:240:VAL:O	2.67	0.41
1:I:497:THR:O	1:I:498:LYS:C	2.59	0.41
1:H:404:ARG:NH1	1:H:404:ARG:CG	2.82	0.41
1:A:404:ARG:NH1	1:A:404:ARG:CG	2.83	0.41
1:C:369:VAL:HG23	1:C:370:ALA:H	1.85	0.41
1:D:430:ARG:HG2	1:D:430:ARG:HH11	1.85	0.41
1:H:264:VAL:O	1:H:267:MET:HB3	2.20	0.41
1:D:425:LYS:C	1:D:427:ALA:H	2.23	0.41
1:B:470:LYS:C	1:B:472:GLY:H	2.23	0.41
1:I:259:LEU:C	1:I:261:THR:N	2.72	0.41
1:G:499:VAL:HG22	1:G:500:THR:N	2.34	0.41
1:J:240:VAL:CG1	1:J:240:VAL:O	2.68	0.41
1:F:41:ASP:OD1	1:G:69:MET:HG2	2.20	0.41
1:I:417:VAL:HG11	1:I:477:GLY:CA	2.50	0.41
1:M:421:ARG:NH2	1:M:469:VAL:O	2.49	0.41
1:D:451:LEU:C	1:D:453:GLN:N	2.73	0.41
1:G:216:GLU:C	1:G:218:PRO:HD3	2.41	0.41
1:G:404:ARG:CG	1:G:404:ARG:NH1	2.82	0.41
1:E:29:VAL:C	1:E:31:LEU:N	2.73	0.41
1:E:216:GLU:C	1:E:218:PRO:HD3	2.41	0.41
1:B:242:LYS:C	1:B:244:GLY:N	2.72	0.41
1:I:369:VAL:HG23	1:I:370:ALA:H	1.85	0.41
1:H:57:ALA:O	1:H:59:GLU:N	2.54	0.41
1:M:239:ALA:O	1:M:314:LEU:HD21	2.20	0.41
1:G:409:GLU:O	1:G:497:THR:HB	2.21	0.41
1:J:25:ASP:OD1	1:J:28:LYS:HE2	2.20	0.41
1:M:158:VAL:O	1:M:159:GLY:C	2.58	0.41
1:K:376:VAL:HG12	1:K:377:ALA:N	2.34	0.41
1:F:239:ALA:O	1:F:314:LEU:HD11	2.20	0.41
1:I:182:GLY:O	1:I:183:LEU:O	2.39	0.41
1:L:384:ALA:C	1:L:385:THR:HG23	2.40	0.41
1:L:521:VAL:HG12	1:L:521:VAL:O	2.21	0.41
1:I:10:ASN:O	1:I:11:ASP:C	2.59	0.41
1:C:232:GLU:HA	1:C:310:GLU:OE1	2.20	0.41
1:L:232:GLU:HA	1:L:310:GLU:OE1	2.20	0.41
1:A:240:VAL:CG1	1:A:240:VAL:O	2.69	0.41
1:B:127:ALA:HB1	1:B:422:VAL:HG11	2.03	0.41
1:I:464:VAL:O	1:I:465:VAL:C	2.58	0.41
1:B:70:GLY:O	1:B:72:GLN:N	2.54	0.41
1:M:278:ALA:HB1	1:M:279:PRO:CD	2.45	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:326:ASN:HB2	1:M:329:THR:HB	2.02	0.41
1:K:202:PRO:HB3	1:K:205:ILE:HD11	2.03	0.41
1:L:205:ILE:H	1:L:205:ILE:HG13	1.64	0.41
1:L:324:VAL:HB	1:L:331:THR:CG2	2.50	0.41
1:F:326:ASN:HB2	1:F:329:THR:HB	2.02	0.41
1:K:326:ASN:HB2	1:K:329:THR:HB	2.02	0.41
1:N:326:ASN:HB2	1:N:329:THR:HB	2.02	0.41
1:H:462:PRO:O	1:H:463:SER:C	2.60	0.41
1:B:440:ILE:O	1:B:441:LYS:C	2.59	0.41
1:M:29:VAL:C	1:M:31:LEU:N	2.73	0.41
1:F:213:VAL:HG12	1:F:214:GLU:N	2.36	0.41
1:A:477:GLY:HA3	1:A:488:MET:CG	2.50	0.41
1:B:417:VAL:HG11	1:B:477:GLY:CA	2.50	0.41
1:L:477:GLY:HA3	1:L:488:MET:SD	2.61	0.41
1:N:29:VAL:C	1:N:31:LEU:N	2.74	0.41
1:H:91:THR:O	1:H:94:VAL:HG13	2.21	0.41
1:D:136:VAL:O	1:D:137:PRO:O	2.38	0.41
1:L:455:VAL:HG12	1:L:455:VAL:O	2.21	0.41
1:L:242:LYS:C	1:L:244:GLY:N	2.70	0.41
1:L:134:LEU:O	1:L:135:SER:C	2.58	0.41
1:H:236:VAL:O	1:H:240:VAL:HG23	2.21	0.41
1:K:447:MET:CE	1:K:504:LEU:HD21	2.50	0.41
1:E:404:ARG:NH1	1:E:404:ARG:CG	2.84	0.41
1:B:136:VAL:O	1:B:137:PRO:O	2.38	0.41
1:B:176:THR:HG22	1:B:177:VAL:N	2.35	0.41
1:H:112:ASN:O	1:H:116:LEU:HG	2.21	0.41
1:D:17:LEU:O	1:D:20:VAL:N	2.54	0.41
1:L:376:VAL:HG12	1:L:377:ALA:N	2.35	0.41
1:L:155:ASP:OD1	1:L:157:THR:HB	2.21	0.41
1:J:470:LYS:C	1:J:472:GLY:H	2.24	0.41
1:J:291:ASP:OD2	1:J:368:ARG:HD2	2.20	0.41
1:J:103:GLY:O	1:J:106:ALA:HB3	2.20	0.41
1:F:264:VAL:O	1:F:267:MET:HB3	2.20	0.41
1:L:140:ASP:C	1:L:142:LYS:H	2.24	0.41
1:M:351:GLN:HA	1:M:354:GLU:HG2	2.03	0.41
1:E:68:ASN:HD21	1:E:72:GLN:HG3	1.86	0.41
1:C:155:ASP:OD1	1:C:157:THR:HB	2.21	0.41
1:D:140:ASP:O	1:D:142:LYS:N	2.54	0.41
1:A:470:LYS:C	1:A:472:GLY:H	2.24	0.41
1:A:182:GLY:O	1:A:183:LEU:O	2.39	0.41
1:M:230:ILE:HG12	1:M:230:ILE:O	2.19	0.41
1:H:259:LEU:C	1:H:261:THR:N	2.74	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:183:LEU:O	1:F:184:GLN:HB2	2.21	0.41
1:A:232:GLU:HA	1:A:310:GLU:OE1	2.21	0.41
1:D:232:GLU:HA	1:D:310:GLU:OE1	2.20	0.41
1:A:240:VAL:HG11	1:A:247:LEU:HB2	2.03	0.41
1:E:417:VAL:HG11	1:E:477:GLY:CA	2.51	0.41
1:K:321:LYS:O	1:K:322:ARG:CB	2.58	0.41
1:B:278:ALA:HB1	1:B:279:PRO:CD	2.47	0.41
1:C:23:LEU:O	1:C:27:VAL:HG23	2.21	0.41
1:L:412:VAL:HG23	1:L:413:ALA:N	2.36	0.41
1:H:451:LEU:C	1:H:453:GLN:N	2.74	0.41
1:N:240:VAL:CG1	1:N:240:VAL:O	2.68	0.41
1:N:216:GLU:C	1:N:218:PRO:HD3	2.41	0.41
1:B:134:LEU:O	1:B:135:SER:C	2.59	0.41
1:D:349:ILE:HA	1:D:352:GLN:HG2	2.02	0.41
1:M:96:ALA:O	1:M:97:GLN:C	2.59	0.41
1:G:24:ALA:CB	1:G:97:GLN:HE21	2.34	0.41
1:A:96:ALA:O	1:A:97:GLN:C	2.58	0.41
1:G:103:GLY:O	1:G:106:ALA:N	2.50	0.41
1:L:400:LEU:O	1:L:403:THR:HB	2.21	0.41
1:K:239:ALA:O	1:K:314:LEU:HD21	2.20	0.41
1:G:295:LEU:HD13	1:G:295:LEU:C	2.42	0.41
1:F:155:ASP:OD1	1:F:157:THR:HB	2.21	0.41
1:N:158:VAL:O	1:N:159:GLY:C	2.59	0.41
1:B:111:MET:HG2	1:B:435:ASP:OD1	2.21	0.41
1:A:103:GLY:O	1:A:106:ALA:N	2.48	0.41
1:G:384:ALA:C	1:G:385:THR:HG23	2.41	0.40
1:M:234:LEU:N	1:M:235:PRO:HD2	2.35	0.40
1:H:205:ILE:HG13	1:H:205:ILE:H	1.65	0.40
1:G:324:VAL:HB	1:G:331:THR:HG23	2.04	0.40
1:J:324:VAL:HB	1:J:331:THR:HG23	2.03	0.40
1:J:479:ASN:OD1	1:J:493:ILE:HD11	2.22	0.40
1:B:479:ASN:CG	1:B:493:ILE:HD11	2.41	0.40
1:M:423:ALA:HB2	1:M:447:MET:SD	2.61	0.40
1:B:216:GLU:C	1:B:218:PRO:HD3	2.41	0.40
1:D:376:VAL:HG12	1:D:377:ALA:N	2.36	0.40
1:A:497:THR:O	1:A:498:LYS:C	2.59	0.40
1:D:295:LEU:C	1:D:295:LEU:HD13	2.42	0.40
1:A:289:LEU:HD23	1:A:289:LEU:C	2.42	0.40
1:A:295:LEU:C	1:A:295:LEU:HD13	2.42	0.40
1:C:57:ALA:O	1:C:60:ILE:N	2.49	0.40
1:I:487:ASN:OD1	1:I:489:ILE:N	2.54	0.40
1:D:470:LYS:C	1:D:472:GLY:H	2.23	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:155:ASP:OD1	1:M:157:THR:HB	2.21	0.40
1:B:425:LYS:C	1:B:427:ALA:H	2.23	0.40
1:F:199:TYR:CZ	1:F:327:LYS:HA	2.55	0.40
1:H:127:ALA:HB1	1:H:422:VAL:HG11	2.03	0.40
1:K:10:ASN:O	1:K:13:ARG:N	2.51	0.40
1:H:449:ALA:O	1:H:450:PRO:C	2.60	0.40
1:I:449:ALA:O	1:I:450:PRO:C	2.60	0.40
1:H:200:LEU:CD2	1:H:276:VAL:HA	2.52	0.40
1:K:27:VAL:O	1:K:29:VAL:N	2.55	0.40
1:D:205:ILE:HG13	1:D:205:ILE:H	1.63	0.40
1:L:123:ALA:CB	1:L:440:ILE:HG23	2.50	0.40
1:H:488:MET:CE	1:H:493:ILE:CG2	2.99	0.40
1:E:213:VAL:HG12	1:E:214:GLU:N	2.36	0.40
1:C:417:VAL:HG11	1:C:477:GLY:CA	2.49	0.40
1:L:91:THR:O	1:L:94:VAL:HG13	2.21	0.40
1:F:134:LEU:O	1:F:135:SER:C	2.60	0.40
1:E:242:LYS:O	1:E:243:ALA:HB3	2.21	0.40
1:B:295:LEU:HD13	1:B:295:LEU:C	2.41	0.40
1:E:37:ASN:O	1:F:517:THR:HG23	2.21	0.40
1:B:95:LEU:O	1:B:96:ALA:C	2.60	0.40
1:A:162:ILE:O	1:A:165:ALA:N	2.54	0.40
1:M:37:ASN:O	1:N:517:THR:HG23	2.20	0.40
1:J:400:LEU:O	1:J:403:THR:HB	2.22	0.40
1:F:103:GLY:O	1:F:106:ALA:HB3	2.22	0.40
1:G:57:ALA:O	1:G:58:ARG:C	2.59	0.40
1:L:259:LEU:C	1:L:261:THR:N	2.75	0.40
1:A:234:LEU:N	1:A:235:PRO:HD2	2.36	0.40
1:E:85:ALA:HB1	1:E:499:VAL:CG1	2.39	0.40
1:J:82:ASN:HB2	1:J:89:THR:HG22	1.95	0.40
1:G:321:LYS:O	1:G:322:ARG:CB	2.58	0.40
1:K:113:PRO:HB3	1:K:515:ILE:O	2.22	0.40
1:K:112:ASN:O	1:K:116:LEU:HG	2.22	0.40
1:B:27:VAL:CG1	1:B:90:THR:HG23	2.46	0.40
1:A:451:LEU:O	1:A:452:ARG:C	2.59	0.40
1:E:324:VAL:HB	1:E:331:THR:CG2	2.51	0.40
1:N:417:VAL:HG11	1:N:477:GLY:CA	2.51	0.40
1:D:462:PRO:O	1:D:463:SER:C	2.59	0.40
1:N:34:LYS:CG	1:N:458:CYS:SG	3.08	0.40
1:F:136:VAL:O	1:F:137:PRO:O	2.39	0.40
1:I:349:ILE:HA	1:I:352:GLN:HG3	2.03	0.40
1:D:176:THR:HG22	1:D:177:VAL:N	2.36	0.40
1:N:176:THR:HG22	1:N:177:VAL:N	2.36	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:171:LYS:H	1:L:171:LYS:HG2	1.57	0.40
1:K:409:GLU:O	1:K:497:THR:HB	2.22	0.40
1:H:140:ASP:C	1:H:142:LYS:H	2.24	0.40
1:L:140:ASP:O	1:L:142:LYS:N	2.54	0.40
1:M:295:LEU:HD13	1:M:295:LEU:C	2.42	0.40
1:L:421:ARG:O	1:L:424:SER:OG	2.36	0.40
1:I:57:ALA:O	1:I:58:ARG:C	2.59	0.40
1:A:68:ASN:HD21	1:A:72:GLN:HG3	1.86	0.40
1:H:92:ALA:O	1:H:95:LEU:HB2	2.21	0.40
1:B:37:ASN:O	1:C:517:THR:HG23	2.21	0.40
1:D:508:ALA:O	1:D:509:SER:C	2.59	0.40
1:J:259:LEU:C	1:J:261:THR:N	2.74	0.40
1:B:254:VAL:HG12	1:B:259:LEU:HB2	2.04	0.40
1:B:234:LEU:N	1:B:235:PRO:HD2	2.36	0.40
1:I:234:LEU:N	1:I:235:PRO:HD2	2.37	0.40
1:M:129:GLU:O	1:M:132:LYS:N	2.54	0.40
1:K:240:VAL:HG11	1:K:247:LEU:HB2	2.02	0.40
1:I:127:ALA:HB1	1:I:422:VAL:HG11	2.04	0.40
1:K:131:LEU:C	1:K:133:ALA:N	2.75	0.40
1:J:66:PHE:O	1:J:69:MET:HB2	2.22	0.40
1:F:129:GLU:C	1:F:131:LEU:H	2.25	0.40
1:A:213:VAL:HG12	1:A:214:GLU:N	2.37	0.40
1:C:440:ILE:O	1:C:441:LYS:C	2.57	0.40
1:C:326:ASN:HB2	1:C:329:THR:HB	2.02	0.40
1:L:423:ALA:HB2	1:L:447:MET:SD	2.61	0.40
1:J:412:VAL:HG23	1:J:413:ALA:N	2.37	0.40
1:I:213:VAL:HG12	1:I:214:GLU:N	2.36	0.40
1:G:29:VAL:C	1:G:31:LEU:N	2.74	0.40
1:M:134:LEU:O	1:M:135:SER:C	2.60	0.40
1:H:242:LYS:O	1:H:243:ALA:HB3	2.22	0.40
1:D:487:ASN:O	1:D:491:MET:HG3	2.21	0.40
1:K:171:LYS:HG2	1:K:171:LYS:H	1.54	0.40
1:A:140:ASP:O	1:A:142:LYS:N	2.55	0.40
1:G:158:VAL:O	1:G:159:GLY:C	2.59	0.40
1:H:231:ARG:NH1	1:N:241:ALA:HB1	2.37	0.40
1:N:470:LYS:C	1:N:472:GLY:H	2.25	0.40
1:D:259:LEU:C	1:D:261:THR:N	2.74	0.40
1:B:259:LEU:C	1:B:261:THR:N	2.75	0.40
1:F:182:GLY:O	1:F:183:LEU:O	2.39	0.40
1:K:524:LEU:O	1:K:526:LYS:N	2.42	0.40
1:C:234:LEU:N	1:C:235:PRO:HD2	2.36	0.40
1:D:234:LEU:N	1:D:235:PRO:HD2	2.37	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:13:ARG:O	1:D:16:MET:N	2.54	0.40
1:N:272:LYS:N	1:N:272:LYS:HD2	2.36	0.40
1:E:421:ARG:O	1:E:422:VAL:C	2.58	0.40
1:J:13:ARG:HA	1:J:16:MET:HE2	2.03	0.40
1:L:324:VAL:HB	1:L:331:THR:HG23	2.04	0.40
1:J:203:TYR:C	1:J:205:ILE:N	2.75	0.40
1:B:213:VAL:HG12	1:B:214:GLU:N	2.36	0.40
1:H:412:VAL:HG12	1:H:497:THR:OG1	2.21	0.40
1:M:461:GLU:HA	1:M:462:PRO:HD3	1.93	0.40
1:E:420:ILE:HD11	1:E:451:LEU:CB	2.51	0.40
1:G:420:ILE:HD11	1:G:451:LEU:CB	2.52	0.40
1:A:242:LYS:O	1:A:243:ALA:HB3	2.22	0.40
1:G:236:VAL:O	1:G:240:VAL:HG23	2.22	0.40
1:F:96:ALA:O	1:F:97:GLN:C	2.59	0.40
1:L:406:ALA:O	1:L:410:GLY:N	2.54	0.40
1:C:151:SER:CB	1:C:399:ALA:HA	2.52	0.40
1:L:399:ALA:O	1:L:400:LEU:C	2.58	0.40
1:B:174:VAL:HB	1:B:376:VAL:HG13	2.03	0.40
1:G:430:ARG:HG2	1:G:430:ARG:HH11	1.86	0.40
1:L:158:VAL:O	1:L:159:GLY:C	2.59	0.40
1:N:155:ASP:OD1	1:N:157:THR:HB	2.21	0.40
1:E:111:MET:HG2	1:E:435:ASP:OD1	2.21	0.40
1:E:95:LEU:O	1:E:98:ALA:HB3	2.22	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:354:GLU:OE1	1:F:350:ARG:NH1[1_455]	2.10	0.10

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	523/547 (96%)	397 (76%)	87 (17%)	39 (8%)	2 24

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	523/547 (96%)	398 (76%)	91 (17%)	34 (6%)	2	29
1	C	523/547 (96%)	400 (76%)	87 (17%)	36 (7%)	2	27
1	D	523/547 (96%)	394 (75%)	88 (17%)	41 (8%)	1	22
1	E	523/547 (96%)	393 (75%)	94 (18%)	36 (7%)	2	27
1	F	523/547 (96%)	397 (76%)	91 (17%)	35 (7%)	2	28
1	G	523/547 (96%)	399 (76%)	88 (17%)	36 (7%)	2	27
1	H	523/547 (96%)	393 (75%)	90 (17%)	40 (8%)	2	23
1	I	523/547 (96%)	391 (75%)	95 (18%)	37 (7%)	2	26
1	J	523/547 (96%)	398 (76%)	88 (17%)	37 (7%)	2	26
1	K	523/547 (96%)	396 (76%)	89 (17%)	38 (7%)	2	25
1	L	523/547 (96%)	399 (76%)	84 (16%)	40 (8%)	2	23
1	M	523/547 (96%)	397 (76%)	87 (17%)	39 (8%)	2	24
1	N	523/547 (96%)	399 (76%)	88 (17%)	36 (7%)	2	27
All	All	7322/7658 (96%)	5551 (76%)	1247 (17%)	524 (7%)	2	25

All (524) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	137	PRO
1	A	202	PRO
1	A	256	GLY
1	A	334	ASP
1	A	384	ALA
1	B	137	PRO
1	B	202	PRO
1	B	256	GLY
1	B	334	ASP
1	B	384	ALA
1	C	137	PRO
1	C	202	PRO
1	C	256	GLY
1	C	334	ASP
1	C	384	ALA
1	D	137	PRO
1	D	202	PRO
1	D	256	GLY
1	D	334	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	384	ALA
1	E	137	PRO
1	E	202	PRO
1	E	256	GLY
1	E	334	ASP
1	E	384	ALA
1	F	137	PRO
1	F	202	PRO
1	F	256	GLY
1	F	334	ASP
1	F	384	ALA
1	G	137	PRO
1	G	202	PRO
1	G	256	GLY
1	G	334	ASP
1	G	384	ALA
1	H	137	PRO
1	H	202	PRO
1	H	256	GLY
1	H	334	ASP
1	H	384	ALA
1	I	137	PRO
1	I	202	PRO
1	I	256	GLY
1	I	334	ASP
1	I	384	ALA
1	J	202	PRO
1	J	256	GLY
1	J	334	ASP
1	J	384	ALA
1	K	137	PRO
1	K	202	PRO
1	K	256	GLY
1	K	334	ASP
1	K	384	ALA
1	L	202	PRO
1	L	256	GLY
1	L	334	ASP
1	L	384	ALA
1	M	137	PRO
1	M	202	PRO
1	M	256	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	M	334	ASP
1	M	384	ALA
1	N	137	PRO
1	N	202	PRO
1	N	256	GLY
1	N	384	ALA
1	A	25	ASP
1	A	141	SER
1	A	183	LEU
1	A	322	ARG
1	A	326	ASN
1	A	375	GLY
1	A	413	ALA
1	A	426	LEU
1	A	452	ARG
1	B	25	ASP
1	B	141	SER
1	B	183	LEU
1	B	225	LYS
1	B	322	ARG
1	B	375	GLY
1	B	413	ALA
1	B	426	LEU
1	B	452	ARG
1	C	25	ASP
1	C	141	SER
1	C	183	LEU
1	C	322	ARG
1	C	375	GLY
1	C	413	ALA
1	C	426	LEU
1	C	452	ARG
1	D	141	SER
1	D	183	LEU
1	D	322	ARG
1	D	326	ASN
1	D	375	GLY
1	D	413	ALA
1	D	426	LEU
1	D	452	ARG
1	E	25	ASP
1	E	141	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	183	LEU
1	E	322	ARG
1	E	326	ASN
1	E	375	GLY
1	E	413	ALA
1	E	426	LEU
1	E	452	ARG
1	F	25	ASP
1	F	141	SER
1	F	183	LEU
1	F	322	ARG
1	F	375	GLY
1	F	413	ALA
1	F	426	LEU
1	F	452	ARG
1	G	141	SER
1	G	183	LEU
1	G	322	ARG
1	G	326	ASN
1	G	375	GLY
1	G	413	ALA
1	G	426	LEU
1	G	452	ARG
1	H	141	SER
1	H	183	LEU
1	H	322	ARG
1	H	326	ASN
1	H	375	GLY
1	H	413	ALA
1	H	426	LEU
1	H	452	ARG
1	I	141	SER
1	I	183	LEU
1	I	322	ARG
1	I	326	ASN
1	I	375	GLY
1	I	413	ALA
1	I	426	LEU
1	I	452	ARG
1	J	25	ASP
1	J	137	PRO
1	J	141	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	J	183	LEU
1	J	322	ARG
1	J	375	GLY
1	J	413	ALA
1	J	426	LEU
1	J	452	ARG
1	K	25	ASP
1	K	28	LYS
1	K	141	SER
1	K	183	LEU
1	K	225	LYS
1	K	322	ARG
1	K	375	GLY
1	K	413	ALA
1	K	426	LEU
1	K	452	ARG
1	L	137	PRO
1	L	141	SER
1	L	183	LEU
1	L	225	LYS
1	L	322	ARG
1	L	326	ASN
1	L	375	GLY
1	L	413	ALA
1	L	426	LEU
1	L	452	ARG
1	M	25	ASP
1	M	141	SER
1	M	183	LEU
1	M	322	ARG
1	M	326	ASN
1	M	375	GLY
1	M	413	ALA
1	M	426	LEU
1	M	452	ARG
1	N	25	ASP
1	N	28	LYS
1	N	141	SER
1	N	183	LEU
1	N	322	ARG
1	N	334	ASP
1	N	375	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	N	413	ALA
1	N	426	LEU
1	N	452	ARG
1	A	225	LYS
1	A	339	GLU
1	A	364	LYS
1	A	471	GLY
1	B	28	LYS
1	B	326	ASN
1	B	339	GLU
1	B	471	GLY
1	C	28	LYS
1	C	225	LYS
1	C	326	ASN
1	C	339	GLU
1	C	364	LYS
1	D	25	ASP
1	D	225	LYS
1	D	339	GLU
1	D	364	LYS
1	E	65	LYS
1	E	225	LYS
1	E	339	GLU
1	E	364	LYS
1	E	401	HIS
1	E	471	GLY
1	F	28	LYS
1	F	53	GLY
1	F	65	LYS
1	F	225	LYS
1	F	257	GLU
1	F	326	ASN
1	F	339	GLU
1	F	364	LYS
1	G	28	LYS
1	G	225	LYS
1	G	339	GLU
1	G	364	LYS
1	G	525	PRO
1	H	25	ASP
1	H	28	LYS
1	H	53	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	H	65	LYS
1	H	225	LYS
1	H	339	GLU
1	H	364	LYS
1	H	471	GLY
1	I	25	ASP
1	I	225	LYS
1	I	339	GLU
1	I	364	LYS
1	I	401	HIS
1	I	471	GLY
1	J	28	LYS
1	J	225	LYS
1	J	326	ASN
1	J	339	GLU
1	J	364	LYS
1	J	401	HIS
1	K	326	ASN
1	K	339	GLU
1	K	364	LYS
1	K	423	ALA
1	L	339	GLU
1	L	364	LYS
1	M	28	LYS
1	M	225	LYS
1	M	471	GLY
1	N	225	LYS
1	N	326	ASN
1	N	339	GLU
1	N	364	LYS
1	A	28	LYS
1	A	61	GLU
1	A	257	GLU
1	A	271	VAL
1	A	401	HIS
1	A	525	PRO
1	B	257	GLU
1	B	271	VAL
1	B	364	LYS
1	B	401	HIS
1	B	525	PRO
1	C	65	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	257	GLU
1	C	401	HIS
1	C	435	ASP
1	C	525	PRO
1	D	28	LYS
1	D	61	GLU
1	D	65	LYS
1	D	257	GLU
1	D	382	GLY
1	D	401	HIS
1	D	435	ASP
1	D	525	PRO
1	E	28	LYS
1	E	257	GLU
1	E	525	PRO
1	F	85	ALA
1	F	271	VAL
1	F	331	THR
1	F	401	HIS
1	F	525	PRO
1	G	25	ASP
1	G	65	LYS
1	G	257	GLU
1	G	382	GLY
1	G	401	HIS
1	H	61	GLU
1	H	64	ASP
1	H	85	ALA
1	H	257	GLU
1	H	271	VAL
1	H	401	HIS
1	H	435	ASP
1	H	465	VAL
1	H	525	PRO
1	I	28	LYS
1	I	61	GLU
1	I	65	LYS
1	I	85	ALA
1	I	257	GLU
1	I	271	VAL
1	I	525	PRO
1	J	61	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	J	257	GLU
1	J	471	GLY
1	J	525	PRO
1	K	85	ALA
1	K	257	GLU
1	K	401	HIS
1	K	525	PRO
1	L	25	ASP
1	L	28	LYS
1	L	30	THR
1	L	61	GLU
1	L	257	GLU
1	L	271	VAL
1	L	382	GLY
1	L	435	ASP
1	L	525	PRO
1	M	61	GLU
1	M	257	GLU
1	M	271	VAL
1	M	331	THR
1	M	339	GLU
1	M	364	LYS
1	M	401	HIS
1	M	525	PRO
1	N	85	ALA
1	N	257	GLU
1	N	382	GLY
1	N	401	HIS
1	N	525	PRO
1	A	65	LYS
1	A	85	ALA
1	A	184	GLN
1	A	331	THR
1	A	382	GLY
1	A	418	ALA
1	A	435	ASP
1	B	53	GLY
1	B	58	ARG
1	B	85	ALA
1	B	184	GLN
1	B	331	THR
1	B	382	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	383	ALA
1	B	418	ALA
1	B	465	VAL
1	C	64	ASP
1	C	85	ALA
1	C	184	GLN
1	C	271	VAL
1	C	331	THR
1	C	382	GLY
1	C	383	ALA
1	C	471	GLY
1	D	58	ARG
1	D	85	ALA
1	D	271	VAL
1	D	383	ALA
1	E	53	GLY
1	E	61	GLU
1	E	85	ALA
1	E	184	GLN
1	E	271	VAL
1	E	331	THR
1	E	382	GLY
1	E	383	ALA
1	F	61	GLU
1	F	382	GLY
1	F	383	ALA
1	F	471	GLY
1	G	53	GLY
1	G	64	ASP
1	G	85	ALA
1	G	184	GLN
1	G	271	VAL
1	G	331	THR
1	G	383	ALA
1	G	435	ASP
1	G	465	VAL
1	G	471	GLY
1	H	33	PRO
1	H	58	ARG
1	H	184	GLN
1	H	331	THR
1	H	382	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	I	331	THR
1	I	382	GLY
1	I	435	ASP
1	I	465	VAL
1	J	58	ARG
1	J	65	LYS
1	J	85	ALA
1	J	184	GLN
1	J	271	VAL
1	J	331	THR
1	J	382	GLY
1	J	465	VAL
1	K	61	GLU
1	K	271	VAL
1	K	331	THR
1	K	382	GLY
1	K	383	ALA
1	K	435	ASP
1	L	58	ARG
1	L	85	ALA
1	L	171	LYS
1	L	401	HIS
1	L	423	ALA
1	L	471	GLY
1	M	58	ARG
1	M	65	LYS
1	M	85	ALA
1	M	418	ALA
1	M	465	VAL
1	N	65	LYS
1	N	184	GLN
1	N	271	VAL
1	N	331	THR
1	N	435	ASP
1	N	465	VAL
1	N	471	GLY
1	A	30	THR
1	A	33	PRO
1	A	58	ARG
1	A	171	LYS
1	A	383	ALA
1	C	53	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	465	VAL
1	D	30	THR
1	D	64	ASP
1	D	171	LYS
1	D	184	GLN
1	D	331	THR
1	D	385	THR
1	D	423	ALA
1	D	471	GLY
1	E	33	PRO
1	F	33	PRO
1	F	86	GLY
1	F	184	GLN
1	F	465	VAL
1	G	33	PRO
1	H	383	ALA
1	H	418	ALA
1	I	33	PRO
1	I	86	GLY
1	I	171	LYS
1	I	184	GLN
1	I	383	ALA
1	J	33	PRO
1	J	53	GLY
1	J	383	ALA
1	J	418	ALA
1	K	33	PRO
1	K	65	LYS
1	K	184	GLN
1	K	418	ALA
1	K	422	VAL
1	K	471	GLY
1	L	33	PRO
1	L	53	GLY
1	L	65	LYS
1	L	184	GLN
1	L	331	THR
1	L	383	ALA
1	L	465	VAL
1	M	33	PRO
1	M	53	GLY
1	M	171	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	M	184	GLN
1	M	382	GLY
1	M	383	ALA
1	M	435	ASP
1	N	33	PRO
1	N	383	ALA
1	A	465	VAL
1	C	33	PRO
1	E	86	GLY
1	H	86	GLY
1	J	86	GLY
1	J	510	VAL
1	K	86	GLY
1	K	465	VAL
1	L	86	GLY
1	N	53	GLY
1	N	86	GLY
1	A	86	GLY
1	B	33	PRO
1	B	86	GLY
1	C	86	GLY
1	D	33	PRO
1	D	86	GLY
1	E	465	VAL
1	G	86	GLY
1	K	53	GLY
1	M	86	GLY
1	F	510	VAL
1	G	422	VAL
1	H	510	VAL
1	I	53	GLY
1	I	422	VAL
1	L	422	VAL
1	N	510	VAL
1	A	53	GLY
1	D	422	VAL
1	E	510	VAL
1	N	422	VAL
1	C	422	VAL
1	D	465	VAL
1	E	422	VAL
1	H	422	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	M	422	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	403/412 (98%)	382 (95%)	21 (5%)	32	79
1	B	403/412 (98%)	382 (95%)	21 (5%)	32	79
1	C	403/412 (98%)	383 (95%)	20 (5%)	34	80
1	D	403/412 (98%)	383 (95%)	20 (5%)	34	80
1	E	403/412 (98%)	380 (94%)	23 (6%)	29	76
1	F	403/412 (98%)	381 (94%)	22 (6%)	30	77
1	G	403/412 (98%)	384 (95%)	19 (5%)	36	82
1	H	403/412 (98%)	385 (96%)	18 (4%)	38	83
1	I	403/412 (98%)	380 (94%)	23 (6%)	29	76
1	J	403/412 (98%)	383 (95%)	20 (5%)	34	80
1	K	403/412 (98%)	382 (95%)	21 (5%)	32	79
1	L	403/412 (98%)	381 (94%)	22 (6%)	30	77
1	M	403/412 (98%)	380 (94%)	23 (6%)	29	76
1	N	403/412 (98%)	381 (94%)	22 (6%)	30	77
All	All	5642/5768 (98%)	5347 (95%)	295 (5%)	32	79

All (295) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	11	ASP
1	A	62	LEU
1	A	74	VAL
1	A	76	GLU
1	A	134	LEU
1	A	167	ASP
1	A	171	LYS
1	A	174	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	183	LEU
1	A	188	ASP
1	A	199	TYR
1	A	310	GLU
1	A	401	HIS
1	A	404	ARG
1	A	411	VAL
1	A	412	VAL
1	A	436	GLN
1	A	445	ARG
1	A	454	ILE
1	A	463	SER
1	A	523	ASP
1	B	11	ASP
1	B	62	LEU
1	B	74	VAL
1	B	76	GLU
1	B	134	LEU
1	B	171	LYS
1	B	174	VAL
1	B	183	LEU
1	B	188	ASP
1	B	199	TYR
1	B	310	GLU
1	B	401	HIS
1	B	404	ARG
1	B	411	VAL
1	B	412	VAL
1	B	436	GLN
1	B	445	ARG
1	B	454	ILE
1	B	463	SER
1	B	495	ASP
1	B	523	ASP
1	C	11	ASP
1	C	33	PRO
1	C	62	LEU
1	C	74	VAL
1	C	76	GLU
1	C	134	LEU
1	C	137	PRO
1	C	171	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	174	VAL
1	C	199	TYR
1	C	310	GLU
1	C	401	HIS
1	C	404	ARG
1	C	411	VAL
1	C	412	VAL
1	C	436	GLN
1	C	445	ARG
1	C	454	ILE
1	C	463	SER
1	C	523	ASP
1	D	11	ASP
1	D	62	LEU
1	D	74	VAL
1	D	134	LEU
1	D	167	ASP
1	D	171	LYS
1	D	174	VAL
1	D	183	LEU
1	D	199	TYR
1	D	310	GLU
1	D	401	HIS
1	D	404	ARG
1	D	411	VAL
1	D	412	VAL
1	D	436	GLN
1	D	445	ARG
1	D	454	ILE
1	D	463	SER
1	D	495	ASP
1	D	523	ASP
1	E	11	ASP
1	E	33	PRO
1	E	62	LEU
1	E	74	VAL
1	E	76	GLU
1	E	134	LEU
1	E	167	ASP
1	E	171	LYS
1	E	174	VAL
1	E	183	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	188	ASP
1	E	199	TYR
1	E	310	GLU
1	E	331	THR
1	E	401	HIS
1	E	404	ARG
1	E	411	VAL
1	E	412	VAL
1	E	436	GLN
1	E	445	ARG
1	E	454	ILE
1	E	463	SER
1	E	523	ASP
1	F	11	ASP
1	F	33	PRO
1	F	62	LEU
1	F	74	VAL
1	F	76	GLU
1	F	134	LEU
1	F	167	ASP
1	F	171	LYS
1	F	174	VAL
1	F	183	LEU
1	F	188	ASP
1	F	199	TYR
1	F	310	GLU
1	F	401	HIS
1	F	404	ARG
1	F	411	VAL
1	F	412	VAL
1	F	436	GLN
1	F	445	ARG
1	F	454	ILE
1	F	463	SER
1	F	523	ASP
1	G	11	ASP
1	G	62	LEU
1	G	74	VAL
1	G	76	GLU
1	G	134	LEU
1	G	171	LYS
1	G	174	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	G	188	ASP
1	G	199	TYR
1	G	310	GLU
1	G	401	HIS
1	G	404	ARG
1	G	411	VAL
1	G	412	VAL
1	G	436	GLN
1	G	445	ARG
1	G	454	ILE
1	G	463	SER
1	G	495	ASP
1	H	11	ASP
1	H	62	LEU
1	H	74	VAL
1	H	76	GLU
1	H	134	LEU
1	H	171	LYS
1	H	174	VAL
1	H	199	TYR
1	H	310	GLU
1	H	401	HIS
1	H	404	ARG
1	H	411	VAL
1	H	412	VAL
1	H	436	GLN
1	H	445	ARG
1	H	454	ILE
1	H	463	SER
1	H	523	ASP
1	I	11	ASP
1	I	62	LEU
1	I	74	VAL
1	I	76	GLU
1	I	134	LEU
1	I	137	PRO
1	I	167	ASP
1	I	171	LYS
1	I	174	VAL
1	I	199	TYR
1	I	310	GLU
1	I	325	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	I	331	THR
1	I	401	HIS
1	I	404	ARG
1	I	411	VAL
1	I	412	VAL
1	I	436	GLN
1	I	445	ARG
1	I	454	ILE
1	I	463	SER
1	I	495	ASP
1	I	523	ASP
1	J	11	ASP
1	J	62	LEU
1	J	74	VAL
1	J	134	LEU
1	J	171	LYS
1	J	174	VAL
1	J	183	LEU
1	J	188	ASP
1	J	199	TYR
1	J	310	GLU
1	J	401	HIS
1	J	404	ARG
1	J	411	VAL
1	J	412	VAL
1	J	436	GLN
1	J	445	ARG
1	J	454	ILE
1	J	463	SER
1	J	495	ASP
1	J	523	ASP
1	K	11	ASP
1	K	33	PRO
1	K	62	LEU
1	K	74	VAL
1	K	76	GLU
1	K	134	LEU
1	K	171	LYS
1	K	174	VAL
1	K	183	LEU
1	K	199	TYR
1	K	310	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	K	331	THR
1	K	401	HIS
1	K	404	ARG
1	K	411	VAL
1	K	412	VAL
1	K	436	GLN
1	K	445	ARG
1	K	454	ILE
1	K	463	SER
1	K	523	ASP
1	L	11	ASP
1	L	62	LEU
1	L	74	VAL
1	L	76	GLU
1	L	91	THR
1	L	134	LEU
1	L	167	ASP
1	L	171	LYS
1	L	174	VAL
1	L	183	LEU
1	L	199	TYR
1	L	310	GLU
1	L	401	HIS
1	L	404	ARG
1	L	411	VAL
1	L	412	VAL
1	L	436	GLN
1	L	445	ARG
1	L	454	ILE
1	L	463	SER
1	L	495	ASP
1	L	523	ASP
1	M	11	ASP
1	M	33	PRO
1	M	62	LEU
1	M	74	VAL
1	M	76	GLU
1	M	134	LEU
1	M	167	ASP
1	M	171	LYS
1	M	174	VAL
1	M	199	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	M	310	GLU
1	M	325	ILE
1	M	401	HIS
1	M	404	ARG
1	M	411	VAL
1	M	412	VAL
1	M	436	GLN
1	M	445	ARG
1	M	454	ILE
1	M	463	SER
1	M	478	TYR
1	M	495	ASP
1	M	523	ASP
1	N	11	ASP
1	N	33	PRO
1	N	62	LEU
1	N	74	VAL
1	N	76	GLU
1	N	91	THR
1	N	134	LEU
1	N	137	PRO
1	N	167	ASP
1	N	171	LYS
1	N	174	VAL
1	N	188	ASP
1	N	199	TYR
1	N	310	GLU
1	N	401	HIS
1	N	404	ARG
1	N	411	VAL
1	N	412	VAL
1	N	436	GLN
1	N	445	ARG
1	N	454	ILE
1	N	463	SER

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (132) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	10	ASN
1	A	97	GLN
1	A	146	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	194	GLN
1	A	265	ASN
1	A	326	ASN
1	A	351	GLN
1	A	366	GLN
1	A	453	GLN
1	B	10	ASN
1	B	97	GLN
1	B	146	GLN
1	B	194	GLN
1	B	229	ASN
1	B	265	ASN
1	B	326	ASN
1	B	351	GLN
1	B	366	GLN
1	B	453	GLN
1	C	10	ASN
1	C	97	GLN
1	C	146	GLN
1	C	194	GLN
1	C	265	ASN
1	C	326	ASN
1	C	351	GLN
1	C	366	GLN
1	C	453	GLN
1	D	10	ASN
1	D	97	GLN
1	D	146	GLN
1	D	194	GLN
1	D	265	ASN
1	D	326	ASN
1	D	351	GLN
1	D	366	GLN
1	D	453	GLN
1	D	475	ASN
1	E	10	ASN
1	E	97	GLN
1	E	146	GLN
1	E	194	GLN
1	E	265	ASN
1	E	326	ASN
1	E	351	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	366	GLN
1	E	453	GLN
1	E	475	ASN
1	F	10	ASN
1	F	97	GLN
1	F	146	GLN
1	F	194	GLN
1	F	265	ASN
1	F	326	ASN
1	F	351	GLN
1	F	366	GLN
1	F	453	GLN
1	G	10	ASN
1	G	97	GLN
1	G	146	GLN
1	G	194	GLN
1	G	265	ASN
1	G	326	ASN
1	G	351	GLN
1	G	366	GLN
1	G	453	GLN
1	H	10	ASN
1	H	97	GLN
1	H	146	GLN
1	H	194	GLN
1	H	265	ASN
1	H	326	ASN
1	H	351	GLN
1	H	366	GLN
1	H	453	GLN
1	H	475	ASN
1	I	10	ASN
1	I	97	GLN
1	I	146	GLN
1	I	194	GLN
1	I	229	ASN
1	I	265	ASN
1	I	326	ASN
1	I	351	GLN
1	I	366	GLN
1	I	453	GLN
1	I	475	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	J	10	ASN
1	J	97	GLN
1	J	146	GLN
1	J	194	GLN
1	J	265	ASN
1	J	326	ASN
1	J	351	GLN
1	J	366	GLN
1	J	453	GLN
1	K	10	ASN
1	K	97	GLN
1	K	146	GLN
1	K	194	GLN
1	K	265	ASN
1	K	326	ASN
1	K	351	GLN
1	K	366	GLN
1	K	453	GLN
1	L	10	ASN
1	L	97	GLN
1	L	146	GLN
1	L	194	GLN
1	L	265	ASN
1	L	326	ASN
1	L	351	GLN
1	L	366	GLN
1	L	453	GLN
1	M	10	ASN
1	M	97	GLN
1	M	146	GLN
1	M	194	GLN
1	M	265	ASN
1	M	326	ASN
1	M	351	GLN
1	M	366	GLN
1	M	453	GLN
1	N	10	ASN
1	N	97	GLN
1	N	146	GLN
1	N	194	GLN
1	N	265	ASN
1	N	326	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	N	351	GLN
1	N	366	GLN
1	N	453	GLN

5.3.3 RNA ⓘ

There are no RNA chains in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

EDS was not executed - this section will therefore be empty.

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

EDS was not executed - this section will therefore be empty.

6.3 Carbohydrates ⓘ

EDS was not executed - this section will therefore be empty.

6.4 Ligands ⓘ

EDS was not executed - this section will therefore be empty.

6.5 Other polymers ⓘ

EDS was not executed - this section will therefore be empty.