Full wwPDB X-ray Structure Validation Report ⓘ

Jun 24, 2024 – 10:32 PM EDT

PDB ID	:	4V8G
Title	:	Crystal structure of RMF bound to the 70S ribosome.
Authors	:	Polikanov, Y.S.; Blaha, G.M.; Steitz, T.A.
Deposited on	:	2011-12-11
Resolution	:	3.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

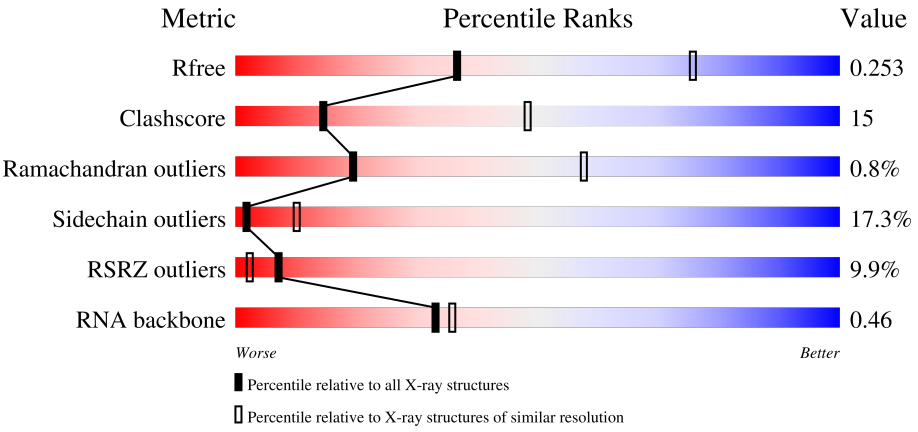
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.37.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.00 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))
R_{free}	130704	2092 (3.00-3.00)
Clashscore	141614	2416 (3.00-3.00)
Ramachandran outliers	138981	2333 (3.00-3.00)
Sidechain outliers	138945	2336 (3.00-3.00)
RSRZ outliers	127900	1990 (3.00-3.00)
RNA backbone	3102	1173 (3.30-2.70)

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 of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1522	20% 28% 42% 22% 7%
1	CA	1522	14% 30% 44% 20%
2	AB	256	7% 39% 41% 9% 11%
2	CB	256	10% 39% 40% 11% 11%

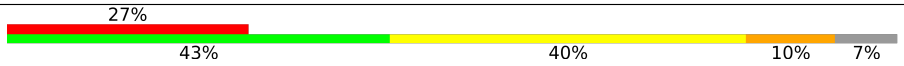
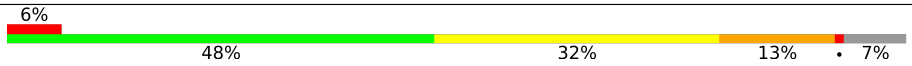
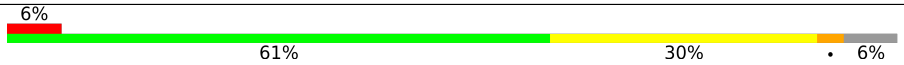
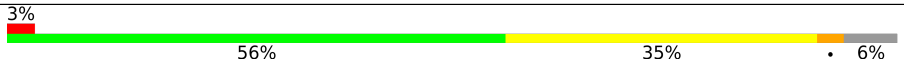
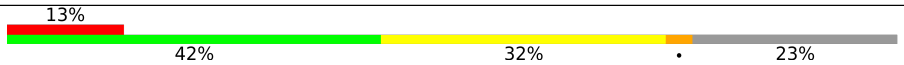
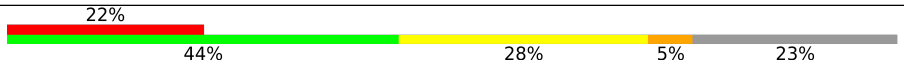
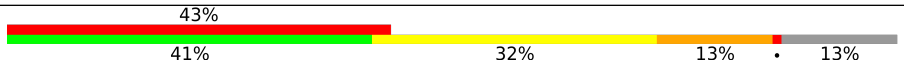
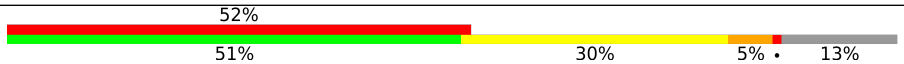
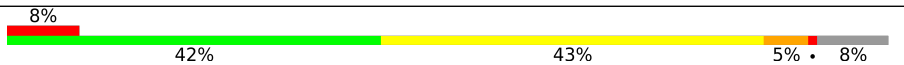
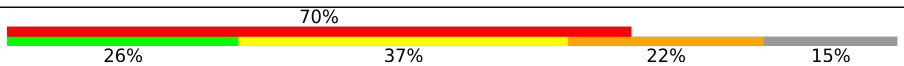
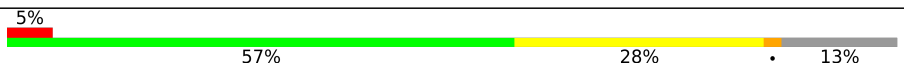
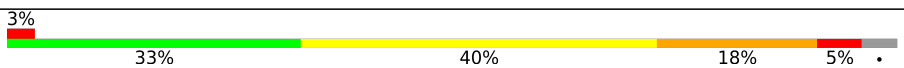
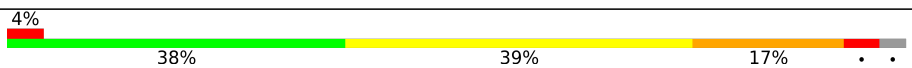
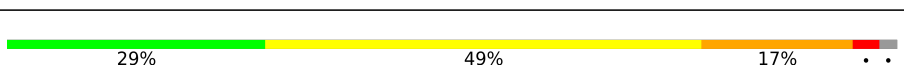
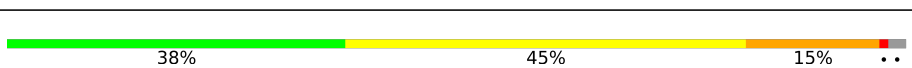
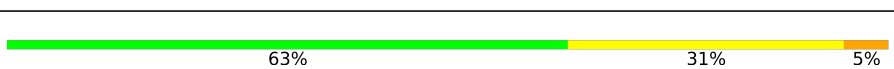
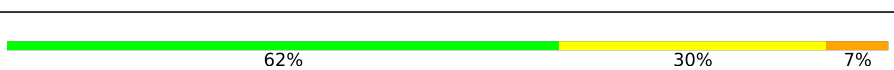
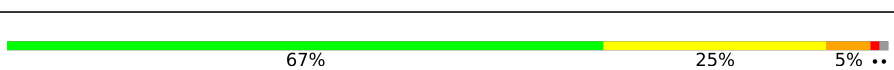
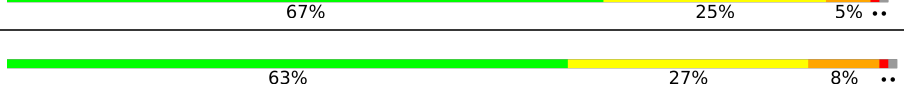
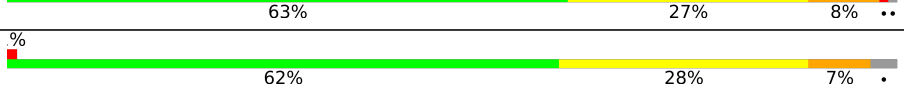
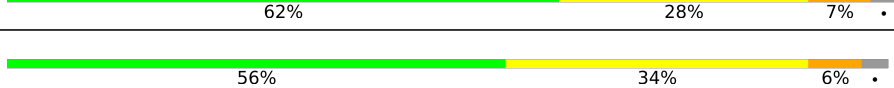
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	AC	239	35% 43% 33% 10% 14%
3	CC	239	27% 39% 36% 10% 14%
4	AD	209	11% 53% 36% 11%
4	CD	209	7% 53% 37% 9%
5	AE	162	11% 41% 45% 6% 9%
5	CE	162	7% 40% 45% 7% 9%
6	AF	101	7% 59% 35% 5%
6	CF	101	5% 65% 30%
7	AG	156	69% 34% 50% 15%
7	CG	156	44% 51% 40% 8%
8	AH	138	4% 50% 45% 5%
8	CH	138	5% 54% 41% 5%
9	AI	128	70% 45% 44% 9%
9	CI	128	48% 44% 45% 9%
10	AJ	105	55% 44% 38% 9% 9%
10	CJ	105	52% 59% 23% 10% 9%
11	AK	129	53% 34% 12%
11	CK	129	7% 53% 33% 12%
12	AL	132	5% 50% 37% 5% 8%
12	CL	132	5% 52% 35% 5% 8%
13	AM	126	71% 40% 39% 10% 10%
13	CM	126	33% 48% 36% 7% 10%
14	AN	61	61% 28% 56% 15%
14	CN	61	34% 34% 54% 8%
15	AO	89	3% 54% 42%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	61	
22	CV	61	
23	BA	2915	
23	DA	2915	
24	BB	122	
24	DB	122	
25	BD	276	
25	DD	276	
26	BE	206	
26	DE	206	
27	BF	210	
27	DF	210	

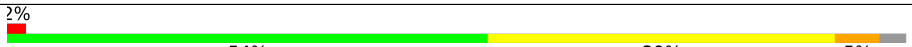
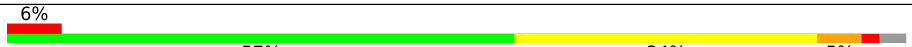
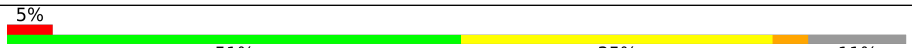
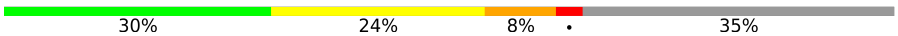
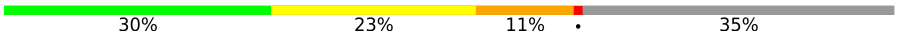
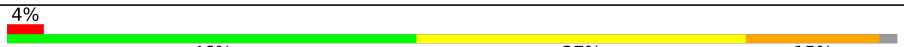
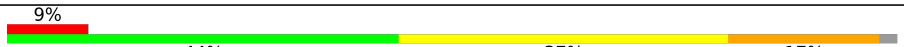
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
28	BG	182	10% 53% 40% 7%
28	DG	182	23% 53% 39% 8%
29	BH	180	% 66% 27%
29	DH	180	12% 66% 28%
30	BI	148	% 47% 41% 11%
30	DI	148	9% 57% 28% 13%
31	BN	140	58% 34% 8%
31	DN	140	% 56% 35% 8%
32	BO	122	69% 28%
32	DO	122	63% 34%
33	BP	150	64% 28% 7%
33	DP	150	2% 64% 30% 5%
34	BQ	141	% 69% 26% 5%
34	DQ	141	58% 35% 6%
35	BR	118	71% 22% 7%
35	DR	118	63% 33%
36	BS	112	54% 35% 10%
36	DS	112	4% 50% 41% 7%
37	BT	146	51% 31% 8% 10%
37	DT	146	% 51% 30% 8% 10%
38	BU	118	% 70% 25%
38	DU	118	2% 66% 29%
39	BV	101	61% 32% 6%
39	DV	101	57% 35% 8%
40	BW	113	73% 23%

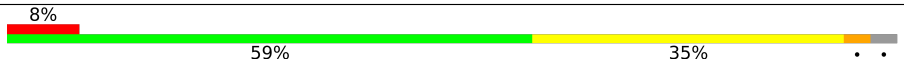
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	DW	113	
41	BX	96	
41	DX	96	
42	BY	110	
42	DY	110	
43	BZ	206	
43	DZ	206	
44	B0	85	
44	D0	85	
45	B1	98	
45	D1	98	
46	B2	72	
46	D2	72	
47	B3	60	
47	D3	60	
48	B4	71	
48	D4	71	
49	B5	60	
49	D5	60	
50	B6	54	
50	D6	54	
51	B7	49	
51	D7	49	
52	B8	65	
52	D8	65	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	B9	37	
53	D9	37	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	AA	1616	-	-	-	X
54	MG	AA	1620	-	-	-	X
54	MG	AA	1622	-	-	-	X
54	MG	AA	1627	-	-	-	X
54	MG	AA	1630	-	-	-	X
54	MG	AA	1643	-	-	-	X
54	MG	AA	1652	-	-	-	X
54	MG	AA	1656	-	-	-	X
54	MG	AA	1661	-	-	-	X
54	MG	AA	1663	-	-	-	X
54	MG	AA	1665	-	-	-	X
54	MG	AA	1675	-	-	-	X
54	MG	AA	1678	-	-	-	X
54	MG	BA	3118	-	-	-	X
54	MG	BA	3145	-	-	-	X
54	MG	BA	3169	-	-	-	X
54	MG	BA	3201	-	-	-	X
54	MG	BA	3205	-	-	-	X
54	MG	BA	3267	-	-	-	X
54	MG	BA	3280	-	-	-	X
54	MG	BB	207	-	-	-	X
54	MG	CA	1606	-	-	-	X
54	MG	CA	1608	-	-	-	X
54	MG	CA	1609	-	-	-	X
54	MG	CA	1612	-	-	-	X
54	MG	CA	1619	-	-	-	X
54	MG	CA	1624	-	-	-	X
54	MG	CA	1631	-	-	-	X
54	MG	CA	1636	-	-	-	X
54	MG	DA	3037	-	-	-	X
54	MG	DA	3047	-	-	-	X
54	MG	DA	3048	-	-	-	X
54	MG	DA	3075	-	-	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3102	-	-	-	X
54	MG	DA	3143	-	-	-	X
54	MG	DA	3327	-	-	-	X
54	MG	DB	202	-	-	-	X
54	MG	DP	201	-	-	-	X

2 Entry composition (i)

There are 56 unique types of molecules in this entry. The entry contains 283930 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1505	Total	C	N	O	P	0	0	0
			32353	14399	5995	10454	1505			
1	CA	1501	Total	C	N	O	P	0	0	0
			32270	14362	5983	10424	1501			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	229	Total	C	N	O	S	0	0	0
			1775	1132	318	320	5			
2	CB	229	Total	C	N	O	S	0	0	0
			1775	1132	318	320	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1450	906	279	264	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1450	906	279	264	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1526	963	283	274	6			
4	CD	208	Total	C	N	O	S	0	0	0
			1526	963	283	274	6			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1105	699	204	198	4			
5	CE	148	Total	C	N	O	S	0	0	0
			1105	699	204	198	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			777	493	137	144	3			
6	CF	100	Total	C	N	O	S	0	0	0
			777	493	137	144	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1164	726	224	208	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1164	726	224	208	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1045	665	188	190	2			
8	CH	138	Total	C	N	O	S	0	0	0
			1045	665	188	190	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	125	Total	C	N	O	0	0	0
			852	533	163	156			
9	CI	125	Total	C	N	O	0	0	0
			852	533	163	156			

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	AJ	96	Total	C	N	O	0	0	0
			663	410	132	121			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total 663	C 410	N 132	O 121	0	0	0

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	114	Total 828	C 516	N 155	O 154	S 3	0	0	0
11	CK	114	Total 828	C 516	N 155	O 154	S 3	0	0	0

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	122	Total 905	C 567	N 178	O 159	S 1	0	0	0
12	CL	122	Total 905	C 567	N 178	O 159	S 1	0	0	0

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total 804	C 497	N 164	O 142	S 1	0	0	0
13	CM	114	Total 804	C 497	N 164	O 142	S 1	0	0	0

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total 478	C 303	N 99	O 72	S 4	0	0	0
14	CN	60	Total 478	C 303	N 99	O 72	S 4	0	0	0

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total 724	C 453	N 143	O 126	S 2	0	0	0
15	CO	88	Total 724	C 453	N 143	O 126	S 2	0	0	0

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			651	416	123	111	1			
16	CP	82	Total	C	N	O	S	0	0	0
			651	416	123	111	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			514	329	98	87			
18	CR	68	Total	C	N	O	0	0	0
			514	329	98	87			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			
19	CS	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	97	Total	C	N	O	S	0	0	0
			713	438	152	121	2			
20	CT	97	Total	C	N	O	S	0	0	0
			713	438	152	121	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	23	Total 199	C 122	N 48	O 29	0	0	0
21	CU	23	Total 199	C 122	N 48	O 29	0	0	0

- Molecule 22 is a protein called Ribosome modulation factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	53	Total 333	C 204	N 66	O 61	S 2	0	0	0
22	CV	53	Total 353	C 218	N 67	O 66	S 2	0	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AV	56	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	57	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	58	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	59	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	60	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	61	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	56	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	57	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	58	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	59	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	60	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	61	HIS	-	EXPRESSION TAG	UNP P0AFW2

- Molecule 23 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BA	2809	Total 60512	C 26930	N 11328	O 19446	P 2808	0	0	0
23	DA	2814	Total 60620	C 26978	N 11348	O 19481	P 2813	0	0	0

- Molecule 24 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BB	120	Total 2573	C 1146	N 476	O 832	P 119	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	DB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 25 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
25	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 26 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			
26	DE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			

- Molecule 27 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BF	203	Total	C	N	O	S	0	0	1
			1580	1007	298	273	2			
27	DF	203	Total	C	N	O	S	0	0	1
			1580	1007	298	273	2			

- Molecule 28 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			
28	DG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			

- Molecule 29 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			
29	DH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			

- Molecule 30 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BI	146	Total	C	N	O	S	0	0	0
			1040	669	180	190	1			
30	DI	146	Total	C	N	O	S	0	0	0
			1038	668	180	189	1			

- Molecule 31 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			
31	DN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			

- Molecule 32 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			
32	DO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			

- Molecule 33 is a protein called 50S Ribosomal Protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			
33	DP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			

- Molecule 34 is a protein called 50S Ribosomal Protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
34	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 35 is a protein called 50S Ribosomal Protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
35	DR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 36 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BS	110	Total	C	N	O	0	0	0
			865	544	172	149			
36	DS	110	Total	C	N	O	0	0	0
			865	544	172	149			

- Molecule 37 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BT	131	Total	C	N	O	S	0	0	0
			1063	666	213	183	1			
37	DT	131	Total	C	N	O	S	0	0	0
			1063	666	213	183	1			

- Molecule 38 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
38	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 39 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BV	100	Total	C	N	O	S	0	0	0
			760	490	136	133	1			
39	DV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BW	112	Total	C	N	O	S	0	0	0
			881	554	172	153	2			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DW	112	Total	C	N	O	S	0	0	0
			881	554	172	153	2			

- Molecule 41 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BX	95	Total	C	N	O	S	0	0	0
			742	483	134	124	1			
41	DX	95	Total	C	N	O	S	0	0	0
			742	483	134	124	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BY	107	Total	C	N	O	S	0	0	0
			785	503	145	131	6			
42	DY	107	Total	C	N	O	S	0	0	0
			785	503	145	131	6			

- Molecule 43 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BZ	198	Total	C	N	O	S	0	0	0
			1522	972	269	279	2			
43	DZ	198	Total	C	N	O	S	0	0	0
			1522	972	269	279	2			

- Molecule 44 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	B0	76	Total	C	N	O	S	0	0	0
			594	368	125	100	1			
44	D0	76	Total	C	N	O	S	0	0	0
			594	368	125	100	1			

- Molecule 45 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			
45	D1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			

- Molecule 46 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
46	D2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 47 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
47	B3	59	Total	C	N	O	0	0	0
			458	293	87	78			
47	D3	59	Total	C	N	O	0	0	0
			458	293	87	78			

- Molecule 48 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			
48	D4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			

- Molecule 49 is a protein called 50S Ribosomal Protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B5	59	Total	C	N	O	S	0	0	0
			455	286	90	74	5			
49	D5	59	Total	C	N	O	S	0	0	0
			455	286	90	74	5			

- Molecule 50 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B6	53	Total	C	N	O	S	0	0	0
			449	278	90	77	4			
50	D6	53	Total	C	N	O	S	0	0	0
			449	278	90	77	4			

- Molecule 51 is a protein called 50S Ribosomal Protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
51	D7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 52 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			
52	D8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			

- Molecule 53 is a protein called 50S Ribosomal Protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B9	36	Total	C	N	O	S	0	0	0
			297	182	66	46	3			
53	D9	36	Total	C	N	O	S	0	0	0
			297	182	66	46	3			

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	AA	106	Total	Mg	0	0
			106	106		
54	AD	1	Total	Mg	0	0
			1	1		
54	BA	618	Total	Mg	0	0
			618	618		
54	BB	17	Total	Mg	0	0
			17	17		
54	BD	3	Total	Mg	0	0
			3	3		
54	BE	6	Total	Mg	0	0
			6	6		
54	BF	2	Total	Mg	0	0
			2	2		
54	BP	1	Total	Mg	0	0
			1	1		
54	BQ	3	Total	Mg	0	0
			3	3		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	BR	2	Total Mg 2 2	0	0
54	BU	2	Total Mg 2 2	0	0
54	BV	1	Total Mg 1 1	0	0
54	BW	1	Total Mg 1 1	0	0
54	B0	2	Total Mg 2 2	0	0
54	B1	1	Total Mg 1 1	0	0
54	B2	2	Total Mg 2 2	0	0
54	B3	2	Total Mg 2 2	0	0
54	B5	2	Total Mg 2 2	0	0
54	B8	3	Total Mg 3 3	0	0
54	B9	1	Total Mg 1 1	0	0
54	CA	69	Total Mg 69 69	0	0
54	DA	430	Total Mg 430 430	0	0
54	DB	5	Total Mg 5 5	0	0
54	DD	1	Total Mg 1 1	0	0
54	DE	1	Total Mg 1 1	0	0
54	DF	2	Total Mg 2 2	0	0
54	DP	1	Total Mg 1 1	0	0
54	D6	1	Total Mg 1 1	0	0
54	D7	1	Total Mg 1 1	0	0
54	D8	1	Total Mg 1 1	0	0

- Molecule 55 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AD	1	Total Zn 1 1	0	0
55	AN	1	Total Zn 1 1	0	0
55	BY	1	Total Zn 1 1	0	0
55	B4	1	Total Zn 1 1	0	0
55	B5	1	Total Zn 1 1	0	0
55	B6	1	Total Zn 1 1	0	0
55	B9	1	Total Zn 1 1	0	0
55	CD	1	Total Zn 1 1	0	0
55	CN	1	Total Zn 1 1	0	0
55	DY	1	Total Zn 1 1	0	0
55	D4	1	Total Zn 1 1	0	0
55	D5	1	Total Zn 1 1	0	0
55	D6	1	Total Zn 1 1	0	0
55	D9	1	Total Zn 1 1	0	0

- Molecule 56 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	145	Total O 145 145	0	0
56	AF	1	Total O 1 1	0	0
56	AK	1	Total O 1 1	0	0
56	AQ	1	Total O 1 1	0	0
56	BA	1422	Total O 1422 1422	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BB	31	Total O 31 31	0	0
56	BD	10	Total O 10 10	0	0
56	BE	8	Total O 8 8	0	0
56	BF	11	Total O 11 11	0	0
56	BH	2	Total O 2 2	0	0
56	BN	2	Total O 2 2	0	0
56	BO	3	Total O 3 3	0	0
56	BP	6	Total O 6 6	0	0
56	BQ	2	Total O 2 2	0	0
56	BR	6	Total O 6 6	0	0
56	BT	1	Total O 1 1	0	0
56	BU	2	Total O 2 2	0	0
56	BV	2	Total O 2 2	0	0
56	BW	4	Total O 4 4	0	0
56	BX	2	Total O 2 2	0	0
56	BY	1	Total O 1 1	0	0
56	B0	4	Total O 4 4	0	0
56	B3	1	Total O 1 1	0	0
56	B4	1	Total O 1 1	0	0
56	B5	3	Total O 3 3	0	0
56	B7	3	Total O 3 3	0	0

Continued on next page...

Continued from previous page...

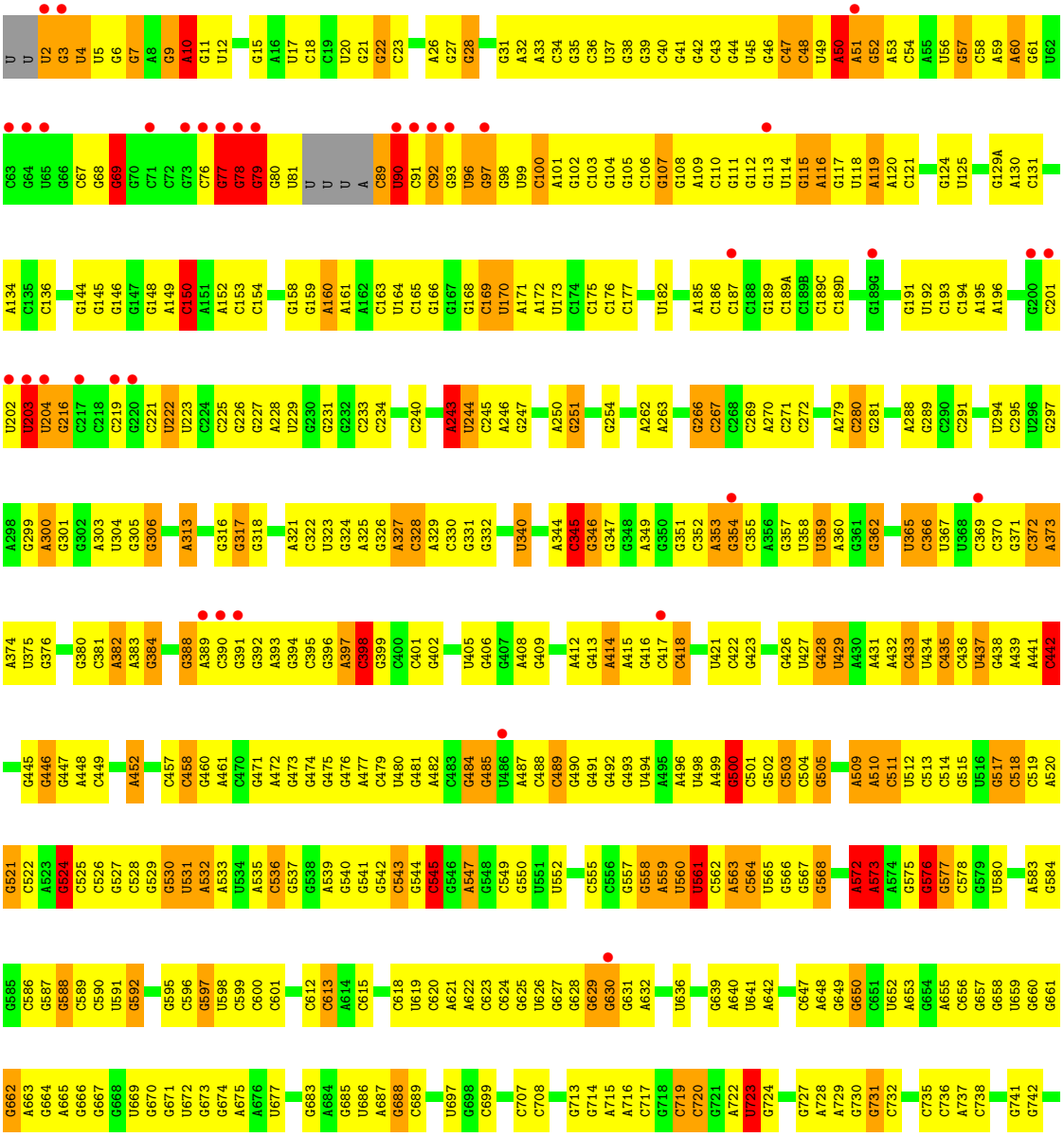
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	B8	7	Total O 7 7	0	0
56	B9	2	Total O 2 2	0	0
56	CA	119	Total O 119 119	0	0
56	CD	1	Total O 1 1	0	0
56	CK	2	Total O 2 2	0	0
56	CP	1	Total O 1 1	0	0
56	CT	2	Total O 2 2	0	0
56	DA	696	Total O 696 696	0	0
56	DB	9	Total O 9 9	0	0
56	DD	3	Total O 3 3	0	0
56	DE	2	Total O 2 2	0	0
56	DF	5	Total O 5 5	0	0
56	DP	5	Total O 5 5	0	0
56	DQ	2	Total O 2 2	0	0
56	DR	1	Total O 1 1	0	0
56	DV	1	Total O 1 1	0	0
56	DX	1	Total O 1 1	0	0
56	DY	1	Total O 1 1	0	0
56	D0	1	Total O 1 1	0	0
56	D1	2	Total O 2 2	0	0

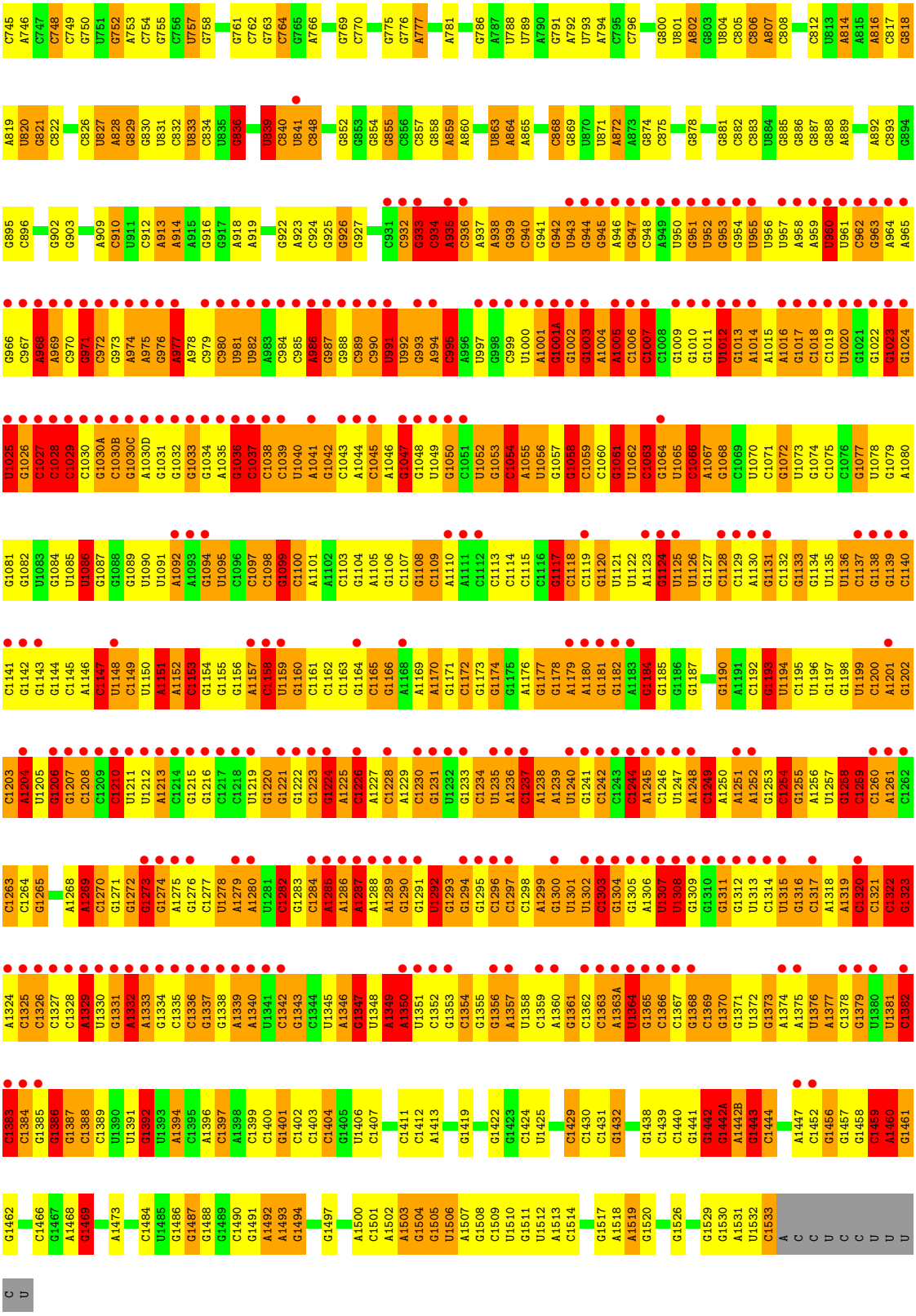
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes 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.

- Molecule 1: 16S Ribosomal RNA

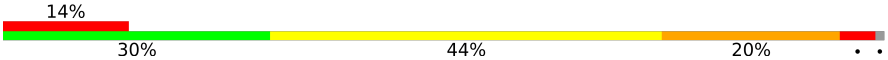
Chain AA:

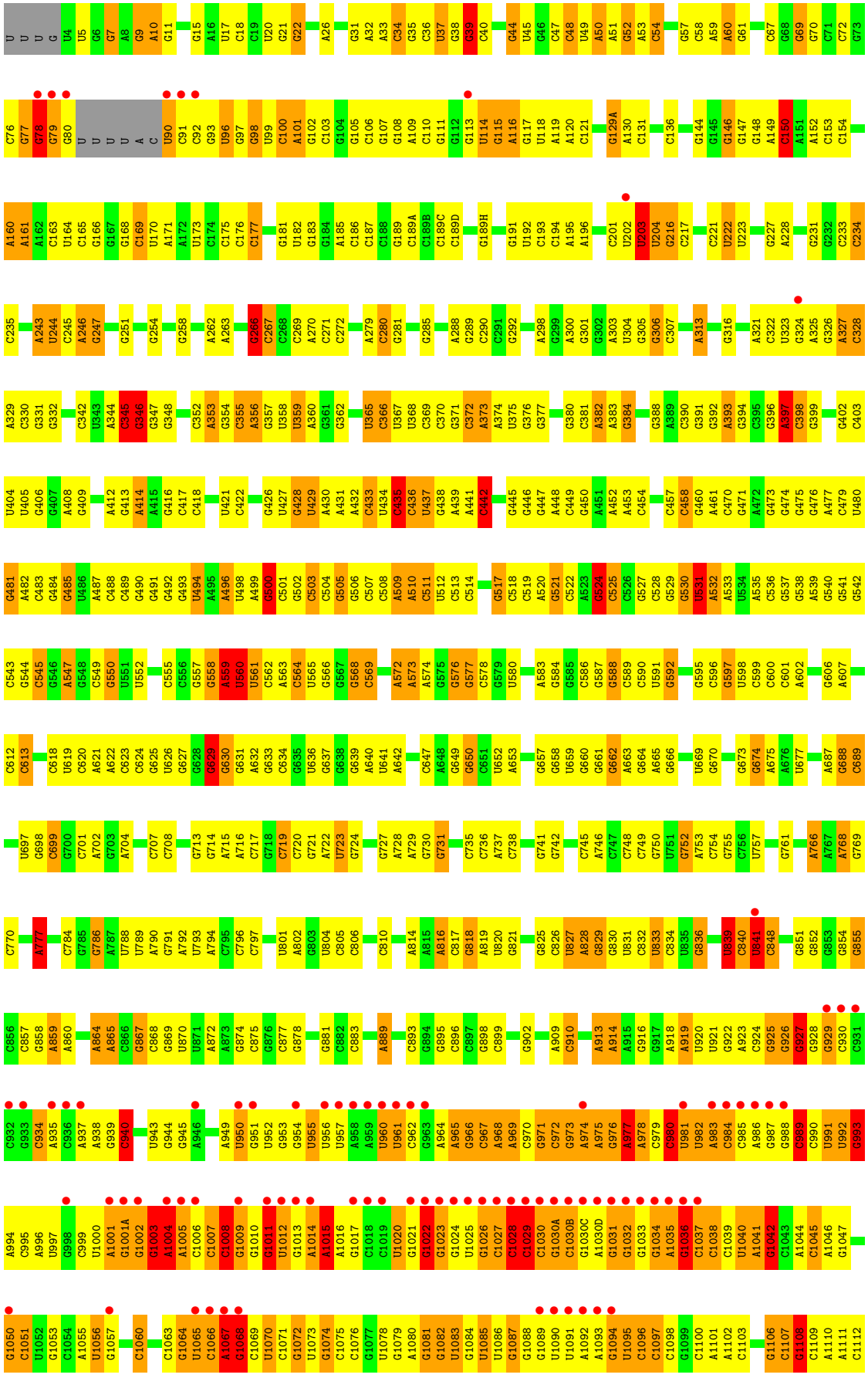


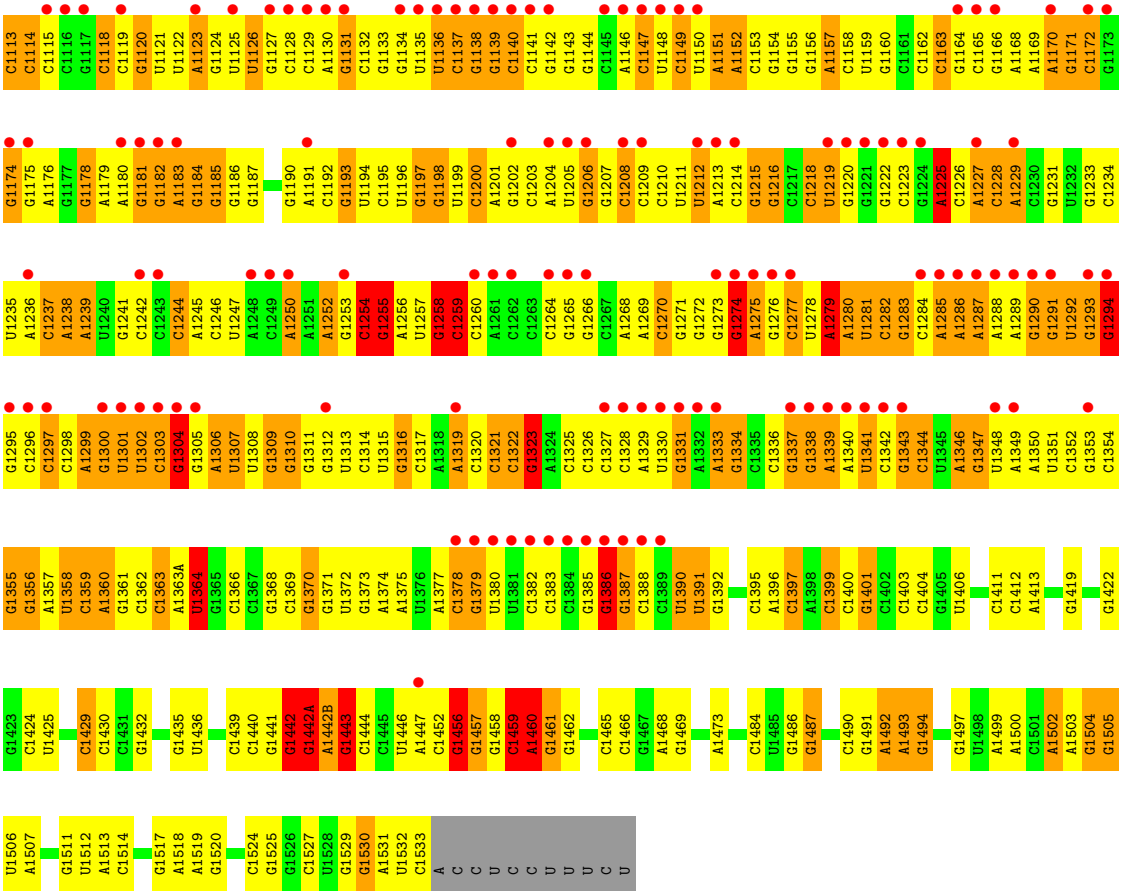


• Molecule 1: 16S Ribosomal RNA

Chain CA:

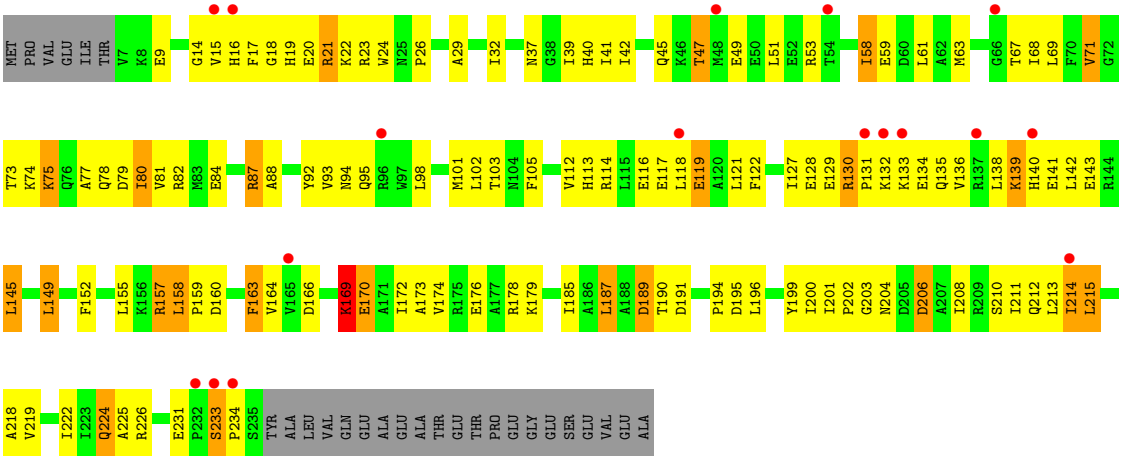






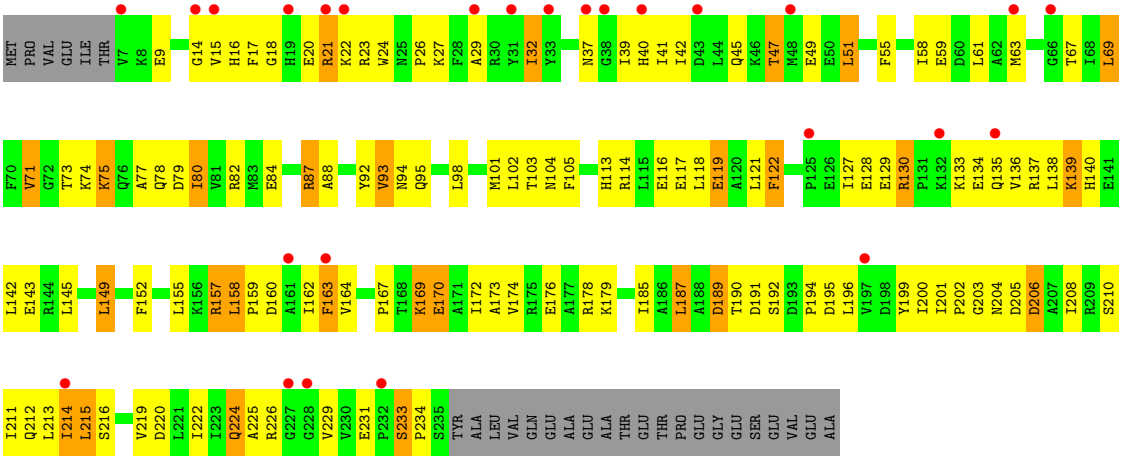
• Molecule 2: 30S Ribosomal Protein S2

Chain AB:

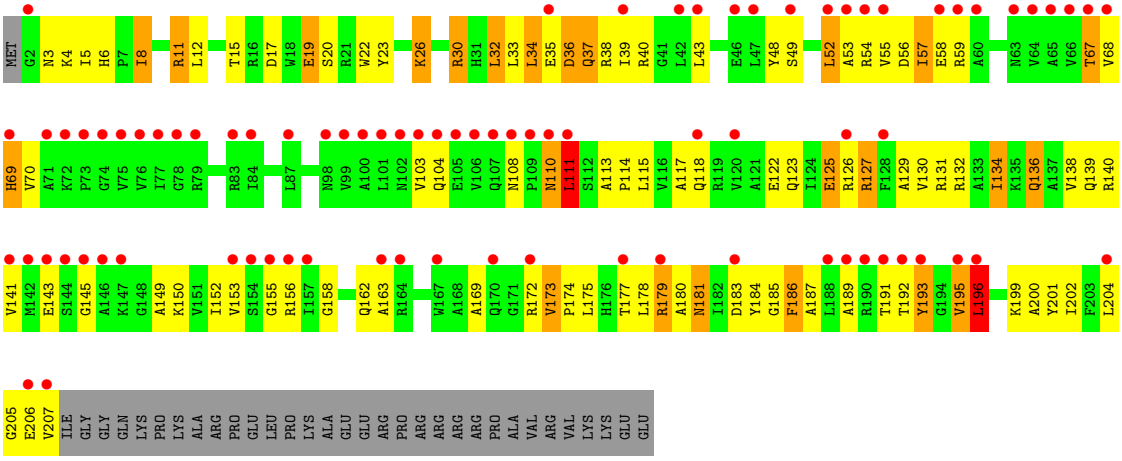


• Molecule 2: 30S Ribosomal Protein S2

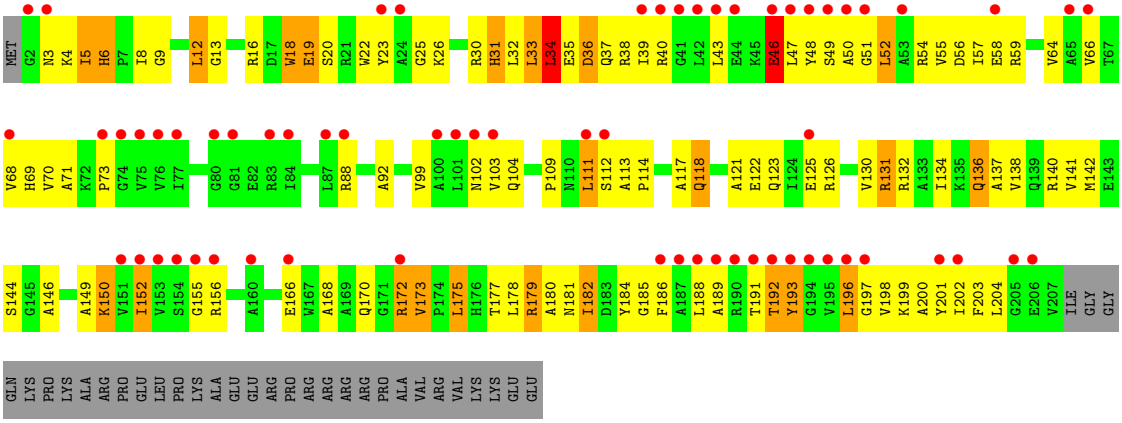
Chain CB:



• Molecule 3: 30S Ribosomal Protein S3

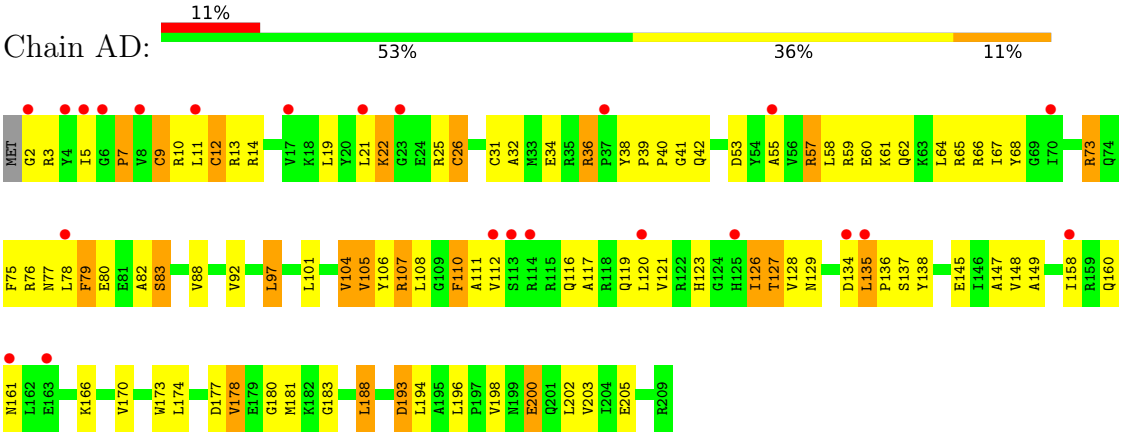


• Molecule 3: 30S Ribosomal Protein S3



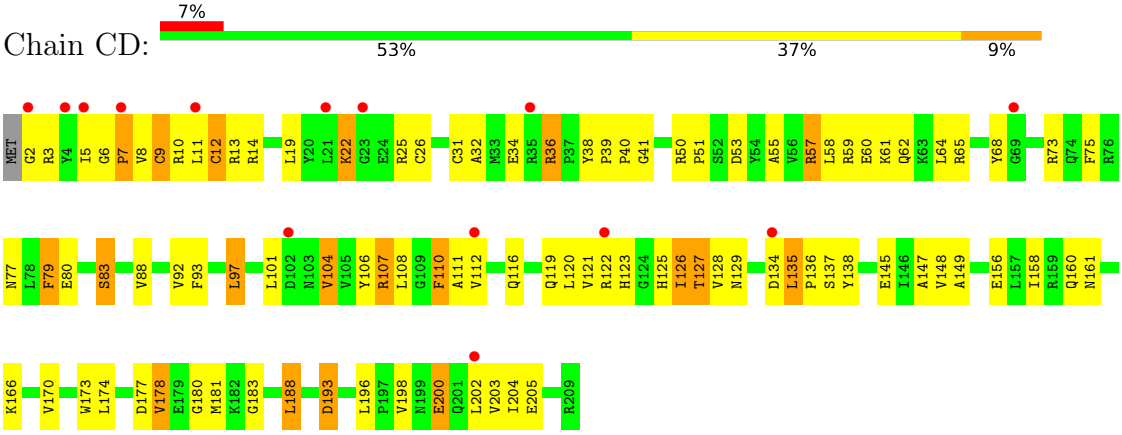
• Molecule 4: 30S Ribosomal Protein S4

Chain AD:



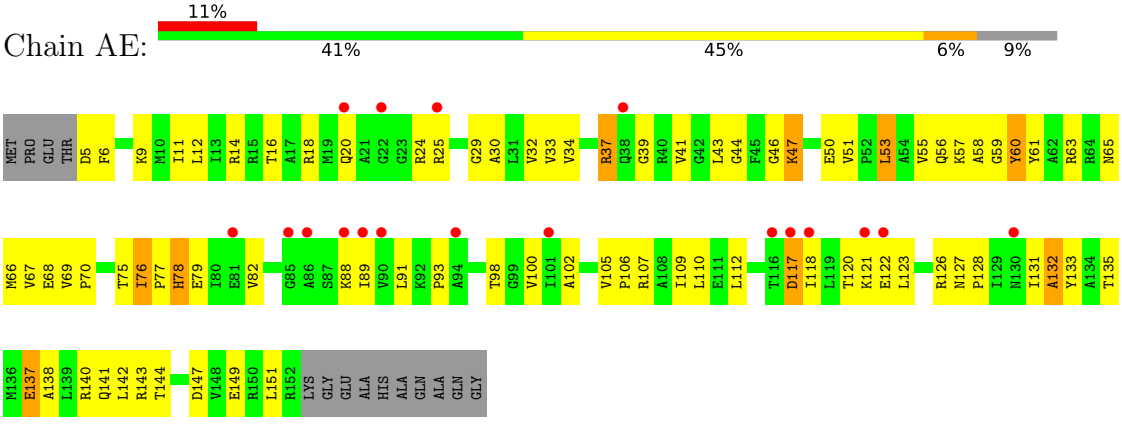
• Molecule 4: 30S Ribosomal Protein S4

Chain CD:



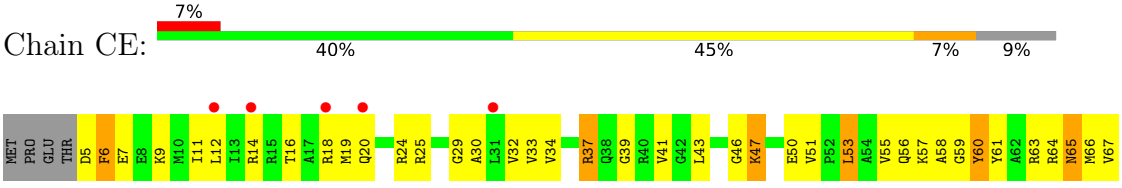
• Molecule 5: 30S Ribosomal Protein S5

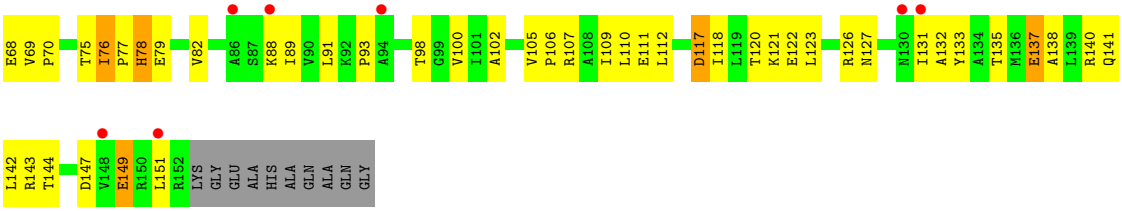
Chain AE:



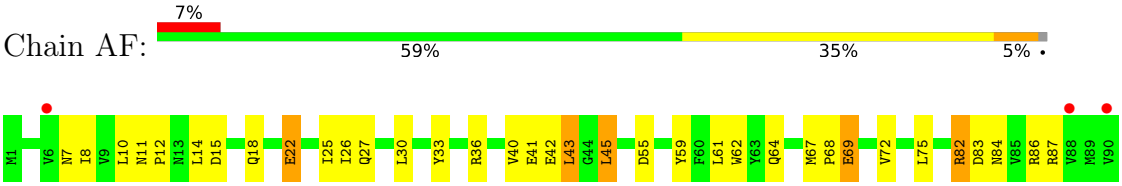
• Molecule 5: 30S Ribosomal Protein S5

Chain CE:

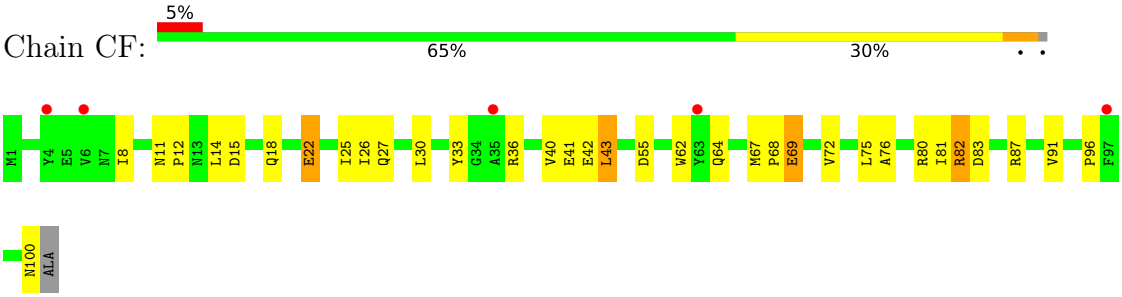




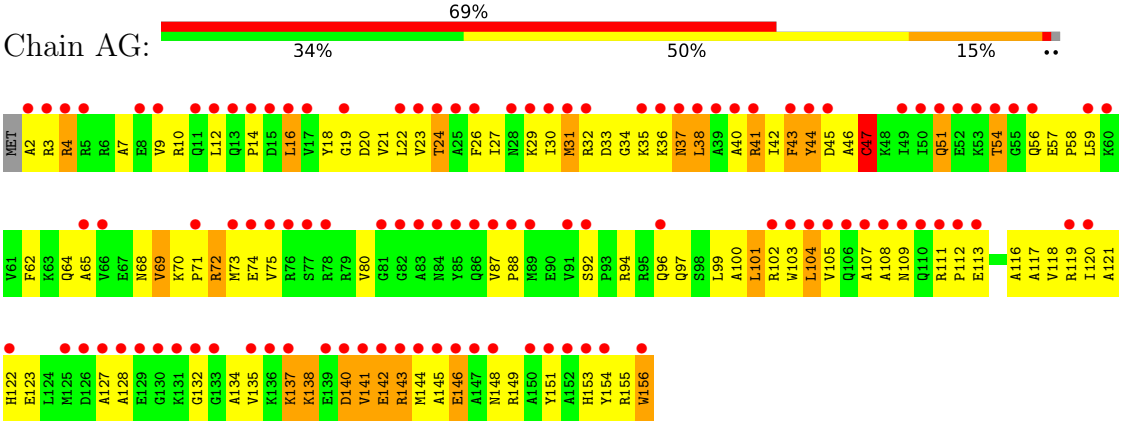
• Molecule 6: 30S Ribosomal Protein S6



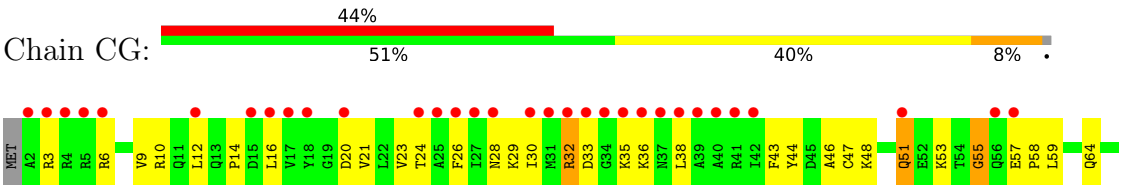
• Molecule 6: 30S Ribosomal Protein S6

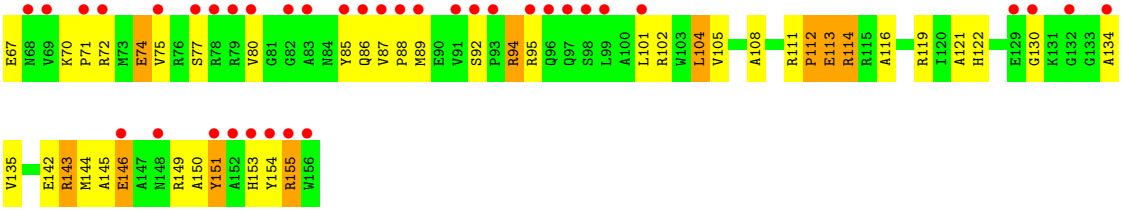


• Molecule 7: 30S Ribosomal Protein S7

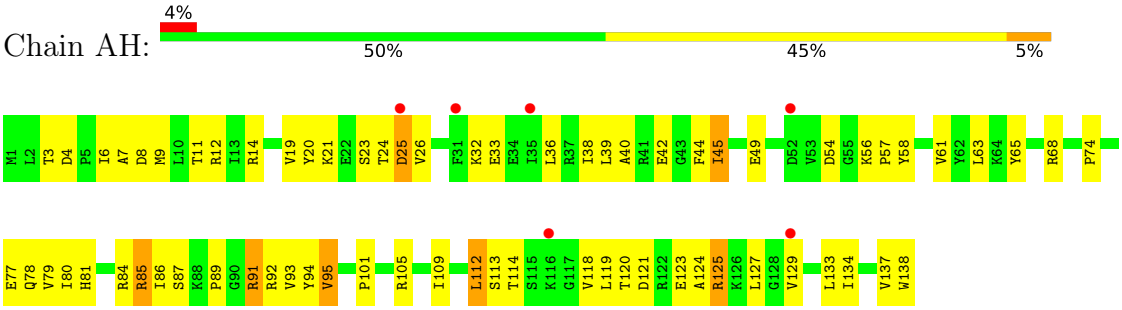


• Molecule 7: 30S Ribosomal Protein S7

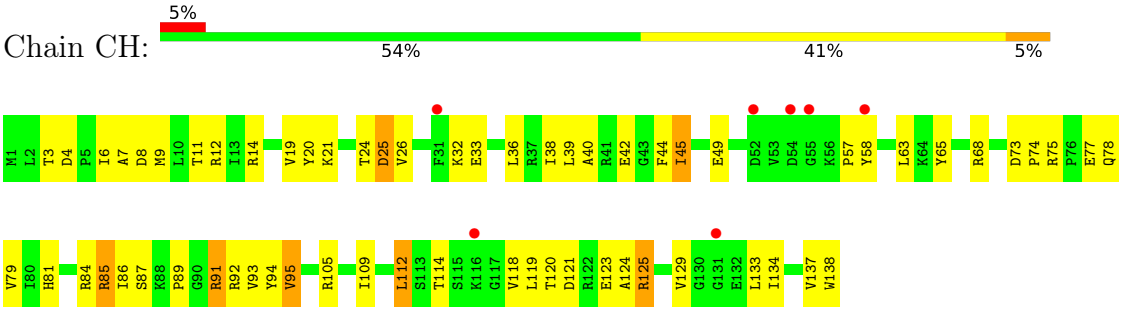




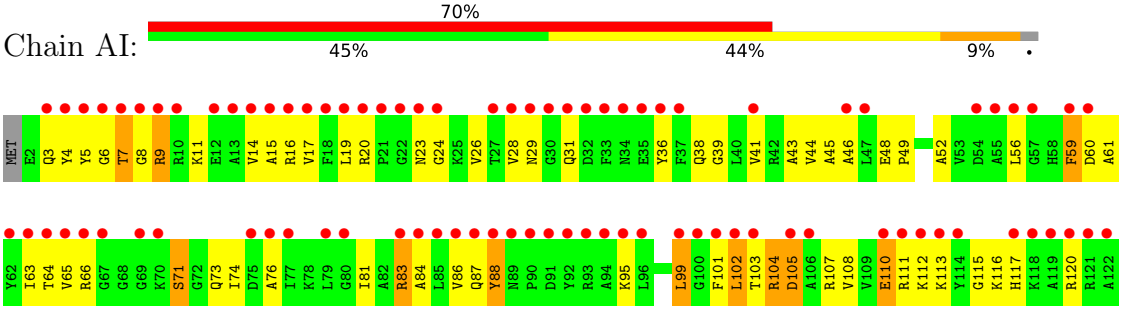
• Molecule 8: 30S Ribosomal Protein S8



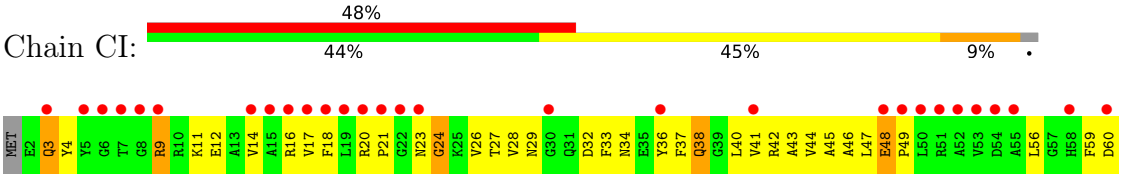
• Molecule 8: 30S Ribosomal Protein S8

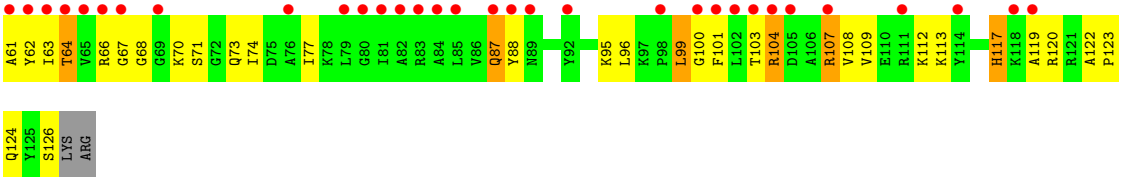


• Molecule 9: 30S Ribosomal Protein S9



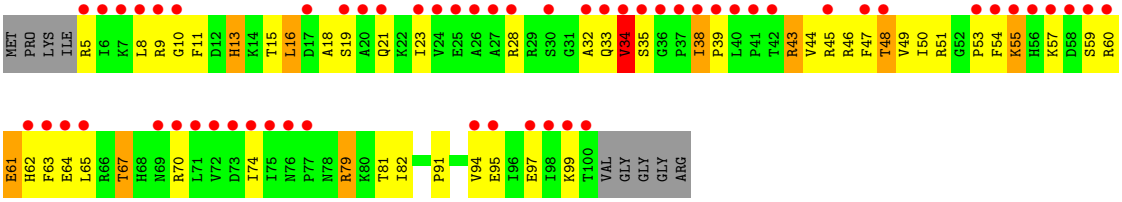
• Molecule 9: 30S Ribosomal Protein S9





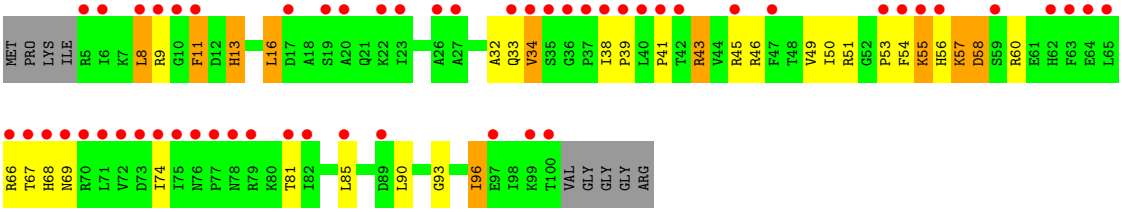
• Molecule 10: 30S Ribosomal Protein S10

Chain AJ:



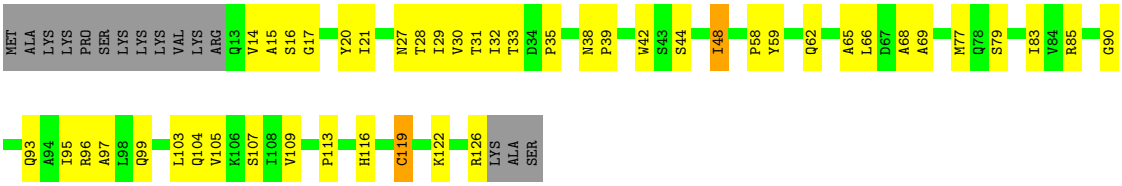
• Molecule 10: 30S Ribosomal Protein S10

Chain CJ:



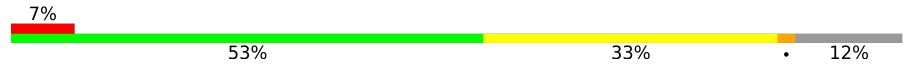
• Molecule 11: 30S Ribosomal Protein S11

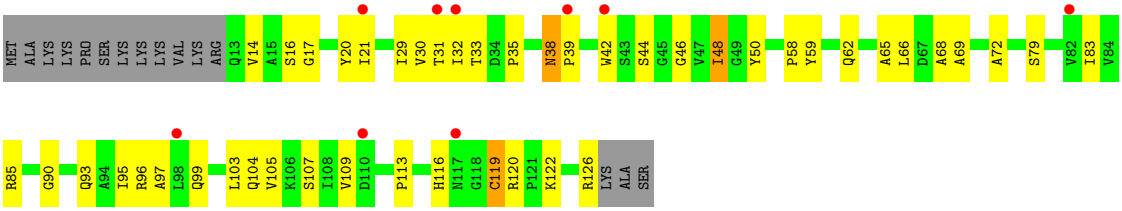
Chain AK:



• Molecule 11: 30S Ribosomal Protein S11

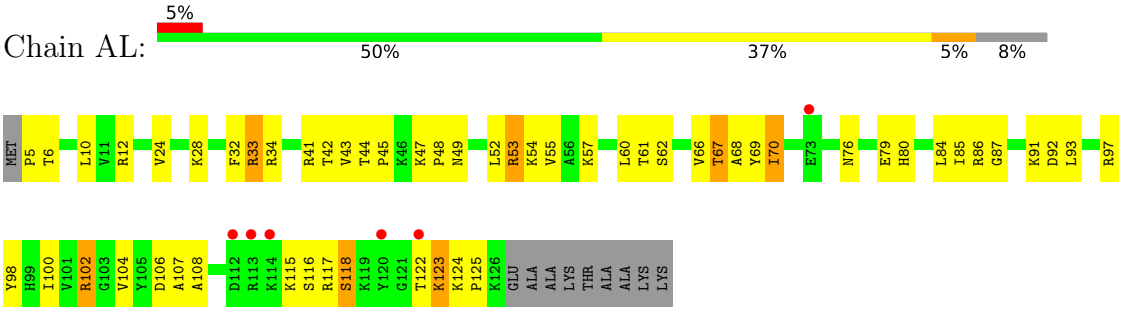
Chain CK:





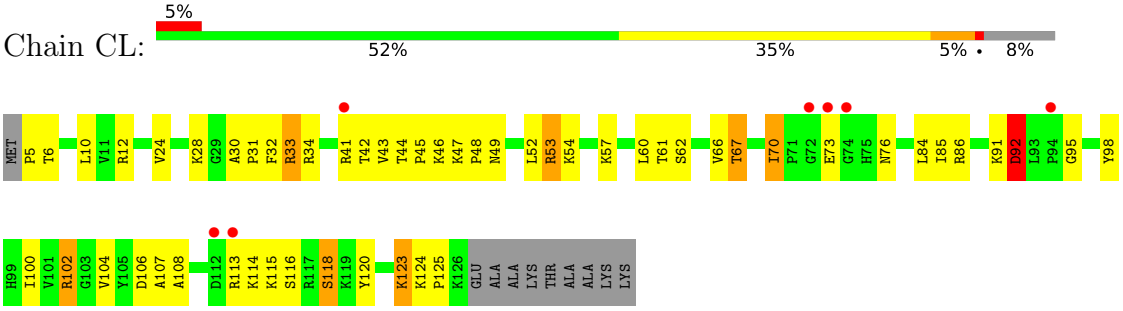
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



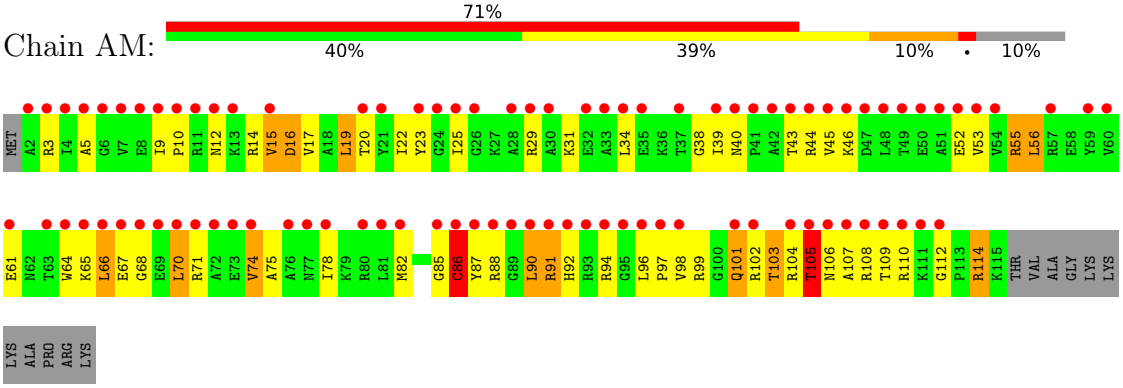
• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



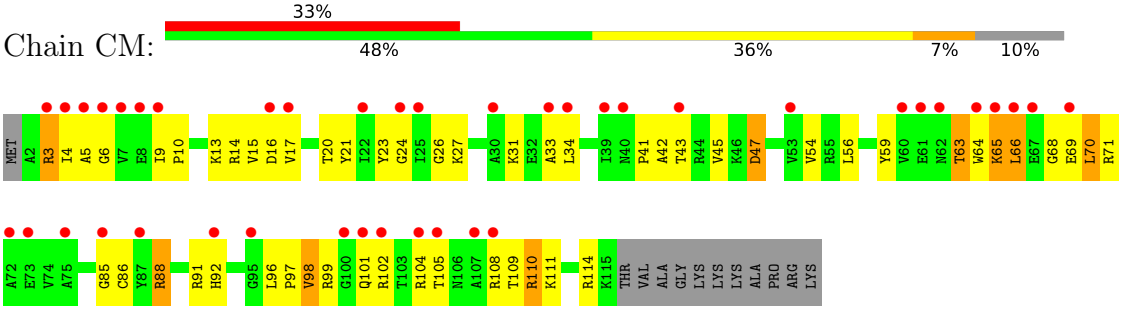
• Molecule 13: 30S Ribosomal Protein S13

Chain AM:



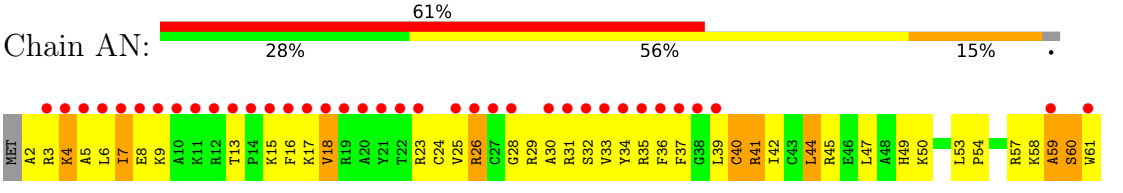
• Molecule 13: 30S Ribosomal Protein S13

Chain CM:



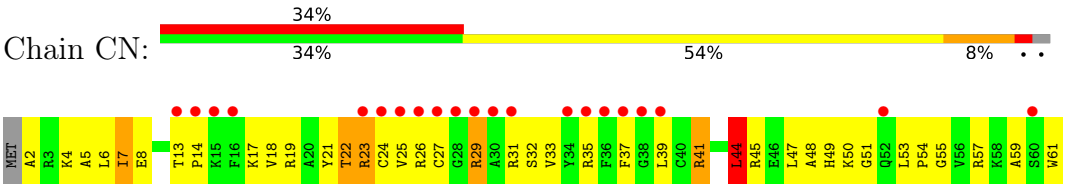
• Molecule 14: 30S Ribosomal Protein S14

Chain AN:



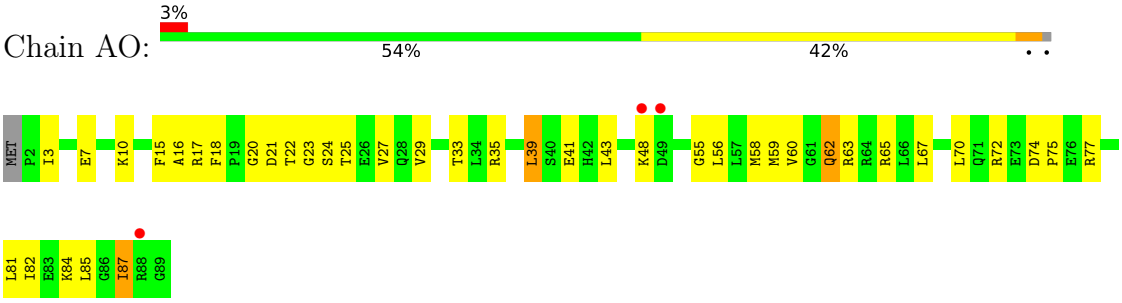
• Molecule 14: 30S Ribosomal Protein S14

Chain CN:



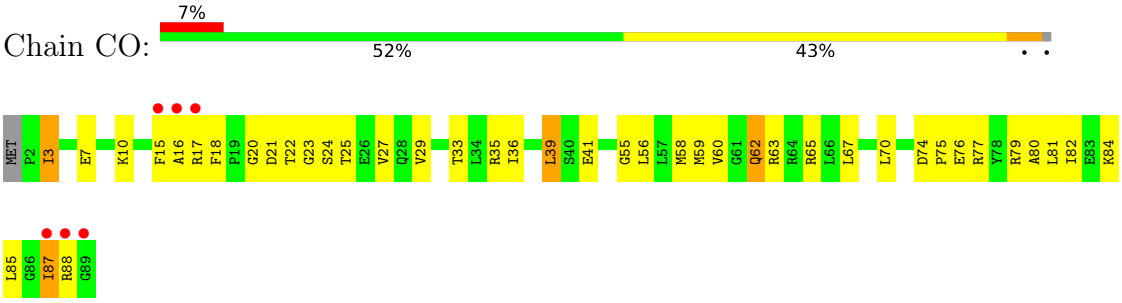
• Molecule 15: 30S Ribosomal Protein S15

Chain AO:



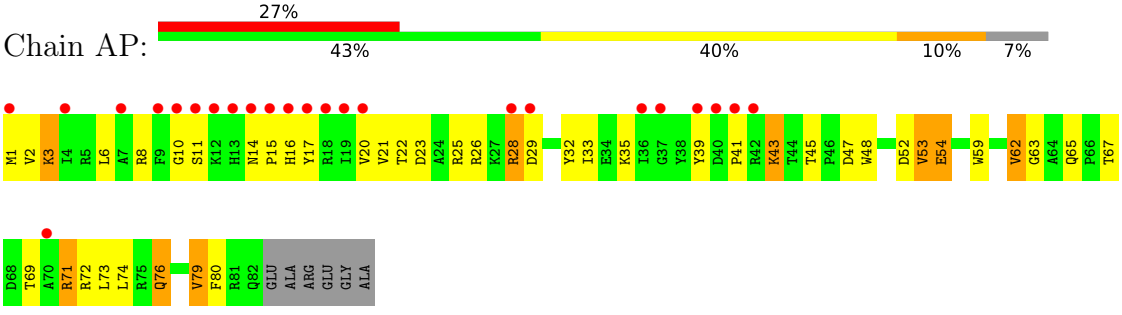
• Molecule 15: 30S Ribosomal Protein S15

Chain CO:



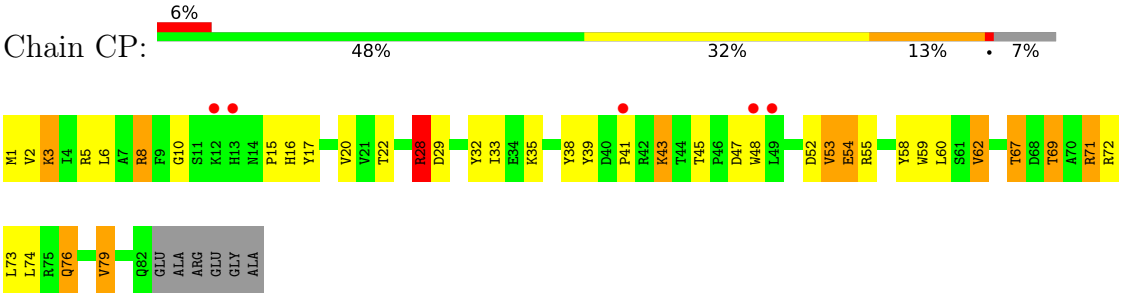
• Molecule 16: 30S Ribosomal Protein S16

Chain AP:



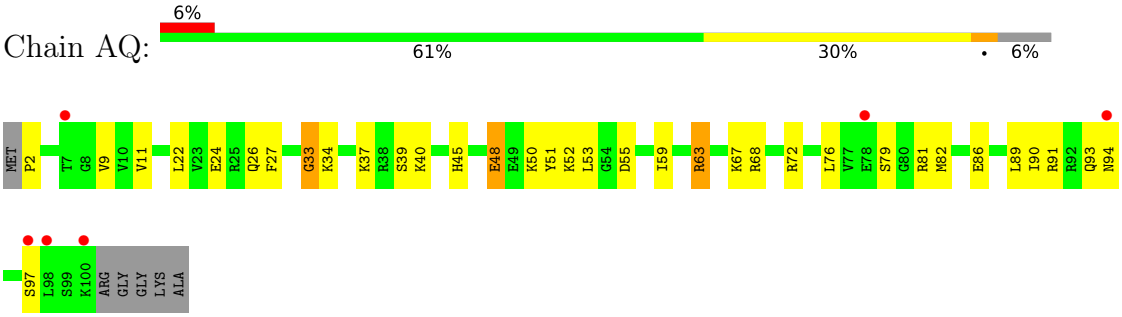
• Molecule 16: 30S Ribosomal Protein S16

Chain CP:



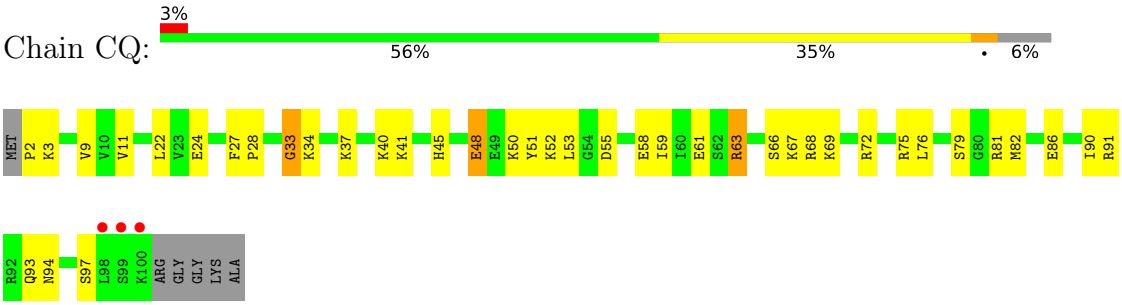
• Molecule 17: 30S Ribosomal Protein S17

Chain AQ:



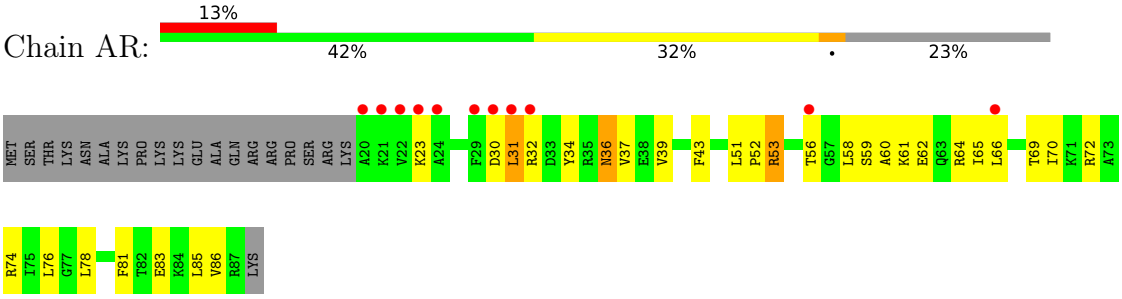
• Molecule 17: 30S Ribosomal Protein S17

Chain CQ:



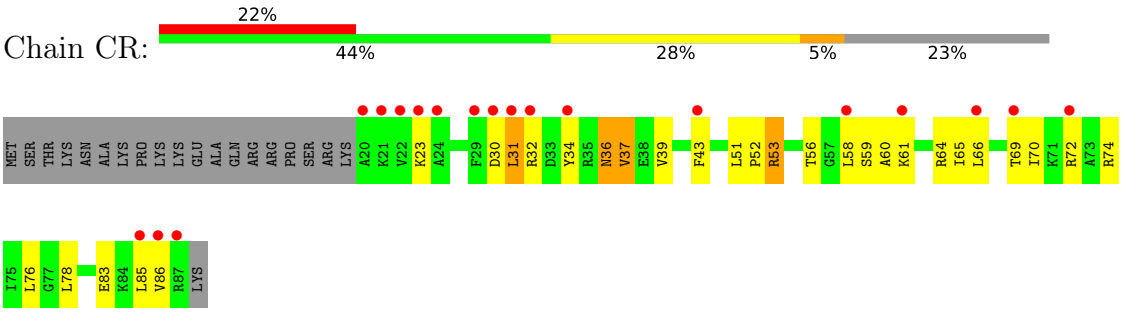
• Molecule 18: 30S Ribosomal Protein S18

Chain AR:



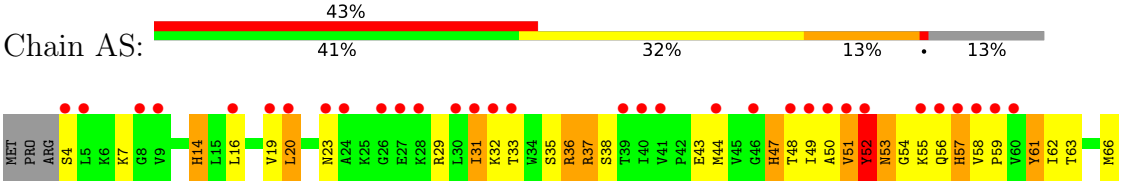
• Molecule 18: 30S Ribosomal Protein S18

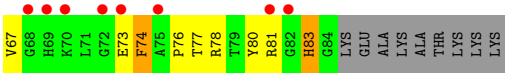
Chain CR:



• Molecule 19: 30S Ribosomal Protein S19

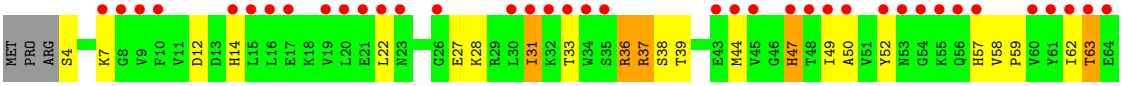
Chain AS:

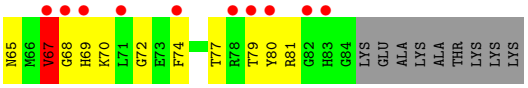




• Molecule 19: 30S Ribosomal Protein S19

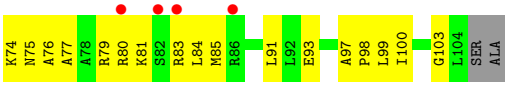
Chain CS:





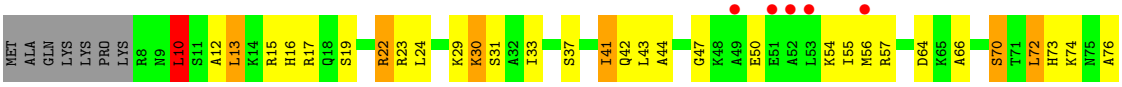
• Molecule 20: 30S Ribosomal Protein S20

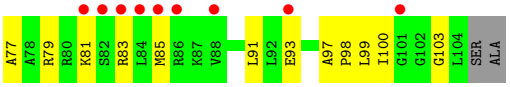
Chain AT:



• Molecule 20: 30S Ribosomal Protein S20

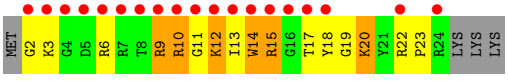
Chain CT:





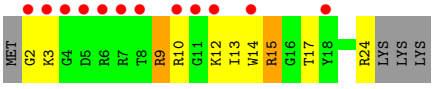
• Molecule 21: 30S Ribosomal Protein THX

Chain AU:



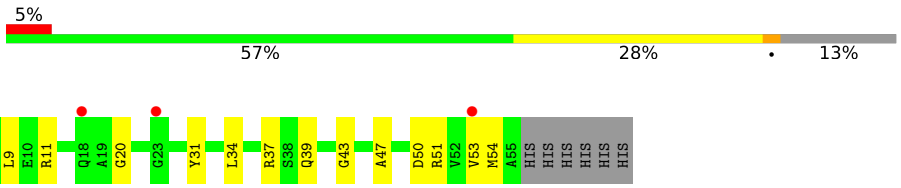
• Molecule 21: 30S Ribosomal Protein THX

Chain CU:



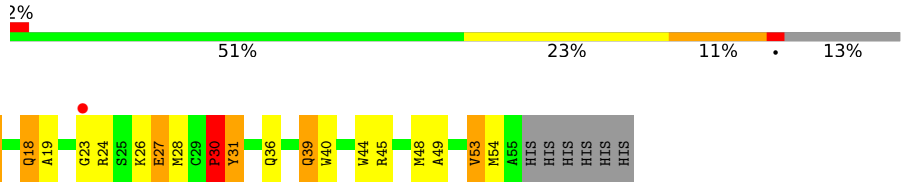
• Molecule 22: Ribosome modulation factor

Chain AV:



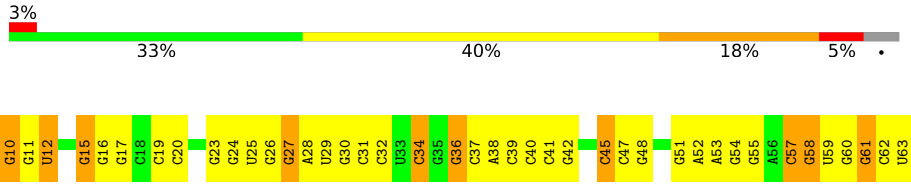
• Molecule 22: Ribosome modulation factor

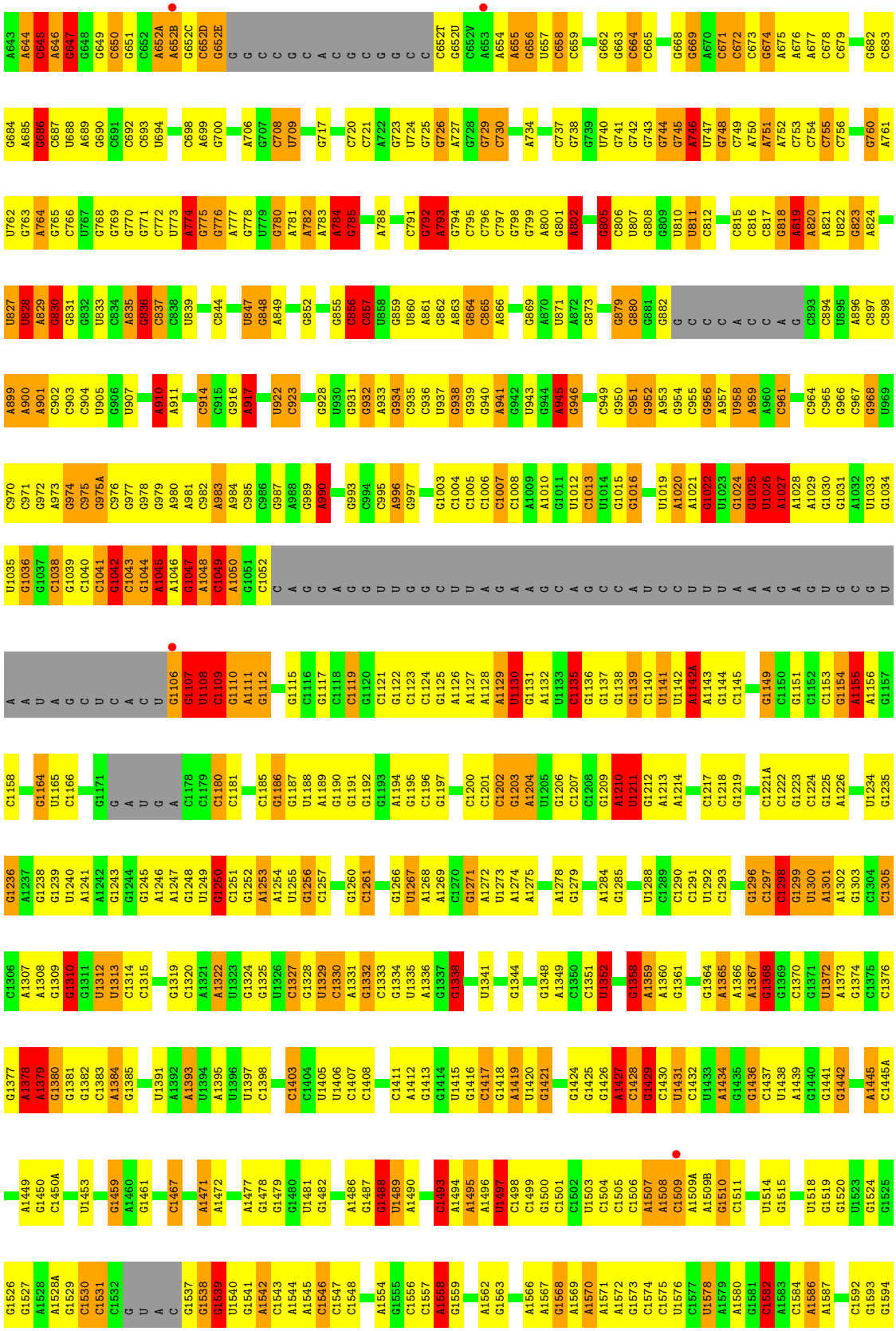
Chain CV:

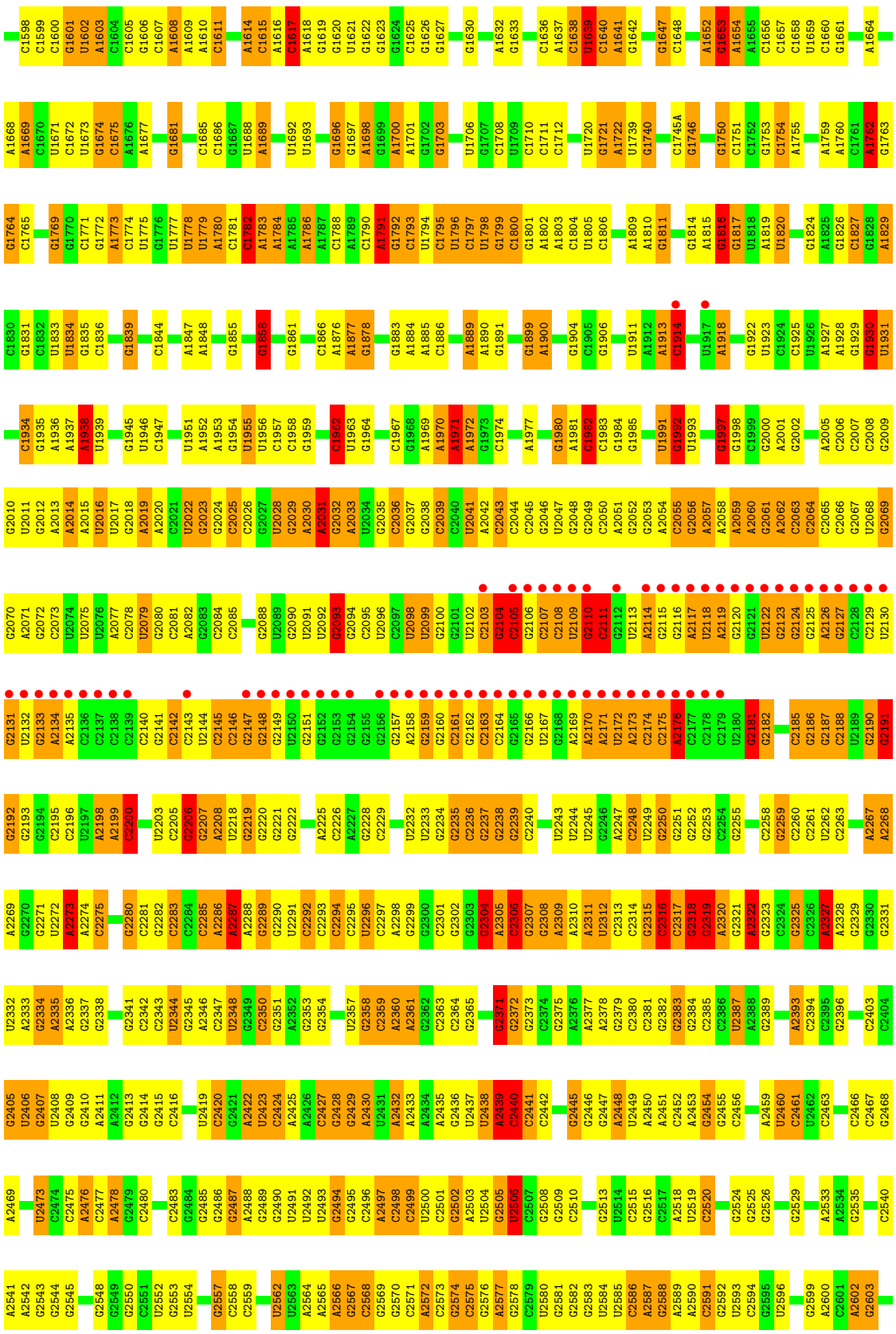


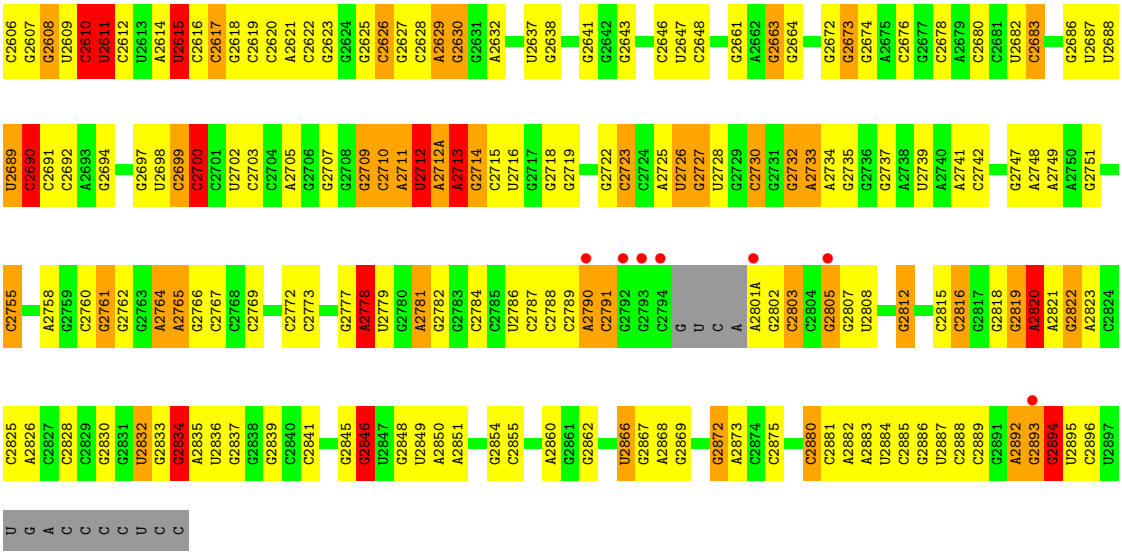
• Molecule 23: 23S Ribosomal RNA

Chain BA:



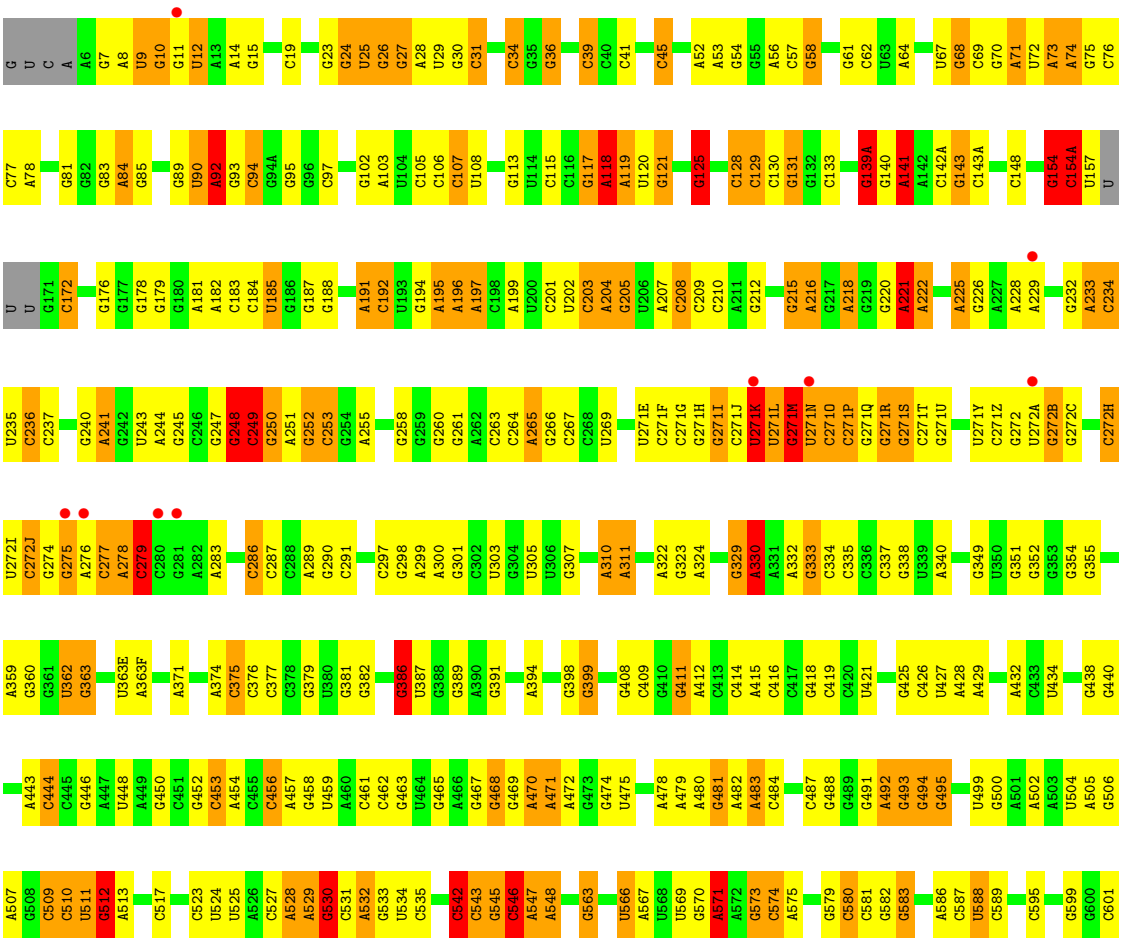


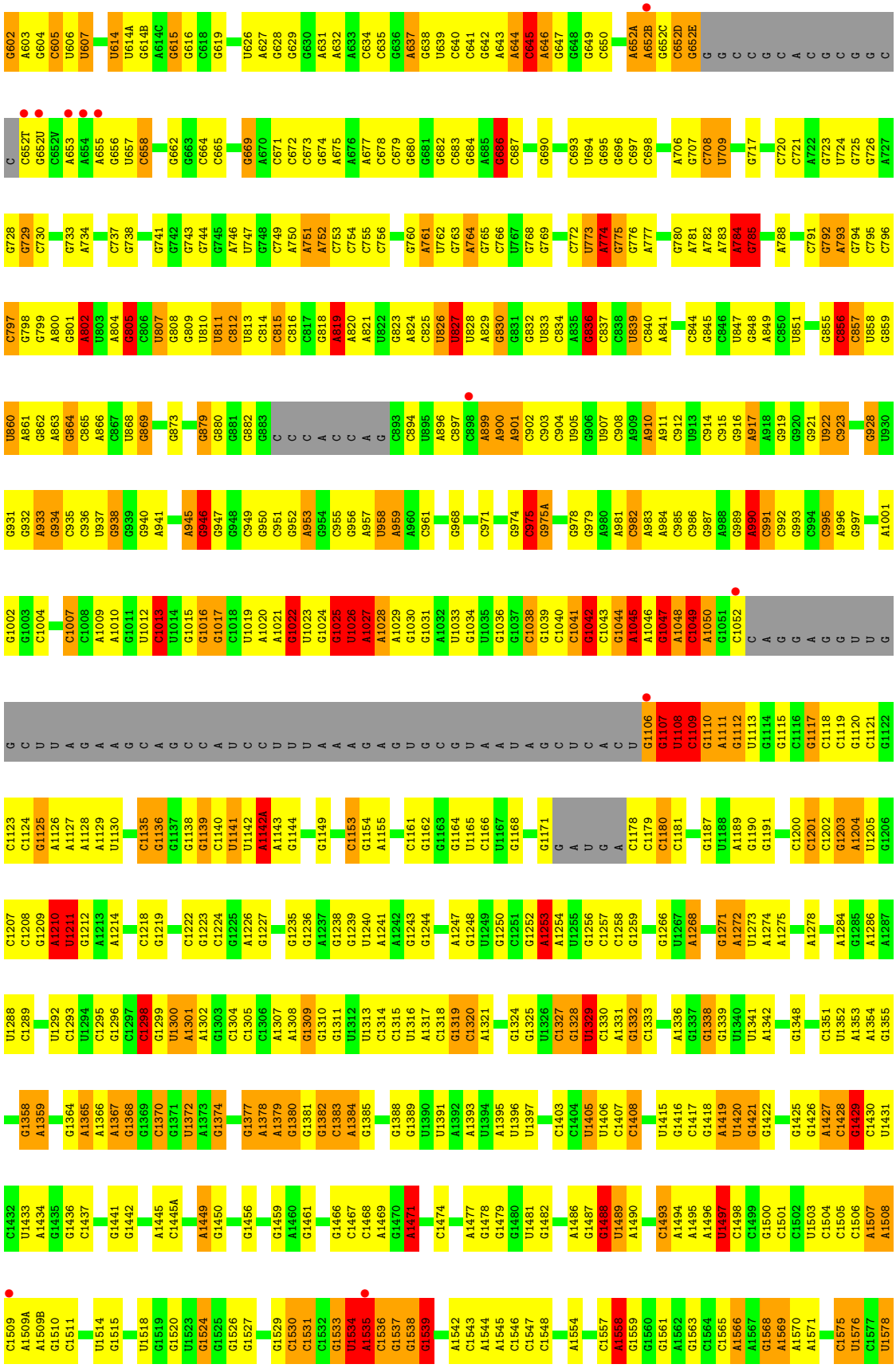


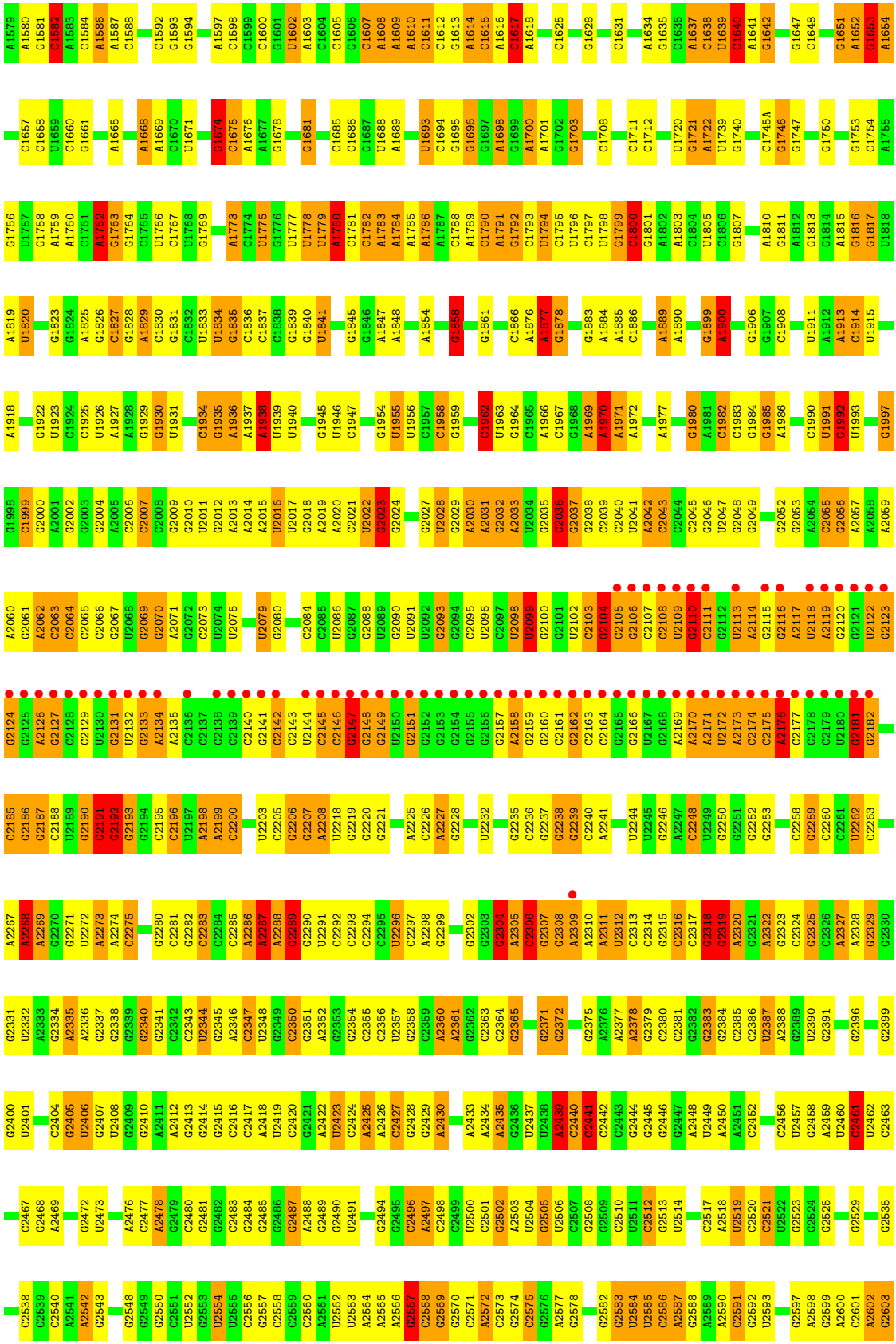


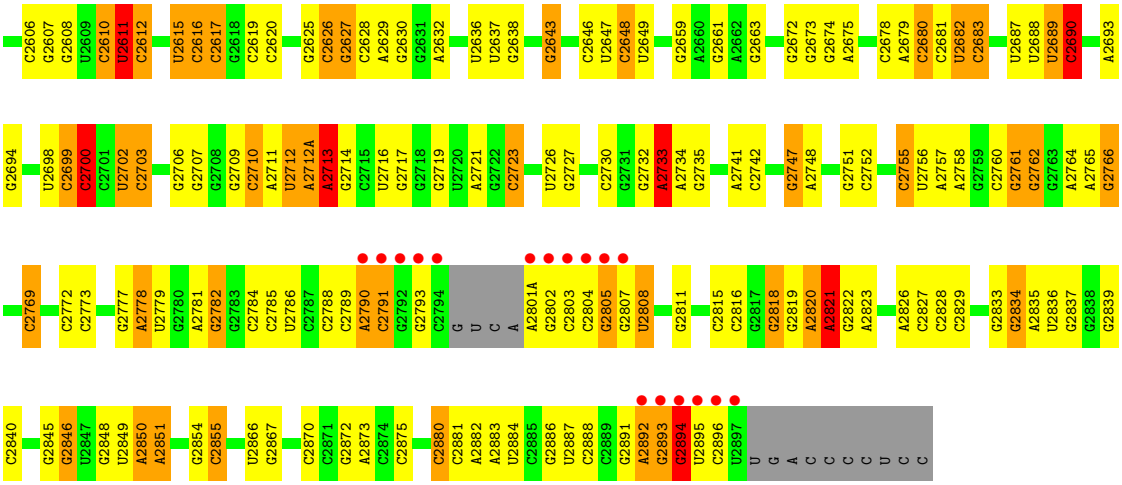
• Molecule 23: 23S Ribosomal RNA

Chain DA:



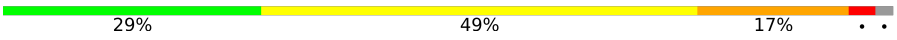


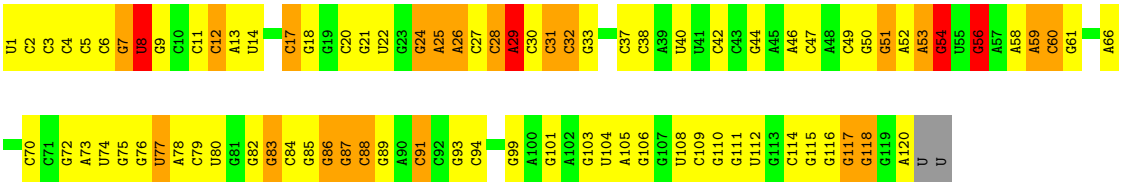




• Molecule 24: 5S Ribosomal RNA

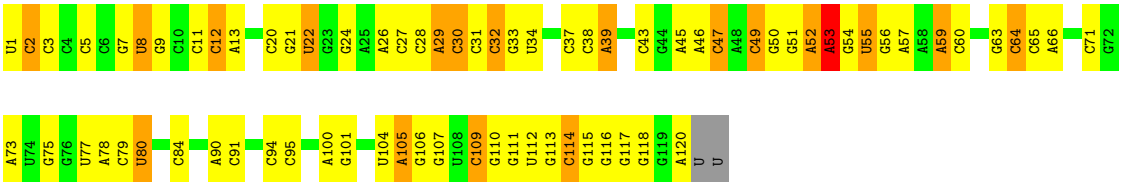
Chain BB:





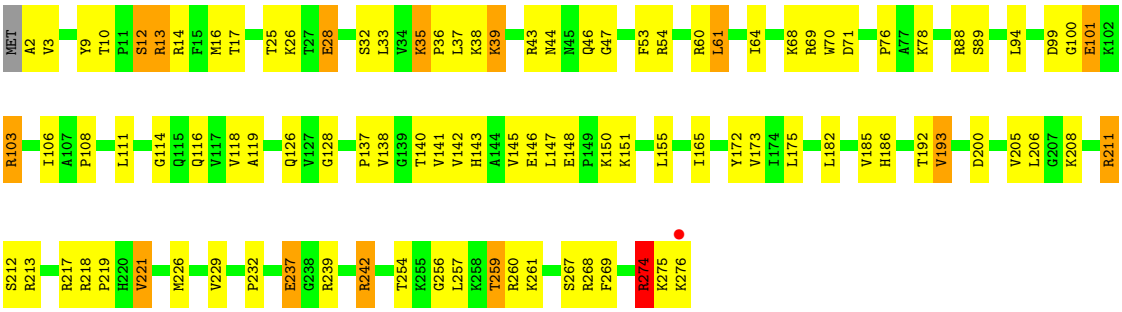
• Molecule 24: 5S Ribosomal RNA

Chain DB:



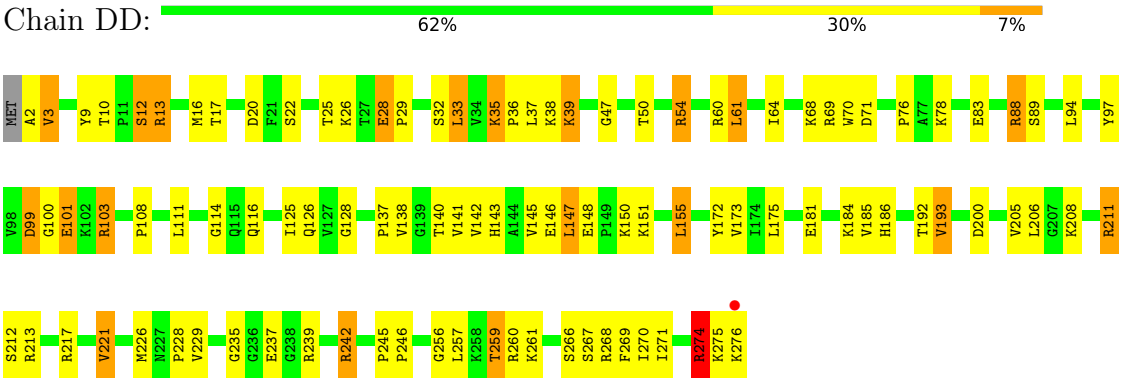
• Molecule 25: 50S Ribosomal Protein L2

Chain BD:



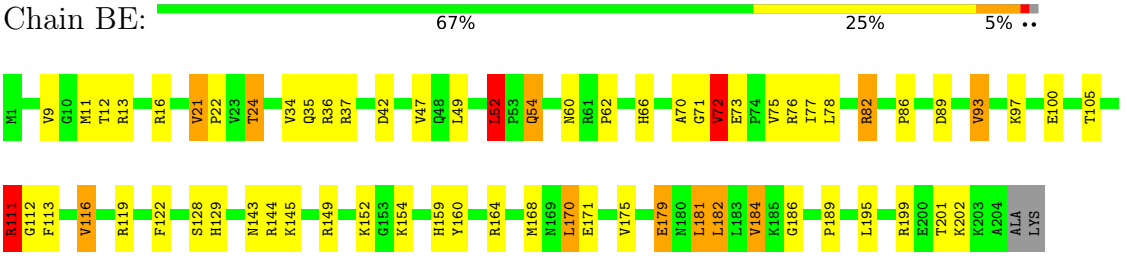
• Molecule 25: 50S Ribosomal Protein L2

Chain DD:



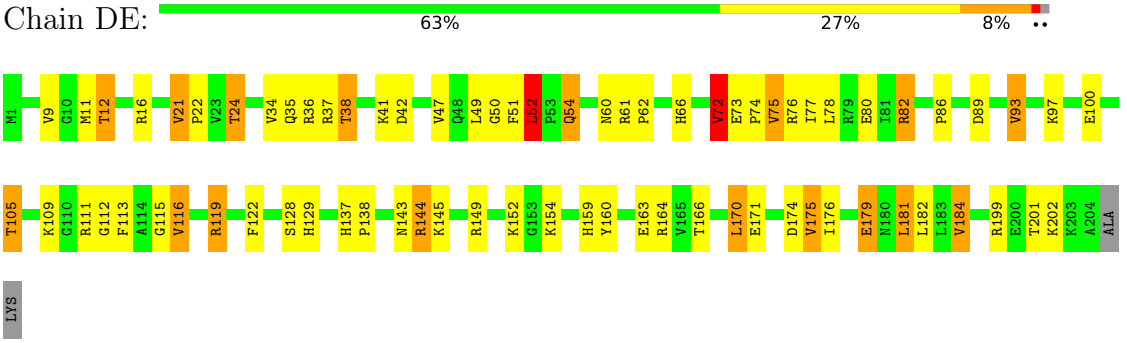
• Molecule 26: 50S Ribosomal Protein L3

Chain BE:



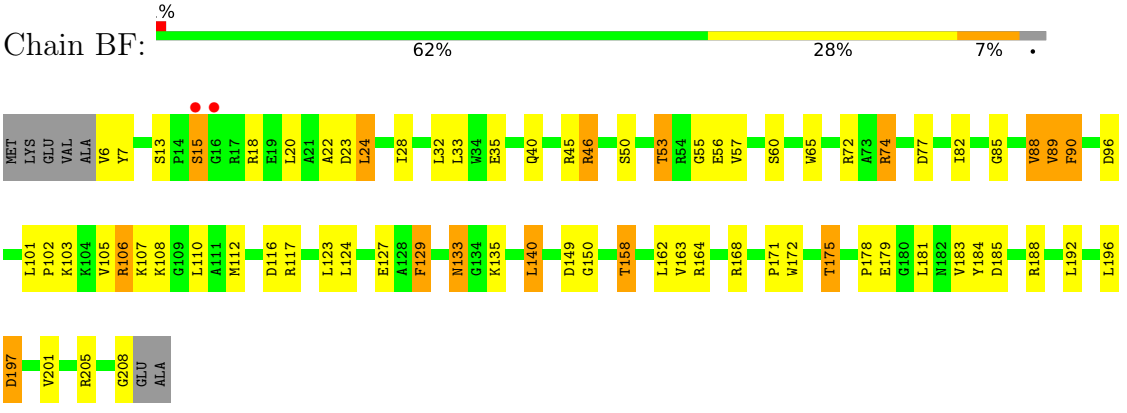
• Molecule 26: 50S Ribosomal Protein L3

Chain DE:



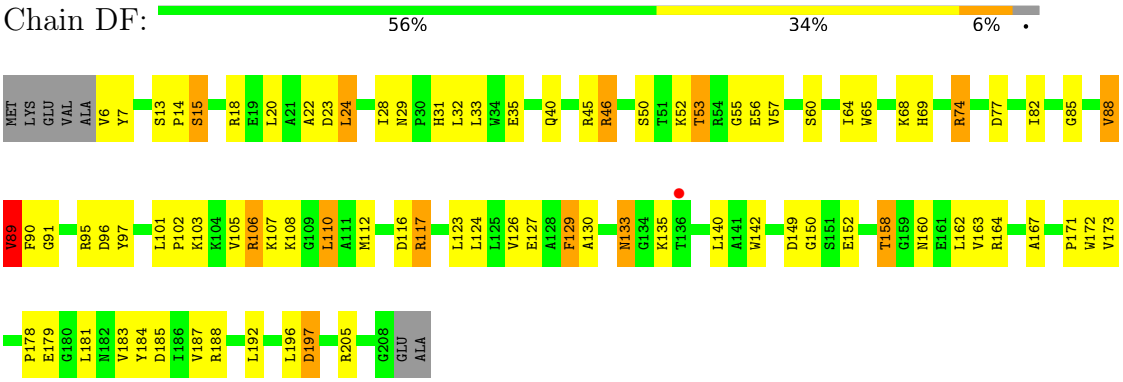
• Molecule 27: 50S Ribosomal Protein L4

Chain BF:



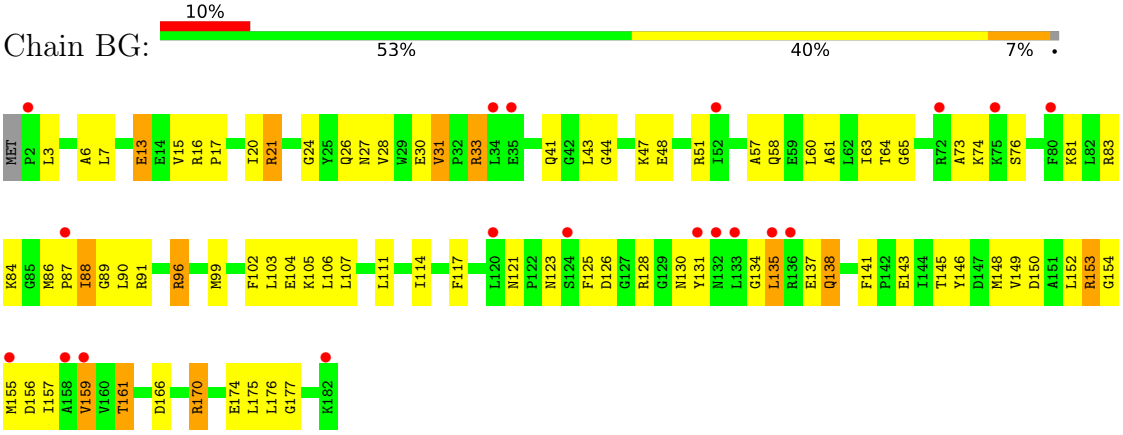
• Molecule 27: 50S Ribosomal Protein L4

Chain DF:



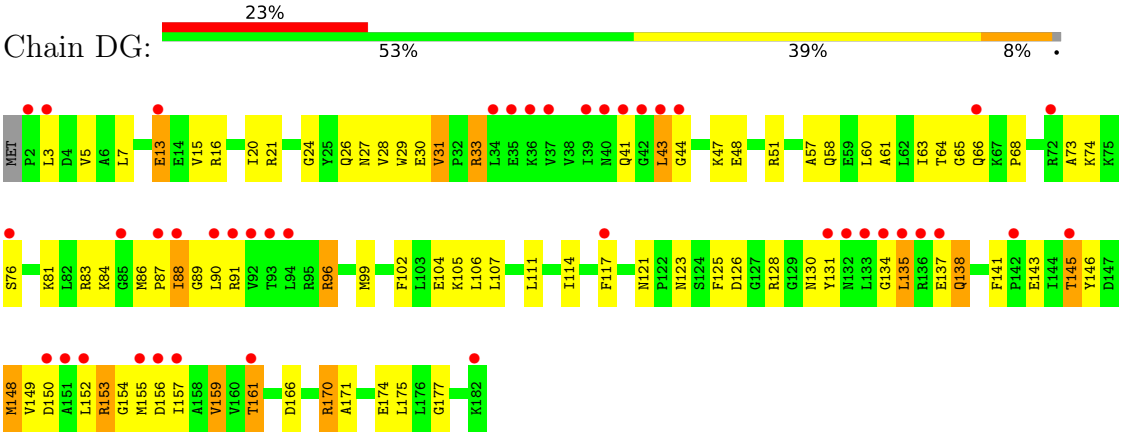
• Molecule 28: 50S Ribosomal Protein L5

Chain BG:



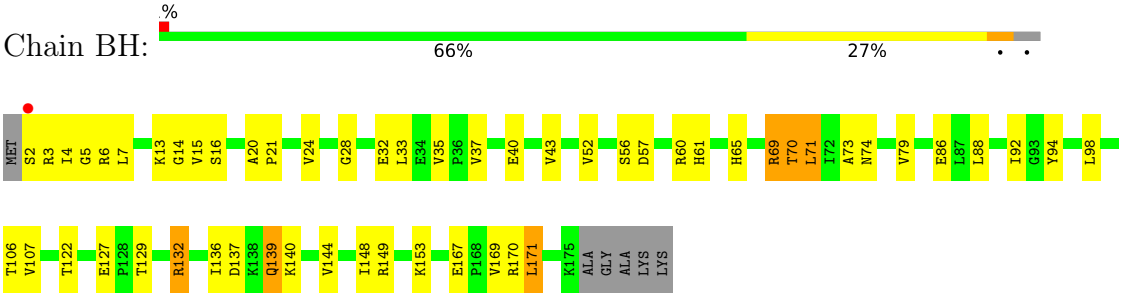
• Molecule 28: 50S Ribosomal Protein L5

Chain DG:



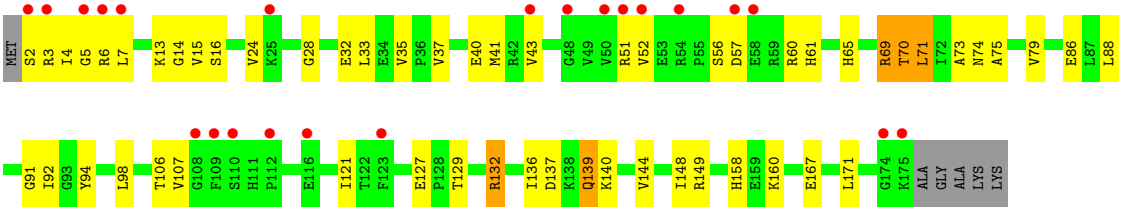
• Molecule 29: 50S Ribosomal Protein L6

Chain BH:



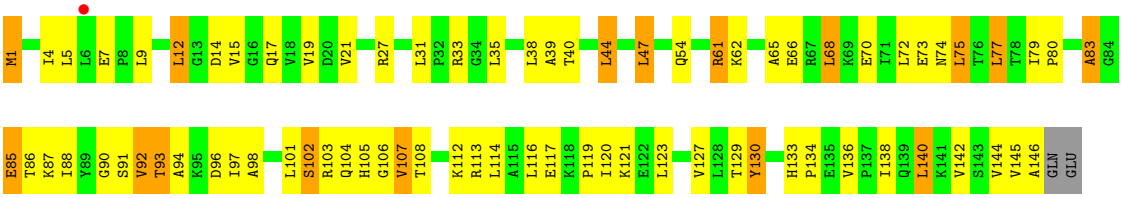
• Molecule 29: 50S Ribosomal Protein L6

Chain DH:



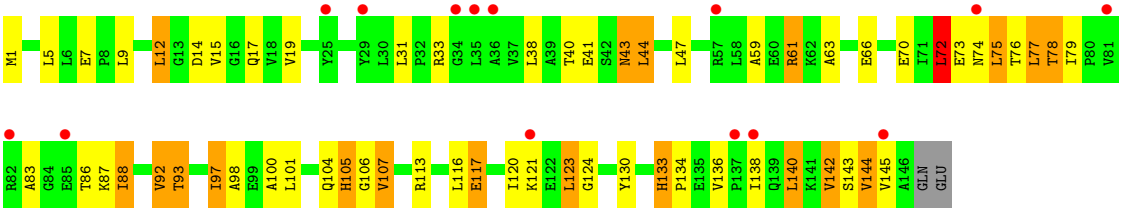
• Molecule 30: 50S Ribosomal Protein L9

Chain BI:



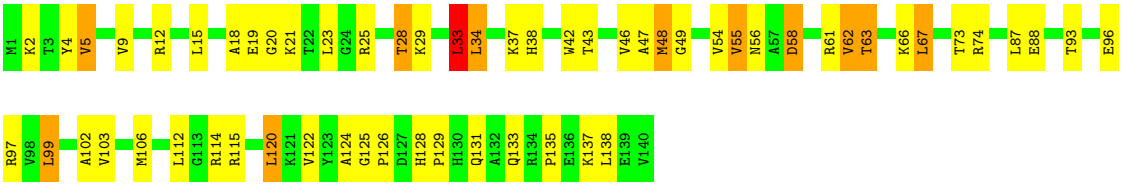
• Molecule 30: 50S Ribosomal Protein L9

Chain DI:



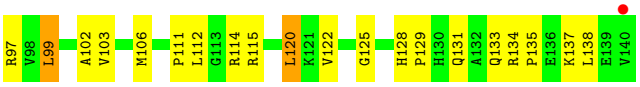
• Molecule 31: 50S Ribosomal Protein L13

Chain BN:



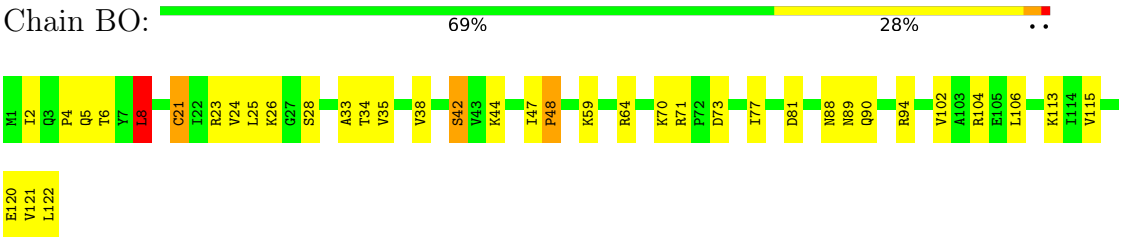
• Molecule 31: 50S Ribosomal Protein L13

Chain DN:



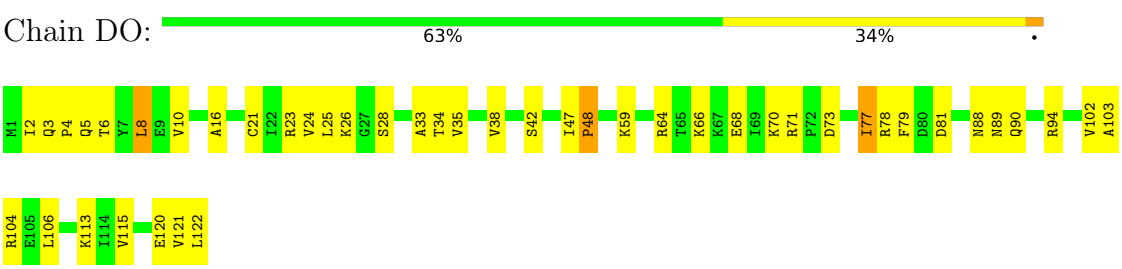
• Molecule 32: 50S Ribosomal Protein L14

Chain BO:



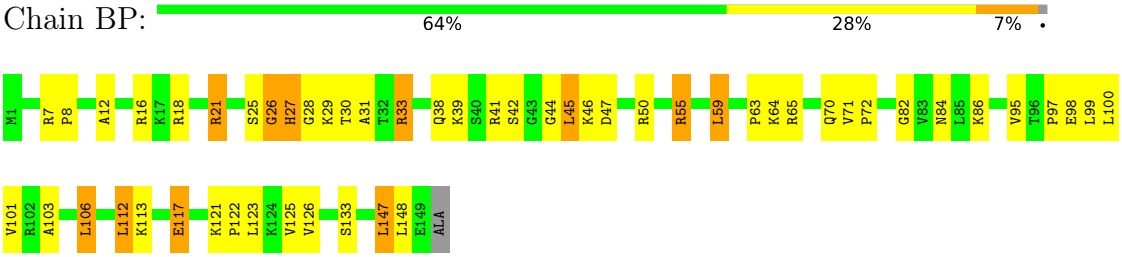
• Molecule 32: 50S Ribosomal Protein L14

Chain DO:



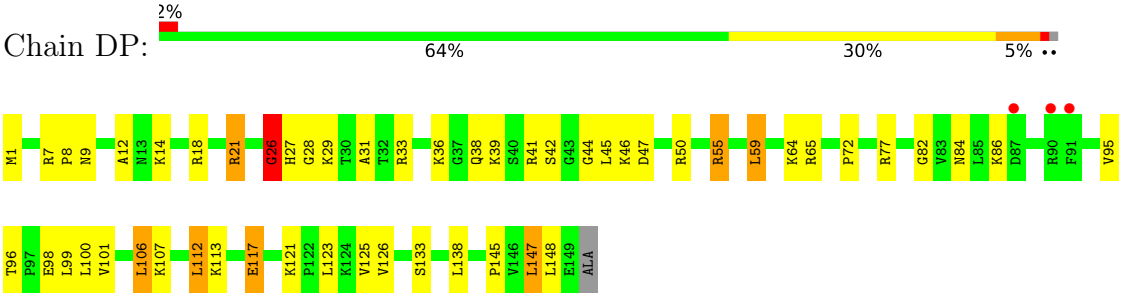
• Molecule 33: 50S Ribosomal Protein L15

Chain BP:



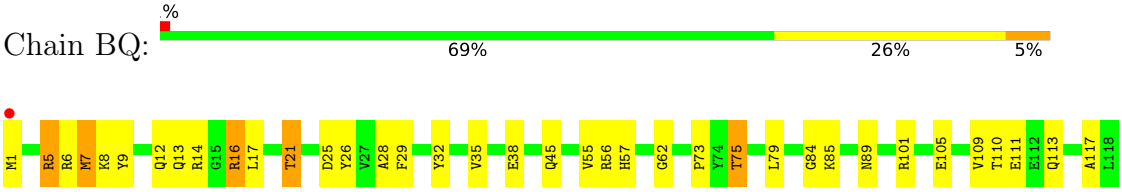
• Molecule 33: 50S Ribosomal Protein L15

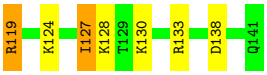
Chain DP:



• Molecule 34: 50S Ribosomal Protein L16

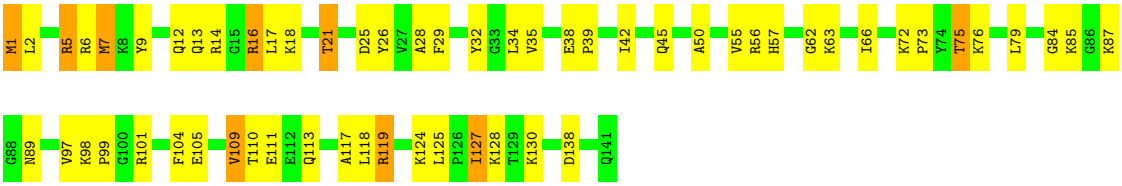
Chain BQ:





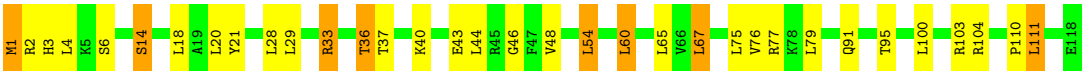
• Molecule 34: 50S Ribosomal Protein L16

Chain DQ:



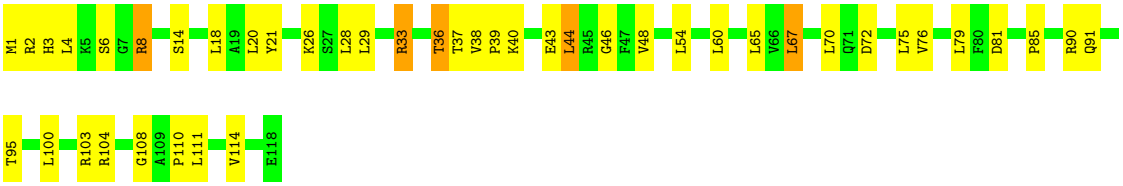
• Molecule 35: 50S Ribosomal Protein L17

Chain BR:



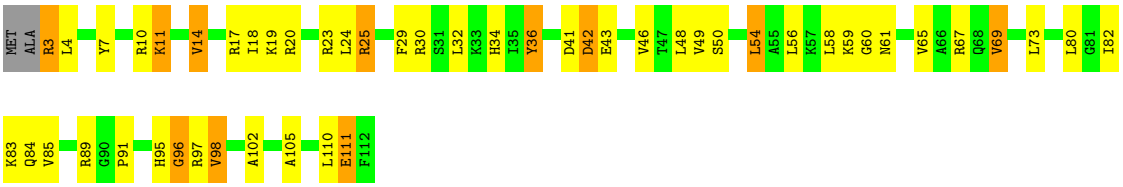
• Molecule 35: 50S Ribosomal Protein L17

Chain DR:



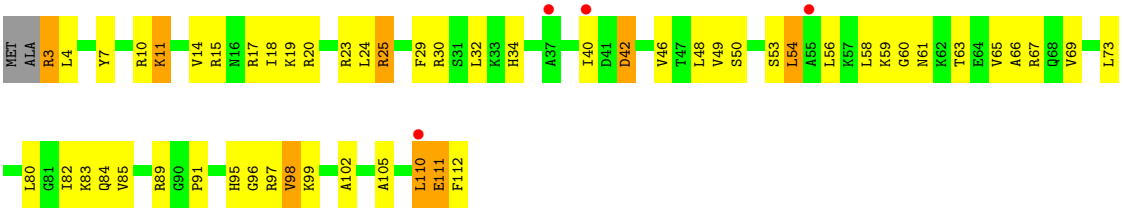
• Molecule 36: 50S Ribosomal Protein L18

Chain BS:



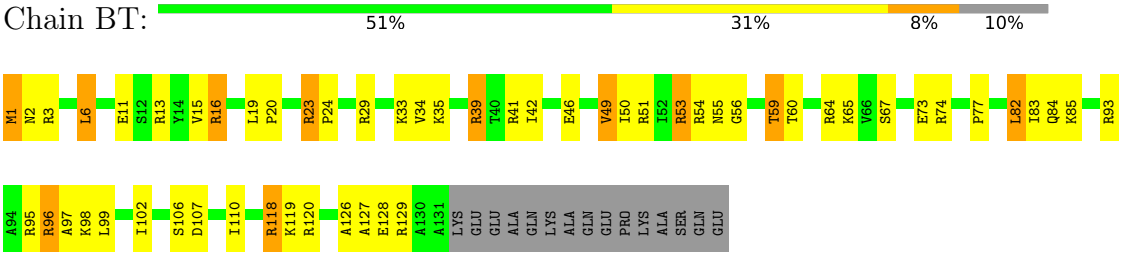
• Molecule 36: 50S Ribosomal Protein L18

Chain DS:



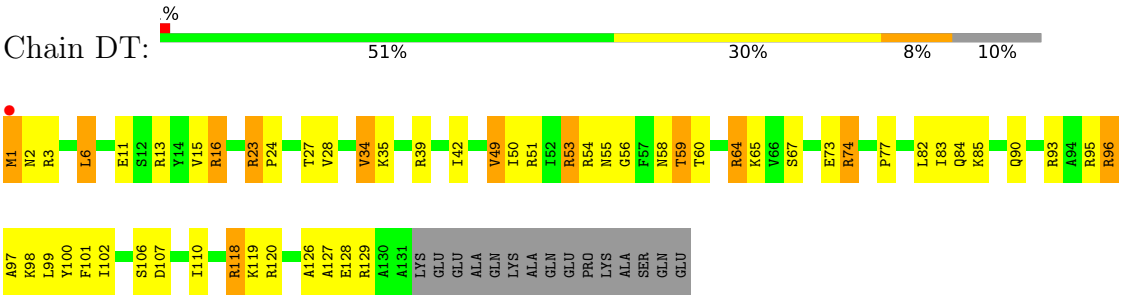
• Molecule 37: 50S Ribosomal Protein L19

Chain BT:



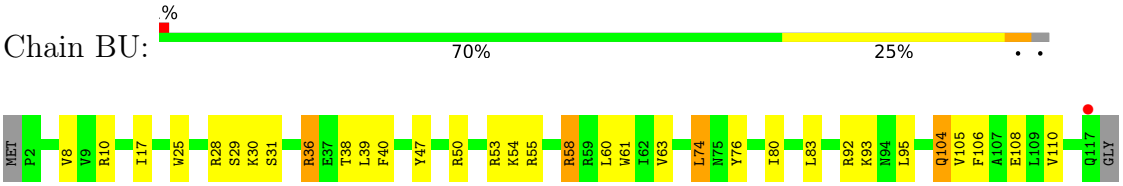
• Molecule 37: 50S Ribosomal Protein L19

Chain DT:



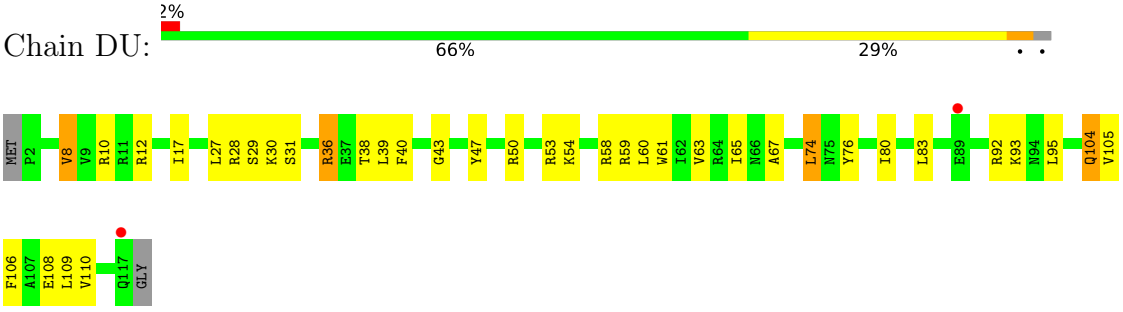
• Molecule 38: 50S Ribosomal Protein L20

Chain BU:



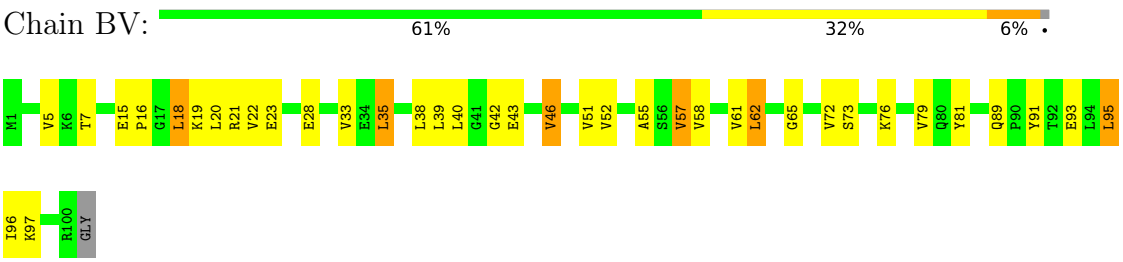
• Molecule 38: 50S Ribosomal Protein L20

Chain DU:



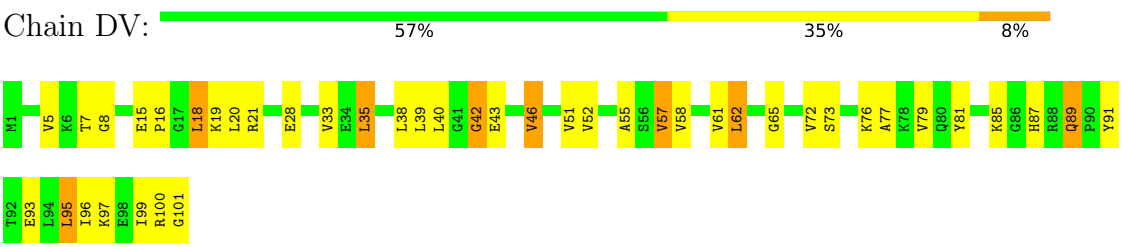
• Molecule 39: 50S Ribosomal Protein L21

Chain BV:



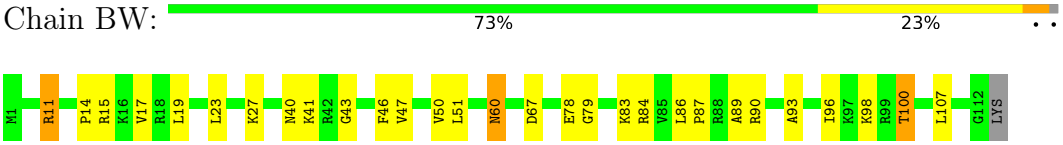
• Molecule 39: 50S Ribosomal Protein L21

Chain DV:



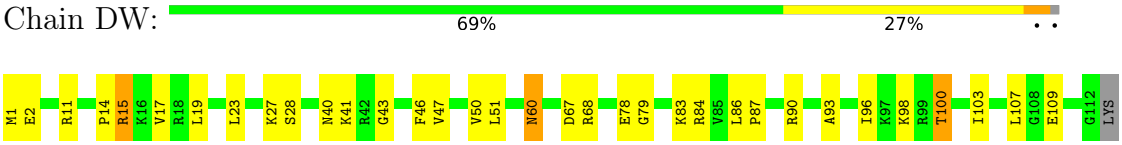
• Molecule 40: 50S Ribosomal Protein L22

Chain BW:



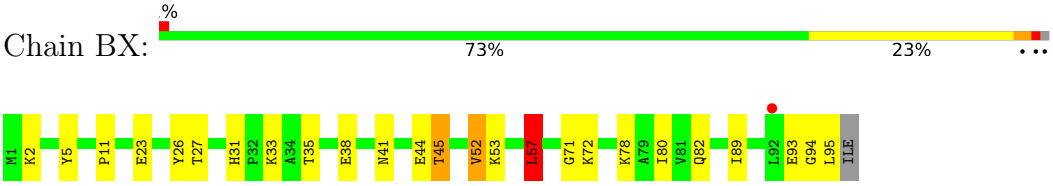
• Molecule 40: 50S Ribosomal Protein L22

Chain DW:



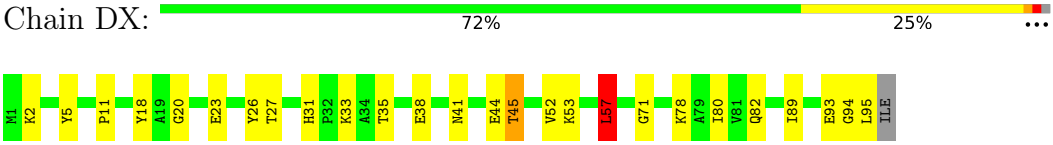
• Molecule 41: 50S Ribosomal Protein L23

Chain BX:



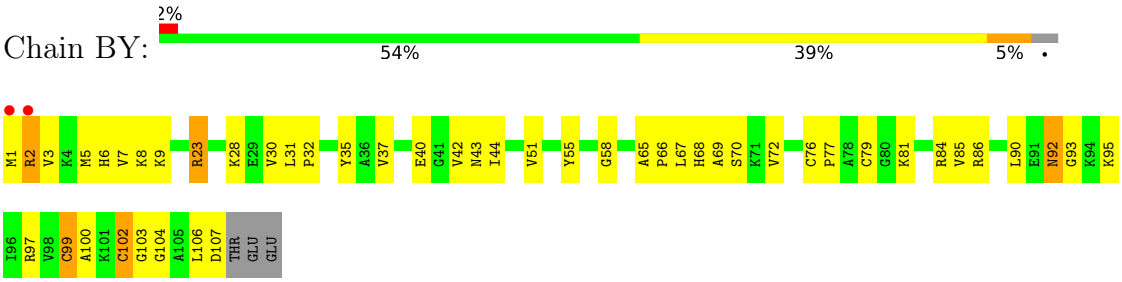
• Molecule 41: 50S Ribosomal Protein L23

Chain DX:



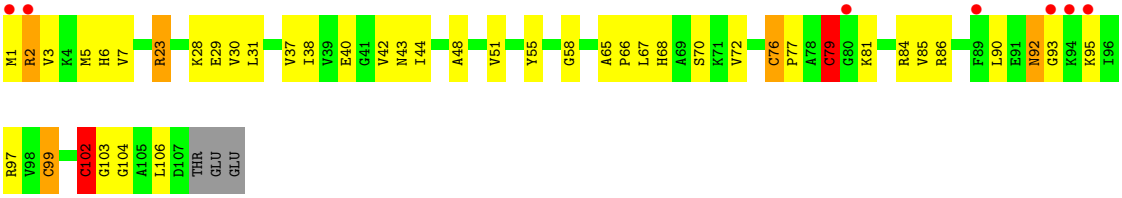
• Molecule 42: 50S Ribosomal Protein L24

Chain BY:



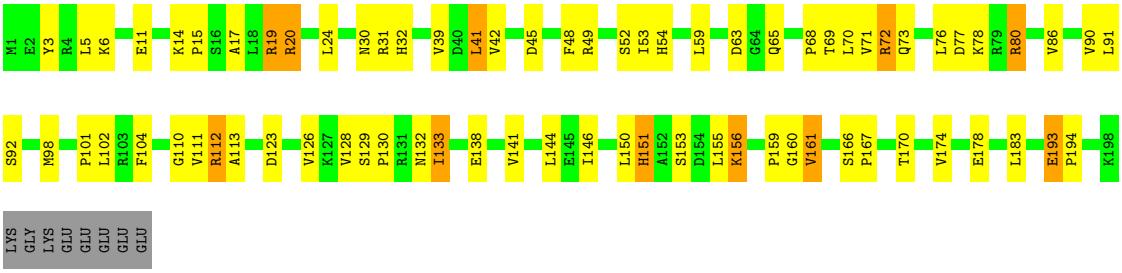
• Molecule 42: 50S Ribosomal Protein L24

Chain DY:



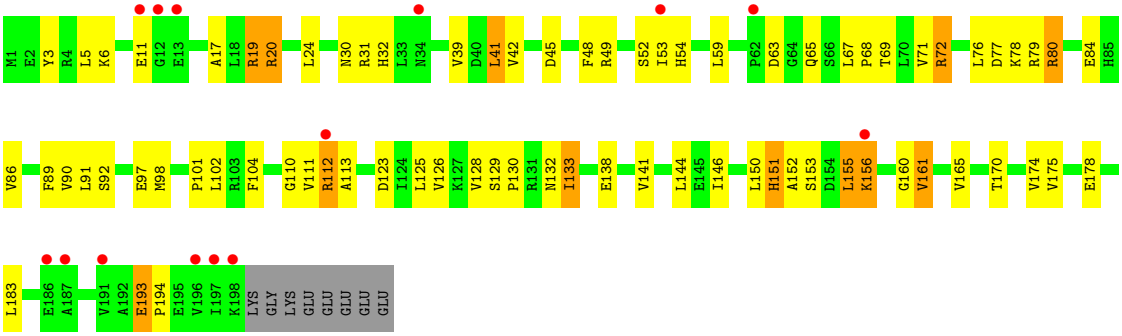
• Molecule 43: 50S Ribosomal Protein L25

Chain BZ:



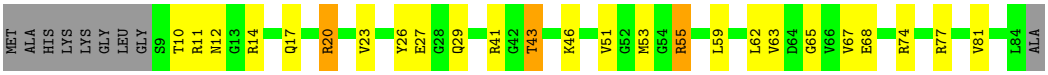
• Molecule 43: 50S Ribosomal Protein L25

Chain DZ:



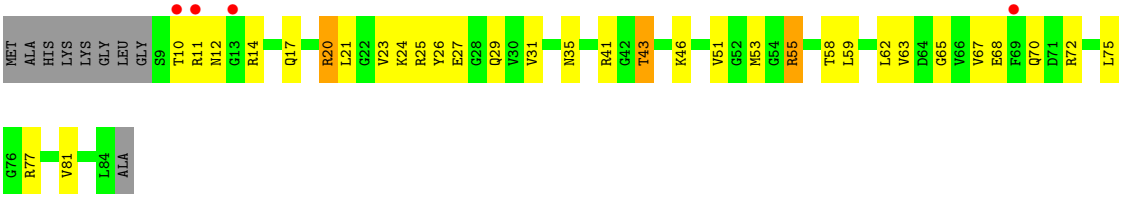
• Molecule 44: 50S Ribosomal Protein L27

Chain B0:



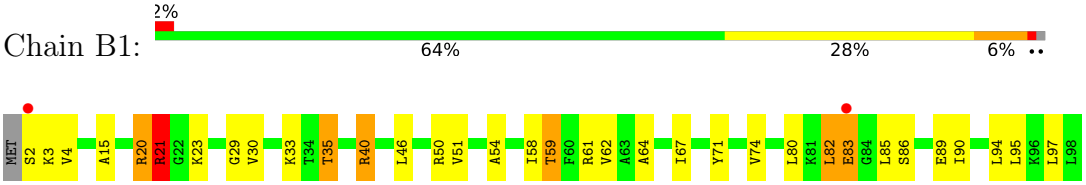
• Molecule 44: 50S Ribosomal Protein L27

Chain D0:



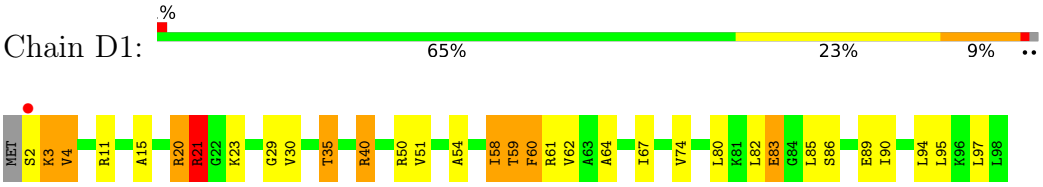
• Molecule 45: 50S Ribosomal Protein L28

Chain B1:



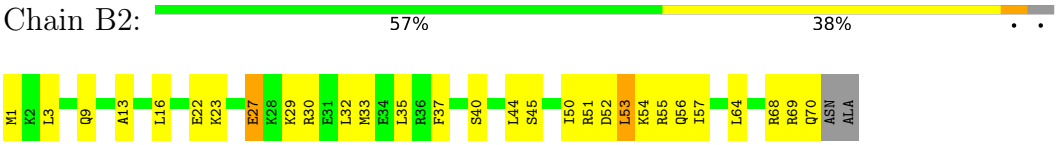
• Molecule 45: 50S Ribosomal Protein L28

Chain D1:



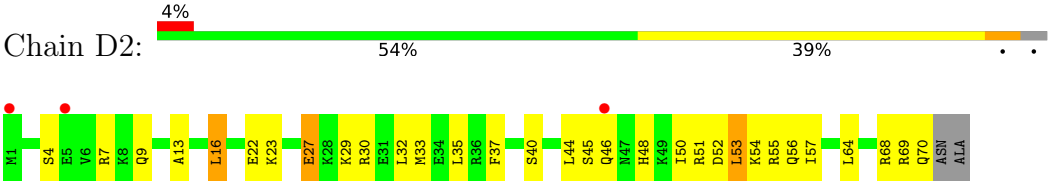
• Molecule 46: 50S Ribosomal Protein L29

Chain B2:



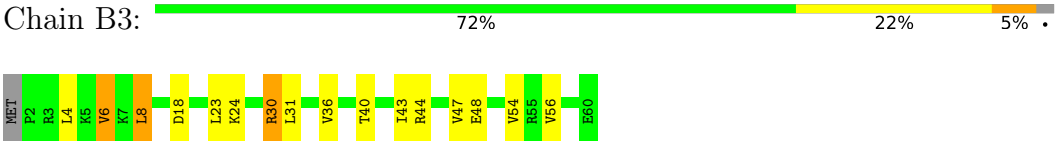
• Molecule 46: 50S Ribosomal Protein L29

Chain D2:



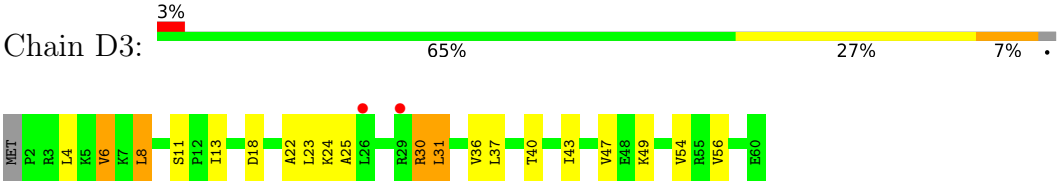
• Molecule 47: 50S Ribosomal Protein L30

Chain B3:



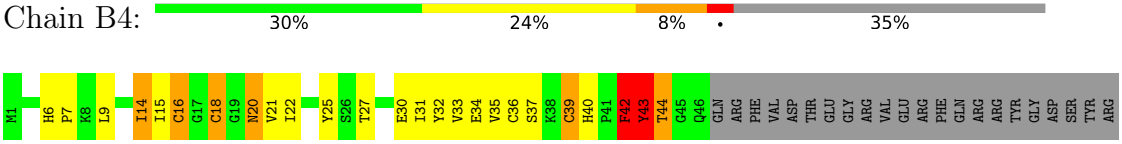
• Molecule 47: 50S Ribosomal Protein L30

Chain D3:



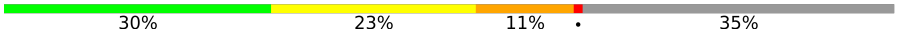
• Molecule 48: 50S Ribosomal Protein L31

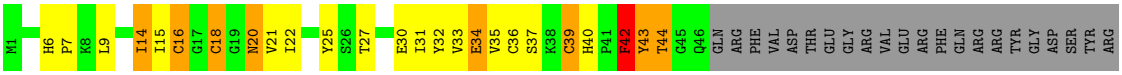
Chain B4:



• Molecule 48: 50S Ribosomal Protein L31

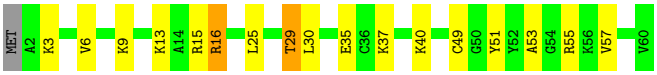
Chain D4:





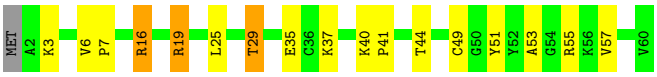
• Molecule 49: 50S Ribosomal Protein L32

Chain B5:



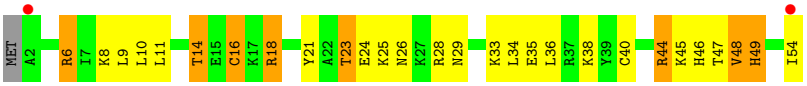
• Molecule 49: 50S Ribosomal Protein L32

Chain D5:



• Molecule 50: 50S Ribosomal Protein L33

Chain B6:



• Molecule 50: 50S Ribosomal Protein L33

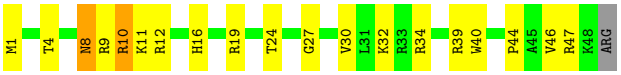
Chain D6:

• Molecule 51: 50S Ribosomal Protein L34

Chain B7:

• Molecule 51: 50S Ribosomal Protein L34

Chain D7:



• Molecule 52: 50S Ribosomal Protein L35

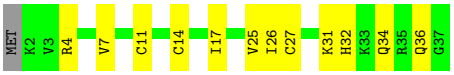
Chain B8:

• Molecule 52: 50S Ribosomal Protein L35

Chain D8:

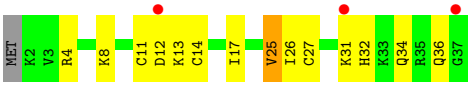
• Molecule 53: 50S Ribosomal Protein L36

Chain B9:



• Molecule 53: 50S Ribosomal Protein L36

Chain D9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.24Å 451.44Å 621.64Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.75 – 3.00 49.75 – 3.00	Depositor EDS
% Data completeness (in resolution range)	97.9 (49.75-3.00) 98.0 (49.75-3.00)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.34 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.7.2_869	Depositor
R, R_{free}	0.218 , 0.254 0.217 , 0.253	Depositor DCC
R_{free} test set	57194 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	68.3	Xtriage
Anisotropy	0.254	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 59.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	283930	wwPDB-VP
Average B, all atoms (Å^2)	85.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.58% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN

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	AA	0.99	24/36215 (0.1%)	1.43	546/56522 (1.0%)
1	CA	0.91	21/36123 (0.1%)	1.38	452/56379 (0.8%)
2	AB	0.59	0/1809	0.73	1/2450 (0.0%)
2	CB	0.61	0/1809	0.73	1/2450 (0.0%)
3	AC	0.72	0/1474	0.82	2/2003 (0.1%)
3	CC	0.68	0/1474	0.79	2/2003 (0.1%)
4	AD	0.69	3/1556 (0.2%)	0.76	2/2113 (0.1%)
4	CD	0.64	2/1556 (0.1%)	0.74	2/2113 (0.1%)
5	AE	0.58	0/1121	0.79	0/1517
5	CE	0.58	0/1121	0.78	1/1517 (0.1%)
6	AF	0.55	0/790	0.71	0/1077
6	CF	0.54	0/790	0.70	0/1077
7	AG	0.83	0/1183	0.89	1/1599 (0.1%)
7	CG	0.72	0/1183	0.77	0/1599
8	AH	0.51	0/1065	0.67	0/1445
8	CH	0.50	0/1065	0.67	0/1445
9	AI	0.84	0/867	0.84	0/1180
9	CI	0.74	0/867	0.84	1/1180 (0.1%)
10	AJ	0.78	0/676	0.86	0/924
10	CJ	0.75	0/676	0.88	2/924 (0.2%)
11	AK	0.51	0/843	0.71	0/1144
11	CK	0.53	0/843	0.69	0/1144
12	AL	0.56	0/921	0.74	0/1247
12	CL	0.54	0/921	0.73	0/1247
13	AM	0.92	0/814	0.92	2/1107 (0.2%)
13	CM	0.72	0/814	0.83	0/1107
14	AN	0.79	0/487	0.93	0/649
14	CN	0.66	0/487	0.71	1/649 (0.2%)
15	AO	0.52	0/735	0.72	0/981
15	CO	0.52	0/735	0.72	0/981
16	AP	0.56	0/667	0.82	0/905
16	CP	0.54	0/667	0.84	1/905 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.56	0/836	0.72	0/1117
17	CQ	0.57	0/836	0.72	0/1117
18	AR	0.54	0/519	0.79	0/699
18	CR	0.56	0/519	0.79	0/699
19	AS	0.92	0/574	0.92	0/781
19	CS	0.69	0/574	0.81	0/781
20	AT	0.54	0/715	0.78	0/947
20	CT	0.52	0/715	0.77	0/947
21	AU	0.78	0/203	0.77	0/266
21	CU	0.73	0/203	0.68	0/266
22	AV	0.63	0/339	0.75	0/464
22	CV	0.65	0/360	0.85	1/492 (0.2%)
23	BA	1.60	727/67771 (1.1%)	1.72	2179/105789 (2.1%)
23	DA	1.16	149/67893 (0.2%)	1.60	1664/105982 (1.6%)
24	BB	1.11	3/2878 (0.1%)	1.57	62/4490 (1.4%)
24	DB	0.97	4/2878 (0.1%)	1.46	37/4490 (0.8%)
25	BD	0.88	3/2186 (0.1%)	0.96	0/2944
25	DD	0.80	2/2186 (0.1%)	0.91	1/2944 (0.0%)
26	BE	0.89	0/1588	0.96	3/2145 (0.1%)
26	DE	0.75	0/1588	0.92	0/2145
27	BF	0.88	1/1615 (0.1%)	0.86	0/2188
27	DF	0.70	0/1615	0.90	2/2188 (0.1%)
28	BG	0.53	0/1393	0.71	0/1892
28	DG	0.59	0/1393	0.71	0/1892
29	BH	0.68	0/1343	0.80	3/1820 (0.2%)
29	DH	0.60	0/1343	0.77	2/1820 (0.1%)
30	BI	0.64	0/1055	0.83	0/1445
30	DI	0.65	0/1053	0.84	1/1442 (0.1%)
31	BN	0.86	0/1139	0.87	2/1538 (0.1%)
31	DN	0.65	0/1139	0.87	1/1538 (0.1%)
32	BO	0.79	1/933 (0.1%)	0.86	1/1257 (0.1%)
32	DO	0.70	0/933	0.86	1/1257 (0.1%)
33	BP	0.80	0/1148	0.93	1/1529 (0.1%)
33	DP	0.67	0/1148	0.93	2/1529 (0.1%)
34	BQ	0.79	0/1143	0.89	0/1527
34	DQ	0.70	0/1143	0.86	0/1527
35	BR	0.82	0/982	0.94	2/1312 (0.2%)
35	DR	0.74	0/982	0.93	2/1312 (0.2%)
36	BS	0.65	0/875	0.88	0/1168
36	DS	0.66	0/875	0.84	0/1168
37	BT	0.74	0/1077	0.87	0/1444
37	DT	0.66	0/1077	0.85	0/1444
38	BU	1.02	0/977	0.89	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DU	0.79	0/977	0.88	0/1301
39	BV	0.89	0/771	0.84	0/1037
39	DV	0.70	0/782	0.84	1/1049 (0.1%)
40	BW	1.04	0/891	0.99	2/1197 (0.2%)
40	DW	0.87	0/891	0.91	0/1197
41	BX	0.87	0/756	0.88	1/1016 (0.1%)
41	DX	0.78	0/756	0.84	1/1016 (0.1%)
42	BY	0.81	0/798	0.88	0/1073
42	DY	0.72	1/798 (0.1%)	0.87	1/1073 (0.1%)
43	BZ	0.62	0/1555	0.82	1/2118 (0.0%)
43	DZ	0.63	0/1555	0.80	1/2118 (0.0%)
44	B0	0.83	0/602	0.86	0/804
44	D0	0.73	0/602	0.81	0/804
45	B1	0.80	0/752	1.00	3/1003 (0.3%)
45	D1	0.77	0/752	0.99	2/1003 (0.2%)
46	B2	0.81	0/590	0.82	0/781
46	D2	0.71	0/590	0.83	0/781
47	B3	0.79	0/463	0.86	1/623 (0.2%)
47	D3	0.64	0/463	0.82	0/623
48	B4	0.64	0/358	0.82	1/487 (0.2%)
48	D4	0.70	0/358	0.82	1/487 (0.2%)
49	B5	1.01	0/469	0.99	1/634 (0.2%)
49	D5	0.75	0/469	0.95	1/634 (0.2%)
50	B6	0.84	1/456 (0.2%)	0.86	0/609
50	D6	0.92	2/456 (0.4%)	0.89	2/609 (0.3%)
51	B7	1.07	0/426	1.16	2/561 (0.4%)
51	D7	0.92	0/426	1.00	0/561
52	B8	0.88	0/516	1.00	2/679 (0.3%)
52	D8	0.73	1/516 (0.2%)	0.92	1/679 (0.1%)
53	B9	0.85	0/300	0.91	0/395
53	D9	0.68	0/300	0.83	0/395
All	All	1.12	945/304490 (0.3%)	1.42	5009/455973 (1.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AB	0	3
2	CB	0	3
3	AC	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
3	CC	0	2
5	CE	0	1
7	AG	0	4
7	CG	0	1
9	AI	0	2
9	CI	0	1
10	AJ	0	3
12	AL	0	1
12	CL	0	1
13	AM	0	3
13	CM	0	1
14	AN	0	3
17	AQ	0	1
17	CQ	0	1
19	AS	0	1
20	AT	0	2
20	CT	0	1
22	CV	0	3
25	BD	0	1
25	DD	0	1
26	BE	0	2
26	DE	0	1
27	BF	0	2
27	DF	0	3
28	BG	0	1
28	DG	0	1
30	BI	0	1
30	DI	0	1
31	BN	0	1
31	DN	0	2
32	BO	0	1
32	DO	0	1
33	BP	0	4
33	DP	0	2
36	BS	0	2
36	DS	0	1
37	BT	0	1
37	DT	0	1
41	BX	0	1
41	DX	0	1
42	BY	0	1
42	DY	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
43	BZ	0	1
45	B1	0	1
45	D1	0	1
48	B4	0	3
48	D4	0	2
52	D8	0	2
All	All	0	83

All (945) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	CA	1459	C	N1-C2	17.17	1.57	1.40
1	AA	1459	C	N1-C2	16.97	1.57	1.40
1	AA	1442(A)	G	N9-C4	16.14	1.50	1.38
1	CA	1442(A)	G	N9-C4	15.91	1.50	1.38
23	DA	528	A	N9-C4	-14.88	1.28	1.37
23	BA	530	G	C2-N3	-14.25	1.21	1.32
23	BA	1142(A)	A	N9-C4	-13.60	1.29	1.37
1	CA	90	U	C4-O4	13.40	1.34	1.23
23	BA	2335	A	C6-N6	-12.80	1.23	1.33
1	AA	1442(A)	G	C2-N3	11.82	1.42	1.32
24	DB	120	A	C6-N6	-11.72	1.24	1.33
1	CA	1442(A)	G	C2-N3	11.63	1.42	1.32
23	BA	2296	U	C4-C5	11.32	1.53	1.43
23	BA	528	A	N9-C4	-11.10	1.31	1.37
24	BB	120	A	C6-N6	-10.88	1.25	1.33
50	D6	13	CYS	CB-SG	-10.86	1.63	1.82
23	BA	478	A	N3-C4	-10.54	1.28	1.34
23	DA	2296	U	C4-C5	10.51	1.53	1.43
1	CA	1459	C	C1'-N1	10.41	1.64	1.48
1	AA	1442(A)	G	N3-C4	10.30	1.42	1.35
23	BA	1142(A)	A	N3-C4	-10.26	1.28	1.34
1	AA	1459	C	C1'-N1	10.20	1.64	1.48
23	DA	2335	A	C6-N6	-9.99	1.25	1.33
23	BA	1762	A	N9-C4	9.95	1.43	1.37
23	BA	1325	G	P-O5'	-9.34	1.50	1.59
23	BA	467	G	P-OP1	-9.32	1.33	1.49
4	CD	9	CYS	CB-SG	9.32	1.98	1.82
1	CA	1442(A)	G	N3-C4	9.30	1.42	1.35
23	BA	2296	U	N1-C2	9.29	1.47	1.38
23	BA	2296	U	C4-O4	9.21	1.31	1.23
23	BA	2825	C	N1-C6	-9.20	1.31	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	330	A	N9-C4	-9.13	1.32	1.37
23	BA	467	G	P-O5'	-9.09	1.50	1.59
1	AA	1459	C	C2-N3	9.07	1.43	1.35
23	BA	1210	A	N7-C5	-9.07	1.33	1.39
23	DA	530	G	C2-N3	-9.04	1.25	1.32
23	BA	1204	A	N7-C5	-8.98	1.33	1.39
23	BA	198	C	N1-C6	-8.97	1.31	1.37
23	BA	1254	A	P-OP1	-8.91	1.33	1.49
23	BA	530	G	N9-C8	8.80	1.44	1.37
23	BA	2058	A	N3-C4	-8.78	1.29	1.34
23	BA	1210	A	N9-C4	-8.74	1.32	1.37
23	BA	2070	G	N7-C5	-8.74	1.34	1.39
1	AA	69	G	O3'-P	8.70	1.71	1.61
1	CA	1459	C	C2-N3	8.70	1.42	1.35
23	BA	965	C	N3-C4	-8.54	1.27	1.33
23	BA	26	G	N7-C5	-8.52	1.34	1.39
23	BA	2252	G	C5-C4	-8.48	1.32	1.38
23	BA	1614	A	N9-C4	-8.47	1.32	1.37
1	CA	69	G	O3'-P	-8.45	1.51	1.61
23	BA	2570	G	N9-C4	-8.37	1.31	1.38
1	AA	1332	A	N9-C4	8.35	1.42	1.37
23	DA	530	G	N9-C8	8.33	1.43	1.37
23	BA	2499	C	N1-C6	-8.31	1.32	1.37
23	BA	1393	A	N3-C4	-8.21	1.29	1.34
23	BA	2452	C	N1-C6	-8.20	1.32	1.37
23	DA	1142(A)	A	N9-C4	-8.10	1.32	1.37
23	DA	2296	U	C4-O4	8.06	1.30	1.23
23	BA	2060	A	C6-N1	-8.05	1.29	1.35
23	BA	2620	C	N1-C6	-8.05	1.32	1.37
23	DA	1762	A	N9-C4	8.02	1.42	1.37
23	BA	2055	C	P-OP2	-8.00	1.35	1.49
23	BA	2515	C	C4-C5	-7.89	1.36	1.43
23	BA	528	A	N9-C8	7.89	1.44	1.37
23	BA	2055	C	P-OP1	-7.86	1.35	1.49
23	BA	2497	A	N7-C5	-7.84	1.34	1.39
23	BA	2017	U	C2-N3	-7.83	1.32	1.37
23	BA	469	G	N9-C8	-7.81	1.32	1.37
23	DA	2296	U	N1-C2	7.81	1.45	1.38
23	BA	2497	A	N9-C8	-7.79	1.31	1.37
23	BA	1137	G	C5-C4	-7.77	1.32	1.38
50	D6	40	CYS	CB-SG	7.76	1.95	1.82
23	BA	2515	C	N3-C4	-7.73	1.28	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	1605	C	N1-C6	-7.71	1.32	1.37
23	BA	2032	G	C6-N1	-7.70	1.34	1.39
23	BA	2244	U	N3-C4	-7.70	1.31	1.38
23	BA	1638	C	N1-C6	-7.70	1.32	1.37
23	BA	530	G	C8-N7	7.67	1.35	1.30
23	BA	567	A	N7-C5	-7.64	1.34	1.39
23	BA	1204	A	C5-C6	-7.60	1.34	1.41
23	BA	2287	A	N9-C4	-7.60	1.33	1.37
23	BA	272(A)	U	C1'-N1	7.59	1.60	1.48
23	BA	2600	A	N7-C5	-7.51	1.34	1.39
23	BA	467	G	C5-C4	-7.46	1.33	1.38
23	BA	2617	C	N1-C6	-7.46	1.32	1.37
23	BA	2361	A	N9-C4	-7.43	1.33	1.37
23	BA	1210	A	C5-C6	-7.34	1.34	1.41
23	BA	2445	G	N9-C8	-7.34	1.32	1.37
23	BA	2456	C	N1-C6	-7.32	1.32	1.37
23	DA	1817	G	N7-C5	-7.31	1.34	1.39
23	BA	2032	G	N7-C5	-7.30	1.34	1.39
23	BA	980	A	N9-C4	-7.29	1.33	1.37
23	BA	2063	C	N1-C6	-7.29	1.32	1.37
23	BA	964	C	N3-C4	-7.28	1.28	1.33
23	BA	2441	C	P-O5'	-7.28	1.52	1.59
23	BA	1791	A	N9-C4	-7.26	1.33	1.37
23	BA	2730	C	N3-C4	-7.26	1.28	1.33
23	BA	2502	G	N9-C8	-7.24	1.32	1.37
23	DA	194	G	N7-C5	-7.24	1.34	1.39
23	BA	189	G	N7-C5	-7.22	1.34	1.39
23	BA	2542	A	C5-C4	-7.22	1.33	1.38
23	DA	530	G	C8-N7	7.21	1.35	1.30
23	DA	2104	G	N1-C2	-7.19	1.31	1.37
23	DA	2104	G	C6-N1	-7.17	1.34	1.39
23	BA	2335	A	C5-C6	-7.17	1.34	1.41
23	BA	2028	U	C2-N3	-7.15	1.32	1.37
23	BA	1322	A	N7-C5	-7.15	1.34	1.39
23	DA	2031	A	C5-C6	-7.14	1.34	1.41
23	BA	582	G	N9-C8	-7.14	1.32	1.37
23	BA	1131	G	C6-N1	-7.13	1.34	1.39
23	BA	2499	C	N3-C4	-7.13	1.28	1.33
23	BA	1779	U	N3-C4	-7.12	1.32	1.38
23	BA	1022	G	N3-C4	-7.10	1.30	1.35
23	BA	37	C	N1-C6	-7.07	1.32	1.37
23	DA	310	A	N9-C4	-7.07	1.33	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1254	A	P-O5'	-7.05	1.52	1.59
23	BA	579	G	N9-C8	-7.05	1.32	1.37
23	BA	2104	G	N1-C2	-7.05	1.32	1.37
23	BA	2822	G	N9-C8	-7.04	1.32	1.37
4	AD	12	CYS	CB-SG	7.03	1.94	1.82
1	CA	1123	A	N9-C4	7.03	1.42	1.37
23	BA	195	A	N9-C4	-7.02	1.33	1.37
24	BB	120	A	C6-N1	7.02	1.40	1.35
23	BA	1325	G	P-OP1	-7.01	1.37	1.49
1	CA	1087	G	N9-C4	7.01	1.43	1.38
23	DA	687	C	N1-C6	-7.01	1.32	1.37
23	BA	801	G	N9-C8	-7.00	1.32	1.37
1	CA	1031	G	N3-C4	7.00	1.40	1.35
23	BA	467	G	P-OP2	-6.97	1.37	1.49
23	BA	1572	A	N3-C4	-6.97	1.30	1.34
23	BA	2044	C	N1-C6	-6.96	1.32	1.37
23	BA	2026	C	N1-C6	-6.95	1.32	1.37
23	BA	1379	A	N9-C4	-6.95	1.33	1.37
23	BA	2018	G	N3-C4	-6.94	1.30	1.35
23	DA	1638	C	N1-C6	-6.92	1.32	1.37
23	BA	1614	A	N3-C4	-6.91	1.30	1.34
24	DB	120	A	C6-N1	6.91	1.40	1.35
23	BA	1427	A	C6-N1	-6.90	1.30	1.35
23	BA	27	G	N3-C4	-6.89	1.30	1.35
23	DA	1204	A	N9-C4	-6.89	1.33	1.37
23	BA	2730	C	C2-N3	-6.87	1.30	1.35
23	BA	1332	G	C6-O6	-6.86	1.18	1.24
23	BA	2030	A	C5-C4	-6.85	1.33	1.38
23	BA	975	C	N3-C4	-6.84	1.29	1.33
23	BA	2045	C	N1-C6	-6.83	1.33	1.37
23	BA	2500	U	C4-O4	-6.82	1.18	1.23
23	DA	1127	A	N7-C5	-6.82	1.35	1.39
23	BA	1325	G	P-OP2	-6.82	1.37	1.49
23	BA	2104	G	C6-N1	-6.82	1.34	1.39
23	BA	794	G	N1-C2	-6.81	1.32	1.37
23	BA	195	A	N3-C4	-6.80	1.30	1.34
23	BA	1660	C	C2-O2	-6.77	1.18	1.24
23	BA	1403	C	N1-C6	-6.77	1.33	1.37
23	BA	794	G	C6-N1	-6.76	1.34	1.39
4	AD	26	CYS	CB-SG	6.74	1.93	1.82
23	BA	1633	G	N7-C5	-6.74	1.35	1.39
23	DA	272(A)	U	C1'-N1	6.74	1.58	1.48

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	686	G	N7-C5	-6.72	1.35	1.39
23	BA	1571	A	N9-C4	-6.72	1.33	1.37
23	BA	2515	C	N1-C6	-6.71	1.33	1.37
23	BA	1608	A	N7-C5	-6.70	1.35	1.39
23	BA	126	A	N7-C5	-6.68	1.35	1.39
23	BA	2504	U	P-O5'	-6.67	1.53	1.59
23	BA	756	C	N1-C6	-6.67	1.33	1.37
23	BA	2872	G	N7-C5	-6.67	1.35	1.39
23	BA	2286	A	N7-C5	-6.66	1.35	1.39
23	BA	2015	A	N7-C5	-6.66	1.35	1.39
23	DA	528	A	N3-C4	-6.66	1.30	1.34
23	BA	2727	G	N7-C5	-6.65	1.35	1.39
23	DA	1142(A)	A	N3-C4	-6.64	1.30	1.34
23	BA	31	C	N1-C6	-6.64	1.33	1.37
23	BA	27	G	P-OP2	-6.64	1.37	1.49
23	BA	2690	C	N1-C6	-6.62	1.33	1.37
23	BA	2055	C	P-O5'	-6.62	1.53	1.59
23	BA	1137	G	N7-C5	-6.62	1.35	1.39
23	BA	1195	G	N7-C5	-6.61	1.35	1.39
23	BA	2055	C	O3'-P	-6.61	1.53	1.61
23	BA	2430	A	N9-C4	-6.60	1.33	1.37
23	BA	532	A	N7-C5	-6.59	1.35	1.39
23	BA	529	A	N3-C4	-6.59	1.30	1.34
23	BA	678	C	N1-C6	-6.58	1.33	1.37
23	BA	578	A	N7-C5	-6.58	1.35	1.39
23	BA	2041	U	N1-C2	-6.58	1.32	1.38
23	BA	780	G	N7-C5	-6.57	1.35	1.39
23	BA	2503	A	C5-C6	-6.57	1.35	1.41
23	BA	1605	C	N3-C4	-6.57	1.29	1.33
1	AA	1001	A	N9-C4	6.57	1.41	1.37
23	BA	1322	A	N9-C4	-6.56	1.33	1.37
23	BA	1251	C	P-O5'	-6.55	1.53	1.59
23	BA	448	U	N3-C4	-6.54	1.32	1.38
23	BA	16	G	N3-C4	-6.54	1.30	1.35
23	BA	515	A	N7-C5	-6.54	1.35	1.39
23	BA	2587	A	N7-C5	-6.54	1.35	1.39
23	BA	466	A	P-OP2	-6.53	1.37	1.49
23	DA	2287	A	N9-C4	-6.52	1.33	1.37
23	BA	1132	A	N3-C4	-6.52	1.30	1.34
23	BA	818	G	C6-N1	-6.50	1.34	1.39
23	BA	819	A	N3-C4	-6.50	1.30	1.34
23	BA	73	A	N3-C4	-6.49	1.30	1.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1755	A	C6-N1	-6.48	1.31	1.35
23	BA	818	G	N3-C4	-6.48	1.30	1.35
23	BA	1393	A	C5-C4	-6.48	1.34	1.38
23	BA	566	U	C2-N3	-6.47	1.33	1.37
23	BA	2578	G	N1-C2	-6.47	1.32	1.37
23	DA	139(A)	G	N9-C8	6.46	1.42	1.37
23	BA	983	A	C6-N1	-6.45	1.31	1.35
23	BA	788	A	N7-C5	-6.45	1.35	1.39
23	BA	682	G	C5-C4	-6.44	1.33	1.38
23	BA	2834	G	N7-C5	-6.44	1.35	1.39
23	BA	2424	C	N1-C6	-6.43	1.33	1.37
23	BA	1250	G	N7-C5	-6.43	1.35	1.39
23	BA	2059	A	C5-C4	-6.42	1.34	1.38
23	BA	582	G	N7-C5	-6.42	1.35	1.39
23	BA	675	A	C6-N1	-6.42	1.31	1.35
23	BA	1791	A	N7-C5	-6.42	1.35	1.39
23	BA	24	G	N1-C2	-6.42	1.32	1.37
23	BA	1254	A	P-OP2	-6.42	1.38	1.49
23	BA	2689	U	N3-C4	-6.41	1.32	1.38
23	DA	2572	A	N3-C4	-6.41	1.31	1.34
23	DA	1289	C	N1-C6	-6.40	1.33	1.37
23	BA	516	C	N1-C6	-6.40	1.33	1.37
23	BA	2011	U	C4-O4	-6.39	1.18	1.23
23	BA	2335	A	N9-C4	-6.39	1.34	1.37
23	BA	793	A	N3-C4	-6.38	1.31	1.34
23	BA	2056	G	P-OP2	-6.38	1.38	1.49
23	BA	981	A	C5-C4	-6.38	1.34	1.38
23	BA	1248	G	C2-N3	-6.37	1.27	1.32
23	DA	2607	G	N7-C5	-6.37	1.35	1.39
23	BA	780	G	N9-C8	-6.37	1.33	1.37
23	BA	2741	A	N9-C4	-6.36	1.34	1.37
23	BA	528	A	N3-C4	-6.36	1.31	1.34
23	BA	2524	G	N9-C8	-6.36	1.33	1.37
23	BA	1226	A	N7-C5	-6.35	1.35	1.39
23	BA	1204	A	N3-C4	-6.34	1.31	1.34
23	BA	676	A	P-O5'	-6.33	1.53	1.59
23	BA	973	A	P-O5'	-6.33	1.53	1.59
23	BA	2070	G	C2-N2	-6.32	1.28	1.34
23	BA	2030	A	N3-C4	-6.32	1.31	1.34
23	BA	575	A	P-OP1	-6.32	1.38	1.49
23	BA	1315	C	N3-C4	-6.32	1.29	1.33
23	DA	2322	A	C5-C6	6.32	1.46	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	47	C	N3-C4	-6.30	1.29	1.33
23	BA	235	U	C2-N3	-6.30	1.33	1.37
4	AD	9	CYS	CB-SG	6.29	1.93	1.82
23	BA	760	G	N9-C8	-6.28	1.33	1.37
23	BA	2346	A	N3-C4	-6.28	1.31	1.34
23	BA	2621	A	P-O5'	-6.28	1.53	1.59
23	BA	2327	A	N9-C4	-6.27	1.34	1.37
23	BA	2490	G	N3-C4	-6.27	1.31	1.35
23	BA	70	G	C6-N1	-6.27	1.35	1.39
23	BA	564	C	N3-C4	-6.27	1.29	1.33
23	BA	233	A	N3-C4	-6.26	1.31	1.34
23	BA	457	A	C6-N1	-6.25	1.31	1.35
23	BA	575	A	N7-C5	-6.25	1.35	1.39
23	BA	2577	A	N7-C5	-6.25	1.35	1.39
23	BA	2581	G	N1-C2	-6.24	1.32	1.37
23	BA	469	G	N7-C5	-6.24	1.35	1.39
23	BA	1335	U	N1-C6	-6.24	1.32	1.38
23	BA	2064	C	N1-C6	-6.24	1.33	1.37
23	DA	2617	C	N1-C6	-6.24	1.33	1.37
23	DA	2335	A	C5-C6	-6.23	1.35	1.41
23	BA	781	A	C5-C4	-6.23	1.34	1.38
23	DA	793	A	N3-C4	-6.23	1.31	1.34
23	BA	933	A	N9-C4	-6.22	1.34	1.37
23	BA	1131	G	N1-C2	-6.22	1.32	1.37
23	BA	769	G	C2-N3	-6.22	1.27	1.32
23	DA	2017	U	N1-C6	-6.22	1.32	1.38
23	BA	2050	C	N1-C6	-6.21	1.33	1.37
23	DA	27	G	N3-C4	-6.21	1.31	1.35
23	BA	2557	G	C2-N3	-6.21	1.27	1.32
23	BA	2625	G	C2-N3	-6.21	1.27	1.32
23	BA	570	G	C6-N1	-6.20	1.35	1.39
23	BA	2614	A	P-O5'	-6.20	1.53	1.59
23	BA	570	G	C5-C4	-6.20	1.34	1.38
23	BA	533	G	C6-N1	-6.19	1.35	1.39
23	BA	190	A	C6-N1	-6.19	1.31	1.35
23	BA	1600	C	N1-C6	-6.19	1.33	1.37
23	BA	467	G	N9-C8	-6.18	1.33	1.37
23	BA	467	G	C8-N7	-6.17	1.27	1.30
23	DA	2821	A	C5-C6	-6.17	1.35	1.41
23	BA	2002	G	N7-C5	-6.17	1.35	1.39
23	DA	1785	A	N7-C5	-6.16	1.35	1.39
23	BA	939	G	C5-C4	-6.16	1.34	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2765	A	N7-C5	-6.15	1.35	1.39
23	BA	2239	G	N1-C2	-6.15	1.32	1.37
1	AA	816	A	N9-C4	-6.14	1.34	1.37
23	BA	575	A	P-OP2	-6.14	1.38	1.49
23	BA	2610	C	N1-C6	-6.13	1.33	1.37
23	BA	2030	A	N9-C4	-6.13	1.34	1.37
23	BA	571	A	N9-C4	-6.13	1.34	1.37
23	BA	1247	A	N7-C5	-6.13	1.35	1.39
23	DA	1660	C	N1-C6	-6.13	1.33	1.37
23	DA	1635	G	N7-C5	-6.12	1.35	1.39
23	BA	1432	C	N1-C6	-6.12	1.33	1.37
23	DA	205	G	N9-C4	6.12	1.42	1.38
23	BA	964	C	C4-C5	-6.11	1.38	1.43
23	BA	389	G	N3-C4	-6.10	1.31	1.35
23	BA	453	C	P-OP1	-6.09	1.38	1.49
23	BA	2578	G	P-OP2	-6.09	1.38	1.49
23	BA	738	G	N7-C5	-6.09	1.35	1.39
23	BA	2346	A	N7-C5	-6.09	1.35	1.39
23	BA	1992	G	P-O5'	-6.08	1.53	1.59
25	BD	237	GLU	CD-OE1	6.08	1.32	1.25
23	BA	1190	G	N7-C5	-6.08	1.35	1.39
23	BA	2007	C	P-OP2	-6.08	1.38	1.49
23	BA	265	A	C5-C6	-6.07	1.35	1.41
23	BA	2765	A	N9-C4	-6.07	1.34	1.37
23	DA	697	C	N1-C6	-6.07	1.33	1.37
23	BA	466	A	P-OP1	-6.07	1.38	1.49
23	BA	955	C	N3-C4	-6.07	1.29	1.33
23	DA	2252	G	C5-C4	-6.06	1.34	1.38
23	BA	57	C	N1-C6	-6.05	1.33	1.37
23	BA	48	G	N1-C2	-6.05	1.32	1.37
23	BA	2286	A	C5-C6	-6.05	1.35	1.41
23	BA	2516	G	C6-N1	-6.05	1.35	1.39
23	BA	2014	A	C5-C4	-6.04	1.34	1.38
23	BA	1570	A	N9-C4	-6.04	1.34	1.37
23	DA	2430	A	N9-C4	-6.04	1.34	1.37
23	BA	130	C	N1-C6	-6.04	1.33	1.37
23	BA	1786	A	N3-C4	-6.03	1.31	1.34
23	BA	330	A	N3-C4	-6.02	1.31	1.34
23	BA	2383	G	N7-C5	-6.02	1.35	1.39
23	BA	2043	C	N3-C4	-6.02	1.29	1.33
23	BA	2515	C	C5-C6	-6.02	1.29	1.34
23	DA	2625	G	N3-C4	-6.02	1.31	1.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2430	A	N3-C4	-6.01	1.31	1.34
23	BA	1605	C	N1-C6	-6.01	1.33	1.37
23	BA	27	G	C2-N3	-6.01	1.27	1.32
1	AA	1377	A	N9-C4	6.01	1.41	1.37
23	BA	2466	C	N1-C6	-6.01	1.33	1.37
23	DA	506	G	N9-C4	-6.01	1.33	1.38
23	DA	2070	G	N9-C8	-6.01	1.33	1.37
23	BA	19	C	N1-C6	-6.00	1.33	1.37
23	BA	1137	G	N1-C2	-6.00	1.32	1.37
23	BA	567	A	C5-C6	-6.00	1.35	1.41
23	BA	2069	G	C5-C4	-6.00	1.34	1.38
23	BA	2020	A	C6-N6	-5.99	1.29	1.33
23	BA	73	A	C6-N1	-5.98	1.31	1.35
23	BA	265	A	N9-C4	-5.98	1.34	1.37
23	DA	1614	A	N9-C4	-5.98	1.34	1.37
23	BA	465	G	C6-N1	-5.98	1.35	1.39
23	BA	527	C	N3-C4	-5.97	1.29	1.33
23	DA	1571	A	N9-C4	-5.96	1.34	1.37
23	BA	819	A	P-OP1	-5.96	1.38	1.49
23	BA	23	G	N3-C4	-5.95	1.31	1.35
23	BA	1204	A	N9-C4	-5.95	1.34	1.37
23	BA	2790	A	N9-C4	5.95	1.41	1.37
23	DA	462	C	N3-C4	-5.95	1.29	1.33
23	BA	528	A	C5-C6	-5.94	1.35	1.41
23	BA	197	A	N9-C4	-5.94	1.34	1.37
23	BA	37	C	N3-C4	-5.93	1.29	1.33
23	BA	777	A	C6-N1	-5.93	1.31	1.35
23	BA	2577	A	N9-C8	-5.93	1.33	1.37
23	BA	2718	G	N3-C4	-5.93	1.31	1.35
23	BA	516	C	P-O5'	-5.92	1.53	1.59
23	DA	1569	A	C6-N1	-5.92	1.31	1.35
23	BA	2712	U	P-O5'	-5.92	1.53	1.59
23	BA	1783	A	N7-C5	-5.92	1.35	1.39
23	BA	970	C	N3-C4	-5.92	1.29	1.33
23	BA	2622	C	N3-C4	-5.91	1.29	1.33
23	BA	528	A	C2-N3	-5.91	1.28	1.33
23	BA	1266	G	C5-C4	-5.91	1.34	1.38
23	BA	1338	G	C8-N7	-5.91	1.27	1.30
23	DA	1698	A	C5-C4	5.90	1.42	1.38
1	AA	1459	C	C2-O2	5.90	1.29	1.24
23	BA	60	G	C5-C4	-5.90	1.34	1.38
23	BA	2826	A	C5-C4	-5.90	1.34	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1131	G	C5-C4	-5.89	1.34	1.38
23	DA	933	A	N3-C4	-5.89	1.31	1.34
23	BA	2045	C	N3-C4	-5.88	1.29	1.33
23	BA	800	A	N3-C4	-5.88	1.31	1.34
23	BA	1271	G	N9-C8	-5.88	1.33	1.37
23	BA	2079	U	P-O5'	-5.88	1.53	1.59
23	BA	678	C	C2-N3	-5.88	1.31	1.35
23	BA	1202	C	N1-C6	-5.87	1.33	1.37
23	DA	2288	A	N9-C4	5.87	1.41	1.37
23	BA	119	A	P-O5'	-5.87	1.53	1.59
23	BA	1020	A	N7-C5	-5.87	1.35	1.39
23	BA	1158	C	N3-C4	-5.87	1.29	1.33
23	BA	2430	A	N3-C4	-5.86	1.31	1.34
23	BA	209	C	N3-C4	-5.86	1.29	1.33
42	DY	79	CYS	CB-SG	-5.86	1.72	1.81
23	BA	119	A	N9-C8	-5.85	1.33	1.37
23	BA	58	G	C6-N1	-5.85	1.35	1.39
23	DA	990	A	N3-C4	-5.85	1.31	1.34
23	DA	2503	A	N7-C5	-5.85	1.35	1.39
23	BA	2641	G	P-O5'	-5.84	1.53	1.59
23	BA	23	G	N1-C2	-5.84	1.33	1.37
23	BA	818	G	C5-C4	-5.84	1.34	1.38
23	BA	1261	C	N3-C4	-5.83	1.29	1.33
23	BA	2070	G	N9-C8	-5.83	1.33	1.37
23	BA	2497	A	P-O5'	-5.83	1.53	1.59
23	DA	1786	A	N9-C4	-5.83	1.34	1.37
23	BA	1328	G	C8-N7	-5.83	1.27	1.30
23	BA	493	G	C2-N3	-5.82	1.28	1.32
1	CA	977	A	N9-C4	5.82	1.41	1.37
23	BA	2580	U	P-O5'	-5.82	1.53	1.59
23	BA	2044	C	N3-C4	-5.82	1.29	1.33
23	BA	2499	C	C4-N4	-5.82	1.28	1.33
23	BA	2873	A	C6-N1	-5.82	1.31	1.35
23	BA	2017	U	N1-C6	-5.81	1.32	1.38
23	BA	984	A	C6-N1	-5.81	1.31	1.35
23	BA	1030	G	C6-N1	-5.81	1.35	1.39
23	BA	192	C	N3-C4	-5.80	1.29	1.33
23	BA	820	A	N9-C4	-5.80	1.34	1.37
23	DA	1535	A	N9-C4	5.80	1.41	1.37
23	DA	1779	U	C2-N3	-5.80	1.33	1.37
23	BA	2608	G	N3-C4	-5.80	1.31	1.35
23	BA	488	G	N9-C8	-5.80	1.33	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2623	G	N1-C2	-5.80	1.33	1.37
23	BA	2823	A	C5-C6	-5.79	1.35	1.41
23	DA	330	A	N9-C4	-5.79	1.34	1.37
23	BA	202	U	N1-C6	-5.79	1.32	1.38
23	BA	1773	A	C5-C4	-5.78	1.34	1.38
23	BA	2015	A	C5-C6	-5.77	1.35	1.41
23	BA	1783	A	C6-N1	-5.77	1.31	1.35
23	BA	141	A	C5-C6	-5.77	1.35	1.41
23	BA	463	G	C6-N1	-5.77	1.35	1.39
23	BA	939	G	N9-C8	-5.77	1.33	1.37
23	BA	1378	A	N3-C4	-5.77	1.31	1.34
23	BA	1647	G	C5-C4	-5.77	1.34	1.38
23	DA	788	A	N7-C5	-5.77	1.35	1.39
23	BA	1324	G	O3'-P	-5.77	1.54	1.61
23	BA	2000	G	C6-N1	-5.77	1.35	1.39
25	DD	237	GLU	CD-OE1	5.76	1.31	1.25
23	BA	2730	C	N1-C6	-5.76	1.33	1.37
23	DA	777	A	N7-C5	-5.76	1.35	1.39
23	BA	1608	A	N9-C8	-5.76	1.33	1.37
23	DA	463	G	C6-N1	-5.76	1.35	1.39
23	BA	806	C	C4-C5	-5.76	1.38	1.43
4	CD	12	CYS	CB-SG	5.75	1.92	1.82
23	BA	2574	G	C5-C4	-5.75	1.34	1.38
23	BA	2620	C	N3-C4	-5.75	1.29	1.33
1	AA	1339	A	N9-C4	5.74	1.41	1.37
23	DA	1325	G	C2-N3	5.74	1.37	1.32
23	BA	1572	A	C6-N1	-5.74	1.31	1.35
23	BA	945	A	N9-C4	-5.74	1.34	1.37
23	DA	2512	C	C4-C5	5.74	1.47	1.43
23	BA	512	G	P-O5'	-5.74	1.54	1.59
23	BA	2587	A	N9-C8	-5.74	1.33	1.37
23	DA	191	A	N7-C5	-5.74	1.35	1.39
23	BA	2781	A	C6-N1	-5.73	1.31	1.35
23	BA	783	A	N7-C5	-5.72	1.35	1.39
23	BA	38	A	N3-C4	-5.72	1.31	1.34
23	BA	1424	G	N3-C4	-5.72	1.31	1.35
23	BA	2061	G	N7-C5	-5.72	1.35	1.39
23	DA	463	G	N1-C2	-5.72	1.33	1.37
23	BA	2502	G	N7-C5	-5.72	1.35	1.39
23	BA	2489	G	N9-C8	-5.72	1.33	1.37
23	BA	28	A	N7-C5	-5.71	1.35	1.39
23	BA	1786	A	C5-C4	-5.71	1.34	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1360	A	N9-C4	-5.71	1.34	1.37
23	BA	2063	C	C4-C5	-5.71	1.38	1.43
23	BA	70	G	N1-C2	-5.70	1.33	1.37
23	BA	2013	A	O3'-P	-5.70	1.54	1.61
23	DA	2016	U	C2-O2	5.70	1.27	1.22
23	BA	746	A	N9-C4	-5.70	1.34	1.37
23	BA	2020	A	P-O5'	-5.70	1.54	1.59
23	DA	1829	A	N9-C4	-5.70	1.34	1.37
23	BA	2053	G	N9-C8	-5.70	1.33	1.37
23	BA	2333	A	N7-C5	-5.69	1.35	1.39
23	BA	2084	C	N1-C6	-5.69	1.33	1.37
23	BA	2725	A	N9-C4	-5.69	1.34	1.37
23	BA	2611	U	P-OP2	-5.69	1.39	1.49
23	BA	1601	G	N1-C2	-5.68	1.33	1.37
23	BA	2024	G	C8-N7	-5.68	1.27	1.30
23	BA	530	G	N3-C4	-5.68	1.31	1.35
23	BA	774	A	N7-C5	-5.68	1.35	1.39
23	BA	2037	G	C8-N7	-5.68	1.27	1.30
25	DD	28	GLU	CG-CD	5.68	1.60	1.51
23	BA	1359	A	C6-N6	-5.67	1.29	1.33
23	BA	2053	G	C5-C4	-5.67	1.34	1.38
23	DA	2513	G	C8-N7	5.67	1.34	1.30
23	DA	2287	A	C5-C6	-5.67	1.35	1.41
23	DA	2689	U	C3'-O3'	5.67	1.50	1.42
23	BA	1269	A	N3-C4	-5.66	1.31	1.34
23	BA	1611	C	C2-N3	-5.66	1.31	1.35
23	BA	20	C	N1-C6	-5.66	1.33	1.37
23	BA	848	G	N9-C8	-5.66	1.33	1.37
23	BA	454	A	N7-C5	-5.66	1.35	1.39
23	BA	1771	C	N3-C4	-5.66	1.29	1.33
23	BA	2200	C	N1-C6	-5.66	1.33	1.37
23	BA	2574	G	C6-N1	-5.66	1.35	1.39
23	BA	2719	G	N1-C2	-5.66	1.33	1.37
23	DA	2335	A	N9-C4	-5.66	1.34	1.37
23	BA	2497	A	C5-C4	-5.65	1.34	1.38
23	BA	1008	C	N1-C6	-5.65	1.33	1.37
23	DA	506	G	N3-C4	-5.65	1.31	1.35
23	BA	1661	G	N9-C8	-5.64	1.33	1.37
23	BA	90	U	C2-N3	5.64	1.41	1.37
23	BA	1784	A	C8-N7	-5.64	1.27	1.31
23	BA	194	G	N9-C8	-5.64	1.33	1.37
23	BA	2442	C	N3-C4	-5.64	1.30	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	234	C	N3-C4	-5.63	1.30	1.33
23	BA	566	U	C5-C6	-5.63	1.29	1.34
23	BA	2611	U	C2-O2	-5.63	1.17	1.22
23	BA	2872	G	N9-C8	-5.62	1.33	1.37
24	BB	76	G	C5-C4	-5.62	1.34	1.38
23	BA	800	A	N7-C5	-5.62	1.35	1.39
23	BA	16	G	C6-N1	-5.62	1.35	1.39
23	BA	1698	A	N9-C4	-5.62	1.34	1.37
23	BA	2393	A	C6-N1	-5.62	1.31	1.35
23	BA	191	A	N7-C5	-5.62	1.35	1.39
23	BA	266	G	N7-C5	-5.61	1.35	1.39
23	BA	2382	G	N7-C5	-5.61	1.35	1.39
23	BA	139(A)	G	N9-C8	5.61	1.41	1.37
23	BA	2711	A	N9-C4	-5.61	1.34	1.37
23	BA	2268	A	N7-C5	-5.61	1.35	1.39
23	BA	593	G	N7-C5	-5.61	1.35	1.39
23	BA	686	G	N7-C5	-5.60	1.35	1.39
23	DA	741	G	N1-C2	-5.60	1.33	1.37
23	BA	119	A	C6-N1	-5.60	1.31	1.35
23	BA	466	A	O3'-P	-5.60	1.54	1.61
23	BA	2543	G	C5-C4	-5.60	1.34	1.38
23	BA	2068	U	N1-C2	-5.60	1.33	1.38
23	BA	2466	C	C4-C5	-5.60	1.38	1.43
23	BA	793	A	C6-N1	-5.60	1.31	1.35
23	DA	1308	A	N7-C5	-5.60	1.35	1.39
23	BA	2052	G	C2-N3	-5.59	1.28	1.32
23	BA	750	A	C6-N1	-5.59	1.31	1.35
23	BA	1257	C	N1-C6	-5.58	1.33	1.37
23	DA	805	G	N9-C8	-5.58	1.33	1.37
23	DA	1854	A	N7-C5	-5.58	1.35	1.39
23	BA	684	G	N1-C2	-5.58	1.33	1.37
23	BA	211	A	C5-C4	-5.58	1.34	1.38
23	BA	815	C	N1-C6	-5.58	1.33	1.37
23	DA	832	G	C6-N1	-5.57	1.35	1.39
23	BA	458	G	N3-C4	-5.57	1.31	1.35
23	DA	2587	A	N7-C5	-5.57	1.35	1.39
23	BA	574	C	N3-C4	-5.57	1.30	1.33
23	BA	125	G	P-O5'	-5.56	1.54	1.59
23	BA	265	A	N7-C5	-5.56	1.35	1.39
23	BA	678	C	C5-C6	-5.56	1.29	1.34
23	BA	2497	A	N3-C4	-5.56	1.31	1.34
23	BA	2020	A	C5-C6	-5.55	1.36	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2432	A	C5-C4	-5.55	1.34	1.38
23	BA	1972	A	C5-C4	-5.55	1.34	1.38
23	BA	1195	G	C6-N1	-5.55	1.35	1.39
23	BA	2447	G	N7-C5	-5.55	1.35	1.39
23	BA	1132	A	C6-N1	-5.55	1.31	1.35
23	BA	2333	A	N9-C4	-5.54	1.34	1.37
23	BA	2515	C	C4-N4	-5.54	1.28	1.33
23	DA	2597	G	N7-C5	-5.54	1.35	1.39
23	DA	1613	G	N7-C5	-5.54	1.35	1.39
23	BA	989	G	N9-C8	-5.53	1.33	1.37
23	BA	478	A	C6-N1	-5.53	1.31	1.35
23	BA	1022	G	N1-C2	-5.53	1.33	1.37
23	BA	2505	G	N1-C2	-5.53	1.33	1.37
23	DA	2084	C	N1-C6	-5.53	1.33	1.37
23	BA	1786	A	C6-N1	-5.53	1.31	1.35
23	BA	1798	U	C2-N3	-5.52	1.33	1.37
23	BA	55	G	C5-C4	-5.52	1.34	1.38
23	BA	2344	U	N3-C4	-5.52	1.33	1.38
23	BA	413	C	N1-C6	-5.52	1.33	1.37
23	BA	451	C	N1-C6	-5.52	1.33	1.37
23	BA	967	C	C2-N3	-5.52	1.31	1.35
23	BA	771	G	N1-C2	-5.51	1.33	1.37
23	BA	2060	A	N9-C8	-5.51	1.33	1.37
23	BA	2267	A	N3-C4	-5.51	1.31	1.34
23	BA	469	G	C5-C4	-5.51	1.34	1.38
23	BA	2578	G	P-OP1	-5.51	1.39	1.49
23	BA	678	C	N3-C4	-5.50	1.30	1.33
1	CA	1459	C	P-O5'	5.50	1.65	1.59
23	BA	1154	G	C5-C4	-5.50	1.34	1.38
23	BA	579	G	C8-N7	-5.50	1.27	1.30
23	BA	837	C	C4-C5	-5.50	1.38	1.43
23	BA	1217	C	N1-C6	-5.50	1.33	1.37
23	DA	1665	A	N3-C4	-5.50	1.31	1.34
23	BA	128	C	C2-N3	-5.50	1.31	1.35
23	DA	2017	U	N3-C4	-5.50	1.33	1.38
24	DB	54	G	N9-C8	5.50	1.41	1.37
23	BA	1127	A	N3-C4	-5.50	1.31	1.34
23	BA	2335	A	C6-N1	-5.49	1.31	1.35
23	DA	2851	A	N9-C4	-5.49	1.34	1.37
23	BA	20	C	N3-C4	-5.49	1.30	1.33
23	BA	192	C	N1-C6	-5.49	1.33	1.37
23	DA	1296	G	N7-C5	-5.49	1.35	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	70	G	C6-N1	-5.49	1.35	1.39
23	DA	1308	A	N9-C4	-5.49	1.34	1.37
23	DA	463	G	N7-C5	-5.48	1.35	1.39
23	BA	763	G	N3-C4	-5.48	1.31	1.35
23	BA	1131	G	N3-C4	-5.48	1.31	1.35
23	BA	567	A	N9-C4	-5.48	1.34	1.37
23	BA	2716	U	C2-N3	-5.48	1.33	1.37
23	BA	673	C	N1-C6	-5.48	1.33	1.37
23	BA	2000	G	C5-C4	-5.47	1.34	1.38
23	BA	195	A	N7-C5	-5.47	1.35	1.39
23	BA	1129	A	C6-N1	-5.47	1.31	1.35
23	BA	1779	U	C2-N3	-5.47	1.33	1.37
23	BA	2490	G	C5-C4	-5.47	1.34	1.38
23	BA	2778	A	P-O5'	-5.47	1.54	1.59
23	BA	835	A	C5-C4	-5.47	1.34	1.38
23	BA	2722	G	C6-N1	-5.47	1.35	1.39
23	BA	2271	G	C6-N1	-5.46	1.35	1.39
23	BA	818	G	P-O5'	-5.46	1.54	1.59
23	BA	2066	C	N1-C6	-5.46	1.33	1.37
23	DA	1779	U	N3-C4	-5.46	1.33	1.38
23	BA	1027	A	N7-C5	-5.46	1.35	1.39
23	BA	2000	G	N1-C2	-5.46	1.33	1.37
23	BA	2697	G	N7-C5	-5.45	1.35	1.39
23	BA	2057	A	N9-C8	-5.45	1.33	1.37
23	DA	1605	C	N3-C4	-5.45	1.30	1.33
1	CA	1170	A	N9-C4	5.44	1.41	1.37
23	BA	394	A	N9-C4	-5.44	1.34	1.37
23	BA	1132	A	N7-C5	-5.44	1.35	1.39
23	BA	1982	C	N3-C4	-5.44	1.30	1.33
23	BA	2072	G	C2-N3	-5.44	1.28	1.32
23	DA	2883	A	N7-C5	-5.44	1.35	1.39
23	BA	2051	A	N7-C5	-5.44	1.35	1.39
23	DA	2790	A	N9-C4	5.44	1.41	1.37
23	BA	2497	A	N9-C4	-5.43	1.34	1.37
23	BA	2823	A	N7-C5	-5.43	1.35	1.39
23	BA	777	A	N3-C4	-5.43	1.31	1.34
23	BA	570	G	N1-C2	-5.42	1.33	1.37
23	BA	1312	U	N3-C4	-5.42	1.33	1.38
23	BA	2564	A	C5-C4	-5.42	1.34	1.38
23	BA	561	G	N1-C2	-5.42	1.33	1.37
23	BA	972	G	C2-N3	-5.42	1.28	1.32
23	BA	2820	A	P-OP2	-5.42	1.39	1.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	793	A	P-OP2	-5.42	1.39	1.49
23	BA	1126	A	N3-C4	-5.41	1.31	1.34
23	DA	2071	A	P-O5'	-5.41	1.54	1.59
23	BA	964	C	N1-C6	-5.41	1.33	1.37
23	DA	118	A	N9-C4	-5.41	1.34	1.37
23	BA	472	A	N3-C4	-5.41	1.31	1.34
23	BA	2451	A	C6-N1	-5.41	1.31	1.35
23	BA	2621	A	N9-C4	-5.40	1.34	1.37
23	BA	1275	A	C6-N1	-5.40	1.31	1.35
23	BA	2822	G	O3'-P	-5.40	1.54	1.61
23	BA	807	U	C2-N3	5.40	1.41	1.37
23	DA	471	A	N3-C4	-5.40	1.31	1.34
23	BA	207	A	N7-C5	-5.39	1.36	1.39
23	BA	1328	G	C6-O6	-5.39	1.19	1.24
23	DA	2296	U	C5-C6	5.39	1.39	1.34
23	BA	1367	A	N3-C4	-5.39	1.31	1.34
23	BA	1608	A	C5-C4	-5.39	1.34	1.38
32	BO	21	CYS	CB-SG	-5.39	1.73	1.81
23	BA	2032	G	N3-C4	-5.39	1.31	1.35
23	BA	1213	A	N3-C4	-5.38	1.31	1.34
23	BA	2692	C	N3-C4	-5.38	1.30	1.33
23	DA	775	G	C6-N1	-5.38	1.35	1.39
23	BA	530	G	C6-O6	-5.38	1.19	1.24
23	DA	298	G	N7-C5	-5.38	1.36	1.39
1	AA	1326	C	C2-N3	5.38	1.40	1.35
23	BA	799	G	C2-N3	-5.38	1.28	1.32
23	DA	2335	A	C5-C4	-5.38	1.34	1.38
23	BA	1568	G	C6-N1	-5.38	1.35	1.39
23	BA	706	A	N3-C4	-5.37	1.31	1.34
1	CA	346	G	N7-C5	-5.37	1.36	1.39
23	BA	836	G	C6-N1	-5.37	1.35	1.39
23	BA	1303	G	C6-N1	-5.37	1.35	1.39
23	BA	1754	C	N1-C6	-5.37	1.33	1.37
23	BA	2249	U	C2-N3	-5.37	1.33	1.37
23	BA	27	G	P-OP1	-5.37	1.39	1.49
23	BA	454	A	N3-C4	-5.37	1.31	1.34
23	BA	2764	A	N9-C4	-5.37	1.34	1.37
23	BA	2589	A	N9-C4	-5.36	1.34	1.37
23	BA	791	C	N1-C6	-5.36	1.33	1.37
23	BA	2619	C	N1-C6	-5.36	1.33	1.37
23	BA	980	A	C5-C4	-5.36	1.34	1.38
23	BA	2041	U	C2-N3	-5.36	1.33	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2233	U	C2-O2	-5.36	1.17	1.22
23	DA	1612	C	N1-C6	-5.36	1.33	1.37
23	DA	671	C	N1-C6	-5.35	1.33	1.37
23	BA	2830	G	N1-C2	-5.35	1.33	1.37
23	DA	2689	U	C2-N3	-5.35	1.34	1.37
1	CA	1093	A	N9-C4	5.35	1.41	1.37
23	BA	2454	G	N1-C2	-5.35	1.33	1.37
23	DA	959	A	N9-C4	5.35	1.41	1.37
23	BA	87	C	N3-C4	-5.34	1.30	1.33
23	DA	532	A	P-O5'	-5.34	1.54	1.59
23	BA	20	C	C4-C5	-5.34	1.38	1.43
23	BA	801	G	N9-C4	-5.33	1.33	1.38
23	BA	800	A	P-OP1	-5.33	1.39	1.49
23	DA	2322	A	N9-C4	5.33	1.41	1.37
23	BA	1384	A	N7-C5	-5.33	1.36	1.39
23	BA	583	G	C5-C6	-5.33	1.37	1.42
23	BA	1190	G	C5-C4	-5.33	1.34	1.38
23	BA	776	G	P-O5'	-5.32	1.54	1.59
23	BA	2548	G	C5-C4	-5.32	1.34	1.38
23	BA	1154	G	N3-C4	-5.32	1.31	1.35
23	BA	2024	G	N9-C8	-5.32	1.34	1.37
23	BA	2504	U	P-OP2	-5.32	1.40	1.49
23	BA	310	A	N9-C4	-5.32	1.34	1.37
23	BA	502	A	C6-N1	-5.32	1.31	1.35
23	BA	2678	C	N1-C6	-5.32	1.33	1.37
25	BD	28	GLU	CG-CD	5.32	1.59	1.51
23	DA	2823	A	N7-C5	-5.32	1.36	1.39
23	BA	131	G	N3-C4	-5.31	1.31	1.35
1	AA	1302	U	N1-C2	5.31	1.43	1.38
23	BA	1617	C	N1-C6	-5.31	1.33	1.37
23	DA	780	G	N9-C8	-5.30	1.34	1.37
23	DA	2177	C	N1-C6	5.30	1.40	1.37
23	BA	202	U	C4-C5	-5.30	1.38	1.43
23	BA	1214	A	C6-N1	-5.30	1.31	1.35
23	BA	2346	A	N9-C8	-5.30	1.33	1.37
23	BA	570	G	C5-C6	-5.30	1.37	1.42
23	BA	2029	G	N9-C8	-5.29	1.34	1.37
23	BA	196	A	N9-C8	-5.29	1.33	1.37
23	BA	2051	A	C5-C4	-5.29	1.35	1.38
23	BA	2359	C	C2-O2	-5.29	1.19	1.24
23	BA	118	A	C5-C4	-5.28	1.35	1.38
23	BA	2044	C	P-OP1	-5.28	1.40	1.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2822	G	N9-C4	-5.28	1.33	1.38
23	BA	1367	A	N9-C8	-5.28	1.33	1.37
23	BA	2577	A	N3-C4	-5.28	1.31	1.34
1	CA	1459	C	C2-O2	5.28	1.29	1.24
23	DA	2053	G	N7-C5	-5.28	1.36	1.39
23	BA	828	U	C2-N3	-5.27	1.34	1.37
23	BA	520	G	N1-C2	-5.27	1.33	1.37
23	BA	2542	A	N7-C5	-5.27	1.36	1.39
23	BA	462	C	C4-C5	-5.27	1.38	1.43
23	DA	1284	A	N3-C4	5.27	1.38	1.34
23	BA	748	G	C6-N1	-5.26	1.35	1.39
23	BA	744	G	N3-C4	-5.26	1.31	1.35
23	BA	769	G	N9-C8	-5.26	1.34	1.37
23	BA	107	C	C4-C5	-5.26	1.38	1.43
23	BA	2018	G	C6-N1	-5.26	1.35	1.39
50	B6	16	CYS	CB-SG	-5.26	1.73	1.81
23	BA	770	G	C6-N1	-5.26	1.35	1.39
23	DA	1209	G	C6-N1	-5.26	1.35	1.39
1	AA	977	A	N9-C4	5.26	1.41	1.37
23	BA	2456	C	C4-C5	-5.26	1.38	1.43
23	BA	1809	A	C6-N1	-5.25	1.31	1.35
23	BA	2372	G	C6-N1	5.25	1.43	1.39
1	CA	346	G	C6-N1	-5.25	1.35	1.39
23	BA	967	C	N1-C6	-5.25	1.33	1.37
23	DA	2322	A	C6-N1	5.25	1.39	1.35
23	BA	1653	G	C3'-O3'	5.24	1.49	1.42
23	BA	2568	C	N1-C6	-5.24	1.34	1.37
23	BA	1344	G	C2-N3	-5.24	1.28	1.32
23	BA	1367	A	C5-C4	-5.24	1.35	1.38
23	BA	2014	A	N9-C8	-5.24	1.33	1.37
1	AA	816	A	N3-C4	-5.24	1.31	1.34
23	BA	954	G	N1-C2	-5.24	1.33	1.37
23	BA	1003	G	N3-C4	-5.24	1.31	1.35
23	BA	1614	A	P-OP1	-5.24	1.40	1.49
23	BA	2243	U	N1-C2	-5.24	1.33	1.38
23	DA	529	A	N9-C4	-5.24	1.34	1.37
23	BA	2617	C	C4-C5	-5.23	1.38	1.43
23	BA	2488	A	C5-C4	-5.23	1.35	1.38
23	BA	574	C	C2-N3	-5.23	1.31	1.35
23	BA	837	C	N3-C4	-5.23	1.30	1.33
23	DA	761	A	P-O5'	-5.23	1.54	1.59
23	DA	2826	A	C6-N1	-5.23	1.31	1.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1006	C	N3-C4	-5.23	1.30	1.33
23	DA	450	G	N7-C5	-5.23	1.36	1.39
23	BA	51	G	C6-N1	-5.22	1.35	1.39
23	BA	1674	G	N7-C5	-5.22	1.36	1.39
23	BA	817	C	C4-N4	-5.22	1.29	1.33
23	BA	1638	C	N3-C4	-5.22	1.30	1.33
23	BA	211	A	N9-C4	-5.22	1.34	1.37
23	DA	1780	A	C6-N1	-5.22	1.31	1.35
23	BA	502	A	N3-C4	-5.21	1.31	1.34
23	DA	1210	A	N9-C4	-5.21	1.34	1.37
23	BA	2520	C	N1-C6	-5.21	1.34	1.37
23	DA	784	A	N9-C8	-5.21	1.33	1.37
23	DA	677	A	N7-C5	-5.21	1.36	1.39
23	BA	807	U	P-O5'	-5.21	1.54	1.59
23	BA	2541	A	N7-C5	-5.21	1.36	1.39
23	BA	2296	U	C5-C6	5.21	1.38	1.34
23	BA	2452	C	C4-C5	-5.21	1.38	1.43
23	BA	2322	A	N9-C4	5.20	1.41	1.37
23	BA	2488	A	N7-C5	-5.20	1.36	1.39
23	DA	1617	C	N1-C6	-5.20	1.34	1.37
23	BA	88	G	N7-C5	-5.20	1.36	1.39
23	BA	1303	G	C5-C4	-5.20	1.34	1.38
23	BA	2081	C	N1-C6	-5.20	1.34	1.37
23	DA	2502	G	C2-N3	5.20	1.36	1.32
23	BA	1269	A	C6-N1	-5.20	1.31	1.35
23	BA	1290	C	C2-O2	-5.20	1.19	1.24
23	BA	836	G	N1-C2	-5.19	1.33	1.37
23	BA	1154	G	C8-N7	-5.19	1.27	1.30
23	BA	1210	A	N3-C4	-5.19	1.31	1.34
23	DA	249	C	N3-C4	-5.19	1.30	1.33
23	BA	1642	G	C6-N1	-5.19	1.35	1.39
23	BA	763	G	C6-N1	-5.19	1.35	1.39
23	BA	2020	A	C6-N1	-5.19	1.31	1.35
23	BA	1125	G	N9-C4	-5.18	1.33	1.38
23	BA	1627	G	N1-C2	-5.18	1.33	1.37
23	BA	2732	G	C6-N1	-5.18	1.35	1.39
23	BA	191	A	N9-C8	-5.18	1.33	1.37
23	BA	446	G	C2-N3	-5.18	1.28	1.32
23	DA	783	A	N3-C4	-5.18	1.31	1.34
23	BA	469	G	P-O5'	-5.18	1.54	1.59
23	BA	1672	C	N1-C6	-5.18	1.34	1.37
1	AA	1289	A	N9-C4	5.18	1.41	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2056	G	P-O5'	-5.18	1.54	1.59
23	BA	511	U	N3-C4	-5.17	1.33	1.38
23	BA	957	A	N9-C4	-5.17	1.34	1.37
23	BA	2073	C	N1-C6	-5.17	1.34	1.37
23	BA	2600	A	C5-C6	-5.17	1.36	1.41
23	DA	2444	G	P-O5'	-5.17	1.54	1.59
23	BA	194	G	C6-N1	-5.17	1.35	1.39
23	BA	198	C	P-OP1	-5.17	1.40	1.49
23	BA	2548	G	N7-C5	-5.17	1.36	1.39
23	BA	516	C	C2-O2	-5.16	1.19	1.24
23	BA	1190	G	N9-C8	-5.16	1.34	1.37
23	BA	535	C	N3-C4	-5.16	1.30	1.33
23	BA	2051	A	N3-C4	-5.16	1.31	1.34
1	CA	839	U	N1-C2	5.16	1.43	1.38
23	BA	107	C	N1-C6	-5.16	1.34	1.37
23	BA	976	C	N3-C4	-5.16	1.30	1.33
23	BA	2046	G	N7-C5	-5.16	1.36	1.39
23	BA	2490	G	N1-C2	-5.16	1.33	1.37
23	BA	2508	G	N1-C2	-5.15	1.33	1.37
23	BA	1782	C	N1-C6	-5.15	1.34	1.37
23	BA	446	G	N9-C8	-5.15	1.34	1.37
23	BA	480	A	N7-C5	-5.15	1.36	1.39
23	BA	2229	C	N1-C6	-5.15	1.34	1.37
23	BA	312	G	P-O5'	-5.14	1.54	1.59
23	BA	2822	G	N7-C5	-5.14	1.36	1.39
23	BA	983	A	N9-C4	-5.14	1.34	1.37
23	BA	1778	U	N3-C4	-5.14	1.33	1.38
23	BA	802	A	N7-C5	-5.13	1.36	1.39
23	BA	2054	A	O3'-P	-5.13	1.54	1.61
23	BA	2081	C	N3-C4	-5.13	1.30	1.33
23	BA	2403	C	N1-C6	-5.13	1.34	1.37
23	BA	2497	A	C6-N1	-5.13	1.31	1.35
23	BA	495	G	N9-C8	-5.13	1.34	1.37
23	BA	1132	A	C5-C6	-5.13	1.36	1.41
23	BA	2730	C	C4-C5	-5.13	1.38	1.43
23	BA	1671	U	C2-N3	-5.13	1.34	1.37
52	D8	34	TRP	CB-CG	-5.13	1.41	1.50
23	BA	2570	G	N3-C4	-5.13	1.31	1.35
23	BA	683	C	C4-C5	-5.12	1.38	1.43
23	BA	2333	A	N9-C8	-5.12	1.33	1.37
23	DA	513	A	C5-C4	-5.12	1.35	1.38
23	BA	805	G	N7-C5	-5.12	1.36	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	474	G	N7-C5	-5.12	1.36	1.39
23	BA	580	C	N1-C6	-5.12	1.34	1.37
23	BA	698	C	N1-C6	-5.12	1.34	1.37
23	BA	2271	G	N7-C5	-5.12	1.36	1.39
23	BA	748	G	C5-C4	-5.12	1.34	1.38
23	BA	933	A	C5-C4	5.12	1.42	1.38
23	BA	1269	A	C5-C4	-5.12	1.35	1.38
23	BA	2621	A	C6-N6	-5.12	1.29	1.33
23	DA	933	A	N9-C8	5.12	1.41	1.37
23	DA	1823	G	C2-N3	-5.12	1.28	1.32
23	DA	2286	A	C5-C4	5.12	1.42	1.38
1	AA	69	G	C3'-O3'	5.11	1.49	1.42
23	BA	520	G	C6-N1	-5.11	1.35	1.39
24	DB	53	A	N9-C4	5.11	1.41	1.37
23	BA	1675	C	N3-C4	-5.11	1.30	1.33
23	BA	1284	A	N3-C4	5.11	1.38	1.34
23	BA	1365	A	C5-C6	-5.11	1.36	1.41
23	BA	1122	G	N9-C8	-5.11	1.34	1.37
23	BA	1128	A	C5-C6	-5.11	1.36	1.41
23	BA	1826	G	C6-N1	-5.11	1.35	1.39
23	BA	2252	G	C5-C6	-5.10	1.37	1.42
23	BA	2360	A	N3-C4	-5.10	1.31	1.34
23	DA	780	G	C5-C4	-5.10	1.34	1.38
23	DA	1788	C	N1-C6	-5.10	1.34	1.37
23	BA	1556	C	N3-C4	-5.10	1.30	1.33
23	DA	1954	G	N3-C4	-5.10	1.31	1.35
23	BA	2244	U	C2-O2	-5.10	1.17	1.22
23	BA	31	C	P-OP1	-5.10	1.40	1.49
23	BA	1332	G	N7-C5	-5.10	1.36	1.39
23	BA	2594	C	N1-C6	-5.10	1.34	1.37
23	DA	2607	G	N9-C8	-5.10	1.34	1.37
1	AA	1169	A	N9-C4	5.10	1.41	1.37
23	BA	822	U	P-O5'	-5.10	1.54	1.59
23	BA	684	G	C6-N1	-5.09	1.35	1.39
23	BA	1297	C	N3-C4	-5.09	1.30	1.33
23	BA	567	A	N3-C4	-5.09	1.31	1.34
23	BA	569	U	N1-C2	-5.09	1.33	1.38
23	BA	1754	C	N3-C4	-5.09	1.30	1.33
23	BA	2235	G	C8-N7	-5.09	1.27	1.30
1	CA	928	G	C6-N1	5.09	1.43	1.39
23	BA	2572	A	N9-C4	-5.09	1.34	1.37
23	BA	1647	G	C2-N3	-5.09	1.28	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1033	G	N9-C4	5.08	1.42	1.38
23	DA	1309	G	C8-N7	-5.08	1.27	1.30
23	BA	1393	A	C6-N1	-5.08	1.31	1.35
23	BA	2007	C	P-O5'	-5.08	1.54	1.59
23	DA	675	A	C6-N6	-5.08	1.29	1.33
23	DA	1191	G	N9-C8	-5.08	1.34	1.37
23	BA	952	G	N1-C2	-5.08	1.33	1.37
23	BA	2570	G	N9-C8	-5.08	1.34	1.37
23	BA	1620	G	C6-N1	-5.08	1.35	1.39
23	BA	2691	C	N1-C6	-5.08	1.34	1.37
23	DA	1660	C	N3-C4	-5.08	1.30	1.33
23	BA	377	C	N1-C6	-5.07	1.34	1.37
23	BA	573	G	N7-C5	-5.07	1.36	1.39
23	BA	755	C	N1-C6	-5.07	1.34	1.37
23	BA	189	G	C5-C4	-5.07	1.34	1.38
1	AA	1350	A	N9-C4	5.07	1.40	1.37
23	BA	450	G	N9-C8	-5.07	1.34	1.37
23	BA	1778	U	O3'-P	-5.07	1.55	1.61
23	BA	2030	A	N9-C8	-5.07	1.33	1.37
27	BF	89	VAL	C-O	-5.07	1.13	1.23
23	BA	2327	A	C5-C4	-5.07	1.35	1.38
23	BA	751	A	P-OP1	-5.06	1.40	1.49
1	AA	1030(D)	A	N9-C4	5.06	1.40	1.37
23	BA	1324	G	N9-C8	-5.06	1.34	1.37
23	BA	2013	A	N9-C4	-5.06	1.34	1.37
23	DA	1383	C	C2-N3	5.06	1.39	1.35
23	BA	700	G	C5-C4	-5.06	1.34	1.38
23	BA	2588	G	C6-N1	-5.05	1.36	1.39
23	DA	746	A	N9-C4	-5.05	1.34	1.37
23	BA	1376	C	N1-C6	-5.05	1.34	1.37
23	BA	1953	A	N7-C5	-5.05	1.36	1.39
23	BA	2424	C	N3-C4	-5.05	1.30	1.33
23	BA	2819	G	C6-N1	-5.05	1.36	1.39
23	BA	1570	A	N3-C4	-5.05	1.31	1.34
23	BA	32	C	N3-C4	-5.05	1.30	1.33
23	BA	1659	U	N1-C2	-5.05	1.34	1.38
23	BA	2621	A	C6-N1	-5.05	1.32	1.35
23	DA	687	C	C4-C5	-5.05	1.39	1.43
23	DA	1899	G	N7-C5	-5.05	1.36	1.39
23	BA	663	G	C5-C4	-5.04	1.34	1.38
23	BA	532	A	N9-C4	-5.04	1.34	1.37
23	BA	971	C	C2-O2	-5.04	1.20	1.24

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1334	G	C6-N1	-5.04	1.36	1.39
23	BA	1677	A	N9-C4	-5.04	1.34	1.37
23	BA	1797	C	N1-C6	-5.04	1.34	1.37
23	BA	2248	C	N1-C6	-5.04	1.34	1.37
25	BD	28	GLU	CB-CG	5.04	1.61	1.52
23	DA	687	C	N3-C4	-5.04	1.30	1.33
23	BA	215	G	N1-C2	-5.04	1.33	1.37
23	BA	254	G	N7-C5	-5.04	1.36	1.39
23	DA	523	C	N1-C6	-5.04	1.34	1.37
23	BA	943	U	C2-O2	-5.03	1.17	1.22
23	BA	1029	A	C5-C6	-5.03	1.36	1.41
23	BA	1904	G	N7-C5	-5.03	1.36	1.39
23	BA	684	G	P-O5'	-5.03	1.54	1.59
23	BA	1197	G	C6-N1	-5.03	1.36	1.39
23	BA	2428	G	N1-C2	-5.03	1.33	1.37
23	BA	2505	G	C6-N1	-5.03	1.36	1.39
1	CA	1191	A	N9-C4	5.03	1.40	1.37
23	DA	195	A	N7-C5	-5.03	1.36	1.39
23	DA	472	A	N3-C4	-5.02	1.31	1.34
23	BA	131	G	C6-N1	-5.02	1.36	1.39
23	BA	476	G	C2-N3	-5.02	1.28	1.32
23	BA	2553	G	N7-C5	-5.02	1.36	1.39
23	DA	573	G	N3-C4	-5.02	1.31	1.35
23	BA	465	G	O3'-P	-5.02	1.55	1.61
23	BA	1274	A	N3-C4	-5.02	1.31	1.34
23	BA	2692	C	N1-C6	-5.02	1.34	1.37
23	BA	2335	A	C5-C4	-5.01	1.35	1.38
1	AA	1442(A)	G	C6-N1	5.01	1.43	1.39
23	BA	2360	A	N9-C4	-5.01	1.34	1.37
23	BA	2441	C	N1-C6	-5.01	1.34	1.37
23	BA	2446	G	N9-C8	-5.01	1.34	1.37
23	BA	517	C	P-O5'	-5.00	1.54	1.59

All (5009) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1442(A)	G	N3-C4-C5	-27.29	114.95	128.60
1	CA	1459	C	N3-C2-O2	-27.00	103.00	121.90
1	AA	1442(A)	G	N3-C4-C5	-26.82	115.19	128.60
1	CA	1459	C	C6-N1-C2	-26.34	109.77	120.30
1	AA	1459	C	N3-C2-O2	-25.91	103.77	121.90
23	BA	1779	U	C5-C6-N1	-24.54	110.43	122.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1459	C	C6-N1-C2	-24.17	110.63	120.30
1	AA	1442(A)	G	N3-C4-N9	23.83	140.30	126.00
1	CA	1442(A)	G	N3-C4-N9	23.46	140.08	126.00
23	DA	1779	U	C5-C6-N1	-22.12	111.64	122.70
1	AA	1459	C	N1-C2-O2	21.67	131.90	118.90
1	CA	1459	C	N1-C2-O2	21.61	131.87	118.90
1	CA	1030	C	N1-C2-O2	21.33	131.70	118.90
23	BA	2296	U	C5-C6-N1	-19.55	112.93	122.70
23	DA	2296	U	C5-C6-N1	-19.00	113.20	122.70
1	CA	1442(A)	G	C6-N1-C2	-18.82	113.81	125.10
1	CA	1442(A)	G	C4-N9-C1'	18.22	150.19	126.50
1	AA	1442(A)	G	C6-N1-C2	-18.18	114.19	125.10
23	BA	2296	U	C2-N3-C4	-18.06	116.16	127.00
1	AA	1442(A)	G	C5-C6-N1	18.05	120.52	111.50
1	CA	1442(A)	G	C5-C6-N1	17.80	120.40	111.50
1	AA	1442(A)	G	C4-N9-C1'	17.72	149.53	126.50
23	DA	2104	G	N3-C2-N2	17.67	132.27	119.90
23	BA	2296	U	N1-C2-N3	17.62	125.47	114.90
23	DA	2296	U	N1-C2-N3	17.55	125.43	114.90
23	BA	530	G	N3-C2-N2	-17.53	107.63	119.90
1	AA	1442(A)	G	C2-N3-C4	17.53	120.66	111.90
23	BA	1142(A)	A	C2-N3-C4	-17.48	101.86	110.60
23	BA	2104	G	N3-C2-N2	17.45	132.12	119.90
23	DA	2296	U	C2-N3-C4	-17.29	116.62	127.00
1	CA	1459	C	C2-N1-C1'	17.05	137.55	118.80
23	BA	141	A	C5-N7-C8	-16.96	95.42	103.90
23	BA	528	A	C2-N3-C4	-16.90	102.15	110.60
23	BA	2296	U	N3-C4-O4	-16.80	107.64	119.40
23	BA	528	A	N3-C4-C5	16.40	138.28	126.80
1	AA	1459	C	C2-N1-C1'	16.34	136.77	118.80
23	DA	130	C	C6-N1-C2	16.32	126.83	120.30
23	BA	141	A	N7-C8-N9	16.09	121.84	113.80
23	BA	2296	U	C2-N1-C1'	-15.91	98.60	117.70
23	DA	2296	U	C2-N1-C1'	-15.87	98.66	117.70
23	BA	528	A	N3-C4-N9	-15.85	114.72	127.40
23	DA	528	A	C2-N3-C4	-15.78	102.71	110.60
23	BA	2296	U	C5-C4-O4	15.77	135.36	125.90
23	DA	528	A	N3-C4-N9	-15.63	114.90	127.40
1	CA	1442(A)	G	C2-N3-C4	15.44	119.62	111.90
23	DA	528	A	N3-C4-C5	15.39	137.57	126.80
23	DA	530	G	N3-C2-N2	-15.35	109.16	119.90
23	BA	2322	A	C6-N1-C2	-15.01	109.60	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2335	A	C5-C6-N1	14.94	125.17	117.70
23	DA	2296	U	N3-C4-O4	-14.77	109.06	119.40
1	AA	1442(A)	G	C8-N9-C1'	-14.65	107.96	127.00
23	BA	2185	C	N1-C2-O2	14.54	127.62	118.90
1	CA	1442(A)	G	C8-N9-C1'	-14.54	108.10	127.00
23	BA	330	A	C2-N3-C4	-14.43	103.39	110.60
1	CA	1442(A)	G	C8-N9-C4	-14.43	100.63	106.40
1	CA	1031	G	N3-C2-N2	14.29	129.90	119.90
23	BA	1779	U	C4-C5-C6	14.21	128.22	119.70
23	BA	130	C	C6-N1-C2	14.18	125.97	120.30
23	DA	2296	U	C5-C4-O4	14.09	134.35	125.90
23	BA	530	G	N3-C4-N9	-13.88	117.67	126.00
23	DA	2104	G	N1-C2-N2	-13.86	103.73	116.20
23	BA	1698	A	C2-N3-C4	-13.86	103.67	110.60
23	DA	2296	U	N3-C2-O2	-13.73	112.59	122.20
23	DA	2322	A	C6-N1-C2	-13.72	110.37	118.60
23	BA	2296	U	N3-C2-O2	-13.71	112.61	122.20
23	BA	933	A	C5-N7-C8	-13.63	97.08	103.90
23	BA	2104	G	C5-C6-O6	13.54	136.73	128.60
23	BA	2296	U	C6-N1-C1'	13.53	140.14	121.20
23	DA	2296	U	C6-N1-C1'	13.49	140.08	121.20
23	DA	2335	A	C5-C6-N1	13.43	124.42	117.70
23	DA	2104	G	C5-C6-O6	13.38	136.62	128.60
1	CA	1003	G	C5-C6-O6	13.36	136.62	128.60
23	BA	530	G	C8-N9-C4	-13.32	101.07	106.40
23	BA	2104	G	N1-C2-N2	-13.30	104.23	116.20
24	BB	120	A	C5-C6-N1	-13.28	111.06	117.70
23	BA	2322	A	N1-C6-N6	-13.27	110.64	118.60
23	BA	933	A	N7-C8-N9	13.12	120.36	113.80
23	DA	2185	C	N1-C2-O2	13.12	126.77	118.90
23	BA	1332	G	C5-C6-N1	13.11	118.06	111.50
23	DA	2104	G	N1-C6-O6	-13.10	112.04	119.90
1	CA	1442(A)	G	C5-C6-O6	-13.09	120.75	128.60
23	DA	1779	U	C2-N3-C4	-13.07	119.16	127.00
23	BA	221	A	C8-N9-C4	-13.05	100.58	105.80
24	DB	120	A	C5-C6-N1	-13.03	111.18	117.70
23	BA	2104	G	N1-C6-O6	-12.89	112.16	119.90
1	AA	1158	C	N1-C2-O2	12.80	126.58	118.90
23	DA	330	A	C2-N3-C4	-12.73	104.23	110.60
23	BA	2515	C	N3-C4-C5	12.68	126.97	121.90
23	BA	530	G	N1-C2-N2	12.65	127.58	116.20
1	AA	1442(A)	G	C8-N9-C4	-12.62	101.35	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1107	G	C4-N9-C1'	12.62	142.90	126.50
23	DA	1107	G	C4-N9-C1'	12.60	142.88	126.50
1	CA	1030	C	N3-C2-O2	-12.56	113.11	121.90
23	BA	1359	A	N1-C6-N6	-12.54	111.07	118.60
23	BA	2296	U	C4-C5-C6	12.53	127.22	119.70
23	BA	1779	U	N1-C2-N3	12.48	122.39	114.90
24	BB	5	C	C6-N1-C2	12.44	125.28	120.30
23	DA	2322	A	N1-C6-N6	-12.41	111.15	118.60
23	BA	141	A	N1-C6-N6	12.39	126.03	118.60
23	BA	139(A)	G	C4-C5-N7	12.37	115.75	110.80
23	BA	139(A)	G	C5-N7-C8	-12.36	98.12	104.30
23	BA	2346	A	N9-C4-C5	12.33	110.73	105.80
23	BA	1142(A)	A	C5-C6-N1	-12.31	111.54	117.70
23	BA	1107	G	C6-C5-N7	-12.29	123.03	130.40
1	CA	90	U	N3-C4-C5	12.26	121.95	114.60
23	DA	1142(A)	A	C2-N3-C4	-12.25	104.48	110.60
23	BA	856	C	C6-N1-C2	-12.25	115.40	120.30
23	BA	1210	A	C5-N7-C8	-12.24	97.78	103.90
23	BA	141	A	C4-C5-N7	12.20	116.80	110.70
23	BA	2322	A	C5-C6-N1	12.18	123.79	117.70
23	BA	2286	A	N1-C6-N6	12.17	125.90	118.60
1	CA	1031	G	N9-C4-C5	-12.12	100.55	105.40
24	BB	120	A	C6-N1-C2	12.11	125.86	118.60
23	DA	2296	U	C4-C5-C6	12.06	126.94	119.70
23	DA	1107	G	C8-N9-C1'	-12.05	111.34	127.00
23	BA	1107	G	C8-N9-C1'	-12.04	111.34	127.00
23	DA	409	C	C6-N1-C2	12.04	125.12	120.30
23	BA	2286	A	C6-C5-N7	-11.97	123.92	132.30
1	AA	1442(A)	G	C5-C6-O6	-11.94	121.44	128.60
1	CA	346	G	C4-N9-C1'	11.88	141.95	126.50
23	BA	1107	G	N1-C6-O6	11.87	127.02	119.90
23	DA	148	C	C6-N1-C2	11.80	125.02	120.30
23	BA	139(A)	G	N7-C8-N9	11.79	119.00	113.10
1	CA	1003	G	N1-C6-O6	-11.74	112.86	119.90
23	DA	1779	U	N3-C4-O4	-11.68	111.22	119.40
23	BA	1204	A	C6-C5-N7	-11.63	124.16	132.30
23	DA	141	A	N7-C8-N9	11.61	119.61	113.80
23	BA	1142(A)	A	N3-C4-N9	-11.58	118.14	127.40
23	BA	1204	A	C2-N3-C4	-11.58	104.81	110.60
24	DB	120	A	C6-N1-C2	11.56	125.54	118.60
23	DA	1108	U	N3-C2-O2	-11.54	114.12	122.20
1	AA	346	G	C4-N9-C1'	11.53	141.49	126.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1359	A	N1-C6-N6	-11.51	111.69	118.60
23	BA	794	G	N1-C6-O6	-11.47	113.02	119.90
23	DA	1210	A	C5-N7-C8	-11.47	98.17	103.90
23	DA	2322	A	C5-C6-N1	11.41	123.41	117.70
23	DA	530	G	N1-C2-N2	11.37	126.44	116.20
23	BA	409	C	C6-N1-C2	11.34	124.84	120.30
23	DA	777	A	N9-C4-C5	11.34	110.34	105.80
23	BA	473	G	N1-C6-O6	-11.33	113.10	119.90
23	DA	530	G	N3-C4-N9	-11.28	119.23	126.00
23	BA	141	A	C6-C5-N7	-11.27	124.41	132.30
23	BA	959	A	C8-N9-C4	-11.26	101.30	105.80
23	DA	141	A	N1-C6-N6	11.26	125.35	118.60
23	DA	1204	A	N1-C6-N6	11.21	125.33	118.60
23	BA	1108	U	N3-C2-O2	-11.21	114.36	122.20
23	DA	933	A	C5-N7-C8	-11.19	98.30	103.90
23	BA	1107	G	C5-C6-O6	-11.16	121.91	128.60
23	DA	1779	U	N1-C2-N3	11.15	121.59	114.90
23	BA	528	A	C6-N1-C2	11.12	125.27	118.60
23	DA	1698	A	N1-C6-N6	11.11	125.27	118.60
1	CA	1442(A)	G	C6-C5-N7	-11.09	123.75	130.40
23	BA	2322	A	N9-C4-C5	11.08	110.23	105.80
23	BA	2823	A	N1-C6-N6	11.05	125.23	118.60
23	DA	1698	A	C5-N7-C8	-11.00	98.40	103.90
23	BA	1328	G	C5-C6-N1	11.00	117.00	111.50
24	BB	120	A	N1-C2-N3	-10.98	123.81	129.30
23	BA	1204	A	C4-C5-N7	10.97	116.18	110.70
23	DA	1107	G	C6-C5-N7	-10.87	123.88	130.40
23	BA	265	A	N1-C6-N6	10.86	125.12	118.60
23	BA	1204	A	C5-N7-C8	-10.86	98.47	103.90
23	BA	141	A	C8-N9-C4	-10.84	101.46	105.80
23	BA	1210	A	N7-C8-N9	10.84	119.22	113.80
23	BA	1762	A	C8-N9-C4	-10.84	101.47	105.80
23	BA	106	C	C6-N1-C2	-10.83	115.97	120.30
1	CA	1484	C	C6-N1-C2	10.82	124.63	120.30
23	DA	2253	G	N1-C6-O6	10.78	126.37	119.90
23	BA	1107	G	C4-C5-N7	10.74	115.09	110.80
1	CA	346	G	C8-N9-C1'	-10.73	113.06	127.00
23	DA	1698	A	C2-N3-C4	-10.73	105.24	110.60
24	BB	6	C	C6-N1-C2	10.71	124.58	120.30
23	BA	1779	U	C2-N3-C4	-10.70	120.58	127.00
23	DA	2322	A	N9-C4-C5	10.64	110.05	105.80
23	DA	839	U	C5-C4-O4	10.61	132.27	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1087	G	N3-C4-C5	-10.58	123.31	128.60
23	BA	2689	U	C5-C4-O4	10.57	132.24	125.90
23	DA	530	G	N9-C4-C5	10.55	109.62	105.40
23	DA	1779	U	C4-C5-C6	10.54	126.03	119.70
1	CA	1459	C	C5-C6-N1	10.54	126.27	121.00
23	BA	2035	G	C8-N9-C4	-10.54	102.19	106.40
24	DB	120	A	N1-C2-N3	-10.47	124.06	129.30
23	BA	208	C	C6-N1-C2	10.46	124.48	120.30
23	DA	2287	A	C2-N3-C4	-10.45	105.38	110.60
23	DA	27	G	N3-C2-N2	-10.43	112.60	119.90
1	AA	346	G	C8-N9-C1'	-10.41	113.46	127.00
1	CA	1442(A)	G	N1-C2-N2	-10.40	106.84	116.20
23	BA	1142(A)	A	N3-C4-C5	10.40	134.08	126.80
23	BA	234	C	C6-N1-C2	-10.39	116.14	120.30
23	DA	456	C	C6-N1-C2	10.39	124.46	120.30
23	BA	2497	A	C6-N1-C2	-10.39	112.37	118.60
23	BA	1210	A	N1-C6-N6	10.34	124.80	118.60
23	BA	1210	A	C6-C5-N7	-10.33	125.07	132.30
23	BA	2002	G	C8-N9-C4	-10.30	102.28	106.40
1	AA	1442(A)	G	N3-C2-N2	10.28	127.09	119.90
23	BA	141	A	C2-N3-C4	-10.26	105.47	110.60
23	BA	446	G	N1-C6-O6	10.25	126.05	119.90
23	DA	1204	A	C5-N7-C8	-10.24	98.78	103.90
23	DA	141	A	C5-N7-C8	-10.20	98.80	103.90
23	BA	933	A	C8-N9-C4	-10.19	101.72	105.80
23	DA	528	A	C5-C6-N1	-10.20	112.60	117.70
23	DA	530	G	C8-N9-C4	-10.19	102.32	106.40
23	BA	1779	U	C2-N1-C1'	-10.15	105.52	117.70
23	DA	1762	A	C8-N9-C4	-10.14	101.74	105.80
23	BA	265	A	C2-N3-C4	-10.10	105.55	110.60
23	BA	2286	A	C5-N7-C8	-10.10	98.85	103.90
23	BA	1192	G	N7-C8-N9	-10.08	108.06	113.10
23	DA	1779	U	C5-C4-O4	10.06	131.94	125.90
1	CA	1442(A)	G	N7-C8-N9	10.05	118.12	113.10
23	BA	2499	C	N1-C2-O2	-10.04	112.88	118.90
23	DA	1328	G	C5-C6-O6	-10.03	122.58	128.60
23	DA	933	A	N7-C8-N9	10.01	118.81	113.80
23	BA	1129	A	C8-N9-C4	-10.01	101.80	105.80
23	DA	208	C	C6-N1-C2	10.00	124.30	120.30
1	CA	90	U	C2-N3-C4	-10.00	121.00	127.00
23	BA	1779	U	C5-C4-O4	10.00	131.90	125.90
23	DA	1107	G	N3-C4-N9	9.98	131.99	126.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	960	U	C2-N1-C1'	9.98	129.67	117.70
23	BA	690	G	C5-C6-N1	9.95	116.47	111.50
23	BA	645	C	N1-C2-O2	9.94	124.86	118.90
23	BA	839	U	C5-C4-O4	9.92	131.85	125.90
23	DA	652(T)	C	C2-N3-C4	9.91	124.86	119.90
1	CA	1031	G	C4-C5-N7	9.91	114.77	110.80
23	BA	675	A	C8-N9-C4	9.91	109.76	105.80
23	DA	1204	A	C6-C5-N7	-9.91	125.36	132.30
23	BA	2346	A	C8-N9-C4	-9.90	101.84	105.80
23	BA	1192	G	C8-N9-C4	9.88	110.35	106.40
23	BA	463	G	C5-C6-O6	9.86	134.52	128.60
23	BA	2062	A	N1-C6-N6	9.86	124.52	118.60
23	DA	1107	G	N1-C6-O6	9.85	125.81	119.90
23	DA	1779	U	C2-N1-C1'	-9.85	105.88	117.70
23	DA	1698	A	C4-C5-N7	9.85	115.63	110.70
23	BA	530	G	N9-C4-C5	9.85	109.34	105.40
1	AA	1442(A)	G	C6-C5-N7	-9.84	124.49	130.40
23	DA	210	C	C6-N1-C2	9.83	124.23	120.30
23	BA	729	G	C8-N9-C4	-9.83	102.47	106.40
1	CA	1459	C	C2-N3-C4	-9.82	114.99	119.90
23	BA	1142(A)	A	C5-N7-C8	-9.82	98.99	103.90
23	BA	2185	C	C2-N3-C4	9.81	124.81	119.90
1	AA	1442(A)	G	N1-C2-N2	-9.78	107.40	116.20
23	BA	1107	G	N3-C4-N9	9.77	131.86	126.00
23	BA	27	G	N3-C2-N2	-9.77	113.06	119.90
23	BA	531	C	N1-C2-O2	-9.75	113.05	118.90
1	AA	1037	C	C6-N1-C2	-9.75	116.40	120.30
23	BA	566	U	C4-C5-C6	-9.75	113.85	119.70
23	BA	2286	A	N7-C8-N9	9.75	118.67	113.80
23	DA	1108	U	N1-C2-O2	9.74	129.62	122.80
23	DA	2286	A	C6-C5-N7	-9.73	125.49	132.30
1	CA	1395	C	C6-N1-C2	-9.70	116.42	120.30
1	AA	1459	C	C5-C6-N1	9.69	125.84	121.00
23	DA	777	A	N1-C6-N6	-9.68	112.79	118.60
1	AA	1459	C	C2-N3-C4	-9.67	115.07	119.90
23	DA	1210	A	N7-C8-N9	9.66	118.63	113.80
23	DA	2067	G	C8-N9-C4	-9.65	102.54	106.40
24	DB	115	G	C8-N9-C4	9.64	110.26	106.40
1	CA	1030	C	C2-N3-C4	9.64	124.72	119.90
23	DA	2286	A	N7-C8-N9	9.63	118.61	113.80
23	BA	624	C	N3-C4-C5	9.60	125.74	121.90
23	BA	205	G	N3-C2-N2	9.60	126.62	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	528	A	C5-C6-N1	-9.60	112.90	117.70
23	BA	2103	C	C2-N3-C4	9.59	124.69	119.90
23	BA	1620	G	N1-C6-O6	-9.58	114.15	119.90
23	BA	130	C	N3-C4-C5	9.57	125.73	121.90
24	BB	101	G	N9-C4-C5	-9.56	101.57	105.40
23	BA	2689	U	N3-C4-O4	-9.55	112.72	119.40
1	AA	1282	C	C2-N3-C4	9.54	124.67	119.90
23	BA	1332	G	C6-N1-C2	-9.54	119.38	125.10
23	BA	1204	A	N1-C6-N6	9.52	124.31	118.60
23	BA	1022	G	N9-C4-C5	9.51	109.20	105.40
23	BA	2082	A	C6-N1-C2	-9.49	112.91	118.60
1	CA	1028	C	N1-C2-O2	9.49	124.59	118.90
23	DA	1997	G	N1-C6-O6	-9.49	114.21	119.90
23	BA	1558	A	C2-N3-C4	-9.48	105.86	110.60
1	AA	1282	C	C6-N1-C2	-9.47	116.51	120.30
23	DA	1109	C	C4-C5-C6	9.46	122.13	117.40
23	BA	528	A	C4-C5-C6	-9.46	112.27	117.00
1	CA	1395	C	N3-C4-C5	-9.44	118.12	121.90
1	AA	53	A	C6-N1-C2	9.44	124.26	118.60
23	BA	774	A	C8-N9-C4	-9.43	102.03	105.80
23	BA	391	G	C5-C6-O6	-9.41	122.95	128.60
23	BA	2363	C	C6-N1-C2	9.41	124.06	120.30
23	BA	652(T)	C	C2-N3-C4	9.40	124.60	119.90
23	DA	802	A	C8-N9-C4	-9.38	102.05	105.80
23	BA	2361	A	C8-N9-C4	9.37	109.55	105.80
23	DA	139(A)	G	N7-C8-N9	9.36	117.78	113.10
23	DA	141	A	C8-N9-C4	-9.35	102.06	105.80
23	BA	458	G	C8-N9-C4	-9.35	102.66	106.40
23	DA	2185	C	C2-N3-C4	9.35	124.57	119.90
4	AD	12	CYS	CA-CB-SG	9.34	130.81	114.00
1	CA	1442(A)	G	C4-C5-C6	9.34	124.40	118.80
23	BA	2322	A	C4-C5-N7	-9.33	106.03	110.70
23	BA	2689	U	N1-C2-N3	9.32	120.49	114.90
23	BA	1107	G	N9-C4-C5	-9.31	101.67	105.40
23	DA	2446	G	N3-C2-N2	9.31	126.42	119.90
23	BA	265	A	C6-C5-N7	-9.28	125.80	132.30
1	AA	1484	C	C6-N1-C2	9.28	124.01	120.30
23	BA	528	A	C5-N7-C8	-9.28	99.26	103.90
23	DA	528	A	C6-N1-C2	9.27	124.16	118.60
23	BA	209	C	N3-C4-C5	9.27	125.61	121.90
1	CA	1442(A)	G	N3-C2-N2	9.26	126.38	119.90
23	DA	1210	A	N1-C6-N6	9.26	124.16	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2236	C	N3-C4-C5	-9.25	118.20	121.90
23	BA	2499	C	C2-N3-C4	-9.23	115.28	119.90
23	BA	2244	U	C5-C4-O4	9.23	131.44	125.90
23	BA	27	G	N9-C4-C5	9.23	109.09	105.40
23	BA	932	G	C5-C6-O6	-9.22	123.07	128.60
23	BA	265	A	C5-N7-C8	-9.21	99.30	103.90
23	BA	781	A	C8-N9-C4	9.20	109.48	105.80
23	BA	1607	C	N3-C4-N4	9.20	124.44	118.00
23	BA	2037	G	C5-N7-C8	9.17	108.89	104.30
23	DA	139(A)	G	C4-C5-N7	9.17	114.47	110.80
1	AA	1293	G	C6-C5-N7	9.16	135.90	130.40
23	BA	1192	G	C5-N7-C8	9.16	108.88	104.30
23	DA	1107	G	C5-C6-O6	-9.16	123.11	128.60
23	BA	473	G	C5-C6-O6	9.15	134.09	128.60
23	BA	2335	A	C5-C6-N6	-9.14	116.39	123.70
23	DA	645	C	N1-C2-O2	9.14	124.38	118.90
1	AA	358	U	C2-N3-C4	9.12	132.47	127.00
23	BA	2271	G	N3-C4-C5	-9.12	124.04	128.60
24	DB	30	C	C6-N1-C2	-9.11	116.66	120.30
23	DA	2322	A	C2-N3-C4	9.11	115.16	110.60
1	CA	1391	U	N3-C2-O2	-9.10	115.83	122.20
1	CA	1274	G	C4-N9-C1'	9.09	138.31	126.50
23	BA	1792	G	N1-C6-O6	-9.07	114.46	119.90
1	AA	346	G	N3-C4-N9	9.05	131.43	126.00
23	DA	1333	C	N3-C4-C5	9.05	125.52	121.90
23	BA	265	A	C4-C5-N7	9.04	115.22	110.70
23	BA	1204	A	N1-C2-N3	9.04	133.82	129.30
23	DA	1698	A	C6-C5-N7	-9.04	125.97	132.30
23	DA	2286	A	N1-C6-N6	9.04	124.03	118.60
23	DA	139(A)	G	C5-N7-C8	-9.04	99.78	104.30
23	DA	2283	C	N1-C2-O2	-9.04	113.47	118.90
23	DA	2473	U	C2-N1-C1'	9.03	128.54	117.70
23	BA	2690	C	N3-C4-C5	-9.03	118.29	121.90
23	DA	1153	C	N1-C2-O2	-9.03	113.48	118.90
23	BA	2244	U	N3-C4-O4	-9.03	113.08	119.40
23	DA	2741	A	C8-N9-C4	9.02	109.41	105.80
24	BB	101	G	C8-N9-C4	9.01	110.00	106.40
23	BA	1779	U	N1-C2-O2	-9.00	116.50	122.80
1	CA	1378	C	C6-N1-C2	-9.00	116.70	120.30
23	BA	1022	G	N3-C4-N9	-8.99	120.61	126.00
23	BA	377	C	C6-N1-C2	8.98	123.89	120.30
23	BA	940	G	C8-N9-C4	-8.98	102.81	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2286	A	C5-N7-C8	-8.98	99.41	103.90
1	AA	934	C	C6-N1-C2	-8.97	116.71	120.30
23	BA	1616	A	C5-N7-C8	-8.97	99.42	103.90
1	AA	1203	C	C6-N1-C2	-8.95	116.72	120.30
23	BA	566	U	N3-C4-C5	8.95	119.97	114.60
1	AA	1204	A	N1-C6-N6	-8.94	113.23	118.60
23	BA	2107	C	C5-C4-N4	8.93	126.45	120.20
23	BA	2182	G	C5-C6-O6	8.93	133.96	128.60
23	DA	1784	A	C8-N9-C4	8.93	109.37	105.80
23	DA	1661	G	C8-N9-C4	8.92	109.97	106.40
23	BA	2252	G	N7-C8-N9	-8.92	108.64	113.10
24	BB	104	U	C5-C6-N1	-8.92	118.24	122.70
23	DA	1204	A	C4-C5-N7	8.91	115.16	110.70
23	BA	1142(A)	A	N1-C2-N3	8.91	133.75	129.30
23	BA	584	C	N1-C2-O2	-8.91	113.56	118.90
1	CA	1242	C	C5-C6-N1	8.90	125.45	121.00
23	DA	1248	G	C8-N9-C4	8.90	109.96	106.40
23	BA	130	C	N1-C2-O2	8.90	124.24	118.90
23	BA	2286	A	C4-C5-N7	8.89	115.15	110.70
23	DA	1107	G	C4-C5-N7	8.88	114.35	110.80
23	BA	394	A	C8-N9-C4	8.88	109.35	105.80
23	DA	195	A	N1-C6-N6	8.88	123.93	118.60
1	CA	1442(A)	G	O4'-C1'-N9	8.87	115.30	108.20
23	DA	2440	C	C5-C6-N1	-8.86	116.57	121.00
23	DA	1204	A	C2-N3-C4	-8.86	106.17	110.60
1	AA	1293	G	C5-C6-O6	8.85	133.91	128.60
23	BA	1698	A	N1-C2-N3	8.85	133.72	129.30
1	CA	1456	G	C4-N9-C1'	8.85	138.00	126.50
1	AA	910	C	C6-N1-C2	8.84	123.84	120.30
23	BA	139(A)	G	C8-N9-C4	-8.84	102.86	106.40
23	BA	1827	C	N3-C2-O2	-8.84	115.71	121.90
1	AA	1442(B)	A	N1-C2-N3	8.84	133.72	129.30
23	BA	2286	A	C2-N3-C4	-8.83	106.18	110.60
23	BA	2286	A	C8-N9-C4	-8.83	102.27	105.80
1	AA	1282	C	N3-C4-C5	-8.82	118.37	121.90
23	BA	794	G	C5-C6-O6	8.82	133.89	128.60
23	DA	2335	A	C5-C6-N6	-8.82	116.64	123.70
23	BA	391	G	N1-C6-O6	8.82	125.19	119.90
23	BA	2191	G	C5-C6-O6	-8.81	123.31	128.60
1	AA	1210	C	C2-N3-C4	8.81	124.31	119.90
23	BA	1755	A	N1-C6-N6	-8.80	113.32	118.60
23	BA	1899	G	N3-C2-N2	-8.80	113.74	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	839	U	N1-C2-O2	8.80	128.96	122.80
1	CA	1460	A	N1-C6-N6	-8.79	113.33	118.60
23	BA	121	G	C5-C6-O6	-8.79	123.33	128.60
23	BA	1972	A	C2-N3-C4	8.78	114.99	110.60
23	BA	530	G	N3-C4-C5	8.78	132.99	128.60
23	DA	141	A	C6-C5-N7	-8.78	126.16	132.30
1	AA	960	U	C5-C6-N1	8.77	127.08	122.70
1	AA	1456	G	C4-N9-C1'	8.77	137.90	126.50
23	BA	1253	A	C5-N7-C8	8.77	108.28	103.90
23	BA	478	A	N1-C2-N3	8.77	133.68	129.30
1	CA	346	G	N3-C4-C5	-8.77	124.22	128.60
23	BA	2007	C	C6-N1-C2	-8.76	116.80	120.30
23	BA	375	C	C6-N1-C2	8.76	123.80	120.30
23	BA	959	A	N7-C8-N9	8.75	118.17	113.80
23	BA	2449	U	C5-C4-O4	-8.74	120.66	125.90
1	AA	346	G	N3-C4-C5	-8.74	124.23	128.60
23	BA	527	C	C5-C4-N4	8.74	126.32	120.20
23	BA	836	G	N1-C6-O6	-8.74	114.66	119.90
23	BA	1708	C	C6-N1-C2	8.73	123.79	120.30
23	DA	2182	G	C5-C6-O6	8.73	133.84	128.60
23	BA	2361	A	N9-C4-C5	-8.73	102.31	105.80
23	DA	2440	C	N3-C4-N4	-8.73	111.89	118.00
1	AA	1442(A)	G	O4'-C1'-N9	8.72	115.18	108.20
23	BA	2694	G	C5-C6-O6	-8.72	123.37	128.60
23	DA	2346	A	N1-C6-N6	-8.72	113.37	118.60
23	BA	777	A	N1-C6-N6	-8.71	113.37	118.60
23	DA	1210	A	C4-C5-N7	8.71	115.06	110.70
23	BA	1108	U	N1-C2-O2	8.70	128.89	122.80
23	DA	847	U	C5-C4-O4	8.70	131.12	125.90
23	DA	2689	U	N3-C4-O4	-8.68	113.32	119.40
23	DA	2286	A	C2-N3-C4	-8.68	106.26	110.60
23	BA	458	G	N9-C4-C5	8.67	108.87	105.40
23	BA	1049	C	C6-N1-C2	-8.66	116.83	120.30
1	CA	1037	C	C2-N3-C4	8.66	124.23	119.90
23	DA	130	C	C5-C6-N1	-8.66	116.67	121.00
23	BA	73	A	N9-C4-C5	8.66	109.26	105.80
23	BA	1049	C	C5-C6-N1	8.65	125.33	121.00
1	AA	1151	A	N1-C6-N6	-8.65	113.41	118.60
23	BA	2568	C	C6-N1-C2	8.64	123.76	120.30
23	BA	1799	G	N3-C4-C5	-8.64	124.28	128.60
1	CA	1087	G	N3-C4-N9	8.63	131.18	126.00
23	BA	1563	G	N9-C4-C5	-8.63	101.95	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	943	U	C5-C6-N1	8.63	127.01	122.70
23	BA	1334	G	C8-N9-C4	-8.62	102.95	106.40
33	DP	26	GLY	N-CA-C	-8.62	91.55	113.10
1	CA	1031	G	C6-N1-C2	8.62	130.27	125.10
1	AA	754	C	N3-C2-O2	-8.62	115.87	121.90
23	BA	1210	A	C4-C5-N7	8.62	115.01	110.70
23	BA	2473	U	C2-N1-C1'	8.61	128.03	117.70
1	CA	1037	C	N3-C4-C5	-8.61	118.46	121.90
23	DA	1210	A	C6-C5-N7	-8.61	126.28	132.30
23	BA	966	G	N1-C6-O6	-8.60	114.74	119.90
23	DA	2322	A	C4-C5-N7	-8.60	106.40	110.70
1	AA	1311	G	N9-C4-C5	8.59	108.84	105.40
23	BA	763	G	N9-C4-C5	8.59	108.84	105.40
23	BA	272(C)	G	C8-N9-C4	8.58	109.83	106.40
23	BA	530	G	C8-N9-C1'	8.58	138.15	127.00
23	BA	1393	A	N9-C4-C5	8.58	109.23	105.80
23	DA	12	U	N3-C2-O2	-8.57	116.20	122.20
23	DA	1123	C	C6-N1-C2	8.56	123.72	120.30
1	AA	503	C	C6-N1-C2	-8.56	116.88	120.30
23	BA	675	A	N9-C4-C5	-8.56	102.38	105.80
23	BA	1108	U	C2-N1-C1'	8.55	127.96	117.70
1	AA	346	G	N1-C2-N2	-8.54	108.51	116.20
23	BA	2312	U	N3-C2-O2	-8.55	116.22	122.20
23	DA	2568	C	C6-N1-C2	8.54	123.72	120.30
1	AA	953	G	C6-C5-N7	-8.54	125.28	130.40
23	DA	1180	C	C6-N1-C2	8.53	123.71	120.30
23	DA	2828	C	N1-C2-O2	-8.53	113.78	118.90
1	CA	1274	G	N7-C8-N9	8.52	117.36	113.10
23	DA	1829	A	N1-C6-N6	-8.52	113.49	118.60
1	AA	1293	G	C4-N9-C1'	-8.51	115.44	126.50
1	AA	754	C	N1-C2-O2	8.51	124.01	118.90
23	DA	2463	C	C6-N1-C2	8.51	123.70	120.30
23	BA	1190	G	C5-N7-C8	8.49	108.55	104.30
45	D1	21	ARG	NE-CZ-NH1	8.48	124.54	120.30
1	CA	1459	C	N1-C2-N3	8.47	125.13	119.20
23	BA	1383	C	N1-C2-O2	-8.47	113.82	118.90
23	BA	1600	C	C5-C6-N1	-8.47	116.77	121.00
1	CA	1283	G	N3-C2-N2	-8.47	113.97	119.90
23	DA	2441	C	C5-C6-N1	-8.47	116.77	121.00
23	DA	2312	U	N3-C2-O2	-8.47	116.27	122.20
1	AA	1366	C	C6-N1-C2	-8.46	116.91	120.30
1	CA	1391	U	C5-C4-O4	8.46	130.98	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1293	G	N3-C4-N9	-8.45	120.93	126.00
23	BA	1620	G	C5-C6-O6	8.45	133.67	128.60
1	AA	1005	A	C8-N9-C4	-8.45	102.42	105.80
23	BA	52	A	N7-C8-N9	8.45	118.03	113.80
1	AA	1442(A)	G	C4-C5-C6	8.45	123.87	118.80
1	AA	1293	G	C4-C5-N7	-8.45	107.42	110.80
24	BB	58	A	C8-N9-C4	8.44	109.18	105.80
23	DA	2017	U	C5-C6-N1	-8.44	118.48	122.70
23	BA	847	U	C5-C6-N1	-8.44	118.48	122.70
23	DA	1558	A	C2-N3-C4	-8.43	106.38	110.60
23	BA	1445(A)	C	C6-N1-C2	-8.43	116.93	120.30
23	BA	330	A	N1-C2-N3	8.43	133.51	129.30
23	BA	1253	A	N7-C8-N9	-8.42	109.59	113.80
23	BA	463	G	N1-C6-O6	-8.42	114.85	119.90
23	BA	1210	A	C2-N3-C4	-8.42	106.39	110.60
1	CA	150	C	C5-C6-N1	8.42	125.21	121.00
23	BA	2625	G	N3-C2-N2	-8.42	114.00	119.90
23	DA	752	A	C8-N9-C4	-8.42	102.43	105.80
23	BA	1127	A	C8-N9-C4	-8.42	102.43	105.80
1	CA	1274	G	C6-C5-N7	-8.41	125.35	130.40
23	DA	2446	G	N1-C2-N2	-8.41	108.63	116.20
23	DA	1125	G	N1-C6-O6	8.41	124.95	119.90
23	DA	1826	G	C5-N7-C8	8.41	108.50	104.30
23	DA	1304	C	N3-C4-C5	8.40	125.26	121.90
23	DA	2440	C	C5-C4-N4	8.40	126.08	120.20
1	CA	90	U	C5-C4-O4	-8.40	120.86	125.90
23	DA	1698	A	N7-C8-N9	8.39	118.00	113.80
23	BA	374	A	C2-N3-C4	-8.39	106.41	110.60
1	CA	1277	C	C6-N1-C2	-8.38	116.95	120.30
23	BA	1616	A	N7-C8-N9	8.37	117.98	113.80
23	BA	465	G	C8-N9-C4	-8.36	103.06	106.40
23	BA	1792	G	C5-C6-O6	8.35	133.61	128.60
24	DB	114	C	C6-N1-C2	8.35	123.64	120.30
23	DA	1605	C	C4-C5-C6	8.34	121.57	117.40
1	AA	1460	A	N1-C6-N6	-8.34	113.60	118.60
1	AA	1442(A)	G	N7-C8-N9	8.33	117.26	113.10
23	DA	860	U	N3-C2-O2	-8.33	116.37	122.20
1	AA	1158	C	C2-N1-C1'	8.32	127.95	118.80
23	BA	2346	A	C4-C5-N7	-8.32	106.54	110.70
23	DA	2007	C	C6-N1-C2	-8.32	116.97	120.30
23	BA	2067	G	C8-N9-C4	-8.31	103.07	106.40
23	BA	2540	C	C6-N1-C2	8.31	123.62	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	148	C	C6-N1-C2	8.31	123.62	120.30
23	DA	2473	U	N3-C2-O2	-8.31	116.39	122.20
23	BA	2287	A	C2-N3-C4	-8.30	106.45	110.60
1	AA	1366	C	C2-N3-C4	8.29	124.05	119.90
23	BA	1393	A	N1-C6-N6	-8.29	113.63	118.60
23	BA	530	G	C4-C5-C6	-8.29	113.83	118.80
23	DA	1382	G	N1-C6-O6	8.29	124.87	119.90
23	BA	2035	G	N9-C4-C5	8.28	108.71	105.40
23	BA	1204	A	N7-C8-N9	8.27	117.94	113.80
23	BA	777	A	N1-C2-N3	8.26	133.43	129.30
1	AA	1255	G	C5-C6-O6	8.26	133.56	128.60
23	BA	729	G	N3-C2-N2	-8.26	114.12	119.90
23	BA	2182	G	C6-N1-C2	8.25	130.05	125.10
23	BA	12	U	N3-C2-O2	-8.25	116.42	122.20
50	D6	40	CYS	CA-CB-SG	8.25	128.84	114.00
13	AM	85	GLY	N-CA-C	8.24	133.71	113.10
23	BA	933	A	C4-C5-N7	8.23	114.82	110.70
23	DA	777	A	C4-C5-N7	-8.23	106.58	110.70
1	CA	1031	G	N3-C4-N9	8.23	130.94	126.00
23	DA	2346	A	N9-C4-C5	8.23	109.09	105.80
23	BA	1256	G	C8-N9-C4	8.22	109.69	106.40
23	BA	1784	A	C8-N9-C4	8.22	109.09	105.80
23	DA	2617	C	N3-C4-C5	8.22	125.19	121.90
23	BA	2438	U	N3-C2-O2	-8.22	116.44	122.20
23	DA	1022	G	N3-C4-N9	-8.22	121.07	126.00
23	BA	2503	A	N1-C6-N6	8.22	123.53	118.60
23	DA	729	G	N3-C2-N2	-8.22	114.15	119.90
24	DB	49	C	N1-C2-O2	-8.21	113.98	118.90
23	BA	221	A	N7-C8-N9	8.20	117.90	113.80
23	BA	584	C	C2-N3-C4	-8.20	115.80	119.90
23	BA	978	G	C8-N9-C4	8.20	109.68	106.40
23	DA	1142(A)	A	N3-C4-N9	-8.20	120.84	127.40
23	BA	614	U	C5-C4-O4	8.20	130.82	125.90
1	AA	1153	C	C5-C4-N4	8.19	125.94	120.20
23	DA	2473	U	N1-C2-O2	8.19	128.53	122.80
23	BA	2823	A	C4-C5-N7	8.19	114.80	110.70
23	BA	766	C	N1-C2-O2	-8.19	113.99	118.90
23	BA	2007	C	C5-C6-N1	8.19	125.09	121.00
23	BA	1128	A	N1-C6-N6	8.18	123.51	118.60
23	BA	1043	C	C6-N1-C2	-8.17	117.03	120.30
1	CA	399	G	N1-C6-O6	8.17	124.80	119.90
23	DA	1210	A	C2-N3-C4	-8.16	106.52	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2515	C	C2-N3-C4	-8.16	115.82	119.90
23	DA	933	A	C8-N9-C4	-8.16	102.54	105.80
23	BA	27	G	N3-C4-N9	-8.15	121.11	126.00
1	CA	955	U	C2-N3-C4	8.15	131.89	127.00
23	DA	221	A	C8-N9-C4	-8.15	102.54	105.80
23	BA	2185	C	N3-C2-O2	-8.14	116.20	121.90
23	BA	784	A	C5-C6-N6	8.13	130.21	123.70
23	BA	2497	A	N1-C2-N3	8.13	133.37	129.30
23	BA	425	G	N3-C4-C5	-8.13	124.53	128.60
23	DA	2191	G	C5-C6-O6	-8.13	123.72	128.60
23	BA	488	G	C4-C5-N7	-8.12	107.55	110.80
23	BA	1698	A	C5-N7-C8	-8.13	99.84	103.90
23	BA	133	C	C6-N1-C2	8.12	123.55	120.30
23	DA	488	G	C5-N7-C8	8.11	108.35	104.30
23	BA	51	G	N1-C6-O6	-8.09	115.05	119.90
23	BA	73	A	N1-C6-N6	-8.09	113.75	118.60
1	CA	346	G	N3-C4-N9	8.09	130.85	126.00
23	DA	130	C	N3-C4-C5	8.09	125.14	121.90
1	CA	1036	G	C4-N9-C1'	8.08	137.00	126.50
23	BA	2236	C	C6-N1-C2	-8.08	117.07	120.30
23	DA	2441	C	C6-N1-C2	8.08	123.53	120.30
23	DA	694	U	N1-C2-O2	8.07	128.45	122.80
23	DA	2742	C	C5-C6-N1	-8.06	116.97	121.00
1	CA	1391	U	N1-C2-O2	8.05	128.44	122.80
23	DA	1826	G	N7-C8-N9	-8.05	109.07	113.10
23	BA	1415	U	C5-C4-O4	8.05	130.73	125.90
23	DA	2674	G	C8-N9-C4	-8.05	103.18	106.40
23	BA	781	A	N7-C8-N9	-8.04	109.78	113.80
23	BA	2346	A	C6-N1-C2	-8.04	113.77	118.60
23	DA	2791	C	N1-C2-O2	8.04	123.72	118.90
23	BA	31	C	C6-N1-C2	8.04	123.52	120.30
1	AA	1098	C	C6-N1-C2	-8.03	117.09	120.30
23	BA	26	G	C8-N9-C4	-8.02	103.19	106.40
23	BA	2441	C	N3-C4-N4	-8.02	112.38	118.00
24	BB	28	C	C6-N1-C2	-8.02	117.09	120.30
23	BA	1368	G	C5-C6-N1	8.02	115.51	111.50
23	DA	444	C	N3-C4-C5	8.01	125.11	121.90
23	DA	1017	G	N1-C6-O6	8.01	124.71	119.90
23	BA	1256	G	N1-C2-N3	8.01	128.71	123.90
23	BA	1800	C	C4-C5-C6	8.01	121.40	117.40
1	AA	1303	C	C6-N1-C2	-8.01	117.10	120.30
23	DA	2501	C	N3-C4-C5	8.01	125.10	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	286	C	N1-C2-O2	8.00	123.70	118.90
23	BA	570	G	C5-C6-N1	8.00	115.50	111.50
23	BA	940	G	C2-N3-C4	8.00	115.90	111.90
1	AA	1038	C	N1-C2-O2	8.00	123.70	118.90
40	BW	11	ARG	NE-CZ-NH1	8.00	124.30	120.30
23	BA	52	A	C8-N9-C4	-7.99	102.60	105.80
23	DA	2182	G	C6-N1-C2	7.99	129.89	125.10
1	CA	910	C	C6-N1-C2	7.99	123.49	120.30
23	BA	1028	A	C8-N9-C4	7.98	108.99	105.80
1	CA	1456	G	C8-N9-C4	-7.97	103.21	106.40
23	BA	2575	C	C6-N1-C2	7.97	123.49	120.30
23	DA	236	C	C6-N1-C2	7.96	123.49	120.30
23	BA	583	G	C5-C6-O6	-7.96	123.82	128.60
23	BA	2059	A	N7-C8-N9	-7.96	109.82	113.80
23	BA	139(A)	G	C5-C6-N1	7.95	115.48	111.50
23	BA	1142(A)	A	N7-C8-N9	7.94	117.77	113.80
24	DB	104	U	C5-C6-N1	-7.94	118.73	122.70
23	BA	2826	A	N7-C8-N9	-7.94	109.83	113.80
1	AA	2	U	C5-C6-N1	7.93	126.67	122.70
1	AA	1193	G	N3-C4-N9	7.93	130.76	126.00
23	BA	468	G	C5-C6-O6	7.93	133.36	128.60
23	BA	2682	U	N3-C2-O2	-7.92	116.66	122.20
23	BA	491	G	N1-C6-O6	-7.92	115.15	119.90
23	BA	982	C	C5-C6-N1	7.92	124.96	121.00
23	DA	1128	A	C8-N9-C4	7.92	108.97	105.80
1	AA	1223	C	C6-N1-C2	-7.92	117.13	120.30
23	BA	2574	G	C5-C6-N1	7.91	115.46	111.50
23	DA	1493	C	C2-N1-C1'	7.91	127.50	118.80
23	BA	139(A)	G	C5-C6-O6	-7.90	123.86	128.60
23	DA	949	C	N3-C4-C5	7.90	125.06	121.90
23	BA	2828	C	N1-C2-O2	-7.90	114.16	118.90
1	CA	572	A	C8-N9-C4	7.90	108.96	105.80
23	DA	1107	G	N9-C4-C5	-7.89	102.24	105.40
1	AA	1223	C	C5-C6-N1	7.89	124.94	121.00
23	BA	330	A	N3-C4-C5	7.88	132.32	126.80
23	BA	2463	C	C6-N1-C2	7.88	123.45	120.30
1	CA	1502	A	C5-N7-C8	-7.88	99.96	103.90
23	BA	2346	A	N1-C6-N6	-7.88	113.87	118.60
1	CA	898	G	C8-N9-C4	7.88	109.55	106.40
1	CA	1456	G	N7-C8-N9	7.88	117.04	113.10
23	DA	1108	U	C2-N1-C1'	7.88	127.15	117.70
23	BA	2107	C	C2-N3-C4	7.88	123.84	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2723	C	N3-C2-O2	-7.87	116.39	121.90
1	AA	1003	G	N1-C6-O6	-7.87	115.18	119.90
1	AA	953	G	N3-C4-N9	7.87	130.72	126.00
23	BA	2286	A	C4-C5-C6	7.87	120.93	117.00
24	BB	99	G	C8-N9-C4	7.87	109.55	106.40
23	DA	1820	U	C6-N1-C2	7.86	125.72	121.00
23	BA	2499	C	N1-C2-N3	7.86	124.70	119.20
23	DA	139(A)	G	C5-C6-O6	-7.86	123.88	128.60
23	BA	1047	G	N3-C4-C5	-7.86	124.67	128.60
23	DA	775	G	N1-C6-O6	-7.86	115.19	119.90
23	DA	194	G	C8-N9-C4	-7.86	103.26	106.40
45	B1	21	ARG	NE-CZ-NH2	-7.85	116.37	120.30
23	DA	2424	C	N1-C2-O2	-7.85	114.19	118.90
23	DA	772	C	N3-C2-O2	7.85	127.39	121.90
24	BB	75	G	C5-C6-O6	-7.85	123.89	128.60
23	DA	2446	G	N1-C6-O6	-7.85	115.19	119.90
1	AA	1244	C	C5-C4-N4	7.84	125.69	120.20
23	BA	2540	C	N3-C4-C5	7.84	125.04	121.90
23	DA	2440	C	C6-N1-C2	7.84	123.44	120.30
1	AA	1007	C	C5-C6-N1	7.84	124.92	121.00
23	BA	234	C	N3-C2-O2	-7.84	116.41	121.90
23	BA	1802	A	C5-C6-N6	-7.83	117.44	123.70
23	DA	614	U	C5-C4-O4	7.83	130.60	125.90
23	DA	2040	C	N3-C4-N4	7.83	123.48	118.00
1	AA	1061	G	C6-N1-C2	7.82	129.79	125.10
23	BA	530	G	C5-N7-C8	-7.82	100.39	104.30
23	BA	847	U	C5-C4-O4	7.82	130.59	125.90
23	BA	1328	G	C5-C6-O6	-7.82	123.91	128.60
1	AA	345	C	N1-C2-O2	7.82	123.59	118.90
1	AA	1047	G	C5-C6-O6	7.82	133.29	128.60
1	AA	1061	G	C5-C6-O6	7.82	133.29	128.60
23	BA	784	A	N1-C6-N6	-7.82	113.91	118.60
23	BA	2519	U	C2-N3-C4	-7.82	122.31	127.00
23	DA	940	G	C8-N9-C4	-7.82	103.27	106.40
23	DA	2500	U	N3-C4-C5	7.81	119.29	114.60
23	BA	2075	U	C5-C6-N1	-7.81	118.80	122.70
23	DA	768	G	N3-C4-C5	-7.81	124.70	128.60
23	DA	2332	U	N3-C2-O2	-7.80	116.74	122.20
1	CA	1205	U	C6-N1-C2	-7.80	116.32	121.00
23	DA	2036	C	N1-C2-O2	-7.80	114.22	118.90
1	AA	1158	C	N3-C2-O2	-7.80	116.44	121.90
23	DA	2103	C	C2-N3-C4	7.80	123.80	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2500	U	N3-C4-O4	-7.79	113.94	119.40
23	BA	864	G	N1-C6-O6	-7.79	115.22	119.90
1	AA	839	U	C2-N1-C1'	7.78	127.04	117.70
41	BX	57	LEU	CA-CB-CG	7.78	133.20	115.30
23	BA	1376	C	C5-C4-N4	-7.77	114.76	120.20
1	CA	1387	G	C8-N9-C4	7.77	109.51	106.40
1	AA	953	G	N7-C8-N9	7.76	116.98	113.10
23	BA	1365	A	N1-C6-N6	7.76	123.26	118.60
23	DA	856	C	C6-N1-C2	-7.76	117.20	120.30
23	DA	1997	G	C5-C6-O6	7.75	133.25	128.60
23	DA	2791	C	C2-N1-C1'	7.75	127.32	118.80
23	DA	1142(A)	A	N1-C2-N3	7.75	133.17	129.30
1	AA	1311	G	C4-C5-N7	-7.74	107.70	110.80
23	BA	1368	G	C8-N9-C4	-7.74	103.31	106.40
23	DA	128	C	N3-C4-C5	7.74	125.00	121.90
23	DA	781	A	C8-N9-C4	7.74	108.89	105.80
23	BA	2726	U	N1-C2-O2	-7.73	117.39	122.80
23	BA	127	A	N7-C8-N9	-7.73	109.93	113.80
23	BA	129	C	C5-C4-N4	-7.73	114.79	120.20
1	CA	1015	A	C8-N9-C4	-7.73	102.71	105.80
23	BA	2823	A	C5-C6-N6	-7.73	117.52	123.70
1	CA	346	G	N1-C2-N2	-7.72	109.25	116.20
23	BA	1109	C	C4-C5-C6	7.72	121.26	117.40
23	DA	1142(A)	A	C5-N7-C8	-7.72	100.04	103.90
23	DA	2689	U	C5-C4-O4	7.72	130.53	125.90
23	BA	811	U	C5-C6-N1	-7.71	118.84	122.70
23	BA	2077	A	C8-N9-C4	-7.71	102.72	105.80
23	BA	729	G	N1-C2-N2	7.71	123.14	116.20
23	DA	27	G	N3-C4-N9	-7.71	121.37	126.00
23	DA	1651	G	C5-C6-O6	-7.71	123.97	128.60
23	BA	1047	G	N3-C4-N9	7.69	130.62	126.00
23	BA	1254	A	C8-N9-C4	-7.69	102.72	105.80
23	DA	1204	A	N7-C8-N9	7.69	117.65	113.80
23	BA	664	C	N3-C4-C5	7.69	124.98	121.90
23	DA	2821	A	N1-C6-N6	7.69	123.21	118.60
23	BA	2427	C	N1-C2-O2	-7.68	114.29	118.90
23	BA	1324	G	N3-C2-N2	-7.68	114.52	119.90
23	BA	949	C	C2-N3-C4	-7.68	116.06	119.90
23	BA	1328	G	N9-C4-C5	-7.67	102.33	105.40
23	BA	2791	C	C2-N1-C1'	7.67	127.24	118.80
23	DA	2375	G	C8-N9-C4	7.67	109.47	106.40
23	BA	201	C	C2-N3-C4	-7.67	116.06	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1025	G	C8-N9-C4	-7.67	103.33	106.40
23	BA	2363	C	C5-C6-N1	-7.67	117.17	121.00
23	BA	2037	G	C4-C5-N7	-7.65	107.74	110.80
23	DA	2463	C	N1-C2-O2	-7.65	114.31	118.90
1	AA	1320	C	C6-N1-C2	-7.65	117.24	120.30
1	CA	1274	G	C8-N9-C4	-7.65	103.34	106.40
23	DA	194	G	C6-N1-C2	-7.64	120.52	125.10
23	BA	2722	G	N1-C6-O6	-7.64	115.32	119.90
23	DA	784	A	C4-C5-N7	-7.62	106.89	110.70
23	DA	2185	C	N3-C2-O2	-7.62	116.57	121.90
1	AA	1311	G	C8-N9-C1'	7.61	136.90	127.00
23	DA	978	G	C8-N9-C4	7.61	109.44	106.40
1	AA	529	G	N1-C6-O6	7.61	124.47	119.90
1	CA	1126	U	C5-C6-N1	7.61	126.50	122.70
23	DA	1047	G	N3-C4-N9	7.61	130.57	126.00
23	BA	847	U	N1-C2-N3	7.61	119.46	114.90
23	BA	1600	C	C2-N3-C4	-7.61	116.10	119.90
23	BA	446	G	C5-C6-O6	-7.60	124.04	128.60
1	AA	1245	A	C5-C6-N6	-7.60	117.62	123.70
23	DA	394	A	C8-N9-C4	7.60	108.84	105.80
23	DA	847	U	C5-C6-N1	-7.60	118.90	122.70
23	DA	1497	U	C5-C4-O4	7.60	130.46	125.90
23	DA	2823	A	N1-C6-N6	7.60	123.16	118.60
23	DA	777	A	C8-N9-C4	-7.59	102.76	105.80
23	DA	2070	G	C5-N7-C8	7.59	108.10	104.30
23	DA	1786	A	N1-C6-N6	-7.59	114.05	118.60
23	BA	763	G	C8-N9-C4	-7.59	103.36	106.40
23	DA	2591	C	C2-N3-C4	-7.59	116.11	119.90
1	CA	1254	C	C6-N1-C2	-7.59	117.27	120.30
23	BA	658	C	N3-C2-O2	-7.58	116.59	121.90
23	DA	1497	U	N3-C4-O4	-7.58	114.09	119.40
23	DA	154(A)	C	N1-C2-O2	7.58	123.45	118.90
23	DA	2423	U	C5-C6-N1	-7.58	118.91	122.70
23	BA	448	U	C5-C4-O4	7.57	130.44	125.90
1	AA	1296	C	C2-N1-C1'	7.57	127.13	118.80
23	BA	674	G	N1-C6-O6	7.57	124.44	119.90
23	DA	1997	G	C4-C5-N7	-7.57	107.77	110.80
1	CA	1216	G	N3-C4-C5	7.57	132.38	128.60
23	DA	672	C	C5-C6-N1	-7.57	117.22	121.00
23	BA	2020	A	C5-C6-N1	7.56	121.48	117.70
1	CA	697	U	C5-C6-N1	-7.56	118.92	122.70
23	DA	2498	C	C5-C6-N1	-7.56	117.22	121.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2022	U	N1-C2-O2	-7.56	117.51	122.80
1	AA	77	G	N3-C2-N2	7.55	125.19	119.90
23	DA	267	C	C6-N1-C2	7.55	123.32	120.30
23	DA	1047	G	N3-C4-C5	-7.55	124.83	128.60
1	CA	529	G	N1-C6-O6	7.55	124.43	119.90
23	DA	2755	C	C5-C6-N1	7.54	124.77	121.00
1	CA	1003	G	N3-C4-N9	-7.54	121.48	126.00
23	BA	591	C	N1-C2-O2	-7.54	114.38	118.90
1	AA	1285	A	C8-N9-C4	7.54	108.81	105.80
1	AA	1293	G	C8-N9-C1'	7.54	136.80	127.00
23	BA	1045	A	N9-C4-C5	-7.54	102.79	105.80
23	DA	933	A	C4-C5-N7	7.54	114.47	110.70
23	BA	1751	C	N1-C2-O2	-7.53	114.38	118.90
23	BA	1957	C	N1-C2-O2	7.53	123.42	118.90
23	DA	729	G	N1-C2-N2	7.53	122.98	116.20
23	DA	1382	G	C5-C6-O6	-7.53	124.08	128.60
23	BA	1563	G	C8-N9-C4	7.53	109.41	106.40
23	BA	1029	A	N1-C6-N6	7.53	123.12	118.60
23	DA	530	G	C8-N9-C1'	7.52	136.78	127.00
23	DA	686	G	C6-C5-N7	-7.52	125.89	130.40
23	BA	766	C	N3-C4-C5	-7.51	118.89	121.90
23	BA	488	G	C6-N1-C2	-7.51	120.59	125.10
26	BE	13	ARG	NE-CZ-NH1	-7.51	116.55	120.30
23	DA	1605	C	C6-N1-C2	-7.51	117.30	120.30
23	BA	148	C	N3-C4-C5	7.50	124.90	121.90
23	DA	2512	C	C2-N3-C4	-7.50	116.15	119.90
23	BA	47	C	N3-C4-N4	-7.50	112.75	118.00
1	CA	839	U	C2-N1-C1'	7.50	126.70	117.70
23	BA	2407	G	C6-C5-N7	-7.50	125.90	130.40
1	AA	1037	C	N3-C4-C5	-7.49	118.90	121.90
23	BA	527	C	N3-C2-O2	-7.49	116.65	121.90
45	B1	21	ARG	NE-CZ-NH1	7.49	124.05	120.30
1	AA	1459	C	C4-C5-C6	7.49	121.15	117.40
23	BA	530	G	N7-C8-N9	7.49	116.84	113.10
1	CA	1030(B)	C	N3-C2-O2	-7.48	116.66	121.90
23	DA	139(A)	G	C8-N9-C4	-7.48	103.41	106.40
1	CA	44	G	N1-C6-O6	7.48	124.39	119.90
23	DA	530	G	C4-C5-C6	-7.48	114.31	118.80
23	BA	777	A	N9-C4-C5	7.48	108.79	105.80
23	BA	2322	A	C2-N3-C4	7.48	114.34	110.60
23	BA	478	A	N9-C4-C5	7.47	108.79	105.80
23	DA	1049	C	C6-N1-C2	-7.47	117.31	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2742	C	C6-N1-C2	7.47	123.29	120.30
1	AA	1366	C	C5-C6-N1	7.47	124.73	121.00
23	BA	60	G	C8-N9-C4	7.47	109.39	106.40
1	CA	1015	A	N7-C8-N9	7.47	117.53	113.80
23	DA	2283	C	N3-C2-O2	7.46	127.12	121.90
23	BA	267	C	N3-C4-C5	7.46	124.88	121.90
23	BA	572	A	N1-C6-N6	-7.46	114.12	118.60
23	BA	791	C	N1-C2-O2	7.46	123.38	118.90
1	AA	40	C	N3-C2-O2	7.46	127.12	121.90
1	AA	839	U	N1-C2-O2	7.46	128.02	122.80
23	DA	1827	C	N3-C2-O2	-7.46	116.68	121.90
23	DA	1977	A	C8-N9-C4	7.46	108.78	105.80
23	DA	2407	G	C4-N9-C1'	7.46	136.19	126.50
1	AA	1023	G	N7-C8-N9	7.45	116.83	113.10
23	BA	778	G	C5-C6-O6	7.45	133.07	128.60
1	AA	117	G	N1-C6-O6	7.45	124.37	119.90
23	DA	2031	A	N1-C6-N6	7.44	123.06	118.60
1	AA	932	C	C2-N1-C1'	7.44	126.98	118.80
23	BA	2503	A	C5-C6-N6	-7.43	117.76	123.70
23	DA	34	C	C6-N1-C2	-7.43	117.33	120.30
23	DA	2069	G	N7-C8-N9	-7.43	109.39	113.10
23	DA	129	C	C6-N1-C2	7.43	123.27	120.30
1	CA	754	C	N1-C2-O2	7.42	123.36	118.90
23	DA	2741	A	N7-C8-N9	-7.42	110.09	113.80
1	CA	1030(B)	C	N1-C2-O2	7.42	123.35	118.90
23	DA	468	G	C8-N9-C4	7.42	109.37	106.40
23	DA	2325	G	N1-C6-O6	7.42	124.35	119.90
23	BA	2719	G	C5-C6-N1	7.42	115.21	111.50
23	BA	1814	G	C5-C6-N1	7.42	115.21	111.50
23	DA	330	A	N3-C4-C5	7.41	131.99	126.80
23	BA	1128	A	C5-C6-N6	-7.41	117.77	123.70
23	BA	2082	A	C5-C6-N1	7.41	121.40	117.70
24	DB	22	U	C2-N1-C1'	7.40	126.58	117.70
23	BA	2463	C	N3-C4-C5	7.39	124.86	121.90
23	BA	1210	A	C8-N9-C4	-7.39	102.84	105.80
23	BA	860	U	C6-N1-C2	-7.39	116.57	121.00
1	AA	372	C	N1-C2-O2	7.38	123.33	118.90
23	DA	2329	G	C8-N9-C4	7.38	109.35	106.40
23	DA	2591	C	N1-C2-O2	-7.38	114.47	118.90
23	DA	2458	G	N1-C6-O6	7.38	124.33	119.90
1	AA	953	G	C4-C5-N7	7.38	113.75	110.80
23	DA	1760	A	N1-C6-N6	-7.38	114.17	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	995	C	C6-N1-C2	-7.38	117.35	120.30
23	DA	2491	U	C5-C4-O4	-7.37	121.48	125.90
23	BA	982	C	C6-N1-C2	-7.37	117.35	120.30
23	BA	2252	G	C8-N9-C4	7.37	109.35	106.40
23	DA	1125	G	C2-N3-C4	-7.37	108.22	111.90
23	BA	2500	U	N1-C2-O2	7.37	127.96	122.80
23	BA	2430	A	N1-C2-N3	7.36	132.98	129.30
23	BA	2513	G	C8-N9-C4	-7.36	103.46	106.40
1	CA	1277	C	N1-C2-O2	7.36	123.31	118.90
23	BA	527	C	N3-C4-N4	-7.35	112.85	118.00
23	BA	2791	C	N1-C2-O2	7.35	123.31	118.90
23	DA	1468	C	C6-N1-C2	-7.35	117.36	120.30
23	BA	1253	A	C4-C5-N7	-7.35	107.03	110.70
23	BA	1493	C	C2-N1-C1'	7.35	126.88	118.80
23	BA	844	C	C6-N1-C2	7.34	123.24	120.30
23	DA	1272	A	N1-C6-N6	-7.34	114.20	118.60
1	CA	1030(B)	C	C6-N1-C2	-7.34	117.36	120.30
23	DA	113	G	N3-C4-C5	7.34	132.27	128.60
23	DA	2598	A	N1-C6-N6	7.34	123.00	118.60
1	AA	1311	G	C6-C5-N7	7.33	134.80	130.40
23	BA	1164	G	C5-C6-N1	-7.33	107.83	111.50
1	AA	1282	C	C5-C6-N1	7.33	124.67	121.00
23	DA	1325	G	C5-C6-O6	-7.33	124.20	128.60
23	DA	2457	U	N3-C2-O2	-7.33	117.07	122.20
1	AA	1459	C	N1-C2-N3	7.33	124.33	119.20
23	DA	1959	G	N9-C4-C5	7.33	108.33	105.40
1	CA	997	U	C5-C4-O4	7.32	130.29	125.90
23	DA	2286	A	C4-C5-C6	7.32	120.66	117.00
1	CA	345	C	C2-N1-C1'	7.32	126.85	118.80
29	DH	71	LEU	CA-CB-CG	7.32	132.14	115.30
23	DA	1488	G	C8-N9-C4	-7.32	103.47	106.40
23	BA	635	C	C6-N1-C2	-7.32	117.37	120.30
23	DA	1611	C	C6-N1-C2	-7.32	117.37	120.30
23	DA	2028	U	C2-N3-C4	-7.31	122.61	127.00
23	DA	456	C	N3-C4-C5	7.31	124.82	121.90
23	DA	1652	A	C8-N9-C4	-7.31	102.88	105.80
23	BA	330	A	C5-C6-N1	-7.31	114.05	117.70
23	BA	2335	A	C6-N1-C2	-7.31	114.22	118.60
23	DA	2114	A	C8-N9-C4	-7.31	102.88	105.80
23	DA	1661	G	N7-C8-N9	-7.30	109.45	113.10
23	DA	1775	U	N1-C2-O2	-7.30	117.69	122.80
23	DA	2271	G	N3-C4-C5	-7.30	124.95	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	993	G	C2-N3-C4	7.30	115.55	111.90
1	CA	503	C	C6-N1-C2	-7.30	117.38	120.30
23	DA	2296	U	O4'-C1'-N1	7.30	114.04	108.20
23	BA	1972	A	C5-C6-N6	-7.30	117.86	123.70
23	DA	616	G	C8-N9-C4	7.30	109.32	106.40
23	BA	829	A	C2-N3-C4	-7.29	106.95	110.60
23	BA	1820	U	C6-N1-C2	7.29	125.37	121.00
23	DA	1637	A	N1-C6-N6	-7.29	114.22	118.60
23	DA	1977	A	N7-C8-N9	-7.29	110.16	113.80
1	CA	365	U	C2-N1-C1'	-7.29	108.95	117.70
23	DA	530	G	C6-C5-N7	7.29	134.77	130.40
23	BA	32	C	N3-C4-N4	-7.29	112.90	118.00
23	DA	982	C	C5-C6-N1	7.28	124.64	121.00
1	AA	955	U	C5-C6-N1	7.28	126.34	122.70
1	CA	766	A	C8-N9-C4	7.28	108.71	105.80
1	CA	1031	G	N1-C2-N3	-7.28	119.53	123.90
23	DA	1028	A	C8-N9-C4	7.28	108.71	105.80
1	CA	1006	C	C6-N1-C2	-7.28	117.39	120.30
23	DA	374	A	C2-N3-C4	-7.28	106.96	110.60
23	BA	1653	G	C8-N9-C4	-7.27	103.49	106.40
23	BA	2039	C	N3-C4-C5	7.27	124.81	121.90
1	CA	1011	G	N7-C8-N9	7.27	116.73	113.10
1	AA	1373	G	N7-C8-N9	7.27	116.73	113.10
23	BA	1382	G	C5-C6-O6	-7.27	124.24	128.60
23	BA	816	C	N3-C4-C5	7.27	124.81	121.90
23	BA	495	G	C8-N9-C4	7.26	109.31	106.40
23	DA	563	G	C5-C6-O6	-7.26	124.24	128.60
23	DA	780	G	C6-N1-C2	-7.26	120.74	125.10
23	DA	467	G	C8-N9-C4	7.26	109.30	106.40
23	BA	2694	G	N1-C6-O6	7.26	124.25	119.90
23	BA	799	G	C5-C6-O6	7.26	132.95	128.60
23	BA	1605	C	C4-C5-C6	7.26	121.03	117.40
23	BA	2591	C	C2-N3-C4	-7.25	116.28	119.90
23	DA	125	G	N3-C4-C5	-7.25	124.97	128.60
23	BA	2716	U	C5-C6-N1	-7.25	119.08	122.70
1	AA	1469	G	C5-C6-O6	-7.25	124.25	128.60
23	DA	2010	G	N1-C6-O6	7.25	124.25	119.90
23	BA	147	U	C5-C6-N1	-7.24	119.08	122.70
23	BA	2344	U	C5-C4-O4	7.24	130.25	125.90
23	DA	45	C	C2-N3-C4	-7.24	116.28	119.90
23	BA	655	A	N7-C8-N9	7.24	117.42	113.80
23	BA	857	C	C6-N1-C2	-7.24	117.41	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1519	A	N9-C4-C5	7.24	108.69	105.80
23	BA	2104	G	C6-N1-C2	7.23	129.44	125.10
23	BA	2638	G	C8-N9-C4	-7.23	103.51	106.40
23	BA	659	C	C6-N1-C2	7.23	123.19	120.30
23	BA	2008	C	C6-N1-C2	-7.23	117.41	120.30
23	BA	2124	G	C5-C6-O6	7.23	132.94	128.60
23	DA	58	G	C5-C6-O6	7.23	132.94	128.60
23	BA	983	A	N1-C6-N6	-7.22	114.27	118.60
23	BA	2494	G	C8-N9-C4	-7.22	103.51	106.40
23	DA	236	C	C5-C6-N1	-7.22	117.39	121.00
1	CA	39	G	C6-N1-C2	-7.22	120.77	125.10
23	DA	39	C	N3-C4-C5	7.22	124.79	121.90
23	BA	964	C	C6-N1-C2	-7.22	117.41	120.30
23	BA	2247	A	N1-C2-N3	7.22	132.91	129.30
23	DA	2575	C	C6-N1-C2	7.22	123.19	120.30
23	BA	676	A	C8-N9-C4	7.21	108.69	105.80
23	BA	2322	A	C5-N7-C8	7.21	107.51	103.90
1	AA	1153	C	C6-N1-C1'	7.21	129.45	120.80
23	BA	2755	C	C2-N1-C1'	7.21	126.73	118.80
23	DA	2386	C	C5-C6-N1	-7.21	117.39	121.00
23	DA	2312	U	N1-C2-O2	7.21	127.84	122.80
23	BA	394	A	N7-C8-N9	-7.20	110.20	113.80
23	BA	726	G	C5-C6-O6	7.20	132.92	128.60
23	DA	1305	C	N3-C4-C5	7.20	124.78	121.90
23	BA	1760	A	N1-C6-N6	-7.20	114.28	118.60
23	DA	801	G	C5-C6-O6	7.20	132.92	128.60
23	BA	1814	G	N1-C6-O6	-7.19	115.58	119.90
23	DA	802	A	N7-C8-N9	7.19	117.40	113.80
23	DA	847	U	N3-C4-O4	-7.19	114.37	119.40
23	DA	2498	C	C6-N1-C2	7.19	123.18	120.30
23	BA	775	G	N1-C2-N2	-7.19	109.73	116.20
23	DA	784	A	N1-C6-N6	-7.19	114.29	118.60
23	BA	755	C	C6-N1-C2	-7.19	117.42	120.30
23	DA	205	G	N3-C2-N2	7.19	124.93	119.90
1	AA	543	C	C6-N1-C2	-7.18	117.43	120.30
23	BA	2243	U	C6-N1-C2	-7.18	116.69	121.00
23	BA	1900	A	N1-C2-N3	7.18	132.89	129.30
23	BA	2312	U	N1-C2-O2	7.18	127.83	122.80
23	BA	1671	U	C5-C6-N1	-7.18	119.11	122.70
23	DA	2433	A	N1-C6-N6	7.18	122.91	118.60
23	BA	205	G	N3-C4-N9	7.18	130.31	126.00
23	BA	271(Y)	U	C2-N3-C4	-7.18	122.69	127.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	690	G	N1-C6-O6	-7.17	115.60	119.90
24	BB	7	G	C5-C6-O6	-7.17	124.30	128.60
23	BA	865	C	N3-C2-O2	7.17	126.92	121.90
1	CA	1283	G	N3-C4-N9	-7.17	121.70	126.00
23	BA	2433	A	N1-C6-N6	7.17	122.90	118.60
1	AA	953	G	C4-N9-C1'	7.17	135.81	126.50
1	AA	1357	A	C8-N9-C4	-7.17	102.93	105.80
23	BA	2473	U	N1-C2-O2	7.16	127.81	122.80
24	DB	104	U	C6-N1-C2	7.16	125.30	121.00
1	AA	573	A	C8-N9-C4	7.16	108.67	105.80
23	DA	2377	A	C2-N3-C4	-7.16	107.02	110.60
23	BA	2037	G	N7-C8-N9	-7.16	109.52	113.10
23	DA	936	C	C6-N1-C2	7.16	123.16	120.30
1	AA	1001	A	C6-N1-C2	-7.15	114.31	118.60
23	BA	2441	C	C2-N3-C4	-7.15	116.32	119.90
23	BA	1698	A	C6-C5-N7	-7.15	127.29	132.30
23	DA	310	A	C8-N9-C4	7.15	108.66	105.80
23	DA	2569	G	C5-C6-N1	7.15	115.07	111.50
23	BA	1779	U	N3-C4-O4	-7.14	114.40	119.40
23	BA	2500	U	N3-C4-C5	7.14	118.89	114.60
23	DA	1959	G	C8-N9-C4	-7.14	103.54	106.40
23	DA	1295	C	N1-C2-O2	-7.14	114.62	118.90
23	BA	1368	G	C2-N3-C4	7.14	115.47	111.90
23	DA	826	U	C5-C6-N1	-7.14	119.13	122.70
1	AA	1057	G	C4-C5-N7	-7.13	107.95	110.80
1	AA	1203	C	C5-C6-N1	7.13	124.56	121.00
23	BA	671	C	N3-C2-O2	-7.12	116.91	121.90
23	BA	491	G	C5-C6-O6	7.12	132.87	128.60
1	CA	1216	G	C4-N9-C1'	-7.12	117.24	126.50
23	DA	2593	U	C4-C5-C6	7.12	123.97	119.70
23	BA	1488	G	C8-N9-C4	-7.12	103.55	106.40
23	BA	1780	A	C8-N9-C4	-7.12	102.95	105.80
23	BA	1956	U	N1-C2-N3	7.12	119.17	114.90
23	DA	784	A	C5-C6-N6	7.12	129.40	123.70
23	BA	1574	C	N3-C4-C5	7.12	124.75	121.90
23	BA	1805	U	C6-N1-C2	-7.12	116.73	121.00
23	BA	534	U	N3-C4-O4	7.12	124.38	119.40
23	BA	614	U	N3-C2-O2	-7.12	117.22	122.20
23	BA	965	C	N3-C4-N4	-7.12	113.02	118.00
23	DA	265	A	N1-C6-N6	7.12	122.87	118.60
23	BA	2062	A	C5-N7-C8	-7.11	100.34	103.90
23	BA	2834	G	C8-N9-C4	-7.11	103.56	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	729	G	C8-N9-C4	-7.11	103.56	106.40
23	BA	528	A	C8-N9-C1'	7.11	140.50	127.70
23	DA	419	C	N3-C4-C5	7.11	124.75	121.90
23	DA	103	A	C8-N9-C4	7.11	108.64	105.80
23	DA	1826	G	C8-N9-C4	7.10	109.24	106.40
23	DA	2176	A	C6-N1-C2	7.10	122.86	118.60
23	BA	478	A	C6-N1-C2	-7.10	114.34	118.60
23	DA	1610	A	C5-N7-C8	-7.10	100.35	103.90
23	BA	1638	C	C4-C5-C6	7.10	120.95	117.40
23	DA	1820	U	N3-C4-C5	7.10	118.86	114.60
23	BA	12	U	C2-N1-C1'	7.10	126.22	117.70
1	CA	1003	G	N9-C4-C5	7.10	108.24	105.40
23	DA	1336	A	N1-C6-N6	-7.09	114.34	118.60
23	BA	641	C	N3-C4-C5	-7.09	119.06	121.90
23	BA	119	A	N1-C2-N3	7.09	132.84	129.30
23	DA	2508	G	N1-C6-O6	-7.09	115.65	119.90
23	BA	2335	A	C4-C5-N7	7.08	114.24	110.70
1	AA	1063	C	N1-C2-O2	7.08	123.15	118.90
1	CA	754	C	N3-C2-O2	-7.08	116.94	121.90
1	CA	1036	G	C8-N9-C1'	-7.08	117.80	127.00
23	BA	655	A	C8-N9-C4	-7.08	102.97	105.80
23	DA	1365	A	N1-C6-N6	7.08	122.85	118.60
29	BH	71	LEU	CA-CB-CG	7.07	131.56	115.30
1	CA	995	C	N1-C2-O2	7.07	123.14	118.90
1	AA	1302	U	N3-C2-O2	-7.07	117.25	122.20
23	DA	1784	A	N9-C4-C5	-7.06	102.97	105.80
1	AA	1347	G	N3-C4-N9	-7.06	121.76	126.00
23	BA	2883	A	C8-N9-C4	-7.06	102.98	105.80
23	DA	2287	A	N3-C4-C5	7.06	131.74	126.80
1	CA	1277	C	C2-N3-C4	7.06	123.43	119.90
1	CA	839	U	N3-C2-O2	-7.06	117.26	122.20
23	BA	613	G	C8-N9-C4	-7.05	103.58	106.40
23	BA	2826	A	C8-N9-C4	7.05	108.62	105.80
23	DA	488	G	N7-C8-N9	-7.05	109.58	113.10
23	BA	1214	A	N7-C8-N9	-7.05	110.28	113.80
23	DA	330	A	C5-N7-C8	-7.05	100.38	103.90
23	DA	1109	C	N3-C4-C5	-7.05	119.08	121.90
23	BA	640	C	C5-C6-N1	7.05	124.52	121.00
23	BA	801	G	N9-C4-C5	7.05	108.22	105.40
23	BA	1320	C	C6-N1-C2	7.04	123.12	120.30
23	BA	978	G	N7-C8-N9	-7.04	109.58	113.10
24	DB	101	G	C8-N9-C4	7.04	109.22	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1216	G	N3-C4-N9	-7.04	121.78	126.00
23	DA	148	C	C5-C6-N1	-7.04	117.48	121.00
23	BA	774	A	N7-C8-N9	7.04	117.32	113.80
23	BA	2361	A	N1-C6-N6	7.04	122.82	118.60
23	DA	1142(A)	A	N3-C4-C5	7.04	131.72	126.80
23	BA	2607	G	C6-C5-N7	-7.03	126.18	130.40
1	CA	1069	C	C6-N1-C2	-7.03	117.49	120.30
23	BA	864	G	C2-N3-C4	7.03	115.42	111.90
23	DA	764	A	N1-C2-N3	-7.03	125.78	129.30
23	BA	1795	C	C5-C4-N4	-7.03	115.28	120.20
23	DA	772	C	N1-C2-O2	-7.03	114.68	118.90
23	DA	2030	A	N1-C6-N6	7.03	122.82	118.60
23	BA	1623	G	C5-C6-N1	7.03	115.02	111.50
24	BB	6	C	C5-C6-N1	-7.03	117.49	121.00
1	CA	1456	G	C6-C5-N7	-7.03	126.18	130.40
23	DA	652(T)	C	C5-C4-N4	7.03	125.12	120.20
23	DA	807	U	N3-C4-O4	7.03	124.32	119.40
23	DA	1817	G	N9-C4-C5	-7.03	102.59	105.40
23	DA	1955	U	C5-C6-N1	-7.03	119.19	122.70
23	BA	2006	C	C6-N1-C2	-7.02	117.49	120.30
23	BA	2226	C	C6-N1-C2	7.02	123.11	120.30
23	DA	847	U	C2-N1-C1'	-7.02	109.28	117.70
23	BA	527	C	N1-C2-N3	7.02	124.11	119.20
23	DA	841	A	C2-N3-C4	-7.02	107.09	110.60
23	BA	1427	A	N1-C6-N6	-7.01	114.39	118.60
23	DA	2286	A	C5-C6-N1	-7.01	114.19	117.70
23	BA	1365	A	C5-C6-N6	-7.01	118.09	123.70
23	BA	1616	A	N1-C6-N6	7.01	122.81	118.60
23	DA	2620	C	N3-C4-C5	7.01	124.70	121.90
23	BA	15	G	N3-C2-N2	-7.01	114.99	119.90
23	BA	2070	G	C2-N3-C4	-7.01	108.39	111.90
23	DA	62	C	C2-N3-C4	-7.01	116.39	119.90
23	BA	2335	A	C4-C5-C6	-7.01	113.50	117.00
23	BA	823	G	C8-N9-C4	-7.01	103.60	106.40
23	DA	546	C	C6-N1-C2	-7.01	117.50	120.30
23	DA	2626	C	C6-N1-C2	7.01	123.10	120.30
23	BA	2423	U	C5-C6-N1	-7.00	119.20	122.70
23	BA	2683	C	N3-C2-O2	-7.00	117.00	121.90
23	BA	527	C	C6-N1-C2	-7.00	117.50	120.30
23	BA	2059	A	C8-N9-C4	6.99	108.60	105.80
23	DA	1042	G	N1-C6-O6	6.99	124.10	119.90
23	BA	1223	G	N1-C6-O6	-6.99	115.70	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2681	C	N3-C2-O2	-6.99	117.01	121.90
1	CA	1502	A	C4-C5-N7	6.99	114.19	110.70
23	BA	2290	G	C2-N3-C4	-6.99	108.41	111.90
23	BA	777	A	C5-C6-N6	6.99	129.29	123.70
23	BA	2290	G	C8-N9-C4	6.99	109.19	106.40
1	AA	1519	A	C8-N9-C4	-6.98	103.01	105.80
1	CA	1459	C	C4-C5-C6	6.98	120.89	117.40
23	DA	528	A	C5-N7-C8	-6.98	100.41	103.90
23	BA	201	C	N3-C4-C5	6.98	124.69	121.90
23	DA	1786	A	N1-C2-N3	6.98	132.79	129.30
23	BA	2346	A	C4-C5-C6	6.98	120.49	117.00
1	CA	1277	C	C5-C6-N1	6.98	124.49	121.00
1	AA	1193	G	N3-C4-C5	-6.98	125.11	128.60
23	BA	1824	G	C5-C6-O6	-6.98	124.41	128.60
23	DA	801	G	N9-C4-C5	6.98	108.19	105.40
23	BA	1607	C	C5-C4-N4	-6.97	115.32	120.20
24	DB	101	G	N9-C4-C5	-6.97	102.61	105.40
23	BA	683	C	C4-C5-C6	-6.97	113.91	117.40
23	DA	2040	C	C5-C4-N4	-6.97	115.32	120.20
23	BA	121	G	N1-C6-O6	6.97	124.08	119.90
1	AA	1030	C	C6-N1-C2	-6.97	117.51	120.30
23	BA	1190	G	N7-C8-N9	-6.97	109.62	113.10
23	BA	1256	G	C6-N1-C2	-6.97	120.92	125.10
23	DA	62	C	C5-C6-N1	-6.97	117.52	121.00
23	DA	1271	G	N1-C6-O6	6.97	124.08	119.90
23	DA	2244	U	C2-N3-C4	-6.97	122.82	127.00
23	DA	2361	A	N1-C6-N6	6.97	122.78	118.60
23	BA	1639	U	N3-C2-O2	-6.96	117.33	122.20
23	BA	2710	C	C4-C5-C6	6.96	120.88	117.40
23	DA	2296	U	C3'-C2'-C1'	-6.96	95.93	101.50
23	BA	1025	G	N9-C4-C5	6.96	108.18	105.40
1	AA	971	G	C8-N9-C4	-6.95	103.62	106.40
23	BA	330	A	N3-C4-N9	-6.95	121.84	127.40
23	BA	2461	C	C6-N1-C2	-6.95	117.52	120.30
23	DA	2312	U	C2-N1-C1'	6.95	126.04	117.70
1	CA	1008	C	N1-C2-O2	6.95	123.07	118.90
23	DA	2221	G	C8-N9-C4	-6.94	103.62	106.40
23	DA	1568	G	N1-C6-O6	-6.94	115.73	119.90
23	DA	2017	U	C4-C5-C6	6.94	123.87	119.70
1	AA	1456	G	C8-N9-C4	-6.94	103.62	106.40
23	BA	2441	C	C5-C6-N1	-6.94	117.53	121.00
23	DA	1825	A	C5-C6-N1	6.94	121.17	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	799	G	N9-C4-C5	6.93	108.17	105.40
23	BA	1307	A	C8-N9-C4	6.93	108.57	105.80
23	BA	2428	G	N3-C2-N2	6.93	124.75	119.90
23	BA	52	A	C5-N7-C8	-6.93	100.44	103.90
23	DA	12	U	C2-N1-C1'	6.93	126.01	117.70
23	DA	2713	A	C8-N9-C4	6.93	108.57	105.80
23	BA	529	A	C5-N7-C8	-6.92	100.44	103.90
1	CA	346	G	C4-C5-C6	6.92	122.95	118.80
1	AA	1469	G	N1-C6-O6	6.92	124.05	119.90
23	BA	647	G	C8-N9-C4	-6.92	103.63	106.40
23	DA	195	A	C4-C5-C6	6.92	120.46	117.00
23	BA	652(T)	C	N1-C2-O2	6.92	123.05	118.90
23	BA	1952	A	C8-N9-C4	-6.92	103.03	105.80
23	DA	2268	A	N1-C6-N6	6.92	122.75	118.60
1	AA	150	C	C5-C6-N1	6.92	124.46	121.00
23	BA	737	C	N1-C2-O2	-6.92	114.75	118.90
23	BA	799	G	N1-C6-O6	-6.92	115.75	119.90
23	BA	1616	A	C4-C5-N7	6.91	114.16	110.70
23	BA	2415	G	N3-C2-N2	-6.91	115.06	119.90
23	DA	140	G	C8-N9-C4	6.91	109.16	106.40
1	AA	1230	C	C5-C6-N1	6.91	124.45	121.00
23	BA	2345	G	N1-C2-N3	6.91	128.04	123.90
23	DA	115	C	N1-C2-O2	-6.91	114.76	118.90
23	BA	488	G	N3-C4-C5	-6.90	125.15	128.60
1	CA	1044	A	C5-C6-N6	6.90	129.22	123.70
23	BA	194	G	N1-C2-N3	6.90	128.04	123.90
23	DA	2114	A	N7-C8-N9	6.90	117.25	113.80
23	DA	2181	G	C5-C6-O6	6.90	132.74	128.60
23	DA	2415	G	C5-C6-O6	-6.90	124.46	128.60
23	BA	62	C	C5-C6-N1	-6.90	117.55	121.00
24	DB	71	C	N1-C2-O2	6.90	123.04	118.90
23	DA	679	C	N3-C2-O2	6.90	126.73	121.90
23	BA	1558	A	N1-C2-N3	6.90	132.75	129.30
23	DA	27	G	N9-C4-C5	6.90	108.16	105.40
1	CA	365	U	C5-C6-N1	-6.89	119.25	122.70
23	DA	2069	G	C5-N7-C8	6.89	107.75	104.30
23	DA	2124	G	C5-C6-O6	6.89	132.74	128.60
1	CA	1443	G	C5-C6-N1	6.89	114.94	111.50
23	BA	2446	G	N3-C4-C5	-6.89	125.16	128.60
23	BA	2286	A	C5-C6-N1	-6.89	114.26	117.70
23	DA	819	A	C8-N9-C4	-6.89	103.05	105.80
23	DA	2855	C	C6-N1-C2	-6.89	117.55	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2030	A	N1-C6-N6	6.88	122.73	118.60
23	DA	141	A	C4-C5-N7	6.88	114.14	110.70
23	DA	1207	C	C6-N1-C2	6.88	123.05	120.30
23	BA	240	G	C8-N9-C4	6.88	109.15	106.40
23	BA	2181	G	C6-N1-C2	6.88	129.23	125.10
1	AA	117	G	C6-C5-N7	-6.88	126.27	130.40
23	BA	1130	U	N3-C2-O2	-6.88	117.38	122.20
23	BA	1328	G	C8-N9-C4	6.88	109.15	106.40
23	DA	488	G	C4-C5-N7	-6.88	108.05	110.80
23	DA	97	C	C5-C4-N4	6.88	125.01	120.20
1	AA	1320	C	N3-C4-C5	-6.88	119.15	121.90
23	BA	381	G	N3-C4-C5	-6.87	125.16	128.60
23	BA	729	G	N7-C8-N9	6.87	116.54	113.10
23	BA	932	G	C5-C6-N1	6.87	114.94	111.50
23	BA	1125	G	N1-C6-O6	6.87	124.02	119.90
1	AA	1347	G	C8-N9-C1'	6.87	135.93	127.00
23	BA	1376	C	N3-C4-N4	6.87	122.81	118.00
23	BA	1955	U	C2-N1-C1'	-6.87	109.45	117.70
23	DA	1354	A	C5-C6-N1	6.87	121.14	117.70
1	AA	814	A	N1-C6-N6	6.87	122.72	118.60
1	AA	1456	G	N3-C4-C5	-6.87	125.17	128.60
23	BA	254	G	C8-N9-C4	-6.87	103.65	106.40
23	BA	2407	G	C4-N9-C1'	6.87	135.43	126.50
23	DA	802	A	N1-C6-N6	-6.87	114.48	118.60
23	DA	1616	A	N1-C6-N6	6.87	122.72	118.60
23	BA	1984	G	N1-C6-O6	-6.87	115.78	119.90
23	DA	2260	C	C5-C6-N1	-6.87	117.57	121.00
23	DA	2360	A	C8-N9-C4	6.86	108.55	105.80
23	BA	512	G	O4'-C1'-N9	6.86	113.69	108.20
23	BA	2475	C	C6-N1-C2	-6.86	117.56	120.30
1	AA	1061	G	N3-C2-N2	6.86	124.70	119.90
23	BA	2075	U	N3-C2-O2	-6.86	117.40	122.20
23	DA	379	G	N1-C6-O6	6.86	124.01	119.90
23	DA	1900	A	N3-C4-C5	-6.86	122.00	126.80
23	BA	2191	G	N1-C6-O6	6.85	124.01	119.90
23	BA	2346	A	N1-C2-N3	6.85	132.73	129.30
23	DA	24	G	N1-C6-O6	6.85	124.01	119.90
23	DA	478	A	C8-N9-C4	-6.85	103.06	105.80
1	CA	1087	G	C4-N9-C1'	6.85	135.41	126.50
23	DA	73	A	N9-C4-C5	6.85	108.54	105.80
23	BA	808	G	N3-C4-C5	-6.85	125.17	128.60
23	DA	201	C	C2-N3-C4	-6.85	116.47	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1524	G	N1-C6-O6	-6.85	115.79	119.90
23	BA	2791	C	C6-N1-C2	-6.85	117.56	120.30
23	BA	2024	G	C8-N9-C4	6.84	109.14	106.40
23	DA	695	G	N3-C2-N2	6.84	124.69	119.90
24	DB	120	A	C5-C6-N6	6.84	129.18	123.70
23	BA	2548	G	N9-C4-C5	6.84	108.14	105.40
23	DA	1201	C	N1-C2-O2	-6.84	114.80	118.90
23	DA	1638	C	C4-C5-C6	6.84	120.82	117.40
1	AA	1459	C	C6-N1-C1'	-6.84	112.59	120.80
23	BA	127	A	C8-N9-C4	6.84	108.53	105.80
23	BA	599	G	C8-N9-C4	6.84	109.13	106.40
23	DA	528	A	C8-N9-C1'	6.84	140.00	127.70
23	DA	2181	G	C6-N1-C2	6.83	129.20	125.10
23	BA	987	G	N9-C4-C5	6.83	108.13	105.40
23	DA	297	C	C6-N1-C2	-6.83	117.57	120.30
23	BA	737	C	C6-N1-C2	6.83	123.03	120.30
23	BA	2446	G	N3-C2-N2	6.83	124.68	119.90
23	DA	645	C	C2-N1-C1'	6.83	126.31	118.80
23	DA	1408	C	N1-C2-O2	-6.83	114.80	118.90
1	CA	1258	G	C2-N3-C4	6.83	115.31	111.90
23	DA	12	U	N1-C2-O2	6.83	127.58	122.80
23	BA	311	A	N1-C6-N6	6.83	122.69	118.60
23	BA	345	A	C5-C6-N6	-6.82	118.24	123.70
23	DA	1244	G	N1-C6-O6	6.82	123.99	119.90
23	BA	965	C	C5-C4-N4	6.82	124.97	120.20
23	BA	1026	U	N1-C2-O2	6.82	127.58	122.80
23	BA	1899	G	N1-C6-O6	6.82	123.99	119.90
23	BA	2280	G	C5-C6-O6	6.82	132.69	128.60
23	DA	1775	U	C2-N3-C4	-6.82	122.91	127.00
23	DA	1959	G	C5-C6-O6	6.82	132.69	128.60
23	DA	2067	G	N9-C4-C5	6.82	108.13	105.40
1	CA	1368	G	N1-C6-O6	6.81	123.99	119.90
23	DA	1007	C	N3-C4-C5	6.81	124.63	121.90
23	BA	1128	A	C8-N9-C4	6.81	108.53	105.80
23	DA	2766	G	N1-C6-O6	-6.81	115.81	119.90
23	DA	912	C	C6-N1-C2	-6.81	117.58	120.30
23	BA	2048	G	C8-N9-C4	-6.80	103.68	106.40
23	BA	2508	G	C5-C6-N1	6.80	114.90	111.50
1	AA	1366	C	N3-C4-C5	-6.80	119.18	121.90
23	BA	221	A	N9-C4-C5	6.80	108.52	105.80
23	BA	1214	A	C8-N9-C4	6.80	108.52	105.80
23	DA	2122	U	C5-C4-O4	6.80	129.98	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1290	G	C5-C6-O6	6.80	132.68	128.60
23	DA	769	G	C8-N9-C4	6.80	109.12	106.40
23	BA	42	G	N7-C8-N9	-6.80	109.70	113.10
23	BA	2103	C	N3-C4-C5	-6.80	119.18	121.90
52	B8	30	ARG	NE-CZ-NH1	-6.80	116.90	120.30
23	DA	2417	C	N3-C2-O2	-6.80	117.14	121.90
1	AA	1326	C	C6-N1-C2	-6.79	117.58	120.30
23	BA	1039	G	C8-N9-C4	6.79	109.12	106.40
23	DA	1954	G	N3-C2-N2	-6.79	115.15	119.90
23	BA	199	A	C2-N3-C4	6.79	113.99	110.60
23	BA	386	G	C8-N9-C4	-6.79	103.68	106.40
23	BA	1415	U	N3-C4-O4	-6.79	114.65	119.40
1	AA	896	C	C6-N1-C2	6.79	123.02	120.30
23	BA	847	U	C2-N1-C1'	-6.78	109.56	117.70
23	BA	1755	A	C8-N9-C4	-6.78	103.09	105.80
23	BA	2306	C	N1-C2-O2	6.78	122.97	118.90
1	AA	1158	C	C5-C6-N1	6.78	124.39	121.00
1	AA	1247	U	C5-C6-N1	6.78	126.09	122.70
23	BA	1992	G	C8-N9-C4	-6.78	103.69	106.40
1	CA	1002	G	C8-N9-C4	-6.78	103.69	106.40
23	DA	915	C	C6-N1-C2	-6.78	117.59	120.30
23	DA	2193	G	C5-C6-N1	-6.78	108.11	111.50
23	BA	2306	C	C2-N1-C1'	6.78	126.26	118.80
23	DA	183	C	N3-C4-C5	6.78	124.61	121.90
1	AA	994	A	N1-C6-N6	6.78	122.67	118.60
23	BA	2508	G	C2-N3-C4	6.78	115.29	111.90
23	BA	2781	A	N1-C6-N6	-6.78	114.53	118.60
23	DA	2335	A	C6-N1-C2	-6.78	114.53	118.60
23	BA	1332	G	C5-C6-O6	-6.78	124.53	128.60
23	BA	1937	A	N1-C2-N3	6.78	132.69	129.30
1	CA	1459	C	C6-N1-C1'	-6.78	112.67	120.80
23	DA	2335	A	C4-C5-N7	6.78	114.09	110.70
23	BA	478	A	C8-N9-C4	-6.77	103.09	105.80
23	DA	1834	U	N3-C2-O2	-6.77	117.46	122.20
23	BA	2122	U	C5-C4-O4	6.77	129.96	125.90
23	DA	830	G	N1-C6-O6	-6.77	115.84	119.90
23	DA	1325	G	C5-C6-N1	6.77	114.88	111.50
1	AA	1292	U	C5-C4-O4	-6.76	121.84	125.90
23	BA	1762	A	N7-C8-N9	6.76	117.18	113.80
23	DA	2821	A	C4-C5-N7	6.76	114.08	110.70
23	BA	215	G	C8-N9-C4	6.76	109.11	106.40
1	AA	365	U	C2-N1-C1'	-6.76	109.59	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	37	C	N3-C2-O2	-6.76	117.17	121.90
23	BA	816	C	C2-N3-C4	-6.76	116.52	119.90
23	DA	2063	C	N3-C4-N4	6.76	122.73	118.00
1	AA	1363	C	N3-C4-C5	-6.76	119.20	121.90
23	BA	2848	G	C4-C5-N7	-6.76	108.10	110.80
23	DA	2123	G	C6-C5-N7	6.76	134.46	130.40
1	AA	1297	C	N3-C4-C5	-6.75	119.20	121.90
23	BA	1602	U	N1-C2-N3	6.75	118.95	114.90
1	AA	398	C	C6-N1-C2	6.75	123.00	120.30
23	BA	573	G	N3-C2-N2	-6.75	115.17	119.90
23	BA	1899	G	C5-C6-O6	-6.75	124.55	128.60
23	BA	2581	G	C5-C6-O6	6.75	132.65	128.60
23	DA	1660	C	C5-C6-N1	-6.75	117.62	121.00
23	BA	2791	C	C5-C6-N1	6.75	124.38	121.00
23	DA	801	G	N3-C4-N9	-6.75	121.95	126.00
49	B5	15	ARG	NE-CZ-NH1	-6.75	116.93	120.30
1	CA	117	G	C6-C5-N7	-6.75	126.35	130.40
23	DA	2407	G	C8-N9-C1'	-6.75	118.23	127.00
23	BA	59	U	N1-C2-O2	6.75	127.52	122.80
23	DA	2260	C	C2-N3-C4	-6.74	116.53	119.90
23	DA	2318	G	N3-C4-C5	-6.74	125.23	128.60
1	AA	1151	A	C5-C6-N6	6.74	129.09	123.70
23	BA	2501	C	C2-N3-C4	-6.74	116.53	119.90
1	AA	1003	G	C5-C6-O6	6.74	132.64	128.60
23	DA	2575	C	C5-C6-N1	-6.74	117.63	121.00
23	BA	2070	G	N1-C2-N2	-6.74	110.14	116.20
23	BA	678	C	C6-N1-C2	6.73	122.99	120.30
23	BA	1539	G	C6-C5-N7	-6.73	126.36	130.40
23	BA	1669	A	N1-C6-N6	-6.73	114.56	118.60
1	CA	1344	C	C6-N1-C2	-6.73	117.61	120.30
23	DA	645	C	N3-C2-O2	-6.73	117.19	121.90
23	DA	768	G	C6-N1-C2	-6.73	121.06	125.10
23	BA	2093	G	C2-N3-C4	-6.73	108.54	111.90
23	BA	1831	G	C8-N9-C4	-6.73	103.71	106.40
23	BA	2725	A	C2-N3-C4	-6.73	107.24	110.60
1	CA	1037	C	C5-C4-N4	6.73	124.91	120.20
23	BA	1827	C	C6-N1-C2	-6.73	117.61	120.30
23	DA	1937	A	N1-C6-N6	6.73	122.64	118.60
23	BA	453	C	C2-N3-C4	-6.72	116.54	119.90
23	BA	1572	A	C2-N3-C4	-6.72	107.24	110.60
23	BA	1858	G	N3-C4-C5	-6.72	125.24	128.60
23	DA	463	G	C8-N9-C4	-6.72	103.71	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	678	C	N3-C4-C5	6.72	124.59	121.90
23	DA	2332	U	N1-C2-O2	6.72	127.50	122.80
23	BA	1359	A	C5-C6-N6	6.72	129.08	123.70
23	BA	2244	U	C5-C6-N1	-6.72	119.34	122.70
1	AA	839	U	N3-C2-O2	-6.72	117.50	122.20
23	DA	652(T)	C	N1-C2-O2	6.72	122.93	118.90
23	DA	2306	C	C2-N1-C1'	6.72	126.19	118.80
1	AA	43	C	C2-N3-C4	-6.71	116.54	119.90
23	BA	1605	C	C6-N1-C2	-6.71	117.61	120.30
23	DA	484	C	N3-C4-C5	6.71	124.58	121.90
1	AA	699	C	C6-N1-C2	-6.71	117.62	120.30
45	D1	21	ARG	NE-CZ-NH2	-6.71	116.94	120.30
1	CA	1242	C	C6-N1-C2	-6.71	117.62	120.30
23	DA	2123	G	C8-N9-C1'	6.71	135.72	127.00
23	DA	154(A)	C	C6-N1-C1'	-6.71	112.75	120.80
23	BA	744	G	C5-C6-O6	6.70	132.62	128.60
1	CA	403	C	C2-N3-C4	-6.70	116.55	119.90
1	CA	1026	G	C4-N9-C1'	6.70	135.22	126.50
1	CA	1274	G	C8-N9-C1'	-6.70	118.28	127.00
23	DA	1397	U	N3-C2-O2	-6.70	117.51	122.20
23	DA	1211	U	C5-C4-O4	-6.70	121.88	125.90
1	CA	757	U	C5-C6-N1	-6.70	119.35	122.70
23	DA	2733	A	N1-C6-N6	6.70	122.62	118.60
1	AA	1054	C	N1-C2-O2	6.70	122.92	118.90
23	BA	839	U	C2-N3-C4	6.70	131.02	127.00
23	BA	2446	G	N1-C2-N2	-6.69	110.17	116.20
23	BA	837	C	C6-N1-C2	-6.69	117.62	120.30
33	BP	147	LEU	CA-CB-CG	6.69	130.69	115.30
23	DA	121	G	C5-C6-O6	-6.69	124.58	128.60
23	DA	154(A)	C	C2-N1-C1'	6.69	126.16	118.80
23	DA	1128	A	N1-C6-N6	6.69	122.61	118.60
23	DA	453	C	C6-N1-C2	6.69	122.98	120.30
23	DA	1359	A	C5-C6-N6	6.69	129.05	123.70
23	BA	130	C	C5-C6-N1	-6.69	117.66	121.00
23	BA	1858	G	C8-N9-C4	-6.69	103.72	106.40
23	DA	2821	A	C5-C6-N6	-6.69	118.35	123.70
1	AA	1220	G	N9-C4-C5	-6.69	102.73	105.40
23	BA	1128	A	N9-C4-C5	-6.69	103.13	105.80
23	BA	931	G	N3-C4-C5	-6.68	125.26	128.60
1	AA	912	C	N1-C2-O2	-6.68	114.89	118.90
1	AA	972	C	C6-N1-C2	-6.68	117.63	120.30
23	BA	679	C	C6-N1-C2	6.68	122.97	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2498	C	C6-N1-C2	6.68	122.97	120.30
23	DA	2322	A	N3-C4-C5	-6.68	122.12	126.80
23	BA	2508	G	C6-C5-N7	6.68	134.41	130.40
23	BA	1164	G	C5-C6-O6	6.68	132.61	128.60
23	DA	1026	U	N1-C2-O2	6.68	127.47	122.80
1	AA	1456	G	N7-C8-N9	6.68	116.44	113.10
23	BA	476	G	N3-C4-N9	-6.68	121.99	126.00
23	BA	2692	C	N3-C2-O2	-6.68	117.23	121.90
1	CA	1195	C	C6-N1-C2	-6.68	117.63	120.30
23	BA	385	C	C4-C5-C6	-6.67	114.06	117.40
23	BA	2379	G	N3-C4-N9	6.67	130.00	126.00
23	BA	678	C	N3-C4-N4	-6.67	113.33	118.00
1	CA	754	C	C2-N1-C1'	6.67	126.14	118.80
1	AA	1210	C	N1-C2-O2	6.67	122.90	118.90
23	BA	195	A	N1-C2-N3	6.67	132.63	129.30
23	BA	1793	C	N1-C2-O2	-6.67	114.90	118.90
23	BA	2069	G	C5-C6-O6	-6.66	124.60	128.60
23	BA	1333	C	C6-N1-C2	6.66	122.97	120.30
23	BA	640	C	N3-C4-N4	6.66	122.66	118.00
23	BA	741	G	N1-C6-O6	-6.66	115.90	119.90
1	CA	1151	A	N1-C6-N6	-6.66	114.60	118.60
23	DA	12	U	C6-N1-C2	-6.66	117.00	121.00
23	DA	2347	C	N3-C2-O2	-6.66	117.24	121.90
1	AA	1303	C	C2-N1-C1'	6.66	126.12	118.80
23	BA	1204	A	C3'-C2'-C1'	-6.66	96.17	101.50
23	DA	652(E)	G	N3-C2-N2	6.66	124.56	119.90
1	AA	1278	U	C2-N1-C1'	6.66	125.69	117.70
23	BA	931	G	C2-N3-C4	6.66	115.23	111.90
23	BA	2440	C	N1-C2-O2	6.66	122.89	118.90
23	BA	271(Y)	U	N3-C2-O2	-6.66	117.54	122.20
23	DA	2346	A	C8-N9-C4	-6.65	103.14	105.80
23	BA	968	G	N1-C6-O6	-6.65	115.91	119.90
1	CA	768	A	C8-N9-C4	6.65	108.46	105.80
23	BA	2440	C	N3-C4-N4	-6.65	113.34	118.00
23	DA	1210	A	C8-N9-C4	-6.65	103.14	105.80
1	AA	754	C	C2-N1-C1'	6.65	126.11	118.80
23	BA	1336	A	C5-N7-C8	6.65	107.22	103.90
23	DA	429	A	N1-C6-N6	6.65	122.59	118.60
1	AA	345	C	C6-N1-C1'	-6.64	112.83	120.80
1	AA	960	U	C6-N1-C1'	-6.64	111.90	121.20
23	BA	1698	A	C5-C6-N1	-6.64	114.38	117.70
23	BA	2015	A	C2-N3-C4	-6.64	107.28	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2346	A	N3-C4-C5	-6.64	122.15	126.80
1	CA	898	G	N9-C4-C5	-6.64	102.74	105.40
23	DA	728	G	C8-N9-C4	6.64	109.06	106.40
23	DA	2024	G	N9-C4-C5	-6.64	102.74	105.40
23	BA	1188	U	N3-C4-C5	6.64	118.58	114.60
23	DA	1247	A	C8-N9-C4	6.64	108.46	105.80
23	DA	1597	A	N9-C4-C5	6.64	108.45	105.80
23	BA	425	G	N3-C4-N9	6.64	129.98	126.00
23	BA	1783	A	N9-C4-C5	6.64	108.45	105.80
1	CA	1038	C	C2-N3-C4	6.64	123.22	119.90
23	DA	528	A	C4-N9-C1'	-6.64	114.36	126.30
1	CA	357	G	C2-N3-C4	6.63	115.22	111.90
23	DA	362	U	C5-C4-O4	-6.63	121.92	125.90
23	DA	2444	G	C4-C5-N7	-6.63	108.15	110.80
1	AA	1098	C	C5-C6-N1	6.63	124.31	121.00
23	BA	1123	C	C6-N1-C2	6.63	122.95	120.30
23	DA	2762	G	C8-N9-C4	-6.62	103.75	106.40
23	BA	217	G	N1-C6-O6	6.62	123.87	119.90
23	BA	263	C	N3-C2-O2	-6.62	117.26	121.90
23	BA	856	C	C5-C6-N1	6.62	124.31	121.00
23	BA	1185	C	C5-C4-N4	6.62	124.84	120.20
23	DA	2084	C	C4-C5-C6	6.62	120.71	117.40
23	DA	2244	U	C5-C6-N1	-6.62	119.39	122.70
23	BA	1333	C	N3-C4-C5	6.62	124.55	121.90
1	CA	1242	C	N3-C4-N4	6.62	122.63	118.00
23	DA	2407	G	C6-C5-N7	-6.62	126.43	130.40
23	BA	36	G	C5-C6-O6	6.62	132.57	128.60
23	BA	193	U	C6-N1-C2	-6.62	117.03	121.00
23	BA	516	C	C4-C5-C6	6.62	120.71	117.40
23	BA	1191	G	C4-C5-N7	-6.62	108.15	110.80
23	BA	1899	G	C8-N9-C4	-6.62	103.75	106.40
23	BA	2407	G	C8-N9-C1'	-6.62	118.40	127.00
1	AA	346	G	N3-C2-N2	6.61	124.53	119.90
23	BA	37	C	N1-C2-O2	6.61	122.87	118.90
23	BA	2581	G	N1-C2-N2	-6.61	110.25	116.20
23	BA	785	G	N3-C4-C5	6.61	131.91	128.60
23	BA	2869	G	C8-N9-C4	-6.61	103.75	106.40
23	BA	1351	C	N3-C4-C5	6.61	124.54	121.90
23	BA	1382	G	N1-C6-O6	6.61	123.86	119.90
23	BA	57	C	C6-N1-C2	6.61	122.94	120.30
23	BA	971	C	C2-N3-C4	-6.61	116.60	119.90
23	DA	1826	G	C4-C5-N7	-6.61	108.16	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	73	A	C6-N1-C2	-6.60	114.64	118.60
23	DA	1578	U	N3-C2-O2	-6.60	117.58	122.20
24	BB	80	U	C5-C4-O4	6.60	129.86	125.90
23	BA	2407	G	N1-C6-O6	6.60	123.86	119.90
23	DA	2307	G	N7-C8-N9	6.60	116.40	113.10
23	BA	641	C	C6-N1-C2	-6.59	117.66	120.30
1	AA	1245	A	N1-C6-N6	6.59	122.55	118.60
23	BA	2319	G	C5-N7-C8	-6.59	101.00	104.30
23	DA	1471	A	N7-C8-N9	6.59	117.09	113.80
23	BA	975	C	N3-C4-N4	-6.59	113.39	118.00
23	BA	154(A)	C	C6-N1-C1'	-6.58	112.90	120.80
23	DA	784	A	C5-N7-C8	6.58	107.19	103.90
23	BA	2353	G	C2-N3-C4	-6.58	108.61	111.90
23	DA	798	G	C2-N3-C4	-6.58	108.61	111.90
23	BA	2296	U	C3'-C2'-C1'	-6.58	96.24	101.50
23	DA	409	C	N3-C4-C5	6.58	124.53	121.90
23	BA	1308	A	N1-C6-N6	-6.58	114.66	118.60
1	AA	719	C	C6-N1-C2	-6.57	117.67	120.30
1	AA	943	U	N3-C4-O4	6.57	124.00	119.40
23	BA	2628	C	N3-C4-C5	6.57	124.53	121.90
23	DA	1471	A	C8-N9-C4	-6.57	103.17	105.80
1	AA	346	G	C6-C5-N7	-6.57	126.46	130.40
23	BA	2442	C	C2-N3-C4	-6.57	116.61	119.90
23	DA	2090	G	C4-C5-N7	-6.57	108.17	110.80
23	BA	272(D)	G	C8-N9-C4	6.57	109.03	106.40
1	CA	1524	C	C6-N1-C2	6.57	122.93	120.30
23	BA	243	U	C5-C6-N1	6.57	125.98	122.70
23	BA	2359	C	N3-C2-O2	-6.57	117.30	121.90
23	BA	154(A)	C	C2-N1-C1'	6.56	126.02	118.80
23	BA	2730	C	N3-C4-C5	6.56	124.53	121.90
23	DA	39	C	N3-C4-N4	-6.56	113.41	118.00
23	DA	1377	G	N3-C4-C5	-6.56	125.32	128.60
23	BA	783	A	C2-N3-C4	6.56	113.88	110.60
23	BA	1659	U	N1-C2-O2	-6.56	118.21	122.80
23	BA	2110	G	N3-C4-N9	6.56	129.94	126.00
23	BA	2322	A	N1-C2-N3	6.56	132.58	129.30
23	DA	678	C	C6-N1-C2	6.56	122.92	120.30
1	AA	1456	G	C8-N9-C1'	-6.56	118.47	127.00
23	DA	1384	A	N1-C6-N6	-6.56	114.66	118.60
23	DA	2174	C	C5-C6-N1	6.56	124.28	121.00
41	DX	57	LEU	CA-CB-CG	6.56	130.38	115.30
1	CA	346	G	C6-C5-N7	-6.56	126.47	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1193	G	N3-C2-N2	6.55	124.49	119.90
23	BA	2296	U	O4'-C1'-N1	6.55	113.44	108.20
23	BA	1633	G	N1-C6-O6	6.55	123.83	119.90
23	BA	2866	U	C5-C4-O4	6.55	129.83	125.90
1	CA	1460	A	C5-N7-C8	6.55	107.17	103.90
1	AA	489	C	C5-C6-N1	6.55	124.27	121.00
23	BA	584	C	C5-C4-N4	-6.55	115.62	120.20
23	BA	2107	C	N3-C4-N4	-6.55	113.42	118.00
23	BA	2578	G	N3-C2-N2	6.55	124.48	119.90
23	DA	1355	G	N3-C2-N2	-6.55	115.32	119.90
23	DA	2030	A	C5-C6-N6	-6.55	118.46	123.70
1	AA	92	C	C2-N3-C4	6.54	123.17	119.90
23	DA	143	G	C8-N9-C4	6.54	109.02	106.40
23	BA	940	G	N7-C8-N9	6.54	116.37	113.10
23	DA	2027	G	N1-C2-N3	6.54	127.83	123.90
1	AA	1203	C	N3-C4-C5	-6.54	119.28	121.90
23	DA	728	G	N7-C8-N9	-6.54	109.83	113.10
23	DA	2075	U	C5-C6-N1	-6.54	119.43	122.70
23	DA	2456	C	C6-N1-C2	6.54	122.92	120.30
23	DA	2067	G	N7-C8-N9	6.54	116.37	113.10
23	BA	141	A	C5-C6-N6	-6.54	118.47	123.70
23	BA	2674	G	C8-N9-C4	-6.54	103.78	106.40
23	DA	271(S)	G	N1-C6-O6	6.54	123.82	119.90
23	BA	2285	C	C6-N1-C2	6.53	122.91	120.30
1	AA	1153	C	C2-N1-C1'	-6.53	111.62	118.80
1	CA	1028	C	C2-N3-C4	6.53	123.17	119.90
23	DA	465	G	C8-N9-C4	-6.53	103.79	106.40
23	BA	768	G	N3-C4-C5	-6.53	125.34	128.60
24	BB	104	U	C2-N3-C4	-6.53	123.08	127.00
1	CA	524	G	C8-N9-C4	-6.53	103.79	106.40
23	DA	756	C	N3-C2-O2	-6.52	117.33	121.90
23	BA	572	A	N9-C4-C5	6.52	108.41	105.80
23	BA	2499	C	C6-N1-C2	-6.52	117.69	120.30
1	AA	47	C	C2-N3-C4	-6.52	116.64	119.90
23	BA	448	U	N1-C2-N3	6.52	118.81	114.90
23	BA	830	G	C5-C6-O6	6.52	132.51	128.60
23	BA	1368	G	N9-C4-C5	6.52	108.01	105.40
23	BA	1403	C	C5-C6-N1	-6.52	117.74	121.00
23	BA	2322	A	C6-C5-N7	6.52	136.86	132.30
1	CA	699	C	C6-N1-C2	-6.52	117.69	120.30
23	DA	1758	G	C5-C6-O6	-6.52	124.69	128.60
23	BA	1204	A	C8-N9-C4	-6.51	103.19	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1755	A	N9-C4-C5	6.51	108.41	105.80
24	BB	83	G	N3-C2-N2	-6.51	115.34	119.90
23	BA	12	U	C6-N1-C2	-6.51	117.09	121.00
23	BA	520	G	N1-C6-O6	-6.51	115.99	119.90
23	BA	2676	C	N3-C4-C5	6.51	124.50	121.90
24	BB	75	G	N1-C6-O6	6.51	123.81	119.90
23	BA	1334	G	N9-C4-C5	6.51	108.00	105.40
23	BA	2449	U	N3-C4-O4	6.51	123.96	119.40
1	CA	1000	U	C2-N3-C4	6.51	130.91	127.00
23	DA	1204	A	C3'-C2'-C1'	-6.51	96.29	101.50
23	DA	1826	G	N1-C6-O6	-6.51	115.99	119.90
23	DA	2021	C	C2-N3-C4	-6.51	116.64	119.90
23	DA	1758	G	C6-C5-N7	-6.51	126.50	130.40
1	AA	1177	G	C8-N9-C4	-6.51	103.80	106.40
23	BA	2233	U	N1-C2-N3	6.51	118.80	114.90
23	DA	2312	U	C6-N1-C2	-6.51	117.10	121.00
23	BA	2243	U	C5-C6-N1	6.50	125.95	122.70
23	DA	1602	U	C5-C4-O4	6.50	129.80	125.90
23	DA	210	C	C5-C6-N1	-6.50	117.75	121.00
1	AA	1255	G	N1-C6-O6	-6.50	116.00	119.90
23	DA	54	G	N1-C6-O6	6.50	123.80	119.90
1	AA	933	G	N3-C4-N9	-6.50	122.10	126.00
23	BA	267	C	N3-C4-N4	-6.50	113.45	118.00
23	BA	1972	A	C5-C6-N1	6.50	120.95	117.70
23	BA	2283	C	N3-C4-N4	6.50	122.55	118.00
23	BA	1108	U	C6-N1-C2	-6.50	117.10	121.00
33	DP	147	LEU	CA-CB-CG	6.50	130.24	115.30
29	BH	127	GLU	C-N-CD	6.49	142.03	128.40
23	BA	505	A	C8-N9-C4	-6.49	103.20	105.80
23	DA	975	C	N1-C2-O2	6.49	122.80	118.90
1	AA	1506	U	N3-C4-O4	6.49	123.94	119.40
23	BA	51	G	C5-C6-O6	6.49	132.50	128.60
23	BA	2244	U	N1-C2-N3	6.49	118.80	114.90
23	BA	2447	G	N9-C4-C5	6.49	108.00	105.40
23	BA	488	G	N9-C4-C5	6.49	108.00	105.40
23	BA	528	A	C4-C5-N7	6.49	113.94	110.70
23	BA	655	A	C5-N7-C8	-6.49	100.66	103.90
23	DA	2047	U	N3-C4-C5	6.49	118.49	114.60
23	DA	2306	C	C5-C6-N1	6.49	124.24	121.00
1	AA	357	G	N3-C2-N2	-6.49	115.36	119.90
23	DA	945	A	N1-C6-N6	6.49	122.49	118.60
23	DA	1244	G	C4-C5-N7	6.48	113.39	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1327	C	N1-C2-O2	-6.48	115.01	118.90
23	DA	1997	G	N9-C4-C5	6.48	107.99	105.40
1	AA	1429	C	C6-N1-C2	6.48	122.89	120.30
23	BA	2195	C	C5-C6-N1	-6.48	117.76	121.00
1	AA	43	C	N3-C2-O2	-6.48	117.36	121.90
23	BA	2540	C	C5-C6-N1	-6.48	117.76	121.00
1	AA	1378	C	C6-N1-C2	-6.48	117.71	120.30
23	BA	817	C	N3-C4-C5	6.48	124.49	121.90
23	BA	2332	U	C5-C6-N1	-6.48	119.46	122.70
1	CA	1502	A	N1-C6-N6	6.48	122.49	118.60
23	BA	2393	A	N1-C6-N6	-6.48	114.72	118.60
23	BA	2591	C	N1-C2-O2	-6.48	115.01	118.90
23	DA	737	C	C6-N1-C2	6.47	122.89	120.30
1	AA	1151	A	N9-C4-C5	6.47	108.39	105.80
1	AA	1308	U	C5-C4-O4	6.47	129.78	125.90
23	BA	12	U	N1-C2-O2	6.47	127.33	122.80
23	DA	2569	G	N3-C4-C5	-6.47	125.36	128.60
23	BA	957	A	C2-N3-C4	-6.47	107.36	110.60
23	BA	2008	C	N3-C4-C5	-6.47	119.31	121.90
23	DA	2070	G	C6-N1-C2	-6.47	121.22	125.10
1	AA	402	G	N3-C2-N2	-6.46	115.38	119.90
23	DA	2070	G	N7-C8-N9	-6.46	109.87	113.10
24	DB	22	U	C5-C6-N1	6.46	125.93	122.70
3	AC	196	LEU	CA-CB-CG	6.46	130.16	115.30
23	BA	1792	G	C5-N7-C8	6.46	107.53	104.30
23	BA	2709	G	N3-C4-C5	-6.46	125.37	128.60
23	DA	1007	C	C2-N3-C4	-6.46	116.67	119.90
23	DA	1022	G	N9-C4-C5	6.46	107.98	105.40
24	DB	115	G	N7-C8-N9	-6.46	109.87	113.10
1	AA	1392	G	N3-C2-N2	6.46	124.42	119.90
1	AA	1456	G	N3-C4-N9	6.46	129.87	126.00
23	BA	2114	A	N7-C8-N9	6.46	117.03	113.80
1	CA	950	U	N1-C2-O2	6.46	127.32	122.80
23	DA	945	A	C8-N9-C4	6.46	108.38	105.80
23	DA	2262	U	N1-C2-O2	-6.46	118.28	122.80
1	AA	53	A	C5-C6-N1	-6.45	114.47	117.70
23	BA	1630	G	N1-C6-O6	-6.45	116.03	119.90
23	DA	773	U	C5-C4-O4	6.45	129.77	125.90
23	DA	1992	G	N3-C4-C5	-6.45	125.37	128.60
1	AA	892	A	N1-C2-N3	6.45	132.53	129.30
23	BA	69	C	N3-C2-O2	-6.45	117.39	121.90
1	CA	697	U	C2-N1-C1'	-6.45	109.96	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1245	A	N9-C4-C5	-6.45	103.22	105.80
23	BA	1204	A	C4-N9-C1'	6.45	137.91	126.30
23	DA	2182	G	N3-C4-N9	-6.45	122.13	126.00
23	DA	2045	C	C5-C6-N1	-6.45	117.78	121.00
1	AA	1247	U	N1-C2-O2	6.45	127.31	122.80
23	BA	1918	A	C8-N9-C4	6.45	108.38	105.80
1	CA	1218	C	N3-C2-O2	-6.45	117.39	121.90
23	BA	2032	G	N1-C2-N3	6.44	127.77	123.90
23	DA	1374	G	C5-C6-N1	-6.44	108.28	111.50
1	AA	89	C	N1-C2-O2	6.44	122.77	118.90
1	AA	398	C	C2-N3-C4	-6.44	116.68	119.90
23	DA	2344	U	C5-C4-O4	6.44	129.77	125.90
1	AA	1117	G	C8-N9-C4	-6.44	103.82	106.40
23	BA	2593	U	N1-C2-N3	6.44	118.76	114.90
23	DA	512	G	O4'-C1'-N9	6.44	113.35	108.20
23	BA	1539	G	C4-N9-C1'	6.44	134.87	126.50
23	BA	2344	U	N3-C4-C5	-6.44	110.74	114.60
23	BA	2682	U	C2-N1-C1'	6.44	125.42	117.70
1	AA	1285	A	N7-C8-N9	-6.43	110.58	113.80
23	DA	1022	G	C8-N9-C1'	6.43	135.37	127.00
23	DA	2607	G	N3-C4-C5	-6.43	125.38	128.60
1	AA	934	C	C5-C4-N4	6.43	124.70	120.20
1	CA	169	C	C6-N1-C2	-6.43	117.73	120.30
23	DA	2519	U	N3-C2-O2	6.43	126.70	122.20
1	AA	1017	G	C8-N9-C4	-6.43	103.83	106.40
23	BA	1784	A	N9-C4-C5	-6.43	103.23	105.80
23	DA	1610	A	C4-C5-N7	6.43	113.91	110.70
1	AA	620	C	C6-N1-C2	6.43	122.87	120.30
1	AA	1149	C	C2-N3-C4	6.43	123.11	119.90
1	AA	1332	A	C8-N9-C4	-6.43	103.23	105.80
23	BA	698	C	C6-N1-C2	6.43	122.87	120.30
23	BA	2114	A	C8-N9-C4	-6.43	103.23	105.80
23	BA	777	A	C4-C5-N7	-6.42	107.49	110.70
23	BA	1638	C	N3-C4-C5	-6.42	119.33	121.90
1	CA	1432	G	N3-C4-N9	-6.42	122.15	126.00
23	BA	1681	G	C4-C5-N7	6.42	113.37	110.80
23	BA	2062	A	N7-C8-N9	6.42	117.01	113.80
1	CA	117	G	N1-C6-O6	6.42	123.75	119.90
23	DA	2322	A	C6-C5-N7	6.42	136.79	132.30
23	BA	1393	A	C4-C5-N7	-6.42	107.49	110.70
23	BA	2077	A	N7-C8-N9	6.42	117.01	113.80
23	DA	2104	G	C6-N1-C2	6.42	128.95	125.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2191	G	N3-C4-N9	6.41	129.85	126.00
1	CA	52	G	N1-C6-O6	-6.41	116.05	119.90
23	DA	1817	G	C4-C5-N7	6.41	113.37	110.80
23	BA	2515	C	C5-C4-N4	-6.41	115.71	120.20
23	DA	1794	U	C2-N3-C4	-6.41	123.15	127.00
1	AA	1244	C	N3-C4-N4	-6.41	113.51	118.00
23	DA	860	U	C6-N1-C2	-6.41	117.15	121.00
23	DA	1762	A	C2-N3-C4	6.41	113.81	110.60
23	DA	2062	A	N7-C8-N9	6.41	117.00	113.80
23	DA	2519	U	C6-N1-C2	6.41	124.85	121.00
23	DA	2440	C	C2-N1-C1'	-6.41	111.75	118.80
1	AA	79	G	N1-C6-O6	6.41	123.74	119.90
23	BA	2823	A	N9-C4-C5	-6.41	103.24	105.80
23	BA	1681	G	N1-C6-O6	6.40	123.74	119.90
23	BA	2463	C	C5-C6-N1	-6.40	117.80	121.00
23	BA	2488	A	C5-N7-C8	6.40	107.10	103.90
1	AA	1456	G	C6-C5-N7	-6.40	126.56	130.40
23	BA	566	U	N3-C4-O4	-6.40	114.92	119.40
23	BA	580	C	N1-C2-O2	-6.40	115.06	118.90
23	BA	941	A	C8-N9-C4	-6.40	103.24	105.80
23	BA	1334	G	N1-C6-O6	-6.40	116.06	119.90
23	BA	124	G	C4-C5-N7	6.40	113.36	110.80
23	BA	2348	U	N3-C4-O4	-6.40	114.92	119.40
23	BA	2446	G	N3-C4-N9	6.40	129.84	126.00
23	DA	2286	A	C8-N9-C4	-6.40	103.24	105.80
1	AA	52	G	C5-C6-N1	-6.40	108.30	111.50
1	CA	1056	U	N1-C2-O2	6.40	127.28	122.80
23	BA	663	G	C2-N3-C4	6.40	115.10	111.90
23	BA	1200	C	N1-C2-O2	-6.40	115.06	118.90
23	BA	936	C	C6-N1-C2	6.39	122.86	120.30
23	BA	2422	A	C8-N9-C4	-6.39	103.24	105.80
23	BA	2439	A	C8-N9-C4	-6.39	103.24	105.80
1	CA	1307	U	C5-C6-N1	6.39	125.90	122.70
23	DA	1789	A	C8-N9-C4	6.39	108.36	105.80
23	DA	2386	C	C6-N1-C2	6.39	122.86	120.30
23	DA	791	C	C5-C6-N1	-6.39	117.80	121.00
23	BA	2487	G	C2-N3-C4	-6.39	108.71	111.90
23	BA	188	G	N1-C6-O6	-6.39	116.07	119.90
23	DA	2286	A	N1-C2-N3	6.39	132.49	129.30
23	DA	2325	G	C5-C6-O6	-6.39	124.77	128.60
23	BA	2648	C	C6-N1-C2	6.38	122.85	120.30
23	BA	429	A	N1-C6-N6	6.38	122.43	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2271	G	C8-N9-C4	-6.38	103.85	106.40
23	DA	780	G	N3-C2-N2	-6.38	115.43	119.90
23	BA	1802	A	C5-C6-N1	6.38	120.89	117.70
23	BA	2057	A	N1-C2-N3	6.38	132.49	129.30
23	BA	2419	U	C5-C6-N1	6.38	125.89	122.70
23	BA	1368	G	N1-C6-O6	-6.38	116.07	119.90
23	DA	1605	C	N3-C4-C5	-6.38	119.35	121.90
1	AA	117	G	C5-C6-O6	-6.38	124.78	128.60
23	BA	769	G	C5-C6-N1	-6.38	108.31	111.50
23	DA	2672	G	C6-C5-N7	-6.37	126.58	130.40
1	AA	1311	G	C4-N9-C1'	-6.37	118.22	126.50
23	BA	1249	U	C5-C6-N1	-6.37	119.51	122.70
23	BA	2862	G	C8-N9-C4	6.37	108.95	106.40
23	BA	1814	G	C6-N1-C2	-6.37	121.28	125.10
23	DA	2423	U	C6-N1-C2	6.37	124.82	121.00
1	AA	1347	G	C4-N9-C1'	-6.37	118.22	126.50
1	AA	1397	C	C2-N1-C1'	6.37	125.81	118.80
23	BA	785	G	C6-N1-C2	6.37	128.92	125.10
1	CA	1067	A	C8-N9-C4	-6.37	103.25	105.80
23	BA	433	C	C6-N1-C2	-6.37	117.75	120.30
23	DA	860	U	C5-C4-O4	6.37	129.72	125.90
23	DA	985	C	N3-C4-C5	6.37	124.45	121.90
23	DA	394	A	N7-C8-N9	-6.36	110.62	113.80
23	DA	1616	A	C6-C5-N7	-6.36	127.85	132.30
23	DA	1966	A	C8-N9-C4	6.36	108.34	105.80
1	AA	1038	C	C2-N1-C1'	6.36	125.80	118.80
23	DA	1397	U	N3-C4-O4	-6.36	114.95	119.40
23	DA	1955	U	C2-N1-C1'	-6.36	110.07	117.70
23	BA	1131	G	N1-C6-O6	-6.36	116.08	119.90
1	CA	117	G	C5-C6-O6	-6.36	124.78	128.60
23	DA	2426	A	N7-C8-N9	6.36	116.98	113.80
23	BA	1558	A	C5-C6-N1	-6.36	114.52	117.70
23	BA	684	G	N3-C4-C5	-6.36	125.42	128.60
23	BA	1764	G	N1-C6-O6	-6.36	116.09	119.90
23	DA	2567	G	C8-N9-C4	6.36	108.94	106.40
23	BA	748	G	C5-C6-O6	6.35	132.41	128.60
23	DA	1128	A	N9-C4-C5	-6.35	103.26	105.80
23	DA	1368	G	C2-N3-C4	6.35	115.08	111.90
23	DA	2570	G	C4-C5-N7	-6.35	108.26	110.80
23	BA	726	G	N1-C6-O6	-6.35	116.09	119.90
23	BA	1783	A	N1-C6-N6	-6.35	114.79	118.60
23	BA	1653	G	P-O3'-C3'	6.35	127.32	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2017	U	N3-C2-O2	-6.35	117.76	122.20
23	DA	1042	G	C5-C6-O6	-6.35	124.79	128.60
23	DA	1565	C	N3-C4-C5	6.35	124.44	121.90
23	DA	2343	C	N1-C2-O2	-6.35	115.09	118.90
23	DA	933	A	N1-C6-N6	6.35	122.41	118.60
23	BA	2312	U	C2-N1-C1'	6.34	125.31	117.70
1	AA	1432	G	N3-C4-N9	-6.34	122.19	126.00
23	BA	25	U	N3-C2-O2	6.34	126.64	122.20
23	BA	474	G	C8-N9-C4	-6.34	103.86	106.40
23	DA	148	C	N3-C4-C5	6.34	124.44	121.90
23	DA	2069	G	C8-N9-C4	6.34	108.94	106.40
23	BA	2487	G	N9-C4-C5	-6.34	102.86	105.40
1	CA	355	C	C6-N1-C2	-6.34	117.76	120.30
23	DA	1254	A	C6-N1-C2	-6.34	114.80	118.60
23	BA	1330	C	C5-C4-N4	-6.34	115.76	120.20
23	BA	2029	G	C5-C6-O6	-6.34	124.80	128.60
23	DA	1305	C	C5-C4-N4	-6.34	115.76	120.20
23	DA	2028	U	C5-C6-N1	-6.34	119.53	122.70
23	BA	1934	C	C6-N1-C2	6.33	122.83	120.30
1	CA	1003	G	C6-C5-N7	6.33	134.20	130.40
1	CA	1460	A	C6-C5-N7	6.33	136.73	132.30
23	DA	1956	U	N1-C2-N3	6.33	118.70	114.90
1	AA	1230	C	C5-C4-N4	-6.33	115.77	120.20
1	AA	1005	A	N7-C8-N9	6.33	116.97	113.80
24	BB	51	G	N9-C4-C5	-6.33	102.87	105.40
23	DA	768	G	C4-C5-C6	6.33	122.60	118.80
23	DA	2383	G	C8-N9-C1'	-6.33	118.77	127.00
23	BA	419	C	C6-N1-C2	6.33	122.83	120.30
23	BA	1792	G	C4-C5-N7	-6.33	108.27	110.80
1	AA	757	U	C2-N1-C1'	-6.32	110.11	117.70
23	BA	967	C	N3-C2-O2	-6.32	117.47	121.90
23	BA	1904	G	N1-C6-O6	-6.32	116.11	119.90
1	CA	1456	G	C8-N9-C1'	-6.32	118.78	127.00
23	DA	2501	C	C2-N1-C1'	-6.32	111.85	118.80
23	DA	1827	C	C6-N1-C2	-6.32	117.77	120.30
23	DA	2312	U	C5-C6-N1	6.32	125.86	122.70
1	AA	1315	U	C5-C6-N1	6.32	125.86	122.70
23	BA	1142(A)	A	C8-N9-C4	-6.32	103.27	105.80
23	DA	1248	G	N7-C8-N9	-6.32	109.94	113.10
23	BA	2092	U	C5-C6-N1	6.32	125.86	122.70
23	DA	2823	A	C6-C5-N7	-6.31	127.88	132.30
23	BA	42	G	C5-N7-C8	6.31	107.46	104.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	456	C	N3-C2-O2	6.31	126.32	121.90
51	B7	3	ARG	NE-CZ-NH2	-6.31	117.14	120.30
23	DA	804	A	C6-N1-C2	-6.31	114.81	118.60
1	AA	107	G	C8-N9-C4	6.31	108.92	106.40
1	AA	1097	C	C6-N1-C2	-6.31	117.78	120.30
1	CA	777	A	C8-N9-C4	-6.31	103.28	105.80
23	BA	139	G	C8-N9-C4	-6.30	103.88	106.40
23	BA	2542	A	C2-N3-C4	6.30	113.75	110.60
23	DA	205	G	N3-C4-N9	6.30	129.78	126.00
23	DA	744	G	C4-C5-N7	-6.30	108.28	110.80
23	DA	2286	A	C4-C5-N7	6.30	113.85	110.70
1	AA	1373	G	C6-C5-N7	-6.30	126.62	130.40
23	BA	652(E)	G	N3-C2-N2	6.30	124.31	119.90
23	DA	194	G	N7-C8-N9	6.30	116.25	113.10
23	DA	1244	G	C5-C6-O6	-6.30	124.82	128.60
23	DA	2463	C	C5-C6-N1	-6.30	117.85	121.00
1	AA	1329	A	C5-C6-N6	6.30	128.74	123.70
23	BA	194	G	N3-C2-N2	-6.30	115.49	119.90
23	BA	2389	G	C5-C6-N1	-6.30	108.35	111.50
24	DB	54	G	C8-N9-C4	-6.30	103.88	106.40
23	BA	760	G	N1-C6-O6	6.30	123.68	119.90
23	BA	1602	U	C4-C5-C6	6.30	123.48	119.70
23	BA	2540	C	C2-N3-C4	-6.30	116.75	119.90
24	BB	77	U	C5-C4-O4	-6.30	122.12	125.90
1	AA	1063	C	N3-C2-O2	-6.30	117.49	121.90
23	BA	1028	A	N9-C4-C5	-6.30	103.28	105.80
23	DA	1660	C	C4-C5-C6	6.30	120.55	117.40
23	DA	2719	G	C8-N9-C4	6.30	108.92	106.40
23	BA	1992	G	N3-C4-C5	-6.29	125.45	128.60
23	BA	2726	U	N3-C2-O2	6.29	126.61	122.20
23	DA	1834	U	N1-C2-O2	6.29	127.21	122.80
1	AA	1249	C	C5-C6-N1	6.29	124.15	121.00
23	DA	330	A	C4-C5-N7	6.29	113.85	110.70
23	BA	1618	A	C2-N3-C4	6.29	113.75	110.60
23	BA	2372	G	N1-C6-O6	6.29	123.67	119.90
23	BA	142(A)	C	C6-N1-C2	6.29	122.82	120.30
23	DA	371	A	N1-C6-N6	6.29	122.37	118.60
23	BA	580	C	N3-C4-N4	6.29	122.40	118.00
23	BA	2071	A	C5-C6-N1	6.29	120.84	117.70
23	DA	2191	G	C6-C5-N7	-6.29	126.63	130.40
23	BA	272(H)	C	C2-N1-C1'	6.29	125.71	118.80
23	BA	1296	G	C5-C6-N1	6.29	114.64	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1519	G	C8-N9-C4	-6.29	103.89	106.40
23	DA	933	A	C6-C5-N7	-6.29	127.90	132.30
23	DA	1284	A	N9-C4-C5	-6.29	103.29	105.80
23	DA	1782	C	C6-N1-C2	6.29	122.81	120.30
23	BA	614	U	N1-C2-N3	6.28	118.67	114.90
23	BA	975	C	C5-C4-N4	6.28	124.60	120.20
23	BA	2031	A	C8-N9-C4	6.28	108.31	105.80
23	BA	2509	G	N3-C4-N9	6.28	129.77	126.00
23	DA	19	C	N1-C2-O2	-6.28	115.13	118.90
23	DA	1955	U	N3-C4-O4	-6.28	115.00	119.40
23	DA	513	A	C5-C6-N1	6.28	120.84	117.70
23	BA	1029	A	N9-C4-C5	-6.28	103.29	105.80
23	DA	2075	U	N3-C2-O2	-6.28	117.81	122.20
1	AA	1258	G	C5-C6-O6	6.28	132.37	128.60
23	DA	2123	G	N3-C4-N9	-6.28	122.23	126.00
23	DA	2446	G	C5-C6-O6	6.28	132.37	128.60
1	CA	1283	G	N9-C4-C5	6.28	107.91	105.40
1	CA	1279	A	N7-C8-N9	6.27	116.94	113.80
23	DA	2110	G	N3-C4-N9	6.27	129.76	126.00
3	AC	111	LEU	CA-CB-CG	6.27	129.73	115.30
23	BA	847	U	N3-C4-O4	-6.27	115.01	119.40
23	BA	1827	C	N1-C2-O2	6.27	122.66	118.90
1	CA	1387	G	N9-C4-C5	-6.27	102.89	105.40
23	DA	1125	G	N3-C4-C5	6.27	131.74	128.60
23	BA	2428	G	N1-C2-N2	-6.27	110.56	116.20
1	CA	1029	C	C6-N1-C2	-6.27	117.79	120.30
1	AA	1303	C	C5-C6-N1	6.27	124.14	121.00
1	CA	997	U	C2-N3-C4	6.27	130.76	127.00
1	CA	1519	A	C8-N9-C4	-6.27	103.29	105.80
23	DA	569	U	C5-C6-N1	-6.27	119.57	122.70
1	AA	351	G	N3-C4-C5	6.27	131.73	128.60
1	AA	398	C	N3-C4-C5	6.27	124.41	121.90
23	BA	2221	G	C8-N9-C4	-6.27	103.89	106.40
23	BA	2825	C	C4-C5-C6	6.27	120.53	117.40
1	CA	1031	G	N1-C2-N2	-6.27	110.56	116.20
23	DA	1023	U	N1-C2-N3	6.27	118.66	114.90
23	DA	1489	U	C5-C4-O4	6.27	129.66	125.90
23	BA	2253	G	N1-C6-O6	6.27	123.66	119.90
23	BA	92	A	N7-C8-N9	6.26	116.93	113.80
23	BA	2460	U	N3-C2-O2	-6.26	117.81	122.20
23	BA	146	G	C5-N7-C8	6.26	107.43	104.30
23	BA	2123	G	C8-N9-C1'	6.26	135.14	127.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	933	A	C6-C5-N7	-6.26	127.92	132.30
23	DA	272(C)	G	C8-N9-C4	6.26	108.90	106.40
23	BA	73	A	N1-C2-N3	6.26	132.43	129.30
23	DA	418	G	C6-C5-N7	-6.26	126.64	130.40
23	DA	1205	U	C5-C6-N1	-6.26	119.57	122.70
1	AA	1293	G	C6-N1-C2	6.26	128.85	125.10
1	AA	1224	G	C8-N9-C1'	6.26	135.13	127.00
23	BA	2070	G	N1-C2-N3	6.26	127.65	123.90
23	BA	2620	C	C6-N1-C2	6.26	122.80	120.30
1	CA	372	C	N1-C2-O2	6.26	122.65	118.90
23	DA	24	G	C5-C6-O6	-6.26	124.85	128.60
23	BA	2123	G	C4-N9-C1'	-6.25	118.37	126.50
23	DA	2502	G	N1-C2-N2	-6.25	110.57	116.20
23	DA	2648	C	C6-N1-C2	6.25	122.80	120.30
1	AA	1361	G	C8-N9-C4	-6.25	103.90	106.40
23	BA	784	A	N9-C4-C5	6.25	108.30	105.80
23	BA	2816	C	C6-N1-C2	-6.25	117.80	120.30
23	BA	473	G	N1-C2-N2	-6.25	110.58	116.20
23	DA	194	G	N1-C2-N3	6.25	127.65	123.90
1	AA	1357	A	N7-C8-N9	6.25	116.92	113.80
1	AA	1037	C	C5-C6-N1	6.24	124.12	121.00
23	BA	58	G	N1-C6-O6	-6.24	116.15	119.90
23	BA	763	G	N1-C6-O6	-6.24	116.15	119.90
23	BA	2473	U	C6-N1-C1'	-6.24	112.46	121.20
23	BA	122	G	N1-C6-O6	6.24	123.64	119.90
23	DA	686	G	N1-C2-N2	-6.24	110.58	116.20
23	BA	129	C	N3-C2-O2	6.24	126.27	121.90
23	BA	1582	C	C5-C6-N1	-6.24	117.88	121.00
1	CA	1151	A	C5-C6-N6	6.24	128.69	123.70
23	DA	546	C	C5-C6-N1	6.24	124.12	121.00
23	DA	777	A	C4-C5-C6	6.24	120.12	117.00
23	DA	802	A	N9-C4-C5	6.24	108.30	105.80
23	DA	1204	A	C1'-O4'-C4'	-6.24	104.91	109.90
1	AA	1028	C	C5-C6-N1	6.23	124.12	121.00
24	BB	101	G	C4-C5-N7	6.23	113.29	110.80
23	DA	1637	A	N9-C4-C5	6.23	108.29	105.80
23	BA	1981	A	N1-C6-N6	-6.23	114.86	118.60
1	CA	357	G	C5-C6-N1	6.23	114.61	111.50
1	CA	397	A	C8-N9-C4	-6.23	103.31	105.80
23	BA	1939	U	N3-C4-C5	6.23	118.34	114.60
1	AA	1247	U	C2-N3-C4	6.23	130.74	127.00
23	DA	1125	G	C5-C6-N1	-6.23	108.39	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1253	A	N1-C6-N6	-6.23	114.86	118.60
23	BA	961	C	C5-C6-N1	-6.22	117.89	121.00
23	DA	2675	A	C2-N3-C4	-6.22	107.49	110.60
23	BA	1710	C	C6-N1-C2	6.22	122.79	120.30
23	DA	271(S)	G	C5-C6-N1	-6.22	108.39	111.50
1	AA	345	C	C2-N1-C1'	6.22	125.64	118.80
23	BA	1137	G	N3-C2-N2	6.22	124.25	119.90
23	BA	1777	U	N3-C4-O4	6.22	123.75	119.40
23	BA	2062	A	C6-C5-N7	-6.22	127.95	132.30
23	DA	791	C	C4-C5-C6	6.22	120.51	117.40
1	AA	1278	U	N1-C2-O2	6.21	127.15	122.80
23	BA	2494	G	N7-C8-N9	6.21	116.21	113.10
23	DA	1779	U	C6-N1-C2	6.21	124.73	121.00
23	DA	528	A	C4-C5-C6	-6.21	113.89	117.00
23	BA	1620	G	C6-C5-N7	6.21	134.13	130.40
23	BA	2344	U	C2-N3-C4	6.21	130.73	127.00
1	AA	697	U	C2-N1-C1'	-6.21	110.25	117.70
1	AA	572	A	C8-N9-C4	6.21	108.28	105.80
23	DA	1022	G	C4-N9-C1'	-6.21	118.43	126.50
23	BA	470	A	N7-C8-N9	6.20	116.90	113.80
23	BA	1955	U	C2-N3-C4	-6.20	123.28	127.00
23	BA	2103	C	C5-C4-N4	6.20	124.54	120.20
1	CA	53	A	N1-C6-N6	-6.20	114.88	118.60
23	DA	1602	U	C4-C5-C6	6.20	123.42	119.70
23	BA	2245	U	C5-C6-N1	-6.20	119.60	122.70
23	DA	1638	C	C5-C6-N1	-6.20	117.90	121.00
23	BA	616	G	C8-N9-C4	6.20	108.88	106.40
23	BA	1403	C	C4-C5-C6	6.20	120.50	117.40
1	AA	517	G	C8-N9-C4	-6.20	103.92	106.40
23	BA	2287	A	N3-C4-C5	6.20	131.14	126.80
23	DA	234	C	C6-N1-C2	-6.20	117.82	120.30
23	DA	1782	C	C5-C6-N1	-6.20	117.90	121.00
23	DA	2822	G	C8-N9-C4	6.20	108.88	106.40
1	CA	150	C	C6-N1-C2	-6.20	117.82	120.30
23	DA	39	C	C5-C6-N1	-6.19	117.90	121.00
1	AA	1235	U	C5-C6-N1	6.19	125.80	122.70
23	BA	1698	A	C4-C5-N7	6.19	113.80	110.70
23	BA	1805	U	N3-C2-O2	-6.19	117.86	122.20
23	BA	1956	U	N1-C2-O2	-6.19	118.47	122.80
23	DA	1238	G	C5-C6-O6	-6.19	124.88	128.60
23	DA	1628	G	C8-N9-C1'	-6.19	118.95	127.00
23	DA	2894	G	C8-N9-C4	-6.19	103.92	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1196	C	C2-N3-C4	-6.19	116.81	119.90
23	DA	19	C	C2-N3-C4	-6.19	116.81	119.90
23	BA	53	A	C8-N9-C4	-6.19	103.32	105.80
24	DB	63	G	C8-N9-C4	6.19	108.88	106.40
1	AA	910	C	C5-C6-N1	-6.19	117.91	121.00
1	AA	932	C	N1-C2-O2	6.19	122.61	118.90
23	BA	1042	G	C5-C6-O6	-6.19	124.89	128.60
23	BA	1310	G	N1-C6-O6	6.19	123.61	119.90
23	BA	1368	G	N3-C4-C5	-6.19	125.51	128.60
23	BA	1488	G	N7-C8-N9	6.19	116.19	113.10
23	DA	2124	G	C6-N1-C2	6.19	128.81	125.10
23	DA	2322	A	C5-N7-C8	6.19	106.99	103.90
23	BA	2273	A	C5-C6-N1	6.19	120.79	117.70
23	BA	2322	A	N3-C4-C5	-6.19	122.47	126.80
23	DA	209	C	C6-N1-C2	6.18	122.77	120.30
23	BA	422	A	N1-C2-N3	6.18	132.39	129.30
23	DA	567	A	N1-C6-N6	6.18	122.31	118.60
23	DA	2433	A	N9-C4-C5	-6.18	103.33	105.80
23	BA	2432	A	C8-N9-C4	6.18	108.27	105.80
23	BA	802	A	C8-N9-C4	-6.18	103.33	105.80
23	BA	1107	G	N7-C8-N9	6.18	116.19	113.10
23	BA	1954	G	C5-C6-N1	-6.18	108.41	111.50
23	BA	2415	G	C5-C6-O6	-6.18	124.89	128.60
23	BA	2873	A	C8-N9-C4	-6.18	103.33	105.80
24	DB	30	C	C2-N1-C1'	6.18	125.60	118.80
1	AA	1153	C	N3-C4-N4	-6.18	113.68	118.00
23	DA	527	C	N3-C2-O2	-6.18	117.58	121.90
1	AA	1443	G	C5-C6-N1	6.17	114.59	111.50
23	BA	839	U	N3-C4-C5	-6.17	110.90	114.60
23	BA	2107	C	C6-N1-C1'	6.17	128.21	120.80
23	DA	1762	A	N7-C8-N9	6.17	116.89	113.80
23	BA	567	A	C5-N7-C8	-6.17	100.81	103.90
23	DA	595	C	C6-N1-C2	6.17	122.77	120.30
23	DA	2497	A	C6-N1-C2	-6.17	114.90	118.60
1	AA	1223	C	C2-N3-C4	6.17	122.98	119.90
1	AA	1224	G	N3-C4-N9	-6.17	122.30	126.00
23	BA	468	G	C2-N3-C4	-6.17	108.82	111.90
23	BA	2343	C	N1-C2-O2	-6.17	115.20	118.90
23	BA	645	C	N3-C2-O2	-6.16	117.59	121.90
23	BA	106	C	C5-C6-N1	6.16	124.08	121.00
1	CA	1068	G	C8-N9-C4	-6.16	103.94	106.40
23	BA	2359	C	C6-N1-C2	-6.16	117.84	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	463	G	N9-C4-C5	6.16	107.86	105.40
23	DA	491	G	N1-C6-O6	-6.16	116.20	119.90
23	BA	528	A	C4-N9-C1'	-6.16	115.22	126.30
23	BA	1351	C	C5-C4-N4	-6.16	115.89	120.20
23	BA	1771	C	N3-C4-N4	-6.16	113.69	118.00
1	CA	52	G	C5-C6-O6	6.16	132.29	128.60
23	DA	1204	A	C4-N9-C1'	6.16	137.38	126.30
23	BA	673	C	C5-C4-N4	-6.16	115.89	120.20
23	BA	2739	U	C4-C5-C6	6.16	123.39	119.70
23	BA	2825	C	N3-C4-C5	-6.16	119.44	121.90
23	DA	2033	A	C6-N1-C2	-6.16	114.91	118.60
1	AA	28	G	N1-C6-O6	6.15	123.59	119.90
23	DA	1954	G	N3-C4-N9	-6.15	122.31	126.00
23	DA	2287	A	N1-C6-N6	6.15	122.29	118.60
29	DH	127	GLU	C-N-CD	6.15	141.32	128.40
24	BB	104	U	C6-N1-C2	6.15	124.69	121.00
23	DA	527	C	C6-N1-C2	-6.15	117.84	120.30
23	DA	2123	G	C4-N9-C1'	-6.15	118.50	126.50
1	AA	1177	G	N7-C8-N9	6.15	116.18	113.10
1	CA	1056	U	C5-C4-O4	6.15	129.59	125.90
23	DA	272(H)	C	C2-N1-C1'	6.15	125.56	118.80
23	DA	815	C	C2-N3-C4	-6.15	116.83	119.90
23	DA	1254	A	N1-C2-N3	6.15	132.38	129.30
23	BA	2239	G	N1-C2-N2	-6.15	110.67	116.20
23	BA	1129	A	N9-C4-C5	6.15	108.26	105.80
26	BE	111	ARG	NE-CZ-NH2	-6.15	117.23	120.30
23	DA	131	G	C8-N9-C4	6.15	108.86	106.40
23	DA	183	C	C6-N1-C2	6.15	122.76	120.30
23	DA	2062	A	N1-C6-N6	6.15	122.29	118.60
23	DA	2473	U	C6-N1-C1'	-6.15	112.59	121.20
23	BA	2186	G	C6-N1-C2	6.15	128.79	125.10
23	BA	2383	G	N3-C4-N9	6.15	129.69	126.00
23	DA	764	A	C5-N7-C8	-6.15	100.83	103.90
23	BA	1222	C	N1-C2-O2	-6.14	115.21	118.90
1	AA	836	G	N1-C6-O6	6.14	123.58	119.90
23	BA	445	C	C5-C6-N1	6.14	124.07	121.00
1	CA	995	C	C2-N1-C1'	6.14	125.56	118.80
23	DA	1823	G	C8-N9-C4	-6.14	103.94	106.40
23	DA	2031	A	C4-C5-N7	6.14	113.77	110.70
23	BA	445	C	C2-N3-C4	6.14	122.97	119.90
23	DA	1493	C	C6-N1-C1'	-6.14	113.43	120.80
23	BA	1024	G	N1-C6-O6	-6.14	116.22	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	128	C	C6-N1-C2	6.14	122.75	120.30
1	AA	355	C	C6-N1-C2	-6.14	117.85	120.30
23	BA	386	G	N7-C8-N9	6.14	116.17	113.10
23	BA	760	G	N3-C2-N2	-6.14	115.61	119.90
23	BA	1779	U	C6-N1-C1'	6.14	129.79	121.20
1	CA	1276	G	N3-C4-N9	6.14	129.68	126.00
1	CA	1364	U	N3-C2-O2	-6.14	117.90	122.20
23	DA	2823	A	C5-N7-C8	-6.14	100.83	103.90
1	AA	1184	G	C8-N9-C4	-6.13	103.95	106.40
23	DA	1488	G	C4-N9-C1'	6.13	134.47	126.50
23	BA	2430	A	C6-N1-C2	-6.13	114.92	118.60
23	DA	1429	G	C8-N9-C1'	-6.13	119.03	127.00
23	DA	2186	G	C5-C6-O6	6.13	132.28	128.60
23	BA	121	G	C4-C5-N7	6.13	113.25	110.80
23	BA	1338	G	N1-C6-O6	-6.13	116.22	119.90
1	CA	1277	C	N3-C4-C5	-6.13	119.45	121.90
23	DA	1142(A)	A	C5-C6-N1	-6.13	114.63	117.70
23	DA	683	C	N3-C4-C5	6.13	124.35	121.90
1	AA	1174	G	C4-N9-C1'	-6.13	118.53	126.50
23	BA	114	U	C2-N1-C1'	6.13	125.05	117.70
23	BA	2075	U	C2-N3-C4	-6.13	123.32	127.00
23	BA	2107	C	C2-N1-C1'	-6.13	112.06	118.80
27	DF	89	VAL	O-C-N	-6.13	112.90	122.70
23	BA	668	G	C2-N3-C4	-6.13	108.84	111.90
23	BA	1358	G	N1-C2-N2	-6.13	110.69	116.20
23	BA	1829	A	N1-C6-N6	-6.13	114.92	118.60
23	BA	2519	U	C5-C4-O4	-6.13	122.22	125.90
23	DA	1445(A)	C	C6-N1-C2	-6.13	117.85	120.30
23	DA	1637	A	C5-C6-N6	6.13	128.60	123.70
23	BA	399	G	C8-N9-C4	6.12	108.85	106.40
23	BA	1689	A	C8-N9-C4	-6.12	103.35	105.80
23	DA	2015	A	C8-N9-C4	6.12	108.25	105.80
23	BA	1779	U	C6-N1-C2	6.12	124.67	121.00
23	BA	2548	G	C4-C5-N7	-6.12	108.35	110.80
23	BA	2581	G	N1-C6-O6	-6.12	116.23	119.90
23	DA	987	G	N9-C4-C5	6.12	107.85	105.40
1	AA	203	U	C5-C6-N1	6.12	125.76	122.70
23	BA	240	G	N7-C8-N9	-6.12	110.04	113.10
23	BA	1797	C	N1-C2-O2	-6.12	115.23	118.90
23	BA	2025	C	N3-C4-N4	-6.12	113.72	118.00
23	DA	2540	C	C6-N1-C2	6.12	122.75	120.30
23	BA	115	C	N3-C4-N4	6.12	122.28	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	445	C	C6-N1-C2	-6.12	117.85	120.30
23	BA	563	G	C4-C5-N7	6.12	113.25	110.80
23	BA	817	C	C5-C6-N1	6.12	124.06	121.00
23	BA	2239	G	C5-C6-O6	6.12	132.27	128.60
23	BA	1007	C	C2-N3-C4	-6.12	116.84	119.90
23	BA	146	G	N7-C8-N9	-6.11	110.04	113.10
23	BA	864	G	C8-N9-C4	-6.11	103.95	106.40
23	BA	1698	A	N7-C8-N9	6.11	116.86	113.80
23	BA	2063	C	N3-C4-N4	6.11	122.28	118.00
23	BA	2319	G	N7-C8-N9	6.11	116.16	113.10
23	BA	2728	U	N1-C2-O2	-6.11	118.52	122.80
23	DA	669	G	C5-N7-C8	6.11	107.36	104.30
23	BA	1186	G	C2-N3-C4	-6.11	108.84	111.90
1	CA	766	A	N1-C6-N6	6.11	122.27	118.60
1	AA	1329	A	C6-N1-C2	6.11	122.27	118.60
23	BA	791	C	N3-C2-O2	-6.11	117.62	121.90
23	BA	2006	C	C5-C6-N1	6.11	124.06	121.00
23	DA	684	G	C8-N9-C4	-6.11	103.96	106.40
23	DA	1966	A	N9-C4-C5	-6.11	103.36	105.80
23	BA	2848	G	C5-C6-O6	6.11	132.26	128.60
23	DA	1128	A	C5-C6-N6	-6.11	118.81	123.70
23	BA	1279	G	C8-N9-C4	-6.11	103.96	106.40
23	BA	1305	C	C2-N3-C4	-6.11	116.85	119.90
23	BA	1698	A	N1-C6-N6	6.11	122.27	118.60
23	BA	2316	C	C5-C6-N1	6.11	124.05	121.00
23	BA	2371	G	N9-C4-C5	-6.11	102.96	105.40
23	BA	776	G	N1-C2-N3	6.11	127.56	123.90
23	BA	1773	A	C6-N1-C2	-6.11	114.94	118.60
23	BA	1937	A	C8-N9-C4	6.11	108.24	105.80
1	CA	1044	A	N1-C6-N6	-6.11	114.94	118.60
23	DA	1575	C	C6-N1-C2	6.11	122.74	120.30
23	BA	577	G	C5-C6-O6	-6.10	124.94	128.60
24	BB	86	G	C8-N9-C4	6.10	108.84	106.40
23	DA	1325	G	C6-N1-C2	-6.10	121.44	125.10
23	DA	1339	G	C8-N9-C4	-6.10	103.96	106.40
23	DA	2505	G	N3-C2-N2	6.10	124.17	119.90
35	BR	1	MET	CG-SD-CE	-6.10	90.44	100.20
43	DZ	151	HIS	N-CA-C	6.10	127.47	111.00
1	AA	354	G	N3-C4-C5	-6.10	125.55	128.60
23	BA	494	G	C8-N9-C4	-6.10	103.96	106.40
23	BA	2067	G	N7-C8-N9	6.10	116.15	113.10
23	DA	187	G	C4-C5-N7	6.10	113.24	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	351	G	C8-N9-C4	6.10	108.84	106.40
23	DA	2151	G	C5-C6-O6	-6.10	124.94	128.60
23	BA	573	G	C6-N1-C2	-6.10	121.44	125.10
23	BA	756	C	N3-C4-C5	-6.10	119.46	121.90
23	DA	836	G	N1-C6-O6	-6.10	116.24	119.90
1	AA	1204	A	C5-C6-N6	6.09	128.58	123.70
1	AA	1287	A	N1-C2-N3	6.09	132.35	129.30
23	DA	1025	G	C8-N9-C4	-6.09	103.96	106.40
23	DA	2064	C	C6-N1-C2	6.09	122.74	120.30
23	DA	2174	C	C2-N3-C4	6.09	122.95	119.90
23	BA	36	G	N1-C6-O6	-6.09	116.24	119.90
23	BA	658	C	N1-C2-O2	6.09	122.56	118.90
23	BA	2091	U	N3-C2-O2	-6.09	117.94	122.20
23	BA	2719	G	C4-C5-N7	6.09	113.24	110.80
1	AA	820	U	N1-C2-O2	-6.09	118.54	122.80
23	BA	2318	G	N3-C4-C5	-6.09	125.56	128.60
23	BA	2620	C	C5-C6-N1	-6.09	117.96	121.00
23	BA	2723	C	C5-C6-N1	-6.09	117.96	121.00
23	DA	2472	G	C8-N9-C4	-6.09	103.97	106.40
23	BA	2296	U	C1'-O4'-C4'	-6.09	105.03	109.90
1	CA	895	G	N1-C6-O6	6.09	123.55	119.90
1	CA	1456	G	N3-C4-C5	-6.09	125.56	128.60
23	DA	2244	U	N1-C2-N3	6.08	118.55	114.90
23	BA	1180	C	C6-N1-C2	6.08	122.73	120.30
1	AA	89	C	C2-N1-C1'	6.08	125.49	118.80
23	BA	806	C	N3-C4-C5	6.08	124.33	121.90
1	AA	365	U	C5-C6-N1	-6.08	119.66	122.70
23	BA	531	C	N3-C2-O2	6.07	126.15	121.90
23	BA	1004	C	N1-C2-O2	-6.07	115.26	118.90
1	CA	500	G	N1-C6-O6	-6.07	116.26	119.90
23	DA	2452	C	N3-C4-N4	6.07	122.25	118.00
23	BA	121	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	186	G	C8-N9-C4	6.07	108.83	106.40
23	BA	391	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	2306	C	C6-N1-C1'	-6.07	113.51	120.80
23	DA	512	G	N1-C6-O6	-6.07	116.26	119.90
23	DA	2091	U	C5-C4-O4	6.07	129.54	125.90
23	BA	2123	G	C6-C5-N7	6.07	134.04	130.40
23	BA	154(A)	C	N1-C2-O2	6.07	122.54	118.90
23	BA	2239	G	N3-C2-N2	6.07	124.15	119.90
23	BA	2447	G	C6-N1-C2	-6.07	121.46	125.10
23	BA	186	G	C5-C6-O6	-6.07	124.96	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1633	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	2730	C	N1-C2-O2	6.07	122.54	118.90
23	BA	27	G	N1-C2-N2	6.06	121.66	116.20
23	BA	1245	G	N1-C6-O6	-6.06	116.26	119.90
23	BA	2372	G	N3-C2-N2	-6.06	115.66	119.90
1	CA	1242	C	C2-N3-C4	6.06	122.93	119.90
23	BA	1827	C	C5-C4-N4	6.06	124.44	120.20
23	BA	2504	U	N3-C4-O4	-6.06	115.16	119.40
1	CA	346	G	N3-C2-N2	6.06	124.14	119.90
1	CA	1030	C	C2-N1-C1'	6.06	125.47	118.80
23	BA	2699	C	C5-C4-N4	-6.06	115.96	120.20
23	DA	743	G	N1-C6-O6	-6.06	116.26	119.90
23	DA	2619	C	C6-N1-C2	6.06	122.72	120.30
23	DA	2683	C	C6-N1-C2	-6.06	117.88	120.30
1	AA	1349	A	N7-C8-N9	6.06	116.83	113.80
23	BA	645	C	C2-N1-C1'	6.06	125.46	118.80
23	DA	823	G	C8-N9-C4	-6.06	103.98	106.40
23	DA	2463	C	N3-C2-O2	6.06	126.14	121.90
1	AA	1290	G	C5-C6-O6	-6.06	124.97	128.60
23	BA	1558	A	N1-C6-N6	6.05	122.23	118.60
23	BA	2062	A	C4-C5-N7	6.05	113.73	110.70
23	BA	2375	G	C5-C6-N1	6.05	114.53	111.50
1	AA	1308	U	N3-C4-C5	-6.05	110.97	114.60
23	BA	1377	G	N3-C4-C5	-6.05	125.57	128.60
1	AA	1198	G	N9-C4-C5	6.05	107.82	105.40
23	BA	145	G	N7-C8-N9	-6.05	110.07	113.10
23	BA	2826	A	C5-N7-C8	6.05	106.93	103.90
23	DA	2458	G	N3-C2-N2	-6.05	115.67	119.90
23	BA	272(B)	G	C8-N9-C4	6.05	108.82	106.40
23	BA	2592	G	N3-C4-C5	-6.05	125.58	128.60
23	BA	613	G	N3-C2-N2	-6.05	115.67	119.90
23	DA	1790	C	C5-C4-N4	-6.05	115.97	120.20
23	DA	2444	G	N3-C2-N2	-6.05	115.67	119.90
23	BA	145	G	C8-N9-C4	6.04	108.82	106.40
23	BA	1373	A	C5-N7-C8	6.04	106.92	103.90
24	BB	6	C	N3-C4-C5	6.04	124.32	121.90
23	DA	2335	A	C4-C5-C6	-6.04	113.98	117.00
23	BA	446	G	N3-C2-N2	-6.04	115.67	119.90
23	BA	1602	U	N3-C2-O2	-6.04	117.97	122.20
1	CA	1484	C	N3-C4-C5	6.04	124.32	121.90
23	DA	1222	C	N1-C2-O2	-6.04	115.27	118.90
1	AA	1302	U	N1-C2-O2	6.04	127.03	122.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	799	G	C8-N9-C4	-6.04	103.98	106.40
23	BA	807	U	C4-C5-C6	6.04	123.32	119.70
23	BA	1327	C	N1-C2-O2	-6.04	115.28	118.90
23	BA	1977	A	C8-N9-C4	6.04	108.22	105.80
23	DA	241	A	C2-N3-C4	-6.04	107.58	110.60
23	DA	1830	C	N3-C4-C5	6.04	124.32	121.90
23	DA	2195	C	N1-C2-O2	-6.04	115.28	118.90
1	AA	1308	U	C2-N3-C4	6.04	130.62	127.00
23	BA	1955	U	N3-C4-O4	-6.04	115.17	119.40
23	BA	2094	G	C8-N9-C4	-6.04	103.98	106.40
23	BA	2335	A	N9-C4-C5	-6.04	103.38	105.80
23	BA	591	C	C5-C6-N1	-6.04	117.98	121.00
24	BB	18	G	C5-C6-O6	-6.04	124.98	128.60
1	AA	982	U	C6-N1-C2	-6.04	117.38	121.00
1	AA	1518	A	N1-C6-N6	-6.04	114.98	118.60
23	BA	518	G	C5-C6-N1	-6.04	108.48	111.50
23	BA	558	G	C5-C6-O6	6.04	132.22	128.60
23	DA	143	G	N3-C4-C5	6.04	131.62	128.60
23	DA	2253	G	C5-C6-N1	-6.04	108.48	111.50
23	BA	217	G	C5-C6-O6	-6.03	124.98	128.60
23	DA	1605	C	N1-C2-N3	6.03	123.42	119.20
27	DF	89	VAL	CA-C-N	6.03	130.47	117.20
23	BA	1417	C	C6-N1-C2	6.03	122.71	120.30
23	BA	2342	C	C5-C4-N4	-6.03	115.98	120.20
23	DA	92	A	N7-C8-N9	6.03	116.82	113.80
23	DA	463	G	C5-C6-O6	6.03	132.22	128.60
23	DA	1926	U	N1-C2-N3	6.03	118.52	114.90
23	BA	1652	A	C8-N9-C4	-6.03	103.39	105.80
23	DA	2607	G	N3-C4-N9	6.03	129.62	126.00
1	CA	766	A	N9-C4-C5	-6.03	103.39	105.80
1	CA	1456	G	N3-C4-N9	6.03	129.62	126.00
23	DA	1934	C	C5-C6-N1	-6.03	117.98	121.00
1	AA	172	A	C8-N9-C4	-6.03	103.39	105.80
23	BA	652(E)	G	C6-N1-C2	6.03	128.72	125.10
23	BA	775	G	N3-C2-N2	6.03	124.12	119.90
23	BA	1762	A	C2-N3-C4	6.03	113.61	110.60
23	BA	2371	G	C8-N9-C4	6.03	108.81	106.40
1	CA	1032	G	C5-C6-N1	-6.03	108.49	111.50
23	BA	1804	C	C5-C6-N1	6.03	124.01	121.00
23	DA	1488	G	N3-C4-C5	-6.03	125.59	128.60
23	BA	694	U	N3-C2-O2	-6.02	117.98	122.20
23	BA	1253	A	C6-C5-N7	6.02	136.52	132.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2271	G	N1-C6-O6	-6.02	116.29	119.90
1	CA	1121	U	C5-C6-N1	6.02	125.71	122.70
23	DA	248	G	C8-N9-C4	-6.02	103.99	106.40
23	DA	1049	C	C5-C6-N1	6.02	124.01	121.00
23	BA	1403	C	C2-N3-C4	-6.02	116.89	119.90
23	BA	1934	C	N1-C2-O2	6.02	122.51	118.90
23	BA	476	G	C5-C6-N1	-6.02	108.49	111.50
1	CA	1395	C	C5-C6-N1	6.02	124.01	121.00
1	AA	526	C	C6-N1-C2	-6.01	117.89	120.30
23	BA	17	G	N9-C4-C5	-6.01	103.00	105.40
23	BA	26	G	N7-C8-N9	6.01	116.11	113.10
23	BA	975	C	N3-C2-O2	-6.01	117.69	121.90
23	DA	141	A	C2-N3-C4	-6.01	107.59	110.60
23	DA	2607	G	C4-C5-C6	6.01	122.41	118.80
23	DA	2710	C	C4-C5-C6	6.01	120.41	117.40
23	DA	265	A	C5-N7-C8	-6.01	100.89	103.90
23	BA	1567	A	C8-N9-C4	-6.01	103.39	105.80
23	BA	2067	G	N9-C4-C5	6.01	107.80	105.40
23	BA	2440	C	C2-N1-C1'	-6.01	112.19	118.80
1	CA	995	C	C5-C6-N1	6.01	124.01	121.00
23	DA	1352	U	N3-C2-O2	-6.01	117.99	122.20
23	DA	2253	G	C6-C5-N7	-6.01	126.79	130.40
23	BA	32	C	N3-C2-O2	-6.01	117.69	121.90
24	BB	118	G	C8-N9-C4	6.01	108.80	106.40
23	DA	1786	A	C5-C6-N6	6.01	128.51	123.70
23	BA	472	A	C8-N9-C4	-6.01	103.40	105.80
1	AA	1432	G	C5-C6-N1	-6.01	108.50	111.50
1	CA	37	U	N3-C2-O2	-6.01	118.00	122.20
23	DA	62	C	C6-N1-C2	6.01	122.70	120.30
23	DA	398	G	N1-C6-O6	6.01	123.50	119.90
23	DA	2052	G	N3-C2-N2	-6.01	115.69	119.90
23	BA	1192	G	C4-C5-N7	-6.00	108.40	110.80
23	DA	141	A	C5-C6-N1	-6.00	114.70	117.70
23	DA	673	C	C6-N1-C2	6.00	122.70	120.30
23	BA	1008	C	N3-C4-C5	-6.00	119.50	121.90
24	BB	30	C	C6-N1-C2	-6.00	117.90	120.30
23	DA	1200	C	N1-C2-O2	-6.00	115.30	118.90
43	BZ	151	HIS	N-CA-C	6.00	127.20	111.00
23	DA	583	G	C2-N3-C4	-6.00	108.90	111.90
23	DA	2031	A	C5-C6-N6	-6.00	118.90	123.70
23	BA	563	G	C5-N7-C8	-6.00	101.30	104.30
23	BA	2182	G	N3-C4-N9	-6.00	122.40	126.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2258	C	N3-C4-N4	6.00	122.20	118.00
23	DA	1992	G	C2-N3-C4	6.00	114.90	111.90
23	DA	2504	U	N3-C4-C5	6.00	118.20	114.60
23	BA	1381	G	C8-N9-C4	-5.99	104.00	106.40
23	BA	2060	A	N1-C6-N6	-5.99	115.00	118.60
23	BA	1383	C	N3-C4-N4	5.99	122.19	118.00
23	BA	2018	G	N7-C8-N9	5.99	116.09	113.10
23	DA	31	C	C5-C4-N4	-5.99	116.01	120.20
24	DB	55	U	C6-N1-C2	-5.99	117.41	121.00
23	DA	839	U	C2-N3-C4	5.99	130.59	127.00
23	DA	2110	G	C4-N9-C1'	5.99	134.29	126.50
1	AA	1120	G	N1-C2-N2	5.99	121.59	116.20
23	BA	766	C	C4-C5-C6	5.99	120.39	117.40
23	BA	1328	G	C6-N1-C2	-5.99	121.51	125.10
23	DA	1539	G	C4-N9-C1'	5.99	134.28	126.50
1	AA	893	C	N1-C2-O2	5.99	122.49	118.90
23	BA	377	C	C5-C6-N1	-5.99	118.01	121.00
23	BA	1344	G	N3-C2-N2	-5.99	115.71	119.90
23	BA	1692	U	N1-C2-N3	5.99	118.49	114.90
23	BA	1937	A	N7-C8-N9	-5.99	110.81	113.80
23	DA	179	G	C8-N9-C4	5.99	108.79	106.40
23	DA	2252	G	N7-C8-N9	-5.99	110.11	113.10
23	BA	1107	G	C5-N7-C8	-5.98	101.31	104.30
23	DA	679	C	N1-C2-O2	-5.98	115.31	118.90
23	DA	2332	U	C5-C6-N1	-5.98	119.71	122.70
23	BA	1151	G	N3-C2-N2	-5.98	115.71	119.90
23	DA	2424	C	N1-C2-N3	5.98	123.39	119.20
1	CA	1442(B)	A	N1-C2-N3	5.98	132.29	129.30
23	DA	73	A	C8-N9-C4	-5.98	103.41	105.80
23	DA	1616	A	C2-N3-C4	-5.98	107.61	110.60
23	DA	2569	G	C6-N1-C2	-5.98	121.51	125.10
23	BA	512	G	N3-C2-N2	5.98	124.08	119.90
23	BA	2016	U	C4-C5-C6	5.98	123.29	119.70
1	CA	397	A	N9-C4-C5	5.98	108.19	105.80
1	CA	896	C	C6-N1-C2	5.98	122.69	120.30
10	CJ	90	LEU	C-N-CD	-5.98	107.45	120.60
23	DA	2324	C	C2-N3-C4	-5.98	116.91	119.90
1	CA	357	G	N1-C6-O6	-5.98	116.31	119.90
23	DA	1665	A	N1-C6-N6	-5.98	115.02	118.60
1	AA	1157	A	N1-C6-N6	-5.97	115.02	118.60
23	BA	729	G	N1-C6-O6	5.97	123.48	119.90
23	BA	1256	G	N1-C2-N2	-5.97	110.82	116.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	CD	12	CYS	CA-CB-SG	5.97	124.75	114.00
23	DA	1022	G	C6-C5-N7	5.97	133.99	130.40
23	DA	2886	G	N3-C4-C5	-5.97	125.61	128.60
23	BA	817	C	C6-N1-C2	-5.97	117.91	120.30
23	BA	1291	C	C5-C4-N4	5.97	124.38	120.20
23	DA	41	C	C6-N1-C2	5.97	122.69	120.30
23	DA	1782	C	C2-N3-C4	-5.97	116.91	119.90
1	AA	40	C	C6-N1-C2	5.97	122.69	120.30
23	BA	940	G	N3-C4-C5	-5.97	125.61	128.60
1	CA	1038	C	C6-N1-C2	-5.97	117.91	120.30
23	DA	53	A	C4-C5-C6	5.97	119.98	117.00
23	DA	1617	C	C5-C6-N1	-5.97	118.02	121.00
1	AA	1174	G	C8-N9-C1'	5.97	134.76	127.00
1	AA	1373	G	C8-N9-C4	-5.97	104.01	106.40
23	BA	386	G	N3-C4-C5	-5.97	125.62	128.60
23	BA	620	G	C6-N1-C2	-5.97	121.52	125.10
23	BA	1255	U	C5-C4-O4	-5.97	122.32	125.90
23	BA	2105	C	C6-N1-C2	-5.97	117.91	120.30
23	DA	133	C	C6-N1-C2	5.97	122.69	120.30
1	AA	1158	C	C6-N1-C1'	-5.96	113.64	120.80
23	BA	2012	G	C4-C5-N7	5.96	113.19	110.80
1	CA	569	C	C6-N1-C2	-5.96	117.91	120.30
23	DA	27	G	N1-C2-N2	5.96	121.57	116.20
23	DA	269	U	C2-N1-C1'	5.96	124.86	117.70
23	DA	2024	G	C8-N9-C4	5.96	108.78	106.40
23	BA	2533	A	C8-N9-C4	5.96	108.19	105.80
23	BA	966	G	C5-C6-O6	5.96	132.18	128.60
23	BA	1659	U	N1-C2-N3	5.96	118.48	114.90
23	DA	2248	C	N3-C4-N4	-5.96	113.83	118.00
23	DA	474	G	C8-N9-C4	-5.96	104.02	106.40
23	BA	1811	G	C4-C5-N7	-5.95	108.42	110.80
23	BA	692	C	N1-C2-O2	-5.95	115.33	118.90
23	BA	613	G	N7-C8-N9	5.95	116.07	113.10
23	BA	614	U	C6-N1-C2	-5.95	117.43	121.00
23	BA	1203	G	C5-C6-O6	5.95	132.17	128.60
23	BA	2002	G	N7-C8-N9	5.95	116.07	113.10
23	BA	2683	C	C6-N1-C2	-5.95	117.92	120.30
23	BA	1780	A	N7-C8-N9	5.95	116.77	113.80
23	BA	1954	G	N1-C6-O6	5.95	123.47	119.90
23	DA	847	U	N1-C2-N3	5.95	118.47	114.90
23	DA	1609	A	N1-C6-N6	5.95	122.17	118.60
23	BA	31	C	N3-C4-C5	5.94	124.28	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2782	G	N1-C6-O6	-5.94	116.33	119.90
1	AA	1462	G	N3-C2-N2	-5.94	115.74	119.90
23	BA	671	C	C6-N1-C2	-5.94	117.92	120.30
23	BA	985	C	N3-C4-C5	5.94	124.28	121.90
23	BA	2498	C	C5-C6-N1	-5.94	118.03	121.00
23	DA	808	G	N3-C4-C5	-5.94	125.63	128.60
23	DA	1758	G	N1-C6-O6	5.94	123.47	119.90
23	DA	2259	G	N1-C6-O6	5.94	123.47	119.90
1	CA	1036	G	N3-C4-N9	5.94	129.56	126.00
23	DA	777	A	N3-C4-C5	-5.94	122.64	126.80
23	DA	2103	C	C5-C4-N4	5.94	124.36	120.20
23	DA	2069	G	C5-C6-O6	-5.94	125.04	128.60
23	DA	2828	C	N3-C2-O2	5.94	126.06	121.90
23	BA	154	G	C5-C6-O6	-5.94	125.04	128.60
23	BA	836	G	C5-C6-O6	5.94	132.16	128.60
23	BA	2886	G	C8-N9-C4	-5.94	104.03	106.40
23	BA	286	C	N3-C2-O2	-5.94	117.75	121.90
23	BA	567	A	C6-C5-N7	-5.94	128.14	132.30
1	AA	932	C	N3-C2-O2	-5.93	117.75	121.90
23	BA	265	A	N7-C8-N9	5.93	116.77	113.80
23	BA	294	A	C8-N9-C4	5.93	108.17	105.80
23	BA	572	A	C8-N9-C4	-5.93	103.43	105.80
23	BA	978	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	2723	C	N3-C2-O2	-5.93	117.75	121.90
23	BA	60	G	N9-C4-C5	-5.93	103.03	105.40
23	BA	2306	C	C2-N3-C4	5.93	122.87	119.90
23	DA	205	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	1789	A	N7-C8-N9	-5.93	110.83	113.80
23	DA	2290	G	C2-N3-C4	-5.93	108.93	111.90
23	BA	817	C	C4-C5-C6	-5.93	114.43	117.40
23	BA	1780	A	N9-C4-C5	5.93	108.17	105.80
23	BA	2024	G	N1-C6-O6	5.93	123.46	119.90
1	AA	1037	C	C2-N3-C4	5.93	122.86	119.90
23	BA	1022	G	C8-N9-C1'	5.93	134.71	127.00
1	CA	572	A	N7-C8-N9	-5.93	110.83	113.80
23	DA	191	A	C6-N1-C2	-5.93	115.04	118.60
23	DA	616	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	2079	U	C4-C5-C6	5.93	123.26	119.70
23	DA	2329	G	N7-C8-N9	-5.93	110.14	113.10
23	BA	2110	G	C4-N9-C1'	5.93	134.21	126.50
1	AA	1432	G	N3-C4-C5	5.93	131.56	128.60
23	DA	2514	U	C5-C6-N1	-5.93	119.74	122.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1332	A	N3-C4-C5	-5.92	122.65	126.80
23	BA	1320	C	C5-C6-N1	-5.92	118.04	121.00
23	DA	1571	A	N1-C6-N6	-5.92	115.05	118.60
23	DA	546	C	C2-N1-C1'	5.92	125.31	118.80
23	DA	2028	U	N3-C4-C5	5.92	118.15	114.60
23	DA	2823	A	C4-C5-N7	5.92	113.66	110.70
23	BA	1324	G	C5-C6-O6	-5.92	125.05	128.60
23	DA	799	G	N1-C6-O6	-5.92	116.35	119.90
23	DA	2260	C	N1-C2-O2	-5.92	115.35	118.90
23	DA	2585	U	N3-C2-O2	-5.92	118.06	122.20
23	BA	748	G	N1-C6-O6	-5.92	116.35	119.90
23	BA	2699	C	C6-N1-C2	5.92	122.67	120.30
1	CA	993	G	N3-C4-N9	5.92	129.55	126.00
1	CA	1123	A	C8-N9-C4	-5.92	103.43	105.80
23	DA	766	C	N3-C4-C5	-5.92	119.53	121.90
23	DA	1027	A	C5-C6-N6	-5.92	118.97	123.70
23	DA	2110	G	C8-N9-C1'	-5.92	119.31	127.00
1	AA	1231	G	C5-C6-O6	5.92	132.15	128.60
23	BA	1606	G	N3-C2-N2	-5.92	115.76	119.90
1	AA	1124	G	N3-C4-N9	-5.91	122.45	126.00
23	BA	2586	C	N1-C2-O2	-5.91	115.35	118.90
23	BA	2638	G	N7-C8-N9	5.91	116.06	113.10
1	AA	1518	A	C5-C6-N6	5.91	128.43	123.70
23	BA	470	A	C5-N7-C8	-5.91	100.94	103.90
23	BA	1204	A	O4'-C1'-N9	5.91	112.93	108.20
23	BA	1349	A	N1-C6-N6	5.91	122.15	118.60
23	DA	2191	G	C4-C5-N7	5.91	113.16	110.80
23	BA	583	G	N1-C6-O6	5.91	123.44	119.90
1	CA	1326	C	C6-N1-C2	5.91	122.66	120.30
23	DA	329	G	C8-N9-C4	5.91	108.76	106.40
23	DA	1778	U	C4-C5-C6	5.91	123.25	119.70
23	BA	941	A	N7-C8-N9	5.91	116.75	113.80
23	BA	1495	A	C8-N9-C4	-5.91	103.44	105.80
1	CA	896	C	N3-C4-C5	5.91	124.26	121.90
23	DA	463	G	C8-N9-C1'	5.90	134.68	127.00
23	BA	1784	A	N7-C8-N9	-5.90	110.85	113.80
1	AA	1099	G	N1-C6-O6	5.90	123.44	119.90
23	BA	2043	C	C6-N1-C2	-5.90	117.94	120.30
1	CA	1041	A	C5-C6-N6	5.90	128.42	123.70
23	DA	330	A	N1-C2-N3	5.90	132.25	129.30
1	AA	1206	G	C5-C6-O6	5.90	132.14	128.60
1	AA	1220	G	C8-N9-C4	5.90	108.76	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	319	C	C5-C6-N1	-5.90	118.05	121.00
23	BA	674	G	N7-C8-N9	5.90	116.05	113.10
23	BA	2447	G	C4-C5-C6	5.90	122.34	118.80
23	BA	801	G	C4-C5-N7	-5.90	108.44	110.80
23	BA	2816	C	C5-C6-N1	5.90	123.95	121.00
1	AA	944	G	N7-C8-N9	5.89	116.05	113.10
23	BA	805	G	C8-N9-C4	-5.89	104.04	106.40
23	BA	1008	C	C4-C5-C6	5.89	120.35	117.40
23	BA	2248	C	N1-C2-O2	-5.89	115.36	118.90
23	BA	2428	G	N1-C6-O6	-5.89	116.36	119.90
23	DA	2346	A	C5-C6-N6	5.89	128.41	123.70
23	BA	1307	A	N7-C8-N9	-5.89	110.85	113.80
23	BA	2592	G	C8-N9-C4	-5.89	104.04	106.40
1	CA	345	C	C6-N1-C1'	-5.89	113.73	120.80
1	CA	1519	A	N1-C6-N6	-5.89	115.06	118.60
23	DA	1566	A	C8-N9-C4	-5.89	103.44	105.80
23	DA	1835	G	N3-C4-C5	-5.89	125.65	128.60
23	DA	2319	G	C5-N7-C8	-5.89	101.35	104.30
1	AA	246	A	C8-N9-C4	5.89	108.16	105.80
23	BA	693	C	N3-C2-O2	-5.89	117.78	121.90
23	BA	1359	A	N9-C4-C5	5.89	108.16	105.80
23	DA	462	C	N3-C4-N4	-5.89	113.88	118.00
23	DA	1488	G	N7-C8-N9	5.89	116.05	113.10
23	DA	2042	A	C8-N9-C4	5.89	108.16	105.80
23	DA	2606	C	C6-N1-C2	5.89	122.66	120.30
23	BA	1367	A	C8-N9-C4	5.89	108.16	105.80
23	DA	56	A	N1-C6-N6	-5.89	115.07	118.60
23	DA	2098	U	C2-N3-C4	5.89	130.53	127.00
23	BA	2501	C	C6-N1-C2	5.89	122.66	120.30
23	BA	1131	G	C5-C6-O6	5.89	132.13	128.60
23	BA	1937	A	C5-N7-C8	5.89	106.84	103.90
23	DA	1275	A	C2-N3-C4	-5.89	107.66	110.60
23	BA	476	G	N3-C4-C5	5.88	131.54	128.60
23	BA	2823	A	C6-C5-N7	-5.88	128.18	132.30
1	AA	895	G	N1-C6-O6	5.88	123.43	119.90
23	DA	2569	G	N3-C4-N9	5.88	129.53	126.00
1	AA	1184	G	N9-C4-C5	5.88	107.75	105.40
23	BA	574	C	C5-C4-N4	5.88	124.32	120.20
23	BA	2661	G	N3-C4-N9	5.88	129.53	126.00
23	DA	2035	G	N9-C4-C5	5.88	107.75	105.40
23	DA	2203	U	C5-C6-N1	-5.88	119.76	122.70
23	DA	2733	A	C4-C5-N7	5.88	113.64	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	968	A	C8-N9-C4	-5.88	103.45	105.80
7	AG	104	LEU	CA-CB-CG	5.88	128.82	115.30
23	BA	652(T)	C	C5-C4-N4	5.88	124.32	120.20
23	DA	509	C	C4-C5-C6	5.88	120.34	117.40
23	BA	532	A	C8-N9-C4	-5.88	103.45	105.80
23	BA	1207	C	N1-C2-O2	-5.88	115.37	118.90
23	BA	2715	C	C5-C6-N1	-5.88	118.06	121.00
23	DA	1190	G	N1-C2-N3	5.88	127.43	123.90
23	BA	688	U	N3-C4-O4	5.88	123.51	119.40
23	BA	1751	C	N3-C2-O2	5.88	126.01	121.90
23	DA	272(C)	G	N1-C6-O6	5.88	123.43	119.90
23	DA	768	G	C4-C5-N7	-5.88	108.45	110.80
23	DA	2719	G	N9-C4-C5	-5.88	103.05	105.40
23	BA	1296	G	C8-N9-C4	-5.88	104.05	106.40
23	BA	1336	A	N7-C8-N9	-5.88	110.86	113.80
23	BA	271(Y)	U	N1-C2-N3	5.87	118.42	114.90
23	BA	763	G	N3-C4-C5	-5.87	125.66	128.60
23	BA	2193	G	C5-C6-N1	-5.87	108.56	111.50
23	BA	2570	G	N3-C4-C5	5.87	131.54	128.60
23	DA	981	A	N7-C8-N9	-5.87	110.86	113.80
23	DA	1962	C	C5-C6-N1	5.87	123.94	121.00
23	DA	1980	G	C8-N9-C4	-5.87	104.05	106.40
23	DA	2346	A	C4-C5-N7	-5.87	107.76	110.70
23	BA	2038	G	C6-C5-N7	-5.87	126.88	130.40
1	CA	525	C	C5-C6-N1	5.87	123.94	121.00
23	BA	45	C	C6-N1-C2	-5.87	117.95	120.30
23	DA	2023	G	C5-C6-N1	5.87	114.44	111.50
1	AA	52	G	C8-N9-C4	-5.87	104.05	106.40
23	BA	205	G	N1-C2-N2	-5.87	110.92	116.20
23	BA	1488	G	C4-N9-C1'	5.87	134.13	126.50
23	DA	2755	C	N3-C4-N4	5.87	122.11	118.00
1	AA	1198	G	C6-C5-N7	5.87	133.92	130.40
23	BA	446	G	C6-C5-N7	-5.87	126.88	130.40
23	BA	1333	C	C4-C5-C6	-5.87	114.47	117.40
23	BA	1811	G	N3-C2-N2	-5.87	115.79	119.90
1	CA	1216	G	C8-N9-C1'	5.87	134.62	127.00
23	DA	125	G	N3-C2-N2	5.87	124.00	119.90
23	DA	1983	C	N1-C2-O2	-5.87	115.38	118.90
1	AA	1028	C	C5-C4-N4	-5.86	116.09	120.20
1	AA	1045	C	N1-C2-O2	5.86	122.42	118.90
23	BA	2383	G	C4-N9-C1'	5.86	134.12	126.50
23	BA	2079	U	C5-C6-N1	-5.86	119.77	122.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2280	G	C8-N9-C4	-5.86	104.06	106.40
23	BA	2283	C	N1-C2-O2	-5.86	115.38	118.90
23	BA	2380	C	C2-N3-C4	-5.86	116.97	119.90
23	DA	2682	U	C2-N1-C1'	5.86	124.73	117.70
1	AA	1384	C	C2-N3-C4	5.86	122.83	119.90
23	BA	2104	G	N9-C4-C5	-5.86	103.06	105.40
23	BA	650	C	C6-N1-C2	-5.86	117.96	120.30
23	BA	2459	A	C8-N9-C4	-5.86	103.46	105.80
23	DA	56	A	C4-C5-C6	-5.86	114.07	117.00
23	DA	1602	U	N1-C2-N3	5.86	118.41	114.90
23	DA	333	G	C5-C6-O6	-5.85	125.09	128.60
23	DA	1124	C	C6-N1-C2	5.85	122.64	120.30
23	BA	236	C	C5-C6-N1	-5.85	118.07	121.00
1	CA	1294	G	C8-N9-C1'	5.85	134.61	127.00
23	DA	513	A	C6-N1-C2	-5.85	115.09	118.60
23	BA	571	A	N1-C6-N6	5.85	122.11	118.60
23	BA	778	G	N3-C2-N2	5.85	124.00	119.90
23	BA	1121	C	C2-N3-C4	-5.85	116.97	119.90
1	AA	1293	G	N3-C4-C5	5.85	131.53	128.60
23	BA	1939	U	C5-C4-O4	-5.85	122.39	125.90
1	CA	39	G	N3-C4-C5	-5.85	125.67	128.60
23	DA	847	U	C6-N1-C1'	5.85	129.39	121.20
23	BA	270	A	C8-N9-C4	5.85	108.14	105.80
23	BA	1804	C	C4-C5-C6	-5.85	114.48	117.40
23	DA	914	C	N1-C2-O2	5.85	122.41	118.90
23	DA	2496	C	N3-C4-C5	5.85	124.24	121.90
23	BA	1784	A	C2-N3-C4	-5.85	107.68	110.60
1	CA	357	G	C6-N1-C2	-5.85	121.59	125.10
23	DA	2599	G	C4-C5-N7	-5.85	108.46	110.80
23	BA	2032	G	C5-N7-C8	5.84	107.22	104.30
23	DA	117	G	C8-N9-C4	5.84	108.74	106.40
23	DA	1286	A	C8-N9-C4	-5.84	103.46	105.80
23	DA	1493	C	N1-C2-O2	5.84	122.41	118.90
23	BA	509	C	N3-C2-O2	-5.84	117.81	121.90
23	BA	1372	U	C5-C4-O4	5.84	129.41	125.90
23	BA	1616	A	C5-C6-N6	-5.84	119.03	123.70
23	BA	2467	C	N3-C2-O2	-5.84	117.81	121.90
23	BA	527	C	C4-C5-C6	5.84	120.32	117.40
23	BA	647	G	N7-C8-N9	5.84	116.02	113.10
23	BA	1210	A	C4-C5-C6	5.84	119.92	117.00
23	DA	271(M)	G	N3-C4-C5	-5.84	125.68	128.60
23	DA	1665	A	N9-C4-C5	5.84	108.14	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	516	C	N1-C2-N3	5.84	123.29	119.20
23	BA	1028	A	N1-C2-N3	-5.84	126.38	129.30
23	BA	2176	A	C6-N1-C2	5.84	122.10	118.60
1	AA	1469	G	C4-C5-N7	5.84	113.14	110.80
23	BA	1298	C	N3-C4-C5	5.84	124.23	121.90
23	BA	2253	G	C2-N3-C4	-5.84	108.98	111.90
23	BA	2383	G	N3-C2-N2	5.84	123.98	119.90
23	DA	2046	G	C5-C6-O6	-5.84	125.10	128.60
23	BA	1981	A	N9-C4-C5	5.83	108.13	105.80
23	DA	2318	G	C2-N3-C4	5.83	114.82	111.90
23	BA	2018	G	C5-N7-C8	-5.83	101.38	104.30
23	BA	2247	A	C2-N3-C4	-5.83	107.68	110.60
23	DA	1640	C	C5-C6-N1	5.83	123.92	121.00
23	DA	2306	C	C6-N1-C1'	-5.83	113.80	120.80
1	AA	399	G	C6-N1-C2	-5.83	121.60	125.10
1	AA	1386	G	C4-C5-N7	-5.83	108.47	110.80
23	BA	481	G	C8-N9-C4	-5.83	104.07	106.40
23	BA	1324	G	C6-N1-C2	-5.83	121.60	125.10
23	DA	768	G	N1-C2-N3	5.83	127.40	123.90
23	DA	2088	G	C2-N3-C4	-5.83	108.98	111.90
23	BA	310	A	C8-N9-C4	5.83	108.13	105.80
23	BA	2084	C	C4-C5-C6	5.83	120.31	117.40
23	BA	2545	G	N1-C6-O6	5.83	123.40	119.90
23	BA	2683	C	N1-C2-O2	5.83	122.40	118.90
1	CA	1093	A	C8-N9-C4	-5.83	103.47	105.80
23	DA	801	G	N1-C6-O6	-5.83	116.40	119.90
23	DA	2628	C	C6-N1-C2	5.83	122.63	120.30
1	AA	852	G	N3-C4-N9	-5.83	122.50	126.00
1	AA	1249	C	N3-C4-N4	5.83	122.08	118.00
23	BA	777	A	C8-N9-C4	-5.83	103.47	105.80
23	BA	570	G	N3-C4-N9	5.82	129.49	126.00
23	BA	2261	C	C6-N1-C2	-5.82	117.97	120.30
1	CA	1012	U	C6-N1-C2	-5.82	117.51	121.00
1	CA	1051	C	C5-C6-N1	5.82	123.91	121.00
23	DA	772	C	N3-C4-N4	5.82	122.08	118.00
23	DA	1954	G	N1-C2-N2	5.82	121.44	116.20
23	DA	2818	G	N1-C2-N3	5.82	127.39	123.90
23	BA	53	A	C4-C5-C6	5.82	119.91	117.00
23	DA	2387	U	C5-C6-N1	-5.82	119.79	122.70
23	BA	208	C	C5-C6-N1	-5.82	118.09	121.00
23	DA	1779	U	C6-N1-C1'	5.82	129.35	121.20
23	DA	2174	C	C6-N1-C2	-5.82	117.97	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	751	A	C6-N1-C2	-5.82	115.11	118.60
23	DA	2439	A	N1-C6-N6	-5.82	115.11	118.60
1	AA	1027	C	C6-N1-C2	-5.82	117.97	120.30
23	BA	194	G	C2-N3-C4	-5.82	108.99	111.90
23	BA	381	G	C6-N1-C2	-5.82	121.61	125.10
3	CC	196	LEU	CA-CB-CG	5.82	128.68	115.30
14	CN	44	LEU	CA-CB-CG	5.82	128.68	115.30
1	AA	1016	A	N7-C8-N9	5.82	116.71	113.80
23	BA	70	G	N3-C2-N2	5.82	123.97	119.90
23	BA	2026	C	C4-C5-C6	5.82	120.31	117.40
23	BA	2497	A	C5-C6-N1	5.82	120.61	117.70
1	AA	79	G	C5-C6-O6	-5.81	125.11	128.60
23	BA	194	G	C5-N7-C8	5.81	107.21	104.30
23	BA	333	G	C4-N9-C1'	5.81	134.06	126.50
23	BA	1397	U	N3-C4-C5	5.81	118.09	114.60
1	CA	496	A	N1-C6-N6	-5.81	115.11	118.60
1	CA	766	A	C5-C6-N6	-5.81	119.05	123.70
1	CA	1429	C	C6-N1-C2	5.81	122.63	120.30
23	BA	2035	G	N3-C4-N9	-5.81	122.51	126.00
23	BA	2185	C	C5-C4-N4	5.81	124.27	120.20
23	BA	2297	C	N1-C2-O2	-5.81	115.41	118.90
23	BA	2628	C	C6-N1-C2	5.81	122.62	120.30
23	DA	1275	A	C8-N9-C4	5.81	108.12	105.80
1	AA	986	A	C5-C6-N6	-5.81	119.05	123.70
1	AA	1519	A	N9-C4-C5	5.81	108.12	105.80
1	AA	1224	G	N9-C4-C5	5.81	107.72	105.40
23	BA	122	G	C2-N3-C4	-5.81	109.00	111.90
23	BA	2200	C	C4-C5-C6	5.81	120.31	117.40
1	CA	977	A	C2-N3-C4	5.81	113.50	110.60
23	DA	1328	G	C5-C6-N1	5.81	114.41	111.50
23	DA	1997	G	C5-N7-C8	5.81	107.20	104.30
23	BA	1155	A	C8-N9-C4	-5.81	103.48	105.80
23	BA	1806	C	N3-C4-C5	-5.81	119.58	121.90
23	BA	1998	G	C5-C6-N1	-5.81	108.60	111.50
1	CA	54	C	C2-N3-C4	-5.81	117.00	119.90
23	DA	2719	G	N3-C2-N2	5.81	123.97	119.90
23	BA	53	A	N3-C4-C5	-5.81	122.74	126.80
23	BA	1129	A	N7-C8-N9	5.81	116.70	113.80
23	BA	34	C	C6-N1-C2	-5.80	117.98	120.30
23	BA	2057	A	C2-N3-C4	-5.80	107.70	110.60
23	BA	2501	C	C2-N1-C1'	-5.80	112.42	118.80
23	BA	2715	C	C2-N3-C4	-5.80	117.00	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	770	C	N3-C4-C5	-5.80	119.58	121.90
23	DA	271(K)	U	N1-C2-O2	5.80	126.86	122.80
23	DA	2599	G	N1-C6-O6	-5.80	116.42	119.90
1	AA	1296	C	C6-N1-C1'	-5.80	113.84	120.80
23	BA	28	A	N1-C2-N3	-5.80	126.40	129.30
23	BA	2045	C	N3-C2-O2	-5.80	117.84	121.90
23	BA	2383	G	C8-N9-C1'	-5.80	119.46	127.00
23	BA	2441	C	N3-C2-O2	-5.80	117.84	121.90
23	DA	2017	U	N1-C2-N3	5.80	118.38	114.90
1	AA	1023	G	C6-C5-N7	-5.80	126.92	130.40
1	AA	1287	A	C8-N9-C4	-5.80	103.48	105.80
23	BA	62	C	C6-N1-C2	5.80	122.62	120.30
23	BA	2719	G	C4-C5-C6	-5.80	115.32	118.80
23	DA	2031	A	C6-C5-N7	-5.80	128.24	132.30
23	DA	2383	G	N3-C4-N9	5.80	129.48	126.00
24	BB	6	C	C2-N1-C1'	-5.80	112.42	118.80
23	DA	1124	C	N3-C2-O2	5.80	125.96	121.90
1	AA	1287	A	N7-C8-N9	5.80	116.70	113.80
24	DB	55	U	N3-C4-C5	-5.80	111.12	114.60
1	AA	573	A	N7-C8-N9	-5.80	110.90	113.80
1	AA	1302	U	C6-N1-C2	-5.80	117.52	121.00
1	CA	235	C	N1-C2-O2	5.80	122.38	118.90
1	CA	1518	A	C8-N9-C4	-5.80	103.48	105.80
1	AA	1307	U	C5-C6-N1	5.79	125.60	122.70
1	AA	1274	G	C5-C6-O6	-5.79	125.12	128.60
23	BA	94	C	C6-N1-C2	-5.79	117.98	120.30
23	BA	2258	C	C5-C4-N4	-5.79	116.14	120.20
1	CA	117	G	N3-C4-N9	5.79	129.48	126.00
23	DA	2062	A	C8-N9-C4	-5.79	103.48	105.80
24	DB	115	G	N9-C4-C5	-5.79	103.08	105.40
23	BA	1524	G	C5-C6-O6	5.79	132.07	128.60
1	CA	1502	A	N7-C8-N9	5.79	116.70	113.80
23	DA	1329	U	N1-C2-N3	5.79	118.38	114.90
1	AA	1120	G	N3-C2-N2	-5.79	115.85	119.90
1	AA	1062	U	N1-C2-O2	5.79	126.85	122.80
23	BA	118	A	C2-N3-C4	5.79	113.49	110.60
23	BA	1977	A	C2-N3-C4	-5.79	107.70	110.60
23	BA	2273	A	C5-C6-N6	-5.79	119.07	123.70
23	DA	2519	U	C5-C6-N1	-5.79	119.81	122.70
23	BA	480	A	C8-N9-C4	-5.79	103.48	105.80
1	CA	867	G	N3-C4-C5	-5.79	125.71	128.60
23	DA	1112	G	N3-C4-C5	5.79	131.49	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2021	C	N1-C2-O2	-5.79	115.43	118.90
1	CA	1460	A	N7-C8-N9	-5.79	110.91	113.80
23	DA	2434	A	C2-N3-C4	-5.79	107.71	110.60
23	DA	2840	C	N3-C4-C5	5.79	124.21	121.90
23	BA	1489	U	C5-C4-O4	5.78	129.37	125.90
23	DA	1259	G	C5-C6-O6	5.78	132.07	128.60
1	AA	1023	G	C5-N7-C8	-5.78	101.41	104.30
23	DA	698	C	C5-C4-N4	-5.78	116.15	120.20
23	DA	2070	G	N1-C6-O6	-5.78	116.43	119.90
1	AA	1460	A	C6-C5-N7	5.78	136.34	132.30
23	BA	62	C	C2-N3-C4	-5.78	117.01	119.90
1	CA	973	G	C5-C6-O6	-5.78	125.13	128.60
1	CA	1197	G	N3-C4-C5	-5.78	125.71	128.60
23	DA	23	G	N1-C6-O6	-5.78	116.43	119.90
23	DA	1328	G	N9-C4-C5	-5.78	103.09	105.40
23	BA	129	C	C6-N1-C2	5.78	122.61	120.30
23	DA	664	C	C5-C6-N1	-5.78	118.11	121.00
23	DA	1597	A	C8-N9-C4	-5.78	103.49	105.80
23	DA	1678	G	C8-N9-C4	-5.78	104.09	106.40
23	DA	2296	U	C1'-O4'-C4'	-5.78	105.28	109.90
23	BA	1186	G	C8-N9-C4	5.78	108.71	106.40
23	BA	2394	C	N1-C2-O2	-5.78	115.44	118.90
23	DA	74	A	C8-N9-C4	-5.78	103.49	105.80
23	DA	253	C	N1-C2-O2	-5.78	115.44	118.90
23	DA	2682	U	N3-C2-O2	-5.78	118.16	122.20
23	BA	1656	C	C6-N1-C2	-5.77	117.99	120.30
23	BA	2111	C	C6-N1-C2	-5.77	117.99	120.30
1	CA	1283	G	N1-C2-N2	5.77	121.40	116.20
23	DA	669	G	N7-C8-N9	-5.77	110.21	113.10
23	DA	864	G	C8-N9-C4	-5.77	104.09	106.40
1	AA	1053	G	N1-C6-O6	5.77	123.36	119.90
1	AA	1151	A	C4-C5-N7	-5.77	107.81	110.70
24	BB	120	A	C5-C6-N6	5.77	128.32	123.70
23	DA	1813	G	N3-C4-C5	-5.77	125.71	128.60
23	DA	2191	G	N1-C6-O6	5.77	123.36	119.90
23	DA	2441	C	C2-N3-C4	-5.77	117.01	119.90
23	DA	2607	G	C6-C5-N7	-5.77	126.94	130.40
23	BA	195	A	C6-N1-C2	-5.77	115.14	118.60
23	BA	694	U	N1-C2-O2	5.77	126.84	122.80
23	DA	194	G	C6-C5-N7	-5.77	126.94	130.40
23	DA	197	A	C5-C6-N6	-5.77	119.08	123.70
23	BA	2069	G	C6-N1-C2	-5.77	121.64	125.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DB	49	C	N3-C2-O2	5.77	125.94	121.90
1	AA	944	G	C8-N9-C4	-5.76	104.09	106.40
23	BA	1977	A	C5-C6-N1	-5.76	114.82	117.70
23	DA	272(B)	G	C8-N9-C4	5.76	108.71	106.40
23	DA	672	C	C4-C5-C6	5.76	120.28	117.40
1	AA	345	C	N1-C2-N3	-5.76	115.17	119.20
23	BA	1809	A	N1-C6-N6	-5.76	115.14	118.60
23	DA	27	G	C4-C5-N7	-5.76	108.50	110.80
23	BA	333	G	C8-N9-C4	-5.76	104.10	106.40
23	BA	2873	A	N1-C6-N6	-5.76	115.14	118.60
1	CA	1356	G	C8-N9-C4	-5.76	104.10	106.40
23	DA	1775	U	C5-C6-N1	-5.76	119.82	122.70
1	AA	576	G	C4-N9-C1'	5.76	133.98	126.50
1	AA	836	G	C5-C6-O6	-5.76	125.15	128.60
23	BA	495	G	N7-C8-N9	-5.76	110.22	113.10
23	BA	533	G	C8-N9-C4	-5.76	104.10	106.40
1	CA	359	U	C2-N3-C4	-5.76	123.55	127.00
1	CA	1237	C	C6-N1-C2	-5.76	118.00	120.30
23	DA	260	G	C2-N3-C4	-5.76	109.02	111.90
23	DA	391	G	C8-N9-C1'	-5.76	119.52	127.00
23	DA	1429	G	C4-N9-C1'	5.76	133.98	126.50
23	DA	2028	U	N3-C4-O4	-5.76	115.37	119.40
23	BA	19	C	N3-C4-C5	-5.75	119.60	121.90
23	BA	1925	C	N1-C2-O2	-5.75	115.45	118.90
23	BA	2123	G	N3-C4-N9	-5.75	122.55	126.00
1	CA	1044	A	C6-N1-C2	5.75	122.05	118.60
23	DA	185	U	C2-N3-C4	-5.75	123.55	127.00
23	BA	1024	G	N3-C2-N2	5.75	123.93	119.90
23	BA	1817	G	N9-C4-C5	-5.75	103.10	105.40
23	BA	2075	U	N1-C2-N3	5.75	118.35	114.90
23	BA	2236	C	N1-C2-O2	-5.75	115.45	118.90
23	BA	2616	C	C6-N1-C2	-5.75	118.00	120.30
1	CA	1527	C	C6-N1-C2	5.75	122.60	120.30
23	DA	85	G	N1-C2-N3	5.75	127.35	123.90
23	DA	1128	A	N7-C8-N9	-5.75	110.92	113.80
23	DA	1327	C	C6-N1-C2	-5.75	118.00	120.30
23	DA	2079	U	C5-C6-N1	-5.75	119.82	122.70
23	DA	2253	G	C5-C6-O6	-5.75	125.15	128.60
23	DA	2563	U	C5-C6-N1	-5.75	119.82	122.70
23	BA	488	G	N1-C2-N3	5.75	127.35	123.90
23	BA	2318	G	C8-N9-C4	-5.75	104.10	106.40
24	BB	31	C	C2-N1-C1'	-5.75	112.47	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2700	C	C5-C4-N4	-5.75	116.17	120.20
23	BA	1194	A	C2-N3-C4	-5.75	107.72	110.60
23	BA	2069	G	N3-C4-C5	-5.75	125.73	128.60
1	CA	357	G	N3-C4-C5	-5.75	125.72	128.60
23	DA	658	C	N3-C2-O2	-5.75	117.88	121.90
23	BA	1154	G	N3-C4-C5	-5.75	125.73	128.60
23	BA	1938	A	C4-C5-C6	5.75	119.87	117.00
23	DA	1204	A	N9-C4-C5	-5.75	103.50	105.80
23	DA	2075	U	N1-C2-N3	5.75	118.35	114.90
23	DA	2123	G	N9-C4-C5	5.75	107.70	105.40
23	BA	671	C	N1-C2-O2	5.74	122.35	118.90
23	BA	2832	U	N3-C2-O2	5.74	126.22	122.20
23	BA	205	G	N3-C4-C5	-5.74	125.73	128.60
23	BA	25	U	N1-C2-O2	-5.74	118.78	122.80
23	BA	60	G	N1-C6-O6	5.74	123.34	119.90
23	BA	1395	A	C8-N9-C4	5.74	108.10	105.80
23	BA	1984	G	C8-N9-C4	-5.74	104.10	106.40
1	CA	1397	C	C2-N1-C1'	5.74	125.11	118.80
23	DA	2271	G	N3-C4-N9	5.74	129.44	126.00
23	DA	2690	C	N1-C2-O2	-5.74	115.45	118.90
23	BA	785	G	N3-C4-N9	-5.74	122.56	126.00
23	BA	2271	G	N3-C4-N9	5.74	129.44	126.00
1	CA	910	C	N3-C4-C5	5.74	124.20	121.90
23	DA	472	A	N9-C4-C5	5.74	108.10	105.80
23	DA	1760	A	C5-C6-N6	5.74	128.29	123.70
23	BA	209	C	C2-N3-C4	-5.74	117.03	119.90
23	BA	530	G	C6-C5-N7	5.74	133.84	130.40
1	AA	1296	C	N1-C2-O2	5.74	122.34	118.90
1	CA	1030(B)	C	C2-N1-C1'	5.74	125.11	118.80
23	DA	1938	A	N1-C6-N6	5.74	122.04	118.60
49	D5	19	ARG	NE-CZ-NH1	-5.74	117.43	120.30
1	AA	1038	C	C6-N1-C1'	-5.73	113.92	120.80
23	DA	2062	A	C5-N7-C8	-5.73	101.03	103.90
23	DA	2307	G	C8-N9-C4	-5.73	104.11	106.40
23	BA	928	G	C6-C5-N7	-5.73	126.96	130.40
23	BA	2718	G	C8-N9-C4	-5.73	104.11	106.40
23	BA	655	A	C2-N3-C4	-5.73	107.74	110.60
1	AA	1047	G	C6-N1-C2	5.73	128.54	125.10
23	DA	1558	A	C5-C6-N1	-5.73	114.84	117.70
23	DA	2262	U	N3-C2-O2	5.73	126.21	122.20
23	DA	2570	G	N3-C4-N9	-5.73	122.56	126.00
23	DA	751	A	C4-C5-C6	5.72	119.86	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2113	U	C5-C6-N1	5.72	125.56	122.70
23	DA	2808	U	C6-N1-C2	5.72	124.44	121.00
23	BA	1600	C	N1-C2-N3	5.72	123.21	119.20
23	BA	2306	C	C5-C6-N1	5.72	123.86	121.00
23	DA	176	G	C8-N9-C4	-5.72	104.11	106.40
1	CA	161	A	C8-N9-C4	-5.72	103.51	105.80
1	CA	1030	C	N1-C2-N3	-5.72	115.20	119.20
24	DB	101	G	C4-C5-N7	5.72	113.09	110.80
23	BA	469	G	C8-N9-C4	-5.72	104.11	106.40
23	BA	687	C	C6-N1-C2	5.72	122.59	120.30
23	DA	1365	A	C4-C5-N7	5.72	113.56	110.70
23	BA	1809	A	C8-N9-C4	-5.72	103.51	105.80
23	BA	2301	C	C6-N1-C2	-5.72	118.01	120.30
23	BA	2730	C	N3-C2-O2	-5.72	117.90	121.90
1	CA	1502	A	C6-C5-N7	-5.72	128.30	132.30
23	DA	741	G	N3-C2-N2	5.72	123.90	119.90
23	DA	777	A	C6-N1-C2	-5.72	115.17	118.60
23	DA	2556	C	N1-C2-O2	-5.72	115.47	118.90
23	DA	2611	U	N1-C2-N3	5.72	118.33	114.90
1	CA	689	C	C6-N1-C2	-5.71	118.01	120.30
1	CA	1294	G	C4-N9-C1'	-5.71	119.07	126.50
1	AA	346	G	C4-C5-C6	5.71	122.23	118.80
13	AM	96	LEU	CA-CB-CG	5.71	128.44	115.30
23	BA	186	G	N1-C6-O6	5.71	123.33	119.90
23	BA	1814	G	N3-C4-C5	-5.71	125.74	128.60
23	BA	59	U	C2-N1-C1'	5.71	124.55	117.70
23	BA	2728	U	C5-C4-O4	-5.71	122.47	125.90
23	DA	777	A	C5-C6-N6	5.71	128.27	123.70
23	DA	1030	G	C4-C5-N7	5.71	113.08	110.80
23	DA	2088	G	N1-C2-N3	5.71	127.33	123.90
24	DB	54	G	C8-N9-C1'	5.71	134.43	127.00
1	AA	1397	C	C5-C6-N1	5.71	123.86	121.00
23	BA	563	G	C5-C6-N1	5.71	114.36	111.50
23	BA	1806	C	N1-C2-O2	-5.71	115.47	118.90
23	BA	97	C	N3-C2-O2	-5.71	117.90	121.90
23	BA	205	G	C8-N9-C4	5.71	108.68	106.40
23	BA	476	G	C2-N3-C4	-5.71	109.05	111.90
23	BA	521	G	C8-N9-C4	-5.71	104.12	106.40
23	BA	740	U	C5-C6-N1	-5.71	119.85	122.70
23	DA	1939	U	N3-C4-C5	5.71	118.03	114.60
23	DA	2239	G	C5-N7-C8	5.71	107.16	104.30
23	BA	1805	U	N1-C2-N3	5.71	118.32	114.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1825	A	C6-N1-C2	-5.71	115.18	118.60
23	BA	966	G	C4-C5-N7	-5.71	108.52	110.80
23	DA	2590	A	N1-C6-N6	-5.71	115.18	118.60
23	BA	951	C	N3-C4-C5	5.70	124.18	121.90
23	BA	1563	G	C4-C5-N7	5.70	113.08	110.80
23	BA	2447	G	N3-C4-C5	-5.70	125.75	128.60
23	DA	2791	C	C6-N1-C2	-5.70	118.02	120.30
23	DA	1204	A	O4'-C1'-N9	5.70	112.76	108.20
23	BA	1253	A	C5-C6-N6	5.70	128.26	123.70
23	BA	2841	C	C6-N1-C2	-5.70	118.02	120.30
23	DA	2104	G	N3-C4-N9	5.70	129.42	126.00
23	DA	2560	C	N3-C4-C5	5.70	124.18	121.90
1	AA	943	U	C5-C4-O4	-5.70	122.48	125.90
23	BA	73	A	C8-N9-C4	-5.70	103.52	105.80
23	BA	1027	A	C5-C6-N6	-5.70	119.14	123.70
23	BA	1332	G	N3-C4-C5	-5.70	125.75	128.60
23	BA	1677	A	C2-N3-C4	-5.70	107.75	110.60
23	BA	2705	A	N1-C6-N6	5.70	122.02	118.60
24	BB	61	G	C8-N9-C4	-5.70	104.12	106.40
23	DA	97	C	N3-C4-N4	-5.70	114.01	118.00
23	BA	1606	G	N1-C6-O6	5.70	123.32	119.90
1	AA	1343	G	C4-C5-N7	-5.70	108.52	110.80
1	CA	1031	G	C8-N9-C4	5.70	108.68	106.40
23	DA	2894	G	N7-C8-N9	5.70	115.95	113.10
23	BA	462	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	1505	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	1582	C	C6-N1-C2	5.69	122.58	120.30
23	DA	1047	G	C6-C5-N7	-5.69	126.98	130.40
23	DA	1315	C	C2-N3-C4	-5.69	117.05	119.90
23	DA	1563	G	N9-C4-C5	-5.69	103.12	105.40
1	AA	243	A	C2-N3-C4	5.69	113.45	110.60
23	BA	2880	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	2885	C	N1-C2-O2	5.69	122.31	118.90
23	DA	794	G	C4-C5-N7	-5.69	108.52	110.80
23	DA	2490	G	C8-N9-C4	5.69	108.68	106.40
1	AA	1198	G	C8-N9-C1'	5.69	134.40	127.00
23	BA	592	G	N3-C4-C5	-5.69	125.75	128.60
23	BA	2307	G	N7-C8-N9	5.69	115.95	113.10
23	BA	2358	G	C5-C6-O6	5.69	132.01	128.60
1	CA	442	C	C6-N1-C2	-5.69	118.02	120.30
1	CA	1037	C	C6-N1-C2	-5.69	118.02	120.30
23	DA	444	C	C6-N1-C2	5.69	122.58	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2359	C	N1-C2-N3	5.69	123.18	119.20
26	BE	111	ARG	NE-CZ-NH1	5.69	123.14	120.30
23	BA	1623	G	C6-N1-C2	-5.69	121.69	125.10
23	BA	2079	U	C4-C5-C6	5.69	123.11	119.70
23	BA	2082	A	N1-C2-N3	5.69	132.14	129.30
23	DA	788	A	C4-C5-C6	5.69	119.84	117.00
23	DA	985	C	C6-N1-C2	5.69	122.58	120.30
23	DA	2012	G	C4-C5-N7	5.69	113.08	110.80
23	DA	2306	C	C2-N3-C4	5.69	122.74	119.90
23	DA	2427	C	N1-C2-O2	-5.69	115.49	118.90
23	DA	45	C	C5-C6-N1	-5.69	118.16	121.00
1	AA	807	A	C8-N9-C4	-5.68	103.53	105.80
23	BA	2319	G	C2-N3-C4	-5.68	109.06	111.90
32	BO	8	LEU	CA-CB-CG	5.68	128.38	115.30
1	CA	1123	A	C6-N1-C2	-5.68	115.19	118.60
23	DA	1107	G	N3-C4-C5	-5.68	125.76	128.60
23	BA	575	A	C4-C5-C6	5.68	119.84	117.00
23	BA	1488	G	N3-C4-C5	-5.68	125.76	128.60
23	BA	2341	G	N3-C2-N2	5.68	123.88	119.90
23	BA	2723	C	N3-C4-N4	-5.68	114.02	118.00
23	DA	2883	A	N1-C6-N6	5.68	122.01	118.60
1	AA	1302	U	C2-N1-C1'	5.68	124.51	117.70
1	AA	1440	C	C6-N1-C2	5.68	122.57	120.30
23	BA	129	C	N3-C4-C5	5.68	124.17	121.90
23	BA	186	G	N7-C8-N9	-5.68	110.26	113.10
23	BA	763	G	C5-C6-O6	5.68	132.01	128.60
23	BA	1045	A	C8-N9-C4	5.68	108.07	105.80
23	BA	1415	U	C5-C6-N1	-5.68	119.86	122.70
23	BA	2104	G	N3-C4-N9	5.68	129.41	126.00
23	DA	154	G	C5-C6-O6	-5.68	125.19	128.60
23	DA	2383	G	C4-N9-C1'	5.68	133.88	126.50
23	BA	2503	A	N1-C2-N3	-5.68	126.46	129.30
23	BA	2737	G	N3-C2-N2	-5.68	115.92	119.90
23	BA	1204	A	C1'-O4'-C4'	-5.68	105.36	109.90
23	DA	267	C	C5-C6-N1	-5.68	118.16	121.00
23	DA	1966	A	N1-C2-N3	-5.68	126.46	129.30
23	DA	2365	G	C5-C6-N1	5.68	114.34	111.50
1	AA	1322	C	C5-C6-N1	5.67	123.84	121.00
23	BA	2001	A	C8-N9-C4	-5.67	103.53	105.80
23	DA	788	A	N1-C6-N6	5.67	122.00	118.60
23	DA	2508	G	C6-C5-N7	5.67	133.81	130.40
23	BA	2713	A	C5-C6-N6	-5.67	119.16	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	978	G	N1-C2-N2	-5.67	111.10	116.20
51	B7	41	ARG	NE-CZ-NH2	-5.67	117.46	120.30
1	CA	1519	A	C4-C5-N7	-5.67	107.86	110.70
23	BA	412	A	C2-N3-C4	-5.67	107.77	110.60
23	BA	780	G	N1-C6-O6	5.67	123.30	119.90
23	DA	1307	A	C8-N9-C4	5.67	108.07	105.80
23	BA	2181	G	C5-C6-O6	5.67	132.00	128.60
1	CA	1259	C	C5-C6-N1	5.67	123.83	121.00
23	DA	1022	G	N3-C2-N2	-5.67	115.93	119.90
23	DA	1313	U	C2-N1-C1'	5.67	124.50	117.70
23	BA	983	A	C5-C6-N6	5.67	128.23	123.70
23	DA	2191	G	N3-C4-N9	5.67	129.40	126.00
23	BA	512	G	C5-C6-O6	5.66	132.00	128.60
23	BA	674	G	C6-C5-N7	-5.66	127.00	130.40
23	BA	1660	C	N3-C2-O2	-5.66	117.94	121.90
23	BA	2287	A	C5-N7-C8	-5.66	101.07	103.90
23	BA	2862	G	N7-C8-N9	-5.66	110.27	113.10
23	BA	2883	A	N7-C8-N9	5.66	116.63	113.80
1	CA	53	A	C5-C6-N6	5.66	128.23	123.70
23	DA	1023	U	N3-C4-O4	-5.66	115.44	119.40
1	CA	1036	G	C6-C5-N7	-5.66	127.00	130.40
23	BA	668	G	N3-C2-N2	5.66	123.86	119.90
23	DA	2789	C	C6-N1-C2	5.66	122.56	120.30
1	AA	50	A	N9-C4-C5	-5.66	103.54	105.80
23	BA	425	G	N1-C2-N2	-5.66	111.11	116.20
23	BA	1139	G	C5-C6-O6	-5.66	125.20	128.60
23	BA	1971	A	C2-N3-C4	5.66	113.43	110.60
23	DA	2287	A	C4-C5-N7	5.66	113.53	110.70
23	BA	569	U	C5-C6-N1	-5.66	119.87	122.70
23	BA	1796	U	C5-C6-N1	-5.66	119.87	122.70
23	BA	1817	G	C2-N3-C4	-5.66	109.07	111.90
23	DA	2151	G	N1-C6-O6	5.66	123.29	119.90
23	BA	59	U	N3-C2-O2	-5.66	118.24	122.20
23	BA	2181	G	N3-C2-N2	5.66	123.86	119.90
23	BA	2377	A	C2-N3-C4	-5.66	107.77	110.60
23	BA	2741	A	C8-N9-C4	5.66	108.06	105.80
1	CA	852	G	N3-C4-N9	-5.66	122.61	126.00
1	CA	1254	C	C5-C6-N1	5.66	123.83	121.00
23	DA	1329	U	N1-C2-O2	-5.66	118.84	122.80
23	DA	2503	A	C6-C5-N7	-5.66	128.34	132.30
1	CA	989	C	C2-N3-C4	5.65	122.73	119.90
1	CA	1029	C	N3-C2-O2	-5.65	117.94	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1181	G	C4-N9-C1'	-5.65	119.15	126.50
23	BA	375	C	C5-C6-N1	-5.65	118.17	121.00
23	BA	1035	U	C2-N1-C1'	-5.65	110.92	117.70
23	BA	1308	A	C8-N9-C4	-5.65	103.54	105.80
23	BA	1619	G	C2-N3-C4	5.65	114.73	111.90
23	BA	2371	G	C5-C6-O6	-5.65	125.21	128.60
23	BA	2436	G	C8-N9-C4	5.65	108.66	106.40
23	BA	2626	C	C6-N1-C2	5.65	122.56	120.30
1	CA	841	U	C6-N1-C2	-5.65	117.61	121.00
1	CA	1074	G	C5-C6-N1	-5.65	108.67	111.50
23	DA	2435	A	N1-C6-N6	-5.65	115.21	118.60
23	BA	265	A	C5-C6-N6	-5.65	119.18	123.70
23	BA	331	A	C2-N3-C4	5.65	113.42	110.60
23	BA	446	G	N1-C2-N3	5.65	127.29	123.90
23	BA	449	A	C4-C5-N7	5.65	113.53	110.70
23	BA	1254	A	N7-C8-N9	5.65	116.62	113.80
23	DA	774	A	N7-C8-N9	5.65	116.62	113.80
23	DA	1328	G	C8-N9-C4	5.65	108.66	106.40
23	DA	2487	G	C6-C5-N7	-5.65	127.01	130.40
23	BA	2002	G	N3-C4-C5	-5.65	125.78	128.60
23	DA	36	G	C4-C5-N7	-5.65	108.54	110.80
23	DA	1112	G	C8-N9-C4	5.65	108.66	106.40
23	BA	515	A	C5-C6-N6	-5.65	119.18	123.70
23	BA	1127	A	N7-C8-N9	5.65	116.62	113.80
23	BA	1800	C	C5-C6-N1	-5.65	118.18	121.00
23	BA	2342	C	C5-C6-N1	5.65	123.82	121.00
23	DA	1112	G	C4-N9-C1'	-5.65	119.16	126.50
24	BB	78	A	C8-N9-C4	5.65	108.06	105.80
23	DA	2147	G	C8-N9-C4	-5.65	104.14	106.40
23	BA	122	G	C5-C6-O6	-5.64	125.21	128.60
23	BA	647	G	C4-N9-C1'	5.64	133.84	126.50
23	BA	1119	C	C5-C6-N1	-5.64	118.18	121.00
23	BA	1119	C	C6-N1-C2	5.64	122.56	120.30
1	CA	90	U	N1-C2-N3	5.64	118.29	114.90
23	DA	981	A	C8-N9-C4	5.64	108.06	105.80
23	DA	959	A	C8-N9-C4	-5.64	103.54	105.80
23	DA	1372	U	C5-C6-N1	-5.64	119.88	122.70
23	DA	1825	A	C5-C6-N6	-5.64	119.19	123.70
23	DA	2456	C	N1-C2-N3	-5.64	115.25	119.20
1	AA	1292	U	N3-C4-O4	5.64	123.35	119.40
23	BA	53	A	N1-C2-N3	5.64	132.12	129.30
23	BA	391	G	C4-C5-N7	5.64	113.06	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1308	A	N9-C4-C5	5.64	108.06	105.80
23	DA	1647	G	C8-N9-C4	5.64	108.66	106.40
23	DA	1790	C	C2-N3-C4	-5.64	117.08	119.90
23	DA	2828	C	C6-N1-C2	5.64	122.56	120.30
1	AA	1311	G	N3-C4-N9	-5.64	122.62	126.00
23	BA	1954	G	N3-C4-N9	-5.64	122.62	126.00
23	BA	1930	G	C4-N9-C1'	-5.64	119.17	126.50
23	BA	756	C	C6-N1-C2	-5.63	118.05	120.30
23	BA	2325	G	C5-C6-O6	-5.63	125.22	128.60
23	BA	580	C	N3-C4-C5	-5.63	119.65	121.90
23	BA	2050	C	N3-C2-O2	-5.63	117.96	121.90
23	BA	2072	G	N3-C2-N2	-5.63	115.96	119.90
1	AA	1224	G	C6-C5-N7	5.63	133.78	130.40
23	DA	781	A	N7-C8-N9	-5.63	110.98	113.80
1	CA	1022	G	C5-C6-O6	-5.63	125.22	128.60
23	BA	1267	U	C5-C4-O4	5.63	129.28	125.90
1	CA	1003	G	C4-C5-N7	-5.63	108.55	110.80
23	DA	2894	G	C4-N9-C1'	5.63	133.82	126.50
23	BA	213	A	C8-N9-C4	5.63	108.05	105.80
23	BA	1372	U	C5-C6-N1	-5.63	119.89	122.70
23	DA	453	C	C5-C6-N1	-5.63	118.19	121.00
23	DA	1257	C	C6-N1-C2	-5.63	118.05	120.30
23	DA	2627	G	C8-N9-C4	5.63	108.65	106.40
1	CA	1216	G	C6-N1-C2	5.62	128.47	125.10
1	AA	357	G	N1-C2-N2	5.62	121.26	116.20
23	BA	936	C	C5-C6-N1	-5.62	118.19	121.00
23	BA	1324	G	N3-C4-C5	-5.62	125.79	128.60
23	BA	2191	G	C4-C5-N7	5.62	113.05	110.80
23	DA	26	G	C8-N9-C4	-5.62	104.15	106.40
23	DA	1258	C	N3-C4-C5	5.62	124.15	121.90
23	DA	1318	C	N3-C4-C5	5.62	124.15	121.90
23	DA	1653	G	N1-C2-N3	5.62	127.27	123.90
23	DA	2548	G	N3-C2-N2	-5.62	115.96	119.90
1	AA	1033	G	N3-C2-N2	5.62	123.83	119.90
1	CA	1041	A	C6-N1-C2	5.62	121.97	118.60
23	DA	125	G	C2-N3-C4	5.62	114.71	111.90
23	BA	2195	C	C2-N3-C4	-5.62	117.09	119.90
23	DA	187	G	C5-N7-C8	-5.62	101.49	104.30
23	DA	2027	G	N1-C6-O6	-5.62	116.53	119.90
23	DA	2583	G	C5-C6-O6	-5.62	125.23	128.60
23	DA	686	G	N9-C4-C5	-5.62	103.15	105.40
23	DA	2488	A	N1-C2-N3	5.62	132.11	129.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	981	U	C5-C6-N1	5.62	125.51	122.70
23	DA	41	C	C2-N3-C4	-5.62	117.09	119.90
23	DA	1382	G	C6-C5-N7	-5.62	127.03	130.40
23	DA	2124	G	N3-C4-N9	-5.62	122.63	126.00
1	AA	529	G	C5-C6-O6	-5.61	125.23	128.60
23	BA	806	C	C4-C5-C6	-5.61	114.59	117.40
23	BA	2287	A	N1-C6-N6	5.61	121.97	118.60
23	DA	1668	A	N1-C6-N6	-5.61	115.23	118.60
23	DA	1779	U	N3-C2-O2	-5.61	118.27	122.20
23	DA	2297	C	N1-C2-O2	-5.61	115.53	118.90
23	BA	309	G	N1-C6-O6	-5.61	116.53	119.90
23	BA	371	A	C5-C6-N6	-5.61	119.21	123.70
23	BA	1914	C	N1-C2-O2	5.61	122.27	118.90
24	BB	58	A	N7-C8-N9	-5.61	110.99	113.80
23	DA	1835	G	N3-C4-N9	5.61	129.37	126.00
1	AA	1244	C	C2-N3-C4	5.61	122.70	119.90
23	BA	835	A	C2-N3-C4	5.61	113.41	110.60
23	BA	2062	A	C5-C6-N6	-5.61	119.21	123.70
1	CA	1032	G	C6-N1-C2	5.61	128.47	125.10
23	DA	1958	C	N1-C2-O2	-5.61	115.53	118.90
24	DB	26	A	C8-N9-C4	5.61	108.04	105.80
1	AA	1054	C	C2-N1-C1'	5.61	124.97	118.80
1	AA	1326	C	C5-C6-N1	5.61	123.81	121.00
23	BA	1029	A	C4-C5-N7	5.61	113.50	110.70
23	BA	2010	G	C8-N9-C4	-5.61	104.16	106.40
1	CA	1197	G	C4-N9-C1'	5.61	133.79	126.50
23	BA	19	C	C4-C5-C6	5.61	120.20	117.40
23	BA	1539	G	C8-N9-C1'	-5.61	119.71	127.00
23	BA	1834	U	C5-C6-N1	5.61	125.50	122.70
23	DA	2002	G	N3-C4-C5	-5.61	125.80	128.60
1	AA	1117	G	N7-C8-N9	5.61	115.90	113.10
23	BA	2287	A	C4-C5-N7	5.61	113.50	110.70
1	CA	1002	G	N7-C8-N9	5.61	115.90	113.10
23	DA	26	G	N3-C4-C5	-5.61	125.80	128.60
23	DA	1271	G	C6-C5-N7	-5.61	127.04	130.40
23	DA	1614	A	N9-C4-C5	5.61	108.04	105.80
23	DA	1121	C	C5-C6-N1	-5.60	118.20	121.00
23	BA	32	C	C5-C4-N4	5.60	124.12	120.20
23	BA	520	G	N3-C2-N2	5.60	123.82	119.90
23	BA	1599	C	N1-C2-O2	-5.60	115.54	118.90
23	DA	766	C	C6-N1-C2	-5.60	118.06	120.30
23	DA	989	G	C8-N9-C4	5.60	108.64	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2822	G	N7-C8-N9	-5.60	110.30	113.10
1	CA	572	A	C4-N9-C1'	-5.60	116.22	126.30
1	AA	953	G	C8-N9-C1'	-5.60	119.72	127.00
23	BA	1633	G	C5-C6-O6	-5.60	125.24	128.60
23	BA	2545	G	C5-C6-O6	-5.60	125.24	128.60
1	CA	489	C	C5-C6-N1	5.60	123.80	121.00
23	DA	494	G	C5-C6-O6	5.60	131.96	128.60
23	DA	2037	G	N1-C6-O6	-5.60	116.54	119.90
1	AA	1086	U	C5-C4-O4	-5.60	122.54	125.90
1	AA	1382	C	N1-C2-O2	5.60	122.26	118.90
23	BA	127	A	C5-N7-C8	5.60	106.70	103.90
23	BA	1158	C	N3-C4-N4	-5.60	114.08	118.00
23	BA	1814	G	N1-C2-N2	-5.60	111.16	116.20
23	BA	2002	G	N1-C6-O6	-5.60	116.54	119.90
23	DA	1628	G	C4-N9-C1'	5.60	133.78	126.50
23	DA	1638	C	C2-N3-C4	-5.60	117.10	119.90
23	DA	2870	C	C6-N1-C2	-5.60	118.06	120.30
23	BA	2100	G	N3-C4-N9	5.60	129.36	126.00
23	DA	1274	A	N1-C6-N6	5.60	121.96	118.60
1	AA	1054	C	N3-C2-O2	-5.59	117.98	121.90
23	BA	328	U	C5-C4-O4	-5.59	122.54	125.90
23	BA	2124	G	C6-N1-C2	5.59	128.46	125.10
23	BA	2552	U	N1-C2-N3	5.59	118.26	114.90
23	DA	2710	C	C5-C6-N1	-5.59	118.20	121.00
23	DA	1940	U	N1-C2-O2	-5.59	118.89	122.80
23	BA	737	C	N3-C2-O2	5.59	125.81	121.90
1	CA	1197	G	N3-C4-N9	5.59	129.35	126.00
23	DA	2048	G	C8-N9-C4	-5.59	104.16	106.40
23	DA	2823	A	C5-C6-N6	-5.59	119.23	123.70
23	DA	1351	C	N1-C2-O2	-5.59	115.55	118.90
23	DA	1611	C	N1-C2-O2	-5.59	115.55	118.90
23	DA	1773	A	C8-N9-C4	5.59	108.03	105.80
23	BA	1028	A	N7-C8-N9	-5.59	111.01	113.80
23	BA	1395	A	N7-C8-N9	-5.59	111.01	113.80
23	BA	2071	A	C2-N3-C4	5.59	113.39	110.60
23	DA	563	G	N1-C6-O6	5.58	123.25	119.90
23	DA	1954	G	C5-C6-N1	-5.58	108.71	111.50
23	BA	1225	G	C5-N7-C8	-5.58	101.51	104.30
23	BA	2032	G	C2-N3-C4	-5.58	109.11	111.90
1	CA	1006	C	N3-C4-C5	-5.58	119.67	121.90
23	DA	54	G	C5-C6-O6	-5.58	125.25	128.60
23	DA	690	G	C2-N3-C4	5.58	114.69	111.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	933	A	C2-N3-C4	-5.58	107.81	110.60
23	DA	2324	C	N3-C4-C5	5.58	124.13	121.90
23	DA	2446	G	C8-N9-C4	5.58	108.63	106.40
23	BA	1632	A	C5-N7-C8	-5.58	101.11	103.90
23	BA	2191	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	195	A	C2-N3-C4	-5.58	107.81	110.60
23	DA	2258	C	N3-C4-N4	5.58	121.91	118.00
23	DA	2508	G	C5-C6-N1	5.58	114.29	111.50
23	DA	1786	A	C2-N3-C4	-5.58	107.81	110.60
1	AA	1397	C	C6-N1-C2	-5.58	118.07	120.30
23	BA	933	A	N1-C6-N6	5.58	121.95	118.60
23	BA	1206	G	N1-C6-O6	-5.58	116.55	119.90
23	BA	1497	U	N3-C4-O4	-5.58	115.50	119.40
23	BA	1661	G	C5-N7-C8	5.58	107.09	104.30
23	BA	2253	G	C5-C6-N1	-5.58	108.71	111.50
23	BA	2307	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	209	C	N3-C4-C5	5.58	124.13	121.90
1	AA	1469	G	C6-C5-N7	-5.58	127.05	130.40
23	BA	2508	G	N1-C6-O6	-5.58	116.55	119.90
23	DA	1374	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	1204	A	C8-N9-C1'	-5.58	117.66	127.70
1	AA	1047	G	N1-C6-O6	-5.57	116.56	119.90
23	BA	1791	A	N1-C6-N6	5.57	121.94	118.60
23	DA	2638	G	N3-C2-N2	5.57	123.80	119.90
23	BA	1438	U	C5-C6-N1	5.57	125.49	122.70
23	BA	2047	U	C5-C6-N1	-5.57	119.91	122.70
1	AA	932	C	C6-N1-C1'	-5.57	114.12	120.80
23	BA	1206	G	N9-C4-C5	5.57	107.63	105.40
1	CA	1391	U	N3-C4-O4	-5.57	115.50	119.40
23	DA	478	A	N9-C4-C5	5.57	108.03	105.80
23	DA	542	C	C3'-C2'-C1'	-5.57	97.04	101.50
23	DA	1204	A	C5-C6-N1	-5.57	114.92	117.70
23	DA	1374	G	N1-C6-O6	5.57	123.24	119.90
23	DA	1675	C	N3-C4-C5	-5.57	119.67	121.90
23	BA	1760	A	C5-C6-N6	5.57	128.16	123.70
1	AA	720	C	N1-C2-O2	5.57	122.24	118.90
1	AA	1220	G	C4-C5-N7	5.57	113.03	110.80
23	BA	512	G	N1-C6-O6	-5.57	116.56	119.90
23	BA	1546	C	C2-N1-C1'	5.57	124.92	118.80
23	BA	2578	G	N1-C2-N2	-5.57	111.19	116.20
23	DA	97	C	N3-C2-O2	-5.57	118.00	121.90
23	DA	774	A	C8-N9-C4	-5.57	103.57	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1647	G	N1-C6-O6	5.57	123.24	119.90
23	DA	2022	U	N3-C4-O4	5.57	123.30	119.40
23	DA	2755	C	C2-N1-C1'	5.57	124.92	118.80
23	BA	971	C	N1-C2-N3	5.57	123.09	119.20
23	BA	2070	G	N9-C4-C5	-5.57	103.17	105.40
23	DA	487	C	N3-C4-C5	-5.57	119.67	121.90
23	BA	686	G	C6-C5-N7	-5.56	127.06	130.40
23	BA	1980	G	N9-C4-C5	5.56	107.63	105.40
23	DA	741	G	N1-C2-N2	-5.56	111.19	116.20
23	DA	1984	G	N1-C6-O6	-5.56	116.56	119.90
23	DA	2347	C	N1-C2-O2	5.56	122.24	118.90
1	AA	291	C	N3-C4-C5	-5.56	119.67	121.90
1	CA	1439	C	N1-C2-O2	-5.56	115.56	118.90
32	DO	8	LEU	CA-CB-CG	5.56	128.09	115.30
23	BA	773	U	N3-C2-O2	-5.56	118.31	122.20
1	CA	1097	C	N1-C2-O2	5.56	122.24	118.90
23	DA	1762	A	N3-C4-C5	-5.56	122.91	126.80
23	DA	1939	U	C2-N3-C4	-5.56	123.66	127.00
23	BA	450	G	N3-C2-N2	-5.56	116.01	119.90
23	BA	659	C	C5-C6-N1	-5.56	118.22	121.00
23	BA	1367	A	N7-C8-N9	-5.56	111.02	113.80
23	BA	2710	C	C5-C6-N1	-5.56	118.22	121.00
1	CA	530	G	C4-N9-C1'	5.56	133.73	126.50
1	CA	1032	G	N3-C4-N9	-5.56	122.66	126.00
1	CA	1279	A	C8-N9-C4	-5.56	103.58	105.80
23	DA	133	C	C5-C6-N1	-5.56	118.22	121.00
23	DA	1359	A	N9-C4-C5	5.56	108.02	105.80
23	DA	2055	C	C6-N1-C2	5.56	122.52	120.30
1	AA	1349	A	C4-N9-C1'	5.56	136.30	126.30
23	BA	1315	C	N3-C4-N4	-5.56	114.11	118.00
23	DA	202	U	C5-C6-N1	-5.56	119.92	122.70
23	DA	791	C	N1-C2-N3	5.56	123.09	119.20
1	AA	1526	G	C8-N9-C4	-5.56	104.18	106.40
23	BA	313	C	C6-N1-C2	-5.56	118.08	120.30
23	BA	2304	G	C2-N3-C4	5.56	114.68	111.90
24	BB	1	U	C2-N1-C1'	5.56	124.37	117.70
1	AA	524	G	C8-N9-C4	-5.55	104.18	106.40
23	BA	533	G	C5-C6-O6	5.55	131.93	128.60
23	BA	1954	G	N3-C2-N2	-5.55	116.01	119.90
23	DA	245	G	N1-C6-O6	5.55	123.23	119.90
23	BA	2110	G	C8-N9-C1'	-5.55	119.78	127.00
23	DA	763	G	N1-C6-O6	-5.55	116.57	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2103	C	N3-C4-C5	-5.55	119.68	121.90
1	AA	989	C	C6-N1-C2	-5.55	118.08	120.30
23	BA	1042	G	N1-C6-O6	5.55	123.23	119.90
23	BA	1365	A	N9-C4-C5	-5.55	103.58	105.80
23	BA	1563	G	N3-C2-N2	5.55	123.79	119.90
24	BB	91	C	C6-N1-C2	5.55	122.52	120.30
1	CA	1258	G	N1-C2-N3	-5.55	120.57	123.90
23	DA	2585	U	C2-N1-C1'	5.55	124.36	117.70
1	AA	892	A	C2-N3-C4	-5.55	107.83	110.60
23	BA	1378	A	C8-N9-C4	-5.55	103.58	105.80
23	BA	1791	A	C2-N3-C4	-5.55	107.83	110.60
23	BA	2489	G	C6-C5-N7	-5.55	127.07	130.40
23	DA	1794	U	N1-C2-N3	5.55	118.23	114.90
1	AA	381	C	C6-N1-C2	-5.55	118.08	120.30
23	BA	1574	C	C2-N3-C4	-5.55	117.13	119.90
23	BA	2271	G	C4-N9-C1'	5.55	133.71	126.50
1	AA	1274	G	N7-C8-N9	5.54	115.87	113.10
23	BA	54	G	N1-C6-O6	5.54	123.23	119.90
23	BA	1614	A	C2-N3-C4	-5.54	107.83	110.60
23	BA	2519	U	N1-C2-O2	-5.54	118.92	122.80
1	CA	1277	C	C2-N1-C1'	5.54	124.90	118.80
23	DA	215	G	C8-N9-C4	5.54	108.62	106.40
23	DA	992	C	N1-C2-O2	-5.54	115.57	118.90
23	DA	1708	C	C6-N1-C2	5.54	122.52	120.30
1	AA	1466	C	C6-N1-C2	-5.54	118.08	120.30
23	BA	429	A	C5-N7-C8	-5.54	101.13	103.90
23	BA	1302	A	N7-C8-N9	-5.54	111.03	113.80
23	BA	2325	G	C4-N9-C1'	5.54	133.70	126.50
23	BA	2733	A	N1-C6-N6	5.54	121.92	118.60
24	DB	47	C	C6-N1-C2	5.54	122.52	120.30
23	BA	1568	G	N1-C6-O6	-5.54	116.58	119.90
23	DA	2437	U	C5-C6-N1	-5.54	119.93	122.70
23	BA	2056	G	N9-C4-C5	-5.54	103.19	105.40
23	BA	2705	A	C5-C6-N6	-5.54	119.27	123.70
23	DA	218	A	C5-C6-N6	5.54	128.13	123.70
23	BA	536	A	N1-C6-N6	-5.54	115.28	118.60
23	BA	2623	G	N3-C4-C5	-5.54	125.83	128.60
1	AA	442	C	C5-C6-N1	5.54	123.77	121.00
23	BA	1605	C	N3-C2-O2	-5.54	118.03	121.90
40	BW	11	ARG	NE-CZ-NH2	-5.54	117.53	120.30
1	CA	674	G	C4-C5-N7	5.54	113.01	110.80
23	DA	311	A	N1-C6-N6	5.54	121.92	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	804	A	N1-C2-N3	5.54	132.07	129.30
23	BA	136	G	C8-N9-C4	5.53	108.61	106.40
23	BA	269	U	C2-N1-C1'	5.53	124.34	117.70
23	DA	1990	C	N3-C2-O2	-5.53	118.03	121.90
23	DA	2006	C	C6-N1-C2	-5.53	118.09	120.30
23	DA	2489	G	C2-N3-C4	-5.53	109.13	111.90
23	BA	2020	A	C5-C6-N6	-5.53	119.28	123.70
23	BA	940	G	N9-C4-C5	5.53	107.61	105.40
23	BA	2503	A	C4-C5-N7	5.53	113.47	110.70
24	BB	51	G	N3-C4-N9	5.53	129.32	126.00
1	CA	1255	G	N1-C6-O6	5.53	123.22	119.90
23	DA	2730	C	N3-C4-C5	5.53	124.11	121.90
23	DA	2322	A	N1-C2-N3	5.53	132.06	129.30
1	AA	1384	C	N3-C2-O2	5.53	125.77	121.90
23	BA	1622	G	N3-C2-N2	-5.53	116.03	119.90
1	CA	927	G	C5-C6-O6	5.53	131.92	128.60
23	DA	74	A	C5-N7-C8	-5.53	101.14	103.90
23	BA	775	G	C8-N9-C4	5.53	108.61	106.40
23	BA	801	G	N3-C4-N9	-5.53	122.69	126.00
23	BA	847	U	C6-N1-C1'	5.53	128.94	121.20
23	BA	2373	G	C8-N9-C4	5.53	108.61	106.40
23	BA	2381	C	C2-N3-C4	-5.53	117.14	119.90
23	BA	2562	U	C5-C6-N1	-5.53	119.94	122.70
23	DA	45	C	N1-C2-N3	5.53	123.07	119.20
23	DA	195	A	N1-C2-N3	5.53	132.06	129.30
23	DA	2325	G	C8-N9-C1'	-5.53	119.82	127.00
23	BA	468	G	C8-N9-C4	5.52	108.61	106.40
23	BA	567	A	C2-N3-C4	-5.52	107.84	110.60
23	BA	2088	G	N1-C6-O6	5.52	123.22	119.90
23	BA	2437	U	C4-C5-C6	5.52	123.01	119.70
1	AA	1122	U	C5-C4-O4	5.52	129.21	125.90
23	BA	546	C	C5-C6-N1	5.52	123.76	121.00
23	BA	1274	A	C5-N7-C8	-5.52	101.14	103.90
23	BA	32	C	C5-C6-N1	-5.52	118.24	121.00
23	BA	2732	G	N1-C6-O6	-5.52	116.59	119.90
23	DA	1252	G	C4-N9-C1'	-5.52	119.32	126.50
1	AA	345	C	C2-N3-C4	5.52	122.66	119.90
1	AA	1059	C	N1-C2-O2	-5.52	115.59	118.90
1	CA	1326	C	C2-N1-C1'	-5.52	112.73	118.80
23	DA	1370	C	N1-C2-O2	-5.52	115.59	118.90
23	DA	2689	U	N3-C2-O2	-5.52	118.34	122.20
1	AA	362	G	N3-C4-C5	5.52	131.36	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	516	C	C5-C6-N1	-5.52	118.24	121.00
23	DA	54	G	C8-N9-C4	-5.52	104.19	106.40
23	BA	576	U	N3-C4-O4	-5.52	115.54	119.40
23	BA	1510	G	N3-C4-N9	5.52	129.31	126.00
23	DA	249	C	C5-C4-N4	5.52	124.06	120.20
23	BA	210	C	N3-C4-C5	5.51	124.11	121.90
23	BA	512	G	N9-C4-C5	5.51	107.61	105.40
23	BA	1221(A)	C	C6-N1-C2	5.51	122.51	120.30
23	DA	113	G	C2-N3-C4	-5.51	109.14	111.90
23	DA	286	C	N3-C2-O2	-5.51	118.04	121.90
23	DA	1393	A	N1-C6-N6	-5.51	115.29	118.60
23	DA	2306	C	N1-C2-O2	5.51	122.21	118.90
23	BA	2495	G	C2-N3-C4	-5.51	109.14	111.90
23	BA	512	G	C4-C5-N7	-5.51	108.59	110.80
23	BA	2088	G	C5-C6-O6	-5.51	125.29	128.60
23	DA	425	G	N3-C4-N9	5.51	129.31	126.00
23	DA	1955	U	C2-N3-C4	-5.51	123.69	127.00
23	DA	2481	G	N1-C6-O6	5.51	123.21	119.90
1	AA	1356	G	C5-C6-O6	5.51	131.91	128.60
23	BA	910	A	C5-N7-C8	5.51	106.66	103.90
1	CA	78	G	N1-C6-O6	5.51	123.21	119.90
23	DA	652(E)	G	C6-N1-C2	5.51	128.41	125.10
24	DB	75	G	C5-C6-O6	-5.51	125.29	128.60
23	BA	2255	G	N1-C6-O6	-5.51	116.59	119.90
1	AA	1336	C	C5-C6-N1	5.51	123.75	121.00
23	BA	2473	U	N3-C2-O2	-5.51	118.35	122.20
23	DA	1289	C	C6-N1-C2	5.51	122.50	120.30
23	DA	1383	C	N1-C2-O2	-5.51	115.60	118.90
23	BA	194	G	C4-C5-C6	5.50	122.10	118.80
1	AA	545	C	C5-C6-N1	-5.50	118.25	121.00
23	BA	961	C	C4-C5-C6	5.50	120.15	117.40
23	BA	2379	G	N3-C2-N2	5.50	123.75	119.90
23	BA	2493	U	N3-C2-O2	-5.50	118.35	122.20
1	CA	1038	C	C5-C6-N1	5.50	123.75	121.00
23	DA	580	C	N3-C4-C5	5.50	124.10	121.90
23	DA	1539	G	C8-N9-C1'	-5.50	119.84	127.00
23	DA	1558	A	N1-C6-N6	5.50	121.90	118.60
23	BA	385	C	C5-C6-N1	5.50	123.75	121.00
23	BA	1397	U	C2-N3-C4	-5.50	123.70	127.00
23	BA	2387	U	C5-C6-N1	-5.50	119.95	122.70
23	DA	672	C	C2-N3-C4	-5.50	117.15	119.90
1	AA	1020	U	N1-C2-N3	5.50	118.20	114.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1087	G	C2-N3-C4	5.50	114.65	111.90
1	AA	1259	C	C6-N1-C2	-5.50	118.10	120.30
1	AA	1384	C	C5-C6-N1	5.50	123.75	121.00
23	BA	518	G	C5-C6-O6	5.50	131.90	128.60
24	BB	117	G	C8-N9-C4	5.50	108.60	106.40
23	DA	1616	A	C4-C5-N7	5.50	113.45	110.70
23	DA	2791	C	N3-C2-O2	-5.50	118.05	121.90
1	AA	10	A	C2-N3-C4	-5.50	107.85	110.60
1	AA	1462	G	N3-C4-N9	-5.50	122.70	126.00
23	BA	291	C	N1-C2-O2	-5.50	115.60	118.90
23	BA	1039	G	C6-C5-N7	5.50	133.70	130.40
23	BA	1234	U	N3-C2-O2	-5.50	118.35	122.20
23	BA	2450	A	C8-N9-C4	5.50	108.00	105.80
23	BA	2846	G	C8-N9-C4	-5.50	104.20	106.40
23	DA	2004	G	C8-N9-C4	5.50	108.60	106.40
23	DA	2104	G	N9-C4-C5	-5.50	103.20	105.40
23	DA	2503	A	C8-N9-C4	-5.50	103.60	105.80
23	BA	1209	G	C5-C6-N1	-5.49	108.75	111.50
23	BA	1992	G	P-O3'-C3'	5.49	126.29	119.70
23	BA	2325	G	N1-C6-O6	5.49	123.20	119.90
1	CA	397	A	N1-C2-N3	5.49	132.05	129.30
23	DA	143	G	N1-C6-O6	5.49	123.20	119.90
23	BA	2440	C	C6-N1-C2	5.49	122.50	120.30
23	BA	2689	U	N3-C2-O2	-5.49	118.36	122.20
23	DA	1022	G	C4-C5-N7	-5.49	108.60	110.80
1	AA	1303	C	N1-C2-O2	5.49	122.19	118.90
23	BA	1505	C	N3-C2-O2	-5.49	118.06	121.90
1	CA	754	C	C6-N1-C2	-5.49	118.10	120.30
1	CA	1218	C	N1-C2-O2	5.49	122.19	118.90
1	AA	330	C	N1-C2-O2	5.49	122.19	118.90
23	BA	2544	G	C8-N9-C4	5.49	108.59	106.40
23	DA	23	G	C5-C6-N1	5.49	114.24	111.50
23	DA	434	U	C6-N1-C2	5.49	124.29	121.00
23	BA	2581	G	N3-C2-N2	5.49	123.74	119.90
1	CA	1459	C	O4'-C1'-N1	5.49	112.59	108.20
23	BA	1319	G	C4-N9-C1'	5.49	133.63	126.50
23	BA	2881	C	C6-N1-C2	-5.49	118.11	120.30
1	CA	39	G	N1-C6-O6	-5.49	116.61	119.90
1	CA	1499	A	N1-C6-N6	5.49	121.89	118.60
23	DA	1397	U	N1-C2-O2	5.49	126.64	122.80
23	DA	1613	G	C8-N9-C4	-5.49	104.21	106.40
23	DA	1962	C	C4-C5-C6	-5.49	114.66	117.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2505	G	N1-C2-N2	-5.48	111.27	116.20
23	DA	1493	C	N3-C2-O2	-5.48	118.06	121.90
23	BA	2345	G	C8-N9-C4	-5.48	104.21	106.40
23	DA	1990	C	N1-C2-N3	5.48	123.04	119.20
23	DA	2307	G	C4-N9-C1'	5.48	133.63	126.50
1	AA	1077	G	N3-C4-C5	-5.48	125.86	128.60
23	BA	1641	A	C2-N3-C4	-5.48	107.86	110.60
23	BA	2592	G	C2-N3-C4	5.48	114.64	111.90
1	CA	929	G	C4-C5-N7	-5.48	108.61	110.80
23	DA	452	G	C5-C6-N1	5.48	114.24	111.50
23	DA	509	C	N3-C2-O2	-5.48	118.06	121.90
23	DA	2147	G	N7-C8-N9	5.48	115.84	113.10
23	DA	2467	C	C6-N1-C2	-5.48	118.11	120.30
23	BA	2503	A	C2-N3-C4	5.48	113.34	110.60
23	DA	783	A	C2-N3-C4	5.48	113.34	110.60
23	DA	2742	C	C4-C5-C6	5.48	120.14	117.40
23	BA	674	G	C5-C6-N1	-5.48	108.76	111.50
23	BA	987	G	N3-C4-N9	-5.48	122.71	126.00
1	CA	494	U	C5-C6-N1	5.48	125.44	122.70
1	CA	993	G	N3-C4-C5	-5.48	125.86	128.60
23	DA	605	C	C2-N3-C4	-5.48	117.16	119.90
23	DA	2570	G	C5-C6-N1	-5.48	108.76	111.50
23	BA	516	C	C2-N3-C4	-5.48	117.16	119.90
1	AA	1057	G	N1-C6-O6	-5.47	116.62	119.90
23	BA	1186	G	N9-C4-C5	-5.47	103.21	105.40
23	BA	1765	C	N3-C4-C5	5.47	124.09	121.90
23	BA	2098	U	C2-N3-C4	5.47	130.28	127.00
24	BB	104	U	N3-C4-C5	5.47	117.88	114.60
23	DA	1108	U	C6-N1-C2	-5.47	117.72	121.00
23	BA	435	C	C5-C4-N4	-5.47	116.37	120.20
1	CA	1060	C	C6-N1-C2	-5.47	118.11	120.30
23	DA	2100	G	N3-C4-N9	5.47	129.28	126.00
23	BA	2591	C	N3-C4-C5	5.47	124.09	121.90
23	DA	567	A	C2-N3-C4	-5.47	107.86	110.60
1	AA	727	G	N1-C6-O6	-5.47	116.62	119.90
1	AA	1148	U	C5-C6-N1	5.47	125.44	122.70
23	BA	1411	C	N3-C4-C5	5.47	124.09	121.90
23	BA	2315	G	C8-N9-C4	5.47	108.59	106.40
23	DA	2002	G	C5-C6-N1	5.47	114.23	111.50
1	AA	442	C	C6-N1-C2	-5.47	118.11	120.30
23	BA	1582	C	C2-N3-C4	-5.47	117.17	119.90
23	BA	1606	G	C5-C6-O6	-5.47	125.32	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2461	C	C5-C4-N4	5.47	124.03	120.20
23	BA	53	A	N9-C4-C5	5.47	107.99	105.80
23	BA	1135	C	C5-C6-N1	5.47	123.73	121.00
23	BA	2574	G	N1-C6-O6	-5.47	116.62	119.90
1	CA	955	U	C5-C6-N1	5.47	125.43	122.70
1	CA	1056	U	C2-N3-C4	5.47	130.28	127.00
16	CP	28	ARG	NE-CZ-NH1	5.47	123.03	120.30
23	DA	265	A	C6-C5-N7	-5.47	128.47	132.30
23	BA	47	C	C5-C4-N4	5.46	124.03	120.20
23	BA	199	A	C5-C6-N1	5.46	120.43	117.70
23	BA	333	G	N7-C8-N9	5.46	115.83	113.10
23	DA	749	C	C6-N1-C1'	-5.46	114.24	120.80
23	DA	1339	G	N7-C8-N9	5.46	115.83	113.10
23	BA	1290	C	C6-N1-C2	-5.46	118.11	120.30
23	BA	1358	G	N3-C2-N2	5.46	123.72	119.90
23	DA	482	A	C6-N1-C2	-5.46	115.32	118.60
23	DA	2426	A	C5-N7-C8	-5.46	101.17	103.90
1	AA	1147	C	C6-N1-C2	-5.46	118.11	120.30
23	BA	148	C	C5-C4-N4	-5.46	116.38	120.20
23	BA	1563	G	N1-C2-N2	-5.46	111.28	116.20
23	DA	1788	C	C6-N1-C2	-5.46	118.11	120.30
23	DA	2007	C	N3-C2-O2	-5.46	118.08	121.90
1	CA	403	C	N3-C2-O2	-5.46	118.08	121.90
1	CA	810	C	N3-C4-C5	5.46	124.08	121.90
1	AA	530	G	C4-N9-C1'	5.46	133.60	126.50
1	AA	1003	G	N9-C4-C5	5.46	107.58	105.40
23	BA	1164	G	C5-N7-C8	5.46	107.03	104.30
23	BA	2069	G	N3-C4-N9	5.46	129.28	126.00
23	BA	2312	U	C6-N1-C2	-5.46	117.72	121.00
1	CA	402	G	N1-C6-O6	-5.46	116.62	119.90
1	CA	865	A	N7-C8-N9	5.46	116.53	113.80
1	CA	1015	A	N1-C2-N3	5.46	132.03	129.30
1	CA	1163	C	C6-N1-C2	-5.46	118.12	120.30
23	DA	279	C	C6-N1-C2	-5.46	118.12	120.30
23	DA	785	G	N1-C6-O6	-5.46	116.62	119.90
23	DA	800	A	C6-N1-C2	-5.46	115.32	118.60
23	DA	2239	G	C4-C5-N7	-5.46	108.62	110.80
1	CA	1005	A	N7-C8-N9	5.46	116.53	113.80
23	DA	1823	G	N3-C2-N2	-5.46	116.08	119.90
23	DA	2552	U	N1-C2-O2	-5.46	118.98	122.80
35	DR	114	VAL	CB-CA-C	-5.46	101.03	111.40
23	BA	1028	A	N1-C6-N6	5.46	121.87	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2566	A	N9-C4-C5	5.46	107.98	105.80
1	AA	355	C	N1-C2-N3	5.45	123.02	119.20
1	AA	1061	G	C5-C6-N1	-5.45	108.77	111.50
23	BA	2226	C	N3-C4-C5	5.45	124.08	121.90
1	CA	506	G	C8-N9-C4	-5.45	104.22	106.40
1	CA	893	C	N1-C2-O2	5.45	122.17	118.90
1	CA	1026	G	C8-N9-C4	-5.45	104.22	106.40
1	CA	1067	A	N7-C8-N9	5.45	116.53	113.80
23	DA	1642	G	C6-N1-C2	-5.45	121.83	125.10
1	AA	1128	C	N3-C4-C5	-5.45	119.72	121.90
23	BA	1352	U	C6-N1-C2	-5.45	117.73	121.00
23	BA	1429	G	C8-N9-C1'	-5.45	119.91	127.00
23	DA	2585	U	N1-C2-O2	5.45	126.62	122.80
23	BA	272(C)	G	C2-N3-C4	-5.45	109.17	111.90
23	BA	662	G	N1-C6-O6	-5.45	116.63	119.90
23	BA	1130	U	N1-C2-O2	5.45	126.62	122.80
23	BA	1816	G	C4-N9-C1'	5.45	133.59	126.50
23	BA	2044	C	C4-C5-C6	5.45	120.12	117.40
23	BA	2195	C	C2-N1-C1'	-5.45	112.81	118.80
23	DA	1581	G	C5-C6-O6	-5.45	125.33	128.60
23	DA	1616	A	C5-N7-C8	-5.45	101.17	103.90
23	DA	1747	G	C8-N9-C4	5.45	108.58	106.40
1	AA	1206	G	N1-C6-O6	-5.45	116.63	119.90
23	BA	1210	A	C5-C6-N1	-5.45	114.98	117.70
23	BA	1328	G	N3-C4-N9	5.45	129.27	126.00
23	BA	1368	G	C6-N1-C2	-5.45	121.83	125.10
23	BA	2090	G	C4-C5-N7	-5.45	108.62	110.80
23	BA	2501	C	C5-C6-N1	-5.45	118.28	121.00
1	CA	345	C	C5-C6-N1	5.45	123.72	121.00
23	DA	2002	G	N1-C6-O6	-5.45	116.63	119.90
1	CA	1194	U	N3-C2-O2	-5.45	118.39	122.20
1	AA	1023	G	C4-C5-N7	5.45	112.98	110.80
23	BA	309	G	N3-C2-N2	5.45	123.71	119.90
23	BA	1049	C	C4-C5-C6	-5.45	114.68	117.40
23	BA	2463	C	C2-N3-C4	-5.45	117.18	119.90
23	DA	197	A	C5-C6-N1	5.45	120.42	117.70
23	BA	996	A	N1-C6-N6	-5.44	115.33	118.60
1	CA	530	G	C8-N9-C1'	-5.44	119.92	127.00
23	DA	774	A	N1-C2-N3	5.44	132.02	129.30
23	DA	2616	C	C5-C4-N4	5.44	124.01	120.20
23	BA	830	G	N1-C2-N2	-5.44	111.30	116.20
23	BA	1437	C	N1-C2-O2	5.44	122.17	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1839	G	N9-C4-C5	-5.44	103.22	105.40
23	BA	2075	U	C4-C5-C6	5.44	122.97	119.70
1	CA	1519	A	N1-C2-N3	5.44	132.02	129.30
9	CI	24	GLY	N-CA-C	5.44	126.70	113.10
23	DA	1127	A	C6-C5-N7	-5.44	128.49	132.30
23	DA	2145	C	C5-C6-N1	5.44	123.72	121.00
1	AA	2	U	C6-N1-C2	-5.44	117.74	121.00
23	BA	1959	G	N1-C6-O6	-5.44	116.64	119.90
23	BA	584	C	N3-C4-C5	5.44	124.08	121.90
1	CA	1112	C	C6-N1-C2	-5.44	118.12	120.30
25	DD	33	LEU	CA-CB-CG	-5.44	102.79	115.30
23	DA	2458	G	C5-C6-O6	-5.44	125.34	128.60
31	DN	23	LEU	O-C-N	-5.44	113.95	123.20
1	AA	52	G	C6-N1-C2	5.44	128.36	125.10
1	AA	1347	G	N9-C4-C5	5.44	107.57	105.40
23	BA	570	G	N3-C2-N2	5.44	123.70	119.90
23	BA	727	A	C2-N3-C4	-5.44	107.88	110.60
23	BA	1775	U	C5-C4-O4	-5.44	122.64	125.90
23	DA	614	U	N3-C4-O4	-5.44	115.59	119.40
1	AA	317	G	N1-C6-O6	5.43	123.16	119.90
1	AA	953	G	N9-C4-C5	-5.43	103.23	105.40
1	AA	1249	C	C5-C4-N4	-5.43	116.40	120.20
23	BA	1783	A	C8-N9-C4	-5.43	103.63	105.80
23	BA	2699	C	N3-C4-N4	5.43	121.80	118.00
1	CA	381	C	C6-N1-C2	-5.43	118.13	120.30
23	DA	1286	A	N9-C4-C5	5.43	107.97	105.80
23	DA	2502	G	N3-C2-N2	5.43	123.70	119.90
1	AA	1249	C	C6-N1-C2	-5.43	118.13	120.30
23	BA	450	G	C4-C5-N7	-5.43	108.63	110.80
23	BA	1572	A	N1-C2-N3	5.43	132.02	129.30
23	BA	2319	G	C4-C5-N7	5.43	112.97	110.80
23	BA	2571	C	C2-N1-C1'	5.43	124.78	118.80
23	DA	271(M)	G	N3-C4-N9	5.43	129.26	126.00
23	DA	461	C	C6-N1-C2	5.43	122.47	120.30
23	DA	807	U	C5-C4-O4	-5.43	122.64	125.90
23	DA	2444	G	N1-C2-N3	5.43	127.16	123.90
23	DA	2881	C	N1-C2-O2	-5.43	115.64	118.90
23	BA	2315	G	N9-C4-C5	-5.43	103.23	105.40
1	CA	1108	G	C4-N9-C1'	5.43	133.56	126.50
23	DA	1332	G	C4-C5-N7	5.43	112.97	110.80
23	BA	210	C	C6-N1-C2	5.43	122.47	120.30
23	BA	1112	G	C4-N9-C1'	-5.43	119.44	126.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	512	G	C5-C6-O6	5.43	131.86	128.60
23	DA	1784	A	N7-C8-N9	-5.43	111.08	113.80
23	DA	2617	C	C2-N3-C4	-5.43	117.19	119.90
23	DA	2733	A	C5-N7-C8	-5.43	101.19	103.90
23	BA	1269	A	C5-C6-N1	5.43	120.41	117.70
23	BA	1899	G	N1-C2-N2	5.43	121.09	116.20
1	AA	340	U	C6-N1-C2	5.43	124.25	121.00
23	BA	2596	U	N1-C2-O2	-5.43	119.00	122.80
23	BA	139(A)	G	C6-C5-N7	-5.42	127.14	130.40
23	BA	1615	C	C2-N3-C4	5.42	122.61	119.90
23	DA	52	A	C8-N9-C4	-5.42	103.63	105.80
23	BA	435	C	N3-C4-N4	5.42	121.80	118.00
24	BB	114	C	C6-N1-C2	-5.42	118.13	120.30
1	CA	1158	C	N1-C2-O2	5.42	122.15	118.90
1	CA	1527	C	N3-C4-C5	5.42	124.07	121.90
1	CA	1216	G	C6-C5-N7	5.42	133.65	130.40
23	BA	949	C	C5-C6-N1	-5.42	118.29	121.00
23	DA	1618	A	N1-C6-N6	-5.42	115.35	118.60
23	BA	2442	C	N3-C4-C5	5.42	124.07	121.90
23	DA	411	G	N3-C2-N2	5.42	123.69	119.90
1	AA	57	G	C6-N1-C2	-5.42	121.85	125.10
23	DA	775	G	C5-C6-O6	5.42	131.85	128.60
23	DA	949	C	C2-N3-C4	-5.42	117.19	119.90
23	DA	2045	C	C2-N3-C4	-5.42	117.19	119.90
23	BA	1614	A	N3-C4-N9	-5.42	123.07	127.40
23	BA	2015	A	C5-C6-N1	-5.42	114.99	117.70
1	CA	435	C	C5-C6-N1	5.42	123.71	121.00
23	DA	945	A	N9-C4-C5	-5.42	103.63	105.80
23	DA	1190	G	C2-N3-C4	-5.42	109.19	111.90
1	AA	1273	G	C8-N9-C4	-5.41	104.23	106.40
23	BA	2145	C	C6-N1-C2	-5.41	118.13	120.30
1	CA	356	A	C2-N3-C4	5.41	113.31	110.60
1	CA	1014	A	C8-N9-C4	-5.41	103.64	105.80
23	BA	599	G	N9-C4-C5	-5.41	103.23	105.40
23	BA	773	U	C6-N1-C2	-5.41	117.75	121.00
1	AA	300	A	C8-N9-C4	-5.41	103.64	105.80
23	BA	528	A	C5-C6-N6	5.41	128.03	123.70
23	BA	774	A	N9-C4-C5	5.41	107.96	105.80
23	BA	1509	C	N1-C2-O2	5.41	122.15	118.90
23	BA	1939	U	N3-C2-O2	5.41	125.99	122.20
1	CA	1012	U	C5-C6-N1	5.41	125.41	122.70
23	DA	311	A	N9-C4-C5	-5.41	103.64	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	797	C	C4-C5-C6	5.41	120.11	117.40
23	DA	1990	C	C6-N1-C2	-5.41	118.14	120.30
23	DA	2408	U	N3-C4-O4	5.41	123.19	119.40
23	DA	2423	U	C2-N1-C1'	-5.41	111.21	117.70
23	BA	871	U	N3-C2-O2	5.41	125.99	122.20
23	BA	2028	U	C5-C6-N1	-5.41	120.00	122.70
23	BA	2030	A	C8-N9-C4	5.41	107.96	105.80
23	BA	2466	C	N3-C4-N4	5.41	121.79	118.00
23	DA	107	C	C5-C4-N4	-5.41	116.41	120.20
23	DA	1597	A	N1-C6-N6	-5.41	115.35	118.60
1	AA	1460	A	C5-C6-N6	5.41	128.03	123.70
23	BA	1930	G	C8-N9-C1'	5.41	134.03	127.00
23	DA	2098	U	N1-C2-O2	5.41	126.58	122.80
1	AA	1047	G	N3-C4-N9	-5.41	122.76	126.00
23	BA	38	A	C6-N1-C2	-5.41	115.36	118.60
23	BA	116	C	N1-C2-O2	-5.41	115.66	118.90
23	BA	1383	C	N3-C4-C5	-5.41	119.74	121.90
1	CA	1030(D)	A	C8-N9-C4	-5.41	103.64	105.80
23	DA	141	A	C4-C5-C6	5.41	119.70	117.00
23	DA	1252	G	C8-N9-C1'	5.41	134.03	127.00
23	DA	1534	U	C5-C4-O4	-5.41	122.66	125.90
23	DA	1602	U	N3-C4-C5	-5.41	111.36	114.60
23	BA	1791	A	C5-N7-C8	-5.40	101.20	103.90
23	DA	1117	G	C5-C6-O6	-5.40	125.36	128.60
23	DA	2361	A	N9-C4-C5	-5.40	103.64	105.80
23	BA	69	C	C4-C5-C6	5.40	120.10	117.40
23	DA	438	G	C8-N9-C4	-5.40	104.24	106.40
23	DA	444	C	N3-C4-N4	-5.40	114.22	118.00
23	DA	1568	G	C5-C6-N1	5.40	114.20	111.50
23	DA	1600	C	C5-C6-N1	-5.40	118.30	121.00
23	DA	2779	U	N3-C4-C5	5.40	117.84	114.60
23	BA	542	C	C3'-C2'-C1'	-5.40	97.18	101.50
23	BA	640	C	N3-C2-O2	5.40	125.68	121.90
23	BA	830	G	N1-C6-O6	-5.40	116.66	119.90
23	BA	1119	C	C2-N1-C1'	-5.40	112.86	118.80
23	DA	389	G	C8-N9-C4	5.40	108.56	106.40
23	DA	1004	C	N1-C2-O2	-5.40	115.66	118.90
23	DA	2099	U	C5-C6-N1	5.40	125.40	122.70
23	DA	2848	G	N3-C4-C5	-5.40	125.90	128.60
23	BA	130	C	N1-C2-N3	-5.40	115.42	119.20
23	BA	131	G	N1-C2-N2	-5.40	111.34	116.20
23	DA	1653	G	P-O3'-C3'	5.40	126.18	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1254	C	C5-C6-N1	5.40	123.70	121.00
23	DA	2185	C	C5-C4-N4	5.40	123.98	120.20
23	BA	1188	U	N3-C2-O2	5.39	125.98	122.20
23	BA	2063	C	N3-C4-C5	-5.39	119.74	121.90
23	BA	2508	G	C4-C5-N7	-5.39	108.64	110.80
23	DA	265	A	C2-N3-C4	-5.39	107.90	110.60
23	DA	750	A	C8-N9-C4	-5.39	103.64	105.80
23	BA	47	C	C5-C6-N1	-5.39	118.30	121.00
23	BA	154	G	N1-C6-O6	5.39	123.14	119.90
23	DA	1831	G	C8-N9-C4	-5.39	104.24	106.40
1	AA	1174	G	C6-C5-N7	5.39	133.63	130.40
23	BA	69	C	N1-C2-N3	5.39	122.97	119.20
23	BA	281	G	C8-N9-C4	5.39	108.56	106.40
23	BA	750	A	C5-C6-N6	5.39	128.01	123.70
23	BA	2420	C	N3-C2-O2	5.39	125.67	121.90
23	DA	1792	G	C5-N7-C8	5.39	107.00	104.30
23	DA	2567	G	C6-N1-C2	-5.39	121.87	125.10
23	BA	744	G	N1-C6-O6	-5.39	116.67	119.90
23	BA	1698	A	N3-C4-C5	5.39	130.57	126.80
23	DA	335	C	N1-C2-O2	-5.39	115.67	118.90
1	AA	297	G	C8-N9-C4	5.39	108.55	106.40
1	AA	1247	U	C6-N1-C2	-5.39	117.77	121.00
1	AA	1366	C	N1-C2-O2	5.39	122.13	118.90
23	BA	375	C	C2-N3-C4	-5.39	117.21	119.90
23	BA	679	C	N3-C2-O2	5.39	125.67	121.90
23	BA	917	A	N9-C4-C5	-5.39	103.65	105.80
23	BA	2705	A	C6-N1-C2	-5.39	115.37	118.60
1	CA	1096	C	C6-N1-C2	-5.39	118.14	120.30
23	DA	2021	C	C5-C6-N1	-5.39	118.31	121.00
23	DA	2450	A	N7-C8-N9	-5.39	111.11	113.80
23	BA	45	C	N1-C2-N3	5.38	122.97	119.20
23	BA	1348	G	C5-C6-O6	-5.38	125.37	128.60
23	DA	286	C	N1-C2-O2	5.38	122.13	118.90
23	DA	1284	A	N1-C6-N6	5.38	121.83	118.60
23	DA	1615	C	C5-C6-N1	5.38	123.69	121.00
23	DA	1758	G	C4-C5-N7	5.38	112.95	110.80
23	DA	2075	U	C2-N3-C4	-5.38	123.77	127.00
23	DA	2122	U	C2-N3-C4	5.38	130.23	127.00
1	AA	1396	A	C8-N9-C4	-5.38	103.65	105.80
23	BA	1772	G	C8-N9-C4	5.38	108.55	106.40
23	BA	2191	G	N9-C4-C5	-5.38	103.25	105.40
23	DA	191	A	C5-C6-N1	5.38	120.39	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	808	C	N1-C2-O2	-5.38	115.67	118.90
1	AA	1057	G	N9-C4-C5	5.38	107.55	105.40
23	BA	2372	G	C5-C6-O6	-5.38	125.37	128.60
23	BA	1928	A	C5-C6-N1	5.38	120.39	117.70
23	BA	2618	G	C2-N3-C4	5.38	114.59	111.90
23	DA	2304	G	C8-N9-C4	-5.38	104.25	106.40
1	AA	1442(B)	A	C2-N3-C4	-5.38	107.91	110.60
23	BA	1214	A	C5-N7-C8	5.38	106.59	103.90
23	DA	154	G	N1-C6-O6	5.38	123.13	119.90
1	AA	1459	C	O4'-C1'-N1	5.38	112.50	108.20
23	BA	864	G	N3-C4-C5	-5.38	125.91	128.60
23	BA	2024	G	N9-C4-C5	-5.38	103.25	105.40
23	BA	2296	U	N1-C1'-C2'	5.38	120.99	114.00
23	DA	419	C	C6-N1-C2	5.38	122.45	120.30
1	AA	953	G	C5-N7-C8	-5.38	101.61	104.30
1	AA	1274	G	N1-C6-O6	5.38	123.12	119.90
23	BA	780	G	C5-C6-O6	-5.38	125.38	128.60
23	BA	2060	A	C5-C6-N6	5.38	128.00	123.70
23	BA	2411	A	N9-C4-C5	-5.38	103.65	105.80
23	DA	1365	A	C5-C6-N6	-5.38	119.40	123.70
23	DA	1845	G	N1-C6-O6	-5.38	116.67	119.90
23	BA	1708	C	N3-C2-O2	5.37	125.66	121.90
23	BA	2239	G	N1-C6-O6	-5.37	116.68	119.90
23	BA	2383	G	N1-C2-N2	-5.37	111.36	116.20
23	DA	2010	G	C8-N9-C4	-5.37	104.25	106.40
23	DA	2450	A	C8-N9-C4	5.37	107.95	105.80
1	AA	219	C	C6-N1-C2	-5.37	118.15	120.30
23	BA	271(M)	G	N3-C4-N9	5.37	129.22	126.00
23	BA	330	A	C5-N7-C8	-5.37	101.21	103.90
23	BA	729	G	C5-C6-O6	-5.37	125.38	128.60
24	BB	54	G	N9-C4-C5	-5.37	103.25	105.40
1	CA	1378	C	N3-C2-O2	-5.37	118.14	121.90
24	DB	54	G	N3-C4-N9	-5.37	122.78	126.00
1	AA	1314	C	C5-C6-N1	5.37	123.69	121.00
1	AA	1363(A)	A	N7-C8-N9	5.37	116.48	113.80
23	BA	2570	G	N3-C4-N9	-5.37	122.78	126.00
1	CA	940	C	N1-C2-O2	5.37	122.12	118.90
23	DA	276	A	C8-N9-C4	-5.37	103.65	105.80
23	DA	463	G	N3-C4-N9	-5.37	122.78	126.00
23	BA	1740	G	C8-N9-C4	-5.37	104.25	106.40
1	CA	899	C	C6-N1-C2	5.37	122.45	120.30
1	CA	919	A	C2-N3-C4	5.37	113.28	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1274	G	C4-C5-C6	5.37	122.02	118.80
23	DA	291	C	N3-C2-O2	5.37	125.66	121.90
23	DA	827	U	N3-C2-O2	5.37	125.96	122.20
23	DA	1780	A	N1-C2-N3	5.37	131.98	129.30
1	AA	986	A	N1-C6-N6	5.37	121.82	118.60
23	BA	2221	G	N7-C8-N9	5.37	115.78	113.10
31	BN	74	ARG	NE-CZ-NH1	5.37	122.98	120.30
1	AA	1172	C	C5-C6-N1	5.37	123.68	121.00
23	BA	807	U	N3-C4-C5	-5.37	111.38	114.60
23	BA	990	A	N1-C6-N6	5.37	121.82	118.60
23	BA	2271	G	C5-C6-N1	5.37	114.18	111.50
23	DA	602	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	1017	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	2042	A	C2-N3-C4	-5.37	107.92	110.60
23	BA	469	G	N3-C4-C5	-5.36	125.92	128.60
23	BA	2232	U	C5-C6-N1	-5.36	120.02	122.70
23	BA	2606	C	C5-C6-N1	-5.36	118.32	121.00
23	DA	978	G	N7-C8-N9	-5.36	110.42	113.10
23	DA	2244	U	N3-C2-O2	-5.36	118.44	122.20
23	DA	2542	A	C8-N9-C4	5.36	107.94	105.80
23	BA	2048	G	C4-N9-C1'	5.36	133.47	126.50
24	BB	22	U	C6-N1-C2	-5.36	117.78	121.00
23	DA	1617	C	C2-N3-C4	-5.36	117.22	119.90
23	DA	2322	A	C8-N9-C4	-5.36	103.66	105.80
23	BA	418	G	C6-C5-N7	-5.36	127.18	130.40
23	BA	1914	C	N3-C2-O2	-5.36	118.15	121.90
23	BA	2022	U	N1-C2-O2	-5.36	119.05	122.80
23	BA	2071	A	C6-N1-C2	-5.36	115.38	118.60
1	CA	1440	C	C6-N1-C2	5.36	122.44	120.30
23	DA	788	A	C6-C5-N7	-5.36	128.55	132.30
23	DA	1614	A	N1-C6-N6	-5.36	115.38	118.60
23	DA	1773	A	C5-C6-N1	5.36	120.38	117.70
23	DA	1792	G	C4-C5-N7	-5.36	108.66	110.80
1	AA	995	C	C6-N1-C2	-5.36	118.16	120.30
23	BA	783	A	C8-N9-C4	-5.36	103.66	105.80
23	BA	1431	U	C5-C6-N1	5.36	125.38	122.70
24	BB	4	C	C6-N1-C2	5.36	122.44	120.30
23	BA	546	C	C6-N1-C2	-5.36	118.16	120.30
23	BA	556	G	C5-C6-N1	-5.36	108.82	111.50
23	BA	2063	C	N3-C2-O2	5.36	125.65	121.90
23	BA	2590	A	N1-C6-N6	-5.36	115.39	118.60
23	BA	68	G	N1-C2-N3	5.36	127.11	123.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	534	U	C5-C6-N1	-5.36	120.02	122.70
23	BA	1652	A	C2-N3-C4	5.35	113.28	110.60
1	CA	576	G	C4-N9-C1'	5.35	133.46	126.50
23	DA	398	G	C2-N3-C4	-5.35	109.22	111.90
23	DA	2063	C	N3-C2-O2	5.35	125.65	121.90
23	BA	1962	C	C5-C6-N1	5.35	123.67	121.00
23	BA	2497	A	C4-C5-C6	5.35	119.68	117.00
23	DA	2379	G	C4-C5-N7	5.35	112.94	110.80
23	BA	1290	C	C5-C4-N4	5.35	123.94	120.20
23	BA	1799	G	N1-C6-O6	-5.35	116.69	119.90
1	CA	1087	G	C8-N9-C1'	-5.35	120.05	127.00
1	CA	1149	C	C6-N1-C2	-5.35	118.16	120.30
23	DA	2449	U	C2-N3-C4	-5.35	123.79	127.00
42	DY	76	CYS	CA-CB-SG	5.35	123.63	114.00
23	BA	512	G	N1-C2-N2	-5.35	111.39	116.20
23	BA	1222	C	C2-N1-C1'	-5.35	112.92	118.80
23	BA	2432	A	N7-C8-N9	-5.35	111.13	113.80
1	CA	234	C	N1-C2-O2	5.35	122.11	118.90
1	CA	1006	C	C2-N3-C4	5.35	122.57	119.90
23	DA	784	A	C4-N9-C1'	-5.35	116.67	126.30
23	DA	1582	C	C6-N1-C2	5.35	122.44	120.30
23	BA	2051	A	N9-C4-C5	5.35	107.94	105.80
23	BA	1424	G	N1-C2-N3	5.34	127.11	123.90
23	DA	1320	C	N3-C4-N4	5.34	121.74	118.00
23	DA	1381	G	C5-C6-O6	5.34	131.81	128.60
1	AA	1460	A	C5-N7-C8	5.34	106.57	103.90
23	BA	2510	C	N3-C4-N4	-5.34	114.26	118.00
1	CA	177	C	C6-N1-C2	-5.34	118.16	120.30
23	DA	1338	G	C2-N3-C4	5.34	114.57	111.90
23	DA	1671	U	N3-C4-C5	5.34	117.81	114.60
23	BA	2491	U	C5-C4-O4	-5.34	122.69	125.90
23	BA	2723	C	N1-C2-O2	5.34	122.11	118.90
24	BB	42	C	C6-N1-C2	5.34	122.44	120.30
1	CA	1274	G	N1-C6-O6	5.34	123.10	119.90
1	CA	1519	A	C5-C6-N6	5.34	127.97	123.70
23	DA	76	C	C2-N3-C4	-5.34	117.23	119.90
23	DA	1581	G	C4-C5-N7	5.34	112.94	110.80
23	BA	1544	A	N9-C4-C5	5.34	107.94	105.80
23	BA	2248	C	N1-C2-N3	5.34	122.94	119.20
23	BA	2503	A	C6-C5-N7	-5.34	128.56	132.30
23	BA	2588	G	C8-N9-C4	-5.34	104.26	106.40
1	CA	1323	G	N3-C4-N9	5.34	129.20	126.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	D4	42	PHE	C-N-CA	5.34	135.05	121.70
23	DA	2709	G	N3-C4-C5	-5.34	125.93	128.60
23	BA	446	G	N9-C4-C5	-5.34	103.27	105.40
23	BA	577	G	N3-C4-N9	5.34	129.20	126.00
23	BA	2690	C	C6-N1-C2	-5.34	118.17	120.30
23	DA	2142	C	C5-C6-N1	5.34	123.67	121.00
23	DA	2661	G	N9-C4-C5	-5.34	103.27	105.40
1	AA	398	C	N3-C4-N4	-5.33	114.27	118.00
1	AA	1012	U	C5-C6-N1	5.33	125.37	122.70
23	BA	546	C	N3-C4-N4	5.33	121.73	118.00
23	BA	1338	G	N3-C2-N2	5.33	123.64	119.90
24	BB	116	G	C2-N3-C4	-5.33	109.23	111.90
23	DA	799	G	C4-C5-N7	-5.33	108.67	110.80
23	BA	690	G	C6-N1-C2	-5.33	121.90	125.10
23	BA	806	C	C5-C4-N4	-5.33	116.47	120.20
23	BA	978	G	N3-C2-N2	5.33	123.63	119.90
23	BA	1039	G	C4-N9-C1'	-5.33	119.57	126.50
1	CA	1462	G	N3-C2-N2	-5.33	116.17	119.90
2	CB	169	LYS	N-CA-C	-5.33	96.60	111.00
23	DA	2449	U	C5-C4-O4	-5.33	122.70	125.90
1	AA	1293	G	N9-C4-C5	5.33	107.53	105.40
2	AB	169	LYS	N-CA-C	-5.33	96.61	111.00
23	BA	932	G	C6-N1-C2	-5.33	121.90	125.10
1	CA	1041	A	N1-C6-N6	-5.33	115.40	118.60
23	DA	1331	A	N7-C8-N9	-5.33	111.13	113.80
23	DA	1651	G	N1-C6-O6	5.33	123.10	119.90
23	BA	377	C	C5-C4-N4	-5.33	116.47	120.20
23	BA	448	U	N1-C2-O2	-5.33	119.07	122.80
23	BA	772	C	N3-C4-C5	-5.33	119.77	121.90
23	BA	910	A	C4-C5-N7	-5.33	108.04	110.70
23	BA	1335	U	C4-C5-C6	5.33	122.90	119.70
1	CA	1083	U	N1-C2-O2	-5.33	119.07	122.80
1	CA	1390	U	N1-C2-O2	-5.33	119.07	122.80
23	DA	143	G	C4-N9-C1'	-5.33	119.57	126.50
23	DA	375	C	C5-C6-N1	-5.33	118.34	121.00
23	DA	1325	G	C8-N9-C4	5.33	108.53	106.40
23	DA	1925	C	N1-C2-O2	-5.33	115.70	118.90
35	DR	72	ASP	CB-CG-OD2	5.33	123.09	118.30
1	CA	246	A	C8-N9-C4	5.33	107.93	105.80
1	CA	365	U	C6-N1-C1'	5.33	128.66	121.20
1	CA	1038	C	N3-C4-C5	-5.33	119.77	121.90
23	BA	529	A	C8-N9-C4	-5.32	103.67	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1226	A	N1-C2-N3	-5.32	126.64	129.30
23	BA	1459	G	N3-C4-C5	-5.32	125.94	128.60
23	BA	1833	U	N1-C2-N3	5.32	118.09	114.90
23	BA	2451	A	N1-C6-N6	-5.32	115.41	118.60
24	DB	101	G	N3-C2-N2	5.32	123.63	119.90
23	BA	252	G	N1-C2-N3	5.32	127.09	123.90
23	BA	2572	A	C5-N7-C8	-5.32	101.24	103.90
23	DA	2699	C	C6-N1-C2	5.32	122.43	120.30
23	BA	60	G	N3-C4-C5	5.32	131.26	128.60
23	BA	2066	C	C2-N3-C4	-5.32	117.24	119.90
23	DA	140	G	N9-C4-C5	-5.32	103.27	105.40
23	DA	2332	U	N3-C4-O4	-5.32	115.68	119.40
23	DA	2593	U	N1-C2-N3	5.32	118.09	114.90
23	BA	1238	G	C5-C6-O6	-5.32	125.41	128.60
23	DA	1010	A	C8-N9-C4	5.32	107.93	105.80
23	DA	2070	G	N1-C2-N2	-5.32	111.41	116.20
1	AA	1204	A	N9-C4-C5	5.32	107.93	105.80
23	BA	1121	C	C5-C6-N1	-5.32	118.34	121.00
23	BA	1434	A	N1-C6-N6	-5.32	115.41	118.60
23	BA	1997	G	C2-N3-C4	5.32	114.56	111.90
23	BA	2689	U	C6-N1-C2	-5.32	117.81	121.00
24	BB	7	G	N1-C6-O6	5.32	123.09	119.90
23	DA	987	G	N3-C4-N9	-5.32	122.81	126.00
23	DA	1272	A	C5-C6-N6	5.32	127.95	123.70
23	DA	1381	G	N1-C6-O6	-5.32	116.71	119.90
23	BA	70	G	C8-N9-C4	-5.32	104.27	106.40
23	BA	271(K)	U	C2-N1-C1'	5.32	124.08	117.70
23	BA	1204	A	C4-C5-C6	5.32	119.66	117.00
23	BA	1696	G	N1-C6-O6	-5.32	116.71	119.90
31	BN	33	LEU	CA-CB-CG	5.32	127.53	115.30
23	DA	203	C	C5-C4-N4	-5.32	116.48	120.20
23	DA	2680	C	N3-C4-C5	5.32	124.03	121.90
1	AA	991	U	C6-N1-C2	-5.31	117.81	121.00
23	BA	959	A	N9-C4-C5	5.31	107.93	105.80
23	BA	1708	C	N3-C4-C5	5.31	124.03	121.90
1	CA	1442	G	N3-C4-N9	5.31	129.19	126.00
23	DA	2344	U	N1-C2-O2	5.31	126.52	122.80
23	BA	2070	G	C5-N7-C8	5.31	106.96	104.30
23	BA	2500	U	N3-C4-O4	-5.31	115.68	119.40
23	DA	1207	C	C5-C4-N4	-5.31	116.48	120.20
23	DA	2010	G	C5-C6-N1	-5.31	108.84	111.50
23	DA	2195	C	C2-N1-C1'	-5.31	112.96	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2409	G	C6-C5-N7	-5.31	127.21	130.40
23	BA	2673	G	C5-N7-C8	-5.31	101.64	104.30
1	AA	1285	A	C4-N9-C1'	-5.31	116.75	126.30
1	AA	1323	G	C3'-C2'-C1'	-5.31	97.25	101.50
1	AA	1442	G	N3-C4-N9	5.31	129.19	126.00
23	BA	664	C	C6-N1-C2	5.31	122.42	120.30
23	BA	2163	C	C6-N1-C2	-5.31	118.18	120.30
23	BA	2476	A	C4-C5-C6	5.31	119.66	117.00
45	B1	46	LEU	CA-CB-CG	5.31	127.51	115.30
1	CA	393	A	C8-N9-C4	-5.31	103.68	105.80
1	CA	893	C	C6-N1-C2	5.31	122.42	120.30
1	CA	980	C	N1-C2-O2	5.31	122.09	118.90
23	DA	1374	G	C2-N3-C4	-5.31	109.25	111.90
1	AA	1002	G	N3-C4-C5	-5.31	125.95	128.60
23	BA	59	U	C6-N1-C1'	-5.31	113.77	121.20
23	BA	521	G	N9-C4-C5	5.31	107.52	105.40
23	BA	726	G	C4-C5-N7	-5.31	108.68	110.80
23	DA	275	G	C4-N9-C1'	5.31	133.40	126.50
23	DA	333	G	C6-C5-N7	-5.31	127.22	130.40
23	DA	1681	G	N1-C6-O6	5.31	123.08	119.90
5	CE	65	ASN	N-CA-C	-5.31	96.67	111.00
10	CJ	16	LEU	CA-CB-CG	5.31	127.50	115.30
23	DA	1763	G	N7-C8-N9	-5.31	110.45	113.10
23	BA	1149	G	N1-C6-O6	5.30	123.08	119.90
23	BA	1773	A	C5-C6-N1	5.30	120.35	117.70
23	DA	121	G	C4-C5-N7	5.30	112.92	110.80
23	DA	1800	C	C4-C5-C6	5.30	120.05	117.40
23	BA	2016	U	N3-C2-O2	-5.30	118.49	122.20
1	CA	500	G	C5-C6-O6	5.30	131.78	128.60
1	AA	947	G	C4-C5-N7	5.30	112.92	110.80
23	BA	1974	C	N1-C2-O2	5.30	122.08	118.90
1	CA	1149	C	C5-C6-N1	5.30	123.65	121.00
23	DA	978	G	N9-C4-C5	-5.30	103.28	105.40
23	DA	2643	G	N1-C6-O6	5.30	123.08	119.90
23	BA	2163	C	C5-C6-N1	5.30	123.65	121.00
23	BA	2755	C	C5-C6-N1	5.30	123.65	121.00
23	DA	39	C	N3-C2-O2	-5.30	118.19	121.90
23	DA	74	A	N7-C8-N9	5.30	116.45	113.80
23	DA	574	C	C5-C4-N4	5.30	123.91	120.20
23	DA	1970	A	N9-C4-C5	-5.30	103.68	105.80
30	DI	72	LEU	CA-CB-CG	5.30	127.49	115.30
23	BA	792	G	N3-C4-C5	-5.30	125.95	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1030	C	C6-N1-C1'	-5.30	114.44	120.80
23	DA	511	U	C2-N1-C1'	5.30	124.06	117.70
23	BA	645	C	C5-C6-N1	5.30	123.65	121.00
23	BA	1302	A	C8-N9-C4	5.30	107.92	105.80
23	BA	1539	G	N1-C6-O6	5.30	123.08	119.90
24	BB	60	C	C5-C6-N1	5.30	123.65	121.00
23	DA	844	C	C6-N1-C2	5.30	122.42	120.30
23	DA	2181	G	N3-C2-N2	5.30	123.61	119.90
23	DA	2591	C	N3-C4-C5	5.30	124.02	121.90
1	CA	1123	A	N3-C4-C5	-5.29	123.09	126.80
1	CA	1195	C	C5-C6-N1	5.29	123.65	121.00
23	DA	860	U	N1-C2-N3	5.29	118.08	114.90
23	DA	2380	C	N3-C4-C5	5.29	124.02	121.90
1	AA	6	G	C4-N9-C1'	5.29	133.38	126.50
1	AA	997	U	C5-C4-O4	5.29	129.08	125.90
23	BA	454	A	N9-C4-C5	5.29	107.92	105.80
1	CA	945	G	C8-N9-C4	5.29	108.52	106.40
23	DA	1247	A	N7-C8-N9	-5.29	111.15	113.80
1	AA	615	C	C6-N1-C2	-5.29	118.18	120.30
1	AA	1220	G	N1-C6-O6	5.29	123.08	119.90
23	BA	608	A	C2-N3-C4	-5.29	107.95	110.60
1	CA	697	U	C6-N1-C2	5.29	124.17	121.00
23	DA	252	G	N1-C2-N3	5.29	127.08	123.90
1	AA	1247	U	C2-N1-C1'	5.29	124.05	117.70
23	BA	1312	U	C5-C6-N1	-5.29	120.06	122.70
23	DA	1831	G	N1-C2-N2	-5.29	111.44	116.20
1	AA	366	C	C5-C6-N1	-5.29	118.36	121.00
23	BA	481	G	N9-C4-C5	5.29	107.52	105.40
23	BA	981	A	N7-C8-N9	-5.29	111.16	113.80
23	BA	2186	G	C5-C6-O6	5.29	131.77	128.60
1	CA	1386	G	C6-C5-N7	5.29	133.57	130.40
23	DA	305	U	C6-N1-C2	5.29	124.17	121.00
23	DA	1415	U	C5-C4-O4	5.29	129.07	125.90
1	CA	105	G	C8-N9-C4	-5.29	104.28	106.40
23	DA	103	A	N7-C8-N9	-5.29	111.16	113.80
23	DA	377	C	C5-C4-N4	-5.29	116.50	120.20
23	DA	953	A	N1-C6-N6	-5.29	115.43	118.60
23	DA	2883	A	C5-C6-N6	-5.29	119.47	123.70
23	BA	1546	C	C5-C6-N1	5.29	123.64	121.00
23	BA	2487	G	C4-C5-N7	5.29	112.91	110.80
23	DA	178	G	N1-C6-O6	-5.29	116.73	119.90
23	DA	1382	G	N9-C4-C5	-5.29	103.29	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1794	U	N3-C4-C5	5.29	117.77	114.60
23	DA	2383	G	N3-C4-C5	-5.29	125.96	128.60
23	BA	332	A	N9-C4-C5	5.28	107.91	105.80
23	BA	2379	G	C8-N9-C1'	-5.28	120.13	127.00
35	BR	60	LEU	CA-CB-CG	5.28	127.45	115.30
22	CV	9	LEU	CA-CB-CG	5.28	127.45	115.30
1	AA	1207	G	N9-C4-C5	-5.28	103.29	105.40
23	DA	440	G	N1-C6-O6	-5.28	116.73	119.90
23	DA	682	G	C2-N3-C4	-5.28	109.26	111.90
23	DA	2587	A	N7-C8-N9	5.28	116.44	113.80
1	AA	960	U	C2-N3-C4	5.28	130.17	127.00
23	BA	690	G	C2-N3-C4	5.28	114.54	111.90
23	DA	1788	C	C2-N1-C1'	5.28	124.61	118.80
23	DA	2027	G	C6-N1-C2	-5.28	121.93	125.10
23	DA	2513	G	C8-N9-C4	-5.28	104.29	106.40
23	BA	2387	U	C2-N3-C4	-5.28	123.83	127.00
24	BB	29	A	C8-N9-C4	-5.28	103.69	105.80
1	CA	358	U	C5-C4-O4	5.28	129.07	125.90
23	DA	995	C	N3-C4-C5	-5.28	119.79	121.90
23	DA	1227	G	N1-C6-O6	5.28	123.07	119.90
23	DA	2826	A	N1-C6-N6	-5.28	115.43	118.60
23	BA	202	U	C6-N1-C2	5.28	124.17	121.00
23	BA	205	G	N7-C8-N9	-5.28	110.46	113.10
23	BA	600	G	N1-C2-N2	-5.28	111.45	116.20
23	BA	611	C	N3-C2-O2	-5.28	118.21	121.90
23	BA	1219	G	N9-C4-C5	-5.28	103.29	105.40
23	BA	1998	G	N1-C6-O6	5.28	123.06	119.90
23	DA	1389	G	N3-C4-C5	-5.28	125.96	128.60
23	DA	1698	A	N1-C2-N3	5.27	131.94	129.30
1	AA	960	U	N1-C2-O2	5.27	126.49	122.80
1	AA	1224	G	C4-N9-C1'	-5.27	119.64	126.50
23	BA	40	C	N1-C2-O2	-5.27	115.74	118.90
23	BA	113	G	N1-C6-O6	5.27	123.06	119.90
23	BA	2363	C	C2-N3-C4	-5.27	117.26	119.90
23	DA	337	C	C6-N1-C2	5.27	122.41	120.30
23	DA	570	G	C4-C5-N7	5.27	112.91	110.80
23	DA	602	G	N9-C4-C5	-5.27	103.29	105.40
23	DA	764	A	C4-C5-C6	-5.27	114.36	117.00
23	DA	1118	C	C6-N1-C2	-5.27	118.19	120.30
1	AA	1364	U	C6-N1-C2	-5.27	117.84	121.00
23	BA	1191	G	N9-C4-C5	5.27	107.51	105.40
1	CA	839	U	C6-N1-C1'	-5.27	113.82	121.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	994	A	C5-C6-N6	-5.27	119.48	123.70
23	BA	146	G	C4-C5-N7	-5.27	108.69	110.80
23	BA	2319	G	C8-N9-C4	-5.27	104.29	106.40
23	BA	2562	U	C2-N3-C4	-5.27	123.84	127.00
23	DA	2678	C	C5-C6-N1	-5.27	118.36	121.00
1	AA	1207	G	C4-C5-N7	5.27	112.91	110.80
23	BA	1641	A	N1-C2-N3	5.27	131.93	129.30
23	BA	2615	U	N3-C4-C5	5.27	117.76	114.60
23	DA	386	G	N1-C2-N2	-5.27	111.46	116.20
23	DA	602	G	C8-N9-C4	5.27	108.51	106.40
1	CA	1304	G	C2-N3-C4	5.27	114.53	111.90
23	DA	949	C	C5-C4-N4	-5.27	116.51	120.20
23	BA	594	U	C5-C4-O4	5.26	129.06	125.90
23	BA	914	C	N1-C2-O2	5.26	122.06	118.90
23	BA	1204	A	C5-C6-N6	-5.26	119.49	123.70
23	BA	1661	G	C4-C5-N7	-5.26	108.69	110.80
23	BA	2072	G	N1-C6-O6	5.26	123.06	119.90
23	BA	2182	G	C5-C6-N1	-5.26	108.87	111.50
23	BA	2700	C	C5-C4-N4	-5.26	116.52	120.20
23	DA	221	A	N7-C8-N9	5.26	116.43	113.80
23	DA	686	G	C4-C5-N7	5.26	112.91	110.80
23	DA	756	C	C6-N1-C2	-5.26	118.19	120.30
23	DA	1153	C	N3-C2-O2	5.26	125.58	121.90
23	BA	2616	C	N1-C2-N3	5.26	122.88	119.20
23	BA	2622	C	N3-C2-O2	-5.26	118.22	121.90
1	CA	1460	A	C5-C6-N6	5.26	127.91	123.70
23	BA	839	U	C6-N1-C2	-5.26	117.84	121.00
23	BA	2237	G	N3-C2-N2	5.26	123.58	119.90
23	DA	2193	G	N3-C4-C5	5.26	131.23	128.60
23	DA	2568	C	C5-C6-N1	-5.26	118.37	121.00
23	BA	745	G	N7-C8-N9	5.26	115.73	113.10
23	BA	2071	A	N3-C4-C5	-5.26	123.12	126.80
23	DA	686	G	N3-C2-N2	5.26	123.58	119.90
23	BA	2005	A	N1-C2-N3	-5.26	126.67	129.30
23	DA	1977	A	C5-N7-C8	5.26	106.53	103.90
23	BA	567	A	N1-C6-N6	5.26	121.75	118.60
23	BA	734	A	N1-C6-N6	5.26	121.75	118.60
23	BA	2142	C	C5-C6-N1	5.26	123.63	121.00
23	DA	14	A	N7-C8-N9	5.26	116.43	113.80
23	DA	2252	G	C8-N9-C4	5.26	108.50	106.40
24	DB	84	C	C2-N1-C1'	-5.26	113.02	118.80
23	BA	1831	G	C5-C6-O6	5.25	131.75	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	303	U	N3-C4-O4	-5.25	115.72	119.40
23	DA	1617	C	C6-N1-C2	5.25	122.40	120.30
23	DA	1703	G	C4-N9-C1'	5.25	133.33	126.50
23	DA	2383	G	N1-C2-N2	-5.25	111.47	116.20
1	AA	576	G	C8-N9-C1'	-5.25	120.17	127.00
23	BA	533	G	N7-C8-N9	5.25	115.73	113.10
23	BA	568	U	N3-C4-O4	5.25	123.08	119.40
23	BA	2509	G	C5-C6-N1	5.25	114.13	111.50
23	BA	2692	C	N1-C2-N3	5.25	122.88	119.20
23	DA	866	A	C5-N7-C8	-5.25	101.27	103.90
23	DA	1049	C	N1-C2-O2	5.25	122.05	118.90
23	DA	1962	C	N3-C2-O2	5.25	125.58	121.90
23	DA	1992	G	P-O3'-C3'	5.25	126.00	119.70
23	DA	2033	A	C2-N3-C4	5.25	113.23	110.60
1	AA	561	U	N3-C2-O2	5.25	125.88	122.20
1	AA	935	A	C8-N9-C4	-5.25	103.70	105.80
23	BA	2098	U	C5-C6-N1	5.25	125.33	122.70
23	BA	2268	A	N1-C6-N6	5.25	121.75	118.60
47	B3	30	ARG	NE-CZ-NH1	5.25	122.93	120.30
1	CA	1432	G	N3-C4-C5	5.25	131.22	128.60
23	BA	669	G	C4-C5-N7	5.25	112.90	110.80
23	BA	1331	A	C2-N3-C4	-5.25	107.97	110.60
23	BA	2387	U	N1-C2-N3	5.25	118.05	114.90
1	CA	674	G	C5-C6-O6	-5.25	125.45	128.60
23	BA	47	C	N3-C2-O2	-5.25	118.23	121.90
23	BA	205	G	C5-N7-C8	5.25	106.92	104.30
23	BA	556	G	C6-N1-C2	5.25	128.25	125.10
23	BA	613	G	N1-C6-O6	5.25	123.05	119.90
48	B4	42	PHE	C-N-CA	5.25	134.82	121.70
23	DA	1569	A	N1-C6-N6	-5.25	115.45	118.60
1	AA	1099	G	C8-N9-C1'	-5.25	120.18	127.00
23	BA	1788	C	C2-N1-C1'	5.25	124.57	118.80
23	BA	2361	A	C4-C5-N7	5.25	113.32	110.70
23	BA	2439	A	N7-C8-N9	5.25	116.42	113.80
23	BA	2505	G	N3-C2-N2	5.25	123.57	119.90
23	DA	791	C	C2-N3-C4	-5.25	117.28	119.90
23	DA	1348	G	C4-C5-N7	5.25	112.90	110.80
23	DA	1698	A	C5-C6-N1	-5.25	115.08	117.70
23	BA	2571	C	C6-N1-C1'	-5.25	114.51	120.80
24	BB	1	U	C5-C6-N1	5.25	125.32	122.70
23	DA	334	C	C6-N1-C2	5.25	122.40	120.30
1	AA	963	G	C4-C5-N7	-5.24	108.70	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1058	G	N7-C8-N9	5.24	115.72	113.10
23	BA	1630	G	C8-N9-C4	-5.24	104.30	106.40
23	DA	221	A	N9-C4-C5	5.24	107.90	105.80
23	DA	834	C	C6-N1-C2	-5.24	118.20	120.30
23	DA	928	G	C8-N9-C1'	-5.24	120.18	127.00
23	DA	1120	G	N1-C6-O6	5.24	123.05	119.90
23	DA	1244	G	N3-C4-C5	5.24	131.22	128.60
23	DA	2325	G	C4-N9-C1'	5.24	133.32	126.50
23	BA	2335	A	C8-N9-C4	5.24	107.90	105.80
23	BA	2492	U	C6-N1-C2	-5.24	117.86	121.00
23	DA	1389	G	N1-C2-N2	-5.24	111.48	116.20
23	BA	2345	G	N9-C4-C5	5.24	107.50	105.40
23	BA	2709	G	N3-C4-N9	5.24	129.14	126.00
1	CA	727	G	N1-C6-O6	-5.24	116.76	119.90
23	BA	737	C	C5-C6-N1	-5.24	118.38	121.00
23	BA	755	C	N3-C4-C5	-5.24	119.81	121.90
23	BA	2621	A	C2-N3-C4	-5.24	107.98	110.60
23	DA	192	C	C2-N1-C1'	-5.24	113.04	118.80
1	AA	1056	U	C6-N1-C2	-5.24	117.86	121.00
1	CA	266	G	N3-C4-N9	-5.24	122.86	126.00
1	AA	530	G	C8-N9-C1'	-5.24	120.19	127.00
1	AA	1082	G	N3-C4-N9	5.24	129.14	126.00
23	BA	291	C	N3-C2-O2	5.24	125.56	121.90
23	BA	331	A	C6-N1-C2	-5.24	115.46	118.60
23	BA	2013	A	C5-C6-N1	5.24	120.32	117.70
24	BB	56	G	N1-C6-O6	-5.24	116.76	119.90
1	CA	629	G	C8-N9-C4	-5.24	104.31	106.40
23	DA	946	G	C8-N9-C4	5.24	108.49	106.40
23	BA	1861	G	C8-N9-C1'	5.23	133.80	127.00
23	BA	2045	C	C5-C6-N1	-5.23	118.38	121.00
23	BA	2294	C	N1-C2-O2	5.23	122.04	118.90
1	CA	865	A	C8-N9-C4	-5.23	103.71	105.80
23	DA	1319	G	C4-N9-C1'	5.23	133.30	126.50
23	DA	2452	C	N3-C4-C5	-5.23	119.81	121.90
23	BA	254	G	N3-C4-C5	-5.23	125.98	128.60
23	BA	1275	A	C2-N3-C4	-5.23	107.98	110.60
1	CA	1274	G	N3-C4-N9	5.23	129.14	126.00
23	DA	261	G	C5-C6-N1	5.23	114.12	111.50
23	DA	1544	A	N1-C6-N6	-5.23	115.46	118.60
23	DA	2052	G	N7-C8-N9	-5.23	110.48	113.10
23	BA	1573	G	C8-N9-C4	5.23	108.49	106.40
23	BA	2430	A	C2-N3-C4	-5.23	107.99	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B8	57	ARG	NE-CZ-NH2	5.23	122.92	120.30
1	CA	292	G	C8-N9-C4	-5.23	104.31	106.40
23	BA	177	G	N3-C2-N2	5.23	123.56	119.90
23	BA	1795	C	N3-C4-C5	5.23	123.99	121.90
23	BA	2261	C	C4-C5-C6	5.23	120.01	117.40
23	BA	2480	C	C6-N1-C2	-5.23	118.21	120.30
23	DA	671	C	C2-N3-C4	-5.23	117.29	119.90
23	DA	673	C	C5-C6-N1	-5.23	118.39	121.00
23	DA	1168	G	C5-C6-O6	-5.23	125.46	128.60
23	DA	2619	C	N3-C4-C5	5.23	123.99	121.90
1	AA	972	C	C6-N1-C1'	5.22	127.07	120.80
1	AA	1269	A	N7-C8-N9	5.22	116.41	113.80
23	BA	171	G	N3-C2-N2	5.22	123.56	119.90
23	BA	531	C	C5-C4-N4	-5.22	116.54	120.20
23	BA	1365	A	C8-N9-C4	5.22	107.89	105.80
23	BA	2293	C	C6-N1-C2	5.22	122.39	120.30
23	BA	2848	G	C5-N7-C8	5.22	106.91	104.30
23	DA	72	U	C5-C6-N1	-5.22	120.09	122.70
23	DA	777	A	C5-N7-C8	5.22	106.51	103.90
23	DA	2543	G	C5-C6-N1	-5.22	108.89	111.50
1	AA	1373	G	C4-N9-C1'	5.22	133.29	126.50
23	BA	613	G	C5-C6-O6	-5.22	125.47	128.60
23	BA	1338	G	C5-C6-O6	5.22	131.73	128.60
23	BA	1980	G	N3-C4-C5	-5.22	125.99	128.60
23	BA	2245	U	C6-N1-C2	5.22	124.13	121.00
23	BA	2489	G	C8-N9-C1'	-5.22	120.21	127.00
24	DB	109	C	C6-N1-C2	5.22	122.39	120.30
23	DA	1259	G	C5-N7-C8	5.22	106.91	104.30
23	DA	2047	U	C5-C4-O4	-5.22	122.77	125.90
23	DA	738	G	N1-C6-O6	-5.22	116.77	119.90
23	DA	2340	G	C8-N9-C4	5.22	108.49	106.40
23	DA	2538	C	C2-N1-C1'	-5.22	113.06	118.80
23	BA	1398	C	C5-C6-N1	5.22	123.61	121.00
23	BA	26	G	C6-C5-N7	-5.22	127.27	130.40
23	BA	1493	C	C6-N1-C1'	-5.22	114.54	120.80
1	CA	1334	G	N3-C4-N9	5.22	129.13	126.00
23	DA	303	U	C5-C4-O4	5.22	129.03	125.90
1	AA	1126	U	N1-C2-O2	5.21	126.45	122.80
23	BA	529	A	N7-C8-N9	5.21	116.41	113.80
23	BA	1429	G	C4-N9-C1'	5.21	133.28	126.50
23	BA	1931	U	C5-C6-N1	5.21	125.31	122.70
23	BA	2008	C	C4-C5-C6	5.21	120.01	117.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1194	U	C6-N1-C2	-5.21	117.87	121.00
23	DA	84	A	C5-C6-N1	5.21	120.31	117.70
23	DA	495	G	C8-N9-C4	5.21	108.49	106.40
23	DA	571	A	N1-C6-N6	5.21	121.73	118.60
23	DA	1605	C	N3-C2-O2	-5.21	118.25	121.90
23	DA	1631	C	N1-C2-O2	-5.21	115.77	118.90
23	DA	2084	C	C5-C6-N1	-5.21	118.39	121.00
23	BA	271(K)	U	N1-C2-O2	5.21	126.45	122.80
23	BA	1319	G	N7-C8-N9	5.21	115.71	113.10
23	BA	61	G	N1-C2-N3	5.21	127.03	123.90
23	BA	119	A	N1-C6-N6	-5.21	115.47	118.60
23	BA	2325	G	C8-N9-C1'	-5.21	120.22	127.00
23	DA	2523	G	C8-N9-C4	-5.21	104.32	106.40
23	DA	2554	U	N1-C2-O2	-5.21	119.15	122.80
23	BA	1299	G	C5-C6-N1	-5.21	108.89	111.50
23	BA	2248	C	C2-N3-C4	-5.21	117.30	119.90
1	CA	980	C	C6-N1-C2	-5.21	118.22	120.30
23	DA	1576	U	N3-C2-O2	-5.21	118.55	122.20
23	BA	189	G	C6-N1-C2	-5.21	121.97	125.10
23	BA	2630	G	C5-C6-O6	-5.21	125.47	128.60
23	DA	398	G	C5-C6-O6	-5.21	125.47	128.60
23	DA	665	C	N3-C2-O2	-5.21	118.25	121.90
23	DA	734	A	C2-N3-C4	-5.21	108.00	110.60
23	DA	768	G	C5-N7-C8	5.21	106.90	104.30
23	DA	2791	C	C6-N1-C1'	-5.21	114.55	120.80
23	BA	118	A	N7-C8-N9	-5.21	111.20	113.80
23	BA	454	A	C8-N9-C4	-5.21	103.72	105.80
23	DA	602	G	N1-C6-O6	5.21	123.02	119.90
23	DA	794	G	C5-N7-C8	5.21	106.90	104.30
1	AA	822	C	C6-N1-C2	5.21	122.38	120.30
23	DA	680	G	C2-N3-C4	-5.21	109.30	111.90
23	DA	2512	C	C6-N1-C2	5.21	122.38	120.30
1	AA	1221	G	C2-N3-C4	5.20	114.50	111.90
23	BA	1252	G	C4-N9-C1'	-5.20	119.73	126.50
23	BA	1802	A	C6-N1-C2	-5.20	115.48	118.60
23	BA	2019	A	C6-N1-C2	-5.20	115.48	118.60
24	BB	75	G	C6-N1-C2	-5.20	121.98	125.10
1	CA	1042	G	N3-C4-N9	-5.20	122.88	126.00
23	DA	749	C	C2-N1-C1'	5.20	124.52	118.80
23	DA	811	U	N1-C2-N3	5.20	118.02	114.90
23	BA	949	C	C4-C5-C6	5.20	120.00	117.40
23	BA	2248	C	C4-C5-C6	5.20	120.00	117.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2501	C	C6-N1-C2	5.20	122.38	120.30
23	BA	74	A	C8-N9-C4	-5.20	103.72	105.80
23	BA	1296	G	N7-C8-N9	5.20	115.70	113.10
23	BA	2145	C	C5-C6-N1	5.20	123.60	121.00
23	BA	2589	A	N1-C6-N6	5.20	121.72	118.60
23	DA	645	C	C6-N1-C2	-5.20	118.22	120.30
23	DA	1558	A	N1-C2-N3	5.20	131.90	129.30
23	DA	2504	U	N3-C4-O4	-5.20	115.76	119.40
23	BA	1124	C	N1-C2-O2	-5.20	115.78	118.90
24	BB	74	U	C4-C5-C6	5.20	122.82	119.70
1	CA	114	U	N3-C2-O2	-5.20	118.56	122.20
23	DA	195	A	C6-C5-N7	-5.20	128.66	132.30
23	DA	2449	U	C2-N1-C1'	5.20	123.94	117.70
1	AA	77	G	C6-N1-C2	5.20	128.22	125.10
1	AA	1343	G	N9-C4-C5	5.20	107.48	105.40
23	BA	1359	A	C6-C5-N7	5.20	135.94	132.30
23	BA	2620	C	C6-N1-C1'	-5.20	114.56	120.80
23	DA	696	G	C2-N3-C4	5.20	114.50	111.90
1	AA	1356	G	C6-N1-C2	5.20	128.22	125.10
23	BA	27	G	C8-N9-C4	-5.20	104.32	106.40
23	BA	956	G	C4-C5-C6	5.20	121.92	118.80
23	BA	2104	G	C8-N9-C1'	-5.20	120.25	127.00
23	BA	2411	A	N1-C6-N6	5.20	121.72	118.60
23	BA	2486	G	C8-N9-C1'	-5.20	120.25	127.00
23	DA	658	C	C6-N1-C2	-5.20	118.22	120.30
23	DA	1544	A	N9-C4-C5	5.20	107.88	105.80
23	DA	2241	A	N1-C2-N3	5.20	131.90	129.30
23	DA	2378	A	C8-N9-C4	5.20	107.88	105.80
23	BA	749	C	C2-N1-C1'	5.19	124.51	118.80
23	BA	2295	C	C5-C4-N4	-5.19	116.56	120.20
23	DA	271(J)	C	C6-N1-C2	5.19	122.38	120.30
23	DA	1315	C	N3-C2-O2	-5.19	118.27	121.90
1	AA	43	C	N3-C4-N4	-5.19	114.37	118.00
1	AA	947	G	N9-C4-C5	-5.19	103.32	105.40
23	BA	534	U	N1-C2-O2	-5.19	119.17	122.80
23	BA	788	A	C4-C5-C6	5.19	119.59	117.00
23	BA	1611	C	N3-C2-O2	-5.19	118.27	121.90
23	DA	599	G	N1-C6-O6	5.19	123.01	119.90
23	DA	825	C	N3-C4-C5	-5.19	119.82	121.90
1	AA	1237	C	C5-C6-N1	5.19	123.59	121.00
23	BA	1036	G	N9-C4-C5	-5.19	103.32	105.40
1	CA	1395	C	C2-N3-C4	5.19	122.49	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	42	G	C8-N9-C4	5.19	108.47	106.40
23	BA	141	A	N1-C2-N3	5.19	131.89	129.30
23	BA	271	A	N1-C2-N3	5.19	131.89	129.30
23	BA	778	G	N1-C6-O6	-5.19	116.79	119.90
23	BA	1200	C	C5-C6-N1	-5.19	118.41	121.00
23	BA	1755	A	C5-C6-N6	5.19	127.85	123.70
23	BA	2248	C	C5-C6-N1	-5.19	118.41	121.00
23	DA	265	A	C5-C6-N1	-5.19	115.11	117.70
23	DA	1200	C	N3-C2-O2	5.19	125.53	121.90
23	DA	391	G	C4-N9-C1'	5.19	133.24	126.50
23	BA	679	C	N1-C2-O2	-5.18	115.79	118.90
29	BH	171	LEU	CA-CB-CG	5.18	127.23	115.30
23	DA	252	G	C6-N1-C2	-5.18	121.99	125.10
23	DA	2176	A	N1-C2-N3	-5.18	126.71	129.30
23	BA	672	C	N1-C2-O2	-5.18	115.79	118.90
23	BA	811	U	C4-C5-C6	5.18	122.81	119.70
23	BA	1600	C	N3-C2-O2	-5.18	118.27	121.90
23	BA	1602	U	C5-C6-N1	-5.18	120.11	122.70
23	BA	2505	G	C8-N9-C4	5.18	108.47	106.40
23	BA	2619	C	N3-C4-C5	5.18	123.97	121.90
23	DA	812	C	N3-C4-C5	-5.18	119.83	121.90
23	DA	866	A	N9-C4-C5	-5.18	103.73	105.80
1	AA	169	C	N3-C4-C5	-5.18	119.83	121.90
23	BA	970	C	N1-C2-O2	-5.18	115.79	118.90
23	BA	2803	C	C6-N1-C2	-5.18	118.23	120.30
23	DA	77	C	N3-C4-C5	5.18	123.97	121.90
23	DA	212	G	C2-N3-C4	-5.18	109.31	111.90
23	DA	527	C	C5-C4-N4	5.18	123.83	120.20
23	DA	2638	G	N1-C2-N2	-5.18	111.54	116.20
1	AA	781	A	N1-C6-N6	5.18	121.71	118.60
1	AA	1497	G	N1-C6-O6	-5.18	116.79	119.90
23	BA	592	G	C2-N3-C4	5.18	114.49	111.90
23	BA	949	C	C5-C4-N4	-5.18	116.58	120.20
23	DA	1800	C	N1-C2-N3	5.18	122.83	119.20
23	DA	2045	C	C6-N1-C2	5.18	122.37	120.30
1	AA	446	G	C8-N9-C4	-5.18	104.33	106.40
23	DA	272(H)	C	C6-N1-C1'	-5.18	114.59	120.80
23	DA	333	G	C4-C5-N7	5.18	112.87	110.80
1	AA	1045	C	C6-N1-C2	-5.18	118.23	120.30
23	BA	124	G	C5-N7-C8	-5.18	101.71	104.30
23	BA	190	A	N1-C6-N6	-5.18	115.49	118.60
24	BB	37	C	C6-N1-C2	-5.18	118.23	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BB	99	G	N7-C8-N9	-5.18	110.51	113.10
23	DA	1935	G	C5-C6-N1	5.18	114.09	111.50
23	BA	194	G	C4-C5-N7	-5.17	108.73	110.80
23	BA	659	C	N3-C4-C5	5.17	123.97	121.90
23	BA	2251	G	C4-C5-N7	-5.17	108.73	110.80
23	DA	815	C	C5-C4-N4	-5.17	116.58	120.20
23	DA	2319	G	N7-C8-N9	5.17	115.69	113.10
23	DA	1328	G	N1-C6-O6	5.17	123.00	119.90
23	DA	2073	C	N3-C4-C5	5.17	123.97	121.90
23	DA	2730	C	N3-C4-N4	-5.17	114.38	118.00
1	AA	90	U	C2-N3-C4	5.17	130.10	127.00
23	BA	1939	U	N1-C2-O2	-5.17	119.18	122.80
1	CA	578	C	C6-N1-C2	-5.17	118.23	120.30
1	CA	1083	U	C4-C5-C6	5.17	122.80	119.70
23	DA	94	C	C6-N1-C2	-5.17	118.23	120.30
23	DA	784	A	C8-N9-C1'	5.17	137.01	127.70
23	DA	1607	C	C5-C4-N4	-5.17	116.58	120.20
23	DA	2031	A	C2-N3-C4	-5.17	108.01	110.60
23	DA	2325	G	C6-C5-N7	-5.17	127.30	130.40
1	AA	1001	A	N3-C4-C5	-5.17	123.18	126.80
23	DA	1985	G	C8-N9-C4	5.17	108.47	106.40
1	AA	1066	C	C5-C6-N1	5.17	123.58	121.00
1	AA	1204	A	C6-C5-N7	5.17	135.92	132.30
23	BA	1703	G	C8-N9-C4	-5.17	104.33	106.40
23	DA	1142(A)	A	N7-C8-N9	5.17	116.38	113.80
23	DA	1602	U	N3-C2-O2	-5.17	118.58	122.20
1	AA	836	G	C6-C5-N7	-5.17	127.30	130.40
1	AA	1001(A)	G	N3-C4-N9	5.17	129.10	126.00
23	BA	1372	U	N3-C4-O4	-5.17	115.78	119.40
23	BA	1753	G	N3-C4-C5	-5.17	126.02	128.60
23	BA	2491	U	N3-C4-C5	5.17	117.70	114.60
23	BA	2500	U	N3-C2-O2	-5.17	118.58	122.20
23	BA	2606	C	C6-N1-C2	5.17	122.37	120.30
23	DA	139(A)	G	C6-C5-N7	-5.17	127.30	130.40
23	DA	2607	G	C4-N9-C1'	5.17	133.22	126.50
1	AA	1020	U	N1-C2-O2	-5.17	119.19	122.80
23	BA	1765	C	C4-C5-C6	-5.17	114.82	117.40
23	DA	474	G	N3-C4-C5	-5.17	126.02	128.60
23	DA	2567	G	C5-C6-O6	-5.17	125.50	128.60
1	AA	868	C	C6-N1-C2	5.16	122.36	120.30
1	AA	1345	U	C2-N1-C1'	5.16	123.90	117.70
23	BA	2767	C	N3-C4-N4	5.16	121.61	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	CC	34	LEU	CA-CB-CG	5.16	127.17	115.30
23	DA	399	G	N1-C2-N2	-5.16	111.55	116.20
23	DA	2439	A	C8-N9-C4	-5.16	103.73	105.80
1	AA	78	G	N1-C6-O6	5.16	123.00	119.90
23	BA	2077	A	C5-N7-C8	-5.16	101.32	103.90
1	CA	967	C	C5-C6-N1	5.16	123.58	121.00
23	DA	194	G	C5-C6-O6	-5.16	125.50	128.60
23	DA	1999	C	C6-N1-C2	5.16	122.36	120.30
1	AA	1193	G	N1-C2-N2	-5.16	111.56	116.20
23	BA	1253	A	C2-N3-C4	5.16	113.18	110.60
23	BA	1601	G	N1-C6-O6	-5.16	116.80	119.90
1	CA	517	G	N1-C6-O6	-5.16	116.80	119.90
23	DA	446	G	N1-C6-O6	5.16	123.00	119.90
23	DA	672	C	C6-N1-C2	5.16	122.36	120.30
23	DA	1023	U	C2-N3-C4	-5.16	123.90	127.00
23	DA	2709	G	N3-C4-N9	5.16	129.10	126.00
1	AA	500	G	N1-C6-O6	-5.16	116.81	119.90
1	AA	1025	U	C5-C4-O4	-5.16	122.80	125.90
23	BA	271(S)	G	C5-C6-N1	-5.16	108.92	111.50
23	BA	945	A	C8-N9-C4	5.16	107.86	105.80
23	BA	1603	A	C8-N9-C4	-5.16	103.74	105.80
23	BA	2820	A	N9-C4-C5	-5.16	103.74	105.80
23	DA	1125	G	N3-C4-N9	-5.16	122.91	126.00
23	DA	1222	C	C2-N1-C1'	-5.16	113.13	118.80
23	DA	2226	C	N3-C4-C5	5.16	123.96	121.90
1	CA	1225	A	C6-N1-C2	5.16	121.69	118.60
23	DA	1039	G	C4-N9-C1'	-5.16	119.80	126.50
23	DA	1219	G	C8-N9-C4	5.16	108.46	106.40
23	DA	1642	G	N1-C2-N3	5.16	126.99	123.90
1	AA	1023	G	C4-N9-C1'	5.16	133.20	126.50
23	BA	509	C	C4-C5-C6	5.16	119.98	117.40
23	BA	1219	G	C4-C5-N7	5.16	112.86	110.80
23	BA	1939	U	C4-C5-C6	-5.16	116.61	119.70
23	BA	2253	G	N3-C4-C5	5.16	131.18	128.60
23	DA	72	U	C6-N1-C2	5.16	124.09	121.00
23	DA	1142(A)	A	N1-C6-N6	5.16	121.69	118.60
23	DA	2063	C	C2-N3-C4	5.16	122.48	119.90
1	CA	34	C	C6-N1-C2	5.15	122.36	120.30
23	BA	193	U	N3-C4-C5	-5.15	111.51	114.60
23	BA	1450(A)	C	N1-C2-O2	-5.15	115.81	118.90
1	CA	576	G	C8-N9-C1'	-5.15	120.30	127.00
1	CA	719	C	C6-N1-C2	-5.15	118.24	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	39	C	N1-C2-O2	5.15	121.99	118.90
23	DA	506	G	N3-C4-C5	5.15	131.18	128.60
23	DA	2565	A	C8-N9-C4	5.15	107.86	105.80
23	DA	2689	U	P-O3'-C3'	5.15	125.88	119.70
23	BA	119	A	C6-N1-C2	-5.15	115.51	118.60
23	BA	239	U	C5-C6-N1	-5.15	120.12	122.70
23	BA	1820	U	N3-C2-O2	5.15	125.81	122.20
23	BA	2552	U	C4-C5-C6	5.15	122.79	119.70
23	DA	375	C	N1-C2-O2	-5.15	115.81	118.90
23	DA	2147	G	C5-C6-O6	-5.15	125.51	128.60
24	BB	59	A	N1-C2-N3	-5.15	126.73	129.30
1	CA	923	A	N1-C2-N3	5.15	131.88	129.30
1	AA	170	U	C5-C4-O4	5.15	128.99	125.90
23	BA	1621	U	N3-C4-C5	-5.15	111.51	114.60
23	BA	1844	C	N3-C2-O2	5.15	125.50	121.90
23	BA	2051	A	C8-N9-C4	-5.15	103.74	105.80
23	DA	269	U	C6-N1-C1'	-5.15	114.00	121.20
23	DA	1219	G	N9-C4-C5	-5.15	103.34	105.40
23	DA	1524	G	C5-C6-O6	5.15	131.69	128.60
23	DA	1788	C	N3-C2-O2	-5.15	118.30	121.90
23	DA	2015	A	C6-N1-C2	5.15	121.69	118.60
1	AA	943	U	N1-C2-N3	-5.15	111.81	114.90
1	AA	1099	G	C4-N9-C1'	5.15	133.19	126.50
1	AA	1363(A)	A	C8-N9-C4	-5.15	103.74	105.80
23	BA	2002	G	N9-C4-C5	5.15	107.46	105.40
23	BA	2622	C	C5-C4-N4	5.15	123.80	120.20
23	BA	1145	C	C6-N1-C2	-5.14	118.24	120.30
23	BA	2672	G	C8-N9-C1'	-5.14	120.31	127.00
1	CA	1219	U	C5-C4-O4	-5.14	122.81	125.90
1	CA	1343	G	N3-C4-N9	5.14	129.09	126.00
1	CA	1378	C	C2-N1-C1'	5.14	124.46	118.80
4	CD	9	CYS	CA-CB-SG	5.14	123.26	114.00
23	DA	2007	C	N1-C2-N3	5.14	122.80	119.20
23	BA	611	C	N1-C2-O2	5.14	121.98	118.90
23	BA	1544	A	C8-N9-C4	-5.14	103.74	105.80
23	DA	128	C	C2-N1-C1'	-5.14	113.14	118.80
23	DA	653	A	N1-C6-N6	5.14	121.69	118.60
23	BA	943	U	N3-C2-O2	-5.14	118.60	122.20
23	BA	2419	U	C6-N1-C2	-5.14	117.92	121.00
1	CA	290	C	N1-C2-O2	-5.14	115.82	118.90
1	CA	973	G	N1-C6-O6	5.14	122.98	119.90
1	CA	1443	G	C4-C5-N7	5.14	112.86	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	330	A	N9-C4-C5	-5.14	103.74	105.80
23	DA	381	G	N3-C4-C5	-5.14	126.03	128.60
23	DA	1333	C	C4-C5-C6	-5.14	114.83	117.40
23	DA	1674	G	N1-C6-O6	-5.14	116.81	119.90
23	BA	564	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	581	C	N1-C2-N3	5.14	122.80	119.20
23	BA	2565	A	C8-N9-C4	5.14	107.86	105.80
1	CA	345	C	N1-C2-O2	5.14	121.98	118.90
23	BA	591	C	C2-N3-C4	-5.14	117.33	119.90
23	BA	41	C	N3-C4-C5	5.14	123.95	121.90
23	BA	949	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	1036	G	N1-C2-N2	-5.14	111.58	116.20
23	BA	1119	C	C2-N3-C4	-5.14	117.33	119.90
23	BA	1627	G	N3-C4-C5	-5.14	126.03	128.60
23	BA	2053	G	N3-C2-N2	-5.14	116.30	119.90
1	CA	1314	C	C5-C4-N4	-5.14	116.60	120.20
23	DA	1259	G	N1-C2-N2	-5.14	111.58	116.20
23	DA	1681	G	C4-C5-N7	5.14	112.86	110.80
23	BA	2037	G	C5-C6-O6	5.13	131.68	128.60
23	BA	2038	G	C5-C6-N1	-5.13	108.93	111.50
23	BA	2234	G	N3-C4-N9	5.13	129.08	126.00
23	BA	2894	G	C4-N9-C1'	5.13	133.18	126.50
23	DA	2779	U	N3-C4-O4	-5.13	115.81	119.40
23	BA	202	U	C6-N1-C1'	-5.13	114.01	121.20
23	BA	613	G	C5-N7-C8	-5.13	101.73	104.30
23	DA	2399	G	N1-C6-O6	-5.13	116.82	119.90
1	CA	1123	A	C2-N3-C4	5.13	113.17	110.60
23	BA	852	G	N1-C6-O6	-5.13	116.82	119.90
23	BA	978	G	C5-N7-C8	5.13	106.86	104.30
23	BA	2035	G	C8-N9-C1'	5.13	133.67	127.00
23	BA	2433	A	N9-C4-C5	-5.13	103.75	105.80
24	BB	5	C	C5-C6-N1	-5.13	118.44	121.00
1	CA	1120	G	N9-C4-C5	-5.13	103.35	105.40
23	DA	1415	U	C2-N1-C1'	-5.13	111.54	117.70
23	BA	1858	G	C4-N9-C1'	5.13	133.17	126.50
23	BA	2307	G	C4-N9-C1'	5.13	133.17	126.50
1	CA	481	G	N3-C4-C5	-5.13	126.04	128.60
1	CA	529	G	C6-C5-N7	-5.13	127.32	130.40
1	CA	1323	G	N9-C4-C5	-5.13	103.35	105.40
23	DA	1210	A	C5-C6-N6	-5.13	119.60	123.70
23	DA	1693	U	C5-C6-N1	-5.13	120.14	122.70
23	BA	473	G	C4-C5-N7	-5.13	108.75	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	505	A	N9-C4-C5	5.13	107.85	105.80
23	BA	645	C	C2-N3-C4	5.13	122.46	119.90
23	BA	1459	G	N1-C6-O6	-5.13	116.82	119.90
23	BA	2091	U	N1-C2-O2	5.13	126.39	122.80
23	DA	41	C	N3-C4-C5	5.13	123.95	121.90
23	DA	398	G	C6-C5-N7	-5.13	127.32	130.40
23	DA	1999	C	C5-C4-N4	-5.13	116.61	120.20
23	DA	2192	G	N3-C4-C5	-5.13	126.04	128.60
23	BA	1107	G	C4-C5-C6	5.12	121.88	118.80
23	DA	54	G	C5-N7-C8	-5.12	101.74	104.30
1	AA	532	A	C8-N9-C4	5.12	107.85	105.80
1	AA	1361	G	N3-C4-C5	-5.12	126.04	128.60
23	BA	119	A	C4-C5-N7	-5.12	108.14	110.70
23	BA	587	C	N1-C2-O2	5.12	121.97	118.90
23	BA	683	C	C5-C6-N1	5.12	123.56	121.00
23	BA	1039	G	N7-C8-N9	-5.12	110.54	113.10
23	BA	2846	G	N9-C4-C5	5.12	107.45	105.40
23	BA	1442	G	N1-C6-O6	5.12	122.97	119.90
23	BA	1802	A	N1-C6-N6	5.12	121.67	118.60
23	BA	2453	A	N1-C2-N3	-5.12	126.74	129.30
23	DA	28	A	N1-C6-N6	5.12	121.67	118.60
23	DA	41	C	C5-C6-N1	-5.12	118.44	121.00
23	DA	804	A	N9-C4-C5	5.12	107.85	105.80
1	AA	1151	A	C6-C5-N7	5.12	135.88	132.30
1	AA	1297	C	C6-N1-C2	-5.12	118.25	120.30
23	BA	28	A	C2-N3-C4	5.12	113.16	110.60
23	BA	1799	G	C2-N3-C4	5.12	114.46	111.90
1	CA	877	C	C6-N1-C2	5.12	122.35	120.30
23	DA	2319	G	C4-C5-N7	5.12	112.85	110.80
23	BA	126	A	N1-C2-N3	-5.12	126.74	129.30
23	BA	570	G	N3-C4-C5	-5.12	126.04	128.60
23	BA	2880	C	N3-C4-C5	-5.12	119.85	121.90
24	BB	26	A	C2-N3-C4	-5.12	108.04	110.60
1	CA	1527	C	N1-C2-O2	5.12	121.97	118.90
23	DA	131	G	N9-C4-C5	-5.12	103.35	105.40
23	DA	192	C	N1-C2-O2	-5.12	115.83	118.90
1	AA	359	U	N1-C2-O2	-5.12	119.22	122.80
23	BA	542	C	C6-N1-C2	-5.12	118.25	120.30
23	BA	756	C	N3-C2-O2	-5.12	118.32	121.90
23	BA	1786	A	N7-C8-N9	-5.12	111.24	113.80
23	DA	1136	G	C5-C6-O6	-5.12	125.53	128.60
23	DA	2599	G	C5-N7-C8	5.12	106.86	104.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	470	A	C8-N9-C4	-5.12	103.75	105.80
23	BA	805	G	N7-C8-N9	5.12	115.66	113.10
23	BA	2030	A	C5-C6-N6	-5.12	119.61	123.70
24	BB	22	U	C5-C6-N1	5.12	125.26	122.70
1	CA	995	C	N3-C2-O2	-5.12	118.32	121.90
1	CA	1028	C	N3-C2-O2	-5.12	118.32	121.90
23	DA	154	G	N9-C4-C5	-5.12	103.35	105.40
23	DA	2037	G	N1-C2-N2	-5.12	111.59	116.20
23	BA	87	C	N3-C4-N4	-5.11	114.42	118.00
23	BA	1578	U	N3-C2-O2	-5.11	118.62	122.20
23	BA	2506	U	C2-N3-C4	-5.11	123.93	127.00
23	BA	2737	G	N1-C2-N2	5.11	120.80	116.20
23	BA	202	U	C5-C6-N1	-5.11	120.14	122.70
23	BA	1285	G	C8-N9-C4	-5.11	104.36	106.40
1	CA	169	C	C4-C5-C6	5.11	119.96	117.40
23	DA	371	A	C5-C6-N6	-5.11	119.61	123.70
23	DA	614	U	N3-C2-O2	-5.11	118.62	122.20
1	AA	886	G	C2-N3-C4	-5.11	109.34	111.90
23	BA	61	G	C2-N3-C4	-5.11	109.34	111.90
23	BA	651	G	N3-C4-C5	-5.11	126.05	128.60
23	BA	1639	U	C5-C6-N1	-5.11	120.14	122.70
23	BA	2000	G	C8-N9-C4	-5.11	104.36	106.40
23	BA	2260	C	C5-C6-N1	-5.11	118.44	121.00
1	CA	1205	U	N3-C2-O2	-5.11	118.62	122.20
23	DA	1010	A	C4-C5-C6	-5.11	114.44	117.00
23	BA	1983	C	C2-N3-C4	-5.11	117.35	119.90
23	BA	2033	A	C2-N3-C4	5.11	113.16	110.60
23	BA	2848	G	N3-C4-C5	-5.11	126.05	128.60
1	CA	1006	C	C5-C6-N1	5.11	123.56	121.00
23	DA	45	C	C4-C5-C6	5.11	119.95	117.40
23	BA	567	A	C8-N9-C4	-5.11	103.76	105.80
23	BA	847	U	C2-N3-C4	-5.11	123.94	127.00
23	BA	2533	A	N1-C6-N6	-5.11	115.53	118.60
23	BA	2894	G	N1-C6-O6	-5.11	116.84	119.90
24	BB	104	U	N3-C4-O4	-5.11	115.82	119.40
23	DA	809	G	N1-C2-N3	5.11	126.97	123.90
23	DA	1397	U	N3-C4-C5	5.11	117.67	114.60
23	DA	1703	G	N7-C8-N9	5.11	115.65	113.10
23	DA	2071	A	C5-N7-C8	5.11	106.45	103.90
1	AA	953	G	N3-C4-C5	-5.11	126.05	128.60
23	BA	468	G	C5-C6-N1	-5.11	108.95	111.50
23	BA	1980	G	C8-N9-C4	-5.11	104.36	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2672	G	N1-C6-O6	5.11	122.96	119.90
1	CA	980	C	C5-C6-N1	5.11	123.55	121.00
23	DA	845	G	C8-N9-C1'	-5.11	120.36	127.00
23	DA	1817	G	C2-N3-C4	-5.11	109.35	111.90
23	DA	2769	C	C6-N1-C2	-5.11	118.26	120.30
1	AA	1030	C	N1-C2-O2	5.10	121.96	118.90
23	DA	409	C	N1-C2-N3	-5.10	115.63	119.20
1	AA	968	A	N7-C8-N9	5.10	116.35	113.80
1	AA	1030(A)	G	N3-C4-N9	5.10	129.06	126.00
23	BA	507	A	C8-N9-C4	5.10	107.84	105.80
1	CA	968	A	N1-C6-N6	5.10	121.66	118.60
23	DA	1204	A	N1-C2-N3	5.10	131.85	129.30
23	DA	1319	G	C8-N9-C1'	-5.10	120.37	127.00
23	DA	2307	G	C6-C5-N7	-5.10	127.34	130.40
1	AA	1029	C	C2-N1-C1'	-5.10	113.19	118.80
1	AA	1383	C	C6-N1-C2	-5.10	118.26	120.30
23	BA	566	U	C5-C6-N1	5.10	125.25	122.70
23	DA	208	C	N3-C4-C5	5.10	123.94	121.90
23	DA	2084	C	C6-N1-C2	5.10	122.34	120.30
23	DA	2408	U	N1-C2-O2	-5.10	119.23	122.80
23	DA	2709	G	C5-C6-N1	5.10	114.05	111.50
23	DA	2829	C	N1-C2-O2	-5.10	115.84	118.90
23	BA	1762	A	N3-C4-C5	-5.10	123.23	126.80
23	BA	2037	G	C8-N9-C4	5.10	108.44	106.40
23	BA	2607	G	C8-N9-C4	-5.10	104.36	106.40
23	DA	311	A	C8-N9-C4	5.10	107.84	105.80
23	DA	1013	C	N3-C4-C5	5.10	123.94	121.90
23	DA	1783	A	N9-C4-C5	5.10	107.84	105.80
24	DB	53	A	C4-N9-C1'	5.10	135.48	126.30
23	BA	954	G	C6-N1-C2	-5.10	122.04	125.10
23	DA	1985	G	N7-C8-N9	-5.10	110.55	113.10
23	BA	272(C)	G	N7-C8-N9	-5.09	110.55	113.10
23	BA	1626	G	N9-C4-C5	5.09	107.44	105.40
23	BA	2261	C	N1-C2-N3	5.09	122.77	119.20
23	DA	1298	C	C2-N3-C4	-5.09	117.35	119.90
1	AA	52	G	N7-C8-N9	5.09	115.65	113.10
1	AA	951	G	N3-C4-C5	-5.09	126.05	128.60
23	BA	69	C	C6-N1-C2	-5.09	118.26	120.30
23	BA	378	C	C5-C6-N1	5.09	123.55	121.00
23	BA	730	C	C4-C5-C6	5.09	119.95	117.40
23	BA	1359	A	C4-C5-C6	-5.09	114.45	117.00
23	DA	429	A	C5-C6-N6	-5.09	119.63	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1437	C	N1-C2-O2	5.09	121.96	118.90
23	DA	2379	G	C6-C5-N7	-5.09	127.34	130.40
23	DA	809	G	C4-C5-N7	-5.09	108.76	110.80
23	DA	991	C	N3-C4-C5	5.09	123.94	121.90
23	DA	1841	U	C5-C6-N1	-5.09	120.15	122.70
1	AA	764	C	N1-C2-O2	5.09	121.95	118.90
23	BA	1236	G	N3-C4-C5	5.09	131.14	128.60
23	BA	2069	G	N7-C8-N9	-5.09	110.56	113.10
23	BA	2789	C	C6-N1-C2	5.09	122.34	120.30
1	CA	366	C	C5-C6-N1	-5.09	118.45	121.00
1	CA	560	U	C5-C6-N1	5.09	125.25	122.70
23	DA	429	A	C6-C5-N7	-5.09	128.74	132.30
23	DA	444	C	C2-N1-C1'	-5.09	113.20	118.80
23	DA	908	C	C6-N1-C2	-5.09	118.26	120.30
23	DA	2719	G	C5-C6-O6	-5.09	125.55	128.60
23	BA	1206	G	C5-C6-O6	5.09	131.65	128.60
23	BA	1671	U	N3-C4-O4	-5.09	115.84	119.40
23	DA	25	U	N1-C2-O2	-5.09	119.24	122.80
23	DA	2042	A	N1-C6-N6	5.09	121.65	118.60
1	AA	572	A	C4-N9-C1'	-5.09	117.14	126.30
23	BA	1799	G	C4-C5-N7	-5.09	108.77	110.80
23	BA	1858	G	N7-C8-N9	5.09	115.64	113.10
1	CA	1242	C	C2-N1-C1'	5.09	124.39	118.80
23	DA	453	C	C2-N3-C4	-5.09	117.36	119.90
23	DA	530	G	N3-C4-C5	5.09	131.14	128.60
23	DA	928	G	C6-C5-N7	-5.09	127.35	130.40
23	DA	2032	G	C5-N7-C8	5.09	106.84	104.30
23	DA	2193	G	C6-N1-C2	5.09	128.15	125.10
23	DA	2239	G	N7-C8-N9	-5.09	110.56	113.10
1	AA	910	C	N3-C4-C5	5.08	123.93	121.90
1	AA	991	U	C5-C6-N1	5.08	125.24	122.70
23	BA	2125	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	272(C)	G	C5-C6-O6	-5.08	125.55	128.60
23	DA	1342	A	N1-C6-N6	5.08	121.65	118.60
23	DA	1937	A	C8-N9-C4	5.08	107.83	105.80
1	AA	1237	C	C6-N1-C2	-5.08	118.27	120.30
23	BA	363	G	N3-C2-N2	-5.08	116.34	119.90
23	BA	784	A	N3-C4-N9	-5.08	123.33	127.40
23	BA	1022	G	C8-N9-C4	-5.08	104.37	106.40
1	CA	1215	G	C6-C5-N7	-5.08	127.35	130.40
23	DA	1861	G	C8-N9-C1'	5.08	133.61	127.00
23	DA	2086	U	C5-C4-O4	-5.08	122.85	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	365	U	C6-N1-C1'	5.08	128.31	121.20
23	BA	780	G	N3-C2-N2	-5.08	116.34	119.90
23	BA	1109	C	N3-C4-C5	-5.08	119.87	121.90
23	BA	2682	U	N1-C2-O2	5.08	126.36	122.80
23	DA	2828	C	C2-N3-C4	-5.08	117.36	119.90
1	AA	1226	C	C2-N1-C1'	-5.08	113.21	118.80
23	BA	2078	C	N3-C4-N4	5.08	121.56	118.00
23	DA	959	A	N3-C4-C5	-5.08	123.24	126.80
23	DA	1899	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	2363	C	C6-N1-C2	5.08	122.33	120.30
23	BA	668	G	C5-C6-N1	-5.08	108.96	111.50
23	BA	817	C	N3-C4-N4	-5.08	114.44	118.00
23	BA	1562	A	N1-C6-N6	5.08	121.65	118.60
23	BA	2130	U	C5-C6-N1	5.08	125.24	122.70
23	BA	2501	C	N3-C4-C5	5.08	123.93	121.90
1	CA	1368	G	C5-C6-O6	-5.08	125.55	128.60
23	DA	729	G	C2-N3-C4	5.08	114.44	111.90
23	DA	1576	U	N1-C2-O2	5.08	126.36	122.80
23	DA	1990	C	C2-N3-C4	-5.08	117.36	119.90
23	DA	2059	A	N1-C6-N6	5.08	121.65	118.60
23	DA	2361	A	C8-N9-C4	5.08	107.83	105.80
23	DA	2747	G	N1-C6-O6	5.08	122.95	119.90
1	AA	1394	A	C8-N9-C4	-5.08	103.77	105.80
23	BA	1196	C	C4-C5-C6	5.08	119.94	117.40
23	DA	2612	C	C5-C6-N1	-5.08	118.46	121.00
23	BA	381	G	C8-N9-C4	-5.08	104.37	106.40
23	BA	699	A	C2-N3-C4	-5.08	108.06	110.60
1	CA	1030(A)	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	1877	A	N1-C6-N6	5.08	121.65	118.60
23	BA	268	C	N3-C4-C5	5.07	123.93	121.90
23	BA	2286	A	N1-C2-N3	5.07	131.84	129.30
23	BA	2505	G	C6-C5-N7	-5.07	127.36	130.40
23	BA	2819	G	C5-C6-O6	5.07	131.64	128.60
24	BB	99	G	N9-C4-C5	-5.07	103.37	105.40
1	CA	40	C	C2-N3-C4	-5.07	117.36	119.90
1	CA	1003	G	C8-N9-C1'	5.07	133.60	127.00
23	DA	1259	G	C4-C5-N7	-5.07	108.77	110.80
23	BA	1799	G	P-O3'-C3'	5.07	125.79	119.70
24	BB	8	U	C5-C6-N1	5.07	125.24	122.70
23	DA	2042	A	N7-C8-N9	-5.07	111.26	113.80
23	DA	2239	G	N1-C2-N3	5.07	126.94	123.90
23	BA	977	G	N1-C6-O6	-5.07	116.86	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1211	U	N3-C2-O2	5.07	125.75	122.20
23	BA	1599	C	C4-C5-C6	5.07	119.94	117.40
23	DA	1820	U	N3-C2-O2	5.07	125.75	122.20
23	DA	2372	G	C5-C6-O6	-5.07	125.56	128.60
1	AA	1343	G	C6-C5-N7	5.07	133.44	130.40
23	BA	1445	A	C2-N3-C4	5.07	113.14	110.60
24	DB	105	A	C8-N9-C4	5.07	107.83	105.80
23	BA	975	C	C6-N1-C2	-5.07	118.27	120.30
23	BA	1436	G	C8-N9-C4	-5.07	104.37	106.40
23	BA	2048	G	C5-C6-O6	5.07	131.64	128.60
23	BA	2519	U	C5-C6-N1	-5.07	120.17	122.70
23	DA	864	G	C2-N3-C4	5.07	114.43	111.90
23	DA	1858	G	N3-C4-C5	-5.07	126.07	128.60
23	DA	1980	G	N9-C4-C5	5.07	107.43	105.40
23	DA	2031	A	C5-N7-C8	-5.07	101.37	103.90
23	DA	2592	G	C2-N3-C4	5.07	114.43	111.90
23	BA	2441	C	C5-C4-N4	5.07	123.75	120.20
1	CA	889	A	C5-C6-N6	-5.07	119.65	123.70
23	DA	1405	U	N3-C4-C5	5.07	117.64	114.60
1	AA	346	G	N1-C2-N3	5.06	126.94	123.90
1	AA	1165	C	C5-C6-N1	5.06	123.53	121.00
1	AA	1497	G	C5-N7-C8	5.06	106.83	104.30
23	BA	668	G	C6-N1-C2	5.06	128.14	125.10
23	BA	1256	G	C8-N9-C1'	-5.06	120.42	127.00
23	BA	2599	G	N1-C6-O6	-5.06	116.86	119.90
23	DA	142(A)	C	C6-N1-C2	5.06	122.33	120.30
23	DA	2289	G	N3-C2-N2	-5.06	116.36	119.90
23	DA	2480	C	C6-N1-C2	-5.06	118.28	120.30
23	BA	2816	C	C2-N3-C4	5.06	122.43	119.90
1	CA	500	G	N3-C4-C5	-5.06	126.07	128.60
23	DA	1985	G	C5-N7-C8	5.06	106.83	104.30
23	BA	1721	G	C4-C5-N7	5.06	112.82	110.80
23	BA	2689	U	P-O3'-C3'	5.06	125.77	119.70
23	BA	2812	G	C4-C5-N7	-5.06	108.78	110.80
23	DA	105	C	N3-C4-C5	5.06	123.92	121.90
23	DA	130	C	C6-N1-C1'	-5.06	114.73	120.80
23	DA	566	U	N1-C2-N3	-5.06	111.86	114.90
23	DA	984	A	C8-N9-C4	5.06	107.82	105.80
23	DA	2070	G	C5-C6-N1	5.06	114.03	111.50
23	DA	2079	U	N1-C2-O2	-5.06	119.26	122.80
23	BA	1238	G	N1-C6-O6	5.06	122.94	119.90
23	BA	2292	C	C5-C6-N1	-5.06	118.47	121.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2488	A	N7-C8-N9	-5.06	111.27	113.80
23	BA	2492	U	C5-C6-N1	5.06	125.23	122.70
24	BB	17	C	N1-C2-O2	5.06	121.94	118.90
23	DA	744	G	N3-C4-C5	-5.06	126.07	128.60
23	DA	1203	G	C4-C5-N7	-5.06	108.78	110.80
23	DA	1367	A	C6-N1-C2	-5.06	115.56	118.60
24	DB	64	C	C5-C6-N1	-5.06	118.47	121.00
1	AA	28	G	C5-C6-O6	-5.06	125.57	128.60
1	CA	1518	A	N9-C4-C5	5.06	107.82	105.80
1	AA	1347	G	C6-C5-N7	5.05	133.43	130.40
23	BA	1013	C	C6-N1-C2	5.05	122.32	120.30
23	BA	1904	G	C5-C6-N1	5.05	114.03	111.50
1	CA	517	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	1607	C	N3-C4-N4	5.05	121.54	118.00
23	DA	1698	A	C5-C6-N6	-5.05	119.66	123.70
23	DA	2158	A	C5-N7-C8	-5.05	101.37	103.90
23	BA	135	G	C5-C6-N1	5.05	114.03	111.50
23	BA	945	A	N1-C6-N6	5.05	121.63	118.60
1	CA	1097	C	C6-N1-C2	-5.05	118.28	120.30
23	DA	493	G	C5-N7-C8	-5.05	101.77	104.30
23	DA	915	C	N3-C2-O2	-5.05	118.36	121.90
23	BA	595	C	N3-C4-C5	5.05	123.92	121.90
23	BA	1914	C	C6-N1-C2	-5.05	118.28	120.30
23	BA	1951	U	N3-C4-O4	5.05	122.94	119.40
23	BA	2455	G	N1-C2-N3	5.05	126.93	123.90
23	BA	2648	C	C2-N3-C4	-5.05	117.38	119.90
23	BA	2719	G	C2-N3-C4	5.05	114.43	111.90
1	CA	1005	A	C8-N9-C4	-5.05	103.78	105.80
1	CA	1007	C	C5-C6-N1	5.05	123.53	121.00
23	DA	2071	A	C6-N1-C2	-5.05	115.57	118.60
23	BA	509	C	N1-C2-N3	5.05	122.73	119.20
23	BA	2018	G	C8-N9-C4	-5.05	104.38	106.40
1	CA	355	C	N1-C2-O2	-5.05	115.87	118.90
1	CA	1072	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	143	G	N1-C2-N2	5.05	120.74	116.20
23	DA	801	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	1415	U	C5-C6-N1	-5.05	120.17	122.70
23	DA	2104	G	C8-N9-C1'	-5.05	120.44	127.00
23	BA	333	G	N3-C4-C5	-5.05	126.08	128.60
23	BA	1791	A	C6-C5-N7	-5.05	128.77	132.30
23	BA	2125	G	N7-C8-N9	5.05	115.62	113.10
1	AA	1047	G	C6-C5-N7	5.05	133.43	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1484	C	N3-C2-O2	5.05	125.43	121.90
23	BA	74	A	N7-C8-N9	5.05	116.32	113.80
23	BA	260	G	C2-N3-C4	-5.05	109.38	111.90
1	CA	1151	A	N9-C4-C5	5.05	107.82	105.80
23	DA	78	A	N1-C6-N6	5.05	121.63	118.60
23	DA	139(A)	G	C5-C6-N1	5.05	114.02	111.50
23	DA	507	A	N9-C4-C5	-5.05	103.78	105.80
23	DA	693	C	C5-C6-N1	-5.05	118.48	121.00
23	DA	1827	C	N1-C2-O2	5.05	121.93	118.90
23	DA	2296	U	N1-C1'-C2'	5.05	120.56	114.00
1	AA	1133	G	N3-C2-N2	-5.04	116.37	119.90
1	AA	1293	G	N1-C6-O6	-5.04	116.87	119.90
1	CA	1153	C	C2-N3-C4	5.04	122.42	119.90
23	DA	530	G	C5-N7-C8	-5.04	101.78	104.30
23	DA	995	C	C2-N3-C4	5.04	122.42	119.90
23	BA	269	U	C5-C6-N1	5.04	125.22	122.70
23	BA	291	C	C5-C4-N4	-5.04	116.67	120.20
23	BA	2001	A	C2-N3-C4	5.04	113.12	110.60
1	CA	1037	C	C6-N1-C1'	5.04	126.85	120.80
23	DA	195	A	C5-C6-N1	-5.04	115.18	117.70
23	DA	1325	G	N3-C4-N9	5.04	129.03	126.00
23	BA	981	A	C5-C6-N1	5.04	120.22	117.70
23	BA	2174	C	C2-N3-C4	5.04	122.42	119.90
23	BA	2442	C	N3-C4-N4	-5.04	114.47	118.00
23	BA	2456	C	C6-N1-C2	5.04	122.32	120.30
23	BA	526	A	N9-C4-C5	5.04	107.82	105.80
23	BA	781	A	C5-N7-C8	5.04	106.42	103.90
23	DA	2053	G	C5-N7-C8	5.04	106.82	104.30
23	BA	979	G	N3-C2-N2	-5.04	116.37	119.90
23	BA	1296	G	N3-C4-C5	-5.04	126.08	128.60
23	BA	2427	C	N3-C2-O2	5.04	125.43	121.90
1	CA	1045	C	C5-C6-N1	5.04	123.52	121.00
23	DA	52	A	N7-C8-N9	5.04	116.32	113.80
23	DA	784	A	N9-C4-C5	5.04	107.81	105.80
23	BA	179	G	N7-C8-N9	-5.04	110.58	113.10
23	DA	741	G	N1-C6-O6	-5.04	116.88	119.90
23	BA	60	G	N7-C8-N9	-5.04	110.58	113.10
23	BA	637	A	C8-N9-C4	5.04	107.81	105.80
23	BA	2322	A	C8-N9-C4	-5.04	103.79	105.80
1	CA	307	C	N3-C4-C5	-5.04	119.89	121.90
23	DA	349	G	N7-C8-N9	-5.04	110.58	113.10
50	D6	13	CYS	CA-CB-SG	-5.04	104.94	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	953	G	C5-C6-O6	-5.03	125.58	128.60
23	BA	310	A	C2-N3-C4	-5.03	108.08	110.60
23	BA	546	C	C2-N1-C1'	5.03	124.34	118.80
23	BA	798	G	C2-N3-C4	-5.03	109.38	111.90
23	BA	954	G	N3-C4-C5	-5.03	126.08	128.60
23	BA	2280	G	N9-C4-C5	5.03	107.41	105.40
23	DA	1302	A	N1-C6-N6	-5.03	115.58	118.60
23	DA	2147	G	N1-C6-O6	5.03	122.92	119.90
23	DA	2293	C	C2-N1-C1'	-5.03	113.26	118.80
23	DA	2412	A	C2-N3-C4	5.03	113.12	110.60
23	DA	2571	C	N3-C2-O2	-5.03	118.38	121.90
23	DA	2828	C	C5-C6-N1	-5.03	118.48	121.00
1	AA	1443	G	N9-C4-C5	-5.03	103.39	105.40
23	BA	70	G	N1-C6-O6	-5.03	116.88	119.90
23	BA	491	G	N9-C4-C5	5.03	107.41	105.40
23	BA	1955	U	N3-C4-C5	5.03	117.62	114.60
23	DA	1807	G	C8-N9-C4	5.03	108.41	106.40
23	BA	775	G	N3-C4-N9	5.03	129.02	126.00
23	BA	1824	G	C5-C6-N1	5.03	114.02	111.50
23	BA	2053	G	N3-C4-C5	-5.03	126.08	128.60
23	BA	2487	G	C6-C5-N7	-5.03	127.38	130.40
23	BA	2868	A	C8-N9-C4	-5.03	103.79	105.80
23	DA	1045	A	N9-C4-C5	-5.03	103.79	105.80
23	DA	1328	G	N3-C4-N9	5.03	129.02	126.00
23	BA	542	C	C6-N1-C1'	5.03	126.83	120.80
23	BA	1266	G	C2-N3-C4	5.03	114.41	111.90
23	BA	2641	G	C5-C6-O6	5.03	131.62	128.60
23	DA	2808	U	N1-C2-N3	-5.03	111.88	114.90
1	AA	1402	C	C6-N1-C2	-5.03	118.29	120.30
23	BA	429	A	C4-C5-N7	5.03	113.21	110.70
23	BA	655	A	C6-C5-N7	-5.03	128.78	132.30
23	BA	1653	G	C5-C6-O6	5.03	131.62	128.60
23	BA	2085	C	C6-N1-C2	5.03	122.31	120.30
23	BA	2686	G	N9-C4-C5	-5.03	103.39	105.40
23	DA	931	G	C8-N9-C4	-5.03	104.39	106.40
23	DA	2011	U	N3-C2-O2	5.03	125.72	122.20
23	BA	271(J)	C	C6-N1-C2	5.03	122.31	120.30
23	BA	453	C	N3-C4-C5	5.03	123.91	121.90
1	CA	483	C	C6-N1-C2	5.03	122.31	120.30
1	CA	1093	A	N7-C8-N9	5.03	116.31	113.80
23	DA	139(A)	G	C4-N9-C1'	5.03	133.03	126.50
23	DA	499	U	N1-C2-O2	-5.03	119.28	122.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	986	C	C5-C4-N4	-5.03	116.68	120.20
23	DA	2818	G	C6-N1-C2	-5.03	122.08	125.10
52	D8	34	TRP	O-C-N	-5.03	114.66	122.70
23	BA	345	A	N1-C6-N6	5.02	121.61	118.60
23	BA	2559	C	C5-C4-N4	-5.02	116.68	120.20
23	DA	645	C	C5-C6-N1	5.02	123.51	121.00
23	DA	2433	A	C5-C6-N6	-5.02	119.68	123.70
1	AA	723	U	C2-N1-C1'	5.02	123.73	117.70
1	AA	1036	G	N3-C4-C5	-5.02	126.09	128.60
4	AD	194	LEU	CA-CB-CG	5.02	126.85	115.30
23	BA	1600	C	C4-C5-C6	5.02	119.91	117.40
23	BA	1983	C	C5-C6-N1	-5.02	118.49	121.00
23	BA	2236	C	C4-C5-C6	5.02	119.91	117.40
23	DA	1179	C	C6-N1-C2	5.02	122.31	120.30
23	DA	1429	G	N3-C4-N9	5.02	129.01	126.00
1	AA	1040	U	C5-C4-O4	-5.02	122.89	125.90
23	BA	1997	G	N3-C4-C5	-5.02	126.09	128.60
23	BA	2485	G	N1-C6-O6	5.02	122.91	119.90
1	CA	203	U	C5-C6-N1	5.02	125.21	122.70
23	DA	2149	G	N9-C4-C5	-5.02	103.39	105.40
1	AA	40	C	C2-N1-C1'	-5.02	113.28	118.80
1	AA	903	G	C8-N9-C4	5.02	108.41	106.40
1	AA	1158	C	C2-N3-C4	5.02	122.41	119.90
23	BA	954	G	C5-C6-N1	5.02	114.01	111.50
23	BA	2206	G	N3-C2-N2	5.02	123.41	119.90
23	BA	2250	G	C8-N9-C4	-5.02	104.39	106.40
1	CA	531	U	N1-C2-O2	5.02	126.31	122.80
1	CA	559	A	C8-N9-C4	-5.02	103.79	105.80
23	DA	673	C	C5-C4-N4	-5.02	116.69	120.20
1	AA	50	A	N1-C6-N6	5.02	121.61	118.60
1	CA	1004	A	C4-N9-C1'	5.02	135.33	126.30
23	DA	338	G	C5-C6-O6	-5.02	125.59	128.60
23	DA	1353	A	N9-C4-C5	5.02	107.81	105.80
23	DA	2227	A	C5-C6-N1	-5.02	115.19	117.70
23	DA	2719	G	C5-C6-N1	5.02	114.01	111.50
1	AA	43	C	C4-C5-C6	5.02	119.91	117.40
23	BA	811	U	C2-N3-C4	-5.02	123.99	127.00
24	BB	101	G	C5-C6-O6	-5.02	125.59	128.60
23	DA	1253	A	C6-C5-N7	5.02	135.81	132.30
1	AA	418	C	C6-N1-C2	-5.01	118.29	120.30
23	BA	486	C	C4-C5-C6	5.01	119.91	117.40
23	BA	1653	G	N9-C4-C5	5.01	107.41	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1558	A	P-O3'-C3'	5.01	125.72	119.70
23	BA	822	U	N1-C2-N3	5.01	117.91	114.90
23	DA	62	C	N1-C2-O2	-5.01	115.89	118.90
23	DA	784	A	P-O3'-C3'	5.01	125.72	119.70
23	DA	1766	U	N1-C2-N3	5.01	117.91	114.90
1	AA	1066	C	C2-N1-C1'	5.01	124.31	118.80
1	AA	1206	G	C8-N9-C1'	5.01	133.51	127.00
1	AA	1224	G	C5-C6-O6	5.01	131.61	128.60
23	BA	2219	G	C8-N9-C4	5.01	108.40	106.40
1	CA	1198	G	C6-C5-N7	5.01	133.41	130.40
23	DA	1653	G	N3-C4-C5	-5.01	126.09	128.60
23	BA	641	C	N3-C4-N4	5.01	121.51	118.00
23	BA	1769	G	N1-C6-O6	5.01	122.91	119.90
23	BA	2316	C	C2-N1-C1'	5.01	124.31	118.80
23	BA	2454	G	N1-C6-O6	-5.01	116.89	119.90
1	CA	770	C	N1-C2-O2	-5.01	115.89	118.90
1	CA	1399	C	N3-C4-C5	-5.01	119.90	121.90
23	DA	1208	C	N3-C2-O2	-5.01	118.39	121.90
23	DA	2067	G	N3-C2-N2	-5.01	116.39	119.90
23	DA	2500	U	C4-C5-C6	-5.01	116.69	119.70
23	DA	2672	G	C4-N9-C1'	5.01	133.01	126.50
23	DA	2713	A	N9-C4-C5	-5.01	103.80	105.80
24	DB	80	U	C5-C4-O4	5.01	128.91	125.90
23	BA	1125	G	N3-C2-N2	-5.01	116.39	119.90
23	BA	1185	C	N3-C4-N4	-5.01	114.50	118.00
23	DA	1162	G	C4-C5-N7	-5.01	108.80	110.80
23	DA	2540	C	N3-C4-C5	5.01	123.90	121.90
1	AA	355	C	C2-N3-C4	-5.01	117.40	119.90
1	AA	529	G	C6-C5-N7	-5.01	127.40	130.40
1	CA	870	U	C6-N1-C2	5.01	124.00	121.00
23	DA	2755	C	C5-C4-N4	-5.01	116.69	120.20
24	DB	1	U	C2-N1-C1'	5.01	123.71	117.70
23	BA	1627	G	N3-C4-N9	5.00	129.00	126.00
23	BA	2200	C	N3-C4-C5	-5.00	119.90	121.90
1	CA	369	C	N3-C2-O2	-5.00	118.40	121.90
23	DA	483	A	C2-N3-C4	-5.00	108.10	110.60
1	AA	145	G	N7-C8-N9	5.00	115.60	113.10
1	AA	935	A	N7-C8-N9	5.00	116.30	113.80
23	DA	408	G	C5-C6-N1	5.00	114.00	111.50
23	DA	2459	A	N1-C6-N6	-5.00	115.60	118.60
39	DV	42	GLY	N-CA-C	-5.00	100.59	113.10
23	BA	769	G	C6-N1-C2	5.00	128.10	125.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	271(J)	C	C5-C4-N4	-5.00	116.70	120.20
23	DA	2271	G	C4-N9-C1'	5.00	133.00	126.50
23	DA	2510	C	C5-C6-N1	-5.00	118.50	121.00
23	DA	2521	C	C5-C6-N1	-5.00	118.50	121.00
23	DA	2827	C	C2-N3-C4	-5.00	117.40	119.90

There are no chirality outliers.

All (83) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	128	GLU	Peptide
2	AB	14	GLY	Peptide
2	AB	71	VAL	Peptide
3	AC	186	PHE	Peptide
7	AG	19	GLY	Peptide
7	AG	44	TYR	Peptide
7	AG	47	CYS	Peptide
7	AG	54	THR	Peptide
9	AI	102	LEU	Peptide
9	AI	56	LEU	Peptide
10	AJ	28	ARG	Peptide
10	AJ	61	GLU	Peptide
10	AJ	79	ARG	Peptide
12	AL	91	LYS	Mainchain
13	AM	105	THR	Peptide
13	AM	39	ILE	Peptide
13	AM	86	CYS	Peptide
14	AN	15	LYS	Peptide
14	AN	16	PHE	Peptide
14	AN	60	SER	Peptide
17	AQ	33	GLY	Peptide
19	AS	51	VAL	Peptide
20	AT	10	LEU	Peptide
20	AT	11	SER	Peptide
45	B1	83	GLU	Peptide
48	B4	42	PHE	Peptide
48	B4	43	TYR	Peptide
48	B4	44	THR	Peptide
25	BD	274	ARG	Peptide
26	BE	70	ALA	Peptide
26	BE	72	VAL	Peptide
27	BF	129	PHE	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
27	BF	85	GLY	Peptide
28	BG	13	GLU	Peptide
30	BI	83	ALA	Peptide
31	BN	124	ALA	Peptide
32	BO	48	PRO	Peptide
33	BP	103	ALA	Peptide
33	BP	25	SER	Peptide
33	BP	26	GLY	Peptide
33	BP	44	GLY	Peptide
36	BS	82	ILE	Peptide
36	BS	96	GLY	Peptide
37	BT	126	ALA	Peptide
41	BX	93	GLU	Peptide
42	BY	102	CYS	Peptide
43	BZ	159	PRO	Peptide
2	CB	128	GLU	Peptide
2	CB	14	GLY	Peptide
2	CB	71	VAL	Peptide
3	CC	19	GLU	Peptide
3	CC	46	GLU	Peptide
5	CE	64	ARG	Peptide
7	CG	57	GLU	Peptide
9	CI	24	GLY	Peptide
12	CL	91	LYS	Mainchain
13	CM	66	LEU	Peptide
17	CQ	33	GLY	Peptide
20	CT	10	LEU	Peptide
22	CV	26	LYS	Peptide
22	CV	28	MET	Peptide
22	CV	30	PRO	Peptide
45	D1	83	GLU	Peptide
48	D4	42	PHE	Peptide
48	D4	44	THR	Peptide
52	D8	34	TRP	Peptide,Mainchain
25	DD	274	ARG	Peptide
26	DE	72	VAL	Peptide
27	DF	129	PHE	Peptide
27	DF	85	GLY	Peptide
27	DF	89	VAL	Mainchain
28	DG	13	GLU	Peptide
30	DI	113	ARG	Peptide
31	DN	23	LEU	Peptide,Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
32	DO	48	PRO	Peptide
33	DP	26	GLY	Peptide
33	DP	44	GLY	Peptide
36	DS	82	ILE	Peptide
37	DT	126	ALA	Peptide
41	DX	93	GLU	Peptide
42	DY	102	CYS	Peptide

5.2 Too-close contacts (i)

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 hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32353	0	16329	1267	0
1	CA	32270	0	16287	987	1
2	AB	1775	0	1743	99	0
2	CB	1775	0	1743	93	0
3	AC	1450	0	1314	80	0
3	CC	1450	0	1314	99	0
4	AD	1526	0	1417	79	0
4	CD	1526	0	1415	91	0
5	AE	1105	0	1130	55	0
5	CE	1105	0	1130	60	0
6	AF	777	0	737	26	0
6	CF	777	0	737	24	0
7	AG	1164	0	1106	100	0
7	CG	1164	0	1106	54	0
8	AH	1045	0	1033	52	0
8	CH	1045	0	1033	52	0
9	AI	852	0	742	69	0
9	CI	852	0	742	62	0
10	AJ	663	0	558	56	0
10	CJ	663	0	558	30	0
11	AK	828	0	822	28	0
11	CK	828	0	822	31	0
12	AL	905	0	916	44	0
12	CL	905	0	916	44	0
13	AM	804	0	752	62	0
13	CM	804	0	752	48	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	AN	478	0	497	50	0
14	CN	478	0	497	35	0
15	AO	724	0	749	25	0
15	CO	724	0	749	29	0
16	AP	651	0	638	33	0
16	CP	651	0	638	35	0
17	AQ	823	0	891	16	0
17	CQ	823	0	891	18	0
18	AR	514	0	530	24	0
18	CR	514	0	530	24	0
19	AS	560	0	466	41	0
19	CS	560	0	466	23	0
20	AT	713	0	766	36	0
20	CT	713	0	766	30	0
21	AU	199	0	208	26	0
21	CU	199	0	208	9	0
22	AV	333	0	235	14	0
22	CV	353	0	266	13	0
23	BA	60512	0	30492	877	0
23	DA	60620	0	30560	944	0
24	BB	2573	0	1304	45	0
24	DB	2573	0	1304	52	0
25	BD	2136	0	2218	67	0
25	DD	2136	0	2218	68	0
26	BE	1555	0	1607	39	0
26	DE	1555	0	1607	52	0
27	BF	1580	0	1621	51	0
27	DF	1580	0	1621	65	0
28	BG	1368	0	1324	51	0
28	DG	1368	0	1324	56	0
29	BH	1317	0	1376	30	0
29	DH	1317	0	1376	31	0
30	BI	1040	0	1045	55	1
30	DI	1038	0	1040	38	0
31	BN	1112	0	1180	37	0
31	DN	1112	0	1180	37	0
32	BO	923	0	981	24	0
32	DO	923	0	981	29	0
33	BP	1131	0	1201	38	0
33	DP	1131	0	1201	39	0
34	BQ	1122	0	1179	33	0
34	DQ	1122	0	1179	45	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	BR	968	0	1033	22	0
35	DR	968	0	1033	29	0
36	BS	865	0	905	46	0
36	DS	865	0	905	52	0
37	BT	1063	0	1103	41	0
37	DT	1063	0	1103	40	0
38	BU	959	0	1019	24	0
38	DU	959	0	1019	29	0
39	BV	760	0	816	20	0
39	DV	771	0	830	24	0
40	BW	881	0	935	17	0
40	DW	881	0	935	21	0
41	BX	742	0	799	17	0
41	DX	742	0	799	18	0
42	BY	785	0	828	31	0
42	DY	785	0	828	27	0
43	BZ	1522	0	1511	49	0
43	DZ	1522	0	1511	52	0
44	B0	594	0	604	23	0
44	D0	594	0	604	31	0
45	B1	745	0	804	31	0
45	D1	745	0	804	31	0
46	B2	588	0	643	19	0
46	D2	588	0	643	24	0
47	B3	458	0	503	9	0
47	D3	458	0	503	13	0
48	B4	349	0	336	20	0
48	D4	349	0	336	20	0
49	B5	455	0	472	14	0
49	D5	455	0	472	17	0
50	B6	449	0	462	19	0
50	D6	449	0	462	18	0
51	B7	418	0	467	11	0
51	D7	418	0	467	15	0
52	B8	509	0	565	23	0
52	D8	509	0	565	28	0
53	B9	297	0	316	8	0
53	D9	297	0	316	10	0
54	AA	106	0	0	0	0
54	AD	1	0	0	0	0
54	B0	2	0	0	0	0
54	B1	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	B2	2	0	0	0	0
54	B3	2	0	0	0	0
54	B5	2	0	0	0	0
54	B8	3	0	0	0	0
54	B9	1	0	0	0	0
54	BA	618	0	0	0	0
54	BB	17	0	0	0	0
54	BD	3	0	0	0	0
54	BE	6	0	0	0	0
54	BF	2	0	0	0	0
54	BP	1	0	0	0	0
54	BQ	3	0	0	0	0
54	BR	2	0	0	0	0
54	BU	2	0	0	0	0
54	BV	1	0	0	0	0
54	BW	1	0	0	0	0
54	CA	69	0	0	0	0
54	D6	1	0	0	0	0
54	D7	1	0	0	0	0
54	D8	1	0	0	0	0
54	DA	430	0	0	0	0
54	DB	5	0	0	0	0
54	DD	1	0	0	0	0
54	DE	1	0	0	0	0
54	DF	2	0	0	0	0
54	DP	1	0	0	0	0
55	AD	1	0	0	0	0
55	AN	1	0	0	0	0
55	B4	1	0	0	0	0
55	B5	1	0	0	0	0
55	B6	1	0	0	0	0
55	B9	1	0	0	0	0
55	BY	1	0	0	0	0
55	CD	1	0	0	0	0
55	CN	1	0	0	0	0
55	D4	1	0	0	0	0
55	D5	1	0	0	0	0
55	D6	1	0	0	0	0
55	D9	1	0	0	0	0
55	DY	1	0	0	0	0
56	AA	145	0	0	23	0
56	AF	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AK	1	0	0	0	0
56	AQ	1	0	0	0	0
56	B0	4	0	0	0	0
56	B3	1	0	0	0	0
56	B4	1	0	0	0	0
56	B5	3	0	0	1	0
56	B7	3	0	0	0	0
56	B8	7	0	0	0	0
56	B9	2	0	0	1	0
56	BA	1422	0	0	86	0
56	BB	31	0	0	1	0
56	BD	10	0	0	4	0
56	BE	8	0	0	0	0
56	BF	11	0	0	0	0
56	BH	2	0	0	0	0
56	BN	2	0	0	0	0
56	BO	3	0	0	0	0
56	BP	6	0	0	0	0
56	BQ	2	0	0	0	0
56	BR	6	0	0	0	0
56	BT	1	0	0	0	0
56	BU	2	0	0	0	0
56	BV	2	0	0	0	0
56	BW	4	0	0	0	0
56	BX	2	0	0	0	0
56	BY	1	0	0	0	0
56	CA	119	0	0	13	0
56	CD	1	0	0	0	0
56	CK	2	0	0	0	0
56	CP	1	0	0	0	0
56	CT	2	0	0	0	0
56	D0	1	0	0	0	0
56	D1	2	0	0	0	0
56	DA	696	0	0	56	0
56	DB	9	0	0	0	0
56	DD	3	0	0	0	0
56	DE	2	0	0	0	0
56	DF	5	0	0	0	0
56	DP	5	0	0	0	0
56	DQ	2	0	0	0	0
56	DR	1	0	0	0	0
56	DV	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DX	1	0	0	0	0
56	DY	1	0	0	0	0
All	All	283930	0	186520	7011	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 15.

All (7011) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1303:C:N4	1:AA:1334:G:H1	1.41	1.17
23:BA:2296:U:O4	23:BA:2335:A:N6	1.76	1.15
23:DA:2296:U:O4	23:DA:2335:A:N6	1.79	1.15
1:AA:1003:G:H1	1:AA:1037:C:N4	1.46	1.14
1:AA:559:A:H4'	1:AA:560:U:H3'	1.35	1.07
1:CA:559:A:H4'	1:CA:560:U:H3'	1.36	1.07
23:BA:2057:A:OP2	56:BA:4256:HOH:O	1.72	1.05
1:AA:952:U:H3	1:AA:1229:A:N6	1.55	1.04
1:AA:345:C:OP2	37:BT:39:ARG:NH2	1.90	1.03
1:CA:1003:G:H1	1:CA:1037:C:N4	1.56	1.02
1:AA:1313:U:H3	1:AA:1324:A:N6	1.59	1.00
23:BA:1310:G:OP2	51:B7:9:ARG:NH1	1.94	1.00
45:D1:21:ARG:HG2	45:D1:21:ARG:HH11	1.27	0.99
1:AA:1350:A:N6	1:AA:1372:U:H3	1.58	0.99
1:AA:1047:G:H1	1:AA:1210:C:H42	1.02	0.98
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.28	0.98
13:CM:3:ARG:HA	48:D4:34:GLU:HG2	1.43	0.98
1:AA:933:G:H1	1:AA:1384:C:H42	1.08	0.98
23:BA:2304:G:H1	23:BA:2312:U:H3	1.11	0.97
1:AA:943:U:H3	1:AA:1340:A:H61	1.05	0.97
23:DA:2304:G:H1	23:DA:2312:U:H3	1.12	0.97
23:BA:139(A):G:N2	41:BX:44:GLU:OE1	1.97	0.97
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.00	0.96
1:CA:1422:G:H5'	32:DO:48:PRO:HB3	1.44	0.96
23:DA:139(A):G:N2	41:DX:44:GLU:OE1	1.99	0.96
23:DA:1310:G:OP2	51:D7:9:ARG:NH1	1.97	0.96
23:DA:1359:A:N6	23:DA:1372:U:O4	1.99	0.96
1:AA:79:G:H1	1:AA:90:U:H3	1.05	0.96
1:CA:346:G:N2	1:CA:347:G:N3	2.15	0.95
23:BA:1784:A:OP2	56:BA:3901:HOH:O	1.84	0.95
42:DY:76:CYS:HB3	42:DY:79:CYS:HB2	1.47	0.95

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2059:A:OP2	56:BA:4447:HOH:O	1.85	0.95
33:DP:39:LYS:HB2	33:DP:45:LEU:HG	1.49	0.95
23:BA:2322:A:H61	23:BA:2335:A:N6	1.65	0.95
1:AA:1013:G:N2	1:AA:1016:A:N7	2.14	0.94
1:CA:1164:G:H1	1:CA:1172:C:H42	1.01	0.94
1:AA:1156:G:H1'	1:AA:1179:A:H61	1.32	0.94
23:DA:2322:A:H61	23:DA:2335:A:N6	1.65	0.94
1:CA:1003:G:N2	1:CA:1037:C:N3	2.17	0.93
28:DG:61:ALA:HB1	48:D4:7:PRO:HG3	1.51	0.93
23:BA:2122:U:H3	23:BA:2176:A:H61	1.12	0.93
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.33	0.93
23:BA:1664:A:OP1	56:BA:4528:HOH:O	1.87	0.92
23:BA:2714:G:OP2	56:BA:4492:HOH:O	1.86	0.92
28:BG:61:ALA:HB1	48:B4:7:PRO:HG3	1.51	0.92
23:DA:1779:U:H5	23:DA:1784:A:N7	1.67	0.92
1:AA:136:C:H42	1:AA:227:G:H1	1.18	0.92
1:AA:1014:A:H5'	19:AS:14:HIS:HB2	1.52	0.92
1:CA:1164:G:H1	1:CA:1172:C:N4	1.67	0.92
23:DA:197:A:OP1	56:DA:3892:HOH:O	1.88	0.92
1:CA:1237:C:H42	1:CA:1337:G:H1	1.16	0.92
1:AA:1238:A:H62	1:AA:1299:A:H61	1.15	0.92
1:AA:1313:U:H3	1:AA:1324:A:H61	0.98	0.92
23:BA:1774:C:OP1	56:BA:4516:HOH:O	1.88	0.92
42:BY:76:CYS:HB3	42:BY:79:CYS:HB2	1.52	0.91
1:AA:1075:C:OP1	2:AB:179:LYS:NZ	2.02	0.91
1:AA:1249:C:H42	1:AA:1287:A:H8	1.15	0.91
45:B1:21:ARG:HG2	45:B1:21:ARG:HH11	1.35	0.91
23:BA:9:U:N3	23:BA:2629:A:N1	2.17	0.91
23:BA:27:G:N2	23:BA:512:G:O2'	2.02	0.91
3:AC:36:ASP:HA	3:AC:39:ILE:HB	1.52	0.91
23:DA:2122:U:H3	23:DA:2176:A:H61	1.12	0.90
1:AA:1003:G:N2	1:AA:1037:C:N3	2.17	0.90
1:AA:1233:G:H21	1:AA:1364:U:H3	1.16	0.90
1:CA:1047:G:H1	1:CA:1210:C:H42	1.13	0.90
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.04	0.90
23:DA:2287:A:H62	23:DA:2344:U:H3	1.19	0.90
52:B8:7:HIS:HD2	52:B8:10:ALA:H	1.20	0.89
1:AA:1348:U:O2	1:AA:1374:A:N6	2.04	0.89
23:BA:1154:G:N7	56:BA:4287:HOH:O	2.04	0.89
23:BA:2322:A:OP2	56:BA:4631:HOH:O	1.88	0.89
23:DA:2287:A:N6	23:DA:2344:U:H3	1.69	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:346:G:N2	1:AA:347:G:N3	2.20	0.89
1:AA:1311:G:H1	1:AA:1326:C:H42	1.19	0.89
27:BF:46:ARG:HG2	27:BF:46:ARG:HH11	1.37	0.89
23:DA:2820:A:OP2	35:DR:2:ARG:NH2	2.05	0.89
23:BA:631:A:OP1	33:BP:65:ARG:NH1	2.05	0.89
52:D8:7:HIS:HD2	52:D8:10:ALA:H	1.20	0.88
23:BA:571:A:H5'	23:BA:2030:A:H62	1.38	0.88
1:AA:770:C:OP1	56:AA:1858:HOH:O	1.92	0.88
1:AA:1165:C:H42	1:AA:1171:G:H1	1.19	0.88
18:CR:69:THR:HA	18:CR:72:ARG:HD2	1.54	0.88
18:AR:69:THR:HA	18:AR:72:ARG:HD2	1.55	0.88
1:CA:1047:G:H1	1:CA:1210:C:N4	1.69	0.88
1:AA:1047:G:H1	1:AA:1210:C:N4	1.72	0.88
23:BA:1779:U:H5	23:BA:1784:A:N7	1.71	0.88
23:DA:287:C:O2	23:DA:354:G:N2	2.05	0.88
23:BA:446:G:OP2	56:BA:3961:HOH:O	1.90	0.87
23:BA:2319:G:H22	36:BS:3:ARG:HE	1.21	0.87
23:DA:27:G:N2	23:DA:512:G:O2'	2.07	0.87
33:BP:39:LYS:HB2	33:BP:45:LEU:HG	1.54	0.87
53:D9:11:CYS:SG	53:D9:32:HIS:HE1	1.97	0.87
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.39	0.87
3:AC:181:ASN:HB3	3:AC:204:LEU:HB2	1.56	0.87
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	1.54	0.87
1:CA:839:U:H5"	1:CA:840:C:H5	1.39	0.87
26:BE:54:GLN:HG3	26:BE:76:ARG:HB3	1.56	0.87
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.38	0.87
1:CA:1350:A:H61	1:CA:1372:U:H3	1.21	0.87
22:CV:4:GLN:NE2	22:CV:4:GLN:O	2.06	0.87
23:DA:2319:G:H22	36:DS:3:ARG:HE	1.23	0.86
1:CA:677:U:H3	1:CA:713:G:H22	1.22	0.86
1:AA:1092:A:H5"	7:AG:4:ARG:HH12	1.40	0.86
14:AN:47:LEU:HA	14:AN:50:LYS:HB2	1.57	0.86
1:AA:1303:C:N3	1:AA:1334:G:N2	2.24	0.86
23:BA:422:A:OP2	56:BA:3942:HOH:O	1.93	0.86
1:AA:964:A:N3	1:AA:969:A:O2'	2.06	0.86
23:BA:1359:A:N6	23:BA:1372:U:O4	2.08	0.86
23:BA:1855:G:N7	56:BA:4952:HOH:O	2.08	0.86
30:BI:104:GLN:HB3	30:BI:105:HIS:HD2	1.38	0.86
23:DA:882:G:H1	23:DA:894:C:H42	1.23	0.86
23:DA:1204:A:H2	23:DA:1241:A:H62	1.24	0.86
23:DA:1388:G:N7	56:DA:4127:HOH:O	2.08	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2134:A:O2'	23:DA:2159:G:N2	2.08	0.86
23:BA:2499:C:OP1	56:BA:4031:HOH:O	1.94	0.86
7:AG:72:ARG:NH1	7:AG:142:GLU:OE1	2.09	0.85
1:AA:1263:C:H42	1:AA:1272:G:H1	1.24	0.85
30:BI:92:VAL:HG13	30:BI:120:ILE:HB	1.55	0.85
7:AG:108:ALA:HB2	7:AG:123:GLU:HG2	1.57	0.85
23:DA:631:A:OP1	33:DP:65:ARG:NH1	2.08	0.85
23:DA:1603:A:OP1	56:DA:3880:HOH:O	1.93	0.85
1:AA:1158:C:H4'	2:AB:133:LYS:HB2	1.58	0.85
23:BA:27:G:N2	23:BA:512:G:HO2'	1.73	0.85
5:CE:122:GLU:O	5:CE:126:ARG:NH1	2.08	0.85
7:AG:64:GLN:HG3	7:AG:128:ALA:HB1	1.59	0.85
23:BA:1204:A:H2	23:BA:1241:A:H62	1.25	0.85
27:DF:46:ARG:HG2	27:DF:46:ARG:HH11	1.42	0.85
23:BA:2115:G:N2	23:BA:2119:A:OP2	2.10	0.85
19:CS:50:ALA:HA	19:CS:59:PRO:HA	1.58	0.85
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.12	0.85
7:CG:74:GLU:OE1	7:CG:95:ARG:NH2	2.08	0.85
14:CN:29:ARG:HD2	14:CN:31:ARG:HB2	1.57	0.84
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.10	0.84
1:CA:1380:U:O2	1:CA:1382:C:N4	2.09	0.84
23:DA:2777:G:H5"	23:DA:2778:A:H5'	1.58	0.84
1:AA:619:U:N3	4:AD:134:ASP:OD2	2.09	0.84
23:DA:27:G:N2	23:DA:512:G:HO2'	1.74	0.84
23:BA:1235:G:OP1	56:BA:4118:HOH:O	1.96	0.84
10:AJ:48:THR:HG22	10:AJ:60:ARG:HD2	1.59	0.84
35:DR:33:ARG:NH2	49:D5:57:VAL:O	2.11	0.84
23:DA:571:A:H5'	23:DA:2030:A:H62	1.42	0.84
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.60	0.84
16:AP:53:VAL:HG13	16:AP:79:VAL:HG22	1.60	0.83
23:BA:90:U:HO2'	23:BA:92:A:H8	0.88	0.83
23:DA:1689:A:H62	23:DA:1698:A:H2	1.21	0.83
23:BA:1654:A:OP1	35:BR:1:MET:N	2.09	0.83
23:BA:1970:A:OP1	56:BA:4433:HOH:O	1.96	0.83
1:AA:1205:U:H4'	3:AC:195:VAL:HB	1.60	0.83
15:CO:82:ILE:HB	15:CO:87:ILE:HG22	1.61	0.83
23:DA:2306:C:H5'	23:DA:2307:G:H2'	1.60	0.83
1:AA:1129:C:N4	1:AA:1134:G:O6	2.11	0.83
1:CA:557:G:OP1	56:CA:1761:HOH:O	1.96	0.83
23:DA:1109:C:H5	23:DA:1110:G:C2	1.97	0.83
37:DT:64:ARG:HB2	37:DT:73:GLU:HG2	1.61	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2108:C:H2'	23:BA:2109:U:O5'	1.79	0.82
1:AA:511:C:H42	1:AA:540:G:H1	1.28	0.82
1:AA:1422:G:H5'	32:BO:48:PRO:HB3	1.61	0.82
23:BA:1332:G:O6	56:BA:4822:HOH:O	1.97	0.82
1:CA:768:A:OP2	56:CA:1756:HOH:O	1.96	0.82
23:BA:1352:U:OP2	56:BA:3911:HOH:O	1.98	0.82
3:CC:137:ALA:HA	3:CC:140:ARG:HD3	1.61	0.82
23:DA:90:U:HO2'	23:DA:92:A:H8	0.87	0.82
23:BA:243:U:OP2	52:B8:8:LYS:NZ	2.11	0.82
23:DA:2115:G:N2	23:DA:2119:A:OP2	2.11	0.82
5:AE:122:GLU:O	5:AE:126:ARG:NH1	2.13	0.82
1:CA:136:C:H42	1:CA:227:G:H1	1.25	0.82
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.43	0.82
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.44	0.82
23:BA:2306:C:H5'	23:BA:2307:G:H2'	1.61	0.82
23:BA:2576:G:OP1	56:BA:4399:HOH:O	1.97	0.82
23:DA:1403:C:H5"	23:DA:1471:A:H1'	1.62	0.82
1:AA:1304:G:OP2	21:AU:2:GLY:N	2.11	0.82
50:B6:23:THR:OG1	50:B6:24:GLU:N	2.10	0.82
1:AA:994:A:H61	1:AA:1047:G:H4'	1.45	0.81
1:AA:1147:C:O2	9:AI:16:ARG:NH2	2.12	0.81
23:BA:1689:A:H62	23:BA:1698:A:H2	1.26	0.81
28:BG:131:TYR:HB3	28:BG:159:VAL:HG13	1.60	0.81
1:CA:1129:C:N4	1:CA:1134:G:O6	2.13	0.81
1:AA:1124:G:N2	1:AA:1150:U:O2	2.13	0.81
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	1.61	0.81
23:BA:1109:C:H5	23:BA:1110:G:C2	1.99	0.81
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.28	0.81
1:AA:1125:U:H5'	1:AA:1126:U:H5	1.45	0.81
15:AO:82:ILE:HB	15:AO:87:ILE:HG22	1.63	0.81
23:BA:2602:A:H4'	23:BA:2603:G:OP1	1.80	0.81
26:DE:54:GLN:HG3	26:DE:76:ARG:HB3	1.61	0.81
1:AA:1157:A:H4'	1:AA:1158:C:H5'	1.62	0.81
8:AH:91:ARG:HD3	17:AQ:33:GLY:HA3	1.63	0.81
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.62	0.81
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.63	0.81
23:BA:2448:A:N1	56:BA:3932:HOH:O	2.14	0.81
1:CA:1003:G:H1	1:CA:1037:C:H42	0.82	0.81
1:CA:1131:G:O6	1:CA:1143:G:N2	2.13	0.81
1:CA:511:C:H42	1:CA:540:G:H1	1.27	0.80
30:DI:40:THR:OG1	30:DI:43:ASN:OD1	1.99	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1017:G:N7	56:DA:4001:HOH:O	2.15	0.80
1:AA:677:U:H3	1:AA:713:G:H22	1.29	0.80
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.13	0.80
1:CA:854:G:N7	56:CA:1775:HOH:O	2.13	0.80
1:AA:933:G:H1	1:AA:1384:C:N4	1.78	0.80
23:BA:1439:A:OP1	56:BA:4055:HOH:O	1.97	0.80
1:CA:405:U:O4	4:CD:2:GLY:N	2.14	0.80
42:DY:30:VAL:HG22	42:DY:37:VAL:HG12	1.64	0.80
1:AA:1040:U:H2'	1:AA:1041:A:H5'	1.64	0.80
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.46	0.80
1:AA:1502:A:H2	1:AA:1505:G:H1	1.29	0.80
23:BA:2108:C:C2'	23:BA:2109:U:O5'	2.30	0.80
1:CA:1502:A:H2	1:CA:1505:G:H1	1.28	0.80
23:DA:1366:A:OP1	45:D1:3:LYS:NZ	2.15	0.80
1:AA:572:A:OP2	56:AA:1839:HOH:O	2.00	0.80
23:BA:271(I):G:H1	23:BA:271(O):C:H42	1.27	0.80
23:DA:27:G:H22	23:DA:512:G:HO2'	1.29	0.80
23:DA:90:U:O2'	23:DA:92:A:H8	1.64	0.80
23:BA:27:G:H22	23:BA:512:G:HO2'	1.25	0.80
37:BT:64:ARG:HB2	37:BT:73:GLU:HG2	1.62	0.80
50:D6:23:THR:OG1	50:D6:24:GLU:N	2.14	0.80
1:AA:839:U:H5"	1:AA:840:C:H5	1.44	0.80
1:AA:943:U:H3	1:AA:1340:A:N6	1.78	0.80
1:CA:426:G:OP1	4:CD:38:TYR:OH	1.99	0.80
5:CE:43:LEU:O	5:CE:65:ASN:ND2	2.14	0.79
1:AA:800:G:N7	56:AA:1911:HOH:O	2.13	0.79
10:AJ:32:ALA:HB1	10:AJ:33:GLN:HG3	1.62	0.79
1:AA:1131:G:O6	1:AA:1143:G:N2	2.16	0.79
1:AA:1289:A:H1'	1:AA:1371:G:H21	1.45	0.79
23:BA:2615:U:OP1	56:BA:4798:HOH:O	2.01	0.79
1:CA:1029:C:H1'	1:CA:1032:G:H22	1.46	0.79
23:BA:548:A:H62	39:BV:19:LYS:HB2	1.47	0.79
23:BA:882:G:H1	23:BA:894:C:H42	1.27	0.79
23:DA:240:G:O6	56:DA:4023:HOH:O	2.00	0.79
23:DA:1449:A:OP1	56:DA:4005:HOH:O	2.01	0.79
1:AA:503:C:OP2	12:AL:116:SER:HB3	1.83	0.79
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.16	0.79
23:DA:271(I):G:H1	23:DA:271(O):C:H42	1.29	0.79
3:AC:114:PRO:O	3:AC:118:GLN:N	2.14	0.79
1:CA:1015:A:H1'	1:CA:1219:U:H5'	1.65	0.79
23:DA:548:A:H62	39:DV:19:LYS:HB2	1.46	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1210:A:H5'	23:DA:1210:A:H8	1.46	0.79
1:AA:1309:G:N7	13:AM:99:ARG:NH2	2.31	0.79
23:DA:2322:A:N6	23:DA:2335:A:N6	2.30	0.79
5:AE:43:LEU:O	5:AE:65:ASN:ND2	2.15	0.79
1:CA:191:G:H21	20:CT:103:GLY:HA2	1.45	0.79
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.65	0.79
2:AB:178:ARG:HH22	8:AH:68:ARG:HH22	1.30	0.78
1:CA:537:G:N7	56:CA:1768:HOH:O	2.15	0.78
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.16	0.78
30:DI:106:GLY:HA2	30:DI:107:VAL:HB	1.65	0.78
23:BA:2777:G:H5"	23:BA:2778:A:H5'	1.64	0.78
23:DA:2562:U:H1'	32:DO:23:ARG:HH11	1.49	0.78
28:DG:131:TYR:HB3	28:DG:159:VAL:HG13	1.65	0.78
23:BA:399:G:OP2	56:BA:3940:HOH:O	2.02	0.78
23:BA:2222:G:N7	56:BA:4603:HOH:O	2.15	0.78
1:CA:17:U:H2'	1:CA:18:C:C6	2.18	0.78
1:AA:992:U:H2'	1:AA:1043:C:H5	1.48	0.78
1:AA:1442(A):G:H2'	1:AA:1442(B):A:H5'	1.65	0.78
8:CH:91:ARG:HD3	17:CQ:33:GLY:HA3	1.66	0.78
30:DI:78:THR:O	30:DI:104:GLN:NE2	2.13	0.78
1:AA:1237:C:O3'	1:AA:1300:G:N2	2.16	0.78
37:DT:56:GLY:O	37:DT:59:THR:HG23	1.83	0.78
23:DA:1013:C:OP2	56:DA:3999:HOH:O	2.01	0.78
37:BT:95:ARG:HG2	37:BT:95:ARG:HH11	1.48	0.78
1:CA:1442(A):G:H2'	1:CA:1442(B):A:H5'	1.65	0.77
12:CL:76:ASN:ND2	12:CL:106:ASP:O	2.17	0.77
23:DA:2134:A:H61	23:DA:2157:G:H1'	1.49	0.77
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.65	0.77
23:BA:2322:A:N6	23:BA:2335:A:N6	2.33	0.77
4:AD:79:PHE:HD2	4:AD:80:GLU:H	1.28	0.77
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.46	0.77
43:DZ:45:ASP:OD2	43:DZ:49:ARG:NH1	2.17	0.77
1:AA:327:A:HO2'	1:AA:329:A:H8	1.32	0.77
1:AA:939:G:O2'	1:AA:1375:A:N3	2.15	0.77
2:AB:136:VAL:HA	2:AB:139:LYS:HG3	1.67	0.77
23:BA:301:G:OP2	42:BY:84:ARG:NH2	2.17	0.77
23:BA:1403:C:H5"	23:BA:1471:A:H1'	1.66	0.77
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.64	0.77
16:CP:53:VAL:HG13	16:CP:79:VAL:HG22	1.64	0.77
7:AG:40:ALA:HB3	9:AI:41:VAL:HG21	1.66	0.77
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.18	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:128:VAL:HG13	4:AD:129:ASN:HD22	1.48	0.77
4:CD:128:VAL:HG13	4:CD:129:ASN:HD22	1.49	0.77
1:AA:1165:C:N4	1:AA:1171:G:H1	1.83	0.77
1:AA:1376:U:H5	7:AG:9:VAL:HA	1.48	0.77
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.20	0.77
23:BA:2134:A:H61	23:BA:2157:G:H1'	1.50	0.77
23:BA:2588:G:OP1	56:BA:4246:HOH:O	2.02	0.77
1:CA:1441:G:H4'	1:CA:1442:G:C8	2.19	0.77
23:DA:1243:G:O2'	33:DP:7:ARG:NH2	2.17	0.77
37:DT:60:THR:HG22	37:DT:77:PRO:HA	1.67	0.77
13:AM:90:LEU:O	13:AM:92:HIS:N	2.17	0.77
1:CA:1160:G:H1	1:CA:1176:A:H61	1.33	0.77
7:CG:89:MET:HG2	7:CG:155:ARG:HG3	1.65	0.77
1:AA:17:U:H2'	1:AA:18:C:C6	2.20	0.77
23:BA:69:C:N4	56:BA:3949:HOH:O	2.17	0.77
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.20	0.77
23:DA:2405:G:H4'	23:DA:2406:U:OP2	1.83	0.77
47:B3:8:LEU:HD13	47:B3:31:LEU:HD23	1.67	0.76
1:CA:1047:G:N2	1:CA:1210:C:N3	2.32	0.76
23:DA:1026:U:O2'	23:DA:1027:A:O5'	2.02	0.76
23:DA:1767:C:O2	23:DA:1985:G:N2	2.17	0.76
1:AA:952:U:H3	1:AA:1229:A:H61	0.80	0.76
23:BA:120:U:OP1	56:BA:3890:HOH:O	2.01	0.76
28:BG:76:SER:HA	28:BG:83:ARG:HA	1.67	0.76
53:B9:11:CYS:SG	53:B9:32:HIS:HE1	2.08	0.76
23:BA:2104:G:N7	23:BA:2186:G:N2	2.33	0.76
23:BA:2820:A:OP2	35:BR:2:ARG:NH2	2.19	0.76
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.66	0.76
1:AA:578:C:OP1	56:AA:1906:HOH:O	2.02	0.76
1:AA:1028:C:H42	1:AA:1034:G:H1'	1.50	0.76
23:BA:827:U:OP1	56:BA:4313:HOH:O	2.02	0.76
23:BA:2407:G:OP1	56:BA:4302:HOH:O	2.03	0.76
1:CA:1237:C:N4	1:CA:1337:G:H1	1.84	0.76
2:CB:139:LYS:HA	2:CB:142:LEU:HB3	1.68	0.76
33:DP:59:LEU:HD11	52:D8:10:ALA:HB2	1.65	0.76
1:AA:1337:G:O2'	1:AA:1338:G:N7	2.18	0.76
23:BA:587:C:OP2	33:BP:21:ARG:NH2	2.18	0.76
23:BA:2134:A:N6	23:BA:2157:G:H1'	2.01	0.76
1:AA:10:A:H2'	1:AA:11:G:H8	1.50	0.76
1:CA:346:G:H21	1:CA:347:G:H1'	1.50	0.76
30:DI:92:VAL:HG23	30:DI:97:ILE:HD11	1.68	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:139:LYS:HA	2:AB:142:LEU:HB3	1.68	0.76
23:BA:106:C:O4'	42:BY:1:MET:HB2	1.86	0.76
1:CA:1120:G:O6	1:CA:1152:A:N6	2.19	0.76
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.49	0.76
23:DA:221:A:H4'	23:DA:222:A:O5'	1.85	0.75
29:DH:70:THR:O	29:DH:71:LEU:HB2	1.86	0.75
1:AA:1220:G:H1'	19:AS:52:TYR:CD2	2.22	0.75
2:AB:130:ARG:HA	2:AB:130:ARG:HE	1.52	0.75
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.67	0.75
46:D2:35:LEU:HD12	46:D2:53:LEU:HD12	1.68	0.75
23:BA:1494:A:H2'	23:BA:1495:A:C8	2.21	0.75
23:BA:1980:G:O2'	23:BA:1982:C:OP2	2.05	0.75
2:CB:136:VAL:HA	2:CB:139:LYS:HG3	1.66	0.75
5:CE:9:LYS:H	5:CE:112:LEU:HD11	1.51	0.75
45:D1:54:ALA:HB1	45:D1:83:GLU:HB2	1.67	0.75
1:AA:1350:A:N1	1:AA:1372:U:O2	2.18	0.75
29:BH:70:THR:O	29:BH:71:LEU:HB2	1.85	0.75
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.21	0.75
23:DA:300:A:P	42:DY:86:ARG:HH22	2.09	0.75
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.22	0.75
2:AB:24:TRP:HZ3	2:AB:29:ALA:HB2	1.52	0.75
25:BD:28:GLU:OE1	56:BD:402:HOH:O	2.04	0.75
1:CA:1255:G:O6	10:CJ:43:ARG:NH2	2.20	0.75
21:CU:15:ARG:HH11	21:CU:15:ARG:HB2	1.50	0.75
23:DA:2602:A:H4'	23:DA:2603:G:OP1	1.87	0.75
46:D2:51:ARG:HA	46:D2:54:LYS:HB2	1.68	0.75
1:AA:299:G:O6	56:AA:1929:HOH:O	2.04	0.75
45:B1:3:LYS:HB2	45:B1:61:ARG:NH1	2.01	0.75
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.20	0.75
1:AA:1238:A:N6	1:AA:1299:A:H61	1.83	0.75
23:BA:90:U:O2	56:BA:4786:HOH:O	2.01	0.75
23:BA:2140:C:N3	23:BA:2151:G:O6	2.19	0.75
1:CA:1347:G:O2'	1:CA:1373:G:O6	2.03	0.75
2:CB:178:ARG:HH22	8:CH:68:ARG:HH22	1.35	0.75
52:D8:34:TRP:O	52:D8:36:LYS:N	2.19	0.75
1:CA:673:G:H2'	1:CA:674:G:C8	2.21	0.75
1:CA:1122:U:H2'	1:CA:1123:A:H8	1.52	0.75
9:CI:9:ARG:HG2	9:CI:14:VAL:HG22	1.69	0.75
23:DA:2291:U:O4	56:DA:4091:HOH:O	2.04	0.75
27:BF:185:ASP:OD1	27:BF:188:ARG:NH1	2.20	0.74
23:DA:1019:U:H3	23:DA:1142(A):A:H62	1.34	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1441:G:O2'	1:AA:1459:C:N3	2.17	0.74
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.69	0.74
9:CI:18:PHE:HB3	9:CI:20:ARG:HE	1.50	0.74
23:DA:2134:A:N6	23:DA:2157:G:H1'	2.02	0.74
1:AA:673:G:H2'	1:AA:674:G:C8	2.23	0.74
23:BA:90:U:O2'	23:BA:92:A:H8	1.65	0.74
23:DA:2588:G:OP1	56:DA:3979:HOH:O	2.05	0.74
1:AA:1269:A:H4'	21:AU:18:TYR:HB2	1.70	0.74
13:AM:23:TYR:HE1	13:AM:70:LEU:HB3	1.50	0.74
35:BR:33:ARG:NH2	49:B5:57:VAL:O	2.14	0.74
23:DA:2683:C:OP1	37:DT:53:ARG:NH2	2.21	0.74
3:AC:114:PRO:HA	3:AC:117:ALA:HB3	1.70	0.74
13:CM:108:ARG:HH21	13:CM:114:ARG:HH11	1.35	0.74
14:AN:23:ARG:HD3	14:AN:30:ALA:HB2	1.69	0.74
23:BA:287:C:O2	23:BA:354:G:N2	2.16	0.74
23:BA:2181:G:H2'	23:BA:2182:G:C8	2.23	0.74
23:BA:2562:U:H1'	32:BO:23:ARG:HH11	1.51	0.74
1:CA:10:A:H2'	1:CA:11:G:H8	1.52	0.74
23:DA:2108:C:H2'	23:DA:2109:U:O5'	1.88	0.74
24:DB:105:A:OP1	43:DZ:72:ARG:NH1	2.21	0.74
7:AG:127:ALA:HB1	7:AG:135:VAL:HG23	1.70	0.74
2:CB:130:ARG:HA	2:CB:130:ARG:HE	1.52	0.74
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.68	0.74
12:AL:76:ASN:ND2	12:AL:106:ASP:O	2.19	0.74
23:BA:530:G:O4'	23:BA:530:G:N3	2.20	0.74
1:CA:1028:C:N4	1:CA:1034:G:N3	2.36	0.74
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.52	0.74
23:DA:2760:C:H2'	23:DA:2761:G:H5"	1.68	0.74
28:DG:76:SER:HA	28:DG:83:ARG:HA	1.70	0.74
1:AA:1360:A:C8	14:AN:18:VAL:HG12	2.23	0.74
1:CA:1274:G:N2	1:CA:1275:A:H62	1.86	0.74
23:DA:226:G:H21	23:DA:228:A:H62	1.34	0.74
23:DA:1858:G:O2'	23:DA:1884:A:N6	2.20	0.74
27:DF:53:THR:HG23	27:DF:55:GLY:H	1.52	0.74
1:AA:3:G:H5"	1:AA:4:U:H5"	1.67	0.73
7:AG:70:LYS:O	7:AG:138:LYS:NZ	2.19	0.73
10:CJ:49:VAL:HG21	14:CN:45:ARG:HD2	1.70	0.73
1:AA:1311:G:H1	1:AA:1326:C:N4	1.86	0.73
13:AM:38:GLY:O	13:AM:55:ARG:NH1	2.21	0.73
1:CA:999:C:H42	1:CA:1042:G:H1	1.36	0.73
24:DB:117:G:H4'	36:DS:54:LEU:HD23	1.69	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:947:G:O6	1:AA:1234:C:N3	2.20	0.73
10:CJ:58:ASP:OD2	10:CJ:58:ASP:N	2.21	0.73
13:AM:3:ARG:NH2	13:AM:10:PRO:O	2.21	0.73
1:CA:522:C:H5"	12:CL:120:TYR:OH	1.88	0.73
3:CC:50:ALA:HB1	3:CC:70:VAL:HG13	1.69	0.73
23:DA:921:G:O6	56:DA:3903:HOH:O	2.05	0.73
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.20	0.73
23:BA:1026:U:O2'	23:BA:1027:A:O5'	2.03	0.73
1:CA:1107:C:H5"	3:CC:173:VAL:H	1.53	0.73
1:CA:1293:G:HO2'	1:CA:1294:G:H8	1.33	0.73
23:DA:1654:A:OP1	35:DR:1:MET:N	2.14	0.73
37:BT:60:THR:HG22	37:BT:77:PRO:HA	1.68	0.73
23:DA:747:U:O2	23:DA:2014:A:H1'	1.88	0.73
23:BA:1366:A:OP1	45:B1:3:LYS:NZ	2.21	0.73
23:BA:1669:A:OP2	56:BA:4866:HOH:O	2.05	0.73
23:BA:1798:U:H5'	25:BD:259:THR:HG22	1.70	0.73
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.24	0.73
39:DV:40:LEU:HB2	39:DV:46:VAL:HG13	1.69	0.73
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.69	0.73
34:DQ:38:GLU:HB2	34:DQ:127:ILE:HG22	1.69	0.73
1:AA:959:A:H1'	1:AA:985:C:H1'	1.70	0.73
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.71	0.73
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.71	0.73
48:B4:9:LEU:HD23	48:B4:27:THR:HG23	1.70	0.73
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.20	0.73
22:CV:53:VAL:HG13	22:CV:54:MET:HG3	1.70	0.73
23:DA:1038:C:H42	23:DA:1117:G:H1	1.36	0.73
48:D4:18:CYS:HB2	48:D4:39:CYS:SG	2.29	0.73
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.70	0.73
3:AC:35:GLU:O	3:AC:39:ILE:N	2.20	0.73
23:BA:1322:A:N7	56:BA:4624:HOH:O	2.21	0.73
23:BA:2036:C:H5'	23:BA:2036:C:H6	1.54	0.73
23:BA:531:C:OP2	56:BA:4363:HOH:O	2.05	0.72
23:BA:990:A:OP2	56:BA:4330:HOH:O	2.06	0.72
37:BT:56:GLY:O	37:BT:59:THR:HG23	1.88	0.72
23:DA:1141:U:OP2	31:DN:63:THR:OG1	2.06	0.72
23:DA:2721:A:OP1	56:DA:4047:HOH:O	2.05	0.72
24:DB:28:C:H2'	24:DB:29:A:H8	1.53	0.72
45:D1:3:LYS:HB2	45:D1:61:ARG:NH1	2.04	0.72
1:AA:59:A:H5'	1:AA:60:A:H5"	1.69	0.72
1:AA:346:G:H21	1:AA:347:G:H1'	1.52	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1061:G:H2'	1:AA:1062:U:C6	2.23	0.72
23:BA:226:G:H21	23:BA:228:A:H62	1.37	0.72
36:BS:102:ALA:HA	36:BS:105:ALA:HB3	1.70	0.72
42:BY:30:VAL:HG22	42:BY:37:VAL:HG12	1.71	0.72
23:DA:1494:A:H2'	23:DA:1495:A:C8	2.24	0.72
23:DA:1828:G:OP1	56:DA:3604:HOH:O	2.07	0.72
44:D0:65:GLY:HA3	44:D0:81:VAL:HG12	1.71	0.72
1:CA:542:G:OP1	4:CD:10:ARG:NH1	2.23	0.72
1:AA:1177:G:H2'	1:AA:1178:G:H5'	1.71	0.72
23:BA:2405:G:H4'	23:BA:2406:U:OP2	1.89	0.72
1:CA:991:U:C4	1:CA:1212:U:H1'	2.25	0.72
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	1.71	0.72
23:DA:639:U:H2'	23:DA:640:C:C6	2.25	0.72
33:BP:126:VAL:HG12	33:BP:148:LEU:HD22	1.70	0.72
1:CA:1321:C:H5"	1:CA:1322:C:H2'	1.71	0.72
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.07	0.72
13:CM:104:ARG:HG3	13:CM:105:THR:HG23	1.71	0.72
3:AC:139:GLN:O	3:AC:143:GLU:N	2.23	0.72
10:AJ:61:GLU:HB2	14:AN:58:LYS:HE3	1.70	0.72
1:CA:542:G:P	4:CD:10:ARG:HH22	2.12	0.72
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.70	0.72
23:DA:615:G:OP1	27:DF:40:GLN:NE2	2.23	0.72
1:AA:1442:G:O2'	1:AA:1442(A):G:OP1	2.06	0.72
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.71	0.72
46:B2:51:ARG:HA	46:B2:54:LYS:HB2	1.72	0.72
2:CB:24:TRP:HZ3	2:CB:29:ALA:HB2	1.53	0.72
19:CS:39:THR:OG1	19:CS:70:LYS:NZ	2.22	0.72
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.25	0.72
23:BA:1038:C:H42	23:BA:1117:G:H1	1.38	0.72
23:BA:2786:U:O2'	26:BE:62:PRO:O	2.07	0.72
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.71	0.72
36:DS:102:ALA:HA	36:DS:105:ALA:HB3	1.70	0.72
1:AA:1240:U:O4	7:AG:32:ARG:NH2	2.22	0.72
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.72	0.72
1:CA:1442:G:N7	1:CA:1442(A):G:C6	2.58	0.72
23:DA:2308:G:O2'	23:DA:2310:A:OP2	2.04	0.72
29:DH:28:GLY:HA3	29:DH:79:VAL:HB	1.70	0.72
1:AA:946:A:H2'	1:AA:947:G:C8	2.24	0.72
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.71	0.72
1:AA:1442:G:N7	1:AA:1442(A):G:C6	2.58	0.72
23:BA:639:U:H2'	23:BA:640:C:C6	2.25	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:973:G:H3'	1:CA:974:A:H5"	1.72	0.72
24:DB:28:C:H2'	24:DB:29:A:C8	2.25	0.72
1:AA:812:C:N3	56:AA:1888:HOH:O	2.22	0.71
5:AE:98:THR:HB	5:AE:117:ASP:HB3	1.72	0.71
6:AF:100:ASN:ND2	18:AR:23:LYS:O	2.21	0.71
33:BP:95:VAL:HA	33:BP:99:LEU:HD12	1.72	0.71
1:AA:1066:C:H3'	1:AA:1067:A:H8	1.55	0.71
1:AA:1288:A:H1'	1:AA:1353:G:H4'	1.72	0.71
23:BA:1210:A:H5'	23:BA:1210:A:H8	1.53	0.71
48:B4:18:CYS:HB2	48:B4:39:CYS:SG	2.30	0.71
23:DA:1250:G:N7	33:DP:18:ARG:NH2	2.38	0.71
23:DA:2122:U:H3	23:DA:2176:A:N6	1.84	0.71
1:AA:940:C:H42	1:AA:1343:G:H1	1.38	0.71
23:DA:1980:G:O2'	23:DA:1982:C:OP2	2.07	0.71
23:DA:2140:C:N3	23:DA:2151:G:O6	2.24	0.71
4:AD:107:ARG:HE	4:AD:173:TRP:HZ2	1.36	0.71
23:BA:747:U:O2	23:BA:2014:A:H1'	1.90	0.71
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.25	0.71
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.71	0.71
23:DA:1022:G:H22	23:DA:1142(A):A:H2	1.38	0.71
37:DT:95:ARG:HG2	37:DT:95:ARG:HH11	1.56	0.71
1:AA:1288:A:H61	1:AA:1371:G:H1'	1.54	0.71
10:AJ:11:PHE:HE2	10:AJ:67:THR:HB	1.53	0.71
1:CA:59:A:H5'	1:CA:60:A:H5"	1.72	0.71
3:CC:155:GLY:HA3	3:CC:196:LEU:HD13	1.71	0.71
23:DA:1815:A:OP2	25:DD:54:ARG:NH2	2.23	0.71
33:DP:126:VAL:HG12	33:DP:148:LEU:HD22	1.72	0.71
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.56	0.71
1:AA:1160:G:H22	1:AA:1177:G:N2	1.88	0.71
23:BA:2357:U:OP1	44:B0:20:ARG:NH1	2.23	0.71
45:B1:20:ARG:HG2	45:B1:20:ARG:HH11	1.55	0.71
1:CA:1286:A:C6	1:CA:1354:C:H5"	2.25	0.71
1:AA:1156:G:H1'	1:AA:1179:A:N6	2.05	0.71
1:AA:1261:A:O2'	1:AA:1283:G:OP1	2.08	0.71
4:CD:79:PHE:HD2	4:CD:80:GLU:H	1.35	0.71
13:CM:47:ASP:N	13:CM:47:ASP:OD1	2.22	0.71
23:DA:2104:G:N7	23:DA:2186:G:N2	2.38	0.71
5:AE:9:LYS:H	5:AE:112:LEU:HD11	1.54	0.71
7:AG:88:PRO:HD3	7:AG:148:ASN:HB3	1.73	0.71
23:BA:1817:G:OP1	25:BD:88:ARG:NH2	2.22	0.71
30:BI:102:SER:HA	30:BI:106:GLY:HA3	1.73	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:16:ARG:NH2	37:BT:83:ILE:O	2.23	0.71
1:AA:325:A:N7	56:AA:1829:HOH:O	2.24	0.71
1:AA:938:A:H2'	1:AA:939:G:O4'	1.90	0.71
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.24	0.71
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.55	0.71
5:CE:98:THR:HB	5:CE:117:ASP:HB3	1.72	0.71
8:CH:45:ILE:HG22	8:CH:63:LEU:HA	1.72	0.71
23:DA:2296:U:C4	23:DA:2335:A:N6	2.59	0.71
1:AA:1347:G:H5"	9:AI:107:ARG:HA	1.72	0.71
1:CA:539:A:H2'	1:CA:540:G:C8	2.26	0.71
23:DA:2036:C:H6	23:DA:2036:C:H5'	1.55	0.71
1:AA:1160:G:H22	1:AA:1177:G:H21	1.38	0.70
23:BA:2158:A:H4'	23:BA:2159:G:OP1	1.90	0.70
23:DA:2181:G:H2'	23:DA:2182:G:C8	2.25	0.70
1:AA:937:A:N1	1:AA:1377:A:H1'	2.06	0.70
1:AA:1005:A:O3'	1:AA:1037:C:O2'	2.09	0.70
8:AH:45:ILE:HG22	8:AH:63:LEU:HA	1.72	0.70
23:BA:1669:A:OP1	56:BA:4896:HOH:O	2.10	0.70
23:BA:2122:U:H3	23:BA:2176:A:N6	1.86	0.70
34:BQ:38:GLU:HB2	34:BQ:127:ILE:HG22	1.72	0.70
3:CC:114:PRO:O	3:CC:118:GLN:NE2	2.25	0.70
23:DA:833:U:O2	33:DP:55:ARG:NH2	2.25	0.70
37:DT:51:ARG:HG3	37:DT:98:LYS:HE3	1.74	0.70
1:AA:674:G:H2'	1:AA:675:A:H8	1.55	0.70
1:AA:1369:C:H2'	1:AA:1370:G:H8	1.54	0.70
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.72	0.70
23:BA:2839:G:H5'	35:BR:46:GLY:HA2	1.74	0.70
1:CA:1304:G:H1'	1:CA:1333:A:H61	1.57	0.70
7:CG:51:GLN:HG2	7:CG:58:PRO:HD3	1.73	0.70
23:DA:243:U:OP2	52:D8:8:LYS:NZ	2.22	0.70
23:DA:1817:G:OP1	25:DD:88:ARG:NH2	2.23	0.70
1:AA:1059:C:H2'	1:AA:1060:C:C6	2.26	0.70
1:AA:1459:C:C6	1:AA:1460:A:N7	2.59	0.70
1:AA:501:C:H2'	1:AA:502:G:H8	1.55	0.70
1:AA:982:U:H3	1:AA:1222:G:H1	1.40	0.70
7:AG:24:THR:HA	7:AG:27:ILE:HG13	1.72	0.70
10:AJ:10:GLY:H	10:AJ:16:LEU:HD12	1.55	0.70
4:CD:14:ARG:HA	4:CD:39:PRO:HB3	1.74	0.70
1:AA:966:G:H5"	1:AA:969:A:N7	2.06	0.70
21:AU:3:LYS:HA	21:AU:10:ARG:HB3	1.73	0.70
23:BA:39:C:O2	27:BF:46:ARG:NH2	2.25	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.55	0.70
1:AA:575:G:OP1	56:AA:1856:HOH:O	2.09	0.70
1:AA:1178:G:H2'	1:AA:1179:A:H3'	1.74	0.70
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.74	0.70
23:BA:1858:G:O2'	23:BA:1884:A:N6	2.23	0.70
23:DA:301:G:OP2	42:DY:84:ARG:NH2	2.24	0.70
45:D1:21:ARG:HG2	45:D1:21:ARG:NH1	1.98	0.70
1:AA:524:G:H2'	1:AA:525:C:H6	1.55	0.70
23:BA:2445:G:OP1	27:BF:74:ARG:NH2	2.24	0.70
43:BZ:45:ASP:OD2	43:BZ:49:ARG:NH1	2.25	0.70
1:CA:353:A:H5'	1:CA:353:A:H8	1.56	0.70
23:DA:2357:U:OP1	44:D0:20:ARG:NH1	2.24	0.70
37:DT:16:ARG:NH2	37:DT:83:ILE:O	2.25	0.70
1:AA:1249:C:N4	1:AA:1287:A:H8	1.87	0.69
23:BA:221:A:H4'	23:BA:222:A:O5'	1.92	0.69
23:BA:1243:G:O2'	33:BP:7:ARG:NH2	2.25	0.69
23:BA:2308:G:O2'	23:BA:2310:A:OP2	2.07	0.69
48:B4:16:CYS:HA	48:B4:33:VAL:HB	1.74	0.69
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.08	0.69
23:DA:530:G:O4'	23:DA:530:G:N3	2.23	0.69
1:AA:885:G:N7	56:AA:1823:HOH:O	2.25	0.69
1:AA:994:A:N6	1:AA:1047:G:H4'	2.05	0.69
1:AA:1049:U:HO2'	14:AN:2:ALA:N	1.88	0.69
50:B6:10:LEU:HD12	50:B6:54:ILE:HA	1.73	0.69
1:CA:1178:G:N2	1:CA:1181:G:OP2	2.26	0.69
23:DA:248:G:OP1	56:DA:3741:HOH:O	2.09	0.69
1:AA:932:C:H5'	7:AG:4:ARG:HE	1.56	0.69
1:AA:1289:A:H1'	1:AA:1371:G:N2	2.05	0.69
4:CD:107:ARG:HE	4:CD:173:TRP:HZ2	1.37	0.69
14:AN:41:ARG:HA	14:AN:44:LEU:HD23	1.74	0.69
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.27	0.69
27:BF:7:TYR:H	27:BF:22:ALA:HB3	1.56	0.69
45:B1:54:ALA:HB1	45:B1:83:GLU:HB2	1.73	0.69
23:DA:39:C:O2	27:DF:46:ARG:NH2	2.25	0.69
1:AA:975:A:N6	1:AA:1366:C:O2	2.25	0.69
1:AA:1009:G:O6	1:AA:1020:U:O2	2.09	0.69
1:AA:1253:G:H5'	10:AJ:44:VAL:O	1.92	0.69
21:AU:9:ARG:HD2	21:AU:13:ILE:HD11	1.74	0.69
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.58	0.69
23:DA:81:G:N7	56:DA:4117:HOH:O	2.24	0.69
23:DA:141:A:C8	23:DA:1408:C:O2'	2.46	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.75	0.69
7:AG:87:VAL:HG21	7:AG:154:TYR:HB2	1.75	0.69
20:AT:12:ALA:O	20:AT:15:ARG:HB2	1.93	0.69
28:DG:16:ARG:HE	28:DG:31:VAL:HG11	1.57	0.69
1:AA:1350:A:H61	1:AA:1372:U:H3	0.81	0.69
4:AD:14:ARG:HA	4:AD:39:PRO:HB3	1.73	0.69
1:CA:1350:A:N6	1:CA:1372:U:H3	1.91	0.69
1:CA:1373:G:H5'	7:CG:36:LYS:HB2	1.75	0.69
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.58	0.69
23:DA:1405:U:H2'	23:DA:1406:U:C6	2.28	0.69
23:DA:2124:G:N2	23:DA:2174:C:C2	2.61	0.69
23:DA:2206:G:H5'	23:DA:2207:G:C5	2.28	0.69
40:DW:60:ASN:HD22	40:DW:60:ASN:N	1.91	0.69
1:AA:353:A:H8	1:AA:353:A:H5'	1.58	0.69
1:AA:770:C:OP1	56:AA:1860:HOH:O	2.11	0.69
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.57	0.69
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.28	0.69
23:BA:833:U:O2	33:BP:55:ARG:NH2	2.26	0.69
23:BA:1359:A:N6	23:BA:1372:U:C4	2.61	0.69
23:BA:2124:G:N2	23:BA:2174:C:C2	2.61	0.69
30:BI:93:THR:HG23	30:BI:96:ASP:H	1.57	0.69
7:CG:46:ALA:HB1	7:CG:121:ALA:HB2	1.75	0.69
9:CI:3:GLN:HB3	9:CI:20:ARG:HG3	1.73	0.69
11:CK:79:SER:HA	11:CK:104:GLN:HB2	1.73	0.69
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	1.74	0.69
23:DA:1278:A:OP1	35:DR:36:THR:HG23	1.91	0.69
29:DH:149:ARG:NH1	29:DH:167:GLU:OE1	2.26	0.69
42:DY:79:CYS:HB3	42:DY:81:LYS:H	1.58	0.69
44:D0:27:GLU:HG3	44:D0:68:GLU:HA	1.74	0.69
47:D3:8:LEU:HD13	47:D3:31:LEU:HD23	1.75	0.69
1:AA:1308:U:H2'	1:AA:1309:G:C8	2.27	0.69
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.93	0.69
1:CA:501:C:H2'	1:CA:502:G:H8	1.58	0.69
3:CC:150:LYS:HB2	3:CC:173:VAL:HG11	1.74	0.69
9:CI:96:LEU:HA	9:CI:100:GLY:H	1.57	0.69
1:AA:539:A:H2'	1:AA:540:G:C8	2.28	0.69
23:BA:141:A:H8	23:BA:1408:C:HO2'	1.41	0.69
23:BA:141:A:H8	23:BA:1408:C:O2'	1.76	0.69
23:BA:2296:U:C4	23:BA:2335:A:N6	2.61	0.69
23:BA:2646:C:OP2	23:BA:2732:G:O2'	2.09	0.69
23:DA:1253:A:N7	56:DA:4109:HOH:O	2.26	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.92	0.68
19:AS:33:THR:HG22	19:AS:35:SER:H	1.58	0.68
29:BH:28:GLY:HA3	29:BH:79:VAL:HB	1.74	0.68
33:BP:47:ASP:OD2	33:BP:50:ARG:NH2	2.26	0.68
1:CA:1004:A:N6	1:CA:1035:A:N7	2.40	0.68
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	1.73	0.68
1:CA:1264:C:H2'	1:CA:1265:G:C8	2.28	0.68
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG3	2.28	0.68
23:DA:1395:A:OP1	56:DA:3880:HOH:O	2.10	0.68
23:DA:2445:G:OP1	27:DF:74:ARG:NH2	2.25	0.68
29:DH:3:ARG:HG2	29:DH:6:ARG:HE	1.57	0.68
1:AA:1321:C:H5"	1:AA:1322:C:H2'	1.75	0.68
2:AB:135:GLN:HA	2:AB:138:LEU:HD12	1.74	0.68
23:BA:2760:C:H2'	23:BA:2761:G:H5"	1.74	0.68
35:BR:67:LEU:HD13	35:BR:76:VAL:HG21	1.76	0.68
1:AA:1252:A:C2	1:AA:1355:G:H1'	2.29	0.68
15:AO:15:PHE:HE2	15:AO:84:LYS:HD2	1.59	0.68
23:BA:120:U:OP2	56:BA:3889:HOH:O	2.11	0.68
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.58	0.68
1:CA:1274:G:H21	1:CA:1275:A:H62	1.39	0.68
46:B2:35:LEU:HD12	46:B2:53:LEU:HD12	1.75	0.68
1:CA:457:C:H2'	1:CA:458:C:C6	2.29	0.68
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.75	0.68
23:DA:2786:U:O2'	26:DE:62:PRO:O	2.08	0.68
1:AA:962:C:H2'	1:AA:963:G:H8	1.57	0.68
1:AA:1062:U:H3	1:AA:1194:U:H3	1.39	0.68
30:BI:104:GLN:HB3	30:BI:105:HIS:CD2	2.25	0.68
1:CA:448:A:OP2	1:CA:485:G:N1	2.16	0.68
1:CA:574:A:OP2	56:CA:1792:HOH:O	2.11	0.68
23:DA:1798:U:H5'	25:DD:259:THR:HG22	1.74	0.68
1:AA:1502:A:H2	1:AA:1505:G:N1	1.92	0.68
23:DA:2839:G:H5'	35:DR:46:GLY:HA2	1.74	0.68
48:D4:16:CYS:HA	48:D4:33:VAL:HB	1.74	0.68
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.74	0.68
10:AJ:57:LYS:O	10:AJ:60:ARG:NH1	2.26	0.68
1:CA:377:G:OP1	16:CP:3:LYS:NZ	2.24	0.68
3:CC:177:THR:HB	3:CC:180:ALA:HB2	1.75	0.68
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.76	0.68
35:DR:20:LEU:HD21	35:DR:40:LYS:HD3	1.74	0.68
1:AA:365:U:H5"	1:AA:366:C:OP1	1.94	0.68
4:AD:127:THR:HG23	4:AD:147:ALA:HB3	1.76	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.24	0.68
23:DA:271(E):U:H2'	23:DA:271(F):C:C6	2.29	0.68
27:DF:7:TYR:H	27:DF:22:ALA:HB3	1.59	0.68
39:DV:76:LYS:HB2	39:DV:81:TYR:HB3	1.76	0.68
1:AA:1353:G:OP2	21:AU:3:LYS:NZ	2.24	0.68
30:BI:72:LEU:HD21	30:BI:107:VAL:HG11	1.74	0.68
3:CC:12:LEU:HD11	14:CN:51:GLY:HA3	1.75	0.68
1:AA:1003:G:H2'	1:AA:1004:A:H1'	1.76	0.68
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.94	0.68
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	1.75	0.68
23:BA:677:A:OP1	56:BA:4104:HOH:O	2.11	0.68
1:CA:49:U:H3	1:CA:362:G:H1'	1.58	0.68
1:CA:940:C:H42	1:CA:1343:G:H1	1.42	0.68
2:CB:135:GLN:HA	2:CB:138:LEU:HD12	1.76	0.68
4:CD:127:THR:HG23	4:CD:147:ALA:HB3	1.76	0.68
23:DA:220:G:O2'	23:DA:233:A:N3	2.25	0.68
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.59	0.67
23:BA:528:A:N1	23:BA:2042:A:H2'	2.09	0.67
28:BG:16:ARG:HE	28:BG:31:VAL:HG11	1.60	0.67
36:BS:34:HIS:CE1	36:BS:54:LEU:HD12	2.30	0.67
4:CD:193:ASP:N	4:CD:193:ASP:OD1	2.27	0.67
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.75	0.67
27:DF:185:ASP:OD1	27:DF:188:ARG:NH1	2.27	0.67
46:D2:50:ILE:O	46:D2:51:ARG:HB3	1.94	0.67
1:AA:524:G:H2'	1:AA:525:C:C6	2.28	0.67
4:AD:14:ARG:HB2	4:AD:40:PRO:HD2	1.76	0.67
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.76	0.67
1:CA:1084:G:H5"	1:CA:1086:U:C4	2.27	0.67
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.93	0.67
43:DZ:69:THR:HG22	43:DZ:90:VAL:HA	1.76	0.67
1:AA:584:G:H5'	17:AQ:91:ARG:HH22	1.59	0.67
1:AA:981:U:OP1	14:AN:9:LYS:NZ	2.27	0.67
1:AA:993:G:N7	1:AA:1213:A:N6	2.42	0.67
1:AA:1216:G:H5"	14:AN:5:ALA:HB2	1.75	0.67
23:BA:2319:G:N2	36:BS:3:ARG:HE	1.93	0.67
23:DA:106:C:O4'	42:DY:1:MET:HB2	1.95	0.67
23:DA:1653:G:H3'	35:DR:2:ARG:HD3	1.76	0.67
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.60	0.67
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.77	0.67
12:AL:33:ARG:HD3	12:AL:62:SER:HB3	1.76	0.67
23:BA:1010:A:OP2	56:BA:4351:HOH:O	2.12	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:148:G:H2'	1:CA:149:A:H8	1.60	0.67
1:CA:650:G:O6	56:CA:1790:HOH:O	2.10	0.67
23:DA:2099:U:H3	23:DA:2190:G:H1	1.42	0.67
1:AA:1158:C:H2'	1:AA:1159:U:H4'	1.76	0.67
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.30	0.67
9:CI:71:SER:HA	9:CI:74:ILE:HD12	1.74	0.67
23:DA:818:G:OP2	56:DA:4018:HOH:O	2.13	0.67
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.30	0.67
34:DQ:62:GLY:O	43:DZ:178:GLU:HG2	1.95	0.67
36:DS:34:HIS:CE1	36:DS:54:LEU:HD12	2.29	0.67
1:AA:31:G:H5'	1:AA:306:G:N2	2.10	0.67
1:AA:1192:C:O2	5:AE:25:ARG:NH2	2.28	0.67
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.30	0.67
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.77	0.67
23:DA:1153:C:OP1	38:DU:92:ARG:NH1	2.26	0.67
23:DA:2682:U:OP2	56:DA:4047:HOH:O	2.12	0.67
1:AA:1319:A:N6	1:AA:1361:G:H1'	2.10	0.67
1:AA:1372:U:H2'	1:AA:1373:G:C8	2.30	0.67
23:BA:1036:G:H1	23:BA:1119:C:H42	1.43	0.67
1:CA:1441:G:O2'	1:CA:1459:C:N3	2.19	0.67
14:CN:29:ARG:HG3	14:CN:31:ARG:H	1.60	0.67
23:DA:529:A:H62	23:DA:2041:U:H3	1.42	0.67
23:DA:2361:A:N7	56:DA:3909:HOH:O	2.27	0.67
1:AA:1178:G:N2	1:AA:1181:G:O5'	2.19	0.67
1:AA:1201:A:H5'	1:AA:1203:C:OP2	1.94	0.67
4:AD:193:ASP:OD1	4:AD:193:ASP:N	2.28	0.67
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.60	0.67
4:CD:80:GLU:O	4:CD:83:SER:N	2.27	0.67
15:CO:15:PHE:HE2	15:CO:84:LYS:HD2	1.60	0.67
25:DD:275:LYS:HG3	25:DD:276:LYS:HG2	1.77	0.67
1:AA:148:G:H2'	1:AA:149:A:H8	1.58	0.67
1:AA:1025:U:O2	1:AA:1036:G:O6	2.13	0.67
13:AM:108:ARG:HG3	13:AM:114:ARG:HH22	1.59	0.67
1:CA:1502:A:H2	1:CA:1505:G:N1	1.92	0.67
13:CM:108:ARG:HE	13:CM:114:ARG:HD3	1.60	0.67
28:DG:15:VAL:HG13	28:DG:175:LEU:HB3	1.77	0.67
29:DH:137:ASP:HB3	29:DH:140:LYS:HB3	1.77	0.67
2:AB:174:VAL:O	2:AB:178:ARG:HB2	1.95	0.67
13:AM:12:ASN:O	13:AM:44:ARG:HB3	1.94	0.67
13:AM:65:LYS:HA	13:AM:66:LEU:HB2	1.77	0.67
23:BA:141:A:C8	23:BA:1408:C:O2'	2.47	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1653:G:H3'	35:BR:2:ARG:HD3	1.77	0.67
24:BB:38:C:O4'	36:BS:95:HIS:NE2	2.27	0.67
45:B1:85:LEU:HB3	45:B1:89:GLU:HG3	1.77	0.67
1:CA:1014:A:H8	1:CA:1014:A:OP1	1.76	0.67
1:CA:1309:G:OP2	13:CM:99:ARG:NH2	2.24	0.67
38:DU:92:ARG:HA	38:DU:95:LEU:HB2	1.75	0.67
1:AA:955:U:H3	1:AA:1225:A:H61	1.41	0.66
23:BA:1022:G:H22	23:BA:1142(A):A:H2	1.43	0.66
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.60	0.66
6:CF:91:VAL:HG11	18:CR:72:ARG:HH12	1.60	0.66
1:AA:659:U:H2'	1:AA:660:G:H8	1.58	0.66
8:AH:33:GLU:HA	8:AH:36:LEU:HD12	1.77	0.66
23:BA:1486:A:H2'	23:BA:1487:G:H8	1.58	0.66
23:BA:2285:C:OP2	50:B6:6:ARG:NH1	2.28	0.66
42:BY:23:ARG:HG2	42:BY:42:VAL:HG22	1.76	0.66
44:B0:65:GLY:HA3	44:B0:81:VAL:HG12	1.77	0.66
1:CA:346:G:N2	1:CA:347:G:H1'	2.09	0.66
9:CI:9:ARG:HB2	9:CI:9:ARG:HH11	1.59	0.66
23:DA:2108:C:C2'	23:DA:2109:U:O5'	2.42	0.66
1:AA:944:G:O6	1:AA:1337:G:H2'	1.96	0.66
9:AI:9:ARG:HH11	9:AI:9:ARG:HB2	1.61	0.66
23:BA:1019:U:H3	23:BA:1142(A):A:H62	1.42	0.66
1:CA:1530:G:OP1	56:CA:1773:HOH:O	2.12	0.66
23:DA:993:G:OP1	38:DU:50:ARG:NH2	2.29	0.66
33:DP:95:VAL:HA	33:DP:99:LEU:HD12	1.77	0.66
1:AA:1079:G:OP1	56:AA:1849:HOH:O	2.12	0.66
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.31	0.66
23:BA:271(E):U:H2'	23:BA:271(F):C:C6	2.31	0.66
23:BA:879:G:H22	23:BA:899:A:H1'	1.61	0.66
24:BB:27:C:H5"	36:BS:54:LEU:HD11	1.76	0.66
3:CC:152:ILE:HG13	3:CC:199:LYS:HD2	1.76	0.66
49:D5:49:CYS:SG	49:D5:51:TYR:HB2	2.36	0.66
1:AA:448:A:OP2	1:AA:485:G:N1	2.15	0.66
1:AA:994:A:C5	1:AA:1216:G:H4'	2.31	0.66
1:AA:1098:C:H2'	1:AA:1099:G:H1'	1.78	0.66
30:BI:88:ILE:HD11	30:BI:123:LEU:HB3	1.76	0.66
23:DA:574:C:OP1	56:DA:3662:HOH:O	2.14	0.66
35:DR:67:LEU:HD13	35:DR:76:VAL:HG21	1.75	0.66
1:AA:659:U:H2'	1:AA:660:G:C8	2.30	0.66
1:AA:977:A:O2'	1:AA:980:C:N4	2.29	0.66
23:BA:90:U:O2'	23:BA:92:A:O5'	2.14	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1250:G:N7	33:BP:18:ARG:NH2	2.44	0.66
1:CA:1028:C:N3	1:CA:1034:G:H1'	2.10	0.66
1:CA:1053:G:N7	1:CA:1200:C:H5'	2.10	0.66
1:AA:457:C:H2'	1:AA:458:C:C6	2.29	0.66
23:BA:1278:A:OP1	35:BR:36:THR:HG23	1.94	0.66
26:BE:11:MET:HG2	26:BE:24:THR:HB	1.77	0.66
1:CA:976:G:OP1	14:CN:32:SER:N	2.18	0.66
1:AA:952:U:O2	1:AA:1229:A:N1	2.28	0.66
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.30	0.66
23:BA:1494:A:H2'	23:BA:1495:A:H8	1.60	0.66
1:CA:436:C:H5"	4:CD:156:GLU:OE2	1.96	0.66
6:CF:100:ASN:ND2	18:CR:23:LYS:O	2.28	0.66
38:DU:36:ARG:HD2	38:DU:40:PHE:CZ	2.31	0.66
40:DW:79:GLY:HA3	40:DW:100:THR:HG22	1.77	0.66
4:AD:13:ARG:HB2	4:AD:40:PRO:HD3	1.76	0.66
1:CA:285:G:N7	56:CA:1730:HOH:O	2.29	0.66
1:CA:674:G:H2'	1:CA:675:A:H8	1.60	0.66
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.29	0.66
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	1.76	0.66
1:AA:576:G:OP2	56:AA:1909:HOH:O	2.14	0.66
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.61	0.66
1:AA:1277:C:O2'	1:AA:1279:A:H1'	1.96	0.66
31:BN:20:GLY:HA2	31:BN:61:ARG:HG2	1.78	0.66
1:CA:538:G:H5"	12:CL:114:LYS:HB2	1.77	0.66
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.31	0.66
22:CV:18:GLN:HE21	22:CV:19:ALA:N	1.93	0.66
23:BA:1361:G:N7	56:BA:4717:HOH:O	2.28	0.65
1:CA:1106:G:H5'	3:CC:172:ARG:HD2	1.77	0.65
10:CJ:53:PRO:O	14:CN:41:ARG:NH2	2.30	0.65
25:DD:33:LEU:O	25:DD:64:ILE:HG13	1.97	0.65
42:DY:23:ARG:HG2	42:DY:42:VAL:HG22	1.78	0.65
1:AA:1004:A:N6	1:AA:1035:A:OP2	2.28	0.65
1:AA:1077:G:N7	56:AA:1850:HOH:O	2.30	0.65
20:CT:16:HIS:O	20:CT:19:SER:OG	2.13	0.65
26:DE:11:MET:HG2	26:DE:24:THR:HB	1.77	0.65
1:AA:1240:U:H1'	7:AG:38:LEU:HD21	1.78	0.65
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.78	0.65
24:BB:31:C:O2'	24:BB:53:A:N6	2.30	0.65
31:BN:120:LEU:HD22	31:BN:122:VAL:HG23	1.78	0.65
42:BY:79:CYS:HB3	42:BY:81:LYS:H	1.61	0.65
7:CG:20:ASP:HB3	7:CG:23:VAL:HB	1.78	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:31:ILE:HG12	19:CS:49:ILE:HG22	1.78	0.65
23:DA:587:C:OP2	33:DP:21:ARG:NH2	2.29	0.65
23:DA:1796:U:H2'	23:DA:1797:C:C6	2.31	0.65
1:AA:153:C:H2'	1:AA:154:C:H6	1.61	0.65
1:AA:1037:C:H2'	1:AA:1038:C:O4'	1.97	0.65
1:AA:1252:A:H2	1:AA:1355:G:H1'	1.61	0.65
20:AT:72:LEU:HD21	20:AT:77:ALA:HB2	1.79	0.65
23:BA:2140:C:O2	23:BA:2151:G:N1	2.22	0.65
1:CA:1264:C:N3	1:CA:1271:G:O6	2.29	0.65
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.31	0.65
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.77	0.65
1:AA:590:C:H2'	1:AA:591:U:H6	1.60	0.65
1:AA:989:C:N3	1:AA:1216:G:O6	2.29	0.65
1:AA:1442(A):G:C2'	1:AA:1442(B):A:H5'	2.26	0.65
1:CA:662:G:H2'	1:CA:663:A:C8	2.31	0.65
15:CO:62:GLN:HA	15:CO:65:ARG:HD2	1.77	0.65
45:D1:20:ARG:HG2	45:D1:20:ARG:HH11	1.61	0.65
1:AA:346:G:N2	1:AA:347:G:H1'	2.11	0.65
3:AC:125:GLU:HG3	3:AC:191:THR:HG22	1.79	0.65
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.28	0.65
24:BB:60:C:N4	56:BB:326:HOH:O	2.18	0.65
1:CA:434:U:H2'	1:CA:435:C:C6	2.32	0.65
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.31	0.65
25:DD:108:PRO:HB3	25:DD:143:HIS:HE1	1.60	0.65
31:DN:120:LEU:HD22	31:DN:122:VAL:HG23	1.78	0.65
1:AA:662:G:H2'	1:AA:663:A:C8	2.31	0.65
1:AA:1373:G:H4'	7:AG:36:LYS:HG3	1.78	0.65
23:BA:2099:U:H3	23:BA:2190:G:H1	1.43	0.65
31:DN:47:ALA:HB2	31:DN:112:LEU:HD11	1.78	0.65
1:AA:434:U:H2'	1:AA:435:C:C6	2.31	0.65
1:AA:1313:U:O2	1:AA:1324:A:N1	2.29	0.65
9:AI:5:TYR:HE1	9:AI:16:ARG:HG2	1.62	0.65
23:BA:1153:C:OP1	38:BU:92:ARG:NH1	2.30	0.65
1:CA:130:A:H5'	17:CQ:63:ARG:HH21	1.60	0.65
23:DA:946:G:OP2	56:DA:3960:HOH:O	2.14	0.65
1:AA:962:C:N3	1:AA:973:G:O6	2.30	0.65
1:AA:971:G:HO2'	1:AA:1365:G:HO2'	1.31	0.65
25:BD:275:LYS:HG3	25:BD:276:LYS:HG2	1.77	0.65
1:CA:537:G:H5"	12:CL:113:ARG:NH1	2.12	0.65
1:CA:620:C:H5"	56:CA:1782:HOH:O	1.97	0.65
1:CA:881:G:P	12:CL:12:ARG:HH22	2.19	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:708:C:H42	23:DA:723:G:H1	1.45	0.65
1:AA:21:G:OP1	56:AA:1894:HOH:O	2.15	0.65
1:AA:1036:G:H3'	1:AA:1037:C:H6	1.62	0.65
1:AA:1249:C:H41	1:AA:1287:A:H5'	1.62	0.65
1:AA:1367:C:OP1	9:AI:115:GLY:N	2.30	0.65
3:AC:19:GLU:O	3:AC:56:ASP:HA	1.97	0.65
4:AD:53:ASP:HB3	4:AD:57:ARG:HH12	1.61	0.65
13:AM:70:LEU:O	13:AM:74:VAL:N	2.30	0.65
23:BA:1673:U:OP1	56:BA:4565:HOH:O	2.15	0.65
23:DA:1031:G:H21	53:D9:36:GLN:HE22	1.45	0.65
42:DY:92:ASN:N	42:DY:93:GLY:HA2	2.12	0.65
23:BA:88:G:OP1	56:BA:4659:HOH:O	2.15	0.64
44:B0:27:GLU:HG3	44:B0:68:GLU:HA	1.78	0.64
3:CC:109:PRO:HA	3:CC:112:SER:HB3	1.78	0.64
23:DA:796:C:H2'	23:DA:797:C:C6	2.32	0.64
23:DA:1991:U:H2'	23:DA:1992:G:H5"	1.77	0.64
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.80	0.64
1:AA:1263:C:N4	1:AA:1272:G:H1	1.93	0.64
1:AA:1305:G:H1	1:AA:1331:G:H1'	1.63	0.64
14:AN:7:ILE:HB	14:AN:23:ARG:HG2	1.79	0.64
23:BA:220:G:O2'	23:BA:233:A:N3	2.29	0.64
23:BA:2134:A:O2'	23:BA:2159:G:N2	2.28	0.64
43:BZ:69:THR:HG22	43:BZ:90:VAL:HA	1.78	0.64
1:CA:1442(A):G:C2'	1:CA:1442(B):A:H5'	2.27	0.64
48:D4:9:LEU:HD23	48:D4:27:THR:HG23	1.77	0.64
1:AA:600:C:H2'	1:AA:601:C:C6	2.32	0.64
10:AJ:50:ILE:HG13	10:AJ:60:ARG:HH11	1.62	0.64
10:AJ:50:ILE:HB	14:AN:41:ARG:NE	2.11	0.64
23:BA:2107:C:C5	23:BA:2108:C:N4	2.65	0.64
27:BF:53:THR:HG23	27:BF:55:GLY:H	1.61	0.64
1:CA:1027:C:C2	1:CA:1034:G:N2	2.66	0.64
23:DA:2107:C:N4	23:DA:2108:C:H42	1.95	0.64
34:DQ:38:GLU:OE2	34:DQ:128:LYS:N	2.23	0.64
22:AV:4:GLN:O	22:AV:4:GLN:NE2	2.25	0.64
23:BA:686:G:H5"	51:B7:11:LYS:HE2	1.78	0.64
23:BA:784:A:H5'	23:BA:785:G:OP1	1.97	0.64
30:BI:88:ILE:HG22	30:BI:90:GLY:H	1.62	0.64
1:CA:1222:G:OP2	1:CA:1322:C:N4	2.24	0.64
23:DA:602:G:O2'	23:DA:655:A:N6	2.31	0.64
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.32	0.64
1:AA:1216:G:H5"	14:AN:5:ALA:CB	2.27	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B4:42:PHE:HB3	48:B4:43:TYR:HB2	1.80	0.64
4:CD:14:ARG:HB2	4:CD:40:PRO:HD2	1.79	0.64
1:AA:509:A:OP2	56:AA:1864:HOH:O	2.15	0.64
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.33	0.64
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.79	0.64
24:BB:50:G:H5"	36:BS:61:ASN:HD21	1.63	0.64
29:BH:149:ARG:NH1	29:BH:167:GLU:OE1	2.31	0.64
1:CA:1280:A:H5'	10:CJ:41:PRO:HG2	1.78	0.64
1:CA:1459:C:C6	1:CA:1460:A:N7	2.66	0.64
3:CC:31:HIS:HA	3:CC:34:LEU:HB3	1.80	0.64
1:AA:859:A:H2'	1:AA:860:A:O4'	1.98	0.64
19:AS:48:THR:HA	19:AS:61:TYR:HA	1.80	0.64
23:BA:847:U:OP2	56:BA:4703:HOH:O	2.14	0.64
23:BA:1186:G:OP1	56:BA:4254:HOH:O	2.15	0.64
32:BO:34:THR:OG1	32:BO:35:VAL:N	2.29	0.64
52:B8:34:TRP:CG	52:B8:35:GLN:N	2.65	0.64
1:CA:524:G:H2'	1:CA:525:C:C6	2.33	0.64
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	1.80	0.64
23:DA:2123:G:H1	23:DA:2175:C:H42	1.44	0.64
23:BA:271(I):G:H1	23:BA:271(O):C:N4	1.96	0.64
33:BP:59:LEU:HD11	52:B8:10:ALA:HB2	1.78	0.64
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.33	0.64
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.62	0.64
12:CL:33:ARG:HD3	12:CL:62:SER:HB3	1.78	0.64
30:DI:83:ALA:HB2	30:DI:88:ILE:HA	1.78	0.64
43:DZ:111:VAL:C	43:DZ:113:ALA:H	2.01	0.64
1:AA:1085:U:H3'	1:AA:1086:U:H5	1.63	0.64
22:AV:6:ARG:HA	22:AV:9:LEU:HD12	1.79	0.64
24:BB:24:G:N7	24:BB:56:G:H2'	2.13	0.64
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.46	0.64
23:DA:299:A:H5"	42:DY:86:ARG:HH21	1.63	0.64
23:DA:2637:U:H5"	26:DE:82:ARG:HH21	1.62	0.64
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.63	0.64
30:DI:5:LEU:HD11	30:DI:19:VAL:HG22	1.79	0.64
4:AD:12:CYS:HA	4:AD:19:LEU:HB2	1.80	0.64
9:AI:26:VAL:HG22	9:AI:61:ALA:HB3	1.80	0.64
18:AR:31:LEU:HD12	18:AR:66:LEU:HD13	1.80	0.64
1:CA:841:U:H5	1:CA:848:C:H1'	1.63	0.64
1:CA:1392:G:H21	1:CA:1502:A:H8	1.43	0.64
9:CI:17:VAL:HG13	9:CI:63:ILE:HG12	1.78	0.64
18:CR:31:LEU:HD12	18:CR:66:LEU:HD13	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.64
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.13	0.64
23:DA:2269:A:OP1	56:DA:4013:HOH:O	2.15	0.64
30:DI:83:ALA:HB1	30:DI:86:THR:O	1.98	0.64
1:AA:1059:C:H2'	1:AA:1060:C:H6	1.63	0.63
1:AA:1126:U:H1'	1:AA:1280:A:C6	2.33	0.63
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.33	0.63
1:AA:1339:A:C6	1:AA:1340:A:H1'	2.33	0.63
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.34	0.63
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.80	0.63
23:BA:1045:A:N3	23:BA:1045:A:H2'	2.12	0.63
23:BA:1866:C:H2'	23:BA:1876:A:O4'	1.97	0.63
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.33	0.63
24:BB:49:C:OP1	36:BS:97:ARG:HB2	1.97	0.63
27:BF:13:SER:HB3	27:BF:15:SER:HB2	1.78	0.63
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.33	0.63
23:DA:546:C:H2'	23:DA:547:A:H5'	1.80	0.63
24:DB:27:C:H5"	36:DS:54:LEU:HD11	1.79	0.63
26:DE:47:VAL:HG21	26:DE:86:PRO:HD2	1.80	0.63
38:DU:29:SER:OG	38:DU:30:LYS:NZ	2.30	0.63
1:AA:841:U:H5	1:AA:848:C:H1'	1.62	0.63
10:AJ:91:PRO:HD2	10:AJ:94:VAL:HB	1.79	0.63
19:AS:33:THR:HB	19:AS:51:VAL:HG22	1.79	0.63
1:CA:600:C:H2'	1:CA:601:C:C6	2.33	0.63
23:DA:879:G:H22	23:DA:899:A:H1'	1.63	0.63
23:DA:1153:C:H2'	23:DA:1154:G:O4'	1.98	0.63
23:DA:1486:A:H2'	23:DA:1487:G:H8	1.62	0.63
23:DA:2140:C:O2	23:DA:2151:G:N1	2.23	0.63
23:DA:2567:G:H2'	23:DA:2568:C:C6	2.33	0.63
1:AA:475:G:H2'	1:AA:476:G:H8	1.62	0.63
1:AA:1203:C:H2'	1:AA:1204:A:O4'	1.99	0.63
23:BA:249:C:O2	52:B8:12:LYS:NZ	2.31	0.63
1:CA:1375:A:H4'	7:CG:29:LYS:HE2	1.80	0.63
29:DH:56:SER:HB3	29:DH:61:HIS:ND1	2.13	0.63
1:AA:130:A:H5'	17:AQ:63:ARG:HH21	1.62	0.63
1:AA:519:C:H2'	1:AA:520:A:C8	2.33	0.63
1:AA:924:C:H2'	1:AA:925:G:C8	2.34	0.63
1:CA:1372:U:H2'	1:CA:1373:G:O4'	1.97	0.63
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.63	0.63
13:CM:96:LEU:HD23	13:CM:97:PRO:HD2	1.80	0.63
1:AA:201:C:H42	1:AA:216:G:H1	1.46	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.28	0.63
1:AA:1287:A:H1'	1:AA:1354:C:H5'	1.79	0.63
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.79	0.63
3:AC:115:LEU:HA	3:AC:118:GLN:HG2	1.81	0.63
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.33	0.63
10:AJ:11:PHE:CE2	10:AJ:67:THR:HB	2.34	0.63
23:BA:2497:A:H5"	56:BA:3882:HOH:O	1.99	0.63
48:D4:42:PHE:HB3	48:D4:43:TYR:HB2	1.81	0.63
1:AA:1170:A:H2'	1:AA:1171:G:O4'	1.98	0.63
23:BA:252:G:OP2	33:BP:50:ARG:NH1	2.30	0.63
26:BE:47:VAL:HG21	26:BE:86:PRO:HD2	1.80	0.63
34:BQ:32:TYR:OH	34:BQ:111:GLU:OE1	2.15	0.63
1:CA:1302:U:OP2	13:CM:21:TYR:OH	2.05	0.63
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.80	0.63
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.81	0.63
23:DA:1494:A:H2'	23:DA:1495:A:H8	1.63	0.63
23:DA:2331:G:O3'	44:D0:43:THR:HG22	1.99	0.63
1:AA:396:G:O2'	1:AA:398:C:OP1	2.11	0.63
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.80	0.63
1:AA:979:C:N3	1:AA:1318:A:N6	2.45	0.63
1:AA:999:C:H2'	1:AA:1000:U:H6	1.64	0.63
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.34	0.63
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.63	0.63
5:CE:18:ARG:HH12	5:CE:25:ARG:HD3	1.64	0.63
9:CI:108:VAL:HG12	9:CI:109:VAL:H	1.64	0.63
23:DA:2364:C:H2'	23:DA:2365:G:O4'	1.99	0.63
52:D8:4:MET:HE3	52:D8:63:PRO:HG3	1.81	0.63
1:AA:935:A:O2'	1:AA:1383:C:O2	2.13	0.63
1:AA:1047:G:N2	1:AA:1210:C:N3	2.47	0.63
1:AA:1157:A:H62	1:AA:1177:G:N2	1.96	0.63
1:AA:1305:G:N1	1:AA:1331:G:H1'	2.13	0.63
1:AA:1308:U:H2'	1:AA:1309:G:H8	1.63	0.63
1:CA:201:C:H42	1:CA:216:G:H1	1.45	0.63
1:CA:258:G:O6	56:CA:1733:HOH:O	2.11	0.63
3:CC:150:LYS:HG3	3:CC:173:VAL:HG21	1.81	0.63
23:DA:1045:A:H2'	23:DA:1045:A:N3	2.14	0.63
23:DA:1866:C:H2'	23:DA:1876:A:O4'	1.99	0.63
23:DA:2646:C:OP2	23:DA:2732:G:O2'	2.13	0.63
1:AA:370:C:H2'	1:AA:371:G:C8	2.32	0.63
1:AA:1442(A):G:C8	1:AA:1442(B):A:C2	2.86	0.63
2:AB:98:LEU:H	2:AB:101:MET:HE3	1.63	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1803:A:O2'	25:BD:259:THR:HG21	1.98	0.63
25:BD:145:VAL:HG12	25:BD:146:GLU:O	1.99	0.63
26:BE:72:VAL:HA	26:BE:73:GLU:HB3	1.80	0.63
42:BY:92:ASN:N	42:BY:93:GLY:HA2	2.13	0.63
1:CA:859:A:H2'	1:CA:860:A:O4'	1.99	0.63
4:CD:12:CYS:HA	4:CD:19:LEU:HB2	1.80	0.63
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.34	0.62
20:AT:13:LEU:O	20:AT:17:ARG:HG3	1.98	0.62
23:BA:2206:G:H5'	23:BA:2207:G:C5	2.34	0.62
30:BI:72:LEU:HA	30:BI:75:LEU:HD22	1.80	0.62
40:BW:86:LEU:HD22	40:BW:96:ILE:HD11	1.81	0.62
3:CC:13:GLY:HA3	14:CN:57:ARG:NH2	2.14	0.62
8:CH:33:GLU:HA	8:CH:36:LEU:HD12	1.80	0.62
23:DA:271(M):G:H4'	23:DA:271(N):U:OP1	1.99	0.62
1:AA:35:G:O2'	12:AL:118:SER:O	2.17	0.62
1:AA:933:G:N2	1:AA:1384:C:N3	2.43	0.62
45:B1:3:LYS:HB2	45:B1:61:ARG:HH12	1.63	0.62
1:CA:1080:A:OP1	5:CE:14:ARG:NH2	2.31	0.62
1:CA:1308:U:H2'	1:CA:1309:G:H8	1.63	0.62
4:CD:13:ARG:HB2	4:CD:40:PRO:HD3	1.80	0.62
23:DA:277:C:H1'	23:DA:278:A:OP2	1.98	0.62
36:DS:96:GLY:HA3	36:DS:98:VAL:N	2.14	0.62
45:D1:50:ARG:HG2	45:D1:59:THR:HB	1.80	0.62
1:AA:221:C:H2'	1:AA:222:U:C6	2.33	0.62
1:AA:1170:A:H3'	1:AA:1171:G:H8	1.62	0.62
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.80	0.62
14:AN:3:ARG:HH12	14:AN:28:GLY:H	1.47	0.62
33:BP:38:GLN:O	33:BP:39:LYS:HB3	1.99	0.62
43:BZ:111:VAL:C	43:BZ:113:ALA:H	2.03	0.62
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.82	0.62
23:DA:1143:A:OP1	31:DN:25:ARG:NH2	2.32	0.62
3:AC:19:GLU:HB3	3:AC:54:ARG:CZ	2.30	0.62
15:AO:29:VAL:HG11	15:AO:81:LEU:HD21	1.80	0.62
27:BF:53:THR:CG2	27:BF:55:GLY:H	2.12	0.62
38:BU:36:ARG:HD2	38:BU:40:PHE:CZ	2.34	0.62
1:CA:59:A:H3'	1:CA:331:G:H22	1.64	0.62
1:CA:346:G:N3	1:CA:347:G:H1'	2.13	0.62
1:CA:1027:C:H2'	1:CA:1028:C:H5	1.65	0.62
23:DA:271(R):G:H2'	23:DA:271(S):G:H8	1.64	0.62
23:DA:1495:A:H2'	23:DA:1496:A:C8	2.35	0.62
23:DA:2250:G:O2'	23:DA:2496:C:OP1	2.15	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.82	0.62
9:AI:4:TYR:CD2	9:AI:88:TYR:HB2	2.35	0.62
9:AI:9:ARG:HB3	9:AI:104:ARG:HH21	1.65	0.62
1:CA:38:G:C2	1:CA:397:A:C2	2.87	0.62
1:CA:828:A:N6	1:CA:858:G:O2'	2.32	0.62
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.62	0.62
25:DD:108:PRO:HB3	25:DD:143:HIS:CE1	2.35	0.62
1:AA:17:U:O2'	1:AA:1079:G:N3	2.31	0.62
1:AA:1346:A:O2'	1:AA:1347:G:OP2	2.14	0.62
25:BD:33:LEU:O	25:BD:64:ILE:HG13	1.99	0.62
30:BI:65:ALA:HB1	30:BI:136:VAL:HG11	1.80	0.62
33:BP:121:LYS:HG2	33:BP:123:LEU:HG	1.81	0.62
1:CA:45:U:H3	1:CA:396:G:H1	1.47	0.62
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.99	0.62
1:CA:524:G:H2'	1:CA:525:C:H6	1.63	0.62
2:CB:127:ILE:HA	2:CB:130:ARG:HG2	1.82	0.62
23:DA:11:G:H2'	23:DA:12:U:H5'	1.81	0.62
45:D1:80:LEU:HD23	45:D1:82:LEU:HD21	1.82	0.62
1:AA:881:G:P	12:AL:12:ARG:HH22	2.22	0.62
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.35	0.62
4:AD:9:CYS:HB2	4:AD:22:LYS:NZ	2.14	0.62
23:BA:277:C:H1'	23:BA:278:A:OP2	1.99	0.62
23:BA:2602:A:H8	56:BA:3864:HOH:O	1.83	0.62
23:BA:2637:U:H5"	26:BE:82:ARG:HH21	1.65	0.62
1:CA:1115:C:N3	1:CA:1185:G:O6	2.33	0.62
1:CA:1235:U:H5"	21:CU:3:LYS:HB2	1.81	0.62
23:DA:574:C:N3	26:DE:145:LYS:NZ	2.37	0.62
23:DA:1359:A:N6	23:DA:1372:U:C4	2.59	0.62
1:AA:1001:A:H2'	1:AA:1001(A):G:O4'	2.00	0.62
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.34	0.62
23:BA:1358:G:H2'	23:BA:1359:A:C2	2.35	0.62
23:BA:1488:G:H5'	23:BA:1489:U:OP2	1.99	0.62
23:BA:1754:C:OP1	37:BT:96:ARG:NH1	2.30	0.62
23:BA:2306:C:C5'	23:BA:2307:G:H2'	2.30	0.62
37:BT:65:LYS:HE2	37:BT:67:SER:HB2	1.82	0.62
2:CB:80:ILE:HD13	2:CB:212:GLN:HG2	1.81	0.62
16:CP:15:PRO:HB2	16:CP:41:PRO:HG3	1.82	0.62
23:DA:1106:G:O2'	23:DA:1107:G:OP1	2.16	0.62
30:DI:93:THR:O	30:DI:97:ILE:HD13	2.00	0.62
1:AA:164:U:H2'	1:AA:165:C:C6	2.35	0.62
1:AA:629:G:H2'	1:AA:630:G:O4'	1.99	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.65	0.62
25:BD:69:ARG:NH2	25:BD:128:GLY:O	2.30	0.62
39:BV:76:LYS:HB2	39:BV:81:TYR:HB3	1.82	0.62
46:B2:50:ILE:O	46:B2:51:ARG:HB3	1.97	0.62
1:CA:590:C:H2'	1:CA:591:U:H6	1.65	0.62
1:CA:1070:U:O5'	5:CE:25:ARG:NH1	2.32	0.62
1:CA:1359:C:H2'	1:CA:1361:G:OP2	2.00	0.62
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.35	0.62
2:CB:174:VAL:O	2:CB:178:ARG:HB2	1.99	0.62
23:DA:1488:G:H5'	23:DA:1489:U:OP2	1.98	0.62
35:DR:104:ARG:HG3	35:DR:111:LEU:HD21	1.81	0.62
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.65	0.62
1:AA:1230:C:H42	13:AM:105:THR:HG21	1.65	0.62
3:AC:55:VAL:HA	3:AC:67:THR:O	2.00	0.62
7:AG:116:ALA:HA	7:AG:119:ARG:HB2	1.82	0.62
27:BF:28:ILE:HG12	27:BF:116:ASP:HB2	1.81	0.62
35:BR:20:LEU:HD21	35:BR:40:LYS:HD3	1.81	0.62
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.35	0.62
3:CC:54:ARG:HD3	3:CC:56:ASP:HB2	1.82	0.62
23:DA:873:G:N2	23:DA:905:U:O2	2.32	0.62
23:DA:1036:G:H1	23:DA:1119:C:H42	1.47	0.62
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.48	0.61
1:AA:1459:C:N3	1:AA:1460:A:N6	2.48	0.61
23:BA:1358:G:H2'	23:BA:1359:A:H2	1.64	0.61
1:CA:365:U:H5"	1:CA:366:C:OP1	2.00	0.61
1:CA:1001:A:H2'	1:CA:1001(A):G:C8	2.34	0.61
1:CA:1459:C:N3	1:CA:1460:A:N6	2.48	0.61
2:CB:130:ARG:HB2	2:CB:135:GLN:OE1	2.00	0.61
23:DA:271(I):G:H1	23:DA:271(O):C:N4	1.98	0.61
25:DD:267:SER:O	25:DD:268:ARG:HB3	2.00	0.61
27:DF:28:ILE:HG12	27:DF:116:ASP:HB2	1.82	0.61
34:DQ:21:THR:HG21	34:DQ:101:ARG:HB2	1.82	0.61
1:AA:539:A:OP2	12:AL:115:LYS:NZ	2.33	0.61
1:AA:962:C:H1'	1:AA:1201:A:C2	2.35	0.61
1:AA:1019:C:H2'	1:AA:1020:U:O4'	2.00	0.61
29:BH:3:ARG:HG3	29:BH:4:ILE:N	2.15	0.61
1:CA:222:U:H2'	1:CA:223:U:C6	2.36	0.61
1:CA:833:U:H2'	1:CA:834:C:H6	1.64	0.61
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.82	0.61
31:DN:20:GLY:HA2	31:DN:61:ARG:HG2	1.81	0.61
34:DQ:29:PHE:N	34:DQ:105:GLU:OE2	2.33	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.36	0.61
2:AB:18:GLY:HA3	2:AB:41:ILE:HG23	1.82	0.61
7:AG:71:PRO:HG3	7:AG:99:LEU:HD12	1.81	0.61
23:BA:1991:U:H2'	23:BA:1992:G:H5"	1.81	0.61
1:CA:629:G:H2'	1:CA:630:G:O4'	2.00	0.61
2:CB:195:ASP:O	8:CH:74:PRO:HG3	2.01	0.61
26:DE:111:ARG:HG3	26:DE:160:TYR:CD1	2.35	0.61
1:AA:1259:C:H2'	1:AA:1283:G:O2'	2.00	0.61
10:AJ:39:PRO:HA	10:AJ:70:ARG:HG2	1.82	0.61
21:AU:3:LYS:HE3	21:AU:14:TRP:CG	2.35	0.61
23:BA:300:A:P	42:BY:86:ARG:HH22	2.23	0.61
23:BA:546:C:H6	23:BA:547:A:H5'	1.64	0.61
23:BA:615:G:OP1	27:BF:40:GLN:NE2	2.33	0.61
23:BA:2867:G:OP2	37:BT:119:LYS:NZ	2.31	0.61
34:BQ:16:ARG:HH11	34:BQ:16:ARG:HG2	1.66	0.61
1:CA:565:U:OP2	1:CA:566:G:O2'	2.18	0.61
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	1.80	0.61
5:CE:33:VAL:HG21	5:CE:109:ILE:HA	1.81	0.61
15:CO:15:PHE:CE2	15:CO:84:LYS:HD2	2.35	0.61
23:DA:548:A:N6	39:DV:19:LYS:HB2	2.16	0.61
23:DA:1533:G:H21	23:DA:1536:C:H5	1.49	0.61
26:DE:72:VAL:HA	26:DE:73:GLU:HB3	1.82	0.61
50:D6:9:LEU:HD21	50:D6:25:LYS:HB3	1.81	0.61
1:AA:382:A:H2'	1:AA:383:A:H8	1.66	0.61
1:AA:458:C:H2'	1:AA:460:G:H8	1.65	0.61
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.36	0.61
2:AB:121:LEU:HD21	2:AB:138:LEU:HD13	1.82	0.61
10:AJ:49:VAL:C	10:AJ:60:ARG:HG2	2.21	0.61
23:BA:2602:A:H1'	23:BA:2603:G:H5"	1.82	0.61
37:BT:51:ARG:HG3	37:BT:98:LYS:HE3	1.81	0.61
1:CA:1348:U:O3'	9:CI:120:ARG:HB2	2.00	0.61
3:CC:121:ALA:HB2	3:CC:198:VAL:HG11	1.81	0.61
10:CJ:8:LEU:HB3	10:CJ:96:ILE:HG22	1.83	0.61
23:DA:1798:U:C5'	25:DD:259:THR:HG22	2.30	0.61
1:AA:1028:C:N4	1:AA:1034:G:H1'	2.15	0.61
3:AC:37:GLN:HG2	14:AN:26:ARG:HD2	1.81	0.61
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.36	0.61
23:BA:1798:U:C5'	25:BD:259:THR:HG22	2.30	0.61
30:BI:112:LYS:C	30:BI:114:LEU:H	2.03	0.61
9:CI:27:THR:HA	9:CI:32:ASP:HA	1.83	0.61
23:DA:90:U:O2'	23:DA:92:A:O5'	2.17	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.00	0.61
13:AM:97:PRO:HB3	13:AM:101:GLN:HE22	1.65	0.61
20:AT:43:LEU:O	20:AT:47:GLY:N	2.29	0.61
1:CA:153:C:H2'	1:CA:154:C:H6	1.64	0.61
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.83	0.61
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.36	0.61
9:CI:32:ASP:O	9:CI:36:TYR:HB3	2.01	0.61
23:DA:207:A:H2'	23:DA:208:C:O4'	2.00	0.61
24:DB:11:C:H3'	24:DB:12:C:C6	2.36	0.61
1:AA:346:G:N3	1:AA:347:G:H1'	2.16	0.61
1:AA:964:A:H2'	1:AA:965:A:C8	2.36	0.61
2:AB:127:ILE:HA	2:AB:130:ARG:HG2	1.83	0.61
23:BA:207:A:H2'	23:BA:208:C:O4'	2.01	0.61
23:BA:2849:U:OP2	37:BT:95:ARG:NH1	2.33	0.61
24:BB:32:C:C2	24:BB:51:G:N2	2.69	0.61
30:BI:94:ALA:HA	30:BI:97:ILE:HD12	1.82	0.61
32:BO:24:VAL:HB	32:BO:33:ALA:HB2	1.83	0.61
34:BQ:62:GLY:O	43:BZ:178:GLU:HG2	2.01	0.61
47:B3:18:ASP:OD1	47:B3:18:ASP:N	2.33	0.61
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.35	0.61
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.35	0.61
3:CC:118:GLN:HA	3:CC:121:ALA:HB3	1.81	0.61
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.83	0.61
53:D9:14:CYS:HA	53:D9:27:CYS:HB2	1.82	0.61
1:AA:952:U:H2'	1:AA:953:G:C8	2.36	0.61
1:AA:1040:U:C2'	1:AA:1041:A:H5'	2.29	0.61
23:BA:203:C:H3'	23:BA:204:A:H5"	1.82	0.61
23:BA:1434:A:H61	23:BA:1558:A:N6	1.99	0.61
28:BG:15:VAL:HG13	28:BG:175:LEU:HB3	1.81	0.61
31:BN:67:LEU:O	31:BN:88:GLU:HG3	2.00	0.61
34:BQ:21:THR:HG21	34:BQ:101:ARG:HB2	1.82	0.61
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.35	0.61
23:DA:2291:U:H2'	23:DA:2292:C:C6	2.36	0.61
33:DP:47:ASP:OD2	33:DP:50:ARG:NH2	2.33	0.61
1:AA:688:G:H2'	1:AA:689:C:H6	1.65	0.61
1:AA:941:G:H1	1:AA:1342:C:H42	1.49	0.61
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.65	0.61
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.83	0.61
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.35	0.61
1:CA:445:G:H2'	1:CA:446:G:C8	2.36	0.61
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.35	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:607:U:OP1	27:DF:102:PRO:HA	2.01	0.61
23:BA:873:G:N2	23:BA:905:U:O2	2.33	0.60
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.15	0.60
1:CA:623:C:H2'	1:CA:624:C:H6	1.66	0.60
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.66	0.60
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.36	0.60
23:DA:1107:G:N7	23:DA:1108:U:N3	2.49	0.60
23:DA:2272:U:H5"	23:DA:2273:A:OP1	2.01	0.60
28:DG:126:ASP:HB3	28:DG:130:ASN:H	1.66	0.60
33:DP:38:GLN:O	33:DP:39:LYS:HB3	2.00	0.60
1:AA:304:U:H2'	1:AA:305:G:C8	2.35	0.60
1:AA:619:U:C2	4:AD:135:LEU:HD22	2.36	0.60
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.01	0.60
7:AG:103:TRP:CH2	7:AG:141:VAL:HG11	2.35	0.60
15:AO:62:GLN:HA	15:AO:65:ARG:HD2	1.81	0.60
25:BD:108:PRO:HB3	25:BD:143:HIS:HE1	1.66	0.60
25:BD:148:GLU:HB2	25:BD:151:LYS:HD2	1.83	0.60
1:CA:1278:U:H5"	1:CA:1279:A:O4'	2.01	0.60
35:DR:36:THR:HG22	35:DR:37:THR:H	1.66	0.60
1:AA:946:A:H4'	1:AA:1333:A:O2'	2.01	0.60
23:BA:271(M):G:H4'	23:BA:271(N):U:OP1	2.00	0.60
23:BA:805:G:OP1	56:BA:4319:HOH:O	2.16	0.60
23:BA:879:G:N2	23:BA:899:A:H1'	2.16	0.60
23:BA:2022:U:O2'	23:BA:2617:C:H5'	2.00	0.60
23:BA:2123:G:H1	23:BA:2175:C:H42	1.48	0.60
46:B2:9:GLN:HE22	46:B2:56:GLN:HB3	1.66	0.60
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.33	0.60
1:CA:662:G:H2'	1:CA:663:A:H8	1.66	0.60
23:DA:2315:G:H2'	23:DA:2316:C:C6	2.36	0.60
27:DF:13:SER:HB3	27:DF:15:SER:HB2	1.83	0.60
1:AA:445:G:H2'	1:AA:446:G:C8	2.36	0.60
1:AA:539:A:H2'	1:AA:540:G:H8	1.67	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.33	0.60
1:AA:959:A:H5"	1:AA:960:U:OP2	2.02	0.60
1:AA:1013:G:H2'	1:AA:1014:A:H5"	1.84	0.60
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.35	0.60
7:AG:73:MET:H	7:AG:142:GLU:HG3	1.65	0.60
8:AH:4:ASP:OD1	8:AH:85:ARG:NH1	2.35	0.60
9:AI:20:ARG:O	9:AI:60:ASP:N	2.35	0.60
12:AL:32:PHE:HE1	12:AL:86:ARG:HG3	1.66	0.60
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.35	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:16:HIS:O	20:AT:19:SER:OG	2.12	0.60
23:BA:1495:A:H2'	23:BA:1496:A:C8	2.37	0.60
1:CA:1162:C:H2'	1:CA:1163:C:O4'	2.01	0.60
7:CG:26:PHE:HD1	7:CG:101:LEU:HB3	1.67	0.60
13:CM:88:ARG:CZ	13:CM:88:ARG:HB2	2.31	0.60
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.82	0.60
15:CO:33:THR:HG21	15:CO:85:LEU:HD22	1.82	0.60
23:DA:535:C:O3'	38:DU:53:ARG:NH1	2.34	0.60
23:DA:1311:G:O6	56:DA:3781:HOH:O	2.13	0.60
23:DA:2319:G:N2	36:DS:3:ARG:HE	1.96	0.60
43:DZ:17:ALA:HA	43:DZ:20:ARG:HD2	1.82	0.60
1:AA:828:A:N6	1:AA:858:G:O2'	2.34	0.60
7:AG:109:ASN:HA	7:AG:119:ARG:HD2	1.82	0.60
27:BF:102:PRO:HB2	27:BF:105:VAL:HG23	1.83	0.60
38:BU:92:ARG:HA	38:BU:95:LEU:HB2	1.82	0.60
41:BX:41:ASN:O	41:BX:45:THR:HG23	2.01	0.60
1:CA:475:G:H2'	1:CA:476:G:H8	1.66	0.60
1:CA:539:A:H2'	1:CA:540:G:H8	1.65	0.60
1:CA:1035:A:H2'	1:CA:1036:G:H8	1.66	0.60
2:CB:189:ASP:N	2:CB:189:ASP:OD1	2.35	0.60
1:AA:193:C:H2'	1:AA:194:C:C6	2.37	0.60
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.34	0.60
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.36	0.60
2:AB:130:ARG:HB2	2:AB:135:GLN:OE1	2.01	0.60
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.82	0.60
14:AN:29:ARG:HD2	14:AN:42:ILE:HD12	1.84	0.60
23:BA:1106:G:O2'	23:BA:1107:G:OP1	2.18	0.60
23:BA:2723:C:OP1	35:BR:3:HIS:ND1	2.27	0.60
1:CA:975:A:O2'	14:CN:32:SER:HA	2.01	0.60
14:CN:22:THR:HG22	14:CN:35:ARG:HH21	1.67	0.60
20:CT:72:LEU:HD21	20:CT:77:ALA:HB2	1.83	0.60
23:DA:8:A:H2'	23:DA:9:U:C6	2.35	0.60
23:DA:185:U:H4'	23:DA:218:A:H4'	1.83	0.60
23:DA:546:C:H6	23:DA:547:A:H5'	1.65	0.60
23:DA:1298:C:H5"	23:DA:1299:G:OP2	2.02	0.60
1:AA:10:A:H2'	1:AA:11:G:C8	2.35	0.60
1:AA:1052:U:H3	1:AA:1206:G:H1	1.50	0.60
1:AA:1152:A:OP1	10:AJ:13:HIS:HB2	2.01	0.60
16:AP:59:TRP:HA	16:AP:62:VAL:HG12	1.83	0.60
23:BA:535:C:O3'	38:BU:53:ARG:NH1	2.35	0.60
23:BA:1506:C:H2'	23:BA:1507:A:H5'	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BU:74:LEU:H	38:BU:74:LEU:HD12	1.67	0.60
43:BZ:17:ALA:HA	43:BZ:20:ARG:HD2	1.83	0.60
1:CA:221:C:H2'	1:CA:222:U:C6	2.36	0.60
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.36	0.60
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.67	0.60
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.83	0.60
43:DZ:160:GLY:HA2	43:DZ:161:VAL:HB	1.83	0.60
1:AA:148:G:H2'	1:AA:149:A:C8	2.36	0.60
1:AA:511:C:N4	1:AA:540:G:H1	1.99	0.60
4:AD:80:GLU:O	4:AD:83:SER:N	2.35	0.60
23:BA:1530:C:O2'	23:BA:1531:C:O4'	2.20	0.60
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.66	0.60
1:CA:1149:C:H2'	1:CA:1150:U:O4'	2.01	0.60
23:DA:141:A:H8	23:DA:1408:C:O2'	1.83	0.60
25:DD:148:GLU:HB2	25:DD:151:LYS:HD2	1.84	0.60
1:AA:153:C:H2'	1:AA:154:C:C6	2.37	0.60
1:AA:501:C:H2'	1:AA:502:G:C8	2.36	0.60
1:AA:662:G:H2'	1:AA:663:A:H8	1.66	0.60
1:AA:952:U:H4'	1:AA:964:A:H61	1.67	0.60
1:AA:1016:A:H3'	1:AA:1017:G:H8	1.65	0.60
1:AA:1029:C:O2	1:AA:1032:G:N1	2.34	0.60
19:AS:53:ASN:O	19:AS:77:THR:OG1	2.13	0.60
23:BA:1026:U:O2	23:BA:1026:U:H2'	1.99	0.60
43:BZ:160:GLY:HA2	43:BZ:161:VAL:HB	1.82	0.60
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.84	0.60
11:CK:85:ARG:HD3	11:CK:113:PRO:HD3	1.83	0.60
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.67	0.60
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	1.82	0.60
23:BA:1603:A:OP1	56:BA:4692:HOH:O	2.16	0.60
36:BS:10:ARG:HH21	36:BS:91:PRO:HB2	1.67	0.60
45:B1:80:LEU:HD23	45:B1:82:LEU:HD21	1.83	0.60
2:CB:187:LEU:HD23	2:CB:201:ILE:HB	1.83	0.60
3:CC:35:GLU:O	3:CC:38:ARG:HB2	2.02	0.60
20:CT:97:ALA:HB3	20:CT:99:LEU:H	1.66	0.60
36:DS:10:ARG:HH21	36:DS:91:PRO:HB2	1.67	0.60
1:AA:221:C:H2'	1:AA:222:U:H6	1.65	0.59
1:AA:950:U:H2'	1:AA:951:G:H8	1.67	0.59
1:AA:1303:C:H42	1:AA:1334:G:H1	0.67	0.59
4:AD:60:GLU:HG2	4:AD:202:LEU:HB2	1.83	0.59
9:AI:7:THR:H	9:AI:83:ARG:HD2	1.66	0.59
29:BH:56:SER:HB3	29:BH:61:HIS:ND1	2.16	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:625:G:H2'	1:CA:626:U:C6	2.37	0.59
1:CA:927:G:H1	1:CA:1390:U:H3	1.50	0.59
1:CA:1025:U:O2	1:CA:1036:G:O6	2.20	0.59
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.84	0.59
23:DA:2104:G:N2	23:DA:2105:C:C2	2.70	0.59
1:AA:982:U:O2'	1:AA:984:C:N4	2.35	0.59
1:AA:1170:A:H3'	1:AA:1171:G:C8	2.37	0.59
23:BA:2104:G:N2	23:BA:2105:C:C2	2.70	0.59
23:BA:2364:C:H2'	23:BA:2365:G:O4'	2.01	0.59
27:BF:46:ARG:HH11	27:BF:46:ARG:CG	2.14	0.59
1:CA:598:U:H2'	1:CA:599:C:H6	1.68	0.59
3:CC:52:LEU:HA	3:CC:70:VAL:HA	1.83	0.59
9:CI:40:LEU:HB2	9:CI:43:ALA:HB2	1.82	0.59
23:DA:528:A:O2'	23:DA:529:A:H5'	2.02	0.59
23:DA:1803:A:O2'	25:DD:259:THR:HG21	2.02	0.59
23:DA:2118:U:OP1	23:DA:2147:G:O2'	2.21	0.59
23:DA:2306:C:C5'	23:DA:2307:G:H2'	2.30	0.59
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.37	0.59
23:DA:2384:G:OP2	44:D0:55:ARG:NH1	2.35	0.59
1:AA:262:A:H2'	1:AA:263:A:C8	2.37	0.59
1:AA:741:G:H2'	1:AA:742:G:O4'	2.02	0.59
1:AA:973:G:H3'	1:AA:974:A:C5'	2.31	0.59
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.37	0.59
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.84	0.59
23:BA:1153:C:H2'	23:BA:1154:G:O4'	2.02	0.59
1:CA:1036:G:H3'	1:CA:1037:C:H6	1.66	0.59
1:CA:1164:G:N2	1:CA:1172:C:N3	2.45	0.59
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.02	0.59
2:CB:21:ARG:HB3	2:CB:39:ILE:HG12	1.85	0.59
1:AA:959:A:H3'	1:AA:960:U:H5"	1.85	0.59
1:AA:968:A:H8	1:AA:968:A:OP1	1.85	0.59
1:AA:1028:C:N3	1:AA:1034:G:H1'	2.18	0.59
23:BA:995:C:OP2	38:BU:54:LYS:HE3	2.03	0.59
25:BD:71:ASP:OD1	25:BD:103:ARG:NH2	2.34	0.59
31:BN:42:TRP:HD1	31:BN:48:MET:HE1	1.68	0.59
40:BW:60:ASN:HD22	40:BW:60:ASN:N	1.99	0.59
1:CA:346:G:C2	1:CA:347:G:H1'	2.36	0.59
1:CA:688:G:H2'	1:CA:689:C:H6	1.67	0.59
2:CB:121:LEU:HD21	2:CB:138:LEU:HD13	1.83	0.59
4:CD:60:GLU:HG2	4:CD:202:LEU:HB2	1.84	0.59
11:CK:48:ILE:H	11:CK:48:ILE:HD13	1.67	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1570:A:H5'	25:DD:36:PRO:HG3	1.84	0.59
45:D1:85:LEU:HB3	45:D1:89:GLU:HG3	1.84	0.59
1:AA:623:C:H2'	1:AA:624:C:H6	1.66	0.59
2:AB:80:ILE:HD13	2:AB:212:GLN:HG2	1.82	0.59
23:BA:2331:G:O3'	44:B0:43:THR:HG22	2.03	0.59
48:B4:14:ILE:HG13	48:B4:22:ILE:HB	1.82	0.59
1:CA:10:A:H2'	1:CA:11:G:C8	2.36	0.59
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.12	0.59
1:CA:1057:G:H4'	3:CC:197:GLY:H	1.68	0.59
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.84	0.59
10:CJ:13:HIS:HB3	10:CJ:68:HIS:CE1	2.37	0.59
23:DA:12:U:O2	23:DA:12:U:H2'	2.02	0.59
23:DA:528:A:N1	23:DA:2042:A:H2'	2.17	0.59
1:AA:21:G:OP1	56:AA:1895:HOH:O	2.15	0.59
1:AA:882:C:O2'	56:AA:1815:HOH:O	2.17	0.59
1:AA:1290:G:O2'	7:AG:37:ASN:OD1	2.20	0.59
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.37	0.59
28:BG:137:GLU:HG2	28:BG:138:GLN:H	1.68	0.59
1:CA:1193:G:N7	3:CC:3:ASN:ND2	2.51	0.59
1:CA:1247:U:H1'	1:CA:1291:G:N2	2.17	0.59
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.37	0.59
23:DA:2706:G:O6	56:DA:4039:HOH:O	2.17	0.59
26:DE:170:LEU:HB3	26:DE:184:VAL:HG22	1.84	0.59
1:AA:448:A:H2'	1:AA:449:C:C6	2.38	0.59
1:AA:625:G:H2'	1:AA:626:U:C6	2.37	0.59
1:AA:936:C:H2'	1:AA:937:A:O4'	2.03	0.59
1:AA:977:A:O3'	1:AA:980:C:N4	2.35	0.59
2:AB:195:ASP:O	8:AH:74:PRO:HG3	2.01	0.59
23:BA:11:G:H2'	23:BA:12:U:H5'	1.83	0.59
23:BA:528:A:H4'	56:BA:4297:HOH:O	2.02	0.59
1:CA:148:G:H2'	1:CA:149:A:C8	2.38	0.59
1:CA:243:A:H4'	1:CA:244:U:O5'	2.01	0.59
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.37	0.59
1:CA:1374:A:O2'	7:CG:28:ASN:HB3	2.02	0.59
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.03	0.59
16:CP:22:THR:HA	16:CP:33:ILE:HG13	1.84	0.59
23:DA:1962:C:O2'	23:DA:1964:G:OP2	2.20	0.59
23:DA:2834:G:H5"	23:DA:2834:G:H8	1.68	0.59
33:DP:121:LYS:HG2	33:DP:123:LEU:HG	1.83	0.59
1:AA:37:U:O2'	1:AA:547:A:N1	2.30	0.59
1:AA:401:C:OP1	4:AD:73:ARG:NE	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:833:U:H2'	1:AA:834:C:H6	1.68	0.59
1:AA:957:U:H1'	1:AA:960:U:C4	2.37	0.59
1:AA:1003:G:N3	1:AA:1004:A:H1'	2.18	0.59
1:AA:1226:C:H2'	13:AM:104:ARG:HA	1.85	0.59
1:AA:1367:C:H4'	10:AJ:48:THR:HG21	1.83	0.59
7:AG:127:ALA:HA	7:AG:132:GLY:HA3	1.83	0.59
14:AN:37:PHE:CE1	14:AN:53:LEU:HD13	2.38	0.59
23:BA:1107:G:N7	23:BA:1108:U:N3	2.50	0.59
23:BA:1593:G:H2'	23:BA:1594:G:C8	2.38	0.59
29:BH:3:ARG:HG2	29:BH:6:ARG:HE	1.67	0.59
6:CF:81:ILE:HD11	25:DD:125:ILE:HB	1.82	0.59
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.84	0.59
23:DA:581:C:H2'	23:DA:582:G:C8	2.38	0.59
23:DA:751:A:H5'	40:DW:90:ARG:HA	1.83	0.59
23:DA:2022:U:O2'	23:DA:2617:C:H5'	2.02	0.59
28:DG:137:GLU:HG2	28:DG:138:GLN:H	1.68	0.59
1:AA:136:C:N4	1:AA:227:G:H1	1.94	0.59
1:AA:359:U:H2'	1:AA:360:A:H8	1.68	0.59
1:AA:986:A:N1	1:AA:1219:U:O4	2.36	0.59
5:AE:126:ARG:HA	5:AE:131:ILE:HD11	1.84	0.59
13:AM:65:LYS:HA	13:AM:66:LEU:CB	2.32	0.59
23:BA:548:A:N6	39:BV:19:LYS:H	2.01	0.59
23:BA:1427:A:H4'	23:BA:1428:C:O5'	2.01	0.59
23:BA:2228:G:OP1	25:BD:261:LYS:NZ	2.31	0.59
30:BI:91:SER:HB2	30:BI:119:PRO:HB2	1.84	0.59
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.85	0.59
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.18	0.59
23:DA:2602:A:H1'	23:DA:2603:G:H5"	1.85	0.59
1:AA:487:A:H2'	1:AA:488:C:O4'	2.03	0.59
1:AA:841:U:C5	1:AA:848:C:H1'	2.37	0.59
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.68	0.59
1:AA:1325:C:OP1	21:AU:15:ARG:NH2	2.32	0.59
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.02	0.59
23:BA:546:C:H2'	23:BA:547:A:H5'	1.85	0.59
26:BE:105:THR:OG1	26:BE:199:ARG:NH2	2.36	0.59
28:BG:126:ASP:HB3	28:BG:130:ASN:H	1.67	0.59
1:CA:1004:A:O2'	1:CA:1037:C:O2	2.16	0.59
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.02	0.59
1:CA:1206:G:O2'	3:CC:192:THR:O	2.19	0.59
1:AA:149:A:O2'	1:AA:150:C:H6	1.86	0.58
1:AA:346:G:C2	1:AA:347:G:H1'	2.38	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:626:U:H2'	1:AA:627:G:H8	1.67	0.58
3:AC:132:ARG:O	3:AC:136:GLN:HB2	2.03	0.58
23:BA:271(R):G:H2'	23:BA:271(S):G:H8	1.68	0.58
23:BA:796:C:H2'	23:BA:797:C:C6	2.38	0.58
25:BD:206:LEU:HD22	25:BD:211:ARG:HG2	1.84	0.58
39:BV:40:LEU:HB2	39:BV:46:VAL:HG13	1.84	0.58
1:CA:826:C:H4'	8:CH:12:ARG:HG3	1.85	0.58
8:CH:89:PRO:HA	8:CH:92:ARG:HE	1.68	0.58
17:CQ:24:GLU:OE2	17:CQ:37:LYS:HD3	2.03	0.58
23:DA:330:A:H2	23:DA:1210:A:H2'	1.68	0.58
27:DF:102:PRO:HB2	27:DF:105:VAL:HG23	1.84	0.58
45:D1:3:LYS:HB2	45:D1:61:ARG:HH12	1.68	0.58
1:AA:1006:C:H2'	1:AA:1007:C:C5	2.38	0.58
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.66	0.58
3:AC:23:TYR:HE2	10:AJ:95:GLU:HG2	1.68	0.58
23:BA:2126:A:N1	23:BA:2162:G:O2'	2.30	0.58
23:BA:2315:G:H2'	23:BA:2316:C:C6	2.37	0.58
25:BD:267:SER:O	25:BD:268:ARG:HB3	2.03	0.58
27:BF:181:LEU:HB3	27:BF:205:ARG:HH22	1.69	0.58
29:BH:137:ASP:HB3	29:BH:140:LYS:HB3	1.85	0.58
37:BT:54:ARG:HA	37:BT:59:THR:HB	1.85	0.58
40:BW:79:GLY:HA3	40:BW:100:THR:HG22	1.84	0.58
5:CE:37:ARG:HG2	5:CE:37:ARG:HH11	1.68	0.58
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.04	0.58
23:DA:1530:C:O2'	23:DA:1531:C:O4'	2.20	0.58
31:DN:128:HIS:CE1	31:DN:135:PRO:HG2	2.38	0.58
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.85	0.58
23:BA:862:G:OP2	56:BA:4195:HOH:O	2.16	0.58
30:BI:97:ILE:O	30:BI:101:LEU:N	2.36	0.58
1:CA:511:C:N4	1:CA:540:G:H1	1.99	0.58
1:CA:1001(A):G:H2'	1:CA:1002:G:H8	1.68	0.58
1:CA:1012:U:H2'	1:CA:1013:G:O4'	2.04	0.58
1:CA:1317:C:N3	19:CS:37:ARG:NH2	2.44	0.58
1:CA:1346:A:H4'	1:CA:1347:G:H4'	1.85	0.58
23:DA:203:C:H3'	23:DA:204:A:H5"	1.85	0.58
23:DA:1038:C:N4	23:DA:1117:G:H1	2.01	0.58
23:DA:2113:U:H2'	23:DA:2114:A:C8	2.39	0.58
43:DZ:92:SER:O	43:DZ:130:PRO:HG2	2.03	0.58
1:AA:1107:C:C4	1:AA:1108:G:C8	2.91	0.58
1:AA:1187:G:N3	14:AN:60:SER:OG	2.35	0.58
7:AG:155:ARG:HG2	7:AG:156:TRP:H	1.69	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:39:GLN:O	22:AV:43:GLY:N	2.36	0.58
23:BA:307:G:H21	23:BA:330:A:H62	1.52	0.58
34:BQ:16:ARG:HG2	34:BQ:16:ARG:NH1	2.18	0.58
43:BZ:52:SER:OG	43:BZ:53:ILE:N	2.36	0.58
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.03	0.58
13:CM:85:GLY:HA3	19:CS:74:PHE:HA	1.83	0.58
23:DA:652(D):C:H2'	23:DA:652(E):G:O4'	2.03	0.58
46:D2:13:ALA:HA	46:D2:16:LEU:HD12	1.84	0.58
1:AA:1003:G:N2	1:AA:1038:C:C2	2.71	0.58
1:AA:1016:A:H3'	1:AA:1017:G:C8	2.39	0.58
1:AA:1042:G:OP2	1:AA:1042:G:H8	1.86	0.58
3:AC:155:GLY:O	3:AC:163:ALA:HA	2.03	0.58
23:BA:184:C:H2'	23:BA:185:U:C6	2.38	0.58
1:CA:512:U:H2'	1:CA:513:C:C6	2.38	0.58
1:CA:804:U:H5"	1:CA:805:C:OP2	2.02	0.58
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.51	0.58
20:CT:41:ILE:HA	20:CT:44:ALA:HB3	1.86	0.58
23:DA:271(L):U:H4'	23:DA:271(M):G:OP1	2.03	0.58
23:DA:581:C:H2'	23:DA:582:G:H8	1.67	0.58
23:DA:879:G:N2	23:DA:899:A:H1'	2.17	0.58
42:DY:99:CYS:SG	42:DY:102:CYS:N	2.77	0.58
43:DZ:102:LEU:HD13	43:DZ:123:ASP:HA	1.85	0.58
1:AA:708:C:OP1	11:AK:85:ARG:NH2	2.37	0.58
1:AA:1015:A:H3'	1:AA:1016:A:C8	2.39	0.58
11:AK:33:THR:HA	11:AK:39:PRO:HA	1.85	0.58
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	2.03	0.58
18:AR:53:ARG:HE	18:AR:59:SER:C	2.06	0.58
23:BA:1108:U:O2'	23:BA:1109:C:O5'	2.21	0.58
1:CA:841:U:C5	1:CA:848:C:H1'	2.38	0.58
1:CA:1029:C:C2	1:CA:1032:G:N1	2.72	0.58
27:DF:181:LEU:HB3	27:DF:205:ARG:HH22	1.67	0.58
40:DW:43:GLY:O	40:DW:47:VAL:HG23	2.04	0.58
1:AA:826:C:H4'	8:AH:12:ARG:HG3	1.85	0.58
1:AA:1347:G:H1	1:AA:1373:G:H3'	1.69	0.58
2:AB:189:ASP:N	2:AB:189:ASP:OD1	2.37	0.58
33:BP:38:GLN:HA	33:BP:41:ARG:HG2	1.86	0.58
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.69	0.58
8:CH:4:ASP:OD1	8:CH:85:ARG:NH1	2.37	0.58
23:DA:2134:A:N3	23:DA:2159:G:H1'	2.18	0.58
36:DS:25:ARG:NH1	36:DS:42:ASP:OD2	2.37	0.58
37:DT:97:ALA:O	37:DT:98:LYS:HD2	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:50:A:H1'	1:AA:52:G:C8	2.38	0.58
1:AA:639:G:H2'	1:AA:640:A:H8	1.69	0.58
1:AA:1130:A:H61	1:AA:1144:G:H1'	1.69	0.58
7:AG:42:ILE:HA	7:AG:45:ASP:HB2	1.83	0.58
16:AP:22:THR:HA	16:AP:33:ILE:HG13	1.86	0.58
23:BA:548:A:N6	39:BV:19:LYS:HB2	2.17	0.58
23:BA:1359:A:N6	23:BA:1372:U:C5	2.71	0.58
30:BI:5:LEU:HD11	30:BI:19:VAL:HG22	1.86	0.58
1:CA:149:A:O2'	1:CA:150:C:H6	1.87	0.58
10:CJ:55:LYS:O	10:CJ:57:LYS:N	2.35	0.58
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.84	0.58
23:DA:579:G:H2'	23:DA:580:C:C6	2.38	0.58
23:DA:1427:A:H4'	23:DA:1428:C:O5'	2.04	0.58
1:AA:501:C:H1'	1:AA:549:C:H1'	1.86	0.58
1:AA:984:C:H2'	1:AA:985:C:C6	2.38	0.58
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.39	0.58
20:AT:41:ILE:HA	20:AT:44:ALA:HB3	1.85	0.58
23:BA:185:U:H4'	23:BA:218:A:H4'	1.86	0.58
37:BT:106:SER:O	37:BT:110:ILE:HG13	2.04	0.58
1:CA:428:G:H5"	4:CD:7:PRO:HB3	1.86	0.58
1:CA:436:C:H4'	4:CD:156:GLU:HB2	1.85	0.58
1:CA:438:G:OP1	4:CD:125:HIS:HE1	1.86	0.58
1:CA:501:C:H2'	1:CA:502:G:C8	2.38	0.58
1:CA:659:U:H2'	1:CA:660:G:C8	2.39	0.58
1:CA:1290:G:H3'	1:CA:1291:G:H8	1.69	0.58
23:DA:1722:A:C2	23:DA:1740:G:C8	2.92	0.58
25:DD:145:VAL:HG12	25:DD:146:GLU:O	2.04	0.58
31:DN:67:LEU:O	31:DN:88:GLU:HG3	2.04	0.58
1:AA:269:C:H2'	1:AA:270:A:C8	2.39	0.58
1:AA:511:C:N3	1:AA:540:G:N2	2.45	0.58
1:AA:1028:C:C4	1:AA:1033:G:O6	2.56	0.58
1:AA:1233:G:H2'	1:AA:1364:U:O2	2.04	0.58
1:AA:1459:C:H41	1:AA:1461:G:N2	2.02	0.58
10:AJ:54:PHE:HD2	10:AJ:55:LYS:HD3	1.69	0.58
23:BA:993:G:OP1	38:BU:50:ARG:NH2	2.37	0.58
23:BA:2308:G:H4'	23:BA:2309:A:OP2	2.02	0.58
23:BA:2690:C:OP2	35:BR:14:SER:HB3	2.04	0.58
39:BV:35:LEU:HB2	39:BV:57:VAL:HG13	1.84	0.58
1:CA:203:U:H5"	1:CA:204:U:OP2	2.04	0.58
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.85	0.58
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:32:PHE:HE1	12:CL:86:ARG:HG3	1.67	0.58
23:DA:154(A):C:N4	23:DA:172:C:N3	2.51	0.58
25:DD:206:LEU:HD22	25:DD:211:ARG:HG2	1.85	0.58
48:D4:15:ILE:HB	48:D4:32:TYR:CD2	2.38	0.58
1:AA:804:U:H5"	1:AA:805:C:OP2	2.03	0.57
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.39	0.57
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.39	0.57
7:AG:99:LEU:HB3	7:AG:103:TRP:CE2	2.39	0.57
23:BA:517:C:OP1	49:B5:16:ARG:NH2	2.36	0.57
46:B2:13:ALA:HA	46:B2:16:LEU:HD12	1.85	0.57
1:CA:487:A:H2'	1:CA:488:C:O4'	2.04	0.57
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.39	0.57
6:CF:69:GLU:O	6:CF:72:VAL:HG12	2.03	0.57
23:DA:1364:G:C8	45:D1:3:LYS:HD3	2.39	0.57
23:DA:1456:G:OP2	56:DA:4008:HOH:O	2.17	0.57
32:DO:24:VAL:HB	32:DO:33:ALA:HB2	1.86	0.57
48:D4:14:ILE:HG13	48:D4:22:ILE:HB	1.85	0.57
50:D6:10:LEU:HD12	50:D6:54:ILE:HA	1.86	0.57
1:AA:564:C:O2'	8:AH:91:ARG:NH2	2.26	0.57
1:AA:945:G:C5	1:AA:1337:G:H1'	2.39	0.57
1:AA:992:U:H2'	1:AA:1043:C:C5	2.35	0.57
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.03	0.57
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.04	0.57
23:BA:12:U:H2'	23:BA:12:U:O2	2.04	0.57
23:BA:2309:A:N6	23:BA:2310:A:N1	2.51	0.57
30:BI:72:LEU:O	30:BI:73:GLU:HB2	2.03	0.57
2:CB:21:ARG:H	2:CB:21:ARG:HD3	1.70	0.57
23:DA:1109:C:C5	23:DA:1110:G:C2	2.88	0.57
23:DA:2849:U:OP2	37:DT:95:ARG:NH1	2.36	0.57
30:DI:5:LEU:HD21	30:DI:12:LEU:HD13	1.86	0.57
1:AA:68:G:H22	1:AA:101:A:H2	1.51	0.57
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.70	0.57
1:AA:1353:G:O6	1:AA:1369:C:N3	2.37	0.57
5:AE:93:PRO:HG2	8:AH:105:ARG:NE	2.18	0.57
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.85	0.57
23:BA:1722:A:C2	23:BA:1740:G:C8	2.92	0.57
25:BD:254:THR:OG1	25:BD:254:THR:O	2.22	0.57
30:BI:61:ARG:HB3	30:BI:133:HIS:HD2	1.68	0.57
36:BS:58:LEU:HD12	36:BS:65:VAL:HG13	1.86	0.57
45:B1:50:ARG:HG2	45:B1:59:THR:HB	1.86	0.57
50:B6:8:LYS:HD3	52:B8:34:TRP:CD2	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B8:39:LYS:HA	52:B8:42:ARG:NH1	2.18	0.57
1:CA:939:G:H1	1:CA:1344:C:H42	1.52	0.57
3:CC:51:GLY:HA3	3:CC:71:ALA:HB3	1.87	0.57
20:CT:13:LEU:O	20:CT:17:ARG:HG3	2.04	0.57
23:DA:2773:C:H5"	26:DE:164:ARG:HG2	1.85	0.57
34:DQ:16:ARG:HG2	34:DQ:16:ARG:HH11	1.69	0.57
42:DY:99:CYS:HB3	42:DY:104:GLY:H	1.68	0.57
8:AH:89:PRO:HA	8:AH:92:ARG:HE	1.70	0.57
23:BA:708:C:H42	23:BA:723:G:H1	1.51	0.57
27:BF:6:VAL:HA	27:BF:23:ASP:H	1.67	0.57
1:CA:325:A:OP2	20:CT:70:SER:OG	2.19	0.57
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.84	0.57
1:CA:984:C:H2'	1:CA:985:C:H6	1.68	0.57
1:CA:991:U:O2'	1:CA:992:U:O5'	2.15	0.57
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.39	0.57
9:CI:4:TYR:HD1	9:CI:87:GLN:HG3	1.70	0.57
23:DA:2497:A:O3'	56:DA:3888:HOH:O	2.17	0.57
1:AA:1029:C:N3	1:AA:1032:G:O6	2.37	0.57
1:AA:1035:A:H2'	1:AA:1036:G:C8	2.39	0.57
23:BA:8:A:H2'	23:BA:9:U:C6	2.39	0.57
23:BA:2611:U:C4	49:B5:3:LYS:HG2	2.40	0.57
45:B1:21:ARG:HG2	45:B1:21:ARG:NH1	2.07	0.57
48:B4:18:CYS:CB	48:B4:39:CYS:SG	2.90	0.57
1:CA:327:A:HO2'	1:CA:329:A:H8	1.53	0.57
1:CA:519:C:H2'	1:CA:520:A:C8	2.39	0.57
1:CA:708:C:OP1	11:CK:85:ARG:NH2	2.37	0.57
1:CA:736:C:H2'	1:CA:737:A:C8	2.39	0.57
3:CC:54:ARG:HB3	3:CC:69:HIS:HB2	1.86	0.57
23:DA:1971:A:OP2	25:DD:242:ARG:NH2	2.37	0.57
37:DT:84:GLN:HE21	37:DT:85:LYS:HG2	1.69	0.57
1:AA:1003:G:H1	1:AA:1037:C:H42	0.69	0.57
1:AA:1126:U:H5'	1:AA:1280:A:O2'	2.04	0.57
13:AM:102:ARG:HH12	13:AM:104:ARG:HD3	1.69	0.57
23:BA:1040:C:H2'	23:BA:1041:C:O4'	2.05	0.57
26:BE:16:ARG:NH1	26:BE:171:GLU:OE2	2.37	0.57
34:BQ:84:GLY:O	34:BQ:85:LYS:HB2	2.04	0.57
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.70	0.57
1:CA:269:C:H2'	1:CA:270:A:C8	2.40	0.57
1:CA:501:C:H1'	1:CA:549:C:H1'	1.86	0.57
1:CA:980:C:H1'	14:CN:19:ARG:HA	1.87	0.57
1:CA:1163:C:C2	1:CA:1164:G:C8	2.92	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DU:76:TYR:CZ	38:DU:80:ILE:HG13	2.40	0.57
52:D8:34:TRP:CG	52:D8:35:GLN:N	2.71	0.57
1:AA:522:C:N4	1:AA:528:C:H42	2.03	0.57
1:AA:563:A:N6	56:AA:1896:HOH:O	2.38	0.57
1:AA:973:G:H3'	1:AA:974:A:H5"	1.85	0.57
1:AA:1065:U:H5	1:AA:1190:G:H21	1.50	0.57
10:AJ:5:ARG:HA	10:AJ:74:ILE:H	1.70	0.57
13:AM:23:TYR:H	13:AM:67:GLU:HB3	1.69	0.57
23:BA:861:A:C2	23:BA:917:A:C4	2.92	0.57
23:BA:1568:G:N7	56:BD:402:HOH:O	2.32	0.57
30:BI:31:LEU:HD21	30:BI:38:LEU:HG	1.87	0.57
1:CA:164:U:H2'	1:CA:165:C:C6	2.40	0.57
3:CC:125:GLU:HG3	3:CC:189:ALA:HB1	1.86	0.57
13:CM:108:ARG:NE	13:CM:114:ARG:HD3	2.19	0.57
23:DA:226:G:H21	23:DA:228:A:N6	2.01	0.57
23:DA:1614:A:C2	40:DW:93:ALA:HB2	2.40	0.57
36:DS:46:VAL:HG12	36:DS:48:LEU:HD12	1.87	0.57
1:AA:222:U:H2'	1:AA:223:U:C6	2.39	0.57
1:AA:777:A:H2	11:AK:119:CYS:HB3	1.69	0.57
1:AA:932:C:O3'	7:AG:4:ARG:NH2	2.37	0.57
1:AA:1054:C:C2'	1:AA:1055:A:H5"	2.34	0.57
1:AA:1179:A:H4'	1:AA:1180:A:OP1	2.05	0.57
23:BA:299:A:H5"	42:BY:86:ARG:HH21	1.70	0.57
23:BA:443:A:N7	27:BF:45:ARG:HG2	2.20	0.57
23:BA:652(D):C:H2'	23:BA:652(E):G:O4'	2.05	0.57
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.40	0.57
23:BA:2712:U:OP1	23:BA:2714:G:H4'	2.05	0.57
25:BD:108:PRO:HB3	25:BD:143:HIS:CE1	2.40	0.57
30:BI:88:ILE:HG12	30:BI:121:LYS:O	2.04	0.57
39:BV:15:GLU:O	39:BV:18:LEU:HB2	2.05	0.57
48:B4:15:ILE:HB	48:B4:32:TYR:CD2	2.40	0.57
1:CA:136:C:N4	1:CA:227:G:H1	2.00	0.57
1:CA:382:A:H2'	1:CA:383:A:H8	1.69	0.57
1:CA:741:G:H2'	1:CA:742:G:O4'	2.04	0.57
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.57
1:CA:1076:C:H42	1:CA:1081:G:H1	1.51	0.57
4:CD:55:ALA:O	4:CD:59:ARG:HG2	2.04	0.57
5:CE:78:HIS:CE1	5:CE:142:LEU:HD23	2.40	0.57
23:DA:928:G:O6	56:DA:3789:HOH:O	2.16	0.57
23:DA:1359:A:N6	23:DA:1372:U:C5	2.73	0.57
24:DB:55:U:HO2'	28:DG:29:TRP:HD1	1.51	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D2:22:GLU:OE2	46:D2:68:ARG:NH2	2.37	0.57
1:AA:375:U:H2'	1:AA:376:G:H8	1.70	0.57
3:AC:127:ARG:HE	3:AC:193:TYR:HE2	1.53	0.57
9:AI:83:ARG:HA	9:AI:86:VAL:HG13	1.86	0.57
30:BI:102:SER:OG	30:BI:103:ARG:N	2.36	0.57
1:CA:1272:G:H2'	1:CA:1273:G:H8	1.70	0.57
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.05	0.57
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.88	0.57
3:CC:54:ARG:NH1	3:CC:56:ASP:OD1	2.37	0.57
23:DA:547:A:H1'	23:DA:548:A:H4'	1.87	0.57
23:DA:686:G:H5"	51:D7:11:LYS:HE2	1.86	0.57
23:DA:1007:C:OP1	31:DN:37:LYS:NZ	2.33	0.57
27:DF:23:ASP:O	27:DF:24:LEU:HD13	2.05	0.57
40:DW:86:LEU:HD12	40:DW:87:PRO:HD2	1.85	0.57
1:AA:186:C:H2'	1:AA:187:C:C6	2.40	0.57
1:AA:565:U:OP2	1:AA:566:G:O2'	2.22	0.57
1:AA:819:A:H4'	1:AA:820:U:OP2	2.04	0.57
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.69	0.57
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.40	0.57
7:AG:107:ALA:O	7:AG:111:ARG:HG3	2.05	0.57
19:AS:19:VAL:O	19:AS:23:ASN:N	2.38	0.57
23:BA:1507:A:O2'	23:BA:1508:A:O5'	2.22	0.57
23:BA:1639:U:C2'	23:BA:1640:C:H5"	2.35	0.57
23:BA:2292:C:OP1	36:BS:17:ARG:NH2	2.37	0.57
23:BA:2683:C:OP1	37:BT:53:ARG:NH2	2.38	0.57
23:BA:2892:A:H2'	23:BA:2893:G:H5"	1.85	0.57
30:BI:70:GLU:O	30:BI:74:ASN:HB2	2.05	0.57
34:BQ:5:ARG:O	43:BZ:194:PRO:HD2	2.04	0.57
41:BX:31:HIS:CD2	41:BX:33:LYS:H	2.23	0.57
1:CA:7:G:O2'	5:CE:120:THR:O	2.22	0.57
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.25	0.57
1:CA:868:C:H2'	1:CA:869:G:O4'	2.05	0.57
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.69	0.57
1:CA:1083:U:C5	1:CA:1084:G:C6	2.92	0.57
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.40	0.57
13:CM:4:ILE:O	13:CM:6:GLY:N	2.38	0.57
13:CM:92:HIS:NE2	13:CM:98:VAL:HG21	2.20	0.57
14:CN:2:ALA:HB1	14:CN:6:LEU:HD13	1.86	0.57
20:CT:33:ILE:O	20:CT:37:SER:OG	2.20	0.57
23:DA:588:U:H2'	23:DA:589:C:C6	2.40	0.57
23:DA:1786:A:H1'	23:DA:1938:A:N6	2.20	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1945:G:H2'	23:DA:1946:U:C6	2.40	0.57
23:DA:2790:A:H2'	23:DA:2790:A:N3	2.20	0.57
32:DO:88:ASN:HD21	32:DO:90:GLN:HB2	1.70	0.57
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.19	0.56
3:AC:36:ASP:OD2	3:AC:36:ASP:N	2.36	0.56
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.05	0.56
23:BA:628:G:H2'	23:BA:629:G:H8	1.70	0.56
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.40	0.56
51:B7:8:ASN:C	51:B7:8:ASN:OD1	2.43	0.56
1:CA:920:U:H2'	1:CA:921:U:C6	2.41	0.56
2:CB:103:THR:HG23	2:CB:176:GLU:HB3	1.86	0.56
5:CE:93:PRO:HG2	8:CH:105:ARG:NE	2.20	0.56
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.87	0.56
23:DA:674:G:H1'	27:DF:74:ARG:HD3	1.87	0.56
23:DA:2591:C:OP2	25:DD:239:ARG:HB3	2.03	0.56
1:AA:203:U:H5"	1:AA:204:U:OP2	2.05	0.56
4:AD:12:CYS:SG	4:AD:31:CYS:SG	3.03	0.56
23:BA:602:G:O2'	23:BA:655:A:N6	2.38	0.56
1:CA:1255:G:O3'	1:CA:1258:G:H1'	2.05	0.56
1:CA:1330:U:H5'	1:CA:1331:G:O5'	2.06	0.56
18:CR:53:ARG:HE	18:CR:59:SER:C	2.08	0.56
23:DA:2126:A:H4'	23:DA:2127:G:O5'	2.05	0.56
23:DA:2308:G:H4'	23:DA:2309:A:OP2	2.04	0.56
39:DV:15:GLU:O	39:DV:18:LEU:HB2	2.04	0.56
1:AA:993:G:H2'	1:AA:995:C:N4	2.20	0.56
2:AB:21:ARG:H	2:AB:21:ARG:HD3	1.70	0.56
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.88	0.56
23:BA:761:A:N7	56:BA:3905:HOH:O	2.33	0.56
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.39	0.56
23:BA:2131:G:N3	23:BA:2133:G:N2	2.51	0.56
24:BB:87:G:H5"	24:BB:88:C:OP2	2.06	0.56
27:BF:32:LEU:HD11	27:BF:105:VAL:HG13	1.86	0.56
36:BS:83:LYS:O	36:BS:111:GLU:HG3	2.06	0.56
45:B1:64:ALA:HA	45:B1:67:ILE:HG13	1.87	0.56
1:CA:370:C:H2'	1:CA:371:G:C8	2.40	0.56
1:CA:522:C:N4	1:CA:528:C:H42	2.04	0.56
1:CA:612:C:O2	1:CA:629:G:N2	2.38	0.56
1:CA:1442(A):G:C8	1:CA:1442(B):A:C2	2.93	0.56
2:CB:98:LEU:HB2	2:CB:101:MET:HE3	1.87	0.56
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.88	0.56
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:453:C:H5”	56:DA:3993:HOH:O	2.05	0.56
23:DA:1210:A:H5’	23:DA:1210:A:C8	2.35	0.56
23:DA:2361:A:OP1	52:D8:27:THR:HG23	2.05	0.56
25:DD:16:MET:HG3	25:DD:206:LEU:O	2.05	0.56
48:D4:18:CYS:SG	48:D4:39:CYS:HB2	2.44	0.56
52:D8:7:HIS:CD2	52:D8:10:ALA:H	2.12	0.56
1:AA:944:G:H1’	1:AA:1340:A:C2	2.40	0.56
3:AC:20:SER:HG	3:AC:40:ARG:HH22	1.50	0.56
14:AN:47:LEU:HB2	14:AN:53:LEU:HG	1.86	0.56
23:BA:795:C:H2’	23:BA:796:C:H6	1.70	0.56
23:BA:1557:C:OP2	23:BA:1558:A:O2’	2.18	0.56
39:BV:42:GLY:O	39:BV:43:GLU:HG2	2.06	0.56
1:CA:857:C:H2’	1:CA:858:G:O4’	2.05	0.56
1:CA:1181:G:H4’	1:CA:1184:G:O4’	2.05	0.56
1:CA:1218:C:H2’	1:CA:1219:U:C6	2.39	0.56
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.05	0.56
23:DA:1378:A:OP1	51:D7:10:ARG:NH2	2.38	0.56
23:DA:1506:C:H2’	23:DA:1507:A:H5’	1.86	0.56
27:DF:6:VAL:HA	27:DF:23:ASP:H	1.70	0.56
32:DO:102:VAL:HB	32:DO:106:LEU:HD12	1.87	0.56
34:DQ:32:TYR:OH	34:DQ:111:GLU:OE1	2.19	0.56
48:D4:18:CYS:CB	48:D4:39:CYS:SG	2.91	0.56
1:AA:322:C:H4’	20:AT:23:ARG:HD2	1.88	0.56
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.41	0.56
10:AJ:47:PHE:HZ	10:AJ:65:LEU:HD22	1.70	0.56
23:BA:271(L):U:H4’	23:BA:271(M):G:OP1	2.04	0.56
23:BA:2118:U:OP1	23:BA:2147:G:O2’	2.22	0.56
23:BA:2384:G:OP2	44:B0:55:ARG:NH1	2.39	0.56
1:CA:954:G:O6	13:CM:104:ARG:NH1	2.39	0.56
1:CA:1003:G:H2’	1:CA:1004:A:H4’	1.88	0.56
3:CC:19:GLU:O	3:CC:40:ARG:NH2	2.38	0.56
4:CD:129:ASN:HD21	4:CD:145:GLU:N	2.04	0.56
28:DG:48:GLU:O	28:DG:51:ARG:N	2.39	0.56
29:DH:86:GLU:HG2	29:DH:132:ARG:HG3	1.87	0.56
43:DZ:77:ASP:OD1	43:DZ:80:ARG:HG2	2.06	0.56
1:AA:986:A:H1’	19:AS:54:GLY:O	2.06	0.56
11:AK:69:ALA:HB1	11:AK:103:LEU:HD21	1.88	0.56
21:AU:11:GLY:HA2	21:AU:14:TRP:CE3	2.41	0.56
24:BB:8:U:H6	24:BB:8:U:H5”	1.70	0.56
36:BS:25:ARG:NH1	36:BS:42:ASP:OD2	2.39	0.56
1:CA:346:G:H21	1:CA:347:G:C1’	2.18	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:43:PHE:HD2	7:CG:44:TYR:CE2	2.24	0.56
11:CK:58:PRO:HA	11:CK:90:GLY:HA2	1.88	0.56
23:DA:975:C:H6	56:DA:3870:HOH:O	1.87	0.56
23:DA:2228:G:OP1	25:DD:261:LYS:NZ	2.27	0.56
29:DH:3:ARG:HG3	29:DH:4:ILE:N	2.20	0.56
37:DT:118:ARG:HA	37:DT:118:ARG:HH11	1.71	0.56
37:DT:127:ALA:HA	37:DT:128:GLU:C	2.26	0.56
40:DW:19:LEU:O	49:D5:25:LEU:HD12	2.06	0.56
1:AA:868:C:H2'	1:AA:869:G:O4'	2.05	0.56
1:AA:1234:C:H2'	1:AA:1235:U:O4'	2.05	0.56
1:AA:1442(B):A:C2	37:BT:118:ARG:CZ	2.89	0.56
3:AC:113:ALA:HB1	3:AC:200:ALA:HB1	1.87	0.56
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.05	0.56
9:AI:6:GLY:N	9:AI:17:VAL:HG12	2.20	0.56
23:BA:1364:G:OP2	45:B1:3:LYS:HG2	2.05	0.56
42:BY:51:VAL:HG22	42:BY:58:GLY:H	1.70	0.56
1:CA:153:C:H2'	1:CA:154:C:C6	2.40	0.56
1:CA:598:U:H2'	1:CA:599:C:C6	2.41	0.56
1:CA:939:G:H5"	7:CG:102:ARG:CZ	2.35	0.56
1:CA:1130:A:H61	1:CA:1144:G:H1'	1.71	0.56
1:CA:1343:G:H4'	9:CI:122:ALA:HB3	1.88	0.56
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.41	0.56
23:DA:566:U:H5"	33:DP:29:LYS:HE3	1.87	0.56
32:DO:115:VAL:HG13	32:DO:121:VAL:HG21	1.88	0.56
1:AA:1179:A:H2'	1:AA:1180:A:C8	2.40	0.56
1:AA:1288:A:N6	1:AA:1371:G:H1'	2.21	0.56
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.40	0.56
2:AB:187:LEU:HD23	2:AB:201:ILE:HB	1.86	0.56
3:AC:32:LEU:HB3	3:AC:59:ARG:NH1	2.20	0.56
4:AD:36:ARG:HG2	4:AD:38:TYR:OH	2.05	0.56
9:AI:28:VAL:HG13	9:AI:63:ILE:HB	1.88	0.56
23:BA:63:U:OP2	56:BA:4700:HOH:O	2.18	0.56
23:BA:1593:G:H2'	23:BA:1594:G:H8	1.71	0.56
23:BA:2131:G:H5"	23:BA:2132:U:H5"	1.88	0.56
1:CA:458:C:H2'	1:CA:460:G:H8	1.69	0.56
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.41	0.56
23:DA:1779:U:C5	23:DA:1784:A:N7	2.60	0.56
23:DA:2109:U:H3'	23:DA:2109:U:H6	1.71	0.56
1:AA:243:A:H4'	1:AA:244:U:O5'	2.05	0.56
1:AA:951:G:H1'	1:AA:970:C:O2'	2.06	0.56
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.87	0.56
23:BA:528:A:O2'	23:BA:529:A:H5'	2.06	0.56
23:BA:579:G:H2'	23:BA:580:C:C6	2.41	0.56
23:BA:2107:C:C5	23:BA:2108:C:C4	2.93	0.56
36:BS:59:LYS:HB3	36:BS:60:GLY:CA	2.35	0.56
42:BY:2:ARG:HA	42:BY:2:ARG:HH11	1.70	0.56
49:B5:49:CYS:SG	49:B5:51:TYR:HB2	2.46	0.56
1:CA:639:G:H2'	1:CA:640:A:H8	1.71	0.56
1:CA:659:U:H2'	1:CA:660:G:H8	1.69	0.56
1:CA:913:A:H4'	1:CA:914:A:O5'	2.05	0.56
23:DA:1509(B):A:H2'	23:DA:1510:G:C8	2.41	0.56
23:DA:2805:G:H2'	23:DA:2807:G:H8	1.69	0.56
34:DQ:16:ARG:HG2	34:DQ:16:ARG:NH1	2.21	0.56
40:DW:60:ASN:HD22	40:DW:60:ASN:H	1.52	0.56
1:AA:598:U:H2'	1:AA:599:C:H6	1.71	0.56
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.05	0.56
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.21	0.56
1:AA:1142:G:H3'	1:AA:1143:G:C8	2.40	0.56
1:AA:1220:G:H1'	19:AS:52:TYR:CE2	2.40	0.56
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.71	0.56
2:AB:185:ILE:HA	2:AB:199:TYR:O	2.06	0.56
15:AO:33:THR:HG21	15:AO:85:LEU:HD22	1.88	0.56
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	1.88	0.56
23:BA:107:C:H2'	23:BA:108:U:H6	1.70	0.56
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.40	0.56
23:BA:2113:U:H2'	23:BA:2114:A:C8	2.40	0.56
1:CA:221:C:H2'	1:CA:222:U:H6	1.69	0.56
1:CA:1287:A:H2'	1:CA:1288:A:H8	1.71	0.56
5:CE:30:ALA:N	5:CE:46:GLY:O	2.29	0.56
9:CI:117:HIS:CE1	9:CI:123:PRO:HG3	2.41	0.56
23:DA:1466:G:O2'	23:DA:1546:C:O2'	2.23	0.56
30:DI:105:HIS:N	30:DI:105:HIS:CD2	2.74	0.56
1:AA:989:C:O2	1:AA:1216:G:N1	2.28	0.55
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.54	0.55
3:AC:56:ASP:HB3	3:AC:67:THR:HB	1.88	0.55
14:AN:3:ARG:NH1	14:AN:28:GLY:H	2.05	0.55
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.87	0.55
21:AU:11:GLY:HA2	21:AU:14:TRP:HE3	1.70	0.55
23:BA:1141:U:OP2	31:BN:63:THR:OG1	2.19	0.55
23:BA:1509(B):A:H2'	23:BA:1510:G:C8	2.41	0.55
23:BA:2305:A:H1'	28:BG:135:LEU:O	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2328:A:H2'	23:BA:2329:G:C8	2.41	0.55
23:BA:2424:C:O2	23:BA:2429:G:O2'	2.20	0.55
29:BH:139:GLN:HG3	29:BH:140:LYS:N	2.20	0.55
32:BO:115:VAL:HG13	32:BO:121:VAL:HG21	1.88	0.55
52:B8:7:HIS:CD2	52:B8:10:ALA:H	2.12	0.55
1:CA:950:U:H1'	1:CA:971:G:C5	2.41	0.55
27:DF:53:THR:CG2	27:DF:55:GLY:H	2.18	0.55
37:DT:42:ILE:HG12	37:DT:84:GLN:OE1	2.06	0.55
1:AA:1311:G:N2	1:AA:1326:C:N3	2.49	0.55
1:AA:1348:U:H4'	9:AI:120:ARG:NH2	2.21	0.55
5:AE:18:ARG:HH12	5:AE:25:ARG:HD3	1.70	0.55
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.41	0.55
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.89	0.55
27:BF:107:LYS:HE3	27:BF:205:ARG:O	2.07	0.55
1:CA:160:A:H61	1:CA:346:G:N2	2.05	0.55
1:CA:1009:G:H1	1:CA:1020:U:H1'	1.72	0.55
2:CB:18:GLY:HA3	2:CB:41:ILE:HG23	1.87	0.55
23:DA:907:U:O2'	34:DQ:101:ARG:NH2	2.39	0.55
23:DA:1026:U:O2	23:DA:1026:U:H2'	2.05	0.55
23:DA:2306:C:H3'	23:DA:2307:G:C8	2.41	0.55
26:DE:16:ARG:NH1	26:DE:171:GLU:OE2	2.39	0.55
28:DG:41:GLN:NE2	28:DG:154:GLY:O	2.34	0.55
31:DN:56:ASN:H	31:DN:125:GLY:HA3	1.71	0.55
42:DY:76:CYS:CB	42:DY:79:CYS:HB2	2.29	0.55
47:D3:6:VAL:HG13	47:D3:56:VAL:HG13	1.87	0.55
47:D3:18:ASP:OD1	47:D3:18:ASP:N	2.26	0.55
1:AA:688:G:H2'	1:AA:689:C:C6	2.42	0.55
1:AA:939:G:N3	1:AA:1375:A:H2	2.04	0.55
5:AE:37:ARG:HG2	5:AE:37:ARG:HH11	1.72	0.55
11:AK:48:ILE:HD13	11:AK:48:ILE:H	1.70	0.55
22:AV:50:ASP:HA	22:AV:53:VAL:HG12	1.87	0.55
23:BA:271(F):C:H2'	23:BA:271(G):C:H6	1.72	0.55
23:BA:848:G:OP1	56:BA:3720:HOH:O	2.18	0.55
23:BA:1309:G:N7	56:BA:4019:HOH:O	2.33	0.55
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.87	0.55
3:CC:43:LEU:O	3:CC:47:LEU:N	2.39	0.55
13:CM:69:GLU:O	13:CM:70:LEU:HB3	2.07	0.55
16:CP:59:TRP:HA	16:CP:62:VAL:HG12	1.87	0.55
23:DA:184:C:H2'	23:DA:185:U:C6	2.41	0.55
23:DA:1288:U:C2	23:DA:1327:C:O2	2.60	0.55
23:DA:1514:U:H2'	23:DA:1515:G:H8	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.88	0.55
1:AA:152:A:N6	1:AA:170:U:H3	2.03	0.55
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.87	0.55
1:AA:1009:G:H2'	1:AA:1010:G:C8	2.42	0.55
12:AL:76:ASN:HD21	12:AL:107:ALA:HA	1.72	0.55
23:BA:1109:C:C5	23:BA:1110:G:C2	2.88	0.55
23:BA:1762:A:H8	23:BA:1762:A:O5'	1.89	0.55
23:BA:2109:U:H3'	23:BA:2109:U:H6	1.72	0.55
3:CC:88:ARG:O	3:CC:92:ALA:HB3	2.06	0.55
3:CC:113:ALA:HB2	3:CC:202:ILE:HG12	1.88	0.55
13:CM:14:ARG:HD2	13:CM:42:ALA:O	2.05	0.55
23:DA:247:G:H4'	23:DA:386:G:C5	2.42	0.55
24:DB:8:U:O2'	36:DS:40:ILE:HD13	2.07	0.55
31:DN:42:TRP:HD1	31:DN:48:MET:HE1	1.72	0.55
46:D2:9:GLN:HE22	46:D2:56:GLN:HB3	1.70	0.55
42:BY:8:LYS:HG2	42:BY:9:LYS:O	2.07	0.55
46:B2:53:LEU:O	46:B2:57:ILE:HG13	2.07	0.55
1:CA:35:G:C2	1:CA:550:G:C2	2.94	0.55
1:CA:346:G:N2	1:CA:347:G:C4	2.75	0.55
23:DA:272:G:N7	23:DA:421:U:H2'	2.22	0.55
23:DA:2723:C:OP1	35:DR:3:HIS:ND1	2.26	0.55
24:DB:32:C:C2	24:DB:51:G:N2	2.74	0.55
25:DD:76:PRO:HB2	25:DD:116:GLN:HE21	1.71	0.55
26:DE:97:LYS:N	26:DE:100:GLU:OE1	2.39	0.55
31:DN:28:THR:HG22	31:DN:29:LYS:N	2.22	0.55
1:AA:100:C:H2'	1:AA:101:A:C8	2.41	0.55
1:AA:327:A:O2'	1:AA:329:A:H8	1.88	0.55
1:AA:474:G:H2'	1:AA:475:G:C8	2.41	0.55
1:AA:512:U:H2'	1:AA:513:C:C6	2.41	0.55
1:AA:1504:G:H3'	1:AA:1504:G:P	2.46	0.55
3:AC:123:GLN:HA	3:AC:126:ARG:HB2	1.89	0.55
30:BI:112:LYS:O	30:BI:114:LEU:N	2.36	0.55
1:CA:1227:A:H5'	1:CA:1227:A:H8	1.71	0.55
23:DA:83:G:OP1	42:DY:95:LYS:NZ	2.40	0.55
23:DA:1040:C:H2'	23:DA:1041:C:O4'	2.07	0.55
23:DA:2166:G:N2	23:DA:2172:U:O4	2.40	0.55
27:DF:129:PHE:CD2	27:DF:163:VAL:HG21	2.41	0.55
33:DP:8:PRO:HB2	33:DP:12:ALA:HB3	1.87	0.55
36:DS:59:LYS:HB3	36:DS:60:GLY:CA	2.37	0.55
44:D0:29:GLN:O	44:D0:67:VAL:HG23	2.07	0.55
1:AA:1003:G:H2'	1:AA:1004:A:C1'	2.36	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:91:VAL:HG11	18:AR:72:ARG:HH12	1.70	0.55
8:AH:4:ASP:HB2	8:AH:89:PRO:HG3	1.89	0.55
11:AK:58:PRO:HA	11:AK:90:GLY:HA2	1.87	0.55
23:BA:154(A):C:N4	23:BA:172:C:N3	2.54	0.55
23:BA:1007:C:OP1	31:BN:37:LYS:NZ	2.38	0.55
37:BT:127:ALA:HA	37:BT:128:GLU:C	2.27	0.55
42:BY:68:HIS:ND1	42:BY:70:SER:HB3	2.22	0.55
1:CA:79:G:H1	1:CA:90:U:H3	1.55	0.55
1:CA:993:G:N3	1:CA:993:G:H2'	2.21	0.55
1:CA:1300:G:O2'	1:CA:1303:C:N4	2.40	0.55
1:CA:1459:C:H41	1:CA:1461:G:N2	2.05	0.55
8:CH:4:ASP:HB2	8:CH:89:PRO:HG3	1.88	0.55
8:CH:6:ILE:HB	8:CH:85:ARG:HH12	1.70	0.55
10:CJ:11:PHE:CE2	10:CJ:67:THR:HB	2.42	0.55
23:DA:2036:C:H5'	23:DA:2036:C:C6	2.40	0.55
1:AA:473:G:H2'	1:AA:474:G:C8	2.42	0.55
1:AA:499:A:H4'	1:AA:500:G:H5'	1.89	0.55
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.42	0.55
1:AA:1098:C:H2'	1:AA:1099:G:C1'	2.37	0.55
1:AA:1157:A:H61	1:AA:1178:G:H1'	1.72	0.55
1:AA:1368:G:H2'	1:AA:1369:C:C6	2.42	0.55
23:BA:2306:C:H3'	23:BA:2307:G:C8	2.41	0.55
36:BS:46:VAL:HG12	36:BS:48:LEU:HD12	1.89	0.55
1:CA:819:A:H4'	1:CA:820:U:OP2	2.07	0.55
1:CA:1493:A:H4'	1:CA:1494:G:OP1	2.06	0.55
3:CC:5:ILE:HD12	3:CC:6:HIS:H	1.72	0.55
7:CG:47:CYS:O	7:CG:58:PRO:HG3	2.05	0.55
23:DA:956:G:OP2	34:DQ:14:ARG:NH2	2.40	0.55
23:DA:2328:A:H2'	23:DA:2329:G:C8	2.40	0.55
34:DQ:34:LEU:HB2	34:DQ:118:LEU:HD22	1.89	0.55
4:AD:177:ASP:OD1	4:AD:180:GLY:HA3	2.06	0.55
7:AG:102:ARG:HG2	7:AG:103:TRP:HD1	1.72	0.55
9:AI:7:THR:HA	9:AI:15:ALA:O	2.07	0.55
13:AM:12:ASN:HA	13:AM:45:VAL:HB	1.89	0.55
13:AM:14:ARG:NE	13:AM:16:ASP:OD2	2.35	0.55
23:BA:956:G:OP2	34:BQ:14:ARG:NH2	2.40	0.55
23:BA:1140:C:O3'	31:BN:25:ARG:NH1	2.39	0.55
23:BA:2126:A:H4'	23:BA:2127:G:O5'	2.07	0.55
23:BA:2287:A:N6	23:BA:2344:U:N3	2.54	0.55
33:BP:148:LEU:H	33:BP:148:LEU:HD23	1.71	0.55
38:BU:76:TYR:CZ	38:BU:80:ILE:HG13	2.42	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B1:82:LEU:HA	45:B1:85:LEU:HD23	1.87	0.55
47:B3:6:VAL:HG12	47:B3:54:VAL:HG11	1.89	0.55
11:CK:33:THR:HA	11:CK:39:PRO:HA	1.89	0.55
23:DA:1358:G:H2'	23:DA:1359:A:C2	2.42	0.55
23:DA:1642:G:N7	56:DA:4096:HOH:O	2.33	0.55
23:DA:2557:G:H2'	23:DA:2558:C:C6	2.41	0.55
23:DA:2781:A:H5"	23:DA:2782:G:H5'	1.88	0.55
25:DD:78:LYS:HE2	25:DD:114:GLY:HA2	1.89	0.55
27:DF:31:HIS:HB2	33:DP:9:ASN:OD1	2.07	0.55
27:DF:184:TYR:CE2	27:DF:188:ARG:HD2	2.42	0.55
32:DO:34:THR:OG1	32:DO:35:VAL:N	2.39	0.55
36:DS:102:ALA:HA	36:DS:105:ALA:CB	2.37	0.55
38:DU:74:LEU:HD12	38:DU:74:LEU:H	1.72	0.55
39:DV:65:GLY:HA3	39:DV:91:TYR:CZ	2.42	0.55
1:AA:1016:A:C6	1:AA:1017:G:H1'	2.41	0.55
1:AA:1128:C:H4'	9:AI:16:ARG:HH22	1.71	0.55
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	1.88	0.55
13:AM:104:ARG:HG2	13:AM:105:THR:HG23	1.89	0.55
23:BA:330:A:HO2'	23:BA:331:A:H8	1.51	0.55
23:BA:547:A:H1'	23:BA:548:A:H4'	1.88	0.55
23:BA:2134:A:C2	23:BA:2159:G:H1'	2.42	0.55
23:BA:2321:G:OP2	56:BA:4632:HOH:O	2.18	0.55
23:BA:2610:C:H4'	23:BA:2611:U:OP2	2.05	0.55
23:BA:2790:A:N3	23:BA:2790:A:H2'	2.22	0.55
27:BF:129:PHE:CD2	27:BF:163:VAL:HG21	2.42	0.55
36:BS:84:GLN:HB3	36:BS:111:GLU:HB2	1.89	0.55
1:CA:592:G:H1	1:CA:647:C:H42	1.55	0.55
3:CC:22:TRP:HA	10:CJ:93:GLY:HA2	1.88	0.55
8:CH:81:HIS:ND1	8:CH:138:TRP:OXT	2.34	0.55
23:DA:548:A:N6	39:DV:19:LYS:H	2.05	0.55
23:DA:646:A:H2'	23:DA:647:G:O4'	2.07	0.55
23:DA:1022:G:N7	31:DN:66:LYS:HE2	2.21	0.55
23:DA:2575:C:H5'	26:DE:143:ASN:O	2.06	0.55
23:DA:2712:U:O2'	23:DA:2713:A:H5'	2.07	0.55
24:DB:2:C:H2'	24:DB:3:C:C6	2.42	0.55
24:DB:11:C:OP2	24:DB:12:C:N4	2.30	0.55
27:DF:89:VAL:HG12	27:DF:90:PHE:N	2.22	0.55
36:DS:84:GLN:HB3	36:DS:111:GLU:HB2	1.89	0.55
1:AA:426:G:H4'	4:AD:42:GLN:HA	1.88	0.54
1:AA:924:C:H2'	1:AA:925:G:H8	1.72	0.54
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.06	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1364:G:OP1	45:B1:2:SER:HA	2.07	0.54
43:BZ:101:PRO:O	43:BZ:102:LEU:HD12	2.08	0.54
45:B1:15:ALA:O	45:B1:40:ARG:HG3	2.07	0.54
1:CA:186:C:H2'	1:CA:187:C:C6	2.42	0.54
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.72	0.54
13:CM:59:TYR:CE1	13:CM:63:THR:HG21	2.42	0.54
23:DA:107:C:H2'	23:DA:108:U:H6	1.72	0.54
23:DA:733:G:N7	56:DA:3617:HOH:O	2.33	0.54
23:DA:1048:A:O2'	23:DA:1049:C:OP2	2.24	0.54
23:DA:2037:G:O6	56:DA:3650:HOH:O	2.17	0.54
23:DA:2820:A:OP1	35:DR:4:LEU:HD23	2.07	0.54
29:DH:94:TYR:CE2	29:DH:107:VAL:HB	2.42	0.54
1:AA:857:C:H2'	1:AA:858:G:O4'	2.06	0.54
1:AA:1028:C:H42	1:AA:1034:G:C1'	2.18	0.54
1:AA:1158:C:N4	1:AA:1160:G:N3	2.56	0.54
1:AA:1532:U:O4	22:AV:31:TYR:HB3	2.06	0.54
3:AC:118:GLN:HA	3:AC:187:ALA:CB	2.36	0.54
23:BA:271(E):U:H2'	23:BA:271(F):C:H6	1.73	0.54
23:BA:638:G:H2'	23:BA:639:U:C6	2.42	0.54
23:BA:907:U:O2'	34:BQ:101:ARG:NH2	2.41	0.54
23:BA:1141:U:OP1	31:BN:25:ARG:NH1	2.40	0.54
23:BA:1486:A:H2'	23:BA:1487:G:C8	2.42	0.54
23:BA:2115:G:O2'	23:BA:2166:G:N2	2.39	0.54
23:BA:2144:U:H1'	23:BA:2147:G:H1	1.72	0.54
41:BX:2:LYS:HE2	41:BX:38:GLU:OE2	2.07	0.54
1:CA:955:U:H2'	1:CA:956:U:O4'	2.07	0.54
1:CA:969:A:OP1	10:CJ:55:LYS:NZ	2.31	0.54
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.89	0.54
1:CA:1095:U:P	1:CA:1108:G:H1	2.30	0.54
3:CC:5:ILE:HD11	14:CN:49:HIS:CE1	2.43	0.54
3:CC:20:SER:HB3	3:CC:40:ARG:HH22	1.73	0.54
4:CD:177:ASP:OD1	4:CD:180:GLY:HA3	2.06	0.54
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.87	0.54
21:CU:3:LYS:HB3	21:CU:14:TRP:CE3	2.42	0.54
22:CV:23:GLY:N	22:CV:24:ARG:HA	2.22	0.54
23:DA:2784:C:H1'	26:DE:37:ARG:HH12	1.72	0.54
43:DZ:146:ILE:HA	43:DZ:174:VAL:HG12	1.89	0.54
1:AA:736:C:H2'	1:AA:737:A:C8	2.42	0.54
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.06	0.54
23:BA:192:C:O2'	23:BA:802:A:N3	2.38	0.54
23:BA:1570:A:H5'	25:BD:36:PRO:HG3	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1786:A:H1'	23:BA:1938:A:N6	2.22	0.54
23:BA:2822:G:C8	56:BA:4416:HOH:O	2.61	0.54
56:BA:4349:HOH:O	33:BP:16:ARG:HG2	2.07	0.54
26:BE:97:LYS:N	26:BE:100:GLU:OE1	2.39	0.54
37:BT:118:ARG:HH11	37:BT:118:ARG:HG3	1.71	0.54
51:B7:34:ARG:NH1	51:B7:39:ARG:HG3	2.21	0.54
4:CD:12:CYS:HA	4:CD:19:LEU:HD23	1.89	0.54
4:CD:59:ARG:HA	4:CD:62:GLN:HB2	1.88	0.54
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.08	0.54
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.07	0.54
23:DA:720:C:H2'	23:DA:721:C:H6	1.72	0.54
23:DA:2133:G:H2'	23:DA:2157:G:H22	1.73	0.54
30:DI:31:LEU:HD21	30:DI:38:LEU:HG	1.88	0.54
32:DO:88:ASN:ND2	32:DO:90:GLN:H	2.06	0.54
34:DQ:39:PRO:HD3	34:DQ:99:PRO:HG3	1.89	0.54
1:AA:814:A:N7	1:AA:816:A:C4	2.75	0.54
1:AA:950:U:H4'	1:AA:971:G:N2	2.23	0.54
1:AA:1060:C:H1'	10:AJ:53:PRO:HD2	1.88	0.54
1:AA:1376:U:C5	7:AG:9:VAL:HA	2.37	0.54
1:AA:1459:C:C4	1:AA:1460:A:N6	2.69	0.54
4:AD:3:ARG:O	4:AD:5:ILE:HG12	2.08	0.54
9:AI:45:ALA:HB3	9:AI:48:GLU:OE1	2.07	0.54
10:AJ:43:ARG:HG2	10:AJ:67:THR:HG23	1.89	0.54
23:BA:1047:G:H2'	23:BA:1110:G:N2	2.22	0.54
23:BA:1364:G:C8	45:B1:3:LYS:HD3	2.41	0.54
23:BA:1412:A:N6	56:BA:4504:HOH:O	2.40	0.54
23:BA:1657:C:H2'	23:BA:1658:C:C6	2.43	0.54
23:BA:2016:U:H1'	49:B5:6:VAL:HG13	1.89	0.54
25:BD:17:THR:O	25:BD:211:ARG:NH2	2.37	0.54
28:BG:134:GLY:HA2	28:BG:156:ASP:HA	1.89	0.54
33:BP:82:GLY:HA2	33:BP:113:LYS:O	2.07	0.54
1:CA:262:A:H2'	1:CA:263:A:C8	2.42	0.54
1:CA:448:A:H2'	1:CA:449:C:C6	2.42	0.54
1:CA:652:U:O4	1:CA:752:G:O2'	2.20	0.54
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.72	0.54
4:CD:79:PHE:HD2	4:CD:80:GLU:N	2.04	0.54
28:DG:121:ASN:HD21	28:DG:123:ASN:HB2	1.72	0.54
30:DI:72:LEU:O	30:DI:73:GLU:HB2	2.07	0.54
37:DT:65:LYS:HE2	37:DT:67:SER:HB2	1.90	0.54
1:AA:1249:C:N4	1:AA:1287:A:H5'	2.22	0.54
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.91	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:97:ALA:HB3	20:AT:99:LEU:H	1.72	0.54
23:BA:646:A:H2'	23:BA:647:G:O4'	2.06	0.54
33:BP:100:LEU:HD12	33:BP:112:LEU:HD11	1.89	0.54
1:CA:473:G:H2'	1:CA:474:G:C8	2.43	0.54
5:CE:57:LYS:O	5:CE:61:TYR:HD2	1.90	0.54
22:CV:27:GLU:H	22:CV:44:TRP:HE1	1.54	0.54
23:DA:443:A:N7	27:DF:45:ARG:HG2	2.22	0.54
23:DA:1212:G:N2	23:DA:1236:G:O2'	2.39	0.54
23:DA:1639:U:C2'	23:DA:1640:C:H5"	2.36	0.54
23:DA:2171:A:H4'	23:DA:2172:U:OP1	2.07	0.54
43:DZ:68:PRO:O	43:DZ:91:LEU:HB2	2.07	0.54
1:AA:345:C:H4'	1:AA:346:G:N7	2.22	0.54
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.43	0.54
1:AA:1365:G:H5"	9:AI:117:HIS:CE1	2.42	0.54
3:AC:26:LYS:HA	14:AN:36:PHE:HE2	1.72	0.54
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	1.88	0.54
23:BA:744:G:OP1	56:BA:4402:HOH:O	2.18	0.54
23:BA:1434:A:H61	23:BA:1558:A:H62	1.56	0.54
23:BA:2477:C:O2	53:B9:4:ARG:NH2	2.37	0.54
1:CA:1147:C:H2'	1:CA:1148:U:C6	2.43	0.54
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.42	0.54
3:CC:52:LEU:HD13	3:CC:68:VAL:HG13	1.89	0.54
5:CE:126:ARG:HA	5:CE:131:ILE:HD11	1.89	0.54
23:DA:188:G:H1	23:DA:208:C:H42	1.55	0.54
23:DA:641:C:O2'	23:DA:2350:C:OP1	2.19	0.54
23:DA:1503:U:H2'	23:DA:1504:C:C6	2.43	0.54
23:DA:2577:A:H5'	49:D5:3:LYS:HD2	1.90	0.54
24:DB:107:G:OP1	43:DZ:31:ARG:NH2	2.41	0.54
28:DG:58:GLN:HA	28:DG:61:ALA:HB3	1.90	0.54
39:DV:35:LEU:HB2	39:DV:57:VAL:HG13	1.88	0.54
1:AA:1258:G:O2'	1:AA:1259:C:O4'	2.25	0.54
23:BA:645:C:O2	23:BA:645:C:H2'	2.07	0.54
23:BA:674:G:H1'	27:BF:74:ARG:HD3	1.90	0.54
23:BA:2361:A:OP1	52:B8:27:THR:HG23	2.08	0.54
23:BA:2834:G:H5"	23:BA:2834:G:H8	1.72	0.54
36:BS:59:LYS:HB3	36:BS:60:GLY:HA2	1.89	0.54
1:CA:833:U:H2'	1:CA:834:C:C6	2.43	0.54
1:CA:1046:A:H3'	1:CA:1047:G:C8	2.43	0.54
19:CS:69:HIS:HD2	19:CS:74:PHE:CE1	2.26	0.54
20:CT:66:ALA:HB3	20:CT:72:LEU:HD22	1.90	0.54
23:DA:1026:U:HO2'	23:DA:1027:A:P	2.31	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1762:A:H8	23:DA:1762:A:O5'	1.91	0.54
23:DA:2131:G:H5"	23:DA:2132:U:H5"	1.88	0.54
23:DA:2727:G:O2'	32:DO:70:LYS:HE2	2.08	0.54
29:DH:24:VAL:HG13	29:DH:37:VAL:HG21	1.89	0.54
31:DN:42:TRP:HA	31:DN:48:MET:SD	2.48	0.54
37:DT:54:ARG:HA	37:DT:59:THR:HB	1.89	0.54
41:DX:2:LYS:HE2	41:DX:38:GLU:OE2	2.07	0.54
1:AA:1054:C:H4'	1:AA:1054:C:OP2	2.07	0.54
1:AA:1150:U:H2'	10:AJ:39:PRO:HG2	1.88	0.54
1:AA:1309:G:H5'	13:AM:78:ILE:HG12	1.90	0.54
3:AC:30:ARG:HA	3:AC:33:LEU:HD23	1.90	0.54
7:AG:69:VAL:HB	7:AG:100:ALA:HA	1.90	0.54
13:AM:78:ILE:O	13:AM:82:MET:N	2.40	0.54
16:AP:15:PRO:HB3	16:AP:17:TYR:HE1	1.73	0.54
18:AR:37:VAL:HG12	18:AR:78:LEU:HB3	1.90	0.54
23:BA:330:A:H2	23:BA:1210:A:H2'	1.72	0.54
23:BA:2575:C:H5'	26:BE:143:ASN:O	2.07	0.54
1:CA:102:G:H2'	1:CA:103:C:C6	2.43	0.54
6:CF:91:VAL:HG13	18:CR:72:ARG:HH22	1.72	0.54
23:DA:784:A:H5'	23:DA:785:G:OP1	2.07	0.54
23:DA:1364:G:OP1	45:D1:2:SER:HA	2.08	0.54
23:DA:2144:U:O2'	23:DA:2145:C:H2'	2.08	0.54
1:AA:125:U:O4	56:AA:1831:HOH:O	2.17	0.54
1:AA:170:U:O2'	1:AA:171:A:H5'	2.08	0.54
1:AA:397:A:H5"	1:AA:397:A:N3	2.23	0.54
1:AA:428:G:H4'	1:AA:429:U:O5'	2.08	0.54
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.31	0.54
7:AG:105:VAL:HA	7:AG:108:ALA:HB3	1.89	0.54
11:AK:66:LEU:HD21	11:AK:97:ALA:HB1	1.90	0.54
23:BA:628:G:H2'	23:BA:629:G:C8	2.43	0.54
23:BA:857:C:OP2	44:B0:77:ARG:NH2	2.40	0.54
56:BA:3816:HOH:O	34:BQ:119:ARG:HD2	2.07	0.54
1:CA:396:G:O2'	1:CA:398:C:OP1	2.17	0.54
20:CT:43:LEU:O	20:CT:47:GLY:N	2.33	0.54
23:DA:628:G:H2'	23:DA:629:G:H8	1.72	0.54
23:DA:861:A:C2	23:DA:917:A:C4	2.95	0.54
23:DA:2236:C:H2'	23:DA:2237:G:H5'	1.90	0.54
23:DA:2477:C:O2	53:D9:4:ARG:NH2	2.36	0.54
31:DN:102:ALA:O	31:DN:106:MET:HG3	2.07	0.54
41:DX:31:HIS:CD2	41:DX:33:LYS:H	2.26	0.54
1:AA:346:G:H21	1:AA:347:G:C1'	2.21	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:382:A:H2'	1:AA:383:A:C8	2.43	0.54
1:AA:406:G:H5"	4:AD:5:ILE:HG23	1.89	0.54
1:AA:960:U:H1'	1:AA:1222:G:O2'	2.07	0.54
1:AA:1245:A:H2'	1:AA:1246:C:O4'	2.08	0.54
23:BA:2025:C:P	56:BA:4207:HOH:O	2.65	0.54
53:B9:14:CYS:HA	53:B9:27:CYS:HB2	1.89	0.54
1:CA:673:G:O3'	6:CF:87:ARG:NH2	2.41	0.54
23:DA:1430:C:H2'	23:DA:1431:U:H6	1.73	0.54
23:DA:2000:G:N7	56:DA:4190:HOH:O	2.33	0.54
23:DA:2262:U:O2'	23:DA:2263:C:H5'	2.08	0.54
1:AA:1377:A:N3	7:AG:7:ALA:HB1	2.22	0.53
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.43	0.53
2:AB:149:LEU:HB3	2:AB:152:PHE:HB3	1.90	0.53
10:AJ:19:SER:HB3	10:AJ:91:PRO:HD3	1.89	0.53
23:BA:1043:C:H2'	23:BA:1044:G:O4'	2.08	0.53
1:CA:35:G:O2'	12:CL:118:SER:O	2.25	0.53
1:CA:404:U:H5'	4:CD:122:ARG:HD3	1.89	0.53
1:CA:544:G:C6	1:CA:545:C:C4	2.96	0.53
1:CA:839:U:H5"	1:CA:840:C:C5	2.31	0.53
1:CA:1151:A:N3	10:CJ:39:PRO:HG2	2.22	0.53
2:CB:24:TRP:CE3	2:CB:26:PRO:HA	2.43	0.53
8:CH:85:ARG:NE	8:CH:87:SER:O	2.41	0.53
13:CM:13:LYS:O	13:CM:45:VAL:HG23	2.08	0.53
21:CU:15:ARG:HG2	21:CU:17:THR:HG23	1.89	0.53
23:DA:277:C:H4'	23:DA:278:A:O5'	2.08	0.53
28:DG:27:ASN:HB3	28:DG:30:GLU:HG3	1.90	0.53
37:DT:1:MET:HE2	37:DT:3:ARG:HG2	1.89	0.53
1:AA:359:U:H2'	1:AA:360:A:C8	2.43	0.53
1:AA:405:U:H3'	1:AA:406:G:H5'	1.89	0.53
1:AA:950:U:H2'	1:AA:951:G:C8	2.44	0.53
1:AA:1227:A:H8	19:AS:83:HIS:CG	2.27	0.53
1:AA:1301:U:HO2'	1:AA:1303:C:H6	1.56	0.53
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.33	0.53
5:AE:57:LYS:HB3	5:AE:61:TYR:HE2	1.74	0.53
23:BA:1026:U:HO2'	23:BA:1027:A:P	2.27	0.53
28:BG:156:ASP:O	28:BG:157:ILE:HG13	2.07	0.53
30:BI:14:ASP:O	30:BI:17:GLN:HB3	2.08	0.53
1:CA:304:U:H2'	1:CA:305:G:C8	2.44	0.53
1:CA:777:A:H2	11:CK:119:CYS:HB3	1.72	0.53
1:CA:1003:G:N2	1:CA:1038:C:C4	2.77	0.53
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1493:A:O2'	1:CA:1494:G:O5'	2.24	0.53
2:CB:211:ILE:HG22	2:CB:215:LEU:HG	1.89	0.53
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.08	0.53
12:CL:102:ARG:HB3	12:CL:108:ALA:O	2.08	0.53
23:DA:819:A:H2'	23:DA:820:A:H5'	1.89	0.53
23:DA:2108:C:H3'	23:DA:2108:C:H6	1.72	0.53
23:DA:2815:C:H2'	23:DA:2816:C:H6	1.73	0.53
1:AA:542:G:H2'	1:AA:543:C:H6	1.74	0.53
1:AA:590:C:H2'	1:AA:591:U:C6	2.40	0.53
1:AA:669:U:H2'	1:AA:670:G:H8	1.72	0.53
1:AA:1220:G:O2'	19:AS:52:TYR:HD2	1.91	0.53
1:AA:1238:A:H62	1:AA:1299:A:N6	1.95	0.53
1:AA:1318:A:O2'	19:AS:4:SER:HB3	2.08	0.53
3:AC:52:LEU:H	3:AC:70:VAL:HG22	1.74	0.53
5:AE:68:GLU:HG2	5:AE:70:PRO:HD3	1.90	0.53
23:BA:607:U:OP1	27:BF:102:PRO:HA	2.08	0.53
23:BA:1790:C:H5"	23:BA:1791:A:OP1	2.08	0.53
23:BA:2506:U:H2'	56:BA:3804:HOH:O	2.07	0.53
34:BQ:110:THR:HG23	34:BQ:113:GLN:OE1	2.07	0.53
36:BS:102:ALA:HA	36:BS:105:ALA:CB	2.38	0.53
1:CA:100:C:H2'	1:CA:101:A:C8	2.44	0.53
1:CA:430:A:P	4:CD:22:LYS:HZ3	2.30	0.53
1:CA:999:C:N4	1:CA:1042:G:H1	2.04	0.53
3:CC:64:VAL:O	3:CC:99:VAL:HA	2.09	0.53
6:CF:27:GLN:HA	6:CF:30:LEU:HD12	1.89	0.53
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.74	0.53
23:DA:154:G:H5'	23:DA:154(A):C:OP2	2.08	0.53
23:DA:1876:A:H2'	23:DA:1877:A:C8	2.44	0.53
23:DA:2064:C:H2'	23:DA:2065:C:C6	2.44	0.53
23:DA:2129:C:N3	23:DA:2160:G:C6	2.76	0.53
23:DA:2690:C:OP2	35:DR:14:SER:HB3	2.09	0.53
35:DR:37:THR:OG1	35:DR:40:LYS:HG3	2.08	0.53
36:DS:14:VAL:O	36:DS:18:ILE:HG12	2.09	0.53
43:DZ:54:HIS:ND1	43:DZ:101:PRO:HG3	2.23	0.53
1:AA:474:G:H2'	1:AA:475:G:H8	1.73	0.53
1:AA:943:U:H2'	1:AA:944:G:C8	2.43	0.53
1:AA:977:A:H1'	1:AA:981:U:H3	1.73	0.53
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.09	0.53
1:AA:1493:A:H4'	1:AA:1494:G:OP1	2.09	0.53
27:BF:53:THR:HG22	27:BF:56:GLU:HG3	1.91	0.53
28:BG:106:LEU:HG	28:BG:111:LEU:HG	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BY:28:LYS:CG	42:BY:40:GLU:HG2	2.38	0.53
1:CA:331:G:O4'	56:CA:1724:HOH:O	2.19	0.53
1:CA:828:A:H2'	1:CA:829:G:O4'	2.08	0.53
42:DY:2:ARG:HH11	42:DY:2:ARG:HA	1.73	0.53
1:AA:196:A:N3	1:AA:222:U:H1'	2.23	0.53
1:AA:801:U:H2'	1:AA:802:A:H8	1.74	0.53
1:AA:943:U:H2'	1:AA:944:G:H8	1.72	0.53
1:AA:986:A:H2'	1:AA:987:G:C8	2.44	0.53
1:AA:994:A:N6	1:AA:1215:G:O2'	2.41	0.53
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.89	0.53
3:AC:185:GLY:H	3:AC:200:ALA:HB3	1.71	0.53
23:BA:234:C:H2'	23:BA:235:U:O4'	2.09	0.53
23:BA:1721:G:H5'	23:BA:1722:A:OP2	2.08	0.53
23:BA:2166:G:N2	23:BA:2172:U:O4	2.40	0.53
23:BA:2319:G:C2	36:BS:3:ARG:HA	2.44	0.53
1:CA:176:C:H2'	1:CA:177:C:C6	2.44	0.53
1:CA:181:G:O2'	1:CA:183:G:N7	2.41	0.53
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.38	0.53
7:CG:43:PHE:O	7:CG:47:CYS:N	2.42	0.53
21:CU:15:ARG:HB2	21:CU:15:ARG:NH1	2.21	0.53
23:DA:2305:A:H1'	28:DG:135:LEU:O	2.09	0.53
28:DG:16:ARG:HH21	28:DG:31:VAL:HB	1.74	0.53
28:DG:156:ASP:O	28:DG:157:ILE:HG13	2.07	0.53
52:D8:28:GLY:O	52:D8:36:LYS:NZ	2.41	0.53
1:AA:160:A:H2'	1:AA:161:A:O4'	2.08	0.53
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.29	0.53
33:BP:8:PRO:HB2	33:BP:12:ALA:HB3	1.91	0.53
1:CA:103:C:H1'	1:CA:171:A:N1	2.23	0.53
1:CA:560:U:H4'	1:CA:561:U:O5'	2.08	0.53
1:CA:625:G:H2'	1:CA:626:U:H6	1.73	0.53
1:CA:1130:A:N6	1:CA:1144:G:N3	2.56	0.53
1:CA:1298:C:P	7:CG:114:ARG:HH22	2.31	0.53
1:CA:1504:G:P	1:CA:1504:G:H3'	2.49	0.53
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.09	0.53
23:DA:244:A:C2	23:DA:255:A:C4	2.96	0.53
23:DA:2892:A:H2'	23:DA:2893:G:H5"	1.89	0.53
28:DG:111:LEU:HD22	28:DG:114:ILE:HD11	1.91	0.53
38:DU:8:VAL:O	38:DU:12:ARG:HG3	2.07	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.43	0.53
4:AD:129:ASN:HD21	4:AD:145:GLU:N	2.07	0.53
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:154:G:H5'	23:BA:154(A):C:OP2	2.09	0.53
23:BA:184:C:H2'	23:BA:185:U:H6	1.74	0.53
23:BA:277:C:H4'	23:BA:278:A:O5'	2.09	0.53
23:BA:2784:C:H1'	26:BE:37:ARG:HH12	1.72	0.53
25:BD:2:ALA:N	25:BD:200:ASP:OD2	2.42	0.53
30:BI:61:ARG:HH11	30:BI:61:ARG:HA	1.72	0.53
31:BN:56:ASN:H	31:BN:125:GLY:HA3	1.73	0.53
1:CA:583:A:H2'	1:CA:584:G:O4'	2.09	0.53
1:CA:954:G:H21	1:CA:1227:A:H62	1.57	0.53
1:CA:1132:C:H2'	1:CA:1133:G:O4'	2.09	0.53
23:DA:271(F):C:H2'	23:DA:271(G):C:H6	1.73	0.53
23:DA:386:G:H4'	23:DA:387:U:OP2	2.09	0.53
23:DA:1406:U:H2'	23:DA:1407:C:C6	2.42	0.53
27:DF:150:GLY:HA2	27:DF:172:TRP:CD2	2.44	0.53
31:DN:62:VAL:HG12	31:DN:67:LEU:HD22	1.91	0.53
1:AA:79:G:O6	1:AA:90:U:O4	2.26	0.53
1:AA:913:A:H4'	1:AA:914:A:O5'	2.09	0.53
1:AA:1005:A:N6	1:AA:1024:G:H4'	2.23	0.53
1:AA:1132:C:H2'	1:AA:1133:G:O4'	2.08	0.53
1:AA:1316:G:H4'	14:AN:18:VAL:HG13	1.91	0.53
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.09	0.53
4:AD:64:LEU:HD23	4:AD:203:VAL:HG21	1.90	0.53
10:AJ:5:ARG:N	10:AJ:99:LYS:O	2.41	0.53
20:AT:41:ILE:HG22	20:AT:91:LEU:HD12	1.90	0.53
23:BA:1022:G:N7	31:BN:66:LYS:HE2	2.23	0.53
23:BA:1038:C:N4	23:BA:1117:G:H1	2.03	0.53
23:BA:1531:C:H42	23:BA:1538:G:H1	1.57	0.53
23:BA:2272:U:H5"	23:BA:2273:A:OP1	2.09	0.53
28:BG:48:GLU:O	28:BG:51:ARG:N	2.42	0.53
36:BS:3:ARG:HG3	36:BS:4:LEU:N	2.22	0.53
43:BZ:54:HIS:ND1	43:BZ:101:PRO:HG3	2.24	0.53
43:BZ:68:PRO:O	43:BZ:91:LEU:HB2	2.08	0.53
1:CA:964:A:N3	1:CA:969:A:O2'	2.31	0.53
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.41	0.53
1:CA:1192:C:N3	1:CA:1193:G:H1'	2.24	0.53
1:CA:1357:A:H3'	1:CA:1358:U:C6	2.43	0.53
23:DA:1108:U:O2'	23:DA:1109:C:O5'	2.27	0.53
23:DA:1899:G:N3	23:DA:1899:G:H2'	2.24	0.53
30:DI:98:ALA:O	30:DI:101:LEU:N	2.42	0.53
1:AA:102:G:H2'	1:AA:103:C:C6	2.44	0.53
1:AA:625:G:H2'	1:AA:626:U:H6	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:982:U:O2	1:AA:1222:G:N1	2.41	0.53
10:AJ:10:GLY:N	10:AJ:16:LEU:HD12	2.23	0.53
23:BA:588:U:H2'	23:BA:589:C:C6	2.43	0.53
23:BA:2114:A:H2'	23:BA:2115:G:O4'	2.08	0.53
23:BA:2805:G:H2'	23:BA:2807:G:H8	1.74	0.53
27:BF:150:GLY:HA2	27:BF:172:TRP:CD2	2.43	0.53
1:CA:437:U:O3'	4:CD:125:HIS:NE2	2.36	0.53
1:CA:1009:G:N2	1:CA:1020:U:O2'	2.41	0.53
1:CA:1014:A:H5'	19:CS:14:HIS:ND1	2.24	0.53
3:CC:12:LEU:HD11	14:CN:51:GLY:CA	2.39	0.53
3:CC:33:LEU:HG	3:CC:34:LEU:N	2.23	0.53
23:DA:813:U:H2'	23:DA:814:C:C6	2.44	0.53
23:DA:1434:A:H61	23:DA:1558:A:N6	2.06	0.53
23:DA:2115:G:O2'	23:DA:2166:G:N2	2.42	0.53
23:DA:2144:U:H1'	23:DA:2147:G:H1	1.72	0.53
25:DD:20:ASP:OD2	25:DD:22:SER:OG	2.20	0.53
27:DF:107:LYS:HE3	27:DF:205:ARG:O	2.08	0.53
30:DI:14:ASP:O	30:DI:17:GLN:HB3	2.09	0.53
30:DI:134:PRO:C	30:DI:136:VAL:H	2.12	0.53
42:DY:23:ARG:NH1	42:DY:23:ARG:HB2	2.23	0.53
42:DY:51:VAL:HG22	42:DY:58:GLY:H	1.73	0.53
44:D0:53:MET:HG3	44:D0:59:LEU:CD2	2.38	0.53
1:AA:999:C:H2'	1:AA:1000:U:C6	2.44	0.53
1:AA:1039:C:H2'	1:AA:1040:U:C6	2.44	0.53
1:AA:1067:A:H4'	1:AA:1387:G:O2'	2.09	0.53
1:AA:1160:G:C5	1:AA:1161:C:H5	2.28	0.53
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.09	0.53
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.89	0.53
12:AL:5:PRO:HB2	12:AL:10:LEU:HD11	1.89	0.53
23:BA:1031:G:H21	53:B9:36:GLN:HE22	1.56	0.53
23:BA:1899:G:H2'	23:BA:1899:G:N3	2.22	0.53
25:BD:44:ASN:OD1	25:BD:46:GLN:HB2	2.09	0.53
34:BQ:12:GLN:HG2	34:BQ:73:PRO:HD2	1.91	0.53
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.44	0.53
3:CC:122:GLU:HA	3:CC:125:GLU:OE2	2.08	0.53
9:CI:4:TYR:CD1	9:CI:87:GLN:HG3	2.44	0.53
23:DA:271(E):U:H2'	23:DA:271(F):C:H6	1.72	0.53
23:DA:638:G:H2'	23:DA:639:U:C6	2.43	0.53
23:DA:1593:G:H2'	23:DA:1594:G:C8	2.44	0.53
28:DG:134:GLY:HA2	28:DG:156:ASP:HA	1.91	0.53
47:D3:4:LEU:O	47:D3:36:VAL:HA	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:H1'	9:AI:124:GLN:OE1	2.08	0.52
6:AF:41:GLU:O	6:AF:43:LEU:HD12	2.10	0.52
8:AH:6:ILE:HB	8:AH:85:ARG:HH12	1.72	0.52
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.90	0.52
13:AM:97:PRO:HB3	13:AM:101:GLN:NE2	2.23	0.52
14:AN:34:TYR:C	14:AN:36:PHE:H	2.12	0.52
23:BA:226:G:H21	23:BA:228:A:N6	2.05	0.52
23:BA:974:G:O6	56:BA:4102:HOH:O	2.19	0.52
23:BA:2144:U:O2'	23:BA:2145:C:H2'	2.08	0.52
23:BA:2557:G:H2'	23:BA:2558:C:C6	2.44	0.52
30:BI:68:LEU:C	30:BI:70:GLU:H	2.12	0.52
1:CA:428:G:H4'	1:CA:429:U:O5'	2.09	0.52
1:CA:1107:C:C4	1:CA:1108:G:C8	2.97	0.52
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.08	0.52
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.44	0.52
9:CI:95:LYS:O	9:CI:99:LEU:N	2.34	0.52
13:CM:31:LYS:HA	13:CM:34:LEU:HB2	1.90	0.52
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.09	0.52
23:DA:1507:A:O2'	23:DA:1508:A:O5'	2.17	0.52
28:DG:106:LEU:HG	28:DG:111:LEU:HG	1.91	0.52
1:AA:323:U:O3'	20:AT:22:ARG:HD3	2.10	0.52
1:AA:984:C:H2'	1:AA:985:C:H6	1.74	0.52
1:AA:1016:A:H8	1:AA:1016:A:O5'	1.92	0.52
4:AD:101:LEU:HD23	4:AD:121:VAL:HG11	1.91	0.52
7:AG:12:LEU:HB2	7:AG:21:VAL:HG13	1.92	0.52
7:AG:42:ILE:O	7:AG:46:ALA:N	2.39	0.52
23:BA:2712:U:O2'	23:BA:2713:A:H5'	2.09	0.52
25:BD:232:PRO:HA	56:BD:406:HOH:O	2.07	0.52
26:BE:111:ARG:HG3	26:BE:160:TYR:CD1	2.44	0.52
1:CA:1192:C:N4	1:CA:1193:G:N3	2.56	0.52
7:CG:116:ALA:HA	7:CG:119:ARG:HG3	1.90	0.52
27:DF:185:ASP:HA	27:DF:188:ARG:HD3	1.90	0.52
35:DR:81:ASP:O	35:DR:85:PRO:HG2	2.09	0.52
42:DY:28:LYS:CG	42:DY:40:GLU:HG2	2.39	0.52
1:AA:21:G:H2'	1:AA:22:G:C8	2.45	0.52
1:AA:1332:A:O2'	1:AA:1333:A:H5'	2.10	0.52
7:AG:41:ARG:O	7:AG:45:ASP:N	2.43	0.52
23:BA:1816:G:H1	25:BD:35:LYS:HD3	1.73	0.52
23:BA:2031:A:C6	23:BA:2498:C:H1'	2.45	0.52
23:BA:2751:G:C5	29:BH:2:SER:N	2.78	0.52
36:BS:14:VAL:O	36:BS:18:ILE:HG12	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BW:43:GLY:O	40:BW:47:VAL:HG23	2.10	0.52
48:B4:18:CYS:SG	48:B4:39:CYS:HB2	2.49	0.52
1:CA:818:G:O2'	1:CA:819:A:H5'	2.10	0.52
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.90	0.52
18:CR:37:VAL:HG12	18:CR:78:LEU:HB3	1.91	0.52
23:DA:1688:U:O2	23:DA:1700:A:H5'	2.09	0.52
23:DA:1877:A:H5'	23:DA:1878:G:OP2	2.09	0.52
23:DA:2751:G:C5	29:DH:2:SER:N	2.77	0.52
36:DS:59:LYS:HB3	36:DS:60:GLY:HA2	1.90	0.52
43:DZ:52:SER:OG	43:DZ:53:ILE:N	2.42	0.52
44:D0:53:MET:HG3	44:D0:59:LEU:HD23	1.92	0.52
1:AA:3:G:O2'	1:AA:4:U:OP2	2.19	0.52
1:AA:473:G:H2'	1:AA:474:G:H8	1.75	0.52
1:AA:988:G:O2'	1:AA:1016:A:N1	2.34	0.52
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.43	0.52
1:AA:1106:G:C5	1:AA:1107:C:C5	2.97	0.52
12:AL:34:ARG:O	12:AL:61:THR:HG23	2.09	0.52
23:BA:1779:U:H6	23:BA:1784:A:H62	1.57	0.52
23:BA:2133:G:H2'	23:BA:2157:G:H22	1.75	0.52
52:B8:28:GLY:O	52:B8:36:LYS:NZ	2.43	0.52
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.44	0.52
5:CE:68:GLU:HG2	5:CE:70:PRO:HD3	1.92	0.52
9:CI:11:LYS:O	9:CI:12:GLU:HB2	2.09	0.52
9:CI:46:ALA:O	9:CI:49:PRO:HD2	2.09	0.52
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.44	0.52
23:DA:1946:U:H2'	23:DA:1947:C:C6	2.44	0.52
23:DA:2198:A:O5'	30:DI:33:ARG:NH2	2.42	0.52
23:DA:2206:G:H5'	23:DA:2207:G:N7	2.24	0.52
23:DA:2227:A:OP2	56:DA:3995:HOH:O	2.18	0.52
23:DA:2309:A:N6	23:DA:2310:A:N1	2.57	0.52
25:DD:10:THR:OG1	25:DD:13:ARG:HB2	2.10	0.52
27:DF:108:LYS:O	27:DF:112:MET:HG3	2.09	0.52
1:AA:1335:C:H4'	1:AA:1336:C:C5	2.44	0.52
3:AC:34:LEU:HA	3:AC:37:GLN:HB2	1.91	0.52
8:AH:9:MET:HG3	8:AH:26:VAL:HG11	1.92	0.52
23:BA:1815:A:OP2	25:BD:54:ARG:NH2	2.40	0.52
23:BA:2014:A:OP1	56:BA:4833:HOH:O	2.18	0.52
23:BA:2815:C:H5'	49:B5:29:THR:HG21	1.90	0.52
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.74	0.52
29:BH:24:VAL:HG13	29:BH:37:VAL:HG21	1.92	0.52
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.90	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:77:SER:HA	7:CG:86:GLN:HA	1.91	0.52
8:CH:124:ALA:HB1	8:CH:129:VAL:O	2.10	0.52
23:DA:542:C:H2'	23:DA:543:C:C6	2.44	0.52
23:DA:686:G:O6	51:D7:12:ARG:HD2	2.09	0.52
24:DB:52:A:O2'	24:DB:53:A:N3	2.38	0.52
36:DS:56:LEU:O	36:DS:58:LEU:HD23	2.09	0.52
44:D0:51:VAL:N	44:D0:62:LEU:HD12	2.25	0.52
52:D8:39:LYS:HA	52:D8:42:ARG:NH1	2.24	0.52
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.44	0.52
1:AA:583:A:H2'	1:AA:584:G:O4'	2.09	0.52
1:AA:940:C:N4	1:AA:1343:G:H1	2.06	0.52
1:AA:1131:G:N2	1:AA:1143:G:O2'	2.42	0.52
10:AJ:47:PHE:CE1	10:AJ:65:LEU:HB2	2.45	0.52
12:AL:102:ARG:HB3	12:AL:108:ALA:O	2.09	0.52
18:AR:59:SER:OG	18:AR:60:ALA:N	2.42	0.52
23:BA:2567:G:H2'	23:BA:2568:C:C6	2.44	0.52
26:BE:170:LEU:HB3	26:BE:184:VAL:HG22	1.90	0.52
35:BR:37:THR:OG1	35:BR:40:LYS:HG3	2.09	0.52
42:BY:23:ARG:NH1	42:BY:23:ARG:HB2	2.24	0.52
43:BZ:92:SER:O	43:BZ:130:PRO:HG2	2.10	0.52
1:CA:110:C:H2'	1:CA:111:G:O4'	2.10	0.52
1:CA:737:A:H2'	1:CA:738:C:C6	2.45	0.52
1:CA:1362:C:H2'	1:CA:1363:C:H5"	1.91	0.52
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.90	0.52
13:CM:91:ARG:HB2	13:CM:98:VAL:HG13	1.90	0.52
23:DA:263:C:H2'	23:DA:264:C:O4'	2.09	0.52
23:DA:1531:C:H42	23:DA:1538:G:H1	1.56	0.52
23:DA:1607:C:H4'	23:DA:1608:A:O5'	2.10	0.52
23:DA:1858:G:H2'	23:DA:1883:G:H22	1.75	0.52
23:DA:2206:G:H2'	23:DA:2207:G:C2	2.45	0.52
23:DA:2238:G:N7	56:DA:3622:HOH:O	2.34	0.52
24:DB:113:G:H2'	24:DB:114:C:C6	2.44	0.52
29:DH:71:LEU:HA	29:DH:74:ASN:HB2	1.92	0.52
37:DT:55:ASN:N	37:DT:59:THR:HG22	2.25	0.52
1:AA:38:G:C2	1:AA:397:A:C2	2.98	0.52
1:AA:652:U:O4	1:AA:752:G:O2'	2.21	0.52
1:AA:801:U:H2'	1:AA:802:A:C8	2.44	0.52
1:AA:947:G:N2	1:AA:1235:U:H1'	2.25	0.52
1:AA:1220:G:H1'	19:AS:52:TYR:HD2	1.72	0.52
4:AD:79:PHE:HD2	4:AD:80:GLU:N	2.01	0.52
23:BA:975(A):G:H1'	23:BA:990:A:C2	2.44	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:20:U:H2'	1:CA:21:G:O4'	2.10	0.52
1:CA:940:C:N4	1:CA:1343:G:H1	2.07	0.52
1:CA:1279:A:H61	3:CC:26:LYS:HZ2	1.58	0.52
23:DA:1721:G:H5'	23:DA:1722:A:OP2	2.10	0.52
23:DA:2298:A:H2'	23:DA:2299:G:O4'	2.09	0.52
31:DN:99:LEU:O	31:DN:103:VAL:HG23	2.10	0.52
33:DP:148:LEU:HD23	33:DP:148:LEU:H	1.74	0.52
34:DQ:57:HIS:HD2	34:DQ:117:ALA:HB2	1.75	0.52
37:DT:99:LEU:O	37:DT:101:PHE:N	2.42	0.52
42:DY:43:ASN:OD1	42:DY:65:ALA:HB3	2.09	0.52
9:AI:95:LYS:O	9:AI:99:LEU:HG	2.10	0.52
23:BA:725:G:C6	23:BA:726:G:N1	2.78	0.52
23:BA:1503:U:H2'	23:BA:1504:C:C6	2.44	0.52
23:BA:2102:U:O2	23:BA:2187:G:O6	2.27	0.52
23:BA:2483:C:N3	34:BQ:124:LYS:NZ	2.58	0.52
23:BA:2854:G:H2'	23:BA:2855:C:C6	2.45	0.52
24:BB:105:A:OP1	43:BZ:72:ARG:NH1	2.43	0.52
1:CA:160:A:H2'	1:CA:161:A:O4'	2.10	0.52
1:CA:1004:A:H2'	1:CA:1036:G:C6	2.44	0.52
1:CA:1128:C:H5	1:CA:1139:G:HO2'	1.54	0.52
4:CD:134:ASP:OD2	4:CD:135:LEU:HD13	2.10	0.52
9:CI:17:VAL:HG22	9:CI:63:ILE:HG23	1.91	0.52
23:DA:934:G:H2'	23:DA:935:C:C6	2.45	0.52
23:DA:2273:A:H2'	23:DA:2274:A:C8	2.45	0.52
1:AA:517:G:N2	1:AA:531:U:H5'	2.25	0.52
1:AA:528:C:N4	12:AL:49:ASN:OD1	2.43	0.52
1:AA:622:A:OP2	1:AA:623:C:N4	2.39	0.52
1:AA:1034:G:H2'	1:AA:1034:G:N3	2.24	0.52
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.91	0.52
1:AA:1117:G:H3'	1:AA:1118:C:H5	1.75	0.52
5:AE:32:VAL:HB	5:AE:58:ALA:HB1	1.92	0.52
20:AT:56:MET:HE1	20:AT:85:MET:HG2	1.92	0.52
23:BA:795:C:H2'	23:BA:796:C:C6	2.45	0.52
23:BA:863:A:H2'	23:BA:864:G:H8	1.75	0.52
28:BG:111:LEU:HD22	28:BG:114:ILE:HD11	1.91	0.52
29:BH:40:GLU:OE2	29:BH:60:ARG:NH1	2.42	0.52
38:BU:74:LEU:HD11	38:BU:110:VAL:HG13	1.92	0.52
39:BV:16:PRO:HA	39:BV:96:ILE:HG22	1.91	0.52
1:CA:193:C:H2'	1:CA:194:C:C6	2.45	0.52
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.10	0.52
1:CA:673:G:H2'	1:CA:674:G:H8	1.70	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:735:C:H2'	1:CA:736:C:H6	1.75	0.52
1:CA:1238:A:OP2	1:CA:1300:G:N2	2.42	0.52
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.91	0.52
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.45	0.52
23:DA:234:C:H2'	23:DA:235:U:O4'	2.10	0.52
23:DA:1474:C:N4	56:DA:3952:HOH:O	2.42	0.52
23:DA:2820:A:C5	35:DR:4:LEU:HD11	2.45	0.52
25:DD:172:TYR:CD1	25:DD:186:HIS:HA	2.45	0.52
36:DS:58:LEU:HD12	36:DS:65:VAL:HG13	1.91	0.52
45:D1:23:LYS:HG2	45:D1:29:GLY:HA3	1.92	0.52
1:AA:152:A:N6	1:AA:170:U:N3	2.57	0.52
1:AA:993:G:C8	1:AA:1213:A:N6	2.78	0.52
1:AA:1254:C:O4'	1:AA:1356:G:H5"	2.10	0.52
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.75	0.52
23:BA:217:G:OP2	56:BA:3945:HOH:O	2.19	0.52
23:BA:1048:A:O2'	23:BA:1049:C:OP2	2.25	0.52
23:BA:2250:G:O2'	23:BA:2496:C:OP1	2.20	0.52
1:CA:473:G:H2'	1:CA:474:G:H8	1.74	0.52
1:CA:626:U:C2	1:CA:627:G:C8	2.97	0.52
1:CA:1084:G:H5"	1:CA:1086:U:C5	2.44	0.52
5:CE:57:LYS:HB3	5:CE:61:TYR:HE2	1.74	0.52
23:DA:1309:G:P	51:D7:9:ARG:HD3	2.50	0.52
23:DA:1833:U:H2'	23:DA:1834:U:H6	1.75	0.52
29:DH:139:GLN:HG3	29:DH:140:LYS:N	2.25	0.52
1:AA:947:G:N1	1:AA:1234:C:O2	2.37	0.51
1:AA:1014:A:C6	1:AA:1015:A:N6	2.78	0.51
1:AA:1130:A:N6	1:AA:1144:G:N3	2.57	0.51
1:AA:1251:A:H4'	1:AA:1370:G:H5'	1.93	0.51
1:AA:1368:G:H5"	9:AI:112:LYS:HB3	1.93	0.51
3:AC:118:GLN:HA	3:AC:187:ALA:HB3	1.92	0.51
23:BA:1005:C:O2'	31:BN:28:THR:HG21	2.10	0.51
27:BF:103:LYS:HA	27:BF:106:ARG:HG3	1.93	0.51
28:BG:16:ARG:HH21	28:BG:31:VAL:HB	1.74	0.51
31:BN:102:ALA:O	31:BN:106:MET:HG3	2.09	0.51
1:CA:191:G:N2	20:CT:103:GLY:HA2	2.20	0.51
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.10	0.51
1:CA:1291:G:H4'	9:CI:38:GLN:O	2.09	0.51
9:CI:4:TYR:CE2	9:CI:88:TYR:HD1	2.27	0.51
18:CR:66:LEU:O	18:CR:70:ILE:HG13	2.09	0.51
23:DA:323:G:C8	27:DF:171:PRO:HG3	2.45	0.51
23:DA:493:G:H2'	23:DA:494:G:O4'	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.45	0.51
27:DF:53:THR:HG22	27:DF:56:GLU:HG3	1.92	0.51
29:DH:43:VAL:HG22	29:DH:52:VAL:HG22	1.92	0.51
32:DO:25:LEU:HD12	32:DO:38:VAL:HG12	1.92	0.51
50:D6:34:LEU:HD22	50:D6:36:LEU:HD11	1.91	0.51
1:AA:185:A:H2'	1:AA:186:C:C6	2.45	0.51
1:AA:1360:A:H2'	1:AA:1360:A:N3	2.25	0.51
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.10	0.51
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.36	0.51
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.91	0.51
23:BA:566:U:H5"	33:BP:29:LYS:HE3	1.92	0.51
23:BA:587:C:O2	33:BP:33:ARG:NH2	2.32	0.51
23:BA:720:C:H2'	23:BA:721:C:H6	1.75	0.51
23:BA:2163:C:OP2	23:BA:2164:C:N4	2.42	0.51
31:BN:47:ALA:HB2	31:BN:112:LEU:HD11	1.91	0.51
35:BR:36:THR:HG22	35:BR:37:THR:H	1.74	0.51
43:BZ:102:LEU:HD13	43:BZ:123:ASP:HA	1.92	0.51
46:B2:44:LEU:HG	46:B2:45:SER:O	2.10	0.51
1:CA:359:U:H2'	1:CA:360:A:H8	1.74	0.51
1:CA:626:U:H2'	1:CA:627:G:H8	1.74	0.51
1:CA:925:G:H5"	1:CA:926:G:OP1	2.09	0.51
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.41	0.51
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.77	0.51
23:DA:9:U:O2'	23:DA:10:G:OP1	2.28	0.51
23:DA:1466:G:HO2'	23:DA:1546:C:HO2'	1.49	0.51
23:DA:2582:G:C2	23:DA:2583:G:C8	2.98	0.51
49:D5:41:PRO:O	49:D5:44:THR:OG1	2.28	0.51
1:AA:176:C:H2'	1:AA:177:C:C6	2.45	0.51
1:AA:266:G:H5"	1:AA:267:C:C5	2.45	0.51
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.51
1:AA:1133:G:H1	1:AA:1141:C:H42	1.57	0.51
1:AA:1442(B):A:O2'	1:AA:1443:G:OP2	2.26	0.51
4:AD:104:VAL:HA	4:AD:107:ARG:HB2	1.93	0.51
23:BA:2275:C:H6	23:BA:2275:C:H5'	1.75	0.51
23:BA:2305:A:H2'	23:BA:2306:C:O4'	2.10	0.51
23:BA:2727:G:O2'	32:BO:70:LYS:HE2	2.10	0.51
25:BD:142:VAL:HG23	25:BD:193:VAL:HA	1.92	0.51
28:BG:27:ASN:HB3	28:BG:30:GLU:HG3	1.93	0.51
32:BO:102:VAL:HB	32:BO:106:LEU:HD12	1.91	0.51
34:BQ:29:PHE:N	34:BQ:105:GLU:OE2	2.40	0.51
42:BY:76:CYS:CB	42:BY:79:CYS:HB2	2.35	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:13:GLY:HA3	14:CN:57:ARG:HH22	1.75	0.51
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.09	0.51
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.40	0.51
23:DA:1547:C:H2'	23:DA:1548:C:H6	1.75	0.51
23:DA:2079:U:OP1	45:D1:21:ARG:NH2	2.42	0.51
23:DA:2107:C:H41	23:DA:2108:C:H42	1.58	0.51
23:DA:2734:A:H2'	23:DA:2735:G:O4'	2.11	0.51
25:DD:175:LEU:HD12	25:DD:185:VAL:HG21	1.91	0.51
33:DP:26:GLY:O	33:DP:28:GLY:N	2.44	0.51
36:DS:58:LEU:HB2	36:DS:59:LYS:HB2	1.92	0.51
1:AA:737:A:H2'	1:AA:738:C:C6	2.46	0.51
1:AA:1200:C:H4'	1:AA:1201:A:H5"	1.92	0.51
1:AA:1207:G:H3'	1:AA:1208:C:H6	1.75	0.51
23:BA:2131:G:H8	23:BA:2131:G:OP2	1.94	0.51
23:BA:2144:U:HO2'	23:BA:2145:C:H6	1.56	0.51
23:BA:2162:G:H4'	23:BA:2172:U:O2'	2.10	0.51
23:BA:2317:C:H2'	23:BA:2318:G:H5'	1.93	0.51
28:BG:41:GLN:NE2	28:BG:154:GLY:O	2.39	0.51
47:B3:43:ILE:O	47:B3:47:VAL:HG23	2.11	0.51
1:CA:37:U:O2'	1:CA:500:G:H4'	2.11	0.51
1:CA:391:G:O3'	16:CP:8:ARG:NH2	2.44	0.51
1:CA:406:G:N3	4:CD:119:GLN:NE2	2.57	0.51
1:CA:971:G:P	1:CA:1231:G:H21	2.34	0.51
1:CA:1057:G:O3'	3:CC:197:GLY:HA3	2.11	0.51
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.44	0.51
1:CA:1092:A:C6	1:CA:1183:A:H2	2.28	0.51
1:CA:1133:G:H1	1:CA:1141:C:H42	1.57	0.51
9:CI:18:PHE:HB3	9:CI:20:ARG:NE	2.21	0.51
14:CN:7:ILE:HA	14:CN:23:ARG:HE	1.74	0.51
23:DA:57:C:H2'	23:DA:58:G:O4'	2.11	0.51
23:DA:903:C:H2'	23:DA:904:C:C6	2.44	0.51
23:DA:2126:A:H1'	23:DA:2127:G:OP2	2.10	0.51
23:DA:2815:C:H5'	49:D5:29:THR:HG21	1.92	0.51
34:DQ:42:ILE:HD13	34:DQ:97:VAL:HG21	1.91	0.51
43:DZ:101:PRO:O	43:DZ:102:LEU:HD12	2.10	0.51
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.91	0.51
1:AA:1053:G:C8	1:AA:1200:C:C5	2.98	0.51
1:AA:1172:C:O5'	1:AA:1172:C:H6	1.94	0.51
1:AA:1179:A:O2'	1:AA:1180:A:O5'	2.28	0.51
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.92	0.51
4:AD:12:CYS:HA	4:AD:19:LEU:HD23	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:57:PRO:O	8:AH:58:TYR:HD1	1.92	0.51
10:AJ:50:ILE:HB	14:AN:41:ARG:HE	1.76	0.51
23:BA:829:A:N7	23:BA:2248:C:H5'	2.25	0.51
23:BA:958:U:H5"	34:BQ:14:ARG:HD3	1.92	0.51
23:BA:1720:U:H2'	23:BA:1721:G:O4'	2.11	0.51
23:BA:1891:G:N7	56:BA:4696:HOH:O	2.32	0.51
40:BW:14:PRO:HG2	40:BW:78:GLU:HG2	1.93	0.51
42:BY:23:ARG:HB2	42:BY:23:ARG:HH11	1.76	0.51
1:CA:499:A:H4'	1:CA:500:G:H5'	1.92	0.51
1:CA:1063:C:H5"	1:CA:1064:G:H3'	1.93	0.51
1:CA:1107:C:C5'	3:CC:173:VAL:H	2.23	0.51
1:CA:1190:G:OP1	3:CC:5:ILE:HG22	2.11	0.51
6:CF:40:VAL:HG22	6:CF:42:GLU:H	1.75	0.51
9:CI:112:LYS:HA	9:CI:119:ALA:CB	2.37	0.51
13:CM:59:TYR:O	13:CM:63:THR:HB	2.11	0.51
16:CP:15:PRO:HB3	16:CP:17:TYR:HE1	1.76	0.51
23:DA:1140:C:O3'	31:DN:25:ARG:NH1	2.43	0.51
23:DA:2163:C:OP2	23:DA:2164:C:N4	2.41	0.51
23:DA:2286:A:OP1	50:D6:29:ASN:ND2	2.44	0.51
23:DA:2292:C:OP1	36:DS:17:ARG:NH2	2.43	0.51
30:DI:70:GLU:O	30:DI:74:ASN:ND2	2.43	0.51
39:DV:16:PRO:HA	39:DV:96:ILE:HG22	1.93	0.51
1:AA:618:C:N4	1:AA:621:A:N7	2.59	0.51
1:AA:714:G:H2'	1:AA:715:A:C8	2.46	0.51
1:AA:958:A:N6	19:AS:77:THR:O	2.43	0.51
13:AM:102:ARG:NH1	13:AM:104:ARG:HD3	2.25	0.51
23:BA:263:C:H2'	23:BA:264:C:O4'	2.11	0.51
23:BA:271(Q):G:O2'	23:BA:271(R):G:OP2	2.28	0.51
23:BA:1364:G:P	45:B1:3:LYS:HG2	2.51	0.51
23:BA:1946:U:H2'	23:BA:1947:C:C6	2.46	0.51
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.92	0.51
25:BD:9:TYR:CZ	25:BD:13:ARG:HG2	2.46	0.51
1:CA:382:A:H2'	1:CA:383:A:C8	2.45	0.51
1:CA:542:G:H2'	1:CA:543:C:H6	1.75	0.51
1:CA:588:G:P	56:CA:1786:HOH:O	2.69	0.51
9:CI:11:LYS:H	9:CI:104:ARG:NH2	2.09	0.51
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.41	0.51
23:DA:287:C:N3	23:DA:354:G:N1	2.46	0.51
23:DA:1779:U:H6	23:DA:1784:A:H62	1.57	0.51
23:DA:2102:U:O2	23:DA:2187:G:O6	2.29	0.51
23:DA:2114:A:H2'	23:DA:2115:G:O4'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2572:A:N7	26:DE:145:LYS:HB2	2.25	0.51
36:DS:83:LYS:O	36:DS:111:GLU:HG3	2.11	0.51
1:AA:7:G:O2'	5:AE:120:THR:O	2.28	0.51
1:AA:101:A:H2'	1:AA:102:G:O4'	2.10	0.51
1:AA:303:A:HO2'	1:AA:555:C:HO2'	1.56	0.51
1:AA:592:G:H1	1:AA:647:C:H42	1.58	0.51
1:AA:936:C:C2	1:AA:937:A:C8	2.99	0.51
1:AA:966:G:H5"	1:AA:969:A:C5	2.45	0.51
1:AA:1357:A:H2'	1:AA:1358:U:C2	2.45	0.51
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.93	0.51
23:BA:529:A:H62	23:BA:2041:U:H3	1.57	0.51
23:BA:1378:A:OP1	51:B7:10:ARG:NH2	2.44	0.51
23:BA:2894:G:H2'	23:BA:2894:G:N3	2.26	0.51
31:BN:128:HIS:CE1	31:BN:135:PRO:HG2	2.45	0.51
36:BS:7:TYR:CE1	36:BS:91:PRO:HG3	2.46	0.51
37:BT:42:ILE:HG12	37:BT:84:GLN:OE1	2.10	0.51
1:CA:688:G:H2'	1:CA:689:C:C6	2.46	0.51
1:CA:1272:G:H2'	1:CA:1273:G:C8	2.45	0.51
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.10	0.51
45:D1:51:VAL:HG11	45:D1:74:VAL:HG21	1.92	0.51
46:D2:29:LYS:HD3	46:D2:57:ILE:HD13	1.92	0.51
1:AA:560:U:H4'	1:AA:561:U:O5'	2.10	0.51
1:AA:599:C:H5"	8:AH:95:VAL:O	2.11	0.51
1:AA:874:G:C6	1:AA:875:C:C4	2.98	0.51
1:AA:932:C:N4	1:AA:933:G:O6	2.44	0.51
1:AA:987:G:H1'	19:AS:52:TYR:OH	2.10	0.51
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.45	0.51
1:AA:1373:G:O5'	1:AA:1373:G:H8	1.93	0.51
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.92	0.51
2:AB:163:PHE:HD1	2:AB:164:VAL:N	2.09	0.51
12:AL:55:VAL:HG22	12:AL:68:ALA:O	2.11	0.51
13:AM:108:ARG:NE	13:AM:114:ARG:HH12	2.09	0.51
23:BA:188:G:H1	23:BA:208:C:H42	1.59	0.51
1:CA:303:A:HO2'	1:CA:555:C:HO2'	1.57	0.51
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.92	0.51
4:CD:3:ARG:O	4:CD:5:ILE:HG12	2.10	0.51
23:DA:995:C:OP2	38:DU:54:LYS:HE3	2.11	0.51
23:DA:1358:G:H2'	23:DA:1359:A:H2	1.76	0.51
25:DD:71:ASP:OD1	25:DD:103:ARG:NH2	2.35	0.51
28:DG:60:LEU:O	28:DG:64:THR:N	2.40	0.51
34:DQ:5:ARG:O	43:DZ:194:PRO:HD2	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DX:11:PRO:HD3	46:D2:37:PHE:CE2	2.46	0.51
46:D2:48:HIS:O	46:D2:52:ASP:HB2	2.11	0.51
1:AA:192:U:H2'	1:AA:193:C:C6	2.46	0.51
1:AA:935:A:H2'	1:AA:936:C:O4'	2.11	0.51
1:AA:1125:U:H5'	1:AA:1126:U:C5	2.36	0.51
1:AA:1273:G:H3'	1:AA:1274:G:C8	2.31	0.51
1:AA:1358:U:OP2	1:AA:1359:C:N4	2.44	0.51
11:AK:32:ILE:HD11	11:AK:68:ALA:HB1	1.92	0.51
23:BA:458:G:O2'	51:B7:39:ARG:HD3	2.11	0.51
23:BA:1379:A:H4'	23:BA:1380:G:OP2	2.10	0.51
23:BA:1547:C:H2'	23:BA:1548:C:C6	2.46	0.51
23:BA:1547:C:H2'	23:BA:1548:C:H6	1.74	0.51
23:BA:1935:G:H1'	23:BA:1964:G:N2	2.26	0.51
32:BO:25:LEU:HD12	32:BO:38:VAL:HG12	1.93	0.51
42:BY:43:ASN:OD1	42:BY:65:ALA:HB3	2.11	0.51
50:B6:9:LEU:HD21	50:B6:25:LYS:HB3	1.92	0.51
1:CA:266:G:H5"	1:CA:267:C:C5	2.46	0.51
1:CA:279:A:H4'	1:CA:280:C:H5"	1.92	0.51
1:CA:669:U:H2'	1:CA:670:G:H8	1.76	0.51
1:CA:950:U:H1'	1:CA:971:G:C4	2.46	0.51
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.11	0.51
3:CC:18:TRP:HE1	14:CN:55:GLY:N	2.09	0.51
1:AA:110:C:H2'	1:AA:111:G:O4'	2.10	0.51
1:AA:544:G:C2	1:AA:545:C:C2	2.99	0.51
1:AA:937:A:H1'	1:AA:1379:G:N2	2.26	0.51
1:AA:1000:U:O2	1:AA:1041:A:N1	2.43	0.51
1:AA:1064:G:H22	1:AA:1190:G:H2'	1.75	0.51
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.46	0.51
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.26	0.51
1:AA:1307:U:O5'	1:AA:1307:U:H6	1.93	0.51
2:AB:24:TRP:CE3	2:AB:26:PRO:HA	2.45	0.51
7:AG:156:TRP:N	7:AG:156:TRP:HE3	2.08	0.51
23:BA:863:A:H2'	23:BA:864:G:C8	2.46	0.51
23:BA:1143:A:OP1	31:BN:25:ARG:NH2	2.44	0.51
23:BA:1614:A:C2	40:BW:93:ALA:HB2	2.46	0.51
23:BA:2408:U:OP2	56:BA:4306:HOH:O	2.18	0.51
23:BA:2815:C:H2'	23:BA:2816:C:H6	1.76	0.51
24:BB:77:U:OP1	43:BZ:19:ARG:NH2	2.44	0.51
1:CA:233:C:H2'	1:CA:234:C:H6	1.75	0.51
1:CA:327:A:O2'	1:CA:329:A:H8	1.94	0.51
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1441:G:H4'	1:CA:1442:G:N7	2.25	0.51
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.11	0.51
3:CC:134:ILE:HG22	3:CC:168:ALA:HB3	1.92	0.51
23:DA:2420:C:OP2	52:D8:33:ASN:HB2	2.11	0.51
24:DB:43:C:H4'	28:DG:66:GLN:OE1	2.11	0.51
25:DD:12:SER:HB3	25:DD:208:LYS:HB3	1.91	0.51
45:D1:82:LEU:HA	45:D1:85:LEU:HD23	1.92	0.51
1:AA:109:A:C6	1:AA:326:G:C6	2.99	0.50
1:AA:649:G:H2'	1:AA:650:G:H8	1.76	0.50
1:AA:947:G:H22	1:AA:1235:U:H1'	1.76	0.50
1:AA:1323:G:O6	1:AA:1324:A:N6	2.44	0.50
2:AB:87:ARG:CZ	2:AB:233:SER:HB2	2.41	0.50
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.92	0.50
7:AG:69:VAL:HA	7:AG:138:LYS:HB2	1.93	0.50
12:AL:45:PRO:HG3	12:AL:53:ARG:HH11	1.75	0.50
13:AM:22:ILE:HG23	13:AM:67:GLU:HG2	1.93	0.50
14:AN:59:ALA:O	14:AN:60:SER:HB3	2.10	0.50
23:BA:7:G:H2'	23:BA:8:A:O4'	2.10	0.50
23:BA:2108:C:H3'	23:BA:2108:C:H6	1.76	0.50
23:BA:2126:A:H1'	23:BA:2127:G:OP2	2.11	0.50
1:CA:21:G:H2'	1:CA:22:G:C8	2.46	0.50
1:CA:50:A:H1'	1:CA:52:G:C8	2.45	0.50
1:CA:69:G:C2	1:CA:70:G:C5	2.99	0.50
1:CA:1028:C:N4	1:CA:1034:G:C2	2.78	0.50
1:CA:1160:G:H1	1:CA:1176:A:N6	2.03	0.50
1:CA:1237:C:N3	1:CA:1337:G:N2	2.54	0.50
1:CA:1266:G:N2	1:CA:1268:A:H8	2.08	0.50
7:CG:9:VAL:HG13	7:CG:94:ARG:HH21	1.76	0.50
9:CI:87:GLN:HA	9:CI:87:GLN:HE21	1.76	0.50
23:DA:2131:G:OP2	23:DA:2131:G:H8	1.93	0.50
36:DS:7:TYR:CE1	36:DS:91:PRO:HG3	2.46	0.50
40:DW:19:LEU:HB3	49:D5:25:LEU:HD11	1.93	0.50
41:DX:41:ASN:O	41:DX:45:THR:HG23	2.12	0.50
43:DZ:110:GLY:HA3	43:DZ:174:VAL:HG11	1.93	0.50
47:D3:6:VAL:HG12	47:D3:54:VAL:HG11	1.93	0.50
1:AA:971:G:OP1	1:AA:972:C:C6	2.64	0.50
1:AA:1151:A:H8	1:AA:1151:A:OP2	1.94	0.50
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.25	0.50
3:AC:179:ARG:NH2	3:AC:206:GLU:OE2	2.43	0.50
23:BA:784:A:H3'	56:BA:4111:HOH:O	2.11	0.50
23:BA:1296:G:OP1	23:BA:2709:G:O2'	2.24	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1499:C:O2'	23:BA:1500:G:H5'	2.11	0.50
23:BA:2124:G:H1	23:BA:2174:C:N4	2.09	0.50
24:BB:53:A:H5'	24:BB:54:G:OP2	2.12	0.50
28:BG:58:GLN:HA	28:BG:61:ALA:HB3	1.93	0.50
37:BT:84:GLN:HE21	37:BT:85:LYS:HG2	1.76	0.50
1:CA:196:A:N3	1:CA:222:U:H1'	2.26	0.50
1:CA:660:G:H2'	1:CA:661:G:H8	1.76	0.50
1:CA:664:G:P	18:CR:64:ARG:HH21	2.33	0.50
1:CA:1041:A:H2'	1:CA:1042:G:O4'	2.10	0.50
1:CA:1400:C:H4'	1:CA:1401:G:OP2	2.11	0.50
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.10	0.50
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.91	0.50
22:CV:30:PRO:HB3	22:CV:40:TRP:CD2	2.45	0.50
23:DA:1043:C:H2'	23:DA:1044:G:O4'	2.11	0.50
23:DA:1047:G:H2'	23:DA:1110:G:N2	2.26	0.50
23:DA:1593:G:H2'	23:DA:1594:G:H8	1.76	0.50
23:DA:2199:A:OP2	23:DA:2200:C:H5	1.94	0.50
23:DA:2305:A:H2'	23:DA:2306:C:O4'	2.11	0.50
23:DA:2439:A:H5'	23:DA:2439:A:C8	2.46	0.50
43:DZ:128:VAL:HG22	43:DZ:161:VAL:H	1.75	0.50
46:D2:69:ARG:O	46:D2:70:GLN:HB2	2.11	0.50
1:AA:509:A:C8	1:AA:509:A:H3'	2.46	0.50
1:AA:598:U:H2'	1:AA:599:C:C6	2.46	0.50
1:AA:658:G:C6	1:AA:659:U:C4	2.99	0.50
1:AA:669:U:H2'	1:AA:670:G:C8	2.46	0.50
1:AA:1013:G:H21	1:AA:1016:A:H62	1.59	0.50
1:AA:1182:G:H4'	1:AA:1184:G:H5"	1.94	0.50
13:AM:52:GLU:O	13:AM:56:LEU:HD12	2.11	0.50
14:AN:29:ARG:O	14:AN:40:CYS:HB3	2.12	0.50
17:AQ:55:ASP:HA	17:AQ:79:SER:HA	1.93	0.50
23:BA:493:G:H2'	23:BA:494:G:O4'	2.12	0.50
30:BI:83:ALA:HB2	30:BI:88:ILE:HA	1.92	0.50
1:CA:323:U:O3'	20:CT:22:ARG:HD3	2.11	0.50
9:CI:48:GLU:HB3	9:CI:101:PHE:CZ	2.46	0.50
13:CM:97:PRO:HD3	13:CM:110:ARG:HB3	1.93	0.50
23:DA:639:U:H2'	23:DA:640:C:H6	1.77	0.50
23:DA:1141:U:H4'	23:DA:1142(A):A:O4'	2.11	0.50
23:DA:1377:G:O6	56:DA:3681:HOH:O	2.19	0.50
23:DA:1816:G:H1	25:DD:35:LYS:HD3	1.76	0.50
30:DI:87:LYS:HA	30:DI:121:LYS:O	2.11	0.50
31:DN:33:LEU:HD12	31:DN:38:HIS:CE1	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DZ:24:LEU:HB2	43:DZ:41:LEU:HD23	1.94	0.50
1:AA:186:C:H2'	1:AA:187:C:H6	1.77	0.50
1:AA:447:G:H2'	1:AA:485:G:N2	2.27	0.50
1:AA:1230:C:N4	13:AM:105:THR:HG21	2.26	0.50
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.80	0.50
6:AF:40:VAL:HG22	6:AF:42:GLU:H	1.77	0.50
8:AH:85:ARG:NE	8:AH:87:SER:O	2.43	0.50
9:AI:83:ARG:O	9:AI:86:VAL:HG22	2.11	0.50
22:AV:31:TYR:CD2	22:AV:31:TYR:N	2.79	0.50
23:BA:83:G:N2	23:BA:103:A:OP2	2.36	0.50
23:BA:641:C:O2'	23:BA:2350:C:OP1	2.21	0.50
39:BV:58:VAL:HG12	39:BV:97:LYS:HB2	1.92	0.50
45:B1:23:LYS:HG2	45:B1:29:GLY:HA3	1.93	0.50
1:CA:169:C:C5	1:CA:170:U:C4	2.99	0.50
1:CA:509:A:C8	1:CA:509:A:H3'	2.46	0.50
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	1.92	0.50
1:CA:1442(B):A:O2'	1:CA:1443:G:OP2	2.24	0.50
2:CB:149:LEU:HB3	2:CB:152:PHE:HB3	1.92	0.50
15:CO:63:ARG:NH1	15:CO:87:ILE:HD11	2.27	0.50
22:CV:13:HIS:HB2	22:CV:39:GLN:HG3	1.94	0.50
23:DA:795:C:H2'	23:DA:796:C:H6	1.77	0.50
23:DA:1638:C:H4'	23:DA:2710:C:O2	2.11	0.50
1:AA:475:G:H2'	1:AA:476:G:C8	2.46	0.50
1:AA:980:C:C2'	1:AA:981:U:H5'	2.42	0.50
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.77	0.50
1:AA:1117:G:H3'	1:AA:1118:C:C5	2.45	0.50
1:AA:1227:A:O4'	19:AS:83:HIS:HB3	2.12	0.50
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.11	0.50
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.12	0.50
7:AG:146:GLU:OE2	7:AG:149:ARG:NE	2.44	0.50
13:AM:103:THR:HA	13:AM:107:ALA:HB2	1.94	0.50
23:BA:247:G:H4'	23:BA:386:G:C5	2.46	0.50
23:BA:1210:A:H5'	23:BA:1210:A:C8	2.42	0.50
23:BA:1298:C:H5"	23:BA:1299:G:OP2	2.12	0.50
23:BA:2158:A:O3'	23:BA:2159:G:H8	1.94	0.50
23:BA:2206:G:H2'	23:BA:2207:G:C2	2.47	0.50
23:BA:2286:A:H4'	23:BA:2287:A:O4'	2.12	0.50
29:BH:86:GLU:HG2	29:BH:132:ARG:HG3	1.93	0.50
1:CA:649:G:H2'	1:CA:650:G:H8	1.76	0.50
1:CA:841:U:OP2	1:CA:841:U:C2	2.64	0.50
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.76	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1458:G:H2'	1:CA:1458:G:N3	2.27	0.50
4:CD:7:PRO:O	4:CD:10:ARG:HB3	2.11	0.50
23:DA:863:A:H2'	23:DA:864:G:C8	2.47	0.50
23:DA:1379:A:H4'	23:DA:1380:G:OP2	2.11	0.50
23:DA:1602:U:O4	56:DA:3688:HOH:O	2.20	0.50
35:DR:21:TYR:OH	35:DR:43:GLU:HG2	2.12	0.50
36:DS:11:LYS:HG3	36:DS:91:PRO:HD3	1.92	0.50
42:DY:23:ARG:HB2	42:DY:23:ARG:HH11	1.77	0.50
1:AA:346:G:N2	1:AA:347:G:C4	2.79	0.50
1:AA:414:A:C5	1:AA:431:A:C2	3.00	0.50
1:AA:966:G:H4'	1:AA:969:A:H62	1.76	0.50
1:AA:1050:G:O6	1:AA:1208:C:N3	2.45	0.50
1:AA:1268:A:H4'	21:AU:23:PRO:HB3	1.93	0.50
9:AI:49:PRO:HG3	9:AI:101:PHE:CD2	2.47	0.50
23:BA:748:G:C8	40:BW:89:ALA:HB1	2.46	0.50
23:BA:1514:U:H2'	23:BA:1515:G:H8	1.77	0.50
23:BA:2713:A:OP1	35:BR:14:SER:OG	2.26	0.50
37:BT:55:ASN:N	37:BT:59:THR:HG22	2.26	0.50
1:CA:203:U:H4'	1:CA:204:U:OP1	2.11	0.50
1:CA:474:G:H2'	1:CA:475:G:C8	2.47	0.50
1:CA:1015:A:H2	1:CA:1218:C:O2	1.94	0.50
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.44	0.50
23:DA:271(N):U:O2'	23:DA:271(O):C:H5'	2.12	0.50
23:DA:1497:U:H5"	23:DA:1498:C:H5	1.77	0.50
23:DA:1720:U:H2'	23:DA:1721:G:O4'	2.11	0.50
29:DH:69:ARG:HG3	29:DH:70:THR:N	2.26	0.50
41:DX:11:PRO:HD3	46:D2:37:PHE:CZ	2.45	0.50
41:DX:27:THR:HG23	41:DX:80:ILE:HG13	1.94	0.50
1:AA:762:C:H2'	1:AA:763:G:H8	1.76	0.50
1:AA:1006:C:N3	1:AA:1023:G:O6	2.45	0.50
1:AA:1192:C:C4	1:AA:1193:G:H1'	2.46	0.50
1:AA:1533:C:H41	22:AV:11:ARG:CG	2.25	0.50
2:AB:157:ARG:HG2	2:AB:158:LEU:N	2.26	0.50
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.12	0.50
3:AC:53:ALA:HB3	3:AC:69:HIS:HB3	1.94	0.50
23:BA:122:G:N7	56:BA:3885:HOH:O	2.35	0.50
23:BA:271(P):C:H2'	23:BA:271(Q):G:H5'	1.94	0.50
23:BA:760:G:H2'	23:BA:761:A:O4'	2.12	0.50
28:BG:166:ASP:O	28:BG:170:ARG:N	2.34	0.50
43:BZ:110:GLY:HA3	43:BZ:174:VAL:HG11	1.92	0.50
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:982:U:N3	1:CA:1223:C:N3	2.58	0.50
1:CA:1310:G:H1	1:CA:1327:C:H42	1.60	0.50
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.92	0.50
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	1.94	0.50
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.94	0.50
23:DA:1810:A:H2'	23:DA:1811:G:O4'	2.11	0.50
30:DI:77:LEU:HB3	30:DI:142:VAL:HG12	1.94	0.50
31:DN:34:LEU:O	31:DN:49:GLY:HA3	2.11	0.50
1:AA:353:A:H5'	1:AA:353:A:C8	2.43	0.50
1:AA:818:G:O2'	1:AA:819:A:H5'	2.12	0.50
1:AA:1084:G:C5	1:AA:1085:U:C4	2.99	0.50
1:AA:1190:G:OP1	3:AC:5:ILE:HG22	2.11	0.50
1:AA:1268:A:O3'	21:AU:23:PRO:HB3	2.11	0.50
1:AA:1320:C:H2'	1:AA:1321:C:C6	2.47	0.50
2:AB:87:ARG:HG3	2:AB:233:SER:OG	2.12	0.50
4:AD:7:PRO:O	4:AD:10:ARG:HB3	2.11	0.50
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.27	0.50
19:AS:35:SER:HA	19:AS:37:ARG:HG3	1.93	0.50
23:BA:2079:U:OP1	45:B1:21:ARG:NH2	2.45	0.50
23:BA:2236:C:H2'	23:BA:2237:G:H5'	1.93	0.50
23:BA:2298:A:H2'	23:BA:2299:G:O4'	2.11	0.50
25:BD:16:MET:HG3	25:BD:206:LEU:O	2.12	0.50
26:BE:24:THR:HG22	26:BE:186:GLY:O	2.12	0.50
30:BI:5:LEU:HD21	30:BI:12:LEU:HD13	1.93	0.50
30:BI:86:THR:HG23	30:BI:87:LYS:HB2	1.94	0.50
37:BT:1:MET:HE2	37:BT:3:ARG:HG2	1.92	0.50
43:BZ:128:VAL:HG12	43:BZ:129:SER:N	2.27	0.50
1:CA:192:U:H2'	1:CA:193:C:C6	2.47	0.50
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.39	0.50
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.93	0.50
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.11	0.50
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.11	0.50
23:DA:251:A:OP1	52:D8:7:HIS:HE1	1.95	0.50
23:DA:252:G:OP2	33:DP:50:ARG:NH1	2.40	0.50
23:DA:479:A:N3	23:DA:481:G:H5"	2.25	0.50
23:DA:873:G:N2	23:DA:905:U:C2	2.80	0.50
23:DA:910:A:C5	34:DQ:13:GLN:HG3	2.47	0.50
28:DG:125:PHE:HB3	28:DG:166:ASP:CG	2.32	0.50
32:DO:64:ARG:NH1	32:DO:81:ASP:OD1	2.45	0.50
36:DS:29:PHE:CD2	36:DS:30:ARG:N	2.79	0.50
50:D6:8:LYS:HD3	52:D8:34:TRP:CD2	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D8:32:LEU:O	52:D8:36:LYS:HE3	2.12	0.50
1:AA:20:U:H2'	1:AA:21:G:O4'	2.12	0.50
1:AA:992:U:O2'	1:AA:1043:C:N4	2.39	0.50
1:AA:1061:G:H2'	1:AA:1062:U:H6	1.76	0.50
1:AA:1206:G:H2'	1:AA:1207:G:C8	2.46	0.50
1:AA:1237:C:H5'	1:AA:1303:C:O2	2.12	0.50
1:AA:1376:U:OP1	7:AG:94:ARG:NH1	2.44	0.50
4:AD:36:ARG:HG2	4:AD:38:TYR:CZ	2.46	0.50
11:AK:15:ALA:HA	11:AK:77:MET:HA	1.94	0.50
12:AL:92:ASP:OD1	12:AL:92:ASP:N	2.44	0.50
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.12	0.50
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.12	0.50
23:BA:2267:A:H2'	56:BA:4802:HOH:O	2.11	0.50
1:CA:658:G:C6	1:CA:659:U:C4	3.00	0.50
1:CA:729:A:H2'	1:CA:730:G:H8	1.75	0.50
1:CA:1068:G:N7	1:CA:1094:G:C8	2.80	0.50
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.77	0.50
1:CA:1289:A:N1	1:CA:1372:U:H5'	2.27	0.50
8:CH:6:ILE:HB	8:CH:85:ARG:NH1	2.27	0.50
23:DA:1547:C:H2'	23:DA:1548:C:C6	2.47	0.50
24:DB:38:C:O4'	36:DS:95:HIS:NE2	2.44	0.50
33:DP:38:GLN:HA	33:DP:41:ARG:HG2	1.93	0.50
1:AA:60:A:P	1:AA:60:A:H8	2.35	0.49
3:AC:156:ARG:H	3:AC:196:LEU:HD12	1.77	0.49
4:AD:59:ARG:HA	4:AD:62:GLN:HB2	1.94	0.49
4:AD:128:VAL:CG1	4:AD:129:ASN:HD22	2.22	0.49
23:BA:1839:G:C8	23:BA:1927:A:H1'	2.47	0.49
27:BF:184:TYR:CE2	27:BF:188:ARG:HD2	2.46	0.49
1:CA:1014:A:H5'	19:CS:14:HIS:CG	2.46	0.49
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.47	0.49
4:CD:32:ALA:O	4:CD:36:ARG:N	2.45	0.49
7:CG:88:PRO:HB3	7:CG:145:ALA:HA	1.94	0.49
8:CH:121:ASP:N	8:CH:121:ASP:OD1	2.44	0.49
23:DA:524:U:H2'	23:DA:525:U:C6	2.47	0.49
23:DA:910:A:H62	34:DQ:12:GLN:HA	1.77	0.49
23:DA:1575:C:H2'	23:DA:1576:U:C6	2.47	0.49
23:DA:1669:A:H5"	23:DA:2550:G:OP1	2.12	0.49
23:DA:1794:U:H2'	23:DA:1795:C:C6	2.47	0.49
23:DA:1945:G:H2'	23:DA:1946:U:H6	1.77	0.49
31:DN:96:GLU:H	31:DN:96:GLU:CD	2.15	0.49
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1945:G:H2'	23:BA:1946:U:C6	2.47	0.49
25:BD:12:SER:HB3	25:BD:208:LYS:HB3	1.93	0.49
31:BN:62:VAL:HG12	31:BN:67:LEU:HD22	1.94	0.49
44:B0:51:VAL:N	44:B0:62:LEU:HD12	2.28	0.49
1:CA:109:A:C6	1:CA:326:G:C6	3.00	0.49
1:CA:1003:G:C4	1:CA:1004:A:H1'	2.46	0.49
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.24	0.49
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.47	0.49
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.32	0.49
7:CG:130:GLY:HA2	7:CG:135:VAL:HG21	1.94	0.49
9:CI:21:PRO:HA	9:CI:59:PHE:HD1	1.76	0.49
10:CJ:55:LYS:C	10:CJ:57:LYS:H	2.15	0.49
17:CQ:55:ASP:HA	17:CQ:79:SER:HA	1.94	0.49
20:CT:56:MET:HE1	20:CT:85:MET:HG2	1.93	0.49
27:DF:22:ALA:HB1	27:DF:24:LEU:HD22	1.93	0.49
34:DQ:6:ARG:HG2	43:DZ:194:PRO:HG2	1.93	0.49
40:DW:46:PHE:O	40:DW:50:VAL:HG23	2.13	0.49
1:AA:577:G:C8	1:AA:816:A:C6	3.00	0.49
1:AA:952:U:H4'	1:AA:964:A:N6	2.27	0.49
1:AA:1001:A:N6	1:AA:1001(A):G:C6	2.81	0.49
1:AA:1009:G:O6	1:AA:1020:U:C2	2.65	0.49
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.12	0.49
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.93	0.49
4:AD:110:PHE:N	4:AD:110:PHE:HD1	2.10	0.49
7:AG:108:ALA:HB1	7:AG:120:ILE:HD13	1.94	0.49
11:AK:16:SER:HA	11:AK:79:SER:HB3	1.94	0.49
20:AT:76:ALA:HA	20:AT:79:ARG:NH1	2.27	0.49
23:BA:386:G:H4'	23:BA:387:U:OP2	2.12	0.49
26:BE:97:LYS:O	26:BE:100:GLU:HG3	2.12	0.49
33:BP:101:VAL:HA	33:BP:106:LEU:O	2.13	0.49
36:BS:58:LEU:HB2	36:BS:59:LYS:HB2	1.94	0.49
1:CA:951:G:H4'	1:CA:972:C:H5	1.78	0.49
1:CA:977:A:H2'	1:CA:977:A:N3	2.27	0.49
2:CB:167:PRO:HD3	2:CB:187:LEU:O	2.12	0.49
3:CC:73:PRO:HB3	3:CC:103:VAL:HG11	1.94	0.49
11:CK:69:ALA:HB1	11:CK:103:LEU:HD21	1.94	0.49
23:DA:236:C:H2'	23:DA:237:C:C6	2.47	0.49
23:DA:253:C:OP2	52:D8:5:LYS:NZ	2.37	0.49
23:DA:863:A:H2'	23:DA:864:G:H8	1.76	0.49
23:DA:946:G:P	56:DA:3960:HOH:O	2.71	0.49
27:DF:149:ASP:OD2	27:DF:149:ASP:N	2.42	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:375:U:H2'	1:AA:376:G:C8	2.47	0.49
1:AA:735:C:H2'	1:AA:736:C:H6	1.77	0.49
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.47	0.49
1:AA:1233:G:N2	1:AA:1364:U:H3	1.96	0.49
5:AE:110:LEU:HD12	5:AE:118:ILE:HG21	1.94	0.49
7:AG:123:GLU:OE2	7:AG:134:ALA:N	2.45	0.49
7:AG:151:TYR:O	7:AG:154:TYR:HD2	1.95	0.49
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.95	0.49
23:BA:271(M):G:O2'	23:BA:271(N):U:H3'	2.11	0.49
23:BA:821:A:H2'	23:BA:946:G:H5"	1.95	0.49
23:BA:1745(A):C:H5'	23:BA:1746:G:OP2	2.12	0.49
23:BA:2019:A:N7	49:B5:9:LYS:NZ	2.53	0.49
23:BA:2574:G:O2'	26:BE:143:ASN:HB3	2.12	0.49
23:BA:2818:G:O2'	23:BA:2819:G:H5'	2.12	0.49
37:BT:118:ARG:HH11	37:BT:118:ARG:HA	1.77	0.49
40:BW:40:ASN:O	40:BW:41:LYS:HG3	2.11	0.49
46:B2:29:LYS:HD3	46:B2:57:ILE:HD13	1.94	0.49
48:B4:16:CYS:HB3	48:B4:20:ASN:O	2.13	0.49
1:CA:532:A:H61	3:CC:193:TYR:HB3	1.78	0.49
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.23	0.49
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.47	0.49
3:CC:138:VAL:HG22	3:CC:149:ALA:HB1	1.95	0.49
3:CC:192:THR:OG1	3:CC:193:TYR:N	2.43	0.49
5:CE:107:ARG:O	5:CE:110:LEU:N	2.45	0.49
8:CH:57:PRO:O	8:CH:58:TYR:HD1	1.95	0.49
19:CS:50:ALA:CB	19:CS:57:HIS:HB3	2.43	0.49
20:CT:77:ALA:O	20:CT:81:LYS:HG3	2.13	0.49
23:DA:856:C:O4'	44:D0:27:GLU:HB3	2.12	0.49
23:DA:902:C:H2'	23:DA:903:C:H6	1.77	0.49
23:DA:1780:A:N6	56:DA:3751:HOH:O	2.44	0.49
23:DA:2131:G:N3	23:DA:2133:G:N2	2.54	0.49
24:DB:94:C:H2'	24:DB:95:C:H6	1.76	0.49
32:DO:71:ARG:HB3	32:DO:73:ASP:OD2	2.13	0.49
32:DO:77:ILE:HG12	37:DT:74:ARG:HD3	1.95	0.49
1:AA:59:A:H3'	1:AA:331:G:H22	1.77	0.49
1:AA:1072:G:C5	1:AA:1073:U:C4	3.01	0.49
2:AB:61:LEU:HD21	2:AB:160:ASP:HB2	1.93	0.49
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.12	0.49
23:BA:1108:U:O2	23:BA:1108:U:H2'	2.12	0.49
23:BA:1914:C:H6	23:BA:1914:C:OP2	1.94	0.49
23:BA:1971:A:OP2	25:BD:242:ARG:NH2	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:172:TYR:CD1	25:BD:186:HIS:HA	2.47	0.49
26:BE:52:LEU:O	26:BE:75:VAL:HG22	2.12	0.49
27:BF:185:ASP:HA	27:BF:188:ARG:HD3	1.94	0.49
40:BW:86:LEU:HD12	40:BW:87:PRO:HD2	1.93	0.49
1:CA:429:U:C3'	4:CD:22:LYS:HZ3	2.25	0.49
1:CA:920:U:C2	1:CA:921:U:C5	3.01	0.49
1:CA:1115:C:O2	1:CA:1185:G:N1	2.35	0.49
3:CC:131:ARG:HH22	5:CE:50:GLU:CD	2.16	0.49
3:CC:142:MET:HA	3:CC:146:ALA:HB3	1.95	0.49
6:CF:91:VAL:CG1	18:CR:72:ARG:HH12	2.26	0.49
23:DA:307:G:H21	23:DA:330:A:H62	1.60	0.49
23:DA:851:U:OP1	47:D3:49:LYS:HE2	2.13	0.49
23:DA:1935:G:H1'	23:DA:1964:G:N2	2.27	0.49
24:DB:111:G:H2'	24:DB:112:U:H6	1.78	0.49
27:DF:158:THR:O	27:DF:164:ARG:NH1	2.45	0.49
28:DG:41:GLN:O	28:DG:89:GLY:HA2	2.12	0.49
29:DH:70:THR:HA	29:DH:73:ALA:HB3	1.95	0.49
34:DQ:110:THR:HG23	34:DQ:113:GLN:OE1	2.12	0.49
36:DS:10:ARG:NH2	36:DS:91:PRO:HB2	2.25	0.49
1:AA:934:C:H41	1:AA:939:G:N2	2.11	0.49
1:AA:1104:G:C6	1:AA:1105:A:C5	3.00	0.49
1:AA:1228:C:H41	13:AM:104:ARG:CG	2.25	0.49
2:AB:134:GLU:O	2:AB:138:LEU:HG	2.12	0.49
3:AC:141:VAL:O	3:AC:145:GLY:N	2.45	0.49
9:AI:16:ARG:N	9:AI:64:THR:O	2.43	0.49
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.94	0.49
13:AM:22:ILE:HG22	13:AM:23:TYR:N	2.28	0.49
15:AO:74:ASP:OD2	15:AO:77:ARG:HB2	2.12	0.49
23:BA:265:A:H1'	23:BA:266:G:O4'	2.12	0.49
23:BA:542:C:H2'	23:BA:543:C:C6	2.48	0.49
23:BA:1155:A:OP1	38:BU:55:ARG:HD3	2.12	0.49
23:BA:1858:G:H2'	23:BA:1883:G:H22	1.77	0.49
49:B5:13:LYS:HB3	56:B5:203:HOH:O	2.13	0.49
1:CA:728:A:H2'	1:CA:729:A:C8	2.47	0.49
1:CA:1135:U:O2'	1:CA:1137:C:H5'	2.12	0.49
2:CB:32:ILE:HD11	2:CB:190:THR:HG22	1.94	0.49
2:CB:204:ASN:CG	2:CB:206:ASP:H	2.15	0.49
20:CT:41:ILE:HG22	20:CT:91:LEU:HD12	1.93	0.49
23:DA:628:G:H2'	23:DA:629:G:C8	2.46	0.49
23:DA:774:A:N3	23:DA:774:A:H2'	2.27	0.49
23:DA:1501:C:O4'	25:DD:100:GLY:HA2	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1514:U:H2'	23:DA:1515:G:C8	2.47	0.49
23:DA:1769:G:O2'	23:DA:1958:C:OP1	2.18	0.49
23:DA:2311:A:O2'	23:DA:2312:U:O4'	2.22	0.49
23:DA:2611:U:C4	49:D5:3:LYS:HG2	2.47	0.49
43:DZ:152:ALA:HA	43:DZ:155:LEU:HD13	1.94	0.49
46:D2:23:LYS:O	46:D2:27:GLU:HG2	2.12	0.49
1:AA:982:U:P	14:AN:6:LEU:HD11	2.53	0.49
1:AA:1046:A:C6	1:AA:1047:G:H1'	2.48	0.49
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.95	0.49
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.13	0.49
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.13	0.49
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.94	0.49
14:AN:31:ARG:O	14:AN:40:CYS:HB2	2.13	0.49
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.12	0.49
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB3	1.95	0.49
23:BA:271(N):U:O2'	23:BA:271(O):C:H5'	2.13	0.49
23:BA:873:G:N2	23:BA:905:U:C2	2.81	0.49
23:BA:1962:C:O2'	23:BA:1964:G:OP2	2.29	0.49
23:BA:2572:A:N7	26:BE:145:LYS:HB2	2.27	0.49
25:BD:175:LEU:HD12	25:BD:185:VAL:HG21	1.94	0.49
27:BF:178:PRO:HG2	27:BF:179:GLU:OE1	2.12	0.49
32:BO:88:ASN:HD21	32:BO:90:GLN:HB2	1.78	0.49
1:CA:169:C:H5	1:CA:170:U:C4	2.31	0.49
1:CA:557:G:C6	1:CA:558:G:C6	3.01	0.49
1:CA:626:U:H5"	16:CP:38:TYR:CD2	2.48	0.49
1:CA:994:A:H2	14:CN:4:LYS:HD2	1.78	0.49
1:CA:1025:U:O2	1:CA:1036:G:C6	2.66	0.49
5:CE:53:LEU:O	5:CE:56:GLN:HB3	2.13	0.49
9:CI:40:LEU:HD11	9:CI:70:LYS:HB3	1.95	0.49
13:CM:59:TYR:CZ	13:CM:63:THR:HG21	2.47	0.49
23:DA:644:A:H4'	23:DA:645:C:C5	2.47	0.49
23:DA:792:G:H5"	23:DA:793:A:H5'	1.93	0.49
23:DA:857:C:H4'	44:D0:23:VAL:HG21	1.94	0.49
23:DA:903:C:H2'	23:DA:904:C:H6	1.77	0.49
23:DA:934:G:H2'	23:DA:935:C:H6	1.78	0.49
23:DA:1908:C:H1'	56:DA:4164:HOH:O	2.13	0.49
23:DA:2712:U:H1'	23:DA:2712(A):A:C8	2.48	0.49
27:DF:187:VAL:HG13	33:DP:1:MET:O	2.13	0.49
43:DZ:144:LEU:CD2	43:DZ:150:LEU:HG	2.43	0.49
1:AA:203:U:H4'	1:AA:204:U:OP1	2.13	0.49
1:AA:959:A:C1'	1:AA:985:C:H1'	2.41	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1296:C:H5”	13:AM:14:ARG:NE	2.27	0.49
19:AS:53:ASN:N	19:AS:56:GLN:O	2.27	0.49
23:BA:196:A:O4’	33:BP:46:LYS:HE2	2.13	0.49
23:BA:1130:U:O2	26:BE:149:ARG:NH2	2.45	0.49
23:BA:1639:U:O2’	23:BA:1640:C:H5”	2.12	0.49
23:BA:2142:C:N3	23:BA:2149:G:O6	2.45	0.49
23:BA:2171:A:H4’	23:BA:2172:U:OP1	2.12	0.49
25:BD:267:SER:C	25:BD:269:PHE:H	2.16	0.49
44:B0:11:ARG:O	44:B0:14:ARG:NH2	2.44	0.49
1:CA:35:G:C6	1:CA:36:C:N4	2.81	0.49
1:CA:590:C:H2’	1:CA:591:U:C6	2.45	0.49
1:CA:1003:G:N2	1:CA:1037:C:C2	2.80	0.49
1:CA:1003:G:C2	1:CA:1037:C:N3	2.81	0.49
1:CA:1360:A:N7	14:CN:18:VAL:HG13	2.27	0.49
2:CB:61:LEU:HD21	2:CB:160:ASP:HB2	1.94	0.49
23:DA:1479:G:O2’	23:DA:1558:A:H5’	2.13	0.49
23:DA:1558:A:H8	56:DA:3531:HOH:O	1.96	0.49
23:DA:2281:C:O2’	23:DA:2282:G:H5’	2.13	0.49
23:DA:2820:A:O2’	23:DA:2821:A:OP1	2.30	0.49
24:DB:66:A:H61	24:DB:109:C:H5”	1.76	0.49
25:DD:2:ALA:N	25:DD:200:ASP:OD2	2.46	0.49
30:DI:40:THR:O	30:DI:44:LEU:HB2	2.13	0.49
30:DI:130:TYR:HB3	30:DI:138:ILE:HB	1.93	0.49
1:AA:136:C:O2’	16:AP:65:GLN:OE1	2.31	0.49
1:AA:279:A:H4’	1:AA:280:C:H5”	1.94	0.49
1:AA:673:G:H2’	1:AA:674:G:H8	1.73	0.49
1:AA:1056:U:O4	1:AA:1204:A:N1	2.46	0.49
1:AA:1319:A:C6	1:AA:1323:G:H1’	2.48	0.49
2:AB:170:GLU:O	2:AB:173:ALA:N	2.46	0.49
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.95	0.49
13:AM:19:LEU:HD13	13:AM:22:ILE:HD12	1.94	0.49
13:AM:92:HIS:CE1	13:AM:98:VAL:HG21	2.48	0.49
20:AT:79:ARG:HD2	20:AT:83:ARG:HH21	1.77	0.49
23:BA:9:U:O2’	23:BA:10:G:OP1	2.29	0.49
23:BA:469:G:H2’	23:BA:470:A:H5”	1.95	0.49
23:BA:902:C:H2’	23:BA:903:C:H6	1.77	0.49
1:CA:414:A:C5	1:CA:431:A:C2	3.01	0.49
1:CA:499:A:H4’	1:CA:500:G:OP1	2.12	0.49
1:CA:918:A:H2’	1:CA:919:A:C8	2.48	0.49
1:CA:937:A:H1’	1:CA:1379:G:N2	2.28	0.49
1:CA:1269:A:C8	1:CA:1270:C:H1’	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.47	0.49
2:CB:102:LEU:O	2:CB:105:PHE:HB2	2.13	0.49
3:CC:54:ARG:HG2	3:CC:56:ASP:H	1.77	0.49
4:CD:148:VAL:HG12	4:CD:149:ALA:H	1.77	0.49
10:CJ:11:PHE:HE2	10:CJ:67:THR:HB	1.77	0.49
10:CJ:81:THR:O	10:CJ:85:LEU:N	2.44	0.49
23:DA:274:G:H2'	23:DA:275:G:C8	2.47	0.49
23:DA:1657:C:H2'	23:DA:1658:C:C6	2.47	0.49
23:DA:2123:G:H1	23:DA:2175:C:N4	2.11	0.49
23:DA:2124:G:H1	23:DA:2174:C:N4	2.10	0.49
23:DA:2313:C:H2'	23:DA:2314:C:C6	2.48	0.49
1:AA:544:G:C6	1:AA:545:C:C4	3.00	0.49
1:AA:575:G:H5"	56:AA:1815:HOH:O	2.12	0.49
1:AA:626:U:C2	1:AA:627:G:C8	3.00	0.49
1:AA:729:A:H2'	1:AA:730:G:H8	1.77	0.49
1:AA:1098:C:C4	1:AA:1099:G:C8	3.01	0.49
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.48	0.49
5:AE:53:LEU:O	5:AE:56:GLN:HB3	2.12	0.49
7:AG:32:ARG:O	7:AG:33:ASP:HB2	2.13	0.49
23:BA:1721:G:N1	23:BA:1739:U:OP2	2.45	0.49
23:BA:2406:U:C4	33:BP:72:PRO:HD2	2.48	0.49
30:BI:88:ILE:HG22	30:BI:90:GLY:N	2.27	0.49
43:BZ:77:ASP:OD1	43:BZ:80:ARG:HG2	2.12	0.49
43:BZ:146:ILE:HA	43:BZ:174:VAL:HG12	1.94	0.49
44:B0:53:MET:HG3	44:B0:59:LEU:CD2	2.43	0.49
52:B8:34:TRP:CE2	52:B8:35:GLN:HG3	2.47	0.49
1:CA:39:G:N7	1:CA:547:A:H8	2.10	0.49
1:CA:375:U:H2'	1:CA:376:G:H8	1.78	0.49
1:CA:1118:C:H2'	1:CA:1119:C:C5	2.47	0.49
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.13	0.49
2:CB:21:ARG:HH12	2:CB:23:ARG:HE	1.59	0.49
2:CB:224:GLN:OE1	2:CB:225:ALA:N	2.46	0.49
23:DA:125:G:H5"	51:D7:19:ARG:HD3	1.94	0.49
23:DA:821:A:H2'	23:DA:946:G:H5"	1.94	0.49
23:DA:848:G:H2'	23:DA:849:A:C8	2.47	0.49
23:DA:857:C:OP2	44:D0:77:ARG:NH2	2.46	0.49
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.78	0.49
23:DA:1800:C:OP1	25:DD:266:SER:OG	2.16	0.49
23:DA:2080:G:P	45:D1:35:THR:HG1	2.35	0.49
23:DA:2312:U:H5'	28:DG:88:ILE:HD12	1.95	0.49
23:DA:2687:U:H2'	23:DA:2688:U:O4'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.11	0.49
27:DF:32:LEU:HA	27:DF:32:LEU:HD12	1.60	0.49
50:D6:11:LEU:HB3	50:D6:49:HIS:HB3	1.95	0.49
1:AA:31:G:O2'	1:AA:48:C:N4	2.45	0.48
1:AA:77:G:C6	1:AA:93:G:C6	3.01	0.48
1:AA:103:C:H1'	1:AA:171:A:N1	2.28	0.48
1:AA:114:U:H2'	1:AA:115:G:C8	2.48	0.48
1:AA:491:G:C4	1:AA:492:G:C8	3.01	0.48
1:AA:552:U:O3'	12:AL:87:GLY:HA3	2.13	0.48
1:AA:1315:U:C4	1:AA:1316:G:C2	3.01	0.48
11:AK:21:ILE:HG12	11:AK:30:VAL:HG12	1.94	0.48
23:BA:7:G:H1	23:BA:2896:C:H42	1.61	0.48
23:BA:64:A:O3'	41:BX:71:GLY:HA3	2.13	0.48
23:BA:856:C:O4'	44:B0:27:GLU:HB3	2.12	0.48
23:BA:857:C:H4'	44:B0:23:VAL:HG21	1.94	0.48
23:BA:1359:A:O4'	23:BA:1359:A:N3	2.46	0.48
23:BA:1441:G:H2'	23:BA:1442:G:H8	1.78	0.48
23:BA:2577:A:H5'	49:B5:3:LYS:HD2	1.95	0.48
29:BH:32:GLU:O	29:BH:33:LEU:HD23	2.13	0.48
51:B7:47:ARG:HH11	51:B7:47:ARG:HG3	1.78	0.48
1:CA:36:C:H5"	12:CL:123:LYS:HD3	1.94	0.48
1:CA:1012:U:H3'	1:CA:1013:G:C8	2.47	0.48
1:CA:1138:G:C6	1:CA:1140:C:H1'	2.48	0.48
1:CA:1168:A:C2	1:CA:1169:A:C4	3.01	0.48
1:CA:1288:A:H2'	1:CA:1289:A:O4'	2.13	0.48
1:CA:1378:C:H3'	1:CA:1379:G:H5"	1.95	0.48
1:CA:1493:A:H1'	23:DA:1913:A:N6	2.27	0.48
3:CC:152:ILE:HG22	3:CC:166:GLU:O	2.13	0.48
6:CF:41:GLU:O	6:CF:43:LEU:HD12	2.13	0.48
23:DA:517:C:OP1	49:D5:16:ARG:NH2	2.42	0.48
23:DA:855:G:H2'	23:DA:856:C:C6	2.48	0.48
23:DA:1108:U:H2'	23:DA:1108:U:O2	2.13	0.48
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.48	0.48
23:DA:2208:A:H1'	23:DA:2219:G:C4	2.48	0.48
24:DB:33:G:C2	24:DB:50:G:C2	3.01	0.48
33:DP:101:VAL:HA	33:DP:106:LEU:O	2.13	0.48
43:DZ:104:PHE:HB3	43:DZ:141:VAL:HG21	1.94	0.48
46:D2:64:LEU:HD21	46:D2:68:ARG:HE	1.78	0.48
52:D8:7:HIS:HD2	52:D8:10:ALA:N	2.01	0.48
1:AA:971:G:N7	1:AA:1364:U:O2'	2.46	0.48
1:AA:1094:G:O2'	1:AA:1108:G:N1	2.46	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.47	0.48
8:AH:25:ASP:HB3	8:AH:58:TYR:HD2	1.78	0.48
10:AJ:79:ARG:HA	10:AJ:82:ILE:H	1.76	0.48
19:AS:50:ALA:HA	19:AS:59:PRO:HA	1.95	0.48
23:BA:27:G:H1	23:BA:512:G:HO2'	1.60	0.48
23:BA:593:G:O6	56:BA:3935:HOH:O	2.18	0.48
23:BA:903:C:H2'	23:BA:904:C:C6	2.48	0.48
23:BA:1970:A:H4'	23:BA:1971:A:OP1	2.13	0.48
25:BD:78:LYS:HE2	25:BD:114:GLY:HA2	1.94	0.48
29:BH:5:GLY:HA2	29:BH:69:ARG:HB3	1.96	0.48
31:BN:42:TRP:CE3	38:BU:63:VAL:HG11	2.48	0.48
40:BW:60:ASN:HD22	40:BW:60:ASN:H	1.58	0.48
45:B1:51:VAL:HG11	45:B1:74:VAL:HG21	1.94	0.48
1:CA:502:G:C2	1:CA:503:C:C2	3.01	0.48
1:CA:1057:G:H5'	3:CC:155:GLY:HA2	1.95	0.48
1:CA:1170:A:N6	1:CA:1171:G:C2	2.81	0.48
1:CA:1186:G:C2	1:CA:1187:G:H1'	2.47	0.48
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.96	0.48
2:CB:87:ARG:HG3	2:CB:233:SER:OG	2.13	0.48
7:CG:14:PRO:HG3	7:CG:21:VAL:HG12	1.94	0.48
9:CI:26:VAL:HA	9:CI:61:ALA:HB3	1.95	0.48
23:DA:7:G:H2'	23:DA:8:A:O4'	2.12	0.48
23:DA:1745(A):C:H5'	23:DA:1746:G:OP2	2.13	0.48
23:DA:2646:C:H2'	23:DA:2647:U:O4'	2.12	0.48
23:DA:2854:G:H2'	23:DA:2855:C:C6	2.47	0.48
24:DB:5:C:O2'	24:DB:27:C:O2	2.30	0.48
33:DP:27:HIS:O	33:DP:31:ALA:HA	2.13	0.48
33:DP:82:GLY:HA2	33:DP:113:LYS:O	2.12	0.48
34:DQ:109:VAL:HG22	34:DQ:113:GLN:OE1	2.13	0.48
38:DU:74:LEU:HD11	38:DU:110:VAL:HG13	1.95	0.48
40:DW:60:ASN:N	40:DW:60:ASN:ND2	2.60	0.48
46:D2:44:LEU:HG	46:D2:45:SER:O	2.12	0.48
1:AA:967:C:H3'	1:AA:968:A:C8	2.48	0.48
1:AA:1065:U:H5"	1:AA:1066:C:C6	2.47	0.48
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.12	0.48
1:AA:1269:A:H3'	1:AA:1270:C:O4'	2.13	0.48
1:AA:1315:U:O2	1:AA:1323:G:N2	2.46	0.48
2:AB:139:LYS:O	2:AB:143:GLU:HB2	2.13	0.48
2:AB:204:ASN:CG	2:AB:206:ASP:H	2.16	0.48
2:AB:211:ILE:HG22	2:AB:215:LEU:HG	1.95	0.48
3:AC:6:HIS:CE1	3:AC:8:ILE:HG22	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:6:HIS:HE1	3:AC:8:ILE:HG22	1.78	0.48
4:AD:148:VAL:HG12	4:AD:149:ALA:H	1.78	0.48
6:AF:11:ASN:HA	6:AF:12:PRO:HD2	1.58	0.48
9:AI:7:THR:HB	9:AI:83:ARG:NH1	2.28	0.48
9:AI:31:GLN:NE2	9:AI:36:TYR:HD1	2.11	0.48
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.79	0.48
23:BA:453:C:H5"	56:BA:4383:HOH:O	2.13	0.48
23:BA:708:C:H5'	23:BA:709:U:OP2	2.13	0.48
23:BA:1506:C:C2'	23:BA:1507:A:H5'	2.42	0.48
23:BA:1876:A:H2'	23:BA:1877:A:C8	2.48	0.48
23:BA:2687:U:H2'	23:BA:2688:U:O4'	2.12	0.48
25:BD:118:VAL:HG22	25:BD:119:ALA:H	1.78	0.48
28:BG:102:PHE:CE2	28:BG:141:PHE:HE1	2.31	0.48
32:BO:59:LYS:HZ1	32:BO:89:ASN:HD21	1.61	0.48
1:CA:1299:A:H2'	1:CA:1301:U:C6	2.48	0.48
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.48	0.48
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.14	0.48
12:CL:76:ASN:HD21	12:CL:107:ALA:HA	1.79	0.48
14:CN:47:LEU:HA	14:CN:50:LYS:HB2	1.95	0.48
20:CT:42:GLN:HA	20:CT:42:GLN:NE2	2.28	0.48
23:DA:1239:G:H2'	23:DA:1240:U:O4'	2.14	0.48
23:DA:2287:A:N6	23:DA:2344:U:N3	2.50	0.48
40:DW:14:PRO:HG2	40:DW:78:GLU:HG2	1.94	0.48
43:DZ:72:ARG:NH2	43:DZ:97:GLU:O	2.46	0.48
1:AA:373:A:H2'	1:AA:374:A:H8	1.78	0.48
1:AA:750:G:H1'	15:AO:22:THR:OG1	2.13	0.48
13:AM:15:VAL:HG12	13:AM:19:LEU:HD23	1.94	0.48
23:BA:545:G:OP1	23:BA:545:G:H4'	2.12	0.48
23:BA:639:U:O2'	23:BA:640:C:H5'	2.13	0.48
23:BA:652(A):A:H4'	23:BA:652(B):A:OP1	2.14	0.48
23:BA:2080:G:P	45:B1:35:THR:HG1	2.37	0.48
23:BA:2115:G:C2	23:BA:2117:A:N7	2.82	0.48
23:BA:2273:A:H2'	23:BA:2274:A:C8	2.47	0.48
30:BI:61:ARG:HB3	30:BI:133:HIS:CD2	2.47	0.48
1:CA:618:C:N4	1:CA:621:A:N7	2.60	0.48
2:CB:170:GLU:O	2:CB:173:ALA:N	2.46	0.48
4:CD:14:ARG:HG3	4:CD:59:ARG:HH21	1.79	0.48
4:CD:68:TYR:CE2	4:CD:97:LEU:HD22	2.49	0.48
4:CD:127:THR:OG1	4:CD:128:VAL:N	2.46	0.48
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	2.29	0.48
5:CE:67:VAL:HG21	5:CE:140:ARG:HA	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.95	0.48
19:CS:22:LEU:O	19:CS:27:GLU:HA	2.13	0.48
23:DA:511:U:C5	23:DA:512:G:C5	3.01	0.48
23:DA:848:G:N9	23:DA:933:A:H8	2.12	0.48
23:DA:911:A:H2'	34:DQ:9:TYR:OH	2.13	0.48
23:DA:1434:A:H61	23:DA:1558:A:H62	1.61	0.48
23:DA:1441:G:H2'	23:DA:1442:G:H8	1.77	0.48
23:DA:1985:G:O2'	23:DA:1986:A:H5'	2.12	0.48
23:DA:2723:C:OP2	26:DE:109:LYS:NZ	2.46	0.48
24:DB:32:C:N3	24:DB:51:G:C2	2.82	0.48
24:DB:55:U:H1'	28:DG:29:TRP:HE1	1.78	0.48
31:DN:23:LEU:HG	31:DN:24:GLY:H	1.78	0.48
33:DP:84:ASN:HB3	33:DP:117:GLU:O	2.13	0.48
42:DY:38:ILE:HD11	42:DY:66:PRO:HG3	1.94	0.48
43:DZ:144:LEU:HD21	43:DZ:150:LEU:HG	1.96	0.48
1:AA:36:C:H5"	12:AL:123:LYS:HD3	1.95	0.48
1:AA:44:G:H2'	1:AA:45:U:O4'	2.13	0.48
1:AA:958:A:H61	19:AS:53:ASN:ND2	2.12	0.48
1:AA:1118:C:C2	1:AA:1179:A:C2	3.01	0.48
1:AA:1288:A:H2'	1:AA:1289:A:H5'	1.95	0.48
2:AB:224:GLN:OE1	2:AB:225:ALA:N	2.47	0.48
3:AC:150:LYS:HB2	3:AC:173:VAL:HG21	1.94	0.48
7:AG:43:PHE:O	7:AG:47:CYS:N	2.46	0.48
23:BA:271(Y):U:O3'	23:BA:271(Z):C:H6	1.96	0.48
23:BA:1015:G:C2'	23:BA:1016:G:H5'	2.43	0.48
23:BA:1025:G:C4	23:BA:1135:C:H1'	2.49	0.48
23:BA:2028:U:H2'	23:BA:2029:G:O4'	2.13	0.48
23:BA:2393:A:O2'	52:B8:13:ARG:NH1	2.43	0.48
23:BA:2646:C:H2'	23:BA:2647:U:O4'	2.14	0.48
26:BE:37:ARG:HA	26:BE:42:ASP:OD2	2.13	0.48
26:BE:179:GLU:HB3	26:BE:181:LEU:HD22	1.95	0.48
40:BW:83:LYS:O	40:BW:84:ARG:HD3	2.12	0.48
46:B2:22:GLU:OE2	46:B2:68:ARG:NH2	2.46	0.48
1:CA:102:G:H2'	1:CA:103:C:H6	1.79	0.48
1:CA:170:U:O2'	1:CA:171:A:H5'	2.14	0.48
1:CA:669:U:H2'	1:CA:670:G:C8	2.48	0.48
1:CA:983:A:H2	1:CA:984:C:C6	2.32	0.48
1:CA:1095:U:H2'	1:CA:1096:C:N1	2.28	0.48
11:CK:21:ILE:HG12	11:CK:30:VAL:HG12	1.95	0.48
12:CL:42:THR:OG1	12:CL:52:LEU:HD12	2.14	0.48
15:CO:55:GLY:HA2	15:CO:58:MET:HG3	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2098:U:H2'	23:DA:2099:U:O4'	2.14	0.48
23:DA:2698:U:O4	56:DA:4098:HOH:O	2.19	0.48
29:DH:24:VAL:HG22	29:DH:35:VAL:HB	1.94	0.48
44:D0:11:ARG:O	44:D0:14:ARG:NH2	2.46	0.48
1:AA:169:C:C5	1:AA:170:U:C4	3.01	0.48
1:AA:233:C:H2'	1:AA:234:C:H6	1.78	0.48
1:AA:1028:C:C4	1:AA:1034:G:H1'	2.49	0.48
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.49	0.48
1:AA:1385:G:H2'	1:AA:1386:G:O4'	2.13	0.48
4:AD:9:CYS:SG	4:AD:26:CYS:SG	3.11	0.48
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.13	0.48
7:AG:47:CYS:SG	7:AG:62:PHE:HB2	2.53	0.48
10:AJ:46:ARG:HA	10:AJ:64:GLU:HA	1.95	0.48
16:AP:17:TYR:N	16:AP:17:TYR:HD1	2.12	0.48
23:BA:997:G:OP1	38:BU:92:ARG:HG2	2.14	0.48
23:BA:2064:C:H2'	23:BA:2065:C:C6	2.48	0.48
23:BA:2371:G:HO2'	50:B6:46:HIS:CE1	2.24	0.48
29:BH:69:ARG:HG3	29:BH:70:THR:N	2.27	0.48
31:BN:33:LEU:HD12	31:BN:38:HIS:CE1	2.49	0.48
31:BN:96:GLU:CD	31:BN:96:GLU:H	2.17	0.48
37:BT:29:ARG:HB2	37:BT:46:GLU:HB2	1.94	0.48
42:BY:28:LYS:HG2	42:BY:40:GLU:HG2	1.96	0.48
44:B0:53:MET:HG3	44:B0:59:LEU:HD23	1.96	0.48
1:CA:154:C:C2	1:CA:168:G:C2	3.02	0.48
1:CA:745:C:H2'	1:CA:746:A:C8	2.49	0.48
1:CA:1192:C:N4	1:CA:1193:G:C4	2.81	0.48
1:CA:1442:G:C8	1:CA:1442(A):G:C5	3.02	0.48
13:CM:102:ARG:HE	13:CM:104:ARG:HB3	1.79	0.48
23:DA:251:A:C5	23:DA:252:G:H1'	2.49	0.48
23:DA:258:G:N7	56:DA:4027:HOH:O	2.35	0.48
25:DD:17:THR:O	25:DD:211:ARG:NH2	2.40	0.48
42:DY:28:LYS:HG2	42:DY:40:GLU:HG2	1.96	0.48
44:D0:26:TYR:O	44:D0:29:GLN:HB2	2.14	0.48
1:AA:27:G:H2'	1:AA:28:G:C8	2.48	0.48
1:AA:580:U:H3	1:AA:761:G:H1	1.62	0.48
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.14	0.48
1:AA:1458:G:H2'	1:AA:1458:G:N3	2.28	0.48
3:AC:129:ALA:HB3	3:AC:132:ARG:HB2	1.96	0.48
4:AD:14:ARG:HG3	4:AD:59:ARG:HH21	1.79	0.48
5:AE:30:ALA:N	5:AE:46:GLY:O	2.29	0.48
8:AH:38:ILE:HD12	8:AH:118:VAL:HG12	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:12:LYS:HG3	21:AU:17:THR:O	2.14	0.48
23:BA:154:G:H5"	23:BA:154:G:H8	1.79	0.48
23:BA:2299:G:N7	56:BA:4728:HOH:O	2.35	0.48
28:BG:125:PHE:HB3	28:BG:166:ASP:CG	2.34	0.48
34:BQ:38:GLU:OE2	34:BQ:128:LYS:N	2.33	0.48
42:BY:99:CYS:HB3	42:BY:104:GLY:H	1.79	0.48
43:BZ:5:LEU:HD22	43:BZ:6:LYS:N	2.29	0.48
52:B8:32:LEU:O	52:B8:36:LYS:HE3	2.13	0.48
1:CA:359:U:H2'	1:CA:360:A:C8	2.48	0.48
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.49	0.48
1:CA:1308:U:OP1	13:CM:98:VAL:HG23	2.13	0.48
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.28	0.48
1:CA:1370:G:C8	9:CI:109:VAL:HG21	2.49	0.48
23:DA:495:G:N7	56:DA:4056:HOH:O	2.35	0.48
23:DA:1253:A:N6	56:DA:3585:HOH:O	2.45	0.48
23:DA:1790:C:H5"	23:DA:1791:A:OP1	2.13	0.48
23:DA:1914:C:OP2	23:DA:1914:C:H6	1.96	0.48
23:DA:2690:C:N4	23:DA:2713:A:H1'	2.28	0.48
24:DB:90:A:C5	24:DB:91:C:H1'	2.49	0.48
26:DE:35:GLN:OE1	26:DE:66:HIS:HE1	1.95	0.48
26:DE:112:GLY:O	26:DE:159:HIS:HA	2.13	0.48
28:DG:73:ALA:HB2	28:DG:88:ILE:HD11	1.95	0.48
35:DR:103:ARG:HH12	35:DR:110:PRO:HD3	1.78	0.48
38:DU:76:TYR:OH	38:DU:92:ARG:NH1	2.47	0.48
43:DZ:111:VAL:O	43:DZ:113:ALA:N	2.46	0.48
45:D1:94:LEU:O	45:D1:97:LEU:HB2	2.13	0.48
1:AA:266:G:H5"	1:AA:267:C:H5	1.79	0.48
1:AA:869:G:H4'	1:AA:872:A:O4'	2.14	0.48
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.49	0.48
2:AB:40:HIS:HB3	2:AB:190:THR:HG21	1.96	0.48
3:AC:11:ARG:NH1	3:AC:11:ARG:HB2	2.28	0.48
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.14	0.48
7:AG:70:LYS:O	7:AG:72:ARG:HD3	2.14	0.48
23:BA:2098:U:H2'	23:BA:2099:U:O4'	2.12	0.48
23:BA:2273:A:O2'	23:BA:2274:A:H5'	2.13	0.48
23:BA:2311:A:O2'	23:BA:2312:U:O4'	2.25	0.48
28:BG:174:GLU:O	28:BG:177:GLY:N	2.45	0.48
33:BP:38:GLN:O	33:BP:39:LYS:CB	2.62	0.48
34:BQ:7:MET:HE1	43:BZ:193:GLU:CB	2.44	0.48
40:BW:46:PHE:O	40:BW:50:VAL:HG23	2.13	0.48
43:BZ:111:VAL:O	43:BZ:113:ALA:N	2.47	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:144:LEU:HD21	43:BZ:150:LEU:HG	1.95	0.48
1:CA:447:G:H2'	1:CA:485:G:N2	2.29	0.48
1:CA:801:U:H2'	1:CA:802:A:C8	2.49	0.48
1:CA:1286:A:H61	1:CA:1355:G:P	2.37	0.48
1:CA:1321:C:H5'	1:CA:1322:C:H5"	1.96	0.48
1:CA:1329:A:H4'	13:CM:24:GLY:HA2	1.96	0.48
1:CA:1349:A:C2	1:CA:1350:A:H1'	2.49	0.48
3:CC:181:ASN:OD1	3:CC:204:LEU:HB2	2.13	0.48
7:CG:85:TYR:CD1	7:CG:154:TYR:HE1	2.32	0.48
16:CP:72:ARG:HG2	16:CP:73:LEU:HD23	1.96	0.48
23:DA:154:G:H5"	23:DA:154:G:H8	1.79	0.48
23:DA:958:U:H5"	34:DQ:14:ARG:HD3	1.95	0.48
23:DA:2162:G:H4'	23:DA:2172:U:O2'	2.14	0.48
23:DA:2331:G:H4'	44:D0:43:THR:H	1.79	0.48
53:D9:32:HIS:O	53:D9:34:GLN:HG3	2.13	0.48
1:AA:175:C:H2'	1:AA:176:C:H6	1.79	0.48
1:AA:622:A:C8	1:AA:623:C:C6	3.02	0.48
1:AA:715:A:H2'	1:AA:716:A:C8	2.49	0.48
1:AA:762:C:H2'	1:AA:763:G:C8	2.49	0.48
1:AA:1159:U:H3	1:AA:1182:G:H1	1.61	0.48
1:AA:1349:A:H5'	9:AI:120:ARG:HG2	1.96	0.48
3:AC:125:GLU:HA	3:AC:191:THR:HG22	1.95	0.48
5:AE:59:GLY:O	5:AE:63:ARG:N	2.43	0.48
9:AI:31:GLN:HG3	9:AI:36:TYR:HB2	1.94	0.48
17:AQ:51:TYR:HE2	17:AQ:76:LEU:HB2	1.79	0.48
23:BA:251:A:OP1	52:B8:7:HIS:HE1	1.95	0.48
23:BA:274:G:H2'	23:BA:275:G:C8	2.48	0.48
23:BA:1138:G:H2'	31:BN:106:MET:HE2	1.95	0.48
23:BA:2748:A:OP1	29:BH:70:THR:HG21	2.13	0.48
36:BS:83:LYS:C	36:BS:111:GLU:HG3	2.33	0.48
50:B6:11:LEU:HB3	50:B6:49:HIS:HB3	1.95	0.48
1:CA:176:C:H2'	1:CA:177:C:H6	1.79	0.48
1:CA:433:C:H2'	1:CA:434:U:H6	1.78	0.48
1:CA:441:A:H3'	1:CA:442:C:C6	2.49	0.48
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.49	0.48
4:CD:101:LEU:HD23	4:CD:121:VAL:HG11	1.94	0.48
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	1.95	0.48
23:DA:1506:C:C2'	23:DA:1507:A:H5'	2.44	0.48
23:DA:1575:C:H2'	23:DA:1576:U:H6	1.78	0.48
23:DA:2134:A:C2	23:DA:2159:G:H1'	2.49	0.48
23:DA:2378:A:H4'	36:DS:23:ARG:NH1	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2834:G:H5”	23:DA:2834:G:C8	2.49	0.48
36:DS:96:GLY:N	36:DS:99:LYS:H	2.12	0.48
47:D3:8:LEU:HD13	47:D3:31:LEU:HA	1.96	0.48
1:AA:1001(A):G:H2’	1:AA:1002:G:H8	1.79	0.48
1:AA:1202:G:H1’	14:AN:42:ILE:HG21	1.95	0.48
1:AA:1362:C:H2’	1:AA:1363:C:H5”	1.96	0.48
3:AC:34:LEU:O	3:AC:38:ARG:N	2.34	0.48
9:AI:43:ALA:O	9:AI:46:ALA:N	2.46	0.48
23:BA:271(L):U:C4’	23:BA:271(M):G:OP1	2.61	0.48
23:BA:934:G:H2’	23:BA:935:C:C6	2.48	0.48
23:BA:1769:G:O2’	23:BA:1958:C:OP1	2.18	0.48
23:BA:2699:C:H2’	23:BA:2700:C:O4’	2.13	0.48
24:BB:2:C:H2’	24:BB:3:C:C6	2.48	0.48
24:BB:91:C:OP1	34:BQ:16:ARG:HG2	2.14	0.48
33:BP:39:LYS:CB	33:BP:45:LEU:HG	2.37	0.48
45:B1:3:LYS:HE3	45:B1:3:LYS:HB3	1.51	0.48
1:CA:77:G:C6	1:CA:93:G:C6	3.02	0.48
1:CA:148:G:O2’	1:CA:149:A:H5’	2.13	0.48
1:CA:980:C:H3’	1:CA:981:U:C6	2.49	0.48
1:CA:1325:C:H5”	21:CU:17:THR:HG21	1.96	0.48
1:CA:1403:C:H1’	1:CA:1500:A:N1	2.29	0.48
3:CC:175:LEU:H	3:CC:175:LEU:HG	1.54	0.48
20:CT:76:ALA:HA	20:CT:79:ARG:NH1	2.29	0.48
23:DA:30:G:H2’	23:DA:31:C:C6	2.48	0.48
33:DP:100:LEU:HD12	33:DP:112:LEU:HD11	1.95	0.48
48:D4:16:CYS:SG	48:D4:20:ASN:N	2.87	0.48
1:AA:31:G:H5’	1:AA:306:G:H21	1.77	0.47
1:AA:192:U:H2’	1:AA:193:C:H6	1.79	0.47
1:AA:1048:G:H5’	1:AA:1215:G:H4’	1.96	0.47
1:AA:1115:C:H1’	14:AN:61:TRP:O	2.13	0.47
1:AA:1313:U:N3	1:AA:1324:A:N6	2.33	0.47
1:AA:1350:A:C2	7:AG:34:GLY:HA3	2.49	0.47
1:AA:1382:C:O2’	1:AA:1383:C:H5’	2.13	0.47
1:AA:1533:C:H41	22:AV:11:ARG:HG3	1.79	0.47
2:AB:71:VAL:N	2:AB:163:PHE:O	2.46	0.47
5:AE:67:VAL:HG21	5:AE:140:ARG:HA	1.96	0.47
7:AG:140:ASP:HA	7:AG:143:ARG:NH2	2.29	0.47
23:BA:57:C:H2’	23:BA:58:G:O4’	2.14	0.47
23:BA:855:G:H2’	23:BA:856:C:C6	2.49	0.47
23:BA:1049:C:H2’	23:BA:1050:A:C8	2.48	0.47
23:BA:2784:C:H1’	26:BE:37:ARG:NH1	2.28	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:8:U:O3'	36:BS:25:ARG:NH2	2.47	0.47
24:BB:28:C:OP1	36:BS:36:TYR:OH	2.30	0.47
26:BE:116:VAL:HG13	26:BE:122:PHE:CG	2.47	0.47
31:BN:18:ALA:O	31:BN:21:LYS:HB2	2.14	0.47
40:BW:19:LEU:O	49:B5:25:LEU:HD12	2.14	0.47
1:CA:202:U:H3'	1:CA:203:U:C5	2.49	0.47
1:CA:589:C:H2'	1:CA:590:C:C6	2.49	0.47
1:CA:949:A:H2	1:CA:971:G:N7	2.12	0.47
1:CA:1126:U:OP2	1:CA:1281:U:H1'	2.14	0.47
1:CA:1131:G:N2	1:CA:1143:G:O2'	2.46	0.47
7:CG:92:SER:HB3	7:CG:95:ARG:HB3	1.95	0.47
10:CJ:8:LEU:HD22	10:CJ:96:ILE:HG22	1.95	0.47
19:CS:37:ARG:O	19:CS:70:LYS:HE3	2.14	0.47
23:DA:7:G:H1	23:DA:2896:C:H42	1.62	0.47
23:DA:795:C:H2'	23:DA:796:C:C6	2.49	0.47
23:DA:1025:G:C4	23:DA:1135:C:H1'	2.49	0.47
23:DA:2610:C:H4'	23:DA:2611:U:OP2	2.14	0.47
24:DB:29:A:H5"	24:DB:30:C:OP2	2.14	0.47
30:DI:14:ASP:N	30:DI:17:GLN:OE1	2.34	0.47
39:DV:62:LEU:HD21	39:DV:95:LEU:HB2	1.95	0.47
51:D7:8:ASN:C	51:D7:8:ASN:OD1	2.52	0.47
52:D8:34:TRP:CE2	52:D8:35:GLN:HG3	2.49	0.47
1:AA:2:U:H2'	1:AA:3:G:O4'	2.14	0.47
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.97	0.47
1:AA:1119:C:N3	1:AA:1154:G:O6	2.47	0.47
10:AJ:15:THR:HA	10:AJ:18:ALA:H	1.79	0.47
23:BA:524:U:H2'	23:BA:525:U:C6	2.49	0.47
23:BA:751:A:H5'	40:BW:90:ARG:HA	1.97	0.47
23:BA:1568:G:H5"	25:BD:61:LEU:HD22	1.96	0.47
23:BA:2129:C:N3	23:BA:2160:G:C6	2.83	0.47
23:BA:2304:G:O6	23:BA:2312:U:O4	2.32	0.47
23:BA:2781:A:H5"	23:BA:2782:G:H5'	1.96	0.47
28:BG:47:LYS:HD3	28:BG:81:LYS:CB	2.44	0.47
30:BI:79:ILE:O	30:BI:144:VAL:HA	2.14	0.47
1:CA:1081:G:H2'	1:CA:1082:G:O4'	2.14	0.47
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.14	0.47
7:CG:143:ARG:CZ	7:CG:143:ARG:HB2	2.44	0.47
23:DA:271(P):C:H2'	23:DA:271(Q):G:H5'	1.95	0.47
23:DA:649:G:H2'	23:DA:650:C:O4'	2.14	0.47
23:DA:957:A:H5'	34:DQ:76:LYS:HG3	1.96	0.47
37:DT:23:ARG:HG3	37:DT:120:ARG:NH1	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DW:83:LYS:O	40:DW:84:ARG:HD3	2.15	0.47
52:D8:62:LEU:HB3	52:D8:65:GLU:HG2	1.96	0.47
1:AA:169:C:H5	1:AA:170:U:C4	2.32	0.47
1:AA:938:A:N3	1:AA:1377:A:C8	2.82	0.47
1:AA:952:U:H2'	1:AA:953:G:H8	1.77	0.47
1:AA:991:U:O2	1:AA:993:G:C8	2.67	0.47
1:AA:1149:C:O2'	1:AA:1280:A:N6	2.47	0.47
1:AA:1332:A:H8	1:AA:1332:A:O5'	1.98	0.47
4:AD:5:ILE:HG22	4:AD:5:ILE:O	2.14	0.47
8:AH:121:ASP:N	8:AH:121:ASP:OD1	2.48	0.47
9:AI:11:LYS:HA	9:AI:108:VAL:HG12	1.96	0.47
23:BA:1211:U:H4'	23:BA:1212:G:OP2	2.14	0.47
23:BA:2690:C:N4	23:BA:2713:A:H1'	2.28	0.47
39:BV:62:LEU:HD21	39:BV:95:LEU:HB2	1.96	0.47
43:BZ:111:VAL:HG12	43:BZ:112:ARG:H	1.78	0.47
1:CA:722:A:O2'	1:CA:723:U:H5"	2.14	0.47
1:CA:1055:A:N1	1:CA:1056:U:H1'	2.29	0.47
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.75	0.47
1:CA:1459:C:C2	1:CA:1460:A:N6	2.83	0.47
7:CG:104:LEU:HD22	7:CG:134:ALA:HB1	1.97	0.47
7:CG:116:ALA:HA	7:CG:119:ARG:CG	2.44	0.47
23:DA:271(L):U:C4'	23:DA:271(M):G:OP1	2.61	0.47
23:DA:359:A:H2'	23:DA:360:G:O4'	2.14	0.47
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.78	0.47
39:DV:58:VAL:HG12	39:DV:97:LYS:HB2	1.96	0.47
1:AA:189:G:C6	1:AA:189(A):C:C4	3.02	0.47
1:AA:959:A:H3'	1:AA:960:U:C5'	2.44	0.47
1:AA:1126:U:H1'	1:AA:1280:A:C5	2.50	0.47
1:AA:1276:G:N3	1:AA:1282:C:O2'	2.47	0.47
2:AB:87:ARG:NH2	2:AB:233:SER:HB2	2.28	0.47
5:AE:107:ARG:O	5:AE:110:LEU:N	2.47	0.47
11:AK:29:ILE:HG23	11:AK:44:SER:HB3	1.95	0.47
12:AL:84:LEU:HD22	12:AL:85:ILE:H	1.79	0.47
23:BA:754:C:H2'	23:BA:755:C:H6	1.78	0.47
23:BA:1688:U:O2	23:BA:1700:A:H5'	2.14	0.47
23:BA:2286:A:OP1	50:B6:29:ASN:ND2	2.48	0.47
23:BA:2850:A:OP2	23:BA:2866:U:H5	1.97	0.47
26:BE:21:VAL:HA	26:BE:22:PRO:HD2	1.69	0.47
1:CA:203:U:H3'	1:CA:203:U:OP2	2.14	0.47
1:CA:577:G:C8	1:CA:816:A:C6	3.03	0.47
1:CA:715:A:H2'	1:CA:716:A:C8	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1128:C:OP1	9:CI:66:ARG:NH2	2.48	0.47
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.30	0.47
1:CA:1273:G:H2'	1:CA:1273:G:N3	2.28	0.47
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.96	0.47
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.49	0.47
3:CC:131:ARG:NH2	5:CE:50:GLU:OE1	2.45	0.47
13:CM:92:HIS:CD2	13:CM:98:VAL:HG21	2.50	0.47
20:CT:30:LYS:HA	20:CT:33:ILE:HD12	1.95	0.47
23:DA:1041:C:H5'	23:DA:1042:G:OP2	2.15	0.47
23:DA:1106:G:H4'	23:DA:1107:G:OP2	2.14	0.47
23:DA:1364:G:P	45:D1:3:LYS:HG2	2.54	0.47
23:DA:1486:A:H2'	23:DA:1487:G:C8	2.46	0.47
23:DA:1839:G:C8	23:DA:1927:A:H1'	2.49	0.47
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.49	0.47
26:DE:105:THR:OG1	26:DE:199:ARG:NH2	2.46	0.47
27:DF:32:LEU:HD11	27:DF:105:VAL:HG13	1.96	0.47
34:DQ:84:GLY:O	34:DQ:85:LYS:HB2	2.14	0.47
43:DZ:5:LEU:HD22	43:DZ:6:LYS:H	1.80	0.47
1:AA:393:A:C2	1:AA:394:G:C8	3.03	0.47
1:AA:600:C:H2'	1:AA:601:C:H6	1.79	0.47
1:AA:722:A:O2'	1:AA:723:U:H5"	2.15	0.47
1:AA:742:G:OP1	15:AO:59:MET:HE2	2.14	0.47
1:AA:1080:A:H5'	5:AE:14:ARG:NH2	2.29	0.47
1:AA:1493:A:H1'	23:BA:1913:A:N1	2.30	0.47
2:AB:102:LEU:O	2:AB:105:PHE:HB2	2.14	0.47
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.14	0.47
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.81	0.47
23:BA:529:A:OP2	31:BN:114:ARG:NH2	2.47	0.47
23:BA:1413:G:O6	56:BA:4504:HOH:O	2.19	0.47
23:BA:1418:G:H8	23:BA:1418:G:O5'	1.97	0.47
48:B4:16:CYS:HB2	48:B4:36:CYS:SG	2.55	0.47
1:CA:547:A:OP2	4:CD:2:GLY:HA2	2.13	0.47
1:CA:920:U:H2'	1:CA:921:U:H6	1.79	0.47
1:CA:1127:G:H4'	9:CI:66:ARG:HH12	1.79	0.47
3:CC:191:THR:OG1	3:CC:192:THR:N	2.46	0.47
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.97	0.47
5:CE:93:PRO:HG2	8:CH:105:ARG:CZ	2.45	0.47
7:CG:26:PHE:CD1	7:CG:101:LEU:HB3	2.47	0.47
7:CG:26:PHE:HE1	7:CG:101:LEU:O	1.97	0.47
9:CI:113:LYS:HB2	9:CI:119:ALA:HA	1.96	0.47
17:CQ:51:TYR:HE2	17:CQ:76:LEU:HB2	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:92:A:C2'	23:DA:93:G:H5'	2.45	0.47
23:DA:1223:G:N2	23:DA:1226:A:OP2	2.40	0.47
23:DA:2478:A:H5'	53:D9:31:LYS:HE2	1.96	0.47
24:DB:111:G:H2'	24:DB:112:U:C6	2.49	0.47
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.49	0.47
1:AA:1442:G:C8	1:AA:1442(A):G:C5	3.02	0.47
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.13	0.47
3:AC:36:ASP:HB3	3:AC:57:ILE:HD12	1.96	0.47
4:AD:107:ARG:O	4:AD:170:VAL:HG11	2.15	0.47
7:AG:105:VAL:HG23	7:AG:120:ILE:HD11	1.96	0.47
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.46	0.47
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.15	0.47
23:BA:1992:G:C2	23:BA:1997:G:C5	3.03	0.47
24:BB:20:C:H2'	24:BB:21:G:O4'	2.14	0.47
1:CA:493:G:HO2'	1:CA:494:U:H6	1.60	0.47
1:CA:580:U:H3	1:CA:761:G:H1	1.62	0.47
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.21	0.47
1:CA:1290:G:C6	1:CA:1291:G:C6	3.03	0.47
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.49	0.47
1:CA:1396:A:H2	5:CE:19:MET:HG3	1.79	0.47
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.14	0.47
23:DA:362:U:O2'	23:DA:363:G:H5"	2.15	0.47
23:DA:542:C:H2'	23:DA:543:C:H6	1.79	0.47
23:DA:857:C:H1'	44:D0:26:TYR:CE2	2.49	0.47
23:DA:864:G:C6	23:DA:865:C:N4	2.83	0.47
23:DA:1652:A:OP1	35:DR:8:ARG:HD3	2.14	0.47
23:DA:2693:A:H2'	23:DA:2694:G:H8	1.78	0.47
29:DH:33:LEU:HD21	29:DH:136:ILE:HG13	1.96	0.47
32:DO:2:ILE:HD12	32:DO:6:THR:HG21	1.96	0.47
41:DX:53:LYS:HB3	41:DX:82:GLN:HB3	1.96	0.47
1:AA:345:C:C4'	1:AA:346:G:N7	2.78	0.47
1:AA:405:U:O4	4:AD:2:GLY:N	2.48	0.47
1:AA:522:C:OP2	12:AL:69:TYR:OH	2.25	0.47
1:AA:864:A:H2'	1:AA:865:A:C8	2.49	0.47
1:AA:865:A:C2	1:AA:918:A:H4'	2.50	0.47
1:AA:976:G:H2'	1:AA:1359:C:H5'	1.96	0.47
1:AA:978:A:N7	1:AA:1360:A:N6	2.63	0.47
1:AA:999:C:N4	1:AA:1042:G:H1	2.13	0.47
1:AA:1039:C:N3	1:AA:1040:U:C4	2.83	0.47
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.14	0.47
1:AA:1227:A:H3'	1:AA:1228:C:H5"	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1245:A:N6	1:AA:1293:G:N1	2.62	0.47
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.95	0.47
1:AA:1349:A:H1'	1:AA:1374:A:N6	2.29	0.47
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.49	0.47
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	1.96	0.47
7:AG:73:MET:O	7:AG:142:GLU:HA	2.15	0.47
8:AH:81:HIS:ND1	8:AH:138:TRP:OXT	2.35	0.47
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.44	0.47
13:AM:5:ALA:HB1	13:AM:66:LEU:HD13	1.96	0.47
13:AM:108:ARG:HD2	13:AM:112:GLY:O	2.15	0.47
14:AN:4:LYS:O	14:AN:4:LYS:HD3	2.15	0.47
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.95	0.47
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.15	0.47
23:BA:90:U:O2'	23:BA:92:A:P	2.71	0.47
23:BA:244:A:C2	23:BA:255:A:C4	3.03	0.47
23:BA:362:U:O2'	23:BA:363:G:H5"	2.15	0.47
23:BA:902:C:H2'	23:BA:903:C:C6	2.50	0.47
23:BA:1036:G:H1	23:BA:1119:C:N4	2.10	0.47
23:BA:1041:C:H5'	23:BA:1042:G:OP2	2.14	0.47
23:BA:1479:G:O2'	23:BA:1558:A:H5'	2.14	0.47
23:BA:1796:U:H4'	25:BD:256:GLY:N	2.30	0.47
23:BA:2206:G:H5'	23:BA:2207:G:N7	2.29	0.47
23:BA:2334:G:O6	44:B0:74:ARG:NH1	2.40	0.47
23:BA:2439:A:H5'	23:BA:2439:A:C8	2.50	0.47
23:BA:2845:G:O2'	23:BA:2846:G:H5'	2.15	0.47
24:BB:108:U:H2'	24:BB:109:C:H5"	1.97	0.47
27:BF:108:LYS:O	27:BF:112:MET:HG3	2.14	0.47
32:BO:88:ASN:ND2	32:BO:90:GLN:H	2.12	0.47
33:BP:63:PRO:HG2	52:B8:25:MET:HB2	1.96	0.47
36:BS:10:ARG:NH2	36:BS:91:PRO:HB2	2.28	0.47
36:BS:10:ARG:O	36:BS:14:VAL:HG13	2.14	0.47
37:BT:97:ALA:O	37:BT:98:LYS:HD2	2.14	0.47
41:BX:27:THR:HG23	41:BX:80:ILE:HG13	1.97	0.47
50:B6:16:CYS:SG	50:B6:18:ARG:HG3	2.55	0.47
1:CA:59:A:H5'	1:CA:60:A:C5'	2.44	0.47
1:CA:266:G:H5"	1:CA:267:C:H5	1.79	0.47
1:CA:397:A:N3	1:CA:397:A:H5"	2.29	0.47
1:CA:426:G:P	4:CD:36:ARG:NH1	2.87	0.47
1:CA:438:G:OP1	4:CD:125:HIS:CE1	2.66	0.47
1:CA:622:A:OP2	1:CA:623:C:N4	2.47	0.47
1:CA:745:C:OP1	1:CA:851:G:O2'	2.27	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:939:G:H1	1:CA:1344:C:N4	2.12	0.47
1:CA:1035:A:H2'	1:CA:1036:G:C8	2.48	0.47
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.47	0.47
1:CA:1373:G:C5'	7:CG:36:LYS:HB2	2.42	0.47
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.97	0.47
12:CL:5:PRO:HB2	12:CL:10:LEU:HD11	1.96	0.47
12:CL:57:LYS:HE2	12:CL:67:THR:HG23	1.97	0.47
15:CO:24:SER:O	15:CO:27:VAL:N	2.47	0.47
23:DA:29:U:H2'	23:DA:30:G:C8	2.50	0.47
23:DA:458:G:O2'	51:D7:39:ARG:HD3	2.14	0.47
23:DA:819:A:C2'	23:DA:820:A:H5'	2.45	0.47
23:DA:824:A:H1'	23:DA:2358:G:N7	2.29	0.47
23:DA:975(A):G:H1'	23:DA:990:A:C2	2.49	0.47
23:DA:2016:U:H1'	49:D5:6:VAL:HG13	1.96	0.47
23:DA:2317:C:H2'	23:DA:2318:G:H5'	1.96	0.47
23:DA:2497:A:H5"	56:DA:3635:HOH:O	2.13	0.47
23:DA:2659:G:P	29:DH:158:HIS:HE2	2.36	0.47
23:DA:2884:U:O2	49:D5:53:ALA:HB2	2.15	0.47
31:DN:34:LEU:HD12	31:DN:34:LEU:HA	1.73	0.47
45:D1:82:LEU:HD22	45:D1:90:ILE:HG23	1.97	0.47
51:D7:16:HIS:HB2	51:D7:44:PRO:HG2	1.97	0.47
52:D8:62:LEU:HB3	52:D8:65:GLU:CG	2.45	0.47
1:AA:458:C:H2'	1:AA:460:G:C8	2.47	0.47
1:AA:841:U:OP2	1:AA:841:U:C2	2.68	0.47
1:AA:941:G:OP1	7:AG:32:ARG:HD2	2.15	0.47
1:AA:1065:U:H5"	1:AA:1066:C:H6	1.79	0.47
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.29	0.47
2:AB:103:THR:HG23	2:AB:176:GLU:HB3	1.97	0.47
2:AB:204:ASN:OD1	2:AB:206:ASP:N	2.47	0.47
3:AC:172:ARG:HH21	3:AC:174:PRO:HG3	1.79	0.47
4:AD:166:LYS:HA	4:AD:178:VAL:HG11	1.97	0.47
5:AE:57:LYS:HB3	5:AE:61:TYR:CE2	2.50	0.47
5:AE:93:PRO:O	8:AH:105:ARG:NH2	2.47	0.47
15:AO:55:GLY:HA2	15:AO:58:MET:HG3	1.97	0.47
16:AP:16:HIS:C	16:AP:17:TYR:HD1	2.18	0.47
20:AT:42:GLN:HA	20:AT:42:GLN:NE2	2.29	0.47
23:BA:278:A:H4'	23:BA:279:C:OP1	2.14	0.47
23:BA:1300:U:H4'	23:BA:1301:A:H5"	1.97	0.47
23:BA:1706:U:OP1	56:BA:4153:HOH:O	2.20	0.47
23:BA:2626:C:H2'	23:BA:2627:G:O4'	2.15	0.47
23:BA:2772:C:H2'	23:BA:2773:C:C6	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:16:ARG:NH2	28:BG:28:VAL:O	2.48	0.47
1:CA:44:G:H2'	1:CA:45:U:O4'	2.15	0.47
1:CA:78:G:N2	1:CA:92:C:O2	2.48	0.47
1:CA:408:A:H61	1:CA:434:U:H3	1.62	0.47
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.50	0.47
1:CA:1236:A:O3'	1:CA:1304:G:H5'	2.13	0.47
2:CB:71:VAL:HG13	2:CB:93:VAL:HG23	1.95	0.47
3:CC:9:GLY:HA3	14:CN:49:HIS:ND1	2.30	0.47
4:CD:64:LEU:HD23	4:CD:203:VAL:HG21	1.96	0.47
6:CF:15:ASP:HB2	6:CF:18:GLN:H	1.79	0.47
13:CM:97:PRO:HB3	13:CM:101:GLN:CD	2.36	0.47
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.15	0.47
19:CS:52:TYR:HD1	19:CS:57:HIS:CD2	2.32	0.47
20:CT:55:ILE:HD13	20:CT:55:ILE:HA	1.77	0.47
20:CT:73:HIS:C	20:CT:74:LYS:HG2	2.36	0.47
23:DA:1329:U:H5"	23:DA:1330:C:H5	1.80	0.47
23:DA:1533:G:H8	23:DA:1533:G:O5'	1.98	0.47
23:DA:1557:C:OP2	23:DA:1558:A:O2'	2.25	0.47
23:DA:2894:G:H2'	23:DA:2894:G:N3	2.30	0.47
25:DD:267:SER:C	25:DD:269:PHE:H	2.18	0.47
29:DH:144:VAL:O	29:DH:148:ILE:HG12	2.14	0.47
1:AA:27:G:H2'	1:AA:28:G:H8	1.79	0.47
1:AA:36:C:O2'	12:AL:117:ARG:NH2	2.48	0.47
1:AA:408:A:H61	1:AA:434:U:H3	1.63	0.47
1:AA:1224:G:OP1	13:AM:104:ARG:NH1	2.47	0.47
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.14	0.47
1:AA:1459:C:H2'	1:AA:1460:A:C8	2.50	0.47
2:AB:194:PRO:O	2:AB:196:LEU:N	2.48	0.47
9:AI:65:VAL:HG22	9:AI:73:GLN:HG2	1.96	0.47
23:BA:1021:A:N6	23:BA:1142(A):A:H61	2.12	0.47
23:BA:1239:G:H2'	23:BA:1240:U:O4'	2.14	0.47
23:BA:1510:G:H2'	23:BA:1511:C:C6	2.50	0.47
23:BA:1514:U:H2'	23:BA:1515:G:C8	2.50	0.47
23:BA:1582:C:O2'	23:BA:1586:A:N3	2.47	0.47
23:BA:1815:A:C5	23:BA:1817:G:C6	3.03	0.47
39:BV:21:ARG:HG3	39:BV:93:GLU:HG3	1.96	0.47
41:BX:52:VAL:HG12	41:BX:82:GLN:HG2	1.97	0.47
44:B0:29:GLN:O	44:B0:67:VAL:HG23	2.15	0.47
45:B1:86:SER:OG	45:B1:89:GLU:HG2	2.15	0.47
47:B3:8:LEU:HD13	47:B3:31:LEU:HA	1.96	0.47
1:CA:1319:A:H2'	19:CS:4:SER:HB2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1356:G:H2'	1:CA:1357:A:O4'	2.15	0.47
1:CA:1493:A:H1'	23:DA:1913:A:C6	2.49	0.47
23:DA:143:G:H2'	23:DA:143(A):C:C6	2.50	0.47
23:DA:720:C:H2'	23:DA:721:C:C6	2.48	0.47
23:DA:2315:G:C6	23:DA:2316:C:N4	2.83	0.47
23:DA:2337:G:C2	23:DA:2338:G:C8	3.03	0.47
25:DD:26:LYS:HE2	25:DD:28:GLU:O	2.14	0.47
29:DH:40:GLU:OE2	29:DH:60:ARG:NH1	2.48	0.47
36:DS:3:ARG:HG3	36:DS:4:LEU:N	2.24	0.47
38:DU:65:ILE:HD11	38:DU:95:LEU:HB3	1.97	0.47
40:DW:40:ASN:O	40:DW:41:LYS:HG3	2.14	0.47
43:DZ:141:VAL:O	43:DZ:144:LEU:HB2	2.14	0.47
53:D9:8:LYS:O	53:D9:34:GLN:NE2	2.45	0.47
1:AA:106:C:H2'	1:AA:107:G:H8	1.80	0.47
1:AA:1152:A:H5'	10:AJ:13:HIS:CD2	2.50	0.47
6:AF:91:VAL:HG13	18:AR:72:ARG:HH22	1.80	0.47
9:AI:46:ALA:HB1	9:AI:74:ILE:HG23	1.96	0.47
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.47	0.47
21:AU:12:LYS:CB	21:AU:22:ARG:HD2	2.36	0.47
23:BA:1493:C:C4	23:BA:2206:G:H1'	2.50	0.47
23:BA:1652:A:C2'	23:BA:1653:G:H5'	2.45	0.47
23:BA:2734:A:H2'	23:BA:2735:G:O4'	2.15	0.47
27:BF:158:THR:O	27:BF:164:ARG:NH1	2.48	0.47
31:BN:34:LEU:HD12	31:BN:34:LEU:HA	1.72	0.47
1:CA:509:A:H5"	4:CD:55:ALA:HB2	1.95	0.47
1:CA:1015:A:H2'	1:CA:1016:A:O4'	2.15	0.47
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.30	0.47
2:CB:21:ARG:HD3	2:CB:21:ARG:N	2.29	0.47
5:CE:59:GLY:O	5:CE:63:ARG:N	2.42	0.47
13:CM:91:ARG:HG3	13:CM:98:VAL:HA	1.97	0.47
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.97	0.47
23:DA:760:G:H2'	23:DA:761:A:O4'	2.14	0.47
23:DA:811:U:H2'	33:DP:21:ARG:HA	1.96	0.47
23:DA:860:U:C2	23:DA:2268:A:C8	3.03	0.47
23:DA:2287:A:O2'	23:DA:2288:A:H3'	2.15	0.47
24:DB:49:C:OP1	36:DS:97:ARG:HB2	2.15	0.47
27:DF:64:ILE:HD12	27:DF:65:TRP:CZ3	2.50	0.47
27:DF:89:VAL:O	27:DF:91:GLY:N	2.48	0.47
49:D5:35:GLU:HG3	49:D5:51:TYR:CB	2.45	0.47
1:AA:105:G:H2'	1:AA:106:C:C6	2.50	0.46
1:AA:872:A:C5	1:AA:874:G:C8	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1227:A:H8	19:AS:83:HIS:ND1	2.12	0.46
1:AA:1308:U:OP1	13:AM:97:PRO:HA	2.16	0.46
1:AA:1360:A:H3'	1:AA:1361:G:C8	2.50	0.46
1:AA:1442(B):A:C2	37:BT:118:ARG:NE	2.83	0.46
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.14	0.46
7:AG:16:LEU:HD13	9:AI:44:VAL:O	2.15	0.46
12:AL:70:ILE:HG23	12:AL:100:ILE:HD12	1.97	0.46
13:AM:52:GLU:HG2	13:AM:55:ARG:NH2	2.30	0.46
21:AU:15:ARG:HD3	21:AU:17:THR:HG22	1.97	0.46
23:BA:529:A:H4'	56:BA:4296:HOH:O	2.14	0.46
23:BA:792:G:H5"	23:BA:793:A:H5'	1.96	0.46
23:BA:1210:A:H4'	23:BA:1211:U:O5'	2.14	0.46
30:BI:140:LEU:HD23	30:BI:140:LEU:HA	1.53	0.46
32:BO:47:ILE:HB	32:BO:48:PRO:HD2	1.97	0.46
1:CA:978:A:H5"	1:CA:979:C:OP2	2.14	0.46
1:CA:1236:A:OP1	21:CU:2:GLY:HA3	2.15	0.46
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.51	0.46
4:CD:36:ARG:HG2	4:CD:38:TYR:OH	2.15	0.46
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.69	0.46
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.95	0.46
23:DA:64:A:O3'	41:DX:71:GLY:HA3	2.15	0.46
23:DA:307:G:N7	56:DA:3950:HOH:O	2.35	0.46
23:DA:657:U:H2'	23:DA:658:C:C6	2.50	0.46
23:DA:1889:A:H2'	23:DA:1890:A:C8	2.50	0.46
23:DA:1970:A:H4'	23:DA:1971:A:OP1	2.15	0.46
25:DD:142:VAL:HG23	25:DD:193:VAL:HA	1.97	0.46
25:DD:147:LEU:HD13	25:DD:155:LEU:HD21	1.97	0.46
26:DE:97:LYS:O	26:DE:100:GLU:HG3	2.15	0.46
27:DF:103:LYS:HA	27:DF:106:ARG:HG3	1.97	0.46
37:DT:23:ARG:HG3	37:DT:120:ARG:CZ	2.45	0.46
37:DT:84:GLN:NE2	37:DT:85:LYS:HG2	2.30	0.46
41:DX:26:TYR:CE1	41:DX:89:ILE:HG13	2.50	0.46
43:DZ:30:ASN:HD22	43:DZ:90:VAL:HB	1.79	0.46
1:AA:933:G:C8	7:AG:3:ARG:HD2	2.50	0.46
1:AA:1099:G:H5'	1:AA:1100:C:OP2	2.15	0.46
1:AA:1493:A:O2'	1:AA:1494:G:O5'	2.28	0.46
2:AB:21:ARG:HD3	2:AB:21:ARG:N	2.30	0.46
2:AB:84:GLU:HA	2:AB:87:ARG:HB3	1.97	0.46
2:AB:112:VAL:HG12	2:AB:113:HIS:ND1	2.29	0.46
2:AB:149:LEU:HD22	2:AB:152:PHE:CD1	2.50	0.46
13:AM:86:CYS:O	19:AS:73:GLU:HB3	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:57:HIS:ND1	19:AS:57:HIS:N	2.64	0.46
22:AV:51:ARG:HB3	22:AV:51:ARG:HH11	1.80	0.46
23:BA:251:A:C5	23:BA:252:G:H1'	2.49	0.46
23:BA:911:A:H2'	34:BQ:9:TYR:OH	2.15	0.46
23:BA:2208:A:H1'	23:BA:2219:G:C4	2.50	0.46
25:BD:76:PRO:HB2	25:BD:116:GLN:HE21	1.80	0.46
28:BG:73:ALA:HB2	28:BG:88:ILE:HD11	1.96	0.46
42:BY:32:PRO:O	42:BY:35:TYR:N	2.44	0.46
43:BZ:53:ILE:HG22	43:BZ:71:VAL:O	2.15	0.46
1:CA:31:G:O2'	1:CA:48:C:N4	2.48	0.46
1:CA:152:A:N6	1:CA:170:U:H3	2.12	0.46
1:CA:622:A:C8	1:CA:623:C:C6	3.03	0.46
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.50	0.46
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.16	0.46
2:CB:134:GLU:O	2:CB:138:LEU:HG	2.14	0.46
3:CC:184:TYR:CE2	3:CC:186:PHE:HB2	2.50	0.46
23:DA:278:A:H4'	23:DA:279:C:OP1	2.15	0.46
23:DA:1180:C:H2'	23:DA:1181:C:H6	1.79	0.46
23:DA:1582:C:O2'	23:DA:1586:A:N3	2.47	0.46
26:DE:36:ARG:HG2	26:DE:47:VAL:HG22	1.96	0.46
36:DS:49:VAL:HG12	36:DS:73:LEU:HD12	1.96	0.46
48:D4:14:ILE:HA	48:D4:31:ILE:O	2.16	0.46
50:D6:11:LEU:HB2	50:D6:21:TYR:HB2	1.97	0.46
1:AA:59:A:H5'	1:AA:60:A:C5'	2.41	0.46
1:AA:193:C:H2'	1:AA:194:C:H6	1.78	0.46
1:AA:503:C:H2'	1:AA:504:C:H6	1.79	0.46
1:AA:745:C:H2'	1:AA:746:A:C8	2.49	0.46
1:AA:1237:C:O2'	1:AA:1335:C:H5'	2.15	0.46
3:AC:130:VAL:HG21	3:AC:158:GLY:N	2.30	0.46
7:AG:37:ASN:ND2	9:AI:39:GLY:O	2.46	0.46
9:AI:23:ASN:N	9:AI:60:ASP:OD1	2.48	0.46
10:AJ:49:VAL:HG23	14:AN:41:ARG:HD2	1.97	0.46
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.78	0.46
14:AN:6:LEU:HG	14:AN:23:ARG:HH22	1.78	0.46
15:AO:24:SER:O	15:AO:27:VAL:N	2.46	0.46
23:BA:83:G:OP1	42:BY:95:LYS:NZ	2.48	0.46
23:BA:530:G:N1	56:BA:4292:HOH:O	2.25	0.46
23:BA:1816:G:N1	25:BD:35:LYS:HD3	2.30	0.46
23:BA:2146:C:H4'	23:BA:2147:G:C8	2.50	0.46
23:BA:2438:U:O2'	23:BA:2440:C:OP1	2.24	0.46
25:BD:242:ARG:HD3	25:BD:242:ARG:N	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BP:84:ASN:HB3	33:BP:117:GLU:O	2.16	0.46
43:BZ:144:LEU:CD2	43:BZ:150:LEU:HG	2.45	0.46
1:CA:509:A:H3'	1:CA:509:A:H8	1.80	0.46
1:CA:662:G:O2'	1:CA:836:G:OP1	2.32	0.46
1:CA:937:A:H1'	1:CA:1379:G:H22	1.81	0.46
1:CA:1459:C:C4	1:CA:1460:A:N6	2.73	0.46
2:CB:113:HIS:O	2:CB:117:GLU:HG3	2.16	0.46
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.97	0.46
23:DA:955:C:OP1	34:DQ:87:LYS:HE2	2.14	0.46
23:DA:1494:A:C6	23:DA:1495:A:C6	3.04	0.46
23:DA:1568:G:H5"	25:DD:61:LEU:HD22	1.96	0.46
23:DA:2106:G:N1	23:DA:2107:C:O2	2.48	0.46
25:DD:101:GLU:OE1	25:DD:103:ARG:HD3	2.15	0.46
28:DG:145:THR:HG23	28:DG:148:MET:SD	2.55	0.46
31:DN:111:PRO:HA	31:DN:114:ARG:NH1	2.30	0.46
39:DV:99:ILE:HG22	39:DV:101:GLY:H	1.80	0.46
40:DW:86:LEU:HD22	40:DW:96:ILE:HD11	1.96	0.46
44:D0:72:ARG:HB2	44:D0:75:LEU:HB2	1.98	0.46
50:D6:21:TYR:CE2	50:D6:38:LYS:HG2	2.51	0.46
1:AA:76:C:H3'	1:AA:77:G:H5"	1.98	0.46
1:AA:946:A:O2'	1:AA:1333:A:H1'	2.15	0.46
1:AA:951:G:O6	1:AA:1230:C:N3	2.49	0.46
1:AA:1099:G:H2'	1:AA:1099:G:N3	2.31	0.46
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.51	0.46
3:AC:58:GLU:O	3:AC:59:ARG:HG3	2.15	0.46
3:AC:134:ILE:HG12	3:AC:153:VAL:HG21	1.98	0.46
3:AC:156:ARG:HD3	3:AC:193:TYR:HD1	1.81	0.46
10:AJ:32:ALA:HA	10:AJ:33:GLN:HA	1.67	0.46
18:AR:66:LEU:O	18:AR:70:ILE:HG13	2.15	0.46
23:BA:1810:A:H2'	23:BA:1811:G:O4'	2.14	0.46
23:BA:2772:C:H2'	23:BA:2773:C:H6	1.80	0.46
26:BE:71:GLY:HA2	26:BE:72:VAL:O	2.16	0.46
36:BS:80:LEU:HD12	36:BS:80:LEU:HA	1.72	0.46
36:BS:96:GLY:HA3	36:BS:98:VAL:N	2.31	0.46
42:BY:35:TYR:CE2	42:BY:69:ALA:HB3	2.50	0.46
1:CA:376:G:P	16:CP:67:THR:HG21	2.55	0.46
1:CA:865:A:H5'	1:CA:1078:U:O4	2.15	0.46
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.46
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.50	0.46
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.15	0.46
23:DA:415:A:H2'	23:DA:416:C:C6	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:492:A:H2'	23:DA:493:G:O4'	2.15	0.46
23:DA:1021:A:N6	23:DA:1142(A):A:H61	2.13	0.46
23:DA:2238:G:H2'	23:DA:2238:G:N3	2.30	0.46
23:DA:2275:C:H6	23:DA:2275:C:H5'	1.80	0.46
24:DB:8:U:OP1	36:DS:11:LYS:NZ	2.41	0.46
25:DD:68:LYS:O	25:DD:70:TRP:CD1	2.69	0.46
32:DO:47:ILE:HB	32:DO:48:PRO:HD2	1.97	0.46
1:AA:36:C:H4'	12:AL:122:THR:O	2.16	0.46
1:AA:60:A:H8	1:AA:60:A:OP1	1.98	0.46
1:AA:530:G:H3'	1:AA:530:G:OP1	2.15	0.46
1:AA:662:G:O2'	1:AA:836:G:OP1	2.33	0.46
1:AA:791:G:C6	1:AA:792:A:N7	2.84	0.46
1:AA:986:A:C6	1:AA:1220:G:N1	2.84	0.46
1:AA:1237:C:OP1	1:AA:1303:C:O2'	2.33	0.46
1:AA:1238:A:H3'	1:AA:1239:A:H8	1.80	0.46
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.50	0.46
1:AA:1313:U:C2	1:AA:1324:A:N1	2.83	0.46
1:AA:1349:A:C8	1:AA:1373:G:N2	2.77	0.46
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.48	0.46
3:AC:134:ILE:HG13	3:AC:134:ILE:H	1.42	0.46
4:AD:200:GLU:N	4:AD:200:GLU:OE2	2.49	0.46
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	1.96	0.46
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.98	0.46
12:AL:42:THR:OG1	12:AL:52:LEU:HD12	2.14	0.46
23:BA:2427:C:H5"	23:BA:2428:G:OP1	2.15	0.46
23:BA:2820:A:OP1	35:BR:4:LEU:HD23	2.15	0.46
23:BA:2833:G:H3'	23:BA:2834:G:H5"	1.97	0.46
27:BF:89:VAL:O	27:BF:90:PHE:C	2.54	0.46
28:BG:60:LEU:O	28:BG:64:THR:N	2.38	0.46
29:BH:43:VAL:HG22	29:BH:52:VAL:HG22	1.98	0.46
1:CA:79:G:H2'	1:CA:80:G:C8	2.50	0.46
1:CA:115:G:H4'	1:CA:116:A:O5'	2.15	0.46
1:CA:186:C:H2'	1:CA:187:C:H6	1.79	0.46
1:CA:517:G:N2	1:CA:531:U:H5'	2.31	0.46
1:CA:719:C:H5	1:CA:720:C:C4	2.33	0.46
1:CA:1369:C:OP2	9:CI:112:LYS:N	2.37	0.46
2:CB:75:LYS:HE3	2:CB:78:GLN:OE1	2.16	0.46
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.80	0.46
12:CL:102:ARG:HB3	12:CL:102:ARG:HE	1.44	0.46
13:CM:23:TYR:HE1	13:CM:70:LEU:HD21	1.79	0.46
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:79:ARG:HD2	20:CT:83:ARG:HH21	1.80	0.46
23:DA:272(J):C:H2'	23:DA:274:G:O4'	2.15	0.46
23:DA:322:A:H5'	23:DA:340:A:H1'	1.96	0.46
23:DA:919:G:N2	23:DA:2269:A:OP2	2.45	0.46
23:DA:1171:G:H1	23:DA:1178:C:H42	1.63	0.46
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.15	0.46
24:DB:65:C:N4	24:DB:109:C:C2	2.83	0.46
26:DE:111:ARG:HB3	35:DR:1:MET:HE2	1.97	0.46
26:DE:115:GLY:O	26:DE:119:ARG:HB2	2.15	0.46
30:DI:61:ARG:HH11	30:DI:61:ARG:HA	1.81	0.46
36:DS:83:LYS:C	36:DS:111:GLU:HG3	2.36	0.46
36:DS:96:GLY:H	36:DS:99:LYS:H	1.63	0.46
43:DZ:111:VAL:C	43:DZ:113:ALA:N	2.68	0.46
45:D1:3:LYS:HE3	45:D1:3:LYS:HB3	1.52	0.46
1:AA:502:G:P	12:AL:116:SER:HA	2.56	0.46
1:AA:945:G:H2'	1:AA:945:G:N3	2.31	0.46
1:AA:986:A:H1'	19:AS:55:LYS:HA	1.96	0.46
1:AA:1027:C:H5	1:AA:1029:C:N3	2.13	0.46
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.50	0.46
1:AA:1238:A:C2	1:AA:1303:C:H4'	2.51	0.46
13:AM:88:ARG:O	13:AM:91:ARG:HB2	2.16	0.46
16:AP:59:TRP:O	16:AP:63:GLY:N	2.49	0.46
17:AQ:81:ARG:HD2	17:AQ:81:ARG:HA	1.63	0.46
23:BA:1425:G:H2'	23:BA:1426:G:O4'	2.16	0.46
23:BA:2262:U:O2'	23:BA:2263:C:H5'	2.15	0.46
23:BA:2302:G:C6	23:BA:2315:G:C6	3.04	0.46
24:BB:14:U:OP2	24:BB:70:C:O2'	2.30	0.46
29:BH:33:LEU:HD21	29:BH:136:ILE:HG13	1.98	0.46
36:BS:11:LYS:HG3	36:BS:91:PRO:HD3	1.96	0.46
41:BX:5:TYR:HD1	46:B2:33:MET:HE2	1.81	0.46
42:BY:99:CYS:SG	42:BY:102:CYS:N	2.88	0.46
44:B0:26:TYR:O	44:B0:29:GLN:HB2	2.15	0.46
50:B6:34:LEU:HD22	50:B6:36:LEU:HD11	1.98	0.46
1:CA:93:G:H1'	1:CA:96:U:H5'	1.97	0.46
1:CA:544:G:C2	1:CA:545:C:C2	3.04	0.46
1:CA:745:C:H2'	1:CA:746:A:H8	1.80	0.46
1:CA:1184:G:H2'	1:CA:1184:G:N3	2.30	0.46
1:CA:1246:C:H2'	1:CA:1247:U:O4'	2.15	0.46
1:CA:1273:G:H5'	1:CA:1274:G:OP2	2.16	0.46
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.50	0.46
2:CB:149:LEU:HD22	2:CB:152:PHE:CD1	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:87:VAL:HG11	7:CG:155:ARG:HB2	1.96	0.46
9:CI:49:PRO:HG3	9:CI:101:PHE:CG	2.51	0.46
10:CJ:34:VAL:HG12	10:CJ:74:ILE:HA	1.97	0.46
11:CK:122:LYS:HB3	11:CK:122:LYS:HE2	1.68	0.46
15:CO:63:ARG:HG2	15:CO:67:LEU:HD12	1.97	0.46
23:DA:469:G:H2'	23:DA:470:A:H5"	1.96	0.46
23:DA:1202:C:N4	23:DA:1203:G:C6	2.83	0.46
23:DA:2615:U:C2	49:D5:7:PRO:HA	2.51	0.46
26:DE:52:LEU:O	26:DE:75:VAL:HG22	2.16	0.46
27:DF:127:GLU:HA	27:DF:196:LEU:HD12	1.97	0.46
28:DG:16:ARG:NH2	28:DG:28:VAL:O	2.48	0.46
41:DX:57:LEU:HD21	41:DX:78:LYS:HE2	1.97	0.46
44:D0:24:LYS:O	44:D0:25:ARG:HD3	2.16	0.46
1:AA:17:U:H2'	1:AA:18:C:H6	1.77	0.46
1:AA:203:U:H3'	1:AA:203:U:OP2	2.15	0.46
1:AA:1154:G:C2	1:AA:1155:G:C4	3.04	0.46
1:AA:1250:A:C6	1:AA:1251:A:C6	3.04	0.46
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.97	0.46
5:AE:93:PRO:HG2	8:AH:105:ARG:CZ	2.44	0.46
9:AI:9:ARG:HB3	9:AI:104:ARG:NH2	2.29	0.46
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	1.98	0.46
20:AT:66:ALA:HB3	20:AT:72:LEU:HD22	1.98	0.46
23:BA:125:G:C6	51:B7:10:ARG:HG3	2.51	0.46
23:BA:322:A:H5'	23:BA:340:A:H1'	1.97	0.46
23:BA:479:A:N3	23:BA:481:G:H5"	2.30	0.46
23:BA:723:G:H2'	23:BA:724:U:O4'	2.16	0.46
23:BA:910:A:C5	34:BQ:13:GLN:HG3	2.51	0.46
23:BA:950:G:C6	23:BA:951:C:C4	3.04	0.46
23:BA:2191:G:H3'	23:BA:2192:G:H8	1.81	0.46
23:BA:2832:U:OP2	56:BA:4214:HOH:O	2.20	0.46
26:BE:201:THR:OG1	26:BE:202:LYS:N	2.49	0.46
31:BN:128:HIS:HA	31:BN:129:PRO:HD2	1.62	0.46
43:BZ:5:LEU:O	43:BZ:59:LEU:HA	2.16	0.46
46:B2:69:ARG:O	46:B2:70:GLN:HB2	2.15	0.46
1:CA:373:A:N3	1:CA:481:G:N2	2.51	0.46
1:CA:658:G:H2'	1:CA:659:U:H6	1.81	0.46
1:CA:1060:C:OP1	10:CJ:51:ARG:NH1	2.48	0.46
1:CA:1122:U:O4	1:CA:1123:A:N6	2.47	0.46
4:CD:104:VAL:HA	4:CD:107:ARG:HB2	1.97	0.46
9:CI:33:PHE:O	9:CI:37:PHE:HB2	2.16	0.46
23:DA:1418:G:H8	23:DA:1418:G:O5'	1.99	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2636:U:H4'	26:DE:80:GLU:OE2	2.16	0.46
25:DD:69:ARG:NH2	25:DD:128:GLY:O	2.38	0.46
27:DF:178:PRO:HG2	27:DF:179:GLU:OE1	2.15	0.46
32:DO:68:GLU:HB3	32:DO:78:ARG:HD3	1.98	0.46
37:DT:118:ARG:HH11	37:DT:118:ARG:HG3	1.80	0.46
1:AA:719:C:H5	1:AA:720:C:C4	2.34	0.46
1:AA:730:G:C5	1:AA:731:G:H1'	2.50	0.46
1:AA:945:G:N7	1:AA:1337:G:H1'	2.30	0.46
1:AA:1042:G:OP2	1:AA:1042:G:C8	2.67	0.46
1:AA:1305:G:O2'	1:AA:1306:A:OP2	2.28	0.46
1:AA:1458:G:H5'	20:AT:31:SER:CB	2.46	0.46
3:AC:152:ILE:HG13	3:AC:201:TYR:HE1	1.81	0.46
12:AL:41:ARG:HH12	12:AL:57:LYS:HE3	1.81	0.46
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.79	0.46
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.16	0.46
23:BA:92:A:C2'	23:BA:93:G:H5'	2.45	0.46
23:BA:323:G:C8	27:BF:171:PRO:HG3	2.51	0.46
23:BA:330:A:H2	23:BA:1210:A:HO2'	1.63	0.46
23:BA:1338:G:O2'	23:BA:1393:A:N1	2.44	0.46
23:BA:1529:G:C6	23:BA:1530:C:C4	3.03	0.46
23:BA:1827:C:H5'	23:BA:1971:A:H4'	1.98	0.46
23:BA:2123:G:H1	23:BA:2175:C:N4	2.14	0.46
23:BA:2141:G:C6	23:BA:2151:G:C6	3.03	0.46
25:BD:118:VAL:HG22	25:BD:119:ALA:N	2.31	0.46
30:BI:123:LEU:HD23	30:BI:123:LEU:H	1.80	0.46
34:BQ:57:HIS:HD2	34:BQ:117:ALA:HB2	1.80	0.46
1:CA:344:A:H3'	1:CA:346:G:O6	2.16	0.46
1:CA:353:A:H5'	1:CA:353:A:C8	2.42	0.46
1:CA:479:C:H2'	1:CA:480:U:H6	1.80	0.46
1:CA:658:G:C4	1:CA:659:U:C5	3.04	0.46
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.51	0.46
1:CA:1360:A:C8	14:CN:18:VAL:HG22	2.50	0.46
23:DA:234:C:H2'	23:DA:235:U:H6	1.81	0.46
23:DA:2285:C:OP2	50:D6:6:ARG:NH1	2.47	0.46
23:DA:2748:A:OP1	29:DH:70:THR:HG21	2.16	0.46
23:DA:2818:G:O2'	23:DA:2819:G:H5'	2.16	0.46
23:DA:2850:A:OP2	23:DA:2866:U:H5	1.98	0.46
25:DD:38:LYS:HD2	25:DD:39:LYS:N	2.30	0.46
27:DF:133:ASN:HA	27:DF:162:LEU:HD23	1.98	0.46
34:DQ:16:ARG:O	34:DQ:17:LEU:HD23	2.15	0.46
1:AA:116:A:H61	1:AA:313:A:H1'	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:509:A:H3'	1:AA:509:A:H8	1.80	0.46
1:AA:558:G:H5"	1:AA:559:A:P	2.55	0.46
1:AA:623:C:H2'	1:AA:624:C:C6	2.48	0.46
1:AA:745:C:H2'	1:AA:746:A:H8	1.80	0.46
1:AA:955:U:H3	1:AA:1225:A:N6	2.09	0.46
1:AA:1127:G:H1'	1:AA:1148:U:N3	2.31	0.46
1:AA:1165:C:N4	1:AA:1166:G:C6	2.84	0.46
1:AA:1459:C:C2	1:AA:1460:A:N6	2.84	0.46
4:AD:59:ARG:HH22	4:AD:66:ARG:NH1	2.13	0.46
6:AF:25:ILE:CD1	6:AF:82:ARG:HE	2.28	0.46
8:AH:40:ALA:HA	8:AH:45:ILE:HG13	1.96	0.46
9:AI:71:SER:O	9:AI:74:ILE:HB	2.16	0.46
23:BA:196:A:N3	23:BA:196:A:H2'	2.31	0.46
23:BA:241:A:O4'	23:BA:243:U:C6	2.69	0.46
23:BA:686:G:O6	51:B7:12:ARG:HD2	2.16	0.46
23:BA:1779:U:C5	23:BA:1784:A:N7	2.64	0.46
29:BH:56:SER:OG	29:BH:57:ASP:N	2.49	0.46
29:BH:94:TYR:CE2	29:BH:107:VAL:HB	2.50	0.46
36:BS:24:LEU:HD23	36:BS:24:LEU:HA	1.77	0.46
43:BZ:5:LEU:HD22	43:BZ:6:LYS:H	1.81	0.46
1:CA:626:U:H5"	16:CP:38:TYR:CG	2.51	0.46
1:CA:980:C:H3'	1:CA:981:U:H6	1.81	0.46
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.51	0.46
4:CD:111:ALA:HB1	4:CD:116:GLN:HG2	1.98	0.46
7:CG:36:LYS:HA	7:CG:36:LYS:HD3	1.80	0.46
18:CR:31:LEU:CD2	18:CR:31:LEU:H	2.29	0.46
19:CS:36:ARG:HB3	19:CS:72:GLY:HA3	1.98	0.46
23:DA:128:C:H2'	23:DA:129:C:H6	1.80	0.46
23:DA:271(R):G:H2'	23:DA:271(S):G:C8	2.49	0.46
23:DA:708:C:H5'	23:DA:709:U:OP2	2.16	0.46
23:DA:901:A:H2'	23:DA:902:C:C6	2.51	0.46
23:DA:923:C:C4'	44:D0:29:GLN:HE21	2.28	0.46
23:DA:1721:G:N1	23:DA:1739:U:OP2	2.49	0.46
23:DA:2142:C:N3	23:DA:2149:G:O6	2.49	0.46
23:DA:2747:G:O6	23:DA:2755:C:H5"	2.16	0.46
23:DA:2867:G:OP2	37:DT:119:LYS:NZ	2.41	0.46
30:DI:97:ILE:O	30:DI:100:ALA:HB3	2.16	0.46
30:DI:124:GLY:N	30:DI:144:VAL:HG13	2.31	0.46
37:DT:11:GLU:O	37:DT:15:VAL:HG23	2.16	0.46
47:D3:4:LEU:N	47:D3:37:LEU:O	2.45	0.46
1:AA:11:G:C5	1:AA:12:U:C5	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:165:C:H2'	1:AA:166:G:H8	1.81	0.46
1:AA:673:G:O3'	6:AF:87:ARG:NH2	2.49	0.46
1:AA:937:A:H2'	1:AA:938:A:H5'	1.98	0.46
1:AA:1027:C:C2	1:AA:1034:G:N2	2.84	0.46
1:AA:1179:A:HO2'	1:AA:1180:A:C5'	2.28	0.46
1:AA:1291:G:H5"	7:AG:41:ARG:NH2	2.31	0.46
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	1.98	0.46
2:AB:73:THR:HG21	2:AB:95:GLN:O	2.16	0.46
6:AF:27:GLN:HA	6:AF:30:LEU:HD12	1.98	0.46
24:BB:117:G:H2'	24:BB:118:G:O4'	2.16	0.46
40:BW:41:LYS:HE3	49:B5:25:LEU:HD21	1.96	0.46
43:BZ:45:ASP:O	43:BZ:49:ARG:HG3	2.16	0.46
1:CA:589:C:H2'	1:CA:590:C:H6	1.81	0.46
1:CA:599:C:H5"	8:CH:95:VAL:O	2.15	0.46
1:CA:1250:A:H4'	9:CI:67:GLY:HA2	1.96	0.46
1:CA:1531:A:H2'	1:CA:1532:U:O4'	2.16	0.46
2:CB:73:THR:HG21	2:CB:95:GLN:O	2.16	0.46
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.98	0.46
23:DA:646:A:H5'	23:DA:646:A:N3	2.31	0.46
23:DA:655:A:H8	23:DA:656:G:O4'	1.98	0.46
23:DA:1108:U:O2'	23:DA:1109:C:O4'	2.34	0.46
23:DA:1815:A:C5	23:DA:1817:G:C6	3.04	0.46
23:DA:2345:G:N3	23:DA:2381:C:H2'	2.31	0.46
23:DA:2784:C:H1'	26:DE:37:ARG:NH1	2.30	0.46
26:DE:60:ASN:OD1	26:DE:62:PRO:HD2	2.15	0.46
29:DH:5:GLY:HA2	29:DH:69:ARG:HB3	1.97	0.46
34:DQ:35:VAL:HG13	34:DQ:130:LYS:HB3	1.98	0.46
1:AA:394:G:H2'	1:AA:395:C:H6	1.81	0.45
1:AA:433:C:H2'	1:AA:434:U:H6	1.81	0.45
1:AA:493:G:HO2'	1:AA:494:U:H6	1.63	0.45
1:AA:655:A:C2	1:AA:656:C:C2	3.05	0.45
1:AA:932:C:H5'	7:AG:4:ARG:NE	2.28	0.45
1:AA:948:C:OP2	13:AM:106:ASN:HB3	2.16	0.45
1:AA:1240:U:C4	7:AG:32:ARG:NH2	2.84	0.45
1:AA:1346:A:N6	1:AA:1374:A:C8	2.84	0.45
1:AA:1377:A:H2'	7:AG:7:ALA:CB	2.46	0.45
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	1.98	0.45
7:AG:137:LYS:O	7:AG:141:VAL:HB	2.16	0.45
9:AI:5:TYR:CE1	9:AI:16:ARG:HG2	2.45	0.45
9:AI:7:THR:HG23	9:AI:14:VAL:HG13	1.97	0.45
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:271(S):G:C6	23:BA:271(T):C:C4	3.05	0.45
23:BA:588:U:H1'	27:BF:90:PHE:HB3	1.97	0.45
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.50	0.45
23:BA:2294:C:OP1	36:BS:89:ARG:NH1	2.41	0.45
23:BA:2313:C:H5"	28:BG:91:ARG:HG3	1.98	0.45
27:BF:7:TYR:N	27:BF:22:ALA:HB3	2.29	0.45
29:BH:20:ALA:HB1	29:BH:21:PRO:HD2	1.97	0.45
51:B7:16:HIS:HB2	51:B7:44:PRO:HG2	1.98	0.45
52:B8:62:LEU:HB3	52:B8:65:GLU:HG2	1.97	0.45
1:CA:511:C:N3	1:CA:540:G:N2	2.54	0.45
1:CA:791:G:C6	1:CA:792:A:N7	2.83	0.45
1:CA:1227:A:OP2	13:CM:111:LYS:HG2	2.16	0.45
2:CB:47:THR:O	2:CB:51:LEU:HB2	2.16	0.45
4:CD:25:ARG:O	4:CD:25:ARG:HG2	2.16	0.45
5:CE:133:TYR:O	5:CE:137:GLU:HB2	2.15	0.45
5:CE:151:LEU:HB3	8:CH:79:VAL:HG22	1.98	0.45
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.98	0.45
12:CL:60:LEU:HD22	12:CL:60:LEU:H	1.80	0.45
23:DA:1026:U:O2'	23:DA:1027:A:H8	2.00	0.45
23:DA:1027:A:N6	23:DA:1126:A:C4	2.84	0.45
23:DA:1204:A:H61	23:DA:1240:U:H2'	1.81	0.45
23:DA:1364:G:OP2	45:D1:3:LYS:HG2	2.16	0.45
23:DA:1922:G:H2'	23:DA:1923:U:O4'	2.16	0.45
23:DA:2250:G:N2	34:DQ:84:GLY:HA3	2.31	0.45
23:DA:2406:U:C4	33:DP:72:PRO:HD2	2.51	0.45
23:DA:2512:C:H4'	26:DE:122:PHE:CE2	2.51	0.45
23:DA:2626:C:H2'	23:DA:2627:G:O4'	2.15	0.45
23:DA:2716:U:O2'	23:DA:2717:G:H5'	2.16	0.45
23:DA:2760:C:C2'	23:DA:2761:G:H5"	2.44	0.45
24:DB:50:G:H5"	36:DS:61:ASN:HD21	1.81	0.45
28:DG:63:ILE:HD13	28:DG:155:MET:HE1	1.98	0.45
28:DG:102:PHE:CE2	28:DG:141:PHE:HE1	2.33	0.45
39:DV:52:VAL:HG22	39:DV:55:ALA:HB3	1.97	0.45
45:D1:60:PHE:N	45:D1:60:PHE:CD2	2.84	0.45
52:D8:9:GLY:O	52:D8:13:ARG:HG3	2.16	0.45
52:D8:61:LEU:C	52:D8:63:PRO:HD3	2.36	0.45
1:AA:441:A:H3'	1:AA:442:C:C6	2.51	0.45
1:AA:499:A:H4'	1:AA:500:G:OP1	2.15	0.45
1:AA:956:U:C2	1:AA:1225:A:C2	3.04	0.45
1:AA:1300:G:H4'	1:AA:1301:U:O5'	2.16	0.45
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:205:GLU:OE1	5:AE:100:VAL:HB	2.16	0.45
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.51	0.45
7:AG:69:VAL:HG21	7:AG:134:ALA:HB1	1.98	0.45
9:AI:71:SER:HA	9:AI:74:ILE:HB	1.99	0.45
19:AS:29:ARG:HA	19:AS:47:HIS:HB3	1.98	0.45
23:BA:1141:U:H4'	23:BA:1142(A):A:O4'	2.16	0.45
23:BA:2312:U:H5'	28:BG:88:ILE:HD12	1.97	0.45
26:BE:116:VAL:HG13	26:BE:122:PHE:HB2	1.98	0.45
28:BG:137:GLU:HG3	28:BG:152:LEU:HD21	1.98	0.45
30:BI:133:HIS:ND1	30:BI:134:PRO:O	2.43	0.45
31:BN:99:LEU:O	31:BN:103:VAL:HG23	2.16	0.45
31:BN:112:LEU:O	31:BN:115:ARG:N	2.46	0.45
43:BZ:24:LEU:HB2	43:BZ:41:LEU:HD23	1.98	0.45
43:BZ:128:VAL:HG22	43:BZ:161:VAL:H	1.81	0.45
52:B8:29:LYS:HG2	52:B8:44:LYS:HB3	1.98	0.45
1:CA:475:G:H2'	1:CA:476:G:C8	2.49	0.45
1:CA:623:C:H2'	1:CA:624:C:C6	2.48	0.45
1:CA:674:G:H2'	1:CA:675:A:C8	2.47	0.45
1:CA:874:G:C6	1:CA:875:C:C4	3.04	0.45
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.26	0.45
1:CA:1347:G:H8	9:CI:107:ARG:CB	2.26	0.45
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.98	0.45
3:CC:23:TYR:OH	3:CC:25:GLY:HA3	2.17	0.45
3:CC:150:LYS:NZ	3:CC:150:LYS:HB3	2.31	0.45
4:CD:59:ARG:HA	4:CD:59:ARG:HH11	1.81	0.45
6:CF:33:TYR:HB2	6:CF:75:LEU:HD12	1.97	0.45
7:CG:112:PRO:O	7:CG:119:ARG:HD3	2.16	0.45
23:DA:195:A:H4'	23:DA:251:A:O2'	2.17	0.45
23:DA:241:A:O4'	23:DA:243:U:C6	2.70	0.45
23:DA:861:A:N3	24:DB:79:C:O2'	2.47	0.45
23:DA:1536:C:O2'	23:DA:1537:G:O5'	2.28	0.45
34:DQ:12:GLN:HG2	34:DQ:73:PRO:HD2	1.97	0.45
36:DS:65:VAL:O	36:DS:69:VAL:HG12	2.16	0.45
1:AA:519:C:H2'	1:AA:520:A:H8	1.80	0.45
1:AA:1297:C:OP2	13:AM:14:ARG:HD3	2.16	0.45
1:AA:1317:C:OP1	14:AN:17:LYS:HG3	2.16	0.45
1:AA:1369:C:OP1	14:AN:61:TRP:NE1	2.49	0.45
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.51	0.45
2:AB:58:ILE:H	2:AB:58:ILE:HG13	1.43	0.45
3:AC:56:ASP:O	3:AC:67:THR:N	2.39	0.45
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.77	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.30	0.45
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.97	0.45
11:AK:48:ILE:HG12	11:AK:48:ILE:O	2.16	0.45
23:BA:836:G:H5"	23:BA:837:C:OP2	2.17	0.45
23:BA:916:G:O2'	23:BA:917:A:O4'	2.33	0.45
23:BA:1877:A:H5'	23:BA:1878:G:OP2	2.17	0.45
23:BA:2170:A:OP2	23:BA:2170:A:H8	1.99	0.45
34:BQ:26:TYR:CD1	34:BQ:28:ALA:HB2	2.51	0.45
42:BY:102:CYS:O	42:BY:104:GLY:N	2.48	0.45
43:BZ:80:ARG:HG2	43:BZ:80:ARG:H	1.62	0.45
43:BZ:111:VAL:C	43:BZ:113:ALA:N	2.69	0.45
47:B3:4:LEU:O	47:B3:36:VAL:HA	2.15	0.45
1:CA:441:A:H3'	1:CA:442:C:H6	1.81	0.45
1:CA:491:G:C4	1:CA:492:G:C8	3.04	0.45
1:CA:988:G:H2'	1:CA:989:C:O4'	2.16	0.45
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.16	0.45
2:CB:194:PRO:O	2:CB:196:LEU:N	2.48	0.45
2:CB:219:VAL:O	2:CB:222:ILE:HB	2.16	0.45
11:CK:16:SER:HA	11:CK:79:SER:HB3	1.98	0.45
23:DA:330:A:H2	23:DA:1210:A:HO2'	1.62	0.45
23:DA:916:G:O2'	23:DA:917:A:O4'	2.31	0.45
23:DA:1364:G:N7	45:D1:3:LYS:HD3	2.30	0.45
23:DA:2191:G:H3'	23:DA:2192:G:H8	1.81	0.45
23:DA:2390:U:O2'	23:DA:2391:G:H5'	2.16	0.45
28:DG:174:GLU:O	28:DG:177:GLY:N	2.45	0.45
34:DQ:119:ARG:HE	34:DQ:119:ARG:HB3	1.62	0.45
39:DV:21:ARG:HG3	39:DV:93:GLU:HG3	1.98	0.45
44:D0:53:MET:HA	44:D0:58:THR:O	2.16	0.45
45:D1:64:ALA:HA	45:D1:67:ILE:HG13	1.97	0.45
1:AA:57:G:N2	1:AA:388:G:C6	2.81	0.45
1:AA:1006:C:O2	1:AA:1023:G:N1	2.49	0.45
1:AA:1027:C:N3	1:AA:1034:G:C2	2.85	0.45
1:AA:1261:A:O4'	1:AA:1283:G:H5"	2.16	0.45
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.80	0.45
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.17	0.45
5:AE:151:LEU:HB3	8:AH:79:VAL:HG22	1.97	0.45
6:AF:84:ASN:O	6:AF:86:ARG:HG3	2.17	0.45
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.17	0.45
9:AI:49:PRO:HG3	9:AI:101:PHE:CG	2.49	0.45
13:AM:23:TYR:HB3	13:AM:67:GLU:HA	1.97	0.45
16:AP:43:LYS:HG2	16:AP:48:TRP:CE3	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:76:GLN:HG3	16:AP:76:GLN:O	2.17	0.45
22:AV:51:ARG:HB3	22:AV:51:ARG:NH1	2.31	0.45
23:BA:271(H):G:O2'	23:BA:271(I):G:OP2	2.28	0.45
23:BA:415:A:H2'	23:BA:416:C:C6	2.52	0.45
23:BA:446:G:P	56:BA:3961:HOH:O	2.67	0.45
23:BA:848:G:H2'	23:BA:849:A:C8	2.52	0.45
23:BA:1721:G:C2	23:BA:1739:U:OP2	2.70	0.45
24:BB:25:A:H2'	24:BB:26:A:O4'	2.16	0.45
24:BB:49:C:OP1	36:BS:96:GLY:HA2	2.17	0.45
31:BN:55:VAL:HG22	31:BN:126:PRO:HA	1.99	0.45
1:CA:1002:G:C2	1:CA:1003:G:H1'	2.51	0.45
1:CA:1155:G:H2'	1:CA:1156:G:C8	2.51	0.45
1:CA:1233:G:H2'	1:CA:1234:C:H6	1.81	0.45
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.51	0.45
2:CB:136:VAL:HA	2:CB:139:LYS:CG	2.43	0.45
5:CE:57:LYS:HB3	5:CE:61:TYR:CE2	2.50	0.45
7:CG:87:VAL:HG13	7:CG:151:TYR:HB2	1.99	0.45
11:CK:29:ILE:HG23	11:CK:44:SER:HB3	1.99	0.45
23:DA:26:G:C6	23:DA:27:G:N1	2.85	0.45
23:DA:196:A:H2'	23:DA:196:A:N3	2.31	0.45
23:DA:1478:G:H2'	23:DA:1479:G:H8	1.82	0.45
23:DA:1510:G:H2'	23:DA:1511:C:C6	2.51	0.45
23:DA:1592:C:H2'	23:DA:1593:G:H8	1.82	0.45
23:DA:2107:C:N4	23:DA:2108:C:N4	2.64	0.45
23:DA:2109:U:O2	23:DA:2181:G:N1	2.49	0.45
23:DA:2115:G:C2	23:DA:2117:A:N7	2.84	0.45
23:DA:2146:C:H4'	23:DA:2147:G:C8	2.51	0.45
23:DA:2302:G:C6	23:DA:2315:G:C6	3.04	0.45
23:DA:2793:G:N2	23:DA:2804:C:H1'	2.32	0.45
27:DF:197:ASP:OD2	27:DF:197:ASP:N	2.49	0.45
41:DX:18:TYR:O	41:DX:20:GLY:N	2.50	0.45
43:DZ:144:LEU:HD12	43:DZ:144:LEU:HA	1.78	0.45
46:D2:51:ARG:HG2	46:D2:51:ARG:O	2.16	0.45
1:AA:971:G:C8	1:AA:1365:G:H1'	2.51	0.45
1:AA:1011:G:C6	1:AA:1012:U:N3	2.84	0.45
1:AA:1238:A:H2'	1:AA:1239:A:C8	2.51	0.45
1:AA:1441:G:H21	1:AA:1459:C:H6	1.64	0.45
1:AA:1531:A:H2'	1:AA:1532:U:O4'	2.16	0.45
3:AC:23:TYR:CE2	10:AJ:95:GLU:HG2	2.50	0.45
3:AC:122:GLU:HA	3:AC:125:GLU:OE2	2.17	0.45
7:AG:127:ALA:HA	7:AG:132:GLY:CA	2.44	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:5:ALA:HA	13:AM:61:GLU:HG2	1.99	0.45
23:BA:375:C:H2'	23:BA:376:C:C6	2.51	0.45
23:BA:1419:A:C8	23:BA:1421:G:C6	3.05	0.45
23:BA:2131:G:OP2	23:BA:2131:G:H3'	2.17	0.45
23:BA:2134:A:N3	23:BA:2159:G:H1'	2.31	0.45
33:BP:26:GLY:O	33:BP:28:GLY:N	2.38	0.45
43:BZ:30:ASN:HD22	43:BZ:90:VAL:HB	1.82	0.45
1:CA:35:G:N2	1:CA:550:G:N3	2.65	0.45
1:CA:426:G:H2'	1:CA:427:U:C6	2.52	0.45
1:CA:801:U:H2'	1:CA:802:A:H8	1.82	0.45
1:CA:1179:A:OP1	1:CA:1179:A:H8	1.99	0.45
4:CD:59:ARG:HA	4:CD:59:ARG:NH1	2.31	0.45
8:CH:9:MET:O	8:CH:12:ARG:N	2.49	0.45
20:CT:64:ASP:OD1	20:CT:81:LYS:NZ	2.47	0.45
23:DA:643:A:C2	23:DA:644:A:C4	3.04	0.45
23:DA:645:C:O2	23:DA:645:C:H2'	2.15	0.45
23:DA:1319:G:C6	23:DA:1320:C:N4	2.85	0.45
23:DA:1651:G:H2'	23:DA:1652:A:O4'	2.17	0.45
23:DA:2126:A:N1	23:DA:2162:G:O2'	2.40	0.45
23:DA:2304:G:O6	23:DA:2312:U:O4	2.34	0.45
23:DA:2591:C:OP1	25:DD:239:ARG:HG2	2.17	0.45
25:DD:213:ARG:HA	25:DD:213:ARG:HD2	1.61	0.45
43:DZ:53:ILE:HG22	43:DZ:71:VAL:O	2.17	0.45
1:AA:962:C:O2	1:AA:973:G:N1	2.33	0.45
1:AA:1054:C:H2'	1:AA:1055:A:H5"	1.99	0.45
1:AA:1160:G:C6	1:AA:1161:C:N4	2.85	0.45
1:AA:1163:C:H2'	1:AA:1164:G:O4'	2.16	0.45
1:AA:1375:A:H4'	7:AG:29:LYS:NZ	2.32	0.45
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.16	0.45
4:AD:68:TYR:CE2	4:AD:97:LEU:HD22	2.52	0.45
4:AD:188:LEU:H	4:AD:188:LEU:HG	1.33	0.45
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.99	0.45
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.81	0.45
10:AJ:15:THR:HA	10:AJ:18:ALA:HB3	1.99	0.45
10:AJ:23:ILE:O	10:AJ:34:VAL:HG11	2.17	0.45
20:AT:54:LYS:HA	20:AT:57:ARG:CZ	2.46	0.45
20:AT:73:HIS:C	20:AT:74:LYS:HG2	2.37	0.45
23:BA:828:U:H4'	23:BA:831:G:N1	2.32	0.45
23:BA:1180:C:H2'	23:BA:1181:C:H6	1.80	0.45
23:BA:1529:G:H8	23:BA:1529:G:O5'	1.99	0.45
23:BA:1575:C:H2'	23:BA:1576:U:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1697:G:OP2	23:BA:1698:A:O2'	2.22	0.45
23:BA:2203:U:H4'	25:BD:151:LYS:HG2	1.98	0.45
25:BD:71:ASP:HB3	25:BD:103:ARG:NH2	2.32	0.45
25:BD:137:PRO:HB2	25:BD:140:THR:HG23	1.99	0.45
26:BE:112:GLY:O	26:BE:159:HIS:HA	2.17	0.45
29:BH:70:THR:HA	29:BH:73:ALA:HB3	1.99	0.45
30:BI:40:THR:O	30:BI:44:LEU:HB2	2.17	0.45
45:B1:94:LEU:O	45:B1:97:LEU:HB2	2.16	0.45
46:B2:1:MET:HG3	46:B2:52:ASP:OD2	2.16	0.45
48:B4:40:HIS:HB3	48:B4:43:TYR:HB3	1.97	0.45
1:CA:116:A:H61	1:CA:313:A:H1'	1.82	0.45
1:CA:298:A:H8	1:CA:298:A:OP1	2.00	0.45
1:CA:573:A:N3	1:CA:883:C:O2'	2.41	0.45
1:CA:714:G:H2'	1:CA:715:A:C8	2.51	0.45
1:CA:952:U:H4'	1:CA:964:A:N1	2.32	0.45
1:CA:1002:G:N2	1:CA:1003:G:H1'	2.31	0.45
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.52	0.45
1:CA:1250:A:O3'	9:CI:67:GLY:HA2	2.16	0.45
1:CA:1399:C:C2	1:CA:1502:A:N6	2.85	0.45
1:CA:1441:G:H21	1:CA:1459:C:H6	1.64	0.45
1:CA:1491:G:H5"	1:CA:1492:A:OP2	2.16	0.45
4:CD:61:LYS:O	4:CD:65:ARG:HB2	2.17	0.45
15:CO:7:GLU:O	15:CO:10:LYS:HB3	2.16	0.45
16:CP:43:LYS:HG2	16:CP:48:TRP:CE3	2.52	0.45
20:CT:29:LYS:O	20:CT:33:ILE:HG13	2.17	0.45
23:DA:902:C:H2'	23:DA:903:C:C6	2.51	0.45
23:DA:997:G:OP1	38:DU:92:ARG:HG2	2.16	0.45
23:DA:1106:G:N3	23:DA:1106:G:H2'	2.31	0.45
23:DA:1235:G:C6	23:DA:1236:G:N1	2.84	0.45
23:DA:2483:C:N3	34:DQ:124:LYS:NZ	2.63	0.45
24:DB:46:A:C5	24:DB:47:C:C4	3.04	0.45
39:DV:20:LEU:HD12	39:DV:20:LEU:HA	1.79	0.45
47:D3:43:ILE:O	47:D3:47:VAL:HG23	2.16	0.45
1:AA:158:G:H2'	1:AA:159:G:H8	1.82	0.45
1:AA:589:C:H2'	1:AA:590:C:C6	2.52	0.45
1:AA:959:A:N1	1:AA:1221:G:O2'	2.50	0.45
1:AA:1001(A):G:H2'	1:AA:1002:G:C8	2.52	0.45
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.17	0.45
1:AA:1358:U:H5	1:AA:1359:C:C4	2.35	0.45
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.51	0.45
2:AB:42:ILE:HG21	2:AB:202:PRO:O	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.16	0.45
4:AD:134:ASP:OD2	4:AD:135:LEU:HD13	2.16	0.45
7:AG:33:ASP:HB2	7:AG:35:LYS:HB3	1.99	0.45
23:BA:252:G:P	33:BP:50:ARG:HH11	2.38	0.45
23:BA:359:A:H2'	23:BA:360:G:O4'	2.17	0.45
23:BA:620:G:N3	23:BA:620:G:H5'	2.32	0.45
23:BA:644:A:H4'	23:BA:645:C:C5	2.51	0.45
23:BA:774:A:H2'	23:BA:774:A:N3	2.31	0.45
23:BA:937:U:H2'	23:BA:938:G:O4'	2.16	0.45
23:BA:1453:U:OP1	35:BR:77:ARG:NH1	2.45	0.45
23:BA:1796:U:H4'	25:BD:256:GLY:H	1.82	0.45
31:BN:54:VAL:HG11	31:BN:99:LEU:HD12	1.97	0.45
37:BT:23:ARG:HG3	37:BT:120:ARG:CZ	2.46	0.45
1:CA:328:C:H4'	1:CA:329:A:H5'	1.98	0.45
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.98	0.45
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.98	0.45
23:DA:583:G:OP2	38:DU:10:ARG:HD2	2.17	0.45
23:DA:815:C:H2'	23:DA:816:C:H6	1.81	0.45
23:DA:1634:A:OP2	56:DA:3694:HOH:O	2.21	0.45
23:DA:2427:C:H5"	23:DA:2428:G:OP1	2.16	0.45
23:DA:2785:C:OP1	26:DE:41:LYS:NZ	2.40	0.45
27:DF:68:LYS:HB2	27:DF:69:HIS:CD2	2.52	0.45
31:DN:22:THR:O	31:DN:23:LEU:O	2.34	0.45
34:DQ:7:MET:HE1	43:DZ:193:GLU:CB	2.47	0.45
43:DZ:5:LEU:O	43:DZ:59:LEU:HA	2.16	0.45
48:D4:40:HIS:HB3	48:D4:43:TYR:HB3	1.98	0.45
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.32	0.45
1:AA:1155:G:H3'	1:AA:1156:G:C8	2.52	0.45
1:AA:1300:G:O2'	1:AA:1301:U:P	2.74	0.45
1:AA:1443:G:H5'	1:AA:1444:C:OP2	2.17	0.45
1:AA:1459:C:H2'	1:AA:1460:A:N7	2.32	0.45
6:AF:45:LEU:HD12	6:AF:59:TYR:CD1	2.52	0.45
9:AI:112:LYS:HG3	9:AI:116:LYS:O	2.17	0.45
10:AJ:79:ARG:C	10:AJ:81:THR:N	2.70	0.45
21:AU:20:LYS:HE3	21:AU:20:LYS:HB3	1.72	0.45
23:BA:195:A:H4'	23:BA:251:A:O2'	2.16	0.45
23:BA:923:C:C4'	44:B0:29:GLN:HE21	2.29	0.45
23:BA:1047:G:H21	23:BA:1111:A:N6	2.14	0.45
23:BA:2199:A:OP2	23:BA:2200:C:H5	1.99	0.45
25:BD:237:GLU:OE1	56:BD:404:HOH:O	2.21	0.45
30:BI:44:LEU:HD12	30:BI:44:LEU:HA	1.76	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:127:ALA:HA	37:BT:129:ARG:N	2.32	0.45
1:CA:57:G:H2'	1:CA:58:C:C6	2.52	0.45
1:CA:426:G:P	4:CD:36:ARG:HH12	2.40	0.45
1:CA:530:G:OP1	1:CA:530:G:H3'	2.17	0.45
12:CL:67:THR:OG1	12:CL:95:GLY:O	2.31	0.45
18:CR:59:SER:OG	18:CR:60:ALA:N	2.50	0.45
23:DA:1316:U:H2'	23:DA:1317:A:C8	2.51	0.45
23:DA:1545:A:H2'	23:DA:1546:C:O4'	2.17	0.45
23:DA:2131:G:OP2	23:DA:2131:G:H3'	2.16	0.45
23:DA:2173:A:C6	23:DA:2174:C:C2	3.05	0.45
23:DA:2360:A:H2'	23:DA:2361:A:O4'	2.17	0.45
24:DB:29:A:OP2	36:DS:32:LEU:HD12	2.17	0.45
25:DD:17:THR:HG23	25:DD:205:VAL:HB	1.98	0.45
25:DD:221:VAL:HG22	25:DD:226:MET:CE	2.47	0.45
29:DH:75:ALA:O	29:DH:79:VAL:HG22	2.17	0.45
48:D4:15:ILE:HG13	48:D4:21:VAL:HG22	1.97	0.45
53:D9:25:VAL:HB	53:D9:34:GLN:HB2	1.98	0.45
1:AA:392:G:H2'	1:AA:393:A:H8	1.81	0.45
1:AA:613:C:N4	1:AA:627:G:H1	2.14	0.45
1:AA:922:G:C6	1:AA:923:A:C6	3.04	0.45
1:AA:947:G:H2'	1:AA:948:C:O4'	2.16	0.45
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.52	0.45
1:AA:1269:A:C8	1:AA:1269:A:OP2	2.70	0.45
1:AA:1293:G:C2	1:AA:1294:G:C8	3.04	0.45
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.99	0.45
5:AE:29:GLY:HA2	5:AE:47:LYS:HA	1.99	0.45
7:AG:103:TRP:CZ3	7:AG:141:VAL:HG11	2.52	0.45
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.30	0.45
19:AS:63:THR:H	19:AS:66:MET:HG3	1.81	0.45
19:AS:74:PHE:C	19:AS:76:PRO:HD3	2.36	0.45
23:BA:1493:C:N4	23:BA:2206:G:H1'	2.32	0.45
23:BA:2205:C:O2	23:BA:2220:G:C2	2.70	0.45
23:BA:2313:C:H2'	23:BA:2314:C:C6	2.51	0.45
23:BA:2331:G:H4'	44:B0:43:THR:H	1.82	0.45
24:BB:59:A:H2'	24:BB:60:C:C6	2.52	0.45
33:BP:97:PRO:HG3	33:BP:112:LEU:HD12	1.99	0.45
43:BZ:104:PHE:HB3	43:BZ:141:VAL:HG21	1.99	0.45
46:B2:64:LEU:HD21	46:B2:68:ARG:HE	1.81	0.45
46:B2:64:LEU:O	46:B2:68:ARG:HG2	2.17	0.45
1:CA:77:G:C6	1:CA:78:G:C6	3.04	0.45
1:CA:154:C:C4	1:CA:168:G:N1	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:405:U:H3'	1:CA:406:G:H5'	1.97	0.45
1:CA:505:G:C6	1:CA:535:A:C2	3.05	0.45
1:CA:956:U:H1'	1:CA:1225:A:H2	1.81	0.45
2:CB:87:ARG:CZ	2:CB:233:SER:HB2	2.46	0.45
11:CK:66:LEU:HD21	11:CK:97:ALA:HB1	1.98	0.45
12:CL:47:LYS:HA	12:CL:49:ASN:H	1.82	0.45
23:DA:271(K):U:O2'	23:DA:271(L):U:OP1	2.29	0.45
23:DA:271(M):G:O2'	23:DA:271(N):U:H3'	2.17	0.45
23:DA:725:G:C6	23:DA:726:G:N1	2.85	0.45
23:DA:1332:G:N3	23:DA:1332:G:H5'	2.32	0.45
23:DA:2387:U:O2'	44:D0:41:ARG:NH2	2.42	0.45
25:DD:71:ASP:HB3	25:DD:103:ARG:NH2	2.31	0.45
34:DQ:26:TYR:CD1	34:DQ:28:ALA:HB2	2.51	0.45
1:AA:77:G:C6	1:AA:78:G:C6	3.05	0.45
1:AA:99:U:H2'	1:AA:100:C:H6	1.82	0.45
1:AA:106:C:H2'	1:AA:107:G:C8	2.52	0.45
1:AA:392:G:H2'	1:AA:393:A:C8	2.52	0.45
1:AA:479:C:H2'	1:AA:480:U:H6	1.82	0.45
1:AA:657:G:C2	1:AA:750:G:C5	3.05	0.45
1:AA:1028:C:C5	1:AA:1033:G:O6	2.70	0.45
1:AA:1047:G:O2'	1:AA:1215:G:O2'	2.30	0.45
1:AA:1157:A:H8	1:AA:1158:C:N3	2.14	0.45
1:AA:1205:U:H2'	1:AA:1206:G:C8	2.52	0.45
1:AA:1376:U:O5'	7:AG:94:ARG:NH2	2.50	0.45
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.17	0.45
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	1.99	0.45
9:AI:15:ALA:HB3	9:AI:76:ALA:O	2.17	0.45
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.16	0.45
9:AI:105:ASP:OD1	9:AI:105:ASP:N	2.50	0.45
12:AL:85:ILE:HA	12:AL:85:ILE:HD13	1.66	0.45
14:AN:47:LEU:HD22	14:AN:50:LYS:HD3	1.98	0.45
15:AO:75:PRO:O	15:AO:77:ARG:N	2.50	0.45
17:AQ:48:GLU:HG3	17:AQ:50:LYS:HE3	1.99	0.45
23:BA:671:C:H2'	23:BA:672:C:C6	2.52	0.45
23:BA:2591:C:OP1	25:BD:239:ARG:HG2	2.17	0.45
27:BF:65:TRP:HH2	27:BF:72:ARG:HH21	1.64	0.45
29:BH:71:LEU:HA	29:BH:74:ASN:HB2	1.98	0.45
30:BI:1:MET:N	30:BI:21:VAL:O	2.35	0.45
34:BQ:16:ARG:O	34:BQ:17:LEU:HD23	2.15	0.45
1:CA:600:C:H2'	1:CA:601:C:H6	1.81	0.45
1:CA:688:G:O2'	1:CA:704:A:N1	2.43	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:717:C:H6	1:CA:717:C:H5"	1.81	0.45
1:CA:994:A:N3	1:CA:994:A:H2'	2.31	0.45
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.32	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG3	2.17	0.45
3:CC:156:ARG:HD3	3:CC:193:TYR:HB2	1.99	0.45
6:CF:11:ASN:HA	6:CF:12:PRO:HD2	1.63	0.45
8:CH:9:MET:SD	8:CH:32:LYS:HG2	2.57	0.45
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.17	0.45
23:DA:637:A:H8	33:DP:117:GLU:HG3	1.82	0.45
23:DA:1009:A:O4'	38:DU:59:ARG:HG2	2.16	0.45
23:DA:1341:U:O2	41:DX:80:ILE:HD13	2.17	0.45
23:DA:1538:G:O2'	23:DA:1539:G:OP1	2.27	0.45
23:DA:2322:A:H2'	23:DA:2323:G:O4'	2.17	0.45
28:DG:47:LYS:HD3	28:DG:81:LYS:CB	2.47	0.45
34:DQ:75:THR:HA	34:DQ:89:ASN:O	2.17	0.45
41:DX:5:TYR:HD1	46:D2:33:MET:CE	2.30	0.45
44:D0:51:VAL:HG23	44:D0:81:VAL:HG23	1.97	0.45
1:AA:202:U:H3'	1:AA:203:U:C5	2.52	0.44
1:AA:925:G:H5"	1:AA:926:G:OP1	2.17	0.44
1:AA:1040:U:C4	1:AA:1041:A:N7	2.85	0.44
1:AA:1041:A:N6	1:AA:1042:G:C2	2.85	0.44
1:AA:1054:C:H2'	1:AA:1054:C:H6	1.57	0.44
1:AA:1060:C:C1'	10:AJ:53:PRO:HD2	2.47	0.44
1:AA:1127:G:C4	1:AA:1147:C:N4	2.85	0.44
1:AA:1227:A:H3'	1:AA:1228:C:C5'	2.47	0.44
1:AA:1366:C:O3'	10:AJ:60:ARG:NH2	2.48	0.44
7:AG:14:PRO:HA	7:AG:20:ASP:C	2.37	0.44
23:BA:764:A:N3	25:BD:213:ARG:NH1	2.65	0.44
23:BA:1108:U:O2'	23:BA:1109:C:O4'	2.35	0.44
23:BA:1792:G:H2'	23:BA:1793:C:H6	1.82	0.44
28:BG:121:ASN:HD21	28:BG:123:ASN:HB2	1.82	0.44
39:BV:52:VAL:HG22	39:BV:55:ALA:HB3	1.99	0.44
43:BZ:30:ASN:OD1	43:BZ:32:HIS:N	2.47	0.44
45:B1:20:ARG:HH11	45:B1:20:ARG:CG	2.27	0.44
52:B8:34:TRP:O	52:B8:36:LYS:N	2.50	0.44
1:CA:728:A:H2'	1:CA:729:A:H8	1.81	0.44
1:CA:1002:G:C2	1:CA:1039:C:C2	3.05	0.44
1:CA:1156:G:H2'	1:CA:1157:A:H5"	1.99	0.44
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.52	0.44
2:CB:204:ASN:OD1	2:CB:206:ASP:N	2.46	0.44
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:9:MET:HG3	8:CH:26:VAL:HG11	1.99	0.44
23:DA:90:U:O2'	23:DA:92:A:P	2.74	0.44
23:DA:510:C:H2'	23:DA:511:U:O4'	2.17	0.44
23:DA:1027:A:C6	23:DA:1126:A:C4	3.04	0.44
23:DA:2018:G:H2'	23:DA:2019:A:O4'	2.17	0.44
23:DA:2420:C:O5'	23:DA:2420:C:H6	2.01	0.44
25:DD:274:ARG:H	25:DD:274:ARG:HG3	1.47	0.44
27:DF:29:ASN:H	27:DF:112:MET:CE	2.30	0.44
28:DG:5:VAL:HG23	28:DG:104:GLU:OE1	2.17	0.44
30:DI:77:LEU:HD22	30:DI:104:GLN:OE1	2.17	0.44
32:DO:2:ILE:HB	32:DO:33:ALA:HB3	1.99	0.44
1:AA:49:U:H3	1:AA:362:G:H1'	1.83	0.44
1:AA:69:G:C2	1:AA:101:A:N1	2.85	0.44
1:AA:115:G:H4'	1:AA:116:A:O5'	2.17	0.44
1:AA:1006:C:P	1:AA:1037:C:O2'	2.75	0.44
1:AA:1030(B):C:C2'	1:AA:1030(C):G:H5'	2.47	0.44
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.31	0.44
1:AA:1364:U:H3'	1:AA:1365:G:C8	2.52	0.44
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.17	0.44
4:AD:112:VAL:HG13	4:AD:161:ASN:ND2	2.33	0.44
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.17	0.44
8:AH:56:LYS:HA	8:AH:57:PRO:HD2	1.86	0.44
12:AL:57:LYS:HE2	12:AL:67:THR:HG23	2.00	0.44
13:AM:31:LYS:HA	13:AM:34:LEU:HD12	1.98	0.44
23:BA:272(J):C:H2'	23:BA:274:G:O4'	2.17	0.44
23:BA:754:C:H2'	23:BA:755:C:C6	2.52	0.44
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.52	0.44
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.83	0.44
23:BA:2833:G:O2'	23:BA:2834:G:P	2.76	0.44
27:BF:88:VAL:HG23	27:BF:89:VAL:O	2.16	0.44
32:BO:2:ILE:HG13	32:BO:8:LEU:HD11	1.99	0.44
35:BR:21:TYR:OH	35:BR:43:GLU:HG2	2.16	0.44
48:B4:30:GLU:O	48:B4:31:ILE:HG13	2.17	0.44
50:B6:44:ARG:HB3	50:B6:44:ARG:HH11	1.83	0.44
1:CA:1030:C:N4	1:CA:1032:G:C4	2.85	0.44
1:CA:1034:G:N2	1:CA:1035:A:N6	2.65	0.44
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.98	0.44
7:CG:29:LYS:HZ1	7:CG:102:ARG:HE	1.65	0.44
22:CV:30:PRO:HB3	22:CV:40:TRP:CE2	2.51	0.44
23:DA:247:G:H4'	23:DA:386:G:C6	2.52	0.44
23:DA:500:G:N2	23:DA:502:A:H3'	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:723:G:H2'	23:DA:724:U:O4'	2.17	0.44
23:DA:947:G:N2	23:DA:971:C:C2	2.85	0.44
23:DA:1359:A:C6	23:DA:1372:U:O4	2.68	0.44
23:DA:2133:G:O2'	23:DA:2158:A:N1	2.43	0.44
23:DA:2236:C:C2'	23:DA:2237:G:H5'	2.47	0.44
23:DA:2320:A:H2'	23:DA:2320:A:N3	2.31	0.44
23:DA:2371:G:HO2'	50:D6:46:HIS:CE1	2.26	0.44
23:DA:2461:C:H2'	23:DA:2462:U:C6	2.52	0.44
23:DA:2574:G:N3	26:DE:143:ASN:ND2	2.66	0.44
45:D1:86:SER:OG	45:D1:89:GLU:HG2	2.16	0.44
1:AA:271:C:H2'	1:AA:272:C:H6	1.81	0.44
1:AA:344:A:H3'	1:AA:346:G:O6	2.16	0.44
1:AA:441:A:H5'	1:AA:442:C:OP2	2.17	0.44
1:AA:484:G:O2'	1:AA:485:G:OP2	2.30	0.44
1:AA:942:G:N2	1:AA:1342:C:H1'	2.32	0.44
1:AA:1027:C:N4	1:AA:1034:G:C6	2.85	0.44
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.53	0.44
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.99	0.44
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ1	1.82	0.44
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.48	0.44
9:AI:44:VAL:HA	9:AI:45:ALA:HA	1.35	0.44
10:AJ:50:ILE:HG13	10:AJ:60:ARG:HG3	2.00	0.44
19:AS:16:LEU:O	19:AS:20:LEU:HD23	2.17	0.44
19:AS:63:THR:OG1	19:AS:66:MET:HG2	2.17	0.44
21:AU:12:LYS:HE3	21:AU:19:GLY:N	2.32	0.44
23:BA:542:C:H2'	23:BA:543:C:H6	1.83	0.44
23:BA:1575:C:H2'	23:BA:1576:U:H6	1.81	0.44
23:BA:2454:G:H1'	56:BA:4395:HOH:O	2.17	0.44
23:BA:2787:C:H2'	23:BA:2788:C:H6	1.82	0.44
25:BD:38:LYS:HD2	25:BD:39:LYS:N	2.32	0.44
27:BF:107:LYS:HE2	27:BF:208:GLY:N	2.32	0.44
28:BG:27:ASN:OD1	28:BG:28:VAL:N	2.50	0.44
30:BI:4:ILE:HG21	30:BI:47:LEU:HD23	1.99	0.44
31:BN:58:ASP:OD1	31:BN:58:ASP:N	2.46	0.44
44:B0:51:VAL:HG23	44:B0:81:VAL:HG23	1.97	0.44
1:CA:192:U:H2'	1:CA:193:C:H6	1.82	0.44
1:CA:474:G:H2'	1:CA:475:G:H8	1.81	0.44
1:CA:503:C:H2'	1:CA:504:C:H6	1.83	0.44
1:CA:784:C:H4'	23:DA:1837:C:OP1	2.17	0.44
1:CA:790:A:C6	1:CA:791:G:C6	3.05	0.44
1:CA:943:U:H2'	1:CA:944:G:H8	1.83	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1097:C:H2'	1:CA:1098:C:O4'	2.17	0.44
1:CA:1151:A:C2	10:CJ:39:PRO:HG2	2.52	0.44
1:CA:1371:G:H5"	9:CI:68:GLY:HA2	2.00	0.44
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.17	0.44
1:CA:1531:A:H5'	56:CA:1772:HOH:O	2.16	0.44
7:CG:80:VAL:O	7:CG:80:VAL:HG12	2.18	0.44
8:CH:73:ASP:HA	8:CH:74:PRO:HD2	1.75	0.44
10:CJ:49:VAL:HG21	14:CN:45:ARG:CD	2.44	0.44
10:CJ:54:PHE:CE2	10:CJ:55:LYS:HG3	2.52	0.44
17:CQ:48:GLU:HG3	17:CQ:50:LYS:HE3	2.00	0.44
23:DA:652(A):A:H4'	23:DA:652(B):A:OP1	2.17	0.44
23:DA:1036:G:H1	23:DA:1119:C:N4	2.13	0.44
23:DA:1526:G:C6	23:DA:1527:G:C2	3.06	0.44
23:DA:1537:G:H2'	23:DA:1538:G:H8	1.82	0.44
23:DA:1575:C:O2'	23:DA:1576:U:H5'	2.16	0.44
23:DA:2009:G:OP1	40:DW:41:LYS:HE2	2.17	0.44
23:DA:2028:U:H2'	23:DA:2029:G:O4'	2.17	0.44
23:DA:2586:C:H1'	56:DA:3976:HOH:O	2.16	0.44
25:DD:76:PRO:HB2	25:DD:116:GLN:NE2	2.32	0.44
43:DZ:151:HIS:C	43:DZ:153:SER:H	2.20	0.44
52:D8:4:MET:HE3	52:D8:63:PRO:CG	2.47	0.44
1:AA:51:A:C6	1:AA:353:A:C2	3.06	0.44
1:AA:380:G:C2	1:AA:384:G:C6	3.04	0.44
1:AA:514:C:H2'	1:AA:515:G:H8	1.83	0.44
1:AA:932:C:H5"	7:AG:3:ARG:HH11	1.83	0.44
2:AB:20:GLU:O	2:AB:40:HIS:HB2	2.18	0.44
3:AC:8:ILE:O	3:AC:12:LEU:HG	2.17	0.44
13:AM:71:ARG:O	13:AM:75:ALA:HB3	2.18	0.44
19:AS:52:TYR:H	19:AS:57:HIS:HA	1.81	0.44
23:BA:271(Q):G:O2'	23:BA:271(R):G:P	2.75	0.44
23:BA:830:G:H4'	23:BA:831:G:OP2	2.18	0.44
23:BA:934:G:H2'	23:BA:935:C:H6	1.81	0.44
23:BA:1537:G:H2'	23:BA:1538:G:C8	2.52	0.44
23:BA:1537:G:H2'	23:BA:1538:G:H8	1.82	0.44
23:BA:1592:C:H2'	23:BA:1593:G:C8	2.53	0.44
23:BA:2140:C:H2'	23:BA:2141:G:C8	2.53	0.44
23:BA:2416:C:O5'	23:BA:2416:C:H6	2.00	0.44
25:BD:17:THR:HG23	25:BD:205:VAL:HB	1.98	0.44
28:BG:41:GLN:O	28:BG:89:GLY:HA2	2.18	0.44
31:BN:42:TRP:CD1	31:BN:48:MET:HE1	2.49	0.44
37:BT:2:ASN:O	37:BT:6:LEU:HD22	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BX:26:TYR:CE1	41:BX:89:ILE:HG13	2.52	0.44
1:CA:165:C:H2'	1:CA:166:G:H8	1.83	0.44
1:CA:189:G:C6	1:CA:189(A):C:C4	3.05	0.44
1:CA:633:G:C5	1:CA:634:C:C4	3.06	0.44
1:CA:657:G:C2	1:CA:750:G:C5	3.04	0.44
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.32	0.44
1:CA:1492:A:OP1	1:CA:1492:A:H4'	2.18	0.44
3:CC:118:GLN:HE21	3:CC:118:GLN:HB3	1.63	0.44
3:CC:182:ILE:HG23	3:CC:203:PHE:HB2	1.99	0.44
4:CD:166:LYS:HA	4:CD:178:VAL:HG11	1.99	0.44
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	1.99	0.44
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.68	0.44
13:CM:23:TYR:O	13:CM:66:LEU:HA	2.17	0.44
23:DA:192:C:O2'	23:DA:802:A:N3	2.40	0.44
23:DA:1533:G:H2'	23:DA:1534:U:O4'	2.17	0.44
23:DA:1930:G:O2'	23:DA:1931:U:P	2.76	0.44
23:DA:2186:G:N1	23:DA:2187:G:C5	2.85	0.44
23:DA:2319:G:C2	36:DS:3:ARG:HA	2.53	0.44
25:DD:97:TYR:HB2	25:DD:101:GLU:O	2.17	0.44
25:DD:184:LYS:HG3	25:DD:271:ILE:HD11	1.99	0.44
28:DG:74:LYS:O	28:DG:84:LYS:HG2	2.17	0.44
34:DQ:21:THR:HA	34:DQ:98:LYS:HB2	1.98	0.44
42:DY:68:HIS:ND1	42:DY:70:SER:HB3	2.32	0.44
43:DZ:5:LEU:HD22	43:DZ:6:LYS:N	2.32	0.44
1:AA:148:G:O2'	1:AA:149:A:H5'	2.17	0.44
1:AA:325:A:OP2	20:AT:70:SER:OG	2.25	0.44
1:AA:622:A:C8	1:AA:623:C:C5	3.06	0.44
1:AA:717:C:H5"	1:AA:717:C:H6	1.83	0.44
1:AA:888:G:H4'	1:AA:1488:G:O2'	2.18	0.44
1:AA:1030(C):G:H8	1:AA:1030(C):G:H3'	1.83	0.44
1:AA:1140:C:H2'	1:AA:1141:C:H6	1.81	0.44
1:AA:1165:C:N3	1:AA:1171:G:N2	2.60	0.44
1:AA:1320:C:C2	19:AS:36:ARG:HG3	2.52	0.44
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.17	0.44
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.99	0.44
8:AH:124:ALA:HB1	8:AH:129:VAL:O	2.16	0.44
13:AM:23:TYR:CE1	13:AM:70:LEU:HB3	2.40	0.44
20:AT:36:LEU:HD13	20:AT:36:LEU:HA	1.86	0.44
23:BA:574:C:OP1	56:BA:4003:HOH:O	2.20	0.44
23:BA:1310:G:H1'	23:BA:1611:C:H5'	1.99	0.44
23:BA:1478:G:H2'	23:BA:1479:G:H8	1.83	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2834:G:N2	23:BA:2882:A:N6	2.66	0.44
24:BB:32:C:N3	24:BB:51:G:C2	2.85	0.44
27:BF:127:GLU:HA	27:BF:196:LEU:HD12	1.98	0.44
43:BZ:98:MET:SD	43:BZ:133:ILE:HD13	2.57	0.44
50:B6:21:TYR:CE2	50:B6:38:LYS:HG2	2.52	0.44
1:CA:540:G:H2'	1:CA:541:G:O4'	2.18	0.44
1:CA:586:C:O2'	1:CA:878:G:H4'	2.17	0.44
1:CA:827:U:H5"	1:CA:828:A:OP2	2.17	0.44
1:CA:921:U:H2'	1:CA:922:G:O4'	2.17	0.44
1:CA:1459:C:H2'	1:CA:1460:A:N7	2.33	0.44
12:CL:41:ARG:HH12	12:CL:57:LYS:HE3	1.82	0.44
12:CL:124:LYS:HA	12:CL:125:PRO:HD3	1.76	0.44
23:DA:125:G:C6	51:D7:10:ARG:HG3	2.52	0.44
23:DA:249:C:O2	52:D8:12:LYS:NZ	2.40	0.44
23:DA:1141:U:OP1	31:DN:25:ARG:NH1	2.51	0.44
25:DD:245:PRO:HA	25:DD:246:PRO:HD3	1.84	0.44
26:DE:116:VAL:HG13	26:DE:122:PHE:CG	2.52	0.44
27:DF:88:VAL:HG23	27:DF:89:VAL:O	2.18	0.44
30:DI:75:LEU:HD12	30:DI:105:HIS:ND1	2.33	0.44
31:DN:23:LEU:O	31:DN:25:ARG:N	2.50	0.44
35:DR:103:ARG:NH1	35:DR:108:GLY:O	2.51	0.44
42:DY:77:PRO:HD3	42:DY:106:LEU:HD23	1.98	0.44
46:D2:53:LEU:O	46:D2:57:ILE:HG13	2.17	0.44
47:D3:4:LEU:HD23	47:D3:4:LEU:HA	1.81	0.44
48:D4:15:ILE:HB	48:D4:32:TYR:CE2	2.53	0.44
50:D6:13:CYS:HB2	50:D6:20:ASN:HD21	1.82	0.44
1:AA:176:C:H2'	1:AA:177:C:H6	1.80	0.44
1:AA:327:A:C4	1:AA:329:A:C8	3.06	0.44
1:AA:426:G:H2'	1:AA:427:U:C6	2.53	0.44
1:AA:452:A:H62	1:AA:480:U:H3	1.66	0.44
1:AA:660:G:H2'	1:AA:661:G:H8	1.80	0.44
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.18	0.44
7:AG:88:PRO:HB3	7:AG:145:ALA:HB1	1.99	0.44
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.38	0.44
20:AT:43:LEU:HB2	20:AT:52:ALA:HB2	1.99	0.44
23:BA:92:A:O2'	23:BA:93:G:H5'	2.17	0.44
23:BA:469:G:C2'	23:BA:470:A:H5"	2.47	0.44
23:BA:2287:A:C4	23:BA:2289:G:C8	3.04	0.44
23:BA:2287:A:N3	23:BA:2289:G:C8	2.86	0.44
23:BA:2822:G:N7	56:BA:4416:HOH:O	2.36	0.44
25:BD:43:ARG:HG2	25:BD:47:GLY:O	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:169:VAL:HG12	29:BH:170:ARG:N	2.33	0.44
38:BU:76:TYR:OH	38:BU:92:ARG:NH1	2.50	0.44
42:BY:67:LEU:HD23	42:BY:67:LEU:HA	1.61	0.44
43:BZ:70:LEU:HD23	43:BZ:70:LEU:HA	1.83	0.44
43:BZ:151:HIS:C	43:BZ:153:SER:H	2.21	0.44
1:CA:69:G:N1	1:CA:70:G:C5	2.86	0.44
1:CA:324:G:N2	1:CA:327:A:C8	2.86	0.44
1:CA:869:G:H4'	1:CA:872:A:O4'	2.17	0.44
1:CA:1003:G:N2	1:CA:1038:C:N3	2.65	0.44
1:CA:1102:A:C5	1:CA:1103:C:C5	3.05	0.44
1:CA:1190:G:P	3:CC:5:ILE:HG22	2.57	0.44
1:CA:1288:A:C6	1:CA:1289:A:C5	3.05	0.44
4:CD:200:GLU:O	4:CD:204:ILE:HG12	2.17	0.44
6:CF:25:ILE:CD1	6:CF:82:ARG:HE	2.31	0.44
7:CG:48:LYS:HA	7:CG:51:GLN:HB2	1.99	0.44
7:CG:64:GLN:HE22	7:CG:67:GLU:HB3	1.81	0.44
8:CH:40:ALA:HA	8:CH:45:ILE:HG13	1.99	0.44
16:CP:71:ARG:HA	16:CP:74:LEU:HB2	2.00	0.44
19:CS:63:THR:HB	19:CS:65:ASN:H	1.82	0.44
23:DA:2110:G:O2'	23:DA:2120:G:H5'	2.17	0.44
23:DA:2313:C:H5"	28:DG:91:ARG:HG3	1.98	0.44
23:DA:2723:C:O3'	35:DR:1:MET:HE3	2.18	0.44
23:DA:2820:A:C6	35:DR:4:LEU:HD11	2.53	0.44
30:DI:78:THR:N	30:DI:104:GLN:OE1	2.43	0.44
30:DI:123:LEU:H	30:DI:123:LEU:HG	1.58	0.44
34:DQ:72:LYS:HA	34:DQ:73:PRO:HD3	1.88	0.44
36:DS:110:LEU:HD12	36:DS:110:LEU:HA	1.81	0.44
37:DT:50:ILE:HG22	37:DT:102:ILE:HD11	2.00	0.44
43:DZ:19:ARG:NH1	43:DZ:84:GLU:O	2.51	0.44
43:DZ:63:ASP:OD1	43:DZ:65:GLN:HB3	2.17	0.44
50:D6:14:THR:HG21	50:D6:48:VAL:HG13	2.00	0.44
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.31	0.44
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.14	0.44
1:AA:160:A:H1'	1:AA:344:A:C5	2.53	0.44
1:AA:345:C:H4'	1:AA:346:G:C8	2.52	0.44
1:AA:474:G:C2	1:AA:475:G:C5	3.05	0.44
1:AA:1149:C:H2'	1:AA:1150:U:C2	2.53	0.44
1:AA:1260:C:N3	1:AA:1274:G:N2	2.65	0.44
3:AC:177:THR:O	3:AC:180:ALA:HB2	2.18	0.44
4:AD:105:VAL:HG12	4:AD:117:ALA:HB1	1.98	0.44
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:103:THR:HA	13:AM:107:ALA:CB	2.48	0.44
23:BA:639:U:H2'	23:BA:640:C:H6	1.76	0.44
23:BA:1922:G:H2'	23:BA:1923:U:O4'	2.18	0.44
23:BA:2114:A:O2'	23:BA:2167:U:H4'	2.17	0.44
23:BA:2169:A:O2'	23:BA:2170:A:H5'	2.18	0.44
23:BA:2315:G:C6	23:BA:2316:C:N4	2.86	0.44
37:BT:118:ARG:HH11	37:BT:118:ARG:CG	2.31	0.44
38:BU:104:GLN:H	38:BU:104:GLN:CD	2.21	0.44
1:CA:185:A:H2'	1:CA:186:C:C6	2.53	0.44
1:CA:521:G:OP1	12:CL:73:GLU:HA	2.17	0.44
1:CA:969:A:H2'	1:CA:970:C:O4'	2.17	0.44
1:CA:1206:G:C6	1:CA:1207:G:C5	3.06	0.44
1:CA:1373:G:H5"	7:CG:36:LYS:HE2	1.99	0.44
4:CD:128:VAL:CG1	4:CD:129:ASN:HD22	2.22	0.44
9:CI:28:VAL:HG22	9:CI:63:ILE:HD12	2.00	0.44
17:CQ:81:ARG:HA	17:CQ:81:ARG:HD2	1.63	0.44
23:DA:71:A:H5"	23:DA:73:A:C8	2.52	0.44
23:DA:271(Y):U:O3'	23:DA:271(Z):C:H6	2.00	0.44
23:DA:829:A:N7	23:DA:2248:C:H5'	2.33	0.44
23:DA:2038:G:O6	56:DA:3654:HOH:O	2.20	0.44
27:DF:116:ASP:CG	33:DP:1:MET:HB2	2.38	0.44
35:DR:44:LEU:HD23	35:DR:44:LEU:HA	1.86	0.44
1:AA:3:G:H4'	1:AA:4:U:OP2	2.18	0.44
1:AA:119:A:C5	1:AA:240:C:C4	3.06	0.44
1:AA:477:A:H2'	1:AA:479:C:H6	1.82	0.44
1:AA:521:G:H2'	1:AA:522:C:H6	1.83	0.44
1:AA:1015:A:C6	1:AA:1016:A:C6	3.06	0.44
1:AA:1135:U:O2'	1:AA:1137:C:H5'	2.18	0.44
1:AA:1202:G:C8	14:AN:42:ILE:HD13	2.52	0.44
1:AA:1268:A:O2'	21:AU:19:GLY:O	2.35	0.44
1:AA:1273:G:C2	1:AA:1274:G:H1'	2.53	0.44
1:AA:1332:A:H1'	13:AM:109:THR:HG23	1.99	0.44
3:AC:30:ARG:O	3:AC:33:LEU:HB3	2.18	0.44
7:AG:33:ASP:HB2	7:AG:35:LYS:HE3	1.98	0.44
7:AG:59:LEU:O	7:AG:62:PHE:HB3	2.18	0.44
16:AP:72:ARG:HG2	16:AP:73:LEU:HD23	2.00	0.44
23:BA:952:G:C6	23:BA:953:A:N7	2.86	0.44
23:BA:1406:U:H2'	23:BA:1407:C:C6	2.52	0.44
23:BA:1529:G:O2'	23:BA:1530:C:H5'	2.17	0.44
23:BA:1889:A:H2'	23:BA:1890:A:C8	2.53	0.44
23:BA:2602:A:H1'	23:BA:2603:G:C5'	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:68:LYS:O	25:BD:70:TRP:CD1	2.71	0.44
27:BF:22:ALA:HB1	27:BF:24:LEU:HD22	1.99	0.44
27:BF:181:LEU:HD12	27:BF:181:LEU:HA	1.84	0.44
37:BT:35:LYS:HB3	37:BT:35:LYS:HE2	1.74	0.44
41:BX:11:PRO:HD3	46:B2:37:PHE:CE2	2.52	0.44
41:BX:11:PRO:HD3	46:B2:37:PHE:CZ	2.52	0.44
43:BZ:183:LEU:HD23	43:BZ:183:LEU:HA	1.84	0.44
53:B9:7:VAL:HA	53:B9:34:GLN:OE1	2.18	0.44
1:CA:270:A:H2'	1:CA:271:C:C6	2.53	0.44
1:CA:858:G:O6	1:CA:869:G:H3'	2.18	0.44
1:CA:881:G:P	12:CL:12:ARG:NH2	2.89	0.44
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.41	0.44
1:CA:1492:A:N3	1:CA:1492:A:H2'	2.32	0.44
2:CB:27:LYS:HB3	2:CB:194:PRO:HD2	2.00	0.44
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	2.00	0.44
5:CE:29:GLY:HA2	5:CE:47:LYS:HA	1.99	0.44
5:CE:110:LEU:HD12	5:CE:118:ILE:HG21	1.99	0.44
16:CP:76:GLN:O	16:CP:76:GLN:HG3	2.18	0.44
18:CR:43:PHE:C	18:CR:51:LEU:HD12	2.38	0.44
23:DA:1015:G:C2'	23:DA:1016:G:H5'	2.48	0.44
23:DA:1615:C:C5	23:DA:1617:C:C4	3.06	0.44
23:DA:2418:A:H2'	23:DA:2419:U:C6	2.53	0.44
23:DA:2615:U:H2'	23:DA:2616:C:H6	1.82	0.44
36:DS:63:THR:O	36:DS:66:ALA:HB3	2.18	0.44
38:DU:27:LEU:HA	38:DU:30:LYS:HB2	2.00	0.44
1:AA:445:G:C6	1:AA:490:G:C6	3.06	0.44
1:AA:1137:C:H5'	1:AA:1138:G:N1	2.33	0.44
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.44
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.33	0.44
1:AA:1492:A:H2'	1:AA:1492:A:N3	2.32	0.44
2:AB:82:ARG:HG3	2:AB:92:TYR:CZ	2.52	0.44
16:AP:14:ASN:OD1	16:AP:16:HIS:ND1	2.50	0.44
22:AV:3:ARG:C	22:AV:5:LYS:H	2.22	0.44
23:BA:1494:A:C6	23:BA:1495:A:C6	3.06	0.44
23:BA:1592:C:H2'	23:BA:1593:G:H8	1.82	0.44
23:BA:1652:A:H2'	23:BA:1653:G:H5'	2.00	0.44
25:BD:101:GLU:OE1	25:BD:103:ARG:HD3	2.17	0.44
28:BG:107:LEU:HD23	28:BG:111:LEU:HD12	1.98	0.44
29:BH:144:VAL:O	29:BH:148:ILE:HG12	2.18	0.44
42:BY:86:ARG:NH1	42:BY:100:ALA:HB1	2.33	0.44
1:CA:99:U:H2'	1:CA:100:C:H6	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:355:C:C4	1:CA:356:A:N7	2.86	0.44
1:CA:433:C:H2'	1:CA:434:U:C6	2.53	0.44
1:CA:1127:G:C4	1:CA:1147:C:N4	2.86	0.44
1:CA:1150:U:H1'	1:CA:1280:A:C6	2.52	0.44
1:CA:1340:A:C2'	1:CA:1341:U:H5'	2.48	0.44
3:CC:123:GLN:HA	3:CC:126:ARG:HH11	1.81	0.44
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.86	0.44
23:DA:1436:G:H1'	23:DA:1477:A:O2'	2.18	0.44
23:DA:1592:C:H2'	23:DA:1593:G:C8	2.53	0.44
23:DA:1792:G:H2'	23:DA:1793:C:H6	1.81	0.44
23:DA:1833:U:H2'	23:DA:1834:U:C6	2.51	0.44
23:DA:2186:G:N2	23:DA:2187:G:C4	2.86	0.44
23:DA:2316:C:H1'	28:DG:128:ARG:NH2	2.32	0.44
23:DA:2562:U:C1'	32:DO:23:ARG:HH11	2.25	0.44
24:DB:31:C:O2'	24:DB:53:A:N6	2.51	0.44
24:DB:32:C:N3	24:DB:51:G:N2	2.65	0.44
27:DF:46:ARG:HH11	27:DF:46:ARG:CG	2.21	0.44
27:DF:150:GLY:HA2	27:DF:172:TRP:CE3	2.53	0.44
31:DN:42:TRP:CE3	38:DU:63:VAL:HG11	2.52	0.44
38:DU:106:PHE:O	38:DU:110:VAL:HG23	2.18	0.44
42:DY:102:CYS:O	42:DY:104:GLY:N	2.51	0.44
1:AA:22:G:H2'	1:AA:23:C:C6	2.53	0.43
1:AA:99:U:H2'	1:AA:100:C:C6	2.53	0.43
1:AA:933:G:N7	7:AG:3:ARG:HD2	2.32	0.43
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.17	0.43
1:AA:1303:C:H2'	1:AA:1304:G:H5'	2.01	0.43
1:AA:1305:G:C2	1:AA:1331:G:H1'	2.53	0.43
1:AA:1458:G:H5'	20:AT:31:SER:HB2	2.00	0.43
3:AC:193:TYR:CD2	3:AC:193:TYR:N	2.86	0.43
7:AG:156:TRP:N	7:AG:156:TRP:CE3	2.85	0.43
23:BA:125:G:H5"	51:B7:19:ARG:HD3	1.99	0.43
23:BA:511:U:C5	23:BA:512:G:C5	3.06	0.43
23:BA:639:U:H2'	23:BA:640:C:C5	2.53	0.43
23:BA:1106:G:H2'	23:BA:1106:G:N3	2.33	0.43
23:BA:1202:C:N4	23:BA:1203:G:C6	2.86	0.43
23:BA:1329:U:H5"	23:BA:1330:C:H5	1.83	0.43
23:BA:1858:G:H2'	23:BA:1883:G:N2	2.33	0.43
23:BA:2698:U:H2'	23:BA:2699:C:C6	2.52	0.43
26:BE:77:ILE:HD12	26:BE:195:LEU:HD13	2.00	0.43
30:BI:130:TYR:HB3	30:BI:138:ILE:HB	2.00	0.43
43:BZ:166:SER:HA	43:BZ:167:PRO:HD3	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B2:23:LYS:O	46:B2:27:GLU:HG2	2.18	0.43
1:CA:152:A:N6	1:CA:170:U:N3	2.66	0.43
1:CA:458:C:H2'	1:CA:460:G:C8	2.50	0.43
1:CA:872:A:C5	1:CA:874:G:C8	3.06	0.43
1:CA:966:G:H2'	1:CA:967:C:O4'	2.18	0.43
1:CA:1001(A):G:H2'	1:CA:1002:G:C8	2.50	0.43
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.53	0.43
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.18	0.43
7:CG:92:SER:H	7:CG:95:ARG:HD3	1.83	0.43
8:CH:92:ARG:HD3	8:CH:92:ARG:HA	1.74	0.43
13:CM:43:THR:OG1	13:CM:47:ASP:O	2.36	0.43
19:CS:58:VAL:HA	19:CS:59:PRO:HD3	1.81	0.43
23:DA:271(Q):G:O2'	23:DA:271(R):G:OP2	2.36	0.43
23:DA:1049:C:O2'	23:DA:1050:A:P	2.76	0.43
23:DA:1187:G:H5"	39:DV:81:TYR:CE2	2.53	0.43
23:DA:1310:G:H1'	23:DA:1611:C:H5'	2.00	0.43
23:DA:2356:C:O3'	44:D0:20:ARG:HD3	2.18	0.43
23:DA:2772:C:H2'	23:DA:2773:C:C6	2.53	0.43
23:DA:2833:G:H3'	23:DA:2834:G:H5"	2.00	0.43
34:DQ:66:ILE:HG12	34:DQ:104:PHE:CE2	2.53	0.43
36:DS:110:LEU:HB3	36:DS:112:PHE:HE2	1.83	0.43
43:DZ:48:PHE:CE2	43:DZ:52:SER:HA	2.53	0.43
44:D0:17:GLN:OE1	44:D0:17:GLN:HA	2.18	0.43
1:AA:514:C:H2'	1:AA:515:G:C8	2.53	0.43
1:AA:667:G:OP1	1:AA:732:C:O2'	2.27	0.43
1:AA:832:C:N4	1:AA:855:G:C6	2.86	0.43
1:AA:918:A:C6	1:AA:919:A:C6	3.06	0.43
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.17	0.43
2:AB:21:ARG:HH12	2:AB:23:ARG:HE	1.64	0.43
6:AF:15:ASP:HB2	6:AF:18:GLN:H	1.82	0.43
14:AN:24:CYS:HB2	14:AN:33:VAL:HG12	1.98	0.43
14:AN:53:LEU:HA	14:AN:54:PRO:HD3	1.53	0.43
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.17	0.43
23:BA:9:U:OP1	31:BN:115:ARG:NH2	2.51	0.43
23:BA:654:A:H2	23:BA:655:A:C2	2.36	0.43
23:BA:1288:U:C2	23:BA:1327:C:O2	2.71	0.43
36:BS:49:VAL:HG12	36:BS:73:LEU:HD12	2.00	0.43
43:BZ:14:LYS:HA	43:BZ:15:PRO:HD3	1.91	0.43
1:CA:114:U:H2'	1:CA:115:G:C8	2.53	0.43
1:CA:507:C:OP2	1:CA:508:C:O2'	2.28	0.43
1:CA:568:G:C6	1:CA:569:C:N4	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:832:C:N4	1:CA:855:G:C6	2.85	0.43
1:CA:990:C:H2'	1:CA:991:U:C6	2.53	0.43
1:CA:1013:G:H1'	1:CA:1017:G:H1	1.82	0.43
1:CA:1310:G:H1	1:CA:1327:C:N4	2.16	0.43
2:CB:40:HIS:HB3	2:CB:190:THR:HG21	1.98	0.43
7:CG:146:GLU:HG2	7:CG:149:ARG:HG3	2.00	0.43
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.53	0.43
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.21	0.43
12:CL:54:LYS:HB3	12:CL:70:ILE:HD12	1.99	0.43
16:CP:39:TYR:CD1	16:CP:73:LEU:HD13	2.53	0.43
23:DA:1914:C:H2'	23:DA:1915:U:C6	2.53	0.43
23:DA:2093:G:H1	23:DA:2196:C:H42	1.66	0.43
23:DA:2141:G:C6	23:DA:2151:G:C6	3.06	0.43
23:DA:2146:C:H4'	23:DA:2147:G:O4'	2.19	0.43
23:DA:2404:C:O3'	33:DP:77:ARG:NH2	2.51	0.43
27:DF:123:LEU:HD12	27:DF:124:LEU:N	2.33	0.43
30:DI:97:ILE:O	30:DI:101:LEU:N	2.51	0.43
31:DN:128:HIS:HA	31:DN:129:PRO:HD2	1.64	0.43
48:D4:30:GLU:O	48:D4:31:ILE:HG13	2.18	0.43
1:AA:93:G:H1'	1:AA:96:U:H5'	1.99	0.43
1:AA:118:U:C5	1:AA:288:A:C6	3.06	0.43
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.53	0.43
1:AA:658:G:H2'	1:AA:659:U:H6	1.82	0.43
1:AA:757:U:H2'	1:AA:758:G:O4'	2.19	0.43
1:AA:1098:C:C2	1:AA:1099:G:H1'	2.54	0.43
1:AA:1138:G:C6	1:AA:1140:C:H1'	2.53	0.43
1:AA:1293:G:N3	1:AA:1294:G:C8	2.86	0.43
2:AB:138:LEU:O	2:AB:142:LEU:N	2.39	0.43
3:AC:131:ARG:HA	3:AC:134:ILE:HD12	1.99	0.43
23:BA:1545:A:H2'	23:BA:1546:C:O4'	2.17	0.43
23:BA:1711:C:H2'	23:BA:1712:C:H6	1.83	0.43
23:BA:1782:C:C4	23:BA:2587:A:C2	3.06	0.43
23:BA:1885:A:H2'	23:BA:1886:C:O4'	2.19	0.43
23:BA:2146:C:H4'	23:BA:2147:G:O4'	2.18	0.43
23:BA:2387:U:H4'	44:B0:41:ARG:NH2	2.34	0.43
23:BA:2432:A:C6	45:B1:33:LYS:HB3	2.54	0.43
32:BO:4:PRO:O	32:BO:5:GLN:HB2	2.17	0.43
32:BO:71:ARG:HB3	32:BO:73:ASP:OD2	2.18	0.43
48:B4:15:ILE:HB	48:B4:32:TYR:CE2	2.53	0.43
50:B6:14:THR:HG21	50:B6:48:VAL:HG13	2.00	0.43
1:CA:345:C:H4'	1:CA:346:G:N7	2.32	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.19	0.43
1:CA:832:C:O2'	1:CA:833:U:P	2.76	0.43
1:CA:865:A:C2	1:CA:918:A:H4'	2.53	0.43
1:CA:1234:C:H2'	1:CA:1235:U:C6	2.54	0.43
1:CA:1308:U:O2'	1:CA:1309:G:H5'	2.19	0.43
2:CB:71:VAL:N	2:CB:163:PHE:O	2.46	0.43
2:CB:139:LYS:O	2:CB:143:GLU:HB2	2.18	0.43
3:CC:177:THR:HG22	3:CC:179:ARG:H	1.82	0.43
4:CD:107:ARG:O	4:CD:170:VAL:HG11	2.18	0.43
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	2.18	0.43
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.89	0.43
14:CN:13:THR:HA	14:CN:14:PRO:HD2	1.88	0.43
16:CP:54:GLU:H	16:CP:54:GLU:HG2	1.45	0.43
16:CP:55:ARG:O	16:CP:58:TYR:N	2.51	0.43
23:DA:191:A:H2'	23:DA:192:C:C6	2.53	0.43
23:DA:271(F):C:C2	23:DA:271(G):C:C6	3.06	0.43
23:DA:868:U:C4	23:DA:869:G:N7	2.86	0.43
23:DA:1047:G:H21	23:DA:1111:A:N6	2.17	0.43
23:DA:1049:C:H2'	23:DA:1050:A:C8	2.53	0.43
23:DA:1142(A):A:C4	23:DA:1144:G:C8	3.06	0.43
23:DA:2562:U:O2'	32:DO:23:ARG:HD3	2.18	0.43
25:DD:108:PRO:HG2	25:DD:111:LEU:HG	1.99	0.43
28:DG:125:PHE:HB3	28:DG:166:ASP:OD2	2.18	0.43
31:DN:38:HIS:O	38:DU:67:ALA:HB1	2.18	0.43
33:DP:138:LEU:HD23	33:DP:145:PRO:HG3	1.99	0.43
36:DS:11:LYS:O	36:DS:15:ARG:HB2	2.18	0.43
37:DT:127:ALA:HA	37:DT:129:ARG:N	2.33	0.43
41:DX:57:LEU:HD13	41:DX:78:LYS:HG2	1.99	0.43
44:D0:31:VAL:HB	44:D0:35:ASN:ND2	2.33	0.43
1:AA:107:G:H2'	1:AA:108:G:O4'	2.18	0.43
1:AA:437:U:H2'	1:AA:438:G:C8	2.54	0.43
1:AA:832:C:O2'	1:AA:833:U:P	2.77	0.43
1:AA:874:G:C5	1:AA:875:C:C5	3.07	0.43
1:AA:1053:G:H4'	1:AA:1055:A:OP1	2.18	0.43
1:AA:1255:G:O6	1:AA:1279:A:H2'	2.18	0.43
1:AA:1319:A:H4'	19:AS:4:SER:HA	2.00	0.43
1:AA:1332:A:C2'	1:AA:1333:A:H5'	2.49	0.43
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.83	0.43
1:AA:1492:A:H4'	1:AA:1492:A:OP1	2.18	0.43
2:AB:61:LEU:HD23	2:AB:68:ILE:HD11	2.00	0.43
4:AD:111:ALA:HB1	4:AD:116:GLN:HG2	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	2.01	0.43
9:AI:71:SER:HA	9:AI:74:ILE:HD12	1.99	0.43
10:AJ:50:ILE:HA	10:AJ:59:SER:O	2.18	0.43
12:AL:93:LEU:HD23	12:AL:93:LEU:HA	1.79	0.43
19:AS:35:SER:C	19:AS:51:VAL:HG11	2.38	0.43
20:AT:51:GLU:O	20:AT:55:ILE:HG12	2.18	0.43
23:BA:354:G:H2'	23:BA:355:G:C8	2.53	0.43
23:BA:448:U:O4	23:BA:583:G:H1'	2.18	0.43
23:BA:603:A:C8	23:BA:655:A:C6	3.06	0.43
23:BA:1501:C:O4'	25:BD:100:GLY:HA2	2.17	0.43
28:BG:44:GLY:O	28:BG:47:LYS:HG3	2.18	0.43
37:BT:24:PRO:HA	37:BT:49:VAL:O	2.17	0.43
39:BV:22:VAL:HG23	39:BV:23:GLU:O	2.18	0.43
39:BV:35:LEU:HB2	39:BV:57:VAL:CG1	2.48	0.43
47:B3:6:VAL:HG13	47:B3:56:VAL:HG13	1.99	0.43
1:CA:513:C:H2'	1:CA:514:C:C6	2.53	0.43
1:CA:1147:C:H2'	1:CA:1148:U:H6	1.82	0.43
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.18	0.43
11:CK:48:ILE:O	11:CK:48:ILE:HG12	2.19	0.43
14:CN:44:LEU:HD12	14:CN:48:ALA:HB2	2.00	0.43
23:DA:836:G:H5"	23:DA:837:C:OP2	2.17	0.43
23:DA:1639:U:O2'	23:DA:1640:C:H5"	2.18	0.43
23:DA:1676:A:N7	56:DA:4078:HOH:O	2.36	0.43
23:DA:2273:A:O2'	23:DA:2274:A:H5'	2.19	0.43
27:DF:32:LEU:HB3	27:DF:112:MET:HE1	2.00	0.43
28:DG:64:THR:OG1	28:DG:65:GLY:N	2.51	0.43
28:DG:166:ASP:O	28:DG:170:ARG:N	2.37	0.43
36:DS:24:LEU:HD23	36:DS:24:LEU:HA	1.84	0.43
38:DU:17:ILE:HD13	38:DU:17:ILE:HA	1.86	0.43
1:AA:263:A:OP1	20:AT:79:ARG:NH1	2.52	0.43
1:AA:324:G:N2	1:AA:327:A:C8	2.86	0.43
1:AA:433:C:H2'	1:AA:434:U:C6	2.54	0.43
1:AA:658:G:C4	1:AA:659:U:C5	3.07	0.43
1:AA:777:A:C2	11:AK:119:CYS:HB3	2.53	0.43
1:AA:1052:U:H3'	1:AA:1053:G:H5"	2.00	0.43
1:AA:1319:A:H62	1:AA:1361:G:H1'	1.82	0.43
1:AA:1368:G:H2'	1:AA:1369:C:H6	1.82	0.43
1:AA:1443:G:H1	1:AA:1459:C:C2'	2.30	0.43
1:AA:1491:G:H5"	1:AA:1492:A:OP2	2.18	0.43
2:AB:163:PHE:HD1	2:AB:164:VAL:H	1.66	0.43
5:AE:39:GLY:O	5:AE:69:VAL:HG12	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:17:GLY:HA2	11:AK:35:PRO:HD3	2.00	0.43
11:AK:20:TYR:CE2	11:AK:83:ILE:HD12	2.54	0.43
12:AL:79:GLU:HG2	12:AL:80:HIS:ND1	2.34	0.43
15:AO:63:ARG:NH1	15:AO:87:ILE:HD11	2.33	0.43
21:AU:22:ARG:N	21:AU:23:PRO:HD3	2.34	0.43
23:BA:583:G:OP2	38:BU:10:ARG:HD2	2.18	0.43
23:BA:922:U:H2'	23:BA:923:C:C6	2.54	0.43
23:BA:1142(A):A:C4	23:BA:1144:G:C8	3.07	0.43
23:BA:1486:A:C4	23:BA:1487:G:C8	3.06	0.43
24:BB:29:A:OP2	36:BS:32:LEU:HD12	2.18	0.43
36:BS:29:PHE:CD2	36:BS:30:ARG:N	2.87	0.43
38:BU:25:TRP:O	38:BU:28:ARG:HB2	2.18	0.43
1:CA:203:U:H3'	1:CA:203:U:P	2.59	0.43
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.36	0.43
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.01	0.43
1:CA:830:G:H2'	1:CA:831:U:O4'	2.19	0.43
1:CA:922:G:H1'	5:CE:19:MET:HB2	2.00	0.43
1:CA:996:A:H2	1:CA:1045:C:H2'	1.84	0.43
1:CA:1076:C:N4	1:CA:1081:G:H1	2.15	0.43
1:CA:1089:G:C5	1:CA:1090:U:C4	3.06	0.43
1:CA:1127:G:H1'	1:CA:1148:U:N3	2.34	0.43
1:CA:1279:A:H61	3:CC:26:LYS:NZ	2.16	0.43
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.53	0.43
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.18	0.43
3:CC:52:LEU:O	3:CC:52:LEU:HG	2.18	0.43
4:CD:112:VAL:HG13	4:CD:161:ASN:ND2	2.33	0.43
5:CE:143:ARG:NH1	8:CH:77:GLU:OE2	2.52	0.43
6:CF:91:VAL:HG21	18:CR:72:ARG:HH12	1.84	0.43
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	2.01	0.43
23:DA:375:C:H2'	23:DA:376:C:C6	2.54	0.43
23:DA:1210:A:H4'	23:DA:1211:U:O5'	2.18	0.43
23:DA:1396:U:H5"	56:DA:4129:HOH:O	2.17	0.43
23:DA:1537:G:H2'	23:DA:1538:G:C8	2.53	0.43
23:DA:2262:U:H4'	23:DA:2328:A:C2	2.54	0.43
23:DA:2572:A:C8	26:DE:144:ARG:HD2	2.54	0.43
24:DB:113:G:H2'	24:DB:114:C:H6	1.82	0.43
31:DN:112:LEU:O	31:DN:115:ARG:N	2.48	0.43
38:DU:104:GLN:CD	38:DU:104:GLN:H	2.22	0.43
44:D0:72:ARG:CB	44:D0:75:LEU:HB2	2.48	0.43
1:AA:373:A:N3	1:AA:481:G:N2	2.50	0.43
1:AA:887:G:H1	1:AA:910:C:H42	1.67	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:964:A:H2'	1:AA:965:A:H8	1.81	0.43
1:AA:973:G:H4'	10:AJ:54:PHE:O	2.18	0.43
1:AA:1027:C:C4	1:AA:1034:G:N1	2.86	0.43
1:AA:1150:U:H3'	1:AA:1151:A:C8	2.53	0.43
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.19	0.43
1:AA:1349:A:H61	7:AG:34:GLY:HA2	1.84	0.43
2:AB:215:LEU:HD22	2:AB:215:LEU:HA	1.74	0.43
3:AC:183:ASP:HB3	3:AC:202:ILE:HB	1.99	0.43
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.17	0.43
8:AH:9:MET:SD	8:AH:32:LYS:HG2	2.58	0.43
8:AH:44:PHE:HB3	8:AH:80:ILE:HD11	2.00	0.43
12:AL:32:PHE:CE1	12:AL:86:ARG:HG3	2.50	0.43
14:AN:29:ARG:HH11	14:AN:42:ILE:CD1	2.31	0.43
23:BA:139(A):G:N2	56:BA:3825:HOH:O	2.50	0.43
23:BA:143:G:H2'	23:BA:143(A):C:C6	2.54	0.43
23:BA:720:C:H2'	23:BA:721:C:C6	2.54	0.43
23:BA:819:A:H2'	23:BA:820:A:H5'	2.01	0.43
23:BA:901:A:H2'	23:BA:902:C:C6	2.54	0.43
23:BA:2304:G:H21	28:BG:156:ASP:CG	2.22	0.43
23:BA:2562:U:O2'	32:BO:23:ARG:HD3	2.18	0.43
23:BA:2834:G:H5"	23:BA:2834:G:C8	2.52	0.43
30:BI:77:LEU:HD21	30:BI:101:LEU:HA	2.00	0.43
35:BR:103:ARG:HH12	35:BR:110:PRO:HD3	1.84	0.43
37:BT:118:ARG:HG3	37:BT:118:ARG:NH1	2.30	0.43
1:CA:60:A:P	1:CA:60:A:H8	2.41	0.43
1:CA:380:G:C2	1:CA:384:G:C6	3.06	0.43
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.41	0.43
1:CA:919:A:H8	1:CA:919:A:O5'	2.02	0.43
1:CA:929:G:C6	1:CA:930:C:C4	3.06	0.43
1:CA:1316:G:N2	1:CA:1319:A:O5'	2.52	0.43
1:CA:1442:G:N7	1:CA:1442(A):G:C5	2.87	0.43
12:CL:70:ILE:HG23	12:CL:100:ILE:HD12	2.00	0.43
13:CM:56:LEU:O	13:CM:59:TYR:HB3	2.18	0.43
23:DA:265:A:H1'	23:DA:266:G:O4'	2.19	0.43
23:DA:459:U:H5"	51:D7:40:TRP:CD2	2.53	0.43
23:DA:839:U:H2'	23:DA:840:C:C6	2.53	0.43
23:DA:904:C:H2'	23:DA:905:U:C6	2.54	0.43
23:DA:1885:A:H2'	23:DA:1886:C:O4'	2.18	0.43
23:DA:2109:U:C6	23:DA:2109:U:C3'	3.01	0.43
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.54	0.43
25:DD:33:LEU:HA	25:DD:33:LEU:HD23	1.39	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:101:LEU:HA	27:DF:101:LEU:HD12	1.79	0.43
38:DU:43:GLY:HA3	39:DV:73:SER:OG	2.19	0.43
44:D0:65:GLY:CA	44:D0:81:VAL:HG12	2.46	0.43
1:AA:203:U:H3'	1:AA:203:U:P	2.59	0.43
1:AA:328:C:H4'	1:AA:329:A:H5'	1.99	0.43
1:AA:827:U:H5"	1:AA:828:A:OP2	2.18	0.43
1:AA:1152:A:H2'	1:AA:1153:C:O4'	2.17	0.43
1:AA:1261:A:H5'	1:AA:1284:C:OP1	2.18	0.43
1:AA:1403:C:H6	1:AA:1403:C:O5'	2.01	0.43
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.18	0.43
13:AM:91:ARG:NE	13:AM:97:PRO:O	2.40	0.43
16:AP:54:GLU:H	16:AP:54:GLU:HG2	1.50	0.43
23:BA:271(M):G:HO2'	23:BA:271(N):U:H3'	1.84	0.43
23:BA:1639:U:H2'	23:BA:1640:C:H5"	2.01	0.43
23:BA:1783:A:C2	23:BA:2587:A:C5	3.06	0.43
23:BA:2104:G:O6	23:BA:2186:G:C4	2.72	0.43
23:BA:2109:U:C3'	23:BA:2109:U:C6	3.01	0.43
24:BB:33:G:C2	24:BB:50:G:C2	3.06	0.43
28:BG:176:LEU:HD23	28:BG:176:LEU:HA	1.90	0.43
30:BI:61:ARG:N	30:BI:61:ARG:HD2	2.34	0.43
33:BP:29:LYS:HB3	33:BP:30:THR:H	1.60	0.43
36:BS:56:LEU:HD23	36:BS:56:LEU:HA	1.81	0.43
43:BZ:141:VAL:O	43:BZ:144:LEU:HB2	2.19	0.43
48:B4:15:ILE:O	48:B4:33:VAL:N	2.49	0.43
50:B6:11:LEU:HB2	50:B6:21:TYR:HB2	1.99	0.43
1:CA:91:C:H2'	1:CA:92:C:C6	2.54	0.43
1:CA:826:C:H2'	1:CA:827:U:H6	1.84	0.43
1:CA:953:G:H2'	1:CA:954:G:O4'	2.18	0.43
1:CA:1247:U:H1'	1:CA:1291:G:H22	1.84	0.43
2:CB:118:LEU:HA	2:CB:121:LEU:HB3	2.00	0.43
2:CB:216:SER:O	2:CB:220:ASP:N	2.40	0.43
3:CC:20:SER:HB2	3:CC:22:TRP:NE1	2.33	0.43
3:CC:111:LEU:HA	3:CC:202:ILE:HG21	1.99	0.43
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.19	0.43
23:DA:24:G:H2'	23:DA:25:U:O4'	2.19	0.43
23:DA:1668:A:C8	23:DA:1674:G:C6	3.07	0.43
23:DA:1754:C:OP1	37:DT:96:ARG:NH1	2.45	0.43
23:DA:2350:C:H2'	23:DA:2351:G:O4'	2.18	0.43
23:DA:2815:C:H2'	23:DA:2816:C:C6	2.53	0.43
26:DE:116:VAL:HG13	26:DE:122:PHE:HB2	2.01	0.43
27:DF:181:LEU:HB3	27:DF:205:ARG:NH2	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DQ:1:MET:HG2	34:DQ:2:LEU:H	1.83	0.43
37:DT:35:LYS:HB3	37:DT:35:LYS:HE2	1.76	0.43
43:DZ:128:VAL:HG12	43:DZ:129:SER:N	2.33	0.43
1:AA:557:G:C6	1:AA:558:G:C6	3.06	0.43
1:AA:1033:G:H2'	1:AA:1033:G:N3	2.33	0.43
1:AA:1119:C:OP1	9:AI:83:ARG:NH2	2.52	0.43
1:AA:1157:A:H4'	1:AA:1158:C:C5'	2.42	0.43
1:AA:1244:C:OP1	21:AU:9:ARG:HB2	2.19	0.43
1:AA:1277:C:H1'	1:AA:1282:C:O2	2.18	0.43
1:AA:1360:A:H3'	1:AA:1361:G:H8	1.84	0.43
5:AE:60:TYR:O	5:AE:63:ARG:HB2	2.19	0.43
7:AG:97:GLN:HA	7:AG:100:ALA:HB3	2.00	0.43
7:AG:104:LEU:HD12	7:AG:123:GLU:HG3	2.00	0.43
13:AM:94:ARG:NH2	19:AS:80:TYR:HB3	2.32	0.43
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.54	0.43
23:BA:1779:U:C2	23:BA:1783:A:N7	2.87	0.43
23:BA:2009:G:OP1	40:BW:41:LYS:HE2	2.19	0.43
23:BA:2281:C:O2'	23:BA:2282:G:H5'	2.18	0.43
23:BA:2420:C:OP2	52:B8:33:ASN:HB2	2.18	0.43
23:BA:2478:A:H5'	53:B9:31:LYS:HE2	2.00	0.43
28:BG:7:LEU:HD11	28:BG:107:LEU:HD12	1.99	0.43
32:BO:120:GLU:HG2	32:BO:122:LEU:HG	2.00	0.43
36:BS:65:VAL:O	36:BS:69:VAL:HG12	2.19	0.43
45:B1:40:ARG:HE	45:B1:40:ARG:HB2	1.57	0.43
50:B6:45:LYS:HG3	50:B6:46:HIS:O	2.19	0.43
1:CA:325:A:H2'	1:CA:326:G:O4'	2.18	0.43
1:CA:445:G:C6	1:CA:490:G:C6	3.07	0.43
1:CA:538:G:OP1	12:CL:114:LYS:N	2.44	0.43
1:CA:542:G:H2'	1:CA:543:C:C6	2.53	0.43
1:CA:954:G:C2	1:CA:955:U:C2	3.07	0.43
1:CA:1090:U:O5'	1:CA:1090:U:H6	2.01	0.43
1:CA:1130:A:H1'	1:CA:1146:A:C2	2.53	0.43
1:CA:1135:U:H4'	1:CA:1136:U:C4	2.53	0.43
1:CA:1207:G:H2'	1:CA:1208:C:O4'	2.18	0.43
1:CA:1239:A:H61	1:CA:1296:C:H2'	1.84	0.43
1:CA:1493:A:O2'	1:CA:1494:G:H8	2.02	0.43
2:CB:157:ARG:HG2	2:CB:158:LEU:N	2.33	0.43
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.99	0.43
7:CG:101:LEU:O	7:CG:105:VAL:HG23	2.18	0.43
23:DA:662:G:H5'	33:DP:14:LYS:O	2.19	0.43
23:DA:953:A:OP2	34:DQ:16:ARG:NE	2.47	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1029:A:H8	23:DA:1029:A:O5'	2.01	0.43
23:DA:1383:C:H6	23:DA:1383:C:O5'	2.01	0.43
23:DA:1500:G:N2	25:DD:99:ASP:O	2.48	0.43
23:DA:1535:A:OP1	23:DA:1535:A:H3'	2.19	0.43
23:DA:1681:G:H1'	23:DA:1762:A:H2'	2.00	0.43
23:DA:2056:G:C2	23:DA:2057:A:C8	3.06	0.43
23:DA:2186:G:C2	23:DA:2187:G:C5	3.07	0.43
23:DA:2880:C:O3'	35:DR:90:ARG:NH1	2.51	0.43
25:DD:71:ASP:HB3	25:DD:103:ARG:HH22	1.83	0.43
28:DG:107:LEU:HD23	28:DG:111:LEU:HD12	2.01	0.43
30:DI:134:PRO:O	30:DI:136:VAL:N	2.51	0.43
37:DT:2:ASN:O	37:DT:6:LEU:HD22	2.19	0.43
37:DT:27:THR:HB	37:DT:90:GLN:HB3	2.00	0.43
43:DZ:98:MET:SD	43:DZ:133:ILE:HD13	2.59	0.43
47:D3:11:SER:OG	47:D3:13:ILE:HG13	2.19	0.43
51:D7:27:GLY:O	51:D7:30:VAL:HB	2.17	0.43
1:AA:44:G:C6	1:AA:45:U:C2	3.07	0.43
1:AA:49:U:O4	1:AA:365:U:H5	2.02	0.43
1:AA:78:G:N2	1:AA:92:C:O2	2.52	0.43
1:AA:113:G:H2'	1:AA:114:U:C6	2.54	0.43
1:AA:175:C:H2'	1:AA:176:C:C6	2.54	0.43
1:AA:472:A:H4'	16:AP:80:PHE:O	2.19	0.43
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.43
1:AA:1006:C:C2	1:AA:1023:G:N1	2.76	0.43
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.53	0.43
1:AA:1237:C:H5"	1:AA:1238:A:O4'	2.19	0.43
1:AA:1363:C:H5'	1:AA:1363(A):A:O5'	2.19	0.43
2:AB:22:LYS:H	2:AB:40:HIS:HD2	1.67	0.43
2:AB:79:ASP:O	2:AB:82:ARG:N	2.51	0.43
5:AE:66:MET:O	5:AE:67:VAL:HB	2.19	0.43
11:AK:31:THR:HG22	11:AK:42:TRP:CB	2.49	0.43
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.84	0.43
15:AO:48:LYS:HD2	15:AO:48:LYS:HA	1.88	0.43
16:AP:71:ARG:HA	16:AP:74:LEU:HB2	2.00	0.43
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.19	0.43
23:BA:94:C:H5"	23:BA:94(A):G:OP2	2.19	0.43
23:BA:107:C:H2'	23:BA:108:U:C6	2.53	0.43
23:BA:861:A:H2'	23:BA:862:G:O4'	2.18	0.43
23:BA:1681:G:H1'	23:BA:1762:A:H2'	2.01	0.43
23:BA:1783:A:OP1	56:BA:3901:HOH:O	2.21	0.43
23:BA:2747:G:O6	23:BA:2755:C:H5"	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:181:LEU:HD12	26:BE:181:LEU:HA	1.72	0.43
30:BI:62:LYS:O	30:BI:66:GLU:HG2	2.19	0.43
1:CA:613:C:N4	1:CA:627:G:H1	2.16	0.43
1:CA:1036:G:H5"	1:CA:1037:C:H5	1.84	0.43
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.84	0.43
1:CA:1291:G:C6	1:CA:1292:U:C4	3.07	0.43
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.53	0.43
2:CB:149:LEU:HB3	2:CB:152:PHE:CB	2.49	0.43
3:CC:46:GLU:H	3:CC:46:GLU:CD	2.21	0.43
5:CE:6:PHE:HD2	5:CE:6:PHE:HA	1.74	0.43
7:CG:32:ARG:O	7:CG:35:LYS:HG3	2.19	0.43
23:DA:601:C:O2	23:DA:605:C:H4'	2.19	0.43
23:DA:1211:U:H4'	23:DA:1212:G:OP2	2.18	0.43
23:DA:1324:G:C5	23:DA:1328:G:O6	2.72	0.43
23:DA:1486:A:C4	23:DA:1487:G:C8	3.06	0.43
23:DA:2483:C:H2'	23:DA:2484:G:O4'	2.19	0.43
24:DB:38:C:H2'	24:DB:39:A:O4'	2.19	0.43
26:DE:51:PHE:CE2	26:DE:52:LEU:HD13	2.54	0.43
27:DF:110:LEU:HD21	27:DF:181:LEU:HG	2.00	0.43
34:DQ:38:GLU:O	34:DQ:127:ILE:HG21	2.19	0.43
36:DS:80:LEU:HD12	36:DS:80:LEU:HA	1.76	0.43
43:DZ:79:ARG:HD2	43:DZ:80:ARG:HH21	1.83	0.43
51:D7:34:ARG:NH1	51:D7:39:ARG:HG3	2.34	0.43
1:AA:1060:C:C5'	10:AJ:51:ARG:HB3	2.49	0.43
1:AA:1120:G:H2'	1:AA:1120:G:N3	2.33	0.43
2:AB:132:LYS:HA	2:AB:135:GLN:NE2	2.34	0.43
7:AG:51:GLN:CG	7:AG:58:PRO:HD3	2.49	0.43
7:AG:71:PRO:HD2	7:AG:96:GLN:HA	2.00	0.43
7:AG:121:ALA:HB3	7:AG:122:HIS:CD2	2.54	0.43
10:AJ:44:VAL:HG13	10:AJ:64:GLU:HG3	2.01	0.43
13:AM:23:TYR:O	13:AM:25:ILE:HD12	2.18	0.43
23:BA:2157:G:H2'	23:BA:2158:A:C8	2.54	0.43
23:BA:2191:G:H5'	23:BA:2192:G:OP2	2.19	0.43
24:BB:66:A:H61	24:BB:108:U:H2'	1.83	0.43
27:BF:106:ARG:H	27:BF:106:ARG:HG2	1.50	0.43
28:BG:153:ARG:HE	28:BG:153:ARG:HB2	1.51	0.43
49:B5:35:GLU:HG3	49:B5:51:TYR:CB	2.49	0.43
50:B6:44:ARG:HB3	50:B6:44:ARG:NH1	2.34	0.43
52:B8:61:LEU:C	52:B8:63:PRO:HD3	2.40	0.43
1:CA:31:G:H5'	1:CA:306:G:N2	2.34	0.43
1:CA:586:C:C2'	1:CA:587:G:H5'	2.49	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1259:C:H2'	1:CA:1283:G:O2'	2.19	0.43
1:CA:1266:G:N2	1:CA:1268:A:C8	2.85	0.43
4:CD:205:GLU:OE1	5:CE:100:VAL:HB	2.19	0.43
7:CG:70:LYS:HA	7:CG:71:PRO:HD3	1.76	0.43
10:CJ:50:ILE:HG23	10:CJ:57:LYS:HA	2.00	0.43
16:CP:60:LEU:HD23	16:CP:60:LEU:HA	1.91	0.43
20:CT:41:ILE:H	20:CT:41:ILE:HG13	1.26	0.43
23:DA:89:G:OP2	23:DA:90:U:H3'	2.19	0.43
23:DA:107:C:C2	23:DA:108:U:C5	3.07	0.43
23:DA:1300:U:H4'	23:DA:1301:A:H5"	2.01	0.43
23:DA:1638:C:H5"	23:DA:2710:C:O2'	2.19	0.43
23:DA:1858:G:H2'	23:DA:1883:G:N2	2.34	0.43
23:DA:2169:A:O2'	23:DA:2170:A:H5'	2.18	0.43
26:DE:174:ASP:OD2	26:DE:175:VAL:N	2.52	0.43
27:DF:32:LEU:O	27:DF:35:GLU:N	2.52	0.43
27:DF:74:ARG:H	27:DF:74:ARG:HG3	1.27	0.43
28:DG:137:GLU:HG3	28:DG:152:LEU:HD21	1.99	0.43
46:D2:50:ILE:O	46:D2:51:ARG:CB	2.63	0.43
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.36	0.42
1:AA:669:U:C2	1:AA:670:G:C8	3.07	0.42
1:AA:731:G:OP1	1:AA:766:A:H1'	2.18	0.42
1:AA:865:A:H8	1:AA:865:A:O5'	2.02	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.54	0.42
1:AA:1001:A:C6	1:AA:1041:A:C5	3.07	0.42
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.19	0.42
10:AJ:45:ARG:O	10:AJ:65:LEU:N	2.42	0.42
14:AN:7:ILE:HD13	14:AN:8:GLU:HG3	2.01	0.42
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.19	0.42
21:AU:9:ARG:CZ	21:AU:10:ARG:HH22	2.32	0.42
23:BA:89:G:OP2	23:BA:90:U:H3'	2.19	0.42
23:BA:634:C:H2'	23:BA:635:C:C6	2.54	0.42
23:BA:729:G:C6	25:BD:208:LYS:HB2	2.53	0.42
23:BA:1669:A:H5"	23:BA:2550:G:OP1	2.20	0.42
23:BA:1685:C:H2'	23:BA:1686:C:C6	2.54	0.42
23:BA:2275:C:H5'	23:BA:2275:C:C6	2.53	0.42
23:BA:2287:A:O2'	23:BA:2288:A:H3'	2.19	0.42
23:BA:2317:C:H2'	23:BA:2318:G:C5'	2.49	0.42
23:BA:2378:A:H4'	36:BS:23:ARG:NH1	2.33	0.42
24:BB:50:G:H5"	36:BS:61:ASN:ND2	2.33	0.42
25:BD:26:LYS:HE2	25:BD:28:GLU:O	2.19	0.42
27:BF:149:ASP:OD2	27:BF:149:ASP:N	2.40	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:35:LEU:N	30:BI:35:LEU:HD23	2.34	0.42
31:BN:42:TRP:HA	31:BN:48:MET:SD	2.59	0.42
38:BU:61:TRP:CH2	38:BU:93:LYS:HB2	2.53	0.42
1:CA:227:G:H2'	1:CA:228:A:C8	2.54	0.42
1:CA:602:A:C6	1:CA:637:G:C6	3.07	0.42
1:CA:1356:G:C6	1:CA:1357:A:C6	3.07	0.42
2:CB:84:GLU:HA	2:CB:87:ARG:HB3	2.00	0.42
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.39	0.42
12:CL:85:ILE:HD13	12:CL:85:ILE:HA	1.70	0.42
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.19	0.42
23:DA:10:G:H1'	23:DA:2801(A):A:C2	2.54	0.42
23:DA:639:U:O2'	23:DA:640:C:H5'	2.19	0.42
23:DA:952:G:C6	23:DA:953:A:N7	2.87	0.42
23:DA:1268:A:C2	23:DA:2013:A:C4	3.07	0.42
23:DA:1711:C:H2'	23:DA:1712:C:C6	2.54	0.42
23:DA:1721:G:C2	23:DA:1739:U:OP2	2.72	0.42
25:DD:242:ARG:N	25:DD:242:ARG:HD3	2.33	0.42
32:DO:106:LEU:HD23	32:DO:106:LEU:HA	1.78	0.42
1:AA:124:G:C5	1:AA:125:U:C4	3.07	0.42
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.35	0.42
1:AA:1106:G:C6	1:AA:1107:C:C4	3.07	0.42
1:AA:1306:A:H1'	1:AA:1332:A:N3	2.34	0.42
1:AA:1382:C:C2'	1:AA:1383:C:H5'	2.49	0.42
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.54	0.42
4:AD:61:LYS:O	4:AD:65:ARG:HB2	2.19	0.42
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.19	0.42
5:AE:133:TYR:O	5:AE:137:GLU:HB2	2.19	0.42
7:AG:31:MET:O	7:AG:32:ARG:HD3	2.18	0.42
9:AI:19:LEU:HD23	9:AI:19:LEU:HA	1.70	0.42
10:AJ:38:ILE:HA	10:AJ:39:PRO:HD3	1.75	0.42
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	2.01	0.42
13:AM:14:ARG:N	13:AM:44:ARG:HD3	2.34	0.42
21:AU:12:LYS:HZ2	21:AU:17:THR:C	2.21	0.42
23:BA:657:U:H2'	23:BA:658:C:C6	2.54	0.42
23:BA:780:G:C2	23:BA:782:A:C2	3.07	0.42
23:BA:945:A:C2	23:BA:2448:A:C4	3.08	0.42
23:BA:1297:C:OP1	23:BA:2710:C:H4'	2.19	0.42
23:BA:2111:C:C4	23:BA:2145:C:C2	3.07	0.42
23:BA:2712:U:H1'	23:BA:2712(A):A:C8	2.55	0.42
24:BB:88:C:H2'	24:BB:89:G:O4'	2.20	0.42
27:BF:32:LEU:HD12	27:BF:32:LEU:HA	1.68	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:145:VAL:HG12	30:BI:146:ALA:N	2.34	0.42
1:CA:375:U:H2'	1:CA:376:G:C8	2.54	0.42
1:CA:512:U:H2'	1:CA:513:C:H6	1.83	0.42
1:CA:658:G:C5	1:CA:659:U:C5	3.07	0.42
1:CA:960:U:H4'	1:CA:961:U:C5'	2.49	0.42
1:CA:1089:G:C6	1:CA:1090:U:N3	2.87	0.42
1:CA:1442:G:H2'	1:CA:1442(A):G:C8	2.54	0.42
23:DA:236:C:H2'	23:DA:237:C:H6	1.84	0.42
23:DA:415:A:H2'	23:DA:416:C:H6	1.83	0.42
23:DA:642:G:H21	23:DA:646:A:H2	1.66	0.42
23:DA:805:G:H4'	33:DP:38:GLN:HB3	2.00	0.42
23:DA:1419:A:C8	23:DA:1421:G:C6	3.08	0.42
23:DA:1529:G:H8	23:DA:1529:G:O5'	2.02	0.42
23:DA:1796:U:H4'	25:DD:256:GLY:N	2.33	0.42
23:DA:1805:U:O2	25:DD:50:THR:HB	2.19	0.42
23:DA:1833:U:O2'	23:DA:1969:A:N1	2.41	0.42
23:DA:1900:A:N1	23:DA:1970:A:C6	2.88	0.42
23:DA:2108:C:C3'	23:DA:2108:C:C6	3.02	0.42
23:DA:2294:C:OP1	36:DS:89:ARG:NH1	2.43	0.42
23:DA:2557:G:H2'	23:DA:2558:C:H6	1.84	0.42
24:DB:57:A:H1'	28:DG:29:TRP:HB2	2.01	0.42
26:DE:21:VAL:HA	26:DE:22:PRO:HD2	1.74	0.42
26:DE:93:VAL:H	26:DE:93:VAL:HG22	1.55	0.42
28:DG:24:GLY:O	28:DG:26:GLN:NE2	2.53	0.42
28:DG:43:LEU:HB3	28:DG:44:GLY:H	1.58	0.42
28:DG:89:GLY:O	28:DG:90:LEU:HD23	2.19	0.42
32:DO:3:GLN:HB2	32:DO:4:PRO:HD2	2.00	0.42
43:DZ:30:ASN:OD1	43:DZ:32:HIS:N	2.46	0.42
45:D1:15:ALA:O	45:D1:40:ARG:HG3	2.19	0.42
1:AA:21:G:P	56:AA:1895:HOH:O	2.75	0.42
1:AA:294:U:H2'	1:AA:295:C:C6	2.54	0.42
1:AA:791:G:H8	1:AA:791:G:O5'	2.03	0.42
1:AA:938:A:C2	1:AA:939:G:H1'	2.54	0.42
1:AA:1001:A:C6	1:AA:1041:A:C6	3.07	0.42
1:AA:1001:A:C6	1:AA:1001(A):G:C5	3.07	0.42
1:AA:1381:U:C2	1:AA:1382:C:H5	2.38	0.42
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.19	0.42
4:AD:21:LEU:HD21	4:AD:67:ILE:HA	2.01	0.42
9:AI:9:ARG:HD2	9:AI:104:ARG:HE	1.85	0.42
14:AN:3:ARG:HA	14:AN:6:LEU:HB2	2.00	0.42
14:AN:40:CYS:SG	14:AN:42:ILE:HB	2.59	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:548:A:H61	39:BV:19:LYS:H	1.66	0.42
23:BA:601:C:O2	23:BA:605:C:H4'	2.20	0.42
23:BA:1187:G:H5"	39:BV:81:TYR:CE2	2.55	0.42
23:BA:2287:A:C4	23:BA:2289:G:N7	2.87	0.42
23:BA:2292:C:P	36:BS:17:ARG:HH22	2.41	0.42
23:BA:2359:C:H2'	23:BA:2360:A:O4'	2.19	0.42
23:BA:2812:G:N2	23:BA:2889:C:C2	2.86	0.42
24:BB:11:C:H3'	24:BB:12:C:C6	2.54	0.42
24:BB:32:C:N3	24:BB:51:G:N2	2.67	0.42
30:BI:27:ARG:HD2	45:B1:71:TYR:CE1	2.55	0.42
30:BI:98:ALA:O	30:BI:101:LEU:N	2.52	0.42
34:BQ:21:THR:O	43:BZ:78:LYS:HD3	2.20	0.42
37:BT:50:ILE:HG22	37:BT:102:ILE:HD11	2.01	0.42
39:BV:20:LEU:HD12	39:BV:20:LEU:HA	1.79	0.42
40:BW:60:ASN:N	40:BW:60:ASN:ND2	2.67	0.42
41:BX:5:TYR:HD1	46:B2:33:MET:CE	2.32	0.42
41:BX:53:LYS:HB3	41:BX:82:GLN:HB3	2.01	0.42
44:B0:17:GLN:OE1	44:B0:17:GLN:HA	2.18	0.42
1:CA:1022:G:H2'	1:CA:1023:G:H8	1.84	0.42
1:CA:1128:C:H5'	9:CI:16:ARG:HH12	1.84	0.42
1:CA:1140:C:H2'	1:CA:1141:C:H6	1.84	0.42
1:CA:1226:C:H4'	19:CS:80:TYR:OH	2.19	0.42
1:CA:1268:A:N6	1:CA:1269:A:N6	2.67	0.42
2:CB:20:GLU:O	2:CB:40:HIS:HB2	2.20	0.42
2:CB:42:ILE:HG21	2:CB:202:PRO:O	2.19	0.42
3:CC:114:PRO:CA	3:CC:185:GLY:HA3	2.49	0.42
3:CC:137:ALA:O	3:CC:140:ARG:HB2	2.19	0.42
8:CH:39:LEU:H	8:CH:39:LEU:HD22	1.85	0.42
23:DA:1161:C:H1'	39:DV:8:GLY:O	2.19	0.42
23:DA:1827:C:H5'	23:DA:1971:A:H4'	2.01	0.42
23:DA:2065:C:H2'	23:DA:2066:C:H6	1.84	0.42
23:DA:2140:C:H2'	23:DA:2141:G:C8	2.54	0.42
27:DF:130:ALA:HB2	27:DF:142:TRP:HD1	1.84	0.42
32:DO:10:VAL:HG21	32:DO:16:ALA:HB3	1.99	0.42
50:D6:10:LEU:HD23	50:D6:22:ALA:HB2	2.01	0.42
1:AA:542:G:H2'	1:AA:543:C:C6	2.53	0.42
1:AA:788:U:H2'	1:AA:789:U:O4'	2.19	0.42
1:AA:858:G:O6	1:AA:869:G:H3'	2.19	0.42
1:AA:977:A:HO2'	1:AA:981:U:H3	1.67	0.42
1:AA:993:G:H2'	1:AA:995:C:H42	1.82	0.42
1:AA:1060:C:H5"	10:AJ:51:ARG:HB3	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1251:A:O4'	1:AA:1370:G:H4'	2.20	0.42
1:AA:1284:C:P	1:AA:1285:A:H2'	2.60	0.42
1:AA:1351:U:H4'	7:AG:33:ASP:OD1	2.19	0.42
3:AC:127:ARG:NE	3:AC:193:TYR:OH	2.52	0.42
23:BA:649:G:H2'	23:BA:650:C:O4'	2.18	0.42
23:BA:1367:A:N7	23:BA:1368:G:H1'	2.35	0.42
23:BA:1798:U:OP2	25:BD:274:ARG:NH2	2.52	0.42
23:BA:2095:C:H2'	23:BA:2096:U:O4'	2.19	0.42
23:BA:2198:A:O5'	30:BI:33:ARG:NH2	2.51	0.42
27:BF:117:ARG:HD3	27:BF:117:ARG:HA	1.87	0.42
27:BF:181:LEU:HB3	27:BF:205:ARG:NH2	2.33	0.42
30:BI:5:LEU:N	30:BI:5:LEU:HD12	2.34	0.42
30:BI:68:LEU:C	30:BI:70:GLU:N	2.73	0.42
36:BS:34:HIS:NE2	36:BS:54:LEU:HD12	2.33	0.42
1:CA:522:C:H5"	12:CL:120:TYR:HH	1.79	0.42
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.84	0.42
23:DA:30:G:O2'	23:DA:1214:A:N3	2.46	0.42
23:DA:387:U:H5"	56:DA:3740:HOH:O	2.19	0.42
23:DA:1138:G:H5"	23:DA:1139:G:OP2	2.18	0.42
23:DA:1425:G:H2'	23:DA:1426:G:O4'	2.19	0.42
23:DA:1639:U:H2'	23:DA:1640:C:H5"	2.00	0.42
23:DA:2111:C:C4	23:DA:2145:C:C2	3.08	0.42
23:DA:2287:A:N3	23:DA:2289:G:C8	2.88	0.42
23:DA:2575:C:H2'	23:DA:2578:G:O6	2.19	0.42
24:DB:7:G:H4'	36:DS:29:PHE:CD1	2.54	0.42
28:DG:33:ARG:O	28:DG:161:THR:HG22	2.19	0.42
34:DQ:21:THR:O	43:DZ:78:LYS:HD3	2.19	0.42
36:DS:34:HIS:CG	36:DS:53:SER:HG	2.31	0.42
43:DZ:67:LEU:HA	43:DZ:68:PRO:HD3	1.74	0.42
46:D2:27:GLU:HG2	46:D2:27:GLU:H	1.68	0.42
1:AA:373:A:C8	1:AA:482:A:C8	3.07	0.42
1:AA:536:C:H5"	1:AA:537:G:OP2	2.18	0.42
1:AA:839:U:H5"	1:AA:840:C:C5	2.36	0.42
1:AA:987:G:N2	1:AA:1015:A:H2	2.18	0.42
1:AA:1058:G:H1	1:AA:1199:U:H3	1.67	0.42
1:AA:1160:G:C5	1:AA:1161:C:C5	3.05	0.42
1:AA:1236:A:H2'	1:AA:1237:C:O4'	2.18	0.42
1:AA:1301:U:O2'	1:AA:1303:C:H6	2.02	0.42
13:AM:22:ILE:HG22	13:AM:23:TYR:H	1.84	0.42
18:AR:61:LYS:O	18:AR:65:ILE:HG12	2.20	0.42
23:BA:742:G:H2'	23:BA:743:G:C8	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1529:G:C5	23:BA:1530:C:C4	3.08	0.42
23:BA:2147:G:H2'	23:BA:2148:G:O4'	2.20	0.42
24:BB:82:G:C2'	24:BB:83:G:H5'	2.49	0.42
34:BQ:6:ARG:HG2	43:BZ:194:PRO:HG2	2.01	0.42
37:BT:19:LEU:HA	37:BT:20:PRO:HD3	1.91	0.42
38:BU:106:PHE:O	38:BU:110:VAL:HG23	2.20	0.42
1:CA:99:U:H2'	1:CA:100:C:C6	2.54	0.42
1:CA:453:A:C5	1:CA:454:C:C4	3.07	0.42
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.34	0.42
1:CA:1084:G:C5	1:CA:1085:U:C5	3.07	0.42
1:CA:1457:G:N2	1:CA:1458:G:H1'	2.34	0.42
1:CA:1458:G:H5'	20:CT:31:SER:CB	2.50	0.42
2:CB:27:LYS:CB	2:CB:194:PRO:HD2	2.49	0.42
11:CK:32:ILE:HD11	11:CK:68:ALA:HB1	2.00	0.42
12:CL:45:PRO:HG3	12:CL:53:ARG:HH11	1.82	0.42
23:DA:354:G:H2'	23:DA:355:G:C8	2.55	0.42
23:DA:542:C:H3'	23:DA:542:C:C6	2.53	0.42
23:DA:937:U:H2'	23:DA:938:G:O4'	2.19	0.42
23:DA:1311:G:O6	51:D7:9:ARG:NH2	2.53	0.42
23:DA:1816:G:N1	25:DD:35:LYS:HD3	2.33	0.42
23:DA:2772:C:H2'	23:DA:2773:C:H6	1.84	0.42
25:DD:13:ARG:HD2	25:DD:13:ARG:HA	1.83	0.42
28:DG:7:LEU:HD11	28:DG:107:LEU:HD12	2.01	0.42
28:DG:86:MET:HA	28:DG:87:PRO:HD3	1.84	0.42
28:DG:126:ASP:CG	28:DG:130:ASN:HD22	2.23	0.42
34:DQ:50:ALA:HB2	34:DQ:125:LEU:HD21	2.02	0.42
35:DR:67:LEU:HD13	35:DR:67:LEU:HA	1.75	0.42
37:DT:106:SER:O	37:DT:110:ILE:HG13	2.20	0.42
48:D4:15:ILE:O	48:D4:33:VAL:N	2.49	0.42
48:D4:25:TYR:N	48:D4:25:TYR:CD1	2.88	0.42
49:D5:19:ARG:HH11	49:D5:19:ARG:HD2	1.65	0.42
1:AA:191:G:C6	1:AA:192:U:N3	2.88	0.42
1:AA:708:C:P	11:AK:85:ARG:HH22	2.42	0.42
1:AA:748:C:H6	1:AA:748:C:H2'	1.61	0.42
1:AA:854:G:H3'	1:AA:871:U:O4	2.20	0.42
1:AA:909:A:H2'	1:AA:910:C:O4'	2.20	0.42
1:AA:935:A:H2'	1:AA:936:C:C6	2.55	0.42
1:AA:970:C:H5'	1:AA:972:C:C2	2.54	0.42
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.35	0.42
1:AA:1223:C:OP1	1:AA:1225:A:H8	2.02	0.42
1:AA:1326:C:H5"	21:AU:18:TYR:O	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:69:VAL:HA	7:AG:138:LYS:CB	2.48	0.42
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.35	0.42
9:AI:28:VAL:HG12	9:AI:65:VAL:HG12	2.01	0.42
13:AM:94:ARG:CZ	19:AS:80:TYR:HB3	2.50	0.42
23:BA:29:U:H2'	23:BA:30:G:C8	2.54	0.42
23:BA:542:C:H3'	23:BA:542:C:C6	2.55	0.42
23:BA:866:A:C6	23:BA:914:C:C5	3.08	0.42
23:BA:1312:U:H4'	23:BA:1313:U:O5'	2.19	0.42
23:BA:1601:G:O2'	23:BA:1602:U:H5'	2.20	0.42
23:BA:1930:G:O2'	23:BA:1931:U:P	2.78	0.42
23:BA:2140:C:N3	23:BA:2151:G:C6	2.88	0.42
24:BB:11:C:OP2	24:BB:12:C:N4	2.36	0.42
28:BG:96:ARG:O	28:BG:99:MET:HB3	2.18	0.42
35:BR:67:LEU:HD13	35:BR:67:LEU:HA	1.78	0.42
43:BZ:48:PHE:CE2	43:BZ:52:SER:HA	2.54	0.42
45:B1:82:LEU:HD22	45:B1:90:ILE:HG23	2.02	0.42
47:B3:4:LEU:HA	47:B3:4:LEU:HD23	1.71	0.42
1:CA:76:C:H3'	1:CA:77:G:H5"	2.00	0.42
1:CA:431:A:H2'	1:CA:432:A:O4'	2.19	0.42
1:CA:664:G:H22	1:CA:741:G:H1	1.68	0.42
1:CA:909:A:H2'	1:CA:910:C:O4'	2.20	0.42
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.55	0.42
2:CB:163:PHE:HD1	2:CB:164:VAL:N	2.17	0.42
3:CC:23:TYR:CZ	3:CC:25:GLY:HA3	2.55	0.42
3:CC:43:LEU:HA	3:CC:43:LEU:HD23	1.61	0.42
4:CD:200:GLU:OE2	4:CD:200:GLU:N	2.52	0.42
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	2.01	0.42
15:CO:75:PRO:O	15:CO:77:ARG:N	2.52	0.42
23:DA:67:U:C2'	23:DA:68:G:H5'	2.50	0.42
23:DA:990:A:OP2	23:DA:991:C:OP2	2.38	0.42
23:DA:1001:A:H2'	23:DA:1002:G:O4'	2.19	0.42
23:DA:2095:C:H2'	23:DA:2096:U:O4'	2.20	0.42
23:DA:2600:A:C6	23:DA:2601:C:N4	2.88	0.42
23:DA:2773:C:OP1	26:DE:166:THR:OG1	2.34	0.42
24:DB:77:U:OP1	43:DZ:19:ARG:NH2	2.52	0.42
26:DE:176:ILE:HG22	26:DE:179:GLU:HB2	2.01	0.42
29:DH:91:GLY:HA3	29:DH:160:LYS:HG3	2.02	0.42
30:DI:5:LEU:N	30:DI:5:LEU:HD12	2.35	0.42
31:DN:73:THR:HA	31:DN:83:LYS:O	2.19	0.42
1:AA:79:G:H2'	1:AA:80:G:C8	2.54	0.42
1:AA:441:A:H3'	1:AA:442:C:H6	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:664:G:H22	1:AA:741:G:H1	1.68	0.42
1:AA:1001(A):G:C6	1:AA:1002:G:C6	3.08	0.42
1:AA:1128:C:H5	1:AA:1139:G:HO2'	1.61	0.42
1:AA:1135:U:H4'	1:AA:1136:U:C4	2.55	0.42
1:AA:1190:G:H5"	3:AC:4:LYS:HB3	2.00	0.42
1:AA:1224:G:H1	1:AA:1363:C:H42	1.65	0.42
1:AA:1358:U:H5	1:AA:1359:C:N3	2.18	0.42
1:AA:1365:G:O3'	9:AI:117:HIS:HE1	2.03	0.42
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.54	0.42
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.19	0.42
7:AG:127:ALA:HB2	7:AG:134:ALA:HB3	2.01	0.42
8:AH:112:LEU:HB3	8:AH:133:LEU:HA	2.01	0.42
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.54	0.42
10:AJ:46:ARG:HB3	10:AJ:63:PHE:O	2.20	0.42
18:AR:43:PHE:C	18:AR:51:LEU:HD12	2.40	0.42
20:AT:55:ILE:HD13	20:AT:55:ILE:HA	1.75	0.42
23:BA:255:A:H1'	23:BA:384:U:C6	2.55	0.42
23:BA:664:C:H2'	23:BA:665:C:H6	1.83	0.42
23:BA:2238:G:H2'	23:BA:2238:G:N3	2.35	0.42
23:BA:2350:C:H2'	23:BA:2351:G:O4'	2.20	0.42
23:BA:2845:G:H5"	37:BT:54:ARG:O	2.19	0.42
24:BB:52:A:O2'	24:BB:53:A:N3	2.52	0.42
25:BD:182:LEU:HD23	25:BD:182:LEU:HA	1.73	0.42
28:BG:33:ARG:O	28:BG:161:THR:HG22	2.19	0.42
28:BG:57:ALA:HB2	28:BG:90:LEU:HD13	2.02	0.42
1:CA:520:A:O2'	12:CL:73:GLU:HG2	2.19	0.42
1:CA:730:G:C5	1:CA:731:G:H1'	2.54	0.42
1:CA:960:U:H4'	1:CA:961:U:H5"	2.01	0.42
1:CA:1311:G:C2	1:CA:1327:C:C2	3.08	0.42
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.54	0.42
1:CA:1350:A:H2'	1:CA:1351:U:O4'	2.19	0.42
1:CA:1443:G:H1	1:CA:1459:C:C2'	2.31	0.42
8:CH:25:ASP:HB3	8:CH:58:TYR:HD2	1.85	0.42
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	2.00	0.42
16:CP:17:TYR:N	16:CP:17:TYR:HD1	2.18	0.42
17:CQ:58:GLU:OE1	17:CQ:75:ARG:NH1	2.53	0.42
23:DA:252:G:P	33:DP:50:ARG:HH11	2.43	0.42
23:DA:475:U:C4	23:DA:481:G:O6	2.73	0.42
23:DA:479:A:H4'	23:DA:480:A:OP1	2.19	0.42
23:DA:545:G:OP1	23:DA:545:G:H4'	2.19	0.42
23:DA:1130:U:O2	26:DE:149:ARG:NH2	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1637:A:H4'	23:DA:2711:A:O2'	2.20	0.42
23:DA:1685:C:H2'	23:DA:1686:C:C6	2.55	0.42
23:DA:2070:G:C2	23:DA:2442:C:C2	3.07	0.42
26:DE:181:LEU:HD12	26:DE:181:LEU:HA	1.71	0.42
26:DE:201:THR:OG1	26:DE:202:LYS:N	2.53	0.42
27:DF:160:ASN:ND2	27:DF:163:VAL:HG23	2.35	0.42
29:DH:3:ARG:HG2	29:DH:6:ARG:NE	2.31	0.42
29:DH:121:ILE:HD11	29:DH:140:LYS:HG2	2.01	0.42
32:DO:66:LYS:HA	32:DO:79:PHE:O	2.20	0.42
34:DQ:35:VAL:CG1	34:DQ:130:LYS:HB3	2.49	0.42
43:DZ:125:LEU:HB3	43:DZ:165:VAL:CG1	2.49	0.42
1:AA:154:C:C2	1:AA:168:G:C2	3.07	0.42
1:AA:168:G:C2	1:AA:169:C:N3	2.88	0.42
1:AA:250:A:H4'	1:AA:251:G:O5'	2.20	0.42
1:AA:294:U:H2'	1:AA:295:C:H6	1.85	0.42
1:AA:414:A:H2'	1:AA:415:A:C8	2.55	0.42
1:AA:416:G:H2'	1:AA:417:C:O4'	2.20	0.42
1:AA:589:C:H2'	1:AA:590:C:H6	1.85	0.42
1:AA:707:C:H4'	11:AK:20:TYR:CD1	2.54	0.42
1:AA:1016:A:N6	1:AA:1017:G:N3	2.68	0.42
1:AA:1064:G:C5	1:AA:1066:C:C4	3.08	0.42
2:AB:53:ARG:HH12	2:AB:199:TYR:HD2	1.67	0.42
12:AL:54:LYS:HB3	12:AL:70:ILE:HD12	2.02	0.42
13:AM:114:ARG:NH1	13:AM:114:ARG:HB3	2.35	0.42
16:AP:39:TYR:CD1	16:AP:73:LEU:HD13	2.55	0.42
23:BA:824:A:H1'	23:BA:2358:G:N7	2.34	0.42
23:BA:1048:A:O2'	23:BA:1049:C:P	2.77	0.42
23:BA:1647:G:H3'	23:BA:1647:G:OP2	2.20	0.42
23:BA:1911:U:C2	23:BA:1918:A:C2	3.07	0.42
23:BA:2322:A:H2'	23:BA:2323:G:O4'	2.19	0.42
23:BA:2749:A:H5"	29:BH:3:ARG:HH21	1.85	0.42
23:BA:2773:C:H5"	26:BE:164:ARG:HG2	2.01	0.42
23:BA:2820:A:C5	35:BR:4:LEU:HD11	2.55	0.42
28:BG:86:MET:HA	28:BG:87:PRO:HD3	1.84	0.42
44:B0:10:THR:HG22	44:B0:12:ASN:H	1.84	0.42
50:B6:10:LEU:CD1	50:B6:54:ILE:HA	2.46	0.42
1:CA:113:G:H2'	1:CA:114:U:C6	2.54	0.42
1:CA:432:A:H3'	1:CA:433:C:C6	2.55	0.42
1:CA:701:C:OP1	1:CA:702:A:O2'	2.31	0.42
1:CA:961:U:H2'	1:CA:962:C:O4'	2.19	0.42
1:CA:965:A:H5'	1:CA:969:A:H5"	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1030(B):C:H3'	1:CA:1030(C):G:C8	2.54	0.42
1:CA:1297:C:O3'	7:CG:114:ARG:NH2	2.53	0.42
1:CA:1300:G:O2'	1:CA:1301:U:P	2.77	0.42
1:CA:1307:U:H5"	13:CM:101:GLN:NE2	2.34	0.42
1:CA:1385:G:C6	1:CA:1386:G:N7	2.87	0.42
1:CA:1493:A:H1'	23:DA:1913:A:N1	2.35	0.42
2:CB:98:LEU:O	2:CB:101:MET:HB2	2.20	0.42
2:CB:167:PRO:O	2:CB:174:VAL:HG21	2.19	0.42
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.20	0.42
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.35	0.42
13:CM:68:GLY:HA2	13:CM:71:ARG:HB2	2.01	0.42
15:CO:74:ASP:OD2	15:CO:77:ARG:HB2	2.19	0.42
23:DA:580:C:H2'	23:DA:581:C:C6	2.55	0.42
23:DA:819:A:C4	23:DA:1189:A:C2	3.08	0.42
23:DA:1015:G:O2'	23:DA:1016:G:H5'	2.20	0.42
23:DA:2232:U:P	45:D1:40:ARG:HH12	2.43	0.42
23:DA:2805:G:H2'	23:DA:2807:G:C8	2.52	0.42
26:DE:38:THR:O	26:DE:42:ASP:N	2.47	0.42
27:DF:106:ARG:H	27:DF:106:ARG:HG2	1.51	0.42
38:DU:28:ARG:NH1	38:DU:38:THR:OG1	2.48	0.42
46:D2:64:LEU:O	46:D2:68:ARG:HG2	2.19	0.42
1:AA:33:A:H2'	1:AA:34:C:C6	2.55	0.42
1:AA:57:G:H2'	1:AA:58:C:C6	2.54	0.42
1:AA:1002:G:N3	1:AA:1003:G:H1'	2.35	0.42
1:AA:1235:U:H5"	21:AU:3:LYS:HD3	2.02	0.42
1:AA:1335:C:H4'	1:AA:1336:C:C6	2.55	0.42
1:AA:1442(A):G:C5	1:AA:1442(B):A:C6	3.07	0.42
3:AC:110:ASN:OD1	3:AC:110:ASN:N	2.52	0.42
15:AO:18:PHE:HD1	15:AO:20:GLY:H	1.67	0.42
23:BA:157:U:H4'	23:BA:171:G:H21	1.85	0.42
23:BA:271(F):C:C2	23:BA:271(G):C:C6	3.08	0.42
23:BA:861:A:N3	24:BB:79:C:O2'	2.49	0.42
23:BA:903:C:H2'	23:BA:904:C:H6	1.84	0.42
23:BA:2093:G:H1	23:BA:2196:C:H42	1.68	0.42
23:BA:2173:A:C6	23:BA:2174:C:C2	3.07	0.42
23:BA:2680:C:H5'	26:BE:189:PRO:HA	2.02	0.42
24:BB:46:A:C5	24:BB:47:C:C4	3.08	0.42
24:BB:52:A:O2'	24:BB:53:A:H5"	2.20	0.42
24:BB:89:G:OP2	24:BB:89:G:H8	2.02	0.42
26:BE:93:VAL:HG12	26:BE:182:LEU:HD12	2.01	0.42
29:BH:33:LEU:HD11	29:BH:136:ILE:O	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:39:ALA:O	30:BI:44:LEU:HD22	2.19	0.42
30:BI:112:LYS:C	30:BI:114:LEU:N	2.70	0.42
32:BO:81:ASP:OD2	32:BO:81:ASP:N	2.52	0.42
34:BQ:7:MET:HE3	34:BQ:7:MET:HB2	1.65	0.42
38:BU:29:SER:OG	38:BU:30:LYS:NZ	2.48	0.42
38:BU:58:ARG:HA	38:BU:61:TRP:CE3	2.55	0.42
50:B6:47:THR:HG22	50:B6:48:VAL:N	2.35	0.42
1:CA:60:A:H8	1:CA:60:A:OP1	2.02	0.42
1:CA:72:C:C2	1:CA:98:G:N2	2.88	0.42
1:CA:624:C:H4'	16:CP:10:GLY:HA2	2.01	0.42
1:CA:864:A:H2'	1:CA:865:A:C8	2.55	0.42
1:CA:867:G:H5'	22:CV:3:ARG:CB	2.49	0.42
1:CA:1111:A:N6	3:CC:177:THR:HA	2.35	0.42
2:CB:69:LEU:HB2	2:CB:162:ILE:HG22	2.02	0.42
3:CC:150:LYS:O	3:CC:201:TYR:HB2	2.20	0.42
5:CE:60:TYR:C	5:CE:60:TYR:CD1	2.93	0.42
10:CJ:32:ALA:HB1	10:CJ:33:GLN:HB3	2.02	0.42
10:CJ:46:ARG:HD3	14:CN:61:TRP:CZ3	2.55	0.42
14:CN:47:LEU:HD23	14:CN:50:LYS:HD2	2.01	0.42
23:DA:848:G:N3	23:DA:933:A:H1'	2.35	0.42
23:DA:1711:C:H2'	23:DA:1712:C:H6	1.85	0.42
23:DA:1828:G:H5"	56:DA:3602:HOH:O	2.20	0.42
23:DA:1911:U:C2	23:DA:1918:A:C2	3.08	0.42
23:DA:2133:G:H2'	23:DA:2157:G:N2	2.35	0.42
23:DA:2287:A:C4	23:DA:2289:G:C8	3.07	0.42
23:DA:2391:G:O6	23:DA:2425:A:H8	2.03	0.42
37:DT:3:ARG:CB	37:DT:3:ARG:HH21	2.32	0.42
38:DU:17:ILE:HG23	38:DU:39:LEU:HD12	2.01	0.42
39:DV:87:HIS:NE2	39:DV:89:GLN:HG2	2.35	0.42
1:AA:340:U:H3	1:AA:349:A:H61	1.66	0.42
1:AA:567:G:H2'	1:AA:568:G:O4'	2.20	0.42
1:AA:1016:A:C8	1:AA:1016:A:O5'	2.73	0.42
1:AA:1139:G:N2	1:AA:1142:G:O6	2.37	0.42
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.55	0.42
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.55	0.42
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.20	0.42
4:AD:25:ARG:O	4:AD:25:ARG:HG2	2.19	0.42
12:AL:97:ARG:HB2	12:AL:98:TYR:CE1	2.55	0.42
17:AQ:89:LEU:HD23	17:AQ:89:LEU:HA	1.75	0.42
19:AS:7:LYS:H	19:AS:7:LYS:HG2	1.58	0.42
22:AV:39:GLN:H	22:AV:39:GLN:HG2	1.67	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:646:A:N3	23:BA:646:A:H5'	2.34	0.42
23:BA:857:C:H1'	44:B0:26:TYR:CE2	2.55	0.42
23:BA:1049:C:O2'	23:BA:1050:A:OP1	2.37	0.42
23:BA:1467:C:C2	23:BA:1526:G:N2	2.88	0.42
23:BA:2123:G:H2'	23:BA:2124:G:C8	2.55	0.42
23:BA:2236:C:C2'	23:BA:2237:G:H5'	2.50	0.42
24:BB:2:C:H2'	24:BB:3:C:H6	1.85	0.42
28:BG:64:THR:OG1	28:BG:65:GLY:N	2.51	0.42
1:CA:118:U:C5	1:CA:288:A:C6	3.08	0.42
1:CA:185:A:C6	1:CA:186:C:C4	3.08	0.42
1:CA:375:U:P	16:CP:69:THR:HG21	2.60	0.42
1:CA:437:U:H2'	1:CA:438:G:C8	2.55	0.42
1:CA:539:A:OP2	12:CL:115:LYS:NZ	2.53	0.42
1:CA:606:G:H5"	1:CA:607:A:H5'	2.02	0.42
1:CA:626:U:H4'	16:CP:38:TYR:CZ	2.54	0.42
1:CA:742:G:OP1	15:CO:59:MET:HE2	2.19	0.42
1:CA:967:C:H6	1:CA:967:C:O5'	2.02	0.42
1:CA:1064:G:H8	1:CA:1064:G:O5'	2.02	0.42
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.55	0.42
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.84	0.42
1:CA:1363(A):A:H4'	1:CA:1364:U:O5'	2.20	0.42
1:CA:1441:G:O2'	1:CA:1459:C:C4	2.64	0.42
1:CA:1525:G:OP1	11:CK:120:ARG:NH2	2.52	0.42
4:CD:79:PHE:CD2	4:CD:80:GLU:N	2.82	0.42
5:CE:78:HIS:CE1	5:CE:142:LEU:HA	2.50	0.42
12:CL:84:LEU:HD22	12:CL:85:ILE:H	1.85	0.42
13:CM:9:ILE:N	13:CM:10:PRO:HD3	2.35	0.42
16:CP:28:ARG:HH11	16:CP:28:ARG:CG	2.26	0.42
23:DA:128:C:H2'	23:DA:129:C:C6	2.55	0.42
23:DA:656:G:H2'	23:DA:657:U:O4'	2.19	0.42
23:DA:1777:U:O2'	23:DA:1778:U:H5'	2.19	0.42
23:DA:1936:A:H5'	56:DA:3541:HOH:O	2.19	0.42
23:DA:2521:C:O2'	23:DA:2564:A:N3	2.46	0.42
24:DB:59:A:H2'	24:DB:60:C:C6	2.55	0.42
25:DD:228:PRO:HD3	25:DD:235:GLY:HA3	2.02	0.42
26:DE:12:THR:HG22	37:DT:58:ASN:OD1	2.20	0.42
26:DE:73:GLU:HA	26:DE:74:PRO:HD3	1.78	0.42
27:DF:46:ARG:HG2	27:DF:46:ARG:NH1	2.22	0.42
32:DO:104:ARG:NH1	37:DT:34:VAL:HG21	2.35	0.42
39:DV:42:GLY:O	39:DV:43:GLU:HG2	2.20	0.42
43:DZ:183:LEU:HD23	43:DZ:183:LEU:HA	1.81	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D3:30:ARG:H	47:D3:30:ARG:HG3	1.66	0.42
1:AA:586:C:O2'	1:AA:878:G:H4'	2.20	0.41
1:AA:657:G:C2	1:AA:658:G:C8	3.07	0.41
1:AA:775:G:O2'	1:AA:776:G:H5'	2.20	0.41
1:AA:1027:C:C5	1:AA:1029:C:C4	3.08	0.41
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.53	0.41
1:AA:1245:A:C6	1:AA:1293:G:C2	3.08	0.41
1:AA:1443:G:O6	1:AA:1459:C:C2	2.73	0.41
2:AB:18:GLY:HA2	2:AB:42:ILE:CG1	2.47	0.41
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.19	0.41
3:AC:108:ASN:O	3:AC:111:LEU:HB3	2.20	0.41
4:AD:32:ALA:O	4:AD:36:ARG:N	2.51	0.41
4:AD:76:ARG:O	4:AD:80:GLU:HG2	2.20	0.41
4:AD:121:VAL:HA	4:AD:126:ILE:HG12	2.02	0.41
13:AM:3:ARG:HB2	13:AM:9:ILE:HG22	2.01	0.41
18:AR:85:LEU:HD22	18:AR:86:VAL:N	2.35	0.41
21:AU:10:ARG:HH11	21:AU:10:ARG:HG3	1.85	0.41
23:BA:536:A:H2'	23:BA:537:C:C6	2.55	0.41
23:BA:656:G:H2'	23:BA:657:U:O4'	2.20	0.41
23:BA:725:G:C5	23:BA:726:G:C6	3.08	0.41
23:BA:864:G:C6	23:BA:865:C:N4	2.87	0.41
23:BA:880:G:N2	23:BA:898:C:H1'	2.34	0.41
23:BA:2109:U:H3'	23:BA:2109:U:C6	2.54	0.41
23:BA:2582:G:C2	23:BA:2583:G:C8	3.08	0.41
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.55	0.41
24:BB:7:G:C2	24:BB:115:G:C2	3.08	0.41
25:BD:213:ARG:HA	25:BD:213:ARG:HD2	1.65	0.41
27:BF:123:LEU:HD12	27:BF:124:LEU:N	2.35	0.41
27:BF:133:ASN:HA	27:BF:162:LEU:HD23	2.01	0.41
29:BH:13:LYS:HA	29:BH:14:GLY:HA2	1.56	0.41
31:BN:28:THR:HG22	31:BN:29:LYS:N	2.34	0.41
32:BO:23:ARG:HG3	32:BO:24:VAL:N	2.35	0.41
33:BP:71:VAL:HG22	33:BP:72:PRO:HA	2.02	0.41
36:BS:41:ASP:OD1	36:BS:43:GLU:HB2	2.20	0.41
37:BT:11:GLU:O	37:BT:15:VAL:HG23	2.19	0.41
38:BU:17:ILE:HG23	38:BU:39:LEU:HD12	2.00	0.41
41:BX:57:LEU:HD13	41:BX:78:LYS:HG2	2.01	0.41
50:B6:6:ARG:NH1	50:B6:26:ASN:HB2	2.35	0.41
1:CA:160:A:N6	1:CA:346:G:N2	2.68	0.41
1:CA:510:A:H5"	1:CA:511:C:OP2	2.19	0.41
1:CA:586:C:H2'	1:CA:587:G:H5'	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:597:G:N2	8:CH:94:TYR:OH	2.53	0.41
1:CA:649:G:H2'	1:CA:650:G:C8	2.55	0.41
1:CA:924:C:H2'	1:CA:925:G:H8	1.84	0.41
1:CA:1033:G:H2'	1:CA:1034:G:O4'	2.20	0.41
1:CA:1333:A:C6	1:CA:1334:G:C4	3.08	0.41
1:CA:1353:G:H5"	21:CU:13:ILE:CG2	2.49	0.41
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	2.02	0.41
8:CH:121:ASP:O	8:CH:125:ARG:HG2	2.20	0.41
12:CL:46:LYS:HG3	12:CL:92:ASP:HA	2.01	0.41
19:CS:28:LYS:O	19:CS:47:HIS:HD2	2.03	0.41
23:DA:225:A:H2'	23:DA:226:G:H5'	2.03	0.41
23:DA:1568:G:H5'	25:DD:60:ARG:HA	2.02	0.41
23:DA:2317:C:H2'	23:DA:2318:G:C5'	2.50	0.41
23:DA:2517:C:C6	23:DA:2542:A:N7	2.88	0.41
25:DD:29:PRO:HA	25:DD:83:GLU:OE1	2.20	0.41
27:DF:22:ALA:HB1	27:DF:24:LEU:CD2	2.50	0.41
28:DG:96:ARG:O	28:DG:99:MET:HB3	2.19	0.41
32:DO:4:PRO:O	32:DO:5:GLN:HB2	2.19	0.41
42:DY:67:LEU:HD23	42:DY:67:LEU:HA	1.69	0.41
45:D1:4:VAL:HG11	45:D1:11:ARG:NH1	2.35	0.41
46:D2:45:SER:O	46:D2:46:GLN:HB2	2.20	0.41
1:AA:96:U:O2'	1:AA:97:G:H8	2.02	0.41
1:AA:149:A:O2'	1:AA:150:C:C6	2.64	0.41
1:AA:303:A:C5	1:AA:304:U:C5	3.08	0.41
1:AA:613:C:H42	1:AA:627:G:H1	1.68	0.41
1:AA:728:A:H2'	1:AA:729:A:C8	2.54	0.41
1:AA:967:C:N3	1:AA:968:A:N6	2.68	0.41
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.49	0.41
1:AA:1201:A:H1'	1:AA:1202:G:OP2	2.20	0.41
1:AA:1207:G:H3'	1:AA:1208:C:C6	2.55	0.41
1:AA:1227:A:H5'	19:AS:83:HIS:HB2	2.02	0.41
1:AA:1251:A:H61	1:AA:1285:A:H61	1.69	0.41
1:AA:1306:A:N6	1:AA:1331:G:O4'	2.53	0.41
1:AA:1493:A:O2'	1:AA:1494:G:H8	2.03	0.41
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.33	0.41
7:AG:2:ALA:N	7:AG:7:ALA:HB2	2.35	0.41
7:AG:99:LEU:HB3	7:AG:103:TRP:CZ2	2.55	0.41
7:AG:104:LEU:HA	7:AG:134:ALA:HB2	2.02	0.41
19:AS:31:ILE:HD13	19:AS:32:LYS:N	2.35	0.41
20:AT:73:HIS:HB3	20:AT:74:LYS:HE3	2.02	0.41
22:AV:20:GLY:HA3	22:AV:47:ALA:HB3	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:823:G:C6	23:BA:835:A:N1	2.88	0.41
23:BA:1045:A:N3	23:BA:1045:A:C2'	2.82	0.41
23:BA:1341:U:O2	41:BX:80:ILE:HD13	2.20	0.41
23:BA:1985:G:OP2	56:BA:3743:HOH:O	2.20	0.41
23:BA:2591:C:OP2	25:BD:239:ARG:HB3	2.20	0.41
24:BB:93:G:H2'	24:BB:94:C:H6	1.85	0.41
25:BD:172:TYR:HD1	25:BD:185:VAL:C	2.23	0.41
32:BO:64:ARG:NH1	32:BO:81:ASP:OD1	2.53	0.41
34:BQ:75:THR:HA	34:BQ:89:ASN:O	2.20	0.41
43:BZ:138:GLU:HB3	43:BZ:156:LYS:NZ	2.35	0.41
1:CA:106:C:H2'	1:CA:107:G:H8	1.84	0.41
1:CA:146:G:H5"	1:CA:147:G:OP2	2.20	0.41
1:CA:477:A:H2'	1:CA:479:C:H6	1.84	0.41
1:CA:532:A:N6	3:CC:193:TYR:HB3	2.35	0.41
1:CA:951:G:O6	13:CM:105:THR:HG21	2.20	0.41
1:CA:1050:G:H2'	1:CA:1051:C:C6	2.55	0.41
1:CA:1092:A:C6	1:CA:1183:A:C2	3.08	0.41
1:CA:1360:A:OP2	14:CN:35:ARG:NH2	2.40	0.41
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	2.03	0.41
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.20	0.41
7:CG:113:GLU:O	7:CG:113:GLU:HG2	2.20	0.41
13:CM:65:LYS:HE3	13:CM:65:LYS:O	2.20	0.41
15:CO:74:ASP:HA	15:CO:75:PRO:HD2	1.76	0.41
16:CP:17:TYR:N	16:CP:17:TYR:CD1	2.87	0.41
23:DA:546:C:H2'	23:DA:546:C:H6	1.63	0.41
23:DA:861:A:H2'	23:DA:862:G:O4'	2.20	0.41
23:DA:1224:C:O2'	39:DV:85:LYS:HA	2.20	0.41
23:DA:1693:U:H4'	23:DA:1694:C:OP2	2.19	0.41
23:DA:1930:G:O2'	23:DA:1931:U:OP2	2.38	0.41
23:DA:2065:C:H2'	23:DA:2066:C:C6	2.54	0.41
28:DG:44:GLY:O	28:DG:47:LYS:NZ	2.35	0.41
36:DS:34:HIS:ND1	36:DS:53:SER:OG	2.31	0.41
42:DY:2:ARG:HA	42:DY:2:ARG:HD3	1.78	0.41
44:D0:21:LEU:HD23	44:D0:21:LEU:HA	1.82	0.41
44:D0:70:GLN:HG2	44:D0:72:ARG:HG2	2.02	0.41
52:D8:33:ASN:O	52:D8:34:TRP:O	2.38	0.41
53:D9:4:ARG:O	53:D9:36:GLN:HA	2.19	0.41
53:D9:12:ASP:OD1	53:D9:13:LYS:HG3	2.19	0.41
1:AA:35:G:C6	1:AA:36:C:N4	2.88	0.41
1:AA:346:G:OP1	37:BT:41:ARG:NH2	2.51	0.41
1:AA:391:G:C6	1:AA:392:G:C5	3.07	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:513:C:H2'	1:AA:514:C:C6	2.55	0.41
1:AA:942:G:C2	1:AA:943:U:C2	3.08	0.41
1:AA:1024:G:H8	1:AA:1024:G:O5'	2.03	0.41
1:AA:1058:G:OP1	3:AC:199:LYS:NZ	2.39	0.41
1:AA:1157:A:N6	1:AA:1177:G:N1	2.68	0.41
1:AA:1288:A:H8	1:AA:1288:A:O5'	2.03	0.41
1:AA:1328:C:C4	1:AA:1329:A:N7	2.88	0.41
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.55	0.41
5:AE:43:LEU:HD12	5:AE:44:GLY:N	2.36	0.41
5:AE:60:TYR:C	5:AE:60:TYR:CD1	2.94	0.41
6:AF:95:GLU:HA	6:AF:96:PRO:HD3	1.88	0.41
7:AG:46:ALA:HB2	7:AG:117:ALA:O	2.20	0.41
7:AG:68:ASN:C	7:AG:135:VAL:HG22	2.40	0.41
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	2.00	0.41
9:AI:111:ARG:O	9:AI:113:LYS:HE3	2.20	0.41
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HD3	2.53	0.41
13:AM:12:ASN:HA	13:AM:46:LYS:H	1.85	0.41
23:BA:637:A:H8	33:BP:117:GLU:HG3	1.86	0.41
23:BA:1141:U:P	31:BN:25:ARG:NH1	2.93	0.41
23:BA:1693:U:O2'	25:BD:14:ARG:NH2	2.53	0.41
23:BA:2108:C:C3'	23:BA:2108:C:C6	3.04	0.41
23:BA:2320:A:N3	23:BA:2320:A:H2'	2.35	0.41
26:BE:36:ARG:HG2	26:BE:47:VAL:HG22	2.01	0.41
32:BO:59:LYS:NZ	32:BO:89:ASN:HD21	2.17	0.41
34:BQ:35:VAL:CG1	34:BQ:130:LYS:HB3	2.50	0.41
41:BX:72:LYS:HE3	41:BX:72:LYS:HB3	1.85	0.41
52:B8:29:LYS:HD3	52:B8:44:LYS:C	2.40	0.41
1:CA:390:C:H2'	1:CA:391:G:C8	2.55	0.41
1:CA:708:C:P	11:CK:85:ARG:HH22	2.44	0.41
1:CA:777:A:C2	11:CK:119:CYS:HB3	2.55	0.41
1:CA:826:C:H2'	1:CA:827:U:C6	2.55	0.41
1:CA:1080:A:H5"	1:CA:1081:G:OP2	2.21	0.41
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.54	0.41
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.54	0.41
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.55	0.41
2:CB:74:LYS:HD3	2:CB:205:ASP:O	2.21	0.41
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.20	0.41
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	2.02	0.41
17:CQ:27:PHE:HD1	17:CQ:28:PRO:O	2.03	0.41
19:CS:67:VAL:HB	19:CS:68:GLY:H	1.68	0.41
23:DA:271(Q):G:O2'	23:DA:271(R):G:P	2.78	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:528:A:C2	23:DA:2043:C:H4'	2.56	0.41
23:DA:634:C:H2'	23:DA:635:C:C6	2.55	0.41
23:DA:708:C:N4	23:DA:723:G:H1	2.16	0.41
23:DA:1529:G:C6	23:DA:1530:C:C4	3.07	0.41
23:DA:1668:A:H4'	23:DA:1669:A:O5'	2.20	0.41
23:DA:1759:A:H1'	23:DA:2711:A:C2	2.55	0.41
23:DA:1783:A:C2	23:DA:2587:A:C5	3.09	0.41
23:DA:1792:G:H2'	23:DA:1793:C:C6	2.55	0.41
23:DA:2157:G:H2'	23:DA:2158:A:C8	2.55	0.41
23:DA:2205:C:O2	23:DA:2220:G:C2	2.73	0.41
23:DA:2519:U:C6	23:DA:2542:A:N6	2.88	0.41
24:DB:49:C:OP1	36:DS:96:GLY:HA2	2.21	0.41
26:DE:50:GLY:HA2	26:DE:77:ILE:O	2.21	0.41
27:DF:52:LYS:HA	27:DF:56:GLU:OE2	2.21	0.41
31:DN:18:ALA:O	31:DN:21:LYS:HB2	2.20	0.41
34:DQ:63:LYS:HD2	43:DZ:175:VAL:HG21	2.01	0.41
43:DZ:111:VAL:HG12	43:DZ:112:ARG:H	1.86	0.41
46:D2:4:SER:HA	46:D2:7:ARG:NH1	2.35	0.41
50:D6:6:ARG:NH1	50:D6:26:ASN:HB2	2.36	0.41
1:AA:91:C:H2'	1:AA:92:C:C6	2.56	0.41
1:AA:102:G:H2'	1:AA:103:C:H6	1.83	0.41
1:AA:103:C:C2	1:AA:104:G:C8	3.09	0.41
1:AA:228:A:H2'	1:AA:229:U:O4'	2.20	0.41
1:AA:963:G:H1'	10:AJ:54:PHE:HZ	1.84	0.41
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.21	0.41
1:AA:1036:G:H5"	1:AA:1037:C:C5	2.56	0.41
1:AA:1089:G:C6	1:AA:1090:U:C4	3.08	0.41
1:AA:1158:C:H5"	2:AB:131:PRO:O	2.20	0.41
1:AA:1294:G:H2'	1:AA:1295:G:O4'	2.19	0.41
2:AB:149:LEU:HB3	2:AB:152:PHE:CB	2.49	0.41
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.68	0.41
7:AG:97:GLN:O	7:AG:101:LEU:HG	2.20	0.41
23:BA:303:U:O4	56:BA:4356:HOH:O	2.21	0.41
23:BA:435:C:C5	23:BA:436:C:C5	3.08	0.41
23:BA:907:U:H4'	34:BQ:101:ARG:HH22	1.84	0.41
23:BA:1107:G:H8	23:BA:1107:G:H2'	1.42	0.41
23:BA:2259:G:H1'	23:BA:2427:C:H2'	2.02	0.41
23:BA:2730:C:H4'	26:BE:168:MET:O	2.21	0.41
24:BB:103:G:O2'	43:BZ:73:GLN:NE2	2.54	0.41
27:BF:101:LEU:HA	27:BF:101:LEU:HD12	1.68	0.41
35:BR:104:ARG:HG3	35:BR:111:LEU:HD21	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BU:28:ARG:NH1	38:BU:38:THR:OG1	2.45	0.41
53:B9:4:ARG:NH1	56:B9:202:HOH:O	2.53	0.41
1:CA:373:A:H61	1:CA:391:G:H1'	1.85	0.41
1:CA:393:A:C2	1:CA:394:G:C8	3.08	0.41
1:CA:721:G:H4'	1:CA:722:A:O4'	2.20	0.41
1:CA:788:U:H2'	1:CA:789:U:O4'	2.21	0.41
1:CA:1113:C:H2'	1:CA:1114:C:C6	2.54	0.41
1:CA:1291:G:O2'	1:CA:1292:U:H5'	2.20	0.41
1:CA:1443:G:O6	1:CA:1459:C:C2	2.73	0.41
5:CE:39:GLY:O	5:CE:69:VAL:HG12	2.20	0.41
9:CI:112:LYS:CG	9:CI:119:ALA:HB2	2.51	0.41
10:CJ:50:ILE:HD11	10:CJ:60:ARG:NH1	2.35	0.41
12:CL:30:ALA:HA	12:CL:31:PRO:HD3	1.79	0.41
12:CL:32:PHE:CE1	12:CL:86:ARG:HG3	2.52	0.41
14:CN:53:LEU:HA	14:CN:54:PRO:HD3	1.73	0.41
15:CO:76:GLU:O	15:CO:79:ARG:N	2.53	0.41
15:CO:81:LEU:O	15:CO:85:LEU:N	2.51	0.41
15:CO:87:ILE:HG23	15:CO:88:ARG:N	2.35	0.41
23:DA:196:A:O4'	33:DP:46:LYS:HE2	2.20	0.41
23:DA:289:A:H2'	23:DA:290:G:O4'	2.20	0.41
23:DA:529:A:OP2	31:DN:114:ARG:NH2	2.54	0.41
23:DA:807:U:OP2	33:DP:36:LYS:HD3	2.20	0.41
23:DA:2845:G:O2'	23:DA:2846:G:H5'	2.20	0.41
24:DB:11:C:H3'	24:DB:12:C:H6	1.82	0.41
27:DF:95:ARG:HG3	27:DF:97:TYR:CE2	2.55	0.41
33:DP:96:THR:OG1	33:DP:99:LEU:HG	2.20	0.41
38:DU:47:TYR:HA	38:DU:50:ARG:NH2	2.35	0.41
41:DX:5:TYR:HD1	46:D2:33:MET:HE2	1.85	0.41
1:AA:432:A:H3'	1:AA:433:C:C6	2.56	0.41
1:AA:652:U:C4	1:AA:752:G:N3	2.88	0.41
1:AA:806:C:O2'	1:AA:807:A:H5'	2.21	0.41
1:AA:865:A:H2	1:AA:918:A:H4'	1.84	0.41
1:AA:919:A:O5'	1:AA:919:A:H8	2.04	0.41
1:AA:1000:U:C2	1:AA:1041:A:N1	2.89	0.41
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.80	0.41
1:AA:1145:C:H1'	1:AA:1146:A:H8	1.86	0.41
1:AA:1239:A:H61	1:AA:1299:A:N6	2.19	0.41
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.54	0.41
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.36	0.41
1:AA:1404:C:O2	1:AA:1519:A:O2'	2.37	0.41
2:AB:74:LYS:HB2	2:AB:74:LYS:HE3	1.91	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:136:VAL:HA	2:AB:139:LYS:CG	2.45	0.41
4:AD:78:LEU:O	4:AD:82:ALA:HB2	2.21	0.41
20:AT:74:LYS:HB3	20:AT:74:LYS:HE2	1.89	0.41
23:BA:638:G:H2'	23:BA:639:U:H6	1.85	0.41
23:BA:685:A:C2	23:BA:689:A:C6	3.09	0.41
23:BA:866:A:C6	23:BA:914:C:C6	3.08	0.41
23:BA:900:A:C4	23:BA:901:A:C8	3.09	0.41
23:BA:1497:U:H5"	23:BA:1498:C:H5	1.85	0.41
23:BA:2110:G:O2'	23:BA:2120:G:H5'	2.21	0.41
23:BA:2316:C:H1'	28:BG:128:ARG:NH2	2.35	0.41
23:BA:2572:A:OP1	23:BA:2574:G:O2'	2.35	0.41
23:BA:2778:A:H4'	23:BA:2779:U:OP2	2.21	0.41
24:BB:111:G:H2'	24:BB:112:U:H6	1.86	0.41
25:BD:108:PRO:HG2	25:BD:111:LEU:HG	2.02	0.41
26:BE:60:ASN:OD1	26:BE:62:PRO:HD2	2.20	0.41
33:BP:27:HIS:O	33:BP:31:ALA:HA	2.21	0.41
33:BP:121:LYS:HG3	33:BP:122:PRO:HD2	2.01	0.41
36:BS:56:LEU:O	36:BS:58:LEU:HD23	2.21	0.41
46:B2:3:LEU:HD23	46:B2:3:LEU:HA	1.82	0.41
48:B4:15:ILE:HG13	48:B4:21:VAL:HG22	2.01	0.41
1:CA:271:C:H2'	1:CA:272:C:H6	1.85	0.41
1:CA:300:A:H1'	1:CA:565:U:O2	2.21	0.41
1:CA:619:U:C2	4:CD:135:LEU:HD22	2.56	0.41
1:CA:957:U:H4'	19:CS:79:THR:OG1	2.20	0.41
1:CA:1179:A:OP1	1:CA:1179:A:C8	2.74	0.41
1:CA:1286:A:N6	1:CA:1354:C:O3'	2.53	0.41
1:CA:1446:U:O2	1:CA:1456:G:N2	2.53	0.41
3:CC:69:HIS:CD2	3:CC:104:GLN:HB2	2.55	0.41
9:CI:45:ALA:CB	9:CI:47:LEU:H	2.33	0.41
12:CL:47:LYS:HB2	12:CL:47:LYS:HE2	1.83	0.41
14:CN:25:VAL:HB	14:CN:39:LEU:HD21	2.01	0.41
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.84	0.41
17:CQ:22:LEU:HD12	17:CQ:40:LYS:O	2.20	0.41
23:DA:216:A:C4	23:DA:432:A:C2	3.08	0.41
23:DA:250:G:H2'	23:DA:251:A:C8	2.56	0.41
23:DA:271(H):G:O2'	23:DA:271(I):G:P	2.79	0.41
23:DA:271(P):C:C2'	23:DA:271(Q):G:H5'	2.51	0.41
23:DA:2811:G:N2	23:DA:2891:G:H1'	2.35	0.41
24:DB:20:C:H2'	24:DB:21:G:O4'	2.19	0.41
24:DB:79:C:H2'	24:DB:80:U:O4'	2.20	0.41
25:DD:137:PRO:HB2	25:DD:140:THR:HG23	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:128:SER:OG	26:DE:129:HIS:N	2.53	0.41
27:DF:117:ARG:HA	27:DF:117:ARG:HD3	1.87	0.41
43:DZ:138:GLU:HB3	43:DZ:156:LYS:NZ	2.35	0.41
52:D8:54:GLU:OE1	52:D8:57:ARG:NH1	2.50	0.41
1:AA:9:G:OP1	5:AE:122:GLU:HB2	2.20	0.41
1:AA:46:G:N7	56:AA:1902:HOH:O	2.37	0.41
1:AA:325:A:H2'	1:AA:326:G:O4'	2.21	0.41
1:AA:509:A:O2'	1:AA:510:A:OP1	2.32	0.41
1:AA:543:C:C2	1:AA:544:G:C8	3.09	0.41
1:AA:685:G:O2'	1:AA:686:U:H5'	2.21	0.41
1:AA:954:G:H2'	1:AA:955:U:O4'	2.21	0.41
1:AA:994:A:C6	1:AA:1047:G:H4'	2.55	0.41
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.85	0.41
1:AA:1070:U:H1'	1:AA:1106:G:N2	2.35	0.41
1:AA:1296:C:C4	1:AA:1297:C:C2	3.08	0.41
1:AA:1350:A:N1	1:AA:1372:U:C2	2.88	0.41
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.39	0.41
3:AC:205:GLY:O	3:AC:207:VAL:HG23	2.20	0.41
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ2	1.85	0.41
8:AH:121:ASP:O	8:AH:125:ARG:HG2	2.20	0.41
10:AJ:51:ARG:HA	14:AN:45:ARG:NE	2.35	0.41
12:AL:5:PRO:HB2	12:AL:10:LEU:CD1	2.50	0.41
19:AS:58:VAL:HA	19:AS:59:PRO:HD3	1.77	0.41
23:BA:191:A:H2'	23:BA:192:C:C6	2.55	0.41
23:BA:332:A:H2'	56:BA:4744:HOH:O	2.20	0.41
23:BA:642:G:H21	23:BA:646:A:H2	1.68	0.41
23:BA:805:G:H4'	33:BP:38:GLN:HB3	2.01	0.41
26:BE:128:SER:OG	26:BE:129:HIS:N	2.52	0.41
30:BI:130:TYR:HD1	30:BI:130:TYR:HA	1.70	0.41
42:BY:77:PRO:HD3	42:BY:106:LEU:HD23	2.02	0.41
52:B8:26:LYS:HZ2	52:B8:26:LYS:HG2	1.70	0.41
53:B9:32:HIS:O	53:B9:34:GLN:HG3	2.20	0.41
1:CA:33:A:H2'	1:CA:34:C:C6	2.55	0.41
1:CA:263:A:OP1	20:CT:79:ARG:NH1	2.54	0.41
1:CA:373:A:H2'	1:CA:374:A:H8	1.84	0.41
1:CA:376:G:H5"	16:CP:5:ARG:CB	2.51	0.41
1:CA:971:G:H1	1:CA:1363(A):A:H5'	1.85	0.41
1:CA:980:C:H5'	1:CA:981:U:OP2	2.20	0.41
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.85	0.41
1:CA:1245:A:N1	1:CA:1293:G:C6	2.89	0.41
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:188:LEU:H	4:CD:188:LEU:HG	1.24	0.41
5:CE:37:ARG:HG2	5:CE:37:ARG:NH1	2.35	0.41
17:CQ:66:SER:OG	17:CQ:69:LYS:HB2	2.20	0.41
19:CS:33:THR:O	19:CS:52:TYR:HB2	2.20	0.41
22:CV:45:ARG:O	22:CV:49:ALA:HB2	2.21	0.41
23:DA:92:A:O2'	23:DA:93:G:H5'	2.20	0.41
23:DA:900:A:O2'	23:DA:901:A:OP1	2.36	0.41
23:DA:1469:A:C2	23:DA:1524:G:C2	3.09	0.41
23:DA:2104:G:O6	23:DA:2186:G:C4	2.74	0.41
23:DA:2170:A:OP2	23:DA:2170:A:H8	2.04	0.41
24:DB:37:C:C5	24:DB:38:C:C5	3.09	0.41
24:DB:117:G:H2'	24:DB:118:G:O4'	2.21	0.41
27:DF:13:SER:HA	27:DF:14:PRO:HD2	1.82	0.41
30:DI:133:HIS:CE1	30:DI:134:PRO:O	2.73	0.41
32:DO:120:GLU:HG2	32:DO:122:LEU:HG	2.03	0.41
1:AA:502:G:C2	1:AA:503:C:C2	3.08	0.41
1:AA:671:G:C2	1:AA:672:U:C2	3.09	0.41
1:AA:1016:A:H8	1:AA:1016:A:P	2.44	0.41
1:AA:1145:C:H1'	1:AA:1146:A:C8	2.56	0.41
3:AC:181:ASN:CB	3:AC:204:LEU:HB2	2.39	0.41
12:AL:102:ARG:HB3	12:AL:102:ARG:HE	1.46	0.41
13:AM:25:ILE:HG23	13:AM:29:ARG:CB	2.51	0.41
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	2.01	0.41
23:BA:580:C:H2'	23:BA:581:C:C6	2.55	0.41
23:BA:1526:G:C6	23:BA:1527:G:C2	3.09	0.41
25:BD:221:VAL:HG22	25:BD:226:MET:CE	2.50	0.41
30:BI:130:TYR:HD2	30:BI:138:ILE:HD12	1.86	0.41
1:CA:34:C:H42	1:CA:550:G:H1	1.69	0.41
1:CA:129(A):G:C6	1:CA:189(H):G:H1'	2.55	0.41
1:CA:509:A:HO2'	1:CA:510:A:P	2.40	0.41
1:CA:825:G:H2'	1:CA:826:C:C6	2.55	0.41
2:CB:133:LYS:O	2:CB:137:ARG:N	2.31	0.41
2:CB:167:PRO:HG2	2:CB:192:SER:CB	2.50	0.41
3:CC:111:LEU:HD11	3:CC:144:SER:HB3	2.03	0.41
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.35	0.41
11:CK:69:ALA:O	11:CK:72:ALA:N	2.48	0.41
17:CQ:91:ARG:O	17:CQ:94:ASN:HB2	2.20	0.41
22:CV:30:PRO:HG3	22:CV:40:TRP:CZ3	2.56	0.41
23:DA:468:G:N7	51:D7:39:ARG:NH2	2.61	0.41
23:DA:582:G:H2'	23:DA:583:G:C8	2.56	0.41
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1161:C:O2'	39:DV:8:GLY:HA2	2.21	0.41
23:DA:1425:G:H2'	23:DA:1426:G:C8	2.55	0.41
23:DA:1999:C:H2'	23:DA:2000:G:O4'	2.19	0.41
23:DA:2147:G:H2'	23:DA:2148:G:O4'	2.21	0.41
23:DA:2352:A:N6	23:DA:2365:G:O2'	2.54	0.41
23:DA:2441:C:OP2	23:DA:2586:C:O2'	2.36	0.41
23:DA:2572:A:N7	26:DE:144:ARG:HD2	2.35	0.41
24:DB:2:C:H2'	24:DB:3:C:H6	1.84	0.41
25:DD:3:VAL:HG12	25:DD:17:THR:HB	2.03	0.41
26:DE:105:THR:HG23	26:DE:166:THR:OG1	2.20	0.41
27:DF:7:TYR:N	27:DF:22:ALA:HB3	2.31	0.41
28:DG:57:ALA:HB1	28:DG:68:PRO:HD2	2.03	0.41
28:DG:126:ASP:HB2	28:DG:130:ASN:O	2.20	0.41
31:DN:54:VAL:HG11	31:DN:99:LEU:HD12	2.01	0.41
37:DT:24:PRO:HA	37:DT:49:VAL:HG22	2.02	0.41
38:DU:61:TRP:CD2	38:DU:93:LYS:HA	2.55	0.41
39:DV:77:ALA:C	39:DV:79:VAL:H	2.24	0.41
47:D3:22:ALA:O	47:D3:25:ALA:HB3	2.21	0.41
1:AA:457:C:H2'	1:AA:458:C:H6	1.82	0.41
1:AA:518:C:C4	1:AA:530:G:C5	3.08	0.41
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.69	0.41
1:AA:624:C:O2'	16:AP:10:GLY:HA2	2.19	0.41
1:AA:872:A:C4	1:AA:874:G:C8	3.08	0.41
1:AA:1158:C:H4'	2:AB:133:LYS:CB	2.41	0.41
1:AA:1348:U:H2'	1:AA:1349:A:O4'	2.21	0.41
1:AA:1358:U:H5	1:AA:1359:C:C2	2.38	0.41
1:AA:1384:C:N4	1:AA:1385:G:O6	2.54	0.41
6:AF:45:LEU:HD12	6:AF:59:TYR:HD1	1.85	0.41
6:AF:91:VAL:HG21	18:AR:72:ARG:HH12	1.86	0.41
7:AG:68:ASN:O	7:AG:135:VAL:HG13	2.21	0.41
9:AI:49:PRO:HB2	9:AI:81:ILE:O	2.21	0.41
23:BA:384:U:H2'	23:BA:385:C:H6	1.86	0.41
23:BA:1759:A:H1'	23:BA:2711:A:C2	2.56	0.41
23:BA:2287:A:C5	23:BA:2289:G:C5	3.09	0.41
23:BA:2337:G:C2	23:BA:2338:G:C8	3.09	0.41
23:BA:2526:G:H5'	23:BA:2742:C:O2'	2.21	0.41
24:BB:85:G:H2'	24:BB:86:G:H5'	2.03	0.41
25:BD:53:PHE:HB3	25:BD:218:ARG:O	2.21	0.41
35:BR:54:LEU:HD12	35:BR:54:LEU:HA	1.90	0.41
38:BU:105:VAL:HG11	39:BV:39:LEU:HD21	2.01	0.41
42:BY:76:CYS:HA	42:BY:77:PRO:HD3	1.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.34	0.41
1:CA:175:C:H2'	1:CA:176:C:C6	2.56	0.41
1:CA:374:A:H2'	1:CA:374:A:N3	2.36	0.41
1:CA:416:G:H2'	1:CA:417:C:O4'	2.20	0.41
1:CA:938:A:N6	1:CA:939:G:C6	2.89	0.41
1:CA:954:G:C6	13:CM:104:ARG:NH1	2.88	0.41
1:CA:1155:G:C6	1:CA:1156:G:C6	3.09	0.41
1:CA:1163:C:C4	1:CA:1164:G:N7	2.89	0.41
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.31	0.41
1:CA:1443:G:O6	1:CA:1459:C:O2	2.38	0.41
2:CB:79:ASP:O	2:CB:82:ARG:N	2.54	0.41
4:CD:93:PHE:O	4:CD:97:LEU:HB2	2.20	0.41
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.56	0.41
9:CI:9:ARG:HB2	9:CI:9:ARG:NH1	2.31	0.41
10:CJ:54:PHE:CG	10:CJ:55:LYS:N	2.88	0.41
15:CO:17:ARG:HH11	15:CO:17:ARG:HG3	1.86	0.41
16:CP:16:HIS:C	16:CP:17:TYR:HD1	2.24	0.41
23:DA:7:G:H4'	31:DN:13:TRP:CZ2	2.56	0.41
23:DA:483:A:O4'	42:DY:48:ALA:HB1	2.20	0.41
23:DA:580:C:H2'	23:DA:581:C:H6	1.85	0.41
23:DA:1048:A:O2'	23:DA:1049:C:P	2.78	0.41
23:DA:1504:C:O2'	23:DA:1505:C:H5'	2.20	0.41
23:DA:1695:G:H2'	23:DA:1696:G:O4'	2.21	0.41
23:DA:1840:G:C6	23:DA:1841:U:C4	3.09	0.41
23:DA:2340:G:O2'	23:DA:2341:G:H5'	2.20	0.41
23:DA:2484:G:C2	23:DA:2485:G:C8	3.08	0.41
23:DA:2577:A:O4'	49:D5:3:LYS:HB2	2.21	0.41
23:DA:2679:A:H2'	23:DA:2680:C:O4'	2.20	0.41
30:DI:5:LEU:HD11	30:DI:19:VAL:CG2	2.48	0.41
38:DU:105:VAL:HG11	39:DV:39:LEU:HD21	2.02	0.41
40:DW:1:MET:HE2	40:DW:2:GLU:O	2.20	0.41
46:D2:35:LEU:HD23	46:D2:35:LEU:HA	1.92	0.41
1:AA:41:G:H2'	1:AA:42:G:C8	2.56	0.41
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.21	0.41
1:AA:227:G:H2'	1:AA:228:A:C8	2.56	0.41
1:AA:299:G:H2'	1:AA:300:A:C8	2.56	0.41
1:AA:510:A:H5"	1:AA:511:C:OP2	2.21	0.41
1:AA:573:A:N3	1:AA:883:C:O2'	2.44	0.41
1:AA:586:C:C2'	1:AA:587:G:H5'	2.51	0.41
1:AA:641:U:O3'	1:AA:642:A:H8	2.02	0.41
1:AA:830:G:H2'	1:AA:831:U:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:939:G:H2'	1:AA:940:C:C6	2.56	0.41
1:AA:975:A:H4'	1:AA:976:G:H5"	2.03	0.41
1:AA:1001(A):G:C6	1:AA:1002:G:C5	3.08	0.41
1:AA:1003:G:C2	1:AA:1004:A:C8	3.09	0.41
1:AA:1203:C:C2	1:AA:1204:A:C8	3.09	0.41
1:AA:1242:C:H5"	1:AA:1304:G:OP1	2.20	0.41
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.36	0.41
1:AA:1346:A:C8	1:AA:1348:U:C2	3.09	0.41
1:AA:1351:U:H4'	7:AG:33:ASP:CG	2.41	0.41
1:AA:1360:A:N7	14:AN:18:VAL:HG12	2.35	0.41
1:AA:1442:G:N7	1:AA:1442(A):G:C5	2.88	0.41
2:AB:98:LEU:O	2:AB:101:MET:HB2	2.20	0.41
2:AB:157:ARG:HB3	2:AB:157:ARG:HH11	1.85	0.41
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	2.02	0.41
2:AB:178:ARG:HH21	8:AH:74:PRO:HB3	1.86	0.41
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.74	0.41
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.53	0.41
7:AG:47:CYS:O	7:AG:58:PRO:HB3	2.20	0.41
7:AG:68:ASN:O	7:AG:138:LYS:HE2	2.21	0.41
7:AG:127:ALA:CB	7:AG:134:ALA:HB3	2.51	0.41
9:AI:59:PHE:HD1	9:AI:59:PHE:HA	1.66	0.41
11:AK:122:LYS:HE2	11:AK:122:LYS:HB3	1.72	0.41
12:AL:47:LYS:HA	12:AL:49:ASN:H	1.86	0.41
16:AP:29:ASP:OD2	16:AP:29:ASP:N	2.54	0.41
17:AQ:91:ARG:O	17:AQ:94:ASN:HB2	2.21	0.41
20:AT:61:SER:O	20:AT:65:LYS:HG3	2.21	0.41
20:AT:74:LYS:HG3	20:AT:75:ASN:OD1	2.21	0.41
23:BA:10:G:H1'	23:BA:2801(A):A:C2	2.56	0.41
23:BA:107:C:C2	23:BA:108:U:C5	3.09	0.41
23:BA:557:U:H2'	23:BA:558:G:H8	1.86	0.41
23:BA:819:A:C4	23:BA:1189:A:C2	3.08	0.41
23:BA:1541:G:H5"	23:BA:1542:A:OP2	2.21	0.41
23:BA:1668:A:H4'	23:BA:1669:A:O5'	2.21	0.41
23:BA:2080:G:P	45:B1:35:THR:OG1	2.78	0.41
23:BA:2108:C:H2'	23:BA:2109:U:C5'	2.50	0.41
23:BA:2161:C:O2'	23:BA:2162:G:H5'	2.20	0.41
23:BA:2723:C:O3'	35:BR:1:MET:HE3	2.21	0.41
23:BA:2884:U:O2	49:B5:53:ALA:HB2	2.20	0.41
26:BE:35:GLN:OE1	26:BE:66:HIS:HE1	2.04	0.41
26:BE:116:VAL:HG13	26:BE:122:PHE:CD2	2.56	0.41
27:BF:168:ARG:HG2	27:BF:175:THR:HG21	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:74:LYS:O	28:BG:84:LYS:HG2	2.21	0.41
29:BH:60:ARG:HE	29:BH:60:ARG:HB3	1.74	0.41
30:BI:72:LEU:HA	30:BI:75:LEU:CD2	2.51	0.41
30:BI:79:ILE:HA	30:BI:80:PRO:HD2	1.87	0.41
31:BN:34:LEU:O	31:BN:49:GLY:HA3	2.20	0.41
34:BQ:32:TYR:CE2	34:BQ:133:ARG:HG3	2.56	0.41
47:B3:44:ARG:O	47:B3:48:GLU:HG3	2.21	0.41
48:B4:6:HIS:HA	48:B4:7:PRO:HD2	1.76	0.41
52:B8:62:LEU:HB3	52:B8:65:GLU:CG	2.51	0.41
1:CA:111:G:O6	1:CA:330:C:N4	2.52	0.41
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	0.41
1:CA:342:C:C2	1:CA:348:G:N2	2.89	0.41
1:CA:521:G:H2'	1:CA:522:C:H6	1.86	0.41
1:CA:641:U:O3'	1:CA:642:A:H8	2.03	0.41
1:CA:970:C:H41	9:CI:126:SER:CB	2.34	0.41
1:CA:976:G:OP1	14:CN:31:ARG:HD3	2.21	0.41
1:CA:986:A:H2'	1:CA:987:G:O4'	2.20	0.41
1:CA:1047:G:H1'	1:CA:1215:G:O2'	2.20	0.41
1:CA:1084:G:C6	1:CA:1085:U:C4	3.08	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.69	0.41
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.21	0.41
1:CA:1182:G:H4'	1:CA:1183:A:H5'	2.02	0.41
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.56	0.41
1:CA:1291:G:C2'	1:CA:1292:U:H5'	2.50	0.41
1:CA:1319:A:N1	1:CA:1323:G:H1'	2.35	0.41
1:CA:1392:G:N2	1:CA:1502:A:H8	2.13	0.41
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.21	0.41
2:CB:22:LYS:H	2:CB:40:HIS:HD2	1.68	0.41
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	2.03	0.41
2:CB:194:PRO:C	2:CB:196:LEU:H	2.24	0.41
3:CC:6:HIS:HE1	3:CC:184:TYR:CD2	2.39	0.41
3:CC:16:ARG:HD2	3:CC:54:ARG:NH2	2.36	0.41
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.20	0.41
4:CD:174:LEU:HD23	4:CD:174:LEU:HA	1.82	0.41
5:CE:66:MET:O	5:CE:67:VAL:HB	2.20	0.41
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.21	0.41
7:CG:116:ALA:HA	7:CG:119:ARG:HB2	2.03	0.41
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.01	0.41
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.51	0.41
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.21	0.41
9:CI:12:GLU:O	9:CI:67:GLY:HA3	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:100:GLY:O	9:CI:103:THR:HG22	2.20	0.41
11:CK:20:TYR:CE2	11:CK:83:ILE:HD12	2.55	0.41
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	2.03	0.41
13:CM:3:ARG:HE	13:CM:4:ILE:HG22	1.86	0.41
13:CM:20:THR:HG23	13:CM:26:GLY:HA2	2.03	0.41
15:CO:18:PHE:HD1	15:CO:20:GLY:H	1.69	0.41
18:CR:85:LEU:HD22	18:CR:86:VAL:N	2.35	0.41
19:CS:69:HIS:HD2	19:CS:74:PHE:HE1	1.69	0.41
23:DA:117:G:C6	23:DA:119:A:C6	3.09	0.41
23:DA:118:A:C8	23:DA:119:A:C8	3.09	0.41
23:DA:773:U:H5'	25:DD:47:GLY:HA3	2.02	0.41
23:DA:922:U:H2'	23:DA:923:C:C6	2.55	0.41
23:DA:1049:C:H1'	23:DA:1113:U:H4'	2.02	0.41
23:DA:1382:G:H2'	23:DA:1383:C:C6	2.56	0.41
23:DA:1433:U:O2	23:DA:1561:G:C2	2.74	0.41
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.55	0.41
23:DA:1651:G:N2	23:DA:2007:C:C2	2.89	0.41
23:DA:2304:G:H21	28:DG:156:ASP:CG	2.25	0.41
23:DA:2335:A:C8	23:DA:2337:G:N7	2.89	0.41
23:DA:2833:G:O2'	23:DA:2834:G:P	2.78	0.41
24:DB:28:C:C2	24:DB:29:A:C8	3.09	0.41
24:DB:78:A:C2	24:DB:100:A:C4	3.09	0.41
27:DF:167:ALA:HB1	27:DF:173:VAL:HG11	2.01	0.41
29:DH:32:GLU:O	29:DH:33:LEU:HD23	2.21	0.41
29:DH:33:LEU:HD11	29:DH:136:ILE:O	2.21	0.41
30:DI:59:ALA:O	30:DI:63:ALA:N	2.54	0.41
35:DR:26:LYS:HE2	35:DR:70:LEU:O	2.21	0.41
37:DT:99:LEU:O	37:DT:100:TYR:C	2.59	0.41
40:DW:68:ARG:O	40:DW:109:GLU:HA	2.21	0.41
44:D0:41:ARG:HD2	44:D0:41:ARG:HA	1.80	0.41
45:D1:40:ARG:HE	45:D1:40:ARG:HB2	1.67	0.41
49:D5:49:CYS:SG	49:D5:51:TYR:HD1	2.44	0.41
1:AA:41:G:H2'	1:AA:42:G:H8	1.85	0.41
1:AA:597:G:N2	8:AH:94:TYR:OH	2.53	0.41
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.03	0.41
1:AA:976:G:H8	1:AA:1358:U:H2'	1.85	0.41
1:AA:977:A:H2'	1:AA:978:A:H5"	2.02	0.41
1:AA:1055:A:N6	1:AA:1056:U:C4	2.89	0.41
1:AA:1253:G:OP1	10:AJ:44:VAL:HG23	2.21	0.41
1:AA:1271:G:N3	1:AA:1272:G:H1'	2.36	0.41
1:AA:1352:C:H2'	1:AA:1353:G:O4'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1355:G:C6	1:AA:1368:G:C6	3.09	0.41
2:AB:75:LYS:HE3	2:AB:78:GLN:OE1	2.21	0.41
3:AC:32:LEU:HB3	3:AC:59:ARG:CZ	2.51	0.41
8:AH:101:PRO:HG3	8:AH:133:LEU:HD11	2.03	0.41
9:AI:9:ARG:HB2	9:AI:9:ARG:NH1	2.32	0.41
13:AM:91:ARG:HD2	13:AM:91:ARG:HA	1.93	0.41
15:AO:7:GLU:O	15:AO:10:LYS:HB3	2.20	0.41
23:BA:9:U:O4	23:BA:2629:A:C2	2.73	0.41
23:BA:127:A:H5"	23:BA:128:C:O4'	2.20	0.41
23:BA:322:A:C5	23:BA:340:A:C2	3.09	0.41
23:BA:1711:C:H2'	23:BA:1712:C:C6	2.55	0.41
23:BA:2127:G:HO2'	23:BA:2173:A:H2	1.64	0.41
25:BD:218:ARG:HB3	25:BD:219:PRO:HD2	2.03	0.41
27:BF:140:LEU:HA	27:BF:140:LEU:HD13	1.90	0.41
28:BG:24:GLY:O	28:BG:26:GLN:NE2	2.54	0.41
32:BO:104:ARG:NH1	37:BT:34:VAL:HG21	2.36	0.41
48:B4:14:ILE:HA	48:B4:31:ILE:O	2.19	0.41
1:CA:57:G:H2'	1:CA:58:C:O4'	2.21	0.41
1:CA:107:G:H2'	1:CA:108:G:O4'	2.21	0.41
1:CA:373:A:C8	1:CA:482:A:C8	3.09	0.41
1:CA:391:G:C6	1:CA:392:G:C5	3.09	0.41
1:CA:509:A:O2'	1:CA:510:A:OP1	2.29	0.41
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.54	0.41
1:CA:828:A:H5"	1:CA:859:A:C2	2.56	0.41
1:CA:925:G:C2	1:CA:927:G:C8	3.09	0.41
1:CA:1072:G:O2'	1:CA:1073:U:H5'	2.20	0.41
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.20	0.41
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.21	0.41
2:CB:224:GLN:HB2	2:CB:229:VAL:HG22	2.02	0.41
3:CC:130:VAL:O	3:CC:134:ILE:HG13	2.21	0.41
4:CD:6:GLY:O	4:CD:8:VAL:N	2.53	0.41
13:CM:63:THR:HG23	13:CM:64:TRP:CD1	2.56	0.41
15:CO:76:GLU:O	15:CO:80:ALA:N	2.53	0.41
23:DA:107:C:H2'	23:DA:108:U:C6	2.54	0.41
23:DA:729:G:H2'	23:DA:1775:U:H1'	2.04	0.41
23:DA:2115:G:H5"	23:DA:2116:G:OP2	2.21	0.41
23:DA:2400:G:C5	23:DA:2401:U:C5	3.09	0.41
23:DA:2702:U:H4'	23:DA:2703:C:OP1	2.20	0.41
23:DA:2752:C:O5'	23:DA:2752:C:H6	2.04	0.41
24:DB:59:A:H2'	24:DB:60:C:H6	1.85	0.41
26:DE:137:HIS:HB3	26:DE:138:PRO:HD2	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:78:THR:HA	30:DI:143:SER:O	2.21	0.41
41:DX:94:GLY:HA3	41:DX:95:LEU:HA	1.66	0.41
50:D6:14:THR:O	50:D6:17:LYS:NZ	2.30	0.41
52:D8:26:LYS:HZ2	52:D8:26:LYS:HG2	1.72	0.41
1:AA:2:U:O5'	1:AA:2:U:H6	2.05	0.40
1:AA:44:G:OP1	16:AP:11:SER:HB2	2.21	0.40
1:AA:89:C:H2'	1:AA:90:U:C5	2.56	0.40
1:AA:225:C:C4	1:AA:226:G:N7	2.89	0.40
1:AA:317:G:C6	1:AA:318:G:N7	2.89	0.40
1:AA:505:G:C6	1:AA:535:A:C2	3.09	0.40
1:AA:626:U:H2'	1:AA:627:G:C8	2.51	0.40
1:AA:627:G:O2'	1:AA:628:G:H5'	2.20	0.40
1:AA:683:G:N2	1:AA:708:C:C2	2.89	0.40
1:AA:1027:C:H2'	1:AA:1028:C:C4	2.55	0.40
1:AA:1065:U:O2	1:AA:1109:C:H5'	2.21	0.40
1:AA:1157:A:C4'	1:AA:1158:C:H5'	2.40	0.40
1:AA:1160:G:C4	1:AA:1161:C:C5	3.09	0.40
1:AA:1248:A:C2	1:AA:1289:A:N6	2.88	0.40
5:AE:137:GLU:HG2	5:AE:140:ARG:HH11	1.87	0.40
9:AI:24:GLY:O	9:AI:26:VAL:HG23	2.21	0.40
14:AN:45:ARG:HG2	14:AN:49:HIS:CD2	2.56	0.40
23:BA:271(K):U:O2'	23:BA:271(L):U:OP1	2.27	0.40
23:BA:1106:G:H4'	23:BA:1107:G:OP2	2.20	0.40
23:BA:1364:G:N7	45:B1:3:LYS:HD3	2.36	0.40
23:BA:1538:G:O2'	23:BA:1539:G:OP1	2.28	0.40
23:BA:2420:C:H6	23:BA:2420:C:O5'	2.04	0.40
27:BF:150:GLY:HA2	27:BF:172:TRP:CE3	2.57	0.40
28:BG:103:LEU:HA	28:BG:103:LEU:HD23	1.82	0.40
37:BT:33:LYS:O	37:BT:82:LEU:HD23	2.21	0.40
38:BU:47:TYR:HA	38:BU:50:ARG:NH2	2.36	0.40
39:BV:65:GLY:HA3	39:BV:91:TYR:CZ	2.56	0.40
41:BX:94:GLY:HA3	41:BX:95:LEU:HA	1.63	0.40
1:CA:175:C:H2'	1:CA:176:C:H6	1.85	0.40
1:CA:246:A:N3	1:CA:247:G:H1'	2.36	0.40
1:CA:390:C:H2'	1:CA:391:G:H8	1.86	0.40
1:CA:689:C:P	11:CK:46:GLY:HA3	2.61	0.40
1:CA:731:G:OP1	1:CA:766:A:H1'	2.20	0.40
1:CA:790:A:N1	1:CA:1497:G:H5"	2.36	0.40
1:CA:865:A:O5'	1:CA:865:A:H8	2.04	0.40
1:CA:994:A:H61	1:CA:1047:G:C4'	2.34	0.40
1:CA:1168:A:C6	1:CA:1169:A:C6	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1288:A:H61	1:CA:1371:G:HO2'	1.68	0.40
3:CC:47:LEU:HD23	3:CC:47:LEU:HA	1.89	0.40
11:CK:31:THR:HG22	11:CK:42:TRP:CB	2.51	0.40
23:DA:188:G:H1	23:DA:208:C:N4	2.18	0.40
23:DA:271(H):G:O2'	23:DA:271(I):G:OP2	2.28	0.40
23:DA:271(S):G:C6	23:DA:271(T):C:C4	3.08	0.40
23:DA:626:U:O4	33:DP:107:LYS:HE2	2.21	0.40
23:DA:858:U:O2	23:DA:2268:A:H2'	2.20	0.40
23:DA:1138:G:C4	23:DA:1139:G:H1'	2.56	0.40
23:DA:1420:U:H6	23:DA:1420:U:H2'	1.61	0.40
23:DA:2127:G:HO2'	23:DA:2173:A:H2	1.63	0.40
23:DA:2834:G:N2	23:DA:2882:A:N6	2.69	0.40
25:DD:9:TYR:CZ	25:DD:13:ARG:HG2	2.56	0.40
27:DF:126:VAL:HG21	27:DF:129:PHE:CE1	2.55	0.40
32:DO:35:VAL:HG21	32:DO:103:ALA:HB3	2.03	0.40
35:DR:38:VAL:HB	35:DR:39:PRO:HD3	2.02	0.40
37:DT:3:ARG:HB2	37:DT:3:ARG:NH2	2.36	0.40
52:D8:29:LYS:HD3	52:D8:44:LYS:C	2.41	0.40
52:D8:34:TRP:CD2	52:D8:35:GLN:HB2	2.56	0.40
1:AA:112:G:H2'	1:AA:112:G:N3	2.37	0.40
1:AA:394:G:H2'	1:AA:395:C:C6	2.57	0.40
1:AA:588:G:OP2	56:AA:1873:HOH:O	2.22	0.40
1:AA:674:G:H2'	1:AA:675:A:C8	2.44	0.40
1:AA:707:C:OP1	11:AK:85:ARG:NH1	2.54	0.40
1:AA:863:U:H2'	1:AA:865:A:OP2	2.22	0.40
1:AA:941:G:H1	1:AA:1342:C:N4	2.14	0.40
1:AA:990:C:H5'	1:AA:1018:C:OP2	2.21	0.40
1:AA:1271:G:C6	1:AA:1272:G:C4	3.09	0.40
1:AA:1316:G:H2'	1:AA:1318:A:OP2	2.20	0.40
1:AA:1346:A:O3'	1:AA:1347:G:H4'	2.21	0.40
1:AA:1348:U:C4	1:AA:1374:A:N7	2.90	0.40
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.21	0.40
3:AC:138:VAL:HG13	3:AC:149:ALA:HB3	2.03	0.40
8:AH:23:SER:HA	8:AH:61:VAL:O	2.22	0.40
15:AO:43:LEU:HD23	15:AO:43:LEU:HA	1.77	0.40
16:AP:23:ASP:HB3	16:AP:26:ARG:HG2	2.03	0.40
23:BA:271(H):G:C6	23:BA:271(Q):G:C6	3.09	0.40
23:BA:1047:G:H2'	23:BA:1110:G:H22	1.84	0.40
23:BA:1540:U:H2'	23:BA:1541:G:O4'	2.21	0.40
23:BA:1568:G:H5'	25:BD:60:ARG:HA	2.03	0.40
23:BA:1636:C:H2'	23:BA:1637:A:C8	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1750:G:O2'	23:BA:2860:A:N1	2.46	0.40
23:BA:2473:U:O2	23:BA:2473:U:H2'	2.20	0.40
27:BF:32:LEU:O	27:BF:35:GLU:N	2.55	0.40
31:BN:5:VAL:O	31:BN:5:VAL:HG12	2.21	0.40
31:BN:20:GLY:HA2	31:BN:61:ARG:CG	2.49	0.40
48:B4:42:PHE:CB	48:B4:43:TYR:HB2	2.50	0.40
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.56	0.40
1:CA:622:A:C8	1:CA:623:C:C5	3.09	0.40
1:CA:673:G:H5"	6:CF:87:ARG:CZ	2.51	0.40
1:CA:940:C:HO2'	1:CA:1374:A:H2	1.69	0.40
1:CA:1015:A:C2	1:CA:1218:C:O2	2.72	0.40
1:CA:1151:A:O4'	10:CJ:39:PRO:HB2	2.20	0.40
1:CA:1274:G:H21	1:CA:1275:A:N6	2.14	0.40
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.21	0.40
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.21	0.40
2:CB:55:PHE:HD2	2:CB:55:PHE:HA	1.77	0.40
3:CC:57:ILE:HG12	3:CC:66:VAL:HA	2.03	0.40
5:CE:107:ARG:O	5:CE:111:GLU:N	2.53	0.40
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.32	0.40
13:CM:96:LEU:HA	13:CM:97:PRO:HD3	1.88	0.40
23:DA:226:G:N2	23:DA:228:A:N6	2.68	0.40
23:DA:243:U:O2'	23:DA:244:A:H5'	2.22	0.40
23:DA:706:A:H2'	23:DA:707:G:O4'	2.21	0.40
23:DA:950:G:C6	23:DA:951:C:C4	3.10	0.40
23:DA:1421:G:C2	23:DA:1422:G:N7	2.89	0.40
23:DA:1586:A:H2'	23:DA:1587:A:H5'	2.03	0.40
23:DA:2583:G:H2'	23:DA:2584:U:H6	1.86	0.40
23:DA:2648:C:H2'	23:DA:2649:U:C6	2.56	0.40
23:DA:2788:C:OP1	26:DE:61:ARG:NH2	2.53	0.40
24:DB:117:G:C4'	36:DS:54:LEU:HD23	2.47	0.40
34:DQ:18:LYS:O	34:DQ:98:LYS:HD3	2.21	0.40
40:DW:79:GLY:CA	40:DW:100:THR:HG22	2.49	0.40
41:DX:18:TYR:C	41:DX:20:GLY:N	2.75	0.40
45:D1:58:ILE:HG21	45:D1:58:ILE:HD13	1.76	0.40
1:AA:152:A:C8	1:AA:153:C:C5	3.09	0.40
1:AA:304:U:C2	1:AA:305:G:N7	2.90	0.40
1:AA:592:G:C6	1:AA:648:A:C6	3.10	0.40
1:AA:664:G:P	18:AR:64:ARG:HH21	2.43	0.40
1:AA:826:C:H2'	1:AA:827:U:H6	1.86	0.40
1:AA:1192:C:OP1	3:AC:4:LYS:NZ	2.55	0.40
1:AA:1205:U:H2'	1:AA:1206:G:H8	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1347:G:H8	9:AI:107:ARG:CB	2.34	0.40
1:AA:1363(A):A:P	1:AA:1363(A):A:C8	3.14	0.40
9:AI:24:GLY:H	9:AI:60:ASP:CG	2.25	0.40
9:AI:52:ALA:HB2	9:AI:101:PHE:CE1	2.56	0.40
9:AI:110:GLU:HG2	9:AI:111:ARG:H	1.86	0.40
14:AN:47:LEU:HB2	14:AN:53:LEU:CG	2.49	0.40
22:AV:34:LEU:O	22:AV:37:ARG:N	2.53	0.40
23:BA:154(A):C:H5"	23:BA:154(A):C:O2	2.22	0.40
23:BA:479:A:H4'	23:BA:480:A:OP1	2.21	0.40
23:BA:1038:C:H6	23:BA:1038:C:H5"	1.86	0.40
23:BA:1246:A:OP1	56:BA:4348:HOH:O	2.22	0.40
23:BA:1260:G:C6	23:BA:1261:C:C4	3.09	0.40
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.21	0.40
27:BF:197:ASP:OD2	27:BF:197:ASP:N	2.54	0.40
37:BT:84:GLN:NE2	37:BT:85:LYS:HG2	2.35	0.40
44:B0:55:ARG:NH1	44:B0:55:ARG:HB2	2.36	0.40
1:CA:658:G:H2'	1:CA:659:U:C6	2.56	0.40
1:CA:791:G:O5'	1:CA:791:G:H8	2.04	0.40
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.54	0.40
1:CA:981:U:H4'	14:CN:21:TYR:CZ	2.56	0.40
1:CA:1039:C:H2'	1:CA:1040:U:O4'	2.21	0.40
1:CA:1073:U:O2'	2:CB:104:ASN:OD1	2.23	0.40
1:CA:1152:A:H5'	10:CJ:13:HIS:CD2	2.57	0.40
1:CA:1264:C:H2'	1:CA:1265:G:H8	1.82	0.40
1:CA:1269:A:C4	1:CA:1313:U:H1'	2.56	0.40
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.57	0.40
4:CD:6:GLY:O	4:CD:8:VAL:HG23	2.21	0.40
5:CE:149:GLU:H	5:CE:149:GLU:HG2	1.53	0.40
13:CM:33:ALA:HB2	13:CM:64:TRP:CZ3	2.56	0.40
15:CO:36:ILE:O	15:CO:39:LEU:N	2.55	0.40
20:CT:74:LYS:HB3	20:CT:74:LYS:HE2	1.88	0.40
23:DA:330:A:C2	23:DA:1210:A:H2'	2.52	0.40
23:DA:827:U:O2	23:DA:2246:G:H4'	2.22	0.40
23:DA:1753:G:OP1	37:DT:95:ARG:HD3	2.21	0.40
23:DA:1799:G:C8	25:DD:181:GLU:OE2	2.74	0.40
23:DA:2119:A:C6	23:DA:2171:A:C5	3.10	0.40
29:DH:56:SER:OG	29:DH:57:ASP:N	2.55	0.40
30:DI:75:LEU:CD2	30:DI:140:LEU:HD21	2.52	0.40
31:DN:18:ALA:HB3	31:DN:56:ASN:O	2.21	0.40
32:DO:59:LYS:NZ	32:DO:89:ASN:HD21	2.19	0.40
32:DO:68:GLU:O	32:DO:68:GLU:HG2	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DS:58:LEU:HB2	36:DS:59:LYS:CB	2.50	0.40
37:DT:118:ARG:HG3	37:DT:118:ARG:NH1	2.37	0.40
38:DU:109:LEU:HD23	38:DU:109:LEU:HA	1.83	0.40
44:D0:10:THR:HG22	44:D0:12:ASN:H	1.86	0.40
50:D6:23:THR:HG1	50:D6:24:GLU:N	2.17	0.40
1:AA:56:U:C2	1:AA:57:G:C8	3.09	0.40
1:AA:373:A:H61	1:AA:391:G:H1'	1.87	0.40
1:AA:392:G:C4	1:AA:393:A:C8	3.09	0.40
1:AA:489:C:H6	1:AA:489:C:O5'	2.04	0.40
1:AA:563:A:N7	1:AA:567:G:H1'	2.36	0.40
1:AA:820:U:H4'	1:AA:821:G:OP2	2.21	0.40
1:AA:934:C:O2	1:AA:934:C:O4'	2.39	0.40
1:AA:1030(C):G:H3'	1:AA:1030(C):G:C8	2.57	0.40
1:AA:1147:C:H2'	1:AA:1148:U:C6	2.56	0.40
1:AA:1442:G:H2'	1:AA:1442(A):G:C8	2.56	0.40
1:AA:1503:A:N6	1:AA:1532:U:O2'	2.55	0.40
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	2.03	0.40
2:AB:155:LEU:HD22	2:AB:155:LEU:HA	1.91	0.40
6:AF:10:LEU:HD13	6:AF:61:LEU:HD13	2.04	0.40
7:AG:102:ARG:HE	7:AG:102:ARG:HB2	1.46	0.40
8:AH:127:LEU:HD13	8:AH:127:LEU:HA	1.94	0.40
9:AI:111:ARG:CB	14:AN:61:TRP:HE1	2.34	0.40
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.24	0.40
13:AM:68:GLY:H	13:AM:71:ARG:HH21	1.69	0.40
14:AN:32:SER:HB3	14:AN:41:ARG:HB3	2.03	0.40
17:AQ:39:SER:O	17:AQ:40:LYS:HB2	2.22	0.40
23:BA:111:A:C2	23:BA:112:U:C2	3.09	0.40
23:BA:811:U:H2'	33:BP:21:ARG:HA	2.03	0.40
23:BA:862:G:P	56:BA:4195:HOH:O	2.79	0.40
23:BA:1212:G:N2	23:BA:1236:G:O2'	2.52	0.40
23:BA:1436:G:H1'	23:BA:1477:A:O2'	2.22	0.40
23:BA:1615:C:C5	23:BA:1617:C:C4	3.10	0.40
23:BA:2174:C:H6	23:BA:2174:C:O5'	2.04	0.40
23:BA:2187:G:C6	23:BA:2188:C:C2	3.09	0.40
23:BA:2319:G:C8	23:BA:2320:A:C2	3.10	0.40
23:BA:2854:G:H2'	23:BA:2855:C:H6	1.85	0.40
28:BG:6:ALA:HB3	28:BG:104:GLU:OE1	2.22	0.40
28:BG:17:PRO:O	28:BG:21:ARG:HB2	2.20	0.40
32:BO:2:ILE:HD12	32:BO:6:THR:HG21	2.02	0.40
1:CA:519:C:H2'	1:CA:520:A:H8	1.85	0.40
1:CA:786:G:C2	1:CA:797:C:C2	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1057:G:C5	1:CA:1204:A:C2	3.10	0.40
1:CA:1079:G:C6	1:CA:1080:A:N6	2.90	0.40
2:CB:118:LEU:O	2:CB:122:PHE:N	2.55	0.40
17:CQ:3:LYS:HD3	17:CQ:61:GLU:O	2.21	0.40
22:CV:30:PRO:HB2	22:CV:31:TYR:HB2	2.04	0.40
23:DA:631:A:H2'	23:DA:632:A:O4'	2.21	0.40
23:DA:754:C:H2'	23:DA:755:C:H6	1.86	0.40
23:DA:826:U:OP1	23:DA:2428:G:H3'	2.21	0.40
23:DA:979:G:C6	23:DA:982:C:C5	3.09	0.40
23:DA:1266:G:O5'	40:DW:15:ARG:NH2	2.54	0.40
23:DA:1504:C:H2'	23:DA:1505:C:H6	1.86	0.40
23:DA:1529:G:O2'	23:DA:1530:C:H5'	2.21	0.40
23:DA:2192:G:C2	23:DA:2193:G:C8	3.09	0.40
23:DA:2416:C:O5'	23:DA:2416:C:H6	2.04	0.40
26:DE:24:THR:HG23	26:DE:184:VAL:HG12	2.04	0.40
28:DG:105:LYS:HE2	28:DG:105:LYS:HB2	1.91	0.40
30:DI:44:LEU:HA	30:DI:44:LEU:HD12	1.39	0.40
35:DR:70:LEU:HA	35:DR:70:LEU:HD23	1.84	0.40
40:DW:41:LYS:HE3	49:D5:25:LEU:HD21	2.04	0.40
48:D4:6:HIS:HA	48:D4:7:PRO:HD2	1.83	0.40
1:AA:11:G:C6	1:AA:12:U:C4	3.09	0.40
1:AA:38:G:H22	1:AA:397:A:P	2.44	0.40
1:AA:78:G:H1	1:AA:91:C:H42	1.69	0.40
1:AA:112:G:H4'	1:AA:389:A:H4'	2.04	0.40
1:AA:627:G:H2'	1:AA:628:G:H8	1.87	0.40
1:AA:642:A:N3	8:AH:113:SER:OG	2.51	0.40
1:AA:649:G:H2'	1:AA:650:G:C8	2.56	0.40
1:AA:763:G:H2'	1:AA:764:C:H6	1.87	0.40
1:AA:970:C:C5'	1:AA:972:C:C2	3.04	0.40
1:AA:1010:G:C5	1:AA:1011:G:C8	3.09	0.40
1:AA:1157:A:O4'	1:AA:1158:C:C2	2.75	0.40
1:AA:1392:G:N2	1:AA:1502:A:C8	2.90	0.40
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.22	0.40
2:AB:194:PRO:C	2:AB:196:LEU:H	2.24	0.40
5:AE:143:ARG:NH1	8:AH:77:GLU:OE2	2.53	0.40
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.57	0.40
9:AI:4:TYR:CD1	9:AI:87:GLN:HG2	2.56	0.40
9:AI:66:ARG:HA	9:AI:73:GLN:NE2	2.37	0.40
12:AL:47:LYS:HB2	12:AL:47:LYS:HE2	1.83	0.40
18:AR:59:SER:HB3	18:AR:62:GLU:HG3	2.04	0.40
23:BA:460:A:C2	23:BA:470:A:C4	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:484:C:H2'	23:BA:485:C:C6	2.57	0.40
23:BA:745:G:C2'	23:BA:746:A:H5'	2.51	0.40
23:BA:1528(A):A:N7	23:BA:1529:G:C5	2.89	0.40
23:BA:1586:A:H2'	23:BA:1587:A:H5'	2.03	0.40
23:BA:2292:C:P	36:BS:17:ARG:NH2	2.95	0.40
23:BA:2315:G:H2'	23:BA:2316:C:H6	1.86	0.40
23:BA:2663:G:C5	23:BA:2664:G:C5	3.09	0.40
25:BD:10:THR:OG1	25:BD:13:ARG:HB2	2.22	0.40
28:BG:63:ILE:HD13	28:BG:155:MET:HE1	2.03	0.40
28:BG:105:LYS:NZ	48:B4:25:TYR:O	2.54	0.40
28:BG:105:LYS:HE2	28:BG:105:LYS:HB2	1.90	0.40
29:BH:24:VAL:HG22	29:BH:35:VAL:HB	2.03	0.40
32:BO:42:SER:HB3	32:BO:44:LYS:HE2	2.02	0.40
34:BQ:35:VAL:HG13	34:BQ:130:LYS:HB3	2.04	0.40
34:BQ:119:ARG:HE	34:BQ:119:ARG:HB3	1.65	0.40
37:BT:99:LEU:O	37:BT:102:ILE:HG12	2.21	0.40
42:BY:65:ALA:HA	42:BY:66:PRO:HD3	1.91	0.40
42:BY:106:LEU:O	42:BY:107:ASP:HB2	2.21	0.40
43:BZ:63:ASP:OD1	43:BZ:65:GLN:HB3	2.21	0.40
49:B5:29:THR:O	49:B5:30:LEU:HD23	2.22	0.40
1:CA:9:G:OP1	5:CE:122:GLU:HB2	2.22	0.40
1:CA:217:C:O2'	1:CA:470:C:N4	2.55	0.40
1:CA:474:G:C2	1:CA:475:G:C5	3.09	0.40
1:CA:509:A:C6	1:CA:510:A:N1	2.89	0.40
1:CA:597:G:H5"	1:CA:598:U:OP2	2.21	0.40
1:CA:698:G:C6	1:CA:699:C:C4	3.10	0.40
1:CA:924:C:H2'	1:CA:925:G:C8	2.56	0.40
1:CA:1107:C:H5"	3:CC:173:VAL:N	2.29	0.40
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.22	0.40
1:CA:1307:U:O5'	1:CA:1307:U:H6	2.04	0.40
1:CA:1380:U:C4	7:CG:3:ARG:HG2	2.56	0.40
1:CA:1403:C:H6	1:CA:1403:C:O5'	2.04	0.40
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.86	0.40
11:CK:17:GLY:HA2	11:CK:35:PRO:HD3	2.03	0.40
11:CK:29:ILE:HG12	11:CK:44:SER:HB2	2.03	0.40
18:CR:34:TYR:CD2	18:CR:34:TYR:N	2.89	0.40
22:CV:13:HIS:O	22:CV:13:HIS:ND1	2.46	0.40
23:DA:271(T):C:H2'	23:DA:271(U):G:H8	1.86	0.40
23:DA:469:G:C2'	23:DA:470:A:H5"	2.51	0.40
23:DA:754:C:H2'	23:DA:755:C:C6	2.57	0.40
23:DA:811:U:O2'	33:DP:21:ARG:HG3	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:916:G:C2'	23:DA:917:A:H5"	2.52	0.40
23:DA:1721:G:H5"	23:DA:1721:G:N3	2.37	0.40
23:DA:2109:U:H3'	23:DA:2109:U:C6	2.53	0.40
23:DA:2732:G:H3'	23:DA:2733:A:O4'	2.20	0.40
28:DG:153:ARG:HE	28:DG:153:ARG:HB2	1.55	0.40
29:DH:13:LYS:HA	29:DH:14:GLY:HA2	1.54	0.40
31:DN:134:ARG:HA	31:DN:135:PRO:HD3	1.61	0.40
36:DS:102:ALA:HA	36:DS:105:ALA:H	1.85	0.40
48:D4:16:CYS:HB2	48:D4:36:CYS:SG	2.62	0.40
50:D6:10:LEU:CD1	50:D6:54:ILE:HA	2.51	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	Interatomic distance (Å)	Clash overlap (Å)
30:BI:91:SER:OG	1:CA:368:U:OP1[3_654]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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
2	AB	227/256 (89%)	188 (83%)	37 (16%)	2 (1%)	17 55
2	CB	227/256 (89%)	192 (85%)	33 (14%)	2 (1%)	17 55
3	AC	204/239 (85%)	179 (88%)	25 (12%)	0	100 100
3	CC	204/239 (85%)	177 (87%)	27 (13%)	0	100 100
4	AD	206/209 (99%)	179 (87%)	25 (12%)	2 (1%)	15 53
4	CD	206/209 (99%)	180 (87%)	24 (12%)	2 (1%)	15 53
5	AE	146/162 (90%)	125 (86%)	20 (14%)	1 (1%)	22 60
5	CE	146/162 (90%)	126 (86%)	20 (14%)	0	100 100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	AF	98/101 (97%)	88 (90%)	10 (10%)	0	100	100
6	CF	98/101 (97%)	88 (90%)	10 (10%)	0	100	100
7	AG	153/156 (98%)	132 (86%)	19 (12%)	2 (1%)	12	45
7	CG	153/156 (98%)	128 (84%)	23 (15%)	2 (1%)	12	45
8	AH	136/138 (99%)	122 (90%)	14 (10%)	0	100	100
8	CH	136/138 (99%)	125 (92%)	11 (8%)	0	100	100
9	AI	123/128 (96%)	106 (86%)	15 (12%)	2 (2%)	9	40
9	CI	123/128 (96%)	109 (89%)	12 (10%)	2 (2%)	9	40
10	AJ	94/105 (90%)	78 (83%)	14 (15%)	2 (2%)	7	33
10	CJ	94/105 (90%)	74 (79%)	18 (19%)	2 (2%)	7	33
11	AK	112/129 (87%)	100 (89%)	12 (11%)	0	100	100
11	CK	112/129 (87%)	100 (89%)	12 (11%)	0	100	100
12	AL	120/132 (91%)	109 (91%)	10 (8%)	1 (1%)	19	57
12	CL	120/132 (91%)	107 (89%)	11 (9%)	2 (2%)	9	39
13	AM	112/126 (89%)	82 (73%)	27 (24%)	3 (3%)	5	26
13	CM	112/126 (89%)	84 (75%)	27 (24%)	1 (1%)	17	55
14	AN	58/61 (95%)	48 (83%)	7 (12%)	3 (5%)	2	12
14	CN	58/61 (95%)	51 (88%)	6 (10%)	1 (2%)	9	39
15	AO	86/89 (97%)	71 (83%)	15 (17%)	0	100	100
15	CO	86/89 (97%)	72 (84%)	14 (16%)	0	100	100
16	AP	80/88 (91%)	69 (86%)	9 (11%)	2 (2%)	5	28
16	CP	80/88 (91%)	71 (89%)	7 (9%)	2 (2%)	5	28
17	AQ	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
17	CQ	97/105 (92%)	86 (89%)	11 (11%)	0	100	100
18	AR	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
18	CR	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
19	AS	79/93 (85%)	62 (78%)	16 (20%)	1 (1%)	12	45
19	CS	79/93 (85%)	60 (76%)	16 (20%)	3 (4%)	3	18
20	AT	95/106 (90%)	82 (86%)	10 (10%)	3 (3%)	4	22
20	CT	95/106 (90%)	81 (85%)	11 (12%)	3 (3%)	4	22
21	AU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	CU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
22	AV	51/61 (84%)	42 (82%)	9 (18%)	0	100	100
22	CV	51/61 (84%)	34 (67%)	14 (28%)	3 (6%)	1	9
25	BD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	34	72
25	DD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	34	72
26	BE	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	15	53
26	DE	202/206 (98%)	189 (94%)	11 (5%)	2 (1%)	15	53
27	BF	201/210 (96%)	187 (93%)	13 (6%)	1 (0%)	29	68
27	DF	201/210 (96%)	188 (94%)	12 (6%)	1 (0%)	29	68
28	BG	179/182 (98%)	151 (84%)	28 (16%)	0	100	100
28	DG	179/182 (98%)	151 (84%)	27 (15%)	1 (1%)	25	64
29	BH	172/180 (96%)	156 (91%)	14 (8%)	2 (1%)	13	48
29	DH	172/180 (96%)	158 (92%)	12 (7%)	2 (1%)	13	48
30	BI	144/148 (97%)	114 (79%)	27 (19%)	3 (2%)	7	33
30	DI	144/148 (97%)	113 (78%)	29 (20%)	2 (1%)	11	43
31	BN	138/140 (99%)	128 (93%)	6 (4%)	4 (3%)	4	24
31	DN	138/140 (99%)	126 (91%)	7 (5%)	5 (4%)	3	19
32	BO	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
32	DO	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
33	BP	147/150 (98%)	134 (91%)	12 (8%)	1 (1%)	22	60
33	DP	147/150 (98%)	134 (91%)	13 (9%)	0	100	100
34	BQ	139/141 (99%)	127 (91%)	12 (9%)	0	100	100
34	DQ	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
35	BR	116/118 (98%)	110 (95%)	6 (5%)	0	100	100
35	DR	116/118 (98%)	112 (97%)	4 (3%)	0	100	100
36	BS	108/112 (96%)	96 (89%)	11 (10%)	1 (1%)	17	55
36	DS	108/112 (96%)	97 (90%)	10 (9%)	1 (1%)	17	55
37	BT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
37	DT	129/146 (88%)	126 (98%)	3 (2%)	0	100	100
38	BU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
38	DU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	BV	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
39	DV	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
40	BW	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
40	DW	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
41	BX	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
41	DX	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
42	BY	105/110 (96%)	94 (90%)	9 (9%)	2 (2%)	8	36
42	DY	105/110 (96%)	95 (90%)	8 (8%)	2 (2%)	8	36
43	BZ	196/206 (95%)	178 (91%)	15 (8%)	3 (2%)	10	42
43	DZ	196/206 (95%)	177 (90%)	16 (8%)	3 (2%)	10	42
44	B0	74/85 (87%)	71 (96%)	3 (4%)	0	100	100
44	D0	74/85 (87%)	71 (96%)	3 (4%)	0	100	100
45	B1	95/98 (97%)	93 (98%)	2 (2%)	0	100	100
45	D1	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	14	50
46	B2	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
46	D2	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
47	B3	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
47	D3	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
48	B4	44/71 (62%)	37 (84%)	7 (16%)	0	100	100
48	D4	44/71 (62%)	38 (86%)	6 (14%)	0	100	100
49	B5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
49	D5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
50	B6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
50	D6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
51	B7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	6	31
51	D7	46/49 (94%)	45 (98%)	0	1 (2%)	6	31
52	B8	62/65 (95%)	59 (95%)	2 (3%)	1 (2%)	9	40
52	D8	62/65 (95%)	59 (95%)	1 (2%)	2 (3%)	4	22
53	B9	34/37 (92%)	34 (100%)	0	0	100	100
53	D9	34/37 (92%)	34 (100%)	0	0	100	100
All	All	11473/12250 (94%)	10289 (90%)	1089 (10%)	95 (1%)	19	57

All (95) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
13	AM	91	ARG
33	BP	27	HIS
12	CL	92	ASP
31	DN	23	LEU
31	DN	24	GLY
52	D8	34	TRP
52	D8	35	GLN
2	AB	129	GLU
9	AI	102	LEU
20	AT	100	ILE
27	BF	90	PHE
30	BI	113	ARG
31	BN	23	LEU
42	BY	103	GLY
52	B8	35	GLN
2	CB	129	GLU
16	CP	53	VAL
19	CS	47	HIS
20	CT	100	ILE
22	CV	27	GLU
27	DF	89	VAL
30	DI	117	GLU
16	AP	53	VAL
16	AP	79	VAL
31	BN	5	VAL
10	CJ	56	HIS
13	CM	5	ALA
42	DY	103	GLY
2	AB	9	GLU
13	AM	90	LEU
14	AN	35	ARG
19	AS	52	TYR
29	BH	65	HIS
30	BI	85	GLU
31	BN	4	TYR
31	BN	19	GLU
2	CB	9	GLU
16	CP	79	VAL
20	CT	10	LEU
22	CV	30	PRO
29	DH	65	HIS
29	DH	92	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	DN	4	TYR
31	DN	5	VAL
31	DN	19	GLU
7	AG	54	THR
12	AL	28	LYS
14	AN	26	ARG
14	AN	59	ALA
20	AT	10	LEU
29	BH	92	ILE
51	B7	46	VAL
9	CI	23	ASN
9	CI	56	LEU
10	CJ	57	LYS
12	CL	28	LYS
14	CN	59	ALA
19	CS	12	ASP
19	CS	67	VAL
45	D1	3	LYS
51	D7	46	VAL
5	AE	132	ALA
7	AG	112	PRO
9	AI	103	THR
10	AJ	35	SER
26	BE	52	LEU
43	BZ	193	GLU
4	CD	7	PRO
7	CG	112	PRO
26	DE	52	LEU
28	DG	171	ALA
10	AJ	34	VAL
26	BE	72	VAL
25	DD	3	VAL
26	DE	72	VAL
30	DI	107	VAL
4	AD	7	PRO
4	AD	178	VAL
25	BD	3	VAL
36	BS	85	VAL
4	CD	178	VAL
22	CV	53	VAL
43	BZ	161	VAL
43	DZ	161	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	DZ	193	GLU
13	AM	40	ASN
42	BY	3	VAL
43	BZ	39	VAL
7	CG	55	GLY
36	DS	85	VAL
42	DY	3	VAL
30	BI	107	VAL
43	DZ	39	VAL
20	AT	98	PRO
20	CT	98	PRO

5.3.2 Protein sidechains (i)

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
2	AB	177/220 (80%)	135 (76%)	42 (24%)	1 3
2	CB	177/220 (80%)	135 (76%)	42 (24%)	1 3
3	AC	114/188 (61%)	74 (65%)	40 (35%)	0 1
3	CC	114/188 (61%)	78 (68%)	36 (32%)	0 1
4	AD	141/181 (78%)	113 (80%)	28 (20%)	1 7
4	CD	141/181 (78%)	114 (81%)	27 (19%)	1 8
5	AE	108/123 (88%)	84 (78%)	24 (22%)	1 4
5	CE	108/123 (88%)	84 (78%)	24 (22%)	1 4
6	AF	76/90 (84%)	68 (90%)	8 (10%)	7 27
6	CF	76/90 (84%)	69 (91%)	7 (9%)	9 34
7	AG	103/127 (81%)	68 (66%)	35 (34%)	0 1
7	CG	103/127 (81%)	77 (75%)	26 (25%)	0 3
8	AH	103/119 (87%)	83 (81%)	20 (19%)	1 7
8	CH	103/119 (87%)	84 (82%)	19 (18%)	1 9
9	AI	62/99 (63%)	49 (79%)	13 (21%)	1 5

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	CI	62/99 (63%)	48 (77%)	14 (23%)	1 4
10	AJ	53/92 (58%)	41 (77%)	12 (23%)	1 4
10	CJ	53/92 (58%)	39 (74%)	14 (26%)	0 2
11	AK	81/99 (82%)	70 (86%)	11 (14%)	3 17
11	CK	81/99 (82%)	70 (86%)	11 (14%)	3 17
12	AL	91/109 (84%)	80 (88%)	11 (12%)	5 21
12	CL	91/109 (84%)	79 (87%)	12 (13%)	4 18
13	AM	64/101 (63%)	45 (70%)	19 (30%)	0 1
13	CM	64/101 (63%)	49 (77%)	15 (23%)	1 4
14	AN	46/50 (92%)	37 (80%)	9 (20%)	1 7
14	CN	46/50 (92%)	33 (72%)	13 (28%)	0 2
15	AO	77/80 (96%)	70 (91%)	7 (9%)	9 34
15	CO	77/80 (96%)	71 (92%)	6 (8%)	12 42
16	AP	63/74 (85%)	47 (75%)	16 (25%)	0 3
16	CP	63/74 (85%)	47 (75%)	16 (25%)	0 3
17	AQ	94/97 (97%)	80 (85%)	14 (15%)	3 14
17	CQ	94/97 (97%)	80 (85%)	14 (15%)	3 14
18	AR	49/77 (64%)	43 (88%)	6 (12%)	5 21
18	CR	49/77 (64%)	42 (86%)	7 (14%)	3 15
19	AS	43/80 (54%)	24 (56%)	19 (44%)	0 0
19	CS	43/80 (54%)	32 (74%)	11 (26%)	0 3
20	AT	65/82 (79%)	56 (86%)	9 (14%)	3 17
20	CT	65/82 (79%)	55 (85%)	10 (15%)	2 13
21	AU	18/22 (82%)	11 (61%)	7 (39%)	0 0
21	CU	18/22 (82%)	13 (72%)	5 (28%)	0 2
22	AV	16/50 (32%)	13 (81%)	3 (19%)	1 8
22	CV	21/50 (42%)	14 (67%)	7 (33%)	0 1
25	BD	215/218 (99%)	181 (84%)	34 (16%)	2 12
25	DD	215/218 (99%)	180 (84%)	35 (16%)	2 11
26	BE	163/166 (98%)	138 (85%)	25 (15%)	2 13
26	DE	163/166 (98%)	135 (83%)	28 (17%)	2 10

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
27	BF	159/166 (96%)	133 (84%)	26 (16%)	2 11
27	DF	159/166 (96%)	133 (84%)	26 (16%)	2 11
28	BG	128/156 (82%)	106 (83%)	22 (17%)	2 10
28	DG	128/156 (82%)	106 (83%)	22 (17%)	2 10
29	BH	141/148 (95%)	127 (90%)	14 (10%)	8 30
29	DH	141/148 (95%)	127 (90%)	14 (10%)	8 30
30	BI	99/124 (80%)	75 (76%)	24 (24%)	0 3
30	DI	98/124 (79%)	67 (68%)	31 (32%)	0 1
31	BN	117/119 (98%)	92 (79%)	25 (21%)	1 5
31	DN	117/119 (98%)	93 (80%)	24 (20%)	1 6
32	BO	98/100 (98%)	90 (92%)	8 (8%)	11 39
32	DO	98/100 (98%)	90 (92%)	8 (8%)	11 39
33	BP	114/116 (98%)	98 (86%)	16 (14%)	3 16
33	DP	114/116 (98%)	100 (88%)	14 (12%)	4 21
34	BQ	111/111 (100%)	95 (86%)	16 (14%)	3 15
34	DQ	111/111 (100%)	96 (86%)	15 (14%)	4 17
35	BR	101/101 (100%)	82 (81%)	19 (19%)	1 8
35	DR	101/101 (100%)	83 (82%)	18 (18%)	2 9
36	BS	84/88 (96%)	69 (82%)	15 (18%)	2 9
36	DS	84/88 (96%)	72 (86%)	12 (14%)	3 15
37	BT	110/127 (87%)	95 (86%)	15 (14%)	3 17
37	DT	110/127 (87%)	92 (84%)	18 (16%)	2 11
38	BU	93/94 (99%)	84 (90%)	9 (10%)	8 31
38	DU	93/94 (99%)	84 (90%)	9 (10%)	8 31
39	BV	79/82 (96%)	62 (78%)	17 (22%)	1 5
39	DV	80/82 (98%)	64 (80%)	16 (20%)	1 7
40	BW	89/92 (97%)	78 (88%)	11 (12%)	4 20
40	DW	89/92 (97%)	76 (85%)	13 (15%)	3 15
41	BX	75/78 (96%)	70 (93%)	5 (7%)	16 49
41	DX	75/78 (96%)	70 (93%)	5 (7%)	16 49
42	BY	80/91 (88%)	66 (82%)	14 (18%)	2 10

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
42	DY	80/91 (88%)	63 (79%)	17 (21%)	1 5
43	BZ	159/179 (89%)	141 (89%)	18 (11%)	6 24
43	DZ	159/179 (89%)	141 (89%)	18 (11%)	6 24
44	B0	59/67 (88%)	54 (92%)	5 (8%)	10 38
44	D0	59/67 (88%)	54 (92%)	5 (8%)	10 38
45	B1	78/83 (94%)	67 (86%)	11 (14%)	3 16
45	D1	78/83 (94%)	67 (86%)	11 (14%)	3 16
46	B2	65/67 (97%)	59 (91%)	6 (9%)	9 34
46	D2	65/67 (97%)	58 (89%)	7 (11%)	6 26
47	B3	49/52 (94%)	43 (88%)	6 (12%)	5 21
47	D3	49/52 (94%)	42 (86%)	7 (14%)	3 15
48	B4	39/63 (62%)	29 (74%)	10 (26%)	0 3
48	D4	39/63 (62%)	29 (74%)	10 (26%)	0 3
49	B5	50/52 (96%)	45 (90%)	5 (10%)	7 29
49	D5	50/52 (96%)	45 (90%)	5 (10%)	7 29
50	B6	50/52 (96%)	39 (78%)	11 (22%)	1 4
50	D6	50/52 (96%)	37 (74%)	13 (26%)	0 2
51	B7	41/42 (98%)	32 (78%)	9 (22%)	1 4
51	D7	41/42 (98%)	34 (83%)	7 (17%)	2 10
52	B8	52/55 (94%)	43 (83%)	9 (17%)	2 10
52	D8	52/55 (94%)	43 (83%)	9 (17%)	2 10
53	B9	32/34 (94%)	29 (91%)	3 (9%)	8 32
53	D9	32/34 (94%)	29 (91%)	3 (9%)	8 32
All	All	8753/10166 (86%)	7236 (83%)	1517 (17%)	2 10

All (1517) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE
2	AB	21	ARG
2	AB	32	ILE
2	AB	37	ASN
2	AB	45	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	47	THR
2	AB	49	GLU
2	AB	51	LEU
2	AB	58	ILE
2	AB	67	THR
2	AB	69	LEU
2	AB	75	LYS
2	AB	80	ILE
2	AB	87	ARG
2	AB	93	VAL
2	AB	94	ASN
2	AB	114	ARG
2	AB	119	GLU
2	AB	122	PHE
2	AB	130	ARG
2	AB	139	LYS
2	AB	140	HIS
2	AB	145	LEU
2	AB	149	LEU
2	AB	157	ARG
2	AB	158	LEU
2	AB	163	PHE
2	AB	169	LYS
2	AB	170	GLU
2	AB	172	ILE
2	AB	187	LEU
2	AB	189	ASP
2	AB	191	ASP
2	AB	200	ILE
2	AB	206	ASP
2	AB	214	ILE
2	AB	215	LEU
2	AB	224	GLN
2	AB	226	ARG
2	AB	231	GLU
2	AB	233	SER
3	AC	3	ASN
3	AC	8	ILE
3	AC	11	ARG
3	AC	15	THR
3	AC	17	ASP
3	AC	19	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	22	TRP
3	AC	26	LYS
3	AC	30	ARG
3	AC	32	LEU
3	AC	34	LEU
3	AC	36	ASP
3	AC	37	GLN
3	AC	43	LEU
3	AC	48	TYR
3	AC	49	SER
3	AC	52	LEU
3	AC	57	ILE
3	AC	67	THR
3	AC	69	HIS
3	AC	103	VAL
3	AC	104	GLN
3	AC	110	ASN
3	AC	111	LEU
3	AC	125	GLU
3	AC	127	ARG
3	AC	134	ILE
3	AC	136	GLN
3	AC	140	ARG
3	AC	162	GLN
3	AC	173	VAL
3	AC	175	LEU
3	AC	178	LEU
3	AC	179	ARG
3	AC	181	ASN
3	AC	186	PHE
3	AC	192	THR
3	AC	193	TYR
3	AC	195	VAL
3	AC	196	LEU
4	AD	11	LEU
4	AD	22	LYS
4	AD	34	GLU
4	AD	36	ARG
4	AD	57	ARG
4	AD	58	LEU
4	AD	73	ARG
4	AD	77	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	79	PHE
4	AD	83	SER
4	AD	97	LEU
4	AD	104	VAL
4	AD	105	VAL
4	AD	106	TYR
4	AD	107	ARG
4	AD	110	PHE
4	AD	126	ILE
4	AD	127	THR
4	AD	135	LEU
4	AD	137	SER
4	AD	138	TYR
4	AD	158	ILE
4	AD	160	GLN
4	AD	181	MET
4	AD	188	LEU
4	AD	193	ASP
4	AD	196	LEU
4	AD	200	GLU
5	AE	5	ASP
5	AE	6	PHE
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	34	VAL
5	AE	37	ARG
5	AE	41	VAL
5	AE	47	LYS
5	AE	53	LEU
5	AE	60	TYR
5	AE	75	THR
5	AE	76	ILE
5	AE	78	HIS
5	AE	79	GLU
5	AE	82	VAL
5	AE	89	ILE
5	AE	91	LEU
5	AE	117	ASP
5	AE	121	LYS
5	AE	137	GLU
5	AE	144	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AE	147	ASP
5	AE	149	GLU
6	AF	22	GLU
6	AF	36	ARG
6	AF	43	LEU
6	AF	45	LEU
6	AF	55	ASP
6	AF	69	GLU
6	AF	82	ARG
6	AF	83	ASP
7	AG	4	ARG
7	AG	10	ARG
7	AG	16	LEU
7	AG	18	TYR
7	AG	22	LEU
7	AG	24	THR
7	AG	31	MET
7	AG	37	ASN
7	AG	38	LEU
7	AG	41	ARG
7	AG	43	PHE
7	AG	44	TYR
7	AG	47	CYS
7	AG	51	GLN
7	AG	56	GLN
7	AG	57	GLU
7	AG	69	VAL
7	AG	72	ARG
7	AG	74	GLU
7	AG	75	VAL
7	AG	80	VAL
7	AG	92	SER
7	AG	101	LEU
7	AG	113	GLU
7	AG	118	VAL
7	AG	137	LYS
7	AG	138	LYS
7	AG	140	ASP
7	AG	141	VAL
7	AG	142	GLU
7	AG	143	ARG
7	AG	144	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	146	GLU
7	AG	153	HIS
7	AG	156	TRP
8	AH	3	THR
8	AH	8	ASP
8	AH	19	VAL
8	AH	21	LYS
8	AH	24	THR
8	AH	25	ASP
8	AH	42	GLU
8	AH	45	ILE
8	AH	49	GLU
8	AH	54	ASP
8	AH	78	GLN
8	AH	84	ARG
8	AH	85	ARG
8	AH	91	ARG
8	AH	95	VAL
8	AH	109	ILE
8	AH	112	LEU
8	AH	114	THR
8	AH	125	ARG
8	AH	137	VAL
9	AI	3	GLN
9	AI	7	THR
9	AI	9	ARG
9	AI	29	ASN
9	AI	38	GLN
9	AI	59	PHE
9	AI	71	SER
9	AI	83	ARG
9	AI	88	TYR
9	AI	99	LEU
9	AI	104	ARG
9	AI	105	ASP
9	AI	110	GLU
10	AJ	8	LEU
10	AJ	9	ARG
10	AJ	13	HIS
10	AJ	16	LEU
10	AJ	21	GLN
10	AJ	34	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	AJ	38	ILE
10	AJ	43	ARG
10	AJ	48	THR
10	AJ	55	LYS
10	AJ	67	THR
10	AJ	97	GLU
11	AK	14	VAL
11	AK	38	ASN
11	AK	48	ILE
11	AK	93	GLN
11	AK	95	ILE
11	AK	96	ARG
11	AK	107	SER
11	AK	109	VAL
11	AK	116	HIS
11	AK	119	CYS
11	AK	126	ARG
12	AL	6	THR
12	AL	33	ARG
12	AL	43	VAL
12	AL	44	THR
12	AL	53	ARG
12	AL	67	THR
12	AL	70	ILE
12	AL	102	ARG
12	AL	104	VAL
12	AL	118	SER
12	AL	123	LYS
13	AM	15	VAL
13	AM	16	ASP
13	AM	17	VAL
13	AM	19	LEU
13	AM	20	THR
13	AM	43	THR
13	AM	53	VAL
13	AM	55	ARG
13	AM	56	LEU
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	74	VAL
13	AM	86	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	AM	101	GLN
13	AM	103	THR
13	AM	105	THR
13	AM	110	ARG
13	AM	114	ARG
14	AN	4	LYS
14	AN	7	ILE
14	AN	13	THR
14	AN	18	VAL
14	AN	25	VAL
14	AN	40	CYS
14	AN	41	ARG
14	AN	44	LEU
14	AN	57	ARG
15	AO	3	ILE
15	AO	35	ARG
15	AO	39	LEU
15	AO	41	GLU
15	AO	62	GLN
15	AO	72	ARG
15	AO	87	ILE
16	AP	1	MET
16	AP	2	VAL
16	AP	3	LYS
16	AP	6	LEU
16	AP	8	ARG
16	AP	28	ARG
16	AP	43	LYS
16	AP	45	THR
16	AP	47	ASP
16	AP	52	ASP
16	AP	54	GLU
16	AP	62	VAL
16	AP	67	THR
16	AP	69	THR
16	AP	71	ARG
16	AP	76	GLN
17	AQ	9	VAL
17	AQ	11	VAL
17	AQ	34	LYS
17	AQ	45	HIS
17	AQ	48	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	AQ	52	LYS
17	AQ	53	LEU
17	AQ	59	ILE
17	AQ	63	ARG
17	AQ	68	ARG
17	AQ	72	ARG
17	AQ	82	MET
17	AQ	93	GLN
17	AQ	97	SER
18	AR	31	LEU
18	AR	32	ARG
18	AR	36	ASN
18	AR	53	ARG
18	AR	76	LEU
18	AR	83	GLU
19	AS	14	HIS
19	AS	20	LEU
19	AS	31	ILE
19	AS	36	ARG
19	AS	37	ARG
19	AS	38	SER
19	AS	43	GLU
19	AS	44	MET
19	AS	47	HIS
19	AS	49	ILE
19	AS	52	TYR
19	AS	53	ASN
19	AS	57	HIS
19	AS	61	TYR
19	AS	62	ILE
19	AS	67	VAL
19	AS	74	PHE
19	AS	81	ARG
19	AS	83	HIS
20	AT	10	LEU
20	AT	13	LEU
20	AT	22	ARG
20	AT	24	LEU
20	AT	30	LYS
20	AT	41	ILE
20	AT	50	GLU
20	AT	72	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	AT	93	GLU
21	AU	6	ARG
21	AU	9	ARG
21	AU	10	ARG
21	AU	12	LYS
21	AU	14	TRP
21	AU	15	ARG
21	AU	20	LYS
22	AV	4	GLN
22	AV	7	ASP
22	AV	54	MET
25	BD	12	SER
25	BD	13	ARG
25	BD	25	THR
25	BD	32	SER
25	BD	35	LYS
25	BD	37	LEU
25	BD	39	LYS
25	BD	61	LEU
25	BD	89	SER
25	BD	94	LEU
25	BD	99	ASP
25	BD	101	GLU
25	BD	103	ARG
25	BD	106	ILE
25	BD	126	GLN
25	BD	138	VAL
25	BD	141	VAL
25	BD	147	LEU
25	BD	150	LYS
25	BD	155	LEU
25	BD	165	ILE
25	BD	173	VAL
25	BD	192	THR
25	BD	193	VAL
25	BD	211	ARG
25	BD	212	SER
25	BD	217	ARG
25	BD	221	VAL
25	BD	229	VAL
25	BD	242	ARG
25	BD	257	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BD	259	THR
25	BD	260	ARG
25	BD	274	ARG
26	BE	9	VAL
26	BE	12	THR
26	BE	21	VAL
26	BE	24	THR
26	BE	34	VAL
26	BE	49	LEU
26	BE	52	LEU
26	BE	54	GLN
26	BE	78	LEU
26	BE	82	ARG
26	BE	89	ASP
26	BE	93	VAL
26	BE	111	ARG
26	BE	113	PHE
26	BE	116	VAL
26	BE	119	ARG
26	BE	144	ARG
26	BE	152	LYS
26	BE	154	LYS
26	BE	170	LEU
26	BE	175	VAL
26	BE	179	GLU
26	BE	181	LEU
26	BE	182	LEU
26	BE	184	VAL
27	BF	15	SER
27	BF	18	ARG
27	BF	20	LEU
27	BF	24	LEU
27	BF	33	LEU
27	BF	46	ARG
27	BF	50	SER
27	BF	53	THR
27	BF	57	VAL
27	BF	60	SER
27	BF	74	ARG
27	BF	77	ASP
27	BF	82	ILE
27	BF	88	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	BF	96	ASP
27	BF	106	ARG
27	BF	110	LEU
27	BF	133	ASN
27	BF	135	LYS
27	BF	140	LEU
27	BF	158	THR
27	BF	175	THR
27	BF	183	VAL
27	BF	192	LEU
27	BF	197	ASP
27	BF	201	VAL
28	BG	3	LEU
28	BG	13	GLU
28	BG	20	ILE
28	BG	21	ARG
28	BG	31	VAL
28	BG	33	ARG
28	BG	43	LEU
28	BG	88	ILE
28	BG	96	ARG
28	BG	117	PHE
28	BG	135	LEU
28	BG	138	GLN
28	BG	143	GLU
28	BG	145	THR
28	BG	146	TYR
28	BG	148	MET
28	BG	149	VAL
28	BG	150	ASP
28	BG	153	ARG
28	BG	159	VAL
28	BG	161	THR
28	BG	170	ARG
29	BH	7	LEU
29	BH	15	VAL
29	BH	16	SER
29	BH	69	ARG
29	BH	70	THR
29	BH	88	LEU
29	BH	98	LEU
29	BH	106	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	BH	122	THR
29	BH	129	THR
29	BH	132	ARG
29	BH	139	GLN
29	BH	153	LYS
29	BH	171	LEU
30	BI	1	MET
30	BI	7	GLU
30	BI	9	LEU
30	BI	12	LEU
30	BI	15	VAL
30	BI	44	LEU
30	BI	47	LEU
30	BI	54	GLN
30	BI	61	ARG
30	BI	68	LEU
30	BI	75	LEU
30	BI	77	LEU
30	BI	85	GLU
30	BI	92	VAL
30	BI	93	THR
30	BI	102	SER
30	BI	108	THR
30	BI	116	LEU
30	BI	117	GLU
30	BI	127	VAL
30	BI	129	THR
30	BI	130	TYR
30	BI	140	LEU
30	BI	142	VAL
31	BN	2	LYS
31	BN	9	VAL
31	BN	12	ARG
31	BN	15	LEU
31	BN	28	THR
31	BN	33	LEU
31	BN	34	LEU
31	BN	43	THR
31	BN	46	VAL
31	BN	48	MET
31	BN	55	VAL
31	BN	58	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	BN	62	VAL
31	BN	63	THR
31	BN	67	LEU
31	BN	73	THR
31	BN	87	LEU
31	BN	93	THR
31	BN	97	ARG
31	BN	99	LEU
31	BN	120	LEU
31	BN	131	GLN
31	BN	133	GLN
31	BN	137	LYS
31	BN	138	LEU
32	BO	8	LEU
32	BO	21	CYS
32	BO	26	LYS
32	BO	28	SER
32	BO	42	SER
32	BO	77	ILE
32	BO	94	ARG
32	BO	113	LYS
33	BP	21	ARG
33	BP	33	ARG
33	BP	42	SER
33	BP	45	LEU
33	BP	55	ARG
33	BP	59	LEU
33	BP	64	LYS
33	BP	70	GLN
33	BP	86	LYS
33	BP	98	GLU
33	BP	106	LEU
33	BP	112	LEU
33	BP	117	GLU
33	BP	125	VAL
33	BP	133	SER
33	BP	147	LEU
34	BQ	1	MET
34	BQ	5	ARG
34	BQ	7	MET
34	BQ	8	LYS
34	BQ	16	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	BQ	21	THR
34	BQ	25	ASP
34	BQ	45	GLN
34	BQ	55	VAL
34	BQ	56	ARG
34	BQ	75	THR
34	BQ	79	LEU
34	BQ	109	VAL
34	BQ	119	ARG
34	BQ	127	ILE
34	BQ	138	ASP
35	BR	6	SER
35	BR	14	SER
35	BR	18	LEU
35	BR	28	LEU
35	BR	29	LEU
35	BR	33	ARG
35	BR	36	THR
35	BR	44	LEU
35	BR	48	VAL
35	BR	54	LEU
35	BR	60	LEU
35	BR	65	LEU
35	BR	67	LEU
35	BR	75	LEU
35	BR	79	LEU
35	BR	91	GLN
35	BR	95	THR
35	BR	100	LEU
35	BR	111	LEU
36	BS	3	ARG
36	BS	11	LYS
36	BS	14	VAL
36	BS	19	LYS
36	BS	20	ARG
36	BS	25	ARG
36	BS	36	TYR
36	BS	42	ASP
36	BS	50	SER
36	BS	54	LEU
36	BS	67	ARG
36	BS	69	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	BS	98	VAL
36	BS	110	LEU
36	BS	111	GLU
37	BT	1	MET
37	BT	6	LEU
37	BT	13	ARG
37	BT	16	ARG
37	BT	23	ARG
37	BT	39	ARG
37	BT	49	VAL
37	BT	53	ARG
37	BT	59	THR
37	BT	74	ARG
37	BT	82	LEU
37	BT	93	ARG
37	BT	96	ARG
37	BT	107	ASP
37	BT	118	ARG
38	BU	8	VAL
38	BU	31	SER
38	BU	36	ARG
38	BU	58	ARG
38	BU	60	LEU
38	BU	74	LEU
38	BU	83	LEU
38	BU	104	GLN
38	BU	108	GLU
39	BV	5	VAL
39	BV	7	THR
39	BV	18	LEU
39	BV	28	GLU
39	BV	33	VAL
39	BV	35	LEU
39	BV	38	LEU
39	BV	46	VAL
39	BV	51	VAL
39	BV	57	VAL
39	BV	61	VAL
39	BV	62	LEU
39	BV	72	VAL
39	BV	73	SER
39	BV	79	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BV	89	GLN
39	BV	95	LEU
40	BW	11	ARG
40	BW	15	ARG
40	BW	17	VAL
40	BW	23	LEU
40	BW	27	LYS
40	BW	51	LEU
40	BW	60	ASN
40	BW	67	ASP
40	BW	98	LYS
40	BW	100	THR
40	BW	107	LEU
41	BX	23	GLU
41	BX	35	THR
41	BX	45	THR
41	BX	52	VAL
41	BX	57	LEU
42	BY	2	ARG
42	BY	5	MET
42	BY	6	HIS
42	BY	7	VAL
42	BY	23	ARG
42	BY	31	LEU
42	BY	44	ILE
42	BY	55	TYR
42	BY	72	VAL
42	BY	85	VAL
42	BY	90	LEU
42	BY	92	ASN
42	BY	97	ARG
42	BY	99	CYS
43	BZ	3	TYR
43	BZ	11	GLU
43	BZ	19	ARG
43	BZ	20	ARG
43	BZ	31	ARG
43	BZ	41	LEU
43	BZ	42	VAL
43	BZ	72	ARG
43	BZ	76	LEU
43	BZ	80	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	BZ	86	VAL
43	BZ	112	ARG
43	BZ	126	VAL
43	BZ	132	ASN
43	BZ	133	ILE
43	BZ	155	LEU
43	BZ	156	LYS
43	BZ	170	THR
44	B0	20	ARG
44	B0	43	THR
44	B0	46	LYS
44	B0	55	ARG
44	B0	63	VAL
45	B1	4	VAL
45	B1	20	ARG
45	B1	21	ARG
45	B1	30	VAL
45	B1	35	THR
45	B1	40	ARG
45	B1	58	ILE
45	B1	59	THR
45	B1	62	VAL
45	B1	82	LEU
45	B1	95	LEU
46	B2	27	GLU
46	B2	30	ARG
46	B2	32	LEU
46	B2	40	SER
46	B2	53	LEU
46	B2	55	ARG
47	B3	6	VAL
47	B3	8	LEU
47	B3	23	LEU
47	B3	24	LYS
47	B3	30	ARG
47	B3	40	THR
48	B4	14	ILE
48	B4	16	CYS
48	B4	18	CYS
48	B4	20	ASN
48	B4	34	GLU
48	B4	35	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	B4	37	SER
48	B4	39	CYS
48	B4	43	TYR
48	B4	44	THR
49	B5	16	ARG
49	B5	29	THR
49	B5	37	LYS
49	B5	40	LYS
49	B5	55	ARG
50	B6	6	ARG
50	B6	14	THR
50	B6	18	ARG
50	B6	23	THR
50	B6	28	ARG
50	B6	33	LYS
50	B6	35	GLU
50	B6	40	CYS
50	B6	44	ARG
50	B6	48	VAL
50	B6	49	HIS
51	B7	1	MET
51	B7	4	THR
51	B7	8	ASN
51	B7	10	ARG
51	B7	12	ARG
51	B7	24	THR
51	B7	32	LYS
51	B7	43	THR
51	B7	47	ARG
52	B8	26	LYS
52	B8	27	THR
52	B8	29	LYS
52	B8	30	ARG
52	B8	31	HIS
52	B8	32	LEU
52	B8	37	SER
52	B8	58	ILE
52	B8	59	LYS
53	B9	17	ILE
53	B9	25	VAL
53	B9	26	ILE
2	CB	15	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	17	PHE
2	CB	21	ARG
2	CB	32	ILE
2	CB	37	ASN
2	CB	45	GLN
2	CB	47	THR
2	CB	49	GLU
2	CB	51	LEU
2	CB	58	ILE
2	CB	67	THR
2	CB	69	LEU
2	CB	75	LYS
2	CB	80	ILE
2	CB	87	ARG
2	CB	93	VAL
2	CB	94	ASN
2	CB	114	ARG
2	CB	119	GLU
2	CB	122	PHE
2	CB	130	ARG
2	CB	139	LYS
2	CB	140	HIS
2	CB	145	LEU
2	CB	149	LEU
2	CB	157	ARG
2	CB	158	LEU
2	CB	163	PHE
2	CB	169	LYS
2	CB	170	GLU
2	CB	172	ILE
2	CB	187	LEU
2	CB	189	ASP
2	CB	191	ASP
2	CB	200	ILE
2	CB	206	ASP
2	CB	214	ILE
2	CB	215	LEU
2	CB	224	GLN
2	CB	226	ARG
2	CB	231	GLU
2	CB	233	SER
3	CC	5	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CC	6	HIS
3	CC	8	ILE
3	CC	12	LEU
3	CC	18	TRP
3	CC	30	ARG
3	CC	31	HIS
3	CC	32	LEU
3	CC	33	LEU
3	CC	34	LEU
3	CC	36	ASP
3	CC	37	GLN
3	CC	46	GLU
3	CC	48	TYR
3	CC	49	SER
3	CC	52	LEU
3	CC	55	VAL
3	CC	58	GLU
3	CC	59	ARG
3	CC	102	ASN
3	CC	111	LEU
3	CC	118	GLN
3	CC	131	ARG
3	CC	136	GLN
3	CC	150	LYS
3	CC	152	ILE
3	CC	170	GLN
3	CC	172	ARG
3	CC	173	VAL
3	CC	175	LEU
3	CC	178	LEU
3	CC	179	ARG
3	CC	182	ILE
3	CC	188	LEU
3	CC	192	THR
3	CC	193	TYR
4	CD	11	LEU
4	CD	22	LYS
4	CD	34	GLU
4	CD	36	ARG
4	CD	57	ARG
4	CD	58	LEU
4	CD	73	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	77	ASN
4	CD	79	PHE
4	CD	83	SER
4	CD	97	LEU
4	CD	104	VAL
4	CD	106	TYR
4	CD	107	ARG
4	CD	110	PHE
4	CD	126	ILE
4	CD	127	THR
4	CD	135	LEU
4	CD	137	SER
4	CD	138	TYR
4	CD	158	ILE
4	CD	160	GLN
4	CD	181	MET
4	CD	188	LEU
4	CD	193	ASP
4	CD	196	LEU
4	CD	200	GLU
5	CE	5	ASP
5	CE	6	PHE
5	CE	12	LEU
5	CE	16	THR
5	CE	20	GLN
5	CE	34	VAL
5	CE	37	ARG
5	CE	41	VAL
5	CE	47	LYS
5	CE	53	LEU
5	CE	60	TYR
5	CE	75	THR
5	CE	76	ILE
5	CE	78	HIS
5	CE	79	GLU
5	CE	82	VAL
5	CE	89	ILE
5	CE	91	LEU
5	CE	117	ASP
5	CE	121	LYS
5	CE	137	GLU
5	CE	144	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	CE	147	ASP
5	CE	149	GLU
6	CF	22	GLU
6	CF	36	ARG
6	CF	43	LEU
6	CF	55	ASP
6	CF	69	GLU
6	CF	82	ARG
6	CF	83	ASP
7	CG	6	ARG
7	CG	10	ARG
7	CG	12	LEU
7	CG	24	THR
7	CG	30	ILE
7	CG	32	ARG
7	CG	33	ASP
7	CG	38	LEU
7	CG	51	GLN
7	CG	53	LYS
7	CG	59	LEU
7	CG	72	ARG
7	CG	74	GLU
7	CG	75	VAL
7	CG	94	ARG
7	CG	104	LEU
7	CG	113	GLU
7	CG	114	ARG
7	CG	122	HIS
7	CG	142	GLU
7	CG	143	ARG
7	CG	144	MET
7	CG	146	GLU
7	CG	151	TYR
7	CG	153	HIS
7	CG	155	ARG
8	CH	3	THR
8	CH	8	ASP
8	CH	19	VAL
8	CH	21	LYS
8	CH	24	THR
8	CH	25	ASP
8	CH	42	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	CH	45	ILE
8	CH	49	GLU
8	CH	78	GLN
8	CH	84	ARG
8	CH	85	ARG
8	CH	91	ARG
8	CH	95	VAL
8	CH	109	ILE
8	CH	112	LEU
8	CH	114	THR
8	CH	125	ARG
8	CH	137	VAL
9	CI	3	GLN
9	CI	9	ARG
9	CI	29	ASN
9	CI	34	ASN
9	CI	38	GLN
9	CI	41	VAL
9	CI	48	GLU
9	CI	60	ASP
9	CI	64	THR
9	CI	87	GLN
9	CI	99	LEU
9	CI	104	ARG
9	CI	107	ARG
9	CI	117	HIS
10	CJ	8	LEU
10	CJ	9	ARG
10	CJ	11	PHE
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	34	VAL
10	CJ	38	ILE
10	CJ	43	ARG
10	CJ	45	ARG
10	CJ	55	LYS
10	CJ	58	ASP
10	CJ	66	ARG
10	CJ	69	ASN
10	CJ	96	ILE
11	CK	14	VAL
11	CK	38	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	CK	48	ILE
11	CK	93	GLN
11	CK	95	ILE
11	CK	96	ARG
11	CK	107	SER
11	CK	109	VAL
11	CK	116	HIS
11	CK	119	CYS
11	CK	126	ARG
12	CL	6	THR
12	CL	33	ARG
12	CL	43	VAL
12	CL	44	THR
12	CL	53	ARG
12	CL	67	THR
12	CL	70	ILE
12	CL	92	ASP
12	CL	102	ARG
12	CL	104	VAL
12	CL	118	SER
12	CL	123	LYS
13	CM	3	ARG
13	CM	15	VAL
13	CM	16	ASP
13	CM	27	LYS
13	CM	41	PRO
13	CM	47	ASP
13	CM	54	VAL
13	CM	63	THR
13	CM	65	LYS
13	CM	70	LEU
13	CM	86	CYS
13	CM	88	ARG
13	CM	98	VAL
13	CM	109	THR
13	CM	110	ARG
14	CN	7	ILE
14	CN	8	GLU
14	CN	17	LYS
14	CN	22	THR
14	CN	23	ARG
14	CN	24	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	CN	26	ARG
14	CN	27	CYS
14	CN	29	ARG
14	CN	33	VAL
14	CN	37	PHE
14	CN	41	ARG
14	CN	44	LEU
15	CO	3	ILE
15	CO	35	ARG
15	CO	39	LEU
15	CO	41	GLU
15	CO	62	GLN
15	CO	87	ILE
16	CP	1	MET
16	CP	2	VAL
16	CP	3	LYS
16	CP	6	LEU
16	CP	8	ARG
16	CP	28	ARG
16	CP	43	LYS
16	CP	45	THR
16	CP	47	ASP
16	CP	52	ASP
16	CP	54	GLU
16	CP	62	VAL
16	CP	67	THR
16	CP	69	THR
16	CP	71	ARG
16	CP	76	GLN
17	CQ	9	VAL
17	CQ	11	VAL
17	CQ	34	LYS
17	CQ	45	HIS
17	CQ	48	GLU
17	CQ	52	LYS
17	CQ	53	LEU
17	CQ	59	ILE
17	CQ	63	ARG
17	CQ	68	ARG
17	CQ	72	ARG
17	CQ	82	MET
17	CQ	93	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	CQ	97	SER
18	CR	31	LEU
18	CR	32	ARG
18	CR	36	ASN
18	CR	37	VAL
18	CR	53	ARG
18	CR	76	LEU
18	CR	83	GLU
19	CS	7	LYS
19	CS	31	ILE
19	CS	36	ARG
19	CS	37	ARG
19	CS	38	SER
19	CS	44	MET
19	CS	62	ILE
19	CS	63	THR
19	CS	67	VAL
19	CS	77	THR
19	CS	81	ARG
20	CT	10	LEU
20	CT	13	LEU
20	CT	22	ARG
20	CT	24	LEU
20	CT	30	LYS
20	CT	41	ILE
20	CT	50	GLU
20	CT	70	SER
20	CT	72	LEU
20	CT	93	GLU
21	CU	9	ARG
21	CU	10	ARG
21	CU	12	LYS
21	CU	15	ARG
21	CU	24	ARG
22	CV	4	GLN
22	CV	13	HIS
22	CV	18	GLN
22	CV	31	TYR
22	CV	36	GLN
22	CV	39	GLN
22	CV	48	MET
25	DD	12	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DD	13	ARG
25	DD	25	THR
25	DD	32	SER
25	DD	35	LYS
25	DD	37	LEU
25	DD	39	LYS
25	DD	54	ARG
25	DD	61	LEU
25	DD	88	ARG
25	DD	89	SER
25	DD	94	LEU
25	DD	99	ASP
25	DD	101	GLU
25	DD	103	ARG
25	DD	126	GLN
25	DD	138	VAL
25	DD	141	VAL
25	DD	147	LEU
25	DD	150	LYS
25	DD	155	LEU
25	DD	173	VAL
25	DD	192	THR
25	DD	193	VAL
25	DD	211	ARG
25	DD	212	SER
25	DD	217	ARG
25	DD	221	VAL
25	DD	229	VAL
25	DD	242	ARG
25	DD	257	LEU
25	DD	259	THR
25	DD	260	ARG
25	DD	270	ILE
25	DD	274	ARG
26	DE	9	VAL
26	DE	12	THR
26	DE	21	VAL
26	DE	24	THR
26	DE	34	VAL
26	DE	38	THR
26	DE	49	LEU
26	DE	52	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	DE	54	GLN
26	DE	75	VAL
26	DE	78	LEU
26	DE	82	ARG
26	DE	89	ASP
26	DE	93	VAL
26	DE	105	THR
26	DE	113	PHE
26	DE	116	VAL
26	DE	119	ARG
26	DE	144	ARG
26	DE	152	LYS
26	DE	154	LYS
26	DE	163	GLU
26	DE	170	LEU
26	DE	175	VAL
26	DE	179	GLU
26	DE	181	LEU
26	DE	182	LEU
26	DE	184	VAL
27	DF	15	SER
27	DF	18	ARG
27	DF	20	LEU
27	DF	24	LEU
27	DF	33	LEU
27	DF	46	ARG
27	DF	50	SER
27	DF	53	THR
27	DF	57	VAL
27	DF	60	SER
27	DF	74	ARG
27	DF	77	ASP
27	DF	82	ILE
27	DF	88	VAL
27	DF	96	ASP
27	DF	106	ARG
27	DF	110	LEU
27	DF	117	ARG
27	DF	133	ASN
27	DF	135	LYS
27	DF	140	LEU
27	DF	152	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	DF	158	THR
27	DF	183	VAL
27	DF	192	LEU
27	DF	197	ASP
28	DG	3	LEU
28	DG	13	GLU
28	DG	20	ILE
28	DG	21	ARG
28	DG	31	VAL
28	DG	33	ARG
28	DG	43	LEU
28	DG	88	ILE
28	DG	96	ARG
28	DG	117	PHE
28	DG	135	LEU
28	DG	138	GLN
28	DG	143	GLU
28	DG	145	THR
28	DG	146	TYR
28	DG	148	MET
28	DG	149	VAL
28	DG	150	ASP
28	DG	153	ARG
28	DG	159	VAL
28	DG	161	THR
28	DG	170	ARG
29	DH	7	LEU
29	DH	15	VAL
29	DH	16	SER
29	DH	41	MET
29	DH	51	ARG
29	DH	69	ARG
29	DH	70	THR
29	DH	88	LEU
29	DH	98	LEU
29	DH	106	THR
29	DH	129	THR
29	DH	132	ARG
29	DH	139	GLN
29	DH	171	LEU
30	DI	1	MET
30	DI	7	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	DI	9	LEU
30	DI	12	LEU
30	DI	15	VAL
30	DI	41	GLU
30	DI	43	ASN
30	DI	44	LEU
30	DI	47	LEU
30	DI	61	ARG
30	DI	66	GLU
30	DI	72	LEU
30	DI	75	LEU
30	DI	76	THR
30	DI	77	LEU
30	DI	78	THR
30	DI	79	ILE
30	DI	88	ILE
30	DI	92	VAL
30	DI	93	THR
30	DI	97	ILE
30	DI	105	HIS
30	DI	116	LEU
30	DI	117	GLU
30	DI	120	ILE
30	DI	123	LEU
30	DI	133	HIS
30	DI	140	LEU
30	DI	142	VAL
30	DI	144	VAL
30	DI	145	VAL
31	DN	2	LYS
31	DN	9	VAL
31	DN	12	ARG
31	DN	15	LEU
31	DN	22	THR
31	DN	28	THR
31	DN	33	LEU
31	DN	34	LEU
31	DN	43	THR
31	DN	46	VAL
31	DN	48	MET
31	DN	55	VAL
31	DN	62	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	DN	63	THR
31	DN	73	THR
31	DN	87	LEU
31	DN	93	THR
31	DN	97	ARG
31	DN	99	LEU
31	DN	120	LEU
31	DN	131	GLN
31	DN	133	GLN
31	DN	137	LYS
31	DN	138	LEU
32	DO	8	LEU
32	DO	21	CYS
32	DO	26	LYS
32	DO	28	SER
32	DO	42	SER
32	DO	77	ILE
32	DO	94	ARG
32	DO	113	LYS
33	DP	21	ARG
33	DP	33	ARG
33	DP	42	SER
33	DP	55	ARG
33	DP	59	LEU
33	DP	64	LYS
33	DP	86	LYS
33	DP	98	GLU
33	DP	106	LEU
33	DP	112	LEU
33	DP	117	GLU
33	DP	125	VAL
33	DP	133	SER
33	DP	147	LEU
34	DQ	1	MET
34	DQ	5	ARG
34	DQ	7	MET
34	DQ	16	ARG
34	DQ	21	THR
34	DQ	25	ASP
34	DQ	45	GLN
34	DQ	55	VAL
34	DQ	56	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	DQ	75	THR
34	DQ	79	LEU
34	DQ	109	VAL
34	DQ	119	ARG
34	DQ	127	ILE
34	DQ	138	ASP
35	DR	6	SER
35	DR	8	ARG
35	DR	18	LEU
35	DR	28	LEU
35	DR	29	LEU
35	DR	33	ARG
35	DR	36	THR
35	DR	44	LEU
35	DR	48	VAL
35	DR	54	LEU
35	DR	60	LEU
35	DR	65	LEU
35	DR	67	LEU
35	DR	75	LEU
35	DR	79	LEU
35	DR	91	GLN
35	DR	95	THR
35	DR	100	LEU
36	DS	3	ARG
36	DS	11	LYS
36	DS	19	LYS
36	DS	20	ARG
36	DS	25	ARG
36	DS	42	ASP
36	DS	50	SER
36	DS	54	LEU
36	DS	67	ARG
36	DS	98	VAL
36	DS	110	LEU
36	DS	111	GLU
37	DT	1	MET
37	DT	6	LEU
37	DT	13	ARG
37	DT	16	ARG
37	DT	23	ARG
37	DT	28	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	DT	34	VAL
37	DT	39	ARG
37	DT	49	VAL
37	DT	53	ARG
37	DT	59	THR
37	DT	64	ARG
37	DT	74	ARG
37	DT	82	LEU
37	DT	93	ARG
37	DT	96	ARG
37	DT	107	ASP
37	DT	118	ARG
38	DU	8	VAL
38	DU	31	SER
38	DU	36	ARG
38	DU	58	ARG
38	DU	60	LEU
38	DU	74	LEU
38	DU	83	LEU
38	DU	104	GLN
38	DU	108	GLU
39	DV	5	VAL
39	DV	7	THR
39	DV	18	LEU
39	DV	28	GLU
39	DV	33	VAL
39	DV	35	LEU
39	DV	38	LEU
39	DV	46	VAL
39	DV	51	VAL
39	DV	57	VAL
39	DV	61	VAL
39	DV	62	LEU
39	DV	72	VAL
39	DV	89	GLN
39	DV	95	LEU
39	DV	100	ARG
40	DW	11	ARG
40	DW	15	ARG
40	DW	17	VAL
40	DW	23	LEU
40	DW	27	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	DW	28	SER
40	DW	51	LEU
40	DW	60	ASN
40	DW	67	ASP
40	DW	98	LYS
40	DW	100	THR
40	DW	103	ILE
40	DW	107	LEU
41	DX	23	GLU
41	DX	35	THR
41	DX	45	THR
41	DX	52	VAL
41	DX	57	LEU
42	DY	2	ARG
42	DY	5	MET
42	DY	6	HIS
42	DY	7	VAL
42	DY	23	ARG
42	DY	29	GLU
42	DY	31	LEU
42	DY	44	ILE
42	DY	55	TYR
42	DY	72	VAL
42	DY	79	CYS
42	DY	85	VAL
42	DY	90	LEU
42	DY	92	ASN
42	DY	97	ARG
42	DY	99	CYS
42	DY	102	CYS
43	DZ	3	TYR
43	DZ	11	GLU
43	DZ	19	ARG
43	DZ	20	ARG
43	DZ	41	LEU
43	DZ	42	VAL
43	DZ	72	ARG
43	DZ	76	LEU
43	DZ	80	ARG
43	DZ	86	VAL
43	DZ	89	PHE
43	DZ	112	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	DZ	126	VAL
43	DZ	132	ASN
43	DZ	133	ILE
43	DZ	155	LEU
43	DZ	156	LYS
43	DZ	170	THR
44	D0	20	ARG
44	D0	43	THR
44	D0	46	LYS
44	D0	55	ARG
44	D0	63	VAL
45	D1	4	VAL
45	D1	20	ARG
45	D1	21	ARG
45	D1	30	VAL
45	D1	35	THR
45	D1	40	ARG
45	D1	58	ILE
45	D1	59	THR
45	D1	60	PHE
45	D1	62	VAL
45	D1	95	LEU
46	D2	16	LEU
46	D2	27	GLU
46	D2	30	ARG
46	D2	32	LEU
46	D2	40	SER
46	D2	53	LEU
46	D2	55	ARG
47	D3	6	VAL
47	D3	8	LEU
47	D3	23	LEU
47	D3	24	LYS
47	D3	30	ARG
47	D3	31	LEU
47	D3	40	THR
48	D4	14	ILE
48	D4	16	CYS
48	D4	18	CYS
48	D4	20	ASN
48	D4	34	GLU
48	D4	35	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	D4	37	SER
48	D4	39	CYS
48	D4	43	TYR
48	D4	44	THR
49	D5	16	ARG
49	D5	29	THR
49	D5	37	LYS
49	D5	40	LYS
49	D5	55	ARG
50	D6	6	ARG
50	D6	14	THR
50	D6	18	ARG
50	D6	20	ASN
50	D6	23	THR
50	D6	28	ARG
50	D6	33	LYS
50	D6	35	GLU
50	D6	38	LYS
50	D6	40	CYS
50	D6	44	ARG
50	D6	48	VAL
50	D6	49	HIS
51	D7	1	MET
51	D7	4	THR
51	D7	8	ASN
51	D7	10	ARG
51	D7	24	THR
51	D7	32	LYS
51	D7	47	ARG
52	D8	26	LYS
52	D8	29	LYS
52	D8	30	ARG
52	D8	31	HIS
52	D8	32	LEU
52	D8	34	TRP
52	D8	37	SER
52	D8	58	ILE
52	D8	59	LYS
53	D9	17	ILE
53	D9	25	VAL
53	D9	26	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78)

such sidechains are listed below:

Mol	Chain	Res	Type
4	AD	123	HIS
4	AD	129	ASN
4	AD	160	GLN
4	AD	161	ASN
5	AE	78	HIS
8	AH	78	GLN
9	AI	117	HIS
15	AO	37	ASN
16	AP	76	GLN
20	AT	42	GLN
27	BF	69	HIS
28	BG	123	ASN
28	BG	138	GLN
30	BI	105	HIS
31	BN	133	GLN
32	BO	89	ASN
37	BT	84	GLN
38	BU	72	HIS
40	BW	60	ASN
40	BW	61	ASN
41	BX	31	HIS
43	BZ	151	HIS
52	B8	7	HIS
53	B9	36	GLN
3	CC	6	HIS
3	CC	104	GLN
3	CC	118	GLN
4	CD	123	HIS
4	CD	129	ASN
4	CD	160	GLN
4	CD	161	ASN
5	CE	78	HIS
7	CG	37	ASN
7	CG	64	GLN
8	CH	78	GLN
9	CI	38	GLN
9	CI	73	GLN
9	CI	87	GLN
9	CI	117	HIS
10	CJ	33	GLN
11	CK	93	GLN
12	CL	49	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	CN	52	GLN
15	CO	37	ASN
16	CP	76	GLN
19	CS	47	HIS
19	CS	69	HIS
19	CS	83	HIS
20	CT	42	GLN
22	CV	4	GLN
22	CV	18	GLN
22	CV	36	GLN
25	DD	87	ASN
25	DD	96	HIS
25	DD	143	HIS
27	DF	8	GLN
27	DF	69	HIS
28	DG	123	ASN
28	DG	130	ASN
28	DG	138	GLN
30	DI	105	HIS
31	DN	38	HIS
31	DN	133	GLN
32	DO	88	ASN
32	DO	89	ASN
34	DQ	89	ASN
37	DT	58	ASN
37	DT	84	GLN
38	DU	72	HIS
40	DW	60	ASN
41	DX	31	HIS
41	DX	55	ASN
42	DY	6	HIS
43	DZ	151	HIS
50	D6	20	ASN
51	D7	6	GLN
52	D8	7	HIS
53	D9	36	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	425 (28%)	31 (2%)

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	CA	1499/1522 (98%)	383 (25%)	29 (1%)
23	BA	2802/2915 (96%)	556 (19%)	62 (2%)
23	DA	2808/2915 (96%)	552 (19%)	63 (2%)
24	BB	119/122 (97%)	21 (17%)	0
24	DB	119/122 (97%)	21 (17%)	0
All	All	8850/9118 (97%)	1958 (22%)	185 (2%)

All (1958) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	9	G
1	AA	10	A
1	AA	22	G
1	AA	26	A
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	54	C
1	AA	60	A
1	AA	61	G
1	AA	67	C
1	AA	77	G
1	AA	78	G
1	AA	79	G
1	AA	81	U
1	AA	90	U
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	100	C
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129(A)	G
1	AA	131	C
1	AA	144	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	146	G
1	AA	150	C
1	AA	160	A
1	AA	163	C
1	AA	173	U
1	AA	182	U
1	AA	195	A
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	222	U
1	AA	231	G
1	AA	244	U
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	301	G
1	AA	306	G
1	AA	313	A
1	AA	316	G
1	AA	321	A
1	AA	327	A
1	AA	328	C
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	369	C
1	AA	372	C
1	AA	373	A
1	AA	382	A
1	AA	384	G
1	AA	388	G
1	AA	397	A
1	AA	398	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	409	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	418	C
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	433	C
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	458	C
1	AA	461	A
1	AA	471	G
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	500	G
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	524	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	536	C
1	AA	545	C
1	AA	547	A
1	AA	550	G
1	AA	558	G
1	AA	559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	564	C
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	592	G
1	AA	595	G
1	AA	596	C
1	AA	597	G
1	AA	613	C
1	AA	629	G
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	650	G
1	AA	653	A
1	AA	662	G
1	AA	665	A
1	AA	666	G
1	AA	687	A
1	AA	688	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	749	C
1	AA	752	G
1	AA	753	A
1	AA	755	G
1	AA	777	A
1	AA	786	G
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	802	A
1	AA	806	C
1	AA	817	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	818	G
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	836	G
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	855	G
1	AA	859	A
1	AA	863	U
1	AA	864	A
1	AA	872	A
1	AA	889	A
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	916	G
1	AA	926	G
1	AA	927	G
1	AA	933	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	938	A
1	AA	939	G
1	AA	940	C
1	AA	942	G
1	AA	945	G
1	AA	952	U
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	986	A
1	AA	987	G
1	AA	990	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	995	C
1	AA	1001(A)	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1012	U
1	AA	1013	G
1	AA	1014	A
1	AA	1018	C
1	AA	1023	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	C
1	AA	1030(A)	G
1	AA	1030(B)	C
1	AA	1030(C)	G
1	AA	1031	G
1	AA	1036	G
1	AA	1037	C
1	AA	1039	C
1	AA	1041	A
1	AA	1042	G
1	AA	1045	C
1	AA	1047	G
1	AA	1050	G
1	AA	1052	U
1	AA	1054	C
1	AA	1055	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1058	G
1	AA	1061	G
1	AA	1063	C
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1068	G
1	AA	1072	G
1	AA	1078	U
1	AA	1081	G
1	AA	1086	U
1	AA	1092	A
1	AA	1094	G
1	AA	1095	U
1	AA	1099	G
1	AA	1100	C
1	AA	1101	A
1	AA	1103	C
1	AA	1108	G
1	AA	1109	C
1	AA	1117	G
1	AA	1118	C
1	AA	1121	U
1	AA	1123	A
1	AA	1124	G
1	AA	1125	U
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1147	C
1	AA	1151	A
1	AA	1152	A
1	AA	1153	C
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1166	G
1	AA	1170	A
1	AA	1174	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1176	A
1	AA	1178	G
1	AA	1179	A
1	AA	1180	A
1	AA	1182	G
1	AA	1184	G
1	AA	1190	G
1	AA	1193	G
1	AA	1194	U
1	AA	1195	C
1	AA	1196	U
1	AA	1197	G
1	AA	1199	U
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1204	A
1	AA	1206	G
1	AA	1208	C
1	AA	1210	C
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1224	G
1	AA	1225	A
1	AA	1226	C
1	AA	1228	C
1	AA	1234	C
1	AA	1236	A
1	AA	1237	C
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1242	C
1	AA	1244	C
1	AA	1248	A
1	AA	1249	C
1	AA	1251	A
1	AA	1252	A
1	AA	1254	C
1	AA	1256	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1257	U
1	AA	1258	G
1	AA	1259	C
1	AA	1260	C
1	AA	1261	A
1	AA	1263	C
1	AA	1265	G
1	AA	1269	A
1	AA	1270	C
1	AA	1272	G
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1282	C
1	AA	1284	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1292	U
1	AA	1294	G
1	AA	1298	C
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1304	G
1	AA	1307	U
1	AA	1308	U
1	AA	1312	G
1	AA	1316	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1321	C
1	AA	1322	C
1	AA	1323	G
1	AA	1325	C
1	AA	1329	A
1	AA	1330	U
1	AA	1331	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1332	A
1	AA	1333	A
1	AA	1337	G
1	AA	1340	A
1	AA	1342	C
1	AA	1346	A
1	AA	1347	G
1	AA	1349	A
1	AA	1350	A
1	AA	1354	C
1	AA	1364	U
1	AA	1365	G
1	AA	1368	G
1	AA	1369	C
1	AA	1370	G
1	AA	1376	U
1	AA	1379	G
1	AA	1381	U
1	AA	1382	C
1	AA	1383	C
1	AA	1386	G
1	AA	1387	G
1	AA	1388	C
1	AA	1392	G
1	AA	1397	C
1	AA	1401	G
1	AA	1404	C
1	AA	1406	U
1	AA	1407	C
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1443	G
1	AA	1444	C
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1459	C
1	AA	1460	A
1	AA	1461	G
1	AA	1469	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1473	A
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
23	BA	10	G
23	BA	15	G
23	BA	34	C
23	BA	36	G
23	BA	45	C
23	BA	61	G
23	BA	68	G
23	BA	69	C
23	BA	71	A
23	BA	74	A
23	BA	75	G
23	BA	83	G
23	BA	84	A
23	BA	90	U
23	BA	92	A
23	BA	94	C
23	BA	95	G
23	BA	102	G
23	BA	118	A
23	BA	119	A
23	BA	120	U
23	BA	121	G
23	BA	125	G
23	BA	131	G
23	BA	139(A)	G
23	BA	141	A
23	BA	154	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	154(A)	C
23	BA	157	U
23	BA	172	C
23	BA	181	A
23	BA	182	A
23	BA	196	A
23	BA	199	A
23	BA	201	C
23	BA	204	A
23	BA	205	G
23	BA	215	G
23	BA	216	A
23	BA	221	A
23	BA	222	A
23	BA	225	A
23	BA	229	A
23	BA	232	G
23	BA	233	A
23	BA	248	G
23	BA	250	G
23	BA	271(I)	G
23	BA	271(K)	U
23	BA	271(L)	U
23	BA	271(M)	G
23	BA	271(N)	U
23	BA	271(O)	C
23	BA	271(P)	C
23	BA	271(R)	G
23	BA	272(B)	G
23	BA	272(H)	C
23	BA	272(I)	U
23	BA	272(J)	C
23	BA	277	C
23	BA	278	A
23	BA	279	C
23	BA	294	A
23	BA	311	A
23	BA	329	G
23	BA	330	A
23	BA	332	A
23	BA	352	G
23	BA	363	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	363(F)	A
23	BA	382	G
23	BA	386	G
23	BA	399	G
23	BA	411	G
23	BA	412	A
23	BA	414	C
23	BA	416	C
23	BA	427	U
23	BA	428	A
23	BA	444	C
23	BA	448	U
23	BA	454	A
23	BA	456	C
23	BA	457	A
23	BA	470	A
23	BA	471	A
23	BA	481	G
23	BA	504	U
23	BA	505	A
23	BA	509	C
23	BA	510	C
23	BA	512	G
23	BA	513	A
23	BA	530	G
23	BA	531	C
23	BA	532	A
23	BA	533	G
23	BA	543	C
23	BA	545	G
23	BA	546	C
23	BA	547	A
23	BA	548	A
23	BA	563	G
23	BA	571	A
23	BA	573	G
23	BA	574	C
23	BA	575	A
23	BA	584	C
23	BA	588	U
23	BA	603	A
23	BA	604	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	606	U
23	BA	607	U
23	BA	614	U
23	BA	614(A)	U
23	BA	614(B)	G
23	BA	615	G
23	BA	619	G
23	BA	627	A
23	BA	637	A
23	BA	644	A
23	BA	645	C
23	BA	646	A
23	BA	647	G
23	BA	652(B)	A
23	BA	652(C)	G
23	BA	652(D)	C
23	BA	652(U)	G
23	BA	656	G
23	BA	669	G
23	BA	686	G
23	BA	708	C
23	BA	709	U
23	BA	717	G
23	BA	730	C
23	BA	752	A
23	BA	753	C
23	BA	762	U
23	BA	764	A
23	BA	765	G
23	BA	775	G
23	BA	776	G
23	BA	782	A
23	BA	784	A
23	BA	785	G
23	BA	792	G
23	BA	793	A
23	BA	802	A
23	BA	805	G
23	BA	810	U
23	BA	812	C
23	BA	818	G
23	BA	819	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	827	U
23	BA	828	U
23	BA	830	G
23	BA	836	G
23	BA	857	C
23	BA	859	G
23	BA	869	G
23	BA	879	G
23	BA	880	G
23	BA	896	A
23	BA	897	C
23	BA	899	A
23	BA	900	A
23	BA	901	A
23	BA	910	A
23	BA	917	A
23	BA	922	U
23	BA	923	C
23	BA	932	G
23	BA	934	G
23	BA	938	G
23	BA	941	A
23	BA	945	A
23	BA	946	G
23	BA	958	U
23	BA	959	A
23	BA	961	C
23	BA	968	G
23	BA	974	G
23	BA	975	C
23	BA	975(A)	G
23	BA	983	A
23	BA	990	A
23	BA	996	A
23	BA	1012	U
23	BA	1013	C
23	BA	1016	G
23	BA	1020	A
23	BA	1022	G
23	BA	1024	G
23	BA	1025	G
23	BA	1026	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	1027	A
23	BA	1033	U
23	BA	1034	G
23	BA	1038	C
23	BA	1041	C
23	BA	1042	G
23	BA	1044	G
23	BA	1045	A
23	BA	1046	A
23	BA	1047	G
23	BA	1048	A
23	BA	1049	C
23	BA	1050	A
23	BA	1052	C
23	BA	1107	G
23	BA	1108	U
23	BA	1109	C
23	BA	1110	G
23	BA	1111	A
23	BA	1112	G
23	BA	1115	G
23	BA	1129	A
23	BA	1130	U
23	BA	1135	C
23	BA	1136	G
23	BA	1139	G
23	BA	1141	U
23	BA	1142	U
23	BA	1142(A)	A
23	BA	1149	G
23	BA	1155	A
23	BA	1156	A
23	BA	1164	G
23	BA	1210	A
23	BA	1211	U
23	BA	1218	C
23	BA	1224	C
23	BA	1250	G
23	BA	1253	A
23	BA	1256	G
23	BA	1267	U
23	BA	1268	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	1271	G
23	BA	1272	A
23	BA	1273	U
23	BA	1298	C
23	BA	1300	U
23	BA	1301	A
23	BA	1305	C
23	BA	1310	G
23	BA	1313	U
23	BA	1314	C
23	BA	1329	U
23	BA	1338	G
23	BA	1352	U
23	BA	1358	G
23	BA	1365	A
23	BA	1368	G
23	BA	1370	C
23	BA	1374	G
23	BA	1380	G
23	BA	1384	A
23	BA	1385	G
23	BA	1391	U
23	BA	1416	G
23	BA	1417	C
23	BA	1419	A
23	BA	1420	U
23	BA	1421	G
23	BA	1427	A
23	BA	1428	C
23	BA	1429	G
23	BA	1445	A
23	BA	1449	A
23	BA	1450	G
23	BA	1459	G
23	BA	1461	G
23	BA	1467	C
23	BA	1471	A
23	BA	1472	A
23	BA	1481	U
23	BA	1482	G
23	BA	1488	G
23	BA	1490	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	1493	C
23	BA	1497	U
23	BA	1507	A
23	BA	1508	A
23	BA	1509	C
23	BA	1509(A)	A
23	BA	1518	U
23	BA	1520	G
23	BA	1531	C
23	BA	1539	G
23	BA	1542	A
23	BA	1543	C
23	BA	1554	A
23	BA	1558	A
23	BA	1559	G
23	BA	1566	A
23	BA	1569	A
23	BA	1578	U
23	BA	1580	A
23	BA	1582	C
23	BA	1584	C
23	BA	1586	A
23	BA	1598	C
23	BA	1608	A
23	BA	1609	A
23	BA	1610	A
23	BA	1617	C
23	BA	1625	C
23	BA	1639	U
23	BA	1640	C
23	BA	1641	A
23	BA	1648	C
23	BA	1654	A
23	BA	1674	G
23	BA	1675	C
23	BA	1696	G
23	BA	1700	A
23	BA	1701	A
23	BA	1703	G
23	BA	1722	A
23	BA	1746	G
23	BA	1750	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	1762	A
23	BA	1763	G
23	BA	1764	G
23	BA	1773	A
23	BA	1780	A
23	BA	1781	C
23	BA	1782	C
23	BA	1791	A
23	BA	1799	G
23	BA	1800	C
23	BA	1801	G
23	BA	1816	G
23	BA	1819	A
23	BA	1820	U
23	BA	1829	A
23	BA	1834	U
23	BA	1835	G
23	BA	1836	C
23	BA	1847	A
23	BA	1848	A
23	BA	1858	G
23	BA	1877	A
23	BA	1878	G
23	BA	1889	A
23	BA	1900	A
23	BA	1906	G
23	BA	1913	A
23	BA	1914	C
23	BA	1929	G
23	BA	1930	G
23	BA	1934	C
23	BA	1936	A
23	BA	1938	A
23	BA	1955	U
23	BA	1962	C
23	BA	1963	U
23	BA	1967	C
23	BA	1969	A
23	BA	1970	A
23	BA	1971	A
23	BA	1972	A
23	BA	1982	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	1991	U
23	BA	1992	G
23	BA	1993	U
23	BA	1997	G
23	BA	2023	G
23	BA	2031	A
23	BA	2032	G
23	BA	2033	A
23	BA	2036	C
23	BA	2039	C
23	BA	2043	C
23	BA	2049	G
23	BA	2055	C
23	BA	2056	G
23	BA	2060	A
23	BA	2061	G
23	BA	2062	A
23	BA	2063	C
23	BA	2069	G
23	BA	2093	G
23	BA	2099	U
23	BA	2103	C
23	BA	2104	G
23	BA	2105	C
23	BA	2106	G
23	BA	2108	C
23	BA	2109	U
23	BA	2110	G
23	BA	2111	C
23	BA	2116	G
23	BA	2117	A
23	BA	2118	U
23	BA	2119	A
23	BA	2126	A
23	BA	2127	G
23	BA	2131	G
23	BA	2133	G
23	BA	2134	A
23	BA	2135	A
23	BA	2143	C
23	BA	2146	C
23	BA	2147	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	2148	G
23	BA	2159	G
23	BA	2161	C
23	BA	2170	A
23	BA	2172	U
23	BA	2173	A
23	BA	2175	C
23	BA	2176	A
23	BA	2181	G
23	BA	2185	C
23	BA	2187	G
23	BA	2188	C
23	BA	2190	G
23	BA	2191	G
23	BA	2192	G
23	BA	2198	A
23	BA	2199	A
23	BA	2200	C
23	BA	2206	G
23	BA	2207	G
23	BA	2208	A
23	BA	2218	U
23	BA	2225	A
23	BA	2235	G
23	BA	2238	G
23	BA	2239	G
23	BA	2240	C
23	BA	2259	G
23	BA	2268	A
23	BA	2269	A
23	BA	2273	A
23	BA	2275	C
23	BA	2280	G
23	BA	2283	C
23	BA	2287	A
23	BA	2289	G
23	BA	2304	G
23	BA	2305	A
23	BA	2306	C
23	BA	2308	G
23	BA	2309	A
23	BA	2311	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	2316	C
23	BA	2317	C
23	BA	2318	G
23	BA	2319	G
23	BA	2320	A
23	BA	2322	A
23	BA	2325	G
23	BA	2327	A
23	BA	2334	G
23	BA	2336	A
23	BA	2347	C
23	BA	2348	U
23	BA	2350	C
23	BA	2354	G
23	BA	2371	G
23	BA	2372	G
23	BA	2383	G
23	BA	2385	C
23	BA	2396	G
23	BA	2405	G
23	BA	2406	U
23	BA	2410	G
23	BA	2413	G
23	BA	2414	G
23	BA	2422	A
23	BA	2423	U
23	BA	2425	A
23	BA	2429	G
23	BA	2430	A
23	BA	2435	A
23	BA	2439	A
23	BA	2440	C
23	BA	2441	C
23	BA	2448	A
23	BA	2460	U
23	BA	2461	C
23	BA	2468	G
23	BA	2469	A
23	BA	2476	A
23	BA	2478	A
23	BA	2487	G
23	BA	2494	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	2502	G
23	BA	2505	G
23	BA	2506	U
23	BA	2518	A
23	BA	2520	C
23	BA	2525	G
23	BA	2529	G
23	BA	2535	G
23	BA	2554	U
23	BA	2566	A
23	BA	2567	G
23	BA	2569	G
23	BA	2573	C
23	BA	2584	U
23	BA	2585	U
23	BA	2586	C
23	BA	2602	A
23	BA	2603	G
23	BA	2608	G
23	BA	2609	U
23	BA	2610	C
23	BA	2611	U
23	BA	2612	C
23	BA	2615	U
23	BA	2629	A
23	BA	2630	G
23	BA	2632	A
23	BA	2643	G
23	BA	2663	G
23	BA	2673	G
23	BA	2690	C
23	BA	2700	C
23	BA	2702	U
23	BA	2703	C
23	BA	2707	G
23	BA	2712	U
23	BA	2712(A)	A
23	BA	2713	A
23	BA	2714	G
23	BA	2726	U
23	BA	2733	A
23	BA	2758	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	2761	G
23	BA	2762	G
23	BA	2764	A
23	BA	2765	A
23	BA	2766	G
23	BA	2769	C
23	BA	2778	A
23	BA	2791	C
23	BA	2802	G
23	BA	2803	C
23	BA	2805	G
23	BA	2808	U
23	BA	2820	A
23	BA	2821	A
23	BA	2834	G
23	BA	2835	A
23	BA	2846	G
23	BA	2851	A
23	BA	2872	G
23	BA	2875	C
23	BA	2880	C
23	BA	2892	A
23	BA	2893	G
23	BA	2894	G
23	BA	2895	U
24	BB	8	U
24	BB	9	G
24	BB	12	C
24	BB	13	A
24	BB	17	C
24	BB	24	G
24	BB	25	A
24	BB	29	A
24	BB	32	C
24	BB	40	U
24	BB	44	G
24	BB	53	A
24	BB	54	G
24	BB	56	G
24	BB	72	G
24	BB	73	A
24	BB	84	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	BB	87	G
24	BB	88	C
24	BB	106	G
24	BB	110	G
1	CA	5	U
1	CA	9	G
1	CA	10	A
1	CA	22	G
1	CA	26	A
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	54	C
1	CA	60	A
1	CA	61	G
1	CA	67	C
1	CA	77	G
1	CA	78	G
1	CA	79	G
1	CA	96	U
1	CA	97	G
1	CA	98	G
1	CA	100	C
1	CA	101	A
1	CA	115	G
1	CA	116	A
1	CA	119	A
1	CA	120	A
1	CA	121	C
1	CA	129(A)	G
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	150	C
1	CA	160	A
1	CA	163	C
1	CA	173	U
1	CA	182	U
1	CA	195	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	222	U
1	CA	231	G
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	301	G
1	CA	306	G
1	CA	313	A
1	CA	316	G
1	CA	321	A
1	CA	327	A
1	CA	328	C
1	CA	332	G
1	CA	345	C
1	CA	346	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	382	A
1	CA	384	G
1	CA	388	G
1	CA	397	A
1	CA	398	C
1	CA	409	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	418	C
1	CA	421	U
1	CA	422	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	428	G
1	CA	429	U
1	CA	433	C
1	CA	435	C
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	458	C
1	CA	461	A
1	CA	471	G
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	500	G
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	521	G
1	CA	524	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	545	C
1	CA	547	A
1	CA	550	G
1	CA	558	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	564	C
1	CA	568	G
1	CA	572	A
1	CA	573	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	576	G
1	CA	577	G
1	CA	588	G
1	CA	592	G
1	CA	595	G
1	CA	596	C
1	CA	597	G
1	CA	613	C
1	CA	629	G
1	CA	630	G
1	CA	631	G
1	CA	632	A
1	CA	650	G
1	CA	653	A
1	CA	662	G
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	752	G
1	CA	753	A
1	CA	755	G
1	CA	777	A
1	CA	786	G
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	806	C
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	821	G
1	CA	827	U
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	836	G
1	CA	839	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	855	G
1	CA	859	A
1	CA	864	A
1	CA	889	A
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	916	G
1	CA	925	G
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	940	C
1	CA	960	U
1	CA	961	U
1	CA	965	A
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	982	U
1	CA	983	A
1	CA	984	C
1	CA	989	C
1	CA	992	U
1	CA	993	G
1	CA	1001	A
1	CA	1001(A)	G
1	CA	1003	G
1	CA	1004	A
1	CA	1005	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1008	C
1	CA	1009	G
1	CA	1011	G
1	CA	1015	A
1	CA	1020	U
1	CA	1021	G
1	CA	1022	G
1	CA	1023	G
1	CA	1024	G
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1029	C
1	CA	1030(A)	G
1	CA	1031	G
1	CA	1034	G
1	CA	1035	A
1	CA	1036	G
1	CA	1040	U
1	CA	1042	G
1	CA	1050	G
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1070	U
1	CA	1081	G
1	CA	1082	G
1	CA	1085	U
1	CA	1087	G
1	CA	1088	G
1	CA	1094	G
1	CA	1095	U
1	CA	1100	C
1	CA	1101	A
1	CA	1106	G
1	CA	1107	C
1	CA	1108	G
1	CA	1113	C
1	CA	1114	C
1	CA	1118	C
1	CA	1124	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1125	U
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1147	C
1	CA	1152	A
1	CA	1154	G
1	CA	1157	A
1	CA	1159	U
1	CA	1171	G
1	CA	1172	C
1	CA	1174	G
1	CA	1178	G
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1185	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1202	G
1	CA	1206	G
1	CA	1208	C
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1220	G
1	CA	1225	A
1	CA	1227	A
1	CA	1228	C
1	CA	1229	A
1	CA	1238	A
1	CA	1239	A
1	CA	1241	G
1	CA	1244	C
1	CA	1250	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1252	A
1	CA	1254	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1259	C
1	CA	1260	C
1	CA	1270	C
1	CA	1274	G
1	CA	1275	A
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1284	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1291	G
1	CA	1292	U
1	CA	1293	G
1	CA	1294	G
1	CA	1295	G
1	CA	1297	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1304	G
1	CA	1305	G
1	CA	1306	A
1	CA	1309	G
1	CA	1310	G
1	CA	1312	G
1	CA	1316	G
1	CA	1319	A
1	CA	1320	C
1	CA	1321	C
1	CA	1322	C
1	CA	1323	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1331	G
1	CA	1333	A
1	CA	1337	G
1	CA	1338	G
1	CA	1339	A
1	CA	1341	U
1	CA	1346	A
1	CA	1347	G
1	CA	1355	G
1	CA	1358	U
1	CA	1359	C
1	CA	1360	A
1	CA	1363	C
1	CA	1364	U
1	CA	1366	C
1	CA	1370	G
1	CA	1377	A
1	CA	1379	G
1	CA	1383	C
1	CA	1386	G
1	CA	1397	C
1	CA	1401	G
1	CA	1404	C
1	CA	1406	U
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1443	G
1	CA	1444	C
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1459	C
1	CA	1460	A
1	CA	1461	G
1	CA	1473	A
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1503	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1533	C
23	DA	10	G
23	DA	15	G
23	DA	34	C
23	DA	36	G
23	DA	45	C
23	DA	61	G
23	DA	68	G
23	DA	69	C
23	DA	71	A
23	DA	74	A
23	DA	75	G
23	DA	84	A
23	DA	90	U
23	DA	92	A
23	DA	94	C
23	DA	95	G
23	DA	102	G
23	DA	118	A
23	DA	119	A
23	DA	120	U
23	DA	121	G
23	DA	125	G
23	DA	131	G
23	DA	139(A)	G
23	DA	141	A
23	DA	154	G
23	DA	154(A)	C
23	DA	157	U
23	DA	172	C
23	DA	181	A
23	DA	182	A
23	DA	196	A
23	DA	199	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	204	A
23	DA	205	G
23	DA	215	G
23	DA	216	A
23	DA	221	A
23	DA	222	A
23	DA	225	A
23	DA	229	A
23	DA	232	G
23	DA	233	A
23	DA	248	G
23	DA	250	G
23	DA	271(I)	G
23	DA	271(K)	U
23	DA	271(L)	U
23	DA	271(M)	G
23	DA	271(N)	U
23	DA	271(O)	C
23	DA	271(P)	C
23	DA	271(R)	G
23	DA	272(B)	G
23	DA	272(H)	C
23	DA	272(I)	U
23	DA	272(J)	C
23	DA	277	C
23	DA	278	A
23	DA	279	C
23	DA	283	A
23	DA	286	C
23	DA	311	A
23	DA	324	A
23	DA	329	G
23	DA	330	A
23	DA	332	A
23	DA	333	G
23	DA	352	G
23	DA	363	G
23	DA	363(F)	A
23	DA	382	G
23	DA	386	G
23	DA	399	G
23	DA	411	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	412	A
23	DA	414	C
23	DA	426	C
23	DA	427	U
23	DA	428	A
23	DA	444	C
23	DA	448	U
23	DA	454	A
23	DA	456	C
23	DA	457	A
23	DA	470	A
23	DA	471	A
23	DA	481	G
23	DA	492	A
23	DA	504	U
23	DA	505	A
23	DA	509	C
23	DA	510	C
23	DA	512	G
23	DA	530	G
23	DA	531	C
23	DA	532	A
23	DA	533	G
23	DA	543	C
23	DA	545	G
23	DA	546	C
23	DA	547	A
23	DA	548	A
23	DA	563	G
23	DA	571	A
23	DA	573	G
23	DA	575	A
23	DA	586	A
23	DA	588	U
23	DA	603	A
23	DA	604	G
23	DA	606	U
23	DA	607	U
23	DA	614	U
23	DA	614(A)	U
23	DA	614(B)	G
23	DA	615	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	619	G
23	DA	627	A
23	DA	637	A
23	DA	644	A
23	DA	645	C
23	DA	646	A
23	DA	652(B)	A
23	DA	652(C)	G
23	DA	652(D)	C
23	DA	652(U)	G
23	DA	669	G
23	DA	686	G
23	DA	708	C
23	DA	709	U
23	DA	717	G
23	DA	730	C
23	DA	752	A
23	DA	753	C
23	DA	762	U
23	DA	765	G
23	DA	775	G
23	DA	776	G
23	DA	782	A
23	DA	784	A
23	DA	785	G
23	DA	792	G
23	DA	802	A
23	DA	805	G
23	DA	810	U
23	DA	812	C
23	DA	819	A
23	DA	827	U
23	DA	828	U
23	DA	830	G
23	DA	836	G
23	DA	857	C
23	DA	859	G
23	DA	869	G
23	DA	879	G
23	DA	880	G
23	DA	896	A
23	DA	897	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	899	A
23	DA	900	A
23	DA	901	A
23	DA	910	A
23	DA	917	A
23	DA	922	U
23	DA	923	C
23	DA	932	G
23	DA	934	G
23	DA	938	G
23	DA	941	A
23	DA	945	A
23	DA	946	G
23	DA	958	U
23	DA	959	A
23	DA	961	C
23	DA	968	G
23	DA	974	G
23	DA	975	C
23	DA	975(A)	G
23	DA	983	A
23	DA	990	A
23	DA	996	A
23	DA	1012	U
23	DA	1013	C
23	DA	1016	G
23	DA	1020	A
23	DA	1022	G
23	DA	1024	G
23	DA	1025	G
23	DA	1026	U
23	DA	1027	A
23	DA	1033	U
23	DA	1034	G
23	DA	1038	C
23	DA	1041	C
23	DA	1042	G
23	DA	1044	G
23	DA	1045	A
23	DA	1046	A
23	DA	1047	G
23	DA	1048	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	1049	C
23	DA	1050	A
23	DA	1052	C
23	DA	1107	G
23	DA	1108	U
23	DA	1109	C
23	DA	1110	G
23	DA	1111	A
23	DA	1112	G
23	DA	1115	G
23	DA	1129	A
23	DA	1135	C
23	DA	1136	G
23	DA	1139	G
23	DA	1141	U
23	DA	1142	U
23	DA	1142(A)	A
23	DA	1149	G
23	DA	1155	A
23	DA	1164	G
23	DA	1211	U
23	DA	1218	C
23	DA	1253	A
23	DA	1256	G
23	DA	1268	A
23	DA	1271	G
23	DA	1272	A
23	DA	1273	U
23	DA	1298	C
23	DA	1300	U
23	DA	1301	A
23	DA	1314	C
23	DA	1321	A
23	DA	1329	U
23	DA	1338	G
23	DA	1358	G
23	DA	1365	A
23	DA	1367	A
23	DA	1368	G
23	DA	1370	C
23	DA	1374	G
23	DA	1380	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	1384	A
23	DA	1385	G
23	DA	1391	U
23	DA	1416	G
23	DA	1417	C
23	DA	1419	A
23	DA	1420	U
23	DA	1421	G
23	DA	1427	A
23	DA	1428	C
23	DA	1429	G
23	DA	1445	A
23	DA	1449	A
23	DA	1450	G
23	DA	1459	G
23	DA	1461	G
23	DA	1467	C
23	DA	1471	A
23	DA	1481	U
23	DA	1482	G
23	DA	1488	G
23	DA	1490	A
23	DA	1493	C
23	DA	1497	U
23	DA	1507	A
23	DA	1508	A
23	DA	1509	C
23	DA	1509(A)	A
23	DA	1518	U
23	DA	1520	G
23	DA	1531	C
23	DA	1533	G
23	DA	1534	U
23	DA	1535	A
23	DA	1536	C
23	DA	1537	G
23	DA	1539	G
23	DA	1542	A
23	DA	1543	C
23	DA	1554	A
23	DA	1558	A
23	DA	1559	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	1566	A
23	DA	1569	A
23	DA	1578	U
23	DA	1580	A
23	DA	1582	C
23	DA	1584	C
23	DA	1586	A
23	DA	1598	C
23	DA	1608	A
23	DA	1609	A
23	DA	1610	A
23	DA	1617	C
23	DA	1625	C
23	DA	1639	U
23	DA	1640	C
23	DA	1641	A
23	DA	1648	C
23	DA	1654	A
23	DA	1674	G
23	DA	1675	C
23	DA	1696	G
23	DA	1700	A
23	DA	1701	A
23	DA	1703	G
23	DA	1721	G
23	DA	1722	A
23	DA	1746	G
23	DA	1750	G
23	DA	1756	G
23	DA	1762	A
23	DA	1763	G
23	DA	1764	G
23	DA	1773	A
23	DA	1780	A
23	DA	1781	C
23	DA	1782	C
23	DA	1791	A
23	DA	1799	G
23	DA	1800	C
23	DA	1801	G
23	DA	1816	G
23	DA	1819	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	1820	U
23	DA	1829	A
23	DA	1835	G
23	DA	1836	C
23	DA	1847	A
23	DA	1848	A
23	DA	1858	G
23	DA	1877	A
23	DA	1878	G
23	DA	1889	A
23	DA	1900	A
23	DA	1906	G
23	DA	1913	A
23	DA	1914	C
23	DA	1929	G
23	DA	1930	G
23	DA	1934	C
23	DA	1936	A
23	DA	1938	A
23	DA	1955	U
23	DA	1962	C
23	DA	1963	U
23	DA	1967	C
23	DA	1969	A
23	DA	1970	A
23	DA	1971	A
23	DA	1972	A
23	DA	1982	C
23	DA	1991	U
23	DA	1992	G
23	DA	1993	U
23	DA	1997	G
23	DA	2020	A
23	DA	2023	G
23	DA	2031	A
23	DA	2032	G
23	DA	2033	A
23	DA	2036	C
23	DA	2039	C
23	DA	2043	C
23	DA	2049	G
23	DA	2055	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2056	G
23	DA	2060	A
23	DA	2061	G
23	DA	2062	A
23	DA	2063	C
23	DA	2069	G
23	DA	2093	G
23	DA	2099	U
23	DA	2103	C
23	DA	2104	G
23	DA	2105	C
23	DA	2106	G
23	DA	2108	C
23	DA	2109	U
23	DA	2110	G
23	DA	2111	C
23	DA	2116	G
23	DA	2117	A
23	DA	2118	U
23	DA	2119	A
23	DA	2126	A
23	DA	2127	G
23	DA	2131	G
23	DA	2133	G
23	DA	2134	A
23	DA	2135	A
23	DA	2143	C
23	DA	2146	C
23	DA	2147	G
23	DA	2148	G
23	DA	2161	C
23	DA	2162	G
23	DA	2170	A
23	DA	2172	U
23	DA	2173	A
23	DA	2175	C
23	DA	2176	A
23	DA	2181	G
23	DA	2185	C
23	DA	2187	G
23	DA	2188	C
23	DA	2190	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2191	G
23	DA	2192	G
23	DA	2196	C
23	DA	2198	A
23	DA	2199	A
23	DA	2200	C
23	DA	2206	G
23	DA	2207	G
23	DA	2208	A
23	DA	2218	U
23	DA	2225	A
23	DA	2235	G
23	DA	2238	G
23	DA	2239	G
23	DA	2240	C
23	DA	2259	G
23	DA	2267	A
23	DA	2268	A
23	DA	2269	A
23	DA	2273	A
23	DA	2275	C
23	DA	2280	G
23	DA	2283	C
23	DA	2287	A
23	DA	2289	G
23	DA	2304	G
23	DA	2305	A
23	DA	2306	C
23	DA	2308	G
23	DA	2309	A
23	DA	2311	A
23	DA	2316	C
23	DA	2318	G
23	DA	2319	G
23	DA	2320	A
23	DA	2325	G
23	DA	2327	A
23	DA	2334	G
23	DA	2336	A
23	DA	2347	C
23	DA	2348	U
23	DA	2350	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2354	G
23	DA	2355	C
23	DA	2371	G
23	DA	2372	G
23	DA	2383	G
23	DA	2385	C
23	DA	2388	A
23	DA	2396	G
23	DA	2405	G
23	DA	2406	U
23	DA	2410	G
23	DA	2413	G
23	DA	2414	G
23	DA	2422	A
23	DA	2423	U
23	DA	2425	A
23	DA	2429	G
23	DA	2430	A
23	DA	2435	A
23	DA	2439	A
23	DA	2440	C
23	DA	2441	C
23	DA	2448	A
23	DA	2460	U
23	DA	2461	C
23	DA	2468	G
23	DA	2469	A
23	DA	2476	A
23	DA	2478	A
23	DA	2487	G
23	DA	2494	G
23	DA	2502	G
23	DA	2505	G
23	DA	2506	U
23	DA	2518	A
23	DA	2520	C
23	DA	2525	G
23	DA	2529	G
23	DA	2535	G
23	DA	2554	U
23	DA	2566	A
23	DA	2567	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2569	G
23	DA	2573	C
23	DA	2584	U
23	DA	2585	U
23	DA	2586	C
23	DA	2602	A
23	DA	2603	G
23	DA	2608	G
23	DA	2611	U
23	DA	2612	C
23	DA	2615	U
23	DA	2629	A
23	DA	2630	G
23	DA	2632	A
23	DA	2643	G
23	DA	2663	G
23	DA	2673	G
23	DA	2689	U
23	DA	2690	C
23	DA	2700	C
23	DA	2702	U
23	DA	2703	C
23	DA	2707	G
23	DA	2712	U
23	DA	2712(A)	A
23	DA	2713	A
23	DA	2714	G
23	DA	2726	U
23	DA	2733	A
23	DA	2757	A
23	DA	2758	A
23	DA	2761	G
23	DA	2762	G
23	DA	2764	A
23	DA	2765	A
23	DA	2766	G
23	DA	2769	C
23	DA	2778	A
23	DA	2791	C
23	DA	2802	G
23	DA	2803	C
23	DA	2805	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2808	U
23	DA	2820	A
23	DA	2821	A
23	DA	2834	G
23	DA	2835	A
23	DA	2846	G
23	DA	2850	A
23	DA	2851	A
23	DA	2872	G
23	DA	2875	C
23	DA	2880	C
23	DA	2892	A
23	DA	2893	G
23	DA	2894	G
23	DA	2895	U
24	DB	2	C
24	DB	8	U
24	DB	9	G
24	DB	12	C
24	DB	13	A
24	DB	22	U
24	DB	24	G
24	DB	29	A
24	DB	32	C
24	DB	34	U
24	DB	39	A
24	DB	45	A
24	DB	52	A
24	DB	53	A
24	DB	56	G
24	DB	59	A
24	DB	64	C
24	DB	73	A
24	DB	106	G
24	DB	110	G
24	DB	116	G

All (185) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	3	G
1	AA	7	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	60	A
1	AA	69	G
1	AA	115	G
1	AA	119	A
1	AA	203	U
1	AA	243	A
1	AA	266	G
1	AA	327	A
1	AA	428	G
1	AA	484	G
1	AA	509	A
1	AA	560	U
1	AA	687	A
1	AA	748	C
1	AA	840	C
1	AA	913	A
1	AA	992	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1179	A
1	AA	1201	A
1	AA	1279	A
1	AA	1285	A
1	AA	1300	G
1	AA	1364	U
1	AA	1442	G
1	AA	1493	A
1	AA	1504	G
23	BA	9	U
23	BA	90	U
23	BA	196	A
23	BA	221	A
23	BA	249	C
23	BA	271(K)	U
23	BA	271(L)	U
23	BA	271(M)	G
23	BA	277	C
23	BA	278	A
23	BA	363(E)	U
23	BA	479	A
23	BA	512	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	542	C
23	BA	547	A
23	BA	652(A)	A
23	BA	669	G
23	BA	746	A
23	BA	752	A
23	BA	764	A
23	BA	774	A
23	BA	776	G
23	BA	827	U
23	BA	856	C
23	BA	896	A
23	BA	900	A
23	BA	974	G
23	BA	1026	U
23	BA	1033	U
23	BA	1047	G
23	BA	1048	A
23	BA	1049	C
23	BA	1106	G
23	BA	1108	U
23	BA	1210	A
23	BA	1378	A
23	BA	1379	A
23	BA	1427	A
23	BA	1507	A
23	BA	1530	C
23	BA	1538	G
23	BA	1558	A
23	BA	1608	A
23	BA	1609	A
23	BA	1617	C
23	BA	1653	G
23	BA	1799	G
23	BA	1819	A
23	BA	1992	G
23	BA	2126	A
23	BA	2171	A
23	BA	2172	U
23	BA	2308	G
23	BA	2318	G
23	BA	2405	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BA	2439	A
23	BA	2602	A
23	BA	2610	C
23	BA	2689	U
23	BA	2712	U
23	BA	2778	A
23	BA	2802	G
1	CA	7	G
1	CA	60	A
1	CA	115	G
1	CA	119	A
1	CA	203	U
1	CA	243	A
1	CA	266	G
1	CA	327	A
1	CA	345	C
1	CA	428	G
1	CA	484	G
1	CA	509	A
1	CA	560	U
1	CA	687	A
1	CA	748	C
1	CA	840	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1211	U
1	CA	1285	A
1	CA	1300	G
1	CA	1442	G
1	CA	1493	A
1	CA	1504	G
23	DA	9	U
23	DA	90	U
23	DA	196	A
23	DA	221	A
23	DA	249	C
23	DA	271(K)	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	271(L)	U
23	DA	271(M)	G
23	DA	277	C
23	DA	278	A
23	DA	310	A
23	DA	363(E)	U
23	DA	512	G
23	DA	542	C
23	DA	547	A
23	DA	652(A)	A
23	DA	752	A
23	DA	764	A
23	DA	774	A
23	DA	776	G
23	DA	827	U
23	DA	856	C
23	DA	859	G
23	DA	896	A
23	DA	900	A
23	DA	974	G
23	DA	1026	U
23	DA	1033	U
23	DA	1047	G
23	DA	1048	A
23	DA	1049	C
23	DA	1106	G
23	DA	1108	U
23	DA	1210	A
23	DA	1378	A
23	DA	1379	A
23	DA	1427	A
23	DA	1507	A
23	DA	1530	C
23	DA	1536	C
23	DA	1538	G
23	DA	1558	A
23	DA	1608	A
23	DA	1617	C
23	DA	1653	G
23	DA	1799	G
23	DA	1819	A
23	DA	1992	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DA	2126	A
23	DA	2171	A
23	DA	2172	U
23	DA	2308	G
23	DA	2318	G
23	DA	2405	G
23	DA	2439	A
23	DA	2602	A
23	DA	2610	C
23	DA	2689	U
23	DA	2712	U
23	DA	2756	U
23	DA	2778	A
23	DA	2802	G
23	DA	2873	A

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1302 ligands modelled in this entry, 1302 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1505/1522 (98%)	1.08	302 (20%) 1 0	52, 116, 177, 188	0
1	CA	1501/1522 (98%)	0.62	211 (14%) 2 1	53, 112, 168, 181	0
2	AB	229/256 (89%)	0.32	17 (7%) 14 4	114, 135, 150, 160	0
2	CB	229/256 (89%)	0.60	26 (11%) 5 1	113, 135, 150, 160	0
3	AC	206/239 (86%)	1.85	83 (40%) 0 0	122, 148, 164, 172	0
3	CC	206/239 (86%)	1.47	64 (31%) 0 0	119, 140, 153, 162	0
4	AD	208/209 (99%)	0.40	23 (11%) 5 1	100, 116, 133, 143	0
4	CD	208/209 (99%)	0.19	14 (6%) 17 5	95, 111, 129, 142	0
5	AE	148/162 (91%)	0.43	18 (12%) 4 1	85, 109, 124, 129	0
5	CE	148/162 (91%)	0.42	12 (8%) 12 3	87, 108, 124, 132	0
6	AF	100/101 (99%)	-0.07	7 (7%) 16 5	88, 102, 122, 136	0
6	CF	100/101 (99%)	0.10	5 (5%) 28 10	93, 107, 123, 135	0
7	AG	155/156 (99%)	3.56	108 (69%) 0 0	134, 156, 166, 168	0
7	CG	155/156 (99%)	2.13	69 (44%) 0 0	118, 144, 151, 158	0
8	AH	138/138 (100%)	0.08	6 (4%) 35 13	93, 111, 121, 131	0
8	CH	138/138 (100%)	0.15	7 (5%) 28 10	89, 110, 120, 133	0
9	AI	125/128 (97%)	3.99	90 (72%) 0 0	131, 157, 170, 176	0
9	CI	125/128 (97%)	2.58	61 (48%) 0 0	129, 151, 161, 173	0
10	AJ	96/105 (91%)	3.61	58 (60%) 0 0	137, 155, 170, 176	0
10	CJ	96/105 (91%)	2.70	55 (57%) 0 0	130, 149, 161, 169	0
11	AK	114/129 (88%)	0.10	0 100 100	74, 109, 123, 127	0
11	CK	114/129 (88%)	0.38	9 (7%) 12 4	79, 109, 122, 124	0
12	AL	122/132 (92%)	0.17	6 (4%) 29 11	72, 95, 111, 120	0
12	CL	122/132 (92%)	0.28	7 (5%) 23 8	72, 92, 106, 116	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/126 (90%)	4.54	90 (78%) 0 0	147, 160, 171, 177	0
13	CM	114/126 (90%)	2.02	41 (35%) 0 0	124, 145, 155, 158	0
14	AN	60/61 (98%)	3.84	37 (61%) 0 0	134, 160, 169, 174	0
14	CN	60/61 (98%)	1.87	21 (35%) 0 0	136, 146, 152, 155	0
15	AO	88/89 (98%)	0.02	3 (3%) 45 19	78, 103, 120, 131	0
15	CO	88/89 (98%)	0.08	6 (6%) 17 5	79, 102, 122, 129	0
16	AP	82/88 (93%)	1.28	24 (29%) 0 0	98, 112, 132, 138	0
16	CP	82/88 (93%)	0.53	5 (6%) 21 7	89, 105, 122, 132	0
17	AQ	99/105 (94%)	0.37	6 (6%) 21 7	86, 99, 113, 118	0
17	CQ	99/105 (94%)	0.01	3 (3%) 50 22	84, 98, 113, 117	0
18	AR	68/88 (77%)	0.68	11 (16%) 1 0	93, 104, 138, 141	0
18	CR	68/88 (77%)	1.10	19 (27%) 0 0	95, 107, 138, 143	0
19	AS	81/93 (87%)	2.98	40 (49%) 0 0	131, 164, 174, 179	0
19	CS	81/93 (87%)	2.67	48 (59%) 0 0	125, 146, 153, 155	0
20	AT	97/106 (91%)	0.49	9 (9%) 8 3	90, 106, 127, 131	0
20	CT	97/106 (91%)	0.67	14 (14%) 2 1	84, 103, 125, 132	0
21	AU	23/27 (85%)	6.80	19 (82%) 0 0	147, 161, 169, 174	0
21	CU	23/27 (85%)	2.53	12 (52%) 0 0	130, 145, 153, 154	0
22	AV	53/61 (86%)	0.16	3 (5%) 23 8	93, 105, 121, 143	0
22	CV	53/61 (86%)	-0.40	1 (1%) 66 37	90, 115, 141, 151	0
23	BA	2809/2915 (96%)	0.04	85 (3%) 50 22	31, 50, 134, 186	0
23	DA	2814/2915 (96%)	-0.13	110 (3%) 39 15	34, 56, 138, 189	0
24	BB	120/122 (98%)	-0.36	0 100 100	46, 72, 94, 119	0
24	DB	120/122 (98%)	-0.24	0 100 100	63, 90, 111, 129	0
25	BD	275/276 (99%)	-0.32	1 (0%) 92 79	34, 52, 69, 117	0
25	DD	275/276 (99%)	-0.42	1 (0%) 92 79	36, 55, 72, 119	0
26	BE	204/206 (99%)	-0.19	0 100 100	32, 55, 78, 95	0
26	DE	204/206 (99%)	-0.32	0 100 100	35, 61, 84, 101	0
27	BF	203/210 (96%)	-0.28	2 (0%) 82 59	30, 60, 92, 136	0
27	DF	203/210 (96%)	-0.25	1 (0%) 91 75	34, 67, 96, 136	0
28	BG	181/182 (99%)	0.42	19 (10%) 6 2	80, 120, 143, 152	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DG	181/182 (99%)	1.15	42 (23%) 0 0	92, 126, 146, 156	0
29	BH	174/180 (96%)	-0.19	1 (0%) 89 72	58, 79, 97, 110	0
29	DH	174/180 (96%)	0.42	22 (12%) 3 1	70, 92, 107, 122	0
30	BI	146/148 (98%)	-0.14	1 (0%) 87 69	57, 90, 108, 120	0
30	DI	146/148 (98%)	0.48	14 (9%) 8 2	60, 108, 127, 131	0
31	BN	140/140 (100%)	-0.34	0 100 100	39, 55, 83, 98	0
31	DN	140/140 (100%)	-0.56	1 (0%) 87 69	45, 63, 89, 101	0
32	BO	122/122 (100%)	-0.26	0 100 100	43, 58, 79, 85	0
32	DO	122/122 (100%)	-0.44	0 100 100	46, 62, 82, 86	0
33	BP	149/150 (99%)	0.03	0 100 100	34, 63, 98, 109	0
33	DP	149/150 (99%)	-0.21	3 (2%) 65 36	38, 70, 102, 111	0
34	BQ	141/141 (100%)	-0.17	1 (0%) 87 69	43, 61, 77, 91	0
34	DQ	141/141 (100%)	-0.21	0 100 100	47, 67, 85, 94	0
35	BR	118/118 (100%)	-0.27	0 100 100	38, 50, 70, 78	0
35	DR	118/118 (100%)	-0.34	0 100 100	42, 55, 73, 82	0
36	BS	110/112 (98%)	0.06	0 100 100	58, 75, 93, 101	0
36	DS	110/112 (98%)	0.12	4 (3%) 42 17	64, 82, 99, 110	0
37	BT	131/146 (89%)	-0.27	0 100 100	51, 63, 98, 117	0
37	DT	131/146 (89%)	-0.39	1 (0%) 86 65	55, 67, 101, 118	0
38	BU	116/118 (98%)	-0.18	1 (0%) 84 63	35, 48, 69, 81	0
38	DU	116/118 (98%)	-0.14	2 (1%) 70 41	40, 56, 76, 86	0
39	BV	100/101 (99%)	-0.27	0 100 100	34, 62, 81, 91	0
39	DV	101/101 (100%)	-0.06	0 100 100	40, 72, 90, 98	0
40	BW	112/113 (99%)	-0.42	0 100 100	36, 43, 64, 102	0
40	DW	112/113 (99%)	-0.60	0 100 100	40, 48, 69, 95	0
41	BX	95/96 (98%)	-0.19	1 (1%) 80 56	41, 51, 74, 98	0
41	DX	95/96 (98%)	-0.46	0 100 100	47, 56, 80, 102	0
42	BY	107/110 (97%)	-0.23	2 (1%) 66 37	52, 64, 89, 107	0
42	DY	107/110 (97%)	0.13	7 (6%) 18 5	59, 72, 96, 116	0
43	BZ	198/206 (96%)	-0.17	0 100 100	65, 85, 111, 126	0
43	DZ	198/206 (96%)	0.20	14 (7%) 16 5	73, 92, 115, 132	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B0	76/85 (89%)	-0.32	0 100 100	48, 55, 71, 87	0
44	D0	76/85 (89%)	0.25	4 (5%) 26 10	53, 61, 76, 90	0
45	B1	97/98 (98%)	-0.18	2 (2%) 63 34	37, 57, 89, 103	0
45	D1	97/98 (98%)	-0.24	1 (1%) 82 59	41, 61, 91, 108	0
46	B2	70/72 (97%)	-0.16	0 100 100	50, 66, 84, 103	0
46	D2	70/72 (97%)	0.05	3 (4%) 35 13	55, 71, 88, 112	0
47	B3	59/60 (98%)	-0.31	0 100 100	43, 57, 85, 101	0
47	D3	59/60 (98%)	0.22	2 (3%) 45 19	49, 64, 92, 112	0
48	B4	46/71 (64%)	-0.59	0 100 100	106, 140, 151, 154	0
48	D4	46/71 (64%)	0.02	0 100 100	113, 141, 152, 163	0
49	B5	59/60 (98%)	-0.37	0 100 100	33, 51, 68, 89	0
49	D5	59/60 (98%)	-0.40	0 100 100	37, 55, 73, 95	0
50	B6	53/54 (98%)	0.26	2 (3%) 40 16	53, 61, 75, 78	0
50	D6	53/54 (98%)	0.53	5 (9%) 8 3	56, 65, 79, 82	0
51	B7	48/49 (97%)	0.05	2 (4%) 36 14	32, 37, 61, 78	0
51	D7	48/49 (97%)	-0.13	0 100 100	36, 40, 64, 83	0
52	B8	64/65 (98%)	-0.10	0 100 100	42, 49, 58, 70	0
52	D8	64/65 (98%)	-0.43	0 100 100	46, 53, 62, 72	0
53	B9	36/37 (97%)	0.10	0 100 100	49, 59, 72, 83	0
53	D9	36/37 (97%)	0.59	3 (8%) 11 3	58, 68, 81, 91	0
All	All	20542/21368 (96%)	0.35	2030 (9%) 7 2	30, 80, 160, 189	0

All (2030) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	AM	43	THR	23.7
14	AN	13	THR	22.9
9	CI	7	THR	17.6
10	AJ	72	VAL	17.0
21	AU	11	GLY	15.5
14	AN	12	ARG	15.0
10	AJ	71	LEU	14.7
1	AA	1290	G	14.3
1	AA	974	A	14.1
13	CM	7	VAL	13.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	50	ALA	13.5
21	AU	8	THR	13.4
1	AA	1247	U	13.3
19	AS	49	ILE	12.9
1	AA	1286	A	12.8
1	AA	1351	U	12.7
21	AU	5	ASP	12.7
14	AN	10	ALA	12.7
21	AU	4	GLY	12.5
10	AJ	73	ASP	12.5
9	AI	7	THR	12.5
14	AN	14	PRO	12.4
13	AM	109	THR	12.2
7	CG	2	ALA	12.1
23	BA	2117	A	11.9
1	AA	1352	C	11.9
1	CA	1148	U	11.7
9	AI	125	TYR	11.7
1	AA	1331	G	11.7
13	AM	65	LYS	11.7
10	AJ	34	VAL	11.3
10	AJ	8	LEU	11.0
1	AA	949	A	11.0
13	AM	25	ILE	11.0
9	AI	30	GLY	11.0
3	AC	144	SER	11.0
3	AC	196	LEU	11.0
9	AI	23	ASN	10.9
13	AM	44	ARG	10.9
1	AA	950	U	10.7
1	CA	1149	C	10.7
21	AU	12	LYS	10.5
13	AM	69	GLU	10.5
1	AA	1030(B)	C	10.4
7	AG	144	MET	10.3
7	AG	31	MET	10.3
3	CC	153	VAL	10.3
9	AI	69	GLY	10.2
10	CJ	72	VAL	10.2
1	AA	1218	C	10.1
13	AM	91	ARG	10.1
14	AN	23	ARG	10.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1291	G	10.0
14	AN	22	THR	9.9
7	AG	105	VAL	9.8
3	CC	155	GLY	9.8
1	CA	1026	G	9.7
9	AI	88	TYR	9.7
1	AA	1235	U	9.7
21	AU	17	THR	9.6
1	AA	984	C	9.6
23	DA	2173	A	9.5
21	AU	16	GLY	9.5
1	AA	982	U	9.5
23	BA	2116	G	9.5
10	AJ	6	ILE	9.5
23	DA	2128	C	9.4
23	BA	2129	C	9.3
13	AM	29	ARG	9.3
9	CI	6	GLY	9.3
14	AN	11	LYS	9.3
28	DG	2	PRO	9.3
23	DA	2148	G	9.3
10	AJ	69	ASN	9.3
19	AS	69	HIS	9.3
21	CU	8	THR	9.3
9	AI	3	GLN	9.3
21	CU	5	ASP	9.2
1	AA	987	G	9.2
23	BA	2130	U	9.2
13	CM	5	ALA	9.1
13	AM	41	PRO	9.1
9	CI	84	ALA	9.1
13	CM	6	GLY	9.0
1	AA	1209	C	9.0
9	AI	89	ASN	8.9
13	AM	86	CYS	8.9
9	AI	29	ASN	8.9
21	AU	18	TYR	8.8
7	AG	91	VAL	8.8
19	AS	59	PRO	8.8
1	AA	1243	C	8.7
7	CG	39	ALA	8.7
1	AA	961	U	8.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1236	A	8.7
7	AG	39	ALA	8.7
1	AA	1018	C	8.6
23	DA	2174	C	8.6
1	AA	1223	C	8.6
10	CJ	23	ILE	8.6
13	AM	90	LEU	8.6
13	AM	2	ALA	8.5
7	AG	5	ARG	8.5
42	BY	1	MET	8.5
7	AG	110	GLN	8.5
23	DA	2127	G	8.5
9	AI	37	PHE	8.4
1	AA	1240	U	8.4
1	CA	933	G	8.4
19	AS	32	LYS	8.4
7	AG	83	ALA	8.4
10	AJ	35	SER	8.4
21	AU	3	LYS	8.4
3	CC	154	SER	8.3
7	CG	156	TRP	8.3
13	AM	92	HIS	8.3
7	AG	15	ASP	8.3
13	CM	65	LYS	8.2
10	AJ	38	ILE	8.2
1	AA	973	G	8.2
10	AJ	100	THR	8.2
1	AA	986	A	8.2
1	CA	1092	A	8.2
7	AG	71	PRO	8.2
1	CA	1027	C	8.2
1	AA	1332	A	8.2
7	AG	107	ALA	8.2
7	CG	5	ARG	8.2
3	AC	192	THR	8.2
1	AA	1242	C	8.2
13	CM	8	GLU	8.1
9	AI	22	GLY	8.1
23	BA	2161	C	8.1
1	AA	1030(C)	G	8.1
1	AA	983	A	8.1
1	AA	1330	U	8.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	AG	82	GLY	8.0
7	AG	84	ASN	8.0
13	AM	42	ALA	8.0
23	DA	2171	A	8.0
1	AA	948	C	7.9
1	AA	1341	U	7.9
3	CC	76	VAL	7.9
1	AA	1306	A	7.8
23	DA	2124	G	7.8
14	AN	7	ILE	7.8
1	AA	1222	G	7.8
23	DA	2125	G	7.8
18	AR	20	ALA	7.7
1	AA	1248	A	7.7
9	AI	8	GLY	7.7
1	AA	980	C	7.7
9	CI	101	PHE	7.7
23	BA	2173	A	7.7
9	AI	101	PHE	7.7
1	AA	953	G	7.7
7	AG	2	ALA	7.7
3	AC	195	VAL	7.6
1	AA	1217	C	7.6
23	DA	2110	G	7.6
1	CA	1128	C	7.6
13	AM	97	PRO	7.5
23	DA	2153	G	7.5
10	AJ	5	ARG	7.5
1	AA	1026	G	7.5
9	CI	85	LEU	7.5
13	AM	96	LEU	7.5
1	AA	951	G	7.5
1	AA	1216	G	7.5
10	AJ	70	ARG	7.5
13	AM	6	GLY	7.4
13	AM	95	GLY	7.4
1	AA	979	C	7.4
13	AM	12	ASN	7.4
13	AM	66	LEU	7.4
23	DA	2162	G	7.4
7	AG	145	ALA	7.4
23	DA	2168	G	7.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	AM	11	ARG	7.4
1	AA	1305	G	7.3
9	CI	66	ARG	7.3
9	AI	15	ALA	7.3
7	CG	38	LEU	7.3
1	AA	1363	C	7.3
9	AI	64	THR	7.3
23	DA	2152	G	7.2
19	CS	54	GLY	7.2
23	DA	2170	A	7.2
1	AA	985	C	7.2
1	CA	1379	G	7.2
1	AA	1304	G	7.2
9	AI	102	LEU	7.2
1	CA	1036	G	7.1
10	AJ	98	ILE	7.1
1	AA	952	U	7.1
9	CI	64	THR	7.1
9	AI	47	LEU	7.0
19	AS	73	GLU	7.0
19	AS	70	LYS	7.0
7	CG	25	ALA	7.0
1	AA	988	G	7.0
1	AA	1019	C	7.0
1	AA	1295	G	7.0
1	AA	1287	A	6.9
13	AM	64	TRP	6.9
21	AU	14	TRP	6.9
1	AA	1036	G	6.9
9	CI	83	ARG	6.9
21	AU	9	ARG	6.9
1	AA	1030(A)	G	6.9
3	AC	76	VAL	6.9
1	AA	1138	G	6.9
1	AA	1353	G	6.9
13	AM	51	ALA	6.8
23	DA	2790	A	6.8
9	AI	100	GLY	6.8
23	DA	2161	C	6.8
9	CI	89	ASN	6.8
7	AG	11	GLN	6.8
1	CA	1249	C	6.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	954	G	6.8
10	AJ	24	VAL	6.8
19	CS	34	TRP	6.7
1	AA	958	A	6.7
28	DG	182	LYS	6.7
7	CG	78	ARG	6.7
3	AC	87	LEU	6.7
7	AG	4	ARG	6.7
1	AA	947	G	6.7
7	AG	36	LYS	6.7
7	CG	26	PHE	6.6
1	AA	1002	G	6.6
13	AM	77	ASN	6.6
23	DA	2176	A	6.6
23	DA	2147	G	6.6
1	CA	1222	G	6.6
9	AI	60	ASP	6.6
7	CG	27	ILE	6.6
1	AA	981	U	6.6
1	AA	1274	G	6.6
23	DA	2169	A	6.6
23	DA	2132	U	6.5
9	AI	5	TYR	6.5
9	AI	80	GLY	6.5
1	CA	1030(B)	C	6.5
1	AA	1296	C	6.5
13	AM	40	ASN	6.5
13	AM	49	THR	6.5
7	CG	77	SER	6.5
13	CM	66	LEU	6.5
19	CS	52	TYR	6.5
3	AC	39	ILE	6.5
14	AN	9	LYS	6.5
14	AN	15	LYS	6.5
9	AI	32	ASP	6.5
23	BA	2108	C	6.5
9	AI	10	ARG	6.5
7	CG	16	LEU	6.5
3	AC	146	ALA	6.5
10	CJ	37	PRO	6.5
7	AG	103	TRP	6.5
13	AM	10	PRO	6.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	AU	10	ARG	6.4
28	DG	35	GLU	6.4
7	AG	81	GLY	6.4
23	DA	2172	U	6.4
9	CI	62	TYR	6.4
9	AI	84	ALA	6.4
10	CJ	73	ASP	6.4
21	AU	6	ARG	6.4
3	AC	53	ALA	6.4
7	AG	109	ASN	6.4
23	DA	2893	G	6.4
1	AA	1339	A	6.4
9	CI	103	THR	6.4
23	BA	2160	G	6.4
7	AG	38	LEU	6.3
7	AG	14	PRO	6.3
1	AA	1213	A	6.3
3	AC	111	LEU	6.3
13	AM	68	GLY	6.3
14	AN	17	LYS	6.3
1	AA	970	C	6.3
19	AS	60	VAL	6.3
13	AM	24	GLY	6.3
1	CA	1285	A	6.3
10	CJ	65	LEU	6.3
28	DG	155	MET	6.3
9	CI	16	ARG	6.3
10	AJ	21	GLN	6.3
23	DA	2121	G	6.3
9	AI	126	SER	6.3
9	AI	83	ARG	6.3
14	AN	3	ARG	6.3
23	BA	2159	G	6.2
9	AI	34	ASN	6.2
1	CA	1147	C	6.2
23	DA	2129	C	6.2
23	DA	2792	G	6.2
13	AM	54	VAL	6.2
18	CR	20	ALA	6.2
1	AA	91	C	6.2
7	AG	143	ARG	6.2
1	AA	1294	G	6.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	AM	50	GLU	6.2
14	AN	39	LEU	6.2
9	AI	122	ALA	6.1
7	AG	154	TYR	6.1
10	CJ	75	ILE	6.1
19	AS	31	ILE	6.1
1	CA	1030(A)	G	6.1
23	DA	2149	G	6.1
10	CJ	22	LYS	6.1
10	CJ	71	LEU	6.1
19	AS	48	THR	6.1
14	CN	30	ALA	6.1
14	CN	29	ARG	6.1
1	AA	1364	U	6.1
9	AI	20	ARG	6.1
1	CA	936	C	6.1
7	AG	140	ASP	6.1
1	AA	971	G	6.1
1	AA	1214	C	6.1
9	CI	8	GLY	6.1
1	AA	1011	G	6.1
10	CJ	77	PRO	6.1
19	CS	9	VAL	6.1
23	BA	2172	U	6.1
10	AJ	48	THR	6.1
1	CA	1286	A	6.0
19	AS	51	VAL	6.0
10	AJ	33	GLN	6.0
7	AG	130	GLY	6.0
16	AP	11	SER	6.0
9	AI	65	VAL	6.0
21	AU	2	GLY	6.0
13	CM	102	ARG	6.0
1	CA	1013	G	6.0
9	AI	103	THR	6.0
23	DA	2116	G	6.0
1	AA	1329	A	5.9
10	CJ	64	GLU	5.9
1	CA	1139	G	5.9
7	CG	37	ASN	5.9
23	DA	2126	A	5.9
1	AA	1033	G	5.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	DA	2131	G	5.9
1	AA	1309	G	5.9
1	CA	1023	G	5.9
3	AC	145	GLY	5.9
21	CU	7	ARG	5.9
1	AA	1340	A	5.9
1	AA	1297	C	5.9
23	DA	2177	C	5.9
13	AM	5	ALA	5.9
1	AA	1030(D)	A	5.8
3	CC	44	GLU	5.8
19	AS	57	HIS	5.8
1	AA	990	C	5.8
23	BA	2131	G	5.8
14	CN	35	ARG	5.8
19	CS	57	HIS	5.8
9	AI	9	ARG	5.8
14	AN	19	ARG	5.8
3	AC	193	TYR	5.8
3	CC	43	LEU	5.8
1	AA	1030	C	5.8
23	DA	2163	C	5.8
1	AA	1092	A	5.8
1	AA	1380	U	5.8
23	DA	2178	C	5.8
7	CG	79	ARG	5.8
13	AM	61	GLU	5.7
1	AA	1350	A	5.7
1	CA	1248	A	5.7
1	CA	1150	U	5.7
3	CC	189	ALA	5.7
1	AA	1035	A	5.7
23	BA	2167	U	5.7
1	CA	1093	A	5.7
23	BA	2166	G	5.7
1	AA	1360	A	5.7
7	AG	106	GLN	5.7
9	AI	66	ARG	5.7
9	AI	12	GLU	5.7
14	AN	28	GLY	5.7
23	BA	2133	G	5.7
13	AM	26	GLY	5.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1336	C	5.7
13	AM	110	ARG	5.7
1	AA	1050	G	5.6
1	CA	1001(A)	G	5.6
23	BA	2148	G	5.6
28	DG	152	LEU	5.6
13	CM	107	ALA	5.6
3	AC	64	VAL	5.6
9	AI	46	ALA	5.6
19	AS	33	THR	5.6
23	DA	2166	G	5.6
9	AI	87	GLN	5.6
9	CI	17	VAL	5.6
23	DA	2109	U	5.6
1	AA	1342	C	5.6
23	BA	1509	C	5.6
23	DA	2175	C	5.6
1	CA	1223	C	5.5
3	CC	194	GLY	5.5
23	DA	2802	G	5.5
23	DA	2894	G	5.5
23	DA	2119	A	5.5
9	CI	53	VAL	5.5
1	AA	1210	C	5.5
19	AS	24	ALA	5.5
23	BA	2132	U	5.5
23	DA	2122	U	5.5
1	AA	1241	G	5.5
10	AJ	36	GLY	5.5
10	CJ	100	THR	5.5
2	AB	133	LYS	5.5
23	DA	2120	G	5.5
23	DA	2146	C	5.5
9	CI	18	PHE	5.5
1	AA	989	C	5.5
7	AG	16	LEU	5.5
2	CB	33	TYR	5.5
1	CA	1116	C	5.5
13	AM	104	ARG	5.5
23	BA	2118	U	5.5
10	AJ	27	ALA	5.4
14	CN	37	PHE	5.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1173	G	5.4
3	AC	101	LEU	5.4
10	CJ	38	ILE	5.4
28	DG	41	GLN	5.4
14	AN	5	ALA	5.4
1	CA	1383	C	5.4
1	AA	1031	G	5.4
1	AA	1246	C	5.4
13	AM	87	TYR	5.4
3	AC	65	ALA	5.4
7	CG	4	ARG	5.4
1	AA	962	C	5.4
23	DA	2118	U	5.4
23	BA	2158	A	5.4
9	AI	4	TYR	5.4
23	DA	2151	G	5.4
23	BA	2171	A	5.4
14	AN	32	SER	5.4
4	AD	23	GLY	5.3
7	AG	77	SER	5.3
1	AA	1048	G	5.3
7	AG	152	ALA	5.3
4	AD	113	SER	5.3
10	AJ	25	GLU	5.3
1	AA	1208	C	5.3
23	BA	2162	G	5.3
23	DA	2164	C	5.3
23	DA	2123	G	5.3
19	CS	53	ASN	5.3
23	BA	2176	A	5.3
3	CC	47	LEU	5.3
21	AU	24	ARG	5.3
21	AU	13	ILE	5.3
19	AS	44	MET	5.3
7	AG	54	THR	5.3
13	CM	4	ILE	5.3
9	AI	33	PHE	5.2
1	AA	1289	A	5.2
7	CG	3	ARG	5.2
1	CA	1293	G	5.2
19	AS	40	ILE	5.2
1	AA	1037	C	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	AG	153	HIS	5.2
1	CA	1261	A	5.2
9	AI	59	PHE	5.2
3	CC	77	ILE	5.2
7	AG	127	ALA	5.2
9	AI	14	VAL	5.2
10	CJ	17	ASP	5.2
23	BA	2124	G	5.2
23	BA	2168	G	5.2
7	CG	154	TYR	5.2
19	CS	80	TYR	5.2
23	BA	2137	C	5.2
1	CA	1212	U	5.2
10	CJ	27	ALA	5.2
23	BA	2115	G	5.2
10	CJ	20	ALA	5.2
7	AG	43	PHE	5.2
23	DA	2793	G	5.1
13	AM	73	GLU	5.1
42	DY	1	MET	5.1
7	AG	49	ILE	5.1
23	BA	2147	G	5.1
7	AG	3	ARG	5.1
13	AM	88	ARG	5.1
21	AU	7	ARG	5.1
13	AM	105	THR	5.1
9	AI	6	GLY	5.1
21	CU	2	GLY	5.1
1	CA	1172	C	5.1
2	CB	19	HIS	5.1
7	AG	141	VAL	5.1
1	AA	1215	G	5.1
2	CB	37	ASN	5.1
18	AR	31	LEU	5.1
3	AC	143	GLU	5.1
9	AI	31	GLN	5.1
23	DA	2139	C	5.1
1	AA	1224	G	5.1
7	AG	148	ASN	5.1
1	CA	1037	C	5.1
1	CA	1030(C)	G	5.1
3	AC	78	GLY	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	28	VAL	5.1
9	CI	88	TYR	5.1
23	BA	2174	C	5.1
28	DG	93	THR	5.0
23	DA	1535	A	5.0
3	AC	69	HIS	5.0
23	BA	2109	U	5.0
1	CA	1028	C	5.0
1	CA	1125	U	5.0
23	BA	2125	G	5.0
5	CE	20	GLN	5.0
1	AA	1013	G	5.0
1	CA	1024	G	5.0
13	CM	64	TRP	5.0
23	BA	2163	C	5.0
10	AJ	56	HIS	5.0
9	AI	21	PRO	5.0
9	CI	80	GLY	5.0
28	DG	134	GLY	5.0
10	CJ	74	ILE	5.0
19	CS	63	THR	5.0
10	CJ	76	ASN	5.0
1	AA	1237	C	5.0
1	CA	1380	U	5.0
1	CA	935	A	4.9
19	CS	49	ILE	4.9
9	AI	19	LEU	4.9
10	AJ	65	LEU	4.9
1	CA	974	A	4.9
23	DA	2158	A	4.9
53	D9	37	GLY	4.9
23	BA	2165	G	4.9
2	AB	131	PRO	4.9
1	AA	1045	C	4.9
3	AC	103	VAL	4.9
16	AP	12	LYS	4.9
7	AG	65	ALA	4.9
4	AD	6	GLY	4.9
10	AJ	47	PHE	4.9
13	CM	60	VAL	4.8
10	AJ	54	PHE	4.8
4	CD	23	GLY	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	28	GLY	4.8
1	AA	935	A	4.8
9	AI	17	VAL	4.8
13	AM	93	ARG	4.8
1	AA	1001(A)	G	4.8
10	CJ	40	LEU	4.8
3	CC	202	ILE	4.8
13	CM	105	THR	4.8
1	AA	1017	G	4.8
23	DA	2141	G	4.8
5	AE	130	ASN	4.8
1	AA	3	G	4.8
1	AA	1334	G	4.8
7	AG	96	GLN	4.8
1	CA	1297	C	4.8
23	DA	2167	U	4.8
1	AA	1180	A	4.8
7	AG	23	VAL	4.8
10	CJ	33	GLN	4.8
7	AG	147	ALA	4.8
18	CR	22	VAL	4.8
1	AA	1032	G	4.8
1	AA	1275	A	4.8
1	CA	1012	U	4.8
10	CJ	85	LEU	4.8
13	AM	47	ASP	4.7
1	AA	946	A	4.7
7	AG	120	ILE	4.7
28	DG	156	ASP	4.7
3	CC	160	ALA	4.7
2	AB	232	PRO	4.7
7	CG	80	VAL	4.7
9	CI	5	TYR	4.7
9	AI	16	ARG	4.7
9	CI	69	GLY	4.7
1	AA	1016	A	4.7
3	AC	183	ASP	4.7
23	BA	2157	G	4.7
1	AA	960	U	4.7
7	AG	37	ASN	4.7
13	AM	72	ALA	4.7
14	AN	20	ALA	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	DA	652(B)	A	4.7
10	CJ	45	ARG	4.7
7	AG	19	GLY	4.7
9	CI	65	VAL	4.7
10	AJ	19	SER	4.7
23	DA	2150	U	4.7
50	D6	54	ILE	4.7
1	AA	969	A	4.7
14	CN	26	ARG	4.7
28	DG	34	LEU	4.7
7	AG	136	LYS	4.7
9	AI	27	THR	4.7
23	BA	2123	G	4.7
1	AA	1303	C	4.6
1	CA	1029	C	4.6
7	AG	40	ALA	4.6
14	CN	27	CYS	4.6
1	AA	1245	A	4.6
1	CA	1068	G	4.6
7	AG	41	ARG	4.6
9	CI	105	ASP	4.6
16	AP	29	ASP	4.6
23	DA	2892	A	4.6
7	AG	108	ALA	4.6
9	CI	49	PRO	4.6
9	CI	9	ARG	4.6
10	CJ	59	SER	4.6
9	CI	81	ILE	4.6
14	AN	8	GLU	4.6
16	AP	28	ARG	4.6
3	AC	189	ALA	4.6
1	AA	1261	A	4.6
18	CR	23	LYS	4.6
13	AM	48	LEU	4.6
18	CR	31	LEU	4.6
23	BA	2121	G	4.6
1	AA	92	C	4.5
10	CJ	47	PHE	4.5
1	AA	959	A	4.5
1	AA	1183	A	4.5
9	CI	82	ALA	4.5
1	AA	1020	U	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1365	G	4.5
23	DA	2165	G	4.5
23	BA	2119	A	4.5
28	DG	135	LEU	4.5
14	CN	23	ARG	4.5
19	CS	21	GLU	4.5
1	AA	1012	U	4.5
1	AA	1212	U	4.5
1	CA	1025	U	4.5
3	CC	39	ILE	4.5
10	CJ	78	ASN	4.5
10	AJ	64	GLU	4.5
19	AS	72	GLY	4.5
1	AA	77	G	4.5
2	CB	161	ALA	4.5
9	AI	123	PRO	4.5
9	AI	18	PHE	4.5
7	AG	13	GLN	4.5
10	CJ	26	ALA	4.5
19	CS	35	SER	4.5
3	CC	196	LEU	4.5
19	CS	10	PHE	4.5
1	CA	1287	A	4.5
43	DZ	112	ARG	4.5
1	AA	76	C	4.5
10	AJ	20	ALA	4.4
2	AB	132	LYS	4.4
3	CC	188	LEU	4.4
1	CA	932	C	4.4
9	AI	13	ALA	4.4
1	CA	958	A	4.4
9	AI	99	LEU	4.4
9	CI	61	ALA	4.4
1	CA	1033	G	4.4
7	AG	156	TRP	4.4
13	AM	85	GLY	4.4
3	AC	66	VAL	4.4
19	CS	83	HIS	4.4
13	AM	13	LYS	4.4
14	AN	25	VAL	4.4
19	AS	58	VAL	4.4
1	AA	1158	C	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1034	G	4.4
1	CA	1291	G	4.4
1	AA	1307	U	4.4
1	AA	1308	U	4.4
16	AP	19	ILE	4.4
19	AS	30	LEU	4.4
1	AA	998	G	4.4
12	CL	73	GLU	4.4
13	AM	33	ALA	4.4
9	CI	22	GLY	4.4
10	AJ	7	LYS	4.4
28	DG	157	ILE	4.4
14	CN	38	GLY	4.4
13	AM	34	LEU	4.3
10	AJ	28	ARG	4.3
13	CM	67	GLU	4.3
3	AC	47	LEU	4.3
10	AJ	76	ASN	4.3
1	AA	963	G	4.3
7	CG	20	ASP	4.3
23	DA	2160	G	4.3
13	AM	9	ILE	4.3
1	CA	1265	G	4.3
13	AM	30	ALA	4.3
1	AA	1221	G	4.3
1	AA	1311	G	4.3
1	CA	1300	G	4.3
23	BA	277	C	4.3
3	AC	107	GLN	4.3
7	AG	35	LYS	4.3
10	CJ	39	PRO	4.3
3	AC	100	ALA	4.3
23	BA	2135	A	4.3
1	AA	1228	C	4.3
1	CA	1165	C	4.3
9	AI	91	ASP	4.3
23	DA	2155	G	4.3
3	CC	42	LEU	4.3
19	AS	28	LYS	4.3
7	AG	66	VAL	4.3
19	CS	30	LEU	4.3
13	AM	35	GLU	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	232	PRO	4.3
28	BG	87	PRO	4.3
7	AG	45	ASP	4.3
7	AG	102	ARG	4.3
19	AS	20	LEU	4.3
19	CS	68	GLY	4.3
1	AA	201	C	4.2
1	AA	1310	G	4.2
1	CA	1138	G	4.2
1	CA	1202	G	4.2
1	AA	1211	U	4.2
12	AL	73	GLU	4.2
1	CA	1035	A	4.2
9	AI	124	GLN	4.2
29	BH	2	SER	4.2
7	AG	56	GLN	4.2
13	CM	43	THR	4.2
7	AG	104	LEU	4.2
38	DU	117	GLN	4.2
19	CS	22	LEU	4.2
13	AM	102	ARG	4.2
18	AR	22	VAL	4.2
14	AN	26	ARG	4.2
14	CN	25	VAL	4.2
19	CS	56	GLN	4.2
9	AI	55	ALA	4.2
13	AM	20	THR	4.2
16	AP	1	MET	4.2
23	BA	2149	G	4.2
10	AJ	57	LYS	4.2
18	AR	21	LYS	4.2
3	AC	77	ILE	4.2
13	CM	9	ILE	4.2
7	AG	125	MET	4.1
10	CJ	10	GLY	4.1
13	AM	98	VAL	4.1
1	AA	999	C	4.1
7	CG	99	LEU	4.1
1	AA	1001	A	4.1
1	CA	1140	C	4.1
23	DA	2154	G	4.1
23	DA	2157	G	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	15	LEU	4.1
1	AA	1148	U	4.1
1	AA	1374	A	4.1
1	AA	1447	A	4.1
31	DN	140	VAL	4.1
28	DG	142	PRO	4.1
23	BA	2136	C	4.1
18	CR	85	LEU	4.1
1	AA	1021	G	4.1
1	AA	1276	G	4.1
1	CA	1174	G	4.1
3	AC	73	PRO	4.1
10	AJ	9	ARG	4.1
14	CN	13	THR	4.1
6	AF	97	PHE	4.1
1	AA	965	A	4.1
1	CA	1030(D)	A	4.1
7	AG	119	ARG	4.1
13	AM	81	LEU	4.1
14	AN	18	VAL	4.1
1	CA	1127	G	4.1
10	CJ	67	THR	4.1
21	CU	6	ARG	4.1
29	DH	2	SER	4.1
7	AG	51	GLN	4.1
5	AE	89	ILE	4.1
13	AM	53	VAL	4.1
10	AJ	37	PRO	4.1
3	CC	23	TYR	4.1
13	AM	89	GLY	4.0
3	AC	2	GLY	4.0
7	AG	92	SER	4.0
10	AJ	74	ILE	4.0
7	CG	6	ARG	4.0
1	AA	1125	U	4.0
10	AJ	26	ALA	4.0
3	CC	152	ILE	4.0
7	AG	112	PRO	4.0
9	AI	112	LYS	4.0
13	AM	46	LYS	4.0
10	AJ	23	ILE	4.0
1	CA	1032	G	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	CD	69	GLY	4.0
23	BA	2153	G	4.0
3	CC	172	ARG	4.0
1	CA	1014	A	4.0
3	AC	67	THR	4.0
29	DH	57	ASP	4.0
1	AA	1159	U	4.0
7	AG	26	PHE	4.0
25	BD	276	LYS	4.0
7	AG	52	GLU	4.0
13	AM	45	VAL	4.0
28	DG	42	GLY	4.0
9	AI	105	ASP	4.0
50	D6	50	ARG	4.0
19	AS	5	LEU	3.9
1	AA	1284	C	3.9
7	CG	40	ALA	3.9
9	CI	52	ALA	3.9
1	AA	1025	U	3.9
14	AN	37	PHE	3.9
1	CA	1129	C	3.9
7	CG	15	ASP	3.9
23	DA	2108	C	3.9
1	CA	1136	U	3.9
3	CC	65	ALA	3.9
6	CF	63	TYR	3.9
3	CC	101	LEU	3.9
23	BA	2792	G	3.9
13	AM	82	MET	3.9
19	AS	39	THR	3.9
1	CA	1382	C	3.9
23	DA	2111	C	3.9
17	AQ	78	GLU	3.9
1	AA	1327	C	3.9
1	AA	1359	C	3.9
7	CG	32	ARG	3.9
1	AA	1141	C	3.9
1	CA	1141	C	3.9
23	DA	2803	C	3.9
7	CG	153	HIS	3.9
3	AC	172	ARG	3.9
19	AS	81	ARG	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	D9	12	ASP	3.9
3	CC	40	ARG	3.9
7	AG	111	ARG	3.9
12	AL	114	LYS	3.9
1	AA	1207	G	3.9
1	AA	1302	U	3.8
1	AA	1325	C	3.8
1	CA	1386	G	3.8
23	BA	2793	G	3.8
23	DA	2159	G	3.8
7	AG	142	GLU	3.8
12	AL	113	ARG	3.8
1	CA	1034	G	3.8
9	CI	119	ALA	3.8
3	CC	80	GLY	3.8
3	AC	63	ASN	3.8
8	CH	54	ASP	3.8
19	CS	79	THR	3.8
7	AG	55	GLY	3.8
16	AP	13	HIS	3.8
19	AS	19	VAL	3.8
3	AC	43	LEU	3.8
14	AN	61	TRP	3.8
28	DG	92	VAL	3.8
7	AG	76	ARG	3.8
42	DY	80	GLY	3.8
1	AA	1384	C	3.8
22	AV	23	GLY	3.8
1	AA	1139	G	3.8
19	AS	27	GLU	3.8
1	AA	1288	A	3.8
3	AC	68	VAL	3.8
23	DA	2133	G	3.8
3	AC	104	GLN	3.8
23	BA	2150	U	3.8
2	CB	38	GLY	3.8
7	CG	36	LYS	3.8
1	CA	1275	A	3.8
1	AA	1383	C	3.8
5	AE	118	ILE	3.7
1	AA	975	A	3.7
1	CA	1094	G	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	191	THR	3.7
1	AA	1029	C	3.7
3	CC	81	GLY	3.7
7	AG	88	PRO	3.7
14	AN	6	LEU	3.7
9	AI	113	LYS	3.7
19	AS	23	ASN	3.7
20	AT	53	LEU	3.7
7	AG	53	LYS	3.7
1	AA	1285	A	3.7
10	CJ	36	GLY	3.7
29	DH	58	GLU	3.7
9	CI	102	LEU	3.7
1	CA	1304	G	3.7
19	AS	68	GLY	3.7
46	D2	1	MET	3.7
14	AN	34	TYR	3.7
9	AI	90	PRO	3.7
1	AA	1326	C	3.7
23	DA	2140	C	3.7
30	DI	121	LYS	3.7
7	CG	86	GLN	3.7
9	AI	121	ARG	3.7
17	CQ	98	LEU	3.7
23	DA	2179	C	3.7
7	CG	82	GLY	3.7
28	DG	43	LEU	3.7
19	CS	17	GLU	3.7
10	AJ	60	ARG	3.7
1	CA	1021	G	3.7
23	DA	281	G	3.7
3	CC	3	ASN	3.7
10	AJ	40	LEU	3.7
2	CB	21	ARG	3.7
7	AG	75	VAL	3.6
19	CS	31	ILE	3.6
5	AE	122	GLU	3.6
1	CA	1384	C	3.6
7	CG	12	LEU	3.6
13	AM	32	GLU	3.6
14	AN	4	LYS	3.6
1	AA	1233	G	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1312	G	3.6
1	AA	1328	C	3.6
1	CA	931	C	3.6
3	AC	98	ASN	3.6
23	DA	1509	C	3.6
1	AA	204	U	3.6
7	CG	101	LEU	3.6
1	CA	1288	A	3.6
28	BG	2	PRO	3.6
3	CC	197	GLY	3.6
9	CI	54	ASP	3.6
13	AM	15	VAL	3.6
18	AR	32	ARG	3.6
1	AA	369	C	3.6
1	CA	1030	C	3.6
1	CA	1175	G	3.6
9	AI	56	LEU	3.6
23	BA	2164	C	3.6
7	AG	139	GLU	3.6
16	AP	10	GLY	3.6
1	AA	1338	G	3.6
1	CA	80	G	3.6
1	CA	1274	G	3.6
2	AB	140	HIS	3.6
3	CC	166	GLU	3.6
7	AG	87	VAL	3.6
7	AG	60	LYS	3.6
17	AQ	97	SER	3.6
1	AA	1130	A	3.6
1	CA	1243	C	3.6
3	CC	192	THR	3.6
7	AG	151	TYR	3.6
7	AG	32	ARG	3.6
1	AA	1003	G	3.6
7	AG	9	VAL	3.6
30	DI	85	GLU	3.6
10	CJ	19	SER	3.6
1	AA	202	U	3.5
1	AA	1028	C	3.5
14	AN	38	GLY	3.5
1	CA	1224	G	3.5
23	DA	2156	G	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	91	VAL	3.5
9	CI	63	ILE	3.5
13	CM	17	VAL	3.5
1	AA	1262	C	3.5
14	CN	31	ARG	3.5
19	CS	50	ALA	3.5
1	CA	1005	A	3.5
3	AC	191	THR	3.5
3	CC	112	SER	3.5
1	CA	1338	G	3.5
9	CI	100	GLY	3.5
13	AM	106	ASN	3.5
10	CJ	6	ILE	3.5
16	AP	20	VAL	3.5
13	CM	85	GLY	3.5
14	AN	59	ALA	3.5
1	CA	1031	G	3.5
1	CA	1295	G	3.5
1	AA	1335	C	3.5
1	AA	1362	C	3.5
1	CA	985	C	3.5
3	CC	49	SER	3.5
3	CC	190	ARG	3.5
23	BA	2128	C	3.5
4	AD	37	PRO	3.5
6	AF	98	LEU	3.5
23	DA	655	A	3.5
28	DG	3	LEU	3.5
3	AC	58	GLU	3.5
9	CI	58	HIS	3.5
13	AM	60	VAL	3.5
23	DA	2801(A)	A	3.5
20	AT	60	GLU	3.5
19	CS	82	GLY	3.5
1	CA	1221	G	3.5
1	AA	1140	C	3.5
25	DD	276	LYS	3.5
1	AA	1014	A	3.5
33	DP	87	ASP	3.5
9	CI	15	ALA	3.5
13	AM	39	ILE	3.5
13	CM	34	LEU	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	55	LYS	3.5
19	CS	32	LYS	3.5
14	CN	14	PRO	3.5
3	CC	156	ARG	3.5
23	DA	2896	C	3.5
19	CS	20	LEU	3.5
3	AC	110	ASN	3.4
13	CM	61	GLU	3.4
13	AM	63	THR	3.4
13	AM	76	ALA	3.4
10	AJ	53	PRO	3.4
13	CM	39	ILE	3.4
50	D6	11	LEU	3.4
36	DS	37	ALA	3.4
3	AC	156	ARG	3.4
1	AA	1007	C	3.4
1	AA	1044	A	3.4
1	CA	1146	A	3.4
1	CA	1213	A	3.4
7	CG	69	VAL	3.4
3	CC	206	GLU	3.4
7	CG	31	MET	3.4
7	CG	41	ARG	3.4
23	BA	276	A	3.4
9	AI	35	GLU	3.4
1	AA	1049	U	3.4
30	DI	138	ILE	3.4
10	AJ	10	GLY	3.4
16	AP	18	ARG	3.4
21	CU	4	GLY	3.4
10	AJ	97	GLU	3.4
20	CT	86	ARG	3.4
1	AA	1129	C	3.4
15	CO	89	GLY	3.4
9	CI	48	GLU	3.4
3	CC	151	VAL	3.4
13	CM	72	ALA	3.4
9	CI	104	ARG	3.4
16	AP	37	GLY	3.4
1	CA	1342	C	3.4
3	AC	72	LYS	3.4
1	CA	1343	G	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	63	ILE	3.4
28	DG	132	ASN	3.4
1	CA	1340	A	3.4
7	AG	29	LYS	3.4
13	AM	70	LEU	3.4
13	CM	108	ARG	3.4
1	AA	78	G	3.4
1	AA	220	G	3.4
23	BA	2175	C	3.4
1	CA	1191	A	3.3
6	CF	97	PHE	3.3
9	AI	119	ALA	3.3
9	AI	54	ASP	3.3
10	AJ	58	ASP	3.3
7	AG	28	ASN	3.3
23	DA	2145	C	3.3
1	CA	1381	U	3.3
10	AJ	75	ILE	3.3
3	AC	108	ASN	3.3
19	CS	44	MET	3.3
20	CT	56	MET	3.3
23	BA	2107	C	3.3
1	CA	1131	G	3.3
16	AP	40	ASP	3.3
23	DA	2130	U	3.3
5	AE	90	VAL	3.3
7	AG	25	ALA	3.3
7	AG	8	GLU	3.3
23	BA	2122	U	3.3
1	CA	1181	G	3.3
9	CI	55	ALA	3.3
9	CI	76	ALA	3.3
5	AE	85	GLY	3.3
1	AA	1128	C	3.3
13	AM	28	ALA	3.3
19	CS	69	HIS	3.3
7	CG	96	GLN	3.3
10	AJ	17	ASP	3.3
3	AC	106	VAL	3.3
1	AA	1131	G	3.3
1	CA	1170	A	3.3
2	CB	15	VAL	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	56	GLN	3.3
3	CC	2	GLY	3.3
7	AG	137	LYS	3.3
9	AI	24	GLY	3.3
18	CR	21	LYS	3.3
19	CS	8	GLY	3.3
1	AA	93	G	3.3
28	DG	133	LEU	3.3
1	AA	1452	C	3.3
3	AC	128	PHE	3.3
14	CN	34	TYR	3.3
1	CA	986	A	3.3
1	AA	997	U	3.3
1	CA	988	G	3.3
19	CS	55	LYS	3.3
13	CM	69	GLU	3.3
23	BA	2794	C	3.3
4	CD	21	LEU	3.3
14	AN	21	TYR	3.3
3	AC	154	SER	3.2
10	AJ	59	SER	3.2
47	D3	26	LEU	3.2
7	AG	146	GLU	3.2
1	AA	1324	A	3.2
9	AI	79	LEU	3.2
23	DA	2136	C	3.2
7	CG	28	ASN	3.2
11	CK	32	ILE	3.2
1	CA	981	U	3.2
42	DY	2	ARG	3.2
7	CG	17	VAL	3.2
1	AA	1010	G	3.2
1	CA	1266	G	3.2
9	AI	57	GLY	3.2
10	AJ	77	PRO	3.2
3	CC	187	ALA	3.2
28	BG	133	LEU	3.2
28	DG	151	ALA	3.2
13	AM	101	GLN	3.2
7	AG	128	ALA	3.2
1	AA	97	G	3.2
1	CA	1385	G	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	88	ILE	3.2
13	AM	4	ILE	3.2
50	B6	54	ILE	3.2
13	CM	92	HIS	3.2
3	CC	73	PRO	3.2
4	AD	4	TYR	3.2
1	CA	1294	G	3.2
18	CR	72	ARG	3.2
21	CU	14	TRP	3.2
3	AC	204	LEU	3.2
28	DG	39	ILE	3.2
3	CC	193	TYR	3.2
13	AM	7	VAL	3.2
7	AG	129	GLU	3.2
9	AI	96	LEU	3.2
1	CA	1022	G	3.2
43	DZ	198	LYS	3.2
1	AA	389	A	3.2
19	CS	33	THR	3.2
1	CA	1214	C	3.2
1	CA	1260	C	3.2
4	AD	125	HIS	3.2
7	CG	51	GLN	3.2
1	CA	1227	A	3.2
1	CA	1145	C	3.1
4	CD	7	PRO	3.1
8	CH	116	LYS	3.1
23	DA	2107	C	3.1
1	CA	1205	U	3.1
9	CI	30	GLY	3.1
9	AI	86	VAL	3.1
19	CS	19	VAL	3.1
20	AT	52	ALA	3.1
14	CN	15	LYS	3.1
1	AA	1363(A)	A	3.1
21	AU	15	ARG	3.1
1	AA	1315	U	3.1
1	AA	1378	C	3.1
1	CA	956	U	3.1
14	CN	16	PHE	3.1
3	AC	99	VAL	3.1
2	CB	31	TYR	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	97	GLU	3.1
1	AA	390	C	3.1
23	DA	2897	U	3.1
1	AA	1201	A	3.1
28	DG	66	GLN	3.1
1	AA	1320	C	3.1
1	CA	1057	G	3.1
5	AE	22	GLY	3.1
23	DA	280	C	3.1
17	CQ	100	LYS	3.1
19	CS	48	THR	3.1
1	AA	1038	C	3.1
3	AC	142	MET	3.1
7	CG	33	ASP	3.1
19	AS	9	VAL	3.1
1	AA	966	G	3.1
23	BA	2152	G	3.1
19	CS	7	LYS	3.1
28	DG	117	PHE	3.1
3	CC	46	GLU	3.1
13	AM	80	ARG	3.1
1	CA	1208	C	3.1
1	CA	1349	A	3.1
10	CJ	53	PRO	3.1
7	AG	24	THR	3.1
9	AI	36	TYR	3.1
13	AM	59	TYR	3.1
28	BG	34	LEU	3.1
1	AA	71	C	3.1
1	AA	1279	A	3.1
29	DH	109	PHE	3.1
7	CG	18	TYR	3.1
7	AG	113	GLU	3.1
9	AI	85	LEU	3.1
3	CC	88	ARG	3.1
19	AS	52	TYR	3.1
1	CA	987	G	3.1
4	CD	112	VAL	3.1
10	CJ	55	LYS	3.1
2	AB	16	HIS	3.1
20	CT	53	LEU	3.1
23	BA	2178	C	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	100	ALA	3.1
6	CF	35	ALA	3.1
13	CM	16	ASP	3.0
16	AP	9	PHE	3.0
28	BG	131	TYR	3.0
1	AA	932	C	3.0
1	AA	1137	C	3.0
1	CA	1262	C	3.0
10	CJ	99	LYS	3.0
18	CR	29	PHE	3.0
3	AC	109	PRO	3.0
19	CS	26	GLY	3.0
23	BA	2106	G	3.0
6	CF	6	VAL	3.0
19	CS	78	ARG	3.0
1	AA	2	U	3.0
1	CA	202	U	3.0
23	DA	271(N)	U	3.0
1	AA	189(G)	G	3.0
4	AD	21	LEU	3.0
23	DA	11	G	3.0
1	AA	1093	A	3.0
13	CM	101	GLN	3.0
1	CA	1209	C	3.0
1	CA	960	U	3.0
13	AM	52	GLU	3.0
28	DG	85	GLY	3.0
1	AA	991	U	3.0
3	AC	153	VAL	3.0
7	AG	17	VAL	3.0
1	CA	1017	G	3.0
1	CA	1166	G	3.0
16	CP	48	TRP	3.0
28	DG	136	ARG	3.0
2	CB	43	ASP	3.0
4	AD	134	ASP	3.0
29	DH	116	GLU	3.0
12	AL	122	THR	3.0
10	AJ	62	HIS	3.0
1	CA	984	C	3.0
1	CA	1229	A	3.0
4	CD	2	GLY	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	CL	72	GLY	3.0
13	CM	40	ASN	3.0
1	AA	203	U	3.0
1	CA	950	U	3.0
20	CT	85	MET	3.0
3	AC	167	TRP	3.0
7	AG	150	ALA	3.0
16	AP	17	TYR	3.0
28	BG	136	ARG	3.0
1	CA	1011	G	3.0
10	AJ	41	PRO	3.0
1	AA	1260	C	3.0
23	DA	2794	C	3.0
3	AC	147	LYS	3.0
9	AI	70	LYS	3.0
10	CJ	54	PHE	3.0
23	BA	2114	A	3.0
10	CJ	62	HIS	3.0
19	AS	26	GLY	2.9
3	AC	83	ARG	2.9
13	AM	71	ARG	2.9
5	CE	31	LEU	2.9
10	CJ	69	ASN	2.9
23	DA	652(T)	C	2.9
2	CB	48	MET	2.9
9	AI	67	GLY	2.9
9	CI	21	PRO	2.9
20	AT	86	ARG	2.9
4	AD	70	ILE	2.9
1	AA	65	U	2.9
1	AA	943	U	2.9
7	CG	57	GLU	2.9
21	CU	10	ARG	2.9
1	CA	1123	A	2.9
19	AS	41	VAL	2.9
1	CA	961	U	2.9
28	BG	72	ARG	2.9
1	AA	933	G	2.9
1	AA	1273	G	2.9
7	AG	133	GLY	2.9
8	AH	116	LYS	2.9
47	D3	29	ARG	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	AM	67	GLU	2.9
1	CA	1002	G	2.9
44	D0	10	THR	2.9
23	DA	1052	C	2.9
10	CJ	89	ASP	2.9
23	DA	654	A	2.9
23	DA	2134	A	2.9
3	CC	66	VAL	2.9
18	AR	23	LYS	2.9
1	AA	1009	G	2.9
1	CA	1389	C	2.9
13	AM	78	ILE	2.9
20	AT	56	MET	2.9
3	AC	102	ASN	2.9
7	CG	71	PRO	2.9
23	DA	271(K)	U	2.9
50	D6	20	ASN	2.9
13	CM	100	GLY	2.9
3	AC	54	ARG	2.9
4	AD	120	LEU	2.9
7	CG	24	THR	2.9
8	CH	55	GLY	2.9
19	AS	82	GLY	2.9
7	CG	87	VAL	2.9
9	CI	118	LYS	2.9
16	AP	36	ILE	2.9
19	CS	16	LEU	2.9
1	AA	1226	C	2.9
23	BA	2177	C	2.9
7	CG	148	ASN	2.9
17	AQ	100	LYS	2.9
18	AR	29	PHE	2.9
4	CD	4	TYR	2.9
3	AC	74	GLY	2.9
9	AI	95	LYS	2.9
30	DI	34	GLY	2.9
3	AC	84	ILE	2.9
7	CG	151	TYR	2.9
23	DA	2182	G	2.9
45	D1	2	SER	2.8
1	AA	1027	C	2.8
18	AR	56	THR	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
18	CR	61	LYS	2.8
20	CT	51	GLU	2.8
38	BU	117	GLN	2.8
9	CI	60	ASP	2.8
1	AA	1142	G	2.8
1	AA	1143	G	2.8
1	CA	1050	G	2.8
4	AD	78	LEU	2.8
19	AS	46	GLY	2.8
3	AC	75	VAL	2.8
20	CT	83	ARG	2.8
23	BA	2893	G	2.8
36	DS	55	ALA	2.8
36	DS	110	LEU	2.8
11	CK	82	VAL	2.8
23	BA	2139	C	2.8
28	DG	87	PRO	2.8
43	DZ	197	ILE	2.8
5	CE	94	ALA	2.8
1	CA	1009	G	2.8
23	BA	2120	G	2.8
30	DI	35	LEU	2.8
13	CM	25	ILE	2.8
30	DI	81	VAL	2.8
53	D9	31	LYS	2.8
1	CA	1018	C	2.8
13	AM	23	TYR	2.8
15	CO	88	ARG	2.8
42	BY	2	ARG	2.8
10	CJ	63	PHE	2.8
7	CG	88	PRO	2.8
16	AP	16	HIS	2.8
18	CR	32	ARG	2.8
7	CG	132	GLY	2.8
28	BG	132	ASN	2.8
1	AA	1357	A	2.8
21	CU	3	LYS	2.8
1	AA	1124	G	2.8
1	AA	1231	G	2.8
1	AA	1385	G	2.8
7	CG	146	GLU	2.8
2	CB	132	LYS	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	161	THR	2.8
18	CR	34	TYR	2.8
2	CB	7	VAL	2.8
10	CJ	82	ILE	2.8
1	AA	972	C	2.8
1	AA	1379	G	2.8
7	CG	68	ASN	2.8
12	CL	113	ARG	2.8
5	AE	86	ALA	2.8
9	AI	120	ARG	2.8
3	CC	102	ASN	2.8
1	CA	1066	C	2.8
1	CA	1378	C	2.8
23	DA	2805	G	2.8
13	AM	94	ARG	2.8
18	CR	87	ARG	2.8
29	DH	123	PHE	2.8
9	AI	77	ILE	2.7
1	CA	79	G	2.7
1	AA	1005	A	2.7
1	CA	1204	A	2.7
7	AG	131	LYS	2.7
13	AM	57	ARG	2.7
16	AP	7	ALA	2.7
28	DG	76	SER	2.7
1	CA	1137	C	2.7
1	AA	944	G	2.7
1	CA	1117	G	2.7
11	CK	117	ASN	2.7
14	CN	24	CYS	2.7
9	CI	36	TYR	2.7
33	DP	91	PHE	2.7
1	CA	929	G	2.7
1	CA	983	A	2.7
2	CB	227	GLY	2.7
3	CC	205	GLY	2.7
9	CI	67	GLY	2.7
19	AS	8	GLY	2.7
1	AA	1367	C	2.7
2	AB	214	ILE	2.7
13	AM	8	GLU	2.7
17	CQ	99	SER	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	6	ARG	2.7
8	AH	52	ASP	2.7
9	AI	75	ASP	2.7
15	AO	49	ASP	2.7
1	AA	113	G	2.7
1	AA	1368	G	2.7
4	AD	8	VAL	2.7
9	AI	62	TYR	2.7
13	AM	74	VAL	2.7
14	AN	30	ALA	2.7
7	CG	155	ARG	2.7
19	CS	62	ILE	2.7
2	AB	234	PRO	2.7
3	AC	170	GLN	2.7
19	CS	71	LEU	2.7
3	CC	84	ILE	2.7
10	CJ	5	ARG	2.7
1	AA	1280	A	2.7
3	CC	111	LEU	2.7
7	AG	59	LEU	2.7
9	CI	87	GLN	2.7
18	AR	66	LEU	2.7
23	DA	275	G	2.7
3	CC	74	GLY	2.7
23	BA	2138	C	2.7
9	CI	51	ARG	2.7
7	AG	12	LEU	2.7
16	CP	12	LYS	2.7
1	CA	1312	G	2.7
22	CV	23	GLY	2.7
23	BA	2156	G	2.7
29	DH	174	GLY	2.7
1	AA	1382	C	2.7
5	AE	117	ASP	2.7
10	CJ	42	THR	2.7
19	AS	75	ALA	2.7
28	DG	137	GLU	2.7
2	CB	135	GLN	2.7
11	CK	42	TRP	2.7
23	BA	653	A	2.7
28	DG	13	GLU	2.7
10	AJ	99	LYS	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	CD	35	ARG	2.7
10	CJ	66	ARG	2.7
20	CT	101	GLY	2.7
43	DZ	12	GLY	2.7
4	AD	5	ILE	2.7
19	AS	4	SER	2.7
1	CA	1348	U	2.7
3	CC	87	LEU	2.7
20	AT	83	ARG	2.7
1	CA	1264	C	2.7
23	DA	2804	C	2.7
1	CA	1206	G	2.7
4	AD	163	GLU	2.7
13	AM	108	ARG	2.6
18	CR	43	PHE	2.6
13	CM	95	GLY	2.6
1	AA	967	C	2.6
1	AA	1112	C	2.6
7	CG	95	ARG	2.6
5	CE	130	ASN	2.6
3	AC	155	GLY	2.6
3	CC	75	VAL	2.6
5	AE	116	THR	2.6
7	AG	135	VAL	2.6
10	CJ	81	THR	2.6
10	CJ	70	ARG	2.6
7	CG	85	TYR	2.6
1	AA	1366	C	2.6
1	CA	1328	C	2.6
10	CJ	56	HIS	2.6
7	CG	98	SER	2.6
1	AA	1181	G	2.6
4	AD	161	ASN	2.6
13	AM	37	THR	2.6
1	AA	90	U	2.6
1	CA	841	U	2.6
23	BA	6	A	2.6
1	CA	91	C	2.6
43	DZ	34	ASN	2.6
16	AP	4	ILE	2.6
1	CA	1135	U	2.6
4	AD	114	ARG	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	CL	74	GLY	2.6
7	AG	89	MET	2.6
1	AA	1313	U	2.6
23	DA	2144	U	2.6
1	AA	73	G	2.6
1	AA	993	G	2.6
1	CA	1089	G	2.6
1	CA	1331	G	2.6
43	DZ	11	GLU	2.6
1	AA	1204	A	2.6
27	DF	136	THR	2.6
3	AC	105	GLU	2.6
8	CH	131	GLY	2.6
44	D0	13	GLY	2.6
10	AJ	30	SER	2.6
1	AA	1064	G	2.6
1	CA	1276	G	2.6
1	CA	1130	A	2.6
1	CA	1329	A	2.6
9	CI	14	VAL	2.6
10	AJ	95	GLU	2.6
14	CN	39	LEU	2.6
23	DA	2113	U	2.6
9	AI	106	ALA	2.6
4	AD	17	VAL	2.6
23	DA	2106	G	2.6
43	DZ	191	VAL	2.6
1	CA	959	A	2.6
23	BA	2134	A	2.6
1	AA	1244	C	2.6
23	DA	2138	C	2.6
1	CA	1301	U	2.6
9	AI	92	TYR	2.6
2	CB	228	GLY	2.6
7	AG	132	GLY	2.6
14	AN	35	ARG	2.6
1	AA	968	A	2.6
14	AN	16	PHE	2.6
14	CN	36	PHE	2.6
7	CG	35	LYS	2.6
13	AM	21	TYR	2.6
10	CJ	35	SER	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	976	G	2.5
1	AA	1300	G	2.5
2	CB	14	GLY	2.5
29	DH	108	GLY	2.5
7	AG	126	ASP	2.5
5	AE	101	ILE	2.5
3	CC	201	TYR	2.5
16	AP	70	ALA	2.5
18	CR	86	VAL	2.5
1	AA	1168	A	2.5
11	CK	98	LEU	2.5
1	AA	1024	G	2.5
10	AJ	39	PRO	2.5
14	AN	27	CYS	2.5
28	DG	37	VAL	2.5
29	DH	52	VAL	2.5
1	CA	1341	U	2.5
7	CG	92	SER	2.5
14	CN	60	SER	2.5
1	AA	977	A	2.5
28	DG	72	ARG	2.5
18	AR	24	ALA	2.5
19	CS	61	TYR	2.5
7	CG	34	GLY	2.5
20	CT	84	LEU	2.5
50	D6	12	GLU	2.5
7	CG	134	ALA	2.5
1	AA	994	A	2.5
1	CA	1006	C	2.5
1	CA	1067	A	2.5
1	CA	1277	C	2.5
1	CA	1284	C	2.5
1	CA	1388	C	2.5
23	BA	2103	C	2.5
1	AA	1333	A	2.5
1	CA	1319	A	2.5
2	CB	214	ILE	2.5
7	CG	93	PRO	2.5
1	CA	1290	G	2.5
9	AI	94	ALA	2.5
20	CT	88	VAL	2.5
1	CA	957	U	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AC	59	ARG	2.5
3	AC	157	ILE	2.5
7	AG	30	ILE	2.5
42	DY	89	PHE	2.5
44	D0	69	PHE	2.5
28	DG	36	LYS	2.5
23	BA	2105	C	2.5
1	CA	951	G	2.5
1	CA	1337	G	2.5
6	AF	99	ALA	2.5
15	CO	16	ALA	2.5
23	BA	2170	A	2.5
3	CC	186	PHE	2.5
10	AJ	55	LYS	2.5
15	CO	15	PHE	2.5
28	BG	80	PHE	2.5
23	BA	2151	G	2.5
1	AA	1110	A	2.5
1	AA	1375	A	2.5
13	CM	104	ARG	2.5
30	DI	74	ASN	2.5
21	CU	11	GLY	2.5
3	AC	118	GLN	2.5
1	AA	64	G	2.5
1	AA	1337	G	2.5
1	CA	1134	G	2.5
2	CB	40	HIS	2.5
3	AC	206	GLU	2.5
1	CA	1303	C	2.4
1	CA	1180	A	2.4
3	AC	177	THR	2.4
7	CG	83	ALA	2.4
23	DA	2895	U	2.4
4	CD	102	ASP	2.4
1	AA	79	G	2.4
3	AC	207	VAL	2.4
1	AA	1043	C	2.4
1	CA	1142	G	2.4
42	DY	93	GLY	2.4
7	CG	152	ALA	2.4
23	DA	2105	C	2.4
28	BG	182	LYS	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	94	LEU	2.4
13	CM	3	ARG	2.4
19	AS	56	GLN	2.4
23	DA	898	C	2.4
1	AA	486	U	2.4
1	CA	1004	A	2.4
9	CI	41	VAL	2.4
10	CJ	34	VAL	2.4
12	CL	112	ASP	2.4
28	BG	135	LEU	2.4
3	AC	79	ARG	2.4
2	AB	54	THR	2.4
3	AC	120	VAL	2.4
3	AC	179	ARG	2.4
5	CE	12	LEU	2.4
9	CI	111	ARG	2.4
23	DA	2181	G	2.4
7	CG	97	GLN	2.4
2	CB	197	VAL	2.4
3	AC	188	LEU	2.4
11	CK	39	PRO	2.4
37	DT	1	MET	2.4
2	CB	163	PHE	2.4
7	AG	85	TYR	2.4
20	CT	82	SER	2.4
28	BG	52	ILE	2.4
2	AB	96	ARG	2.4
42	DY	95	LYS	2.4
1	CA	1090	U	2.4
1	CA	1019	C	2.4
23	BA	2790	A	2.4
6	AF	88	VAL	2.4
1	AA	1356	G	2.4
5	AE	81	GLU	2.4
7	AG	74	GLU	2.4
3	AC	141	VAL	2.4
6	AF	6	VAL	2.4
1	AA	1041	A	2.4
1	AA	945	G	2.4
1	AA	1219	U	2.4
7	CG	72	ARG	2.4
30	DI	57	ARG	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	DP	90	ARG	2.4
9	AI	76	ALA	2.4
10	CJ	68	HIS	2.4
19	CS	47	HIS	2.4
3	AC	52	LEU	2.4
19	AS	16	LEU	2.4
28	DG	150	ASP	2.4
1	AA	1023	G	2.4
1	CA	1164	G	2.4
3	CC	51	GLY	2.4
29	DH	5	GLY	2.4
5	CE	88	LYS	2.4
13	CM	30	ALA	2.4
15	AO	48	LYS	2.4
1	AA	217	C	2.4
1	AA	1317	C	2.4
3	CC	41	GLY	2.3
3	CC	195	VAL	2.3
10	CJ	11	PHE	2.3
14	AN	31	ARG	2.3
18	CR	30	ASP	2.3
23	BA	2126	A	2.3
13	AM	111	LYS	2.3
29	DH	25	LYS	2.3
1	CA	963	G	2.3
2	CB	125	PRO	2.3
13	CM	33	ALA	2.3
9	CI	19	LEU	2.3
1	CA	1296	C	2.3
2	AB	165	VAL	2.3
17	AQ	94	ASN	2.3
28	BG	159	VAL	2.3
8	AH	31	PHE	2.3
28	DG	44	GLY	2.3
1	CA	1183	A	2.3
6	CF	4	TYR	2.3
9	AI	111	ARG	2.3
9	CI	20	ARG	2.3
12	CL	41	ARG	2.3
13	CM	62	ASN	2.3
29	DH	50	VAL	2.3
51	B7	46	VAL	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1353	G	2.3
46	D2	5	GLU	2.3
46	D2	46	GLN	2.3
4	AD	55	ALA	2.3
7	CG	42	ILE	2.3
20	AT	80	ARG	2.3
1	AA	1232	U	2.3
5	AE	121	LYS	2.3
23	DA	272(A)	U	2.3
7	AG	73	MET	2.3
23	BA	2179	C	2.3
30	DI	82	ARG	2.3
4	AD	11	LEU	2.3
12	AL	120	TYR	2.3
15	CO	87	ILE	2.3
3	AC	49	SER	2.3
19	CS	60	VAL	2.3
29	DH	112	PRO	2.3
28	DG	145	THR	2.3
2	CB	29	ALA	2.3
16	AP	39	TYR	2.3
1	AA	1051	C	2.3
23	DA	652(U)	G	2.3
28	BG	124	SER	2.3
2	AB	118	LEU	2.3
17	AQ	98	LEU	2.3
18	CR	69	THR	2.3
16	AP	15	PRO	2.3
1	CA	1115	C	2.3
23	BA	2143	C	2.3
1	AA	841	U	2.3
4	CD	5	ILE	2.3
19	CS	67	VAL	2.3
3	AC	46	GLU	2.3
38	DU	89	GLU	2.3
20	AT	82	SER	2.3
3	AC	42	LEU	2.3
9	CI	3	GLN	2.3
3	AC	163	ALA	2.3
7	CG	75	VAL	2.3
15	CO	17	ARG	2.3
21	AU	22	ARG	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1001	A	2.3
1	CA	1447	A	2.3
7	CG	89	MET	2.3
10	AJ	94	VAL	2.3
23	DA	276	A	2.3
27	BF	15	SER	2.3
29	DH	51	ARG	2.3
8	CH	58	TYR	2.3
9	AI	41	VAL	2.3
9	AI	118	LYS	2.3
29	DH	175	LYS	2.3
30	DI	36	ALA	2.3
28	BG	35	GLU	2.3
16	AP	14	ASN	2.3
23	BA	272(A)	U	2.3
3	AC	164	ARG	2.3
5	CE	14	ARG	2.3
1	CA	1289	A	2.3
3	CC	53	ALA	2.3
10	CJ	8	LEU	2.2
41	BX	92	LEU	2.2
1	AA	417	C	2.2
43	DZ	62	PRO	2.2
3	CC	50	ALA	2.2
9	CI	114	TYR	2.2
10	AJ	32	ALA	2.2
4	CD	202	LEU	2.2
4	CD	134	ASP	2.2
5	CE	131	ILE	2.2
2	AB	15	VAL	2.2
9	CI	98	PRO	2.2
23	BA	1917	U	2.2
23	DA	2180	U	2.2
2	CB	66	GLY	2.2
14	CN	52	GLN	2.2
5	CE	18	ARG	2.2
7	AG	78	ARG	2.2
1	CA	946	A	2.2
1	CA	1333	A	2.2
4	AD	112	VAL	2.2
30	DI	145	VAL	2.2
1	AA	391	G	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	78	G	2.2
1	CA	1253	G	2.2
1	CA	1273	G	2.2
10	AJ	45	ARG	2.2
23	DA	1106	G	2.2
1	AA	1119	C	2.2
23	DA	2791	C	2.2
13	CM	22	ILE	2.2
8	AH	25	ASP	2.2
3	CC	48	TYR	2.2
10	CJ	79	ARG	2.2
5	AE	94	ALA	2.2
50	B6	2	ALA	2.2
1	AA	957	U	2.2
9	CI	50	LEU	2.2
1	AA	200	G	2.2
23	DA	2115	G	2.2
28	BG	155	MET	2.2
45	B1	2	SER	2.2
1	CA	1242	C	2.2
23	BA	1914	C	2.2
18	AR	30	ASP	2.2
21	CU	12	LYS	2.2
43	DZ	156	LYS	2.2
18	CR	24	ALA	2.2
20	CT	49	ALA	2.2
1	AA	1111	A	2.2
2	CB	63	MET	2.2
3	CC	83	ARG	2.2
43	DZ	13	GLU	2.2
9	CI	92	TYR	2.2
23	BA	1106	G	2.2
23	BA	2154	G	2.2
5	AE	25	ARG	2.2
1	AA	1123	A	2.2
23	DA	229	A	2.2
29	DH	110	SER	2.2
27	BF	16	GLY	2.2
7	AG	44	TYR	2.2
1	AA	1039	C	2.2
8	CH	52	ASP	2.2
1	CA	1182	G	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	BA	2127	G	2.2
29	DH	54	ARG	2.2
1	AA	1000	U	2.2
1	AA	1157	A	2.2
2	CB	22	LYS	2.2
9	CI	107	ARG	2.2
13	AM	3	ARG	2.2
9	AI	93	ARG	2.2
16	AP	42	ARG	2.2
1	CA	937	A	2.2
1	CA	1236	A	2.2
1	CA	1339	A	2.2
1	CA	962	C	2.2
9	AI	117	HIS	2.2
28	DG	90	LEU	2.2
1	CA	1065	U	2.2
1	AA	1164	G	2.2
1	AA	1206	G	2.2
1	CA	113	G	2.2
1	CA	998	G	2.2
7	CG	30	ILE	2.2
11	CK	21	ILE	2.2
1	AA	1179	A	2.2
28	DG	40	ASN	2.2
44	D0	11	ARG	2.2
3	AC	60	ALA	2.1
13	CM	75	ALA	2.1
1	CA	1219	U	2.1
1	CA	1330	U	2.1
3	CC	103	VAL	2.1
4	AD	158	ILE	2.1
7	CG	129	GLU	2.1
9	AI	110	GLU	2.1
1	AA	354	G	2.1
1	CA	1387	G	2.1
1	AA	931	C	2.1
1	AA	1314	C	2.1
1	CA	92	C	2.1
7	AG	50	ILE	2.1
13	CM	24	GLY	2.1
11	CK	31	THR	2.1
14	AN	36	PHE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	AE	38	GLN	2.1
12	CL	94	PRO	2.1
1	AA	1006	C	2.1
1	CA	1327	C	2.1
7	AG	22	LEU	2.1
29	DH	3	ARG	2.1
1	AA	1182	G	2.1
7	CG	130	GLY	2.1
16	AP	41	PRO	2.1
23	DA	653	A	2.1
23	DA	2807	G	2.1
1	AA	955	U	2.1
2	AB	137	ARG	2.1
51	B7	47	ARG	2.1
43	DZ	186	GLU	2.1
22	AV	18	GLN	2.1
5	CE	151	LEU	2.1
30	BI	6	LEU	2.1
28	DG	91	ARG	2.1
1	AA	964	A	2.1
28	DG	131	TYR	2.1
1	CA	1091	U	2.1
16	CP	13	HIS	2.1
19	CS	14	HIS	2.1
23	BA	2110	G	2.1
23	BA	2805	G	2.1
1	AA	187	C	2.1
1	CA	1119	C	2.1
4	CD	11	LEU	2.1
29	DH	7	LEU	2.1
1	AA	1047	G	2.1
1	CA	324	G	2.1
1	CA	1305	G	2.1
2	AB	66	GLY	2.1
16	CP	49	LEU	2.1
19	CS	74	PHE	2.1
28	BG	158	ALA	2.1
30	DI	25	TYR	2.1
43	DZ	187	ALA	2.1
13	CM	53	VAL	2.1
19	CS	45	VAL	2.1
1	AA	51	A	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1332	A	2.1
7	AG	86	GLN	2.1
10	AJ	42	THR	2.1
10	AJ	63	PHE	2.1
16	CP	41	PRO	2.1
19	CS	43	GLU	2.1
14	AN	33	VAL	2.1
18	CR	66	LEU	2.1
2	AB	48	MET	2.1
1	CA	90	U	2.1
6	AF	100	ASN	2.1
10	CJ	41	PRO	2.1
20	CT	52	ALA	2.1
21	CU	18	TYR	2.1
23	BA	652(B)	A	2.1
23	DA	2309	A	2.1
30	DI	29	TYR	2.1
4	CD	122	ARG	2.1
30	DI	137	PRO	2.1
1	AA	63	C	2.1
1	AA	630	G	2.1
1	CA	1220	G	2.1
4	AD	2	GLY	2.1
23	BA	363	G	2.1
19	CS	64	GLU	2.1
20	CT	93	GLU	2.1
42	DY	94	LYS	2.1
3	AC	55	VAL	2.1
5	CE	86	ALA	2.1
1	AA	1252	A	2.1
1	AA	936	C	2.1
1	AA	1230	C	2.1
5	AE	20	GLN	2.0
11	CK	110	ASP	2.1
5	AE	88	LYS	2.0
20	CT	81	LYS	2.0
13	CM	73	GLU	2.0
45	B1	83	GLU	2.0
43	DZ	196	VAL	2.0
9	CI	79	LEU	2.0
36	DS	40	ILE	2.0
29	DH	48	GLY	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	1251	A	2.0
1	CA	1250	A	2.0
10	CJ	9	ARG	2.0
3	CC	24	ALA	2.0
5	CE	148	VAL	2.0
6	AF	90	VAL	2.0
13	CM	87	TYR	2.0
22	AV	53	VAL	2.0
8	AH	35	ILE	2.0
13	AM	112	GLY	2.0
17	AQ	7	THR	2.0
8	AH	129	VAL	2.0
23	BA	2801(A)	A	2.0
4	AD	135	LEU	2.0
13	AM	107	ALA	2.0
18	CR	58	LEU	2.0
20	AT	72	LEU	2.0
28	BG	75	LYS	2.0
28	BG	120	LEU	2.0
9	CI	23	ASN	2.0
19	CS	23	ASN	2.0
1	AA	1094	G	2.0
1	CA	954	G	2.0
3	AC	35	GLU	2.0
12	AL	112	ASP	2.0
3	AC	71	ALA	2.0
3	AC	126	ARG	2.0
43	DZ	53	ILE	2.0
23	BA	2169	A	2.0
1	AA	219	C	2.0
23	DA	2142	C	2.0
3	CC	58	GLU	2.0
1	CA	1302	U	2.0
2	AB	233	SER	2.0
7	AG	122	HIS	2.0
9	AI	114	TYR	2.0
29	DH	43	VAL	2.0
15	AO	88	ARG	2.0
1	AA	1022	G	2.0
8	CH	31	PHE	2.0
23	BA	2112	G	2.0
3	CC	125	GLU	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	BQ	1	MET	2.0
1	CA	930	C	2.0
3	AC	190	ARG	2.0
3	CC	68	VAL	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3145	1/1	0.26	0.48	78,78,78,78	0
55	ZN	AN	101	1/1	0.37	0.14	213,213,213,213	0
54	MG	BA	3280	1/1	0.39	0.43	89,89,89,89	0
54	MG	BA	3459	1/1	0.40	0.14	130,130,130,130	0
54	MG	BA	3183	1/1	0.46	0.29	76,76,76,76	0
54	MG	DA	3360	1/1	0.49	0.13	63,63,63,63	0
54	MG	BA	3351	1/1	0.54	0.24	57,57,57,57	0
54	MG	AA	1665	1/1	0.54	0.52	86,86,86,86	0
54	MG	AA	1604	1/1	0.55	0.31	81,81,81,81	0
54	MG	BA	3159	1/1	0.57	0.22	66,66,66,66	0
54	MG	BA	3243	1/1	0.57	0.12	117,117,117,117	0
54	MG	BA	3374	1/1	0.57	0.14	75,75,75,75	0
54	MG	BA	3314	1/1	0.58	0.16	71,71,71,71	0
54	MG	AA	1656	1/1	0.58	0.83	74,74,74,74	0
54	MG	AA	1609	1/1	0.59	0.32	91,91,91,91	0
54	MG	DA	3313	1/1	0.60	0.19	64,64,64,64	0
54	MG	BA	3608	1/1	0.60	0.12	87,87,87,87	0
54	MG	CA	1612	1/1	0.60	0.42	84,84,84,84	0
54	MG	CA	1619	1/1	0.61	0.45	69,69,69,69	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1638	1/1	0.61	0.37	71,71,71,71	0
54	MG	DA	3047	1/1	0.61	0.44	65,65,65,65	0
54	MG	DA	3278	1/1	0.62	0.16	46,46,46,46	0
54	MG	DA	3206	1/1	0.65	0.18	75,75,75,75	0
54	MG	BA	3499	1/1	0.65	0.23	107,107,107,107	0
54	MG	AA	1630	1/1	0.65	0.51	76,76,76,76	0
54	MG	DA	3346	1/1	0.65	0.10	89,89,89,89	0
54	MG	CA	1668	1/1	0.65	0.22	105,105,105,105	0
54	MG	DA	3379	1/1	0.65	0.09	94,94,94,94	0
54	MG	BA	3205	1/1	0.65	0.41	61,61,61,61	0
55	ZN	CN	101	1/1	0.65	0.17	188,188,188,188	0
54	MG	DA	3143	1/1	0.66	0.55	62,62,62,62	0
54	MG	AA	1702	1/1	0.66	0.21	97,97,97,97	0
55	ZN	B4	101	1/1	0.66	0.06	200,200,200,200	0
54	MG	DA	3098	1/1	0.66	0.29	62,62,62,62	0
54	MG	BB	207	1/1	0.67	0.60	69,69,69,69	0
54	MG	BA	3487	1/1	0.67	0.22	94,94,94,94	0
54	MG	BA	3195	1/1	0.67	0.30	84,84,84,84	0
54	MG	BA	3534	1/1	0.67	0.27	76,76,76,76	0
54	MG	CA	1653	1/1	0.67	0.24	83,83,83,83	0
54	MG	AA	1675	1/1	0.67	0.40	73,73,73,73	0
54	MG	DA	3091	1/1	0.68	0.16	70,70,70,70	0
54	MG	DA	3001	1/1	0.68	0.21	62,62,62,62	0
54	MG	BA	3593	1/1	0.68	0.10	70,70,70,70	0
54	MG	DA	3075	1/1	0.68	0.45	71,71,71,71	0
54	MG	CA	1656	1/1	0.69	0.12	97,97,97,97	0
54	MG	AA	1697	1/1	0.69	0.16	75,75,75,75	0
54	MG	CA	1636	1/1	0.69	0.42	77,77,77,77	0
54	MG	DA	3400	1/1	0.69	0.33	95,95,95,95	0
54	MG	AA	1628	1/1	0.69	0.28	84,84,84,84	0
54	MG	DA	3050	1/1	0.69	0.16	90,90,90,90	0
54	MG	BA	3257	1/1	0.69	0.40	64,64,64,64	0
54	MG	BA	3572	1/1	0.70	0.13	49,49,49,49	0
54	MG	BA	3152	1/1	0.70	0.24	73,73,73,73	0
54	MG	CA	1608	1/1	0.70	0.45	67,67,67,67	0
54	MG	CA	1631	1/1	0.71	0.99	88,88,88,88	0
54	MG	CA	1609	1/1	0.71	0.88	70,70,70,70	0
54	MG	DA	3388	1/1	0.71	0.12	72,72,72,72	0
54	MG	DA	3210	1/1	0.71	0.28	60,60,60,60	0
54	MG	BA	3217	1/1	0.71	0.40	51,51,51,51	0
54	MG	BA	3514	1/1	0.71	0.19	97,97,97,97	0
54	MG	DA	3102	1/1	0.71	0.47	79,79,79,79	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3553	1/1	0.72	0.18	70,70,70,70	0
54	MG	BA	3458	1/1	0.72	0.19	45,45,45,45	0
54	MG	BA	3503	1/1	0.72	0.22	68,68,68,68	0
54	MG	AA	1616	1/1	0.72	0.44	79,79,79,79	0
54	MG	BA	3315	1/1	0.72	0.17	84,84,84,84	0
54	MG	AA	1652	1/1	0.73	0.66	82,82,82,82	0
54	MG	BB	215	1/1	0.73	0.18	77,77,77,77	0
54	MG	DA	3363	1/1	0.73	0.10	72,72,72,72	0
54	MG	BA	3363	1/1	0.73	0.26	74,74,74,74	0
54	MG	BA	3169	1/1	0.73	0.48	60,60,60,60	0
54	MG	DA	3393	1/1	0.73	0.11	81,81,81,81	0
54	MG	AA	1661	1/1	0.73	0.81	77,77,77,77	0
54	MG	BA	3194	1/1	0.73	0.22	79,79,79,79	0
54	MG	AA	1682	1/1	0.73	0.18	111,111,111,111	0
54	MG	AA	1687	1/1	0.73	0.14	70,70,70,70	0
54	MG	DA	3190	1/1	0.74	0.34	57,57,57,57	0
54	MG	CA	1643	1/1	0.74	0.06	109,109,109,109	0
54	MG	DB	202	1/1	0.74	1.21	86,86,86,86	0
54	MG	BA	3614	1/1	0.74	0.31	94,94,94,94	0
54	MG	DA	3103	1/1	0.74	0.30	71,71,71,71	0
54	MG	AA	1678	1/1	0.74	0.45	75,75,75,75	0
54	MG	DA	3048	1/1	0.75	0.45	53,53,53,53	0
54	MG	BA	3558	1/1	0.75	0.17	61,61,61,61	0
54	MG	BA	3565	1/1	0.75	0.28	90,90,90,90	0
54	MG	DA	3089	1/1	0.75	0.39	82,82,82,82	0
54	MG	CA	1624	1/1	0.75	0.42	82,82,82,82	0
54	MG	AA	1627	1/1	0.76	0.50	70,70,70,70	0
54	MG	DA	3012	1/1	0.76	0.21	60,60,60,60	0
54	MG	BA	3617	1/1	0.76	0.15	93,93,93,93	0
54	MG	BA	3184	1/1	0.76	0.20	66,66,66,66	0
54	MG	AA	1637	1/1	0.76	0.33	82,82,82,82	0
54	MG	AA	1643	1/1	0.76	0.85	96,96,96,96	0
54	MG	AA	1620	1/1	0.76	0.93	77,77,77,77	0
54	MG	DA	3310	1/1	0.76	0.29	56,56,56,56	0
54	MG	AA	1699	1/1	0.76	0.17	69,69,69,69	0
54	MG	BA	3220	1/1	0.76	0.24	79,79,79,79	0
54	MG	DA	3082	1/1	0.77	0.40	51,51,51,51	0
54	MG	AA	1622	1/1	0.77	0.73	67,67,67,67	0
54	MG	DA	3327	1/1	0.77	0.46	94,94,94,94	0
54	MG	B0	101	1/1	0.77	0.16	75,75,75,75	0
54	MG	BA	3469	1/1	0.77	0.24	77,77,77,77	0
54	MG	AA	1663	1/1	0.77	0.43	70,70,70,70	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3320	1/1	0.77	0.15	57,57,57,57	0
54	MG	DA	3107	1/1	0.77	0.19	47,47,47,47	0
54	MG	BA	3034	1/1	0.77	0.29	46,46,46,46	0
54	MG	BA	3076	1/1	0.77	0.13	70,70,70,70	0
54	MG	DA	3192	1/1	0.77	0.19	66,66,66,66	0
54	MG	BA	3270	1/1	0.77	0.32	74,74,74,74	0
54	MG	BA	3618	1/1	0.77	0.19	85,85,85,85	0
54	MG	BA	3174	1/1	0.77	0.40	71,71,71,71	0
54	MG	BA	3251	1/1	0.78	0.34	63,63,63,63	0
54	MG	BA	3509	1/1	0.78	0.22	85,85,85,85	0
54	MG	DA	3317	1/1	0.78	0.18	94,94,94,94	0
54	MG	BA	3340	1/1	0.78	0.21	65,65,65,65	0
54	MG	DA	3033	1/1	0.78	0.29	68,68,68,68	0
54	MG	DA	3037	1/1	0.78	0.45	49,49,49,49	0
54	MG	DA	3112	1/1	0.78	0.35	60,60,60,60	0
54	MG	BA	3587	1/1	0.78	0.08	66,66,66,66	0
54	MG	DA	3380	1/1	0.78	0.10	91,91,91,91	0
54	MG	DA	3162	1/1	0.78	0.39	55,55,55,55	0
54	MG	BA	3529	1/1	0.78	0.29	86,86,86,86	0
54	MG	BA	3386	1/1	0.78	0.13	77,77,77,77	0
54	MG	BA	3612	1/1	0.78	0.12	100,100,100,100	0
54	MG	AA	1605	1/1	0.78	0.30	74,74,74,74	0
54	MG	DA	3217	1/1	0.78	0.26	69,69,69,69	0
54	MG	CA	1661	1/1	0.78	0.27	100,100,100,100	0
54	MG	AA	1691	1/1	0.79	0.10	58,58,58,58	0
54	MG	DA	3109	1/1	0.79	0.26	70,70,70,70	0
54	MG	DA	3336	1/1	0.79	0.16	87,87,87,87	0
54	MG	AA	1638	1/1	0.79	0.23	78,78,78,78	0
54	MG	BA	3216	1/1	0.79	0.23	52,52,52,52	0
54	MG	DA	3155	1/1	0.79	0.28	57,57,57,57	0
54	MG	CA	1648	1/1	0.79	0.12	100,100,100,100	0
54	MG	BA	3267	1/1	0.79	0.56	53,53,53,53	0
54	MG	DA	3077	1/1	0.79	0.21	66,66,66,66	0
54	MG	AA	1655	1/1	0.79	0.19	90,90,90,90	0
54	MG	BA	3594	1/1	0.79	0.15	70,70,70,70	0
54	MG	BA	3139	1/1	0.79	0.28	53,53,53,53	0
54	MG	DP	201	1/1	0.79	0.78	58,58,58,58	0
54	MG	BA	3456	1/1	0.79	0.13	89,89,89,89	0
54	MG	BA	3224	1/1	0.79	0.31	61,61,61,61	0
54	MG	BA	3240	1/1	0.79	0.39	64,64,64,64	0
54	MG	AA	1673	1/1	0.80	0.29	67,67,67,67	0
54	MG	DA	3299	1/1	0.80	0.14	54,54,54,54	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1608	1/1	0.80	0.16	90,90,90,90	0
54	MG	BA	3613	1/1	0.80	0.12	109,109,109,109	0
54	MG	BA	3513	1/1	0.80	0.21	66,66,66,66	0
54	MG	BA	3196	1/1	0.80	0.79	80,80,80,80	0
54	MG	BA	3201	1/1	0.80	0.58	79,79,79,79	0
54	MG	DA	3342	1/1	0.80	0.24	41,41,41,41	0
54	MG	BA	3384	1/1	0.80	0.11	62,62,62,62	0
54	MG	BA	3545	1/1	0.80	0.18	79,79,79,79	0
54	MG	BV	201	1/1	0.80	0.36	74,74,74,74	0
54	MG	DA	3128	1/1	0.80	0.29	72,72,72,72	0
54	MG	BA	3079	1/1	0.80	0.26	68,68,68,68	0
54	MG	CA	1606	1/1	0.80	0.62	81,81,81,81	0
54	MG	BA	3207	1/1	0.80	0.16	59,59,59,59	0
54	MG	BA	3274	1/1	0.80	0.14	81,81,81,81	0
54	MG	BA	3118	1/1	0.80	0.87	57,57,57,57	0
54	MG	BA	3135	1/1	0.80	0.45	54,54,54,54	0
54	MG	BA	3136	1/1	0.80	0.24	73,73,73,73	0
54	MG	AA	1667	1/1	0.80	0.28	63,63,63,63	0
54	MG	DA	3254	1/1	0.80	0.39	43,43,43,43	0
54	MG	DA	3200	1/1	0.81	0.19	67,67,67,67	0
54	MG	DA	3058	1/1	0.81	0.11	51,51,51,51	0
54	MG	DA	3062	1/1	0.81	0.22	65,65,65,65	0
54	MG	CA	1635	1/1	0.81	0.18	68,68,68,68	0
54	MG	DA	3223	1/1	0.81	0.09	104,104,104,104	0
54	MG	DA	3252	1/1	0.81	0.36	41,41,41,41	0
54	MG	BA	3242	1/1	0.81	0.40	66,66,66,66	0
54	MG	BA	3011	1/1	0.81	0.57	50,50,50,50	0
54	MG	AA	1641	1/1	0.81	0.66	93,93,93,93	0
54	MG	AA	1676	1/1	0.81	0.62	84,84,84,84	0
54	MG	BU	201	1/1	0.81	0.40	51,51,51,51	0
54	MG	BA	3569	1/1	0.81	0.27	68,68,68,68	0
54	MG	CA	1660	1/1	0.81	0.15	106,106,106,106	0
54	MG	DA	3106	1/1	0.81	0.33	56,56,56,56	0
54	MG	BA	3496	1/1	0.81	0.10	79,79,79,79	0
54	MG	AA	1696	1/1	0.81	0.18	74,74,74,74	0
54	MG	DA	3357	1/1	0.81	0.14	53,53,53,53	0
54	MG	BA	3178	1/1	0.81	0.17	58,58,58,58	0
54	MG	DA	3126	1/1	0.81	0.12	80,80,80,80	0
54	MG	BA	3375	1/1	0.81	0.33	46,46,46,46	0
54	MG	DA	3130	1/1	0.81	0.24	59,59,59,59	0
54	MG	DA	3387	1/1	0.81	0.09	71,71,71,71	0
54	MG	DA	3141	1/1	0.81	0.52	74,74,74,74	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3225	1/1	0.81	0.34	61,61,61,61	0
54	MG	BA	3093	1/1	0.81	0.18	81,81,81,81	0
54	MG	CA	1623	1/1	0.81	0.88	73,73,73,73	0
54	MG	DA	3175	1/1	0.81	0.27	69,69,69,69	0
54	MG	DA	3189	1/1	0.81	0.80	66,66,66,66	0
54	MG	BA	3396	1/1	0.81	0.43	23,23,23,23	0
54	MG	BA	3241	1/1	0.81	0.74	62,62,62,62	0
54	MG	DA	3245	1/1	0.82	0.33	47,47,47,47	0
54	MG	AA	1683	1/1	0.82	0.28	139,139,139,139	0
54	MG	BA	3166	1/1	0.82	0.49	58,58,58,58	0
54	MG	DA	3256	1/1	0.82	0.58	59,59,59,59	0
54	MG	BA	3237	1/1	0.82	0.40	56,56,56,56	0
54	MG	DA	3291	1/1	0.82	0.32	43,43,43,43	0
54	MG	DA	3015	1/1	0.82	0.40	71,71,71,71	0
54	MG	DA	3023	1/1	0.82	0.49	61,61,61,61	0
54	MG	BA	3167	1/1	0.82	0.35	68,68,68,68	0
54	MG	DA	3123	1/1	0.82	0.20	56,56,56,56	0
54	MG	DA	3035	1/1	0.82	0.63	68,68,68,68	0
54	MG	BA	3519	1/1	0.82	0.33	90,90,90,90	0
54	MG	AA	1653	1/1	0.82	0.61	80,80,80,80	0
54	MG	BA	3170	1/1	0.82	0.56	52,52,52,52	0
54	MG	BA	3142	1/1	0.82	0.53	53,53,53,53	0
54	MG	BA	3464	1/1	0.82	0.32	41,41,41,41	0
54	MG	BB	204	1/1	0.82	0.20	67,67,67,67	0
54	MG	DA	3172	1/1	0.82	0.27	50,50,50,50	0
54	MG	DA	3069	1/1	0.82	0.48	61,61,61,61	0
54	MG	BA	3344	1/1	0.82	0.10	52,52,52,52	0
54	MG	BA	3562	1/1	0.82	0.32	43,43,43,43	0
54	MG	AA	1625	1/1	0.82	0.24	102,102,102,102	0
54	MG	DA	3084	1/1	0.82	0.30	62,62,62,62	0
54	MG	DA	3410	1/1	0.82	0.19	72,72,72,72	0
54	MG	BA	3567	1/1	0.82	0.09	62,62,62,62	0
54	MG	BA	3147	1/1	0.82	0.31	57,57,57,57	0
54	MG	DA	3211	1/1	0.82	0.25	53,53,53,53	0
54	MG	DA	3095	1/1	0.82	0.21	71,71,71,71	0
54	MG	AA	1700	1/1	0.82	0.35	114,114,114,114	0
54	MG	DA	3080	1/1	0.83	1.04	73,73,73,73	0
54	MG	CA	1605	1/1	0.83	0.32	74,74,74,74	0
54	MG	DA	3326	1/1	0.83	0.10	95,95,95,95	0
54	MG	BA	3063	1/1	0.83	0.20	84,84,84,84	0
54	MG	BA	3009	1/1	0.83	0.23	59,59,59,59	0
54	MG	AA	1692	1/1	0.83	0.53	113,113,113,113	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3339	1/1	0.83	0.09	91,91,91,91	0
54	MG	DA	3355	1/1	0.83	0.11	37,37,37,37	0
54	MG	CA	1615	1/1	0.83	0.62	76,76,76,76	0
54	MG	AA	1659	1/1	0.83	0.44	62,62,62,62	0
54	MG	CA	1621	1/1	0.83	0.26	64,64,64,64	0
54	MG	BB	202	1/1	0.83	0.14	46,46,46,46	0
54	MG	BA	3200	1/1	0.83	0.23	51,51,51,51	0
54	MG	BA	3581	1/1	0.83	0.14	47,47,47,47	0
54	MG	BB	214	1/1	0.83	0.17	67,67,67,67	0
54	MG	DA	3390	1/1	0.83	0.17	69,69,69,69	0
54	MG	DA	3391	1/1	0.83	0.14	67,67,67,67	0
54	MG	BA	3039	1/1	0.83	0.30	44,44,44,44	0
54	MG	BR	201	1/1	0.83	0.59	58,58,58,58	0
54	MG	BA	3122	1/1	0.83	0.32	56,56,56,56	0
54	MG	DA	3423	1/1	0.83	0.14	79,79,79,79	0
54	MG	BA	3055	1/1	0.83	0.32	58,58,58,58	0
54	MG	DA	3071	1/1	0.83	0.34	60,60,60,60	0
54	MG	DA	3297	1/1	0.83	0.22	66,66,66,66	0
54	MG	BA	3297	1/1	0.83	0.17	35,35,35,35	0
54	MG	B2	101	1/1	0.83	0.26	75,75,75,75	0
55	ZN	D4	101	1/1	0.83	0.05	176,176,176,176	0
54	MG	BB	213	1/1	0.84	0.21	69,69,69,69	0
54	MG	DA	3129	1/1	0.84	0.35	78,78,78,78	0
54	MG	AA	1679	1/1	0.84	0.35	64,64,64,64	0
54	MG	BA	3206	1/1	0.84	0.13	68,68,68,68	0
54	MG	BA	3392	1/1	0.84	0.11	55,55,55,55	0
54	MG	BA	3100	1/1	0.84	0.33	72,72,72,72	0
54	MG	BA	3517	1/1	0.84	0.26	51,51,51,51	0
54	MG	AA	1688	1/1	0.84	0.22	111,111,111,111	0
54	MG	B1	101	1/1	0.84	0.28	50,50,50,50	0
54	MG	BA	3062	1/1	0.84	0.08	69,69,69,69	0
54	MG	AA	1606	1/1	0.84	0.89	74,74,74,74	0
54	MG	BA	3535	1/1	0.84	0.25	70,70,70,70	0
54	MG	CA	1669	1/1	0.84	0.10	117,117,117,117	0
54	MG	BA	3538	1/1	0.84	0.13	70,70,70,70	0
54	MG	BA	3023	1/1	0.84	0.12	52,52,52,52	0
54	MG	CA	1610	1/1	0.84	0.43	80,80,80,80	0
54	MG	AA	1611	1/1	0.84	0.31	69,69,69,69	0
54	MG	BA	3365	1/1	0.84	0.10	84,84,84,84	0
54	MG	BA	3559	1/1	0.84	0.27	39,39,39,39	0
54	MG	DA	3108	1/1	0.84	0.18	80,80,80,80	0
54	MG	BA	3082	1/1	0.84	0.28	71,71,71,71	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3040	1/1	0.84	0.31	50,50,50,50	0
54	MG	DA	3114	1/1	0.84	0.15	51,51,51,51	0
54	MG	DA	3121	1/1	0.84	0.65	53,53,53,53	0
54	MG	BA	3171	1/1	0.84	0.24	67,67,67,67	0
54	MG	BB	209	1/1	0.84	0.17	79,79,79,79	0
55	ZN	DY	201	1/1	0.84	0.09	128,128,128,128	0
54	MG	DA	3127	1/1	0.84	0.29	63,63,63,63	0
54	MG	BA	3536	1/1	0.85	0.09	82,82,82,82	0
54	MG	DA	3063	1/1	0.85	0.20	54,54,54,54	0
54	MG	DA	3362	1/1	0.85	0.11	63,63,63,63	0
54	MG	AA	1694	1/1	0.85	0.19	110,110,110,110	0
54	MG	AA	1632	1/1	0.85	0.52	93,93,93,93	0
54	MG	DA	3026	1/1	0.85	0.15	49,49,49,49	0
54	MG	DA	3030	1/1	0.85	0.17	52,52,52,52	0
54	MG	DA	3177	1/1	0.85	0.84	59,59,59,59	0
54	MG	CA	1634	1/1	0.85	0.35	101,101,101,101	0
54	MG	DA	3306	1/1	0.85	0.11	88,88,88,88	0
54	MG	AA	1646	1/1	0.85	0.39	73,73,73,73	0
54	MG	DA	3311	1/1	0.85	0.07	65,65,65,65	0
54	MG	DA	3406	1/1	0.85	0.25	35,35,35,35	0
54	MG	CA	1665	1/1	0.85	0.14	76,76,76,76	0
54	MG	B8	102	1/1	0.85	0.33	61,61,61,61	0
54	MG	BA	3495	1/1	0.85	0.19	70,70,70,70	0
54	MG	BA	3031	1/1	0.85	0.38	41,41,41,41	0
54	MG	DA	3008	1/1	0.85	0.22	48,48,48,48	0
54	MG	DA	3011	1/1	0.85	0.22	46,46,46,46	0
54	MG	DA	3345	1/1	0.85	0.28	100,100,100,100	0
54	MG	DA	3221	1/1	0.85	0.47	69,69,69,69	0
54	MG	DA	3133	1/1	0.85	0.40	78,78,78,78	0
54	MG	BB	208	1/1	0.86	0.32	70,70,70,70	0
54	MG	DA	3329	1/1	0.86	0.12	47,47,47,47	0
54	MG	BA	3327	1/1	0.86	0.18	34,34,34,34	0
54	MG	DA	3181	1/1	0.86	0.67	51,51,51,51	0
54	MG	BA	3329	1/1	0.86	0.16	45,45,45,45	0
54	MG	DA	3097	1/1	0.86	0.72	64,64,64,64	0
54	MG	CA	1625	1/1	0.86	0.38	88,88,88,88	0
54	MG	BA	3334	1/1	0.86	0.16	43,43,43,43	0
54	MG	BA	3097	1/1	0.86	0.38	58,58,58,58	0
54	MG	BA	3457	1/1	0.86	0.15	91,91,91,91	0
54	MG	DA	3036	1/1	0.86	0.18	65,65,65,65	0
54	MG	DA	3376	1/1	0.86	0.13	43,43,43,43	0
54	MG	DA	3214	1/1	0.86	0.76	74,74,74,74	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3584	1/1	0.86	0.15	68,68,68,68	0
54	MG	BA	3032	1/1	0.86	0.21	67,67,67,67	0
54	MG	DA	3043	1/1	0.86	0.18	63,63,63,63	0
54	MG	BA	3590	1/1	0.86	0.16	82,82,82,82	0
54	MG	BA	3068	1/1	0.86	0.18	70,70,70,70	0
54	MG	BA	3283	1/1	0.86	0.55	56,56,56,56	0
54	MG	BA	3360	1/1	0.86	0.17	53,53,53,53	0
54	MG	AA	1671	1/1	0.86	0.25	89,89,89,89	0
54	MG	DA	3408	1/1	0.86	0.15	65,65,65,65	0
54	MG	BA	3308	1/1	0.86	0.54	51,51,51,51	0
54	MG	DA	3417	1/1	0.86	0.26	81,81,81,81	0
54	MG	DA	3421	1/1	0.86	0.09	69,69,69,69	0
54	MG	AA	1602	1/1	0.86	0.28	111,111,111,111	0
54	MG	DA	3424	1/1	0.86	0.15	130,130,130,130	0
54	MG	DB	201	1/1	0.86	0.29	75,75,75,75	0
54	MG	BA	3554	1/1	0.86	0.21	58,58,58,58	0
54	MG	BA	3556	1/1	0.86	0.20	58,58,58,58	0
54	MG	AA	1612	1/1	0.86	0.37	76,76,76,76	0
54	MG	DA	3006	1/1	0.86	0.28	44,44,44,44	0
54	MG	DA	3081	1/1	0.86	0.23	52,52,52,52	0
54	MG	BA	3500	1/1	0.86	0.21	33,33,33,33	0
54	MG	BA	3002	1/1	0.86	0.19	98,98,98,98	0
54	MG	BA	3191	1/1	0.87	0.14	45,45,45,45	0
54	MG	DA	3111	1/1	0.87	0.46	60,60,60,60	0
54	MG	BA	3106	1/1	0.87	0.41	48,48,48,48	0
54	MG	BA	3474	1/1	0.87	0.20	66,66,66,66	0
54	MG	BA	3107	1/1	0.87	0.13	49,49,49,49	0
54	MG	BA	3264	1/1	0.87	0.61	38,38,38,38	0
54	MG	DA	3232	1/1	0.87	0.36	46,46,46,46	0
54	MG	CA	1667	1/1	0.87	0.14	64,64,64,64	0
54	MG	DA	3383	1/1	0.87	0.25	63,63,63,63	0
54	MG	DA	3246	1/1	0.87	0.46	41,41,41,41	0
54	MG	BA	3029	1/1	0.87	0.15	83,83,83,83	0
54	MG	AA	1623	1/1	0.87	0.48	74,74,74,74	0
54	MG	CA	1613	1/1	0.87	1.04	71,71,71,71	0
54	MG	BA	3176	1/1	0.87	0.50	69,69,69,69	0
54	MG	BA	3277	1/1	0.87	0.20	66,66,66,66	0
54	MG	BA	3013	1/1	0.87	0.60	103,103,103,103	0
54	MG	DA	3298	1/1	0.87	0.14	71,71,71,71	0
54	MG	BB	210	1/1	0.87	0.14	67,67,67,67	0
54	MG	BA	3422	1/1	0.87	0.23	27,27,27,27	0
54	MG	DA	3161	1/1	0.87	0.47	55,55,55,55	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3425	1/1	0.87	0.14	37,37,37,37	0
54	MG	CA	1629	1/1	0.87	0.23	72,72,72,72	0
54	MG	BA	3439	1/1	0.87	0.17	53,53,53,53	0
54	MG	BA	3450	1/1	0.87	0.13	71,71,71,71	0
54	MG	DF	302	1/1	0.87	0.24	64,64,64,64	0
54	MG	BA	3524	1/1	0.87	0.18	77,77,77,77	0
54	MG	BA	3341	1/1	0.87	0.08	69,69,69,69	0
54	MG	BA	3343	1/1	0.87	0.06	91,91,91,91	0
54	MG	AA	1639	1/1	0.87	0.20	74,74,74,74	0
54	MG	DA	3041	1/1	0.87	0.19	49,49,49,49	0
54	MG	BA	3024	1/1	0.87	0.29	48,48,48,48	0
54	MG	DA	3049	1/1	0.88	0.30	58,58,58,58	0
54	MG	BA	3030	1/1	0.88	0.25	37,37,37,37	0
54	MG	DA	3316	1/1	0.88	0.13	75,75,75,75	0
54	MG	DA	3056	1/1	0.88	0.44	61,61,61,61	0
54	MG	BA	3244	1/1	0.88	0.45	45,45,45,45	0
54	MG	DA	3139	1/1	0.88	0.49	65,65,65,65	0
54	MG	BA	3388	1/1	0.88	0.17	54,54,54,54	0
54	MG	BA	3140	1/1	0.88	0.46	59,59,59,59	0
54	MG	DA	3066	1/1	0.88	0.18	56,56,56,56	0
54	MG	CA	1662	1/1	0.88	0.18	95,95,95,95	0
54	MG	BA	3105	1/1	0.88	0.12	40,40,40,40	0
54	MG	DA	3073	1/1	0.88	0.21	54,54,54,54	0
54	MG	CA	1666	1/1	0.88	0.09	131,131,131,131	0
54	MG	BA	3420	1/1	0.88	0.28	41,41,41,41	0
54	MG	BA	3330	1/1	0.88	0.28	36,36,36,36	0
54	MG	DA	3182	1/1	0.88	0.28	59,59,59,59	0
54	MG	BA	3332	1/1	0.88	0.28	60,60,60,60	0
54	MG	AA	1670	1/1	0.88	0.16	115,115,115,115	0
54	MG	BA	3077	1/1	0.88	0.58	43,43,43,43	0
54	MG	DA	3195	1/1	0.88	0.84	75,75,75,75	0
54	MG	DA	3197	1/1	0.88	0.65	66,66,66,66	0
54	MG	BA	3269	1/1	0.88	0.26	54,54,54,54	0
54	MG	BA	3116	1/1	0.88	0.37	56,56,56,56	0
54	MG	DA	3093	1/1	0.88	0.72	66,66,66,66	0
54	MG	BA	3157	1/1	0.88	0.15	46,46,46,46	0
54	MG	DA	3396	1/1	0.88	0.24	37,37,37,37	0
54	MG	DA	3014	1/1	0.88	0.10	52,52,52,52	0
54	MG	DA	3403	1/1	0.88	0.18	49,49,49,49	0
54	MG	BA	3276	1/1	0.88	0.63	56,56,56,56	0
54	MG	BA	3463	1/1	0.88	0.20	36,36,36,36	0
54	MG	DA	3024	1/1	0.88	0.41	49,49,49,49	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3104	1/1	0.88	0.11	57,57,57,57	0
54	MG	DA	3420	1/1	0.88	0.09	97,97,97,97	0
54	MG	AA	1650	1/1	0.88	0.28	70,70,70,70	0
54	MG	BA	3226	1/1	0.88	0.31	62,62,62,62	0
54	MG	CA	1627	1/1	0.88	0.14	79,79,79,79	0
54	MG	BA	3120	1/1	0.88	0.31	42,42,42,42	0
54	MG	BA	3486	1/1	0.88	0.10	48,48,48,48	0
54	MG	BA	3006	1/1	0.88	0.17	44,44,44,44	0
54	MG	BA	3492	1/1	0.88	0.15	78,78,78,78	0
54	MG	DA	3120	1/1	0.88	0.72	52,52,52,52	0
54	MG	BE	301	1/1	0.88	0.53	43,43,43,43	0
54	MG	BA	3371	1/1	0.88	0.10	67,67,67,67	0
54	MG	BA	3064	1/1	0.88	0.27	45,45,45,45	0
54	MG	BA	3066	1/1	0.88	0.11	43,43,43,43	0
54	MG	BA	3014	1/1	0.89	0.19	57,57,57,57	0
54	MG	DA	3224	1/1	0.89	0.35	80,80,80,80	0
54	MG	BA	3285	1/1	0.89	0.55	59,59,59,59	0
54	MG	DA	3239	1/1	0.89	0.29	39,39,39,39	0
54	MG	DA	3244	1/1	0.89	0.46	35,35,35,35	0
54	MG	BA	3436	1/1	0.89	0.32	38,38,38,38	0
54	MG	BA	3158	1/1	0.89	0.35	51,51,51,51	0
54	MG	BA	3449	1/1	0.89	0.18	49,49,49,49	0
54	MG	BA	3213	1/1	0.89	0.37	64,64,64,64	0
54	MG	BA	3016	1/1	0.89	0.42	57,57,57,57	0
54	MG	DA	3083	1/1	0.89	0.34	55,55,55,55	0
54	MG	BA	3160	1/1	0.89	0.38	46,46,46,46	0
54	MG	BA	3161	1/1	0.89	0.34	54,54,54,54	0
54	MG	CA	1640	1/1	0.89	0.28	62,62,62,62	0
54	MG	BA	3325	1/1	0.89	0.11	47,47,47,47	0
54	MG	CA	1646	1/1	0.89	0.49	92,92,92,92	0
54	MG	BA	3114	1/1	0.89	0.25	43,43,43,43	0
54	MG	CA	1649	1/1	0.89	0.15	92,92,92,92	0
54	MG	BA	3595	1/1	0.89	0.09	82,82,82,82	0
54	MG	DA	3315	1/1	0.89	0.13	59,59,59,59	0
54	MG	CA	1655	1/1	0.89	0.29	74,74,74,74	0
54	MG	BA	3067	1/1	0.89	0.36	35,35,35,35	0
54	MG	CA	1658	1/1	0.89	0.17	83,83,83,83	0
54	MG	BA	3465	1/1	0.89	0.20	38,38,38,38	0
54	MG	BA	3022	1/1	0.89	0.09	57,57,57,57	0
54	MG	BA	3072	1/1	0.89	0.28	59,59,59,59	0
54	MG	DA	3341	1/1	0.89	0.24	39,39,39,39	0
54	MG	BA	3475	1/1	0.89	0.23	53,53,53,53	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3121	1/1	0.89	0.15	38,38,38,38	0
54	MG	BA	3335	1/1	0.89	0.15	55,55,55,55	0
54	MG	DA	3349	1/1	0.89	0.29	54,54,54,54	0
54	MG	BA	3489	1/1	0.89	0.20	38,38,38,38	0
54	MG	BA	3337	1/1	0.89	0.24	33,33,33,33	0
54	MG	BA	3173	1/1	0.89	0.28	65,65,65,65	0
54	MG	DA	3125	1/1	0.89	0.43	66,66,66,66	0
54	MG	BA	3036	1/1	0.89	0.42	49,49,49,49	0
54	MG	BA	3130	1/1	0.89	0.38	32,32,32,32	0
54	MG	BA	3037	1/1	0.89	0.22	52,52,52,52	0
54	MG	BA	3247	1/1	0.89	0.25	53,53,53,53	0
54	MG	DA	3381	1/1	0.89	0.09	79,79,79,79	0
54	MG	BA	3249	1/1	0.89	0.30	70,70,70,70	0
54	MG	BA	3180	1/1	0.89	0.25	51,51,51,51	0
54	MG	BE	302	1/1	0.89	0.21	52,52,52,52	0
54	MG	BA	3362	1/1	0.89	0.11	73,73,73,73	0
54	MG	AA	1651	1/1	0.89	0.86	69,69,69,69	0
54	MG	BA	3259	1/1	0.89	0.31	51,51,51,51	0
54	MG	BA	3050	1/1	0.89	0.23	46,46,46,46	0
54	MG	B0	102	1/1	0.89	0.17	56,56,56,56	0
54	MG	BA	3087	1/1	0.89	0.26	56,56,56,56	0
54	MG	BA	3530	1/1	0.89	0.11	84,84,84,84	0
54	MG	B3	101	1/1	0.89	0.44	60,60,60,60	0
54	MG	BA	3532	1/1	0.89	0.09	35,35,35,35	0
54	MG	DA	3415	1/1	0.89	0.09	89,89,89,89	0
54	MG	BA	3053	1/1	0.89	0.35	53,53,53,53	0
54	MG	DA	3044	1/1	0.89	0.22	51,51,51,51	0
54	MG	BA	3144	1/1	0.89	0.35	54,54,54,54	0
54	MG	BA	3273	1/1	0.89	0.22	66,66,66,66	0
54	MG	AA	1706	1/1	0.89	0.08	100,100,100,100	0
54	MG	BA	3001	1/1	0.89	0.42	56,56,56,56	0
54	MG	DA	3053	1/1	0.89	0.36	54,54,54,54	0
54	MG	DA	3205	1/1	0.89	0.07	82,82,82,82	0
54	MG	BA	3549	1/1	0.89	0.12	68,68,68,68	0
54	MG	D8	101	1/1	0.89	0.60	49,49,49,49	0
54	MG	AA	1633	1/1	0.89	0.53	72,72,72,72	0
54	MG	BA	3412	1/1	0.89	0.21	41,41,41,41	0
54	MG	BA	3414	1/1	0.89	0.28	26,26,26,26	0
54	MG	BA	3415	1/1	0.89	0.12	49,49,49,49	0
54	MG	BA	3153	1/1	0.89	0.32	53,53,53,53	0
54	MG	BA	3081	1/1	0.90	0.18	66,66,66,66	0
54	MG	BA	3356	1/1	0.90	0.28	59,59,59,59	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3357	1/1	0.90	0.15	47,47,47,47	0
54	MG	BA	3358	1/1	0.90	0.08	64,64,64,64	0
54	MG	BA	3272	1/1	0.90	0.07	65,65,65,65	0
54	MG	BA	3478	1/1	0.90	0.17	92,92,92,92	0
54	MG	AA	1677	1/1	0.90	0.90	81,81,81,81	0
54	MG	BA	3124	1/1	0.90	0.23	68,68,68,68	0
54	MG	DA	3034	1/1	0.90	0.28	74,74,74,74	0
54	MG	BA	3026	1/1	0.90	0.18	68,68,68,68	0
54	MG	AA	1669	1/1	0.90	0.39	96,96,96,96	0
54	MG	CA	1622	1/1	0.90	0.32	74,74,74,74	0
54	MG	BA	3046	1/1	0.90	0.27	49,49,49,49	0
54	MG	BA	3138	1/1	0.90	0.20	54,54,54,54	0
54	MG	BA	3003	1/1	0.90	0.34	29,29,29,29	0
54	MG	DA	3134	1/1	0.90	0.22	64,64,64,64	0
54	MG	BA	3102	1/1	0.90	0.26	59,59,59,59	0
54	MG	BA	3141	1/1	0.90	0.27	65,65,65,65	0
54	MG	BA	3175	1/1	0.90	0.35	70,70,70,70	0
54	MG	BA	3511	1/1	0.90	0.16	33,33,33,33	0
54	MG	BA	3616	1/1	0.90	0.08	82,82,82,82	0
54	MG	BA	3004	1/1	0.90	0.22	41,41,41,41	0
54	MG	CA	1637	1/1	0.90	0.65	67,67,67,67	0
54	MG	DA	3057	1/1	0.90	0.14	67,67,67,67	0
54	MG	BA	3316	1/1	0.90	0.32	34,34,34,34	0
54	MG	BA	3073	1/1	0.90	0.11	67,67,67,67	0
54	MG	DA	3374	1/1	0.90	0.26	44,44,44,44	0
54	MG	CA	1641	1/1	0.90	0.19	74,74,74,74	0
54	MG	DA	3378	1/1	0.90	0.14	98,98,98,98	0
54	MG	DA	3186	1/1	0.90	0.24	42,42,42,42	0
54	MG	DA	3187	1/1	0.90	0.66	47,47,47,47	0
54	MG	DA	3064	1/1	0.90	0.18	53,53,53,53	0
54	MG	BA	3074	1/1	0.90	0.38	55,55,55,55	0
54	MG	DA	3386	1/1	0.90	0.11	63,63,63,63	0
54	MG	BA	3522	1/1	0.90	0.57	68,68,68,68	0
54	MG	BA	3111	1/1	0.90	0.30	57,57,57,57	0
54	MG	BA	3527	1/1	0.90	0.15	51,51,51,51	0
54	MG	DA	3199	1/1	0.90	0.06	74,74,74,74	0
54	MG	BA	3150	1/1	0.90	0.22	61,61,61,61	0
54	MG	AA	1654	1/1	0.90	0.07	87,87,87,87	0
54	MG	BA	3061	1/1	0.90	0.51	64,64,64,64	0
54	MG	DA	3208	1/1	0.90	0.44	52,52,52,52	0
54	MG	BA	3533	1/1	0.90	0.20	48,48,48,48	0
54	MG	CA	1659	1/1	0.90	0.21	60,60,60,60	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3213	1/1	0.90	0.13	64,64,64,64	0
54	MG	DA	3411	1/1	0.90	0.15	90,90,90,90	0
54	MG	BD	301	1/1	0.90	0.20	41,41,41,41	0
54	MG	BA	3250	1/1	0.90	0.23	47,47,47,47	0
54	MG	DA	3219	1/1	0.90	0.30	38,38,38,38	0
54	MG	BA	3444	1/1	0.90	0.06	61,61,61,61	0
54	MG	CA	1663	1/1	0.90	0.18	91,91,91,91	0
54	MG	BA	3448	1/1	0.90	0.26	33,33,33,33	0
54	MG	DA	3227	1/1	0.90	0.39	65,65,65,65	0
54	MG	BA	3154	1/1	0.90	0.15	49,49,49,49	0
54	MG	BA	3254	1/1	0.90	0.20	67,67,67,67	0
54	MG	DA	3242	1/1	0.90	0.55	38,38,38,38	0
54	MG	BA	3546	1/1	0.90	0.09	57,57,57,57	0
54	MG	BA	3155	1/1	0.90	0.36	64,64,64,64	0
54	MG	BA	3197	1/1	0.90	0.32	62,62,62,62	0
55	ZN	CD	301	1/1	0.90	0.32	96,96,96,96	0
54	MG	BA	3078	1/1	0.90	0.34	38,38,38,38	0
54	MG	AA	1615	1/1	0.90	0.37	56,56,56,56	0
54	MG	BA	3204	1/1	0.90	0.18	47,47,47,47	0
54	MG	BA	3592	1/1	0.91	0.08	51,51,51,51	0
54	MG	BA	3498	1/1	0.91	0.14	69,69,69,69	0
54	MG	DA	3293	1/1	0.91	0.29	50,50,50,50	0
54	MG	DA	3296	1/1	0.91	0.12	50,50,50,50	0
54	MG	BA	3219	1/1	0.91	0.33	62,62,62,62	0
54	MG	BA	3095	1/1	0.91	0.37	45,45,45,45	0
54	MG	BA	3501	1/1	0.91	0.11	61,61,61,61	0
54	MG	BA	3289	1/1	0.91	0.67	50,50,50,50	0
54	MG	BA	3295	1/1	0.91	0.11	44,44,44,44	0
54	MG	AA	1618	1/1	0.91	0.12	69,69,69,69	0
54	MG	DA	3138	1/1	0.91	0.74	60,60,60,60	0
54	MG	DA	3314	1/1	0.91	0.23	54,54,54,54	0
54	MG	BA	3098	1/1	0.91	0.40	54,54,54,54	0
54	MG	AA	1698	1/1	0.91	0.44	68,68,68,68	0
54	MG	DA	3142	1/1	0.91	0.24	46,46,46,46	0
54	MG	BA	3232	1/1	0.91	0.14	54,54,54,54	0
54	MG	BA	3101	1/1	0.91	0.28	51,51,51,51	0
54	MG	DA	3328	1/1	0.91	0.09	34,34,34,34	0
54	MG	DA	3158	1/1	0.91	0.41	72,72,72,72	0
54	MG	BA	3239	1/1	0.91	0.27	38,38,38,38	0
54	MG	DA	3339	1/1	0.91	0.11	48,48,48,48	0
54	MG	AA	1634	1/1	0.91	0.75	95,95,95,95	0
54	MG	BA	3103	1/1	0.91	0.46	67,67,67,67	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3174	1/1	0.91	0.46	60,60,60,60	0
54	MG	DA	3060	1/1	0.91	0.21	60,60,60,60	0
54	MG	BA	3181	1/1	0.91	0.21	48,48,48,48	0
54	MG	AA	1686	1/1	0.91	0.19	115,115,115,115	0
54	MG	BA	3148	1/1	0.91	0.28	54,54,54,54	0
54	MG	BA	3185	1/1	0.91	0.23	44,44,44,44	0
54	MG	BA	3186	1/1	0.91	0.39	64,64,64,64	0
54	MG	BA	3187	1/1	0.91	0.27	30,30,30,30	0
54	MG	DA	3367	1/1	0.91	0.14	68,68,68,68	0
54	MG	BA	3338	1/1	0.91	0.15	30,30,30,30	0
54	MG	CA	1657	1/1	0.91	0.23	86,86,86,86	0
54	MG	BA	3070	1/1	0.91	0.17	61,61,61,61	0
54	MG	DA	3079	1/1	0.91	0.20	60,60,60,60	0
54	MG	DA	3198	1/1	0.91	0.17	55,55,55,55	0
54	MG	BE	304	1/1	0.91	0.17	32,32,32,32	0
54	MG	BF	301	1/1	0.91	0.38	56,56,56,56	0
54	MG	DA	3203	1/1	0.91	0.75	48,48,48,48	0
54	MG	BP	201	1/1	0.91	0.28	43,43,43,43	0
54	MG	AA	1613	1/1	0.91	0.25	74,74,74,74	0
54	MG	BA	3040	1/1	0.91	0.23	33,33,33,33	0
54	MG	CA	1664	1/1	0.91	0.15	94,94,94,94	0
54	MG	BA	3041	1/1	0.91	0.12	56,56,56,56	0
54	MG	AA	1703	1/1	0.91	0.20	89,89,89,89	0
54	MG	BA	3347	1/1	0.91	0.22	55,55,55,55	0
54	MG	DA	3401	1/1	0.91	0.07	85,85,85,85	0
54	MG	DA	3216	1/1	0.91	0.19	53,53,53,53	0
54	MG	BA	3555	1/1	0.91	0.31	49,49,49,49	0
54	MG	AA	1603	1/1	0.91	0.11	68,68,68,68	0
54	MG	DA	3409	1/1	0.91	0.06	79,79,79,79	0
54	MG	BA	3051	1/1	0.91	0.15	52,52,52,52	0
54	MG	B5	101	1/1	0.91	0.28	51,51,51,51	0
54	MG	AA	1601	1/1	0.91	0.29	68,68,68,68	0
54	MG	AA	1666	1/1	0.91	0.53	62,62,62,62	0
54	MG	DA	3231	1/1	0.91	0.48	54,54,54,54	0
54	MG	AA	1631	1/1	0.91	0.42	64,64,64,64	0
54	MG	BA	3480	1/1	0.91	0.13	70,70,70,70	0
54	MG	BA	3361	1/1	0.91	0.20	53,53,53,53	0
54	MG	AA	1695	1/1	0.91	0.12	93,93,93,93	0
54	MG	CA	1611	1/1	0.91	0.18	64,64,64,64	0
54	MG	BA	3091	1/1	0.91	0.34	47,47,47,47	0
54	MG	AA	1624	1/1	0.91	0.88	66,66,66,66	0
54	MG	D7	101	1/1	0.91	0.30	52,52,52,52	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3369	1/1	0.91	0.32	74,74,74,74	0
54	MG	BA	3137	1/1	0.91	0.17	38,38,38,38	0
54	MG	DA	3259	1/1	0.91	0.58	64,64,64,64	0
54	MG	DA	3260	1/1	0.91	0.50	44,44,44,44	0
54	MG	DA	3261	1/1	0.91	0.41	56,56,56,56	0
54	MG	DA	3262	1/1	0.91	0.16	46,46,46,46	0
54	MG	DA	3269	1/1	0.91	0.14	54,54,54,54	0
54	MG	BA	3052	1/1	0.92	0.26	61,61,61,61	0
54	MG	BA	3467	1/1	0.92	0.13	73,73,73,73	0
54	MG	CA	1626	1/1	0.92	0.27	86,86,86,86	0
54	MG	DA	3286	1/1	0.92	0.16	50,50,50,50	0
54	MG	AA	1657	1/1	0.92	0.53	81,81,81,81	0
54	MG	AD	302	1/1	0.92	0.17	120,120,120,120	0
54	MG	DA	3295	1/1	0.92	0.17	42,42,42,42	0
54	MG	CA	1630	1/1	0.92	0.47	72,72,72,72	0
54	MG	BA	3542	1/1	0.92	0.23	60,60,60,60	0
54	MG	DA	3135	1/1	0.92	0.26	44,44,44,44	0
54	MG	DA	3042	1/1	0.92	0.58	46,46,46,46	0
54	MG	DA	3301	1/1	0.92	0.17	55,55,55,55	0
54	MG	BA	3271	1/1	0.92	0.15	60,60,60,60	0
54	MG	BA	3231	1/1	0.92	0.41	45,45,45,45	0
54	MG	DA	3046	1/1	0.92	0.70	43,43,43,43	0
54	MG	DA	3312	1/1	0.92	0.09	67,67,67,67	0
54	MG	BA	3389	1/1	0.92	0.20	33,33,33,33	0
54	MG	DA	3146	1/1	0.92	0.44	35,35,35,35	0
54	MG	DA	3148	1/1	0.92	0.41	70,70,70,70	0
54	MG	AA	1619	1/1	0.92	0.34	68,68,68,68	0
54	MG	DA	3157	1/1	0.92	0.32	69,69,69,69	0
54	MG	DA	3324	1/1	0.92	0.20	64,64,64,64	0
54	MG	AA	1680	1/1	0.92	0.17	83,83,83,83	0
54	MG	DA	3159	1/1	0.92	0.61	59,59,59,59	0
54	MG	BA	3399	1/1	0.92	0.23	41,41,41,41	0
54	MG	BA	3402	1/1	0.92	0.08	47,47,47,47	0
54	MG	DA	3330	1/1	0.92	0.25	44,44,44,44	0
54	MG	BA	3407	1/1	0.92	0.22	35,35,35,35	0
54	MG	DA	3173	1/1	0.92	0.40	49,49,49,49	0
54	MG	CA	1645	1/1	0.92	0.29	63,63,63,63	0
54	MG	BA	3027	1/1	0.92	0.15	56,56,56,56	0
54	MG	BQ	202	1/1	0.92	0.36	53,53,53,53	0
54	MG	DA	3180	1/1	0.92	0.24	78,78,78,78	0
54	MG	DA	3347	1/1	0.92	0.07	76,76,76,76	0
54	MG	AA	1681	1/1	0.92	0.12	65,65,65,65	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1650	1/1	0.92	0.21	100,100,100,100	0
54	MG	BA	3279	1/1	0.92	0.17	54,54,54,54	0
54	MG	DA	3358	1/1	0.92	0.15	68,68,68,68	0
54	MG	DA	3065	1/1	0.92	0.19	58,58,58,58	0
54	MG	BU	202	1/1	0.92	0.53	62,62,62,62	0
54	MG	BA	3044	1/1	0.92	0.16	49,49,49,49	0
54	MG	DA	3070	1/1	0.92	0.32	53,53,53,53	0
54	MG	DA	3369	1/1	0.92	0.17	57,57,57,57	0
54	MG	BA	3015	1/1	0.92	0.37	42,42,42,42	0
54	MG	DA	3375	1/1	0.92	0.14	50,50,50,50	0
54	MG	DA	3072	1/1	0.92	0.36	50,50,50,50	0
54	MG	BA	3571	1/1	0.92	0.14	76,76,76,76	0
54	MG	BA	3085	1/1	0.92	0.31	63,63,63,63	0
54	MG	BA	3505	1/1	0.92	0.07	76,76,76,76	0
54	MG	B2	102	1/1	0.92	0.26	60,60,60,60	0
54	MG	DA	3382	1/1	0.92	0.10	53,53,53,53	0
54	MG	BA	3435	1/1	0.92	0.28	36,36,36,36	0
54	MG	BA	3286	1/1	0.92	0.24	52,52,52,52	0
54	MG	DA	3207	1/1	0.92	0.42	53,53,53,53	0
54	MG	B8	101	1/1	0.92	0.40	64,64,64,64	0
54	MG	DA	3209	1/1	0.92	0.24	79,79,79,79	0
54	MG	BA	3589	1/1	0.92	0.06	70,70,70,70	0
54	MG	BA	3086	1/1	0.92	0.26	57,57,57,57	0
54	MG	AA	1660	1/1	0.92	0.96	91,91,91,91	0
54	MG	DA	3397	1/1	0.92	0.05	65,65,65,65	0
54	MG	CA	1607	1/1	0.92	0.24	72,72,72,72	0
54	MG	DA	3215	1/1	0.92	0.23	58,58,58,58	0
54	MG	BA	3089	1/1	0.92	0.40	46,46,46,46	0
54	MG	BA	3298	1/1	0.92	0.11	53,53,53,53	0
54	MG	DA	3002	1/1	0.92	0.69	67,67,67,67	0
54	MG	DA	3003	1/1	0.92	0.36	35,35,35,35	0
54	MG	BA	3521	1/1	0.92	0.19	41,41,41,41	0
54	MG	BA	3069	1/1	0.92	0.52	53,53,53,53	0
54	MG	BA	3151	1/1	0.92	0.21	62,62,62,62	0
54	MG	DA	3229	1/1	0.92	0.37	55,55,55,55	0
54	MG	DA	3105	1/1	0.92	0.55	33,33,33,33	0
54	MG	BA	3525	1/1	0.92	0.07	112,112,112,112	0
54	MG	BA	3092	1/1	0.92	0.42	55,55,55,55	0
54	MG	DA	3240	1/1	0.92	0.21	67,67,67,67	0
54	MG	CA	1616	1/1	0.92	0.41	72,72,72,72	0
54	MG	DA	3017	1/1	0.92	0.29	61,61,61,61	0
54	MG	DA	3018	1/1	0.92	0.17	42,42,42,42	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3019	1/1	0.92	0.20	41,41,41,41	0
54	MG	D6	102	1/1	0.92	0.50	64,64,64,64	0
54	MG	BA	3018	1/1	0.92	0.11	72,72,72,72	0
54	MG	DA	3119	1/1	0.92	0.61	57,57,57,57	0
54	MG	BA	3318	1/1	0.92	0.23	73,73,73,73	0
54	MG	DA	3257	1/1	0.92	0.61	59,59,59,59	0
54	MG	DA	3258	1/1	0.92	0.10	56,56,56,56	0
54	MG	BA	3071	1/1	0.92	0.20	49,49,49,49	0
54	MG	DA	3028	1/1	0.92	0.20	53,53,53,53	0
54	MG	BA	3127	1/1	0.92	0.23	51,51,51,51	0
54	MG	AA	1674	1/1	0.93	0.20	73,73,73,73	0
54	MG	BA	3165	1/1	0.93	0.13	56,56,56,56	0
54	MG	DA	3059	1/1	0.93	0.26	55,55,55,55	0
54	MG	BA	3537	1/1	0.93	0.17	38,38,38,38	0
54	MG	DA	3061	1/1	0.93	0.38	52,52,52,52	0
54	MG	BA	3300	1/1	0.93	0.15	37,37,37,37	0
54	MG	BA	3088	1/1	0.93	0.35	46,46,46,46	0
54	MG	BE	306	1/1	0.93	0.09	56,56,56,56	0
54	MG	BA	3468	1/1	0.93	0.15	38,38,38,38	0
54	MG	BF	302	1/1	0.93	0.21	62,62,62,62	0
54	MG	DA	3318	1/1	0.93	0.07	66,66,66,66	0
54	MG	AA	1693	1/1	0.93	0.10	78,78,78,78	0
54	MG	BQ	201	1/1	0.93	0.20	49,49,49,49	0
54	MG	BA	3090	1/1	0.93	0.15	45,45,45,45	0
54	MG	BA	3377	1/1	0.93	0.12	69,69,69,69	0
54	MG	AA	1704	1/1	0.93	0.11	90,90,90,90	0
54	MG	BA	3479	1/1	0.93	0.17	35,35,35,35	0
54	MG	DA	3334	1/1	0.93	0.16	56,56,56,56	0
54	MG	BA	3117	1/1	0.93	0.26	31,31,31,31	0
54	MG	DA	3078	1/1	0.93	0.45	53,53,53,53	0
54	MG	DA	3193	1/1	0.93	0.32	63,63,63,63	0
54	MG	DA	3194	1/1	0.93	0.54	77,77,77,77	0
54	MG	BW	201	1/1	0.93	0.17	51,51,51,51	0
54	MG	BA	3481	1/1	0.93	0.10	76,76,76,76	0
54	MG	BA	3172	1/1	0.93	0.23	71,71,71,71	0
54	MG	DA	3348	1/1	0.93	0.11	85,85,85,85	0
54	MG	BA	3146	1/1	0.93	0.51	52,52,52,52	0
54	MG	DA	3354	1/1	0.93	0.27	41,41,41,41	0
54	MG	AA	1621	1/1	0.93	0.98	80,80,80,80	0
54	MG	DA	3201	1/1	0.93	0.36	69,69,69,69	0
54	MG	BA	3208	1/1	0.93	0.29	54,54,54,54	0
54	MG	DA	3359	1/1	0.93	0.37	49,49,49,49	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3085	1/1	0.93	0.45	51,51,51,51	0
54	MG	BA	3397	1/1	0.93	0.18	31,31,31,31	0
54	MG	BA	3209	1/1	0.93	0.37	67,67,67,67	0
54	MG	DA	3364	1/1	0.93	0.12	67,67,67,67	0
54	MG	BA	3266	1/1	0.93	0.77	48,48,48,48	0
54	MG	BA	3577	1/1	0.93	0.23	58,58,58,58	0
54	MG	DA	3371	1/1	0.93	0.19	50,50,50,50	0
54	MG	DA	3096	1/1	0.93	0.42	46,46,46,46	0
54	MG	BA	3210	1/1	0.93	0.25	57,57,57,57	0
54	MG	DA	3007	1/1	0.93	0.18	36,36,36,36	0
54	MG	DA	3099	1/1	0.93	0.26	40,40,40,40	0
54	MG	DA	3101	1/1	0.93	0.19	62,62,62,62	0
54	MG	AA	1649	1/1	0.93	0.20	66,66,66,66	0
54	MG	BA	3017	1/1	0.93	0.14	47,47,47,47	0
54	MG	BA	3588	1/1	0.93	0.26	86,86,86,86	0
54	MG	BA	3096	1/1	0.93	0.52	63,63,63,63	0
54	MG	DA	3384	1/1	0.93	0.21	57,57,57,57	0
54	MG	BA	3418	1/1	0.93	0.09	54,54,54,54	0
54	MG	BA	3218	1/1	0.93	0.38	54,54,54,54	0
54	MG	DA	3226	1/1	0.93	0.22	53,53,53,53	0
54	MG	AA	1629	1/1	0.93	0.15	63,63,63,63	0
54	MG	AA	1617	1/1	0.93	0.11	82,82,82,82	0
54	MG	DA	3021	1/1	0.93	0.25	53,53,53,53	0
54	MG	BA	3428	1/1	0.93	0.24	35,35,35,35	0
54	MG	DA	3113	1/1	0.93	0.37	42,42,42,42	0
54	MG	AA	1664	1/1	0.93	0.15	85,85,85,85	0
54	MG	CA	1617	1/1	0.93	0.89	70,70,70,70	0
54	MG	DA	3027	1/1	0.93	0.42	51,51,51,51	0
54	MG	CA	1618	1/1	0.93	0.37	75,75,75,75	0
54	MG	BA	3611	1/1	0.93	0.07	70,70,70,70	0
54	MG	DA	3250	1/1	0.93	0.43	41,41,41,41	0
54	MG	BA	3132	1/1	0.93	0.31	31,31,31,31	0
54	MG	BA	3520	1/1	0.93	0.23	67,67,67,67	0
54	MG	DA	3412	1/1	0.93	0.16	45,45,45,45	0
54	MG	AA	1690	1/1	0.93	0.12	59,59,59,59	0
54	MG	BA	3615	1/1	0.93	0.06	91,91,91,91	0
54	MG	BA	3350	1/1	0.93	0.18	60,60,60,60	0
54	MG	BA	3445	1/1	0.93	0.09	56,56,56,56	0
54	MG	BA	3227	1/1	0.93	0.19	42,42,42,42	0
54	MG	BA	3526	1/1	0.93	0.30	28,28,28,28	0
54	MG	AA	1607	1/1	0.93	0.40	69,69,69,69	0
54	MG	BB	206	1/1	0.93	0.15	62,62,62,62	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DB	203	1/1	0.93	0.48	61,61,61,61	0
54	MG	BA	3045	1/1	0.93	0.21	62,62,62,62	0
54	MG	DA	3140	1/1	0.93	0.53	70,70,70,70	0
54	MG	BA	3188	1/1	0.93	0.27	43,43,43,43	0
54	MG	DA	3292	1/1	0.93	0.18	39,39,39,39	0
54	MG	BA	3531	1/1	0.93	0.15	49,49,49,49	0
55	ZN	AD	301	1/1	0.93	0.24	107,107,107,107	0
54	MG	DA	3294	1/1	0.93	0.16	52,52,52,52	0
54	MG	AA	1701	1/1	0.93	0.13	96,96,96,96	0
54	MG	BB	212	1/1	0.93	0.06	68,68,68,68	0
54	MG	BA	3294	1/1	0.93	0.20	37,37,37,37	0
54	MG	DA	3152	1/1	0.93	0.46	58,58,58,58	0
54	MG	BA	3193	1/1	0.93	0.19	50,50,50,50	0
54	MG	DA	3271	1/1	0.94	0.10	57,57,57,57	0
54	MG	BA	3543	1/1	0.94	0.19	59,59,59,59	0
54	MG	DA	3282	1/1	0.94	0.08	42,42,42,42	0
54	MG	BA	3342	1/1	0.94	0.08	57,57,57,57	0
54	MG	BA	3113	1/1	0.94	0.40	35,35,35,35	0
54	MG	BA	3547	1/1	0.94	0.24	31,31,31,31	0
54	MG	BA	3453	1/1	0.94	0.17	74,74,74,74	0
54	MG	AA	1636	1/1	0.94	0.17	86,86,86,86	0
54	MG	B3	102	1/1	0.94	0.27	54,54,54,54	0
54	MG	BA	3007	1/1	0.94	0.21	36,36,36,36	0
54	MG	BA	3019	1/1	0.94	0.10	39,39,39,39	0
54	MG	BA	3275	1/1	0.94	0.19	41,41,41,41	0
54	MG	CA	1602	1/1	0.94	0.57	82,82,82,82	0
54	MG	DA	3029	1/1	0.94	0.15	72,72,72,72	0
54	MG	DA	3302	1/1	0.94	0.26	36,36,36,36	0
54	MG	DA	3303	1/1	0.94	0.19	37,37,37,37	0
54	MG	CA	1603	1/1	0.94	0.28	73,73,73,73	0
54	MG	BA	3460	1/1	0.94	0.09	58,58,58,58	0
54	MG	BA	3355	1/1	0.94	0.16	54,54,54,54	0
54	MG	BA	3561	1/1	0.94	0.27	49,49,49,49	0
54	MG	AA	1658	1/1	0.94	0.16	60,60,60,60	0
54	MG	BA	3563	1/1	0.94	0.11	67,67,67,67	0
54	MG	DA	3151	1/1	0.94	0.37	58,58,58,58	0
54	MG	BA	3119	1/1	0.94	0.22	39,39,39,39	0
54	MG	BA	3094	1/1	0.94	0.17	41,41,41,41	0
54	MG	BA	3359	1/1	0.94	0.13	49,49,49,49	0
54	MG	BA	3054	1/1	0.94	0.15	52,52,52,52	0
54	MG	BA	3282	1/1	0.94	0.28	43,43,43,43	0
54	MG	DA	3045	1/1	0.94	0.34	72,72,72,72	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1648	1/1	0.94	0.20	62,62,62,62	0
54	MG	DA	3165	1/1	0.94	0.17	58,58,58,58	0
54	MG	DA	3167	1/1	0.94	0.10	59,59,59,59	0
54	MG	DA	3168	1/1	0.94	0.29	42,42,42,42	0
54	MG	DA	3335	1/1	0.94	0.24	72,72,72,72	0
54	MG	BA	3580	1/1	0.94	0.07	61,61,61,61	0
54	MG	DA	3337	1/1	0.94	0.10	42,42,42,42	0
54	MG	BA	3059	1/1	0.94	0.31	49,49,49,49	0
54	MG	BA	3189	1/1	0.94	0.28	46,46,46,46	0
54	MG	BA	3585	1/1	0.94	0.24	54,54,54,54	0
54	MG	DA	3343	1/1	0.94	0.17	35,35,35,35	0
54	MG	DA	3176	1/1	0.94	0.32	61,61,61,61	0
54	MG	DA	3051	1/1	0.94	0.15	43,43,43,43	0
54	MG	DA	3179	1/1	0.94	0.27	62,62,62,62	0
54	MG	DA	3052	1/1	0.94	0.29	71,71,71,71	0
54	MG	BA	3586	1/1	0.94	0.09	58,58,58,58	0
54	MG	DA	3353	1/1	0.94	0.20	40,40,40,40	0
54	MG	BA	3233	1/1	0.94	0.13	59,59,59,59	0
54	MG	DA	3183	1/1	0.94	0.12	50,50,50,50	0
54	MG	DA	3184	1/1	0.94	0.44	39,39,39,39	0
54	MG	BA	3235	1/1	0.94	0.12	45,45,45,45	0
54	MG	BA	3156	1/1	0.94	0.15	57,57,57,57	0
54	MG	BA	3125	1/1	0.94	0.23	50,50,50,50	0
54	MG	BA	3012	1/1	0.94	0.21	34,34,34,34	0
54	MG	CA	1628	1/1	0.94	0.27	55,55,55,55	0
54	MG	BA	3491	1/1	0.94	0.14	65,65,65,65	0
54	MG	BA	3382	1/1	0.94	0.08	58,58,58,58	0
54	MG	DA	3368	1/1	0.94	0.17	78,78,78,78	0
54	MG	BA	3494	1/1	0.94	0.47	44,44,44,44	0
54	MG	DA	3370	1/1	0.94	0.19	51,51,51,51	0
54	MG	BA	3128	1/1	0.94	0.20	53,53,53,53	0
54	MG	DA	3372	1/1	0.94	0.33	40,40,40,40	0
54	MG	BA	3301	1/1	0.94	0.05	62,62,62,62	0
54	MG	BA	3497	1/1	0.94	0.17	55,55,55,55	0
54	MG	BA	3302	1/1	0.94	0.28	45,45,45,45	0
54	MG	BA	3306	1/1	0.94	0.16	51,51,51,51	0
54	MG	CA	1639	1/1	0.94	0.64	61,61,61,61	0
54	MG	BA	3099	1/1	0.94	0.28	52,52,52,52	0
54	MG	BA	3394	1/1	0.94	0.10	29,29,29,29	0
54	MG	AA	1642	1/1	0.94	0.15	64,64,64,64	0
54	MG	BA	3198	1/1	0.94	0.25	29,29,29,29	0
54	MG	AA	1640	1/1	0.94	0.51	80,80,80,80	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BB	203	1/1	0.94	0.20	80,80,80,80	0
54	MG	BA	3510	1/1	0.94	0.17	33,33,33,33	0
54	MG	DA	3212	1/1	0.94	0.25	38,38,38,38	0
54	MG	BA	3400	1/1	0.94	0.19	34,34,34,34	0
54	MG	BA	3043	1/1	0.94	0.34	54,54,54,54	0
54	MG	BA	3404	1/1	0.94	0.11	46,46,46,46	0
54	MG	DA	3394	1/1	0.94	0.33	56,56,56,56	0
54	MG	BA	3515	1/1	0.94	0.12	46,46,46,46	0
54	MG	DA	3086	1/1	0.94	0.63	54,54,54,54	0
54	MG	DA	3399	1/1	0.94	0.41	60,60,60,60	0
54	MG	DA	3087	1/1	0.94	0.32	58,58,58,58	0
54	MG	BA	3405	1/1	0.94	0.19	38,38,38,38	0
54	MG	DA	3222	1/1	0.94	0.26	47,47,47,47	0
54	MG	DA	3405	1/1	0.94	0.17	70,70,70,70	0
54	MG	DA	3090	1/1	0.94	0.24	53,53,53,53	0
54	MG	DA	3407	1/1	0.94	0.25	59,59,59,59	0
54	MG	BA	3203	1/1	0.94	0.32	69,69,69,69	0
54	MG	DA	3225	1/1	0.94	0.26	64,64,64,64	0
54	MG	BA	3410	1/1	0.94	0.20	34,34,34,34	0
54	MG	BA	3065	1/1	0.94	0.13	47,47,47,47	0
54	MG	BA	3028	1/1	0.94	0.24	46,46,46,46	0
54	MG	BA	3328	1/1	0.94	0.20	27,27,27,27	0
54	MG	BA	3255	1/1	0.94	0.58	65,65,65,65	0
54	MG	DA	3237	1/1	0.94	0.51	39,39,39,39	0
54	MG	AA	1662	1/1	0.94	0.21	83,83,83,83	0
54	MG	AA	1644	1/1	0.94	0.34	74,74,74,74	0
54	MG	BA	3333	1/1	0.94	0.30	36,36,36,36	0
54	MG	DA	3425	1/1	0.94	0.07	60,60,60,60	0
54	MG	DA	3428	1/1	0.94	0.12	81,81,81,81	0
54	MG	BA	3260	1/1	0.94	0.61	50,50,50,50	0
54	MG	BA	3433	1/1	0.94	0.14	35,35,35,35	0
54	MG	BA	3108	1/1	0.94	0.26	56,56,56,56	0
54	MG	DE	301	1/1	0.94	0.51	37,37,37,37	0
54	MG	DA	3248	1/1	0.94	0.56	44,44,44,44	0
54	MG	BA	3265	1/1	0.94	0.39	30,30,30,30	0
54	MG	BA	3109	1/1	0.94	0.25	57,57,57,57	0
54	MG	BA	3143	1/1	0.94	0.39	45,45,45,45	0
54	MG	DA	3005	1/1	0.94	0.19	64,64,64,64	0
54	MG	BR	202	1/1	0.94	0.38	49,49,49,49	0
54	MG	BA	3049	1/1	0.94	0.19	54,54,54,54	0
54	MG	BA	3446	1/1	0.94	0.10	40,40,40,40	0
54	MG	DA	3009	1/1	0.94	0.26	54,54,54,54	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3447	1/1	0.94	0.28	37,37,37,37	0
54	MG	BA	3214	1/1	0.94	0.56	34,34,34,34	0
54	MG	DA	3013	1/1	0.94	0.15	41,41,41,41	0
54	MG	BA	3607	1/1	0.95	0.13	38,38,38,38	0
54	MG	BA	3508	1/1	0.95	0.11	40,40,40,40	0
54	MG	BA	3610	1/1	0.95	0.06	56,56,56,56	0
54	MG	DA	3153	1/1	0.95	0.47	38,38,38,38	0
54	MG	BA	3416	1/1	0.95	0.17	46,46,46,46	0
54	MG	BA	3417	1/1	0.95	0.21	37,37,37,37	0
54	MG	BA	3182	1/1	0.95	0.09	69,69,69,69	0
54	MG	BA	3005	1/1	0.95	0.14	42,42,42,42	0
54	MG	BA	3284	1/1	0.95	0.13	40,40,40,40	0
54	MG	DA	3054	1/1	0.95	0.71	75,75,75,75	0
54	MG	DA	3163	1/1	0.95	0.38	56,56,56,56	0
54	MG	DA	3055	1/1	0.95	0.46	43,43,43,43	0
54	MG	CA	1632	1/1	0.95	0.29	65,65,65,65	0
54	MG	BA	3123	1/1	0.95	0.20	43,43,43,43	0
54	MG	DA	3170	1/1	0.95	0.25	52,52,52,52	0
54	MG	BA	3345	1/1	0.95	0.16	45,45,45,45	0
54	MG	BA	3429	1/1	0.95	0.17	29,29,29,29	0
54	MG	BB	201	1/1	0.95	0.21	61,61,61,61	0
54	MG	DA	3321	1/1	0.95	0.21	53,53,53,53	0
54	MG	AA	1672	1/1	0.95	0.66	82,82,82,82	0
54	MG	BA	3434	1/1	0.95	0.38	36,36,36,36	0
54	MG	BA	3287	1/1	0.95	0.45	65,65,65,65	0
54	MG	BA	3523	1/1	0.95	0.06	79,79,79,79	0
54	MG	BA	3211	1/1	0.95	0.19	53,53,53,53	0
54	MG	BA	3437	1/1	0.95	0.21	28,28,28,28	0
54	MG	DA	3331	1/1	0.95	0.17	69,69,69,69	0
54	MG	DA	3067	1/1	0.95	0.33	32,32,32,32	0
54	MG	DA	3068	1/1	0.95	0.23	48,48,48,48	0
54	MG	BA	3353	1/1	0.95	0.13	28,28,28,28	0
54	MG	DA	3185	1/1	0.95	0.45	47,47,47,47	0
54	MG	DA	3338	1/1	0.95	0.19	50,50,50,50	0
54	MG	BA	3290	1/1	0.95	0.37	47,47,47,47	0
54	MG	DA	3340	1/1	0.95	0.38	44,44,44,44	0
54	MG	BA	3291	1/1	0.95	0.12	59,59,59,59	0
54	MG	DA	3188	1/1	0.95	0.23	54,54,54,54	0
54	MG	BA	3212	1/1	0.95	0.16	47,47,47,47	0
54	MG	CA	1651	1/1	0.95	0.18	61,61,61,61	0
54	MG	DA	3191	1/1	0.95	0.26	50,50,50,50	0
54	MG	AA	1635	1/1	0.95	0.21	71,71,71,71	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3126	1/1	0.95	0.41	57,57,57,57	0
54	MG	BA	3252	1/1	0.95	0.25	44,44,44,44	0
54	MG	DA	3350	1/1	0.95	0.14	50,50,50,50	0
54	MG	BD	303	1/1	0.95	0.35	58,58,58,58	0
54	MG	BA	3112	1/1	0.95	0.40	47,47,47,47	0
54	MG	BA	3452	1/1	0.95	0.12	62,62,62,62	0
54	MG	AA	1645	1/1	0.95	0.86	77,77,77,77	0
54	MG	BA	3168	1/1	0.95	0.39	52,52,52,52	0
54	MG	BA	3304	1/1	0.95	0.17	27,27,27,27	0
54	MG	BA	3258	1/1	0.95	0.44	56,56,56,56	0
54	MG	BA	3129	1/1	0.95	0.40	49,49,49,49	0
54	MG	BA	3373	1/1	0.95	0.09	55,55,55,55	0
54	MG	BA	3311	1/1	0.95	0.27	60,60,60,60	0
54	MG	DA	3365	1/1	0.95	0.08	50,50,50,50	0
54	MG	BA	3056	1/1	0.95	0.39	48,48,48,48	0
54	MG	BA	3376	1/1	0.95	0.11	55,55,55,55	0
54	MG	DA	3092	1/1	0.95	0.22	63,63,63,63	0
54	MG	BA	3551	1/1	0.95	0.26	40,40,40,40	0
54	MG	BA	3263	1/1	0.95	0.62	41,41,41,41	0
54	MG	BA	3222	1/1	0.95	0.19	51,51,51,51	0
54	MG	BA	3383	1/1	0.95	0.17	71,71,71,71	0
54	MG	BA	3472	1/1	0.95	0.21	29,29,29,29	0
54	MG	BA	3473	1/1	0.95	0.44	59,59,59,59	0
54	MG	DA	3100	1/1	0.95	0.31	61,61,61,61	0
54	MG	BA	3223	1/1	0.95	0.18	57,57,57,57	0
54	MG	BA	3319	1/1	0.95	0.05	68,68,68,68	0
54	MG	BA	3387	1/1	0.95	0.26	33,33,33,33	0
54	MG	BA	3149	1/1	0.95	0.14	49,49,49,49	0
54	MG	BA	3322	1/1	0.95	0.13	45,45,45,45	0
54	MG	BA	3566	1/1	0.95	0.21	40,40,40,40	0
54	MG	BA	3057	1/1	0.95	0.21	46,46,46,46	0
54	MG	BA	3485	1/1	0.95	0.15	60,60,60,60	0
54	MG	DA	3228	1/1	0.95	0.54	51,51,51,51	0
54	MG	DA	3389	1/1	0.95	0.14	58,58,58,58	0
54	MG	DA	3016	1/1	0.95	0.10	41,41,41,41	0
54	MG	DA	3230	1/1	0.95	0.17	67,67,67,67	0
54	MG	B9	102	1/1	0.95	0.31	45,45,45,45	0
54	MG	CA	1601	1/1	0.95	0.37	50,50,50,50	0
54	MG	DA	3395	1/1	0.95	0.26	37,37,37,37	0
54	MG	DA	3233	1/1	0.95	0.32	43,43,43,43	0
54	MG	DA	3234	1/1	0.95	0.48	56,56,56,56	0
54	MG	BA	3133	1/1	0.95	0.30	31,31,31,31	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3238	1/1	0.95	0.61	52,52,52,52	0
54	MG	BA	3134	1/1	0.95	0.45	44,44,44,44	0
54	MG	DA	3402	1/1	0.95	0.21	59,59,59,59	0
54	MG	DA	3115	1/1	0.95	0.41	39,39,39,39	0
54	MG	CA	1604	1/1	0.95	0.19	110,110,110,110	0
54	MG	BA	3230	1/1	0.95	0.37	50,50,50,50	0
54	MG	BA	3199	1/1	0.95	0.23	31,31,31,31	0
54	MG	DA	3122	1/1	0.95	0.52	47,47,47,47	0
54	MG	DA	3247	1/1	0.95	0.37	52,52,52,52	0
54	MG	BA	3010	1/1	0.95	0.20	48,48,48,48	0
54	MG	DA	3249	1/1	0.95	0.36	67,67,67,67	0
54	MG	BA	3583	1/1	0.95	0.05	50,50,50,50	0
54	MG	DA	3413	1/1	0.95	0.18	37,37,37,37	0
54	MG	DA	3251	1/1	0.95	0.48	39,39,39,39	0
54	MG	DA	3416	1/1	0.95	0.13	32,32,32,32	0
54	MG	BA	3493	1/1	0.95	0.19	52,52,52,52	0
54	MG	BA	3401	1/1	0.95	0.17	45,45,45,45	0
54	MG	DA	3031	1/1	0.95	0.45	43,43,43,43	0
54	MG	DA	3422	1/1	0.95	0.10	75,75,75,75	0
54	MG	AA	1685	1/1	0.95	0.11	77,77,77,77	0
54	MG	BA	3042	1/1	0.95	0.50	47,47,47,47	0
54	MG	DA	3131	1/1	0.95	0.28	39,39,39,39	0
54	MG	BA	3236	1/1	0.95	0.21	50,50,50,50	0
54	MG	DA	3429	1/1	0.95	0.16	44,44,44,44	0
54	MG	BA	3336	1/1	0.95	0.12	46,46,46,46	0
54	MG	BA	3179	1/1	0.95	0.44	48,48,48,48	0
54	MG	DA	3265	1/1	0.95	0.21	39,39,39,39	0
54	MG	DA	3266	1/1	0.95	0.09	58,58,58,58	0
54	MG	DA	3038	1/1	0.95	0.33	39,39,39,39	0
54	MG	BA	3083	1/1	0.95	0.46	56,56,56,56	0
54	MG	BA	3413	1/1	0.95	0.28	31,31,31,31	0
54	MG	BA	3084	1/1	0.95	0.16	56,56,56,56	0
54	MG	DA	3284	1/1	0.95	0.17	61,61,61,61	0
54	MG	BA	3281	1/1	0.95	0.29	56,56,56,56	0
54	MG	DA	3289	1/1	0.95	0.20	52,52,52,52	0
55	ZN	BY	201	1/1	0.95	0.14	74,74,74,74	0
54	MG	DA	3290	1/1	0.95	0.24	42,42,42,42	0
54	MG	BA	3598	1/1	0.95	0.13	39,39,39,39	0
54	MG	DA	3144	1/1	0.95	0.30	42,42,42,42	0
54	MG	BA	3606	1/1	0.95	0.11	29,29,29,29	0
54	MG	DA	3147	1/1	0.95	0.68	78,78,78,78	0
54	MG	BA	3075	1/1	0.96	0.31	53,53,53,53	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1620	1/1	0.96	0.32	57,57,57,57	0
54	MG	BB	211	1/1	0.96	0.09	51,51,51,51	0
54	MG	BA	3215	1/1	0.96	0.14	61,61,61,61	0
54	MG	DA	3235	1/1	0.96	0.34	36,36,36,36	0
54	MG	DA	3156	1/1	0.96	0.25	52,52,52,52	0
54	MG	BA	3391	1/1	0.96	0.28	38,38,38,38	0
54	MG	BA	3048	1/1	0.96	0.20	42,42,42,42	0
54	MG	BA	3564	1/1	0.96	0.28	36,36,36,36	0
54	MG	DA	3241	1/1	0.96	0.24	63,63,63,63	0
54	MG	DA	3160	1/1	0.96	0.50	48,48,48,48	0
54	MG	DA	3243	1/1	0.96	0.35	53,53,53,53	0
54	MG	AA	1647	1/1	0.96	0.32	61,61,61,61	0
54	MG	AA	1610	1/1	0.96	0.28	75,75,75,75	0
54	MG	BA	3512	1/1	0.96	0.33	45,45,45,45	0
54	MG	DA	3361	1/1	0.96	0.06	67,67,67,67	0
54	MG	DA	3164	1/1	0.96	0.23	46,46,46,46	0
54	MG	DA	3088	1/1	0.96	0.26	65,65,65,65	0
54	MG	DA	3166	1/1	0.96	0.21	55,55,55,55	0
54	MG	BA	3568	1/1	0.96	0.14	60,60,60,60	0
54	MG	BE	303	1/1	0.96	0.14	54,54,54,54	0
54	MG	BA	3346	1/1	0.96	0.07	45,45,45,45	0
54	MG	DA	3253	1/1	0.96	0.30	42,42,42,42	0
54	MG	BA	3038	1/1	0.96	0.10	36,36,36,36	0
54	MG	DA	3255	1/1	0.96	0.37	63,63,63,63	0
54	MG	CA	1633	1/1	0.96	0.25	71,71,71,71	0
54	MG	BA	3349	1/1	0.96	0.13	39,39,39,39	0
54	MG	DA	3032	1/1	0.96	0.30	43,43,43,43	0
54	MG	BA	3573	1/1	0.96	0.09	55,55,55,55	0
54	MG	DA	3377	1/1	0.96	0.10	61,61,61,61	0
54	MG	BA	3312	1/1	0.96	0.09	50,50,50,50	0
54	MG	DA	3178	1/1	0.96	0.47	58,58,58,58	0
54	MG	AA	1626	1/1	0.96	0.52	67,67,67,67	0
54	MG	BA	3021	1/1	0.96	0.27	33,33,33,33	0
54	MG	BQ	203	1/1	0.96	0.23	44,44,44,44	0
54	MG	BA	3582	1/1	0.96	0.12	54,54,54,54	0
54	MG	BA	3278	1/1	0.96	0.25	43,43,43,43	0
54	MG	DA	3272	1/1	0.96	0.18	47,47,47,47	0
54	MG	DA	3274	1/1	0.96	0.10	35,35,35,35	0
54	MG	DA	3275	1/1	0.96	0.12	48,48,48,48	0
54	MG	DA	3277	1/1	0.96	0.12	42,42,42,42	0
54	MG	CA	1642	1/1	0.96	0.07	87,87,87,87	0
54	MG	BA	3008	1/1	0.96	0.28	32,32,32,32	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1705	1/1	0.96	0.14	68,68,68,68	0
54	MG	BA	3253	1/1	0.96	0.23	38,38,38,38	0
54	MG	BA	3321	1/1	0.96	0.11	65,65,65,65	0
54	MG	BA	3162	1/1	0.96	0.48	62,62,62,62	0
54	MG	BA	3324	1/1	0.96	0.10	82,82,82,82	0
54	MG	BA	3528	1/1	0.96	0.12	43,43,43,43	0
54	MG	BA	3164	1/1	0.96	0.17	39,39,39,39	0
54	MG	BA	3326	1/1	0.96	0.14	30,30,30,30	0
54	MG	BA	3364	1/1	0.96	0.12	46,46,46,46	0
54	MG	DA	3116	1/1	0.96	0.40	46,46,46,46	0
54	MG	DA	3196	1/1	0.96	0.48	63,63,63,63	0
54	MG	DA	3117	1/1	0.96	0.35	34,34,34,34	0
54	MG	BA	3256	1/1	0.96	0.67	69,69,69,69	0
54	MG	BA	3115	1/1	0.96	0.36	43,43,43,43	0
54	MG	BA	3229	1/1	0.96	0.37	51,51,51,51	0
54	MG	BA	3426	1/1	0.96	0.22	28,28,28,28	0
54	MG	DA	3304	1/1	0.96	0.18	38,38,38,38	0
54	MG	DA	3305	1/1	0.96	0.09	55,55,55,55	0
54	MG	BA	3427	1/1	0.96	0.22	32,32,32,32	0
54	MG	DA	3124	1/1	0.96	0.47	35,35,35,35	0
54	MG	BA	3131	1/1	0.96	0.19	44,44,44,44	0
54	MG	BA	3288	1/1	0.96	0.51	33,33,33,33	0
54	MG	BA	3541	1/1	0.96	0.30	54,54,54,54	0
54	MG	BA	3490	1/1	0.96	0.26	53,53,53,53	0
54	MG	BA	3432	1/1	0.96	0.18	31,31,31,31	0
54	MG	BA	3544	1/1	0.96	0.20	91,91,91,91	0
54	MG	AA	1684	1/1	0.96	0.05	76,76,76,76	0
54	MG	BA	3261	1/1	0.96	0.29	59,59,59,59	0
54	MG	DA	3427	1/1	0.96	0.16	40,40,40,40	0
54	MG	BA	3033	1/1	0.96	0.37	40,40,40,40	0
54	MG	DA	3322	1/1	0.96	0.15	35,35,35,35	0
54	MG	DA	3323	1/1	0.96	0.20	36,36,36,36	0
54	MG	BA	3548	1/1	0.96	0.20	41,41,41,41	0
54	MG	DA	3136	1/1	0.96	0.52	42,42,42,42	0
54	MG	DB	205	1/1	0.96	0.14	70,70,70,70	0
54	MG	DA	3137	1/1	0.96	0.58	64,64,64,64	0
54	MG	DA	3218	1/1	0.96	0.71	53,53,53,53	0
54	MG	BA	3379	1/1	0.96	0.06	56,56,56,56	0
54	MG	BA	3058	1/1	0.96	0.10	56,56,56,56	0
54	MG	BA	3438	1/1	0.96	0.17	38,38,38,38	0
54	MG	DA	3333	1/1	0.96	0.07	53,53,53,53	0
54	MG	CA	1614	1/1	0.96	0.26	69,69,69,69	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3025	1/1	0.96	0.11	52,52,52,52	0
54	MG	BA	3190	1/1	0.96	0.30	46,46,46,46	0
54	MG	DA	3010	1/1	0.96	0.15	43,43,43,43	0
54	MG	DA	3074	1/1	0.96	0.50	38,38,38,38	0
54	MG	BA	3035	1/1	0.96	0.24	45,45,45,45	0
54	MG	BA	3192	1/1	0.96	0.33	43,43,43,43	0
54	MG	DA	3150	1/1	0.96	0.38	41,41,41,41	0
55	ZN	D6	101	1/1	0.96	0.10	86,86,86,86	0
54	MG	BA	3163	1/1	0.97	0.43	42,42,42,42	0
54	MG	BA	3228	1/1	0.97	0.38	26,26,26,26	0
54	MG	BA	3268	1/1	0.97	0.29	44,44,44,44	0
54	MG	BA	3317	1/1	0.97	0.09	51,51,51,51	0
54	MG	BA	3020	1/1	0.97	0.10	34,34,34,34	0
54	MG	BA	3419	1/1	0.97	0.25	35,35,35,35	0
54	MG	BE	305	1/1	0.97	0.22	32,32,32,32	0
54	MG	BA	3454	1/1	0.97	0.17	34,34,34,34	0
54	MG	BA	3455	1/1	0.97	0.34	42,42,42,42	0
54	MG	BA	3367	1/1	0.97	0.21	33,33,33,33	0
54	MG	BA	3110	1/1	0.97	0.37	23,23,23,23	0
54	MG	DA	3169	1/1	0.97	0.25	39,39,39,39	0
54	MG	BA	3539	1/1	0.97	0.06	61,61,61,61	0
54	MG	DA	3171	1/1	0.97	0.31	53,53,53,53	0
54	MG	BA	3591	1/1	0.97	0.13	56,56,56,56	0
54	MG	DA	3308	1/1	0.97	0.42	49,49,49,49	0
54	MG	DA	3385	1/1	0.97	0.36	49,49,49,49	0
54	MG	DA	3309	1/1	0.97	0.47	48,48,48,48	0
54	MG	BA	3423	1/1	0.97	0.22	30,30,30,30	0
54	MG	BA	3262	1/1	0.97	0.38	32,32,32,32	0
54	MG	BA	3352	1/1	0.97	0.09	53,53,53,53	0
54	MG	BA	3502	1/1	0.97	0.17	41,41,41,41	0
54	MG	BA	3462	1/1	0.97	0.12	25,25,25,25	0
54	MG	BA	3599	1/1	0.97	0.09	50,50,50,50	0
54	MG	BA	3604	1/1	0.97	0.07	36,36,36,36	0
54	MG	BA	3398	1/1	0.97	0.17	36,36,36,36	0
54	MG	BA	3506	1/1	0.97	0.16	61,61,61,61	0
54	MG	DA	3319	1/1	0.97	0.10	59,59,59,59	0
54	MG	DA	3398	1/1	0.97	0.12	52,52,52,52	0
54	MG	DA	3320	1/1	0.97	0.13	57,57,57,57	0
54	MG	DA	3020	1/1	0.97	0.20	39,39,39,39	0
54	MG	BA	3507	1/1	0.97	0.14	53,53,53,53	0
54	MG	DA	3022	1/1	0.97	0.36	52,52,52,52	0
54	MG	BA	3238	1/1	0.97	0.16	32,32,32,32	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3325	1/1	0.97	0.26	36,36,36,36	0
54	MG	BA	3354	1/1	0.97	0.06	49,49,49,49	0
54	MG	DA	3025	1/1	0.97	0.17	57,57,57,57	0
54	MG	DA	3076	1/1	0.97	0.17	70,70,70,70	0
54	MG	BA	3552	1/1	0.97	0.18	38,38,38,38	0
54	MG	DA	3132	1/1	0.97	0.41	49,49,49,49	0
54	MG	BA	3305	1/1	0.97	0.09	37,37,37,37	0
54	MG	BA	3047	1/1	0.97	0.29	50,50,50,50	0
54	MG	BA	3292	1/1	0.97	0.20	44,44,44,44	0
54	MG	DA	3414	1/1	0.97	0.12	68,68,68,68	0
54	MG	BA	3470	1/1	0.97	0.23	35,35,35,35	0
54	MG	BA	3380	1/1	0.97	0.07	50,50,50,50	0
54	MG	BA	3406	1/1	0.97	0.18	40,40,40,40	0
54	MG	BA	3516	1/1	0.97	0.14	39,39,39,39	0
54	MG	BA	3309	1/1	0.97	0.16	38,38,38,38	0
54	MG	BA	3518	1/1	0.97	0.36	59,59,59,59	0
54	MG	BA	3408	1/1	0.97	0.32	34,34,34,34	0
54	MG	BA	3409	1/1	0.97	0.18	26,26,26,26	0
54	MG	DA	3263	1/1	0.97	0.08	70,70,70,70	0
54	MG	BA	3440	1/1	0.97	0.09	63,63,63,63	0
54	MG	DA	3204	1/1	0.97	0.31	37,37,37,37	0
54	MG	DA	3267	1/1	0.97	0.19	59,59,59,59	0
54	MG	DA	3430	1/1	0.97	0.05	72,72,72,72	0
54	MG	DA	3145	1/1	0.97	0.45	47,47,47,47	0
54	MG	DA	3039	1/1	0.97	0.28	41,41,41,41	0
54	MG	BA	3441	1/1	0.97	0.25	35,35,35,35	0
54	MG	DA	3351	1/1	0.97	0.14	78,78,78,78	0
54	MG	DD	301	1/1	0.97	0.16	40,40,40,40	0
54	MG	BA	3442	1/1	0.97	0.15	31,31,31,31	0
54	MG	DF	301	1/1	0.97	0.37	58,58,58,58	0
54	MG	BA	3483	1/1	0.97	0.16	57,57,57,57	0
54	MG	DA	3276	1/1	0.97	0.12	51,51,51,51	0
54	MG	DA	3356	1/1	0.97	0.19	42,42,42,42	0
54	MG	DA	3094	1/1	0.97	0.12	39,39,39,39	0
54	MG	BA	3293	1/1	0.97	0.21	29,29,29,29	0
54	MG	BA	3221	1/1	0.97	0.17	51,51,51,51	0
54	MG	DA	3283	1/1	0.97	0.14	48,48,48,48	0
54	MG	DA	3154	1/1	0.97	0.83	62,62,62,62	0
54	MG	BA	3385	1/1	0.97	0.10	73,73,73,73	0
54	MG	DA	3287	1/1	0.97	0.06	46,46,46,46	0
54	MG	DA	3288	1/1	0.97	0.11	37,37,37,37	0
54	MG	BA	3576	1/1	0.97	0.12	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3366	1/1	0.97	0.14	35,35,35,35	0
54	MG	BA	3488	1/1	0.97	0.15	34,34,34,34	0
55	ZN	D9	101	1/1	0.97	0.05	87,87,87,87	0
54	MG	CA	1652	1/1	0.98	0.09	65,65,65,65	0
54	MG	BA	3557	1/1	0.98	0.49	42,42,42,42	0
54	MG	CA	1654	1/1	0.98	0.11	95,95,95,95	0
54	MG	BA	3482	1/1	0.98	0.18	58,58,58,58	0
54	MG	DA	3300	1/1	0.98	0.20	62,62,62,62	0
54	MG	BA	3313	1/1	0.98	0.12	42,42,42,42	0
54	MG	B8	103	1/1	0.98	0.14	51,51,51,51	0
54	MG	BA	3484	1/1	0.98	0.12	40,40,40,40	0
54	MG	BA	3390	1/1	0.98	0.22	29,29,29,29	0
54	MG	BA	3348	1/1	0.98	0.22	37,37,37,37	0
54	MG	BA	3331	1/1	0.98	0.16	51,51,51,51	0
54	MG	DA	3307	1/1	0.98	0.22	39,39,39,39	0
54	MG	DA	3110	1/1	0.98	0.08	46,46,46,46	0
54	MG	BA	3451	1/1	0.98	0.24	34,34,34,34	0
54	MG	DA	3236	1/1	0.98	0.55	44,44,44,44	0
54	MG	BA	3370	1/1	0.98	0.10	66,66,66,66	0
54	MG	BA	3421	1/1	0.98	0.13	36,36,36,36	0
54	MG	BA	3395	1/1	0.98	0.14	32,32,32,32	0
54	MG	AA	1668	1/1	0.98	0.11	83,83,83,83	0
54	MG	DA	3392	1/1	0.98	0.09	56,56,56,56	0
54	MG	BA	3570	1/1	0.98	0.17	36,36,36,36	0
54	MG	BB	205	1/1	0.98	0.29	57,57,57,57	0
54	MG	DA	3118	1/1	0.98	0.45	44,44,44,44	0
54	MG	BA	3372	1/1	0.98	0.13	50,50,50,50	0
54	MG	BA	3080	1/1	0.98	0.51	42,42,42,42	0
54	MG	BA	3299	1/1	0.98	0.22	38,38,38,38	0
54	MG	BA	3574	1/1	0.98	0.06	41,41,41,41	0
54	MG	BA	3575	1/1	0.98	0.07	54,54,54,54	0
54	MG	BA	3060	1/1	0.98	0.30	45,45,45,45	0
54	MG	BA	3234	1/1	0.98	0.33	34,34,34,34	0
54	MG	BA	3578	1/1	0.98	0.21	60,60,60,60	0
54	MG	BA	3579	1/1	0.98	0.12	53,53,53,53	0
54	MG	BA	3461	1/1	0.98	0.23	38,38,38,38	0
54	MG	BB	216	1/1	0.98	0.33	46,46,46,46	0
54	MG	BA	3430	1/1	0.98	0.22	30,30,30,30	0
54	MG	BD	302	1/1	0.98	0.29	38,38,38,38	0
54	MG	BA	3431	1/1	0.98	0.26	34,34,34,34	0
54	MG	DA	3332	1/1	0.98	0.05	62,62,62,62	0
54	MG	BA	3202	1/1	0.98	0.52	65,65,65,65	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3403	1/1	0.98	0.13	44,44,44,44	0
54	MG	BA	3540	1/1	0.98	0.06	61,61,61,61	0
54	MG	BA	3466	1/1	0.98	0.07	67,67,67,67	0
54	MG	BA	3378	1/1	0.98	0.12	38,38,38,38	0
54	MG	BA	3303	1/1	0.98	0.20	36,36,36,36	0
54	MG	DA	3419	1/1	0.98	0.08	50,50,50,50	0
54	MG	DA	3264	1/1	0.98	0.21	46,46,46,46	0
54	MG	BA	3246	1/1	0.98	0.21	49,49,49,49	0
54	MG	BA	3381	1/1	0.98	0.08	49,49,49,49	0
54	MG	DA	3202	1/1	0.98	0.22	37,37,37,37	0
54	MG	DA	3268	1/1	0.98	0.16	43,43,43,43	0
54	MG	DA	3344	1/1	0.98	0.09	51,51,51,51	0
54	MG	DA	3426	1/1	0.98	0.10	94,94,94,94	0
54	MG	AA	1689	1/1	0.98	0.09	55,55,55,55	0
54	MG	DA	3270	1/1	0.98	0.11	34,34,34,34	0
54	MG	BA	3248	1/1	0.98	0.18	50,50,50,50	0
54	MG	BA	3307	1/1	0.98	0.20	29,29,29,29	0
54	MG	DA	3273	1/1	0.98	0.11	37,37,37,37	0
54	MG	BA	3411	1/1	0.98	0.27	43,43,43,43	0
54	MG	BA	3550	1/1	0.98	0.28	37,37,37,37	0
54	MG	DB	204	1/1	0.98	0.14	74,74,74,74	0
54	MG	BA	3596	1/1	0.98	0.13	46,46,46,46	0
54	MG	BA	3476	1/1	0.98	0.23	44,44,44,44	0
54	MG	BA	3477	1/1	0.98	0.08	45,45,45,45	0
54	MG	DA	3279	1/1	0.98	0.33	40,40,40,40	0
54	MG	DA	3280	1/1	0.98	0.26	40,40,40,40	0
54	MG	DA	3149	1/1	0.98	0.38	36,36,36,36	0
54	MG	BA	3601	1/1	0.98	0.06	33,33,33,33	0
54	MG	BA	3602	1/1	0.98	0.09	24,24,24,24	0
54	MG	DA	3285	1/1	0.98	0.14	52,52,52,52	0
54	MG	BA	3603	1/1	0.98	0.19	30,30,30,30	0
54	MG	CA	1644	1/1	0.98	0.15	74,74,74,74	0
54	MG	AA	1614	1/1	0.98	0.23	62,62,62,62	0
54	MG	BA	3605	1/1	0.98	0.12	30,30,30,30	0
55	ZN	B9	101	1/1	0.98	0.13	69,69,69,69	0
54	MG	CA	1647	1/1	0.98	0.13	78,78,78,78	0
54	MG	BA	3104	1/1	0.98	0.21	48,48,48,48	0
54	MG	DA	3220	1/1	0.98	0.25	48,48,48,48	0
54	MG	BA	3177	1/1	0.98	0.10	45,45,45,45	0
55	ZN	D5	101	1/1	0.98	0.07	65,65,65,65	0
54	MG	BA	3296	1/1	0.98	0.07	48,48,48,48	0
54	MG	BA	3609	1/1	0.98	0.18	51,51,51,51	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3310	1/1	0.99	0.21	44,44,44,44	0
54	MG	BA	3323	1/1	0.99	0.09	40,40,40,40	0
54	MG	BB	217	1/1	0.99	0.25	42,42,42,42	0
54	MG	BA	3366	1/1	0.99	0.08	50,50,50,50	0
54	MG	DA	3418	1/1	0.99	0.07	39,39,39,39	0
54	MG	B5	102	1/1	0.99	0.08	42,42,42,42	0
54	MG	BA	3597	1/1	0.99	0.09	26,26,26,26	0
54	MG	DA	3004	1/1	0.99	0.14	59,59,59,59	0
54	MG	BA	3443	1/1	0.99	0.25	41,41,41,41	0
54	MG	BA	3504	1/1	0.99	0.39	28,28,28,28	0
54	MG	BA	3600	1/1	0.99	0.20	31,31,31,31	0
54	MG	DA	3404	1/1	0.99	0.07	53,53,53,53	0
54	MG	BA	3245	1/1	0.99	0.12	36,36,36,36	0
55	ZN	B5	103	1/1	0.99	0.14	58,58,58,58	0
55	ZN	B6	101	1/1	0.99	0.12	54,54,54,54	0
54	MG	DA	3281	1/1	0.99	0.09	36,36,36,36	0
54	MG	BA	3393	1/1	0.99	0.19	38,38,38,38	0
54	MG	BA	3424	1/1	0.99	0.22	32,32,32,32	0
54	MG	DA	3352	1/1	0.99	0.10	61,61,61,61	0
54	MG	BA	3471	1/1	0.99	0.21	38,38,38,38	0
54	MG	BA	3368	1/1	0.99	0.31	34,34,34,34	0
54	MG	DA	3373	1/1	0.99	0.27	38,38,38,38	0
54	MG	BA	3560	1/1	0.99	0.12	29,29,29,29	0

6.5 Other polymers (i)

There are no such residues in this entry.