



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 09:01 am GMT

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](mailto:validation@mail.wwpdb.org)

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

---

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

MolProbity : 4.02b-467  
Xtriage (Phenix) : 1.9-1692  
EDS : trunk28620  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc28972

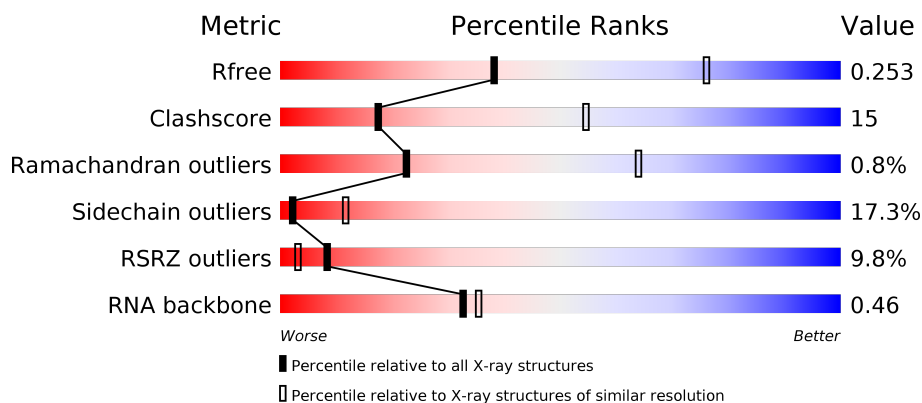
# 1 Overall quality at a glance

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))
$R_{free}$	100719	1692 (3.00-3.00)
Clashscore	112137	2037 (3.00-3.00)
Ramachandran outliers	110173	1973 (3.00-3.00)
Sidechain outliers	110143	1976 (3.00-3.00)
RSRZ outliers	101464	1716 (3.00-3.00)
RNA backbone	2435	1007 (3.34-2.66)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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  $\leq 5\%$ . 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	
1	CA	1522	
2	AB	256	
2	CB	256	

*Continued on next page...*

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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	
28	DG	182	
29	BH	180	
29	DH	180	
30	BI	148	
30	DI	148	
31	BN	140	
31	DN	140	
32	BO	122	
32	DO	122	
33	BP	150	
33	DP	150	
34	BQ	141	
34	DQ	141	
35	BR	118	
35	DR	118	
36	BS	112	
36	DS	112	
37	BT	146	
37	DT	146	
38	BU	118	
38	DU	118	
39	BV	101	
39	DV	101	
40	BW	113	



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	1604	-	-	-	X
54	MG	AA	1613	-	-	-	X
54	MG	AA	1615	-	-	-	X
54	MG	AA	1621	-	-	-	X
54	MG	AA	1627	-	-	-	X
54	MG	AA	1631	-	-	-	X
54	MG	AA	1640	-	-	-	X
54	MG	AA	1645	-	-	-	X
54	MG	AA	1657	-	-	-	X
54	MG	AA	1659	-	-	-	X
54	MG	AA	1660	-	-	-	X
54	MG	B3	101	-	-	-	X
54	MG	BA	3001	-	-	-	X
54	MG	BA	3003	-	-	-	X
54	MG	BA	3021	-	-	-	X
54	MG	BA	3031	-	-	-	X
54	MG	BA	3033	-	-	-	X
54	MG	BA	3034	-	-	-	X
54	MG	BA	3037	-	-	-	X
54	MG	BA	3039	-	-	-	X
54	MG	BA	3046	-	-	-	X
54	MG	BA	3047	-	-	-	X
54	MG	BA	3053	-	-	-	X
54	MG	BA	3071	-	-	-	X
54	MG	BA	3074	-	-	-	X
54	MG	BA	3078	-	-	-	X
54	MG	BA	3080	-	-	-	X
54	MG	BA	3108	-	-	-	X
54	MG	BA	3109	-	-	-	X
54	MG	BA	3113	-	-	-	X
54	MG	BA	3117	-	-	-	X
54	MG	BA	3119	-	-	-	X
54	MG	BA	3127	-	-	-	X

Continued on next page...

*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3129	-	-	-	X
54	MG	BA	3133	-	-	-	X
54	MG	BA	3142	-	-	-	X
54	MG	BA	3160	-	-	-	X
54	MG	BA	3161	-	-	-	X
54	MG	BA	3187	-	-	-	X
54	MG	BA	3189	-	-	-	X
54	MG	BA	3197	-	-	-	X
54	MG	BA	3199	-	-	-	X
54	MG	BA	3219	-	-	-	X
54	MG	BA	3228	-	-	-	X
54	MG	BA	3230	-	-	-	X
54	MG	BA	3234	-	-	-	X
54	MG	BA	3236	-	-	-	X
54	MG	BA	3239	-	-	-	X
54	MG	BA	3244	-	-	-	X
54	MG	BA	3253	-	-	-	X
54	MG	BA	3254	-	-	-	X
54	MG	BA	3302	-	-	-	X
54	MG	BA	3307	-	-	-	X
54	MG	BA	3308	-	-	-	X
54	MG	BA	3311	-	-	-	X
54	MG	BA	3330	-	-	-	X
54	MG	BA	3333	-	-	-	X
54	MG	BA	3368	-	-	-	X
54	MG	BA	3387	-	-	-	X
54	MG	BA	3396	-	-	-	X
54	MG	BA	3408	-	-	-	X
54	MG	BA	3423	-	-	-	X
54	MG	BA	3424	-	-	-	X
54	MG	BA	3426	-	-	-	X
54	MG	BA	3427	-	-	-	X
54	MG	BA	3434	-	-	-	X
54	MG	BA	3435	-	-	-	X
54	MG	BA	3441	-	-	-	X
54	MG	BA	3448	-	-	-	X
54	MG	BA	3455	-	-	-	X
54	MG	BA	3461	-	-	-	X
54	MG	BA	3473	-	-	-	X
54	MG	BA	3475	-	-	-	X
54	MG	BA	3489	-	-	-	X
54	MG	BA	3500	-	-	-	X

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3504	-	-	-	X
54	MG	BA	3512	-	-	-	X
54	MG	BA	3513	-	-	-	X
54	MG	BA	3517	-	-	-	X
54	MG	BA	3519	-	-	-	X
54	MG	BA	3526	-	-	-	X
54	MG	BA	3551	-	-	-	X
54	MG	BA	3557	-	-	-	X
54	MG	BA	3562	-	-	-	X
54	MG	BB	201	-	-	-	X
54	MG	BB	204	-	-	-	X
54	MG	BB	205	-	-	-	X
54	MG	BD	302	-	-	-	X
54	MG	BE	301	-	-	-	X
54	MG	BQ	202	-	-	-	X
54	MG	BR	201	-	-	-	X
54	MG	CA	1601	-	-	-	X
54	MG	CA	1602	-	-	-	X
54	MG	CA	1612	-	-	-	X
54	MG	CA	1613	-	-	-	X
54	MG	CA	1617	-	-	-	X
54	MG	CA	1618	-	-	-	X
54	MG	CA	1623	-	-	-	X
54	MG	CA	1626	-	-	-	X
54	MG	CA	1628	-	-	-	X
54	MG	CA	1631	-	-	-	X
54	MG	CA	1636	-	-	-	X
54	MG	CA	1638	-	-	-	X
54	MG	CA	1655	-	-	-	X
54	MG	DA	3003	-	-	-	X
54	MG	DA	3006	-	-	-	X
54	MG	DA	3011	-	-	-	X
54	MG	DA	3019	-	-	-	X
54	MG	DA	3020	-	-	-	X
54	MG	DA	3027	-	-	-	X
54	MG	DA	3032	-	-	-	X
54	MG	DA	3040	-	-	-	X
54	MG	DA	3044	-	-	-	X
54	MG	DA	3059	-	-	-	X
54	MG	DA	3062	-	-	-	X
54	MG	DA	3070	-	-	-	X
54	MG	DA	3072	-	-	-	X

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3073	-	-	-	X
54	MG	DA	3074	-	-	-	X
54	MG	DA	3079	-	-	-	X
54	MG	DA	3084	-	-	-	X
54	MG	DA	3085	-	-	-	X
54	MG	DA	3086	-	-	-	X
54	MG	DA	3092	-	-	-	X
54	MG	DA	3098	-	-	-	X
54	MG	DA	3099	-	-	-	X
54	MG	DA	3115	-	-	-	X
54	MG	DA	3116	-	-	-	X
54	MG	DA	3118	-	-	-	X
54	MG	DA	3120	-	-	-	X
54	MG	DA	3121	-	-	-	X
54	MG	DA	3124	-	-	-	X
54	MG	DA	3128	-	-	-	X
54	MG	DA	3130	-	-	-	X
54	MG	DA	3133	-	-	-	X
54	MG	DA	3138	-	-	-	X
54	MG	DA	3142	-	-	-	X
54	MG	DA	3144	-	-	-	X
54	MG	DA	3146	-	-	-	X
54	MG	DA	3149	-	-	-	X
54	MG	DA	3168	-	-	-	X
54	MG	DA	3169	-	-	-	X
54	MG	DA	3170	-	-	-	X
54	MG	DA	3177	-	-	-	X
54	MG	DA	3185	-	-	-	X
54	MG	DA	3188	-	-	-	X
54	MG	DA	3202	-	-	-	X
54	MG	DA	3204	-	-	-	X
54	MG	DA	3207	-	-	-	X
54	MG	DA	3208	-	-	-	X
54	MG	DA	3217	-	-	-	X
54	MG	DA	3219	-	-	-	X
54	MG	DA	3233	-	-	-	X
54	MG	DA	3236	-	-	-	X
54	MG	DA	3242	-	-	-	X
54	MG	DA	3247	-	-	-	X
54	MG	DA	3267	-	-	-	X
54	MG	DA	3279	-	-	-	X
54	MG	DA	3280	-	-	-	X

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3290	-	-	-	X
54	MG	DA	3291	-	-	-	X
54	MG	DA	3297	-	-	-	X
54	MG	DA	3303	-	-	-	X
54	MG	DA	3309	-	-	-	X
54	MG	DA	3324	-	-	-	X
54	MG	DA	3340	-	-	-	X
54	MG	DA	3341	-	-	-	X
54	MG	DA	3349	-	-	-	X
54	MG	DA	3354	-	-	-	X
54	MG	DA	3372	-	-	-	X
54	MG	DA	3374	-	-	-	X
54	MG	DA	3385	-	-	-	X
54	MG	DA	3390	-	-	-	X
54	MG	DA	3394	-	-	-	X
54	MG	DA	3395	-	-	-	X
54	MG	DA	3396	-	-	-	X
54	MG	DA	3410	-	-	-	X
54	MG	DB	201	-	-	-	X
54	MG	DF	301	-	-	-	X
54	MG	DP	201	-	-	-	X

## 2 Entry composition

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	C	N	O	0	0	0
			663	410	132	121			

- 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	C	N	O	S	0	0	0
			804	497	164	142	1			
13	CM	114	Total	C	N	O	S	0	0	0
			804	497	164	142	1			

- 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	C	N	O	S	0	0	0
			724	453	143	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			724	453	143	126	2			

- 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	C	N	O	0	0	0
			199	122	48	29			
21	CU	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 22 is a protein called Ribosome modulation factor.

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

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	C	N	O	P	0	0	0
			60512	26930	11328	19446	2808			
23	DA	2814	Total	C	N	O	P	0	0	0
			60620	26978	11348	19481	2813			

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

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

*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	BA	618	Total	Mg	0	0
			618	618		
54	CA	69	Total	Mg	0	0
			69	69		
54	DF	2	Total	Mg	0	0
			2	2		
54	B8	3	Total	Mg	0	0
			3	3		
54	BE	6	Total	Mg	0	0
			6	6		
54	B1	1	Total	Mg	0	0
			1	1		
54	BP	1	Total	Mg	0	0
			1	1		
54	D6	1	Total	Mg	0	0
			1	1		
54	B5	2	Total	Mg	0	0
			2	2		

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	BB	17	Total 17	Mg 17	0	0
54	D8	1	Total 1	Mg 1	0	0
54	B9	1	Total 1	Mg 1	0	0
54	BF	2	Total 2	Mg 2	0	0
54	B2	2	Total 2	Mg 2	0	0
54	AA	106	Total 106	Mg 106	0	0
54	BQ	3	Total 3	Mg 3	0	0
54	D7	1	Total 1	Mg 1	0	0
54	BU	2	Total 2	Mg 2	0	0
54	AD	1	Total 1	Mg 1	0	0
54	DD	1	Total 1	Mg 1	0	0
54	B3	2	Total 2	Mg 2	0	0
54	BR	2	Total 2	Mg 2	0	0
54	DA	430	Total 430	Mg 430	0	0
54	BV	1	Total 1	Mg 1	0	0
54	DE	1	Total 1	Mg 1	0	0
54	DP	1	Total 1	Mg 1	0	0
54	BD	3	Total 3	Mg 3	0	0
54	B0	2	Total 2	Mg 2	0	0
54	BW	1	Total 1	Mg 1	0	0
54	DB	5	Total 5	Mg 5	0	0

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

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

- Molecule 56 is water.

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

*Continued on next page...*



*Continued from previous page...*

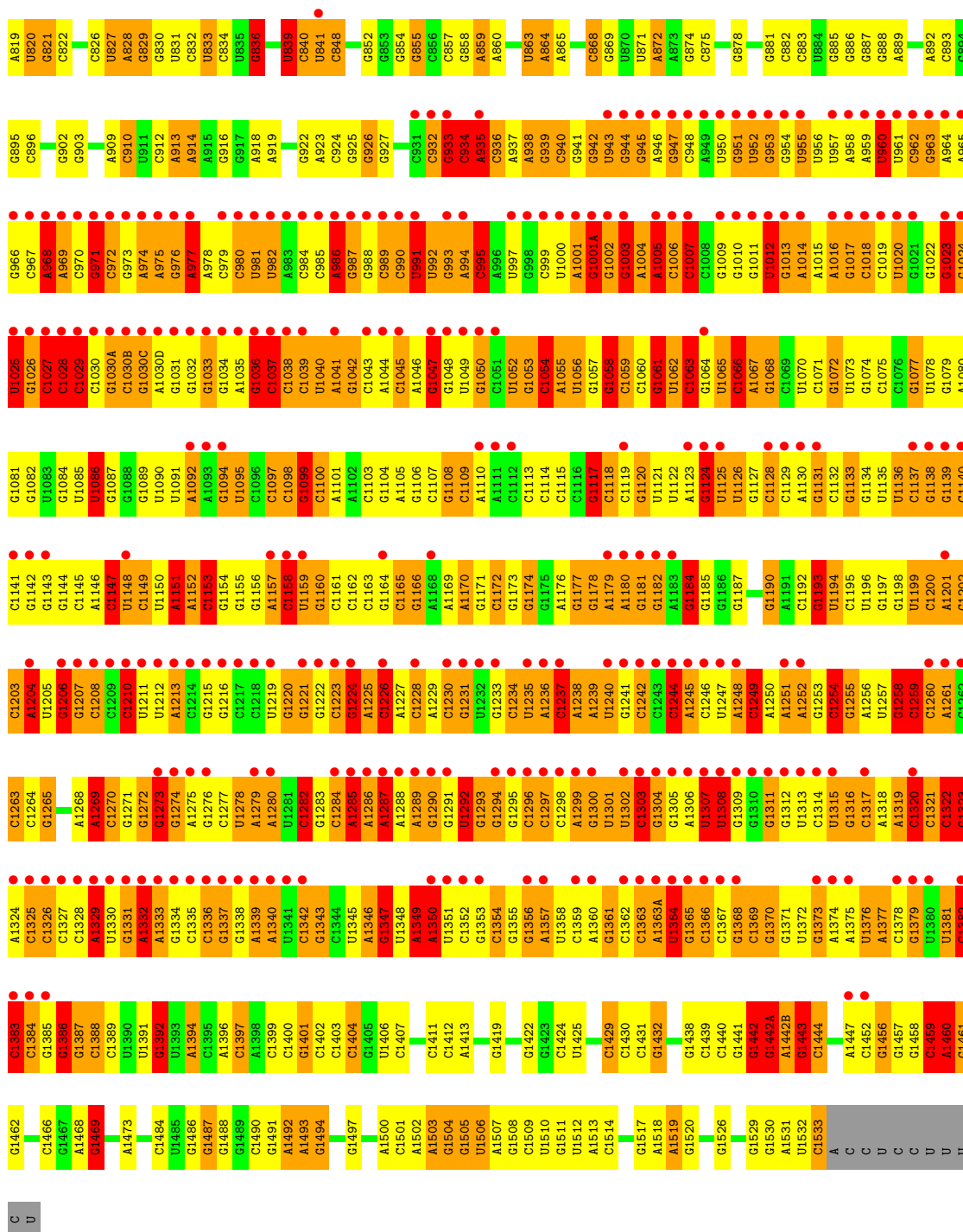
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BB	31	Total 31	O 31	0	0
56	BD	10	Total 10	O 10	0	0
56	BE	8	Total 8	O 8	0	0
56	BF	11	Total 11	O 11	0	0
56	BH	2	Total 2	O 2	0	0
56	BN	2	Total 2	O 2	0	0
56	BO	3	Total 3	O 3	0	0
56	BP	6	Total 6	O 6	0	0
56	BQ	2	Total 2	O 2	0	0
56	BR	6	Total 6	O 6	0	0
56	BT	1	Total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

*Continued on next page...*

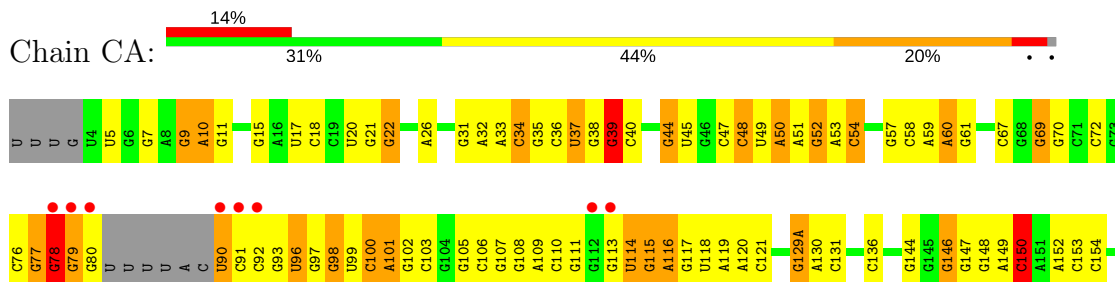
*Continued from previous page...*

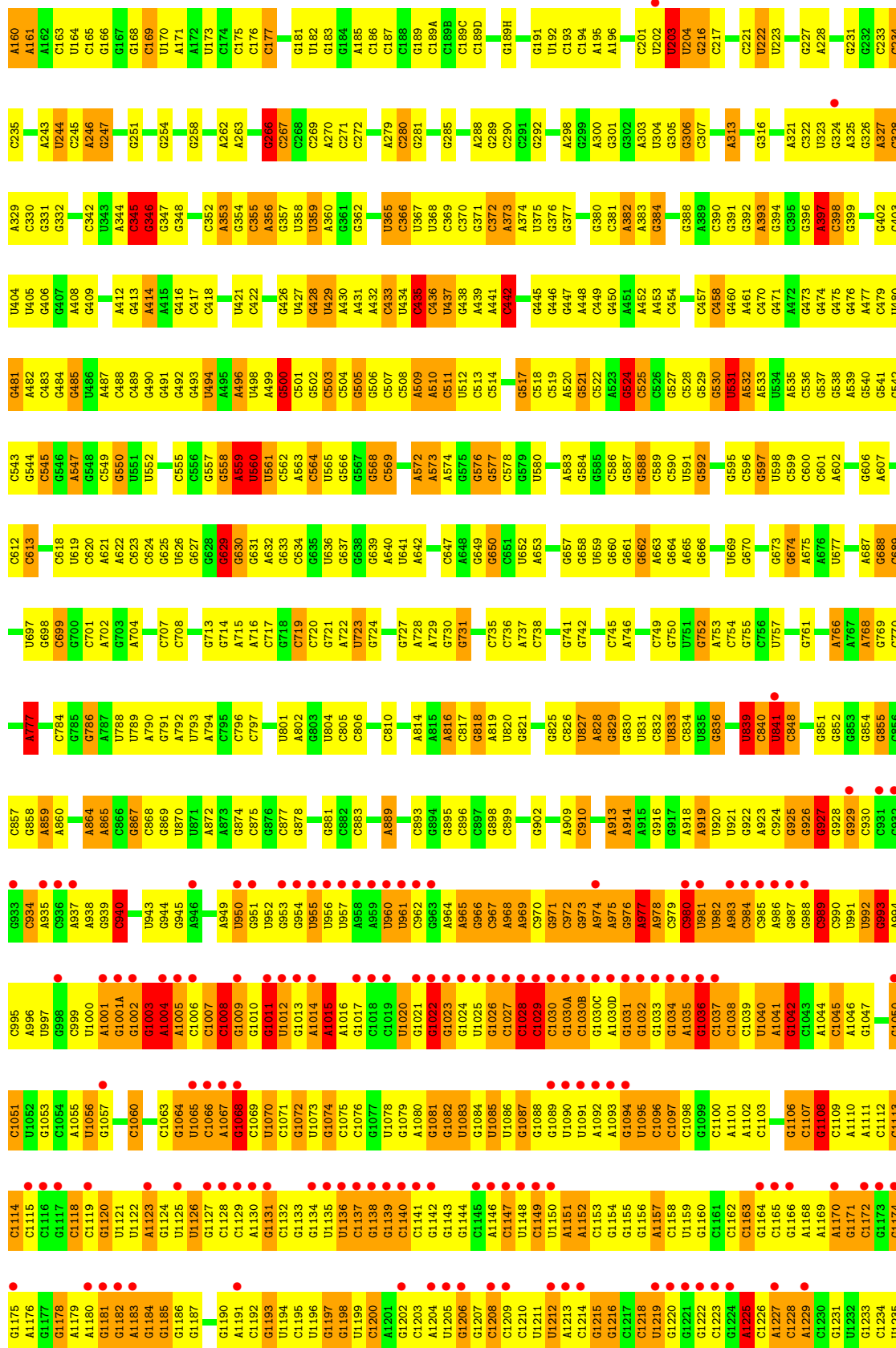
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B8	7	Total 7	O 7	0	0
56	B9	2	Total 2	O 2	0	0
56	CA	119	Total 119	O 119	0	0
56	CD	1	Total 1	O 1	0	0
56	CK	2	Total 2	O 2	0	0
56	CP	1	Total 1	O 1	0	0
56	CT	2	Total 2	O 2	0	0
56	DA	696	Total 696	O 696	0	0
56	DB	9	Total 9	O 9	0	0
56	DD	3	Total 3	O 3	0	0
56	DE	2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

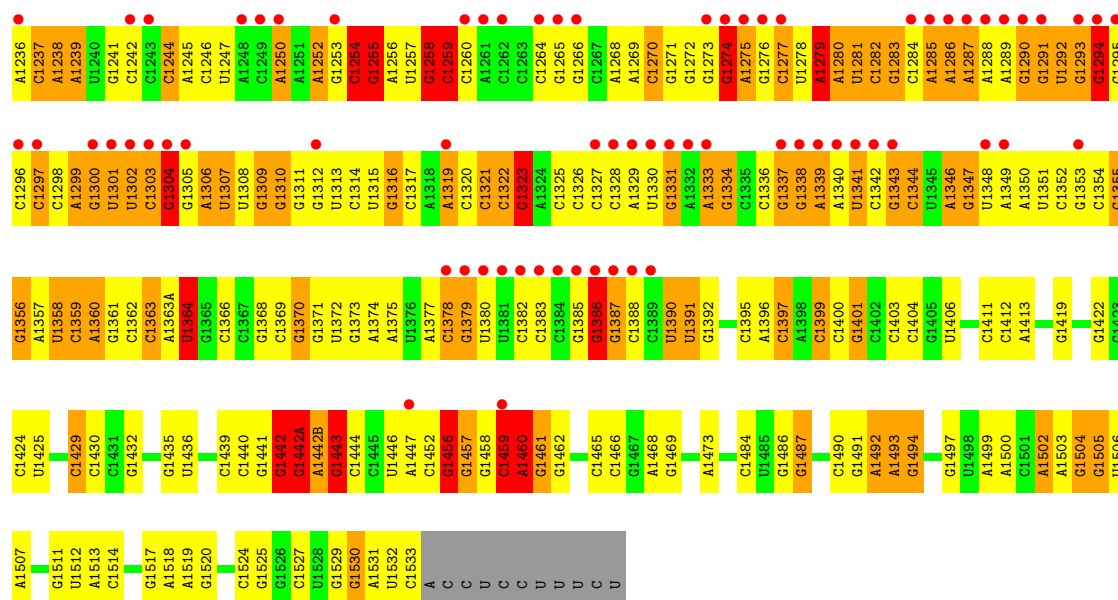




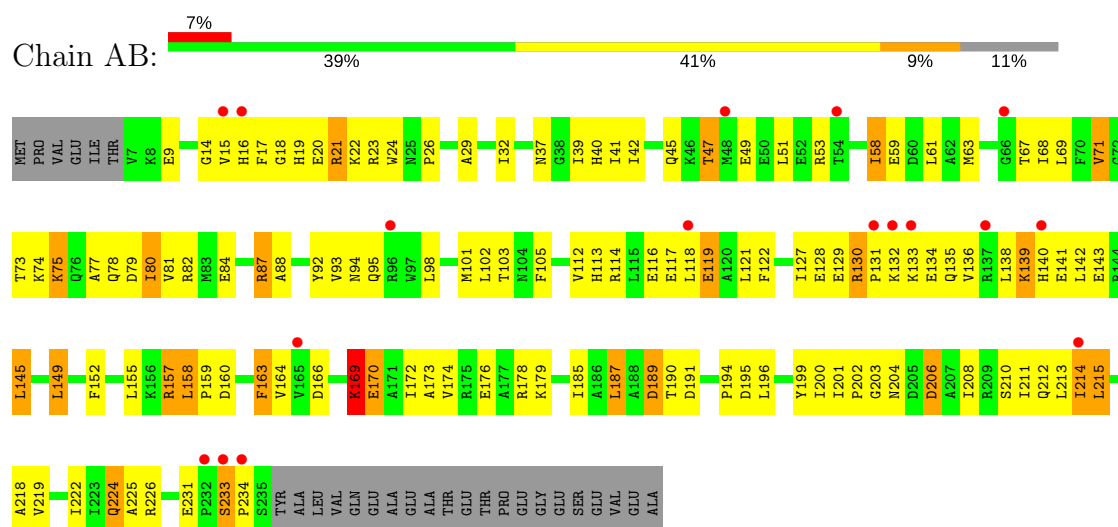
- Molecule 1: 16S Ribosomal RNA



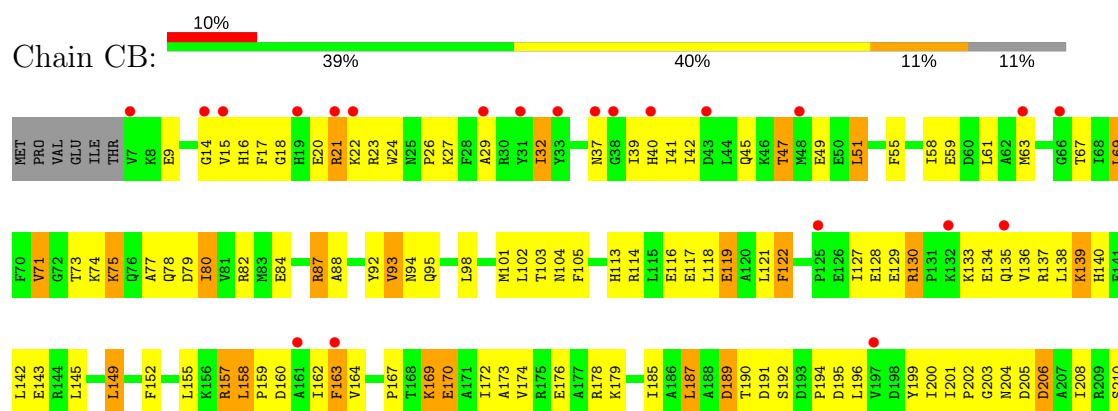


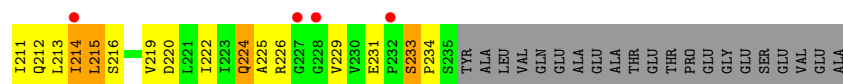


• Molecule 2: 30S Ribosomal Protein S2

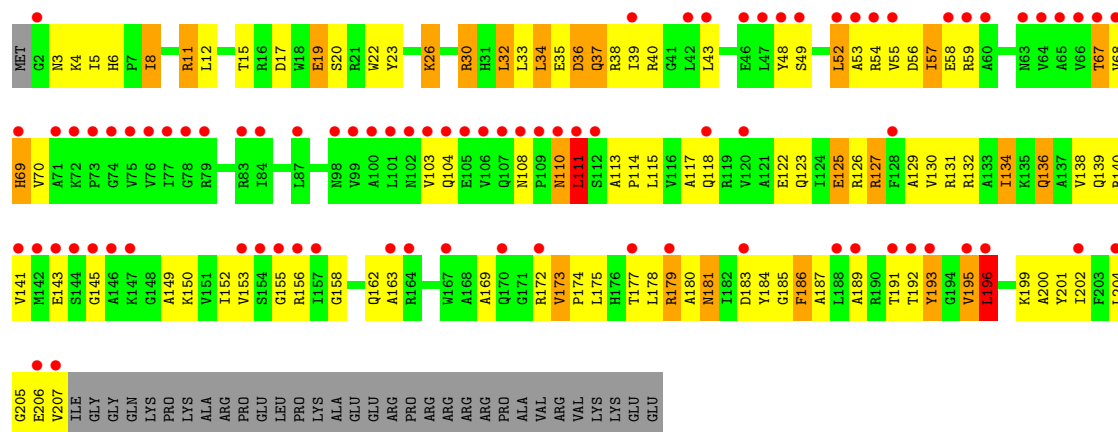
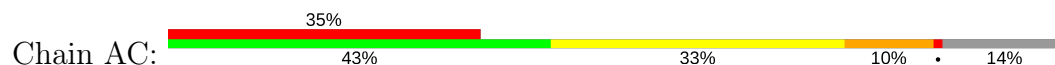


• Molecule 2: 30S Ribosomal Protein S2

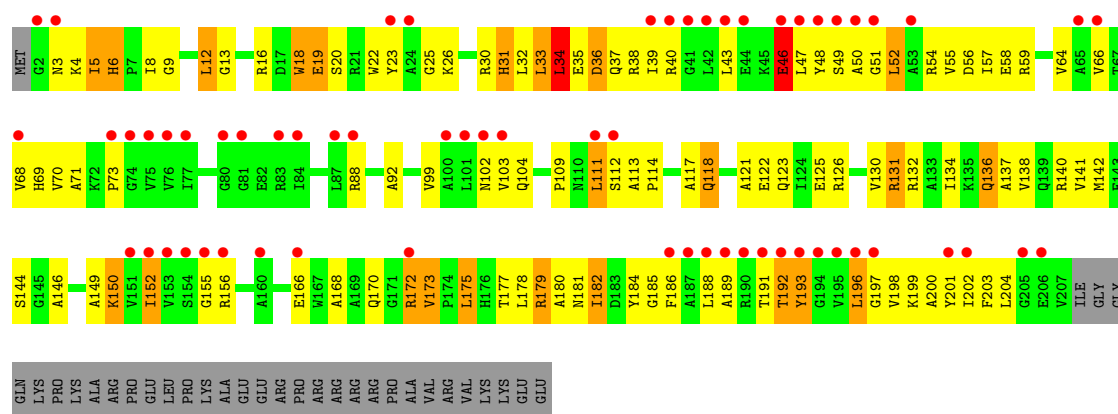
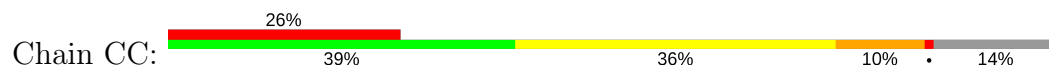




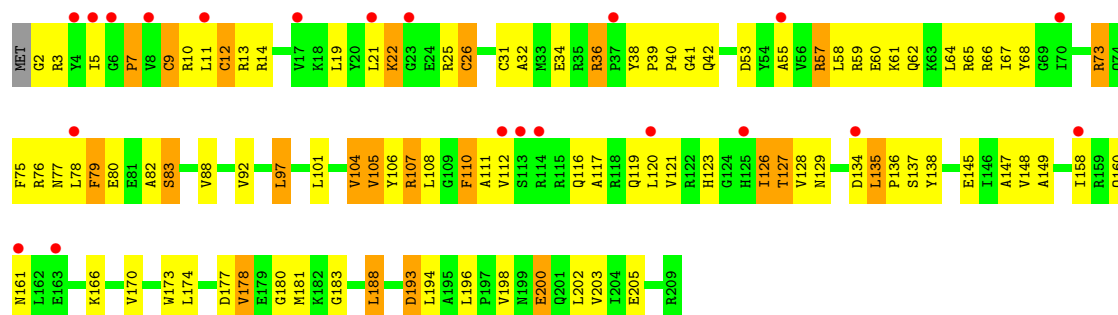
• Molecule 3: 30S Ribosomal Protein S3



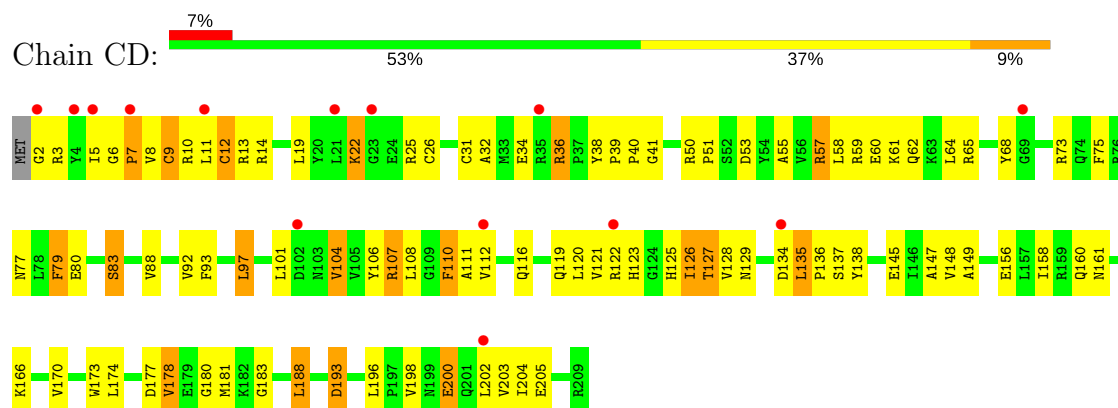
• Molecule 3: 30S Ribosomal Protein S3



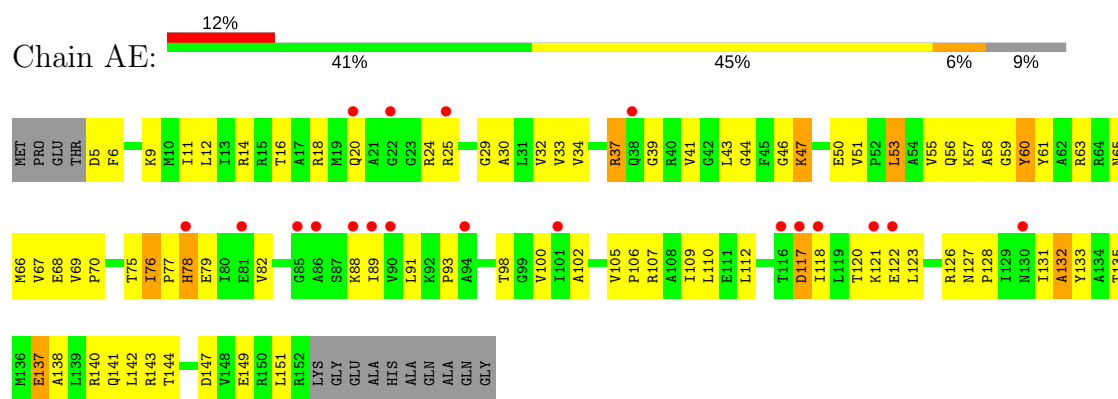
• Molecule 4: 30S Ribosomal Protein S4



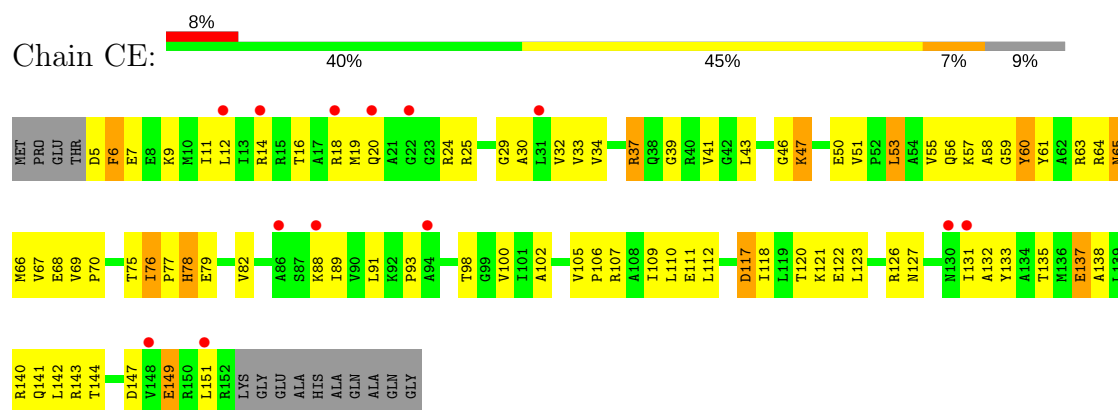
- Molecule 4: 30S Ribosomal Protein S4



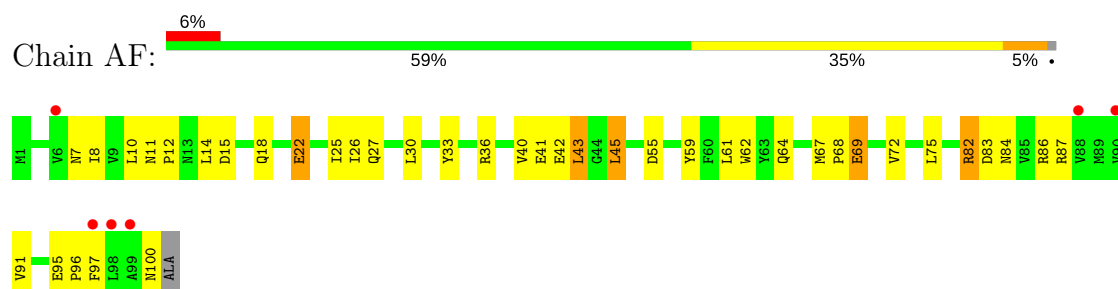
- Molecule 5: 30S Ribosomal Protein S5



- Molecule 5: 30S Ribosomal Protein S5

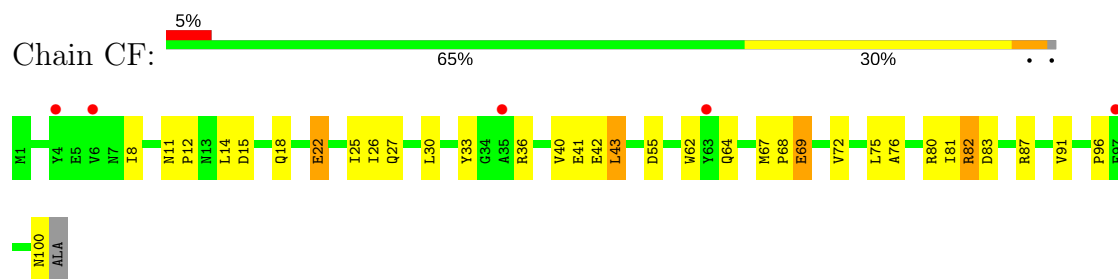


- Molecule 6: 30S Ribosomal Protein S6

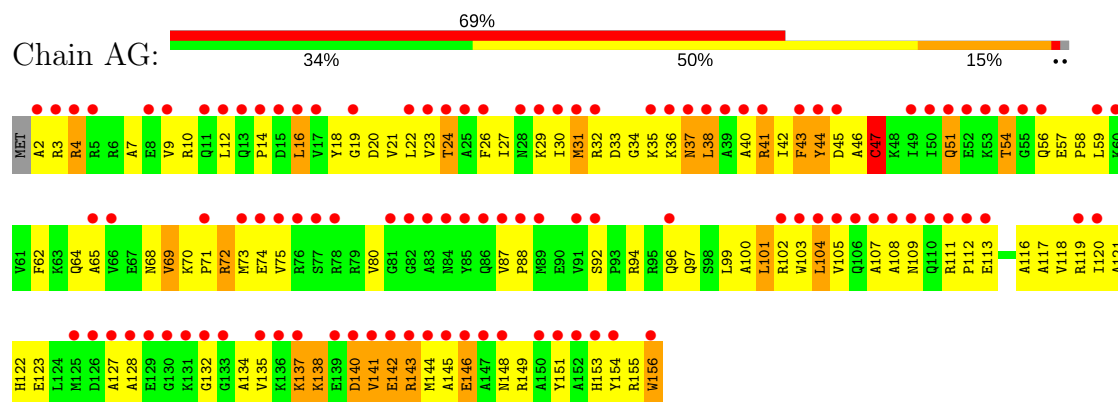




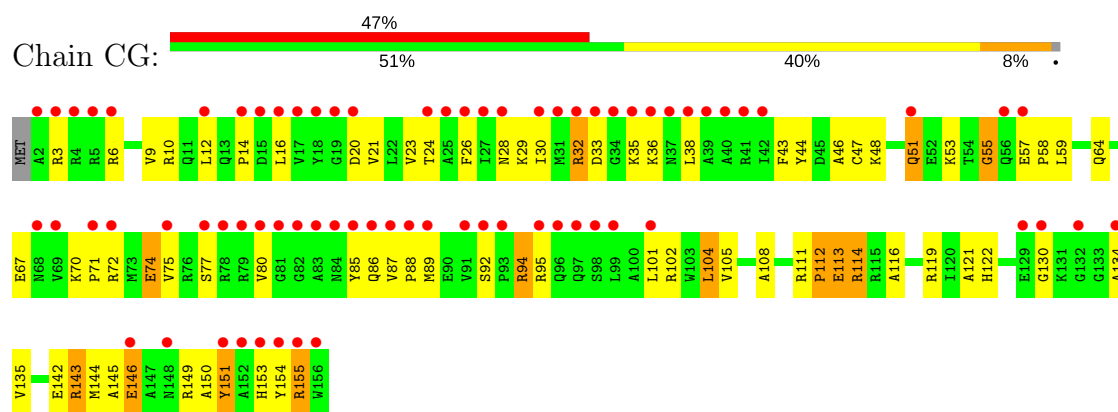
- Molecule 6: 30S Ribosomal Protein S6



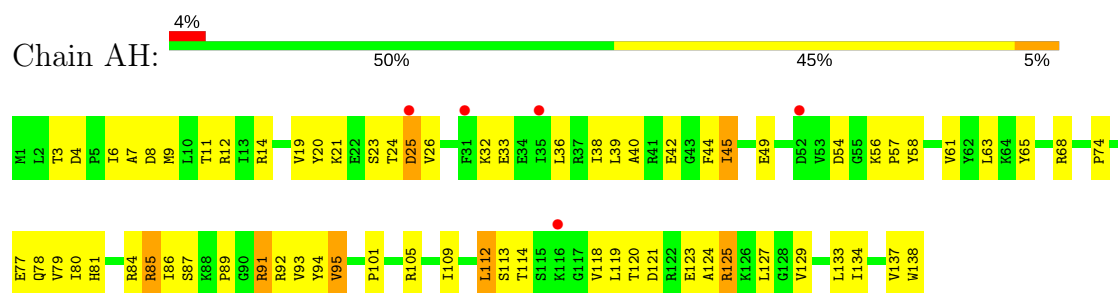
- Molecule 7: 30S Ribosomal Protein S7



- Molecule 7: 30S Ribosomal Protein S7

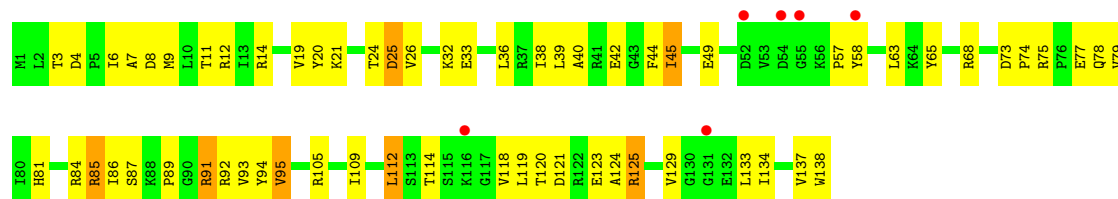


- Molecule 8: 30S Ribosomal Protein S8

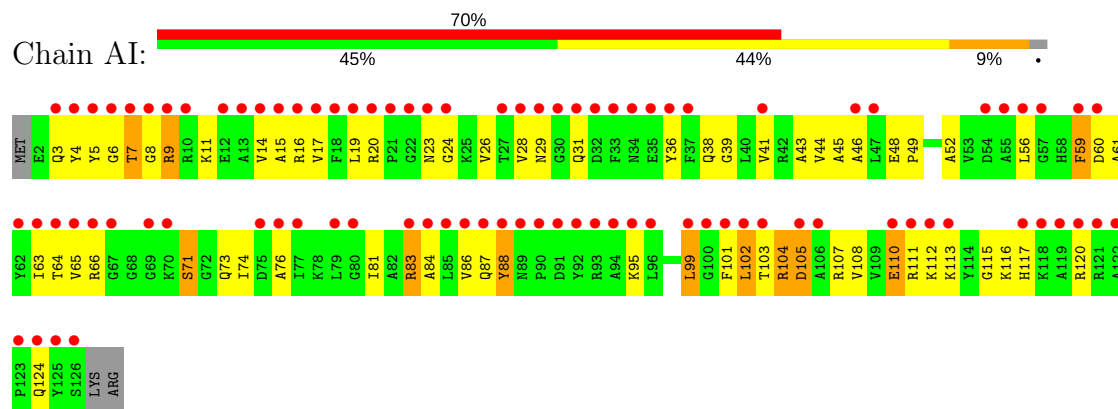


- Molecule 8: 30S Ribosomal Protein S8

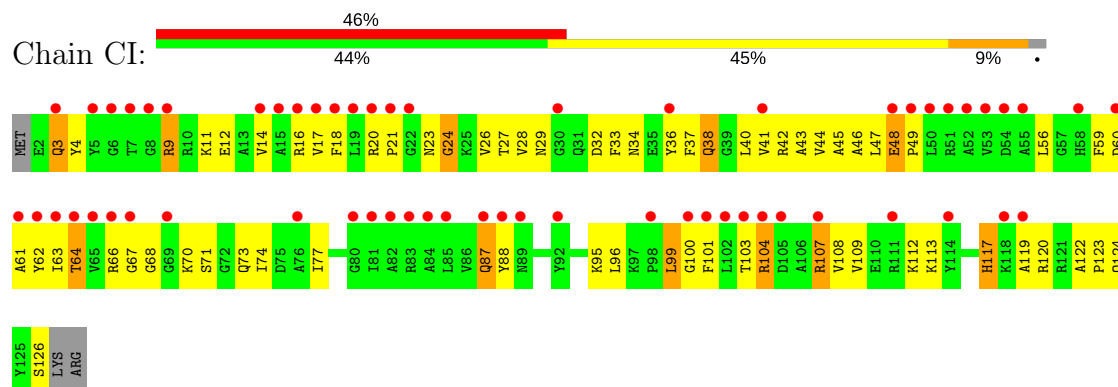




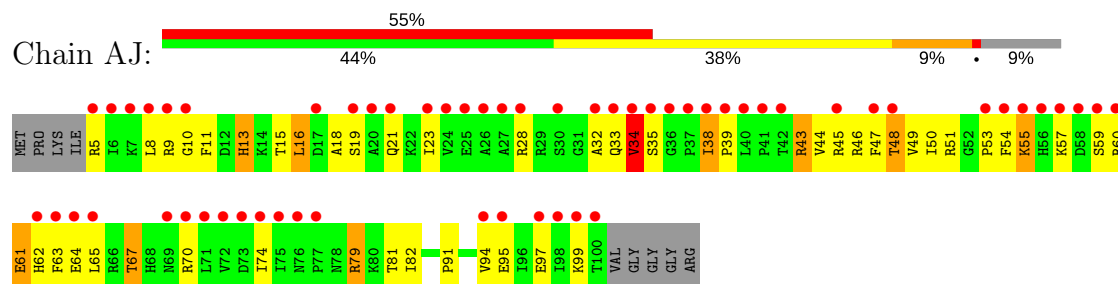
• Molecule 9: 30S Ribosomal Protein S9



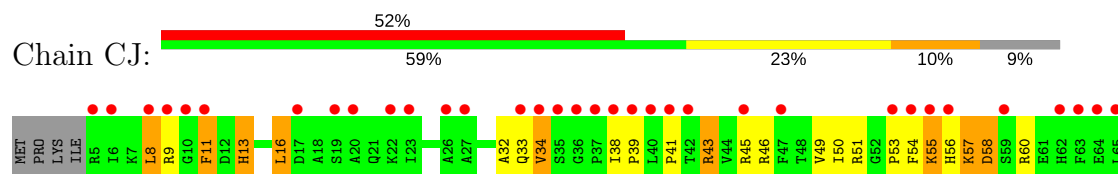
• Molecule 9: 30S Ribosomal Protein S9



• Molecule 10: 30S Ribosomal Protein S10



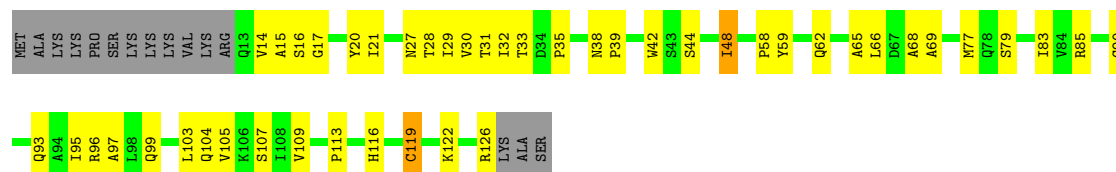
• Molecule 10: 30S Ribosomal Protein S10





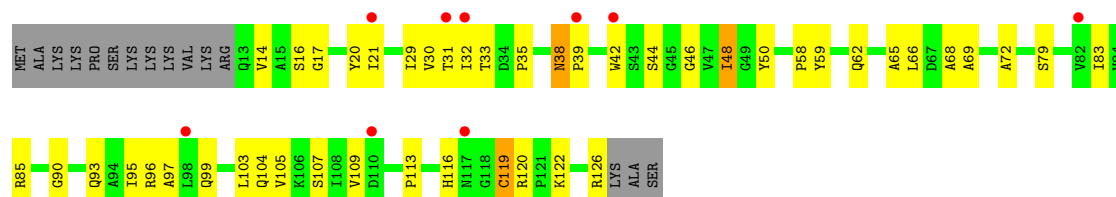
• Molecule 11: 30S Ribosomal Protein S11

Chain AK: 53% 34% 12%



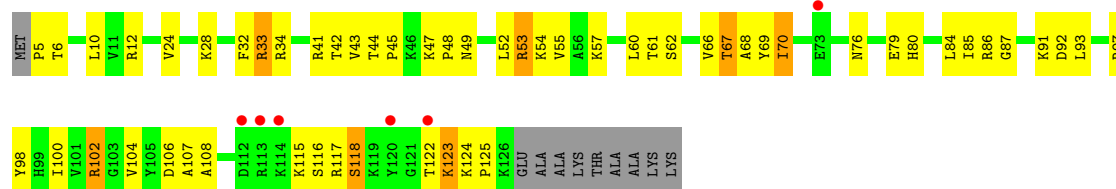
• Molecule 11: 30S Ribosomal Protein S11

Chain CK: 7% 53% 33% 12%



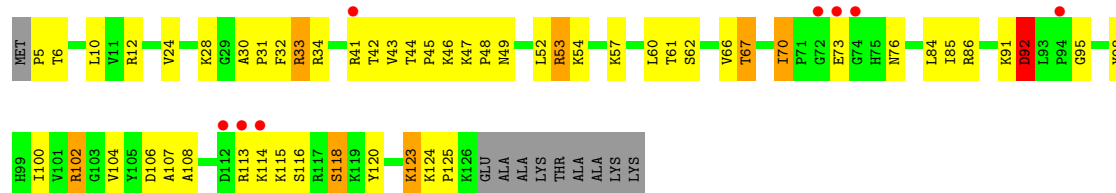
• Molecule 12: 30S Ribosomal Protein S12

Chain AL: 5% 50% 37% 5% 8%



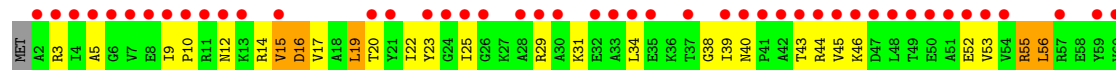
• Molecule 12: 30S Ribosomal Protein S12

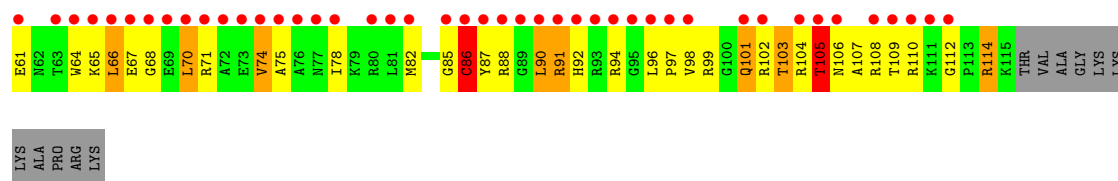
Chain CL: 6% 52% 35% 5% 8%



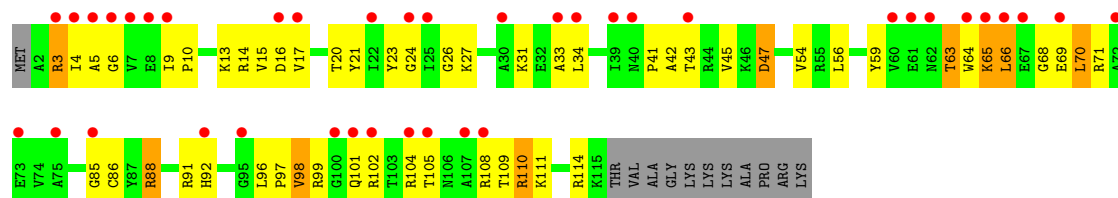
• Molecule 13: 30S Ribosomal Protein S13

Chain AM: 71% 40% 39% 10% 10%

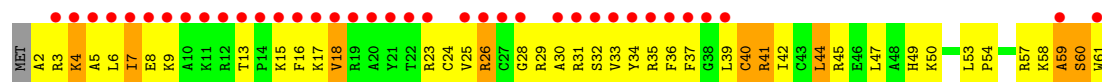




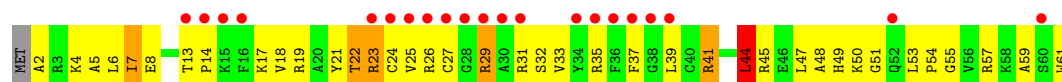
• Molecule 13: 30S Ribosomal Protein S13



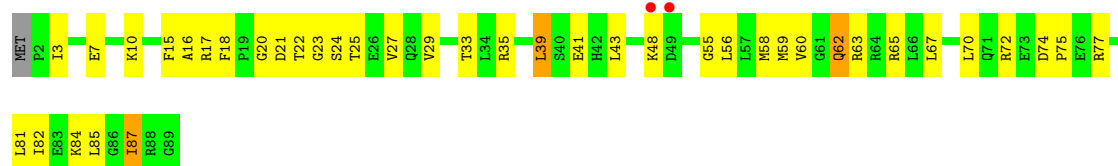
• Molecule 14: 30S Ribosomal Protein S14



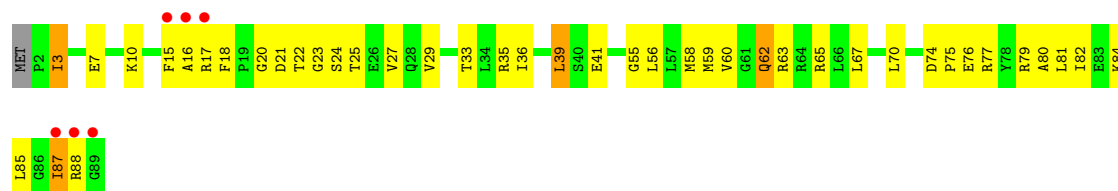
• Molecule 14: 30S Ribosomal Protein S14



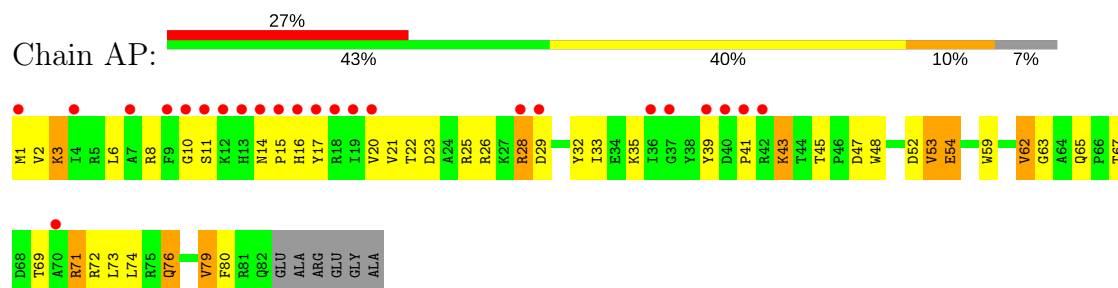
• Molecule 15: 30S Ribosomal Protein S15



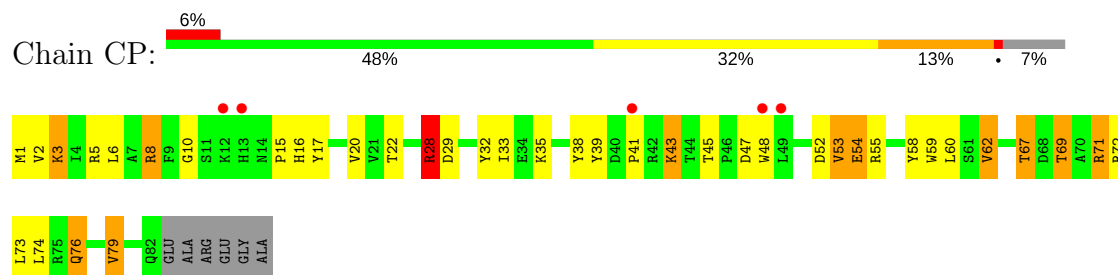
• Molecule 15: 30S Ribosomal Protein S15



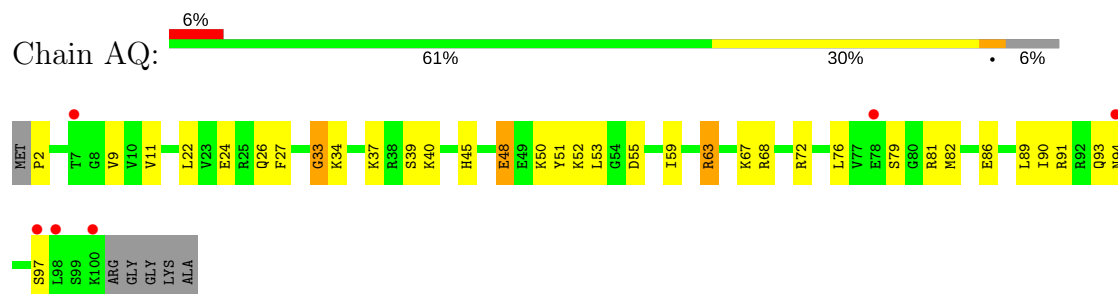
- Molecule 16: 30S Ribosomal Protein S16



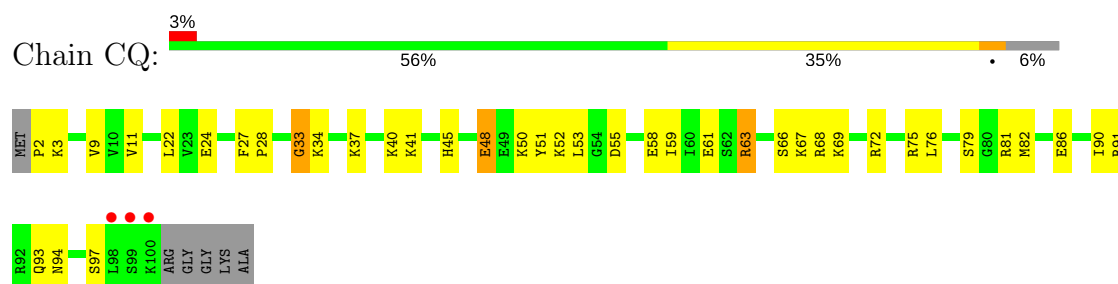
- Molecule 16: 30S Ribosomal Protein S16



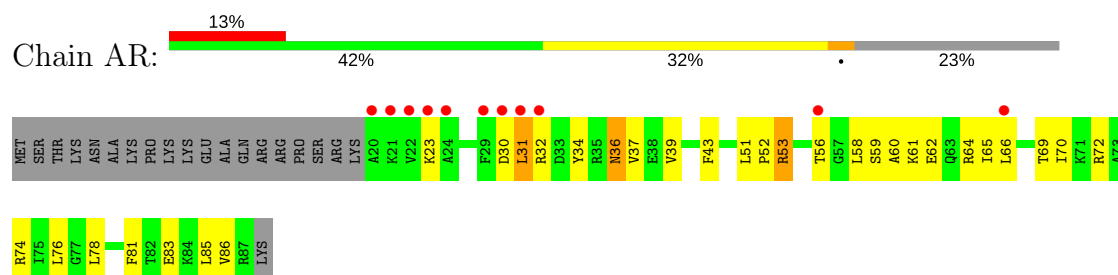
- Molecule 17: 30S Ribosomal Protein S17



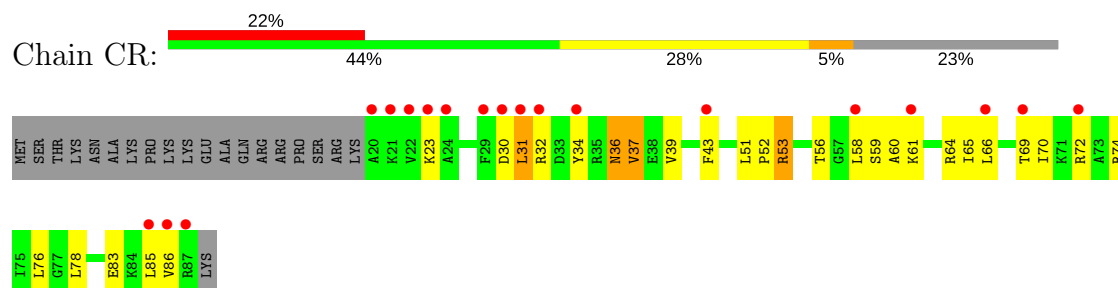
- Molecule 17: 30S Ribosomal Protein S17



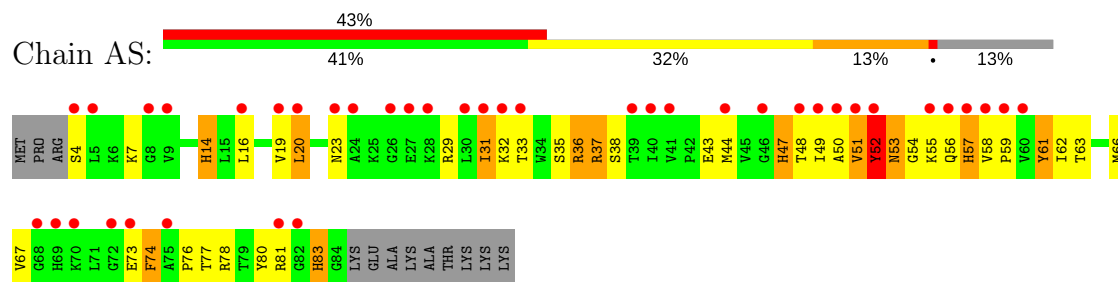
- Molecule 18: 30S Ribosomal Protein S18



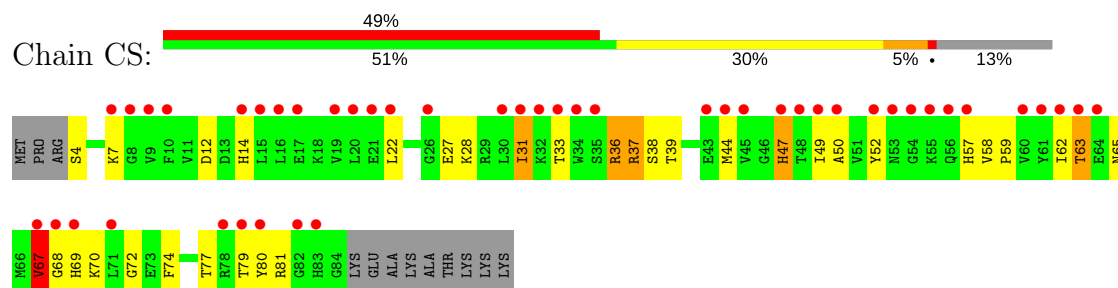
- Molecule 18: 30S Ribosomal Protein S18



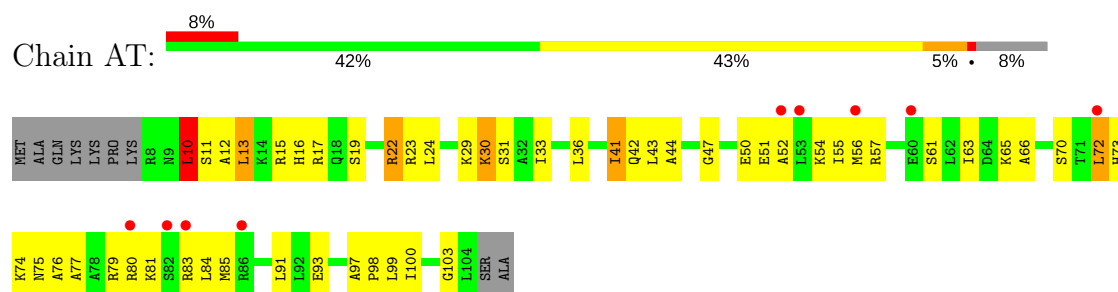
- Molecule 19: 30S Ribosomal Protein S19



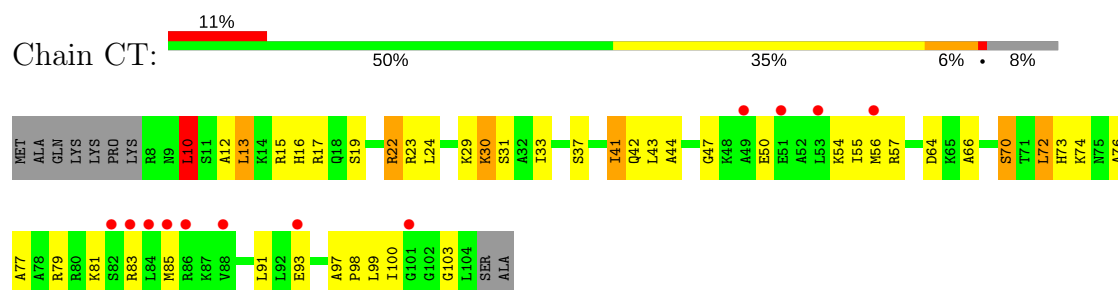
- Molecule 19: 30S Ribosomal Protein S19



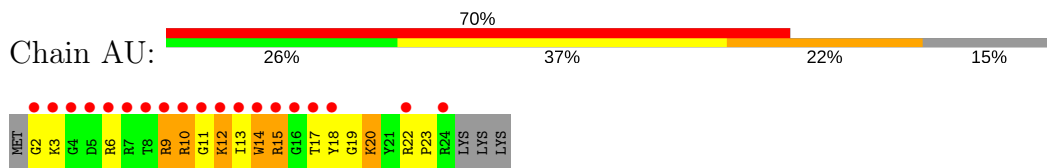
- Molecule 20: 30S Ribosomal Protein S20



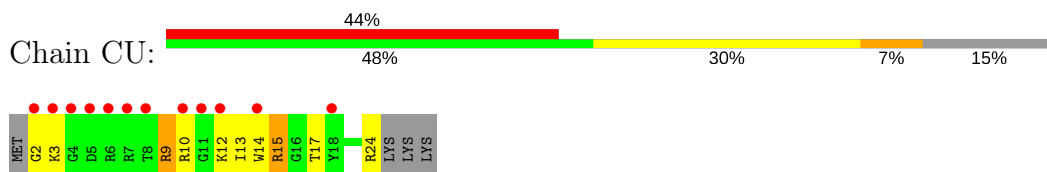
- Molecule 20: 30S Ribosomal Protein S20



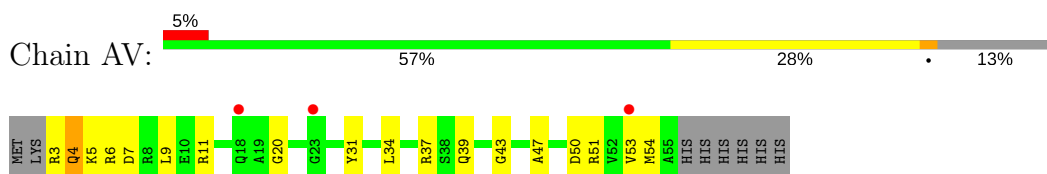
● Molecule 21: 30S Ribosomal Protein THX



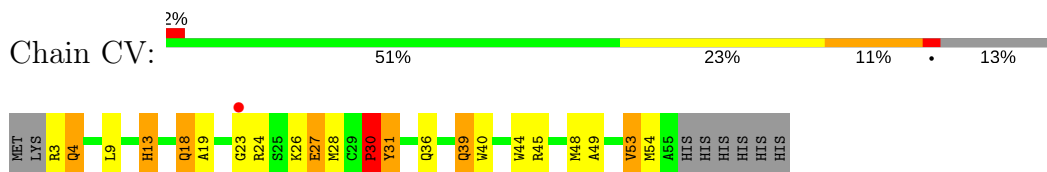
- Molecule 21: 30S Ribosomal Protein THX



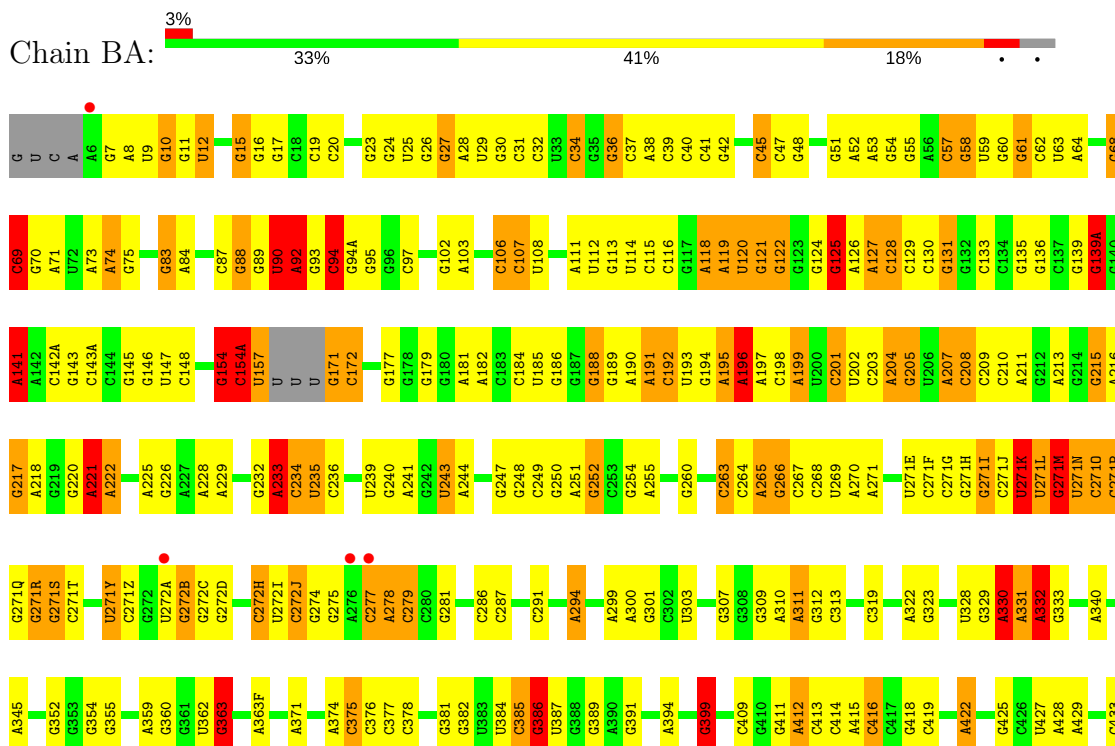
- Molecule 22: Ribosome modulation factor



- Molecule 22: Ribosome modulation factor



- Molecule 23: 23S Ribosomal RNA







A2542	G1527	C1765	G1831	C1934	U2011	A2071	U2132	C2193	G2270	A2333	U2406	G2473	A2542
G2543	A1528	G1769	C1832	G1935	G2012	G2072	G2133	G2194	G2271	G2334	G2407	C2474	G2543
G2544	A1528A	G1769	C1833	A1936	A2013	G2073	A2134	C2195	G2272	A2335	U2408	C2475	G2544
G2545	G1529	C1770	U1834	A1937	A2014	G2074	G2135	C2196	A2273	A2336	U2409	G2476	G2545
G2546	C1530	G1771	G1835	A1938	A2015	U2075	G2136	U2197	A2274	G2337	G2410	C2477	G2546
G2547	C1531	C1772	C1836	U1939	U2016	U2076	C2137	A2198	G2275	G2338	A2411	C2478	G2547
G2548	C1532	A1773	G1839	G1945	U2017	A2077	C2138	A2199	G2280	G2341	U2412	A2478	G2548
G2549	G	C1774	U1840	U1946	U2018	G2078	G2139	C2200	G2281	G2342	G2413	G2479	G2549
G2550	U	A1676	C1844	C1947	A2019	U2079	G2140	U2203	G2282	G2343	G2414	C2480	G2550
G2551	C	A1677	G1776	C1947	A2020	G2080	G2141	U2205	G2283	U2344	G2415	G2481	G2551
U2552		G1681	U1777		C2021	G2081	G2142	C2203	G2284	G2345	G2416	G2482	U2552
U2553		U1778	A1847	U1951	U2022	A2082	C2143	G2206	G2285	A2346	U2419	G2483	U2553
U2554		A1609	A1848	A1952	G2023	G2083	G2144	G2207	G2286	G2347	U2420	G2484	U2554
G2557	G1537	C1685	U1779	A1953	G2024	C2084	G2145	A2208	A2287	C2348	U2421	G2485	G2557
G2558	G1538	C1686	A1848	A1954	G2025	C2085	G2146	U2218	A2288	G2349	A2422	G2486	G2558
G2559	G1539	G1687	U1780	U1955	C2026	G2088	G2147	G2219	A2289	G2350	U2423	G2487	G2559
G2560	G1540	U1688	C1781	U1956	U2027	U2089	G2148	G2220	G2290	G2351	U2424	G2488	G2560
U2562	A1541	A1614	C1782	U1957	G2028	G2090	G2149	G2221	U2291	G2352	A2425	U2489	U2562
U2563	A1542	A1616	C1783	U1958	U2029	G2091	U2150	G2222	U2292	A2353	A2426	U2490	U2563
A2564	A1543	A1617	A1784	C1958	G2030	U2092	G2151	A2225	C2293	G2354	U2427	U2491	A2564
A2565	A1544	U1692	U1785	U1959	A2031	G2093	G2152	C2226	C2294	U2357	G2428	U2492	A2565
A2566	A1545	U1693	A1786	G1964	A2032	G2094	G2153	A2227	C2295	U2358	U2429	U2493	A2566
G2567	A1546	G1696	A1787	U1966	A2033	U2095	G2154	A2228	C2296	U2359	U2430	U2494	G2567
G2568	C1547	U1697	A1788	U1967	A2034	C2096	G2155	G2229	U2297	G2360	A2431	U2495	G2568
G2569	C1548	G1623	C1790	G1968	G2035	U2096	G2156	C2229	C2297	G2361	U2432	U2496	G2569
G2570	A1554	G1624	A1791	U1969	G2036	G2097	G2157	C2230	A2298	G2362	U2433	U2497	G2570
G2571	G1555	G1625	G1792	U1970	G2037	U2098	A2158	U2232	G2299	G2363	U2434	U2498	G2571
G2572	C1556	C1626	C1793	U1971	G2038	U2099	G2159	U2233	G2300	G2364	A2435	U2499	G2572
G2573	C1557	U1621	U1794	A1885	A2039	G2100	G2160	U2234	C2301	G2365	U2436	U2500	G2573
G2574	A1558	G1627	C1795	C1886	C2040	G2101	G2161	G2235	G2302	G2366	U2437	U2501	G2574
G2575	G1559	G1628	U1796	U1972	U2041	U2102	G2162	G2236	G2303	G2367	U2438	U2502	G2575
G2576	A1562	G1630	C1797	U1973	A2042	G2103	G2163	G2237	G2304	G2368	U2439	U2503	G2576
G2577	G1563	A1632	U1798	U1974	G2043	G2104	G2164	G2238	A2305	G2369	A2440	U2504	G2577
G2578	A1566	G1633	U1799	U1975	C2044	G2105	G2165	G2239	G2306	G2370	C2441	U2505	G2578
G2579	G1567	C1636	C1801	G1889	G2045	G2106	G2166	C2240	G2307	G2371	C2442	U2506	G2579
G2580	A1568	C1711	A1802	A1900	G2046	G2107	U2167	U2243	G2308	G2372	U2443	U2507	G2580
G2581	G1569	C1712	A1803	G1904	U2047	G2108	G2168	U2244	A2309	G2373	U2444	U2508	G2581
G2582	A1570	U1720	C1804	U1905	G2048	U2109	A2169	U2245	A2310	G2374	U2445	U2509	G2582
A1571	G1721	U1722	U1805	C1906	G2049	G2110	A2170	U2246	A2311	G2375	G2446	U2510	G2583
A1572	A1641	U1739	A1809	G1906	A2051	G2111	A2171	G2247	U2312	A2377	G2447	U2511	G2584
C1574	G1642	U1740	A1810	U1911	G2052	G2112	U2172	A2248	C2313	A2378	U2448	U2512	G2585
C1575	G1647	G1740	A1811	A1912	G2053	U2113	A2173	G2249	C2314	G2379	U2449	U2513	G2586
U1576	C1648	C1745A	G1814	A1913	A2054	A2114	C2174	U2249	G2315	G2381	A2450	U2514	G2587
U1577	C1648	G1746	U1815	G1914	C2055	G2115	C2175	G2250	G2316	G2382	A2451	U2515	G2588
U1578	A1652	G1746	A1815	U1917	G2056	G2116	A2176	G2251	G2317	G2383	C2452	U2516	A2589
A1579	G1653	C1751	G1816	A1918	A2057	A2117	C2177	G2252	G2318	G2384	C2453	U2517	A2590
A1580	A1654	C1751	U1817	U1918	A2058	U2118	C2178	G2253	G2319	G2385	U2454	U2518	A2591
G1581	C1655	G1752	U1818	G1998	G2059	A2119	C2179	G2254	A2320	G2386	G2455	U2519	G2592
C1582	C1656	A1755	U1819	C1922	A2060	G2120	U2180	G2255	G2321	U2387	C2456	U2520	G2593
C1583	C1657	C1753	U1820	U1923	G2061	G2121	G2181	G2256	A2322	A2388	U2459	G2521	G2594
C1584	C1658	A1755	A1824	G1925	A2062	G2122	G2182	C2258	G2323	G2389	U2460	G2522	G2595
A1586	U1659	U1759	G1824	U1926	C2063	G2123	C2185	G2259	G2324	U2390	U2461	G2523	U2596
A1587	C1660	G1661	U1825	A1927	G2064	G2124	C2186	C2260	G2325	A2393	U2462	G2524	U2597
C1589	A1760	G1661	A1826	A1928	C2065	G2125	G2187	C2261	G2326	C2394	C2463	G2525	G2598
C1592	C1761	A1664	G1827	G1929	C2066	A2126	G2188	U2262	A2327	G2395	U2464	G2526	G2599
G1593	A1762	A1829	C1827	U1930	C2067	G2127	U2189	C2263	G2328	G2396	C2465	G2527	A2600
G1594	A1664	G1763	G1828	U1931	U2068	G2128	G2190	A2267	G2329	U2397	C2466	G2528	A2601
					G2069	C2129	G2191	A2268	G2330	C2403	C2467	G2529	A2602
					G2070	U2130	G2192	A2269	U2332	C2404	C2468	G2530	G2603
						G2131	G2192			G2405	A2469	G2531	G2604
												G2532	
												G2533	
												G2534	
												G2535	
												G2536	
												G2537	
												G2538	
												G2539	
												G2540	
												G2541	

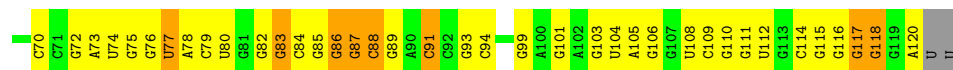
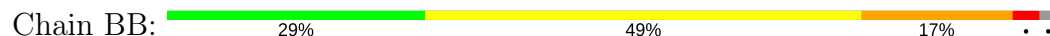


C1657	A1580	A1509A	G1358	C1289	C1208	C1124	G1003	G932	A861	G798	G729	G652T
C1658	A1509B	A1434	A1359	U1293	G1209	G1125	C1004	A833	G862	G799	C730	G652U
U1659	G1435	G1436	G1364	U1292	A1210	A1126	C1007	C935	A863	A800	G733	G652V
G1660	C1583	C1437	U1294	U1291	U1211	A1127	A1008	C936	G864	G801	A734	A653
A1586	A1514	G1441	A1365	U1295	G1212	A1128	A1009	C937	C865	A802	A735	A654
A1587	G1515	G1442	A1366	U1296	A1213	A1129	A1010	G938	A866	I803	C737	A655
C1588	G1518	G1443	A1367	C1297	A1214	U1130	G1011	G939	G867	A804	G738	G656
C1592	U1518	A1445	G1368	C1298	C1218	C1135	G1012	G940	U868	C805	G741	G657
G1593	G1519	A1445A	C1370	U1299	G1219	G1137	C1013	A941	G869	U807	G742	G658
G1594	G1520	C1445A	U1300	U1301	C1222	G1138	G1014	A945	G879	G808	G743	G662
A1597	U1523	G1524	U1302	A1302	G1223	G1139	G1015	G846	G880	G809	G744	G663
C1598	G1525	G1450	G1303	U1303	C1224	C1140	G1016	G847	G881	U810	G745	G664
A1600	G1526	G1456	C1304	C1305	G1225	U1141	G1017	G948	G882	U811	G746	G665
G1601	G1527	G1456	U1306	U1307	G1227	A1142	C1018	C949	G883	U812	A747	G669
U1602	G1529	G1459	A1308	A1309	G1235	A1143	U1019	G950	G884	C815	G748	A670
A1603	C1530	A1460	U1309	G1236	U1237	G1144	A1020	C951	C	C816	G749	C671
C1604	C1532	G1461	G1310	G1237	A1237	G1149	U1023	G952	C	G817	C750	C672
G1605	U1533	G1466	G1311	G1238	G1238	C1153	G1024	A853	A	C818	A751	C673
G1606	U1534	C1467	U1312	G1239	C1153	C1153	G1025	C955	C	A819	C752	C674
C1607	A1535	C1468	U1313	U1240	G1154	A1154	U1026	G956	C	A820	C753	A675
A1608	A1536	A1469	C1314	A1241	G1155	A1155	A1027	A957	A	A821	C754	A676
A1609	G1537	G1470	C1315	U1242	A1156	C1156	G1033	U958	G	U822	C755	A677
A1610	A1471	A1471	U1316	G1243	C1161	A1161	A1028	A859	C893	G823	C756	C678
C1611	C1474	C1474	A1317	G1244	G1162	G1162	A1029	A960	C894	A824	G760	C679
A1612	G1474	G1474	C1318	U1245	G1163	G1163	G1030	U960	U895	C825	A761	G680
A1614	A1477	A1477	G1319	A1247	G1164	U1165	A1032	C961	A896	C826	G681	G681
C1615	G1478	G1478	C1320	G1248	U1166	C1166	G1033	G968	C897	U827	U762	G682
A1616	A1479	A1479	U1321	U1249	C1167	U1167	U1033	G971	C898	U828	A764	C683
G1617	G1480	G1480	G1325	G1251	G1168	G1168	G1036	C974	A899	A829	C765	G684
A1618	U1481	U1481	U1326	C1252	G1169	G1169	G1037	C975	A900	C830	C766	G686
C1625	G1482	G1482	U1327	A1253	G1171	G1171	U1038	G975A	C902	G831	G767	C687
A1554	A1486	A1486	G1328	U1254	G	A	G1039	G975A	C903	U833	G769	G690
C1557	G1487	G1487	U1329	U1255	A	U	C1041	G978	U905	A835	C772	G693
G1559	A1488	A1488	C1330	G1257	U	G	G1042	G979	U907	C837	U773	U694
G1560	U1489	U1489	A1331	C1258	A	G	C1043	A980	C908	C838	A774	G695
G1561	A1490	A1490	G1332	G1259	A	U	A1045	A881	A909	U839	G775	G696
A1562	C1493	C1493	C1333	U1266	C1178	C1178	A1046	C982	A910	C840	A776	C697
G1563	A1494	A1494	A1336	U1267	C1180	C1180	G1047	A984	A911	A841	A777	C698
C1564	A1495	A1495	G1337	A1268	C1181	C1181	A1048	C885	C912	G844	G780	A706
C1565	A1496	A1496	U1338	U1269	G1187	G1187	C1049	C986	U913	C845	A781	G707
A1566	U1497	U1497	G1339	G1271	U1188	U1188	A1050	G987	C915	G846	A782	C708
A1567	C1498	C1498	U1340	A1272	A1189	A1189	G1051	A988	C916	U847	A783	U709
G1568	G1499	G1499	U1341	U1273	G1190	G1190	C	A890	A917	G848	A784	G717
A1569	G1500	G1500	A1342	A1274	G1191	G1191	A	C891	A918	A849	G785	G717
A1570	C1501	C1501	G1348	A1275	G1192	G1192	G	C992	G850	G850	A788	C720
A1571	U1502	U1502	U1349	A1276	C1193	C1193	A	G993	U851	U851	A789	C721
C1575	C1503	C1503	G1351	A1278	C1200	C1200	A	C994	G921	G855	C791	A722
U1576	C1504	C1504	U1352	A1284	G1202	G1202	G	C995	U922	C856	G792	G723
C1577	A1505	A1505	A1353	G1285	G1203	G1203	U	A996	C923	C857	A793	U724
A1507	C1430	C1430	G1355	A1286	A1204	A1204	U	G997	G	U858	G794	G725
A1508	U1431	U1431	U1356	A1287	U1205	U1205	U	A1001	G928	G859	C795	G726
A1579	C1432	C1432	U1288	U1288	G1206	G1206	G	G1002	U930	U860	A727	A727
					C1207	C1207			G931		C797	G728

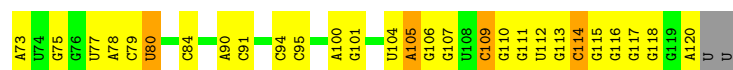
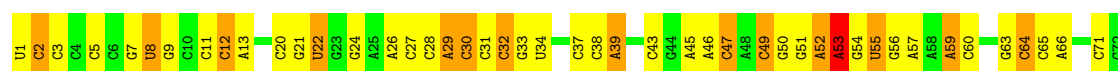
C2769	C2772	C2773	C2777	A2778	C2779	C2780	C2781	C2782	C2783	C2784	C2785	C2786	C2787	C2788	C2789	C2790	C2791	C2792	C2793	C2794	G	U	C	A	A2801A	C2802	C2803	C2804	C2805	C2807	U2808	G2811	C2815	C2816	C2817	C2818	C2819	A2820	A2821	C2822	A2823	A2826	C2827	C2828	C2829	C2833	C2834	A2835	U2836	C2837	C2838	C2839																																																																																																																		
U2698	C2699	C2700	C2701	C2702	C2703	G2706	C2707	C2708	C2709	C2710	A2711	C2712	C2713	A2714	C2715	C2716	C2717	C2718	C2719	C2720	A2721	C2722	C2723	C2726	C2727	C2730	C2731	C2732	C2733	A2734	C2735	A2741	C2742	C2747	A2748	C2751	C2752	C2755	U2756	A2757	A2758	C2759	C2760	C2761	C2762	C2763	A2764	A2765	C2766																																																																																																																					
C2606	C2607	C2608	U2609	C2610	C2612	U2615	C2616	C2617	U2618	C2619	C2620	G2625	C2626	C2627	C2628	C2629	C2630	A2631	C2632	U2636	U2637	C2638	C2643	C2646	U2647	C2648	U2649	C2650	C2651	C2652	C2653	C2656	C2657	C2658	C2659	C2660	C2661	C2662	C2663	C2667	C2668	C2669	C2670	C2671	C2672	C2673	C2674	A2675	C2678	C2679	C2680	C2681	U2682	C2683	C2686	C2687	C2688	C2689	C2690	C2693	C2694																																																																																																									
C2538	C2539	C2540	A2541	C2542	C2543	C2548	C2549	C2550	C2551	U2552	C2553	U2554	C2555	C2556	C2557	C2558	C2559	C2560	A2561	U2562	C2563	A2564	C2565	C2566	C2567	C2568	C2569	C2570	C2571	A2572	C2573	C2574	C2575	C2576	C2577	C2578	C2582	C2583	U2584	U2585	C2586	A2587	C2588	A2589	C2590	C2591	C2592	U2593	C2597	C2598	C2599	C2600	C2601	A2602	C2603																																																																																																															
C2467	C2468	A2469	C2472	U2473	U2474	A2476	C2477	C2478	C2479	C2480	C2481	C2482	C2483	C2484	C2485	C2486	C2487	A2488	C2489	C2490	U2491	C2494	C2495	C2496	A2497	C2498	C2499	U2500	C2501	C2502	C2503	C2504	C2505	C2506	C2507	C2508	C2509	C2510	C2511	C2512	C2513	C2514	C2517	A2518	U2519	C2520	C2521	C2522	C2523	C2524	C2525	C2526	C2527	C2528	C2529	C2530	C2535																																																																																																													
U2332	C2333	C2334	A2335	C2336	C2338	C2339	C2340	C2341	C2342	C2343	C2344	C2345	C2346	C2347	U2348	C2349	C2350	C2351	C2352	C2353	C2354	C2355	C2356	U2357	C2358	C2359	A2360	C2361	C2362	C2363	C2364	C2365	C2366	C2371	C2372	C2375	C2376	A2377	C2378	C2379	C2380	C2381	C2382	C2383	C2384	C2385	C2386	U2387	C2388	C2389	U2390	C2391	C2396	C2399	C2400																																																																																																															
A2268	C2269	C2270	C2271	C2272	C2274	C2275	C2280	C2281	C2282	C2283	C2284	C2285	C2286	C2287	C2288	C2289	C2290	C2291	C2292	C2293	C2294	C2295	C2296	C2297	C2298	C2299	C2302	C2303	C2304	C2305	C2306	C2307	C2308	C2309	A2310	C2311	U2312	C2313	C2314	C2315	C2316	C2317	C2318	C2319	A2320	C2321	C2322	C2323	C2324	C2325	C2326	C2327	C2328	C2329	C2330	C2331																																																																																																														
U2232	C2235	C2236	C2237	C2238	C2239	C2240	A2241	U2244	C2245	C2246	A2247	C2248	U2249	C2250	C2251	C2252	C2253	C2258	C2259	C2260	C2261	U2262	C2263	A2267	C2268	C2269	C2270	C2271	C2272	C2273	C2274	C2275	C2276	C2277	C2278	C2279	C2280	C2281	C2282	C2283	C2284	C2285	C2286	C2287	C2288	C2289	C2290	C2291	C2292	C2293	C2294	C2295	C2296	C2297	C2298	C2299	C2300	C2301	C2302	C2303	C2304	C2305	C2306	C2307	C2308	C2309	C2310	C2311	C2312	C2313	C2314	C2315	C2316	C2317	C2318	C2319	C2320	C2321	C2322	C2323	C2324	C2325	C2326	C2327	C2328	C2329	C2330	C2331																																																																														
C2125	A2126	C2127	C2128	C2129	U2130	C2131	C2132	C2133	A2134	C2135	C2136	C2137	C2138	C2139	C2140	C2141	C2142	C2143	U2144	C2145	C2146	C2147	C2148	C2149	C2150	C2151	C2152	C2153	C2154	C2155	C2156	C2157	C2158	C2159	C2160	C2161	C2162	C2163	C2164	C2165	C2166	U2167	C2168	C2169	C2170	C2171	C2172	C2173	C2174	C2175	C2176	C2177	C2178	C2179	C2180	C2181	C2182	C2185																																																																																																												
G2061	A2062	C2063	C2064	C2065	C2066	C2067	U2068	C2069	C2070	A2071	C2072	C2073	U2074	U2075	C2079	C2080	C2084	C2085	C2086	C2087	C2088	U2089	C2090	C2091	C2092	C2093	C2094	C2095	C2096	C2097	C2098	C2099	C2100	C2101	C2102	C2103	C2104	C2105	C2106	C2107	C2108	C2109	C2110	C2111	C2112	C2113	C2114	C2115	C2116	C2117	C2118	C2119	C2120	C2121	C2122	C2123	C2124																																																																																																													
C2000	A2001	C2002	C2003	C2004	C2005	C2006	C2007	C2008	C2009	C2010	C2011	C2012	C2013	C2014	C2015	C2016	C2017	C2018	C2019	C2020	C2021	C2022	C2023	C2024	C2027	C2028	C2029	C2030	C2031	C2032	C2033	C2034	C2035	C2036	C2037	C2038	C2039	C2040	C2041	C2042	C2043	C2044	C2045	C2046	C2047	C2048	C2049	C2052	C2053	C2054	C2055	C2056	C2057	C2058	C2059	C2060																																																																																																														
U1820	C1823	C1824	C1825	C1826	C1827	C1828	C1829	C1830	C1831	C1832	C1833	C1834	C1835	C1836	C1837	C1838	C1839	C1840	C1841	C1845	C1846	C1847	C1848	C1854	C1855	C1857	C1858	C1859	C1861	C1862	C1863	C1864	C1865	C1866	C1867	C1868	C1869	C1870	C1871	C1872	C1873	C1874	C1875	C1876	C1877	C1878	C1879	C1880	C1881	C1882	C1883	C1884	C1885	C1886	C1887	C1888	C1889	C1890	C1891	C1892	C1893	C1894	C1895	C1896	C1897	C1898	C1899	C1900	C1901	C1902	C1903	C1904	C1905	C1906	C1907	C1908	C1909	C1910	C1911	C1912	C1913	C1914	C1915	C1916	C1917	C1918	C1919	C1920	C1921	C1922	C1923	C1924	C1925	C1926	C1927	C1928	C1929	C1930	C1931	C1932	C1933	C1934	C1935	C1936	C1937	C1938	C1939	C1940	C1941	C1942	C1943	C1944	C1945	C1946	C1947	C1948	C1949	C1950	C1951	C1952	C1953	C1954	C1955	C1956	C1957	C1958	C1959	C1960	C1961	C1962	C1963	C1964	C1965	C1966	C1967	C1968	C1969	C1970	C1971	C1972	C1973	C1974	C1975	C1976	C1977	C1978	C1979	C1980	C1981	C1982	C1983	C1984	C1985	C1986	C1987	C1988	C1989	C1990	C1991	C1992	C1993	C1994	C1995	C1996	C1997	C1998
U1757	C1758	A1759	C1760	C1761	C1762	C1763	C1764	C1765	C1766	C1767	C1768	C1769	C1770	C1771	C1772	C1773	C1774	C1775	C1776	C1777	C1778	C1779	C1780	C1781	C1782	C1783	C1784	C1785	C1786	C1787	C1788	C1789	C1790	C1791	C1792	C1793	C1794	C1795	C1796	C1797	C1798	C1799	C1800	C1801	C1802	C1803	C1804	C1805	C1806	C1807	C1808	C1809	C1810	C1811	C1812	C1813	C1814	C1815	C1816	C1817	C1818	C1819	C1820	C1821	C1822	C1823	C1824	C1825	C1826	C1827	C1828	C1829	C1830	C1831	C1832	C1833	C1834	C1835	C1836	C1837	C1838	C1839	C1840																																																																																			



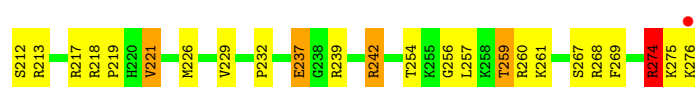
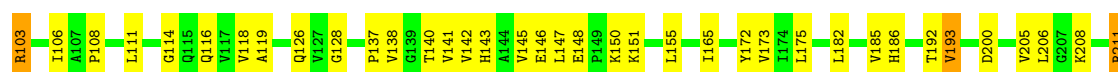
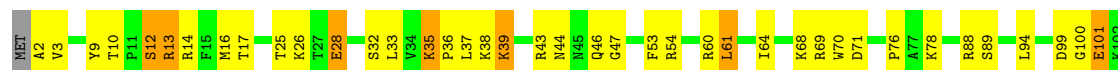
• Molecule 24: 5S Ribosomal RNA



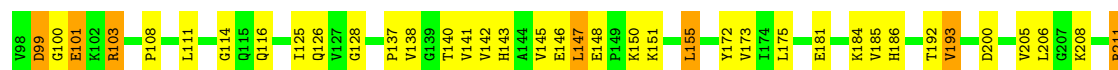
• Molecule 24: 5S Ribosomal RNA



• Molecule 25: 50S Ribosomal Protein L2

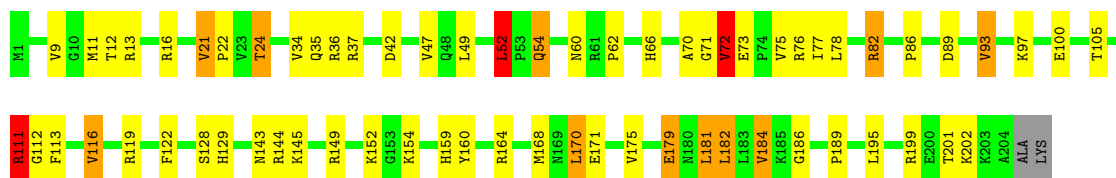


• Molecule 25: 50S Ribosomal Protein L2



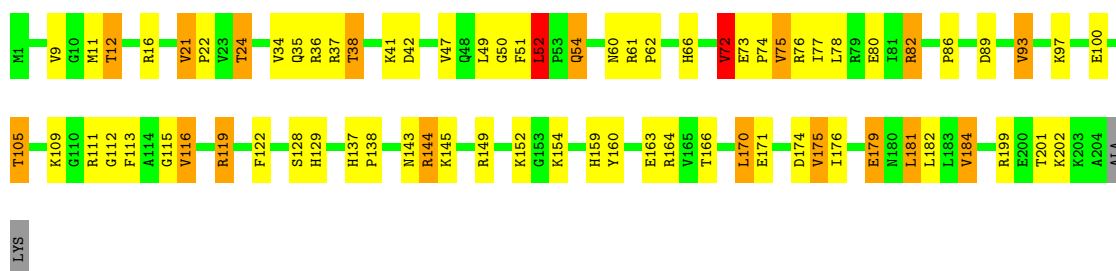
• Molecule 26: 50S Ribosomal Protein L3

Chain BE:  67% 25% 5% ..



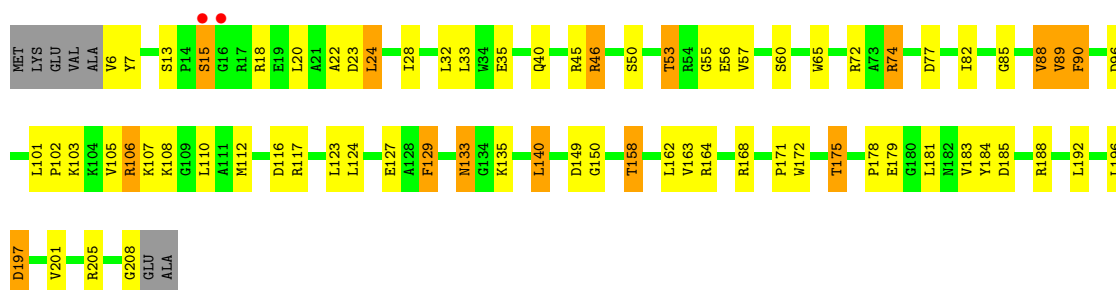
• Molecule 26: 50S Ribosomal Protein L3

Chain DE:  63% 27% 8% ..



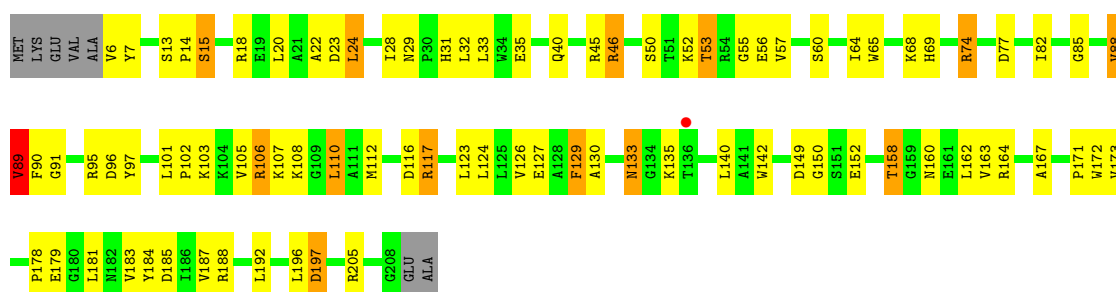
• Molecule 27: 50S Ribosomal Protein L4

Chain BF:  62% 28% 7% .



• Molecule 27: 50S Ribosomal Protein L4

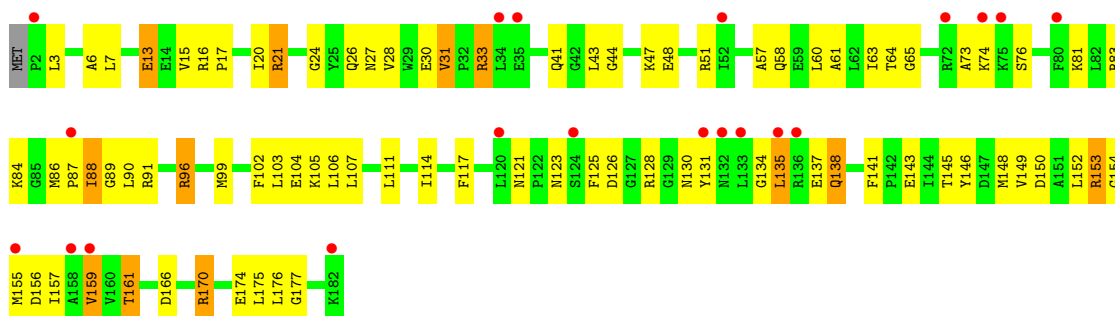
Chain DF:  56% 34% 6% .



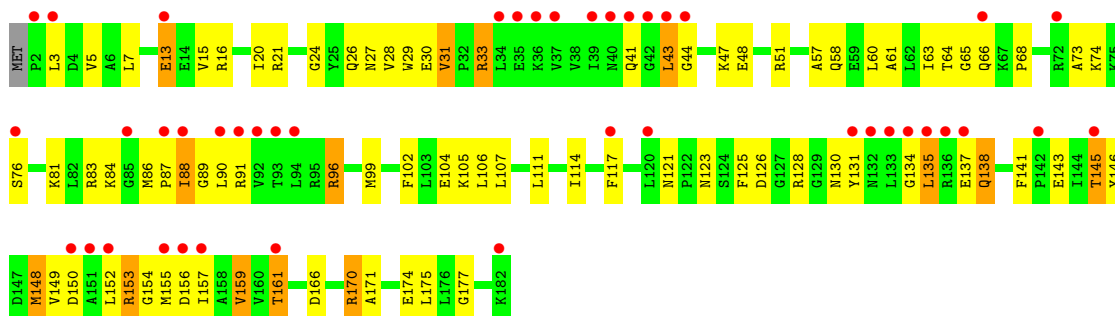
• Molecule 28: 50S Ribosomal Protein L5

Chain BG:  53% 40% 7% .

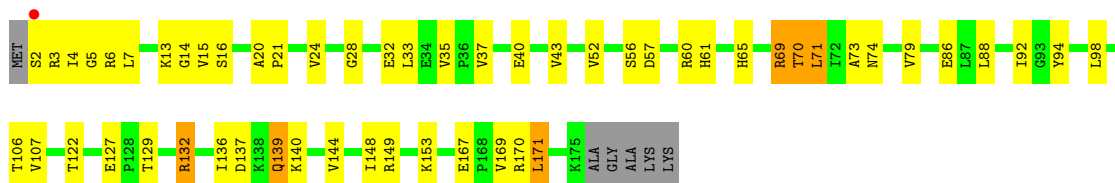




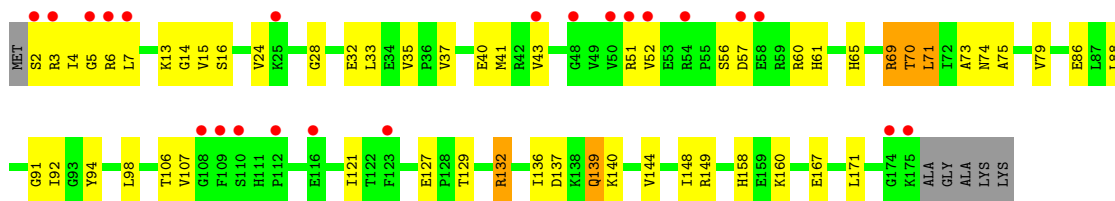
• Molecule 28: 50S Ribosomal Protein L5



• Molecule 29: 50S Ribosomal Protein L6



• Molecule 29: 50S Ribosomal Protein L6

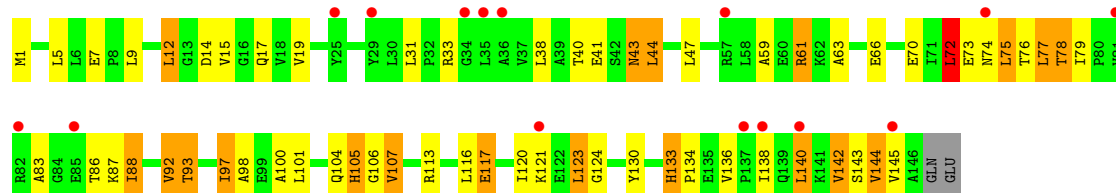


• Molecule 30: 50S Ribosomal Protein L9

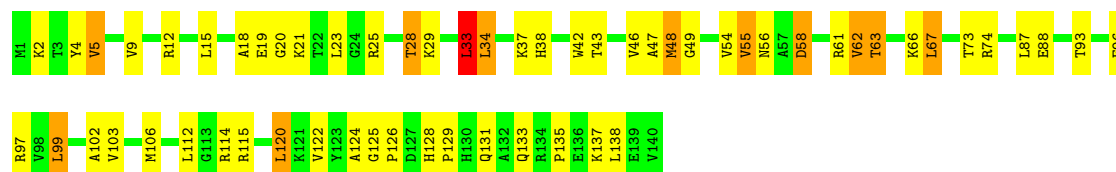




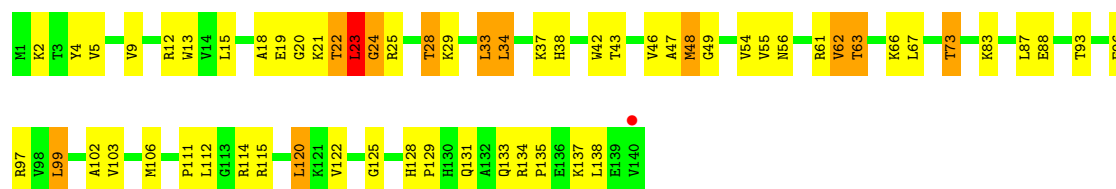
• Molecule 30: 50S Ribosomal Protein L9



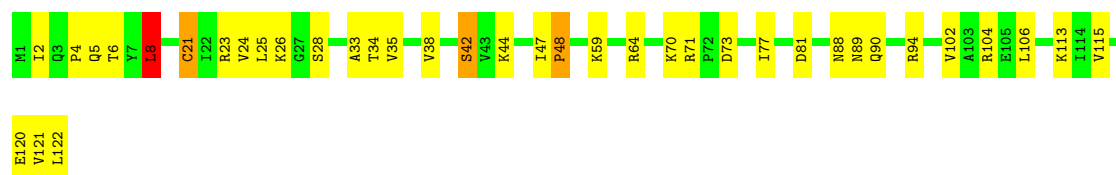
• Molecule 31: 50S Ribosomal Protein L13



• Molecule 31: 50S Ribosomal Protein L13



• Molecule 32: 50S Ribosomal Protein L14



• Molecule 32: 50S Ribosomal Protein L14

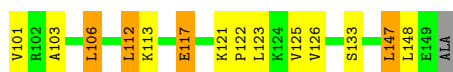
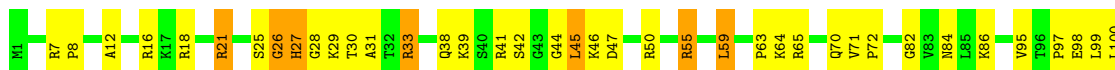






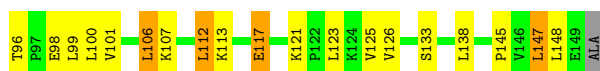
• Molecule 33: 50S Ribosomal Protein L15

Chain BP: 64% 28% 7%



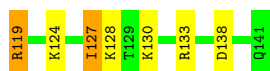
• Molecule 33: 50S Ribosomal Protein L15

Chain DP: 2% 64% 30% 5%



• Molecule 34: 50S Ribosomal Protein L16

Chain BQ: 69% 26% 5%



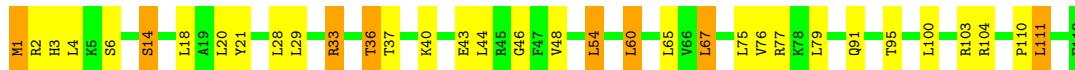
• Molecule 34: 50S Ribosomal Protein L16

Chain DQ: 58% 35% 6%

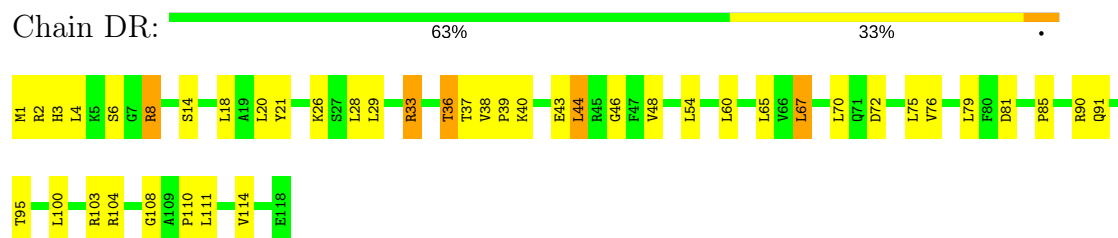


• Molecule 35: 50S Ribosomal Protein L17

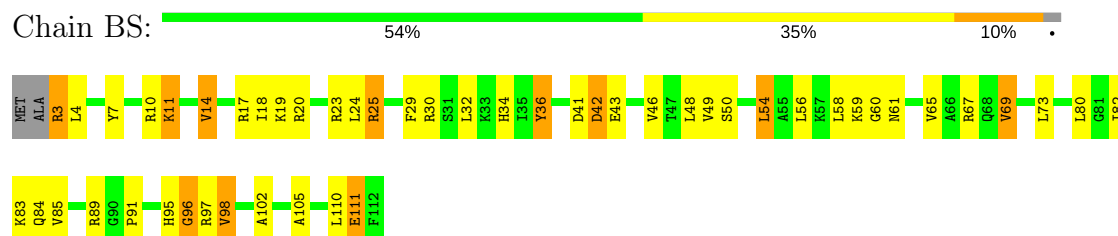
Chain BR: 71% 22% 7%



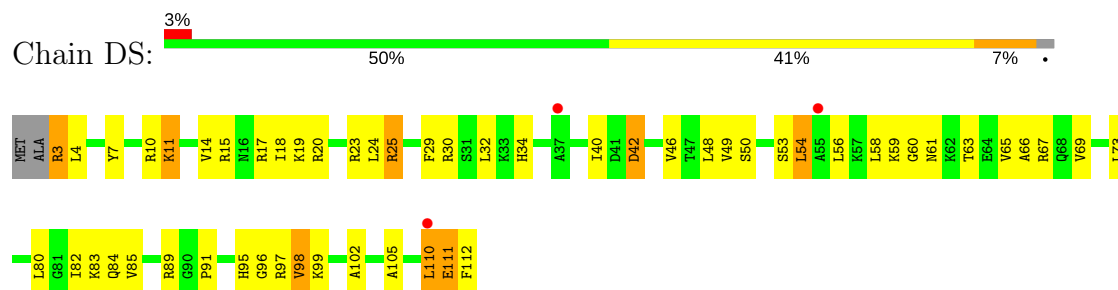
• Molecule 35: 50S Ribosomal Protein L17



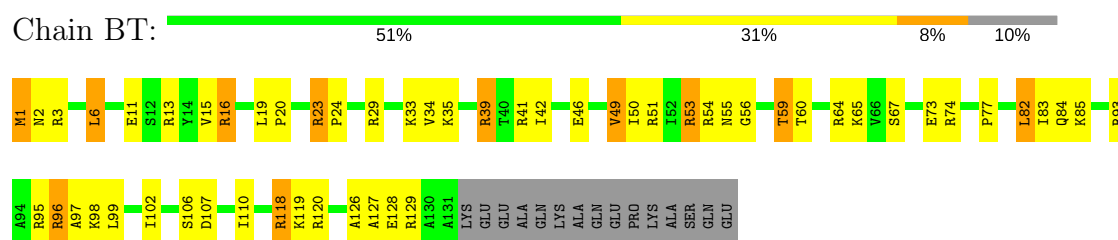
• Molecule 36: 50S Ribosomal Protein L18



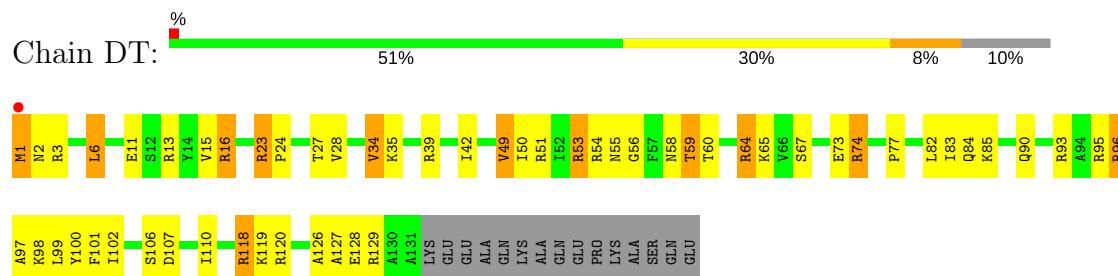
• Molecule 36: 50S Ribosomal Protein L18



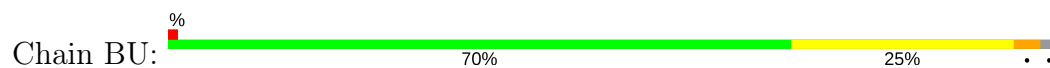
• Molecule 37: 50S Ribosomal Protein L19

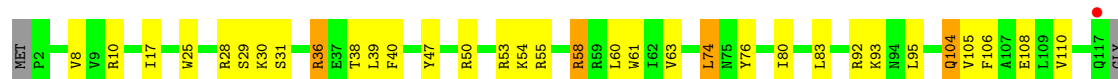


• Molecule 37: 50S Ribosomal Protein L19



• Molecule 38: 50S Ribosomal Protein L20

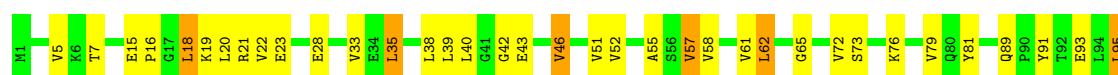




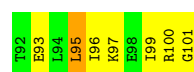
• Molecule 38: 50S Ribosomal Protein L20



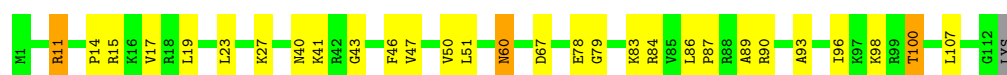
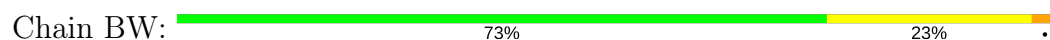
• Molecule 39: 50S Ribosomal Protein L21



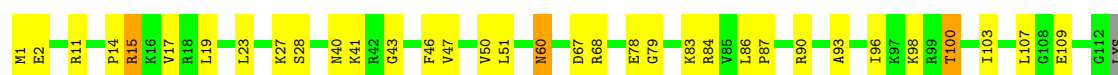
• Molecule 39: 50S Ribosomal Protein L21



• Molecule 40: 50S Ribosomal Protein L22

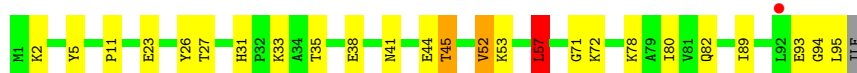


• Molecule 40: 50S Ribosomal Protein L22



• Molecule 41: 50S Ribosomal Protein L23





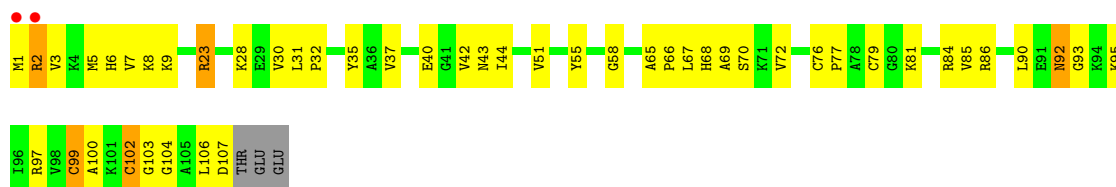
• Molecule 41: 50S Ribosomal Protein L23

Chain DX: 72% 25% ...



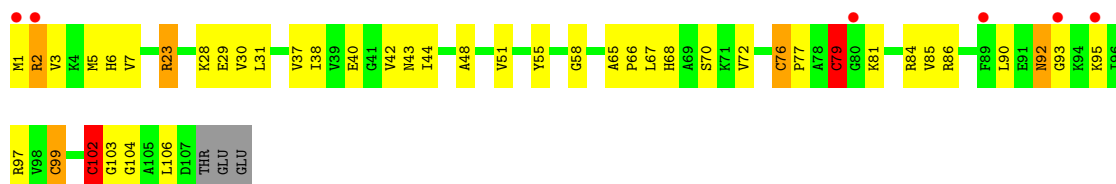
• Molecule 42: 50S Ribosomal Protein L24

Chain BY: 2% 54% 39% 5% .



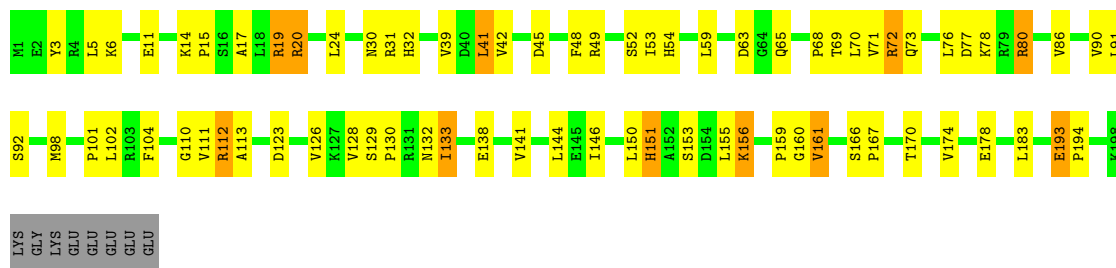
• Molecule 42: 50S Ribosomal Protein L24

Chain DY: 5% 57% 34% 5% . .



• Molecule 43: 50S Ribosomal Protein L25

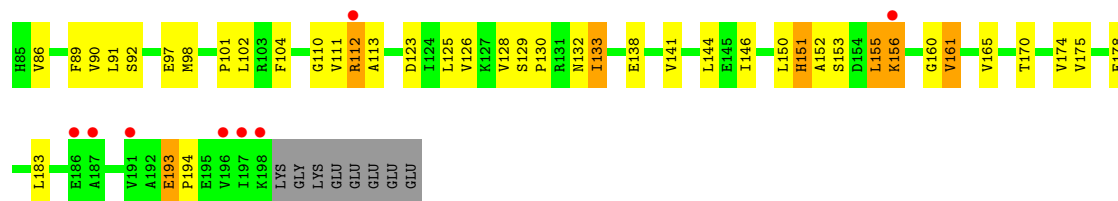
Chain BZ: 60% 31% 5% .



• Molecule 43: 50S Ribosomal Protein L25

Chain DZ: 7% 59% 31% 6% .





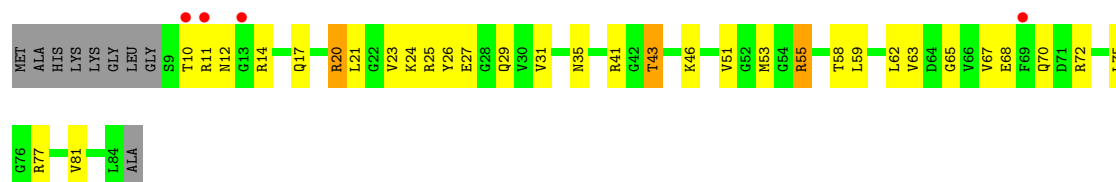
• Molecule 44: 50S Ribosomal Protein L27

Chain B0: 60% 26% 11%



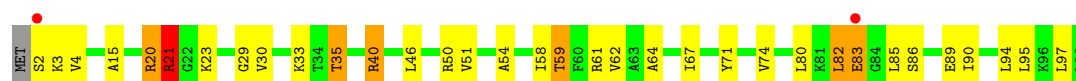
• Molecule 44: 50S Ribosomal Protein L27

Chain D0: 5% 51% 35% 11%



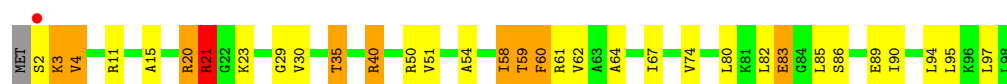
• Molecule 45: 50S Ribosomal Protein L28

Chain B1: 2% 64% 28% 6% ..



• Molecule 45: 50S Ribosomal Protein L28

Chain D1: % 65% 23% 9% ..



• Molecule 46: 50S Ribosomal Protein L29

Chain B2: 57% 38% ..



• Molecule 46: 50S Ribosomal Protein L29

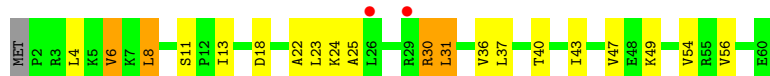
Chain D2: 4% 54% 39% ..



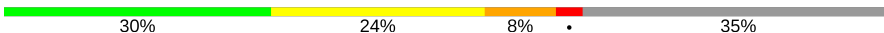
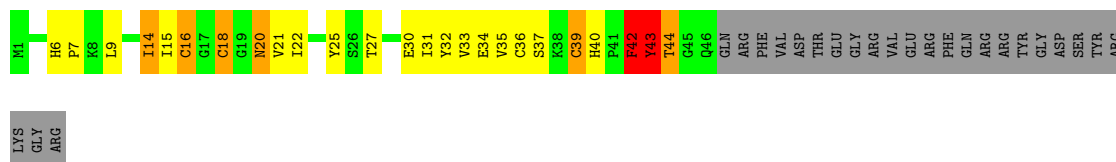
## • Molecule 47: 50S Ribosomal Protein L30

Chain B3:  72% 22% 5% .

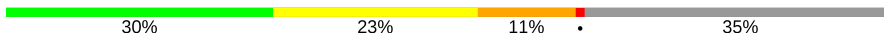
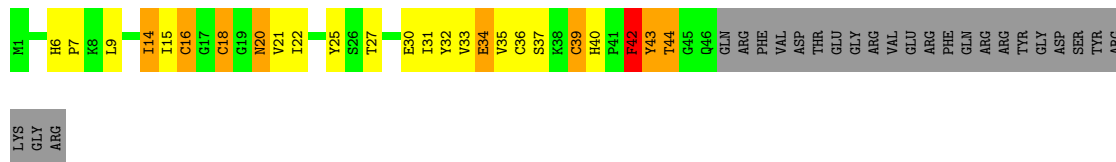
## • Molecule 47: 50S Ribosomal Protein L30

Chain D3:  3% 65% 27% 7% .

## • Molecule 48: 50S Ribosomal Protein L31

Chain B4:  30% 24% 8% 35% .

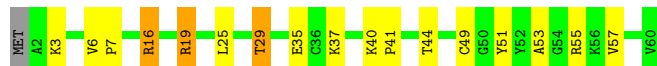
## • Molecule 48: 50S Ribosomal Protein L31

Chain D4:  30% 23% 11% 35% .

## • Molecule 49: 50S Ribosomal Protein L32

Chain B5:  70% 25% . .

## • Molecule 49: 50S Ribosomal Protein L32

Chain D5:  70% 23% 5% .

## • Molecule 50: 50S Ribosomal Protein L33

Chain B6:  4% 46% 37% 15% .



• Molecule 50: 50S Ribosomal Protein L33



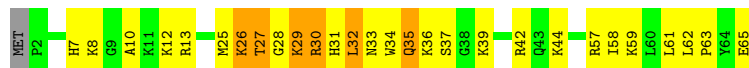
• Molecule 51: 50S Ribosomal Protein L34



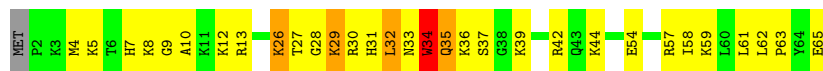
• Molecule 51: 50S Ribosomal Protein L34



• Molecule 52: 50S Ribosomal Protein L35



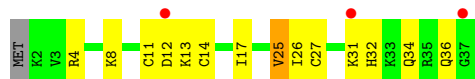
• Molecule 52: 50S Ribosomal Protein L35



• Molecule 53: 50S Ribosomal Protein L36



• Molecule 53: 50S Ribosomal Protein L36



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	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
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.34 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.2_869)	Depositor
R, $R_{free}$	0.218 , 0.254 0.218 , 0.253	Depositor DCC
$R_{free}$ test set	57194 reflections (5.27%)	DCC
Wilson B-factor (Å <sup>2</sup> )	68.3	Xtriage
Anisotropy	0.254	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 59.7	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.27$	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 <sup>2</sup> )	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.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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	C6-N1-C2	5.64	122.56	120.30
23	BA	1119	C	C5-C6-N1	-5.64	118.18	121.00
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
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	Mainchain,Peptide
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	Mainchain,Peptide

*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:HH11	45:D1:21:ARG:HG2	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: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
23:DA:139(A):G:N2	41:DX:44:GLU:OE1	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:1014:A:H5'	19:AS:14:HIS:HB2	1.52	0.92
1:AA:136:C:H42	1:AA:227:G:H1	1.18	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:HH11	45:B1:21:ARG:HG2	1.35	0.91
23:BA:27:G:N2	23:BA:512:G:O2'	2.02	0.91
23:BA:9:U:N3	23:BA:2629:A:N1	2.17	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:1311:G:H1	1:AA:1326:C:H42	1.19	0.89
1:AA:346:G:N2	1:AA:347:G:N3	2.20	0.89
27:BF:46:ARG:HH11	27:BF:46:ARG:HG2	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:2319:G:H22	36:BS:3:ARG:HE	1.21	0.87
23:BA:446:G:OP2	56:BA:3961:HOH:O	1.90	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: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
23:DA:2134:A:O2'	23:DA:2159:G:N2	2.08	0.86

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:882:G:H1	23:DA:894:C:H42	1.23	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:1603:A:OP1	56:DA:3880:HOH:O	1.93	0.85
23:DA:631:A:OP1	33:DP:65:ARG:NH1	2.08	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:HH11	27:DF:46:ARG:HG2	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:1380:U:O2	1:CA:1382:C:N4	2.09	0.84
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.10	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:1346:A:H61	1:CA:1374:A:H3'	1.43	0.82
1:CA:136:C:H42	1:CA:227:G:H1	1.25	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
23:BA:1109:C:H5	23:BA:1110:G:C2	1.99	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
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:854:G:N7	56:CA:1775:HOH:O	2.13	0.80
1:CA:559:A:OP1	5:CE:126:ARG:NH2	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:943:U:H3	1:AA:1340:A:N6	1.78	0.80
1:AA:839:U:H5''	1:AA:840:C:H5	1.44	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:882:G:H1	23:BA:894:C:H42	1.27	0.79
23:BA:548:A:H62	39:BV:19:LYS:HB2	1.47	0.79
23:DA:1449:A:OP1	56:DA:4005:HOH:O	2.01	0.79
23:DA:240:G:O6	56:DA:4023:HOH:O	2.00	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:1210:A:H8	23:DA:1210:A:H5'	1.46	0.79

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:548:A:H62	39:DV:19:LYS:HB2	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
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.65	0.79
1:CA:191:G:H21	20:CT:103:GLY:HA2	1.45	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
28:DG:131:TYR:HB3	28:DG:159:VAL:HG13	1.65	0.78
23:DA:2562:U:H1'	32:DO:23:ARG:HH11	1.49	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:939:G:O2'	1:AA:1375:A:N3	2.15	0.77
1:AA:327:A:HO2'	1:AA:329:A:H8	1.32	0.77
2:AB:136:VAL:HA	2:AB:139:LYS:HG3	1.67	0.77
23:BA:1403:C:H5''	23:BA:1471:A:H1'	1.66	0.77
23:BA:301:G:OP2	42:BY:84:ARG:NH2	2.17	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
53:B9:11:CYS:SG	53:B9:32:HIS:HE1	2.08	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
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:1028:C:H42	1:AA:1034:G:H1'	1.50	0.76
1:AA:578:C:OP1	56:AA:1906:HOH:O	2.02	0.76
23:BA:2407:G:OP1	56:BA:4302:HOH:O	2.03	0.76
23:BA:827:U:OP1	56:BA:4313:HOH:O	2.02	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:2134:A:N6	23:BA:2157:G:H1'	2.01	0.76
23:BA:587:C:OP2	33:BP:21:ARG:NH2	2.18	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
2:AB:24:TRP:HZ3	2:AB:29:ALA:HB2	1.52	0.75
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.22	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:HB2	21:CU:15:ARG:HH11	1.50	0.75
46:D2:51:ARG:HA	46:D2:54:LYS:HB2	1.68	0.75
23:DA:2602:A:H4'	23:DA:2603:G:OP1	1.87	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:2140:C:N3	23:BA:2151:G:O6	2.19	0.75
23:BA:90:U:O2	56:BA:4786:HOH:O	2.01	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:1122:U:H2'	1:CA:1123:A:H8	1.52	0.75
1:CA:673:G:H2'	1:CA:674:G:C8	2.21	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
13:AM:23:TYR:HE1	13:AM:70:LEU:HB3	1.50	0.74
1:AA:1269:A:H4'	21:AU:18:TYR:HB2	1.70	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:2181:G:H2'	23:BA:2182:G:C8	2.23	0.74
23:BA:287:C:O2	23:BA:354:G:N2	2.16	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:HE	2:CB:130:ARG:HA	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:N3	23:BA:530:G:O4'	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:1858:G:O2'	23:DA:1884:A:N6	2.20	0.74
23:DA:226:G:H21	23:DA:228:A:H62	1.34	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
3:CC:50:ALA:HB1	3:CC:70:VAL:HG13	1.69	0.73
1:CA:522:C:H5''	12:CL:120:TYR:OH	1.88	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:1293:G:HO2'	1:CA:1294:G:H8	1.33	0.73
1:CA:1107:C:H5''	3:CC:173:VAL:H	1.53	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
48:D4:18:CYS:HB2	48:D4:39:CYS:SG	2.29	0.73
23:DA:1038:C:H42	23:DA:1117:G:H1	1.36	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
45:D1:3:LYS:HB2	45:D1:61:ARG:NH1	2.04	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
23:DA:1141:U:OP2	31:DN:63:THR:OG1	2.06	0.72
1:AA:1061:G:H2'	1:AA:1062:U:C6	2.23	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:59:A:H5'	1:AA:60:A:H5''	1.69	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
44:D0:65:GLY:HA3	44:D0:81: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
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
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.72	0.72
1:AA:1240:U:O4	7:AG:32:ARG:NH2	2.22	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: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
1:AA:946:A:H2'	1:AA:947:G:C8	2.24	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
48:B4:18:CYS:HB2	48:B4:39:CYS:SG	2.30	0.71
23:BA:1210:A:H8	23:BA:1210:A:H5'	1.53	0.71
23:DA:2122:U:H3	23:DA:2176:A:N6	1.84	0.71
23:DA:1250:G:N7	33:DP:18:ARG:NH2	2.38	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:1160:G:H22	1:AA:1177:G:N2	1.88	0.71
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.56	0.71
45:B1:20:ARG:HH11	45:B1:20:ARG:HG2	1.55	0.71
23:BA:2357:U:OP1	44:B0:20:ARG:NH1	2.23	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:1066:C:H3'	1:AA:1067:A:C8	2.24	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: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:1005:A:O3'	1:AA:1037:C:O2'	2.09	0.70
1:AA:937:A:N1	1:AA:1377:A:H1'	2.06	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:1369:C:H2'	1:AA:1370:G:H8	1.54	0.70
1:AA:674:G:H2'	1:AA:675:A:H8	1.55	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:1817:G:OP1	25:DD:88:ARG:NH2	2.23	0.70
23:DA:243:U:OP2	52:D8:8:LYS:NZ	2.22	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:1178:G:H2'	1:AA:1179:A:H3'	1.74	0.70
1:AA:575:G:OP1	56:AA:1856:HOH:O	2.09	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
45:D1:21:ARG:HG2	45:D1:21:ARG:NH1	1.98	0.70
23:DA:301:G:OP2	42:DY:84:ARG:NH2	2.24	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:H8	1:CA:353:A:H5'	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
48:B4:16:CYS:HA	48:B4:33:VAL:HB	1.74	0.69
23:BA:1243:G:O2'	33:BP:7:ARG:NH2	2.25	0.69
23:BA:221:A:H4'	23:BA:222:A:O5'	1.92	0.69
23:BA:2308:G:O2'	23:BA:2310:A:OP2	2.07	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: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
1:AA:885:G:N7	56:AA:1823:HOH:O	2.25	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:1289:A:H1'	1:AA:1371:G:N2	2.05	0.69
1:AA:932:C:H5'	7:AG:4:ARG:HE	1.56	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
45:B1:54:ALA:HB1	45:B1:83:GLU:HB2	1.73	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
23:DA:39:C:O2	27:DF:46:ARG:NH2	2.25	0.69
1:AA:1009:G:O6	1:AA:1020:U:O2	2.09	0.69
1:AA:975:A:N6	1:AA:1366:C:O2	2.25	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:141:A:C8	23:DA:1408:C:O2'	2.46	0.69
23:DA:81:G:N7	56:DA:4117:HOH:O	2.24	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
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.58	0.69
1:CA:1373:G:H5'	7:CG:36:LYS:HB2	1.75	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:1184:G:H2'	1:AA:1185:G:C8	2.28	0.69
23:BA:2124:G:N2	23:BA:2174:C:C2	2.61	0.69
23:BA:833:U:O2	33:BP:55:ARG:NH2	2.26	0.69
30:BI:93:THR:HG23	30:BI:96:ASP:H	1.57	0.69
9:CI:3:GLN:HB3	9:CI:20:ARG:HG3	1.73	0.69
44:D0:27:GLU:HG3	44:D0:68:GLU:HA	1.74	0.69
29:DH:149:ARG:NH1	29:DH:167:GLU:OE1	2.26	0.69
23:DA:1278:A:OP1	35:DR:36:THR:HG23	1.91	0.69
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.57	0.69
1:AA:353:A:H5'	1:AA:353:A:H8	1.58	0.69
1:AA:770:C:OP1	56:AA:1860:HOH:O	2.11	0.69
23:BA:1359:A:N6	23:BA:1372:U:C4	2.61	0.69
7:CG:46:ALA:HB1	7:CG:121:ALA:HB2	1.75	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
47:D3:8:LEU:HD13	47:D3:31:LEU:HD23	1.75	0.69
42:DY:79:CYS:HB3	42:DY:81:LYS:H	1.58	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:1274:G:H21	1:CA:1275:A:H62	1.39	0.68
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.58	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:1062:U:H3	1:AA:1194:U:H3	1.39	0.68
1:AA:962:C:H2'	1:AA:963:G:H8	1.57	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
48:D4:16:CYS:HA	48:D4:33:VAL:HB	1.74	0.68
23:DA:2839:G:H5'	35:DR:46:GLY:HA2	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:940:C:H42	1:CA:1343:G:H1	1.42	0.68
1:CA:49:U:H3	1:CA:362:G:H1'	1.58	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:OD1	4:CD:193:ASP:N	2.27	0.67
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.75	0.67
46:D2:50:ILE:O	46:D2:51:ARG:HB3	1.94	0.67
27:DF:185:ASP:OD1	27:DF:188:ARG:NH1	2.27	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: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
1:AA:981:U:OP1	14:AN:9:LYS:NZ	2.27	0.67
1:AA:584:G:H5'	17:AQ:91:ARG:HH22	1.59	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:2887:U:H2'	23:DA:2888:C:C6	2.30	0.67
23:DA:818:G:OP2	56:DA:4018:HOH:O	2.13	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: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
1:AA:31:G:H5'	1:AA:306:G:N2	2.10	0.67
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.77	0.67
23:DA:2682:U:OP2	56:DA:4047:HOH:O	2.12	0.67
23:DA:1153:C:OP1	38:DU:92:ARG:NH1	2.26	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:2361:A:N7	56:DA:3909:HOH:O	2.27	0.67
23:DA:529:A:H62	23:DA:2041:U:H3	1.42	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:N	4:AD:193:ASP:OD1	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:1025:U:O2	1:AA:1036:G:O6	2.13	0.67
1:AA:148:G:H2'	1:AA:149:A:H8	1.58	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
45:B1:85:LEU:HB3	45:B1:89:GLU:HG3	1.77	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:141:A:C8	23:BA:1408:C:O2'	2.47	0.67
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
1:CA:1014:A:OP1	1:CA:1014:A:H8	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
44:B0:65:GLY:HA3	44:B0:81:VAL:HG12	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
1:CA:346:G:N2	1:CA:347:G:H1'	2.09	0.66
9:CI:9:ARG:HH11	9:CI:9:ARG:HB2	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:HB2	9:AI:9:ARG:HH11	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:1098:C:H2'	1:AA:1099:G:H1'	1.78	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
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
26:BE:11:MET:HG2	26:BE:24:THR:HB	1.77	0.66
23:BA:1278:A:OP1	35:BR:36:THR:HG23	1.94	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:1147:C:O2	9:CI:16:ARG:NH1	2.29	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
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	1.76	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
1:AA:576:G:OP2	56:AA:1909:HOH:O	2.14	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:1796:U:H2'	23:DA:1797:C:C6	2.31	0.65
23:DA:587:C:OP2	33:DP:21:ARG:NH2	2.29	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
1:AA:153:C:H2'	1:AA:154:C:H6	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:47:THR:HA	2:CB:202:PRO:HG2	1.77	0.65
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.31	0.65
1:AA:1442(A):G:C2'	1:AA:1442(B):A:H5'	2.26	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: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:HH11	45:D1:20:ARG:HG2	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:1244:C:H2'	1:CA:1245:A:C8	2.31	0.65
1:CA:434:U:H2'	1:CA:435:C:C6	2.32	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:1373:G:H4'	7:AG:36:LYS:HG3	1.78	0.65
1:AA:662:G:H2'	1:AA:663:A:C8	2.31	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:1313:U:O2	1:AA:1324:A:N1	2.29	0.65
1:AA:434:U:H2'	1:AA:435:C:C6	2.31	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:971:G:HO2'	1:AA:1365:G:HO2'	1.31	0.65
1:AA:962:C:N3	1:AA:973:G:O6	2.30	0.65
25:BD:275:LYS:HG3	25:BD:276:LYS:HG2	1.77	0.65
1:CA:620:C:H5''	56:CA:1782:HOH:O	1.97	0.65
1:CA:537:G:H5''	12:CL:113:ARG:NH1	2.12	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: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:21:G:OP1	56:AA:1894:HOH:O	2.15	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
1:AA:1367:C:OP1	9:AI:115:GLY:N	2.30	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
44:B0:27:GLU:HG3	44:B0:68:GLU:HA	1.78	0.64
23:BA:88:G:OP1	56:BA:4659:HOH:O	2.15	0.64
3:CC:109:PRO:HA	3:CC:112:SER:HB3	1.78	0.64
23:DA:1991:U:H2'	23:DA:1992:G:H5''	1.77	0.64
23:DA:796:C:H2'	23:DA:797:C:C6	2.32	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:2134:A:O2'	23:BA:2159:G:N2	2.28	0.64
23:BA:220:G:O2'	23:BA:233:A:N3	2.29	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:1430:C:H2'	23:DA:1431:U:C6	2.32	0.64
23:DA:602:G:O2'	23:DA:655:A:N6	2.31	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
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.79	0.64
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.33	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: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:CA:1280:A:H5'	10:CJ:41:PRO:HG2	1.78	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
52:B8:34:TRP:CG	52:B8:35:GLN:N	2.65	0.64
23:BA:1186:G:OP1	56:BA:4254:HOH:O	2.15	0.64
23:BA:847:U:OP2	56:BA:4703:HOH:O	2.14	0.64
32:BO:34:THR:OG1	32:BO:35:VAL:N	2.29	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: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
23:DA:299:A:H5''	42:DY:86:ARG:HH21	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:1392:G:H21	1:CA:1502:A:H8	1.43	0.64
1:CA:841:U:H5	1:CA:848:C:H1'	1.63	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
26:DE:47:VAL:HG21	26:DE:86:PRO:HD2	1.80	0.63
24:DB:27:C:H5''	36:DS:54:LEU:HD11	1.79	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: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
23:DA:879:G:H22	23:DA:899:A:H1'	1.63	0.63
1:AA:1203:C:H2'	1:AA:1204:A:O4'	1.99	0.63
1:AA:475:G:H2'	1:AA:476:G:H8	1.62	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:1287:A:H1'	1:AA:1354:C:H5'	1.79	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:201:C:H42	1:AA:216:G:H1	1.46	0.63
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.28	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
26:BE:47:VAL:HG21	26:BE:86:PRO:HD2	1.80	0.63
23:BA:252:G:OP2	33:BP:50:ARG:NH1	2.30	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:2331:G:O3'	44:D0:43:THR:HG22	1.99	0.63
23:DA:1494:A:H2'	23:DA:1495:A:H8	1.63	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
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
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
52:D8:4:MET:HE3	52:D8:63:PRO:HG3	1.81	0.63
23:DA:2364:C:H2'	23:DA:2365:G:O4'	1.99	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:AA:935:A:O2'	1:AA:1383:C:O2	2.13	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:N3	23:DA:1045:A:H2'	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:1442(A):G:C8	1:AA:1442(B):A:C2	2.86	0.63
1:AA:370:C:H2'	1:AA:371:G:C8	2.32	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:933:G:N2	1:AA:1384:C:N3	2.43	0.62
1:AA:35:G:O2'	12:AL:118:SER:O	2.17	0.62
45:B1:3:LYS:HB2	45:B1:61:ARG:HH12	1.63	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
1:CA:1080:A:OP1	5:CE:14:ARG:NH2	2.31	0.62
45:D1:50:ARG:HG2	45:D1:59:THR:HB	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
1:AA:1170:A:H3'	1:AA:1171:G:H8	1.62	0.62
1:AA:221:C:H2'	1:AA:222:U:C6	2.33	0.62
14:AN:3:ARG:HH12	14:AN:28:GLY:H	1.47	0.62
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.80	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:1027:C:H2'	1:CA:1028:C:H5	1.65	0.62
1:CA:346:G:N3	1:CA:347:G:H1'	2.13	0.62
1:CA:59:A:H3'	1:CA:331:G:H22	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
23:DA:271(R):G:H2'	23:DA:271(S):G:H8	1.64	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:9:ARG:HB3	9:AI:104:ARG:HH21	1.65	0.62
9:AI:4:TYR:CD2	9:AI:88:TYR:HB2	2.35	0.62
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.62	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
25:DD:108:PRO:HB3	25:DD:143:HIS:CE1	2.35	0.62
1:AA:1346:A:O2'	1:AA:1347:G:OP2	2.14	0.62
1:AA:17:U:O2'	1:AA:1079:G:N3	2.31	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
45:D1:80:LEU:HD23	45:D1:82:LEU:HD21	1.82	0.62
23:DA:11:G:H2'	23:DA:12:U:H5'	1.81	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
1:AA:881:G:P	12:AL:12:ARG:HH22	2.22	0.62
23:BA:2602:A:H8	56:BA:3864:HOH:O	1.83	0.62
23:BA:277:C:H1'	23:BA:278:A:OP2	1.99	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:1359:A:N6	23:DA:1372:U:C4	2.59	0.62
23:DA:574:C:N3	26:DE:145:LYS:NZ	2.37	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
46:B2:50:ILE:O	46:B2:51:ARG:HB3	1.97	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
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
1:CA:590:C:H2'	1:CA:591:U:H6	1.65	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: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
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.65	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:1036:G:H1	23:DA:1119:C:H42	1.47	0.62
23:DA:873:G:N2	23:DA:905:U:O2	2.32	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: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
1:CA:365:U:H5''	1:CA:366:C:OP1	2.00	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:1019:C:H2'	1:AA:1020:U:O4'	2.00	0.61
1:AA:962:C:H1'	1:AA:1201:A:C2	2.35	0.61
1:AA:539:A:OP2	12:AL:115:LYS:NZ	2.33	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:2867:G:OP2	37:BT:119:LYS:NZ	2.31	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
34:BQ:16:ARG:HG2	34:BQ:16:ARG:HH11	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
50:D6:9:LEU:HD21	50:D6:25:LYS:HB3	1.81	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
23:DA:548:A:N6	39:DV:19:LYS:HB2	2.16	0.61
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.36	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
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:1347:G:C8	9:CI:107:ARG:HB3	2.36	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
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
47:B3:18:ASP:N	47:B3:18:ASP:OD1	2.33	0.61
23:BA:207:A:H2'	23:BA:208:C:O4'	2.01	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
23:BA:2849:U:OP2	37:BT:95:ARG:NH1	2.33	0.61
34:BQ:62:GLY:O	43:BZ:178:GLU:HG2	2.01	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
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.35	0.61
53:D9:14:CYS:HA	53:D9:27:CYS:HB2	1.82	0.61
1:AA:1040:U:C2'	1:AA:1041:A:H5'	2.29	0.61
1:AA:952:U:H2'	1:AA:953:G:C8	2.36	0.61
23:BA:1434:A:H61	23:BA:1558:A:N6	1.99	0.61
23:BA:203:C:H3'	23:BA:204:A:H5''	1.82	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:1411:C:H2'	1:AA:1412:C:H6	1.65	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
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:1118:C:H2'	1:CA:1119:C:C6	2.35	0.61
1:CA:445:G:H2'	1:CA:446:G:C8	2.36	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:1778:U:H2'	23:BA:1784:A:N6	2.15	0.60
23:BA:873:G:N2	23:BA:905:U:O2	2.33	0.60
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.66	0.60
1:CA:623:C:H2'	1:CA:624:C: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:1381:U:O2'	1:AA:1382:C:H5'	2.01	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
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
46:B2:9:GLN:HE22	46:B2:56:GLN:HB3	1.66	0.60
23:BA:2123:G:H1	23:BA:2175:C:H42	1.48	0.60
23:BA:2022:U:O2'	23:BA:2617:C:H5'	2.00	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
1:CA:662:G:H2'	1:CA:663:A:H8	1.66	0.60
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.33	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: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
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
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:1311:G:O6	56:DA:3781:HOH:O	2.13	0.60
23:DA:535:C:O3'	38:DU:53:ARG:NH1	2.34	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:1035:A:H2'	1:CA:1036:G:H8	1.66	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
2:CB:189:ASP:N	2:CB:189:ASP:OD1	2.35	0.60
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.36	0.60
1:AA:193:C:H2'	1:AA:194:C:C6	2.37	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
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.34	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:1298:C:H5''	23:DA:1299:G:OP2	2.02	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:8:A:H2'	23:DA:9:U:C6	2.35	0.60
1:AA:10:A:H2'	1:AA:11:G:C8	2.35	0.60
1:AA:1152:A:OP1	10:AJ:13:HIS:HB2	2.01	0.60
1:AA:1052:U:H3	1:AA:1206:G:H1	1.50	0.60
16:AP:59:TRP:HA	16:AP:62:VAL:HG12	1.83	0.60
23:BA:1506:C:H2'	23:BA:1507:A:H5'	1.84	0.60
23:BA:535:C:O3'	38:BU:53:ARG:NH1	2.35	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BU:74:LEU:HD12	38:BU:74:LEU:H	1.67	0.60
43:BZ:17:ALA:HA	43:BZ:20:ARG:HD2	1.83	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
1:CA:221:C:H2'	1:CA:222:U:C6	2.36	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: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
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
19:AS:53:ASN:O	19:AS:77:THR:OG1	2.13	0.60
23:BA:1026:U:H2'	23:BA:1026:U:O2	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
45:B1:80:LEU:HD23	45:B1:82:LEU:HD21	1.83	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
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:1303:C:H42	1:AA:1334:G:H1	0.67	0.59
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
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:1025:U:O2	1:CA:1036:G:O6	2.20	0.59
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
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:1170:A:H3'	1:AA:1171:G:C8	2.37	0.59
1:AA:982:U:O2'	1:AA:984:C:N4	2.35	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: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
23:DA:528:A:O2'	23:DA:529:A:H5'	2.02	0.59
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.37	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
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:1028:C:N3	1:AA:1034:G:H1'	2.18	0.59
1:AA:959:A:H3'	1:AA:960:U:H5''	1.85	0.59
1:AA:968:A:OP1	1:AA:968:A:H8	1.85	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
23:BA:995:C:OP2	38:BU:54:LYS:HE3	2.03	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:HD13	11:CK:48:ILE:H	1.67	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:D1:85:LEU:HB3	45:D1:89:GLU:HG3	1.84	0.59
23:DA:1570:A:H5'	25:DD:36:PRO: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:1057:G:H4'	3:CC:197:GLY:H	1.68	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
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: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
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
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:H8	23:DA:2834:G:H5''	1.68	0.59
33:DP:121:LYS:HG2	33:DP:123:LEU:HG	1.83	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:401:C:OP1	4:AD:73:ARG:NE	2.35	0.59
1:AA:37:U:O2'	1:AA:547:A:N1	2.30	0.59
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
7:AG:127:ALA:HA	7:AG:132:GLY:HA3	1.83	0.59
1:AA:1367:C:H4'	10:AJ:48:THR:HG21	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:2022:U:O2'	23:DA:2617:C:H5'	2.02	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
28:DG:137:GLU:HG2	28:DG:138:GLN:H	1.68	0.59
1:AA:986:A:N1	1:AA:1219:U:O4	2.36	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
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: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
23:BA:548:A:N6	39:BV:19:LYS:H	2.01	0.59
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.18	0.59
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.85	0.59
23:DA:2602:A:H1'	23:DA:2603:G:H5''	1.85	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
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
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
45:D1:3:LYS:HB2	45:D1:61:ARG:HH12	1.68	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
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: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
1:CA:511:C:N4	1:CA:540:G:H1	1.99	0.58
23:DA:1038:C:N4	23:DA:1117:G:H1	2.01	0.58
23:DA:203:C:H3'	23:DA:204:A:H5''	1.85	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
7:AG:155:ARG:HG2	7:AG:156:TRP:H	1.69	0.58
1:AA:1187:G:N3	14:AN:60:SER:OG	2.35	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
46:D2:13:ALA:HA	46:D2:16:LEU:HD12	1.84	0.58
23:DA:652(D):C:H2'	23:DA:652(E):G:O4'	2.03	0.58
1:AA:1016:A:H3'	1:AA:1017:G:C8	2.39	0.58
1:AA:1003:G:N2	1:AA:1038:C:C2	2.71	0.58
1:AA:1042:G:H8	1:AA:1042:G:OP2	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: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
1:AA:708:C:OP1	11:AK:85:ARG:NH2	2.37	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:1029:C:C2	1:CA:1032:G:N1	2.72	0.58
1:CA:841:U:C5	1:CA:848:C:H1'	2.38	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:1347:G:H1	1:AA:1373:G:H3'	1.69	0.58
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.37	0.58
1:AA:826:C:H4'	8:AH:12:ARG:HG3	1.85	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:1130:A:H61	1:AA:1144:G:H1'	1.69	0.58
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
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: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
23:BA:548:A:N6	39:BV:19:LYS:HB2	2.17	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:1427:A:H4'	23:DA:1428:C:O5'	2.04	0.58
23:DA:579:G:H2'	23:DA:580:C:C6	2.38	0.58
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.39	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
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:1290:G:H3'	1:CA:1291:G:H8	1.69	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: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:438:G:OP1	4:CD:125:HIS:HE1	1.86	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: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
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
10:AJ:54:PHE:HD2	10:AJ:55:LYS:HD3	1.69	0.58
23:BA:2308:G:H4'	23:BA:2309:A:OP2	2.02	0.58
23:BA:993:G:OP1	38:BU:50:ARG:NH2	2.37	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
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.86	0.58
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.85	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
48:D4:15:ILE:HB	48:D4:32:TYR:CD2	2.38	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
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
1:AA:804:U:H5''	1:AA:805:C:OP2	2.03	0.57
7:AG:99:LEU:HB3	7:AG:103:TRP:CE2	2.39	0.57
46:B2:13:ALA:HA	46:B2:16:LEU:HD12	1.85	0.57
23:BA:517:C:OP1	49:B5:16:ARG:NH2	2.36	0.57
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.39	0.57
1:CA:487:A:H2'	1:CA:488:C:O4'	2.04	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
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
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
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.03	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
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.04	0.57
23:BA:12:U:O2	23:BA:12:U:H2'	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: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
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.70	0.57
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.85	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
52:B8:39:LYS:HA	52:B8:42:ARG:NH1	2.18	0.57
23:BA:1722:A:C2	23:BA:1740:G:C8	2.92	0.57
25:BD:254:THR:O	25:BD:254:THR:OG1	2.22	0.57
30:BI:61:ARG:HB3	30:BI:133:HIS:HD2	1.68	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:58:LEU:HD12	36:BS:65:VAL:HG13	1.86	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:HH11	34:DQ:16:ARG:HG2	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: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
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.84	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
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
23:BA:2611:U:C4	49:B5:3:LYS:HG2	2.40	0.57
23:BA:8:A:H2'	23:BA:9:U:C6	2.39	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: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
1:CA:708:C:OP1	11:CK:85:ARG:NH2	2.37	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:1163:C:C2	1:CA:1164:G:C8	2.92	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:15:G:H4'	5:CE:24:ARG:HH12	1.70	0.57
1:CA:980:C:H1'	14:CN:19:ARG:HA	1.87	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D8:34:TRP:CG	52:D8:35:GLN:N	2.71	0.57
38:DU:76:TYR:CZ	38:DU:80:ILE:HG13	2.40	0.57
1:AA:1065:U:H5	1:AA:1190:G:H21	1.50	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
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:1568:G:N7	56:BD:402:HOH:O	2.32	0.57
23:BA:861:A:C2	23:BA:917:A:C4	2.92	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
36:DS:46:VAL:HG12	36:DS:48:LEU:HD12	1.87	0.57
23:DA:1614:A:C2	40:DW:93:ALA:HB2	2.40	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
1:AA:222:U:H2'	1:AA:223:U:C6	2.39	0.57
1:AA:932:C:O3'	7:AG:4:ARG:NH2	2.37	0.57
1:AA:777:A:H2	11:AK:119:CYS:HB3	1.69	0.57
48:B4:15:ILE:HB	48:B4:32:TYR:CD2	2.40	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
23:BA:299:A:H5''	42:BY:86:ARG:HH21	1.70	0.57
23:BA:652(D):C:H2'	23:BA:652(E):G:O4'	2.05	0.57
25:BD:108:PRO:HB3	25:BD:143:HIS:CE1	2.40	0.57
23:BA:443:A:N7	27:BF:45:ARG:HG2	2.20	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
1:CA:1076:C:H42	1:CA:1081:G:H1	1.51	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
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
46:D2:22:GLU:OE2	46:D2:68:ARG:NH2	2.37	0.57
23:DA:1359:A:N6	23:DA:1372:U:C5	2.73	0.57
23:DA:928:G:O6	56:DA:3789:HOH:O	2.16	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:55:U:HO2'	28:DG:29:TRP:HD1	1.51	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: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
23:DA:547:A:H1'	23:DA:548:A:H4'	1.87	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: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
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
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: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
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
41:BX:31:HIS:CD2	41:BX:33:LYS:H	2.23	0.57
34:BQ:5:ARG:O	43:BZ:194:PRO:HD2	2.04	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
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
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.40	0.57
1:CA:7:G:O2'	5:CE:120:THR:O	2.22	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:1786:A:H1'	23:DA:1938:A:N6	2.20	0.57
23:DA:1945:G:H2'	23:DA:1946:U:C6	2.40	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2790:A:H2'	23:DA:2790:A:N3	2.20	0.57
23:DA:588:U:H2'	23:DA:589:C:C6	2.40	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:N	3:AC:36:ASP:OD2	2.36	0.56
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.05	0.56
51:B7:8:ASN:C	51:B7:8:ASN:OD1	2.43	0.56
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.40	0.56
23:BA:628:G:H2'	23:BA:629:G:H8	1.70	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:2591:C:OP2	25:DD:239:ARG:HB3	2.03	0.56
23:DA:674:G:H1'	27:DF:74:ARG:HD3	1.87	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:219:VAL:HA	2:AB:222:ILE:HD12	1.88	0.56
45:B1:64:ALA:HA	45:B1:67:ILE:HG13	1.87	0.56
23:BA:2131:G:N3	23:BA:2133:G:N2	2.51	0.56
23:BA:761:A:N7	56:BA:3905:HOH:O	2.33	0.56
27:BF:32:LEU:HD11	27:BF:105:VAL:HG13	1.86	0.56
1:CA:612:C:O2	1:CA:629:G:N2	2.38	0.56
2:CB:98:LEU:HB2	2:CB:101:MET:HE3	1.87	0.56
48:D4:18:CYS:SG	48:D4:39:CYS:HB2	2.44	0.56
23:DA:1210:A:H5'	23:DA:1210:A:C8	2.35	0.56
2:AB:21:ARG:H	2:AB:21:ARG:HD3	1.70	0.56
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.39	0.56
24:BB:87:G:H5''	24:BB:88:C:OP2	2.06	0.56
36:BS:83:LYS:O	36:BS:111:GLU:HG3	2.06	0.56
1:CA:1442(A):G:C8	1:CA:1442(B):A:C2	2.93	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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
52:D8:7:HIS:CD2	52:D8:10:ALA:H	2.12	0.56
23:DA:2361:A:OP1	52:D8:27:THR:HG23	2.05	0.56
23:DA:453:C:H5''	56:DA:3993:HOH:O	2.05	0.56
25:DD:16:MET:HG3	25:DD:206:LEU:O	2.05	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:1557:C:OP2	23:BA:1558:A:O2'	2.18	0.56
23:BA:795:C:H2'	23:BA:796:C:H6	1.70	0.56
39:BV:42:GLY:O	39:BV:43:GLU:HG2	2.06	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
1:CA:857:C:H2'	1:CA:858:G:O4'	2.05	0.56
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.05	0.56
48:D4:18:CYS:CB	48:D4:39:CYS:SG	2.91	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
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:2384:G:OP2	44:B0:55:ARG:NH1	2.39	0.56
23:BA:2118:U:OP1	23:BA:2147:G:O2'	2.22	0.56
23:BA:271(L):U:H4'	23:BA:271(M):G:OP1	2.04	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
1:CA:954:G:O6	13:CM:104:ARG:NH1	2.39	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:H5''	24:BB:8:U:H6	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:2228:G:OP1	25:DD:261:LYS:NZ	2.27	0.56
23:DA:975:C:H6	56:DA:3870:HOH:O	1.87	0.56
29:DH:3:ARG:HG3	29:DH:4:ILE:N	2.20	0.56
37:DT:118:ARG:HH11	37:DT:118:ARG:HA	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:1234:C:H2'	1:AA:1235:U:O4'	2.05	0.56
1:AA:868:C:H2'	1:AA:869:G:O4'	2.05	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
1:AA:1442(B):A:C2	37:BT:118:ARG:CZ	2.89	0.56
42:BY:51:VAL:HG22	42:BY:58:GLY:H	1.70	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
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
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: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
23:BA:63:U:OP2	56:BA:4700:HOH:O	2.18	0.56
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.41	0.56
1:CA:458:C:H2'	1:CA:460:G:H8	1.69	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:1097:C:H2'	1:AA:1098:C: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

*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
49:B5:49:CYS:SG	49:B5:51:TYR:HB2	2.46	0.56
23:BA:2107:C:C5	23:BA:2108:C:C4	2.93	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
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
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:NH1	34:DQ:16:ARG:HG2	2.21	0.56
40:DW:60:ASN:HD22	40:DW:60:ASN:H	1.52	0.56
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.05	0.56
1:AA:1142:G:H3'	1:AA:1143:G:C8	2.40	0.56
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.21	0.56
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.71	0.56
1:AA:598:U:H2'	1:AA:599:C:H6	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
1:AA:1220:G:H1'	19:AS:52:TYR:CE2	2.40	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:1287:A:H2'	1:CA:1288:A:H8	1.71	0.56
1:CA:221:C:H2'	1:CA:222:U:H6	1.69	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:CD2	30:DI:105:HIS:N	2.74	0.56
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.54	0.55
1:AA:989:C:O2	1:AA:1216:G:N1	2.28	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
52:B8:7:HIS:CD2	52:B8:10:ALA:H	2.12	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2305:A:H1'	28:BG:135:LEU:O	2.06	0.55
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
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:1009:G:H1	1:CA:1020:U:H1'	1.72	0.55
1:CA:160:A:H61	1:CA:346:G:N2	2.05	0.55
2:CB:18:GLY:HA3	2:CB:41:ILE:HG23	1.87	0.55
47:D3:18:ASP:N	47:D3:18:ASP:OD1	2.26	0.55
47:D3:6:VAL:HG13	47:D3:56:VAL:HG13	1.87	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
23:DA:907:U:O2'	34:DQ:101:ARG:NH2	2.39	0.55
42:DY:76:CYS:CB	42:DY:79:CYS:HB2	2.29	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:HH11	5:AE:37:ARG:HG2	1.72	0.55
11:AK:48:ILE:H	11:AK:48:ILE:HD13	1.70	0.55
22:AV:50:ASP:HA	22:AV:53:VAL:HG12	1.87	0.55
23:BA:1309:G:N7	56:BA:4019:HOH:O	2.33	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
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: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
23:DA:184:C:H2'	23:DA:185:U:C6	2.41	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:1009:G:H2'	1:AA:1010:G:C8	2.42	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
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:O5'	23:BA:1762:A:H8	1.89	0.55
23:BA:2109:U:H3'	23:BA:2109:U:H6	1.72	0.55
3:CC:113:ALA:HB2	3:CC:202:ILE:HG12	1.88	0.55
3:CC:88:ARG:O	3:CC:92:ALA:HB3	2.06	0.55
13:CM:14:ARG:HD2	13:CM:42:ALA:O	2.05	0.55
46:D2:9:GLN:HE22	46:D2:56:GLN:HB3	1.70	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:B2:53:LEU:O	46:B2:57:ILE:HG13	2.07	0.55
42:BY:8:LYS:HG2	42:BY:9:LYS:O	2.07	0.55
1:CA:346:G:N2	1:CA:347:G:C4	2.75	0.55
1:CA:35:G:C2	1:CA:550:G:C2	2.94	0.55
23:DA:2723:C:OP1	35:DR:3:HIS:ND1	2.26	0.55
23:DA:272:G:N7	23:DA:421:U:H2'	2.22	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:1504:G:P	1:AA:1504:G:H3'	2.46	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
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
44:D0:29:GLN:O	44:D0:67:VAL:HG23	2.07	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
23:DA:83:G:OP1	42:DY:95:LYS:NZ	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
1:AA:1003:G:H2'	1:AA:1004:A:Cl'	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:1007:C:OP1	31:BN:37:LYS:NZ	2.38	0.55
23:BA:154(A):C:N4	23:BA:172:C:N3	2.54	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: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
1:CA:79:G:H1	1:CA:90:U:H3	1.55	0.55
1:CA:993:G:H2'	1:CA:993:G:N3	2.21	0.55
8:CH:6:ILE:HB	8:CH:85:ARG:HH12	1.70	0.55
8:CH:4:ASP:HB2	8:CH:89:PRO:HG3	1.88	0.55
10:CJ:11:PHE:CE2	10:CJ:67:THR:HB	2.42	0.55
23:DA:2036:C:C6	23:DA:2036:C:H5'	2.40	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
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
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:1493:A:H4'	1:CA:1494:G:OP1	2.06	0.55
1:CA:819:A:H4'	1:CA:820:U:OP2	2.07	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: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
23:DA:956:G:OP2	34:DQ:14:ARG:NH2	2.40	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
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
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
23:BA:1140:C:O3'	31:BN:25:ARG:NH1	2.39	0.55
33:BP:148:LEU:H	33:BP:148:LEU:HD23	1.71	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:956:G:OP2	34:BQ:14:ARG:NH2	2.40	0.55
38:BU:76:TYR:CZ	38:BU:80:ILE:HG13	2.42	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: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
27:DF:31:HIS:HB2	33:DP:9:ASN:OD1	2.07	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: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
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
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: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
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
24:DB:11:C:OP2	24:DB:12:C:N4	2.30	0.55
24:DB:2:C:H2'	24:DB:3:C:C6	2.42	0.55
27:DF:89:VAL:HG12	27:DF:90:PHE:N	2.22	0.55
23:DA:1022:G:N7	31:DN:66:LYS:HE2	2.21	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
45:B1:15:ALA:O	45:B1:40:ARG:HG3	2.07	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
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.06	0.54
43:BZ:101:PRO:O	43:BZ:102:LEU:HD12	2.08	0.54
1:CA:186:C:H2'	1:CA:187:C:C6	2.42	0.54
13:CM:59:TYR:CE1	13:CM:63:THR:HG21	2.42	0.54
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.72	0.54
23:DA:1048:A:O2'	23:DA:1049:C:OP2	2.24	0.54
23:DA:107:C:H2'	23:DA:108:U:H6	1.72	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
23:DA:733:G:N7	56:DA:3617:HOH:O	2.33	0.54
29:DH:94:TYR:CE2	29:DH:107:VAL:HB	2.42	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
1:AA:857:C:H2'	1:AA:858:G:O4'	2.06	0.54
3:AC:118:GLN:HA	3:AC:187:ALA:CB	2.36	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:2144:U:H1'	23:BA:2147:G:H1	1.72	0.54
23:BA:2115:G:O2'	23:BA:2166:G:N2	2.39	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
41:BX:2:LYS:HE2	41:BX:38:GLU:OE2	2.07	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
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
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
3:CC:5:ILE:HD11	14:CN:49:HIS:CE1	2.43	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
51:B7:34:ARG:NH1	51:B7:39:ARG:HG3	2.21	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
23:BA:192:C:O2'	23:BA:802:A:N3	2.38	0.54
26:BE:97:LYS:N	26:BE:100:GLU:OE1	2.39	0.54
56:BA:4349:HOH:O	33:BP:16:ARG:HG2	2.07	0.54
37:BT:118:ARG:HH11	37:BT:118:ARG:HG3	1.71	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:2133:G:H2'	23:DA:2157:G:H22	1.73	0.54
23:DA:720:C:H2'	23:DA:721:C:H6	1.72	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:1459:C:C4	1:AA:1460:A:N6	2.69	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
4:AD:3:ARG:O	4:AD:5:ILE:HG12	2.08	0.54
1:AA:1376:U:C5	7:AG:9:VAL:HA	2.37	0.54
9:AI:45:ALA:HB3	9:AI:48:GLU:OE1	2.07	0.54
1:AA:1060:C:H1'	10:AJ:53:PRO:HD2	1.88	0.54
10:AJ:43:ARG:HG2	10:AJ:67:THR:HG23	1.89	0.54
23:BA:2016:U:H1'	49:B5:6:VAL:HG13	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
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:1239:A:H2'	1:CA:1298:C:H42	1.72	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
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: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
23:DA:443:A:N7	27:DF:45:ARG:HG2	2.22	0.54
43:DZ:68:PRO:O	43:DZ:91:LEU:HB2	2.07	0.54
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.43	0.54
1:AA:345:C:H4'	1:AA:346:G:N7	2.22	0.54
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	1.88	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
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
23:BA:744:G:OP1	56:BA:4402:HOH:O	2.18	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:1503:U:H2'	23:DA:1504:C:C6	2.43	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:2577:A:H5'	49:D5:3:LYS:HD2	1.90	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
24:DB:107:G:OP1	43:DZ:31:ARG:NH2	2.41	0.54
1:AA:1258:G:O2'	1:AA:1259:C:O4'	2.25	0.54
23:BA:2361:A:OP1	52:B8:27:THR:HG23	2.08	0.54
23:BA:2834:G:H8	23:BA:2834:G:H5''	1.72	0.54
23:BA:645:C:H2'	23:BA:645:C:O2	2.07	0.54
23:BA:674:G:H1'	27:BF:74:ARG:HD3	1.90	0.54
36:BS:59:LYS:HB3	36:BS:60:GLY:HA2	1.89	0.54
1:CA:1046:A:H3'	1:CA:1047:G:C8	2.43	0.54
1:CA:833:U:H2'	1:CA:834:C:C6	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
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
23:DA:2727:G:O2'	32:DO:70:LYS:HE2	2.08	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
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
1:AA:1309:G:H5'	13:AM:78:ILE:HG12	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: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
23:DA:784:A:H5'	23:DA:785:G:OP1	2.07	0.54
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.31	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:N3	1:AA:397:A:H5''	2.23	0.54
1:AA:428:G:H4'	1:AA:429:U:O5'	2.08	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:857:C:OP2	44:B0:77:ARG:NH2	2.40	0.54
23:BA:628:G:H2'	23:BA:629:G:C8	2.43	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: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
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
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:1245:A:H2'	1:AA:1246:C:O4'	2.08	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:346:G:H21	1:AA:347:G:C1'	2.21	0.54
1:AA:382:A:H2'	1:AA:383:A:C8	2.43	0.54
1:AA:960:U:H1'	1:AA:1222:G:O2'	2.07	0.54
1:AA:406:G:H5''	4:AD:5:ILE:HG23	1.89	0.54
53:B9:14:CYS:HA	53:B9:27:CYS:HB2	1.89	0.54
23:BA:2025:C:P	56:BA:4207:HOH:O	2.65	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: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
1:AA:1377:A:N3	7:AG:7:ALA:HB1	2.22	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: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
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
1:CA:1151:A:N3	10:CJ:39:PRO:HG2	2.22	0.53
1:CA:35:G:O2'	12:CL:118:SER:O	2.25	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: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
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
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: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
1:CA:1493:A:O2'	1:CA:1494:G:O5'	2.24	0.53
1:CA:304:U:H2'	1:CA:305:G:C8	2.44	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:777:A:H2	11:CK:119:CYS:HB3	1.72	0.53
12:CL:102:ARG:HB3	12:CL:108:ALA:O	2.08	0.53
23:DA:2108:C:H6	23:DA:2108:C:H3'	1.72	0.53
23:DA:2815:C:H2'	23:DA:2816:C:H6	1.73	0.53
23:DA:819:A:H2'	23:DA:820:A:H5'	1.89	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
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
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: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
23:BA:607:U:OP1	27:BF:102:PRO:HA	2.08	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:999:C:N4	1:CA:1042:G:H1	2.04	0.53
1:CA:430:A:P	4:CD:22:LYS:HZ3	2.30	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: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
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
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:994:A:N6	1:AA:1215:G:O2'	2.41	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
3:AC:185:GLY:H	3:AC:200:ALA:HB3	1.71	0.53
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.89	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:234:C:H2'	23:BA:235:U:O4'	2.09	0.53
23:BA:2319:G:C2	36:BS:3:ARG:HA	2.44	0.53
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.38	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
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
52:D8:28:GLY:O	52:D8:36:LYS:NZ	2.41	0.53
23:DA:2305:A:H1'	28:DG:135:LEU:O	2.09	0.53
28:DG:156:ASP:O	28:DG:157:ILE:HG13	2.07	0.53
28:DG:16:ARG:HH21	28:DG:31:VAL:HB	1.74	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:1130:A:N6	1:CA:1144:G:N3	2.56	0.53
1:CA:1504:G:H3'	1:CA:1504:G:P	2.49	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:1298:C:P	7:CG:114:ARG:HH22	2.31	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:HA	30:BI:61:ARG:HH11	1.72	0.53
31:BN:56:ASN:H	31:BN:125:GLY:HA3	1.73	0.53
1:CA:1132:C:H2'	1:CA:1133:G:O4'	2.09	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
23:DA:1406:U:H2'	23:DA:1407:C:C6	2.42	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
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: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
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
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: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
23:BA:1022:G:N7	31:BN:66:LYS:HE2	2.23	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: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
1:CA:964:A:N3	1:CA:969:A:O2'	2.31	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: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
23:BA:588:U:H2'	23:BA:589:C:C6	2.43	0.53
27:BF:150:GLY:HA2	27:BF:172:TRP:CD2	2.43	0.53
1:CA:1009:G:N2	1:CA:1020:U:O2'	2.41	0.53
1:CA:437:U:O3'	4:CD:125:HIS:NE2	2.36	0.53
3:CC:33:LEU:HG	3:CC:34:LEU:N	2.23	0.53
3:CC:12:LEU:HD11	14:CN:51:GLY:CA	2.39	0.53
1:CA:1014:A:H5'	19:CS:14:HIS:ND1	2.24	0.53
44:D0:53:MET:HG3	44:D0:59:LEU:CD2	2.38	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
23:DA:813:U:H2'	23:DA:814:C:C6	2.44	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:134:PRO:C	30:DI:136:VAL:H	2.12	0.53
30:DI:14:ASP:O	30:DI:17:GLN:HB3	2.09	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
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
1:AA:999:C:H2'	1:AA:1000:U:C6	2.44	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
47:D3:4:LEU:O	47:D3:36:VAL:HA	2.08	0.53
23:DA:1593:G:H2'	23:DA:1594:G:C8	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
28:DG:134:GLY:HA2	28:DG:156:ASP:HA	1.91	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:112:LEU:HA	8:AH:134:ILE:HG12	1.90	0.52
8:AH:6:ILE:HB	8:AH:85:ARG:HH12	1.72	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:2144:U:O2'	23:BA:2145:C:H2'	2.08	0.52
23:BA:226:G:H21	23:BA:228:A:N6	2.05	0.52
23:BA:2557:G:H2'	23:BA:2558:C:C6	2.44	0.52
23:BA:974:G:O6	56:BA:4102:HOH:O	2.19	0.52
30:BI:68:LEU:C	30:BI:70:GLU:H	2.12	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
1:CA:428:G:H4'	1:CA:429:U:O5'	2.09	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:1016:A:H8	1:AA:1016:A:O5'	1.92	0.52
1:AA:984:C:H2'	1:AA:985:C:H6	1.74	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
1:AA:323:U:O3'	20:AT:22:ARG:HD3	2.10	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:1332:A:O2'	1:AA:1333:A:H5'	2.10	0.52
1:AA:21:G:H2'	1:AA:22:G:C8	2.45	0.52
7:AG:41:ARG:O	7:AG:45:ASP:N	2.43	0.52
48:B4:18:CYS:SG	48:B4:39:CYS:HB2	2.49	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:14:VAL:O	36:BS:18:ILE:HG12	2.09	0.52
40:BW:43:GLY:O	40:BW:47:VAL:HG23	2.10	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
44:D0:53:MET:HG3	44:D0:59:LEU:HD23	1.92	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
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
1:AA:473:G:H2'	1:AA:474:G:H8	1.75	0.52
1:AA:3:G:O2'	1:AA:4:U:OP2	2.19	0.52
12:AL:34:ARG:O	12:AL:61:THR:HG23	2.09	0.52
52:B8:28:GLY:O	52:B8:36:LYS:NZ	2.43	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
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: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
23:DA:2198:A:O5'	30:DI:33:ARG:NH2	2.42	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
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
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
1:AA:1131:G:N2	1:AA:1143:G:O2'	2.42	0.52
1:AA:940:C:N4	1:AA:1343:G:H1	2.06	0.52
1:AA:583:A:H2'	1:AA:584:G:O4'	2.09	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
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.44	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:HB2	42:BY:23:ARG:NH1	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:1362:C:H2'	1:CA:1363:C:H5''	1.91	0.52
1:CA:737:A:H2'	1:CA:738:C:C6	2.45	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: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
23:DA:263:C:H2'	23:DA:264:C:O4'	2.09	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:1220:G:H1'	19:AS:52:TYR:HD2	1.72	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
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:940:C:N4	1:CA:1343:G:H1	2.07	0.52
1:CA:20:U:H2'	1:CA:21:G:O4'	2.10	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: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
23:BA:725:G:C6	23:BA:726:G:N1	2.78	0.52
24:BB:105:A:OP1	43:BZ:72:ARG:NH1	2.43	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
1:CA:160:A:H2'	1:CA:161:A:O4'	2.10	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:2273:A:H2'	23:DA:2274:A:C8	2.45	0.52
23:DA:934:G:H2'	23:DA:935:C:C6	2.45	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
1:AA:517:G:N2	1:AA:531:U:H5'	2.25	0.52
1:AA:622:A:OP2	1:AA:623:C:N4	2.39	0.52
5:AE:32:VAL:HB	5:AE:58:ALA:HB1	1.92	0.52
1:AA:528:C:N4	12:AL:49:ASN:OD1	2.43	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:1277:C:H2'	1:CA:1278:U:H5'	1.91	0.52
1:CA:1238:A:OP2	1:CA:1300:G:N2	2.42	0.52
1:CA:193:C:H2'	1:CA:194:C:C6	2.45	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:735:C:H2'	1:CA:736:C:H6	1.75	0.52
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.45	0.52
45:D1:23:LYS:HG2	45:D1:29:GLY:HA3	1.92	0.52
23:DA:1474:C:N4	56:DA:3952:HOH:O	2.42	0.52
23:DA:234:C:H2'	23:DA:235:U:O4'	2.10	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
1:AA:1254:C:O4'	1:AA:1356:G:H5''	2.10	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
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.75	0.52
23:BA:1048:A:O2'	23:BA:1049:C:OP2	2.25	0.52
23:BA:217:G:OP2	56:BA:3945:HOH:O	2.19	0.52
23:BA:2250:G:O2'	23:BA:2496:C:OP1	2.20	0.52
1:CA:1084:G:H5''	1:CA:1086:U:C5	2.44	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
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: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:947:G:N1	1:AA:1234:C:O2	2.37	0.51
1:AA:1368:G:H5''	9:AI:112:LYS:HB3	1.93	0.51
1:AA:1251:A:H4'	1:AA:1370:G:H5'	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:1291:G:H4'	9:CI:38:GLN:O	2.09	0.51
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.10	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
1:CA:191:G:N2	20:CT:103:GLY:HA2	2.20	0.51
50:D6:34:LEU:HD22	50:D6:36:LEU:HD11	1.91	0.51
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.45	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:493:G:H2'	23:DA:494:G:O4'	2.10	0.51
23:DA:323:G:C8	27:DF:171:PRO:HG3	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
1:AA:1360:A:N3	1:AA:1360:A:H2'	2.25	0.51
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.10	0.51
1:AA:185:A:H2'	1:AA:186:C:C6	2.45	0.51
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.91	0.51
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.36	0.51
46:B2:44:LEU:HG	46:B2:45:SER:O	2.10	0.51
23:BA:2163:C:OP2	23:BA:2164:C:N4	2.42	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
31:BN:47:ALA:HB2	31:BN:112:LEU:HD11	1.91	0.51
23:BA:566:U:H5''	33:BP:29:LYS:HE3	1.92	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
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.41	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
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.77	0.51
49:D5:41:PRO:O	49:D5:44:THR:OG1	2.28	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
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
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
4:AD:104:VAL:HA	4:AD:107:ARG:HB2	1.93	0.51
23:BA:2275:C:H5'	23:BA:2275:C:H6	1.75	0.51
23:BA:2305:A:H2'	23:BA:2306:C:O4'	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
23:BA:2727:G:O2'	32:BO:70:LYS:HE2	2.10	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)
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.09	0.51
3:CC:13:GLY:HA3	14:CN:57:ARG:HH22	1.75	0.51
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.40	0.51
23:DA:2079:U:OP1	45:D1:21:ARG:NH2	2.42	0.51
23:DA:1547:C:H2'	23:DA:1548:C:H6	1.75	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: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
1:AA:737:A:H2'	1:AA:738:C:C6	2.46	0.51
47:B3:43:ILE:O	47:B3:47:VAL:HG23	2.11	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
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:1133:G:H1	1:CA:1141:C:H42	1.57	0.51
1:CA:1092:A:C6	1:CA:1183:A:H2	2.28	0.51
1:CA:971:G:P	1:CA:1231:G:H21	2.34	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
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: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
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
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: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
8:AH:57:PRO:O	8:AH:58:TYR:HD1	1.92	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:50:ILE:HB	14:AN:41:ARG:HE	1.76	0.51
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.91	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
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
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:1063:C:H5''	1:CA:1064:G:H3'	1.93	0.51
1:CA:1190:G:OP1	3:CC:5:ILE:HG22	2.11	0.51
1:CA:499:A:H4'	1:CA:500:G:H5'	1.92	0.51
1:CA:1107:C:C5'	3:CC:173:VAL:H	2.23	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:2286:A:OP1	50:D6:29:ASN:ND2	2.44	0.51
23:DA:2163:C:OP2	23:DA:2164:C:N4	2.41	0.51
30:DI:70:GLU:O	30:DI:74:ASN:ND2	2.43	0.51
23:DA:1140:C:O3'	31:DN:25:ARG:NH1	2.43	0.51
23:DA:2292:C:OP1	36:DS:17:ARG:NH2	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
13:AM:102:ARG:NH1	13:AM:104:ARG:HD3	2.25	0.51
1:AA:958:A:N6	19:AS:77:THR:O	2.43	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
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
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: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
23:DA:287:C:N3	23:DA:354:G:N1	2.46	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:101:A:H2'	1:AA:102:G:O4'	2.10	0.51
1:AA:1357:A:H2'	1:AA:1358:U:C2	2.45	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:7:G:O2'	5:AE:120:THR:O	2.28	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
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.93	0.51
23:BA:1378:A:OP1	51:B7:10:ARG:NH2	2.44	0.51
23:BA:2894:G:N3	23:BA:2894:G:H2'	2.26	0.51
23:BA:529:A:H62	23:BA:2041:U:H3	1.57	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:1272:G:H2'	1:CA:1273:G:C8	2.45	0.51
1:CA:688:G:H2'	1:CA:689:C:C6	2.46	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
23:DA:443:A:H1'	23:DA:1201:C:O4'	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
1:AA:560:U:H4'	1:AA:561:U:O5'	2.10	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
2:AB:163:PHE:HD1	2:AB:164:VAL:N	2.09	0.51
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.92	0.51
1:AA:599:C:H5''	8:AH:95:VAL:O	2.11	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
1:AA:987:G:H1'	19:AS:52:TYR:OH	2.10	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
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:995:C:OP2	38:DU:54:LYS:HE3	2.11	0.51
34:DQ:5:ARG:O	43:DZ:194:PRO:HD2	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
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
11:AK:32:ILE:HD11	11:AK:68:ALA:HB1	1.92	0.51
50:B6:9:LEU:HD21	50:B6:25:LYS:HB3	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
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.11	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
3:CC:18:TRP:HE1	14:CN:55:GLY:N	2.09	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:110:C:H2'	1:AA:111:G:O4'	2.10	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:H6	1:AA:1307:U:O5'	1.93	0.51
1:AA:937:A:H1'	1:AA:1379:G:N2	2.26	0.51
1:AA:544:G:C2	1:AA:545:C:C2	2.99	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: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
23:BA:863:A:H2'	23:BA:864:G:C8	2.46	0.51
24:BB:77:U:OP1	43:BZ:19:ARG:NH2	2.44	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
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.41	0.51
1:CA:1441:G:H4'	1:CA:1442:G:N7	2.25	0.51
1:CA:233:C:H2'	1:CA:234:C:H6	1.75	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:327:A:O2'	1:CA:329:A:H8	1.94	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
45:D1:82:LEU:HA	45:D1:85:LEU:HD23	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
1:AA:109:A:C6	1:AA:326:G:C6	2.99	0.50
1:AA:1323:G:O6	1:AA:1324:A:N6	2.44	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
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:2108:C:H6	23:BA:2108:C:H3'	1.76	0.50
23:BA:2126:A:H1'	23:BA:2127:G:OP2	2.11	0.50
23:BA:7:G:H2'	23:BA:8:A:O4'	2.10	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
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
7:CG:9:VAL:HG13	7:CG:94:ARG:HH21	1.76	0.50
9:CI:87:GLN:HE21	9:CI:87:GLN:HA	1.76	0.50
47:D3:6:VAL:HG12	47:D3:54:VAL:HG11	1.93	0.50
40:DW:19:LEU:HB3	49:D5:25:LEU:HD11	1.93	0.50
23:DA:2131:G:H8	23:DA:2131:G:OP2	1.93	0.50
36:DS:7:TYR:CE1	36:DS:91:PRO:HG3	2.46	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
1:AA:1151:A:OP2	1:AA:1151:A:H8	1.94	0.50
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.25	0.50
1:AA:971:G:OP1	1:AA:972:C:C6	2.64	0.50
3:AC:179:ARG:NH2	3:AC:206:GLU:OE2	2.43	0.50
23:BA:1296:G:OP1	23:BA:2709:G:O2'	2.24	0.50
23:BA:1499:C:O2'	23:BA:1500:G:H5'	2.11	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2124:G:H1	23:BA:2174:C:N4	2.09	0.50
23:BA:784:A:H3'	56:BA:4111:HOH:O	2.11	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: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
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
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
1:CA:664:G:P	18:CR:64:ARG:HH21	2.33	0.50
22:CV:30:PRO:HB3	22:CV:40:TRP:CD2	2.45	0.50
46:D2:69:ARG:O	46:D2:70:GLN:HB2	2.11	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:C8	23:DA:2439:A:H5'	2.46	0.50
43:DZ:128:VAL:HG22	43:DZ:161:VAL:H	1.75	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
1:AA:509:A:H3'	1:AA:509:A:C8	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
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: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
23:DA:639:U:H2'	23:DA:640:C:H6	1.77	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
4:AD:110:PHE:CD1	4:AD:110:PHE:N	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
1:AA:1230:C:N4	13:AM:105:THR:HG21	2.26	0.50
22:AV:31:TYR:CD2	22:AV:31:TYR:N	2.79	0.50
45:B1:23:LYS:HG2	45:B1:29:GLY:HA3	1.93	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
1:CA:1442(B):A:O2'	1:CA:1443:G:OP2	2.24	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
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:1638:C:H4'	23:DA:2710:C:O2	2.11	0.50
23:DA:795:C:H2'	23:DA:796:C:H6	1.77	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:1400:C:H4'	1:AA:1401:G:OP2	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
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
1:AA:1227:A:O4'	19:AS:83:HIS:HB3	2.12	0.50
23:BA:1210:A:C8	23:BA:1210:A:H5'	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
23:BA:247:G:H4'	23:BA:386:G:C5	2.46	0.50
29:BH:86:GLU:HG2	29:BH:132:ARG:HG3	1.93	0.50
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.76	0.50
1:CA:1458:G:H2'	1:CA:1458:G:N3	2.27	0.50
1:CA:649:G:H2'	1:CA:650:G:H8	1.76	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:841:U:C2	1:CA:841:U:OP2	2.64	0.50
4:CD:7:PRO:O	4:CD:10:ARG:HB3	2.11	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
23:DA:863:A:H2'	23:DA:864:G:C8	2.47	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:HH11	42:DY:23:ARG:HB2	1.77	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
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
9:AI:49:PRO:HG3	9:AI:101:PHE:CD2	2.47	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
23:BA:748:G:C8	40:BW:89:ALA:HB1	2.46	0.50
37:BT:55:ASN:N	37:BT:59:THR:HG22	2.26	0.50
1:CA:1015:A:H2	1:CA:1218:C:O2	1.94	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
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.44	0.50
41:DX:11:PRO:HD3	46:D2:37:PHE:CZ	2.45	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
23:DA:271(N):U:O2'	23:DA:271(O):C:H5'	2.12	0.50
29:DH:69:ARG:HG3	29:DH:70:THR:N	2.26	0.50
41:DX:27:THR:HG23	41:DX:80:ILE:HG13	1.94	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
1:AA:762:C:H2'	1:AA:763:G:H8	1.76	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:982:U:N3	1:CA:1223:C:N3	2.58	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1310:G:H1	1:CA:1327:C:H42	1.60	0.50
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.93	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:1084:G:C5	1:AA:1085:U:C4	2.99	0.50
1:AA:1320:C:H2'	1:AA:1321:C:C6	2.47	0.50
1:AA:353:A:C8	1:AA:353:A:H5'	2.43	0.50
1:AA:818:G:O2'	1:AA:819:A:H5'	2.12	0.50
2:AB:87:ARG:HG3	2:AB:233:SER:OG	2.12	0.50
1:AA:1190:G:OP1	3:AC:5:ILE:HG22	2.11	0.50
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.27	0.50
4:AD:7:PRO:O	4:AD:10:ARG:HB3	2.11	0.50
19:AS:35:SER:HA	19:AS:37:ARG:HG3	1.93	0.50
1:AA:1268:A:O3'	21:AU:23:PRO:HB3	2.11	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:1387:G:H2'	1:CA:1388:C:C6	2.39	0.50
1:CA:192:U:H2'	1:CA:193:C:C6	2.47	0.50
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.93	0.50
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.11	0.50
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.11	0.50
50:D6:8:LYS:HD3	52:D8:34:TRP:CD2	2.46	0.50
52:D8:32:LEU:O	52:D8:36:LYS:HE3	2.12	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
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
23:DA:910:A:C5	34:DQ:13:GLN:HG3	2.47	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DS:29:PHE:CD2	36:DS:30:ARG:N	2.79	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
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
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:N	12:AL:92:ASP:OD1	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: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
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
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
33:DP:38:GLN:HA	33:DP:41:ARG:HG2	1.93	0.50
24:DB:38:C:O4'	36:DS:95:HIS:NE2	2.44	0.50
1:AA:60:A:H8	1:AA:60:A:P	2.35	0.49
3:AC:156:ARG:H	3:AC:196:LEU:HD12	1.77	0.49
4:AD:128:VAL:CG1	4:AD:129:ASN:HD22	2.22	0.49
4:AD:59:ARG:HA	4:AD:62:GLN:HB2	1.94	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:OD1	8:CH:121:ASP:N	2.44	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
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
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)
44:B0:51:VAL:N	44:B0:62:LEU:HD12	2.28	0.49
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
1:CA:1003:G:C4	1:CA:1004:A:H1'	2.46	0.49
1:CA:109:A:C6	1:CA:326:G:C6	3.00	0.49
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.47	0.49
7:CG:130:GLY:HA2	7:CG:135:VAL:HG21	1.94	0.49
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.24	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
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.32	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: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
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
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: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
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
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
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
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:271(M):G:O2'	23:BA:271(N):U:H3'	2.11	0.49
23:BA:2818:G:O2'	23:BA:2819:G:H5'	2.12	0.49
23:BA:821:A:H2'	23:BA:946:G:H5''	1.95	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
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.47	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
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: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
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
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:1072:G:C5	1:AA:1073:U:C4	3.01	0.49
1:AA:59:A:H3'	1:AA:331:G:H22	1.77	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:OP2	23:BA:1914:C:H6	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:1115:C:O2	1:CA:1185:G:N1	2.35	0.49
1:CA:920:U:C2	1:CA:921:U:C5	3.01	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
1:CA:429:U:C3'	4:CD:22:LYS:HZ3	2.25	0.49
6:CF:91:VAL:CG1	18:CR:72:ARG:HH12	2.26	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
23:DA:307:G:H21	23:DA:330:A:H62	1.60	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:1104:G:C6	1:AA:1105:A:C5	3.00	0.49
1:AA:934:C:H41	1:AA:939:G:N2	2.11	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
1:AA:1228:C:H41	13:AM:104:ARG:CG	2.25	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
49:B5:13:LYS:HB3	56:B5:203:HOH:O	2.13	0.49
23:BA:1858:G:H2'	23:BA:1883:G:H22	1.77	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
1:CA:1135:U:O2'	1:CA:1137:C:H5'	2.12	0.49
1:CA:728:A:H2'	1:CA:729:A:C8	2.47	0.49
2:CB:204:ASN:CG	2:CB:206:ASP:H	2.15	0.49
2:CB:32:ILE:HD11	2:CB:190:THR:HG22	1.94	0.49
20:CT:41:ILE:HG22	20:CT:91:LEU:HD12	1.93	0.49
46:D2:23:LYS:O	46:D2:27:GLU:HG2	2.12	0.49
23:DA:2611:U:C4	49:D5:3:LYS:HG2	2.47	0.49
23:DA:1514:U:H2'	23:DA:1515:G:C8	2.47	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
43:DZ:152:ALA:HA	43:DZ:155:LEU:HD13	1.94	0.49
1:AA:1046:A:C6	1:AA:1047:G:H1'	2.48	0.49
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.13	0.49
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.95	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
1:AA:982:U:P	14:AN:6:LEU:HD11	2.53	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:1962:C:O2'	23:BA:1964:G:OP2	2.29	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
25:BD:175:LEU:HD12	25:BD:185:VAL:HG21	1.94	0.49
23:BA:2572:A:N7	26:BE:145:LYS:HB2	2.27	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:1025:U:O2	1:CA:1036:G:C6	2.66	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
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:857:C:H4'	44:D0:23:VAL:HG21	1.94	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
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: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
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:1296:C:H5''	13:AM:14:ARG:NE	2.27	0.49
1:AA:203:U:H4'	1:AA:204:U:OP1	2.13	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:959:A:C1'	1:AA:985:C:H1'	2.41	0.49
19:AS:53:ASN:N	19:AS:56:GLN:O	2.27	0.49
44:B0:11:ARG:O	44:B0:14:ARG:NH2	2.44	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:196:A:O4'	33:BP:46:LYS:HE2	2.13	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
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
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
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:130:TYR:HB3	30:DI:138:ILE:HB	1.93	0.49
30:DI:40:THR:O	30:DI:44:LEU:HB2	2.13	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
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
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
1:AA:136:C:O2'	16:AP:65:GLN:OE1	2.31	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:1269:A:C8	1:CA:1270:C:H1'	2.48	0.49
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.47	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:937:A:H1'	1:CA:1379:G:N2	2.28	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: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
23:DA:274:G:H2'	23:DA:275:G:C8	2.47	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
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
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
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
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:146:ILE:HA	43:BZ:174:VAL:HG12	1.94	0.49
43:BZ:77:ASP:OD1	43:BZ:80:ARG:HG2	2.12	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
1:CA:375:U:H2'	1:CA:376:G:H8	1.78	0.49
1:CA:39:G:N7	1:CA:547:A:H8	2.10	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
50:D6:11:LEU:HB3	50:D6:49:HIS:HB3	1.95	0.49
23:DA:125:G:H5''	51:D7:19:ARG:HD3	1.94	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
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.11	0.49
23:DA:821:A:H2'	23:DA:946:G:H5''	1.94	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:DF:32:LEU:HD12	27:DF:32:LEU:HA	1.60	0.49
1:AA:114:U:H2'	1:AA:115:G:C8	2.48	0.48
1:AA:1315:U:C4	1:AA:1316:G:C2	3.01	0.48
1:AA:103:C:H1'	1:AA:171:A:N1	2.28	0.48
1:AA:31:G:O2'	1:AA:48:C:N4	2.45	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:77:G:C6	1:AA:93:G:C6	3.01	0.48
11:AK:21:ILE:HG12	11:AK:30:VAL:HG12	1.94	0.48
23:BA:857:C:H4'	44:B0:23:VAL:HG21	1.94	0.48
23:BA:856:C:O4'	44:B0:27:GLU:HB3	2.12	0.48
51:B7:47:ARG:HH11	51:B7:47:ARG:HG3	1.78	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
23:BA:7:G:H1	23:BA:2896:C:H42	1.61	0.48
29:BH:32:GLU:O	29:BH:33:LEU:HD23	2.13	0.48
23:BA:64:A:O3'	41:BX:71:GLY:HA3	2.13	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:36:C:H5''	12:CL:123:LYS:HD3	1.94	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
46:D2:64:LEU:HD21	46:D2:68:ARG:HE	1.78	0.48
23:DA:517:C:OP1	49:D5:16:ARG:NH2	2.42	0.48
52:D8:7:HIS:HD2	52:D8:10:ALA:N	2.01	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
1:CA:1493:A:H1'	23:DA:1913:A:N6	2.27	0.48
23:DA:2208:A:H1'	23:DA:2219:G:C4	2.48	0.48
23:DA:855:G:H2'	23:DA:856:C:C6	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
1:AA:1094:G:O2'	1:AA:1108:G:N1	2.46	0.48
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.47	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:971:G:N7	1:AA:1364:U:O2'	2.46	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
45:B1:51:VAL:HG11	45:B1:74:VAL:HG21	1.94	0.48
23:BA:1970:A:H4'	23:BA:1971:A:OP1	2.13	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
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
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
1:CA:502:G:C2	1:CA:503:C:C2	3.01	0.48
2:CB:87:ARG:HG3	2:CB:233:SER:OG	2.13	0.48
1:CA:1057:G:H5'	3:CC:155:GLY:HA2	1.95	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
46:D2:44:LEU:HG	46:D2:45:SER:O	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
23:DA:7:G:H2'	23:DA:8:A:O4'	2.12	0.48
24:DB:5:C:O2'	24:DB:27:C:O2	2.30	0.48
33:DP:82:GLY:HA2	33:DP:113:LYS:O	2.12	0.48
33:DP:27:HIS:O	33:DP:31:ALA:HA	2.13	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:ND2	40:DW:60:ASN:N	2.60	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
1:AA:967:C:H3'	1:AA:968:A:C8	2.48	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:31:GLN:NE2	9:AI:36:TYR:HD1	2.11	0.48
9:AI:7:THR:HB	9:AI:83:ARG:NH1	2.28	0.48
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.79	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
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
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: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
23:BA:545:G:H4'	23:BA:545:G:OP1	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
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: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
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
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: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: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
24:DB:32:C:N3	24:DB:51:G:C2	2.82	0.48
23:DA:2723:C:OP2	26:DE:109:LYS:NZ	2.46	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: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
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
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
1:AA:36:C:H5''	12:AL:123:LYS:HD3	1.95	0.48
46:B2:22:GLU:OE2	46:B2:68:ARG:NH2	2.46	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
23:BA:271(Y):U:O3'	23:BA:271(Z):C:H6	1.96	0.48
26:BE:179:GLU:HB3	26:BE:181:LEU:HD22	1.95	0.48
26:BE:37:ARG:HA	26:BE:42:ASP:OD2	2.13	0.48
40:BW:83:LYS:O	40:BW:84:ARG:HD3	2.12	0.48
1:CA:102:G:H2'	1:CA:103:C:H6	1.79	0.48
1:CA:1095:U:H2'	1:CA:1096:C:N1	2.28	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
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)
44:D0:11:ARG:O	44:D0:14:ARG:NH2	2.46	0.48
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
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
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
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.13	0.48
4:AD:9:CYS:SG	4:AD:26:CYS:SG	3.11	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:HD1	16:AP:17:TYR:N	2.12	0.48
44:B0:53:MET:HG3	44:B0:59:LEU:HD23	1.96	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
23:BA:997:G:OP1	38:BU:92:ARG:HG2	2.14	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:H	31:BN:96:GLU:CD	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
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
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
13:CM:102:ARG:HE	13:CM:104:ARG:HB3	1.79	0.48
44:D0:26:TYR:O	44:D0:29:GLN:HB2	2.14	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
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.14	0.48
1:AA:1458:G:N3	1:AA:1458:G:H2'	2.28	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
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
52:B8:32:LEU:O	52:B8:36:LYS:HE3	2.13	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
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:359:U:H2'	1:CA:360:A:C8	2.48	0.48
1:CA:1370:G:C8	9:CI:109:VAL:HG21	2.49	0.48
45:D1:94:LEU:O	45:D1:97:LEU:HB2	2.13	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:H6	23:DA:1914:C:OP2	1.96	0.48
23:DA:2690:C:N4	23:DA:2713:A:H1'	2.28	0.48
23:DA:495:G:N7	56:DA:4056:HOH:O	2.35	0.48
24:DB:90:A:C5	24:DB:91:C:H1'	2.49	0.48
26:DE:112:GLY:O	26:DE:159:HIS:HA	2.13	0.48
26:DE:35:GLN:OE1	26:DE:66:HIS:HE1	1.95	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
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.49	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
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
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
43:BZ:144:LEU:HD21	43:BZ:150:LEU:HG	1.95	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BQ:7:MET:HE1	43:BZ:193:GLU:CB	2.44	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
1:CA:1286:A:H61	1:CA:1355:G:P	2.37	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
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: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
23:DA:154:G:H8	23:DA:154:G:H5''	1.79	0.48
23:DA:2162:G:H4'	23:DA:2172:U:O2'	2.14	0.48
23:DA:958:U:H5''	34:DQ:14:ARG:HD3	1.95	0.48
1:AA:1159:U:H3	1:AA:1182:G:H1	1.61	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
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
1:AA:1349:A:H5'	9:AI:120:ARG:HG2	1.96	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
50:B6:11:LEU:HB3	50:B6:49:HIS:HB3	1.95	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:2748:A:OP1	29:BH:70:THR:HG21	2.13	0.48
23:BA:1138:G:H2'	31:BN:106:MET:HE2	1.95	0.48
36:BS:83:LYS:C	36:BS:111:GLU:HG3	2.33	0.48
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.49	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
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
47:D3:8:LEU:HD13	47:D3:31:LEU:HA	1.96	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2378:A:H4'	36:DS:23:ARG:NH1	2.29	0.48
23:DA:2834:G:C8	23:DA:2834:G:H5''	2.49	0.48
36:DS:96:GLY:N	36:DS:99:LYS:H	2.12	0.48
1:AA:1001(A):G:H2'	1:AA:1002:G:H8	1.79	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
1:AA:1202:G:H1'	14:AN:42:ILE:HG21	1.95	0.48
45:B1:3:LYS:HE3	45:B1:3:LYS:HB3	1.51	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
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
24:BB:2:C:H2'	24:BB:3:C:C6	2.48	0.48
33:BP:39:LYS:CB	33:BP:45:LEU:HG	2.37	0.48
24:BB:91:C:OP1	34:BQ:16:ARG:HG2	2.14	0.48
1:CA:1325:C:H5''	21:CU:17:THR:HG21	1.96	0.48
1:CA:148:G:O2'	1:CA:149:A:H5'	2.13	0.48
1:CA:1403:C:H1'	1:CA:1500:A:N1	2.29	0.48
1:CA:77:G:C6	1:CA:93:G:C6	3.02	0.48
1:CA:980:C:H3'	1:CA:981:U:C6	2.49	0.48
3:CC:175:LEU:HG	3:CC:175:LEU:H	1.54	0.48
20:CT:76:ALA:HA	20:CT:79:ARG:NH1	2.29	0.48
48:D4:16:CYS:SG	48:D4:20:ASN:N	2.87	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
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
1:AA:192:U:H2'	1:AA:193:C:H6	1.79	0.47
1:AA:31:G:H5'	1:AA:306:G:H21	1.77	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
40:BW:19:LEU:O	49:B5:25:LEU:HD12	2.14	0.47
23:BA:1049:C:H2'	23:BA:1050:A:C8	2.48	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
23:BA:2784:C:H1'	26:BE:37:ARG:NH1	2.28	0.47
31:BN:18:ALA:O	31:BN:21:LYS:HB2	2.14	0.47
24:BB:8:U:O3'	36:BS:25:ARG:NH2	2.47	0.47
1:CA:1131:G:N2	1:CA:1143:G:O2'	2.46	0.47
1:CA:1126:U:OP2	1:CA:1281:U:H1'	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
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
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
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
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
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
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
1:AA:2:U:H2'	1:AA:3:G:O4'	2.14	0.47
10:AJ:15:THR:HA	10:AJ:18:ALA:H	1.79	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
23:BA:524:U:H2'	23:BA:525:U:C6	2.49	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
23:BA:751:A:H5'	40:BW:90:ARG:HA	1.97	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
52:D8:62:LEU:HB3	52:D8:65:GLU:HG2	1.96	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DT:23:ARG:HG3	37:DT:120:ARG:NH1	2.29	0.47
40:DW:83:LYS:O	40:DW:84:ARG:HD3	2.15	0.47
1:AA:1149:C:O2'	1:AA:1280:A:N6	2.47	0.47
1:AA:1332:A:O5'	1:AA:1332:A:H8	1.98	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
4:AD:5:ILE:O	4:AD:5:ILE:HG22	2.14	0.47
8:AH:121:ASP:OD1	8:AH:121:ASP:N	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: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
1:CA:722:A:O2'	1:CA:723:U:H5''	2.14	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:1405:U:H2'	23:DA:1406:U:H6	1.78	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
39:DV:58:VAL:HG12	39:DV:97:LYS:HB2	1.96	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
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
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: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
23:BA:754:C:H2'	23:BA:755:C:H6	1.78	0.47
26:BE:21:VAL:HA	26:BE:22:PRO:HD2	1.69	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.49	0.47
1:CA:203:U:OP2	1:CA:203:U:H3'	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
3:CC:131:ARG:NH2	5:CE:50:GLU:OE1	2.45	0.47
1:CA:1128:C:OP1	9:CI:66:ARG:NH2	2.48	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: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
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
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
1:AA:742:G:OP1	15:AO:59:MET:HE2	2.14	0.47
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.81	0.47
48:B4:16:CYS:HB2	48:B4:36:CYS:SG	2.55	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
23:BA:529:A:OP2	31:BN:114:ARG:NH2	2.47	0.47
1:CA:1127:G:H4'	9:CI:66:ARG:HH12	1.79	0.47
1:CA:920:U:H2'	1:CA:921:U:H6	1.79	0.47
3:CC:191:THR:OG1	3:CC:192:THR:N	2.46	0.47
1:CA:547:A:OP2	4:CD:2:GLY:HA2	2.13	0.47
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.97	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
5:CE:93:PRO:HG2	8:CH:105:ARG:CZ	2.45	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: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
23:DA:92:A:C2'	23:DA:93:G:H5'	2.45	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: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
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
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.14	0.47
23:DA:2693:A:H2'	23:DA:2694:G:H8	1.78	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
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
23:DA:1652:A:OP1	35:DR:8:ARG:HD3	2.14	0.47
41:DX:53:LYS:HB3	41:DX:82:GLN:HB3	1.96	0.47
1:AA:1245:A:N6	1:AA:1293:G:N1	2.62	0.47
1:AA:1349:A:H1'	1:AA:1374:A:N6	2.29	0.47
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	1.96	0.47
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.95	0.47
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.44	0.47
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.15	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:1796:U:H4'	25:BD:256:GLY:N	2.30	0.47
23:BA:2334:G:O6	44:B0:74:ARG:NH1	2.40	0.47
23:BA:362:U:O2'	23:BA:363:G:H5''	2.15	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:90:U:O2'	23:BA:92:A:P	2.71	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
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
41:BX:27:THR:HG23	41:BX:80:ILE:HG13	1.97	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:59:A:H5'	1:CA:60:A:C5'	2.44	0.47
1:CA:745:C:OP1	1:CA:851:G:O2'	2.27	0.47
1:CA:426:G:P	4:CD:36:ARG:NH1	2.87	0.47
1:CA:1373:G:C5'	7:CG:36:LYS:HB2	2.42	0.47
12:CL:57:LYS:HE2	12:CL:67:THR:HG23	1.97	0.47
12:CL:5:PRO:HB2	12:CL:10:LEU:HD11	1.96	0.47
45:D1:82:LEU:HD22	45:D1:90:ILE:HG23	1.97	0.47
23:DA:2884:U:O2	49:D5:53:ALA:HB2	2.15	0.47
23:DA:2016:U:H1'	49:D5:6:VAL:HG13	1.96	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
23:DA:2497:A:H5''	56:DA:3635:HOH:O	2.13	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
31:DN:34:LEU:HA	31:DN:34:LEU:HD12	1.73	0.47
1:AA:1039:C:N3	1:AA:1040:U:C4	2.83	0.47
1:AA:999:C:N4	1:AA:1042:G:H1	2.13	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
1:AA:978:A:N7	1:AA:1360:A:N6	2.63	0.47
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.49	0.47
1:AA:345:C:C4'	1:AA:346:G:N7	2.78	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:405:U:O4	4:AD:2:GLY:N	2.48	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
13:AM:108:ARG:HD2	13:AM:112:GLY:O	2.15	0.47
13:AM:5:ALA:HB1	13:AM:66:LEU:HD13	1.96	0.47
14:AN:4:LYS:HD3	14:AN:4:LYS:O	2.15	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.95	0.47
50:B6:16:CYS:SG	50:B6:18:ARG:HG3	2.55	0.47
33:BP:63:PRO:HG2	52:B8:25:MET:HB2	1.96	0.47
23:BA:1479:G:O2'	23:BA:1558:A:H5'	2.14	0.47
23:BA:2206:G:H5'	23:BA:2207:G:N7	2.29	0.47
23:BA:2439:A:C8	23:BA:2439:A:H5'	2.50	0.47
23:BA:244:A:C2	23:BA:255:A:C4	3.03	0.47
23:BA:2845:G:O2'	23:BA:2846:G:H5'	2.15	0.47
23:BA:902:C:H2'	23:BA:903:C:C6	2.50	0.47
37:BT:97:ALA:O	37:BT:98:LYS:HD2	2.14	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:622:A:OP2	1:CA:623:C:N4	2.47	0.47
1:CA:939:G:H1	1:CA:1344:C:N4	2.12	0.47
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.97	0.47
1:CA:438:G:OP1	4:CD:125:HIS:CE1	2.66	0.47
15:CO:24:SER:O	15:CO:27:VAL:N	2.47	0.47
23:DA:2317:C:H2'	23:DA:2318:G:H5'	1.96	0.47
23:DA:29:U:H2'	23:DA:30:G:C8	2.50	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:2659:G:P	29:DH:158:HIS:HE2	2.36	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
1:AA:458:C:H2'	1:AA:460:G:C8	2.47	0.47
1:AA:841:U:C2	1:AA:841:U:OP2	2.68	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
1:AA:941:G:OP1	7:AG:32:ARG:HD2	2.15	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: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
23:BA:278:A:H4'	23:BA:279:C:OP1	2.14	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: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
1:CA:408:A:H61	1:CA:434:U:H3	1.62	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
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:HA	20:CT:55:ILE:HD13	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: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
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
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
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
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
1:CA:1356:G:H2'	1:CA:1357:A:O4'	2.15	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1319:A:H2'	19:CS:4:SER:HB2	1.97	0.47
53:D9:8:LYS:O	53:D9:34:GLN:NE2	2.45	0.47
23:DA:143:G:H2'	23:DA:143(A):C:C6	2.50	0.47
1:CA:1493:A:H1'	23:DA:1913:A:C6	2.49	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
23:DA:720:C:H2'	23:DA:721:C:C6	2.48	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
1:AA:106:C:H2'	1:AA:107:G:H8	1.80	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
1:AA:1152:A:H5'	10:AJ:13:HIS:CD2	2.50	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:1652:A:C2'	23:BA:1653:G:H5'	2.45	0.47
23:BA:1493:C:C4	23:BA:2206:G:H1'	2.50	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: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
1:CA:509:A:H5''	4:CD:55:ALA:HB2	1.95	0.47
2:CB:21:ARG:N	2:CB:21:ARG:HD3	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
49:D5:35:GLU:HG3	49:D5:51:TYR:CB	2.45	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
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
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
1:AA:105:G:H2'	1:AA:106:C:C6	2.50	0.46
1:AA:1227:A:H8	19:AS:83:HIS:ND1	2.12	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1360:A:H3'	1:AA:1361:G:C8	2.50	0.46
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.14	0.46
1:AA:872:A:C5	1:AA:874:G:C8	3.03	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
1:AA:1308:U:OP1	13:AM:97:PRO:HA	2.16	0.46
21:AU:15:ARG:HD3	21:AU:17:THR:HG22	1.97	0.46
23:BA:1210:A:H4'	23:BA:1211:U:O5'	2.14	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
30:BI:140:LEU:HA	30:BI:140:LEU:HD23	1.53	0.46
32:BO:47:ILE:HB	32:BO:48:PRO:HD2	1.97	0.46
1:AA:1442(B):A:C2	37:BT:118:ARG:NE	2.83	0.46
1:CA:1236:A:OP1	21:CU:2:GLY:HA3	2.15	0.46
1:CA:978:A:H5''	1:CA:979:C:OP2	2.14	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
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
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
23:DA:307:G:N7	56:DA:3950:HOH:O	2.35	0.46
23:DA:64:A:O3'	41:DX:71:GLY:HA3	2.15	0.46
23:DA:657:U:H2'	23:DA:658:C:C6	2.50	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: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
1:AA:933:G:C8	7:AG:3:ARG:HD2	2.50	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
2:AB:21:ARG:N	2:AB:21:ARG:HD3	2.30	0.46
2:AB:84:GLU:HA	2:AB:87:ARG:HB3	1.97	0.46
19:AS:57:HIS:ND1	19:AS:57:HIS:N	2.64	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:86:CYS:O	19:AS:73:GLU:HB3	2.15	0.46
22:AV:51:ARG:HB3	22:AV:51:ARG:HH11	1.80	0.46
23:BA:2208:A:H1'	23:BA:2219:G:C4	2.50	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
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: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
1:CA:152:A:N6	1:CA:170:U:H3	2.12	0.46
1:CA:31:G:O2'	1:CA:48:C:N4	2.48	0.46
1:CA:622:A:C8	1:CA:623:C:C6	3.03	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
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
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
23:DA:278:A:H4'	23:DA:279:C:OP1	2.15	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
1:AA:1237:C:O2'	1:AA:1335:C:H5'	2.15	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:59:A:H5'	1:AA:60:A:C5'	2.41	0.46
1:AA:745:C:H2'	1:AA:746:A:C8	2.49	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: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
23:BA:530:G:N1	56:BA:4292:HOH:O	2.25	0.46
23:BA:83:G:OP1	42:BY:95:LYS:NZ	2.48	0.46
25:BD:242:ARG:HD3	25:BD:242:ARG:N	2.30	0.46
23:BA:1816:G:N1	25:BD:35:LYS:HD3	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: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
1:CA:509:A:H8	1:CA:509:A:H3'	1.80	0.46
1:CA:662:G:O2'	1:CA:836:G:OP1	2.32	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
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
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
23:DA:955:C:OP1	34:DQ:87:LYS:HE2	2.14	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
1:AA:1099:G:N3	1:AA:1099:G:H2'	2.31	0.46
1:AA:1503:A:C8	1:AA:1531:A:H1'	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
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
3:AC:58:GLU:O	3:AC:59:ARG:HG3	2.15	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:HA	36:BS:80:LEU:HD12	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: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
1:CA:376:G:P	16:CP:67:THR:HG21	2.55	0.46
23:DA:1021:A:N6	23:DA:1142(A):A:H61	2.13	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2238:G:H2'	23:DA:2238:G:N3	2.30	0.46
23:DA:2275:C:H5'	23:DA:2275:C:H6	1.80	0.46
23:DA:415:A:H2'	23:DA:416:C:C6	2.50	0.46
23:DA:492:A:H2'	23:DA:493:G:O4'	2.15	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: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:1313:U:C2	1:AA:1324:A:N1	2.83	0.46
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.50	0.46
1:AA:1349:A:C8	1:AA:1373:G:N2	2.77	0.46
1:AA:530:G:H3'	1:AA:530:G:OP1	2.15	0.46
1:AA:60:A:H8	1:AA:60:A:OP1	1.98	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
3:AC:134:ILE:HG13	3:AC:134:ILE:H	1.42	0.46
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.48	0.46
4:AD:200:GLU:OE2	4:AD:200:GLU:N	2.49	0.46
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.98	0.46
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	1.96	0.46
1:AA:36:C:H4'	12:AL:122:THR:O	2.16	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:115:G:H4'	1:CA:116:A:O5'	2.15	0.46
1:CA:1369:C:OP2	9:CI:112:LYS:N	2.37	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:79:G:H2'	1:CA:80:G:C8	2.50	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:HE	12:CL:102:ARG:HB3	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
45:D1:3:LYS:HE3	45:D1:3:LYS:HB3	1.52	0.46
23:DA:1171:G:H1	23:DA:1178:C:H42	1.63	0.46
23:DA:919:G:N2	23:DA:2269:A:OP2	2.45	0.46
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.15	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
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:HA	30:DI:61:ARG:HH11	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
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
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
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
1:AA:986:A:H1'	19:AS:55:LYS:HA	1.96	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
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
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
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:93:G:H1'	1:CA:96:U:H5'	1.97	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:HE2	11:CK:122:LYS:HB3	1.68	0.46
15:CO:63:ARG:HG2	15:CO:67:LEU:HD12	1.97	0.46
44:D0:24:LYS:O	44:D0:25:ARG:HD3	2.16	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
23:DA:469:G:H2'	23:DA:470:A:H5''	1.96	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
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
1:AA:17:U:H2'	1:AA:18:C:H6	1.77	0.46
1:AA:203:U:OP2	1:AA:203:U:H3'	2.15	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
46:B2:69:ARG:O	46:B2:70:GLN:HB2	2.15	0.46
23:BA:125:G:C6	51:B7:10:ARG:HG3	2.51	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
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:950:G:C6	23:BA:951:C:C4	3.04	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
23:BA:910:A:C5	34:BQ:13:GLN:HG3	2.51	0.46
43:BZ:5:LEU:O	43:BZ:59:LEU:HA	2.16	0.46
1:CA:1122:U:O4	1:CA:1123:A:N6	2.47	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
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
1:CA:1060:C:OP1	10:CJ:51:ARG:NH1	2.48	0.46
23:DA:1418:G:O5'	23:DA:1418:G:H8	1.99	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:69:ARG:NH2	25:DD:128:GLY:O	2.38	0.46
23:DA:2636:U:H4'	26:DE:80:GLU:OE2	2.16	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:HG3	37:DT:118:ARG:HH11	1.80	0.46
1:AA:1042:G:C8	1:AA:1042:G:OP2	2.67	0.46
1:AA:1305:G:O2'	1:AA:1306:A:OP2	2.28	0.46
1:AA:945:G:N7	1:AA:1337:G:H1'	2.30	0.46
1:AA:1458:G:H5'	20:AT:31:SER:CB	2.46	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
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: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
23:BA:323:G:C8	27:BF:171:PRO:HG3	2.51	0.46
23:BA:92:A:C2'	23:BA:93:G:H5'	2.45	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:1236:A:H2'	1:CA:1237:C:C6	2.51	0.46
1:CA:344:A:H3'	1:CA:346:G:O6	2.16	0.46
1:CA:353:A:C8	1:CA:353:A:H5'	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:1360:A:C8	14:CN:18:VAL:HG22	2.50	0.46
23:DA:2285:C:OP2	50:D6:6:ARG:NH1	2.47	0.46
23:DA:234:C:H2'	23:DA:235:U:H6	1.81	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
23:DA:2748:A:OP1	29:DH:70:THR:HG21	2.16	0.46
34:DQ:16:ARG:O	34:DQ:17:LEU:HD23	2.15	0.46
1:AA:1127:G:H1'	1:AA:1148:U:N3	2.31	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:116:A:H61	1:AA:313:A:H1'	1.81	0.46
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
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:1779:U:C5	23:BA:1784:A:N7	2.64	0.46
23:BA:196:A:H2'	23:BA:196:A:N3	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
29:BH:94:TYR:CE2	29:BH:107:VAL:HB	2.50	0.46
29:BH:56:SER:OG	29:BH:57:ASP:N	2.49	0.46
36:BS:24:LEU:HA	36:BS:24:LEU:HD23	1.77	0.46
43:BZ:5:LEU:HD22	43:BZ:6:LYS:H	1.81	0.46
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.51	0.46
1:CA:980:C:H3'	1:CA:981:U:H6	1.81	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
1:CA:626:U:H5''	16:CP:38:TYR:CG	2.51	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
47:D3:4:LEU:N	47:D3:37:LEU:O	2.45	0.46
23:DA:128:C:H2'	23:DA:129:C:H6	1.80	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:271(R):G:H2'	23:DA:271(S):G:C8	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
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
30:DI:124:GLY:N	30:DI:144:VAL:HG13	2.31	0.46
30:DI:97:ILE:O	30:DI:100:ALA:HB3	2.16	0.46
37:DT:11:GLU:O	37:DT:15:VAL:HG23	2.16	0.46
1:AA:1027:C:C2	1:AA:1034:G:N2	2.84	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1179:A:HO2'	1:AA:1180:A:C5'	2.28	0.46
1:AA:11:G:C5	1:AA:12:U:C5	3.03	0.46
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
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
1:AA:1291:G:H5''	7:AG:41:ARG:NH2	2.31	0.46
40:BW:41:LYS:HE3	49:B5:25:LEU:HD21	1.96	0.46
24:BB:117:G:H2'	24:BB:118:G:O4'	2.16	0.46
43:BZ:45:ASP:O	43:BZ:49:ARG:HG3	2.16	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
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
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: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:646:A:N3	23:DA:646:A:H5'	2.31	0.46
23:DA:655:A:H8	23:DA:656:G:O4'	1.98	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:1346:A:N6	1:AA:1374:A:C8	2.84	0.45
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
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
1:AA:1240:U:C4	7:AG:32:ARG:NH2	2.84	0.45
1:AA:1377:A:H2'	7:AG:7:ALA:CB	2.46	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)
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
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
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
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
1:CA:1227:A:OP2	13:CM:111:LYS:HG2	2.16	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
2:CB:47:THR:O	2:CB:51:LEU:HB2	2.16	0.45
4:CD:25:ARG:HG2	4:CD:25:ARG:O	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:1364:G:OP2	45:D1:3:LYS:HG2	2.16	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
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: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: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:102:PHE:CE2	28:DG:141:PHE:HE1	2.33	0.45
28:DG:63:ILE:HD13	28:DG:155:MET:HE1	1.98	0.45
23:DA:2406:U:C4	33:DP:72:PRO:HD2	2.51	0.45
39:DV:52:VAL:HG22	39:DV:55:ALA:HB3	1.97	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
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

*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
52:B8:29:LYS:HG2	52:B8:44:LYS:HB3	1.98	0.45
23:BA:1141:U:H4'	23:BA:1142(A):A:O4'	2.16	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
23:BA:2312:U:H5'	28:BG:88:ILE:HD12	1.97	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:128:VAL:HG22	43:BZ:161:VAL:H	1.81	0.45
43:BZ:24:LEU:HB2	43:BZ:41:LEU:HD23	1.98	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
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
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.98	0.45
3:CC:150:LYS:HB3	3:CC:150:LYS:NZ	2.31	0.45
3:CC:23:TYR:OH	3:CC:25:GLY:HA3	2.17	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:1536:C:O2'	23:DA:1537:G:O5'	2.28	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
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: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:1412:C:H2'	1:AA:1413:A:C8	2.51	0.45
1:AA:519:C:H2'	1:AA:520:A:H8	1.80	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
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.30	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:1369:C:OP1	14:AN:61:TRP:NE1	2.49	0.45
47:B3:4:LEU:O	47:B3:36:VAL:HA	2.15	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
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
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:111:VAL:C	43:BZ:113:ALA:N	2.69	0.45
43:BZ:80:ARG:HG2	43:BZ:80:ARG:H	1.62	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: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
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.16	0.45
11:CK:16:SER:HA	11:CK:79:SER:HB3	1.98	0.45
44:D0:53:MET:HA	44:D0:58:THR:O	2.16	0.45
23:DA:1364:G:N7	45:D1:3:LYS:HD3	2.30	0.45
45:D1:64:ALA:HA	45:D1:67:ILE:HG13	1.97	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
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
28:DG:174:GLU:O	28:DG:177:GLY:N	2.45	0.45
34:DQ:119:ARG:HB3	34:DQ:119:ARG:HE	1.62	0.45
39:DV:21:ARG:HG3	39:DV:93:GLU:HG3	1.98	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
1:AA:57:G:N2	1:AA:388:G:C6	2.81	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:49:PRO:HG3	9:AI:101:PHE:CG	2.49	0.45
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.17	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:1721:G:C2	23:BA:1739:U:OP2	2.70	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
24:BB:25:A:H2'	24:BB:26:A:O4'	2.16	0.45
31:BN:55:VAL:HG22	31:BN:126:PRO:HA	1.99	0.45
24:BB:49:C:OP1	36:BS:96:GLY:HA2	2.17	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
46:D2:51:ARG:O	46:D2:51:ARG:HG2	2.16	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:196:A:H2'	23:DA:196:A:N3	2.31	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:26:G:C6	23:DA:27:G:N1	2.85	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
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:971:G:C8	1:AA:1365:G:H1'	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: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
3:AC:23:TYR:CE2	10:AJ:95:GLU:HG2	2.50	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:1419:A:C8	23:BA:1421:G:C6	3.05	0.45
23:BA:2131:G:H3'	23:BA:2131:G:OP2	2.17	0.45
23:BA:2134:A:N3	23:BA:2159:G:H1'	2.31	0.45
23:BA:375:C:H2'	23:BA:376:C:C6	2.51	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:1179:A:OP1	1:CA:1179:A:H8	1.99	0.45
1:CA:426:G:H2'	1:CA:427:U:C6	2.52	0.45
1:CA:35:G:N2	1:CA:550:G:N3	2.65	0.45
1:CA:801:U:H2'	1:CA:802:A:H8	1.82	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: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
23:DA:643:A:C2	23:DA:644:A:C4	3.04	0.45
23:DA:645:C:H2'	23:DA:645:C:O2	2.15	0.45
25:DD:213:ARG:HD2	25:DD:213:ARG:HA	1.61	0.45
43:DZ:53:ILE:HG22	43:DZ:71:VAL:O	2.17	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:962:C:O2	1:AA:973:G:N1	2.33	0.45
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.16	0.45
4:AD:188:LEU:HG	4:AD:188:LEU:H	1.33	0.45
4:AD:68:TYR:CE2	4:AD:97:LEU:HD22	2.52	0.45
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.99	0.45
1:AA:1375:A:H4'	7:AG:29:LYS:NZ	2.32	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
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
23:BA:1180:C:H2'	23:BA:1181:C:H6	1.80	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
23:BA:1697:G:OP2	23:BA:1698:A:O2'	2.22	0.45
23:BA:828:U:H4'	23:BA:831:G:N1	2.32	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
23:BA:2203:U:H4'	25:BD:151:LYS:HG2	1.98	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
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: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
1:CA:1399:C:C2	1:CA:1502:A:N6	2.85	0.45
1:CA:298:A:H8	1:CA:298:A:OP1	2.00	0.45
1:CA:116:A:H61	1:CA:313:A:H1'	1.82	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
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
47:D3:43:ILE:O	47:D3:47:VAL:HG23	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
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
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
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
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
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.16	0.45
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.51	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:42:ILE:HG21	2:AB:202:PRO:O	2.17	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: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
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:N3	23:BA:774:A:H2'	2.31	0.45
23:BA:937:U:H2'	23:BA:938:G:O4'	2.16	0.45
31:BN:54:VAL:HG11	31:BN:99:LEU:HD12	1.97	0.45
23:BA:252:G:P	33:BP:50:ARG:HH11	2.38	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
48:D4:40:HIS:HB3	48:D4:43:TYR:HB3	1.98	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
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
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
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
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.32	0.45
21:AU:20:LYS:HE3	21:AU:20:LYS:HB3	1.72	0.45
23:BA:1047:G:H21	23:BA:1111:A:N6	2.14	0.45
23:BA:195:A:H4'	23:BA:251:A:O2'	2.16	0.45
23:BA:2199:A:OP2	23:BA:2200:C:H5	1.99	0.45
23:BA:923:C:C4'	44:B0:29:GLN:HE21	2.29	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: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
1:CA:57:G:H2'	1:CA:58:C:C6	2.52	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
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
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
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
24:DB:29:A:OP2	36:DS:32:LEU:HD12	2.17	0.45
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.52	0.45
1:AA:1269:A:OP2	1:AA:1269:A:C8	2.70	0.45
1:AA:1293:G:C2	1:AA:1294:G:C8	3.04	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
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:CD2	18:AR:31:LEU:H	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
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
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
1:CA:154:C:C4	1:CA:168:G:N1	2.84	0.45
1:CA:405:U:H3'	1:CA:406:G:H5'	1.97	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:505:G:C6	1:CA:535:A:C2	3.05	0.45
1:CA:77:G:C6	1:CA:78:G:C6	3.04	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:1332:G:H5'	23:DA:1332:G:N3	2.32	0.45
23:DA:2387:U:O2'	44:D0:41:ARG:NH2	2.42	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
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: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:106:C:H2'	1:AA:107:G:C8	2.52	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:1424:C:H2'	1:AA:1425:U:O4'	2.17	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: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
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	1.99	0.45
1:AA:1376:U:O5'	7:AG:94:ARG:NH2	2.50	0.45
9:AI:105:ASP:OD1	9:AI:105:ASP:N	2.50	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
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:1342:C:H1'	9:CI:124:GLN:NE2	2.32	0.45
1:CA:600:C:H2'	1:CA:601:C:H6	1.81	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:688:G:O2'	1:CA:704:A:N1	2.43	0.45
1:CA:717:C:H5''	1:CA:717:C:H6	1.81	0.45
1:CA:994:A:N3	1:CA:994:A:H2'	2.31	0.45
3:CC:156:ARG:HD3	3:CC:193:TYR:HB2	1.99	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG3	2.17	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
44:D0:51:VAL:HG23	44:D0:81:VAL:HG23	1.97	0.45
41:DX:5:TYR:HD1	46:D2:33:MET:CE	2.30	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
23:DA:637:A:H8	33:DP:117:GLU:HG3	1.82	0.45
34:DQ:75:THR:HA	34:DQ:89:ASN:O	2.17	0.45
1:AA:1041:A:N6	1:AA:1042:G:C2	2.85	0.44
1:AA:1040:U:C4	1:AA:1041:A:N7	2.85	0.44
1:AA:1054:C:H6	1:AA:1054:C:H2'	1.57	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
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
7:AG:14:PRO:HA	7:AG:20:ASP:C	2.37	0.44
1:AA:1060:C:C1'	10:AJ:53:PRO:HD2	2.47	0.44
45:B1:20:ARG:CG	45:B1:20:ARG:HH11	2.27	0.44
52:B8:34:TRP:O	52:B8:36:LYS:N	2.50	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
23:BA:764:A:N3	25:BD:213:ARG:NH1	2.65	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
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
1:CA:728:A:H2'	1:CA:729:A:H8	1.81	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: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
23:DA:510:C:H2'	23:DA:511:U:O4'	2.17	0.44
23:DA:90:U:O2'	23:DA:92:A:P	2.74	0.44
25:DD:274:ARG:HG3	25:DD:274:ARG:H	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:69:G:C2	1:AA:101:A:N1	2.85	0.44
1:AA:1030(B):C:C2'	1:AA:1030(C):G:H5'	2.47	0.44
1:AA:1006:C:P	1:AA:1037:C:O2'	2.75	0.44
1:AA:115:G:H4'	1:AA:116:A:O5'	2.17	0.44
1:AA:1225:A:N3	1:AA:1225:A:H2'	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
1:AA:49:U:H3	1:AA:362:G:H1'	1.83	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
48:B4:30:GLU:O	48:B4:31:ILE:HG13	2.17	0.44
50:B6:44:ARG:HH11	50:B6:44:ARG:HB3	1.83	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:272(J):C:H2'	23:BA:274:G:O4'	2.17	0.44
23:BA:2833:G:O2'	23:BA:2834:G:P	2.76	0.44
23:BA:754:C:H2'	23:BA:755:C:C6	2.52	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
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
45:D1:86:SER:OG	45:D1:89:GLU:HG2	2.16	0.44
23:DA:1359:A:C6	23:DA:1372:U:O4	2.68	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N3	23:DA:2320:A:H2'	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: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
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:2574:G:N3	26:DE:143:ASN:ND2	2.66	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
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
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
44:B0:51:VAL:HG23	44:B0:81:VAL:HG23	1.97	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
23:BA:542:C:H2'	23:BA:543:C:H6	1.83	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
1:CA:1097:C:H2'	1:CA:1098:C:O4'	2.17	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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
7:CG:80:VAL:HG12	7:CG:80:VAL:O	2.18	0.44
8:CH:73:ASP:HA	8:CH:74:PRO:HD2	1.75	0.44
1:CA:1371:G:H5''	9:CI:68:GLY:HA2	2.00	0.44
1:CA:1151:A:C2	10:CJ:39:PRO:HG2	2.52	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
52:D8:4:MET:HE3	52:D8:63:PRO:CG	2.47	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: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
23:DA:652(A):A:H4'	23:DA:652(B):A:OP1	2.17	0.44
25:DD:76:PRO:HB2	25:DD:116:GLN:NE2	2.32	0.44
23:DA:2009:G:OP1	40:DW:41:LYS:HE2	2.17	0.44
43:DZ:151:HIS:C	43:DZ:153:SER:H	2.20	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
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
1:AA:932:C:H5''	7:AG:3:ARG:HH11	1.83	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: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:H6	23:BA:2416:C:O5'	2.00	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
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:1492:A:H4'	1:CA:1492:A:OP1	2.18	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
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
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.32	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
23:DA:192:C:O2'	23:DA:802:A:N3	2.40	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: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:888:G:H4'	1:AA:1488:G:O2'	2.18	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:H6	1:AA:717:C:H5''	1.83	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
1:AA:1320:C:C2	19:AS:36:ARG:HG3	2.52	0.44
20:AT:36:LEU:HA	20:AT:36:LEU:HD13	1.86	0.44
50:B6:21:TYR:CE2	50:B6:38:LYS:HG2	2.52	0.44
23:BA:1478:G:H2'	23:BA:1479:G:H8	1.83	0.44
23:BA:1310:G:H1'	23:BA:1611:C:H5'	1.99	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
23:BA:574:C:OP1	56:BA:4003:HOH:O	2.20	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
1:CA:1459:C:H2'	1:CA:1460:A:N7	2.33	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
12:CL:124:LYS:HA	12:CL:125:PRO:HD3	1.76	0.44
12:CL:41:ARG:HH12	12:CL:57:LYS:HE3	1.82	0.44
46:D2:53:LEU:O	46:D2:57:ILE:HG13	2.17	0.44
47:D3:4:LEU:HA	47:D3:4:LEU:HD23	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
23:DA:1141:U:OP1	31:DN:25:ARG:NH1	2.51	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
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
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.18	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
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: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
23:BA:469:G:C2'	23:BA:470:A:H5''	2.47	0.44
23:BA:92:A:O2'	23:BA:93:G:H5'	2.17	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:151:HIS:C	43:BZ:153:SER:H	2.21	0.44
43:BZ:70:LEU:HD23	43:BZ:70:LEU:HA	1.83	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:1288:A:C6	1:CA:1289:A:C5	3.05	0.44
1:CA:324:G:N2	1:CA:327:A:C8	2.86	0.44
1:CA:69:G:N1	1:CA:70:G:C5	2.86	0.44
1:CA:869:G:H4'	1:CA:872:A:O4'	2.17	0.44
1:CA:1190:G:P	3:CC:5:ILE:HG22	2.57	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
50:D6:14:THR:HG21	50:D6:48:VAL:HG13	2.00	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
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
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
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:63:ASP:OD1	43:DZ:65:GLN:HB3	2.17	0.44
43:DZ:19:ARG:NH1	43:DZ:84:GLU:O	2.51	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
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.14	0.44
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.31	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
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: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
23:BA:639:U:H2'	23:BA:640:C:H6	1.76	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:1206:G:C6	1:CA:1207:G:C5	3.06	0.44
1:CA:185:A:H2'	1:CA:186:C:C6	2.53	0.44
1:CA:969:A:H2'	1:CA:970:C:O4'	2.17	0.44
4:CD:128:VAL:CG1	4:CD:129:ASN:HD22	2.22	0.44
1:CA:1373:G:H5''	7:CG:36:LYS:HE2	1.99	0.44
9:CI:28:VAL:HG22	9:CI:63:ILE:HD12	2.00	0.44
1:CA:521:G:OP1	12:CL:73:GLU:HA	2.17	0.44
17:CQ:81:ARG:HA	17:CQ:81:ARG:HD2	1.63	0.44
23:DA:2038:G:O6	56:DA:3654:HOH:O	2.20	0.44
23:DA:829:A:N7	23:DA:2248:C:H5'	2.33	0.44
23:DA:271(Y):U:O3'	23:DA:271(Z):C:H6	2.00	0.44
23:DA:71:A:H5''	23:DA:73:A:C8	2.52	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: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:119:A:C5	1:AA:240:C:C4	3.06	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
1:AA:477:A:H2'	1:AA:479:C:H6	1.82	0.44
1:AA:3:G:H4'	1:AA:4:U:OP2	2.18	0.44
1:AA:521:G:H2'	1:AA:522:C:H6	1.83	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
1:AA:1202:G:C8	14:AN:42:ILE:HD13	2.52	0.44
16:AP:72:ARG:HG2	16:AP:73:LEU:HD23	2.00	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
53:B9:7:VAL:HA	53:B9:34:GLN:OE1	2.18	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
23:BA:952:G:C6	23:BA:953:A:N7	2.86	0.44
25:BD:68:LYS:O	25:BD:70:TRP:CD1	2.71	0.44
27:BF:181:LEU:HA	27:BF:181:LEU:HD12	1.84	0.44
27:BF:22:ALA:HB1	27:BF:24:LEU:HD22	1.99	0.44
37:BT:35:LYS:HB3	37:BT:35:LYS:HE2	1.74	0.44
43:BZ:183:LEU:HD23	43:BZ:183:LEU:HA	1.84	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
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
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:110:LEU:HD12	5:CE:118:ILE:HG21	1.99	0.44
5:CE:29:GLY:HA2	5:CE:47:LYS:HA	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:1137:C:H5'	1:AA:1138:G:N1	2.33	0.44
1:AA:1492:A:N3	1:AA:1492:A:H2'	2.32	0.44
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.33	0.44
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.44
1:AA:445:G:C6	1:AA:490:G:C6	3.06	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:1127:G:C4	1:CA:1147:C:N4	2.86	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:99:U:H2'	1:CA:100:C:H6	1.82	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
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:150:GLY:HA2	27:DF:172:TRP:CE3	2.53	0.44
27:DF:46:ARG:HH11	27:DF:46:ARG:CG	2.21	0.44
23:DA:2316:C:H1'	28:DG:128:ARG:NH2	2.32	0.44
31:DN:42:TRP:CE3	38:DU:63:VAL:HG11	2.52	0.44
23:DA:2562:U:C1'	32:DO:23:ARG:HH11	2.25	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: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
1:AA:22:G:H2'	1:AA:23:C:C6	2.53	0.43
1:AA:933:G:N7	7:AG:3:ARG:HD2	2.32	0.43
1:AA:99:U:H2'	1:AA:100:C:C6	2.53	0.43
3:AC:193:TYR:CD2	3:AC:193:TYR:N	2.86	0.43
7:AG:156:TRP:CE3	7:AG:156:TRP:N	2.85	0.43
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.17	0.43
46:B2:23:LYS:O	46:B2:27:GLU:HG2	2.18	0.43
23:BA:125:G:H5''	51:B7:19:ARG:HD3	1.99	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
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:166:SER:HA	43:BZ:167:PRO:HD3	1.83	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
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
7:CG:92:SER:H	7:CG:95:ARG:HD3	1.83	0.43
8:CH:92:ARG:HA	8:CH:92:ARG:HD3	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
44:D0:17:GLN:OE1	44:D0:17:GLN:HA	2.18	0.43
23:DA:2356:C:O3'	44:D0:20:ARG:HD3	2.18	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:271(Q):G:O2'	23:DA:271(R):G:OP2	2.36	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
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.17	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
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:1288:U:C2	23:BA:1327:C:O2	2.71	0.43
23:BA:654:A:H2	23:BA:655:A:C2	2.36	0.43
23:BA:9:U:OP1	31:BN:115:ARG:NH2	2.51	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:1013:G:H1'	1:CA:1017:G:H1	1.82	0.43
1:CA:114:U:H2'	1:CA:115:G:C8	2.53	0.43
1:CA:1310:G:H1	1:CA:1327:C:N4	2.16	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
48:D4:30:GLU:O	48:D4:31:ILE:HG13	2.18	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
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:118:U:C5	1:AA:288:A:C6	3.06	0.43
1:AA:1293:G:N3	1:AA:1294:G:C8	2.86	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:93:G:H1'	1:AA:96:U:H5'	1.99	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
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
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: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
23:BA:1782:C:C4	23:BA:2587:A:C2	3.06	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
1:CA:1234:C:H2'	1:CA:1235:U:C6	2.54	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1308:U:O2'	1:CA:1309:G:H5'	2.19	0.43
1:CA:345:C:H4'	1:CA:346:G:N7	2.32	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
2:CB:139:LYS:O	2:CB:143:GLU:HB2	2.18	0.43
2:CB:71:VAL:N	2:CB:163:PHE:O	2.46	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
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.89	0.43
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	2.18	0.43
14:CN:13:THR:HA	14:CN:14:PRO:HD2	1.88	0.43
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.19	0.43
16:CP:54:GLU:HG2	16:CP:54:GLU:H	1.45	0.43
16:CP:55:ARG:O	16:CP:58:TYR:N	2.51	0.43
44:D0:31:VAL:HB	44:D0:35:ASN:ND2	2.33	0.43
23:DA:1049:C:H2'	23:DA:1050:A:C8	2.53	0.43
23:DA:1047:G:H21	23:DA:1111:A:N6	2.17	0.43
23:DA:1142(A):A:C4	23:DA:1144:G:C8	3.06	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
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
23:DA:2562:U:O2'	32:DO:23:ARG:HD3	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
31:DN:38:HIS:O	38:DU:67:ALA:HB1	2.18	0.43
41:DX:57:LEU:HD13	41:DX:78:LYS:HG2	1.99	0.43
1:AA:1053:G:H4'	1:AA:1055:A:OP1	2.18	0.43
1:AA:107:G:H2'	1:AA:108:G:O4'	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
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
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
47:B3:6:VAL:HG13	47:B3:56:VAL:HG13	1.99	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
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
1:CA:513:C:H2'	1:CA:514:C:C6	2.53	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: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
23:DA:836:G:H5''	23:DA:837:C:OP2	2.17	0.43
27:DF:32:LEU:HB3	27:DF:112:MET:HE1	2.00	0.43
28:DG:166:ASP:O	28:DG:170:ARG:N	2.37	0.43
28:DG:64:THR:OG1	28:DG:65:GLY:N	2.51	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: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
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
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
1:AA:777:A:C2	11:AK:119:CYS:HB3	2.53	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:20:TYR:CE2	11:AK:83:ILE:HD12	2.54	0.43
11:AK:17:GLY:HA2	11:AK:35:PRO:HD3	2.00	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: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
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
36:BS:29:PHE:CD2	36:BS:30:ARG:N	2.87	0.43
24:BB:29:A:OP2	36:BS:32:LEU:HD12	2.18	0.43
38:BU:25:TRP:O	38:BU:28:ARG:HB2	2.18	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:1355:G:H2'	1:CA:1356:G:C8	2.53	0.43
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.01	0.43
1:CA:203:U:P	1:CA:203:U:H3'	2.59	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
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.18	0.43
1:CA:1279:A:H61	3:CC:26:LYS:NZ	2.16	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
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	2.01	0.43
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.36	0.43
6:CF:91:VAL:HG21	18:CR:72:ARG:HH12	1.84	0.43
44:D0:72:ARG:CB	44:D0:75:LEU:HB2	2.48	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:375:C:H2'	23:DA:376:C:C6	2.54	0.43
24:DB:113:G:H2'	24:DB:114:C:H6	1.82	0.43
23:DA:2572:A:C8	26:DE:144:ARG:HD2	2.54	0.43
31:DN:112:LEU:O	31:DN:115:ARG:N	2.48	0.43
38:DU:104:GLN:H	38:DU:104:GLN:CD	2.22	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:AA:964:A:H2'	1:AA:965:A:H8	1.81	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:44:PHE:HB3	8:AH:80:ILE:HD11	2.00	0.43
8:AH:9:MET:SD	8:AH:32:LYS:HG2	2.58	0.43
1:AA:973:G:H4'	10:AJ:54:PHE:O	2.18	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: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
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
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: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
1:CA:380:G:C2	1:CA:384:G:C6	3.06	0.43
1:CA:60:A:P	1:CA:60:A:H8	2.41	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
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
44:D0:65:GLY:CA	44:D0:81:VAL:HG12	2.46	0.43
23:DA:1885:A:H2'	23:DA:1886:C:O4'	2.18	0.43
23:DA:2109:U:C3'	23:DA:2109:U:C6	3.01	0.43
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.54	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:33:LEU:HD23	25:DD:33:LEU:HA	1.39	0.43
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
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:O5'	1:AA:1403:C:H6	2.01	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
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
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
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:2109:U:C6	23:BA:2109:U:C3'	3.01	0.43
23:BA:2104:G:O6	23:BA:2186:G:C4	2.72	0.43
23:BA:271(M):G:HO2'	23:BA:271(N):U:H3'	1.84	0.43
24:BB:33:G:C2	24:BB:50:G:C2	3.06	0.43
28:BG:176:LEU:HA	28:BG:176:LEU:HD23	1.90	0.43
30:BI:61:ARG:HD2	30:BI:61:ARG:N	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
1:CA:1247:U:H1'	1:CA:1291:G:H22	1.84	0.43
1:CA:826:C:H2'	1:CA:827:U:H6	1.84	0.43
1:CA:91:C:H2'	1:CA:92:C:C6	2.54	0.43
1:CA:953:G:H2'	1:CA:954:G:O4'	2.18	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:111:LEU:HA	3:CC:202:ILE:HG21	1.99	0.43
3:CC:20:SER:HB2	3:CC:22:TRP:NE1	2.33	0.43
5:CE:55:VAL:O	5:CE:58:ALA:HB3	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:24:G:H2'	23:DA:25:U:O4'	2.19	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:HE2	37:DT:35:LYS:HB3	1.76	0.43
43:DZ:128:VAL:HG12	43:DZ:129:SER:N	2.33	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: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
1:AA:557:G:C6	1:AA:558:G:C6	3.06	0.43
5:AE:60:TYR:O	5:AE:63:ARG:HB2	2.19	0.43
7:AG:104:LEU:HD12	7:AG:123:GLU:HG3	2.00	0.43
7:AG:97:GLN:HA	7:AG:100:ALA:HB3	2.00	0.43
13:AM:94:ARG:NH2	19:AS:80:TYR:HB3	2.32	0.43
1:AA:1244:C:OP1	21:AU:9:ARG:HB2	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
23:BA:2478:A:H5'	53:B9:31:LYS:HE2	2.00	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
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
1:CA:1090:U:H6	1:CA:1090:U:O5'	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
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
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
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

*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:1535:A:H3'	23:DA:1535:A:OP1	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
23:DA:953:A:OP2	34:DQ:16:ARG:NE	2.47	0.43
25:DD:71:ASP:HB3	25:DD:103:ARG:HH22	1.83	0.43
23:DA:1500:G:N2	25:DD:99:ASP:O	2.48	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
23:DA:662:G:H5'	33:DP:14:LYS:O	2.19	0.43
37:DT:27:THR:HB	37:DT:90:GLN:HB3	2.00	0.43
37:DT:2:ASN:O	37:DT:6:LEU:HD22	2.19	0.43
43:DZ:98:MET:SD	43:DZ:133:ILE:HD13	2.59	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:113:G:H2'	1:AA:114:U:C6	2.54	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
1:AA:175:C:H2'	1:AA:176:C:C6	2.54	0.43
1:AA:44:G:C6	1:AA:45:U:C2	3.07	0.43
1:AA:472:A:H4'	16:AP:80:PHE:O	2.19	0.43
1:AA:49:U:O4	1:AA:365:U:H5	2.02	0.43
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.43
1:AA:78:G:N2	1:AA:92:C:O2	2.52	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:HG3	15:AO:17:ARG:HH11	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:107:C:H2'	23:BA:108:U:C6	2.53	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
23:BA:861:A:H2'	23:BA:862:G:O4'	2.18	0.43
23:BA:94:C:H5''	23:BA:94(A):G:OP2	2.19	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: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
1:CA:613:C:N4	1:CA:627:G:H1	2.16	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
51:D7:34:ARG:NH1	51:D7:39:ARG:HG3	2.34	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
23:DA:601:C:O2	23:DA:605:C:H4'	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
1:AA:1060:C:C5'	10:AJ:51:ARG:HB3	2.49	0.43
1:AA:1120:G:N3	1:AA:1120:G:H2'	2.33	0.43
2:AB:132:LYS:HA	2:AB:135:GLN:NE2	2.34	0.43
7:AG:121:ALA:HB3	7:AG:122:HIS:CD2	2.54	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
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
49:B5:35:GLU:HG3	49:B5:51:TYR:CB	2.49	0.43
50:B6:44:ARG:NH1	50:B6:44:ARG:HB3	2.34	0.43
52:B8:61:LEU:C	52:B8:63:PRO:HD3	2.40	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:HG2	27:BF:106:ARG:H	1.50	0.43
28:BG:153:ARG:HE	28:BG:153:ARG:HB2	1.51	0.43
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:HA	16:CP:60:LEU:HD23	1.91	0.43
20:CT:41:ILE:H	20:CT:41:ILE:HG13	1.26	0.43
46:D2:50:ILE:O	46:D2:51:ARG:CB	2.63	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: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
23:DA:1638:C:H5''	23:DA:2710:C:O2'	2.19	0.43
23:DA:89:G:OP2	23:DA:90:U:H3'	2.19	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
1:AA:1001:A:C6	1:AA:1041:A:C5	3.07	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
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
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.36	0.42
21:AU:9:ARG:CZ	21:AU:10:ARG:HH22	2.32	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:1669:A:H5''	23:BA:2550:G:OP1	2.20	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:89:G:OP2	23:BA:90:U:H3'	2.19	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
30:BI:35:LEU:HD23	30:BI:35:LEU:N	2.34	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BN:42:TRP:HA	31:BN:48:MET:SD	2.59	0.42
23:BA:2378:A:H4'	36:BS:23:ARG:NH1	2.33	0.42
38:BU:61:TRP:CH2	38:BU:93:LYS:HB2	2.53	0.42
1:CA:1356:G:C6	1:CA:1357:A:C6	3.07	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
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:HA	12:CL:85:ILE:HD13	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: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
23:DA:1268:A:C2	23:DA:2013:A:C4	3.07	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
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:1106:G:C6	1:AA:1107:C:C4	3.07	0.42
1:AA:124:G:C5	1:AA:125:U: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:121:VAL:O	4:AD:134:ASP:HA	2.19	0.42
4:AD:61:LYS:O	4:AD:65:ARG:HB2	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:HA	9:AI:19:LEU:HD23	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
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.35	0.42
21:AU:12:LYS:HZ2	21:AU:17:THR:C	2.21	0.42
23:BA:2111:C:C4	23:BA:2145:C: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:2712:U:H1'	23:BA:2712(A):A:C8	2.55	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
24:BB:88:C:H2'	24:BB:89:G:O4'	2.20	0.42
27:BF:32:LEU:HA	27:BF:32:LEU:HD12	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: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
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
45:D1:15:ALA:O	45:D1:40:ARG:HG3	2.19	0.42
23:DA:1419:A:C8	23:DA:1421:G:C6	3.08	0.42
23:DA:1529:G:O5'	23:DA:1529:G:H8	2.02	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:C6	23:DA:2108:C:C3'	3.02	0.42
23:DA:2294:C:OP1	36:DS:89:ARG:NH1	2.43	0.42
23:DA:236:C:H2'	23:DA:237:C:H6	1.84	0.42
23:DA:2557:G:H2'	23:DA:2558: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:1796:U:H4'	25:DD:256:GLY:N	2.33	0.42
26:DE:21:VAL:HA	26:DE:22:PRO:HD2	1.74	0.42
26:DE:93:VAL:HG22	26:DE:93:VAL:H	1.55	0.42
28:DG:24:GLY:O	28:DG:26:GLN:NE2	2.53	0.42
24:DB:57:A:H1'	28:DG:29:TRP:HB2	2.01	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
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
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:O5'	1:AA:791:G:H8	2.03	0.42
1:AA:938:A:C2	1:AA:939:G:H1'	2.54	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)
44:B0:17:GLN:HA	44:B0:17:GLN:OE1	2.18	0.42
41:BX:5:TYR:HD1	46:B2:33:MET:CE	2.32	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: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
23:BA:601:C:O2	23:BA:605:C:H4'	2.20	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
23:BA:2292:C:P	36:BS:17:ARG:HH22	2.41	0.42
37:BT:50:ILE:HG22	37:BT:102:ILE:HD11	2.01	0.42
23:BA:548:A:H61	39:BV:19:LYS:H	1.66	0.42
39:BV:20:LEU:HA	39:BV:20:LEU:HD12	1.79	0.42
40:BW:60:ASN:ND2	40:BW:60:ASN:N	2.67	0.42
41:BX:53:LYS:HB3	41:BX:82:GLN:HB3	2.01	0.42
34:BQ:21:THR:O	43:BZ:78:LYS:HD3	2.20	0.42
1:CA:1022:G:H2'	1:CA:1023:G:H8	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:137:ALA:O	3:CC:140:ARG:HB2	2.19	0.42
3:CC:114:PRO:CA	3:CC:185:GLY:HA3	2.49	0.42
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.85	0.42
1:CA:1128:C:H5'	9:CI:16:ARG:HH12	1.84	0.42
50:D6:10:LEU:HD23	50:D6:22:ALA:HB2	2.01	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
23:DA:1161:C:H1'	39:DV:8:GLY:O	2.19	0.42
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	2.02	0.42
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:AC:127:ARG:NE	3:AC:193:TYR:OH	2.52	0.42
23:BA:1367:A:N7	23:BA:1368:G:H1'	2.35	0.42
23:BA:2095:C:H2'	23:BA:2096:U:O4'	2.19	0.42
23:BA:649:G:H2'	23:BA:650:C:O4'	2.18	0.42
23:BA:1798:U:OP2	25:BD:274:ARG:NH2	2.52	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
23:BA:2198:A:O5'	30:BI:33:ARG:NH2	2.51	0.42
30:BI:5:LEU:HD12	30:BI:5:LEU:N	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:1174:G:H2'	1:CA:1175:G:H8	1.84	0.42
1:CA:522:C:H5''	12:CL:120:TYR:HH	1.79	0.42
46:D2:27:GLU:HG2	46:D2:27:GLU:H	1.68	0.42
23:DA:1138:G:H5''	23:DA:1139:G:OP2	2.18	0.42
23:DA:30:G:O2'	23:DA:1214:A:N3	2.46	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
23:DA:387:U:H5''	56:DA:3740:HOH:O	2.19	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
24:DB:7:G:H4'	36:DS:29:PHE:CD1	2.54	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
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
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
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:1529:G:C5	23:BA:1530:C:C4	3.08	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2147:G:H2'	23:BA:2148:G:O4'	2.20	0.42
23:BA:742:G:H2'	23:BA:743:G:C8	2.55	0.42
24:BB:82:G:C2'	24:BB:83:G:H5'	2.49	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
34:BQ:6:ARG:HG2	43:BZ:194:PRO:HG2	2.01	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
1:CA:453:A:C5	1:CA:454:C:C4	3.07	0.42
1:CA:99:U:H2'	1:CA:100:C:C6	2.54	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
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
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
23:DA:354:G:H2'	23:DA:355:G:C8	2.55	0.42
23:DA:542:C:C6	23:DA:542:C:H3'	2.53	0.42
23:DA:937:U:H2'	23:DA:938:G:O4'	2.19	0.42
25:DD:13:ARG:HA	25:DD:13:ARG:HD2	1.83	0.42
28:DG:126:ASP:CG	28:DG:130:ASN:HD22	2.23	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
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
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
1:AA:191:G:C6	1:AA:192:U:N3	2.88	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
7:AG:69:VAL:HA	7:AG:138:LYS:CB	2.48	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:708:C:P	11:AK:85:ARG:HH22	2.42	0.42
13:AM:94:ARG:CZ	19:AS:80:TYR:HB3	2.50	0.42
45:B1:82:LEU:HD22	45:B1:90:ILE:HG23	2.02	0.42
47:B3:4:LEU:HD23	47:B3:4:LEU:HA	1.71	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
23:BA:29:U:H2'	23:BA:30:G:C8	2.54	0.42
23:BA:542:C:C6	23:BA:542:C:H3'	2.55	0.42
23:BA:866:A:C6	23:BA:914:C:C5	3.08	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
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.55	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:76:C:H3'	1:CA:77:G:H5''	2.00	0.42
1:CA:909:A:H2'	1:CA:910:C:O4'	2.20	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: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
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
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:HD12	30:DI:5:LEU:N	2.35	0.42
31:DN:73:THR:HA	31:DN:83:LYS:O	2.19	0.42
1:AA:1001(A):G:C6	1:AA:1002:G:C6	3.08	0.42
1:AA:1135:U:H4'	1:AA:1136:U:C4	2.55	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:H5	1:AA:1139:G:HO2'	1.61	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
1:AA:441:A:H3'	1:AA:442:C:H6	1.85	0.42
1:AA:664:G:H22	1:AA:741:G:H1	1.68	0.42
1:AA:79:G:H2'	1:AA:80: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:HA	20:AT:55:ILE:HD13	1.75	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: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
24:BB:52:A:O2'	24:BB:53:A:N3	2.52	0.42
25:BD:182:LEU:HA	25:BD:182:LEU:HD23	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
23:BA:2845:G:H5''	37:BT:54:ARG:O	2.19	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
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
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:HD1	16:CP:17:TYR:N	2.18	0.42
17:CQ:58:GLU:OE1	17:CQ:75:ARG:NH1	2.53	0.42
23:DA:1130:U:O2	26:DE:149:ARG:NH2	2.50	0.42
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
23:DA:479:A:H4'	23:DA:480:A:OP1	2.19	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:475:U:C4	23:DA:481:G:O6	2.73	0.42
23:DA:545:G:OP1	23:DA:545:G:H4'	2.19	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:121:ILE:HD11	29:DH:140:LYS:HG2	2.01	0.42
29:DH:3:ARG:HG2	29:DH:6:ARG:NE	2.31	0.42
32:DO:66:LYS:HA	32:DO:79:PHE:O	2.20	0.42
23:DA:252:G:P	33:DP:50:ARG:HH11	2.43	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: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
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
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
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
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:824:A:H1'	23:BA:2358:G:N7	2.34	0.42
28:BG:86:MET:HA	28:BG:87:PRO:HD3	1.84	0.42
23:BA:2820:A:C5	35:BR:4:LEU:HD11	2.55	0.42
1:CA:1030(B):C:H3'	1:CA:1030(C):G:C8	2.54	0.42
1:CA:113:G:H2'	1:CA:114:U:C6	2.54	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1493:A:H1'	23:DA:1913:A:N1	2.35	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
2:CB:167:PRO:O	2:CB:174:VAL:HG21	2.19	0.42
2:CB:98:LEU:O	2:CB:101:MET:HB2	2.20	0.42
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.20	0.42
1:CA:1297:C:O3'	7:CG:114:ARG:NH2	2.53	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
46:D2:64:LEU:O	46:D2:68:ARG:HG2	2.19	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
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
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
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
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
3:AC:110:ASN:N	3:AC:110:ASN:OD1	2.52	0.42
15:AO:18:PHE:HD1	15:AO:20:GLY:H	1.67	0.42
50:B6:47:THR:HG22	50:B6:48:VAL:N	2.35	0.42
23:BA:157:U:H4'	23:BA:171:G:H21	1.85	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: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
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
23:BA:2680:C:H5'	26:BE:189:PRO:HA	2.02	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:33:LEU:HD11	29:BH:136:ILE:O	2.19	0.42
30:BI:112:LYS:C	30:BI:114:LEU:N	2.70	0.42
30:BI:39:ALA:O	30:BI:44:LEU:HD22	2.19	0.42
32:BO:81:ASP:N	32:BO:81:ASP:OD2	2.52	0.42
34:BQ:7:MET:HB2	34:BQ:7:MET:HE3	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
1:CA:1111:A:N6	3:CC:177:THR:HA	2.35	0.42
1:CA:60:A:OP1	1:CA:60:A:H8	2.02	0.42
1:CA:72:C:C2	1:CA:98:G:N2	2.88	0.42
1:CA:864:A:H2'	1:CA:865:A:C8	2.55	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
1:CA:624:C:H4'	16:CP:10:GLY:HA2	2.01	0.42
1:CA:867:G:H5'	22:CV:3:ARG:CB	2.49	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
23:DA:848:G:N3	23:DA:933:A:H1'	2.35	0.42
37:DT:3:ARG:HH21	37:DT:3:ARG:CB	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: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
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
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.20	0.42
4:AD:25:ARG:HG2	4:AD:25:ARG:O	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:HG2	19:AS:7:LYS:H	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: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
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
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: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:185:A:C6	1:CA:186:C:C4	3.08	0.42
1:CA:118:U:C5	1:CA:288:A:C6	3.08	0.42
1:CA:437:U:H2'	1:CA:438:G:C8	2.55	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:967:C:O5'	1:CA:967:C:H6	2.02	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
1:CA:1525:G:OP1	11:CK:120:ARG:NH2	2.52	0.42
1:CA:539:A:OP2	12:CL:115:LYS:NZ	2.53	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
1:CA:742:G:OP1	15:CO:59:MET:HE2	2.19	0.42
16:CP:28:ARG:CG	16:CP:28:ARG:HH11	2.26	0.42
1:CA:375:U:P	16:CP:69:THR:HG21	2.60	0.42
47:D3:30:ARG:H	47:D3:30:ARG:HG3	1.66	0.42
23:DA:128:C:H2'	23:DA:129:C:C6	2.55	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
23:DA:656:G:H2'	23:DA:657:U:O4'	2.19	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:NH1	27:DF:46:ARG:HG2	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DZ:183:LEU:HD23	43:DZ:183:LEU:HA	1.81	0.42
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
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
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:121:VAL:HA	4:AD:126:ILE:HG12	2.02	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
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
50:B6:6:ARG:NH1	50:B6:26:ASN:HB2	2.35	0.41
23:BA:2109:U:C6	23:BA:2109:U:H3'	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
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
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
23:DA:225:A:H2'	23:DA:226:G:H5'	2.03	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
23:DA:1568:G:H5'	25:DD:60:ARG:HA	2.02	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:HA	42:DY:67:LEU:HD23	1.69	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: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
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:96:U:O2'	1:AA:97:G:H8	2.02	0.41
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.33	0.41
7:AG:104:LEU:HA	7:AG:134:ALA:HB2	2.02	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
19:AS:31:ILE:HD13	19:AS:32:LYS:N	2.35	0.41
1:AA:1227:A:H5'	19:AS:83:HIS:HB2	2.02	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:1045:A:N3	23:BA:1045:A:C2'	2.82	0.41
23:BA:1985:G:OP2	56:BA:3743:HOH:O	2.20	0.41
23:BA:823:G:C6	23:BA:835:A:N1	2.88	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
23:BA:2591:C:OP2	25:BD:239:ARG:HB3	2.20	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
23:BA:1341:U:O2	41:BX:80:ILE:HD13	2.20	0.41
43:BZ:138:GLU:HB3	43:BZ:156:LYS:NZ	2.35	0.41
1:CA:1050:G:H2'	1:CA:1051:C:C6	2.55	0.41
1:CA:106:C:H2'	1:CA:107:G:H8	1.84	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
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
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	2.03	0.41
7:CG:113:GLU:O	7:CG:113:GLU:HG2	2.20	0.41
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.20	0.41
1:CA:951:G:O6	13:CM:105:THR:HG21	2.20	0.41
13:CM:65:LYS:O	13:CM:65:LYS:HE3	2.20	0.41
15:CO:74:ASP:HA	15:CO:75:PRO:HD2	1.76	0.41
16:CP:17:TYR:CD1	16:CP:17:TYR:N	2.87	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:D9:12:ASP:OD1	53:D9:13:LYS:HG3	2.19	0.41
53:D9:4:ARG:O	53:D9:36:GLN:HA	2.19	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
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
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
23:DA:1224:C:O2'	39:DV:85:LYS:HA	2.20	0.41
42:DY:2:ARG:HA	42:DY:2:ARG:HD3	1.78	0.41
1:AA:1024:G:O5'	1:AA:1024:G:H8	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:346:G:OP1	37:BT:41:ARG:NH2	2.51	0.41
1:AA:35:G:C6	1:AA:36:C:N4	2.88	0.41
1:AA:391:G:C6	1:AA:392:G:C5	3.07	0.41
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
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
52:B8:29:LYS:HD3	52:B8:44:LYS:C	2.40	0.41
23:BA:1141:U:P	31:BN:25:ARG:NH1	2.93	0.41
23:BA:2108:C:C6	23:BA:2108:C:C3'	3.04	0.41
23:BA:2320:A:H2'	23:BA:2320:A:N3	2.35	0.41
23:BA:1693:U:O2'	25:BD:14:ARG:NH2	2.53	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
23:BA:637:A:H8	33:BP:117:GLU:HG3	1.86	0.41
34:BQ:35:VAL:CG1	34:BQ:130:LYS:HB3	2.50	0.41
41:BX:72:LYS:HB3	41:BX:72:LYS:HE3	1.85	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
1:CA:390:C:H2'	1:CA:391:G:C8	2.55	0.41
1:CA:826:C:H2'	1:CA:827:U:C6	2.55	0.41
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.20	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
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	2.02	0.41
1:CA:777:A:C2	11:CK:119:CYS:HB3	2.55	0.41
1:CA:708:C:P	11:CK:85:ARG:HH22	2.44	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
46:D2:4:SER:HA	46:D2:7:ARG:NH1	2.35	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D6:6:ARG:NH1	50:D6:26:ASN:HB2	2.36	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: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
23:DA:1759:A:H1'	23:DA:2711:A:C2	2.55	0.41
23:DA:271(Q):G:O2'	23:DA:271(R):G:P	2.78	0.41
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
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
24:DB:49:C:OP1	36:DS:96:GLY:HA2	2.21	0.41
43:DZ:111:VAL:HG12	43:DZ:112:ARG:H	1.86	0.41
34:DQ:63:LYS:HD2	43:DZ:175:VAL:HG21	2.01	0.41
1:AA:102:G:H2'	1:AA:103:C:H6	1.83	0.41
1:AA:1036:G:H5''	1:AA:1037:C:C5	2.56	0.41
1:AA:103:C:C2	1:AA:104:G:C8	3.09	0.41
1:AA:1089:G:C6	1:AA:1090:U:C4	3.08	0.41
1:AA:1294:G:H2'	1:AA:1295:G:O4'	2.19	0.41
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.21	0.41
1:AA:228:A:H2'	1:AA:229:U:O4'	2.20	0.41
1:AA:91:C:H2'	1:AA:92:C:C6	2.56	0.41
1:AA:1158:C:H5''	2:AB:131:PRO:O	2.20	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
1:AA:963:G:H1'	10:AJ:54:PHE:HZ	1.84	0.41
53:B9:4:ARG:NH1	56:B9:202:HOH:O	2.53	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
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
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
24:BB:103:G:O2'	43:BZ:73:GLN:NE2	2.54	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
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
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
41:DX:5:TYR:HD1	46:D2:33:MET:HE2	1.85	0.41
23:DA:196:A:O4'	33:DP:46:LYS:HE2	2.20	0.41
23:DA:2845:G:O2'	23:DA:2846:G:H5'	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
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
23:DA:807:U:OP2	33:DP:36:LYS:HD3	2.20	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
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:1270:C:H2'	1:AA:1271:G:C8	2.54	0.41
1:AA:1239:A:H61	1:AA:1299:A:N6	2.19	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
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
2:AB:136:VAL:HA	2:AB:139:LYS:CG	2.45	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:74:LYS:HB2	2:AB:74:LYS:HE3	1.91	0.41
4:AD:78:LEU:O	4:AD:82:ALA:HB2	2.21	0.41
20:AT:74:LYS:HE2	20:AT:74:LYS:HB3	1.89	0.41
46:B2:3:LEU:HA	46:B2:3:LEU:HD23	1.82	0.41
48:B4:15:ILE:HG13	48:B4:21:VAL:HG22	2.01	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
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:900:A:C4	23:BA:901:A:C8	3.09	0.41
23:BA:866:A:C6	23:BA:914:C:C6	3.08	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:121:LYS:HG3	33:BP:122:PRO:HD2	2.01	0.41
33:BP:27:HIS:O	33:BP:31:ALA:HA	2.21	0.41
36:BS:56:LEU:O	36:BS:58:LEU:HD23	2.21	0.41
1:CA:1179:A:C8	1:CA:1179:A:OP1	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
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
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
1:CA:957:U:H4'	19:CS:79:THR:OG1	2.20	0.41
52:D8:54:GLU:OE1	52:D8:57:ARG:NH1	2.50	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
23:DA:216:A:C4	23:DA:432:A:C2	3.08	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:137:PRO:HB2	25:DD:140:THR:HG23	2.03	0.41
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
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.85	0.41
1:AA:994:A:C6	1:AA:1047:G:H4'	2.55	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
1:AA:325:A:H2'	1:AA:326:G:O4'	2.21	0.41
1:AA:46:G:N7	56:AA:1902:HOH:O	2.37	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:9:G:OP1	5:AE:122:GLU:HB2	2.20	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
12:AL:5:PRO:HB2	12:AL:10:LEU:CD1	2.50	0.41
10:AJ:51:ARG:HA	14:AN:45:ARG:NE	2.35	0.41
19:AS:58:VAL:HA	19:AS:59:PRO:HD3	1.77	0.41
52:B8:26:LYS:HG2	52:B8:26:LYS:HZ2	1.70	0.41
53:B9:32:HIS:O	53:B9:34:GLN:HG3	2.20	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:HA	30:BI:130:TYR:HD1	1.70	0.41
42:BY:77:PRO:HD3	42:BY:106:LEU:HD23	2.02	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
1:CA:971:G:H1	1:CA:1363(A):A:H5'	1.85	0.41
1:CA:263:A:OP1	20:CT:79:ARG:NH1	2.54	0.41
1:CA:33:A:H2'	1:CA:34:C:C6	2.55	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:980:C:H5'	1:CA:981:U:OP2	2.20	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:188:LEU:HG	4:CD:188:LEU:H	1.24	0.41
5:CE:37:ARG:NH1	5:CE:37:ARG:HG2	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:1469:A:C2	23:DA:1524:G:C2	3.09	0.41
23:DA:2170:A:H8	23:DA:2170:A:OP2	2.04	0.41
23:DA:2104:G:O6	23:DA:2186:G:C4	2.74	0.41
23:DA:900:A:O2'	23:DA:901:A:OP1	2.36	0.41
23:DA:92:A:O2'	23:DA:93:G:H5'	2.20	0.41
24:DB:117:G:H2'	24:DB:118:G:O4'	2.21	0.41
24:DB:37:C:C5	24:DB:38:C:C5	3.09	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:1016:A:P	1:AA:1016:A:H8	2.44	0.41
1:AA:1145:C:H1'	1:AA:1146:A:C8	2.56	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
3:AC:181:ASN:CB	3:AC:204:LEU:HB2	2.39	0.41
12:AL:102:ARG:HE	12:AL:102:ARG:HB3	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:1526:G:C6	23:BA:1527:G:C2	3.09	0.41
23:BA:580:C:H2'	23:BA:581:C:C6	2.55	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:129(A):G:C6	1:CA:189(H):G:H1'	2.55	0.41
1:CA:34:C:H42	1:CA:550:G:H1	1.69	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
47:D3:22:ALA:O	47:D3:25:ALA:HB3	2.21	0.41
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.35	0.41
23:DA:1161:C:O2'	39:DV:8:GLY:HA2	2.21	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:126:ASP:HB2	28:DG:130:ASN:O	2.20	0.41
28:DG:57:ALA:HB1	28:DG:68:PRO:HD2	2.03	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
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
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:872:A:C4	1:AA:874:G:C8	3.08	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
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
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
23:BA:384:U:H2'	23:BA:385:C:H6	1.86	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: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
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
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:NH1	9:CI:9:ARG:HB2	2.31	0.41
10:CJ:54:PHE:CG	10:CJ:55:LYS:N	2.88	0.41
1:CA:954:G:C6	13:CM:104:ARG:NH1	2.88	0.41
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.86	0.41
16:CP:16:HIS:C	16:CP:17:TYR:HD1	2.24	0.41
46:D2:35:LEU:HA	46:D2:35:LEU:HD23	1.92	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
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:7:G:H4'	31:DN:13:TRP:CZ2	2.56	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
1:AA:1203:C:C2	1:AA:1204:A:C8	3.09	0.41
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.36	0.41
1:AA:1351:U:H4'	7:AG:33:ASP:CG	2.41	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:41:G:H2'	1:AA:42:G:C8	2.56	0.41
1:AA:510:A:H5''	1:AA:511:C:OP2	2.21	0.41
1:AA:641:U:O3'	1:AA:642:A:H8	2.02	0.41
2:AB:157:ARG:HH11	2:AB:157:ARG:HB3	1.85	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.53	0.41
7:AG:127:ALA:CB	7:AG:134:ALA:HB3	2.51	0.41
7:AG:68:ASN:O	7:AG:138:LYS:HE2	2.21	0.41
2:AB:178:ARG:HH21	8:AH:74:PRO:HB3	1.86	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
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
48:B4:6:HIS:HA	48:B4:7:PRO:HD2	1.76	0.41
23:BA:10:G:H1'	23:BA:2801(A):A:C2	2.56	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:2723:C:O3'	35:BR:1:MET:HE3	2.21	0.41
23:BA:557:U:H2'	23:BA:558:G:H8	1.86	0.41
26:BE:116:VAL:HG13	26:BE:122:PHE:CD2	2.56	0.41
26:BE:35:GLN:OE1	26:BE:66:HIS:HE1	2.04	0.41
29:BH:60:ARG:HB3	29:BH:60:ARG:HE	1.74	0.41
30:BI:72:LEU:HA	30:BI:75:LEU:CD2	2.51	0.41
31:BN:34:LEU:O	31:BN:49:GLY:HA3	2.20	0.41
1:CA:1084:G:C6	1:CA:1085:U:C4	3.08	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:1047:G:H1'	1:CA:1215:G:O2'	2.20	0.41
1:CA:1291:G:C2'	1:CA:1292:U:H5'	2.50	0.41
1:CA:1392:G:N2	1:CA:1502:A:H8	2.13	0.41
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	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
4:CD:174:LEU:HA	4:CD:174:LEU:HD23	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:73:ASP:OD2	8:CH:75:ARG:HD3	2.21	0.41
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.51	0.41
9:CI:12:GLU:O	9:CI:67:GLY:HA3	2.20	0.41
13:CM:20:THR:HG23	13:CM:26:GLY:HA2	2.03	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
49:D5:49:CYS:SG	49:D5:51:TYR:HD1	2.44	0.41
23:DA:1049:C:H1'	23:DA:1113:U:H4'	2.02	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:118:A:C8	23:DA:119:A:C8	3.09	0.41
23:DA:1382:G:H2'	23:DA:1383:C:C6	2.56	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:2833:G:O2'	23:DA:2834:G:P	2.78	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
24:DB:78:A:C2	24:DB:100:A:C4	3.09	0.41
24:DB:28:C:C2	24:DB:29:A:C8	3.09	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
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:1242:C:H5''	1:AA:1304:G:OP1	2.20	0.41
1:AA:1346:A:C8	1:AA:1348:U:C2	3.09	0.41
1:AA:1442:G:N7	1:AA:1442(A):G:C5	2.88	0.41
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	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:830:G:H2'	1:AA:831:U:O4'	2.21	0.41
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
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	2.02	0.41
2:AB:98:LEU:O	2:AB:101:MET:HB2	2.20	0.41
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.74	0.41
7:AG:47:CYS:O	7:AG:58:PRO:HB3	2.20	0.41
12:AL:47:LYS:HA	12:AL:49:ASN:H	1.86	0.41
1:AA:1360:A:N7	14:AN:18:VAL:HG12	2.35	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
47:B3:44:ARG:O	47:B3:48:GLU:HG3	2.21	0.41
52:B8:62:LEU:HB3	52:B8:65:GLU:CG	2.51	0.41
23:BA:107:C:C2	23:BA:108:U:C5	3.09	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: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:2884:U:O2	49:B5:53:ALA:HB2	2.20	0.41
27:BF:168:ARG:HG2	27:BF:175:THR:HG21	2.02	0.41
28:BG:74:LYS:O	28:BG:84:LYS:HG2	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:79:ILE:HA	30:BI:80:PRO:HD2	1.87	0.41
34:BQ:32:TYR:CE2	34:BQ:133:ARG:HG3	2.56	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.69	0.41
1:CA:111:G:O6	1:CA:330:C:N4	2.52	0.41
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.56	0.41
1:CA:1319:A:N1	1:CA:1323:G:H1'	2.35	0.41
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.21	0.41
1:CA:342:C:C2	1:CA:348:G:N2	2.89	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
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
2:CB:22:LYS:H	2:CB:40:HIS:HD2	1.68	0.41
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.20	0.41
3:CC:16:ARG:HD2	3:CC:54:ARG:NH2	2.36	0.41
3:CC:6:HIS:HE1	3:CC:184:TYR:CD2	2.39	0.41
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.01	0.41
9:CI:100:GLY:O	9:CI:103:THR:HG22	2.20	0.41
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	2.03	0.41
11:CK:20:TYR:CE2	11:CK:83:ILE:HD12	2.55	0.41
13:CM:3:ARG:HE	13:CM:4:ILE:HG22	1.86	0.41
15:CO:18:PHE:HD1	15:CO:20:GLY:H	1.69	0.41
44:D0:41:ARG:HD2	44:D0:41:ARG:HA	1.80	0.41
45:D1:40:ARG:HB2	45:D1:40:ARG:HE	1.67	0.41
23:DA:117:G:C6	23:DA:119:A:C6	3.09	0.41
23:DA:1433:U:O2	23:DA:1561:G:C2	2.74	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
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
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
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
1:AA:976:G:H8	1:AA:1358:U:H2'	1.85	0.41
1:AA:1355:G:C6	1:AA:1368:G:C6	3.09	0.41
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.03	0.41
1:AA:41:G:H2'	1:AA:42:G:H8	1.85	0.41
1:AA:977:A:H2'	1:AA:978:A:H5''	2.02	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:597:G:N2	8:AH:94:TYR:OH	2.53	0.41
9:AI:9:ARG:HB2	9:AI:9:ARG:NH1	2.32	0.41
13:AM:91:ARG:HA	13:AM:91:ARG:HD2	1.93	0.41
15:AO:7:GLU:O	15:AO:10:LYS:HB3	2.20	0.41
48:B4:14:ILE:HA	48:B4:31:ILE:O	2.19	0.41
23:BA:127:A:H5''	23:BA:128:C:O4'	2.20	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
23:BA:9:U:O4	23:BA:2629:A:C2	2.73	0.41
23:BA:322:A:C5	23:BA:340:A:C2	3.09	0.41
25:BD:218:ARG:HB3	25:BD:219:PRO:HD2	2.03	0.41
27:BF:140:LEU:HD13	27:BF:140:LEU:HA	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
1:CA:1072:G:O2'	1:CA:1073:U:H5'	2.20	0.41
1:CA:107:G:H2'	1:CA:108:G:O4'	2.21	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
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:57:G:H2'	1:CA:58:C:O4'	2.21	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
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
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.54	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
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
23:DA:107:C:H2'	23:DA:108:U:C6	2.54	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:H6	23:DA:2752:C:O5'	2.04	0.41
23:DA:729:G:H2'	23:DA:1775:U:H1'	2.04	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
1:AA:225:C:C4	1:AA:226:G:N7	2.89	0.40
1:AA:2:U:H6	1:AA:2:U:O5'	2.05	0.40
1:AA:317:G:C6	1:AA:318:G:N7	2.89	0.40
1:AA:44:G:OP1	16:AP:11:SER:HB2	2.21	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:89:C:H2'	1:AA:90:U:C5	2.56	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:1364:G:N7	45:B1:3:LYS:HD3	2.36	0.40
23:BA:1106:G:H4'	23:BA:1107:G:OP2	2.20	0.40
23:BA:1538:G:O2'	23:BA:1539:G:OP1	2.28	0.40
23:BA:2420:C:O5'	23:BA:2420:C:H6	2.04	0.40
23:BA:271(K):U:O2'	23:BA:271(L):U:OP1	2.27	0.40
27:BF:150:GLY:HA2	27:BF:172:TRP:CE3	2.57	0.40
28:BG:103:LEU:HD23	28:BG:103:LEU:HA	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: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
1:CA:1288:A:H61	1:CA:1371:G:HO2'	1.68	0.40
1:CA:790:A:N1	1:CA:1497:G:H5''	2.36	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:731:G:OP1	1:CA:766:A:H1'	2.20	0.40
1:CA:865:A:H8	1:CA:865:A:O5'	2.04	0.40

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:689:C:P	11:CK:46:GLY:HA3	2.61	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
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:188:G:H1	23:DA:208:C:N4	2.18	0.40
23:DA:2127:G:HO2'	23:DA:2173:A:H2	1.63	0.40
23:DA:858:U:O2	23:DA:2268:A:H2'	2.20	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:2834:G:N2	23:DA:2882:A:N6	2.69	0.40
23:DA:626:U:O4	33:DP:107:LYS:HE2	2.21	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
1:AA:990:C:H5'	1:AA:1018:C:OP2	2.21	0.40
1:AA:112:G:N3	1:AA:112:G:H2'	2.37	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
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
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
48:B4:42:PHE:CB	48:B4:43:TYR:HB2	2.50	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:1636:C:H2'	23:BA:1637:A:C8	2.56	0.40
23:BA:2473:U:O2	23:BA:2473:U:H2'	2.20	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:271(H):G:C6	23:BA:271(Q):G:C6	3.09	0.40
23:BA:1750:G:O2'	23:BA:2860:A:N1	2.46	0.40
23:BA:1568:G:H5'	25:BD:60:ARG:HA	2.03	0.40
27:BF:32:LEU:O	27:BF:35:GLU:N	2.55	0.40
31:BN:20:GLY:HA2	31:BN:61:ARG:CG	2.49	0.40
31:BN:5:VAL:HG12	31:BN:5:VAL:O	2.21	0.40
1:CA:1015:A:C2	1:CA:1218:C:O2	2.72	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:940:C:HO2'	1:CA:1374:A:H2	1.69	0.40
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.21	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
2:CB:55:PHE:HA	2:CB:55:PHE:HD2	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
1:CA:673:G:H5''	6:CF:87:ARG:CZ	2.51	0.40
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.32	0.40
1:CA:1151:A:O4'	10:CJ:39:PRO:HB2	2.20	0.40
13:CM:96:LEU:HA	13:CM:97:PRO:HD3	1.88	0.40
45:D1:58:ILE:HG21	45:D1:58:ILE:HD13	1.76	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: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: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
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
34:DQ:18:LYS:O	34:DQ:98:LYS:HD3	2.21	0.40
24:DB:117:G:C4'	36:DS:54:LEU:HD23	2.47	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
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
1:AA:1347:G:H8	9:AI:107:ARG:CB	2.34	0.40
1:AA:1363(A):A:C8	1:AA:1363(A):A:P	3.14	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:826:C:H2'	1:AA:827:U:H6	1.86	0.40
9:AI:110:GLU:HG2	9:AI:111:ARG:H	1.86	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
14:AN:47:LEU:HB2	14:AN:53:LEU:CG	2.49	0.40
1:AA:664:G:P	18:AR:64:ARG:HH21	2.43	0.40
22:AV:34:LEU:O	22:AV:37:ARG:N	2.53	0.40
44:B0:55:ARG:HB2	44:B0:55:ARG:NH1	2.36	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:154(A):C:O2	23:BA:154(A):C:H5''	2.22	0.40
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.21	0.40
23:BA:479:A:H4'	23:BA:480:A:OP1	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
1:CA:1039:C:H2'	1:CA:1040:U:O4'	2.21	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
1:CA:658:G:H2'	1:CA:659:U:C6	2.56	0.40
1:CA:791:G:H8	1:CA:791:G:O5'	2.04	0.40
1:CA:981:U:H4'	14:CN:21:TYR:CZ	2.56	0.40
1:CA:1073:U:O2'	2:CB:104:ASN:OD1	2.23	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
1:CA:1152:A:H5'	10:CJ:13:HIS:CD2	2.57	0.40
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.54	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:HE2	20:CT:74:LYS:HB3	1.88	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
23:DA:330:A:C2	23:DA:1210:A:H2'	2.52	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
23:DA:827:U:O2	23:DA:2246:G:H4'	2.22	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: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)
32:DO:59:LYS:NZ	32:DO:89:ASN:HD21	2.19	0.40
36:DS:58:LEU:HB2	36:DS:59:LYS:CB	2.50	0.40
37:DT:118:ARG:NH1	37:DT:118:ARG:HG3	2.37	0.40
23:DA:1753:G:OP1	37:DT:95:ARG:HD3	2.21	0.40
38:DU:109:LEU:HD23	38:DU:109:LEU:HA	1.83	0.40
1:AA:1030(C):G:C8	1:AA:1030(C):G:H3'	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
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:56:U:C2	1:AA:57:G:C8	3.09	0.40
1:AA:820:U:H4'	1:AA:821:G:OP2	2.21	0.40
1:AA:934:C:O4'	1:AA:934:C:O2	2.39	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:HA	8:AH:127:LEU:HD13	1.94	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
9:AI:111:ARG:CB	14:AN:61:TRP:HE1	2.34	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: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
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
28:BG:17:PRO:O	28:BG:21:ARG:HB2	2.20	0.40
28:BG:6:ALA:HB3	28:BG:104:GLU:OE1	2.22	0.40
32:BO:2:ILE:HD12	32:BO:6:THR:HG21	2.02	0.40
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
48:D4:6:HIS:HA	48:D4:7:PRO:HD2	1.83	0.40
40:DW:41:LYS:HE3	49:D5:25:LEU:HD21	2.04	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
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
26:DE:24:THR:HG23	26:DE:184:VAL:HG12	2.04	0.40
28:DG:105:LYS:HB2	28:DG:105:LYS:HE2	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
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:11:G:C6	1:AA:12:U:C4	3.09	0.40
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.22	0.40
1:AA:1392:G:N2	1:AA:1502:A:C8	2.90	0.40
1:AA:112:G:H4'	1:AA:389:A:H4'	2.04	0.40
1:AA:38:G:H22	1:AA:397:A:P	2.44	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:78:G:H1	1:AA:91:C:H42	1.69	0.40
1:AA:970:C:C5'	1:AA:972:C:C2	3.04	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:66:ARG:HA	9:AI:73:GLN:NE2	2.37	0.40
9:AI:4:TYR:CD1	9:AI:87:GLN:HG2	2.56	0.40
12:AL:47:LYS:HE2	12:AL:47:LYS:HB2	1.83	0.40
18:AR:59:SER:HB3	18:AR:62:GLU:HG3	2.04	0.40
28:BG:105:LYS:NZ	48:B4:25:TYR:O	2.54	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B5:29:THR:O	49:B5:30:LEU:HD23	2.22	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
23:BA:460:A:C2	23:BA:470:A:C4	3.10	0.40
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
25:BD:10:THR:OG1	25:BD:13:ARG:HB2	2.22	0.40
28:BG:105:LYS:HE2	28:BG:105:LYS:HB2	1.90	0.40
28:BG:63:ILE:HD13	28:BG:155:MET:HE1	2.03	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:119:ARG:HB3	34:BQ:119:ARG:HE	1.65	0.40
34:BQ:35:VAL:HG13	34:BQ:130:LYS:HB3	2.04	0.40
37:BT:99:LEU:O	37:BT:102:ILE:HG12	2.21	0.40
42:BY:106:LEU:O	42:BY:107:ASP:HB2	2.21	0.40
42:BY:65:ALA:HA	42:BY:66:PRO:HD3	1.91	0.40
43:BZ:63:ASP:OD1	43:BZ:65:GLN:HB3	2.21	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:H6	1:CA:1307:U:O5'	2.04	0.40
1:CA:1380:U:C4	7:CG:3:ARG:HG2	2.56	0.40
1:CA:1403:C:O5'	1:CA:1403:C:H6	2.04	0.40
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.86	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:9:G:OP1	5:CE:122:GLU:HB2	2.22	0.40
11:CK:29:ILE:HG12	11:CK:44:SER:HB2	2.03	0.40
11:CK:17:GLY:HA2	11:CK:35:PRO:HD3	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
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
23:DA:1721:G:N3	23:DA:1721:G:H5''	2.37	0.40
23:DA:2109:U:H3'	23:DA:2109:U:C6	2.53	0.40

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:271(T):C:H2'	23:DA:271(U):G:H8	1.86	0.40
23:DA:2732:G:H3'	23:DA:2733:A:O4'	2.20	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:916:G:C2'	23:DA:917:A:H5''	2.52	0.40
28:DG:153:ARG:HB2	28:DG:153:ARG:HE	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
23:DA:811:U:O2'	33:DP:21:ARG:HG3	2.22	0.40
36:DS:102:ALA:HA	36:DS:105:ALA:H	1.85	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 ⓘ

### 5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	227/256 (89%)	188 (83%)	37 (16%)	2 (1%)	20	62
2	CB	227/256 (89%)	192 (85%)	33 (14%)	2 (1%)	20	62
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%)	18	59
4	CD	206/209 (99%)	180 (87%)	24 (12%)	2 (1%)	18	59
5	AE	146/162 (90%)	125 (86%)	20 (14%)	1 (1%)	25	67
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%)	14	51
7	CG	153/156 (98%)	128 (84%)	23 (15%)	2 (1%)	14	51
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%)	11	46
9	CI	123/128 (96%)	109 (89%)	12 (10%)	2 (2%)	11	46
10	AJ	94/105 (90%)	78 (83%)	14 (15%)	2 (2%)	8	38
10	CJ	94/105 (90%)	74 (79%)	18 (19%)	2 (2%)	8	38
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%)	22	64
12	CL	120/132 (91%)	107 (89%)	11 (9%)	2 (2%)	11	44
13	AM	112/126 (89%)	82 (73%)	27 (24%)	3 (3%)	6	30
13	CM	112/126 (89%)	84 (75%)	27 (24%)	1 (1%)	20	62
14	AN	58/61 (95%)	48 (83%)	7 (12%)	3 (5%)	2	14
14	CN	58/61 (95%)	51 (88%)	6 (10%)	1 (2%)	11	44
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%)	6	32
16	CP	80/88 (91%)	71 (89%)	7 (9%)	2 (2%)	6	32
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%)	14	51
19	CS	79/93 (85%)	60 (76%)	16 (20%)	3 (4%)	4	21
20	AT	95/106 (90%)	82 (86%)	10 (10%)	3 (3%)	5	26
20	CT	95/106 (90%)	81 (85%)	11 (12%)	3 (3%)	5	26
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%)	2	11
25	BD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	38	78
25	DD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	38	78
26	BE	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	18	59
26	DE	202/206 (98%)	189 (94%)	11 (5%)	2 (1%)	18	59
27	BF	201/210 (96%)	187 (93%)	13 (6%)	1 (0%)	32	74
27	DF	201/210 (96%)	188 (94%)	12 (6%)	1 (0%)	32	74
28	BG	179/182 (98%)	151 (84%)	28 (16%)	0	100	100
28	DG	179/182 (98%)	151 (84%)	27 (15%)	1 (1%)	28	70
29	BH	172/180 (96%)	156 (91%)	14 (8%)	2 (1%)	15	53
29	DH	172/180 (96%)	158 (92%)	12 (7%)	2 (1%)	15	53
30	BI	144/148 (97%)	114 (79%)	27 (19%)	3 (2%)	8	38
30	DI	144/148 (97%)	113 (78%)	29 (20%)	2 (1%)	13	49
31	BN	138/140 (99%)	128 (93%)	6 (4%)	4 (3%)	5	28
31	DN	138/140 (99%)	126 (91%)	7 (5%)	5 (4%)	4	22
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%)	25	67
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%)	20	62
36	DS	108/112 (96%)	97 (90%)	10 (9%)	1 (1%)	20	62
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%)	9	41
42	DY	105/110 (96%)	95 (90%)	8 (8%)	2 (2%)	9	41
43	BZ	196/206 (95%)	178 (91%)	15 (8%)	3 (2%)	12	48
43	DZ	196/206 (95%)	177 (90%)	16 (8%)	3 (2%)	12	48
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%)	17	56
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%)	8	36
51	D7	46/49 (94%)	45 (98%)	0	1 (2%)	8	36
52	B8	62/65 (95%)	59 (95%)	2 (3%)	1 (2%)	11	46
52	D8	62/65 (95%)	59 (95%)	1 (2%)	2 (3%)	5	26
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%)	22	64

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 ⓘ

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	4
2	CB	177/220 (80%)	135 (76%)	42 (24%)	1	4
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	8
4	CD	141/181 (78%)	114 (81%)	27 (19%)	2	9
5	AE	108/123 (88%)	84 (78%)	24 (22%)	1	5
5	CE	108/123 (88%)	84 (78%)	24 (22%)	1	5
6	AF	76/90 (84%)	68 (90%)	8 (10%)	8	30
6	CF	76/90 (84%)	69 (91%)	7 (9%)	11	38
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	9
8	CH	103/119 (87%)	84 (82%)	19 (18%)	2	10
9	AI	62/99 (63%)	49 (79%)	13 (21%)	1	6

*Continued on next page...*

*Continued from previous page...*

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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
27	BF	159/166 (96%)	133 (84%)	26 (16%)	2	13
27	DF	159/166 (96%)	133 (84%)	26 (16%)	2	13
28	BG	128/156 (82%)	106 (83%)	22 (17%)	2	12
28	DG	128/156 (82%)	106 (83%)	22 (17%)	2	12
29	BH	141/148 (95%)	127 (90%)	14 (10%)	9	34
29	DH	141/148 (95%)	127 (90%)	14 (10%)	9	34
30	BI	99/124 (80%)	75 (76%)	24 (24%)	1	4
30	DI	98/124 (79%)	67 (68%)	31 (32%)	0	1
31	BN	117/119 (98%)	92 (79%)	25 (21%)	1	6
31	DN	117/119 (98%)	93 (80%)	24 (20%)	1	7
32	BO	98/100 (98%)	90 (92%)	8 (8%)	13	44
32	DO	98/100 (98%)	90 (92%)	8 (8%)	13	44
33	BP	114/116 (98%)	98 (86%)	16 (14%)	4	18
33	DP	114/116 (98%)	100 (88%)	14 (12%)	5	24
34	BQ	111/111 (100%)	95 (86%)	16 (14%)	4	18
34	DQ	111/111 (100%)	96 (86%)	15 (14%)	4	19
35	BR	101/101 (100%)	82 (81%)	19 (19%)	2	10
35	DR	101/101 (100%)	83 (82%)	18 (18%)	2	11
36	BS	84/88 (96%)	69 (82%)	15 (18%)	2	11
36	DS	84/88 (96%)	72 (86%)	12 (14%)	4	18
37	BT	110/127 (87%)	95 (86%)	15 (14%)	4	19
37	DT	110/127 (87%)	92 (84%)	18 (16%)	2	13
38	BU	93/94 (99%)	84 (90%)	9 (10%)	9	35
38	DU	93/94 (99%)	84 (90%)	9 (10%)	9	35
39	BV	79/82 (96%)	62 (78%)	17 (22%)	1	6
39	DV	80/82 (98%)	64 (80%)	16 (20%)	1	8
40	BW	89/92 (97%)	78 (88%)	11 (12%)	5	23
40	DW	89/92 (97%)	76 (85%)	13 (15%)	3	17
41	BX	75/78 (96%)	70 (93%)	5 (7%)	19	54
41	DX	75/78 (96%)	70 (93%)	5 (7%)	19	54
42	BY	80/91 (88%)	66 (82%)	14 (18%)	2	11

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	DY	80/91 (88%)	63 (79%)	17 (21%)	1	6
43	BZ	159/179 (89%)	141 (89%)	18 (11%)	7	27
43	DZ	159/179 (89%)	141 (89%)	18 (11%)	7	27
44	B0	59/67 (88%)	54 (92%)	5 (8%)	12	43
44	D0	59/67 (88%)	54 (92%)	5 (8%)	12	43
45	B1	78/83 (94%)	67 (86%)	11 (14%)	4	18
45	D1	78/83 (94%)	67 (86%)	11 (14%)	4	18
46	B2	65/67 (97%)	59 (91%)	6 (9%)	11	38
46	D2	65/67 (97%)	58 (89%)	7 (11%)	7	29
47	B3	49/52 (94%)	43 (88%)	6 (12%)	6	24
47	D3	49/52 (94%)	42 (86%)	7 (14%)	4	18
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%)	9	33
49	D5	50/52 (96%)	45 (90%)	5 (10%)	9	33
50	B6	50/52 (96%)	39 (78%)	11 (22%)	1	5
50	D6	50/52 (96%)	37 (74%)	13 (26%)	0	3
51	B7	41/42 (98%)	32 (78%)	9 (22%)	1	5
51	D7	41/42 (98%)	34 (83%)	7 (17%)	2	12
52	B8	52/55 (94%)	43 (83%)	9 (17%)	2	12
52	D8	52/55 (94%)	43 (83%)	9 (17%)	2	12
53	B9	32/34 (94%)	29 (91%)	3 (9%)	10	37
53	D9	32/34 (94%)	29 (91%)	3 (9%)	10	37
All	All	8753/10166 (86%)	7236 (83%)	1517 (17%)	2	12

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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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

Some 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%)	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	CA	1499/1522 (98%)	383 (25%)	0
23	BA	2801/2915 (96%)	556 (19%)	0
23	DA	2807/2915 (96%)	552 (19%)	0
24	BB	119/122 (97%)	21 (17%)	0
24	DB	119/122 (97%)	21 (17%)	0
All	All	8848/9118 (97%)	1958 (22%)	0

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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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

There are no RNA pucker outliers to report.

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates 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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AA	1505/1522 (98%)	1.08	302 (20%) 1 1	52, 116, 177, 188	0
1	CA	1501/1522 (98%)	0.62	215 (14%) 3 1	53, 112, 168, 181	0
2	AB	229/256 (89%)	0.32	17 (7%) 15 6	114, 135, 150, 160	0
2	CB	229/256 (89%)	0.61	26 (11%) 6 2	113, 135, 150, 160	0
3	AC	206/239 (86%)	1.84	83 (40%) 0 0	122, 148, 164, 172	0
3	CC	206/239 (86%)	1.48	62 (30%) 1 0	119, 140, 153, 162	0
4	AD	208/209 (99%)	0.40	21 (10%) 8 3	100, 116, 133, 143	0
4	CD	208/209 (99%)	0.19	14 (6%) 19 7	95, 111, 129, 142	0
5	AE	148/162 (91%)	0.43	19 (12%) 4 2	85, 109, 124, 129	0
5	CE	148/162 (91%)	0.42	13 (8%) 11 4	87, 108, 124, 132	0
6	AF	100/101 (99%)	-0.08	6 (6%) 23 9	88, 102, 122, 136	0
6	CF	100/101 (99%)	0.08	5 (5%) 30 12	93, 107, 123, 135	0
7	AG	155/156 (99%)	3.54	107 (69%) 0 0	134, 156, 166, 168	0
7	CG	155/156 (99%)	2.14	73 (47%) 0 0	118, 144, 151, 158	0
8	AH	138/138 (100%)	0.07	5 (3%) 43 18	93, 111, 121, 131	0
8	CH	138/138 (100%)	0.14	6 (4%) 36 15	89, 110, 120, 133	0
9	AI	125/128 (97%)	3.97	89 (71%) 0 0	131, 157, 170, 176	0
9	CI	125/128 (97%)	2.56	59 (47%) 0 0	129, 151, 161, 173	0
10	AJ	96/105 (91%)	3.60	58 (60%) 0 0	137, 155, 171, 176	0
10	CJ	96/105 (91%)	2.67	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%)	0.36	9 (7%) 13 5	79, 109, 122, 124	0
12	AL	122/132 (92%)	0.16	6 (4%) 30 12	72, 95, 111, 120	0
12	CL	122/132 (92%)	0.28	8 (6%) 19 7	72, 92, 106, 116	0

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	114/126 (90%)	4.49	90 (78%) 0 0	147, 160, 171, 177	0
13	CM	114/126 (90%)	1.97	39 (34%) 0 0	124, 145, 155, 158	0
14	AN	60/61 (98%)	3.85	37 (61%) 0 0	134, 160, 169, 174	0
14	CN	60/61 (98%)	1.86	21 (35%) 0 0	136, 146, 152, 155	0
15	AO	88/89 (98%)	0.01	2 (2%) 61 31	78, 103, 120, 131	0
15	CO	88/89 (98%)	0.06	6 (6%) 18 7	79, 102, 122, 129	0
16	AP	82/88 (93%)	1.26	24 (29%) 1 0	98, 112, 132, 138	0
16	CP	82/88 (93%)	0.52	5 (6%) 22 8	89, 105, 123, 132	0
17	AQ	99/105 (94%)	0.36	6 (6%) 22 8	86, 99, 113, 118	0
17	CQ	99/105 (94%)	0.01	3 (3%) 51 23	84, 98, 113, 117	0
18	AR	68/88 (77%)	0.67	11 (16%) 2 1	93, 104, 138, 141	0
18	CR	68/88 (77%)	1.11	19 (27%) 1 0	95, 107, 138, 143	0
19	AS	81/93 (87%)	2.93	40 (49%) 0 0	131, 164, 174, 179	0
19	CS	81/93 (87%)	2.62	46 (56%) 0 0	125, 146, 153, 155	0
20	AT	97/106 (91%)	0.51	9 (9%) 9 3	90, 106, 127, 131	0
20	CT	97/106 (91%)	0.66	12 (12%) 4 2	84, 103, 125, 132	0
21	AU	23/27 (85%)	6.67	19 (82%) 0 0	147, 161, 169, 174	0
21	CU	23/27 (85%)	2.44	12 (52%) 0 0	130, 145, 153, 154	0
22	AV	53/61 (86%)	0.14	3 (5%) 24 9	93, 105, 121, 143	0
22	CV	53/61 (86%)	-0.40	1 (1%) 67 37	90, 115, 141, 151	0
23	BA	2809/2915 (96%)	0.03	82 (2%) 52 24	31, 50, 134, 186	0
23	DA	2814/2915 (96%)	-0.13	109 (3%) 40 16	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 77	34, 52, 69, 117	0
25	DD	275/276 (99%)	-0.42	1 (0%) 92 77	36, 55, 72, 119	0
26	BE	204/206 (99%)	-0.20	0 100 100	32, 55, 78, 95	0
26	DE	204/206 (99%)	-0.33	0 100 100	35, 61, 84, 101	0
27	BF	203/210 (96%)	-0.28	2 (0%) 82 58	30, 60, 92, 136	0
27	DF	203/210 (96%)	-0.26	1 (0%) 90 74	34, 67, 96, 136	0
28	BG	181/182 (99%)	0.42	20 (11%) 6 2	80, 120, 143, 152	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	DG	181/182 (99%)	1.14	43 (23%) 1 0	92, 126, 146, 156	0
29	BH	174/180 (96%)	-0.19	1 (0%) 89 71	58, 79, 97, 110	0
29	DH	174/180 (96%)	0.43	22 (12%) 4 2	70, 92, 107, 122	0
30	BI	146/148 (98%)	-0.14	1 (0%) 87 67	57, 90, 108, 120	0
30	DI	146/148 (98%)	0.48	15 (10%) 7 3	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 67	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%)	0.02	0 100 100	34, 63, 98, 109	0
33	DP	149/150 (99%)	-0.23	3 (2%) 65 36	38, 70, 102, 111	0
34	BQ	141/141 (100%)	-0.17	1 (0%) 87 67	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%)	-0.35	0 100 100	42, 55, 73, 82	0
36	BS	110/112 (98%)	0.05	0 100 100	58, 75, 93, 101	0
36	DS	110/112 (98%)	0.10	3 (2%) 55 26	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 64	55, 67, 101, 118	0
38	BU	116/118 (98%)	-0.19	1 (0%) 84 61	35, 48, 69, 81	0
38	DU	116/118 (98%)	-0.14	2 (1%) 70 42	40, 56, 76, 86	0
39	BV	100/101 (99%)	-0.28	0 100 100	34, 62, 81, 91	0
39	DV	101/101 (100%)	-0.07	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%)	-0.18	1 (1%) 80 55	41, 51, 74, 98	0
41	DX	95/96 (98%)	-0.47	0 100 100	47, 56, 80, 102	0
42	BY	107/110 (97%)	-0.23	2 (1%) 67 37	52, 64, 89, 107	0
42	DY	107/110 (97%)	0.13	6 (5%) 25 10	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%)	0.19	14 (7%) 17 6	73, 92, 115, 132	0

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	B0	76/85 (89%)	-0.32	0 100 100	48, 55, 71, 87	0
44	D0	76/85 (89%)	0.26	4 (5%) 27 11	53, 61, 76, 90	0
45	B1	97/98 (98%)	-0.17	2 (2%) 64 34	37, 57, 89, 103	0
45	D1	97/98 (98%)	-0.24	1 (1%) 82 58	41, 61, 91, 108	0
46	B2	70/72 (97%)	-0.15	0 100 100	50, 66, 84, 103	0
46	D2	70/72 (97%)	0.05	3 (4%) 36 15	55, 71, 88, 112	0
47	B3	59/60 (98%)	-0.32	0 100 100	43, 57, 85, 101	0
47	D3	59/60 (98%)	0.21	2 (3%) 46 20	49, 64, 92, 112	0
48	B4	46/71 (64%)	-0.58	0 100 100	106, 141, 151, 154	0
48	D4	46/71 (64%)	0.04	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%)	-0.39	0 100 100	37, 55, 73, 95	0
50	B6	53/54 (98%)	0.26	2 (3%) 41 17	53, 61, 75, 78	0
50	D6	53/54 (98%)	0.53	5 (9%) 9 3	56, 65, 79, 82	0
51	B7	48/49 (97%)	0.05	2 (4%) 37 15	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%)	-0.44	0 100 100	46, 53, 62, 72	0
53	B9	36/37 (97%)	0.09	0 100 100	49, 59, 72, 83	0
53	D9	36/37 (97%)	0.58	3 (8%) 12 4	58, 68, 81, 91	0
All	All	20542/21368 (96%)	0.35	2020 (9%) 8 3	30, 80, 160, 189	0

All (2020) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	AM	43	THR	23.6
14	AN	13	THR	22.9
9	CI	7	THR	17.5
10	AJ	72	VAL	16.9
21	AU	11	GLY	15.4
14	AN	12	ARG	14.8
10	AJ	71	LEU	14.6
1	AA	1290	G	14.2
1	AA	974	A	14.1
13	CM	7	VAL	13.4

Continued on next page...

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	AS	50	ALA	13.4
1	AA	1247	U	13.3
21	AU	8	THR	13.3
1	AA	1286	A	12.9
1	AA	1351	U	12.8
10	AJ	73	ASP	12.7
14	AN	10	ALA	12.6
21	AU	4	GLY	12.5
21	AU	5	ASP	12.5
19	AS	49	ILE	12.5
9	AI	7	THR	12.4
14	AN	14	PRO	12.4
7	CG	2	ALA	11.9
1	AA	1352	C	11.9
13	AM	109	THR	11.9
1	CA	1148	U	11.8
23	BA	2117	A	11.8
13	AM	65	LYS	11.5
9	AI	125	TYR	11.5
1	AA	1331	G	11.5
10	AJ	34	VAL	11.5
9	AI	30	GLY	11.1
1	AA	949	A	11.0
3	AC	144	SER	11.0
9	AI	23	ASN	10.9
10	AJ	8	LEU	10.9
13	AM	44	ARG	10.9
3	AC	196	LEU	10.8
1	CA	1149	C	10.7
7	AG	144	MET	10.7
1	AA	950	U	10.7
13	AM	25	ILE	10.5
9	AI	69	GLY	10.4
7	AG	31	MET	10.4
13	AM	69	GLU	10.3
21	AU	12	LYS	10.2
1	AA	1030(B)	C	10.2
14	AN	23	ARG	10.1
3	CC	153	VAL	10.1
13	AM	91	ARG	10.1
10	CJ	72	VAL	10.1
1	AA	1218	C	10.1

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	AI	88	TYR	10.0
14	AN	22	THR	9.9
1	AA	1235	U	9.9
7	AG	105	VAL	9.9
3	CC	155	GLY	9.9
1	AA	1291	G	9.7
1	AA	982	U	9.7
23	DA	2173	A	9.7
1	AA	984	C	9.6
1	CA	1026	G	9.6
23	DA	2128	C	9.5
23	BA	2116	G	9.4
10	AJ	6	ILE	9.4
19	AS	69	HIS	9.3
21	AU	16	GLY	9.3
23	BA	2129	C	9.3
14	AN	11	LYS	9.3
13	AM	41	PRO	9.3
28	DG	2	PRO	9.2
21	AU	17	THR	9.2
13	AM	86	CYS	9.2
13	AM	29	ARG	9.2
1	AA	987	G	9.2
9	AI	3	GLN	9.2
23	BA	2130	U	9.1
9	CI	6	GLY	9.0
21	CU	5	ASP	9.0
9	AI	89	ASN	9.0
23	DA	2148	G	9.0
21	CU	8	THR	9.0
10	AJ	69	ASN	9.0
1	AA	1209	C	9.0
9	AI	29	ASN	9.0
7	AG	5	ARG	8.9
13	CM	5	ALA	8.9
9	CI	84	ALA	8.8
1	AA	961	U	8.8
23	DA	2174	C	8.8
1	AA	1236	A	8.7
19	AS	59	PRO	8.7
1	AA	1243	C	8.7
1	AA	1018	C	8.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
13	AM	90	LEU	8.7
13	CM	6	GLY	8.7
21	AU	18	TYR	8.6
7	AG	110	GLN	8.6
10	AJ	35	SER	8.5
42	BY	1	MET	8.5
23	DA	2127	G	8.5
10	CJ	23	ILE	8.5
7	AG	39	ALA	8.5
13	AM	92	HIS	8.5
13	AM	2	ALA	8.4
1	AA	1223	C	8.4
7	AG	15	ASP	8.4
7	CG	39	ALA	8.4
9	AI	37	PHE	8.4
10	AJ	100	THR	8.3
21	AU	3	LYS	8.3
7	AG	91	VAL	8.3
1	AA	1240	U	8.3
10	AJ	38	ILE	8.3
7	CG	156	TRP	8.3
1	AA	1242	C	8.3
1	AA	986	A	8.3
3	CC	154	SER	8.3
19	AS	32	LYS	8.3
7	AG	107	ALA	8.2
13	CM	65	LYS	8.2
7	CG	5	ARG	8.2
7	AG	83	ALA	8.2
9	AI	22	GLY	8.2
1	CA	933	G	8.2
1	AA	973	G	8.2
13	AM	42	ALA	8.1
1	CA	1092	A	8.1
1	AA	983	A	8.1
1	CA	1027	C	8.1
3	AC	192	THR	8.0
1	AA	1332	A	8.0
1	AA	1030(C)	G	8.0
1	AA	948	C	7.9
23	DA	2171	A	7.9
23	DA	2124	G	7.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
14	AN	7	ILE	7.9
23	BA	2161	C	7.9
7	AG	84	ASN	7.9
1	AA	980	C	7.9
1	AA	1330	U	7.8
3	CC	76	VAL	7.8
23	DA	2125	G	7.8
1	AA	1341	U	7.8
13	CM	8	GLU	7.8
23	BA	2173	A	7.8
7	AG	71	PRO	7.8
7	AG	2	ALA	7.8
7	AG	82	GLY	7.8
1	AA	1248	A	7.7
1	AA	1306	A	7.7
18	AR	20	ALA	7.7
9	CI	101	PHE	7.7
1	AA	953	G	7.6
1	AA	1222	G	7.6
9	AI	8	GLY	7.6
1	AA	979	C	7.6
1	CA	1128	C	7.6
7	AG	145	ALA	7.6
9	AI	101	PHE	7.6
23	DA	2110	G	7.5
23	DA	2153	G	7.5
3	AC	195	VAL	7.5
10	AJ	5	ARG	7.5
13	AM	12	ASN	7.5
1	AA	1026	G	7.5
13	AM	11	ARG	7.4
10	AJ	70	ARG	7.4
13	AM	95	GLY	7.4
1	AA	951	G	7.4
9	CI	66	ARG	7.4
1	AA	1217	C	7.4
23	DA	2152	G	7.3
23	DA	2162	G	7.3
9	AI	64	THR	7.3
9	CI	85	LEU	7.3
23	DA	2168	G	7.3
13	AM	96	LEU	7.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	1305	G	7.3
1	AA	1216	G	7.3
13	AM	97	PRO	7.3
23	DA	2170	A	7.3
19	CS	54	GLY	7.2
9	AI	15	ALA	7.2
1	AA	985	C	7.2
13	AM	6	GLY	7.2
1	AA	1363	C	7.2
1	CA	1036	G	7.2
9	CI	64	THR	7.2
13	AM	66	LEU	7.1
1	AA	1295	G	7.1
7	AG	11	GLN	7.1
1	AA	1304	G	7.1
7	CG	38	LEU	7.1
1	AA	1287	A	7.1
1	CA	1379	G	7.0
10	AJ	98	ILE	7.0
1	AA	1019	C	7.0
19	AS	70	LYS	7.0
7	CG	25	ALA	7.0
9	AI	47	LEU	7.0
1	AA	1036	G	7.0
1	AA	952	U	7.0
19	AS	73	GLU	7.0
7	AG	4	ARG	6.9
28	DG	182	LYS	6.9
1	AA	988	G	6.9
21	AU	14	TRP	6.9
1	AA	1353	G	6.9
1	AA	954	G	6.9
1	AA	981	U	6.9
9	AI	102	LEU	6.9
13	AM	64	TRP	6.9
3	AC	76	VAL	6.8
23	DA	2790	A	6.8
1	CA	1249	C	6.8
9	AI	100	GLY	6.8
1	AA	1002	G	6.8
1	AA	1138	G	6.8
13	AM	77	ASN	6.8

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	958	A	6.8
1	AA	1296	C	6.8
9	CI	83	ARG	6.7
9	CI	89	ASN	6.7
7	CG	78	ARG	6.7
13	AM	51	ALA	6.7
1	AA	1030(A)	G	6.7
10	AJ	24	VAL	6.7
1	AA	947	G	6.7
23	DA	2176	A	6.7
9	AI	60	ASP	6.7
7	AG	36	LYS	6.7
1	CA	1222	G	6.7
23	DA	2161	C	6.7
1	AA	1274	G	6.7
21	AU	9	ARG	6.6
7	CG	26	PHE	6.6
14	AN	15	LYS	6.6
3	AC	87	LEU	6.6
7	CG	77	SER	6.6
1	CA	1030(B)	C	6.6
7	AG	14	PRO	6.6
13	AM	40	ASN	6.5
23	DA	2132	U	6.5
23	DA	2169	A	6.5
9	AI	10	ARG	6.5
14	AN	9	LYS	6.5
3	AC	53	ALA	6.5
9	AI	80	GLY	6.5
7	CG	27	ILE	6.5
23	BA	2108	C	6.5
3	AC	146	ALA	6.5
19	CS	34	TRP	6.5
9	AI	5	TYR	6.5
9	AI	32	ASP	6.5
13	AM	10	PRO	6.5
23	DA	2121	G	6.5
23	DA	2147	G	6.5
7	AG	143	ARG	6.5
7	CG	16	LEU	6.5
7	AG	109	ASN	6.4
13	CM	66	LEU	6.4

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	AI	84	ALA	6.4
13	AM	49	THR	6.4
14	AN	17	LYS	6.4
28	DG	155	MET	6.4
23	DA	2172	U	6.4
10	CJ	73	ASP	6.4
10	CJ	65	LEU	6.4
3	AC	39	ILE	6.4
7	AG	103	TRP	6.4
1	AA	970	C	6.4
3	AC	111	LEU	6.4
19	CS	52	TYR	6.4
23	DA	2893	G	6.4
21	AU	10	ARG	6.3
1	AA	1339	A	6.3
1	AA	971	G	6.3
28	DG	35	GLU	6.3
9	CI	103	THR	6.3
10	CJ	37	PRO	6.3
1	AA	1364	U	6.3
14	AN	3	ARG	6.3
21	AU	6	ARG	6.3
7	AG	140	ASP	6.3
1	CA	1147	C	6.3
16	AP	11	SER	6.3
9	CI	16	ARG	6.3
23	DA	2129	C	6.3
1	AA	91	C	6.2
10	AJ	21	GLN	6.2
14	CN	30	ALA	6.2
9	AI	20	ARG	6.2
1	AA	1294	G	6.2
9	CI	62	TYR	6.2
23	DA	2792	G	6.2
10	AJ	33	GLN	6.2
7	AG	81	GLY	6.2
1	AA	1011	G	6.2
14	CN	29	ARG	6.2
23	BA	2160	G	6.2
1	CA	1013	G	6.2
10	CJ	71	LEU	6.2
1	CA	1285	A	6.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	AI	83	ARG	6.1
7	AG	38	LEU	6.1
13	AM	68	GLY	6.1
1	CA	1030(A)	G	6.1
19	AS	60	VAL	6.1
1	AA	1297	C	6.1
14	AN	39	LEU	6.1
23	BA	2172	U	6.1
7	AG	154	TYR	6.1
13	AM	24	GLY	6.1
9	AI	65	VAL	6.1
13	AM	50	GLU	6.1
23	DA	2149	G	6.1
19	CS	9	VAL	6.1
10	AJ	48	THR	6.0
9	AI	34	ASN	6.0
10	CJ	22	LYS	6.0
10	CJ	75	ILE	6.0
9	AI	126	SER	6.0
23	BA	2159	G	6.0
9	CI	8	GLY	6.0
1	AA	1213	A	6.0
1	AA	1214	C	6.0
10	CJ	64	GLU	6.0
19	AS	51	VAL	6.0
1	AA	1380	U	6.0
13	AM	54	VAL	6.0
1	CA	1139	G	6.0
23	DA	2126	A	5.9
1	CA	936	C	5.9
23	DA	2177	C	5.9
14	CN	35	ARG	5.9
1	AA	1309	G	5.9
21	CU	7	ARG	5.9
3	CC	44	GLU	5.9
14	AN	19	ARG	5.9
9	AI	122	ALA	5.9
3	CC	43	LEU	5.9
3	AC	145	GLY	5.9
13	CM	102	ARG	5.9
10	CJ	77	PRO	5.9
21	AU	2	GLY	5.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	1033	G	5.9
18	CR	20	ALA	5.9
1	AA	1340	A	5.9
1	CA	1248	A	5.9
23	DA	2178	C	5.9
23	DA	2131	G	5.9
19	AS	31	ILE	5.9
7	AG	106	GLN	5.8
19	AS	57	HIS	5.8
1	AA	1329	A	5.8
7	CG	79	ARG	5.8
23	DA	2116	G	5.8
1	AA	1030(D)	A	5.8
1	AA	1350	A	5.8
9	AI	103	THR	5.8
23	BA	2167	U	5.8
1	CA	1023	G	5.7
23	BA	2166	G	5.7
3	CC	189	ALA	5.7
1	CA	1001(A)	G	5.7
19	AS	48	THR	5.7
1	CA	1150	U	5.7
23	DA	2163	C	5.7
1	AA	1360	A	5.7
9	AI	66	ARG	5.7
23	BA	2148	G	5.7
1	CA	1286	A	5.7
7	AG	130	GLY	5.7
7	CG	37	ASN	5.7
1	AA	990	C	5.7
1	AA	1035	A	5.7
1	AA	1092	A	5.7
23	DA	2122	U	5.7
23	BA	2131	G	5.7
1	AA	1050	G	5.7
9	AI	12	GLU	5.7
9	AI	9	ARG	5.7
14	AN	28	GLY	5.6
19	CS	57	HIS	5.6
1	CA	1223	C	5.6
1	CA	1093	A	5.6
1	AA	1030	C	5.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	AC	193	TYR	5.6
3	CC	194	GLY	5.6
23	BA	2133	G	5.6
28	DG	152	LEU	5.6
13	AM	61	GLU	5.6
23	BA	1509	C	5.6
23	DA	2175	C	5.6
23	DA	2894	G	5.6
1	AA	1336	C	5.6
14	CN	37	PHE	5.6
9	AI	46	ALA	5.6
13	AM	87	TYR	5.6
3	AC	64	VAL	5.6
13	AM	110	ARG	5.6
1	AA	1241	G	5.5
13	AM	5	ALA	5.5
19	AS	33	THR	5.5
23	DA	2120	G	5.5
23	DA	2151	G	5.5
9	AI	87	GLN	5.5
28	DG	41	GLN	5.5
10	AJ	36	GLY	5.5
1	CA	1116	C	5.5
23	DA	2166	G	5.5
23	DA	2109	U	5.5
3	AC	101	LEU	5.5
9	CI	53	VAL	5.5
13	CM	107	ALA	5.5
23	DA	2802	G	5.5
14	AN	32	SER	5.5
1	AA	1210	C	5.5
9	CI	17	VAL	5.5
2	CB	33	TYR	5.5
13	AM	26	GLY	5.5
23	BA	2132	U	5.5
23	DA	2123	G	5.5
3	AC	65	ALA	5.5
14	AN	5	ALA	5.5
23	BA	2171	A	5.4
23	DA	2119	A	5.4
10	AJ	27	ALA	5.4
23	DA	2146	C	5.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	1031	G	5.4
7	AG	77	SER	5.4
1	AA	1246	C	5.4
1	CA	1173	G	5.4
9	AI	4	TYR	5.4
3	CC	47	LEU	5.4
7	AG	16	LEU	5.4
23	BA	2118	U	5.4
1	CA	1293	G	5.4
1	AA	962	C	5.4
10	CJ	100	THR	5.4
1	CA	1383	C	5.4
2	AB	133	LYS	5.4
10	CJ	38	ILE	5.4
19	AS	24	ALA	5.3
1	AA	989	C	5.3
1	AA	1342	C	5.3
7	AG	3	ARG	5.3
4	AD	23	GLY	5.3
4	AD	113	SER	5.3
7	AG	54	THR	5.3
1	CA	1261	A	5.3
7	AG	152	ALA	5.3
9	AI	59	PHE	5.3
23	DA	2164	C	5.3
1	AA	1048	G	5.3
7	CG	4	ARG	5.3
23	BA	2158	A	5.3
7	AG	148	ASN	5.3
1	AA	1208	C	5.3
9	CI	18	PHE	5.3
1	AA	1289	A	5.3
7	CG	154	TYR	5.2
19	CS	80	TYR	5.2
10	AJ	25	GLU	5.2
23	BA	2162	G	5.2
1	AA	1037	C	5.2
19	CS	53	ASN	5.2
23	BA	2176	A	5.2
13	AM	88	ARG	5.2
3	AC	69	HIS	5.2
7	AG	141	VAL	5.2

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	BA	2137	C	5.2
9	AI	33	PHE	5.2
2	CB	19	HIS	5.2
13	AM	104	ARG	5.2
9	AI	28	VAL	5.2
13	AM	73	GLU	5.2
23	BA	2124	G	5.2
9	AI	14	VAL	5.2
21	AU	24	ARG	5.2
42	DY	1	MET	5.2
10	CJ	17	ASP	5.2
9	AI	21	PRO	5.2
23	BA	2147	G	5.1
23	DA	2793	G	5.1
28	DG	134	GLY	5.1
19	AS	40	ILE	5.1
9	AI	6	GLY	5.1
1	CA	1030(C)	G	5.1
23	BA	2109	U	5.1
23	DA	2118	U	5.1
9	AI	31	GLN	5.1
23	BA	2174	C	5.1
23	BA	2168	G	5.1
16	AP	12	LYS	5.1
7	AG	153	HIS	5.1
21	AU	13	ILE	5.1
23	BA	2115	G	5.1
7	AG	49	ILE	5.1
1	CA	1212	U	5.1
10	AJ	56	HIS	5.1
3	CC	77	ILE	5.1
1	AA	1013	G	5.1
10	CJ	20	ALA	5.1
18	AR	31	LEU	5.1
7	CG	3	ARG	5.1
13	CM	4	ILE	5.1
3	AC	143	GLU	5.1
1	CA	974	A	5.1
7	AG	43	PHE	5.1
2	CB	37	ASN	5.1
23	DA	2139	C	5.1
1	CA	1125	U	5.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
21	AU	7	ARG	5.0
10	CJ	27	ALA	5.0
1	CA	1028	C	5.0
7	AG	147	ALA	5.0
1	CA	1172	C	5.0
28	DG	93	THR	5.0
19	AS	44	MET	5.0
23	BA	2125	G	5.0
3	AC	103	VAL	5.0
9	CI	88	TYR	5.0
9	AI	19	LEU	5.0
1	CA	1037	C	5.0
5	CE	20	GLN	5.0
21	CU	2	GLY	4.9
1	AA	1001(A)	G	4.9
23	DA	1535	A	4.9
13	CM	64	TRP	4.9
23	BA	2163	C	4.9
1	AA	1237	C	4.9
28	DG	156	ASP	4.9
3	CC	202	ILE	4.9
1	CA	1012	U	4.9
4	CD	23	GLY	4.9
13	AM	93	ARG	4.9
19	CS	63	THR	4.9
1	AA	1045	C	4.9
53	D9	37	GLY	4.9
7	AG	127	ALA	4.9
13	AM	105	THR	4.9
3	AC	183	ASP	4.9
23	DA	2158	A	4.9
1	CA	1024	G	4.9
23	BA	2165	G	4.9
3	CC	160	ALA	4.9
1	CA	1297	C	4.9
3	AC	78	GLY	4.9
1	AA	1215	G	4.9
10	CJ	74	ILE	4.9
1	AA	946	A	4.9
14	CN	28	GLY	4.9
7	AG	23	VAL	4.8
10	CJ	40	LEU	4.8

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
13	CM	60	VAL	4.8
7	AG	19	GLY	4.8
1	AA	1017	G	4.8
23	DA	2141	G	4.8
7	CG	80	VAL	4.8
9	CI	69	GLY	4.8
9	AI	17	VAL	4.8
1	AA	1224	G	4.8
1	CA	935	A	4.8
19	CS	49	ILE	4.8
1	CA	1380	U	4.8
1	AA	1275	A	4.8
2	AB	131	PRO	4.8
10	CJ	76	ASN	4.8
10	CJ	45	ARG	4.8
9	CI	65	VAL	4.8
10	AJ	54	PHE	4.8
1	AA	3	G	4.8
1	AA	1032	G	4.8
14	AN	20	ALA	4.8
1	AA	935	A	4.8
9	AI	27	THR	4.8
9	CI	80	GLY	4.8
23	DA	2167	U	4.8
1	AA	969	A	4.7
10	AJ	47	PHE	4.7
1	AA	960	U	4.7
23	BA	2157	G	4.7
1	AA	1180	A	4.7
5	AE	130	ASN	4.7
23	DA	2150	U	4.7
1	AA	1334	G	4.7
9	CI	105	ASP	4.7
10	CJ	85	LEU	4.7
13	AM	47	ASP	4.7
9	AI	16	ARG	4.7
13	CM	105	THR	4.7
1	AA	1016	A	4.7
10	CJ	47	PHE	4.7
18	CR	22	VAL	4.7
7	AG	13	GLN	4.7
2	AB	232	PRO	4.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	1303	C	4.7
13	AM	72	ALA	4.7
4	AD	6	GLY	4.7
1	CA	1068	G	4.7
1	AA	1245	A	4.7
23	DA	652(B)	A	4.7
7	AG	65	ALA	4.7
50	D6	54	ILE	4.6
23	BA	2123	G	4.6
7	AG	120	ILE	4.6
1	AA	1365	G	4.6
1	AA	1261	A	4.6
1	CA	1029	C	4.6
23	BA	2121	G	4.6
3	CC	39	ILE	4.6
9	CI	9	ARG	4.6
23	DA	2892	A	4.6
9	CI	49	PRO	4.6
10	AJ	65	LEU	4.6
10	CJ	33	GLN	4.6
7	AG	108	ALA	4.6
14	CN	26	ARG	4.6
14	CN	27	CYS	4.6
16	AP	29	ASP	4.6
7	AG	37	ASN	4.6
10	AJ	19	SER	4.6
1	AA	1012	U	4.6
1	AA	92	C	4.6
16	AP	28	ARG	4.6
28	DG	34	LEU	4.6
1	AA	959	A	4.6
9	CI	5	TYR	4.6
1	AA	998	G	4.6
23	BA	2119	A	4.5
28	DG	135	LEU	4.5
13	AM	85	GLY	4.5
18	CR	31	LEU	4.5
13	AM	13	LYS	4.5
1	AA	1020	U	4.5
10	AJ	76	ASN	4.5
2	CB	161	ALA	4.5
1	CA	958	A	4.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	AG	136	LYS	4.5
14	AN	8	GLU	4.5
23	DA	2165	G	4.5
28	DG	157	ILE	4.5
14	CN	23	ARG	4.5
19	CS	21	GLU	4.5
1	CA	1033	G	4.5
19	CS	83	HIS	4.5
1	CA	1025	U	4.5
1	AA	1311	G	4.5
18	CR	23	LYS	4.5
19	AS	72	GLY	4.4
3	AC	66	VAL	4.4
1	AA	1183	A	4.4
3	AC	189	ALA	4.4
3	CC	42	LEU	4.4
9	AI	18	PHE	4.4
3	CC	196	LEU	4.4
9	AI	13	ALA	4.4
9	AI	123	PRO	4.4
1	AA	77	G	4.4
9	CI	81	ILE	4.4
9	AI	99	LEU	4.4
3	AC	107	GLN	4.4
7	AG	156	TRP	4.4
1	CA	1291	G	4.4
3	CC	188	LEU	4.4
9	CI	82	ALA	4.4
2	AB	132	LYS	4.4
13	AM	34	LEU	4.4
10	AJ	20	ALA	4.4
10	AJ	28	ARG	4.4
3	AC	47	LEU	4.4
7	AG	40	ALA	4.4
2	CB	232	PRO	4.4
14	CN	38	GLY	4.4
1	AA	1158	C	4.4
7	CG	20	ASP	4.4
13	AM	48	LEU	4.4
3	AC	100	ALA	4.4
10	CJ	26	ALA	4.4
1	AA	1034	G	4.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1300	G	4.3
19	AS	58	VAL	4.3
43	DZ	112	ARG	4.3
9	AI	91	ASP	4.3
1	CA	1165	C	4.3
9	CI	22	GLY	4.3
13	AM	33	ALA	4.3
1	AA	1308	U	4.3
7	AG	35	LYS	4.3
10	AJ	64	GLU	4.3
1	CA	1138	G	4.3
10	CJ	59	SER	4.3
13	AM	35	GLU	4.3
1	CA	932	C	4.3
9	CI	61	ALA	4.3
23	BA	277	C	4.3
1	AA	1307	U	4.3
13	AM	9	ILE	4.3
19	CS	10	PHE	4.3
13	AM	30	ALA	4.3
1	AA	963	G	4.3
16	AP	19	ILE	4.3
1	AA	999	C	4.3
10	CJ	78	ASN	4.3
14	AN	25	VAL	4.3
1	CA	1035	A	4.3
7	AG	41	ARG	4.3
7	AG	56	GLN	4.3
7	AG	102	ARG	4.3
38	DU	117	GLN	4.3
1	CA	1265	G	4.3
7	AG	96	GLN	4.3
12	AL	73	GLU	4.3
10	AJ	57	LYS	4.3
1	AA	76	C	4.3
1	AA	1221	G	4.3
1	AA	1310	G	4.3
10	AJ	7	LYS	4.3
18	CR	85	LEU	4.3
1	AA	1374	A	4.3
1	AA	201	C	4.3
23	DA	2160	G	4.3

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	BH	2	SER	4.3
28	BG	87	PRO	4.3
1	CA	1030(D)	A	4.2
23	BA	2135	A	4.2
1	AA	1228	C	4.2
10	CJ	10	GLY	4.2
1	CA	1202	G	4.2
1	AA	1212	U	4.2
19	CS	35	SER	4.2
23	BA	2149	G	4.2
23	DA	2155	G	4.2
7	CG	99	LEU	4.2
10	CJ	39	PRO	4.2
19	CS	68	GLY	4.2
10	CJ	67	THR	4.2
31	DN	140	VAL	4.2
13	CM	67	GLU	4.2
16	AP	1	MET	4.2
19	AS	20	LEU	4.2
12	CL	73	GLU	4.2
9	AI	124	GLN	4.2
1	CA	1287	A	4.2
13	AM	81	LEU	4.2
19	CS	22	LEU	4.2
19	CS	30	LEU	4.2
9	AI	55	ALA	4.2
1	AA	1276	G	4.2
13	AM	89	GLY	4.2
18	AR	22	VAL	4.2
19	CS	56	GLN	4.2
3	AC	73	PRO	4.2
10	AJ	37	PRO	4.2
1	AA	1001	A	4.2
14	AN	18	VAL	4.2
1	AA	1125	U	4.1
1	CA	1140	C	4.1
1	CA	1127	G	4.1
7	AG	104	LEU	4.1
23	DA	2157	G	4.1
1	CA	1174	G	4.1
7	AG	119	ARG	4.1
1	AA	965	A	4.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
10	AJ	74	ILE	4.1
1	AA	1148	U	4.1
18	AR	21	LYS	4.1
12	AL	114	LYS	4.1
29	DH	2	SER	4.1
23	DA	2154	G	4.1
7	AG	51	GLN	4.1
14	CN	25	VAL	4.1
7	AG	45	ASP	4.1
1	AA	1211	U	4.1
14	AN	26	ARG	4.1
1	CA	1032	G	4.1
1	AA	1447	A	4.1
3	AC	67	THR	4.1
13	AM	20	THR	4.1
21	CU	6	ARG	4.1
6	AF	97	PHE	4.1
1	AA	1021	G	4.1
13	AM	82	MET	4.1
13	AM	98	VAL	4.1
13	AM	102	ARG	4.1
23	BA	2136	C	4.1
19	AS	30	LEU	4.1
7	AG	66	VAL	4.0
5	AE	89	ILE	4.0
13	CM	43	THR	4.0
3	AC	77	ILE	4.0
7	AG	125	MET	4.0
3	CC	23	TYR	4.0
3	CC	101	LEU	4.0
7	AG	112	PRO	4.0
23	BA	2153	G	4.0
28	DG	42	GLY	4.0
12	AL	113	ARG	4.0
13	CM	9	ILE	4.0
50	D6	50	ARG	4.0
14	CN	13	THR	4.0
16	AP	13	HIS	4.0
4	CD	69	GLY	4.0
19	AS	28	LYS	4.0
7	CG	15	ASP	4.0
19	CS	15	LEU	4.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	AI	105	ASP	4.0
1	CA	1014	A	4.0
28	DG	142	PRO	4.0
1	CA	1136	U	4.0
10	AJ	26	ALA	4.0
1	AA	1359	C	4.0
7	CG	6	ARG	4.0
9	AI	112	LYS	4.0
19	AS	5	LEU	4.0
29	DH	57	ASP	4.0
3	CC	65	ALA	4.0
1	AA	1302	U	4.0
7	AG	26	PHE	4.0
7	AG	52	GLU	4.0
3	AC	2	GLY	4.0
19	AS	39	THR	4.0
3	AC	104	GLN	3.9
3	CC	152	ILE	3.9
9	CI	52	ALA	3.9
13	AM	46	LYS	3.9
10	AJ	23	ILE	3.9
25	BD	276	LYS	3.9
1	AA	1159	U	3.9
1	AA	1284	C	3.9
1	CA	1141	C	3.9
7	CG	153	HIS	3.9
10	AJ	9	ARG	3.9
23	DA	2108	C	3.9
17	AQ	78	GLU	3.9
7	AG	111	ARG	3.9
7	AG	76	ARG	3.9
1	CA	1129	C	3.9
23	DA	2803	C	3.9
13	AM	45	VAL	3.9
14	AN	6	LEU	3.9
1	AA	1327	C	3.9
3	CC	172	ARG	3.9
19	AS	81	ARG	3.9
53	D9	12	ASP	3.9
3	CC	40	ARG	3.9
19	CS	79	THR	3.9
1	AA	1233	G	3.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1034	G	3.9
1	CA	1386	G	3.9
1	AA	1025	U	3.8
3	AC	68	VAL	3.8
7	AG	75	VAL	3.8
23	DA	2111	C	3.8
6	CF	63	TYR	3.8
1	CA	1382	C	3.8
9	CI	119	ALA	3.8
13	AM	53	VAL	3.8
7	CG	82	GLY	3.8
7	AG	142	GLU	3.8
14	AN	61	TRP	3.8
3	AC	172	ARG	3.8
23	BA	2792	G	3.8
28	DG	92	VAL	3.8
7	AG	55	GLY	3.8
22	AV	23	GLY	3.8
8	CH	54	ASP	3.8
1	AA	1312	G	3.8
23	DA	2133	G	3.8
7	CG	86	GLN	3.8
14	AN	37	PHE	3.8
29	DH	58	GLU	3.8
7	CG	12	LEU	3.8
23	BA	2793	G	3.8
23	DA	2159	G	3.8
9	AI	113	LYS	3.8
23	BA	2150	U	3.8
1	AA	975	A	3.8
1	AA	1288	A	3.8
20	AT	53	LEU	3.8
7	AG	88	PRO	3.8
1	CA	1094	G	3.8
1	AA	1141	C	3.8
5	AE	118	ILE	3.8
46	D2	1	MET	3.8
7	AG	53	LYS	3.8
1	AA	1207	G	3.8
1	AA	1285	A	3.8
3	AC	43	LEU	3.8
3	AC	63	ASN	3.7

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	CG	32	ARG	3.7
2	CB	38	GLY	3.7
7	CG	40	ALA	3.7
23	DA	2179	C	3.7
28	DG	43	LEU	3.7
1	CA	1275	A	3.7
7	AG	92	SER	3.7
30	DI	121	LYS	3.7
7	AG	60	LYS	3.7
17	CQ	98	LEU	3.7
1	AA	1139	G	3.7
2	CB	21	ARG	3.7
13	AM	32	GLU	3.7
3	CC	191	THR	3.7
9	AI	90	PRO	3.7
19	AS	19	VAL	3.7
16	AP	10	GLY	3.7
1	CA	1031	G	3.7
23	DA	281	G	3.7
23	DA	2140	C	3.7
1	CA	1295	G	3.7
19	AS	68	GLY	3.7
19	CS	17	GLU	3.7
1	AA	1325	C	3.7
10	AJ	60	ARG	3.7
7	CG	91	VAL	3.7
14	AN	34	TYR	3.7
1	CA	1384	C	3.7
1	CA	1304	G	3.7
14	CN	31	ARG	3.7
42	DY	80	GLY	3.7
7	CG	101	LEU	3.7
1	AA	1029	C	3.7
1	AA	1262	C	3.7
1	AA	1384	C	3.7
1	AA	1338	G	3.6
9	CI	102	LEU	3.6
14	AN	4	LYS	3.6
17	AQ	97	SER	3.6
1	CA	1243	C	3.6
23	DA	1509	C	3.6
14	AN	59	ALA	3.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
28	BG	2	PRO	3.6
7	AG	9	VAL	3.6
7	CG	36	LYS	3.6
1	AA	204	U	3.6
30	DI	85	GLU	3.6
10	AJ	40	LEU	3.6
1	AA	1326	C	3.6
1	AA	1383	C	3.6
1	CA	985	C	3.6
7	AG	151	TYR	3.6
9	CI	54	ASP	3.6
3	AC	98	ASN	3.6
10	CJ	36	GLY	3.6
5	AE	122	GLU	3.6
7	AG	87	VAL	3.6
13	AM	15	VAL	3.6
19	AS	27	GLU	3.6
3	CC	80	GLY	3.6
1	CA	1030	C	3.6
1	CA	1274	G	3.6
13	CM	17	VAL	3.6
3	CC	156	ARG	3.6
3	CC	81	GLY	3.6
19	AS	55	LYS	3.6
3	CC	112	SER	3.6
1	AA	1003	G	3.6
3	CC	166	GLU	3.6
3	AC	58	GLU	3.6
1	AA	1328	C	3.6
1	CA	1175	G	3.6
18	AR	32	ARG	3.6
20	AT	60	GLU	3.6
1	AA	202	U	3.6
19	AS	23	ASN	3.6
13	AM	76	ALA	3.6
9	CI	100	GLY	3.5
1	CA	1224	G	3.5
7	AG	139	GLU	3.5
1	CA	931	C	3.5
23	BA	2128	C	3.5
7	AG	32	ARG	3.5
23	DA	655	A	3.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	CC	192	THR	3.5
10	CJ	19	SER	3.5
1	CA	80	G	3.5
3	CC	197	GLY	3.5
3	CC	49	SER	3.5
4	AD	37	PRO	3.5
10	CJ	6	ILE	3.5
14	AN	38	GLY	3.5
1	CA	1021	G	3.5
1	CA	1221	G	3.5
23	BA	2164	C	3.5
10	AJ	75	ILE	3.5
1	AA	1014	A	3.5
9	AI	56	LEU	3.5
3	CC	3	ASN	3.5
9	CI	48	GLU	3.5
28	DG	132	ASN	3.5
1	CA	1338	G	3.5
3	CC	190	ARG	3.5
9	CI	58	HIS	3.5
16	AP	20	VAL	3.5
23	DA	2156	G	3.5
25	DD	276	LYS	3.5
14	CN	14	PRO	3.5
19	CS	82	GLY	3.5
1	AA	1044	A	3.5
3	AC	110	ASN	3.5
19	CS	31	ILE	3.5
13	AM	63	THR	3.5
2	AB	140	HIS	3.5
1	AA	1028	C	3.5
1	CA	1342	C	3.5
7	CG	69	VAL	3.5
9	CI	63	ILE	3.5
1	CA	1005	A	3.5
10	AJ	58	ASP	3.5
33	DP	87	ASP	3.5
9	CI	15	ALA	3.5
19	CS	20	LEU	3.5
7	AG	28	ASN	3.5
1	AA	1049	U	3.5
9	AI	121	ARG	3.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
50	D6	11	LEU	3.5
19	CS	8	GLY	3.5
6	AF	98	LEU	3.4
1	AA	369	C	3.4
23	DA	2896	C	3.4
30	DI	138	ILE	3.4
1	AA	1130	A	3.4
1	CA	1343	G	3.4
3	CC	206	GLU	3.4
3	AC	106	VAL	3.4
1	AA	78	G	3.4
9	AI	63	ILE	3.4
13	AM	106	ASN	3.4
3	AC	191	THR	3.4
1	AA	1140	C	3.4
1	AA	1335	C	3.4
20	CT	86	ARG	3.4
23	BA	2107	C	3.4
23	DA	2801(A)	A	3.4
3	AC	72	LYS	3.4
7	AG	8	GLU	3.4
1	CA	981	U	3.4
1	AA	1362	C	3.4
2	CB	15	VAL	3.4
3	CC	151	VAL	3.4
13	AM	60	VAL	3.4
1	CA	1146	A	3.4
28	DG	133	LEU	3.4
1	AA	997	U	3.4
9	CI	104	ARG	3.4
1	CA	1288	A	3.4
14	CN	34	TYR	3.4
13	AM	39	ILE	3.4
13	CM	61	GLU	3.4
13	CM	34	LEU	3.4
28	DG	3	LEU	3.4
7	CG	96	GLN	3.4
7	AG	146	GLU	3.4
7	AG	29	LYS	3.4
13	CM	85	GLY	3.4
23	BA	2122	U	3.4
7	AG	25	ALA	3.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1294	G	3.4
5	AE	90	VAL	3.3
10	AJ	77	PRO	3.3
13	CM	72	ALA	3.3
9	AI	35	GLU	3.3
1	AA	1129	C	3.3
10	AJ	59	SER	3.3
23	DA	2145	C	3.3
9	AI	119	ALA	3.3
1	CA	1213	A	3.3
10	AJ	97	GLU	3.3
1	AA	1007	C	3.3
23	BA	2175	C	3.3
16	AP	18	ARG	3.3
23	DA	2130	U	3.3
9	CI	55	ALA	3.3
10	AJ	53	PRO	3.3
14	AN	21	TYR	3.3
1	AA	1010	G	3.3
3	AC	108	ASN	3.3
19	CS	32	LYS	3.3
19	CS	50	ALA	3.3
1	CA	1260	C	3.3
4	CD	21	LEU	3.3
7	AG	137	LYS	3.3
13	AM	28	ALA	3.3
1	CA	1170	A	3.3
1	CA	1191	A	3.3
1	CA	1340	A	3.3
23	BA	276	A	3.3
9	AI	54	ASP	3.3
16	AP	40	ASP	3.3
5	AE	22	GLY	3.3
13	AM	70	LEU	3.3
13	CM	108	ARG	3.3
47	D3	26	LEU	3.3
19	CS	44	MET	3.3
9	CI	76	ALA	3.3
13	CM	39	ILE	3.3
19	CS	55	LYS	3.3
3	CC	2	GLY	3.3
6	CF	97	PHE	3.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1131	G	3.3
9	AI	24	GLY	3.3
10	AJ	17	ASP	3.3
21	CU	4	GLY	3.3
42	DY	2	ARG	3.2
1	CA	1381	U	3.2
10	AJ	10	GLY	3.2
28	DG	88	ILE	3.2
1	AA	1128	C	3.2
1	CA	1385	G	3.2
23	BA	2794	C	3.2
8	CH	116	LYS	3.2
7	CG	56	GLN	3.2
5	AE	85	GLY	3.2
28	DG	151	ALA	3.2
36	DS	37	ALA	3.2
1	CA	1181	G	3.2
7	CG	31	MET	3.2
16	AP	37	GLY	3.2
1	CA	956	U	3.2
7	AG	24	THR	3.2
19	CS	69	HIS	3.2
20	CT	56	MET	3.2
28	BG	133	LEU	3.2
43	DZ	198	LYS	3.2
1	AA	220	G	3.2
1	CA	1266	G	3.2
7	CG	41	ARG	3.2
18	CR	72	ARG	3.2
1	CA	986	A	3.2
3	AC	156	ARG	3.2
3	AC	204	LEU	3.2
1	AA	93	G	3.2
3	CC	46	GLU	3.2
18	CR	21	LYS	3.2
15	CO	89	GLY	3.2
28	DG	39	ILE	3.2
1	AA	390	C	3.2
1	AA	1452	C	3.2
20	AT	52	ALA	3.2
1	CA	1227	A	3.2
23	DA	2107	C	3.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
11	CK	32	ILE	3.2
4	AD	125	HIS	3.2
23	DA	2897	U	3.2
2	CB	31	TYR	3.2
1	CA	988	G	3.2
1	AA	1201	A	3.2
9	AI	57	GLY	3.2
9	CI	30	GLY	3.2
3	AC	128	PHE	3.2
19	CS	7	LYS	3.2
3	CC	193	TYR	3.2
13	AM	80	ARG	3.2
7	CG	28	ASN	3.2
17	CQ	100	LYS	3.2
1	AA	389	A	3.2
1	AA	1324	A	3.2
3	CC	88	ARG	3.2
13	CM	69	GLU	3.2
1	CA	960	U	3.2
1	CA	1205	U	3.2
14	CN	15	LYS	3.2
50	B6	54	ILE	3.2
1	CA	1349	A	3.2
13	CM	16	ASP	3.2
1	AA	1320	C	3.1
1	CA	984	C	3.1
4	CD	7	PRO	3.1
3	AC	99	VAL	3.1
13	CM	92	HIS	3.1
1	AA	97	G	3.1
1	AA	966	G	3.1
1	AA	1363(A)	A	3.1
1	CA	1145	C	3.1
3	CC	187	ALA	3.1
4	CD	112	VAL	3.1
9	AI	86	VAL	3.1
10	CJ	97	GLU	3.1
9	AI	96	LEU	3.1
19	CS	19	VAL	3.1
1	AA	1378	C	3.1
23	DA	280	C	3.1
3	AC	154	SER	3.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	AI	79	LEU	3.1
9	AI	85	LEU	3.1
16	AP	9	PHE	3.1
29	DH	109	PHE	3.1
3	CC	100	ALA	3.1
1	CA	1214	C	3.1
1	CA	1262	C	3.1
23	DA	2136	C	3.1
28	BG	34	LEU	3.1
3	AC	142	MET	3.1
7	CG	17	VAL	3.1
19	AS	9	VAL	3.1
7	CG	51	GLN	3.1
10	CJ	69	ASN	3.1
1	AA	932	C	3.1
1	AA	1038	C	3.1
1	CA	1017	G	3.1
23	BA	2106	G	3.1
14	CN	16	PHE	3.1
3	CC	73	PRO	3.1
7	AG	113	GLU	3.1
28	DG	66	GLN	3.1
1	AA	1131	G	3.1
23	DA	11	G	3.1
19	AS	52	TYR	3.1
19	CS	78	ARG	3.1
2	CB	48	MET	3.1
1	AA	1315	U	3.1
1	CA	1011	G	3.1
23	BA	2152	G	3.1
2	CB	43	ASP	3.1
9	AI	36	TYR	3.1
28	BG	131	TYR	3.1
28	DG	85	GLY	3.1
13	AM	7	VAL	3.1
3	AC	109	PRO	3.1
10	CJ	53	PRO	3.1
1	CA	1166	G	3.1
12	AL	122	THR	3.1
13	AM	78	ILE	3.1
1	AA	71	C	3.1
21	AU	15	ARG	3.1

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	AG	128	ALA	3.1
19	CS	26	GLY	3.0
19	CS	48	THR	3.0
13	AM	59	TYR	3.0
1	CA	961	U	3.0
4	AD	21	LEU	3.0
1	CA	1022	G	3.0
1	CA	1057	G	3.0
1	AA	2	U	3.0
18	CR	29	PHE	3.0
28	DG	117	PHE	3.0
10	AJ	62	HIS	3.0
6	CF	6	VAL	3.0
1	AA	1137	C	3.0
10	CJ	55	LYS	3.0
23	BA	2178	C	3.0
6	CF	35	ALA	3.0
1	AA	1279	A	3.0
1	CA	202	U	3.0
7	CG	18	TYR	3.0
23	DA	271(N)	U	3.0
29	DH	116	GLU	3.0
7	CG	71	PRO	3.0
13	AM	101	GLN	3.0
21	CU	14	TRP	3.0
5	CE	94	ALA	3.0
7	AG	150	ALA	3.0
9	AI	70	LYS	3.0
10	CJ	99	LYS	3.0
16	AP	17	TYR	3.0
1	CA	1208	C	3.0
3	AC	54	ARG	3.0
4	AD	134	ASP	3.0
3	AC	102	ASN	3.0
4	AD	4	TYR	3.0
1	AA	943	U	3.0
1	CA	950	U	3.0
1	CA	1229	A	3.0
1	AA	1273	G	3.0
13	AM	4	ILE	3.0
7	AG	17	VAL	3.0
10	CJ	62	HIS	3.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
20	AT	56	MET	3.0
1	AA	1260	C	3.0
7	CG	33	ASP	3.0
20	CT	53	LEU	3.0
1	CA	987	G	3.0
2	AB	16	HIS	3.0
13	CM	101	GLN	3.0
8	CH	55	GLY	3.0
16	CP	48	TRP	3.0
20	AT	86	ARG	3.0
1	CA	1018	C	3.0
1	AA	189(G)	G	2.9
7	CG	87	VAL	2.9
23	DA	652(T)	C	2.9
23	DA	1052	C	2.9
23	DA	2794	C	2.9
1	AA	1124	G	2.9
1	CA	1002	G	2.9
10	CJ	54	PHE	2.9
47	D3	29	ARG	2.9
3	AC	147	LYS	2.9
1	AA	1093	A	2.9
3	CC	66	VAL	2.9
44	D0	10	THR	2.9
23	DA	271(K)	U	2.9
23	DA	654	A	2.9
28	DG	136	ARG	2.9
7	AG	129	GLU	2.9
1	AA	65	U	2.9
1	AA	203	U	2.9
1	AA	1009	G	2.9
1	CA	1312	G	2.9
7	CG	24	THR	2.9
19	CS	33	THR	2.9
1	CA	1209	C	2.9
4	CD	2	GLY	2.9
9	AI	67	GLY	2.9
20	CT	85	MET	2.9
23	DA	2134	A	2.9
28	BG	136	ARG	2.9
10	CJ	63	PHE	2.9
17	AQ	100	LYS	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
13	CM	100	GLY	2.9
3	AC	83	ARG	2.9
4	AD	70	ILE	2.9
23	BA	2120	G	2.9
23	BA	2139	C	2.9
43	DZ	197	ILE	2.9
9	CI	36	TYR	2.9
18	AR	29	PHE	2.9
45	D1	2	SER	2.9
3	AC	167	TRP	2.9
13	AM	52	GLU	2.9
2	CB	7	VAL	2.9
1	CA	1050	G	2.9
10	AJ	41	PRO	2.9
23	BA	2893	G	2.9
13	AM	71	ARG	2.9
42	BY	2	ARG	2.9
4	AD	120	LEU	2.9
5	CE	31	LEU	2.9
13	CM	25	ILE	2.9
19	CS	16	LEU	2.9
16	AP	16	HIS	2.9
1	AA	991	U	2.9
3	AC	74	GLY	2.9
7	CG	148	ASN	2.9
28	BG	72	ARG	2.9
50	D6	20	ASN	2.9
1	CA	983	A	2.9
18	CR	34	TYR	2.9
9	CI	21	PRO	2.9
36	DS	110	LEU	2.9
1	AA	933	G	2.9
1	AA	1379	G	2.9
1	CA	1009	G	2.9
1	CA	1123	A	2.9
7	CG	151	TYR	2.9
23	BA	2114	A	2.9
8	AH	116	LYS	2.9
3	AC	75	VAL	2.8
13	CM	40	ASN	2.8
7	AG	12	LEU	2.8
12	CL	72	GLY	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	DA	2805	G	2.8
30	DI	81	VAL	2.8
9	AI	95	LYS	2.8
18	AR	56	THR	2.8
19	AS	82	GLY	2.8
3	AC	153	VAL	2.8
28	DG	87	PRO	2.8
4	CD	4	TYR	2.8
7	CG	57	GLU	2.8
1	AA	972	C	2.8
1	CA	1389	C	2.8
7	CG	88	PRO	2.8
9	CI	118	LYS	2.8
18	AR	23	LYS	2.8
20	CT	83	ARG	2.8
3	AC	84	ILE	2.8
10	CJ	89	ASP	2.8
23	BA	2177	C	2.8
16	AP	7	ALA	2.8
7	AG	59	LEU	2.8
1	AA	1357	A	2.8
19	AS	26	GLY	2.8
30	DI	34	GLY	2.8
53	D9	31	LYS	2.8
1	AA	944	G	2.8
3	CC	87	LEU	2.8
38	BU	117	GLN	2.8
43	DZ	12	GLY	2.8
19	AS	41	VAL	2.8
1	CA	1328	C	2.8
11	CK	82	VAL	2.8
28	DG	76	SER	2.8
28	BG	132	ASN	2.8
4	AD	163	GLU	2.8
12	CL	113	ARG	2.8
18	CR	61	LYS	2.8
7	AG	133	GLY	2.8
9	CI	67	GLY	2.8
17	CQ	99	SER	2.8
1	AA	1027	C	2.8
1	AA	1231	G	2.8
1	CA	1137	C	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	CC	102	ASN	2.8
4	AD	161	ASN	2.8
18	CR	32	ARG	2.8
4	AD	78	LEU	2.8
15	AO	49	ASP	2.8
30	DI	35	LEU	2.8
13	AM	67	GLU	2.8
14	AN	30	ALA	2.8
23	BA	2138	C	2.8
7	CG	132	GLY	2.8
16	CP	12	LYS	2.8
3	AC	170	GLN	2.7
3	CC	111	LEU	2.7
2	CB	227	GLY	2.7
19	AS	4	SER	2.7
21	CU	10	ARG	2.7
13	AM	74	VAL	2.7
16	AP	36	ILE	2.7
1	AA	1112	C	2.7
1	CA	1066	C	2.7
4	CD	35	ARG	2.7
9	CI	51	ARG	2.7
10	CJ	66	ARG	2.7
13	AM	94	ARG	2.7
29	DH	6	ARG	2.7
1	CA	1331	G	2.7
3	CC	205	GLY	2.7
9	AI	62	TYR	2.7
1	CA	959	A	2.7
7	CG	68	ASN	2.7
15	CO	88	ARG	2.7
1	AA	1367	C	2.7
2	AB	214	ILE	2.7
20	CT	51	GLU	2.7
1	AA	1142	G	2.7
1	CA	1117	G	2.7
23	DA	2182	G	2.7
1	CA	1204	A	2.7
23	BA	653	A	2.7
28	DG	161	THR	2.7
5	AE	86	ALA	2.7
1	CA	1378	C	2.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1348	U	2.7
7	CG	146	GLU	2.7
23	DA	2804	C	2.7
2	AB	234	PRO	2.7
43	DZ	34	ASN	2.7
9	AI	75	ASP	2.7
1	AA	1368	G	2.7
1	CA	1329	A	2.7
19	AS	8	GLY	2.7
33	DP	91	PHE	2.7
13	AM	23	TYR	2.7
3	AC	105	GLU	2.7
7	CG	95	ARG	2.7
9	AI	77	ILE	2.7
9	AI	120	ARG	2.7
43	DZ	11	GLU	2.7
1	AA	1226	C	2.7
8	AH	52	ASP	2.7
9	CI	60	ASP	2.7
22	CV	23	GLY	2.7
7	CG	85	TYR	2.7
7	CG	155	ARG	2.7
10	CJ	5	ARG	2.7
1	AA	1280	A	2.7
1	CA	1089	G	2.7
23	BA	2156	G	2.7
23	DA	275	G	2.7
1	AA	1366	C	2.7
29	DH	123	PHE	2.7
29	DH	174	GLY	2.7
4	AD	8	VAL	2.7
10	CJ	42	THR	2.7
3	CC	84	ILE	2.7
18	AR	66	LEU	2.7
1	AA	1005	A	2.7
10	AJ	99	LYS	2.7
1	AA	1385	G	2.7
1	CA	79	G	2.7
10	CJ	70	ARG	2.7
18	CR	87	ARG	2.7
10	CJ	82	ILE	2.7
14	CN	36	PHE	2.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	CG	98	SER	2.7
1	AA	113	G	2.7
1	AA	1143	G	2.7
20	AT	83	ARG	2.7
19	AS	75	ALA	2.7
1	AA	90	U	2.7
5	AE	117	ASP	2.7
1	CA	1206	G	2.7
19	AS	46	GLY	2.7
20	CT	101	GLY	2.7
9	AI	106	ALA	2.7
21	CU	3	LYS	2.6
14	CN	24	CYS	2.6
1	AA	1204	A	2.6
19	CS	62	ILE	2.6
1	AA	1181	G	2.6
23	DA	2106	G	2.6
14	AN	16	PHE	2.6
1	AA	1313	U	2.6
1	CA	841	U	2.6
9	CI	87	GLN	2.6
13	AM	8	GLU	2.6
43	DZ	191	VAL	2.6
23	BA	6	A	2.6
1	CA	1264	C	2.6
10	AJ	30	SER	2.6
1	AA	976	G	2.6
18	CR	86	VAL	2.6
36	DS	55	ALA	2.6
18	CR	43	PHE	2.6
28	DG	137	GLU	2.6
1	CA	1135	U	2.6
2	CB	132	LYS	2.6
1	AA	968	A	2.6
2	CB	14	GLY	2.6
3	CC	75	VAL	2.6
4	AD	114	ARG	2.6
13	AM	57	ARG	2.6
2	CB	135	GLN	2.6
1	CA	957	U	2.6
1	CA	1301	U	2.6
1	CA	929	G	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
2	CB	228	GLY	2.6
3	CC	74	GLY	2.6
29	DH	108	GLY	2.6
5	CE	130	ASN	2.6
1	AA	1244	C	2.6
1	AA	1382	C	2.6
5	AE	116	THR	2.6
9	AI	92	TYR	2.6
13	AM	37	THR	2.6
13	CM	95	GLY	2.6
44	D0	13	GLY	2.6
11	CK	117	ASN	2.6
1	AA	967	C	2.6
9	CI	14	VAL	2.6
16	AP	4	ILE	2.6
1	AA	79	G	2.6
4	AD	17	VAL	2.6
11	CK	42	TRP	2.6
23	DA	2144	U	2.6
28	DG	13	GLU	2.6
30	DI	74	ASN	2.6
14	CN	39	LEU	2.6
2	CB	214	ILE	2.6
1	AA	977	A	2.6
1	CA	1284	C	2.6
28	BG	182	LYS	2.6
14	AN	35	ARG	2.6
10	CJ	56	HIS	2.6
1	AA	993	G	2.5
1	AA	1300	G	2.5
1	CA	1276	G	2.5
29	DH	52	VAL	2.5
7	CG	83	ALA	2.5
7	CG	134	ALA	2.5
13	AM	108	ARG	2.5
7	CG	92	SER	2.5
7	AG	89	MET	2.5
23	BA	2105	C	2.5
23	BA	2134	A	2.5
7	AG	131	LYS	2.5
3	AC	177	THR	2.5
27	DF	136	THR	2.5

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
50	D6	12	GLU	2.5
5	AE	101	ILE	2.5
1	AA	1375	A	2.5
1	CA	1067	A	2.5
23	DA	2138	C	2.5
10	CJ	81	THR	2.5
1	AA	1064	G	2.5
28	DG	72	ARG	2.5
1	CA	1341	U	2.5
10	AJ	39	PRO	2.5
3	CC	201	TYR	2.5
16	AP	70	ALA	2.5
1	CA	91	C	2.5
1	CA	1130	A	2.5
11	CK	98	LEU	2.5
28	BG	80	PHE	2.5
44	D0	69	PHE	2.5
14	CN	60	SER	2.5
8	CH	131	GLY	2.5
1	AA	1043	C	2.5
23	BA	2103	C	2.5
23	DA	2105	C	2.5
4	CD	102	ASP	2.5
1	AA	73	G	2.5
1	CA	1142	G	2.5
19	AS	56	GLN	2.5
7	CG	93	PRO	2.5
12	CL	74	GLY	2.5
13	AM	21	TYR	2.5
14	AN	27	CYS	2.5
2	CB	40	HIS	2.5
3	AC	118	GLN	2.5
19	CS	71	LEU	2.5
15	CO	15	PHE	2.5
1	AA	1337	G	2.5
1	CA	1337	G	2.5
4	AD	5	ILE	2.5
7	AG	30	ILE	2.5
10	AJ	55	LYS	2.5
23	DA	2113	U	2.5
3	AC	155	GLY	2.5
3	AC	207	VAL	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	CG	72	ARG	2.5
28	DG	37	VAL	2.5
1	AA	1333	A	2.5
1	CA	1019	C	2.5
1	CA	1296	C	2.5
1	CA	1388	C	2.5
10	CJ	35	SER	2.5
10	CJ	68	HIS	2.5
10	AJ	95	GLU	2.5
3	AC	179	ARG	2.5
23	DA	2895	U	2.5
9	AI	94	ALA	2.5
15	CO	16	ALA	2.5
7	CG	97	GLN	2.5
23	BA	2170	A	2.5
20	CT	88	VAL	2.5
1	CA	1134	G	2.5
3	AC	206	GLU	2.5
1	CA	1006	C	2.4
1	CA	1277	C	2.4
1	AA	1041	A	2.4
3	CC	41	GLY	2.4
20	CT	84	LEU	2.4
2	AB	54	THR	2.4
42	DY	89	PHE	2.4
2	AB	96	ARG	2.4
1	AA	945	G	2.4
1	CA	951	G	2.4
3	AC	52	LEU	2.4
7	AG	135	VAL	2.4
28	BG	52	ILE	2.4
46	D2	46	GLN	2.4
12	CL	112	ASP	2.4
15	AO	48	LYS	2.4
6	AF	99	ALA	2.4
13	CM	104	ARG	2.4
19	CS	61	TYR	2.4
30	DI	82	ARG	2.4
1	AA	64	G	2.4
1	AA	1356	G	2.4
1	CA	1290	G	2.4
28	DG	36	LYS	2.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	AC	141	VAL	2.4
28	BG	135	LEU	2.4
29	DH	50	VAL	2.4
3	AC	49	SER	2.4
3	AC	59	ARG	2.4
14	AN	31	ARG	2.4
1	AA	486	U	2.4
1	AA	1317	C	2.4
1	CA	1303	C	2.4
2	CB	125	PRO	2.4
1	AA	994	A	2.4
1	AA	1110	A	2.4
1	AA	1168	A	2.4
1	CA	1004	A	2.4
9	CI	111	ARG	2.4
23	BA	2151	G	2.4
23	BA	2790	A	2.4
18	AR	24	ALA	2.4
29	DH	25	LYS	2.4
7	AG	85	TYR	2.4
7	CG	152	ALA	2.4
1	CA	1164	G	2.4
20	CT	82	SER	2.4
3	CC	51	GLY	2.4
7	AG	132	GLY	2.4
29	DH	5	GLY	2.4
1	AA	1219	U	2.4
1	CA	1090	U	2.4
1	AA	217	C	2.4
1	AA	1051	C	2.4
5	AE	81	GLU	2.4
6	AF	6	VAL	2.4
1	AA	1024	G	2.4
42	DY	95	LYS	2.4
10	CJ	11	PHE	2.4
7	AG	74	GLU	2.4
20	AT	80	ARG	2.4
2	CB	197	VAL	2.4
19	AS	16	LEU	2.4
28	DG	94	LEU	2.4
28	DG	44	GLY	2.4
42	DY	93	GLY	2.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1180	A	2.4
13	CM	30	ALA	2.4
1	AA	391	G	2.4
1	CA	963	G	2.4
7	AG	126	ASP	2.4
23	DA	898	C	2.4
1	CA	1001	A	2.4
1	CA	1447	A	2.4
2	CB	29	ALA	2.4
46	D2	5	GLU	2.4
5	AE	121	LYS	2.4
23	BA	2126	A	2.4
28	DG	150	ASP	2.4
3	CC	195	VAL	2.4
1	AA	1232	U	2.4
8	AH	31	PHE	2.4
16	AP	15	PRO	2.4
16	AP	14	ASN	2.4
17	AQ	94	ASN	2.4
17	AQ	98	LEU	2.4
1	CA	1183	A	2.3
2	CB	66	GLY	2.3
6	AF	88	VAL	2.3
28	BG	159	VAL	2.3
33	DP	90	ARG	2.3
37	DT	1	MET	2.3
5	CE	88	LYS	2.3
7	CG	35	LYS	2.3
23	DA	272(A)	U	2.3
10	AJ	32	ALA	2.3
5	CE	12	LEU	2.3
7	CG	75	VAL	2.3
9	CI	41	VAL	2.3
15	CO	17	ARG	2.3
19	CS	47	HIS	2.3
2	CB	163	PHE	2.3
18	CR	30	ASP	2.3
20	AT	82	SER	2.3
28	BG	124	SER	2.3
2	AB	165	VAL	2.3
13	CM	62	ASN	2.3
7	CG	89	MET	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	AA	1123	A	2.3
4	AD	11	LEU	2.3
9	AI	76	ALA	2.3
11	CK	39	PRO	2.3
3	CC	186	PHE	2.3
43	DZ	13	GLU	2.3
29	DH	51	ARG	2.3
51	B7	46	VAL	2.3
9	AI	111	ARG	2.3
18	CR	69	THR	2.3
13	AM	111	LYS	2.3
1	CA	1115	C	2.3
3	AC	120	VAL	2.3
23	BA	2179	C	2.3
23	DA	652(U)	G	2.3
12	CL	41	ARG	2.3
38	DU	89	GLU	2.3
1	CA	1319	A	2.3
3	AC	188	LEU	2.3
6	CF	4	TYR	2.3
1	CA	1327	C	2.3
1	CA	78	G	2.3
23	BA	1917	U	2.3
9	CI	114	TYR	2.3
12	AL	120	TYR	2.3
13	CM	33	ALA	2.3
3	AC	46	GLU	2.3
29	DH	175	LYS	2.3
10	CJ	8	LEU	2.3
1	AA	841	U	2.3
1	AA	957	U	2.3
4	AD	112	VAL	2.3
7	CG	34	GLY	2.3
23	BA	2154	G	2.3
28	BG	35	GLU	2.3
4	CD	5	ILE	2.3
10	CJ	34	VAL	2.3
4	CD	134	ASP	2.3
18	AR	30	ASP	2.3
2	CB	63	MET	2.3
29	DH	112	PRO	2.3
3	CC	50	ALA	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	CC	53	ALA	2.3
23	BA	272(A)	U	2.3
23	BA	1914	C	2.3
13	CM	3	ARG	2.3
1	CA	1333	A	2.3
16	AP	39	TYR	2.3
27	BF	15	SER	2.3
23	DA	2181	G	2.2
3	AC	79	ARG	2.2
7	AG	73	MET	2.2
1	AA	931	C	2.2
1	CA	962	C	2.2
5	CE	131	ILE	2.2
3	AC	163	ALA	2.2
3	CC	48	TYR	2.2
4	AD	55	ALA	2.2
30	DI	36	ALA	2.2
23	DA	276	A	2.2
1	CA	1273	G	2.2
3	AC	157	ILE	2.2
1	AA	1119	C	2.2
9	CI	20	ARG	2.2
3	AC	42	LEU	2.2
41	BX	92	LEU	2.2
1	AA	1111	A	2.2
1	AA	1157	A	2.2
1	CA	946	A	2.2
28	DG	40	ASN	2.2
1	CA	113	G	2.2
1	CA	1253	G	2.2
5	AE	94	ALA	2.2
43	DZ	187	ALA	2.2
2	CB	22	LYS	2.2
1	AA	1039	C	2.2
9	CI	19	LEU	2.2
9	CI	50	LEU	2.2
28	BG	155	MET	2.2
3	CC	83	ARG	2.2
8	CH	52	ASP	2.2
30	DI	57	ARG	2.2
9	AI	118	LYS	2.2
1	CA	1330	U	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
4	CD	202	LEU	2.2
28	DG	90	LEU	2.2
1	AA	200	G	2.2
1	CA	1119	C	2.2
15	CO	87	ILE	2.2
23	BA	2143	C	2.2
23	DA	2791	C	2.2
7	AG	78	ARG	2.2
50	B6	2	ALA	2.2
1	AA	1000	U	2.2
16	CP	13	HIS	2.2
4	AD	158	ILE	2.2
10	AJ	94	VAL	2.2
13	CM	22	ILE	2.2
29	DH	110	SER	2.2
45	B1	2	SER	2.2
1	AA	630	G	2.2
1	CA	1242	C	2.2
21	CU	11	GLY	2.2
23	BA	2127	G	2.2
1	AA	955	U	2.2
43	DZ	156	LYS	2.2
30	DI	145	VAL	2.2
13	CM	75	ALA	2.2
7	AG	86	GLN	2.2
1	CA	1353	G	2.2
9	CI	107	ARG	2.2
23	DA	1106	G	2.2
28	DG	145	THR	2.2
7	CG	42	ILE	2.2
19	CS	67	VAL	2.2
23	DA	2180	U	2.2
23	DA	229	A	2.2
5	AE	25	ARG	2.2
9	CI	98	PRO	2.2
10	AJ	45	ARG	2.2
19	CS	60	VAL	2.2
1	AA	1023	G	2.2
23	BA	1106	G	2.2
23	BA	2110	G	2.2
27	BF	16	GLY	2.2
7	AG	22	LEU	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
21	AU	22	ARG	2.2
28	DG	131	TYR	2.2
7	AG	50	ILE	2.2
43	DZ	186	GLU	2.2
9	CI	92	TYR	2.2
44	D0	11	ARG	2.2
1	CA	1387	G	2.2
12	AL	112	ASP	2.2
1	CA	1332	A	2.2
9	AI	93	ARG	2.2
29	DH	54	ARG	2.2
9	AI	41	VAL	2.1
9	AI	110	GLU	2.1
12	CL	94	PRO	2.1
28	BG	75	LYS	2.1
1	AA	354	G	2.1
1	AA	1164	G	2.1
1	CA	324	G	2.1
2	AB	118	LEU	2.1
29	DH	7	LEU	2.1
1	AA	417	C	2.1
3	AC	164	ARG	2.1
4	CD	122	ARG	2.1
5	CE	18	ARG	2.1
16	AP	42	ARG	2.1
29	DH	3	ARG	2.1
45	B1	83	GLU	2.1
4	CD	11	LEU	2.1
8	CH	58	TYR	2.1
1	AA	1179	A	2.1
1	AA	1182	G	2.1
1	CA	1182	G	2.1
5	CE	14	ARG	2.1
20	CT	93	GLU	2.1
23	BA	652(B)	A	2.1
23	DA	2807	G	2.1
2	AB	15	VAL	2.1
3	AC	55	VAL	2.1
13	CM	24	GLY	2.1
43	DZ	62	PRO	2.1
1	CA	1219	U	2.1
1	CA	1302	U	2.1

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
20	AT	72	LEU	2.1
18	CR	24	ALA	2.1
20	CT	49	ALA	2.1
3	CC	103	VAL	2.1
9	CI	3	GLN	2.1
1	CA	1236	A	2.1
16	CP	41	PRO	2.1
23	DA	2115	G	2.1
34	BQ	1	MET	2.1
1	CA	1065	U	2.1
9	AI	117	HIS	2.1
14	AN	33	VAL	2.1
14	CN	52	GLN	2.1
22	AV	18	GLN	2.1
3	AC	112	SER	2.1
7	CG	14	PRO	2.1
28	DG	91	ARG	2.1
1	AA	51	A	2.1
1	AA	1252	A	2.1
1	CA	937	A	2.1
1	CA	1289	A	2.1
23	DA	653	A	2.1
1	AA	187	C	2.1
19	CS	45	VAL	2.1
11	CK	31	THR	2.1
10	CJ	9	ARG	2.1
10	CJ	79	ARG	2.1
30	BI	6	LEU	2.1
11	CK	110	ASP	2.1
2	AB	66	GLY	2.1
1	AA	1314	C	2.1
1	CA	92	C	2.1
1	CA	954	G	2.1
1	CA	1220	G	2.1
5	CE	151	LEU	2.1
7	AG	44	TYR	2.1
7	CG	30	ILE	2.1
1	AA	964	A	2.1
1	CA	1339	A	2.1
5	AE	20	GLN	2.1
1	AA	1047	G	2.1
1	AA	1206	G	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	CA	1305	G	2.1
13	AM	3	ARG	2.1
22	AV	53	VAL	2.1
5	AE	78	HIS	2.1
18	CR	66	LEU	2.1
2	AB	48	MET	2.1
1	CA	1091	U	2.1
1	AA	1299	A	2.1
3	AC	71	ALA	2.1
7	CG	129	GLU	2.1
10	CJ	41	PRO	2.1
13	CM	73	GLU	2.1
16	AP	41	PRO	2.1
1	AA	63	C	2.1
1	AA	1298	C	2.1
1	AA	1373	G	2.1
1	CA	998	G	2.1
7	CG	130	GLY	2.1
19	CS	14	HIS	2.1
29	DH	48	GLY	2.1
5	AE	38	GLN	2.1
3	AC	60	ALA	2.1
13	AM	75	ALA	2.1
17	AQ	7	THR	2.1
30	DI	25	TYR	2.1
11	CK	21	ILE	2.1
7	CG	19	GLY	2.1
7	CG	81	GLY	2.1
16	CP	49	LEU	2.1
19	CS	43	GLU	2.0
51	B7	47	ARG	2.0
1	AA	1094	G	2.0
23	BA	2805	G	2.0
30	DI	29	TYR	2.0
5	CE	22	GLY	2.0
28	BG	120	LEU	2.0
1	AA	1251	A	2.0
2	AB	233	SER	2.0
28	BG	74	LYS	2.0
43	DZ	14	LYS	2.0
1	AA	1006	C	2.0
1	CA	1459	C	2.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
5	CE	86	ALA	2.0
43	DZ	196	VAL	2.0
8	AH	35	ILE	2.0
1	CA	112	G	2.0
1	CA	953	G	2.0
12	CL	114	LYS	2.0
8	AH	25	ASP	2.0
23	DA	2309	A	2.0
28	BG	158	ALA	2.0
21	CU	12	LYS	2.0
14	AN	36	PHE	2.0
19	CS	64	GLU	2.0
3	AC	48	TYR	2.0
6	AF	90	VAL	2.0
21	CU	18	TYR	2.0
29	DH	43	VAL	2.0
3	AC	202	ILE	2.0
1	CA	1250	A	2.0
1	AA	1230	C	2.0
1	CA	980	C	2.0
10	AJ	63	PHE	2.0
30	DI	137	PRO	2.0
7	CG	84	ASN	2.0
10	AJ	42	THR	2.0
1	CA	90	U	2.0
1	CA	955	U	2.0
5	CE	148	VAL	2.0
2	AB	137	ARG	2.0
3	CC	24	ALA	2.0
28	DG	120	LEU	2.0
30	DI	140	LEU	2.0
13	AM	112	GLY	2.0
23	BA	2801(A)	A	2.0
5	AE	88	LYS	2.0
3	CC	68	VAL	2.0
18	CR	58	LEU	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> 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	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3118	1/1	0.98	0.43	68.26	44,44,44,44	0
54	MG	DA	3177	1/1	0.85	0.84	66.13	59,59,59,59	0
54	MG	DA	3121	1/1	0.84	0.65	65.54	53,53,53,53	0
54	MG	DA	3086	1/1	0.94	0.63	62.53	54,54,54,54	0
54	MG	AA	1657	1/1	0.92	0.53	37.94	81,81,81,81	0
54	MG	AA	1645	1/1	0.95	0.86	37.70	77,77,77,77	0
54	MG	DA	3138	1/1	0.91	0.74	34.31	60,60,60,60	0
54	MG	AA	1660	1/1	0.92	0.96	33.47	91,91,91,91	0
54	MG	DA	3120	1/1	0.88	0.71	32.36	52,52,52,52	0
54	MG	AA	1621	1/1	0.93	0.98	31.33	80,80,80,80	0
54	MG	CA	1631	1/1	0.71	0.99	27.33	88,88,88,88	0
54	MG	DA	3207	1/1	0.93	0.42	26.72	53,53,53,53	0
54	MG	CA	1601	1/1	0.95	0.37	26.41	50,50,50,50	0
54	MG	BA	3078	1/1	0.90	0.35	25.83	38,38,38,38	0
54	MG	BA	3080	1/1	0.98	0.51	25.25	42,42,42,42	0
54	MG	DA	3074	1/1	0.96	0.50	23.59	38,38,38,38	0
54	MG	BA	3308	1/1	0.86	0.54	22.99	51,51,51,51	0
54	MG	CA	1613	1/1	0.87	1.04	22.47	71,71,71,71	0
54	MG	DA	3185	1/1	0.95	0.45	22.43	47,47,47,47	0
54	MG	CA	1617	1/1	0.93	0.89	21.17	70,70,70,70	0
54	MG	BA	3001	1/1	0.89	0.43	20.80	56,56,56,56	0
54	MG	DA	3242	1/1	0.90	0.55	20.14	38,38,38,38	0
54	MG	BA	3160	1/1	0.89	0.38	19.50	46,46,46,46	0
54	MG	BA	3455	1/1	0.97	0.34	18.93	42,42,42,42	0
54	MG	DA	3144	1/1	0.95	0.30	18.55	42,42,42,42	0
54	MG	BA	3396	1/1	0.81	0.43	16.96	23,23,23,23	0
54	MG	BE	301	1/1	0.88	0.53	16.74	43,43,43,43	0
54	MG	DA	3208	1/1	0.90	0.43	15.95	52,52,52,52	0
54	MG	AA	1615	1/1	0.90	0.37	14.92	56,56,56,56	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DP	201	1/1	0.79	0.78	14.55	58,58,58,58	0
54	MG	BA	3033	1/1	0.96	0.36	14.36	40,40,40,40	0
54	MG	BR	201	1/1	0.83	0.60	14.30	58,58,58,58	0
54	MG	DA	3279	1/1	0.98	0.33	14.24	40,40,40,40	0
54	MG	BA	3244	1/1	0.88	0.46	14.03	45,45,45,45	0
54	MG	DA	3385	1/1	0.97	0.36	14.03	49,49,49,49	0
54	MG	BA	3113	1/1	0.94	0.40	13.94	35,35,35,35	0
54	MG	BA	3557	1/1	0.98	0.49	13.88	42,42,42,42	0
54	MG	DA	3003	1/1	0.92	0.35	13.77	35,35,35,35	0
54	MG	DA	3027	1/1	0.93	0.42	13.63	51,51,51,51	0
54	MG	DA	3099	1/1	0.93	0.26	13.38	40,40,40,40	0
54	MG	BA	3473	1/1	0.95	0.44	13.27	59,59,59,59	0
54	MG	DA	3236	1/1	0.98	0.54	13.21	44,44,44,44	0
54	MG	DA	3372	1/1	0.94	0.33	13.12	40,40,40,40	0
54	MG	BA	3129	1/1	0.95	0.40	12.75	49,49,49,49	0
54	MG	BA	3234	1/1	0.98	0.33	12.68	34,34,34,34	0
54	MG	BA	3333	1/1	0.94	0.30	12.56	36,36,36,36	0
54	MG	DA	3116	1/1	0.96	0.39	12.03	46,46,46,46	0
54	MG	DA	3204	1/1	0.97	0.30	11.72	37,37,37,37	0
54	MG	CA	1618	1/1	0.93	0.37	11.70	75,75,75,75	0
54	MG	DA	3146	1/1	0.92	0.44	11.27	35,35,35,35	0
54	MG	DA	3070	1/1	0.92	0.33	11.26	53,53,53,53	0
54	MG	BA	3034	1/1	0.77	0.29	11.24	46,46,46,46	0
54	MG	BA	3031	1/1	0.85	0.39	11.10	41,41,41,41	0
54	MG	DA	3309	1/1	0.97	0.47	11.10	48,48,48,48	0
54	MG	BQ	202	1/1	0.92	0.36	10.82	53,53,53,53	0
54	MG	AA	1627	1/1	0.76	0.50	10.60	70,70,70,70	0
54	MG	BA	3003	1/1	0.90	0.34	10.55	29,29,29,29	0
54	MG	DA	3133	1/1	0.85	0.39	10.52	78,78,78,78	0
54	MG	DA	3124	1/1	0.96	0.46	10.34	35,35,35,35	0
54	MG	BA	3161	1/1	0.89	0.34	10.28	54,54,54,54	0
54	MG	AA	1659	1/1	0.84	0.44	10.20	62,62,62,62	0
54	MG	BA	3046	1/1	0.90	0.28	9.73	49,49,49,49	0
54	MG	DA	3142	1/1	0.91	0.24	9.52	46,46,46,46	0
54	MG	BA	3368	1/1	0.99	0.30	9.43	34,34,34,34	0
54	MG	BA	3228	1/1	0.97	0.38	9.25	26,26,26,26	0
54	MG	DA	3394	1/1	0.94	0.33	9.09	56,56,56,56	0
54	MG	DA	3085	1/1	0.93	0.45	8.97	51,51,51,51	0
54	MG	BA	3197	1/1	0.90	0.31	8.94	62,62,62,62	0
54	MG	DA	3247	1/1	0.94	0.37	8.90	52,52,52,52	0
54	MG	CA	1636	1/1	0.69	0.42	8.87	77,77,77,77	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3475	1/1	0.89	0.22	8.78	53,53,53,53	0
54	MG	BA	3074	1/1	0.90	0.38	8.38	55,55,55,55	0
54	MG	BA	3519	1/1	0.82	0.33	8.36	90,90,90,90	0
54	MG	CA	1612	1/1	0.59	0.42	8.26	84,84,84,84	0
54	MG	BA	3562	1/1	0.82	0.33	8.25	43,43,43,43	0
54	MG	BA	3109	1/1	0.94	0.25	8.19	57,57,57,57	0
54	MG	BA	3408	1/1	0.97	0.32	8.12	34,34,34,34	0
54	MG	BA	3142	1/1	0.83	0.53	7.99	53,53,53,53	0
54	MG	DA	3006	1/1	0.86	0.28	7.89	44,44,44,44	0
54	MG	DA	3149	1/1	0.98	0.38	7.86	36,36,36,36	0
54	MG	DA	3098	1/1	0.66	0.29	7.77	62,62,62,62	0
54	MG	DA	3168	1/1	0.94	0.29	7.06	42,42,42,42	0
54	MG	DA	3032	1/1	0.96	0.30	7.06	43,43,43,43	0
54	MG	CA	1602	1/1	0.94	0.58	6.96	82,82,82,82	0
54	MG	CA	1638	1/1	0.61	0.37	6.91	71,71,71,71	0
54	MG	DA	3115	1/1	0.95	0.41	6.88	39,39,39,39	0
54	MG	BA	3330	1/1	0.88	0.28	6.56	36,36,36,36	0
54	MG	BA	3053	1/1	0.89	0.34	6.43	53,53,53,53	0
54	MG	CA	1628	1/1	0.94	0.27	6.42	55,55,55,55	0
54	MG	DA	3280	1/1	0.98	0.26	6.25	40,40,40,40	0
54	MG	DA	3340	1/1	0.95	0.38	6.23	44,44,44,44	0
54	MG	BA	3526	1/1	0.93	0.29	6.14	28,28,28,28	0
54	MG	BA	3187	1/1	0.91	0.27	6.05	30,30,30,30	0
54	MG	DA	3062	1/1	0.81	0.22	6.02	65,65,65,65	0
54	MG	BA	3117	1/1	0.93	0.26	6.01	31,31,31,31	0
54	MG	B3	101	1/1	0.90	0.43	5.99	60,60,60,60	0
54	MG	DB	201	1/1	0.86	0.28	5.91	75,75,75,75	0
54	MG	DA	3374	1/1	0.90	0.26	5.85	44,44,44,44	0
54	MG	BA	3219	1/1	0.91	0.32	5.78	62,62,62,62	0
54	MG	AA	1640	1/1	0.94	0.50	5.74	80,80,80,80	0
54	MG	BA	3512	1/1	0.96	0.33	5.62	45,45,45,45	0
54	MG	DA	3291	1/1	0.82	0.33	5.56	43,43,43,43	0
54	MG	BA	3021	1/1	0.96	0.27	5.56	33,33,33,33	0
54	MG	DA	3219	1/1	0.90	0.30	5.54	38,38,38,38	0
54	MG	DA	3073	1/1	0.88	0.21	5.47	54,54,54,54	0
54	MG	DA	3349	1/1	0.89	0.29	5.45	54,54,54,54	0
54	MG	BA	3435	1/1	0.92	0.28	5.42	36,36,36,36	0
54	MG	DA	3233	1/1	0.95	0.32	5.34	43,43,43,43	0
54	MG	BA	3189	1/1	0.94	0.28	5.04	46,46,46,46	0
54	MG	BA	3047	1/1	0.97	0.28	4.89	50,50,50,50	0
54	MG	BA	3448	1/1	0.89	0.26	4.88	33,33,33,33	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3504	1/1	0.99	0.39	4.74	28,28,28,28	0
54	MG	DA	3170	1/1	0.95	0.25	4.62	52,52,52,52	0
54	MG	DA	3059	1/1	0.93	0.26	4.59	55,55,55,55	0
54	MG	DA	3092	1/1	0.95	0.23	4.58	63,63,63,63	0
54	MG	BA	3199	1/1	0.95	0.23	4.57	31,31,31,31	0
54	MG	DA	3040	1/1	0.84	0.31	4.56	50,50,50,50	0
54	MG	BA	3434	1/1	0.95	0.38	4.53	36,36,36,36	0
54	MG	BA	3239	1/1	0.91	0.26	4.51	38,38,38,38	0
54	MG	BA	3517	1/1	0.84	0.26	4.29	51,51,51,51	0
54	MG	BA	3230	1/1	0.95	0.38	4.28	50,50,50,50	0
54	MG	DA	3396	1/1	0.88	0.24	4.24	37,37,37,37	0
54	MG	BA	3551	1/1	0.95	0.26	4.23	40,40,40,40	0
54	MG	DA	3341	1/1	0.89	0.24	4.18	39,39,39,39	0
54	MG	BA	3108	1/1	0.94	0.26	4.08	56,56,56,56	0
54	MG	BA	3441	1/1	0.97	0.25	4.06	35,35,35,35	0
54	MG	BA	3427	1/1	0.96	0.22	4.06	32,32,32,32	0
54	MG	DA	3395	1/1	0.95	0.26	4.04	37,37,37,37	0
54	MG	DA	3084	1/1	0.82	0.30	4.02	62,62,62,62	0
54	MG	BA	3311	1/1	0.95	0.27	3.89	60,60,60,60	0
54	MG	BA	3039	1/1	0.83	0.30	3.84	44,44,44,44	0
54	MG	CA	1623	1/1	0.81	0.88	3.82	73,73,73,73	0
54	MG	DA	3130	1/1	0.81	0.24	3.78	59,59,59,59	0
54	MG	BA	3133	1/1	0.95	0.30	3.71	31,31,31,31	0
54	MG	DA	3020	1/1	0.97	0.20	3.61	39,39,39,39	0
54	MG	BA	3302	1/1	0.94	0.28	3.58	45,45,45,45	0
54	MG	BA	3254	1/1	0.90	0.20	3.54	67,67,67,67	0
54	MG	AA	1613	1/1	0.91	0.25	3.54	74,74,74,74	0
54	MG	BB	205	1/1	0.98	0.29	3.48	57,57,57,57	0
54	MG	BA	3253	1/1	0.96	0.23	3.48	38,38,38,38	0
54	MG	DA	3354	1/1	0.93	0.27	3.45	41,41,41,41	0
54	MG	BB	201	1/1	0.95	0.22	3.45	61,61,61,61	0
54	MG	DA	3044	1/1	0.89	0.22	3.42	51,51,51,51	0
54	MG	BA	3071	1/1	0.92	0.20	3.42	49,49,49,49	0
54	MG	DA	3072	1/1	0.92	0.35	3.34	50,50,50,50	0
54	MG	DA	3188	1/1	0.95	0.23	3.23	54,54,54,54	0
54	MG	BA	3500	1/1	0.86	0.21	3.19	33,33,33,33	0
54	MG	DA	3267	1/1	0.97	0.19	3.18	59,59,59,59	0
54	MG	CA	1626	1/1	0.92	0.26	3.13	86,86,86,86	0
54	MG	DA	3169	1/1	0.97	0.25	3.10	39,39,39,39	0
54	MG	DA	3019	1/1	0.92	0.20	3.10	41,41,41,41	0
54	MG	CA	1655	1/1	0.89	0.28	3.05	74,74,74,74	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3387	1/1	0.95	0.25	3.03	33,33,33,33	0
54	MG	AA	1604	1/1	0.55	0.32	3.02	81,81,81,81	0
54	MG	DA	3217	1/1	0.78	0.26	2.98	69,69,69,69	0
54	MG	DA	3324	1/1	0.92	0.20	2.90	64,64,64,64	0
54	MG	DA	3290	1/1	0.95	0.24	2.81	42,42,42,42	0
54	MG	BA	3037	1/1	0.89	0.22	2.81	52,52,52,52	0
54	MG	DA	3297	1/1	0.82	0.22	2.81	66,66,66,66	0
54	MG	BA	3424	1/1	0.99	0.23	2.79	32,32,32,32	0
54	MG	DA	3128	1/1	0.80	0.29	2.67	72,72,72,72	0
54	MG	BA	3513	1/1	0.80	0.21	2.57	66,66,66,66	0
54	MG	BA	3426	1/1	0.96	0.22	2.56	28,28,28,28	0
54	MG	DA	3011	1/1	0.85	0.22	2.55	46,46,46,46	0
54	MG	BA	3127	1/1	0.92	0.23	2.54	51,51,51,51	0
54	MG	DF	301	1/1	0.97	0.37	2.53	58,58,58,58	0
54	MG	BA	3119	1/1	0.95	0.21	2.48	39,39,39,39	0
54	MG	DA	3410	1/1	0.82	0.18	2.44	72,72,72,72	0
54	MG	BA	3461	1/1	0.98	0.23	2.39	38,38,38,38	0
54	MG	DA	3390	1/1	0.83	0.17	2.37	69,69,69,69	0
54	MG	DA	3303	1/1	0.94	0.19	2.29	37,37,37,37	0
54	MG	BA	3423	1/1	0.97	0.22	2.28	30,30,30,30	0
54	MG	DA	3079	1/1	0.91	0.20	2.24	60,60,60,60	0
54	MG	BA	3236	1/1	0.95	0.21	2.23	50,50,50,50	0
54	MG	DA	3202	1/1	0.98	0.22	2.21	37,37,37,37	0
54	MG	BA	3489	1/1	0.89	0.20	2.15	38,38,38,38	0
54	MG	BA	3307	1/1	0.98	0.20	2.03	29,29,29,29	0
54	MG	BB	204	1/1	0.82	0.20	2.02	67,67,67,67	0
54	MG	BD	302	1/1	0.98	0.28	2.00	38,38,38,38	0
54	MG	DA	3302	1/1	0.94	0.26	2.00	36,36,36,36	0
54	MG	DA	3325	1/1	0.97	0.26	1.96	36,36,36,36	0
54	MG	BA	3180	1/1	0.89	0.25	1.94	51,51,51,51	0
54	MG	CA	1632	1/1	0.95	0.28	1.89	65,65,65,65	0
54	MG	DA	3304	1/1	0.96	0.18	1.84	38,38,38,38	0
54	MG	BA	3178	1/1	0.81	0.18	1.81	58,58,58,58	0
54	MG	BB	213	1/1	0.84	0.21	1.77	69,69,69,69	0
54	MG	DA	3402	1/1	0.95	0.22	1.76	59,59,59,59	0
54	MG	BA	3407	1/1	0.92	0.22	1.75	35,35,35,35	0
54	MG	DA	3342	1/1	0.80	0.24	1.73	41,41,41,41	0
54	MG	DA	3028	1/1	0.92	0.20	1.71	53,53,53,53	0
54	MG	DA	3406	1/1	0.85	0.25	1.69	35,35,35,35	0
54	MG	DA	3135	1/1	0.92	0.26	1.68	44,44,44,44	0
54	MG	DA	3066	1/1	0.88	0.18	1.62	56,56,56,56	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3428	1/1	0.93	0.24	1.62	35,35,35,35	0
54	MG	BA	3390	1/1	0.98	0.21	1.58	29,29,29,29	0
54	MG	BA	3417	1/1	0.95	0.21	1.45	37,37,37,37	0
54	MG	DA	3353	1/1	0.94	0.20	1.38	40,40,40,40	0
54	MG	BA	3351	1/1	0.54	0.24	1.38	57,57,57,57	0
54	MG	AA	1605	1/1	0.78	0.29	1.36	74,74,74,74	0
54	MG	BA	3222	1/1	0.95	0.19	1.36	51,51,51,51	0
54	MG	BA	3422	1/1	0.87	0.23	1.31	27,27,27,27	0
54	MG	CA	1653	1/1	0.68	0.24	1.28	83,83,83,83	0
54	MG	CA	1607	1/1	0.92	0.25	1.26	72,72,72,72	0
54	MG	BA	3367	1/1	0.97	0.21	1.26	33,33,33,33	0
54	MG	BA	3107	1/1	0.87	0.13	1.15	49,49,49,49	0
54	MG	BA	3030	1/1	0.88	0.25	1.14	37,37,37,37	0
54	MG	BA	3451	1/1	0.98	0.23	1.13	34,34,34,34	0
54	MG	DA	3095	1/1	0.82	0.21	1.07	71,71,71,71	0
54	MG	BA	3007	1/1	0.94	0.22	1.00	36,36,36,36	0
54	MG	B9	102	1/1	0.95	0.31	0.98	45,45,45,45	0
54	MG	B8	102	1/1	0.85	0.33	0.93	61,61,61,61	0
54	MG	BA	3057	1/1	0.95	0.20	0.91	46,46,46,46	0
54	MG	BA	3131	1/1	0.96	0.19	0.86	44,44,44,44	0
54	MG	BA	3193	1/1	0.93	0.19	0.75	50,50,50,50	0
54	MG	DA	3226	1/1	0.93	0.22	0.74	53,53,53,53	0
54	MG	DA	3012	1/1	0.76	0.21	0.71	60,60,60,60	0
54	MG	BA	3465	1/1	0.89	0.20	0.69	38,38,38,38	0
54	MG	DA	3064	1/1	0.90	0.17	0.67	53,53,53,53	0
54	MG	DA	3222	1/1	0.94	0.26	0.61	47,47,47,47	0
54	MG	DA	3004	1/1	0.99	0.14	0.49	59,59,59,59	0
54	MG	BA	3412	1/1	0.88	0.21	0.46	41,41,41,41	0
54	MG	BA	3048	1/1	0.96	0.20	0.46	42,42,42,42	0
54	MG	DA	3370	1/1	0.94	0.19	0.45	51,51,51,51	0
54	MG	AA	1674	1/1	0.93	0.20	0.41	73,73,73,73	0
54	MG	DA	3408	1/1	0.86	0.15	0.36	65,65,65,65	0
54	MG	BB	215	1/1	0.73	0.18	0.28	77,77,77,77	0
54	MG	DA	3356	1/1	0.97	0.20	0.26	42,42,42,42	0
54	MG	AA	1631	1/1	0.91	0.41	0.25	64,64,64,64	0
54	MG	BA	3345	1/1	0.95	0.16	0.23	45,45,45,45	0
54	MG	AA	1703	1/1	0.91	0.20	0.23	89,89,89,89	0
54	MG	DA	3405	1/1	0.94	0.17	0.23	70,70,70,70	0
54	MG	DA	3240	1/1	0.92	0.21	0.19	67,67,67,67	0
54	MG	DA	3041	1/1	0.87	0.19	0.17	49,49,49,49	0
54	MG	BA	3410	1/1	0.94	0.20	0.14	34,34,34,34	0
54	MG	DA	3292	1/1	0.93	0.18	0.10	39,39,39,39	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3432	1/1	0.96	0.18	0.06	31,31,31,31	0
55	ZN	CD	301	1/1	0.90	0.32	0.06	96,96,96,96	0
54	MG	BA	3164	1/1	0.96	0.17	0.03	39,39,39,39	0
54	MG	BA	3221	1/1	0.97	0.17	-0.04	51,51,51,51	0
54	MG	BA	3456	1/1	0.79	0.13	-0.07	89,89,89,89	0
54	MG	BA	3094	1/1	0.94	0.17	-0.07	41,41,41,41	0
54	MG	DA	3018	1/1	0.92	0.16	-0.08	42,42,42,42	0
54	MG	AD	302	1/1	0.92	0.17	-0.10	120,120,120,120	0
54	MG	DA	3427	1/1	0.96	0.16	-0.14	40,40,40,40	0
54	MG	BA	3157	1/1	0.88	0.15	-0.30	46,46,46,46	0
54	MG	DA	3013	1/1	0.94	0.15	-0.30	41,41,41,41	0
54	MG	BA	3553	1/1	0.73	0.18	-0.35	70,70,70,70	0
54	MG	BB	202	1/1	0.83	0.14	-0.38	46,46,46,46	0
55	ZN	BY	201	1/1	0.95	0.13	-0.39	74,74,74,74	0
54	MG	BA	3232	1/1	0.91	0.14	-0.40	54,54,54,54	0
54	MG	BE	304	1/1	0.91	0.17	-0.47	32,32,32,32	0
54	MG	AA	1694	1/1	0.85	0.19	-0.53	110,110,110,110	0
55	ZN	AD	301	1/1	0.93	0.24	-0.54	107,107,107,107	0
54	MG	DA	3412	1/1	0.93	0.16	-0.55	45,45,45,45	0
54	MG	BA	3429	1/1	0.95	0.17	-0.63	29,29,29,29	0
54	MG	DD	301	1/1	0.97	0.15	-0.66	40,40,40,40	0
54	MG	AA	1636	1/1	0.94	0.18	-0.70	86,86,86,86	0
54	MG	DA	3269	1/1	0.91	0.15	-0.70	54,54,54,54	0
54	MG	BA	3438	1/1	0.96	0.17	-0.72	38,38,38,38	0
54	MG	BA	3149	1/1	0.95	0.14	-0.72	49,49,49,49	0
54	MG	DA	3278	1/1	0.62	0.16	-0.75	46,46,46,46	0
54	MG	CA	1644	1/1	0.98	0.15	-0.83	74,74,74,74	0
55	ZN	B5	103	1/1	0.99	0.14	-0.83	58,58,58,58	0
54	MG	BA	3552	1/1	0.97	0.18	-0.85	38,38,38,38	0
54	MG	BA	3416	1/1	0.95	0.17	-0.89	46,46,46,46	0
54	MG	DA	3014	1/1	0.88	0.10	-0.92	52,52,52,52	0
55	ZN	DY	201	1/1	0.84	0.09	-0.99	128,128,128,128	0
54	MG	DA	3322	1/1	0.96	0.15	-1.02	35,35,35,35	0
54	MG	DA	3285	1/1	0.98	0.13	-1.04	52,52,52,52	0
54	MG	BA	3406	1/1	0.97	0.18	-1.05	40,40,40,40	0
55	ZN	B6	101	1/1	0.99	0.12	-1.14	54,54,54,54	0
54	MG	DA	3094	1/1	0.97	0.12	-1.14	39,39,39,39	0
55	ZN	D5	101	1/1	0.98	0.07	-1.18	65,65,65,65	0
54	MG	BA	3603	1/1	0.98	0.19	-1.19	30,30,30,30	0
54	MG	BA	3029	1/1	0.87	0.15	-1.23	83,83,83,83	0
54	MG	BA	3238	1/1	0.97	0.16	-1.23	32,32,32,32	0
54	MG	CA	1641	1/1	0.90	0.19	-1.24	74,74,74,74	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3389	1/1	0.95	0.14	-1.26	58,58,58,58	0
54	MG	AA	1697	1/1	0.69	0.16	-1.31	75,75,75,75	0
55	ZN	AN	101	1/1	0.36	0.14	-1.33	213,213,213,213	0
54	MG	BA	3314	1/1	0.58	0.16	-1.34	71,71,71,71	0
54	MG	DA	3376	1/1	0.87	0.13	-1.36	43,43,43,43	0
54	MG	BA	3320	1/1	0.77	0.15	-1.37	57,57,57,57	0
54	MG	DA	3360	1/1	0.49	0.13	-1.40	63,63,63,63	0
54	MG	BA	3304	1/1	0.95	0.17	-1.43	27,27,27,27	0
54	MG	BA	3515	1/1	0.94	0.12	-1.48	46,46,46,46	0
55	ZN	CN	101	1/1	0.65	0.17	-1.49	188,188,188,188	0
54	MG	BA	3511	1/1	0.90	0.16	-1.53	33,33,33,33	0
54	MG	CA	1666	1/1	0.89	0.09	-1.57	131,131,131,131	0
54	MG	BA	3386	1/1	0.78	0.12	-1.60	77,77,77,77	0
54	MG	BA	3570	1/1	0.98	0.17	-1.63	36,36,36,36	0
54	MG	BA	3006	1/1	0.88	0.17	-1.66	44,44,44,44	0
55	ZN	D6	101	1/1	0.96	0.10	-1.67	86,86,86,86	0
54	MG	BA	3397	1/1	0.93	0.18	-1.68	31,31,31,31	0
55	ZN	D4	101	1/1	0.83	0.05	-1.71	176,176,176,176	0
54	MG	BA	3023	1/1	0.84	0.12	-1.74	52,52,52,52	0
54	MG	BA	3309	1/1	0.97	0.16	-1.78	38,38,38,38	0
54	MG	DA	3296	1/1	0.91	0.12	-1.80	50,50,50,50	0
54	MG	DA	3355	1/1	0.83	0.11	-1.83	37,37,37,37	0
54	MG	DA	3306	1/1	0.85	0.11	-1.84	88,88,88,88	0
54	MG	BA	3357	1/1	0.90	0.15	-1.86	47,47,47,47	0
54	MG	BA	3156	1/1	0.94	0.15	-1.87	57,57,57,57	0
55	ZN	D9	101	1/1	0.97	0.05	-1.95	87,87,87,87	0
54	MG	DA	3329	1/1	0.86	0.12	-1.97	47,47,47,47	0
54	MG	BA	3355	1/1	0.94	0.16	-1.99	54,54,54,54	0
54	MG	DA	3058	1/1	0.81	0.11	-2.00	51,51,51,51	0
54	MG	BA	3105	1/1	0.87	0.12	-2.01	40,40,40,40	0
54	MG	DA	3375	1/1	0.92	0.14	-2.02	50,50,50,50	0
55	ZN	B9	101	1/1	0.98	0.13	-2.04	69,69,69,69	0
54	MG	DA	3276	1/1	0.97	0.12	-2.09	51,51,51,51	0
55	ZN	B4	101	1/1	0.65	0.06	-2.10	200,200,200,200	0
54	MG	DA	3183	1/1	0.94	0.13	-2.13	50,50,50,50	0
54	MG	BA	3378	1/1	0.98	0.12	-2.13	38,38,38,38	0
54	MG	BA	3485	1/1	0.95	0.14	-2.15	60,60,60,60	0
54	MG	AA	1664	1/1	0.93	0.15	-2.19	85,85,85,85	0
54	MG	DA	3274	1/1	0.96	0.10	-2.20	35,35,35,35	0
54	MG	DA	3299	1/1	0.80	0.14	-2.22	54,54,54,54	0
54	MG	DA	3333	1/1	0.96	0.06	-2.26	53,53,53,53	0
54	MG	DA	3377	1/1	0.96	0.10	-2.37	61,61,61,61	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3312	1/1	0.92	0.09	-2.45	67,67,67,67	0
54	MG	DA	3288	1/1	0.97	0.12	-2.46	37,37,37,37	0
54	MG	DA	3315	1/1	0.88	0.13	-2.47	59,59,59,59	0
54	MG	BA	3402	1/1	0.92	0.08	-2.49	47,47,47,47	0
54	MG	BA	3528	1/1	0.96	0.12	-2.54	43,43,43,43	0
54	MG	BA	3331	1/1	0.98	0.16	-2.57	51,51,51,51	0
54	MG	CA	1643	1/1	0.74	0.06	-2.60	109,109,109,109	0
54	MG	DA	3363	1/1	0.73	0.10	-2.65	72,72,72,72	0
54	MG	BA	3479	1/1	0.93	0.17	-2.66	35,35,35,35	0
54	MG	BA	3038	1/1	0.96	0.10	-2.70	36,36,36,36	0
54	MG	DA	3352	1/1	0.99	0.10	-2.79	61,61,61,61	0
54	MG	AA	1693	1/1	0.92	0.10	-2.82	78,78,78,78	0
54	MG	BA	3576	1/1	0.97	0.12	-2.82	41,41,41,41	0
54	MG	BA	3022	1/1	0.89	0.09	-2.85	57,57,57,57	0
54	MG	AA	1691	1/1	0.79	0.10	-2.86	58,58,58,58	0
54	MG	BE	306	1/1	0.93	0.09	-2.89	56,56,56,56	0
54	MG	CA	1654	1/1	0.98	0.11	-2.93	95,95,95,95	0
54	MG	BA	3491	1/1	0.94	0.14	-2.95	65,65,65,65	0
54	MG	DA	3104	1/1	0.88	0.11	-2.95	57,57,57,57	0
54	MG	AA	1704	1/1	0.93	0.11	-3.03	90,90,90,90	0
54	MG	BA	3025	1/1	0.96	0.11	-3.03	52,52,52,52	0
54	MG	CA	1627	1/1	0.88	0.13	-3.08	79,79,79,79	0
54	MG	DA	3418	1/1	0.99	0.07	-3.27	39,39,39,39	0
54	MG	BA	3421	1/1	0.97	0.14	-3.39	36,36,36,36	0
54	MG	AA	1617	1/1	0.93	0.11	-3.48	82,82,82,82	0
54	MG	BA	3484	1/1	0.98	0.12	-3.48	40,40,40,40	0
54	MG	DA	3281	1/1	0.99	0.09	-3.52	36,36,36,36	0
54	MG	BA	3505	1/1	0.92	0.07	-3.55	76,76,76,76	0
54	MG	BA	3596	1/1	0.98	0.13	-3.57	46,46,46,46	0
54	MG	BA	3404	1/1	0.94	0.11	-3.59	46,46,46,46	0
54	MG	DA	3270	1/1	0.98	0.11	-3.60	34,34,34,34	0
54	MG	BA	3398	1/1	0.97	0.17	-3.66	36,36,36,36	0
54	MG	DA	3010	1/1	0.96	0.15	-3.77	43,43,43,43	0
54	MG	BA	3403	1/1	0.98	0.13	-3.94	44,44,44,44	0
54	MG	BA	3605	1/1	0.98	0.12	-3.98	30,30,30,30	0
54	MG	DA	3382	1/1	0.92	0.10	-4.02	53,53,53,53	0
54	MG	BA	3327	1/1	0.86	0.17	-4.10	34,34,34,34	0
54	MG	BA	3560	1/1	0.99	0.12	-4.19	29,29,29,29	0
54	MG	BA	3295	1/1	0.91	0.11	-4.20	44,44,44,44	0
54	MG	BA	3321	1/1	0.96	0.11	-4.39	65,65,65,65	0
54	MG	BA	3602	1/1	0.98	0.09	-4.64	24,24,24,24	0
54	MG	AA	1689	1/1	0.98	0.09	-4.77	55,55,55,55	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3385	1/1	0.97	0.10	-4.85	73,73,73,73	0
54	MG	BA	3409	1/1	0.97	0.18	-5.21	26,26,26,26	0
54	MG	CA	1652	1/1	0.98	0.10	-5.49	65,65,65,65	0
54	MG	BA	3019	1/1	0.94	0.11	-5.67	39,39,39,39	0
54	MG	BA	3177	1/1	0.98	0.10	-6.08	45,45,45,45	0
54	MG	BA	3597	1/1	0.99	0.09	-6.29	26,26,26,26	0
54	MG	BA	3532	1/1	0.89	0.09	-6.31	35,35,35,35	0
54	MG	BA	3376	1/1	0.95	0.11	-6.52	55,55,55,55	0
54	MG	BA	3379	1/1	0.96	0.06	-7.04	56,56,56,56	0
54	MG	BA	3516	1/1	0.97	0.14	-7.27	39,39,39,39	0
54	MG	BA	3020	1/1	0.97	0.10	-7.42	34,34,34,34	0
54	MG	BA	3601	1/1	0.98	0.06	-7.58	33,33,33,33	0
54	MG	BA	3540	1/1	0.98	0.06	-9.15	61,61,61,61	0
54	MG	BA	3312	1/1	0.96	0.09	-10.41	50,50,50,50	0
54	MG	BA	3354	1/1	0.96	0.06	-11.60	49,49,49,49	0
54	MG	BA	3494	1/1	0.94	0.46	-	44,44,44,44	0
54	MG	BA	3174	1/1	0.77	0.40	-	71,71,71,71	0
54	MG	BA	3618	1/1	0.77	0.18	-	85,85,85,85	0
54	MG	AA	1649	1/1	0.93	0.20	-	66,66,66,66	0
54	MG	AA	1658	1/1	0.94	0.16	-	60,60,60,60	0
54	MG	BA	3118	1/1	0.79	0.88	-	57,57,57,57	0
54	MG	BA	3181	1/1	0.91	0.21	-	48,48,48,48	0
54	MG	BA	3425	1/1	0.87	0.14	-	37,37,37,37	0
54	MG	DA	3286	1/1	0.92	0.16	-	50,50,50,50	0
54	MG	DA	3150	1/1	0.96	0.38	-	41,41,41,41	0
54	MG	BA	3229	1/1	0.96	0.36	-	51,51,51,51	0
54	MG	DA	3225	1/1	0.94	0.26	-	64,64,64,64	0
54	MG	AA	1648	1/1	0.94	0.19	-	62,62,62,62	0
54	MG	DA	3249	1/1	0.95	0.37	-	67,67,67,67	0
54	MG	DA	3415	1/1	0.89	0.10	-	89,89,89,89	0
54	MG	DA	3126	1/1	0.81	0.12	-	80,80,80,80	0
54	MG	BA	3581	1/1	0.83	0.14	-	47,47,47,47	0
54	MG	CA	1630	1/1	0.92	0.47	-	72,72,72,72	0
54	MG	DA	3065	1/1	0.92	0.19	-	58,58,58,58	0
54	MG	BA	3049	1/1	0.94	0.19	-	54,54,54,54	0
54	MG	BA	3530	1/1	0.89	0.11	-	84,84,84,84	0
54	MG	BA	3436	1/1	0.89	0.32	-	38,38,38,38	0
54	MG	DA	3428	1/1	0.94	0.12	-	81,81,81,81	0
54	MG	BA	3617	1/1	0.76	0.15	-	93,93,93,93	0
54	MG	DA	3198	1/1	0.91	0.17	-	55,55,55,55	0
54	MG	BA	3477	1/1	0.98	0.08	-	45,45,45,45	0
54	MG	BA	3604	1/1	0.97	0.07	-	36,36,36,36	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3187	1/1	0.91	0.66	-	47,47,47,47	0
54	MG	AA	1675	1/1	0.67	0.40	-	73,73,73,73	0
54	MG	BA	3082	1/1	0.84	0.28	-	71,71,71,71	0
54	MG	BA	3430	1/1	0.98	0.22	-	30,30,30,30	0
54	MG	AA	1638	1/1	0.79	0.24	-	78,78,78,78	0
54	MG	BE	302	1/1	0.89	0.21	-	52,52,52,52	0
54	MG	BA	3076	1/1	0.77	0.13	-	70,70,70,70	0
54	MG	BA	3115	1/1	0.96	0.36	-	43,43,43,43	0
54	MG	DA	3419	1/1	0.98	0.08	-	50,50,50,50	0
54	MG	BA	3286	1/1	0.92	0.24	-	52,52,52,52	0
54	MG	BA	3482	1/1	0.98	0.18	-	58,58,58,58	0
54	MG	DA	3337	1/1	0.94	0.10	-	42,42,42,42	0
54	MG	BA	3442	1/1	0.97	0.15	-	31,31,31,31	0
54	MG	AA	1671	1/1	0.86	0.25	-	89,89,89,89	0
54	MG	DA	3265	1/1	0.95	0.21	-	39,39,39,39	0
54	MG	BA	3527	1/1	0.90	0.15	-	51,51,51,51	0
54	MG	BA	3050	1/1	0.89	0.23	-	46,46,46,46	0
54	MG	BA	3507	1/1	0.97	0.15	-	53,53,53,53	0
54	MG	DA	3068	1/1	0.95	0.23	-	48,48,48,48	0
54	MG	DA	3210	1/1	0.71	0.28	-	60,60,60,60	0
54	MG	AA	1678	1/1	0.74	0.45	-	75,75,75,75	0
54	MG	BA	3549	1/1	0.89	0.12	-	68,68,68,68	0
54	MG	BA	3279	1/1	0.92	0.17	-	54,54,54,54	0
54	MG	DA	3250	1/1	0.93	0.43	-	41,41,41,41	0
54	MG	DA	3266	1/1	0.95	0.09	-	58,58,58,58	0
54	MG	DA	3230	1/1	0.95	0.17	-	67,67,67,67	0
54	MG	BA	3388	1/1	0.88	0.17	-	54,54,54,54	0
54	MG	DA	3232	1/1	0.87	0.36	-	46,46,46,46	0
54	MG	BA	3064	1/1	0.88	0.27	-	45,45,45,45	0
54	MG	BA	3319	1/1	0.95	0.06	-	68,68,68,68	0
54	MG	AA	1667	1/1	0.80	0.28	-	63,63,63,63	0
54	MG	BA	3443	1/1	0.99	0.26	-	41,41,41,41	0
54	MG	DA	3272	1/1	0.96	0.18	-	47,47,47,47	0
54	MG	BA	3089	1/1	0.92	0.40	-	46,46,46,46	0
54	MG	CA	1667	1/1	0.87	0.14	-	64,64,64,64	0
54	MG	BA	3216	1/1	0.79	0.23	-	52,52,52,52	0
54	MG	BA	3125	1/1	0.94	0.23	-	50,50,50,50	0
54	MG	DA	3195	1/1	0.87	0.84	-	75,75,75,75	0
54	MG	CA	1605	1/1	0.83	0.32	-	74,74,74,74	0
54	MG	BE	303	1/1	0.96	0.14	-	54,54,54,54	0
54	MG	BA	3251	1/1	0.78	0.34	-	63,63,63,63	0
54	MG	DA	3026	1/1	0.85	0.16	-	49,49,49,49	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3109	1/1	0.78	0.26	-	70,70,70,70	0
54	MG	BA	3263	1/1	0.96	0.62	-	41,41,41,41	0
54	MG	BA	3220	1/1	0.76	0.24	-	79,79,79,79	0
54	MG	BA	3194	1/1	0.73	0.22	-	79,79,79,79	0
54	MG	CA	1621	1/1	0.83	0.26	-	64,64,64,64	0
54	MG	AA	1626	1/1	0.96	0.52	-	67,67,67,67	0
54	MG	DA	3031	1/1	0.95	0.45	-	43,43,43,43	0
54	MG	BA	3171	1/1	0.84	0.24	-	67,67,67,67	0
54	MG	BA	3574	1/1	0.98	0.06	-	41,41,41,41	0
54	MG	DA	3254	1/1	0.80	0.39	-	43,43,43,43	0
54	MG	BA	3287	1/1	0.95	0.45	-	65,65,65,65	0
54	MG	BA	3591	1/1	0.97	0.13	-	56,56,56,56	0
54	MG	DA	3139	1/1	0.88	0.49	-	65,65,65,65	0
54	MG	BA	3248	1/1	0.98	0.19	-	50,50,50,50	0
54	MG	BA	3168	1/1	0.95	0.39	-	52,52,52,52	0
54	MG	AA	1628	1/1	0.69	0.28	-	84,84,84,84	0
54	MG	DA	3075	1/1	0.68	0.45	-	71,71,71,71	0
54	MG	BA	3296	1/1	0.98	0.08	-	48,48,48,48	0
54	MG	DA	3244	1/1	0.89	0.46	-	35,35,35,35	0
54	MG	BA	3214	1/1	0.94	0.56	-	34,34,34,34	0
54	MG	DA	3206	1/1	0.65	0.18	-	75,75,75,75	0
54	MG	DA	3330	1/1	0.92	0.25	-	44,44,44,44	0
54	MG	BA	3203	1/1	0.94	0.31	-	69,69,69,69	0
54	MG	DA	3211	1/1	0.82	0.26	-	53,53,53,53	0
54	MG	DA	3411	1/1	0.90	0.15	-	90,90,90,90	0
54	MG	BA	3073	1/1	0.90	0.11	-	67,67,67,67	0
54	MG	DA	3100	1/1	0.95	0.32	-	61,61,61,61	0
54	MG	BA	3488	1/1	0.97	0.15	-	34,34,34,34	0
54	MG	AA	1629	1/1	0.93	0.15	-	63,63,63,63	0
54	MG	BA	3462	1/1	0.97	0.12	-	25,25,25,25	0
54	MG	DA	3143	1/1	0.67	0.55	-	62,62,62,62	0
54	MG	DA	3156	1/1	0.96	0.26	-	52,52,52,52	0
54	MG	BA	3061	1/1	0.90	0.51	-	64,64,64,64	0
54	MG	AA	1688	1/1	0.83	0.21	-	111,111,111,111	0
54	MG	DA	3253	1/1	0.96	0.30	-	42,42,42,42	0
54	MG	DA	3386	1/1	0.90	0.11	-	63,63,63,63	0
54	MG	BA	3610	1/1	0.95	0.06	-	56,56,56,56	0
54	MG	BA	3042	1/1	0.95	0.50	-	47,47,47,47	0
54	MG	DA	3316	1/1	0.88	0.12	-	75,75,75,75	0
54	MG	BA	3072	1/1	0.89	0.28	-	59,59,59,59	0
54	MG	BA	3508	1/1	0.95	0.12	-	40,40,40,40	0
54	MG	DA	3228	1/1	0.95	0.54	-	51,51,51,51	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3176	1/1	0.94	0.33	-	61,61,61,61	0
54	MG	BA	3347	1/1	0.91	0.22	-	55,55,55,55	0
54	MG	DA	3193	1/1	0.93	0.33	-	63,63,63,63	0
54	MG	BA	3155	1/1	0.90	0.36	-	64,64,64,64	0
54	MG	BA	3233	1/1	0.95	0.13	-	59,59,59,59	0
54	MG	DA	3379	1/1	0.65	0.09	-	94,94,94,94	0
54	MG	BA	3375	1/1	0.81	0.33	-	46,46,46,46	0
54	MG	AA	1652	1/1	0.72	0.66	-	82,82,82,82	0
54	MG	BA	3558	1/1	0.75	0.17	-	61,61,61,61	0
54	MG	DA	3141	1/1	0.81	0.53	-	74,74,74,74	0
54	MG	DA	3351	1/1	0.96	0.15	-	78,78,78,78	0
54	MG	DA	3399	1/1	0.94	0.41	-	60,60,60,60	0
54	MG	BA	3015	1/1	0.92	0.37	-	42,42,42,42	0
54	MG	BA	3176	1/1	0.87	0.50	-	69,69,69,69	0
54	MG	BF	301	1/1	0.91	0.39	-	56,56,56,56	0
54	MG	BA	3260	1/1	0.94	0.61	-	50,50,50,50	0
54	MG	BB	212	1/1	0.93	0.06	-	68,68,68,68	0
54	MG	BA	3054	1/1	0.94	0.15	-	52,52,52,52	0
54	MG	DA	3103	1/1	0.74	0.30	-	71,71,71,71	0
54	MG	DA	3346	1/1	0.66	0.10	-	89,89,89,89	0
54	MG	BB	214	1/1	0.83	0.17	-	67,67,67,67	0
54	MG	DA	3339	1/1	0.91	0.11	-	48,48,48,48	0
54	MG	DA	3275	1/1	0.96	0.12	-	48,48,48,48	0
54	MG	DA	3361	1/1	0.96	0.06	-	67,67,67,67	0
54	MG	BA	3358	1/1	0.90	0.07	-	64,64,64,64	0
54	MG	AA	1663	1/1	0.77	0.43	-	70,70,70,70	0
54	MG	DA	3049	1/1	0.89	0.30	-	58,58,58,58	0
54	MG	AA	1607	1/1	0.93	0.40	-	69,69,69,69	0
54	MG	BA	3135	1/1	0.80	0.45	-	54,54,54,54	0
54	MG	DA	3338	1/1	0.95	0.19	-	50,50,50,50	0
54	MG	BA	3469	1/1	0.77	0.25	-	77,77,77,77	0
54	MG	DA	3320	1/1	0.97	0.13	-	57,57,57,57	0
54	MG	BA	3269	1/1	0.88	0.26	-	54,54,54,54	0
54	MG	BA	3027	1/1	0.92	0.15	-	56,56,56,56	0
54	MG	DA	3310	1/1	0.76	0.29	-	56,56,56,56	0
54	MG	BA	3564	1/1	0.96	0.28	-	36,36,36,36	0
54	MG	BA	3011	1/1	0.81	0.58	-	50,50,50,50	0
54	MG	BA	3146	1/1	0.93	0.50	-	52,52,52,52	0
54	MG	BA	3166	1/1	0.82	0.48	-	58,58,58,58	0
54	MG	DA	3091	1/1	0.68	0.16	-	70,70,70,70	0
54	MG	BA	3144	1/1	0.89	0.36	-	54,54,54,54	0
54	MG	DA	3093	1/1	0.87	0.72	-	66,66,66,66	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3171	1/1	0.97	0.31	-	53,53,53,53	0
54	MG	BA	3440	1/1	0.97	0.09	-	63,63,63,63	0
54	MG	DA	3251	1/1	0.95	0.48	-	39,39,39,39	0
54	MG	AA	1683	1/1	0.82	0.30	-	139,139,139,139	0
54	MG	BA	3506	1/1	0.97	0.16	-	61,61,61,61	0
54	MG	DA	3234	1/1	0.95	0.48	-	56,56,56,56	0
54	MG	DA	3220	1/1	0.98	0.25	-	48,48,48,48	0
54	MG	DA	3023	1/1	0.82	0.49	-	61,61,61,61	0
54	MG	BA	3184	1/1	0.76	0.20	-	66,66,66,66	0
54	MG	AA	1687	1/1	0.73	0.14	-	70,70,70,70	0
54	MG	BA	3018	1/1	0.92	0.11	-	72,72,72,72	0
54	MG	DA	3148	1/1	0.93	0.41	-	70,70,70,70	0
54	MG	DA	3414	1/1	0.97	0.12	-	68,68,68,68	0
54	MG	DA	3307	1/1	0.98	0.22	-	39,39,39,39	0
54	MG	BA	3359	1/1	0.94	0.13	-	49,49,49,49	0
54	MG	BA	3352	1/1	0.97	0.09	-	53,53,53,53	0
54	MG	BA	3547	1/1	0.94	0.24	-	31,31,31,31	0
54	MG	BP	201	1/1	0.91	0.28	-	43,43,43,43	0
54	MG	BA	3062	1/1	0.84	0.08	-	69,69,69,69	0
54	MG	DA	3298	1/1	0.87	0.14	-	71,71,71,71	0
54	MG	BA	3413	1/1	0.95	0.28	-	31,31,31,31	0
54	MG	BA	3593	1/1	0.69	0.10	-	70,70,70,70	0
54	MG	DA	3182	1/1	0.88	0.28	-	59,59,59,59	0
54	MG	BA	3463	1/1	0.88	0.20	-	36,36,36,36	0
54	MG	BA	3316	1/1	0.90	0.32	-	34,34,34,34	0
54	MG	BA	3150	1/1	0.90	0.22	-	61,61,61,61	0
54	MG	DA	3218	1/1	0.96	0.71	-	53,53,53,53	0
54	MG	BA	3147	1/1	0.82	0.30	-	57,57,57,57	0
54	MG	CA	1657	1/1	0.91	0.23	-	86,86,86,86	0
54	MG	BA	3567	1/1	0.82	0.09	-	62,62,62,62	0
54	MG	CA	1619	1/1	0.61	0.45	-	69,69,69,69	0
54	MG	AA	1706	1/1	0.89	0.08	-	100,100,100,100	0
54	MG	DA	3293	1/1	0.91	0.29	-	50,50,50,50	0
54	MG	BA	3224	1/1	0.79	0.31	-	61,61,61,61	0
54	MG	DA	3404	1/1	0.99	0.06	-	53,53,53,53	0
54	MG	BA	3495	1/1	0.85	0.19	-	70,70,70,70	0
54	MG	CA	1651	1/1	0.95	0.17	-	61,61,61,61	0
54	MG	DA	3321	1/1	0.95	0.21	-	53,53,53,53	0
54	MG	BA	3101	1/1	0.91	0.28	-	51,51,51,51	0
54	MG	AA	1620	1/1	0.77	0.92	-	77,77,77,77	0
54	MG	DA	3332	1/1	0.98	0.05	-	62,62,62,62	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	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3041	1/1	0.91	0.12	-	56,56,56,56	0
54	MG	BA	3539	1/1	0.97	0.06	-	61,61,61,61	0
54	MG	BA	3335	1/1	0.89	0.15	-	55,55,55,55	0
54	MG	BA	3453	1/1	0.94	0.17	-	74,74,74,74	0
54	MG	BA	3188	1/1	0.93	0.28	-	43,43,43,43	0
54	MG	DA	3255	1/1	0.97	0.37	-	63,63,63,63	0
54	MG	BA	3502	1/1	0.97	0.17	-	41,41,41,41	0
54	MG	DA	3161	1/1	0.87	0.47	-	55,55,55,55	0
54	MG	BA	3608	1/1	0.60	0.12	-	87,87,87,87	0
54	MG	BA	3490	1/1	0.96	0.27	-	53,53,53,53	0
54	MG	CA	1610	1/1	0.84	0.43	-	80,80,80,80	0
54	MG	DA	3362	1/1	0.85	0.11	-	63,63,63,63	0
54	MG	DA	3166	1/1	0.96	0.22	-	55,55,55,55	0
54	MG	BA	3079	1/1	0.81	0.27	-	68,68,68,68	0
54	MG	DA	3239	1/1	0.89	0.28	-	39,39,39,39	0
54	MG	BA	3349	1/1	0.96	0.13	-	39,39,39,39	0
54	MG	BA	3616	1/1	0.90	0.08	-	82,82,82,82	0
54	MG	BA	3400	1/1	0.94	0.19	-	34,34,34,34	0
54	MG	DA	3201	1/1	0.93	0.36	-	69,69,69,69	0
54	MG	BA	3235	1/1	0.94	0.12	-	45,45,45,45	0
54	MG	AA	1637	1/1	0.75	0.33	-	82,82,82,82	0
54	MG	BA	3058	1/1	0.96	0.10	-	56,56,56,56	0
54	MG	DA	3042	1/1	0.92	0.58	-	46,46,46,46	0
54	MG	DA	3191	1/1	0.95	0.26	-	50,50,50,50	0
54	MG	BA	3008	1/1	0.96	0.28	-	32,32,32,32	0
54	MG	DA	3106	1/1	0.81	0.33	-	56,56,56,56	0
54	MG	DA	3063	1/1	0.85	0.19	-	54,54,54,54	0
54	MG	BA	3369	1/1	0.91	0.31	-	74,74,74,74	0
54	MG	BA	3459	1/1	0.40	0.14	-	130,130,130,130	0
54	MG	DA	3089	1/1	0.75	0.38	-	82,82,82,82	0
54	MG	DA	3153	1/1	0.95	0.47	-	38,38,38,38	0
54	MG	BA	3538	1/1	0.84	0.13	-	70,70,70,70	0
54	MG	BA	3128	1/1	0.94	0.20	-	53,53,53,53	0
54	MG	D7	101	1/1	0.91	0.30	-	52,52,52,52	0
54	MG	BA	3250	1/1	0.90	0.23	-	47,47,47,47	0
54	MG	BA	3541	1/1	0.96	0.30	-	54,54,54,54	0
54	MG	BA	3542	1/1	0.92	0.23	-	60,60,60,60	0
54	MG	DA	3308	1/1	0.97	0.42	-	49,49,49,49	0
54	MG	AA	1665	1/1	0.54	0.53	-	86,86,86,86	0
54	MG	BE	305	1/1	0.97	0.22	-	32,32,32,32	0
54	MG	DA	3102	1/1	0.71	0.47	-	79,79,79,79	0
54	MG	BA	3365	1/1	0.84	0.10	-	84,84,84,84	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	AA	1646	1/1	0.86	0.38	-	73,73,73,73	0
54	MG	AA	1611	1/1	0.84	0.30	-	69,69,69,69	0
54	MG	BA	3582	1/1	0.96	0.12	-	54,54,54,54	0
54	MG	CA	1606	1/1	0.80	0.62	-	81,81,81,81	0
54	MG	DA	3105	1/1	0.92	0.55	-	33,33,33,33	0
54	MG	BA	3545	1/1	0.80	0.18	-	79,79,79,79	0
54	MG	DA	3212	1/1	0.94	0.26	-	38,38,38,38	0
54	MG	BA	3381	1/1	0.98	0.08	-	49,49,49,49	0
54	MG	DA	3077	1/1	0.79	0.21	-	66,66,66,66	0
54	MG	DA	3241	1/1	0.96	0.25	-	63,63,63,63	0
54	MG	DA	3384	1/1	0.93	0.21	-	57,57,57,57	0
54	MG	BA	3481	1/1	0.93	0.10	-	76,76,76,76	0
54	MG	DA	3287	1/1	0.97	0.07	-	46,46,46,46	0
54	MG	CA	1629	1/1	0.87	0.23	-	72,72,72,72	0
54	MG	DA	3257	1/1	0.92	0.61	-	59,59,59,59	0
54	MG	BA	3586	1/1	0.94	0.09	-	58,58,58,58	0
54	MG	AA	1601	1/1	0.91	0.29	-	68,68,68,68	0
54	MG	BA	3100	1/1	0.84	0.33	-	72,72,72,72	0
54	MG	CA	1603	1/1	0.94	0.28	-	73,73,73,73	0
54	MG	BA	3518	1/1	0.97	0.36	-	59,59,59,59	0
54	MG	BA	3566	1/1	0.95	0.21	-	40,40,40,40	0
54	MG	DA	3034	1/1	0.90	0.27	-	74,74,74,74	0
54	MG	BA	3318	1/1	0.92	0.23	-	73,73,73,73	0
54	MG	BA	3373	1/1	0.95	0.09	-	55,55,55,55	0
54	MG	DA	3345	1/1	0.86	0.27	-	100,100,100,100	0
54	MG	DA	3175	1/1	0.81	0.27	-	69,69,69,69	0
54	MG	BA	3140	1/1	0.88	0.46	-	59,59,59,59	0
54	MG	BA	3114	1/1	0.89	0.25	-	43,43,43,43	0
54	MG	BA	3124	1/1	0.90	0.23	-	68,68,68,68	0
54	MG	DA	3248	1/1	0.94	0.55	-	44,44,44,44	0
54	MG	DA	3200	1/1	0.81	0.19	-	67,67,67,67	0
54	MG	BA	3225	1/1	0.81	0.34	-	61,61,61,61	0
54	MG	DA	3331	1/1	0.95	0.17	-	69,69,69,69	0
54	MG	BA	3380	1/1	0.97	0.07	-	50,50,50,50	0
54	MG	AA	1680	1/1	0.92	0.17	-	83,83,83,83	0
54	MG	AA	1692	1/1	0.83	0.53	-	113,113,113,113	0
54	MG	BA	3299	1/1	0.98	0.22	-	38,38,38,38	0
54	MG	DA	3367	1/1	0.91	0.14	-	68,68,68,68	0
54	MG	BA	3278	1/1	0.96	0.25	-	43,43,43,43	0
54	MG	BB	203	1/1	0.94	0.19	-	80,80,80,80	0
54	MG	BA	3584	1/1	0.86	0.14	-	68,68,68,68	0
54	MG	DA	3318	1/1	0.93	0.08	-	66,66,66,66	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	AA	1606	1/1	0.84	0.90	-	74,74,74,74	0
54	MG	BA	3294	1/1	0.93	0.20	-	37,37,37,37	0
54	MG	DA	3422	1/1	0.95	0.10	-	75,75,75,75	0
54	MG	DA	3192	1/1	0.77	0.19	-	66,66,66,66	0
54	MG	DA	3009	1/1	0.94	0.26	-	54,54,54,54	0
54	MG	DA	3347	1/1	0.92	0.07	-	76,76,76,76	0
54	MG	BA	3353	1/1	0.95	0.13	-	28,28,28,28	0
54	MG	DA	3025	1/1	0.97	0.18	-	57,57,57,57	0
54	MG	DA	3157	1/1	0.92	0.33	-	69,69,69,69	0
54	MG	AA	1641	1/1	0.81	0.65	-	93,93,93,93	0
54	MG	BD	301	1/1	0.90	0.20	-	41,41,41,41	0
54	MG	DA	3184	1/1	0.94	0.44	-	39,39,39,39	0
54	MG	DA	3216	1/1	0.91	0.19	-	53,53,53,53	0
54	MG	AA	1612	1/1	0.86	0.36	-	76,76,76,76	0
54	MG	BA	3247	1/1	0.89	0.25	-	53,53,53,53	0
54	MG	BA	3313	1/1	0.98	0.12	-	42,42,42,42	0
54	MG	DA	3173	1/1	0.92	0.40	-	49,49,49,49	0
54	MG	BA	3391	1/1	0.96	0.28	-	38,38,38,38	0
54	MG	BA	3218	1/1	0.93	0.37	-	54,54,54,54	0
54	MG	BA	3589	1/1	0.92	0.06	-	70,70,70,70	0
54	MG	DA	3016	1/1	0.95	0.11	-	41,41,41,41	0
54	MG	D6	102	1/1	0.92	0.50	-	64,64,64,64	0
54	MG	BA	3266	1/1	0.93	0.77	-	48,48,48,48	0
54	MG	BA	3401	1/1	0.96	0.17	-	45,45,45,45	0
54	MG	BA	3341	1/1	0.88	0.08	-	69,69,69,69	0
54	MG	BA	3521	1/1	0.92	0.19	-	41,41,41,41	0
54	MG	BA	3383	1/1	0.95	0.17	-	71,71,71,71	0
54	MG	DA	3229	1/1	0.92	0.37	-	55,55,55,55	0
54	MG	BA	3024	1/1	0.87	0.29	-	48,48,48,48	0
54	MG	DA	3005	1/1	0.94	0.19	-	64,64,64,64	0
54	MG	AA	1685	1/1	0.95	0.11	-	77,77,77,77	0
54	MG	BA	3561	1/1	0.94	0.27	-	49,49,49,49	0
54	MG	BA	3342	1/1	0.94	0.08	-	57,57,57,57	0
54	MG	DA	3057	1/1	0.90	0.14	-	67,67,67,67	0
54	MG	CA	1661	1/1	0.78	0.27	-	100,100,100,100	0
54	MG	DA	3069	1/1	0.82	0.48	-	61,61,61,61	0
54	MG	BA	3476	1/1	0.98	0.23	-	44,44,44,44	0
54	MG	BA	3026	1/1	0.90	0.18	-	68,68,68,68	0
54	MG	DA	3295	1/1	0.92	0.17	-	42,42,42,42	0
54	MG	BA	3524	1/1	0.87	0.17	-	77,77,77,77	0
54	MG	DA	3235	1/1	0.96	0.33	-	36,36,36,36	0
54	MG	BA	3270	1/1	0.77	0.32	-	74,74,74,74	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3206	1/1	0.84	0.13	-	68,68,68,68	0
54	MG	CA	1669	1/1	0.83	0.10	-	117,117,117,117	0
54	MG	DA	3189	1/1	0.81	0.80	-	66,66,66,66	0
54	MG	DA	3051	1/1	0.94	0.15	-	43,43,43,43	0
54	MG	DA	3227	1/1	0.90	0.39	-	65,65,65,65	0
54	MG	BA	3487	1/1	0.67	0.22	-	94,94,94,94	0
54	MG	AA	1634	1/1	0.91	0.77	-	95,95,95,95	0
54	MG	BA	3578	1/1	0.98	0.20	-	60,60,60,60	0
54	MG	DA	3311	1/1	0.85	0.07	-	65,65,65,65	0
54	MG	DA	3403	1/1	0.88	0.18	-	49,49,49,49	0
54	MG	BA	3464	1/1	0.82	0.32	-	41,41,41,41	0
54	MG	AA	1677	1/1	0.90	0.89	-	81,81,81,81	0
54	MG	DA	3158	1/1	0.91	0.43	-	72,72,72,72	0
54	MG	DA	3081	1/1	0.86	0.23	-	52,52,52,52	0
54	MG	BA	3165	1/1	0.93	0.13	-	56,56,56,56	0
54	MG	B5	102	1/1	0.99	0.08	-	42,42,42,42	0
54	MG	DA	3147	1/1	0.95	0.68	-	78,78,78,78	0
54	MG	BA	3085	1/1	0.92	0.30	-	63,63,63,63	0
54	MG	BA	3356	1/1	0.90	0.28	-	59,59,59,59	0
54	MG	BV	201	1/1	0.80	0.36	-	74,74,74,74	0
54	MG	AA	1603	1/1	0.91	0.11	-	68,68,68,68	0
54	MG	DA	3401	1/1	0.91	0.07	-	85,85,85,85	0
54	MG	BA	3179	1/1	0.95	0.44	-	48,48,48,48	0
54	MG	BA	3446	1/1	0.94	0.10	-	40,40,40,40	0
54	MG	BA	3102	1/1	0.90	0.25	-	59,59,59,59	0
54	MG	BA	3568	1/1	0.96	0.14	-	60,60,60,60	0
54	MG	BA	3298	1/1	0.92	0.11	-	53,53,53,53	0
54	MG	BA	3533	1/1	0.90	0.19	-	48,48,48,48	0
54	MG	AA	1633	1/1	0.89	0.52	-	72,72,72,72	0
54	MG	BA	3445	1/1	0.93	0.09	-	56,56,56,56	0
54	MG	AA	1672	1/1	0.95	0.66	-	82,82,82,82	0
54	MG	DA	3024	1/1	0.88	0.40	-	49,49,49,49	0
54	MG	DA	3335	1/1	0.94	0.25	-	72,72,72,72	0
54	MG	BA	3273	1/1	0.89	0.22	-	66,66,66,66	0
54	MG	AA	1643	1/1	0.77	0.85	-	96,96,96,96	0
54	MG	BA	3418	1/1	0.93	0.09	-	54,54,54,54	0
54	MG	BA	3035	1/1	0.96	0.24	-	45,45,45,45	0
54	MG	DA	3039	1/1	0.97	0.28	-	41,41,41,41	0
54	MG	BA	3343	1/1	0.87	0.06	-	91,91,91,91	0
54	MG	DA	3423	1/1	0.83	0.14	-	79,79,79,79	0
54	MG	BA	3306	1/1	0.94	0.16	-	51,51,51,51	0
54	MG	DA	3271	1/1	0.94	0.10	-	57,57,57,57	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3119	1/1	0.92	0.60	-	57,57,57,57	0
54	MG	BB	210	1/1	0.86	0.14	-	67,67,67,67	0
54	MG	BA	3537	1/1	0.93	0.17	-	38,38,38,38	0
54	MG	DA	3131	1/1	0.95	0.28	-	39,39,39,39	0
54	MG	BA	3563	1/1	0.94	0.11	-	67,67,67,67	0
54	MG	DA	3256	1/1	0.82	0.58	-	59,59,59,59	0
54	MG	DA	3426	1/1	0.98	0.10	-	94,94,94,94	0
54	MG	DA	3137	1/1	0.96	0.57	-	64,64,64,64	0
54	MG	BA	3291	1/1	0.95	0.13	-	59,59,59,59	0
54	MG	BA	3588	1/1	0.93	0.25	-	86,86,86,86	0
54	MG	BA	3523	1/1	0.95	0.06	-	79,79,79,79	0
54	MG	BW	201	1/1	0.93	0.17	-	51,51,51,51	0
54	MG	BA	3120	1/1	0.88	0.31	-	42,42,42,42	0
54	MG	BA	3339	1/1	0.83	0.08	-	91,91,91,91	0
54	MG	DA	3164	1/1	0.96	0.23	-	46,46,46,46	0
54	MG	DA	3368	1/1	0.94	0.17	-	78,78,78,78	0
54	MG	BF	302	1/1	0.93	0.21	-	62,62,62,62	0
54	MG	BA	3284	1/1	0.95	0.13	-	40,40,40,40	0
54	MG	AA	1681	1/1	0.92	0.12	-	65,65,65,65	0
54	MG	DA	3348	1/1	0.93	0.12	-	85,85,85,85	0
54	MG	CA	1634	1/1	0.86	0.35	-	101,101,101,101	0
54	MG	BA	3529	1/1	0.78	0.29	-	86,86,86,86	0
54	MG	AA	1644	1/1	0.95	0.34	-	74,74,74,74	0
54	MG	BA	3077	1/1	0.88	0.59	-	43,43,43,43	0
54	MG	DA	3140	1/1	0.93	0.54	-	70,70,70,70	0
54	MG	DA	3260	1/1	0.91	0.50	-	44,44,44,44	0
54	MG	BA	3261	1/1	0.96	0.29	-	59,59,59,59	0
54	MG	CA	1620	1/1	0.96	0.32	-	57,57,57,57	0
54	MG	AA	1610	1/1	0.96	0.29	-	75,75,75,75	0
54	MG	BA	3450	1/1	0.87	0.13	-	71,71,71,71	0
54	MG	BA	3364	1/1	0.96	0.12	-	46,46,46,46	0
54	MG	AA	1661	1/1	0.73	0.80	-	77,77,77,77	0
54	MG	DA	3223	1/1	0.80	0.09	-	104,104,104,104	0
54	MG	BA	3103	1/1	0.91	0.47	-	67,67,67,67	0
54	MG	BA	3075	1/1	0.96	0.30	-	53,53,53,53	0
54	MG	DA	3172	1/1	0.82	0.27	-	50,50,50,50	0
54	MG	BA	3172	1/1	0.93	0.22	-	71,71,71,71	0
54	MG	DA	3179	1/1	0.94	0.27	-	62,62,62,62	0
54	MG	BA	3614	1/1	0.74	0.31	-	94,94,94,94	0
54	MG	BA	3569	1/1	0.81	0.27	-	68,68,68,68	0
54	MG	BA	3496	1/1	0.81	0.10	-	79,79,79,79	0
54	MG	AA	1656	1/1	0.59	0.83	-	74,74,74,74	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3315	1/1	0.72	0.17	-	84,84,84,84	0
54	MG	BA	3577	1/1	0.94	0.23	-	58,58,58,58	0
54	MG	DA	3424	1/1	0.86	0.14	-	130,130,130,130	0
54	MG	CA	1656	1/1	0.70	0.12	-	97,97,97,97	0
54	MG	BA	3536	1/1	0.85	0.09	-	82,82,82,82	0
54	MG	BA	3310	1/1	0.99	0.21	-	44,44,44,44	0
54	MG	BA	3257	1/1	0.69	0.40	-	64,64,64,64	0
54	MG	BA	3612	1/1	0.78	0.12	-	100,100,100,100	0
54	MG	DA	3357	1/1	0.82	0.14	-	53,53,53,53	0
54	MG	BA	3186	1/1	0.91	0.40	-	64,64,64,64	0
54	MG	BA	3478	1/1	0.90	0.16	-	92,92,92,92	0
54	MG	DA	3381	1/1	0.89	0.09	-	79,79,79,79	0
54	MG	DA	3336	1/1	0.79	0.16	-	87,87,87,87	0
54	MG	BA	3088	1/1	0.93	0.35	-	46,46,46,46	0
54	MG	BA	3452	1/1	0.95	0.11	-	62,62,62,62	0
54	MG	BA	3466	1/1	0.98	0.07	-	67,67,67,67	0
54	MG	DA	3082	1/1	0.76	0.40	-	51,51,51,51	0
54	MG	BA	3449	1/1	0.89	0.18	-	49,49,49,49	0
54	MG	AA	1632	1/1	0.85	0.52	-	93,93,93,93	0
54	MG	DA	3076	1/1	0.96	0.17	-	70,70,70,70	0
54	MG	DA	3180	1/1	0.93	0.24	-	78,78,78,78	0
54	MG	BB	217	1/1	0.99	0.25	-	42,42,42,42	0
54	MG	BA	3531	1/1	0.93	0.15	-	49,49,49,49	0
54	MG	BA	3503	1/1	0.72	0.22	-	68,68,68,68	0
54	MG	BA	3362	1/1	0.89	0.11	-	73,73,73,73	0
54	MG	DA	3197	1/1	0.88	0.65	-	66,66,66,66	0
54	MG	BA	3272	1/1	0.90	0.07	-	65,65,65,65	0
54	MG	BA	3599	1/1	0.97	0.09	-	50,50,50,50	0
54	MG	BA	3324	1/1	0.96	0.10	-	82,82,82,82	0
54	MG	BA	3012	1/1	0.94	0.20	-	34,34,34,34	0
54	MG	AA	1698	1/1	0.91	0.44	-	68,68,68,68	0
54	MG	DA	3021	1/1	0.93	0.24	-	53,53,53,53	0
54	MG	BA	3213	1/1	0.89	0.37	-	64,64,64,64	0
54	MG	AA	1650	1/1	0.88	0.27	-	70,70,70,70	0
54	MG	BA	3325	1/1	0.89	0.11	-	47,47,47,47	0
54	MG	DA	3022	1/1	0.97	0.36	-	52,52,52,52	0
54	MG	BA	3116	1/1	0.88	0.37	-	56,56,56,56	0
54	MG	DA	3300	1/1	0.98	0.20	-	62,62,62,62	0
54	MG	BA	3600	1/1	0.99	0.20	-	31,31,31,31	0
54	MG	DA	3107	1/1	0.77	0.20	-	47,47,47,47	0
54	MG	BA	3439	1/1	0.87	0.18	-	53,53,53,53	0
54	MG	BA	3190	1/1	0.96	0.31	-	46,46,46,46	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3585	1/1	0.94	0.24	-	54,54,54,54	0
54	MG	BA	3092	1/1	0.92	0.41	-	55,55,55,55	0
54	MG	AA	1690	1/1	0.93	0.12	-	59,59,59,59	0
54	MG	BA	3096	1/1	0.93	0.53	-	63,63,63,63	0
54	MG	BA	3415	1/1	0.88	0.12	-	49,49,49,49	0
54	MG	DA	3289	1/1	0.95	0.20	-	52,52,52,52	0
54	MG	AA	1679	1/1	0.84	0.35	-	64,64,64,64	0
54	MG	DA	3008	1/1	0.85	0.22	-	48,48,48,48	0
54	MG	BA	3550	1/1	0.98	0.28	-	37,37,37,37	0
54	MG	BA	3099	1/1	0.94	0.28	-	52,52,52,52	0
54	MG	DA	3258	1/1	0.92	0.10	-	56,56,56,56	0
54	MG	BA	3419	1/1	0.97	0.25	-	35,35,35,35	0
54	MG	DA	3430	1/1	0.97	0.05	-	72,72,72,72	0
54	MG	BA	3162	1/1	0.96	0.48	-	62,62,62,62	0
54	MG	BA	3182	1/1	0.95	0.09	-	69,69,69,69	0
54	MG	BA	3534	1/1	0.67	0.27	-	76,76,76,76	0
54	MG	AA	1701	1/1	0.93	0.12	-	96,96,96,96	0
54	MG	BA	3154	1/1	0.90	0.15	-	49,49,49,49	0
54	MG	BA	3609	1/1	0.98	0.18	-	51,51,51,51	0
54	MG	DA	3037	1/1	0.77	0.45	-	49,49,49,49	0
54	MG	BA	3433	1/1	0.94	0.14	-	35,35,35,35	0
54	MG	BA	3068	1/1	0.86	0.18	-	70,70,70,70	0
54	MG	BA	3374	1/1	0.57	0.14	-	75,75,75,75	0
54	MG	AA	1639	1/1	0.87	0.20	-	74,74,74,74	0
54	MG	B5	101	1/1	0.91	0.29	-	51,51,51,51	0
54	MG	BA	3384	1/1	0.80	0.11	-	62,62,62,62	0
54	MG	DB	203	1/1	0.93	0.48	-	61,61,61,61	0
54	MG	DA	3045	1/1	0.94	0.36	-	72,72,72,72	0
54	MG	DA	3391	1/1	0.83	0.14	-	67,67,67,67	0
54	MG	BA	3264	1/1	0.87	0.61	-	38,38,38,38	0
54	MG	BA	3158	1/1	0.89	0.35	-	51,51,51,51	0
54	MG	BA	3444	1/1	0.90	0.06	-	61,61,61,61	0
54	MG	BA	3431	1/1	0.98	0.25	-	34,34,34,34	0
54	MG	DA	3050	1/1	0.69	0.16	-	90,90,90,90	0
54	MG	DA	3096	1/1	0.93	0.41	-	46,46,46,46	0
54	MG	BA	3571	1/1	0.92	0.14	-	76,76,76,76	0
54	MG	BA	3056	1/1	0.95	0.40	-	48,48,48,48	0
54	MG	BA	3065	1/1	0.94	0.13	-	47,47,47,47	0
54	MG	BA	3252	1/1	0.95	0.24	-	44,44,44,44	0
54	MG	DA	3152	1/1	0.93	0.46	-	58,58,58,58	0
54	MG	DA	3048	1/1	0.75	0.47	-	53,53,53,53	0
54	MG	DA	3111	1/1	0.87	0.46	-	60,60,60,60	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3097	1/1	0.87	0.72	-	64,64,64,64	0
54	MG	DA	3056	1/1	0.87	0.44	-	61,61,61,61	0
54	MG	BA	3138	1/1	0.90	0.19	-	54,54,54,54	0
54	MG	BA	3322	1/1	0.95	0.13	-	45,45,45,45	0
54	MG	BA	3467	1/1	0.92	0.13	-	73,73,73,73	0
54	MG	DA	3035	1/1	0.82	0.64	-	68,68,68,68	0
54	MG	BA	3126	1/1	0.95	0.40	-	57,57,57,57	0
54	MG	DA	3387	1/1	0.81	0.09	-	71,71,71,71	0
54	MG	AA	1642	1/1	0.94	0.16	-	64,64,64,64	0
54	MG	BA	3215	1/1	0.96	0.14	-	61,61,61,61	0
54	MG	BA	3377	1/1	0.93	0.12	-	69,69,69,69	0
54	MG	DA	3194	1/1	0.93	0.54	-	77,77,77,77	0
54	MG	CA	1665	1/1	0.85	0.14	-	76,76,76,76	0
54	MG	DA	3167	1/1	0.94	0.10	-	59,59,59,59	0
54	MG	BA	3196	1/1	0.80	0.79	-	80,80,80,80	0
54	MG	DA	3407	1/1	0.94	0.25	-	59,59,59,59	0
54	MG	AA	1668	1/1	0.98	0.12	-	83,83,83,83	0
54	MG	BA	3005	1/1	0.95	0.14	-	42,42,42,42	0
54	MG	DA	3136	1/1	0.96	0.52	-	42,42,42,42	0
54	MG	BA	3573	1/1	0.96	0.09	-	55,55,55,55	0
54	MG	DA	3108	1/1	0.83	0.18	-	80,80,80,80	0
54	MG	BA	3044	1/1	0.92	0.16	-	49,49,49,49	0
54	MG	BA	3098	1/1	0.91	0.39	-	54,54,54,54	0
54	MG	B2	102	1/1	0.92	0.25	-	60,60,60,60	0
54	MG	BA	3212	1/1	0.95	0.15	-	47,47,47,47	0
54	MG	BA	3093	1/1	0.81	0.18	-	81,81,81,81	0
54	MG	BA	3492	1/1	0.88	0.15	-	78,78,78,78	0
54	MG	AA	1676	1/1	0.81	0.62	-	84,84,84,84	0
54	MG	BA	3595	1/1	0.89	0.09	-	82,82,82,82	0
54	MG	BA	3066	1/1	0.87	0.11	-	43,43,43,43	0
54	MG	CA	1642	1/1	0.96	0.08	-	87,87,87,87	0
54	MG	DA	3165	1/1	0.94	0.17	-	58,58,58,58	0
54	MG	DA	3047	1/1	0.60	0.44	-	65,65,65,65	0
54	MG	DA	3323	1/1	0.96	0.20	-	36,36,36,36	0
54	MG	BA	3414	1/1	0.89	0.28	-	26,26,26,26	0
54	MG	BA	3361	1/1	0.91	0.20	-	53,53,53,53	0
54	MG	BA	3470	1/1	0.97	0.23	-	35,35,35,35	0
54	MG	BA	3145	1/1	0.26	0.48	-	78,78,78,78	0
54	MG	DA	3429	1/1	0.95	0.16	-	44,44,44,44	0
54	MG	DA	3417	1/1	0.86	0.26	-	81,81,81,81	0
54	MG	BA	3167	1/1	0.82	0.35	-	68,68,68,68	0
54	MG	BU	201	1/1	0.81	0.40	-	51,51,51,51	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3364	1/1	0.93	0.12	-	67,67,67,67	0
54	MG	BA	3231	1/1	0.92	0.41	-	45,45,45,45	0
54	MG	BA	3134	1/1	0.95	0.45	-	44,44,44,44	0
54	MG	BB	206	1/1	0.93	0.15	-	62,62,62,62	0
54	MG	DA	3088	1/1	0.96	0.26	-	65,65,65,65	0
54	MG	CA	1604	1/1	0.95	0.19	-	110,110,110,110	0
54	MG	CA	1668	1/1	0.65	0.22	-	105,105,105,105	0
54	MG	DA	3215	1/1	0.92	0.23	-	58,58,58,58	0
54	MG	DA	3294	1/1	0.93	0.16	-	52,52,52,52	0
54	MG	BA	3382	1/1	0.94	0.08	-	58,58,58,58	0
54	MG	BA	3055	1/1	0.84	0.32	-	58,58,58,58	0
54	MG	CA	1660	1/1	0.81	0.15	-	106,106,106,106	0
54	MG	BA	3275	1/1	0.94	0.18	-	41,41,41,41	0
54	MG	DA	3159	1/1	0.92	0.61	-	59,59,59,59	0
54	MG	BA	3143	1/1	0.94	0.40	-	45,45,45,45	0
54	MG	BA	3211	1/1	0.95	0.19	-	53,53,53,53	0
54	MG	BA	3163	1/1	0.97	0.43	-	42,42,42,42	0
54	MG	BA	3245	1/1	0.99	0.12	-	36,36,36,36	0
54	MG	BA	3265	1/1	0.94	0.39	-	30,30,30,30	0
54	MG	DA	3145	1/1	0.97	0.44	-	47,47,47,47	0
54	MG	BA	3613	1/1	0.80	0.12	-	109,109,109,109	0
54	MG	AA	1608	1/1	0.80	0.15	-	90,90,90,90	0
54	MG	BA	3185	1/1	0.91	0.23	-	44,44,44,44	0
54	MG	BA	3002	1/1	0.86	0.19	-	98,98,98,98	0
54	MG	BA	3087	1/1	0.89	0.25	-	56,56,56,56	0
54	MG	BA	3063	1/1	0.83	0.21	-	84,84,84,84	0
54	MG	B2	101	1/1	0.83	0.26	-	75,75,75,75	0
54	MG	BA	3338	1/1	0.91	0.15	-	30,30,30,30	0
54	MG	BA	3317	1/1	0.97	0.09	-	51,51,51,51	0
54	MG	CA	1659	1/1	0.90	0.21	-	60,60,60,60	0
54	MG	CA	1662	1/1	0.88	0.18	-	95,95,95,95	0
54	MG	BA	3293	1/1	0.97	0.21	-	29,29,29,29	0
54	MG	BB	207	1/1	0.67	0.60	-	69,69,69,69	0
54	MG	BA	3280	1/1	0.39	0.44	-	89,89,89,89	0
54	MG	BA	3032	1/1	0.86	0.21	-	67,67,67,67	0
54	MG	DA	3129	1/1	0.84	0.35	-	78,78,78,78	0
54	MG	BA	3242	1/1	0.80	0.40	-	66,66,66,66	0
54	MG	BA	3598	1/1	0.95	0.13	-	39,39,39,39	0
54	MG	DA	3273	1/1	0.98	0.11	-	37,37,37,37	0
54	MG	BA	3285	1/1	0.89	0.55	-	59,59,59,59	0
54	MG	BA	3514	1/1	0.71	0.19	-	97,97,97,97	0
54	MG	DA	3190	1/1	0.74	0.34	-	57,57,57,57	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3213	1/1	0.90	0.13	-	64,64,64,64	0
54	MG	DA	3263	1/1	0.97	0.08	-	70,70,70,70	0
54	MG	BA	3204	1/1	0.90	0.18	-	47,47,47,47	0
54	MG	BA	3004	1/1	0.90	0.22	-	41,41,41,41	0
54	MG	BA	3346	1/1	0.96	0.07	-	45,45,45,45	0
54	MG	DA	3080	1/1	0.83	1.04	-	73,73,73,73	0
54	MG	DA	3110	1/1	0.98	0.08	-	46,46,46,46	0
54	MG	BA	3393	1/1	0.99	0.19	-	38,38,38,38	0
54	MG	BA	3255	1/1	0.94	0.58	-	65,65,65,65	0
54	MG	CA	1645	1/1	0.92	0.30	-	63,63,63,63	0
54	MG	BA	3336	1/1	0.95	0.12	-	46,46,46,46	0
54	MG	BA	3136	1/1	0.80	0.24	-	73,73,73,73	0
54	MG	BD	303	1/1	0.95	0.35	-	58,58,58,58	0
54	MG	CA	1608	1/1	0.70	0.44	-	67,67,67,67	0
54	MG	DA	3392	1/1	0.98	0.09	-	56,56,56,56	0
54	MG	DA	3261	1/1	0.91	0.42	-	56,56,56,56	0
54	MG	BA	3399	1/1	0.92	0.23	-	41,41,41,41	0
54	MG	BA	3084	1/1	0.95	0.17	-	56,56,56,56	0
54	MG	BA	3535	1/1	0.84	0.24	-	70,70,70,70	0
54	MG	DA	3378	1/1	0.90	0.14	-	98,98,98,98	0
54	MG	CA	1649	1/1	0.89	0.16	-	92,92,92,92	0
54	MG	BA	3198	1/1	0.95	0.25	-	29,29,29,29	0
54	MG	DE	301	1/1	0.94	0.51	-	37,37,37,37	0
54	MG	DA	3155	1/1	0.79	0.28	-	57,57,57,57	0
54	MG	AA	1635	1/1	0.94	0.21	-	71,71,71,71	0
54	MG	AA	1662	1/1	0.94	0.22	-	83,83,83,83	0
54	MG	BA	3297	1/1	0.83	0.17	-	35,35,35,35	0
54	MG	BA	3013	1/1	0.87	0.60	-	103,103,103,103	0
54	MG	DA	3343	1/1	0.94	0.17	-	35,35,35,35	0
54	MG	BU	202	1/1	0.92	0.53	-	62,62,62,62	0
54	MG	CA	1611	1/1	0.91	0.18	-	64,64,64,64	0
54	MG	DA	3224	1/1	0.89	0.34	-	80,80,80,80	0
54	MG	CA	1622	1/1	0.90	0.32	-	74,74,74,74	0
54	MG	BA	3340	1/1	0.78	0.21	-	65,65,65,65	0
54	MG	BA	3036	1/1	0.89	0.41	-	49,49,49,49	0
54	MG	BA	3615	1/1	0.93	0.06	-	91,91,91,91	0
54	MG	DA	3358	1/1	0.92	0.15	-	68,68,68,68	0
54	MG	DA	3400	1/1	0.69	0.33	-	95,95,95,95	0
54	MG	BA	3110	1/1	0.97	0.37	-	23,23,23,23	0
54	MG	DA	3371	1/1	0.93	0.19	-	50,50,50,50	0
54	MG	BA	3217	1/1	0.71	0.39	-	51,51,51,51	0
54	MG	CA	1625	1/1	0.86	0.36	-	88,88,88,88	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3389	1/1	0.92	0.20	-	33,33,33,33	0
54	MG	BA	3192	1/1	0.96	0.33	-	43,43,43,43	0
54	MG	BA	3363	1/1	0.73	0.26	-	74,74,74,74	0
54	MG	DA	3060	1/1	0.91	0.21	-	60,60,60,60	0
54	MG	BA	3195	1/1	0.68	0.31	-	84,84,84,84	0
54	MG	DA	3151	1/1	0.94	0.37	-	58,58,58,58	0
54	MG	BR	202	1/1	0.94	0.38	-	49,49,49,49	0
54	MG	BA	3282	1/1	0.94	0.28	-	43,43,43,43	0
54	MG	DA	3221	1/1	0.85	0.48	-	69,69,69,69	0
54	MG	BA	3592	1/1	0.91	0.08	-	51,51,51,51	0
54	MG	BA	3290	1/1	0.95	0.37	-	47,47,47,47	0
54	MG	AA	1614	1/1	0.98	0.23	-	62,62,62,62	0
54	MG	DA	3380	1/1	0.78	0.10	-	91,91,91,91	0
54	MG	BB	216	1/1	0.98	0.33	-	46,46,46,46	0
54	MG	BA	3223	1/1	0.95	0.18	-	57,57,57,57	0
54	MG	DA	3231	1/1	0.91	0.48	-	54,54,54,54	0
54	MG	BA	3337	1/1	0.89	0.24	-	33,33,33,33	0
54	MG	DA	3413	1/1	0.95	0.17	-	37,37,37,37	0
54	MG	DA	3090	1/1	0.94	0.24	-	53,53,53,53	0
54	MG	DA	3326	1/1	0.83	0.10	-	95,95,95,95	0
54	MG	DA	3314	1/1	0.91	0.23	-	54,54,54,54	0
54	MG	AA	1616	1/1	0.72	0.45	-	79,79,79,79	0
54	MG	D8	101	1/1	0.89	0.61	-	49,49,49,49	0
54	MG	BA	3141	1/1	0.90	0.27	-	65,65,65,65	0
54	MG	CA	1650	1/1	0.92	0.20	-	100,100,100,100	0
54	MG	BA	3510	1/1	0.94	0.17	-	33,33,33,33	0
54	MG	BA	3246	1/1	0.98	0.21	-	49,49,49,49	0
54	MG	AA	1651	1/1	0.89	0.85	-	69,69,69,69	0
54	MG	BA	3606	1/1	0.95	0.11	-	29,29,29,29	0
54	MG	BA	3183	1/1	0.46	0.28	-	76,76,76,76	0
54	MG	BA	3458	1/1	0.72	0.19	-	45,45,45,45	0
54	MG	BA	3328	1/1	0.95	0.20	-	27,27,27,27	0
54	MG	BQ	203	1/1	0.96	0.23	-	44,44,44,44	0
54	MG	DA	3038	1/1	0.95	0.33	-	39,39,39,39	0
54	MG	BA	3572	1/1	0.70	0.13	-	49,49,49,49	0
54	MG	DB	202	1/1	0.74	1.21	-	86,86,86,86	0
54	MG	AA	1630	1/1	0.64	0.51	-	76,76,76,76	0
54	MG	BB	209	1/1	0.84	0.17	-	79,79,79,79	0
54	MG	BA	3277	1/1	0.87	0.20	-	66,66,66,66	0
54	MG	BA	3360	1/1	0.86	0.17	-	53,53,53,53	0
54	MG	BA	3543	1/1	0.94	0.19	-	59,59,59,59	0
54	MG	BA	3069	1/1	0.92	0.51	-	53,53,53,53	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3015	1/1	0.82	0.39	-	71,71,71,71	0
54	MG	DA	3083	1/1	0.89	0.34	-	55,55,55,55	0
54	MG	DA	3262	1/1	0.91	0.16	-	46,46,46,46	0
54	MG	BA	3051	1/1	0.91	0.15	-	52,52,52,52	0
54	MG	DA	3117	1/1	0.96	0.34	-	34,34,34,34	0
54	MG	AA	1696	1/1	0.81	0.18	-	74,74,74,74	0
54	MG	DA	3071	1/1	0.84	0.34	-	60,60,60,60	0
54	MG	DA	3101	1/1	0.93	0.20	-	62,62,62,62	0
54	MG	BA	3009	1/1	0.83	0.23	-	59,59,59,59	0
54	MG	DA	3317	1/1	0.78	0.18	-	94,94,94,94	0
54	MG	BA	3202	1/1	0.98	0.53	-	65,65,65,65	0
54	MG	DA	3369	1/1	0.92	0.17	-	57,57,57,57	0
54	MG	BA	3344	1/1	0.82	0.10	-	52,52,52,52	0
54	MG	BA	3590	1/1	0.86	0.16	-	82,82,82,82	0
54	MG	BA	3205	1/1	0.65	0.41	-	61,61,61,61	0
54	MG	DA	3252	1/1	0.81	0.36	-	41,41,41,41	0
54	MG	BA	3191	1/1	0.88	0.14	-	45,45,45,45	0
54	MG	B8	103	1/1	0.98	0.14	-	51,51,51,51	0
54	MG	DA	3214	1/1	0.86	0.75	-	74,74,74,74	0
54	MG	DA	3238	1/1	0.95	0.61	-	52,52,52,52	0
54	MG	DA	3313	1/1	0.60	0.19	-	64,64,64,64	0
54	MG	BA	3305	1/1	0.97	0.09	-	37,37,37,37	0
54	MG	DA	3388	1/1	0.71	0.12	-	72,72,72,72	0
54	MG	BA	3611	1/1	0.93	0.07	-	70,70,70,70	0
54	MG	DA	3160	1/1	0.96	0.50	-	48,48,48,48	0
54	MG	BA	3334	1/1	0.86	0.16	-	43,43,43,43	0
54	MG	BA	3289	1/1	0.91	0.67	-	50,50,50,50	0
54	MG	BA	3259	1/1	0.89	0.31	-	51,51,51,51	0
54	MG	BA	3499	1/1	0.65	0.23	-	107,107,107,107	0
54	MG	BA	3227	1/1	0.93	0.19	-	42,42,42,42	0
54	MG	DA	3046	1/1	0.92	0.70	-	43,43,43,43	0
54	MG	B8	101	1/1	0.92	0.40	-	64,64,64,64	0
54	MG	BA	3040	1/1	0.90	0.23	-	33,33,33,33	0
54	MG	BA	3370	1/1	0.98	0.10	-	66,66,66,66	0
54	MG	BA	3208	1/1	0.93	0.29	-	54,54,54,54	0
54	MG	CA	1614	1/1	0.96	0.26	-	69,69,69,69	0
54	MG	DA	3061	1/1	0.93	0.38	-	52,52,52,52	0
54	MG	BA	3420	1/1	0.88	0.28	-	41,41,41,41	0
54	MG	DA	3283	1/1	0.97	0.14	-	48,48,48,48	0
54	MG	DA	3393	1/1	0.73	0.11	-	81,81,81,81	0
54	MG	BA	3067	1/1	0.89	0.36	-	35,35,35,35	0
54	MG	B3	102	1/1	0.94	0.28	-	54,54,54,54	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3087	1/1	0.94	0.31	-	58,58,58,58	0
54	MG	DA	3350	1/1	0.95	0.14	-	50,50,50,50	0
54	MG	DA	3186	1/1	0.90	0.24	-	42,42,42,42	0
54	MG	BA	3480	1/1	0.91	0.13	-	70,70,70,70	0
54	MG	AA	1647	1/1	0.96	0.33	-	61,61,61,61	0
54	MG	DA	3122	1/1	0.95	0.52	-	47,47,47,47	0
54	MG	DA	3154	1/1	0.97	0.83	-	62,62,62,62	0
54	MG	BA	3060	1/1	0.98	0.30	-	45,45,45,45	0
54	MG	DA	3373	1/1	0.99	0.27	-	38,38,38,38	0
54	MG	DA	3055	1/1	0.95	0.45	-	43,43,43,43	0
54	MG	CA	1615	1/1	0.83	0.62	-	76,76,76,76	0
54	MG	BA	3579	1/1	0.98	0.12	-	53,53,53,53	0
54	MG	DA	3174	1/1	0.91	0.46	-	60,60,60,60	0
54	MG	BA	3121	1/1	0.89	0.15	-	38,38,38,38	0
54	MG	BA	3371	1/1	0.88	0.10	-	67,67,67,67	0
54	MG	AA	1654	1/1	0.91	0.06	-	87,87,87,87	0
54	MG	BA	3472	1/1	0.95	0.21	-	29,29,29,29	0
54	MG	AA	1623	1/1	0.87	0.47	-	74,74,74,74	0
54	MG	DA	3383	1/1	0.87	0.25	-	63,63,63,63	0
54	MG	DA	3114	1/1	0.84	0.15	-	51,51,51,51	0
54	MG	CA	1664	1/1	0.91	0.16	-	94,94,94,94	0
54	MG	BA	3594	1/1	0.78	0.15	-	70,70,70,70	0
54	MG	CA	1609	1/1	0.71	0.87	-	70,70,70,70	0
54	MG	BA	3123	1/1	0.95	0.20	-	43,43,43,43	0
54	MG	DA	3237	1/1	0.94	0.51	-	39,39,39,39	0
54	MG	BA	3151	1/1	0.92	0.21	-	62,62,62,62	0
54	MG	BA	3112	1/1	0.95	0.40	-	47,47,47,47	0
54	MG	B0	102	1/1	0.89	0.17	-	56,56,56,56	0
54	MG	AA	1625	1/1	0.82	0.25	-	102,102,102,102	0
54	MG	BA	3326	1/1	0.96	0.14	-	30,30,30,30	0
54	MG	DA	3246	1/1	0.87	0.45	-	41,41,41,41	0
54	MG	CA	1658	1/1	0.89	0.17	-	83,83,83,83	0
54	MG	DA	3196	1/1	0.96	0.48	-	63,63,63,63	0
54	MG	AA	1669	1/1	0.90	0.37	-	96,96,96,96	0
54	MG	AA	1695	1/1	0.91	0.12	-	93,93,93,93	0
54	MG	BA	3268	1/1	0.97	0.29	-	44,44,44,44	0
54	MG	DA	3245	1/1	0.83	0.34	-	47,47,47,47	0
54	MG	DA	3409	1/1	0.91	0.06	-	79,79,79,79	0
54	MG	BA	3300	1/1	0.93	0.15	-	37,37,37,37	0
54	MG	BA	3501	1/1	0.91	0.11	-	61,61,61,61	0
54	MG	BA	3200	1/1	0.83	0.23	-	51,51,51,51	0
54	MG	AA	1624	1/1	0.91	0.87	-	66,66,66,66	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3033	1/1	0.78	0.30	-	68,68,68,68	0
54	MG	DA	3203	1/1	0.91	0.75	-	48,48,48,48	0
54	MG	AA	1653	1/1	0.82	0.61	-	80,80,80,80	0
54	MG	CA	1635	1/1	0.81	0.18	-	68,68,68,68	0
54	MG	BA	3483	1/1	0.97	0.16	-	57,57,57,57	0
54	MG	DA	3327	1/1	0.77	0.45	-	94,94,94,94	0
54	MG	BA	3525	1/1	0.92	0.07	-	112,112,112,112	0
54	MG	BA	3028	1/1	0.93	0.23	-	46,46,46,46	0
54	MG	AA	1670	1/1	0.89	0.16	-	115,115,115,115	0
54	MG	BA	3139	1/1	0.79	0.28	-	53,53,53,53	0
54	MG	BA	3394	1/1	0.94	0.10	-	29,29,29,29	0
54	MG	CA	1637	1/1	0.90	0.65	-	67,67,67,67	0
54	MG	BA	3548	1/1	0.96	0.20	-	41,41,41,41	0
54	MG	DA	3001	1/1	0.69	0.21	-	62,62,62,62	0
54	MG	DA	3264	1/1	0.98	0.20	-	46,46,46,46	0
54	MG	BB	208	1/1	0.86	0.31	-	70,70,70,70	0
54	MG	BA	3081	1/1	0.90	0.19	-	66,66,66,66	0
54	MG	DF	302	1/1	0.87	0.24	-	64,64,64,64	0
54	MG	BA	3587	1/1	0.78	0.08	-	66,66,66,66	0
54	MG	CA	1639	1/1	0.94	0.64	-	61,61,61,61	0
54	MG	CA	1647	1/1	0.98	0.14	-	78,78,78,78	0
54	MG	DA	3134	1/1	0.90	0.22	-	64,64,64,64	0
54	MG	BA	3274	1/1	0.79	0.14	-	81,81,81,81	0
54	MG	BA	3095	1/1	0.92	0.37	-	45,45,45,45	0
54	MG	AA	1705	1/1	0.96	0.14	-	68,68,68,68	0
54	MG	DA	3334	1/1	0.93	0.16	-	56,56,56,56	0
54	MG	BA	3267	1/1	0.79	0.55	-	53,53,53,53	0
54	MG	DA	3067	1/1	0.95	0.33	-	32,32,32,32	0
54	MG	BA	3447	1/1	0.94	0.28	-	37,37,37,37	0
54	MG	BA	3241	1/1	0.81	0.74	-	62,62,62,62	0
54	MG	DA	3277	1/1	0.96	0.12	-	42,42,42,42	0
54	MG	CA	1640	1/1	0.89	0.28	-	62,62,62,62	0
54	MG	DA	3420	1/1	0.87	0.09	-	97,97,97,97	0
54	MG	DA	3344	1/1	0.98	0.09	-	51,51,51,51	0
54	MG	BA	3468	1/1	0.93	0.15	-	38,38,38,38	0
54	MG	AA	1655	1/1	0.79	0.19	-	90,90,90,90	0
54	MG	BA	3303	1/1	0.98	0.20	-	36,36,36,36	0
54	MG	BA	3554	1/1	0.86	0.21	-	58,58,58,58	0
54	MG	BA	3152	1/1	0.69	0.24	-	73,73,73,73	0
54	MG	AA	1619	1/1	0.92	0.34	-	68,68,68,68	0
54	MG	BA	3097	1/1	0.86	0.38	-	58,58,58,58	0
54	MG	BA	3544	1/1	0.96	0.19	-	91,91,91,91	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3301	1/1	0.92	0.17	-	55,55,55,55	0
54	MG	DA	3078	1/1	0.93	0.43	-	53,53,53,53	0
54	MG	BA	3210	1/1	0.93	0.24	-	57,57,57,57	0
54	MG	AA	1702	1/1	0.66	0.21	-	97,97,97,97	0
54	MG	BA	3090	1/1	0.93	0.15	-	45,45,45,45	0
54	MG	DA	3132	1/1	0.97	0.40	-	49,49,49,49	0
54	MG	BA	3170	1/1	0.82	0.57	-	52,52,52,52	0
54	MG	DA	3284	1/1	0.95	0.16	-	61,61,61,61	0
54	MG	BA	3045	1/1	0.93	0.21	-	62,62,62,62	0
54	MG	DA	3416	1/1	0.95	0.13	-	32,32,32,32	0
54	MG	BA	3237	1/1	0.82	0.40	-	56,56,56,56	0
54	MG	AA	1682	1/1	0.73	0.18	-	111,111,111,111	0
54	MG	BA	3014	1/1	0.89	0.19	-	57,57,57,57	0
54	MG	BA	3486	1/1	0.88	0.10	-	48,48,48,48	0
54	MG	CA	1648	1/1	0.79	0.13	-	100,100,100,100	0
54	MG	BA	3575	1/1	0.98	0.07	-	54,54,54,54	0
54	MG	DA	3053	1/1	0.89	0.36	-	54,54,54,54	0
54	MG	BQ	201	1/1	0.93	0.20	-	49,49,49,49	0
54	MG	AA	1699	1/1	0.76	0.16	-	69,69,69,69	0
54	MG	AA	1609	1/1	0.59	0.32	-	91,91,91,91	0
54	MG	BA	3509	1/1	0.78	0.23	-	85,85,85,85	0
54	MG	B1	101	1/1	0.84	0.28	-	50,50,50,50	0
54	MG	BA	3137	1/1	0.91	0.17	-	38,38,38,38	0
54	MG	BA	3372	1/1	0.98	0.13	-	50,50,50,50	0
54	MG	DA	3123	1/1	0.83	0.20	-	56,56,56,56	0
54	MG	DA	3052	1/1	0.94	0.29	-	71,71,71,71	0
54	MG	DA	3112	1/1	0.78	0.34	-	60,60,60,60	0
54	MG	BA	3148	1/1	0.91	0.28	-	54,54,54,54	0
54	MG	DA	3125	1/1	0.89	0.43	-	66,66,66,66	0
54	MG	BA	3159	1/1	0.57	0.22	-	66,66,66,66	0
54	MG	DA	3425	1/1	0.94	0.07	-	60,60,60,60	0
54	MG	BA	3437	1/1	0.95	0.20	-	28,28,28,28	0
54	MG	BA	3522	1/1	0.90	0.56	-	68,68,68,68	0
54	MG	BA	3471	1/1	0.99	0.21	-	38,38,38,38	0
54	MG	BA	3520	1/1	0.93	0.23	-	67,67,67,67	0
54	MG	BA	3460	1/1	0.94	0.09	-	58,58,58,58	0
54	MG	DA	3259	1/1	0.91	0.59	-	64,64,64,64	0
54	MG	BA	3070	1/1	0.91	0.18	-	61,61,61,61	0
54	MG	BA	3474	1/1	0.87	0.20	-	66,66,66,66	0
54	MG	BA	3556	1/1	0.86	0.21	-	58,58,58,58	0
54	MG	CA	1616	1/1	0.92	0.42	-	72,72,72,72	0
54	MG	BA	3395	1/1	0.98	0.14	-	32,32,32,32	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3007	1/1	0.93	0.18	-	36,36,36,36	0
54	MG	BA	3301	1/1	0.94	0.05	-	62,62,62,62	0
54	MG	DA	3205	1/1	0.89	0.07	-	82,82,82,82	0
54	MG	BA	3262	1/1	0.97	0.38	-	32,32,32,32	0
54	MG	DA	3305	1/1	0.96	0.09	-	55,55,55,55	0
54	MG	BA	3052	1/1	0.92	0.26	-	61,61,61,61	0
54	MG	BA	3271	1/1	0.92	0.15	-	60,60,60,60	0
54	MG	BA	3493	1/1	0.95	0.19	-	52,52,52,52	0
54	MG	BA	3240	1/1	0.79	0.38	-	64,64,64,64	0
54	MG	BA	3323	1/1	0.99	0.09	-	40,40,40,40	0
54	MG	DA	3268	1/1	0.98	0.16	-	43,43,43,43	0
54	MG	BA	3249	1/1	0.89	0.30	-	70,70,70,70	0
54	MG	BA	3243	1/1	0.57	0.11	-	117,117,117,117	0
54	MG	DA	3113	1/1	0.93	0.37	-	42,42,42,42	0
54	MG	BA	3454	1/1	0.97	0.17	-	34,34,34,34	0
54	MG	DA	3163	1/1	0.95	0.38	-	56,56,56,56	0
54	MG	DA	3054	1/1	0.95	0.72	-	75,75,75,75	0
54	MG	BA	3292	1/1	0.97	0.20	-	44,44,44,44	0
54	MG	BA	3607	1/1	0.95	0.13	-	38,38,38,38	0
54	MG	AA	1622	1/1	0.77	0.72	-	67,67,67,67	0
54	MG	BA	3059	1/1	0.94	0.30	-	49,49,49,49	0
54	MG	DA	3002	1/1	0.92	0.70	-	67,67,67,67	0
54	MG	BA	3111	1/1	0.90	0.30	-	57,57,57,57	0
54	MG	DA	3397	1/1	0.92	0.05	-	65,65,65,65	0
54	MG	DA	3127	1/1	0.84	0.29	-	63,63,63,63	0
54	MG	BA	3010	1/1	0.95	0.20	-	48,48,48,48	0
54	MG	BA	3405	1/1	0.94	0.19	-	38,38,38,38	0
54	MG	DA	3366	1/1	0.97	0.14	-	35,35,35,35	0
54	MG	BA	3329	1/1	0.86	0.17	-	45,45,45,45	0
54	MG	BA	3392	1/1	0.84	0.12	-	55,55,55,55	0
54	MG	BA	3348	1/1	0.98	0.22	-	37,37,37,37	0
54	MG	AA	1673	1/1	0.80	0.30	-	67,67,67,67	0
54	MG	AA	1700	1/1	0.82	0.34	-	114,114,114,114	0
54	MG	BA	3104	1/1	0.98	0.21	-	48,48,48,48	0
54	MG	BA	3201	1/1	0.80	0.58	-	79,79,79,79	0
54	MG	BA	3332	1/1	0.88	0.28	-	60,60,60,60	0
54	MG	BA	3016	1/1	0.89	0.43	-	57,57,57,57	0
54	MG	BA	3173	1/1	0.89	0.29	-	65,65,65,65	0
54	MG	BA	3207	1/1	0.80	0.16	-	59,59,59,59	0
54	MG	DA	3181	1/1	0.86	0.67	-	51,51,51,51	0
54	MG	DA	3328	1/1	0.91	0.09	-	34,34,34,34	0
54	MG	BA	3283	1/1	0.86	0.55	-	56,56,56,56	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3030	1/1	0.85	0.17	-	52,52,52,52	0
54	MG	BA	3281	1/1	0.95	0.28	-	56,56,56,56	0
54	MG	BA	3132	1/1	0.93	0.31	-	31,31,31,31	0
54	MG	BA	3457	1/1	0.86	0.15	-	91,91,91,91	0
54	MG	CA	1624	1/1	0.75	0.42	-	82,82,82,82	0
54	MG	DA	3162	1/1	0.78	0.38	-	55,55,55,55	0
54	MG	DA	3319	1/1	0.97	0.10	-	59,59,59,59	0
54	MG	BA	3288	1/1	0.96	0.51	-	33,33,33,33	0
54	MG	BA	3555	1/1	0.91	0.31	-	49,49,49,49	0
54	MG	CA	1663	1/1	0.89	0.18	-	91,91,91,91	0
54	MG	BA	3122	1/1	0.83	0.33	-	56,56,56,56	0
54	MG	DA	3199	1/1	0.90	0.06	-	74,74,74,74	0
54	MG	BA	3350	1/1	0.93	0.18	-	60,60,60,60	0
54	MG	BA	3498	1/1	0.91	0.14	-	69,69,69,69	0
54	MG	BA	3580	1/1	0.94	0.08	-	61,61,61,61	0
54	MG	DA	3282	1/1	0.94	0.08	-	42,42,42,42	0
54	MG	BA	3130	1/1	0.89	0.38	-	32,32,32,32	0
54	MG	DA	3043	1/1	0.86	0.18	-	63,63,63,63	0
54	MG	AA	1618	1/1	0.91	0.12	-	69,69,69,69	0
54	MG	DB	204	1/1	0.98	0.14	-	74,74,74,74	0
54	MG	AA	1666	1/1	0.91	0.53	-	62,62,62,62	0
54	MG	B0	101	1/1	0.77	0.16	-	75,75,75,75	0
54	MG	BA	3017	1/1	0.93	0.14	-	47,47,47,47	0
54	MG	BA	3091	1/1	0.91	0.35	-	47,47,47,47	0
54	MG	DA	3398	1/1	0.98	0.12	-	52,52,52,52	0
54	MG	BA	3559	1/1	0.84	0.27	-	39,39,39,39	0
54	MG	BA	3106	1/1	0.87	0.41	-	48,48,48,48	0
54	MG	BB	211	1/1	0.96	0.09	-	51,51,51,51	0
54	MG	DA	3036	1/1	0.86	0.18	-	65,65,65,65	0
54	MG	BA	3169	1/1	0.73	0.48	-	60,60,60,60	0
54	MG	CA	1646	1/1	0.89	0.49	-	92,92,92,92	0
54	MG	DA	3365	1/1	0.95	0.08	-	50,50,50,50	0
54	MG	DA	3209	1/1	0.92	0.24	-	79,79,79,79	0
54	MG	BA	3153	1/1	0.89	0.32	-	53,53,53,53	0
54	MG	AA	1684	1/1	0.96	0.05	-	76,76,76,76	0
54	MG	AA	1602	1/1	0.86	0.28	-	111,111,111,111	0
54	MG	DA	3029	1/1	0.94	0.15	-	72,72,72,72	0
54	MG	BA	3565	1/1	0.75	0.28	-	90,90,90,90	0
54	MG	BA	3043	1/1	0.94	0.34	-	54,54,54,54	0
54	MG	BA	3258	1/1	0.95	0.44	-	56,56,56,56	0
54	MG	BA	3086	1/1	0.92	0.26	-	57,57,57,57	0
54	MG	BA	3083	1/1	0.95	0.47	-	56,56,56,56	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3497	1/1	0.94	0.16	-	55,55,55,55	0
54	MG	DA	3017	1/1	0.92	0.29	-	61,61,61,61	0
54	MG	DA	3243	1/1	0.96	0.36	-	53,53,53,53	0
54	MG	BA	3366	1/1	0.99	0.08	-	50,50,50,50	0
54	MG	DA	3178	1/1	0.96	0.47	-	58,58,58,58	0
54	MG	DA	3421	1/1	0.86	0.09	-	69,69,69,69	0
54	MG	BA	3175	1/1	0.90	0.35	-	70,70,70,70	0
54	MG	BA	3411	1/1	0.98	0.28	-	43,43,43,43	0
54	MG	AA	1686	1/1	0.91	0.19	-	115,115,115,115	0
54	MG	BA	3276	1/1	0.89	0.62	-	56,56,56,56	0
54	MG	BA	3226	1/1	0.88	0.31	-	62,62,62,62	0
54	MG	BA	3256	1/1	0.96	0.68	-	69,69,69,69	0
54	MG	CA	1633	1/1	0.96	0.25	-	71,71,71,71	0
54	MG	BA	3583	1/1	0.95	0.05	-	50,50,50,50	0
54	MG	BA	3546	1/1	0.90	0.09	-	57,57,57,57	0
54	MG	BA	3209	1/1	0.93	0.37	-	67,67,67,67	0
54	MG	DB	205	1/1	0.96	0.15	-	70,70,70,70	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.