



# Full wwPDB X-ray Structure Validation Report

Sep 18, 2014 – 04:21 AM EDT

PDB ID : 4LFZ  
Title : Crystal Structure of Frameshift Suppressor tRNA SufA6 Bound to Codon CCC-U in the Absence of Paromomycin  
Authors : Maehigashi, T.; Dunkle, J.A.; Dunham, C.M.  
Deposited on : 2013-06-27  
Resolution : 3.92 Å(reported)

This is a full wwPDB 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/ValidationPDFNotes.html>

---

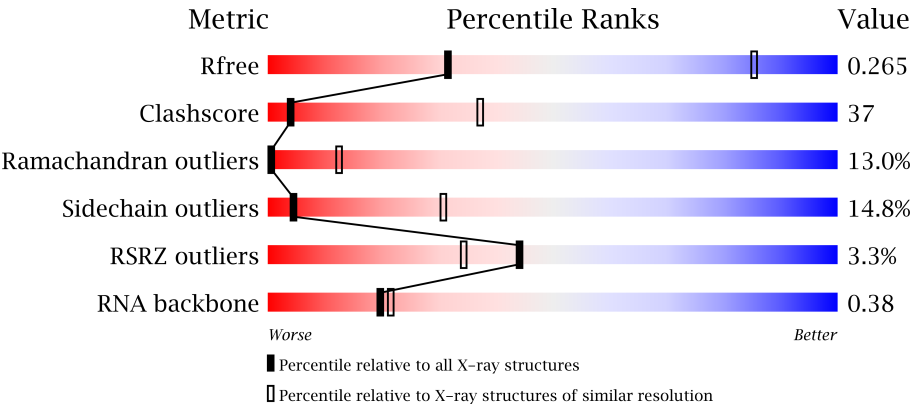
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.16 November 2013  
Xtriage (Phenix) : dev-1439  
EDS : stable23489  
Percentile statistics : 21963  
Refmac : 5.8.0049  
CCP4 : 6.3.0 (Settle)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : stable23489

# 1 Overall quality at a glance

The reported resolution of this entry is 3.92 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))
$R_{free}$	66092	1008 (4.40-3.44)
Clashscore	79885	1180 (4.34-3.50)
Ramachandran outliers	78287	1124 (4.34-3.50)
Sidechain outliers	78261	1112 (4.34-3.50)
RSRZ outliers	66119	1008 (4.40-3.44)
RNA backbone	1838	1018 (5.00-2.80)

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. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	QA	1522	
1	XA	1522	
2	QB	256	
2	XB	256	
3	QC	239	
3	XC	239	
4	QD	209	
4	XD	209	
5	QE	162	
5	XE	162	
6	QF	101	

Continued on next page...

*Continued from previous page...*

Mol	Chain	Length	Quality of chain
6	XF	101	
7	QG	156	
7	XG	156	
8	QH	138	
8	XH	138	
9	QI	128	
9	XI	128	
10	QJ	105	
10	XJ	105	
11	QK	129	
11	XK	129	
12	QL	132	
12	XL	132	
13	QM	126	
13	XM	126	
14	QN	61	
14	XN	61	
15	QO	89	
15	XO	89	
16	QP	88	
16	XP	88	
17	QQ	105	
17	XQ	105	
18	QR	88	
18	XR	88	
19	QS	93	
19	XS	93	
20	QT	106	
20	XT	106	
21	QU	27	
21	XU	27	
22	QV	77	
22	XV	77	
23	QX	25	
23	XX	25	
24	QY	18	
24	XY	18	
25	RA	2916	
25	YA	2916	
26	RB	122	
26	YB	122	
27	RD	276	

*Continued on next page...*

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	YD	276	
28	RE	206	
28	YE	206	
29	RF	210	
29	YF	210	
30	RG	182	
30	YG	182	
31	RH	180	
31	YH	180	
32	RI	148	
32	YI	148	
33	RN	140	
33	YN	140	
34	RO	122	
34	YO	122	
35	RP	150	
35	YP	150	
36	RQ	141	
36	YQ	141	
37	RR	118	
37	YR	118	
38	RS	112	
38	YS	112	
39	RT	146	
39	YT	146	
40	RU	118	
40	YU	118	
41	RV	101	
41	YV	101	
42	RW	113	
42	YW	113	
43	RX	96	
43	YX	96	
44	RY	110	
44	YY	110	
45	RZ	206	
45	YZ	206	
46	R0	85	
46	Y0	85	
47	R1	98	
47	Y1	98	
48	R2	72	

Continued on next page...

*Continued from previous page...*

Mol	Chain	Length	Quality of chain
48	Y2	72	
49	R3	60	
49	Y3	60	
50	R4	71	
50	Y4	71	
51	R5	60	
51	Y5	60	
52	R6	54	
52	Y6	54	
53	R7	49	
53	Y7	49	
54	R8	65	
54	Y8	65	
55	R9	37	
55	Y9	37	
56	Z6	3	
56	Z8	3	

## 2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 291868 atoms, of which 0 are hydrogen and 0 are deuterium.

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

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	QA	1500	Total	C	N	O	P	0	0	0
			32247	14353	5981	10414	1499			
1	XA	1500	Total	C	N	O	P	0	0	0
			32249	14354	5984	10412	1499			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	QB	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	XB	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	QC	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	XC	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	QD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	XD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	QE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	XE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	QF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	XF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	QG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	XG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	QH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	XH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	QI	127	Total	C	N	O		0	0	0
			1010	639	197	174				
9	XI	127	Total	C	N	O		0	0	0
			1010	639	197	174				

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	QJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	XJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	QK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	XK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	QL	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	XL	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	QM	121	Total	C	N	O	S	0	0	0
			964	597	199	166	2			
13	XM	121	Total	C	N	O	S	0	0	0
			964	597	199	166	2			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	QN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	XN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	QO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	XO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			



- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	QP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	XP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	QQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	XQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	QR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	XR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	QS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			
19	XS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	QT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	XT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	QU	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	XU	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called P-site tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	QV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 23 is a RNA chain called A-site ASL SufA6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	8	Total	C	N	O	P	0	0	0
			167	75	28	56	8			
23	XX	7	Total	C	N	O	P	0	0	0
			145	65	23	50	7			

- Molecule 24 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	QY	14	Total	C	N	O	P	0	0	0
			303	135	55	99	14			
24	XY	14	Total	C	N	O	P	0	0	0
			303	135	55	99	14			

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	RA	2882	Total	C	N	O	P	0	0	0
			62071	27627	11611	19952	2881			
25	YA	2883	Total	C	N	O	P	0	0	0
			62091	27636	11613	19960	2882			

- Molecule 26 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	RB	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
26	YB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	RD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
27	YD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	RE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
28	YE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 29 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	RF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
29	YF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	RG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
30	YG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	RH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
31	YH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	RI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
32	YI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 33 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	RN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
33	YN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 34 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	RO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
34	YO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 35 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	RP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
35	YP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 36 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	RQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
36	YQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 37 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	RR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
37	YR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 38 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	RS	111	Total	C	N	O	S	0	0	0
			882	556	176	150				
38	YS	111	Total	C	N	O	S	0	0	0
			882	556	176	150				

- Molecule 39 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	RT	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
39	YT	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 40 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	RU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
40	YU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 41 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	RV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
41	YV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 42 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	RW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	YW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 43 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	RX	92	Total	C	N	O		0	0	0
			725	471	131	123				
43	YX	92	Total	C	N	O		0	0	0
			725	471	131	123				

- Molecule 44 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	RY	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			
44	YY	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 45 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	RZ	183	Total	C	N	O	S	0	0	0
			1461	933	260	265	3			
45	YZ	183	Total	C	N	O	S	0	0	0
			1461	933	260	265	3			

- Molecule 46 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	R0	82	Total	C	N	O	S	0	0	0
			648	401	138	108	1			
46	Y0	82	Total	C	N	O	S	0	0	0
			648	401	138	108	1			

- Molecule 47 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	R1	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
47	Y1	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

- Molecule 48 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	R2	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			
48	Y2	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

- Molecule 49 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	R3	59	Total	C	N	O	0	0	0
			469	298	90	81			
49	Y3	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 50 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	R4	71	Total	C	N	O	S	0	0	0
			581	364	108	104	5			
50	Y4	71	Total	C	N	O	S	0	0	0
			581	364	108	104	5			

- Molecule 51 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	R5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
51	Y5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 52 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	R6	49	Total	C	N	O	S	0	0	0
			424	264	87	69	4			
52	Y6	49	Total	C	N	O	S	0	0	0
			424	264	87	69	4			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	R7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
53	Y7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	R8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
54	Y8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 55 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	R9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
55	Y9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 56 is a RNA chain called tRNA acceptor end mimic.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	Z6	3	Total	C	N	O	P	0	0	0
			74	40	13	19	2			
56	Z8	3	Total	C	N	O	P	0	0	0
			74	40	13	19	2			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	QA	64	Total	Mg	0	0
			64	64		
57	RP	1	Total	Mg	0	0
			1	1		
57	QX	1	Total	Mg	0	0
			1	1		
57	YA	269	Total	Mg	0	0
			269	269		
57	QM	1	Total	Mg	0	0
			1	1		

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	XX	1	Total 1	Mg 1	0	0
57	QV	1	Total 1	Mg 1	0	0
57	XA	72	Total 72	Mg 72	0	0
57	R0	1	Total 1	Mg 1	0	0
57	QH	1	Total 1	Mg 1	0	0
57	YQ	1	Total 1	Mg 1	0	0
57	R8	1	Total 1	Mg 1	0	0
57	RR	2	Total 2	Mg 2	0	0
57	RD	1	Total 1	Mg 1	0	0
57	Y7	1	Total 1	Mg 1	0	0
57	XB	1	Total 1	Mg 1	0	0
57	QF	1	Total 1	Mg 1	0	0
57	R5	1	Total 1	Mg 1	0	0
57	RA	239	Total 239	Mg 239	0	0
57	YP	1	Total 1	Mg 1	0	0
57	Y5	1	Total 1	Mg 1	0	0
57	RE	2	Total 2	Mg 2	0	0
57	YB	3	Total 3	Mg 3	0	0
57	XV	2	Total 2	Mg 2	0	0
57	RB	2	Total 2	Mg 2	0	0
57	RF	1	Total 1	Mg 1	0	0

*Continued on next page...*

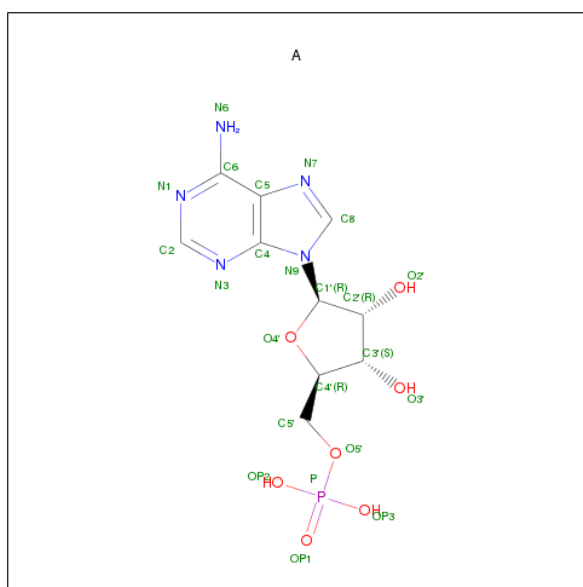
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	XM	1	Total	Mg	0	0
			1	1		
57	YE	1	Total	Mg	0	0
			1	1		

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

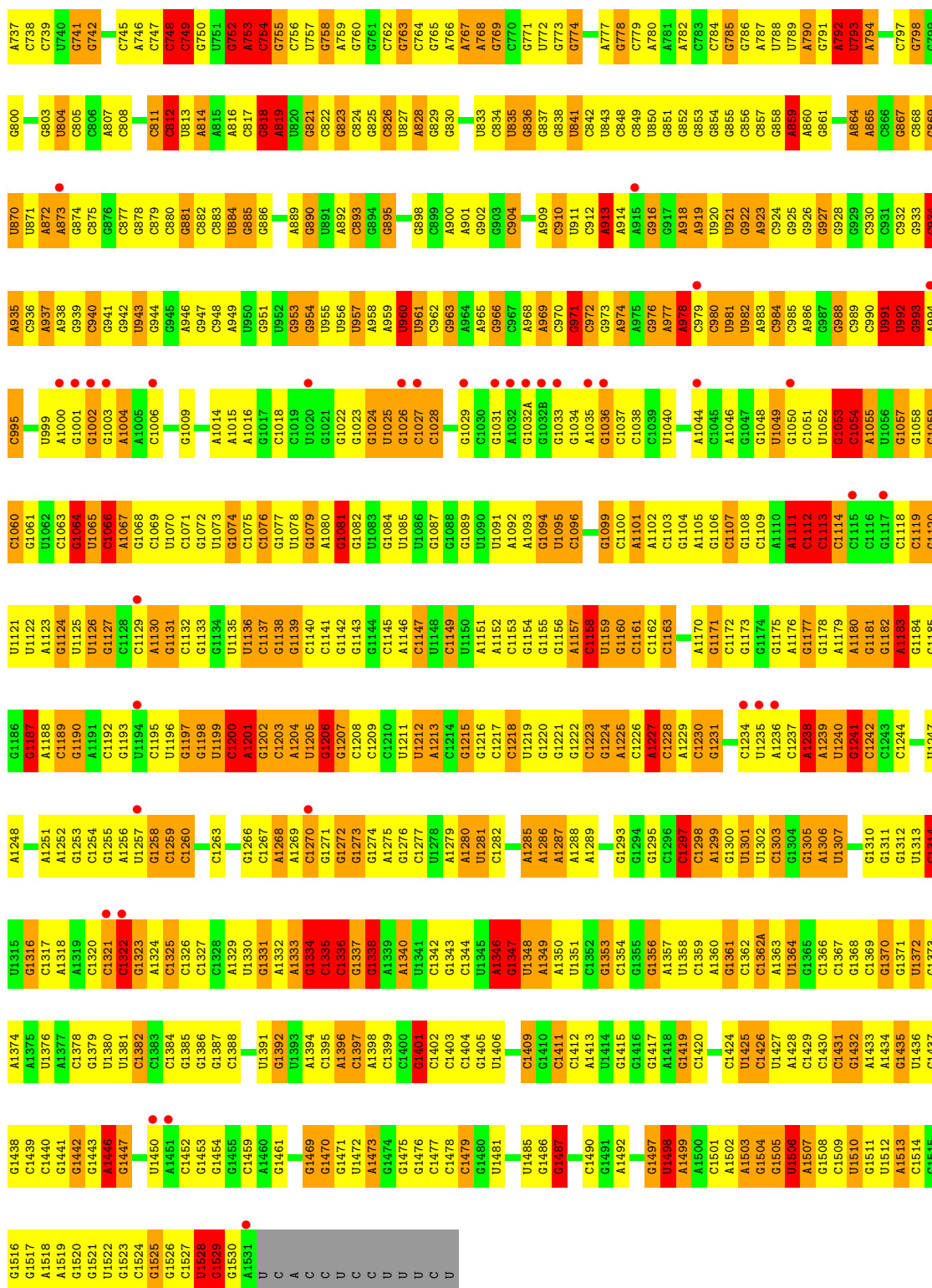
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	Y9	1	Total	Zn	0	0
			1	1		
58	QN	1	Total	Zn	0	0
			1	1		
58	XN	1	Total	Zn	0	0
			1	1		
58	QD	1	Total	Zn	0	0
			1	1		
58	XD	1	Total	Zn	0	0
			1	1		
58	R9	1	Total	Zn	0	0
			1	1		

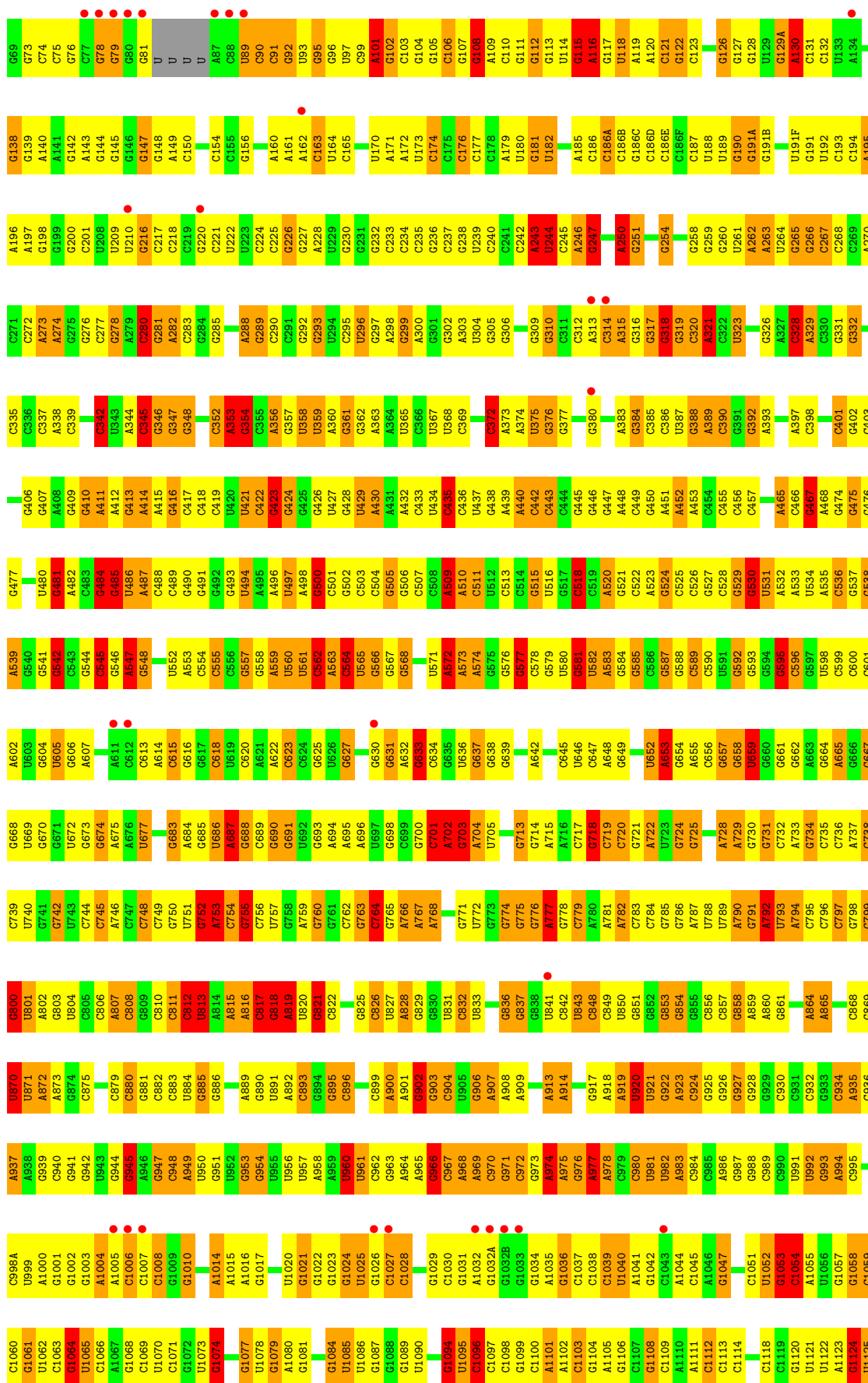
- Molecule 59 is ADENOSINE-5'-MONOPHOSPHATE (three-letter code: A) (formula: C<sub>10</sub>H<sub>14</sub>N<sub>5</sub>O<sub>7</sub>P).



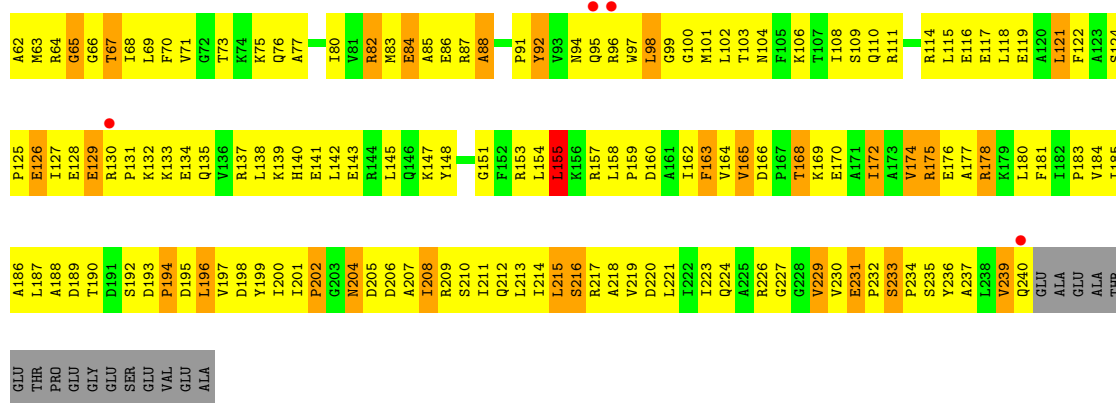
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
59	XX	1	Total	C	N	O	P	0	0
			22	10	5	6	1		





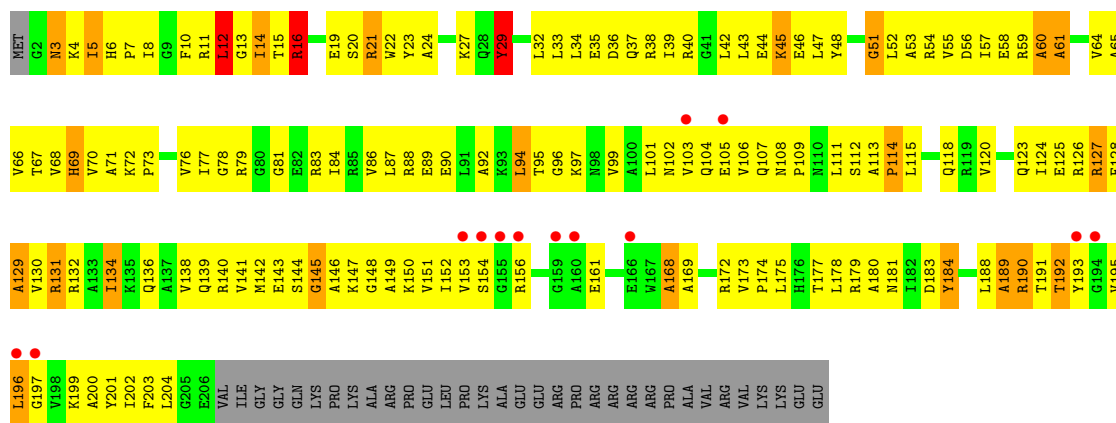






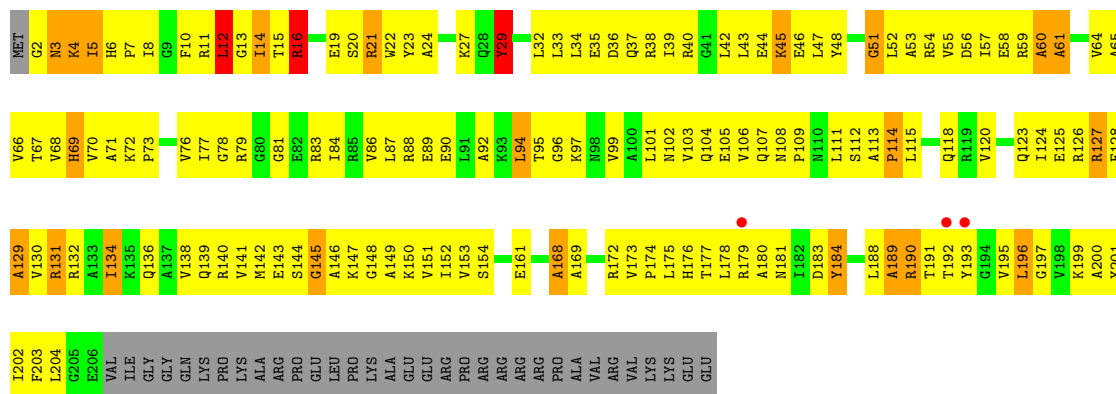
### • Molecule 3: 30S ribosomal protein S3

Chain QC:



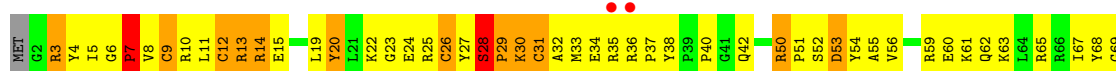
### • Molecule 3: 30S ribosomal protein S3

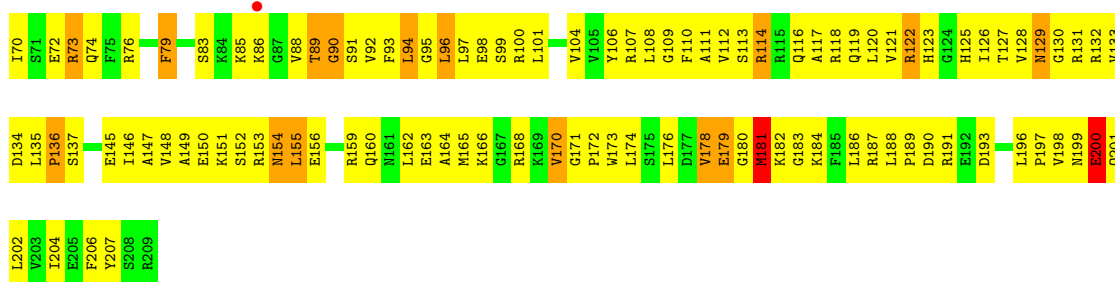
Chain XC:



### • Molecule 4: 30S ribosomal protein S4

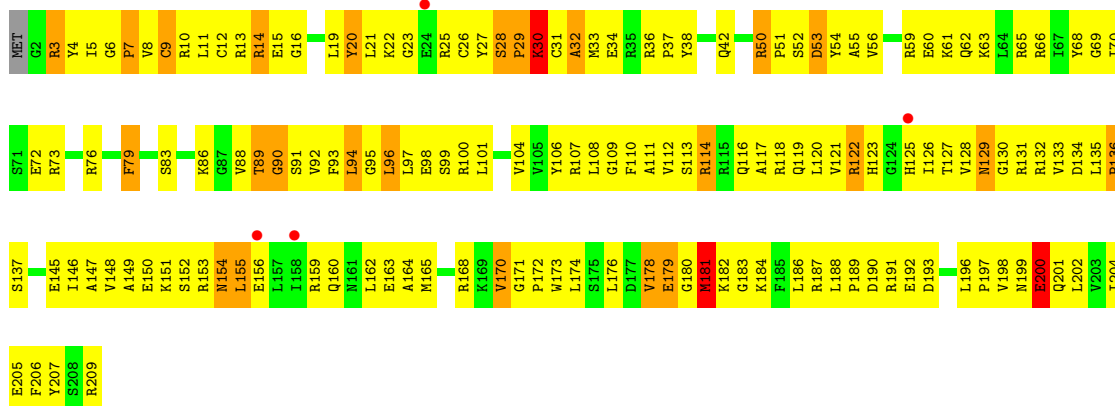
Chain QD:





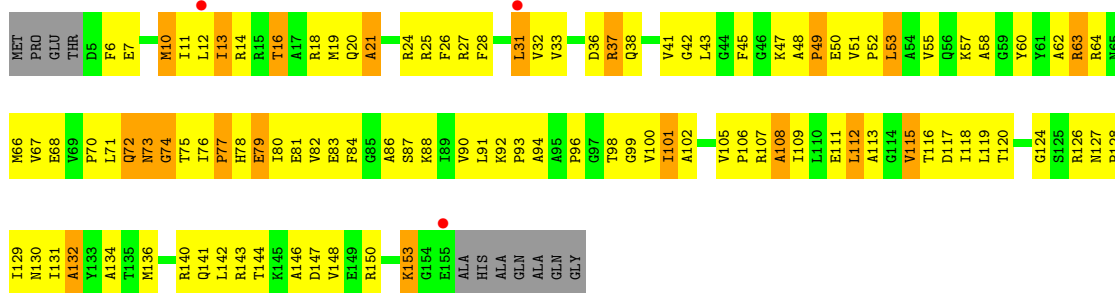
- Molecule 4: 30S ribosomal protein S4

Chain XD:



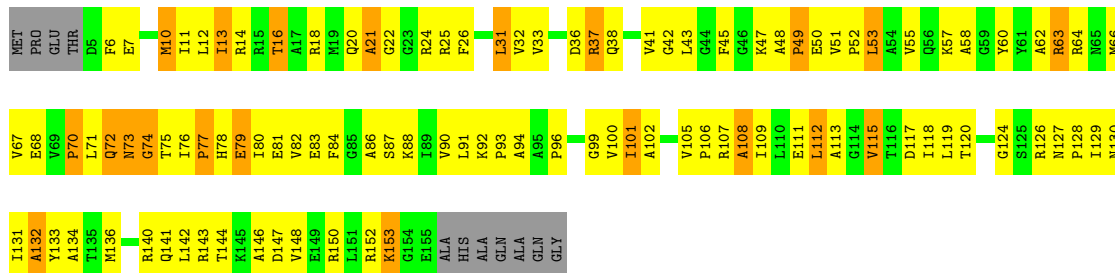
- Molecule 5: 30S ribosomal protein S5

Chain QE:



- Molecule 5: 30S ribosomal protein S5

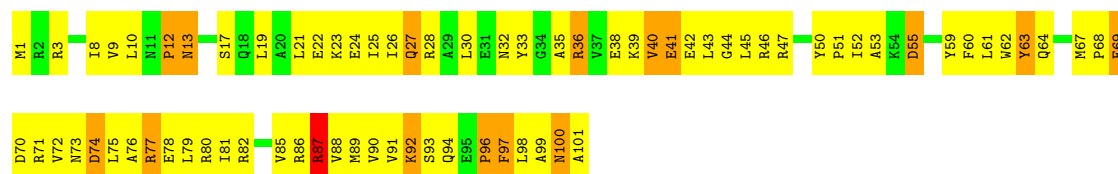
Chain XE: 





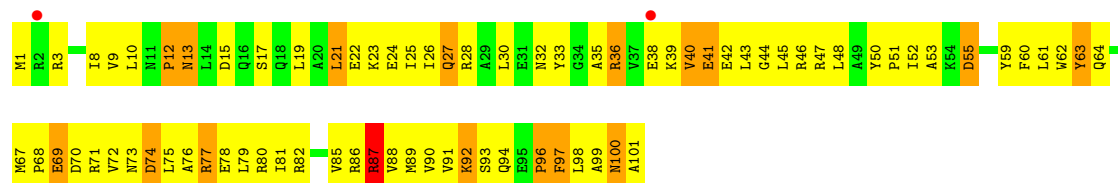
- Molecule 6: 30S ribosomal protein S6

Chain QF:



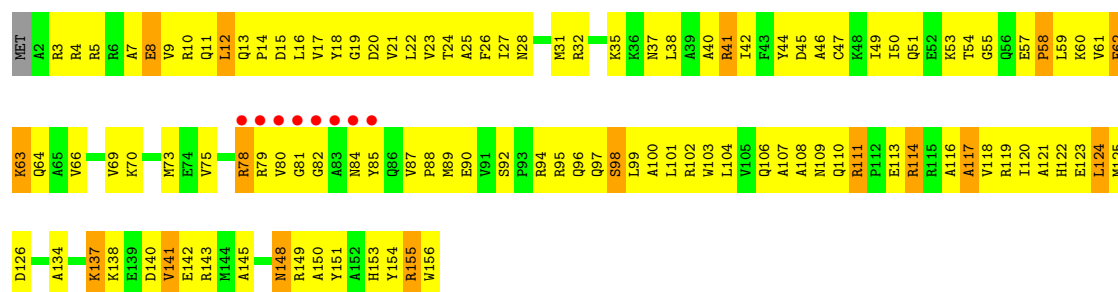
- Molecule 6: 30S ribosomal protein S6

Chain XF:



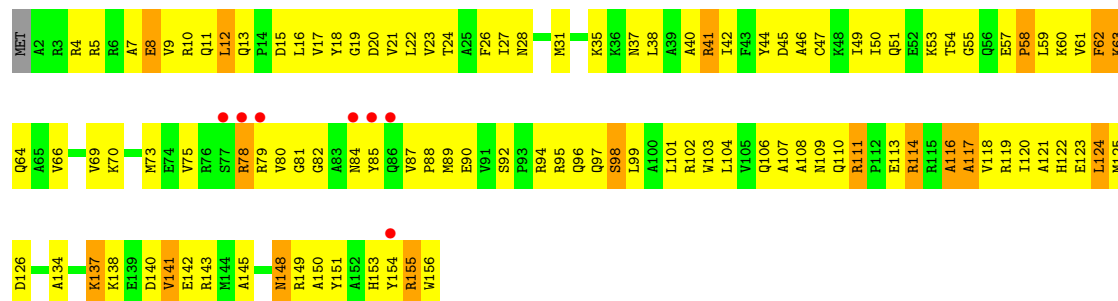
- Molecule 7: 30S ribosomal protein S7

Chain QG:



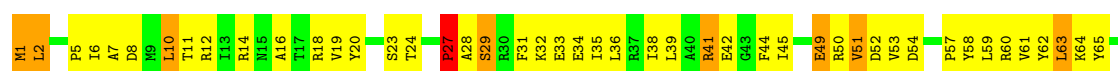
- Molecule 7: 30S ribosomal protein S7

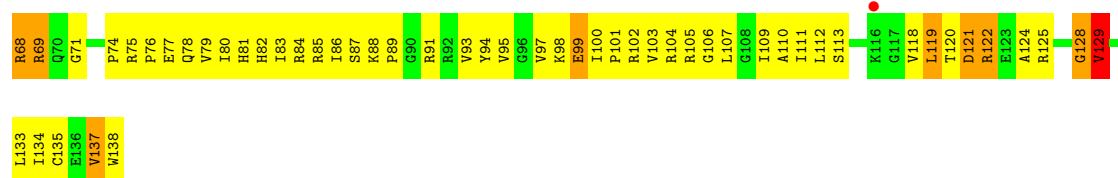
Chain XG:



- Molecule 8: 30S ribosomal protein S8

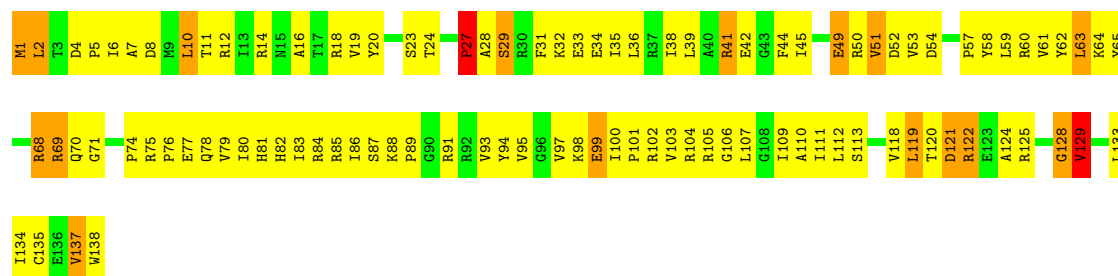
Chain QH:





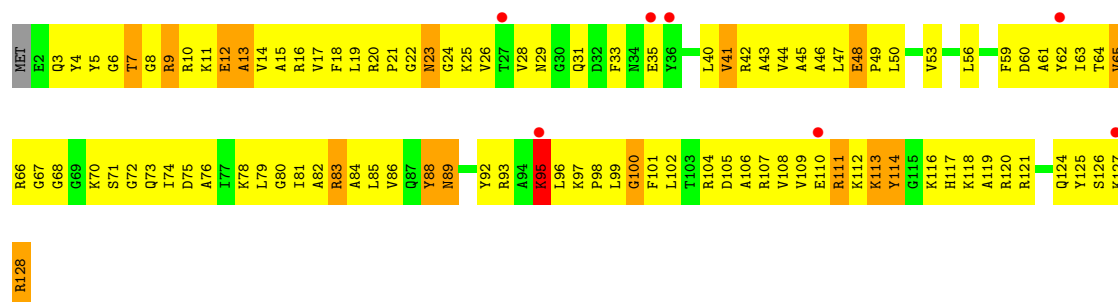
• Molecule 8: 30S ribosomal protein S8

Chain XH:



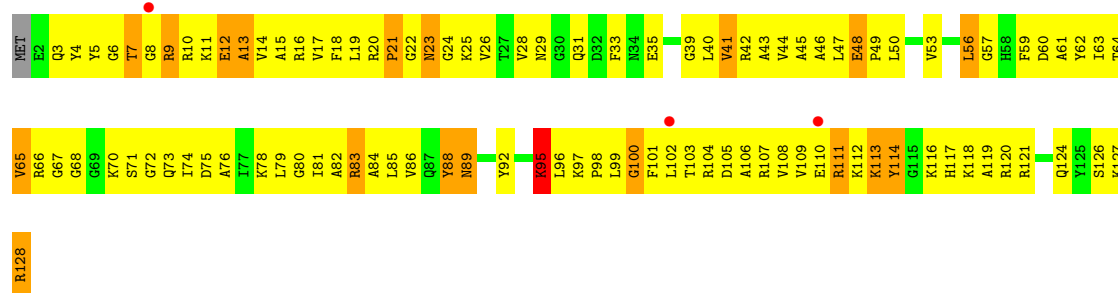
• Molecule 9: 30S ribosomal protein S9

Chain QI:



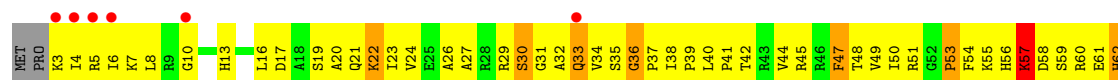
• Molecule 9: 30S ribosomal protein S9

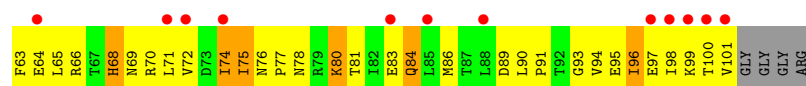
Chain XI:



• Molecule 10: 30S ribosomal protein S10

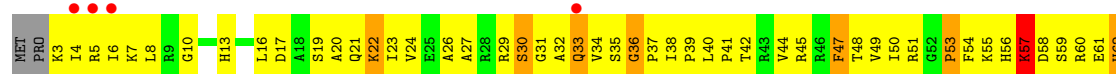
Chain QJ:





- Molecule 10: 30S ribosomal protein S10

Chain XJ:



- Molecule 11: 30S ribosomal protein S11

Chain QK:



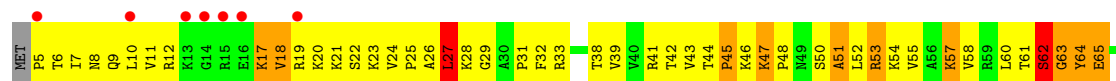
- Molecule 11: 30S ribosomal protein S11

Chain XK:



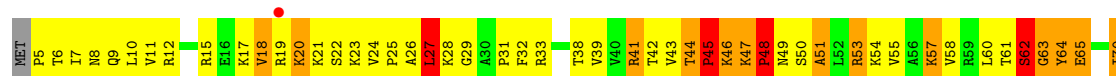
- Molecule 12: 30S ribosomal protein S12

Chain QL:



- Molecule 12: 30S ribosomal protein S12

Chain XL:

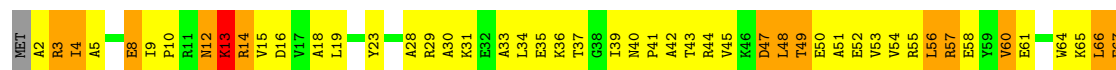




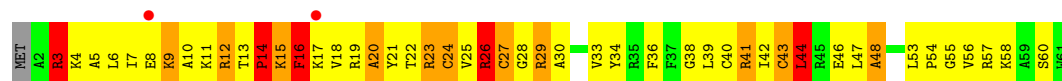
• Molecule 13: 30S ribosomal protein S13



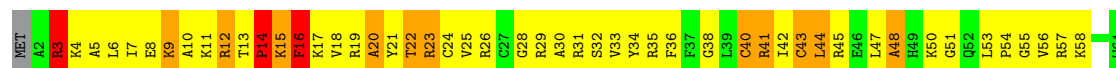
• Molecule 13: 30S ribosomal protein S13



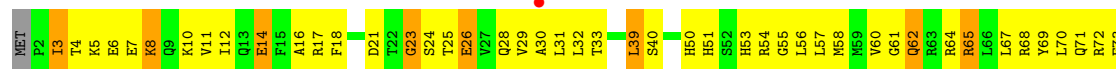
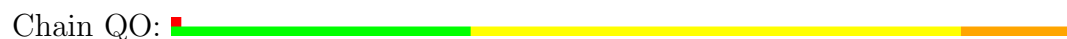
• Molecule 14: 30S ribosomal protein S14



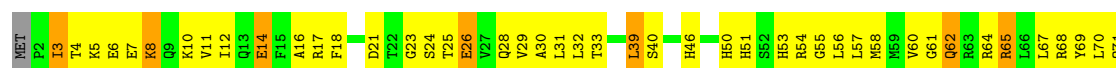
• Molecule 14: 30S ribosomal protein S14

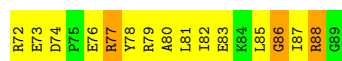


• Molecule 15: 30S ribosomal protein S15



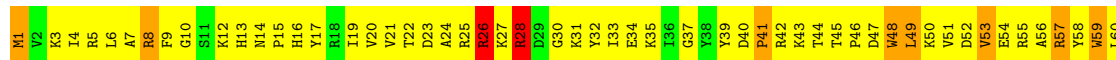
• Molecule 15: 30S ribosomal protein S15





- Molecule 16: 30S ribosomal protein S16

Chain QP:



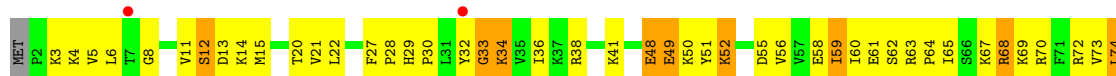
- Molecule 16: 30S ribosomal protein S16

Chain XP:



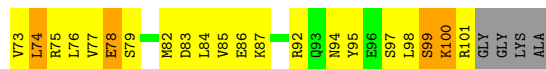
- Molecule 17: 30S ribosomal protein S17

Chain QQ:



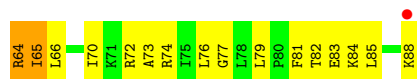
- Molecule 17: 30S ribosomal protein S17

Chain XQ:



- Molecule 18: 30S ribosomal protein S18

Chain QR:



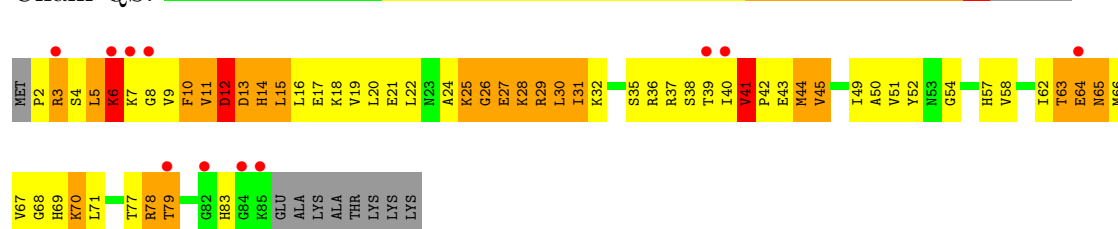
- Molecule 18: 30S ribosomal protein S18

Chain XR:



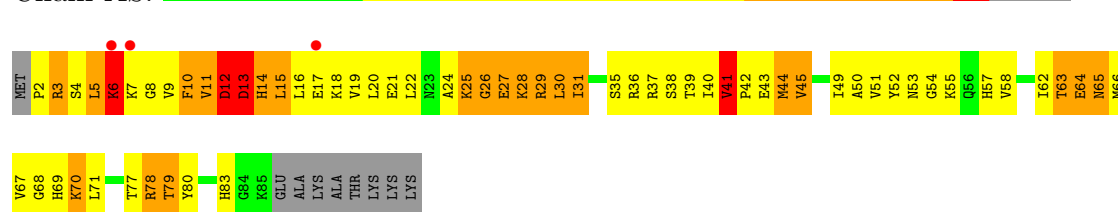
- Molecule 19: 30S ribosomal protein S19

Chain QS:



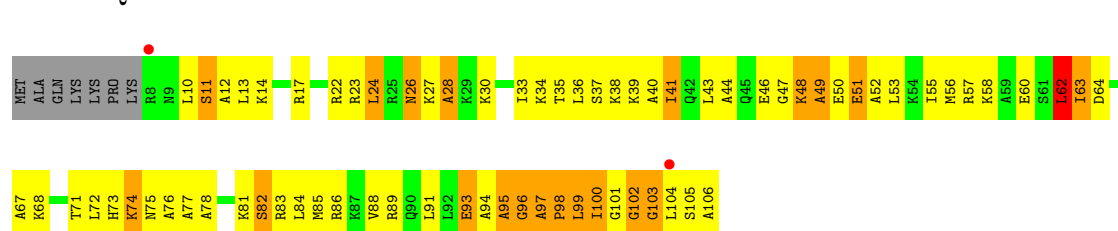
- Molecule 19: 30S ribosomal protein S19

Chain XS:



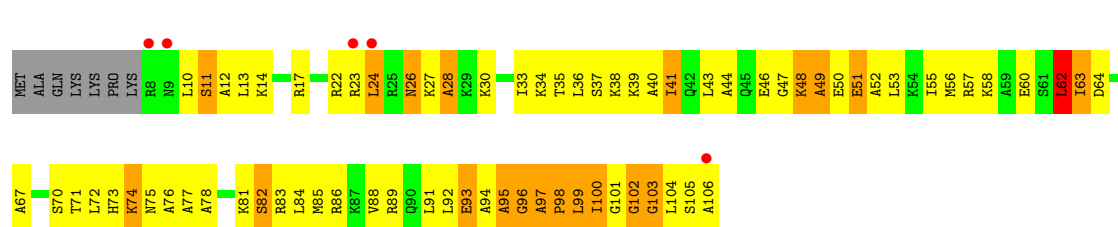
- Molecule 20: 30S ribosomal protein S20

Chain QT:



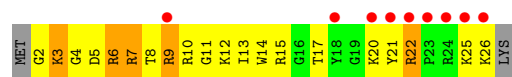
- Molecule 20: 30S ribosomal protein S20

Chain XT:



- Molecule 21: 30S ribosomal protein S21

Chain QU:



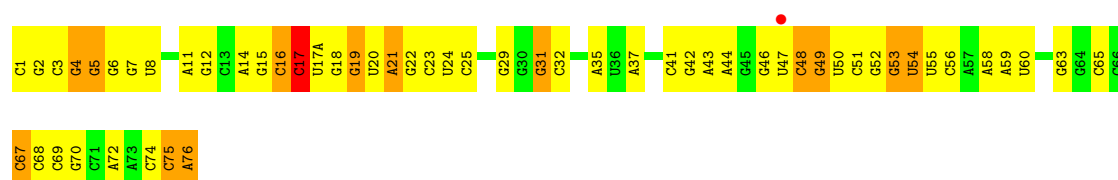
- Molecule 21: 30S ribosomal protein S21

Chain XU: 



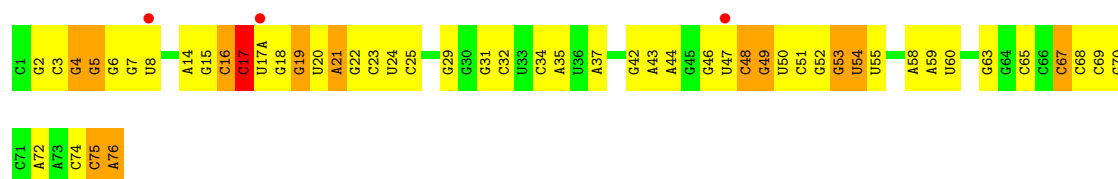
- Molecule 22: P-site tRNA fMet

Chain QV: 



- Molecule 22: P-site tRNA fMet

Chain XV:



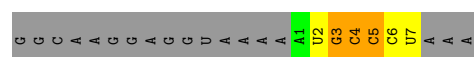
- Molecule 23: A-site ASL SufA6

Chain QX:



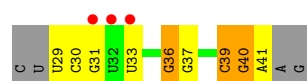
- Molecule 23: A-site ASL SufA6

Chain XX: 



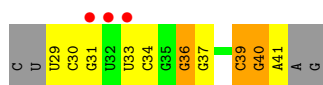
- Molecule 24: messenger RNA

Chain QY: 



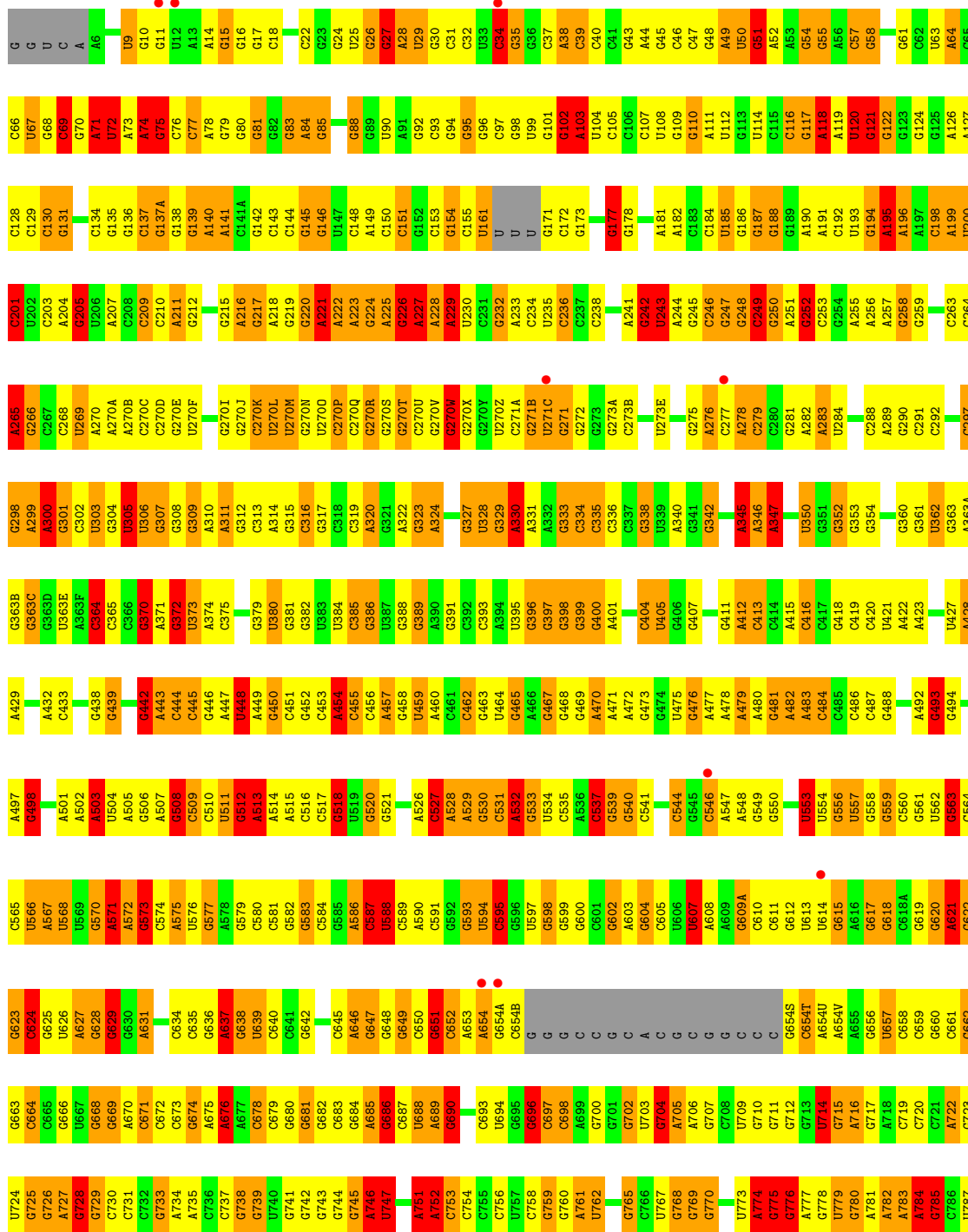
- Molecule 24: messenger RNA

Chain XY: 



- Molecule 25: 23S rRNA

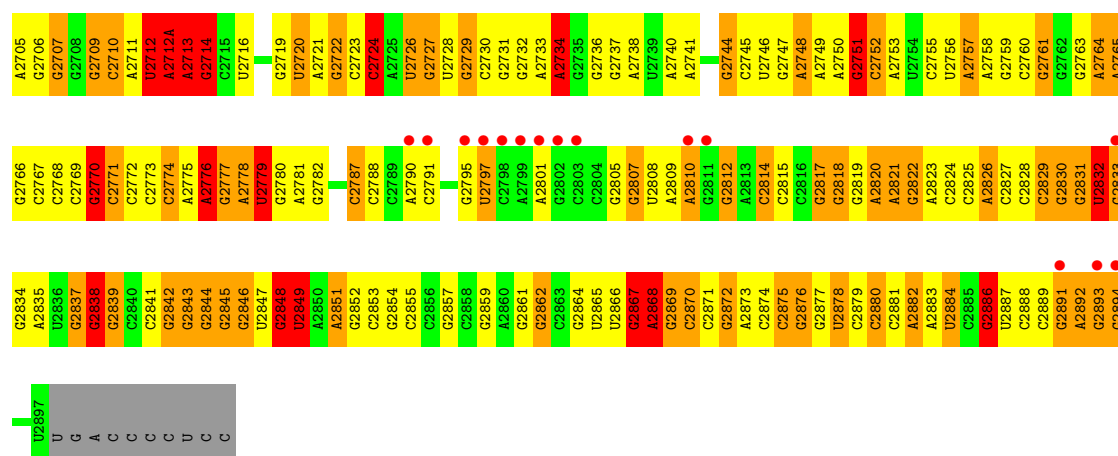
Chain RA:





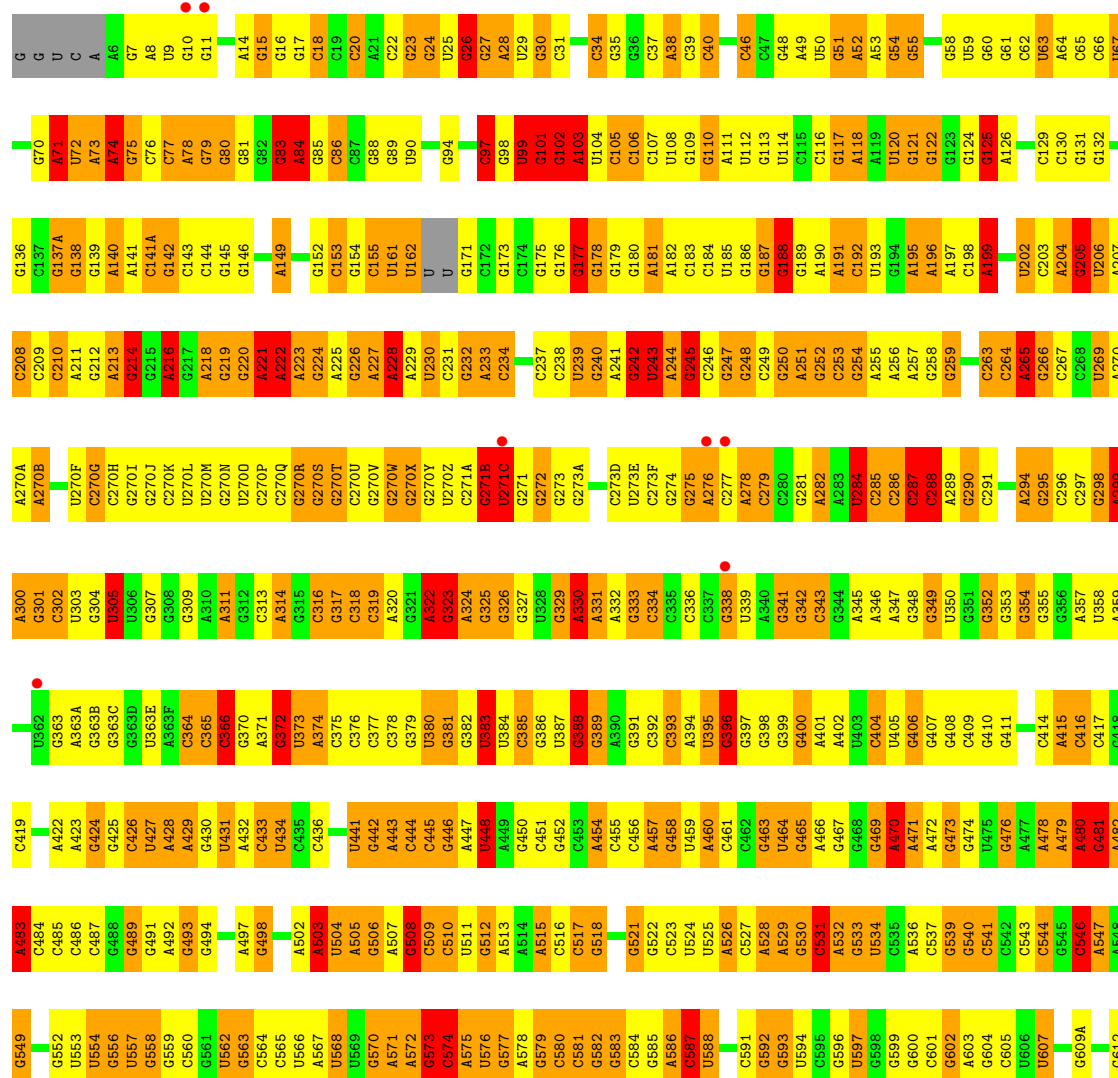
G1661	G1662	G1663	G1664	G1665	G1666	G1667	G1668	G1669	G1670	G1671	G1672	G1673	G1674	G1675	G1676	G1677	G1678	G1687	G1688	G1689	G1690	G1691	G1692	G1693	G1694	G1695	G1696	G1697	A1698	A1699	A1700	A1701	G1702	G1703	G1704	G1705	G1706	G1709	G1710	G1711	G1712	G1716	G1717	G1718	G1726	G1728	A1729	U1730	G1731	A1732	G1733	G1734											
G1601	A1602	C1603	G1604	C1605	G1606	C1607	A1608	A1609	A1610	C1611	C1612	C1613	A1614	C1615	A1616	G1617	G1618	A1619	C1620	G1621	G1622	G1623	G1624	C1625	G1626	G1627	G1628	G1629	G1630	A1632	G1633	A1634	G1635	C1636	A1637	C1638	G1639	C1640	A1641	G1642	G1643	G1644	G1645	C1646	C1647	C1648	G1649	G1650	G1651	A1652	G1653	A1654	G1655	C1656	G1657	G1658	U1659	C1660					
U1535	A1536	C1537	G1538	G1539	G1540	U1541	G1542	A1543	A1544	A1545	C1547	C1548	A1553	A1554	C1557	A1558	G1559	G1560	G1561	A1562	G1563	C1564	G1565	C1566	A1567	G1568	A1569	A1570	A1571	C1572	C1573	C1574	C1575	U1576	C1577	A1578	A1579	G1580	G1581	C1582	A1583	C1585	A1586	A1587	C1588	C1589	U1590	G1591	G1592	G1593	G1594	A1595	A1596	A1597	C1598	C1599	C1600						
G1473	C1474	G1475	G1476	G1477	G1478	G1479	G1480	G1481	G1482	G1483	G1484	G1485	A1486	G1487	G1488	U1489	A1490	C1493	A1494	A1495	G1496	A1497	U1498	C1499	G1500	C1501	A1502	U1503	C1504	C1505	A1506	A1507	A1508	C1509	A1510	A1511	G1512	C1513	U1514	C1515	U1516	G1517	C1518	G1519	U1520	G1521	C1522	C1523	G1524	G1525	G1526	G1527	A1528	G1529	G1530	C1531	C1532	G1533	G1534				
C1411	A1412	G1413	G1414	U1415	G1416	C1417	G1418	A1419	U1420	G1421	G1425	G1426	G1427	A1428	G1429	C1430	A1431	C1432	U1433	A1434	G1435	G1436	G1437	U1438	A1439	G1440	G1441	G1442	G1443	G1444	A1444A	C1445	C1446	G1447	G1448	A1449	G1449A	C1450	A1451	A1453	U1454	G1455	C1456	G1457	G1458	G1459	A1460	G1461	C1462	C1463	C1464	G1465	G1466	C1467	A1468	A1469	A1470	A1471	A1472				
A1349	C1350	C1351	U1352	A1353	A1354	C1355	G1356	U1357	A1358	A1359	A1360	C1361	G1362	C1363	G1364	A1365	A1366	A1367	G1368	G1369	C1370	G1371	U1372	A1373	G1374	C1375	C1376	G1377	A1378	A1379	C1380	A1384	G1385	C1386	G1387	G1388	G1389	U1390	U1391	A1392	A1393	U1394	A1395	U1396	U1397	C1398	C1399	G1400	G1401	C1402	C1403	C1404	U1405	U1406	C1407	C1408	G1409	G1410					
U1288	C1289	C1290	C1291	U1292	C1293	U1294	G1295	G1296	C1297	C1298	G1299	U1300	A1301	A1302	G1303	C1304	C1305	C1306	A1307	A1308	G1309	G1310	G1311	U1312	U1313	C1314	C1315	U1316	G1319	C1320	A1321	A1322	G1323	G1324	G1325	U1326	C1327	G1328	U1329	C1330	A1331	G1332	C1333	G1334	U1335	A1336	G1337	G1338	G1339	U1340	A1341	A1342	G1343	G1344	C1345	G1346	U1347	G1348					
G1229A	C1230	G1231	G1232	C1233	U1234	U1235	G1236	G1237	G1238	G1239	U1240	A1241	A1242	G1243	C1244	G1245	A1246	A1247	A1248	U1249	G1250	C1251	G1252	A1253	A1254	U1255	G1256	G1257	C1258	C1259	G1260	G1261	A1262	U1263	G1264	A1265	G1266	U1267	A1268	A1269	C1270	G1271	A1272	U1273	A1274	A1275	A1276	G1277	A1278	G1279	A1280	U1281	G1282	U1283	A1284	G1285	A1286	A1287					
G1163	G1164	U1165	C1166	U1167	G1168	G1169	G1173	U1174	U1175	G1176	A1177	C1178	C1179	C1180	A1181	A1182	G1183	G1184	C1185	C1186	G1187	U1188	G1189	G1190	G1191	G1192	G1193	A1194	G1195	C1196	U1197	U1198	C1199	C1200	G1201	C1202	G1203	U1204	U1205	G1206	C1207	C1208	G1209	A1210	U1211	A1212	G1213	A1214	G1215	G1216	A1217	A1218	A1219	A1220	C1221	C1222	G1223	G1224	C1225	G1226			
A1096	U1097	A1098	G1099	C1100	U1101	C1102	A1103	C1104	U1105	G1106	G1107	U1108	C1109	C1110	A1111	C1112	U1113	G1114	G1115	C1116	C1117	C1118	A1119	C1120	C1121	C1122	C1123	U1124	G1125	A1126	A1127	U1128	C1129	U1130	G1131	A1132	U1133	C1135	G1136	G1137	C1138	G1139	C1140	U1141	U1142	A1143	G1144	C1145	C1146	G1149	C1150	G1151	C1152	G1153	U1154	A1155	A1156	G1157	C1158	C1159	C1160	G1161	G1162
G974	C974A	G975	C976	G977	G978	G979	A980	A981	A982	A983	A984	C985	C986	A987	A988	A989	A990	C991	C992	G993	C994	C995	A996	G997	C998	U999	A1000	A1001	G1002	G1003	A1004	C1005	C1006	C1007	C1008	C1009	A1010	G1011	U1012	C1013	U1014	G1015	U1016	G1017	U1018	C1019	G1080	U1081	U1082	U1083	A1084	A1085	U1086	G1087	U1088	G1089	U1090	A1091	C1092	U1093	U1094	A1095	
C912	U913	C914	C915	C916	A917	A918	G919	A981	U922	U923	A924	C925	A926	G928	A929	U930	G931	G932	G933	G934	C935	C936	U937	G938	A941	G942	U943	U944	G945	G946	G947	G948	C949	G950	C951	G952	A953	C954	C955	G956	A957	U958	A959	A960	C961	C962	U963	C964	C965	C966	G967	C968	U969	A1028	A1029	G1030	C971	C972	A973				
C850	U851	G852	C853	G854	G855	C856	C857	U858	G859	U860	A861	C862	A863	G864	C865	A866	C867	U868	C869	U870	U871	C872	U873	G874	G875	C876	U877	A878	C879	G880	A881	C882	G883	C885	C886	A887	C888	C889	A890	G892	C893	C894	U895	A896	C897	C898	A899	A900	C902	C903	C967	C904	U907	C908	A909	U910	C947	A911					
A788	A789	C790	C791	G792	A793	C796	C797	G798	G801	A802	U803	A804	C805	C806	U807	G808	C809	U810	U811	C812	U813	G814	C815	C816	C817	A818	U819	C820	A821	U822	C823	A824	C825	U826	U827	U828	A829	C830	C831	G832	U833	C834	A835	C836	C837	C838	C839	C840	A841	C842	C843	C844	U845	C846	U847	C848	A849						

G2838	G2639	G2640	G2641	G2642	G2643	G2644	G2645	G2646	G2647	G2648	G2649	G2650	G2651	G2652	G2653	G2654	G2655	G2656	G2657	G2658	G2659	G2660	G2661	G2662	G2663	G2664	G2665	G2666	G2667	G2668	G2669	G2670	G2671	G2672	G2673	G2674	G2675	G2676	G2677	G2678	G2679	G2680	G2681	G2682	G2683	G2684	G2685	G2686	G2687	G2688	G2689	G2690	G2691	G2692	G2693	G2694	G2695	G2696	G2697	G2698	G2699	G2700	G2701	G2702	G2703	G2704					
G2513	G2514	G2515	G2516	G2517	G2518	G2519	G2520	G2521	G2522	G2523	G2524	G2525	G2526	G2527	G2528	G2529	G2530	G2531	G2532	G2533	G2534	G2535	G2536	G2537	G2538	G2539	G2540	G2541	G2542	G2543	G2544	G2545	G2546	G2547	G2548	G2549	G2550	G2551	G2552	G2553	G2554	G2555	G2556	G2557	G2558	G2559	G2560	G2561	G2562	G2563	G2564	G2565	G2566	G2567	G2568	G2569	G2570	G2571	G2572	G2573	G2574	G2575									
C2452	C2453	C2454	C2455	C2456	C2457	C2458	C2459	C2460	C2461	C2462	C2463	C2464	C2465	C2466	C2467	C2468	C2469	C2470	C2471	C2472	C2473	C2474	C2475	C2476	C2477	C2478	C2479	C2480	C2481	C2482	C2483	C2484	C2485	C2486	C2487	C2488	C2489	C2490	C2491	C2492	C2493	C2494	C2495	C2496	C2497	C2498	C2499	C2500	C2501	C2502	C2503	C2504	C2505	C2506	C2507	C2508	C2509	C2510	C2511	C2512											
G2391	G2392	G2393	G2394	G2395	G2396	G2397	G2398	G2399	G2400	G2401	G2402	G2403	G2404	G2405	G2406	G2407	G2408	G2409	G2410	G2411	G2412	G2413	G2414	G2415	G2416	G2417	G2418	G2419	G2420	G2421	G2422	G2423	G2424	G2425	G2426	G2427	G2428	G2429	G2430	G2431	G2432	G2433	G2434	G2435	G2436	G2437	G2438	G2439	G2440	G2441	G2442	G2443	G2444	G2445	G2446	G2447	G2448	G2449	G2450	G2451											
G2330	G2331	G2332	G2333	G2334	G2335	G2336	G2337	G2338	G2339	G2340	G2341	G2342	G2343	G2344	G2345	G2346	G2347	G2348	G2349	G2350	G2351	G2352	G2353	G2354	G2355	G2356	G2357	G2358	G2359	G2360	G2361	G2362	G2363	G2364	G2365	G2366	G2367	G2368	G2369	G2370	G2371	G2372	G2373	G2374	G2375	G2376	G2377	G2378	G2379	G2380	G2381	G2382	G2383	G2384	G2385	G2386	G2387	G2388	G2389												
A2267	A2268	A2269	G2270	A2271	G2272	A2273	G2274	G2275	G2276	G2277	A2278	G2279	G2280	G2281	G2282	G2283	G2284	G2285	G2286	G2287	G2288	G2289	G2290	G2291	G2292	G2293	G2294	G2295	G2296	G2297	G2298	G2299	G2300	G2301	G2302	G2303	G2304	G2305	G2306	G2307	G2308	G2309	G2310	G2311	G2312	G2313	G2314	G2315	G2316	G2317	G2318	G2319	G2320	G2321	G2322	G2323	G2324	G2325	G2326	G2327	G2328	G2329									
G2194	C2195	C2196	G2197	A2198	G2199	G2200	G2201	G2202	G2203	G2204	G2205	G2206	G2207	G2208	G2209	G2210	G2211	G2212	G2213	G2214	G2215	G2216	G2217	G2218	G2219	G2220	G2221	G2222	G2223	G2224	G2225	G2226	G2227	G2228	G2229	G2230	G2231	G2232	G2233	G2234	G2235	G2236	G2237	G2238	G2239	G2240	G2241	G2242	G2243	G2244	G2245	G2246	G2247	G2248	G2249	G2250	G2251	G2252	G2253	G2254	G2255	G2256	G2257	G2258	G2259	G2260	G2261	G2262	G2263	G2264	G2265
G2127	G2128	G2129	G2130	G2131	G2132	G2133	G2134	G2135	G2136	G2137	G2138	G2139	G2140	G2141	G2142	G2143	G2144	G2145	G2146	G2147	G2148		G2151	G2152	G2153	G2154	G2155	G2156	G2157	G2158	G2159	G2160	G2161	G2162	G2163	G2164	G2165	G2166	G2167	G2168	G2169	G2170	G2171	G2172	G2173	G2174	G2175	G2176	G2177	G2178	G2179	G2180	G2181	G2182	G2183	G2184	G2185	G2186	G2187	G2188	G2189	G2190	G2191	G2192	G2193						
C2065	C2066	C2067	G2068	G2069	G2070	G2071	G2072	G2073	G2074	G2075	G2076	G2077	G2078	G2079	G2080	G2081	G2082	G2083	G2084	G2085	G2086	G2087	G2088	G2089	G2090	G2091	G2092	G2093	G2094	G2095	G2096	G2097	G2098	G2099	G2100	G2101	G2102	G2103	G2104	G2105	G2106	G2107	G2108		G2111	G2112	G2113	G2114	G2115	G2116	G2117	G2118	G2119	G2120	G2121	G2122	G2123	G2124	G2125	G2126	G2127	G2128	G2129	G2130							
A2005	C2006	C2007	G2008	G2009	G2010	G2011	G2012	G2013	G2014	G2015	G2016	G2017	G2018	G2019	G2020	G2021	G2022	G2023	G2024	G2025	G2026	G2027	G2028	G2029	G2030	G2031	G2032	G2033	G2034	G2035	G2036	G2037	G2038	G2039	G2040	G2041	G2042	G2043	G2044	G2045	G2046	G2047	G2048	G2049	G2050	G2051	G2052	G2053	G2054	G2055	G2056	G2057	G2058	G2059	G2060	G2061	G2062	G2063	G2064	G2065											
G1945	U1946	C1947	G1948	G1949	G1950	U1951	A1952	A1953	A1954	G1955	U1956	C1957	C1958	C1959	A1960	C1961	C1962	C1963	G1964	C1965	A1966	C1967	G1968	C1969	A1970	C1971	A1972	C1973	C1974	C1975	C1976	C1977	A1978	C1979	C1980	C1981	C1982	C1983	C1984	C1985	C1986	C1987	C1988	C1989	C1990	C1991	C1992	C1993	C1994	C1995	C1996	C1997	C1998	C1999	G2000	A2001	G2002	C2003	C2004												
G1878	G1879	G1880	G1881	G1882	G1883	G1884	G1885	G1886	G1887	G1888	G1889	G1890	G1891	G1892	G1893	G1894	G1895	G1896		G1899	A1900	G1901	G1902	G1903	G1904	G1905	G1906	G1907	G1908	G1909	G1910	U1911	A1912	U1913	A1914	G1915	G1916	G1917	G1918	G1919	G1920	G1921	G1922	G1923	G1924	G1925	U1926	A1927	G1928	G1929	G1930	G1931	G1932	G1933	G1934	G1935	G1936	G1937	G1938	G1939	G1940	G1941	G1942	G1943	G1944						
U1805	C1806	G1807	U1808	A1809	A1810	G1811	A1812	G1813	G1814	A1815	G1816	G1817	U1818	A1819	U1820	A1821	G1822	G1823	G1824	A1825	C1826	G1827	G1828	A1829	C1830	G1831	C1832	U1833	U1834	G1835	C1836	C1837	C1838	G1839	C1840		C1843	C1844	C1845	G1846	A1847	A1848	C1849	G1850	U1851	C1852	A1853	A1854	G1855	C1856	G1857	C1858	A1859	G1860	C1861	C1862	C1863	C1864	C1865	C1866	C1867	C1868	C1869	C1870	A1871	A1872					
G1735	C1741	G1742	G1743	G1746	G1747	G1748	A1749	G1750	C1751	C1752	G1753	G1754	A1755	G1756	U1757	G1758	A1759	A1760	C1761	A1762	G1763	G1764	C1765	U1766		G1769	C1770	C1771	G1772	A1773	G1774	U1775	C1776	G1777	U1778	U1779	A1780	C1781	G1782	G1783	A1784	A1785	A1786		C1790	A1791	C1792	C1793	U1794	C1795	G1796	C1797	U1798	G1799	C1800	G1801	A1802	A1803	C1804												



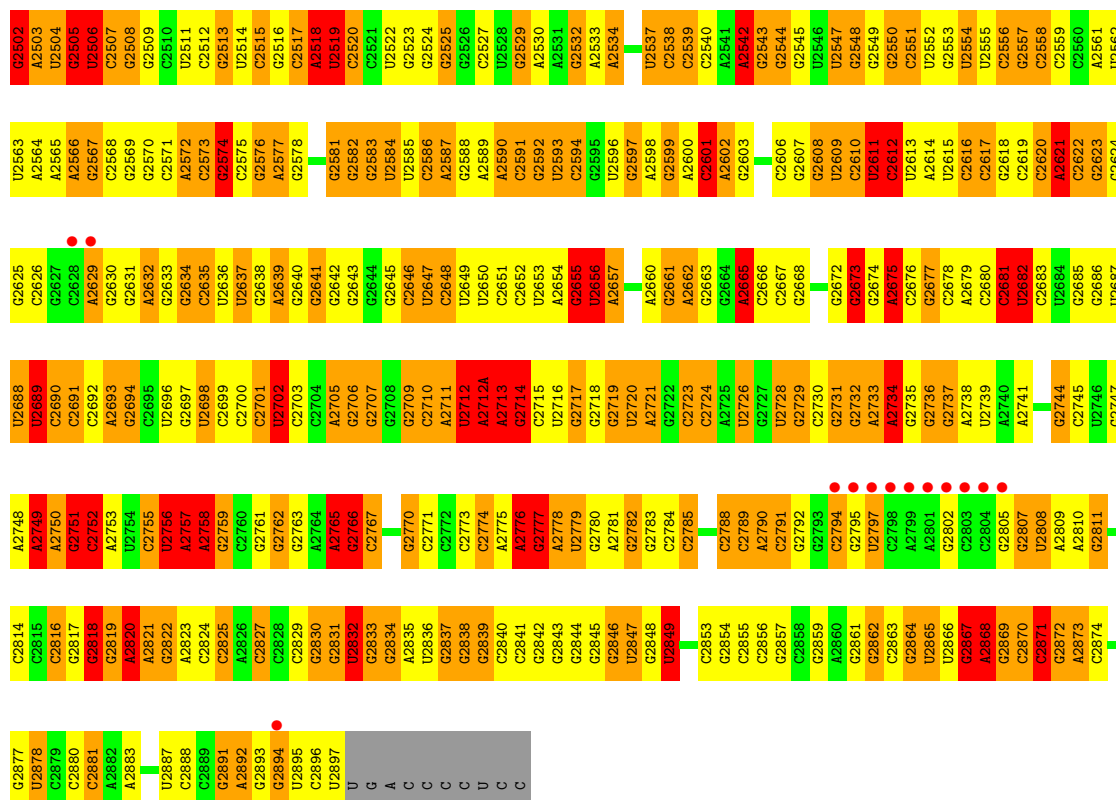
• Molecule 25: 23S rRNA

Chain YA:



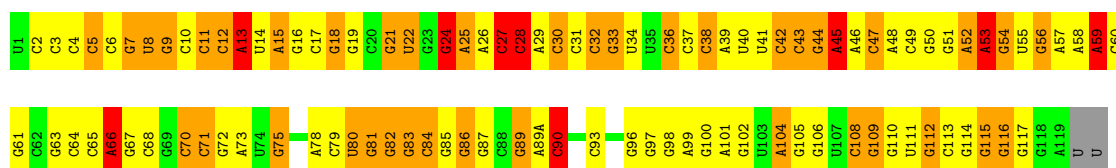
U1454	A1395	G1212	G1149	A1085	A1020	A960	C997	A835	A774	G712	C	U613
G1455	U1396	A1213	C1150	A1086	A1021	C961	C998	G836	G775	G713		U614
A1456	G1337	A1214	G1151	G1087	G1022	G962	C999	G837	G776	U714		G615
G1457	G1338	G1215	C1152	G1088	U1023	U963	A900	C838	A777	G715		A654U
G1458	G1339	A1278	C1153	G1089	G1024	C965	A901	U839	G778	A716		G617
G1459	G1340	G1217	G1154	U1090	G1025	G966	C902	C840	U779	G717		G618
A1460	U1341	C1218	A1155	G1091	U1026	G967	C903	A841	G780	A718		G618A
G1461	G1342	G1219	A1156	G1092	A1027	C968	C904	G842	A781			G619
	G1343	A1220	G1157	G1093	U1028	G969	U905	G843	A782	C721		G620
	G1344	C1221	C1158	U1094	A1029	U969	G906	C844	A783	A722		A621
	U1405	A1284	U1159	A1095	G1030	C970	U907	G845	A784	G723		G622
	U1406	C1223	G1160	A1096	A1031	C971	A908	C846	G785	U724		G623
	A1407	G1224	C1161	U1097	G1032	G972	A909	U847	C786	G725		G624
	G1468	C1225	G1162	A1098	U1033	A973	A910	G848	U787	G726		G625
	C1409	A1226	G1163	G1099	G1034	G974	A911	A849	A788	A727		U626
	G1410	G1227	G1164	C1100	C974A	C975	C912	C850	A789	G728		A627
	A1471	G1228	U1165	U1101	G1036	G976	U913	U851	C790	G729		G628
	G1472	G1228	U1166	C1102		C976	U914	G852	C791	G730		G629
	G1473	G1230	C1167	A1103	G1042	G977	C915	G853	G792	C731		G630
		G1231	G1169	G1104	C1043	G978	G916	G854	A793	C732		A631
			G1170	U1105	G1044	G979	A917	G855	G794	G733		A632
			G1171	G1106	A1045	C980	A918	C856	A795	A734		A633
			G1173		A1046	A981	C919	C857	C796	A735		C634
			A1174	C1109	G1047	C982	G920	U858	C797	C736		C635
			U1175	G1110	A1048	A983	G921	G859	G798	C737		G636
			G1176	A1111	C1049	A984	U922	U860	G799	G738		A637
			A1177	G1112	A1050	C985	C923	A861	A800	G739		G638
				G1113	G1051	C986		G862	U740	U740		U639
				G1178	C1052	G987	G928	A863	A802	G741		C640
				C1179	A1053	A988	C929	G864	A803	G742		G641
				G1115	C1053	C994	C935	U865	A804	G743		G642
				G1119	A1054	C995	C936	A866	G805	G744		A643
				C1122	G1056	C991	G932	C867	C806	G745		A644
				G1124	G1057	C992	A933	U868	A746	G746		C645
				G1125	G1058	G993	G934	G869	U807	U747		A646
				G1126	G1059	C994	C935	U870	G808	G748		G647
				A1126	U1060	C995	C936	U871	C809			G648
				G1187	U1061	A996	U937	A872	U810			G649
				U1188	U1062	G997	G938	G873	U811	A751		G650
				A1189	G1062			G874	C812	A752		G651
				G1190	G1063			G875	U813	C753		C652
				G1191	C1064	A1001	A941	C876	C814	C754		A653
				U1130	U1065	A1001	A941	U877	C815	C755		A654
				G1192	U1066	G1002	G942	U878		C756		G654A
				G1193	U1067	G1003	U943		G818	U757		G654B
				A1194	G1068	C1004	G944		A819	C758		G
				G1195	G1069	C1005	A945	G881	A820	G759		G
				C1196	A1070	C1006	G946	G882	A821	G760		G
				G1197	G1071	C1007	G947	G883	U822	A761		C
				U1198	G1071	C1008	G948	C884	G823	U762		C
				U1199	G1074	A1009	C949	C885	A824	G763		C
				C1200	C1075	A1010	G950	C886	C825	A764		G
				G1201	G1076	G1011	C951	A887	U826	G765		C
				C1202	U1142	U1012	G952	C888	G701	G702		C
				G1203	A1142A	C1013	A953	C889	U827	C766		A
				A1204	U1078	G1014	G954	A890	U828	U767		C
				U1205	C1079	U1015	G955	G892	A829	G768		C
				G1206	C1080	G1015	C955	G893	G769	G704		G
				C1207	U1081	G1016	G956	C894	G830	G705		C
				A1210	U1082	G1017	A957	C894	G831	A706		C
				G1212	C1147	U1083	U958	C895	G832	G771		C
				U1271	A1148	C1018	U958	C896	U833	C772		C
				U1273	A1084	U1019	A959	A896	C834	U773		C

C2443	C2442	C2381	C2380	C2259	C2186	C2115	C2051	C1988	A1927	C1852	C1790	U1709	C1646	G1581	G1519
G2443	G2444	G2382	G2383	G2260	G2187	G2117	G2052	G1989	A1928	A1853	A1791	C1710	C1647	C1585	U1520
G2444	G2445	G2383	G2384	G2262	G2188	G2118	G2053	G1990	G1929	A1854	G1792	G1717	G1648	A1586	G1521
G2445	G2446	G2385	G2385	G2263	G2190	G2119	G2054	U1991	G1930	G1857	G1793	G1718	G1649	A1587	U1523
G2447	G2448	G2386	G2386	G2264	G2191	G2120	G2055	U1993	U1932	G1858	G1794	G1725	G1650	C1588	G1524
G2448	U2449	G2387	G2387	G2265	G2192	G2121	G2056	C1994	G1933	A1859	U1796	G1726	G1651	C1589	G1525
U2449	U2450	A2267	A2267	A2266	C2196	U2122	A2058	G1997	C1934	G1860	C1797	U1727	A1652	U1590	G1526
A2450	G2451	A2268	A2268	A2268	G2197	G2123	G2059	G1998	G1935	G1861	G1798	G1728	G1653	G1591	G1527
A2451	A2452	A2269	A2269	A2269	A2198	G2124	A2060	G1998	G1936	G1862	A1654	A1729	A1654	A1528	A1528
A2452	A2453	A2270	A2270	A2270	A2199	G2125	G2061	C1999	A1937	G1863	C1800	U1730	G1593	G1593	G1530
A2453	A2454	G2271	G2271	G2271	C2205	A2126	A2062	A2001	A1938	U1864	G1801	G1731	G1556	G1594	G1531
G2455	G2456	G2272	G2272	G2272	C2206	G2127	G2063	A2002	U1939	G1866	A1802	A1732	C1657	G1595	C1532
G2456	G2457	U2208	U2208	U2208	U2208	G2128	C2064	G2002	U1940	C1870	A1803	G1733	C1658	A1596	C1533
G2458	G2459	G2209	G2209	G2209	G2187	G2131	G2065	G2003	C1941	A1871	C1804	C1734	C1659	A1597	C1534
G2460	G2461	G2210	G2210	G2210	G2188	U2132	G2066	G2004	U1942	A1872	U1805	C1735	C1660	U1598	U1535
U2462	U2463	G2211	G2211	G2211	G2189	G2133	U2068	A2005	U1944	G1878	C1806	G1742	A1661	U1536	U1536
C2464	C2465	G2212	G2212	G2212	G2190	A2134	G2069	C2006	U1945	C1881	A1810	G1743	A1665	U1602	U1537
C2466	C2467	U2213	U2213	U2213	G2191	G2135	G2070	C2007	U1946	C1882	G1811	G1748	A1666	A1603	G1538
C2468	C2469	G2214	G2214	G2214	G2192	G2136	A2071	G2009	U1947	C1883	G1812	G1749	G1667	G1604	G1539
C2470	C2471	G2215	G2215	G2215	G2193	G2137	G2072	G2010	G1950	A1884	G1813	G1748	C1668	C1605	G1540
C2472	C2473	G2216	G2216	G2216	G2194	G2138	G2073	U2011	U1951	A1885	G1814	A1749	A1669	G1606	U1541
C2474	C2475	G2217	G2217	G2217	G2195	G2139	U2074	G2012	U1952	C1886	A1815	G1750	C1670	C1607	G1542
C2476	C2477	G2218	G2218	G2218	G2196	G2140	U2075	A2013	A1953	G1888	G1817	G1753	C1671	A1608	A1543
C2478	C2479	G2219	G2219	G2219	G2197	G2141	U2076	A2014	A1954	A1889	U1818	G1754	C1672	A1609	C1544
C2480	C2481	G2220	G2220	G2220	G2198	G2142	C2081	A2015	G1955	A1890	A1819	A1755	G1673	C1611	A1545A
C2482	C2483	G2221	G2221	G2221	G2199	G2143	C2082	U2016	U1956	G1891	G1820	G1756	C1675	C1612	C1546
C2484	C2485	G2222	G2222	G2222	G2200	G2144	C2083	U2017	C1957	G1892	A1821	U1757	A1676	G1613	C1547
C2486	C2487	G2223	G2223	G2223	G2201	G2145	C2084	G2018	U1958	C1893	G1822	G1758	A1677	A1614	C1548
C2488	C2489	G2224	G2224	G2224	G2202	G2146	C2085	A2019	C1959	C1894	G1823	G1759	A1678	C1615	C1549
C2490	C2491	G2225	G2225	G2225	G2203	G2147	C2086	A2020	U1960	C1895	G1824	C1761	U1679	A1616	C1550
C2492	C2493	G2226	G2226	G2226	G2204	G2148	C2087	U2022	C1961	G1896	G1825	A1762	U1680	C1617	G1551
C2494	C2495	G2227	G2227	G2227	G2205	G2149	C2088	G2023	C1962	U1897	G1826	G1763	U1681	A1618	G1552
C2496	C2497	G2228	G2228	G2228	G2206	G2150	C2089	G2024	U1963	U1898	C1827	G1764	G1682	G1619	G1557
C2498	C2499	G2229	G2229	G2229	G2207	G2151	C2090	G2025	G1964	A1900	G1828	C1767	C1684	U1621	A1558
C2500	C2501	G2230	G2230	G2230	G2208	G2152	C2091	G2026	C1965	A1901	A1829	U1768	C1685	G1622	A1559
C2502	C2503	G2231	G2231	G2231	G2209	G2153	U2092	G2027	A1966	C1902	C1830	U1769	C1686	G1623	G1560
C2504	C2505	G2232	G2232	G2232	G2210	G2154	C2092	U2028	C1967	G1903	G1831	G1776	C1687	G1624	G1561
C2506	C2507	G2233	G2233	G2233	G2211	G2155	C2093	G2029	G1968	G1904	C1832	G1777	G1688	G1625	A1562
C2508	C2509	G2234	G2234	G2234	G2212	G2156	C2094	A2030	A1969	C1905	U1833	C1771	U1688	G1626	G1563
C2510	C2511	G2235	G2235	G2235	G2213	G2157	C2095	A2031	G1970	G1906	U1834	G1772	A1590	C1627	G1564
C2512	C2513	G2236	G2236	G2236	G2214	G2158	C2096	A2032	A1971	C1907	G1835	A1773	C1628	G1628	C1565
C2514	C2515	G2237	G2237	G2237	G2215	G2159	C2097	A2033	A1972	C1908	C1836	C1774	C1691	U1629	A1566
C2516	C2517	G2238	G2238	G2238	G2216	G2160	U2098	U2034	G1973	A1913	C1837	U1775	U1692	U1629	A1567
C2518	C2519	G2239	G2239	G2239	G2217	G2161	U2099	G2035	C1974	C1914	G1838	G1776	U1693	G1630	A1568
C2520	C2521	G2240	G2240	G2240	G2218	G2162	C2099	G2036	G1975	G1915	G1839	U1777	C1694	C1630A	G1569
C2522	C2523	G2241	G2241	G2241	G2219	G2163	C2099	G2037	U1976	U1916	G1840	U1778	G1695	A1631	A1570
C2524	C2525	G2242	G2242	G2242	G2220	G2164	C2099	G2038	A1977	A1916	U1841	U1779	G1696	A1632	A1571
C2526	C2527	G2243	G2243	G2243	G2221	G2165	C2099	G2039	A1978	U1917	G1842	A1780	G1697	G1633	A1572
C2528	C2529	G2244	G2244	G2244	G2222	G2166	C2099	C2040	G1979	A1918	C1843	C1781	A1698	A1634	A1573
C2530	C2531	G2245	G2245	G2245	G2223	G2167	U2099	G2041	C1980	A1919	G1844	C1782	G1699	G1635	G1574
C2532	C2533	G2246	G2246	G2246	G2224	G2168	C2100	U2042	G1981	A1920	G1845	A1783	C1700	C1636	A1575
C2534	C2535	G2247	G2247	G2247	G2225	G2169	G2101	A2043	C1982	G1921	G1846	A1784	A1701	A1637	G1576
C2536	C2537	G2248	G2248	G2248	G2226	G2170	U2102	C2044	A1977	A1916	U1847	A1785	G1702	G1638	G1577
C2538	C2539	G2249	G2249	G2249	G2227	G2171	G2103	C2045	A1978	U1917	G1847	A1786	G1703	U1639	U1578
C2540	C2541	G2250	G2250	G2250	G2228	G2172	G2104	C2046	A1979	A1918	C1848	A1787	G1704	C1640	A1580
C2542	C2543	G2251	G2251	G2251	G2229	G2173	G2105	G2047	C1980	A1919	G1849	A1788	G1705	A1641	
C2544	C2545	G2252	G2252	G2252	G2230	G2174	G2106	G2048	G1981	A1920	G1850	C1789	G1706	G1642	
C2546	C2547	G2253	G2253	G2253	G2231	G2175	G2107	G2049	C1982	G1922	A1847	A1789			
C2548	C2549	G2254	G2254	G2254	G2232	G2176	G2108	C2050	A1982	U1923	A1848				
C2550	C2551	G2255	G2255	G2255	G2233	G2177	G2109		G1983	C1924	A1849				
C2552	C2553	G2256	G2256	G2256	G2234	G2178	G2110		G1984	G1925	A1850				
C2554	C2555	G2257	G2257	G2257	G2235	G2179	G2111		G1985	C1926	A1851				
C2556	C2557	G2258	G2258	G2258	G2236	G2180	G2112		G1986	G1927	A1852				
C2558	C2559	G2259	G2259	G2259	G2237	G2181	G2113		G1987	U1926	U1851				



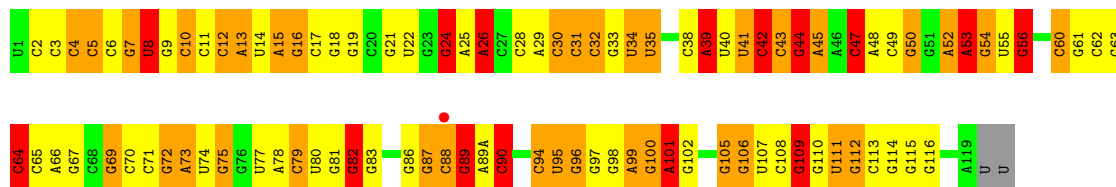
• Molecule 26: 5S rRNA

Chain RB:



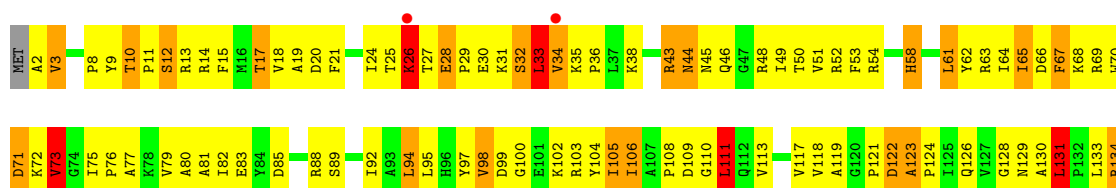
• Molecule 26: 5S rRNA

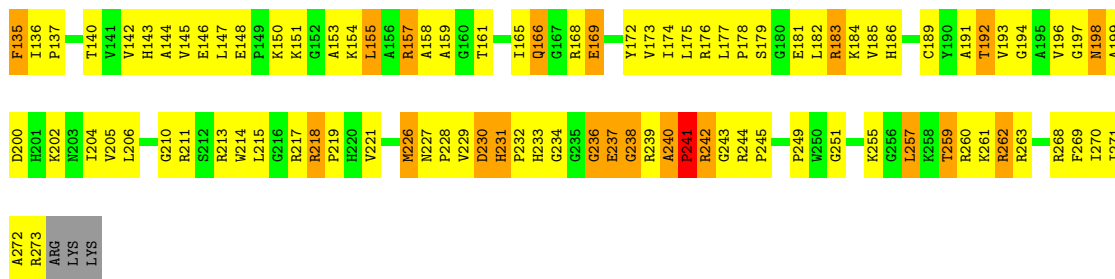
Chain YB:



• Molecule 27: 50S ribosomal protein L2

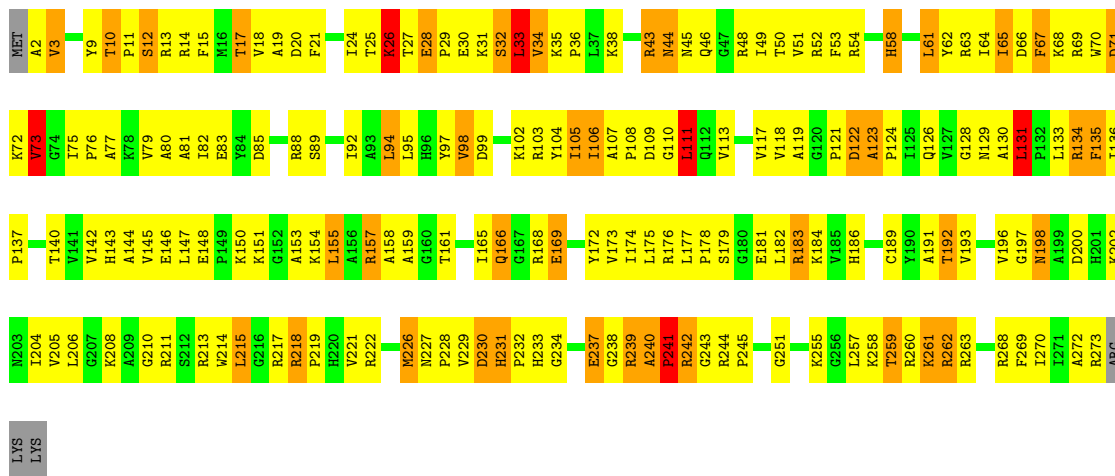
Chain RD:





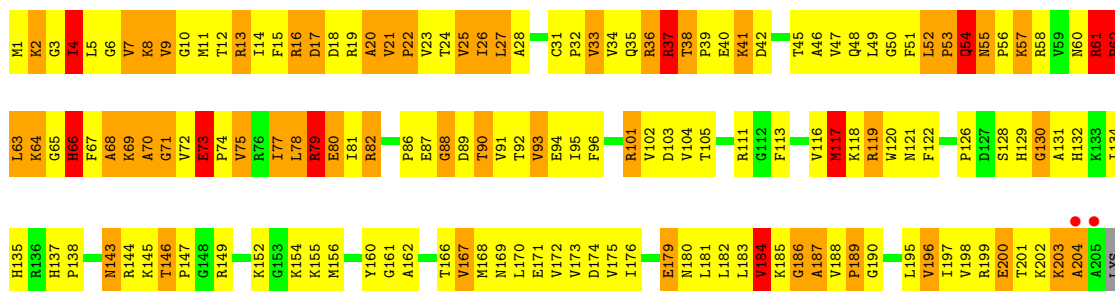
• Molecule 27: 50S ribosomal protein L2

Chain YD:



• Molecule 28: 50S ribosomal protein L3

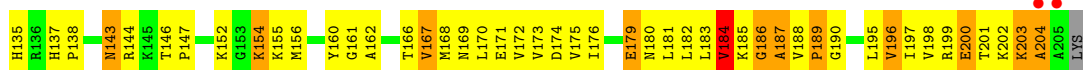
Chain RE:



• Molecule 28: 50S ribosomal protein L3

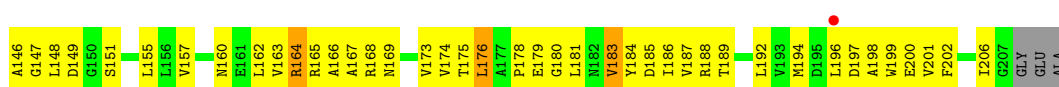
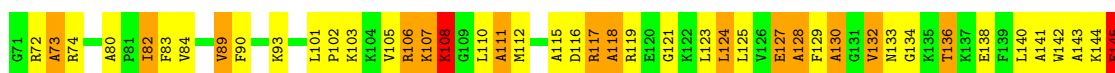
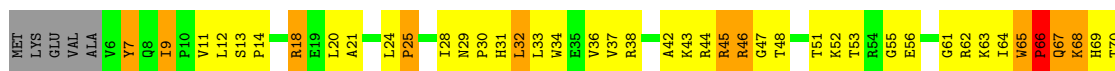
Chain YE:





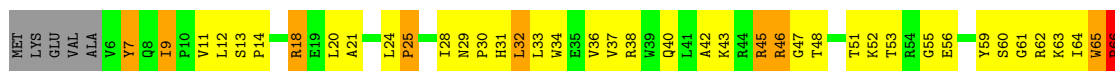
• Molecule 29: 50S ribosomal protein L4

Chain RF:



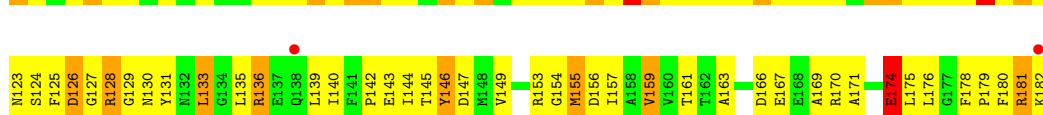
• Molecule 29: 50S ribosomal protein L4

Chain YF:



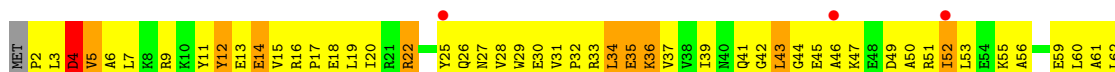
• Molecule 30: 50S ribosomal protein L5

Chain RG:

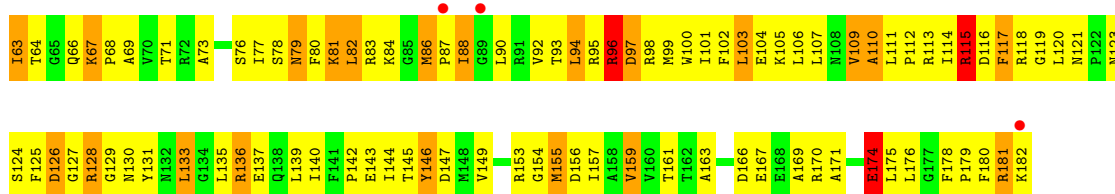


• Molecule 30: 50S ribosomal protein L5

Chain YG:

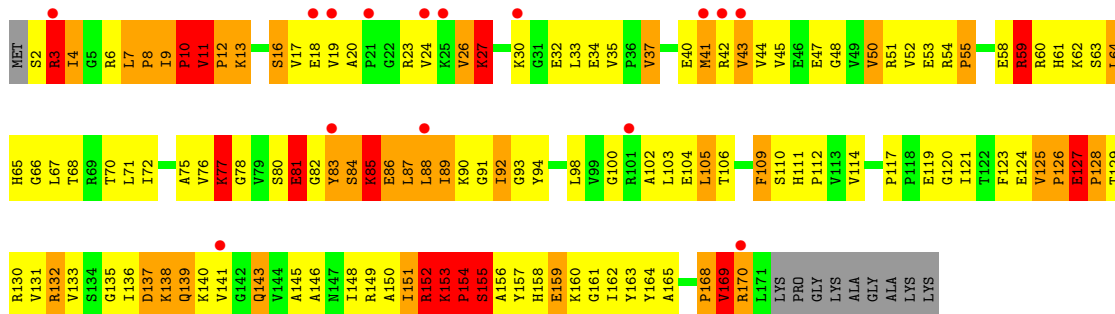






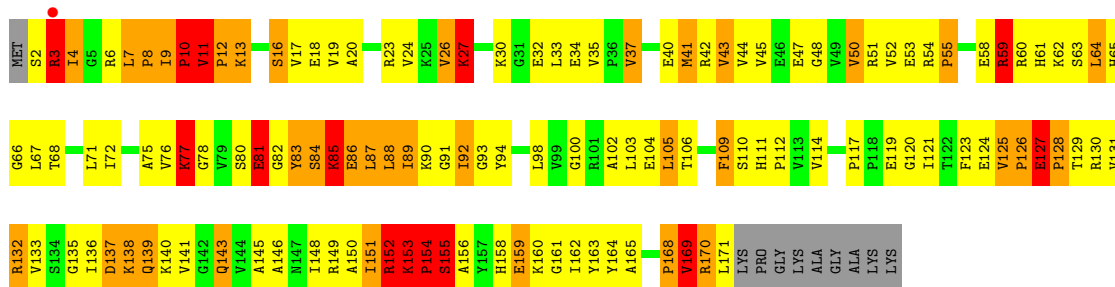
- Molecule 31: 50S ribosomal protein L6

Chain RH: 



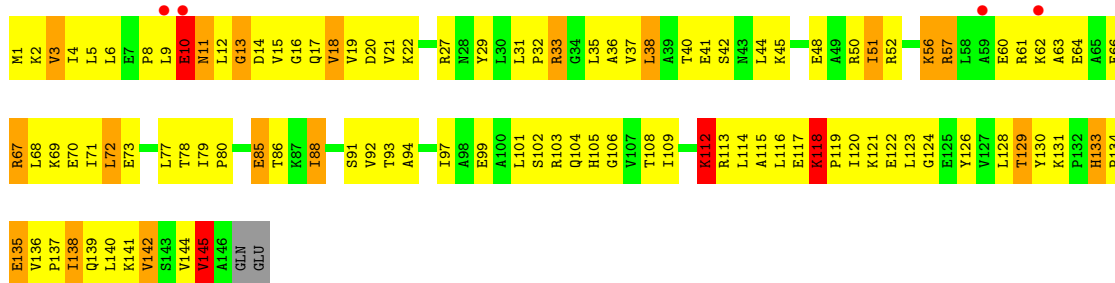
- Molecule 31: 50S ribosomal protein L6

Chain YH:



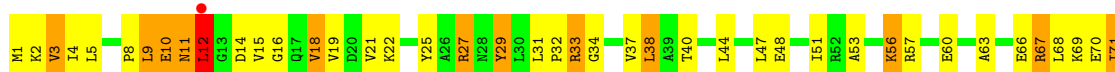
- Molecule 32: 50S ribosomal protein L9

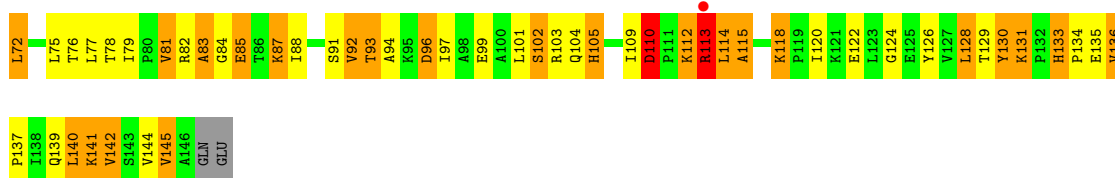
Chain RI:



- Molecule 32: 50S ribosomal protein L9

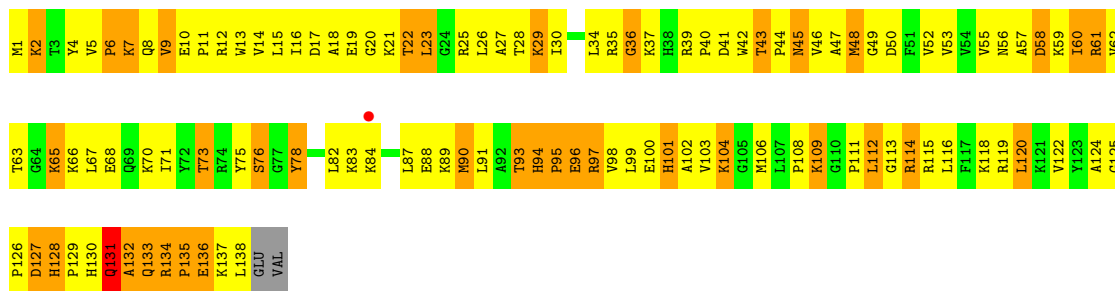
Chain YI: 





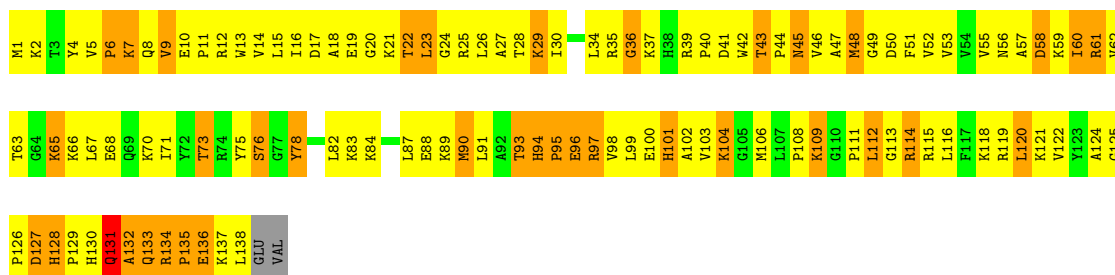
- Molecule 33: 50S ribosomal protein L13

Chain RN:



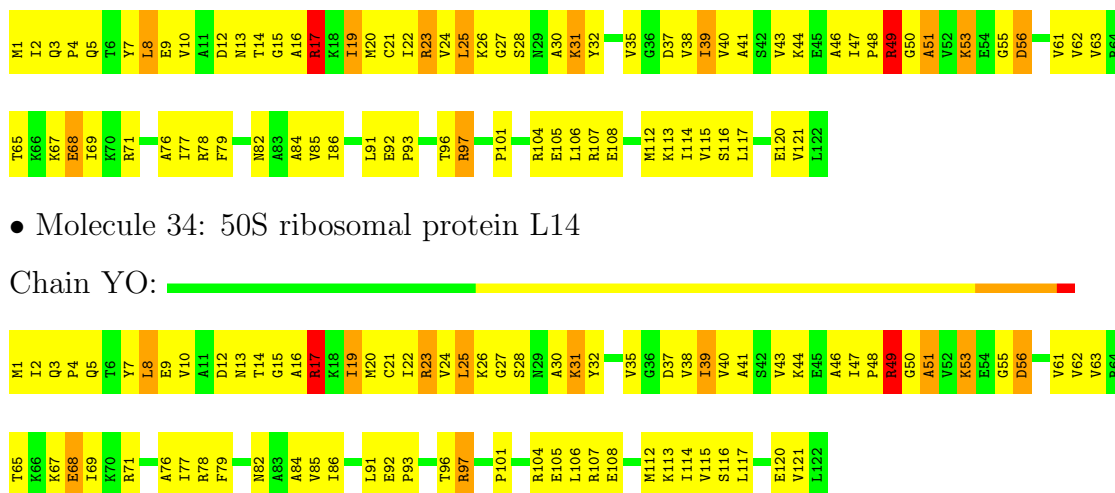
- Molecule 33: 50S ribosomal protein L13

Chain YN:



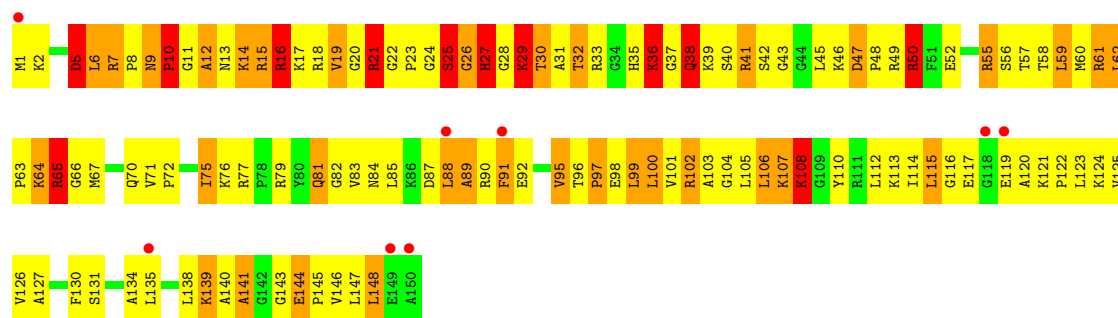
- Molecule 34: 50S ribosomal protein L14

Chain RO:



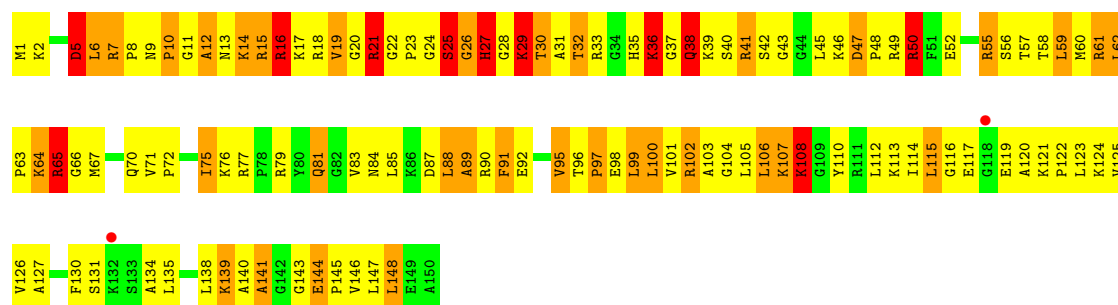
- Molecule 35: 50S ribosomal protein L15

Chain RP:



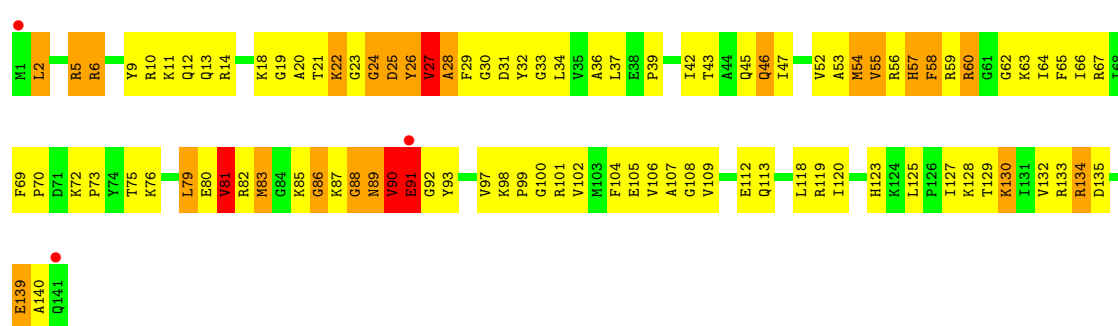
- Molecule 35: 50S ribosomal protein L15

Chain YP:



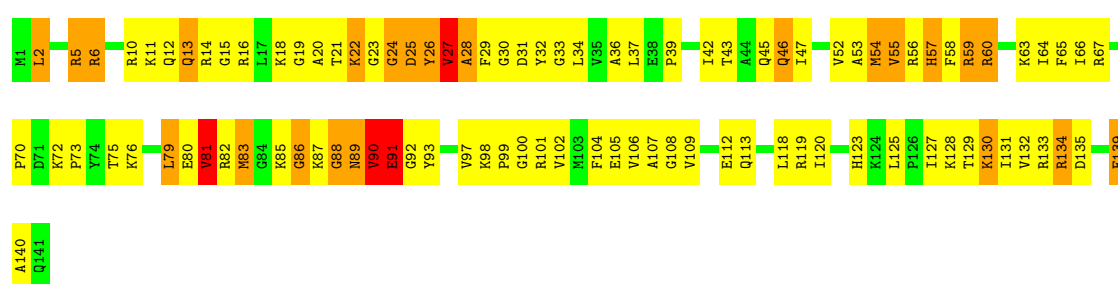
- Molecule 36: 50S ribosomal protein L16

Chain RQ:



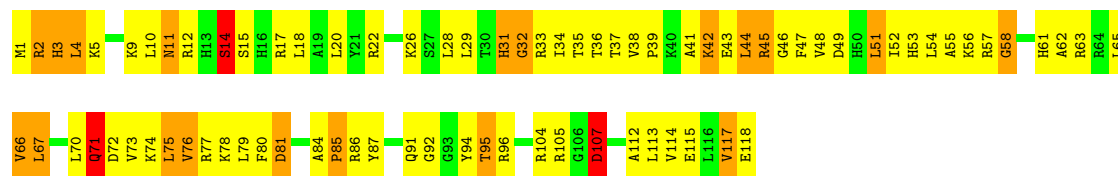
- Molecule 36: 50S ribosomal protein L16

Chain YQ:



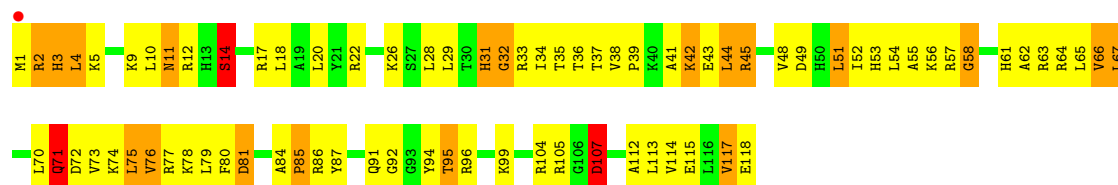
- Molecule 37: 50S ribosomal protein L17

Chain RR:



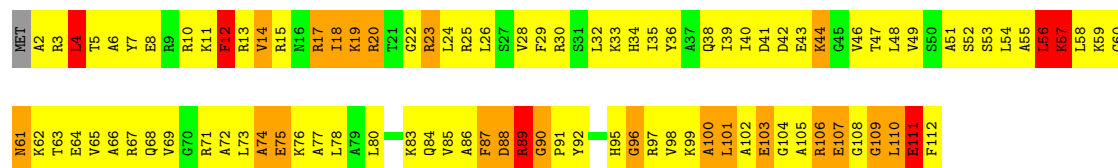
- Molecule 37: 50S ribosomal protein L17

Chain YR:



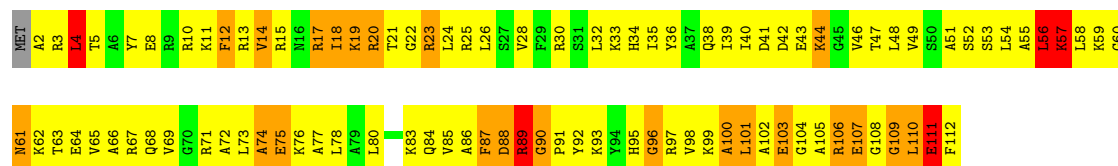
- Molecule 38: 50S ribosomal protein L18

Chain RS:



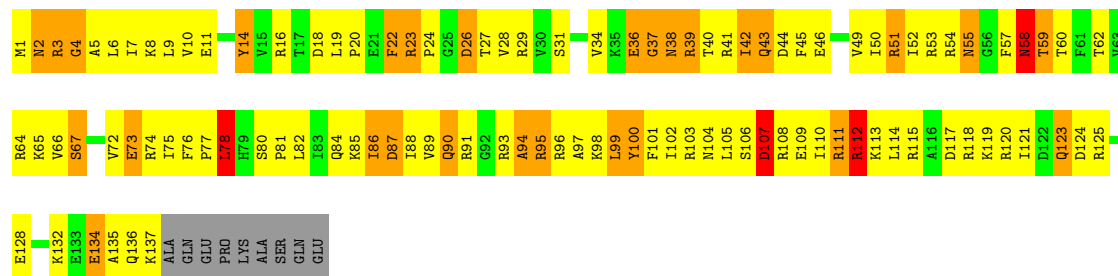
- Molecule 38: 50S ribosomal protein L18

Chain YS:



- Molecule 39: 50S ribosomal protein L19

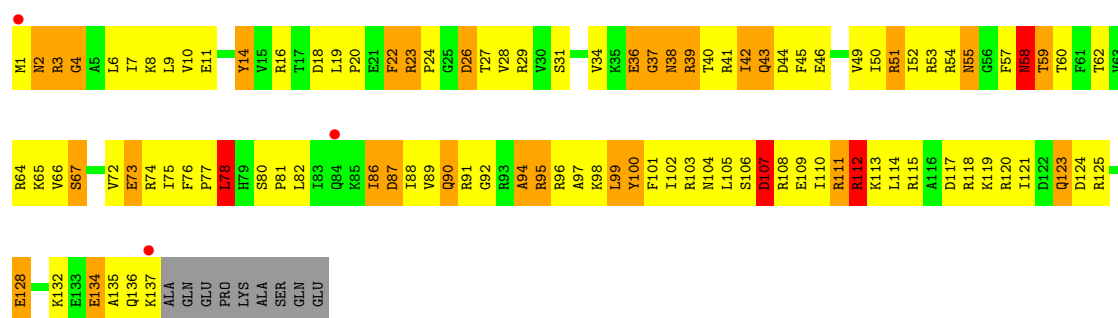
Chain RT:



- Molecule 39: 50S ribosomal protein L19

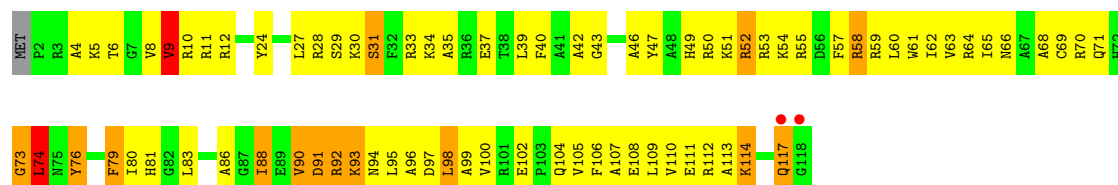
Chain YT:





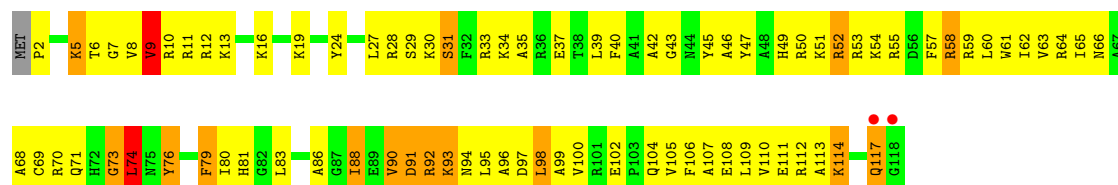
- Molecule 40: 50S ribosomal protein L20

Chain RU:



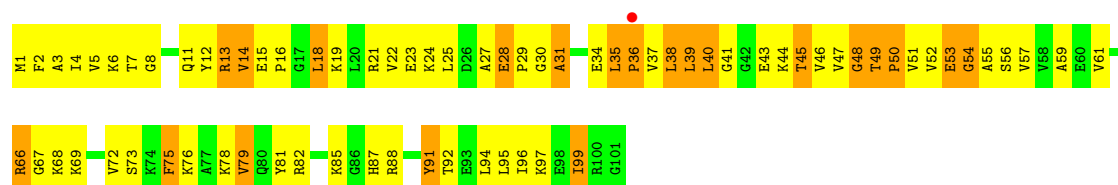
- Molecule 40: 50S ribosomal protein L20

Chain YU:



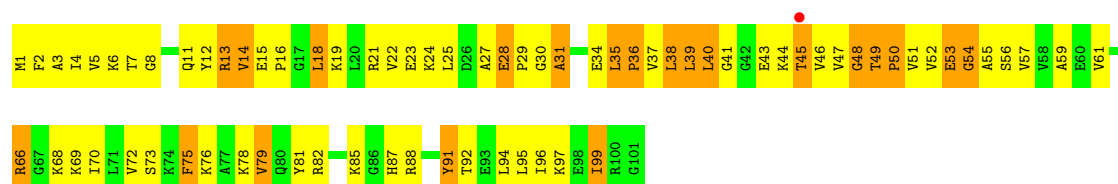
- Molecule 41: 50S ribosomal protein L21

Chain RV:



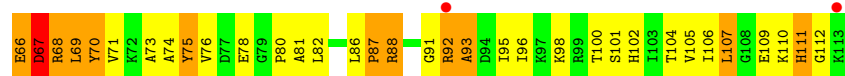
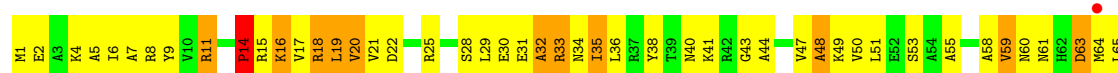
- Molecule 41: 50S ribosomal protein L21

Chain YV:



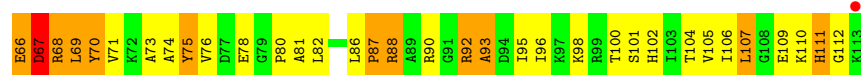
- Molecule 42: 50S ribosomal protein L22

Chain RW:



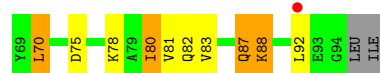
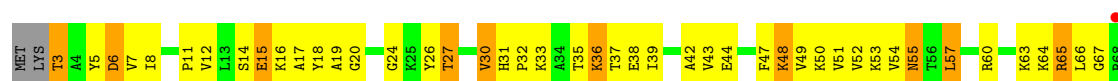
• Molecule 42: 50S ribosomal protein L22

Chain YW:



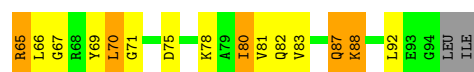
• Molecule 43: 50S ribosomal protein L23

Chain RX:



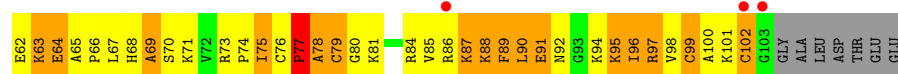
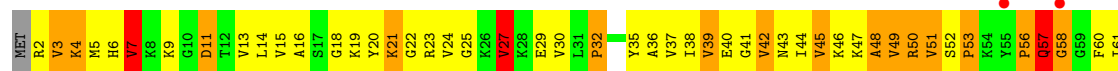
• Molecule 43: 50S ribosomal protein L23

Chain YX:



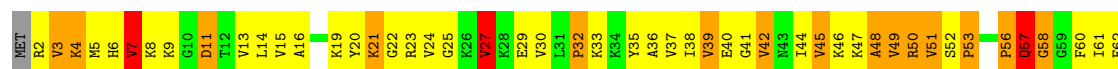
• Molecule 44: 50S ribosomal protein L24

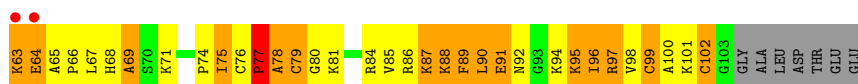
Chain RY:



• Molecule 44: 50S ribosomal protein L24

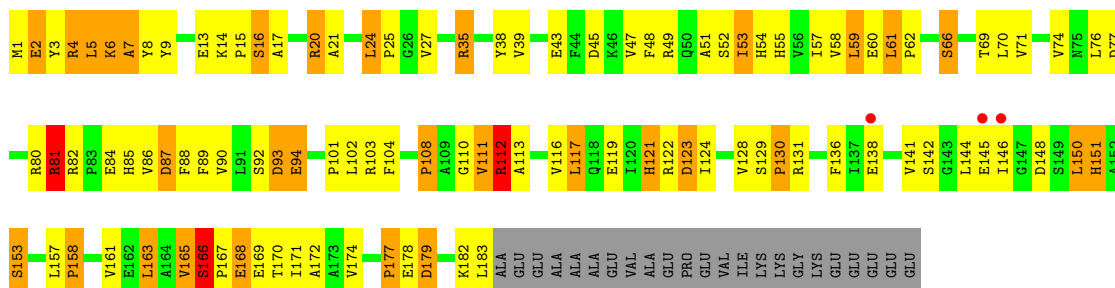
Chain YY:





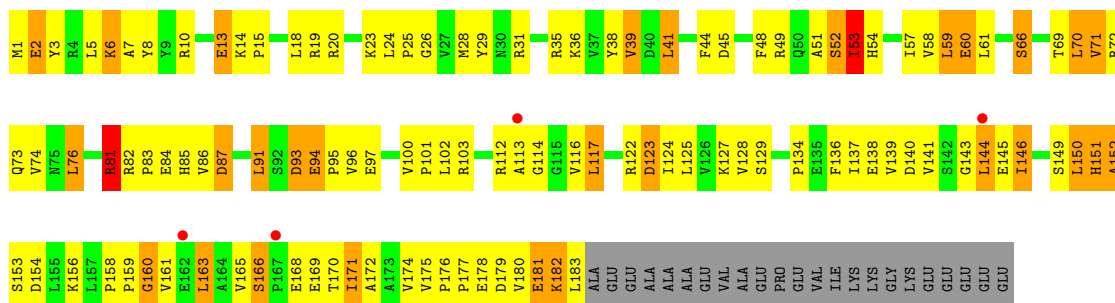
- Molecule 45: 50S ribosomal protein L25

Chain RZ:



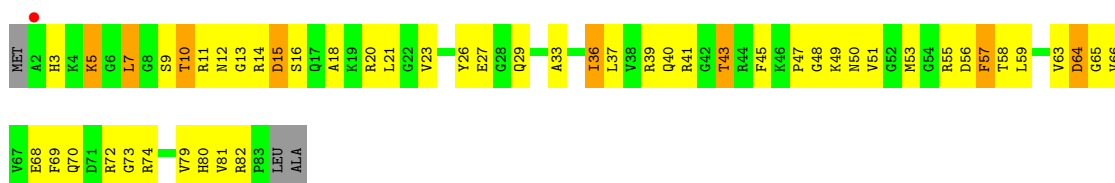
- Molecule 45: 50S ribosomal protein L25

Chain YZ:



- Molecule 46: 50S ribosomal protein L27

Chain R0:



- Molecule 46: 50S ribosomal protein L27

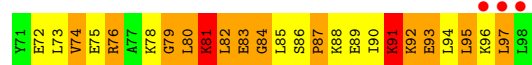
Chain Y0:



- Molecule 47: 50S ribosomal protein L28

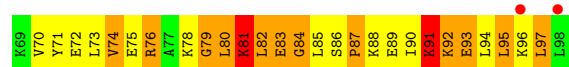
Chain R1:





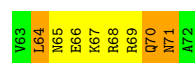
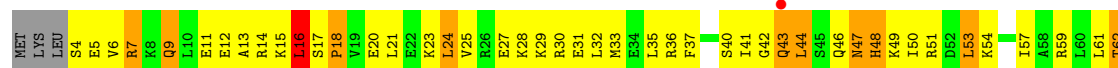
• Molecule 47: 50S ribosomal protein L28

Chain Y1:



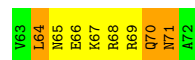
• Molecule 48: 50S ribosomal protein L29

Chain R2:



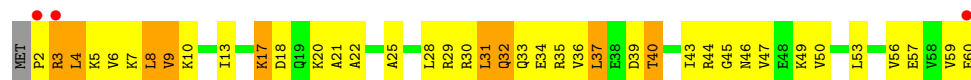
• Molecule 48: 50S ribosomal protein L29

Chain Y2:



• Molecule 49: 50S ribosomal protein L30

Chain R3:



• Molecule 49: 50S ribosomal protein L30

Chain Y3:

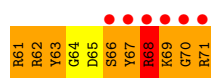


• Molecule 50: 50S ribosomal protein L31

Chain R4:







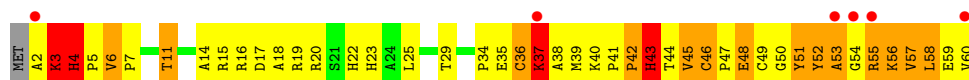
- Molecule 50: 50S ribosomal protein L31

Chain Y4:



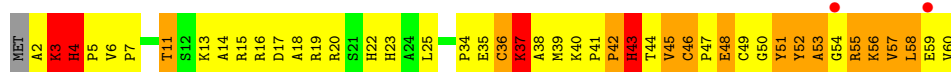
- Molecule 51: 50S ribosomal protein L32

Chain R5:



- Molecule 51: 50S ribosomal protein L32

Chain Y5:



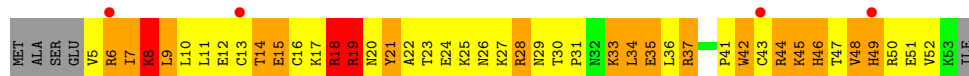
- Molecule 52: 50S ribosomal protein L33

Chain R6:



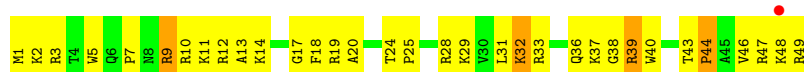
- Molecule 52: 50S ribosomal protein L33

Chain Y6:



- Molecule 53: 50S ribosomal protein L34

Chain R7:



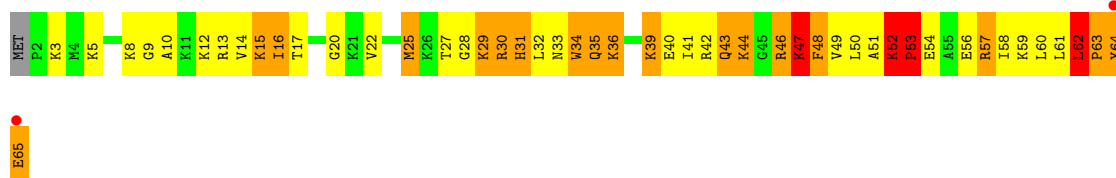
- Molecule 53: 50S ribosomal protein L34

Chain Y7:



- Molecule 54: 50S ribosomal protein L35

Chain R8:



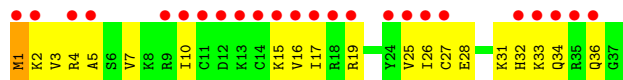
- Molecule 54: 50S ribosomal protein L35

Chain Y8:



- Molecule 55: 50S ribosomal protein L36

Chain R9:



- Molecule 55: 50S ribosomal protein L36

Chain Y9:



- Molecule 56: tRNA acceptor end mimic

Chain Z6:



- Molecule 56: tRNA acceptor end mimic

Chain Z8:



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.38Å 451.02Å 621.09Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	34.77 – 3.92 34.83 – 3.80	Depositor EDS
% Data completeness (in resolution range)	99.7 (34.77-3.92) 99.8 (34.83-3.80)	Depositor EDS
$R_{merge}$	0.34	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.60 (at 3.76Å)	Xtriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.208 , 0.265 0.207 , 0.265	Depositor DCC
$R_{free}$ test set	23100 reflections (4.42%)	DCC
Wilson B-factor (Å <sup>2</sup> )	94.6	Xtriage
Anisotropy	0.150	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.24 , -1.8	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.41$ , $\langle L^2 \rangle = 0.24$	Xtriage
Outliers	0 of 573835 reflections	Xtriage
$F_o, F_c$ correlation	0.90	EDS
Total number of atoms	291868	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	57.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.62% of the height of the origin peak. No significant pseudotranslation is detected.*

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

## 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, 1MG, PPU

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	QA	0.84	19/36098 (0.1%)	1.59	747/56341 (1.3%)
1	XA	0.89	21/36101 (0.1%)	1.65	830/56346 (1.5%)
2	QB	0.35	0/1959	0.65	0/2642
2	XB	0.36	0/1959	0.65	0/2642
3	QC	0.36	0/1629	0.60	0/2195
3	XC	0.36	0/1629	0.60	0/2195
4	QD	0.41	0/1733	0.68	1/2318 (0.0%)
4	XD	0.44	0/1733	0.68	1/2318 (0.0%)
5	QE	0.38	0/1171	0.66	0/1576
5	XE	0.38	0/1171	0.66	0/1576
6	QF	0.43	0/856	0.68	0/1154
6	XF	0.43	0/856	0.68	0/1154
7	QG	0.37	0/1276	0.60	0/1709
7	XG	0.37	0/1276	0.60	0/1709
8	QH	0.40	0/1136	0.69	0/1527
8	XH	0.40	0/1136	0.69	0/1527
9	QI	0.36	0/1029	0.67	0/1379
9	XI	0.36	0/1029	0.67	0/1379
10	QJ	0.35	0/814	0.61	0/1095
10	XJ	0.36	0/814	0.61	0/1095
11	QK	0.40	0/900	0.67	0/1213
11	XK	0.40	0/900	0.67	0/1213
12	QL	0.47	0/991	0.79	2/1327 (0.2%)
12	XL	0.52	1/991 (0.1%)	0.83	4/1327 (0.3%)
13	QM	0.34	0/974	0.66	0/1303
13	XM	0.35	0/974	0.66	0/1303
14	QN	0.42	0/501	0.68	0/664
14	XN	0.52	0/501	0.67	0/664
15	QO	0.39	0/745	0.67	0/992
15	XO	0.40	0/745	0.67	0/992
16	QP	0.36	0/721	0.67	0/970
16	XP	0.37	0/721	0.67	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	QQ	0.37	0/847	0.68	0/1131
17	XQ	0.38	0/847	0.68	0/1131
18	QR	0.39	0/579	0.72	0/768
18	XR	0.39	0/579	0.72	0/768
19	QS	0.36	0/689	0.84	2/926 (0.2%)
19	XS	0.36	0/689	0.84	2/926 (0.2%)
20	QT	0.33	0/765	0.70	0/1007
20	XT	0.34	0/765	0.69	0/1007
21	QU	0.37	0/221	0.63	0/288
21	XU	0.37	0/221	0.63	0/288
22	QV	0.51	0/1836	1.00	6/2859 (0.2%)
22	XV	0.52	0/1836	0.99	6/2859 (0.2%)
23	QX	0.39	0/185	0.71	0/285
23	XX	0.51	0/160	0.76	0/246
24	QY	0.52	0/311	0.87	0/483
24	XY	0.52	0/311	0.89	0/483
25	RA	1.03	104/69521 (0.1%)	1.85	2693/108529 (2.5%)
25	YA	1.19	254/69543 (0.4%)	1.98	3497/108563 (3.2%)
26	RB	0.82	1/2878 (0.0%)	1.59	60/4490 (1.3%)
26	YB	0.86	1/2878 (0.0%)	1.72	76/4490 (1.7%)
27	RD	0.60	2/2165 (0.1%)	0.90	4/2919 (0.1%)
27	YD	0.56	1/2165 (0.0%)	0.90	4/2919 (0.1%)
28	RE	0.52	0/1601	0.91	2/2160 (0.1%)
28	YE	0.52	0/1601	0.91	2/2160 (0.1%)
29	RF	0.50	0/1620	0.76	0/2194
29	YF	0.50	0/1620	0.76	0/2194
30	RG	0.40	0/1499	0.66	0/2016
30	YG	0.40	0/1499	0.66	0/2016
31	RH	0.45	0/1332	0.85	3/1802 (0.2%)
31	YH	0.45	0/1332	0.85	4/1802 (0.2%)
32	RI	0.44	0/1151	0.77	1/1558 (0.1%)
32	YI	0.44	0/1151	0.76	0/1558
33	RN	0.46	0/1131	0.78	1/1525 (0.1%)
33	YN	0.46	0/1131	0.78	1/1525 (0.1%)
34	RO	0.54	0/943	0.71	0/1269
34	YO	0.53	0/943	0.71	0/1269
35	RP	0.50	0/1162	0.95	3/1544 (0.2%)
35	YP	0.49	0/1162	0.95	3/1544 (0.2%)
36	RQ	0.54	0/1143	0.91	3/1527 (0.2%)
36	YQ	0.54	0/1143	0.90	3/1527 (0.2%)
37	RR	0.45	0/982	0.80	1/1312 (0.1%)
37	YR	0.45	0/982	0.80	1/1312 (0.1%)
38	RS	0.46	0/892	0.82	1/1187 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	YS	0.45	0/892	0.82	1/1187 (0.1%)
39	RT	0.47	0/1155	0.73	2/1542 (0.1%)
39	YT	0.47	0/1155	0.73	2/1542 (0.1%)
40	RU	0.48	0/982	0.78	0/1306
40	YU	0.48	0/982	0.78	0/1306
41	RV	0.47	0/790	0.82	0/1057
41	YV	0.47	0/790	0.82	0/1057
42	RW	0.45	0/911	0.75	0/1220
42	YW	0.45	0/911	0.75	0/1220
43	RX	0.56	0/739	0.77	0/993
43	YX	0.56	0/739	0.77	0/993
44	RY	0.52	0/798	0.80	0/1064
44	YY	0.52	0/798	0.80	0/1064
45	RZ	0.44	0/1493	0.70	0/2026
45	YZ	0.43	0/1493	0.70	0/2026
46	R0	0.52	0/657	0.73	0/874
46	Y0	0.55	0/657	0.80	1/874 (0.1%)
47	R1	0.49	0/770	0.85	1/1022 (0.1%)
47	Y1	0.49	0/770	0.85	1/1022 (0.1%)
48	R2	0.51	0/583	0.84	1/771 (0.1%)
48	Y2	0.51	0/583	0.83	1/771 (0.1%)
49	R3	0.47	0/474	0.71	0/635
49	Y3	0.43	0/474	0.71	0/635
50	R4	0.38	0/594	0.78	1/795 (0.1%)
50	Y4	0.38	0/594	0.78	1/795 (0.1%)
51	R5	0.51	0/473	0.74	0/639
51	Y5	0.51	0/473	0.74	0/639
52	R6	0.42	0/431	0.76	0/575
52	Y6	0.42	0/431	0.76	0/575
53	R7	0.56	0/438	0.76	0/575
53	Y7	0.56	0/438	0.76	0/575
54	R8	0.62	0/525	0.93	1/691 (0.1%)
54	Y8	0.62	0/525	0.93	1/691 (0.1%)
55	R9	0.35	0/310	0.59	0/407
55	Y9	0.37	0/310	0.61	0/407
56	Z6	0.78	0/40	1.78	1/60 (1.7%)
56	Z8	0.79	0/40	1.81	1/60 (1.7%)
All	All	0.89	404/316298 (0.1%)	1.59	7980/472872 (1.7%)

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
45	YZ	0	1

All (404) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	XA	1201	A	C3'-C2'	12.06	1.66	1.52
1	XA	1054	C	C4'-C3'	11.40	1.65	1.53
25	YA	783	A	N7-C5	-11.18	1.32	1.39
25	YA	793	A	N7-C5	-10.74	1.32	1.39
25	YA	783	A	C5-C6	-10.48	1.31	1.41
25	RA	783	A	N7-C5	-10.47	1.32	1.39
25	YA	1378	A	N9-C4	-10.25	1.31	1.37
25	YA	793	A	N9-C4	-10.17	1.31	1.37
25	RA	783	A	C5-C6	-9.29	1.32	1.41
25	YA	686	G	N7-C5	-9.19	1.33	1.39
25	YA	776	G	N7-C5	9.02	1.44	1.39
25	YA	2060	A	N3-C4	-8.73	1.29	1.34
25	YA	783	A	N3-C4	-8.69	1.29	1.34
27	RD	236	GLY	C-N	8.54	1.53	1.34
1	XA	1054	C	C2'-O2'	8.51	1.52	1.41
25	YA	503	A	C6-N1	-8.49	1.29	1.35
25	YA	783	A	N9-C4	-8.48	1.32	1.37
25	YA	512	G	N7-C5	8.32	1.44	1.39
25	RA	1142(A)	A	N9-C4	-8.29	1.32	1.37
25	YA	686	G	N3-C4	-8.27	1.29	1.35
25	YA	2251	G	C6-N1	-8.13	1.33	1.39
25	RA	1274	A	N9-C4	-8.09	1.32	1.37
25	RA	1269	A	N9-C4	-8.05	1.33	1.37
25	YA	687	C	N1-C6	-7.99	1.32	1.37
25	YA	71	A	N9-C4	-7.97	1.33	1.37
25	YA	2542	A	N9-C4	-7.89	1.33	1.37
25	YA	1439	A	N9-C4	-7.72	1.33	1.37
25	YA	1543	A	C3'-C2'	7.69	1.61	1.52
25	RA	1786	A	N9-C4	-7.67	1.33	1.37
25	RA	2287	A	N9-C4	-7.67	1.33	1.37
1	XA	1054	C	C2'-C1'	-7.62	1.45	1.53
25	RA	783	A	N3-C4	-7.60	1.30	1.34
25	YA	745	G	N7-C5	-7.55	1.34	1.39
25	YA	2060	A	C5-C6	-7.45	1.34	1.41
25	YA	2067	G	N3-C4	-7.40	1.30	1.35
25	YA	686	G	C6-N1	-7.40	1.34	1.39
25	YA	2060	A	N9-C4	-7.36	1.33	1.37
25	YA	793	A	N3-C4	-7.34	1.30	1.34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	RB	53	A	N9-C4	7.31	1.42	1.37
25	YA	1899	G	N9-C4	-7.26	1.32	1.38
25	YA	1247	A	N3-C4	-7.24	1.30	1.34
25	YA	1938	A	N9-C4	-7.21	1.33	1.37
1	XA	978	A	N9-C4	7.19	1.42	1.37
25	YA	575	A	N9-C4	-7.14	1.33	1.37
25	RA	2593	U	C4-O4	7.14	1.29	1.23
25	YA	2360	A	N9-C4	-7.12	1.33	1.37
25	YA	454	A	N9-C4	-7.09	1.33	1.37
1	QA	1499	A	N9-C4	-7.08	1.33	1.37
25	YA	793	A	C5-C6	-7.06	1.34	1.41
25	YA	2247	A	N7-C5	-7.05	1.35	1.39
25	YA	2060	A	N7-C5	-7.04	1.35	1.39
1	QA	1346	A	N9-C4	-7.04	1.33	1.37
25	YA	2062	A	N3-C4	7.04	1.39	1.34
25	YA	203	C	N1-C6	-7.03	1.32	1.37
25	RA	2776	A	N9-C4	7.00	1.42	1.37
25	YA	2227	A	N3-C4	-6.95	1.30	1.34
25	RA	1274	A	N3-C4	-6.93	1.30	1.34
25	YA	311	A	N9-C4	-6.92	1.33	1.37
25	YA	788	A	C5-C6	-6.91	1.34	1.41
25	RA	2450	A	N9-C4	6.90	1.42	1.37
25	YA	503	A	N3-C4	-6.90	1.30	1.34
25	YA	1789	A	N9-C4	-6.89	1.33	1.37
25	RA	74	A	N7-C5	-6.89	1.35	1.39
25	YA	2062	A	C5-C4	6.85	1.43	1.38
25	RA	1617	C	N1-C6	-6.84	1.33	1.37
25	YA	1247	A	N9-C4	-6.83	1.33	1.37
25	YA	528	A	N9-C4	-6.82	1.33	1.37
1	QA	1432	G	C5-C4	6.78	1.43	1.38
25	RA	2393	A	N9-C4	-6.78	1.33	1.37
25	YA	473	G	C5-C4	-6.77	1.33	1.38
25	RA	1785	A	N7-C5	-6.77	1.35	1.39
25	YA	687	C	N1-C2	-6.75	1.33	1.40
25	YA	1609	A	N9-C4	-6.71	1.33	1.37
25	YA	1251	C	N1-C6	-6.71	1.33	1.37
25	YA	1605	C	N1-C6	-6.70	1.33	1.37
25	YA	1021	A	N9-C4	-6.69	1.33	1.37
25	YA	1950	G	C2-N3	6.68	1.38	1.32
25	YA	1668	A	C6-N1	-6.67	1.30	1.35
25	RA	1931	U	N3-C4	-6.66	1.32	1.38
25	RA	2433	A	N7-C5	-6.65	1.35	1.39

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	YA	2252	G	N7-C5	-6.63	1.35	1.39
25	YA	788	A	N9-C4	-6.63	1.33	1.37
25	YA	2432	A	C5-C6	-6.61	1.35	1.41
25	YA	1966	A	N9-C4	-6.60	1.33	1.37
1	QA	1064	G	C2'-C1'	6.59	1.60	1.53
25	RA	2227	A	N9-C4	-6.58	1.33	1.37
25	RA	802	A	N3-C4	-6.57	1.30	1.34
25	YA	2251	G	N3-C4	-6.55	1.30	1.35
25	RA	2031	A	N9-C4	6.52	1.41	1.37
1	XA	792	A	N9-C4	-6.50	1.33	1.37
25	RA	1890	A	N9-C4	-6.50	1.33	1.37
25	YA	2080	G	N7-C5	-6.49	1.35	1.39
25	YA	1899	G	N3-C4	-6.49	1.30	1.35
25	YA	246	C	N1-C6	-6.49	1.33	1.37
25	YA	2335	A	N9-C4	-6.48	1.33	1.37
25	YA	787	U	N1-C2	-6.48	1.32	1.38
25	YA	794	G	N7-C5	-6.48	1.35	1.39
25	YA	2227	A	N9-C4	-6.48	1.33	1.37
1	XA	563	A	C6-N6	6.45	1.39	1.33
25	YA	780	G	N7-C5	-6.43	1.35	1.39
25	YA	1571	A	N9-C4	-6.42	1.33	1.37
25	YA	2032	G	N9-C8	6.42	1.42	1.37
25	YA	515	A	N9-C4	-6.41	1.34	1.37
25	YA	1890	A	N9-C4	-6.41	1.34	1.37
25	YA	2452	C	N1-C6	-6.40	1.33	1.37
1	QA	299	G	C5-C4	6.37	1.42	1.38
25	YA	142	G	N9-C4	-6.37	1.32	1.38
25	RA	1342	A	N9-C4	-6.36	1.34	1.37
25	YA	1367	A	N7-C5	-6.35	1.35	1.39
25	YA	2611	U	C2-N3	-6.32	1.33	1.37
25	YA	1762	A	N9-C4	6.32	1.41	1.37
1	QA	189	U	C2'-C1'	6.30	1.60	1.53
25	RA	2062	A	N3-C4	6.29	1.38	1.34
25	YA	454	A	N7-C5	-6.29	1.35	1.39
25	YA	2450	A	N7-C5	-6.29	1.35	1.39
25	YA	216	A	N7-C5	-6.28	1.35	1.39
25	YA	1613	G	C8-N7	-6.27	1.27	1.30
25	RA	783	A	N9-C4	-6.26	1.34	1.37
25	YA	2450	A	N3-C4	-6.26	1.31	1.34
25	YA	761	A	C5-C6	-6.26	1.35	1.41
25	YA	1606	G	N9-C8	-6.25	1.33	1.37
25	YA	1770	G	N7-C5	-6.24	1.35	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	RA	2062	A	C5-C4	6.24	1.43	1.38
25	RA	2032	G	N9-C8	6.24	1.42	1.37
25	RA	1928	A	N9-C4	-6.24	1.34	1.37
25	YA	309	G	N9-C4	6.23	1.43	1.38
25	YA	469	G	C6-N1	-6.22	1.35	1.39
25	YA	1610	A	C5-C6	-6.22	1.35	1.41
1	QA	758	G	C8-N7	6.22	1.34	1.30
25	YA	1675	C	N3-C4	-6.21	1.29	1.33
25	RA	127	A	N9-C4	-6.20	1.34	1.37
25	YA	1626	G	N7-C5	-6.18	1.35	1.39
25	RA	1899	G	C2-N3	6.18	1.37	1.32
25	RA	654(T)	C	C1'-N1	6.17	1.58	1.48
25	RA	1665	A	N7-C5	-6.17	1.35	1.39
25	YA	2518	A	N9-C4	-6.16	1.34	1.37
25	YA	1380	G	N7-C5	-6.15	1.35	1.39
25	RA	2712(A)	A	N7-C5	-6.14	1.35	1.39
25	YA	687	C	C4-C5	-6.14	1.38	1.43
1	QA	299	G	N1-C2	6.11	1.42	1.37
25	YA	2432	A	N7-C5	-6.10	1.35	1.39
25	YA	563	G	C6-N1	-6.10	1.35	1.39
25	YA	1698	A	N7-C5	-6.09	1.35	1.39
25	YA	2430	A	N3-C4	-6.09	1.31	1.34
25	YA	766	C	N3-C4	-6.09	1.29	1.33
25	YA	2451	A	N7-C5	-6.08	1.35	1.39
25	YA	469	G	N7-C5	-6.07	1.35	1.39
25	RA	685	A	C5-C4	-6.07	1.34	1.38
25	YA	1774	C	N1-C2	-6.07	1.34	1.40
25	YA	1610	A	N7-C5	-6.05	1.35	1.39
25	RA	471	A	C5-C6	-6.04	1.35	1.41
25	YA	1203	G	N9-C4	6.03	1.42	1.38
25	YA	2059	A	N9-C4	-6.03	1.34	1.37
1	QA	1346	A	C3'-C2'	6.02	1.59	1.52
25	YA	818	G	N7-C5	-6.02	1.35	1.39
25	YA	2252	G	C5-C6	-6.01	1.36	1.42
25	YA	503	A	N7-C5	-6.00	1.35	1.39
25	RA	2032	G	N7-C5	6.00	1.42	1.39
25	YA	627	A	N9-C4	-5.99	1.34	1.37
25	RA	2490	G	C2-N3	5.99	1.37	1.32
25	YA	1543	A	C2'-C1'	-5.99	1.46	1.53
25	YA	1616	A	N9-C4	-5.99	1.34	1.37
25	YA	298	G	N9-C8	5.98	1.42	1.37
25	RA	2553	G	N3-C4	-5.98	1.31	1.35

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	XA	247	G	N9-C4	5.98	1.42	1.38
25	RA	776	G	N9-C4	-5.96	1.33	1.38
25	YA	216	A	C5-C6	-5.95	1.35	1.41
25	YA	1378	A	N3-C4	-5.94	1.31	1.34
25	YA	775	G	N7-C5	-5.93	1.35	1.39
25	YA	2686	G	N9-C4	5.93	1.42	1.38
25	YA	701	G	N3-C4	-5.93	1.31	1.35
25	YA	681	G	N3-C4	-5.92	1.31	1.35
25	YA	1571	A	N3-C4	-5.91	1.31	1.34
25	YA	574	C	N1-C6	-5.90	1.33	1.37
1	QA	195	A	N9-C4	5.89	1.41	1.37
1	XA	535	A	N9-C4	-5.89	1.34	1.37
25	YA	140	A	C5-C6	-5.88	1.35	1.41
25	YA	793	A	C5-C4	-5.88	1.34	1.38
25	YA	2621	A	N9-C4	-5.88	1.34	1.37
25	YA	682	G	N7-C5	-5.88	1.35	1.39
25	YA	782	A	N7-C5	-5.87	1.35	1.39
25	RA	1315	C	N3-C4	-5.86	1.29	1.33
25	YA	1771	C	N1-C6	-5.85	1.33	1.37
25	YA	2597	G	N3-C4	-5.84	1.31	1.35
25	YA	2577	A	N9-C4	-5.83	1.34	1.37
25	YA	960	A	N9-C4	-5.82	1.34	1.37
1	XA	1370	G	C5-C4	5.82	1.42	1.38
25	YA	512	G	C8-N7	5.81	1.34	1.30
25	YA	1690	A	N9-C4	-5.81	1.34	1.37
1	QA	353	A	N9-C4	-5.81	1.34	1.37
25	RA	2451	A	N9-C4	-5.81	1.34	1.37
25	RA	2251	G	N3-C4	-5.80	1.31	1.35
25	YA	820	A	N3-C4	-5.79	1.31	1.34
25	RA	789	A	N9-C4	-5.78	1.34	1.37
25	YA	2502	G	N7-C5	-5.78	1.35	1.39
25	YA	1972	A	N7-C5	-5.77	1.35	1.39
25	RA	1776	G	N7-C5	-5.74	1.35	1.39
25	YA	465	G	N9-C4	5.74	1.42	1.38
25	YA	502	A	N3-C4	-5.72	1.31	1.34
25	RA	2002	G	C8-N7	5.72	1.34	1.30
25	YA	966	G	N3-C4	-5.71	1.31	1.35
25	RA	1783	A	N9-C4	-5.71	1.34	1.37
25	YA	689	A	N7-C5	-5.70	1.35	1.39
25	YA	1783	A	N9-C4	-5.70	1.34	1.37
25	YA	2054	A	N7-C5	-5.70	1.35	1.39
25	YA	2062	A	C6-N1	5.70	1.39	1.35

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	YA	2060	A	C5-C4	-5.70	1.34	1.38
25	YA	788	A	N7-C5	-5.69	1.35	1.39
1	QA	768	A	N9-C4	-5.69	1.34	1.37
25	YA	785	G	N7-C5	-5.68	1.35	1.39
1	XA	900	A	N9-C4	-5.68	1.34	1.37
25	RA	1786	A	N7-C5	-5.67	1.35	1.39
1	QA	1227	A	N9-C4	-5.66	1.34	1.37
25	RA	1308	A	N7-C5	-5.65	1.35	1.39
25	YA	1204	A	N9-C4	-5.65	1.34	1.37
1	XA	520	A	N9-C4	-5.64	1.34	1.37
25	YA	28	A	N7-C5	-5.64	1.35	1.39
25	YA	774	A	N9-C4	-5.64	1.34	1.37
25	YA	1621	U	N1-C2	-5.64	1.33	1.38
1	QA	347	G	N9-C4	-5.62	1.33	1.38
25	YA	2583	G	N7-C5	-5.61	1.35	1.39
25	RA	37	C	N3-C4	-5.60	1.30	1.33
25	RA	821	A	N3-C4	-5.59	1.31	1.34
25	RA	1328	G	N3-C4	5.59	1.39	1.35
25	YA	1607	C	N3-C4	5.59	1.37	1.33
25	YA	502	A	N7-C5	-5.58	1.35	1.39
25	YA	575	A	N3-C4	-5.57	1.31	1.34
25	RA	2062	A	P-O5'	-5.57	1.54	1.59
25	RA	1213	A	N9-C4	-5.56	1.34	1.37
25	YA	74	A	N3-C4	-5.55	1.31	1.34
25	YA	2450	A	C6-N1	-5.55	1.31	1.35
25	RA	607	U	N3-C4	-5.54	1.33	1.38
25	YA	701	G	N7-C5	-5.54	1.35	1.39
25	RA	2409	G	C5-C6	-5.54	1.36	1.42
25	YA	686	G	C5-C6	-5.54	1.36	1.42
1	QA	353	A	N3-C4	-5.53	1.31	1.34
25	RA	1786	A	C5-C6	-5.52	1.36	1.41
25	YA	473	G	C6-N1	-5.52	1.35	1.39
25	YA	1788	C	N1-C2	-5.52	1.34	1.40
25	YA	2062	A	P-O5'	-5.52	1.54	1.59
25	YA	1800	C	N1-C6	-5.51	1.33	1.37
25	YA	1956	U	C4-O4	5.51	1.28	1.23
25	YA	966	G	N9-C4	-5.51	1.33	1.38
25	YA	2441	C	N3-C4	-5.51	1.30	1.33
25	RA	727	A	N9-C4	5.50	1.41	1.37
25	RA	2713	A	N9-C4	-5.50	1.34	1.37
25	YA	450	G	C5-C4	5.50	1.42	1.38
1	XA	792	A	C5-C6	-5.50	1.36	1.41

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	YA	1899	G	C2-N3	-5.49	1.28	1.32
25	YA	1602	U	C4-O4	5.49	1.28	1.23
25	YA	2432	A	N9-C4	-5.49	1.34	1.37
25	YA	1762	A	C5-C6	5.48	1.46	1.41
25	YA	2589	A	N9-C4	-5.48	1.34	1.37
25	YA	1328	G	C2-N3	5.48	1.37	1.32
25	RA	1566	A	N9-C4	-5.47	1.34	1.37
25	YA	1774	C	N1-C6	-5.47	1.33	1.37
25	RA	687	C	C4-C5	-5.46	1.38	1.43
25	YA	1607	C	N1-C2	5.45	1.45	1.40
25	YA	793	A	N9-C8	-5.45	1.33	1.37
25	RA	793	A	C5-C6	-5.45	1.36	1.41
25	RA	571	A	N9-C4	-5.45	1.34	1.37
25	RA	252	G	N3-C4	-5.45	1.31	1.35
25	RA	1809	A	N7-C5	-5.44	1.35	1.39
25	RA	1821	A	C5-C6	-5.44	1.36	1.41
25	YA	1829	A	N3-C4	-5.44	1.31	1.34
25	YA	2607	G	N7-C5	-5.44	1.35	1.39
25	YA	1256	G	C6-N1	-5.44	1.35	1.39
25	RA	686	G	N7-C5	-5.43	1.35	1.39
25	RA	2421	G	N9-C4	5.43	1.42	1.38
25	RA	2251	G	C6-N1	-5.43	1.35	1.39
25	YA	1613	G	C5-C6	-5.43	1.36	1.42
25	YA	1189	A	N9-C4	-5.43	1.34	1.37
25	RA	2433	A	N3-C4	-5.41	1.31	1.34
25	YA	2237	G	N9-C4	5.41	1.42	1.38
25	YA	2844	G	N7-C5	-5.40	1.36	1.39
25	YA	246	C	N1-C2	-5.40	1.34	1.40
25	YA	228	A	N9-C4	5.39	1.41	1.37
25	RA	680	G	C6-N1	-5.39	1.35	1.39
25	YA	774	A	C5-C6	-5.39	1.36	1.41
25	YA	1328	G	N9-C4	5.39	1.42	1.38
25	YA	1605	C	N3-C4	-5.39	1.30	1.33
25	YA	613	U	N1-C2	-5.38	1.33	1.38
25	YA	2014	A	C5-C6	-5.38	1.36	1.41
25	RA	195	A	N7-C5	5.38	1.42	1.39
25	YA	256	A	C5-C6	-5.38	1.36	1.41
25	YA	2550	G	N7-C5	-5.38	1.36	1.39
25	RA	793	A	N9-C4	-5.38	1.34	1.37
1	XA	864	A	N9-C4	5.37	1.41	1.37
25	RA	1021	A	N9-C4	-5.37	1.34	1.37
25	YA	1803	A	N9-C4	-5.37	1.34	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	QA	767	A	N9-C4	-5.35	1.34	1.37
25	YA	469	G	N3-C4	-5.35	1.31	1.35
25	YA	2446	G	N7-C5	-5.35	1.36	1.39
1	XA	1418	A	N9-C4	-5.34	1.34	1.37
25	YA	454	A	N3-C4	-5.33	1.31	1.34
25	YA	1367	A	C5-C6	-5.33	1.36	1.41
25	RA	2452	C	N1-C6	-5.33	1.33	1.37
25	YA	2587	A	N9-C4	-5.33	1.34	1.37
25	YA	2273	A	C5-C6	-5.32	1.36	1.41
25	YA	2450	A	C5-C4	-5.32	1.35	1.38
25	RA	307	G	N9-C4	5.31	1.42	1.38
25	YA	2758	A	N9-C4	-5.31	1.34	1.37
25	YA	686	G	N9-C8	-5.30	1.34	1.37
25	YA	205	G	N9-C8	-5.30	1.34	1.37
25	YA	1890	A	C5-C6	-5.29	1.36	1.41
25	RA	1638	C	N3-C4	-5.29	1.30	1.33
1	QA	758	G	N7-C5	5.29	1.42	1.39
25	YA	1606	G	C8-N7	-5.28	1.27	1.30
25	RA	774	A	N9-C4	-5.28	1.34	1.37
25	RA	747	U	N1-C2	-5.28	1.33	1.38
1	XA	901	A	C5-C6	-5.27	1.36	1.41
25	YA	457	A	N3-C4	-5.27	1.31	1.34
25	YA	457	A	N7-C5	-5.27	1.36	1.39
1	QA	498	A	N9-C4	-5.27	1.34	1.37
25	RA	2062	A	C6-N1	5.26	1.39	1.35
25	YA	2004	G	N7-C5	-5.25	1.36	1.39
25	YA	1190	G	N9-C4	-5.24	1.33	1.38
25	YA	575	A	N7-C5	-5.24	1.36	1.39
25	YA	74	A	C6-N1	-5.24	1.31	1.35
25	YA	450	G	C6-O6	5.24	1.28	1.24
25	YA	574	C	N1-C2	-5.23	1.34	1.40
25	YA	2712(A)	A	N7-C5	-5.23	1.36	1.39
25	RA	2048	G	C6-N1	-5.23	1.35	1.39
1	XA	423	G	N9-C4	5.22	1.42	1.38
25	YA	745	G	N3-C4	-5.22	1.31	1.35
25	RA	2553	G	C6-N1	-5.22	1.35	1.39
25	YA	2273	A	N7-C5	-5.22	1.36	1.39
25	YA	953	A	N9-C4	-5.21	1.34	1.37
25	YA	2502	G	N3-C4	-5.21	1.31	1.35
1	XA	1397	C	N1-C6	5.21	1.40	1.37
27	RD	241	PRO	N-CD	5.21	1.55	1.47
25	YA	1701	A	N7-C5	-5.21	1.36	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	YA	952	G	N7-C5	-5.21	1.36	1.39
25	YA	1903	G	N9-C4	-5.21	1.33	1.38
1	XA	535	A	N3-C4	-5.20	1.31	1.34
25	YA	1668	A	N3-C4	-5.20	1.31	1.34
25	YA	1824	G	N7-C5	-5.20	1.36	1.39
25	YA	972	G	C6-N1	-5.19	1.35	1.39
25	RA	1803	A	C5-C4	-5.19	1.35	1.38
25	YA	2441	C	C2-N3	-5.18	1.31	1.35
25	RA	751	A	N7-C5	-5.18	1.36	1.39
1	XA	274	A	N9-C4	-5.17	1.34	1.37
25	YA	138	G	N7-C5	5.17	1.42	1.39
25	RA	2409	G	N7-C5	-5.16	1.36	1.39
25	YA	2020	A	C6-N1	-5.16	1.31	1.35
25	YA	2247	A	C5-C6	-5.15	1.36	1.41
1	QA	782	A	N9-C4	-5.15	1.34	1.37
25	YA	2256	G	N1-C2	-5.13	1.33	1.37
25	YA	1567	A	N9-C4	-5.13	1.34	1.37
25	YA	1905	C	N1-C6	-5.13	1.34	1.37
25	RA	28	A	N3-C4	-5.13	1.31	1.34
25	RA	568	U	C4-O4	5.13	1.27	1.23
25	RA	2614	A	C6-N1	5.13	1.39	1.35
25	YA	1774	C	C2-N3	-5.13	1.31	1.35
25	YA	784	A	C5-C4	-5.12	1.35	1.38
25	RA	1613	G	N7-C5	-5.12	1.36	1.39
25	RA	462	C	N1-C6	-5.12	1.34	1.37
25	YA	764	A	N9-C4	-5.12	1.34	1.37
25	YA	1813	G	N7-C5	-5.12	1.36	1.39
25	YA	2073	C	N3-C4	-5.11	1.30	1.33
25	RA	761	A	N9-C4	-5.11	1.34	1.37
25	YA	317	G	C6-N1	-5.10	1.35	1.39
25	RA	776	G	N7-C5	5.10	1.42	1.39
1	XA	713	G	N9-C4	5.10	1.42	1.38
25	YA	78	A	C5-C6	-5.10	1.36	1.41
25	RA	572	A	C6-N1	-5.09	1.31	1.35
25	YA	1774	C	N3-C4	-5.09	1.30	1.33
25	RA	2837	G	C8-N7	5.08	1.33	1.30
25	YA	197	A	N9-C4	-5.08	1.34	1.37
25	YA	799	G	C6-N1	-5.08	1.35	1.39
26	YB	99	A	N9-C4	-5.08	1.34	1.37
25	YA	117	G	C6-N1	-5.08	1.35	1.39
25	YA	872	A	N9-C4	5.08	1.40	1.37
25	YA	2247	A	C6-N1	-5.07	1.31	1.35

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	RA	821	A	N7-C5	-5.07	1.36	1.39
25	RA	1307	A	N9-C4	-5.07	1.34	1.37
25	YA	1528	A	N7-C5	-5.06	1.36	1.39
25	YA	1613	G	N7-C5	-5.06	1.36	1.39
25	YA	2601	C	C4-N4	-5.06	1.29	1.33
25	RA	1299	G	N9-C4	-5.05	1.33	1.38
25	RA	687	C	N1-C6	-5.05	1.34	1.37
25	YA	1902	C	N1-C6	-5.05	1.34	1.37
25	RA	761	A	N7-C5	5.05	1.42	1.39
25	RA	689	A	N9-C4	-5.05	1.34	1.37
25	YA	452	G	N1-C2	-5.05	1.33	1.37
25	YA	1773	A	N3-C4	-5.05	1.31	1.34
25	YA	625	G	N9-C4	-5.04	1.33	1.38
25	YA	2587	A	N7-C5	-5.04	1.36	1.39
25	YA	799	G	N7-C5	-5.03	1.36	1.39
25	YA	216	A	C5-C4	-5.03	1.35	1.38
25	YA	1816	G	C6-N1	5.03	1.43	1.39
25	RA	216	A	C5-C6	-5.03	1.36	1.41
25	RA	1969	A	N3-C4	-5.02	1.31	1.34
25	YA	1270	C	N1-C6	-5.02	1.34	1.37
25	YA	1477	A	N7-C5	-5.02	1.36	1.39
12	XL	48	PRO	N-CD	5.01	1.54	1.47
25	RA	471	A	N9-C4	-5.01	1.34	1.37
25	RA	607	U	C2-N3	-5.01	1.34	1.37
25	YA	282	A	N3-C4	-5.01	1.31	1.34
27	YD	241	PRO	N-CD	5.01	1.54	1.47
25	RA	768	G	C6-N1	-5.00	1.36	1.39
25	YA	505	A	N9-C4	-5.00	1.34	1.37
25	YA	1254	A	N3-C4	-5.00	1.31	1.34
25	YA	1953	A	N9-C4	-5.00	1.34	1.37

All (7980) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	761	A	N1-C6-N6	19.13	130.07	118.60
25	RA	2490	G	C6-C5-N7	-18.87	119.08	130.40
25	RA	783	A	C6-C5-N7	-17.19	120.27	132.30
25	RA	783	A	N1-C6-N6	16.89	128.74	118.60
25	YA	783	A	N1-C6-N6	16.68	128.61	118.60
25	RA	2490	G	C4-C5-N7	16.43	117.37	110.80
25	YA	783	A	C6-C5-N7	-15.94	121.15	132.30
25	YA	450	G	C5-C6-N1	-15.52	103.74	111.50

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2490	G	N3-C4-N9	15.10	135.06	126.00
25	YA	783	A	C5-N7-C8	-14.97	96.41	103.90
25	YA	761	A	C6-C5-N7	-14.60	122.08	132.30
1	XA	1412	C	C6-N1-C2	14.60	126.14	120.30
25	YA	761	A	C5-N7-C8	-14.24	96.78	103.90
25	RA	2490	G	C5-C6-O6	-14.24	120.06	128.60
25	YA	701	G	N1-C6-O6	13.79	128.17	119.90
25	YA	2506	U	N3-C2-O2	-13.79	112.55	122.20
25	RA	2490	G	C4-N9-C1'	13.75	144.38	126.50
25	RA	2556	C	N1-C2-O2	13.62	127.07	118.90
25	RA	1899	G	C6-C5-N7	-13.57	122.26	130.40
25	YA	570	G	C5-C6-N1	-13.47	104.77	111.50
25	RA	2490	G	N1-C6-O6	13.40	127.94	119.90
25	YA	701	G	C6-C5-N7	-13.38	122.37	130.40
25	YA	842	G	N1-C6-O6	13.35	127.91	119.90
25	YA	1190	G	C5-N7-C8	-13.17	97.71	104.30
25	RA	2593	U	N3-C4-C5	-13.16	106.70	114.60
25	YA	761	A	C4-C5-N7	13.02	117.21	110.70
25	YA	1204	A	C2-N3-C4	-13.02	104.09	110.60
25	YA	783	A	C4-C5-N7	12.96	117.18	110.70
25	YA	613	U	N1-C2-O2	-12.93	113.75	122.80
25	RA	791	C	C6-N1-C2	12.89	125.46	120.30
25	YA	783	A	N7-C8-N9	12.87	120.23	113.80
25	YA	2681	C	C6-N1-C2	-12.84	115.17	120.30
25	YA	265	A	O4'-C1'-N9	12.79	118.44	108.20
25	YA	2432	A	N1-C6-N6	12.76	126.26	118.60
25	RA	2490	G	C8-N9-C1'	-12.76	110.42	127.00
25	RA	2450	A	C8-N9-C4	-12.72	100.71	105.80
25	RA	567	A	O5'-P-OP2	-12.71	94.27	105.70
25	RA	783	A	C5-N7-C8	-12.66	97.57	103.90
1	XA	299	G	C5-C6-N1	-12.64	105.18	111.50
25	YA	945	A	N1-C6-N6	12.62	126.17	118.60
25	YA	2542	A	C2-N3-C4	-12.62	104.29	110.60
25	RA	1795	C	C6-N1-C2	-12.56	115.28	120.30
25	YA	2576	G	O5'-P-OP2	-12.45	94.50	105.70
25	YA	1899	G	N3-C4-N9	-12.44	118.53	126.00
25	RA	1786	A	C2-N3-C4	-12.44	104.38	110.60
25	RA	733	G	C5-N7-C8	-12.43	98.08	104.30
25	RA	2490	G	N9-C4-C5	-12.41	100.44	105.40
1	XA	812	C	N1-C2-O2	12.41	126.34	118.90
25	RA	856	C	C5-C6-N1	12.40	127.20	121.00
1	QA	299	G	C5-C6-N1	-12.39	105.31	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	450	G	C4-C5-C6	12.37	126.22	118.80
25	YA	2451	A	C8-N9-C4	-12.35	100.86	105.80
25	RA	2447	G	C6-C5-N7	-12.29	123.03	130.40
25	YA	662	G	C6-C5-N7	-12.24	123.06	130.40
25	RA	1698	A	C2-N3-C4	-12.12	104.54	110.60
25	RA	783	A	C4-C5-C6	12.12	123.06	117.00
25	RA	2614	A	C6-N1-C2	-12.11	111.34	118.60
25	RA	2421	G	N3-C4-N9	12.09	133.25	126.00
25	RA	2614	A	C5-C6-N1	11.99	123.69	117.70
25	RA	1899	G	N3-C4-N9	11.97	133.18	126.00
25	RA	783	A	C4-C5-N7	11.95	116.68	110.70
25	RA	1437	C	C6-N1-C2	-11.86	115.56	120.30
22	XV	17	C	C2-N1-C1'	11.85	131.84	118.80
25	YA	338	G	N3-C4-C5	-11.84	122.68	128.60
25	YA	1228	G	N1-C6-O6	11.83	127.00	119.90
25	RA	1617	C	C6-N1-C2	11.82	125.03	120.30
25	YA	2544	G	N1-C6-O6	11.81	126.99	119.90
25	RA	1776	G	C6-C5-N7	-11.80	123.32	130.40
22	QV	17	C	C2-N1-C1'	11.80	131.78	118.80
25	YA	761	A	C5-C6-N6	-11.76	114.29	123.70
25	YA	1606	G	N3-C4-N9	11.72	133.03	126.00
25	RA	1624	G	N1-C6-O6	11.65	126.89	119.90
25	YA	2712(A)	A	N7-C8-N9	11.61	119.61	113.80
25	RA	2053	G	O5'-P-OP1	-11.61	95.26	105.70
25	YA	140	A	N1-C6-N6	11.60	125.56	118.60
25	RA	856	C	C6-N1-C2	-11.59	115.66	120.30
25	YA	1647	G	O5'-P-OP1	-11.59	95.27	105.70
25	YA	1776	G	O5'-P-OP1	-11.59	95.27	105.70
25	RA	2394	C	N1-C2-O2	11.58	125.85	118.90
25	RA	676	A	N7-C8-N9	11.55	119.58	113.80
25	RA	450	G	C5-C6-N1	-11.52	105.74	111.50
25	RA	780	G	C8-N9-C4	-11.48	101.81	106.40
25	RA	527	C	N1-C2-O2	11.47	125.78	118.90
1	QA	1301	U	N3-C2-O2	-11.45	114.19	122.20
25	RA	2712(A)	A	C8-N9-C4	-11.44	101.22	105.80
25	YA	1899	G	C2-N3-C4	-11.44	106.18	111.90
25	YA	1158	C	C6-N1-C2	11.43	124.87	120.30
25	YA	2712	U	C5-C4-O4	11.41	132.75	125.90
25	YA	1899	G	N3-C4-C5	11.40	134.30	128.60
25	RA	2032	G	C5-N7-C8	-11.39	98.61	104.30
25	RA	382	G	N1-C6-O6	11.36	126.72	119.90
25	YA	1409	C	C6-N1-C2	11.34	124.83	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2544	G	N1-C6-O6	11.29	126.67	119.90
25	RA	2506	U	N3-C2-O2	-11.27	114.31	122.20
25	YA	967	C	C6-N1-C2	11.25	124.80	120.30
25	YA	2000	G	C6-C5-N7	-11.24	123.66	130.40
25	YA	385	C	C6-N1-C2	-11.17	115.83	120.30
25	YA	1602	U	C6-N1-C2	-11.15	114.31	121.00
1	XA	729	A	N1-C6-N6	11.15	125.29	118.60
25	RA	2584	U	C5-C4-O4	11.15	132.59	125.90
25	RA	1899	G	N3-C2-N2	11.14	127.70	119.90
25	YA	1869	G	N3-C4-C5	-11.14	123.03	128.60
25	YA	1763	G	O5'-P-OP2	-11.12	95.69	105.70
1	QA	758	G	C5-N7-C8	-11.11	98.75	104.30
25	YA	246	C	C6-N1-C2	11.10	124.74	120.30
25	YA	761	A	N7-C8-N9	11.10	119.35	113.80
26	YB	82	G	C5-C6-N1	-11.10	105.95	111.50
25	YA	465	G	N3-C4-C5	-11.09	123.06	128.60
25	YA	342	G	O5'-P-OP2	-11.07	95.73	105.70
25	YA	512	G	O4'-C1'-N9	11.06	117.05	108.20
25	YA	140	A	C5-N7-C8	-11.05	98.37	103.90
25	RA	1786	A	N1-C6-N6	11.04	125.23	118.60
25	YA	1228	G	C5-C6-N1	-11.04	105.98	111.50
25	YA	1327	C	C6-N1-C2	-11.03	115.89	120.30
1	XA	328	C	C6-N1-C2	-11.02	115.89	120.30
25	RA	2870	C	C6-N1-C2	-11.01	115.90	120.30
25	RA	1190	G	C8-N9-C4	-10.97	102.01	106.40
25	RA	733	G	N7-C8-N9	10.97	118.58	113.10
25	YA	972	G	N1-C6-O6	-10.96	113.32	119.90
25	RA	783	A	N7-C8-N9	10.96	119.28	113.80
1	QA	1238	A	O5'-P-OP1	-10.95	95.85	105.70
25	YA	1403	C	N3-C2-O2	-10.94	114.24	121.90
1	QA	1064	G	C1'-O4'-C4'	10.93	118.64	109.90
25	YA	783	A	C8-N9-C4	-10.91	101.44	105.80
25	YA	1243	G	N1-C6-O6	10.90	126.44	119.90
25	YA	2393	A	C8-N9-C4	-10.89	101.44	105.80
25	RA	1786	A	C5-N7-C8	-10.87	98.46	103.90
25	YA	1979	C	C6-N1-C2	-10.85	115.96	120.30
25	YA	1190	G	C4-C5-N7	10.83	115.13	110.80
25	YA	309	G	N3-C4-C5	-10.83	123.19	128.60
25	RA	733	G	C8-N9-C4	-10.81	102.08	106.40
1	XA	691	G	C6-C5-N7	-10.81	123.92	130.40
25	YA	1204	A	C5-C6-N1	-10.80	112.30	117.70
25	RA	1821	A	N1-C6-N6	10.79	125.08	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2409	G	C4-C5-N7	10.78	115.11	110.80
25	YA	1840	G	C2-N3-C4	-10.77	106.52	111.90
25	YA	2490	G	C4-C5-N7	10.74	115.10	110.80
25	RA	676	A	C8-N9-C4	-10.74	101.50	105.80
25	RA	2584	U	C6-N1-C2	-10.73	114.56	121.00
1	XA	247	G	N3-C4-C5	-10.72	123.24	128.60
25	RA	116	C	C6-N1-C2	-10.71	116.01	120.30
25	RA	791	C	C5-C6-N1	-10.70	115.65	121.00
25	YA	142	G	N3-C4-C5	10.68	133.94	128.60
25	RA	1698	A	N1-C6-N6	10.65	124.99	118.60
25	YA	2544	G	C5-C6-O6	-10.64	122.21	128.60
25	RA	2032	G	N3-C4-C5	10.63	133.92	128.60
25	RA	2490	G	C5-N7-C8	-10.63	98.98	104.30
25	RA	1688	U	C6-N1-C2	-10.62	114.62	121.00
25	RA	74	A	C5-C6-N1	-10.58	112.41	117.70
25	YA	1332	G	C4-N9-C1'	10.58	140.25	126.50
25	YA	2032	G	N3-C4-C5	10.58	133.89	128.60
26	YB	79	C	C6-N1-C2	-10.57	116.07	120.30
25	RA	2011	U	N3-C2-O2	10.56	129.59	122.20
25	RA	391	G	N1-C6-O6	10.55	126.23	119.90
25	YA	1258	C	C6-N1-C2	10.54	124.52	120.30
25	RA	247	G	N1-C6-O6	-10.52	113.59	119.90
25	RA	915	C	C6-N1-C2	-10.52	116.09	120.30
25	RA	2614	A	C5-C6-N6	-10.51	115.29	123.70
25	YA	140	A	C4-C5-N7	10.50	115.95	110.70
25	YA	568	U	N3-C4-C5	-10.50	108.30	114.60
25	YA	2839	G	N1-C6-O6	10.48	126.19	119.90
25	YA	1271	G	C5-C6-N1	-10.47	106.27	111.50
25	YA	2712(A)	A	C8-N9-C4	-10.46	101.62	105.80
25	RA	1328	G	N3-C4-N9	10.45	132.27	126.00
25	YA	701	G	C5-C6-N1	-10.42	106.29	111.50
25	YA	1950	G	N3-C2-N2	10.41	127.19	119.90
25	YA	487	C	C6-N1-C2	-10.40	116.14	120.30
25	YA	1021	A	C2-N3-C4	-10.39	105.41	110.60
25	YA	1984	G	C5-C6-N1	-10.39	106.31	111.50
25	YA	2294	C	C6-N1-C2	-10.38	116.15	120.30
25	RA	1142(A)	A	C2-N3-C4	-10.37	105.41	110.60
1	XA	1054	C	C3'-C2'-C1'	10.37	109.79	101.50
25	YA	1840	G	C5-C6-N1	-10.35	106.33	111.50
25	RA	1022	G	N1-C6-O6	-10.35	113.69	119.90
25	RA	1931	U	C5-C4-O4	10.34	132.11	125.90
25	YA	1158	C	C5-C6-N1	-10.33	115.84	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	RB	54	G	C8-N9-C4	-10.31	102.28	106.40
25	YA	2518	A	N1-C6-N6	10.31	124.78	118.60
25	RA	1647	G	O5'-P-OP1	-10.29	96.44	105.70
1	QA	372	C	C5-C6-N1	10.29	126.14	121.00
25	YA	1888	G	C2-N3-C4	10.28	117.04	111.90
25	RA	733	G	C4-C5-N7	10.26	114.90	110.80
25	YA	2432	A	C2-N3-C4	-10.25	105.47	110.60
25	YA	1891	G	N1-C6-O6	10.23	126.04	119.90
25	RA	307	G	N3-C4-C5	-10.22	123.49	128.60
25	YA	2820	A	N1-C6-N6	10.21	124.73	118.60
1	XA	691	G	N3-C4-N9	10.21	132.13	126.00
25	YA	209	C	C6-N1-C2	10.21	124.38	120.30
25	RA	783	A	C2-N3-C4	-10.21	105.50	110.60
25	YA	2054	A	C8-N9-C4	-10.21	101.72	105.80
25	RA	2430	A	C5-C6-N1	-10.19	112.61	117.70
1	XA	1237	C	C6-N1-C2	-10.19	116.23	120.30
25	YA	481	G	O5'-P-OP2	-10.18	96.54	105.70
1	XA	808	C	C6-N1-C2	-10.18	116.23	120.30
25	RA	1698	A	C5-C6-N1	-10.17	112.61	117.70
1	XA	315	A	C8-N9-C4	10.17	109.87	105.80
25	RA	450	G	C4-C5-C6	10.16	124.90	118.80
1	XA	791	G	C5-C6-N1	-10.16	106.42	111.50
25	YA	662	G	C5-C6-N1	-10.16	106.42	111.50
25	RA	783	A	C5-C6-N1	-10.16	112.62	117.70
25	RA	1931	U	O5'-P-OP1	-10.15	96.56	105.70
25	RA	2421	G	N3-C4-C5	-10.14	123.53	128.60
25	RA	1665	A	C4-C5-C6	10.12	122.06	117.00
28	YE	21	VAL	C-N-CD	-10.10	98.38	120.60
25	RA	1940	U	C6-N1-C2	-10.10	114.94	121.00
25	RA	1786	A	C4-C5-N7	10.09	115.74	110.70
25	YA	783	A	C2-N3-C4	-10.08	105.56	110.60
25	RA	2004	G	N1-C6-O6	10.07	125.94	119.90
25	YA	2254	C	N1-C2-O2	-10.07	112.86	118.90
28	RE	21	VAL	C-N-CD	-10.07	98.45	120.60
25	YA	1613	G	N9-C4-C5	-10.06	101.38	105.40
25	RA	1786	A	C6-C5-N7	-10.05	125.26	132.30
25	YA	1786	A	C5-C6-N1	-10.04	112.68	117.70
25	YA	1613	G	C6-C5-N7	-10.04	124.37	130.40
1	QA	26	A	C8-N9-C4	10.04	109.82	105.80
25	YA	928	G	C8-N9-C4	-10.04	102.39	106.40
25	YA	1606	G	C8-N9-C4	10.02	110.41	106.40
1	XA	792	A	N1-C6-N6	10.01	124.61	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	701	G	C4-C5-C6	10.01	124.81	118.80
1	XA	1108	G	C5-C6-N1	-10.00	106.50	111.50
25	YA	1699	G	N9-C4-C5	9.99	109.40	105.40
25	RA	1623	G	N1-C6-O6	9.97	125.88	119.90
25	RA	1899	G	N1-C2-N2	-9.97	107.23	116.20
25	RA	929	G	C6-C5-N7	-9.97	124.42	130.40
25	RA	2446	G	O5'-P-OP2	-9.97	96.73	105.70
25	RA	2455	G	N1-C6-O6	9.96	125.88	119.90
25	YA	852	G	O5'-P-OP2	-9.96	96.73	105.70
25	YA	697	C	C6-N1-C2	-9.93	116.33	120.30
25	YA	1606	G	C8-N9-C1'	-9.93	114.09	127.00
25	RA	2516	G	N1-C6-O6	-9.93	113.94	119.90
25	RA	2712(A)	A	N7-C8-N9	9.92	118.76	113.80
1	XA	1201	A	C1'-O4'-C4'	-9.92	101.96	109.90
25	YA	2251	G	N1-C2-N3	9.92	129.85	123.90
25	YA	338	G	N3-C4-N9	9.92	131.95	126.00
25	RA	1269	A	C2-N3-C4	-9.91	105.64	110.60
26	YB	64	C	C6-N1-C2	9.91	124.26	120.30
25	RA	956	G	C5-C6-N1	-9.91	106.55	111.50
1	XA	1204	A	N1-C6-N6	9.90	124.54	118.60
25	RA	676	A	C5-N7-C8	-9.89	98.95	103.90
25	RA	2325	G	N1-C6-O6	9.89	125.84	119.90
25	YA	1613	G	N3-C4-N9	9.89	131.94	126.00
25	RA	1128	A	O5'-P-OP2	-9.89	96.80	105.70
25	YA	2080	G	C6-C5-N7	-9.88	124.47	130.40
1	QA	189	U	C1'-O4'-C4'	9.88	117.80	109.90
25	YA	2032	G	C5-N7-C8	-9.88	99.36	104.30
25	YA	1311	G	N9-C4-C5	-9.87	101.45	105.40
1	QA	1432	G	N7-C8-N9	9.87	118.03	113.10
25	YA	2237	G	N3-C4-N9	9.87	131.92	126.00
25	RA	1786	A	C5-C6-N1	-9.86	112.77	117.70
25	YA	1607	C	N1-C2-O2	9.85	124.81	118.90
1	QA	1301	U	N1-C2-O2	9.83	129.68	122.80
25	RA	1791	A	O5'-P-OP1	-9.83	96.85	105.70
1	QA	789	U	C6-N1-C2	-9.83	115.10	121.00
25	YA	1840	G	N1-C6-O6	9.83	125.80	119.90
25	RA	2048	G	C8-N9-C4	-9.82	102.47	106.40
25	RA	697	C	C6-N1-C2	-9.82	116.37	120.30
25	RA	1698	A	C6-C5-N7	-9.82	125.43	132.30
25	RA	1619	G	C5-C6-O6	-9.82	122.71	128.60
25	RA	1304	C	N3-C4-C5	9.80	125.82	121.90
25	RA	2490	G	N7-C8-N9	9.80	118.00	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2231	C	C6-N1-C2	-9.79	116.38	120.30
1	XA	1235	U	C5-C6-N1	9.79	127.59	122.70
25	YA	63	U	C6-N1-C2	-9.78	115.14	121.00
25	YA	458	G	C4-C5-N7	-9.78	106.89	110.80
25	YA	393	C	C6-N1-C2	9.77	124.21	120.30
26	YB	81	G	C4-C5-N7	9.77	114.71	110.80
1	XA	895	G	N1-C6-O6	9.76	125.76	119.90
25	YA	1404	C	O5'-P-OP1	-9.76	96.92	105.70
25	RA	252	G	N9-C4-C5	9.74	109.30	105.40
25	RA	694	U	O5'-P-OP2	-9.74	96.93	105.70
25	RA	1130	U	P-O3'-C3'	9.74	131.39	119.70
25	YA	696	G	N1-C6-O6	9.73	125.74	119.90
25	YA	613	U	N3-C2-O2	9.73	129.01	122.20
25	YA	863	A	O5'-P-OP2	-9.71	96.96	105.70
25	YA	662	G	N1-C6-O6	9.71	125.73	119.90
25	YA	1947	C	C6-N1-C2	-9.70	116.42	120.30
25	RA	2430	A	C2-N3-C4	-9.68	105.76	110.60
25	YA	1950	G	C4-N9-C1'	9.68	139.09	126.50
25	RA	330	A	N1-C6-N6	9.68	124.41	118.60
26	RB	43	C	C6-N1-C2	-9.67	116.43	120.30
1	QA	789	U	N3-C2-O2	-9.66	115.44	122.20
25	YA	780	G	C8-N9-C4	-9.66	102.54	106.40
25	YA	2432	A	C6-C5-N7	-9.65	125.54	132.30
25	RA	2032	G	C4-C5-N7	9.65	114.66	110.80
25	YA	568	U	N1-C2-O2	-9.64	116.05	122.80
25	RA	929	G	C4-N9-C1'	9.64	139.03	126.50
25	YA	2682	U	OP1-P-OP2	-9.64	105.14	119.60
25	RA	1776	G	N1-C6-O6	9.64	125.68	119.90
25	RA	184	C	C6-N1-C2	9.62	124.15	120.30
25	RA	2073	C	N1-C2-O2	-9.61	113.13	118.90
25	RA	2287	A	C2-N3-C4	-9.60	105.80	110.60
1	QA	372	C	C2-N1-C1'	9.60	129.36	118.80
25	YA	1259	G	C5-C6-O6	-9.59	122.84	128.60
25	RA	184	C	C5-C6-N1	-9.59	116.21	121.00
25	YA	1613	G	C8-N9-C1'	-9.58	114.55	127.00
25	YA	1602	U	N3-C4-C5	-9.58	108.85	114.60
25	RA	1236	G	N1-C6-O6	9.57	125.64	119.90
25	RA	2437	U	N1-C2-N3	9.57	120.64	114.90
25	YA	1776	G	C4-N9-C1'	9.56	138.93	126.50
25	RA	1021	A	C2-N3-C4	-9.55	105.82	110.60
25	YA	867	C	C6-N1-C2	-9.56	116.48	120.30
1	XA	691	G	C4-C5-C6	9.55	124.53	118.80

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1306	C	C6-N1-C2	-9.54	116.48	120.30
1	XA	1200	C	N1-C2-O2	9.54	124.62	118.90
25	YA	2588	G	O5'-P-OP2	-9.51	97.14	105.70
25	YA	836	G	C4-C5-N7	9.50	114.60	110.80
25	RA	929	G	N3-C4-C5	-9.49	123.86	128.60
25	YA	2590	A	N1-C6-N6	9.49	124.29	118.60
25	RA	140	A	C5-N7-C8	-9.48	99.16	103.90
1	QA	703	G	N3-C4-N9	9.48	131.69	126.00
25	RA	1190	G	N7-C8-N9	9.47	117.84	113.10
25	RA	2503	A	C8-N9-C4	-9.47	102.01	105.80
25	YA	1956	U	N3-C4-C5	-9.47	108.92	114.60
1	XA	1412	C	C5-C6-N1	-9.47	116.27	121.00
25	RA	673	C	C6-N1-C2	-9.46	116.52	120.30
25	YA	637	A	C8-N9-C4	-9.46	102.02	105.80
25	RA	2516	G	C5-C6-N1	9.45	116.23	111.50
25	YA	1021	A	N7-C8-N9	9.44	118.52	113.80
25	YA	2430	A	C5-C6-N1	-9.44	112.98	117.70
25	RA	205	G	N3-C4-N9	9.43	131.66	126.00
25	YA	785	G	O5'-P-OP1	-9.42	97.22	105.70
25	YA	287	C	O4'-C1'-N1	9.42	115.74	108.20
25	RA	401	A	N1-C6-N6	-9.41	112.95	118.60
25	RA	1271	G	C5-C6-N1	-9.40	106.80	111.50
25	YA	465	G	C4-C5-C6	9.40	124.44	118.80
25	YA	38	A	N1-C6-N6	9.40	124.24	118.60
25	YA	2573	C	N1-C2-O2	9.39	124.54	118.90
25	YA	1776	G	C8-N9-C1'	-9.39	114.80	127.00
25	RA	1834	U	N3-C2-O2	-9.39	115.63	122.20
25	YA	1528	A	C8-N9-C4	-9.38	102.05	105.80
25	YA	1130	U	P-O3'-C3'	9.38	130.95	119.70
25	YA	379	G	N9-C4-C5	-9.37	101.65	105.40
25	YA	776	G	N7-C8-N9	9.37	117.79	113.10
25	RA	2592	G	O5'-P-OP2	-9.37	97.27	105.70
25	YA	1931	U	N1-C2-N3	9.37	120.52	114.90
25	RA	2468	G	C4-N9-C1'	9.37	138.68	126.50
25	RA	776	G	C5-N7-C8	-9.36	99.62	104.30
25	RA	2509	G	C6-C5-N7	-9.36	124.78	130.40
25	YA	1665	A	N1-C6-N6	9.36	124.22	118.60
1	QA	328	C	C2-N1-C1'	9.36	129.09	118.80
25	RA	2685	G	C5-C6-N1	-9.35	106.83	111.50
25	YA	783	A	C4-C5-C6	9.34	121.67	117.00
25	RA	929	G	N3-C4-N9	9.34	131.60	126.00
25	RA	1332	G	C2-N3-C4	-9.34	107.23	111.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1899	G	C4-N9-C1'	9.34	138.64	126.50
25	RA	1791	A	N1-C6-N6	-9.33	113.00	118.60
1	XA	293	G	N1-C6-O6	9.33	125.50	119.90
26	RB	70	C	C6-N1-C2	-9.33	116.57	120.30
25	YA	450	G	N1-C6-O6	9.33	125.50	119.90
25	YA	662	G	C2-N3-C4	-9.32	107.24	111.90
1	XA	1172	C	C6-N1-C2	-9.32	116.57	120.30
1	XA	186(A)	C	C6-N1-C2	-9.32	116.57	120.30
25	YA	140	A	N7-C8-N9	9.32	118.46	113.80
1	XA	808	C	N3-C4-C5	-9.31	118.17	121.90
25	YA	1647	G	C6-C5-N7	-9.30	124.82	130.40
25	RA	393	C	C6-N1-C2	-9.30	116.58	120.30
25	YA	327	G	C6-C5-N7	-9.30	124.82	130.40
25	YA	1383	C	C2-N1-C1'	9.30	129.03	118.80
25	YA	1021	A	C5-N7-C8	-9.29	99.26	103.90
25	RA	2002	G	C5-N7-C8	-9.28	99.66	104.30
25	YA	2655	G	C4-N9-C1'	-9.28	114.44	126.50
25	RA	1239	G	N1-C6-O6	9.27	125.46	119.90
25	YA	1786	A	C2-N3-C4	-9.27	105.97	110.60
1	QA	1499	A	C8-N9-C4	9.27	109.51	105.80
25	YA	1950	G	N7-C8-N9	9.25	117.73	113.10
25	RA	382	G	C5-C6-N1	-9.25	106.88	111.50
25	RA	2468	G	C6-C5-N7	-9.24	124.85	130.40
25	RA	2439	A	N7-C8-N9	9.24	118.42	113.80
26	RB	53	A	C8-N9-C4	-9.23	102.11	105.80
25	RA	2593	U	C6-N1-C2	-9.23	115.46	121.00
25	RA	2848	G	P-O3'-C3'	9.23	130.77	119.70
25	YA	2420	C	O5'-P-OP1	-9.23	97.39	105.70
25	RA	762	U	N3-C2-O2	9.22	128.65	122.20
26	YB	94	C	C6-N1-C2	-9.22	116.61	120.30
25	YA	1253	A	C4-C5-C6	-9.21	112.39	117.00
25	YA	568	U	N3-C4-O4	9.21	125.85	119.40
25	RA	1187	G	C5-C6-N1	-9.20	106.90	111.50
25	RA	1821	A	C5-C6-N6	-9.20	116.34	123.70
1	XA	691	G	N3-C4-C5	-9.18	124.01	128.60
25	YA	956	G	N9-C4-C5	-9.18	101.73	105.40
25	YA	473	G	N1-C6-O6	-9.17	114.40	119.90
25	YA	1342	A	C8-N9-C4	-9.17	102.13	105.80
25	YA	2217	G	N1-C6-O6	9.17	125.41	119.90
25	YA	1699	G	C4-C5-N7	-9.16	107.13	110.80
25	RA	2447	G	N1-C6-O6	9.16	125.40	119.90
25	YA	27	G	C4-C5-C6	9.16	124.30	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2681	C	N3-C4-C5	-9.16	118.24	121.90
25	RA	1835	G	N3-C4-C5	-9.15	124.02	128.60
25	RA	2211	G	N7-C8-N9	9.15	117.68	113.10
25	YA	1332	G	C8-N9-C1'	-9.15	115.11	127.00
1	XA	1054	C	C4'-C3'-C2'	-9.15	93.45	102.60
1	XA	529	G	C5-C6-O6	-9.14	123.11	128.60
1	XA	372	C	C2-N1-C1'	9.14	128.85	118.80
1	XA	792	A	C2-N3-C4	-9.14	106.03	110.60
25	YA	1881	C	C6-N1-C2	-9.14	116.64	120.30
25	YA	2251	G	C4-N9-C1'	9.13	138.37	126.50
25	RA	863	A	O5'-P-OP2	-9.13	97.48	105.70
25	RA	2584	U	N1-C2-N3	9.13	120.38	114.90
25	YA	1383	C	N1-C2-O2	9.12	124.37	118.90
25	YA	379	G	N3-C4-N9	9.12	131.47	126.00
25	YA	512	G	C8-N9-C1'	9.12	138.86	127.00
1	XA	1336	C	C6-N1-C2	-9.12	116.65	120.30
25	YA	791	C	C6-N1-C2	9.12	123.95	120.30
25	RA	2544	G	C6-C5-N7	-9.12	124.93	130.40
25	RA	22	C	N3-C4-C5	9.11	125.54	121.90
25	YA	27	G	N1-C2-N3	9.10	129.36	123.90
25	YA	1606	G	N9-C4-C5	-9.10	101.76	105.40
25	RA	1665	A	N1-C6-N6	9.10	124.06	118.60
25	YA	681	G	C2-N3-C4	-9.09	107.35	111.90
1	QA	337	C	C6-N1-C2	-9.09	116.66	120.30
25	YA	2237	G	N3-C4-C5	-9.09	124.06	128.60
25	YA	1763	G	N1-C6-O6	-9.09	114.45	119.90
25	YA	1311	G	C4-C5-N7	9.09	114.43	110.80
25	YA	2049	G	C2-N3-C4	-9.08	107.36	111.90
25	YA	1351	C	C6-N1-C2	-9.08	116.67	120.30
25	YA	662	G	C4-C5-C6	9.08	124.25	118.80
25	YA	2849	U	C5-C6-N1	-9.07	118.16	122.70
25	YA	494	G	C6-C5-N7	-9.07	124.96	130.40
1	XA	115	G	P-O3'-C3'	9.07	130.58	119.70
25	RA	484	C	C2-N1-C1'	9.07	128.77	118.80
25	YA	568	U	C6-N1-C2	-9.07	115.56	121.00
25	RA	74	A	C2-N3-C4	-9.06	106.07	110.60
25	RA	2069	G	O5'-P-OP1	-9.06	97.55	105.70
25	YA	2821	A	O5'-P-OP1	-9.06	97.55	105.70
25	RA	67	U	C5-C6-N1	9.05	127.23	122.70
25	YA	1311	G	N1-C6-O6	9.05	125.33	119.90
25	YA	2249	U	N3-C4-C5	-9.05	109.17	114.60
25	YA	240	G	C5-C6-N1	-9.05	106.98	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2073	C	C6-N1-C2	-9.05	116.68	120.30
25	YA	2258	C	N3-C2-O2	-9.04	115.57	121.90
25	RA	1204	A	C2-N3-C4	-9.04	106.08	110.60
25	YA	2487	G	C2-N3-C4	-9.04	107.38	111.90
25	RA	2409	G	C5-C6-O6	-9.04	123.18	128.60
1	XA	792	A	N9-C4-C5	-9.03	102.19	105.80
25	YA	570	G	C4-C5-N7	-9.03	107.19	110.80
25	YA	639	U	C5-C4-O4	9.03	131.32	125.90
1	XA	1380	U	C5-C6-N1	-9.01	118.19	122.70
25	YA	1328	G	N3-C4-C5	-9.01	124.09	128.60
25	RA	1496	A	N7-C8-N9	9.01	118.31	113.80
25	YA	1694	C	P-O3'-C3'	9.01	130.51	119.70
25	RA	2409	G	C6-C5-N7	-9.01	125.00	130.40
25	YA	863	A	C8-N9-C4	9.01	109.40	105.80
25	RA	745	G	N3-C4-N9	9.00	131.40	126.00
25	YA	567	A	O5'-P-OP2	-8.99	97.61	105.70
25	YA	1228	G	C6-C5-N7	-8.99	125.01	130.40
26	RB	54	G	N7-C8-N9	8.99	117.59	113.10
25	RA	130	C	C6-N1-C2	8.98	123.89	120.30
25	YA	1416	G	C8-N9-C4	8.98	109.99	106.40
1	XA	812	C	P-O3'-C3'	8.97	130.47	119.70
25	RA	944	G	N1-C2-N3	8.97	129.28	123.90
25	YA	621	A	N1-C6-N6	8.97	123.98	118.60
25	RA	397	G	C5-C6-N1	-8.97	107.02	111.50
1	XA	557	G	N3-C4-N9	8.97	131.38	126.00
25	YA	2490	G	C5-N7-C8	-8.97	99.82	104.30
25	RA	1829	A	O5'-P-OP2	-8.96	97.63	105.70
25	YA	582	G	C5-C6-O6	-8.96	123.22	128.60
1	XA	529	G	C4-C5-N7	8.96	114.38	110.80
25	YA	450	G	C4-N9-C1'	8.95	138.13	126.50
25	YA	1203	G	C8-N9-C4	-8.94	102.82	106.40
25	YA	1203	G	N3-C4-C5	-8.92	124.14	128.60
25	RA	28	A	C8-N9-C4	-8.91	102.23	105.80
25	YA	29	U	N3-C4-O4	8.91	125.64	119.40
25	RA	1817	G	N1-C6-O6	8.91	125.25	119.90
25	RA	2452	C	N3-C4-N4	8.91	124.24	118.00
25	YA	141	A	C5-N7-C8	-8.91	99.45	103.90
25	YA	142	G	C4-N9-C1'	-8.90	114.92	126.50
25	YA	2767	C	N1-C2-O2	8.90	124.24	118.90
25	RA	917	A	C2-N3-C4	-8.90	106.15	110.60
25	RA	2439	A	N1-C6-N6	8.90	123.94	118.60
25	YA	1950	G	C8-N9-C4	-8.89	102.84	106.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1206	G	C6-C5-N7	-8.88	125.07	130.40
25	RA	2583	G	N1-C6-O6	-8.87	114.58	119.90
25	YA	63	U	C5-C4-O4	8.87	131.22	125.90
25	RA	301	G	C8-N9-C4	8.86	109.94	106.40
25	RA	621	A	C2-N3-C4	-8.85	106.17	110.60
25	YA	1699	G	C5-C6-O6	8.85	133.91	128.60
1	XA	1201	A	O4'-C1'-C2'	8.85	115.56	107.60
25	RA	2421	G	C8-N9-C1'	-8.84	115.50	127.00
25	YA	1269	A	C8-N9-C4	-8.84	102.26	105.80
25	YA	768	G	N1-C6-O6	8.84	125.20	119.90
25	YA	2088	G	C2-N3-C4	-8.84	107.48	111.90
25	YA	1008	C	C6-N1-C2	8.83	123.83	120.30
25	YA	2032	G	C4-C5-N7	8.83	114.33	110.80
26	YB	13	A	N1-C6-N6	-8.83	113.30	118.60
1	XA	1370	G	C5-C6-N1	-8.83	107.09	111.50
25	RA	1899	G	C4-C5-N7	8.82	114.33	110.80
25	RA	198	C	N3-C4-N4	8.82	124.17	118.00
25	YA	856	C	O5'-P-OP1	-8.82	97.77	105.70
1	QA	1322	C	N1-C2-O2	8.81	124.19	118.90
25	RA	2439	A	C6-C5-N7	-8.81	126.13	132.30
25	YA	741	G	N3-C4-C5	-8.81	124.19	128.60
25	YA	2677	G	N3-C4-C5	-8.81	124.19	128.60
25	YA	696	G	C6-C5-N7	-8.81	125.11	130.40
25	RA	2843	G	N1-C6-O6	8.80	125.18	119.90
25	YA	1791	A	C8-N9-C4	-8.80	102.28	105.80
25	YA	2051	A	C8-N9-C4	8.80	109.32	105.80
25	RA	1266	G	C8-N9-C4	8.80	109.92	106.40
25	YA	786	C	C6-N1-C2	-8.79	116.78	120.30
25	YA	1869	G	C8-N9-C4	-8.79	102.88	106.40
25	YA	1774	C	N1-C2-O2	-8.79	113.62	118.90
25	YA	1296	G	O5'-P-OP2	-8.79	97.79	105.70
25	YA	2036	C	C6-N1-C2	-8.79	116.79	120.30
25	YA	2432	A	N9-C4-C5	-8.78	102.29	105.80
25	RA	768	G	N3-C4-C5	-8.78	124.21	128.60
25	RA	1371	G	N1-C6-O6	8.78	125.17	119.90
25	RA	450	G	C6-C5-N7	-8.78	125.13	130.40
25	YA	1930	G	C4-C5-N7	-8.78	107.29	110.80
25	YA	686	G	C6-C5-N7	-8.78	125.14	130.40
25	RA	2095	C	C6-N1-C2	-8.77	116.79	120.30
25	YA	2051	A	N9-C4-C5	-8.77	102.29	105.80
25	YA	972	G	C5-C6-O6	8.77	133.86	128.60
22	XV	17	C	C6-N1-C1'	-8.77	110.28	120.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	804	A	N1-C6-N6	-8.77	113.34	118.60
1	QA	1432	G	C8-N9-C4	-8.76	102.90	106.40
25	RA	379	G	N1-C6-O6	8.76	125.15	119.90
25	RA	1899	G	N9-C4-C5	-8.75	101.90	105.40
25	YA	2839	G	C5-C6-N1	-8.75	107.12	111.50
1	QA	1527	C	C6-N1-C2	8.75	123.80	120.30
1	QA	690	G	N1-C6-O6	8.74	125.15	119.90
25	RA	1204	A	O4'-C1'-N9	8.74	115.19	108.20
1	XA	314	C	C6-N1-C2	-8.74	116.80	120.30
25	YA	192	C	C6-N1-C2	8.74	123.80	120.30
25	YA	1190	G	N3-C4-C5	8.74	132.97	128.60
25	YA	2593	U	C6-N1-C2	-8.74	115.75	121.00
25	RA	1332	G	C6-C5-N7	-8.73	125.16	130.40
25	YA	83	G	C8-N9-C4	8.73	109.89	106.40
25	RA	530	G	N3-C2-N2	8.73	126.01	119.90
25	RA	2468	G	C4-C5-N7	8.73	114.29	110.80
25	YA	1695	G	C4-N9-C1'	8.73	137.84	126.50
25	RA	508	G	C4-C5-N7	8.72	114.29	110.80
25	RA	857	C	C6-N1-C2	-8.72	116.81	120.30
25	RA	1805	U	N1-C2-N3	8.72	120.13	114.90
36	YQ	81	VAL	CB-CA-C	-8.72	94.83	111.40
25	YA	613	U	C2-N1-C1'	-8.72	107.24	117.70
25	YA	2002	G	C5-N7-C8	-8.72	99.94	104.30
1	XA	226	G	C8-N9-C4	8.71	109.89	106.40
25	YA	2712	U	O4'-C1'-N1	8.71	115.17	108.20
25	RA	2591	C	N3-C2-O2	8.71	128.00	121.90
1	QA	778	G	N3-C4-C5	-8.71	124.25	128.60
25	YA	2032	G	N1-C6-O6	8.71	125.12	119.90
25	RA	674	G	C8-N9-C4	-8.71	102.92	106.40
25	YA	2031	A	O4'-C1'-N9	8.71	115.16	108.20
22	QV	17	C	C6-N1-C1'	-8.70	110.36	120.80
25	RA	2421	G	C4-N9-C1'	8.70	137.80	126.50
25	YA	1257	C	N1-C2-O2	-8.70	113.68	118.90
26	YB	81	G	C6-C5-N7	-8.69	125.19	130.40
25	RA	1623	G	C5-C6-O6	-8.69	123.39	128.60
25	YA	220	G	N1-C6-O6	8.69	125.11	119.90
25	YA	776	G	C5-N7-C8	-8.69	99.96	104.30
25	YA	2422	A	N1-C2-N3	-8.69	124.96	129.30
1	QA	686	U	N3-C2-O2	-8.68	116.12	122.20
25	YA	2593	U	N3-C4-C5	-8.68	109.39	114.60
26	YB	30	C	C6-N1-C2	-8.68	116.83	120.30
25	YA	523	C	C6-N1-C2	-8.67	116.83	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1595	G	N1-C6-O6	8.67	125.10	119.90
25	YA	461	C	N1-C2-O2	-8.67	113.70	118.90
25	YA	141	A	N7-C8-N9	8.66	118.13	113.80
25	YA	415	A	C8-N9-C4	8.66	109.26	105.80
1	QA	1470	G	N1-C6-O6	8.65	125.09	119.90
25	RA	573	G	C4-N9-C1'	8.65	137.75	126.50
25	RA	252	G	C8-N9-C4	-8.65	102.94	106.40
25	RA	2702	U	C5-C6-N1	8.65	127.03	122.70
25	YA	1192	G	N1-C6-O6	8.65	125.09	119.90
25	RA	2593	U	N3-C4-O4	8.65	125.45	119.40
36	RQ	81	VAL	CB-CA-C	-8.65	94.97	111.40
25	RA	2519	U	O5'-P-OP1	-8.64	97.92	105.70
25	YA	928	G	N7-C8-N9	8.64	117.42	113.10
25	YA	2422	A	C8-N9-C4	8.64	109.25	105.80
25	YA	974	G	C8-N9-C4	-8.64	102.94	106.40
25	YA	818	G	C4-N9-C1'	8.63	137.72	126.50
1	QA	1435	G	C2-N3-C4	-8.62	107.59	111.90
25	RA	1699	G	C4-C5-N7	-8.61	107.35	110.80
25	YA	452	G	N3-C4-C5	-8.61	124.29	128.60
25	YA	295	G	N1-C6-O6	8.61	125.06	119.90
25	YA	554	U	N3-C2-O2	-8.61	116.17	122.20
25	YA	774	A	N1-C6-N6	8.61	123.77	118.60
25	YA	1311	G	C6-C5-N7	-8.61	125.23	130.40
25	RA	382	G	C8-N9-C4	8.61	109.84	106.40
25	YA	338	G	C2-N3-C4	8.61	116.20	111.90
25	RA	512	G	N3-C4-N9	-8.60	120.84	126.00
25	RA	2383	G	C6-C5-N7	-8.60	125.24	130.40
25	YA	2686	G	O5'-P-OP2	-8.60	97.96	105.70
1	QA	1435	G	C5-C6-N1	-8.60	107.20	111.50
25	YA	1903	G	O5'-P-OP2	-8.60	97.97	105.70
25	RA	702	G	C4-N9-C1'	8.59	137.67	126.50
25	RA	932	G	N3-C4-N9	-8.59	120.84	126.00
25	RA	1471	A	C8-N9-C4	-8.59	102.36	105.80
25	RA	1624	G	C6-C5-N7	-8.59	125.25	130.40
25	RA	205	G	C5-C6-N1	8.58	115.79	111.50
25	RA	1678	G	N3-C4-N9	-8.58	120.85	126.00
1	XA	691	G	N1-C6-O6	8.58	125.05	119.90
25	YA	2767	C	N3-C2-O2	-8.58	115.89	121.90
1	XA	893	C	N1-C2-O2	8.58	124.05	118.90
1	QA	792	A	P-O3'-C3'	8.57	129.99	119.70
1	QA	1307	U	C5-C6-N1	8.57	126.98	122.70
25	YA	1950	G	N1-C6-O6	-8.56	114.76	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1619	G	C4-C5-N7	8.56	114.22	110.80
25	YA	1964	G	C5-C6-O6	-8.55	123.47	128.60
25	YA	944	G	C5-C6-N1	-8.54	107.23	111.50
25	YA	2430	A	C2-N3-C4	-8.54	106.33	110.60
25	YA	1496	A	N7-C8-N9	8.53	118.07	113.80
25	YA	1621	U	N3-C2-O2	8.54	128.18	122.20
25	YA	2688	U	C5-C4-O4	8.53	131.02	125.90
1	QA	895	G	N1-C6-O6	8.53	125.02	119.90
25	RA	52	A	C8-N9-C4	-8.53	102.39	105.80
25	YA	1560	G	N1-C6-O6	8.53	125.02	119.90
25	YA	642	G	C8-N9-C4	-8.53	102.99	106.40
25	RA	1899	G	C8-N9-C1'	-8.52	115.92	127.00
25	RA	140	A	C4-C5-N7	8.52	114.96	110.70
25	YA	1332	G	C6-C5-N7	-8.52	125.29	130.40
25	RA	1208	C	C6-N1-C2	8.51	123.71	120.30
25	YA	140	A	C6-C5-N7	-8.51	126.34	132.30
25	RA	2584	U	N3-C4-C5	-8.51	109.50	114.60
25	YA	503	A	N1-C2-N3	8.50	133.55	129.30
25	RA	1223	C	N1-C2-O2	-8.50	113.80	118.90
25	RA	129	C	C6-N1-C2	8.50	123.70	120.30
25	YA	982	C	C6-N1-C2	-8.50	116.90	120.30
25	RA	1190	G	C5-N7-C8	-8.49	100.05	104.30
25	YA	1439	A	C2-N3-C4	-8.49	106.35	110.60
25	YA	2712	U	N3-C4-O4	-8.49	113.45	119.40
25	YA	2227	A	N9-C4-C5	8.48	109.19	105.80
25	RA	662	G	C2-N3-C4	-8.48	107.66	111.90
25	RA	2731	G	N1-C6-O6	8.48	124.99	119.90
1	XA	1108	G	C5-C6-O6	8.48	133.69	128.60
25	YA	1776	G	N3-C4-N9	8.48	131.09	126.00
25	YA	1782	C	O5'-P-OP1	-8.48	98.07	105.70
25	YA	2258	C	O5'-P-OP1	-8.48	98.07	105.70
25	YA	2215	G	C6-C5-N7	-8.48	125.31	130.40
25	YA	2505	G	C8-N9-C4	-8.48	103.01	106.40
25	YA	526	A	C8-N9-C4	-8.48	102.41	105.80
25	RA	198	C	C6-N1-C2	-8.47	116.91	120.30
25	RA	1332	G	C5-C6-N1	-8.47	107.27	111.50
25	YA	1981	A	C5-N7-C8	-8.47	99.66	103.90
25	RA	1821	A	N9-C4-C5	-8.47	102.41	105.80
1	QA	26	A	N7-C8-N9	-8.47	109.57	113.80
25	RA	852	G	O5'-P-OP2	-8.47	98.08	105.70
25	RA	1473	G	N1-C6-O6	8.46	124.98	119.90
26	YB	90	C	C6-N1-C2	8.46	123.69	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1396	U	N1-C2-O2	8.46	128.72	122.80
25	YA	856	C	C5-C6-N1	8.46	125.23	121.00
1	QA	226	G	C8-N9-C4	8.46	109.78	106.40
25	YA	287	C	N3-C4-C5	8.46	125.28	121.90
25	RA	270(X)	G	C5-C6-N1	-8.45	107.27	111.50
25	RA	2052	G	N1-C6-O6	8.45	124.97	119.90
25	RA	1271	G	C2-N3-C4	-8.45	107.68	111.90
25	RA	2482	G	C4-N9-C1'	8.45	137.48	126.50
25	YA	676	A	C2-N3-C4	-8.44	106.38	110.60
25	YA	836	G	C5-C6-O6	-8.44	123.54	128.60
1	XA	121	C	C6-N1-C2	-8.44	116.93	120.30
25	YA	2251	G	C8-N9-C4	-8.44	103.03	106.40
25	RA	2346	A	C2-N3-C4	-8.43	106.38	110.60
25	RA	27	G	N3-C4-C5	8.43	132.81	128.60
25	RA	74	A	C6-C5-N7	-8.43	126.40	132.30
1	XA	31	G	C8-N9-C1'	-8.43	116.04	127.00
25	YA	713	G	N1-C6-O6	8.43	124.96	119.90
25	YA	1309	G	N1-C6-O6	8.43	124.96	119.90
25	YA	2389	G	C4-C5-N7	8.43	114.17	110.80
25	YA	1332	G	N3-C4-N9	8.42	131.05	126.00
25	YA	1930	G	C6-C5-N7	8.42	135.45	130.40
25	YA	247	G	C5-C6-N1	8.42	115.71	111.50
25	RA	2556	C	N3-C2-O2	-8.42	116.01	121.90
25	YA	1141	U	O4'-C1'-N1	8.42	114.94	108.20
25	YA	1241	A	C2-N3-C4	-8.42	106.39	110.60
25	YA	2178	C	C6-N1-C2	-8.42	116.93	120.30
25	RA	247	G	N3-C2-N2	8.41	125.79	119.90
25	YA	1979	C	C5-C4-N4	-8.41	114.31	120.20
25	RA	1665	A	C6-C5-N7	-8.41	126.41	132.30
25	YA	1814	G	C5-C6-N1	-8.41	107.29	111.50
25	RA	1681	G	N1-C6-O6	8.41	124.94	119.90
1	XA	563	A	C5-C6-N1	-8.41	113.50	117.70
25	RA	300	A	N1-C6-N6	8.40	123.64	118.60
25	RA	1734	C	C6-N1-C2	-8.40	116.94	120.30
25	RA	1937	A	C8-N9-C4	8.40	109.16	105.80
25	RA	2049	G	O5'-P-OP1	-8.40	98.14	105.70
25	YA	2506	U	N1-C2-O2	8.40	128.68	122.80
25	RA	2584	U	N3-C2-O2	-8.40	116.32	122.20
1	QA	729	A	C8-N9-C4	-8.39	102.44	105.80
25	RA	945	A	C4-C5-N7	8.39	114.90	110.70
25	RA	1653	G	P-O3'-C3'	8.39	129.77	119.70
25	RA	2612	C	C6-N1-C2	8.39	123.66	120.30

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1471	A	C4-C5-C6	8.39	121.19	117.00
25	YA	1289	C	C6-N1-C2	-8.39	116.94	120.30
25	RA	2035	G	C8-N9-C4	8.39	109.76	106.40
25	YA	2655	G	C8-N9-C1'	8.38	137.90	127.00
25	RA	1479	G	O5'-P-OP2	-8.38	98.16	105.70
25	YA	793	A	O5'-P-OP2	-8.37	98.17	105.70
25	RA	2383	G	N1-C6-O6	8.37	124.92	119.90
25	YA	570	G	C4-C5-C6	8.37	123.82	118.80
25	YA	2088	G	C5-C6-N1	-8.37	107.31	111.50
25	RA	221	A	C8-N9-C4	-8.37	102.45	105.80
25	RA	1496	A	C8-N9-C4	-8.37	102.45	105.80
25	YA	1698	A	C6-C5-N7	-8.37	126.44	132.30
1	QA	496	A	N1-C6-N6	-8.36	113.58	118.60
25	YA	1988	C	N1-C2-O2	-8.36	113.88	118.90
25	YA	1763	G	C6-C5-N7	8.36	135.42	130.40
25	YA	2271	G	N3-C4-N9	8.36	131.01	126.00
25	RA	2570	G	N1-C6-O6	8.35	124.91	119.90
25	RA	761	A	O5'-P-OP2	-8.35	98.18	105.70
25	YA	2259	G	C4-C5-N7	8.35	114.14	110.80
25	YA	1926	U	N3-C2-O2	-8.35	116.36	122.20
25	YA	2073	C	N1-C2-O2	-8.35	113.89	118.90
25	YA	2558	C	N3-C4-C5	8.34	125.24	121.90
25	YA	1207	C	C6-N1-C2	8.34	123.64	120.30
25	YA	2515	C	C6-N1-C2	8.34	123.64	120.30
25	RA	600	G	C8-N9-C4	8.33	109.73	106.40
25	YA	2242	G	C8-N9-C4	-8.33	103.07	106.40
1	XA	1323	G	N1-C6-O6	8.32	124.89	119.90
25	YA	673	C	N1-C2-O2	8.32	123.89	118.90
25	RA	1896	G	C6-C5-N7	-8.31	125.41	130.40
25	RA	242	G	P-O3'-C3'	8.31	129.67	119.70
25	YA	827	U	N3-C2-O2	-8.31	116.38	122.20
25	YA	2849	U	C2-N1-C1'	-8.30	107.73	117.70
25	RA	1809	A	C4-C5-C6	8.29	121.15	117.00
25	RA	330	A	C5-N7-C8	-8.29	99.75	103.90
25	YA	322	A	N1-C6-N6	-8.29	113.62	118.60
25	RA	2593	U	C4-C5-C6	8.29	124.67	119.70
25	YA	512	G	C5-N7-C8	-8.29	100.15	104.30
25	YA	2731	G	N1-C6-O6	8.29	124.88	119.90
25	YA	1559	G	N3-C4-C5	8.29	132.75	128.60
25	YA	1614	A	C5-N7-C8	-8.29	99.76	103.90
1	QA	739	C	C6-N1-C2	8.29	123.61	120.30
25	YA	187	G	C8-N9-C1'	-8.29	116.23	127.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	63	U	N1-C2-N3	8.29	119.87	114.90
25	YA	1613	G	C4-C5-N7	8.29	114.11	110.80
25	RA	673	C	N3-C2-O2	-8.28	116.10	121.90
25	YA	783	A	C5-C6-N6	-8.28	117.07	123.70
25	YA	2711	A	C2-N3-C4	-8.28	106.46	110.60
1	QA	1470	G	C5-C6-O6	-8.28	123.63	128.60
25	RA	2868	A	O5'-P-OP1	-8.28	98.25	105.70
25	YA	943	U	N3-C4-C5	-8.28	109.63	114.60
25	YA	2032	G	N3-C4-N9	-8.28	121.03	126.00
25	YA	2381	C	C6-N1-C2	8.28	123.61	120.30
1	QA	347	G	N3-C4-C5	8.27	132.74	128.60
25	RA	1602	U	C6-N1-C2	-8.27	116.04	121.00
25	YA	1528	A	N7-C8-N9	8.27	117.94	113.80
25	YA	1668	A	N1-C6-N6	-8.27	113.64	118.60
25	RA	2437	U	N3-C4-C5	-8.27	109.64	114.60
26	RB	54	G	C6-C5-N7	-8.27	125.44	130.40
25	YA	242	G	P-O3'-C3'	8.27	129.62	119.70
25	YA	1979	C	C2-N1-C1'	8.27	127.90	118.80
25	RA	1131	G	C8-N9-C4	-8.27	103.09	106.40
25	RA	1336	A	N1-C6-N6	-8.27	113.64	118.60
1	XA	791	G	C4-C5-C6	8.27	123.76	118.80
25	YA	768	G	C6-C5-N7	-8.27	125.44	130.40
1	QA	1322	C	C2-N1-C1'	8.26	127.89	118.80
1	QA	1470	G	C6-C5-N7	-8.26	125.44	130.40
25	RA	929	G	C4-C5-C6	8.26	123.76	118.80
25	RA	1699	G	C5-C6-O6	8.26	133.56	128.60
25	YA	512	G	C4-C5-C6	-8.26	113.84	118.80
25	YA	2301	C	C6-N1-C2	-8.26	117.00	120.30
25	RA	1763	G	O5'-P-OP2	-8.26	98.27	105.70
25	YA	1992	G	P-O3'-C3'	8.25	129.60	119.70
25	YA	945	A	C6-C5-N7	-8.25	126.53	132.30
25	YA	2237	G	N1-C2-N2	-8.24	108.78	116.20
25	RA	216	A	N1-C6-N6	8.24	123.54	118.60
25	RA	1624	G	C2-N3-C4	-8.24	107.78	111.90
25	RA	330	A	C4-C5-N7	8.24	114.82	110.70
25	YA	503	A	C8-N9-C4	-8.24	102.50	105.80
25	RA	1338	G	C6-C5-N7	-8.24	125.46	130.40
1	QA	522	C	C6-N1-C2	8.23	123.59	120.30
25	RA	727	A	N1-C6-N6	-8.22	113.67	118.60
25	RA	2714	G	C6-C5-N7	-8.22	125.47	130.40
25	YA	2377	A	C8-N9-C4	8.22	109.09	105.80
25	RA	1800	C	O5'-P-OP1	-8.22	98.30	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	995	C	C2-N1-C1'	8.22	127.84	118.80
1	QA	1487	G	C2-N3-C4	-8.21	107.79	111.90
25	YA	827	U	N1-C2-O2	8.22	128.55	122.80
25	YA	1287	A	N1-C6-N6	8.22	123.53	118.60
25	YA	780	G	N7-C8-N9	8.21	117.21	113.10
25	YA	1343	G	C8-N9-C4	-8.21	103.11	106.40
1	QA	812	C	P-O3'-C3'	8.21	129.56	119.70
25	YA	1891	G	C5-C6-O6	-8.21	123.67	128.60
25	YA	2000	G	N3-C4-N9	8.21	130.93	126.00
25	RA	1678	G	N3-C2-N2	-8.21	114.16	119.90
25	YA	1925	C	N1-C2-O2	-8.21	113.98	118.90
25	YA	2312	U	C5-C6-N1	8.20	126.80	122.70
25	YA	2694	G	C5-C6-O6	-8.19	123.68	128.60
25	RA	2490	G	N3-C4-C5	-8.19	124.50	128.60
25	YA	1852	C	N3-C2-O2	-8.19	116.17	121.90
25	YA	2537	U	N3-C4-C5	-8.19	109.69	114.60
26	RB	43	C	N3-C2-O2	-8.19	116.17	121.90
25	RA	1931	U	N1-C2-N3	8.19	119.81	114.90
1	XA	1059	C	C6-N1-C2	-8.19	117.03	120.30
25	RA	568	U	N3-C4-C5	-8.19	109.69	114.60
1	QA	1347	G	C4-C5-N7	-8.18	107.53	110.80
25	RA	2292	C	N3-C4-C5	8.18	125.17	121.90
25	YA	1243	G	C6-C5-N7	-8.18	125.49	130.40
1	XA	1178	G	C8-N9-C4	-8.18	103.13	106.40
25	YA	1788	C	N1-C2-O2	-8.18	113.99	118.90
25	YA	512	G	N1-C6-O6	-8.17	115.00	119.90
25	RA	2437	U	C5-C4-O4	8.17	130.80	125.90
25	RA	1022	G	P-O3'-C3'	8.16	129.50	119.70
1	QA	1347	G	O4'-C1'-N9	8.16	114.73	108.20
25	YA	1613	G	C4-N9-C1'	8.16	137.11	126.50
25	RA	1776	G	C4-C5-N7	8.16	114.06	110.80
25	YA	195	A	N1-C6-N6	8.16	123.49	118.60
25	YA	841	A	C2-N3-C4	-8.16	106.52	110.60
25	RA	248	G	C2-N3-C4	-8.15	107.82	111.90
1	QA	1441	G	C5-C6-N1	-8.15	107.42	111.50
25	RA	27	G	C4-N9-C1'	-8.15	115.91	126.50
25	YA	2463	C	N1-C2-O2	-8.15	114.01	118.90
25	YA	2450	A	C8-N9-C4	-8.15	102.54	105.80
25	RA	205	G	N3-C4-C5	-8.14	124.53	128.60
25	RA	2644	G	C5-C6-N1	-8.14	107.43	111.50
25	RA	2371	G	C5-C6-N1	-8.14	107.43	111.50
25	YA	772	C	C6-N1-C2	-8.14	117.04	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2512	C	C6-N1-C2	8.14	123.56	120.30
25	YA	1695	G	C6-C5-N7	-8.14	125.52	130.40
25	YA	2217	G	C6-C5-N7	-8.14	125.52	130.40
25	RA	954	G	N3-C4-C5	-8.13	124.53	128.60
1	XA	529	G	N1-C6-O6	8.13	124.78	119.90
1	XA	541	G	N1-C6-O6	8.13	124.78	119.90
25	YA	1869	G	N3-C4-N9	8.13	130.88	126.00
25	YA	1982	C	C6-N1-C2	8.13	123.55	120.30
25	RA	1815	A	N1-C6-N6	-8.13	113.72	118.60
1	XA	691	G	C4-N9-C1'	8.13	137.07	126.50
25	RA	1989	G	N3-C2-N2	-8.13	114.21	119.90
25	RA	2845	G	O5'-P-OP1	8.12	120.45	110.70
1	XA	812	C	C2-N1-C1'	8.12	127.74	118.80
1	QA	372	C	C4-C5-C6	-8.12	113.34	117.40
25	RA	2447	G	C4-C5-N7	8.12	114.05	110.80
25	YA	681	G	C5-C6-N1	-8.12	107.44	111.50
25	YA	1647	G	C4-N9-C1'	8.12	137.06	126.50
25	YA	1317	A	O5'-P-OP2	-8.12	98.39	105.70
25	YA	1563	G	C6-C5-N7	-8.12	125.53	130.40
25	YA	1626	G	C8-N9-C4	-8.12	103.15	106.40
25	YA	299	A	OP2-P-O3'	8.11	123.05	105.20
25	YA	1265	A	O5'-P-OP1	-8.11	98.40	105.70
1	QA	890	G	O4'-C1'-N9	8.11	114.69	108.20
25	YA	142	G	N3-C4-N9	-8.11	121.13	126.00
25	RA	2005	A	O5'-P-OP2	-8.11	98.40	105.70
25	YA	636	G	N1-C6-O6	8.11	124.76	119.90
25	YA	1654	A	N1-C6-N6	-8.11	113.74	118.60
25	RA	1792	G	C6-C5-N7	-8.10	125.54	130.40
25	RA	2713	A	N1-C6-N6	8.10	123.46	118.60
1	XA	1417	G	C4-C5-C6	8.10	123.66	118.80
26	YB	82	G	C4-C5-C6	8.10	123.66	118.80
25	RA	55	G	N3-C4-C5	-8.10	124.55	128.60
25	YA	2107	C	C6-N1-C2	-8.10	117.06	120.30
1	QA	1223	C	N1-C2-O2	8.09	123.76	118.90
25	YA	2593	U	N3-C4-O4	8.09	125.06	119.40
1	QA	723	U	C2-N1-C1'	8.09	127.41	117.70
25	RA	258	G	N1-C6-O6	8.09	124.75	119.90
25	RA	745	G	C8-N9-C1'	-8.09	116.49	127.00
25	YA	788	A	N9-C4-C5	-8.09	102.56	105.80
25	YA	2407	G	C4-N9-C1'	8.09	137.01	126.50
25	YA	1271	G	C4-C5-C6	8.09	123.65	118.80
25	YA	2818	G	N1-C6-O6	8.09	124.75	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1869	G	C4-N9-C1'	8.08	137.01	126.50
25	YA	74	A	C4-C5-C6	8.08	121.04	117.00
25	RA	671	C	C6-N1-C2	-8.07	117.07	120.30
1	XA	31	G	C4-N9-C1'	8.07	137.00	126.50
25	YA	527	C	N1-C2-O2	8.07	123.74	118.90
25	YA	701	G	C2-N3-C4	-8.07	107.86	111.90
1	XA	1201	A	P-O3'-C3'	8.07	129.38	119.70
25	YA	2250	G	O5'-P-OP2	-8.07	98.44	105.70
25	YA	1956	U	C6-N1-C1'	8.07	132.50	121.20
25	RA	2722	G	C8-N9-C1'	-8.07	116.51	127.00
25	YA	327	G	C4-N9-C1'	8.07	136.99	126.50
25	YA	1332	G	N3-C4-C5	-8.06	124.57	128.60
25	YA	1613	G	N1-C6-O6	8.06	124.74	119.90
25	YA	2490	G	N1-C6-O6	8.06	124.74	119.90
26	YB	100	G	C8-N9-C4	8.06	109.62	106.40
1	QA	1158	C	C2-N1-C1'	8.06	127.67	118.80
1	QA	1235	U	C5-C6-N1	8.05	126.73	122.70
25	RA	1941	C	O5'-P-OP1	-8.05	98.45	105.70
25	YA	450	G	C6-C5-N7	-8.05	125.57	130.40
25	YA	2390	U	O5'-P-OP1	-8.05	98.45	105.70
25	RA	2452	C	C2-N1-C1'	8.05	127.66	118.80
25	YA	1506	C	C6-N1-C2	-8.05	117.08	120.30
25	RA	465	G	C4-C5-C6	8.05	123.63	118.80
25	RA	2556	C	C2-N1-C1'	8.05	127.65	118.80
1	QA	771	G	N3-C4-N9	-8.05	121.17	126.00
25	YA	788	A	N1-C6-N6	8.04	123.43	118.60
1	XA	562	C	N3-C4-C5	8.04	125.12	121.90
25	YA	818	G	C6-C5-N7	-8.04	125.57	130.40
1	QA	1336	C	C2-N1-C1'	8.04	127.64	118.80
25	RA	2490	G	N3-C2-N2	8.04	125.53	119.90
25	YA	2607	G	C6-C5-N7	-8.04	125.58	130.40
25	RA	1619	G	N1-C6-O6	8.03	124.72	119.90
25	YA	554	U	C5-C4-O4	8.03	130.72	125.90
25	RA	2246	G	N1-C6-O6	8.03	124.72	119.90
25	RA	1264	G	C8-N9-C4	-8.02	103.19	106.40
25	YA	2318	G	N1-C6-O6	8.02	124.71	119.90
25	YA	2059	A	C2-N3-C4	-8.02	106.59	110.60
25	RA	533	G	N3-C4-N9	8.01	130.81	126.00
25	YA	1372	U	C5-C6-N1	8.01	126.71	122.70
25	YA	1141	U	N3-C2-O2	-8.01	116.59	122.20
25	YA	1279	G	N1-C6-O6	-8.01	115.09	119.90
1	XA	970	C	N1-C2-O2	8.01	123.70	118.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1666	G	N1-C6-O6	8.01	124.70	119.90
25	RA	74	A	N1-C6-N6	8.01	123.40	118.60
25	YA	576	U	N3-C2-O2	8.01	127.80	122.20
25	YA	1742	C	O5'-P-OP2	-8.01	98.50	105.70
25	YA	2451	A	N7-C8-N9	8.01	117.80	113.80
25	YA	1699	G	N1-C6-O6	-8.00	115.10	119.90
25	YA	2550	G	N1-C6-O6	8.00	124.70	119.90
25	YA	625	G	N3-C4-N9	-8.00	121.20	126.00
1	QA	537	G	O5'-P-OP2	8.00	120.30	110.70
25	RA	74	A	C4-C5-C6	8.00	121.00	117.00
25	RA	1328	G	C5-C6-O6	-8.00	123.80	128.60
25	YA	782	A	C4-C5-C6	7.99	121.00	117.00
1	XA	753	A	P-O3'-C3'	7.99	129.28	119.70
25	RA	1931	U	C6-N1-C2	-7.99	116.21	121.00
25	YA	452	G	C8-N9-C4	-7.99	103.21	106.40
25	RA	1356	G	C8-N9-C4	-7.98	103.21	106.40
25	RA	2246	G	C6-C5-N7	-7.98	125.61	130.40
25	YA	1158	C	C2-N1-C1'	-7.97	110.03	118.80
25	RA	2862	G	C6-C5-N7	-7.97	125.62	130.40
25	RA	308	G	N1-C6-O6	-7.97	115.12	119.90
25	YA	1950	G	N3-C4-C5	-7.97	124.61	128.60
25	YA	1259	G	C4-C5-N7	7.97	113.99	110.80
1	QA	1336	C	N1-C2-O2	7.97	123.68	118.90
25	RA	974(A)	C	N3-C2-O2	-7.97	116.32	121.90
1	XA	1417	G	C5-C6-N1	-7.97	107.52	111.50
25	YA	2393	A	C4-C5-C6	7.97	120.98	117.00
1	QA	1347	G	N9-C4-C5	7.96	108.59	105.40
25	RA	140	A	N1-C6-N6	7.96	123.38	118.60
1	QA	789	U	C5-C4-O4	7.96	130.68	125.90
26	YB	90	C	N3-C4-C5	7.96	125.08	121.90
25	RA	450	G	N1-C6-O6	7.96	124.68	119.90
1	QA	1301	U	C2-N1-C1'	7.96	127.25	117.70
25	YA	530	G	N3-C2-N2	7.96	125.47	119.90
1	QA	1204	A	N1-C6-N6	7.96	123.37	118.60
1	XA	785	G	N1-C6-O6	7.96	124.67	119.90
1	XA	112	G	C5-C6-O6	-7.95	123.83	128.60
25	YA	1311	G	C5-C6-O6	-7.95	123.83	128.60
25	YA	2697	G	N3-C4-C5	-7.95	124.62	128.60
25	YA	1818	U	N1-C2-N3	7.95	119.67	114.90
25	YA	2321	G	C8-N9-C4	-7.95	103.22	106.40
25	YA	59	U	N3-C2-O2	-7.95	116.64	122.20
25	RA	270(C)	C	C5-C6-N1	7.94	124.97	121.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2523	G	C5-C6-O6	-7.94	123.84	128.60
25	YA	2432	A	C4-C5-N7	7.94	114.67	110.70
25	RA	130	C	N3-C4-C5	7.93	125.07	121.90
25	RA	945	A	C5-N7-C8	-7.93	99.93	103.90
25	RA	1681	G	C5-C6-N1	-7.93	107.54	111.50
25	RA	2624	G	N1-C6-O6	7.93	124.66	119.90
25	YA	1228	G	C2-N3-C4	-7.93	107.94	111.90
25	RA	1781	C	C2-N1-C1'	7.93	127.52	118.80
25	YA	686	G	C4-C5-C6	7.93	123.56	118.80
25	RA	687	C	C6-N1-C2	-7.92	117.13	120.30
25	RA	246	C	N1-C2-O2	-7.92	114.15	118.90
25	RA	2490	G	C4-C5-C6	7.92	123.55	118.80
25	YA	2542	A	N1-C2-N3	7.92	133.26	129.30
1	QA	397	A	C8-N9-C4	-7.91	102.64	105.80
25	YA	245	G	O5'-P-OP1	-7.91	98.58	105.70
25	YA	2448	A	N1-C6-N6	7.91	123.35	118.60
25	RA	2420	C	O5'-P-OP1	-7.91	98.58	105.70
25	YA	688	U	N1-C2-O2	-7.91	117.26	122.80
25	YA	74	A	N1-C2-N3	7.90	133.25	129.30
25	RA	1869	G	C8-N9-C4	-7.90	103.24	106.40
1	XA	320	C	C6-N1-C2	7.90	123.46	120.30
25	YA	431	U	N3-C2-O2	7.90	127.73	122.20
25	YA	1542	G	N3-C4-C5	-7.90	124.65	128.60
25	YA	1362	C	C6-N1-C2	-7.90	117.14	120.30
25	YA	1015	G	C8-N9-C4	-7.89	103.24	106.40
25	YA	1343	G	N3-C4-C5	-7.89	124.65	128.60
25	YA	2487	G	N1-C2-N3	7.89	128.63	123.90
25	YA	662	G	C4-N9-C1'	7.88	136.75	126.50
25	YA	1190	G	N7-C8-N9	7.88	117.04	113.10
25	YA	2829	C	C6-N1-C2	7.88	123.45	120.30
25	YA	1761	C	C5-C6-N1	-7.88	117.06	121.00
25	RA	2549	G	C4-C5-C6	7.88	123.53	118.80
25	YA	1705	G	C6-C5-N7	-7.88	125.67	130.40
25	RA	1975	G	N1-C6-O6	7.87	124.62	119.90
25	RA	1210	A	C8-N9-C4	-7.87	102.65	105.80
1	XA	299	G	C2-N3-C4	-7.87	107.97	111.90
1	QA	904	C	O5'-P-OP1	-7.87	98.62	105.70
25	RA	248	G	N1-C6-O6	7.86	124.62	119.90
25	RA	2495	G	O5'-P-OP2	-7.86	98.63	105.70
25	RA	1332	G	C4-C5-C6	7.86	123.52	118.80
25	RA	2568	C	N3-C4-C5	7.86	125.04	121.90
1	XA	901	A	C2-N3-C4	-7.86	106.67	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	356	A	C4-C5-C6	-7.86	113.07	117.00
25	RA	977	G	C5-C6-N1	7.86	115.43	111.50
25	YA	1698	A	N1-C6-N6	7.86	123.31	118.60
25	YA	1647	G	O5'-P-OP2	7.85	120.12	110.70
26	YB	56	G	C8-N9-C4	-7.85	103.26	106.40
25	RA	2516	G	N3-C4-C5	-7.85	124.67	128.60
25	YA	1187	G	C5-C6-N1	-7.85	107.58	111.50
1	QA	778	G	N3-C4-N9	7.84	130.71	126.00
25	RA	676	A	O4'-C1'-N9	7.84	114.47	108.20
25	RA	1610	A	C8-N9-C4	-7.84	102.66	105.80
25	YA	188	G	C6-C5-N7	-7.84	125.69	130.40
1	QA	529	G	C5-C6-O6	-7.84	123.90	128.60
25	RA	1682	G	N1-C6-O6	7.84	124.60	119.90
25	RA	974(A)	C	C6-N1-C2	-7.84	117.17	120.30
25	RA	1138	G	C5-C6-O6	-7.83	123.90	128.60
25	RA	2450	A	N3-C4-C5	-7.83	121.31	126.80
25	RA	789	A	C5-C6-N6	7.83	129.97	123.70
25	YA	1665	A	N9-C4-C5	-7.83	102.67	105.80
47	R1	79	GLY	N-CA-C	-7.83	93.52	113.10
25	YA	474	G	N1-C6-O6	7.83	124.60	119.90
25	YA	2252	G	N1-C6-O6	7.83	124.60	119.90
25	RA	533	G	N3-C4-C5	-7.82	124.69	128.60
25	RA	2000	G	C8-N9-C4	-7.82	103.27	106.40
25	YA	1698	A	C4-C5-C6	7.82	120.91	117.00
25	YA	58	G	C4-C5-C6	7.82	123.49	118.80
25	RA	2731	G	C6-C5-N7	-7.82	125.71	130.40
25	YA	473	G	C5-C6-N1	7.82	115.41	111.50
25	RA	788	A	O5'-P-OP1	-7.82	98.66	105.70
47	Y1	79	GLY	N-CA-C	-7.82	93.56	113.10
25	RA	1975	G	C6-C5-N7	-7.82	125.71	130.40
25	RA	2880	C	C6-N1-C2	-7.82	117.17	120.30
25	YA	1658	C	O5'-P-OP2	-7.82	98.67	105.70
25	YA	2839	G	C6-C5-N7	-7.81	125.71	130.40
25	YA	1613	G	C5-C6-O6	-7.81	123.92	128.60
1	QA	1259	C	C6-N1-C2	-7.81	117.18	120.30
25	RA	1614	A	C8-N9-C4	-7.81	102.68	105.80
25	YA	27	G	N3-C2-N2	-7.81	114.44	119.90
25	YA	240	G	C4-C5-C6	7.81	123.48	118.80
25	YA	570	G	C5-C6-O6	7.80	133.28	128.60
25	RA	738	G	C4-C5-N7	-7.80	107.68	110.80
25	YA	991	C	OP1-P-OP2	-7.80	107.90	119.60
1	QA	1528	U	P-O3'-C3'	7.80	129.06	119.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1385	G	O4'-C1'-N9	7.80	114.44	108.20
25	RA	2399	G	N3-C4-C5	-7.80	124.70	128.60
25	YA	662	G	N1-C2-N3	7.80	128.58	123.90
25	YA	1381	G	N3-C4-C5	-7.80	124.70	128.60
25	YA	602	G	N1-C6-O6	7.80	124.58	119.90
25	RA	2712(A)	A	C5-N7-C8	-7.79	100.00	103.90
25	RA	2004	G	C5-C6-N1	-7.79	107.60	111.50
25	RA	2031	A	C2-N3-C4	7.79	114.50	110.60
25	RA	2439	A	P-O3'-C3'	7.79	129.05	119.70
25	YA	397	G	N3-C4-N9	-7.79	121.32	126.00
25	YA	979	G	O5'-P-OP1	-7.79	98.69	105.70
25	RA	637	A	C8-N9-C4	-7.79	102.68	105.80
1	XA	1200	C	N3-C2-O2	-7.79	116.45	121.90
1	QA	1066	C	C5-C6-N1	7.79	124.89	121.00
25	RA	791	C	C2-N3-C4	-7.79	116.00	119.90
25	RA	382	G	N9-C4-C5	-7.79	102.28	105.40
25	RA	2665	A	C8-N9-C4	-7.79	102.68	105.80
25	YA	945	A	N9-C4-C5	-7.79	102.68	105.80
25	YA	2231	C	N1-C2-N3	7.79	124.65	119.20
25	YA	512	G	C4-N9-C1'	-7.79	116.38	126.50
1	XA	1372	U	C5-C6-N1	7.78	126.59	122.70
25	YA	585	G	OP2-P-O3'	7.78	122.32	105.20
25	RA	444	C	OP2-P-O3'	7.78	122.31	105.20
25	RA	1338	G	N1-C6-O6	7.78	124.57	119.90
25	RA	2506	U	N1-C2-O2	7.78	128.25	122.80
25	YA	2004	G	C6-C5-N7	-7.78	125.73	130.40
25	RA	391	G	C5-C6-N1	-7.77	107.61	111.50
25	YA	2080	G	N1-C6-O6	7.77	124.56	119.90
25	YA	956	G	C8-N9-C4	7.77	109.51	106.40
1	QA	1149	C	C6-N1-C2	-7.77	117.19	120.30
25	YA	465	G	N3-C4-N9	7.77	130.66	126.00
25	YA	820	A	C8-N9-C4	-7.77	102.69	105.80
25	YA	1369	G	C5-C6-O6	-7.77	123.94	128.60
1	QA	48	C	N1-C2-O2	7.77	123.56	118.90
25	YA	842	G	C5-C6-O6	-7.77	123.94	128.60
25	YA	309	G	C8-N9-C4	-7.76	103.30	106.40
25	YA	1701	A	O5'-P-OP1	-7.76	98.71	105.70
25	RA	465	G	C5-C6-N1	-7.76	107.62	111.50
1	XA	1200	C	C6-N1-C2	-7.76	117.20	120.30
25	YA	2250	G	C8-N9-C4	-7.76	103.30	106.40
25	YA	585	G	N3-C4-C5	-7.76	124.72	128.60
25	YA	820	A	C5-C6-N6	7.75	129.90	123.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1313	U	C5-C6-N1	7.75	126.58	122.70
25	RA	450	G	N1-C2-N3	7.75	128.55	123.90
25	YA	676	A	C5-N7-C8	-7.75	100.02	103.90
1	XA	577	G	C4-C5-N7	7.75	113.90	110.80
25	RA	1896	G	N1-C6-O6	7.74	124.55	119.90
25	YA	141	A	C4-C5-N7	7.74	114.57	110.70
25	YA	193	U	OP2-P-O3'	7.74	122.23	105.20
25	RA	75	G	N3-C4-C5	-7.73	124.73	128.60
25	RA	1688	U	C5-C6-N1	7.73	126.57	122.70
25	YA	195	A	C5-N7-C8	-7.73	100.03	103.90
1	XA	372	C	C5-C6-N1	7.73	124.86	121.00
25	YA	728	G	C8-N9-C1'	-7.73	116.95	127.00
25	YA	870	A	C8-N9-C4	7.73	108.89	105.80
25	YA	1353	A	C2-N3-C4	7.73	114.46	110.60
25	YA	327	G	C8-N9-C1'	-7.72	116.96	127.00
25	YA	585	G	C6-C5-N7	-7.72	125.77	130.40
25	YA	2395	C	N3-C4-C5	-7.72	118.81	121.90
25	YA	2340	G	O5'-P-OP2	-7.72	98.75	105.70
25	RA	1653	G	N3-C4-C5	-7.72	124.74	128.60
25	YA	2439	A	N7-C8-N9	7.72	117.66	113.80
1	XA	713	G	C8-N9-C4	-7.72	103.31	106.40
25	YA	2035	G	C8-N9-C1'	7.72	137.03	127.00
25	YA	2466	C	N3-C4-C5	7.72	124.99	121.90
1	QA	372	C	C6-N1-C1'	-7.71	111.55	120.80
25	YA	1368	G	N3-C4-C5	-7.71	124.75	128.60
25	YA	2251	G	C5-C6-O6	7.71	133.23	128.60
25	RA	2238	G	C8-N9-C4	-7.71	103.32	106.40
1	QA	558	G	O5'-P-OP1	7.70	119.94	110.70
1	QA	1338	G	N3-C4-C5	-7.70	124.75	128.60
1	QA	1149	C	C5-C6-N1	7.70	124.85	121.00
25	RA	1253	A	C4-C5-C6	-7.70	113.15	117.00
1	XA	423	G	C4-N9-C1'	7.70	136.51	126.50
25	YA	494	G	C8-N9-C4	-7.70	103.32	106.40
25	YA	493	G	N1-C6-O6	7.70	124.52	119.90
25	YA	177	G	N1-C6-O6	-7.70	115.28	119.90
25	YA	684	G	C5-C6-N1	7.70	115.35	111.50
1	QA	789	U	N1-C2-N3	7.70	119.52	114.90
25	RA	1992	G	C5-C6-N1	7.70	115.35	111.50
25	YA	2532	G	C6-C5-N7	-7.69	125.78	130.40
25	YA	139	G	N3-C4-C5	-7.69	124.75	128.60
25	YA	1520	U	C5-C4-O4	7.69	130.52	125.90
25	RA	487	C	C6-N1-C2	-7.69	117.22	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	921	G	C6-C5-N7	-7.69	125.79	130.40
25	RA	2709	G	N1-C6-O6	7.68	124.51	119.90
25	YA	2060	A	N1-C6-N6	7.68	123.21	118.60
25	RA	1236	G	C5-C6-N1	-7.68	107.66	111.50
25	RA	1899	G	C4-C5-C6	7.68	123.41	118.80
25	YA	798	G	N1-C6-O6	7.68	124.51	119.90
25	RA	1776	G	C5-C6-O6	-7.68	123.99	128.60
25	RA	1950	G	C4-C5-N7	7.68	113.87	110.80
25	YA	1496	A	C5-N7-C8	-7.68	100.06	103.90
1	QA	328	C	N1-C2-O2	7.67	123.50	118.90
1	QA	1158	C	N1-C2-O2	7.67	123.50	118.90
25	RA	1521	G	C6-C5-N7	-7.67	125.80	130.40
25	RA	1799	G	C5-C6-O6	7.67	133.21	128.60
25	YA	1424	G	C6-C5-N7	-7.67	125.80	130.40
25	RA	1786	A	N7-C8-N9	7.67	117.64	113.80
1	XA	1502	A	C4-C5-N7	7.67	114.53	110.70
25	YA	1908	C	C6-N1-C2	-7.67	117.23	120.30
25	RA	2032	G	N3-C4-N9	-7.67	121.40	126.00
26	RB	30	C	C6-N1-C2	-7.67	117.23	120.30
25	RA	929	G	C8-N9-C1'	-7.66	117.04	127.00
25	RA	330	A	C6-C5-N7	-7.66	126.94	132.30
25	RA	921	G	C5-C6-N1	-7.66	107.67	111.50
25	RA	2468	G	N7-C8-N9	7.66	116.93	113.10
25	YA	1611	C	C6-N1-C2	7.66	123.36	120.30
25	RA	588	U	C2-N1-C1'	7.66	126.89	117.70
25	YA	196	A	N1-C6-N6	7.66	123.19	118.60
25	RA	203	C	C6-N1-C2	7.66	123.36	120.30
1	XA	1370	G	N1-C6-O6	7.65	124.49	119.90
25	RA	397	G	N1-C6-O6	7.65	124.49	119.90
25	RA	1215	G	N1-C6-O6	7.65	124.49	119.90
25	YA	1358	G	C4-N9-C1'	7.65	136.45	126.50
25	YA	2238	G	OP1-P-OP2	7.65	131.08	119.60
25	YA	2413	G	C2-N3-C4	-7.65	108.07	111.90
25	RA	761	A	C5-N7-C8	-7.65	100.08	103.90
25	RA	2722	G	C4-N9-C1'	7.65	136.44	126.50
25	RA	2392	A	C5-C6-N1	-7.65	113.88	117.70
1	XA	792	A	C4-C5-N7	7.65	114.52	110.70
25	YA	2681	C	P-O3'-C3'	7.64	128.88	119.70
25	RA	1396	U	C2-N1-C1'	7.64	126.87	117.70
1	XA	1051	C	C6-N1-C2	-7.64	117.24	120.30
25	YA	1506	C	C5-C6-N1	7.64	124.82	121.00
25	YA	2366	A	C8-N9-C4	-7.64	102.74	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	787	U	N1-C2-O2	-7.64	117.45	122.80
1	XA	416	G	C4-C5-C6	7.64	123.38	118.80
25	RA	1601	G	N9-C4-C5	-7.63	102.35	105.40
25	RA	1215	G	C6-C5-N7	-7.63	125.82	130.40
1	QA	1527	C	C5-C6-N1	-7.63	117.18	121.00
25	RA	2450	A	C2-N3-C4	7.63	114.42	110.60
1	XA	865	A	N1-C6-N6	7.63	123.18	118.60
1	XA	702	A	O5'-P-OP2	-7.63	98.83	105.70
25	YA	818	G	C8-N9-C1'	-7.63	117.08	127.00
25	YA	844	C	C5-C6-N1	-7.63	117.19	121.00
25	YA	1956	U	C5-C4-O4	7.63	130.48	125.90
1	QA	398	C	C6-N1-C2	7.62	123.35	120.30
25	RA	2843	G	C5-C6-O6	-7.62	124.03	128.60
25	YA	1984	G	C2-N3-C4	-7.62	108.09	111.90
25	RA	140	A	N7-C8-N9	7.62	117.61	113.80
25	YA	2869	G	C5-C6-N1	-7.62	107.69	111.50
1	QA	1314	C	C6-N1-C2	-7.61	117.25	120.30
25	RA	1940	U	C5-C6-N1	7.61	126.51	122.70
25	RA	58	G	C8-N9-C4	-7.61	103.36	106.40
1	XA	130	A	O4'-C1'-N9	7.61	114.29	108.20
25	YA	1381	G	C4-N9-C1'	7.61	136.39	126.50
25	YA	2729	G	N3-C4-C5	7.61	132.41	128.60
25	YA	995	C	N3-C2-O2	-7.61	116.57	121.90
25	YA	2360	A	C2-N3-C4	-7.61	106.80	110.60
1	QA	990	C	C6-N1-C2	-7.61	117.26	120.30
25	YA	1806	C	N1-C2-O2	-7.61	114.34	118.90
25	RA	2639	A	C2-N3-C4	-7.61	106.80	110.60
25	RA	533	G	C8-N9-C1'	-7.60	117.12	127.00
25	YA	177	G	C8-N9-C4	-7.60	103.36	106.40
25	YA	1763	G	C4-C5-N7	-7.60	107.76	110.80
25	YA	2830	G	C4-N9-C1'	7.60	136.38	126.50
25	YA	1642	G	C5-C6-N1	-7.60	107.70	111.50
1	QA	355	C	C6-N1-C2	-7.60	117.26	120.30
1	XA	280	C	C6-N1-C2	7.60	123.34	120.30
25	YA	752	A	P-O3'-C3'	7.60	128.82	119.70
25	RA	265	A	O4'-C1'-N9	7.60	114.28	108.20
25	YA	1944	U	C5-C6-N1	-7.60	118.90	122.70
25	YA	741	G	N3-C4-N9	7.60	130.56	126.00
1	QA	1338	G	N1-C6-O6	-7.59	115.34	119.90
25	RA	2468	G	C5-C6-O6	-7.59	124.04	128.60
1	XA	31	G	N3-C4-N9	7.59	130.56	126.00
25	YA	820	A	N9-C4-C5	7.59	108.84	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2437	U	C6-N1-C2	-7.59	116.44	121.00
25	YA	102	G	P-O3'-C3'	7.59	128.81	119.70
25	RA	533	G	C4-N9-C1'	7.59	136.37	126.50
25	RA	1694	C	P-O3'-C3'	7.59	128.81	119.70
25	YA	728	G	C6-C5-N7	-7.59	125.84	130.40
25	YA	2000	G	N3-C4-C5	-7.59	124.80	128.60
1	QA	31	G	N3-C4-N9	7.59	130.55	126.00
26	RB	54	G	C4-N9-C1'	7.59	136.37	126.50
25	YA	1906	G	C5-C6-N1	-7.58	107.71	111.50
25	YA	1929	G	C4-C5-N7	7.58	113.83	110.80
25	RA	1429	G	N1-C6-O6	7.58	124.45	119.90
25	RA	2324	C	C6-N1-C2	7.58	123.33	120.30
25	YA	832	G	C6-C5-N7	-7.58	125.85	130.40
25	RA	624	C	C5-C6-N1	7.58	124.79	121.00
25	YA	1395	A	O4'-C1'-N9	7.58	114.26	108.20
25	RA	2441	C	C2-N1-C1'	-7.58	110.47	118.80
25	YA	2451	A	N9-C4-C5	7.58	108.83	105.80
25	YA	450	G	C8-N9-C4	-7.57	103.37	106.40
25	YA	2393	A	N7-C8-N9	7.57	117.59	113.80
25	RA	962	G	N3-C4-N9	-7.57	121.46	126.00
25	YA	272	G	N3-C4-N9	-7.57	121.46	126.00
25	YA	1647	G	N7-C8-N9	7.57	116.88	113.10
25	YA	952	G	C8-N9-C4	-7.56	103.38	106.40
25	YA	1950	G	N1-C2-N2	-7.56	109.39	116.20
25	YA	791	C	C5-C6-N1	-7.56	117.22	121.00
25	RA	573	G	C8-N9-C1'	-7.56	117.18	127.00
25	RA	2702	U	C2-N1-C1'	7.56	126.77	117.70
25	YA	1790	C	N1-C2-O2	7.56	123.43	118.90
25	RA	372	G	O4'-C1'-N9	7.55	114.24	108.20
25	YA	772	C	N3-C4-C5	-7.55	118.88	121.90
25	YA	1820	U	C5-C6-N1	-7.55	118.92	122.70
25	RA	2002	G	C4-C5-N7	7.55	113.82	110.80
1	XA	1303	C	C6-N1-C2	-7.55	117.28	120.30
25	RA	1703	G	C8-N9-C4	7.55	109.42	106.40
25	YA	88	G	C6-C5-N7	-7.55	125.87	130.40
1	QA	372	C	N1-C2-O2	7.55	123.43	118.90
1	XA	729	A	C6-C5-N7	-7.54	127.02	132.30
25	YA	58	G	C4-N9-C1'	7.54	136.31	126.50
25	RA	450	G	C2-N3-C4	-7.54	108.13	111.90
25	YA	1894	C	C6-N1-C2	-7.54	117.28	120.30
25	YA	494	G	N7-C8-N9	7.54	116.87	113.10
25	RA	22	C	C2-N3-C4	-7.54	116.13	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	703	G	N3-C4-C5	-7.54	124.83	128.60
1	QA	1113	C	C6-N1-C2	-7.54	117.28	120.30
25	YA	1336	A	C5-C6-N1	7.54	121.47	117.70
25	RA	1654	A	N1-C6-N6	-7.53	114.08	118.60
1	XA	1204	A	C4-C5-N7	7.53	114.47	110.70
25	RA	2645	G	C5-C6-N1	-7.53	107.73	111.50
25	YA	797	C	C6-N1-C2	-7.53	117.29	120.30
25	YA	916	G	N3-C4-C5	-7.52	124.84	128.60
25	RA	211	A	C2-N3-C4	-7.51	106.84	110.60
25	YA	774	A	C2-N3-C4	-7.51	106.84	110.60
25	YA	2389	G	O5'-P-OP1	-7.51	98.94	105.70
25	YA	2869	G	C4-C5-C6	7.51	123.31	118.80
25	RA	783	A	C8-N9-C4	-7.51	102.80	105.80
25	YA	1251	C	C6-N1-C2	7.51	123.31	120.30
25	YA	832	G	C4-N9-C1'	7.51	136.26	126.50
25	YA	1840	G	C6-C5-N7	-7.51	125.89	130.40
25	RA	2439	A	C5-N7-C8	-7.51	100.15	103.90
25	YA	1777	U	N3-C2-O2	-7.50	116.95	122.20
25	YA	327	G	N3-C4-N9	7.50	130.50	126.00
25	YA	1956	U	N1-C2-O2	-7.50	117.55	122.80
25	RA	1970	A	O4'-C1'-N9	-7.50	102.20	108.20
25	RA	813	U	O5'-P-OP2	-7.50	98.95	105.70
25	RA	2817	G	N3-C4-C5	-7.50	124.85	128.60
25	YA	701	G	N1-C2-N3	7.50	128.40	123.90
25	RA	944	G	C5-C6-O6	7.49	133.09	128.60
25	RA	621	A	C5-C6-N1	-7.49	113.95	117.70
25	RA	1332	G	N1-C2-N3	7.49	128.40	123.90
25	YA	2617	C	C6-N1-C2	7.49	123.30	120.30
1	QA	865	A	N7-C8-N9	7.49	117.54	113.80
25	RA	1624	G	C5-C6-N1	-7.49	107.76	111.50
1	XA	725	G	C8-N9-C4	-7.49	103.40	106.40
1	QA	325	A	N1-C6-N6	-7.49	114.11	118.60
25	RA	2770	G	N3-C4-C5	-7.49	124.86	128.60
25	YA	1573	G	C8-N9-C4	7.49	109.39	106.40
25	YA	1929	G	C6-C5-N7	-7.49	125.91	130.40
25	RA	396	G	C8-N9-C4	-7.49	103.41	106.40
25	YA	2445	G	N9-C4-C5	7.48	108.39	105.40
1	QA	758	G	N7-C8-N9	7.48	116.84	113.10
25	RA	819	A	C8-N9-C4	-7.48	102.81	105.80
25	RA	1857	G	C5-C6-N1	-7.48	107.76	111.50
1	QA	1230	C	C5-C6-N1	7.48	124.74	121.00
1	XA	362	G	N3-C4-C5	7.48	132.34	128.60

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	379	G	C8-N9-C1'	-7.48	117.28	127.00
25	YA	1614	A	N7-C8-N9	7.48	117.54	113.80
25	YA	676	A	N7-C8-N9	7.48	117.54	113.80
25	YA	2728	U	C5-C4-O4	-7.48	121.41	125.90
25	YA	2779	U	C2-N1-C1'	7.48	126.67	117.70
25	RA	570	G	C8-N9-C4	-7.48	103.41	106.40
1	XA	423	G	N1-C6-O6	7.47	124.38	119.90
25	YA	2655	G	O4'-C1'-N9	7.47	114.18	108.20
25	YA	2686	G	N3-C4-C5	-7.47	124.86	128.60
25	YA	1678	G	C2-N3-C4	-7.47	108.16	111.90
25	YA	1632	A	O5'-P-OP1	-7.47	98.98	105.70
1	QA	541	G	N1-C6-O6	7.47	124.38	119.90
25	YA	728	G	N3-C4-N9	7.46	130.48	126.00
25	YA	2710	C	N3-C2-O2	-7.46	116.67	121.90
25	RA	1903	G	C8-N9-C1'	-7.46	117.30	127.00
25	RA	391	G	C6-C5-N7	-7.46	125.92	130.40
25	RA	2867	G	C8-N9-C4	7.46	109.38	106.40
25	YA	974	G	N7-C8-N9	7.46	116.83	113.10
25	YA	2227	A	N1-C6-N6	-7.46	114.12	118.60
1	XA	545	C	N3-C2-O2	-7.46	116.68	121.90
25	YA	667	U	N1-C2-O2	-7.45	117.58	122.80
25	YA	2463	C	C5-C6-N1	-7.45	117.28	121.00
1	QA	960	U	N3-C2-O2	-7.45	116.99	122.20
25	RA	2484	G	C6-C5-N7	-7.45	125.93	130.40
25	RA	1315	C	N3-C2-O2	-7.45	116.69	121.90
25	YA	793	A	C2-N3-C4	-7.45	106.88	110.60
25	YA	2622	C	C6-N1-C2	7.45	123.28	120.30
25	RA	2549	G	C6-C5-N7	-7.44	125.93	130.40
25	RA	55	G	C5-C6-N1	7.44	115.22	111.50
25	RA	1204	A	N1-C2-N3	7.44	133.02	129.30
1	XA	1301	U	N1-C2-O2	7.44	128.01	122.80
1	XA	1480	G	N3-C4-C5	7.44	132.32	128.60
25	RA	1517	G	N1-C6-O6	-7.44	115.44	119.90
25	RA	2468	G	C8-N9-C1'	-7.44	117.33	127.00
25	YA	1196	C	C6-N1-C2	-7.44	117.32	120.30
1	QA	138	G	N1-C6-O6	7.44	124.36	119.90
25	RA	2570	G	C6-C5-N7	-7.44	125.94	130.40
1	QA	119	A	C8-N9-C4	7.43	108.77	105.80
25	RA	27	G	N3-C4-N9	-7.43	121.54	126.00
25	RA	2393	A	C8-N9-C4	7.43	108.77	105.80
25	YA	397	G	N3-C4-C5	7.43	132.32	128.60
25	YA	1382	G	C2-N3-C4	-7.43	108.18	111.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1929	G	OP1-P-O3'	7.43	121.55	105.20
25	YA	713	G	C6-C5-N7	-7.43	125.94	130.40
25	YA	776	G	C5-C6-O6	7.43	133.06	128.60
25	YA	792	G	O5'-P-OP2	-7.43	99.01	105.70
25	YA	1017	G	N1-C6-O6	7.43	124.36	119.90
25	YA	621	A	C5-N7-C8	-7.43	100.19	103.90
25	YA	2215	G	N3-C4-N9	7.43	130.46	126.00
1	QA	377	G	N3-C4-N9	7.43	130.46	126.00
25	RA	676	A	C4-C5-N7	7.43	114.41	110.70
25	RA	2776	A	C8-N9-C4	-7.42	102.83	105.80
25	YA	2458	G	N1-C6-O6	7.42	124.35	119.90
25	YA	2818	G	C2-N3-C4	-7.42	108.19	111.90
25	YA	2728	U	N3-C2-O2	7.42	127.39	122.20
25	YA	761	A	C4-C5-C6	7.42	120.71	117.00
25	RA	2350	C	N1-C2-O2	7.41	123.35	118.90
1	XA	557	G	C6-C5-N7	-7.41	125.95	130.40
25	YA	2422	A	C6-N1-C2	7.41	123.05	118.60
25	YA	836	G	N9-C4-C5	-7.41	102.44	105.40
25	YA	2292	C	C6-N1-C2	-7.41	117.34	120.30
25	RA	1624	G	N9-C4-C5	-7.41	102.44	105.40
1	XA	789	U	C6-N1-C2	-7.41	116.56	121.00
25	YA	1786	A	C6-C5-N7	-7.41	127.12	132.30
25	YA	2252	G	C5-C6-O6	-7.41	124.16	128.60
25	RA	1657	C	N1-C2-O2	7.40	123.34	118.90
25	RA	1848	A	C5-C6-N1	7.40	121.40	117.70
25	YA	1819	A	P-O3'-C3'	7.40	128.58	119.70
25	RA	300	A	C5-C6-N1	-7.40	114.00	117.70
25	YA	1701	A	C8-N9-C4	-7.40	102.84	105.80
25	YA	1734	C	C6-N1-C2	-7.40	117.34	120.30
25	YA	2407	G	C6-C5-N7	-7.40	125.96	130.40
25	RA	1437	C	C5-C6-N1	7.40	124.70	121.00
25	YA	74	A	P-O3'-C3'	7.40	128.58	119.70
25	YA	2000	G	C4-C5-C6	7.40	123.24	118.80
1	QA	577	G	C4-C5-N7	7.39	113.76	110.80
25	RA	553	U	C5-C4-O4	7.39	130.34	125.90
1	XA	1332	A	C8-N9-C4	-7.39	102.84	105.80
25	RA	2617	C	C6-N1-C2	7.39	123.26	120.30
25	YA	2063	C	O5'-P-OP2	-7.39	99.05	105.70
25	RA	743	G	N1-C6-O6	7.39	124.33	119.90
25	RA	1899	G	N3-C4-C5	-7.39	124.91	128.60
25	YA	1307	A	C8-N9-C4	-7.39	102.84	105.80
25	YA	1829	A	N9-C4-C5	7.39	108.75	105.80

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	557	G	C8-N9-C1'	-7.38	117.40	127.00
25	RA	1931	U	N3-C4-O4	-7.38	114.23	119.40
25	RA	2447	G	C5-N7-C8	-7.38	100.61	104.30
25	YA	2215	G	C8-N9-C1'	-7.38	117.40	127.00
1	QA	758	G	C4-C5-N7	7.38	113.75	110.80
25	YA	1950	G	O4'-C1'-N9	7.38	114.11	108.20
25	RA	1353	A	C8-N9-C4	-7.38	102.85	105.80
25	YA	966	G	C2-N3-C4	-7.38	108.21	111.90
25	YA	979	G	N7-C8-N9	7.38	116.79	113.10
1	XA	226	G	N9-C4-C5	-7.38	102.45	105.40
1	XA	584	G	N3-C4-C5	-7.38	124.91	128.60
25	YA	1249	U	O5'-P-OP2	-7.38	99.06	105.70
25	YA	670	A	N1-C6-N6	-7.37	114.18	118.60
25	YA	929	G	C5-C6-N1	-7.37	107.81	111.50
25	RA	741	G	C5-C6-O6	-7.37	124.18	128.60
25	RA	2383	G	C4-C5-N7	7.37	113.75	110.80
25	YA	1786	A	C4-C5-C6	7.37	120.68	117.00
25	RA	761	A	C4-C5-C6	-7.37	113.32	117.00
25	YA	1381	G	C4-C5-C6	7.37	123.22	118.80
1	QA	328	C	C6-N1-C1'	-7.36	111.96	120.80
25	RA	2035	G	N7-C8-N9	-7.36	109.42	113.10
25	YA	1774	C	C2-N3-C4	-7.36	116.22	119.90
25	RA	2507	C	N1-C2-O2	-7.36	114.48	118.90
25	YA	203	C	C6-N1-C2	7.36	123.25	120.30
25	YA	146	G	N1-C6-O6	7.36	124.32	119.90
25	YA	1929	G	N1-C6-O6	7.36	124.32	119.90
25	YA	298	G	C4-C5-C6	-7.36	114.39	118.80
25	RA	1987	G	N1-C2-N3	7.36	128.31	123.90
25	YA	2537	U	C6-N1-C2	-7.36	116.59	121.00
25	RA	2437	U	C4-C5-C6	7.35	124.11	119.70
25	YA	979	G	C8-N9-C4	-7.35	103.46	106.40
25	RA	1022	G	C6-C5-N7	7.35	134.81	130.40
25	RA	1187	G	C8-N9-C4	-7.35	103.46	106.40
25	YA	2487	G	C5-C6-N1	-7.35	107.82	111.50
1	QA	299	G	C4-C5-N7	-7.35	107.86	110.80
25	RA	307	G	C2-N3-C4	7.35	115.57	111.90
25	RA	702	G	C4-C5-C6	7.35	123.21	118.80
25	YA	2607	G	C4-C5-C6	7.35	123.21	118.80
25	YA	2705	A	N1-C6-N6	-7.35	114.19	118.60
1	QA	171	A	C8-N9-C4	-7.34	102.86	105.80
25	YA	1616	A	O4'-C1'-N9	7.34	114.08	108.20
25	YA	2607	G	C4-N9-C1'	7.34	136.05	126.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	244	U	N1-C2-N3	-7.34	110.50	114.90
25	RA	1661	G	C8-N9-C4	7.34	109.34	106.40
22	XV	17	C	N1-C2-O2	7.34	123.31	118.90
25	YA	1835	G	N3-C4-C5	-7.34	124.93	128.60
25	YA	2524	G	C8-N9-C4	-7.34	103.46	106.40
1	XA	1189	C	C6-N1-C2	7.34	123.24	120.30
1	XA	247	G	N3-C4-N9	7.34	130.40	126.00
25	YA	684	G	C6-N1-C2	-7.34	120.70	125.10
1	XA	913	A	P-O3'-C3'	7.33	128.50	119.70
1	XA	484	G	N3-C4-C5	-7.33	124.93	128.60
25	YA	270(Y)	G	C8-N9-C4	-7.33	103.47	106.40
25	YA	1021	A	C8-N9-C4	-7.33	102.87	105.80
25	RA	297	C	N3-C2-O2	-7.33	116.77	121.90
25	RA	2004	G	C2-N3-C4	-7.33	108.23	111.90
25	YA	818	G	C4-C5-C6	7.33	123.20	118.80
25	YA	943	U	C6-N1-C2	-7.33	116.60	121.00
25	YA	2434	A	N1-C6-N6	7.33	123.00	118.60
26	YB	82	G	C8-N9-C4	-7.33	103.47	106.40
25	YA	622	G	C5-C6-N1	-7.33	107.83	111.50
25	RA	1773	A	C4-C5-C6	7.33	120.66	117.00
25	YA	2251	G	C4-C5-C6	7.33	123.20	118.80
25	RA	1899	G	N7-C8-N9	7.33	116.76	113.10
1	XA	328	C	C2-N1-C1'	7.33	126.86	118.80
25	RA	1601	G	N3-C4-N9	7.32	130.40	126.00
1	XA	615	C	C6-N1-C2	-7.32	117.37	120.30
25	YA	1298	C	C6-N1-C2	-7.32	117.37	120.30
25	YA	1829	A	N1-C6-N6	-7.32	114.21	118.60
25	YA	24	G	N1-C6-O6	7.32	124.29	119.90
25	RA	470	A	N1-C6-N6	-7.32	114.21	118.60
25	RA	1604	C	N1-C2-O2	-7.32	114.51	118.90
25	RA	1653	G	N1-C6-O6	-7.32	115.51	119.90
25	YA	713	G	C5-C6-N1	-7.32	107.84	111.50
25	RA	1929	G	C8-N9-C4	7.32	109.33	106.40
25	RA	2495	G	C4-C5-N7	7.32	113.73	110.80
1	XA	1113	C	C6-N1-C2	-7.31	117.38	120.30
25	YA	259	G	N1-C6-O6	7.31	124.29	119.90
25	YA	1187	G	C4-C5-N7	-7.31	107.88	110.80
25	YA	1502	C	C6-N1-C2	-7.31	117.38	120.30
25	YA	2816	C	C6-N1-C2	7.31	123.22	120.30
25	YA	2515	C	N3-C4-C5	7.31	124.82	121.90
25	RA	479	A	N9-C4-C5	7.31	108.72	105.80
25	RA	2482	G	C8-N9-C1'	-7.31	117.50	127.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1192	G	C5-C6-N1	-7.31	107.84	111.50
25	YA	1776	G	N3-C4-C5	-7.31	124.95	128.60
25	YA	258	G	O5'-P-OP2	-7.31	99.12	105.70
25	YA	791	C	C2-N1-C1'	-7.31	110.76	118.80
25	YA	1287	A	C2-N3-C4	-7.31	106.95	110.60
22	QV	17	C	N1-C2-O2	7.30	123.28	118.90
25	RA	2083	G	N1-C6-O6	7.30	124.28	119.90
25	RA	2509	G	N1-C6-O6	7.30	124.28	119.90
25	YA	142	G	C8-N9-C1'	7.30	136.49	127.00
25	YA	613	U	C6-N1-C1'	7.30	131.42	121.20
25	YA	121	G	C2-N3-C4	7.30	115.55	111.90
25	YA	1383	C	C6-N1-C1'	-7.30	112.04	120.80
25	YA	2732	G	C4-C5-N7	7.30	113.72	110.80
25	YA	2275	C	C6-N1-C2	7.30	123.22	120.30
25	RA	37	C	C2-N3-C4	-7.30	116.25	119.90
25	RA	1241	A	O4'-C1'-N9	7.30	114.04	108.20
25	YA	2032	G	C2-N3-C4	-7.29	108.25	111.90
25	RA	2499	C	N3-C2-O2	-7.29	116.79	121.90
1	XA	1301	U	N3-C2-O2	-7.29	117.09	122.20
1	QA	284	G	C8-N9-C4	7.29	109.32	106.40
25	YA	828	U	C6-N1-C2	-7.29	116.63	121.00
25	RA	270(Z)	U	O4'-C1'-N1	7.29	114.03	108.20
25	RA	662	G	C5-C6-N1	-7.29	107.86	111.50
1	XA	1290	G	C8-N9-C4	-7.29	103.48	106.40
25	YA	621	A	C2-N3-C4	-7.29	106.96	110.60
25	RA	2325	G	C6-C5-N7	-7.29	126.03	130.40
1	QA	1322	C	C6-N1-C1'	-7.28	112.06	120.80
25	RA	1698	A	C5-N7-C8	-7.28	100.26	103.90
1	XA	362	G	N3-C4-N9	-7.28	121.63	126.00
1	XA	807	A	C8-N9-C4	-7.28	102.89	105.80
25	YA	1049	C	N1-C2-O2	7.28	123.27	118.90
1	QA	685	G	N3-C4-N9	-7.28	121.63	126.00
25	YA	2698	U	O5'-P-OP2	-7.28	99.15	105.70
1	QA	356	A	C5-C6-N1	7.28	121.34	117.70
25	RA	2031	A	N3-C4-C5	-7.28	121.70	126.80
26	RB	38	C	C6-N1-C2	-7.28	117.39	120.30
25	YA	2547	U	N1-C2-N3	7.28	119.27	114.90
1	QA	703	G	C8-N9-C1'	-7.28	117.54	127.00
25	RA	2365	G	N3-C4-C5	-7.28	124.96	128.60
25	YA	1142(A)	A	C2-N3-C4	-7.28	106.96	110.60
1	QA	410	G	P-O3'-C3'	7.27	128.43	119.70
1	XA	423	G	C6-C5-N7	-7.27	126.04	130.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	979	G	C5-N7-C8	-7.27	100.67	104.30
25	RA	2509	G	C2-N3-C4	-7.27	108.27	111.90
1	XA	949	A	N1-C6-N6	-7.27	114.24	118.60
25	YA	487	C	N3-C2-O2	-7.27	116.81	121.90
25	YA	587	C	P-O3'-C3'	7.27	128.42	119.70
25	RA	1328	G	N9-C4-C5	-7.27	102.49	105.40
25	RA	2508	G	C6-C5-N7	-7.27	126.04	130.40
25	RA	503	A	N1-C2-N3	7.26	132.93	129.30
25	RA	512	G	N3-C4-C5	7.26	132.23	128.60
25	RA	680	G	N3-C4-N9	7.26	130.36	126.00
1	XA	416	G	C6-C5-N7	-7.26	126.04	130.40
1	QA	703	G	C4-N9-C1'	7.26	135.94	126.50
25	YA	795	C	C5-C6-N1	-7.26	117.37	121.00
25	YA	2326	C	N1-C2-O2	7.26	123.26	118.90
25	RA	1365	A	C8-N9-C4	-7.26	102.89	105.80
25	YA	663	G	C8-N9-C1'	-7.26	117.56	127.00
25	YA	794	G	C6-C5-N7	-7.26	126.04	130.40
1	QA	416	G	N3-C4-C5	-7.26	124.97	128.60
35	RP	59	LEU	N-CA-C	-7.26	91.40	111.00
35	YP	59	LEU	N-CA-C	-7.26	91.40	111.00
25	RA	1517	G	C2-N3-C4	7.26	115.53	111.90
25	RA	2032	G	C8-N9-C1'	7.26	136.43	127.00
25	YA	642	G	N7-C8-N9	7.26	116.73	113.10
25	YA	2051	A	N1-C6-N6	7.26	122.95	118.60
25	YA	570	G	O5'-P-OP2	7.25	119.41	110.70
25	YA	1773	A	N1-C6-N6	-7.25	114.25	118.60
25	YA	1988	C	C2-N1-C1'	-7.25	110.82	118.80
25	RA	145	G	N3-C4-C5	7.25	132.23	128.60
1	XA	691	G	C8-N9-C1'	-7.25	117.57	127.00
25	YA	1029	A	N1-C6-N6	-7.25	114.25	118.60
25	RA	2468	G	N1-C6-O6	7.25	124.25	119.90
25	YA	270(T)	G	OP1-P-OP2	-7.25	108.73	119.60
25	YA	585	G	C4-N9-C1'	7.25	135.92	126.50
25	RA	1634	A	C4-C5-N7	-7.25	107.08	110.70
25	YA	1906	G	C2-N3-C4	-7.25	108.28	111.90
1	QA	937	A	C8-N9-C4	-7.24	102.90	105.80
25	YA	1381	G	C6-C5-N7	-7.24	126.05	130.40
25	RA	380	U	N3-C4-O4	7.24	124.47	119.40
1	QA	449	C	C6-N1-C2	-7.24	117.40	120.30
25	RA	2776	A	P-O3'-C3'	7.24	128.39	119.70
25	YA	1763	G	N9-C4-C5	7.24	108.30	105.40
25	YA	2073	C	N1-C2-N3	7.24	124.27	119.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2620	C	O5'-P-OP1	-7.24	99.18	105.70
25	YA	2655	G	N3-C4-N9	-7.24	121.66	126.00
25	RA	74	A	N7-C8-N9	7.24	117.42	113.80
1	QA	705	U	N1-C2-N3	7.24	119.24	114.90
25	YA	269	U	C2-N1-C1'	7.24	126.38	117.70
25	YA	1691	C	C6-N1-C2	-7.24	117.41	120.30
25	YA	1256	G	C4-N9-C1'	7.23	135.91	126.50
25	RA	2503	A	N1-C6-N6	-7.23	114.26	118.60
25	YA	1931	U	C5-C4-O4	7.23	130.24	125.90
25	YA	1742	C	C5-C6-N1	7.23	124.61	121.00
1	XA	1503	A	P-O3'-C3'	7.23	128.37	119.70
1	QA	31	G	C4-N9-C1'	7.23	135.90	126.50
1	XA	701	C	OP2-P-O3'	7.23	121.10	105.20
1	XA	792	A	C5-C6-N1	-7.22	114.09	117.70
25	YA	2389	G	C5-C6-O6	-7.22	124.27	128.60
25	RA	1929	G	OP1-P-O3'	7.22	121.09	105.20
25	RA	2211	G	C8-N9-C4	-7.22	103.51	106.40
25	YA	2844	G	C6-C5-N7	-7.22	126.07	130.40
25	RA	1336	A	C5-C6-N1	7.22	121.31	117.70
25	RA	706	A	N1-C6-N6	7.22	122.93	118.60
25	YA	831	G	O5'-P-OP2	-7.22	99.20	105.70
25	RA	1792	G	N1-C6-O6	7.21	124.23	119.90
25	YA	153	C	C6-N1-C2	-7.21	117.41	120.30
25	YA	974(A)	C	C5-C4-N4	7.21	125.25	120.20
25	YA	2407	G	N7-C8-N9	7.21	116.71	113.10
25	YA	2495	G	C8-N9-C4	7.21	109.29	106.40
25	RA	974(A)	C	P-O3'-C3'	7.21	128.35	119.70
25	RA	1471	A	N1-C2-N3	7.21	132.91	129.30
25	YA	221	A	N9-C1'-C2'	-7.21	104.07	112.00
25	YA	592	G	N3-C4-C5	-7.21	125.00	128.60
25	RA	1351	C	C6-N1-C2	-7.21	117.42	120.30
1	XA	677	U	C6-N1-C2	-7.21	116.67	121.00
25	YA	2055	C	N1-C2-O2	-7.21	114.58	118.90
25	RA	2499	C	C6-N1-C2	-7.21	117.42	120.30
1	XA	752	G	N3-C4-N9	7.21	130.32	126.00
1	XA	1200	C	C2-N1-C1'	7.21	126.73	118.80
25	YA	2446	G	C6-C5-N7	-7.21	126.08	130.40
25	YA	1279	G	C5-C6-N1	7.20	115.10	111.50
25	YA	1402	C	C5-C6-N1	7.20	124.60	121.00
25	YA	1142(A)	A	N1-C2-N3	7.20	132.90	129.30
25	YA	1269	A	N7-C8-N9	7.20	117.40	113.80
25	YA	1614	A	C4-C5-N7	7.20	114.30	110.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	227	A	P-O3'-C3'	7.20	128.34	119.70
25	RA	783	A	C4-N9-C1'	7.20	139.26	126.30
25	RA	2829	C	C6-N1-C2	7.20	123.18	120.30
25	YA	2711	A	N1-C2-N3	7.20	132.90	129.30
25	YA	2779	U	O4'-C1'-N1	7.20	113.96	108.20
25	RA	141	A	N7-C8-N9	7.20	117.40	113.80
25	YA	333	G	C4-C5-N7	7.20	113.68	110.80
25	YA	780	G	C5-N7-C8	-7.20	100.70	104.30
25	YA	1831	G	N3-C4-N9	7.20	130.32	126.00
25	YA	1906	G	N1-C6-O6	7.20	124.22	119.90
25	YA	1964	G	N1-C6-O6	7.20	124.22	119.90
26	YB	94	C	N3-C4-C5	-7.20	119.02	121.90
25	RA	2194	G	C4-N9-C1'	7.20	135.86	126.50
1	XA	960	U	N3-C2-O2	-7.20	117.16	122.20
25	YA	1997	G	C2-N3-C4	-7.20	108.30	111.90
25	YA	1728	G	N3-C4-N9	7.19	130.32	126.00
25	YA	141	A	C8-N9-C4	-7.19	102.92	105.80
25	RA	1593	G	C8-N9-C4	-7.19	103.52	106.40
25	YA	58	G	N1-C2-N3	7.19	128.22	123.90
25	YA	2237	G	C4-N9-C1'	7.19	135.85	126.50
25	YA	2655	G	C6-C5-N7	7.19	134.71	130.40
25	RA	177	G	C5-C6-N1	7.19	115.09	111.50
25	RA	1811	G	C4-C5-N7	7.19	113.67	110.80
25	RA	2433	A	C4-C5-C6	7.19	120.59	117.00
25	YA	731	C	C5-C4-N4	-7.19	115.17	120.20
25	YA	794	G	C4-C5-C6	7.19	123.11	118.80
25	YA	1328	G	N3-C4-N9	7.19	130.31	126.00
25	YA	296	C	N3-C4-N4	-7.19	112.97	118.00
25	RA	1657	C	N3-C2-O2	-7.18	116.87	121.90
25	RA	2409	G	N1-C6-O6	7.18	124.21	119.90
1	XA	760	G	C8-N9-C4	-7.18	103.53	106.40
25	RA	1291	C	C6-N1-C2	7.18	123.17	120.30
25	YA	2785	C	C6-N1-C2	-7.18	117.43	120.30
25	RA	860	U	N3-C2-O2	-7.18	117.17	122.20
25	RA	1818	U	N3-C4-C5	-7.18	110.29	114.60
25	RA	2251	G	C4-N9-C1'	7.18	135.83	126.50
26	RB	36	C	C6-N1-C2	7.18	123.17	120.30
25	YA	132	G	C5-C6-N1	-7.18	107.91	111.50
25	YA	259	G	C5-C6-N1	-7.18	107.91	111.50
25	YA	974(A)	C	N3-C2-O2	-7.18	116.87	121.90
25	RA	198	C	C5-C6-N1	7.18	124.59	121.00
1	XA	766	A	O5'-P-OP1	-7.18	99.24	105.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2318	G	O4'-C1'-N9	7.18	113.94	108.20
25	YA	1256	G	C8-N9-C4	-7.18	103.53	106.40
1	QA	243	A	P-O3'-C3'	7.17	128.31	119.70
1	QA	785	G	C2-N3-C4	-7.17	108.31	111.90
25	RA	715	G	N3-C4-C5	-7.17	125.01	128.60
25	RA	2393	A	C2-N3-C4	-7.17	107.01	110.60
1	XA	713	G	N3-C4-C5	-7.17	125.01	128.60
1	QA	575	G	OP1-P-O3'	7.17	120.98	105.20
26	RB	43	C	N1-C2-O2	7.17	123.20	118.90
25	RA	55	G	C2-N3-C4	7.17	115.48	111.90
25	RA	789	A	N3-C4-N9	-7.17	121.66	127.40
25	YA	624	C	C2-N1-C1'	7.17	126.69	118.80
1	QA	316	G	C5-C6-O6	-7.17	124.30	128.60
25	RA	689	A	C8-N9-C4	7.17	108.67	105.80
25	YA	222	A	P-O3'-C3'	7.17	128.30	119.70
25	YA	761	A	N9-C4-C5	-7.17	102.93	105.80
25	YA	1899	G	C8-N9-C1'	7.17	136.31	127.00
1	QA	960	U	N1-C2-O2	7.17	127.82	122.80
25	RA	307	G	C8-N9-C4	-7.17	103.53	106.40
25	RA	2490	G	N1-C2-N2	-7.17	109.75	116.20
25	RA	921	G	N1-C6-O6	7.16	124.20	119.90
25	RA	1834	U	C6-N1-C2	-7.16	116.70	121.00
25	YA	692	C	N3-C4-C5	7.16	124.77	121.90
25	YA	28	A	C4-C5-C6	7.16	120.58	117.00
25	YA	2728	U	N3-C4-O4	7.16	124.41	119.40
26	YB	98	G	C8-N9-C4	7.16	109.27	106.40
1	XA	934	C	P-O3'-C3'	7.16	128.29	119.70
25	YA	67	U	N3-C4-O4	7.16	124.41	119.40
1	QA	910	C	C6-N1-C2	7.16	123.16	120.30
25	RA	1779	U	C2-N1-C1'	7.16	126.29	117.70
25	RA	2503	A	N9-C4-C5	7.16	108.66	105.80
25	RA	1982	C	C6-N1-C2	7.16	123.16	120.30
25	YA	1666	G	N9-C4-C5	-7.16	102.54	105.40
25	RA	129	C	C5-C6-N1	-7.15	117.42	121.00
25	RA	145	G	C4-N9-C1'	-7.15	117.20	126.50
25	YA	493	G	C5-C6-O6	-7.15	124.31	128.60
25	YA	2686	G	C2-N3-C4	7.15	115.48	111.90
25	YA	2776	A	P-O3'-C3'	7.15	128.28	119.70
25	YA	624	C	C5-C6-N1	7.15	124.58	121.00
25	YA	1767	C	N3-C4-C5	7.15	124.76	121.90
25	RA	1557	C	C6-N1-C2	7.15	123.16	120.30
1	XA	423	G	N3-C4-N9	7.15	130.29	126.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1187	G	C4-C5-C6	7.15	123.09	118.80
25	RA	1998	G	C8-N9-C4	7.15	109.26	106.40
25	YA	226	G	O4'-C1'-N9	7.15	113.92	108.20
25	YA	512	G	C5-C6-N1	7.15	115.07	111.50
25	RA	508	G	N1-C6-O6	7.15	124.19	119.90
25	YA	1306	C	N3-C4-C5	7.14	124.76	121.90
25	YA	388	G	C8-N9-C4	-7.14	103.54	106.40
25	RA	270(C)	C	C6-N1-C2	-7.14	117.44	120.30
25	RA	465	G	C6-C5-N7	-7.14	126.12	130.40
25	YA	295	G	C6-C5-N7	-7.14	126.12	130.40
1	XA	5	U	O4'-C1'-N1	7.14	113.91	108.20
25	YA	2228	G	C6-C5-N7	-7.14	126.12	130.40
25	RA	2087	G	N1-C6-O6	7.13	124.18	119.90
25	RA	2640	G	N1-C6-O6	7.13	124.18	119.90
25	YA	734	A	N1-C6-N6	7.13	122.88	118.60
25	RA	1653	G	C5-C6-O6	7.13	132.88	128.60
25	YA	1869	G	N7-C8-N9	7.13	116.67	113.10
1	QA	1346	A	O4'-C1'-C2'	7.13	114.02	107.60
25	YA	842	G	C6-C5-N7	-7.13	126.12	130.40
25	RA	2032	G	C4-N9-C1'	-7.12	117.24	126.50
25	RA	2516	G	C2-N3-C4	7.12	115.46	111.90
25	YA	27	G	N9-C4-C5	7.12	108.25	105.40
25	YA	681	G	C6-C5-N7	-7.12	126.13	130.40
25	YA	952	G	C6-C5-N7	-7.12	126.13	130.40
25	YA	1358	G	C8-N9-C1'	-7.12	117.74	127.00
25	YA	2506	U	C5-C4-O4	7.12	130.17	125.90
25	RA	1627	G	N1-C6-O6	7.12	124.17	119.90
1	QA	352	C	N3-C4-C5	-7.12	119.05	121.90
25	YA	391	G	N1-C6-O6	7.12	124.17	119.90
25	YA	58	G	N3-C4-C5	-7.12	125.04	128.60
25	YA	1216	G	N1-C6-O6	7.12	124.17	119.90
25	YA	2321	G	N7-C8-N9	7.12	116.66	113.10
25	YA	2558	C	C2-N3-C4	-7.12	116.34	119.90
1	QA	108	G	C4-N9-C1'	7.11	135.75	126.50
25	YA	583	G	O5'-P-OP2	-7.11	99.30	105.70
1	QA	299	G	N3-C2-N2	-7.11	114.92	119.90
25	RA	2544	G	C5-C6-O6	-7.11	124.33	128.60
25	YA	1906	G	C6-C5-N7	-7.11	126.13	130.40
1	XA	1323	G	C4-C5-N7	7.11	113.64	110.80
25	YA	1369	G	N1-C6-O6	7.11	124.17	119.90
25	YA	728	G	C4-N9-C1'	7.11	135.74	126.50
25	YA	1468	C	N1-C2-O2	7.11	123.17	118.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2051	A	C2-N3-C4	-7.11	107.05	110.60
1	XA	564	C	C6-N1-C2	-7.10	117.46	120.30
25	RA	1602	U	N3-C4-C5	-7.10	110.34	114.60
1	XA	901	A	C4-C5-N7	7.10	114.25	110.70
25	YA	63	U	N3-C4-C5	-7.10	110.34	114.60
25	RA	2867	G	N3-C4-C5	7.10	132.15	128.60
25	YA	434	U	N1-C2-O2	-7.10	117.83	122.80
25	YA	867	C	C5-C6-N1	7.10	124.55	121.00
25	RA	252	G	C5-C6-O6	7.10	132.86	128.60
25	RA	2032	G	C4-C5-C6	-7.10	114.54	118.80
25	YA	2422	A	O5'-P-OP2	-7.10	99.31	105.70
1	XA	186(A)	C	C2-N1-C1'	7.10	126.61	118.80
25	YA	544	C	N1-C2-O2	7.10	123.16	118.90
25	YA	636	G	C5-C6-O6	-7.10	124.34	128.60
25	YA	2550	G	C6-C5-N7	-7.10	126.14	130.40
25	YA	2518	A	N9-C4-C5	-7.10	102.96	105.80
1	XA	372	C	N1-C2-O2	7.09	123.16	118.90
1	XA	1114	C	C6-N1-C2	-7.09	117.46	120.30
25	YA	2292	C	N3-C2-O2	-7.09	116.94	121.90
25	RA	573	G	O4'-C1'-N9	-7.09	102.53	108.20
25	RA	775	G	N3-C4-C5	-7.09	125.05	128.60
25	YA	391	G	N9-C4-C5	-7.09	102.56	105.40
25	RA	2556	C	C6-N1-C1'	-7.09	112.29	120.80
25	RA	444	C	C6-N1-C2	7.09	123.14	120.30
25	RA	2421	G	N3-C2-N2	7.08	124.86	119.90
1	XA	557	G	N9-C4-C5	-7.08	102.57	105.40
25	YA	2820	A	C6-C5-N7	-7.08	127.34	132.30
1	QA	778	G	C4-N9-C1'	7.08	135.71	126.50
25	RA	2597	G	C5-C6-N1	-7.08	107.96	111.50
1	XA	372	C	C6-N1-C1'	-7.08	112.30	120.80
25	YA	338	G	C4-N9-C1'	7.08	135.71	126.50
25	YA	741	G	C4-N9-C1'	7.08	135.71	126.50
25	RA	51	G	N3-C4-N9	7.08	130.25	126.00
25	RA	1404	C	N3-C2-O2	-7.08	116.94	121.90
25	RA	2751	G	C8-N9-C4	-7.08	103.57	106.40
1	QA	1518	A	C5-C6-N1	-7.08	114.16	117.70
25	RA	141	A	C5-N7-C8	-7.08	100.36	103.90
25	RA	2196	C	C6-N1-C2	-7.08	117.47	120.30
25	YA	1241	A	C5-C6-N1	-7.08	114.16	117.70
25	YA	2570	G	C8-N9-C4	7.08	109.23	106.40
25	RA	917	A	C5-C6-N1	-7.08	114.16	117.70
25	RA	85	G	N3-C4-C5	-7.08	125.06	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	966	G	O5'-P-OP2	-7.08	99.33	105.70
25	YA	1401	G	C5-C6-N1	-7.08	107.96	111.50
1	XA	1323	G	C5-C6-O6	-7.07	124.36	128.60
1	XA	1416	G	C8-N9-C4	-7.07	103.57	106.40
25	YA	2818	G	C6-C5-N7	-7.07	126.16	130.40
1	QA	226	G	C2-N3-C4	-7.07	108.36	111.90
25	RA	726	G	C4-C5-N7	-7.07	107.97	110.80
25	YA	658	C	O5'-P-OP2	-7.07	99.34	105.70
25	YA	701	G	C4-N9-C1'	7.07	135.69	126.50
25	YA	1256	G	N3-C4-C5	-7.07	125.06	128.60
25	RA	958	U	N3-C2-O2	-7.07	117.25	122.20
25	YA	788	A	C8-N9-C4	7.07	108.63	105.80
25	RA	511	U	O5'-P-OP1	-7.07	99.34	105.70
25	YA	1280	G	C2-N3-C4	7.07	115.43	111.90
1	QA	106	C	C6-N1-C2	-7.07	117.47	120.30
25	RA	860	U	C4-C5-C6	7.07	123.94	119.70
25	RA	1779	U	C5-C6-N1	7.07	126.23	122.70
25	RA	1949	G	C6-C5-N7	-7.07	126.16	130.40
25	RA	2455	G	C5-C6-O6	-7.07	124.36	128.60
25	RA	1985	G	N3-C4-C5	-7.06	125.07	128.60
25	YA	1657	C	OP1-P-O3'	7.06	120.74	105.20
25	RA	2426	A	C8-N9-C4	-7.06	102.97	105.80
25	YA	2215	G	N9-C4-C5	-7.06	102.58	105.40
25	YA	2420	C	O5'-P-OP2	7.06	119.17	110.70
26	YB	41	U	N1-C2-O2	7.06	127.74	122.80
25	RA	1328	G	C6-C5-N7	-7.06	126.16	130.40
25	YA	1799	G	P-O3'-C3'	7.06	128.17	119.70
25	YA	1259	G	N1-C6-O6	7.06	124.13	119.90
25	RA	2857	G	C6-C5-N7	-7.05	126.17	130.40
25	YA	1695	G	N3-C4-N9	7.05	130.23	126.00
25	RA	1835	G	N3-C4-N9	7.05	130.23	126.00
25	YA	209	C	N3-C4-C5	7.05	124.72	121.90
25	YA	465	G	C4-N9-C1'	7.05	135.67	126.50
25	YA	1753	G	C8-N9-C4	-7.05	103.58	106.40
25	RA	707	G	N3-C4-N9	7.05	130.23	126.00
25	RA	1471	A	N7-C8-N9	7.05	117.33	113.80
36	RQ	81	VAL	N-CA-C	7.05	130.04	111.00
25	YA	1049	C	N3-C2-O2	-7.05	116.96	121.90
25	YA	911	A	C5-C6-N1	-7.05	114.18	117.70
25	YA	1424	G	C4-C5-C6	7.05	123.03	118.80
25	YA	1614	A	O4'-C1'-N9	7.05	113.84	108.20
25	YA	2518	A	C8-N9-C4	7.05	108.62	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1705	G	C8-N9-C1'	-7.05	117.84	127.00
1	QA	377	G	C4-N9-C1'	7.05	135.66	126.50
25	RA	1314	C	O5'-P-OP1	-7.04	99.36	105.70
25	RA	1840	G	N1-C6-O6	7.04	124.13	119.90
25	YA	2224	G	C4-C5-N7	-7.04	107.98	110.80
25	RA	791	C	N3-C4-C5	7.04	124.72	121.90
25	RA	1950	G	C5-N7-C8	-7.04	100.78	104.30
25	YA	480	A	OP1-P-O3'	7.04	120.70	105.20
25	YA	974(A)	C	N3-C4-N4	-7.04	113.07	118.00
25	YA	2445	G	C8-N9-C4	-7.04	103.58	106.40
25	YA	2665	A	N1-C6-N6	7.04	122.83	118.60
1	XA	919	A	N1-C6-N6	-7.04	114.38	118.60
25	YA	2463	C	N1-C2-N3	7.04	124.13	119.20
1	XA	960	U	C2-N1-C1'	7.04	126.15	117.70
36	YQ	81	VAL	N-CA-C	7.04	130.01	111.00
1	QA	377	G	N3-C4-C5	-7.04	125.08	128.60
25	RA	530	G	N1-C6-O6	-7.04	115.68	119.90
25	YA	1496	A	N1-C6-N6	7.04	122.82	118.60
1	XA	1352	C	N3-C2-O2	-7.04	116.97	121.90
25	YA	2732	G	N1-C6-O6	7.04	124.12	119.90
1	QA	191	G	N3-C4-C5	-7.04	125.08	128.60
1	QA	778	G	C6-C5-N7	-7.04	126.18	130.40
25	RA	745	G	C4-N9-C1'	7.04	135.65	126.50
25	RA	2211	G	C5-N7-C8	-7.04	100.78	104.30
25	RA	184	C	C2-N3-C4	-7.03	116.38	119.90
1	XA	1419	G	C2-N3-C4	-7.03	108.38	111.90
25	RA	137	C	C6-N1-C2	-7.03	117.49	120.30
25	RA	1614	A	N7-C8-N9	7.03	117.31	113.80
25	YA	2246	G	C5-C6-N1	7.03	115.02	111.50
25	YA	228	A	C8-N9-C4	-7.03	102.99	105.80
1	QA	557	G	C6-C5-N7	-7.03	126.18	130.40
1	XA	808	C	N3-C4-N4	7.03	122.92	118.00
25	RA	250	G	O5'-P-OP1	-7.03	99.38	105.70
25	YA	270(Y)	G	C5-C6-O6	7.03	132.81	128.60
25	YA	2490	G	C6-C5-N7	-7.03	126.19	130.40
1	QA	754	C	N1-C2-O2	7.02	123.11	118.90
25	RA	2674	G	N3-C4-C5	7.02	132.11	128.60
25	YA	300	A	O5'-P-OP2	-7.02	99.38	105.70
25	RA	382	G	N3-C4-C5	7.02	132.11	128.60
25	RA	1269	A	O5'-P-OP1	-7.02	99.38	105.70
25	RA	2325	G	C5-C6-N1	-7.02	107.99	111.50
25	RA	2419	U	N3-C2-O2	-7.02	117.29	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2450	A	N7-C8-N9	7.02	117.31	113.80
25	RA	297	C	N1-C2-O2	7.01	123.11	118.90
25	RA	991	C	O5'-P-OP1	-7.01	99.39	105.70
25	RA	1210	A	C4-C5-C6	7.01	120.51	117.00
1	XA	1523	G	N1-C6-O6	7.01	124.11	119.90
1	QA	137	C	C6-N1-C2	7.01	123.11	120.30
25	YA	2458	G	C6-C5-N7	-7.01	126.19	130.40
25	RA	1698	A	C4-C5-N7	7.01	114.21	110.70
25	YA	976	C	C6-N1-C2	-7.01	117.50	120.30
25	RA	1903	G	O5'-P-OP2	-7.01	99.39	105.70
25	RA	1681	G	C6-C5-N7	-7.00	126.20	130.40
25	YA	1192	G	C6-C5-N7	-7.00	126.20	130.40
25	YA	2458	G	C5-C6-N1	-7.00	108.00	111.50
25	RA	2346	A	N1-C2-N3	7.00	132.80	129.30
25	YA	27	G	C8-N9-C4	-7.00	103.60	106.40
25	YA	73	A	N1-C6-N6	-7.00	114.40	118.60
25	YA	385	C	C5-C6-N1	7.00	124.50	121.00
25	RA	2049	G	C2-N3-C4	-7.00	108.40	111.90
25	YA	129	C	C6-N1-C2	7.00	123.10	120.30
25	YA	379	G	C6-C5-N7	-7.00	126.20	130.40
1	QA	145	G	C8-N9-C4	-7.00	103.60	106.40
25	YA	84	A	N7-C8-N9	7.00	117.30	113.80
1	QA	869	G	N3-C4-N9	-7.00	121.80	126.00
25	RA	1264	G	N3-C4-C5	-7.00	125.10	128.60
25	RA	1636	C	N1-C2-O2	7.00	123.10	118.90
25	YA	141	A	C6-C5-N7	-7.00	127.40	132.30
25	RA	1241	A	N1-C2-N3	6.99	132.80	129.30
25	YA	2458	G	C2-N3-C4	-6.99	108.40	111.90
1	QA	1206	G	N3-C4-C5	-6.99	125.11	128.60
25	RA	1786	A	N9-C4-C5	-6.99	103.00	105.80
25	RA	2508	G	C8-N9-C1'	-6.99	117.92	127.00
25	YA	140	A	C5-C6-N6	-6.99	118.11	123.70
1	QA	244	U	C6-N1-C2	6.99	125.19	121.00
25	RA	1896	G	C4-C5-N7	6.99	113.59	110.80
25	RA	2468	G	O4'-C1'-N9	6.99	113.79	108.20
1	XA	1419	G	C5-C6-N1	-6.99	108.01	111.50
25	YA	1497	U	N1-C2-O2	6.99	127.69	122.80
25	YA	2622	C	C5-C6-N1	-6.99	117.51	121.00
25	RA	1645	G	C5-C6-O6	-6.99	124.41	128.60
1	XA	328	C	N3-C2-O2	-6.99	117.01	121.90
25	YA	298	G	N3-C4-N9	-6.99	121.81	126.00
25	YA	2576	G	N1-C6-O6	-6.99	115.71	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	63	U	C6-N1-C1'	6.98	130.98	121.20
25	RA	2509	G	N1-C2-N3	6.98	128.09	123.90
25	YA	2315	G	O5'-P-OP1	-6.98	99.42	105.70
25	YA	2360	A	C8-N9-C4	6.98	108.59	105.80
25	RA	72	U	C5-C6-N1	-6.98	119.21	122.70
25	RA	1678	G	C8-N9-C4	-6.98	103.61	106.40
25	RA	2456	C	N3-C4-N4	6.98	122.89	118.00
1	XA	1519	A	O5'-P-OP1	-6.98	99.42	105.70
1	XA	755	G	C6-C5-N7	-6.98	126.21	130.40
25	YA	1930	G	C5-N7-C8	6.98	107.79	104.30
25	YA	153	C	C5-C6-N1	6.98	124.49	121.00
25	YA	202	U	C5-C4-O4	6.98	130.09	125.90
25	YA	1956	U	C2-N1-C1'	-6.98	109.33	117.70
25	RA	57	C	C6-N1-C2	-6.98	117.51	120.30
25	YA	741	G	C4-C5-C6	6.98	122.98	118.80
25	YA	1770	G	C6-C5-N7	-6.97	126.22	130.40
25	YA	2677	G	C4-N9-C1'	6.97	135.57	126.50
25	RA	860	U	N1-C2-N3	6.97	119.08	114.90
1	XA	435	C	C6-N1-C2	-6.97	117.51	120.30
25	YA	1834	U	N3-C2-O2	-6.97	117.32	122.20
25	YA	2080	G	C2-N3-C4	-6.97	108.41	111.90
25	YA	2320	A	C8-N9-C4	-6.97	103.01	105.80
25	YA	2656	U	OP1-P-OP2	-6.97	109.14	119.60
1	QA	117	G	C4-C5-N7	6.97	113.59	110.80
25	YA	259	G	C6-C5-N7	-6.97	126.22	130.40
25	YA	2838	G	C8-N9-C4	-6.97	103.61	106.40
25	RA	2056	G	C5-N7-C8	-6.97	100.82	104.30
25	YA	663	G	C4-N9-C1'	6.97	135.56	126.50
25	YA	2706	G	C8-N9-C4	6.96	109.19	106.40
25	YA	327	G	N1-C6-O6	6.96	124.08	119.90
25	RA	1238	G	N3-C4-C5	6.96	132.08	128.60
25	RA	2318	G	C8-N9-C4	-6.96	103.62	106.40
25	YA	2694	G	N1-C6-O6	6.96	124.08	119.90
25	YA	2712	U	N1-C2-N3	6.96	119.08	114.90
1	XA	872	A	C8-N9-C4	-6.96	103.02	105.80
25	YA	144	C	N3-C2-O2	-6.96	117.03	121.90
25	YA	290	G	C8-N9-C4	6.96	109.18	106.40
25	YA	503	A	C4-C5-C6	6.96	120.48	117.00
25	YA	916	G	C8-N9-C4	-6.96	103.62	106.40
25	RA	530	G	N1-C2-N2	-6.96	109.94	116.20
1	XA	902	G	C5-C6-O6	-6.95	124.43	128.60
25	YA	975	G	OP1-P-OP2	-6.95	109.17	119.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2431	U	N3-C4-C5	-6.95	110.43	114.60
25	YA	1266	G	C8-N9-C4	6.95	109.18	106.40
25	YA	1603	A	C8-N9-C4	-6.95	103.02	105.80
25	YA	2053	G	C5-C6-O6	-6.95	124.43	128.60
25	RA	1440	G	N1-C6-O6	6.95	124.07	119.90
25	YA	2616	C	C6-N1-C2	6.95	123.08	120.30
25	RA	637	A	O5'-P-OP1	-6.95	99.45	105.70
25	RA	2787	C	N1-C2-O2	6.95	123.07	118.90
1	QA	865	A	C8-N9-C4	-6.94	103.02	105.80
25	RA	1162	G	C5-C6-O6	-6.94	124.43	128.60
1	QA	377	G	C8-N9-C1'	-6.94	117.97	127.00
25	RA	484	C	C6-N1-C1'	-6.94	112.47	120.80
25	RA	1634	A	C5-N7-C8	6.94	107.37	103.90
1	XA	283	C	N1-C2-O2	6.94	123.06	118.90
25	YA	585	G	N3-C4-N9	6.94	130.16	126.00
25	YA	1695	G	C8-N9-C1'	-6.94	117.98	127.00
25	RA	768	G	C8-N9-C4	-6.94	103.62	106.40
25	RA	1300	U	N3-C4-C5	-6.94	110.44	114.60
25	RA	2311	A	C2-N3-C4	-6.94	107.13	110.60
25	RA	2656	U	N3-C4-O4	6.94	124.26	119.40
25	YA	1930	G	C2-N3-C4	6.94	115.37	111.90
26	RB	22	U	C6-N1-C2	-6.94	116.84	121.00
25	RA	2366	A	O5'-P-OP2	-6.93	99.46	105.70
1	XA	1158	C	N1-C2-O2	6.93	123.06	118.90
1	QA	331	G	C8-N9-C4	-6.93	103.63	106.40
25	RA	2772	C	C6-N1-C2	6.93	123.07	120.30
1	QA	934	C	P-O3'-C3'	6.93	128.01	119.70
25	RA	777	A	C2-N3-C4	6.93	114.06	110.60
25	RA	1022	G	C4-C5-N7	-6.93	108.03	110.80
1	XA	221	C	C6-N1-C2	-6.93	117.53	120.30
25	YA	1017	G	C4-C5-N7	6.93	113.57	110.80
25	YA	2258	C	N1-C2-O2	6.93	123.06	118.90
25	YA	2548	G	C6-C5-N7	-6.93	126.24	130.40
25	RA	1903	G	C4-N9-C1'	6.93	135.51	126.50
25	RA	71	A	N1-C6-N6	6.92	122.75	118.60
1	XA	328	C	C5-C6-N1	6.92	124.46	121.00
25	YA	1203	G	C5-C6-O6	6.92	132.75	128.60
25	YA	2567	G	O5'-P-OP1	-6.92	99.47	105.70
25	YA	787	U	N3-C2-O2	6.92	127.04	122.20
25	YA	1028	A	C8-N9-C4	-6.92	103.03	105.80
25	YA	1141	U	N1-C2-N3	6.92	119.05	114.90
25	RA	848	G	N1-C6-O6	-6.92	115.75	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1929	G	N9-C4-C5	-6.92	102.63	105.40
25	YA	1186	G	N1-C6-O6	-6.92	115.75	119.90
25	YA	1606	G	C4-N9-C1'	6.92	135.49	126.50
26	RB	104	A	O5'-P-OP2	-6.92	99.47	105.70
1	QA	525	C	C5-C6-N1	6.92	124.46	121.00
25	YA	2395	C	C2-N3-C4	6.92	123.36	119.90
25	RA	2393	A	N1-C6-N6	6.91	122.75	118.60
25	YA	400	G	N3-C4-N9	-6.91	121.85	126.00
25	YA	1369	G	C4-C5-N7	6.91	113.57	110.80
25	RA	1612	C	N3-C4-C5	6.91	124.66	121.90
25	YA	2228	G	O5'-P-OP2	-6.91	99.48	105.70
25	RA	2452	C	N3-C4-C5	-6.91	119.14	121.90
25	YA	1183	G	N1-C6-O6	6.91	124.05	119.90
25	YA	2035	G	C4-N9-C1'	-6.91	117.52	126.50
1	QA	31	G	C8-N9-C1'	-6.91	118.02	127.00
25	RA	1667	G	O4'-C1'-N9	6.91	113.73	108.20
25	YA	866	A	N1-C6-N6	6.91	122.74	118.60
1	QA	104	G	C5-C6-N1	-6.91	108.05	111.50
25	YA	2022	U	C2-N1-C1'	-6.91	109.41	117.70
25	YA	1776	G	C6-C5-N7	-6.90	126.26	130.40
25	RA	1602	U	N3-C2-O2	-6.90	117.37	122.20
25	RA	1769	G	C6-C5-N7	-6.90	126.26	130.40
25	RA	954	G	C8-N9-C4	-6.90	103.64	106.40
25	YA	705	A	O5'-P-OP1	-6.90	99.49	105.70
25	YA	2432	A	C5-C6-N1	-6.90	114.25	117.70
25	RA	1471	A	C6-C5-N7	-6.89	127.47	132.30
26	RB	22	U	C5-C6-N1	6.89	126.15	122.70
1	XA	23	C	N3-C4-C5	-6.89	119.14	121.90
1	XA	1200	C	P-O3'-C3'	6.89	127.97	119.70
25	YA	989	G	N9-C4-C5	-6.89	102.64	105.40
25	RA	15	G	N3-C4-N9	-6.89	121.86	126.00
25	YA	1950	G	C8-N9-C1'	-6.89	118.04	127.00
25	RA	1623	G	C4-C5-N7	6.89	113.56	110.80
25	YA	2367	G	C6-C5-N7	-6.89	126.27	130.40
25	RA	1299	G	N3-C4-C5	6.89	132.04	128.60
25	RA	1858	G	C8-N9-C4	-6.89	103.64	106.40
25	YA	27	G	C4-C5-N7	-6.89	108.05	110.80
25	RA	533	G	C4-C5-C6	6.89	122.93	118.80
25	RA	877	U	C5-C6-N1	6.89	126.14	122.70
1	XA	812	C	C6-N1-C1'	-6.89	112.54	120.80
25	YA	1854	A	C8-N9-C4	6.89	108.56	105.80
25	RA	1142(A)	A	C5-C6-N1	-6.88	114.26	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1429	G	C6-C5-N7	-6.88	126.27	130.40
25	RA	1779	U	C5-C4-O4	-6.88	121.77	125.90
25	YA	2235	G	C2-N3-C4	-6.88	108.46	111.90
25	YA	510	C	OP1-P-OP2	6.88	129.92	119.60
25	RA	307	G	N1-C6-O6	-6.88	115.77	119.90
25	RA	1196	C	C6-N1-C2	-6.88	117.55	120.30
25	RA	1816	G	C2-N3-C4	6.88	115.34	111.90
25	RA	2018	G	C6-C5-N7	-6.88	126.27	130.40
25	YA	388	G	N9-C4-C5	6.88	108.15	105.40
25	YA	563	G	N1-C6-O6	-6.88	115.77	119.90
25	YA	928	G	C5-N7-C8	-6.88	100.86	104.30
25	YA	51	G	N1-C2-N3	6.88	128.03	123.90
25	RA	776	G	N3-C4-C5	6.87	132.04	128.60
25	YA	636	G	C8-N9-C4	-6.87	103.65	106.40
25	RA	1647	G	N3-C4-C5	6.87	132.04	128.60
25	RA	2447	G	C4-C5-C6	6.87	122.92	118.80
1	XA	423	G	C8-N9-C1'	-6.87	118.07	127.00
1	XA	812	C	C5-C6-N1	6.87	124.44	121.00
1	XA	1502	A	C5-N7-C8	-6.87	100.47	103.90
25	YA	845	G	C4-C5-N7	6.87	113.55	110.80
25	YA	2752	C	C2-N1-C1'	6.87	126.36	118.80
25	YA	301	G	N3-C4-C5	-6.87	125.17	128.60
25	YA	1929	G	C5-N7-C8	-6.87	100.87	104.30
25	YA	774	A	C5-C6-N1	-6.87	114.27	117.70
25	RA	932	G	C5-C6-N1	-6.87	108.07	111.50
25	YA	469	G	C6-C5-N7	-6.87	126.28	130.40
1	XA	1144	G	N3-C4-N9	-6.86	121.88	126.00
25	YA	284	U	C5-C6-N1	6.86	126.13	122.70
25	YA	465	G	C6-C5-N7	-6.86	126.28	130.40
25	RA	15	G	C8-N9-C1'	6.86	135.92	127.00
25	RA	268	C	C5-C6-N1	6.86	124.43	121.00
25	RA	2581	G	C8-N9-C4	-6.86	103.66	106.40
25	YA	246	C	C5-C6-N1	-6.86	117.57	121.00
25	YA	388	G	C5-C6-O6	6.86	132.72	128.60
25	YA	777	A	C6-N1-C2	-6.86	114.48	118.60
25	YA	1944	U	C6-N1-C2	6.86	125.12	121.00
25	YA	2012	G	C4-C5-N7	6.86	113.54	110.80
25	YA	2544	G	C6-C5-N7	-6.86	126.28	130.40
25	RA	508	G	C5-C6-O6	-6.86	124.48	128.60
1	XA	1380	U	O5'-P-OP2	-6.86	99.53	105.70
25	RA	1447	G	N1-C6-O6	6.86	124.01	119.90
25	RA	2005	A	N1-C6-N6	-6.86	114.49	118.60

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2333	A	C2-N3-C4	6.86	114.03	110.60
25	YA	1989	G	C5-C6-N1	-6.86	108.07	111.50
25	RA	982	C	C2-N3-C4	6.85	123.33	119.90
25	YA	1978	A	N1-C2-N3	6.85	132.73	129.30
25	YA	2251	G	N1-C2-N2	-6.85	110.03	116.20
25	YA	1997	G	N3-C4-C5	6.85	132.03	128.60
1	QA	232	G	C6-C5-N7	-6.85	126.29	130.40
25	RA	1298	C	C6-N1-C2	-6.85	117.56	120.30
25	RA	2042	A	C2-N3-C4	-6.85	107.18	110.60
25	YA	729	G	C5-C6-O6	-6.85	124.49	128.60
25	YA	2544	G	N9-C4-C5	-6.85	102.66	105.40
1	XA	797	C	N3-C4-C5	6.84	124.64	121.90
25	YA	83	G	N7-C8-N9	-6.84	109.68	113.10
25	YA	1559	G	C4-C5-N7	6.84	113.54	110.80
25	RA	785	G	O5'-P-OP1	-6.84	99.54	105.70
25	YA	259	G	C2-N3-C4	-6.84	108.48	111.90
25	YA	662	G	C8-N9-C1'	-6.84	118.11	127.00
25	YA	1904	G	N3-C4-N9	6.84	130.10	126.00
25	YA	2307	G	O4'-C1'-N9	6.84	113.67	108.20
25	YA	2389	G	O5'-P-OP2	6.84	118.91	110.70
1	QA	1382	C	C6-N1-C2	-6.84	117.56	120.30
25	RA	1949	G	C4-C5-C6	6.84	122.90	118.80
25	RA	2512	C	N3-C2-O2	6.84	126.69	121.90
1	XA	799	G	C6-C5-N7	-6.84	126.30	130.40
25	RA	512	G	C8-N9-C1'	6.84	135.89	127.00
25	RA	1353	A	C4-C5-C6	6.84	120.42	117.00
25	YA	433	C	C5-C6-N1	-6.83	117.58	121.00
25	YA	1279	G	N9-C4-C5	6.83	108.13	105.40
1	XA	1323	G	C6-C5-N7	-6.83	126.30	130.40
25	RA	1756	G	C5-C6-N1	-6.83	108.08	111.50
25	YA	2383	G	C4-N9-C1'	6.83	135.38	126.50
25	RA	780	G	N7-C8-N9	6.83	116.51	113.10
26	RB	90	C	N1-C2-O2	6.83	123.00	118.90
25	YA	554	U	C5-C6-N1	-6.83	119.29	122.70
25	YA	2436	G	C4-C5-N7	-6.83	108.07	110.80
25	YA	2820	A	C4-C5-N7	6.83	114.11	110.70
25	RA	1123	C	N3-C2-O2	6.82	126.68	121.90
25	YA	2028	U	N3-C4-O4	6.82	124.18	119.40
1	XA	293	G	C5-C6-O6	-6.82	124.51	128.60
25	YA	2870	C	C6-N1-C2	-6.82	117.57	120.30
25	RA	1774	C	C6-N1-C2	-6.82	117.57	120.30
25	YA	1021	A	N1-C2-N3	6.82	132.71	129.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1187	G	C4-N9-C1'	6.82	135.37	126.50
25	YA	2079	U	O5'-P-OP1	-6.82	99.56	105.70
25	YA	55	G	N3-C4-N9	6.82	130.09	126.00
25	RA	1617	C	C5-C6-N1	-6.82	117.59	121.00
25	RA	1896	G	C5-C6-O6	-6.82	124.51	128.60
25	YA	1043	C	C6-N1-C2	-6.82	117.57	120.30
25	RA	2043	C	C5-C6-N1	6.81	124.41	121.00
25	RA	2832	U	P-O3'-C3'	6.81	127.88	119.70
25	YA	1450	C	N3-C2-O2	-6.81	117.13	121.90
25	YA	1869	G	C4-C5-C6	6.81	122.89	118.80
25	RA	1624	G	C8-N9-C4	6.81	109.12	106.40
25	YA	822	U	C5-C4-O4	6.81	129.98	125.90
25	YA	1813	G	N1-C6-O6	6.81	123.98	119.90
25	RA	1829	A	C5-C6-N1	6.81	121.10	117.70
25	YA	835	A	C8-N9-C4	-6.81	103.08	105.80
25	YA	2037	G	C5-C6-O6	-6.81	124.52	128.60
25	RA	673	C	N1-C2-O2	6.80	122.98	118.90
25	RA	1795	C	N3-C2-O2	-6.80	117.14	121.90
25	YA	327	G	C4-C5-C6	6.80	122.88	118.80
25	YA	512	G	N7-C8-N9	6.80	116.50	113.10
25	YA	1620	G	C6-C5-N7	-6.80	126.32	130.40
1	QA	705	U	C6-N1-C2	-6.80	116.92	121.00
25	YA	1606	G	N3-C4-C5	-6.80	125.20	128.60
25	YA	1332	G	N3-C2-N2	6.80	124.66	119.90
25	YA	1446	C	C6-N1-C2	-6.80	117.58	120.30
25	YA	1665	A	C8-N9-C4	6.80	108.52	105.80
25	YA	2064	C	C6-N1-C2	-6.80	117.58	120.30
1	QA	161	A	C8-N9-C4	-6.80	103.08	105.80
25	RA	1698	A	N7-C8-N9	6.80	117.20	113.80
25	YA	557	U	C5-C6-N1	-6.80	119.30	122.70
25	YA	576	U	N1-C2-O2	-6.80	118.04	122.80
25	YA	1437	C	C6-N1-C2	-6.80	117.58	120.30
25	YA	2434	A	C5-C6-N6	-6.80	118.26	123.70
25	YA	2029	G	C5-C6-N1	-6.80	108.10	111.50
1	QA	318	G	C2-N3-C4	6.80	115.30	111.90
1	XA	807	A	N7-C8-N9	6.80	117.20	113.80
25	YA	1528	A	C6-C5-N7	-6.80	127.54	132.30
25	YA	1705	G	C4-C5-C6	6.79	122.88	118.80
25	RA	1429	G	C4-C5-C6	6.79	122.88	118.80
25	YA	526	A	N9-C4-C5	6.79	108.52	105.80
25	YA	916	G	C4-N9-C1'	6.79	135.33	126.50
1	QA	1356	G	C8-N9-C4	-6.79	103.68	106.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1779	U	N3-C4-O4	6.79	124.15	119.40
25	YA	29	U	C5-C4-O4	-6.79	121.83	125.90
25	YA	269	U	C6-N1-C1'	-6.79	111.69	121.20
25	YA	138	G	C2-N3-C4	6.79	115.30	111.90
25	YA	530	G	N1-C6-O6	-6.79	115.83	119.90
25	YA	1857	G	C4-C5-C6	6.79	122.87	118.80
25	YA	2025	C	N3-C4-C5	-6.79	119.18	121.90
26	YB	30	C	C5-C6-N1	6.79	124.39	121.00
25	YA	199	A	C8-N9-C4	6.79	108.51	105.80
25	YA	979	G	C5-N7-C8	-6.79	100.91	104.30
1	XA	273	A	C6-C5-N7	-6.78	127.55	132.30
25	YA	1907	G	N3-C2-N2	-6.78	115.15	119.90
25	RA	2394	C	N3-C4-C5	6.78	124.61	121.90
1	QA	266	G	C6-C5-N7	-6.78	126.33	130.40
25	RA	1338	G	C5-C6-O6	-6.78	124.53	128.60
1	XA	1058	G	C8-N9-C4	6.78	109.11	106.40
25	RA	2483	C	C6-N1-C2	-6.78	117.59	120.30
25	YA	1559	G	C5-N7-C8	-6.78	100.91	104.30
25	YA	1891	G	N9-C4-C5	-6.78	102.69	105.40
1	QA	328	C	N3-C2-O2	-6.78	117.16	121.90
1	QA	1419	G	C6-C5-N7	-6.78	126.33	130.40
25	RA	1998	G	O5'-P-OP2	-6.78	99.60	105.70
25	RA	2071	A	C5-C6-N6	-6.78	118.28	123.70
25	RA	2827	C	C6-N1-C2	6.77	123.01	120.30
25	YA	2237	G	N3-C2-N2	6.77	124.64	119.90
25	RA	309	G	N1-C6-O6	6.77	123.96	119.90
25	RA	944	G	C5-C6-N1	-6.77	108.11	111.50
25	RA	2770	G	N3-C4-N9	6.77	130.06	126.00
25	YA	568	U	N1-C2-N3	6.77	118.96	114.90
25	YA	783	A	C5-C6-N1	-6.77	114.31	117.70
25	RA	249	C	O4'-C1'-N1	6.77	113.62	108.20
25	YA	2029	G	C4-C5-C6	6.77	122.86	118.80
25	YA	2049	G	C5-C6-N1	-6.77	108.12	111.50
25	YA	2329	G	C8-N9-C4	6.77	109.11	106.40
25	RA	2441	C	C6-N1-C1'	6.77	128.92	120.80
25	YA	585	G	C4-C5-C6	6.77	122.86	118.80
25	YA	973	A	C5-C6-N1	-6.77	114.32	117.70
25	RA	27	G	C8-N9-C1'	6.76	135.79	127.00
25	RA	760	G	C8-N9-C1'	-6.76	118.20	127.00
25	RA	2508	G	N1-C6-O6	6.76	123.96	119.90
25	RA	738	G	N9-C4-C5	6.76	108.10	105.40
25	RA	760	G	C4-N9-C1'	6.76	135.29	126.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	735	A	N1-C6-N6	6.76	122.66	118.60
25	YA	1931	U	C6-N1-C2	-6.76	116.94	121.00
25	YA	2500	U	OP2-P-O3'	6.76	120.08	105.20
1	QA	52	G	N9-C4-C5	-6.76	102.70	105.40
1	XA	718	G	O5'-P-OP1	-6.76	99.62	105.70
1	XA	980	C	N3-C2-O2	-6.76	117.17	121.90
25	YA	324	A	O5'-P-OP1	-6.76	99.62	105.70
25	RA	1601	G	C4-C5-N7	6.76	113.50	110.80
1	XA	698	G	N3-C4-N9	6.76	130.06	126.00
25	RA	745	G	N3-C4-C5	-6.76	125.22	128.60
25	YA	687	C	N1-C2-O2	-6.76	114.85	118.90
25	YA	2655	G	P-O3'-C3'	6.76	127.81	119.70
25	RA	791	C	C2-N1-C1'	-6.75	111.37	118.80
25	RA	1857	G	C6-C5-N7	-6.75	126.35	130.40
25	YA	658	C	O5'-P-OP1	6.75	118.81	110.70
25	YA	859	G	N3-C4-C5	6.75	131.98	128.60
25	YA	2088	G	N1-C2-N3	6.75	127.95	123.90
25	YA	2291	U	N3-C4-C5	-6.75	110.55	114.60
1	QA	1470	G	N3-C4-N9	6.75	130.05	126.00
25	RA	2251	G	C8-N9-C1'	-6.75	118.23	127.00
25	YA	130	C	N3-C4-C5	6.75	124.60	121.90
25	YA	2272	U	O5'-P-OP2	-6.75	99.63	105.70
1	XA	895	G	C5-C6-N1	-6.75	108.13	111.50
25	YA	1403	C	C6-N1-C2	-6.75	117.60	120.30
25	YA	2032	G	C5-C6-O6	-6.75	124.55	128.60
25	YA	1695	G	N3-C4-C5	-6.75	125.23	128.60
25	RA	307	G	C5-C6-N1	6.74	114.87	111.50
1	XA	1266	G	N3-C4-C5	6.74	131.97	128.60
1	XA	1342	C	N3-C4-C5	6.74	124.60	121.90
25	YA	1833	U	N1-C2-N3	6.74	118.94	114.90
25	RA	28	A	C4-C5-C6	6.74	120.37	117.00
25	RA	962	G	O5'-P-OP2	-6.74	99.64	105.70
25	RA	2646	C	O5'-P-OP2	-6.74	99.64	105.70
25	YA	2490	G	C5-C6-O6	-6.74	124.56	128.60
1	QA	53	A	C8-N9-C4	-6.74	103.11	105.80
1	QA	741	G	C5-C6-N1	-6.74	108.13	111.50
25	RA	439	G	N1-C6-O6	6.74	123.94	119.90
25	RA	651	G	N3-C4-C5	-6.74	125.23	128.60
25	RA	1189	A	OP1-P-O3'	6.74	120.02	105.20
25	YA	995	C	N1-C2-O2	6.74	122.94	118.90
1	QA	916	G	C2-N3-C4	6.73	115.27	111.90
25	RA	253	C	N3-C4-C5	6.73	124.59	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1328	G	N3-C4-C5	-6.73	125.23	128.60
25	RA	1698	A	C4-C5-C6	6.73	120.37	117.00
25	RA	1776	G	C4-N9-C1'	6.73	135.25	126.50
25	RA	2393	A	C5-C6-N1	-6.73	114.33	117.70
1	XA	299	G	N3-C4-N9	-6.73	121.96	126.00
1	XA	528	C	N3-C4-C5	6.73	124.59	121.90
1	XA	924	C	C6-N1-C2	-6.73	117.61	120.30
25	YA	1203	G	C4-C5-N7	-6.73	108.11	110.80
25	YA	1496	A	C4-C5-N7	6.73	114.07	110.70
25	YA	1522	G	C8-N9-C4	-6.73	103.71	106.40
25	YA	1899	G	N1-C6-O6	6.73	123.94	119.90
25	RA	672	C	C6-N1-C2	-6.73	117.61	120.30
1	XA	1380	U	C2-N1-C1'	-6.73	109.62	117.70
25	YA	458	G	C5-C6-O6	6.73	132.64	128.60
25	YA	71	A	C8-N9-C4	6.73	108.49	105.80
25	RA	508	G	C5-N7-C8	-6.72	100.94	104.30
25	RA	1374	G	C6-C5-N7	-6.72	126.37	130.40
25	YA	1049	C	C6-N1-C2	-6.72	117.61	120.30
1	QA	113	G	C4-C5-N7	-6.72	108.11	110.80
25	RA	439	G	C6-C5-N7	-6.72	126.37	130.40
25	YA	696	G	C5-C6-O6	-6.72	124.57	128.60
1	QA	44	G	C4-N9-C1'	6.72	135.24	126.50
25	RA	2689	U	P-O3'-C3'	6.72	127.77	119.70
25	YA	2463	C	C2-N3-C4	-6.72	116.54	119.90
25	YA	2731	G	C6-C5-N7	-6.72	126.37	130.40
1	QA	1206	G	C6-C5-N7	-6.72	126.37	130.40
25	YA	639	U	N3-C4-C5	-6.72	110.57	114.60
1	QA	919	A	N1-C6-N6	-6.71	114.57	118.60
1	QA	1420	C	C6-N1-C2	-6.71	117.61	120.30
25	RA	747	U	O5'-P-OP2	-6.71	99.66	105.70
25	YA	2093	G	C6-C5-N7	-6.71	126.37	130.40
25	RA	247	G	N1-C2-N2	-6.71	110.16	116.20
25	RA	2381	C	C6-N1-C2	-6.71	117.61	120.30
25	RA	929	G	N7-C8-N9	6.71	116.46	113.10
1	XA	1519	A	C4-C5-C6	6.71	120.36	117.00
25	YA	2859	G	C4-C5-N7	-6.71	108.12	110.80
25	RA	676	A	C6-C5-N7	-6.71	127.60	132.30
1	XA	1079	G	C5-C6-N1	-6.71	108.14	111.50
25	YA	1344	G	O5'-P-OP2	-6.71	99.66	105.70
25	YA	1694	C	N1-C2-O2	6.71	122.93	118.90
25	YA	1653	G	P-O3'-C3'	6.71	127.75	119.70
1	QA	416	G	N3-C4-N9	6.71	130.02	126.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	258	G	C8-N9-C4	-6.71	103.72	106.40
25	YA	1325	G	N3-C4-N9	-6.71	121.98	126.00
25	YA	1699	G	C8-N9-C4	-6.71	103.72	106.40
25	YA	2732	G	C5-C6-O6	-6.71	124.58	128.60
1	QA	792	A	C4-C5-N7	6.70	114.05	110.70
1	XA	819	A	C5-C6-N1	-6.70	114.35	117.70
1	XA	974	A	O4'-C1'-N9	6.70	113.56	108.20
1	XA	1381	U	N1-C2-O2	6.70	127.49	122.80
25	YA	298	G	C8-N9-C1'	6.70	135.71	127.00
25	YA	1422	G	N3-C4-N9	-6.70	121.98	126.00
25	YA	2054	A	N7-C8-N9	6.70	117.15	113.80
25	RA	379	G	C5-C6-O6	-6.70	124.58	128.60
25	RA	2549	G	C4-N9-C1'	6.70	135.21	126.50
1	QA	135	C	C6-N1-C2	-6.70	117.62	120.30
1	QA	1297	C	P-O3'-C3'	6.70	127.74	119.70
25	RA	1278	A	C8-N9-C4	6.70	108.48	105.80
25	YA	2284	C	O5'-P-OP2	-6.70	99.67	105.70
25	YA	2686	G	N3-C4-N9	6.70	130.02	126.00
1	QA	1231	G	N3-C4-N9	-6.70	121.98	126.00
25	RA	503	A	N1-C6-N6	-6.70	114.58	118.60
25	RA	2060	A	N1-C6-N6	-6.70	114.58	118.60
25	RA	2228	G	N9-C4-C5	-6.70	102.72	105.40
1	XA	541	G	C4-C5-N7	6.70	113.48	110.80
25	YA	1790	C	N3-C2-O2	-6.70	117.21	121.90
25	YA	2399	G	C8-N9-C4	6.70	109.08	106.40
25	YA	842	G	C5-C6-N1	-6.70	108.15	111.50
25	YA	2474	C	C6-N1-C2	-6.70	117.62	120.30
26	YB	8	U	C5-C6-N1	6.70	126.05	122.70
1	XA	112	G	C4-C5-N7	6.69	113.48	110.80
1	QA	1372	U	C5-C6-N1	6.69	126.05	122.70
25	RA	821	A	C4-C5-C6	6.69	120.35	117.00
25	RA	1846	G	C8-N9-C4	-6.69	103.72	106.40
1	XA	776	G	C5-C6-N1	-6.69	108.15	111.50
25	YA	676	A	C8-N9-C4	-6.69	103.12	105.80
25	YA	2060	A	C6-C5-N7	-6.69	127.61	132.30
1	QA	1338	G	C5-C6-O6	6.69	132.61	128.60
25	YA	97	C	N3-C2-O2	-6.69	117.22	121.90
25	YA	760	G	C2-N3-C4	-6.69	108.56	111.90
25	RA	1882	C	C2-N1-C1'	6.69	126.16	118.80
25	YA	105	C	O5'-P-OP2	-6.69	99.68	105.70
25	YA	441	U	N1-C2-O2	-6.69	118.12	122.80
25	YA	804	A	OP1-P-O3'	6.68	119.91	105.20

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2688	U	N3-C2-O2	-6.68	117.52	122.20
1	XA	1263	C	C6-N1-C2	6.68	122.97	120.30
25	YA	1022	G	P-O3'-C3'	6.68	127.72	119.70
25	YA	2548	G	N1-C6-O6	6.68	123.91	119.90
25	RA	370	G	N3-C4-N9	6.68	130.01	126.00
25	YA	2251	G	N7-C8-N9	6.68	116.44	113.10
25	RA	743	G	C8-N9-C4	6.68	109.07	106.40
25	RA	861	A	C8-N9-C4	-6.68	103.13	105.80
26	YB	102	G	O5'-P-OP2	-6.68	99.69	105.70
25	YA	117	G	N3-C4-C5	-6.68	125.26	128.60
25	RA	1433	U	C5-C6-N1	6.68	126.04	122.70
25	RA	2255	G	C6-C5-N7	-6.68	126.39	130.40
25	RA	127	A	C8-N9-C4	6.67	108.47	105.80
25	YA	1571	A	C2-N3-C4	-6.67	107.26	110.60
25	YA	1741	C	C5-C6-N1	6.67	124.34	121.00
25	RA	1046	A	C2-N3-C4	6.67	113.94	110.60
25	YA	1017	G	C6-C5-N7	-6.67	126.40	130.40
25	YA	1831	G	C8-N9-C1'	-6.67	118.33	127.00
1	QA	1223	C	C5-C6-N1	6.67	124.34	121.00
25	RA	1379	A	O4'-C1'-N9	6.67	113.54	108.20
1	XA	1373	G	N3-C4-C5	-6.67	125.26	128.60
25	YA	2532	G	C4-C5-C6	6.67	122.80	118.80
25	YA	2712	U	P-O3'-C3'	6.67	127.70	119.70
25	RA	195	A	C5-N7-C8	-6.67	100.56	103.90
25	RA	1429	G	C5-C6-N1	-6.67	108.17	111.50
1	XA	801	U	C5-C6-N1	-6.67	119.36	122.70
25	YA	1899	G	C5-C6-N1	-6.67	108.17	111.50
25	YA	2690	C	N1-C2-O2	-6.67	114.90	118.90
25	RA	1757	U	C5-C6-N1	-6.67	119.37	122.70
1	XA	273	A	N1-C6-N6	6.67	122.60	118.60
1	XA	574	A	O5'-P-OP1	-6.67	99.70	105.70
1	XA	1127	G	N3-C4-N9	-6.67	122.00	126.00
1	XA	1417	G	C8-N9-C4	-6.67	103.73	106.40
25	YA	62	C	C6-N1-C2	6.67	122.97	120.30
25	YA	694	U	N3-C2-O2	-6.67	117.53	122.20
25	YA	379	G	N1-C6-O6	6.67	123.90	119.90
25	YA	1698	A	C5-C6-N1	-6.67	114.37	117.70
56	Z8	74	C	N1-C2-O2	6.67	122.90	118.90
1	QA	913	A	P-O3'-C3'	6.66	127.70	119.70
25	RA	2442	C	N3-C2-O2	-6.66	117.24	121.90
25	YA	1228	G	C4-C5-C6	6.66	122.80	118.80
25	YA	2217	G	C2-N3-C4	-6.66	108.57	111.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2318	G	N7-C8-N9	6.66	116.43	113.10
25	YA	1786	A	N7-C8-N9	6.66	117.13	113.80
25	YA	2335	A	C8-N9-C4	6.66	108.46	105.80
25	RA	1258	C	C6-N1-C2	6.66	122.96	120.30
25	RA	1809	A	C8-N9-C4	-6.66	103.14	105.80
1	XA	970	C	N3-C2-O2	-6.66	117.24	121.90
25	YA	117	G	N3-C4-N9	6.66	130.00	126.00
25	YA	298	G	N3-C4-C5	6.66	131.93	128.60
25	YA	1362	C	N3-C4-C5	-6.66	119.24	121.90
25	YA	2012	G	C5-C6-O6	-6.66	124.61	128.60
25	YA	2237	G	C8-N9-C1'	-6.66	118.34	127.00
1	QA	52	G	N1-C6-O6	6.66	123.89	119.90
1	XA	1417	G	N3-C4-C5	-6.66	125.27	128.60
25	YA	342	G	O5'-P-OP1	6.66	118.69	110.70
1	QA	557	G	C4-N9-C1'	6.65	135.15	126.50
25	RA	871	U	O5'-P-OP1	-6.65	99.71	105.70
25	RA	2054	A	C8-N9-C4	-6.65	103.14	105.80
25	RA	2591	C	N3-C4-C5	-6.65	119.24	121.90
25	YA	192	C	OP1-P-OP2	-6.65	109.62	119.60
25	YA	2215	G	C4-N9-C1'	6.65	135.15	126.50
25	YA	2544	G	C4-C5-N7	6.65	113.46	110.80
1	XA	792	A	N9-C1'-C2'	6.65	122.64	114.00
25	RA	932	G	N3-C4-C5	6.65	131.92	128.60
25	YA	2619	C	N3-C2-O2	6.65	126.55	121.90
1	QA	882	C	N3-C2-O2	-6.65	117.25	121.90
25	RA	75	G	C8-N9-C4	-6.65	103.74	106.40
1	XA	1260	C	C6-N1-C2	-6.65	117.64	120.30
25	YA	1919	A	C8-N9-C4	-6.65	103.14	105.80
25	YA	593	G	C2-N3-C4	-6.64	108.58	111.90
25	YA	1424	G	C8-N9-C1'	-6.64	118.36	127.00
25	RA	1815	A	C5-N7-C8	6.64	107.22	103.90
25	YA	2607	G	C8-N9-C1'	-6.64	118.36	127.00
25	RA	1950	G	C5-C6-O6	-6.64	124.62	128.60
25	YA	1022	G	N3-C4-C5	-6.64	125.28	128.60
25	YA	450	G	C8-N9-C1'	-6.64	118.37	127.00
25	YA	1869	G	C6-C5-N7	-6.64	126.42	130.40
25	RA	726	G	N9-C4-C5	6.64	108.06	105.40
25	RA	2298	A	C8-N9-C4	6.64	108.45	105.80
1	QA	25	C	C6-N1-C2	6.64	122.95	120.30
25	YA	1676	A	N7-C8-N9	6.64	117.12	113.80
25	RA	770	G	C8-N9-C4	-6.63	103.75	106.40
25	RA	1263	U	C6-N1-C2	-6.63	117.02	121.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	805	G	N3-C4-C5	-6.63	125.28	128.60
25	YA	1356	G	C8-N9-C4	-6.63	103.75	106.40
25	RA	1022	G	C5-C6-O6	6.63	132.58	128.60
25	RA	1262	A	N1-C6-N6	-6.63	114.62	118.60
25	RA	2011	U	N1-C2-N3	-6.63	110.92	114.90
25	YA	602	G	C5-C6-N1	-6.63	108.19	111.50
25	YA	1678	G	N3-C4-C5	6.63	131.91	128.60
1	QA	31	G	N3-C4-C5	-6.63	125.29	128.60
1	QA	400	C	C6-N1-C2	6.63	122.95	120.30
1	QA	792	A	N1-C6-N6	6.63	122.58	118.60
25	YA	1668	A	C5-C6-N6	6.63	129.00	123.70
25	YA	1925	C	C2-N1-C1'	-6.63	111.51	118.80
25	RA	1937	A	N7-C8-N9	-6.63	110.49	113.80
25	RA	2088	G	C8-N9-C1'	-6.63	118.39	127.00
25	RA	2774	C	C6-N1-C2	6.63	122.95	120.30
25	YA	1423	G	C8-N9-C4	6.63	109.05	106.40
25	RA	1627	G	C5-C6-N1	-6.62	108.19	111.50
1	XA	1505	G	N3-C2-N2	-6.62	115.26	119.90
25	YA	1698	A	C2-N3-C4	-6.62	107.29	110.60
25	YA	2049	G	N1-C2-N3	6.62	127.88	123.90
1	QA	518	C	N3-C2-O2	-6.62	117.26	121.90
25	RA	398	G	C8-N9-C4	6.62	109.05	106.40
25	RA	1281	G	C5-C6-N1	6.62	114.81	111.50
25	RA	1328	G	C4-C5-N7	6.62	113.45	110.80
1	QA	1469	G	C6-C5-N7	-6.62	126.43	130.40
25	RA	2534	A	C5-N7-C8	-6.62	100.59	103.90
25	YA	539	G	C6-C5-N7	-6.62	126.43	130.40
25	YA	2820	A	C5-N7-C8	-6.62	100.59	103.90
25	YA	1216	G	C5-C6-O6	-6.62	124.63	128.60
25	YA	1311	G	C8-N9-C1'	-6.62	118.39	127.00
25	RA	2252	G	N1-C6-O6	6.62	123.87	119.90
25	RA	2542	A	C8-N9-C4	6.62	108.45	105.80
25	YA	793	A	O5'-P-OP1	6.62	118.64	110.70
25	YA	1814	G	N3-C2-N2	-6.62	115.27	119.90
25	YA	1929	G	C2-N3-C4	-6.62	108.59	111.90
25	RA	917	A	N1-C2-N3	6.62	132.61	129.30
56	Z6	74	C	N1-C2-O2	6.62	122.87	118.90
1	QA	882	C	N3-C4-C5	6.62	124.55	121.90
25	RA	560	C	C6-N1-C2	6.62	122.95	120.30
25	YA	1829	A	C8-N9-C4	-6.62	103.15	105.80
25	RA	2720	U	N3-C2-O2	-6.61	117.57	122.20
1	XA	948	C	C6-N1-C2	6.61	122.94	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	621	A	C6-C5-N7	-6.61	127.67	132.30
25	YA	1203	G	C4-C5-C6	6.61	122.77	118.80
25	YA	1332	G	C4-C5-C6	6.61	122.77	118.80
25	RA	958	U	N1-C2-O2	6.61	127.43	122.80
25	YA	271(B)	G	P-O3'-C3'	6.61	127.63	119.70
1	QA	690	G	C5-C6-N1	-6.61	108.20	111.50
1	QA	155	C	C5-C6-N1	6.61	124.30	121.00
1	QA	419	C	C6-N1-C2	6.61	122.94	120.30
25	RA	2665	A	O4'-C1'-N9	6.61	113.48	108.20
26	RB	13	A	O5'-P-OP2	-6.61	99.75	105.70
25	YA	187	G	C4-N9-C1'	6.61	135.09	126.50
25	YA	220	G	C5-C6-N1	-6.61	108.20	111.50
25	YA	828	U	N1-C2-N3	6.61	118.86	114.90
25	RA	2286	A	O5'-P-OP2	-6.61	99.75	105.70
25	YA	253	C	C4-C5-C6	6.61	120.70	117.40
25	YA	1325	G	C8-N9-C1'	6.61	135.59	127.00
25	YA	1614	A	N1-C6-N6	6.61	122.56	118.60
25	YA	1815	A	C4-C5-N7	-6.61	107.40	110.70
25	RA	2083	G	C5-C6-O6	-6.60	124.64	128.60
1	QA	1335	C	O5'-P-OP2	-6.60	99.76	105.70
25	RA	1238	G	C4-N9-C1'	-6.60	117.92	126.50
25	YA	511	U	O5'-P-OP2	6.60	118.62	110.70
25	YA	1984	G	N1-C6-O6	6.60	123.86	119.90
25	RA	1776	G	N3-C4-N9	6.60	129.96	126.00
1	QA	180	U	C5-C6-N1	6.60	126.00	122.70
1	QA	772	U	O5'-P-OP2	-6.60	99.76	105.70
1	XA	190	G	C4-N9-C1'	6.60	135.08	126.50
1	XA	320	C	N3-C2-O2	6.60	126.52	121.90
1	XA	1336	C	C5-C6-N1	6.60	124.30	121.00
25	YA	450	G	O5'-P-OP1	-6.60	99.76	105.70
25	RA	944	G	C2-N3-C4	-6.60	108.60	111.90
25	YA	2443	C	C6-N1-C2	-6.60	117.66	120.30
25	RA	1553	A	N1-C2-N3	6.60	132.60	129.30
25	RA	2062	A	O5'-P-OP2	-6.60	99.76	105.70
25	YA	424	G	C5-C6-N1	6.60	114.80	111.50
1	QA	957	U	N3-C2-O2	-6.59	117.58	122.20
25	RA	1940	U	N3-C2-O2	-6.59	117.58	122.20
25	RA	2665	A	C4-C5-C6	6.59	120.30	117.00
25	YA	2677	G	N3-C4-N9	6.59	129.96	126.00
25	RA	836	G	C4-C5-N7	6.59	113.44	110.80
1	QA	785	G	N1-C6-O6	6.59	123.86	119.90
25	RA	869	G	C5-C6-N1	-6.59	108.20	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1961	C	C6-N1-C2	6.59	122.94	120.30
25	YA	2830	G	N3-C4-C5	-6.59	125.30	128.60
25	RA	330	A	N7-C8-N9	6.59	117.09	113.80
25	RA	512	G	C4-N9-C1'	-6.59	117.93	126.50
1	XA	623	C	C6-N1-C2	-6.59	117.66	120.30
25	YA	782	A	O5'-P-OP1	-6.59	99.77	105.70
25	YA	1835	G	C4-N9-C1'	6.59	135.07	126.50
25	YA	1903	G	OP1-P-OP2	6.59	129.49	119.60
25	YA	1647	G	C8-N9-C1'	-6.59	118.44	127.00
1	QA	646	U	C5-C4-O4	6.59	129.85	125.90
1	QA	690	G	C2-N3-C4	-6.59	108.61	111.90
1	XA	587	G	N1-C6-O6	6.59	123.85	119.90
12	XL	44	THR	C-N-CD	6.59	142.23	128.40
25	YA	226	G	C8-N9-C1'	6.59	135.56	127.00
25	YA	1543	A	C4'-C3'-C2'	-6.59	96.01	102.60
25	YA	2502	G	C6-C5-N7	-6.59	126.45	130.40
25	YA	2616	C	C2-N1-C1'	-6.59	111.56	118.80
25	YA	1768	U	C5-C4-O4	6.58	129.85	125.90
25	RA	690	G	C6-C5-N7	-6.58	126.45	130.40
25	RA	702	G	C8-N9-C4	-6.58	103.77	106.40
25	RA	22	C	C6-N1-C2	6.58	122.93	120.30
25	RA	595	C	C4-C5-C6	-6.58	114.11	117.40
25	RA	822	U	C2-N1-C1'	-6.58	109.80	117.70
25	YA	253	C	N3-C4-C5	-6.58	119.27	121.90
25	YA	1609	A	C8-N9-C4	6.58	108.43	105.80
25	YA	2315	G	O5'-P-OP2	6.58	118.60	110.70
1	QA	821	G	N3-C4-C5	-6.58	125.31	128.60
25	RA	1011	G	N3-C4-N9	-6.58	122.05	126.00
25	RA	1276	A	C5-N7-C8	-6.58	100.61	103.90
25	RA	1819	A	P-O3'-C3'	6.58	127.59	119.70
25	RA	2504	U	C5-C4-O4	-6.58	121.95	125.90
1	XA	1126	U	N1-C2-O2	6.58	127.41	122.80
25	YA	2375	G	N1-C6-O6	6.58	123.85	119.90
25	RA	1784	A	O5'-P-OP1	-6.58	99.78	105.70
25	RA	2409	G	N9-C4-C5	-6.58	102.77	105.40
25	YA	137(A)	G	N1-C6-O6	6.58	123.84	119.90
25	YA	676	A	C5-C6-N1	-6.58	114.41	117.70
25	YA	2251	G	C8-N9-C1'	-6.58	118.45	127.00
1	QA	1183	A	C8-N9-C4	6.57	108.43	105.80
25	YA	385	C	C2-N1-C1'	6.57	126.03	118.80
1	QA	1189	C	N1-C2-O2	6.57	122.84	118.90
25	YA	2550	G	C5-C6-O6	-6.57	124.66	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	742	G	N1-C6-O6	6.57	123.84	119.90
1	QA	970	C	N1-C2-O2	6.57	122.84	118.90
25	RA	2441	C	C5-C4-N4	6.57	124.80	120.20
25	RA	2451	A	N3-C4-N9	-6.57	122.14	127.40
25	YA	205	G	P-O3'-C3'	6.57	127.58	119.70
25	RA	2439	A	C4-C5-C6	6.57	120.28	117.00
25	YA	866	A	C6-C5-N7	-6.57	127.70	132.30
25	RA	1989	G	C8-N9-C4	-6.57	103.77	106.40
1	QA	117	G	C5-C6-O6	-6.56	124.66	128.60
1	QA	1470	G	C4-C5-N7	6.56	113.43	110.80
25	YA	23	G	N1-C6-O6	6.56	123.84	119.90
1	QA	1206	G	C8-N9-C4	-6.56	103.78	106.40
25	YA	397	G	C2-N3-C4	-6.56	108.62	111.90
25	YA	1857	G	N3-C4-C5	-6.56	125.32	128.60
25	YA	2782	G	C4-N9-C1'	6.56	135.03	126.50
1	XA	968	A	C8-N9-C4	6.56	108.42	105.80
25	YA	681	G	N1-C2-N3	6.56	127.84	123.90
1	QA	953	G	N1-C6-O6	-6.56	115.97	119.90
25	RA	51	G	C2-N3-C4	6.56	115.18	111.90
25	RA	465	G	C8-N9-C4	-6.56	103.78	106.40
25	RA	637	A	N7-C8-N9	6.56	117.08	113.80
25	RA	1246	A	N1-C6-N6	-6.56	114.67	118.60
25	RA	2294	C	C6-N1-C2	-6.56	117.68	120.30
1	XA	315	A	N7-C8-N9	-6.56	110.52	113.80
1	XA	1074	G	N9-C4-C5	-6.56	102.78	105.40
25	YA	639	U	C4-C5-C6	6.56	123.64	119.70
25	YA	728	G	C4-C5-C6	6.56	122.74	118.80
25	YA	1264	G	OP2-P-O3'	6.56	119.63	105.20
25	YA	1686	C	C6-N1-C2	-6.56	117.68	120.30
26	YB	111	U	C5-C4-O4	6.56	129.83	125.90
1	QA	921	U	N1-C2-N3	6.56	118.83	114.90
1	XA	734	G	C6-C5-N7	-6.56	126.47	130.40
25	YA	1307	A	C6-N1-C2	-6.56	114.67	118.60
1	QA	667	G	C5-C6-O6	-6.55	124.67	128.60
25	RA	2597	G	C4-C5-N7	-6.55	108.18	110.80
1	XA	719	C	C4-C5-C6	6.55	120.68	117.40
25	YA	718	A	C8-N9-C4	-6.55	103.18	105.80
25	YA	2014	A	C5-C6-N6	-6.55	118.46	123.70
25	YA	1328	G	N1-C6-O6	-6.55	115.97	119.90
25	YA	1773	A	N9-C4-C5	6.55	108.42	105.80
25	YA	55	G	N3-C4-C5	-6.55	125.33	128.60
25	YA	842	G	N3-C2-N2	-6.55	115.31	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	833	U	N1-C2-O2	-6.55	118.22	122.80
25	RA	956	G	C2-N3-C4	-6.55	108.63	111.90
1	XA	1200	C	OP2-P-O3'	6.54	119.60	105.20
1	QA	814	A	C8-N9-C4	6.54	108.42	105.80
25	RA	567	A	O5'-P-OP1	6.54	118.55	110.70
25	YA	753	C	N3-C4-N4	6.54	122.58	118.00
25	YA	1756	G	C5-C6-N1	-6.54	108.23	111.50
25	RA	953	A	N1-C6-N6	6.54	122.52	118.60
25	RA	58	G	C6-C5-N7	-6.54	126.48	130.40
25	RA	687	C	N1-C2-O2	-6.54	114.98	118.90
25	YA	541	C	C6-N1-C2	-6.54	117.69	120.30
25	YA	1192	G	C4-C5-C6	6.54	122.72	118.80
25	YA	1934	C	N3-C4-N4	6.54	122.58	118.00
25	YA	2252	G	C6-C5-N7	-6.54	126.48	130.40
25	RA	2194	G	C8-N9-C1'	-6.53	118.50	127.00
25	RA	2468	G	C5-N7-C8	-6.53	101.03	104.30
25	YA	568	U	C4-C5-C6	6.53	123.62	119.70
27	YD	131	LEU	CA-CB-CG	6.53	130.32	115.30
25	RA	735	A	C8-N9-C4	6.53	108.41	105.80
25	YA	1237	A	N9-C4-C5	6.53	108.41	105.80
25	RA	1756	G	N1-C6-O6	6.53	123.82	119.90
25	YA	287	C	C5-C4-N4	-6.53	115.63	120.20
1	QA	1430	C	C5-C6-N1	6.53	124.27	121.00
25	RA	508	G	C6-C5-N7	-6.53	126.48	130.40
25	RA	1216	G	N3-C4-C5	-6.53	125.34	128.60
27	RD	131	LEU	CA-CB-CG	6.53	130.31	115.30
25	YA	1381	G	N3-C4-N9	6.53	129.92	126.00
25	RA	689	A	N7-C8-N9	-6.53	110.54	113.80
1	XA	745	C	C6-N1-C2	-6.53	117.69	120.30
25	YA	1818	U	C6-N1-C2	-6.53	117.08	121.00
25	YA	2263	C	C6-N1-C2	-6.53	117.69	120.30
25	YA	2681	C	C2-N1-C1'	6.53	125.98	118.80
25	RA	2383	G	C5-C6-O6	-6.52	124.69	128.60
1	QA	1409	C	C6-N1-C2	6.52	122.91	120.30
1	XA	577	G	C5-N7-C8	-6.52	101.04	104.30
25	YA	2712(A)	A	C4-C5-C6	6.52	120.26	117.00
1	QA	169	C	C5-C6-N1	6.52	124.26	121.00
1	XA	703	G	C4-C5-N7	-6.52	108.19	110.80
25	RA	1359	A	N9-C4-C5	-6.52	103.19	105.80
25	YA	2404	C	O5'-P-OP1	-6.52	99.83	105.70
25	RA	2447	G	N7-C8-N9	6.52	116.36	113.10
25	YA	650	C	C6-N1-C2	-6.52	117.69	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	226	G	N3-C4-N9	6.51	129.91	126.00
1	XA	299	G	N1-C6-O6	6.51	123.81	119.90
1	XA	755	G	N3-C4-N9	6.51	129.91	126.00
25	YA	2569	G	C4-N9-C1'	6.51	134.97	126.50
25	YA	1377	G	N3-C4-C5	-6.51	125.34	128.60
26	YB	56	G	N3-C4-C5	-6.51	125.34	128.60
1	QA	1487	G	C5-C6-N1	-6.51	108.24	111.50
1	QA	52	G	C5-C6-O6	-6.51	124.69	128.60
1	XA	807	A	C5-N7-C8	-6.51	100.65	103.90
25	RA	1543	A	C5-C6-N1	-6.51	114.45	117.70
1	QA	259	G	N1-C6-O6	6.51	123.80	119.90
1	QA	771	G	N3-C2-N2	-6.51	115.34	119.90
1	QA	1325	C	N1-C2-O2	6.51	122.80	118.90
1	XA	449	C	C6-N1-C2	-6.51	117.70	120.30
25	YA	741	G	C8-N9-C1'	-6.51	118.54	127.00
25	YA	1926	U	C6-N1-C2	-6.51	117.10	121.00
25	RA	1123	C	N1-C2-O2	-6.50	115.00	118.90
1	QA	191	G	C8-N9-C4	-6.50	103.80	106.40
25	RA	2002	G	N7-C8-N9	6.50	116.35	113.10
25	RA	2020	A	C4-C5-C6	6.50	120.25	117.00
25	RA	2431	U	C5-C4-O4	6.50	129.80	125.90
25	RA	2712	U	N1-C2-N3	6.50	118.80	114.90
1	XA	541	G	C6-C5-N7	-6.50	126.50	130.40
1	QA	729	A	N7-C8-N9	6.50	117.05	113.80
25	YA	2294	C	N3-C2-O2	-6.50	117.35	121.90
25	RA	623	G	N1-C6-O6	6.50	123.80	119.90
25	RA	2053	G	C5-N7-C8	-6.50	101.05	104.30
25	RA	1616	A	O4'-C1'-N9	6.50	113.40	108.20
25	RA	2591	C	C2-N3-C4	6.50	123.15	119.90
25	YA	1907	G	C2-N3-C4	-6.50	108.65	111.90
25	YA	1639	U	N3-C4-O4	-6.50	114.85	119.40
1	XA	755	G	C4-N9-C1'	6.50	134.94	126.50
25	RA	479	A	N1-C6-N6	-6.49	114.70	118.60
25	RA	688	U	C6-N1-C2	-6.49	117.10	121.00
25	RA	1300	U	C4-C5-C6	6.49	123.60	119.70
25	YA	941	A	N1-C2-N3	6.49	132.55	129.30
25	YA	1621	U	N3-C4-O4	6.49	123.95	119.40
25	YA	2523	G	C4-C5-N7	6.49	113.40	110.80
1	QA	106	C	N3-C2-O2	-6.49	117.36	121.90
25	RA	69	C	O5'-P-OP2	-6.49	99.86	105.70
25	RA	501	A	C2-N3-C4	-6.49	107.35	110.60
25	RA	702	G	C8-N9-C1'	-6.49	118.56	127.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2586	C	C5-C6-N1	6.49	124.25	121.00
25	RA	268	C	C2-N1-C1'	6.49	125.94	118.80
25	RA	780	G	N9-C4-C5	6.49	108.00	105.40
25	RA	2644	G	C6-C5-N7	-6.49	126.51	130.40
25	YA	247	G	C5-C6-O6	-6.49	124.71	128.60
25	YA	1287	A	C5-C6-N1	-6.49	114.45	117.70
25	RA	1348	G	C4-C5-N7	6.49	113.39	110.80
25	RA	1891	G	C5-C6-N1	-6.49	108.26	111.50
25	YA	2814	C	C6-N1-C2	-6.49	117.70	120.30
1	XA	1232	U	N1-C2-N3	6.49	118.79	114.90
25	RA	74	A	P-O3'-C3'	6.49	127.48	119.70
25	RA	1891	G	C2-N3-C4	-6.49	108.66	111.90
25	YA	745	G	C4-C5-C6	6.49	122.69	118.80
25	YA	1835	G	C2-N3-C4	6.49	115.14	111.90
25	YA	957	A	C8-N9-C4	6.48	108.39	105.80
25	RA	39	C	C6-N1-C2	-6.48	117.71	120.30
25	RA	527	C	N1-C2-N3	-6.48	114.66	119.20
1	XA	690	G	N7-C8-N9	6.48	116.34	113.10
1	XA	1517	G	N3-C4-N9	6.48	129.89	126.00
25	YA	138	G	C5-C6-N1	6.48	114.74	111.50
1	QA	812	C	N3-C2-O2	-6.48	117.36	121.90
25	RA	1496	A	C6-C5-N7	-6.48	127.76	132.30
1	XA	1417	G	C4-N9-C1'	6.48	134.92	126.50
25	YA	27	G	N3-C4-C5	-6.48	125.36	128.60
25	YA	295	G	C2-N3-C4	-6.48	108.66	111.90
25	YA	1190	G	N1-C6-O6	6.48	123.79	119.90
25	YA	1997	G	O5'-P-OP2	6.48	118.48	110.70
25	YA	2590	A	C5-C6-N6	-6.48	118.52	123.70
25	RA	450	G	C8-N9-C4	-6.48	103.81	106.40
25	YA	845	G	N9-C4-C5	-6.48	102.81	105.40
25	RA	2540	C	N3-C2-O2	-6.48	117.37	121.90
25	YA	414	C	C5-C6-N1	-6.48	117.76	121.00
25	RA	2011	U	C6-N1-C2	6.47	124.89	121.00
25	RA	2439	A	C8-N9-C4	-6.47	103.21	105.80
25	YA	1788	C	C6-N1-C2	6.47	122.89	120.30
25	RA	2453	A	C5-C6-N1	6.47	120.94	117.70
1	XA	832	C	C6-N1-C2	-6.47	117.71	120.30
1	XA	1204	A	C5-N7-C8	-6.47	100.66	103.90
25	YA	311	A	C2-N3-C4	-6.47	107.36	110.60
25	YA	1742	C	C6-N1-C2	-6.47	117.71	120.30
25	YA	193	U	N3-C4-C5	-6.47	110.72	114.60
25	YA	450	G	C4-C5-N7	-6.47	108.21	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1894	C	O5'-P-OP2	-6.47	99.88	105.70
26	RB	18	G	N3-C4-C5	6.47	131.84	128.60
1	XA	293	G	C6-C5-N7	-6.47	126.52	130.40
25	YA	681	G	C4-C5-C6	6.47	122.68	118.80
25	YA	1632	A	C5-N7-C8	-6.47	100.67	103.90
25	YA	1824	G	C4-C5-C6	6.47	122.68	118.80
25	YA	248	G	OP1-P-O3'	6.47	119.43	105.20
25	YA	1347	G	C5-C6-N1	-6.47	108.27	111.50
25	RA	51	G	N3-C4-C5	-6.47	125.37	128.60
25	RA	2504	U	OP1-P-OP2	-6.47	109.90	119.60
25	YA	2427	C	N3-C4-N4	-6.47	113.47	118.00
25	YA	2777	G	C2-N3-C4	-6.47	108.67	111.90
25	RA	216	A	N9-C4-C5	-6.46	103.21	105.80
1	XA	719	C	C5-C6-N1	-6.46	117.77	121.00
25	YA	1017	G	N7-C8-N9	6.46	116.33	113.10
25	RA	1728	G	N3-C4-N9	6.46	129.88	126.00
1	XA	117	G	N1-C6-O6	6.46	123.78	119.90
1	XA	764	C	N1-C2-O2	6.46	122.78	118.90
25	RA	836	G	C5-C6-O6	-6.46	124.72	128.60
25	RA	1621	U	N3-C2-O2	6.46	126.72	122.20
25	RA	2509	G	C4-C5-C6	6.46	122.68	118.80
25	YA	637	A	N7-C8-N9	6.46	117.03	113.80
25	YA	2447	G	C5-N7-C8	-6.46	101.07	104.30
25	YA	254	G	N9-C4-C5	6.46	107.98	105.40
25	YA	541	C	N3-C2-O2	-6.46	117.38	121.90
25	YA	1937	A	N1-C6-N6	6.46	122.47	118.60
25	RA	804	A	O4'-C1'-N9	6.46	113.36	108.20
1	XA	1413	A	C5-C6-N1	6.46	120.93	117.70
25	RA	37	C	N3-C2-O2	-6.46	117.38	121.90
25	RA	393	C	N3-C2-O2	-6.46	117.38	121.90
25	YA	443	A	C5-C6-N1	-6.46	114.47	117.70
25	YA	1635	G	OP2-P-O3'	6.46	119.40	105.20
25	RA	1698	A	N1-C2-N3	6.45	132.53	129.30
1	XA	1225	A	N9-C4-C5	-6.45	103.22	105.80
1	XA	1103	C	N3-C4-C5	6.45	124.48	121.90
25	YA	530	G	O4'-C1'-N9	6.45	113.36	108.20
25	YA	961	C	C2-N1-C1'	6.45	125.89	118.80
25	YA	2825	C	N3-C2-O2	-6.45	117.38	121.90
25	RA	482	A	C5-C6-N1	6.45	120.92	117.70
25	RA	2367	G	N3-C4-N9	6.45	129.87	126.00
1	XA	106	C	N3-C4-C5	-6.45	119.32	121.90
25	RA	2088	G	C4-N9-C1'	6.45	134.88	126.50

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2691	C	C6-N1-C2	6.45	122.88	120.30
1	QA	769	G	N3-C4-C5	-6.45	125.38	128.60
25	RA	1623	G	C6-C5-N7	-6.45	126.53	130.40
25	RA	2831	G	C5-C6-N1	-6.45	108.28	111.50
25	YA	917	A	C4-C5-C6	6.45	120.22	117.00
25	YA	1777	U	C5-C4-O4	6.45	129.77	125.90
25	YA	1857	G	C4-N9-C1'	6.45	134.88	126.50
25	RA	1814	G	C4-C5-C6	6.44	122.67	118.80
25	YA	234	C	C6-N1-C2	-6.44	117.72	120.30
25	RA	789	A	N1-C6-N6	-6.44	114.73	118.60
25	RA	962	G	N3-C2-N2	-6.44	115.39	119.90
25	RA	1761	C	C2-N1-C1'	-6.44	111.71	118.80
25	YA	469	G	C4-C5-C6	6.44	122.67	118.80
25	YA	577	G	C6-C5-N7	-6.44	126.53	130.40
25	YA	2439	A	C6-C5-N7	-6.44	127.79	132.30
25	YA	2549	G	C4-C5-C6	6.44	122.67	118.80
25	YA	2766	G	N1-C6-O6	6.44	123.77	119.90
25	RA	1137	G	N1-C6-O6	6.44	123.77	119.90
1	XA	1237	C	C5-C6-N1	6.44	124.22	121.00
25	YA	15	G	C8-N9-C4	-6.44	103.82	106.40
25	YA	2243	U	OP2-P-O3'	6.44	119.36	105.20
1	QA	1079	G	C5-C6-N1	-6.44	108.28	111.50
25	RA	2028	U	N3-C4-O4	6.44	123.91	119.40
1	XA	1074	G	N1-C6-O6	6.44	123.76	119.90
25	YA	1906	G	C4-C5-C6	6.44	122.66	118.80
25	RA	1547	C	N3-C4-C5	-6.44	119.33	121.90
26	RB	89	G	C4-N9-C1'	6.44	134.87	126.50
25	YA	701	G	N3-C2-N2	-6.44	115.39	119.90
25	YA	51	G	C4-C5-N7	-6.43	108.23	110.80
25	YA	197	A	OP2-P-O3'	6.43	119.35	105.20
25	YA	1211	U	N3-C2-O2	6.43	126.70	122.20
1	QA	522	C	C5-C6-N1	-6.43	117.78	121.00
25	RA	1816	G	C5-C6-O6	-6.43	124.74	128.60
1	XA	791	G	C4-C5-N7	-6.43	108.23	110.80
25	YA	733	G	C5-N7-C8	-6.43	101.08	104.30
25	YA	974(A)	C	C6-N1-C2	-6.43	117.73	120.30
25	YA	2495	G	O5'-P-OP2	-6.43	99.91	105.70
25	RA	686	G	C6-C5-N7	-6.43	126.54	130.40
25	RA	936	C	C6-N1-C2	6.43	122.87	120.30
25	RA	2679	A	C8-N9-C4	6.43	108.37	105.80
1	XA	1306	A	O5'-P-OP2	-6.43	99.91	105.70
25	RA	1521	G	C4-C5-N7	6.43	113.37	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1621	U	N1-C2-O2	-6.43	118.30	122.80
25	RA	2879	C	C6-N1-C2	6.43	122.87	120.30
26	RB	43	C	C2-N1-C1'	6.43	125.87	118.80
25	YA	2020	A	N1-C2-N3	6.43	132.51	129.30
25	YA	2542	A	C5-C6-N1	-6.43	114.49	117.70
25	YA	2825	C	C6-N1-C2	-6.43	117.73	120.30
25	YA	2506	U	N1-C2-N3	6.43	118.76	114.90
1	QA	9	G	C6-C5-N7	-6.43	126.54	130.40
25	RA	198	C	C2-N1-C1'	6.43	125.87	118.80
25	RA	216	A	C4-C5-N7	6.43	113.91	110.70
25	RA	2843	G	C6-C5-N7	-6.43	126.54	130.40
25	YA	2665	A	C6-C5-N7	-6.43	127.80	132.30
25	YA	2685	G	C5-C6-N1	-6.43	108.29	111.50
25	YA	2818	G	C4-C5-N7	6.43	113.37	110.80
25	RA	1332	G	N7-C8-N9	6.42	116.31	113.10
25	YA	582	G	N1-C6-O6	6.42	123.75	119.90
25	YA	1186	G	OP2-P-O3'	6.42	119.33	105.20
25	YA	2239	G	C6-C5-N7	-6.42	126.55	130.40
1	XA	484	G	P-O3'-C3'	6.42	127.41	119.70
1	XA	808	C	C5-C6-N1	6.42	124.21	121.00
25	RA	825	C	N1-C2-O2	-6.42	115.05	118.90
1	XA	362	G	C5-N7-C8	-6.42	101.09	104.30
1	XA	811	C	C5-C6-N1	-6.42	117.79	121.00
25	YA	1195	G	C6-C5-N7	-6.42	126.55	130.40
25	YA	1257	C	OP2-P-O3'	6.42	119.33	105.20
25	RA	618	G	N3-C4-C5	-6.42	125.39	128.60
25	YA	1979	C	N3-C4-N4	6.42	122.49	118.00
25	YA	2429	G	OP2-P-O3'	6.42	119.32	105.20
25	RA	307	G	N3-C4-N9	6.42	129.85	126.00
25	RA	707	G	C8-N9-C1'	-6.42	118.66	127.00
25	YA	1638	C	C6-N1-C2	-6.42	117.73	120.30
25	RA	1253	A	C5-C6-N1	6.42	120.91	117.70
25	RA	2430	A	N1-C6-N6	6.42	122.45	118.60
25	RA	2612	C	N1-C2-N3	-6.42	114.71	119.20
1	XA	1492	A	C8-N9-C4	-6.42	103.23	105.80
25	YA	701	G	N7-C8-N9	6.42	116.31	113.10
25	YA	1339	G	O5'-P-OP1	-6.42	99.92	105.70
25	YA	256	A	N1-C6-N6	6.42	122.45	118.60
1	QA	566	G	C4-C5-N7	-6.41	108.23	110.80
1	QA	1059	C	C5-C6-N1	6.41	124.21	121.00
1	XA	948	C	C5-C6-N1	-6.41	117.79	121.00
25	YA	2002	G	N7-C8-N9	6.41	116.31	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	802	A	C4-C5-C6	6.41	120.21	117.00
25	RA	2403	C	C6-N1-C2	-6.41	117.73	120.30
25	YA	121	G	N3-C4-C5	-6.41	125.39	128.60
25	YA	1358	G	C6-C5-N7	-6.41	126.55	130.40
25	RA	97	C	N1-C2-O2	6.41	122.75	118.90
25	RA	1487	G	N3-C4-N9	6.41	129.85	126.00
1	XA	1380	U	C6-N1-C2	6.41	124.85	121.00
25	RA	639	U	C5-C6-N1	-6.41	119.50	122.70
1	XA	792	A	C6-C5-N7	-6.41	127.81	132.30
25	YA	74	A	C4-N9-C1'	6.41	137.84	126.30
25	YA	1158	C	N3-C4-N4	-6.41	113.52	118.00
25	YA	1970	A	O5'-P-OP2	-6.41	99.93	105.70
25	YA	2822	G	N3-C4-C5	6.41	131.80	128.60
25	RA	1940	U	C2-N1-C1'	6.41	125.39	117.70
25	YA	774	A	C5-N7-C8	-6.41	100.70	103.90
25	RA	1236	G	C4-C5-N7	6.41	113.36	110.80
25	RA	2219	G	N1-C6-O6	6.41	123.74	119.90
25	RA	2357	U	N1-C2-N3	-6.41	111.06	114.90
25	YA	2256	G	C8-N9-C4	-6.41	103.84	106.40
25	RA	2287	A	C8-N9-C4	6.40	108.36	105.80
25	RA	1801	G	C6-C5-N7	-6.40	126.56	130.40
25	RA	2071	A	C5-C6-N1	6.40	120.90	117.70
25	RA	2490	G	O4'-C1'-N9	6.40	113.32	108.20
25	YA	2571	C	C6-N1-C2	-6.40	117.74	120.30
1	QA	991	U	C5-C6-N1	6.40	125.90	122.70
25	RA	862	G	N3-C4-C5	-6.40	125.40	128.60
25	RA	2421	G	C2-N3-C4	6.40	115.10	111.90
25	RA	2484	G	N1-C6-O6	6.40	123.74	119.90
25	YA	989	G	C4-C5-N7	6.40	113.36	110.80
25	YA	1528	A	O4'-C1'-N9	6.40	113.32	108.20
1	QA	316	G	N1-C6-O6	6.40	123.74	119.90
1	QA	1433	A	C8-N9-C4	-6.40	103.24	105.80
25	RA	2211	G	O4'-C1'-N9	6.40	113.32	108.20
1	XA	317	G	N3-C4-N9	6.40	129.84	126.00
25	RA	870	A	C8-N9-C4	6.40	108.36	105.80
25	RA	1791	A	C5-C6-N6	6.40	128.82	123.70
25	RA	2496	C	C4-C5-C6	-6.40	114.20	117.40
25	YA	820	A	C5-C6-N1	-6.40	114.50	117.70
25	YA	1956	U	C4-C5-C6	6.40	123.54	119.70
25	YA	2776	A	C8-N9-C4	-6.40	103.24	105.80
12	QL	47	LYS	C-N-CD	6.40	141.83	128.40
25	RA	1291	C	O5'-P-OP2	-6.40	99.94	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1939	U	N3-C4-O4	-6.40	114.92	119.40
25	RA	102	G	O4'-C1'-N9	6.39	113.31	108.20
25	YA	1676	A	C8-N9-C4	-6.39	103.24	105.80
1	QA	226	G	N3-C4-C5	6.39	131.80	128.60
25	RA	929	G	C8-N9-C4	-6.39	103.84	106.40
25	YA	1675	C	C2-N3-C4	-6.39	116.70	119.90
25	YA	2219	G	N1-C6-O6	6.39	123.73	119.90
25	RA	573	G	N7-C8-N9	6.39	116.30	113.10
1	XA	633	G	N1-C6-O6	6.39	123.73	119.90
25	RA	1496	A	C5-N7-C8	-6.39	100.70	103.90
25	RA	2345	G	N3-C4-N9	-6.39	122.17	126.00
1	XA	793	U	C6-N1-C2	-6.39	117.17	121.00
1	XA	1222	G	C5-C6-N1	-6.39	108.31	111.50
25	YA	1979	C	N3-C2-O2	-6.39	117.43	121.90
25	YA	2726	U	C5-C4-O4	6.39	129.73	125.90
25	RA	962	G	N9-C4-C5	6.39	107.95	105.40
25	RA	1265	A	O5'-P-OP1	-6.39	99.95	105.70
1	XA	1316	G	C4-N9-C1'	-6.39	118.20	126.50
25	YA	570	G	N9-C4-C5	6.39	107.95	105.40
25	RA	743	G	N3-C4-C5	6.38	131.79	128.60
25	RA	1239	G	C5-C6-O6	-6.38	124.77	128.60
25	YA	263	C	N3-C2-O2	-6.38	117.43	121.90
25	YA	1214	A	N1-C6-N6	-6.38	114.77	118.60
25	YA	1243	G	C4-C5-N7	6.38	113.35	110.80
25	YA	18	C	C2-N3-C4	-6.38	116.71	119.90
25	YA	531	C	N3-C4-C5	-6.38	119.35	121.90
25	RA	2394	C	N3-C2-O2	-6.38	117.43	121.90
25	YA	577	G	C2-N3-C4	-6.38	108.71	111.90
25	YA	704	G	N1-C2-N2	-6.38	110.46	116.20
25	YA	842	G	C2-N3-C4	-6.38	108.71	111.90
26	RB	89	G	N7-C8-N9	6.38	116.29	113.10
25	YA	827	U	C5-C4-O4	6.38	129.73	125.90
1	QA	24	U	O5'-P-OP2	-6.38	99.96	105.70
25	RA	715	G	N1-C6-O6	-6.38	116.07	119.90
25	RA	2712	U	N3-C2-O2	-6.38	117.73	122.20
1	XA	690	G	C5-N7-C8	-6.38	101.11	104.30
1	XA	729	A	C5-C6-N6	-6.38	118.60	123.70
25	YA	2228	G	C4-N9-C1'	6.38	134.79	126.50
25	YA	2569	G	C8-N9-C1'	-6.38	118.71	127.00
1	QA	557	G	N3-C4-N9	6.38	129.82	126.00
25	RA	2227	A	N3-C4-C5	6.38	131.26	126.80
25	YA	177	G	N9-C4-C5	6.38	107.95	105.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1705	G	C4-N9-C1'	6.38	134.79	126.50
25	RA	249	C	C2-N3-C4	-6.38	116.71	119.90
25	YA	2608	G	C4-C5-N7	6.38	113.35	110.80
25	RA	513	A	C8-N9-C4	-6.37	103.25	105.80
25	RA	2048	G	C6-C5-N7	-6.37	126.58	130.40
1	XA	243	A	P-O3'-C3'	6.37	127.35	119.70
25	YA	99	U	P-O3'-C3'	6.37	127.35	119.70
25	YA	1557	C	C6-N1-C2	6.37	122.85	120.30
25	RA	450	G	C4-N9-C1'	6.37	134.78	126.50
25	RA	982	C	C5-C6-N1	6.37	124.19	121.00
25	YA	2751	G	C4-C5-N7	6.37	113.35	110.80
25	RA	1857	G	C4-C5-C6	6.37	122.62	118.80
25	RA	1886	C	N1-C2-O2	-6.37	115.08	118.90
25	RA	608	A	C8-N9-C4	-6.37	103.25	105.80
25	RA	1643	G	O5'-P-OP1	-6.37	99.97	105.70
25	YA	1568	G	N1-C6-O6	-6.37	116.08	119.90
25	YA	1669	A	C5-N7-C8	-6.37	100.72	103.90
25	YA	1916	A	C5-C6-N1	-6.37	114.52	117.70
1	QA	1206	G	C4-N9-C1'	6.37	134.78	126.50
25	RA	1239	G	C6-C5-N7	-6.37	126.58	130.40
25	RA	2849	U	C5-C6-N1	-6.37	119.52	122.70
25	YA	372	G	O4'-C1'-N9	6.37	113.29	108.20
25	YA	1560	G	C5-C6-O6	-6.37	124.78	128.60
25	YA	2383	G	C8-N9-C1'	-6.37	118.73	127.00
25	RA	586	A	N1-C6-N6	-6.36	114.78	118.60
25	RA	2087	G	C5-C6-O6	-6.36	124.78	128.60
25	YA	265	A	N1-C6-N6	-6.36	114.78	118.60
25	YA	323	G	C5-C6-N1	-6.36	108.32	111.50
25	YA	780	G	C6-C5-N7	-6.36	126.58	130.40
25	RA	1776	G	C4-C5-C6	6.36	122.62	118.80
1	XA	729	A	N9-C4-C5	-6.36	103.25	105.80
25	RA	195	A	C4-C5-C6	-6.36	113.82	117.00
25	RA	2862	G	C4-C5-C6	6.36	122.62	118.80
25	YA	1831	G	N1-C2-N2	-6.36	110.47	116.20
1	XA	899	C	C6-N1-C2	6.36	122.84	120.30
25	YA	1241	A	N1-C6-N6	6.36	122.42	118.60
25	YA	2694	G	N3-C4-N9	6.36	129.81	126.00
25	RA	1634	A	C2-N3-C4	6.36	113.78	110.60
25	RA	2460	U	O5'-P-OP1	-6.36	99.98	105.70
25	YA	1015	G	C5-C6-N1	6.36	114.68	111.50
25	YA	1219	G	O5'-P-OP2	-6.36	99.98	105.70
25	YA	1439	A	N3-C4-C5	6.36	131.25	126.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2447	G	C6-C5-N7	-6.36	126.59	130.40
25	RA	1680	U	C5-C4-O4	6.36	129.71	125.90
25	RA	2468	G	N3-C4-N9	6.36	129.81	126.00
25	RA	2714	G	C4-C5-C6	6.36	122.61	118.80
25	YA	1602	U	N1-C2-N3	6.36	118.71	114.90
25	YA	218	A	N1-C6-N6	-6.35	114.79	118.60
25	YA	1795	C	C6-N1-C2	-6.35	117.76	120.30
25	RA	1581	G	C8-N9-C4	-6.35	103.86	106.40
25	YA	59	U	C6-N1-C2	-6.35	117.19	121.00
25	YA	1015	G	N7-C8-N9	6.35	116.28	113.10
25	YA	2839	G	C4-C5-C6	6.35	122.61	118.80
25	RA	1799	G	C4-C5-N7	-6.35	108.26	110.80
1	XA	1074	G	C8-N9-C4	6.35	108.94	106.40
25	YA	1204	A	N1-C2-N3	6.35	132.48	129.30
25	RA	1950	G	C6-C5-N7	-6.35	126.59	130.40
1	XA	1335	C	C6-N1-C2	6.35	122.84	120.30
25	YA	305	U	C2-N1-C1'	6.35	125.32	117.70
25	YA	990	A	N1-C2-N3	6.35	132.47	129.30
25	YA	427	U	N3-C2-O2	-6.35	117.76	122.20
25	YA	696	G	C4-C5-N7	6.35	113.34	110.80
25	YA	1122	G	C8-N9-C4	-6.35	103.86	106.40
25	YA	2573	C	N3-C2-O2	-6.35	117.46	121.90
25	RA	124	G	N1-C6-O6	6.35	123.71	119.90
25	YA	1862	G	N3-C4-N9	-6.35	122.19	126.00
25	YA	1511	A	N1-C6-N6	-6.34	114.79	118.60
1	XA	1517	G	C6-C5-N7	-6.34	126.59	130.40
25	YA	974(A)	C	P-O3'-C3'	6.34	127.31	119.70
25	YA	204	A	N1-C6-N6	-6.34	114.80	118.60
25	YA	554	U	C4-C5-C6	6.34	123.50	119.70
25	YA	745	G	C6-C5-N7	-6.34	126.59	130.40
25	YA	2394	C	C2-N1-C1'	6.34	125.78	118.80
25	RA	462	C	C5-C6-N1	-6.34	117.83	121.00
25	RA	2326	C	N3-C4-C5	-6.34	119.36	121.90
25	RA	2593	U	N1-C2-N3	6.34	118.70	114.90
1	XA	299	G	N3-C2-N2	-6.34	115.46	119.90
25	YA	832	G	C8-N9-C1'	-6.34	118.76	127.00
25	RA	1695	G	N3-C4-N9	6.34	129.80	126.00
25	YA	382	G	C5-C6-O6	-6.34	124.80	128.60
25	RA	471	A	N1-C6-N6	6.34	122.40	118.60
25	RA	1784	A	C4-C5-C6	6.34	120.17	117.00
1	XA	467	G	N3-C4-C5	-6.34	125.43	128.60
25	YA	636	G	N7-C8-N9	6.34	116.27	113.10

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1326	U	N3-C2-O2	6.34	126.64	122.20
25	RA	454	A	C8-N9-C4	6.33	108.33	105.80
1	XA	1348	U	N1-C2-N3	6.33	118.70	114.90
25	YA	530	G	N1-C2-N2	-6.33	110.50	116.20
25	RA	780	G	N3-C4-C5	-6.33	125.43	128.60
25	RA	789	A	C2-N3-C4	-6.33	107.43	110.60
25	RA	2456	C	C5-C4-N4	-6.33	115.77	120.20
25	RA	2620	C	C6-N1-C2	6.33	122.83	120.30
25	RA	2624	G	C5-C6-O6	-6.33	124.80	128.60
25	YA	1258	C	N3-C4-C5	6.33	124.43	121.90
26	YB	29	A	C8-N9-C4	-6.33	103.27	105.80
25	RA	177	G	N1-C6-O6	-6.33	116.10	119.90
1	XA	119	A	C8-N9-C4	-6.33	103.27	105.80
25	YA	1424	G	C4-N9-C1'	6.33	134.73	126.50
25	YA	2217	G	C5-C6-N1	-6.33	108.34	111.50
25	YA	2555	U	C5-C4-O4	6.33	129.70	125.90
1	QA	753	A	P-O3'-C3'	6.33	127.29	119.70
25	YA	574	C	C6-N1-C2	6.33	122.83	120.30
25	YA	2428	G	C5-C6-N1	-6.33	108.34	111.50
1	QA	541	G	C5-C6-O6	-6.33	124.81	128.60
25	RA	762	U	C2-N1-C1'	-6.33	110.11	117.70
25	RA	1184	G	N1-C6-O6	6.33	123.69	119.90
1	QA	1187	G	C8-N9-C4	-6.32	103.87	106.40
1	QA	1198	G	N3-C4-C5	-6.32	125.44	128.60
25	RA	2073	C	N1-C2-N3	6.32	123.63	119.20
25	YA	28	A	C8-N9-C4	-6.32	103.27	105.80
25	YA	1676	A	C5-N7-C8	-6.32	100.74	103.90
25	YA	1761	C	C2-N3-C4	-6.32	116.74	119.90
25	RA	1654	A	C8-N9-C4	-6.32	103.27	105.80
25	YA	1193	G	C8-N9-C4	6.32	108.93	106.40
25	YA	1228	G	O5'-P-OP1	-6.32	100.01	105.70
25	YA	1606	G	N7-C8-N9	-6.32	109.94	113.10
1	QA	938	A	N1-C6-N6	6.32	122.39	118.60
25	RA	141	A	C8-N9-C4	-6.32	103.27	105.80
25	RA	301	G	N9-C4-C5	-6.32	102.87	105.40
25	RA	471	A	C4-C5-N7	6.32	113.86	110.70
25	RA	566	U	C6-N1-C2	6.32	124.79	121.00
25	RA	783	A	C5-C6-N6	-6.32	118.64	123.70
1	QA	1435	G	N3-C4-C5	6.32	131.76	128.60
25	RA	1236	G	C6-C5-N7	-6.32	126.61	130.40
25	RA	809	G	N3-C4-C5	-6.32	125.44	128.60
25	RA	1628	G	C4-C5-C6	6.32	122.59	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1814	G	C5-C6-O6	6.32	132.39	128.60
25	YA	58	G	C8-N9-C4	-6.32	103.87	106.40
25	YA	326	G	N1-C6-O6	6.32	123.69	119.90
25	YA	2407	G	C8-N9-C4	-6.32	103.87	106.40
25	RA	560	C	O5'-P-OP2	-6.32	100.02	105.70
25	RA	2499	C	C2-N1-C1'	6.32	125.75	118.80
25	YA	1243	G	C5-C6-O6	-6.32	124.81	128.60
25	YA	1951	U	O5'-P-OP2	-6.31	100.02	105.70
25	RA	126	A	C5-C6-N1	-6.31	114.54	117.70
25	RA	1769	G	N7-C8-N9	6.31	116.26	113.10
1	XA	792	A	C3'-C2'-C1'	-6.31	96.45	101.50
25	RA	1959	G	N3-C4-C5	-6.31	125.44	128.60
25	YA	1031	G	N1-C6-O6	-6.31	116.11	119.90
25	RA	209	C	C6-N1-C2	6.31	122.82	120.30
25	RA	2004	G	C6-C5-N7	-6.31	126.61	130.40
1	XA	465	A	C5-N7-C8	6.31	107.06	103.90
25	YA	1647	G	C4-C5-N7	6.31	113.32	110.80
25	YA	753	C	C2-N1-C1'	6.31	125.74	118.80
25	YA	1413	G	C5-C6-O6	-6.31	124.81	128.60
25	YA	1915	U	C6-N1-C2	-6.31	117.22	121.00
25	RA	139	G	C4-C5-N7	-6.30	108.28	110.80
25	RA	621	A	N1-C2-N3	6.30	132.45	129.30
25	RA	716	A	C2-N3-C4	-6.30	107.45	110.60
25	RA	1332	G	C8-N9-C4	-6.30	103.88	106.40
1	XA	901	A	N1-C6-N6	6.30	122.38	118.60
25	YA	917	A	C2-N3-C4	-6.30	107.45	110.60
25	YA	956	G	N1-C6-O6	6.30	123.68	119.90
25	YA	2025	C	C6-N1-C2	-6.30	117.78	120.30
25	YA	1422	G	N9-C4-C5	6.30	107.92	105.40
25	RA	1678	G	N9-C4-C5	6.30	107.92	105.40
25	YA	1544	C	N1-C2-O2	6.30	122.68	118.90
25	RA	1699	G	N1-C6-O6	-6.30	116.12	119.90
25	RA	1964	G	N3-C4-C5	-6.30	125.45	128.60
25	YA	2080	G	C4-C5-N7	6.30	113.32	110.80
1	QA	792	A	N9-C4-C5	-6.30	103.28	105.80
1	QA	978	A	C8-N9-C4	-6.30	103.28	105.80
25	RA	1136	G	C2-N3-C4	6.30	115.05	111.90
25	RA	2028	U	N1-C2-O2	-6.30	118.39	122.80
1	XA	856	C	N3-C4-C5	-6.30	119.38	121.90
25	YA	788	A	C4-C5-N7	6.30	113.85	110.70
25	YA	1606	G	N3-C2-N2	6.30	124.31	119.90
25	YA	1786	A	N9-C1'-C2'	6.30	122.19	114.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	901	A	C5-N7-C8	-6.29	100.75	103.90
25	YA	680	G	N1-C2-N3	6.29	127.68	123.90
25	YA	820	A	C2-N3-C4	-6.29	107.45	110.60
1	XA	869	G	C5-N7-C8	-6.29	101.15	104.30
25	YA	945	A	C5-C6-N1	-6.29	114.55	117.70
25	RA	15	G	N3-C4-C5	6.29	131.75	128.60
25	RA	2455	G	C6-C5-N7	-6.29	126.62	130.40
25	YA	74	A	C6-C5-N7	-6.29	127.90	132.30
25	YA	270(R)	G	N3-C4-C5	-6.29	125.45	128.60
25	YA	1897	G	C6-C5-N7	-6.29	126.62	130.40
25	YA	2299	G	N1-C6-O6	6.29	123.67	119.90
25	YA	2661	G	N3-C4-C5	-6.29	125.45	128.60
1	QA	416	G	C6-C5-N7	-6.29	126.63	130.40
25	YA	792	G	N1-C2-N2	-6.29	110.54	116.20
25	YA	1825	A	N9-C4-C5	6.29	108.32	105.80
25	YA	2068	U	C6-N1-C2	6.29	124.77	121.00
25	YA	2391	G	C5-C6-O6	-6.29	124.83	128.60
25	RA	2048	G	N7-C8-N9	6.29	116.24	113.10
1	QA	226	G	C5-C6-N1	-6.29	108.36	111.50
25	RA	2365	G	N3-C4-N9	6.29	129.77	126.00
1	XA	690	G	C8-N9-C4	-6.29	103.89	106.40
25	YA	311	A	N1-C6-N6	6.29	122.37	118.60
25	YA	577	G	C5-C6-N1	-6.29	108.36	111.50
25	YA	1595	G	C5-C6-N1	-6.29	108.36	111.50
25	YA	2675	A	C5-C6-N1	6.29	120.84	117.70
26	YB	49	C	C6-N1-C2	-6.29	117.78	120.30
25	RA	2447	G	N3-C4-N9	6.28	129.77	126.00
25	YA	636	G	C4-C5-N7	6.28	113.31	110.80
25	YA	2447	G	OP1-P-O3'	6.28	119.02	105.20
25	RA	2597	G	C4-C5-C6	6.28	122.57	118.80
1	XA	1054	C	N3-C4-C5	6.28	124.41	121.90
25	YA	465	G	C8-N9-C4	-6.28	103.89	106.40
25	YA	1787	A	O4'-C1'-N9	-6.28	103.17	108.20
25	YA	1187	G	C5-C6-O6	6.28	132.37	128.60
25	RA	932	G	C8-N9-C1'	6.28	135.16	127.00
25	RA	1619	G	N9-C4-C5	-6.28	102.89	105.40
25	YA	1734	C	N3-C4-C5	-6.28	119.39	121.90
26	YB	8	U	O5'-P-OP2	-6.28	100.05	105.70
1	XA	1077	G	C4-C5-N7	6.28	113.31	110.80
25	YA	46	C	OP2-P-O3'	6.28	119.01	105.20
25	YA	621	A	C4-C5-N7	6.28	113.84	110.70
25	YA	650	C	C5-C6-N1	6.28	124.14	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1939	U	C5-C4-O4	6.28	129.66	125.90
25	YA	2566	A	P-O3'-C3'	6.28	127.23	119.70
25	YA	2715	C	N3-C4-C5	6.28	124.41	121.90
25	YA	676	A	C6-C5-N7	-6.27	127.91	132.30
25	YA	1329	U	O5'-P-OP2	-6.27	100.05	105.70
25	YA	1499	C	C5-C6-N1	-6.27	117.86	121.00
25	YA	1666	G	C6-C5-N7	-6.27	126.64	130.40
25	RA	1286	A	C2-N3-C4	6.27	113.74	110.60
25	RA	2688	U	N3-C4-O4	-6.27	115.01	119.40
25	YA	1403	C	N1-C2-N3	6.27	123.59	119.20
1	QA	328	C	P-O3'-C3'	6.27	127.22	119.70
1	QA	1432	G	C6-C5-N7	-6.27	126.64	130.40
25	RA	145	G	N3-C4-N9	-6.27	122.24	126.00
25	YA	1607	C	C2-N1-C1'	6.27	125.70	118.80
25	YA	2523	G	N1-C6-O6	6.27	123.66	119.90
25	RA	201	C	O5'-P-OP1	-6.27	100.06	105.70
25	RA	832	G	N1-C6-O6	6.27	123.66	119.90
25	RA	1601	G	C5-C6-O6	-6.27	124.84	128.60
25	YA	270(X)	G	C5-C6-N1	-6.27	108.37	111.50
25	YA	333	G	C5-C6-O6	-6.27	124.84	128.60
25	YA	2486	G	C8-N9-C4	6.27	108.91	106.40
25	RA	22	C	C5-C6-N1	-6.27	117.87	121.00
25	RA	2509	G	C4-N9-C1'	6.27	134.65	126.50
26	RB	5	C	C6-N1-C2	6.27	122.81	120.30
1	XA	416	G	C4-N9-C1'	6.27	134.65	126.50
25	RA	1786	A	N3-C4-C5	6.26	131.19	126.80
25	YA	592	G	C4-N9-C1'	6.26	134.64	126.50
25	YA	2767	C	C2-N1-C1'	6.26	125.69	118.80
25	YA	2419	U	OP1-P-O3'	6.26	118.98	105.20
25	YA	2430	A	C4-C5-C6	6.26	120.13	117.00
25	YA	354	G	N9-C4-C5	-6.26	102.90	105.40
25	YA	404	C	P-O3'-C3'	6.26	127.21	119.70
25	YA	972	G	N1-C2-N2	-6.26	110.56	116.20
25	YA	1950	G	N3-C4-N9	6.26	129.76	126.00
25	RA	1941	C	C2-N1-C1'	6.26	125.68	118.80
25	YA	342	G	N1-C6-O6	6.26	123.66	119.90
25	YA	1831	G	C4-N9-C1'	6.26	134.64	126.50
25	RA	680	G	C6-C5-N7	-6.26	126.64	130.40
25	RA	1949	G	C8-N9-C1'	-6.26	118.86	127.00
25	YA	483	A	N1-C2-N3	6.26	132.43	129.30
25	YA	1351	C	N1-C2-O2	-6.26	115.15	118.90
1	QA	853	G	N1-C6-O6	6.25	123.65	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	QD	28	SER	C-N-CD	6.25	141.53	128.40
25	RA	2205	C	C6-N1-C2	-6.25	117.80	120.30
25	YA	815	C	C5-C6-N1	-6.25	117.87	121.00
25	RA	1799	G	P-O3'-C3'	6.25	127.20	119.70
25	YA	258	G	N3-C4-C5	-6.25	125.47	128.60
25	YA	400	G	C2-N3-C4	-6.25	108.77	111.90
25	YA	1559	G	C2-N3-C4	-6.25	108.77	111.90
1	QA	1060	C	C6-N1-C2	-6.25	117.80	120.30
25	RA	1430	C	N3-C2-O2	-6.25	117.52	121.90
26	RB	89	G	C6-C5-N7	-6.25	126.65	130.40
25	YA	2779	U	N3-C2-O2	-6.25	117.82	122.20
1	QA	366	C	C6-N1-C2	6.25	122.80	120.30
1	QA	533	A	P-O3'-C3'	6.25	127.20	119.70
25	RA	297	C	C2-N1-C1'	6.25	125.67	118.80
1	XA	126	G	N3-C4-C5	-6.25	125.47	128.60
25	YA	2276	G	O5'-P-OP1	-6.25	100.08	105.70
25	RA	2586	C	C2-N1-C1'	6.25	125.67	118.80
1	XA	670	G	C5-C6-N1	6.25	114.62	111.50
25	YA	494	G	C4-C5-N7	6.25	113.30	110.80
25	YA	2532	G	C4-N9-C1'	6.25	134.62	126.50
25	YA	2592	G	O5'-P-OP2	-6.25	100.08	105.70
25	RA	1277	G	N1-C6-O6	-6.25	116.15	119.90
1	XA	1201	A	O4'-C4'-C3'	6.25	111.10	106.10
25	YA	450	G	N3-C2-N2	-6.25	115.53	119.90
1	QA	819	A	O4'-C1'-N9	-6.24	103.20	108.20
25	YA	296	C	N3-C2-O2	-6.24	117.53	121.90
1	QA	943	U	C2-N1-C1'	6.24	125.19	117.70
25	YA	2367	G	C4-C5-N7	6.24	113.30	110.80
26	YB	99	A	C2-N3-C4	-6.24	107.48	110.60
25	YA	318	C	N1-C2-O2	-6.24	115.16	118.90
25	YA	794	G	C4-N9-C1'	6.24	134.61	126.50
25	YA	1159	U	C5-C6-N1	-6.24	119.58	122.70
25	YA	1264	G	C4-C5-N7	-6.24	108.31	110.80
25	YA	1496	A	C8-N9-C4	-6.24	103.30	105.80
25	YA	2702	U	N1-C2-O2	6.24	127.17	122.80
1	QA	33	A	O5'-P-OP2	-6.24	100.09	105.70
1	QA	1203	C	N3-C4-C5	-6.24	119.41	121.90
1	XA	725	G	N3-C4-C5	-6.24	125.48	128.60
25	RA	527	C	C6-N1-C1'	-6.24	113.32	120.80
25	RA	1338	G	N3-C4-N9	6.24	129.74	126.00
25	RA	2399	G	N3-C4-N9	6.24	129.74	126.00
25	YA	734	A	C5-C6-N1	-6.24	114.58	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1256	G	N1-C2-N3	6.24	127.64	123.90
25	YA	1495	A	C8-N9-C4	-6.24	103.31	105.80
25	YA	1658	C	C6-N1-C2	-6.24	117.81	120.30
25	YA	2655	G	C4-C5-N7	-6.24	108.31	110.80
1	XA	914	A	O5'-P-OP1	-6.23	100.09	105.70
25	YA	385	C	N3-C4-C5	-6.23	119.41	121.90
25	RA	1028	A	N1-C6-N6	-6.23	114.86	118.60
25	RA	1654	A	N9-C4-C5	6.23	108.29	105.80
25	YA	1607	C	C5-C6-N1	6.23	124.12	121.00
25	YA	2584	U	N1-C2-N3	6.23	118.64	114.90
25	YA	2590	A	C6-C5-N7	-6.23	127.94	132.30
25	YA	2752	C	C6-N1-C1'	-6.23	113.32	120.80
1	XA	293	G	C4-C5-N7	6.23	113.29	110.80
25	YA	34	C	N1-C2-O2	6.23	122.64	118.90
25	YA	393	C	N3-C4-C5	6.23	124.39	121.90
25	YA	1326	U	C6-N1-C2	6.23	124.74	121.00
25	RA	1640	C	N1-C2-O2	6.23	122.64	118.90
25	YA	1728	G	C4-C5-N7	6.23	113.29	110.80
25	YA	380	U	N3-C4-O4	6.23	123.76	119.40
25	YA	1743	G	C8-N9-C4	-6.23	103.91	106.40
25	YA	2468	G	C8-N9-C4	-6.23	103.91	106.40
25	RA	2019	A	C8-N9-C4	6.23	108.29	105.80
25	YA	139	G	C8-N9-C4	-6.23	103.91	106.40
25	RA	2673	G	N1-C6-O6	6.22	123.63	119.90
1	XA	783	C	C6-N1-C2	6.22	122.79	120.30
25	YA	1163	G	C8-N9-C4	-6.22	103.91	106.40
25	YA	2249	U	C6-N1-C2	-6.22	117.27	121.00
1	QA	112	G	N1-C6-O6	6.22	123.63	119.90
1	QA	1187	G	C4-N9-C1'	6.22	134.59	126.50
25	RA	2008	C	C6-N1-C2	6.22	122.79	120.30
1	XA	573	A	N1-C6-N6	-6.22	114.87	118.60
25	YA	132	G	C4-C5-C6	6.22	122.53	118.80
25	YA	2871	C	C5-C4-N4	-6.22	115.84	120.20
25	RA	2515	C	N3-C4-C5	-6.22	119.41	121.90
1	XA	200	G	C8-N9-C4	6.22	108.89	106.40
1	XA	853	G	N1-C6-O6	6.22	123.63	119.90
25	YA	1204	A	N3-C4-C5	6.22	131.16	126.80
25	YA	2313	C	N3-C2-O2	-6.22	117.55	121.90
25	RA	67	U	N3-C4-O4	6.22	123.75	119.40
25	RA	1857	G	C4-N9-C1'	6.22	134.59	126.50
25	RA	2311	A	N1-C6-N6	6.22	122.33	118.60
25	RA	2549	G	C5-C6-N1	-6.22	108.39	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	26	A	N1-C6-N6	-6.22	114.87	118.60
1	QA	741	G	C8-N9-C4	-6.22	103.91	106.40
25	YA	2440	C	N1-C2-O2	-6.22	115.17	118.90
25	YA	2713	A	N7-C8-N9	6.22	116.91	113.80
25	RA	1791	A	N9-C4-C5	6.22	108.29	105.80
25	RA	2437	U	N1-C2-O2	-6.22	118.45	122.80
25	RA	2534	A	N7-C8-N9	6.22	116.91	113.80
1	XA	11	G	C8-N9-C4	-6.22	103.91	106.40
25	YA	580	C	N3-C2-O2	-6.22	117.55	121.90
25	YA	760	G	C5-C6-N1	-6.22	108.39	111.50
25	YA	1607	C	C2-N3-C4	6.22	123.01	119.90
25	RA	696	G	N3-C4-N9	6.21	129.73	126.00
25	RA	2483	C	C5-C6-N1	6.21	124.11	121.00
25	YA	286	C	C6-N1-C2	6.21	122.79	120.30
25	YA	1341	U	OP2-P-O3'	6.21	118.87	105.20
25	RA	1815	A	C4-C5-N7	-6.21	107.59	110.70
25	RA	2070	G	C8-N9-C4	-6.21	103.92	106.40
1	XA	353	A	O5'-P-OP1	-6.21	100.11	105.70
1	XA	659	U	N3-C2-O2	-6.21	117.85	122.20
25	YA	471	A	C8-N9-C4	-6.21	103.31	105.80
25	YA	697	C	C2-N1-C1'	6.21	125.63	118.80
25	YA	2607	G	N3-C4-N9	6.21	129.73	126.00
25	RA	760	G	N3-C4-C5	-6.21	125.50	128.60
25	RA	2583	G	C5-C6-O6	6.21	132.33	128.60
25	RA	760	G	C4-C5-C6	6.21	122.53	118.80
25	RA	1269	A	N3-C4-C5	6.21	131.15	126.80
25	YA	745	G	C5-C6-N1	-6.21	108.39	111.50
25	RA	776	G	O4'-C1'-N9	-6.21	103.24	108.20
25	YA	2689	U	P-O3'-C3'	6.21	127.15	119.70
25	YA	580	C	C6-N1-C2	-6.21	117.82	120.30
25	YA	1903	G	N3-C4-C5	6.21	131.70	128.60
25	YA	2557	G	C4-N9-C1'	6.21	134.57	126.50
1	QA	1096	C	N3-C2-O2	-6.20	117.56	121.90
25	RA	743	G	C5-C6-O6	-6.20	124.88	128.60
25	RA	1950	G	N7-C8-N9	6.20	116.20	113.10
25	YA	1969	A	OP1-P-O3'	6.20	118.85	105.20
25	YA	2362	G	C8-N9-C4	6.20	108.88	106.40
25	RA	1769	G	N1-C6-O6	6.20	123.62	119.90
1	XA	31	G	C6-C5-N7	-6.20	126.68	130.40
25	YA	820	A	N3-C4-N9	-6.20	122.44	127.40
25	YA	1933	G	N3-C4-C5	-6.20	125.50	128.60
25	YA	2235	G	C5-C6-N1	-6.20	108.40	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1441	G	C8-N9-C4	-6.20	103.92	106.40
25	YA	955	C	N1-C2-O2	-6.20	115.18	118.90
1	QA	1200	C	P-O3'-C3'	6.20	127.14	119.70
25	RA	696	G	N3-C4-C5	-6.20	125.50	128.60
26	RB	83	G	C5-C6-N1	-6.20	108.40	111.50
1	XA	1065	U	P-O3'-C3'	6.20	127.14	119.70
1	QA	1325	C	N3-C2-O2	-6.20	117.56	121.90
25	RA	493	G	N1-C6-O6	6.20	123.62	119.90
1	XA	553	A	O5'-P-OP2	-6.20	100.12	105.70
25	YA	1150	C	C6-N1-C2	-6.20	117.82	120.30
1	XA	1487	G	C5-C6-N1	6.19	114.60	111.50
25	YA	1022	G	C4-C5-N7	-6.19	108.32	110.80
25	RA	672	C	N3-C2-O2	-6.19	117.57	121.90
25	RA	1306	C	C5-C6-N1	6.19	124.10	121.00
1	XA	102	G	N3-C4-C5	-6.19	125.50	128.60
1	XA	799	G	N3-C4-N9	6.19	129.72	126.00
1	XA	1419	G	N1-C6-O6	6.19	123.61	119.90
25	YA	670	A	N9-C4-C5	6.19	108.28	105.80
1	QA	21	G	O5'-P-OP2	-6.19	100.13	105.70
1	XA	1204	A	C6-C5-N7	-6.19	127.97	132.30
25	YA	591	C	N3-C4-C5	6.19	124.38	121.90
25	YA	1392	A	N1-C6-N6	-6.19	114.89	118.60
25	YA	2325	G	O5'-P-OP1	-6.19	100.13	105.70
1	QA	1114	C	C6-N1-C2	-6.19	117.83	120.30
25	RA	508	G	N7-C8-N9	6.19	116.19	113.10
1	XA	953	G	C2-N3-C4	6.19	115.00	111.90
1	XA	1403	C	C6-N1-C2	-6.19	117.82	120.30
25	YA	528	A	N3-C4-C5	6.19	131.13	126.80
25	YA	1385	G	C4-N9-C1'	-6.19	118.45	126.50
25	RA	593	G	C2-N3-C4	-6.19	108.81	111.90
25	RA	1566	A	C8-N9-C4	6.19	108.28	105.80
25	YA	125	G	N1-C6-O6	-6.19	116.19	119.90
25	RA	126	A	C4-C5-C6	6.19	120.09	117.00
25	RA	198	C	C5-C4-N4	-6.18	115.87	120.20
25	YA	246	C	N1-C2-O2	-6.18	115.19	118.90
25	YA	1017	G	C5-C6-O6	-6.18	124.89	128.60
25	YA	1328	G	C5-C6-N1	6.18	114.59	111.50
25	YA	2218	G	C5-C6-N1	-6.18	108.41	111.50
1	QA	686	U	P-O3'-C3'	6.18	127.12	119.70
25	RA	684	G	N1-C6-O6	6.18	123.61	119.90
25	RA	1377	G	N3-C4-C5	-6.18	125.51	128.60
25	YA	948	G	N1-C6-O6	6.18	123.61	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2079	U	N3-C4-O4	6.18	123.73	119.40
25	YA	2228	G	N3-C4-N9	6.18	129.71	126.00
1	QA	313	A	N1-C6-N6	-6.18	114.89	118.60
1	QA	317	G	C6-C5-N7	-6.18	126.69	130.40
1	XA	1094	G	OP2-P-O3'	6.18	118.79	105.20
25	YA	1628	G	C8-N9-C1'	-6.18	118.97	127.00
25	RA	926	A	N1-C6-N6	6.18	122.31	118.60
25	RA	2450	A	N9-C4-C5	6.18	108.27	105.80
25	YA	28	A	C6-C5-N7	-6.18	127.97	132.30
26	YB	28	C	C6-N1-C2	-6.18	117.83	120.30
25	RA	55	G	N3-C4-N9	6.18	129.71	126.00
25	RA	512	G	O4'-C1'-N9	6.18	113.14	108.20
25	RA	2468	G	O5'-P-OP2	-6.18	100.14	105.70
25	YA	256	A	C4-C5-N7	6.18	113.79	110.70
25	YA	2880	C	C6-N1-C2	-6.18	117.83	120.30
1	QA	1347	G	C5-C6-O6	6.17	132.31	128.60
1	XA	244	U	N1-C2-N3	-6.17	111.19	114.90
25	YA	859	G	N3-C4-N9	-6.17	122.30	126.00
25	YA	1889	A	N1-C6-N6	-6.17	114.89	118.60
1	QA	299	G	N3-C4-N9	-6.17	122.30	126.00
1	QA	723	U	C5-C6-N1	6.17	125.79	122.70
25	RA	1774	C	C5-C6-N1	6.17	124.09	121.00
25	RA	140	A	C5-C6-N6	-6.17	118.76	123.70
26	RB	10	C	C6-N1-C2	-6.17	117.83	120.30
1	XA	653	A	C8-N9-C4	-6.17	103.33	105.80
25	YA	290	G	N7-C8-N9	-6.17	110.01	113.10
25	RA	439	G	C4-N9-C1'	6.17	134.52	126.50
25	RA	1204	A	C5-C6-N1	-6.17	114.61	117.70
25	RA	2712	U	C5-C4-O4	6.17	129.60	125.90
25	YA	1774	C	N3-C4-C5	6.17	124.37	121.90
25	YA	2230	G	N1-C6-O6	6.17	123.60	119.90
1	XA	674	G	C6-C5-N7	-6.17	126.70	130.40
25	YA	1027	A	OP1-P-OP2	-6.17	110.35	119.60
25	RA	193	U	OP2-P-O3'	6.17	118.77	105.20
25	RA	573	G	C6-C5-N7	-6.17	126.70	130.40
1	XA	522	C	C5-C6-N1	-6.17	117.92	121.00
1	XA	1268	A	N1-C6-N6	-6.17	114.90	118.60
25	YA	1981	A	N7-C8-N9	6.17	116.88	113.80
1	QA	865	A	C6-C5-N7	-6.17	127.98	132.30
25	RA	1952	A	C2-N3-C4	6.17	113.68	110.60
26	YB	81	G	C5-N7-C8	-6.17	101.22	104.30
25	YA	314	A	C5-C6-N1	6.16	120.78	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2639	A	C5-C6-N1	-6.16	114.62	117.70
25	YA	2686	G	OP2-P-O3'	6.16	118.76	105.20
26	YB	69	G	C8-N9-C4	-6.16	103.94	106.40
1	QA	789	U	N3-C4-C5	-6.16	110.90	114.60
25	YA	1259	G	C6-C5-N7	-6.16	126.70	130.40
25	YA	1670	C	C6-N1-C2	6.16	122.76	120.30
25	YA	952	G	N3-C4-C5	-6.16	125.52	128.60
25	YA	1934	C	C5-C4-N4	-6.16	115.89	120.20
25	YA	2581	G	C5-C6-O6	6.16	132.29	128.60
25	YA	2837	G	C5-N7-C8	-6.16	101.22	104.30
25	RA	1846	G	N3-C4-C5	-6.16	125.52	128.60
25	RA	2090	G	C2-N3-C4	-6.16	108.82	111.90
1	XA	247	G	C4-N9-C1'	6.16	134.50	126.50
25	RA	1226	G	C5-C6-O6	6.16	132.29	128.60
25	YA	193	U	N3-C4-O4	6.16	123.71	119.40
25	YA	784	A	C6-N1-C2	-6.16	114.91	118.60
25	YA	2299	G	C4-C5-N7	6.16	113.26	110.80
25	RA	1274	A	N9-C4-C5	6.15	108.26	105.80
25	YA	773	U	N1-C2-N3	6.15	118.59	114.90
25	YA	1955	U	N1-C2-N3	6.15	118.59	114.90
25	YA	622	G	C4-C5-C6	6.15	122.49	118.80
25	YA	663	G	N3-C4-C5	-6.15	125.52	128.60
25	YA	867	C	C2-N1-C1'	6.15	125.57	118.80
25	YA	1135	C	N1-C2-O2	6.15	122.59	118.90
25	YA	2309	A	C5-C6-N1	-6.15	114.62	117.70
25	YA	2620	C	N1-C2-O2	6.15	122.59	118.90
1	QA	108	G	C8-N9-C4	-6.15	103.94	106.40
1	QA	1112	C	C6-N1-C2	-6.15	117.84	120.30
1	QA	1435	G	N1-C6-O6	6.15	123.59	119.90
25	RA	74	A	C8-N9-C4	-6.15	103.34	105.80
25	RA	2542	A	N7-C8-N9	-6.15	110.72	113.80
25	RA	2562	U	C6-N1-C2	6.15	124.69	121.00
25	YA	2710	C	C5-C6-N1	-6.15	117.92	121.00
1	QA	589	C	N3-C2-O2	-6.15	117.60	121.90
25	YA	1563	G	C2-N3-C4	-6.15	108.83	111.90
1	QA	1354	C	C6-N1-C2	-6.15	117.84	120.30
25	RA	624	C	C5-C4-N4	-6.15	115.90	120.20
25	RA	1236	G	C2-N3-C4	-6.15	108.83	111.90
25	RA	1706	U	O4'-C1'-N1	6.15	113.12	108.20
25	YA	692	C	OP2-P-O3'	6.15	118.72	105.20
26	YB	50	G	N3-C4-N9	-6.15	122.31	126.00
25	YA	1206	G	N1-C6-O6	6.15	123.59	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	64	G	C4-N9-C1'	6.14	134.49	126.50
1	QA	566	G	N3-C4-N9	-6.14	122.31	126.00
1	QA	577	G	C5-C6-O6	-6.14	124.91	128.60
25	RA	330	A	C5-C6-N6	-6.14	118.78	123.70
25	RA	1826	G	C8-N9-C4	6.14	108.86	106.40
25	RA	2886	G	C4-N9-C1'	6.14	134.49	126.50
1	XA	791	G	C5-N7-C8	6.14	107.37	104.30
25	RA	1367	A	N1-C6-N6	6.14	122.28	118.60
25	RA	1992	G	P-O3'-C3'	6.14	127.07	119.70
25	RA	2710	C	C6-N1-C2	-6.14	117.84	120.30
25	RA	2884	U	C5-C4-O4	6.14	129.59	125.90
25	YA	221	A	C8-N9-C1'	-6.14	116.64	127.70
25	YA	1204	A	N1-C6-N6	6.14	122.29	118.60
25	YA	1325	G	C4-N9-C1'	-6.14	118.51	126.50
25	RA	2510	C	N3-C2-O2	-6.14	117.60	121.90
25	YA	1776	G	C4-C5-C6	6.14	122.48	118.80
25	YA	1406	U	N3-C2-O2	-6.14	117.90	122.20
25	YA	769	G	C6-C5-N7	-6.14	126.72	130.40
25	YA	2782	G	C6-C5-N7	-6.14	126.72	130.40
1	XA	785	G	C5-C6-O6	-6.14	124.92	128.60
25	YA	1890	A	C4-C5-N7	6.14	113.77	110.70
1	QA	316	G	C6-C5-N7	-6.13	126.72	130.40
25	RA	501	A	O5'-P-OP2	-6.13	100.18	105.70
25	RA	835	A	OP1-P-OP2	-6.13	110.40	119.60
25	RA	974(A)	C	N1-C2-O2	6.13	122.58	118.90
25	YA	2672	G	C4-C5-N7	6.13	113.25	110.80
25	RA	1773	A	C5-C6-N1	-6.13	114.63	117.70
1	XA	18	C	C6-N1-C2	-6.13	117.85	120.30
25	YA	204	A	C2-N3-C4	6.13	113.67	110.60
25	YA	1409	C	N3-C2-O2	6.13	126.19	121.90
25	YA	2251	G	C6-C5-N7	-6.13	126.72	130.40
25	YA	2481	G	P-O3'-C3'	6.13	127.06	119.70
25	RA	769	G	OP2-P-O3'	6.13	118.68	105.20
25	RA	1769	G	C5-C6-O6	-6.13	124.92	128.60
1	XA	190	G	C8-N9-C1'	-6.13	119.03	127.00
25	YA	529	A	N7-C8-N9	6.13	116.86	113.80
1	QA	885	G	O5'-P-OP1	-6.13	100.19	105.70
25	RA	1355	G	C6-C5-N7	-6.13	126.72	130.40
25	YA	445	C	OP2-P-O3'	6.13	118.68	105.20
25	YA	1610	A	C6-C5-N7	-6.13	128.01	132.30
25	RA	1437	C	N3-C2-O2	-6.12	117.61	121.90
1	QA	944	G	N3-C4-C5	-6.12	125.54	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	247	G	C5-C6-N1	6.12	114.56	111.50
25	RA	350	U	C6-N1-C2	-6.12	117.33	121.00
1	XA	811	C	C6-N1-C2	6.12	122.75	120.30
25	YA	62	C	C5-C6-N1	-6.12	117.94	121.00
25	YA	1673	U	C5-C6-N1	-6.12	119.64	122.70
25	RA	1769	G	C8-N9-C4	-6.12	103.95	106.40
1	XA	545	C	N1-C2-O2	6.12	122.57	118.90
25	YA	338	G	C8-N9-C1'	-6.12	119.04	127.00
25	YA	1610	A	N1-C6-N6	6.12	122.27	118.60
25	YA	2058	A	C4-C5-C6	6.12	120.06	117.00
25	YA	2254	C	N3-C2-O2	6.12	126.19	121.90
25	RA	639	U	C5-C4-O4	6.12	129.57	125.90
25	RA	2724	C	N1-C2-O2	-6.12	115.23	118.90
1	XA	1327	C	C6-N1-C2	6.12	122.75	120.30
25	YA	208	C	C5-C6-N1	-6.12	117.94	121.00
1	QA	372	C	C2-N3-C4	6.12	122.96	119.90
25	RA	1803	A	C4-C5-C6	-6.12	113.94	117.00
1	XA	858	G	N1-C6-O6	-6.12	116.23	119.90
1	QA	347	G	C4-C5-N7	6.12	113.25	110.80
1	QA	1204	A	N7-C8-N9	6.12	116.86	113.80
25	RA	2306	C	N1-C2-O2	6.12	122.57	118.90
25	RA	2413	G	N3-C4-C5	6.12	131.66	128.60
25	RA	2451	A	C2-N3-C4	-6.12	107.54	110.60
25	YA	301	G	N3-C4-N9	6.12	129.67	126.00
25	YA	1402	C	N3-C4-N4	6.12	122.28	118.00
1	QA	266	G	N1-C6-O6	6.11	123.57	119.90
25	RA	832	G	C5-C6-N1	-6.11	108.44	111.50
25	YA	688	U	N3-C4-O4	6.11	123.68	119.40
25	YA	776	G	N3-C4-N9	-6.11	122.33	126.00
25	YA	1343	G	C4-N9-C1'	6.11	134.45	126.50
25	YA	2005	A	C5-C6-N6	6.11	128.59	123.70
25	YA	2446	G	C4-C5-C6	6.11	122.47	118.80
25	RA	2751	G	C6-C5-N7	-6.11	126.73	130.40
1	XA	485	G	O4'-C1'-N9	6.11	113.09	108.20
25	YA	967	C	C5-C6-N1	-6.11	117.94	121.00
1	QA	823	G	C8-N9-C4	-6.11	103.96	106.40
25	RA	2447	G	C5-C6-O6	-6.11	124.93	128.60
25	YA	858	U	C5-C6-N1	-6.11	119.64	122.70
25	YA	2318	G	O4'-C1'-N9	6.11	113.09	108.20
25	RA	1805	U	C6-N1-C2	-6.11	117.33	121.00
1	XA	605	U	C5-C4-O4	6.11	129.56	125.90
25	RA	347	A	N1-C6-N6	-6.11	114.94	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1130	U	C5-C4-O4	6.11	129.56	125.90
25	RA	2052	G	C2-N3-C4	-6.11	108.85	111.90
25	RA	2291	U	C5-C4-O4	6.11	129.56	125.90
25	RA	2482	G	N3-C4-N9	6.11	129.66	126.00
1	XA	799	G	C4-N9-C1'	6.11	134.44	126.50
25	RA	725	G	C5-C6-N1	-6.11	108.45	111.50
1	XA	1235	U	C6-N1-C2	-6.11	117.34	121.00
1	QA	1201	A	P-O3'-C3'	6.10	127.03	119.70
25	YA	305	U	N3-C2-O2	-6.10	117.93	122.20
25	YA	2574	G	O5'-P-OP2	-6.10	100.21	105.70
25	RA	71	A	C4-C5-N7	6.10	113.75	110.70
25	RA	1343	G	N3-C4-C5	-6.10	125.55	128.60
25	RA	1426	G	C5-C6-O6	6.10	132.26	128.60
25	RA	2043	C	C6-N1-C2	-6.10	117.86	120.30
25	YA	81	G	N1-C6-O6	6.10	123.56	119.90
25	YA	414	C	C6-N1-C2	6.10	122.74	120.30
25	YA	1978	A	C2-N3-C4	-6.10	107.55	110.60
25	YA	2331	G	N1-C6-O6	6.10	123.56	119.90
25	RA	445	C	N1-C2-O2	-6.10	115.24	118.90
25	RA	829	A	C8-N9-C4	6.10	108.24	105.80
25	RA	1347	G	O5'-P-OP1	6.10	118.02	110.70
25	RA	2548	G	C6-C5-N7	-6.10	126.74	130.40
25	YA	697	C	N3-C2-O2	-6.10	117.63	121.90
25	YA	1785	A	C4-C5-C6	6.10	120.05	117.00
25	RA	26	G	N9-C4-C5	6.10	107.84	105.40
25	RA	773	U	N1-C2-N3	6.10	118.56	114.90
25	RA	1949	G	C4-N9-C1'	6.10	134.43	126.50
25	RA	2579	C	N3-C2-O2	6.10	126.17	121.90
25	YA	917	A	N1-C2-N3	6.10	132.35	129.30
1	QA	771	G	N3-C4-C5	6.10	131.65	128.60
25	RA	2239	G	N3-C4-N9	6.10	129.66	126.00
25	RA	2540	C	O5'-P-OP2	-6.10	100.21	105.70
25	YA	1477	A	C8-N9-C4	-6.10	103.36	105.80
25	YA	247	G	N3-C4-N9	6.10	129.66	126.00
25	RA	1427	A	P-O3'-C3'	6.09	127.01	119.70
25	YA	1187	G	C8-N9-C1'	-6.09	119.08	127.00
25	YA	1647	G	N3-C4-N9	6.09	129.66	126.00
25	RA	475	U	C6-N1-C2	-6.09	117.34	121.00
25	RA	2438	U	O5'-P-OP2	-6.09	100.22	105.70
25	YA	1238	G	O5'-P-OP2	-6.09	100.22	105.70
1	QA	1432	G	C5-N7-C8	-6.09	101.25	104.30
22	QV	17	C	C6-N1-C2	-6.09	117.86	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	974	G	C8-N9-C4	-6.09	103.96	106.40
25	RA	1365	A	N9-C4-C5	6.09	108.24	105.80
25	RA	2751	G	N7-C8-N9	6.09	116.14	113.10
25	YA	389	G	O5'-P-OP2	-6.09	100.22	105.70
25	YA	775	G	C6-C5-N7	-6.09	126.75	130.40
25	YA	2067	G	N1-C2-N3	6.09	127.55	123.90
25	RA	2052	G	C6-C5-N7	-6.09	126.75	130.40
25	RA	2531	A	C8-N9-C4	6.09	108.24	105.80
25	YA	376	C	C6-N1-C2	6.09	122.74	120.30
25	RA	972	G	N1-C6-O6	-6.09	116.25	119.90
25	YA	2312	U	C6-N1-C2	-6.09	117.35	121.00
25	YA	2509	G	N1-C6-O6	6.09	123.55	119.90
25	YA	1969	A	N9-C4-C5	6.09	108.23	105.80
25	RA	188	G	N3-C4-C5	6.08	131.64	128.60
25	RA	2597	G	C5-C6-O6	6.08	132.25	128.60
25	RA	572	A	N1-C2-N3	6.08	132.34	129.30
25	RA	1729	A	O4'-C1'-N9	6.08	113.07	108.20
25	YA	491	G	N1-C6-O6	-6.08	116.25	119.90
25	RA	827	U	O5'-P-OP1	6.08	118.00	110.70
25	RA	1653	G	C8-N9-C4	-6.08	103.97	106.40
1	XA	524	G	N1-C6-O6	6.08	123.55	119.90
25	YA	323	G	N1-C6-O6	6.08	123.55	119.90
25	YA	1780	A	N9-C4-C5	6.08	108.23	105.80
1	QA	703	G	OP1-P-O3'	6.08	118.58	105.20
25	RA	1184	G	C5-C6-N1	-6.08	108.46	111.50
1	XA	819	A	N1-C6-N6	6.08	122.25	118.60
1	XA	1446	A	P-O3'-C3'	6.08	127.00	119.70
25	YA	810	U	OP1-P-OP2	-6.08	110.48	119.60
25	YA	1271	G	C6-C5-N7	-6.08	126.75	130.40
25	YA	2020	A	N9-C4-C5	6.08	108.23	105.80
25	YA	1285	G	C8-N9-C4	-6.08	103.97	106.40
25	YA	1788	C	C5-C6-N1	-6.08	117.96	121.00
25	YA	1816	G	N3-C4-N9	-6.08	122.36	126.00
25	YA	1899	G	C4-N9-C1'	-6.08	118.60	126.50
25	YA	2407	G	C8-N9-C1'	-6.08	119.10	127.00
25	YA	2508	G	C6-C5-N7	-6.08	126.75	130.40
1	QA	717	C	C2-N1-C1'	6.07	125.48	118.80
1	XA	557	G	C8-N9-C1'	-6.07	119.10	127.00
1	XA	729	A	C4-C5-N7	6.07	113.74	110.70
1	XA	1064	G	N3-C4-N9	-6.07	122.36	126.00
25	YA	309	G	N3-C4-N9	6.07	129.64	126.00
25	YA	2502	G	C8-N9-C4	-6.07	103.97	106.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2635	C	N3-C2-O2	-6.07	117.65	121.90
25	YA	2751	G	C5-N7-C8	-6.07	101.26	104.30
25	RA	1931	U	C6-N1-C1'	6.07	129.70	121.20
25	YA	1264	G	N1-C6-O6	-6.07	116.26	119.90
25	RA	785	G	C2-N3-C4	6.07	114.94	111.90
25	RA	1896	G	N3-C4-N9	6.07	129.64	126.00
1	QA	923	A	C8-N9-C4	-6.07	103.37	105.80
25	RA	765	G	C8-N9-C4	-6.07	103.97	106.40
25	RA	964	C	N1-C2-O2	-6.07	115.26	118.90
25	YA	2697	G	N3-C4-N9	6.07	129.64	126.00
25	RA	862	G	N1-C6-O6	-6.07	116.26	119.90
25	RA	974	G	N3-C4-C5	-6.07	125.57	128.60
25	RA	1021	A	N1-C2-N3	6.07	132.33	129.30
25	RA	1657	C	C2-N1-C1'	6.07	125.47	118.80
1	XA	971	G	C5-C6-N1	-6.07	108.47	111.50
25	YA	38	A	C6-C5-N7	-6.07	128.05	132.30
1	QA	180	U	C6-N1-C2	-6.06	117.36	121.00
1	QA	859	A	C5-C6-N1	-6.06	114.67	117.70
25	RA	1286	A	C8-N9-C4	-6.06	103.38	105.80
25	YA	728	G	N1-C6-O6	6.06	123.54	119.90
25	YA	2228	G	OP2-P-O3'	6.06	118.54	105.20
26	YB	5	C	C6-N1-C2	6.06	122.72	120.30
25	RA	1790	C	O5'-P-OP1	-6.06	100.25	105.70
25	RA	2554	U	C5-C4-O4	6.06	129.54	125.90
25	YA	814	C	N1-C2-O2	-6.06	115.26	118.90
1	QA	26	A	O5'-P-OP2	-6.06	100.25	105.70
25	RA	382	G	C2-N3-C4	-6.06	108.87	111.90
25	RA	2515	C	C6-N1-C2	-6.06	117.88	120.30
25	YA	38	A	C5-C6-N6	-6.06	118.85	123.70
25	YA	1559	G	N1-C6-O6	6.06	123.53	119.90
25	RA	768	G	C4-C5-C6	6.06	122.44	118.80
25	RA	2886	G	N1-C2-N3	6.06	127.53	123.90
25	RA	2251	G	N1-C2-N3	6.06	127.53	123.90
25	YA	918	A	N1-C6-N6	6.06	122.23	118.60
25	YA	1889	A	O5'-P-OP1	-6.06	100.25	105.70
25	RA	238	C	C6-N1-C2	6.05	122.72	120.30
25	RA	1268	A	N1-C2-N3	6.05	132.33	129.30
25	RA	1968	G	N3-C4-C5	6.05	131.63	128.60
1	XA	21	G	N3-C4-C5	-6.05	125.57	128.60
1	XA	1358	U	O4'-C1'-N1	6.05	113.04	108.20
25	YA	582	G	C4-C5-N7	6.05	113.22	110.80
25	YA	1380	G	C6-C5-N7	-6.05	126.77	130.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1786	A	O4'-C1'-N9	6.05	113.04	108.20
25	YA	2318	G	C8-N9-C4	-6.05	103.98	106.40
25	RA	2393	A	N9-C4-C5	-6.05	103.38	105.80
25	YA	199	A	N1-C2-N3	-6.05	126.28	129.30
25	YA	528	A	N3-C4-N9	-6.05	122.56	127.40
25	RA	462	C	C2-N3-C4	-6.05	116.88	119.90
25	YA	2687	U	O5'-P-OP1	-6.05	100.25	105.70
25	YA	798	G	C6-C5-N7	-6.05	126.77	130.40
1	QA	717	C	C6-N1-C2	-6.05	117.88	120.30
25	RA	2508	G	C4-N9-C1'	6.05	134.36	126.50
25	YA	1332	G	O5'-P-OP2	-6.05	100.26	105.70
25	YA	1789	A	C8-N9-C4	6.05	108.22	105.80
25	RA	622	G	C8-N9-C4	6.04	108.82	106.40
25	RA	1011	G	N3-C4-C5	6.04	131.62	128.60
1	XA	108	G	O4'-C1'-N9	6.04	113.04	108.20
25	YA	1993	U	O5'-P-OP1	-6.04	100.26	105.70
25	RA	1816	G	N3-C4-N9	6.04	129.63	126.00
1	XA	1517	G	C8-N9-C1'	-6.04	119.14	127.00
25	YA	197	A	O5'-P-OP2	-6.04	100.26	105.70
25	YA	483	A	C4-C5-C6	6.04	120.02	117.00
25	YA	762	U	N1-C2-N3	-6.04	111.27	114.90
25	YA	956	G	C6-C5-N7	-6.04	126.77	130.40
25	YA	1289	C	C5-C6-N1	6.04	124.02	121.00
25	YA	1353	A	C5-C6-N1	6.04	120.72	117.70
25	YA	1679	U	N3-C2-O2	-6.04	117.97	122.20
1	QA	117	G	C5-N7-C8	-6.04	101.28	104.30
1	XA	265	G	C5-C6-N1	-6.04	108.48	111.50
1	XA	674	G	C5-C6-N1	-6.04	108.48	111.50
25	YA	188	G	C4-C5-C6	6.04	122.42	118.80
25	YA	865	C	C6-N1-C2	6.04	122.72	120.30
25	YA	1506	C	C2-N1-C1'	6.04	125.45	118.80
25	YA	1897	G	C2-N3-C4	-6.04	108.88	111.90
1	XA	854	G	C4-N9-C1'	6.04	134.35	126.50
1	XA	1206	G	N1-C2-N3	6.04	127.52	123.90
25	YA	967	C	N3-C4-C5	6.04	124.32	121.90
25	YA	1858	G	C4-N9-C1'	6.04	134.35	126.50
25	RA	707	G	C6-C5-N7	-6.04	126.78	130.40
25	RA	1426	G	N1-C6-O6	-6.04	116.28	119.90
25	RA	2468	G	C8-N9-C4	-6.04	103.98	106.40
25	RA	2731	G	C5-C6-O6	-6.04	124.98	128.60
25	RA	2829	C	N3-C4-C5	6.04	124.32	121.90
25	RA	2869	G	C5-C6-N1	-6.04	108.48	111.50

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	795	C	N1-C2-O2	-6.04	115.28	118.90
25	YA	141	A	N1-C6-N6	6.04	122.22	118.60
25	YA	1130	U	C6-N1-C2	-6.04	117.38	121.00
25	YA	1256	G	C6-C5-N7	-6.04	126.78	130.40
1	QA	1066	C	C2-N1-C1'	6.04	125.44	118.80
25	RA	987	G	C5-C6-N1	6.04	114.52	111.50
25	RA	1769	G	N3-C4-N9	6.04	129.62	126.00
25	YA	187	G	N9-C4-C5	-6.04	102.98	105.40
25	RA	71	A	N3-C4-C5	6.04	131.03	126.80
25	RA	1672	C	C6-N1-C2	6.04	122.71	120.30
25	RA	2520	C	C6-N1-C2	6.04	122.72	120.30
26	RB	99	A	C8-N9-C4	6.04	108.21	105.80
1	XA	568	G	C4-N9-C1'	6.04	134.35	126.50
25	YA	693	C	OP2-P-O3'	6.04	118.48	105.20
25	YA	942	G	C6-C5-N7	-6.04	126.78	130.40
25	YA	1015	G	C4-C5-N7	6.04	113.21	110.80
26	YB	81	G	C5-C6-O6	-6.04	124.98	128.60
25	RA	728	G	C8-N9-C4	6.03	108.81	106.40
25	RA	1399	C	C5-C4-N4	-6.03	115.98	120.20
25	RA	1762	A	N1-C6-N6	-6.03	114.98	118.60
25	RA	2576	G	C8-N9-C4	-6.03	103.99	106.40
25	RA	2712	U	O4'-C1'-N1	6.03	113.03	108.20
22	XV	17	C	C6-N1-C2	-6.03	117.89	120.30
25	YA	860	U	C2-N1-C1'	6.03	124.94	117.70
25	YA	944	G	C4-N9-C1'	6.03	134.34	126.50
25	YA	1377	G	C4-C5-C6	6.03	122.42	118.80
25	YA	1897	G	C5-C6-N1	-6.03	108.48	111.50
25	YA	2540	C	C6-N1-C2	6.03	122.71	120.30
25	RA	553	U	N3-C4-C5	-6.03	110.98	114.60
25	RA	248	G	C5-C6-O6	-6.03	124.98	128.60
25	RA	397	G	C2-N3-C4	-6.03	108.89	111.90
25	RA	1021	A	C5-N7-C8	-6.03	100.89	103.90
25	RA	2056	G	C8-N9-C4	-6.03	103.99	106.40
1	XA	250	A	N1-C6-N6	6.03	122.22	118.60
1	XA	416	G	C5-C6-N1	-6.03	108.48	111.50
25	YA	573	G	C4-N9-C1'	6.03	134.34	126.50
25	YA	917	A	C5-C6-N1	-6.03	114.69	117.70
25	YA	1327	C	N3-C4-C5	-6.03	119.49	121.90
25	YA	1383	C	N3-C4-N4	6.03	122.22	118.00
25	YA	2431	U	N1-C2-O2	-6.03	118.58	122.80
1	QA	545	C	C4-C5-C6	6.03	120.42	117.40
37	RR	9	LYS	N-CA-C	-6.03	94.72	111.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	577	G	C5-C6-O6	-6.03	124.98	128.60
25	YA	1313	U	C6-N1-C2	-6.03	117.38	121.00
25	YA	1329	U	N1-C2-N3	6.03	118.52	114.90
25	YA	1616	A	OP1-P-O3'	6.03	118.46	105.20
25	YA	1642	G	N1-C6-O6	6.03	123.52	119.90
25	YA	2067	G	C2-N3-C4	-6.03	108.89	111.90
26	YB	4	C	C6-N1-C2	6.03	122.71	120.30
25	RA	185	U	N3-C4-O4	-6.03	115.18	119.40
25	YA	2849	U	O4'-C1'-N1	6.03	113.02	108.20
25	RA	1374	G	N3-C4-N9	6.02	129.61	126.00
25	YA	682	G	C2-N3-C4	-6.02	108.89	111.90
25	RA	702	G	C6-C5-N7	-6.02	126.79	130.40
25	RA	1264	G	N9-C4-C5	6.02	107.81	105.40
25	YA	350	U	N3-C4-C5	-6.02	110.99	114.60
25	YA	577	G	N1-C6-O6	6.02	123.51	119.90
25	YA	597	U	N3-C4-C5	-6.02	110.99	114.60
25	YA	1301	A	N1-C2-N3	6.02	132.31	129.30
25	RA	1138	G	N1-C6-O6	6.02	123.51	119.90
1	QA	116	A	O5'-P-OP2	6.02	117.92	110.70
1	QA	246	A	C8-N9-C4	6.02	108.21	105.80
1	QA	778	G	C4-C5-C6	6.02	122.41	118.80
25	RA	532	A	C2-N3-C4	6.02	113.61	110.60
25	RA	811	U	N3-C2-O2	-6.02	117.99	122.20
25	RA	1795	C	N1-C2-N3	6.02	123.41	119.20
1	XA	435	C	C5-C6-N1	6.02	124.01	121.00
1	XA	481	G	N7-C8-N9	-6.02	110.09	113.10
1	XA	1373	G	C8-N9-C4	-6.02	103.99	106.40
25	YA	1336	A	C2-N3-C4	6.02	113.61	110.60
25	YA	1351	C	N3-C4-C5	-6.02	119.49	121.90
25	YA	2258	C	C2-N1-C1'	6.02	125.42	118.80
1	QA	232	G	C4-N9-C1'	6.02	134.32	126.50
1	QA	347	G	C5-N7-C8	-6.02	101.29	104.30
25	RA	1313	U	C2-N1-C1'	6.02	124.92	117.70
25	RA	1581	G	N3-C4-C5	-6.02	125.59	128.60
25	YA	1594	G	C6-C5-N7	-6.02	126.79	130.40
25	YA	2261	C	N3-C4-C5	6.02	124.31	121.90
25	YA	486	C	C4-C5-C6	-6.02	114.39	117.40
25	YA	503	A	N9-C4-C5	6.02	108.21	105.80
25	YA	1992	G	C5-C6-N1	6.02	114.51	111.50
25	YA	2271	G	N3-C4-C5	-6.02	125.59	128.60
25	RA	1141	U	C5-C6-N1	-6.01	119.69	122.70
25	RA	1796	U	N3-C4-C5	-6.01	110.99	114.60

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	415	A	N7-C8-N9	-6.01	110.79	113.80
25	YA	461	C	N3-C2-O2	6.01	126.11	121.90
26	YB	50	G	N3-C4-C5	6.01	131.61	128.60
1	QA	563	A	N1-C6-N6	6.01	122.21	118.60
1	XA	1316	G	C6-C5-N7	6.01	134.01	130.40
25	RA	957	A	C2-N3-C4	-6.01	107.59	110.60
25	RA	2004	G	N3-C4-C5	6.01	131.61	128.60
1	XA	904	C	N3-C4-N4	-6.01	113.79	118.00
25	YA	508	G	N9-C1'-C2'	6.01	121.81	114.00
25	YA	753	C	C5-C4-N4	-6.01	115.99	120.20
25	YA	1302	A	N1-C6-N6	-6.01	114.99	118.60
25	YA	2062	A	N9-C4-C5	-6.01	103.39	105.80
25	YA	2080	G	N7-C8-N9	6.01	116.11	113.10
25	RA	2867	G	C4-N9-C1'	-6.01	118.69	126.50
25	YA	265	A	N9-C4-C5	6.01	108.20	105.80
25	YA	528	A	C2-N3-C4	-6.01	107.60	110.60
25	RA	2817	G	C4-C5-N7	-6.01	108.40	110.80
37	YR	9	LYS	N-CA-C	-6.01	94.78	111.00
1	QA	64	G	C8-N9-C1'	-6.01	119.19	127.00
25	YA	305	U	C6-N1-C2	-6.01	117.40	121.00
25	YA	1786	A	C4-N9-C1'	6.01	137.11	126.30
25	YA	2392	A	N1-C6-N6	6.01	122.20	118.60
26	YB	95	U	C5-C4-O4	6.01	129.50	125.90
1	QA	416	G	C4-N9-C1'	6.00	134.31	126.50
1	QA	509	A	P-O3'-C3'	6.00	126.91	119.70
25	RA	2482	G	N3-C4-C5	-6.00	125.60	128.60
25	YA	1933	G	N3-C4-N9	6.00	129.60	126.00
27	YD	240	ALA	C-N-CD	6.00	141.01	128.40
25	RA	1690	A	O5'-P-OP1	-6.00	100.30	105.70
25	YA	391	G	C6-C5-N7	-6.00	126.80	130.40
25	YA	1791	A	C6-N1-C2	-6.00	115.00	118.60
25	YA	1930	G	N7-C8-N9	-6.00	110.10	113.10
26	YB	29	A	N7-C8-N9	6.00	116.80	113.80
25	RA	853	G	C6-C5-N7	-6.00	126.80	130.40
25	RA	1654	A	C5-C6-N6	6.00	128.50	123.70
1	XA	238	G	C8-N9-C4	6.00	108.80	106.40
25	RA	372	G	OP2-P-O3'	6.00	118.40	105.20
25	RA	2060	A	P-O3'-C3'	6.00	126.90	119.70
25	YA	2492	U	C5-C6-N1	6.00	125.70	122.70
1	QA	104	G	C4-C5-C6	6.00	122.40	118.80
1	QA	316	G	C4-C5-N7	6.00	113.20	110.80
1	QA	416	G	C4-C5-C6	6.00	122.40	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	28	A	N7-C8-N9	6.00	116.80	113.80
25	RA	1645	G	C6-C5-N7	-6.00	126.80	130.40
25	RA	2876	G	C8-N9-C4	6.00	108.80	106.40
25	RA	71	A	P-O3'-C3'	6.00	126.90	119.70
25	RA	1984	G	N9-C4-C5	-6.00	103.00	105.40
25	RA	2326	C	C6-N1-C2	-6.00	117.90	120.30
25	YA	580	C	N1-C2-N3	6.00	123.40	119.20
25	YA	1234	U	N3-C4-C5	-6.00	111.00	114.60
1	QA	104	G	N1-C6-O6	6.00	123.50	119.90
25	RA	1938	A	N1-C6-N6	-6.00	115.00	118.60
25	YA	1928	A	N1-C6-N6	6.00	122.20	118.60
25	RA	1238	G	C8-N9-C1'	5.99	134.79	127.00
25	RA	1896	G	N9-C4-C5	-5.99	103.00	105.40
1	XA	317	G	N3-C4-C5	-5.99	125.60	128.60
1	XA	345	C	P-O3'-C3'	5.99	126.89	119.70
1	XA	529	G	N9-C4-C5	-5.99	103.00	105.40
25	YA	1235	G	C4-C5-N7	-5.99	108.40	110.80
25	YA	2251	G	N3-C4-C5	-5.99	125.60	128.60
25	RA	212	G	C8-N9-C4	-5.99	104.00	106.40
25	YA	1594	G	C2-N3-C4	-5.99	108.90	111.90
25	YA	2080	G	C5-N7-C8	-5.99	101.30	104.30
25	YA	2281	C	N3-C4-C5	5.99	124.30	121.90
25	YA	2752	C	N1-C2-O2	5.99	122.50	118.90
25	YA	676	A	C4-C5-N7	5.99	113.69	110.70
1	QA	191	G	C4-N9-C1'	5.99	134.29	126.50
25	RA	953	A	C5-C6-N1	-5.99	114.71	117.70
25	RA	1371	G	C6-C5-N7	-5.99	126.81	130.40
25	YA	2765	A	O5'-P-OP1	-5.99	100.31	105.70
25	YA	2777	G	N1-C2-N3	5.99	127.49	123.90
25	RA	1819	A	C2-N3-C4	-5.99	107.61	110.60
25	RA	2441	C	N3-C4-N4	-5.99	113.81	118.00
25	YA	391	G	N3-C4-N9	5.99	129.59	126.00
25	YA	541	C	C2-N1-C1'	5.99	125.38	118.80
25	YA	270(S)	G	OP1-P-O3'	5.98	118.36	105.20
25	YA	1814	G	C2-N3-C4	-5.98	108.91	111.90
1	QA	169	C	C6-N1-C2	-5.98	117.91	120.30
25	RA	1430	C	C6-N1-C1'	-5.98	113.62	120.80
25	RA	1846	G	C6-C5-N7	-5.98	126.81	130.40
1	XA	960	U	N1-C2-O2	5.98	126.99	122.80
25	YA	234	C	OP1-P-OP2	-5.98	110.63	119.60
25	YA	1791	A	N3-C4-C5	-5.98	122.61	126.80
1	QA	265	G	C4-C5-N7	-5.98	108.41	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	895	G	C6-C5-N7	-5.98	126.81	130.40
1	QA	1242	C	C6-N1-C2	5.98	122.69	120.30
25	RA	681	G	C2-N3-C4	-5.98	108.91	111.90
25	RA	987	G	N1-C6-O6	-5.98	116.31	119.90
25	RA	1299	G	N3-C4-N9	-5.98	122.41	126.00
25	RA	1987	G	N1-C2-N2	-5.98	110.82	116.20
25	YA	662	G	N7-C8-N9	5.98	116.09	113.10
25	YA	1626	G	C6-C5-N7	-5.98	126.81	130.40
25	YA	2690	C	N3-C2-O2	5.98	126.08	121.90
25	RA	1388	G	C8-N9-C4	5.98	108.79	106.40
25	RA	2570	G	N3-C4-N9	5.98	129.59	126.00
25	YA	444	C	C6-N1-C2	-5.98	117.91	120.30
25	YA	2422	A	N9-C4-C5	-5.98	103.41	105.80
25	YA	2481	G	OP2-P-O3'	5.98	118.35	105.20
25	RA	533	G	C6-C5-N7	-5.98	126.81	130.40
25	RA	1814	G	C4-N9-C1'	5.98	134.27	126.50
25	RA	2822	G	C6-C5-N7	-5.98	126.81	130.40
1	XA	239	U	N3-C2-O2	-5.98	118.02	122.20
25	YA	2215	G	C4-C5-N7	5.98	113.19	110.80
1	QA	566	G	N9-C4-C5	5.97	107.79	105.40
1	QA	852	G	C8-N9-C4	-5.97	104.01	106.40
1	XA	481	G	C4-C5-N7	-5.97	108.41	110.80
1	XA	1305	G	C4-N9-C1'	-5.97	118.73	126.50
25	YA	444	C	OP2-P-O3'	5.97	118.34	105.20
25	YA	860	U	C4-C5-C6	5.97	123.28	119.70
25	YA	1633	G	C5-C6-N1	-5.97	108.51	111.50
25	YA	2698	U	N1-C2-O2	-5.97	118.62	122.80
25	RA	843	G	N1-C2-N3	5.97	127.48	123.90
25	YA	454	A	C2-N3-C4	-5.97	107.61	110.60
25	YA	2256	G	N3-C4-C5	-5.97	125.61	128.60
25	YA	2853	C	C5-C6-N1	-5.97	118.01	121.00
1	XA	1277	C	C2-N1-C1'	5.97	125.37	118.80
25	YA	776	G	C8-N9-C4	-5.97	104.01	106.40
25	YA	2830	G	C8-N9-C1'	-5.97	119.24	127.00
25	RA	944	G	C4-N9-C1'	5.97	134.26	126.50
25	YA	2012	G	N3-C4-N9	5.97	129.58	126.00
25	YA	2715	C	C5-C4-N4	-5.97	116.02	120.20
25	RA	236	C	C2-N1-C1'	-5.97	112.23	118.80
25	RA	752	A	P-O3'-C3'	5.97	126.86	119.70
25	YA	914	C	C6-N1-C2	-5.97	117.91	120.30
25	YA	988	A	C5-C6-N1	5.97	120.68	117.70
25	YA	1135	C	C2-N3-C4	5.97	122.88	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1916	A	C4-C5-C6	5.97	119.98	117.00
25	YA	1957	C	C5-C6-N1	-5.97	118.02	121.00
25	YA	2000	G	C4-N9-C1'	5.97	134.26	126.50
25	YA	2688	U	N1-C2-N3	5.97	118.48	114.90
1	XA	657	G	N1-C6-O6	5.96	123.48	119.90
1	XA	901	A	N3-C4-C5	5.96	130.97	126.80
1	XA	937	A	N1-C6-N6	-5.96	115.02	118.60
25	YA	1955	U	P-O3'-C3'	5.96	126.86	119.70
26	YB	100	G	N7-C8-N9	-5.96	110.12	113.10
25	RA	1759	A	C8-N9-C4	5.96	108.19	105.80
25	YA	876	C	N1-C2-O2	5.96	122.48	118.90
26	YB	47	C	C6-N1-C2	5.96	122.69	120.30
25	RA	756	C	N3-C4-N4	5.96	122.17	118.00
25	RA	1404	C	N1-C2-O2	5.96	122.48	118.90
25	RA	2294	C	N3-C2-O2	-5.96	117.73	121.90
26	RB	54	G	N3-C4-C5	-5.96	125.62	128.60
1	XA	789	U	N1-C2-N3	5.96	118.48	114.90
25	YA	945	A	C4-C5-N7	5.96	113.68	110.70
25	YA	1021	A	C5-C6-N1	-5.96	114.72	117.70
25	YA	1820	U	C4-C5-C6	5.96	123.28	119.70
25	RA	2292	C	C6-N1-C2	5.96	122.68	120.30
25	RA	2421	G	C5-C6-N1	5.96	114.48	111.50
25	YA	645	C	C5-C6-N1	5.96	123.98	121.00
25	YA	2547	U	C6-N1-C2	-5.96	117.42	121.00
25	RA	120	U	C5-C6-N1	-5.96	119.72	122.70
25	RA	1728	G	C2-N3-C4	5.96	114.88	111.90
1	XA	328	C	N1-C2-O2	5.96	122.47	118.90
1	XA	1189	C	N1-C2-N3	-5.96	115.03	119.20
25	YA	73	A	O5'-P-OP1	-5.96	100.34	105.70
25	YA	461	C	N3-C4-N4	5.96	122.17	118.00
25	YA	2017	U	N1-C2-O2	-5.96	118.63	122.80
1	QA	353	A	N3-C4-N9	-5.96	122.64	127.40
1	QA	777	A	O4'-C1'-N9	5.96	112.97	108.20
1	QA	1380	U	C5-C6-N1	-5.96	119.72	122.70
25	RA	1203	G	C5-N7-C8	5.96	107.28	104.30
25	YA	1994	C	C5-C6-N1	-5.96	118.02	121.00
25	YA	2061	G	C4-C5-C6	5.96	122.37	118.80
25	RA	2294	C	N1-C2-O2	5.96	122.47	118.90
1	XA	921	U	C6-N1-C2	-5.96	117.43	121.00
1	QA	1419	G	N3-C4-N9	5.95	129.57	126.00
25	RA	801	G	C8-N9-C4	-5.95	104.02	106.40
25	RA	990	A	C2-N3-C4	-5.95	107.62	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2701	C	N1-C2-O2	5.95	122.47	118.90
25	YA	264	C	C6-N1-C2	5.95	122.68	120.30
25	YA	715	G	C5-C6-N1	5.95	114.48	111.50
25	YA	1017	G	C5-N7-C8	-5.95	101.32	104.30
25	YA	2002	G	C8-N9-C1'	5.95	134.74	127.00
25	YA	2259	G	C5-N7-C8	-5.95	101.32	104.30
25	RA	2219	G	C8-N9-C4	-5.95	104.02	106.40
25	YA	2270	G	C5-C6-N1	-5.95	108.52	111.50
25	RA	29	U	O5'-P-OP2	-5.95	100.34	105.70
25	RA	729	G	C4-C5-N7	5.95	113.18	110.80
26	RB	100	G	N9-C4-C5	-5.95	103.02	105.40
25	YA	1595	G	C6-C5-N7	-5.95	126.83	130.40
25	YA	1728	G	C2-N3-C4	5.95	114.88	111.90
25	YA	1950	G	C2-N3-C4	5.95	114.88	111.90
25	YA	2702	U	O4'-C1'-N1	5.95	112.96	108.20
25	YA	29	U	C5-C6-N1	5.95	125.67	122.70
25	YA	242	G	C8-N9-C4	5.95	108.78	106.40
25	YA	760	G	C6-C5-N7	-5.95	126.83	130.40
25	YA	940	G	C8-N9-C4	-5.95	104.02	106.40
25	RA	15	G	N3-C2-N2	-5.95	115.74	119.90
25	RA	1699	G	N9-C4-C5	5.95	107.78	105.40
25	YA	592	G	C8-N9-C4	-5.95	104.02	106.40
25	YA	792	G	N3-C4-C5	-5.95	125.63	128.60
25	YA	140	A	N9-C4-C5	-5.95	103.42	105.80
25	YA	729	G	C5-C6-N1	5.95	114.47	111.50
25	RA	770	G	C2-N3-C4	5.94	114.87	111.90
25	RA	2509	G	C5-C6-N1	-5.94	108.53	111.50
25	RA	2714	G	C4-N9-C1'	5.94	134.23	126.50
25	YA	264	C	C4-C5-C6	-5.94	114.43	117.40
25	YA	1988	C	C6-N1-C1'	5.94	127.93	120.80
26	YB	81	G	N9-C4-C5	-5.94	103.02	105.40
1	QA	716	A	C8-N9-C4	-5.94	103.42	105.80
25	RA	1651	G	C6-C5-N7	-5.94	126.83	130.40
1	XA	792	A	N3-C4-C5	5.94	130.96	126.80
25	YA	2439	A	C8-N9-C4	-5.94	103.42	105.80
25	RA	211	A	N1-C2-N3	5.94	132.27	129.30
25	RA	707	G	C4-N9-C1'	5.94	134.22	126.50
25	RA	962	G	C8-N9-C4	-5.94	104.02	106.40
25	RA	2607	G	N9-C4-C5	-5.94	103.02	105.40
25	YA	210	C	C2-N3-C4	-5.94	116.93	119.90
25	YA	1115	G	C8-N9-C4	5.94	108.78	106.40
25	YA	2519	U	C5-C6-N1	-5.94	119.73	122.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	691	G	C5-C6-O6	-5.94	125.04	128.60
1	QA	290	C	N1-C2-O2	-5.94	115.34	118.90
1	QA	1499	A	N7-C8-N9	-5.94	110.83	113.80
25	RA	15	G	C4-N9-C1'	-5.94	118.78	126.50
25	RA	680	G	N3-C4-C5	-5.94	125.63	128.60
1	XA	1361	G	C8-N9-C4	-5.94	104.03	106.40
25	YA	554	U	N1-C2-N3	5.94	118.46	114.90
25	YA	2444	G	C5-C6-O6	-5.94	125.04	128.60
25	YA	226	G	C4-N9-C1'	-5.94	118.78	126.50
25	YA	962	G	C8-N9-C4	-5.94	104.03	106.40
25	YA	972	G	N3-C4-C5	-5.94	125.63	128.60
25	YA	24	G	C5-C6-O6	-5.93	125.04	128.60
25	YA	690	G	C5-C6-N1	-5.93	108.53	111.50
25	YA	1236	G	C5-C6-N1	-5.93	108.53	111.50
25	YA	1622	G	C6-C5-N7	-5.93	126.84	130.40
1	QA	541	G	C4-C5-N7	5.93	113.17	110.80
25	RA	1008	C	N1-C2-O2	5.93	122.46	118.90
25	RA	1619	G	C5-N7-C8	-5.93	101.33	104.30
25	YA	1774	C	O5'-P-OP2	-5.93	100.36	105.70
25	YA	1791	A	N9-C4-C5	5.93	108.17	105.80
25	YA	2237	G	C6-C5-N7	-5.93	126.84	130.40
25	RA	75	G	N3-C4-N9	5.93	129.56	126.00
25	RA	270(R)	G	C5-C6-N1	-5.93	108.53	111.50
25	RA	576	U	O5'-P-OP2	-5.93	100.36	105.70
1	XA	948	C	N1-C2-O2	-5.93	115.34	118.90
25	YA	264	C	C5-C4-N4	-5.93	116.05	120.20
1	QA	605	U	C6-N1-C2	-5.93	117.44	121.00
1	QA	1525	G	C8-N9-C4	5.93	108.77	106.40
25	RA	823	G	O5'-P-OP1	5.93	117.82	110.70
25	RA	2609	U	C2-N1-C1'	-5.93	110.58	117.70
1	XA	246	A	N1-C6-N6	5.93	122.16	118.60
1	XA	562	C	N1-C2-O2	5.93	122.46	118.90
1	XA	1301	U	C2-N1-C1'	5.93	124.81	117.70
25	YA	183	C	C6-N1-C2	-5.93	117.93	120.30
25	YA	663	G	N3-C4-N9	5.93	129.56	126.00
1	QA	882	C	C2-N3-C4	-5.93	116.94	119.90
25	RA	2770	G	C2-N3-C4	5.93	114.86	111.90
25	RA	2875	C	C5-C6-N1	5.93	123.96	121.00
27	RD	240	ALA	C-N-CD	5.93	140.85	128.40
25	YA	354	G	N1-C6-O6	5.93	123.46	119.90
25	YA	1400	G	N1-C6-O6	-5.93	116.34	119.90
1	QA	244	U	C5-C4-O4	-5.93	122.34	125.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	837	G	C8-N9-C4	5.93	108.77	106.40
25	RA	97	C	N3-C2-O2	-5.93	117.75	121.90
25	RA	401	A	N9-C4-C5	5.93	108.17	105.80
25	RA	765	G	C6-C5-N7	-5.93	126.84	130.40
25	RA	1846	G	N1-C2-N3	5.93	127.46	123.90
25	RA	2424	C	OP1-P-OP2	5.93	128.49	119.60
25	YA	1256	G	C4-C5-C6	5.93	122.36	118.80
25	YA	1329	U	N1-C2-O2	-5.93	118.65	122.80
25	YA	1381	G	C8-N9-C1'	-5.93	119.30	127.00
25	YA	1982	C	N3-C2-O2	5.93	126.05	121.90
25	YA	2303	G	C5-C6-N1	-5.93	108.54	111.50
25	RA	1027	A	O5'-P-OP1	5.92	117.81	110.70
25	RA	1756	G	C4-C5-C6	5.92	122.35	118.80
25	RA	1818	U	O5'-P-OP2	-5.92	100.37	105.70
25	RA	2884	U	C5-C6-N1	-5.92	119.74	122.70
25	YA	299	A	C8-N9-C4	-5.92	103.43	105.80
25	YA	2549	G	C4-N9-C1'	5.92	134.20	126.50
25	YA	2597	G	C2-N3-C4	-5.92	108.94	111.90
25	RA	1470	G	N7-C8-N9	5.92	116.06	113.10
25	RA	1604	C	C6-N1-C2	-5.92	117.93	120.30
25	YA	1382	G	N1-C6-O6	5.92	123.45	119.90
25	YA	2376	A	C6-N1-C2	5.92	122.15	118.60
25	YA	2710	C	C2-N3-C4	-5.92	116.94	119.90
25	RA	2088	G	C5-C6-N1	-5.92	108.54	111.50
25	YA	1402	C	C2-N1-C1'	5.92	125.31	118.80
25	YA	1997	G	N3-C4-N9	-5.92	122.45	126.00
25	RA	439	G	C4-C5-C6	5.92	122.35	118.80
25	RA	1342	A	N3-C4-C5	5.92	130.94	126.80
1	XA	1376	U	N3-C2-O2	-5.92	118.06	122.20
25	YA	1620	G	C5-C6-N1	-5.92	108.54	111.50
25	YA	2338	G	O5'-P-OP1	-5.92	100.37	105.70
1	QA	922	G	C8-N9-C4	-5.92	104.03	106.40
25	RA	621	A	N7-C8-N9	5.92	116.76	113.80
25	RA	804	A	C8-N9-C1'	5.92	138.35	127.70
25	YA	666	G	N3-C4-C5	5.92	131.56	128.60
25	RA	298	G	C5-N7-C8	-5.92	101.34	104.30
25	RA	1192	G	N1-C6-O6	5.92	123.45	119.90
25	RA	2702	U	C6-N1-C1'	-5.92	112.92	121.20
25	YA	602	G	C2-N3-C4	-5.92	108.94	111.90
1	QA	928	G	N1-C6-O6	5.92	123.45	119.90
25	RA	1210	A	N7-C8-N9	5.92	116.76	113.80
25	RA	1502	C	C5-C6-N1	5.92	123.96	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2339	G	C8-N9-C4	5.92	108.77	106.40
25	YA	465	G	N1-C2-N2	-5.92	110.88	116.20
25	YA	560	C	N3-C2-O2	5.92	126.04	121.90
1	QA	1206	G	C4-C5-C6	5.91	122.35	118.80
25	RA	1470	G	C6-C5-N7	-5.91	126.85	130.40
1	XA	108	G	C4-C5-N7	5.91	113.17	110.80
25	YA	2694	G	N9-C4-C5	-5.91	103.03	105.40
1	QA	1111	A	N7-C8-N9	5.91	116.76	113.80
25	RA	2862	G	C4-N9-C1'	5.91	134.19	126.50
25	YA	199	A	C4-C5-C6	-5.91	114.04	117.00
25	RA	252	G	C4-C5-N7	-5.91	108.44	110.80
25	RA	2081	C	C6-N1-C2	5.91	122.66	120.30
25	RA	2228	G	C4-C5-N7	5.91	113.16	110.80
25	RA	2722	G	C4-C5-C6	5.91	122.35	118.80
1	XA	578	C	C6-N1-C2	-5.91	117.94	120.30
1	XA	584	G	C4-N9-C1'	5.91	134.18	126.50
25	YA	1729	A	O4'-C1'-N9	5.91	112.93	108.20
25	YA	2436	G	C5-C6-O6	5.91	132.15	128.60
25	RA	773	U	C5-C6-N1	-5.91	119.75	122.70
25	RA	2056	G	N7-C8-N9	5.91	116.05	113.10
25	RA	2584	U	C4-C5-C6	5.91	123.25	119.70
1	XA	592	G	C4-C5-N7	5.91	113.16	110.80
1	XA	872	A	N7-C8-N9	5.91	116.75	113.80
25	YA	1501	C	C6-N1-C2	-5.91	117.94	120.30
25	RA	777	A	C5-C6-N6	-5.91	118.97	123.70
25	YA	398	G	N3-C4-C5	-5.91	125.65	128.60
25	YA	1683	C	C2-N3-C4	-5.91	116.95	119.90
25	YA	1780	A	N1-C6-N6	-5.91	115.06	118.60
1	QA	1432	G	C5-C6-N1	-5.91	108.55	111.50
25	RA	1959	G	N3-C4-N9	5.91	129.54	126.00
25	YA	379	G	C4-N9-C1'	5.91	134.18	126.50
25	YA	2447	G	N7-C8-N9	5.91	116.05	113.10
25	YA	2864	G	N3-C4-N9	5.91	129.54	126.00
1	QA	124	G	N3-C4-C5	-5.90	125.65	128.60
1	XA	1206	G	C4-C5-C6	5.90	122.34	118.80
1	XA	1498	U	P-O3'-C3'	5.90	126.78	119.70
25	RA	621	A	O4'-C1'-N9	5.90	112.92	108.20
25	RA	2714	G	N1-C6-O6	5.90	123.44	119.90
25	YA	523	C	C2-N1-C1'	5.90	125.29	118.80
25	RA	64	A	C2-N3-C4	5.90	113.55	110.60
25	RA	1138	G	C6-C5-N7	-5.90	126.86	130.40
25	RA	2357	U	N1-C2-O2	5.90	126.93	122.80

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2449	U	N3-C4-O4	5.90	123.53	119.40
25	YA	400	G	C5-C6-N1	-5.90	108.55	111.50
25	YA	1250	G	N3-C4-C5	5.90	131.55	128.60
25	YA	1773	A	C5-C6-N6	5.90	128.42	123.70
25	YA	2623	G	C8-N9-C4	-5.90	104.04	106.40
1	QA	1096	C	N1-C2-O2	5.90	122.44	118.90
25	RA	779	U	C2-N1-C1'	5.90	124.78	117.70
25	RA	869	G	C8-N9-C1'	-5.90	119.33	127.00
25	RA	2006	C	N1-C2-O2	5.90	122.44	118.90
25	RA	2509	G	C8-N9-C1'	-5.90	119.33	127.00
1	XA	362	G	C2-N3-C4	-5.90	108.95	111.90
25	YA	683	C	N1-C2-O2	-5.90	115.36	118.90
25	YA	2603	G	O5'-P-OP1	-5.90	100.39	105.70
31	YH	125	VAL	C-N-CD	-5.90	107.62	120.60
25	RA	1236	G	N3-C4-C5	5.90	131.55	128.60
25	YA	27	G	C5-C6-N1	-5.90	108.55	111.50
25	YA	2431	U	C5-C6-N1	5.90	125.65	122.70
25	RA	2287	A	N3-C4-C5	5.89	130.93	126.80
25	YA	116	C	C5-C6-N1	-5.89	118.05	121.00
25	YA	234	C	C5-C6-N1	5.89	123.95	121.00
25	YA	2534	A	N1-C6-N6	-5.89	115.06	118.60
1	QA	498	A	C8-N9-C4	5.89	108.16	105.80
25	RA	1645	G	C4-C5-N7	5.89	113.16	110.80
25	RA	2731	G	C4-C5-N7	5.89	113.16	110.80
1	XA	767	A	C8-N9-C4	5.89	108.16	105.80
1	XA	1279	A	N7-C8-N9	5.89	116.75	113.80
1	XA	1407	C	C5-C6-N1	5.89	123.95	121.00
25	YA	1704	G	O5'-P-OP1	5.89	117.77	110.70
25	YA	219	G	C6-C5-N7	-5.89	126.86	130.40
25	YA	966	G	C5-C6-N1	-5.89	108.55	111.50
25	YA	1368	G	N3-C4-N9	5.89	129.53	126.00
25	YA	1799	G	N1-C6-O6	-5.89	116.36	119.90
25	YA	2089	U	C5-C6-N1	5.89	125.64	122.70
25	YA	2371	G	C5-C6-N1	-5.89	108.55	111.50
25	RA	2644	G	C4-C5-C6	5.89	122.33	118.80
26	RB	54	G	C4-C5-C6	5.89	122.33	118.80
1	XA	376	G	C8-N9-C4	5.89	108.76	106.40
25	YA	473	G	C2-N3-C4	5.89	114.84	111.90
25	YA	487	C	C2-N1-C1'	5.89	125.28	118.80
25	YA	795	C	C2-N3-C4	-5.89	116.96	119.90
25	YA	2729	G	N3-C4-N9	-5.89	122.47	126.00
25	RA	1679	U	N3-C2-O2	-5.89	118.08	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2562	U	C5-C6-N1	-5.89	119.76	122.70
25	RA	2343	C	C6-N1-C2	-5.88	117.95	120.30
1	XA	667	G	C8-N9-C4	-5.88	104.05	106.40
25	YA	302	C	C6-N1-C2	-5.88	117.95	120.30
25	YA	2063	C	O4'-C1'-N1	-5.88	103.49	108.20
25	RA	2503	A	N7-C8-N9	5.88	116.74	113.80
25	YA	1982	C	C5-C4-N4	-5.88	116.08	120.20
25	YA	2598	A	O5'-P-OP2	-5.88	100.41	105.70
1	QA	557	G	N1-C6-O6	5.88	123.43	119.90
25	RA	1137	G	C5-C6-O6	-5.88	125.07	128.60
25	RA	1817	G	C5-C6-N1	-5.88	108.56	111.50
25	RA	1848	A	C2-N3-C4	5.88	113.54	110.60
26	RB	89	G	C8-N9-C4	-5.88	104.05	106.40
25	YA	191	A	N3-C4-C5	-5.88	122.68	126.80
25	YA	2679	A	C2-N3-C4	-5.88	107.66	110.60
25	YA	949	C	C2-N1-C1'	-5.88	112.33	118.80
1	XA	530	G	P-O3'-C3'	5.88	126.75	119.70
1	XA	1158	C	N3-C2-O2	-5.88	117.78	121.90
25	YA	2377	A	N7-C8-N9	-5.88	110.86	113.80
25	RA	2581	G	C5-C6-O6	5.88	132.12	128.60
1	XA	21	G	N3-C4-N9	5.88	129.53	126.00
1	XA	1406	U	O5'-P-OP2	-5.88	100.41	105.70
25	YA	1437	C	C5-C6-N1	5.88	123.94	121.00
25	YA	2505	G	N7-C8-N9	5.88	116.04	113.10
1	QA	115	G	P-O3'-C3'	5.88	126.75	119.70
25	YA	2731	G	C5-C6-O6	-5.88	125.08	128.60
25	RA	737	C	C6-N1-C2	5.87	122.65	120.30
25	RA	1142(A)	A	C5-N7-C8	-5.87	100.96	103.90
25	RA	1162	G	N9-C4-C5	-5.87	103.05	105.40
1	XA	1290	G	N7-C8-N9	5.87	116.04	113.10
1	XA	1362	C	C6-N1-C2	-5.87	117.95	120.30
25	YA	622	G	C8-N9-C1'	-5.87	119.36	127.00
25	YA	1426	G	C8-N9-C4	-5.87	104.05	106.40
1	QA	453	A	O5'-P-OP1	-5.87	100.42	105.70
25	RA	2074	U	N1-C2-N3	5.87	118.42	114.90
25	RA	2440	C	C6-N1-C2	5.87	122.65	120.30
25	YA	272	G	N3-C4-C5	5.87	131.54	128.60
25	YA	764	A	C2-N3-C4	-5.87	107.66	110.60
1	QA	918	A	N1-C2-N3	5.87	132.24	129.30
25	RA	1278	A	N7-C8-N9	-5.87	110.86	113.80
25	RA	1781	C	C6-N1-C1'	-5.87	113.76	120.80
25	RA	1189	A	C8-N9-C4	-5.87	103.45	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1021	A	C6-C5-N7	-5.87	128.19	132.30
25	YA	1845	G	C2-N3-C4	-5.87	108.97	111.90
25	YA	2320	A	N3-C4-C5	-5.87	122.69	126.80
25	YA	476	G	C6-C5-N7	-5.87	126.88	130.40
25	YA	2079	U	C5-C4-O4	-5.87	122.38	125.90
25	RA	211	A	C4-C5-C6	5.87	119.93	117.00
25	YA	1904	G	N3-C4-C5	-5.87	125.67	128.60
25	YA	2749	A	C8-N9-C4	5.87	108.15	105.80
25	RA	1792	G	C5-C6-O6	-5.86	125.08	128.60
25	RA	2516	G	C6-N1-C2	-5.86	121.58	125.10
25	YA	121	G	C5-C6-O6	-5.86	125.08	128.60
25	YA	687	C	N3-C4-N4	5.86	122.10	118.00
25	YA	1159	U	C6-N1-C2	5.86	124.52	121.00
25	YA	1728	G	N9-C4-C5	-5.86	103.06	105.40
25	YA	2294	C	C2-N1-C1'	5.86	125.25	118.80
25	RA	789	A	N3-C4-C5	5.86	130.90	126.80
25	RA	2424	C	C4-C5-C6	5.86	120.33	117.40
12	XL	119	LYS	N-CA-C	-5.86	95.17	111.00
25	YA	694	U	C5-C4-O4	5.86	129.42	125.90
25	YA	2226	C	C6-N1-C2	5.86	122.64	120.30
25	YA	2661	G	N3-C4-N9	5.86	129.52	126.00
1	QA	664	G	C5-C6-N1	-5.86	108.57	111.50
25	RA	1429	G	C4-N9-C1'	5.86	134.12	126.50
25	YA	2488	A	N1-C2-N3	5.86	132.23	129.30
25	YA	2685	G	N3-C2-N2	-5.86	115.80	119.90
25	RA	981	A	OP2-P-O3'	5.86	118.09	105.20
25	RA	1822	G	C4-C5-N7	5.86	113.14	110.80
25	RA	2227	A	C2-N3-C4	-5.86	107.67	110.60
25	RA	2682	U	C6-N1-C2	-5.86	117.49	121.00
31	RH	125	VAL	C-N-CD	-5.86	107.71	120.60
25	YA	247	G	C2-N3-C4	5.86	114.83	111.90
25	YA	804	A	N1-C6-N6	5.86	122.11	118.60
25	YA	2439	A	O4'-C1'-N9	-5.86	103.52	108.20
25	YA	2844	G	C4-N9-C1'	5.86	134.11	126.50
25	RA	1308	A	C4-C5-C6	5.86	119.93	117.00
25	RA	2385	C	C6-N1-C2	5.86	122.64	120.30
25	RA	2399	G	C4-N9-C1'	5.86	134.11	126.50
25	RA	2830	G	C6-C5-N7	-5.86	126.89	130.40
1	XA	658	G	N1-C6-O6	5.86	123.41	119.90
25	YA	1899	G	N3-C2-N2	-5.86	115.80	119.90
25	YA	1012	U	C5-C6-N1	-5.85	119.77	122.70
25	YA	1976	U	N1-C2-N3	5.85	118.41	114.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	701	C	P-O3'-C3'	5.85	126.72	119.70
25	YA	793	A	C5-C6-N1	-5.85	114.77	117.70
25	YA	1563	G	N1-C2-N3	5.85	127.41	123.90
25	YA	1967	C	N3-C4-C5	5.85	124.24	121.90
1	QA	356	A	N1-C6-N6	-5.85	115.09	118.60
25	YA	1628	G	N3-C4-N9	5.85	129.51	126.00
25	YA	2874	C	C6-N1-C2	5.85	122.64	120.30
25	RA	686	G	O5'-P-OP1	-5.85	100.44	105.70
25	RA	1704	G	C8-N9-C4	-5.85	104.06	106.40
25	RA	2502	G	O5'-P-OP1	-5.85	100.44	105.70
1	XA	504	C	C5-C6-N1	5.85	123.92	121.00
1	XA	860	A	O5'-P-OP1	-5.85	100.44	105.70
25	YA	272	G	C8-N9-C1'	5.85	134.60	127.00
25	YA	1761	C	C6-N1-C2	5.85	122.64	120.30
26	YB	8	U	C2-N3-C4	5.85	130.51	127.00
25	RA	662	G	N1-C6-O6	5.85	123.41	119.90
25	RA	1407	C	C5-C4-N4	-5.85	116.11	120.20
25	RA	2461	C	N3-C4-C5	5.85	124.24	121.90
1	XA	504	C	N3-C4-N4	5.85	122.09	118.00
1	XA	687	A	P-O3'-C3'	5.85	126.72	119.70
1	QA	108	G	C1'-O4'-C4'	-5.85	105.22	109.90
25	RA	67	U	C2-N3-C4	5.85	130.51	127.00
1	XA	722	A	C8-N9-C4	-5.85	103.46	105.80
25	RA	255	A	N1-C6-N6	-5.84	115.09	118.60
25	RA	1581	G	N7-C8-N9	5.84	116.02	113.10
25	RA	2063	C	O5'-P-OP2	-5.84	100.44	105.70
25	RA	2865	U	OP1-P-OP2	-5.84	110.83	119.60
1	XA	541	G	C5-C6-O6	-5.84	125.09	128.60
25	YA	1852	C	N1-C2-O2	5.84	122.41	118.90
25	YA	2028	U	C6-N1-C2	-5.84	117.49	121.00
25	RA	979	G	N1-C6-O6	5.84	123.41	119.90
25	RA	1193	G	O5'-P-OP2	-5.84	100.44	105.70
25	RA	2006	C	C4-C5-C6	-5.84	114.48	117.40
25	YA	622	G	C6-C5-N7	-5.84	126.89	130.40
25	YA	822	U	C2-N1-C1'	-5.84	110.69	117.70
12	QL	119	LYS	N-CA-C	-5.84	95.23	111.00
25	RA	742	G	C6-C5-N7	-5.84	126.90	130.40
25	RA	1158	C	N3-C2-O2	-5.84	117.81	121.90
25	RA	1468	C	C6-N1-C2	-5.84	117.96	120.30
25	YA	1425	G	C5-C6-N1	-5.84	108.58	111.50
25	YA	1840	G	N3-C4-C5	5.84	131.52	128.60
28	YE	58	ARG	N-CA-C	-5.84	95.23	111.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	748	C	C6-N1-C2	-5.84	117.96	120.30
1	QA	1528	U	OP2-P-O3'	5.84	118.05	105.20
25	RA	57	C	C5-C6-N1	5.84	123.92	121.00
25	RA	1363	C	N3-C4-C5	5.84	124.24	121.90
25	RA	1660	C	C5-C6-N1	-5.84	118.08	121.00
25	YA	210	C	N3-C4-C5	5.84	124.24	121.90
25	YA	1978	A	C4-C5-C6	5.84	119.92	117.00
25	YA	2782	G	C4-C5-C6	5.84	122.30	118.80
1	QA	1473	A	C8-N9-C4	5.84	108.14	105.80
25	RA	2583	G	N3-C4-C5	-5.84	125.68	128.60
25	YA	825	C	N3-C4-N4	5.84	122.09	118.00
1	QA	890	G	C4-C5-N7	-5.84	108.47	110.80
25	RA	1949	G	N3-C4-N9	5.84	129.50	126.00
1	XA	738	C	C5-C6-N1	5.84	123.92	121.00
25	RA	2506	U	C2-N1-C1'	5.83	124.70	117.70
1	QA	545	C	N1-C2-N3	5.83	123.28	119.20
25	RA	185	U	C5-C6-N1	-5.83	119.78	122.70
25	RA	727	A	C8-N9-C4	-5.83	103.47	105.80
25	RA	1202	C	C6-N1-C2	5.83	122.63	120.30
25	RA	1332	G	O4'-C1'-N9	-5.83	103.53	108.20
25	RA	2011	U	C2-N1-C1'	-5.83	110.70	117.70
1	XA	1420	C	N3-C4-C5	5.83	124.23	121.90
25	YA	964	C	C6-N1-C2	-5.83	117.97	120.30
25	YA	1230	C	C6-N1-C2	5.83	122.63	120.30
1	QA	347	G	C2-N3-C4	-5.83	108.98	111.90
25	RA	560	C	O5'-P-OP1	5.83	117.70	110.70
25	RA	1692	U	O5'-P-OP2	-5.83	100.45	105.70
1	XA	278	G	N3-C4-C5	-5.83	125.68	128.60
1	XA	928	G	C5-C6-N1	-5.83	108.58	111.50
25	YA	900	A	C8-N9-C4	-5.83	103.47	105.80
25	YA	1514	U	C6-N1-C2	-5.83	117.50	121.00
25	YA	2862	G	N1-C6-O6	5.83	123.40	119.90
25	RA	944	G	C4-C5-N7	-5.83	108.47	110.80
25	RA	1769	G	N3-C4-C5	-5.83	125.69	128.60
28	RE	58	ARG	N-CA-C	-5.83	95.26	111.00
25	YA	2021	C	N1-C2-O2	-5.83	115.40	118.90
25	YA	2410	G	C8-N9-C4	-5.83	104.07	106.40
1	QA	1228	C	C6-N1-C2	-5.83	117.97	120.30
25	RA	185	U	O5'-P-OP1	-5.83	100.45	105.70
25	RA	1985	G	C4-C5-C6	5.83	122.30	118.80
1	XA	354	G	C8-N9-C4	-5.83	104.07	106.40
1	XA	752	G	N9-C4-C5	-5.83	103.07	105.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	792	A	C8-N9-C4	5.83	108.13	105.80
25	YA	54	G	C4-C5-N7	5.83	113.13	110.80
25	YA	1961	C	C6-N1-C2	5.83	122.63	120.30
25	RA	2016	U	C6-N1-C2	-5.83	117.50	121.00
1	XA	1178	G	N7-C8-N9	5.83	116.01	113.10
25	YA	2517	C	O5'-P-OP1	-5.83	100.46	105.70
25	YA	2717	G	C6-C5-N7	-5.83	126.90	130.40
25	RA	124	G	C6-C5-N7	-5.83	126.91	130.40
25	RA	1792	G	C4-C5-N7	5.83	113.13	110.80
25	RA	1902	C	N1-C2-O2	-5.83	115.41	118.90
25	RA	2075	U	C5-C6-N1	-5.83	119.79	122.70
25	RA	2252	G	C2-N3-C4	-5.83	108.99	111.90
25	YA	51	G	N1-C6-O6	-5.83	116.40	119.90
1	QA	587	G	N3-C4-C5	-5.82	125.69	128.60
25	RA	327	G	N1-C6-O6	5.82	123.39	119.90
25	RA	1634	A	N1-C6-N6	-5.82	115.11	118.60
25	RA	2060	A	N9-C4-C5	5.82	108.13	105.80
25	YA	1378	A	C8-N9-C4	5.82	108.13	105.80
25	YA	2447	G	O5'-P-OP1	-5.82	100.46	105.70
25	RA	1954	G	C8-N9-C4	5.82	108.73	106.40
1	XA	819	A	C4-C5-C6	5.82	119.91	117.00
25	YA	192	C	N3-C4-C5	5.82	124.23	121.90
25	YA	797	C	N1-C2-O2	-5.82	115.41	118.90
25	YA	1983	C	C2-N1-C1'	-5.82	112.39	118.80
25	YA	2015	A	C8-N9-C4	-5.82	103.47	105.80
25	RA	2078	C	C6-N1-C2	-5.82	117.97	120.30
25	RA	2436	G	O5'-P-OP1	-5.82	100.46	105.70
25	RA	2820	A	C5-C6-N1	-5.82	114.79	117.70
25	YA	391	G	C5-C6-O6	-5.82	125.11	128.60
25	YA	671	C	C5-C4-N4	5.82	124.28	120.20
25	RA	2508	G	C4-C5-C6	5.82	122.29	118.80
25	YA	624	C	N1-C2-O2	5.82	122.39	118.90
25	YA	1962	C	C2-N1-C1'	5.82	125.20	118.80
35	YP	26	GLY	N-CA-C	-5.82	98.55	113.10
25	RA	118	A	O4'-C1'-N9	5.82	112.85	108.20
25	RA	869	G	C4-C5-C6	5.82	122.29	118.80
25	RA	1547	C	C4-C5-C6	5.82	120.31	117.40
25	RA	1648	C	N1-C2-O2	-5.82	115.41	118.90
25	RA	2059	A	C8-N9-C4	-5.82	103.47	105.80
1	XA	734	G	C8-N9-C4	-5.82	104.07	106.40
1	XA	789	U	N3-C4-C5	-5.82	111.11	114.60
25	YA	990	A	C2-N3-C4	-5.82	107.69	110.60

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2818	G	C5-C6-O6	-5.82	125.11	128.60
25	RA	745	G	N1-C2-N2	-5.82	110.97	116.20
25	RA	2474	C	C6-N1-C2	-5.82	117.97	120.30
25	YA	512	G	C6-C5-N7	5.82	133.89	130.40
25	YA	1786	A	OP1-P-OP2	-5.82	110.88	119.60
25	YA	1332	G	N7-C8-N9	5.81	116.01	113.10
25	YA	2728	U	N1-C2-N3	-5.81	111.41	114.90
25	YA	2811	G	C6-C5-N7	-5.81	126.91	130.40
25	YA	2827	C	C5-C4-N4	-5.81	116.13	120.20
25	RA	269	U	C2-N1-C1'	5.81	124.67	117.70
25	RA	1798	U	N1-C2-N3	5.81	118.39	114.90
1	QA	351	G	N1-C6-O6	-5.81	116.41	119.90
1	QA	668	G	N3-C4-C5	-5.81	125.69	128.60
25	RA	929	G	N1-C6-O6	5.81	123.39	119.90
25	YA	1762	A	C4-C5-N7	-5.81	107.79	110.70
25	YA	2014	A	C6-C5-N7	-5.81	128.23	132.30
25	YA	29	U	C2-N1-C1'	5.81	124.67	117.70
25	YA	1442	G	N3-C4-N9	5.81	129.49	126.00
26	YB	39	A	C8-N9-C4	-5.81	103.48	105.80
1	QA	129	U	N3-C4-C5	-5.81	111.11	114.60
1	QA	135	C	C5-C6-N1	5.81	123.90	121.00
1	QA	789	U	C4-C5-C6	5.81	123.18	119.70
25	RA	1785	A	O5'-P-OP1	-5.81	100.47	105.70
25	RA	2559	C	C6-N1-C2	-5.81	117.98	120.30
25	YA	121	G	N3-C4-N9	5.81	129.48	126.00
25	YA	298	G	C5-N7-C8	-5.81	101.40	104.30
25	YA	863	A	N7-C8-N9	-5.81	110.90	113.80
25	YA	1019	U	C5-C4-O4	5.81	129.38	125.90
25	YA	1822	G	C6-C5-N7	-5.81	126.92	130.40
25	YA	1903	G	C8-N9-C4	5.81	108.72	106.40
25	YA	1974	C	C2-N1-C1'	5.81	125.19	118.80
25	RA	1447	G	C6-C5-N7	-5.81	126.92	130.40
25	YA	74	A	C8-N9-C4	-5.81	103.48	105.80
25	YA	979	G	N3-C4-N9	-5.81	122.52	126.00
1	QA	812	C	N1-C2-O2	5.80	122.38	118.90
1	QA	1431	C	C6-N1-C2	-5.80	117.98	120.30
25	YA	132	G	C4-N9-C1'	5.80	134.05	126.50
25	YA	1814	G	C4-C5-N7	-5.80	108.48	110.80
25	YA	1939	U	N3-C2-O2	-5.80	118.14	122.20
25	YA	2016	U	N1-C2-N3	5.80	118.38	114.90
25	YA	2448	A	C5-C6-N6	-5.80	119.06	123.70
25	YA	1161	C	O5'-P-OP1	-5.80	100.48	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1236	G	C2-N3-C4	-5.80	109.00	111.90
25	YA	2064	C	N1-C2-O2	-5.80	115.42	118.90
25	YA	2574	G	N3-C4-C5	5.80	131.50	128.60
25	RA	1216	G	N3-C4-N9	5.80	129.48	126.00
25	YA	1367	A	C6-C5-N7	-5.80	128.24	132.30
25	YA	1762	A	N1-C6-N6	-5.80	115.12	118.60
1	QA	309	G	C5-C6-O6	-5.80	125.12	128.60
1	QA	324	G	N7-C8-N9	5.80	116.00	113.10
25	RA	1130	U	O4'-C1'-N1	-5.80	103.56	108.20
25	RA	1804	C	N1-C2-O2	-5.80	115.42	118.90
1	XA	734	G	C4-C5-N7	5.80	113.12	110.80
25	YA	1595	G	C4-C5-N7	5.80	113.12	110.80
25	RA	767	U	N3-C2-O2	5.80	126.26	122.20
25	RA	2457	U	C4-C5-C6	5.80	123.18	119.70
1	XA	118	U	N3-C2-O2	-5.80	118.14	122.20
25	YA	103	A	N1-C6-N6	5.80	122.08	118.60
25	YA	1130	U	N1-C2-N3	5.80	118.38	114.90
25	YA	1592	C	C6-N1-C2	5.80	122.62	120.30
25	RA	400	G	N3-C4-C5	5.80	131.50	128.60
25	RA	860	U	C5-C4-O4	5.80	129.38	125.90
25	RA	1277	G	C4-C5-N7	-5.80	108.48	110.80
35	RP	26	GLY	N-CA-C	-5.80	98.61	113.10
1	XA	555	C	C5-C6-N1	5.80	123.90	121.00
25	YA	839	U	N1-C2-N3	5.80	118.38	114.90
25	YA	944	G	O4'-C1'-N9	5.80	112.84	108.20
25	YA	955	C	C2-N1-C1'	-5.80	112.42	118.80
25	YA	1184	G	N3-C4-N9	5.80	129.48	126.00
25	YA	1237	A	N1-C6-N6	-5.80	115.12	118.60
25	YA	1253	A	N1-C2-N3	-5.80	126.40	129.30
25	YA	1319	G	C4-C5-N7	5.80	113.12	110.80
25	RA	742	G	N1-C6-O6	5.79	123.38	119.90
25	RA	1205	U	O5'-P-OP1	-5.79	100.48	105.70
25	RA	1892	C	C6-N1-C2	-5.79	117.98	120.30
25	YA	1767	C	C2-N3-C4	-5.79	117.00	119.90
25	YA	672	C	O5'-P-OP2	-5.79	100.49	105.70
25	YA	2383	G	N3-C4-C5	-5.79	125.70	128.60
1	QA	155	C	C6-N1-C2	-5.79	117.98	120.30
1	QA	690	G	O4'-C1'-N9	5.79	112.83	108.20
25	RA	979	G	C4-C5-N7	5.79	113.12	110.80
1	XA	953	G	N3-C4-C5	-5.79	125.70	128.60
1	XA	1472	U	N3-C2-O2	-5.79	118.15	122.20
25	YA	319	C	N3-C2-O2	5.79	125.95	121.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1613	G	O4'-C1'-N9	-5.79	103.57	108.20
1	XA	497	U	N3-C2-O2	-5.79	118.15	122.20
25	YA	842	G	C4-C5-N7	5.79	113.12	110.80
1	QA	230	G	C5-C6-N1	-5.79	108.61	111.50
25	RA	51	G	C8-N9-C1'	-5.79	119.47	127.00
25	RA	2052	G	C4-C5-N7	5.79	113.12	110.80
25	RA	2246	G	C4-C5-N7	5.79	113.12	110.80
1	XA	200	G	N9-C4-C5	-5.79	103.08	105.40
25	YA	751	A	C8-N9-C4	-5.79	103.48	105.80
25	YA	1830	C	N3-C2-O2	5.79	125.95	121.90
25	RA	110	G	C4-N9-C1'	-5.79	118.98	126.50
25	RA	1138	G	C8-N9-C4	-5.79	104.08	106.40
25	RA	1396	U	C6-N1-C1'	-5.79	113.10	121.20
25	RA	1487	G	C6-C5-N7	-5.79	126.93	130.40
25	RA	1821	A	C4-C5-N7	5.79	113.59	110.70
25	RA	2534	A	N1-C6-N6	5.79	122.07	118.60
25	YA	877	U	C5-C6-N1	5.79	125.59	122.70
25	YA	2227	A	N3-C4-N9	-5.79	122.77	127.40
26	YB	54	G	C6-C5-N7	-5.79	126.93	130.40
25	RA	593	G	N1-C2-N3	5.79	127.37	123.90
25	RA	2299	G	C8-N9-C1'	-5.79	119.48	127.00
25	RA	2409	G	C5-N7-C8	-5.79	101.41	104.30
1	XA	690	G	N3-C4-N9	-5.79	122.53	126.00
1	XA	755	G	C8-N9-C1'	-5.79	119.48	127.00
25	YA	2020	A	C4-C5-C6	5.79	119.89	117.00
1	QA	361	G	C8-N9-C4	5.78	108.71	106.40
25	RA	733	G	C6-C5-N7	-5.78	126.93	130.40
25	RA	991	C	N3-C4-C5	5.78	124.21	121.90
25	RA	1338	G	N9-C4-C5	-5.78	103.09	105.40
25	RA	2548	G	N1-C6-O6	5.78	123.37	119.90
1	XA	1338	G	C5-C6-N1	5.78	114.39	111.50
25	YA	839	U	C5-C4-O4	5.78	129.37	125.90
25	YA	2448	A	C8-N9-C4	5.78	108.11	105.80
25	RA	2504	U	N3-C4-O4	5.78	123.45	119.40
1	XA	319	G	N3-C4-N9	-5.78	122.53	126.00
1	XA	481	G	C4-N9-C1'	-5.78	118.98	126.50
1	XA	1305	G	C8-N9-C1'	5.78	134.52	127.00
25	YA	968	G	N9-C4-C5	5.78	107.71	105.40
25	YA	1142(A)	A	C4-C5-C6	5.78	119.89	117.00
25	RA	74	A	C5-N7-C8	-5.78	101.01	103.90
25	RA	232	G	N3-C4-N9	5.78	129.47	126.00
25	RA	476	G	O5'-P-OP2	-5.78	100.50	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1514	U	C5-C6-N1	5.78	125.59	122.70
25	YA	221	A	C4-N9-C1'	5.78	136.71	126.30
25	YA	414	C	N3-C4-N4	-5.78	113.95	118.00
25	YA	1380	G	C8-N9-C4	-5.78	104.09	106.40
25	YA	214	G	O4'-C1'-N9	5.78	112.82	108.20
1	QA	686	U	C6-N1-C2	-5.78	117.53	121.00
25	RA	2837	G	N7-C8-N9	5.78	115.99	113.10
1	XA	1099	G	C4-C5-N7	-5.78	108.49	110.80
1	QA	55	A	N1-C2-N3	5.78	132.19	129.30
25	RA	1634	A	N9-C4-C5	5.78	108.11	105.80
1	XA	819	A	C6-C5-N7	-5.78	128.26	132.30
25	YA	270(Y)	G	N3-C4-C5	-5.78	125.71	128.60
25	YA	433	C	C6-N1-C2	5.78	122.61	120.30
25	YA	1733	G	C4-N9-C1'	5.78	134.01	126.50
25	YA	2819	G	C8-N9-C4	5.78	108.71	106.40
25	RA	2070	G	N9-C4-C5	5.77	107.71	105.40
25	YA	621	A	C5-C6-N1	-5.77	114.81	117.70
25	YA	1425	G	C4-N9-C1'	5.77	134.01	126.50
25	YA	1769	G	C5-C6-N1	-5.77	108.61	111.50
25	RA	989	G	N3-C4-N9	5.77	129.46	126.00
25	RA	1940	U	N3-C4-C5	-5.77	111.14	114.60
25	RA	2460	U	C5-C4-O4	5.77	129.36	125.90
25	YA	80	G	C4-C5-C6	5.77	122.26	118.80
25	RA	594	U	C6-N1-C2	-5.77	117.54	121.00
25	RA	1419	A	C8-N9-C4	5.77	108.11	105.80
25	RA	258	G	N9-C4-C5	-5.77	103.09	105.40
25	RA	577	G	C5-C6-N1	-5.77	108.61	111.50
25	RA	1628	G	N3-C2-N2	-5.77	115.86	119.90
25	RA	1776	G	C8-N9-C1'	-5.77	119.50	127.00
25	RA	2439	A	C4-C5-N7	5.77	113.58	110.70
25	RA	2827	C	N3-C4-C5	5.77	124.21	121.90
1	XA	920	U	P-O3'-C3'	-5.77	112.78	119.70
25	YA	298	G	C4-N9-C1'	-5.77	119.00	126.50
25	YA	1311	G	C8-N9-C4	5.77	108.71	106.40
25	YA	1767	C	C6-N1-C2	5.77	122.61	120.30
25	YA	2190	G	N1-C6-O6	5.77	123.36	119.90
25	YA	2246	G	N3-C4-C5	-5.77	125.72	128.60
25	YA	2259	G	C5-C6-O6	-5.77	125.14	128.60
25	YA	2429	G	N1-C6-O6	5.77	123.36	119.90
25	YA	2439	A	C5-N7-C8	-5.77	101.02	103.90
25	YA	2532	G	C8-N9-C4	-5.77	104.09	106.40
25	YA	2557	G	C6-C5-N7	-5.77	126.94	130.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	YB	95	U	C4-C5-C6	5.77	123.16	119.70
25	RA	776	G	N7-C8-N9	5.77	115.98	113.10
25	RA	2251	G	C6-C5-N7	-5.77	126.94	130.40
25	RA	2346	A	C5-C6-N1	-5.77	114.82	117.70
25	YA	51	G	C5-C6-O6	5.77	132.06	128.60
25	YA	568	U	O4'-C1'-N1	5.77	112.81	108.20
26	YB	44	G	C2-N3-C4	5.77	114.78	111.90
1	QA	821	G	N3-C4-N9	5.77	129.46	126.00
25	YA	2869	G	C6-C5-N7	-5.77	126.94	130.40
25	RA	203	C	N1-C2-O2	-5.76	115.44	118.90
25	RA	2459	A	C4-C5-N7	5.76	113.58	110.70
25	YA	587	C	N1-C2-O2	5.76	122.36	118.90
25	YA	1017	G	C8-N9-C4	-5.76	104.09	106.40
25	YA	2000	G	C4-C5-N7	5.76	113.11	110.80
25	YA	2537	U	C5-C4-O4	5.76	129.36	125.90
25	RA	1930	G	N3-C4-N9	-5.76	122.54	126.00
25	YA	2726	U	O4'-C1'-N1	5.76	112.81	108.20
1	XA	930	C	C6-N1-C2	5.76	122.61	120.30
25	YA	400	G	N3-C4-C5	5.76	131.48	128.60
25	YA	1331	A	C8-N9-C4	5.76	108.11	105.80
25	YA	2281	C	C5-C4-N4	-5.76	116.17	120.20
25	RA	1581	G	C4-N9-C1'	5.76	133.99	126.50
25	RA	2206	C	N3-C2-O2	-5.76	117.87	121.90
25	YA	71	A	N1-C6-N6	5.76	122.06	118.60
25	YA	221	A	OP2-P-O3'	5.76	117.87	105.20
25	YA	444	C	N3-C4-C5	-5.76	119.60	121.90
25	YA	1833	U	C6-N1-C2	-5.76	117.55	121.00
25	RA	2848	G	C4-C5-N7	-5.76	108.50	110.80
1	XA	1517	G	C4-N9-C1'	5.76	133.99	126.50
25	YA	1800	C	C5-C6-N1	-5.76	118.12	121.00
25	RA	442	G	N1-C2-N3	5.76	127.35	123.90
1	XA	563	A	O4'-C1'-N9	5.76	112.81	108.20
25	YA	1890	A	N3-C4-C5	5.76	130.83	126.80
1	QA	300	A	N1-C2-N3	5.75	132.18	129.30
1	QA	1204	A	C6-C5-N7	-5.75	128.27	132.30
25	YA	352	G	C8-N9-C4	5.75	108.70	106.40
25	RA	1992	G	O4'-C1'-N9	-5.75	103.60	108.20
25	RA	2461	C	C6-N1-C2	5.75	122.60	120.30
25	YA	916	G	C4-C5-C6	5.75	122.25	118.80
25	YA	1826	G	N1-C6-O6	5.75	123.35	119.90
25	RA	2125	G	C8-N9-C4	-5.75	104.10	106.40
25	RA	2206	C	C4-C5-C6	5.75	120.28	117.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2238	G	N7-C8-N9	5.75	115.97	113.10
1	XA	1462	G	C8-N9-C4	5.75	108.70	106.40
25	RA	1165	U	N3-C2-O2	-5.75	118.18	122.20
25	YA	1756	G	C4-C5-N7	-5.75	108.50	110.80
25	YA	1926	U	N1-C2-N3	5.75	118.35	114.90
25	YA	2710	C	C4-C5-C6	5.75	120.27	117.40
25	RA	205	G	C6-N1-C2	-5.75	121.65	125.10
25	RA	1050	A	N7-C8-N9	5.75	116.67	113.80
25	RA	1772	G	N1-C6-O6	5.75	123.35	119.90
25	RA	2073	C	C6-N1-C2	-5.75	118.00	120.30
1	XA	1313	U	C6-N1-C2	-5.75	117.55	121.00
1	XA	1519	A	N1-C2-N3	5.75	132.17	129.30
25	YA	30	G	C8-N9-C4	-5.75	104.10	106.40
25	YA	140	A	C2-N3-C4	-5.75	107.73	110.60
25	YA	818	G	C5-C6-N1	-5.75	108.63	111.50
25	YA	1480	G	C5-C6-N1	-5.75	108.63	111.50
25	YA	1558	A	P-O3'-C3'	5.75	126.60	119.70
48	Y2	16	LEU	N-CA-C	-5.75	95.48	111.00
1	QA	1206	G	N3-C4-N9	5.75	129.45	126.00
25	RA	1610	A	N9-C4-C5	5.75	108.10	105.80
1	XA	1054	C	C2-N1-C1'	5.75	125.12	118.80
25	YA	2251	G	C2-N3-C4	-5.75	109.03	111.90
25	YA	2691	C	C2-N1-C1'	-5.75	112.48	118.80
1	QA	1513	A	C5-N7-C8	-5.74	101.03	103.90
25	RA	754	C	C5-C4-N4	-5.74	116.18	120.20
25	RA	859	G	N3-C4-N9	-5.74	122.55	126.00
25	RA	1759	A	N9-C4-C5	-5.74	103.50	105.80
48	R2	16	LEU	N-CA-C	-5.74	95.49	111.00
25	YA	270(R)	G	C4-C5-N7	-5.74	108.50	110.80
25	YA	972	G	C4-C5-N7	-5.74	108.50	110.80
25	YA	1658	C	N3-C2-O2	-5.74	117.88	121.90
25	YA	2432	A	C5-N7-C8	-5.74	101.03	103.90
25	YA	2468	G	O4'-C1'-N9	5.74	112.80	108.20
22	QV	17	C	C5-C6-N1	5.74	123.87	121.00
25	RA	1193	G	N3-C4-C5	5.74	131.47	128.60
25	RA	1202	C	C5-C6-N1	-5.74	118.13	121.00
25	RA	1681	G	C2-N3-C4	-5.74	109.03	111.90
25	RA	1855	G	N1-C6-O6	5.74	123.34	119.90
25	RA	1975	G	C4-C5-N7	5.74	113.10	110.80
1	XA	515	G	C6-C5-N7	-5.74	126.95	130.40
1	XA	1332	A	N7-C8-N9	5.74	116.67	113.80
25	YA	259	G	C4-C5-C6	5.74	122.25	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	52	G	C4-C5-N7	5.74	113.10	110.80
25	RA	1602	U	N1-C2-N3	5.74	118.34	114.90
1	XA	247	G	C8-N9-C4	-5.74	104.10	106.40
25	YA	508	G	O4'-C1'-N9	5.74	112.79	108.20
25	YA	1203	G	N9-C4-C5	5.74	107.70	105.40
25	YA	1317	A	O5'-P-OP1	5.74	117.59	110.70
25	YA	2634	G	N1-C6-O6	5.74	123.34	119.90
25	RA	330	A	N9-C4-C5	-5.74	103.50	105.80
25	RA	2637	U	C2-N1-C1'	5.74	124.59	117.70
1	XA	542	G	C8-N9-C4	-5.74	104.10	106.40
1	XA	791	G	C2-N3-C4	-5.74	109.03	111.90
25	YA	1825	A	C8-N9-C4	-5.74	103.50	105.80
26	YB	13	A	C5-C6-N6	5.74	128.29	123.70
1	XA	1374	A	O4'-C1'-N9	5.74	112.79	108.20
25	YA	585	G	C8-N9-C1'	-5.74	119.54	127.00
25	YA	2561	A	C8-N9-C4	5.74	108.09	105.80
25	RA	220	G	C8-N9-C4	-5.74	104.11	106.40
25	RA	762	U	N1-C2-O2	-5.74	118.79	122.80
1	XA	1478	C	N3-C2-O2	-5.74	117.89	121.90
25	YA	58	G	C5-C6-N1	-5.74	108.63	111.50
25	YA	2767	C	C6-N1-C2	-5.74	118.01	120.30
26	YB	26	A	C8-N9-C4	-5.74	103.50	105.80
25	RA	484	C	N3-C4-N4	5.73	122.01	118.00
25	YA	995	C	C6-N1-C2	-5.73	118.01	120.30
25	YA	1763	G	C5-C6-O6	5.73	132.04	128.60
25	YA	2318	G	C5'-C4'-O4'	5.73	115.98	109.10
1	QA	170	U	C6-N1-C2	-5.73	117.56	121.00
25	RA	1989	G	N9-C4-C5	5.73	107.69	105.40
25	RA	2608	G	C2-N3-C4	-5.73	109.03	111.90
25	YA	414	C	C2-N3-C4	-5.73	117.03	119.90
1	QA	1053	G	O4'-C1'-N9	5.73	112.78	108.20
1	QA	1076	C	C2-N1-C1'	-5.73	112.50	118.80
25	RA	2591	C	O5'-P-OP2	-5.73	100.54	105.70
25	YA	1189	A	O5'-P-OP1	-5.73	100.54	105.70
25	YA	1819	A	O5'-P-OP2	-5.73	100.54	105.70
25	RA	248	G	N3-C4-C5	5.73	131.47	128.60
25	RA	1235	G	N3-C4-C5	-5.73	125.73	128.60
25	RA	2299	G	C4-N9-C1'	5.73	133.95	126.50
25	RA	2270	G	C8-N9-C4	-5.73	104.11	106.40
25	YA	666	G	C8-N9-C4	5.73	108.69	106.40
25	YA	1787	A	C8-N9-C4	5.73	108.09	105.80
25	YA	1994	C	C2-N3-C4	-5.73	117.04	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	777	A	N3-C4-C5	-5.73	122.79	126.80
25	RA	1675	C	OP2-P-O3'	5.73	117.80	105.20
19	XS	6	LYS	N-CA-C	-5.73	95.54	111.00
25	RA	75	G	C4-N9-C1'	5.72	133.94	126.50
25	RA	768	G	N1-C2-N3	5.72	127.33	123.90
1	XA	186(A)	C	C5-C6-N1	5.72	123.86	121.00
25	YA	769	G	N1-C6-O6	5.72	123.33	119.90
25	YA	1577	C	O5'-P-OP1	-5.72	100.55	105.70
25	YA	1815	A	N1-C6-N6	-5.72	115.17	118.60
25	YA	2279	G	C5-C6-N1	5.72	114.36	111.50
25	YA	2318	G	C5-N7-C8	-5.72	101.44	104.30
25	YA	2399	G	N7-C8-N9	-5.72	110.24	113.10
1	QA	790	A	C5-N7-C8	-5.72	101.04	103.90
25	RA	382	G	C6-C5-N7	-5.72	126.97	130.40
25	RA	532	A	N3-C4-C5	-5.72	122.80	126.80
1	XA	518	C	N3-C2-O2	-5.72	117.89	121.90
25	YA	1862	G	N3-C4-C5	5.72	131.46	128.60
25	YA	2870	C	N3-C4-C5	-5.72	119.61	121.90
25	RA	1636	C	N3-C2-O2	-5.72	117.89	121.90
25	RA	1936	A	N9-C4-C5	-5.72	103.51	105.80
1	QA	501	C	N1-C2-O2	5.72	122.33	118.90
25	RA	1345	C	C6-N1-C2	-5.72	118.01	120.30
25	RA	1528	A	O4'-C1'-N9	5.72	112.78	108.20
25	YA	498	G	C2-N3-C4	5.72	114.76	111.90
25	YA	579	G	N1-C6-O6	5.72	123.33	119.90
25	YA	622	G	C4-N9-C1'	5.72	133.93	126.50
1	QA	150	C	N1-C2-O2	5.72	122.33	118.90
1	XA	790	A	C2-N3-C4	-5.72	107.74	110.60
25	YA	745	G	C8-N9-C4	-5.72	104.11	106.40
25	RA	488	G	N3-C4-N9	5.72	129.43	126.00
1	XA	29	G	C8-N9-C4	5.72	108.69	106.40
25	YA	2869	G	C8-N9-C4	-5.72	104.11	106.40
26	YB	82	G	C5-C6-O6	5.72	132.03	128.60
25	RA	1802	A	N1-C6-N6	-5.71	115.17	118.60
25	RA	1848	A	N1-C6-N6	-5.71	115.17	118.60
1	XA	568	G	C8-N9-C4	-5.71	104.11	106.40
25	YA	1814	G	N1-C2-N3	5.71	127.33	123.90
1	XA	1159	U	C2-N1-C1'	-5.71	110.84	117.70
25	YA	129	C	C5-C6-N1	-5.71	118.14	121.00
25	YA	916	G	N3-C4-N9	5.71	129.43	126.00
25	YA	1151	G	C6-C5-N7	-5.71	126.97	130.40
25	YA	1907	G	N1-C6-O6	5.71	123.33	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	723	U	N1-C2-O2	5.71	126.80	122.80
1	QA	1163	C	C6-N1-C2	-5.71	118.02	120.30
25	RA	559	G	C4-C5-N7	-5.71	108.52	110.80
26	RB	100	G	C5-C6-O6	-5.71	125.17	128.60
1	XA	581	G	C6-C5-N7	-5.71	126.97	130.40
1	XA	674	G	C4-C5-C6	5.71	122.23	118.80
1	XA	713	G	C2-N3-C4	5.71	114.76	111.90
1	XA	868	C	C5-C6-N1	5.71	123.86	121.00
25	YA	1224	G	N3-C4-N9	-5.71	122.57	126.00
25	YA	1611	C	N3-C4-C5	5.71	124.19	121.90
25	YA	1824	G	C6-C5-N7	-5.71	126.97	130.40
25	YA	2240	C	O5'-P-OP2	5.71	117.55	110.70
1	QA	723	U	C6-N1-C1'	-5.71	113.21	121.20
25	RA	1487	G	C4-N9-C1'	5.71	133.92	126.50
25	RA	1495	A	C8-N9-C4	-5.71	103.52	105.80
25	RA	2455	G	C4-C5-N7	5.71	113.08	110.80
1	XA	670	G	C2-N3-C4	5.71	114.75	111.90
12	XL	47	LYS	C-N-CD	5.71	140.39	128.40
25	YA	768	G	C4-C5-N7	5.71	113.08	110.80
25	YA	1818	U	C5-C4-O4	5.71	129.32	125.90
25	YA	2052	G	C5-C6-N1	5.71	114.35	111.50
1	QA	1347	G	OP2-P-O3'	5.71	117.75	105.20
25	YA	1304	C	C5-C6-N1	-5.71	118.15	121.00
25	YA	1568	G	C8-N9-C1'	5.71	134.42	127.00
25	YA	2395	C	C6-N1-C2	-5.71	118.02	120.30
25	RA	2730	C	C6-N1-C2	-5.71	118.02	120.30
25	YA	458	G	C5-N7-C8	5.71	107.15	104.30
25	YA	2000	G	N1-C6-O6	5.71	123.32	119.90
1	XA	186(A)	C	N3-C2-O2	-5.70	117.91	121.90
25	YA	2294	C	C5-C6-N1	5.70	123.85	121.00
25	YA	2616	C	N3-C4-C5	5.70	124.18	121.90
1	QA	243	A	N1-C6-N6	5.70	122.02	118.60
1	QA	937	A	N7-C8-N9	5.70	116.65	113.80
25	RA	2570	G	C8-N9-C1'	-5.70	119.59	127.00
1	XA	971	G	N3-C4-N9	-5.70	122.58	126.00
1	XA	1187	G	C4-N9-C1'	5.70	133.91	126.50
1	QA	320	C	C6-N1-C2	5.70	122.58	120.30
25	RA	1781	C	N1-C2-O2	5.70	122.32	118.90
25	RA	1931	U	N3-C2-O2	-5.70	118.21	122.20
25	YA	2538	C	C6-N1-C2	5.70	122.58	120.30
25	RA	1593	G	N3-C4-C5	-5.70	125.75	128.60
25	RA	1986	A	C4-C5-C6	-5.70	114.15	117.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2371	G	C4-C5-N7	-5.70	108.52	110.80
25	YA	84	A	C8-N9-C4	-5.70	103.52	105.80
25	YA	921	G	C6-C5-N7	-5.70	126.98	130.40
25	YA	1969	A	N1-C6-N6	-5.70	115.18	118.60
25	RA	503	A	N9-C4-C5	5.70	108.08	105.80
25	YA	602	G	N3-C4-C5	5.70	131.45	128.60
25	RA	725	G	C2-N3-C4	-5.70	109.05	111.90
25	RA	1022	G	OP2-P-O3'	5.70	117.73	105.20
25	RA	2665	A	N7-C8-N9	5.70	116.65	113.80
26	RB	27	C	C6-N1-C2	-5.70	118.02	120.30
25	YA	214	G	N3-C4-C5	-5.70	125.75	128.60
25	YA	391	G	C8-N9-C1'	-5.70	119.60	127.00
25	YA	861	A	O5'-P-OP2	5.70	117.53	110.70
25	YA	1307	A	C5-C6-N1	5.70	120.55	117.70
25	YA	1443	G	C5-C6-N1	-5.70	108.65	111.50
25	YA	1614	A	C5-C6-N6	-5.70	119.14	123.70
25	YA	2710	C	N3-C4-N4	-5.70	114.01	118.00
25	RA	2682	U	C2-N1-C1'	5.69	124.53	117.70
25	RA	2831	G	N1-C6-O6	5.69	123.32	119.90
25	YA	1516	U	N3-C2-O2	-5.69	118.21	122.20
25	YA	2293	C	P-O3'-C3'	-5.69	112.87	119.70
25	RA	258	G	C6-C5-N7	-5.69	126.98	130.40
25	RA	921	G	C4-C5-C6	5.69	122.22	118.80
1	XA	921	U	C5-C6-N1	5.69	125.55	122.70
1	XA	934	C	C2-N1-C1'	-5.69	112.54	118.80
25	YA	28	A	N7-C8-N9	5.69	116.65	113.80
25	YA	380	U	N3-C4-C5	-5.69	111.18	114.60
25	YA	704	G	N3-C4-C5	-5.69	125.75	128.60
25	YA	1489	U	O5'-P-OP1	-5.69	100.58	105.70
25	YA	2490	G	N7-C8-N9	5.69	115.95	113.10
25	YA	2719	G	N1-C6-O6	5.69	123.31	119.90
1	QA	1218	C	C6-N1-C2	-5.69	118.02	120.30
25	RA	647	G	N1-C6-O6	5.69	123.31	119.90
25	RA	1933	G	C6-C5-N7	-5.69	126.99	130.40
26	RB	18	G	N3-C4-N9	-5.69	122.58	126.00
25	YA	804	A	C5-N7-C8	-5.69	101.05	103.90
25	YA	1131	G	O5'-P-OP2	-5.69	100.58	105.70
25	YA	1344	G	N3-C4-N9	-5.69	122.58	126.00
25	YA	1421	G	N1-C6-O6	5.69	123.31	119.90
25	YA	1680	U	N3-C4-C5	-5.69	111.19	114.60
25	YA	1705	G	N3-C4-N9	5.69	129.41	126.00
25	YA	2623	G	C4-N9-C1'	5.69	133.90	126.50

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2647	U	C5-C4-O4	5.69	129.31	125.90
1	QA	161	A	N9-C4-C5	5.69	108.08	105.80
1	QA	496	A	C2-N3-C4	5.69	113.44	110.60
25	RA	1658	C	C6-N1-C2	-5.69	118.02	120.30
25	RA	2583	G	C4-C5-N7	-5.69	108.52	110.80
1	XA	904	C	N3-C4-C5	5.69	124.17	121.90
1	XA	1380	U	N3-C4-O4	-5.69	115.42	119.40
25	YA	228	A	C4-N9-C1'	5.69	136.54	126.30
1	QA	258	G	N1-C6-O6	5.69	123.31	119.90
1	QA	299	G	C5-C6-O6	5.69	132.01	128.60
25	RA	2639	A	C5-C6-N1	-5.69	114.86	117.70
1	XA	1452	C	C2-N1-C1'	5.69	125.06	118.80
25	YA	132	G	C8-N9-C1'	-5.69	119.61	127.00
25	YA	379	G	C5-C6-O6	-5.69	125.19	128.60
25	YA	523	C	C5-C6-N1	5.69	123.84	121.00
25	YA	952	G	C4-N9-C1'	5.69	133.90	126.50
1	XA	1313	U	C5-C6-N1	5.69	125.54	122.70
25	RA	688	U	N3-C4-C5	-5.68	111.19	114.60
25	RA	1299	G	C8-N9-C1'	5.68	134.39	127.00
25	RA	2556	C	C5-C4-N4	-5.68	116.22	120.20
25	YA	649	G	C5-C6-N1	-5.68	108.66	111.50
25	YA	906	G	N9-C4-C5	5.68	107.67	105.40
25	YA	1378	A	C2-N3-C4	-5.68	107.76	110.60
25	YA	1385	G	C6-C5-N7	5.68	133.81	130.40
1	QA	48	C	N3-C4-C5	5.68	124.17	121.90
1	QA	1336	C	C6-N1-C1'	-5.68	113.98	120.80
25	RA	300	A	C6-C5-N7	-5.68	128.32	132.30
25	RA	1241	A	C8-N9-C4	-5.68	103.53	105.80
1	XA	953	G	N1-C6-O6	-5.68	116.49	119.90
25	YA	184	C	C6-N1-C2	5.68	122.57	120.30
25	YA	1330	C	N3-C4-C5	5.68	124.17	121.90
25	YA	2003	G	C2-N3-C4	-5.68	109.06	111.90
25	YA	2080	G	C4-C5-C6	5.68	122.21	118.80
1	QA	1336	C	C5-C6-N1	5.68	123.84	121.00
25	RA	566	U	N3-C2-O2	5.68	126.18	122.20
25	RA	974(A)	C	C5-C4-N4	5.68	124.18	120.20
25	YA	379	G	N3-C2-N2	5.68	123.88	119.90
25	YA	2509	G	C4-C5-N7	5.68	113.07	110.80
1	QA	317	G	N3-C4-N9	5.68	129.41	126.00
25	YA	533	G	N9-C4-C5	5.68	107.67	105.40
25	YA	620	G	N3-C4-N9	-5.68	122.59	126.00
25	YA	1903	G	C2-N3-C4	-5.68	109.06	111.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2060	A	C2-N3-C4	-5.68	107.76	110.60
25	RA	904	C	C2-N1-C1'	5.68	125.05	118.80
25	RA	2573	C	C5-C6-N1	5.68	123.84	121.00
25	YA	756	C	C6-N1-C2	5.68	122.57	120.30
1	QA	1236	A	C8-N9-C4	-5.68	103.53	105.80
25	RA	729	G	C5-C6-O6	-5.68	125.19	128.60
25	RA	1924	C	C6-N1-C2	-5.68	118.03	120.30
25	RA	2814	C	C2-N1-C1'	-5.68	112.56	118.80
1	XA	971	G	O4'-C1'-N9	5.68	112.74	108.20
25	YA	452	G	C6-N1-C2	-5.68	121.69	125.10
25	YA	503	A	P-O3'-C3'	5.68	126.51	119.70
25	YA	1447	G	N1-C6-O6	5.68	123.31	119.90
25	YA	2677	G	C8-N9-C1'	-5.68	119.62	127.00
1	QA	1446	A	P-O3'-C3'	5.67	126.51	119.70
25	RA	1333	C	C5-C4-N4	-5.67	116.23	120.20
25	RA	2638	G	N1-C6-O6	5.67	123.31	119.90
25	YA	431	U	N3-C4-O4	5.67	123.37	119.40
25	YA	486	C	C5-C6-N1	5.67	123.84	121.00
25	YA	1907	G	N3-C4-N9	-5.67	122.60	126.00
1	XA	687	A	N1-C6-N6	-5.67	115.20	118.60
25	YA	1890	A	N1-C6-N6	5.67	122.00	118.60
25	YA	2609	U	C5-C6-N1	-5.67	119.86	122.70
1	QA	971	G	C4-N9-C1'	5.67	133.87	126.50
25	RA	856	C	C2-N3-C4	5.67	122.73	119.90
25	RA	2052	G	N3-C4-C5	5.67	131.44	128.60
1	XA	359	U	C5-C4-O4	5.67	129.30	125.90
1	XA	656	C	C6-N1-C2	-5.67	118.03	120.30
25	YA	523	C	N3-C2-O2	-5.67	117.93	121.90
25	YA	549	G	C4-C5-N7	5.67	113.07	110.80
25	RA	1180	C	C5-C6-N1	5.67	123.83	121.00
25	YA	319	C	N1-C2-O2	-5.67	115.50	118.90
1	QA	1227	A	C2-N3-C4	-5.67	107.77	110.60
25	RA	220	G	N3-C4-C5	-5.67	125.77	128.60
25	RA	1835	G	C2-N3-C4	5.67	114.73	111.90
25	RA	2478	A	C2-N3-C4	-5.67	107.77	110.60
25	RA	2765	A	C2-N3-C4	-5.67	107.77	110.60
25	YA	1311	G	N3-C4-N9	5.67	129.40	126.00
25	YA	1364	G	N1-C2-N3	5.67	127.30	123.90
25	YA	1971	A	C8-N9-C4	5.67	108.07	105.80
1	QA	884	U	C5-C6-N1	-5.67	119.87	122.70
1	QA	1111	A	C5-N7-C8	-5.67	101.07	103.90
25	RA	2333	A	C5-C6-N1	5.67	120.53	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	460	A	C8-N9-C4	5.67	108.07	105.80
25	RA	2083	G	C4-C5-N7	5.67	113.07	110.80
25	RA	2267	A	C5-C6-N1	5.67	120.53	117.70
25	YA	1424	G	N1-C2-N3	5.67	127.30	123.90
1	QA	523	A	C5-C6-N1	-5.66	114.87	117.70
1	QA	525	C	N3-C4-N4	5.66	121.97	118.00
1	QA	578	C	N3-C2-O2	-5.66	117.94	121.90
1	QA	993	G	C4-N9-C1'	5.66	133.86	126.50
25	RA	382	G	C6-N1-C2	5.66	128.50	125.10
25	RA	2862	G	N3-C4-C5	-5.66	125.77	128.60
1	XA	701	C	P-O3'-C3'	5.66	126.50	119.70
25	YA	1379	A	P-O3'-C3'	5.66	126.50	119.70
25	YA	1380	G	N1-C6-O6	5.66	123.30	119.90
25	YA	2422	A	N3-C4-C5	5.66	130.76	126.80
25	YA	203	C	C5-C6-N1	-5.66	118.17	121.00
25	YA	683	C	C4-C5-C6	5.66	120.23	117.40
25	YA	686	G	C2-N3-C4	-5.66	109.07	111.90
1	QA	867	G	N3-C4-C5	-5.66	125.77	128.60
25	RA	624	C	C4-C5-C6	-5.66	114.57	117.40
25	RA	1821	A	C6-C5-N7	-5.66	128.34	132.30
25	RA	2682	U	N3-C2-O2	-5.66	118.24	122.20
25	YA	196	A	C6-C5-N7	-5.66	128.34	132.30
25	YA	243	U	O5'-P-OP1	-5.66	100.61	105.70
25	YA	436	C	C4-C5-C6	5.66	120.23	117.40
25	YA	1602	U	C4-C5-C6	5.66	123.10	119.70
25	YA	2839	G	C4-N9-C1'	5.66	133.86	126.50
19	QS	6	LYS	N-CA-C	-5.66	95.72	111.00
25	RA	407	G	N3-C4-C5	-5.66	125.77	128.60
25	RA	1496	A	C4-N9-C1'	5.66	136.49	126.30
25	RA	1785	A	C8-N9-C4	-5.66	103.54	105.80
25	RA	1869	G	N7-C8-N9	5.66	115.93	113.10
25	RA	2227	A	N3-C4-N9	-5.66	122.87	127.40
25	RA	2250	G	O5'-P-OP1	-5.66	100.61	105.70
25	RA	2544	G	C4-C5-C6	5.66	122.19	118.80
1	XA	1014	A	N1-C6-N6	5.66	122.00	118.60
1	XA	1429	C	N3-C4-C5	5.66	124.16	121.90
25	YA	2440	C	O5'-P-OP1	-5.66	100.61	105.70
1	QA	557	G	N9-C4-C5	-5.66	103.14	105.40
25	RA	2325	G	N3-C2-N2	-5.66	115.94	119.90
25	YA	990	A	C4-C5-C6	5.66	119.83	117.00
25	YA	2619	C	N1-C2-O2	-5.66	115.51	118.90
1	QA	798	G	C5-C6-O6	-5.66	125.21	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	103	A	N1-C2-N3	5.66	132.13	129.30
25	YA	811	U	O5'-P-OP1	-5.66	100.61	105.70
25	YA	1280	G	C5-C6-N1	5.65	114.33	111.50
26	YB	89	G	N7-C8-N9	5.65	115.93	113.10
1	QA	913	A	OP2-P-O3'	5.65	117.63	105.20
25	RA	1809	A	N1-C2-N3	5.65	132.13	129.30
25	RA	2399	G	C8-N9-C1'	-5.65	119.65	127.00
25	RA	2458	G	N3-C4-C5	-5.65	125.77	128.60
25	RA	2713	A	C5-N7-C8	-5.65	101.07	103.90
25	YA	1517	G	N3-C4-N9	5.65	129.39	126.00
25	YA	2839	G	C8-N9-C1'	-5.65	119.65	127.00
1	QA	352	C	C2-N3-C4	5.65	122.72	119.90
25	RA	2053	G	C8-N9-C1'	5.65	134.34	127.00
25	RA	2383	G	C5-N7-C8	-5.65	101.47	104.30
1	XA	112	G	N1-C6-O6	5.65	123.29	119.90
1	XA	690	G	C2-N3-C4	-5.65	109.08	111.90
25	YA	112	U	C5-C4-O4	-5.65	122.51	125.90
25	YA	713	G	C4-C5-C6	5.65	122.19	118.80
25	YA	819	A	OP2-P-O3'	5.65	117.63	105.20
25	YA	1378	A	N3-C4-N9	-5.65	122.88	127.40
25	YA	2230	G	C5-C6-O6	-5.65	125.21	128.60
1	QA	34	C	C6-N1-C2	-5.65	118.04	120.30
1	QA	138	G	C5-C6-O6	-5.65	125.21	128.60
25	RA	2862	G	N3-C4-N9	5.65	129.39	126.00
1	XA	47	C	C4-C5-C6	5.65	120.22	117.40
25	YA	1206	G	N1-C2-N3	5.65	127.29	123.90
25	YA	1620	G	C2-N3-C4	-5.65	109.08	111.90
25	YA	1698	A	OP1-P-O3'	5.65	117.63	105.20
25	RA	2507	C	N3-C2-O2	5.65	125.85	121.90
25	YA	955	C	N3-C2-O2	5.65	125.85	121.90
25	YA	2371	G	C8-N9-C4	-5.65	104.14	106.40
1	QA	537	G	O5'-P-OP1	-5.64	100.62	105.70
1	QA	886	G	C8-N9-C4	5.64	108.66	106.40
25	RA	704	G	N3-C4-N9	5.64	129.39	126.00
25	RA	1377	G	C4-N9-C1'	5.64	133.84	126.50
25	RA	1426	G	C4-C5-N7	-5.64	108.54	110.80
25	RA	1564	C	C6-N1-C2	-5.64	118.04	120.30
26	RB	53	A	C2-N3-C4	5.64	113.42	110.60
1	XA	423	G	N3-C4-C5	-5.64	125.78	128.60
25	YA	141(A)	C	C6-N1-C2	5.64	122.56	120.30
25	YA	1392	A	N9-C4-C5	5.64	108.06	105.80
25	YA	1835	G	N3-C4-N9	5.64	129.39	126.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2049	G	C6-C5-N7	-5.64	127.01	130.40
1	QA	561	U	C6-N1-C2	5.64	124.39	121.00
1	QA	1487	G	N1-C2-N3	5.64	127.28	123.90
25	RA	503	A	P-O3'-C3'	5.64	126.47	119.70
25	RA	1470	G	C8-N9-C4	-5.64	104.14	106.40
26	RB	53	A	N7-C8-N9	5.64	116.62	113.80
1	XA	315	A	C4-C5-C6	-5.64	114.18	117.00
1	XA	1417	G	C4-C5-N7	-5.64	108.54	110.80
25	YA	1908	C	N3-C2-O2	-5.64	117.95	121.90
25	YA	1938	A	C8-N9-C4	5.64	108.06	105.80
25	YA	2513	G	C8-N9-C4	-5.64	104.14	106.40
25	RA	124	G	C4-C5-C6	5.64	122.18	118.80
25	YA	673	C	N3-C2-O2	-5.64	117.95	121.90
25	YA	798	G	C2-N3-C4	-5.64	109.08	111.90
25	YA	2053	G	N1-C6-O6	5.64	123.28	119.90
25	YA	2607	G	N3-C4-C5	-5.64	125.78	128.60
25	YA	270(Y)	G	N9-C4-C5	5.64	107.66	105.40
25	YA	2249	U	C4-C5-C6	5.64	123.08	119.70
25	YA	2710	C	N1-C2-N3	5.64	123.15	119.20
1	QA	633	G	C4-N9-C1'	5.64	133.83	126.50
1	QA	758	G	N3-C4-C5	5.64	131.42	128.60
1	QA	1340	A	N1-C6-N6	5.64	121.98	118.60
25	RA	145	G	C8-N9-C1'	5.64	134.33	127.00
25	RA	199	A	O5'-P-OP2	-5.64	100.63	105.70
25	RA	649	G	N3-C4-C5	-5.64	125.78	128.60
25	RA	1223	C	N3-C2-O2	5.64	125.84	121.90
25	RA	2640	G	C2-N3-C4	-5.64	109.08	111.90
1	XA	869	G	C5-C6-N1	-5.64	108.68	111.50
1	XA	1054	C	C4-C5-C6	-5.64	114.58	117.40
25	YA	382	G	C5-N7-C8	-5.64	101.48	104.30
25	YA	2520	C	N1-C2-O2	-5.64	115.52	118.90
1	QA	239	U	C6-N1-C2	-5.63	117.62	121.00
1	QA	1401	G	N1-C6-O6	5.63	123.28	119.90
25	RA	479	A	C8-N9-C4	-5.63	103.55	105.80
1	XA	1187	G	C6-C5-N7	-5.63	127.02	130.40
25	RA	1948	G	N1-C6-O6	5.63	123.28	119.90
1	XA	116	A	C5-C6-N1	5.63	120.52	117.70
25	YA	839	U	N3-C2-O2	-5.63	118.26	122.20
25	YA	2422	A	N1-C6-N6	5.63	121.98	118.60
25	RA	2325	G	C2-N3-C4	-5.63	109.08	111.90
1	XA	1127	G	N3-C4-C5	5.63	131.42	128.60
25	YA	195	A	N7-C8-N9	5.63	116.62	113.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	867	C	N3-C4-C5	-5.63	119.65	121.90
25	YA	1012	U	C2-N1-C1'	-5.63	110.94	117.70
25	YA	1189	A	O5'-P-OP2	5.63	117.46	110.70
25	RA	846	C	P-O3'-C3'	5.63	126.46	119.70
25	RA	2278	A	O4'-C1'-N9	5.63	112.70	108.20
25	YA	326	G	C5-C6-N1	-5.63	108.69	111.50
25	YA	393	C	N3-C2-O2	5.63	125.84	121.90
25	YA	1423	G	N7-C8-N9	-5.63	110.28	113.10
25	RA	828	U	N3-C2-O2	-5.63	118.26	122.20
25	RA	1153	C	C6-N1-C2	-5.63	118.05	120.30
25	YA	1844	C	OP1-P-O3'	5.63	117.58	105.20
25	YA	2002	G	C4-C5-N7	5.63	113.05	110.80
25	YA	2555	U	N1-C2-O2	-5.63	118.86	122.80
25	RA	914	C	O5'-P-OP2	-5.63	100.64	105.70
25	RA	2722	G	N3-C4-N9	5.63	129.38	126.00
1	XA	170	U	C6-N1-C2	-5.63	117.62	121.00
25	YA	1557	C	C5-C6-N1	-5.63	118.19	121.00
25	YA	2590	A	N9-C4-C5	-5.63	103.55	105.80
1	QA	566	G	C6-C5-N7	5.62	133.78	130.40
1	QA	664	G	C5-C6-O6	5.62	131.97	128.60
25	RA	2237	G	C4-N9-C1'	5.62	133.81	126.50
25	YA	218	A	C6-C5-N7	5.62	136.24	132.30
25	RA	1817	G	C8-N9-C4	-5.62	104.15	106.40
25	RA	2028	U	N3-C2-O2	5.62	126.14	122.20
25	RA	2393	A	N3-C4-C5	5.62	130.74	126.80
1	XA	724	G	N3-C4-C5	-5.62	125.79	128.60
1	XA	1292	U	C5-C6-N1	-5.62	119.89	122.70
25	YA	1180	C	C2-N1-C1'	5.62	124.99	118.80
1	QA	331	G	N7-C8-N9	5.62	115.91	113.10
1	QA	664	G	N3-C4-N9	-5.62	122.63	126.00
25	RA	2452	C	C6-N1-C2	-5.62	118.05	120.30
25	RA	2665	A	C4-N9-C1'	5.62	136.42	126.30
25	YA	539	G	N3-C4-N9	5.62	129.37	126.00
25	YA	1666	G	C8-N9-C4	5.62	108.65	106.40
25	YA	2053	G	C4-C5-N7	5.62	113.05	110.80
1	XA	960	U	N3-C4-C5	-5.62	111.23	114.60
25	YA	776	G	N1-C6-O6	-5.62	116.53	119.90
25	YA	1788	C	C2-N1-C1'	-5.62	112.62	118.80
25	YA	1992	G	O4'-C1'-N9	-5.62	103.70	108.20
25	YA	2429	G	C6-C5-N7	-5.62	127.03	130.40
25	YA	2620	C	O5'-P-OP2	5.62	117.44	110.70
25	YA	2707	G	C6-C5-N7	5.62	133.77	130.40

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	179	G	N1-C6-O6	5.62	123.27	119.90
25	YA	193	U	N1-C2-N3	5.62	118.27	114.90
25	YA	1728	G	C5-C6-O6	-5.62	125.23	128.60
1	QA	483	C	C6-N1-C2	5.62	122.55	120.30
25	RA	85	G	O5'-P-OP2	-5.62	100.64	105.70
25	RA	2261	C	O5'-P-OP2	-5.62	100.64	105.70
1	XA	858	G	N7-C8-N9	5.62	115.91	113.10
25	YA	979	G	N9-C4-C5	5.62	107.65	105.40
25	YA	1193	G	N3-C4-C5	5.62	131.41	128.60
25	YA	1240	U	N3-C4-C5	-5.62	111.23	114.60
1	QA	1430	C	C6-N1-C2	-5.62	118.05	120.30
25	RA	1763	G	N3-C4-N9	-5.62	122.63	126.00
25	RA	1834	U	N1-C2-N3	5.62	118.27	114.90
1	XA	240	C	C5-C6-N1	-5.62	118.19	121.00
25	YA	1442	G	N3-C4-C5	-5.62	125.79	128.60
1	QA	372	C	N1-C2-N3	-5.61	115.27	119.20
1	QA	690	G	C6-C5-N7	-5.61	127.03	130.40
1	QA	1158	C	C2-N3-C4	5.61	122.71	119.90
25	RA	1327	C	C6-N1-C2	-5.61	118.06	120.30
25	RA	2009	G	O5'-P-OP1	5.61	117.44	110.70
1	XA	34	C	N3-C4-C5	5.61	124.14	121.90
25	YA	111	A	N1-C6-N6	-5.61	115.23	118.60
25	YA	1979	C	C5-C6-N1	5.61	123.81	121.00
25	YA	2523	G	C5-N7-C8	-5.61	101.49	104.30
25	RA	309	G	C6-C5-N7	-5.61	127.03	130.40
25	RA	2246	G	C5-C6-O6	-5.61	125.23	128.60
25	YA	2814	C	N1-C2-N3	5.61	123.13	119.20
1	QA	790	A	N7-C8-N9	5.61	116.61	113.80
25	RA	184	C	N3-C4-C5	5.61	124.14	121.90
25	RA	1505	C	C2-N1-C1'	5.61	124.97	118.80
25	RA	1814	G	C5-C6-N1	-5.61	108.69	111.50
25	RA	2552	U	C5-C6-N1	-5.61	119.89	122.70
25	RA	2702	U	C4-C5-C6	-5.61	116.33	119.70
1	XA	176	C	C6-N1-C2	-5.61	118.06	120.30
25	YA	980	A	N9-C4-C5	-5.61	103.56	105.80
25	YA	2548	G	C4-C5-C6	5.61	122.17	118.80
25	YA	2707	G	C4-N9-C1'	-5.61	119.21	126.50
26	YB	24	G	P-O3'-C3'	5.61	126.43	119.70
25	RA	1667	G	C4-C5-N7	5.61	113.04	110.80
25	RA	2088	G	C4-C5-C6	5.61	122.17	118.80
26	RB	115	G	N3-C2-N2	-5.61	115.97	119.90
1	XA	1517	G	N9-C4-C5	-5.61	103.16	105.40

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	690	G	N1-C6-O6	5.61	123.27	119.90
1	QA	930	C	C6-N1-C2	-5.61	118.06	120.30
25	RA	593	G	C5-C6-N1	-5.61	108.70	111.50
25	YA	592	G	C2-N3-C4	5.61	114.70	111.90
25	YA	2228	G	N3-C4-C5	-5.61	125.80	128.60
25	YA	2520	C	C2-N3-C4	-5.61	117.10	119.90
25	YA	2788	C	N3-C2-O2	-5.61	117.97	121.90
25	RA	116	C	N3-C4-C5	-5.61	119.66	121.90
25	RA	1238	G	N3-C4-N9	-5.61	122.64	126.00
25	RA	1325	G	O4'-C1'-N9	5.61	112.68	108.20
25	RA	1682	G	C5-C6-O6	-5.61	125.24	128.60
25	RA	2720	U	C6-N1-C2	-5.61	117.64	121.00
25	YA	533	G	C8-N9-C4	-5.61	104.16	106.40
25	YA	1621	U	N1-C2-O2	-5.61	118.88	122.80
25	YA	2569	G	N3-C4-N9	5.61	129.36	126.00
25	YA	2672	G	C5-C6-O6	-5.61	125.24	128.60
1	QA	1529	G	C4-N9-C1'	5.60	133.78	126.50
25	RA	537	C	C5-C6-N1	5.60	123.80	121.00
1	XA	896	C	C6-N1-C2	5.60	122.54	120.30
25	YA	415	A	N9-C4-C5	-5.60	103.56	105.80
25	YA	693	C	C2-N3-C4	-5.60	117.10	119.90
25	YA	1416	G	P-O3'-C3'	5.60	126.42	119.70
25	YA	2881	C	C6-N1-C2	-5.60	118.06	120.30
1	QA	1158	C	C6-N1-C2	-5.60	118.06	120.30
25	YA	74	A	O4'-C1'-N9	-5.60	103.72	108.20
25	YA	441	U	N3-C2-O2	5.60	126.12	122.20
25	RA	270(R)	G	N1-C6-O6	5.60	123.26	119.90
25	RA	1404	C	C6-N1-C2	-5.60	118.06	120.30
25	RA	1667	G	OP1-P-OP2	-5.60	111.20	119.60
25	RA	1809	A	C6-C5-N7	-5.60	128.38	132.30
25	RA	2367	G	C6-C5-N7	-5.60	127.04	130.40
25	YA	1268	A	O5'-P-OP2	-5.60	100.66	105.70
25	YA	1273	U	C5-C6-N1	-5.60	119.90	122.70
25	YA	1517	G	N3-C4-C5	-5.60	125.80	128.60
25	YA	2227	A	C5-C6-N6	5.60	128.18	123.70
25	RA	1781	C	C5-C6-N1	5.60	123.80	121.00
25	RA	1951	U	N3-C4-C5	-5.60	111.24	114.60
25	RA	2048	G	N1-C2-N3	5.60	127.26	123.90
1	XA	186(B)	C	C6-N1-C2	-5.60	118.06	120.30
25	YA	1447	G	C8-N9-C4	-5.60	104.16	106.40
25	YA	329	G	O5'-P-OP1	-5.60	100.66	105.70
25	YA	410	G	O5'-P-OP2	5.60	117.42	110.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2822	G	C5-C6-N1	-5.60	108.70	111.50
1	QA	232	G	C8-N9-C1'	-5.59	119.73	127.00
1	QA	717	C	C5-C6-N1	5.59	123.80	121.00
25	RA	1328	G	C4-N9-C1'	5.59	133.77	126.50
25	RA	1469	A	O5'-P-OP1	-5.59	100.67	105.70
12	XL	45	PRO	CA-N-CD	-5.59	103.67	111.50
25	YA	425	G	N1-C6-O6	5.59	123.26	119.90
25	YA	928	G	N1-C2-N2	5.59	121.23	116.20
25	YA	1421	G	C6-C5-N7	-5.59	127.04	130.40
1	QA	394	G	N9-C4-C5	5.59	107.64	105.40
25	RA	2318	G	N7-C8-N9	5.59	115.90	113.10
1	XA	108	G	C8-N9-C1'	-5.59	119.73	127.00
1	XA	1523	G	C5-C6-N1	-5.59	108.70	111.50
25	YA	1368	G	C6-C5-N7	-5.59	127.04	130.40
25	RA	329	G	OP1-P-OP2	5.59	127.99	119.60
25	RA	745	G	C6-C5-N7	-5.59	127.05	130.40
25	RA	746	A	OP2-P-O3'	5.59	117.50	105.20
25	RA	1665	A	N3-C4-N9	5.59	131.87	127.40
25	RA	2398	U	C5-C6-N1	5.59	125.50	122.70
1	XA	903	G	C2-N3-C4	-5.59	109.11	111.90
1	XA	1108	G	C4-C5-N7	-5.59	108.56	110.80
25	YA	1182	A	C6-C5-N7	-5.59	128.39	132.30
1	QA	182	U	C5-C6-N1	5.59	125.50	122.70
1	QA	1205	U	C5-C6-N1	5.59	125.49	122.70
25	RA	932	G	C4-N9-C1'	-5.59	119.23	126.50
25	RA	2339	G	N3-C4-N9	5.59	129.35	126.00
25	RA	2820	A	C2-N3-C4	-5.59	107.81	110.60
1	XA	966	G	C8-N9-C4	5.59	108.64	106.40
1	XA	1480	G	C2-N3-C4	-5.59	109.11	111.90
25	YA	270(Y)	G	C4-C5-N7	-5.59	108.56	110.80
25	YA	995	C	C6-N1-C1'	-5.59	114.09	120.80
25	YA	1132	A	N1-C2-N3	-5.59	126.51	129.30
25	YA	2255	G	O5'-P-OP1	5.59	117.41	110.70
1	QA	243	A	C6-C5-N7	-5.59	128.39	132.30
25	RA	2000	G	O4'-C1'-N9	5.59	112.67	108.20
1	XA	659	U	C5-C6-N1	-5.59	119.91	122.70
1	XA	1187	G	N3-C4-N9	5.59	129.35	126.00
1	XA	1206	G	C6-C5-N7	-5.59	127.05	130.40
25	YA	71	A	C5-C6-N1	-5.59	114.91	117.70
25	YA	1559	G	O4'-C1'-N9	5.59	112.67	108.20
1	QA	396	G	N3-C4-C5	5.59	131.39	128.60
1	QA	1525	G	N7-C8-N9	-5.59	110.31	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1857	G	C8-N9-C1'	-5.59	119.74	127.00
1	XA	1259	C	C5-C6-N1	5.59	123.79	121.00
25	YA	667	U	N3-C4-O4	5.59	123.31	119.40
25	YA	680	G	C6-C5-N7	-5.59	127.05	130.40
25	YA	792	G	N3-C2-N2	5.59	123.81	119.90
25	YA	2269	A	C2-N3-C4	-5.59	107.81	110.60
1	QA	300	A	C8-N9-C4	-5.58	103.57	105.80
25	RA	225	A	N1-C6-N6	-5.58	115.25	118.60
25	YA	1768	U	C6-N1-C1'	5.58	129.02	121.20
25	YA	2690	C	N3-C4-C5	-5.58	119.67	121.90
25	RA	508	G	O4'-C1'-N9	5.58	112.67	108.20
25	RA	1666	G	N3-C4-C5	-5.58	125.81	128.60
1	XA	140	A	C8-N9-C4	-5.58	103.57	105.80
1	XA	529	G	C5-N7-C8	-5.58	101.51	104.30
1	XA	792	A	C5-N7-C8	-5.58	101.11	103.90
25	YA	593	G	C5-C6-N1	-5.58	108.71	111.50
25	YA	1252	G	N3-C4-N9	5.58	129.35	126.00
1	QA	200	G	N3-C4-C5	-5.58	125.81	128.60
1	QA	587	G	N3-C4-N9	5.58	129.35	126.00
25	RA	1269	A	C5-C6-N1	-5.58	114.91	117.70
25	RA	2496	C	N3-C4-C5	5.58	124.13	121.90
25	YA	841	A	N3-C4-C5	5.58	130.71	126.80
25	YA	1900	A	C6-N1-C2	-5.58	115.25	118.60
25	YA	2518	A	C5-C6-N6	-5.58	119.23	123.70
25	YA	2731	G	C4-C5-N7	5.58	113.03	110.80
25	YA	2869	G	C4-N9-C1'	5.58	133.76	126.50
26	YB	98	G	N7-C8-N9	-5.58	110.31	113.10
25	RA	530	G	O4'-C1'-N9	5.58	112.66	108.20
25	RA	783	A	N9-C1'-C2'	-5.58	105.86	112.00
25	RA	1370	C	C6-N1-C2	5.58	122.53	120.30
25	YA	2454	G	OP1-P-O3'	-5.58	92.92	105.20
1	QA	1200	C	N1-C2-O2	5.58	122.25	118.90
25	RA	1703	G	N9-C4-C5	-5.58	103.17	105.40
25	RA	2455	G	N9-C4-C5	-5.58	103.17	105.40
25	RA	2548	G	C5-C6-O6	-5.58	125.25	128.60
25	YA	945	A	C4-C5-C6	5.58	119.79	117.00
25	YA	2634	G	C5-C6-O6	-5.58	125.25	128.60
25	RA	774	A	N1-C6-N6	5.58	121.95	118.60
33	RN	114	ARG	N-CA-C	-5.58	95.94	111.00
25	YA	192	C	N1-C2-O2	5.58	122.25	118.90
25	YA	452	G	N3-C4-N9	5.58	129.35	126.00
25	YA	1528	A	C5-N7-C8	-5.58	101.11	103.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1542	G	N3-C4-N9	5.58	129.35	126.00
25	YA	2702	U	N3-C2-O2	-5.58	118.30	122.20
1	QA	115	G	C8-N9-C4	5.58	108.63	106.40
25	RA	922	U	O5'-P-OP1	-5.58	100.68	105.70
25	RA	1236	G	C5-N7-C8	-5.58	101.51	104.30
25	RA	1253	A	C5-N7-C8	-5.58	101.11	103.90
25	RA	1634	A	C6-N1-C2	-5.58	115.25	118.60
25	RA	2482	G	O5'-P-OP1	-5.58	100.68	105.70
1	XA	568	G	N3-C4-C5	-5.58	125.81	128.60
1	XA	1204	A	C5-C6-N6	-5.58	119.24	123.70
25	YA	1602	U	C5-C6-N1	5.58	125.49	122.70
25	YA	2108	C	C6-N1-C2	-5.58	118.07	120.30
1	QA	422	C	C6-N1-C2	-5.57	118.07	120.30
25	RA	450	G	N7-C8-N9	5.57	115.89	113.10
25	YA	2432	A	C4-C5-C6	5.57	119.79	117.00
25	YA	2439	A	P-O3'-C3'	5.57	126.39	119.70
25	RA	501	A	C5-C6-N6	5.57	128.16	123.70
25	RA	618	G	C4-N9-C1'	5.57	133.74	126.50
25	RA	2499	C	N3-C4-C5	-5.57	119.67	121.90
25	YA	813	U	C5-C6-N1	-5.57	119.91	122.70
25	YA	1142(A)	A	C6-C5-N7	-5.57	128.40	132.30
25	YA	2247	A	C6-C5-N7	-5.57	128.40	132.30
25	RA	404	C	OP1-P-OP2	-5.57	111.25	119.60
25	RA	2074	U	C6-N1-C2	-5.57	117.66	121.00
25	YA	1560	G	N9-C4-C5	-5.57	103.17	105.40
25	YA	1695	G	C8-N9-C4	-5.57	104.17	106.40
25	YA	1825	A	N1-C6-N6	-5.57	115.26	118.60
25	YA	1968	G	C8-N9-C4	-5.57	104.17	106.40
25	YA	2111	C	C6-N1-C2	-5.57	118.07	120.30
25	YA	2364	C	C2-N1-C1'	-5.57	112.67	118.80
25	YA	2830	G	N3-C4-N9	5.57	129.34	126.00
1	QA	232	G	C4-C5-C6	5.57	122.14	118.80
1	QA	558	G	C5-C6-N1	-5.57	108.72	111.50
1	QA	1432	G	N1-C6-O6	5.57	123.24	119.90
25	RA	420	C	C6-N1-C2	-5.57	118.07	120.30
25	RA	779	U	C5-C4-O4	-5.57	122.56	125.90
25	RA	2570	G	N9-C4-C5	-5.57	103.17	105.40
1	QA	800	G	N9-C4-C5	5.57	107.63	105.40
25	RA	981	A	C8-N9-C4	-5.57	103.57	105.80
25	RA	2287	A	C5-C6-N1	-5.57	114.92	117.70
25	RA	2500	U	N3-C4-C5	5.57	117.94	114.60
25	YA	1695	G	N7-C8-N9	5.57	115.88	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1849	G	C8-N9-C4	-5.57	104.17	106.40
25	RA	702	G	N3-C4-C5	-5.57	125.82	128.60
25	RA	1661	G	N7-C8-N9	-5.57	110.32	113.10
25	RA	1858	G	P-O3'-C3'	5.57	126.38	119.70
25	RA	2457	U	N3-C2-O2	-5.57	118.30	122.20
25	RA	2633	G	N3-C4-N9	5.57	129.34	126.00
25	RA	2837	G	C5-N7-C8	-5.57	101.52	104.30
26	RB	53	A	N3-C4-C5	-5.57	122.90	126.80
1	XA	1199	U	C5-C4-O4	5.57	129.24	125.90
25	YA	271(C)	U	N1-C2-O2	5.57	126.70	122.80
25	YA	625	G	N3-C4-C5	5.57	131.38	128.60
25	YA	928	G	C4-C5-N7	5.57	113.03	110.80
25	YA	2874	C	O5'-P-OP2	-5.57	100.69	105.70
25	RA	621	A	C5-N7-C8	-5.56	101.12	103.90
25	RA	2580	U	C5-C6-N1	5.56	125.48	122.70
25	RA	2706	G	C4-C5-N7	5.56	113.03	110.80
1	XA	1196	U	C4-C5-C6	5.56	123.04	119.70
1	XA	1519	A	C8-N9-C4	-5.56	103.57	105.80
25	YA	1385	G	C8-N9-C1'	5.56	134.23	127.00
25	YA	2557	G	C8-N9-C1'	-5.56	119.77	127.00
1	QA	1301	U	C6-N1-C1'	-5.56	113.41	121.20
25	RA	983	A	C4-C5-C6	5.56	119.78	117.00
25	RA	1264	G	C5-C6-O6	5.56	131.94	128.60
25	RA	1894	C	C5-C6-N1	-5.56	118.22	121.00
25	YA	1353	A	N3-C4-C5	-5.56	122.91	126.80
25	YA	1499	C	C2-N1-C1'	-5.56	112.68	118.80
1	QA	1506	U	N3-C4-O4	5.56	123.29	119.40
25	RA	2719	G	OP2-P-O3'	5.56	117.44	105.20
1	XA	555	C	C6-N1-C2	-5.56	118.08	120.30
25	YA	784	A	C5-C6-N1	5.56	120.48	117.70
1	QA	337	C	C5-C6-N1	5.56	123.78	121.00
25	RA	586	A	N9-C4-C5	5.56	108.02	105.80
1	XA	317	G	C4-N9-C1'	5.56	133.73	126.50
25	YA	333	G	C6-C5-N7	-5.56	127.06	130.40
25	YA	2463	C	C4-C5-C6	5.56	120.18	117.40
1	QA	425	G	N1-C6-O6	5.56	123.23	119.90
1	QA	1119	C	C6-N1-C2	-5.56	118.08	120.30
25	RA	602	G	N1-C6-O6	5.56	123.23	119.90
25	RA	1332	G	C4-N9-C1'	5.56	133.73	126.50
25	RA	1811	G	C6-C5-N7	-5.56	127.06	130.40
25	RA	2048	G	N3-C4-C5	-5.56	125.82	128.60
1	XA	280	C	C5-C6-N1	-5.56	118.22	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2584	U	N3-C2-O2	-5.56	118.31	122.20
25	RA	2238	G	N9-C4-C5	5.56	107.62	105.40
1	XA	886	G	C2-N3-C4	-5.56	109.12	111.90
25	YA	779	U	C5-C4-O4	-5.56	122.57	125.90
25	YA	2751	G	C6-C5-N7	-5.56	127.07	130.40
1	QA	728	A	C8-N9-C4	-5.55	103.58	105.80
25	RA	407	G	C4-N9-C1'	5.55	133.72	126.50
25	RA	1764	G	N9-C4-C5	5.55	107.62	105.40
25	RA	1939	U	C6-N1-C2	-5.55	117.67	121.00
1	XA	906	G	C6-C5-N7	-5.55	127.07	130.40
25	YA	948	G	C5-C6-N1	-5.55	108.72	111.50
25	YA	1122	G	N7-C8-N9	5.55	115.88	113.10
25	YA	1455	G	C5-C6-N1	5.55	114.28	111.50
25	YA	1595	G	C5-N7-C8	-5.55	101.52	104.30
25	YA	2224	G	C5-C6-N1	-5.55	108.72	111.50
25	YA	2278	A	C5-C6-N1	5.55	120.48	117.70
50	Y4	39	CYS	N-CA-C	-5.55	96.00	111.00
25	RA	212	G	N3-C4-C5	-5.55	125.82	128.60
25	RA	680	G	C4-N9-C1'	5.55	133.72	126.50
25	RA	2206	C	N1-C2-N3	5.55	123.09	119.20
25	RA	2437	U	C6-N1-C1'	5.55	128.97	121.20
25	YA	1160	G	N1-C6-O6	5.55	123.23	119.90
25	YA	1756	G	C4-C5-C6	5.55	122.13	118.80
25	YA	1826	G	C6-C5-N7	-5.55	127.07	130.40
25	YA	2820	A	C5-C6-N1	-5.55	114.92	117.70
1	QA	721	G	N1-C6-O6	5.55	123.23	119.90
25	RA	1185	C	C5-C6-N1	5.55	123.78	121.00
25	RA	1276	A	C4-C5-N7	5.55	113.48	110.70
25	RA	1613	G	OP1-P-O3'	5.55	117.41	105.20
25	RA	2270	G	N7-C8-N9	5.55	115.88	113.10
1	XA	130	A	N1-C2-N3	-5.55	126.52	129.30
25	YA	677	A	C5-C6-N1	5.55	120.48	117.70
25	YA	2035	G	N3-C4-N9	-5.55	122.67	126.00
25	YA	2463	C	C2-N1-C1'	-5.55	112.69	118.80
25	RA	520	G	C5-C6-O6	-5.55	125.27	128.60
25	RA	1610	A	N1-C6-N6	-5.55	115.27	118.60
25	YA	429	A	C4-C5-C6	5.55	119.78	117.00
25	YA	457	A	C4-C5-C6	5.55	119.78	117.00
25	YA	1358	G	N3-C4-N9	5.55	129.33	126.00
25	YA	1446	C	C5-C6-N1	5.55	123.77	121.00
25	YA	1805	U	N1-C2-O2	-5.55	118.92	122.80
25	YA	2346	A	C8-N9-C4	-5.55	103.58	105.80

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	103	A	C4-C5-C6	5.55	119.77	117.00
25	YA	1285	G	C5-C6-N1	-5.55	108.73	111.50
25	RA	81	G	C6-C5-N7	-5.55	127.07	130.40
25	RA	1294	U	N3-C2-O2	5.55	126.08	122.20
25	RA	1312	U	P-O3'-C3'	5.55	126.36	119.70
4	XD	14	ARG	C-N-CA	-5.55	107.83	121.70
25	YA	71	A	C2-N3-C4	-5.55	107.83	110.60
25	YA	494	G	C5-C6-O6	-5.55	125.27	128.60
25	YA	1614	A	O5'-P-OP2	-5.55	100.71	105.70
25	YA	2493	U	O5'-P-OP1	-5.55	100.71	105.70
25	RA	1187	G	C4-C5-C6	5.54	122.13	118.80
25	RA	1485	G	C6-C5-N7	-5.54	127.07	130.40
26	RB	80	U	N3-C2-O2	-5.54	118.32	122.20
1	XA	674	G	C8-N9-C1'	-5.54	119.79	127.00
25	YA	110	G	C5-C6-N1	5.54	114.27	111.50
25	RA	760	G	N3-C4-N9	5.54	129.33	126.00
1	XA	893	C	N3-C2-O2	-5.54	118.02	121.90
25	YA	1022	G	C4-N9-C1'	5.54	133.71	126.50
25	YA	1840	G	N1-C2-N3	5.54	127.23	123.90
25	YA	1896	G	N3-C4-C5	-5.54	125.83	128.60
25	YA	2037	G	N3-C4-N9	5.54	129.33	126.00
25	RA	1565	C	C2-N3-C4	-5.54	117.13	119.90
25	RA	1807	G	C6-C5-N7	-5.54	127.08	130.40
25	RA	2591	C	N3-C4-N4	5.54	121.88	118.00
26	RB	30	C	N3-C4-C5	-5.54	119.68	121.90
50	R4	39	CYS	N-CA-C	-5.54	96.04	111.00
1	XA	126	G	N3-C4-N9	5.54	129.32	126.00
1	XA	777	A	C8-N9-C4	5.54	108.02	105.80
1	XA	791	G	N1-C2-N3	5.54	127.22	123.90
1	XA	1420	C	C6-N1-C2	5.54	122.52	120.30
25	YA	1786	A	N1-C2-N3	5.54	132.07	129.30
25	RA	194	G	N1-C6-O6	5.54	123.22	119.90
25	RA	527	C	C2-N1-C1'	5.54	124.89	118.80
25	YA	739	G	O5'-P-OP2	-5.54	100.71	105.70
25	RA	1690	A	O5'-P-OP2	5.54	117.35	110.70
25	YA	1786	A	N1-C6-N6	5.54	121.92	118.60
25	YA	288	C	N3-C4-C5	5.54	124.11	121.90
25	YA	846	C	P-O3'-C3'	5.54	126.34	119.70
25	RA	216	A	C5-C6-N6	-5.54	119.27	123.70
25	RA	1833	U	N1-C2-N3	5.54	118.22	114.90
25	YA	945	A	C5-C6-N6	-5.54	119.27	123.70
1	QA	1481	U	C6-N1-C2	-5.53	117.68	121.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	379	G	C4-C5-N7	5.53	113.01	110.80
25	RA	827	U	O5'-P-OP2	-5.53	100.72	105.70
25	RA	2065	C	C2-N1-C1'	5.53	124.89	118.80
1	XA	108	G	C4-N9-C1'	5.53	133.69	126.50
25	YA	446	G	N1-C6-O6	5.53	123.22	119.90
25	YA	827	U	O5'-P-OP1	5.53	117.34	110.70
25	YA	916	G	C6-C5-N7	-5.53	127.08	130.40
25	YA	2048	G	C8-N9-C4	-5.53	104.19	106.40
25	RA	1123	C	C2-N1-C1'	-5.53	112.71	118.80
1	XA	686	U	N3-C4-O4	-5.53	115.53	119.40
25	RA	1496	A	N1-C6-N6	5.53	121.92	118.60
25	RA	2869	G	N1-C6-O6	5.53	123.22	119.90
25	YA	866	A	C5-C6-N1	-5.53	114.93	117.70
25	YA	1342	A	N9-C4-C5	5.53	108.01	105.80
25	YA	1925	C	C6-N1-C1'	5.53	127.44	120.80
25	YA	1962	C	C6-N1-C1'	-5.53	114.16	120.80
33	YN	114	ARG	N-CA-C	-5.53	96.07	111.00
25	RA	298	G	N7-C8-N9	5.53	115.86	113.10
25	RA	588	U	N3-C4-O4	5.53	123.27	119.40
25	RA	1733	G	C4-N9-C1'	5.53	133.69	126.50
26	RB	71	C	C5-C6-N1	5.53	123.77	121.00
25	YA	2847	U	C5-C6-N1	5.53	125.47	122.70
1	QA	318	G	N3-C4-C5	-5.53	125.84	128.60
1	QA	525	C	C2-N3-C4	5.53	122.66	119.90
1	QA	689	C	C5-C6-N1	5.53	123.76	121.00
25	RA	139	G	C5-C6-O6	5.53	131.92	128.60
25	RA	1981	A	C5-N7-C8	-5.53	101.14	103.90
25	RA	2421	G	N9-C4-C5	-5.53	103.19	105.40
26	RB	24	G	P-O3'-C3'	5.53	126.33	119.70
1	XA	759	A	C5-C6-N6	-5.53	119.28	123.70
25	YA	58	G	C8-N9-C1'	-5.53	119.81	127.00
25	YA	828	U	N3-C2-O2	-5.53	118.33	122.20
25	YA	1216	G	C4-C5-N7	5.53	113.01	110.80
25	YA	1620	G	N1-C6-O6	5.53	123.22	119.90
25	YA	2299	G	C5-N7-C8	-5.53	101.54	104.30
25	YA	2572	A	OP1-P-O3'	5.53	117.36	105.20
26	YB	95	U	C5-C6-N1	-5.53	119.94	122.70
1	QA	1417	G	C4-N9-C1'	5.53	133.68	126.50
25	RA	1455	G	N1-C6-O6	-5.53	116.58	119.90
25	RA	2720	U	OP1-P-O3'	5.53	117.36	105.20
1	XA	226	G	N3-C2-N2	5.53	123.77	119.90
25	YA	74	A	C2-N3-C4	-5.53	107.84	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	687	C	N3-C4-C5	-5.53	119.69	121.90
25	YA	836	G	C5-C6-N1	5.53	114.26	111.50
25	YA	1306	C	C4-C5-C6	-5.53	114.64	117.40
25	YA	2294	C	N1-C2-O2	5.53	122.22	118.90
25	YA	2532	G	N7-C8-N9	5.53	115.86	113.10
25	RA	829	A	N1-C6-N6	5.52	121.91	118.60
25	RA	2205	C	O5'-P-OP2	-5.52	100.73	105.70
25	YA	1563	G	C4-C5-N7	5.52	113.01	110.80
1	QA	356	A	C2-N3-C4	5.52	113.36	110.60
1	QA	1223	C	C2-N1-C1'	5.52	124.87	118.80
25	RA	1602	U	C4-C5-C6	5.52	123.01	119.70
25	RA	2197	U	C6-N1-C2	5.52	124.31	121.00
25	RA	2734	A	C8-N9-C4	-5.52	103.59	105.80
25	YA	88	G	C4-C5-C6	5.52	122.11	118.80
25	YA	686	G	C5-C6-N1	-5.52	108.74	111.50
25	YA	792	G	N1-C6-O6	-5.52	116.59	119.90
25	RA	471	A	C5-N7-C8	-5.52	101.14	103.90
1	XA	273	A	C4-C5-C6	5.52	119.76	117.00
1	XA	542	G	N3-C4-C5	-5.52	125.84	128.60
1	XA	1027	C	OP1-P-O3'	5.52	117.35	105.20
1	QA	108	G	N7-C8-N9	5.52	115.86	113.10
25	RA	1728	G	N3-C4-C5	-5.52	125.84	128.60
25	RA	2069	G	O5'-P-OP2	5.52	117.32	110.70
25	RA	2126	A	P-O3'-C3'	5.52	126.32	119.70
25	RA	2433	A	C6-C5-N7	-5.52	128.44	132.30
25	YA	2032	G	C8-N9-C1'	5.52	134.18	127.00
1	QA	685	G	N3-C2-N2	-5.52	116.04	119.90
1	QA	890	G	N1-C6-O6	-5.52	116.59	119.90
25	RA	798	G	N3-C2-N2	-5.52	116.04	119.90
25	RA	977	G	N3-C4-N9	5.52	129.31	126.00
25	RA	1909	C	N1-C2-O2	5.52	122.21	118.90
25	RA	2000	G	O5'-P-OP2	-5.52	100.73	105.70
1	XA	484	G	C8-N9-C4	-5.52	104.19	106.40
1	XA	719	C	O5'-P-OP2	-5.52	100.73	105.70
25	YA	1377	G	C4-N9-C1'	5.52	133.67	126.50
25	YA	1983	C	N1-C2-O2	-5.52	115.59	118.90
25	YA	2020	A	C4-C5-N7	-5.52	107.94	110.70
25	YA	2073	C	C6-N1-C1'	5.52	127.42	120.80
25	YA	2256	G	C5-C6-N1	5.52	114.26	111.50
1	QA	932	C	C2-N1-C1'	5.52	124.87	118.80
25	RA	187	G	C6-C5-N7	-5.52	127.09	130.40
1	XA	924	C	C5-C6-N1	5.52	123.76	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1409	C	C5-C6-N1	-5.52	118.24	121.00
25	YA	2358	G	N3-C4-N9	-5.52	122.69	126.00
1	QA	687	A	P-O3'-C3'	5.51	126.32	119.70
25	RA	997	G	O5'-P-OP1	-5.51	100.74	105.70
25	RA	2624	G	N9-C4-C5	-5.51	103.19	105.40
25	YA	1264	G	N3-C4-C5	-5.51	125.84	128.60
25	YA	1336	A	O5'-P-OP2	-5.51	100.74	105.70
1	QA	774	G	C5-C6-O6	-5.51	125.29	128.60
25	RA	1338	G	C4-C5-N7	5.51	113.00	110.80
25	RA	2283	C	N3-C4-C5	-5.51	119.69	121.90
25	YA	78	A	N1-C6-N6	5.51	121.91	118.60
1	QA	1114	C	C5-C6-N1	5.51	123.76	121.00
25	RA	1192	G	C8-N9-C4	5.51	108.60	106.40
25	RA	1653	G	C4-N9-C1'	5.51	133.66	126.50
25	RA	1819	A	N1-C2-N3	5.51	132.06	129.30
25	RA	2591	C	N1-C2-O2	-5.51	115.59	118.90
25	YA	599	G	N1-C6-O6	5.51	123.21	119.90
25	YA	828	U	C5-C4-O4	5.51	129.21	125.90
25	YA	1433	U	C5-C4-O4	-5.51	122.59	125.90
1	QA	299	G	N9-C4-C5	5.51	107.60	105.40
25	RA	783	A	N1-C2-N3	5.51	132.05	129.30
25	RA	2729	G	C2-N3-C4	5.51	114.66	111.90
25	RA	2772	C	N3-C2-O2	5.51	125.76	121.90
25	RA	2857	G	N1-C6-O6	5.51	123.21	119.90
26	RB	18	G	C4-N9-C1'	-5.51	119.34	126.50
1	XA	720	C	N3-C2-O2	-5.51	118.04	121.90
1	XA	777	A	N1-C2-N3	-5.51	126.55	129.30
25	YA	222	A	N3-C4-C5	-5.51	122.94	126.80
25	YA	531	C	O5'-P-OP1	-5.51	100.74	105.70
25	YA	1750	G	N3-C4-C5	-5.51	125.84	128.60
25	YA	1820	U	N1-C2-N3	5.51	118.21	114.90
25	RA	747	U	N3-C2-O2	5.51	126.06	122.20
25	RA	837	C	C6-N1-C2	-5.51	118.10	120.30
25	RA	2549	G	N1-C6-O6	5.51	123.20	119.90
25	YA	1390	U	C5-C4-O4	-5.51	122.60	125.90
25	YA	2061	G	OP2-P-O3'	5.51	117.31	105.20
25	RA	303	U	C2-N1-C1'	5.50	124.31	117.70
25	YA	621	A	N7-C8-N9	5.50	116.55	113.80
25	YA	914	C	N3-C4-C5	-5.50	119.70	121.90
25	YA	983	A	C4-C5-C6	5.50	119.75	117.00
25	YA	1933	G	C6-C5-N7	-5.50	127.10	130.40
1	QA	260	G	C4-C5-N7	-5.50	108.60	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	765	G	N7-C8-N9	5.50	115.85	113.10
25	RA	990	A	C5-C6-N1	-5.50	114.95	117.70
25	RA	1008	C	C6-N1-C1'	-5.50	114.20	120.80
25	RA	1329	U	N1-C2-O2	-5.50	118.95	122.80
25	RA	1931	U	O5'-P-OP2	5.50	117.30	110.70
1	XA	812	C	N1-C2-N3	-5.50	115.35	119.20
25	YA	862	G	C5-C6-O6	5.50	131.90	128.60
25	YA	1022	G	N1-C2-N3	5.50	127.20	123.90
25	YA	2088	G	N1-C6-O6	5.50	123.20	119.90
1	QA	545	C	C6-N1-C2	-5.50	118.10	120.30
25	RA	1634	A	N3-C4-C5	-5.50	122.95	126.80
25	RA	2434	A	C8-N9-C4	5.50	108.00	105.80
25	YA	187	G	N3-C4-N9	5.50	129.30	126.00
25	YA	1243	G	C5-C6-N1	-5.50	108.75	111.50
25	YA	1558	A	C2-N3-C4	-5.50	107.85	110.60
25	RA	443	A	C5-C6-N1	-5.50	114.95	117.70
25	YA	2218	G	N1-C6-O6	5.50	123.20	119.90
25	YA	2250	G	N9-C4-C5	5.50	107.60	105.40
25	YA	2393	A	N9-C4-C5	5.50	108.00	105.80
25	YA	2436	G	N1-C6-O6	-5.50	116.60	119.90
25	RA	793	A	N1-C6-N6	5.50	121.90	118.60
25	RA	802	A	N1-C2-N3	5.50	132.05	129.30
25	RA	804	A	C4-C5-C6	-5.50	114.25	117.00
25	RA	1688	U	N3-C4-C5	-5.50	111.30	114.60
25	RA	1769	G	C4-N9-C1'	5.50	133.65	126.50
25	RA	2077	A	C6-N1-C2	5.50	121.90	118.60
25	YA	464	U	N1-C2-N3	5.50	118.20	114.90
25	YA	529	A	N1-C6-N6	5.50	121.90	118.60
25	YA	636	G	C6-C5-N7	-5.50	127.10	130.40
25	YA	715	G	N3-C4-N9	5.50	129.30	126.00
25	YA	960	A	C8-N9-C4	5.50	108.00	105.80
25	YA	1329	U	N3-C4-C5	-5.50	111.30	114.60
25	YA	2503	A	C8-N9-C4	-5.50	103.60	105.80
1	QA	667	G	N1-C6-O6	5.50	123.20	119.90
1	QA	727	G	C5-C6-O6	5.50	131.90	128.60
25	RA	588	U	N3-C4-C5	-5.50	111.30	114.60
25	RA	662	G	C6-C5-N7	-5.50	127.10	130.40
25	RA	1299	G	C4-N9-C1'	-5.50	119.36	126.50
25	RA	1626	G	C6-C5-N7	-5.50	127.10	130.40
25	RA	2019	A	N9-C4-C5	-5.50	103.60	105.80
1	XA	312	C	C6-N1-C2	-5.50	118.10	120.30
1	XA	1413	A	C4-C5-C6	-5.50	114.25	117.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	97	C	N1-C2-O2	5.50	122.20	118.90
25	YA	1325	G	O4'-C1'-N9	5.50	112.60	108.20
25	YA	1816	G	N3-C4-C5	5.50	131.35	128.60
25	YA	2527	C	C6-N1-C2	-5.50	118.10	120.30
25	RA	1162	G	N3-C4-N9	5.50	129.30	126.00
25	RA	1935	G	C6-C5-N7	-5.50	127.10	130.40
1	XA	1113	C	N1-C2-O2	5.50	122.20	118.90
25	YA	527	C	C6-N1-C1'	-5.50	114.21	120.80
25	RA	476	G	C5-C6-N1	-5.49	108.75	111.50
25	RA	1561	G	C4-C5-C6	-5.49	115.50	118.80
25	RA	1628	G	C4-N9-C1'	5.49	133.64	126.50
25	RA	2315	G	C4-C5-N7	5.49	113.00	110.80
1	XA	1225	A	C8-N9-C4	5.49	108.00	105.80
25	YA	570	G	C8-N9-C4	-5.49	104.20	106.40
25	YA	1016	G	C8-N9-C4	-5.49	104.20	106.40
25	YA	1383	C	C5-C4-N4	-5.49	116.36	120.20
25	YA	1938	A	N3-C4-C5	5.49	130.65	126.80
25	YA	2036	C	O5'-P-OP2	-5.49	100.76	105.70
25	RA	1785	A	OP1-P-OP2	5.49	127.84	119.60
1	XA	35	G	C4-C5-N7	-5.49	108.60	110.80
25	YA	1024	G	OP1-P-OP2	5.49	127.84	119.60
25	YA	1409	C	C2-N1-C1'	-5.49	112.76	118.80
25	YA	1938	A	C2-N3-C4	-5.49	107.85	110.60
1	QA	671	G	N3-C4-N9	-5.49	122.71	126.00
25	YA	191	A	C6-N1-C2	-5.49	115.31	118.60
25	YA	1897	G	N1-C6-O6	5.49	123.19	119.90
25	YA	2349	G	C8-N9-C4	-5.49	104.20	106.40
1	QA	1241	G	C8-N9-C4	5.49	108.60	106.40
25	RA	944	G	C4-C5-C6	5.49	122.09	118.80
25	RA	2452	C	C6-N1-C1'	-5.49	114.21	120.80
1	XA	583	A	C2-N3-C4	-5.49	107.86	110.60
1	XA	615	C	N3-C2-O2	-5.49	118.06	121.90
22	XV	17	C	C5-C6-N1	5.49	123.74	121.00
25	YA	88	G	N1-C6-O6	5.49	123.19	119.90
25	YA	760	G	N1-C6-O6	5.49	123.19	119.90
25	YA	1206	G	C4-C5-C6	5.49	122.09	118.80
25	YA	1477	A	N7-C8-N9	5.49	116.54	113.80
25	YA	2014	A	C6-N1-C2	-5.49	115.31	118.60
25	RA	128	C	C6-N1-C2	5.49	122.50	120.30
25	RA	2252	G	N3-C4-C5	5.49	131.34	128.60
25	RA	765	G	C4-C5-N7	5.49	113.00	110.80
26	RB	59	A	N1-C2-N3	-5.49	126.56	129.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	1495	U	C6-N1-C2	-5.49	117.71	121.00
25	RA	342	G	N1-C6-O6	5.48	123.19	119.90
25	RA	762	U	C6-N1-C2	5.48	124.29	121.00
1	QA	539	A	O5'-P-OP2	-5.48	100.77	105.70
25	RA	1581	G	N3-C4-N9	5.48	129.29	126.00
25	RA	1800	C	O5'-P-OP2	5.48	117.28	110.70
25	RA	2822	G	C4-C5-N7	5.48	112.99	110.80
1	XA	31	G	N9-C4-C5	-5.48	103.21	105.40
1	XA	791	G	C8-N9-C1'	-5.48	119.87	127.00
25	YA	837	C	C6-N1-C2	-5.48	118.11	120.30
25	YA	1328	G	C2-N3-C4	5.48	114.64	111.90
25	YA	1484	G	N1-C6-O6	5.48	123.19	119.90
25	YA	2832	U	P-O3'-C3'	5.48	126.28	119.70
25	RA	200	U	N1-C2-O2	-5.48	118.96	122.80
25	RA	639	U	N3-C4-O4	-5.48	115.56	119.40
25	RA	920	G	C8-N9-C4	-5.48	104.21	106.40
1	XA	392	G	C8-N9-C4	5.48	108.59	106.40
1	XA	1297	C	P-O3'-C3'	5.48	126.28	119.70
25	YA	71	A	N3-C4-C5	5.48	130.64	126.80
25	YA	506	G	C5-C6-N1	5.48	114.24	111.50
25	YA	1681	G	C5-C6-N1	-5.48	108.76	111.50
1	QA	812	C	C2-N1-C1'	5.48	124.83	118.80
25	RA	2065	C	C6-N1-C2	-5.48	118.11	120.30
1	XA	529	G	C6-C5-N7	-5.48	127.11	130.40
25	YA	388	G	C5-C6-N1	-5.48	108.76	111.50
1	QA	646	U	N1-C2-N3	5.48	118.19	114.90
25	RA	370	G	N1-C2-N2	-5.48	111.27	116.20
25	RA	1374	G	C4-C5-N7	5.48	112.99	110.80
25	RA	1612	C	C6-N1-C2	5.48	122.49	120.30
25	RA	2031	A	C8-N9-C4	-5.48	103.61	105.80
25	RA	2453	A	N1-C6-N6	-5.48	115.31	118.60
25	YA	242	G	O4'-C1'-N9	-5.48	103.82	108.20
25	YA	431	U	N1-C2-O2	-5.48	118.97	122.80
25	YA	2256	G	N1-C6-O6	-5.48	116.61	119.90
1	QA	1518	A	C2-N3-C4	-5.47	107.86	110.60
25	RA	2061	G	OP1-P-O3'	5.47	117.24	105.20
25	RA	2508	G	N9-C4-C5	-5.47	103.21	105.40
1	XA	670	G	N1-C6-O6	-5.47	116.61	119.90
1	XA	1108	G	C2-N3-C4	-5.47	109.16	111.90
1	XA	1408	A	N1-C6-N6	5.47	121.88	118.60
25	YA	841	A	C5-C6-N1	-5.47	114.96	117.70
25	YA	1226	G	C4-C5-C6	5.47	122.08	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2099	U	C6-N1-C2	-5.47	117.72	121.00
25	YA	2396	G	C2-N3-C4	-5.47	109.16	111.90
25	YA	2453	A	C4-C5-C6	-5.47	114.26	117.00
26	YB	98	G	N3-C4-C5	5.47	131.34	128.60
25	RA	999	U	OP1-P-O3'	5.47	117.24	105.20
1	XA	19	C	N3-C4-C5	5.47	124.09	121.90
25	YA	474	G	C6-C5-N7	-5.47	127.12	130.40
25	YA	1947	C	N3-C2-O2	-5.47	118.07	121.90
25	YA	2829	C	N3-C4-C5	5.47	124.09	121.90
1	QA	715	A	C2-N3-C4	-5.47	107.86	110.60
25	RA	619	G	N3-C4-C5	-5.47	125.86	128.60
25	RA	1141	U	P-O3'-C3'	5.47	126.27	119.70
25	YA	2639	A	C2-N3-C4	-5.47	107.86	110.60
1	QA	364	A	C8-N9-C4	5.47	107.99	105.80
1	QA	1048	G	C8-N9-C4	-5.47	104.21	106.40
1	XA	853	G	C6-C5-N7	-5.47	127.12	130.40
1	XA	1096	C	C6-N1-C2	-5.47	118.11	120.30
25	YA	754	C	C6-N1-C2	5.47	122.49	120.30
25	YA	1382	G	C5-C6-N1	-5.47	108.77	111.50
25	YA	1421	G	C4-N9-C1'	5.47	133.61	126.50
25	YA	1495	A	N1-C6-N6	-5.47	115.32	118.60
25	YA	2542	A	N3-C4-C5	5.47	130.63	126.80
25	YA	2641	G	OP2-P-O3'	5.47	117.23	105.20
1	XA	977	A	C8-N9-C4	-5.47	103.61	105.80
25	YA	1257	C	N1-C2-N3	5.47	123.03	119.20
31	YH	127	GLU	N-CA-C	-5.47	96.24	111.00
1	QA	374	A	N9-C4-C5	-5.47	103.61	105.80
25	RA	1629	U	N3-C4-C5	-5.47	111.32	114.60
25	RA	1821	A	N3-C4-N9	5.47	131.77	127.40
31	RH	127	GLU	N-CA-C	-5.47	96.24	111.00
25	YA	195	A	C4-C5-N7	5.47	113.43	110.70
25	YA	429	A	C2-N3-C4	-5.47	107.87	110.60
25	YA	2723	C	C6-N1-C2	-5.47	118.11	120.30
1	QA	182	U	O5'-P-OP1	-5.46	100.78	105.70
1	QA	1498	U	P-O3'-C3'	5.46	126.26	119.70
25	RA	835	A	O5'-P-OP1	5.46	117.26	110.70
25	RA	1446	C	C6-N1-C2	-5.46	118.11	120.30
25	RA	2559	C	C5-C6-N1	5.46	123.73	121.00
25	YA	497	A	N1-C6-N6	5.46	121.88	118.60
25	YA	529	A	C8-N9-C4	-5.46	103.61	105.80
25	YA	967	C	C2-N1-C1'	-5.46	112.79	118.80
25	YA	1271	G	N1-C6-O6	5.46	123.18	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1628	G	C4-N9-C1'	5.46	133.60	126.50
25	RA	600	G	N7-C8-N9	-5.46	110.37	113.10
25	RA	944	G	C8-N9-C1'	-5.46	119.90	127.00
25	RA	1328	G	C8-N9-C1'	-5.46	119.90	127.00
25	RA	1337	G	C6-C5-N7	-5.46	127.12	130.40
25	RA	2548	G	N3-C4-N9	5.46	129.28	126.00
1	XA	1103	C	N3-C2-O2	-5.46	118.08	121.90
25	YA	636	G	C5-N7-C8	-5.46	101.57	104.30
25	YA	763	G	N1-C6-O6	5.46	123.18	119.90
1	QA	357	G	C6-C5-N7	-5.46	127.12	130.40
25	RA	1470	G	C5-N7-C8	-5.46	101.57	104.30
26	RB	70	C	C5-C6-N1	5.46	123.73	121.00
1	XA	101	A	N7-C8-N9	5.46	116.53	113.80
1	XA	895	G	N3-C2-N2	-5.46	116.08	119.90
25	YA	868	U	C5-C6-N1	5.46	125.43	122.70
25	YA	1190	G	N3-C4-N9	-5.46	122.72	126.00
25	RA	1336	A	C2-N3-C4	5.46	113.33	110.60
25	YA	748	G	C2-N3-C4	-5.46	109.17	111.90
25	YA	1620	G	C4-C5-C6	5.46	122.08	118.80
1	QA	485	G	O4'-C1'-N9	5.46	112.57	108.20
1	QA	861	G	C8-N9-C4	-5.46	104.22	106.40
25	RA	501	A	C5-C6-N1	-5.46	114.97	117.70
25	RA	1302	A	C8-N9-C4	5.46	107.98	105.80
27	RD	251	GLY	N-CA-C	5.46	126.75	113.10
25	YA	772	C	N3-C4-N4	5.46	121.82	118.00
25	YA	1253	A	C5-N7-C8	-5.46	101.17	103.90
25	YA	1329	U	C6-N1-C2	-5.46	117.72	121.00
25	YA	1653	G	C8-N9-C1'	-5.46	119.90	127.00
25	YA	2821	A	C5-C6-N6	-5.46	119.33	123.70
25	RA	1950	G	C6-N1-C2	-5.46	121.83	125.10
25	RA	2612	C	N3-C2-O2	5.46	125.72	121.90
25	RA	2842	G	N1-C6-O6	5.46	123.17	119.90
25	YA	2215	G	N1-C6-O6	5.46	123.17	119.90
25	YA	2689	U	C5-C6-N1	-5.46	119.97	122.70
25	RA	1309	G	C2-N3-C4	-5.46	109.17	111.90
25	RA	1667	G	C5-N7-C8	-5.46	101.57	104.30
25	RA	2228	G	C6-C5-N7	-5.46	127.13	130.40
25	RA	2713	A	P-O3'-C3'	-5.46	113.15	119.70
1	XA	798	G	O5'-P-OP2	5.46	117.25	110.70
25	YA	301	G	C4-N9-C1'	5.46	133.59	126.50
25	YA	2093	G	N1-C6-O6	5.46	123.17	119.90
1	QA	704	A	C2-N3-C4	5.45	113.33	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1338	G	C4-C5-N7	-5.45	108.62	110.80
25	RA	1645	G	N1-C6-O6	5.45	123.17	119.90
25	RA	1846	G	C4-N9-C1'	5.45	133.59	126.50
1	XA	1189	C	N1-C2-O2	5.45	122.17	118.90
25	YA	333	G	C8-N9-C4	-5.45	104.22	106.40
25	YA	2549	G	C8-N9-C1'	-5.45	119.91	127.00
25	RA	2224	G	N1-C6-O6	5.45	123.17	119.90
1	XA	789	U	C4-C5-C6	5.45	122.97	119.70
25	YA	132	G	C6-C5-N7	-5.45	127.13	130.40
25	YA	354	G	C5-C6-O6	-5.45	125.33	128.60
25	YA	974	G	O5'-P-OP1	-5.45	100.79	105.70
25	YA	1304	C	N1-C2-O2	-5.45	115.63	118.90
25	YA	1307	A	N1-C6-N6	-5.45	115.33	118.60
25	YA	1647	G	C5-N7-C8	-5.45	101.57	104.30
25	YA	1790	C	O5'-P-OP1	-5.45	100.79	105.70
25	YA	1869	G	C8-N9-C1'	-5.45	119.91	127.00
25	RA	1784	A	C8-N9-C4	-5.45	103.62	105.80
25	YA	1332	G	N1-C2-N2	-5.45	111.29	116.20
25	YA	2235	G	N1-C2-N3	5.45	127.17	123.90
25	YA	2590	A	C4-C5-N7	5.45	113.42	110.70
25	YA	2822	G	N3-C4-N9	-5.45	122.73	126.00
25	YA	2868	A	O5'-P-OP1	-5.45	100.80	105.70
27	YD	251	GLY	N-CA-C	5.45	126.72	113.10
25	RA	247	G	N3-C4-N9	5.45	129.27	126.00
1	XA	1353	G	C8-N9-C1'	-5.45	119.92	127.00
25	YA	1162	G	N3-C4-N9	5.45	129.27	126.00
25	YA	1626	G	N7-C8-N9	5.45	115.82	113.10
25	YA	1985	G	O5'-P-OP1	-5.45	100.80	105.70
26	YB	89	G	N1-C6-O6	5.45	123.17	119.90
25	YA	254	G	C8-N9-C4	-5.45	104.22	106.40
25	YA	961	C	C5-C4-N4	-5.45	116.39	120.20
25	YA	1969	A	C4-C5-N7	-5.45	107.98	110.70
1	QA	596	C	C6-N1-C2	5.45	122.48	120.30
1	QA	1076	C	C5-C6-N1	-5.45	118.28	121.00
1	QA	1158	C	C6-N1-C1'	-5.45	114.26	120.80
25	RA	1153	C	N3-C4-C5	-5.45	119.72	121.90
1	XA	535	A	C2-N3-C4	-5.45	107.88	110.60
25	YA	339	U	C6-N1-C2	5.45	124.27	121.00
25	YA	801	G	O5'-P-OP2	5.45	117.23	110.70
25	YA	830	G	N3-C4-C5	-5.45	125.88	128.60
25	YA	1390	U	N3-C4-C5	5.45	117.87	114.60
25	YA	1403	C	N1-C2-O2	5.45	122.17	118.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2665	A	C5-C6-N1	-5.45	114.98	117.70
1	QA	129	U	O4'-C1'-N1	5.44	112.56	108.20
1	QA	573	A	C5-C6-N6	5.44	128.06	123.70
25	RA	2006	C	N1-C2-N3	-5.44	115.39	119.20
25	YA	2447	G	C8-N9-C4	-5.44	104.22	106.40
25	YA	2593	U	C4-C5-C6	5.44	122.97	119.70
1	QA	1231	G	N3-C4-C5	5.44	131.32	128.60
25	RA	327	G	C5-C6-O6	-5.44	125.33	128.60
25	YA	463	G	N1-C6-O6	-5.44	116.63	119.90
1	QA	299	G	C2-N3-C4	-5.44	109.18	111.90
25	RA	1235	G	C5-N7-C8	5.44	107.02	104.30
25	RA	1367	A	C5-C6-N6	-5.44	119.35	123.70
25	YA	396	G	N9-C4-C5	-5.44	103.22	105.40
25	RA	1543	A	O4'-C1'-N9	5.44	112.55	108.20
35	RP	25	SER	N-CA-C	-5.44	96.31	111.00
25	YA	2271	G	C8-N9-C1'	-5.44	119.93	127.00
1	QA	44	G	C8-N9-C1'	-5.44	119.93	127.00
1	QA	317	G	N3-C4-C5	-5.44	125.88	128.60
1	QA	353	A	OP2-P-O3'	5.44	117.16	105.20
25	RA	791	C	N3-C4-N4	-5.44	114.19	118.00
1	XA	557	G	C5-C6-O6	-5.44	125.34	128.60
25	YA	986	C	N3-C4-N4	5.44	121.81	118.00
25	YA	1048	A	C4-N9-C1'	5.44	136.09	126.30
25	YA	1358	G	C4-C5-C6	5.44	122.06	118.80
25	YA	1633	G	N1-C6-O6	5.44	123.16	119.90
25	YA	1690	A	N1-C6-N6	-5.44	115.34	118.60
25	YA	1773	A	OP1-P-O3'	5.44	117.16	105.20
25	YA	1894	C	C5-C6-N1	5.44	123.72	121.00
1	QA	496	A	C5-C6-N1	5.44	120.42	117.70
25	RA	827	U	N1-C2-N3	-5.43	111.64	114.90
25	RA	2418	A	C2-N3-C4	-5.43	107.88	110.60
1	XA	558	G	C6-C5-N7	-5.43	127.14	130.40
25	YA	859	G	C4-N9-C1'	-5.43	119.44	126.50
25	YA	2000	G	C5-C6-O6	-5.43	125.34	128.60
25	YA	2032	G	N3-C2-N2	-5.43	116.10	119.90
25	RA	105	C	C5-C6-N1	5.43	123.72	121.00
25	RA	226	G	O4'-C1'-N9	5.43	112.55	108.20
25	RA	651	G	N3-C4-N9	5.43	129.26	126.00
25	RA	1490	A	N9-C4-C5	-5.43	103.63	105.80
1	XA	564	C	O5'-P-OP2	-5.43	100.81	105.70
25	YA	2688	U	N3-C4-O4	-5.43	115.60	119.40
1	QA	958	A	N1-C6-N6	5.43	121.86	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	271(B)	G	P-O3'-C3'	5.43	126.22	119.70
25	RA	1840	G	C6-C5-N7	-5.43	127.14	130.40
25	RA	2395	C	N1-C2-O2	5.43	122.16	118.90
25	RA	2508	G	C5-C6-N1	-5.43	108.78	111.50
25	RA	2817	G	N1-C6-O6	-5.43	116.64	119.90
1	XA	870	U	C5-C6-N1	-5.43	119.98	122.70
25	YA	228	A	N3-C4-C5	-5.43	123.00	126.80
25	YA	1267	U	OP2-P-O3'	5.43	117.15	105.20
25	YA	1287	A	C6-C5-N7	-5.43	128.50	132.30
25	YA	1835	G	C8-N9-C1'	-5.43	119.94	127.00
25	YA	1984	G	C4-C5-C6	5.43	122.06	118.80
1	QA	33	A	N1-C6-N6	-5.43	115.34	118.60
1	QA	1260	C	C5-C6-N1	5.43	123.72	121.00
25	RA	1760	A	C8-N9-C4	-5.43	103.63	105.80
25	RA	2004	G	C4-C5-N7	5.43	112.97	110.80
25	RA	2237	G	N3-C4-N9	5.43	129.26	126.00
1	XA	1519	A	C5-C6-N1	-5.43	114.98	117.70
25	YA	380	U	N1-C2-O2	-5.43	119.00	122.80
25	YA	1496	A	C6-C5-N7	-5.43	128.50	132.30
25	YA	1568	G	N9-C4-C5	5.43	107.57	105.40
25	YA	2032	G	N7-C8-N9	5.43	115.81	113.10
25	YA	2219	G	C6-C5-N7	-5.43	127.14	130.40
25	RA	364	C	C2-N3-C4	5.43	122.61	119.90
25	RA	817	C	OP2-P-O3'	5.43	117.14	105.20
1	XA	924	C	OP1-P-O3'	5.43	117.14	105.20
25	YA	458	G	N9-C4-C5	5.43	107.57	105.40
25	YA	1267	U	P-O3'-C3'	5.43	126.21	119.70
25	RA	573	G	C5-N7-C8	-5.43	101.59	104.30
25	RA	783	A	C8-N9-C1'	-5.43	117.93	127.70
25	RA	847	U	C2-N1-C1'	-5.43	111.19	117.70
25	RA	1561	G	N3-C4-C5	5.43	131.31	128.60
25	RA	1667	G	N9-C1'-C2'	5.43	121.05	114.00
25	RA	1836	C	C5-C4-N4	-5.43	116.40	120.20
25	RA	1950	G	O4'-C1'-N9	5.43	112.54	108.20
25	RA	2467	C	N3-C4-C5	-5.43	119.73	121.90
25	RA	2763	G	N3-C4-N9	5.43	129.26	126.00
1	XA	262	A	N1-C6-N6	-5.43	115.34	118.60
25	YA	615	G	O4'-C1'-N9	5.43	112.54	108.20
1	QA	771	G	C2-N3-C4	-5.42	109.19	111.90
25	RA	775	G	N3-C4-N9	5.42	129.25	126.00
25	RA	866	A	N9-C4-C5	-5.42	103.63	105.80
25	RA	1698	A	P-O3'-C3'	5.42	126.21	119.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1699	G	N1-C2-N3	5.42	127.15	123.90
25	RA	1802	A	N9-C4-C5	5.42	107.97	105.80
25	RA	2689	U	N3-C4-O4	-5.42	115.60	119.40
1	XA	19	C	N1-C2-O2	5.42	122.15	118.90
25	YA	270(B)	A	C8-N9-C4	5.42	107.97	105.80
25	YA	333	G	N7-C8-N9	5.42	115.81	113.10
25	YA	1243	G	C2-N3-C4	-5.42	109.19	111.90
25	YA	2515	C	C2-N1-C1'	-5.42	112.83	118.80
25	YA	2594	C	N3-C4-C5	5.42	124.07	121.90
25	YA	2603	G	O5'-P-OP2	5.42	117.21	110.70
1	QA	1314	C	C5-C6-N1	5.42	123.71	121.00
1	XA	690	G	N3-C4-C5	5.42	131.31	128.60
25	YA	1319	G	N1-C6-O6	5.42	123.15	119.90
25	YA	1800	C	C2-N3-C4	-5.42	117.19	119.90
25	YA	2380	C	N3-C4-N4	-5.42	114.20	118.00
25	RA	459	U	N3-C2-O2	-5.42	118.40	122.20
25	RA	1799	G	N9-C4-C5	5.42	107.57	105.40
25	RA	2817	G	N3-C4-N9	5.42	129.25	126.00
1	XA	1094	G	P-O3'-C3'	5.42	126.20	119.70
25	YA	366	C	C4-C5-C6	5.42	120.11	117.40
25	YA	842	G	C5-N7-C8	-5.42	101.59	104.30
25	YA	1163	G	O4'-C1'-N9	5.42	112.54	108.20
25	YA	1402	C	C6-N1-C2	-5.42	118.13	120.30
25	YA	1535	U	N1-C2-O2	5.42	126.59	122.80
25	YA	2572	A	C4-C5-C6	5.42	119.71	117.00
25	RA	226	G	C8-N9-C1'	5.42	134.05	127.00
25	RA	1968	G	OP2-P-O3'	5.42	117.12	105.20
25	YA	582	G	C6-C5-N7	-5.42	127.15	130.40
1	QA	1107	C	C5-C6-N1	5.42	123.71	121.00
25	RA	530	G	N3-C4-C5	-5.42	125.89	128.60
25	RA	1601	G	C6-C5-N7	-5.42	127.15	130.40
25	RA	1614	A	C6-C5-N7	-5.42	128.51	132.30
25	RA	1928	A	C2-N3-C4	-5.42	107.89	110.60
25	RA	2056	G	N1-C6-O6	-5.42	116.65	119.90
25	RA	2360	A	C5-C6-N6	5.42	128.03	123.70
1	XA	557	G	C4-N9-C1'	5.42	133.54	126.50
25	YA	1602	U	N3-C4-O4	5.42	123.19	119.40
25	RA	673	C	OP2-P-O3'	5.42	117.12	105.20
25	RA	743	G	N9-C4-C5	-5.42	103.23	105.40
25	RA	1359	A	C4-C5-N7	5.42	113.41	110.70
26	RB	36	C	C2-N1-C1'	-5.42	112.84	118.80
1	XA	190	G	N3-C4-N9	5.42	129.25	126.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	315	A	C4-N9-C1'	-5.42	116.55	126.30
25	YA	429	A	C5-C6-N1	-5.42	114.99	117.70
25	YA	1048	A	N7-C8-N9	5.42	116.51	113.80
35	YP	25	SER	N-CA-C	-5.42	96.38	111.00
1	QA	1316	G	C6-C5-N7	5.42	133.65	130.40
25	RA	217	G	N3-C4-C5	-5.42	125.89	128.60
25	RA	247	G	C5-C6-O6	5.42	131.85	128.60
25	RA	822	U	C5-C6-N1	-5.42	119.99	122.70
25	RA	2731	G	N7-C8-N9	5.42	115.81	113.10
1	QA	1434	A	C5-C6-N1	-5.41	114.99	117.70
25	RA	714	U	C5-C4-O4	5.41	129.15	125.90
25	RA	819	A	N7-C8-N9	5.41	116.51	113.80
25	RA	2540	C	C5-C6-N1	-5.41	118.29	121.00
1	XA	589	C	C4-C5-C6	5.41	120.11	117.40
25	YA	2637	U	O5'-P-OP2	5.41	117.20	110.70
25	YA	2719	G	C6-C5-N7	-5.41	127.15	130.40
25	RA	926	A	C5-C6-N6	-5.41	119.37	123.70
25	RA	1393	A	O4'-C1'-N9	5.41	112.53	108.20
25	RA	1518	C	C6-N1-C2	5.41	122.47	120.30
25	RA	122	G	C8-N9-C4	5.41	108.56	106.40
25	RA	342	G	C5-C6-O6	-5.41	125.35	128.60
25	RA	1342	A	C8-N9-C4	5.41	107.96	105.80
25	RA	1624	G	C5-C6-O6	-5.41	125.35	128.60
25	RA	2315	G	C5-C6-N1	5.41	114.20	111.50
25	RA	2479	G	N3-C4-C5	5.41	131.31	128.60
25	RA	2612	C	O5'-P-OP1	5.41	117.19	110.70
1	XA	1113	C	C5-C6-N1	5.41	123.71	121.00
25	YA	2326	C	C2-N1-C1'	5.41	124.75	118.80
1	XA	932	C	C6-N1-C2	-5.41	118.14	120.30
25	YA	55	G	C8-N9-C1'	-5.41	119.97	127.00
25	YA	188	G	N3-C4-N9	5.41	129.25	126.00
25	YA	832	G	C4-C5-C6	5.41	122.05	118.80
1	QA	1215	G	C8-N9-C4	-5.41	104.24	106.40
25	RA	38	A	O5'-P-OP2	-5.41	100.83	105.70
1	XA	1266	G	N3-C4-N9	-5.41	122.76	126.00
25	YA	1816	G	C5-C6-N1	-5.41	108.80	111.50
1	QA	1158	C	C5-C6-N1	5.41	123.70	121.00
25	RA	1795	C	C2-N1-C1'	5.41	124.75	118.80
25	RA	2073	C	C6-N1-C1'	5.41	127.29	120.80
25	RA	2429	G	O5'-P-OP2	-5.41	100.83	105.70
25	RA	2449	U	C5-C6-N1	5.41	125.40	122.70
25	YA	872	A	C4-C5-C6	5.41	119.70	117.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1309	G	C6-C5-N7	-5.41	127.16	130.40
25	YA	2470	G	C6-C5-N7	5.41	133.64	130.40
25	YA	2737	G	N3-C4-C5	5.41	131.30	128.60
25	RA	715	G	C2-N3-C4	5.40	114.60	111.90
25	RA	1430	C	C2-N1-C1'	5.40	124.75	118.80
25	RA	1899	G	C5-N7-C8	-5.40	101.60	104.30
25	YA	875	G	O5'-P-OP2	-5.40	100.84	105.70
25	YA	1016	G	C5-C6-O6	-5.40	125.36	128.60
25	YA	2685	G	N1-C2-N3	5.40	127.14	123.90
1	QA	55	A	C2-N3-C4	-5.40	107.90	110.60
1	QA	754	C	C2-N1-C1'	5.40	124.74	118.80
25	RA	482	A	C4-C5-C6	-5.40	114.30	117.00
25	RA	553	U	N1-C2-N3	5.40	118.14	114.90
25	RA	1342	A	C4-C5-C6	-5.40	114.30	117.00
25	RA	1347	G	N1-C6-O6	5.40	123.14	119.90
1	XA	1514	C	N3-C4-C5	5.40	124.06	121.90
25	YA	573	G	C6-C5-N7	-5.40	127.16	130.40
25	YA	898	C	C6-N1-C2	-5.40	118.14	120.30
25	YA	903	C	N3-C4-C5	5.40	124.06	121.90
25	YA	1206	G	C4-N9-C1'	5.40	133.52	126.50
25	YA	1344	G	N3-C4-C5	5.40	131.30	128.60
25	YA	1902	C	C5-C6-N1	-5.40	118.30	121.00
25	YA	2029	G	C5-C6-O6	5.40	131.84	128.60
25	YA	2256	G	C2-N3-C4	5.40	114.60	111.90
25	RA	1379	A	C1'-O4'-C4'	-5.40	105.58	109.90
1	XA	244	U	P-O3'-C3'	5.40	126.18	119.70
1	XA	871	U	N1-C2-O2	5.40	126.58	122.80
25	YA	734	A	C2-N3-C4	-5.40	107.90	110.60
25	YA	2413	G	N3-C4-N9	-5.40	122.76	126.00
1	QA	394	G	C8-N9-C4	-5.40	104.24	106.40
25	YA	142	G	C8-N9-C4	5.40	108.56	106.40
25	YA	2026	C	N3-C4-C5	5.40	124.06	121.90
25	YA	2235	G	N1-C6-O6	5.40	123.14	119.90
25	YA	2587	A	OP2-P-O3'	5.40	117.08	105.20
1	QA	5	U	C6-N1-C2	-5.40	117.76	121.00
1	QA	778	G	C8-N9-C1'	-5.40	119.98	127.00
25	RA	1366	A	N1-C6-N6	5.40	121.84	118.60
25	RA	2399	G	N1-C2-N3	5.40	127.14	123.90
25	RA	2851	A	N1-C6-N6	-5.40	115.36	118.60
1	XA	319	G	C6-C5-N7	5.40	133.64	130.40
1	XA	1505	G	C4-C5-N7	-5.40	108.64	110.80
25	YA	204	A	C5-C6-N1	5.40	120.40	117.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	270(Z)	U	O5'-P-OP1	-5.40	100.84	105.70
25	YA	900	A	N7-C8-N9	5.40	116.50	113.80
25	YA	2417	C	N3-C4-C5	-5.40	119.74	121.90
1	QA	1057	G	N3-C4-N9	-5.40	122.76	126.00
25	RA	117	G	N1-C6-O6	-5.40	116.66	119.90
25	YA	1270	C	N3-C2-O2	5.40	125.68	121.90
1	QA	1336	C	N3-C2-O2	-5.39	118.12	121.90
1	QA	1361	G	N1-C6-O6	5.39	123.14	119.90
25	RA	559	G	N7-C8-N9	-5.39	110.40	113.10
25	RA	804	A	C4-N9-C1'	-5.39	116.59	126.30
25	RA	1007	C	N3-C4-C5	5.39	124.06	121.90
25	RA	1844	C	C6-N1-C2	5.39	122.46	120.30
25	RA	2449	U	C5-C4-O4	-5.39	122.66	125.90
1	XA	263	A	N1-C6-N6	5.39	121.84	118.60
25	YA	944	G	C4-C5-C6	5.39	122.04	118.80
25	YA	1391	U	C6-N1-C2	-5.39	117.76	121.00
25	YA	1906	G	N1-C2-N3	5.39	127.14	123.90
1	QA	299	G	C6-N1-C2	5.39	128.34	125.10
25	RA	2727	G	C8-N9-C4	5.39	108.56	106.40
25	YA	239	U	C6-N1-C2	-5.39	117.76	121.00
25	YA	1015	G	C5-C6-O6	-5.39	125.36	128.60
25	YA	1695	G	C4-C5-C6	5.39	122.03	118.80
25	YA	1812	A	N1-C6-N6	-5.39	115.36	118.60
25	YA	2015	A	C2-N3-C4	5.39	113.30	110.60
25	YA	2586	C	C5-C4-N4	-5.39	116.42	120.20
1	QA	667	G	C4-C5-N7	5.39	112.96	110.80
1	QA	1054	C	C2-N1-C1'	5.39	124.73	118.80
25	RA	1334	G	C4-C5-C6	5.39	122.03	118.80
25	RA	2052	G	C5-C6-N1	-5.39	108.80	111.50
1	XA	1309	G	N3-C4-N9	5.39	129.24	126.00
25	YA	259	G	N1-C2-N3	5.39	127.13	123.90
25	YA	509	C	C2-N3-C4	-5.39	117.20	119.90
25	YA	1395	A	C2-N3-C4	-5.39	107.90	110.60
25	YA	2651	C	C6-N1-C2	5.39	122.46	120.30
25	RA	118	A	C4-C5-C6	-5.39	114.31	117.00
25	RA	439	G	C5-C6-N1	-5.39	108.81	111.50
25	RA	512	G	O5'-P-OP1	-5.39	100.85	105.70
25	RA	2074	U	N1-C2-O2	-5.39	119.03	122.80
25	YA	445	C	C6-N1-C2	-5.39	118.14	120.30
25	YA	627	A	N3-C4-N9	-5.39	123.09	127.40
25	YA	815	C	C2-N3-C4	-5.39	117.20	119.90
25	YA	1214	A	N9-C4-C5	5.39	107.96	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1966	A	N3-C4-N9	-5.39	123.09	127.40
25	RA	2824	C	O5'-P-OP2	-5.39	100.85	105.70
25	YA	2756	U	OP1-P-O3'	5.39	117.05	105.20
1	QA	992	U	P-O3'-C3'	5.39	126.16	119.70
25	RA	71	A	C2-N3-C4	-5.39	107.91	110.60
25	RA	242	G	C8-N9-C4	-5.39	104.25	106.40
25	RA	470	A	C5-C6-N1	5.39	120.39	117.70
25	RA	1655	A	N1-C6-N6	5.39	121.83	118.60
25	RA	2251	G	C4-C5-C6	5.39	122.03	118.80
25	RA	2484	G	C4-C5-N7	5.39	112.95	110.80
26	RB	66	A	P-O3'-C3'	5.39	126.16	119.70
1	XA	423	G	C4-C5-C6	5.39	122.03	118.80
1	XA	1323	G	N7-C8-N9	5.39	115.79	113.10
1	XA	1503	A	N1-C2-N3	-5.39	126.61	129.30
25	YA	470	A	O5'-P-OP1	-5.39	100.85	105.70
25	YA	473	G	C6-N1-C2	-5.39	121.87	125.10
25	YA	599	G	N9-C4-C5	-5.39	103.25	105.40
25	YA	1342	A	C6-N1-C2	-5.39	115.37	118.60
1	QA	686	U	C2-N1-C1'	5.38	124.16	117.70
25	RA	281	G	N1-C6-O6	5.38	123.13	119.90
25	RA	363(C)	G	N3-C4-N9	-5.38	122.77	126.00
25	RA	1356	G	N3-C4-C5	-5.38	125.91	128.60
25	RA	1473	G	N3-C4-C5	5.38	131.29	128.60
25	RA	1695	G	C8-N9-C1'	-5.38	120.00	127.00
25	RA	2032	G	N7-C8-N9	5.38	115.79	113.10
25	RA	2643	G	N3-C4-C5	-5.38	125.91	128.60
1	XA	112	G	C6-C5-N7	-5.38	127.17	130.40
1	XA	1408	A	C2-N3-C4	-5.38	107.91	110.60
25	YA	192	C	C6-N1-C1'	-5.38	114.34	120.80
25	YA	866	A	C4-C5-C6	5.38	119.69	117.00
25	YA	1361	G	N3-C4-C5	5.38	131.29	128.60
25	YA	2726	U	C4-C5-C6	5.38	122.93	119.70
25	RA	2347	C	C6-N1-C2	-5.38	118.15	120.30
25	YA	330	A	C4-C5-C6	5.38	119.69	117.00
25	RA	1396	U	N1-C2-O2	5.38	126.57	122.80
1	XA	869	G	N7-C8-N9	5.38	115.79	113.10
1	XA	880	C	N3-C2-O2	5.38	125.67	121.90
1	XA	947	G	C4-C5-N7	-5.38	108.65	110.80
25	YA	433	C	C2-N3-C4	-5.38	117.21	119.90
25	YA	1104	C	C4-C5-C6	5.38	120.09	117.40
25	RA	731	C	N3-C4-C5	5.38	124.05	121.90
1	QA	978	A	N7-C8-N9	5.38	116.49	113.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	584	C	C6-N1-C2	5.38	122.45	120.30
25	RA	2634	G	OP2-P-O3'	5.38	117.03	105.20
25	YA	804	A	C4-C5-N7	5.38	113.39	110.70
25	YA	1869	G	C6-N1-C2	-5.38	121.87	125.10
25	YA	2502	G	C4-C5-C6	5.38	122.03	118.80
25	RA	512	G	P-O3'-C3'	5.38	126.15	119.70
25	RA	2065	C	N3-C4-N4	5.38	121.76	118.00
1	XA	31	G	P-O3'-C3'	5.38	126.15	119.70
1	XA	1094	G	C4-C5-N7	-5.38	108.65	110.80
25	YA	1021	A	C4-C5-N7	5.38	113.39	110.70
25	YA	1455	G	C2-N3-C4	5.38	114.59	111.90
25	YA	1968	G	C5-C6-N1	-5.38	108.81	111.50
25	YA	2238	G	O5'-P-OP1	-5.38	100.86	105.70
25	YA	2434	A	C4-C5-N7	5.38	113.39	110.70
25	YA	2539	C	C6-N1-C2	5.38	122.45	120.30
25	YA	2569	G	N3-C4-C5	-5.38	125.91	128.60
27	YD	111	LEU	CA-CB-CG	5.38	127.67	115.30
25	YA	473	G	N7-C8-N9	-5.38	110.41	113.10
1	QA	928	G	C5-C6-N1	-5.37	108.81	111.50
1	QA	1223	C	C5-C4-N4	-5.37	116.44	120.20
25	RA	982	C	N3-C4-C5	-5.37	119.75	121.90
25	RA	2042	A	N1-C6-N6	5.37	121.82	118.60
25	RA	2510	C	O5'-P-OP2	-5.37	100.86	105.70
25	RA	2674	G	C4-N9-C1'	-5.37	119.51	126.50
1	XA	34	C	C6-N1-C2	5.37	122.45	120.30
1	XA	812	C	C2-N3-C4	5.37	122.59	119.90
25	YA	406	G	N1-C6-O6	5.37	123.12	119.90
25	YA	793	A	C4-C5-C6	5.37	119.69	117.00
25	YA	1247	A	C2-N3-C4	-5.37	107.91	110.60
25	YA	1396	U	N3-C2-O2	-5.37	118.44	122.20
25	YA	2088	G	C4-C5-C6	5.37	122.02	118.80
25	YA	2782	G	C8-N9-C1'	-5.37	120.02	127.00
25	RA	775	G	C6-N1-C2	-5.37	121.88	125.10
25	RA	1377	G	C8-N9-C1'	-5.37	120.02	127.00
1	XA	254	G	O5'-P-OP1	-5.37	100.87	105.70
1	XA	572	A	O4'-C1'-N9	5.37	112.50	108.20
1	XA	1228	C	O5'-P-OP2	-5.37	100.87	105.70
25	YA	379	G	C8-N9-C4	5.37	108.55	106.40
25	YA	761	A	C2-N3-C4	-5.37	107.91	110.60
25	YA	961	C	O4'-C1'-N1	5.37	112.50	108.20
25	YA	2782	G	N7-C8-N9	5.37	115.78	113.10
25	YA	187	G	O4'-C1'-N9	-5.37	103.90	108.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1076	C	N1-C2-O2	-5.37	115.68	118.90
25	RA	618	G	N3-C4-N9	5.37	129.22	126.00
25	RA	635	C	C6-N1-C2	-5.37	118.15	120.30
25	RA	1263	U	C4-C5-C6	5.37	122.92	119.70
25	YA	1931	U	C6-N1-C1'	5.37	128.72	121.20
25	YA	2093	G	C2-N3-C4	-5.37	109.22	111.90
25	YA	2337	G	C4-C5-N7	5.37	112.95	110.80
25	YA	2447	G	P-O3'-C3'	5.37	126.14	119.70
31	YH	100	GLY	N-CA-C	-5.37	99.68	113.10
25	YA	859	G	P-O3'-C3'	5.37	126.14	119.70
25	YA	1477	A	C6-C5-N7	-5.37	128.54	132.30
1	QA	451	A	N3-C4-C5	-5.37	123.05	126.80
1	QA	800	G	C8-N9-C4	-5.37	104.25	106.40
25	RA	2457	U	C6-N1-C2	-5.37	117.78	121.00
25	RA	2844	G	C5-C6-O6	-5.37	125.38	128.60
26	RB	9	G	C8-N9-C4	-5.37	104.25	106.40
25	YA	668	G	C6-C5-N7	-5.37	127.18	130.40
25	YA	1247	A	N1-C2-N3	5.37	131.98	129.30
25	YA	2718	G	C8-N9-C4	-5.37	104.25	106.40
26	YB	89	G	C6-C5-N7	-5.37	127.18	130.40
25	RA	987	G	O5'-P-OP1	-5.36	100.87	105.70
25	RA	1504	C	N3-C4-C5	5.36	124.05	121.90
25	RA	2543	G	C4-C5-N7	5.36	112.94	110.80
1	XA	960	U	C6-N1-C2	-5.36	117.78	121.00
1	XA	1452	C	C6-N1-C2	-5.36	118.16	120.30
25	YA	342	G	C5-C6-N1	-5.36	108.82	111.50
25	YA	486	C	O5'-P-OP2	5.36	117.14	110.70
25	YA	729	G	C4-C5-N7	5.36	112.95	110.80
25	YA	1342	A	N7-C8-N9	5.36	116.48	113.80
25	YA	1433	U	C5-C6-N1	5.36	125.38	122.70
25	YA	1477	A	C5-N7-C8	-5.36	101.22	103.90
25	YA	1519	G	C4-N9-C1'	5.36	133.47	126.50
1	QA	690	G	N3-C4-C5	5.36	131.28	128.60
25	RA	1627	G	C2-N3-C4	-5.36	109.22	111.90
25	RA	2083	G	C6-C5-N7	-5.36	127.18	130.40
1	XA	500	G	C5-C6-O6	-5.36	125.38	128.60
25	YA	2299	G	N7-C8-N9	5.36	115.78	113.10
1	QA	413	G	C8-N9-C4	5.36	108.54	106.40
25	RA	391	G	C4-C5-N7	5.36	112.94	110.80
25	RA	2125	G	N3-C4-C5	-5.36	125.92	128.60
25	RA	2707	G	C8-N9-C4	5.36	108.54	106.40
25	YA	11	G	C8-N9-C4	5.36	108.54	106.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	701	G	C8-N9-C1'	-5.36	120.03	127.00
25	YA	1160	G	C5-C6-O6	-5.36	125.38	128.60
25	YA	1368	G	C8-N9-C4	-5.36	104.26	106.40
25	YA	1591	G	C4-N9-C1'	5.36	133.47	126.50
25	YA	2267	A	C6-N1-C2	-5.36	115.38	118.60
25	YA	2849	U	C6-N1-C1'	5.36	128.71	121.20
25	RA	777	A	N3-C4-N9	5.36	131.69	127.40
25	RA	1017	G	N1-C6-O6	5.36	123.11	119.90
25	RA	1790	C	C2-N1-C1'	-5.36	112.91	118.80
25	RA	2055	C	N1-C2-O2	-5.36	115.69	118.90
25	YA	195	A	C6-C5-N7	-5.36	128.55	132.30
25	YA	309	G	C4-N9-C1'	5.36	133.47	126.50
25	YA	2014	A	N1-C6-N6	5.36	121.81	118.60
25	YA	2337	G	C6-C5-N7	-5.36	127.19	130.40
25	YA	2673	G	C8-N9-C4	-5.36	104.26	106.40
1	QA	705	U	N3-C2-O2	-5.36	118.45	122.20
1	QA	769	G	C4-N9-C1'	5.36	133.47	126.50
25	RA	311	A	N1-C6-N6	5.36	121.81	118.60
25	RA	350	U	C5-C6-N1	5.36	125.38	122.70
25	RA	563	G	N1-C6-O6	-5.36	116.69	119.90
25	RA	2487	G	N3-C4-N9	-5.36	122.78	126.00
25	RA	2487	G	O5'-P-OP1	-5.36	100.88	105.70
25	YA	309	G	C4-C5-C6	5.36	122.01	118.80
25	YA	1417	C	N1-C2-O2	-5.36	115.69	118.90
25	YA	1595	G	C2-N3-C4	-5.36	109.22	111.90
25	YA	1606	G	OP1-P-O3'	5.36	116.99	105.20
25	YA	1669	A	N7-C8-N9	5.36	116.48	113.80
25	YA	1830	C	C5-C6-N1	5.36	123.68	121.00
25	YA	2749	A	OP1-P-O3'	5.36	116.99	105.20
25	RA	2237	G	C4-C5-C6	5.36	122.01	118.80
25	RA	2451	A	C5-N7-C8	-5.36	101.22	103.90
25	RA	2453	A	C4-C5-C6	-5.36	114.32	117.00
25	RA	2513	G	C8-N9-C4	-5.36	104.26	106.40
1	XA	902	G	C4-C5-N7	5.36	112.94	110.80
1	XA	1087	G	C8-N9-C4	-5.36	104.26	106.40
25	YA	54	G	C5-N7-C8	-5.36	101.62	104.30
25	YA	240	G	C4-N9-C1'	5.36	133.46	126.50
25	YA	529	A	C6-C5-N7	-5.36	128.55	132.30
25	YA	576	U	N3-C4-O4	5.36	123.15	119.40
25	YA	1197	G	N1-C6-O6	-5.36	116.69	119.90
25	YA	1901	A	N1-C6-N6	-5.36	115.39	118.60
25	YA	2271	G	C2-N3-C4	5.36	114.58	111.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2780	G	C8-N9-C4	-5.36	104.26	106.40
25	RA	248	G	C4-C5-N7	5.35	112.94	110.80
25	RA	303	U	C5-C4-O4	-5.35	122.69	125.90
25	RA	1610	A	C2-N3-C4	5.35	113.28	110.60
1	XA	280	C	P-O3'-C3'	5.35	126.12	119.70
25	YA	618(A)	C	C2-N3-C4	5.35	122.58	119.90
25	YA	1668	A	N9-C4-C5	5.35	107.94	105.80
25	YA	2218	G	C4-C5-C6	5.35	122.01	118.80
1	QA	410	G	OP1-P-O3'	5.35	116.97	105.20
25	RA	217	G	C8-N9-C4	-5.35	104.26	106.40
25	RA	396	G	N9-C4-C5	5.35	107.54	105.40
25	RA	462	C	C6-N1-C2	5.35	122.44	120.30
25	RA	1814	G	N3-C4-C5	-5.35	125.92	128.60
1	XA	552	U	N3-C2-O2	-5.35	118.45	122.20
1	XA	572	A	N1-C6-N6	-5.35	115.39	118.60
1	XA	1220	G	N1-C6-O6	-5.35	116.69	119.90
25	YA	581	C	C2-N3-C4	-5.35	117.22	119.90
25	YA	663	G	C4-C5-C6	5.35	122.01	118.80
25	YA	852	G	C5-C6-N1	5.35	114.18	111.50
25	YA	1811	G	N1-C2-N3	5.35	127.11	123.90
25	YA	2015	A	N3-C4-C5	-5.35	123.05	126.80
1	QA	612	C	N3-C4-N4	-5.35	114.25	118.00
1	QA	1228	C	N3-C2-O2	-5.35	118.16	121.90
25	RA	2010	G	C4-C5-C6	5.35	122.01	118.80
25	RA	2031	A	O5'-P-OP1	-5.35	100.89	105.70
25	RA	2246	G	N9-C4-C5	-5.35	103.26	105.40
1	XA	541	G	C5-N7-C8	-5.35	101.62	104.30
1	XA	818	G	O4'-C1'-N9	5.35	112.48	108.20
1	XA	1053	G	N1-C6-O6	5.35	123.11	119.90
25	YA	222	A	C2-N3-C4	5.35	113.28	110.60
25	YA	1271	G	C8-N9-C1'	-5.35	120.05	127.00
25	YA	1676	A	O5'-P-OP1	-5.35	100.89	105.70
25	YA	2555	U	N1-C2-N3	5.35	118.11	114.90
25	YA	2871	C	N3-C4-N4	5.35	121.75	118.00
1	QA	134	A	C2-N3-C4	-5.35	107.93	110.60
1	QA	192	U	N1-C2-N3	-5.35	111.69	114.90
1	QA	581	G	N1-C6-O6	5.35	123.11	119.90
25	RA	845	G	C2-N3-C4	-5.35	109.23	111.90
25	RA	2002	G	C5-C6-O6	-5.35	125.39	128.60
25	RA	2392	A	N1-C6-N6	5.35	121.81	118.60
25	RA	2506	U	C6-N1-C2	-5.35	117.79	121.00
1	XA	558	G	N1-C6-O6	5.35	123.11	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	768	A	C8-N9-C4	5.35	107.94	105.80
1	XA	858	G	C8-N9-C4	-5.35	104.26	106.40
25	YA	772	C	C5-C6-N1	5.35	123.67	121.00
25	YA	2020	A	N3-C4-C5	-5.35	123.06	126.80
25	YA	2309	A	C2-N3-C4	-5.35	107.93	110.60
1	QA	515	G	C5-C6-N1	-5.35	108.83	111.50
25	RA	949	C	C6-N1-C2	5.35	122.44	120.30
26	YB	60	C	C5-C6-N1	5.35	123.67	121.00
25	RA	727	A	N3-C4-C5	-5.34	123.06	126.80
25	RA	1287	A	C4-C5-C6	5.34	119.67	117.00
25	RA	1370	C	C5-C6-N1	-5.34	118.33	121.00
25	RA	2673	G	C6-C5-N7	-5.34	127.19	130.40
27	RD	111	LEU	CA-CB-CG	5.34	127.59	115.30
25	YA	593	G	N1-C2-N3	5.34	127.11	123.90
25	YA	782	A	N3-C4-C5	-5.34	123.06	126.80
25	YA	1203	G	C4-N9-C1'	5.34	133.45	126.50
25	YA	1236	G	N1-C2-N3	5.34	127.11	123.90
25	YA	1573	G	N7-C8-N9	-5.34	110.43	113.10
25	YA	1577	C	N3-C4-N4	5.34	121.74	118.00
25	YA	2821	A	OP1-P-OP2	5.34	127.62	119.60
25	RA	2886	G	O5'-P-OP2	5.34	117.11	110.70
25	YA	1206	G	C2-N3-C4	-5.34	109.23	111.90
25	YA	2438	U	OP2-P-O3'	5.34	116.95	105.20
25	RA	305	U	OP2-P-O3'	5.34	116.95	105.20
25	RA	439	G	C8-N9-C1'	-5.34	120.06	127.00
25	RA	727	A	N9-C4-C5	5.34	107.94	105.80
25	RA	832	G	C2-N3-C4	-5.34	109.23	111.90
25	RA	1334	G	C6-C5-N7	-5.34	127.19	130.40
25	RA	2637	U	C6-N1-C2	-5.34	117.80	121.00
25	RA	2776	A	C2-N3-C4	5.34	113.27	110.60
1	XA	948	C	C2-N1-C1'	-5.34	112.92	118.80
25	YA	1005	C	N1-C2-O2	5.34	122.11	118.90
25	YA	1184	G	C6-C5-N7	-5.34	127.19	130.40
25	YA	1204	A	O4'-C1'-N9	5.34	112.47	108.20
25	YA	2004	G	N1-C6-O6	5.34	123.10	119.90
25	YA	2468	G	C4-N9-C1'	5.34	133.44	126.50
26	YB	82	G	N1-C2-N3	5.34	127.11	123.90
25	RA	51	G	C4-N9-C1'	5.34	133.44	126.50
25	RA	990	A	C5-C6-N6	5.34	127.97	123.70
25	RA	1657	C	C6-N1-C2	-5.34	118.16	120.30
1	XA	584	G	N3-C4-N9	5.34	129.20	126.00
1	XA	1461	G	C6-C5-N7	-5.34	127.20	130.40

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	1505	G	N9-C4-C5	5.34	107.54	105.40
25	YA	70	G	N3-C4-N9	5.34	129.20	126.00
25	YA	1400	G	N3-C4-C5	-5.34	125.93	128.60
25	YA	1883	G	N1-C6-O6	-5.34	116.70	119.90
25	RA	221	A	N7-C8-N9	5.34	116.47	113.80
25	RA	1933	G	N1-C6-O6	5.34	123.10	119.90
25	RA	2355	C	N1-C2-O2	5.34	122.10	118.90
25	RA	2857	G	C4-C5-C6	5.34	122.00	118.80
25	YA	1658	C	OP2-P-O3'	5.34	116.94	105.20
26	YB	13	A	N9-C4-C5	5.34	107.94	105.80
1	QA	754	C	C6-N1-C1'	-5.34	114.39	120.80
25	RA	229	A	P-O3'-C3'	5.34	126.10	119.70
25	RA	651	G	C4-N9-C1'	5.34	133.44	126.50
25	RA	2340	G	C8-N9-C4	5.34	108.53	106.40
1	XA	26	A	C4-C5-N7	-5.34	108.03	110.70
1	XA	190	G	N3-C4-C5	-5.34	125.93	128.60
1	XA	899	C	O5'-P-OP1	-5.34	100.90	105.70
25	YA	773	U	O5'-P-OP2	-5.34	100.90	105.70
25	YA	1264	G	C5-C6-O6	5.34	131.80	128.60
25	YA	2337	G	N7-C8-N9	5.34	115.77	113.10
25	YA	2360	A	N7-C8-N9	-5.34	111.13	113.80
1	QA	895	G	C5-C6-N1	-5.33	108.83	111.50
1	QA	1356	G	N7-C8-N9	5.33	115.77	113.10
25	RA	2549	G	N3-C4-C5	-5.33	125.93	128.60
25	RA	2592	G	O5'-P-OP1	5.33	117.10	110.70
25	RA	2688	U	N3-C2-O2	-5.33	118.47	122.20
1	XA	566	G	O5'-P-OP2	-5.33	100.90	105.70
1	QA	685	G	N3-C4-C5	5.33	131.27	128.60
1	QA	869	G	C5-N7-C8	-5.33	101.63	104.30
1	QA	963	G	C8-N9-C4	-5.33	104.27	106.40
25	RA	954	G	C4-N9-C1'	5.33	133.43	126.50
25	RA	1643	G	C6-C5-N7	-5.33	127.20	130.40
25	RA	1949	G	N1-C6-O6	5.33	123.10	119.90
25	RA	2000	G	N9-C4-C5	5.33	107.53	105.40
1	XA	8	A	C8-N9-C4	5.33	107.93	105.80
25	YA	494	G	N1-C6-O6	5.33	123.10	119.90
25	YA	539	G	C4-N9-C1'	5.33	133.43	126.50
25	YA	858	U	N3-C2-O2	-5.33	118.47	122.20
25	YA	968	G	N3-C4-N9	-5.33	122.80	126.00
25	YA	1433	U	N3-C4-O4	5.33	123.13	119.40
25	YA	1548	C	N1-C2-O2	5.33	122.10	118.90
25	YA	2070	G	C2-N3-C4	-5.33	109.23	111.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2331	G	C2-N3-C4	-5.33	109.23	111.90
25	RA	227	A	N1-C6-N6	-5.33	115.40	118.60
25	RA	563	G	C5-C6-N1	5.33	114.17	111.50
25	RA	1263	U	N1-C2-N3	5.33	118.10	114.90
25	RA	2073	C	OP1-P-OP2	-5.33	111.60	119.60
25	RA	2508	G	N3-C4-N9	5.33	129.20	126.00
31	RH	100	GLY	N-CA-C	-5.33	99.77	113.10
1	XA	22	G	C6-C5-N7	-5.33	127.20	130.40
25	YA	671	C	O5'-P-OP1	-5.33	100.90	105.70
25	YA	1815	A	C5-N7-C8	5.33	106.57	103.90
25	YA	1934	C	C2-N1-C1'	5.33	124.67	118.80
25	YA	2000	G	N1-C2-N3	5.33	127.10	123.90
25	YA	2278	A	O4'-C1'-N9	5.33	112.47	108.20
25	RA	2056	G	N3-C4-N9	-5.33	122.80	126.00
1	XA	1490	C	C6-N1-C2	5.33	122.43	120.30
25	YA	1839	G	N3-C4-N9	5.33	129.20	126.00
25	RA	374	A	C8-N9-C4	5.33	107.93	105.80
25	RA	1421	G	C5-C6-N1	-5.33	108.84	111.50
25	RA	1765	C	C6-N1-C2	-5.33	118.17	120.30
25	RA	1987	G	C2-N3-C4	-5.33	109.24	111.90
25	RA	2239	G	N3-C4-C5	-5.33	125.94	128.60
25	RA	2250	G	C5-C6-O6	-5.33	125.40	128.60
25	RA	2544	G	C2-N3-C4	-5.33	109.23	111.90
1	XA	11	G	N9-C4-C5	5.33	107.53	105.40
1	XA	481	G	C8-N9-C4	5.33	108.53	106.40
25	YA	54	G	C2-N3-C4	-5.33	109.24	111.90
25	YA	284	U	N3-C4-O4	5.33	123.13	119.40
25	YA	942	G	N1-C6-O6	5.33	123.10	119.90
25	YA	2049	G	N1-C6-O6	5.33	123.10	119.90
25	YA	2444	G	C5-C6-N1	5.33	114.16	111.50
25	YA	2451	A	C5-N7-C8	-5.33	101.24	103.90
25	RA	1854	A	N1-C6-N6	-5.33	115.40	118.60
1	XA	538	G	N3-C4-C5	-5.33	125.94	128.60
1	QA	664	G	C2-N3-C4	-5.33	109.24	111.90
25	YA	101	G	C4-N9-C1'	-5.33	119.58	126.50
25	YA	108	U	N1-C2-O2	5.33	126.53	122.80
25	YA	1185	C	C6-N1-C2	-5.33	118.17	120.30
25	YA	1594	G	N1-C6-O6	5.33	123.09	119.90
25	YA	2709	G	C5-C6-N1	-5.33	108.84	111.50
25	YA	2774	C	O5'-P-OP2	-5.33	100.91	105.70
1	QA	313	A	C2-N3-C4	5.32	113.26	110.60
25	RA	1791	A	OP2-P-O3'	5.32	116.91	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	865	A	C4-C5-N7	5.32	113.36	110.70
25	YA	783	A	C4-N9-C1'	5.32	135.88	126.30
25	YA	1552	G	N1-C6-O6	5.32	123.09	119.90
25	YA	1665	A	C5-C6-N6	-5.32	119.44	123.70
25	RA	2450	A	C4-C5-C6	5.32	119.66	117.00
1	XA	555	C	C5-C4-N4	-5.32	116.47	120.20
25	RA	2430	A	N1-C2-N3	5.32	131.96	129.30
1	XA	817	C	C6-N1-C2	5.32	122.43	120.30
25	YA	442	G	N1-C2-N3	5.32	127.09	123.90
25	YA	1568	G	N3-C4-N9	-5.32	122.81	126.00
1	QA	1359	C	C6-N1-C2	-5.32	118.17	120.30
1	QA	1239	A	C8-N9-C4	5.32	107.93	105.80
25	RA	1432	C	C6-N1-C2	5.32	122.43	120.30
25	RA	1680	U	N3-C4-C5	-5.32	111.41	114.60
25	RA	2072	G	C8-N9-C4	5.32	108.53	106.40
25	YA	701	G	C8-N9-C4	-5.32	104.27	106.40
25	YA	946	G	C2-N3-C4	-5.32	109.24	111.90
25	YA	2347	C	C6-N1-C2	-5.32	118.17	120.30
25	YA	2401	U	C6-N1-C2	-5.32	117.81	121.00
25	YA	2504	U	N3-C4-O4	5.32	123.12	119.40
25	YA	2672	G	C6-C5-N7	-5.32	127.21	130.40
25	RA	595	C	C5-C4-N4	-5.32	116.48	120.20
25	RA	1388	G	N7-C8-N9	-5.32	110.44	113.10
25	RA	2506	U	C5-C4-O4	5.32	129.09	125.90
25	YA	961	C	N3-C2-O2	-5.32	118.18	121.90
25	YA	1291	C	N3-C4-C5	5.32	124.03	121.90
25	YA	1789	A	O5'-P-OP2	-5.32	100.92	105.70
25	YA	1916	A	N1-C6-N6	5.32	121.79	118.60
1	QA	200	G	C4-N9-C1'	5.31	133.41	126.50
1	QA	792	A	C5-N7-C8	-5.31	101.24	103.90
1	QA	1018	C	C6-N1-C2	-5.31	118.17	120.30
25	RA	1367	A	C4-C5-N7	5.31	113.36	110.70
25	RA	1688	U	C2-N1-C1'	5.31	124.08	117.70
25	RA	2022	U	C2-N1-C1'	-5.31	111.32	117.70
1	XA	813	U	C6-N1-C2	5.31	124.19	121.00
1	QA	1334	G	C4-N9-C1'	5.31	133.41	126.50
1	QA	1516	G	C8-N9-C4	5.31	108.53	106.40
25	RA	1682	G	N9-C4-C5	-5.31	103.28	105.40
1	XA	515	G	C2-N3-C4	-5.31	109.24	111.90
25	YA	650	C	O5'-P-OP1	5.31	117.07	110.70
25	YA	2468	G	N7-C8-N9	5.31	115.76	113.10
25	RA	2394	C	C6-N1-C2	5.31	122.42	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1535	U	C2-N1-C1'	5.31	124.07	117.70
25	RA	391	G	N9-C4-C5	-5.31	103.28	105.40
25	RA	742	G	C4-C5-N7	5.31	112.92	110.80
25	RA	783	A	N9-C4-C5	-5.31	103.68	105.80
25	YA	1323	U	N3-C4-O4	5.31	123.12	119.40
25	YA	1351	C	N1-C2-N3	5.31	122.92	119.20
25	YA	1778	U	N1-C2-N3	-5.31	111.71	114.90
25	YA	1837	C	N3-C4-C5	-5.31	119.78	121.90
25	YA	2362	G	C2-N3-C4	-5.31	109.25	111.90
25	RA	270(W)	G	N3-C4-N9	5.31	129.18	126.00
25	RA	1389	G	N1-C6-O6	-5.31	116.72	119.90
25	RA	2587	A	OP2-P-O3'	5.31	116.88	105.20
25	RA	2817	G	C5-N7-C8	5.31	106.95	104.30
25	YA	2004	G	C2-N3-C4	-5.31	109.25	111.90
1	QA	898	G	C8-N9-C4	5.31	108.52	106.40
25	RA	684	G	N3-C2-N2	-5.31	116.19	119.90
25	RA	1988	C	N3-C2-O2	5.31	125.61	121.90
25	RA	2345	G	N3-C4-C5	5.31	131.25	128.60
1	QA	581	G	C6-C5-N7	-5.30	127.22	130.40
1	QA	971	G	O4'-C1'-N9	5.30	112.44	108.20
25	RA	445	C	OP2-P-O3'	5.30	116.87	105.20
25	RA	805	G	N3-C4-N9	5.30	129.18	126.00
25	RA	1948	G	C5-C6-O6	-5.30	125.42	128.60
25	RA	2215	G	N1-C6-O6	5.30	123.08	119.90
25	RA	2255	G	N3-C4-N9	5.30	129.18	126.00
1	XA	893	C	C6-N1-C1'	-5.30	114.43	120.80
1	XA	1221	G	C5-C6-O6	-5.30	125.42	128.60
25	YA	450	G	N7-C8-N9	5.30	115.75	113.10
25	YA	539	G	C4-C5-C6	5.30	121.98	118.80
25	YA	733	G	O5'-P-OP2	-5.30	100.93	105.70
25	YA	2582	G	N1-C2-N3	5.30	127.08	123.90
26	YB	81	G	C4-N9-C1'	5.30	133.40	126.50
25	RA	1643	G	N1-C6-O6	5.30	123.08	119.90
25	RA	2570	G	C5-C6-O6	-5.30	125.42	128.60
25	RA	2776	A	N7-C8-N9	5.30	116.45	113.80
25	YA	458	G	C5-C6-N1	-5.30	108.85	111.50
25	YA	1595	G	N7-C8-N9	5.30	115.75	113.10
1	QA	885	G	N1-C2-N3	5.30	127.08	123.90
1	QA	1435	G	N3-C4-N9	-5.30	122.82	126.00
25	RA	704	G	C8-N9-C4	5.30	108.52	106.40
25	RA	847	U	C5-C6-N1	-5.30	120.05	122.70
25	RA	1187	G	N7-C8-N9	5.30	115.75	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2240	C	C6-N1-C2	-5.30	118.18	120.30
25	RA	2722	G	N3-C4-C5	-5.30	125.95	128.60
25	RA	2848	G	C2'-C3'-O3'	5.30	122.18	113.70
1	XA	1385	G	N1-C6-O6	5.30	123.08	119.90
25	YA	26	G	C4-C5-C6	5.30	121.98	118.80
25	YA	836	G	O5'-P-OP2	5.30	117.06	110.70
25	YA	1296	G	N3-C4-N9	-5.30	122.82	126.00
25	YA	1319	G	C5-C6-O6	-5.30	125.42	128.60
25	YA	1414	G	C4-C5-N7	5.30	112.92	110.80
25	YA	1834	U	O5'-P-OP1	-5.30	100.93	105.70
25	YA	2607	G	C5-C6-N1	-5.30	108.85	111.50
1	QA	305	G	C5-C6-O6	5.30	131.78	128.60
25	RA	1190	G	N9-C4-C5	5.30	107.52	105.40
1	XA	1158	C	C2-N1-C1'	5.30	124.63	118.80
25	YA	110	G	C8-N9-C4	5.30	108.52	106.40
25	YA	247	G	OP2-P-O3'	5.30	116.86	105.20
25	YA	956	G	N3-C2-N2	5.30	123.61	119.90
25	YA	1468	C	N3-C2-O2	-5.30	118.19	121.90
25	YA	2320	A	N9-C4-C5	5.30	107.92	105.80
25	YA	2591	C	OP1-P-OP2	-5.30	111.65	119.60
1	QA	1049	U	C5-C6-N1	5.30	125.35	122.70
25	RA	1443	G	N1-C6-O6	5.30	123.08	119.90
25	YA	1675	C	N1-C2-O2	-5.30	115.72	118.90
1	QA	250	A	C8-N9-C4	5.30	107.92	105.80
25	RA	784	A	P-O3'-C3'	5.30	126.06	119.70
1	XA	725	G	OP1-P-O3'	5.30	116.85	105.20
1	XA	923	A	O5'-P-OP1	-5.30	100.93	105.70
1	XA	1373	G	C4-C5-C6	5.30	121.98	118.80
1	XA	1397	C	C5-C4-N4	5.30	123.91	120.20
25	YA	1514	U	C5-C6-N1	5.30	125.35	122.70
25	RA	74	A	N1-C2-N3	5.29	131.95	129.30
25	RA	2325	G	C4-C5-C6	5.29	121.98	118.80
1	XA	595	G	P-O3'-C3'	5.29	126.05	119.70
25	YA	2031	A	O5'-P-OP1	-5.29	100.93	105.70
25	YA	2264	C	O5'-P-OP2	5.29	117.05	110.70
25	YA	2275	C	OP1-P-O3'	5.29	116.85	105.20
1	QA	324	G	C8-N9-C4	-5.29	104.28	106.40
1	QA	1419	G	N1-C6-O6	5.29	123.08	119.90
25	RA	1221	C	C6-N1-C2	5.29	122.42	120.30
25	RA	1353	A	N3-C4-C5	-5.29	123.09	126.80
25	RA	1487	G	C5-C6-O6	-5.29	125.42	128.60
25	RA	2638	G	OP2-P-O3'	5.29	116.84	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	RB	47	C	C6-N1-C1'	-5.29	114.45	120.80
25	YA	37	C	C5-C6-N1	-5.29	118.35	121.00
25	YA	132	G	N1-C6-O6	5.29	123.08	119.90
25	YA	1403	C	C4-C5-C6	5.29	120.05	117.40
25	RA	832	G	N3-C2-N2	-5.29	116.20	119.90
25	RA	958	U	C6-N1-C2	-5.29	117.83	121.00
25	RA	2481	G	C8-N9-C4	5.29	108.52	106.40
25	RA	2511	U	N3-C2-O2	-5.29	118.50	122.20
1	XA	1054	C	N1-C2-O2	5.29	122.08	118.90
1	XA	1279	A	C8-N9-C4	-5.29	103.68	105.80
25	YA	1190	G	C2-N3-C4	-5.29	109.25	111.90
25	YA	2239	G	C8-N9-C1'	-5.29	120.12	127.00
25	RA	544	C	C2-N1-C1'	5.29	124.62	118.80
25	RA	2070	G	OP1-P-OP2	-5.29	111.67	119.60
25	RA	2365	G	N3-C2-N2	5.29	123.60	119.90
1	QA	348	G	N3-C4-C5	5.29	131.25	128.60
25	RA	971	C	C5-C4-N4	-5.29	116.50	120.20
25	RA	1334	G	C4-N9-C1'	5.29	133.38	126.50
25	RA	1455	G	C5-C6-N1	5.29	114.14	111.50
25	YA	20	C	C6-N1-C2	5.29	122.42	120.30
25	YA	664	C	C4-C5-C6	5.29	120.04	117.40
25	YA	979	G	C5-C6-N1	-5.29	108.86	111.50
54	Y8	36	LYS	N-CA-C	-5.29	96.72	111.00
1	QA	15	G	C6-C5-N7	-5.29	127.23	130.40
1	QA	558	G	OP1-P-OP2	-5.29	111.67	119.60
1	QA	835	U	C5-C4-O4	5.29	129.07	125.90
25	RA	1664	A	C4-N9-C1'	5.29	135.82	126.30
25	RA	1687	G	N3-C4-C5	-5.29	125.96	128.60
1	XA	138	G	C8-N9-C4	-5.29	104.28	106.40
1	XA	1113	C	N3-C2-O2	-5.29	118.20	121.90
25	YA	1705	G	N1-C6-O6	5.29	123.07	119.90
25	YA	2750	A	C8-N9-C4	-5.29	103.69	105.80
1	QA	1285	A	P-O3'-C3'	5.29	126.04	119.70
1	QA	1382	C	N1-C2-O2	5.29	122.07	118.90
25	RA	530	G	C5-C6-N1	5.29	114.14	111.50
25	RA	2342	C	C5-C6-N1	5.29	123.64	121.00
1	XA	752	G	C8-N9-C1'	-5.29	120.13	127.00
25	YA	84	A	C5-N7-C8	-5.29	101.26	103.90
25	YA	753	C	C6-N1-C1'	-5.29	114.46	120.80
25	YA	1184	G	N3-C4-C5	-5.29	125.96	128.60
25	YA	1478	G	C4-N9-C1'	-5.29	119.63	126.50
25	YA	1521	G	N1-C2-N3	5.29	127.07	123.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1956	U	N1-C2-N3	5.29	118.07	114.90
1	QA	12	U	N3-C2-O2	-5.28	118.50	122.20
1	QA	742	G	C5-C6-N1	-5.28	108.86	111.50
25	RA	2679	A	N7-C8-N9	-5.28	111.16	113.80
25	RA	2838	G	N3-C2-N2	-5.28	116.20	119.90
25	RA	2851	A	C5-N7-C8	-5.28	101.26	103.90
1	XA	21	G	C4-N9-C1'	5.28	133.37	126.50
1	XA	318	G	O5'-P-OP2	-5.28	100.94	105.70
1	XA	806	C	N3-C2-O2	-5.28	118.20	121.90
25	YA	202	U	N3-C4-C5	-5.28	111.43	114.60
25	YA	1592	C	N3-C4-C5	5.28	124.01	121.90
25	YA	1698	A	N7-C8-N9	5.28	116.44	113.80
1	QA	501	C	N3-C2-O2	-5.28	118.20	121.90
25	YA	383	U	N3-C2-O2	-5.28	118.50	122.20
25	YA	452	G	N1-C2-N2	-5.28	111.45	116.20
25	YA	2422	A	N7-C8-N9	-5.28	111.16	113.80
25	YA	2713	A	C8-N9-C4	-5.28	103.69	105.80
25	RA	756	C	C5-C4-N4	-5.28	116.50	120.20
25	RA	808	G	N1-C6-O6	-5.28	116.73	119.90
25	RA	945	A	N1-C6-N6	5.28	121.77	118.60
25	RA	1353	A	N1-C2-N3	5.28	131.94	129.30
25	RA	1998	G	N7-C8-N9	-5.28	110.46	113.10
25	RA	2419	U	C6-N1-C2	-5.28	117.83	121.00
25	RA	2682	U	C5-C6-N1	5.28	125.34	122.70
1	XA	485	G	OP2-P-O3'	5.28	116.82	105.20
1	XA	557	G	C4-C5-N7	5.28	112.91	110.80
1	XA	907	A	C4-C5-N7	5.28	113.34	110.70
1	XA	1339	A	C5-C6-N1	5.28	120.34	117.70
25	YA	1403	C	OP1-P-O3'	5.28	116.82	105.20
25	YA	1773	A	C4-C5-N7	-5.28	108.06	110.70
25	YA	2721	A	N1-C6-N6	5.28	121.77	118.60
25	RA	37	C	N3-C4-C5	5.28	124.01	121.90
25	RA	345	A	P-O3'-C3'	5.28	126.03	119.70
25	RA	583	G	C6-C5-N7	-5.28	127.23	130.40
25	RA	2624	G	C4-C5-N7	5.28	112.91	110.80
1	XA	1316	G	C8-N9-C1'	5.28	133.86	127.00
25	YA	203	C	C2-N3-C4	-5.28	117.26	119.90
25	YA	2665	A	C2-N3-C4	-5.28	107.96	110.60
25	RA	789	A	C6-C5-N7	5.28	135.99	132.30
25	RA	1304	C	C4-C5-C6	-5.28	114.76	117.40
1	XA	21	G	C4-C5-C6	5.28	121.97	118.80
1	XA	1362	C	N1-C2-O2	5.28	122.07	118.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	121	G	C5-C6-N1	5.28	114.14	111.50
25	YA	1441	G	N1-C6-O6	5.28	123.07	119.90
25	YA	1904	G	C2-N3-C4	5.28	114.54	111.90
25	YA	2052	G	OP2-P-O3'	5.28	116.81	105.20
1	QA	35	G	N3-C4-C5	-5.28	125.96	128.60
1	QA	106	C	C4-C5-C6	5.28	120.04	117.40
1	QA	481	G	P-O3'-C3'	5.28	126.03	119.70
25	RA	454	A	N7-C8-N9	-5.28	111.16	113.80
25	RA	661	C	C6-N1-C2	-5.28	118.19	120.30
25	RA	924	C	C6-N1-C2	-5.28	118.19	120.30
1	XA	637	G	N3-C4-N9	5.28	129.16	126.00
25	YA	187	G	C8-N9-C4	5.28	108.51	106.40
25	YA	1306	C	C5-C4-N4	-5.28	116.51	120.20
25	YA	1984	G	C8-N9-C4	5.28	108.51	106.40
25	RA	34	C	O5'-P-OP1	5.27	117.03	110.70
1	XA	1112	C	C2-N1-C1'	5.27	124.60	118.80
25	YA	832	G	C5-C6-N1	-5.27	108.86	111.50
25	YA	1258	C	C5-C6-N1	-5.27	118.36	121.00
1	QA	226	G	N7-C8-N9	-5.27	110.46	113.10
1	QA	1206	G	N7-C8-N9	5.27	115.74	113.10
25	RA	401	A	C5-C6-N6	5.27	127.92	123.70
25	RA	2779	U	O4'-C1'-N1	5.27	112.42	108.20
54	R8	36	LYS	N-CA-C	-5.27	96.77	111.00
1	XA	126	G	C4-C5-C6	5.27	121.96	118.80
1	XA	186(A)	C	N1-C2-O2	5.27	122.06	118.90
25	YA	482	A	C5-C6-N6	-5.27	119.48	123.70
25	YA	1454	U	C6-N1-C2	5.27	124.16	121.00
25	YA	1904	G	C5-C6-O6	-5.27	125.44	128.60
25	RA	276	A	C8-N9-C4	5.27	107.91	105.80
25	RA	2051	A	N1-C6-N6	5.27	121.76	118.60
25	RA	2371	G	N3-C4-N9	-5.27	122.84	126.00
25	RA	2686	G	C8-N9-C4	5.27	108.51	106.40
1	XA	530	G	C4-N9-C1'	5.27	133.35	126.50
1	XA	800	G	C8-N9-C4	-5.27	104.29	106.40
25	YA	2262	U	N3-C2-O2	-5.27	118.51	122.20
25	RA	1784	A	O4'-C1'-N9	-5.27	103.98	108.20
1	XA	945	G	N1-C6-O6	5.27	123.06	119.90
25	YA	1258	C	N3-C2-O2	5.27	125.59	121.90
25	YA	1560	G	C4-C5-N7	5.27	112.91	110.80
25	YA	2004	G	C4-C5-N7	5.27	112.91	110.80
25	YA	2020	A	N1-C6-N6	-5.27	115.44	118.60
25	YA	2509	G	C6-C5-N7	-5.27	127.24	130.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	YB	82	G	N9-C4-C5	5.27	107.51	105.40
1	QA	573	A	O5'-P-OP2	-5.27	100.96	105.70
1	QA	612	C	N1-C2-O2	5.27	122.06	118.90
25	RA	126	A	C8-N9-C4	-5.27	103.69	105.80
25	RA	184	C	N3-C4-N4	-5.27	114.31	118.00
25	RA	187	G	N1-C6-O6	5.27	123.06	119.90
25	RA	1193	G	C5-C6-O6	-5.27	125.44	128.60
25	RA	2415	G	C8-N9-C1'	-5.27	120.15	127.00
25	RA	2612	C	O5'-P-OP2	-5.27	100.96	105.70
1	XA	342	C	C6-N1-C2	5.27	122.41	120.30
1	XA	903	G	N1-C2-N3	5.27	127.06	123.90
25	YA	521	G	C5-C6-N1	-5.27	108.87	111.50
25	YA	1151	G	C4-N9-C1'	5.27	133.35	126.50
25	YA	1361	G	C8-N9-C4	5.27	108.51	106.40
25	YA	2028	U	OP1-P-OP2	-5.27	111.70	119.60
25	YA	2277	G	C4-N9-C1'	5.27	133.35	126.50
1	QA	104	G	C6-C5-N7	-5.27	127.24	130.40
1	QA	298	A	C2-N3-C4	-5.27	107.97	110.60
1	QA	1513	A	C4-C5-N7	5.27	113.33	110.70
25	RA	127	A	C4-C5-C6	-5.27	114.37	117.00
25	RA	860	U	O5'-P-OP1	-5.27	100.96	105.70
25	YA	2432	A	C5-C6-N6	-5.27	119.49	123.70
1	QA	754	C	N3-C2-O2	-5.26	118.21	121.90
1	QA	1469	G	C8-N9-C4	-5.26	104.30	106.40
25	RA	2869	G	C6-C5-N7	-5.26	127.24	130.40
25	YA	568	U	C6-N1-C1'	5.26	128.57	121.20
25	YA	928	G	C5-C6-O6	-5.26	125.44	128.60
25	YA	1021	A	N1-C6-N6	5.26	121.76	118.60
25	YA	1273	U	N3-C2-O2	-5.26	118.52	122.20
26	YB	81	G	N3-C4-N9	5.26	129.16	126.00
25	YA	1367	A	C4-C5-C6	5.26	119.63	117.00
1	QA	294	U	O5'-P-OP1	-5.26	100.97	105.70
1	QA	919	A	N9-C4-C5	5.26	107.91	105.80
25	RA	58	G	N7-C8-N9	5.26	115.73	113.10
25	RA	1413	G	C4-C5-N7	5.26	112.91	110.80
25	RA	1502	C	C2-N1-C1'	5.26	124.59	118.80
25	RA	1967	C	C6-N1-C2	5.26	122.40	120.30
25	RA	2145	C	C6-N1-C2	-5.26	118.19	120.30
25	RA	2838	G	N1-C6-O6	5.26	123.06	119.90
25	YA	94	G	N3-C4-C5	-5.26	125.97	128.60
25	YA	267	C	C6-N1-C2	5.26	122.41	120.30
25	YA	672	C	C4-C5-C6	5.26	120.03	117.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	677	A	C5-N7-C8	-5.26	101.27	103.90
25	YA	754	C	N3-C4-N4	-5.26	114.32	118.00
25	YA	793	A	O4'-C1'-N9	-5.26	103.99	108.20
25	YA	2326	C	C5-C6-N1	5.26	123.63	121.00
25	YA	2518	A	C4-C5-N7	5.26	113.33	110.70
25	YA	2599	G	C5-C6-N1	5.26	114.13	111.50
25	YA	2765	A	OP1-P-OP2	5.26	127.49	119.60
26	YB	54	G	C4-C5-C6	5.26	121.96	118.80
1	QA	387	U	O5'-P-OP1	5.26	117.01	110.70
25	RA	1517	G	C6-C5-N7	5.26	133.56	130.40
25	RA	2088	G	C6-C5-N7	-5.26	127.24	130.40
1	XA	314	C	N3-C2-O2	-5.26	118.22	121.90
1	XA	358	U	N3-C2-O2	-5.26	118.52	122.20
1	XA	1416	G	C4-N9-C1'	5.26	133.34	126.50
25	YA	562	U	OP2-P-O3'	5.26	116.77	105.20
25	YA	1142(A)	A	N7-C8-N9	5.26	116.43	113.80
25	RA	1137	G	N9-C4-C5	-5.26	103.30	105.40
1	XA	5	U	C6-N1-C1'	5.26	128.56	121.20
1	XA	784	C	N1-C2-O2	-5.26	115.75	118.90
25	YA	1974	C	N1-C2-O2	5.26	122.06	118.90
25	RA	475	U	N1-C2-N3	5.26	118.05	114.90
25	RA	962	G	N1-C2-N2	5.26	120.93	116.20
25	RA	2262	U	N1-C2-O2	5.26	126.48	122.80
25	YA	209	C	C5-C4-N4	-5.26	116.52	120.20
25	YA	324	A	C8-N9-C4	-5.26	103.70	105.80
25	YA	2481	G	N3-C4-C5	-5.26	125.97	128.60
25	YA	2490	G	N3-C4-C5	5.26	131.23	128.60
25	YA	2721	A	C2-N3-C4	-5.26	107.97	110.60
26	YB	39	A	N7-C8-N9	5.26	116.43	113.80
1	QA	575	G	N1-C6-O6	5.25	123.05	119.90
25	RA	27	G	C2-N3-C4	-5.25	109.27	111.90
25	RA	1601	G	N1-C6-O6	5.25	123.05	119.90
25	RA	2259	G	N1-C6-O6	5.25	123.05	119.90
1	XA	788	U	C5-C4-O4	-5.25	122.75	125.90
25	YA	117	G	C6-C5-N7	-5.25	127.25	130.40
1	QA	495	A	N1-C6-N6	-5.25	115.45	118.60
1	QA	1111	A	C8-N9-C4	-5.25	103.70	105.80
25	RA	676	A	C4-N9-C1'	5.25	135.75	126.30
1	XA	312	C	C2-N1-C1'	5.25	124.58	118.80
1	XA	401	C	O5'-P-OP2	-5.25	100.97	105.70
1	XA	683	G	N3-C4-C5	-5.25	125.97	128.60
1	XA	1323	G	C5-N7-C8	-5.25	101.67	104.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1889	A	N7-C8-N9	-5.25	111.17	113.80
25	YA	1935	G	C4-N9-C1'	-5.25	119.67	126.50
1	QA	31	G	P-O3'-C3'	5.25	126.00	119.70
1	QA	893	C	N1-C2-O2	5.25	122.05	118.90
25	RA	258	G	C2-N3-C4	-5.25	109.27	111.90
25	RA	793	A	C2-N3-C4	-5.25	107.97	110.60
25	RA	1891	G	N1-C2-N3	5.25	127.05	123.90
25	RA	1992	G	N3-C4-C5	-5.25	125.97	128.60
25	RA	2350	C	C2-N1-C1'	5.25	124.58	118.80
1	XA	494	U	N3-C4-O4	5.25	123.08	119.40
1	XA	759	A	N1-C6-N6	5.25	121.75	118.60
1	XA	1285	A	P-O3'-C3'	5.25	126.00	119.70
1	XA	1341	U	N1-C2-O2	-5.25	119.12	122.80
25	YA	327	G	N9-C4-C5	-5.25	103.30	105.40
25	YA	2004	G	N1-C2-N3	5.25	127.05	123.90
25	YA	2782	G	N3-C4-N9	5.25	129.15	126.00
25	RA	2037	G	N1-C6-O6	-5.25	116.75	119.90
1	XA	774	G	N1-C6-O6	5.25	123.05	119.90
1	XA	944	G	C4-N9-C1'	5.25	133.32	126.50
1	XA	1010	G	N3-C4-C5	5.25	131.22	128.60
25	YA	2532	G	N3-C4-C5	-5.25	125.97	128.60
25	RA	252	G	N3-C2-N2	-5.25	116.23	119.90
25	RA	398	G	N7-C8-N9	-5.25	110.48	113.10
25	RA	1299	G	C5-N7-C8	-5.25	101.68	104.30
25	RA	1496	A	O4'-C1'-N9	5.25	112.40	108.20
25	RA	1678	G	N3-C4-C5	5.25	131.22	128.60
25	RA	2710	C	N1-C2-O2	-5.25	115.75	118.90
1	XA	1415	G	N1-C6-O6	5.25	123.05	119.90
25	YA	176	G	O5'-P-OP1	-5.25	100.98	105.70
25	YA	870	A	N7-C8-N9	-5.25	111.18	113.80
25	YA	1799	G	C5-C6-O6	5.25	131.75	128.60
25	YA	2230	G	C4-C5-N7	5.25	112.90	110.80
25	YA	2247	A	C4-C5-C6	5.25	119.62	117.00
25	YA	2291	U	C6-N1-C2	-5.25	117.85	121.00
26	YB	95	U	C2-N1-C1'	-5.25	111.40	117.70
25	RA	739	G	OP2-P-O3'	5.25	116.74	105.20
25	RA	1144	G	C6-C5-N7	5.25	133.55	130.40
25	RA	2451	A	C8-N9-C4	-5.25	103.70	105.80
25	RA	2589	A	N7-C8-N9	-5.25	111.18	113.80
1	XA	1054	C	C5-C4-N4	-5.25	116.53	120.20
25	YA	270(G)	C	N3-C4-C5	-5.25	119.80	121.90
25	YA	329	G	N1-C6-O6	5.25	123.05	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	529	A	C5-N7-C8	-5.25	101.28	103.90
25	YA	614	U	C6-N1-C2	-5.25	117.85	121.00
25	YA	965	C	N1-C2-O2	-5.25	115.75	118.90
25	YA	977	G	C5-C6-N1	5.25	114.12	111.50
25	YA	1705	G	C5-C6-N1	-5.25	108.88	111.50
25	YA	1818	U	N1-C2-O2	-5.25	119.13	122.80
25	YA	1994	C	C4-C5-C6	5.25	120.02	117.40
25	YA	2093	G	C4-C5-N7	5.25	112.90	110.80
25	YA	2346	A	C4-C5-C6	5.25	119.62	117.00
25	YA	2435	A	N1-C2-N3	5.25	131.92	129.30
25	YA	2714	G	C4-C5-N7	5.25	112.90	110.80
1	XA	799	G	C8-N9-C1'	-5.25	120.18	127.00
1	XA	941	G	C2-N3-C4	5.25	114.52	111.90
25	YA	693	C	N1-C2-N3	5.25	122.87	119.20
25	YA	1238	G	N1-C6-O6	5.25	123.05	119.90
25	YA	1435	G	C5-C6-N1	5.25	114.12	111.50
25	YA	1900	A	C5-C6-N1	5.25	120.32	117.70
25	YA	1933	G	C4-N9-C1'	5.25	133.32	126.50
25	YA	2067	G	N3-C4-N9	-5.25	122.85	126.00
25	YA	2573	C	N3-C4-C5	5.25	124.00	121.90
1	QA	380	G	N1-C6-O6	5.24	123.05	119.90
25	YA	1210	A	C5-N7-C8	-5.24	101.28	103.90
25	YA	2458	G	C8-N9-C4	-5.24	104.30	106.40
25	YA	2710	C	C5-C4-N4	5.24	123.87	120.20
25	RA	2570	G	C4-N9-C1'	5.24	133.31	126.50
25	RA	2744	G	C8-N9-C4	-5.24	104.30	106.40
22	XV	17	C	N3-C2-O2	-5.24	118.23	121.90
25	YA	396	G	C8-N9-C1'	-5.24	120.19	127.00
25	YA	834	C	C6-N1-C2	5.24	122.40	120.30
25	YA	1416	G	N7-C8-N9	-5.24	110.48	113.10
25	YA	1478	G	C4-C5-N7	-5.24	108.70	110.80
25	YA	2246	G	C8-N9-C4	-5.24	104.30	106.40
25	YA	2394	C	C5-C4-N4	-5.24	116.53	120.20
1	QA	1158	C	N3-C2-O2	-5.24	118.23	121.90
25	RA	700	G	C5-C6-O6	-5.24	125.46	128.60
25	RA	793	A	C8-N9-C4	5.24	107.90	105.80
25	RA	1337	G	OP1-P-O3'	5.24	116.73	105.20
25	RA	1421	G	N1-C6-O6	5.24	123.05	119.90
1	XA	116	A	C6-N1-C2	-5.24	115.46	118.60
25	YA	214	G	N1-C6-O6	-5.24	116.75	119.90
25	YA	218	A	C4-C5-C6	-5.24	114.38	117.00
25	YA	1900	A	C2-N3-C4	5.24	113.22	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1382	C	N3-C2-O2	-5.24	118.23	121.90
1	QA	1419	G	C4-C5-N7	5.24	112.89	110.80
25	RA	116	C	C5-C6-N1	5.24	123.62	121.00
1	XA	484	G	C4-N9-C1'	5.24	133.31	126.50
1	XA	1054	C	C5-C6-N1	5.24	123.62	121.00
1	QA	337	C	C2-N1-C1'	5.24	124.56	118.80
25	RA	1201	C	C6-N1-C2	5.24	122.39	120.30
25	RA	1333	C	N3-C4-N4	5.24	121.67	118.00
25	YA	2407	G	C4-C5-C6	5.24	121.94	118.80
25	RA	765	G	C5-N7-C8	-5.24	101.68	104.30
25	RA	1487	G	C4-C5-N7	5.24	112.89	110.80
25	RA	2751	G	N3-C4-C5	-5.24	125.98	128.60
25	YA	73	A	N9-C4-C5	5.24	107.89	105.80
25	YA	1381	G	C8-N9-C4	-5.24	104.31	106.40
25	YA	1568	G	C4-N9-C1'	-5.24	119.69	126.50
1	QA	778	G	C8-N9-C4	-5.23	104.31	106.40
1	XA	1027	C	P-O3'-C3'	5.23	125.98	119.70
1	XA	1506	U	C5-C4-O4	-5.23	122.76	125.90
25	YA	1606	G	C5-N7-C8	5.23	106.92	104.30
1	QA	752	G	N9-C4-C5	-5.23	103.31	105.40
25	RA	1733	G	C6-C5-N7	-5.23	127.26	130.40
25	RA	2606	C	N1-C2-O2	-5.23	115.76	118.90
1	XA	299	G	C6-N1-C2	5.23	128.24	125.10
25	YA	448	U	N3-C2-O2	-5.23	118.54	122.20
25	YA	774	A	C6-C5-N7	-5.23	128.64	132.30
25	YA	783	A	N1-C2-N3	5.23	131.92	129.30
25	YA	793	A	C6-C5-N7	-5.23	128.64	132.30
25	YA	1202	C	OP2-P-O3'	5.23	116.71	105.20
25	YA	1959	G	C5-C6-N1	5.23	114.12	111.50
25	YA	2525	G	C8-N9-C4	5.23	108.49	106.40
25	YA	2583	G	C6-C5-N7	-5.23	127.26	130.40
25	RA	629	G	C4-C5-C6	5.23	121.94	118.80
25	RA	1734	C	C5-C6-N1	5.23	123.61	121.00
26	RB	9	G	C2-N3-C4	5.23	114.52	111.90
1	XA	1480	G	C4-N9-C1'	-5.23	119.70	126.50
25	YA	295	G	C5-C6-N1	-5.23	108.89	111.50
25	YA	1818	U	C6-N1-C1'	5.23	128.52	121.20
25	RA	568	U	C5-C4-O4	5.23	129.04	125.90
25	RA	687	C	C5-C6-N1	5.23	123.61	121.00
25	YA	893	C	N1-C2-O2	5.23	122.04	118.90
25	YA	1160	G	C4-C5-N7	5.23	112.89	110.80
1	QA	1211	U	C5-C6-N1	-5.23	120.09	122.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1372	U	C6-N1-C2	-5.23	117.86	121.00
25	RA	861	A	N1-C2-N3	5.23	131.91	129.30
25	RA	1553	A	C4-C5-C6	5.23	119.61	117.00
25	RA	1835	G	C4-N9-C1'	5.23	133.30	126.50
25	RA	2581	G	N9-C4-C5	5.23	107.49	105.40
1	XA	1488	G	N1-C6-O6	5.23	123.04	119.90
25	YA	570	G	C5-N7-C8	5.23	106.91	104.30
25	YA	1888	G	N3-C4-C5	-5.23	125.99	128.60
1	QA	1401	G	C6-C5-N7	-5.23	127.27	130.40
1	QA	1469	G	C4-C5-C6	5.23	121.94	118.80
25	RA	2710	C	N3-C4-C5	-5.23	119.81	121.90
25	YA	264	C	N1-C2-N3	-5.23	115.54	119.20
25	YA	1316	U	O5'-P-OP2	-5.23	101.00	105.70
25	YA	2244	U	OP1-P-OP2	-5.23	111.76	119.60
36	YQ	5	ARG	N-CA-C	-5.23	96.89	111.00
25	RA	71	A	N9-C4-C5	-5.22	103.71	105.80
25	RA	448	U	C6-N1-C2	5.22	124.14	121.00
25	RA	1115	G	N3-C4-C5	5.22	131.21	128.60
25	RA	1809	A	C4-N9-C1'	5.22	135.70	126.30
25	RA	2345	G	C4-C5-N7	-5.22	108.71	110.80
25	RA	2582	G	N1-C2-N3	5.22	127.03	123.90
1	XA	1103	C	N1-C2-O2	5.22	122.03	118.90
1	XA	1376	U	N1-C2-N3	5.22	118.03	114.90
25	YA	869	G	C5-C6-N1	-5.22	108.89	111.50
25	YA	2249	U	N3-C4-O4	5.22	123.06	119.40
25	YA	2367	G	N1-C6-O6	5.22	123.03	119.90
25	YA	2766	G	C5-C6-O6	-5.22	125.47	128.60
25	RA	1266	G	N7-C8-N9	-5.22	110.49	113.10
25	RA	1696	G	C5-C6-N1	5.22	114.11	111.50
25	RA	2367	G	C4-N9-C1'	5.22	133.29	126.50
25	RA	2372	G	N3-C2-N2	-5.22	116.24	119.90
26	RB	86	G	N9-C4-C5	-5.22	103.31	105.40
1	XA	59	A	C2-N3-C4	5.22	113.21	110.60
1	XA	944	G	C8-N9-C4	-5.22	104.31	106.40
25	YA	961	C	C6-N1-C1'	-5.22	114.53	120.80
25	YA	1315	C	C2-N3-C4	-5.22	117.29	119.90
25	YA	1528	A	C4-C5-C6	5.22	119.61	117.00
25	YA	2383	G	N3-C4-N9	5.22	129.13	126.00
25	YA	2717	G	C5-C6-O6	-5.22	125.47	128.60
25	YA	2751	G	N7-C8-N9	5.22	115.71	113.10
25	RA	1610	A	N7-C8-N9	5.22	116.41	113.80
1	XA	1478	C	C2-N3-C4	-5.22	117.29	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	86	C	OP2-P-O3'	5.22	116.69	105.20
25	YA	844	C	C6-N1-C2	5.22	122.39	120.30
25	YA	953	A	O5'-P-OP1	-5.22	101.00	105.70
25	RA	103	A	C5-C6-N1	-5.22	115.09	117.70
25	RA	756	C	C2-N1-C1'	5.22	124.54	118.80
25	RA	2035	G	O4'-C1'-N9	5.22	112.38	108.20
1	XA	1332	A	C4-C5-C6	5.22	119.61	117.00
1	XA	1487	G	N1-C6-O6	-5.22	116.77	119.90
25	YA	667	U	N3-C2-O2	5.22	125.85	122.20
25	YA	777	A	N1-C2-N3	5.22	131.91	129.30
25	YA	1301	A	C4-C5-C6	5.22	119.61	117.00
26	YB	82	G	C2-N3-C4	-5.22	109.29	111.90
25	RA	1795	C	N3-C4-C5	-5.22	119.81	121.90
1	XA	247	G	C4-C5-C6	5.22	121.93	118.80
1	XA	484	G	C4-C5-N7	-5.22	108.71	110.80
25	YA	768	G	C2-N3-C4	-5.22	109.29	111.90
25	YA	2690	C	C2-N1-C1'	-5.22	113.06	118.80
1	QA	565	U	C2-N1-C1'	5.22	123.96	117.70
1	QA	1513	A	N7-C8-N9	5.22	116.41	113.80
25	RA	55	G	C6-N1-C2	-5.22	121.97	125.10
25	RA	1299	G	C4-C5-N7	5.22	112.89	110.80
25	RA	1979	C	N3-C2-O2	-5.22	118.25	121.90
25	RA	2345	G	C5-C6-O6	5.22	131.73	128.60
25	RA	2579	C	N1-C2-O2	-5.22	115.77	118.90
1	XA	48	C	N1-C2-O2	5.22	122.03	118.90
1	XA	112	G	N7-C8-N9	5.22	115.71	113.10
25	YA	86	C	N3-C4-C5	5.22	123.99	121.90
25	YA	693	C	C5-C6-N1	-5.22	118.39	121.00
25	YA	715	G	C4-C5-N7	5.22	112.89	110.80
25	YA	731	C	C6-N1-C2	5.22	122.39	120.30
25	YA	794	G	N1-C6-O6	5.22	123.03	119.90
25	YA	1125	G	OP1-P-OP2	-5.22	111.78	119.60
25	YA	1136	G	O5'-P-OP2	-5.22	101.00	105.70
1	QA	353	A	C4-C5-C6	-5.21	114.39	117.00
25	RA	921	G	C8-N9-C4	-5.21	104.31	106.40
25	RA	2292	C	C4-C5-C6	-5.21	114.79	117.40
25	RA	2540	C	C2-N3-C4	-5.21	117.29	119.90
1	XA	521	G	C5-C6-N1	5.21	114.11	111.50
25	YA	511	U	O5'-P-OP1	-5.21	101.01	105.70
1	QA	727	G	N1-C6-O6	-5.21	116.77	119.90
25	RA	1984	G	C6-C5-N7	-5.21	127.27	130.40
25	RA	2199	A	C8-N9-C4	-5.21	103.72	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2318	G	C4-N9-C1'	5.21	133.28	126.50
1	XA	854	G	C8-N9-C1'	-5.21	120.22	127.00
1	XA	885	G	N3-C4-N9	-5.21	122.87	126.00
1	XA	1480	G	N3-C4-N9	-5.21	122.87	126.00
25	YA	188	G	N1-C2-N2	-5.21	111.51	116.20
25	YA	191	A	C8-N9-C4	-5.21	103.72	105.80
25	YA	531	C	C4-C5-C6	5.21	120.01	117.40
25	YA	806	C	C6-N1-C2	-5.21	118.22	120.30
25	YA	1560	G	O5'-P-OP2	-5.21	101.01	105.70
25	YA	1572	A	C8-N9-C4	5.21	107.89	105.80
25	YA	2588	G	C5-C6-N1	5.21	114.11	111.50
25	YA	2662	A	C8-N9-C4	-5.21	103.72	105.80
26	YB	31	C	C6-N1-C2	-5.21	118.22	120.30
25	RA	130	C	C2-N3-C4	-5.21	117.29	119.90
25	RA	141	A	C4-C5-N7	5.21	113.31	110.70
25	RA	151	C	N3-C4-C5	5.21	123.98	121.90
25	RA	1612	C	C2-N3-C4	-5.21	117.29	119.90
25	RA	1756	G	C6-C5-N7	-5.21	127.27	130.40
25	RA	1949	G	N3-C4-C5	-5.21	125.99	128.60
1	XA	564	C	N3-C4-C5	-5.21	119.81	121.90
1	XA	865	A	C5-C6-N6	-5.21	119.53	123.70
1	XA	1504	G	N1-C2-N3	5.21	127.03	123.90
25	YA	219	G	C8-N9-C4	-5.21	104.31	106.40
25	YA	250	G	O5'-P-OP1	-5.21	101.01	105.70
25	YA	1487	G	C4-C5-N7	5.21	112.89	110.80
25	YA	2067	G	N3-C2-N2	-5.21	116.25	119.90
25	YA	2069	G	OP2-P-O3'	5.21	116.67	105.20
25	RA	2077	A	C5-C6-N1	-5.21	115.09	117.70
25	YA	521	G	N1-C6-O6	5.21	123.03	119.90
25	YA	570	G	C2-N3-C4	-5.21	109.30	111.90
25	YA	1260	G	N3-C4-C5	-5.21	126.00	128.60
1	QA	716	A	O5'-P-OP1	-5.21	101.01	105.70
25	RA	401	A	C4-C5-N7	-5.21	108.09	110.70
25	RA	856	C	C4-C5-C6	-5.21	114.80	117.40
25	RA	1433	U	C4-C5-C6	-5.21	116.57	119.70
36	RQ	5	ARG	N-CA-C	-5.21	96.94	111.00
1	XA	944	G	C6-C5-N7	-5.21	127.28	130.40
25	YA	486	C	O5'-P-OP1	-5.21	101.01	105.70
25	YA	576	U	C5-C4-O4	-5.21	122.78	125.90
25	YA	2856	C	C6-N1-C2	-5.21	118.22	120.30
1	QA	106	C	OP2-P-O3'	5.21	116.66	105.20
25	RA	577	G	C6-C5-N7	-5.21	127.28	130.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	817	C	N3-C4-C5	5.21	123.98	121.90
1	XA	732	C	N3-C2-O2	-5.21	118.26	121.90
1	XA	776	G	C8-N9-C4	-5.21	104.32	106.40
25	YA	175	G	C5-C6-N1	-5.21	108.90	111.50
25	YA	681	G	N1-C6-O6	5.21	123.02	119.90
25	YA	1816	G	N1-C6-O6	5.21	123.02	119.90
25	YA	2360	A	N1-C2-N3	5.21	131.90	129.30
25	RA	956	G	N1-C6-O6	5.21	123.02	119.90
1	XA	690	G	O4'-C1'-N9	5.21	112.36	108.20
1	XA	1124	G	C8-N9-C4	-5.21	104.32	106.40
25	YA	1312	U	OP1-P-O3'	5.21	116.65	105.20
1	QA	129	U	C4-C5-C6	5.20	122.82	119.70
25	RA	399	G	C8-N9-C4	5.20	108.48	106.40
25	RA	508	G	P-O3'-C3'	5.20	125.94	119.70
25	YA	391	G	C4-C5-N7	5.20	112.88	110.80
25	YA	474	G	C5-C6-N1	-5.20	108.90	111.50
25	RA	822	U	O4'-C1'-N1	5.20	112.36	108.20
19	XS	79	THR	N-CA-C	-5.20	96.95	111.00
25	YA	381	G	C8-N9-C4	5.20	108.48	106.40
25	YA	759	G	C4-C5-N7	5.20	112.88	110.80
25	YA	859	G	OP2-P-O3'	5.20	116.64	105.20
25	YA	2736	G	C5-C6-N1	-5.20	108.90	111.50
1	QA	284	G	N9-C4-C5	-5.20	103.32	105.40
25	RA	389	G	N1-C6-O6	5.20	123.02	119.90
25	RA	559	G	C5-N7-C8	5.20	106.90	104.30
25	RA	583	G	C8-N9-C4	-5.20	104.32	106.40
25	RA	1521	G	N3-C4-N9	5.20	129.12	126.00
25	RA	2429	G	N3-C4-C5	-5.20	126.00	128.60
25	RA	2429	G	N3-C4-N9	5.20	129.12	126.00
1	XA	121	C	C5-C6-N1	5.20	123.60	121.00
1	XA	1382	C	N1-C2-O2	5.20	122.02	118.90
25	RA	2549	G	C8-N9-C1'	-5.20	120.24	127.00
38	RS	110	LEU	CA-CB-CG	5.20	127.25	115.30
1	XA	509	A	N1-C6-N6	-5.20	115.48	118.60
1	XA	1504	G	C8-N9-C4	-5.20	104.32	106.40
25	YA	333	G	C5-N7-C8	-5.20	101.70	104.30
25	YA	1666	G	C5-C6-O6	-5.20	125.48	128.60
1	QA	921	U	C6-N1-C2	-5.20	117.88	121.00
1	QA	922	G	C4-N9-C1'	5.20	133.26	126.50
25	RA	1276	A	N7-C8-N9	5.20	116.40	113.80
25	YA	852	G	N3-C4-C5	-5.20	126.00	128.60
25	YA	1457	A	C4-C5-C6	5.20	119.60	117.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	244	U	C6-N1-C1'	-5.20	113.93	121.20
1	XA	837	G	N3-C4-C5	-5.20	126.00	128.60
25	YA	508	G	P-O3'-C3'	5.20	125.94	119.70
25	YA	705	A	C2-N3-C4	-5.20	108.00	110.60
25	YA	906	G	C8-N9-C4	-5.20	104.32	106.40
25	YA	916	G	N7-C8-N9	5.20	115.70	113.10
25	YA	952	G	N3-C4-N9	5.20	129.12	126.00
25	YA	1251	C	O5'-P-OP2	-5.20	101.02	105.70
25	YA	1989	G	C2-N3-C4	-5.20	109.30	111.90
38	YS	110	LEU	CA-CB-CG	5.20	127.25	115.30
1	QA	259	G	C2-N3-C4	-5.19	109.30	111.90
1	QA	703	G	C2-N3-C4	5.19	114.50	111.90
1	QA	1392	G	N3-C4-C5	5.19	131.20	128.60
25	RA	116	C	O4'-C1'-N1	5.19	112.36	108.20
25	RA	209	C	C2-N1-C1'	-5.19	113.09	118.80
25	RA	1376	C	N1-C2-O2	5.19	122.02	118.90
26	RB	75	G	C8-N9-C1'	-5.19	120.25	127.00
25	YA	1890	A	C5-N7-C8	-5.19	101.30	103.90
1	QA	247	G	C5-C6-N1	-5.19	108.90	111.50
25	RA	271(C)	U	C6-N1-C2	-5.19	117.89	121.00
25	RA	726	G	N1-C6-O6	-5.19	116.78	119.90
25	RA	1458	C	N3-C4-C5	5.19	123.98	121.90
25	RA	1628	G	N1-C6-O6	5.19	123.02	119.90
25	RA	2342	C	N1-C2-O2	5.19	122.02	118.90
26	RB	28	C	O5'-P-OP2	-5.19	101.03	105.70
1	XA	703	G	C5-C6-O6	5.19	131.72	128.60
1	XA	792	A	C6-N1-C2	5.19	121.72	118.60
25	YA	1500	G	N3-C4-C5	-5.19	126.00	128.60
25	YA	2296	U	C6-N1-C2	-5.19	117.89	121.00
25	YA	2454	G	OP2-P-O3'	5.19	116.62	105.20
25	YA	2553	G	OP1-P-O3'	5.19	116.62	105.20
25	RA	71	A	O5'-P-OP2	-5.19	101.03	105.70
25	RA	949	C	C5-C6-N1	-5.19	118.41	121.00
25	RA	1990	C	N3-C4-C5	-5.19	119.82	121.90
25	RA	2042	A	C5-C6-N1	-5.19	115.10	117.70
26	RB	84	C	C6-N1-C2	5.19	122.38	120.30
32	RI	72	LEU	CA-CB-CG	5.19	127.24	115.30
1	XA	190	G	C2-N3-C4	5.19	114.50	111.90
1	XA	1412	C	N3-C4-C5	5.19	123.98	121.90
25	YA	179	G	C6-C5-N7	-5.19	127.29	130.40
25	YA	494	G	C5-N7-C8	-5.19	101.70	104.30
25	YA	2029	G	C4-C5-N7	-5.19	108.72	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2256	G	N3-C2-N2	5.19	123.53	119.90
25	YA	2501	C	OP2-P-O3'	5.19	116.62	105.20
1	QA	374	A	C4-C5-N7	5.19	113.29	110.70
1	QA	1473	A	N7-C8-N9	-5.19	111.21	113.80
1	XA	1159	U	O4'-C1'-N1	5.19	112.35	108.20
25	YA	16	G	N1-C6-O6	5.19	123.01	119.90
25	YA	117	G	C4-N9-C1'	5.19	133.25	126.50
25	YA	2495	G	N1-C6-O6	5.19	123.01	119.90
25	YA	2506	U	N3-C4-O4	-5.19	115.77	119.40
1	QA	724	G	N9-C4-C5	-5.19	103.33	105.40
25	RA	203	C	N3-C2-O2	5.19	125.53	121.90
25	RA	503	A	C6-N1-C2	-5.19	115.49	118.60
25	RA	702	G	C5-C6-N1	-5.19	108.91	111.50
25	RA	1462	C	C6-N1-C2	-5.19	118.22	120.30
25	RA	1776	G	N7-C8-N9	5.19	115.69	113.10
25	RA	2576	G	N7-C8-N9	5.19	115.69	113.10
25	RA	2617	C	C5-C6-N1	-5.19	118.41	121.00
1	XA	432	A	N1-C2-N3	-5.19	126.71	129.30
25	YA	1183	G	C4-C5-N7	5.19	112.88	110.80
25	YA	1368	G	C4-N9-C1'	5.19	133.24	126.50
25	YA	1762	A	C5-C6-N6	5.19	127.85	123.70
25	YA	1770	G	N1-C6-O6	5.19	123.01	119.90
25	RA	1268	A	N9-C4-C5	5.19	107.87	105.80
25	RA	1299	G	C4-C5-C6	-5.19	115.69	118.80
25	RA	1817	G	C6-C5-N7	-5.19	127.29	130.40
25	RA	2716	U	N3-C4-O4	5.19	123.03	119.40
1	XA	992	U	P-O3'-C3'	5.19	125.92	119.70
25	YA	2307	G	C8-N9-C4	-5.19	104.33	106.40
25	YA	2312	U	N3-C4-O4	5.19	123.03	119.40
25	YA	2428	G	N1-C6-O6	5.19	123.01	119.90
1	QA	53	A	N7-C8-N9	5.18	116.39	113.80
25	RA	145	G	C8-N9-C4	5.18	108.47	106.40
25	RA	855	G	C6-C5-N7	-5.18	127.29	130.40
25	RA	2335	A	O4'-C1'-N9	5.18	112.35	108.20
25	RA	2544	G	C4-C5-N7	5.18	112.87	110.80
25	RA	2822	G	N1-C6-O6	5.18	123.01	119.90
25	YA	827	U	N3-C4-O4	-5.18	115.77	119.40
25	YA	1222	C	C6-N1-C2	5.18	122.37	120.30
25	YA	1408	C	C6-N1-C2	-5.18	118.23	120.30
25	YA	1642	G	C4-C5-C6	5.18	121.91	118.80
25	YA	2318	G	C6-C5-N7	-5.18	127.29	130.40
25	YA	2572	A	C8-N9-C4	-5.18	103.73	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2681	C	C5-C6-N1	5.18	123.59	121.00
25	YA	2691	C	N3-C2-O2	5.18	125.53	121.90
25	RA	363(C)	G	N3-C4-C5	5.18	131.19	128.60
25	RA	1142(A)	A	N3-C4-C5	5.18	130.43	126.80
25	RA	1441	G	C8-N9-C4	5.18	108.47	106.40
25	RA	1528	A	N7-C8-N9	5.18	116.39	113.80
25	RA	2826	A	C2-N3-C4	-5.18	108.01	110.60
1	XA	801	U	C2-N3-C4	-5.18	123.89	127.00
25	YA	376	C	C5-C6-N1	-5.18	118.41	121.00
25	YA	761	A	C8-N9-C4	-5.18	103.73	105.80
25	YA	792	G	OP1-P-OP2	5.18	127.38	119.60
25	YA	1156	A	N1-C6-N6	5.18	121.71	118.60
25	YA	1444	G	N3-C4-C5	-5.18	126.01	128.60
25	YA	2015	A	O5'-P-OP2	5.18	116.92	110.70
25	YA	2385	C	N3-C4-C5	5.18	123.97	121.90
25	YA	2677	G	C4-C5-C6	5.18	121.91	118.80
25	RA	1342	A	C4-N9-C1'	-5.18	116.97	126.30
25	RA	2831	G	C4-C5-C6	5.18	121.91	118.80
25	YA	856	C	N3-C4-N4	5.18	121.63	118.00
25	YA	1264	G	C5-N7-C8	5.18	106.89	104.30
25	YA	2053	G	C5-N7-C8	-5.18	101.71	104.30
25	YA	2573	C	C2-N1-C1'	5.18	124.50	118.80
1	QA	11	G	C8-N9-C4	-5.18	104.33	106.40
1	QA	332	G	C5-C6-N1	5.18	114.09	111.50
1	QA	496	A	N9-C4-C5	5.18	107.87	105.80
25	RA	1264	G	OP2-P-O3'	5.18	116.59	105.20
25	RA	1522	G	O4'-C1'-N9	5.18	112.34	108.20
1	XA	1204	A	N9-C4-C5	-5.18	103.73	105.80
1	XA	1352	C	C6-N1-C2	-5.18	118.23	120.30
1	XA	1455	G	C4-N9-C1'	-5.18	119.77	126.50
25	RA	1334	G	N3-C4-C5	-5.18	126.01	128.60
25	RA	2449	U	C2-N1-C1'	5.18	123.91	117.70
25	YA	534	U	N1-C2-N3	5.18	118.01	114.90
25	YA	1984	G	C6-C5-N7	-5.18	127.29	130.40
25	YA	2329	G	N7-C8-N9	-5.18	110.51	113.10
1	QA	716	A	C6-C5-N7	-5.18	128.68	132.30
25	RA	1776	G	N9-C4-C5	-5.18	103.33	105.40
25	RA	2048	G	C4-C5-C6	5.18	121.91	118.80
25	RA	2418	A	C8-N9-C4	5.18	107.87	105.80
25	RA	2844	G	C4-C5-N7	5.18	112.87	110.80
25	YA	1029	A	OP1-P-OP2	-5.18	111.83	119.60
25	YA	2466	C	C2-N3-C4	-5.18	117.31	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	26	A	C6-C5-N7	5.17	135.92	132.30
1	QA	1340	A	C6-C5-N7	-5.17	128.68	132.30
25	RA	74	A	O4'-C1'-N9	-5.17	104.06	108.20
25	RA	258	G	C5-C6-N1	-5.17	108.91	111.50
1	XA	320	C	C2-N1-C1'	-5.17	113.11	118.80
25	YA	228	A	C6-C5-N7	-5.17	128.68	132.30
25	YA	382	G	C4-C5-N7	5.17	112.87	110.80
25	YA	1401	G	C4-C5-C6	5.17	121.90	118.80
25	YA	2213	U	O4'-C1'-N1	5.17	112.34	108.20
25	YA	2225	A	C5-C6-N1	5.17	120.29	117.70
25	RA	974	G	C2-N3-C4	5.17	114.49	111.90
25	YA	2430	A	N1-C6-N6	5.17	121.70	118.60
1	QA	1417	G	C8-N9-C1'	-5.17	120.28	127.00
25	RA	270(X)	G	C2-N3-C4	-5.17	109.31	111.90
25	RA	595	C	C5-C6-N1	5.17	123.59	121.00
25	RA	941	A	N1-C6-N6	-5.17	115.50	118.60
25	RA	1195	G	N7-C8-N9	5.17	115.69	113.10
25	RA	2237	G	C8-N9-C1'	-5.17	120.28	127.00
25	RA	2447	G	P-O3'-C3'	5.17	125.91	119.70
1	XA	522	C	C6-N1-C2	5.17	122.37	120.30
1	XA	782	A	C2-N3-C4	-5.17	108.02	110.60
1	XA	853	G	N9-C4-C5	-5.17	103.33	105.40
25	YA	354	G	C4-C5-N7	5.17	112.87	110.80
25	YA	874	G	N9-C1'-C2'	-5.17	106.31	112.00
25	YA	974	G	C5-N7-C8	-5.17	101.71	104.30
25	YA	1250	G	C4-N9-C1'	-5.17	119.78	126.50
25	YA	1484	G	C5-C6-N1	-5.17	108.92	111.50
25	YA	1500	G	N3-C4-N9	5.17	129.10	126.00
25	YA	2655	G	OP2-P-O3'	5.17	116.58	105.20
26	YB	108	C	C5-C6-N1	-5.17	118.41	121.00
25	RA	933	A	N1-C6-N6	5.17	121.70	118.60
25	RA	1239	G	C4-C5-N7	5.17	112.87	110.80
25	RA	1313	U	OP1-P-O3'	5.17	116.58	105.20
1	XA	1061	G	C6-C5-N7	-5.17	127.30	130.40
25	YA	715	G	N3-C2-N2	5.17	123.52	119.90
25	YA	836	G	N3-C4-N9	5.17	129.10	126.00
25	YA	2351	G	N3-C4-C5	-5.17	126.02	128.60
1	QA	502	G	N1-C6-O6	5.17	123.00	119.90
25	RA	607	U	N3-C4-O4	-5.17	115.78	119.40
25	RA	1137	G	C4-C5-N7	5.17	112.87	110.80
25	RA	1651	G	N3-C4-N9	5.17	129.10	126.00
25	RA	1894	C	C2-N3-C4	-5.17	117.32	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2290	G	C5-C6-N1	-5.17	108.92	111.50
25	RA	2523	G	C8-N9-C1'	-5.17	120.28	127.00
25	YA	1325	G	C4-C5-N7	-5.17	108.73	110.80
25	YA	1473	G	C5-C6-N1	-5.17	108.92	111.50
25	RA	840	C	OP1-P-OP2	5.17	127.35	119.60
25	RA	2194	G	N3-C4-C5	-5.17	126.02	128.60
1	XA	317	G	C6-C5-N7	-5.17	127.30	130.40
25	YA	1891	G	C4-C5-N7	5.17	112.87	110.80
25	YA	2006	C	C6-N1-C2	5.17	122.37	120.30
25	YA	2685	G	C4-C5-N7	-5.17	108.73	110.80
25	RA	393	C	N1-C2-N3	5.17	122.81	119.20
25	RA	1050	A	C8-N9-C4	-5.17	103.73	105.80
25	YA	240	G	C6-C5-N7	-5.17	127.30	130.40
25	YA	2005	A	N9-C4-C5	5.17	107.87	105.80
1	QA	1183	A	N7-C8-N9	-5.16	111.22	113.80
25	RA	686	G	N3-C4-C5	-5.16	126.02	128.60
25	RA	1696	G	C2-N3-C4	5.16	114.48	111.90
25	YA	406	G	C6-C5-N7	-5.16	127.30	130.40
25	YA	1027	A	N1-C6-N6	5.16	121.70	118.60
25	YA	1549	C	P-O3'-C3'	-5.16	113.50	119.70
1	QA	1235	U	C6-N1-C2	-5.16	117.90	121.00
25	RA	1624	G	C4-C5-N7	5.16	112.86	110.80
25	YA	788	A	N1-C2-N3	-5.16	126.72	129.30
25	YA	1135	C	N1-C2-N3	-5.16	115.59	119.20
25	YA	2470	G	N3-C4-N9	-5.16	122.90	126.00
25	YA	2616	C	N1-C2-O2	-5.16	115.80	118.90
1	QA	107	G	N3-C4-C5	5.16	131.18	128.60
1	QA	716	A	N7-C8-N9	5.16	116.38	113.80
25	RA	1678	G	C2-N3-C4	-5.16	109.32	111.90
25	YA	63	U	C4-C5-C6	5.16	122.80	119.70
25	YA	244	A	N1-C2-N3	-5.16	126.72	129.30
25	YA	704	G	N1-C2-N3	5.16	127.00	123.90
25	YA	941	A	C8-N9-C4	-5.16	103.74	105.80
25	YA	1698	A	P-O3'-C3'	5.16	125.89	119.70
25	YA	2080	G	N1-C2-N3	5.16	127.00	123.90
25	YA	2542	A	P-O3'-C3'	-5.16	113.51	119.70
1	QA	785	G	C5-C6-N1	-5.16	108.92	111.50
1	QA	1081	G	O5'-P-OP2	5.16	116.89	110.70
25	RA	926	A	C4-C5-N7	5.16	113.28	110.70
25	RA	1792	G	N9-C4-C5	-5.16	103.34	105.40
25	YA	752	A	O5'-P-OP1	-5.16	101.06	105.70
25	YA	1899	G	C5-N7-C8	-5.16	101.72	104.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	YB	112	G	N1-C6-O6	5.16	123.00	119.90
25	RA	2067	G	N1-C6-O6	-5.16	116.81	119.90
1	XA	101	A	C8-N9-C4	-5.16	103.74	105.80
1	QA	5	U	P-O3'-C3'	5.16	125.89	119.70
19	QS	79	THR	N-CA-C	-5.16	97.08	111.00
25	RA	249	C	C2-N1-C1'	-5.16	113.13	118.80
25	RA	532	A	O4'-C1'-N9	5.16	112.33	108.20
25	RA	1458	C	C6-N1-C2	5.16	122.36	120.30
25	RA	1951	U	C4-C5-C6	5.16	122.79	119.70
25	RA	2504	U	N1-C2-N3	-5.16	111.81	114.90
25	RA	2820	A	P-O3'-C3'	5.16	125.89	119.70
1	XA	1084	G	C4-C5-N7	-5.16	108.74	110.80
25	YA	960	A	N3-C4-C5	5.16	130.41	126.80
25	YA	1010	A	OP2-P-O3'	5.16	116.54	105.20
25	YA	1377	G	C8-N9-C1'	-5.16	120.30	127.00
25	YA	1551	C	N1-C2-O2	-5.16	115.81	118.90
25	YA	2450	A	C6-N1-C2	-5.16	115.51	118.60
25	YA	2470	G	C4-N9-C1'	-5.16	119.80	126.50
1	QA	11	G	O5'-P-OP1	-5.15	101.06	105.70
1	XA	698	G	C5-C6-O6	-5.15	125.51	128.60
1	XA	1145	C	P-O3'-C3'	5.15	125.88	119.70
25	YA	382	G	C8-N9-C1'	5.15	133.70	127.00
25	YA	793	A	N1-C6-N6	5.15	121.69	118.60
25	YA	1383	C	C5-C6-N1	5.15	123.58	121.00
25	YA	2859	G	C5-C6-O6	5.15	131.69	128.60
25	RA	459	U	N1-C2-N3	5.15	117.99	114.90
25	RA	1274	A	N3-C4-N9	-5.15	123.28	127.40
25	RA	1496	A	C4-C5-C6	5.15	119.58	117.00
1	XA	29	G	N9-C4-C5	-5.15	103.34	105.40
1	XA	138	G	C6-C5-N7	-5.15	127.31	130.40
25	YA	410	G	O5'-P-OP1	-5.15	101.06	105.70
25	YA	1597	A	N7-C8-N9	-5.15	111.22	113.80
25	YA	2497	A	N1-C6-N6	5.15	121.69	118.60
25	YA	2622	C	N3-C4-N4	-5.15	114.39	118.00
25	YA	2646	C	C5-C6-N1	5.15	123.58	121.00
1	QA	108	G	C8-N9-C1'	-5.15	120.31	127.00
1	QA	772	U	O5'-P-OP1	5.15	116.88	110.70
1	QA	864	A	C2-N3-C4	5.15	113.17	110.60
25	RA	637	A	P-O3'-C3'	5.15	125.88	119.70
25	RA	2598	A	N1-C6-N6	-5.15	115.51	118.60
25	YA	228	A	N7-C8-N9	5.15	116.38	113.80
25	YA	270(Z)	U	C2-N1-C1'	-5.15	111.52	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	728	G	N3-C4-C5	-5.15	126.03	128.60
25	YA	1132	A	C2-N3-C4	5.15	113.17	110.60
25	YA	1182	A	N1-C6-N6	5.15	121.69	118.60
25	YA	1286	A	C5-C6-N1	5.15	120.28	117.70
25	YA	2271	G	C4-N9-C1'	5.15	133.20	126.50
25	YA	2316	C	C6-N1-C2	-5.15	118.24	120.30
25	RA	1826	G	N1-C6-O6	5.15	122.99	119.90
25	RA	2046	G	C5-C6-N1	5.15	114.07	111.50
25	RA	2686	G	O5'-P-OP2	-5.15	101.07	105.70
25	RA	2830	G	N1-C6-O6	5.15	122.99	119.90
25	YA	792	G	N3-C4-N9	5.15	129.09	126.00
25	YA	2446	G	C8-N9-C4	-5.15	104.34	106.40
25	YA	2545	G	O5'-P-OP2	-5.15	101.07	105.70
1	QA	758	G	N3-C4-N9	-5.15	122.91	126.00
1	QA	1490	C	C5-C6-N1	-5.15	118.43	121.00
25	RA	1773	A	C6-C5-N7	-5.15	128.70	132.30
25	RA	1846	G	C4-C5-C6	5.15	121.89	118.80
25	RA	2441	C	N1-C2-O2	-5.15	115.81	118.90
25	RA	2448	A	C8-N9-C4	-5.15	103.74	105.80
25	RA	2577	A	O5'-P-OP2	-5.15	101.07	105.70
1	XA	763	G	C8-N9-C4	-5.15	104.34	106.40
25	YA	240	G	C8-N9-C1'	-5.15	120.31	127.00
25	YA	355	G	C5-C6-N1	-5.15	108.93	111.50
25	YA	1141	U	C6-N1-C2	-5.15	117.91	121.00
25	YA	1325	G	N9-C4-C5	5.15	107.46	105.40
25	YA	1817	G	C8-N9-C4	-5.15	104.34	106.40
25	YA	1878	G	N1-C6-O6	5.15	122.99	119.90
25	YA	1971	A	N1-C6-N6	5.15	121.69	118.60
25	YA	2060	A	C4-C5-C6	5.15	119.57	117.00
1	QA	397	A	N3-C4-C5	-5.15	123.20	126.80
25	RA	1275	A	C8-N9-C4	5.15	107.86	105.80
25	RA	1624	G	C4-C5-C6	5.15	121.89	118.80
25	RA	2433	A	C8-N9-C4	-5.15	103.74	105.80
1	XA	812	C	N3-C2-O2	-5.15	118.30	121.90
25	YA	1968	G	C6-C5-N7	-5.15	127.31	130.40
25	RA	28	A	N9-C4-C5	5.14	107.86	105.80
25	RA	465	G	N1-C6-O6	5.14	122.99	119.90
25	RA	862	G	C8-N9-C4	-5.14	104.34	106.40
25	RA	1772	G	C5-C6-O6	-5.14	125.51	128.60
25	RA	2311	A	C5-C6-N1	-5.14	115.13	117.70
1	XA	584	G	C8-N9-C1'	-5.14	120.31	127.00
1	XA	1419	G	N3-C4-C5	5.14	131.17	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	953	A	C2-N3-C4	-5.14	108.03	110.60
25	YA	1020	A	N1-C6-N6	5.14	121.69	118.60
25	YA	1048	A	C8-N9-C4	-5.14	103.74	105.80
25	YA	1196	C	N3-C4-N4	5.14	121.60	118.00
25	YA	2376	A	C8-N9-C4	5.14	107.86	105.80
25	YA	2694	G	C4-C5-N7	5.14	112.86	110.80
1	QA	869	G	N3-C4-C5	5.14	131.17	128.60
25	RA	557	U	N3-C2-O2	-5.14	118.60	122.20
25	RA	2095	C	C5-C6-N1	5.14	123.57	121.00
25	RA	2333	A	N1-C6-N6	-5.14	115.51	118.60
1	XA	1064	G	N3-C4-C5	5.14	131.17	128.60
25	YA	1297	C	N1-C2-O2	-5.14	115.81	118.90
25	YA	1542	G	C4-N9-C1'	5.14	133.19	126.50
1	QA	263	A	C8-N9-C4	5.14	107.86	105.80
25	YA	2734	A	C8-N9-C4	-5.14	103.74	105.80
25	RA	1286	A	C5-C6-N1	5.14	120.27	117.70
25	RA	1543	A	C2-N3-C4	-5.14	108.03	110.60
1	XA	35	G	N9-C4-C5	5.14	107.46	105.40
1	XA	553	A	N1-C6-N6	-5.14	115.52	118.60
1	XA	1189	C	C2-N3-C4	5.14	122.47	119.90
25	YA	1052	C	C6-N1-C2	-5.14	118.24	120.30
25	YA	1271	G	C4-N9-C1'	5.14	133.18	126.50
25	YA	1622	G	N1-C6-O6	5.14	122.98	119.90
25	YA	2430	A	N1-C2-N3	5.14	131.87	129.30
25	RA	2755	C	C6-N1-C2	-5.14	118.25	120.30
1	QA	1354	C	C5-C6-N1	5.14	123.57	121.00
25	YA	1026	U	OP1-P-O3'	5.14	116.50	105.20
25	YA	1142(A)	A	C5-C6-N1	-5.14	115.13	117.70
26	YB	102	G	OP2-P-O3'	5.14	116.50	105.20
1	QA	1401	G	C4-N9-C1'	5.13	133.17	126.50
25	RA	1903	G	OP2-P-O3'	5.13	116.50	105.20
25	RA	2492	U	C5-C6-N1	5.13	125.27	122.70
1	XA	776	G	N1-C6-O6	5.13	122.98	119.90
25	YA	80	G	C5-C6-N1	-5.13	108.93	111.50
25	YA	1698	A	N1-C2-N3	5.13	131.87	129.30
1	QA	793	U	C5-C4-O4	5.13	128.98	125.90
25	RA	1437	C	C2-N1-C1'	5.13	124.45	118.80
25	RA	2235	G	C6-C5-N7	-5.13	127.32	130.40
25	YA	1674	G	N3-C4-C5	-5.13	126.03	128.60
25	YA	1699	G	C6-C5-N7	5.13	133.48	130.40
25	YA	1985	G	N3-C4-C5	-5.13	126.03	128.60
25	YA	2056	G	OP2-P-O3'	5.13	116.49	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	26	G	C4-C5-N7	-5.13	108.75	110.80
1	XA	690	G	C5-C6-N1	-5.13	108.93	111.50
1	XA	1099	G	N9-C4-C5	5.13	107.45	105.40
25	YA	94	G	C8-N9-C4	-5.13	104.35	106.40
25	YA	1978	A	C5-C6-N1	-5.13	115.13	117.70
25	YA	2822	G	C2-N3-C4	-5.13	109.33	111.90
1	XA	919	A	N9-C4-C5	5.13	107.85	105.80
1	XA	1370	G	C8-N9-C4	-5.13	104.35	106.40
1	XA	1422	G	C8-N9-C1'	-5.13	120.33	127.00
1	XA	1514	C	C2-N3-C4	-5.13	117.34	119.90
25	YA	191	A	C4-C5-C6	5.13	119.56	117.00
25	YA	295	G	C4-C5-N7	5.13	112.85	110.80
25	YA	494	G	C4-N9-C1'	5.13	133.17	126.50
25	YA	733	G	N7-C8-N9	5.13	115.66	113.10
25	YA	1164	G	C8-N9-C4	5.13	108.45	106.40
25	YA	1788	C	N3-C2-O2	5.13	125.49	121.90
25	YA	1907	G	N3-C4-C5	5.13	131.16	128.60
25	YA	2011	U	OP1-P-OP2	5.13	127.29	119.60
25	YA	2434	A	N1-C2-N3	-5.13	126.74	129.30
1	QA	731	G	N1-C6-O6	5.13	122.98	119.90
1	QA	1268	A	C4-C5-N7	-5.13	108.14	110.70
25	RA	110	G	C8-N9-C1'	5.13	133.66	127.00
25	RA	1300	U	N1-C2-N3	5.13	117.98	114.90
25	RA	2709	G	C6-C5-N7	-5.13	127.33	130.40
1	XA	138	G	N1-C6-O6	5.13	122.98	119.90
1	XA	799	G	N3-C4-C5	-5.13	126.04	128.60
1	XA	1491	G	O5'-P-OP2	-5.13	101.08	105.70
25	YA	208	C	C2-N3-C4	-5.13	117.34	119.90
25	YA	352	G	N3-C4-C5	5.13	131.16	128.60
25	YA	465	G	C8-N9-C1'	-5.13	120.34	127.00
25	YA	718	A	C4-C5-C6	5.13	119.56	117.00
25	YA	1908	C	N1-C2-N3	5.13	122.79	119.20
1	QA	34	C	N1-C2-O2	5.12	121.97	118.90
1	QA	54	C	N1-C2-O2	-5.12	115.83	118.90
1	QA	366	C	C5-C6-N1	-5.12	118.44	121.00
1	QA	1079	G	C4-C5-N7	-5.12	108.75	110.80
25	YA	1141	U	C5-C4-O4	5.12	128.97	125.90
1	QA	519	C	C6-N1-C2	5.12	122.35	120.30
25	RA	628	G	C5-C6-N1	5.12	114.06	111.50
25	RA	1017	G	C5-C6-O6	-5.12	125.53	128.60
25	RA	1389	G	N3-C4-C5	-5.12	126.04	128.60
25	RA	1669	A	C5-C6-N1	5.12	120.26	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1803	A	N7-C8-N9	-5.12	111.24	113.80
25	RA	2453	A	N1-C2-N3	-5.12	126.74	129.30
25	RA	2869	G	C4-C5-C6	5.12	121.87	118.80
25	YA	196	A	N9-C4-C5	-5.12	103.75	105.80
25	YA	443	A	C4-C5-C6	5.12	119.56	117.00
25	YA	1271	G	C2-N3-C4	-5.12	109.34	111.90
25	YA	1768	U	N3-C4-C5	-5.12	111.53	114.60
1	QA	195	A	C8-N9-C4	-5.12	103.75	105.80
1	QA	773	G	N1-C6-O6	5.12	122.97	119.90
25	RA	608	A	N7-C8-N9	5.12	116.36	113.80
25	YA	832	G	N7-C8-N9	5.12	115.66	113.10
25	YA	1734	C	C5-C4-N4	5.12	123.78	120.20
25	YA	1810	A	C8-N9-C4	-5.12	103.75	105.80
25	YA	2698	U	C5-C4-O4	5.12	128.97	125.90
22	QV	17	C	N3-C2-O2	-5.12	118.32	121.90
25	RA	2573	C	N3-C4-N4	5.12	121.58	118.00
25	RA	2635	C	C4-C5-C6	5.12	119.96	117.40
1	QA	119	A	N7-C8-N9	-5.12	111.24	113.80
25	RA	328	U	C5-C6-N1	-5.12	120.14	122.70
25	RA	1992	G	C2-N3-C4	5.12	114.46	111.90
25	RA	2267	A	N1-C6-N6	-5.12	115.53	118.60
25	RA	2385	C	N1-C2-O2	-5.12	115.83	118.90
1	XA	273	A	N7-C8-N9	5.12	116.36	113.80
1	XA	740	U	C5-C4-O4	5.12	128.97	125.90
25	YA	325	G	N3-C4-N9	5.12	129.07	126.00
25	YA	1470	G	N1-C6-O6	5.12	122.97	119.90
25	YA	1758	G	C5-C6-O6	5.12	131.67	128.60
25	YA	1778	U	C6-N1-C2	5.12	124.07	121.00
25	YA	2766	G	C8-N9-C1'	-5.12	120.35	127.00
25	YA	2788	C	N1-C2-O2	5.12	121.97	118.90
25	RA	639	U	C2-N1-C1'	-5.12	111.56	117.70
25	RA	1283	G	C4-C5-N7	-5.12	108.75	110.80
1	XA	288	A	N9-C1'-C2'	-5.12	106.37	112.00
1	XA	698	G	C8-N9-C1'	-5.12	120.35	127.00
25	YA	1758	G	C4-C5-N7	-5.12	108.75	110.80
1	QA	1064	G	N1-C2-N3	5.12	126.97	123.90
25	RA	1142(A)	A	N1-C2-N3	5.12	131.86	129.30
25	RA	1193	G	N1-C6-O6	5.12	122.97	119.90
25	RA	1328	G	N1-C6-O6	5.12	122.97	119.90
25	RA	2518	A	N1-C6-N6	5.12	121.67	118.60
1	XA	751	U	C5-C6-N1	5.12	125.26	122.70
1	XA	853	G	C4-C5-N7	5.12	112.85	110.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	109	G	P-O3'-C3'	-5.12	113.56	119.70
25	YA	2319	G	N3-C4-N9	5.12	129.07	126.00
25	YA	2719	G	C8-N9-C1'	-5.12	120.35	127.00
25	RA	39	C	C5-C6-N1	5.11	123.56	121.00
25	RA	1325	G	C8-N9-C1'	5.11	133.65	127.00
1	XA	1375	A	C8-N9-C4	-5.11	103.75	105.80
25	YA	860	U	N3-C2-O2	-5.11	118.62	122.20
25	YA	1471	A	C8-N9-C4	-5.11	103.75	105.80
25	YA	1495	A	OP1-P-O3'	5.11	116.45	105.20
25	YA	1562	A	C8-N9-C4	-5.11	103.75	105.80
25	YA	2033	A	O5'-P-OP2	-5.11	101.10	105.70
25	RA	140	A	N9-C4-C5	-5.11	103.75	105.80
25	RA	300	A	C2-N3-C4	-5.11	108.04	110.60
25	RA	444	C	C2-N1-C1'	-5.11	113.18	118.80
26	RB	47	C	C2-N1-C1'	5.11	124.42	118.80
1	XA	555	C	N3-C4-N4	5.11	121.58	118.00
25	YA	701	G	C5-C6-O6	-5.11	125.53	128.60
25	YA	850	C	N3-C4-C5	5.11	123.94	121.90
25	YA	2246	G	OP1-P-O3'	5.11	116.45	105.20
25	RA	553	U	C4-C5-C6	5.11	122.77	119.70
25	RA	1957	C	O5'-P-OP1	5.11	116.83	110.70
25	RA	2610	C	P-O3'-C3'	5.11	125.83	119.70
25	YA	294	A	C8-N9-C4	5.11	107.84	105.80
25	YA	2269	A	C5-C6-N1	-5.11	115.14	117.70
25	YA	2537	U	C4-C5-C6	5.11	122.77	119.70
25	YA	2549	G	C6-C5-N7	-5.11	127.33	130.40
25	RA	467	G	C5-C6-O6	-5.11	125.53	128.60
26	RB	45	A	N1-C6-N6	5.11	121.67	118.60
25	YA	2665	A	C4-C5-C6	5.11	119.56	117.00
25	YA	2758	A	O5'-P-OP1	-5.11	101.10	105.70
1	QA	1334	G	N1-C2-N3	5.11	126.96	123.90
25	RA	1463	C	C6-N1-C2	-5.11	118.26	120.30
25	RA	2043	C	C2-N1-C1'	5.11	124.42	118.80
25	RA	2259	G	C5-C6-O6	-5.11	125.53	128.60
25	RA	2540	C	C4-C5-C6	5.11	119.95	117.40
25	RA	2755	C	C5-C6-N1	5.11	123.55	121.00
1	XA	64	G	P-O3'-C3'	5.11	125.83	119.70
25	YA	272	G	C4-N9-C1'	-5.11	119.86	126.50
25	YA	333	G	C4-N9-C1'	5.11	133.14	126.50
25	YA	835	A	N9-C4-C5	5.11	107.84	105.80
25	YA	2829	C	C5-C6-N1	-5.11	118.45	121.00
25	RA	18	C	O5'-P-OP1	-5.11	101.11	105.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	738	G	N3-C4-C5	-5.11	126.05	128.60
25	RA	804	A	N3-C4-N9	-5.11	123.31	127.40
25	RA	1827	C	C6-N1-C2	-5.11	118.26	120.30
25	RA	2500	U	N1-C2-O2	5.11	126.37	122.80
25	RA	2696	U	C6-N1-C2	-5.11	117.94	121.00
1	XA	623	C	C5-C6-N1	5.11	123.55	121.00
25	YA	452	G	C4-N9-C1'	5.11	133.14	126.50
25	YA	693	C	N1-C2-O2	-5.11	115.84	118.90
25	YA	827	U	O4'-C1'-N1	5.11	112.28	108.20
25	YA	1270	C	N1-C2-O2	-5.11	115.84	118.90
25	YA	2012	G	C6-C5-N7	-5.11	127.34	130.40
25	RA	1215	G	C4-C5-C6	5.10	121.86	118.80
25	RA	2438	U	OP2-P-O3'	5.10	116.43	105.20
25	RA	2452	C	C5-C4-N4	-5.10	116.63	120.20
25	YA	450	G	N1-C2-N3	5.10	126.96	123.90
25	YA	2608	G	C5-N7-C8	-5.10	101.75	104.30
1	QA	1113	C	C5-C6-N1	5.10	123.55	121.00
1	QA	1120	G	N3-C4-C5	5.10	131.15	128.60
25	RA	1021	A	C5-C6-N1	-5.10	115.15	117.70
25	RA	1355	G	N1-C6-O6	5.10	122.96	119.90
25	RA	2621	A	C2-N3-C4	-5.10	108.05	110.60
25	YA	245	G	C2-N3-C4	-5.10	109.35	111.90
25	YA	2302	G	N3-C4-C5	-5.10	126.05	128.60
25	YA	2571	C	N3-C2-O2	-5.10	118.33	121.90
25	RA	269	U	N1-C2-O2	5.10	126.37	122.80
25	RA	671	C	N3-C2-O2	-5.10	118.33	121.90
25	RA	1327	C	N1-C2-O2	-5.10	115.84	118.90
1	XA	1124	G	N7-C8-N9	5.10	115.65	113.10
1	XA	1151	A	O4'-C1'-N9	5.10	112.28	108.20
1	XA	1235	U	N3-C4-O4	5.10	122.97	119.40
25	YA	628	G	C4-C5-N7	-5.10	108.76	110.80
26	YB	109	G	C8-N9-C4	-5.10	104.36	106.40
26	YB	111	U	O4'-C1'-N1	5.10	112.28	108.20
25	RA	498	G	N3-C4-C5	-5.10	126.05	128.60
25	RA	1786	A	C6-N1-C2	5.10	121.66	118.60
25	RA	2251	G	N3-C4-C5	-5.10	126.05	128.60
25	YA	122	G	O4'-C1'-N9	-5.10	104.12	108.20
25	YA	1260	G	N3-C4-N9	5.10	129.06	126.00
25	YA	1647	G	C4-C5-C6	5.10	121.86	118.80
25	YA	1661	G	N1-C2-N3	5.10	126.96	123.90
25	YA	1800	C	O5'-P-OP2	5.10	116.82	110.70
25	YA	2416	C	C5-C6-N1	5.10	123.55	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	396	G	C2-N3-C4	-5.10	109.35	111.90
25	RA	283	A	N1-C6-N6	5.10	121.66	118.60
25	RA	745	G	N3-C2-N2	5.10	123.47	119.90
25	RA	859	G	N3-C4-C5	5.10	131.15	128.60
25	RA	1313	U	C6-N1-C2	-5.10	117.94	121.00
25	RA	2237	G	C6-C5-N7	-5.10	127.34	130.40
25	RA	2239	G	C5-C6-N1	5.10	114.05	111.50
25	RA	2396	G	N1-C6-O6	5.10	122.96	119.90
1	XA	813	U	C5-C6-N1	-5.10	120.15	122.70
25	YA	117	G	N1-C2-N2	-5.10	111.61	116.20
25	YA	145	G	N1-C2-N3	5.10	126.96	123.90
25	YA	1215	G	OP1-P-O3'	5.10	116.42	105.20
25	YA	2495	G	N7-C8-N9	-5.10	110.55	113.10
26	YB	53	A	N1-C6-N6	5.10	121.66	118.60
26	YB	101	A	N1-C6-N6	-5.10	115.54	118.60
25	RA	1785	A	N1-C6-N6	5.10	121.66	118.60
25	YA	1333	C	N3-C4-C5	5.10	123.94	121.90
25	YA	2445	G	N3-C2-N2	-5.10	116.33	119.90
1	QA	226	G	N1-C6-O6	5.09	122.96	119.90
1	QA	529	G	N1-C6-O6	5.09	122.96	119.90
1	QA	1479	C	N3-C4-C5	-5.09	119.86	121.90
25	RA	624	C	N3-C4-N4	5.09	121.57	118.00
25	RA	1293	C	N3-C2-O2	5.09	125.47	121.90
25	RA	2451	A	N9-C4-C5	5.09	107.84	105.80
26	RB	100	G	N3-C4-N9	5.09	129.06	126.00
1	XA	1159	U	N1-C2-O2	-5.09	119.23	122.80
1	XA	1270	C	C5-C6-N1	5.09	123.55	121.00
25	YA	52	A	OP2-P-O3'	5.09	116.41	105.20
25	YA	414	C	N3-C4-C5	5.09	123.94	121.90
25	YA	512	G	C8-N9-C4	-5.09	104.36	106.40
25	YA	768	G	C5-C6-O6	-5.09	125.54	128.60
25	YA	1813	G	C6-C5-N7	-5.09	127.34	130.40
25	YA	2066	C	N3-C2-O2	-5.09	118.33	121.90
25	YA	2295	C	C2-N1-C1'	5.09	124.40	118.80
25	YA	2389	G	C5-N7-C8	-5.09	101.75	104.30
25	RA	301	G	N7-C8-N9	-5.09	110.55	113.10
25	RA	1308	A	C6-C5-N7	-5.09	128.74	132.30
25	YA	379	G	C4-C5-N7	5.09	112.84	110.80
25	YA	1369	G	C6-C5-N7	-5.09	127.34	130.40
25	YA	1424	G	N3-C4-N9	5.09	129.06	126.00
25	YA	1533	C	C5-C6-N1	5.09	123.55	121.00
25	YA	2037	G	N1-C6-O6	5.09	122.96	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2278	A	C6-N1-C2	-5.09	115.54	118.60
1	QA	686	U	N1-C2-N3	5.09	117.95	114.90
1	QA	818	G	C5-C6-N1	-5.09	108.95	111.50
25	RA	482	A	N1-C2-N3	-5.09	126.75	129.30
25	RA	855	G	C5-C6-N1	-5.09	108.95	111.50
25	RA	2041	U	C5-C4-O4	-5.09	122.84	125.90
25	RA	2457	U	N3-C4-C5	-5.09	111.55	114.60
1	XA	557	G	N3-C4-C5	-5.09	126.05	128.60
25	YA	898	C	N3-C2-O2	-5.09	118.34	121.90
25	YA	906	G	C4-C5-N7	-5.09	108.76	110.80
25	YA	1048	A	C4-C5-C6	5.09	119.55	117.00
25	YA	1929	G	N9-C4-C5	-5.09	103.36	105.40
25	YA	2287	A	N9-C4-C5	-5.09	103.76	105.80
25	YA	2461	C	C4-C5-C6	5.09	119.94	117.40
25	YA	2697	G	C4-N9-C1'	5.09	133.12	126.50
39	YT	123	GLN	N-CA-C	-5.09	97.25	111.00
1	QA	716	A	O5'-P-OP2	5.09	116.81	110.70
25	RA	683	C	C6-N1-C2	-5.09	118.26	120.30
25	RA	1903	G	OP1-P-OP2	5.09	127.23	119.60
25	RA	1979	C	C6-N1-C2	-5.09	118.26	120.30
25	RA	2433	A	N1-C2-N3	5.09	131.84	129.30
1	XA	1305	G	N3-C4-N9	-5.09	122.95	126.00
25	YA	22	C	O5'-P-OP1	-5.09	101.12	105.70
25	YA	246	C	N3-C2-O2	5.09	125.46	121.90
25	YA	624	C	C6-N1-C1'	-5.09	114.69	120.80
25	YA	783	A	N9-C1'-C2'	-5.09	106.40	112.00
25	YA	1206	G	C4-C5-N7	5.09	112.84	110.80
1	QA	484	G	P-O3'-C3'	5.09	125.81	119.70
1	QA	503	C	C2-N1-C1'	5.09	124.40	118.80
25	RA	828	U	C5-C4-O4	5.09	128.95	125.90
25	RA	1213	A	C2-N3-C4	-5.09	108.06	110.60
1	XA	500	G	N1-C6-O6	5.09	122.95	119.90
1	XA	627	G	N3-C4-C5	-5.09	126.06	128.60
25	YA	489	G	O5'-P-OP2	-5.09	101.12	105.70
25	YA	573	G	C8-N9-C1'	-5.09	120.39	127.00
25	YA	1614	A	C8-N9-C4	-5.09	103.77	105.80
25	YA	1983	C	C6-N1-C2	5.09	122.33	120.30
25	YA	2229	C	N3-C4-C5	-5.09	119.86	121.90
1	QA	749	C	N3-C2-O2	-5.09	118.34	121.90
1	QA	1204	A	C8-N9-C4	-5.09	103.77	105.80
25	RA	621	A	C8-N9-C4	-5.09	103.77	105.80
25	RA	1465	G	N3-C4-C5	-5.09	126.06	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1487	G	C8-N9-C1'	-5.09	120.39	127.00
25	RA	1616	A	C8-N9-C4	-5.09	103.77	105.80
25	RA	2355	C	C2-N1-C1'	5.09	124.39	118.80
25	YA	219	G	OP2-P-O3'	5.09	116.39	105.20
25	YA	270(Z)	U	O4'-C1'-N1	5.09	112.27	108.20
25	YA	592	G	C4-C5-C6	5.09	121.85	118.80
25	YA	794	G	N1-C2-N3	5.09	126.95	123.90
25	YA	1561	G	C8-N9-C4	-5.09	104.36	106.40
26	YB	31	C	C2-N1-C1'	5.09	124.39	118.80
1	QA	316	G	N9-C4-C5	-5.08	103.37	105.40
1	QA	685	G	C8-N9-C1'	5.08	133.61	127.00
25	RA	636	G	C6-C5-N7	-5.08	127.35	130.40
1	XA	658	G	C5-C6-N1	-5.08	108.96	111.50
25	YA	416	C	N3-C2-O2	-5.08	118.34	121.90
25	YA	822	U	N3-C4-O4	-5.08	115.84	119.40
25	YA	2814	C	N3-C2-O2	-5.08	118.34	121.90
1	QA	425	G	C6-C5-N7	-5.08	127.35	130.40
1	QA	841	U	N3-C2-O2	-5.08	118.64	122.20
25	RA	716	A	C6-C5-N7	-5.08	128.74	132.30
25	RA	745	G	N9-C4-C5	-5.08	103.37	105.40
25	RA	1846	G	C6-N1-C2	-5.08	122.05	125.10
1	XA	54	C	C5-C4-N4	-5.08	116.64	120.20
25	YA	458	G	N3-C4-N9	-5.08	122.95	126.00
39	YT	59	THR	N-CA-C	-5.08	97.28	111.00
25	RA	1598	C	OP1-P-OP2	-5.08	111.98	119.60
1	XA	547	A	OP1-P-O3'	5.08	116.38	105.20
1	XA	1187	G	C8-N9-C1'	-5.08	120.39	127.00
25	YA	570	G	N3-C2-N2	-5.08	116.34	119.90
25	YA	798	G	N1-C2-N3	5.08	126.95	123.90
25	YA	1411	C	C5-C6-N1	5.08	123.54	121.00
25	RA	1195	G	N1-C6-O6	5.08	122.95	119.90
25	RA	2007	C	C5-C4-N4	-5.08	116.64	120.20
25	RA	2321	G	N3-C4-C5	-5.08	126.06	128.60
25	YA	2574	G	C8-N9-C4	5.08	108.43	106.40
25	YA	2612	C	N1-C2-O2	5.08	121.95	118.90
25	YA	2729	G	C4-N9-C1'	-5.08	119.90	126.50
1	QA	541	G	C6-C5-N7	-5.08	127.35	130.40
1	QA	793	U	N1-C2-N3	5.08	117.95	114.90
25	RA	1198	U	C2-N1-C1'	5.08	123.79	117.70
25	RA	1430	C	C2-N3-C4	-5.08	117.36	119.90
25	RA	1848	A	C4-C5-C6	-5.08	114.46	117.00
26	RB	71	C	C6-N1-C2	-5.08	118.27	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1315	C	N3-C4-C5	5.08	123.93	121.90
25	YA	1933	G	C4-C5-C6	5.08	121.85	118.80
25	YA	2215	G	C5-C6-O6	-5.08	125.55	128.60
25	YA	2307	G	N7-C8-N9	5.08	115.64	113.10
25	YA	2474	C	N3-C4-C5	-5.08	119.87	121.90
25	YA	2830	G	C6-C5-N7	-5.08	127.35	130.40
25	RA	365	C	C2-N3-C4	5.08	122.44	119.90
25	YA	977	G	N1-C6-O6	-5.08	116.85	119.90
25	YA	1616	A	C5-N7-C8	-5.08	101.36	103.90
25	YA	2250	G	N7-C8-N9	5.08	115.64	113.10
1	QA	1259	C	C5-C6-N1	5.08	123.54	121.00
25	RA	246	C	O5'-P-OP1	-5.08	101.13	105.70
25	RA	365	C	N1-C2-O2	5.08	121.94	118.90
1	XA	1052	U	C5-C6-N1	5.08	125.24	122.70
25	YA	317	G	N1-C6-O6	-5.08	116.86	119.90
25	YA	814	C	N3-C2-O2	5.08	125.45	121.90
25	YA	944	G	C2-N3-C4	-5.08	109.36	111.90
25	YA	2445	G	N3-C4-N9	-5.08	122.95	126.00
25	YA	2677	G	OP1-P-O3'	5.08	116.36	105.20
1	QA	631	G	C2-N3-C4	5.07	114.44	111.90
25	RA	457	A	C8-N9-C4	-5.07	103.77	105.80
25	RA	690	G	N1-C2-N3	5.07	126.94	123.90
25	RA	715	G	C5-C6-N1	5.07	114.04	111.50
25	RA	1141	U	OP2-P-O3'	5.07	116.36	105.20
25	RA	1195	G	C5-N7-C8	-5.07	101.76	104.30
25	YA	415	A	C5-C6-N6	-5.07	119.64	123.70
25	YA	1330	C	N1-C2-O2	5.07	121.94	118.90
25	YA	1622	G	C5-C6-O6	-5.07	125.56	128.60
25	YA	1669	A	C4-C5-N7	5.07	113.24	110.70
25	YA	1964	G	C6-C5-N7	-5.07	127.36	130.40
25	YA	2337	G	N1-C6-O6	5.07	122.94	119.90
25	YA	2428	G	C6-C5-N7	-5.07	127.36	130.40
25	YA	2534	A	C5-C6-N1	5.07	120.24	117.70
25	YA	2586	C	N3-C4-N4	5.07	121.55	118.00
1	QA	752	G	N1-C6-O6	5.07	122.94	119.90
25	RA	2479	G	N3-C4-N9	-5.07	122.96	126.00
1	XA	941	G	C5-C6-N1	5.07	114.04	111.50
25	YA	51	G	C6-N1-C2	-5.07	122.06	125.10
25	YA	2766	G	C6-C5-N7	-5.07	127.36	130.40
25	RA	705	A	C2-N3-C4	-5.07	108.06	110.60
25	RA	789	A	C4-N9-C1'	-5.07	117.17	126.30
25	RA	855	G	C8-N9-C4	-5.07	104.37	106.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	1430	C	N1-C2-O2	5.07	121.94	118.90
25	RA	1446	C	N3-C2-O2	-5.07	118.35	121.90
25	RA	1773	A	N1-C6-N6	5.07	121.64	118.60
25	RA	2228	G	N3-C4-N9	5.07	129.04	126.00
1	XA	869	G	C8-N9-C4	-5.07	104.37	106.40
1	XA	1094	G	N9-C4-C5	5.07	107.43	105.40
1	XA	1366	C	C5-C6-N1	5.07	123.53	121.00
25	YA	341	G	N3-C4-N9	5.07	129.04	126.00
25	YA	852	G	C2-N3-C4	5.07	114.44	111.90
25	YA	1602	U	N3-C2-O2	-5.07	118.65	122.20
25	YA	1831	G	N9-C4-C5	-5.07	103.37	105.40
25	YA	2409	G	N3-C4-N9	5.07	129.04	126.00
1	QA	1425	U	C6-N1-C2	-5.07	117.96	121.00
25	RA	715	G	N3-C4-N9	5.07	129.04	126.00
1	XA	751	U	C6-N1-C2	-5.07	117.96	121.00
25	YA	528	A	C4-N9-C1'	-5.07	117.18	126.30
25	YA	2216	G	C4-C5-C6	5.07	121.84	118.80
1	QA	249	U	C6-N1-C2	5.07	124.04	121.00
1	QA	646	U	C6-N1-C2	-5.07	117.96	121.00
1	QA	1507	A	C2-N3-C4	-5.07	108.07	110.60
25	RA	370	G	C4-N9-C1'	5.07	133.09	126.50
25	RA	696	G	C4-N9-C1'	5.07	133.09	126.50
25	RA	1146	C	C6-N1-C2	-5.07	118.27	120.30
25	RA	1252	G	C2-N3-C4	5.07	114.43	111.90
25	RA	2004	G	C5-N7-C8	-5.07	101.77	104.30
25	RA	2573	C	C5-C4-N4	-5.07	116.65	120.20
25	YA	330	A	C6-C5-N7	-5.07	128.75	132.30
25	YA	794	G	C8-N9-C1'	-5.07	120.41	127.00
25	YA	842	G	N3-C4-C5	5.07	131.13	128.60
25	YA	1439	A	C8-N9-C4	5.07	107.83	105.80
25	YA	1499	C	C6-N1-C2	5.07	122.33	120.30
25	YA	2228	G	C8-N9-C1'	-5.07	120.41	127.00
25	YA	2366	A	N7-C8-N9	5.07	116.33	113.80
1	QA	1147	C	C2-N3-C4	-5.07	117.37	119.90
25	RA	752	A	C3'-C2'-C1'	5.07	105.55	101.50
25	RA	1141	U	N3-C4-O4	-5.07	115.85	119.40
25	RA	1254	A	C8-N9-C4	-5.07	103.77	105.80
25	RA	1361	G	P-O3'-C3'	-5.07	113.62	119.70
25	RA	1776	G	C5-N7-C8	-5.07	101.77	104.30
25	RA	2307	G	C8-N9-C4	-5.07	104.37	106.40
25	RA	2369	A	N3-C4-C5	-5.07	123.25	126.80
25	RA	2519	U	N1-C2-O2	5.07	126.35	122.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	RB	7	G	C2-N3-C4	-5.07	109.37	111.90
1	XA	112	G	N3-C4-N9	5.07	129.04	126.00
1	XA	1227	A	C2-N3-C4	-5.07	108.07	110.60
25	YA	779	U	N1-C1'-C2'	-5.07	106.43	112.00
25	YA	908	C	C6-N1-C2	5.07	122.33	120.30
25	YA	1413	G	N1-C6-O6	5.07	122.94	119.90
25	YA	1890	A	N9-C4-C5	-5.07	103.77	105.80
25	YA	1905	C	N3-C2-O2	-5.07	118.35	121.90
25	YA	2229	C	N3-C4-N4	5.07	121.55	118.00
25	YA	2319	G	C8-N9-C1'	-5.07	120.42	127.00
25	YA	2356	C	OP1-P-OP2	-5.07	112.00	119.60
25	RA	15	G	N1-C2-N2	5.06	120.76	116.20
25	RA	37	C	C5-C6-N1	-5.06	118.47	121.00
1	XA	321	A	N3-C4-C5	-5.06	123.25	126.80
25	YA	193	U	C4-C5-C6	5.06	122.74	119.70
25	YA	701	G	C4-C5-N7	5.06	112.83	110.80
25	YA	1327	C	C6-N1-C1'	5.06	126.88	120.80
25	YA	1414	G	C6-C5-N7	-5.06	127.36	130.40
25	RA	759	G	N9-C4-C5	-5.06	103.38	105.40
25	RA	1263	U	N3-C4-C5	-5.06	111.56	114.60
25	RA	1315	C	C2-N3-C4	-5.06	117.37	119.90
25	RA	1983	C	C6-N1-C2	-5.06	118.28	120.30
1	XA	674	G	C4-N9-C1'	5.06	133.08	126.50
25	YA	240	G	N1-C6-O6	5.06	122.94	119.90
25	YA	546	C	C6-N1-C2	-5.06	118.28	120.30
25	YA	921	G	C5-C6-N1	-5.06	108.97	111.50
25	YA	989	G	N1-C6-O6	5.06	122.94	119.90
25	RA	105	C	N3-C2-O2	5.06	125.44	121.90
25	RA	1786	A	N9-C1'-C2'	5.06	120.58	114.00
1	XA	530	G	C3'-C2'-C1'	5.06	105.55	101.50
25	YA	389	G	N3-C2-N2	-5.06	116.36	119.90
46	Y0	25	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	QA	890	G	OP2-P-O3'	5.06	116.33	105.20
1	QA	991	U	C2-N1-C1'	5.06	123.77	117.70
25	RA	15	G	N1-C6-O6	5.06	122.94	119.90
25	RA	1627	G	C6-C5-N7	-5.06	127.36	130.40
25	RA	1639	U	C5-C4-O4	5.06	128.94	125.90
25	RA	2091	U	N3-C4-C5	-5.06	111.56	114.60
25	RA	2859	G	N1-C6-O6	-5.06	116.86	119.90
1	XA	904	C	C6-N1-C2	5.06	122.32	120.30
25	YA	746	A	O5'-P-OP2	-5.06	101.15	105.70
25	YA	1368	G	C6-N1-C2	-5.06	122.06	125.10

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1594	G	N1-C2-N3	5.06	126.94	123.90
25	YA	2443	C	N1-C2-N3	5.06	122.74	119.20
1	QA	116	A	N1-C6-N6	5.06	121.64	118.60
1	QA	1441	G	N3-C4-N9	-5.06	122.97	126.00
25	RA	2007	C	N3-C4-N4	5.06	121.54	118.00
26	RB	59	A	C2-N3-C4	5.06	113.13	110.60
39	RT	59	THR	N-CA-C	-5.06	97.35	111.00
1	XA	323	U	C5-C6-N1	5.06	125.23	122.70
25	YA	860	U	C6-N1-C1'	-5.06	114.12	121.20
25	YA	1921	G	C4-C5-N7	5.06	112.82	110.80
25	YA	2655	G	N9-C4-C5	5.06	107.42	105.40
25	YA	2691	C	N1-C2-O2	-5.06	115.87	118.90
25	YA	195	A	C5-C6-N1	-5.06	115.17	117.70
25	YA	712	G	O5'-P-OP1	-5.06	101.15	105.70
25	YA	754	C	O5'-P-OP1	5.06	116.77	110.70
25	YA	2712(A)	A	C5-N7-C8	-5.06	101.37	103.90
25	YA	2757	A	C8-N9-C4	-5.06	103.78	105.80
25	YA	2830	G	C8-N9-C4	-5.06	104.38	106.40
1	QA	1469	G	N3-C4-C5	-5.05	126.07	128.60
25	RA	941	A	C8-N9-C4	-5.05	103.78	105.80
25	RA	1419	A	N7-C8-N9	-5.05	111.27	113.80
25	RA	1647	G	N3-C4-N9	-5.05	122.97	126.00
1	XA	383	A	N1-C6-N6	-5.05	115.57	118.60
1	XA	1432	G	N1-C6-O6	5.05	122.93	119.90
25	YA	450	G	C2-N3-C4	-5.05	109.37	111.90
25	YA	1672	C	C2-N1-C1'	5.05	124.36	118.80
1	QA	455	C	C6-N1-C1'	-5.05	114.74	120.80
25	RA	855	G	N1-C6-O6	5.05	122.93	119.90
25	YA	1445	C	C6-N1-C2	-5.05	118.28	120.30
25	YA	1464	C	N1-C2-O2	-5.05	115.87	118.90
25	YA	1616	A	N7-C8-N9	5.05	116.33	113.80
1	QA	145	G	N7-C8-N9	5.05	115.63	113.10
1	QA	1187	G	N3-C4-C5	-5.05	126.07	128.60
1	QA	1498	U	C2-N1-C1'	5.05	123.76	117.70
1	QA	1518	A	N1-C2-N3	5.05	131.83	129.30
25	RA	866	A	C8-N9-C4	5.05	107.82	105.80
25	RA	869	G	OP1-P-O3'	5.05	116.31	105.20
25	RA	1431	U	N3-C4-C5	5.05	117.63	114.60
39	RT	123	GLN	N-CA-C	-5.05	97.36	111.00
25	YA	616	A	C5-C6-N6	5.05	127.74	123.70
25	YA	804	A	C2-N3-C4	-5.05	108.07	110.60
25	YA	1212	G	C5-C6-N1	-5.05	108.97	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2028	U	N3-C4-C5	-5.05	111.57	114.60
1	XA	585	G	C4-C5-N7	-5.05	108.78	110.80
25	YA	23	G	C5-C6-O6	-5.05	125.57	128.60
25	YA	841	A	N1-C6-N6	5.05	121.63	118.60
25	YA	1497	U	N3-C2-O2	-5.05	118.67	122.20
1	QA	64	G	C4-C5-C6	5.05	121.83	118.80
1	QA	347	G	N3-C4-N9	-5.05	122.97	126.00
25	RA	853	G	N3-C4-N9	5.05	129.03	126.00
25	RA	1162	G	C4-C5-N7	5.05	112.82	110.80
25	RA	2049	G	N1-C2-N3	5.05	126.93	123.90
25	YA	1231	G	N1-C6-O6	5.05	122.93	119.90
25	YA	2732	G	N3-C4-C5	5.05	131.12	128.60
25	RA	678	C	O5'-P-OP2	-5.05	101.16	105.70
1	XA	1336	C	P-O3'-C3'	5.05	125.76	119.70
1	XA	1412	C	C2-N3-C4	-5.05	117.38	119.90
25	YA	251	A	N1-C6-N6	-5.05	115.57	118.60
25	YA	1978	A	N9-C4-C5	5.05	107.82	105.80
25	YA	2252	G	C4-C5-N7	5.05	112.82	110.80
25	YA	2481	G	N3-C4-N9	5.05	129.03	126.00
26	YB	60	C	C6-N1-C2	-5.05	118.28	120.30
1	QA	114	U	N3-C4-O4	-5.04	115.87	119.40
1	QA	1238	A	O5'-P-OP2	5.04	116.75	110.70
25	RA	127	A	C4-N9-C1'	-5.04	117.22	126.30
25	YA	1186	G	C8-N9-C4	-5.04	104.38	106.40
25	YA	1992	G	C2'-C3'-O3'	5.04	121.77	113.70
25	RA	1849	G	N7-C8-N9	5.04	115.62	113.10
25	RA	1965	C	C2-N1-C1'	-5.04	113.25	118.80
1	XA	645	C	C6-N1-C2	-5.04	118.28	120.30
1	XA	944	G	N7-C8-N9	5.04	115.62	113.10
25	YA	680	G	C4-C5-C6	5.04	121.83	118.80
25	YA	1937	A	C8-N9-C4	5.04	107.82	105.80
25	YA	2168	G	C8-N9-C4	-5.04	104.38	106.40
25	YA	2254	C	C2-N1-C1'	-5.04	113.25	118.80
25	YA	2277	G	C4-C5-C6	5.04	121.83	118.80
25	RA	77	C	C5-C4-N4	-5.04	116.67	120.20
25	RA	1333	C	OP1-P-O3'	5.04	116.29	105.20
25	RA	1448	G	N1-C6-O6	5.04	122.92	119.90
25	RA	1811	G	C5-C6-O6	-5.04	125.58	128.60
25	RA	2391	G	C4-C5-N7	-5.04	108.78	110.80
1	XA	964	A	O5'-P-OP2	-5.04	101.16	105.70
1	XA	1416	G	C6-C5-N7	-5.04	127.38	130.40
25	YA	625	G	N9-C4-C5	5.04	107.42	105.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	845	G	C5-C6-O6	-5.04	125.58	128.60
25	YA	2020	A	C5-N7-C8	5.04	106.42	103.90
25	YA	2867	G	N1-C6-O6	5.04	122.92	119.90
1	XA	819	A	C2-N3-C4	-5.04	108.08	110.60
25	YA	1276	A	N9-C4-C5	-5.04	103.78	105.80
1	QA	189	U	C4'-C3'-C2'	5.04	107.64	102.60
1	QA	1303	C	C6-N1-C2	-5.04	118.28	120.30
25	RA	741	G	C5-C6-N1	5.04	114.02	111.50
25	RA	1123	C	C6-N1-C2	5.04	122.31	120.30
25	RA	1617	C	C2-N1-C1'	-5.04	113.26	118.80
25	RA	1812	A	OP1-P-OP2	5.04	127.16	119.60
1	XA	443	C	N1-C2-O2	5.04	121.92	118.90
1	XA	563	A	C6-N1-C2	5.04	121.62	118.60
1	XA	724	G	OP1-P-O3'	5.04	116.28	105.20
25	YA	517	C	N3-C4-N4	5.04	121.53	118.00
25	YA	1256	G	N7-C8-N9	5.04	115.62	113.10
25	YA	1682	G	C4-C5-N7	5.04	112.81	110.80
25	YA	2052	G	C8-N9-C1'	5.04	133.55	127.00
25	YA	2287	A	O4'-C1'-N9	-5.04	104.17	108.20
25	YA	2556	C	N3-C4-C5	5.04	123.92	121.90
25	YA	2782	G	C5-C6-N1	-5.04	108.98	111.50
1	QA	492	G	C8-N9-C4	-5.04	104.39	106.40
1	QA	557	G	C4-C5-C6	5.04	121.82	118.80
1	QA	1027	C	P-O3'-C3'	5.04	125.74	119.70
25	RA	752	A	OP2-P-O3'	5.04	116.28	105.20
1	XA	1385	G	C6-C5-N7	-5.04	127.38	130.40
25	YA	2409	G	C6-C5-N7	-5.04	127.38	130.40
25	YA	2820	A	N9-C4-C5	-5.04	103.78	105.80
1	QA	191	G	C2-N3-C4	5.04	114.42	111.90
25	RA	595	C	N3-C2-O2	5.04	125.42	121.90
25	RA	862	G	C5-C6-O6	5.04	131.62	128.60
25	RA	1133	U	N3-C4-O4	5.04	122.92	119.40
25	RA	1784	A	C4-N9-C1'	5.04	135.37	126.30
25	YA	684	G	N3-C4-C5	-5.04	126.08	128.60
25	YA	704	G	N3-C4-N9	5.04	129.02	126.00
25	YA	1286	A	N7-C8-N9	-5.04	111.28	113.80
25	YA	1974	C	N3-C2-O2	-5.04	118.38	121.90
25	YA	2611	U	OP2-P-O3'	5.04	116.28	105.20
1	QA	455	C	C2-N1-C1'	5.03	124.34	118.80
1	QA	741	G	N7-C8-N9	5.03	115.62	113.10
25	RA	1471	A	N1-C6-N6	5.03	121.62	118.60
25	RA	1569	A	OP1-P-O3'	5.03	116.27	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	2867	G	N7-C8-N9	-5.03	110.58	113.10
25	YA	482	A	C4-C5-N7	5.03	113.22	110.70
25	YA	745	G	OP2-P-O3'	5.03	116.27	105.20
25	YA	1388	G	C8-N9-C4	5.03	108.41	106.40
25	YA	1442	G	C4-N9-C1'	5.03	133.04	126.50
25	YA	2550	G	C4-C5-N7	5.03	112.81	110.80
31	YH	127	GLU	C-N-CD	-5.03	109.53	120.60
25	YA	1332	G	C8-N9-C4	-5.03	104.39	106.40
1	QA	198	G	C4-N9-C1'	5.03	133.04	126.50
1	QA	865	A	C5-C6-N1	-5.03	115.18	117.70
25	RA	243	U	O5'-P-OP1	-5.03	101.17	105.70
25	RA	1485	G	N7-C8-N9	5.03	115.62	113.10
25	RA	1695	G	N1-C2-N2	-5.03	111.67	116.20
26	RB	116	G	N3-C4-C5	5.03	131.12	128.60
1	XA	1144	G	N3-C4-C5	5.03	131.12	128.60
25	YA	1184	G	C4-N9-C1'	5.03	133.04	126.50
25	RA	518	G	C5-C6-N1	5.03	114.02	111.50
25	RA	1198	U	N3-C2-O2	-5.03	118.68	122.20
25	YA	2417	C	C4-C5-C6	5.03	119.92	117.40
25	YA	2606	C	C5-C4-N4	-5.03	116.68	120.20
25	YA	2712(A)	A	C5-C6-N1	-5.03	115.19	117.70
1	QA	1361	G	C6-C5-N7	-5.03	127.38	130.40
25	RA	121	G	C5-C6-O6	-5.03	125.58	128.60
25	RA	2090	G	N1-C2-N3	5.03	126.92	123.90
25	RA	2420	C	O5'-P-OP2	5.03	116.73	110.70
25	YA	176	G	C2-N3-C4	-5.03	109.39	111.90
25	YA	802	A	C8-N9-C4	5.03	107.81	105.80
25	YA	917	A	O4'-C1'-N9	5.03	112.22	108.20
25	YA	1395	A	C5-C6-N6	5.03	127.72	123.70
25	YA	1913	A	C2-N3-C4	-5.03	108.09	110.60
1	QA	332	G	C2-N3-C4	5.03	114.41	111.90
25	RA	320	A	N7-C8-N9	-5.03	111.29	113.80
25	RA	910	A	N1-C6-N6	5.03	121.62	118.60
25	RA	2335	A	P-O3'-C3'	5.03	125.73	119.70
1	XA	779	C	N1-C2-O2	-5.03	115.89	118.90
1	XA	797	C	C4-C5-C6	-5.03	114.89	117.40
25	YA	38	A	C4-C5-C6	5.03	119.51	117.00
25	YA	1152	C	N1-C2-O2	-5.03	115.89	118.90
25	YA	1243	G	N9-C4-C5	-5.03	103.39	105.40
25	YA	1350	C	C6-N1-C2	5.03	122.31	120.30
25	YA	1920	C	O4'-C1'-N1	-5.03	104.18	108.20
25	RA	2205	C	N3-C2-O2	-5.02	118.38	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	539	G	N1-C6-O6	5.02	122.91	119.90
25	YA	2878	U	N3-C4-C5	-5.02	111.58	114.60
1	QA	281	G	C1'-O4'-C4'	5.02	113.92	109.90
1	QA	562	C	N1-C2-O2	5.02	121.91	118.90
1	QA	821	G	C5-N7-C8	5.02	106.81	104.30
1	QA	865	A	N1-C6-N6	5.02	121.61	118.60
1	QA	1200	C	N3-C2-O2	-5.02	118.39	121.90
25	RA	28	A	C6-N1-C2	-5.02	115.59	118.60
25	RA	442	G	C2-N3-C4	-5.02	109.39	111.90
25	RA	741	G	O5'-P-OP2	-5.02	101.18	105.70
25	RA	853	G	C4-N9-C1'	5.02	133.03	126.50
25	RA	1300	U	N1-C2-O2	-5.02	119.28	122.80
25	RA	1966	A	O5'-P-OP1	-5.02	101.18	105.70
25	RA	2673	G	C2-N3-C4	-5.02	109.39	111.90
25	RA	2882	A	C8-N9-C4	5.02	107.81	105.80
1	XA	880	C	C6-N1-C2	5.02	122.31	120.30
1	XA	902	G	C5-N7-C8	-5.02	101.79	104.30
25	YA	74	A	C8-N9-C1'	-5.02	118.66	127.70
25	YA	1559	G	N3-C4-N9	-5.02	122.99	126.00
25	YA	2072	G	C4-C5-N7	5.02	112.81	110.80
25	YA	2321	G	C4-N9-C1'	5.02	133.03	126.50
25	YA	2378	A	C2-N3-C4	-5.02	108.09	110.60
25	YA	2648	C	C5-C4-N4	-5.02	116.68	120.20
25	YA	2732	G	C5-N7-C8	-5.02	101.79	104.30
1	QA	195	A	C2-N3-C4	5.02	113.11	110.60
1	QA	1371	G	C8-N9-C4	-5.02	104.39	106.40
1	XA	1197	G	C5-C6-O6	-5.02	125.59	128.60
25	YA	517	C	C2-N1-C1'	5.02	124.32	118.80
25	YA	2271	G	N9-C4-C5	-5.02	103.39	105.40
25	YA	2621	A	C5-N7-C8	-5.02	101.39	103.90
1	QA	106	C	N1-C2-N3	5.02	122.71	119.20
1	QA	276	G	C8-N9-C4	5.02	108.41	106.40
1	QA	1147	C	N3-C4-N4	-5.02	114.49	118.00
25	RA	268	C	C2-N3-C4	5.02	122.41	119.90
25	RA	735	A	N7-C8-N9	-5.02	111.29	113.80
25	RA	759	G	N1-C6-O6	5.02	122.91	119.90
25	RA	2224	G	C5-C6-N1	-5.02	108.99	111.50
25	RA	2453	A	C2-N3-C4	5.02	113.11	110.60
1	XA	60	A	P-O3'-C3'	5.02	125.72	119.70
1	XA	296	U	N3-C2-O2	-5.02	118.69	122.20
25	YA	856	C	C4-C5-C6	-5.02	114.89	117.40
25	YA	1015	G	C5-N7-C8	-5.02	101.79	104.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	1274	A	N1-C6-N6	-5.02	115.59	118.60
25	YA	1976	U	C4-C5-C6	5.02	122.71	119.70
25	YA	2239	G	O4'-C1'-N9	-5.02	104.18	108.20
26	YB	89	G	C8-N9-C4	-5.02	104.39	106.40
1	QA	383	A	C8-N9-C4	5.02	107.81	105.80
1	QA	1336	C	C6-N1-C2	-5.02	118.29	120.30
25	RA	776	G	N3-C4-N9	-5.02	122.99	126.00
25	RA	1151	G	N1-C6-O6	5.02	122.91	119.90
25	RA	1652	A	C2-N3-C4	-5.02	108.09	110.60
25	RA	1891	G	C6-C5-N7	-5.02	127.39	130.40
25	RA	2347	C	N3-C2-O2	-5.02	118.39	121.90
25	RA	2644	G	N1-C6-O6	5.02	122.91	119.90
1	XA	821	G	C4-C5-C6	5.02	121.81	118.80
1	XA	869	G	N1-C6-O6	5.02	122.91	119.90
25	YA	18	C	N3-C2-O2	-5.02	118.39	121.90
25	YA	648	G	N1-C2-N3	5.02	126.91	123.90
25	YA	1195	G	N1-C2-N2	-5.02	111.68	116.20
25	YA	1528	A	N1-C6-N6	5.02	121.61	118.60
25	YA	2358	G	N9-C4-C5	5.02	107.41	105.40
25	YA	2555	U	C2-N1-C1'	-5.02	111.68	117.70
25	YA	2779	U	C6-N1-C1'	-5.02	114.17	121.20
1	QA	280	C	N1-C2-O2	5.02	121.91	118.90
25	RA	1614	A	C4-C5-C6	5.02	119.51	117.00
25	RA	1924	C	N3-C4-C5	-5.02	119.89	121.90
1	XA	1303	C	C2-N1-C1'	5.02	124.32	118.80
25	YA	2237	G	C4-C5-C6	5.02	121.81	118.80
25	RA	1444(A)	A	O4'-C1'-N9	5.01	112.21	108.20
25	RA	1763	G	N3-C4-C5	5.01	131.11	128.60
25	RA	1773	A	N1-C2-N3	5.01	131.81	129.30
25	RA	2544	G	C5-C6-N1	-5.01	108.99	111.50
1	XA	861	G	C4-N9-C1'	5.01	133.02	126.50
25	YA	1665	A	C6-C5-N7	-5.01	128.79	132.30
25	YA	1899	G	N1-C2-N3	5.01	126.91	123.90
25	YA	1987	G	C6-C5-N7	-5.01	127.39	130.40
25	RA	362	U	N1-C2-O2	5.01	126.31	122.80
25	RA	587	C	C6-N1-C2	-5.01	118.30	120.30
25	RA	865	C	N3-C4-C5	5.01	123.91	121.90
25	RA	1822	G	C5-N7-C8	-5.01	101.79	104.30
25	YA	956	G	C8-N9-C1'	-5.01	120.48	127.00
1	QA	515	G	N1-C6-O6	5.01	122.91	119.90
1	QA	811	C	N3-C2-O2	5.01	125.41	121.90
25	RA	444	C	OP1-P-O3'	-5.01	94.17	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	RA	553	U	C6-N1-C2	-5.01	117.99	121.00
25	RA	607	U	C5-C4-O4	5.01	128.91	125.90
25	RA	1434	A	N1-C6-N6	-5.01	115.59	118.60
25	RA	1465	G	N3-C4-N9	5.01	129.01	126.00
25	RA	2250	G	C4-C5-N7	5.01	112.80	110.80
1	XA	1372	U	C6-N1-C2	-5.01	117.99	121.00
25	YA	140	A	C8-N9-C4	-5.01	103.80	105.80
25	YA	1822	G	C8-N9-C1'	-5.01	120.49	127.00
25	YA	2017	U	C5-C6-N1	-5.01	120.19	122.70
25	YA	2278	A	OP2-P-O3'	5.01	116.22	105.20
25	YA	2643	G	C2-N3-C4	-5.01	109.39	111.90
25	RA	680	G	C8-N9-C1'	-5.01	120.49	127.00
25	RA	685	A	C5-C6-N1	5.01	120.20	117.70
25	RA	729	G	N3-C4-N9	5.01	129.01	126.00
25	RA	1223	C	N3-C4-C5	-5.01	119.90	121.90
25	RA	2714	G	N3-C4-N9	5.01	129.00	126.00
1	XA	244	U	C5-C4-O4	-5.01	122.89	125.90
25	YA	945	A	OP2-P-O3'	5.01	116.22	105.20
25	YA	989	G	N3-C4-N9	5.01	129.00	126.00
25	YA	2058	A	C6-N1-C2	-5.01	115.59	118.60
25	YA	2321	G	C5-N7-C8	-5.01	101.80	104.30
25	YA	2584	U	C6-N1-C2	-5.01	117.99	121.00
1	QA	142	G	N3-C4-C5	-5.01	126.10	128.60
25	RA	270(W)	G	N3-C4-C5	-5.01	126.10	128.60
25	RA	1267	U	OP2-P-O3'	5.01	116.22	105.20
25	RA	2303	G	OP1-P-O3'	5.01	116.22	105.20
1	XA	14	U	C6-N1-C1'	5.01	128.21	121.20
1	XA	328	C	P-O3'-C3'	5.01	125.71	119.70
25	YA	1393	A	C5-N7-C8	5.01	106.40	103.90
25	YA	1626	G	N1-C6-O6	5.01	122.91	119.90
25	YA	1857	G	C8-N9-C1'	-5.01	120.49	127.00
1	QA	1469	G	N7-C8-N9	5.01	115.60	113.10
25	RA	211	A	C6-C5-N7	-5.01	128.79	132.30
25	RA	1197	G	C4-N9-C1'	5.01	133.01	126.50
25	RA	1235	G	C4-C5-N7	-5.01	108.80	110.80
25	RA	1416	G	C8-N9-C4	5.01	108.40	106.40
25	RA	1541	U	C6-N1-C2	-5.01	118.00	121.00
25	RA	2006	C	C6-N1-C1'	-5.01	114.79	120.80
25	RA	2276	G	C8-N9-C4	5.01	108.40	106.40
25	RA	2769	C	C4-C5-C6	5.01	119.90	117.40
25	YA	526	A	N7-C8-N9	5.01	116.30	113.80
25	YA	776	G	N9-C4-C5	5.01	107.40	105.40

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YA	2431	U	N3-C2-O2	5.01	125.70	122.20
1	QA	294	U	N3-C2-O2	-5.00	118.70	122.20
25	RA	1277	G	C6-C5-N7	5.00	133.40	130.40
25	YA	692	C	C6-N1-C2	5.00	122.30	120.30
25	YA	820	A	N1-C6-N6	-5.00	115.60	118.60
1	QA	265	G	C5-C6-O6	5.00	131.60	128.60
1	QA	567	G	N1-C6-O6	5.00	122.90	119.90
1	QA	869	G	C8-N9-C4	-5.00	104.40	106.40
25	RA	680	G	N1-C2-N2	-5.00	111.70	116.20
25	RA	1277	G	C5-C6-O6	5.00	131.60	128.60
25	RA	1825	A	OP1-P-OP2	-5.00	112.09	119.60
25	RA	1903	G	N3-C4-N9	5.00	129.00	126.00
25	RA	2622	C	C2-N3-C4	-5.00	117.40	119.90
1	XA	751	U	C2-N1-C1'	5.00	123.70	117.70
1	XA	1301	U	P-O3'-C3'	5.00	125.70	119.70
25	YA	648	G	C2-N3-C4	-5.00	109.40	111.90
25	YA	1131	G	N3-C4-C5	-5.00	126.10	128.60
25	YA	1182	A	C4-C5-C6	5.00	119.50	117.00
25	YA	2264	C	N1-C2-O2	5.00	121.90	118.90
1	QA	68	G	N1-C6-O6	-5.00	116.90	119.90
1	QA	943	U	C5-C6-N1	5.00	125.20	122.70
1	QA	1527	C	C2-N3-C4	-5.00	117.40	119.90
25	RA	642	G	C5-C6-N1	-5.00	109.00	111.50
25	RA	924	C	N3-C2-O2	-5.00	118.40	121.90
25	RA	1626	G	N1-C6-O6	5.00	122.90	119.90
25	RA	2261	C	N3-C2-O2	-5.00	118.40	121.90
25	RA	2589	A	C8-N9-C4	5.00	107.80	105.80
1	XA	826	C	C6-N1-C2	-5.00	118.30	120.30
25	YA	815	C	C6-N1-C2	5.00	122.30	120.30
25	YA	1698	A	C8-N9-C4	-5.00	103.80	105.80
25	YA	1839	G	C8-N9-C1'	-5.00	120.50	127.00
25	YA	2400	G	N3-C2-N2	-5.00	116.40	119.90
25	YA	2407	G	O4'-C1'-N9	-5.00	104.20	108.20
26	YB	42	C	N3-C4-C5	-5.00	119.90	121.90

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
45	YZ	181	GLU	Peptide

## 5.2 Close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QA	32247	0	16278	1130	0
1	XA	32249	0	16279	1064	1
2	QB	1924	0	1975	289	0
2	XB	1924	0	1975	290	0
3	QC	1605	0	1668	205	0
3	XC	1605	0	1668	211	0
4	QD	1703	0	1764	253	0
4	XD	1703	0	1765	214	0
5	QE	1155	0	1213	182	0
5	XE	1155	0	1213	147	0
6	QF	843	0	857	94	0
6	XF	843	0	857	99	0
7	QG	1257	0	1296	151	0
7	XG	1257	0	1294	142	0
8	QH	1116	0	1175	167	0
8	XH	1116	0	1177	150	0
9	QI	1010	0	1037	144	0
9	XI	1010	0	1037	152	0
10	QJ	801	0	849	150	0
10	XJ	801	0	849	132	0
11	QK	885	0	904	103	0
11	XK	885	0	904	107	0
12	QL	975	0	1062	100	0
12	XL	975	0	1062	111	0
13	QM	964	0	1034	169	0
13	XM	964	0	1034	163	0
14	QN	492	0	530	102	0
14	XN	492	0	530	99	0
15	QO	734	0	771	76	0
15	XO	734	0	771	78	0
16	QP	705	0	725	120	0
16	XP	705	0	725	113	0
17	QQ	834	0	904	84	0
17	XQ	834	0	904	81	0
18	QR	574	0	644	66	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	XR	574	0	644	66	0
19	QS	674	0	699	109	0
19	XS	674	0	699	132	0
20	QT	763	0	860	108	0
20	XT	763	0	861	108	0
21	QU	217	0	234	30	0
21	XU	217	0	234	26	0
22	QV	1644	0	836	44	0
22	XV	1644	0	836	29	0
23	QX	167	0	87	13	0
23	XX	145	0	75	9	0
24	QY	303	0	154	11	0
24	XY	303	0	154	11	0
25	RA	62071	0	31285	1926	0
25	YA	62091	0	31293	1989	0
26	RB	2573	0	1306	121	0
26	YB	2573	0	1306	103	0
27	RD	2115	0	2195	324	0
27	YD	2115	0	2195	332	0
28	RE	1568	0	1634	270	0
28	YE	1568	0	1634	263	0
29	RF	1585	0	1632	178	0
29	YF	1585	0	1632	178	0
30	RG	1474	0	1535	201	0
30	YG	1474	0	1535	194	0
31	RH	1307	0	1382	226	0
31	YH	1307	0	1382	228	0
32	RI	1136	0	1223	79	1
32	YI	1136	0	1223	72	0
33	RN	1104	0	1180	200	0
33	YN	1104	0	1180	189	0
34	RO	933	0	996	126	0
34	YO	933	0	996	125	0
35	RP	1145	0	1228	256	0
35	YP	1145	0	1228	244	0
36	RQ	1122	0	1179	157	0
36	YQ	1122	0	1178	165	0
37	RR	968	0	1033	115	0
37	YR	968	0	1033	117	0
38	RS	882	0	943	166	0
38	YS	882	0	943	159	0
39	RT	1141	0	1202	151	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	YT	1141	0	1202	155	0
40	RU	964	0	1022	130	0
40	YU	964	0	1022	142	0
41	RV	779	0	852	130	0
41	YV	779	0	852	131	0
42	RW	900	0	964	100	0
42	YW	900	0	964	108	0
43	RX	725	0	778	70	0
43	YX	725	0	778	74	0
44	RY	785	0	878	167	0
44	YY	785	0	878	160	0
45	RZ	1461	0	1493	81	0
45	YZ	1461	0	1493	86	0
46	R0	648	0	671	55	0
46	Y0	648	0	672	51	0
47	R1	763	0	848	142	0
47	Y1	763	0	848	142	0
48	R2	581	0	629	83	0
48	Y2	581	0	629	78	0
49	R3	469	0	518	41	0
49	Y3	469	0	518	46	0
50	R4	581	0	574	159	0
50	Y4	581	0	574	167	0
51	R5	459	0	480	73	0
51	Y5	459	0	480	76	0
52	R6	424	0	450	90	0
52	Y6	424	0	450	97	0
53	R7	430	0	480	42	0
53	Y7	430	0	480	40	0
54	R8	517	0	582	104	0
54	Y8	517	0	582	105	0
55	R9	307	0	335	23	0
55	Y9	307	0	336	24	0
56	Z6	74	0	51	10	0
56	Z8	74	0	51	10	0
57	QA	64	0	0	0	0
57	QF	1	0	0	0	0
57	QH	1	0	0	0	0
57	QM	1	0	0	0	0
57	QV	1	0	0	0	0
57	QX	1	0	0	0	0
57	R0	1	0	0	0	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	R5	1	0	0	0	0
57	R8	1	0	0	0	0
57	RA	239	0	0	0	0
57	RB	2	0	0	0	0
57	RD	1	0	0	0	0
57	RE	2	0	0	0	0
57	RF	1	0	0	0	0
57	RP	1	0	0	0	0
57	RR	2	0	0	0	0
57	XA	72	0	0	1	0
57	XB	1	0	0	0	0
57	XM	1	0	0	0	0
57	XV	2	0	0	0	0
57	XX	1	0	0	0	0
57	Y5	1	0	0	0	0
57	Y7	1	0	0	0	0
57	YA	269	0	0	1	0
57	YB	3	0	0	0	0
57	YE	1	0	0	0	0
57	YP	1	0	0	0	0
57	YQ	1	0	0	0	0
58	QD	1	0	0	0	0
58	QN	1	0	0	0	0
58	R9	1	0	0	0	0
58	XD	1	0	0	0	0
58	XN	1	0	0	0	0
58	Y9	1	0	0	0	0
59	XX	22	0	12	1	0
All	All	291868	0	198240	17856	1

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 37.

All (17856) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:YN:32:SER:CB	14:YN:41:ARG:HB3	1.23	1.54
14:YN:32:SER:HB3	14:YN:41:ARG:CB	1.28	1.54
31:RH:127:GLU:CG	31:RH:128:PRO:HD3	1.35	1.53
31:YH:127:GLU:CG	31:YH:128:PRO:HD3	1.36	1.52
4:XD:22:LYS:CG	4:XD:26:CYS:SG	2.01	1.49
10:QJ:49:VAL:HG21	14:QN:41:ARG:CB	1.49	1.42
4:XD:22:LYS:HB2	4:XD:26:CYS:SG	1.57	1.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:XD:22:LYS:CB	4:XD:26:CYS:SG	2.10	1.40
10:QJ:49:VAL:CG2	14:QN:41:ARG:CB	2.04	1.36
47:R1:81:LYS:HA	47:R1:81:LYS:NZ	1.43	1.34
47:Y1:81:LYS:HA	47:Y1:81:LYS:NZ	1.42	1.34
5:QE:79:GLU:OE2	8:QH:104:ARG:HA	1.24	1.32
4:QD:22:LYS:HG3	4:QD:26:CYS:SG	1.70	1.31
10:QJ:49:VAL:CG2	14:QN:41:ARG:HB2	1.62	1.29
4:XD:22:LYS:HG3	4:XD:26:CYS:SG	1.64	1.27
47:R1:81:LYS:N	47:R1:81:LYS:HE2	1.50	1.26
47:Y1:81:LYS:HE2	47:Y1:81:LYS:N	1.50	1.26
14:QN:25:VAL:HG23	14:QN:38:GLY:O	1.37	1.25
13:QM:121:LYS:NZ	24:QY:40:G:OP1	1.71	1.24
14:YN:40:CYS:SG	14:YN:43:CYS:N	2.11	1.23
36:RQ:59:ARG:O	36:RQ:60:ARG:HD2	1.38	1.22
14:YN:32:SER:CB	14:YN:41:ARG:CB	1.97	1.21
31:YH:127:GLU:HG2	31:YH:128:PRO:CD	1.70	1.21
31:YH:127:GLU:CB	31:YH:128:PRO:HD3	1.69	1.20
31:RH:127:GLU:HG2	31:RH:128:PRO:CD	1.70	1.20
13:QM:77:ASN:HA	50:R4:71:ARG:NH2	1.56	1.20
31:RH:127:GLU:CB	31:RH:128:PRO:HD3	1.69	1.19
25:YA:518:G:H4'	42:YW:18:ARG:HH12	1.07	1.18
2:QB:101:MET:HA	2:QB:108:ILE:HG13	1.25	1.18
44:RY:95:LYS:HB3	44:RY:100:ALA:HA	1.20	1.17
1:QA:1054:C:OP2	1:QA:1197:G:OP2	1.63	1.16
4:XD:12:CYS:HA	4:XD:19:LEU:CD2	1.75	1.16
47:Y1:82:LEU:HD12	47:Y1:82:LEU:C	1.66	1.16
44:YY:76:CYS:HB3	44:YY:96:ILE:HD13	1.17	1.16
31:RH:132:ARG:HH11	31:RH:132:ARG:HB2	1.10	1.16
44:YY:95:LYS:HB3	44:YY:100:ALA:HA	1.20	1.15
1:QA:339:C:OP2	34:RO:97:ARG:NH1	1.80	1.15
14:YN:42:ILE:O	14:YN:43:CYS:O	1.65	1.14
2:XB:101:MET:HA	2:XB:108:ILE:HG13	1.25	1.14
35:RP:50:ARG:HB3	35:RP:50:ARG:HH21	1.13	1.14
12:QL:10:LEU:HD13	17:QQ:32:TYR:CE2	1.83	1.13
10:QJ:49:VAL:CG2	14:QN:41:ARG:HB3	1.71	1.13
19:QS:41:VAL:HB	19:QS:42:PRO:HA	1.26	1.13
47:R1:82:LEU:HD12	47:R1:82:LEU:C	1.66	1.13
4:XD:11:LEU:HD22	4:XD:66:ARG:HD3	1.29	1.13
10:QJ:6:ILE:HG22	10:QJ:98:ILE:HG13	1.30	1.13
22:QV:1:C:O4'	46:R0:5:LYS:NZ	1.80	1.12
4:QD:12:CYS:HA	4:QD:19:LEU:HD21	1.24	1.12
19:QS:5:LEU:HD22	50:R4:67:TYR:CE2	1.84	1.12

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:Y1:82:LEU:CD1	47:Y1:83:GLU:O	1.97	1.12
29:RF:101:LEU:HD12	29:RF:102:PRO:HD2	1.21	1.12
40:RU:8:VAL:HG23	40:RU:11:ARG:HH21	1.14	1.12
35:YP:50:ARG:HB3	35:YP:50:ARG:HH21	1.13	1.12
47:R1:82:LEU:CD1	47:R1:83:GLU:O	1.97	1.11
12:XL:46:LYS:HG2	12:XL:47:LYS:H	1.02	1.11
28:YE:179:GLU:HB3	28:YE:181:LEU:HD23	1.31	1.11
29:YF:101:LEU:HD12	29:YF:102:PRO:HD2	1.21	1.11
40:YU:8:VAL:HG23	40:YU:11:ARG:HH21	1.14	1.11
28:RE:179:GLU:HB3	28:RE:181:LEU:HD23	1.31	1.11
27:YD:44:ASN:HB2	27:YD:48:ARG:O	1.51	1.11
5:QE:78:HIS:CD2	8:QH:104:ARG:HG2	1.85	1.11
27:RD:44:ASN:HB2	27:RD:48:ARG:O	1.50	1.11
47:Y1:82:LEU:HD12	47:Y1:83:GLU:N	1.66	1.11
31:YH:132:ARG:HB2	31:YH:132:ARG:HH11	1.10	1.11
4:QD:22:LYS:CG	4:QD:26:CYS:SG	2.38	1.10
47:R1:82:LEU:HD12	47:R1:83:GLU:N	1.66	1.10
31:RH:86:GLU:HG3	31:RH:165:ALA:H	1.06	1.10
5:QE:79:GLU:OE2	8:QH:104:ARG:CA	1.99	1.10
13:XM:77:ASN:HA	50:Y4:71:ARG:NH2	1.66	1.10
44:RY:76:CYS:HB3	44:RY:96:ILE:HD13	1.17	1.09
28:YE:50:GLY:HA2	28:YE:77:ILE:HA	1.31	1.09
31:YH:152:ARG:HG3	31:YH:153:LYS:HE2	1.33	1.09
35:RP:19:VAL:HG22	35:RP:20:GLY:H	1.15	1.08
19:XS:41:VAL:HB	19:XS:42:PRO:HA	1.26	1.08
3:QC:15:THR:HG23	3:QC:181:ASN:HA	1.35	1.08
33:YN:134:ARG:H	33:YN:135:PRO:HD3	1.11	1.08
15:XO:87:ILE:HG22	15:XO:88:ARG:H	1.19	1.08
27:YD:131:LEU:HB2	27:YD:136:ILE:HD11	1.35	1.08
11:QK:79:SER:HB2	11:QK:106:LYS:HD2	1.35	1.08
10:XJ:6:ILE:HG22	10:XJ:98:ILE:HG13	1.30	1.08
3:XC:15:THR:HG23	3:XC:181:ASN:HA	1.35	1.08
31:YH:86:GLU:HG3	31:YH:165:ALA:H	1.05	1.08
1:QA:1123:A:H4'	10:QJ:36:GLY:HA3	1.34	1.08
27:RD:131:LEU:HB2	27:RD:136:ILE:HD11	1.35	1.08
35:YP:126:VAL:HG12	35:YP:147:LEU:HD21	1.30	1.08
2:XB:80:ILE:HD11	2:XB:208:ILE:HG23	1.34	1.08
31:RH:152:ARG:HG3	31:RH:153:LYS:HE2	1.34	1.07
47:Y1:81:LYS:HZ3	47:Y1:81:LYS:CA	1.65	1.07
50:R4:71:ARG:HH11	50:R4:71:ARG:HG3	1.13	1.07
35:RP:126:VAL:HG12	35:RP:147:LEU:HD21	1.30	1.07
25:YA:1454:U:H5'	37:YR:63:ARG:HE	1.16	1.07

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:QO:87:ILE:HG22	15:QO:88:ARG:H	1.18	1.07
28:RE:50:GLY:HA2	28:RE:77:ILE:HA	1.31	1.06
47:Y1:82:LEU:CD1	47:Y1:83:GLU:N	2.18	1.06
50:Y4:71:ARG:HG3	50:Y4:71:ARG:HH11	1.14	1.06
35:RP:59:LEU:HA	35:RP:61:ARG:NH2	1.69	1.06
35:YP:59:LEU:HA	35:YP:61:ARG:NH2	1.69	1.06
11:QK:51:LYS:HA	11:QK:55:LYS:HD3	1.36	1.06
31:YH:153:LYS:HB3	31:YH:154:PRO:HD2	1.07	1.06
54:Y8:52:LYS:H	54:Y8:53:PRO:CD	1.69	1.06
47:R1:82:LEU:CD1	47:R1:83:GLU:N	2.18	1.06
28:RE:21:VAL:HB	28:RE:22:PRO:HB3	1.37	1.06
10:QJ:49:VAL:CG1	14:QN:41:ARG:HD2	1.85	1.06
29:RF:46:ARG:HH11	29:RF:46:ARG:HG2	1.20	1.06
28:RE:63:LEU:HD12	28:RE:64:LYS:H	1.18	1.05
10:QJ:49:VAL:HG21	14:QN:41:ARG:HB3	1.24	1.05
13:XM:88:ARG:HH11	13:XM:88:ARG:HB3	1.19	1.05
13:XM:3:ARG:HA	13:XM:9:ILE:HG21	1.34	1.05
4:XD:12:CYS:HA	4:XD:19:LEU:HD21	1.08	1.05
28:YE:63:LEU:HD12	28:YE:64:LYS:H	1.18	1.05
28:YE:21:VAL:HB	28:YE:22:PRO:HB3	1.37	1.05
13:QM:88:ARG:HB3	13:QM:88:ARG:HH11	1.19	1.05
13:QM:3:ARG:HA	13:QM:9:ILE:HG21	1.35	1.05
26:RB:45:A:O4'	30:RG:95:ARG:NH1	1.89	1.05
35:YP:19:VAL:HG22	35:YP:20:GLY:H	1.15	1.05
5:QE:11:ILE:HD11	5:QE:31:LEU:HD12	1.38	1.05
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.22	1.05
25:YA:2701:C:H3'	25:YA:2702:U:H5''	1.33	1.05
4:QD:27:TYR:OH	6:XF:15:ASP:OD2	1.73	1.05
40:RU:90:VAL:HG12	40:RU:91:ASP:H	1.18	1.05
1:QA:864:A:H5'	5:QE:86:ALA:HB2	1.37	1.04
33:RN:134:ARG:H	33:RN:135:PRO:HD3	1.12	1.04
11:XK:51:LYS:HA	11:XK:55:LYS:HD3	1.36	1.04
36:RQ:59:ARG:O	36:RQ:60:ARG:CD	2.05	1.04
41:YV:49:THR:HB	41:YV:50:PRO:HD2	1.39	1.04
2:QB:18:GLY:H	2:QB:42:ILE:HG22	1.21	1.04
37:RR:67:LEU:HD13	37:RR:76:VAL:HG21	1.39	1.04
38:RS:106:ARG:HA	38:RS:110:LEU:HD11	1.39	1.04
40:YU:90:VAL:HG12	40:YU:91:ASP:H	1.18	1.04
2:QB:80:ILE:HD11	2:QB:208:ILE:HG23	1.33	1.04
8:XH:29:SER:HB3	8:XH:32:LYS:HG3	1.39	1.04
11:XK:79:SER:HB2	11:XK:106:LYS:HD2	1.35	1.04
36:RQ:81:VAL:O	36:RQ:82:ARG:CD	2.06	1.03

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:QJ:49:VAL:CG1	14:QN:41:ARG:HB2	1.88	1.03
38:RS:83:LYS:O	38:RS:109:GLY:HA3	1.56	1.03
31:YH:127:GLU:CG	31:YH:128:PRO:CD	2.31	1.03
38:YS:83:LYS:O	38:YS:109:GLY:HA3	1.57	1.03
2:QB:4:GLU:HG2	2:QB:5:ILE:H	1.19	1.03
2:XB:4:GLU:HG2	2:XB:5:ILE:H	1.19	1.03
38:YS:106:ARG:HA	38:YS:110:LEU:HD11	1.39	1.03
4:QD:12:CYS:HA	4:QD:19:LEU:CD2	1.87	1.03
27:RD:35:LYS:HG2	27:RD:64:ILE:N	1.72	1.03
14:YN:22:THR:O	14:YN:23:ARG:HB2	1.56	1.03
31:YH:127:GLU:CB	31:YH:128:PRO:CD	2.35	1.03
54:R8:52:LYS:H	54:R8:53:PRO:CD	1.69	1.03
36:RQ:80:GLU:O	36:RQ:81:VAL:HG13	1.59	1.02
29:RF:67:GLN:O	29:RF:67:GLN:HG3	1.58	1.02
29:RF:67:GLN:O	29:RF:68:LYS:HB2	1.56	1.02
27:YD:35:LYS:HG2	27:YD:64:ILE:N	1.72	1.02
29:YF:67:GLN:O	29:YF:68:LYS:HB2	1.56	1.02
36:YQ:65:PHE:O	36:YQ:66:ILE:HG12	1.59	1.02
34:YO:53:LYS:HD2	34:YO:53:LYS:H	1.23	1.02
36:YQ:81:VAL:O	36:YQ:82:ARG:CD	2.06	1.02
36:YQ:12:GLN:HG2	36:YQ:73:PRO:HD2	1.42	1.02
31:RH:153:LYS:HB3	31:RH:154:PRO:HD2	1.06	1.02
34:RO:53:LYS:H	34:RO:53:LYS:HD2	1.23	1.02
36:RQ:12:GLN:HG2	36:RQ:73:PRO:HD2	1.42	1.02
2:XB:18:GLY:H	2:XB:42:ILE:HG22	1.22	1.02
44:YY:97:ARG:HH21	44:YY:98:VAL:HB	1.25	1.02
29:YF:46:ARG:HG2	29:YF:46:ARG:HH11	1.20	1.01
38:RS:26:LEU:HD12	38:RS:39:ILE:HD11	1.40	1.01
13:XM:49:THR:HG22	13:XM:51:ALA:H	1.22	1.01
30:YG:13:GLU:O	30:YG:14:GLU:HB2	1.60	1.01
5:XE:11:ILE:HD11	5:XE:31:LEU:HD12	1.38	1.01
7:QG:78:ARG:HG3	7:QG:79:ARG:H	1.24	1.01
29:RF:185:ASP:HA	29:RF:188:ARG:HD3	1.41	1.01
10:QJ:49:VAL:HG13	14:QN:41:ARG:CD	1.90	1.01
19:QS:41:VAL:HB	19:QS:42:PRO:CA	1.91	1.01
2:QB:178:ARG:NE	8:QH:71:GLY:O	1.93	1.01
37:YR:67:LEU:HD13	37:YR:76:VAL:HG21	1.39	1.01
19:XS:41:VAL:HB	19:XS:42:PRO:CA	1.91	1.00
33:YN:96:GLU:HG2	33:YN:97:ARG:H	1.26	1.00
27:RD:227:ASN:HB3	27:RD:228:PRO:HD2	1.43	1.00
41:RV:49:THR:HB	41:RV:50:PRO:HD2	1.39	1.00
29:YF:67:GLN:O	29:YF:67:GLN:HG3	1.58	1.00

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:QH:29:SER:HB3	8:QH:32:LYS:HG3	1.39	1.00
50:R4:56:VAL:HA	50:R4:60:GLN:HB2	1.43	1.00
36:YQ:80:GLU:O	36:YQ:81:VAL:HG13	1.59	1.00
25:YA:482:A:H4'	44:YY:47:LYS:HD2	1.39	1.00
48:R2:50:ILE:HD12	48:R2:51:ARG:N	1.76	1.00
36:RQ:81:VAL:O	36:RQ:82:ARG:NE	1.94	1.00
52:Y6:7:ILE:HG13	52:Y6:8:LYS:H	1.25	1.00
36:RQ:65:PHE:O	36:RQ:66:ILE:HG12	1.59	1.00
25:YA:27:G:HO2'	25:YA:28:A:H8	1.06	1.00
37:YR:54:LEU:HD23	37:YR:66:VAL:HG23	1.44	1.00
44:RY:97:ARG:HH21	44:RY:98:VAL:HB	1.26	1.00
31:RH:77:LYS:HZ3	31:RH:77:LYS:HB3	1.22	1.00
2:QB:178:ARG:HH21	8:QH:74:PRO:HB3	1.19	0.99
25:RA:2701:C:H3'	25:RA:2702:U:H5''	1.39	0.99
31:RH:153:LYS:HB3	31:RH:154:PRO:CD	1.92	0.99
38:RS:83:LYS:NZ	38:RS:109:GLY:HA2	1.77	0.99
48:Y2:50:ILE:HD12	48:Y2:51:ARG:N	1.76	0.99
29:YF:185:ASP:HA	29:YF:188:ARG:HD3	1.41	0.99
38:YS:26:LEU:HD12	38:YS:39:ILE:HD11	1.40	0.99
28:RE:201:THR:HG22	28:RE:203:LYS:H	1.26	0.99
31:YH:153:LYS:HB3	31:YH:154:PRO:CD	1.92	0.99
25:RA:1019:U:HO2'	25:RA:1021:A:H2	1.02	0.99
28:YE:201:THR:HG22	28:YE:203:LYS:H	1.26	0.99
8:QH:23:SER:HA	8:QH:63:LEU:HD22	1.45	0.99
23:XX:5:C:H2'	23:XX:6:C:H6	1.27	0.99
2:QB:178:ARG:HD2	8:QH:71:GLY:CA	1.93	0.99
35:YP:105:LEU:O	35:YP:106:LEU:HB2	1.60	0.99
31:RH:127:GLU:CG	31:RH:128:PRO:CD	2.31	0.99
10:XJ:6:ILE:HD11	10:XJ:72:VAL:HB	1.44	0.99
3:QC:95:THR:HG22	3:QC:96:GLY:H	1.27	0.98
8:QH:84:ARG:HH12	8:QH:86:ILE:HD13	1.28	0.98
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.42	0.98
36:YQ:81:VAL:O	36:YQ:82:ARG:NE	1.94	0.98
3:QC:181:ASN:HD21	3:QC:204:LEU:HD12	1.27	0.98
10:QJ:6:ILE:HD11	10:QJ:72:VAL:HB	1.44	0.98
35:RP:50:ARG:CB	35:RP:50:ARG:HH21	1.76	0.98
25:RA:1542:G:O6	25:RA:1543:A:N6	1.95	0.98
42:RW:86:LEU:HD12	42:RW:87:PRO:HD2	1.45	0.98
35:YP:50:ARG:HH21	35:YP:50:ARG:CB	1.76	0.98
2:QB:196:LEU:HD12	2:QB:197:VAL:HG23	1.45	0.98
47:R1:81:LYS:CA	47:R1:81:LYS:HZ3	1.77	0.98
35:RP:105:LEU:O	35:RP:106:LEU:HB2	1.61	0.98

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2638:G:OP2	28:RE:82:ARG:NH2	1.96	0.98
36:RQ:79:LEU:HD22	36:RQ:79:LEU:O	1.64	0.98
1:XA:1054:C:OP2	1:XA:1197:G:OP2	1.82	0.98
7:XG:78:ARG:HG3	7:XG:79:ARG:H	1.24	0.98
27:RD:44:ASN:HB3	27:RD:49:ILE:HA	1.45	0.98
3:QC:19:GLU:HA	3:QC:54:ARG:HH12	1.29	0.98
30:RG:13:GLU:O	30:RG:14:GLU:HB2	1.60	0.98
8:XH:84:ARG:HH12	8:XH:86:ILE:HD13	1.28	0.98
31:YH:86:GLU:HG3	31:YH:165:ALA:N	1.79	0.98
36:YQ:79:LEU:HD13	36:YQ:79:LEU:O	1.63	0.98
4:XD:20:TYR:CD2	4:XD:27:TYR:CE2	2.51	0.97
3:QC:16:ARG:HD2	3:QC:54:ARG:HH21	1.28	0.97
4:QD:94:LEU:HD12	4:QD:94:LEU:H	1.28	0.97
10:QJ:49:VAL:HG22	14:QN:41:ARG:CB	1.92	0.97
28:RE:20:ALA:O	28:RE:21:VAL:HG22	1.65	0.97
31:RH:127:GLU:CB	31:RH:128:PRO:CD	2.35	0.97
52:Y6:41:PRO:HG2	52:Y6:45:LYS:H	1.30	0.97
27:YD:44:ASN:HB3	27:YD:49:ILE:HA	1.45	0.97
38:YS:83:LYS:NZ	38:YS:109:GLY:HA2	1.77	0.97
4:QD:29:PRO:HG2	4:QD:30:LYS:CD	1.94	0.97
3:XC:16:ARG:HB2	3:XC:16:ARG:HH11	1.30	0.97
48:Y2:50:ILE:HD12	48:Y2:51:ARG:H	1.24	0.97
39:YT:62:THR:HG22	39:YT:75:ILE:HG12	1.46	0.97
36:RQ:79:LEU:HD13	36:RQ:79:LEU:O	1.63	0.97
25:YA:27:G:N2	25:YA:512:G:O2'	1.97	0.97
42:YW:86:LEU:HD12	42:YW:87:PRO:HD2	1.45	0.97
7:XG:62:PHE:HA	7:XG:124:LEU:HD21	1.47	0.97
2:XB:178:ARG:HH21	8:XH:74:PRO:HB3	1.28	0.97
36:YQ:79:LEU:HD22	36:YQ:79:LEU:O	1.64	0.97
48:R2:50:ILE:HD12	48:R2:51:ARG:H	1.24	0.97
33:RN:96:GLU:HG2	33:RN:97:ARG:H	1.26	0.96
1:XA:1139:G:N2	1:XA:1143:G:O6	1.98	0.96
25:RA:2015:A:H1'	51:R5:2:ALA:HA	1.45	0.96
23:XX:5:C:H2'	23:XX:6:C:C6	2.00	0.96
51:Y5:58:LEU:HD13	51:Y5:60:VAL:HG12	1.48	0.96
4:QD:30:LYS:HG3	4:QD:35:ARG:NE	1.80	0.96
52:R6:7:ILE:HG13	52:R6:8:LYS:H	1.25	0.96
25:RA:1434:A:H61	25:RA:1558:A:H62	1.11	0.96
52:R6:47:THR:HG22	52:R6:48:VAL:HG12	1.46	0.96
1:QA:1297:C:O2'	7:QG:114:ARG:NH2	1.98	0.96
2:QB:178:ARG:HD2	8:QH:71:GLY:HA2	1.44	0.96
2:XB:7:VAL:HG21	2:XB:217:ARG:HH11	1.31	0.96

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2015:A:H1'	51:Y5:2:ALA:HA	1.45	0.96
30:RG:112:PRO:HB3	50:R4:37:SER:HB2	1.47	0.96
3:XC:181:ASN:HD21	3:XC:204:LEU:HD12	1.27	0.96
8:XH:23:SER:HA	8:XH:63:LEU:HD22	1.45	0.96
30:YG:112:PRO:HB3	50:Y4:37:SER:HB2	1.47	0.96
2:QB:7:VAL:HG21	2:QB:217:ARG:HH11	1.30	0.96
7:QG:62:PHE:HA	7:QG:124:LEU:HD21	1.47	0.96
10:XJ:32:ALA:HB3	10:XJ:76:ASN:HB2	1.48	0.96
44:YY:84:ARG:HH12	44:YY:97:ARG:HB2	1.28	0.96
10:QJ:32:ALA:HB3	10:QJ:76:ASN:HB2	1.47	0.96
25:RA:1428:C:N4	25:RA:1570:A:OP2	1.99	0.96
2:QB:8:LYS:HD3	2:QB:8:LYS:H	1.30	0.96
10:QJ:75:ILE:HG13	10:QJ:76:ASN:H	1.31	0.96
3:XC:16:ARG:HD2	3:XC:54:ARG:HH21	1.28	0.96
3:XC:19:GLU:HA	3:XC:54:ARG:HH12	1.29	0.96
50:Y4:56:VAL:HA	50:Y4:60:GLN:HB2	1.44	0.96
4:QD:30:LYS:CB	4:QD:35:ARG:HG3	1.96	0.95
37:RR:54:LEU:HD23	37:RR:66:VAL:HG23	1.44	0.95
4:XD:30:LYS:C	4:XD:32:ALA:H	1.62	0.95
27:YD:227:ASN:HB3	27:YD:228:PRO:HD2	1.44	0.95
3:XC:95:THR:HG22	3:XC:96:GLY:H	1.27	0.95
28:YE:20:ALA:O	28:YE:21:VAL:HG22	1.65	0.95
29:YF:101:LEU:HD12	29:YF:102:PRO:CD	1.96	0.95
12:QL:6:THR:H	12:QL:9:GLN:HE21	1.15	0.95
44:RY:84:ARG:HH12	44:RY:97:ARG:HB2	1.28	0.95
12:XL:46:LYS:HG2	12:XL:47:LYS:N	1.78	0.95
51:Y5:56:LYS:H	51:Y5:56:LYS:HD2	1.31	0.95
16:QP:4:ILE:HD11	16:QP:64:ALA:HB1	1.46	0.95
13:XM:57:ARG:HB2	13:XM:57:ARG:HH11	1.32	0.95
35:YP:62:LEU:HD22	35:YP:62:LEU:N	1.82	0.95
4:XD:22:LYS:CD	4:XD:26:CYS:SG	2.55	0.95
4:XD:94:LEU:HD12	4:XD:94:LEU:H	1.28	0.95
1:QA:954:G:H21	1:QA:1227:A:H62	1.15	0.95
1:XA:1238:A:H62	1:XA:1301:U:H3	0.96	0.95
6:XF:86:ARG:O	6:XF:87:ARG:HG2	1.66	0.95
47:Y1:81:LYS:N	47:Y1:81:LYS:CE	2.30	0.95
28:YE:78:LEU:HG	28:YE:79:ARG:HE	1.30	0.95
22:QV:1:C:H1'	46:R0:5:LYS:HE3	1.49	0.95
29:RF:101:LEU:HD12	29:RF:102:PRO:CD	1.96	0.95
31:RH:86:GLU:HG3	31:RH:165:ALA:N	1.79	0.95
22:XV:2:G:H4'	46:Y0:7:LEU:O	1.67	0.95
29:YF:103:LYS:HA	29:YF:106:ARG:HG3	1.48	0.95

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:YH:153:LYS:CB	31:YH:154:PRO:HD2	1.97	0.94
41:YV:99:ILE:HD13	41:YV:99:ILE:H	1.32	0.94
4:QD:28:SER:HB2	4:QD:29:PRO:HD3	1.49	0.94
48:R2:13:ALA:HA	48:R2:16:LEU:HD23	1.48	0.94
25:RA:265:A:N6	25:RA:427:U:O2'	2.00	0.94
2:XB:196:LEU:HD12	2:XB:197:VAL:HG23	1.45	0.94
44:RY:51:VAL:HG13	44:RY:52:SER:H	1.31	0.94
48:Y2:13:ALA:HA	48:Y2:16:LEU:HD23	1.48	0.94
41:YV:35:LEU:HD21	41:YV:57:VAL:HG22	1.47	0.94
44:YY:51:VAL:HG13	44:YY:52:SER:H	1.31	0.94
47:R1:81:LYS:CA	47:R1:81:LYS:CE	2.45	0.94
12:XL:10:LEU:HD13	17:XQ:32:TYR:CE2	2.03	0.94
16:XP:4:ILE:HD11	16:XP:64:ALA:HB1	1.46	0.94
47:Y1:81:LYS:CA	47:Y1:81:LYS:CE	2.45	0.94
34:RO:2:ILE:HD11	34:RO:82:ASN:HD22	1.33	0.94
35:RP:62:LEU:HD22	35:RP:62:LEU:N	1.82	0.94
25:YA:1138:G:H21	33:YN:106:MET:HE3	1.32	0.94
6:QF:86:ARG:O	6:QF:87:ARG:HG2	1.66	0.94
52:R6:41:PRO:HG2	52:R6:45:LYS:H	1.29	0.94
25:YA:1899:G:H22	25:YA:1902:C:H41	1.11	0.94
25:RA:674:G:H1'	29:RF:74:ARG:HD3	1.49	0.94
47:R1:81:LYS:CE	47:R1:81:LYS:N	2.30	0.94
27:RD:28:GLU:HB2	27:RD:29:PRO:CD	1.98	0.94
3:XC:11:ARG:HB3	3:XC:15:THR:HB	1.48	0.94
10:XJ:75:ILE:HG13	10:XJ:76:ASN:H	1.31	0.94
3:QC:16:ARG:HB2	3:QC:16:ARG:HH11	1.30	0.94
7:QG:15:ASP:HB3	7:QG:20:ASP:H	1.31	0.94
27:RD:108:PRO:HB3	27:RD:143:HIS:HE1	1.32	0.94
39:RT:11:GLU:CD	39:RT:11:GLU:H	1.71	0.94
39:RT:62:THR:HG22	39:RT:75:ILE:HG12	1.46	0.94
43:RX:57:LEU:CD1	43:RX:78:LYS:HB2	1.98	0.94
27:YD:28:GLU:HB2	27:YD:29:PRO:CD	1.98	0.94
1:XA:1286:A:H5''	21:XU:26:LYS:HD2	1.46	0.94
25:YA:270(R):G:N3	47:Y1:78:LYS:NZ	2.14	0.94
31:YH:77:LYS:NZ	31:YH:77:LYS:HB3	1.82	0.94
2:XB:8:LYS:H	2:XB:8:LYS:HD3	1.30	0.93
52:Y6:47:THR:HG22	52:Y6:48:VAL:HG12	1.45	0.93
13:QM:90:LEU:HA	13:QM:93:ARG:HD2	1.50	0.93
51:R5:56:LYS:H	51:R5:56:LYS:HD2	1.30	0.93
28:RE:78:LEU:HG	28:RE:79:ARG:HE	1.31	0.93
41:RV:35:LEU:HD21	41:RV:57:VAL:HG22	1.47	0.93
31:YH:127:GLU:HB3	31:YH:128:PRO:CD	1.99	0.93

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:RS:59:LYS:HG2	38:RS:60:GLY:H	1.31	0.93
39:YT:11:GLU:H	39:YT:11:GLU:CD	1.71	0.93
33:RN:134:ARG:H	33:RN:135:PRO:CD	1.81	0.93
35:RP:1:MET:HE2	35:RP:5:ASP:HB3	1.51	0.93
36:RQ:59:ARG:O	36:RQ:60:ARG:CG	2.17	0.93
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.34	0.93
4:XD:12:CYS:CA	4:XD:19:LEU:HD21	1.98	0.93
31:YH:77:LYS:HZ3	31:YH:77:LYS:HB3	1.31	0.93
33:YN:134:ARG:H	33:YN:135:PRO:CD	1.81	0.93
14:XN:43:CYS:O	14:XN:45:ARG:N	2.01	0.93
19:QS:40:ILE:HG12	19:QS:41:VAL:HG22	1.51	0.93
13:QM:57:ARG:HH11	13:QM:57:ARG:HB2	1.32	0.93
31:RH:127:GLU:HB3	31:RH:128:PRO:CD	1.99	0.93
36:RQ:34:LEU:HD11	36:RQ:129:THR:HB	1.50	0.93
43:YX:57:LEU:CD1	43:YX:78:LYS:HB2	1.98	0.93
20:QT:49:ALA:HB1	20:QT:99:LEU:HB2	1.51	0.93
10:XJ:8:LEU:HD11	10:XJ:23:ILE:HD12	1.49	0.93
5:QE:53:LEU:HD12	5:QE:53:LEU:H	1.34	0.92
41:RV:99:ILE:H	41:RV:99:ILE:HD13	1.31	0.92
6:XF:24:GLU:HA	6:XF:27:GLN:HG3	1.49	0.92
17:XQ:4:LYS:HE3	17:XQ:6:LEU:HD21	1.51	0.92
27:YD:108:PRO:HB3	27:YD:143:HIS:CE1	2.05	0.92
35:YP:65:ARG:HG3	35:YP:65:ARG:HH11	1.34	0.92
37:YR:33:ARG:NH2	51:Y5:55:ARG:HG2	1.85	0.92
51:R5:58:LEU:HD13	51:R5:60:VAL:HG12	1.48	0.92
27:YD:108:PRO:HB3	27:YD:143:HIS:HE1	1.32	0.92
28:YE:14:ILE:HG12	28:YE:15:PHE:H	1.33	0.92
27:RD:147:LEU:HD13	27:RD:155:LEU:HD11	1.52	0.92
27:RD:183:ARG:HH11	27:RD:183:ARG:HG2	1.34	0.92
29:RF:103:LYS:HA	29:RF:106:ARG:HG3	1.49	0.92
19:XS:40:ILE:HG12	19:XS:41:VAL:HG22	1.51	0.92
15:XO:82:ILE:HD11	15:XO:88:ARG:HG3	1.51	0.92
47:R1:81:LYS:CA	47:R1:81:LYS:NZ	2.31	0.92
25:RA:1270:C:H5''	25:RA:1271:G:H5'	1.50	0.92
1:XA:954:G:H4'	13:XM:121:LYS:HG3	1.52	0.92
5:XE:53:LEU:HD12	5:XE:53:LEU:H	1.34	0.92
5:QE:100:VAL:HG22	5:QE:118:ILE:HG22	1.52	0.92
1:QA:191:G:C4	20:QT:105:SER:HB3	2.05	0.92
7:XG:15:ASP:HB3	7:XG:20:ASP:H	1.31	0.92
38:YS:59:LYS:HG2	38:YS:60:GLY:H	1.31	0.92
4:QD:30:LYS:HB3	4:QD:35:ARG:HG3	1.52	0.92
31:RH:153:LYS:CB	31:RH:154:PRO:HD2	1.97	0.92

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:XE:101:ILE:HD11	5:XE:119:LEU:HD23	1.51	0.92
14:YN:32:SER:CB	14:YN:41:ARG:HB2	2.00	0.92
25:YA:1496:A:HB	25:YA:1577:C:HO2'	0.92	0.92
1:QA:992:U:H3	1:QA:1044:A:H62	1.18	0.92
8:QH:6:ILE:HB	8:QH:85:ARG:NH1	1.85	0.92
27:RD:108:PRO:HB3	27:RD:143:HIS:CE1	2.05	0.92
14:YN:32:SER:OG	14:YN:41:ARG:HB2	1.70	0.92
4:QD:9:CYS:SG	4:QD:31:CYS:O	2.28	0.92
6:QF:24:GLU:HA	6:QF:27:GLN:HG3	1.49	0.92
25:RA:1019:U:H3	25:RA:1142(A):A:H62	1.10	0.92
30:RG:37:VAL:HG22	30:RG:159:VAL:HA	1.52	0.92
41:RV:24:LYS:HA	41:RV:92:THR:HG23	1.52	0.92
4:QD:170:VAL:O	6:XF:21:LEU:HD21	1.70	0.92
8:XH:6:ILE:HB	8:XH:85:ARG:NH1	1.85	0.92
13:QM:77:ASN:HA	50:R4:71:ARG:HH22	1.22	0.91
1:XA:961:U:O2	1:XA:1201:A:N6	2.03	0.91
2:QB:32:ILE:HD11	2:QB:40:HIS:HB3	1.52	0.91
3:XC:20:SER:HB2	3:XC:40:ARG:HH22	1.34	0.91
3:QC:11:ARG:HB3	3:QC:15:THR:HB	1.48	0.91
47:Y1:81:LYS:HA	47:Y1:81:LYS:CE	2.00	0.91
30:YG:37:VAL:HG22	30:YG:159:VAL:HA	1.52	0.91
38:YS:67:ARG:NH1	38:YS:67:ARG:HB2	1.85	0.91
3:QC:70:VAL:HG12	3:QC:72:LYS:H	1.34	0.91
47:R1:81:LYS:HA	47:R1:81:LYS:CE	2.01	0.91
30:RG:101:ILE:HG13	30:RG:102:PHE:N	1.86	0.91
36:YQ:34:LEU:HD11	36:YQ:129:THR:HB	1.50	0.91
44:YY:30:VAL:HG22	44:YY:37:VAL:HG12	1.53	0.91
31:RH:77:LYS:NZ	31:RH:77:LYS:HB3	1.82	0.91
37:RR:33:ARG:NH2	51:R5:55:ARG:HG2	1.85	0.91
2:XB:33:TYR:HB2	2:XB:43:ASP:HB2	1.53	0.91
15:QO:82:ILE:HD11	15:QO:88:ARG:HG3	1.51	0.91
17:QQ:4:LYS:HE3	17:QQ:6:LEU:HD21	1.52	0.91
40:YU:92:ARG:HG2	40:YU:92:ARG:O	1.69	0.91
4:QD:29:PRO:HG2	4:QD:30:LYS:CE	2.01	0.91
8:QH:6:ILE:HD12	8:QH:6:ILE:H	1.35	0.91
3:QC:20:SER:HB2	3:QC:40:ARG:HH22	1.34	0.91
12:QL:10:LEU:HD13	17:QQ:32:TYR:HE2	1.33	0.91
4:XD:170:VAL:HG22	4:XD:171:GLY:H	1.34	0.91
34:YO:2:ILE:HD11	34:YO:82:ASN:HD22	1.33	0.91
2:QB:77:ALA:HB2	2:QB:211:ILE:HD13	1.53	0.91
2:QB:33:TYR:HB2	2:QB:43:ASP:HB2	1.53	0.91
29:RF:7:TYR:HB3	29:RF:21:ALA:HB1	1.53	0.91

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:XT:49:ALA:HB1	20:XT:99:LEU:HB2	1.51	0.91
10:QJ:8:LEU:HD11	10:QJ:23:ILE:HD12	1.49	0.91
38:RS:67:ARG:HB2	38:RS:67:ARG:NH1	1.85	0.91
47:Y1:80:LEU:O	47:Y1:81:LYS:HB2	1.71	0.90
27:YD:10:THR:HG23	27:YD:13:ARG:HB3	1.51	0.90
1:XA:1078:U:O2'	5:XE:130:ASN:OD1	1.89	0.90
11:XK:99:GLN:HG2	11:XK:105:VAL:HG21	1.53	0.90
4:QD:170:VAL:HG22	4:QD:171:GLY:H	1.34	0.90
4:QD:29:PRO:HG2	4:QD:30:LYS:HD3	1.49	0.90
25:YA:2327:A:H2'	25:YA:2328:A:C8	2.05	0.90
35:YP:1:MET:HE2	35:YP:5:ASP:HB3	1.51	0.90
44:YY:38:ILE:HG22	44:YY:66:PRO:HA	1.54	0.90
5:QE:101:ILE:HD11	5:QE:119:LEU:HD23	1.52	0.90
27:RD:10:THR:HG23	27:RD:13:ARG:HB3	1.51	0.90
28:RE:14:ILE:HG12	28:RE:15:PHE:H	1.33	0.90
1:XA:411:A:H62	1:XA:413:G:H21	1.16	0.90
8:XH:6:ILE:HD12	8:XH:6:ILE:H	1.34	0.90
13:XM:90:LEU:HA	13:XM:93:ARG:HD2	1.50	0.90
31:RH:4:ILE:HG13	31:RH:6:ARG:CZ	2.01	0.90
27:YD:147:LEU:HD13	27:YD:155:LEU:HD11	1.51	0.90
25:YA:297:C:H5''	44:YY:85:VAL:HG21	1.52	0.90
48:Y2:65:ASN:HB3	48:Y2:69:ARG:HH12	1.34	0.90
41:YV:44:LYS:O	41:YV:46:VAL:HG12	1.72	0.90
41:YV:24:LYS:HA	41:YV:92:THR:HG23	1.52	0.90
2:QB:178:ARG:NH2	8:QH:74:PRO:HB3	1.86	0.90
35:RP:58:THR:O	35:RP:61:ARG:NE	2.05	0.90
1:XA:1128:C:N3	1:XA:1144:G:N2	2.19	0.90
5:XE:100:VAL:HG22	5:XE:118:ILE:HG22	1.52	0.90
51:Y5:3:LYS:HA	51:Y5:3:LYS:HE3	1.54	0.90
25:YA:607:U:H3	25:YA:621:A:H2	1.20	0.90
36:RQ:59:ARG:O	36:RQ:60:ARG:HG3	1.72	0.90
14:XN:22:THR:O	14:XN:23:ARG:CB	2.16	0.90
27:YD:44:ASN:H	27:YD:44:ASN:HD22	1.19	0.90
2:QB:7:VAL:HG21	2:QB:217:ARG:NH1	1.87	0.90
31:YH:26:VAL:HG13	31:YH:27:LYS:H	1.35	0.90
31:YH:4:ILE:HG13	31:YH:6:ARG:CZ	2.01	0.90
32:YI:92:VAL:HG13	32:YI:120:ILE:HG23	1.54	0.90
35:YP:106:LEU:O	35:YP:107:LYS:HB2	1.71	0.90
48:R2:65:ASN:HB3	48:R2:69:ARG:HH12	1.34	0.89
27:RD:69:ARG:HH21	27:RD:130:ALA:HB2	1.37	0.89
31:RH:10:PRO:HD2	31:RH:50:VAL:O	1.72	0.89
25:YA:857:C:H4'	46:Y0:23:VAL:HG21	1.52	0.89

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:69:ARG:HH21	27:YD:130:ALA:HB2	1.37	0.89
27:YD:183:ARG:HH11	27:YD:183:ARG:HG2	1.34	0.89
19:XS:64:GLU:O	19:XS:67:VAL:HG23	1.73	0.89
35:YP:88:LEU:HD12	35:YP:95:VAL:HG11	1.52	0.89
42:YW:65:LEU:HD12	42:YW:68:ARG:HH11	1.36	0.89
25:RA:49:A:H4'	25:RA:50:U:H5''	1.54	0.89
25:RA:483:A:H4'	44:RY:49:VAL:HA	1.52	0.89
2:XB:7:VAL:HG21	2:XB:217:ARG:NH1	1.87	0.89
31:RH:26:VAL:HG13	31:RH:27:LYS:H	1.36	0.89
51:R5:3:LYS:HE3	51:R5:3:LYS:HA	1.54	0.89
1:XA:891:U:OP2	1:XA:906:G:N2	2.05	0.89
25:YA:67:U:H3	25:YA:74:A:H2	1.21	0.89
28:YE:63:LEU:HD12	28:YE:64:LYS:N	1.87	0.89
41:RV:44:LYS:O	41:RV:46:VAL:HG12	1.72	0.89
44:RY:76:CYS:SG	44:RY:77:PRO:HD2	2.13	0.89
51:Y5:40:LYS:HZ1	51:Y5:48:GLU:HB2	1.36	0.89
54:Y8:59:LYS:NZ	54:Y8:59:LYS:HB2	1.88	0.89
5:QE:78:HIS:HA	8:QH:105:ARG:HB2	1.52	0.89
19:QS:5:LEU:CD2	50:R4:67:TYR:CE2	2.55	0.89
2:XB:126:GLU:HG3	2:XB:129:GLU:HG3	1.54	0.89
2:XB:32:ILE:HD11	2:XB:40:HIS:HB3	1.52	0.89
54:Y8:52:LYS:H	54:Y8:53:PRO:HD3	1.35	0.89
25:YA:518:G:H4'	42:YW:18:ARG:NH1	1.87	0.89
30:YG:116:ASP:O	30:YG:117:PHE:HB3	1.72	0.89
10:QJ:74:ILE:H	10:QJ:74:ILE:HD13	1.38	0.89
19:QS:64:GLU:O	19:QS:67:VAL:HG23	1.73	0.89
40:RU:92:ARG:O	40:RU:92:ARG:HG2	1.69	0.89
47:R1:80:LEU:O	47:R1:81:LYS:HB2	1.71	0.89
54:R8:52:LYS:H	54:R8:53:PRO:HD3	1.35	0.89
35:RP:88:LEU:HD12	35:RP:95:VAL:HG11	1.52	0.89
13:XM:121:LYS:NZ	24:XY:40:G:OP1	2.05	0.89
31:YH:10:PRO:HD2	31:YH:50:VAL:O	1.72	0.89
35:YP:58:THR:O	35:YP:61:ARG:NE	2.05	0.89
27:RD:27:THR:HG23	27:RD:28:GLU:H	1.38	0.88
35:RP:65:ARG:HG3	35:RP:65:ARG:HH11	1.35	0.88
2:XB:77:ALA:HB2	2:XB:211:ILE:HD13	1.53	0.88
2:XB:18:GLY:N	2:XB:42:ILE:HG22	1.87	0.88
25:YA:620:G:H4'	25:YA:621:A:H5''	1.51	0.88
1:XA:973:G:OP1	10:XJ:57:LYS:NZ	2.06	0.88
30:YG:88:ILE:O	30:YG:88:ILE:HD13	1.72	0.88
2:QB:126:GLU:HG3	2:QB:129:GLU:HG3	1.54	0.88
35:RP:106:LEU:O	35:RP:107:LYS:HB2	1.71	0.88

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:18:GLY:N	2:QB:42:ILE:HG22	1.86	0.88
30:RG:88:ILE:HD13	30:RG:88:ILE:O	1.72	0.88
44:RY:30:VAL:HG22	44:RY:37:VAL:HG12	1.53	0.88
44:YY:76:CYS:SG	44:YY:77:PRO:HD2	2.13	0.88
25:RA:1454:U:OP1	37:RR:77:ARG:NH1	2.06	0.88
5:XE:71:LEU:O	5:XE:72:GLN:HG3	1.74	0.88
12:XL:6:THR:H	12:XL:9:GLN:HE21	1.15	0.88
35:YP:64:LYS:O	35:YP:66:GLY:N	2.07	0.88
38:YS:106:ARG:NH1	38:YS:106:ARG:HB2	1.88	0.88
45:YZ:145:GLU:HG3	45:YZ:146:ILE:HG12	1.54	0.88
5:QE:41:VAL:HG11	5:QE:113:ALA:HB2	1.54	0.88
25:RA:1068:G:N2	25:RA:1095:A:O2'	2.07	0.88
28:RE:63:LEU:HD12	28:RE:64:LYS:N	1.88	0.88
5:XE:79:GLU:OE2	8:XH:104:ARG:HA	1.74	0.88
25:YA:2600:A:C2'	25:YA:2601:C:H5'	2.03	0.88
20:QT:23:ARG:HA	20:QT:26:ASN:HD21	1.36	0.88
4:XD:114:ARG:HH11	4:XD:114:ARG:HG3	1.38	0.88
20:XT:23:ARG:HA	20:XT:26:ASN:HD21	1.37	0.88
33:YN:22:THR:HG22	33:YN:23:LEU:N	1.88	0.88
1:QA:1286:A:H5''	21:QU:26:LYS:HD2	1.55	0.88
13:QM:97:PRO:HB2	13:QM:101:GLN:NE2	1.89	0.88
54:R8:59:LYS:NZ	54:R8:59:LYS:HB2	1.88	0.88
33:RN:22:THR:HG22	33:RN:23:LEU:N	1.88	0.88
51:R5:40:LYS:HZ1	51:R5:48:GLU:HB2	1.39	0.88
38:RS:106:ARG:NH1	38:RS:106:ARG:HB2	1.88	0.88
44:RY:38:ILE:HG22	44:RY:66:PRO:HA	1.54	0.88
5:XE:41:VAL:HG11	5:XE:113:ALA:HB2	1.54	0.88
19:XS:8:GLY:O	19:XS:9:VAL:HG22	1.74	0.88
27:YD:44:ASN:CB	27:YD:49:ILE:HA	2.04	0.88
21:XU:6:ARG:HE	21:XU:15:ARG:CZ	1.87	0.87
28:YE:77:ILE:HD12	28:YE:78:LEU:N	1.89	0.87
2:QB:96:ARG:H	2:QB:96:ARG:HD2	1.38	0.87
8:QH:51:VAL:HG21	8:QH:60:ARG:HG2	1.55	0.87
28:RE:77:ILE:HD12	28:RE:78:LEU:N	1.89	0.87
23:XX:2:U:O2'	23:XX:3:G:H5'	1.74	0.87
35:YP:49:ARG:HD2	54:Y8:58:ILE:HG22	1.54	0.87
35:RP:49:ARG:HD2	54:R8:58:ILE:HG22	1.54	0.87
41:RV:19:LYS:HD2	41:RV:95:LEU:HD23	1.55	0.87
42:RW:65:LEU:HD12	42:RW:68:ARG:HH11	1.36	0.87
21:QU:6:ARG:HE	21:QU:15:ARG:CZ	1.88	0.87
27:RD:28:GLU:HB2	27:RD:29:PRO:HD2	1.56	0.87
47:Y1:82:LEU:HD13	47:Y1:83:GLU:O	1.74	0.87

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1158:C:H4'	2:QB:133:LYS:NZ	1.89	0.87
19:QS:41:VAL:HG13	19:QS:44:MET:HB2	1.57	0.87
25:YA:2600:A:H2'	25:YA:2601:C:H5'	1.56	0.87
36:YQ:64:ILE:HA	36:YQ:106:VAL:HG12	1.54	0.87
11:QK:99:GLN:HG2	11:QK:105:VAL:HG21	1.53	0.87
27:RD:181:GLU:HA	27:RD:272:ALA:HB3	1.57	0.87
35:RP:64:LYS:O	35:RP:66:GLY:N	2.07	0.87
13:XM:4:ILE:H	13:XM:9:ILE:CG2	1.88	0.87
27:YD:27:THR:HG23	27:YD:28:GLU:H	1.38	0.87
27:RD:44:ASN:HD22	27:RD:44:ASN:H	1.19	0.87
13:XM:97:PRO:HB2	13:XM:101:GLN:NE2	1.89	0.87
47:Y1:82:LEU:HD11	47:Y1:83:GLU:O	1.75	0.87
27:YD:181:GLU:HA	27:YD:272:ALA:HB3	1.57	0.87
36:RQ:64:ILE:HA	36:RQ:106:VAL:HG12	1.54	0.87
25:YA:483:A:H4'	44:YY:49:VAL:HA	1.57	0.87
1:QA:1139:G:N2	1:QA:1143:G:O6	2.08	0.87
10:XJ:7:LYS:HB2	10:XJ:97:GLU:HB2	1.56	0.87
11:XK:32:ILE:HD12	11:XK:72:ALA:HB2	1.56	0.87
29:YF:7:TYR:HB3	29:YF:21:ALA:HB1	1.53	0.87
30:YG:101:ILE:HG13	30:YG:102:PHE:N	1.86	0.87
35:RP:75:ILE:HD13	35:RP:75:ILE:H	1.39	0.86
25:RA:518:G:H4'	42:RW:18:ARG:HH12	1.37	0.86
19:XS:27:GLU:O	19:XS:28:LYS:HG2	1.74	0.86
25:YA:2068:U:H3	25:YA:2430:A:H2	1.22	0.86
5:QE:78:HIS:CG	8:QH:104:ARG:HG2	2.11	0.86
10:QJ:47:PHE:HE1	10:QJ:63:PHE:HB2	1.40	0.86
15:QO:56:LEU:O	15:QO:60:VAL:HG23	1.75	0.86
22:QV:1:C:C1'	46:R0:5:LYS:HE3	2.03	0.86
25:RA:526:A:OP1	25:RA:527:C:OP1	1.93	0.86
25:RA:2882:A:OP1	37:RR:96:ARG:NH1	2.07	0.86
38:RS:106:ARG:HH11	38:RS:106:ARG:HB2	1.39	0.86
19:XS:5:LEU:HD11	50:Y4:66:SER:HB2	1.56	0.86
26:YB:8:U:H3	26:YB:112:G:H1	1.19	0.86
30:YG:145:THR:HG23	50:Y4:28:LYS:HZ1	1.38	0.86
35:YP:18:ARG:O	35:YP:19:VAL:HB	1.75	0.86
47:R1:92:LYS:HG3	47:R1:96:LYS:HB2	1.57	0.86
25:RA:1022:G:O2'	25:RA:1023:U:OP2	1.93	0.86
25:RA:2306:C:H3'	25:RA:2307:G:H5''	1.57	0.86
30:RG:116:ASP:O	30:RG:117:PHE:HB3	1.72	0.86
25:YA:1403:C:H5''	25:YA:1471:A:H1'	1.57	0.86
29:YF:29:ASN:H	29:YF:112:MET:HE3	1.40	0.86
30:YG:161:THR:HG22	30:YG:163:ALA:H	1.39	0.86

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:923:A:N6	1:QA:1392:G:O6	2.07	0.86
2:QB:67:THR:HG21	2:QB:155:LEU:HD21	1.57	0.86
19:QS:8:GLY:O	19:QS:9:VAL:HG22	1.75	0.86
25:RA:1678:G:H22	25:RA:1989:G:H22	1.22	0.86
2:XB:96:ARG:H	2:XB:96:ARG:HD2	1.38	0.86
8:XH:51:VAL:HG21	8:XH:60:ARG:HG2	1.55	0.86
40:YU:92:ARG:HD2	41:YV:11:GLN:NE2	1.90	0.86
19:QS:27:GLU:O	19:QS:28:LYS:HG2	1.74	0.86
23:QX:6:C:O2'	23:QX:7:U:OP1	1.93	0.86
26:RB:56:G:OP1	30:RG:27:ASN:ND2	2.08	0.86
29:RF:82:ILE:HG13	29:RF:82:ILE:O	1.73	0.86
10:XJ:74:ILE:HD13	10:XJ:74:ILE:H	1.39	0.86
27:YD:35:LYS:HG2	27:YD:64:ILE:H	1.40	0.86
31:YH:127:GLU:HG2	31:YH:128:PRO:HD3	0.86	0.86
25:YA:637:A:H2'	35:YP:117:GLU:OE2	1.76	0.86
45:YZ:151:HIS:HB3	45:YZ:170:THR:HA	1.55	0.86
11:QK:32:ILE:HD12	11:QK:72:ALA:HB2	1.56	0.86
27:RD:44:ASN:CB	27:RD:49:ILE:HA	2.04	0.86
29:RF:29:ASN:H	29:RF:112:MET:HE3	1.40	0.86
25:YA:1795:C:O2	27:YD:255:LYS:HE2	1.75	0.86
25:RA:1582:C:HO2'	25:RA:1586:A:H8	1.21	0.86
25:RA:768:G:O2'	25:RA:1379:A:N6	2.09	0.86
30:RG:161:THR:HG22	30:RG:163:ALA:H	1.39	0.86
44:RY:51:VAL:O	44:RY:56:PRO:HA	1.76	0.86
4:QD:114:ARG:HH11	4:QD:114:ARG:HG3	1.39	0.86
13:QM:14:ARG:H	13:QM:44:ARG:HD3	1.41	0.86
1:XA:674:G:H2'	1:XA:675:A:H8	1.41	0.86
41:YV:19:LYS:HD2	41:YV:95:LEU:HD23	1.55	0.86
13:QM:4:ILE:H	13:QM:9:ILE:CG2	1.88	0.86
23:QX:2:U:O2'	23:QX:3:G:H5'	1.74	0.86
25:RA:2122:U:H2'	25:RA:2123:G:H8	1.40	0.86
25:RA:2302:G:N2	25:RA:2314:C:O2	2.07	0.86
19:XS:41:VAL:HG13	19:XS:44:MET:HB2	1.56	0.86
2:XB:67:THR:HG21	2:XB:155:LEU:HD21	1.56	0.85
10:XJ:53:PRO:O	14:XN:41:ARG:NH2	2.09	0.85
25:YA:958:U:OP2	36:YQ:14:ARG:NH1	2.09	0.85
1:QA:1081:G:OP1	5:QE:16:THR:OG1	1.94	0.85
40:RU:92:ARG:HD2	41:RV:11:GLN:NE2	1.90	0.85
1:XA:895:G:H1	1:XA:904:C:H42	1.22	0.85
25:YA:2245:U:H5'	25:YA:2246:G:H5'	1.56	0.85
38:YS:106:ARG:HB2	38:YS:106:ARG:HH11	1.39	0.85
4:QD:22:LYS:CB	4:QD:26:CYS:SG	2.64	0.85

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:QE:71:LEU:O	5:QE:72:GLN:HG3	1.73	0.85
25:RA:279:C:H42	25:RA:361:G:H1	1.22	0.85
1:XA:689:C:HO2'	1:XA:705:U:HO2'	1.20	0.85
25:YA:443:A:N7	29:YF:45:ARG:HD2	1.91	0.85
10:QJ:49:VAL:HG13	14:QN:41:ARG:HD2	0.94	0.85
28:RE:61:ARG:O	28:RE:63:LEU:HG	1.77	0.85
20:XT:36:LEU:HD13	20:XT:39:LYS:HD3	1.57	0.85
39:YT:111:ARG:O	39:YT:112:ARG:HG3	1.76	0.85
20:QT:36:LEU:HD13	20:QT:39:LYS:HD3	1.57	0.85
28:RE:81:ILE:O	28:RE:82:ARG:HB2	1.75	0.85
24:XY:29:U:H2'	24:XY:30:C:C6	2.11	0.85
36:YQ:75:THR:HA	36:YQ:88:GLY:O	1.76	0.85
44:YY:51:VAL:O	44:YY:56:PRO:HA	1.76	0.85
47:R1:82:LEU:HD13	47:R1:83:GLU:O	1.74	0.85
29:RF:32:LEU:HD13	29:RF:105:VAL:HG13	1.59	0.85
36:RQ:75:THR:HA	36:RQ:88:GLY:O	1.76	0.85
15:XO:56:LEU:O	15:XO:60:VAL:HG23	1.75	0.85
25:YA:1055:G:H1	25:YA:1104:C:H42	1.25	0.85
35:YP:75:ILE:H	35:YP:75:ILE:HD13	1.39	0.85
36:RQ:83:MET:HB2	46:R0:7:LEU:HD12	1.59	0.85
51:R5:39:MET:O	51:R5:40:LYS:HG3	1.77	0.85
30:YG:67:LYS:HE2	50:Y4:6:HIS:NE2	1.92	0.85
35:YP:101:VAL:HG23	35:YP:107:LYS:H	1.41	0.85
25:RA:2210:G:H3'	25:RA:2211:G:C8	2.11	0.85
28:RE:95:ILE:H	28:RE:95:ILE:HD12	1.41	0.85
30:RG:67:LYS:HE2	50:R4:6:HIS:NE2	1.92	0.85
31:RH:127:GLU:HG2	31:RH:128:PRO:HD3	0.86	0.85
40:RU:64:ARG:HH21	40:RU:64:ARG:HG2	1.42	0.85
7:XG:44:TYR:HA	7:XG:47:CYS:SG	2.17	0.85
35:RP:18:ARG:O	35:RP:19:VAL:HB	1.75	0.85
1:XA:247:G:N2	1:XA:277:C:O2	2.08	0.85
26:YB:82:G:H2'	26:YB:83:G:H8	1.41	0.85
31:YH:89:ILE:HD11	31:YH:129:THR:HB	1.58	0.85
10:QJ:7:LYS:HB2	10:QJ:97:GLU:HB2	1.57	0.85
1:XA:1238:A:N6	1:XA:1301:U:H3	1.75	0.85
5:XE:51:VAL:HB	5:XE:52:PRO:HD3	1.59	0.85
25:YA:2303:G:H1	25:YA:2313:C:H42	1.25	0.85
27:YD:28:GLU:HB2	27:YD:29:PRO:HD2	1.56	0.85
29:YF:82:ILE:HG13	29:YF:82:ILE:O	1.73	0.85
10:QJ:49:VAL:HG21	14:QN:41:ARG:HB2	1.23	0.84
54:R8:59:LYS:NZ	54:R8:59:LYS:CB	2.40	0.84
31:RH:89:ILE:HD11	31:RH:129:THR:HB	1.58	0.84

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:17:THR:HG22	27:YD:205:VAL:H	1.41	0.84
41:YV:49:THR:HB	41:YV:50:PRO:CD	2.07	0.84
14:QN:23:ARG:O	14:QN:24:CYS:O	1.95	0.84
19:QS:5:LEU:HD21	50:R4:66:SER:HB2	1.59	0.84
24:QY:29:U:H2'	24:QY:30:C:C6	2.11	0.84
25:RA:270(S):G:H1'	47:R1:78:LYS:HD2	1.59	0.84
25:RA:1689:A:H62	25:RA:1698:A:H2	1.22	0.84
13:XM:14:ARG:H	13:XM:44:ARG:HD3	1.41	0.84
12:XL:10:LEU:HD13	17:XQ:32:TYR:HE2	1.42	0.84
1:QA:1070:U:O5'	5:QE:25:ARG:NH1	2.10	0.84
5:QE:78:HIS:CD2	8:QH:104:ARG:CG	2.59	0.84
1:QA:1226:C:O2'	13:QM:111:LYS:NZ	2.11	0.84
14:QN:21:TYR:HE2	14:QN:23:ARG:HH21	1.24	0.84
10:QJ:49:VAL:CB	14:QN:41:ARG:HB2	2.08	0.84
25:YA:265:A:N6	25:YA:427:U:O2'	2.10	0.84
28:YE:81:ILE:O	28:YE:82:ARG:HB2	1.75	0.84
28:YE:95:ILE:H	28:YE:95:ILE:HD12	1.42	0.84
34:YO:26:LYS:HB2	34:YO:30:ALA:HB2	1.59	0.84
1:QA:606:G:H22	1:QA:631:G:H5'	1.41	0.84
5:QE:51:VAL:HB	5:QE:52:PRO:HD3	1.59	0.84
1:QA:1152:A:H5''	10:QJ:13:HIS:CD2	2.13	0.84
27:RD:17:THR:HG22	27:RD:205:VAL:H	1.42	0.84
34:RO:26:LYS:HB2	34:RO:30:ALA:HB2	1.59	0.84
15:XO:3:ILE:HD13	15:XO:3:ILE:H	1.40	0.84
38:YS:106:ARG:HA	38:YS:110:LEU:CD1	2.07	0.84
1:QA:949:A:H1'	1:QA:1364:U:H3	1.42	0.84
7:QG:44:TYR:HA	7:QG:47:CYS:SG	2.17	0.84
17:QQ:59:ILE:HG22	17:QQ:73:VAL:HA	1.60	0.84
28:RE:24:THR:HG21	28:RE:188:VAL:HG11	1.59	0.84
38:RS:89:ARG:HD2	38:RS:92:TYR:O	1.78	0.84
25:YA:2634:G:O6	25:YA:2784:C:N4	2.09	0.84
38:YS:83:LYS:HG2	38:YS:109:GLY:CA	2.07	0.84
15:QO:82:ILE:HD11	15:QO:88:ARG:CG	2.07	0.84
10:XJ:4:ILE:HB	10:XJ:74:ILE:HD11	1.60	0.84
25:YA:1354:A:OP1	27:YD:38:LYS:HE2	1.76	0.84
28:YE:61:ARG:O	28:YE:63:LEU:HG	1.77	0.84
29:YF:53:THR:HG23	29:YF:56:GLU:OE1	1.77	0.84
30:YG:98:ARG:HA	30:YG:101:ILE:HG12	1.59	0.84
1:QA:1079:G:O3'	5:QE:14:ARG:NH2	2.10	0.84
47:R1:82:LEU:HD11	47:R1:83:GLU:O	1.75	0.84
35:RP:62:LEU:CD2	54:R8:25:MET:HB2	2.08	0.84
41:RV:49:THR:HB	41:RV:50:PRO:CD	2.06	0.84

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1002:G:H1	1:XA:1038:C:H42	1.22	0.84
51:Y5:40:LYS:HD3	51:Y5:46:CYS:HB3	1.60	0.84
25:YA:631:A:OP2	54:Y8:46:ARG:NH2	2.10	0.84
31:YH:54:ARG:NH1	31:YH:62:LYS:HG2	1.92	0.84
36:YQ:30:GLY:HA2	36:YQ:107:ALA:HB2	1.60	0.84
39:RT:111:ARG:O	39:RT:112:ARG:HG3	1.76	0.84
35:YP:62:LEU:CD2	54:Y8:25:MET:HB2	2.08	0.84
37:YR:117:VAL:HG22	37:YR:118:GLU:H	1.43	0.84
44:YY:57:GLN:NE2	44:YY:58:GLY:H	1.76	0.84
4:QD:22:LYS:HB2	4:QD:26:CYS:SG	2.18	0.84
5:QE:93:PRO:HG3	8:QH:105:ARG:HG3	1.59	0.84
27:RD:35:LYS:HG2	27:RD:64:ILE:H	1.40	0.84
30:RG:98:ARG:HA	30:RG:101:ILE:HG12	1.59	0.84
13:XM:23:TYR:HB3	13:XM:67:GLU:HG2	1.60	0.84
14:YN:32:SER:OG	14:YN:41:ARG:CB	2.24	0.84
25:YA:1019:U:H3	25:YA:1142(A):A:H62	1.23	0.84
29:YF:32:LEU:HD13	29:YF:105:VAL:HG13	1.59	0.84
14:QN:8:GLU:OE2	14:QN:11:LYS:HD2	1.78	0.84
38:RS:83:LYS:HG2	38:RS:109:GLY:CA	2.07	0.84
1:XA:864:A:H5'	5:XE:86:ALA:HB2	1.57	0.84
38:YS:89:ARG:HD2	38:YS:92:TYR:O	1.78	0.84
39:YT:3:ARG:HG3	39:YT:7:ILE:HG12	1.60	0.84
4:QD:25:ARG:NH1	4:QD:30:LYS:HE3	1.93	0.83
31:RH:54:ARG:NH1	31:RH:62:LYS:HG2	1.92	0.83
10:XJ:37:PRO:HA	10:XJ:72:VAL:HG22	1.59	0.83
10:XJ:47:PHE:HE1	10:XJ:63:PHE:HB2	1.40	0.83
37:RR:117:VAL:HG22	37:RR:118:GLU:H	1.43	0.83
1:XA:372:C:H42	1:XA:389:A:H62	1.25	0.83
15:XO:82:ILE:HD11	15:XO:88:ARG:CG	2.07	0.83
39:RT:24:PRO:HA	39:RT:49:VAL:HG13	1.59	0.83
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.43	0.83
3:XC:15:THR:CG2	3:XC:181:ASN:HA	2.08	0.83
12:XL:46:LYS:CG	12:XL:47:LYS:H	1.85	0.83
25:YA:2846:G:H2'	25:YA:2847:U:H6	1.40	0.83
26:YB:31:C:O2	26:YB:53:A:N6	2.12	0.83
31:YH:13:LYS:HA	31:YH:13:LYS:HE2	1.61	0.83
13:QM:23:TYR:HB3	13:QM:67:GLU:HG2	1.60	0.83
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	1.60	0.83
51:R5:40:LYS:HD3	51:R5:46:CYS:HB3	1.60	0.83
31:RH:105:LEU:H	31:RH:105:LEU:HD13	1.43	0.83
44:RY:81:LYS:HD3	44:RY:97:ARG:HE	1.43	0.83
52:Y6:27:LYS:HB2	52:Y6:27:LYS:NZ	1.93	0.83

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:592:G:H1	25:YA:665:C:H42	1.24	0.83
35:YP:126:VAL:HG22	35:YP:145:PRO:HG2	1.61	0.83
15:QO:3:ILE:H	15:QO:3:ILE:HD13	1.40	0.83
38:RS:88:ASP:O	38:RS:89:ARG:HB3	1.78	0.83
44:RY:57:GLN:NE2	44:RY:58:GLY:H	1.76	0.83
14:XN:8:GLU:OE2	14:XN:11:LYS:HD2	1.78	0.83
51:Y5:39:MET:O	51:Y5:40:LYS:HG3	1.77	0.83
28:YE:7:VAL:HG23	28:YE:8:LYS:H	1.44	0.83
14:QN:12:ARG:C	14:QN:14:PRO:HD2	1.98	0.83
25:RA:1833:U:H2'	25:RA:1834:U:H6	1.43	0.83
28:RE:35:GLN:HG2	28:RE:37:ARG:HE	1.44	0.83
47:Y1:92:LYS:HG3	47:Y1:96:LYS:HB2	1.58	0.83
25:YA:242:G:H5''	54:Y8:3:LYS:HE3	1.60	0.83
33:YN:131:GLN:NE2	33:YN:132:ALA:H	1.75	0.83
35:YP:59:LEU:HA	35:YP:61:ARG:HH21	1.44	0.83
4:QD:96:LEU:H	4:QD:96:LEU:HD22	1.43	0.83
1:XA:359:U:H2'	1:XA:360:A:H8	1.44	0.83
7:XG:78:ARG:HG3	7:XG:79:ARG:N	1.93	0.83
25:YA:1264:G:H3'	25:YA:1265:A:H5''	1.58	0.83
33:RN:131:GLN:NE2	33:RN:132:ALA:H	1.75	0.83
33:RN:133:GLN:HB2	33:RN:135:PRO:HD3	1.59	0.83
41:RV:66:ARG:NH1	41:RV:88:ARG:HD3	1.94	0.83
1:XA:1163:C:N4	1:XA:1173:G:O6	2.12	0.83
14:XN:12:ARG:C	14:XN:14:PRO:HD2	1.98	0.83
36:YQ:83:MET:H	46:Y0:7:LEU:HD22	1.44	0.83
26:YB:38:C:H42	26:YB:44:G:H1	1.25	0.83
39:YT:24:PRO:HA	39:YT:49:VAL:HG13	1.59	0.83
7:QG:78:ARG:HG3	7:QG:79:ARG:N	1.93	0.83
10:QJ:37:PRO:HA	10:QJ:72:VAL:HG22	1.59	0.83
39:RT:53:ARG:O	39:RT:59:THR:HG23	1.78	0.83
45:RZ:94:GLU:HB2	45:RZ:130:PRO:HD2	1.59	0.83
5:XE:81:GLU:HB3	5:XE:90:VAL:HG22	1.60	0.83
1:XA:973:G:O3'	14:XN:41:ARG:NH1	2.12	0.83
25:YA:1863:G:H2'	25:YA:1864:U:C6	2.14	0.83
39:YT:53:ARG:O	39:YT:59:THR:HG23	1.78	0.83
1:QA:1124:G:H3'	1:QA:1145:C:N4	1.93	0.83
2:QB:193:ASP:OD2	2:QB:196:LEU:HG	1.78	0.83
5:QE:81:GLU:HB3	5:QE:90:VAL:HG22	1.60	0.83
12:QL:38:THR:HG23	12:QL:39:VAL:HG23	1.60	0.83
10:QJ:49:VAL:HG11	14:QN:41:ARG:HB2	1.58	0.83
25:RA:631:A:OP2	54:R8:46:ARG:NH2	2.10	0.83
38:RS:106:ARG:HA	38:RS:110:LEU:CD1	2.08	0.83

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:RT:3:ARG:HG3	39:RT:7:ILE:HG12	1.60	0.83
1:QA:411:A:H62	1:QA:413:G:H21	1.26	0.82
2:QB:204:ASN:ND2	2:QB:206:ASP:H	1.77	0.82
22:QV:1:C:C4'	46:R0:5:LYS:HZ1	1.91	0.82
50:R4:36:CYS:O	50:R4:39:CYS:HB2	1.79	0.82
35:RP:101:VAL:HG23	35:RP:107:LYS:H	1.41	0.82
45:YZ:182:LYS:HG3	45:YZ:183:LEU:HD23	1.60	0.82
3:QC:113:ALA:HB3	3:QC:114:PRO:HD3	1.61	0.82
26:RB:6:C:HO2'	38:RS:29:PHE:HE1	1.27	0.82
25:RA:1021:A:OP2	33:RN:65:LYS:NZ	2.11	0.82
35:RP:65:ARG:HG3	35:RP:65:ARG:NH1	1.90	0.82
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.60	0.82
2:XB:193:ASP:OD2	2:XB:196:LEU:HG	1.79	0.82
2:XB:204:ASN:ND2	2:XB:206:ASP:H	1.77	0.82
28:YE:15:PHE:CE1	28:YE:20:ALA:HB2	2.14	0.82
31:YH:153:LYS:HG2	31:YH:162:ILE:HG13	1.61	0.82
25:RA:884:C:O2	25:RA:892:G:N1	2.12	0.82
28:RE:15:PHE:CE1	28:RE:20:ALA:HB2	2.14	0.82
29:RF:53:THR:HG23	29:RF:56:GLU:OE1	1.77	0.82
36:RQ:30:GLY:HA2	36:RQ:107:ALA:HB2	1.60	0.82
5:XE:78:HIS:CD2	8:XH:104:ARG:HG2	2.12	0.82
14:XN:44:LEU:HD12	14:XN:53:LEU:CD1	2.08	0.82
25:YA:2592:G:O6	25:YA:2601:C:N4	2.12	0.82
27:YD:25:THR:CG2	27:YD:82:ILE:H	1.93	0.82
25:YA:674:G:H1'	29:YF:74:ARG:HD3	1.60	0.82
33:YN:133:GLN:HB2	33:YN:135:PRO:HD3	1.59	0.82
44:YY:81:LYS:HD3	44:YY:97:ARG:HE	1.43	0.82
1:QA:939:G:H5''	7:QG:102:ARG:HH22	1.42	0.82
2:QB:185:ILE:HG22	2:QB:199:TYR:HB2	1.61	0.82
25:RA:1476:C:N4	25:RA:1517:G:O6	2.13	0.82
4:XD:96:LEU:HD22	4:XD:96:LEU:H	1.43	0.82
19:XS:50:ALA:HB1	19:XS:57:HIS:HB3	1.60	0.82
31:YH:105:LEU:H	31:YH:105:LEU:HD13	1.42	0.82
52:R6:27:LYS:HB2	52:R6:27:LYS:NZ	1.93	0.82
27:RD:35:LYS:NZ	27:RD:104:TYR:HB2	1.93	0.82
1:XA:1346:A:H5''	9:XI:120:ARG:HH12	1.44	0.82
12:XL:38:THR:HG23	12:XL:39:VAL:HG23	1.60	0.82
40:YU:64:ARG:HG2	40:YU:64:ARG:HH21	1.42	0.82
1:XA:1281:U:OP2	1:XA:1282:C:N4	2.11	0.82
17:XQ:59:ILE:HG22	17:XQ:73:VAL:HA	1.60	0.82
25:YA:571:A:H5'	25:YA:2030:A:H62	1.45	0.82
27:YD:35:LYS:NZ	27:YD:104:TYR:HB2	1.93	0.82

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:YN:22:THR:HG22	33:YN:23:LEU:H	1.45	0.82
40:YU:88:ILE:HD13	40:YU:88:ILE:H	1.44	0.82
45:YZ:103:ARG:HB2	45:YZ:138:GLU:HG2	1.60	0.82
1:QA:1152:A:H5''	10:QJ:13:HIS:HD2	1.43	0.82
50:R4:33:VAL:HG12	50:R4:34:GLU:H	1.44	0.82
25:RA:2580:U:H4'	28:RE:130:GLY:HA3	1.62	0.82
25:RA:299:A:H5'	44:RY:84:ARG:HH21	1.43	0.82
25:RA:1826:G:H4'	27:RD:242:ARG:HH21	1.42	0.82
25:RA:2667:C:H1'	31:RH:109:PHE:HD2	1.41	0.82
40:RU:88:ILE:HD13	40:RU:88:ILE:H	1.44	0.82
16:XP:4:ILE:CD1	16:XP:64:ALA:HB1	2.08	0.82
48:Y2:16:LEU:O	48:Y2:16:LEU:HG	1.78	0.82
25:YA:819:A:OP2	25:YA:1187:G:N2	2.11	0.82
25:RA:1359:A:OP2	25:RA:1371:G:N2	2.13	0.82
25:RA:2637:U:H5''	28:RE:82:ARG:HH21	1.44	0.82
28:RE:7:VAL:HG23	28:RE:8:LYS:H	1.44	0.82
2:XB:84:GLU:OE1	2:XB:216:SER:HA	1.80	0.82
11:XK:124:LYS:HD2	11:XK:125:PHE:HE1	1.45	0.82
25:YA:2233:U:H2'	25:YA:2234:G:C8	2.15	0.82
38:YS:19:LYS:O	38:YS:20:ARG:HB3	1.80	0.82
39:YT:102:ILE:HA	39:YT:105:LEU:HD21	1.62	0.82
1:QA:642:A:N3	8:QH:113:SER:OG	2.12	0.82
30:RG:179:PRO:HG3	50:R4:38:LYS:NZ	1.95	0.82
25:RA:2112:G:O6	25:RA:2169:A:N6	2.12	0.82
33:RN:22:THR:HG22	33:RN:23:LEU:H	1.44	0.82
30:YG:179:PRO:HG3	50:Y4:38:LYS:NZ	1.95	0.82
50:Y4:71:ARG:NH1	50:Y4:71:ARG:HG3	1.90	0.82
26:YB:7:G:H1	26:YB:113:C:H42	1.26	0.82
12:QL:86:ARG:HB2	12:QL:101:VAL:HG22	1.62	0.82
14:QN:41:ARG:NH2	14:QN:42:ILE:HD11	1.94	0.82
25:RA:1012:U:H3	33:RN:25:ARG:HH11	1.26	0.82
25:RA:2832:U:H4'	25:RA:2833:G:H5''	1.61	0.82
50:Y4:36:CYS:O	50:Y4:39:CYS:HB2	1.80	0.82
25:YA:1103:A:H5'	25:YA:1104:C:H5	1.44	0.82
30:YG:67:LYS:HE2	50:Y4:6:HIS:CE1	2.14	0.82
34:YO:14:THR:HG21	34:YO:86:ILE:HB	1.62	0.82
2:QB:196:LEU:CD1	2:QB:197:VAL:HG23	2.10	0.81
1:QA:1346:A:H5'	9:QI:120:ARG:HH12	1.44	0.81
26:YB:70:C:H2'	26:YB:71:C:H6	1.44	0.81
28:YE:24:THR:HG21	28:YE:188:VAL:HG11	1.59	0.81
34:RO:53:LYS:N	34:RO:53:LYS:HD2	1.96	0.81
35:YP:39:LYS:HA	35:YP:45:LEU:CD1	2.10	0.81

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:YV:66:ARG:NH1	41:YV:88:ARG:HD3	1.94	0.81
2:QB:84:GLU:OE1	2:QB:216:SER:HA	1.80	0.81
54:R8:52:LYS:N	54:R8:53:PRO:CD	2.43	0.81
29:RF:155:LEU:HD13	29:RF:174:VAL:HG13	1.62	0.81
31:RH:132:ARG:NH1	31:RH:132:ARG:HB2	1.94	0.81
31:RH:153:LYS:HG2	31:RH:162:ILE:HG13	1.61	0.81
31:RH:8:PRO:C	31:RH:9:ILE:HG12	2.00	0.81
4:XD:108:LEU:HD11	4:XD:174:LEU:HD22	1.60	0.81
31:YH:10:PRO:O	31:YH:11:VAL:HG13	1.80	0.81
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.15	0.81
10:QJ:63:PHE:HD1	14:QN:58:LYS:HA	1.43	0.81
48:R2:16:LEU:O	48:R2:16:LEU:HG	1.78	0.81
39:RT:102:ILE:HA	39:RT:105:LEU:HD21	1.62	0.81
3:QC:15:THR:CG2	3:QC:181:ASN:HA	2.08	0.81
48:R2:43:GLN:O	48:R2:44:LEU:HG	1.81	0.81
35:RP:126:VAL:HG22	35:RP:145:PRO:HG2	1.60	0.81
36:RQ:90:VAL:HG13	36:RQ:91:GLU:N	1.95	0.81
10:XJ:6:ILE:HD12	10:XJ:6:ILE:O	1.81	0.81
53:Y7:48:LYS:HG2	53:Y7:49:ARG:H	1.46	0.81
25:YA:1363:C:O2	25:YA:1368:G:N2	2.11	0.81
30:YG:47:LYS:HD3	30:YG:81:LYS:HB2	1.63	0.81
36:YQ:90:VAL:HG13	36:YQ:91:GLU:N	1.95	0.81
38:YS:88:ASP:O	38:YS:89:ARG:HB3	1.78	0.81
16:QP:4:ILE:CD1	16:QP:64:ALA:HB1	2.08	0.81
16:QP:51:VAL:HG12	16:QP:52:ASP:H	1.46	0.81
23:QX:4:C:C2'	23:QX:5:C:H5'	2.11	0.81
53:R7:48:LYS:HG2	53:R7:49:ARG:H	1.46	0.81
27:RD:27:THR:HG23	27:RD:28:GLU:N	1.96	0.81
28:RE:3:GLY:O	28:RE:4:ILE:HB	1.81	0.81
30:RG:67:LYS:HE2	50:R4:6:HIS:CE1	2.14	0.81
1:XA:642:A:N3	8:XH:113:SER:OG	2.13	0.81
25:YA:1341:U:OP2	25:YA:1394:U:O2'	1.98	0.81
25:YA:1359:A:N6	25:YA:1372:U:O4	2.13	0.81
25:RA:1447:G:N2	25:RA:1464:C:O2	2.12	0.81
1:XA:489:C:OP1	4:XD:132:ARG:NH2	2.14	0.81
4:QD:108:LEU:HD11	4:QD:174:LEU:HD22	1.60	0.81
10:QJ:4:ILE:HB	10:QJ:74:ILE:HD11	1.60	0.81
31:RH:152:ARG:O	31:RH:153:LYS:HB2	1.80	0.81
35:RP:39:LYS:HA	35:RP:45:LEU:CD1	2.10	0.81
10:XJ:63:PHE:HD1	14:YN:58:LYS:HA	1.43	0.81
25:YA:1667:G:N2	25:YA:1993:U:O4	2.13	0.81
3:QC:47:LEU:HD11	3:QC:76:VAL:HG12	1.62	0.81

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:QG:111:ARG:HH11	7:QG:111:ARG:HB3	1.46	0.81
10:QJ:6:ILE:O	10:QJ:6:ILE:HD12	1.81	0.81
31:RH:26:VAL:HG13	31:RH:27:LYS:N	1.96	0.81
33:RN:35:ARG:HG3	33:RN:37:LYS:HG3	1.63	0.81
38:RS:36:TYR:HD2	38:RS:52:SER:HB3	1.46	0.81
2:XB:122:PHE:HD1	2:XB:139:LYS:HZ1	1.29	0.81
3:XC:113:ALA:HB3	3:XC:114:PRO:HD3	1.61	0.81
48:Y2:43:GLN:O	48:Y2:44:LEU:HG	1.81	0.81
54:Y8:59:LYS:NZ	54:Y8:59:LYS:CB	2.39	0.81
28:YE:116:VAL:HG21	28:YE:122:PHE:CD2	2.16	0.81
28:YE:50:GLY:CA	28:YE:77:ILE:HA	2.10	0.81
29:YF:155:LEU:HD13	29:YF:174:VAL:HG13	1.62	0.81
33:YN:43:THR:HB	33:YN:46:VAL:HG12	1.63	0.81
25:RA:2810:A:O3'	28:RE:61:ARG:HG3	1.79	0.81
39:RT:62:THR:CG2	39:RT:75:ILE:HG12	2.11	0.81
44:RY:76:CYS:HB3	44:RY:96:ILE:CD1	2.07	0.81
33:YN:35:ARG:HG3	33:YN:37:LYS:HG3	1.63	0.81
1:QA:235:C:H5'	17:QQ:70:ARG:HG2	1.61	0.81
1:QA:973:G:H3'	1:QA:974:A:H5''	1.61	0.81
51:R5:4:HIS:HB3	51:R5:5:PRO:CD	2.11	0.81
30:RG:47:LYS:HD3	30:RG:81:LYS:HB2	1.63	0.81
38:RS:106:ARG:CA	38:RS:110:LEU:HD21	2.11	0.81
38:RS:19:LYS:O	38:RS:20:ARG:HB3	1.80	0.81
1:XA:1152:A:H5''	10:XJ:13:HIS:HD2	1.46	0.81
38:YS:36:TYR:HD2	38:YS:52:SER:HB3	1.46	0.81
5:QE:10:MET:HB3	5:QE:32:VAL:HG22	1.63	0.80
26:RB:65:C:H41	26:RB:108:C:H2'	1.46	0.80
28:RE:116:VAL:HG21	28:RE:122:PHE:CD2	2.16	0.80
3:XC:47:LEU:HD11	3:XC:76:VAL:HG12	1.61	0.80
5:XE:50:GLU:HB3	5:XE:53:LEU:HD13	1.61	0.80
25:YA:1077:A:H5'	25:YA:1078:U:H5''	1.62	0.80
25:YA:86:C:HO2'	25:YA:104:U:HO2'	1.15	0.80
31:YH:8:PRO:C	31:YH:9:ILE:HG12	2.00	0.80
39:YT:39:ARG:HG2	39:YT:40:THR:H	1.46	0.80
39:RT:39:ARG:HG2	39:RT:40:THR:H	1.46	0.80
44:RY:6:HIS:O	44:RY:7:VAL:HG13	1.81	0.80
25:YA:1105:U:H2'	25:YA:1106:G:H8	1.46	0.80
25:YA:140:A:H8	25:YA:1408:C:HO2'	1.29	0.80
44:YY:76:CYS:HB3	44:YY:96:ILE:CD1	2.07	0.80
2:QB:4:GLU:HG2	2:QB:5:ILE:N	1.94	0.80
3:QC:52:LEU:H	3:QC:52:LEU:HD23	1.46	0.80
5:QE:50:GLU:HB3	5:QE:53:LEU:HD13	1.61	0.80

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:201:THR:CG2	28:RE:203:LYS:HB3	2.11	0.80
28:RE:50:GLY:CA	28:RE:77:ILE:HA	2.10	0.80
31:RH:13:LYS:HA	31:RH:13:LYS:HE2	1.61	0.80
3:XC:20:SER:HB2	3:XC:40:ARG:NH2	1.96	0.80
25:YA:2111:C:N3	25:YA:2118:U:O2'	2.14	0.80
44:YY:6:HIS:O	44:YY:7:VAL:HG13	1.81	0.80
28:RE:52:LEU:HB2	28:RE:75:VAL:HG23	1.62	0.80
25:RA:2635:C:OP1	28:RE:78:LEU:HD12	1.81	0.80
3:XC:52:LEU:H	3:XC:52:LEU:HD23	1.46	0.80
25:YA:83:G:O2'	25:YA:84:A:H8	1.65	0.80
27:YD:27:THR:HG23	27:YD:28:GLU:N	1.96	0.80
1:QA:474:G:H2'	1:QA:475:G:H8	1.47	0.80
50:Y4:33:VAL:HG12	50:Y4:34:GLU:H	1.44	0.80
28:YE:35:GLN:HG2	28:YE:37:ARG:HE	1.44	0.80
34:YO:31:LYS:HG3	34:YO:32:TYR:CE2	2.17	0.80
36:YQ:80:GLU:O	36:YQ:81:VAL:CG1	2.30	0.80
38:YS:106:ARG:CA	38:YS:110:LEU:HD21	2.10	0.80
3:QC:20:SER:HB2	3:QC:40:ARG:NH2	1.95	0.80
8:QH:84:ARG:HH11	8:QH:84:ARG:HG3	1.44	0.80
16:QP:51:VAL:HG12	16:QP:52:ASP:N	1.97	0.80
25:RA:195:A:H61	25:RA:198:C:H3'	1.46	0.80
27:RD:27:THR:HG21	27:RD:83:GLU:HB3	1.64	0.80
29:RF:198:ALA:HA	29:RF:201:VAL:HG12	1.62	0.80
35:RP:47:ASP:OD2	35:RP:49:ARG:HG2	1.82	0.80
8:XH:84:ARG:HG3	8:XH:84:ARG:HH11	1.45	0.80
9:XI:19:LEU:HD23	9:XI:61:ALA:HB2	1.63	0.80
14:XN:40:CYS:SG	14:XN:43:CYS:HB2	2.21	0.80
16:XP:51:VAL:HG12	16:XP:52:ASP:H	1.46	0.80
54:Y8:52:LYS:N	54:Y8:53:PRO:CD	2.43	0.80
25:YA:1049:C:H2'	25:YA:1050:A:H5''	1.64	0.80
31:YH:152:ARG:O	31:YH:153:LYS:HB2	1.80	0.80
32:RI:78:THR:H	32:RI:104:GLN:HE22	1.29	0.80
41:RV:99:ILE:HD13	41:RV:99:ILE:N	1.95	0.80
2:XB:196:LEU:CD1	2:XB:197:VAL:HG23	2.10	0.80
2:XB:212:GLN:CD	2:XB:235:SER:HB2	2.03	0.80
25:YA:2637:U:H5''	28:YE:82:ARG:HH21	1.46	0.80
28:YE:3:GLY:O	28:YE:4:ILE:HB	1.81	0.80
28:YE:52:LEU:HB2	28:YE:75:VAL:HG23	1.62	0.80
29:YF:198:ALA:HA	29:YF:201:VAL:HG12	1.62	0.80
1:QA:1055:A:N7	1:QA:1200:C:N4	2.30	0.80
27:RD:121:PRO:HB3	27:RD:135:PHE:HE1	1.46	0.80
27:RD:25:THR:HG22	27:RD:82:ILE:H	1.47	0.80

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:XD:28:SER:HB3	4:XD:29:PRO:CD	2.12	0.80
16:XP:4:ILE:HG13	16:XP:21:VAL:HG12	1.64	0.80
51:Y5:4:HIS:HB3	51:Y5:5:PRO:CD	2.11	0.80
25:YA:2696:U:O4	25:YA:2711:A:N6	2.11	0.80
25:YA:2712:U:HO2'	25:YA:2712(A):A:H8	0.84	0.80
28:YE:201:THR:CG2	28:YE:203:LYS:HB3	2.12	0.80
1:XA:1152:A:H5''	10:XJ:13:HIS:CD2	2.17	0.80
5:XE:126:ARG:HG3	5:XE:126:ARG:HH11	1.47	0.80
20:XT:50:GLU:HG3	20:XT:51:GLU:N	1.97	0.80
25:YA:1530:G:O6	25:YA:1542:G:N2	2.15	0.80
25:YA:2327:A:H2'	25:YA:2328:A:H8	1.44	0.80
27:YD:68:LYS:HB2	27:YD:70:TRP:CH2	2.17	0.80
30:YG:61:ALA:HB2	30:YG:68:PRO:CD	2.12	0.80
41:YV:99:ILE:HD13	41:YV:99:ILE:N	1.95	0.80
2:QB:35:GLU:O	2:QB:36:ARG:HD3	1.82	0.79
3:QC:138:VAL:HG13	3:QC:149:ALA:HB1	1.64	0.79
16:QP:4:ILE:HG13	16:QP:21:VAL:HG12	1.64	0.79
29:RF:145:GLU:HG3	29:RF:145:GLU:O	1.81	0.79
29:RF:11:VAL:HB	29:RF:18:ARG:HG3	1.64	0.79
34:RO:14:THR:HG21	34:RO:86:ILE:HB	1.62	0.79
25:YA:1689:A:H62	25:YA:1698:A:H2	1.31	0.79
26:YB:30:C:O2	26:YB:54:G:N2	2.13	0.79
27:YD:121:PRO:HB3	27:YD:135:PHE:HE1	1.46	0.79
1:QA:745:C:OP1	1:QA:851:G:O2'	2.01	0.79
2:QB:178:ARG:HD2	8:QH:71:GLY:C	2.02	0.79
5:QE:126:ARG:HG3	5:QE:126:ARG:HH11	1.47	0.79
27:RD:34:VAL:HG13	27:RD:34:VAL:O	1.80	0.79
30:RG:77:ILE:HD13	30:RG:82:LEU:HD12	1.64	0.79
2:XB:35:GLU:O	2:XB:36:ARG:HD3	1.82	0.79
8:XH:100:ILE:HB	8:XH:125:ARG:HH12	1.47	0.79
27:YD:34:VAL:HG13	27:YD:34:VAL:O	1.81	0.79
4:QD:12:CYS:CA	4:QD:19:LEU:HD21	2.10	0.79
14:QN:24:CYS:SG	14:QN:39:LEU:HA	2.22	0.79
27:RD:25:THR:CG2	27:RD:82:ILE:H	1.93	0.79
35:RP:14:LYS:O	35:RP:16:ARG:HG2	1.83	0.79
2:XB:187:LEU:HA	2:XB:201:ILE:HB	1.65	0.79
2:XB:18:GLY:H	2:XB:42:ILE:CG2	1.95	0.79
2:XB:4:GLU:HG2	2:XB:5:ILE:N	1.95	0.79
5:XE:10:MET:HB3	5:XE:32:VAL:HG22	1.63	0.79
7:XG:111:ARG:HH11	7:XG:111:ARG:HB3	1.46	0.79
11:XK:32:ILE:CD1	11:XK:72:ALA:HB2	2.12	0.79
13:XM:4:ILE:H	13:XM:9:ILE:HG21	1.47	0.79

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:XP:51:VAL:HG12	16:XP:52:ASP:N	1.97	0.79
25:YA:83:G:O2'	25:YA:84:A:O5'	2.01	0.79
1:QA:1080:A:H4'	5:QE:16:THR:HB	1.65	0.79
25:RA:2808:U:O2	25:RA:2892:A:N6	2.15	0.79
30:RG:61:ALA:HB2	30:RG:68:PRO:CD	2.12	0.79
31:RH:10:PRO:O	31:RH:11:VAL:HG13	1.80	0.79
9:XI:15:ALA:HB2	9:XI:65:VAL:HG23	1.65	0.79
12:XL:6:THR:N	12:XL:9:GLN:HE21	1.80	0.79
26:YB:40:U:H3	26:YB:43:C:H5"	1.45	0.79
2:QB:212:GLN:CD	2:QB:235:SER:HB2	2.03	0.79
9:QI:19:LEU:HD23	9:QI:61:ALA:HB2	1.63	0.79
11:QK:124:LYS:HD2	11:QK:125:PHE:HE1	1.45	0.79
25:RA:384:U:H2'	25:RA:385:C:H6	1.48	0.79
25:RA:404:C:O2'	25:RA:405:U:OP2	1.98	0.79
27:RD:54:ARG:NH1	27:RD:54:ARG:HG3	1.98	0.79
28:RE:137:HIS:HB3	28:RE:138:PRO:HD2	1.65	0.79
31:RH:126:PRO:CG	31:RH:127:GLU:H	1.96	0.79
36:RQ:81:VAL:O	36:RQ:82:ARG:CG	2.31	0.79
39:RT:102:ILE:HA	39:RT:105:LEU:CD2	2.13	0.79
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.17	0.79
31:YH:126:PRO:CG	31:YH:127:GLU:H	1.95	0.79
31:YH:169:VAL:HG22	31:YH:170:ARG:H	1.48	0.79
35:YP:65:ARG:HG3	35:YP:65:ARG:NH1	1.90	0.79
36:YQ:81:VAL:O	36:YQ:82:ARG:CG	2.31	0.79
40:YU:105:VAL:HG22	41:YV:44:LYS:HD2	1.65	0.79
28:RE:111:ARG:HE	28:RE:160:TYR:HE1	1.31	0.79
31:RH:86:GLU:CG	31:RH:165:ALA:H	1.94	0.79
25:RA:2562:U:O2'	34:RO:23:ARG:NH1	2.15	0.79
35:RP:59:LEU:HA	35:RP:61:ARG:HH21	1.44	0.79
8:XH:20:TYR:HA	8:XH:65:TYR:CE2	2.18	0.79
18:XR:43:PHE:HE2	18:XR:58:LEU:HD11	1.47	0.79
28:YE:24:THR:HG21	28:YE:188:VAL:CG1	2.13	0.79
30:YG:77:ILE:HD13	30:YG:82:LEU:HD12	1.65	0.79
31:YH:26:VAL:HG13	31:YH:27:LYS:N	1.96	0.79
35:YP:14:LYS:O	35:YP:16:ARG:HG2	1.83	0.79
39:YT:62:THR:CG2	39:YT:75:ILE:HG12	2.11	0.79
25:RA:900:A:H3'	25:RA:901:A:H8	1.48	0.79
27:RD:68:LYS:HB2	27:RD:70:TRP:CH2	2.17	0.79
34:RO:31:LYS:HG3	34:RO:32:TYR:CE2	2.17	0.79
1:XA:448:A:OP2	1:XA:485:G:N2	2.16	0.79
12:XL:86:ARG:HB2	12:XL:101:VAL:HG22	1.62	0.79
25:YA:1490:A:O2'	27:YD:99:ASP:OD2	2.01	0.79

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:83:G:HO2'	25:YA:84:A:H8	0.84	0.79
1:QA:673:G:H2'	1:QA:674:G:C8	2.17	0.79
20:QT:89:ARG:HH21	20:QT:104:LEU:HD21	1.47	0.79
25:RA:2451:A:C6	56:Z6:76:PPU:HE2	2.18	0.79
33:RN:43:THR:HB	33:RN:46:VAL:HG12	1.63	0.79
20:XT:100:ILE:HG13	20:XT:102:GLY:H	1.48	0.79
49:Y3:56:VAL:HG12	49:Y3:57:GLU:H	1.48	0.79
25:YA:583:G:H5''	40:YU:10:ARG:HH12	1.48	0.79
25:YA:583:G:OP2	40:YU:10:ARG:NH1	2.15	0.79
27:YD:17:THR:CG2	27:YD:205:VAL:H	1.96	0.79
39:YT:102:ILE:HA	39:YT:105:LEU:CD2	2.13	0.79
44:YY:86:ARG:HB2	44:YY:95:LYS:HD2	1.64	0.79
1:QA:1312:G:H5''	50:R4:67:TYR:OH	1.82	0.79
19:QS:41:VAL:HG12	19:QS:44:MET:N	1.98	0.79
25:RA:1021:A:H62	25:RA:1141:U:H3	1.29	0.79
35:RP:97:PRO:O	35:RP:98:GLU:HB3	1.83	0.79
1:XA:686:U:O4	1:XA:703:G:O2'	2.00	0.79
4:XD:28:SER:HB3	4:XD:29:PRO:HD2	1.65	0.79
13:XM:121:LYS:NZ	24:XY:39:C:O2'	2.16	0.79
47:Y1:11:ARG:NH1	47:Y1:11:ARG:HB3	1.98	0.79
25:YA:2636:U:OP1	28:YE:79:ARG:HA	1.82	0.79
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.47	0.79
8:QH:20:TYR:HA	8:QH:65:TYR:CE2	2.18	0.79
18:QR:56:THR:HB	18:QR:58:LEU:CD1	2.13	0.79
20:QT:50:GLU:HG3	20:QT:51:GLU:N	1.97	0.79
1:XA:1497:G:H2'	1:XA:1498:U:H5'	1.64	0.79
1:XA:703:G:O2'	1:XA:704:A:OP2	2.01	0.79
25:YA:1210:A:H5'	25:YA:1210:A:H8	1.48	0.79
25:YA:2368:C:H2'	25:YA:2369:A:H8	1.46	0.79
31:YH:153:LYS:CG	31:YH:162:ILE:H	1.96	0.79
13:QM:65:LYS:HZ3	50:R4:52:THR:HG21	1.48	0.78
25:RA:102:G:OP2	48:R2:7:ARG:NH2	2.16	0.78
25:RA:873:G:H1	25:RA:904:C:H42	1.30	0.78
40:RU:105:VAL:HG22	41:RV:44:LYS:HD2	1.65	0.78
1:XA:987:G:H1	1:XA:1218:C:H42	1.31	0.78
13:XM:3:ARG:CA	13:XM:9:ILE:HG21	2.12	0.78
18:XR:56:THR:HB	18:XR:58:LEU:CD1	2.13	0.78
19:XS:41:VAL:HG12	19:XS:44:MET:N	1.98	0.78
31:YH:150:ALA:O	31:YH:152:ARG:N	2.14	0.78
35:YP:47:ASP:OD2	35:YP:49:ARG:HG2	1.82	0.78
12:QL:6:THR:N	12:QL:9:GLN:HE21	1.80	0.78
25:RA:1820:U:C2	27:RD:202:LYS:HB3	2.18	0.78

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:62:VAL:HG12	33:RN:66:LYS:HD2	1.65	0.78
33:RN:71:ILE:HG21	33:RN:84:LYS:HB3	1.65	0.78
1:XA:601:C:O2	1:XA:637:G:N2	2.14	0.78
1:XA:837:G:H1	1:XA:849:C:H42	1.31	0.78
3:XC:138:VAL:HG13	3:XC:149:ALA:HB1	1.64	0.78
9:XI:83:ARG:O	9:XI:86:VAL:HG12	1.84	0.78
50:Y4:58:ARG:O	50:Y4:63:TYR:HB2	1.84	0.78
25:YA:1019:U:HO2'	25:YA:1021:A:H2	1.31	0.78
43:YX:70:LEU:N	43:YX:70:LEU:HD23	1.98	0.78
10:QJ:40:LEU:HB2	10:QJ:69:ASN:HB3	1.65	0.78
47:R1:11:ARG:NH1	47:R1:11:ARG:HB3	1.98	0.78
36:RQ:119:ARG:HH11	36:RQ:119:ARG:HG2	1.48	0.78
1:XA:970:C:N4	9:XI:128:ARG:OXT	2.16	0.78
27:YD:27:THR:HG21	27:YD:83:GLU:HB3	1.63	0.78
34:YO:97:ARG:H	34:YO:117:LEU:HD22	1.48	0.78
40:YU:90:VAL:HG12	40:YU:91:ASP:N	1.98	0.78
4:QD:28:SER:HB2	4:QD:29:PRO:CD	2.14	0.78
7:QG:113:GLU:HB2	7:QG:119:ARG:HG2	1.66	0.78
25:RA:1278:A:H61	25:RA:1292:U:H3	1.30	0.78
27:RD:54:ARG:HH11	27:RD:54:ARG:HG3	1.49	0.78
30:RG:61:ALA:HB2	30:RG:68:PRO:HD3	1.65	0.78
36:RQ:80:GLU:O	36:RQ:81:VAL:CG1	2.30	0.78
10:XJ:16:LEU:HD23	10:XJ:94:VAL:HG13	1.66	0.78
25:YA:102:G:OP2	48:Y2:7:ARG:NH2	2.16	0.78
34:YO:53:LYS:HD2	34:YO:53:LYS:N	1.96	0.78
36:YQ:59:ARG:HD3	36:YQ:59:ARG:H	1.48	0.78
2:QB:84:GLU:HB3	2:QB:219:VAL:HG21	1.66	0.78
11:QK:32:ILE:CD1	11:QK:72:ALA:HB2	2.12	0.78
35:RP:138:LEU:C	35:RP:140:ALA:H	1.85	0.78
36:RQ:20:ALA:HB1	36:RQ:99:PRO:HB2	1.65	0.78
43:RX:70:LEU:HD23	43:RX:70:LEU:N	1.99	0.78
28:YE:137:HIS:HB3	28:YE:138:PRO:HD2	1.64	0.78
13:QM:4:ILE:H	13:QM:9:ILE:HG21	1.47	0.78
49:R3:56:VAL:HG12	49:R3:57:GLU:H	1.48	0.78
29:RF:20:LEU:HD12	29:RF:21:ALA:H	1.49	0.78
1:QA:346:G:OP1	39:RT:41:ARG:NH2	2.16	0.78
40:RU:90:VAL:HG12	40:RU:91:ASP:N	1.97	0.78
1:XA:951:G:OP2	13:XM:102:ARG:NH2	2.16	0.78
27:YD:54:ARG:HG3	27:YD:54:ARG:NH1	1.98	0.78
41:YV:47:VAL:HG13	41:YV:48:GLY:H	1.49	0.78
1:QA:1277:C:HO2'	1:QA:1279:A:H8	1.30	0.78
1:QA:1338:G:H21	22:QV:41:C:H1'	1.47	0.78

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:30:LYS:HD3	4:QD:30:LYS:N	1.98	0.78
5:QE:11:ILE:CD1	5:QE:31:LEU:HD12	2.13	0.78
25:RA:1187:G:H5''	41:RV:81:TYR:CE2	2.19	0.78
27:RD:94:LEU:HD22	27:RD:95:LEU:N	1.98	0.78
31:RH:153:LYS:CG	31:RH:162:ILE:H	1.96	0.78
1:XA:1008:C:H42	1:XA:1021:G:H1	1.32	0.78
1:XA:546:G:HO2'	1:XA:548:G:HO2'	1.27	0.78
30:YG:97:ASP:H	30:YG:100:TRP:HD1	1.31	0.78
3:QC:181:ASN:ND2	3:QC:204:LEU:HD12	1.99	0.78
9:QI:15:ALA:HB2	9:QI:65:VAL:HG23	1.65	0.78
26:RB:8:U:H3	26:RB:112:G:H1	1.32	0.78
34:RO:47:ILE:HD12	34:RO:48:PRO:HD2	1.66	0.78
44:RY:86:ARG:HB2	44:RY:95:LYS:HD2	1.64	0.78
13:XM:88:ARG:CB	13:XM:88:ARG:HH11	1.95	0.78
30:YG:128:ARG:HG3	30:YG:128:ARG:HH21	1.49	0.78
2:QB:122:PHE:HD1	2:QB:139:LYS:HZ1	1.30	0.78
2:QB:18:GLY:H	2:QB:42:ILE:CG2	1.95	0.78
18:QR:43:PHE:HE2	18:QR:58:LEU:HD11	1.47	0.78
25:RA:2197:U:H1'	25:RA:2198:A:C8	2.17	0.78
27:RD:142:VAL:HG23	27:RD:193:VAL:HA	1.66	0.78
30:RG:145:THR:HG23	50:R4:28:LYS:HZ1	1.49	0.78
35:RP:19:VAL:HG22	35:RP:20:GLY:N	1.97	0.78
27:YD:34:VAL:HG21	27:YD:103:ARG:HA	1.66	0.78
1:QA:953:G:O6	1:QA:1228:C:N4	2.13	0.78
2:QB:178:ARG:CD	8:QH:71:GLY:C	2.53	0.78
10:QJ:16:LEU:HD23	10:QJ:94:VAL:HG13	1.66	0.78
1:QA:1318:A:H4'	19:QS:11:VAL:HG11	1.66	0.78
25:RA:380:U:H2'	25:RA:381:G:H8	1.48	0.78
25:RA:855:G:H1	25:RA:922:U:H3	1.28	0.78
27:RD:35:LYS:HZ1	27:RD:104:TYR:HB2	1.48	0.78
28:RE:24:THR:HG21	28:RE:188:VAL:CG1	2.13	0.78
32:RI:4:ILE:HD11	32:RI:44:LEU:HD12	1.65	0.78
35:RP:75:ILE:HD13	35:RP:75:ILE:N	1.99	0.78
38:RS:106:ARG:HA	38:RS:110:LEU:HD21	1.64	0.78
6:XF:24:GLU:HA	6:XF:27:GLN:CG	2.14	0.78
1:XA:1347:G:C8	9:XI:107:ARG:HB3	2.19	0.78
25:YA:1013:C:H42	25:YA:1149:G:H1	1.32	0.78
25:YA:102:G:HO2'	25:YA:103:A:P	2.06	0.78
27:YD:94:LEU:HD22	27:YD:95:LEU:N	1.98	0.78
28:YE:4:ILE:HD12	28:YE:28:ALA:HB1	1.67	0.78
2:QB:101:MET:CA	2:QB:108:ILE:HG13	2.11	0.77
54:R8:59:LYS:HZ2	54:R8:59:LYS:HB2	1.48	0.77

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:25:THR:O	27:RD:27:THR:N	2.17	0.77
29:RF:29:ASN:H	29:RF:112:MET:CE	1.97	0.77
35:RP:62:LEU:CD2	35:RP:62:LEU:N	2.46	0.77
40:RU:66:ASN:O	40:RU:70:ARG:HB2	1.84	0.77
2:XB:239:VAL:HG12	2:XB:240:GLN:NE2	1.99	0.77
7:XG:113:GLU:HB2	7:XG:119:ARG:HG2	1.65	0.77
19:XS:68:GLY:HA3	50:Y4:68:ARG:HB2	1.65	0.77
29:YF:145:GLU:HG3	29:YF:145:GLU:O	1.81	0.77
20:QT:100:ILE:HG13	20:QT:102:GLY:H	1.48	0.77
52:R6:15:GLU:CD	52:R6:41:PRO:HB3	2.04	0.77
27:RD:17:THR:CG2	27:RD:205:VAL:H	1.96	0.77
30:RG:128:ARG:HG3	30:RG:128:ARG:HH21	1.48	0.77
25:YA:1026:U:H4'	25:YA:1027:A:OP1	1.85	0.77
34:YO:47:ILE:HD12	34:YO:48:PRO:HD2	1.66	0.77
35:YP:84:ASN:ND2	35:YP:116:GLY:HA3	1.99	0.77
6:QF:23:LYS:O	6:QF:27:GLN:HG2	1.85	0.77
6:QF:24:GLU:HA	6:QF:27:GLN:CG	2.14	0.77
46:R0:68:GLU:HG2	46:R0:80:HIS:HB2	1.66	0.77
30:RG:127:GLY:HA2	30:RG:166:ASP:CG	2.05	0.77
42:RW:65:LEU:CD1	42:RW:68:ARG:HH11	1.97	0.77
2:XB:21:ARG:HG3	2:XB:38:GLY:C	2.05	0.77
9:XI:53:VAL:HB	9:XI:95:LYS:HE3	1.67	0.77
13:XM:15:VAL:HG23	13:XM:43:THR:O	1.84	0.77
29:YF:20:LEU:HD12	29:YF:21:ALA:H	1.49	0.77
30:YG:127:GLY:HA2	30:YG:166:ASP:CG	2.05	0.77
38:YS:106:ARG:HA	38:YS:110:LEU:HD21	1.64	0.77
40:YU:66:ASN:O	40:YU:70:ARG:HB2	1.84	0.77
25:YA:138:G:N2	43:YX:44:GLU:OE2	2.15	0.77
1:QA:1105:A:H2'	1:QA:1106:G:H8	1.48	0.77
2:QB:239:VAL:HG12	2:QB:240:GLN:NE2	1.99	0.77
50:R4:22:ILE:O	50:R4:24:THR:HG23	1.84	0.77
25:RA:222:A:O2'	25:RA:223:A:O5'	2.01	0.77
28:RE:4:ILE:HD12	28:RE:28:ALA:HB1	1.67	0.77
31:RH:150:ALA:O	31:RH:152:ARG:N	2.14	0.77
35:RP:84:ASN:ND2	35:RP:116:GLY:HA3	1.99	0.77
1:XA:359:U:H2'	1:XA:360:A:C8	2.18	0.77
47:Y1:13:ILE:HD11	47:Y1:42:GLN:OE1	1.84	0.77
25:YA:2347:C:H5	25:YA:2382:G:H1'	1.49	0.77
25:YA:2788:C:O2'	25:YA:2809:A:N3	2.18	0.77
27:YD:25:THR:HG22	27:YD:82:ILE:H	1.46	0.77
29:YF:11:VAL:HB	29:YF:18:ARG:HG3	1.64	0.77
31:YH:132:ARG:HB2	31:YH:132:ARG:NH1	1.95	0.77

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:YH:152:ARG:HG3	31:YH:153:LYS:CE	2.13	0.77
33:YN:71:ILE:HG21	33:YN:84:LYS:HB3	1.65	0.77
1:QA:999:U:H2'	1:QA:1000:A:H8	1.49	0.77
2:QB:21:ARG:HG3	2:QB:38:GLY:C	2.05	0.77
2:QB:44:LEU:HD12	2:QB:44:LEU:H	1.48	0.77
1:QA:951:G:OP2	13:QM:102:ARG:NH2	2.18	0.77
35:RP:114:ILE:HD11	35:RP:130:PHE:CE1	2.19	0.77
2:XB:84:GLU:HB3	2:XB:219:VAL:HG21	1.65	0.77
37:YR:74:LYS:O	37:YR:75:LEU:HB3	1.84	0.77
17:QQ:41:LYS:NZ	17:QQ:92:ARG:HH22	1.82	0.77
17:QQ:59:ILE:HD13	17:QQ:59:ILE:H	1.50	0.77
50:R4:58:ARG:O	50:R4:63:TYR:HB2	1.84	0.77
27:RD:146:GLU:HB2	27:RD:189:CYS:HB3	1.67	0.77
39:RT:43:GLN:HG2	39:RT:44:ASP:N	1.99	0.77
44:RY:97:ARG:HH21	44:RY:98:VAL:CB	1.98	0.77
2:XB:44:LEU:H	2:XB:44:LEU:HD12	1.48	0.77
25:YA:1045:A:N3	25:YA:1047:G:N2	2.33	0.77
25:YA:189:G:H2'	25:YA:205:G:H22	1.50	0.77
4:QD:9:CYS:SG	4:QD:22:LYS:HD2	2.25	0.77
25:RA:2208:U:H1'	27:RD:151:LYS:HE2	1.66	0.77
44:RY:79:CYS:SG	44:RY:80:GLY:N	2.57	0.77
1:XA:377:G:OP1	16:XP:5:ARG:NH1	2.17	0.77
20:XT:89:ARG:HH21	20:XT:104:LEU:HD21	1.47	0.77
51:Y5:40:LYS:CD	51:Y5:46:CYS:HB3	2.15	0.77
52:Y6:15:GLU:CD	52:Y6:41:PRO:HB3	2.04	0.77
25:YA:1728:G:N1	25:YA:1730:U:OP2	2.17	0.77
36:YQ:119:ARG:HH11	36:YQ:119:ARG:HG2	1.48	0.77
44:YY:79:CYS:SG	44:YY:80:GLY:N	2.57	0.77
1:QA:1286:A:H2'	1:QA:1287:A:H4'	1.66	0.77
8:QH:100:ILE:HB	8:QH:125:ARG:HH12	1.47	0.77
47:R1:13:ILE:HD11	47:R1:42:GLN:OE1	1.84	0.77
47:R1:86:SER:N	47:R1:87:PRO:CD	2.48	0.77
25:RA:1833:U:O2'	25:RA:1969:A:N1	2.17	0.77
4:XD:20:TYR:CD2	4:XD:27:TYR:HE2	2.01	0.77
20:XT:13:LEU:HD12	20:XT:14:LYS:N	2.00	0.77
25:YA:2086:U:H2'	25:YA:2087:G:C8	2.20	0.77
29:YF:183:VAL:O	29:YF:187:VAL:HG23	1.85	0.77
36:YQ:20:ALA:CB	36:YQ:99:PRO:HD2	2.14	0.77
42:YW:65:LEU:CD1	42:YW:68:ARG:HH11	1.97	0.77
1:QA:1206:G:O2'	3:QC:192:THR:O	2.01	0.77
4:QD:76:ARG:HD2	4:QD:207:TYR:CE2	2.20	0.77
13:QM:88:ARG:CB	13:QM:88:ARG:HH11	1.95	0.77

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:QP:6:LEU:HB3	16:QP:17:TYR:HD2	1.50	0.77
31:RH:153:LYS:HA	31:RH:153:LYS:NZ	1.99	0.77
34:RO:97:ARG:H	34:RO:117:LEU:HD22	1.48	0.77
44:RY:44:ILE:HG13	44:RY:45:VAL:N	2.00	0.77
1:XA:923:A:O2'	1:XA:1399:C:OP2	2.02	0.77
5:XE:11:ILE:CD1	5:XE:31:LEU:HD12	2.13	0.77
50:Y4:22:ILE:O	50:Y4:24:THR:HG23	1.84	0.77
27:YD:44:ASN:N	27:YD:44:ASN:HD22	1.79	0.77
42:YW:18:ARG:HG3	42:YW:76:VAL:CG1	2.15	0.77
1:QA:346:G:H1'	1:QA:347:G:H5'	1.67	0.77
1:QA:514:C:N4	1:QA:537:G:O6	2.18	0.77
2:QB:187:LEU:HA	2:QB:201:ILE:HB	1.65	0.77
50:R4:1:MET:HB2	50:R4:6:HIS:NE2	2.00	0.77
25:RA:2562:U:H1'	34:RO:23:ARG:NH1	2.00	0.77
29:RF:183:VAL:O	29:RF:187:VAL:HG23	1.85	0.77
36:RQ:66:ILE:HG13	36:RQ:67:ARG:N	2.00	0.77
38:RS:60:GLY:O	38:RS:61:ASN:HB3	1.84	0.77
4:XD:76:ARG:HD2	4:XD:207:TYR:CE2	2.20	0.77
6:XF:23:LYS:O	6:XF:27:GLN:HG2	1.84	0.77
14:XN:25:VAL:HG22	14:XN:38:GLY:O	1.84	0.77
19:XS:39:THR:HG22	19:XS:40:ILE:H	1.50	0.77
25:YA:363(B):G:H2'	25:YA:363(C):G:C8	2.19	0.77
27:YD:25:THR:O	27:YD:27:THR:N	2.17	0.77
38:YS:60:GLY:O	38:YS:61:ASN:HB3	1.84	0.77
5:QE:12:LEU:HD23	5:QE:13:ILE:N	2.00	0.76
7:QG:148:ASN:HD22	7:QG:148:ASN:N	1.82	0.76
20:QT:26:ASN:O	20:QT:30:LYS:HB2	1.86	0.76
36:RQ:20:ALA:CB	36:RQ:99:PRO:HD2	2.14	0.76
4:XD:30:LYS:C	4:XD:32:ALA:N	2.36	0.76
50:Y4:1:MET:HB2	50:Y4:6:HIS:NE2	2.00	0.76
27:YD:153:ALA:O	27:YD:154:LYS:HG3	1.85	0.76
35:YP:138:LEU:C	35:YP:140:ALA:H	1.85	0.76
1:QA:108:G:H5''	1:QA:109:A:H5''	1.68	0.76
5:QE:72:GLN:NE2	5:QE:144:THR:HG22	2.00	0.76
25:RA:498:G:N3	44:RY:47:LYS:NZ	2.30	0.76
1:XA:1055:A:O2'	3:XC:161:GLU:OE2	2.02	0.76
5:XE:42:GLY:HA3	5:XE:66:MET:HG2	1.67	0.76
49:Y3:35:ARG:HB3	49:Y3:37:LEU:HD21	1.66	0.76
25:YA:2364:C:OP1	46:Y0:55:ARG:NH1	2.18	0.76
30:YG:61:ALA:HB2	30:YG:68:PRO:HD3	1.65	0.76
35:YP:114:ILE:HD11	35:YP:130:PHE:CE1	2.19	0.76
36:YQ:59:ARG:H	36:YQ:59:ARG:CD	1.99	0.76

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1152:A:H2'	1:QA:1153:C:C6	2.21	0.76
5:QE:42:GLY:HA3	5:QE:66:MET:HG2	1.68	0.76
9:QI:83:ARG:O	9:QI:86:VAL:HG12	1.84	0.76
37:RR:33:ARG:HH22	51:R5:55:ARG:HG2	1.51	0.76
25:RA:693:C:O2	25:RA:769:G:N2	2.15	0.76
7:XG:79:ARG:HH22	7:XG:82:GLY:HA2	1.51	0.76
48:Y2:47:ASN:H	48:Y2:47:ASN:HD22	1.33	0.76
54:Y8:59:LYS:HZ2	54:Y8:59:LYS:HB2	1.48	0.76
25:YA:465:G:H21	25:YA:684:G:H1'	1.50	0.76
31:YH:153:LYS:HA	31:YH:153:LYS:NZ	2.00	0.76
1:QA:255:G:H2'	1:QA:256:U:C6	2.21	0.76
13:QM:15:VAL:HG23	13:QM:43:THR:O	1.84	0.76
27:RD:153:ALA:O	27:RD:154:LYS:HG3	1.85	0.76
30:RG:127:GLY:O	30:RG:128:ARG:HG2	1.85	0.76
36:RQ:90:VAL:HG13	36:RQ:91:GLU:H	1.49	0.76
40:RU:88:ILE:HG22	40:RU:90:VAL:HG23	1.67	0.76
44:RY:97:ARG:NH2	44:RY:98:VAL:HB	2.01	0.76
30:YG:127:GLY:O	30:YG:128:ARG:HG2	1.85	0.76
33:YN:62:VAL:HG12	33:YN:66:LYS:HD2	1.65	0.76
36:YQ:66:ILE:HG13	36:YQ:67:ARG:N	2.00	0.76
44:YY:94:LYS:O	44:YY:101:LYS:HB3	1.85	0.76
44:YY:95:LYS:HB3	44:YY:100:ALA:CA	2.10	0.76
49:R3:35:ARG:HB3	49:R3:37:LEU:HD21	1.66	0.76
25:RA:1264:G:H3'	25:RA:1265:A:H5''	1.67	0.76
30:RG:101:ILE:HG13	30:RG:102:PHE:H	1.48	0.76
5:XE:53:LEU:CD1	5:XE:53:LEU:H	1.99	0.76
30:YG:142:PRO:HB2	50:Y4:31:ILE:HD13	1.68	0.76
34:YO:104:ARG:HH11	34:YO:104:ARG:HG2	1.50	0.76
1:QA:625:G:H2'	1:QA:626:U:H6	1.50	0.76
21:QU:10:ARG:HG2	21:QU:13:ILE:HD12	1.68	0.76
25:RA:242:G:H5''	54:R8:3:LYS:HE3	1.67	0.76
25:RA:1454:U:H5'	37:RR:63:ARG:HE	1.50	0.76
25:RA:2119:A:N6	25:RA:2170:A:N7	2.34	0.76
27:RD:34:VAL:HG21	27:RD:103:ARG:HA	1.66	0.76
27:RD:44:ASN:HD22	27:RD:44:ASN:N	1.79	0.76
25:RA:338:G:OP1	44:RY:4:LYS:NZ	2.17	0.76
44:RY:81:LYS:HD3	44:RY:97:ARG:NE	2.01	0.76
1:XA:1125:U:OP2	1:XA:1145:C:N4	2.18	0.76
25:YA:363(B):G:H2'	25:YA:363(C):G:H8	1.51	0.76
36:YQ:20:ALA:HB1	36:YQ:99:PRO:HB2	1.65	0.76
1:QA:1512:U:H2'	1:QA:1513:A:H8	1.50	0.76
13:QM:77:ASN:CG	50:R4:71:ARG:NH1	2.39	0.76

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:R6:34:LEU:HD13	52:R6:34:LEU:H	1.50	0.76
55:R9:1:MET:HB3	55:R9:4:ARG:NH1	2.01	0.76
31:RH:169:VAL:HG22	31:RH:170:ARG:H	1.48	0.76
4:XD:9:CYS:SG	4:XD:22:LYS:HD2	2.25	0.76
9:XI:113:LYS:HD2	9:XI:113:LYS:H	1.51	0.76
28:YE:111:ARG:HE	28:YE:160:TYR:HE1	1.31	0.76
29:YF:101:LEU:CD1	29:YF:102:PRO:HD2	2.11	0.76
36:YQ:90:VAL:HG13	36:YQ:91:GLU:H	1.49	0.76
42:YW:73:ALA:HB3	42:YW:106:ILE:HG12	1.68	0.76
44:YY:81:LYS:HD3	44:YY:97:ARG:NE	2.00	0.76
10:QJ:38:ILE:HG12	10:QJ:71:LEU:O	1.86	0.76
47:R1:56:GLN:N	47:R1:56:GLN:NE2	2.34	0.76
27:RD:69:ARG:HH21	27:RD:130:ALA:CB	1.99	0.76
37:RR:74:LYS:O	37:RR:75:LEU:HB3	1.84	0.76
3:XC:59:ARG:HH22	3:XC:97:LYS:HE3	1.51	0.76
10:XJ:38:ILE:HG12	10:XJ:71:LEU:O	1.86	0.76
29:YF:29:ASN:H	29:YF:112:MET:CE	1.98	0.76
35:YP:97:PRO:O	35:YP:98:GLU:HB3	1.83	0.76
3:QC:59:ARG:HH22	3:QC:97:LYS:HE3	1.51	0.76
4:QD:153:ARG:NH1	4:QD:181:MET:HG3	2.00	0.76
6:QF:91:VAL:HG13	18:QR:72:ARG:HH12	1.51	0.76
8:QH:5:PRO:O	8:QH:8:ASP:HB3	1.85	0.76
13:QM:50:GLU:OE1	50:R4:32:TYR:CE2	2.39	0.76
51:R5:47:PRO:O	51:R5:48:GLU:HG3	1.86	0.76
7:XG:37:ASN:ND2	9:XI:40:LEU:HD23	2.00	0.76
4:QD:166:LYS:CG	27:YD:135:PHE:HZ	1.99	0.76
30:YG:76:SER:OG	30:YG:83:ARG:HA	1.85	0.76
31:YH:125:VAL:HA	31:YH:126:PRO:HB3	1.68	0.76
35:YP:62:LEU:CD2	35:YP:62:LEU:N	2.46	0.76
39:YT:111:ARG:O	39:YT:113:LYS:N	2.17	0.76
1:QA:1081:G:P	5:QE:16:THR:OG1	2.44	0.76
5:QE:11:ILE:HD11	5:QE:31:LEU:CD1	2.16	0.76
16:QP:22:THR:HA	16:QP:33:ILE:HG12	1.66	0.76
50:R4:34:GLU:HG3	50:R4:35:VAL:H	1.51	0.76
19:QS:2:PRO:HB2	50:R4:68:ARG:HH22	1.51	0.76
26:RB:24:G:N3	26:RB:27:C:N4	2.32	0.76
30:RG:76:SER:OG	30:RG:83:ARG:HA	1.85	0.76
34:RO:104:ARG:HG2	34:RO:104:ARG:HH11	1.50	0.76
1:XA:1109:C:OP2	3:XC:176:HIS:ND1	2.19	0.76
5:XE:36:ASP:OD2	5:XE:38:GLN:HB2	1.86	0.76
17:XQ:41:LYS:NZ	17:XQ:92:ARG:HH22	1.82	0.76
47:Y1:86:SER:N	47:Y1:87:PRO:CD	2.48	0.76

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1416:G:O2'	25:YA:1417:C:O5'	2.04	0.76
25:YA:566:U:OP1	35:YP:29:LYS:HE2	1.87	0.76
27:YD:69:ARG:HH21	27:YD:130:ALA:CB	1.99	0.76
28:YE:63:LEU:CD1	28:YE:65:GLY:H	1.99	0.76
29:YF:29:ASN:HB3	29:YF:112:MET:HE1	1.68	0.76
30:YG:101:ILE:HG13	30:YG:102:PHE:H	1.49	0.76
20:QT:13:LEU:HD12	20:QT:14:LYS:N	2.00	0.75
22:QV:1:C:O4'	46:R0:5:LYS:CE	2.34	0.75
51:R5:40:LYS:CD	51:R5:46:CYS:HB3	2.15	0.75
2:XB:117:GLU:O	2:XB:121:LEU:HB2	1.86	0.75
5:XE:12:LEU:HD23	5:XE:13:ILE:N	2.00	0.75
16:XP:22:THR:HA	16:XP:33:ILE:HG12	1.66	0.75
16:XP:6:LEU:HB3	16:XP:17:TYR:HD2	1.50	0.75
50:Y4:34:GLU:HG3	50:Y4:35:VAL:H	1.51	0.75
52:Y6:34:LEU:HD13	52:Y6:34:LEU:H	1.50	0.75
25:YA:1820:U:C2	27:YD:202:LYS:HB3	2.21	0.75
39:YT:50:ILE:HD12	39:YT:102:ILE:HD11	1.68	0.75
1:QA:18:C:H5''	5:QE:127:ASN:HD21	1.49	0.75
1:QA:961:U:O2	1:QA:1201:A:N6	2.15	0.75
1:QA:1069:C:O2'	5:QE:25:ARG:NH1	2.18	0.75
5:QE:53:LEU:CD1	5:QE:53:LEU:H	1.99	0.75
7:QG:37:ASN:ND2	9:QI:40:LEU:HD23	2.00	0.75
9:QI:53:VAL:HB	9:QI:95:LYS:HE3	1.67	0.75
14:QN:43:CYS:O	14:QN:44:LEU:C	2.22	0.75
18:QR:53:ARG:HH21	18:QR:60:ALA:N	1.84	0.75
25:RA:2529:G:O6	55:R9:31:LYS:NZ	2.17	0.75
29:RF:129:PHE:HA	29:RF:142:TRP:NE1	2.02	0.75
31:RH:152:ARG:HG3	31:RH:153:LYS:CE	2.14	0.75
8:XH:5:PRO:O	8:XH:8:ASP:HB3	1.86	0.75
54:Y8:59:LYS:HZ3	54:Y8:59:LYS:CB	1.98	0.75
27:YD:142:VAL:HG23	27:YD:193:VAL:HA	1.66	0.75
28:YE:23:VAL:HG21	28:YE:183:LEU:HD23	1.69	0.75
28:YE:36:ARG:HH21	28:YE:88:GLY:HA2	1.51	0.75
30:YG:3:LEU:HD12	30:YG:4:ASP:H	1.51	0.75
1:QA:407:G:O6	1:QA:435:C:N4	2.18	0.75
8:QH:91:ARG:HH11	8:QH:91:ARG:HG2	1.52	0.75
14:QN:22:THR:O	14:QN:23:ARG:HB2	1.86	0.75
54:R8:59:LYS:HZ3	54:R8:59:LYS:CB	1.98	0.75
10:XJ:40:LEU:HB2	10:XJ:69:ASN:HB3	1.65	0.75
25:YA:2056:G:N2	51:Y5:4:HIS:O	2.19	0.75
25:YA:155:C:N4	25:YA:171:G:O6	2.18	0.75
44:YY:44:ILE:HG13	44:YY:45:VAL:N	2.00	0.75

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:475:G:H2'	1:QA:476:G:H8	1.50	0.75
30:RG:142:PRO:HB2	50:R4:31:ILE:HD13	1.68	0.75
25:RA:1167:U:O2	25:RA:1183:G:N2	2.19	0.75
40:RU:52:ARG:HG2	40:RU:52:ARG:HH11	1.50	0.75
1:XA:669:U:O4	1:XA:737:A:N6	2.19	0.75
4:XD:153:ARG:NH1	4:XD:181:MET:HG3	2.00	0.75
16:XP:43:LYS:HG2	16:XP:48:TRP:CE3	2.22	0.75
25:YA:2310:A:H62	30:YG:77:ILE:HG21	1.51	0.75
25:YA:2399:G:O6	25:YA:2417:C:N4	2.13	0.75
34:YO:47:ILE:CD1	34:YO:48:PRO:HD2	2.16	0.75
35:YP:62:LEU:HD21	54:Y8:25:MET:HB2	1.69	0.75
40:YU:92:ARG:HH11	40:YU:95:LEU:CD1	2.00	0.75
41:YV:52:VAL:HG21	41:YV:55:ALA:HB3	1.68	0.75
44:YY:97:ARG:HH21	44:YY:98:VAL:CB	1.98	0.75
11:QK:48:ILE:HD11	11:QK:64:ALA:HA	1.67	0.75
30:RG:3:LEU:HD12	30:RG:4:ASP:H	1.52	0.75
41:RV:15:GLU:O	41:RV:18:LEU:HB2	1.86	0.75
13:XM:49:THR:HG22	13:XM:51:ALA:N	2.01	0.75
25:YA:484:C:H2'	25:YA:485:C:H6	1.51	0.75
40:YU:88:ILE:HG22	40:YU:90:VAL:HG23	1.67	0.75
1:QA:15:G:H2'	1:QA:16:A:C8	2.22	0.75
1:QA:745:C:H2'	1:QA:746:A:H8	1.52	0.75
2:QB:117:GLU:O	2:QB:121:LEU:HB2	1.86	0.75
4:QD:26:CYS:HA	4:QD:31:CYS:HB2	1.67	0.75
20:QT:35:THR:O	20:QT:39:LYS:HG3	1.86	0.75
20:QT:58:LYS:HE3	20:QT:62:LEU:HD11	1.69	0.75
31:RH:150:ALA:C	31:RH:152:ARG:H	1.88	0.75
35:RP:62:LEU:HD21	54:R8:25:MET:HB2	1.69	0.75
41:RV:47:VAL:HG13	41:RV:48:GLY:H	1.49	0.75
44:RY:94:LYS:O	44:RY:101:LYS:HB3	1.85	0.75
19:XS:3:ARG:HG3	19:XS:4:SER:H	1.52	0.75
55:Y9:1:MET:HB3	55:Y9:4:ARG:NH1	2.02	0.75
25:YA:918:A:N3	26:YB:80:U:O2'	2.19	0.75
35:YP:75:ILE:N	35:YP:75:ILE:HD13	2.00	0.75
39:YT:43:GLN:HG2	39:YT:44:ASP:N	1.99	0.75
41:YV:51:VAL:HG12	41:YV:52:VAL:H	1.52	0.75
43:YX:57:LEU:HD11	43:YX:78:LYS:HB2	1.68	0.75
1:QA:1200:C:H1'	1:QA:1204:A:H61	1.50	0.75
1:QA:1342:C:H4'	9:QI:125:TYR:HB3	1.69	0.75
10:QJ:27:ALA:HB1	10:QJ:34:VAL:HG21	1.69	0.75
19:QS:41:VAL:HG12	19:QS:44:MET:H	1.50	0.75
47:R1:3:LYS:HD3	47:R1:43:TYR:HD2	1.52	0.75

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:247:G:O6	54:R8:12:LYS:NZ	2.15	0.75
25:RA:2593:U:H2'	25:RA:2594:C:H6	1.51	0.75
25:RA:305:U:H2'	25:RA:306:U:C6	2.22	0.75
25:RA:481:G:O6	25:RA:509:C:N4	2.14	0.75
31:RH:153:LYS:HG2	31:RH:162:ILE:H	1.52	0.75
44:RY:90:LEU:N	44:RY:90:LEU:HD22	2.02	0.75
1:XA:606:G:N2	1:XA:631:G:H8	1.85	0.75
20:XT:58:LYS:HE3	20:XT:62:LEU:HD11	1.69	0.75
47:Y1:80:LEU:O	47:Y1:81:LYS:CB	2.35	0.75
25:YA:1812:A:H2'	25:YA:1813:G:H8	1.51	0.75
27:YD:146:GLU:HB2	27:YD:189:CYS:HB3	1.67	0.75
44:YY:90:LEU:HD22	44:YY:90:LEU:N	2.01	0.75
44:YY:97:ARG:NH2	44:YY:98:VAL:HB	2.01	0.75
5:QE:45:PHE:CE2	5:QE:47:LYS:HD2	2.22	0.75
25:RA:2701:C:H3'	25:RA:2702:U:C5'	2.14	0.75
37:RR:73:VAL:O	37:RR:76:VAL:HG12	1.87	0.75
7:XG:148:ASN:N	7:XG:148:ASN:HD22	1.82	0.75
11:XK:48:ILE:HD11	11:XK:64:ALA:HA	1.67	0.75
18:XR:53:ARG:HH21	18:XR:60:ALA:N	1.84	0.75
47:Y1:56:GLN:N	47:Y1:56:GLN:NE2	2.34	0.75
37:YR:33:ARG:HH22	51:Y5:55:ARG:HG2	1.51	0.75
29:YF:7:TYR:HB3	29:YF:21:ALA:CB	2.16	0.75
41:YV:35:LEU:H	41:YV:35:LEU:HD22	1.51	0.75
12:QL:10:LEU:CD1	17:QQ:32:TYR:CE2	2.69	0.75
1:XA:64:G:N2	1:XA:68:G:O6	2.17	0.75
2:XB:101:MET:CA	2:XB:108:ILE:HG13	2.11	0.75
5:XE:72:GLN:NE2	5:XE:144:THR:HG22	2.01	0.75
7:XG:23:VAL:HG12	7:XG:27:ILE:HD11	1.69	0.75
7:XG:9:VAL:HG13	7:XG:94:ARG:HE	1.52	0.75
8:XH:91:ARG:HH11	8:XH:91:ARG:HG2	1.51	0.75
21:XU:10:ARG:HG2	21:XU:13:ILE:HD12	1.68	0.75
47:Y1:81:LYS:CA	47:Y1:81:LYS:NZ	2.30	0.75
51:Y5:47:PRO:O	51:Y5:48:GLU:HG3	1.86	0.75
25:YA:265:A:O2'	25:YA:266:G:H4'	1.87	0.75
25:YA:559:G:H22	40:YU:49:HIS:CE1	2.04	0.75
1:QA:1154:G:H2'	1:QA:1155:G:H8	1.51	0.74
15:QO:87:ILE:HG22	15:QO:88:ARG:N	2.00	0.74
19:QS:39:THR:HG22	19:QS:40:ILE:H	1.50	0.74
25:RA:2068:U:H3	25:RA:2430:A:H2	1.32	0.74
25:RA:2636:U:OP2	28:RE:79:ARG:NH1	2.20	0.74
25:RA:746:A:O2'	25:RA:747:U:OP2	2.04	0.74
28:RE:63:LEU:CD1	28:RE:65:GLY:H	1.99	0.74

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:97:ASP:H	30:RG:100:TRP:HD1	1.31	0.74
25:RA:2745:C:O2	31:RH:139:GLN:NE2	2.20	0.74
25:RA:587:C:OP2	35:RP:21:ARG:NH2	2.20	0.74
39:RT:111:ARG:O	39:RT:113:LYS:N	2.17	0.74
40:RU:92:ARG:HH11	40:RU:95:LEU:CD1	2.00	0.74
41:RV:52:VAL:HG21	41:RV:55:ALA:HB3	1.68	0.74
25:YA:1532:C:N4	25:YA:1539:G:O6	2.18	0.74
25:YA:2439:A:H5'	25:YA:2439:A:C8	2.22	0.74
31:YH:150:ALA:C	31:YH:152:ARG:H	1.88	0.74
37:YR:73:VAL:O	37:YR:76:VAL:HG12	1.87	0.74
42:YW:40:ASN:O	42:YW:41:LYS:HG2	1.86	0.74
1:QA:1316:G:OP1	14:QN:17:LYS:NZ	2.17	0.74
13:QM:3:ARG:CA	13:QM:9:ILE:HG21	2.13	0.74
25:RA:77:C:O3'	48:R2:14:ARG:NH2	2.20	0.74
28:RE:36:ARG:HH21	28:RE:88:GLY:HA2	1.51	0.74
1:XA:1226:C:OP2	13:XM:103:THR:OG1	2.00	0.74
1:XA:128:G:O2'	17:XQ:3:LYS:NZ	2.19	0.74
20:XT:26:ASN:O	20:XT:30:LYS:HB2	1.85	0.74
25:YA:577:G:O2'	25:YA:1254:A:OP1	2.05	0.74
28:YE:61:ARG:HB2	28:YE:62:PRO:HD3	1.69	0.74
1:QA:1081:G:P	5:QE:16:THR:HG1	2.09	0.74
9:QI:113:LYS:H	9:QI:113:LYS:HD2	1.51	0.74
16:QP:43:LYS:HG2	16:QP:48:TRP:CE3	2.22	0.74
25:RA:196:A:OP2	35:RP:46:LYS:NZ	2.21	0.74
38:RS:83:LYS:HZ2	38:RS:109:GLY:HA2	1.49	0.74
42:RW:18:ARG:HG3	42:RW:76:VAL:CG1	2.15	0.74
42:RW:40:ASN:O	42:RW:41:LYS:HG2	1.87	0.74
1:XA:1366:C:H2'	1:XA:1367:C:H6	1.53	0.74
1:XA:243:A:N6	1:XA:281:G:O2'	2.20	0.74
5:XE:10:MET:CB	5:XE:32:VAL:HG22	2.18	0.74
19:XS:41:VAL:HG12	19:XS:44:MET:H	1.50	0.74
27:YD:30:GLU:HG3	27:YD:63:ARG:CZ	2.17	0.74
39:YT:78:LEU:HD13	39:YT:78:LEU:O	1.87	0.74
44:YY:51:VAL:HG13	44:YY:52:SER:N	2.02	0.74
1:QA:359:U:H2'	1:QA:360:A:C8	2.23	0.74
1:QA:569:C:N4	1:QA:881:G:O6	2.19	0.74
10:QJ:33:GLN:O	10:QJ:75:ILE:HG12	1.87	0.74
50:R4:71:ARG:NH1	50:R4:71:ARG:HG3	1.90	0.74
29:RF:7:TYR:HB3	29:RF:21:ALA:CB	2.16	0.74
32:RI:12:LEU:HG	32:RI:19:VAL:HG11	1.69	0.74
38:RS:62:LYS:HB3	38:RS:97:ARG:HD3	1.69	0.74
1:XA:1177:G:OP2	9:XI:97:LYS:NZ	2.20	0.74

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:XP:43:LYS:O	16:XP:45:THR:N	2.21	0.74
17:XQ:59:ILE:HD13	17:XQ:59:ILE:H	1.50	0.74
25:YA:1103:A:H5'	25:YA:1104:C:C5	2.21	0.74
27:YD:54:ARG:HG3	27:YD:54:ARG:HH11	1.49	0.74
15:QO:70:LEU:O	15:QO:70:LEU:HD12	1.88	0.74
47:R1:26:ARG:O	47:R1:26:ARG:HD2	1.86	0.74
28:RE:201:THR:HG22	28:RE:203:LYS:HB3	1.69	0.74
34:RO:26:LYS:HB2	34:RO:30:ALA:CB	2.18	0.74
43:RX:57:LEU:HD11	43:RX:78:LYS:HB2	1.68	0.74
1:XA:1313:U:OP2	50:Y4:67:TYR:OH	2.03	0.74
3:XC:181:ASN:ND2	3:XC:204:LEU:HD12	1.99	0.74
7:XG:78:ARG:HH12	7:XG:80:VAL:HG23	1.52	0.74
25:YA:2846:G:H2'	25:YA:2847:U:C6	2.22	0.74
29:YF:136:THR:HG22	29:YF:166:ALA:O	1.87	0.74
36:YQ:79:LEU:CD2	36:YQ:79:LEU:O	2.36	0.74
38:YS:36:TYR:CD2	38:YS:52:SER:HB3	2.23	0.74
40:YU:52:ARG:HH11	40:YU:52:ARG:HG2	1.51	0.74
2:QB:47:THR:O	2:QB:51:LEU:HG	1.87	0.74
7:QG:23:VAL:HG12	7:QG:27:ILE:HD11	1.69	0.74
13:QM:37:THR:HG21	13:QM:39:ILE:HD11	1.68	0.74
48:R2:47:ASN:HD22	48:R2:47:ASN:H	1.33	0.74
25:RA:859:G:O2'	25:RA:860:U:O2	2.06	0.74
39:RT:50:ILE:HD12	39:RT:102:ILE:HD11	1.68	0.74
1:XA:1343:G:H2'	1:XA:1344:C:C6	2.22	0.74
6:XF:91:VAL:HG13	18:XR:72:ARG:HH12	1.51	0.74
23:XX:2:U:C2'	23:XX:3:G:H5'	2.17	0.74
49:Y3:7:LYS:HB2	49:Y3:34:GLU:HG2	1.69	0.74
2:QB:115:LEU:HD13	2:QB:145:LEU:HB3	1.68	0.74
7:QG:9:VAL:HG13	7:QG:94:ARG:HE	1.53	0.74
29:RF:136:THR:HG22	29:RF:166:ALA:O	1.87	0.74
1:XA:191:G:C4	20:XT:105:SER:HB3	2.23	0.74
5:XE:72:GLN:HE21	5:XE:144:THR:HG22	1.53	0.74
25:YA:1509:C:H3'	25:YA:1510:A:H5''	1.70	0.74
25:YA:271(B):G:H8	25:YA:271(B):G:H5''	1.52	0.74
33:YN:96:GLU:HG2	33:YN:97:ARG:N	2.01	0.74
1:QA:156:G:H1	1:QA:165:C:H42	1.35	0.74
2:QB:168:THR:HB	2:QB:192:SER:HB2	1.70	0.74
4:QD:91:SER:HA	4:QD:94:LEU:HD13	1.70	0.74
5:QE:10:MET:CB	5:QE:32:VAL:HG22	2.18	0.74
23:QX:2:U:C2'	23:QX:3:G:H5'	2.17	0.74
25:RA:1792:G:N2	25:RA:1827:C:O2	2.20	0.74
33:RN:1:MET:HE1	40:RU:95:LEU:HD21	1.70	0.74

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:RW:73:ALA:HB3	42:RW:106:ILE:HG12	1.68	0.74
1:XA:971:G:H5''	1:XA:972:C:H5''	1.67	0.74
4:XD:25:ARG:HH12	4:XD:30:LYS:HG3	1.52	0.74
6:XF:19:LEU:HD23	6:XF:19:LEU:O	1.88	0.74
20:XT:35:THR:O	20:XT:39:LYS:HG3	1.87	0.74
25:YA:1903:G:OP2	27:YD:241:PRO:HB2	1.87	0.74
25:YA:2443:C:H2'	25:YA:2444:G:C8	2.23	0.74
25:YA:2723:C:OP1	37:YR:3:HIS:ND1	2.20	0.74
29:YF:129:PHE:HA	29:YF:142:TRP:NE1	2.02	0.74
31:YH:153:LYS:HG2	31:YH:162:ILE:H	1.52	0.74
39:YT:26:ASP:HB3	39:YT:91:ARG:HA	1.69	0.74
40:YU:64:ARG:HH21	40:YU:64:ARG:CG	2.00	0.74
3:QC:86:VAL:O	3:QC:89:GLU:HB3	1.88	0.74
6:QF:19:LEU:HD23	6:QF:19:LEU:O	1.87	0.74
14:QN:40:CYS:SG	14:QN:42:ILE:HB	2.27	0.74
25:RA:1468:C:O2	25:RA:1524:G:N2	2.19	0.74
25:RA:1791:A:N6	25:RA:1828:G:O2'	2.19	0.74
25:RA:270(D):C:O2	25:RA:270(V):G:N2	2.19	0.74
25:RA:2818:G:O6	25:RA:2828:C:N4	2.19	0.74
27:RD:77:ALA:CB	27:RD:97:TYR:HA	2.18	0.74
34:RO:47:ILE:CD1	34:RO:48:PRO:HD2	2.16	0.74
35:RP:50:ARG:NH2	35:RP:50:ARG:HB3	1.98	0.74
10:XJ:27:ALA:HB1	10:XJ:34:VAL:HG21	1.69	0.74
10:XJ:33:GLN:O	10:XJ:75:ILE:HG12	1.88	0.74
13:XM:37:THR:HG21	13:XM:39:ILE:HD11	1.68	0.74
47:Y1:26:ARG:O	47:Y1:26:ARG:HD2	1.86	0.74
25:YA:1187:G:H5''	41:YV:81:TYR:CE2	2.23	0.74
38:YS:83:LYS:HZ1	38:YS:109:GLY:HA2	1.49	0.74
39:YT:54:ARG:HH11	39:YT:54:ARG:HG2	1.52	0.74
33:YN:1:MET:HE1	40:YU:95:LEU:HD21	1.70	0.74
1:QA:750:G:N2	15:QO:23:GLY:O	2.18	0.74
47:R1:80:LEU:O	47:R1:81:LYS:CB	2.35	0.74
49:R3:29:ARG:HB2	49:R3:29:ARG:HH11	1.52	0.74
51:R5:2:ALA:O	51:R5:3:LYS:HB2	1.88	0.74
25:RA:2006:C:O2'	25:RA:2823:A:N3	2.18	0.74
36:RQ:79:LEU:CD1	36:RQ:79:LEU:O	2.35	0.74
41:RV:35:LEU:H	41:RV:35:LEU:HD22	1.51	0.74
42:RW:70:TYR:HD2	42:RW:70:TYR:H	1.36	0.74
44:RY:52:SER:OG	44:RY:53:PRO:HD3	1.88	0.74
1:XA:1152:A:OP1	10:XJ:68:HIS:NE2	2.20	0.74
49:Y3:29:ARG:HH11	49:Y3:29:ARG:HB2	1.53	0.74
50:Y4:41:PRO:O	50:Y4:42:PHE:HB3	1.87	0.74

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:851:U:H1'	49:Y3:46:ASN:HD21	1.53	0.74
27:YD:131:LEU:HB2	27:YD:136:ILE:CD1	2.17	0.74
28:YE:78:LEU:HG	28:YE:79:ARG:NE	2.03	0.74
31:YH:153:LYS:HG3	31:YH:161:GLY:CA	2.18	0.74
41:YV:15:GLU:O	41:YV:18:LEU:HB2	1.86	0.74
7:QG:79:ARG:HH22	7:QG:82:GLY:HA2	1.50	0.73
1:QA:375:U:H4'	16:QP:17:TYR:HE2	1.53	0.73
25:RA:305:U:H2'	25:RA:306:U:H6	1.52	0.73
28:RE:77:ILE:HD12	28:RE:78:LEU:H	1.52	0.73
38:RS:36:TYR:CD2	38:RS:52:SER:HB3	2.23	0.73
25:YA:993:G:OP1	40:YU:50:ARG:NH2	2.20	0.73
3:QC:134:ILE:HD11	3:QC:153:VAL:HG21	1.70	0.73
10:QJ:3:LYS:HD2	10:QJ:77:PRO:HD3	1.70	0.73
47:R1:76:ARG:HG2	47:R1:76:ARG:HH11	1.53	0.73
25:RA:1795:C:O2	27:RD:255:LYS:HE2	1.88	0.73
25:RA:1050:A:H8	25:RA:2751:G:HO2'	1.35	0.73
39:RT:23:ARG:HB2	39:RT:24:PRO:HD2	1.70	0.73
44:RY:95:LYS:HB3	44:RY:100:ALA:CA	2.10	0.73
3:XC:134:ILE:HD11	3:XC:153:VAL:HG21	1.70	0.73
5:XE:45:PHE:CE2	5:XE:47:LYS:HD2	2.22	0.73
15:XO:70:LEU:HD12	15:XO:70:LEU:O	1.88	0.73
25:YA:751:A:OP1	57:YA:3027:MG:MG	1.31	0.73
26:YB:15:A:H5'	26:YB:16:G:C8	2.22	0.73
34:YO:26:LYS:HB2	34:YO:30:ALA:CB	2.18	0.73
25:RA:2582:G:H21	25:RA:2583:G:H1'	1.51	0.73
33:RN:58:ASP:H	33:RN:60:ILE:HD11	1.53	0.73
35:RP:62:LEU:HD22	35:RP:62:LEU:H	1.53	0.73
41:RV:51:VAL:HG12	41:RV:52:VAL:H	1.52	0.73
1:XA:939:G:H5''	7:XG:102:ARG:HH22	1.52	0.73
2:XB:47:THR:O	2:XB:51:LEU:HG	1.87	0.73
2:XB:8:LYS:N	2:XB:8:LYS:HD3	2.03	0.73
25:YA:2655:G:O2'	25:YA:2656:U:OP2	2.05	0.73
39:YT:102:ILE:HB	39:YT:110:ILE:CD1	2.19	0.73
1:QA:1104:G:H4'	2:QB:111:ARG:NH1	2.03	0.73
25:RA:1490:A:O2'	27:RD:99:ASP:OD2	2.06	0.73
29:RF:29:ASN:HB3	29:RF:112:MET:HE1	1.68	0.73
29:RF:9:ILE:HD11	29:RF:125:LEU:HG	1.70	0.73
40:RU:64:ARG:CG	40:RU:64:ARG:HH21	2.00	0.73
14:XN:32:SER:O	14:XN:41:ARG:N	2.22	0.73
14:XN:44:LEU:CD1	14:XN:53:LEU:CD1	2.66	0.73
25:YA:1454:U:H5'	37:YR:63:ARG:NE	1.99	0.73
1:XA:1443:G:N2	25:YA:2864:G:OP1	2.19	0.73

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:YZ:10:ARG:NH2	45:YZ:26:GLY:O	2.20	0.73
45:YZ:5:LEU:HD11	45:YZ:39:VAL:HB	1.69	0.73
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.21	0.73
25:RA:270(R):G:N3	47:R1:78:LYS:NZ	2.36	0.73
25:RA:1728:G:H3'	25:RA:1729:A:H5''	1.69	0.73
25:RA:270(L):U:H2'	32:RI:50:ARG:HD2	1.71	0.73
25:RA:270(U):C:H2'	25:RA:270(V):G:H8	1.54	0.73
28:RE:61:ARG:HB2	28:RE:62:PRO:HD3	1.69	0.73
32:RI:64:GLU:O	32:RI:67:ARG:NH2	2.21	0.73
25:YA:2071:A:H2'	25:YA:2072:G:H8	1.53	0.73
25:YA:2777:G:OP2	25:YA:2781:A:O2'	2.06	0.73
16:QP:45:THR:HG23	16:QP:46:PRO:HD2	1.70	0.73
50:R4:41:PRO:O	50:R4:42:PHE:HB3	1.87	0.73
28:RE:23:VAL:HG21	28:RE:183:LEU:HD23	1.68	0.73
31:RH:84:SER:O	31:RH:85:LYS:HB2	1.89	0.73
33:RN:96:GLU:HG2	33:RN:97:ARG:N	2.01	0.73
36:YQ:79:LEU:CD1	36:YQ:79:LEU:O	2.35	0.73
1:QA:474:G:H2'	1:QA:475:G:C8	2.24	0.73
49:R3:7:LYS:HB2	49:R3:34:GLU:HG2	1.69	0.73
27:RD:30:GLU:HG3	27:RD:63:ARG:CZ	2.17	0.73
28:RE:203:LYS:O	28:RE:203:LYS:HD2	1.89	0.73
1:XA:295:C:O2	1:XA:302:G:N2	2.20	0.73
1:XA:891:U:H2'	1:XA:892:A:H8	1.54	0.73
3:XC:86:VAL:O	3:XC:89:GLU:HB3	1.87	0.73
4:XD:146:ILE:N	4:XD:146:ILE:HD12	2.04	0.73
8:XH:20:TYR:HD1	8:XH:65:TYR:CD2	2.07	0.73
15:XO:87:ILE:HG22	15:XO:88:ARG:N	2.00	0.73
16:XP:60:LEU:HA	16:XP:64:ALA:HB3	1.71	0.73
25:YA:2864:G:OP1	39:YT:119:LYS:HD2	1.88	0.73
30:YG:7:LEU:HD21	30:YG:176:LEU:HD22	1.70	0.73
1:QA:1077:G:N2	1:QA:1080:A:OP2	2.19	0.73
2:QB:132:LYS:HA	2:QB:135:GLN:HB2	1.71	0.73
2:QB:195:ASP:O	8:QH:74:PRO:HG3	1.88	0.73
25:RA:2477:C:H2'	55:R9:1:MET:HG3	1.70	0.73
25:RA:2439:A:H5'	25:RA:2439:A:C8	2.23	0.73
31:RH:153:LYS:HG3	31:RH:161:GLY:CA	2.18	0.73
50:Y4:29:PRO:O	50:Y4:30:GLU:HB2	1.89	0.73
51:Y5:40:LYS:CE	51:Y5:46:CYS:HB3	2.19	0.73
27:YD:77:ALA:CB	27:YD:97:TYR:HA	2.18	0.73
28:YE:77:ILE:HD12	28:YE:78:LEU:H	1.52	0.73
38:YS:62:LYS:HB3	38:YS:97:ARG:HD3	1.68	0.73
1:QA:1078:U:O2'	5:QE:130:ASN:OD1	2.05	0.73

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:QM:121:LYS:HE2	13:QM:121:LYS:HA	1.71	0.73
20:QT:50:GLU:HG3	20:QT:51:GLU:H	1.54	0.73
25:RA:709:U:H3	25:RA:722:A:H61	1.36	0.73
27:RD:131:LEU:HB2	27:RD:136:ILE:CD1	2.17	0.73
31:RH:125:VAL:HA	31:RH:126:PRO:HB3	1.68	0.73
36:RQ:90:VAL:CG1	36:RQ:91:GLU:H	2.02	0.73
39:RT:26:ASP:HB3	39:RT:91:ARG:HA	1.69	0.73
2:XB:75:LYS:O	2:XB:75:LYS:HD3	1.89	0.73
18:XR:56:THR:HB	18:XR:58:LEU:HD12	1.71	0.73
48:Y2:29:LYS:HD3	48:Y2:57:ILE:HD13	1.71	0.73
25:YA:704:G:H2'	25:YA:726:G:N2	2.04	0.73
25:YA:1279:G:H4'	37:YR:31:HIS:HD2	1.53	0.73
25:RA:259:G:O2'	25:RA:621:A:O2'	2.07	0.73
28:RE:55:ASN:C	28:RE:57:LYS:H	1.91	0.73
40:RU:34:LYS:HA	40:RU:34:LYS:HE2	1.70	0.73
1:XA:1239:A:H62	1:XA:1299:A:N6	1.87	0.73
3:XC:13:GLY:HA3	14:XN:57:ARG:NH2	2.04	0.73
54:Y8:16:ILE:HD11	54:Y8:57:ARG:HG2	1.70	0.73
54:Y8:61:LEU:O	54:Y8:62:LEU:HB2	1.88	0.73
25:YA:71:A:H4'	25:YA:72:U:H5''	1.70	0.73
28:YE:203:LYS:HD2	28:YE:203:LYS:O	1.88	0.73
33:YN:58:ASP:H	33:YN:60:ILE:HD11	1.53	0.73
37:YR:3:HIS:O	37:YR:5:LYS:N	2.22	0.73
1:QA:1298:C:O2'	1:QA:1299:A:OP2	2.05	0.72
11:QK:48:ILE:HD12	11:QK:63:LEU:HB3	1.71	0.72
12:QL:126:LYS:HB2	12:QL:126:LYS:NZ	2.04	0.72
31:RH:54:ARG:HH12	31:RH:62:LYS:HG2	1.54	0.72
1:XA:1296:C:HO2'	1:XA:1302:U:H5	1.35	0.72
13:XM:65:LYS:NZ	50:Y4:52:THR:HG21	2.04	0.72
52:Y6:13:CYS:HA	52:Y6:50:ARG:O	1.89	0.72
27:YD:35:LYS:HZ1	27:YD:65:ILE:HA	1.52	0.72
28:YE:55:ASN:C	28:YE:57:LYS:H	1.91	0.72
30:YG:146:TYR:O	30:YG:149:VAL:HG22	1.89	0.72
1:QA:1329:A:P	13:QM:28:ALA:HB3	2.30	0.72
3:QC:13:GLY:HA3	14:QN:57:ARG:NH2	2.04	0.72
4:QD:30:LYS:HB2	4:QD:35:ARG:HG3	1.70	0.72
7:QG:78:ARG:HH12	7:QG:80:VAL:HG23	1.52	0.72
19:QS:3:ARG:HG3	19:QS:4:SER:H	1.52	0.72
48:R2:27:GLU:OE1	48:R2:27:GLU:N	2.19	0.72
51:R5:40:LYS:CE	51:R5:46:CYS:HB3	2.19	0.72
25:RA:2394:C:OP1	35:RP:63:PRO:HD2	1.90	0.72
26:RB:4:C:N3	26:RB:117:G:N2	2.36	0.72

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:13:ARG:HA	28:RE:22:PRO:HA	1.71	0.72
28:RE:56:PRO:O	28:RE:57:LYS:HB2	1.89	0.72
29:RF:157:VAL:HB	29:RF:194:MET:HB3	1.70	0.72
2:XB:115:LEU:HD13	2:XB:145:LEU:HB3	1.69	0.72
6:XF:77:ARG:HB2	6:XF:77:ARG:HH11	1.53	0.72
16:XP:20:VAL:HG21	16:XP:32:TYR:CG	2.24	0.72
49:Y3:56:VAL:HG12	49:Y3:57:GLU:N	2.04	0.72
25:YA:1068:G:O2'	25:YA:1096:A:N3	2.22	0.72
25:YA:2848:G:O2'	25:YA:2867:G:N2	2.23	0.72
26:YB:40:U:H1'	26:YB:45:A:H61	1.54	0.72
25:YA:2729:G:H1'	28:YE:187:ALA:HB2	1.69	0.72
33:YN:89:LYS:O	33:YN:93:THR:HG22	1.90	0.72
35:YP:88:LEU:C	35:YP:90:ARG:H	1.92	0.72
38:YS:83:LYS:HG2	38:YS:109:GLY:N	2.04	0.72
44:YY:52:SER:OG	44:YY:53:PRO:HD3	1.88	0.72
4:QD:146:ILE:N	4:QD:146:ILE:HD12	2.04	0.72
6:QF:25:ILE:HD13	6:QF:28:ARG:NH1	2.05	0.72
25:RA:2893:G:H5''	25:RA:2894:G:H5'	1.71	0.72
29:RF:101:LEU:CD1	29:RF:102:PRO:HD2	2.11	0.72
30:RG:146:TYR:O	30:RG:149:VAL:HG22	1.88	0.72
31:RH:30:LYS:HD2	31:RH:81:GLU:H	1.54	0.72
1:QA:1446:A:N3	39:RT:118:ARG:HD2	2.04	0.72
25:YA:1019:U:H3	25:YA:1142(A):A:N6	1.86	0.72
25:YA:890:A:HO2'	25:YA:892:G:H8	1.34	0.72
31:YH:125:VAL:HG12	31:YH:126:PRO:HG3	1.71	0.72
31:YH:152:ARG:O	31:YH:153:LYS:HD2	1.90	0.72
35:YP:126:VAL:CG1	35:YP:147:LEU:HD21	2.17	0.72
37:YR:117:VAL:HG22	37:YR:118:GLU:N	2.05	0.72
40:YU:98:LEU:HD23	40:YU:99:ALA:N	2.04	0.72
16:QP:72:ARG:HD3	16:QP:72:ARG:C	2.10	0.72
31:RH:80:SER:O	31:RH:81:GLU:HB2	1.89	0.72
20:XT:47:GLY:O	20:XT:49:ALA:N	2.19	0.72
54:Y8:29:LYS:HD3	54:Y8:44:LYS:HB2	1.71	0.72
25:YA:1485:G:O6	25:YA:1504:C:N4	2.17	0.72
25:YA:2026:C:O2	25:YA:2037:G:N2	2.12	0.72
25:YA:330:A:HO2'	25:YA:331:A:H8	1.35	0.72
26:YB:42:C:O4'	30:YG:69:ALA:HB2	1.88	0.72
31:YH:132:ARG:CB	31:YH:132:ARG:HH11	1.97	0.72
36:YQ:90:VAL:CG1	36:YQ:91:GLU:H	2.02	0.72
41:YV:39:LEU:O	41:YV:40:LEU:HD23	1.90	0.72
1:QA:1213:A:N6	1:QA:1215:G:N3	2.38	0.72
4:QD:30:LYS:HG3	4:QD:35:ARG:HE	1.52	0.72

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:72:VAL:CG2	6:QF:90:VAL:HG11	2.20	0.72
15:QO:71:GLN:HB2	15:QO:78:TYR:CD1	2.25	0.72
47:R1:80:LEU:HB2	47:R1:81:LYS:HE2	1.71	0.72
25:RA:593:G:H2'	25:RA:594:U:H6	1.53	0.72
28:RE:78:LEU:HG	28:RE:79:ARG:NE	2.03	0.72
34:RO:113:LYS:HG2	34:RO:117:LEU:HD11	1.71	0.72
35:RP:127:ALA:C	35:RP:147:LEU:HD23	2.10	0.72
1:XA:1353:G:N2	1:XA:1369:C:O2	2.17	0.72
1:XA:474:G:H2'	1:XA:475:G:H8	1.55	0.72
2:XB:21:ARG:O	2:XB:23:ARG:HD3	1.89	0.72
8:XH:41:ARG:HH11	8:XH:41:ARG:CB	2.03	0.72
16:XP:72:ARG:HD3	16:XP:72:ARG:C	2.10	0.72
51:Y5:58:LEU:CD1	51:Y5:60:VAL:HG12	2.19	0.72
25:YA:2394:C:OP1	35:YP:63:PRO:HD2	1.89	0.72
25:YA:2443:C:H2'	25:YA:2444:G:H8	1.53	0.72
25:YA:299:A:H5'	25:YA:300:A:OP2	1.88	0.72
28:YE:21:VAL:HB	28:YE:22:PRO:CB	2.18	0.72
29:YF:124:LEU:HD12	29:YF:125:LEU:N	2.04	0.72
38:YS:26:LEU:O	38:YS:26:LEU:HD23	1.90	0.72
38:YS:83:LYS:C	38:YS:109:GLY:HA3	2.10	0.72
5:QE:36:ASP:OD2	5:QE:38:GLN:HB2	1.86	0.72
20:QT:27:LYS:O	20:QT:30:LYS:HB3	1.89	0.72
20:QT:97:ALA:O	20:QT:99:LEU:HD13	1.89	0.72
35:RP:88:LEU:C	35:RP:90:ARG:H	1.92	0.72
36:RQ:79:LEU:HD22	36:RQ:79:LEU:C	2.07	0.72
38:RS:103:GLU:O	38:RS:106:ARG:HG3	1.90	0.72
39:RT:117:ASP:O	39:RT:121:ILE:HG13	1.89	0.72
1:XA:1094:G:O2'	1:XA:1095:U:OP2	2.05	0.72
20:XT:97:ALA:O	20:XT:99:LEU:HD13	1.89	0.72
53:Y7:10:ARG:O	53:Y7:14:LYS:HB2	1.89	0.72
37:YR:85:PRO:O	37:YR:87:TYR:N	2.22	0.72
28:YE:14:ILE:HD11	39:YT:14:TYR:OH	1.90	0.72
1:QA:1311:G:N2	1:QA:1326:C:O2	2.19	0.72
1:QA:872:A:O2'	1:QA:873:A:H5"	1.90	0.72
15:QO:79:ARG:O	15:QO:82:ILE:HG22	1.89	0.72
53:R7:10:ARG:O	53:R7:14:LYS:HB2	1.90	0.72
28:RE:28:ALA:HB3	28:RE:93:VAL:HG22	1.72	0.72
39:RT:78:LEU:HD13	39:RT:78:LEU:O	1.87	0.72
45:RZ:102:LEU:HD11	45:RZ:124:ILE:HG22	1.71	0.72
1:XA:1439:C:H42	1:XA:1462:G:H1	1.37	0.72
3:XC:16:ARG:NH1	3:XC:16:ARG:HB2	2.04	0.72
4:XD:91:SER:HA	4:XD:94:LEU:HD13	1.70	0.72

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:XJ:3:LYS:HD2	10:XJ:77:PRO:HD3	1.70	0.72
12:XL:126:LYS:NZ	12:XL:126:LYS:HB2	2.04	0.72
47:Y1:3:LYS:HD3	47:Y1:43:TYR:HD2	1.52	0.72
25:YA:102:G:O2'	25:YA:103:A:OP2	2.06	0.72
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.25	0.72
6:QF:77:ARG:HB2	6:QF:77:ARG:HH11	1.53	0.72
1:QA:1177:G:OP2	9:QI:97:LYS:NZ	2.23	0.72
1:QA:192:U:H4'	20:QT:103:GLY:HA2	1.71	0.72
49:R3:56:VAL:HG12	49:R3:57:GLU:N	2.04	0.72
54:R8:16:ILE:HD11	54:R8:57:ARG:HG2	1.70	0.72
25:RA:2289:G:N2	25:RA:2344:U:O2	2.22	0.72
29:RF:124:LEU:HD12	29:RF:125:LEU:N	2.05	0.72
29:RF:32:LEU:O	29:RF:32:LEU:HD12	1.90	0.72
31:RH:26:VAL:CG1	31:RH:27:LYS:H	2.02	0.72
35:RP:114:ILE:HD13	35:RP:125:VAL:HG21	1.72	0.72
35:RP:29:LYS:HD2	35:RP:30:THR:HG22	1.72	0.72
38:RS:42:ASP:O	38:RS:43:GLU:HB2	1.90	0.72
39:RT:54:ARG:HG2	39:RT:54:ARG:HH11	1.52	0.72
40:RU:69:CYS:HB3	40:RU:106:PHE:HZ	1.55	0.72
40:RU:66:ASN:HB2	40:RU:76:TYR:HB2	1.72	0.72
40:RU:98:LEU:HD23	40:RU:99:ALA:N	2.04	0.72
1:XA:210:U:O2'	1:XA:216:G:N7	2.23	0.72
16:XP:45:THR:HG23	16:XP:46:PRO:HD2	1.70	0.72
25:YA:2516:G:N2	25:YA:2568:C:O2	2.17	0.72
29:YF:32:LEU:HD12	29:YF:32:LEU:O	1.90	0.72
31:YH:128:PRO:HD2	31:YH:129:THR:H	1.55	0.72
31:YH:54:ARG:HH12	31:YH:62:LYS:HG2	1.54	0.72
39:YT:117:ASP:O	39:YT:121:ILE:HG13	1.89	0.72
5:QE:72:GLN:HE21	5:QE:144:THR:HG22	1.53	0.72
10:QJ:75:ILE:HG13	10:QJ:76:ASN:N	2.05	0.72
10:QJ:98:ILE:H	10:QJ:98:ILE:HD12	1.55	0.72
20:QT:57:ARG:HD3	20:QT:102:GLY:O	1.90	0.72
51:R5:58:LEU:CD1	51:R5:60:VAL:HG12	2.19	0.72
53:R7:5:TRP:NE1	53:R7:7:PRO:HG3	2.04	0.72
25:RA:674:G:O6	25:RA:806:C:N4	2.18	0.72
30:RG:7:LEU:HD21	30:RG:176:LEU:HD22	1.70	0.72
37:RR:117:VAL:HG22	37:RR:118:GLU:N	2.05	0.72
39:RT:57:PHE:C	39:RT:58:ASN:HD22	1.93	0.72
1:XA:107:G:C2	1:XA:108:G:H1'	2.25	0.72
5:XE:76:ILE:HB	5:XE:77:PRO:HD2	1.72	0.72
8:XH:10:LEU:HD23	8:XH:10:LEU:N	2.04	0.72
10:XJ:98:ILE:H	10:XJ:98:ILE:HD12	1.55	0.72

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:Y1:80:LEU:HB2	47:Y1:81:LYS:HE2	1.71	0.72
48:Y2:27:GLU:OE1	48:Y2:27:GLU:N	2.19	0.72
54:Y8:60:LEU:C	54:Y8:63:PRO:HD2	2.10	0.72
25:YA:1788:C:H2'	25:YA:1789:A:H8	1.54	0.72
28:YE:201:THR:HG22	28:YE:203:LYS:HB3	1.69	0.72
29:YF:157:VAL:HB	29:YF:194:MET:HB3	1.70	0.72
31:YH:26:VAL:CG1	31:YH:27:LYS:H	2.02	0.72
35:YP:127:ALA:C	35:YP:147:LEU:HD23	2.10	0.72
40:YU:34:LYS:HE2	40:YU:34:LYS:HA	1.70	0.72
8:QH:20:TYR:HD1	8:QH:65:TYR:CD2	2.07	0.72
52:R6:13:CYS:HA	52:R6:50:ARG:O	1.89	0.72
54:R8:61:LEU:O	54:R8:62:LEU:HB2	1.88	0.72
25:RA:2210:G:H3'	25:RA:2211:G:H8	1.52	0.72
26:RB:40:U:H1'	26:RB:45:A:H61	1.53	0.72
31:RH:89:ILE:CD1	31:RH:129:THR:HB	2.19	0.72
37:RR:85:PRO:O	37:RR:87:TYR:N	2.22	0.72
38:RS:83:LYS:HG2	38:RS:109:GLY:N	2.04	0.72
39:RT:102:ILE:HB	39:RT:110:ILE:CD1	2.19	0.72
44:RY:51:VAL:HG13	44:RY:52:SER:N	2.03	0.72
20:XT:27:LYS:O	20:XT:30:LYS:HB3	1.89	0.72
25:YA:2306:C:H2'	25:YA:2307:G:H21	1.55	0.72
28:YE:56:PRO:O	28:YE:57:LYS:HB2	1.89	0.72
29:YF:32:LEU:HD12	29:YF:32:LEU:C	2.10	0.72
2:QB:187:LEU:HD11	2:QB:204:ASN:O	1.90	0.71
2:QB:21:ARG:O	2:QB:23:ARG:HD3	1.90	0.71
4:QD:25:ARG:HH12	4:QD:30:LYS:HE3	1.55	0.71
25:RA:95:G:O2'	48:R2:48:HIS:ND1	2.22	0.71
25:RA:1080:C:N4	25:RA:1088:A:OP2	2.20	0.71
25:RA:2208:U:O2'	27:RD:151:LYS:HG2	1.90	0.71
29:RF:32:LEU:HD12	29:RF:32:LEU:C	2.10	0.71
36:RQ:79:LEU:O	36:RQ:79:LEU:CD2	2.36	0.71
38:RS:26:LEU:HD23	38:RS:26:LEU:O	1.89	0.71
42:RW:1:MET:HE2	42:RW:2:GLU:H	1.55	0.71
1:XA:372:C:N4	1:XA:389:A:H62	1.88	0.71
10:XJ:5:ARG:HG3	10:XJ:71:LEU:HD11	1.72	0.71
47:Y1:76:ARG:HH11	47:Y1:76:ARG:HG2	1.54	0.71
25:YA:878:A:N6	25:YA:899:A:O2'	2.22	0.71
28:YE:13:ARG:HA	28:YE:22:PRO:HA	1.71	0.71
34:YO:3:GLN:HB2	34:YO:4:PRO:HD2	1.72	0.71
42:YW:70:TYR:H	42:YW:70:TYR:HD2	1.36	0.71
44:YY:57:GLN:HE21	44:YY:58:GLY:H	1.37	0.71
8:QH:10:LEU:N	8:QH:10:LEU:HD23	2.04	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:R2:29:LYS:HD3	48:R2:57:ILE:HD13	1.71	0.71
54:R8:60:LEU:O	54:R8:63:PRO:HD2	1.90	0.71
25:RA:779:U:O2	25:RA:785:G:N1	2.19	0.71
34:RO:3:GLN:HB2	34:RO:4:PRO:HD2	1.72	0.71
40:RU:8:VAL:HG23	40:RU:11:ARG:NH2	1.99	0.71
15:XO:79:ARG:O	15:XO:82:ILE:HG22	1.90	0.71
20:XT:83:ARG:HA	20:XT:86:ARG:HB3	1.71	0.71
47:Y1:80:LEU:C	47:Y1:81:LYS:HE2	2.10	0.71
48:Y2:41:ILE:HD12	48:Y2:41:ILE:C	2.10	0.71
25:YA:363:G:H2'	25:YA:363(A):A:H8	1.54	0.71
28:YE:197:ILE:HD11	28:YE:199:ARG:HH12	1.55	0.71
25:YA:957:A:H5'	36:YQ:76:LYS:HD2	1.72	0.71
38:YS:67:ARG:O	38:YS:71:ARG:HG3	1.89	0.71
25:YA:518:G:C4'	42:YW:18:ARG:HH12	1.96	0.71
1:QA:1069:C:O3'	5:QE:25:ARG:NH1	2.24	0.71
27:RD:244:ARG:HB2	27:RD:245:PRO:HD2	1.71	0.71
28:RE:21:VAL:HB	28:RE:22:PRO:CB	2.18	0.71
28:RE:93:VAL:H	28:RE:95:ILE:HD12	1.54	0.71
31:RH:152:ARG:O	31:RH:153:LYS:HD2	1.90	0.71
37:RR:3:HIS:O	37:RR:5:LYS:N	2.22	0.71
1:XA:701:C:O2'	1:XA:702:A:OP2	2.08	0.71
1:XA:791:G:N2	1:XA:1497:G:O3'	2.23	0.71
2:XB:214:ILE:HA	2:XB:217:ARG:HH21	1.54	0.71
19:XS:40:ILE:HG13	19:XS:44:MET:SD	2.31	0.71
20:XT:63:ILE:HG22	20:XT:77:ALA:HB1	1.73	0.71
51:Y5:2:ALA:O	51:Y5:3:LYS:HB2	1.88	0.71
53:Y7:5:TRP:NE1	53:Y7:7:PRO:HG3	2.04	0.71
54:Y8:58:ILE:HD13	54:Y8:61:LEU:HD11	1.72	0.71
54:Y8:60:LEU:O	54:Y8:63:PRO:HD2	1.90	0.71
25:YA:593:G:O3'	54:Y8:61:LEU:HD22	1.91	0.71
29:YF:9:ILE:HD11	29:YF:125:LEU:HG	1.70	0.71
31:YH:30:LYS:HD2	31:YH:81:GLU:H	1.54	0.71
31:YH:84:SER:O	31:YH:85:LYS:HB2	1.89	0.71
38:YS:103:GLU:O	38:YS:106:ARG:HG3	1.90	0.71
1:QA:41:G:H2'	1:QA:42:G:H8	1.54	0.71
13:QM:49:THR:HG22	13:QM:51:ALA:N	2.01	0.71
19:QS:40:ILE:HG13	19:QS:44:MET:SD	2.30	0.71
28:RE:197:ILE:HD11	28:RE:199:ARG:HH12	1.55	0.71
35:RP:85:LEU:HA	35:RP:88:LEU:HD22	1.71	0.71
41:RV:39:LEU:O	41:RV:40:LEU:HD23	1.90	0.71
6:XF:25:ILE:HD13	6:XF:28:ARG:NH1	2.05	0.71
7:XG:78:ARG:HH12	7:XG:80:VAL:CG2	2.04	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:Y6:28:ARG:HB3	52:Y6:30:THR:H	1.55	0.71
25:YA:1535:U:H5''	25:YA:1537:C:C4	2.26	0.71
29:YF:185:ASP:OD1	29:YF:188:ARG:NH1	2.23	0.71
36:YQ:79:LEU:C	36:YQ:79:LEU:HD22	2.06	0.71
40:YU:69:CYS:HB3	40:YU:106:PHE:HZ	1.55	0.71
1:QA:983:A:N1	1:QA:1222:G:N2	2.38	0.71
10:QJ:5:ARG:HG3	10:QJ:71:LEU:HD11	1.72	0.71
16:QP:43:LYS:O	16:QP:45:THR:N	2.21	0.71
20:QT:83:ARG:HA	20:QT:86:ARG:HB3	1.72	0.71
23:QX:4:C:H2'	23:QX:5:C:H5'	1.72	0.71
25:RA:1397:U:OP2	25:RA:1398:C:N4	2.22	0.71
31:RH:125:VAL:HG12	31:RH:126:PRO:HG3	1.70	0.71
38:RS:67:ARG:O	38:RS:71:ARG:HG3	1.90	0.71
2:XB:168:THR:HB	2:XB:192:SER:HB2	1.70	0.71
35:YP:58:THR:O	35:YP:61:ARG:CZ	2.38	0.71
35:YP:85:LEU:HA	35:YP:88:LEU:HD22	1.71	0.71
2:QB:59:GLU:O	2:QB:62:ALA:HB3	1.90	0.71
5:QE:82:VAL:HG12	5:QE:83:GLU:N	2.06	0.71
10:QJ:49:VAL:HG22	14:QN:41:ARG:HB3	1.59	0.71
16:QP:20:VAL:HG21	16:QP:32:TYR:CG	2.25	0.71
16:QP:60:LEU:HA	16:QP:64:ALA:HB3	1.71	0.71
20:QT:23:ARG:CA	20:QT:26:ASN:HD21	2.03	0.71
35:RP:49:ARG:HD2	54:R8:58:ILE:CG2	2.20	0.71
2:XB:59:GLU:O	2:XB:62:ALA:HB3	1.90	0.71
3:XC:16:ARG:HD2	3:XC:54:ARG:NH2	2.03	0.71
25:YA:270(T):G:H5''	47:Y1:97:LEU:HD22	1.71	0.71
52:Y6:36:LEU:HD13	52:Y6:50:ARG:NH1	2.05	0.71
43:YX:12:VAL:HG12	43:YX:27:THR:O	1.90	0.71
1:QA:41:G:H2'	1:QA:42:G:C8	2.26	0.71
2:QB:75:LYS:HD3	2:QB:75:LYS:O	1.89	0.71
3:QC:16:ARG:HB2	3:QC:16:ARG:NH1	2.04	0.71
1:QA:939:G:H5''	7:QG:102:ARG:NH2	2.04	0.71
7:QG:78:ARG:HH12	7:QG:80:VAL:CG2	2.04	0.71
18:QR:56:THR:HB	18:QR:58:LEU:HD12	1.71	0.71
54:R8:58:ILE:HD13	54:R8:61:LEU:HD11	1.72	0.71
25:RA:135:G:H1	25:RA:144:C:H42	1.36	0.71
25:RA:2443:C:H2'	25:RA:2444:G:H8	1.54	0.71
25:RA:323:G:O2'	25:RA:1205:U:N3	2.23	0.71
33:RN:1:MET:CE	40:RU:95:LEU:HD21	2.21	0.71
35:RP:83:VAL:CG1	35:RP:112:LEU:HD21	2.21	0.71
28:RE:14:ILE:HD11	39:RT:14:TYR:OH	1.90	0.71
43:RX:12:VAL:HG12	43:RX:27:THR:O	1.91	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:YE:93:VAL:H	28:YE:95:ILE:HD12	1.54	0.71
37:YR:1:MET:HG3	37:YR:3:HIS:CE1	2.26	0.71
39:YT:23:ARG:HB2	39:YT:24:PRO:HD2	1.71	0.71
33:YN:1:MET:CE	40:YU:95:LEU:HD21	2.21	0.71
5:QE:78:HIS:CB	8:QH:104:ARG:O	2.39	0.71
10:QJ:49:VAL:O	10:QJ:60:ARG:HB3	1.90	0.71
11:QK:17:GLY:HA3	11:QK:77:MET:CE	2.20	0.71
1:QA:377:G:OP1	16:QP:5:ARG:NH1	2.24	0.71
50:R4:29:PRO:O	50:R4:30:GLU:HB2	1.89	0.71
54:R8:60:LEU:C	54:R8:63:PRO:HD2	2.11	0.71
25:RA:2114:A:N6	25:RA:2119:A:N7	2.39	0.71
25:RA:2327:A:H2'	25:RA:2328:A:C8	2.25	0.71
27:RD:263:ARG:HB2	27:RD:263:ARG:NH1	2.05	0.71
25:RA:252:G:OP2	35:RP:50:ARG:NH1	2.24	0.71
38:RS:83:LYS:C	38:RS:109:GLY:HA3	2.10	0.71
45:RZ:108:PRO:HA	45:RZ:142:SER:HA	1.70	0.71
1:XA:116:A:H61	1:XA:313:A:H1'	1.56	0.71
3:XC:123:GLN:O	3:XC:128:PHE:HB2	1.91	0.71
4:XD:20:TYR:CE2	4:XD:27:TYR:HE2	2.09	0.71
27:YD:263:ARG:HB2	27:YD:263:ARG:NH1	2.06	0.71
42:YW:6:ILE:HG12	42:YW:104:THR:HG23	1.73	0.71
1:QA:1129:C:H4'	1:QA:1130:A:H5'	1.72	0.71
1:QA:191(F):U:O2	20:QT:105:SER:HB2	1.91	0.71
4:QD:190:ASP:HB3	4:QD:193:ASP:OD1	1.91	0.71
8:QH:41:ARG:HH11	8:QH:41:ARG:CB	2.03	0.71
8:QH:84:ARG:HH12	8:QH:86:ILE:CD1	2.02	0.71
48:R2:41:ILE:HD12	48:R2:41:ILE:C	2.10	0.71
52:R6:36:LEU:HD13	52:R6:50:ARG:NH1	2.05	0.71
52:R6:25:LYS:HD2	54:R8:34:TRP:HZ2	1.56	0.71
29:RF:178:PRO:HB2	29:RF:201:VAL:HG11	1.73	0.71
29:RF:185:ASP:OD1	29:RF:188:ARG:NH1	2.24	0.71
25:RA:2404:C:H1'	35:RP:67:MET:HE1	1.73	0.71
1:XA:328:C:H4'	1:XA:329:A:H5'	1.73	0.71
2:XB:126:GLU:CG	2:XB:129:GLU:HG3	2.20	0.71
2:XB:132:LYS:HA	2:XB:135:GLN:HB2	1.71	0.71
2:XB:172:ILE:HD12	2:XB:172:ILE:H	1.56	0.71
48:Y2:7:ARG:HH11	48:Y2:7:ARG:HG3	1.55	0.71
51:Y5:40:LYS:HE2	51:Y5:47:PRO:HD2	1.73	0.71
25:YA:1021:A:H3'	25:YA:1021:A:C8	2.26	0.71
25:YA:188:G:N2	25:YA:208:C:N3	2.35	0.71
25:YA:704:G:H2'	25:YA:726:G:H22	1.56	0.71
27:YD:244:ARG:HB2	27:YD:245:PRO:HD2	1.71	0.71

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:YP:49:ARG:HD2	54:Y8:58:ILE:CG2	2.20	0.71
45:YZ:97:GLU:HB3	45:YZ:125:LEU:HD11	1.71	0.71
1:QA:1502:A:H5'	1:QA:1504:G:N7	2.06	0.71
1:QA:533:A:O2'	1:QA:534:U:H5''	1.91	0.71
2:QB:126:GLU:CG	2:QB:129:GLU:HG3	2.20	0.71
2:QB:8:LYS:HD3	2:QB:8:LYS:N	2.03	0.71
25:RA:2502:G:H5''	25:RA:2503:A:H5''	1.73	0.71
25:RA:270(T):G:O5'	47:R1:97:LEU:HD22	1.90	0.71
25:RA:995:C:N4	33:RN:2:LYS:HG3	2.06	0.71
38:RS:106:ARG:CA	38:RS:110:LEU:HD11	2.20	0.71
1:QA:1446:A:C2	39:RT:118:ARG:HD2	2.26	0.71
11:XK:48:ILE:HD12	11:XK:63:LEU:HB3	1.71	0.71
15:XO:71:GLN:HB2	15:XO:78:TYR:CD1	2.24	0.71
20:XT:57:ARG:HD3	20:XT:102:GLY:O	1.90	0.71
47:Y1:81:LYS:CA	47:Y1:81:LYS:HE2	2.13	0.71
2:QB:214:ILE:HA	2:QB:217:ARG:HH21	1.55	0.70
11:QK:124:LYS:HD2	11:QK:125:PHE:CE1	2.25	0.70
13:QM:121:LYS:HE2	13:QM:121:LYS:CA	2.21	0.70
54:R8:29:LYS:HD3	54:R8:44:LYS:HB2	1.71	0.70
25:RA:1266:G:C5	42:RW:15:ARG:NH1	2.59	0.70
25:RA:2553:G:N2	56:Z6:76:PPU:H2	2.06	0.70
25:RA:443:A:C5	29:RF:45:ARG:HD2	2.26	0.70
31:RH:132:ARG:CB	31:RH:132:ARG:HH11	1.97	0.70
1:XA:1507:A:N6	1:XA:1528:U:O4	2.14	0.70
5:XE:82:VAL:HG12	5:XE:83:GLU:N	2.06	0.70
9:XI:15:ALA:HA	9:XI:64:THR:O	1.91	0.70
9:XI:62:TYR:C	9:XI:63:ILE:HD12	2.12	0.70
11:XK:124:LYS:HD2	11:XK:125:PHE:CE1	2.25	0.70
11:XK:17:GLY:HA3	11:XK:77:MET:CE	2.21	0.70
15:XO:65:ARG:HB2	15:XO:65:ARG:HH11	1.56	0.70
13:XM:65:LYS:HZ3	50:Y4:52:THR:HG21	1.56	0.70
52:Y6:29:ASN:OD1	52:Y6:30:THR:HG22	1.91	0.70
25:YA:1291:C:H2'	25:YA:1292:U:C6	2.25	0.70
31:YH:80:SER:O	31:YH:81:GLU:HB2	1.89	0.70
1:QA:999:U:H2'	1:QA:1000:A:C8	2.26	0.70
1:QA:1158:C:H4'	2:QB:133:LYS:HZ1	1.57	0.70
5:QE:78:HIS:HE1	5:QE:143:ARG:H	1.38	0.70
1:QA:6:G:N2	5:QE:98:THR:OG1	2.24	0.70
20:QT:63:ILE:HG22	20:QT:77:ALA:HB1	1.73	0.70
47:R1:80:LEU:C	47:R1:81:LYS:HE2	2.10	0.70
25:RA:2712:U:HO2'	25:RA:2712(A):A:H8	1.40	0.70
26:RB:82:G:H2'	26:RB:83:G:H8	1.55	0.70

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:RF:101:LEU:O	29:RF:106:ARG:NH1	2.23	0.70
29:RF:164:ARG:HG3	29:RF:175:THR:OG1	1.91	0.70
29:RF:66:PRO:O	29:RF:67:GLN:HB3	1.89	0.70
41:RV:51:VAL:HG12	41:RV:52:VAL:N	2.06	0.70
1:XA:1128:C:H42	1:XA:1144:G:H1	1.37	0.70
2:XB:187:LEU:HD11	2:XB:204:ASN:O	1.90	0.70
6:XF:72:VAL:CG2	6:XF:90:VAL:HG11	2.20	0.70
13:XM:4:ILE:N	13:XM:9:ILE:HG21	2.06	0.70
20:XT:23:ARG:CA	20:XT:26:ASN:HD21	2.04	0.70
47:Y1:80:LEU:C	47:Y1:81:LYS:HD2	2.12	0.70
25:YA:2114:A:N6	25:YA:2119:A:N7	2.39	0.70
25:YA:18:C:N4	25:YA:522:G:O6	2.16	0.70
31:YH:89:ILE:CD1	31:YH:129:THR:HB	2.20	0.70
31:YH:59:ARG:HG3	31:YH:59:ARG:HH11	1.56	0.70
34:YO:113:LYS:HG2	34:YO:117:LEU:HD11	1.71	0.70
9:QI:15:ALA:HA	9:QI:64:THR:O	1.91	0.70
52:R6:29:ASN:OD1	52:R6:30:THR:HG22	1.91	0.70
25:RA:2667:C:H1'	31:RH:109:PHE:CD2	2.24	0.70
31:RH:154:PRO:O	31:RH:155:SER:HB2	1.91	0.70
1:XA:1252:A:H2'	1:XA:1253:G:O4'	1.91	0.70
1:XA:782:A:OP1	57:XA:1610:MG:MG	1.34	0.70
2:XB:101:MET:HA	2:XB:108:ILE:CG1	2.14	0.70
17:XQ:4:LYS:CE	17:XQ:6:LEU:HD21	2.20	0.70
25:YA:1372:U:H2'	25:YA:1373:A:H5'	1.73	0.70
25:YA:2422:A:N7	25:YA:2424:C:N4	2.38	0.70
25:YA:24:G:O2'	42:YW:78:GLU:O	2.09	0.70
25:YA:592:G:H1	25:YA:665:C:N4	1.90	0.70
28:YE:14:ILE:HG12	28:YE:15:PHE:N	2.06	0.70
28:YE:28:ALA:HB3	28:YE:93:VAL:HG22	1.72	0.70
29:YF:66:PRO:O	29:YF:67:GLN:HB3	1.90	0.70
25:YA:1006:C:H5'	33:YN:28:THR:HG23	1.72	0.70
1:QA:1076:C:O2	1:QA:1082:G:N2	2.25	0.70
1:QA:81:G:N2	1:QA:88:C:O2	2.19	0.70
48:R2:7:ARG:HH11	48:R2:7:ARG:HG3	1.55	0.70
25:RA:507:A:H5''	25:RA:508:G:H5'	1.72	0.70
27:RD:43:ARG:HB3	27:RD:54:ARG:HB2	1.73	0.70
35:RP:58:THR:O	35:RP:61:ARG:CZ	2.38	0.70
36:RQ:32:TYR:CD1	36:RQ:133:ARG:HA	2.27	0.70
44:RY:48:ALA:O	44:RY:49:VAL:C	2.30	0.70
1:XA:842:C:O2'	1:XA:848:C:N4	2.24	0.70
4:XD:190:ASP:HB3	4:XD:193:ASP:OD1	1.91	0.70
10:XJ:6:ILE:HG13	10:XJ:72:VAL:O	1.91	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:XL:24:VAL:HG12	12:XL:24:VAL:O	1.90	0.70
13:XM:121:LYS:HA	13:XM:121:LYS:HE2	1.71	0.70
25:YA:2361:A:O5'	54:Y8:27:THR:OG1	2.08	0.70
25:YA:498:G:N3	44:YY:47:LYS:NZ	2.39	0.70
35:YP:20:GLY:HA2	35:YP:27:HIS:O	1.92	0.70
41:YV:22:VAL:HG12	41:YV:23:GLU:N	2.05	0.70
10:QJ:6:ILE:HG13	10:QJ:72:VAL:O	1.91	0.70
13:QM:77:ASN:ND2	50:R4:71:ARG:NH1	2.39	0.70
47:R1:82:LEU:HD13	47:R1:83:GLU:N	2.05	0.70
38:RS:54:LEU:HD13	38:RS:54:LEU:O	1.91	0.70
3:XC:152:ILE:HB	3:XC:199:LYS:HB2	1.73	0.70
5:XE:11:ILE:HD11	5:XE:31:LEU:CD1	2.17	0.70
10:XJ:49:VAL:O	10:XJ:60:ARG:HB3	1.90	0.70
25:YA:2123:G:H1	25:YA:2175:C:H42	1.39	0.70
25:YA:330:A:O2'	25:YA:331:A:H8	1.73	0.70
25:YA:863:A:H2'	25:YA:864:G:H8	1.54	0.70
26:YB:8:U:O2	26:YB:112:G:N2	2.24	0.70
29:YF:178:PRO:HB2	29:YF:201:VAL:HG11	1.73	0.70
29:YF:178:PRO:HG2	29:YF:179:GLU:OE2	1.90	0.70
31:YH:103:LEU:HD12	31:YH:131:VAL:HG21	1.73	0.70
38:YS:42:ASP:O	38:YS:43:GLU:HB2	1.90	0.70
39:YT:57:PHE:C	39:YT:58:ASN:HD22	1.93	0.70
51:R5:40:LYS:HE2	51:R5:47:PRO:HD2	1.73	0.70
25:RA:958:U:O2	26:RB:89(A):A:H4'	1.92	0.70
29:RF:178:PRO:HG2	29:RF:179:GLU:OE2	1.90	0.70
29:RF:65:TRP:HZ3	29:RF:73:ALA:O	1.74	0.70
38:RS:83:LYS:HZ1	38:RS:109:GLY:HA2	1.56	0.70
44:RY:57:GLN:HE21	44:RY:58:GLY:H	1.37	0.70
44:RY:45:VAL:HG12	44:RY:60:PHE:CD1	2.27	0.70
1:XA:1071:C:H5''	5:XE:49:PRO:HG2	1.73	0.70
8:XH:49:GLU:HG3	8:XH:51:VAL:HG13	1.74	0.70
13:XM:121:LYS:CA	13:XM:121:LYS:HE2	2.21	0.70
47:Y1:7:ILE:CD1	47:Y1:70:VAL:HG22	2.21	0.70
29:YF:101:LEU:O	29:YF:106:ARG:NH1	2.23	0.70
31:YH:152:ARG:O	31:YH:153:LYS:CB	2.39	0.70
40:YU:65:ILE:HG12	40:YU:96:ALA:HB1	1.73	0.70
1:QA:1071:C:H2'	1:QA:1072:G:H8	1.56	0.70
1:QA:1238:A:OP1	1:QA:1335:C:O2'	2.06	0.70
1:QA:618:C:N3	1:QA:622:A:N6	2.40	0.70
15:QO:65:ARG:HH11	15:QO:65:ARG:HB2	1.56	0.70
47:R1:7:ILE:CD1	47:R1:70:VAL:HG22	2.21	0.70
25:RA:2582:G:N2	25:RA:2583:G:H1'	2.06	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2593:U:H2'	25:RA:2594:C:C6	2.27	0.70
25:RA:438:G:H2'	25:RA:439:G:C8	2.26	0.70
25:RA:674:G:C1'	29:RF:74:ARG:HD3	2.21	0.70
31:RH:128:PRO:HD2	31:RH:129:THR:H	1.55	0.70
33:RN:89:LYS:O	33:RN:93:THR:HG22	1.90	0.70
1:XA:15:G:H4'	5:XE:24:ARG:NH1	2.05	0.70
15:XO:74:ASP:CG	15:XO:77:ARG:HG2	2.12	0.70
52:Y6:25:LYS:HD2	54:Y8:34:TRP:HZ2	1.56	0.70
25:YA:2422:A:OP2	52:Y6:6:ARG:NH1	2.25	0.70
25:YA:1094:U:O2'	25:YA:1096:A:OP1	2.10	0.70
25:YA:2712:U:O2'	25:YA:2712(A):A:O5'	2.10	0.70
27:YD:43:ARG:HB3	27:YD:54:ARG:HB2	1.73	0.70
31:YH:154:PRO:HG2	31:YH:162:ILE:O	1.92	0.70
34:YO:63:VAL:HG13	34:YO:84:ALA:HA	1.72	0.70
36:YQ:32:TYR:CD1	36:YQ:133:ARG:HA	2.27	0.70
39:YT:41:ARG:NH2	39:YT:43:GLN:HB2	2.06	0.70
42:YW:29:LEU:HD21	42:YW:33:ARG:CZ	2.22	0.70
1:QA:1071:C:H2'	1:QA:1072:G:C8	2.27	0.70
1:QA:1471:G:H2'	1:QA:1472:U:H6	1.56	0.70
3:QC:16:ARG:HD2	3:QC:54:ARG:NH2	2.03	0.70
15:QO:74:ASP:CG	15:QO:77:ARG:HG2	2.12	0.70
25:RA:372:G:H5''	47:R1:66:HIS:CD2	2.26	0.70
25:RA:2053:G:O6	25:RA:2616:C:N4	2.20	0.70
31:RH:154:PRO:HG2	31:RH:162:ILE:O	1.92	0.70
42:RW:29:LEU:HD21	42:RW:33:ARG:CZ	2.22	0.70
1:XA:1321:C:H5''	1:XA:1322:C:H5''	1.74	0.70
2:XB:162:ILE:HD11	2:XB:184:VAL:HG13	1.74	0.70
51:Y5:40:LYS:HE2	51:Y5:47:PRO:CD	2.21	0.70
25:YA:530:G:O2'	25:YA:532:A:N7	2.24	0.70
28:YE:103:ASP:OD1	28:YE:201:THR:HA	1.92	0.70
30:YG:131:TYR:O	30:YG:159:VAL:HG13	1.92	0.70
31:YH:86:GLU:CG	31:YH:165:ALA:H	1.94	0.70
40:YU:66:ASN:HB2	40:YU:76:TYR:HB2	1.73	0.70
1:QA:1106:G:H5''	3:QC:172:ARG:HG2	1.72	0.70
5:QE:76:ILE:HB	5:QE:77:PRO:HD2	1.72	0.70
6:QF:60:PHE:C	6:QF:61:LEU:HD12	2.13	0.70
13:QM:4:ILE:N	13:QM:9:ILE:HG21	2.06	0.70
16:QP:14:ASN:N	16:QP:15:PRO:HD3	2.07	0.70
17:QQ:52:LYS:HD2	17:QQ:55:ASP:OD1	1.91	0.70
27:RD:65:ILE:HD13	27:RD:65:ILE:O	1.91	0.70
30:RG:131:TYR:O	30:RG:159:VAL:HG13	1.92	0.70
31:RH:152:ARG:O	31:RH:153:LYS:CB	2.40	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:RP:64:LYS:C	35:RP:66:GLY:H	1.94	0.70
36:RQ:80:GLU:OE1	46:R0:7:LEU:HB3	1.92	0.70
38:RS:106:ARG:N	38:RS:110:LEU:HD21	2.07	0.70
1:XA:1014:A:H4'	19:XS:14:HIS:CD2	2.27	0.70
19:XS:51:VAL:O	19:XS:57:HIS:HA	1.92	0.70
25:YA:301:G:H1	25:YA:316:C:H42	1.40	0.70
27:YD:65:ILE:HD13	27:YD:65:ILE:O	1.91	0.70
29:YF:164:ARG:HG3	29:YF:175:THR:OG1	1.92	0.70
35:YP:114:ILE:HD13	35:YP:125:VAL:HG21	1.72	0.70
36:YQ:43:THR:OG1	36:YQ:46:GLN:HB2	1.91	0.70
25:YA:1153:C:OP1	40:YU:76:TYR:OH	2.09	0.70
42:YW:1:MET:HA	42:YW:1:MET:HE3	1.72	0.70
1:QA:559:A:H4'	1:QA:560:U:H3'	1.72	0.70
2:QB:162:ILE:O	2:QB:162:ILE:HG13	1.92	0.70
8:QH:87:SER:HB2	8:QH:93:VAL:HB	1.74	0.70
19:QS:51:VAL:O	19:QS:57:HIS:HA	1.92	0.70
48:R2:47:ASN:O	48:R2:49:LYS:N	2.25	0.70
26:RB:7:G:H3'	26:RB:8:U:H5''	1.73	0.70
27:RD:65:ILE:HD11	27:RD:67:PHE:CD1	2.27	0.70
1:XA:407:G:H1	1:XA:435:C:H42	1.40	0.70
25:YA:2701:C:H3'	25:YA:2702:U:C5'	2.17	0.70
38:YS:83:LYS:HZ2	38:YS:109:GLY:HA2	1.56	0.70
41:YV:41:GLY:HA3	41:YV:46:VAL:HG11	1.74	0.70
1:QA:1095:U:P	1:QA:1108:G:H1	2.15	0.69
1:QA:409:G:H1	1:QA:433:C:H42	1.38	0.69
3:QC:152:ILE:HB	3:QC:199:LYS:HB2	1.73	0.69
4:QD:30:LYS:H	4:QD:30:LYS:HD3	1.57	0.69
9:QI:113:LYS:N	9:QI:113:LYS:HD2	2.07	0.69
47:R1:7:ILE:HD12	47:R1:70:VAL:HG22	1.73	0.69
25:RA:628:G:H2'	25:RA:629:G:H8	1.56	0.69
30:RG:56:ALA:HB2	30:RG:153:ARG:HE	1.57	0.69
40:RU:65:ILE:HG12	40:RU:96:ALA:HB1	1.73	0.69
43:RX:57:LEU:HD11	43:RX:78:LYS:HD2	1.73	0.69
2:XB:95:GLN:HE21	2:XB:147:LYS:HE2	1.56	0.69
17:XQ:52:LYS:HD2	17:XQ:55:ASP:OD1	1.91	0.69
47:Y1:82:LEU:HD12	47:Y1:83:GLU:CA	2.21	0.69
19:XS:5:LEU:HD21	50:Y4:66:SER:HB2	1.74	0.69
25:YA:1496:A:H8	25:YA:1577:C:O2'	1.72	0.69
35:YP:19:VAL:HG22	35:YP:20:GLY:N	1.97	0.69
35:YP:83:VAL:CG1	35:YP:112:LEU:HD21	2.21	0.69
38:YS:54:LEU:HD13	38:YS:54:LEU:O	1.91	0.69
2:QB:95:GLN:HE21	2:QB:147:LYS:HE2	1.56	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:R1:82:LEU:HD12	47:R1:83:GLU:CA	2.21	0.69
13:QM:65:LYS:NZ	50:R4:52:THR:HG21	2.07	0.69
25:RA:1341:U:H2'	25:RA:1397:U:O2	1.92	0.69
25:RA:32:C:N4	25:RA:447:A:OP2	2.25	0.69
44:RY:2:ARG:HH11	44:RY:2:ARG:HG2	1.57	0.69
1:XA:1106:G:H5''	3:XC:172:ARG:HG2	1.74	0.69
10:XJ:38:ILE:HG13	10:XJ:38:ILE:O	1.92	0.69
20:XT:50:GLU:HG3	20:XT:51:GLU:H	1.54	0.69
47:Y1:53:VAL:HG22	47:Y1:74:VAL:HG13	1.74	0.69
47:Y1:7:ILE:HD12	47:Y1:70:VAL:HG22	1.73	0.69
25:YA:2037:G:H2'	25:YA:2038:G:C8	2.27	0.69
26:YB:38:C:O2	26:YB:48:A:H1'	1.92	0.69
29:YF:185:ASP:HA	29:YF:188:ARG:CD	2.20	0.69
41:YV:51:VAL:HG12	41:YV:52:VAL:N	2.06	0.69
43:YX:57:LEU:HD11	43:YX:78:LYS:HD2	1.73	0.69
3:QC:123:GLN:O	3:QC:128:PHE:HB2	1.91	0.69
9:QI:62:TYR:C	9:QI:63:ILE:HD12	2.12	0.69
10:QJ:38:ILE:O	10:QJ:38:ILE:HG13	1.91	0.69
25:RA:2245:U:H5'	25:RA:2246:G:H5'	1.72	0.69
25:RA:2531:A:N3	25:RA:2658:C:O2'	2.21	0.69
28:RE:103:ASP:OD1	28:RE:201:THR:HA	1.92	0.69
31:RH:103:LEU:HD12	31:RH:131:VAL:HG21	1.73	0.69
31:RH:59:ARG:HH11	31:RH:59:ARG:HG3	1.56	0.69
33:RN:120:LEU:HD11	33:RN:122:VAL:HG23	1.74	0.69
45:RZ:60:GLU:HA	45:RZ:66:SER:HA	1.73	0.69
6:XF:60:PHE:C	6:XF:61:LEU:HD12	2.12	0.69
8:XH:87:SER:HB2	8:XH:93:VAL:HB	1.74	0.69
14:XN:6:LEU:HD23	14:XN:6:LEU:O	1.92	0.69
25:YA:1429:G:H2'	25:YA:1430:C:H6	1.57	0.69
35:YP:50:ARG:HB3	35:YP:50:ARG:NH2	1.98	0.69
1:QA:1114:C:H1'	14:QN:60:SER:HB2	1.73	0.69
1:QA:299:G:H2'	1:QA:300:A:C8	2.27	0.69
4:QD:120:LEU:HD22	4:QD:125:HIS:HB2	1.73	0.69
6:QF:3:ARG:HB3	6:QF:93:SER:HB2	1.74	0.69
27:RD:76:PRO:O	27:RD:98:VAL:HG23	1.91	0.69
31:RH:4:ILE:HG13	31:RH:6:ARG:NE	2.08	0.69
35:RP:20:GLY:HA2	35:RP:27:HIS:O	1.92	0.69
1:XA:1129:C:H4'	1:XA:1130:A:H5'	1.75	0.69
2:XB:162:ILE:O	2:XB:162:ILE:HG13	1.92	0.69
3:XC:105:GLU:HG2	3:XC:106:VAL:H	1.58	0.69
6:XF:67:MET:HB2	6:XF:68:PRO:HD2	1.75	0.69
8:XH:84:ARG:HH12	8:XH:86:ILE:CD1	2.02	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:Y2:47:ASN:O	48:Y2:49:LYS:N	2.25	0.69
27:YD:65:ILE:HD11	27:YD:67:PHE:CD1	2.27	0.69
34:YO:8:LEU:N	34:YO:8:LEU:HD22	2.07	0.69
35:YP:62:LEU:H	35:YP:62:LEU:HD22	1.53	0.69
35:YP:64:LYS:C	35:YP:66:GLY:H	1.95	0.69
41:YV:66:ARG:HH12	41:YV:88:ARG:NH1	1.90	0.69
1:QA:1002:G:H2'	1:QA:1003:G:C8	2.27	0.69
3:QC:147:LYS:O	3:QC:203:PHE:HB3	1.92	0.69
4:QD:188:LEU:HD23	4:QD:189:PRO:HD2	1.75	0.69
51:R5:4:HIS:HB3	51:R5:5:PRO:HD3	1.75	0.69
25:RA:1059:G:O6	25:RA:1079:C:N4	2.26	0.69
25:RA:1590:U:H2'	25:RA:1591:G:H8	1.57	0.69
26:RB:33:G:O5'	30:RG:2:PRO:HG3	1.92	0.69
35:RP:126:VAL:CG1	35:RP:147:LEU:HD21	2.16	0.69
36:RQ:43:THR:OG1	36:RQ:46:GLN:HB2	1.91	0.69
1:XA:1346:A:C4	7:XG:10:ARG:NH1	2.60	0.69
1:XA:266:G:O2'	1:XA:267:C:OP2	2.11	0.69
35:YP:64:LYS:HB2	54:Y8:25:MET:CG	2.22	0.69
25:YA:304:G:H2'	25:YA:305:U:H6	1.56	0.69
27:YD:89:SER:HB2	27:YD:159:ALA:HB2	1.75	0.69
29:YF:65:TRP:HZ3	29:YF:73:ALA:O	1.74	0.69
32:YI:130:TYR:HB3	32:YI:136:VAL:HG13	1.73	0.69
33:YN:120:LEU:HD11	33:YN:122:VAL:HG23	1.74	0.69
42:YW:86:LEU:HD12	42:YW:87:PRO:CD	2.23	0.69
8:QH:6:ILE:N	8:QH:6:ILE:HD12	2.08	0.69
21:QU:6:ARG:HE	21:QU:15:ARG:NE	1.91	0.69
47:R1:4:VAL:HG23	47:R1:10:LYS:O	1.93	0.69
47:R1:74:VAL:O	47:R1:74:VAL:HG12	1.93	0.69
47:R1:81:LYS:CA	47:R1:81:LYS:HE2	2.13	0.69
25:RA:1061:U:H5'	25:RA:1070:A:H1'	1.75	0.69
25:RA:1153:C:OP1	40:RU:76:TYR:OH	2.11	0.69
25:RA:71:A:H4'	25:RA:72:U:H5''	1.75	0.69
25:RA:83:G:N2	25:RA:103:A:OP2	2.25	0.69
27:RD:89:SER:HB2	27:RD:159:ALA:HB2	1.75	0.69
28:RE:65:GLY:HA2	28:RE:70:ALA:CB	2.23	0.69
28:RE:7:VAL:HG23	28:RE:8:LYS:N	2.07	0.69
29:RF:103:LYS:HA	29:RF:106:ARG:CG	2.21	0.69
33:RN:46:VAL:O	33:RN:47:ALA:HB3	1.92	0.69
1:XA:1059:C:O2	10:XJ:53:PRO:HG3	1.92	0.69
4:XD:20:TYR:CE2	4:XD:27:TYR:CE2	2.80	0.69
10:XJ:48:THR:HA	10:XJ:62:HIS:HB3	1.75	0.69
16:XP:14:ASN:N	16:XP:15:PRO:HD3	2.07	0.69

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2757:A:OP1	55:Y9:19:ARG:HA	1.93	0.69
25:YA:1270:C:H5''	25:YA:1271:G:H5'	1.74	0.69
25:YA:2498:C:O2'	25:YA:2499:C:H5'	1.92	0.69
26:YB:70:C:H2'	26:YB:71:C:C6	2.27	0.69
27:YD:76:PRO:O	27:YD:98:VAL:HG23	1.91	0.69
35:YP:61:ARG:HD2	35:YP:61:ARG:H	1.58	0.69
1:QA:1069:C:C2'	5:QE:25:ARG:HH12	2.06	0.69
2:QB:172:ILE:HD12	2:QB:172:ILE:H	1.56	0.69
2:QB:212:GLN:NE2	2:QB:216:SER:HB2	2.08	0.69
8:QH:31:PHE:CE2	8:QH:35:ILE:HD11	2.27	0.69
17:QQ:4:LYS:CE	17:QQ:6:LEU:HD21	2.21	0.69
25:RA:1799:G:H5'	25:RA:1819:A:H61	1.58	0.69
25:RA:595:C:H42	25:RA:662:G:H1	1.40	0.69
27:RD:35:LYS:HB3	27:RD:63:ARG:HA	1.75	0.69
34:RO:63:VAL:HG13	34:RO:84:ALA:HA	1.72	0.69
35:RP:39:LYS:CA	35:RP:45:LEU:HD11	2.23	0.69
41:RV:41:GLY:HA3	41:RV:46:VAL:HG11	1.74	0.69
14:XN:23:ARG:CZ	14:XN:30:ALA:HB2	2.22	0.69
16:XP:1:MET:O	16:XP:24:ALA:HB2	1.92	0.69
47:Y1:64:ALA:HA	47:Y1:67:ILE:HG13	1.75	0.69
51:Y5:40:LYS:HG2	51:Y5:47:PRO:HD2	1.75	0.69
52:Y6:14:THR:HG21	52:Y6:19:ARG:HH21	1.58	0.69
25:YA:2469:A:H2	25:YA:2481:G:H21	1.40	0.69
25:YA:822:U:H2'	25:YA:823:G:H8	1.58	0.69
26:YB:82:G:H2'	26:YB:83:G:C8	2.27	0.69
30:YG:28:VAL:HG23	30:YG:29:TRP:CD1	2.28	0.69
33:YN:68:GLU:HG2	33:YN:88:GLU:OE1	1.92	0.69
35:YP:29:LYS:HD2	35:YP:30:THR:HG22	1.72	0.69
2:QB:126:GLU:O	2:QB:126:GLU:HG2	1.92	0.69
3:QC:105:GLU:HG2	3:QC:106:VAL:H	1.58	0.69
8:QH:49:GLU:HG3	8:QH:51:VAL:HG13	1.74	0.69
51:R5:40:LYS:HE2	51:R5:47:PRO:CD	2.21	0.69
51:R5:40:LYS:HG2	51:R5:47:PRO:HD2	1.75	0.69
25:RA:2626:C:H42	25:RA:2777:G:H1	1.40	0.69
25:RA:2630:G:N3	25:RA:2894:G:N2	2.41	0.69
30:RG:171:ALA:O	30:RG:175:LEU:HG	1.93	0.69
33:RN:68:GLU:HG2	33:RN:88:GLU:OE1	1.92	0.69
33:RN:7:LYS:HD3	33:RN:9:VAL:HA	1.75	0.69
35:RP:64:LYS:HB2	54:R8:25:MET:CG	2.22	0.69
39:RT:41:ARG:NH2	39:RT:43:GLN:HB2	2.06	0.69
5:XE:78:HIS:HE1	5:XE:143:ARG:H	1.38	0.69
14:XN:44:LEU:CD1	14:XN:53:LEU:HD13	2.23	0.69

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1021:A:H3'	25:YA:1021:A:H8	1.57	0.69
25:YA:1899:G:O2'	25:YA:1900:A:OP2	2.08	0.69
28:YE:7:VAL:HG23	28:YE:8:LYS:N	2.06	0.69
30:YG:16:ARG:HH21	30:YG:31:VAL:CG1	2.05	0.69
31:YH:150:ALA:C	31:YH:152:ARG:N	2.44	0.69
33:YN:56:ASN:HD22	33:YN:125:GLY:C	1.96	0.69
40:YU:65:ILE:HD11	40:YU:93:LYS:HA	1.74	0.69
44:YY:45:VAL:HG12	44:YY:60:PHE:CD1	2.27	0.69
1:QA:636:U:H2'	1:QA:637:G:C8	2.28	0.69
1:QA:1231:G:O3'	9:QI:126:SER:OG	2.10	0.69
16:QP:1:MET:O	16:QP:24:ALA:HB2	1.92	0.69
52:R6:28:ARG:HB3	52:R6:30:THR:H	1.56	0.69
25:RA:249:C:O2	54:R8:12:LYS:HE3	1.91	0.69
25:RA:1041:C:H2'	25:RA:1042:G:H8	1.58	0.69
25:RA:1296:G:OP1	25:RA:2709:G:O2'	2.10	0.69
25:RA:813:U:H2'	25:RA:814:C:C6	2.28	0.69
25:RA:993:G:OP1	40:RU:50:ARG:NH2	2.18	0.69
26:RB:13:A:H2'	26:RB:70:C:O2'	1.92	0.69
40:RU:90:VAL:O	40:RU:92:ARG:N	2.26	0.69
41:RV:66:ARG:HH12	41:RV:88:ARG:NH1	1.90	0.69
25:RA:1614:A:H62	42:RW:93:ALA:HB2	1.57	0.69
9:XI:113:LYS:HD2	9:XI:113:LYS:N	2.07	0.69
4:QD:166:LYS:HD2	27:YD:134:ARG:NH1	2.07	0.69
27:YD:35:LYS:HB3	27:YD:63:ARG:HA	1.75	0.69
31:YH:154:PRO:O	31:YH:155:SER:HB2	1.91	0.69
31:YH:89:ILE:HG12	31:YH:89:ILE:O	1.93	0.69
33:YN:7:LYS:HD3	33:YN:9:VAL:HA	1.75	0.69
2:QB:101:MET:HA	2:QB:108:ILE:CG1	2.14	0.69
8:QH:112:LEU:HA	8:QH:134:ILE:HG12	1.75	0.69
6:QF:100:ASN:ND2	18:QR:23:LYS:HE3	2.08	0.69
25:RA:1043:C:N3	25:RA:1112:G:N2	2.41	0.69
25:RA:1930:G:O2'	25:RA:1931:U:O5'	2.09	0.69
25:RA:2277:G:H5'	36:RQ:85:LYS:HG3	1.75	0.69
25:RA:2291:U:H2'	25:RA:2292:C:C6	2.28	0.69
25:RA:2023:G:H5'	25:RA:2617:C:H4'	1.75	0.69
25:RA:49:A:N7	25:RA:120:U:H5	1.91	0.69
30:RG:28:VAL:HG23	30:RG:29:TRP:CD1	2.28	0.69
38:RS:52:SER:O	38:RS:56:LEU:HD22	1.93	0.69
44:RY:29:GLU:HB3	44:RY:38:ILE:HG12	1.75	0.69
2:XB:212:GLN:NE2	2:XB:216:SER:HB2	2.08	0.69
8:XH:31:PHE:CE2	8:XH:35:ILE:HD11	2.27	0.69
27:YD:17:THR:HG22	27:YD:205:VAL:N	2.08	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:56:ALA:HB2	30:YG:153:ARG:HE	1.57	0.69
38:YS:106:ARG:N	38:YS:110:LEU:HD21	2.07	0.69
43:YX:12:VAL:HG11	43:YX:27:THR:OG1	1.93	0.69
1:QA:1080:A:H5''	5:QE:16:THR:HG21	1.74	0.69
1:QA:1287:A:H2'	1:QA:1288:A:C8	2.28	0.69
10:QJ:54:PHE:CZ	10:QJ:55:LYS:NZ	2.61	0.69
1:QA:686:U:H1'	11:QK:42:TRP:HE1	1.58	0.69
12:QL:24:VAL:HG12	12:QL:24:VAL:O	1.91	0.69
47:R1:53:VAL:HG22	47:R1:74:VAL:HG13	1.74	0.69
48:R2:23:LYS:O	48:R2:27:GLU:OE1	2.11	0.69
52:R6:14:THR:HG21	52:R6:19:ARG:HH21	1.58	0.69
25:RA:1140:C:H5''	33:RN:66:LYS:HZ1	1.58	0.69
25:RA:141:A:H8	25:RA:1595:G:H21	1.41	0.69
30:RG:16:ARG:HH21	30:RG:31:VAL:CG1	2.06	0.69
25:RA:2392:A:C8	35:RP:60:MET:HG3	2.27	0.69
35:RP:61:ARG:H	35:RP:61:ARG:HD2	1.58	0.69
41:RV:22:VAL:HG12	41:RV:23:GLU:N	2.06	0.69
1:XA:376:G:OP1	16:XP:5:ARG:HB2	1.93	0.69
7:XG:8:GLU:H	7:XG:8:GLU:CD	1.96	0.69
6:XF:100:ASN:ND2	18:XR:23:LYS:HE3	2.08	0.69
1:XA:1318:A:H4'	19:XS:11:VAL:HG11	1.74	0.69
19:XS:31:ILE:HG23	19:XS:49:ILE:HA	1.75	0.69
20:XT:64:ASP:HA	20:XT:67:ALA:HB3	1.74	0.69
25:YA:571:A:O2'	41:YV:78:LYS:NZ	2.26	0.69
27:YD:17:THR:CG2	27:YD:204:ILE:HA	2.23	0.69
28:YE:65:GLY:HA2	28:YE:70:ALA:CB	2.23	0.69
37:YR:29:LEU:HD23	37:YR:79:LEU:HD12	1.75	0.69
38:YS:106:ARG:CA	38:YS:110:LEU:HD11	2.19	0.69
2:QB:162:ILE:HD11	2:QB:184:VAL:HG13	1.74	0.68
3:QC:195:VAL:HG12	3:QC:196:LEU:N	2.07	0.68
9:QI:28:VAL:HG13	9:QI:63:ILE:CG2	2.24	0.68
25:RA:1754:C:H2'	25:RA:1755:A:C8	2.29	0.68
25:RA:769:G:H5'	25:RA:1379:A:N6	2.08	0.68
29:RF:185:ASP:HA	29:RF:188:ARG:CD	2.20	0.68
36:RQ:80:GLU:HG3	36:RQ:81:VAL:H	1.58	0.68
42:RW:6:ILE:HG12	42:RW:104:THR:HG23	1.73	0.68
4:XD:188:LEU:HD23	4:XD:189:PRO:HD2	1.75	0.68
13:XM:117:VAL:HG22	13:XM:118:ALA:H	1.58	0.68
47:Y1:82:LEU:HD13	47:Y1:83:GLU:N	2.05	0.68
35:YP:62:LEU:HD23	54:Y8:25:MET:HB2	1.74	0.68
1:QA:1064:G:O2'	1:QA:1065:U:O5'	2.11	0.68
1:QA:976:G:N2	1:QA:1362(A):C:OP2	2.22	0.68

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:QP:3:LYS:C	16:QP:4:ILE:HD12	2.14	0.68
52:R6:41:PRO:CG	52:R6:45:LYS:H	2.05	0.68
25:RA:74:A:H4'	25:RA:75:G:O5'	1.94	0.68
1:XA:1004:A:O5'	1:XA:1025:U:N3	2.26	0.68
7:XG:155:ARG:N	7:XG:155:ARG:HD3	2.07	0.68
25:YA:1022:G:O2'	25:YA:1023:U:OP2	2.09	0.68
25:YA:2025:C:H2'	25:YA:2026:C:H6	1.59	0.68
44:YY:2:ARG:HH11	44:YY:2:ARG:HG2	1.57	0.68
13:QM:90:LEU:CA	13:QM:93:ARG:HD2	2.23	0.68
20:QT:64:ASP:HA	20:QT:67:ALA:HB3	1.74	0.68
47:R1:80:LEU:C	47:R1:81:LYS:HD2	2.12	0.68
30:RG:112:PRO:CB	50:R4:37:SER:HB2	2.22	0.68
34:RO:8:LEU:HD22	34:RO:8:LEU:N	2.08	0.68
40:RU:65:ILE:HD11	40:RU:93:LYS:HA	1.74	0.68
1:XA:1095:U:P	1:XA:1108:G:H1	2.17	0.68
1:XA:1186:G:O3'	9:XI:113:LYS:NZ	2.23	0.68
4:XD:96:LEU:HD22	4:XD:96:LEU:N	2.08	0.68
8:XH:6:ILE:H	8:XH:6:ILE:CD1	2.06	0.68
52:Y6:41:PRO:CG	52:Y6:45:LYS:H	2.05	0.68
39:YT:109:GLU:O	39:YT:113:LYS:HB2	1.94	0.68
40:YU:8:VAL:HG23	40:YU:11:ARG:NH2	1.99	0.68
44:YY:29:GLU:HB3	44:YY:38:ILE:HG12	1.74	0.68
44:YY:61:ILE:CG2	44:YY:62:GLU:N	2.56	0.68
9:QI:46:ALA:HA	9:QI:78:LYS:HB2	1.75	0.68
14:QN:26:ARG:NH1	14:QN:43:CYS:SG	2.67	0.68
20:QT:97:ALA:O	20:QT:99:LEU:N	2.27	0.68
47:R1:83:GLU:HG2	47:R1:84:GLY:N	2.09	0.68
25:RA:279:C:N4	25:RA:361:G:H1	1.89	0.68
25:RA:817:C:O2'	25:RA:839:U:H5''	1.93	0.68
27:RD:17:THR:HG22	27:RD:205:VAL:N	2.08	0.68
27:RD:17:THR:CG2	27:RD:204:ILE:HA	2.23	0.68
33:RN:134:ARG:N	33:RN:135:PRO:HD3	1.97	0.68
35:RP:62:LEU:HD23	54:R8:25:MET:HB2	1.75	0.68
1:XA:561:U:O2'	1:XA:562:C:OP2	2.09	0.68
3:XC:107:GLN:CD	3:XC:107:GLN:H	1.97	0.68
10:XJ:6:ILE:HG22	10:XJ:98:ILE:CG1	2.16	0.68
11:XK:124:LYS:HB3	11:XK:125:PHE:HD1	1.58	0.68
12:XL:45:PRO:HB3	12:XL:93:LEU:HD23	1.73	0.68
25:YA:1291:C:H2'	25:YA:1292:U:H6	1.58	0.68
33:YN:46:VAL:O	33:YN:47:ALA:HB3	1.92	0.68
38:YS:57:LYS:H	38:YS:57:LYS:HD3	1.59	0.68
44:YY:48:ALA:O	44:YY:49:VAL:C	2.30	0.68

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:165:VAL:HG23	2:QB:166:ASP:H	1.57	0.68
7:QG:155:ARG:HD3	7:QG:155:ARG:N	2.07	0.68
10:QJ:48:THR:HA	10:QJ:62:HIS:HB3	1.75	0.68
47:R1:64:ALA:HA	47:R1:67:ILE:HG13	1.75	0.68
35:RP:26:GLY:O	35:RP:28:GLY:N	2.27	0.68
38:RS:100:ALA:HA	38:RS:103:GLU:HG2	1.75	0.68
41:RV:18:LEU:O	41:RV:95:LEU:HA	1.94	0.68
42:RW:86:LEU:HD12	42:RW:87:PRO:CD	2.23	0.68
4:XD:198:VAL:HG12	4:XD:199:ASN:N	2.09	0.68
8:XH:6:ILE:N	8:XH:6:ILE:HD12	2.08	0.68
10:XJ:96:ILE:HD13	10:XJ:96:ILE:N	2.09	0.68
17:XQ:59:ILE:N	17:XQ:59:ILE:HD13	2.08	0.68
47:Y1:4:VAL:HG23	47:Y1:10:LYS:O	1.93	0.68
30:YG:112:PRO:CB	50:Y4:37:SER:HB2	2.22	0.68
31:YH:4:ILE:HG13	31:YH:6:ARG:NE	2.08	0.68
1:QA:15:G:H2'	1:QA:16:A:H8	1.57	0.68
1:QA:920:U:H2'	1:QA:921:U:C6	2.28	0.68
3:QC:107:GLN:CD	3:QC:107:GLN:H	1.97	0.68
3:QC:150:LYS:HB3	3:QC:201:TYR:HB2	1.75	0.68
11:QK:124:LYS:HB3	11:QK:125:PHE:HD1	1.58	0.68
20:QT:89:ARG:NH2	20:QT:104:LEU:HD21	2.09	0.68
50:R4:15:ILE:HD13	50:R4:15:ILE:N	2.09	0.68
25:RA:1140:C:P	33:RN:66:LYS:HZ3	2.15	0.68
25:RA:2198:A:C2	32:RI:29:TYR:HB2	2.29	0.68
25:RA:2287:A:N6	25:RA:2344:U:H3	1.92	0.68
25:RA:2420:C:N4	54:R8:30:ARG:HD2	2.08	0.68
34:RO:25:LEU:HB2	34:RO:38:VAL:HG13	1.74	0.68
35:RP:15:ARG:O	35:RP:16:ARG:C	2.32	0.68
26:RB:116:G:H4'	38:RS:54:LEU:HD13	1.74	0.68
39:RT:108:ARG:HA	39:RT:111:ARG:CZ	2.23	0.68
44:RY:40:GLU:HA	44:RY:64:GLU:OE1	1.94	0.68
1:XA:1496:C:O2	1:XA:1517:G:N2	2.25	0.68
4:XD:30:LYS:HA	4:XD:34:GLU:HB2	1.75	0.68
21:XU:6:ARG:HE	21:XU:15:ARG:NE	1.90	0.68
47:Y1:74:VAL:HG12	47:Y1:74:VAL:O	1.93	0.68
51:Y5:20:ARG:HA	51:Y5:23:HIS:ND1	2.08	0.68
25:YA:1863:G:H2'	25:YA:1864:U:H6	1.59	0.68
38:YS:100:ALA:HA	38:YS:103:GLU:HG2	1.75	0.68
42:YW:29:LEU:HD21	42:YW:33:ARG:NE	2.09	0.68
1:QA:658:G:N2	1:QA:747:C:O2	2.19	0.68
4:QD:198:VAL:HG12	4:QD:199:ASN:N	2.09	0.68
5:QE:53:LEU:HD12	5:QE:53:LEU:N	2.09	0.68

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:R5:20:ARG:HA	51:R5:23:HIS:ND1	2.09	0.68
25:RA:2831:G:H1'	25:RA:2883:A:H2'	1.75	0.68
25:RA:660:G:O3'	29:RF:38:ARG:NH2	2.26	0.68
31:RH:126:PRO:HG2	31:RH:127:GLU:H	1.59	0.68
31:RH:126:PRO:HB2	31:RH:130:ARG:O	1.93	0.68
25:RA:2393:A:H4'	35:RP:61:ARG:O	1.93	0.68
43:RX:12:VAL:HG11	43:RX:27:THR:OG1	1.93	0.68
10:XJ:75:ILE:HG13	10:XJ:76:ASN:N	2.05	0.68
13:XM:78:ILE:HG23	13:XM:92:HIS:ND1	2.09	0.68
13:XM:90:LEU:CA	13:XM:93:ARG:HD2	2.23	0.68
25:YA:1778:U:H2'	25:YA:1784:A:N6	2.09	0.68
28:YE:16:ARG:HG3	28:YE:16:ARG:O	1.93	0.68
31:YH:126:PRO:HB2	31:YH:130:ARG:O	1.93	0.68
36:YQ:80:GLU:HG3	36:YQ:81:VAL:H	1.58	0.68
39:YT:50:ILE:HG22	39:YT:62:THR:OG1	1.94	0.68
41:YV:18:LEU:O	41:YV:95:LEU:HA	1.94	0.68
44:YY:40:GLU:HA	44:YY:64:GLU:OE1	1.94	0.68
9:QI:48:GLU:N	9:QI:49:PRO:HD2	2.09	0.68
12:QL:46:LYS:HG2	12:QL:47:LYS:H	1.58	0.68
17:QQ:59:ILE:N	17:QQ:59:ILE:HD13	2.09	0.68
20:QT:47:GLY:O	20:QT:49:ALA:N	2.20	0.68
25:RA:1931:U:H6	25:RA:1932:A:C8	2.11	0.68
25:RA:372:G:HO2'	25:RA:373:U:P	2.16	0.68
31:RH:88:LEU:HD22	31:RH:88:LEU:H	1.58	0.68
25:RA:2470:G:H5'	36:RQ:56:ARG:HH22	1.58	0.68
36:RQ:12:GLN:CG	36:RQ:73:PRO:HD2	2.21	0.68
37:RR:29:LEU:HD23	37:RR:79:LEU:HD12	1.75	0.68
25:RA:1279:G:H4'	37:RR:31:HIS:HD2	1.59	0.68
39:RT:109:GLU:O	39:RT:113:LYS:HB2	1.94	0.68
39:RT:50:ILE:HG22	39:RT:62:THR:OG1	1.94	0.68
44:RY:49:VAL:O	44:RY:51:VAL:N	2.27	0.68
1:XA:411:A:H62	1:XA:413:G:N2	1.90	0.68
7:XG:50:ILE:HB	7:XG:58:PRO:HB3	1.75	0.68
8:XH:112:LEU:HA	8:XH:134:ILE:HG12	1.75	0.68
25:YA:2303:G:N2	25:YA:2313:C:N3	2.38	0.68
25:YA:994:C:H3'	40:YU:54:LYS:HE3	1.76	0.68
25:YA:994:C:O2'	25:YA:996:A:OP1	2.12	0.68
28:YE:9:VAL:HB	28:YE:25:VAL:HG23	1.76	0.68
31:YH:126:PRO:CD	31:YH:127:GLU:H	2.07	0.68
1:QA:1497:G:H2'	1:QA:1498:U:H5'	1.75	0.68
2:QB:215:LEU:O	2:QB:219:VAL:HG23	1.94	0.68
4:QD:166:LYS:CG	27:YD:135:PHE:CZ	2.77	0.68

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:96:LEU:N	4:QD:96:LEU:HD22	2.08	0.68
47:R1:20:ARG:HH11	47:R1:20:ARG:HG2	1.58	0.68
25:RA:1043:C:HO2'	25:RA:1048:A:HO2'	1.36	0.68
25:RA:1378:A:HO2'	25:RA:1379:A:P	2.17	0.68
25:RA:2537:U:H2'	25:RA:2538:C:C6	2.29	0.68
25:RA:380:U:H2'	25:RA:381:G:C8	2.28	0.68
28:RE:116:VAL:O	28:RE:117:MET:HB3	1.94	0.68
38:RS:57:LYS:HD3	38:RS:57:LYS:H	1.58	0.68
2:XB:126:GLU:O	2:XB:126:GLU:HG2	1.92	0.68
8:XH:20:TYR:HE2	8:XH:75:ARG:HD2	1.59	0.68
48:Y2:23:LYS:O	48:Y2:27:GLU:OE1	2.11	0.68
25:YA:1418:G:OP1	25:YA:1588:C:O2'	2.12	0.68
25:YA:2211:G:O2'	25:YA:2212:A:OP2	2.11	0.68
25:YA:666:G:H4'	35:YP:49:ARG:NH1	2.09	0.68
31:YH:126:PRO:HG2	31:YH:127:GLU:H	1.59	0.68
8:QH:14:ARG:O	8:QH:18:ARG:HD3	1.94	0.68
10:QJ:6:ILE:HG22	10:QJ:98:ILE:CG1	2.16	0.68
14:QN:6:LEU:HD23	14:QN:6:LEU:O	1.93	0.68
16:QP:66:PRO:HG2	16:QP:71:ARG:NH1	2.09	0.68
17:QQ:74:LEU:HD12	17:QQ:75:ARG:HG2	1.76	0.68
25:RA:2663:G:H3'	25:RA:2664:G:H8	1.59	0.68
33:RN:56:ASN:HD22	33:RN:125:GLY:C	1.96	0.68
36:RQ:104:PHE:HE1	36:RQ:125:LEU:HD11	1.59	0.68
1:XA:577:G:H1'	1:XA:816:A:C4	2.29	0.68
7:XG:138:LYS:HE2	7:XG:142:GLU:OE2	1.94	0.68
7:XG:79:ARG:NH2	7:XG:82:GLY:HA2	2.09	0.68
25:YA:136:G:H1	25:YA:143:C:H42	1.40	0.68
25:YA:1606:G:H5''	25:YA:1607:C:OP1	1.94	0.68
25:YA:188:G:H1	25:YA:208:C:H42	1.42	0.68
25:YA:2893:G:H5''	25:YA:2894:G:H5'	1.76	0.68
27:YD:241:PRO:O	27:YD:243:GLY:N	2.27	0.68
31:YH:4:ILE:HG13	31:YH:6:ARG:NH1	2.09	0.68
36:YQ:133:ARG:O	36:YQ:134:ARG:HB2	1.94	0.68
25:RA:2555:U:C2	56:Z6:74:C:C5	2.82	0.68
1:QA:411:A:N6	1:QA:413:G:H21	1.92	0.67
29:RF:184:TYR:O	29:RF:188:ARG:HG3	1.93	0.67
29:RF:67:GLN:O	29:RF:67:GLN:CG	2.32	0.67
36:RQ:90:VAL:CG1	36:RQ:91:GLU:N	2.57	0.67
1:XA:309:G:H2'	1:XA:310:G:H8	1.59	0.67
16:XP:3:LYS:C	16:XP:4:ILE:HD12	2.14	0.67
47:Y1:20:ARG:HH11	47:Y1:20:ARG:HG2	1.58	0.67
48:Y2:64:LEU:HD22	48:Y2:68:ARG:HD2	1.77	0.67

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:Y4:15:ILE:N	50:Y4:15:ILE:HD13	2.09	0.67
25:YA:1667:G:O2'	25:YA:1991:U:O4	2.11	0.67
25:YA:1803:A:H4'	27:YD:259:THR:CG2	2.23	0.67
25:YA:771:G:OP1	53:Y7:10:ARG:NH1	2.26	0.67
27:YD:35:LYS:HZ1	27:YD:104:TYR:HB2	1.57	0.67
30:YG:171:ALA:O	30:YG:175:LEU:HG	1.93	0.67
31:YH:77:LYS:HG2	31:YH:77:LYS:O	1.94	0.67
34:YO:14:THR:O	34:YO:51:ALA:HB3	1.94	0.67
35:YP:15:ARG:O	35:YP:16:ARG:C	2.32	0.67
35:YP:39:LYS:CA	35:YP:45:LEU:HD11	2.23	0.67
25:YA:2393:A:H4'	35:YP:61:ARG:O	1.94	0.67
36:YQ:66:ILE:HG13	36:YQ:67:ARG:H	1.58	0.67
38:YS:35:ILE:HD13	38:YS:101:LEU:HD23	1.76	0.67
1:QA:1070:U:P	5:QE:25:ARG:NH1	2.67	0.67
1:QA:221:C:H2'	1:QA:222:U:H6	1.58	0.67
4:QD:173:TRP:CD2	4:QD:189:PRO:HB3	2.29	0.67
10:QJ:96:ILE:N	10:QJ:96:ILE:HD13	2.09	0.67
11:QK:95:ILE:HD12	11:QK:108:ILE:HD13	1.76	0.67
52:R6:48:VAL:HG13	52:R6:49:HIS:H	1.60	0.67
25:RA:848:G:H2'	25:RA:849:A:C8	2.30	0.67
38:RS:35:ILE:HD13	38:RS:101:LEU:HD23	1.76	0.67
1:XA:1422:G:N2	1:XA:1478:C:O2	2.26	0.67
3:XC:147:LYS:O	3:XC:203:PHE:HB3	1.92	0.67
4:XD:120:LEU:HD22	4:XD:125:HIS:HB2	1.74	0.67
4:XD:29:PRO:O	4:XD:30:LYS:HD3	1.94	0.67
6:XF:3:ARG:HB3	6:XF:93:SER:HB2	1.75	0.67
8:XH:14:ARG:O	8:XH:18:ARG:HD3	1.94	0.67
9:XI:48:GLU:N	9:XI:49:PRO:HD2	2.10	0.67
20:XT:83:ARG:HA	20:XT:86:ARG:HD3	1.76	0.67
35:YP:65:ARG:CG	35:YP:65:ARG:HH11	2.06	0.67
36:YQ:104:PHE:CE1	36:YQ:125:LEU:HD11	2.29	0.67
36:YQ:90:VAL:CG1	36:YQ:91:GLU:N	2.57	0.67
44:YY:21:LYS:HG3	44:YY:22:GLY:N	2.09	0.67
1:QA:828:A:H5''	1:QA:859:A:C2	2.29	0.67
2:QB:24:TRP:H	2:QB:24:TRP:HD1	1.43	0.67
2:QB:7:VAL:HG22	2:QB:8:LYS:HD3	1.76	0.67
7:QG:79:ARG:NH2	7:QG:82:GLY:HA2	2.09	0.67
7:QG:8:GLU:H	7:QG:8:GLU:CD	1.97	0.67
25:RA:1509:C:H3'	25:RA:1510:A:H5''	1.76	0.67
25:RA:674:G:H2'	25:RA:804:A:H61	1.57	0.67
36:RQ:104:PHE:CE1	36:RQ:125:LEU:HD11	2.29	0.67
36:RQ:133:ARG:O	36:RQ:134:ARG:HB2	1.94	0.67

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:RU:92:ARG:O	40:RU:94:ASN:N	2.25	0.67
3:XC:195:VAL:HG12	3:XC:196:LEU:N	2.08	0.67
9:XI:28:VAL:HG13	9:XI:63:ILE:CG2	2.24	0.67
50:Y4:33:VAL:HG12	50:Y4:34:GLU:N	2.10	0.67
25:YA:484:C:H2'	25:YA:485:C:C6	2.28	0.67
36:YQ:33:GLY:HA2	36:YQ:105:GLU:HA	1.76	0.67
39:YT:50:ILE:CD1	39:YT:102:ILE:HD11	2.25	0.67
8:QH:100:ILE:HB	8:QH:125:ARG:NH1	2.10	0.67
13:QM:23:TYR:CB	13:QM:67:GLU:HG2	2.25	0.67
25:RA:1252:G:N3	40:RU:33:ARG:HD2	2.10	0.67
25:RA:2758:A:C2	25:RA:2759:G:H1'	2.29	0.67
25:RA:593:G:O3'	54:R8:61:LEU:HD22	1.95	0.67
28:RE:13:ARG:CB	28:RE:13:ARG:HH11	2.07	0.67
36:RQ:20:ALA:HB1	36:RQ:99:PRO:HD2	1.76	0.67
41:RV:25:LEU:H	41:RV:92:THR:HG21	1.60	0.67
1:XA:1291:G:H4'	9:XI:39:GLY:HA3	1.76	0.67
25:YA:1287:A:N7	37:YR:107:ASP:HB2	2.09	0.67
25:YA:2593:U:H2'	25:YA:2594:C:H6	1.58	0.67
33:YN:96:GLU:CG	33:YN:97:ARG:H	2.00	0.67
35:YP:26:GLY:O	35:YP:28:GLY:N	2.26	0.67
38:YS:26:LEU:HD12	38:YS:39:ILE:CD1	2.23	0.67
19:QS:31:ILE:HG23	19:QS:49:ILE:HA	1.75	0.67
25:RA:1803:A:H4'	27:RD:259:THR:HG21	1.76	0.67
25:RA:2041:U:H2'	25:RA:2042:A:C8	2.30	0.67
25:RA:873:G:H1	25:RA:904:C:N4	1.93	0.67
27:RD:135:PHE:N	27:RD:135:PHE:CD2	2.62	0.67
28:RE:10:GLY:H	28:RE:25:VAL:HG23	1.59	0.67
32:RI:92:VAL:HG13	32:RI:120:ILE:HG23	1.76	0.67
34:RO:13:ASN:ND2	34:RO:96:THR:O	2.28	0.67
1:XA:34:C:H2'	1:XA:35:G:C8	2.29	0.67
7:XG:120:ILE:O	7:XG:124:LEU:HB2	1.95	0.67
9:XI:46:ALA:HA	9:XI:78:LYS:HB2	1.74	0.67
16:XP:66:PRO:HG2	16:XP:71:ARG:NH1	2.09	0.67
25:YA:270(J):G:N2	25:YA:270(Q):C:O2	2.28	0.67
27:YD:44:ASN:N	27:YD:44:ASN:ND2	2.42	0.67
28:YE:13:ARG:HH11	28:YE:13:ARG:CB	2.07	0.67
34:YO:25:LEU:HB2	34:YO:38:VAL:HG13	1.74	0.67
36:YQ:12:GLN:CG	36:YQ:73:PRO:HD2	2.21	0.67
36:YQ:81:VAL:C	36:YQ:82:ARG:HG2	2.15	0.67
38:YS:67:ARG:CZ	38:YS:67:ARG:HB2	2.24	0.67
39:YT:108:ARG:HA	39:YT:111:ARG:CZ	2.23	0.67
40:YU:90:VAL:O	40:YU:92:ARG:N	2.26	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:YY:49:VAL:O	44:YY:51:VAL:N	2.27	0.67
1:QA:375:U:H2'	1:QA:376:G:H8	1.60	0.67
6:QF:67:MET:HB2	6:QF:68:PRO:HD2	1.75	0.67
13:QM:78:ILE:HG23	13:QM:92:HIS:ND1	2.09	0.67
52:R6:43:CYS:SG	52:R6:44:ARG:HD3	2.35	0.67
25:RA:1674:G:N2	25:RA:1677:A:N1	2.42	0.67
25:RA:2246:G:H2'	25:RA:2247:A:C8	2.30	0.67
25:RA:389:G:H22	35:RP:72:PRO:HD3	1.60	0.67
25:RA:948:G:N2	25:RA:970:C:O2	2.28	0.67
26:RB:11:C:H3'	26:RB:12:C:H6	1.57	0.67
31:RH:4:ILE:HG13	31:RH:6:ARG:NH1	2.09	0.67
31:RH:89:ILE:O	31:RH:89:ILE:HG12	1.93	0.67
36:RQ:81:VAL:C	36:RQ:82:ARG:HG2	2.14	0.67
1:XA:902:G:H2'	1:XA:903:G:H8	1.59	0.67
2:XB:165:VAL:HG23	2:XB:166:ASP:H	1.57	0.67
2:XB:71:VAL:CG2	2:XB:164:VAL:HG22	2.25	0.67
3:XC:150:LYS:HB3	3:XC:201:TYR:HB2	1.75	0.67
4:XD:173:TRP:CD2	4:XD:189:PRO:HB3	2.30	0.67
11:XK:95:ILE:HD12	11:XK:108:ILE:HD13	1.76	0.67
16:XP:21:VAL:HG11	16:XP:59:TRP:CD1	2.30	0.67
32:YI:27:ARG:HD3	47:Y1:71:TYR:HE1	1.60	0.67
25:YA:530:G:N1	25:YA:2022:U:OP1	2.27	0.67
28:YE:116:VAL:O	28:YE:117:MET:HB3	1.94	0.67
28:YE:26:ILE:HD13	28:YE:27:LEU:N	2.10	0.67
36:YQ:90:VAL:O	36:YQ:92:GLY:N	2.25	0.67
38:YS:52:SER:O	38:YS:56:LEU:HD22	1.93	0.67
44:YY:14:LEU:HD23	44:YY:15:VAL:N	2.10	0.67
1:QA:1158:C:H4'	2:QB:133:LYS:HZ3	1.56	0.67
1:QA:1267:C:H5	1:QA:1268:A:C5	2.13	0.67
7:QG:28:ASN:O	7:QG:31:MET:HB3	1.95	0.67
7:QG:50:ILE:HB	7:QG:58:PRO:HB3	1.75	0.67
13:QM:3:ARG:HD2	13:QM:9:ILE:HG12	1.77	0.67
6:QF:96:PRO:HB3	18:QR:30:ASP:OD2	1.95	0.67
50:R4:33:VAL:HG12	50:R4:34:GLU:N	2.10	0.67
25:RA:1433:U:H6	25:RA:1433:U:H5''	1.58	0.67
25:RA:483:A:H3'	25:RA:484:C:H6	1.60	0.67
28:RE:16:ARG:HG3	28:RE:16:ARG:O	1.93	0.67
31:RH:126:PRO:CD	31:RH:127:GLU:H	2.07	0.67
35:RP:90:ARG:NE	35:RP:91:PHE:HD1	1.93	0.67
36:RQ:32:TYR:HD1	36:RQ:133:ARG:HA	1.60	0.67
42:RW:29:LEU:HD21	42:RW:33:ARG:NE	2.08	0.67
10:XJ:54:PHE:CZ	10:XJ:55:LYS:NZ	2.61	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:Y1:51:VAL:HG11	47:Y1:74:VAL:HG21	1.76	0.67
47:Y1:86:SER:N	47:Y1:87:PRO:HD2	2.10	0.67
51:Y5:4:HIS:HB3	51:Y5:5:PRO:HD3	1.75	0.67
25:YA:2451:A:C6	56:Z8:76:PPU:HE2	2.29	0.67
25:YA:2781:A:H5''	25:YA:2782:G:H5'	1.76	0.67
29:YF:184:TYR:O	29:YF:188:ARG:HG3	1.94	0.67
41:YV:25:LEU:H	41:YV:92:THR:HG21	1.60	0.67
41:YV:44:LYS:O	41:YV:46:VAL:N	2.28	0.67
7:QG:120:ILE:O	7:QG:124:LEU:HB2	1.95	0.67
7:QG:138:LYS:HE2	7:QG:142:GLU:OE2	1.94	0.67
48:R2:47:ASN:ND2	48:R2:47:ASN:H	1.92	0.67
27:RD:35:LYS:CG	27:RD:64:ILE:N	2.56	0.67
28:RE:14:ILE:HG12	28:RE:15:PHE:N	2.06	0.67
31:RH:124:GLU:HB3	31:RH:132:ARG:HD2	1.77	0.67
37:RR:26:LYS:HE2	37:RR:70:LEU:O	1.95	0.67
44:RY:61:ILE:CG2	44:RY:62:GLU:N	2.56	0.67
2:XB:164:VAL:HB	2:XB:186:ALA:CB	2.25	0.67
7:XG:28:ASN:O	7:XG:31:MET:HB3	1.95	0.67
9:XI:33:PHE:CZ	9:XI:47:LEU:HD21	2.30	0.67
52:Y6:48:VAL:HG13	52:Y6:49:HIS:H	1.60	0.67
29:YF:34:TRP:HA	35:YP:6:LEU:HD12	1.77	0.67
1:QA:1274:G:N2	1:QA:1275:A:N7	2.42	0.67
1:QA:54:C:N4	1:QA:353:A:OP2	2.27	0.67
1:QA:503:C:OP2	12:QL:116:SER:HB3	1.95	0.67
2:QB:164:VAL:HB	2:QB:186:ALA:CB	2.25	0.67
14:QN:25:VAL:CG2	14:QN:38:GLY:O	2.31	0.67
52:R6:7:ILE:C	52:R6:9:LEU:H	1.98	0.67
25:RA:1412:A:H2'	25:RA:1413:G:O4'	1.95	0.67
25:RA:29:U:H2'	25:RA:30:G:C8	2.30	0.67
25:RA:2729:G:H1'	28:RE:187:ALA:HB2	1.75	0.67
31:RH:125:VAL:CG1	31:RH:126:PRO:HG3	2.25	0.67
44:RY:21:LYS:HG3	44:RY:22:GLY:N	2.09	0.67
1:XA:958:A:C8	19:XS:55:LYS:HD2	2.30	0.67
17:XQ:56:VAL:HB	17:XQ:78:GLU:HB3	1.76	0.67
1:XA:1221:G:OP1	19:XS:36:ARG:HD3	1.95	0.67
49:Y3:29:ARG:NH1	49:Y3:29:ARG:HB2	2.10	0.67
50:Y4:16:CYS:SG	50:Y4:33:VAL:HB	2.35	0.67
25:YA:2450:A:C2	25:YA:2451:A:C4	2.83	0.67
25:YA:639:U:H2'	25:YA:640:C:C6	2.29	0.67
25:YA:993:G:H2'	25:YA:994:C:H6	1.60	0.67
28:YE:62:PRO:O	28:YE:64:LYS:N	2.28	0.67
31:YH:88:LEU:H	31:YH:88:LEU:HD22	1.59	0.67

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:YO:13:ASN:ND2	34:YO:96:THR:O	2.28	0.67
1:QA:265:G:H2'	1:QA:266:G:H5''	1.78	0.67
1:QA:1055:A:O2'	3:QC:161:GLU:OE2	2.11	0.67
7:QG:141:VAL:O	7:QG:141:VAL:HG12	1.95	0.67
8:QH:6:ILE:H	8:QH:6:ILE:CD1	2.06	0.67
9:QI:112:LYS:HA	9:QI:119:ALA:HB2	1.77	0.67
13:QM:13:LYS:HA	13:QM:44:ARG:HD2	1.77	0.67
18:QR:70:ILE:O	18:QR:74:ARG:HG3	1.95	0.67
20:QT:36:LEU:HD12	20:QT:55:ILE:HG23	1.76	0.67
20:QT:83:ARG:HA	20:QT:86:ARG:HD3	1.76	0.67
25:RA:1473:G:H1	25:RA:1520:U:H3	1.42	0.67
26:RB:15:A:H5'	26:RB:16:G:C8	2.30	0.67
28:RE:36:ARG:HB3	28:RE:36:ARG:HH11	1.60	0.67
25:RA:2405:G:OP1	35:RP:77:ARG:NH2	2.28	0.67
36:RQ:66:ILE:HG13	36:RQ:67:ARG:H	1.58	0.67
3:XC:73:PRO:O	3:XC:76:VAL:HG22	1.95	0.67
10:XJ:6:ILE:HD11	10:XJ:72:VAL:CB	2.24	0.67
25:YA:688:U:H2'	25:YA:689:A:H8	1.59	0.67
27:YD:35:LYS:CA	27:YD:64:ILE:HG22	2.25	0.67
29:YF:103:LYS:HA	29:YF:106:ARG:CG	2.21	0.67
36:YQ:104:PHE:HE1	36:YQ:125:LEU:HD11	1.58	0.67
44:YY:60:PHE:O	44:YY:61:ILE:HD12	1.95	0.67
1:QA:129(A):G:N2	1:QA:188:U:O2'	2.27	0.66
2:QB:71:VAL:CG2	2:QB:164:VAL:HG22	2.25	0.66
5:QE:75:THR:HG23	5:QE:76:ILE:N	2.11	0.66
8:QH:20:TYR:HE2	8:QH:75:ARG:HD2	1.60	0.66
9:QI:33:PHE:CZ	9:QI:47:LEU:HD21	2.30	0.66
14:QN:40:CYS:SG	14:QN:43:CYS:N	2.67	0.66
16:QP:21:VAL:HG11	16:QP:59:TRP:CD1	2.30	0.66
47:R1:80:LEU:HD23	47:R1:80:LEU:N	2.10	0.66
49:R3:29:ARG:HB2	49:R3:29:ARG:NH1	2.10	0.66
25:RA:1339:G:N2	25:RA:1603:A:H1'	2.10	0.66
25:RA:1803:A:H4'	27:RD:259:THR:CG2	2.25	0.66
27:RD:241:PRO:O	27:RD:243:GLY:N	2.28	0.66
35:RP:122:PRO:HA	35:RP:141:ALA:O	1.95	0.66
38:RS:107:GLU:H	38:RS:110:LEU:HD11	1.60	0.66
38:RS:67:ARG:HB2	38:RS:67:ARG:CZ	2.25	0.66
43:RX:57:LEU:HD12	43:RX:78:LYS:HB2	1.77	0.66
2:XB:215:LEU:O	2:XB:219:VAL:HG23	1.94	0.66
4:XD:11:LEU:CD2	4:XD:66:ARG:HD3	2.17	0.66
47:Y1:56:GLN:N	47:Y1:56:GLN:HE21	1.93	0.66
25:YA:2712:U:O2'	25:YA:2712(A):A:H8	1.68	0.66

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2680:C:H5'	28:YE:189:PRO:HA	1.76	0.66
35:YP:61:ARG:H	35:YP:61:ARG:CD	2.09	0.66
42:YW:18:ARG:HG3	42:YW:76:VAL:HG13	1.77	0.66
45:YZ:19:ARG:NH1	45:YZ:84:GLU:O	2.27	0.66
25:RA:1543:A:H1'	25:RA:1545:A:H5''	1.77	0.66
26:RB:97:G:H2'	26:RB:98:G:O4'	1.95	0.66
27:RD:80:ALA:HB3	27:RD:94:LEU:CD1	2.26	0.66
35:RP:66:GLY:O	35:RP:67:MET:HB3	1.94	0.66
36:RQ:90:VAL:O	36:RQ:92:GLY:N	2.25	0.66
44:RY:42:VAL:CG1	44:RY:65:ALA:HB3	2.25	0.66
44:RY:89:PHE:C	44:RY:90:LEU:HD13	2.15	0.66
1:XA:186(E):C:H42	1:XA:191(B):G:H1	1.44	0.66
3:XC:140:ARG:CZ	3:XC:140:ARG:HB2	2.25	0.66
20:XT:89:ARG:NH2	20:XT:104:LEU:HD21	2.09	0.66
36:YQ:83:MET:HB2	46:Y0:7:LEU:HD22	1.77	0.66
51:Y5:56:LYS:H	51:Y5:56:LYS:CD	2.07	0.66
52:Y6:43:CYS:SG	52:Y6:44:ARG:HD3	2.35	0.66
29:YF:46:ARG:HH11	29:YF:46:ARG:CG	2.04	0.66
30:YG:179:PRO:HG3	50:Y4:38:LYS:HZ2	1.59	0.66
44:YY:75:ILE:HG12	44:YY:76:CYS:N	2.10	0.66
1:QA:828:A:H2'	1:QA:829:G:O4'	1.96	0.66
4:QD:52:SER:HB3	4:QD:55:ALA:HB2	1.77	0.66
19:QS:65:ASN:N	19:QS:65:ASN:HD22	1.94	0.66
1:XA:108:G:H5''	1:XA:109:A:H5''	1.76	0.66
1:XA:451:A:N7	1:XA:481:G:C2	2.63	0.66
4:XD:14:ARG:HD3	4:XD:14:ARG:O	1.95	0.66
8:XH:100:ILE:HB	8:XH:125:ARG:NH1	2.09	0.66
10:XJ:34:VAL:HG22	10:XJ:74:ILE:HG22	1.78	0.66
47:Y1:83:GLU:HG2	47:Y1:84:GLY:N	2.09	0.66
25:YA:1403:C:H5''	25:YA:1471:A:C1'	2.25	0.66
25:YA:2470:G:H5'	36:YQ:56:ARG:NH2	2.10	0.66
25:YA:270(A):A:N3	25:YA:365:C:O2'	2.27	0.66
33:YN:57:ALA:HA	33:YN:60:ILE:HD11	1.78	0.66
35:YP:66:GLY:O	35:YP:67:MET:HB3	1.94	0.66
36:YQ:88:GLY:C	36:YQ:90:VAL:N	2.47	0.66
44:YY:89:PHE:C	44:YY:90:LEU:HD13	2.15	0.66
1:QA:1277:C:O2'	1:QA:1279:A:H8	1.78	0.66
1:QA:804:U:H5''	1:QA:805:C:OP2	1.95	0.66
8:QH:10:LEU:HD23	8:QH:10:LEU:H	1.60	0.66
50:R4:37:SER:C	50:R4:39:CYS:H	1.98	0.66
25:RA:25:U:H5''	42:RW:80:PRO:HD3	1.75	0.66
27:RD:145:VAL:HG12	27:RD:146:GLU:O	1.96	0.66

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:174:ASP:CG	28:RE:175:VAL:H	1.98	0.66
29:RF:34:TRP:HA	35:RP:6:LEU:HD12	1.77	0.66
31:RH:77:LYS:HG2	31:RH:77:LYS:O	1.94	0.66
35:RP:1:MET:CE	35:RP:5:ASP:HB3	2.24	0.66
1:XA:545:C:OP2	4:XD:62:GLN:NE2	2.28	0.66
4:XD:13:ARG:HA	4:XD:33:MET:HE3	1.76	0.66
1:XA:1199:U:H4'	10:XJ:54:PHE:CZ	2.30	0.66
20:XT:97:ALA:O	20:XT:99:LEU:N	2.27	0.66
19:XS:5:LEU:HD11	50:Y4:66:SER:CB	2.24	0.66
25:YA:2654:A:H62	25:YA:2667:C:N4	1.94	0.66
27:YD:172:TYR:HB3	27:YD:184:LYS:HG2	1.77	0.66
33:YN:58:ASP:H	33:YN:60:ILE:CD1	2.09	0.66
35:YP:122:PRO:HA	35:YP:141:ALA:O	1.95	0.66
25:YA:587:C:OP2	35:YP:21:ARG:NH2	2.27	0.66
36:YQ:32:TYR:HD1	36:YQ:133:ARG:HA	1.61	0.66
41:YV:53:GLU:O	41:YV:53:GLU:HG2	1.94	0.66
1:QA:865:A:H5'	1:QA:1078:U:C5	2.29	0.66
4:QD:165:MET:HA	4:QD:165:MET:HE3	1.78	0.66
8:QH:23:SER:HA	8:QH:63:LEU:CD2	2.24	0.66
17:QQ:56:VAL:HB	17:QQ:78:GLU:HB3	1.76	0.66
25:RA:1190:G:OP1	35:RP:30:THR:OG1	2.12	0.66
25:RA:997:G:OP1	40:RU:93:LYS:HD3	1.94	0.66
27:RD:68:LYS:HB2	27:RD:70:TRP:CZ3	2.31	0.66
31:RH:168:PRO:O	31:RH:169:VAL:HG12	1.96	0.66
32:RI:57:ARG:O	32:RI:61:ARG:HG2	1.96	0.66
34:RO:14:THR:O	34:RO:51:ALA:HB3	1.95	0.66
34:RO:86:ILE:HD12	34:RO:86:ILE:H	1.61	0.66
25:RA:637:A:H2'	35:RP:117:GLU:OE2	1.94	0.66
39:RT:50:ILE:CD1	39:RT:102:ILE:HD11	2.25	0.66
39:RT:11:GLU:CD	39:RT:11:GLU:N	2.47	0.66
4:XD:52:SER:O	4:XD:56:VAL:HG23	1.95	0.66
7:XG:141:VAL:O	7:XG:141:VAL:HG12	1.95	0.66
7:XG:69:VAL:O	7:XG:69:VAL:HG12	1.95	0.66
8:XH:84:ARG:NH1	8:XH:84:ARG:HG3	2.10	0.66
48:Y2:65:ASN:HB3	48:Y2:69:ARG:NH1	2.10	0.66
51:Y5:40:LYS:NZ	51:Y5:48:GLU:HB2	2.10	0.66
25:YA:1533:C:H2'	25:YA:1534:G:N7	2.11	0.66
25:YA:578:A:OP1	25:YA:1255:U:O2'	2.13	0.66
27:YD:68:LYS:HB2	27:YD:70:TRP:CZ3	2.31	0.66
28:YE:28:ALA:O	28:YE:93:VAL:HG23	1.96	0.66
35:YP:81:GLN:NE2	35:YP:106:LEU:O	2.29	0.66
43:YX:11:PRO:HB3	43:YX:92:LEU:HD21	1.78	0.66

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:946:A:O2'	1:QA:1333:A:N3	2.27	0.66
3:QC:101:LEU:HD23	3:QC:102:ASN:N	2.11	0.66
3:QC:73:PRO:O	3:QC:76:VAL:HG22	1.96	0.66
7:QG:78:ARG:NH1	7:QG:80:VAL:HG23	2.11	0.66
25:RA:227:A:OP1	35:RP:76:LYS:HE3	1.95	0.66
25:RA:270(T):G:OP1	47:R1:97:LEU:HD13	1.95	0.66
27:RD:44:ASN:HB3	27:RD:49:ILE:HG22	1.78	0.66
28:RE:101:ARG:CZ	28:RE:171:GLU:HB2	2.25	0.66
28:RE:9:VAL:HB	28:RE:25:VAL:HG23	1.75	0.66
30:RG:136:ARG:O	30:RG:154:GLY:HA3	1.95	0.66
35:RP:81:GLN:NE2	35:RP:106:LEU:O	2.29	0.66
40:RU:88:ILE:N	40:RU:88:ILE:HD13	2.10	0.66
41:RV:44:LYS:O	41:RV:46:VAL:N	2.28	0.66
44:RY:94:LYS:HE3	44:RY:101:LYS:NZ	2.11	0.66
8:XH:29:SER:HB3	8:XH:32:LYS:CG	2.22	0.66
10:XJ:81:THR:C	10:XJ:83:GLU:H	1.99	0.66
13:XM:3:ARG:HD2	13:XM:9:ILE:HG12	1.77	0.66
18:XR:70:ILE:O	18:XR:74:ARG:HG3	1.95	0.66
13:XM:65:LYS:HE2	50:Y4:50:VAL:HG11	1.76	0.66
54:Y8:30:ARG:O	54:Y8:31:HIS:HB2	1.96	0.66
30:YG:136:ARG:O	30:YG:154:GLY:HA3	1.95	0.66
33:YN:134:ARG:N	33:YN:135:PRO:HD3	1.97	0.66
38:YS:107:GLU:H	38:YS:110:LEU:HD11	1.60	0.66
40:YU:88:ILE:HD13	40:YU:88:ILE:N	2.10	0.66
1:QA:1004:A:O5'	1:QA:1025:U:N3	2.28	0.66
1:QA:624:C:H2'	1:QA:625:G:H8	1.60	0.66
2:QB:25:ASN:O	2:QB:27:LYS:N	2.27	0.66
5:QE:78:HIS:HD2	8:QH:104:ARG:HG2	1.54	0.66
13:QM:117:VAL:HG22	13:QM:118:ALA:H	1.59	0.66
13:QM:81:LEU:O	13:QM:84:ILE:HG22	1.95	0.66
47:R1:86:SER:N	47:R1:87:PRO:HD2	2.10	0.66
25:RA:27:G:H1'	25:RA:513:A:H62	1.60	0.66
25:RA:398:G:H2'	25:RA:399:G:C8	2.30	0.66
25:RA:675:A:N3	25:RA:2443:C:O2'	2.29	0.66
25:RA:813:U:H2'	25:RA:814:C:H6	1.60	0.66
29:RF:175:THR:O	29:RF:176:LEU:HB2	1.96	0.66
25:RA:583:G:H5''	40:RU:10:ARG:HH12	1.61	0.66
44:RY:47:LYS:HG2	44:RY:60:PHE:CE1	2.31	0.66
44:RY:75:ILE:HG12	44:RY:76:CYS:N	2.10	0.66
1:XA:44:G:C2	1:XA:45:U:H1'	2.31	0.66
1:XA:718:G:H5''	1:XA:719:C:OP2	1.96	0.66
12:XL:26:ALA:O	12:XL:27:LEU:O	2.14	0.66

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:XS:35:SER:O	19:XS:71:LEU:HD12	1.96	0.66
1:XA:1453:G:H2'	20:XT:39:LYS:NZ	2.11	0.66
47:Y1:11:ARG:HH11	47:Y1:11:ARG:HB3	1.61	0.66
25:YA:125:G:H5''	53:Y7:19:ARG:HD3	1.77	0.66
25:YA:2477:C:H2'	55:Y9:1:MET:HG3	1.78	0.66
25:YA:744:G:N2	25:YA:753:C:O2	2.21	0.66
28:YE:174:ASP:CG	28:YE:175:VAL:H	1.98	0.66
28:YE:37:ARG:HA	28:YE:37:ARG:NE	2.11	0.66
25:YA:2392:A:H8	35:YP:60:MET:HG3	1.61	0.66
38:YS:106:ARG:HA	38:YS:110:LEU:CD2	2.25	0.66
1:QA:1084:G:H5'	1:QA:1102:A:OP2	1.95	0.66
1:QA:1333:A:C2	1:QA:1334:G:H1'	2.31	0.66
47:R1:51:VAL:HG11	47:R1:74:VAL:HG21	1.76	0.66
25:RA:577:G:O2'	25:RA:1254:A:OP1	2.14	0.66
25:RA:866:A:N3	25:RA:866:A:H2'	2.09	0.66
27:RD:35:LYS:CA	27:RD:64:ILE:HG22	2.26	0.66
28:RE:26:ILE:HD13	28:RE:27:LEU:N	2.10	0.66
28:RE:62:PRO:O	28:RE:64:LYS:N	2.28	0.66
36:RQ:88:GLY:C	36:RQ:90:VAL:N	2.47	0.66
1:XA:1118:C:H1'	1:XA:1179:A:C4	2.30	0.66
2:XB:24:TRP:HD1	2:XB:24:TRP:H	1.43	0.66
13:XM:81:LEU:O	13:XM:84:ILE:HG22	1.95	0.66
1:XA:667:G:H4'	15:XO:51:HIS:CE1	2.31	0.66
25:YA:2632:A:HO2'	25:YA:2811:G:HO2'	1.37	0.66
27:YD:135:PHE:N	27:YD:135:PHE:CD2	2.61	0.66
27:YD:183:ARG:HH11	27:YD:183:ARG:CG	2.07	0.66
32:YI:29:TYR:O	32:YI:33:ARG:HB2	1.95	0.66
35:YP:61:ARG:NH2	54:Y8:13:ARG:HD2	2.10	0.66
36:YQ:20:ALA:HB1	36:YQ:99:PRO:HD2	1.77	0.66
44:YY:94:LYS:HE3	44:YY:101:LYS:NZ	2.11	0.66
45:YZ:52:SER:O	45:YZ:52:SER:OG	2.05	0.66
1:QA:255:G:H2'	1:QA:256:U:H6	1.58	0.66
2:QB:87:ARG:HH11	2:QB:223:ILE:CD1	2.09	0.66
17:QQ:27:PHE:CZ	17:QQ:36:ILE:HD11	2.31	0.66
50:R4:16:CYS:SG	50:R4:33:VAL:HB	2.35	0.66
25:RA:1065:U:O2	25:RA:1074:G:N1	2.29	0.66
25:RA:1349:A:N6	25:RA:1598:C:H42	1.94	0.66
27:RD:237:GLU:OE1	27:RD:237:GLU:N	2.29	0.66
27:RD:35:LYS:HZ1	27:RD:65:ILE:HA	1.60	0.66
33:RN:58:ASP:H	33:RN:60:ILE:CD1	2.09	0.66
25:RA:1190:G:H5'	35:RP:32:THR:HA	1.78	0.66
36:RQ:33:GLY:HA2	36:RQ:105:GLU:HA	1.76	0.66

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:RS:106:ARG:HA	38:RS:110:LEU:CD2	2.26	0.66
44:RY:14:LEU:HD23	44:RY:15:VAL:N	2.10	0.66
1:XA:674:G:H2'	1:XA:675:A:C8	2.27	0.66
1:XA:1112:C:H1'	3:XC:179:ARG:HH11	1.61	0.66
5:XE:75:THR:HG23	5:XE:76:ILE:N	2.11	0.66
7:XG:78:ARG:NH1	7:XG:80:VAL:HG23	2.11	0.66
8:XH:10:LEU:H	8:XH:10:LEU:HD23	1.59	0.66
13:XM:74:VAL:O	13:XM:78:ILE:HG13	1.96	0.66
14:XN:40:CYS:SG	14:XN:43:CYS:CB	2.83	0.66
47:Y1:80:LEU:HD23	47:Y1:80:LEU:N	2.10	0.66
48:Y2:47:ASN:H	48:Y2:47:ASN:ND2	1.92	0.66
25:YA:1210:A:C8	25:YA:1210:A:H5'	2.31	0.66
25:YA:2389:G:H5''	25:YA:2390:U:H5'	1.78	0.66
30:YG:145:THR:HG23	50:Y4:28:LYS:NZ	2.11	0.66
31:YH:125:VAL:CG1	31:YH:126:PRO:HG3	2.25	0.66
40:YU:65:ILE:HG12	40:YU:96:ALA:CB	2.26	0.66
44:YY:47:LYS:HG2	44:YY:60:PHE:CE1	2.31	0.66
1:QA:607:A:H2'	1:QA:608:A:O4'	1.96	0.66
1:QA:677:U:H3	1:QA:713:G:H22	1.43	0.66
6:QF:41:GLU:O	6:QF:43:LEU:HD12	1.96	0.66
10:QJ:99:LYS:O	10:QJ:100:THR:HG23	1.96	0.66
12:QL:25:PRO:C	12:QL:27:LEU:H	1.98	0.66
35:RP:61:ARG:NH2	54:R8:13:ARG:HD2	2.10	0.66
54:R8:30:ARG:O	54:R8:31:HIS:HB2	1.96	0.66
25:RA:67:U:H2'	25:RA:68:G:H8	1.60	0.66
25:RA:774:A:O2'	25:RA:775:G:O5'	2.14	0.66
27:RD:121:PRO:HB3	27:RD:135:PHE:CE1	2.30	0.66
27:RD:183:ARG:HH11	27:RD:183:ARG:CG	2.07	0.66
38:RS:88:ASP:OD2	38:RS:90:GLY:N	2.28	0.66
44:RY:99:CYS:SG	44:RY:100:ALA:N	2.69	0.66
1:XA:1016:A:H2'	1:XA:1017:G:O4'	1.95	0.66
19:XS:15:LEU:O	19:XS:19:VAL:N	2.26	0.66
50:Y4:71:ARG:CG	50:Y4:71:ARG:HH11	1.98	0.66
25:YA:2712:U:H1'	25:YA:2712(A):A:N7	2.11	0.66
28:YE:36:ARG:HH11	28:YE:36:ARG:HB3	1.60	0.66
34:YO:113:LYS:O	34:YO:117:LEU:HD12	1.96	0.66
38:YS:88:ASP:OD2	38:YS:90:GLY:N	2.28	0.66
34:YO:71:ARG:NH1	39:YT:74:ARG:HH21	1.94	0.66
25:YA:1221:C:OP1	41:YV:68:LYS:HE2	1.96	0.66
3:QC:140:ARG:CZ	3:QC:140:ARG:HB2	2.25	0.65
5:QE:78:HIS:CD2	8:QH:104:ARG:NE	2.64	0.65
5:QE:78:HIS:HB3	8:QH:104:ARG:O	1.96	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:QG:69:VAL:HG12	7:QG:69:VAL:O	1.95	0.65
15:QO:25:THR:HG21	15:QO:70:LEU:HB2	1.77	0.65
1:QA:192:U:C4'	20:QT:103:GLY:HA2	2.26	0.65
25:RA:76:C:O2'	48:R2:62:THR:HG21	1.96	0.65
48:R2:64:LEU:HD22	48:R2:68:ARG:HD2	1.76	0.65
25:RA:288:C:H2'	25:RA:289:A:H8	1.61	0.65
25:RA:994:C:O2'	25:RA:996:A:OP1	2.11	0.65
26:RB:22:U:H3	26:RB:61:G:H1	1.43	0.65
39:RT:22:PHE:N	39:RT:22:PHE:CD2	2.63	0.65
42:RW:25:ARG:HB2	42:RW:25:ARG:NH1	2.11	0.65
43:RX:65:ARG:N	43:RX:65:ARG:HD3	2.11	0.65
44:RY:60:PHE:O	44:RY:61:ILE:HD12	1.95	0.65
2:XB:14:GLY:O	2:XB:15:VAL:HG13	1.96	0.65
10:XJ:39:PRO:HB3	10:XJ:70:ARG:HH12	1.61	0.65
14:YN:23:ARG:NH1	14:YN:30:ALA:HB2	2.11	0.65
17:XQ:74:LEU:HD12	17:XQ:75:ARG:HG2	1.76	0.65
26:YB:12:C:O2'	46:Y0:74:ARG:HG3	1.95	0.65
25:YA:1761:C:H42	25:YA:1762:A:H62	1.44	0.65
25:YA:2839:G:H1	25:YA:2878:U:H3	1.41	0.65
27:YD:121:PRO:HB3	27:YD:135:PHE:CE1	2.30	0.65
28:YE:101:ARG:CZ	28:YE:171:GLU:HB2	2.26	0.65
28:YE:13:ARG:NH1	28:YE:21:VAL:HG12	2.11	0.65
1:QA:1004:A:P	1:QA:1025:U:H3	2.19	0.65
2:QB:87:ARG:O	2:QB:87:ARG:HD2	1.95	0.65
9:QI:28:VAL:HA	9:QI:63:ILE:HB	1.79	0.65
25:RA:1636:C:H2'	25:RA:1637:A:C8	2.32	0.65
25:RA:2749:A:H4'	31:RH:62:LYS:HB3	1.78	0.65
25:RA:846:C:H42	25:RA:931:G:H1	1.43	0.65
4:XD:52:SER:HB3	4:XD:55:ALA:HB2	1.77	0.65
6:XF:96:PRO:HB3	18:XR:30:ASP:OD2	1.95	0.65
10:XJ:99:LYS:O	10:XJ:100:THR:HG23	1.96	0.65
17:XQ:27:PHE:CZ	17:XQ:36:ILE:HD11	2.31	0.65
52:Y6:7:ILE:C	52:Y6:9:LEU:H	1.98	0.65
25:YA:2376:A:N1	38:YS:87:PHE:CD2	2.64	0.65
4:QD:166:LYS:CD	27:YD:134:ARG:NH1	2.60	0.65
25:YA:1805:U:O2	27:YD:50:THR:HB	1.96	0.65
31:YH:124:GLU:HB3	31:YH:132:ARG:HD2	1.77	0.65
34:YO:86:ILE:HD12	34:YO:86:ILE:H	1.61	0.65
37:YR:26:LYS:HE2	37:YR:70:LEU:O	1.95	0.65
42:YW:65:LEU:HD12	42:YW:68:ARG:NH1	2.10	0.65
44:YY:42:VAL:CG1	44:YY:65:ALA:HB3	2.26	0.65
1:QA:1266:G:N2	1:QA:1270:C:N3	2.44	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:164:VAL:HB	2:QB:186:ALA:HB2	1.78	0.65
5:QE:41:VAL:CG1	5:QE:113:ALA:HB2	2.25	0.65
8:QH:20:TYR:HA	8:QH:65:TYR:HE2	1.60	0.65
12:QL:21:LYS:HD2	12:QL:21:LYS:N	2.11	0.65
20:QT:44:ALA:HB2	20:QT:88:VAL:HG13	1.78	0.65
25:RA:2233:U:H2'	25:RA:2234:G:C8	2.32	0.65
25:RA:769:G:H2'	25:RA:770:G:H8	1.60	0.65
25:RA:910:A:N3	25:RA:2264:C:O2'	2.25	0.65
27:RD:27:THR:CG2	27:RD:28:GLU:H	2.09	0.65
34:RO:113:LYS:O	34:RO:117:LEU:HD12	1.96	0.65
1:XA:1243:C:H42	1:XA:1294:G:H1	1.43	0.65
15:XO:8:LYS:O	15:XO:12:ILE:HG13	1.96	0.65
25:YA:1190:G:OP1	35:YP:30:THR:OG1	2.13	0.65
25:YA:1790:C:H5''	25:YA:1791:A:OP1	1.96	0.65
27:YD:145:VAL:HG12	27:YD:146:GLU:O	1.96	0.65
28:YE:10:GLY:H	28:YE:25:VAL:HG23	1.59	0.65
31:YH:168:PRO:O	31:YH:169:VAL:HG12	1.96	0.65
43:YX:65:ARG:HD3	43:YX:65:ARG:N	2.12	0.65
44:YY:35:TYR:CE1	44:YY:69:ALA:HB3	2.31	0.65
45:YZ:74:VAL:HG22	45:YZ:86:VAL:HG13	1.78	0.65
2:QB:17:PHE:HD2	2:QB:44:LEU:HD21	1.61	0.65
4:QD:122:ARG:HD3	4:QD:122:ARG:O	1.97	0.65
4:QD:94:LEU:H	4:QD:94:LEU:CD1	2.08	0.65
10:QJ:38:ILE:HD11	10:QJ:71:LEU:HB3	1.78	0.65
12:QL:115:LYS:O	12:QL:117:ARG:HG3	1.96	0.65
16:QP:45:THR:HG22	16:QP:47:ASP:H	1.60	0.65
21:QU:25:LYS:HE2	21:QU:26:LYS:O	1.96	0.65
27:RD:176:ARG:HH11	27:RD:176:ARG:HG2	1.60	0.65
25:RA:1903:G:OP2	27:RD:241:PRO:HB2	1.96	0.65
31:RH:128:PRO:CD	31:RH:129:THR:H	2.09	0.65
32:RI:85:GLU:OE1	32:RI:86:THR:OG1	2.14	0.65
35:RP:138:LEU:HD11	35:RP:144:GLU:HG3	1.78	0.65
41:RV:76:LYS:HB2	41:RV:81:TYR:HB3	1.79	0.65
45:RZ:111:VAL:HG22	45:RZ:112:ARG:H	1.62	0.65
3:XC:70:VAL:HG12	3:XC:71:ALA:N	2.10	0.65
6:XF:41:GLU:O	6:XF:43:LEU:HD12	1.96	0.65
9:XI:53:VAL:HG21	9:XI:92:TYR:CE1	2.32	0.65
10:XJ:38:ILE:HD11	10:XJ:71:LEU:HB3	1.78	0.65
16:XP:45:THR:HG22	16:XP:47:ASP:H	1.60	0.65
25:YA:1407:C:H42	25:YA:1595:G:H1	1.43	0.65
25:YA:1899:G:H22	25:YA:1902:C:N4	1.92	0.65
27:YD:27:THR:CG2	27:YD:28:GLU:H	2.09	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1305:G:N2	1:QA:1331:G:H2'	2.12	0.65
1:QA:474:G:H5'	16:QP:81:ARG:HG3	1.77	0.65
1:QA:565:U:H5''	1:QA:566:G:H2'	1.78	0.65
4:QD:13:ARG:HD3	4:QD:38:TYR:O	1.97	0.65
7:QG:11:GLN:O	7:QG:12:LEU:HD13	1.97	0.65
19:QS:15:LEU:O	19:QS:19:VAL:N	2.26	0.65
19:QS:21:GLU:O	19:QS:25:LYS:HB3	1.97	0.65
19:QS:3:ARG:CZ	19:QS:8:GLY:HA2	2.26	0.65
51:R5:40:LYS:NZ	51:R5:48:GLU:HB2	2.10	0.65
41:RV:53:GLU:O	41:RV:53:GLU:HG2	1.94	0.65
1:XA:1023:G:H3'	1:XA:1024:G:H5''	1.79	0.65
1:XA:1219:U:OP1	14:YN:19:ARG:NH2	2.18	0.65
2:XB:67:THR:HG21	2:XB:155:LEU:CD2	2.26	0.65
2:XB:87:ARG:HH11	2:XB:223:ILE:CD1	2.09	0.65
4:XD:52:SER:HB3	4:XD:55:ALA:CB	2.27	0.65
16:XP:21:VAL:HG23	16:XP:33:ILE:HB	1.77	0.65
20:XT:36:LEU:HD12	20:XT:55:ILE:HG23	1.76	0.65
48:Y2:42:GLY:O	48:Y2:44:LEU:N	2.30	0.65
25:YA:1826:G:H4'	27:YD:242:ARG:HH21	1.62	0.65
27:YD:80:ALA:HB3	27:YD:94:LEU:CD1	2.26	0.65
35:YP:90:ARG:NE	35:YP:91:PHE:HD1	1.93	0.65
1:QA:1203:C:H2'	1:QA:1204:A:C8	2.31	0.65
3:QC:70:VAL:HG12	3:QC:71:ALA:N	2.10	0.65
4:QD:52:SER:O	4:QD:56:VAL:HG23	1.95	0.65
9:QI:118:LYS:HZ3	9:QI:118:LYS:CB	2.09	0.65
13:QM:74:VAL:O	13:QM:78:ILE:HG13	1.96	0.65
16:QP:6:LEU:HD23	16:QP:17:TYR:CD2	2.32	0.65
25:RA:2456:C:H42	25:RA:2495:G:H1	1.43	0.65
29:RF:155:LEU:HD13	29:RF:174:VAL:CG1	2.27	0.65
34:RO:12:ASP:OD1	34:RO:14:THR:HG23	1.97	0.65
36:RQ:59:ARG:C	36:RQ:60:ARG:HG3	2.17	0.65
41:RV:43:GLU:HA	41:RV:43:GLU:OE2	1.95	0.65
1:XA:1316:G:N2	1:XA:1319:A:OP2	2.29	0.65
1:XA:429:U:H1'	1:XA:430:A:H5''	1.78	0.65
2:XB:87:ARG:O	2:XB:87:ARG:HD2	1.95	0.65
19:XS:10:PHE:CG	19:XS:11:VAL:N	2.65	0.65
20:XT:83:ARG:CA	20:XT:86:ARG:HB3	2.27	0.65
48:Y2:69:ARG:NH1	48:Y2:69:ARG:HB2	2.11	0.65
25:YA:1055:G:O2'	25:YA:1085:A:N1	2.27	0.65
25:YA:1429:G:H2'	25:YA:1430:C:C6	2.31	0.65
25:YA:2093:G:H2'	25:YA:2094:G:H8	1.60	0.65
35:YP:113:LYS:HG2	35:YP:115:LEU:HD23	1.79	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:YP:39:LYS:HA	35:YP:45:LEU:HD13	1.79	0.65
1:QA:1071:C:H5''	5:QE:49:PRO:HG2	1.79	0.65
7:QG:21:VAL:HG23	7:QG:22:LEU:H	1.60	0.65
10:QJ:27:ALA:CB	10:QJ:34:VAL:HG21	2.26	0.65
15:QO:8:LYS:O	15:QO:12:ILE:HG13	1.97	0.65
6:QF:98:LEU:HB3	18:QR:30:ASP:HA	1.79	0.65
50:R4:49:PHE:O	50:R4:50:VAL:HG23	1.97	0.65
25:RA:597:U:H2'	25:RA:598:G:H8	1.62	0.65
25:RA:896:A:C2	45:RZ:146:ILE:HD11	2.32	0.65
28:RE:28:ALA:O	28:RE:93:VAL:HG23	1.95	0.65
26:RB:55:U:H4'	30:RG:28:VAL:HG21	1.79	0.65
31:RH:150:ALA:C	31:RH:152:ARG:N	2.44	0.65
34:RO:71:ARG:NH1	39:RT:74:ARG:HH21	1.94	0.65
35:RP:39:LYS:HA	35:RP:45:LEU:HD13	1.79	0.65
25:RA:1156:A:C8	40:RU:51:LYS:HD2	2.32	0.65
40:RU:90:VAL:CG1	40:RU:91:ASP:H	2.00	0.65
42:RW:18:ARG:HG3	42:RW:76:VAL:HG13	1.77	0.65
1:XA:1002:G:H2'	1:XA:1003:G:H8	1.62	0.65
2:XB:17:PHE:HD2	2:XB:44:LEU:HD21	1.61	0.65
7:XG:21:VAL:HG23	7:XG:22:LEU:H	1.61	0.65
1:XA:797:C:OP1	11:XK:124:LYS:HE2	1.96	0.65
12:XL:39:VAL:HB	12:XL:57:LYS:HB2	1.78	0.65
25:YA:2071:A:H2	25:YA:2441:C:N3	1.94	0.65
25:YA:2468:G:H5''	36:YQ:120:ILE:HD12	1.79	0.65
25:YA:451:C:H4'	29:YF:52:LYS:NZ	2.12	0.65
44:YY:99:CYS:SG	44:YY:100:ALA:N	2.69	0.65
1:QA:991:U:O4	1:QA:1212:U:O2'	2.09	0.65
4:QD:28:SER:CB	4:QD:29:PRO:HD3	2.25	0.65
6:QF:50:TYR:CE1	18:QR:77:GLY:HA2	2.32	0.65
12:QL:39:VAL:HB	12:QL:57:LYS:HB2	1.79	0.65
16:QP:51:VAL:HG21	16:QP:77:ALA:HB2	1.78	0.65
47:R1:29:GLY:O	47:R1:30:VAL:HG23	1.97	0.65
47:R1:82:LEU:CD1	47:R1:83:GLU:C	2.64	0.65
13:QM:3:ARG:HG2	50:R4:34:GLU:OE1	1.96	0.65
50:R4:36:CYS:O	50:R4:37:SER:O	2.14	0.65
52:R6:7:ILE:HG13	52:R6:8:LYS:N	2.06	0.65
27:RD:172:TYR:HB3	27:RD:184:LYS:HG2	1.77	0.65
34:RO:7:TYR:CE1	34:RO:20:MET:HB2	2.32	0.65
35:RP:6:LEU:O	35:RP:7:ARG:HG2	1.97	0.65
9:XI:112:LYS:HA	9:XI:119:ALA:HB2	1.77	0.65
10:XJ:54:PHE:C	10:XJ:55:LYS:HG3	2.17	0.65
13:XM:51:ALA:O	13:XM:55:ARG:HG3	1.97	0.65

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:XP:6:LEU:HD23	16:XP:17:TYR:CD2	2.32	0.65
6:XF:98:LEU:HB3	18:XR:30:ASP:HA	1.79	0.65
18:XR:73:ALA:HB3	18:XR:79:LEU:HD12	1.78	0.65
54:Y8:52:LYS:O	54:Y8:52:LYS:HG3	1.97	0.65
25:YA:2073:C:H2'	25:YA:2074:U:H6	1.61	0.65
25:YA:2466:C:OP1	55:Y9:4:ARG:HB2	1.97	0.65
25:YA:702:G:N2	25:YA:730:C:N3	2.44	0.65
33:YN:43:THR:HB	33:YN:46:VAL:CG1	2.27	0.65
39:YT:11:GLU:OE1	39:YT:11:GLU:N	2.27	0.65
40:YU:74:LEU:HD23	40:YU:114:LYS:HD3	1.78	0.65
1:QA:1124:G:H3'	1:QA:1145:C:H41	1.62	0.65
2:QB:14:GLY:O	2:QB:15:VAL:HG13	1.96	0.65
8:QH:20:TYR:CE2	8:QH:75:ARG:HD2	2.32	0.65
10:QJ:34:VAL:HG22	10:QJ:74:ILE:HG22	1.77	0.65
15:QO:74:ASP:OD1	15:QO:77:ARG:N	2.30	0.65
18:QR:43:PHE:CE2	18:QR:58:LEU:HD11	2.31	0.65
47:R1:11:ARG:HH11	47:R1:11:ARG:HB3	1.61	0.65
51:R5:40:LYS:HD3	51:R5:46:CYS:CB	2.26	0.65
51:R5:56:LYS:H	51:R5:56:LYS:CD	2.07	0.65
25:RA:1292:U:H2'	25:RA:1293:C:C6	2.31	0.65
28:RE:37:ARG:HA	28:RE:37:ARG:NE	2.11	0.65
44:RY:35:TYR:CE1	44:RY:69:ALA:HB3	2.31	0.65
1:XA:607:A:C2	16:XP:31:LYS:HB2	2.31	0.65
3:XC:101:LEU:HD23	3:XC:102:ASN:N	2.11	0.65
5:XE:50:GLU:HG3	5:XE:52:PRO:HD2	1.79	0.65
7:XG:11:GLN:O	7:XG:12:LEU:HD13	1.97	0.65
12:XL:25:PRO:C	12:XL:27:LEU:H	1.98	0.65
15:XO:25:THR:HG21	15:XO:70:LEU:HB2	1.77	0.65
19:XS:3:ARG:CZ	19:XS:8:GLY:HA2	2.26	0.65
19:XS:68:GLY:HA3	50:Y4:68:ARG:CB	2.27	0.65
46:Y0:68:GLU:OE1	46:Y0:82:ARG:NH1	2.30	0.65
28:YE:201:THR:HG22	28:YE:203:LYS:N	2.07	0.65
26:YB:42:C:O2	30:YG:93:THR:N	2.28	0.65
31:YH:128:PRO:CD	31:YH:129:THR:H	2.09	0.65
35:YP:138:LEU:HD11	35:YP:144:GLU:HG3	1.78	0.65
35:YP:97:PRO:HD3	35:YP:126:VAL:O	1.97	0.65
1:QA:486:U:H2'	1:QA:487:A:H8	1.62	0.65
1:QA:540:G:H2'	1:QA:541:G:C8	2.32	0.65
2:QB:155:LEU:HD12	2:QB:157:ARG:O	1.97	0.65
19:QS:10:PHE:CG	19:QS:11:VAL:N	2.65	0.65
20:QT:83:ARG:CA	20:QT:86:ARG:HB3	2.27	0.65
25:RA:2770:G:H5''	25:RA:2771:C:OP2	1.96	0.65

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:879:G:C2	25:RA:880:G:H1'	2.32	0.65
27:RD:122:ASP:CG	27:RD:123:ALA:H	2.00	0.65
28:RE:13:ARG:NH1	28:RE:21:VAL:HG12	2.11	0.65
29:RF:45:ARG:CG	29:RF:45:ARG:HH11	2.09	0.65
25:RA:443:A:N7	29:RF:45:ARG:HD2	2.12	0.65
30:RG:145:THR:HG23	50:R4:28:LYS:NZ	2.11	0.65
1:XA:1320:C:N4	19:XS:36:ARG:HG3	2.12	0.65
2:XB:164:VAL:HB	2:XB:186:ALA:HB2	1.78	0.65
2:XB:7:VAL:HG22	2:XB:8:LYS:HD3	1.76	0.65
3:XC:34:LEU:HD21	3:XC:38:ARG:HD2	1.79	0.65
15:XO:74:ASP:OD1	15:XO:77:ARG:N	2.30	0.65
19:XS:21:GLU:HG3	19:XS:22:LEU:N	2.11	0.65
1:XA:1314:C:OP2	19:XS:4:SER:OG	2.15	0.65
20:XT:44:ALA:HB2	20:XT:88:VAL:HG13	1.78	0.65
47:Y1:82:LEU:CD1	47:Y1:83:GLU:C	2.64	0.65
54:Y8:56:GLU:N	54:Y8:56:GLU:OE1	2.30	0.65
25:YA:2807:G:N1	25:YA:2893:G:O6	2.30	0.65
27:YD:44:ASN:HB3	27:YD:49:ILE:HG22	1.78	0.65
35:YP:6:LEU:O	35:YP:7:ARG:HG2	1.97	0.65
36:YQ:23:GLY:HA3	36:YQ:101:ARG:NH1	2.12	0.65
37:YR:28:LEU:HD21	37:YR:114:VAL:HG12	1.79	0.65
1:QA:954:G:H21	1:QA:1227:A:N6	1.91	0.64
10:QJ:6:ILE:HD11	10:QJ:72:VAL:CB	2.24	0.64
12:QL:26:ALA:O	12:QL:27:LEU:O	2.14	0.64
47:R1:80:LEU:HD12	47:R1:81:LYS:HE3	1.78	0.64
48:R2:69:ARG:HB2	48:R2:69:ARG:NH1	2.11	0.64
25:RA:1814:G:H4'	27:RD:51:VAL:HG21	1.79	0.64
25:RA:363(B):G:H2'	25:RA:363(C):G:C8	2.32	0.64
25:RA:389:G:H1	35:RP:70:GLN:HB3	1.62	0.64
35:RP:97:PRO:HD3	35:RP:126:VAL:O	1.97	0.64
40:RU:74:LEU:HD23	40:RU:114:LYS:HD3	1.78	0.64
1:XA:953:G:N7	13:XM:104:ARG:NH2	2.45	0.64
4:XD:122:ARG:HD3	4:XD:122:ARG:O	1.97	0.64
12:XL:115:LYS:O	12:XL:117:ARG:HG3	1.97	0.64
12:XL:21:LYS:N	12:XL:21:LYS:HD2	2.11	0.64
25:YA:278:A:O2'	25:YA:279:C:O4'	2.08	0.64
27:YD:176:ARG:HG2	27:YD:176:ARG:HH11	1.61	0.64
36:YQ:81:VAL:O	36:YQ:82:ARG:HG2	1.97	0.64
40:YU:102:GLU:HG3	41:YV:2:PHE:HE2	1.62	0.64
42:YW:25:ARG:HB2	42:YW:25:ARG:NH1	2.11	0.64
42:YW:59:VAL:HG12	42:YW:60:ASN:N	2.11	0.64
45:YZ:10:ARG:HH21	45:YZ:26:GLY:H	1.45	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1321:C:H5''	1:QA:1322:C:H5''	1.79	0.64
1:QA:546:G:P	4:QD:72:GLU:HB3	2.37	0.64
2:QB:67:THR:HG21	2:QB:155:LEU:CD2	2.27	0.64
3:QC:138:VAL:HG13	3:QC:149:ALA:CB	2.27	0.64
4:QD:52:SER:HB3	4:QD:55:ALA:CB	2.27	0.64
10:QJ:81:THR:C	10:QJ:83:GLU:H	1.99	0.64
22:QV:6:G:H1	22:QV:67:C:H42	1.45	0.64
24:QY:29:U:H2'	24:QY:30:C:H6	1.61	0.64
47:R1:56:GLN:N	47:R1:56:GLN:HE21	1.93	0.64
54:R8:52:LYS:HG3	54:R8:52:LYS:O	1.97	0.64
25:RA:2313:C:H2'	25:RA:2314:C:H6	1.62	0.64
26:RB:78:A:H2'	26:RB:79:C:O4'	1.97	0.64
28:RE:50:GLY:HA3	28:RE:74:PRO:HG3	1.79	0.64
31:RH:148:ILE:O	31:RH:151:ILE:HG12	1.98	0.64
31:RH:51:ARG:HG3	31:RH:51:ARG:HH11	1.62	0.64
36:RQ:81:VAL:O	36:RQ:82:ARG:HG2	1.97	0.64
39:RT:11:GLU:OE1	39:RT:11:GLU:N	2.27	0.64
5:XE:41:VAL:HG12	5:XE:112:LEU:O	1.97	0.64
5:XE:41:VAL:CG1	5:XE:113:ALA:HB2	2.25	0.64
8:XH:20:TYR:CE2	8:XH:75:ARG:HD2	2.32	0.64
11:XK:103:LEU:HD22	11:XK:103:LEU:H	1.62	0.64
13:XM:23:TYR:CB	13:XM:67:GLU:HG2	2.25	0.64
14:XN:7:ILE:HG13	14:XN:8:GLU:N	2.11	0.64
17:XQ:11:VAL:HG23	17:XQ:20:THR:HB	1.79	0.64
48:Y2:40:SER:C	48:Y2:42:GLY:H	2.01	0.64
50:Y4:35:VAL:O	50:Y4:37:SER:N	2.26	0.64
51:Y5:40:LYS:HD3	51:Y5:46:CYS:CB	2.26	0.64
25:YA:2713:A:OP1	37:YR:14:SER:OG	2.12	0.64
25:YA:526:A:N3	25:YA:2044:C:H1'	2.11	0.64
39:YT:22:PHE:N	39:YT:22:PHE:CD2	2.64	0.64
1:QA:1024:G:OP1	1:QA:1024:G:H4'	1.96	0.64
1:QA:73:G:H1	1:QA:97:U:H3	1.45	0.64
10:QJ:39:PRO:HB3	10:QJ:70:ARG:HH12	1.61	0.64
16:QP:58:TYR:O	16:QP:62:VAL:HG22	1.96	0.64
25:RA:2517:C:N3	25:RA:2542:A:N6	2.45	0.64
25:RA:2680:C:H5'	28:RE:189:PRO:HA	1.79	0.64
28:RE:35:GLN:CG	28:RE:37:ARG:HE	2.11	0.64
31:RH:105:LEU:H	31:RH:105:LEU:CD1	2.09	0.64
8:XH:42:GLU:HG3	8:XH:109:ILE:HD12	1.80	0.64
19:XS:21:GLU:O	19:XS:25:LYS:HB3	1.97	0.64
47:Y1:29:GLY:O	47:Y1:30:VAL:HG23	1.97	0.64
19:XS:5:LEU:HD22	50:Y4:67:TYR:CE2	2.31	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:530:G:C2	25:YA:2022:U:OP1	2.50	0.64
25:YA:2314:C:H2'	25:YA:2315:G:C8	2.32	0.64
26:YB:38:C:N4	26:YB:44:G:H1	1.95	0.64
27:YD:77:ALA:HB2	27:YD:97:TYR:HA	1.77	0.64
31:YH:105:LEU:H	31:YH:105:LEU:CD1	2.09	0.64
31:YH:51:ARG:HG3	31:YH:51:ARG:HH11	1.61	0.64
35:YP:98:GLU:O	35:YP:101:VAL:HG12	1.98	0.64
38:YS:78:LEU:HD11	38:YS:107:GLU:O	1.98	0.64
39:YT:11:GLU:CD	39:YT:11:GLU:N	2.47	0.64
41:YV:76:LYS:HB2	41:YV:81:TYR:HB3	1.79	0.64
1:QA:971:G:N2	1:QA:1363:A:OP2	2.30	0.64
1:QA:198:G:H1	1:QA:219:C:H42	1.44	0.64
3:QC:58:GLU:O	3:QC:64:VAL:HA	1.98	0.64
9:QI:53:VAL:HG21	9:QI:92:TYR:CE1	2.32	0.64
10:QJ:54:PHE:C	10:QJ:55:LYS:HG3	2.18	0.64
19:QS:35:SER:O	19:QS:71:LEU:HD12	1.96	0.64
1:QA:191:G:N9	20:QT:105:SER:HB3	2.11	0.64
50:R4:71:ARG:HH11	50:R4:71:ARG:CG	1.98	0.64
25:RA:816:C:H2'	25:RA:817:C:H6	1.62	0.64
27:RD:77:ALA:HB2	27:RD:97:TYR:HA	1.77	0.64
30:RG:81:LYS:O	30:RG:82:LEU:HB2	1.96	0.64
33:RN:15:LEU:HD12	33:RN:136:GLU:HB2	1.79	0.64
33:RN:57:ALA:HA	33:RN:60:ILE:HD11	1.78	0.64
37:RR:2:ARG:HG2	37:RR:5:LYS:NZ	2.13	0.64
40:RU:65:ILE:HG12	40:RU:96:ALA:CB	2.26	0.64
44:RY:56:PRO:HG2	44:RY:57:GLN:OE1	1.98	0.64
4:XD:61:LYS:HD2	4:XD:206:PHE:CE2	2.32	0.64
24:XY:29:U:H2'	24:XY:30:C:H6	1.60	0.64
50:Y4:36:CYS:O	50:Y4:37:SER:O	2.14	0.64
25:YA:1166:C:H42	25:YA:1183:G:H1	1.45	0.64
25:YA:1386:C:H2'	25:YA:1387:C:C6	2.33	0.64
30:YG:82:LEU:HA	30:YG:86:MET:SD	2.38	0.64
2:QB:158:LEU:HD12	2:QB:158:LEU:O	1.98	0.64
4:QD:79:PHE:HD2	4:QD:79:PHE:C	2.00	0.64
1:QA:880:C:OP1	12:QL:8:ASN:ND2	2.30	0.64
13:QM:4:ILE:H	13:QM:9:ILE:HG22	1.62	0.64
25:RA:1141:U:O2'	25:RA:1142:U:OP2	2.16	0.64
25:RA:2227:A:H5''	27:RD:263:ARG:NH1	2.12	0.64
25:RA:2746:U:H5''	31:RH:138:LYS:HE2	1.79	0.64
28:RE:104:VAL:HG11	28:RE:188:VAL:CG2	2.27	0.64
32:RI:116:LEU:O	32:RI:118:LYS:N	2.31	0.64
36:RQ:10:ARG:O	36:RQ:11:LYS:HB2	1.98	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1446:A:O2'	1:XA:1447:G:O5'	2.14	0.64
1:XA:636:U:H2'	1:XA:637:G:C8	2.32	0.64
5:XE:83:GLU:HG2	5:XE:88:LYS:HG3	1.79	0.64
13:XM:13:LYS:HA	13:XM:44:ARG:HD2	1.78	0.64
25:YA:1396:U:H2'	25:YA:1396:U:O2	1.97	0.64
27:YD:122:ASP:CG	27:YD:123:ALA:H	2.00	0.64
28:YE:104:VAL:HG11	28:YE:188:VAL:CG2	2.27	0.64
29:YF:11:VAL:HG12	29:YF:12:LEU:N	2.13	0.64
29:YF:155:LEU:HD13	29:YF:174:VAL:CG1	2.27	0.64
25:YA:588:U:H1'	29:YF:90:PHE:CD1	2.33	0.64
30:YG:114:ILE:CG2	30:YG:117:PHE:HB2	2.27	0.64
30:YG:81:LYS:O	30:YG:82:LEU:HB2	1.96	0.64
31:YH:117:PRO:HB3	31:YH:123:PHE:CE1	2.33	0.64
36:YQ:81:VAL:O	36:YQ:82:ARG:HD3	1.97	0.64
41:YV:43:GLU:OE2	41:YV:43:GLU:HA	1.95	0.64
1:QA:1223:C:H5''	1:QA:1224:G:H5''	1.79	0.64
5:QE:41:VAL:HG12	5:QE:112:LEU:O	1.97	0.64
25:RA:1678:G:N2	25:RA:1989:G:H22	1.94	0.64
30:RG:82:LEU:HA	30:RG:86:MET:SD	2.38	0.64
40:RU:102:GLU:HG3	41:RV:2:PHE:HE2	1.62	0.64
42:RW:59:VAL:HG12	42:RW:60:ASN:N	2.11	0.64
1:XA:618:C:N3	1:XA:622:A:N6	2.45	0.64
2:XB:187:LEU:HD12	2:XB:205:ASP:HA	1.79	0.64
3:XC:138:VAL:HG13	3:XC:149:ALA:CB	2.27	0.64
19:XS:65:ASN:N	19:XS:65:ASN:HD22	1.94	0.64
21:XU:25:LYS:HE2	21:XU:26:LYS:O	1.97	0.64
47:Y1:80:LEU:HD12	47:Y1:81:LYS:HE3	1.78	0.64
50:Y4:37:SER:C	50:Y4:39:CYS:H	1.99	0.64
25:YA:2747:G:N2	25:YA:2748:A:N7	2.45	0.64
25:YA:707:G:H1	25:YA:724:U:H3	1.45	0.64
25:YA:984:A:H5''	25:YA:985:C:H5	1.62	0.64
33:YN:15:LEU:HD12	33:YN:136:GLU:HB2	1.79	0.64
34:YO:12:ASP:OD1	34:YO:14:THR:HG23	1.97	0.64
44:YY:56:PRO:HG2	44:YY:57:GLN:OE1	1.98	0.64
44:YY:86:ARG:O	44:YY:92:ASN:HB2	1.97	0.64
1:QA:719:C:O2'	18:QR:49:LYS:HB3	1.98	0.64
2:QB:60:ASP:HB3	2:QB:64:ARG:NH1	2.13	0.64
4:QD:29:PRO:HG2	4:QD:30:LYS:NZ	2.12	0.64
6:QF:12:PRO:HG2	6:QF:13:ASN:H	1.62	0.64
10:QJ:42:THR:HG23	10:QJ:68:HIS:HA	1.80	0.64
54:R8:56:GLU:OE1	54:R8:56:GLU:N	2.30	0.64
27:RD:182:LEU:H	27:RD:272:ALA:HB3	1.63	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:RQ:23:GLY:HA3	36:RQ:101:ARG:NH1	2.12	0.64
1:XA:1314:C:OP1	19:XS:6:LYS:HE3	1.98	0.64
1:XA:923:A:OP1	5:XE:21:ALA:HB2	1.97	0.64
2:XB:134:GLU:HA	2:XB:137:ARG:HB3	1.80	0.64
2:XB:8:LYS:CD	2:XB:8:LYS:H	2.09	0.64
4:XD:13:ARG:HD2	4:XD:38:TYR:O	1.98	0.64
6:XF:50:TYR:CE1	18:XR:77:GLY:HA2	2.32	0.64
25:YA:1161:C:O2'	41:YV:8:GLY:HA2	1.97	0.64
25:YA:1776:G:C2	25:YA:1777:U:C6	2.85	0.64
25:YA:795:C:H2'	25:YA:796:C:C6	2.32	0.64
25:YA:846:C:O2'	25:YA:847:U:OP2	2.15	0.64
29:YF:175:THR:O	29:YF:176:LEU:HB2	1.95	0.64
4:QD:61:LYS:HD2	4:QD:206:PHE:CE2	2.32	0.64
14:QN:7:ILE:HG13	14:QN:8:GLU:N	2.12	0.64
18:QR:73:ALA:HB3	18:QR:79:LEU:HD12	1.78	0.64
20:QT:26:ASN:HB2	20:QT:71:THR:HG23	1.79	0.64
25:RA:882:G:H1	25:RA:894:C:H42	1.46	0.64
35:RP:105:LEU:O	35:RP:106:LEU:CB	2.42	0.64
3:XC:181:ASN:ND2	3:XC:204:LEU:HB2	2.13	0.64
4:XD:79:PHE:HD2	4:XD:79:PHE:C	1.99	0.64
7:XG:113:GLU:CG	7:XG:119:ARG:HG2	2.28	0.64
9:XI:28:VAL:HA	9:XI:63:ILE:HB	1.79	0.64
10:XJ:27:ALA:CB	10:XJ:34:VAL:HG21	2.26	0.64
11:XK:48:ILE:HD11	11:XK:64:ALA:CA	2.28	0.64
14:XN:18:VAL:HG23	14:XN:19:ARG:H	1.62	0.64
16:XP:58:TYR:O	16:XP:62:VAL:HG22	1.97	0.64
50:Y4:49:PHE:O	50:Y4:50:VAL:HG23	1.97	0.64
25:YA:1676:A:H8	25:YA:1676:A:O5'	1.80	0.64
25:YA:2023:G:H5'	25:YA:2617:C:H4'	1.80	0.64
25:YA:795:C:H2'	25:YA:796:C:H6	1.63	0.64
26:YB:14:U:OP2	26:YB:70:C:O2'	2.15	0.64
31:YH:92:ILE:HD12	31:YH:92:ILE:H	1.63	0.64
41:YV:36:PRO:HA	41:YV:56:SER:OG	1.98	0.64
1:QA:1237:C:O2'	1:QA:1300:G:N2	2.24	0.64
5:QE:83:GLU:HG2	5:QE:88:LYS:HG3	1.78	0.64
16:QP:21:VAL:HG23	16:QP:33:ILE:HB	1.78	0.64
47:R1:91:LYS:HG3	47:R1:92:LYS:H	1.63	0.64
25:RA:1328:G:H2'	25:RA:1330:C:C4	2.33	0.64
25:RA:2688:U:H1'	25:RA:2721:A:N6	2.13	0.64
25:RA:2774:C:H2'	25:RA:2775:A:C8	2.33	0.64
28:RE:201:THR:HG21	28:RE:203:LYS:HB3	1.80	0.64
35:RP:98:GLU:O	35:RP:101:VAL:HG12	1.98	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:RQ:104:PHE:O	36:RQ:105:GLU:HB3	1.98	0.64
43:RX:11:PRO:HB3	43:RX:92:LEU:HD21	1.78	0.64
1:XA:452:A:H62	1:XA:480:U:H3	1.46	0.64
2:XB:21:ARG:HB2	2:XB:39:ILE:HA	1.80	0.64
5:XE:53:LEU:HD12	5:XE:53:LEU:N	2.09	0.64
8:XH:28:ALA:HB3	8:XH:57:PRO:HB2	1.79	0.64
11:XK:19:ALA:HA	11:XK:32:ILE:HG22	1.80	0.64
15:XO:87:ILE:CG2	15:XO:88:ARG:H	2.00	0.64
16:XP:51:VAL:HG21	16:XP:77:ALA:HB2	1.78	0.64
25:YA:2677:G:N2	25:YA:2730:C:O2	2.25	0.64
26:YB:50:G:OP1	38:YS:63:THR:HG23	1.98	0.64
27:YD:135:PHE:N	27:YD:135:PHE:HD2	1.96	0.64
31:YH:3:ARG:HA	31:YH:3:ARG:NE	2.12	0.64
25:YA:1142(A):A:H4'	33:YN:25:ARG:HH22	1.61	0.64
25:YA:2392:A:C8	35:YP:60:MET:HG3	2.33	0.64
37:YR:2:ARG:HG2	37:YR:5:LYS:NZ	2.13	0.64
1:QA:954:G:H4'	13:QM:121:LYS:HG3	1.80	0.64
3:QC:34:LEU:HD21	3:QC:38:ARG:HD2	1.79	0.64
1:QA:15:G:C4'	5:QE:24:ARG:HH12	2.11	0.64
11:QK:103:LEU:HD22	11:QK:103:LEU:H	1.62	0.64
14:QN:53:LEU:HB3	14:QN:56:VAL:HG21	1.80	0.64
15:QO:8:LYS:NZ	15:QO:8:LYS:HB2	2.13	0.64
25:RA:1403:C:H5''	25:RA:1471:A:H1'	1.80	0.64
25:RA:2638:G:P	28:RE:82:ARG:HH22	2.21	0.64
30:RG:114:ILE:CG2	30:RG:117:PHE:HB2	2.28	0.64
31:RH:92:ILE:H	31:RH:92:ILE:HD12	1.63	0.64
33:RN:131:GLN:CD	33:RN:132:ALA:H	2.01	0.64
33:RN:43:THR:HB	33:RN:46:VAL:CG1	2.27	0.64
36:RQ:30:GLY:HA3	36:RQ:106:VAL:O	1.98	0.64
25:RA:2250:G:C6	36:RQ:82:ARG:HD2	2.33	0.64
1:XA:537:G:H5''	12:XL:113:ARG:HH12	1.63	0.64
3:XC:58:GLU:O	3:XC:64:VAL:HA	1.98	0.64
4:XD:165:MET:HE3	4:XD:165:MET:HA	1.79	0.64
6:XF:12:PRO:HG2	6:XF:13:ASN:H	1.62	0.64
1:XA:939:G:H5''	7:XG:102:ARG:NH2	2.12	0.64
8:XH:97:VAL:HG13	8:XH:98:LYS:N	2.13	0.64
9:XI:5:TYR:O	9:XI:84:ALA:HA	1.98	0.64
23:XX:3:G:C2'	23:XX:4:C:OP2	2.45	0.64
25:YA:242:G:C8	54:Y8:5:LYS:HG2	2.32	0.64
28:YE:69:LYS:O	28:YE:71:GLY:N	2.27	0.64
29:YF:45:ARG:CG	29:YF:45:ARG:HH11	2.09	0.64
31:YH:148:ILE:O	31:YH:151:ILE:HG12	1.98	0.64

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:YS:26:LEU:HD22	38:YS:87:PHE:HD1	1.63	0.64
43:YX:57:LEU:HD12	43:YX:78:LYS:HB2	1.77	0.64
45:YZ:53:ILE:HG22	45:YZ:71:VAL:HG13	1.79	0.64
1:QA:709:G:H2'	1:QA:710:G:H8	1.63	0.63
1:QA:1080:A:H5''	5:QE:16:THR:CG2	2.28	0.63
8:QH:97:VAL:HG13	8:QH:98:LYS:N	2.13	0.63
9:QI:47:LEU:HD22	9:QI:47:LEU:N	2.14	0.63
9:QI:62:TYR:O	9:QI:63:ILE:HD12	1.98	0.63
11:QK:17:GLY:HA3	11:QK:77:MET:HE3	1.78	0.63
12:QL:46:LYS:HG2	12:QL:47:LYS:N	2.12	0.63
16:QP:51:VAL:CG1	16:QP:52:ASP:H	2.11	0.63
25:RA:210:C:OP2	53:R7:29:LYS:NZ	2.31	0.63
25:RA:155:C:H42	25:RA:171:G:H1	1.43	0.63
34:RO:86:ILE:N	34:RO:86:ILE:HD12	2.13	0.63
35:RP:112:LEU:HD11	35:RP:114:ILE:HG23	1.80	0.63
42:RW:74:ALA:O	42:RW:75:TYR:HB3	1.98	0.63
2:XB:158:LEU:HD12	2:XB:158:LEU:O	1.97	0.63
9:XI:62:TYR:O	9:XI:63:ILE:HD12	1.98	0.63
54:Y8:48:PHE:N	54:Y8:48:PHE:CD1	2.66	0.63
25:YA:1792:G:N2	25:YA:1827:C:O2	2.23	0.63
27:YD:18:VAL:HG12	27:YD:19:ALA:O	1.99	0.63
28:YE:14:ILE:CG1	28:YE:15:PHE:H	2.08	0.63
29:YF:46:ARG:NH1	29:YF:46:ARG:HG2	2.00	0.63
33:YN:131:GLN:CD	33:YN:132:ALA:H	2.01	0.63
33:YN:39:ARG:HB3	33:YN:41:ASP:OD1	1.98	0.63
34:YO:104:ARG:HG2	34:YO:104:ARG:NH1	2.14	0.63
34:YO:7:TYR:CE1	34:YO:20:MET:HB2	2.32	0.63
36:YQ:104:PHE:O	36:YQ:105:GLU:HB3	1.98	0.63
1:QA:458:C:H2'	1:QA:464:G:H8	1.64	0.63
1:QA:949:A:H1'	1:QA:1364:U:N3	2.13	0.63
2:QB:134:GLU:HA	2:QB:137:ARG:HB3	1.80	0.63
3:QC:181:ASN:ND2	3:QC:204:LEU:HB2	2.13	0.63
9:QI:5:TYR:O	9:QI:84:ALA:HA	1.98	0.63
11:QK:48:ILE:HD11	11:QK:64:ALA:CA	2.28	0.63
13:QM:51:ALA:O	13:QM:55:ARG:HG3	1.97	0.63
21:QU:15:ARG:HH11	21:QU:15:ARG:HG2	1.63	0.63
52:R6:27:LYS:HB2	52:R6:27:LYS:HZ3	1.61	0.63
25:RA:573:G:N1	25:RA:2031:A:OP2	2.26	0.63
25:RA:2122:U:H2'	25:RA:2123:G:C8	2.29	0.63
27:RD:135:PHE:HD2	27:RD:135:PHE:N	1.96	0.63
27:RD:230:ASP:O	27:RD:231:HIS:HB2	1.98	0.63
37:RR:28:LEU:HD21	37:RR:114:VAL:HG12	1.79	0.63

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:RV:52:VAL:CG2	41:RV:55:ALA:HB3	2.28	0.63
43:RX:63:LYS:O	43:RX:64:LYS:HD2	1.98	0.63
2:XB:178:ARG:NH2	8:XH:74:PRO:HB3	2.07	0.63
19:XS:5:LEU:HD21	50:Y4:66:SER:CB	2.28	0.63
47:Y1:82:LEU:CD1	47:Y1:83:GLU:CA	2.76	0.63
47:Y1:91:LYS:HG3	47:Y1:92:LYS:H	1.62	0.63
25:YA:654(A):G:H22	25:YA:654(U):A:H1'	1.62	0.63
37:YR:117:VAL:O	37:YR:118:GLU:HB3	1.99	0.63
40:YU:92:ARG:O	40:YU:94:ASN:N	2.25	0.63
42:YW:110:LYS:HG3	42:YW:111:HIS:ND1	2.13	0.63
2:QB:8:LYS:H	2:QB:8:LYS:CD	2.09	0.63
4:QD:30:LYS:HA	4:QD:34:GLU:HB2	1.79	0.63
7:QG:148:ASN:N	7:QG:148:ASN:ND2	2.46	0.63
19:QS:39:THR:HG22	19:QS:40:ILE:N	2.14	0.63
1:QA:1397:C:H1'	23:QX:8:A:N6	2.14	0.63
48:R2:40:SER:C	48:R2:42:GLY:H	2.00	0.63
25:RA:2015:A:N3	51:R5:2:ALA:N	2.47	0.63
25:RA:2466:C:OP1	55:R9:4:ARG:HB2	1.99	0.63
25:RA:1543:A:O2'	25:RA:1544:C:H3'	1.97	0.63
25:RA:2477:C:H2'	55:R9:1:MET:CG	2.28	0.63
25:RA:2563:U:H4'	34:RO:28:SER:HA	1.81	0.63
25:RA:844:C:H41	25:RA:845:G:N2	1.95	0.63
25:RA:923:C:H2'	25:RA:924:C:C6	2.33	0.63
29:RF:132:VAL:HG23	29:RF:133:ASN:N	2.14	0.63
31:RH:3:ARG:HA	31:RH:3:ARG:NE	2.12	0.63
35:RP:113:LYS:HG2	35:RP:115:LEU:HD23	1.79	0.63
1:XA:192:U:H2'	1:XA:193:C:C6	2.34	0.63
1:XA:232:G:O2'	1:XA:262:A:N6	2.26	0.63
11:XK:12:ARG:HG2	11:XK:13:GLN:H	1.64	0.63
12:XL:62:SER:O	12:XL:64:TYR:HD1	1.82	0.63
4:QD:166:LYS:HG3	27:YD:135:PHE:HZ	1.62	0.63
28:YE:50:GLY:HA3	28:YE:74:PRO:HG3	1.80	0.63
1:QA:15:G:H8	1:QA:1396:A:HO2'	1.46	0.63
1:QA:545:C:OP2	4:QD:62:GLN:NE2	2.32	0.63
1:QA:707:C:H2'	1:QA:708:C:H6	1.64	0.63
1:QA:1070:U:H5'	5:QE:18:ARG:HH22	1.63	0.63
5:QE:78:HIS:CD2	8:QH:104:ARG:HE	2.16	0.63
8:QH:6:ILE:HB	8:QH:85:ARG:HH12	1.62	0.63
9:QI:97:LYS:HB3	9:QI:98:PRO:HD3	1.79	0.63
12:QL:18:VAL:HG23	12:QL:19:ARG:H	1.63	0.63
12:QL:62:SER:O	12:QL:64:TYR:HD1	1.81	0.63
20:QT:14:LYS:HA	20:QT:17:ARG:NH1	2.14	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:RB:5:C:OP1	26:RB:61:G:O2'	2.12	0.63
30:RG:83:ARG:HG3	30:RG:86:MET:HE1	1.79	0.63
31:RH:117:PRO:HB3	31:RH:123:PHE:CE1	2.33	0.63
33:RN:39:ARG:HB3	33:RN:41:ASP:OD1	1.98	0.63
25:RA:2839:G:H21	37:RR:92:GLY:HA3	1.64	0.63
43:RX:18:TYR:C	43:RX:20:GLY:H	2.02	0.63
1:XA:376:G:H2'	1:XA:377:G:C8	2.33	0.63
2:XB:25:ASN:O	2:XB:27:LYS:N	2.28	0.63
8:XH:20:TYR:HA	8:XH:65:TYR:HE2	1.60	0.63
11:XK:50:TYR:HH	11:XK:59:TYR:HE2	1.47	0.63
12:XL:18:VAL:HG23	12:XL:19:ARG:H	1.63	0.63
12:XL:86:ARG:HB2	12:XL:101:VAL:CG2	2.28	0.63
15:XO:8:LYS:HB2	15:XO:8:LYS:NZ	2.13	0.63
18:XR:43:PHE:CE2	18:XR:58:LEU:HD11	2.31	0.63
28:YE:201:THR:HG21	28:YE:203:LYS:HB3	1.80	0.63
36:YQ:60:ARG:HH12	45:YZ:112:ARG:HG2	1.61	0.63
39:YT:111:ARG:C	39:YT:113:LYS:H	2.01	0.63
45:YZ:102:LEU:HG	45:YZ:123:ASP:HA	1.79	0.63
1:QA:1105:A:H2'	1:QA:1106:G:C8	2.33	0.63
2:QB:20:GLU:HB2	2:QB:190:THR:OG1	1.98	0.63
47:R1:82:LEU:CD1	47:R1:83:GLU:CA	2.76	0.63
48:R2:42:GLY:O	48:R2:44:LEU:N	2.30	0.63
25:RA:2037:G:H2'	25:RA:2038:G:C8	2.33	0.63
25:RA:747:U:C2	51:R5:2:ALA:HB3	2.34	0.63
26:RB:83:G:H1	26:RB:93:C:H42	1.46	0.63
27:RD:147:LEU:CD1	27:RD:155:LEU:HD11	2.26	0.63
27:RD:18:VAL:HG12	27:RD:19:ALA:O	1.99	0.63
29:RF:11:VAL:HG12	29:RF:12:LEU:N	2.13	0.63
25:RA:2415:G:H4'	35:RP:66:GLY:C	2.19	0.63
44:RY:95:LYS:CB	44:RY:100:ALA:HA	2.13	0.63
1:XA:529:G:O6	12:XL:49:ASN:HB3	1.99	0.63
1:XA:718:G:H1'	11:XK:116:HIS:HA	1.81	0.63
10:XJ:42:THR:HG23	10:XJ:68:HIS:HA	1.80	0.63
48:Y2:40:SER:C	48:Y2:42:GLY:N	2.51	0.63
25:YA:2126:A:H4'	25:YA:2127:G:O5'	1.97	0.63
25:YA:2306:C:C2	25:YA:2307:G:N2	2.67	0.63
25:YA:26:G:H1'	25:YA:515:A:H61	1.63	0.63
25:YA:842:G:N2	25:YA:936:C:O2	2.29	0.63
27:YD:230:ASP:O	27:YD:231:HIS:HB2	1.98	0.63
35:YP:106:LEU:O	35:YP:107:LYS:CB	2.46	0.63
1:QA:390:C:H2'	1:QA:391:G:C8	2.34	0.63
1:QA:959:A:O2'	1:QA:984:C:O2'	2.17	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:21:ARG:HB2	2:QB:39:ILE:HA	1.80	0.63
4:QD:30:LYS:CG	4:QD:35:ARG:HE	2.11	0.63
5:QE:50:GLU:HG3	5:QE:52:PRO:HD2	1.79	0.63
8:QH:112:LEU:HD12	8:QH:112:LEU:O	1.98	0.63
8:QH:28:ALA:HB3	8:QH:57:PRO:HB2	1.79	0.63
13:QM:40:ASN:HD21	13:QM:42:ALA:HB3	1.64	0.63
19:QS:15:LEU:O	19:QS:19:VAL:HG23	1.98	0.63
19:QS:21:GLU:HG3	19:QS:22:LEU:N	2.11	0.63
25:RA:2056:G:N2	51:R5:4:HIS:O	2.29	0.63
54:R8:59:LYS:HZ3	54:R8:59:LYS:HB3	1.63	0.63
25:RA:825:C:H2'	25:RA:826:U:O4'	1.97	0.63
28:RE:131:ALA:HB1	28:RE:135:HIS:CE1	2.34	0.63
33:RN:61:ARG:HA	33:RN:61:ARG:HE	1.64	0.63
36:RQ:81:VAL:O	36:RQ:82:ARG:HD3	1.98	0.63
36:RQ:20:ALA:HB1	36:RQ:99:PRO:CB	2.28	0.63
39:RT:49:VAL:HG13	39:RT:49:VAL:O	1.99	0.63
40:RU:102:GLU:HG3	41:RV:2:PHE:CE2	2.34	0.63
42:RW:110:LYS:HG3	42:RW:111:HIS:ND1	2.12	0.63
43:RX:49:VAL:HG13	43:RX:83:VAL:HG13	1.80	0.63
1:XA:536:C:H2'	1:XA:537:G:H8	1.63	0.63
1:XA:601:C:H2'	1:XA:602:A:C8	2.34	0.63
3:XC:95:THR:HG22	3:XC:96:GLY:N	2.06	0.63
5:XE:91:LEU:HA	5:XE:120:THR:HG22	1.81	0.63
9:XI:118:LYS:O	9:XI:119:ALA:HB3	1.99	0.63
20:XT:26:ASN:HB2	20:XT:71:THR:HG23	1.79	0.63
25:YA:2285:C:H5	52:Y6:27:LYS:HZ1	1.44	0.63
25:YA:2388:A:N7	25:YA:2389:G:C6	2.66	0.63
25:YA:10:G:N2	25:YA:2802:G:OP1	2.31	0.63
25:YA:372:G:H5''	47:Y1:66:HIS:CD2	2.33	0.63
30:YG:68:PRO:HB2	30:YG:90:LEU:HD12	1.80	0.63
32:YI:79:ILE:HB	32:YI:142:VAL:HA	1.81	0.63
36:YQ:30:GLY:HA3	36:YQ:106:VAL:O	1.98	0.63
39:YT:16:ARG:HE	39:YT:19:LEU:HD21	1.62	0.63
43:YX:18:TYR:C	43:YX:20:GLY:H	2.02	0.63
1:QA:1095:U:OP1	1:QA:1108:G:N1	2.31	0.63
1:QA:986:A:N3	19:QS:52:TYR:OH	2.30	0.63
7:QG:9:VAL:CG1	7:QG:94:ARG:HE	2.12	0.63
12:QL:85:ILE:HD11	12:QL:98:TYR:HB2	1.81	0.63
14:QN:18:VAL:HG23	14:QN:19:ARG:H	1.63	0.63
15:QO:61:GLY:C	15:QO:65:ARG:HH12	2.02	0.63
47:R1:87:PRO:O	47:R1:88:LYS:C	2.37	0.63
25:RA:2821:A:H2'	25:RA:2822:G:H8	1.64	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2812:G:N2	25:RA:2889:C:O2	2.32	0.63
25:RA:882:G:H1	25:RA:894:C:N4	1.97	0.63
27:RD:44:ASN:ND2	27:RD:44:ASN:N	2.42	0.63
38:RS:78:LEU:HD11	38:RS:107:GLU:O	1.98	0.63
1:XA:1326:C:OP1	21:XU:17:THR:OG1	2.13	0.63
9:XI:97:LYS:HB3	9:XI:98:PRO:HD3	1.79	0.63
16:XP:66:PRO:HG2	16:XP:71:ARG:HH12	1.64	0.63
25:YA:2372:G:H4'	52:Y6:46:HIS:NE2	2.14	0.63
25:YA:1286:A:N6	25:YA:1329:U:O2'	2.30	0.63
25:YA:1434:A:H61	25:YA:1558:A:N6	1.97	0.63
25:YA:2840:C:H2'	25:YA:2841:C:C6	2.33	0.63
25:YA:380:U:H2'	25:YA:381:G:H8	1.64	0.63
25:YA:928:G:H2'	25:YA:928:G:N3	2.14	0.63
28:YE:35:GLN:CG	28:YE:37:ARG:NE	2.62	0.63
29:YF:67:GLN:O	29:YF:67:GLN:CG	2.32	0.63
34:YO:86:ILE:HD12	34:YO:86:ILE:N	2.13	0.63
36:YQ:10:ARG:O	36:YQ:11:LYS:HB2	1.98	0.63
39:YT:49:VAL:O	39:YT:49:VAL:HG13	1.99	0.63
39:YT:60:THR:HG22	39:YT:77:PRO:HA	1.80	0.63
42:YW:74:ALA:O	42:YW:75:TYR:HB3	1.98	0.63
45:YZ:13:GLU:HB3	45:YZ:18:LEU:HD11	1.79	0.63
3:QC:95:THR:HG22	3:QC:96:GLY:N	2.07	0.63
9:QI:59:PHE:HZ	9:QI:88:TYR:CE1	2.17	0.63
48:R2:46:GLN:HA	48:R2:46:GLN:OE1	1.98	0.63
25:RA:1527:G:H2'	25:RA:1543:A:N1	2.13	0.63
25:RA:1870:C:H2'	25:RA:1871:A:O4'	1.99	0.63
25:RA:187:G:H1	25:RA:209:C:H42	1.45	0.63
25:RA:2115:G:N2	25:RA:2165:G:N7	2.46	0.63
25:RA:2443:C:H2'	25:RA:2444:G:C8	2.32	0.63
25:RA:784:A:N7	27:RD:229:VAL:HG21	2.13	0.63
26:RB:6:C:C2	26:RB:115:G:N2	2.66	0.63
27:RD:133:LEU:HD21	27:RD:191:ALA:CB	2.29	0.63
29:RF:28:ILE:HG22	29:RF:112:MET:HB3	1.81	0.63
31:RH:153:LYS:HG3	31:RH:161:GLY:HA3	1.81	0.63
33:RN:22:THR:CG2	33:RN:23:LEU:N	2.61	0.63
39:RT:60:THR:HG22	39:RT:77:PRO:HA	1.80	0.63
40:RU:34:LYS:HA	40:RU:34:LYS:CE	2.29	0.63
44:RY:86:ARG:O	44:RY:92:ASN:HB2	1.97	0.63
2:XB:155:LEU:HD12	2:XB:157:ARG:O	1.98	0.63
2:XB:214:ILE:HD13	2:XB:217:ARG:NH2	2.14	0.63
2:XB:60:ASP:HB3	2:XB:64:ARG:NH1	2.13	0.63
4:XD:153:ARG:HD3	4:XD:181:MET:SD	2.39	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:XE:51:VAL:O	5:XE:55:VAL:HG23	1.99	0.63
13:XM:36:LYS:HD3	13:XM:36:LYS:C	2.19	0.63
14:XM:18:VAL:HG23	14:XM:19:ARG:N	2.14	0.63
35:YP:64:LYS:HB2	54:Y8:25:MET:HG3	1.81	0.63
25:YA:2642:G:H4'	33:YN:78:TYR:CD2	2.34	0.63
27:YD:72:LYS:HG2	27:YD:103:ARG:NH2	2.13	0.63
31:YH:153:LYS:HG3	31:YH:161:GLY:HA3	1.80	0.63
33:YN:7:LYS:H	33:YN:7:LYS:HD2	1.64	0.63
35:YP:83:VAL:HG12	35:YP:112:LEU:HD21	1.81	0.63
38:YS:22:GLY:O	38:YS:23:ARG:O	2.17	0.63
1:QA:1226:C:OP2	13:QM:103:THR:OG1	2.16	0.63
3:QC:34:LEU:CD2	3:QC:38:ARG:HD2	2.29	0.63
4:QD:79:PHE:C	4:QD:79:PHE:CD2	2.71	0.63
7:QG:113:GLU:CG	7:QG:119:ARG:HG2	2.28	0.63
9:QI:118:LYS:O	9:QI:119:ALA:HB3	1.99	0.63
22:QV:1:C:C4'	46:R0:5:LYS:NZ	2.55	0.63
52:R6:13:CYS:HB2	52:R6:22:ALA:HB3	1.80	0.63
25:RA:1019:U:H3	25:RA:1142(A):A:N6	1.91	0.63
25:RA:443:A:H1'	25:RA:1201:C:O4'	1.98	0.63
25:RA:1935:G:H1'	25:RA:1964:G:N2	2.14	0.63
25:RA:2331:G:O2'	46:R0:43:THR:HG22	1.99	0.63
29:RF:119:ARG:HH11	29:RF:119:ARG:HG2	1.64	0.63
34:RO:8:LEU:HB2	34:RO:19:ILE:HD11	1.81	0.63
35:RP:108:LYS:H	35:RP:108:LYS:HD2	1.64	0.63
36:RQ:66:ILE:CG1	36:RQ:67:ARG:H	2.12	0.63
37:RR:117:VAL:O	37:RR:118:GLU:HB3	1.99	0.63
39:RT:16:ARG:HE	39:RT:19:LEU:HD21	1.63	0.63
2:XB:236:TYR:CD2	2:XB:239:VAL:HG21	2.34	0.63
3:XC:34:LEU:CD2	3:XC:38:ARG:HD2	2.29	0.63
7:XG:9:VAL:CG1	7:XG:94:ARG:HE	2.11	0.63
9:XI:17:VAL:HG21	9:XI:81:ILE:N	2.14	0.63
9:XI:47:LEU:HD22	9:XI:47:LEU:N	2.14	0.63
19:XS:15:LEU:O	19:XS:19:VAL:HG23	1.98	0.63
47:Y1:18:ILE:HG12	47:Y1:37:ILE:HG12	1.81	0.63
25:YA:2015:A:N3	51:Y5:2:ALA:N	2.46	0.63
25:YA:2419:U:H5'	52:Y6:23:THR:HG22	1.81	0.63
25:YA:2711:A:H5''	25:YA:2712:U:H5'	1.80	0.63
32:YI:75:LEU:HB3	32:YI:105:HIS:NE2	2.14	0.63
35:YP:114:ILE:HD11	35:YP:130:PHE:CD1	2.34	0.63
36:YQ:20:ALA:HB1	36:YQ:99:PRO:CB	2.29	0.63
43:YX:49:VAL:HG13	43:YX:83:VAL:HG13	1.80	0.63
1:QA:1178:G:H5''	9:QI:93:ARG:HH21	1.64	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1280:A:O2'	1:QA:1281:U:OP1	2.17	0.62
2:QB:236:TYR:CD2	2:QB:239:VAL:HG21	2.34	0.62
3:QC:189:ALA:O	3:QC:191:THR:HG23	1.99	0.62
11:QK:58:PRO:HD3	11:QK:89:ALA:HB1	1.81	0.62
47:R1:76:ARG:HD2	47:R1:76:ARG:H	1.64	0.62
27:RD:44:ASN:HB3	27:RD:49:ILE:CA	2.27	0.62
29:RF:107:LYS:O	29:RF:108:LYS:C	2.36	0.62
31:RH:136:ILE:H	31:RH:136:ILE:HD12	1.64	0.62
36:RQ:20:ALA:HB1	36:RQ:99:PRO:CD	2.29	0.62
37:RR:63:ARG:NH1	37:RR:80:PHE:CD1	2.67	0.62
39:RT:111:ARG:C	39:RT:113:LYS:H	2.01	0.62
1:XA:258:G:H1	1:XA:268:C:H42	1.48	0.62
2:XB:66:GLY:O	2:XB:67:THR:HG23	1.99	0.62
11:XK:12:ARG:HG2	11:XK:13:GLN:N	2.14	0.62
19:XS:42:PRO:HD3	50:Y4:63:TYR:HE2	1.64	0.62
48:Y2:46:GLN:HA	48:Y2:46:GLN:OE1	1.98	0.62
25:YA:1022:G:H22	25:YA:1142(A):A:H2	1.46	0.62
25:YA:1479:G:N7	25:YA:1510:A:N6	2.43	0.62
25:YA:2593:U:H2'	25:YA:2594:C:C6	2.34	0.62
28:YE:13:ARG:HH12	28:YE:21:VAL:HG12	1.64	0.62
29:YF:132:VAL:HG23	29:YF:133:ASN:N	2.14	0.62
30:YG:61:ALA:HB2	30:YG:68:PRO:HD2	1.81	0.62
31:YH:86:GLU:O	31:YH:87:LEU:HB2	1.99	0.62
33:YN:87:LEU:O	33:YN:87:LEU:HD23	1.99	0.62
43:YX:63:LYS:O	43:YX:64:LYS:HD2	1.98	0.62
44:YY:87:LYS:O	44:YY:88:LYS:NZ	2.32	0.62
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.35	0.62
1:QA:561:U:O2'	1:QA:562:C:OP2	2.16	0.62
1:QA:645:C:H2'	1:QA:646:U:O4'	1.99	0.62
2:QB:187:LEU:HD12	2:QB:205:ASP:HA	1.79	0.62
2:QB:214:ILE:HD13	2:QB:217:ARG:NH2	2.14	0.62
3:QC:3:ASN:N	3:QC:3:ASN:HD22	1.97	0.62
9:QI:17:VAL:HG21	9:QI:81:ILE:N	2.14	0.62
11:QK:12:ARG:HG2	11:QK:13:GLN:N	2.14	0.62
25:RA:2404:C:O3'	35:RP:77:ARG:NH2	2.32	0.62
25:RA:372:G:O2'	25:RA:373:U:P	2.57	0.62
25:RA:624:C:H5''	25:RA:624:C:H6	1.63	0.62
25:RA:666:G:H4'	35:RP:49:ARG:NH1	2.14	0.62
29:RF:28:ILE:HD13	29:RF:30:PRO:HD3	1.80	0.62
35:RP:83:VAL:HG12	35:RP:112:LEU:HD21	1.80	0.62
1:XA:1313:U:OP1	19:XS:5:LEU:HB2	1.99	0.62
1:XA:224:C:H2'	1:XA:225:C:C6	2.34	0.62

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:XH:112:LEU:HD12	8:XH:112:LEU:O	1.98	0.62
8:XH:16:ALA:HB2	8:XH:24:THR:HG21	1.81	0.62
16:XP:8:ARG:HG2	16:XP:8:ARG:HH11	1.64	0.62
19:XS:2:PRO:HB2	50:Y4:68:ARG:HH22	1.64	0.62
52:Y6:27:LYS:HB2	52:Y6:27:LYS:HZ2	1.62	0.62
25:YA:2011:U:H2'	25:YA:2012:G:H5'	1.82	0.62
25:YA:2698:U:H2'	25:YA:2699:C:C6	2.33	0.62
25:YA:724:U:H2'	25:YA:725:G:O4'	1.98	0.62
28:YE:4:ILE:CD1	28:YE:28:ALA:HB1	2.29	0.62
33:YN:26:LEU:O	33:YN:30:ILE:HG13	1.99	0.62
33:YN:61:ARG:HE	33:YN:61:ARG:HA	1.63	0.62
43:YX:31:HIS:CE1	43:YX:33:LYS:HB2	2.34	0.62
1:QA:1151:A:H1'	10:QJ:39:PRO:HB2	1.81	0.62
1:QA:1239:A:O2'	1:QA:1298:C:N4	2.32	0.62
2:QB:66:GLY:O	2:QB:67:THR:HG23	2.00	0.62
3:QC:70:VAL:HG12	3:QC:72:LYS:N	2.11	0.62
6:QF:8:ILE:HD11	6:QF:79:LEU:HD13	1.81	0.62
7:QG:140:ASP:C	7:QG:142:GLU:H	2.03	0.62
1:QA:1014:A:H4'	19:QS:14:HIS:CD2	2.33	0.62
48:R2:65:ASN:HB3	48:R2:69:ARG:NH1	2.10	0.62
25:RA:2593:U:C2	25:RA:2594:C:C5	2.87	0.62
27:RD:134:ARG:HD3	27:RD:135:PHE:CE2	2.34	0.62
35:RP:65:ARG:CG	35:RP:65:ARG:HH11	2.06	0.62
39:RT:24:PRO:O	39:RT:94:ALA:HB2	2.00	0.62
1:XA:188:U:H2'	1:XA:189:U:H5''	1.79	0.62
4:XD:96:LEU:CD2	4:XD:96:LEU:H	2.11	0.62
5:XE:78:HIS:HA	8:XH:105:ARG:HB2	1.79	0.62
11:XK:58:PRO:HD3	11:XK:89:ALA:HB1	1.81	0.62
22:XV:6:G:H1	22:XV:67:C:H42	1.45	0.62
25:YA:2303:G:H1	25:YA:2313:C:N4	1.95	0.62
25:YA:2600:A:N7	27:YD:237:GLU:OE2	2.32	0.62
25:YA:630:G:N2	25:YA:633:A:OP2	2.23	0.62
25:YA:957:A:N6	25:YA:959:A:C2	2.67	0.62
29:YF:107:LYS:O	29:YF:108:LYS:C	2.36	0.62
29:YF:129:PHE:O	29:YF:130:ALA:HB3	1.99	0.62
30:YG:94:LEU:HD23	30:YG:94:LEU:H	1.64	0.62
37:YR:63:ARG:NH1	37:YR:80:PHE:CD1	2.67	0.62
39:YT:22:PHE:HD2	39:YT:22:PHE:N	1.97	0.62
40:YU:34:LYS:CE	40:YU:34:LYS:HA	2.29	0.62
2:QB:23:ARG:HD3	2:QB:23:ARG:H	1.64	0.62
8:QH:42:GLU:HG3	8:QH:109:ILE:HD12	1.80	0.62
11:QK:19:ALA:HA	11:QK:32:ILE:HG22	1.80	0.62

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:QK:57:THR:HG22	11:QK:59:TYR:H	1.64	0.62
18:QR:82:THR:HG22	18:QR:83:GLU:N	2.15	0.62
13:QM:50:GLU:OE1	50:R4:32:TYR:HE2	1.81	0.62
25:RA:301:G:H1	25:RA:316:C:H42	1.47	0.62
28:RE:35:GLN:CG	28:RE:37:ARG:NE	2.62	0.62
35:RP:61:ARG:H	35:RP:61:ARG:CD	2.09	0.62
38:RS:26:LEU:HD22	38:RS:87:PHE:HD1	1.63	0.62
39:RT:96:ARG:NH1	39:RT:96:ARG:HB2	2.14	0.62
42:RW:60:ASN:C	42:RW:61:ASN:HD22	2.03	0.62
2:XB:23:ARG:H	2:XB:23:ARG:HD3	1.64	0.62
3:XC:3:ASN:N	3:XC:3:ASN:HD22	1.97	0.62
10:XJ:29:ARG:O	10:XJ:29:ARG:HG2	2.00	0.62
11:XK:99:GLN:HG2	11:XK:105:VAL:CG2	2.28	0.62
11:XK:57:THR:HG22	11:XK:59:TYR:H	1.65	0.62
12:XL:8:ASN:OD1	17:XQ:34:LYS:HE2	1.99	0.62
52:Y6:44:ARG:O	52:Y6:45:LYS:HB2	2.00	0.62
25:YA:483:A:H4'	44:YY:49:VAL:HG13	1.81	0.62
35:YP:65:ARG:HE	54:Y8:15:LYS:HB2	1.64	0.62
3:QC:127:ARG:HG2	3:QC:127:ARG:HH11	1.64	0.62
7:QG:140:ASP:HA	7:QG:143:ARG:NH1	2.14	0.62
9:QI:13:ALA:HB2	9:QI:67:GLY:O	2.00	0.62
9:QI:65:VAL:HG21	9:QI:73:GLN:HB3	1.81	0.62
12:QL:86:ARG:HB2	12:QL:101:VAL:CG2	2.28	0.62
18:QR:25:THR:O	18:QR:25:THR:HG22	2.00	0.62
52:R6:41:PRO:HG2	52:R6:45:LYS:N	2.10	0.62
25:RA:1224:G:OP2	41:RV:66:ARG:NH2	2.32	0.62
25:RA:1411:C:H42	25:RA:1591:G:H1	1.48	0.62
28:RE:13:ARG:HH12	28:RE:21:VAL:HG12	1.64	0.62
30:RG:77:ILE:HD13	30:RG:82:LEU:CD1	2.29	0.62
30:RG:94:LEU:N	30:RG:94:LEU:HD23	2.14	0.62
31:RH:137:ASP:HB3	31:RH:140:LYS:HB2	1.81	0.62
38:RS:48:LEU:HD12	38:RS:48:LEU:N	2.14	0.62
41:RV:36:PRO:HA	41:RV:56:SER:OG	1.98	0.62
43:RX:31:HIS:CE1	43:RX:33:LYS:HB2	2.34	0.62
1:XA:194:C:C2'	1:XA:195:A:H5''	2.29	0.62
1:XA:250:A:H4'	1:XA:251:G:O5'	1.99	0.62
1:XA:537:G:H5''	12:XL:113:ARG:NH1	2.15	0.62
1:XA:695:A:H2'	1:XA:696:A:C8	2.34	0.62
4:XD:29:PRO:C	4:XD:30:LYS:HD3	2.19	0.62
7:XG:140:ASP:HA	7:XG:143:ARG:NH1	2.14	0.62
13:XM:69:GLU:O	13:XM:72:ALA:N	2.32	0.62
14:XN:53:LEU:HB3	14:XN:56:VAL:HG21	1.80	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:XR:82:THR:HG22	18:XR:83:GLU:N	2.15	0.62
20:XT:14:LYS:HA	20:XT:17:ARG:NH1	2.14	0.62
48:Y2:41:ILE:HG12	48:Y2:44:LEU:HD12	1.82	0.62
25:YA:1270:C:O2'	25:YA:1325:G:H2'	1.99	0.62
25:YA:681:G:H2'	25:YA:682:G:O4'	2.00	0.62
27:YD:35:LYS:HA	27:YD:64:ILE:HG22	1.81	0.62
29:YF:28:ILE:HD13	29:YF:30:PRO:HD3	1.80	0.62
30:YG:112:PRO:HB3	50:Y4:37:SER:CB	2.25	0.62
33:YN:133:GLN:O	33:YN:134:ARG:HB3	1.99	0.62
35:YP:1:MET:CE	35:YP:5:ASP:HB3	2.25	0.62
38:YS:100:ALA:HA	38:YS:103:GLU:CG	2.29	0.62
38:YS:48:LEU:N	38:YS:48:LEU:HD12	2.14	0.62
39:YT:96:ARG:NH1	39:YT:96:ARG:HB2	2.14	0.62
41:YV:52:VAL:CG2	41:YV:55:ALA:HB3	2.28	0.62
1:QA:1152:A:OP1	10:QJ:68:HIS:NE2	2.32	0.62
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.32	0.62
1:QA:962:C:H2'	1:QA:963:G:O4'	1.99	0.62
4:QD:153:ARG:HD3	4:QD:181:MET:SD	2.39	0.62
9:QI:116:LYS:O	9:QI:118:LYS:N	2.32	0.62
14:QN:41:ARG:HH21	14:QN:42:ILE:HD11	1.62	0.62
48:R2:40:SER:C	48:R2:42:GLY:N	2.51	0.62
25:RA:1871:A:H2'	25:RA:1872:A:C8	2.34	0.62
25:RA:858:U:H1'	25:RA:2268:A:H2'	1.82	0.62
25:RA:2445:G:OP1	29:RF:74:ARG:NH2	2.32	0.62
25:RA:512:G:OP1	25:RA:1234:U:O2'	2.17	0.62
29:RF:129:PHE:O	29:RF:130:ALA:HB3	1.99	0.62
33:RN:87:LEU:HD23	33:RN:87:LEU:O	1.99	0.62
33:RN:96:GLU:O	33:RN:98:VAL:N	2.33	0.62
39:RT:108:ARG:O	39:RT:111:ARG:HG3	2.00	0.62
1:XA:1356:G:H2'	1:XA:1357:A:H8	1.62	0.62
2:XB:20:GLU:HB2	2:XB:190:THR:OG1	1.99	0.62
47:Y1:91:LYS:HE3	47:Y1:91:LYS:HA	1.81	0.62
48:Y2:70:GLN:O	48:Y2:71:ASN:HB2	2.00	0.62
52:Y6:13:CYS:HB2	52:Y6:22:ALA:HB3	1.81	0.62
25:YA:2072:G:C2	25:YA:2073:C:C2	2.88	0.62
25:YA:745:G:H5''	25:YA:746:A:OP2	1.99	0.62
13:XM:8:GLU:OE2	30:YG:115:ARG:NH1	2.32	0.62
30:YG:94:LEU:HD23	30:YG:94:LEU:N	2.14	0.62
35:YP:105:LEU:O	35:YP:106:LEU:CB	2.42	0.62
44:YY:48:ALA:HB2	44:YY:61:ILE:HD13	1.82	0.62
1:QA:1131:G:H2'	1:QA:1132:C:H6	1.63	0.62
1:QA:728:A:H2'	1:QA:729:A:C8	2.34	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:973:G:OP1	10:QJ:57:LYS:NZ	2.32	0.62
47:R1:18:ILE:HG12	47:R1:37:ILE:HG12	1.81	0.62
52:R6:18:ARG:HD2	52:R6:18:ARG:O	2.00	0.62
25:RA:1582:C:O2'	25:RA:1586:A:H8	1.81	0.62
25:RA:1332:G:H21	25:RA:1610:A:H8	1.45	0.62
25:RA:270(I):G:H1	25:RA:270(Q):C:H42	1.47	0.62
25:RA:2883:A:H5'	25:RA:2884:U:H5'	1.81	0.62
25:RA:674:G:H2'	25:RA:804:A:N6	2.14	0.62
26:RB:33:G:H8	26:RB:33:G:H5''	1.65	0.62
28:RE:35:GLN:HG2	28:RE:37:ARG:NE	2.14	0.62
29:RF:32:LEU:CD1	29:RF:105:VAL:HG13	2.29	0.62
33:RN:7:LYS:HD2	33:RN:7:LYS:H	1.64	0.62
39:RT:57:PHE:CD2	39:RT:58:ASN:N	2.66	0.62
1:XA:816:A:OP1	1:XA:1526:G:O2'	2.17	0.62
2:XB:115:LEU:CD2	2:XB:153:ARG:HD3	2.30	0.62
4:XD:170:VAL:HG22	4:XD:171:GLY:N	2.12	0.62
5:XE:42:GLY:HA2	5:XE:136:MET:HE1	1.82	0.62
8:XH:58:TYR:O	8:XH:59:LEU:HD23	2.00	0.62
48:Y2:69:ARG:HB2	48:Y2:69:ARG:CZ	2.29	0.62
25:YA:2332:U:O2'	25:YA:2333:A:H5'	1.99	0.62
27:YD:182:LEU:H	27:YD:272:ALA:HB3	1.62	0.62
30:YG:170:ARG:O	30:YG:174:GLU:HB2	2.00	0.62
31:YH:136:ILE:HD12	31:YH:136:ILE:H	1.64	0.62
39:YT:108:ARG:O	39:YT:111:ARG:HG3	2.00	0.62
36:YQ:63:LYS:HD2	45:YZ:175:VAL:HG21	1.81	0.62
1:QA:827:U:H6	1:QA:859:A:H61	1.48	0.62
1:QA:868:C:H2'	1:QA:869:G:O4'	1.98	0.62
8:QH:16:ALA:HB2	8:QH:24:THR:HG21	1.82	0.62
8:QH:84:ARG:NH1	8:QH:84:ARG:HG3	2.10	0.62
13:QM:97:PRO:HB2	13:QM:101:GLN:HE22	1.65	0.62
16:QP:66:PRO:HG2	16:QP:71:ARG:HH12	1.64	0.62
35:RP:64:LYS:HB2	54:R8:25:MET:HG3	1.80	0.62
25:RA:1341:U:OP2	25:RA:1394:U:O2'	2.14	0.62
25:RA:2695:C:H2'	25:RA:2696:U:C6	2.35	0.62
25:RA:302:C:H2'	25:RA:303:U:C6	2.35	0.62
27:RD:72:LYS:HG2	27:RD:103:ARG:NH2	2.14	0.62
25:RA:1826:G:H4'	27:RD:242:ARG:NH2	2.14	0.62
27:RD:70:TRP:CH2	27:RD:150:LYS:HA	2.35	0.62
33:RN:26:LEU:O	33:RN:30:ILE:HG13	1.99	0.62
36:RQ:86:GLY:C	36:RQ:88:GLY:H	2.03	0.62
25:RA:2713:A:OP1	37:RR:14:SER:OG	2.17	0.62
38:RS:22:GLY:O	38:RS:23:ARG:O	2.17	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:RT:31:SER:HA	39:RT:44:ASP:OD2	2.00	0.62
44:RY:87:LYS:O	44:RY:88:LYS:NZ	2.31	0.62
1:XA:1182:G:H4'	1:XA:1183:A:H5''	1.82	0.62
4:XD:79:PHE:CD2	4:XD:79:PHE:C	2.71	0.62
13:XM:77:ASN:HA	50:Y4:71:ARG:CZ	2.30	0.62
16:XP:51:VAL:CG1	16:XP:52:ASP:H	2.11	0.62
19:XS:39:THR:HG22	19:XS:40:ILE:N	2.14	0.62
50:Y4:61:ARG:O	50:Y4:63:TYR:N	2.33	0.62
25:YA:1204:A:O2'	25:YA:1205:U:O5'	2.18	0.62
25:YA:1696:G:C2	25:YA:1697:G:H1'	2.35	0.62
25:YA:2467:C:H4'	36:YQ:123:HIS:CD2	2.34	0.62
26:YB:71:C:C2	26:YB:72:G:C8	2.88	0.62
27:YD:133:LEU:HD21	27:YD:191:ALA:CB	2.29	0.62
28:YE:131:ALA:HB1	28:YE:135:HIS:CE1	2.34	0.62
34:YO:104:ARG:CZ	39:YT:34:VAL:HG11	2.29	0.62
35:YP:112:LEU:HD11	35:YP:114:ILE:HG23	1.80	0.62
42:YW:60:ASN:C	42:YW:61:ASN:HD22	2.03	0.62
1:QA:741:G:H2'	1:QA:742:G:C8	2.35	0.62
1:QA:793:U:H3'	1:QA:794:A:H5''	1.82	0.62
4:QD:196:LEU:C	4:QD:198:VAL:H	2.02	0.62
6:QF:77:ARG:HB2	6:QF:77:ARG:NH1	2.15	0.62
13:QM:69:GLU:O	13:QM:72:ALA:N	2.32	0.62
17:QQ:11:VAL:HG23	17:QQ:20:THR:HB	1.79	0.62
25:RA:2395:C:O2'	47:R1:30:VAL:HG12	1.99	0.62
48:R2:17:SER:HB2	48:R2:18:PRO:CA	2.30	0.62
25:RA:1285:G:N2	25:RA:1329:U:OP1	2.28	0.62
30:RG:68:PRO:HB2	30:RG:90:LEU:HD12	1.80	0.62
38:RS:26:LEU:HD12	38:RS:39:ILE:CD1	2.23	0.62
34:RO:78:ARG:HH21	39:RT:103:ARG:NH2	1.98	0.62
1:XA:1070:U:O5'	5:XE:25:ARG:NH1	2.33	0.62
3:XC:189:ALA:O	3:XC:191:THR:HG23	1.99	0.62
9:XI:116:LYS:O	9:XI:118:LYS:N	2.33	0.62
11:XK:51:LYS:CA	11:XK:55:LYS:HD3	2.22	0.62
13:XM:66:LEU:HA	13:XM:70:LEU:HD23	1.81	0.62
19:XS:12:ASP:OD1	19:XS:37:ARG:HD2	2.00	0.62
25:YA:210:C:OP2	53:Y7:29:LYS:NZ	2.33	0.62
25:YA:225:A:O2'	25:YA:257:A:H4'	2.00	0.62
28:YE:104:VAL:HG11	28:YE:188:VAL:HG23	1.82	0.62
28:YE:51:PHE:O	28:YE:52:LEU:C	2.38	0.62
29:YF:28:ILE:HG22	29:YF:112:MET:HB3	1.80	0.62
45:YZ:117:LEU:HA	45:YZ:174:VAL:HG22	1.81	0.62
1:QA:280:C:H3'	1:QA:281:G:H5'	1.82	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:R1:3:LYS:HD3	47:R1:43:TYR:CD2	2.35	0.62
47:R1:91:LYS:HA	47:R1:91:LYS:HE3	1.82	0.62
48:R2:69:ARG:CZ	48:R2:69:ARG:HB2	2.30	0.62
30:RG:6:ALA:HB2	50:R4:23:GLU:OE2	2.00	0.62
50:R4:61:ARG:O	50:R4:63:TYR:N	2.33	0.62
25:RA:1298:C:H2'	25:RA:1299:G:O4'	2.00	0.62
25:RA:1434:A:H61	25:RA:1558:A:N6	1.91	0.62
25:RA:2041:U:H2'	25:RA:2042:A:H8	1.63	0.62
25:RA:2723:C:H5''	37:RR:1:MET:HG2	1.82	0.62
25:RA:530:G:H1'	25:RA:2021:C:O2'	1.98	0.62
27:RD:137:PRO:HB2	27:RD:140:THR:HG23	1.81	0.62
27:RD:27:THR:O	27:RD:29:PRO:HD2	1.99	0.62
27:RD:72:LYS:HE3	27:RD:75:ILE:HD12	1.82	0.62
30:RG:170:ARG:O	30:RG:174:GLU:HB2	1.99	0.62
25:RA:2531:A:H4'	31:RH:157:TYR:CE2	2.34	0.62
25:RA:2415:G:H4'	35:RP:67:MET:N	2.15	0.62
38:RS:100:ALA:HA	38:RS:103:GLU:CG	2.30	0.62
39:RT:22:PHE:N	39:RT:22:PHE:HD2	1.97	0.62
44:RY:101:LYS:HE3	44:RY:102:CYS:SG	2.40	0.62
2:XB:194:PRO:HG2	2:XB:195:ASP:H	1.64	0.62
3:XC:111:LEU:HD21	3:XC:144:SER:O	2.00	0.62
3:XC:127:ARG:HH11	3:XC:127:ARG:HG2	1.64	0.62
5:XE:51:VAL:HB	5:XE:52:PRO:CD	2.30	0.62
6:XF:8:ILE:HD11	6:XF:79:LEU:HD13	1.81	0.62
1:XA:1314:C:H5	19:XS:4:SER:HB2	1.63	0.62
48:Y2:17:SER:HB2	48:Y2:18:PRO:CA	2.30	0.62
54:Y8:59:LYS:HB3	54:Y8:59:LYS:HZ3	1.63	0.62
25:YA:777:A:C2	25:YA:778:G:C4	2.87	0.62
30:YG:142:PRO:HB2	50:Y4:31:ILE:CD1	2.30	0.62
25:YA:2562:U:H1'	34:YO:23:ARG:NH1	2.15	0.62
4:QD:106:TYR:HE1	4:QD:112:VAL:O	1.82	0.61
4:QD:166:LYS:HD2	27:YD:134:ARG:HH12	1.64	0.61
5:QE:51:VAL:O	5:QE:55:VAL:HG23	1.99	0.61
6:QF:10:LEU:HD13	6:QF:61:LEU:CD1	2.30	0.61
8:QH:29:SER:HB3	8:QH:32:LYS:CG	2.22	0.61
10:QJ:29:ARG:HG2	10:QJ:29:ARG:O	2.00	0.61
13:QM:117:VAL:HG22	13:QM:118:ALA:N	2.15	0.61
14:QN:23:ARG:NH1	14:QN:30:ALA:HB2	2.14	0.61
15:QO:26:GLU:CD	15:QO:77:ARG:HH12	2.03	0.61
50:R4:23:GLU:O	50:R4:25:TYR:N	2.33	0.61
25:RA:2361:A:O5'	54:R8:27:THR:OG1	2.18	0.61
25:RA:2847:U:H3	25:RA:2869:G:H1	1.48	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:RS:17:ARG:HG3	38:RS:18:ILE:N	2.14	0.61
1:XA:142:G:H2'	1:XA:143:A:H8	1.64	0.61
1:XA:414:A:H2'	1:XA:415:A:C8	2.35	0.61
1:XA:821:G:H2'	1:XA:822:C:H6	1.63	0.61
1:XA:829:G:O6	1:XA:857:C:N4	2.20	0.61
9:XI:65:VAL:HG21	9:XI:73:GLN:HB3	1.81	0.61
15:XO:74:ASP:OD1	15:XO:77:ARG:HG2	2.00	0.61
16:XP:4:ILE:HG13	16:XP:21:VAL:CG1	2.29	0.61
16:XP:20:VAL:HG21	16:XP:32:TYR:CD2	2.35	0.61
47:Y1:76:ARG:HD2	47:Y1:76:ARG:H	1.64	0.61
25:YA:1384:A:O2'	25:YA:1404:C:O2	2.18	0.61
25:YA:2119:A:N6	25:YA:2170:A:H62	1.97	0.61
25:YA:602:G:O2'	25:YA:655:A:N6	2.33	0.61
27:YD:134:ARG:HD3	27:YD:135:PHE:CE2	2.35	0.61
29:YF:32:LEU:CD1	29:YF:105:VAL:HG13	2.29	0.61
36:YQ:54:MET:O	36:YQ:57:HIS:HB3	2.00	0.61
40:YU:102:GLU:HG3	41:YV:2:PHE:CE2	2.34	0.61
11:QK:121:PRO:HD2	11:QK:126:ARG:HD3	1.82	0.61
13:QM:66:LEU:HA	13:QM:70:LEU:HD23	1.81	0.61
14:QN:23:ARG:CD	14:QN:28:GLY:O	2.49	0.61
15:QO:68:ARG:O	15:QO:72:ARG:HB2	2.00	0.61
50:R4:71:ARG:NH1	50:R4:71:ARG:CG	2.61	0.61
52:R6:44:ARG:O	52:R6:45:LYS:HB2	2.00	0.61
25:RA:2439:A:H4'	25:RA:2440:C:O5'	2.01	0.61
25:RA:2529:G:H5''	25:RA:2530:A:H5''	1.81	0.61
25:RA:2688:U:H1'	25:RA:2721:A:H62	1.64	0.61
27:RD:237:GLU:OE1	27:RD:237:GLU:CA	2.48	0.61
30:RG:111:LEU:HB2	30:RG:112:PRO:HD3	1.82	0.61
30:RG:9:ARG:HG2	30:RG:13:GLU:OE1	2.00	0.61
32:RI:62:LYS:HE3	32:RI:134:PRO:HG2	1.82	0.61
34:RO:104:ARG:HG2	34:RO:104:ARG:NH1	2.14	0.61
37:RR:38:VAL:HB	37:RR:39:PRO:HD3	1.81	0.61
45:RZ:53:ILE:HG22	45:RZ:71:VAL:O	2.01	0.61
3:XC:3:ASN:N	3:XC:3:ASN:ND2	2.48	0.61
9:XI:59:PHE:HZ	9:XI:88:TYR:CE1	2.17	0.61
17:XQ:65:ILE:HD12	17:XQ:65:ILE:N	2.15	0.61
21:XU:15:ARG:HG2	21:XU:15:ARG:HH11	1.63	0.61
46:Y0:23:VAL:HB	46:Y0:26:TYR:HE2	1.65	0.61
46:Y0:53:MET:HB2	46:Y0:59:LEU:HD23	1.82	0.61
36:YQ:81:VAL:HG23	46:Y0:7:LEU:HD21	1.82	0.61
47:Y1:87:PRO:O	47:Y1:88:LYS:C	2.37	0.61
25:YA:822:U:H2'	25:YA:823:G:C8	2.35	0.61

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:YT:31:SER:HA	39:YT:44:ASP:OD2	2.00	0.61
42:YW:5:ALA:O	42:YW:50:VAL:HG13	2.00	0.61
4:QD:162:LEU:CD1	4:QD:181:MET:HB3	2.31	0.61
5:QE:91:LEU:HA	5:QE:120:THR:HG22	1.81	0.61
5:QE:51:VAL:HB	5:QE:52:PRO:CD	2.30	0.61
10:QJ:53:PRO:HA	14:QN:42:ILE:HD12	1.82	0.61
11:QK:12:ARG:HG2	11:QK:13:GLN:H	1.63	0.61
50:R4:35:VAL:O	50:R4:37:SER:N	2.26	0.61
25:RA:242:G:C8	54:R8:5:LYS:HG2	2.35	0.61
25:RA:301:G:N2	25:RA:316:C:N3	2.40	0.61
27:RD:133:LEU:HD21	27:RD:191:ALA:HB2	1.82	0.61
34:RO:97:ARG:N	34:RO:117:LEU:HD22	2.15	0.61
35:RP:114:ILE:HD11	35:RP:130:PHE:CD1	2.34	0.61
40:RU:92:ARG:HD3	40:RU:94:ASN:HB3	1.82	0.61
44:RY:48:ALA:HB2	44:RY:61:ILE:HD13	1.82	0.61
1:XA:295:C:H2'	1:XA:296:U:H6	1.65	0.61
12:XL:126:LYS:C	12:XL:128:ALA:H	2.04	0.61
14:XN:32:SER:O	14:XN:40:CYS:C	2.37	0.61
15:XO:61:GLY:C	15:XO:65:ARG:HH12	2.02	0.61
25:YA:1459:G:H2'	25:YA:1460:A:H5'	1.83	0.61
27:YD:27:THR:O	27:YD:29:PRO:HD2	1.99	0.61
35:YP:108:LYS:H	35:YP:108:LYS:HD2	1.64	0.61
36:YQ:88:GLY:C	36:YQ:90:VAL:H	2.02	0.61
38:YS:17:ARG:HG3	38:YS:18:ILE:N	2.14	0.61
25:YA:751:A:H5'	42:YW:90:ARG:HA	1.81	0.61
1:QA:156:G:H1	1:QA:165:C:N4	1.97	0.61
1:QA:745:C:H2'	1:QA:746:A:C8	2.34	0.61
2:QB:108:ILE:O	2:QB:111:ARG:HB2	2.01	0.61
3:QC:111:LEU:HD21	3:QC:144:SER:O	2.01	0.61
4:QD:29:PRO:CG	4:QD:30:LYS:HD3	2.28	0.61
7:QG:15:ASP:O	7:QG:19:GLY:HA2	2.00	0.61
8:QH:39:LEU:O	8:QH:45:ILE:HG12	2.01	0.61
9:QI:118:LYS:HZ3	9:QI:118:LYS:HB2	1.65	0.61
13:QM:36:LYS:C	13:QM:36:LYS:HD3	2.19	0.61
14:QN:18:VAL:HG23	14:QN:19:ARG:N	2.14	0.61
49:R3:29:ARG:CB	49:R3:29:ARG:HH11	2.13	0.61
25:RA:1667:G:H2'	25:RA:1991:U:O4	2.00	0.61
25:RA:2114:A:N6	25:RA:2119:A:H62	1.98	0.61
25:RA:829:A:C8	25:RA:2248:C:H5'	2.35	0.61
25:RA:738:G:H2'	25:RA:739:G:O4'	2.00	0.61
27:RD:35:LYS:HA	27:RD:64:ILE:HG22	1.82	0.61
28:RE:201:THR:HG22	28:RE:203:LYS:N	2.07	0.61

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:RH:152:ARG:O	31:RH:153:LYS:CD	2.48	0.61
33:RN:62:VAL:CG1	33:RN:66:LYS:HD2	2.30	0.61
33:RN:96:GLU:CG	33:RN:97:ARG:H	2.00	0.61
35:RP:50:ARG:CB	35:RP:50:ARG:NH2	2.57	0.61
25:RA:2849:U:H5	39:RT:93:ARG:HH12	1.49	0.61
7:XG:15:ASP:O	7:XG:19:GLY:HA2	2.00	0.61
9:XI:28:VAL:HG13	9:XI:63:ILE:HG22	1.83	0.61
19:XS:11:VAL:O	19:XS:12:ASP:HB2	1.99	0.61
20:XT:34:LYS:O	20:XT:38:LYS:HB2	2.01	0.61
47:Y1:73:LEU:C	47:Y1:75:GLU:H	2.03	0.61
25:YA:1162:G:H1'	41:YV:23:GLU:OE2	2.00	0.61
25:YA:1228:G:OP2	40:YU:16:LYS:NZ	2.17	0.61
25:YA:1991:U:H2'	25:YA:1992:G:H5''	1.83	0.61
25:YA:2025:C:H2'	25:YA:2026:C:C6	2.35	0.61
27:YD:137:PRO:HB2	27:YD:140:THR:HG23	1.81	0.61
28:YE:35:GLN:HG2	28:YE:37:ARG:NE	2.14	0.61
30:YG:6:ALA:HB2	50:Y4:23:GLU:OE2	2.00	0.61
33:YN:96:GLU:O	33:YN:98:VAL:N	2.33	0.61
35:YP:50:ARG:NH2	35:YP:50:ARG:CB	2.58	0.61
36:YQ:66:ILE:CG1	36:YQ:67:ARG:H	2.12	0.61
36:YQ:86:GLY:C	36:YQ:88:GLY:N	2.52	0.61
43:YX:15:GLU:OE1	43:YX:15:GLU:N	2.34	0.61
45:YZ:169:GLU:HG2	45:YZ:170:THR:N	2.15	0.61
1:QA:404:U:H2'	1:QA:405:U:H6	1.64	0.61
1:QA:450:G:N7	1:QA:481:G:C6	2.69	0.61
2:QB:115:LEU:CD2	2:QB:153:ARG:HD3	2.30	0.61
1:QA:1111:A:N1	3:QC:177:THR:HG23	2.16	0.61
7:QG:113:GLU:CB	7:QG:119:ARG:HG2	2.29	0.61
10:QJ:98:ILE:N	10:QJ:98:ILE:HD12	2.15	0.61
12:QL:126:LYS:C	12:QL:128:ALA:H	2.03	0.61
19:QS:11:VAL:O	19:QS:12:ASP:HB2	2.00	0.61
23:QX:8:A:O5'	23:QX:8:A:H8	1.83	0.61
30:RG:142:PRO:HB2	50:R4:31:ILE:CD1	2.30	0.61
25:RA:2419:U:H5'	52:R6:23:THR:HG22	1.82	0.61
31:RH:86:GLU:O	31:RH:87:LEU:HB2	1.99	0.61
32:RI:8:PRO:HG3	32:RI:14:ASP:HB2	1.82	0.61
35:RP:65:ARG:HE	54:R8:15:LYS:HB2	1.64	0.61
38:RS:88:ASP:O	38:RS:89:ARG:CB	2.49	0.61
42:RW:5:ALA:O	42:RW:50:VAL:HG13	2.00	0.61
1:XA:1020:U:H2'	1:XA:1021:G:C8	2.36	0.61
1:XA:1149:C:H2'	1:XA:1150:U:H6	1.65	0.61
1:XA:826:C:H2'	1:XA:827:U:O2	1.99	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:XD:149:ALA:HB3	4:XD:152:SER:HB2	1.82	0.61
9:XI:128:ARG:NH2	22:XV:35:A:OP1	2.26	0.61
38:YS:43:GLU:HG2	46:Y0:49:LYS:HE2	1.82	0.61
50:Y4:23:GLU:O	50:Y4:25:TYR:N	2.33	0.61
54:Y8:22:VAL:HG21	54:Y8:53:PRO:HB2	1.83	0.61
54:Y8:29:LYS:HD3	54:Y8:44:LYS:CB	2.30	0.61
25:YA:2368:C:H2'	25:YA:2369:A:C8	2.33	0.61
27:YD:70:TRP:CH2	27:YD:150:LYS:HA	2.35	0.61
31:YH:6:ARG:HG3	31:YH:7:LEU:N	2.15	0.61
33:YN:62:VAL:CG1	33:YN:66:LYS:HD2	2.29	0.61
34:YO:8:LEU:HB2	34:YO:19:ILE:HD11	1.81	0.61
34:YO:78:ARG:HH21	39:YT:103:ARG:NH2	1.98	0.61
39:YT:24:PRO:O	39:YT:94:ALA:HB2	2.00	0.61
41:YV:46:VAL:HG13	41:YV:46:VAL:O	2.01	0.61
1:QA:542:G:OP1	4:QD:10:ARG:NH2	2.33	0.61
1:QA:701:C:H4'	1:QA:702:A:H5''	1.83	0.61
1:QA:735:C:H2'	1:QA:736:C:H6	1.66	0.61
1:QA:865:A:H5'	1:QA:1078:U:H5	1.65	0.61
17:QQ:67:LYS:HA	17:QQ:70:ARG:NH1	2.15	0.61
52:R6:25:LYS:HD2	54:R8:34:TRP:CZ2	2.36	0.61
25:RA:1354:A:OP1	27:RD:38:LYS:HE2	2.00	0.61
25:RA:2072:G:N2	25:RA:2073:C:O2	2.33	0.61
25:RA:2152:G:H2'	25:RA:2153:G:H8	1.66	0.61
25:RA:2645:G:H3'	25:RA:2646:C:H5'	1.81	0.61
27:RD:21:PHE:HB3	27:RD:24:ILE:HG13	1.83	0.61
34:RO:104:ARG:CZ	39:RT:34:VAL:HG11	2.29	0.61
42:RW:82:LEU:HB2	42:RW:98:LYS:HB2	1.82	0.61
1:XA:1010:G:N2	1:XA:1020:U:H1'	2.15	0.61
1:XA:118:U:H3'	1:XA:288:A:H61	1.65	0.61
1:XA:1336:C:H1'	1:XA:1337:G:C2	2.36	0.61
1:XA:581:G:N2	1:XA:760:G:N7	2.49	0.61
2:XB:17:PHE:CD2	2:XB:44:LEU:HD11	2.36	0.61
4:XD:106:TYR:HE1	4:XD:112:VAL:O	1.82	0.61
4:XD:196:LEU:C	4:XD:198:VAL:H	2.02	0.61
5:XE:131:ILE:O	5:XE:134:ALA:HB3	2.01	0.61
5:XE:79:GLU:OE2	8:XH:104:ARG:CA	2.48	0.61
6:XF:77:ARG:NH1	6:XF:77:ARG:HB2	2.15	0.61
8:XH:102:ARG:HH11	8:XH:105:ARG:NH2	1.99	0.61
49:Y3:5:LYS:HB2	49:Y3:36:VAL:HG12	1.82	0.61
13:XM:77:ASN:CA	50:Y4:71:ARG:NH2	2.55	0.61
52:Y6:18:ARG:O	52:Y6:18:ARG:HD2	2.00	0.61
25:YA:1586:A:H3'	25:YA:1587:A:H8	1.64	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1818:U:H2'	27:YD:157:ARG:HG3	1.82	0.61
25:YA:2532:G:O2'	25:YA:2657:A:N1	2.30	0.61
25:YA:287:C:H42	25:YA:354:G:H1	1.49	0.61
25:YA:747:U:C2	51:Y5:2:ALA:HB3	2.34	0.61
27:YD:25:THR:HG21	27:YD:81:ALA:CA	2.31	0.61
27:YD:35:LYS:HE3	27:YD:64:ILE:C	2.21	0.61
28:YE:35:GLN:CG	28:YE:37:ARG:HE	2.10	0.61
31:YH:152:ARG:O	31:YH:153:LYS:CD	2.48	0.61
36:YQ:2:LEU:HD23	36:YQ:2:LEU:H	1.65	0.61
37:YR:38:VAL:HB	37:YR:39:PRO:HD3	1.81	0.61
38:YS:49:VAL:HG22	38:YS:80:LEU:HD12	1.83	0.61
42:YW:28:SER:O	42:YW:31:GLU:N	2.34	0.61
44:YY:44:ILE:HG13	44:YY:45:VAL:H	1.64	0.61
1:QA:36:C:O2'	1:QA:501:C:OP1	2.17	0.61
5:QE:42:GLY:HA2	5:QE:136:MET:HE1	1.82	0.61
16:QP:4:ILE:HG13	16:QP:21:VAL:CG1	2.29	0.61
47:R1:80:LEU:O	47:R1:81:LYS:HD2	2.01	0.61
25:RA:2102:U:H3	25:RA:2187:G:H1	1.49	0.61
25:RA:49:A:N7	25:RA:120:U:C5	2.69	0.61
27:RD:174:ILE:N	27:RD:174:ILE:HD12	2.16	0.61
41:RV:46:VAL:HG13	41:RV:46:VAL:O	2.01	0.61
43:RX:66:LEU:O	43:RX:66:LEU:HD23	2.01	0.61
1:XA:376:G:H5''	16:XP:5:ARG:HD2	1.82	0.61
2:XB:108:ILE:O	2:XB:111:ARG:HB2	2.01	0.61
2:XB:21:ARG:HG3	2:XB:38:GLY:O	2.01	0.61
6:XF:69:GLU:O	6:XF:72:VAL:HG12	2.01	0.61
8:XH:23:SER:HA	8:XH:63:LEU:CD2	2.24	0.61
10:XJ:34:VAL:CG2	10:XJ:74:ILE:HG22	2.30	0.61
13:XM:117:VAL:HG22	13:XM:118:ALA:N	2.15	0.61
25:YA:688:U:H2'	25:YA:689:A:C8	2.36	0.61
26:YB:38:C:N3	26:YB:44:G:N2	2.44	0.61
27:YD:227:ASN:CB	27:YD:228:PRO:HD2	2.24	0.61
28:YE:95:ILE:N	28:YE:95:ILE:HD12	2.15	0.61
25:YA:674:G:C1'	29:YF:74:ARG:HD3	2.29	0.61
34:YO:91:LEU:HD22	34:YO:91:LEU:N	2.16	0.61
40:YU:88:ILE:CD1	40:YU:88:ILE:H	2.05	0.61
44:YY:19:LYS:HG3	44:YY:19:LYS:O	2.01	0.61
45:YZ:182:LYS:HB2	45:YZ:183:LEU:HA	1.81	0.61
1:QA:108:G:P	1:QA:326:G:H22	2.23	0.61
1:QA:489:C:H2'	1:QA:490:G:H8	1.66	0.61
2:QB:194:PRO:HG2	2:QB:195:ASP:H	1.64	0.61
4:QD:129:ASN:HA	4:QD:145:GLU:HB2	1.82	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:166:LYS:HG3	27:YD:135:PHE:CZ	2.36	0.61
6:QF:98:LEU:HD12	6:QF:98:LEU:O	2.01	0.61
17:QQ:65:ILE:HD12	17:QQ:65:ILE:N	2.15	0.61
48:R2:41:ILE:HD11	48:R2:44:LEU:HG	1.82	0.61
54:R8:29:LYS:HD3	54:R8:44:LYS:CB	2.30	0.61
54:R8:48:PHE:CD1	54:R8:48:PHE:N	2.66	0.61
25:RA:1081:U:H3'	25:RA:1082:U:H4'	1.83	0.61
25:RA:2870:C:H2'	25:RA:2871:C:O4'	2.00	0.61
25:RA:547:A:H3'	25:RA:548:A:C8	2.36	0.61
25:RA:816:C:H2'	25:RA:817:C:C6	2.36	0.61
29:RF:63:LYS:HE2	29:RF:67:GLN:HB3	1.83	0.61
31:RH:6:ARG:HG3	31:RH:7:LEU:N	2.15	0.61
33:RN:23:LEU:HD12	33:RN:99:LEU:HD23	1.82	0.61
33:RN:7:LYS:CD	33:RN:9:VAL:H	2.14	0.61
40:RU:69:CYS:HB3	40:RU:106:PHE:CZ	2.36	0.61
42:RW:65:LEU:HD12	42:RW:68:ARG:NH1	2.10	0.61
45:RZ:16:SER:O	45:RZ:20:ARG:HB2	2.00	0.61
1:XA:1306:A:N6	1:XA:1331:G:H1'	2.15	0.61
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.10	0.61
1:XA:465:A:N7	1:XA:467:G:C6	2.69	0.61
1:XA:821:G:H2'	1:XA:822:C:C6	2.36	0.61
6:XF:10:LEU:HD13	6:XF:61:LEU:CD1	2.30	0.61
7:XG:140:ASP:C	7:XG:142:GLU:H	2.03	0.61
15:XO:68:ARG:O	15:XO:72:ARG:HB2	2.00	0.61
18:XR:25:THR:HG22	18:XR:25:THR:O	2.00	0.61
48:Y2:41:ILE:HD11	48:Y2:44:LEU:HG	1.83	0.61
49:Y3:59:VAL:HG12	49:Y3:60:GLU:N	2.16	0.61
25:YA:1639:U:H2'	25:YA:1640:C:H5''	1.82	0.61
25:YA:1728:G:H8	25:YA:1732:A:H62	1.48	0.61
25:YA:2439:A:H5'	25:YA:2439:A:H8	1.65	0.61
25:YA:2887:U:H2'	25:YA:2888:C:H6	1.66	0.61
25:YA:860:U:H5	25:YA:917:A:C2	2.19	0.61
27:YD:2:ALA:HB3	27:YD:20:ASP:HB3	1.83	0.61
30:YG:77:ILE:HD13	30:YG:82:LEU:CD1	2.29	0.61
33:YN:7:LYS:CD	33:YN:9:VAL:H	2.14	0.61
3:QC:70:VAL:O	3:QC:106:VAL:HG23	2.01	0.61
4:QD:11:LEU:HA	4:QD:14:ARG:HB2	1.82	0.61
12:QL:44:THR:O	12:QL:45:PRO:O	2.17	0.61
20:QT:84:LEU:O	20:QT:88:VAL:HG23	2.01	0.61
49:R3:59:VAL:HG12	49:R3:60:GLU:N	2.16	0.61
52:R6:41:PRO:HD2	52:R6:46:HIS:N	2.16	0.61
25:RA:1678:G:H22	25:RA:1989:G:N2	1.97	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2392:A:H8	35:RP:60:MET:HG3	1.66	0.61
25:RA:270(U):C:H2'	25:RA:270(V):G:C8	2.34	0.61
4:XD:162:LEU:CD1	4:XD:181:MET:HB3	2.31	0.61
4:XD:196:LEU:N	4:XD:196:LEU:HD12	2.15	0.61
6:XF:98:LEU:HD12	6:XF:98:LEU:O	2.01	0.61
7:XG:79:ARG:HH11	7:XG:79:ARG:HG2	1.66	0.61
11:XK:121:PRO:HD2	11:XK:126:ARG:HD3	1.82	0.61
12:XL:85:ILE:HD11	12:XL:98:TYR:HB2	1.81	0.61
13:XM:96:LEU:HB3	13:XM:97:PRO:HD2	1.83	0.61
19:XS:16:LEU:O	19:XS:20:LEU:HG	2.01	0.61
25:YA:242:G:C5'	54:Y8:3:LYS:HE3	2.29	0.61
25:YA:1327:C:N4	25:YA:1328:G:C6	2.69	0.61
25:YA:863:A:H2'	25:YA:864:G:C8	2.35	0.61
25:YA:882:G:N2	25:YA:895:U:O2	2.33	0.61
27:YD:133:LEU:HD21	27:YD:191:ALA:HB2	1.82	0.61
28:YE:52:LEU:HB3	28:YE:54:GLN:OE1	2.00	0.61
29:YF:119:ARG:HG2	29:YF:119:ARG:HH11	1.64	0.61
29:YF:164:ARG:HG2	29:YF:164:ARG:HH11	1.66	0.61
31:YH:137:ASP:HB3	31:YH:140:LYS:HB2	1.81	0.61
35:YP:96:THR:HG22	35:YP:126:VAL:HB	1.82	0.61
36:YQ:20:ALA:HB1	36:YQ:99:PRO:CD	2.30	0.61
37:YR:44:LEU:HD22	37:YR:48:VAL:HG23	1.82	0.61
38:YS:89:ARG:O	38:YS:90:GLY:O	2.19	0.61
43:YX:14:SER:O	43:YX:17:ALA:N	2.34	0.61
1:QA:1321:C:H3'	1:QA:1322:C:H5''	1.83	0.61
1:QA:1330:U:OP1	13:QM:25:ILE:O	2.18	0.61
1:QA:227:G:H2'	1:QA:228:A:C8	2.35	0.61
1:QA:590:C:H2'	1:QA:591:U:H6	1.66	0.61
3:QC:3:ASN:N	3:QC:3:ASN:ND2	2.48	0.61
3:QC:47:LEU:O	3:QC:52:LEU:HD22	2.01	0.61
10:QJ:34:VAL:CG2	10:QJ:74:ILE:HG22	2.30	0.61
13:QM:9:ILE:O	13:QM:9:ILE:HD12	2.01	0.61
16:QP:20:VAL:HG22	16:QP:21:VAL:N	2.16	0.61
16:QP:20:VAL:HG21	16:QP:32:TYR:CD2	2.35	0.61
16:QP:8:ARG:HG2	16:QP:8:ARG:HH11	1.64	0.61
49:R3:5:LYS:HB2	49:R3:36:VAL:HG12	1.82	0.61
13:QM:62:ASN:ND2	50:R4:49:PHE:HD2	1.99	0.61
51:R5:52:TYR:O	51:R5:53:ALA:HB3	2.01	0.61
25:RA:1047:G:H2'	25:RA:1110:G:N1	2.16	0.61
27:RD:35:LYS:HG2	27:RD:64:ILE:CG2	2.31	0.61
28:RE:52:LEU:HB3	28:RE:54:GLN:OE1	2.00	0.61
35:RP:96:THR:HG22	35:RP:126:VAL:HB	1.83	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:RQ:2:LEU:HD23	36:RQ:2:LEU:H	1.65	0.61
38:RS:49:VAL:HG22	38:RS:80:LEU:HD12	1.82	0.61
1:XA:110:C:H2'	1:XA:111:G:O4'	2.01	0.61
1:XA:192:U:H4'	20:XT:102:GLY:O	2.00	0.61
1:XA:895:G:H2'	1:XA:896:C:C6	2.36	0.61
2:XB:132:LYS:HA	2:XB:135:GLN:CD	2.22	0.61
5:XE:43:LEU:HD21	5:XE:132:ALA:HB1	1.83	0.61
9:XI:13:ALA:HB2	9:XI:67:GLY:O	2.00	0.61
3:XC:13:GLY:HA3	14:XN:57:ARG:CZ	2.31	0.61
46:Y0:11:ARG:O	46:Y0:14:ARG:NH2	2.34	0.61
52:Y6:7:ILE:HG13	52:Y6:8:LYS:N	2.06	0.61
25:YA:1113:U:OP1	31:YH:2:SER:N	2.34	0.61
25:YA:2816:C:O2'	25:YA:2817:G:H5'	1.99	0.61
25:YA:795:C:O2'	25:YA:796:C:H5'	2.00	0.61
25:YA:934:G:H2'	25:YA:935:C:C6	2.35	0.61
27:YD:54:ARG:HH11	27:YD:54:ARG:CG	2.14	0.61
30:YG:44:GLY:HA2	30:YG:88:ILE:CG1	2.31	0.61
33:YN:17:ASP:O	33:YN:18:ALA:HB3	2.01	0.61
41:YV:41:GLY:H	41:YV:46:VAL:HG13	1.66	0.61
42:YW:82:LEU:HB2	42:YW:98:LYS:HB2	1.82	0.61
43:YX:66:LEU:O	43:YX:66:LEU:HD23	2.01	0.61
1:QA:1113:C:H2'	1:QA:1114:C:C6	2.36	0.60
1:QA:1326:C:H2'	1:QA:1327:C:C6	2.36	0.60
1:QA:738:C:H5''	6:QF:69:GLU:HB2	1.83	0.60
2:QB:141:GLU:O	2:QB:145:LEU:HD23	2.01	0.60
2:QB:60:ASP:O	2:QB:64:ARG:HG2	2.01	0.60
4:QD:90:GLY:CA	4:QD:204:ILE:HD11	2.30	0.60
4:QD:90:GLY:HA2	4:QD:204:ILE:HD11	1.83	0.60
19:QS:12:ASP:OD1	19:QS:37:ARG:HD2	2.00	0.60
20:QT:101:GLY:O	20:QT:103:GLY:N	2.34	0.60
25:RA:903:C:H2'	25:RA:904:C:H6	1.66	0.60
26:RB:28:C:H2'	26:RB:29:A:C8	2.36	0.60
29:RF:175:THR:O	29:RF:176:LEU:CB	2.49	0.60
32:RI:68:LEU:HA	32:RI:71:ILE:HG22	1.82	0.60
33:RN:58:ASP:N	33:RN:60:ILE:HD11	2.16	0.60
33:RN:6:PRO:HG3	33:RN:41:ASP:HB2	1.83	0.60
41:RV:35:LEU:HD23	41:RV:35:LEU:O	2.01	0.60
43:RX:14:SER:O	43:RX:17:ALA:N	2.34	0.60
1:XA:1081:G:P	5:XE:16:THR:HG1	2.23	0.60
1:XA:1171:G:H2'	1:XA:1172:C:C6	2.35	0.60
6:XF:45:LEU:HD12	6:XF:59:TYR:HD1	1.66	0.60
15:XO:26:GLU:CD	15:XO:77:ARG:HH12	2.03	0.60

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:XP:20:VAL:HG22	16:XP:21:VAL:N	2.16	0.60
52:Y6:41:PRO:HD2	52:Y6:46:HIS:N	2.16	0.60
25:YA:1359:A:H61	25:YA:1372:U:H3	1.48	0.60
25:YA:877:U:H3	25:YA:899:A:H2	1.49	0.60
27:YD:147:LEU:HD13	27:YD:155:LEU:CD1	2.29	0.60
27:YD:147:LEU:CD1	27:YD:155:LEU:HD11	2.26	0.60
27:YD:35:LYS:NZ	27:YD:65:ILE:HA	2.15	0.60
25:YA:2635:C:OP1	28:YE:78:LEU:HD12	2.01	0.60
32:YI:93:THR:O	32:YI:97:ILE:HG12	2.01	0.60
33:YN:99:LEU:O	33:YN:103:VAL:HG23	2.01	0.60
35:YP:27:HIS:N	35:YP:27:HIS:ND1	2.49	0.60
4:QD:149:ALA:HB3	4:QD:152:SER:HB2	1.82	0.60
5:QE:131:ILE:O	5:QE:134:ALA:HB3	2.01	0.60
8:QH:118:VAL:C	8:QH:119:LEU:HD23	2.21	0.60
11:QK:41:THR:HG21	11:QK:71:LYS:HB2	1.83	0.60
11:QK:99:GLN:HG2	11:QK:105:VAL:CG2	2.28	0.60
15:QO:5:LYS:O	15:QO:8:LYS:HG2	2.01	0.60
48:R2:70:GLN:O	48:R2:71:ASN:HB2	2.00	0.60
25:RA:108:U:H2'	25:RA:109:G:H8	1.65	0.60
25:RA:1113:U:H2'	25:RA:1114:G:C8	2.36	0.60
25:RA:2146:C:H4'	25:RA:2147:G:C8	2.35	0.60
25:RA:2591:C:OP2	27:RD:238:GLY:HA3	2.01	0.60
25:RA:558:G:P	33:RN:111:PRO:HD2	2.41	0.60
25:RA:923:C:H2'	25:RA:924:C:H6	1.65	0.60
27:RD:263:ARG:CB	27:RD:263:ARG:HH11	2.14	0.60
30:RG:28:VAL:O	30:RG:31:VAL:HG12	2.01	0.60
30:RG:61:ALA:HB2	30:RG:68:PRO:HD2	1.80	0.60
36:RQ:86:GLY:C	36:RQ:88:GLY:N	2.52	0.60
37:RR:52:ILE:O	37:RR:55:ALA:HB3	2.01	0.60
41:RV:15:GLU:HG3	41:RV:16:PRO:HD2	1.83	0.60
1:XA:15:G:H4'	5:XE:24:ARG:HH12	1.65	0.60
2:XB:60:ASP:O	2:XB:64:ARG:HG2	2.01	0.60
3:XC:141:VAL:O	3:XC:146:ALA:HB3	2.01	0.60
8:XH:118:VAL:C	8:XH:119:LEU:HD23	2.22	0.60
8:XH:6:ILE:HB	8:XH:85:ARG:HH12	1.62	0.60
12:XL:5:PRO:HA	12:XL:9:GLN:NE2	2.16	0.60
25:YA:1980:G:O2'	25:YA:1982:C:OP2	2.18	0.60
28:YE:131:ALA:HB1	28:YE:135:HIS:HE1	1.65	0.60
32:YI:48:GLU:HA	32:YI:51:ILE:HD12	1.82	0.60
39:YT:34:VAL:HG12	39:YT:36:GLU:HG2	1.83	0.60
42:YW:36:LEU:HD11	42:YW:47:VAL:HG12	1.83	0.60
44:YY:101:LYS:HE3	44:YY:102:CYS:SG	2.40	0.60

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:298:A:H5''	1:QA:299:G:OP2	2.01	0.60
1:QA:955:U:H2'	1:QA:956:U:H6	1.66	0.60
4:QD:196:LEU:HD12	4:QD:196:LEU:N	2.15	0.60
8:QH:49:GLU:O	8:QH:51:VAL:HG13	2.02	0.60
20:QT:34:LYS:O	20:QT:38:LYS:HB2	2.01	0.60
22:QV:1:C:C1'	46:R0:5:LYS:CE	2.78	0.60
47:R1:80:LEU:C	47:R1:81:LYS:CD	2.69	0.60
25:RA:1977:A:H8	25:RA:1977:A:O5'	1.85	0.60
25:RA:2111:C:N3	25:RA:2118:U:O2'	2.34	0.60
28:RE:104:VAL:HG11	28:RE:188:VAL:HG23	1.82	0.60
31:RH:126:PRO:CD	31:RH:127:GLU:N	2.64	0.60
34:RO:91:LEU:N	34:RO:91:LEU:HD22	2.16	0.60
36:RQ:88:GLY:C	36:RQ:90:VAL:H	2.02	0.60
41:RV:66:ARG:HH12	41:RV:88:ARG:HH11	1.49	0.60
42:RW:28:SER:O	42:RW:31:GLU:N	2.34	0.60
45:RZ:166:SER:H	45:RZ:167:PRO:HA	1.66	0.60
1:XA:1224:G:C6	1:XA:1322:C:H1'	2.36	0.60
1:XA:567:G:H2'	1:XA:568:G:O4'	2.02	0.60
2:XB:221:LEU:HD13	2:XB:221:LEU:O	2.02	0.60
3:XC:47:LEU:O	3:XC:52:LEU:HD22	2.01	0.60
3:XC:88:ARG:NH1	3:XC:101:LEU:H	1.99	0.60
5:XE:79:GLU:HB3	5:XE:92:LYS:HA	1.84	0.60
13:XM:40:ASN:HD21	13:XM:42:ALA:HB3	1.64	0.60
17:XQ:67:LYS:HA	17:XQ:70:ARG:NH1	2.15	0.60
50:Y4:71:ARG:CG	50:Y4:71:ARG:NH1	2.61	0.60
25:YA:582:G:H1	25:YA:1258:C:H42	1.46	0.60
25:YA:570:G:H2'	25:YA:2030:A:C5	2.36	0.60
25:YA:2131:G:H4'	25:YA:2132:U:H4'	1.82	0.60
25:YA:2284:C:C5	52:Y6:27:LYS:HE2	2.36	0.60
25:YA:676:A:H2	25:YA:802:A:H61	1.48	0.60
27:YD:263:ARG:CB	27:YD:263:ARG:HH11	2.15	0.60
31:YH:44:VAL:O	31:YH:44:VAL:HG22	2.01	0.60
36:YQ:66:ILE:CG1	36:YQ:67:ARG:N	2.64	0.60
38:YS:99:LYS:O	38:YS:102:ALA:N	2.34	0.60
1:QA:1066:C:H5'	1:QA:1067:A:OP2	2.01	0.60
1:QA:1255:G:HO2'	1:QA:1258:G:HO2'	1.46	0.60
1:QA:684:A:O2'	11:QK:38:ASN:HB3	2.02	0.60
2:QB:114:ARG:O	2:QB:117:GLU:HB2	2.01	0.60
2:QB:132:LYS:HA	2:QB:135:GLN:CD	2.22	0.60
2:QB:80:ILE:CD1	2:QB:208:ILE:HG23	2.22	0.60
3:QC:88:ARG:O	3:QC:99:VAL:HG21	2.01	0.60
4:QD:146:ILE:H	4:QD:146:ILE:HD12	1.66	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:69:GLU:O	6:QF:72:VAL:HG12	2.01	0.60
9:QI:28:VAL:HG13	9:QI:63:ILE:HG22	1.82	0.60
16:QP:40:ASP:OD2	16:QP:42:ARG:HB2	2.02	0.60
20:QT:104:LEU:HD12	20:QT:105:SER:H	1.66	0.60
47:R1:81:LYS:HZ3	47:R1:81:LYS:HA	0.80	0.60
25:RA:96:G:H4'	48:R2:48:HIS:NE2	2.17	0.60
25:RA:1204:A:O2'	25:RA:1205:U:O5'	2.19	0.60
25:RA:2336:A:H61	46:R0:43:THR:HG21	1.64	0.60
25:RA:270:A:H2'	25:RA:270(A):A:C8	2.35	0.60
25:RA:870:A:H2'	25:RA:871:U:C6	2.37	0.60
28:RE:4:ILE:C	28:RE:5:LEU:HD23	2.22	0.60
30:RG:50:ALA:O	30:RG:53:LEU:HB3	2.01	0.60
36:RQ:66:ILE:CG1	36:RQ:67:ARG:N	2.64	0.60
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.33	0.60
1:XA:1412:C:H42	1:XA:1488:G:H1	1.50	0.60
1:XA:309:G:H2'	1:XA:310:G:C8	2.36	0.60
3:XC:70:VAL:HG12	3:XC:72:LYS:N	2.11	0.60
4:XD:146:ILE:H	4:XD:146:ILE:HD12	1.66	0.60
6:XF:61:LEU:HB3	6:XF:63:TYR:HE2	1.67	0.60
8:XH:49:GLU:O	8:XH:51:VAL:HG13	2.02	0.60
11:XK:78:GLN:O	11:XK:103:LEU:HA	2.01	0.60
13:XM:37:THR:CG2	13:XM:39:ILE:HD11	2.32	0.60
13:XM:9:ILE:HD12	13:XM:9:ILE:O	2.01	0.60
13:XM:4:ILE:H	13:XM:9:ILE:HG22	1.62	0.60
16:XP:40:ASP:OD2	16:XP:42:ARG:HB2	2.02	0.60
51:Y5:52:TYR:O	51:Y5:53:ALA:HB3	2.02	0.60
25:YA:469:G:O6	53:Y7:37:LYS:HE2	2.00	0.60
25:YA:1443:G:N2	25:YA:1548:C:N3	2.47	0.60
25:YA:466:A:N3	25:YA:683:C:H1'	2.15	0.60
25:YA:580:C:H2'	25:YA:581:C:H6	1.66	0.60
26:YB:18:G:H1	26:YB:65:C:H42	1.49	0.60
27:YD:35:LYS:NZ	27:YD:64:ILE:O	2.32	0.60
28:YE:37:ARG:CA	28:YE:37:ARG:NE	2.64	0.60
28:YE:53:PRO:HG2	28:YE:54:GLN:NE2	2.16	0.60
32:YI:113:ARG:HB3	32:YI:131:LYS:HD3	1.84	0.60
33:YN:16:ILE:O	33:YN:55:VAL:HG22	2.01	0.60
34:YO:97:ARG:N	34:YO:117:LEU:HD22	2.15	0.60
29:YF:34:TRP:CZ3	35:YP:8:PRO:HB3	2.37	0.60
36:YQ:60:ARG:HH11	45:YZ:113:ALA:HB3	1.65	0.60
37:YR:52:ILE:O	37:YR:55:ALA:HB3	2.01	0.60
40:YU:69:CYS:HB3	40:YU:106:PHE:CZ	2.36	0.60
40:YU:90:VAL:CG1	40:YU:91:ASP:H	2.00	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:YZ:28:MET:N	45:YZ:35:ARG:O	2.32	0.60
1:QA:1172:C:H2'	1:QA:1173:G:C8	2.37	0.60
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.37	0.60
2:QB:17:PHE:CD2	2:QB:44:LEU:HD11	2.36	0.60
3:QC:141:VAL:O	3:QC:146:ALA:HB3	2.01	0.60
6:QF:1:MET:HA	6:QF:67:MET:O	2.02	0.60
8:QH:86:ILE:HG22	8:QH:93:VAL:HG21	1.84	0.60
10:QJ:32:ALA:H	10:QJ:78:ASN:HD21	1.49	0.60
11:QK:78:GLN:O	11:QK:103:LEU:HA	2.01	0.60
15:QO:74:ASP:OD1	15:QO:77:ARG:HG2	2.00	0.60
27:RD:35:LYS:NZ	27:RD:65:ILE:HA	2.15	0.60
30:RG:94:LEU:HD23	30:RG:94:LEU:H	1.64	0.60
36:RQ:54:MET:O	36:RQ:57:HIS:HB3	2.00	0.60
36:RQ:80:GLU:C	36:RQ:81:VAL:HG13	2.22	0.60
40:RU:96:ALA:C	40:RU:98:LEU:H	2.04	0.60
43:RX:43:VAL:CG1	43:RX:51:VAL:HG21	2.31	0.60
1:XA:1101:A:H4'	1:XA:1102:A:O5'	2.01	0.60
1:XA:1189:C:H5''	1:XA:1190:G:OP2	2.02	0.60
1:XA:272:C:H2'	1:XA:273:A:H8	1.67	0.60
2:XB:69:LEU:O	2:XB:162:ILE:HA	2.02	0.60
3:XC:130:VAL:O	3:XC:134:ILE:HG12	2.01	0.60
3:XC:70:VAL:O	3:XC:106:VAL:HG23	2.01	0.60
4:XD:90:GLY:CA	4:XD:204:ILE:HD11	2.31	0.60
8:XH:39:LEU:O	8:XH:45:ILE:HG12	2.01	0.60
9:XI:96:LEU:HD23	9:XI:102:LEU:HD12	1.84	0.60
9:XI:3:GLN:HB3	9:XI:20:ARG:HG2	1.82	0.60
9:XI:85:LEU:O	9:XI:85:LEU:HD12	2.02	0.60
14:XN:44:LEU:HD12	14:XN:48:ALA:HB2	1.83	0.60
20:XT:104:LEU:HD12	20:XT:105:SER:H	1.66	0.60
47:Y1:3:LYS:HD3	47:Y1:43:TYR:CD2	2.35	0.60
13:XM:3:ARG:HG2	50:Y4:34:GLU:OE1	2.02	0.60
52:Y6:13:CYS:O	52:Y6:21:TYR:HA	2.02	0.60
25:YA:1005:C:H5''	25:YA:1006:C:OP2	2.01	0.60
25:YA:1825:A:H2'	25:YA:1826:G:H8	1.67	0.60
25:YA:2022:U:O2'	25:YA:2617:C:H5'	2.02	0.60
25:YA:2512:C:H2'	25:YA:2513:G:O4'	2.01	0.60
25:YA:2723:C:H5''	37:YR:1:MET:HG2	1.83	0.60
27:YD:166:GLN:CA	27:YD:166:GLN:HE21	2.14	0.60
27:YD:35:LYS:HG2	27:YD:64:ILE:CG2	2.31	0.60
27:YD:25:THR:HG21	27:YD:81:ALA:HA	1.84	0.60
35:YP:13:ASN:O	35:YP:15:ARG:N	2.34	0.60
25:YA:1266:G:O5'	42:YW:15:ARG:NH2	2.35	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:YZ:60:GLU:HA	45:YZ:66:SER:HA	1.83	0.60
1:QA:1226:C:H2'	13:QM:103:THR:HB	1.82	0.60
1:QA:196:A:OP1	20:QT:68:LYS:NZ	2.28	0.60
2:QB:221:LEU:O	2:QB:221:LEU:HD13	2.02	0.60
1:QA:1190:G:OP1	3:QC:5:ILE:HD12	2.01	0.60
3:QC:88:ARG:NH1	3:QC:101:LEU:H	1.99	0.60
4:QD:11:LEU:O	4:QD:14:ARG:N	2.35	0.60
4:QD:76:ARG:HD2	4:QD:207:TYR:HE2	1.66	0.60
6:QF:97:PHE:HD2	6:QF:97:PHE:C	2.05	0.60
8:QH:58:TYR:O	8:QH:59:LEU:HD23	2.00	0.60
9:QI:3:GLN:HB3	9:QI:20:ARG:HG2	1.82	0.60
14:QN:23:ARG:HD2	14:QN:28:GLY:O	2.00	0.60
47:R1:73:LEU:C	47:R1:75:GLU:H	2.03	0.60
25:RA:2544:G:H2'	25:RA:2545:G:H8	1.66	0.60
25:RA:38:A:N3	29:RF:48:THR:OG1	2.34	0.60
25:RA:67:U:H3	25:RA:74:A:H2	1.49	0.60
30:RG:64:THR:HG23	30:RG:66:GLN:H	1.67	0.60
33:RN:133:GLN:O	33:RN:134:ARG:HB3	1.99	0.60
35:RP:55:ARG:HD2	35:RP:56:SER:O	2.01	0.60
5:XE:33:VAL:HG11	5:XE:109:ILE:HA	1.83	0.60
5:XE:74:GLY:O	5:XE:115:VAL:HA	2.01	0.60
9:XI:9:ARG:CB	9:XI:14:VAL:HG22	2.31	0.60
10:XJ:5:ARG:O	10:XJ:98:ILE:HA	2.01	0.60
47:Y1:80:LEU:O	47:Y1:81:LYS:HD2	2.00	0.60
25:YA:1292:U:H2'	25:YA:1293:C:C6	2.36	0.60
25:YA:2347:C:C5	25:YA:2382:G:H1'	2.35	0.60
25:YA:492:A:C2'	25:YA:493:G:H5'	2.31	0.60
25:YA:688:U:H5'	25:YA:1780:A:C2	2.36	0.60
26:YB:24:G:H1'	26:YB:26:A:H62	1.66	0.60
27:YD:35:LYS:CG	27:YD:64:ILE:N	2.56	0.60
28:YE:63:LEU:CD1	28:YE:64:LYS:H	2.04	0.60
30:YG:28:VAL:O	30:YG:31:VAL:HG12	2.01	0.60
45:YZ:23:LYS:O	45:YZ:25:PRO:HD3	2.02	0.60
45:YZ:1:MET:HG2	45:YZ:2:GLU:H	1.65	0.60
6:QF:61:LEU:HB3	6:QF:63:TYR:HE2	1.67	0.60
9:QI:9:ARG:CB	9:QI:14:VAL:HG22	2.31	0.60
20:QT:96:GLY:O	20:QT:97:ALA:HB3	2.02	0.60
48:R2:41:ILE:HG12	48:R2:44:LEU:HD12	1.82	0.60
30:RG:112:PRO:HB3	50:R4:37:SER:CB	2.26	0.60
25:RA:1329:U:H5''	25:RA:1330:C:H5	1.65	0.60
25:RA:2277:G:OP1	36:RQ:85:LYS:HB2	2.01	0.60
25:RA:2068:U:N3	25:RA:2430:A:H2	1.98	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:51:PHE:O	28:RE:52:LEU:C	2.38	0.60
28:RE:53:PRO:HG2	28:RE:54:GLN:NE2	2.16	0.60
30:RG:128:ARG:HG3	30:RG:128:ARG:NH2	2.17	0.60
30:RG:179:PRO:HG3	50:R4:38:LYS:HZ2	1.66	0.60
31:RH:44:VAL:O	31:RH:44:VAL:HG22	2.01	0.60
33:RN:17:ASP:O	33:RN:18:ALA:HB3	2.01	0.60
35:RP:138:LEU:C	35:RP:140:ALA:N	2.55	0.60
44:RY:19:LYS:HG3	44:RY:19:LYS:O	2.01	0.60
44:RY:44:ILE:HG13	44:RY:45:VAL:H	1.65	0.60
1:XA:1292:U:H2'	1:XA:1293:G:C8	2.36	0.60
4:XD:129:ASN:HA	4:XD:145:GLU:HB2	1.82	0.60
6:XF:97:PHE:HD2	6:XF:97:PHE:C	2.05	0.60
7:XG:113:GLU:CB	7:XG:119:ARG:HG2	2.29	0.60
12:XL:54:LYS:CD	12:XL:54:LYS:N	2.64	0.60
13:XM:97:PRO:HB2	13:XM:101:GLN:HE22	1.65	0.60
1:XA:375:U:H4'	16:XP:17:TYR:HE2	1.67	0.60
25:YA:1061:U:H3'	25:YA:1062:G:H5''	1.82	0.60
25:YA:26:G:N1	25:YA:27:G:N2	2.50	0.60
25:YA:428:A:N6	25:YA:429:A:N1	2.49	0.60
25:YA:492:A:H2'	25:YA:493:G:H5'	1.82	0.60
25:YA:675:A:C8	25:YA:804:A:C6	2.90	0.60
25:YA:818:G:H3'	25:YA:1187:G:H22	1.65	0.60
25:YA:993:G:H2'	25:YA:994:C:C6	2.36	0.60
33:YN:23:LEU:HD12	33:YN:99:LEU:HD23	1.82	0.60
35:YP:79:ARG:HD3	35:YP:110:TYR:HE1	1.67	0.60
38:YS:11:LYS:HB2	38:YS:91:PRO:HD3	1.84	0.60
40:YU:92:ARG:HD3	40:YU:94:ASN:HB3	1.82	0.60
40:YU:92:ARG:NH1	40:YU:95:LEU:CD1	2.65	0.60
41:YV:35:LEU:O	41:YV:35:LEU:HD23	2.01	0.60
41:YV:99:ILE:CD1	41:YV:99:ILE:N	2.65	0.60
43:YX:43:VAL:CG1	43:YX:51:VAL:HG21	2.31	0.60
25:YA:483:A:C4'	44:YY:49:VAL:HA	2.29	0.60
1:QA:528:C:HO2'	1:QA:535:A:HO2'	1.44	0.60
4:QD:96:LEU:H	4:QD:96:LEU:CD2	2.12	0.60
9:QI:111:ARG:HG2	9:QI:112:LYS:N	2.16	0.60
9:QI:114:TYR:O	9:QI:114:TYR:HD2	1.85	0.60
9:QI:85:LEU:O	9:QI:85:LEU:HD12	2.02	0.60
10:QJ:5:ARG:O	10:QJ:98:ILE:HA	2.01	0.60
13:QM:37:THR:CG2	13:QM:39:ILE:HD11	2.32	0.60
13:QM:96:LEU:HB3	13:QM:97:PRO:HD2	1.83	0.60
19:QS:25:LYS:O	19:QS:26:GLY:O	2.20	0.60
48:R2:32:LEU:HD11	48:R2:54:LYS:HG3	1.84	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2318:G:H22	38:RS:2:ALA:N	2.00	0.60
25:RA:654:A:O2'	25:RA:654(A):G:N7	2.34	0.60
25:RA:863:A:H2'	25:RA:864:G:C8	2.36	0.60
25:RA:892:G:N2	25:RA:893:C:O2	2.35	0.60
25:RA:955:C:N4	25:RA:962:G:O6	2.17	0.60
27:RD:2:ALA:HB3	27:RD:20:ASP:HB3	1.83	0.60
27:RD:25:THR:HG21	27:RD:81:ALA:CA	2.31	0.60
28:RE:37:ARG:CA	28:RE:37:ARG:NE	2.64	0.60
28:RE:4:ILE:CD1	28:RE:28:ALA:HB1	2.29	0.60
28:RE:95:ILE:HD12	28:RE:95:ILE:N	2.15	0.60
29:RF:46:ARG:HH11	29:RF:46:ARG:CG	2.04	0.60
31:RH:89:ILE:O	31:RH:91:GLY:N	2.35	0.60
33:RN:99:LEU:O	33:RN:103:VAL:HG23	2.02	0.60
37:RR:44:LEU:HD22	37:RR:48:VAL:HG23	1.82	0.60
45:RZ:5:LEU:HD11	45:RZ:39:VAL:HB	1.84	0.60
1:XA:701:C:H1'	1:XA:703:G:C4	2.37	0.60
4:XD:90:GLY:HA2	4:XD:204:ILE:HD11	1.83	0.60
6:XF:1:MET:HA	6:XF:67:MET:O	2.02	0.60
9:XI:111:ARG:HG2	9:XI:112:LYS:N	2.16	0.60
54:Y8:53:PRO:CD	54:Y8:54:GLU:H	2.15	0.60
25:YA:1846:G:H5'	25:YA:1847:A:OP2	2.02	0.60
25:YA:2324:C:H5''	25:YA:2325:G:H5'	1.84	0.60
25:YA:264:C:C2'	25:YA:265:A:H5''	2.31	0.60
27:YD:21:PHE:HB3	27:YD:24:ILE:HG13	1.83	0.60
27:YD:35:LYS:HD3	27:YD:63:ARG:CB	2.32	0.60
30:YG:9:ARG:HG2	30:YG:13:GLU:OE1	2.01	0.60
34:YO:7:TYR:HE1	34:YO:20:MET:HE3	1.67	0.60
35:YP:138:LEU:C	35:YP:140:ALA:N	2.55	0.60
36:YQ:63:LYS:HE2	36:YQ:65:PHE:CE1	2.37	0.60
39:YT:57:PHE:CD2	39:YT:58:ASN:N	2.66	0.60
45:YZ:58:VAL:O	45:YZ:60:GLU:N	2.35	0.60
1:QA:1440:C:O2'	1:QA:1442:G:N2	2.35	0.60
3:QC:130:VAL:O	3:QC:134:ILE:HG12	2.01	0.60
5:QE:33:VAL:HG11	5:QE:109:ILE:HA	1.83	0.60
14:QN:15:LYS:HD2	14:QN:16:PHE:CZ	2.37	0.60
3:QC:13:GLY:HA3	14:QN:57:ARG:CZ	2.31	0.60
15:QO:4:THR:HB	15:QO:6:GLU:OE2	2.02	0.60
17:QQ:76:LEU:HD12	17:QQ:77:VAL:H	1.66	0.60
1:QA:192:U:H4'	20:QT:102:GLY:O	2.01	0.60
25:RA:1101:U:H2'	25:RA:1102:C:C6	2.36	0.60
28:RE:116:VAL:O	28:RE:117:MET:CB	2.49	0.60
29:RF:164:ARG:HG2	29:RF:164:ARG:HH11	1.66	0.60

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:RF:34:TRP:CZ3	35:RP:8:PRO:HB3	2.37	0.60
30:RG:44:GLY:HA2	30:RG:88:ILE:CG1	2.30	0.60
31:RH:30:LYS:CD	31:RH:81:GLU:H	2.15	0.60
35:RP:13:ASN:O	35:RP:15:ARG:N	2.34	0.60
35:RP:27:HIS:N	35:RP:27:HIS:ND1	2.49	0.60
37:RR:44:LEU:O	37:RR:48:VAL:HG23	2.02	0.60
41:RV:18:LEU:HB3	41:RV:96:ILE:HG12	1.84	0.60
43:RX:15:GLU:OE1	43:RX:15:GLU:N	2.34	0.60
1:XA:235:C:H5'	17:XQ:70:ARG:HG2	1.84	0.60
1:XA:828:A:H2'	1:XA:829:G:O4'	2.02	0.60
2:XB:141:GLU:O	2:XB:145:LEU:HD23	2.02	0.60
1:XA:555:C:OP1	12:XL:20:LYS:NZ	2.35	0.60
13:XM:3:ARG:HA	13:XM:9:ILE:CG2	2.21	0.60
14:XN:19:ARG:O	14:XN:20:ALA:C	2.40	0.60
47:Y1:80:LEU:C	47:Y1:81:LYS:CD	2.69	0.60
25:YA:593:G:O2'	54:Y8:61:LEU:HD13	2.02	0.60
25:YA:1340:U:OP2	43:YX:78:LYS:NZ	2.34	0.60
25:YA:2840:C:H2'	25:YA:2841:C:H6	1.65	0.60
27:YD:72:LYS:HE3	27:YD:75:ILE:HD12	1.82	0.60
28:YE:93:VAL:N	28:YE:95:ILE:CD1	2.65	0.60
28:YE:93:VAL:N	28:YE:95:ILE:HD12	2.17	0.60
29:YF:175:THR:O	29:YF:176:LEU:CB	2.49	0.60
29:YF:63:LYS:HE2	29:YF:67:GLN:HB3	1.83	0.60
1:QA:1347:G:H22	1:QA:1374:A:P	2.24	0.60
1:QA:145:G:H1	1:QA:177:C:H42	1.50	0.60
1:QA:811:C:H4'	1:QA:900:A:N6	2.17	0.60
4:QD:114:ARG:NH1	4:QD:114:ARG:HG3	2.13	0.60
5:QE:43:LEU:HD21	5:QE:132:ALA:HB1	1.82	0.60
27:RD:165:ILE:HA	27:RD:175:LEU:HD23	1.83	0.60
27:RD:35:LYS:HD3	27:RD:63:ARG:CB	2.32	0.60
25:RA:1805:U:O2	27:RD:50:THR:HB	2.01	0.60
28:RE:63:LEU:CD1	28:RE:64:LYS:H	2.04	0.60
30:RG:126:ASP:OD1	30:RG:130:ASN:HB2	2.02	0.60
31:RH:117:PRO:HB3	31:RH:123:PHE:CD1	2.37	0.60
36:RQ:81:VAL:HG23	36:RQ:82:ARG:H	1.67	0.60
37:RR:92:GLY:H	37:RR:94:TYR:HE2	1.49	0.60
39:RT:34:VAL:HG12	39:RT:36:GLU:HG2	1.83	0.60
40:RU:76:TYR:CZ	40:RU:80:ILE:HG13	2.37	0.60
44:RY:4:LYS:O	44:RY:5:MET:HB2	2.01	0.60
1:XA:1070:U:H2'	1:XA:1071:C:H6	1.67	0.60
1:XA:1288:A:N1	1:XA:1371:G:H1'	2.17	0.60
1:XA:1298:C:O2'	1:XA:1299:A:OP2	2.20	0.60

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1399:C:H4'	1:XA:1400:C:H5''	1.84	0.60
1:XA:148:G:H2'	1:XA:149:A:H8	1.66	0.60
1:XA:1502:A:H2	1:XA:1505:G:H1	1.50	0.60
2:XB:114:ARG:O	2:XB:117:GLU:HB2	2.01	0.60
7:XG:148:ASN:N	7:XG:148:ASN:ND2	2.46	0.60
16:XP:51:VAL:CG1	16:XP:52:ASP:N	2.65	0.60
47:Y1:81:LYS:HZ3	47:Y1:81:LYS:HA	0.70	0.60
25:YA:1062:G:H2'	25:YA:1063:G:C8	2.37	0.60
25:YA:2071:A:H2'	25:YA:2072:G:C8	2.37	0.60
28:YE:68:ALA:O	28:YE:69:LYS:HG3	2.02	0.60
39:YT:107:ASP:O	39:YT:110:ILE:HG22	2.02	0.60
1:QA:355:C:O4'	1:QA:388:G:O2'	2.20	0.59
1:QA:559:A:H4'	1:QA:560:U:H5''	1.83	0.59
1:QA:959:A:HO2'	1:QA:984:C:HO2'	1.50	0.59
13:QM:45:VAL:O	13:QM:45:VAL:HG22	2.02	0.59
25:RA:530:G:C2	25:RA:2022:U:OP1	2.55	0.59
25:RA:303:U:H2'	25:RA:304:G:H8	1.65	0.59
25:RA:649:G:H2'	25:RA:650:C:O4'	2.02	0.59
27:RD:25:THR:HG21	27:RD:81:ALA:HA	1.83	0.59
29:RF:155:LEU:CD1	29:RF:174:VAL:HG13	2.32	0.59
37:RR:75:LEU:C	37:RR:75:LEU:HD13	2.22	0.59
25:RA:565:C:OP1	41:RV:82:ARG:NH2	2.35	0.59
45:RZ:163:LEU:H	45:RZ:163:LEU:HD12	1.66	0.59
45:RZ:58:VAL:O	45:RZ:60:GLU:N	2.35	0.59
10:XJ:32:ALA:H	10:XJ:78:ASN:HD21	1.49	0.59
19:XS:25:LYS:O	19:XS:26:GLY:O	2.20	0.59
25:YA:1055:G:H1	25:YA:1104:C:N4	1.97	0.59
25:YA:1204:A:H2	25:YA:1241:A:N1	1.99	0.59
25:YA:1379:A:H4'	25:YA:1380:G:OP2	2.02	0.59
25:YA:137(A):G:H1'	43:YX:41:ASN:ND2	2.17	0.59
25:YA:1652:A:H2'	25:YA:1653:G:H5'	1.84	0.59
25:YA:2355:C:O2	46:Y0:39:ARG:NH2	2.35	0.59
27:YD:174:ILE:N	27:YD:174:ILE:HD12	2.16	0.59
28:YE:51:PHE:HD1	28:YE:52:LEU:HG	1.67	0.59
30:YG:50:ALA:O	30:YG:53:LEU:HB3	2.01	0.59
31:YH:30:LYS:CD	31:YH:81:GLU:H	2.15	0.59
33:YN:18:ALA:HB3	33:YN:55:VAL:O	2.02	0.59
35:YP:121:LYS:HG3	35:YP:122:PRO:HD2	1.84	0.59
37:YR:75:LEU:HD13	37:YR:75:LEU:C	2.22	0.59
38:YS:59:LYS:HG2	38:YS:60:GLY:N	2.13	0.59
41:YV:1:MET:CE	41:YV:43:GLU:HG2	2.32	0.59
41:YV:66:ARG:HH12	41:YV:88:ARG:HH11	1.49	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1073:U:OP2	5:QE:57:LYS:NZ	2.35	0.59
2:QB:124:SER:HB2	2:QB:125:PRO:HD2	1.84	0.59
6:QF:26:ILE:O	6:QF:30:LEU:HG	2.02	0.59
19:QS:16:LEU:O	19:QS:20:LEU:HG	2.01	0.59
20:QT:58:LYS:O	20:QT:62:LEU:HD12	2.02	0.59
47:R1:91:LYS:CG	47:R1:92:LYS:H	2.15	0.59
13:QM:77:ASN:OD1	50:R4:71:ARG:CZ	2.51	0.59
25:RA:589:C:H2'	25:RA:590:A:H8	1.68	0.59
28:RE:131:ALA:HB1	28:RE:135:HIS:HE1	1.65	0.59
31:RH:4:ILE:N	31:RH:4:ILE:HD13	2.18	0.59
33:RN:41:ASP:O	33:RN:48:MET:HE3	2.01	0.59
35:RP:37:GLY:HA2	35:RP:41:ARG:HE	1.67	0.59
38:RS:99:LYS:O	38:RS:102:ALA:N	2.34	0.59
1:XA:272:C:H2'	1:XA:273:A:C8	2.37	0.59
1:XA:401:C:H2'	1:XA:402:G:C8	2.37	0.59
2:XB:188:ALA:HB3	2:XB:200:ILE:HG23	1.83	0.59
6:XF:44:GLY:HA2	6:XF:59:TYR:CZ	2.37	0.59
10:XJ:98:ILE:N	10:XJ:98:ILE:HD12	2.15	0.59
18:XR:31:LEU:H	18:XR:31:LEU:HD23	1.67	0.59
20:XT:96:GLY:O	20:XT:97:ALA:HB3	2.02	0.59
54:Y8:22:VAL:CG2	54:Y8:53:PRO:HB2	2.32	0.59
54:Y8:56:GLU:O	54:Y8:59:LYS:N	2.35	0.59
25:YA:1344:G:H4'	25:YA:1384:A:N7	2.17	0.59
26:YB:33:G:N2	26:YB:35:U:O4	2.34	0.59
30:YG:111:LEU:HB2	30:YG:112:PRO:HD3	1.82	0.59
35:YP:55:ARG:HD2	35:YP:56:SER:O	2.01	0.59
35:YP:95:VAL:HG13	35:YP:100:LEU:HD21	1.83	0.59
36:YQ:80:GLU:C	36:YQ:81:VAL:HG13	2.22	0.59
40:YU:96:ALA:C	40:YU:98:LEU:H	2.04	0.59
44:YY:96:ILE:CD1	44:YY:98:VAL:HG12	2.32	0.59
1:QA:1411:C:H2'	1:QA:1412:C:H6	1.67	0.59
3:QC:189:ALA:HB3	3:QC:196:LEU:HB2	1.84	0.59
3:QC:60:ALA:O	3:QC:61:ALA:CB	2.50	0.59
7:QG:66:VAL:O	7:QG:70:LYS:HG3	2.02	0.59
8:QH:41:ARG:HH11	8:QH:41:ARG:HB3	1.66	0.59
25:RA:1027:A:N6	25:RA:1126:A:C4	2.70	0.59
25:RA:1062:G:H2'	25:RA:1063:G:C8	2.37	0.59
25:RA:1729:A:H2'	25:RA:1730:U:H5''	1.84	0.59
25:RA:2637:U:H5''	28:RE:82:ARG:NH2	2.14	0.59
27:RD:166:GLN:HE21	27:RD:166:GLN:CA	2.14	0.59
27:RD:236:GLY:C	27:RD:237:GLU:OE1	2.40	0.59
27:RD:35:LYS:HE3	27:RD:64:ILE:C	2.21	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:16:ILE:O	33:RN:55:VAL:HG22	2.01	0.59
35:RP:95:VAL:HG13	35:RP:100:LEU:HD21	1.84	0.59
39:RT:107:ASP:O	39:RT:110:ILE:HG22	2.02	0.59
40:RU:58:ARG:HA	40:RU:61:TRP:CE3	2.37	0.59
41:RV:35:LEU:HB2	41:RV:37:VAL:HG23	1.85	0.59
1:XA:1461:G:H2'	1:XA:1462:G:C8	2.37	0.59
1:XA:646:U:H2'	1:XA:647:C:H6	1.67	0.59
8:XH:41:ARG:HB3	8:XH:41:ARG:HH11	1.66	0.59
8:XH:86:ILE:HG22	8:XH:93:VAL:HG21	1.84	0.59
9:XI:66:ARG:HG2	9:XI:66:ARG:HH11	1.68	0.59
11:XK:41:THR:HG21	11:XK:71:LYS:HB2	1.83	0.59
52:Y6:25:LYS:HD2	54:Y8:34:TRP:CZ2	2.36	0.59
25:YA:1109:C:O2'	25:YA:1110:G:OP1	2.16	0.59
25:YA:1424:G:N2	25:YA:1574:C:O2	2.27	0.59
25:YA:2134:A:OP2	25:YA:2157:G:N2	2.35	0.59
25:YA:740:U:H2'	25:YA:741:G:C8	2.38	0.59
29:YF:123:LEU:HD12	29:YF:124:LEU:N	2.17	0.59
33:YN:6:PRO:HG3	33:YN:41:ASP:HB2	1.83	0.59
35:YP:127:ALA:O	35:YP:147:LEU:HD23	2.02	0.59
36:YQ:86:GLY:C	36:YQ:88:GLY:H	2.03	0.59
33:YN:42:TRP:O	40:YU:64:ARG:NH2	2.35	0.59
40:YU:76:TYR:CZ	40:YU:80:ILE:HG13	2.37	0.59
41:YV:35:LEU:HB2	41:YV:37:VAL:HG23	1.85	0.59
45:YZ:152:ALA:O	45:YZ:154:ASP:N	2.34	0.59
1:QA:355:C:H2'	1:QA:356:A:O4'	2.03	0.59
2:QB:4:GLU:CG	2:QB:5:ILE:H	1.99	0.59
1:QA:1112:C:H1'	3:QC:179:ARG:HH11	1.67	0.59
5:QE:42:GLY:CA	5:QE:66:MET:HG2	2.33	0.59
5:QE:74:GLY:O	5:QE:115:VAL:HA	2.01	0.59
7:QG:23:VAL:HG12	7:QG:27:ILE:CD1	2.32	0.59
8:QH:86:ILE:HG13	8:QH:133:LEU:HD22	1.84	0.59
10:QJ:31:GLY:HA3	10:QJ:78:ASN:ND2	2.18	0.59
12:QL:54:LYS:N	12:QL:54:LYS:CD	2.65	0.59
14:QN:44:LEU:HD12	14:QN:48:ALA:HB2	1.84	0.59
25:RA:571:A:O2'	41:RV:78:LYS:NZ	2.35	0.59
25:RA:712:G:N2	25:RA:719:C:O2	2.35	0.59
25:RA:958:U:OP2	36:RQ:14:ARG:NH1	2.28	0.59
27:RD:172:TYR:CD1	27:RD:186:HIS:HA	2.37	0.59
28:RE:68:ALA:O	28:RE:69:LYS:HG3	2.02	0.59
35:RP:79:ARG:HD3	35:RP:110:TYR:HE1	1.67	0.59
38:RS:11:LYS:HB2	38:RS:91:PRO:HD3	1.84	0.59
39:RT:102:ILE:HB	39:RT:110:ILE:HD13	1.84	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:RW:36:LEU:HD11	42:RW:47:VAL:HG12	1.83	0.59
1:XA:1069:C:O2'	5:XE:25:ARG:NH1	2.28	0.59
1:XA:1079:G:H2'	1:XA:1080:A:C8	2.38	0.59
3:XC:60:ALA:O	3:XC:61:ALA:CB	2.50	0.59
5:XE:72:GLN:O	5:XE:73:ASN:HB3	2.02	0.59
16:XP:43:LYS:HA	16:XP:48:TRP:HB2	1.84	0.59
20:XT:58:LYS:O	20:XT:62:LEU:HD12	2.02	0.59
20:XT:84:LEU:O	20:XT:88:VAL:HG23	2.01	0.59
52:Y6:41:PRO:HG2	52:Y6:45:LYS:N	2.10	0.59
25:YA:1257:C:H5''	29:YF:75:HIS:CE1	2.37	0.59
25:YA:685:A:C2	25:YA:689:A:C6	2.90	0.59
27:YD:12:SER:C	27:YD:14:ARG:H	2.06	0.59
27:YD:172:TYR:CD1	27:YD:186:HIS:HA	2.37	0.59
31:YH:4:ILE:N	31:YH:4:ILE:HD13	2.18	0.59
31:YH:55:PRO:HG2	31:YH:61:HIS:CE1	2.37	0.59
25:YA:1006:C:H1'	33:YN:106:MET:HE3	1.84	0.59
39:YT:102:ILE:HB	39:YT:110:ILE:HD13	1.84	0.59
40:YU:58:ARG:HA	40:YU:61:TRP:CE3	2.37	0.59
40:YU:92:ARG:C	40:YU:94:ASN:H	2.05	0.59
44:YY:4:LYS:O	44:YY:5:MET:HB2	2.01	0.59
1:QA:1004:A:H1'	1:QA:1036:G:N2	2.16	0.59
1:QA:1399:C:C2	1:QA:1502:A:N6	2.70	0.59
1:QA:986:A:H1'	19:QS:54:GLY:O	2.01	0.59
2:QB:115:LEU:HD23	2:QB:153:ARG:HD3	1.84	0.59
3:QC:149:ALA:O	3:QC:169:ALA:HA	2.02	0.59
4:QD:163:GLU:C	4:QD:165:MET:H	2.03	0.59
4:QD:173:TRP:O	4:QD:186:LEU:HB2	2.02	0.59
7:QG:79:ARG:HH11	7:QG:79:ARG:HG2	1.66	0.59
14:QN:19:ARG:O	14:QN:20:ALA:C	2.40	0.59
51:R5:40:LYS:NZ	51:R5:46:CYS:HB3	2.18	0.59
52:R6:13:CYS:O	52:R6:21:TYR:HA	2.02	0.59
54:R8:22:VAL:CG2	54:R8:53:PRO:HB2	2.32	0.59
25:RA:1047:G:H2'	25:RA:1110:G:H1	1.66	0.59
25:RA:1530:G:H1	25:RA:1541:U:H3	1.50	0.59
25:RA:1576:U:H2'	25:RA:1577:C:H6	1.68	0.59
25:RA:221:A:H4'	25:RA:222:A:O5'	2.02	0.59
25:RA:2456:C:C5	25:RA:2457:U:C5	2.91	0.59
25:RA:83:G:N2	25:RA:102:G:H1'	2.17	0.59
27:RD:54:ARG:HH11	27:RD:54:ARG:CG	2.14	0.59
28:RE:36:ARG:H	28:RE:37:ARG:HH21	1.49	0.59
28:RE:61:ARG:HB2	28:RE:62:PRO:CD	2.33	0.59
29:RF:123:LEU:HD12	29:RF:124:LEU:N	2.17	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:13:GLU:O	30:RG:14:GLU:CB	2.44	0.59
33:RN:78:TYR:N	33:RN:78:TYR:CD1	2.70	0.59
36:RQ:63:LYS:HE2	36:RQ:65:PHE:CE1	2.37	0.59
42:RW:66:GLU:O	42:RW:68:ARG:N	2.33	0.59
45:RZ:102:LEU:HB3	45:RZ:104:PHE:CE1	2.36	0.59
45:RZ:117:LEU:HA	45:RZ:174:VAL:HA	1.82	0.59
1:XA:1081:G:OP1	5:XE:16:THR:OG1	2.19	0.59
1:XA:91:C:H2'	1:XA:92:G:O4'	2.02	0.59
3:XC:88:ARG:O	3:XC:99:VAL:HG21	2.01	0.59
6:XF:26:ILE:O	6:XF:30:LEU:HG	2.02	0.59
7:XG:85:TYR:HE1	7:XG:154:TYR:CE1	2.21	0.59
19:XS:40:ILE:HD11	19:XS:62:ILE:HG21	1.85	0.59
49:Y3:29:ARG:HH11	49:Y3:29:ARG:CB	2.13	0.59
25:YA:1007:C:O3'	33:YN:108:PRO:HB3	2.03	0.59
25:YA:1359:A:H2'	25:YA:1360:A:H5'	1.84	0.59
25:YA:1935:G:N2	25:YA:1964:G:O4'	2.36	0.59
25:YA:2494:G:H2'	25:YA:2495:G:H8	1.67	0.59
25:YA:2516:G:N1	25:YA:2568:C:N3	2.38	0.59
28:YE:116:VAL:O	28:YE:117:MET:CB	2.49	0.59
29:YF:11:VAL:HG11	29:YF:18:ARG:HE	1.67	0.59
30:YG:16:ARG:NH2	30:YG:31:VAL:HG11	2.17	0.59
31:YH:159:GLU:O	31:YH:160:LYS:HG2	2.03	0.59
45:YZ:26:GLY:HA2	45:YZ:85:HIS:CD2	2.37	0.59
1:QA:411:A:C5	1:QA:413:G:H1'	2.37	0.59
1:QA:717:C:H6	1:QA:717:C:H5''	1.67	0.59
2:QB:188:ALA:HB3	2:QB:200:ILE:HG23	1.84	0.59
3:QC:36:ASP:HB3	3:QC:40:ARG:HH12	1.68	0.59
6:QF:44:GLY:HA2	6:QF:59:TYR:CZ	2.37	0.59
1:QA:1295:G:O2'	13:QM:14:ARG:NH2	2.35	0.59
16:QP:43:LYS:HA	16:QP:48:TRP:HB2	1.84	0.59
20:QT:104:LEU:HD12	20:QT:105:SER:N	2.18	0.59
47:R1:87:PRO:O	47:R1:91:LYS:N	2.31	0.59
54:R8:22:VAL:HG21	54:R8:53:PRO:HB2	1.83	0.59
25:RA:2843:G:H1	25:RA:2874:C:H42	1.50	0.59
26:RB:113:C:H2'	26:RB:114:G:H8	1.67	0.59
27:RD:137:PRO:HB2	27:RD:140:THR:CG2	2.33	0.59
35:RP:106:LEU:O	35:RP:107:LYS:CB	2.46	0.59
25:RA:2470:G:H5'	36:RQ:56:ARG:NH2	2.18	0.59
1:XA:1513:A:H2'	1:XA:1514:C:C6	2.37	0.59
1:XA:982:U:H5''	14:YN:6:LEU:CD1	2.33	0.59
4:XD:173:TRP:O	4:XD:186:LEU:HB2	2.02	0.59
7:XG:23:VAL:HG12	7:XG:27:ILE:CD1	2.32	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:XH:12:ARG:HH12	8:XH:27:PRO:HD2	1.67	0.59
17:XQ:92:ARG:HG3	17:XQ:92:ARG:HH11	1.68	0.59
20:XT:104:LEU:HD12	20:XT:105:SER:N	2.18	0.59
31:YH:86:GLU:O	31:YH:131:VAL:O	2.20	0.59
33:YN:58:ASP:N	33:YN:60:ILE:HD11	2.16	0.59
35:YP:138:LEU:O	35:YP:140:ALA:N	2.33	0.59
40:YU:92:ARG:HH11	40:YU:95:LEU:HD12	1.67	0.59
5:QE:68:GLU:HG3	5:QE:68:GLU:O	2.02	0.59
2:QB:178:ARG:NE	8:QH:71:GLY:C	2.56	0.59
11:QK:34:ASP:HB3	11:QK:40:ILE:HD11	1.84	0.59
1:QA:390:C:H4'	16:QP:28:ARG:NH2	2.18	0.59
22:QV:53:G:H4'	22:QV:54:U:OP1	2.02	0.59
25:RA:108:U:H2'	25:RA:109:G:C8	2.38	0.59
25:RA:150:C:H2'	25:RA:151:C:C6	2.37	0.59
25:RA:2470:G:O6	25:RA:2481:G:N2	2.36	0.59
25:RA:859:G:H2'	25:RA:916:G:O6	2.03	0.59
28:RE:69:LYS:O	28:RE:71:GLY:N	2.27	0.59
31:RH:127:GLU:HG2	31:RH:128:PRO:CG	2.33	0.59
31:RH:82:GLY:O	31:RH:135:GLY:O	2.20	0.59
33:RN:9:VAL:HG21	33:RN:48:MET:HB3	1.85	0.59
38:RS:89:ARG:O	38:RS:90:GLY:O	2.19	0.59
40:RU:52:ARG:NH1	40:RU:52:ARG:HG2	2.17	0.59
44:RY:51:VAL:CG1	44:RY:52:SER:H	2.11	0.59
1:XA:1178:G:N2	1:XA:1181:G:N7	2.50	0.59
1:XA:145:G:H1	1:XA:177:C:H42	1.49	0.59
2:XB:124:SER:HB2	2:XB:125:PRO:HD2	1.85	0.59
4:XD:22:LYS:O	4:XD:113:SER:HB3	2.03	0.59
5:XE:42:GLY:CA	5:XE:66:MET:HG2	2.32	0.59
7:XG:66:VAL:O	7:XG:70:LYS:HG3	2.02	0.59
10:XJ:31:GLY:HA3	10:XJ:78:ASN:ND2	2.18	0.59
14:ZN:15:LYS:HD2	14:ZN:16:PHE:CZ	2.37	0.59
15:XO:5:LYS:O	15:XO:8:LYS:HG2	2.02	0.59
17:XQ:76:LEU:HD12	17:XQ:77:VAL:H	1.67	0.59
20:XT:101:GLY:O	20:XT:103:GLY:N	2.34	0.59
50:Y4:22:ILE:HG22	50:Y4:23:GLU:N	2.18	0.59
50:Y4:48:ARG:NH1	50:Y4:52:THR:H	2.01	0.59
25:YA:859:G:H5'	25:YA:2268:A:O2'	2.02	0.59
25:YA:664:C:OP1	35:YP:18:ARG:NH2	2.34	0.59
31:YH:124:GLU:HB3	31:YH:132:ARG:HG3	1.85	0.59
31:YH:82:GLY:O	31:YH:135:GLY:O	2.20	0.59
33:YN:41:ASP:O	33:YN:48:MET:HE3	2.02	0.59
35:YP:39:LYS:CA	35:YP:45:LEU:CD1	2.80	0.59

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:YR:72:ASP:O	37:YR:76:VAL:HB	2.03	0.59
38:YS:88:ASP:O	38:YS:89:ARG:CB	2.49	0.59
44:YY:95:LYS:HD3	44:YY:95:LYS:H	1.67	0.59
45:YZ:182:LYS:CB	45:YZ:183:LEU:HA	2.32	0.59
1:QA:6:G:O2'	1:QA:7:G:O5'	2.19	0.59
2:QB:19:HIS:NE2	2:QB:206:ASP:HB2	2.18	0.59
5:QE:78:HIS:HB2	8:QH:104:ARG:O	2.02	0.59
9:QI:96:LEU:HD23	9:QI:102:LEU:HD12	1.84	0.59
9:QI:9:ARG:HB3	9:QI:14:VAL:HG13	1.85	0.59
10:QJ:13:HIS:HB3	10:QJ:68:HIS:CE1	2.37	0.59
12:QL:70:ILE:HD13	12:QL:77:LEU:HD12	1.83	0.59
13:QM:84:ILE:HG23	13:QM:85:GLY:N	2.17	0.59
25:RA:1478:G:O2'	25:RA:1558:A:N1	2.36	0.59
25:RA:1824:G:O3'	27:RD:249:PRO:HD3	2.03	0.59
25:RA:623:G:H2'	25:RA:624:C:C6	2.37	0.59
25:RA:878:A:N6	25:RA:899:A:O2'	2.35	0.59
27:RD:71:ASP:HB3	27:RD:103:ARG:HH22	1.68	0.59
28:RE:116:VAL:CG2	28:RE:122:PHE:CD2	2.86	0.59
35:RP:138:LEU:O	35:RP:140:ALA:N	2.33	0.59
37:RR:79:LEU:C	37:RR:79:LEU:HD23	2.23	0.59
39:RT:102:ILE:HB	39:RT:110:ILE:HD11	1.84	0.59
3:XC:127:ARG:HH11	3:XC:127:ARG:CG	2.15	0.59
11:XK:30:VAL:HG21	11:XK:65:ALA:HA	1.85	0.59
1:XA:1227:A:OP2	13:XM:111:LYS:HE3	2.02	0.59
25:YA:1405:U:H2'	25:YA:1406:U:C6	2.37	0.59
25:YA:227:A:OP1	35:YP:76:LYS:HE3	2.03	0.59
25:YA:2314:C:H2'	25:YA:2315:G:H8	1.66	0.59
26:YB:95:U:H2'	26:YB:96:G:C8	2.38	0.59
27:YD:27:THR:CG2	27:YD:83:GLU:HB3	2.33	0.59
28:YE:4:ILE:C	28:YE:5:LEU:HD23	2.23	0.59
31:YH:126:PRO:CD	31:YH:127:GLU:N	2.64	0.59
33:YN:78:TYR:N	33:YN:78:TYR:CD1	2.70	0.59
36:YQ:81:VAL:HG23	36:YQ:82:ARG:H	1.67	0.59
37:YR:92:GLY:H	37:YR:94:TYR:HE2	1.49	0.59
41:YV:15:GLU:HG3	41:YV:16:PRO:HD2	1.83	0.59
1:QA:1269:A:N1	1:QA:1312:G:O2'	2.31	0.59
1:QA:1221:G:OP1	1:QA:1320:C:N4	2.32	0.59
1:QA:1505:G:H4'	1:QA:1506:U:H5''	1.85	0.59
2:QB:69:LEU:O	2:QB:162:ILE:HA	2.02	0.59
3:QC:127:ARG:CG	3:QC:127:ARG:HH11	2.15	0.59
7:QG:85:TYR:HE1	7:QG:154:TYR:CE1	2.20	0.59
8:QH:12:ARG:HH12	8:QH:27:PRO:HD2	1.67	0.59

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:QI:17:VAL:HG13	9:QI:81:ILE:HD13	1.85	0.59
9:QI:66:ARG:HH11	9:QI:66:ARG:HG2	1.68	0.59
1:QA:1189:C:OP1	10:QJ:51:ARG:NH2	2.36	0.59
12:QL:5:PRO:HA	12:QL:9:GLN:NE2	2.17	0.59
14:QN:24:CYS:SG	14:QN:40:CYS:N	2.76	0.59
25:RA:116:C:H2'	25:RA:117:G:O4'	2.02	0.59
25:RA:1564:C:O2'	25:RA:1565:C:H5'	2.02	0.59
25:RA:2255:G:H1	25:RA:2275:C:H42	1.51	0.59
27:RD:12:SER:C	27:RD:14:ARG:H	2.06	0.59
28:RE:93:VAL:N	28:RE:95:ILE:CD1	2.65	0.59
29:RF:89:VAL:HG12	29:RF:90:PHE:N	2.18	0.59
31:RH:55:PRO:HG2	31:RH:61:HIS:CE1	2.37	0.59
10:XJ:13:HIS:HB3	10:XJ:68:HIS:CE1	2.37	0.59
50:Y4:15:ILE:HG22	50:Y4:19:GLY:O	2.03	0.59
25:YA:140:A:H8	25:YA:1408:C:O2'	1.86	0.59
25:YA:2224:G:OP1	27:YD:268:ARG:HD3	2.03	0.59
25:YA:2537:U:H2'	25:YA:2538:C:C6	2.38	0.59
27:YD:177:LEU:HD11	27:YD:183:ARG:HB2	1.85	0.59
28:YE:36:ARG:H	28:YE:37:ARG:HH21	1.49	0.59
31:YH:4:ILE:HG13	31:YH:6:ARG:CD	2.33	0.59
32:YI:93:THR:OG1	32:YI:94:ALA:N	2.31	0.59
35:YP:37:GLY:HA2	35:YP:41:ARG:HE	1.67	0.59
37:YR:63:ARG:HG3	37:YR:63:ARG:HH11	1.68	0.59
43:YX:49:VAL:CG1	43:YX:83:VAL:HG13	2.33	0.59
1:QA:1363:A:H4'	1:QA:1364:U:H5''	1.84	0.59
1:QA:501:C:H2'	1:QA:502:G:H8	1.68	0.59
1:QA:1205:U:H5'	3:QC:190:ARG:NH2	2.17	0.59
4:QD:13:ARG:HA	4:QD:33:MET:HE3	1.85	0.59
6:QF:45:LEU:HD12	6:QF:59:TYR:HD1	1.66	0.59
12:QL:54:LYS:N	12:QL:54:LYS:HD2	2.18	0.59
16:QP:53:VAL:HG23	16:QP:54:GLU:N	2.18	0.59
18:QR:31:LEU:H	18:QR:31:LEU:HD23	1.67	0.59
25:RA:2298:A:H2'	25:RA:2299:G:O4'	2.03	0.59
31:RH:92:ILE:HG22	31:RH:93:GLY:N	2.18	0.59
32:RI:104:GLN:O	32:RI:105:HIS:ND1	2.33	0.59
33:RN:18:ALA:HB3	33:RN:55:VAL:O	2.03	0.59
35:RP:71:VAL:HG13	35:RP:72:PRO:HD3	1.85	0.59
37:RR:72:ASP:O	37:RR:76:VAL:HB	2.02	0.59
38:RS:42:ASP:C	38:RS:44:LYS:H	2.06	0.59
41:RV:1:MET:CE	41:RV:43:GLU:HG2	2.32	0.59
1:XA:33:A:H2'	1:XA:34:C:C6	2.37	0.59
2:XB:212:GLN:NE2	2:XB:235:SER:HB2	2.18	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:XE:153:LYS:NZ	5:XE:153:LYS:HB2	2.18	0.59
8:XH:84:ARG:NH1	8:XH:86:ILE:HD13	2.11	0.59
9:XI:9:ARG:HB3	9:XI:14:VAL:HG13	1.85	0.59
11:XK:69:ALA:HB1	11:XK:103:LEU:HD21	1.85	0.59
11:XK:34:ASP:HB3	11:XK:40:ILE:HD11	1.83	0.59
12:XL:70:ILE:HD13	12:XL:77:LEU:HD12	1.83	0.59
48:Y2:32:LEU:HD11	48:Y2:54:LYS:HG3	1.84	0.59
48:Y2:64:LEU:CD2	48:Y2:68:ARG:HD2	2.33	0.59
50:Y4:3:GLU:HG3	50:Y4:4:GLY:N	2.18	0.59
50:Y4:39:CYS:O	50:Y4:40:HIS:HB2	2.03	0.59
25:YA:1688:U:O2	25:YA:1700:A:H5''	2.02	0.59
25:YA:716:A:C2	25:YA:717:G:H1'	2.38	0.59
28:YE:61:ARG:HB2	28:YE:62:PRO:CD	2.33	0.59
25:YA:389:G:H1	35:YP:70:GLN:HB3	1.66	0.59
39:YT:102:ILE:HB	39:YT:110:ILE:HD11	1.84	0.59
1:QA:1349:A:OP2	9:QI:118:LYS:NZ	2.31	0.58
1:QA:833:U:H2'	1:QA:834:C:H6	1.68	0.58
2:QB:47:THR:HG22	2:QB:51:LEU:HG	1.85	0.58
5:QE:102:ALA:HB2	5:QE:120:THR:OG1	2.03	0.58
6:QF:62:TRP:C	6:QF:63:TYR:HD2	2.06	0.58
8:QH:41:ARG:HH11	8:QH:41:ARG:CG	2.16	0.58
20:QT:37:SER:HB3	20:QT:84:LEU:HD23	1.85	0.58
48:R2:64:LEU:CD2	48:R2:68:ARG:HD2	2.33	0.58
50:R4:12:ALA:CB	50:R4:29:PRO:HA	2.33	0.58
50:R4:63:TYR:C	50:R4:65:ASP:H	2.05	0.58
25:RA:2342:C:O2	25:RA:2374:C:H4'	2.03	0.58
25:RA:263:C:H2'	25:RA:264:C:O4'	2.03	0.58
25:RA:483:A:H3'	25:RA:484:C:C6	2.38	0.58
25:RA:628:G:H2'	25:RA:629:G:C8	2.38	0.58
26:RB:104:A:H2'	26:RB:105:G:O4'	2.03	0.58
33:RN:114:ARG:O	33:RN:115:ARG:HB3	2.03	0.58
6:XF:97:PHE:CD2	6:XF:97:PHE:C	2.76	0.58
8:XH:41:ARG:HH11	8:XH:41:ARG:CG	2.16	0.58
12:XL:18:VAL:O	12:XL:19:ARG:HB2	2.03	0.58
50:Y4:63:TYR:C	50:Y4:65:ASP:H	2.05	0.58
51:Y5:40:LYS:NZ	51:Y5:46:CYS:HB3	2.18	0.58
25:YA:2344:U:C4	52:Y6:37:ARG:NH1	2.71	0.58
25:YA:1062:G:H8	25:YA:1062:G:O5'	1.85	0.58
25:YA:2030:A:H5''	25:YA:2031:A:OP1	2.03	0.58
25:YA:2585:U:H5	56:Z8:76:PPU:HO2'	1.50	0.58
27:YD:137:PRO:HB2	27:YD:140:THR:CG2	2.33	0.58
27:YD:27:THR:CG2	27:YD:28:GLU:N	2.66	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:YF:174:VAL:HG13	29:YF:174:VAL:O	2.03	0.58
30:YG:126:ASP:OD1	30:YG:130:ASN:HB2	2.02	0.58
31:YH:89:ILE:O	31:YH:91:GLY:N	2.35	0.58
31:YH:92:ILE:HG22	31:YH:93:GLY:N	2.18	0.58
37:YR:44:LEU:O	37:YR:48:VAL:HG23	2.02	0.58
39:YT:36:GLU:HG3	39:YT:41:ARG:HD3	1.85	0.58
39:YT:66:VAL:HG12	39:YT:67:SER:H	1.67	0.58
25:YA:336:C:HO2'	44:YY:35:TYR:HH	1.50	0.58
1:QA:1374:A:O2'	7:QG:28:ASN:HB3	2.03	0.58
1:QA:501:C:H2'	1:QA:502:G:C8	2.38	0.58
1:QA:575:G:C6	1:QA:821:G:N7	2.71	0.58
4:QD:196:LEU:O	4:QD:198:VAL:N	2.31	0.58
9:QI:40:LEU:HD11	9:QI:70:LYS:HG2	1.84	0.58
11:QK:51:LYS:CA	11:QK:55:LYS:HD3	2.21	0.58
12:QL:46:LYS:CG	12:QL:47:LYS:H	2.15	0.58
17:QQ:92:ARG:HH11	17:QQ:92:ARG:HG3	1.68	0.58
24:QY:39:C:O2'	24:QY:40:G:OP1	2.21	0.58
50:R4:65:ASP:O	50:R4:66:SER:CB	2.51	0.58
25:RA:1667:G:O2'	25:RA:1669:A:N6	2.35	0.58
25:RA:224:G:O6	25:RA:419:C:O2'	2.21	0.58
27:RD:92:ILE:HD12	27:RD:104:TYR:CD2	2.38	0.58
27:RD:34:VAL:CG1	27:RD:34:VAL:O	2.50	0.58
28:RE:72:VAL:O	28:RE:73:GLU:O	2.21	0.58
28:RE:93:VAL:N	28:RE:95:ILE:HD12	2.17	0.58
29:RF:63:LYS:HE2	29:RF:67:GLN:CB	2.32	0.58
33:RN:13:TRP:O	33:RN:135:PRO:HD2	2.03	0.58
35:RP:127:ALA:O	35:RP:147:LEU:HD23	2.02	0.58
38:RS:88:ASP:CG	38:RS:90:GLY:H	2.06	0.58
39:RT:66:VAL:HG12	39:RT:67:SER:H	1.67	0.58
44:RY:81:LYS:HD3	44:RY:97:ARG:CD	2.33	0.58
1:XA:1336:C:H1'	1:XA:1337:G:N2	2.18	0.58
1:XA:1443:G:H22	25:YA:2864:G:P	2.26	0.58
1:XA:1511:G:H2'	1:XA:1512:U:O4'	2.03	0.58
4:XD:163:GLU:C	4:XD:165:MET:H	2.03	0.58
9:XI:114:TYR:O	9:XI:114:TYR:HD2	1.85	0.58
9:XI:40:LEU:HD11	9:XI:70:LYS:HG2	1.84	0.58
12:XL:82:VAL:HG23	12:XL:106:ASP:OD2	2.04	0.58
1:XA:520:A:O2'	12:XL:73:GLU:HG2	2.03	0.58
13:XM:45:VAL:HG22	13:XM:45:VAL:O	2.02	0.58
25:YA:2757:A:P	55:Y9:20:HIS:H	2.26	0.58
25:YA:1532:C:H2'	25:YA:1533:C:O4'	2.03	0.58
25:YA:2014:A:H2'	25:YA:2015:A:C8	2.38	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2376:A:N1	38:YS:87:PHE:HD2	2.01	0.58
25:YA:2677:G:H2'	25:YA:2678:C:H6	1.68	0.58
25:YA:2832:U:H4'	25:YA:2833:G:H5''	1.84	0.58
30:YG:16:ARG:HB3	30:YG:17:PRO:CD	2.33	0.58
25:YA:1278:A:OP1	37:YR:36:THR:HG22	2.04	0.58
41:YV:18:LEU:HB3	41:YV:96:ILE:HG12	1.84	0.58
1:QA:818:G:H3'	1:QA:819:A:H5''	1.84	0.58
5:QE:72:GLN:O	5:QE:73:ASN:HB3	2.02	0.58
48:R2:16:LEU:O	48:R2:17:SER:HB3	2.04	0.58
48:R2:17:SER:CB	48:R2:18:PRO:HA	2.33	0.58
50:R4:42:PHE:CG	50:R4:43:TYR:N	2.72	0.58
25:RA:620:G:H4'	25:RA:621:A:H5''	1.85	0.58
28:RE:6:GLY:HA3	28:RE:26:ILE:HD11	1.85	0.58
31:RH:86:GLU:O	31:RH:131:VAL:O	2.21	0.58
34:RO:20:MET:O	34:RO:41:ALA:HB1	2.04	0.58
35:RP:121:LYS:HG3	35:RP:122:PRO:HD2	1.84	0.58
39:RT:36:GLU:HG3	39:RT:41:ARG:HD3	1.85	0.58
45:RZ:141:VAL:HG23	45:RZ:144:LEU:HD23	1.84	0.58
1:XA:445:G:H1	1:XA:489:C:H42	1.48	0.58
2:XB:47:THR:HG22	2:XB:51:LEU:HG	1.85	0.58
3:XC:149:ALA:O	3:XC:169:ALA:HA	2.02	0.58
3:XC:77:ILE:O	3:XC:84:ILE:HG22	2.02	0.58
1:XA:1229:A:OP1	13:XM:116:THR:HG23	2.03	0.58
51:Y5:50:GLY:O	51:Y5:51:TYR:HB2	2.02	0.58
25:YA:1178:C:H2'	25:YA:1179:C:C6	2.37	0.58
25:YA:1435:G:H21	25:YA:1478:G:H5'	1.68	0.58
25:YA:1793:C:H42	25:YA:1826:G:H1	1.49	0.58
25:YA:2326:C:O2	25:YA:2326:C:H2'	2.02	0.58
25:YA:2637:U:H5''	28:YE:82:ARG:NH2	2.15	0.58
25:YA:888:C:H3'	25:YA:889:C:H4'	1.85	0.58
29:YF:63:LYS:HE2	29:YF:67:GLN:CB	2.33	0.58
35:YP:65:ARG:HH21	54:Y8:15:LYS:CB	2.17	0.58
36:YQ:55:VAL:HG22	36:YQ:56:ARG:N	2.18	0.58
42:YW:80:PRO:O	42:YW:100:THR:HG22	2.03	0.58
1:QA:1202:G:H2'	1:QA:1203:C:O4'	2.03	0.58
7:QG:49:ILE:O	7:QG:53:LYS:HB3	2.04	0.58
14:QN:23:ARG:H	14:QN:33:VAL:HG11	1.67	0.58
16:QP:28:ARG:HH11	16:QP:28:ARG:HG2	1.68	0.58
9:QL:128:ARG:HD3	22:QV:32:C:OP2	2.03	0.58
48:R2:16:LEU:CG	48:R2:16:LEU:O	2.49	0.58
48:R2:69:ARG:CB	48:R2:69:ARG:NH1	2.67	0.58
50:R4:48:ARG:NH1	50:R4:52:THR:H	2.01	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:R8:46:ARG:O	54:R8:47:LYS:HB3	2.03	0.58
25:RA:1286:A:O2'	25:RA:1288:U:OP2	2.11	0.58
27:RD:35:LYS:CG	27:RD:64:ILE:H	2.14	0.58
30:RG:16:ARG:NH2	30:RG:31:VAL:HG11	2.17	0.58
33:RN:14:VAL:HG12	33:RN:15:LEU:N	2.19	0.58
34:RO:71:ARG:HH11	34:RO:71:ARG:HG3	1.69	0.58
40:RU:92:ARG:NH1	40:RU:95:LEU:CD1	2.65	0.58
41:RV:41:GLY:H	41:RV:46:VAL:HG13	1.67	0.58
43:RX:49:VAL:CG1	43:RX:83:VAL:HG13	2.33	0.58
44:RY:96:ILE:CD1	44:RY:98:VAL:HG12	2.32	0.58
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.38	0.58
1:XA:429:U:H4'	1:XA:430:A:OP1	2.03	0.58
1:XA:565:U:H5''	1:XA:566:G:H2'	1.83	0.58
1:XA:908:A:H2'	1:XA:909:A:C8	2.38	0.58
5:XE:102:ALA:HB2	5:XE:120:THR:OG1	2.03	0.58
1:XA:963:G:N3	10:XJ:55:LYS:NZ	2.51	0.58
48:Y2:51:ARG:HA	48:Y2:54:LYS:HB2	1.86	0.58
25:YA:1424:G:H2'	25:YA:1425:G:O4'	2.02	0.58
25:YA:1532:C:N3	25:YA:1539:G:N1	2.51	0.58
25:YA:1795:C:O2'	25:YA:1901:A:OP1	2.20	0.58
25:YA:1885:A:H5'	25:YA:1886:C:OP2	2.04	0.58
25:YA:2415:G:H4'	35:YP:67:MET:N	2.19	0.58
25:YA:2050:C:H42	25:YA:2618:G:H1	1.52	0.58
25:YA:654(A):G:N2	25:YA:654(U):A:H1'	2.17	0.58
28:YE:51:PHE:CD1	28:YE:52:LEU:HG	2.38	0.58
31:YH:153:LYS:CB	31:YH:154:PRO:CD	2.69	0.58
33:YN:9:VAL:HG21	33:YN:48:MET:HB3	1.85	0.58
1:QA:1036:G:C8	1:QA:1037:C:C4	2.92	0.58
1:QA:1142:G:H3'	1:QA:1143:G:C8	2.37	0.58
1:QA:1432:G:H1'	1:QA:1469:G:H22	1.66	0.58
1:QA:429:U:H4'	1:QA:430:A:H5''	1.85	0.58
1:QA:658:G:H2'	1:QA:659:U:H6	1.68	0.58
1:QA:933:G:H1	1:QA:1384:C:H42	1.50	0.58
4:QD:156:GLU:O	4:QD:160:GLN:HG3	2.03	0.58
4:QD:170:VAL:HG22	4:QD:171:GLY:N	2.12	0.58
5:QE:79:GLU:HB3	5:QE:92:LYS:HA	1.83	0.58
6:QF:97:PHE:O	18:QR:31:LEU:HD23	2.04	0.58
51:R5:60:VAL:OXT	51:R5:60:VAL:HG13	2.03	0.58
25:RA:1359:A:N6	25:RA:1372:U:C4	2.71	0.58
25:RA:2250:G:C8	25:RA:2496:C:H5''	2.39	0.58
25:RA:389:G:H1	35:RP:71:VAL:HG12	1.69	0.58
25:RA:609(A):G:H2'	25:RA:610:C:C6	2.39	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:242:ARG:HD2	27:RD:242:ARG:N	2.18	0.58
29:RF:160:ASN:OD1	29:RF:162:LEU:HB2	2.04	0.58
26:RB:55:U:H4'	30:RG:28:VAL:CG2	2.33	0.58
37:RR:117:VAL:CG2	37:RR:118:GLU:H	2.15	0.58
40:RU:92:ARG:HH11	40:RU:95:LEU:HD12	1.67	0.58
2:XB:80:ILE:HG21	2:XB:212:GLN:HA	1.85	0.58
13:XM:19:LEU:HD22	13:XM:19:LEU:H	1.68	0.58
48:Y2:17:SER:CB	48:Y2:18:PRO:HA	2.33	0.58
25:YA:1400:G:H2'	25:YA:1401:G:C8	2.38	0.58
25:YA:2287:A:N6	25:YA:2344:U:H3	2.00	0.58
27:YD:165:ILE:HA	27:YD:175:LEU:HD23	1.83	0.58
29:YF:89:VAL:HG12	29:YF:90:PHE:N	2.18	0.58
30:YG:64:THR:HG23	30:YG:66:GLN:H	1.67	0.58
31:YH:85:LYS:HA	31:YH:86:GLU:OE1	2.03	0.58
35:YP:71:VAL:HG13	35:YP:72:PRO:HD3	1.84	0.58
36:YQ:60:ARG:HA	45:YZ:178:GLU:O	2.03	0.58
36:YQ:66:ILE:HA	36:YQ:104:PHE:HA	1.85	0.58
36:YQ:90:VAL:C	36:YQ:92:GLY:H	2.07	0.58
41:YV:49:THR:CB	41:YV:50:PRO:HD2	2.25	0.58
44:YY:51:VAL:CG1	44:YY:52:SER:H	2.11	0.58
1:QA:1263:C:H42	1:QA:1272:G:H1	1.51	0.58
3:QC:105:GLU:HG2	3:QC:106:VAL:N	2.18	0.58
3:QC:77:ILE:O	3:QC:84:ILE:HG22	2.02	0.58
1:QA:19:C:P	5:QE:127:ASN:HD22	2.27	0.58
14:QN:23:ARG:CZ	14:QN:30:ALA:HB2	2.33	0.58
17:QQ:32:TYR:O	17:QQ:34:LYS:N	2.37	0.58
19:QS:40:ILE:HD11	19:QS:62:ILE:HG21	1.85	0.58
19:QS:9:VAL:HG23	19:QS:9:VAL:O	2.04	0.58
1:QA:193:C:OP1	20:QT:57:ARG:HD2	2.03	0.58
1:QA:1312:G:H3'	50:R4:67:TYR:OH	2.04	0.58
25:RA:1270:C:O2'	25:RA:1648:C:OP2	2.22	0.58
29:RF:174:VAL:HG13	29:RF:174:VAL:O	2.03	0.58
31:RH:4:ILE:HG13	31:RH:6:ARG:CD	2.33	0.58
34:RO:7:TYR:HE1	34:RO:20:MET:HE3	1.68	0.58
25:RA:812:C:H5'	35:RP:22:GLY:HA3	1.85	0.58
42:RW:95:ILE:O	42:RW:95:ILE:HD12	2.04	0.58
25:RA:328:U:H4'	44:RY:68:HIS:CE1	2.39	0.58
2:XB:115:LEU:HD23	2:XB:153:ARG:HD3	1.85	0.58
2:XB:37:ASN:C	2:XB:39:ILE:H	2.07	0.58
3:XC:181:ASN:HD22	3:XC:204:LEU:HB2	1.68	0.58
4:XD:114:ARG:NH1	4:XD:114:ARG:HG3	2.13	0.58
6:XF:62:TRP:C	6:XF:63:TYR:HD2	2.06	0.58

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:XM:57:ARG:CB	13:XM:57:ARG:HH11	2.13	0.58
14:YN:42:ILE:C	14:YN:43:CYS:O	2.41	0.58
14:YN:44:LEU:HD13	14:YN:53:LEU:HD13	1.84	0.58
16:XP:53:VAL:HG23	16:XP:54:GLU:N	2.18	0.58
25:YA:1696:G:C6	25:YA:1697:G:C4	2.91	0.58
27:YD:44:ASN:HB3	27:YD:49:ILE:CA	2.27	0.58
28:YE:78:LEU:HD23	28:YE:79:ARG:HD2	1.86	0.58
31:YH:117:PRO:HB3	31:YH:123:PHE:CD1	2.37	0.58
38:YS:88:ASP:CG	38:YS:90:GLY:H	2.06	0.58
1:QA:1528:U:O2'	1:QA:1529:G:OP2	2.21	0.58
1:QA:992:U:H3	1:QA:1044:A:N6	1.96	0.58
2:QB:212:GLN:NE2	2:QB:235:SER:HB2	2.18	0.58
2:QB:80:ILE:HD11	2:QB:208:ILE:CG2	2.22	0.58
10:QJ:3:LYS:O	10:QJ:100:THR:HG22	2.04	0.58
13:QM:19:LEU:HD22	13:QM:19:LEU:H	1.68	0.58
13:QM:3:ARG:HA	13:QM:9:ILE:CG2	2.22	0.58
18:QR:36:ASN:ND2	18:QR:36:ASN:O	2.32	0.58
1:QA:1221:G:OP1	19:QS:36:ARG:HD3	2.04	0.58
46:R0:37:LEU:N	46:R0:59:LEU:O	2.34	0.58
25:RA:839:U:H1'	25:RA:1191:G:H1'	1.85	0.58
25:RA:903:C:H2'	25:RA:904:C:C6	2.38	0.58
31:RH:159:GLU:O	31:RH:160:LYS:HG2	2.03	0.58
43:RX:27:THR:HB	43:RX:80:ILE:HB	1.84	0.58
44:RY:95:LYS:H	44:RY:95:LYS:HD3	1.67	0.58
1:XA:1213:A:C6	1:XA:1215:G:H1'	2.39	0.58
1:XA:781:A:C5	1:XA:802:A:C2	2.92	0.58
2:XB:19:HIS:NE2	2:XB:206:ASP:HB2	2.18	0.58
5:XE:68:GLU:HG3	5:XE:68:GLU:O	2.03	0.58
9:XI:79:LEU:O	9:XI:82:ALA:HB3	2.03	0.58
12:XL:45:PRO:HB3	12:XL:93:LEU:CD2	2.33	0.58
14:YN:21:TYR:HE2	14:YN:23:ARG:HH21	1.52	0.58
48:Y2:69:ARG:CB	48:Y2:69:ARG:NH1	2.67	0.58
49:Y3:22:ALA:O	49:Y3:25:ALA:HB3	2.04	0.58
50:Y4:12:ALA:CB	50:Y4:29:PRO:HA	2.33	0.58
50:Y4:65:ASP:O	50:Y4:66:SER:CB	2.51	0.58
25:YA:1055:G:N2	25:YA:1104:C:N3	2.48	0.58
25:YA:1636:C:H2'	25:YA:1637:A:H8	1.69	0.58
25:YA:2273:A:O2'	25:YA:2274:A:H5'	2.03	0.58
25:YA:738:G:C6	25:YA:739:G:C2	2.91	0.58
29:YF:138:GLU:O	29:YF:141:ALA:HB3	2.03	0.58
31:YH:126:PRO:CG	31:YH:127:GLU:N	2.65	0.58
32:YI:31:LEU:HD21	32:YI:38:LEU:HG	1.86	0.58

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:YO:40:VAL:HG12	34:YO:41:ALA:N	2.19	0.58
35:YP:13:ASN:C	35:YP:15:ARG:N	2.54	0.58
35:YP:71:VAL:CG1	35:YP:72:PRO:HD3	2.33	0.58
41:YV:38:LEU:HD23	41:YV:39:LEU:N	2.19	0.58
42:YW:66:GLU:O	42:YW:68:ARG:N	2.33	0.58
43:YX:7:VAL:O	43:YX:30:VAL:HG12	2.04	0.58
43:YX:36:LYS:HE3	43:YX:54:VAL:O	2.04	0.58
44:YY:81:LYS:HD3	44:YY:97:ARG:CD	2.34	0.58
1:QA:1203:C:H2'	1:QA:1204:A:H8	1.68	0.58
1:QA:1305:G:H5'	21:QU:4:GLY:HA3	1.86	0.58
1:QA:900:A:H2'	1:QA:901:A:C8	2.39	0.58
2:QB:21:ARG:HG3	2:QB:38:GLY:O	2.01	0.58
4:QD:170:VAL:O	6:XF:21:LEU:CD2	2.48	0.58
5:QE:153:LYS:NZ	5:QE:153:LYS:HB2	2.18	0.58
9:QI:79:LEU:O	9:QI:82:ALA:HB3	2.03	0.58
11:QK:21:ILE:HG13	11:QK:30:VAL:HG12	1.85	0.58
12:QL:33:ARG:O	12:QL:85:ILE:HG22	2.03	0.58
50:R4:15:ILE:HG22	50:R4:19:GLY:O	2.03	0.58
50:R4:22:ILE:HG22	50:R4:23:GLU:N	2.18	0.58
50:R4:3:GLU:HG3	50:R4:4:GLY:N	2.18	0.58
25:RA:900:A:H5'	25:RA:901:A:OP2	2.04	0.58
29:RF:11:VAL:HG11	29:RF:18:ARG:HE	1.67	0.58
38:RS:67:ARG:HH11	38:RS:67:ARG:HB2	1.66	0.58
45:RZ:54:HIS:O	45:RZ:55:HIS:ND1	2.37	0.58
1:XA:1158:C:H4'	2:XB:133:LYS:NZ	2.19	0.58
1:XA:1347:G:N2	1:XA:1374:A:OP2	2.32	0.58
1:XA:486:U:H2'	1:XA:487:A:H8	1.69	0.58
2:XB:140:HIS:HA	2:XB:143:GLU:OE1	2.04	0.58
3:XC:36:ASP:HB3	3:XC:40:ARG:HH12	1.68	0.58
4:XD:196:LEU:O	4:XD:198:VAL:N	2.31	0.58
4:XD:191:ARG:NH1	4:XD:200:GLU:OE1	2.37	0.58
5:XE:152:ARG:O	8:XH:64:LYS:NZ	2.36	0.58
7:XG:49:ILE:O	7:XG:53:LYS:HB3	2.04	0.58
5:XE:78:HIS:CG	8:XH:104:ARG:HG2	2.38	0.58
16:XP:28:ARG:HG2	16:XP:28:ARG:HH11	1.68	0.58
48:Y2:21:LEU:O	48:Y2:25:VAL:HG23	2.04	0.58
25:YA:323:G:HO2'	25:YA:1205:U:H3	1.52	0.58
25:YA:1222:C:H2'	25:YA:1223:C:H6	1.69	0.58
25:YA:1342:A:O2'	25:YA:1344:G:OP2	2.21	0.58
25:YA:1872:A:H5'	25:YA:1878:G:OP2	2.03	0.58
25:YA:2691:C:H5'	25:YA:2872:G:H5''	1.85	0.58
25:YA:863:A:HO2'	26:YB:100:G:HO2'	1.50	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:242:ARG:HD2	27:YD:242:ARG:N	2.18	0.58
28:YE:63:LEU:HD13	28:YE:65:GLY:H	1.68	0.58
28:YE:72:VAL:O	28:YE:73:GLU:O	2.21	0.58
33:YN:114:ARG:O	33:YN:115:ARG:HB3	2.03	0.58
33:YN:13:TRP:O	33:YN:135:PRO:HD2	2.03	0.58
37:YR:117:VAL:CG2	37:YR:118:GLU:H	2.15	0.58
38:YS:42:ASP:C	38:YS:44:LYS:H	2.07	0.58
42:YW:95:ILE:HD12	42:YW:95:ILE:O	2.04	0.58
1:QA:1378:C:N4	1:QA:1379:G:N3	2.51	0.58
4:QD:22:LYS:O	4:QD:113:SER:HB3	2.03	0.58
13:QM:56:LEU:HD13	13:QM:60:VAL:HG23	1.86	0.58
50:R4:27:THR:O	50:R4:28:LYS:HB3	2.04	0.58
25:RA:1454:U:O2'	25:RA:1455:G:N7	2.33	0.58
25:RA:2246:G:H2'	25:RA:2247:A:H8	1.68	0.58
25:RA:2313:C:H2'	25:RA:2314:C:C6	2.38	0.58
25:RA:669:G:H2'	25:RA:669:G:N3	2.19	0.58
26:RB:65:C:N4	26:RB:108:C:H2'	2.15	0.58
28:RE:111:ARG:NE	28:RE:160:TYR:HE1	2.01	0.58
28:RE:51:PHE:CD1	28:RE:52:LEU:HG	2.39	0.58
1:XA:1346:A:C5	7:XG:10:ARG:NH1	2.72	0.58
2:XB:12:GLU:O	2:XB:16:HIS:ND1	2.36	0.58
3:XC:189:ALA:HB3	3:XC:196:LEU:HB2	1.84	0.58
8:XH:19:VAL:O	8:XH:20:TYR:HB2	2.04	0.58
16:XP:14:ASN:N	16:XP:15:PRO:CD	2.67	0.58
19:XS:65:ASN:HA	50:Y4:55:ARG:HH11	1.69	0.58
48:Y2:15:LYS:H	48:Y2:67:LYS:CE	2.17	0.58
51:Y5:60:VAL:HG13	51:Y5:60:VAL:OXT	2.03	0.58
25:YA:1357:U:H2'	25:YA:1358:G:C8	2.38	0.58
25:YA:1614:A:H62	42:YW:93:ALA:HB2	1.68	0.58
25:YA:2495:G:H2'	25:YA:2496:C:C6	2.39	0.58
25:YA:74:A:H4'	25:YA:75:G:O5'	2.04	0.58
31:YH:4:ILE:H	31:YH:4:ILE:HD13	1.68	0.58
38:YS:95:HIS:CG	38:YS:96:GLY:H	2.21	0.58
25:YA:64:A:C4	43:YX:66:LEU:HD13	2.38	0.58
45:YZ:24:LEU:HB2	45:YZ:41:LEU:HG	1.85	0.58
1:QA:309:G:O2'	1:QA:607:A:N1	2.36	0.58
1:QA:727:G:N2	1:QA:730:G:OP2	2.36	0.58
2:QB:37:ASN:C	2:QB:39:ILE:H	2.07	0.58
2:QB:80:ILE:HG21	2:QB:212:GLN:HA	1.84	0.58
7:QG:69:VAL:HG11	7:QG:104:LEU:CD2	2.34	0.58
11:QK:30:VAL:HG21	11:QK:65:ALA:HA	1.85	0.58
11:QK:50:TYR:HH	11:QK:59:TYR:HE2	1.51	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:QL:45:PRO:HD3	12:QL:51:ALA:O	2.04	0.58
19:QS:17:GLU:HA	19:QS:20:LEU:HD12	1.86	0.58
51:R5:50:GLY:O	51:R5:51:TYR:HB2	2.03	0.58
25:RA:2753:A:O2'	55:R9:15:LYS:NZ	2.36	0.58
25:RA:1485:G:H5''	25:RA:1485:G:H8	1.69	0.58
31:RH:153:LYS:HA	31:RH:153:LYS:HZ3	1.68	0.58
35:RP:71:VAL:CG1	35:RP:72:PRO:HD3	2.33	0.58
38:RS:26:LEU:CD2	38:RS:87:PHE:HD1	2.17	0.58
40:RU:24:TYR:HE1	40:RU:39:LEU:HD23	1.69	0.58
43:RX:7:VAL:O	43:RX:30:VAL:HG12	2.04	0.58
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.39	0.58
3:XC:33:LEU:O	3:XC:37:GLN:HG2	2.04	0.58
4:XD:156:GLU:O	4:XD:160:GLN:HG3	2.03	0.58
12:XL:54:LYS:HD2	12:XL:54:LYS:N	2.18	0.58
12:XL:83:VAL:HG22	12:XL:84:LEU:H	1.69	0.58
25:YA:219:G:N3	25:YA:234:C:O2'	2.32	0.58
25:YA:534:U:H5'	40:YU:42:ALA:HB1	1.86	0.58
25:YA:573:G:O2'	25:YA:574:C:H3'	2.04	0.58
25:YA:715:G:H2'	25:YA:716:A:C8	2.39	0.58
27:YD:71:ASP:HB3	27:YD:103:ARG:HH22	1.68	0.58
31:YH:41:MET:HE1	31:YH:64:LEU:HB3	1.86	0.58
36:YQ:47:ILE:CD1	36:YQ:70:PRO:HD3	2.34	0.58
1:QA:1112:C:H1'	3:QC:179:ARG:NH1	2.19	0.57
1:QA:1399:C:N3	1:QA:1502:A:N6	2.51	0.57
1:QA:1347:G:C8	9:QI:107:ARG:HB3	2.39	0.57
46:R0:50:ASN:ND2	46:R0:81:VAL:O	2.36	0.57
47:R1:81:LYS:H	47:R1:81:LYS:HE2	1.62	0.57
50:R4:15:ILE:HG22	50:R4:20:ASN:HA	1.86	0.57
25:RA:2420:C:H41	54:R8:30:ARG:HD2	1.68	0.57
54:R8:56:GLU:O	54:R8:59:LYS:N	2.35	0.57
25:RA:1041:C:H2'	25:RA:1042:G:C8	2.39	0.57
25:RA:1230:C:H2'	25:RA:1231:G:H8	1.68	0.57
25:RA:1448:G:H1'	25:RA:1528:A:H62	1.68	0.57
25:RA:2061:G:OP2	25:RA:2502:G:H5'	2.03	0.57
25:RA:2814:C:H42	25:RA:2886:G:H1	1.49	0.57
26:RB:40:U:H3	26:RB:43:C:H5''	1.69	0.57
27:RD:25:THR:HG21	27:RD:81:ALA:HB1	1.85	0.57
27:RD:27:THR:CG2	27:RD:83:GLU:HB3	2.33	0.57
26:RB:42:C:O4'	30:RG:69:ALA:HB2	2.04	0.57
31:RH:125:VAL:HG12	31:RH:126:PRO:CG	2.34	0.57
31:RH:125:VAL:HA	31:RH:126:PRO:CB	2.29	0.57
32:RI:77:LEU:HD11	32:RI:140:LEU:HD12	1.86	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:637:A:H8	35:RP:117:GLU:OE2	1.86	0.57
36:RQ:47:ILE:CD1	36:RQ:70:PRO:HD3	2.34	0.57
42:RW:80:PRO:O	42:RW:100:THR:HG22	2.03	0.57
45:RZ:52:SER:OG	45:RZ:52:SER:O	2.15	0.57
1:XA:595:G:H1'	1:XA:596:C:H5	1.68	0.57
1:XA:960:U:O2	1:XA:960:U:H2'	2.03	0.57
2:XB:111:ARG:NE	2:XB:111:ARG:HA	2.19	0.57
3:XC:76:VAL:HG21	3:XC:103:VAL:CG1	2.34	0.57
7:XG:69:VAL:HG11	7:XG:104:LEU:CD2	2.34	0.57
8:XH:86:ILE:HG13	8:XH:133:LEU:HD22	1.84	0.57
13:XM:4:ILE:HG22	13:XM:5:ALA:N	2.19	0.57
15:XO:4:THR:HB	15:XO:6:GLU:OE2	2.02	0.57
16:XP:76:GLN:HG2	16:XP:76:GLN:O	2.04	0.57
50:Y4:37:SER:HB3	50:Y4:42:PHE:CE1	2.38	0.57
25:YA:330:A:H2	25:YA:1210:A:H2'	1.67	0.57
25:YA:675:A:OP1	29:YF:63:LYS:NZ	2.36	0.57
29:YF:160:ASN:OD1	29:YF:162:LEU:HB2	2.04	0.57
30:YG:39:ILE:HG23	30:YG:155:MET:HG3	1.86	0.57
31:YH:127:GLU:HG2	31:YH:128:PRO:CG	2.32	0.57
32:YI:71:ILE:HG12	32:YI:71:ILE:O	2.04	0.57
33:YN:35:ARG:O	33:YN:37:LYS:N	2.37	0.57
38:YS:67:ARG:NH1	38:YS:67:ARG:CB	2.64	0.57
39:YT:82:LEU:N	39:YT:82:LEU:HD12	2.19	0.57
2:QB:111:ARG:NE	2:QB:111:ARG:HA	2.19	0.57
2:QB:140:HIS:HA	2:QB:143:GLU:OE1	2.04	0.57
5:QE:111:GLU:C	5:QE:113:ALA:H	2.07	0.57
11:QK:32:ILE:O	11:QK:40:ILE:HG12	2.04	0.57
13:QM:81:LEU:HB3	13:QM:89:GLY:CA	2.34	0.57
16:QP:21:VAL:HG22	16:QP:34:GLU:O	2.04	0.57
16:QP:51:VAL:CG1	16:QP:52:ASP:N	2.65	0.57
48:R2:21:LEU:O	48:R2:25:VAL:HG23	2.04	0.57
50:R4:38:LYS:C	50:R4:40:HIS:N	2.53	0.57
50:R4:39:CYS:O	50:R4:40:HIS:HB2	2.03	0.57
51:R5:55:ARG:NH1	51:R5:58:LEU:HD11	2.19	0.57
25:RA:1403:C:H5''	25:RA:1471:A:C1'	2.34	0.57
25:RA:2130:U:O2'	25:RA:2133:G:O2'	2.17	0.57
27:RD:177:LEU:HD11	27:RD:183:ARG:HB2	1.85	0.57
29:RF:138:GLU:O	29:RF:141:ALA:HB3	2.04	0.57
36:RQ:90:VAL:C	36:RQ:92:GLY:H	2.07	0.57
37:RR:63:ARG:HG3	37:RR:63:ARG:HH11	1.68	0.57
39:RT:82:LEU:HD12	39:RT:82:LEU:N	2.19	0.57
45:RZ:45:ASP:O	45:RZ:49:ARG:HG2	2.03	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:374:A:C6	1:XA:375:U:C4	2.92	0.57
1:XA:728:A:H2'	1:XA:729:A:C8	2.38	0.57
1:XA:438:G:H4'	4:XD:123:HIS:CE1	2.38	0.57
9:XI:17:VAL:HG13	9:XI:81:ILE:HD13	1.85	0.57
10:XJ:94:VAL:HG12	10:XJ:95:GLU:N	2.19	0.57
11:XK:21:ILE:N	11:XK:21:ILE:HD12	2.19	0.57
52:Y6:27:LYS:HB2	52:Y6:27:LYS:HZ3	1.69	0.57
25:YA:1316:U:C2'	25:YA:1317:A:H5'	2.34	0.57
25:YA:1639:U:C2'	25:YA:1640:C:H5''	2.34	0.57
28:YE:116:VAL:CG2	28:YE:122:PHE:CD2	2.86	0.57
28:YE:111:ARG:NE	28:YE:160:TYR:HE1	2.01	0.57
28:YE:203:LYS:HE3	28:YE:204:ALA:HB2	1.86	0.57
28:YE:63:LEU:HD12	28:YE:65:GLY:H	1.69	0.57
32:YI:68:LEU:HA	32:YI:71:ILE:HG22	1.85	0.57
25:YA:2881:C:H5'	37:YR:117:VAL:HG21	1.85	0.57
41:YV:78:LYS:O	41:YV:79:VAL:HB	2.03	0.57
43:YX:27:THR:HB	43:YX:80:ILE:HB	1.84	0.57
1:QA:1034:G:H2'	1:QA:1035:A:C8	2.38	0.57
1:QA:1239:A:H4'	1:QA:1240:U:H5''	1.86	0.57
1:QA:411:A:C4	1:QA:413:G:H1'	2.39	0.57
1:QA:429:U:H4'	1:QA:430:A:OP1	2.02	0.57
1:QA:545:C:OP1	4:QD:61:LYS:NZ	2.35	0.57
1:QA:748:C:H1'	1:QA:749:C:H5	1.69	0.57
1:QA:838:G:C6	1:QA:842:C:H1'	2.40	0.57
2:QB:97:TRP:HH2	2:QB:176:GLU:HB2	1.69	0.57
48:R2:15:LYS:H	48:R2:67:LYS:NZ	2.02	0.57
50:R4:37:SER:HB3	50:R4:42:PHE:CE1	2.38	0.57
25:RA:1188:U:C2'	25:RA:1189:A:H5'	2.34	0.57
25:RA:323:G:HO2'	25:RA:1205:U:H3	1.48	0.57
25:RA:1405:U:O2'	25:RA:1406:U:O4'	2.13	0.57
25:RA:1468:C:H2'	25:RA:1469:A:C8	2.40	0.57
25:RA:1889:A:H2'	25:RA:1890:A:C8	2.39	0.57
25:RA:2056:G:N3	25:RA:2056:G:H2'	2.19	0.57
25:RA:303:U:H2'	25:RA:304:G:C8	2.39	0.57
25:RA:439:G:O5'	25:RA:439:G:H8	1.87	0.57
26:RB:116:G:O2'	38:RS:54:LEU:HD11	2.04	0.57
27:RD:263:ARG:HB2	27:RD:263:ARG:HH11	1.67	0.57
28:RE:74:PRO:HG2	28:RE:77:ILE:HG23	1.86	0.57
30:RG:53:LEU:HD23	30:RG:53:LEU:C	2.25	0.57
31:RH:4:ILE:H	31:RH:4:ILE:HD13	1.68	0.57
31:RH:84:SER:O	31:RH:133:VAL:O	2.22	0.57
31:RH:85:LYS:HA	31:RH:86:GLU:OE1	2.04	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:RO:20:MET:HG2	34:RO:21:CYS:N	2.20	0.57
26:RB:6:C:O2'	38:RS:29:PHE:HE1	1.86	0.57
38:RS:67:ARG:HH11	38:RS:67:ARG:CB	2.18	0.57
45:RZ:166:SER:OG	45:RZ:168:GLU:N	2.36	0.57
1:XA:216:G:H2'	1:XA:217:C:C6	2.39	0.57
1:XA:811:C:H4'	1:XA:900:A:N6	2.19	0.57
2:XB:97:TRP:HH2	2:XB:176:GLU:HB2	1.69	0.57
22:XV:53:G:H4'	22:XV:54:U:OP1	2.02	0.57
48:Y2:16:LEU:O	48:Y2:17:SER:HB3	2.04	0.57
25:YA:1344:G:H4'	25:YA:1384:A:C5	2.39	0.57
25:YA:286:C:O2'	25:YA:287:C:H5'	2.04	0.57
25:YA:2887:U:H2'	25:YA:2888:C:C6	2.39	0.57
25:YA:600:G:H2'	25:YA:601:C:C6	2.39	0.57
28:YE:6:GLY:HA3	28:YE:26:ILE:HD11	1.85	0.57
29:YF:192:LEU:HD21	29:YF:194:MET:CE	2.35	0.57
30:YG:53:LEU:HD23	30:YG:53:LEU:C	2.24	0.57
26:YB:43:C:O2	30:YG:95:ARG:NH2	2.37	0.57
37:YR:32:GLY:O	37:YR:115:GLU:HA	2.04	0.57
37:YR:79:LEU:HD23	37:YR:79:LEU:C	2.23	0.57
38:YS:26:LEU:CD2	38:YS:87:PHE:HD1	2.17	0.57
45:YZ:57:ILE:O	45:YZ:69:THR:N	2.24	0.57
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.38	0.57
1:QA:186:C:H4'	20:QT:82:SER:HB3	1.86	0.57
1:QA:243:A:H4'	1:QA:244:U:O5'	2.03	0.57
2:QB:12:GLU:O	2:QB:16:HIS:ND1	2.36	0.57
3:QC:181:ASN:HD22	3:QC:204:LEU:HB2	1.68	0.57
3:QC:57:ILE:HG23	3:QC:64:VAL:HG13	1.86	0.57
4:QD:100:ARG:HH22	4:QD:137:SER:HB3	1.70	0.57
6:QF:99:ALA:O	6:QF:100:ASN:HB2	2.04	0.57
15:QO:26:GLU:CD	15:QO:77:ARG:NH1	2.58	0.57
19:QS:65:ASN:N	19:QS:65:ASN:ND2	2.52	0.57
48:R2:17:SER:HB2	48:R2:18:PRO:HA	1.86	0.57
54:R8:53:PRO:CD	54:R8:54:GLU:H	2.15	0.57
25:RA:1568:G:H5''	27:RD:61:LEU:HD22	1.86	0.57
25:RA:2072:G:C2	25:RA:2073:C:C2	2.91	0.57
25:RA:2137:C:H42	25:RA:2154:G:H1	1.51	0.57
25:RA:2861:G:H2'	25:RA:2862:G:H8	1.69	0.57
25:RA:2892:A:H2'	25:RA:2893:G:O4'	2.03	0.57
25:RA:586:A:N1	25:RA:809:G:O2'	2.31	0.57
25:RA:960:A:H4'	25:RA:2457:U:H5'	1.87	0.57
27:RD:147:LEU:HD13	27:RD:155:LEU:CD1	2.29	0.57
27:RD:35:LYS:HG2	27:RD:64:ILE:CA	2.34	0.57

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:RH:41:MET:HE1	31:RH:64:LEU:HB3	1.86	0.57
35:RP:59:LEU:HA	35:RP:61:ARG:CZ	2.35	0.57
36:RQ:66:ILE:HA	36:RQ:104:PHE:HA	1.85	0.57
36:RQ:55:VAL:HG22	36:RQ:56:ARG:N	2.18	0.57
42:RW:1:MET:HE3	42:RW:1:MET:HA	1.86	0.57
1:XA:1008:C:N4	1:XA:1021:G:H1	2.01	0.57
1:XA:881:G:OP2	12:XL:12:ARG:NH2	2.36	0.57
2:XB:106:LYS:O	2:XB:110:GLN:HG3	2.05	0.57
2:XB:77:ALA:CB	2:XB:211:ILE:HG21	2.35	0.57
3:XC:105:GLU:HG2	3:XC:106:VAL:N	2.18	0.57
6:XF:39:LYS:HD2	6:XF:64:GLN:NE2	2.19	0.57
7:XG:121:ALA:O	7:XG:125:MET:N	2.37	0.57
10:XJ:3:LYS:O	10:XJ:100:THR:HG22	2.04	0.57
20:XT:37:SER:HB3	20:XT:84:LEU:HD23	1.85	0.57
47:Y1:86:SER:H	47:Y1:87:PRO:CD	2.16	0.57
49:Y3:31:LEU:O	49:Y3:32:GLN:HB2	2.04	0.57
49:Y3:4:LEU:O	49:Y3:36:VAL:HA	2.04	0.57
25:YA:1441:G:H2'	25:YA:1442:G:H8	1.69	0.57
25:YA:2405:G:O2'	25:YA:2406:U:OP2	2.22	0.57
25:YA:638:G:H2'	25:YA:639:U:O4'	2.04	0.57
25:YA:862:G:H2'	25:YA:863:A:O4'	2.04	0.57
26:YB:86:G:H2'	26:YB:87:G:C8	2.40	0.57
27:YD:35:LYS:HG2	27:YD:64:ILE:CA	2.34	0.57
30:YG:63:ILE:HD11	30:YG:102:PHE:HE2	1.69	0.57
32:YI:83:ALA:O	32:YI:85:GLU:N	2.38	0.57
33:YN:14:VAL:HG12	33:YN:15:LEU:N	2.19	0.57
34:YO:20:MET:O	34:YO:41:ALA:HB1	2.04	0.57
40:YU:24:TYR:HE1	40:YU:39:LEU:HD23	1.70	0.57
1:QA:1064:G:H1'	1:QA:1066:C:C6	2.39	0.57
1:QA:1305:G:HO2'	1:QA:1306:A:P	2.28	0.57
1:QA:627:G:H2'	1:QA:628:G:H8	1.70	0.57
4:QD:50:ARG:O	4:QD:50:ARG:HD2	2.05	0.57
10:QJ:64:GLU:OE2	10:QJ:66:ARG:HD2	2.05	0.57
10:QJ:74:ILE:HD13	10:QJ:74:ILE:N	2.16	0.57
1:QA:522:C:H41	12:QL:53:ARG:HH22	1.51	0.57
13:QM:82:MET:O	13:QM:84:ILE:N	2.38	0.57
1:QA:1314:C:OP1	19:QS:6:LYS:HE3	2.04	0.57
25:RA:1184:G:OP1	49:R3:29:ARG:NH1	2.37	0.57
52:R6:6:ARG:O	52:R6:8:LYS:HD2	2.05	0.57
25:RA:2061:G:H5''	25:RA:2503:A:C2	2.39	0.57
25:RA:554:U:HO2'	25:RA:556:G:H8	1.51	0.57
25:RA:888:C:O2'	25:RA:889:C:H4'	2.03	0.57

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:63:LEU:HD13	28:RE:65:GLY:H	1.68	0.57
25:RA:443:A:OP1	29:RF:46:ARG:HB2	2.04	0.57
25:RA:451:C:H4'	29:RF:52:LYS:NZ	2.20	0.57
30:RG:63:ILE:HD11	30:RG:102:PHE:HE2	1.69	0.57
30:RG:39:ILE:CG2	30:RG:155:MET:HG3	2.35	0.57
30:RG:16:ARG:HB3	30:RG:17:PRO:CD	2.33	0.57
33:RN:35:ARG:O	33:RN:37:LYS:N	2.37	0.57
33:RN:42:TRP:O	40:RU:64:ARG:NH2	2.35	0.57
40:RU:92:ARG:C	40:RU:94:ASN:H	2.05	0.57
25:RA:2009:G:OP1	42:RW:41:LYS:HE2	2.04	0.57
1:XA:67:C:H2'	1:XA:68:G:C8	2.39	0.57
11:XK:29:ILE:HG13	11:XK:43:SER:O	2.05	0.57
12:XL:33:ARG:O	12:XL:85:ILE:HG22	2.03	0.57
13:XM:81:LEU:HB3	13:XM:89:GLY:CA	2.34	0.57
1:XA:1014:A:H4'	19:XS:14:HIS:NE2	2.19	0.57
19:XS:15:LEU:N	19:XS:15:LEU:HD23	2.19	0.57
24:XY:39:C:O2'	24:XY:40:G:OP1	2.21	0.57
25:YA:177:G:N3	25:YA:177:G:H5''	2.20	0.57
25:YA:370:G:H5''	25:YA:423:A:N6	2.20	0.57
25:YA:612:G:C2	25:YA:613:U:O2	2.56	0.57
25:YA:669:G:H2'	25:YA:669:G:N3	2.19	0.57
29:YF:32:LEU:HD13	29:YF:105:VAL:CG1	2.33	0.57
33:YN:63:THR:HG22	33:YN:66:LYS:NZ	2.20	0.57
34:YO:107:ARG:O	34:YO:112:MET:HE3	2.05	0.57
34:YO:71:ARG:HH11	34:YO:71:ARG:HG3	1.69	0.57
2:QB:187:LEU:CD1	2:QB:205:ASP:HA	2.33	0.57
3:QC:14:ILE:HG12	3:QC:15:THR:N	2.19	0.57
3:QC:77:ILE:O	3:QC:83:ARG:HB3	2.05	0.57
3:QC:90:GLU:O	3:QC:94:LEU:HG	2.05	0.57
7:QG:16:LEU:CD1	9:QI:45:ALA:HB2	2.34	0.57
11:QK:69:ALA:HB1	11:QK:103:LEU:HD21	1.85	0.57
1:QA:947:G:O3'	13:QM:109:THR:OG1	2.23	0.57
14:QN:13:THR:N	14:QN:14:PRO:CD	2.68	0.57
18:QR:85:LEU:HD23	18:QR:88:LYS:HD2	1.86	0.57
20:QT:10:LEU:HG	20:QT:12:ALA:H	1.70	0.57
49:R3:22:ALA:O	49:R3:25:ALA:HB3	2.04	0.57
55:R9:25:VAL:HB	55:R9:34:GLN:HB2	1.86	0.57
25:RA:1728:G:N1	25:RA:1730:U:OP2	2.38	0.57
26:RB:56:G:P	30:RG:27:ASN:HD21	2.26	0.57
30:RG:39:ILE:HG23	30:RG:155:MET:HG3	1.87	0.57
31:RH:126:PRO:CG	31:RH:127:GLU:N	2.65	0.57
33:RN:131:GLN:CG	33:RN:132:ALA:N	2.68	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:133:GLN:O	33:RN:134:ARG:CB	2.53	0.57
33:RN:40:PRO:HB3	40:RU:68:ALA:HB2	1.87	0.57
34:RO:40:VAL:HG12	34:RO:41:ALA:N	2.19	0.57
37:RR:32:GLY:O	37:RR:115:GLU:HA	2.04	0.57
38:RS:106:ARG:O	38:RS:107:GLU:HB2	2.04	0.57
38:RS:95:HIS:CG	38:RS:96:GLY:H	2.21	0.57
41:RV:78:LYS:O	41:RV:79:VAL:HB	2.04	0.57
45:RZ:153:SER:HB2	45:RZ:167:PRO:HB3	1.86	0.57
1:XA:434:U:H2'	1:XA:435:C:C6	2.40	0.57
2:XB:178:ARG:HH21	8:XH:74:PRO:CB	2.10	0.57
5:XE:111:GLU:C	5:XE:113:ALA:H	2.07	0.57
5:XE:140:ARG:CB	5:XE:140:ARG:HH11	2.17	0.57
5:XE:140:ARG:HB2	5:XE:140:ARG:HH11	1.69	0.57
7:XG:16:LEU:CD1	9:XI:45:ALA:HB2	2.33	0.57
7:XG:62:PHE:HA	7:XG:124:LEU:CD2	2.27	0.57
13:XM:84:ILE:HG23	13:XM:85:GLY:N	2.18	0.57
51:Y5:55:ARG:NH1	51:Y5:58:LEU:HD11	2.19	0.57
25:YA:1885:A:H3'	25:YA:1886:C:C6	2.39	0.57
25:YA:239:U:H2'	25:YA:240:G:O4'	2.04	0.57
25:YA:2438:U:O3'	25:YA:2439:A:H3'	2.05	0.57
25:YA:2481:G:O2'	25:YA:2482:G:OP2	2.21	0.57
25:YA:465:G:N2	25:YA:684:G:H1'	2.19	0.57
27:YD:34:VAL:CG1	27:YD:34:VAL:O	2.51	0.57
27:YD:69:ARG:C	27:YD:71:ASP:H	2.08	0.57
28:YE:41:LYS:HA	28:YE:41:LYS:HE2	1.87	0.57
30:YG:107:LEU:HD11	30:YG:178:PHE:CE1	2.40	0.57
33:YN:133:GLN:O	33:YN:134:ARG:CB	2.53	0.57
28:YE:152:LYS:HG2	33:YN:78:TYR:CE1	2.39	0.57
38:YS:72:ALA:O	38:YS:76:LYS:HG3	2.04	0.57
1:QA:1037:C:H2'	1:QA:1038:C:C6	2.39	0.57
1:QA:15:G:H4'	5:QE:24:ARG:HH12	1.70	0.57
1:QA:113:G:O2'	1:QA:354:G:H5'	2.05	0.57
1:QA:57:G:H2'	1:QA:58:C:C6	2.40	0.57
2:QB:30:ARG:HH21	2:QB:194:PRO:CG	2.17	0.57
6:QF:39:LYS:HD2	6:QF:64:GLN:NE2	2.19	0.57
10:QJ:22:LYS:HD2	10:QJ:22:LYS:C	2.25	0.57
16:QP:76:GLN:HG2	16:QP:76:GLN:O	2.04	0.57
47:R1:70:VAL:O	47:R1:74:VAL:HG23	2.05	0.57
25:RA:121:G:C2	25:RA:131:G:C4	2.92	0.57
25:RA:1869:G:H5'	25:RA:1870:C:OP2	2.05	0.57
27:RD:239:ARG:O	27:RD:240:ALA:HB2	2.05	0.57
30:RG:107:LEU:HD11	30:RG:178:PHE:CE1	2.39	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:7:LYS:HG2	33:RN:8:GLN:N	2.20	0.57
34:RO:96:THR:O	34:RO:97:ARG:HB3	2.04	0.57
40:RU:96:ALA:O	40:RU:100:VAL:HG23	2.05	0.57
2:XB:30:ARG:HH21	2:XB:194:PRO:CG	2.17	0.57
3:XC:14:ILE:HG12	3:XC:15:THR:N	2.19	0.57
6:XF:99:ALA:O	6:XF:100:ASN:HB2	2.04	0.57
17:XQ:41:LYS:HZ1	17:XQ:92:ARG:HH22	1.52	0.57
47:Y1:70:VAL:O	47:Y1:74:VAL:HG23	2.04	0.57
50:Y4:42:PHE:CG	50:Y4:43:TYR:N	2.72	0.57
25:YA:2073:C:O2'	25:YA:2074:U:H5'	2.05	0.57
25:YA:2292:C:H42	25:YA:2340:G:H1	1.52	0.57
25:YA:259:G:H21	25:YA:621:A:H8	1.52	0.57
31:YH:3:ARG:HA	31:YH:3:ARG:HE	1.69	0.57
32:YI:9:LEU:HD21	32:YI:12:LEU:HB2	1.86	0.57
38:YS:106:ARG:O	38:YS:107:GLU:HB2	2.04	0.57
38:YS:5:THR:HG23	38:YS:8:GLU:OE2	2.05	0.57
40:YU:52:ARG:NH1	40:YU:52:ARG:HG2	2.18	0.57
1:QA:1079:G:H2'	1:QA:1080:A:C8	2.40	0.57
1:QA:1244:C:H42	1:QA:1293:G:H1	1.50	0.57
1:QA:1297:C:H4'	1:QA:1298:C:H5'	1.86	0.57
3:QC:76:VAL:HG21	3:QC:103:VAL:CG1	2.34	0.57
5:QE:78:HIS:CB	8:QH:104:ARG:HG2	2.34	0.57
11:QK:29:ILE:HG13	11:QK:43:SER:O	2.04	0.57
12:QL:82:VAL:HG23	12:QL:106:ASP:OD2	2.04	0.57
13:QM:69:GLU:O	13:QM:71:ARG:N	2.38	0.57
47:R1:86:SER:H	47:R1:87:PRO:CD	2.16	0.57
47:R1:89:GLU:O	47:R1:93:GLU:HB2	2.04	0.57
54:R8:33:ASN:O	54:R8:34:TRP:C	2.42	0.57
25:RA:1007:C:OP1	33:RN:35:ARG:NH1	2.38	0.57
25:RA:770:G:N3	25:RA:1354:A:H2	2.03	0.57
25:RA:1449:A:H5'	25:RA:1449(A):G:OP2	2.05	0.57
25:RA:2087:G:H2'	25:RA:2088:G:H8	1.69	0.57
25:RA:270(T):G:P	47:R1:97:LEU:HD13	2.44	0.57
25:RA:589:C:H2'	25:RA:590:A:C8	2.39	0.57
25:RA:664:C:OP1	35:RP:18:ARG:NH2	2.31	0.57
28:RE:51:PHE:HD1	28:RE:52:LEU:HG	1.68	0.57
38:RS:103:GLU:O	38:RS:106:ARG:CG	2.53	0.57
43:RX:36:LYS:HE3	43:RX:54:VAL:O	2.04	0.57
1:XA:1135:U:H4'	1:XA:1136:U:H5	1.69	0.57
1:XA:1417:G:N2	1:XA:1482:G:H2'	2.20	0.57
1:XA:232:G:H1'	1:XA:262:A:N1	2.19	0.57
1:XA:299:G:H2'	1:XA:300:A:C8	2.39	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:633:G:H5'	1:XA:634:C:OP2	2.03	0.57
13:XM:82:MET:O	13:XM:84:ILE:N	2.38	0.57
15:XO:26:GLU:CD	15:XO:77:ARG:NH1	2.58	0.57
17:XQ:32:TYR:O	17:XQ:34:LYS:N	2.37	0.57
1:XA:276:G:O3'	17:XQ:68:ARG:NH1	2.38	0.57
19:XS:9:VAL:O	19:XS:9:VAL:HG23	2.04	0.57
54:Y8:46:ARG:O	54:Y8:47:LYS:HB3	2.03	0.57
25:YA:121:G:H2'	25:YA:122:G:H8	1.69	0.57
25:YA:1728:G:H3'	25:YA:1729:A:H5''	1.85	0.57
25:YA:304:G:H2'	25:YA:305:U:C6	2.39	0.57
28:YE:102:VAL:HG13	28:YE:172:VAL:CG2	2.34	0.57
33:YN:14:VAL:HG12	33:YN:15:LEU:H	1.69	0.57
34:YO:96:THR:O	34:YO:97:ARG:HB3	2.04	0.57
35:YP:64:LYS:C	35:YP:66:GLY:N	2.57	0.57
37:YR:45:ARG:HA	37:YR:95:THR:HG21	1.87	0.57
40:YU:79:PHE:CD2	40:YU:79:PHE:C	2.78	0.57
44:YY:21:LYS:HG3	44:YY:22:GLY:H	1.69	0.57
1:QA:954:G:N2	1:QA:1227:A:H62	1.94	0.57
4:QD:119:GLN:HG3	4:QD:123:HIS:CD2	2.40	0.57
5:QE:82:VAL:CG1	5:QE:83:GLU:N	2.68	0.57
6:QF:97:PHE:C	6:QF:97:PHE:CD2	2.76	0.57
7:QG:113:GLU:HB2	7:QG:119:ARG:CG	2.35	0.57
7:QG:121:ALA:O	7:QG:125:MET:N	2.37	0.57
9:QI:17:VAL:CG1	9:QI:81:ILE:HD13	2.35	0.57
14:QN:44:LEU:C	14:QN:44:LEU:HD12	2.24	0.57
48:R2:31:GLU:O	48:R2:35:LEU:HG	2.05	0.57
49:R3:31:LEU:O	49:R3:32:GLN:HB2	2.04	0.57
52:R6:11:LEU:HD23	52:R6:26:ASN:HB3	1.87	0.57
52:R6:48:VAL:HG13	52:R6:49:HIS:N	2.20	0.57
55:R9:1:MET:HB3	55:R9:4:ARG:CZ	2.35	0.57
25:RA:1230:C:H2'	25:RA:1231:G:C8	2.40	0.57
25:RA:177:G:H3'	25:RA:178:G:H8	1.69	0.57
28:RE:102:VAL:HG13	28:RE:172:VAL:CG2	2.34	0.57
28:RE:41:LYS:HA	28:RE:41:LYS:HE2	1.87	0.57
31:RH:124:GLU:HB3	31:RH:132:ARG:HG3	1.85	0.57
33:RN:14:VAL:HG12	33:RN:15:LEU:H	1.69	0.57
44:RY:89:PHE:O	44:RY:90:LEU:HD13	2.05	0.57
1:XA:1120:G:H1	1:XA:1153:C:H42	1.52	0.57
2:XB:187:LEU:CD1	2:XB:205:ASP:HA	2.34	0.57
4:XD:50:ARG:HD2	4:XD:50:ARG:O	2.05	0.57
7:XG:37:ASN:HD21	9:XI:40:LEU:HD23	1.69	0.57
10:XJ:64:GLU:OE2	10:XJ:66:ARG:HD2	2.05	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:XL:11:VAL:HG13	17:XQ:29:HIS:CD2	2.40	0.57
13:XM:49:THR:HB	13:XM:52:GLU:HG3	1.86	0.57
53:Y7:31:LEU:O	53:Y7:32:LYS:C	2.43	0.57
25:YA:2848:G:N2	25:YA:2867:G:C4	2.73	0.57
25:YA:482:A:O2'	44:YY:47:LYS:NZ	2.29	0.57
25:YA:702:G:H1	25:YA:730:C:H42	1.52	0.57
27:YD:25:THR:HG21	27:YD:81:ALA:HB1	1.85	0.57
27:YD:36:PRO:HB2	27:YD:61:LEU:HG	1.87	0.57
27:YD:25:THR:HG21	27:YD:82:ILE:H	1.70	0.57
31:YH:84:SER:O	31:YH:133:VAL:O	2.22	0.57
33:YN:7:LYS:HG2	33:YN:8:GLN:N	2.20	0.57
40:YU:83:LEU:HD12	40:YU:113:ALA:HB2	1.86	0.57
44:YY:97:ARG:O	44:YY:97:ARG:HG2	2.05	0.57
1:QA:1131:G:H2'	1:QA:1132:C:C6	2.39	0.57
1:QA:1275:A:H2'	1:QA:1276:G:O4'	2.04	0.57
1:QA:230:G:N2	1:QA:231:G:N3	2.53	0.57
1:QA:67:C:H2'	1:QA:68:G:C8	2.40	0.57
2:QB:106:LYS:O	2:QB:110:GLN:HG3	2.05	0.57
3:QC:59:ARG:HH12	3:QC:97:LYS:HE3	1.70	0.57
3:QC:59:ARG:NH2	3:QC:97:LYS:HE3	2.20	0.57
1:QA:1080:A:C4'	5:QE:16:THR:HB	2.34	0.57
11:QK:69:ALA:HB1	11:QK:103:LEU:CD2	2.35	0.57
16:QP:14:ASN:N	16:QP:15:PRO:CD	2.67	0.57
18:QR:57:GLY:O	18:QR:58:LEU:C	2.44	0.57
48:R2:15:LYS:H	48:R2:67:LYS:CE	2.17	0.57
53:R7:19:ARG:HH11	53:R7:19:ARG:HG2	1.70	0.57
25:RA:1480:G:O6	25:RA:1513:C:N4	2.32	0.57
25:RA:2367:G:O5'	25:RA:2367:G:H8	1.87	0.57
25:RA:2517:C:C2	25:RA:2542:A:N6	2.73	0.57
26:RB:42:C:N4	30:RG:91:ARG:HH21	2.02	0.57
27:RD:35:LYS:CE	27:RD:104:TYR:HB2	2.35	0.57
28:RE:63:LEU:HD12	28:RE:65:GLY:H	1.69	0.57
31:RH:3:ARG:HA	31:RH:3:ARG:HE	1.69	0.57
33:RN:112:LEU:O	33:RN:114:ARG:O	2.23	0.57
40:RU:79:PHE:C	40:RU:79:PHE:CD2	2.78	0.57
1:XA:1103:C:H2'	1:XA:1104:G:O4'	2.04	0.57
1:XA:1352:C:H42	1:XA:1370:G:H1	1.52	0.57
1:XA:536:C:H2'	1:XA:537:G:C8	2.38	0.57
3:XC:11:ARG:HH21	3:XC:180:ALA:HB3	1.70	0.57
4:XD:100:ARG:HH22	4:XD:137:SER:HB3	1.70	0.57
4:XD:13:ARG:O	4:XD:16:GLY:N	2.29	0.57
13:XM:69:GLU:O	13:XM:71:ARG:N	2.38	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:Y0:10:THR:HG23	46:Y0:12:ASN:H	1.69	0.57
25:YA:1955:U:O2'	25:YA:1956:U:H5'	2.04	0.57
25:YA:2418:A:H2'	25:YA:2419:U:C6	2.40	0.57
25:YA:297:C:H5''	44:YY:85:VAL:CG2	2.32	0.57
27:YD:92:ILE:HD12	27:YD:104:TYR:CD2	2.39	0.57
30:YG:60:LEU:O	30:YG:64:THR:HG22	2.05	0.57
45:YZ:179:ASP:OD1	45:YZ:180:VAL:HG22	2.05	0.57
1:QA:1229:A:H2'	1:QA:1230:C:C6	2.40	0.56
1:QA:399:G:H2'	1:QA:400:C:C6	2.40	0.56
1:QA:703:G:O2'	1:QA:704:A:OP2	2.22	0.56
1:QA:977:A:O2'	1:QA:979:C:OP2	2.17	0.56
3:QC:7:PRO:O	3:QC:11:ARG:HG2	2.05	0.56
5:QE:140:ARG:HH11	5:QE:140:ARG:HB2	1.69	0.56
5:QE:78:HIS:CE1	5:QE:143:ARG:H	2.20	0.56
5:QE:78:HIS:HB2	8:QH:104:ARG:HG2	1.86	0.56
7:QG:18:TYR:HD2	7:QG:59:LEU:HD22	1.70	0.56
10:QJ:94:VAL:HG12	10:QJ:95:GLU:N	2.19	0.56
13:QM:73:GLU:O	13:QM:77:ASN:N	2.33	0.56
16:QP:7:ALA:O	16:QP:9:PHE:CD2	2.58	0.56
19:QS:40:ILE:HG12	19:QS:41:VAL:N	2.20	0.56
20:QT:47:GLY:C	20:QT:49:ALA:H	2.07	0.56
54:R8:52:LYS:H	54:R8:53:PRO:HD2	1.66	0.56
25:RA:2273:A:H2'	25:RA:2274:A:C8	2.40	0.56
25:RA:2788:C:O2'	25:RA:2809:A:N3	2.37	0.56
25:RA:991:C:H5'	25:RA:991:C:H6	1.69	0.56
29:RF:24:LEU:HB3	29:RF:115:ALA:HB2	1.87	0.56
33:RN:63:THR:HG22	33:RN:66:LYS:NZ	2.20	0.56
35:RP:65:ARG:HH21	54:R8:15:LYS:CB	2.17	0.56
38:RS:5:THR:HG23	38:RS:8:GLU:OE2	2.05	0.56
38:RS:32:LEU:O	38:RS:62:LYS:HE2	2.05	0.56
38:RS:72:ALA:O	38:RS:76:LYS:HG3	2.04	0.56
1:XA:347:G:O2'	1:XA:348:G:H5''	2.05	0.56
1:XA:975:A:O2'	14:YN:32:SER:OG	2.13	0.56
2:XB:60:ASP:HB3	2:XB:64:ARG:CZ	2.34	0.56
3:XC:57:ILE:HG23	3:XC:64:VAL:HG13	1.86	0.56
11:XK:32:ILE:O	11:XK:40:ILE:HG12	2.04	0.56
14:YN:13:THR:N	14:YN:14:PRO:CD	2.68	0.56
14:YN:29:ARG:HH11	14:YN:29:ARG:HG3	1.70	0.56
16:XP:7:ALA:O	16:XP:9:PHE:CD2	2.58	0.56
21:XU:7:ARG:O	21:XU:8:THR:HG23	2.05	0.56
52:Y6:14:THR:O	52:Y6:49:HIS:HA	2.05	0.56
25:YA:2115:G:N2	25:YA:2165:G:N7	2.52	0.56

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:900:A:H5'	25:YA:901:A:OP2	2.04	0.56
27:YD:69:ARG:HD3	27:YD:105:ILE:HD11	1.87	0.56
29:YF:118:ALA:O	29:YF:121:GLY:N	2.33	0.56
30:YG:39:ILE:CG2	30:YG:155:MET:HG3	2.35	0.56
25:YA:1093:G:H4'	31:YH:170:ARG:NH2	2.19	0.56
35:YP:59:LEU:HA	35:YP:61:ARG:CZ	2.34	0.56
38:YS:67:ARG:CB	38:YS:67:ARG:HH11	2.18	0.56
40:YU:104:GLN:N	40:YU:104:GLN:OE1	2.35	0.56
40:YU:68:ALA:O	40:YU:71:GLN:HB2	2.04	0.56
1:QA:1305:G:O2'	1:QA:1306:A:O5'	2.22	0.56
1:QA:980:C:H5'	1:QA:981:U:OP2	2.05	0.56
2:QB:60:ASP:HB3	2:QB:64:ARG:CZ	2.35	0.56
4:QD:191:ARG:NH1	4:QD:200:GLU:OE1	2.37	0.56
8:QH:119:LEU:HD12	8:QH:124:ALA:HA	1.87	0.56
11:QK:21:ILE:HD12	11:QK:21:ILE:N	2.19	0.56
13:QM:84:ILE:CG2	13:QM:85:GLY:N	2.68	0.56
15:QO:53:HIS:CE1	15:QO:57:LEU:HD11	2.40	0.56
49:R3:4:LEU:O	49:R3:36:VAL:HA	2.04	0.56
52:R6:42:TRP:CD1	52:R6:42:TRP:N	2.73	0.56
53:R7:13:ALA:O	53:R7:17:GLY:HA3	2.05	0.56
25:RA:1308:A:H2'	25:RA:1309:G:O4'	2.05	0.56
25:RA:2456:C:N4	25:RA:2495:G:H1	2.03	0.56
25:RA:612:G:H2'	25:RA:613:U:O2	2.04	0.56
29:RF:46:ARG:NH1	29:RF:46:ARG:HG2	2.00	0.56
28:RE:152:LYS:HG2	33:RN:78:TYR:CE1	2.40	0.56
33:RN:82:LEU:HD12	33:RN:83:LYS:H	1.71	0.56
40:RU:68:ALA:O	40:RU:71:GLN:HB2	2.05	0.56
41:RV:38:LEU:HD23	41:RV:39:LEU:N	2.19	0.56
1:XA:976:G:N2	1:XA:1362(A):C:OP2	2.34	0.56
1:XA:58:C:O2'	1:XA:388:G:N7	2.34	0.56
4:XD:42:GLN:O	4:XD:42:GLN:HG2	2.05	0.56
7:XG:148:ASN:C	7:XG:150:ALA:H	2.08	0.56
7:XG:18:TYR:HD2	7:XG:59:LEU:HD22	1.70	0.56
7:XG:42:ILE:O	7:XG:117:ALA:HB2	2.05	0.56
8:XH:49:GLU:HG3	8:XH:51:VAL:CG1	2.35	0.56
15:XO:76:GLU:C	15:XO:78:TYR:H	2.08	0.56
16:XP:21:VAL:HG22	16:XP:34:GLU:O	2.04	0.56
46:Y0:23:VAL:HA	46:Y0:38:VAL:HG22	1.85	0.56
50:Y4:27:THR:O	50:Y4:28:LYS:HB3	2.04	0.56
53:Y7:48:LYS:HG2	53:Y7:49:ARG:N	2.19	0.56
54:Y8:33:ASN:O	54:Y8:34:TRP:C	2.42	0.56
55:Y9:25:VAL:HB	55:Y9:34:GLN:HB2	1.86	0.56

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1453:A:O2'	25:YA:1454:U:H2'	2.05	0.56
25:YA:1558:A:H1'	25:YA:1559:G:H5''	1.86	0.56
25:YA:1778:U:C5	25:YA:1784:A:C4	2.93	0.56
25:YA:195:A:H4'	25:YA:251:A:O2'	2.04	0.56
25:YA:2250:G:C8	25:YA:2496:C:H5''	2.40	0.56
26:YB:34:U:P	30:YG:2:PRO:HG2	2.44	0.56
32:YI:78:THR:HG22	32:YI:141:LYS:HD2	1.87	0.56
32:YI:56:LYS:HE3	32:YI:57:ARG:HG2	1.86	0.56
33:YN:82:LEU:HD12	33:YN:83:LYS:H	1.70	0.56
38:YS:103:GLU:O	38:YS:106:ARG:CG	2.52	0.56
39:YT:105:LEU:C	39:YT:107:ASP:H	2.08	0.56
43:YX:35:THR:HG22	43:YX:38:GLU:OE1	2.05	0.56
45:YZ:31:ARG:NH2	45:YZ:93:ASP:OD1	2.38	0.56
1:QA:210:U:O2'	1:QA:216:G:N7	2.37	0.56
1:QA:448:A:OP2	1:QA:485:G:N2	2.37	0.56
8:QH:84:ARG:NH1	8:QH:86:ILE:HD13	2.11	0.56
12:QL:18:VAL:O	12:QL:19:ARG:HB2	2.04	0.56
12:QL:58:VAL:O	12:QL:65:GLU:HA	2.06	0.56
13:QM:4:ILE:HG22	13:QM:5:ALA:N	2.20	0.56
17:QQ:6:LEU:O	17:QQ:58:GLU:HA	2.05	0.56
1:QA:1014:A:H4'	19:QS:14:HIS:NE2	2.21	0.56
19:QS:15:LEU:HD23	19:QS:15:LEU:N	2.19	0.56
48:R2:51:ARG:HA	48:R2:54:LYS:HB2	1.86	0.56
50:R4:64:GLY:C	50:R4:66:SER:H	2.07	0.56
25:RA:2372:G:H4'	52:R6:46:HIS:NE2	2.21	0.56
52:R6:14:THR:O	52:R6:49:HIS:HA	2.06	0.56
25:RA:1769:G:O2'	25:RA:1958:C:OP1	2.17	0.56
25:RA:2293:C:H2'	25:RA:2294:C:O4'	2.05	0.56
25:RA:2287:A:H62	25:RA:2344:U:H3	1.51	0.56
25:RA:2416:C:H5''	35:RP:64:LYS:HE3	1.86	0.56
25:RA:270(K):C:H42	25:RA:270(M):U:H5	1.50	0.56
25:RA:2864:G:OP1	39:RT:119:LYS:HD2	2.05	0.56
26:RB:40:U:N3	26:RB:43:C:H5''	2.21	0.56
28:RE:183:LEU:N	28:RE:183:LEU:HD12	2.20	0.56
29:RF:192:LEU:HD21	29:RF:194:MET:CE	2.35	0.56
31:RH:77:LYS:HZ3	31:RH:77:LYS:CB	2.03	0.56
33:RN:56:ASN:N	33:RN:125:GLY:O	2.35	0.56
35:RP:31:ALA:O	35:RP:32:THR:HG23	2.05	0.56
37:RR:70:LEU:HD13	37:RR:75:LEU:HD11	1.88	0.56
45:RZ:77:ASP:OD2	45:RZ:80:ARG:HD3	2.05	0.56
1:XA:1080:A:H5''	5:XE:16:THR:HG21	1.87	0.56
1:XA:1104:G:H4'	2:XB:111:ARG:NH1	2.20	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1128:C:N4	1:XA:1144:G:H1	2.03	0.56
1:XA:1225:A:N3	1:XA:1225:A:H2'	2.19	0.56
1:XA:737:A:H2'	1:XA:738:C:C6	2.40	0.56
1:XA:983:A:H5''	1:XA:984:C:OP2	2.05	0.56
3:XC:59:ARG:HH12	3:XC:97:LYS:HE3	1.70	0.56
6:XF:92:LYS:HZ2	6:XF:92:LYS:HB2	1.70	0.56
9:XI:10:ARG:CD	9:XI:105:ASP:HB2	2.35	0.56
16:XP:4:ILE:HA	16:XP:20:VAL:O	2.05	0.56
48:Y2:17:SER:HB2	48:Y2:18:PRO:HA	1.86	0.56
49:Y3:7:LYS:NZ	49:Y3:32:GLN:HE21	2.03	0.56
55:Y9:2:LYS:HD2	55:Y9:33:LYS:O	2.05	0.56
25:YA:1024:G:OP2	25:YA:1025:G:H3'	2.05	0.56
25:YA:1930:G:H2'	25:YA:1968:G:C6	2.40	0.56
25:YA:2115:G:N2	25:YA:2165:G:O6	2.38	0.56
25:YA:2507:C:H2'	25:YA:2508:G:H8	1.70	0.56
34:YO:3:GLN:CB	34:YO:4:PRO:HD2	2.35	0.56
39:YT:134:GLU:O	39:YT:135:ALA:HB3	2.05	0.56
41:YV:76:LYS:O	41:YV:79:VAL:HG12	2.05	0.56
1:QA:1028:C:H42	1:QA:1033:G:H1	1.53	0.56
2:QB:77:ALA:CB	2:QB:211:ILE:HG21	2.35	0.56
3:QC:188:LEU:O	3:QC:189:ALA:HB2	2.05	0.56
13:QM:119:GLY:HA3	22:QV:29:G:OP1	2.06	0.56
20:QT:53:LEU:HA	20:QT:56:MET:HB3	1.87	0.56
20:QT:82:SER:O	20:QT:86:ARG:HB2	2.06	0.56
47:R1:53:VAL:HG12	47:R1:54:ALA:N	2.20	0.56
54:R8:50:LEU:HD12	54:R8:51:ALA:H	1.70	0.56
55:R9:2:LYS:HD2	55:R9:33:LYS:O	2.04	0.56
25:RA:1083:U:O2'	25:RA:1085:A:H5''	2.05	0.56
25:RA:1310:G:O6	25:RA:1604:C:N4	2.38	0.56
25:RA:2370:G:N3	52:R6:45:LYS:NZ	2.51	0.56
27:RD:236:GLY:O	27:RD:237:GLU:OE1	2.23	0.56
28:RE:174:ASP:CG	28:RE:175:VAL:N	2.58	0.56
28:RE:37:ARG:NE	28:RE:37:ARG:N	2.54	0.56
28:RE:78:LEU:HD23	28:RE:79:ARG:HD2	1.86	0.56
1:XA:1222:G:H5''	19:XS:78:ARG:NH1	2.20	0.56
1:XA:236:G:H2'	1:XA:237:C:H6	1.70	0.56
1:XA:392:G:H2'	1:XA:393:A:C8	2.40	0.56
2:XB:102:LEU:HB3	2:XB:180:LEU:CD1	2.36	0.56
2:XB:55:PHE:HA	2:XB:58:ILE:HB	1.88	0.56
8:XH:38:ILE:HD12	8:XH:118:VAL:HG12	1.87	0.56
8:XH:82:HIS:HD2	8:XH:83:ILE:N	2.03	0.56
10:XJ:35:SER:O	10:XJ:72:VAL:HG13	2.05	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:XR:85:LEU:HD23	18:XR:88:LYS:HD2	1.86	0.56
21:XU:6:ARG:HH21	21:XU:15:ARG:HE	1.53	0.56
47:Y1:89:GLU:O	47:Y1:93:GLU:HB2	2.04	0.56
48:Y2:31:GLU:O	48:Y2:35:LEU:HG	2.05	0.56
25:YA:851:U:O2'	49:Y3:45:GLY:HA3	2.05	0.56
25:YA:1221:C:H2'	25:YA:1222:C:C6	2.41	0.56
25:YA:2506:U:O2	25:YA:2506:U:H2'	2.03	0.56
25:YA:2845:G:C2'	25:YA:2846:G:H5'	2.35	0.56
25:YA:503:A:H4'	25:YA:504:U:C5'	2.35	0.56
25:YA:612:G:N2	25:YA:617:G:C5	2.74	0.56
28:YE:69:LYS:C	28:YE:71:GLY:H	2.09	0.56
33:YN:56:ASN:N	33:YN:125:GLY:O	2.35	0.56
36:YQ:37:LEU:HD21	36:YQ:130:LYS:HE3	1.87	0.56
36:YQ:79:LEU:CG	36:YQ:79:LEU:O	2.52	0.56
38:YS:32:LEU:O	38:YS:62:LYS:HE2	2.05	0.56
25:YA:1252:G:N3	40:YU:33:ARG:HD2	2.20	0.56
1:QA:833:U:H2'	1:QA:834:C:C6	2.41	0.56
1:QA:933:G:N2	1:QA:935:A:O4'	2.39	0.56
1:QA:302:G:O3'	12:QL:17:LYS:HE2	2.05	0.56
12:QL:83:VAL:HG22	12:QL:84:LEU:H	1.70	0.56
14:QN:25:VAL:N	14:QN:38:GLY:O	2.38	0.56
15:QO:76:GLU:C	15:QO:78:TYR:H	2.08	0.56
21:QU:7:ARG:O	21:QU:8:THR:HG23	2.05	0.56
25:RA:851:U:O2'	49:R3:45:GLY:HA3	2.05	0.56
51:R5:55:ARG:HD3	51:R5:56:LYS:N	2.21	0.56
25:RA:1581:G:H8	25:RA:1581:G:H5''	1.69	0.56
25:RA:139:G:N2	25:RA:1596:A:H4'	2.20	0.56
25:RA:2308:G:H22	25:RA:2311:A:H2	1.54	0.56
32:RI:57:ARG:HB2	32:RI:57:ARG:HH11	1.70	0.56
35:RP:14:LYS:O	35:RP:16:ARG:N	2.39	0.56
36:RQ:132:VAL:HG11	45:RZ:81:ARG:CZ	2.35	0.56
37:RR:84:ALA:HB3	37:RR:85:PRO:HD3	1.87	0.56
39:RT:26:ASP:CB	39:RT:91:ARG:HA	2.36	0.56
42:RW:65:LEU:O	42:RW:66:GLU:C	2.43	0.56
1:XA:236:G:H2'	1:XA:237:C:C6	2.40	0.56
1:XA:292:G:N7	1:XA:293:G:H1'	2.21	0.56
1:XA:615:C:O2	1:XA:625:G:N2	2.35	0.56
2:XB:80:ILE:CG2	2:XB:212:GLN:HA	2.36	0.56
4:XD:76:ARG:HD2	4:XD:207:TYR:HE2	1.66	0.56
5:XE:82:VAL:CG1	5:XE:83:GLU:N	2.68	0.56
6:XF:91:VAL:CG1	18:XR:72:ARG:HH12	2.18	0.56
11:XK:21:ILE:HG13	11:XK:30:VAL:HG12	1.86	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:XK:34:ASP:N	11:XK:40:ILE:HD11	2.20	0.56
15:XO:53:HIS:CE1	15:XO:57:LEU:HD11	2.40	0.56
47:Y1:76:ARG:NH1	47:Y1:76:ARG:HG2	2.20	0.56
50:Y4:64:GLY:C	50:Y4:66:SER:H	2.07	0.56
53:Y7:12:ARG:NH2	53:Y7:44:PRO:HB3	2.21	0.56
25:YA:103:A:H8	25:YA:103:A:O5'	1.89	0.56
25:YA:1803:A:H4'	27:YD:259:THR:HG21	1.85	0.56
25:YA:2795:G:H3'	25:YA:2797:U:C5'	2.36	0.56
27:YD:183:ARG:HD2	27:YD:270:ILE:HG12	1.88	0.56
27:YD:2:ALA:O	27:YD:3:VAL:HB	2.06	0.56
28:YE:32:PRO:O	28:YE:34:VAL:HG13	2.06	0.56
31:YH:125:VAL:HG12	31:YH:126:PRO:CG	2.34	0.56
35:YP:115:LEU:HD12	35:YP:116:GLY:N	2.21	0.56
25:YA:2250:G:C6	36:YQ:82:ARG:HD2	2.41	0.56
39:YT:26:ASP:CB	39:YT:91:ARG:HA	2.36	0.56
1:QA:1192:C:O2	5:QE:25:ARG:NH2	2.38	0.56
1:QA:375:U:H4'	16:QP:17:TYR:CE2	2.38	0.56
3:QC:114:PRO:O	3:QC:118:GLN:HG3	2.06	0.56
3:QC:77:ILE:C	3:QC:83:ARG:HB3	2.26	0.56
8:QH:77:GLU:HG2	8:QH:78:GLN:H	1.71	0.56
13:QM:49:THR:HB	13:QM:52:GLU:HG3	1.86	0.56
17:QQ:50:LYS:HG3	17:QQ:51:TYR:CE1	2.41	0.56
30:RG:179:PRO:HG3	50:R4:38:LYS:HZ1	1.67	0.56
50:R4:48:ARG:O	50:R4:50:VAL:N	2.38	0.56
25:RA:1351:C:H2'	25:RA:1352:U:C6	2.40	0.56
25:RA:1534:G:H2'	25:RA:1534:G:N3	2.20	0.56
25:RA:2747:G:H2'	25:RA:2748:A:C8	2.41	0.56
25:RA:66:C:C4	25:RA:67:U:C4	2.94	0.56
28:RE:117:MET:HG3	28:RE:117:MET:O	2.06	0.56
28:RE:69:LYS:C	28:RE:71:GLY:H	2.09	0.56
29:RF:198:ALA:CA	29:RF:201:VAL:HG12	2.35	0.56
30:RG:180:PHE:C	30:RG:182:LYS:H	2.09	0.56
30:RG:41:GLN:HB3	30:RG:43:LEU:HD13	1.87	0.56
34:RO:107:ARG:O	34:RO:112:MET:HE3	2.05	0.56
34:RO:1:MET:HE3	34:RO:67:LYS:HE2	1.87	0.56
36:RQ:59:ARG:C	36:RQ:60:ARG:CG	2.74	0.56
39:RT:134:GLU:O	39:RT:135:ALA:HB3	2.05	0.56
41:RV:1:MET:HE2	41:RV:43:GLU:HG2	1.87	0.56
43:RX:65:ARG:HD3	43:RX:65:ARG:H	1.70	0.56
1:XA:1129:C:H5'	1:XA:1130:A:OP1	2.06	0.56
1:XA:465:A:N7	1:XA:467:G:C5	2.74	0.56
3:XC:180:ALA:O	3:XC:181:ASN:HB3	2.06	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:XC:188:LEU:O	3:XC:189:ALA:HB2	2.05	0.56
9:XI:33:PHE:CE2	9:XI:47:LEU:HD21	2.40	0.56
50:Y4:15:ILE:HG22	50:Y4:20:ASN:HA	1.86	0.56
52:Y6:11:LEU:HD23	52:Y6:26:ASN:HB3	1.87	0.56
25:YA:1433:U:H6	25:YA:1433:U:H5''	1.70	0.56
25:YA:2774:C:H2'	25:YA:2775:A:O4'	2.06	0.56
28:YE:74:PRO:HG2	28:YE:77:ILE:HG23	1.87	0.56
29:YF:155:LEU:CD1	29:YF:174:VAL:HG13	2.32	0.56
29:YF:197:ASP:O	29:YF:199:TRP:N	2.38	0.56
31:YH:77:LYS:HZ3	31:YH:77:LYS:CB	2.11	0.56
33:YN:40:PRO:HB3	40:YU:68:ALA:HB2	1.86	0.56
38:YS:14:VAL:HG13	38:YS:15:ARG:N	2.21	0.56
1:QA:1213:A:C6	1:QA:1215:G:H1'	2.41	0.56
1:QA:1255:G:N2	1:QA:1259:C:O2	2.39	0.56
1:QA:358:U:H2'	1:QA:359:U:H6	1.70	0.56
1:QA:376:G:H2'	1:QA:377:G:H8	1.70	0.56
3:QC:45:LYS:HD2	3:QC:46:GLU:HG3	1.87	0.56
7:QG:73:MET:HG2	7:QG:90:GLU:HA	1.87	0.56
8:QH:7:ALA:HB2	8:QH:85:ARG:HD3	1.87	0.56
9:QL:9:ARG:HB2	9:QL:14:VAL:HG22	1.88	0.56
16:QP:4:ILE:HA	16:QP:20:VAL:O	2.05	0.56
50:R4:41:PRO:O	50:R4:42:PHE:CB	2.54	0.56
53:R7:12:ARG:NH2	53:R7:44:PRO:HB3	2.21	0.56
25:RA:1210:A:H5''	25:RA:1210:A:C8	2.40	0.56
25:RA:2645:G:C3'	25:RA:2646:C:H5'	2.35	0.56
27:RD:183:ARG:HD2	27:RD:270:ILE:HG12	1.88	0.56
27:RD:80:ALA:HB3	27:RD:94:LEU:HD13	1.88	0.56
28:RE:32:PRO:O	28:RE:34:VAL:HG13	2.06	0.56
29:RF:32:LEU:HD13	29:RF:105:VAL:CG1	2.33	0.56
42:RW:20:VAL:C	42:RW:22:ASP:N	2.59	0.56
1:XA:1062:U:H2'	1:XA:1063:C:C6	2.41	0.56
3:XC:77:ILE:C	3:XC:83:ARG:HB3	2.26	0.56
3:XC:90:GLU:O	3:XC:94:LEU:HG	2.05	0.56
4:XD:110:PHE:CE2	4:XD:148:VAL:HG23	2.41	0.56
10:XJ:22:LYS:HD2	10:XJ:22:LYS:C	2.25	0.56
11:XK:69:ALA:HB1	11:XK:103:LEU:CD2	2.35	0.56
14:YN:23:ARG:H	14:YN:33:VAL:HG11	1.71	0.56
54:Y8:50:LEU:HD12	54:Y8:51:ALA:H	1.70	0.56
25:YA:1288:U:O2'	25:YA:1647:G:N2	2.39	0.56
25:YA:2028:U:H2'	25:YA:2029:G:O4'	2.06	0.56
25:YA:2404:C:H1'	35:YP:67:MET:CE	2.36	0.56
25:YA:2818:G:OP2	37:YR:42:LYS:NZ	2.39	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:239:ARG:O	27:YD:240:ALA:HB2	2.05	0.56
1:QA:313:A:H2'	1:QA:314:C:C6	2.40	0.56
1:QA:864:A:H5'	5:QE:86:ALA:CB	2.22	0.56
3:QC:134:ILE:CD1	3:QC:153:VAL:HG21	2.35	0.56
3:QC:33:LEU:O	3:QC:37:GLN:HG2	2.04	0.56
6:QF:33:TYR:HE2	6:QF:74:ASP:HB3	1.71	0.56
9:QI:10:ARG:CD	9:QI:105:ASP:HB2	2.35	0.56
10:QJ:89:ASP:C	10:QJ:90:LEU:HD12	2.26	0.56
12:QL:126:LYS:HB2	12:QL:126:LYS:HZ3	1.71	0.56
14:QN:15:LYS:O	14:QN:16:PHE:O	2.24	0.56
15:QO:24:SER:O	15:QO:28:GLN:HG3	2.06	0.56
19:QS:5:LEU:HD22	50:R4:67:TYR:HE2	1.63	0.56
20:QT:94:ALA:O	20:QT:95:ALA:CB	2.54	0.56
49:R3:59:VAL:CG1	49:R3:60:GLU:N	2.69	0.56
50:R4:48:ARG:HH12	50:R4:52:THR:HG22	1.70	0.56
25:RA:1434:A:H2'	25:RA:1435:G:C8	2.40	0.56
25:RA:1930:G:HO2'	25:RA:1931:U:P	2.29	0.56
25:RA:195:A:N6	25:RA:198:C:H3'	2.18	0.56
25:RA:2821:A:H2'	25:RA:2822:G:C8	2.41	0.56
25:RA:398:G:H2'	25:RA:399:G:H8	1.71	0.56
30:RG:120:LEU:HB3	30:RG:131:TYR:OH	2.05	0.56
34:RO:19:ILE:HD13	34:RO:19:ILE:O	2.06	0.56
36:RQ:79:LEU:O	36:RQ:79:LEU:CG	2.52	0.56
40:RU:105:VAL:HA	41:RV:44:LYS:HE3	1.88	0.56
41:RV:76:LYS:O	41:RV:79:VAL:HG12	2.05	0.56
44:RY:95:LYS:O	44:RY:95:LYS:HE3	2.06	0.56
44:RY:97:ARG:HG2	44:RY:97:ARG:O	2.06	0.56
1:XA:1151:A:O2'	1:XA:1152:A:O5'	2.21	0.56
1:XA:246:A:N3	1:XA:247:G:H1'	2.21	0.56
1:XA:328:C:HO2'	1:XA:329:A:P	2.28	0.56
1:XA:7:G:H5'	1:XA:298:A:O4'	2.05	0.56
1:XA:923:A:H2'	1:XA:924:C:C6	2.41	0.56
3:XC:7:PRO:O	3:XC:11:ARG:HG2	2.06	0.56
4:XD:119:GLN:HG3	4:XD:123:HIS:CD2	2.40	0.56
4:XD:165:MET:HA	4:XD:165:MET:CE	2.36	0.56
8:XH:77:GLU:HG2	8:XH:78:GLN:H	1.71	0.56
12:XL:79:GLU:HG2	12:XL:79:GLU:O	2.05	0.56
13:XM:89:GLY:O	13:XM:92:HIS:HB2	2.06	0.56
6:XF:97:PHE:O	18:XR:31:LEU:HD23	2.04	0.56
19:XS:17:GLU:HA	19:XS:20:LEU:HD12	1.86	0.56
20:XT:82:SER:O	20:XT:86:ARG:HB2	2.05	0.56
52:Y6:6:ARG:O	52:Y6:8:LYS:HD2	2.05	0.56

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:Y7:13:ALA:O	53:Y7:17:GLY:HA3	2.05	0.56
25:YA:1303:G:H1'	25:YA:1641:A:N1	2.20	0.56
25:YA:189:G:H2'	25:YA:205:G:N2	2.17	0.56
25:YA:2782:G:O5'	25:YA:2782:G:H8	1.89	0.56
25:YA:503:A:H4'	25:YA:504:U:H5'	1.87	0.56
27:YD:35:LYS:CE	27:YD:104:TYR:HB2	2.35	0.56
28:YE:183:LEU:HD12	28:YE:183:LEU:N	2.20	0.56
28:YE:37:ARG:NE	28:YE:37:ARG:N	2.54	0.56
28:YE:7:VAL:HG11	39:YT:1:MET:HE3	1.87	0.56
32:YI:144:VAL:O	32:YI:145:VAL:HG22	2.06	0.56
33:YN:112:LEU:O	33:YN:114:ARG:O	2.23	0.56
35:YP:59:LEU:HD23	35:YP:59:LEU:O	2.06	0.56
44:YY:95:LYS:O	44:YY:95:LYS:HE3	2.06	0.56
1:QA:909:A:H2'	1:QA:910:C:O4'	2.04	0.56
2:QB:7:VAL:HG22	2:QB:8:LYS:N	2.21	0.56
4:QD:42:GLN:HG2	4:QD:42:GLN:O	2.05	0.56
9:QI:114:TYR:CD2	9:QI:114:TYR:O	2.59	0.56
10:QJ:35:SER:O	10:QJ:72:VAL:HG13	2.05	0.56
11:QK:125:PHE:N	11:QK:125:PHE:CD1	2.73	0.56
11:QK:41:THR:HG21	11:QK:71:LYS:CB	2.36	0.56
48:R2:50:ILE:CD1	48:R2:51:ARG:N	2.60	0.56
25:RA:2271:G:H2'	25:RA:2272:U:O4'	2.06	0.56
25:RA:68:G:N2	25:RA:69:C:H1'	2.21	0.56
27:RD:94:LEU:HD22	27:RD:95:LEU:H	1.69	0.56
29:RF:9:ILE:HD11	29:RF:125:LEU:CG	2.36	0.56
30:RG:60:LEU:O	30:RG:64:THR:HG22	2.05	0.56
25:RA:389:G:N1	35:RP:70:GLN:HB3	2.20	0.56
36:RQ:12:GLN:OE1	36:RQ:72:LYS:HD2	2.06	0.56
37:RR:2:ARG:HG2	37:RR:5:LYS:HZ1	1.69	0.56
38:RS:14:VAL:HG13	38:RS:15:ARG:N	2.21	0.56
38:RS:5:THR:OG1	38:RS:7:TYR:HB3	2.06	0.56
41:RV:27:ALA:O	41:RV:28:GLU:O	2.24	0.56
43:RX:35:THR:HG22	43:RX:38:GLU:OE1	2.05	0.56
45:RZ:150:LEU:O	45:RZ:171:ILE:HG12	2.05	0.56
1:XA:685:G:N2	1:XA:686:U:C4	2.74	0.56
1:XA:791:G:H22	1:XA:1498:U:P	2.28	0.56
4:XD:25:ARG:NH1	4:XD:30:LYS:HG3	2.20	0.56
5:XE:78:HIS:CE1	5:XE:143:ARG:H	2.20	0.56
7:XG:62:PHE:O	7:XG:66:VAL:HG23	2.06	0.56
8:XH:102:ARG:NH1	8:XH:105:ARG:NH2	2.54	0.56
8:XH:7:ALA:HB2	8:XH:85:ARG:HD3	1.87	0.56
10:XJ:24:VAL:HG21	10:XJ:37:PRO:HG3	1.86	0.56

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:XL:47:LYS:O	12:XL:49:ASN:N	2.39	0.56
12:XL:58:VAL:O	12:XL:65:GLU:HA	2.06	0.56
13:XM:56:LEU:HD13	13:XM:60:VAL:HG23	1.86	0.56
16:XP:47:ASP:C	16:XP:49:LEU:H	2.09	0.56
17:XQ:84:LEU:C	17:XQ:86:GLU:H	2.08	0.56
19:XS:65:ASN:N	19:XS:65:ASN:ND2	2.52	0.56
48:Y2:41:ILE:HD11	48:Y2:44:LEU:CG	2.36	0.56
50:Y4:38:LYS:C	50:Y4:40:HIS:N	2.52	0.56
52:Y6:48:VAL:HG13	52:Y6:49:HIS:N	2.20	0.56
25:YA:1059:G:H3'	25:YA:1060:U:H5''	1.86	0.56
25:YA:2395:C:O2'	47:Y1:30:VAL:HG12	2.05	0.56
25:YA:277:C:H3'	25:YA:278:A:C5'	2.36	0.56
25:YA:443:A:C5	29:YF:45:ARG:HD2	2.39	0.56
28:YE:195:LEU:HD12	28:YE:196:VAL:H	1.71	0.56
30:YG:128:ARG:HG3	30:YG:128:ARG:NH2	2.17	0.56
38:YS:5:THR:OG1	38:YS:7:TYR:HB3	2.06	0.56
1:QA:266:G:O2'	1:QA:267:C:OP2	2.17	0.56
1:QA:458:C:H2'	1:QA:464:G:C8	2.40	0.56
1:QA:724:G:H2'	1:QA:725:G:H8	1.70	0.56
3:QC:6:HIS:CD2	3:QC:7:PRO:HD2	2.41	0.56
4:QD:110:PHE:CE2	4:QD:148:VAL:HG23	2.41	0.56
5:QE:99:GLY:O	5:QE:117:ASP:HA	2.06	0.56
7:QG:62:PHE:HA	7:QG:124:LEU:CD2	2.27	0.56
9:QI:33:PHE:CE2	9:QI:47:LEU:HD21	2.40	0.56
10:QJ:24:VAL:HG21	10:QJ:37:PRO:HG3	1.86	0.56
10:QJ:6:ILE:CG2	10:QJ:98:ILE:HG13	2.21	0.56
12:QL:111:LYS:O	12:QL:112:ASP:HB2	2.05	0.56
13:QM:80:ARG:O	13:QM:84:ILE:HB	2.06	0.56
16:QP:48:TRP:O	16:QP:49:LEU:HB2	2.06	0.56
16:QP:53:VAL:HG23	16:QP:54:GLU:H	1.70	0.56
17:QQ:84:LEU:C	17:QQ:86:GLU:N	2.60	0.56
54:R8:30:ARG:O	54:R8:31:HIS:CB	2.54	0.56
25:RA:2014:A:O2'	51:R5:2:ALA:HB2	2.05	0.56
25:RA:2576:G:OP2	25:RA:2576:G:N2	2.38	0.56
25:RA:597:U:H2'	25:RA:598:G:C8	2.41	0.56
27:RD:69:ARG:C	27:RD:71:ASP:H	2.08	0.56
32:RI:121:LYS:HG2	32:RI:122:GLU:H	1.70	0.56
34:RO:3:GLN:CB	34:RO:4:PRO:HD2	2.35	0.56
35:RP:13:ASN:C	35:RP:15:ARG:N	2.54	0.56
39:RT:105:LEU:C	39:RT:107:ASP:H	2.08	0.56
1:XA:1376:U:OP1	7:XG:98:SER:HB3	2.06	0.56
2:XB:7:VAL:HG22	2:XB:8:LYS:N	2.21	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:XC:77:ILE:O	3:XC:83:ARG:HB3	2.05	0.56
1:XA:1189:C:OP1	10:XJ:51:ARG:NH2	2.39	0.56
13:XM:84:ILE:CG2	13:XM:85:GLY:N	2.68	0.56
49:Y3:59:VAL:CG1	49:Y3:60:GLU:N	2.69	0.56
50:Y4:48:ARG:O	50:Y4:50:VAL:N	2.38	0.56
25:YA:1579:A:H2'	25:YA:1580:A:C8	2.41	0.56
25:YA:2031:A:C5	25:YA:2498:C:H1'	2.41	0.56
25:YA:2810:A:O3'	28:YE:61:ARG:HG3	2.06	0.56
25:YA:596:G:C2	25:YA:662:G:C2	2.94	0.56
40:YU:96:ALA:O	40:YU:100:VAL:HG23	2.05	0.56
44:YY:84:ARG:NH1	44:YY:97:ARG:HB2	2.11	0.56
45:YZ:45:ASP:OD1	45:YZ:49:ARG:NE	2.31	0.56
1:QA:921:U:O2	5:QE:19:MET:HB2	2.06	0.56
2:QB:102:LEU:HB3	2:QB:180:LEU:CD1	2.36	0.56
4:QD:165:MET:HA	4:QD:165:MET:CE	2.36	0.56
5:QE:140:ARG:HH11	5:QE:140:ARG:CB	2.18	0.56
8:QH:128:GLY:O	8:QH:129:VAL:HG13	2.06	0.56
8:QH:38:ILE:HD12	8:QH:118:VAL:HG12	1.87	0.56
8:QH:82:HIS:HD2	8:QH:83:ILE:N	2.03	0.56
13:QM:89:GLY:O	13:QM:92:HIS:HB2	2.06	0.56
13:QM:77:ASN:CA	50:R4:71:ARG:HH22	2.09	0.56
25:RA:1289:C:H2'	25:RA:1290:C:H6	1.69	0.56
25:RA:2364:C:OP1	46:R0:55:ARG:NH1	2.38	0.56
25:RA:607:U:H3	25:RA:621:A:H2	1.50	0.56
27:RD:221:VAL:HG22	27:RD:226:MET:HE2	1.88	0.56
28:RE:203:LYS:HE3	28:RE:204:ALA:HB2	1.86	0.56
31:RH:59:ARG:HH11	31:RH:59:ARG:CG	2.19	0.56
35:RP:15:ARG:O	35:RP:17:LYS:N	2.39	0.56
40:RU:83:LEU:HD12	40:RU:113:ALA:HB2	1.86	0.56
1:XA:32:A:H2'	1:XA:33:A:C8	2.41	0.56
1:XA:713:G:H2'	1:XA:714:G:C8	2.41	0.56
1:XA:986:A:N3	19:XS:52:TYR:OH	2.39	0.56
2:XB:169:LYS:HD3	2:XB:169:LYS:O	2.05	0.56
2:XB:217:ARG:HA	2:XB:220:ASP:OD2	2.06	0.56
6:XF:41:GLU:HG2	6:XF:43:LEU:HD11	1.88	0.56
7:XG:20:ASP:HB3	7:XG:23:VAL:HG23	1.88	0.56
8:XH:128:GLY:O	8:XH:129:VAL:HG13	2.06	0.56
12:XL:111:LYS:O	12:XL:112:ASP:HB2	2.06	0.56
16:XP:48:TRP:O	16:XP:49:LEU:HB2	2.06	0.56
17:XQ:6:LEU:O	17:XQ:58:GLU:HA	2.05	0.56
49:Y3:4:LEU:HD21	49:Y3:39:ASP:OD1	2.06	0.56
50:Y4:41:PRO:O	50:Y4:42:PHE:CB	2.54	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1101:U:H2'	25:YA:1102:C:C6	2.41	0.56
25:YA:1543:A:C2	25:YA:1545:A:C4	2.94	0.56
25:YA:2422:A:C8	25:YA:2424:C:C5	2.94	0.56
25:YA:2543:G:H2'	25:YA:2544:G:C8	2.41	0.56
25:YA:433:C:H2'	25:YA:434:U:C6	2.40	0.56
30:YG:135:LEU:HD12	30:YG:135:LEU:N	2.21	0.56
26:YB:55:U:O3'	30:YG:27:ASN:ND2	2.38	0.56
35:YP:15:ARG:O	35:YP:17:LYS:N	2.39	0.56
40:YU:105:VAL:HA	41:YV:44:LYS:HE3	1.88	0.56
1:QA:1023:G:H3'	1:QA:1024:G:H5''	1.89	0.55
1:QA:1255:G:OP1	10:QJ:45:ARG:NH2	2.38	0.55
1:QA:347:G:O2'	1:QA:348:G:OP2	2.22	0.55
1:QA:575:G:O4'	1:QA:881:G:N2	2.39	0.55
7:QG:148:ASN:C	7:QG:150:ALA:H	2.08	0.55
8:QH:19:VAL:O	8:QH:20:TYR:HB2	2.05	0.55
14:QN:44:LEU:CD1	14:QN:48:ALA:HB2	2.36	0.55
17:QQ:84:LEU:C	17:QQ:86:GLU:H	2.08	0.55
17:QQ:41:LYS:HZ1	17:QQ:92:ARG:HH22	1.53	0.55
19:QS:41:VAL:CB	19:QS:42:PRO:CA	2.76	0.55
25:RA:2419:U:OP1	52:R6:23:THR:HG21	2.06	0.55
25:RA:1005:C:C2	25:RA:1143:A:C5	2.94	0.55
25:RA:654(S):G:H2'	25:RA:654(T):C:C6	2.40	0.55
27:RD:35:LYS:NZ	27:RD:64:ILE:O	2.32	0.55
29:RF:108:LYS:HZ3	29:RF:108:LYS:HA	1.72	0.55
36:RQ:37:LEU:HD21	36:RQ:130:LYS:HE3	1.87	0.55
38:RS:18:ILE:C	38:RS:19:LYS:O	2.44	0.55
44:RY:62:GLU:O	44:RY:63:LYS:O	2.24	0.55
2:XB:68:ILE:HD12	2:XB:68:ILE:N	2.21	0.55
2:XB:96:ARG:H	2:XB:96:ARG:CD	2.16	0.55
3:XC:112:SER:OG	3:XC:115:LEU:HG	2.06	0.55
3:XC:114:PRO:O	3:XC:118:GLN:HG3	2.05	0.55
8:XH:49:GLU:O	8:XH:51:VAL:N	2.39	0.55
9:XI:17:VAL:CG1	9:XI:81:ILE:HD13	2.35	0.55
10:XJ:26:ALA:HA	10:XJ:29:ARG:NH2	2.21	0.55
10:XJ:89:ASP:C	10:XJ:90:LEU:HD12	2.26	0.55
11:XK:41:THR:HG21	11:XK:71:LYS:CB	2.36	0.55
11:XK:17:GLY:HA3	11:XK:77:MET:HE3	1.88	0.55
12:XL:83:VAL:HG22	12:XL:84:LEU:N	2.21	0.55
15:XO:24:SER:O	15:XO:28:GLN:HG3	2.06	0.55
12:XL:10:LEU:CD1	17:XQ:32:TYR:CE2	2.85	0.55
18:XR:57:GLY:O	18:XR:58:LEU:C	2.43	0.55
19:XS:18:LYS:O	19:XS:22:LEU:HD13	2.06	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:XS:40:ILE:HG12	19:XS:41:VAL:N	2.20	0.55
48:Y2:15:LYS:H	48:Y2:67:LYS:NZ	2.02	0.55
25:YA:1028:A:N6	25:YA:1125:G:H2'	2.21	0.55
25:YA:152:G:H2'	25:YA:153:C:C6	2.41	0.55
25:YA:528:A:C2	25:YA:2043:C:H4'	2.41	0.55
25:YA:244:A:H2'	25:YA:245:G:O4'	2.06	0.55
25:YA:287:C:N4	25:YA:354:G:H1	2.04	0.55
25:YA:2789:C:H1'	25:YA:2892:A:H2	1.71	0.55
25:YA:685:A:N3	25:YA:689:A:N6	2.54	0.55
25:YA:464:U:C2	25:YA:788:A:C6	2.94	0.55
28:YE:117:MET:O	28:YE:117:MET:HG3	2.06	0.55
29:YF:198:ALA:CA	29:YF:201:VAL:HG12	2.34	0.55
35:YP:14:LYS:O	35:YP:16:ARG:N	2.39	0.55
36:YQ:25:ASP:N	36:YQ:102:VAL:HG23	2.21	0.55
44:YY:48:ALA:H	44:YY:60:PHE:HA	1.71	0.55
44:YY:62:GLU:O	44:YY:63:LYS:O	2.24	0.55
44:YY:89:PHE:O	44:YY:90:LEU:HD13	2.05	0.55
1:QA:375:U:H2'	1:QA:376:G:C8	2.41	0.55
1:QA:762:C:H2'	1:QA:763:G:C8	2.41	0.55
2:QB:46:LYS:HA	2:QB:49:GLU:OE1	2.05	0.55
8:QH:49:GLU:O	8:QH:51:VAL:N	2.39	0.55
10:QJ:26:ALA:HA	10:QJ:29:ARG:NH2	2.21	0.55
13:QM:81:LEU:HB3	13:QM:89:GLY:HA2	1.88	0.55
19:QS:18:LYS:O	19:QS:22:LEU:HD13	2.06	0.55
20:QT:74:LYS:C	20:QT:76:ALA:H	2.10	0.55
49:R3:7:LYS:NZ	49:R3:32:GLN:HE21	2.03	0.55
25:RA:1101:U:H2'	25:RA:1102:C:H6	1.69	0.55
25:RA:117:G:OP2	25:RA:119:A:O2'	2.21	0.55
25:RA:1607:C:H5''	25:RA:1608:A:H5'	1.88	0.55
25:RA:2485:G:OP1	36:RQ:46:GLN:NE2	2.33	0.55
25:RA:51:G:N3	25:RA:119:A:C2	2.74	0.55
26:RB:27:C:H5''	38:RS:33:LYS:HZ1	1.71	0.55
31:RH:153:LYS:CB	31:RH:154:PRO:CD	2.69	0.55
32:RI:41:GLU:HA	32:RI:44:LEU:HB2	1.89	0.55
42:RW:14:PRO:HG2	42:RW:78:GLU:OE2	2.07	0.55
1:XA:321:A:N6	1:XA:329:A:OP2	2.39	0.55
3:XC:45:LYS:HD2	3:XC:46:GLU:HG3	1.87	0.55
5:XE:144:THR:O	5:XE:148:VAL:HG23	2.06	0.55
5:XE:92:LYS:O	5:XE:118:ILE:HD12	2.06	0.55
17:XQ:50:LYS:HG3	17:XQ:51:TYR:CE1	2.40	0.55
20:XT:94:ALA:O	20:XT:95:ALA:CB	2.54	0.55
21:XU:6:ARG:O	21:XU:8:THR:N	2.39	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:Y2:43:GLN:O	48:Y2:44:LEU:CG	2.54	0.55
25:YA:819:A:C4	25:YA:1189:A:C2	2.94	0.55
25:YA:1271:G:N2	25:YA:1617:C:O4'	2.39	0.55
25:YA:205:G:O2'	25:YA:206:U:OP2	2.22	0.55
25:YA:2419:U:OP1	52:Y6:23:THR:HG21	2.06	0.55
25:YA:224:G:O6	25:YA:419:C:O2'	2.24	0.55
25:YA:1798:U:H5''	27:YD:259:THR:HG22	1.87	0.55
28:YE:174:ASP:CG	28:YE:175:VAL:N	2.58	0.55
30:YG:120:LEU:HB3	30:YG:131:TYR:OH	2.05	0.55
30:YG:180:PHE:C	30:YG:182:LYS:H	2.09	0.55
35:YP:19:VAL:CG2	35:YP:20:GLY:H	1.99	0.55
36:YQ:12:GLN:OE1	36:YQ:72:LYS:HD2	2.06	0.55
39:YT:107:ASP:O	39:YT:111:ARG:NH1	2.39	0.55
40:YU:73:GLY:O	40:YU:74:LEU:HB3	2.07	0.55
40:YU:92:ARG:NH1	41:YV:11:GLN:HB2	2.22	0.55
42:YW:20:VAL:C	42:YW:22:ASP:N	2.60	0.55
42:YW:1:MET:C	42:YW:64:MET:HE1	2.27	0.55
42:YW:65:LEU:O	42:YW:66:GLU:C	2.43	0.55
1:QA:1222:G:H2'	1:QA:1223:C:C6	2.40	0.55
1:QA:144:G:H1	1:QA:178:C:H42	1.54	0.55
1:QA:859:A:H2'	1:QA:860:A:O4'	2.05	0.55
2:QB:204:ASN:HD22	2:QB:205:ASP:N	2.04	0.55
3:QC:180:ALA:O	3:QC:181:ASN:HB3	2.06	0.55
7:QG:42:ILE:O	7:QG:117:ALA:HB2	2.05	0.55
11:QK:125:PHE:H	11:QK:125:PHE:HD1	1.54	0.55
25:RA:1030:G:OP2	36:RQ:128:LYS:HE2	2.06	0.55
25:RA:1278:A:O3'	37:RR:34:ILE:HG23	2.07	0.55
25:RA:2779:U:O2'	25:RA:2781:A:N7	2.39	0.55
27:RD:69:ARG:HD3	27:RD:105:ILE:HD11	1.87	0.55
27:RD:31:LYS:O	27:RD:35:LYS:O	2.24	0.55
25:RA:2636:U:OP1	28:RE:79:ARG:HA	2.05	0.55
41:RV:49:THR:CB	41:RV:50:PRO:HD2	2.25	0.55
44:RY:95:LYS:NZ	44:RY:95:LYS:HB2	2.21	0.55
1:XA:677:U:H3	1:XA:713:G:H22	1.55	0.55
2:XB:204:ASN:HD22	2:XB:205:ASP:N	2.04	0.55
4:XD:28:SER:CB	4:XD:29:PRO:CD	2.84	0.55
1:XA:690:G:H22	11:XK:55:LYS:NZ	2.04	0.55
49:Y3:35:ARG:HB3	49:Y3:37:LEU:CD2	2.37	0.55
49:Y3:8:LEU:HD22	49:Y3:31:LEU:CD2	2.37	0.55
25:YA:1022:G:H4'	25:YA:1023:U:H5'	1.87	0.55
25:YA:270(J):G:H2'	25:YA:270(K):C:O4'	2.07	0.55
33:YN:101:HIS:C	33:YN:101:HIS:CD2	2.79	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:YN:131:GLN:CG	33:YN:132:ALA:N	2.68	0.55
44:YY:95:LYS:CB	44:YY:100:ALA:HA	2.13	0.55
1:QA:68:G:N2	1:QA:69:G:H1'	2.21	0.55
1:QA:826:C:H2'	1:QA:827:U:O2	2.07	0.55
2:QB:217:ARG:HA	2:QB:220:ASP:OD2	2.07	0.55
3:QC:95:THR:CG2	3:QC:96:GLY:H	2.10	0.55
15:QO:65:ARG:NH1	15:QO:65:ARG:HB2	2.20	0.55
16:QP:47:ASP:C	16:QP:49:LEU:H	2.09	0.55
21:QU:6:ARG:HH21	21:QU:15:ARG:HE	1.52	0.55
25:RA:1854:A:H3'	25:RA:1855:G:H8	1.71	0.55
25:RA:2483:C:H5''	25:RA:2484:G:OP2	2.06	0.55
25:RA:2760:C:H2'	25:RA:2761:G:O4'	2.05	0.55
25:RA:918:A:C5	25:RA:919:G:H1'	2.41	0.55
27:RD:155:LEU:HD23	27:RD:177:LEU:CD2	2.36	0.55
27:RD:2:ALA:O	27:RD:3:VAL:HB	2.05	0.55
27:RD:36:PRO:HB2	27:RD:61:LEU:HG	1.87	0.55
28:RE:195:LEU:HD12	28:RE:196:VAL:H	1.71	0.55
28:RE:4:ILE:HD13	28:RE:5:LEU:H	1.71	0.55
28:RE:67:PHE:O	28:RE:69:LYS:N	2.39	0.55
29:RF:28:ILE:HD12	29:RF:28:ILE:O	2.06	0.55
35:RP:39:LYS:CA	35:RP:45:LEU:CD1	2.80	0.55
41:RV:52:VAL:O	41:RV:54:GLY:N	2.39	0.55
42:RW:88:ARG:HB3	42:RW:92:ARG:HB3	1.88	0.55
1:XA:731:G:OP1	1:XA:766:A:H1'	2.07	0.55
2:XB:214:ILE:HA	2:XB:217:ARG:NH2	2.21	0.55
2:XB:46:LYS:HA	2:XB:49:GLU:OE1	2.05	0.55
3:XC:188:LEU:N	3:XC:188:LEU:HD22	2.21	0.55
16:XP:53:VAL:HG23	16:XP:54:GLU:H	1.71	0.55
19:XS:5:LEU:CD1	50:Y4:66:SER:HB2	2.33	0.55
25:YA:1430:C:H2'	25:YA:1431:U:C6	2.41	0.55
25:YA:1930:G:H2'	25:YA:1968:G:O6	2.06	0.55
25:YA:2364:C:H4'	46:Y0:56:ASP:OD2	2.06	0.55
25:YA:2517:C:C5	25:YA:2542:A:C5	2.95	0.55
25:YA:2758:A:C5	25:YA:2759:G:C8	2.94	0.55
25:YA:2776:A:H3'	25:YA:2776:A:OP1	2.06	0.55
25:YA:2836:U:C4	25:YA:2883:A:N6	2.75	0.55
28:YE:20:ALA:O	28:YE:21:VAL:CG2	2.48	0.55
29:YF:24:LEU:HB3	29:YF:115:ALA:HB2	1.87	0.55
32:YI:4:ILE:HG12	32:YI:18:VAL:HG22	1.88	0.55
33:YN:44:PRO:HG2	33:YN:45:ASN:H	1.71	0.55
35:YP:31:ALA:O	35:YP:32:THR:HG23	2.05	0.55
35:YP:39:LYS:N	35:YP:45:LEU:HD11	2.21	0.55

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:YS:59:LYS:CG	38:YS:60:GLY:H	2.11	0.55
42:YW:14:PRO:HG2	42:YW:78:GLU:OE2	2.07	0.55
1:QA:1199:U:H4'	10:QJ:54:PHE:CZ	2.42	0.55
1:QA:690:G:H2'	1:QA:691:G:O4'	2.07	0.55
3:QC:112:SER:OG	3:QC:115:LEU:HG	2.06	0.55
3:QC:20:SER:CB	3:QC:40:ARG:HH22	2.14	0.55
5:QE:92:LYS:O	5:QE:118:ILE:HD12	2.06	0.55
7:QG:46:ALA:HB2	7:QG:117:ALA:HB1	1.88	0.55
5:QE:78:HIS:HD2	8:QH:104:ARG:CG	2.14	0.55
25:RA:2355:C:H1'	46:R0:39:ARG:HH21	1.70	0.55
48:R2:41:ILE:HD11	48:R2:44:LEU:CG	2.36	0.55
52:R6:20:ASN:CG	52:R6:21:TYR:H	2.09	0.55
54:R8:63:PRO:O	54:R8:64:TYR:HB2	2.07	0.55
25:RA:1062:G:N3	25:RA:1077:A:N6	2.55	0.55
25:RA:1917:U:H2'	25:RA:1918:A:C8	2.41	0.55
25:RA:2105:C:H2'	25:RA:2106:G:H8	1.72	0.55
25:RA:412:A:N7	25:RA:2411:A:H2	2.05	0.55
25:RA:2078:C:H1'	25:RA:2434:A:N3	2.21	0.55
25:RA:2506:U:O2	25:RA:2506:U:H2'	2.05	0.55
25:RA:2809:A:OP2	25:RA:2891:G:N1	2.33	0.55
25:RA:289:A:H2'	25:RA:290:G:O4'	2.06	0.55
25:RA:746:A:HO2'	25:RA:747:U:P	2.28	0.55
25:RA:896:A:N3	45:RZ:146:ILE:HD11	2.21	0.55
27:RD:118:VAL:HG22	27:RD:119:ALA:H	1.72	0.55
30:RG:114:ILE:HD11	30:RG:140:ILE:HD12	1.89	0.55
32:RI:4:ILE:HG23	32:RI:18:VAL:HG22	1.88	0.55
38:RS:36:TYR:HD2	38:RS:52:SER:CB	2.18	0.55
40:RU:27:LEU:O	40:RU:29:SER:N	2.40	0.55
42:RW:1:MET:C	42:RW:64:MET:HE1	2.26	0.55
44:RY:21:LYS:HG3	44:RY:22:GLY:H	1.69	0.55
1:XA:1157:A:H1'	1:XA:1158:C:C2	2.42	0.55
1:XA:194:C:H2'	1:XA:195:A:H5''	1.87	0.55
3:XC:6:HIS:CD2	3:XC:7:PRO:HD2	2.41	0.55
5:XE:7:GLU:HG2	5:XE:112:LEU:HD22	1.88	0.55
9:XI:82:ALA:O	9:XI:86:VAL:HB	2.06	0.55
13:XM:81:LEU:HB3	13:XM:89:GLY:HA2	1.88	0.55
20:XT:43:LEU:HA	20:XT:46:GLU:HB3	1.88	0.55
20:XT:74:LYS:C	20:XT:76:ALA:H	2.10	0.55
47:Y1:91:LYS:CG	47:Y1:92:LYS:H	2.15	0.55
53:Y7:19:ARG:HH11	53:Y7:19:ARG:HG2	1.71	0.55
25:YA:1093:G:H1'	25:YA:1099:G:O6	2.06	0.55
25:YA:1537:C:H2'	25:YA:1538:G:C8	2.42	0.55

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1885:A:H3'	25:YA:1886:C:H6	1.71	0.55
25:YA:849:A:N6	25:YA:929:G:H1'	2.21	0.55
25:YA:2870:C:H5''	37:YR:65:LEU:HD21	1.87	0.55
37:YR:84:ALA:HB3	37:YR:85:PRO:HD3	1.88	0.55
44:YY:61:ILE:HG23	44:YY:62:GLU:H	1.71	0.55
44:YY:91:GLU:HG3	44:YY:92:ASN:H	1.72	0.55
1:QA:1095:U:OP1	1:QA:1108:G:N2	2.40	0.55
1:QA:1298:C:OP2	7:QG:114:ARG:NH2	2.39	0.55
3:QC:11:ARG:HH21	3:QC:180:ALA:HB3	1.70	0.55
3:QC:188:LEU:HD22	3:QC:188:LEU:N	2.21	0.55
7:QG:20:ASP:HB3	7:QG:23:VAL:HG23	1.88	0.55
7:QG:37:ASN:HD21	9:QI:40:LEU:HD23	1.69	0.55
9:QI:82:ALA:O	9:QI:86:VAL:HB	2.06	0.55
11:QK:34:ASP:N	11:QK:40:ILE:HD11	2.20	0.55
12:QL:11:VAL:HG13	17:QQ:29:HIS:HD2	1.70	0.55
50:R4:9:LEU:H	50:R4:27:THR:HG22	1.71	0.55
52:R6:27:LYS:HB2	52:R6:27:LYS:HZ2	1.69	0.55
25:RA:1202:C:H42	25:RA:1243:G:H1	1.54	0.55
25:RA:1265:A:H61	25:RA:2013:A:H5''	1.71	0.55
25:RA:2193:G:H2'	25:RA:2194:G:H8	1.72	0.55
27:RD:28:GLU:O	27:RD:29:PRO:C	2.45	0.55
28:RE:14:ILE:HD11	39:RT:14:TYR:CZ	2.42	0.55
28:RE:26:ILE:C	28:RE:26:ILE:HD13	2.26	0.55
29:RF:129:PHE:O	29:RF:130:ALA:CB	2.55	0.55
32:RI:3:VAL:O	32:RI:18:VAL:HA	2.06	0.55
34:RO:68:GLU:HA	34:RO:78:ARG:HB3	1.89	0.55
35:RP:115:LEU:HD12	35:RP:116:GLY:N	2.21	0.55
37:RR:12:ARG:HG3	37:RR:12:ARG:HH11	1.71	0.55
40:RU:104:GLN:N	40:RU:104:GLN:OE1	2.35	0.55
1:XA:59:A:N6	1:XA:331:G:H1'	2.22	0.55
1:XA:401:C:H2'	1:XA:402:G:H8	1.71	0.55
1:XA:690:G:H2'	1:XA:691:G:O4'	2.07	0.55
1:XA:973:G:O4'	10:XJ:55:LYS:HG2	2.06	0.55
2:XB:142:LEU:HD23	2:XB:142:LEU:C	2.27	0.55
3:XC:59:ARG:NH2	3:XC:97:LYS:HE3	2.20	0.55
4:XD:10:ARG:HG3	4:XD:10:ARG:HH11	1.72	0.55
6:XF:33:TYR:HE2	6:XF:74:ASP:HB3	1.71	0.55
7:XG:50:ILE:CB	7:XG:58:PRO:HB3	2.37	0.55
7:XG:73:MET:HG2	7:XG:90:GLU:HA	1.88	0.55
10:XJ:19:SER:O	10:XJ:23:ILE:HG13	2.07	0.55
18:XR:58:LEU:H	18:XR:58:LEU:HD12	1.71	0.55
25:YA:1299:G:H5''	25:YA:1300:U:OP1	2.06	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1317:A:H2'	25:YA:1318:C:C6	2.42	0.55
25:YA:155:C:H5'	25:YA:161:U:OP2	2.07	0.55
28:YE:53:PRO:O	28:YE:74:PRO:HA	2.07	0.55
35:YP:49:ARG:NE	54:Y8:59:LYS:HG2	2.22	0.55
40:YU:58:ARG:O	40:YU:62:ILE:HG13	2.06	0.55
41:YV:29:PRO:HA	41:YV:61:VAL:CG2	2.37	0.55
42:YW:25:ARG:HH11	42:YW:25:ARG:CB	2.20	0.55
45:YZ:48:PHE:CE2	45:YZ:52:SER:HA	2.42	0.55
1:QA:1181:G:C5	1:QA:1182:G:N2	2.75	0.55
1:QA:1338:G:N3	22:QV:41:C:O2'	2.35	0.55
1:QA:404:U:H2'	1:QA:405:U:C6	2.42	0.55
1:QA:440:A:H5'	1:QA:442:C:OP2	2.07	0.55
1:QA:686:U:H2'	1:QA:687:A:C8	2.41	0.55
2:QB:169:LYS:O	2:QB:169:LYS:HD3	2.06	0.55
4:QD:126:ILE:HG22	4:QD:127:THR:N	2.22	0.55
8:QH:23:SER:HB2	8:QH:61:VAL:O	2.07	0.55
16:QP:59:TRP:CE3	16:QP:59:TRP:HA	2.42	0.55
49:R3:4:LEU:HD21	49:R3:39:ASP:OD1	2.06	0.55
25:RA:2467:C:C2'	25:RA:2468:G:H5'	2.37	0.55
25:RA:482:A:H4'	44:RY:47:LYS:HD2	1.88	0.55
26:RB:44:G:C2	26:RB:48:A:C2	2.94	0.55
33:RN:109:LYS:HD2	33:RN:109:LYS:N	2.22	0.55
34:RO:79:PHE:HD2	39:RT:72:VAL:HG22	1.72	0.55
35:RP:2:LYS:O	35:RP:5:ASP:HB2	2.06	0.55
35:RP:88:LEU:C	35:RP:90:ARG:N	2.60	0.55
36:RQ:25:ASP:N	36:RQ:102:VAL:HG23	2.22	0.55
40:RU:92:ARG:NH1	41:RV:11:GLN:HB2	2.22	0.55
45:RZ:110:GLY:HA2	45:RZ:111:VAL:C	2.27	0.55
1:XA:1068:G:N7	1:XA:1094:G:C8	2.74	0.55
1:XA:518:C:H2'	1:XA:530:G:C4	2.42	0.55
1:XA:735:C:H2'	1:XA:736:C:H6	1.71	0.55
2:XB:41:ILE:HD12	2:XB:41:ILE:N	2.21	0.55
4:XD:126:ILE:HG22	4:XD:127:THR:N	2.22	0.55
5:XE:99:GLY:O	5:XE:117:ASP:HA	2.06	0.55
6:XF:92:LYS:HB2	6:XF:92:LYS:NZ	2.22	0.55
8:XH:102:ARG:NH1	8:XH:105:ARG:NH1	2.55	0.55
10:XJ:4:ILE:CB	10:XJ:74:ILE:HD11	2.36	0.55
11:XK:20:TYR:HB2	11:XK:31:THR:O	2.07	0.55
16:XP:59:TRP:HA	16:XP:59:TRP:CE3	2.42	0.55
17:XQ:84:LEU:C	17:XQ:86:GLU:N	2.59	0.55
20:XT:47:GLY:C	20:XT:49:ALA:H	2.08	0.55
20:XT:53:LEU:HA	20:XT:56:MET:HB3	1.87	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:Y4:9:LEU:H	50:Y4:27:THR:HG22	1.71	0.55
52:Y6:42:TRP:CD1	52:Y6:42:TRP:N	2.73	0.55
25:YA:1000:A:H2'	25:YA:1001:A:C8	2.42	0.55
25:YA:2285:C:H5	52:Y6:27:LYS:NZ	2.04	0.55
25:YA:23:G:N2	25:YA:517:C:O2	2.40	0.55
25:YA:2653:U:H3'	25:YA:2654:A:H8	1.72	0.55
25:YA:287:C:O2'	25:YA:288:C:O5'	2.24	0.55
25:YA:780:G:H21	25:YA:783:A:H62	1.53	0.55
27:YD:221:VAL:HG22	27:YD:226:MET:HE2	1.88	0.55
27:YD:43:ARG:CB	27:YD:54:ARG:HB2	2.37	0.55
28:YE:21:VAL:HG23	28:YE:22:PRO:HD3	1.89	0.55
28:YE:67:PHE:O	28:YE:69:LYS:N	2.39	0.55
34:YO:19:ILE:HD13	34:YO:19:ILE:O	2.06	0.55
35:YP:2:LYS:O	35:YP:5:ASP:HB2	2.06	0.55
38:YS:111:GLU:HA	38:YS:111:GLU:OE1	2.07	0.55
34:YO:79:PHE:HD2	39:YT:72:VAL:HG22	1.72	0.55
40:YU:6:THR:O	40:YU:9:VAL:HG23	2.07	0.55
1:QA:1157:A:H1'	1:QA:1158:C:C4	2.42	0.55
1:QA:707:C:H2'	1:QA:708:C:C6	2.42	0.55
5:QE:7:GLU:HG2	5:QE:112:LEU:HD22	1.88	0.55
10:QJ:32:ALA:O	10:QJ:33:GLN:O	2.25	0.55
12:QL:79:GLU:HG2	12:QL:79:GLU:O	2.05	0.55
14:QN:22:THR:HB	14:QN:33:VAL:HG11	1.88	0.55
14:QN:25:VAL:HG23	14:QN:38:GLY:C	2.21	0.55
17:QQ:62:SER:HB3	17:QQ:72:ARG:HH21	1.72	0.55
19:QS:7:LYS:HG3	19:QS:8:GLY:N	2.22	0.55
50:R4:65:ASP:O	50:R4:66:SER:HB3	2.07	0.55
25:RA:1204:A:H2	25:RA:1241:A:C2	2.24	0.55
25:RA:2131:G:N2	25:RA:2158:A:N7	2.54	0.55
25:RA:2197:U:H1'	25:RA:2198:A:H8	1.70	0.55
26:RB:75:G:H1	26:RB:102:G:N2	2.05	0.55
28:RE:3:GLY:HA3	28:RE:81:ILE:HD12	1.88	0.55
30:RG:135:LEU:N	30:RG:135:LEU:HD12	2.21	0.55
33:RN:101:HIS:C	33:RN:101:HIS:CD2	2.79	0.55
25:RA:566:U:H5''	35:RP:29:LYS:NZ	2.22	0.55
25:RA:2405:G:P	35:RP:77:ARG:NH2	2.80	0.55
39:RT:6:LEU:O	39:RT:7:ILE:C	2.44	0.55
40:RU:74:LEU:HD13	40:RU:79:PHE:HB2	1.89	0.55
1:XA:353:A:H8	1:XA:353:A:H5'	1.71	0.55
1:XA:965:A:C2	1:XA:969:A:C2	2.95	0.55
9:XI:126:SER:O	9:XI:128:ARG:N	2.35	0.55
10:XJ:16:LEU:O	10:XJ:16:LEU:HD13	2.07	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:XO:65:ARG:NH1	15:XO:65:ARG:HB2	2.20	0.55
16:XP:43:LYS:HA	16:XP:48:TRP:CB	2.37	0.55
21:XU:21:TYR:O	21:XU:22:ARG:HB2	2.06	0.55
50:Y4:48:ARG:HH12	50:Y4:52:THR:HG22	1.71	0.55
25:YA:2015:A:C1'	51:Y5:2:ALA:HA	2.30	0.55
51:Y5:55:ARG:HD3	51:Y5:56:LYS:N	2.21	0.55
25:YA:2291:U:H2'	25:YA:2292:C:C6	2.42	0.55
25:YA:888:C:H3'	25:YA:889:C:C4'	2.36	0.55
25:YA:902:C:H2'	25:YA:903:C:H6	1.72	0.55
28:YE:26:ILE:HD13	28:YE:26:ILE:C	2.27	0.55
28:YE:3:GLY:HA3	28:YE:81:ILE:HD12	1.88	0.55
32:YI:21:VAL:HG22	32:YI:22:LYS:H	1.71	0.55
34:YO:20:MET:HG2	34:YO:21:CYS:N	2.20	0.55
35:YP:88:LEU:C	35:YP:90:ARG:N	2.60	0.55
38:YS:107:GLU:N	38:YS:110:LEU:HD11	2.22	0.55
38:YS:36:TYR:HD2	38:YS:52:SER:CB	2.18	0.55
39:YT:123:GLN:O	39:YT:125:ARG:N	2.40	0.55
39:YT:29:ARG:HB2	39:YT:29:ARG:HH11	1.72	0.55
1:QA:1213:A:N1	1:QA:1215:G:H1'	2.22	0.55
1:QA:191(E):G:H2'	1:QA:191(F):U:C6	2.42	0.55
1:QA:370:C:H2'	1:QA:371:G:C8	2.41	0.55
2:QB:80:ILE:CG2	2:QB:212:GLN:HA	2.35	0.55
2:QB:41:ILE:N	2:QB:41:ILE:HD12	2.21	0.55
5:QE:126:ARG:HG3	5:QE:126:ARG:NH1	2.19	0.55
9:QI:40:LEU:HD11	9:QI:70:LYS:CG	2.37	0.55
10:QJ:16:LEU:O	10:QJ:16:LEU:HD13	2.07	0.55
13:QM:93:ARG:NH1	25:RA:887:A:OP1	2.40	0.55
15:QO:29:VAL:HG11	15:QO:67:LEU:HD21	1.89	0.55
6:QF:91:VAL:CG1	18:QR:72:ARG:HH12	2.18	0.55
25:RA:1465:G:C2	25:RA:1466:G:C8	2.95	0.55
25:RA:975:G:H1'	25:RA:990:A:C2	2.41	0.55
29:RF:118:ALA:O	29:RF:121:GLY:N	2.33	0.55
30:RG:3:LEU:HD12	30:RG:4:ASP:N	2.19	0.55
31:RH:12:PRO:O	31:RH:13:LYS:HB2	2.07	0.55
32:RI:13:GLY:HA3	32:RI:17:GLN:CD	2.27	0.55
25:RA:1142(A):A:H4'	33:RN:25:ARG:HH22	1.72	0.55
35:RP:39:LYS:N	35:RP:45:LEU:HD11	2.21	0.55
40:RU:58:ARG:O	40:RU:62:ILE:HG13	2.06	0.55
40:RU:6:THR:O	40:RU:9:VAL:HG23	2.07	0.55
41:RV:99:ILE:CD1	41:RV:99:ILE:N	2.65	0.55
44:RY:48:ALA:H	44:RY:60:PHE:HA	1.72	0.55
1:XA:977:A:H8	1:XA:1223:C:C2	2.25	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:297:G:N2	1:XA:299:G:H3'	2.22	0.55
2:XB:187:LEU:HD22	2:XB:201:ILE:O	2.07	0.55
4:XD:94:LEU:CD1	4:XD:94:LEU:H	2.08	0.55
6:XF:52:ILE:O	6:XF:53:ALA:HB3	2.07	0.55
8:XH:102:ARG:HH11	8:XH:105:ARG:CZ	2.19	0.55
8:XH:23:SER:HB2	8:XH:61:VAL:O	2.07	0.55
9:XI:9:ARG:HB2	9:XI:14:VAL:HG22	1.88	0.55
9:XI:45:ALA:O	9:XI:48:GLU:HG2	2.07	0.55
11:XK:125:PHE:H	11:XK:125:PHE:HD1	1.55	0.55
11:XK:125:PHE:N	11:XK:125:PHE:CD1	2.74	0.55
13:XM:80:ARG:O	13:XM:84:ILE:HB	2.06	0.55
16:XP:21:VAL:O	16:XP:33:ILE:N	2.39	0.55
16:XP:28:ARG:HG2	16:XP:28:ARG:NH1	2.22	0.55
50:Y4:51:ASP:O	50:Y4:51:ASP:OD1	2.25	0.55
25:YA:1001:A:H2'	25:YA:1002:G:O4'	2.07	0.55
25:YA:1317:A:H2'	25:YA:1318:C:H6	1.72	0.55
25:YA:25:U:H5''	42:YW:80:PRO:HD3	1.89	0.55
25:YA:859:G:H21	25:YA:860:U:H3	1.55	0.55
26:YB:112:G:H8	26:YB:112:G:O5'	1.90	0.55
28:YE:4:ILE:HD13	28:YE:5:LEU:H	1.71	0.55
29:YF:28:ILE:O	29:YF:28:ILE:HD12	2.06	0.55
31:YH:26:VAL:CG1	31:YH:27:LYS:N	2.63	0.55
25:YA:1138:G:N2	33:YN:106:MET:HE3	2.13	0.55
33:YN:109:LYS:N	33:YN:109:LYS:HD2	2.22	0.55
34:YO:4:PRO:O	34:YO:5:GLN:HB2	2.06	0.55
25:YA:389:G:N1	35:YP:70:GLN:HB3	2.22	0.55
36:YQ:64:ILE:HA	36:YQ:106:VAL:CG1	2.33	0.55
37:YR:2:ARG:HG2	37:YR:5:LYS:HZ2	1.72	0.55
38:YS:18:ILE:C	38:YS:19:LYS:O	2.44	0.55
39:YT:16:ARG:HG2	39:YT:18:ASP:OD1	2.07	0.55
42:YW:20:VAL:C	42:YW:22:ASP:H	2.10	0.55
44:YY:95:LYS:HA	44:YY:101:LYS:H	1.72	0.55
1:QA:186:C:H5'	20:QT:78:ALA:HB1	1.88	0.55
1:QA:20:U:H2'	1:QA:21:G:O4'	2.06	0.55
1:QA:552:U:O4	1:QA:553:A:N6	2.40	0.55
1:QA:565:U:H5''	1:QA:566:G:C2'	2.37	0.55
9:QI:45:ALA:O	9:QI:48:GLU:HG2	2.07	0.55
15:QO:77:ARG:HA	15:QO:80:ALA:CB	2.36	0.55
48:R2:47:ASN:ND2	48:R2:47:ASN:N	2.54	0.55
25:RA:1543:A:H2	25:RA:1545:A:C5	2.25	0.55
25:RA:1869:G:N2	25:RA:1878:G:C5	2.75	0.55
25:RA:2219:G:OP1	27:RD:172:TYR:OH	2.20	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:RF:147:GLY:O	29:RF:148:LEU:HD23	2.07	0.55
30:RG:7:LEU:HD12	30:RG:104:GLU:HA	1.88	0.55
31:RH:8:PRO:O	31:RH:9:ILE:HG23	2.07	0.55
32:RI:52:ARG:HA	32:RI:56:LYS:H	1.72	0.55
35:RP:106:LEU:O	35:RP:107:LYS:HD3	2.07	0.55
38:RS:107:GLU:N	38:RS:110:LEU:HD11	2.22	0.55
38:RS:74:ALA:HB1	38:RS:107:GLU:HB3	1.89	0.55
40:RU:73:GLY:O	40:RU:74:LEU:HB3	2.07	0.55
41:RV:49:THR:CB	41:RV:50:PRO:CD	2.83	0.55
1:XA:1450:U:O2'	1:XA:1451:A:N7	2.38	0.55
2:XB:16:HIS:CE1	2:XB:209:ARG:HH21	2.25	0.55
3:XC:107:GLN:CD	3:XC:107:GLN:N	2.61	0.55
4:XD:31:CYS:O	4:XD:32:ALA:HB3	2.07	0.55
9:XI:114:TYR:CD2	9:XI:114:TYR:O	2.59	0.55
9:XI:40:LEU:HD11	9:XI:70:LYS:CG	2.37	0.55
47:Y1:83:GLU:OE1	47:Y1:85:LEU:HD23	2.07	0.55
48:Y2:31:GLU:HB2	48:Y2:53:LEU:HD11	1.89	0.55
52:Y6:20:ASN:CG	52:Y6:21:TYR:H	2.09	0.55
54:Y8:30:ARG:O	54:Y8:31:HIS:CB	2.55	0.55
25:YA:86:C:O2'	25:YA:104:U:O2'	1.96	0.55
25:YA:1636:C:H2'	25:YA:1637:A:C8	2.42	0.55
25:YA:573:G:N1	25:YA:2031:A:OP2	2.32	0.55
25:YA:2600:A:O2'	25:YA:2601:C:H5'	2.06	0.55
27:YD:155:LEU:HD23	27:YD:177:LEU:CD2	2.36	0.55
27:YD:94:LEU:HD22	27:YD:95:LEU:H	1.70	0.55
28:YE:54:GLN:NE2	28:YE:54:GLN:N	2.56	0.55
29:YF:32:LEU:HD12	29:YF:36:VAL:HG23	1.89	0.55
30:YG:41:GLN:HB3	30:YG:43:LEU:HD13	1.87	0.55
36:YQ:21:THR:O	36:YQ:22:LYS:O	2.25	0.55
44:YY:97:ARG:NH2	44:YY:98:VAL:CB	2.65	0.55
1:QA:1312:G:OP2	50:R4:67:TYR:HE1	1.89	0.54
1:QA:581:G:N2	1:QA:760:G:N7	2.54	0.54
1:QA:960:U:O2	1:QA:960:U:H2'	2.07	0.54
2:QB:214:ILE:HA	2:QB:217:ARG:NH2	2.21	0.54
3:QC:43:LEU:O	3:QC:47:LEU:HB3	2.08	0.54
7:QG:50:ILE:O	7:QG:50:ILE:HG22	2.07	0.54
7:QG:50:ILE:CB	7:QG:58:PRO:HB3	2.37	0.54
8:QH:102:ARG:HH11	8:QH:105:ARG:CZ	2.19	0.54
11:QK:125:PHE:N	11:QK:125:PHE:HD1	2.05	0.54
35:RP:65:ARG:HH21	54:R8:15:LYS:HB2	1.72	0.54
25:RA:1022:G:C6	25:RA:1140:C:C4	2.95	0.54
25:RA:1278:A:N6	25:RA:1292:U:H3	2.04	0.54

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:198:C:O2'	25:RA:199:A:H5'	2.08	0.54
29:RF:197:ASP:O	29:RF:198:ALA:HB3	2.06	0.54
30:RG:116:ASP:O	30:RG:117:PHE:CB	2.51	0.54
31:RH:128:PRO:CD	31:RH:129:THR:N	2.71	0.54
32:RI:78:THR:HG22	32:RI:141:LYS:HD2	1.89	0.54
35:RP:84:ASN:ND2	35:RP:115:LEU:HD12	2.22	0.54
42:RW:80:PRO:O	42:RW:100:THR:CG2	2.55	0.54
1:XA:1124:G:OP2	1:XA:1124:G:H8	1.90	0.54
1:XA:423:G:H2'	1:XA:424:G:O4'	2.06	0.54
1:XA:474:G:H2'	1:XA:475:G:C8	2.39	0.54
1:XA:721:G:H4'	1:XA:722:A:O4'	2.08	0.54
2:XB:134:GLU:O	2:XB:138:LEU:HD12	2.07	0.54
12:XL:50:SER:O	12:XL:51:ALA:HB2	2.05	0.54
14:XN:15:LYS:O	14:XN:16:PHE:O	2.24	0.54
25:YA:738:G:C2	25:YA:759:G:C5	2.95	0.54
27:YD:31:LYS:O	27:YD:35:LYS:O	2.24	0.54
30:YG:114:ILE:HD11	30:YG:140:ILE:HD12	1.89	0.54
37:YR:12:ARG:HH11	37:YR:12:ARG:HG3	1.71	0.54
40:YU:27:LEU:O	40:YU:29:SER:N	2.40	0.54
40:YU:95:LEU:HD12	41:YV:11:GLN:HE21	1.72	0.54
42:YW:88:ARG:HB3	42:YW:92:ARG:HB3	1.89	0.54
44:YY:95:LYS:NZ	44:YY:95:LYS:HB2	2.21	0.54
44:YY:95:LYS:HD3	44:YY:95:LYS:N	2.23	0.54
1:QA:1376:U:P	7:QG:94:ARG:HH12	2.30	0.54
1:QA:176:C:H2'	1:QA:177:C:C6	2.42	0.54
1:QA:258:G:H2'	1:QA:259:G:C8	2.42	0.54
1:QA:567:G:H5''	1:QA:568:G:OP2	2.07	0.54
1:QA:865:A:O5'	1:QA:865:A:H8	1.90	0.54
3:QC:134:ILE:HG21	3:QC:168:ALA:HB3	1.89	0.54
5:QE:144:THR:O	5:QE:148:VAL:HG23	2.06	0.54
12:QL:83:VAL:HG22	12:QL:84:LEU:N	2.21	0.54
16:QP:28:ARG:HG2	16:QP:28:ARG:NH1	2.22	0.54
17:QQ:33:GLY:O	17:QQ:34:LYS:O	2.25	0.54
47:R1:91:LYS:CE	47:R1:91:LYS:HA	2.38	0.54
53:R7:18:PHE:CD2	53:R7:18:PHE:C	2.81	0.54
53:R7:48:LYS:HG2	53:R7:49:ARG:N	2.19	0.54
25:RA:2151:G:H2'	25:RA:2152:G:C8	2.43	0.54
25:RA:2881:C:H2'	25:RA:2882:A:H8	1.71	0.54
25:RA:507:A:C5'	25:RA:508:G:H5'	2.37	0.54
27:RD:25:THR:HG21	27:RD:81:ALA:CB	2.38	0.54
28:RE:21:VAL:HG23	28:RE:22:PRO:HD3	1.89	0.54
33:RN:44:PRO:HG2	33:RN:45:ASN:H	1.71	0.54

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:RP:24:GLY:O	35:RP:25:SER:HB3	2.06	0.54
35:RP:59:LEU:O	35:RP:59:LEU:HD23	2.06	0.54
38:RS:13:ARG:O	38:RS:13:ARG:HD2	2.06	0.54
39:RT:107:ASP:O	39:RT:111:ARG:NH1	2.40	0.54
40:RU:58:ARG:NH1	40:RU:93:LYS:HE2	2.22	0.54
41:RV:29:PRO:HA	41:RV:61:VAL:CG2	2.37	0.54
42:RW:25:ARG:HH11	42:RW:25:ARG:CB	2.20	0.54
43:RX:5:TYR:HE2	48:R2:30:ARG:HH11	1.55	0.54
1:XA:22:G:C6	1:XA:23:C:C4	2.95	0.54
1:XA:837:G:H1	1:XA:849:C:N4	2.03	0.54
3:XC:43:LEU:O	3:XC:47:LEU:HB3	2.07	0.54
4:XD:19:LEU:HD23	4:XD:19:LEU:N	2.22	0.54
22:XV:68:C:H2'	22:XV:69:C:C6	2.42	0.54
25:YA:1657:C:H2'	25:YA:1658:C:C6	2.42	0.54
25:YA:2163:C:H2'	25:YA:2164:C:H6	1.71	0.54
25:YA:2212:A:N3	25:YA:2215:G:N1	2.55	0.54
25:YA:2329:G:H2'	25:YA:2330:G:C8	2.42	0.54
25:YA:271(B):G:H5''	25:YA:271(B):G:C8	2.39	0.54
25:YA:2861:G:H2'	25:YA:2862:G:H8	1.72	0.54
25:YA:49:A:C2	25:YA:118:A:C6	2.94	0.54
31:YH:86:GLU:HG3	31:YH:165:ALA:CB	2.38	0.54
33:YN:42:TRP:CD1	40:YU:63:VAL:HG11	2.42	0.54
34:YO:53:LYS:HD2	34:YO:56:ASP:OD1	2.08	0.54
39:YT:98:LYS:HB3	39:YT:100:TYR:CE1	2.43	0.54
40:YU:58:ARG:NH1	40:YU:93:LYS:HE2	2.22	0.54
41:YV:27:ALA:O	41:YV:28:GLU:O	2.24	0.54
41:YV:52:VAL:O	41:YV:54:GLY:N	2.39	0.54
44:YY:2:ARG:NH1	44:YY:2:ARG:HG2	2.22	0.54
25:YA:484:C:OP1	44:YY:51:VAL:HG11	2.07	0.54
1:QA:1127:G:H21	1:QA:1147:C:H41	1.55	0.54
4:QD:13:ARG:HD2	4:QD:40:PRO:HD3	1.89	0.54
8:QH:49:GLU:HG3	8:QH:51:VAL:CG1	2.35	0.54
9:QI:70:LYS:O	9:QI:74:ILE:HG13	2.07	0.54
10:QJ:19:SER:O	10:QJ:23:ILE:HG13	2.07	0.54
14:QN:24:CYS:SG	14:QN:39:LEU:CA	2.94	0.54
16:QP:43:LYS:HA	16:QP:48:TRP:CB	2.37	0.54
47:R1:53:VAL:O	47:R1:54:ALA:C	2.45	0.54
49:R3:8:LEU:HD22	49:R3:31:LEU:CD2	2.37	0.54
25:RA:987:G:O2'	25:RA:1000:A:N3	2.34	0.54
25:RA:1006:C:H1'	33:RN:106:MET:HE3	1.90	0.54
25:RA:2261:C:C6	46:R0:16:SER:HB3	2.43	0.54
25:RA:2505:G:C6	25:RA:2576:G:C8	2.95	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:856:C:C6	25:RA:856:C:H3'	2.42	0.54
27:RD:43:ARG:CB	27:RD:54:ARG:HB2	2.37	0.54
29:RF:197:ASP:O	29:RF:199:TRP:N	2.38	0.54
29:RF:62:ARG:NH1	29:RF:62:ARG:HB3	2.22	0.54
31:RH:86:GLU:HG3	31:RH:165:ALA:CB	2.38	0.54
35:RP:49:ARG:NE	54:R8:59:LYS:HG2	2.22	0.54
39:RT:16:ARG:HG2	39:RT:18:ASP:OD1	2.06	0.54
42:RW:70:TYR:N	42:RW:70:TYR:CD2	2.75	0.54
44:RY:47:LYS:O	44:RY:49:VAL:HG23	2.07	0.54
1:XA:1127:G:H21	1:XA:1147:C:N4	2.05	0.54
2:XB:170:GLU:HA	2:XB:172:ILE:HD12	1.90	0.54
8:XH:77:GLU:HG2	8:XH:78:GLN:N	2.22	0.54
10:XJ:32:ALA:O	10:XJ:33:GLN:O	2.25	0.54
19:XS:15:LEU:H	19:XS:15:LEU:CD2	2.21	0.54
20:XT:10:LEU:HG	20:XT:12:ALA:H	1.70	0.54
25:YA:1761:C:N4	25:YA:1762:A:H62	2.05	0.54
25:YA:2596:U:H2'	25:YA:2597:G:O4'	2.07	0.54
25:YA:336:C:O2'	44:YY:35:TYR:OH	2.23	0.54
25:YA:543:C:H2'	25:YA:544:C:C6	2.42	0.54
28:YE:176:ILE:HG22	28:YE:179:GLU:H	1.72	0.54
29:YF:129:PHE:O	29:YF:130:ALA:CB	2.55	0.54
30:YG:83:ARG:HG3	30:YG:86:MET:HE1	1.89	0.54
31:YH:8:PRO:O	31:YH:9:ILE:HG23	2.08	0.54
34:YO:1:MET:HE3	34:YO:67:LYS:HE2	1.88	0.54
35:YP:65:ARG:HH21	54:Y8:15:LYS:HB2	1.72	0.54
39:YT:6:LEU:O	39:YT:7:ILE:C	2.45	0.54
41:YV:49:THR:CB	41:YV:50:PRO:CD	2.83	0.54
42:YW:9:TYR:H	42:YW:102:HIS:CE1	2.25	0.54
45:YZ:158:PRO:O	45:YZ:160:GLY:N	2.40	0.54
1:QA:1329:A:H5'	13:QM:29:ARG:HG3	1.90	0.54
1:QA:475:G:H2'	1:QA:476:G:C8	2.35	0.54
2:QB:142:LEU:HD23	2:QB:142:LEU:C	2.27	0.54
2:QB:68:ILE:HD12	2:QB:68:ILE:N	2.21	0.54
3:QC:107:GLN:N	3:QC:107:GLN:CD	2.61	0.54
16:QP:4:ILE:N	16:QP:4:ILE:HD12	2.23	0.54
47:R1:83:GLU:CG	47:R1:84:GLY:N	2.71	0.54
42:RW:38:TYR:OH	51:R5:47:PRO:HG3	2.08	0.54
53:R7:31:LEU:O	53:R7:32:LYS:C	2.43	0.54
25:RA:1496:A:H8	25:RA:1577:C:O2'	1.89	0.54
25:RA:204:A:O3'	25:RA:205:G:H4'	2.07	0.54
25:RA:312:G:H4'	25:RA:331:A:N3	2.23	0.54
25:RA:483:A:C5'	44:RY:49:VAL:HG13	2.37	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:527:C:H4'	25:RA:528:A:O5'	2.07	0.54
25:RA:678:C:H2'	25:RA:679:C:C6	2.43	0.54
27:RD:233:HIS:CD2	27:RD:233:HIS:N	2.75	0.54
28:RE:186:GLY:O	28:RE:188:VAL:N	2.41	0.54
34:RO:53:LYS:HD2	34:RO:56:ASP:OD1	2.08	0.54
36:RQ:58:PHE:O	36:RQ:59:ARG:C	2.43	0.54
39:RT:123:GLN:O	39:RT:125:ARG:N	2.40	0.54
39:RT:29:ARG:HB2	39:RT:29:ARG:HH11	1.72	0.54
39:RT:3:ARG:HG3	39:RT:7:ILE:CG1	2.36	0.54
41:RV:22:VAL:CG1	41:RV:23:GLU:N	2.71	0.54
42:RW:20:VAL:C	42:RW:22:ASP:H	2.10	0.54
44:RY:91:GLU:HG3	44:RY:92:ASN:H	1.72	0.54
44:RY:95:LYS:N	44:RY:95:LYS:HD3	2.23	0.54
1:XA:297:G:H4'	1:XA:557:G:H4'	1.89	0.54
1:XA:1081:G:P	5:XE:16:THR:OG1	2.65	0.54
8:XH:119:LEU:HD12	8:XH:124:ALA:HA	1.88	0.54
9:XI:66:ARG:HG2	9:XI:66:ARG:NH1	2.21	0.54
9:XI:70:LYS:O	9:XI:74:ILE:HG13	2.07	0.54
1:XA:982:U:H5''	14:XN:6:LEU:HD11	1.89	0.54
47:Y1:53:VAL:O	47:Y1:54:ALA:C	2.45	0.54
47:Y1:92:LYS:O	47:Y1:94:LEU:N	2.41	0.54
51:Y5:55:ARG:HD3	51:Y5:56:LYS:H	1.73	0.54
25:YA:1788:C:H2'	25:YA:1789:A:C8	2.39	0.54
27:YD:25:THR:HG23	27:YD:25:THR:O	2.07	0.54
35:YP:106:LEU:O	35:YP:107:LYS:HD3	2.07	0.54
35:YP:114:ILE:HD11	35:YP:130:PHE:HE1	1.70	0.54
43:YX:65:ARG:HD3	43:YX:65:ARG:H	1.70	0.54
44:YY:47:LYS:O	44:YY:49:VAL:HG23	2.07	0.54
1:QA:1305:G:O2'	1:QA:1306:A:H8	1.91	0.54
1:QA:625:G:H2'	1:QA:626:U:C6	2.35	0.54
1:QA:701:C:H4'	1:QA:702:A:C5'	2.37	0.54
2:QB:83:MET:O	2:QB:85:ALA:N	2.41	0.54
3:QC:109:PRO:O	3:QC:115:LEU:HD12	2.08	0.54
4:QD:19:LEU:HD23	4:QD:19:LEU:N	2.23	0.54
8:QH:51:VAL:HG11	8:QH:60:ARG:CG	2.38	0.54
8:QH:97:VAL:CG1	8:QH:98:LYS:N	2.70	0.54
18:QR:39:VAL:HA	18:QR:42:ARG:NH1	2.23	0.54
23:QX:6:C:HO2'	23:QX:7:U:P	2.29	0.54
47:R1:60:PHE:HE2	47:R1:91:LYS:HZ1	1.54	0.54
50:R4:37:SER:HB3	50:R4:42:PHE:CD1	2.43	0.54
30:RG:111:LEU:HB2	50:R4:38:LYS:HZ3	1.72	0.54
52:R6:12:GLU:HG2	52:R6:52:VAL:O	2.07	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:R8:32:LEU:O	54:R8:36:LYS:HE3	2.06	0.54
25:RA:1509:C:N3	25:RA:1511:A:N6	2.56	0.54
25:RA:1600:C:H2'	25:RA:1601:G:H8	1.72	0.54
25:RA:1727:U:H2'	25:RA:1728:G:O4'	2.07	0.54
25:RA:1835:G:C4	25:RA:1931:U:N3	2.75	0.54
25:RA:1837:C:N3	25:RA:1903:G:N2	2.42	0.54
25:RA:2287:A:O2'	25:RA:2288:A:H5''	2.08	0.54
25:RA:2331:G:H4'	46:R0:43:THR:H	1.72	0.54
25:RA:2578:G:N2	25:RA:2579:C:C2	2.76	0.54
30:RG:139:LEU:HD22	30:RG:146:TYR:HD1	1.73	0.54
26:RB:56:G:H5'	30:RG:27:ASN:ND2	2.22	0.54
36:RQ:39:PRO:HB3	36:RQ:99:PRO:HD3	1.90	0.54
38:RS:67:ARG:NH1	38:RS:67:ARG:CB	2.64	0.54
42:RW:9:TYR:H	42:RW:102:HIS:CE1	2.26	0.54
44:RY:61:ILE:HG23	44:RY:62:GLU:H	1.71	0.54
1:XA:181:G:O2'	1:XA:182:U:H6	1.90	0.54
3:XC:195:VAL:CG1	3:XC:196:LEU:N	2.71	0.54
4:XD:153:ARG:NH1	4:XD:181:MET:CG	2.71	0.54
7:XG:137:LYS:O	7:XG:141:VAL:HG23	2.08	0.54
8:XH:97:VAL:CG1	8:XH:98:LYS:N	2.70	0.54
12:XL:6:THR:OG1	12:XL:9:GLN:HG3	2.08	0.54
13:XM:121:LYS:N	13:XM:121:LYS:HE2	2.23	0.54
16:XP:3:LYS:O	16:XP:21:VAL:HA	2.08	0.54
11:XK:91:ARG:NH2	18:XR:88:LYS:HZ1	2.06	0.54
25:YA:2336:A:H61	46:Y0:43:THR:HG21	1.72	0.54
47:Y1:53:VAL:HG12	47:Y1:54:ALA:N	2.21	0.54
49:Y3:2:PRO:O	49:Y3:3:ARG:O	2.25	0.54
54:Y8:32:LEU:O	54:Y8:36:LYS:HE3	2.07	0.54
25:YA:2230:G:C6	25:YA:2231:C:C4	2.95	0.54
25:YA:2275:C:O2	36:YQ:83:MET:HG3	2.08	0.54
25:YA:2712:U:H1'	25:YA:2712(A):A:C8	2.42	0.54
25:YA:699:A:H2'	25:YA:700:G:O4'	2.08	0.54
25:YA:777:A:H2	25:YA:778:G:C4	2.26	0.54
27:YD:206:LEU:O	27:YD:211:ARG:NH1	2.38	0.54
30:YG:7:LEU:HD12	30:YG:104:GLU:HA	1.88	0.54
32:YI:14:ASP:O	32:YI:16:GLY:N	2.39	0.54
35:YP:140:ALA:O	35:YP:141:ALA:HB2	2.08	0.54
42:YW:80:PRO:O	42:YW:100:THR:CG2	2.55	0.54
3:QC:181:ASN:HD21	3:QC:204:LEU:CD1	2.12	0.54
6:QF:52:ILE:O	6:QF:53:ALA:HB3	2.07	0.54
7:QG:62:PHE:O	7:QG:66:VAL:HG23	2.06	0.54
8:QH:102:ARG:NH1	8:QH:105:ARG:NH1	2.55	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:QI:66:ARG:NH1	9:QI:66:ARG:HG2	2.22	0.54
10:QJ:101:VAL:O	10:QJ:101:VAL:HG22	2.07	0.54
12:QL:83:VAL:CG2	12:QL:100:ILE:HG23	2.38	0.54
12:QL:6:THR:OG1	12:QL:9:GLN:HG3	2.08	0.54
13:QM:121:LYS:N	13:QM:121:LYS:HE2	2.23	0.54
13:QM:34:LEU:CD1	13:QM:41:PRO:HG3	2.38	0.54
25:RA:1006:C:H1'	33:RN:106:MET:CE	2.38	0.54
25:RA:483:A:H4'	44:RY:49:VAL:HG13	1.89	0.54
25:RA:995:C:H42	33:RN:2:LYS:HG3	1.72	0.54
27:RD:183:ARG:NH1	27:RD:183:ARG:HG2	2.11	0.54
28:RE:176:ILE:HG22	28:RE:179:GLU:H	1.71	0.54
35:RP:125:VAL:O	35:RP:145:PRO:HD2	2.08	0.54
37:RR:45:ARG:HA	37:RR:95:THR:HG21	1.87	0.54
1:XA:1007:C:H2'	1:XA:1008:C:H5''	1.90	0.54
1:XA:1152:A:H2'	1:XA:1153:C:H6	1.72	0.54
1:XA:688:G:H2'	1:XA:689:C:H6	1.73	0.54
3:XC:109:PRO:O	3:XC:115:LEU:HD12	2.08	0.54
7:XG:46:ALA:HB2	7:XG:117:ALA:HB1	1.88	0.54
1:XA:966:G:O2'	9:XI:127:LYS:O	2.24	0.54
14:YN:13:THR:N	14:YN:14:PRO:HD2	2.22	0.54
14:YN:6:LEU:CD2	14:YN:23:ARG:NH2	2.70	0.54
15:XO:21:ASP:OD1	15:XO:24:SER:HB2	2.07	0.54
50:Y4:47:GLN:O	50:Y4:48:ARG:HB2	2.07	0.54
52:Y6:17:LYS:O	52:Y6:18:ARG:HB2	2.08	0.54
25:YA:1454:U:OP1	37:YR:77:ARG:NH1	2.41	0.54
25:YA:2667:C:H1'	31:YH:109:PHE:HD2	1.73	0.54
25:YA:389:G:H22	35:YP:72:PRO:CG	2.20	0.54
25:YA:755:C:H2'	25:YA:756:C:H6	1.72	0.54
25:YA:812:C:H5'	35:YP:22:GLY:HA3	1.89	0.54
25:YA:860:U:C5	25:YA:917:A:C2	2.95	0.54
26:YB:9:G:N2	26:YB:111:U:O2	2.36	0.54
27:YD:118:VAL:HG22	27:YD:119:ALA:H	1.72	0.54
27:YD:211:ARG:HD2	27:YD:214:TRP:CZ3	2.43	0.54
28:YE:14:ILE:HG23	28:YE:15:PHE:N	2.23	0.54
29:YF:62:ARG:HB3	29:YF:62:ARG:NH1	2.22	0.54
35:YP:124:LYS:HA	35:YP:143:GLY:O	2.08	0.54
37:YR:28:LEU:HD13	37:YR:28:LEU:O	2.08	0.54
40:YU:86:ALA:HB1	40:YU:88:ILE:HD11	1.90	0.54
1:QA:1161:C:O2'	1:QA:1162:C:H5'	2.07	0.54
1:QA:627:G:H2'	1:QA:628:G:C8	2.43	0.54
1:QA:966:G:O2'	9:QI:127:LYS:O	2.26	0.54
2:QB:55:PHE:HA	2:QB:58:ILE:HB	1.88	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:78:GLU:OE2	6:QF:81:ILE:HD12	2.08	0.54
6:QF:92:LYS:NZ	6:QF:92:LYS:HB2	2.22	0.54
15:QO:21:ASP:OD1	15:QO:24:SER:HB2	2.07	0.54
16:QP:21:VAL:O	16:QP:33:ILE:N	2.39	0.54
21:QU:21:TYR:O	21:QU:22:ARG:HB2	2.05	0.54
50:R4:51:ASP:O	50:R4:51:ASP:OD1	2.25	0.54
25:RA:1059:G:C6	25:RA:1060:U:H1'	2.43	0.54
25:RA:2351:G:O5'	25:RA:2351:G:H8	1.89	0.54
25:RA:2425:A:H4'	25:RA:2426:A:H5''	1.88	0.54
25:RA:744:G:H2'	25:RA:745:G:O4'	2.08	0.54
27:RD:227:ASN:HB3	27:RD:228:PRO:CD	2.30	0.54
28:RE:101:ARG:HB3	28:RE:201:THR:OG1	2.08	0.54
28:RE:54:GLN:N	28:RE:54:GLN:NE2	2.55	0.54
36:RQ:21:THR:O	36:RQ:22:LYS:O	2.25	0.54
25:RA:1199:U:H1'	40:RU:4:ALA:HB2	1.89	0.54
41:RV:45:THR:O	41:RV:45:THR:HG22	2.08	0.54
1:XA:1347:G:N2	1:XA:1373:G:H2'	2.23	0.54
1:XA:377:G:P	16:XP:5:ARG:NH1	2.81	0.54
7:XG:102:ARG:O	7:XG:106:GLN:HG3	2.08	0.54
7:XG:13:GLN:O	7:XG:24:THR:HG21	2.08	0.54
8:XH:20:TYR:HD1	8:XH:65:TYR:HD2	1.55	0.54
11:XK:24:SER:HB3	11:XK:27:ASN:O	2.08	0.54
14:XN:22:THR:HB	14:XN:33:VAL:HG11	1.88	0.54
15:XO:77:ARG:HA	15:XO:80:ALA:CB	2.36	0.54
18:XR:29:PHE:CD2	18:XR:29:PHE:N	2.76	0.54
1:XA:1312:G:N7	19:XS:2:PRO:HD2	2.23	0.54
1:XA:1453:G:H2'	20:XT:39:LYS:HZ1	1.72	0.54
51:Y5:44:THR:O	51:Y5:46:CYS:N	2.41	0.54
53:Y7:18:PHE:CD2	53:Y7:18:PHE:C	2.81	0.54
25:YA:1803:A:H2	25:YA:1822:G:N3	2.06	0.54
25:YA:1825:A:H2'	25:YA:1826:G:C8	2.42	0.54
25:YA:1931:U:H6	25:YA:1932:A:C8	2.25	0.54
25:YA:2230:G:C5	25:YA:2231:C:C5	2.95	0.54
25:YA:2287:A:N6	25:YA:2344:U:N3	2.55	0.54
25:YA:39:C:H2'	25:YA:40:C:C6	2.43	0.54
27:YD:263:ARG:HB2	27:YD:263:ARG:HH11	1.68	0.54
28:YE:134:ILE:HD12	28:YE:134:ILE:C	2.28	0.54
29:YF:127:GLU:O	29:YF:129:PHE:N	2.39	0.54
31:YH:126:PRO:HD2	31:YH:127:GLU:H	1.72	0.54
31:YH:153:LYS:CE	31:YH:153:LYS:HA	2.38	0.54
36:YQ:39:PRO:HB3	36:YQ:99:PRO:HD3	1.90	0.54
37:YR:38:VAL:HG22	37:YR:112:ALA:HB2	1.90	0.54

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:741:G:H2'	1:QA:742:G:H8	1.73	0.54
1:QA:965:A:C2	1:QA:969:A:N1	2.76	0.54
2:QB:170:GLU:HA	2:QB:172:ILE:HD12	1.90	0.54
2:QB:16:HIS:CE1	2:QB:209:ARG:HH21	2.25	0.54
4:QD:23:GLY:HA3	4:QD:112:VAL:CG2	2.38	0.54
8:QH:101:PRO:HG2	8:QH:133:LEU:HD11	1.89	0.54
14:QN:13:THR:N	14:QN:14:PRO:HD2	2.21	0.54
16:QP:3:LYS:O	16:QP:21:VAL:HA	2.08	0.54
20:QT:43:LEU:HA	20:QT:46:GLU:HB3	1.88	0.54
48:R2:31:GLU:HB2	48:R2:53:LEU:HD11	1.89	0.54
49:R3:35:ARG:HB3	49:R3:37:LEU:CD2	2.37	0.54
51:R5:55:ARG:HD3	51:R5:56:LYS:H	1.73	0.54
25:RA:2283:C:P	52:R6:5:VAL:HG13	2.48	0.54
25:RA:242:G:C5'	54:R8:3:LYS:HE3	2.35	0.54
25:RA:310:A:OP1	44:RY:18:GLY:N	2.25	0.54
25:RA:571:A:C6	25:RA:575:A:C8	2.95	0.54
29:RF:67:GLN:O	29:RF:68:LYS:CB	2.39	0.54
35:RP:124:LYS:HA	35:RP:143:GLY:O	2.08	0.54
36:RQ:60:ARG:HH12	36:RQ:113:GLN:HE22	1.55	0.54
37:RR:1:MET:O	37:RR:2:ARG:HG3	2.08	0.54
33:RN:42:TRP:CD1	40:RU:63:VAL:HG11	2.42	0.54
1:XA:1446:A:C2	39:YT:118:ARG:HD2	2.43	0.54
2:XB:102:LEU:HB3	2:XB:180:LEU:HD12	1.90	0.54
2:XB:83:MET:O	2:XB:85:ALA:N	2.41	0.54
3:XC:134:ILE:HG21	3:XC:168:ALA:HB3	1.89	0.54
3:XC:134:ILE:CD1	3:XC:153:VAL:HG21	2.35	0.54
8:XH:101:PRO:HG2	8:XH:133:LEU:HD11	1.89	0.54
8:XH:51:VAL:HG11	8:XH:60:ARG:CG	2.38	0.54
46:Y0:22:GLY:N	46:Y0:39:ARG:O	2.29	0.54
55:Y9:1:MET:HB3	55:Y9:4:ARG:CZ	2.37	0.54
25:YA:1443:G:N2	25:YA:1549:C:N3	2.56	0.54
25:YA:2084:C:H2'	25:YA:2085:C:H6	1.73	0.54
25:YA:482:A:H4'	44:YY:47:LYS:CD	2.26	0.54
25:YA:529:A:H2	25:YA:2041:U:H3	1.51	0.54
25:YA:739:G:H22	25:YA:758:C:H42	1.56	0.54
25:YA:852:G:H2'	25:YA:853:G:C8	2.43	0.54
25:YA:977:G:H4'	25:YA:1155:A:H5'	1.89	0.54
27:YD:124:PRO:HB2	27:YD:126:GLN:NE2	2.23	0.54
28:YE:14:ILE:HD11	39:YT:14:TYR:CZ	2.42	0.54
28:YE:51:PHE:O	28:YE:74:PRO:HB3	2.08	0.54
29:YF:53:THR:C	29:YF:55:GLY:H	2.11	0.54
30:YG:3:LEU:HD12	30:YG:4:ASP:N	2.19	0.54

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:81:LYS:O	30:YG:82:LEU:CB	2.56	0.54
31:YH:91:GLY:O	31:YH:94:TYR:HB2	2.08	0.54
33:YN:7:LYS:HD3	33:YN:9:VAL:CA	2.38	0.54
35:YP:112:LEU:HD13	35:YP:112:LEU:C	2.29	0.54
35:YP:84:ASN:ND2	35:YP:115:LEU:HD12	2.22	0.54
35:YP:24:GLY:O	35:YP:25:SER:HB3	2.06	0.54
38:YS:13:ARG:HD2	38:YS:13:ARG:O	2.07	0.54
34:YO:78:ARG:O	39:YT:73:GLU:HG3	2.08	0.54
40:YU:24:TYR:O	40:YU:29:SER:HB3	2.08	0.54
41:YV:66:ARG:HH11	41:YV:66:ARG:CB	2.20	0.54
43:YX:5:TYR:HE2	48:Y2:30:ARG:HH11	1.55	0.54
1:QA:487:A:H2'	1:QA:488:C:O4'	2.07	0.54
1:QA:691:G:N2	1:QA:696:A:OP2	2.41	0.54
1:QA:807:A:H2'	1:QA:808:C:C6	2.43	0.54
1:QA:922:G:N2	1:QA:923:A:N3	2.55	0.54
7:QG:13:GLN:O	7:QG:24:THR:HG21	2.08	0.54
15:QO:87:ILE:CG2	15:QO:88:ARG:H	2.00	0.54
21:QU:6:ARG:O	21:QU:8:THR:N	2.39	0.54
52:R6:17:LYS:O	52:R6:18:ARG:HB2	2.08	0.54
35:RP:64:LYS:HG3	54:R8:25:MET:SD	2.48	0.54
25:RA:265:A:O2'	25:RA:266:G:H4'	2.07	0.54
25:RA:2867:G:O2'	25:RA:2868:A:H8	1.91	0.54
27:RD:158:ALA:HB3	27:RD:161:THR:HG21	1.89	0.54
29:RF:179:GLU:CD	29:RF:179:GLU:H	2.11	0.54
31:RH:153:LYS:HA	31:RH:153:LYS:CE	2.37	0.54
31:RH:26:VAL:CG1	31:RH:27:LYS:N	2.64	0.54
31:RH:91:GLY:O	31:RH:94:TYR:HB2	2.08	0.54
32:RI:99:GLU:OE2	32:RI:103:ARG:NH2	2.38	0.54
34:RO:4:PRO:O	34:RO:5:GLN:HB2	2.06	0.54
36:RQ:81:VAL:C	36:RQ:82:ARG:CG	2.76	0.54
26:RB:27:C:H5''	38:RS:33:LYS:NZ	2.23	0.54
39:RT:14:TYR:H	39:RT:14:TYR:HD1	1.56	0.54
40:RU:95:LEU:HD12	41:RV:11:GLN:HE21	1.72	0.54
44:RY:87:LYS:HB2	44:RY:87:LYS:NZ	2.23	0.54
1:XA:1194:U:H4'	5:XE:22:GLY:O	2.08	0.54
1:XA:1221:G:P	19:XS:36:ARG:HD3	2.47	0.54
1:XA:1230:C:H2'	1:XA:1231:G:H8	1.73	0.54
1:XA:303:A:H2'	1:XA:304:U:O4'	2.08	0.54
1:XA:375:U:H5''	16:XP:69:THR:HG21	1.90	0.54
3:XC:92:ALA:HB2	3:XC:99:VAL:CG1	2.38	0.54
7:XG:113:GLU:HB2	7:XG:119:ARG:CG	2.35	0.54
7:XG:12:LEU:N	7:XG:12:LEU:HD22	2.22	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:50:ILE:O	7:XG:50:ILE:HG22	2.07	0.54
10:XJ:101:VAL:HG22	10:XJ:101:VAL:O	2.07	0.54
12:XL:42:THR:HA	12:XL:53:ARG:O	2.08	0.54
13:XM:73:GLU:O	13:XM:77:ASN:N	2.33	0.54
17:XQ:65:ILE:HD12	17:XQ:65:ILE:H	1.73	0.54
47:Y1:91:LYS:CE	47:Y1:91:LYS:HA	2.37	0.54
48:Y2:47:ASN:N	48:Y2:47:ASN:ND2	2.54	0.54
49:Y3:56:VAL:CG1	49:Y3:57:GLU:H	2.20	0.54
50:Y4:65:ASP:O	50:Y4:66:SER:HB3	2.07	0.54
25:YA:1412:A:H2'	25:YA:1413:G:C8	2.43	0.54
25:YA:2061:G:OP2	25:YA:2502:G:OP2	2.25	0.54
25:YA:445:C:O2'	25:YA:446:G:H5'	2.07	0.54
25:YA:646:A:H2'	25:YA:647:G:O4'	2.08	0.54
27:YD:158:ALA:HB3	27:YD:161:THR:HG21	1.90	0.54
27:YD:34:VAL:C	27:YD:35:LYS:HG3	2.28	0.54
34:YO:68:GLU:HA	34:YO:78:ARG:HB3	1.89	0.54
35:YP:92:GLU:HA	35:YP:123:LEU:CD2	2.38	0.54
35:YP:37:GLY:C	35:YP:41:ARG:HD3	2.29	0.54
39:YT:55:ASN:O	39:YT:57:PHE:O	2.26	0.54
44:YY:87:LYS:NZ	44:YY:87:LYS:HB2	2.23	0.54
1:QA:277:C:H5'	17:QQ:68:ARG:NH2	2.23	0.54
1:QA:337:C:H2'	1:QA:338:A:C8	2.43	0.54
1:QA:354:G:C2'	1:QA:355:C:H5'	2.38	0.54
1:QA:582:U:C2	1:QA:760:G:C6	2.96	0.54
1:QA:585:G:O3'	17:QQ:34:LYS:NZ	2.40	0.54
4:QD:33:MET:HE1	4:QD:37:PRO:HA	1.89	0.54
5:QE:101:ILE:HG12	5:QE:101:ILE:O	2.08	0.54
9:QI:99:LEU:O	9:QI:101:PHE:N	2.41	0.54
11:QK:24:SER:HB3	11:QK:27:ASN:O	2.08	0.54
13:QM:66:LEU:O	13:QM:67:GLU:C	2.46	0.54
19:QS:15:LEU:CD2	19:QS:15:LEU:H	2.21	0.54
13:QM:121:LYS:NZ	24:QY:39:C:O2'	2.41	0.54
47:R1:92:LYS:O	47:R1:94:LEU:N	2.41	0.54
25:RA:2030:A:H4'	25:RA:2031:A:C8	2.43	0.54
25:RA:2635:C:H5''	28:RE:78:LEU:HA	1.89	0.54
25:RA:270(R):G:H1'	47:R1:78:LYS:HZ1	1.71	0.54
25:RA:2740:A:H2'	25:RA:2741:A:C8	2.43	0.54
33:RN:70:LYS:C	33:RN:71:ILE:HD13	2.28	0.54
35:RP:112:LEU:C	35:RP:112:LEU:HD13	2.29	0.54
37:RR:38:VAL:HG22	37:RR:112:ALA:HB2	1.90	0.54
37:RR:53:HIS:HA	37:RR:56:LYS:HD3	1.90	0.54
1:XA:142:G:H2'	1:XA:143:A:C8	2.41	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:186(C):G:H2'	1:XA:186(D):C:C6	2.43	0.54
1:XA:1073:U:O2'	2:XB:104:ASN:OD1	2.24	0.54
6:XF:89:MET:HG2	6:XF:89:MET:O	2.08	0.54
9:XI:13:ALA:HB2	9:XI:67:GLY:C	2.28	0.54
10:XJ:61:GLU:HG3	14:XN:58:LYS:HE2	1.90	0.54
13:XM:66:LEU:O	13:XM:67:GLU:C	2.46	0.54
18:XR:39:VAL:HA	18:XR:42:ARG:NH1	2.23	0.54
18:XR:51:LEU:HD22	18:XR:55:ARG:HD2	1.90	0.54
1:XA:186:C:H5'	20:XT:78:ALA:HB1	1.89	0.54
25:YA:2370:G:H21	52:Y6:45:LYS:NZ	2.06	0.54
25:YA:1266:G:C5	42:YW:15:ARG:NH1	2.75	0.54
25:YA:2289:G:N2	25:YA:2344:U:C2	2.76	0.54
26:YB:100:G:H2'	26:YB:101:A:C8	2.43	0.54
27:YD:85:ASP:OD2	27:YD:88:ARG:HG2	2.07	0.54
27:YD:80:ALA:HB3	27:YD:94:LEU:HD13	1.88	0.54
29:YF:147:GLY:O	29:YF:148:LEU:HD23	2.08	0.54
31:YH:125:VAL:HA	31:YH:126:PRO:CB	2.29	0.54
34:YO:49:ARG:NH1	34:YO:49:ARG:HB3	2.23	0.54
37:YR:70:LEU:HD13	37:YR:75:LEU:HD11	1.88	0.54
40:YU:74:LEU:HD13	40:YU:79:PHE:HB2	1.89	0.54
41:YV:45:THR:O	41:YV:45:THR:HG22	2.08	0.54
45:YZ:152:ALA:HB2	45:YZ:168:GLU:HA	1.90	0.54
1:QA:493:G:H8	1:QA:493:G:O5'	1.90	0.53
1:QA:836:G:C6	1:QA:851:G:C6	2.96	0.53
3:QC:53:ALA:HB2	3:QC:115:LEU:HD21	1.90	0.53
3:QC:195:VAL:CG1	3:QC:196:LEU:N	2.71	0.53
3:QC:51:GLY:O	3:QC:70:VAL:HG13	2.08	0.53
4:QD:79:PHE:CE2	4:QD:83:SER:HB2	2.43	0.53
7:QG:102:ARG:O	7:QG:106:GLN:HG3	2.08	0.53
9:QI:28:VAL:HG13	9:QI:63:ILE:HG21	1.89	0.53
14:QN:23:ARG:O	14:QN:24:CYS:C	2.46	0.53
16:QP:75:ARG:C	16:QP:77:ALA:H	2.11	0.53
17:QQ:5:VAL:O	17:QQ:6:LEU:HD23	2.08	0.53
22:QV:68:C:H2'	22:QV:69:C:C6	2.42	0.53
47:R1:83:GLU:OE1	47:R1:85:LEU:HD23	2.07	0.53
48:R2:43:GLN:O	48:R2:44:LEU:CG	2.54	0.53
50:R4:37:SER:C	50:R4:39:CYS:N	2.62	0.53
51:R5:60:VAL:CG1	51:R5:60:VAL:OXT	2.56	0.53
25:RA:422:A:C6	25:RA:423:A:C6	2.95	0.53
25:RA:602:G:HO2'	25:RA:604:G:HO2'	1.46	0.53
25:RA:845:G:HO2'	25:RA:846:C:H5	1.56	0.53
25:RA:897:C:H3'	25:RA:897:C:OP2	2.08	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:206:LEU:O	27:RD:211:ARG:NH1	2.38	0.53
27:RD:25:THR:CG2	27:RD:81:ALA:HB1	2.38	0.53
28:RE:51:PHE:O	28:RE:74:PRO:HB3	2.08	0.53
28:RE:53:PRO:O	28:RE:74:PRO:HA	2.07	0.53
34:RO:113:LYS:HG2	34:RO:117:LEU:CD1	2.38	0.53
35:RP:37:GLY:HA2	35:RP:41:ARG:NE	2.23	0.53
1:XA:1157:A:H1'	1:XA:1158:C:N3	2.23	0.53
1:XA:582:U:C2	1:XA:760:G:C6	2.97	0.53
1:XA:600:C:H42	1:XA:638:G:H1	1.57	0.53
9:XI:99:LEU:O	9:XI:101:PHE:N	2.41	0.53
9:XI:13:ALA:HA	9:XI:66:ARG:O	2.08	0.53
9:XI:47:LEU:HB3	9:XI:50:LEU:HD12	1.90	0.53
9:XI:53:VAL:CB	9:XI:95:LYS:HE3	2.36	0.53
10:XJ:16:LEU:O	10:XJ:20:ALA:HB2	2.08	0.53
50:Y4:63:TYR:C	50:Y4:65:ASP:N	2.62	0.53
25:YA:2756:U:OP2	55:Y9:19:ARG:NE	2.41	0.53
25:YA:1050:A:O2'	25:YA:2752:C:H1'	2.08	0.53
25:YA:2738:A:H2	25:YA:2766:G:H22	1.56	0.53
25:YA:372:G:O2'	25:YA:373:U:P	2.65	0.53
25:YA:580:C:H2'	25:YA:581:C:C6	2.43	0.53
25:YA:784:A:O2'	25:YA:785:G:H5"	2.07	0.53
25:YA:860:U:OP2	25:YA:916:G:N1	2.38	0.53
25:YA:890:A:O2'	25:YA:892:G:H8	1.92	0.53
27:YD:183:ARG:HG2	27:YD:183:ARG:NH1	2.12	0.53
28:YE:186:GLY:O	28:YE:188:VAL:N	2.41	0.53
29:YF:197:ASP:O	29:YF:198:ALA:HB3	2.06	0.53
25:YA:2653:U:O2'	31:YH:110:SER:HB2	2.07	0.53
34:YO:12:ASP:CG	34:YO:14:THR:HG23	2.29	0.53
37:YR:91:GLN:O	37:YR:91:GLN:HG2	2.08	0.53
39:YT:105:LEU:O	39:YT:107:ASP:N	2.41	0.53
28:YE:25:VAL:HG11	39:YT:11:GLU:HG2	1.90	0.53
1:QA:122:G:C2	1:QA:123:C:C2	2.96	0.53
1:QA:327:A:O2'	1:QA:328:C:O4'	2.22	0.53
1:QA:45:U:H2'	1:QA:46:G:C8	2.43	0.53
2:QB:178:ARG:CD	8:QH:71:GLY:O	2.56	0.53
13:QM:76:ALA:O	13:QM:79:LYS:HB3	2.09	0.53
10:QJ:61:GLU:HG3	14:QN:58:LYS:HE2	1.90	0.53
15:QO:7:GLU:O	15:QO:11:VAL:HG23	2.08	0.53
53:R7:10:ARG:NH1	53:R7:14:LYS:HE3	2.23	0.53
25:RA:1359:A:H61	25:RA:1372:U:H3	1.55	0.53
25:RA:1600:C:H2'	25:RA:1601:G:C8	2.42	0.53
25:RA:2046:G:H2'	25:RA:2047:U:C6	2.44	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2723:C:OP1	37:RR:3:HIS:HD2	1.91	0.53
25:RA:2815:C:H5'	51:R5:29:THR:HG21	1.91	0.53
27:RD:211:ARG:HD2	27:RD:214:TRP:CZ3	2.43	0.53
27:RD:227:ASN:CB	27:RD:228:PRO:HD2	2.24	0.53
27:RD:85:ASP:OD2	27:RD:88:ARG:HG2	2.07	0.53
29:RF:116:ASP:OD1	29:RF:119:ARG:NH2	2.41	0.53
29:RF:53:THR:C	29:RF:55:GLY:H	2.11	0.53
31:RH:139:GLN:O	31:RH:143:GLN:HB2	2.09	0.53
33:RN:109:LYS:HD2	33:RN:109:LYS:H	1.74	0.53
34:RO:78:ARG:O	39:RT:73:GLU:HG3	2.08	0.53
36:RQ:119:ARG:NH1	36:RQ:119:ARG:HG2	2.20	0.53
37:RR:28:LEU:HD13	37:RR:28:LEU:O	2.08	0.53
40:RU:24:TYR:O	40:RU:29:SER:HB3	2.08	0.53
40:RU:47:TYR:CD2	40:RU:47:TYR:C	2.81	0.53
41:RV:7:THR:CG2	41:RV:22:VAL:HG11	2.39	0.53
43:RX:53:LYS:NZ	43:RX:55:ASN:HD21	2.06	0.53
1:XA:1024:G:H4'	1:XA:1024:G:OP1	2.09	0.53
1:XA:1239:A:H4'	1:XA:1240:U:H5''	1.90	0.53
1:XA:337:C:H2'	1:XA:338:A:C8	2.43	0.53
1:XA:34:C:H2'	1:XA:35:G:H8	1.72	0.53
1:XA:486:U:H2'	1:XA:487:A:C8	2.42	0.53
1:XA:403:C:H42	1:XA:547:A:H5'	1.73	0.53
1:XA:881:G:P	12:XL:12:ARG:HH22	2.31	0.53
3:XC:53:ALA:HB2	3:XC:115:LEU:HD21	1.90	0.53
9:XI:128:ARG:HH21	22:XV:35:A:P	2.31	0.53
13:XM:39:ILE:HD11	13:XM:56:LEU:HB2	1.90	0.53
17:XQ:33:GLY:O	17:XQ:34:LYS:O	2.26	0.53
48:Y2:41:ILE:HD11	48:Y2:44:LEU:HB2	1.90	0.53
52:Y6:12:GLU:HG2	52:Y6:52:VAL:O	2.07	0.53
52:Y6:13:CYS:O	52:Y6:14:THR:HB	2.08	0.53
53:Y7:10:ARG:NH1	53:Y7:14:LYS:HE3	2.23	0.53
25:YA:1509:C:H2'	25:YA:1511:A:C8	2.43	0.53
25:YA:1670:C:C4	25:YA:1671:U:C2	2.96	0.53
25:YA:2134:A:O2'	25:YA:2159:G:N2	2.36	0.53
25:YA:2698:U:H2'	25:YA:2699:C:H6	1.73	0.53
25:YA:2863:C:H2'	25:YA:2864:G:H8	1.73	0.53
28:YE:101:ARG:HB3	28:YE:201:THR:OG1	2.08	0.53
31:YH:12:PRO:O	31:YH:13:LYS:HB2	2.07	0.53
31:YH:59:ARG:CG	31:YH:59:ARG:HH11	2.20	0.53
33:YN:134:ARG:N	33:YN:135:PRO:CD	2.58	0.53
34:YO:12:ASP:OD1	34:YO:85:VAL:HG13	2.08	0.53
38:YS:74:ALA:HB1	38:YS:107:GLU:HB3	1.89	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:YT:88:ILE:HD12	39:YT:88:ILE:C	2.29	0.53
44:YY:5:MET:HE1	44:YY:32:PRO:HB3	1.91	0.53
44:YY:90:LEU:HD22	44:YY:90:LEU:H	1.73	0.53
45:YZ:10:ARG:HD2	45:YZ:36:LYS:HB3	1.90	0.53
1:QA:1178:G:C8	1:QA:1180:A:OP2	2.61	0.53
1:QA:1471:G:H2'	1:QA:1472:U:C6	2.41	0.53
1:QA:792:A:N3	1:QA:792:A:H2'	2.23	0.53
3:QC:3:ASN:H	3:QC:3:ASN:ND2	2.05	0.53
3:QC:78:GLY:HA3	3:QC:83:ARG:CB	2.38	0.53
3:QC:92:ALA:HB2	3:QC:99:VAL:CG1	2.38	0.53
4:QD:173:TRP:CD1	4:QD:174:LEU:HG	2.44	0.53
4:QD:153:ARG:NH1	4:QD:181:MET:CG	2.71	0.53
8:QH:10:LEU:CD2	8:QH:10:LEU:H	2.15	0.53
12:QL:11:VAL:HG13	17:QQ:29:HIS:CD2	2.43	0.53
18:QR:25:THR:C	18:QR:26:LEU:HD23	2.29	0.53
18:QR:58:LEU:H	18:QR:58:LEU:HD12	1.72	0.53
25:RA:1020:A:N1	25:RA:1141:U:O2'	2.26	0.53
25:RA:1427:A:H4'	25:RA:1428:C:O5'	2.07	0.53
25:RA:1992:G:O2'	25:RA:1993:U:OP2	2.22	0.53
25:RA:2359:C:H2'	25:RA:2360:A:O4'	2.09	0.53
25:RA:486:C:H4'	42:RW:60:ASN:OD1	2.08	0.53
29:RF:32:LEU:HD12	29:RF:36:VAL:HG23	1.89	0.53
33:RN:137:LYS:HG3	33:RN:138:LEU:N	2.23	0.53
35:RP:140:ALA:O	35:RP:141:ALA:HB2	2.08	0.53
38:RS:111:GLU:OE1	38:RS:111:GLU:HA	2.07	0.53
44:RY:44:ILE:CG1	44:RY:45:VAL:N	2.70	0.53
1:XA:1343:G:H2'	1:XA:1344:C:H6	1.72	0.53
1:XA:606:G:N2	1:XA:631:G:C8	2.72	0.53
4:XD:120:LEU:HD22	4:XD:125:HIS:CB	2.38	0.53
5:XE:101:ILE:O	5:XE:101:ILE:HG12	2.08	0.53
9:XI:28:VAL:HG13	9:XI:63:ILE:HG21	1.89	0.53
12:XL:126:LYS:HB2	12:XL:126:LYS:HZ2	1.72	0.53
1:XA:562:C:H1'	12:XL:15:ARG:HD2	1.89	0.53
12:XL:83:VAL:CG2	12:XL:100:ILE:HG23	2.38	0.53
52:Y6:11:LEU:CD1	52:Y6:51:GLU:HG3	2.39	0.53
54:Y8:63:PRO:O	54:Y8:64:TYR:HB2	2.07	0.53
25:YA:1221:C:H2'	25:YA:1222:C:H6	1.72	0.53
25:YA:1338:G:N7	43:YX:62:LYS:NZ	2.41	0.53
25:YA:1386:C:H2'	25:YA:1387:C:H6	1.73	0.53
25:YA:1691:C:H2'	25:YA:1692:U:O4'	2.09	0.53
25:YA:1788:C:O2'	25:YA:1789:A:H5'	2.08	0.53
25:YA:1957:C:H2'	25:YA:1958:C:H6	1.74	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2168:G:OP2	25:YA:2168:G:H8	1.91	0.53
25:YA:2252:G:H2'	25:YA:2253:G:O4'	2.07	0.53
25:YA:2356:C:OP1	46:Y0:24:LYS:NZ	2.39	0.53
25:YA:273(A):G:C2	25:YA:364:C:N3	2.76	0.53
25:YA:2543:G:N2	25:YA:2765:A:C8	2.76	0.53
25:YA:617:G:OP1	29:YF:40:GLN:NE2	2.41	0.53
27:YD:35:LYS:CG	27:YD:64:ILE:H	2.15	0.53
29:YF:51:THR:O	29:YF:93:LYS:NZ	2.38	0.53
30:YG:139:LEU:HD22	30:YG:146:TYR:HD1	1.73	0.53
33:YN:70:LYS:C	33:YN:71:ILE:HD13	2.28	0.53
34:YO:7:TYR:C	34:YO:8:LEU:HD22	2.29	0.53
39:YT:110:ILE:HG23	39:YT:111:ARG:N	2.24	0.53
40:YU:47:TYR:C	40:YU:47:TYR:CD2	2.81	0.53
41:YV:81:TYR:C	41:YV:82:ARG:HG3	2.27	0.53
1:QA:1305:G:H22	1:QA:1331:G:H2'	1.71	0.53
2:QB:134:GLU:HB3	2:QB:138:LEU:CD1	2.39	0.53
2:QB:187:LEU:HD22	2:QB:201:ILE:O	2.07	0.53
2:QB:24:TRP:CE2	2:QB:26:PRO:HD3	2.43	0.53
2:QB:75:LYS:C	2:QB:75:LYS:HD3	2.29	0.53
7:QG:12:LEU:HD22	7:QG:12:LEU:N	2.23	0.53
8:QH:77:GLU:HG2	8:QH:78:GLN:N	2.22	0.53
9:QI:13:ALA:HA	9:QI:66:ARG:O	2.08	0.53
9:QI:4:TYR:CE2	9:QI:88:TYR:HB2	2.44	0.53
1:QA:1305:G:OP1	21:QU:2:GLY:HA2	2.09	0.53
25:RA:856:C:H1'	46:R0:27:GLU:HB3	1.89	0.53
49:R3:2:PRO:O	49:R3:3:ARG:O	2.25	0.53
51:R5:16:ARG:NH1	51:R5:17:ASP:OD1	2.41	0.53
51:R5:44:THR:O	51:R5:46:CYS:N	2.40	0.53
52:R6:11:LEU:CD1	52:R6:51:GLU:HG3	2.39	0.53
54:R8:58:ILE:O	54:R8:61:LEU:HG	2.08	0.53
25:RA:1107:G:H2'	25:RA:1108:U:H6	1.74	0.53
25:RA:1754:C:H2'	25:RA:1755:A:H8	1.71	0.53
25:RA:2676:C:O2	25:RA:2732:G:N2	2.31	0.53
25:RA:2712:U:H1'	25:RA:2712(A):A:C8	2.44	0.53
25:RA:468:G:N7	53:R7:39:ARG:NH2	2.57	0.53
25:RA:843:G:N2	25:RA:936:C:C2	2.77	0.53
27:RD:124:PRO:HB2	27:RD:126:GLN:NE2	2.22	0.53
28:RE:14:ILE:CG1	28:RE:15:PHE:H	2.08	0.53
30:RG:81:LYS:O	30:RG:82:LEU:CB	2.56	0.53
34:RO:49:ARG:HB3	34:RO:49:ARG:NH1	2.23	0.53
34:RO:7:TYR:C	34:RO:8:LEU:HD22	2.29	0.53
35:RP:37:GLY:C	35:RP:41:ARG:HD3	2.29	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:RT:88:ILE:C	39:RT:88:ILE:HD12	2.29	0.53
41:RV:66:ARG:HH11	41:RV:66:ARG:CB	2.20	0.53
41:RV:81:TYR:C	41:RV:82:ARG:HG3	2.27	0.53
1:XA:1399:C:C2	1:XA:1502:A:N6	2.77	0.53
1:XA:442:C:H2'	1:XA:443:C:H6	1.73	0.53
2:XB:178:ARG:NH2	8:XH:68:ARG:HH22	2.05	0.53
2:XB:80:ILE:CD1	2:XB:208:ILE:HG23	2.22	0.53
3:XC:3:ASN:H	3:XC:3:ASN:ND2	2.05	0.53
4:XD:173:TRP:CD1	4:XD:174:LEU:HG	2.44	0.53
7:XG:85:TYR:HE1	7:XG:154:TYR:HE1	1.56	0.53
13:XM:34:LEU:CD1	13:XM:41:PRO:HG3	2.38	0.53
19:XS:63:THR:O	19:XS:66:MET:HG2	2.09	0.53
20:XT:30:LYS:HE2	20:XT:72:LEU:HD12	1.91	0.53
54:Y8:58:ILE:O	54:Y8:61:LEU:HG	2.08	0.53
25:YA:1793:C:O2	25:YA:1900:A:H2	1.91	0.53
25:YA:247:G:O6	54:Y8:12:LYS:NZ	2.28	0.53
27:YD:25:THR:HG21	27:YD:81:ALA:CB	2.38	0.53
32:YI:29:TYR:HA	32:YI:33:ARG:HD3	1.89	0.53
33:YN:137:LYS:HG3	33:YN:138:LEU:N	2.23	0.53
1:QA:1178:G:H5''	9:QI:93:ARG:NH2	2.23	0.53
1:QA:1259:C:C4	1:QA:1260:C:H1'	2.43	0.53
1:QA:474:G:C5'	16:QP:81:ARG:HG3	2.38	0.53
1:QA:980:C:H3'	1:QA:981:U:C6	2.43	0.53
3:QC:173:VAL:O	3:QC:173:VAL:HG12	2.08	0.53
4:QD:108:LEU:HD11	4:QD:174:LEU:CD2	2.37	0.53
6:QF:41:GLU:HG2	6:QF:43:LEU:HD11	1.89	0.53
7:QG:137:LYS:O	7:QG:141:VAL:HG23	2.07	0.53
11:QK:20:TYR:HB2	11:QK:31:THR:O	2.07	0.53
13:QM:39:ILE:HD11	13:QM:56:LEU:HB2	1.90	0.53
18:QR:51:LEU:HD22	18:QR:55:ARG:HD2	1.89	0.53
52:R6:13:CYS:O	52:R6:14:THR:HB	2.08	0.53
52:R6:9:LEU:HD13	52:R6:26:ASN:ND2	2.24	0.53
43:RX:60:ARG:NH1	53:R7:47:ARG:HH22	2.07	0.53
54:R8:29:LYS:HB2	54:R8:44:LYS:HG2	1.90	0.53
25:RA:153:C:P	47:R1:88:LYS:HE2	2.48	0.53
25:RA:1590:U:H2'	25:RA:1591:G:C8	2.40	0.53
25:RA:729:G:H2'	25:RA:1775:U:H1'	1.90	0.53
25:RA:2216:G:H2'	25:RA:2217:G:H8	1.72	0.53
27:RD:25:THR:HG23	27:RD:25:THR:O	2.07	0.53
37:RR:91:GLN:O	37:RR:91:GLN:HG2	2.08	0.53
38:RS:25:ARG:CB	38:RS:25:ARG:HH11	2.22	0.53
40:RU:86:ALA:HB1	40:RU:88:ILE:HD11	1.90	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:RY:97:ARG:NH2	44:RY:98:VAL:CB	2.65	0.53
1:XA:447:G:H2'	1:XA:485:G:N2	2.22	0.53
1:XA:604:G:H2'	1:XA:605:U:O4'	2.08	0.53
13:XM:81:LEU:HD13	13:XM:88:ARG:HD2	1.90	0.53
15:XO:8:LYS:HZ2	15:XO:8:LYS:HB2	1.73	0.53
17:XQ:11:VAL:HG22	17:XQ:20:THR:O	2.09	0.53
19:XS:7:LYS:HG3	19:XS:8:GLY:N	2.22	0.53
21:XU:14:TRP:CZ3	21:XU:15:ARG:HD3	2.43	0.53
1:XA:1268:A:H4'	21:XU:19:GLY:C	2.28	0.53
48:Y2:16:LEU:CG	48:Y2:16:LEU:O	2.49	0.53
50:Y4:37:SER:C	50:Y4:39:CYS:N	2.62	0.53
51:Y5:16:ARG:NH1	51:Y5:17:ASP:OD1	2.41	0.53
25:YA:1405:U:H2'	25:YA:1406:U:H6	1.74	0.53
25:YA:1444(A):A:O2'	25:YA:1460:A:N3	2.42	0.53
25:YA:270(U):C:H2'	25:YA:270(V):G:H8	1.74	0.53
25:YA:2735:G:H2'	25:YA:2736:G:C8	2.44	0.53
25:YA:317:G:C2	25:YA:318:C:C2	2.97	0.53
25:YA:793:A:O2'	25:YA:794:G:OP2	2.26	0.53
25:YA:901:A:H5'	25:YA:902:C:OP2	2.07	0.53
35:YP:125:VAL:O	35:YP:145:PRO:HD2	2.08	0.53
35:YP:88:LEU:HD23	35:YP:89:ALA:N	2.24	0.53
42:YW:28:SER:HB3	42:YW:31:GLU:HB2	1.91	0.53
1:QA:1004:A:H1'	1:QA:1036:G:C2	2.44	0.53
1:QA:176:C:H2'	1:QA:177:C:H6	1.74	0.53
1:QA:315:A:H5''	1:QA:317:G:OP2	2.08	0.53
1:QA:619:U:N3	4:QD:134:ASP:OD2	2.42	0.53
2:QB:134:GLU:O	2:QB:138:LEU:HD12	2.07	0.53
4:QD:198:VAL:HG12	4:QD:199:ASN:H	1.74	0.53
5:QE:36:ASP:OD1	5:QE:37:ARG:N	2.42	0.53
10:QJ:16:LEU:O	10:QJ:20:ALA:HB2	2.08	0.53
23:QX:6:C:O2'	23:QX:7:U:P	2.66	0.53
19:QS:5:LEU:CD2	50:R4:66:SER:HB2	2.36	0.53
25:RA:135:G:H1	25:RA:144:C:N4	2.05	0.53
25:RA:1380:G:O2'	25:RA:1569:A:N6	2.42	0.53
25:RA:140:A:H8	25:RA:1408:C:HO2'	1.55	0.53
25:RA:1592:C:H2'	25:RA:1593:G:C8	2.43	0.53
25:RA:1852:C:H41	25:RA:1888:G:N2	2.06	0.53
25:RA:2061:G:C2	25:RA:2063:C:C4	2.97	0.53
25:RA:288:C:H2'	25:RA:289:A:C8	2.42	0.53
26:RB:31:C:H42	26:RB:51:G:H1	1.55	0.53
28:RE:134:ILE:HD12	28:RE:134:ILE:C	2.28	0.53
28:RE:14:ILE:HG23	28:RE:15:PHE:N	2.22	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:20:ALA:O	28:RE:21:VAL:CG2	2.48	0.53
25:RA:1140:C:H5''	33:RN:66:LYS:NZ	2.24	0.53
33:RN:78:TYR:N	33:RN:78:TYR:HD1	2.07	0.53
34:RO:12:ASP:OD1	34:RO:85:VAL:HG13	2.08	0.53
29:RF:34:TRP:CH2	35:RP:8:PRO:HB3	2.43	0.53
38:RS:10:ARG:O	38:RS:14:VAL:HG12	2.09	0.53
39:RT:105:LEU:O	39:RT:107:ASP:N	2.41	0.53
42:RW:43:GLY:O	42:RW:44:ALA:C	2.46	0.53
25:RA:2012:G:H4'	42:RW:96:ILE:HD11	1.91	0.53
25:RA:138:G:N2	43:RX:44:GLU:OE2	2.38	0.53
44:RY:84:ARG:NH1	44:RY:97:ARG:HB2	2.11	0.53
45:RZ:157:LEU:HD23	45:RZ:161:VAL:HG12	1.90	0.53
1:XA:266:G:H5''	1:XA:267:C:C5	2.44	0.53
1:XA:73:G:H2'	1:XA:74:C:C6	2.43	0.53
4:XD:79:PHE:CE2	4:XD:83:SER:HB2	2.43	0.53
5:XE:87:SER:HB3	5:XE:131:ILE:CD1	2.39	0.53
6:XF:78:GLU:OE2	6:XF:81:ILE:HD12	2.08	0.53
7:XG:95:ARG:CZ	7:XG:99:LEU:HD11	2.38	0.53
12:XL:32:PHE:HE1	12:XL:86:ARG:HG3	1.73	0.53
1:XA:1226:C:O2'	13:XM:103:THR:O	2.17	0.53
14:XN:41:ARG:HE	14:XN:42:ILE:CG1	2.22	0.53
14:XN:40:CYS:SG	14:XN:42:ILE:N	2.81	0.53
12:XL:11:VAL:HG13	17:XQ:29:HIS:HD2	1.72	0.53
47:Y1:87:PRO:O	47:Y1:91:LYS:N	2.31	0.53
50:Y4:49:PHE:CD1	50:Y4:49:PHE:N	2.76	0.53
50:Y4:56:VAL:HA	50:Y4:60:GLN:CB	2.29	0.53
25:YA:106:C:H2'	25:YA:107:C:H6	1.73	0.53
25:YA:1359:A:N6	25:YA:1372:U:C4	2.76	0.53
25:YA:2074:U:H2'	25:YA:2075:U:C6	2.43	0.53
25:YA:2424:C:O2	25:YA:2429:G:O2'	2.20	0.53
25:YA:2485:G:OP1	36:YQ:46:GLN:NE2	2.35	0.53
25:YA:270(W):G:H2'	25:YA:270(X):G:O4'	2.09	0.53
25:YA:2729:G:O2'	28:YE:187:ALA:HB2	2.09	0.53
25:YA:303:U:H2'	25:YA:304:G:C8	2.43	0.53
25:YA:704:G:HO2'	25:YA:705:A:P	2.32	0.53
25:YA:768:G:C4	25:YA:769:G:C8	2.97	0.53
27:YD:77:ALA:HB2	27:YD:97:TYR:CG	2.44	0.53
29:YF:179:GLU:H	29:YF:179:GLU:CD	2.11	0.53
31:YH:12:PRO:HG3	31:YH:48:GLY:O	2.09	0.53
32:YI:99:GLU:O	32:YI:102:SER:HB2	2.08	0.53
34:YO:2:ILE:HD12	34:YO:2:ILE:N	2.23	0.53
35:YP:79:ARG:HD3	35:YP:110:TYR:CE1	2.43	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:YV:22:VAL:CG1	41:YV:23:GLU:N	2.71	0.53
41:YV:41:GLY:HA3	41:YV:46:VAL:CG1	2.38	0.53
1:QA:216:G:O2'	1:QA:217:C:O4'	2.25	0.53
4:QD:147:ALA:HA	4:QD:182:LYS:HA	1.91	0.53
16:QP:72:ARG:HD3	16:QP:73:LEU:HD23	1.91	0.53
48:R2:41:ILE:HD11	48:R2:44:LEU:HB2	1.90	0.53
50:R4:15:ILE:HD13	50:R4:15:ILE:H	1.74	0.53
25:RA:1416:G:H2'	25:RA:1417:C:C6	2.44	0.53
25:RA:1949:G:H1	25:RA:1957:C:N4	2.06	0.53
25:RA:2698:U:H2'	25:RA:2699:C:C6	2.44	0.53
25:RA:345:A:N3	25:RA:347:A:N6	2.57	0.53
25:RA:871:U:H5'	25:RA:872:A:OP1	2.09	0.53
25:RA:2032:G:H21	28:RE:146:THR:CG2	2.22	0.53
33:RN:120:LEU:CD1	33:RN:122:VAL:HG23	2.39	0.53
33:RN:19:GLU:HA	33:RN:59:LYS:HB2	1.91	0.53
34:RO:12:ASP:CG	34:RO:14:THR:HG23	2.29	0.53
39:RT:98:LYS:HB3	39:RT:100:TYR:CE1	2.43	0.53
43:RX:36:LYS:HA	43:RX:39:ILE:HD12	1.90	0.53
1:XA:1127:G:H21	1:XA:1147:C:H41	1.56	0.53
1:XA:1213:A:N1	1:XA:1215:G:H1'	2.24	0.53
1:XA:1318:A:H4'	19:XS:11:VAL:CG1	2.38	0.53
1:XA:191:G:N9	20:XT:105:SER:HB3	2.23	0.53
1:XA:665:A:C8	1:XA:733:A:C2	2.97	0.53
1:XA:974:A:OP2	14:YN:41:ARG:HG2	2.09	0.53
2:XB:206:ASP:O	2:XB:207:ALA:HB3	2.08	0.53
4:XD:23:GLY:HA3	4:XD:112:VAL:CG2	2.38	0.53
15:XO:29:VAL:HG11	15:XO:67:LEU:HD21	1.89	0.53
17:XQ:5:VAL:O	17:XQ:6:LEU:HD23	2.08	0.53
51:Y5:60:VAL:OXT	51:Y5:60:VAL:CG1	2.56	0.53
25:YA:2262:U:H4'	25:YA:2328:A:C2	2.44	0.53
25:YA:2751:G:O5'	25:YA:2751:G:H8	1.92	0.53
25:YA:2816:C:O2	25:YA:2883:A:O2'	2.26	0.53
33:YN:19:GLU:HA	33:YN:59:LYS:HB2	1.91	0.53
1:QA:1222:G:OP1	19:QS:77:THR:HG21	2.09	0.53
1:QA:1487:G:H8	1:QA:1487:G:O5'	1.91	0.53
1:QA:1509:C:H2'	1:QA:1510:U:O4'	2.09	0.53
1:QA:560:U:H5'	1:QA:566:G:H22	1.73	0.53
1:QA:560:U:N3	1:QA:566:G:O4'	2.41	0.53
1:QA:920:U:H2'	1:QA:921:U:H6	1.74	0.53
4:QD:120:LEU:HD22	4:QD:125:HIS:CB	2.38	0.53
4:QD:172:PRO:HB2	4:QD:193:ASP:OD2	2.08	0.53
4:QD:206:PHE:HD2	4:QD:207:TYR:CD1	2.27	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:QG:95:ARG:CZ	7:QG:99:LEU:HD11	2.38	0.53
13:QM:92:HIS:CD2	13:QM:98:VAL:HG21	2.43	0.53
15:QO:6:GLU:H	15:QO:6:GLU:CD	2.12	0.53
50:R4:54:GLY:O	50:R4:71:ARG:HA	2.08	0.53
52:R6:25:LYS:HE2	52:R6:27:LYS:HE3	1.91	0.53
25:RA:111:A:O3'	48:R2:69:ARG:NH2	2.41	0.53
25:RA:1989:G:C5	25:RA:1990:C:C5	2.97	0.53
25:RA:2781:A:H5''	25:RA:2782:G:H5'	1.90	0.53
27:RD:34:VAL:C	27:RD:35:LYS:HG3	2.29	0.53
27:RD:36:PRO:HA	27:RD:62:TYR:O	2.09	0.53
28:RE:25:VAL:HG11	39:RT:11:GLU:HG2	1.90	0.53
25:RA:323:G:H2'	29:RF:169:ASN:OD1	2.08	0.53
41:RV:48:GLY:O	41:RV:49:THR:O	2.26	0.53
42:RW:14:PRO:O	42:RW:17:VAL:N	2.42	0.53
42:RW:8:ARG:HH11	42:RW:8:ARG:HG3	1.73	0.53
44:RY:95:LYS:HA	44:RY:101:LYS:H	1.72	0.53
1:XA:323:U:H5'	20:XT:23:ARG:HB2	1.91	0.53
1:XA:411:A:N7	1:XA:413:G:N3	2.57	0.53
2:XB:24:TRP:CE2	2:XB:26:PRO:HD3	2.43	0.53
4:XD:172:PRO:HB2	4:XD:193:ASP:OD2	2.08	0.53
13:XM:76:ALA:O	13:XM:79:LYS:HB3	2.09	0.53
15:XO:26:GLU:HA	15:XO:81:LEU:HD22	1.90	0.53
15:XO:62:GLN:N	15:XO:65:ARG:HH12	2.06	0.53
19:XS:5:LEU:HD22	50:Y4:67:TYR:CZ	2.44	0.53
47:Y1:20:ARG:NH1	47:Y1:20:ARG:HG2	2.24	0.53
48:Y2:50:ILE:CD1	48:Y2:51:ARG:N	2.61	0.53
50:Y4:37:SER:HB3	50:Y4:42:PHE:CD1	2.43	0.53
30:YG:111:LEU:HB2	50:Y4:38:LYS:HZ3	1.72	0.53
52:Y6:9:LEU:HD13	52:Y6:26:ASN:ND2	2.24	0.53
43:YX:60:ARG:NH1	53:Y7:47:ARG:HH22	2.07	0.53
25:YA:1425:G:H2'	25:YA:1426:G:C8	2.42	0.53
25:YA:2069:G:N2	25:YA:2442:C:O2	2.42	0.53
25:YA:270(R):G:H1'	47:Y1:78:LYS:NZ	2.23	0.53
25:YA:2820:A:C2	37:YR:4:LEU:HD21	2.44	0.53
25:YA:459:U:OP2	25:YA:469:G:N1	2.34	0.53
27:YD:25:THR:CG2	27:YD:81:ALA:HB1	2.38	0.53
28:YE:119:ARG:HD3	28:YE:160:TYR:HB2	1.91	0.53
30:YG:125:PHE:C	30:YG:127:GLY:H	2.12	0.53
31:YH:40:GLU:O	31:YH:41:MET:HB2	2.09	0.53
36:YQ:76:LYS:O	36:YQ:88:GLY:HA3	2.09	0.53
37:YR:1:MET:O	37:YR:2:ARG:HG3	2.08	0.53
38:YS:10:ARG:O	38:YS:14:VAL:HG12	2.09	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:YU:39:LEU:O	40:YU:40:PHE:C	2.48	0.53
41:YV:48:GLY:O	41:YV:49:THR:O	2.26	0.53
1:QA:1175:G:H2'	1:QA:1176:A:H8	1.72	0.53
1:QA:1513:A:H2'	1:QA:1514:C:C6	2.43	0.53
1:QA:316:G:OP2	1:QA:351:G:O2'	2.26	0.53
2:QB:87:ARG:HH11	2:QB:223:ILE:HD12	1.73	0.53
2:QB:233:SER:OG	2:QB:234:PRO:HD2	2.09	0.53
2:QB:5:ILE:N	2:QB:5:ILE:HD13	2.24	0.53
5:QE:12:LEU:O	5:QE:13:ILE:HD12	2.08	0.53
2:QB:178:ARG:CD	8:QH:71:GLY:CA	2.77	0.53
12:QL:42:THR:HA	12:QL:53:ARG:O	2.08	0.53
17:QQ:11:VAL:HG22	17:QQ:20:THR:O	2.09	0.53
1:QA:254:G:OP1	17:QQ:67:LYS:O	2.27	0.53
50:R4:47:GLN:O	50:R4:48:ARG:HB2	2.07	0.53
25:RA:1341:U:OP1	25:RA:1397:U:N3	2.42	0.53
25:RA:2345:G:N2	25:RA:2382:G:OP2	2.39	0.53
25:RA:2663:G:H3'	25:RA:2664:G:C8	2.42	0.53
25:RA:593:G:H2'	25:RA:594:U:C6	2.40	0.53
25:RA:709:U:H3	25:RA:722:A:N6	2.04	0.53
26:RB:16:G:H1	26:RB:68:C:H42	1.56	0.53
27:RD:25:THR:HG21	27:RD:82:ILE:H	1.70	0.53
29:RF:129:PHE:O	29:RF:142:TRP:CD1	2.62	0.53
30:RG:125:PHE:C	30:RG:127:GLY:H	2.12	0.53
31:RH:126:PRO:HD2	31:RH:127:GLU:H	1.72	0.53
34:RO:14:THR:HG21	34:RO:86:ILE:HD13	1.91	0.53
25:RA:389:G:H22	35:RP:72:PRO:CD	2.21	0.53
41:RV:51:VAL:CG1	41:RV:52:VAL:H	2.22	0.53
1:XA:1030:C:H2'	1:XA:1031:G:O4'	2.09	0.53
1:XA:1315:U:H2'	1:XA:1316:G:O4'	2.09	0.53
1:XA:1499:A:H1'	1:XA:1520:G:H5'	1.90	0.53
1:XA:502:G:H2'	1:XA:503:C:O4'	2.09	0.53
1:XA:673:G:H2'	1:XA:674:G:C8	2.43	0.53
1:XA:728:A:C6	15:XO:54:ARG:HD2	2.44	0.53
3:XC:134:ILE:CG2	3:XC:168:ALA:HB3	2.39	0.53
3:XC:51:GLY:O	3:XC:70:VAL:HG13	2.09	0.53
5:XE:12:LEU:O	5:XE:13:ILE:HD12	2.08	0.53
9:XI:113:LYS:HD3	9:XI:119:ALA:O	2.09	0.53
9:XI:4:TYR:CE2	9:XI:88:TYR:HB2	2.44	0.53
15:XO:6:GLU:H	15:XO:6:GLU:CD	2.12	0.53
19:XS:29:ARG:HD3	19:XS:30:LEU:HD13	1.91	0.53
23:XX:7:U:O2	23:XX:7:U:H2'	2.07	0.53
52:Y6:25:LYS:HE2	52:Y6:27:LYS:HE3	1.91	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1105:U:H2'	25:YA:1106:G:C8	2.36	0.53
25:YA:1206:G:C6	25:YA:1207:C:C4	2.97	0.53
25:YA:2636:U:O2	25:YA:2783:G:N1	2.42	0.53
25:YA:572:A:H5''	25:YA:573:G:OP2	2.09	0.53
29:YF:116:ASP:OD1	29:YF:119:ARG:NH2	2.41	0.53
31:YH:128:PRO:CD	31:YH:129:THR:N	2.71	0.53
31:YH:2:SER:O	31:YH:3:ARG:C	2.47	0.53
35:YP:64:LYS:HG3	54:Y8:25:MET:SD	2.48	0.53
37:YR:67:LEU:HD13	37:YR:76:VAL:CG2	2.27	0.53
39:YT:34:VAL:CG1	39:YT:36:GLU:HG2	2.39	0.53
41:YV:35:LEU:HD21	41:YV:57:VAL:CG2	2.30	0.53
41:YV:38:LEU:HD13	41:YV:55:ALA:HB3	1.91	0.53
25:YA:974:G:OP1	41:YV:76:LYS:HE2	2.09	0.53
45:YZ:70:LEU:HB2	45:YZ:91:LEU:HD21	1.90	0.53
1:QA:662:G:O2'	1:QA:836:G:OP1	2.26	0.53
1:QA:973:G:O4'	10:QJ:55:LYS:HG2	2.08	0.53
2:QB:206:ASP:O	2:QB:207:ALA:HB3	2.08	0.53
2:QB:96:ARG:H	2:QB:96:ARG:CD	2.16	0.53
5:QE:140:ARG:NH1	5:QE:140:ARG:HB2	2.23	0.53
6:QF:75:LEU:HD23	6:QF:79:LEU:HG	1.91	0.53
16:QP:1:MET:SD	16:QP:3:LYS:HE3	2.49	0.53
19:QS:29:ARG:HD3	19:QS:30:LEU:HD13	1.91	0.53
20:QT:30:LYS:HE2	20:QT:72:LEU:HD12	1.91	0.53
46:R0:56:ASP:CG	46:R0:58:THR:HG1	2.12	0.53
47:R1:85:LEU:HA	47:R1:87:PRO:HD2	1.91	0.53
25:RA:2419:U:O4	54:R8:30:ARG:NE	2.42	0.53
54:R8:52:LYS:N	54:R8:53:PRO:HD2	2.22	0.53
25:RA:1021:A:C8	25:RA:1021:A:H3'	2.44	0.53
25:RA:1131:G:HO2'	25:RA:1132:A:H8	1.57	0.53
25:RA:2338:G:C2	25:RA:2339:G:C8	2.97	0.53
25:RA:384:U:H2'	25:RA:385:C:C6	2.37	0.53
25:RA:922:U:H2'	25:RA:923:C:C6	2.43	0.53
27:RD:43:ARG:NH1	27:RD:44:ASN:OD1	2.42	0.53
31:RH:40:GLU:O	31:RH:41:MET:HB2	2.08	0.53
32:RI:97:ILE:HD12	32:RI:140:LEU:HD11	1.90	0.53
35:RP:79:ARG:HD3	35:RP:110:TYR:CE1	2.43	0.53
38:RS:106:ARG:HA	38:RS:110:LEU:CG	2.39	0.53
39:RT:55:ASN:O	39:RT:57:PHE:O	2.26	0.53
1:XA:1004:A:C5	1:XA:1025:U:H1'	2.44	0.53
1:XA:1268:A:H2'	1:XA:1269:A:C8	2.44	0.53
1:XA:1298:C:OP2	7:XG:114:ARG:NH2	2.36	0.53
1:XA:1365:G:H2'	1:XA:1366:C:C6	2.44	0.53

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:764:C:H5''	1:XA:765:G:OP2	2.08	0.53
1:XA:956:U:H2'	1:XA:957:U:O4'	2.08	0.53
2:XB:188:ALA:HB3	2:XB:200:ILE:CG2	2.39	0.53
2:XB:75:LYS:C	2:XB:75:LYS:HD3	2.28	0.53
2:XB:9:GLU:N	2:XB:9:GLU:OE2	2.42	0.53
3:XC:48:TYR:O	3:XC:51:GLY:N	2.41	0.53
3:XC:78:GLY:HA3	3:XC:83:ARG:CB	2.38	0.53
6:XF:69:GLU:C	6:XF:71:ARG:H	2.13	0.53
8:XH:87:SER:HA	8:XH:93:VAL:HG23	1.91	0.53
10:XJ:74:ILE:HD13	10:XJ:74:ILE:N	2.16	0.53
10:XJ:6:ILE:CG2	10:XJ:98:ILE:HG13	2.21	0.53
11:XK:125:PHE:N	11:XK:125:PHE:HD1	2.06	0.53
12:XL:43:VAL:HG13	12:XL:55:VAL:HG21	1.91	0.53
15:XO:7:GLU:O	15:XO:11:VAL:HG23	2.08	0.53
46:Y0:68:GLU:HG2	46:Y0:80:HIS:HB2	1.91	0.53
25:YA:1101:U:H2'	25:YA:1102:C:H6	1.73	0.53
25:YA:1434:A:H61	25:YA:1558:A:H62	1.56	0.53
25:YA:2330:G:H2'	25:YA:2331:G:O4'	2.08	0.53
25:YA:2614:A:H4'	25:YA:2615:U:OP1	2.09	0.53
28:YE:64:LYS:C	28:YE:66:HIS:H	2.12	0.53
29:YF:140:LEU:O	29:YF:143:ALA:HB3	2.09	0.53
31:YH:139:GLN:O	31:YH:143:GLN:HB2	2.09	0.53
31:YH:44:VAL:CG2	31:YH:44:VAL:O	2.57	0.53
35:YP:125:VAL:O	35:YP:125:VAL:HG13	2.09	0.53
35:YP:147:LEU:O	35:YP:148:LEU:CB	2.57	0.53
38:YS:56:LEU:O	38:YS:58:LEU:HD22	2.09	0.53
39:YT:3:ARG:HG3	39:YT:7:ILE:CG1	2.36	0.53
42:YW:43:GLY:O	42:YW:44:ALA:C	2.46	0.53
42:YW:7:ALA:HB2	42:YW:50:VAL:CG2	2.40	0.53
42:YW:8:ARG:HH11	42:YW:8:ARG:HG3	1.73	0.53
43:YX:53:LYS:NZ	43:YX:55:ASN:HD21	2.06	0.53
45:YZ:128:VAL:HB	45:YZ:161:VAL:HG13	1.91	0.53
1:QA:736:C:H2'	1:QA:737:A:C8	2.44	0.52
2:QB:102:LEU:HB3	2:QB:180:LEU:HD12	1.90	0.52
2:QB:200:ILE:HG22	2:QB:201:ILE:N	2.24	0.52
6:QF:89:MET:HG2	6:QF:89:MET:O	2.09	0.52
7:QG:89:MET:CE	7:QG:156:TRP:H	2.22	0.52
9:QI:47:LEU:HB3	9:QI:50:LEU:HD12	1.90	0.52
17:QQ:65:ILE:H	17:QQ:65:ILE:HD12	1.74	0.52
18:QR:29:PHE:N	18:QR:29:PHE:CD2	2.76	0.52
18:QR:44:LEU:HD12	18:QR:44:LEU:N	2.24	0.52
22:QV:4:G:HO2'	22:QV:5:G:H8	1.56	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:R3:9:VAL:HG12	49:R3:32:GLN:HE22	1.74	0.52
50:R4:49:PHE:CD1	50:R4:49:PHE:N	2.76	0.52
25:RA:1195:G:H8	25:RA:1195:G:H5''	1.75	0.52
25:RA:638:G:H8	25:RA:638:G:H5''	1.75	0.52
26:RB:7:G:H8	26:RB:7:G:H5''	1.74	0.52
27:RD:155:LEU:CD1	27:RD:155:LEU:N	2.71	0.52
31:RH:76:VAL:C	31:RH:78:GLY:H	2.13	0.52
35:RP:125:VAL:O	35:RP:125:VAL:HG13	2.09	0.52
38:RS:89:ARG:HG2	38:RS:89:ARG:HH11	1.74	0.52
39:RT:100:TYR:HB3	39:RT:103:ARG:NH1	2.25	0.52
39:RT:110:ILE:HG23	39:RT:111:ARG:N	2.24	0.52
1:XA:1348:U:N3	1:XA:1374:A:H2	2.07	0.52
1:XA:717:C:H6	1:XA:717:C:H5''	1.74	0.52
2:XB:92:TYR:CE1	2:XB:151:GLY:HA3	2.45	0.52
3:XC:173:VAL:O	3:XC:173:VAL:HG12	2.08	0.52
5:XE:140:ARG:NH1	5:XE:140:ARG:HB2	2.23	0.52
8:XH:100:ILE:CB	8:XH:125:ARG:HH12	2.20	0.52
10:XJ:39:PRO:HB3	10:XJ:70:ARG:NH1	2.24	0.52
14:XN:7:ILE:CG1	14:XN:8:GLU:N	2.72	0.52
16:XP:75:ARG:C	16:XP:77:ALA:H	2.11	0.52
19:XS:11:VAL:O	19:XS:11:VAL:HG13	2.10	0.52
25:YA:2355:C:H4'	46:Y0:36:ILE:HD11	1.90	0.52
49:Y3:6:VAL:HG12	49:Y3:56:VAL:HG22	1.91	0.52
52:Y6:7:ILE:CG1	52:Y6:8:LYS:H	2.07	0.52
25:YA:1799:G:O2'	25:YA:1800:C:OP2	2.25	0.52
25:YA:1847:A:H5'	25:YA:1848:A:OP2	2.09	0.52
25:YA:2838:G:H2'	25:YA:2839:G:H8	1.73	0.52
25:YA:530:G:O2'	25:YA:2021:C:O2'	2.25	0.52
29:YF:129:PHE:O	29:YF:142:TRP:CD1	2.62	0.52
30:YG:16:ARG:HH11	30:YG:16:ARG:HG2	1.74	0.52
30:YG:179:PRO:HG3	50:Y4:38:LYS:HZ1	1.74	0.52
31:YH:76:VAL:C	31:YH:78:GLY:H	2.13	0.52
31:YH:89:ILE:CG1	31:YH:89:ILE:O	2.57	0.52
33:YN:109:LYS:H	33:YN:109:LYS:HD2	1.73	0.52
33:YN:22:THR:CG2	33:YN:23:LEU:N	2.61	0.52
37:YR:56:LYS:C	37:YR:58:GLY:N	2.62	0.52
37:YR:70:LEU:O	37:YR:72:ASP:N	2.43	0.52
40:YU:92:ARG:NH2	40:YU:94:ASN:HD22	2.07	0.52
41:YV:7:THR:CG2	41:YV:22:VAL:HG11	2.39	0.52
42:YW:1:MET:HE2	42:YW:2:GLU:H	1.74	0.52
1:QA:1322:C:O2'	1:QA:1323:G:H5'	2.09	0.52
1:QA:1349:A:H2'	1:QA:1350:A:O4'	2.09	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:141:A:H1'	1:QA:182:U:C2	2.44	0.52
1:QA:508:C:OP1	1:QA:508:C:H6	1.92	0.52
3:QC:134:ILE:CG2	3:QC:168:ALA:HB3	2.39	0.52
4:QD:176:LEU:HD12	4:QD:182:LYS:O	2.10	0.52
5:QE:87:SER:HB3	5:QE:131:ILE:CD1	2.38	0.52
9:QI:53:VAL:CB	9:QI:95:LYS:HE3	2.36	0.52
3:QC:29:TYR:OH	14:QN:54:PRO:HD2	2.09	0.52
15:QO:26:GLU:HA	15:QO:81:LEU:HD22	1.90	0.52
21:QU:14:TRP:CZ3	21:QU:15:ARG:HD3	2.43	0.52
22:QV:15:G:H22	22:QV:48:C:H42	1.57	0.52
51:R5:55:ARG:HG3	51:R5:57:VAL:H	1.74	0.52
54:R8:61:LEU:O	54:R8:62:LEU:CB	2.57	0.52
25:RA:1398:C:OP1	43:RX:53:LYS:NZ	2.43	0.52
25:RA:2336:A:H61	46:R0:43:THR:CG2	2.21	0.52
25:RA:2469:A:C5	25:RA:2482:G:C8	2.97	0.52
25:RA:2523:G:O2'	25:RA:2764:A:O3'	2.26	0.52
25:RA:2525:G:N2	25:RA:2538:C:O2	2.40	0.52
25:RA:312:G:H5'	25:RA:331:A:O2'	2.10	0.52
25:RA:333:G:H5''	25:RA:334:C:OP2	2.09	0.52
25:RA:1812:A:O2'	27:RD:45:ASN:HB2	2.08	0.52
28:RE:61:ARG:O	28:RE:63:LEU:N	2.42	0.52
33:RN:12:ARG:NH1	33:RN:50:ASP:OD2	2.40	0.52
36:RQ:76:LYS:O	36:RQ:88:GLY:HA3	2.09	0.52
1:XA:1216:G:H5''	14:XN:5:ALA:CB	2.39	0.52
1:XA:542:G:H5''	4:XD:10:ARG:HH22	1.73	0.52
2:XB:232:PRO:O	2:XB:233:SER:O	2.27	0.52
2:XB:80:ILE:HD11	2:XB:208:ILE:CG2	2.23	0.52
1:XA:1190:G:OP1	3:XC:5:ILE:HD12	2.10	0.52
1:XA:27:G:H4'	4:XD:209:ARG:HG3	1.90	0.52
6:XF:75:LEU:HD21	6:XF:79:LEU:HD11	1.91	0.52
13:XM:87:TYR:CE1	13:XM:91:ARG:HD3	2.44	0.52
18:XR:25:THR:C	18:XR:26:LEU:HD23	2.29	0.52
52:Y6:14:THR:OG1	52:Y6:19:ARG:NE	2.41	0.52
25:YA:1441:G:H2'	25:YA:1442:G:C8	2.45	0.52
25:YA:224:G:C2	25:YA:225:A:C4	2.98	0.52
25:YA:2404:C:H1'	35:YP:67:MET:HE1	1.91	0.52
25:YA:2424:C:H5'	25:YA:2424:C:H6	1.74	0.52
25:YA:252:G:N2	25:YA:253:C:H1'	2.24	0.52
25:YA:2538:C:O2'	25:YA:2539:C:H5'	2.09	0.52
25:YA:2721:A:H1'	25:YA:2873:A:O2'	2.09	0.52
25:YA:373:U:H1'	25:YA:423:A:C2	2.44	0.52
27:YD:233:HIS:N	27:YD:233:HIS:CD2	2.75	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:35:LYS:HD3	27:YD:63:ARG:CA	2.39	0.52
28:YE:39:PRO:HG2	28:YE:40:GLU:OE1	2.09	0.52
28:YE:7:VAL:O	28:YE:196:VAL:HG13	2.09	0.52
29:YF:9:ILE:HD11	29:YF:125:LEU:CG	2.36	0.52
29:YF:34:TRP:CH2	35:YP:8:PRO:HB3	2.43	0.52
33:YN:131:GLN:CG	33:YN:132:ALA:H	2.20	0.52
36:YQ:29:PHE:HB3	36:YQ:65:PHE:CZ	2.44	0.52
41:YV:34:GLU:O	41:YV:36:PRO:HD3	2.09	0.52
25:YA:2009:G:OP1	42:YW:41:LYS:HE2	2.09	0.52
1:QA:1049:U:H5'	1:QA:1201:A:OP1	2.10	0.52
1:QA:1142:G:H3'	1:QA:1143:G:H8	1.73	0.52
1:QA:734:G:H2'	1:QA:735:C:H6	1.74	0.52
1:QA:752:G:H1'	1:QA:754:C:H41	1.74	0.52
1:QA:985:C:H2'	1:QA:986:A:H8	1.74	0.52
3:QC:140:ARG:HG3	3:QC:140:ARG:HH11	1.75	0.52
4:QD:13:ARG:HB3	4:QD:33:MET:HE2	1.92	0.52
9:QI:113:LYS:HD3	9:QI:119:ALA:O	2.09	0.52
10:QJ:80:LYS:HE2	1:XA:1162:C:O2'	2.10	0.52
12:QL:127:GLU:O	12:QL:128:ALA:HB3	2.10	0.52
13:QM:73:GLU:O	13:QM:76:ALA:N	2.42	0.52
19:QS:11:VAL:O	19:QS:11:VAL:HG13	2.10	0.52
19:QS:65:ASN:H	19:QS:65:ASN:ND2	2.08	0.52
49:R3:21:ALA:O	49:R3:25:ALA:N	2.41	0.52
25:RA:1178:C:H2'	25:RA:1179:C:C6	2.45	0.52
25:RA:1401:G:H2'	25:RA:1402:C:O4'	2.08	0.52
25:RA:2011:U:OP2	42:RW:16:LYS:NZ	2.42	0.52
25:RA:2508:G:HO2'	25:RA:2554:U:HO2'	1.57	0.52
25:RA:27:G:H1'	25:RA:513:A:N6	2.24	0.52
28:RE:7:VAL:O	28:RE:196:VAL:HG13	2.09	0.52
29:RF:125:LEU:HA	29:RF:194:MET:O	2.10	0.52
30:RG:16:ARG:HH11	30:RG:16:ARG:HG2	1.74	0.52
31:RH:12:PRO:HG3	31:RH:48:GLY:O	2.09	0.52
33:RN:94:HIS:O	33:RN:95:PRO:O	2.27	0.52
35:RP:92:GLU:HA	35:RP:123:LEU:CD2	2.38	0.52
36:RQ:29:PHE:HB3	36:RQ:65:PHE:CZ	2.44	0.52
37:RR:33:ARG:NH2	51:R5:55:ARG:CG	2.66	0.52
38:RS:83:LYS:O	38:RS:109:GLY:CA	2.46	0.52
38:RS:86:ALA:O	38:RS:87:PHE:HB3	2.10	0.52
45:RZ:20:ARG:O	45:RZ:20:ARG:HD3	2.09	0.52
1:XA:606:G:H1	1:XA:631:G:H5''	1.74	0.52
7:XG:106:GLN:O	7:XG:110:GLN:HG3	2.10	0.52
11:XK:124:LYS:O	11:XK:126:ARG:N	2.40	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1359:C:H3'	14:XN:35:ARG:HH12	1.75	0.52
19:XS:27:GLU:O	19:XS:28:LYS:CG	2.53	0.52
46:Y0:25:ARG:HH11	46:Y0:25:ARG:HG2	1.73	0.52
50:Y4:40:HIS:N	50:Y4:41:PRO:CD	2.73	0.52
25:YA:1654:A:OP2	37:YR:2:ARG:HD2	2.09	0.52
25:YA:2033:A:O2'	25:YA:2035:G:OP2	2.26	0.52
25:YA:2267:A:H5''	25:YA:2268:A:H5'	1.90	0.52
25:YA:2420:C:O5'	25:YA:2420:C:H6	1.93	0.52
25:YA:271(B):G:O2'	25:YA:271(C):U:OP2	2.24	0.52
25:YA:2748:A:H2'	25:YA:2749:A:C8	2.44	0.52
25:YA:295:G:H1	25:YA:343:C:H42	1.57	0.52
25:YA:846:C:H42	25:YA:931:G:H1	1.56	0.52
26:YB:89:G:C6	26:YB:89(A):A:C6	2.98	0.52
27:YD:66:ASP:OD2	27:YD:69:ARG:HG2	2.09	0.52
28:YE:137:HIS:HB3	28:YE:138:PRO:CD	2.37	0.52
31:YH:121:ILE:HG12	31:YH:135:GLY:HA3	1.91	0.52
25:YA:1190:G:H5'	35:YP:32:THR:HA	1.91	0.52
35:YP:37:GLY:HA2	35:YP:41:ARG:NE	2.23	0.52
37:YR:53:HIS:HA	37:YR:56:LYS:HD3	1.90	0.52
42:YW:25:ARG:HH11	42:YW:25:ARG:HB2	1.74	0.52
42:YW:38:TYR:OH	51:Y5:47:PRO:HG3	2.08	0.52
44:YY:44:ILE:CG1	44:YY:45:VAL:N	2.70	0.52
44:YY:61:ILE:HG23	44:YY:62:GLU:N	2.24	0.52
1:QA:1087:G:H22	1:QA:1099:G:H1'	1.73	0.52
1:QA:376:G:H2'	1:QA:377:G:C8	2.45	0.52
1:QA:568:G:N3	1:QA:574:A:H2	2.08	0.52
1:QA:624:C:H2'	1:QA:625:G:C8	2.43	0.52
8:QH:100:ILE:CB	8:QH:125:ARG:HH12	2.21	0.52
1:QA:600:C:H5'	8:QH:129:VAL:HA	1.91	0.52
8:QH:87:SER:HA	8:QH:93:VAL:HG23	1.91	0.52
1:QA:779:C:H4'	11:QK:121:PRO:O	2.10	0.52
13:QM:87:TYR:CE1	13:QM:91:ARG:HD3	2.44	0.52
47:R1:4:VAL:HG22	47:R1:5:CYS:N	2.24	0.52
50:R4:48:ARG:CZ	50:R4:51:ASP:HA	2.40	0.52
25:RA:1022:G:H22	25:RA:1142(A):A:H2	1.57	0.52
25:RA:171:G:N2	25:RA:172:C:O2	2.42	0.52
25:RA:235:U:H2'	25:RA:236:C:C6	2.44	0.52
25:RA:2393:A:C2'	25:RA:2394:C:H5'	2.39	0.52
28:RE:55:ASN:C	28:RE:57:LYS:N	2.62	0.52
29:RF:192:LEU:HD21	29:RF:194:MET:HE2	1.91	0.52
30:RG:124:SER:HB2	30:RG:131:TYR:CE1	2.44	0.52
31:RH:44:VAL:O	31:RH:44:VAL:CG2	2.57	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:RI:14:ASP:O	32:RI:16:GLY:N	2.42	0.52
25:RA:832:G:OP1	35:RP:38:GLN:HB3	2.09	0.52
39:RT:14:TYR:CD1	39:RT:14:TYR:N	2.77	0.52
40:RU:88:ILE:CD1	40:RU:88:ILE:H	2.05	0.52
25:RA:517:C:O2'	42:RW:18:ARG:NH2	2.42	0.52
45:RZ:5:LEU:HD12	45:RZ:7:ALA:HB2	1.90	0.52
1:XA:443:C:H42	1:XA:491:G:H1	1.58	0.52
4:XD:206:PHE:HD2	4:XD:207:TYR:CD1	2.27	0.52
5:XE:36:ASP:OD1	5:XE:37:ARG:N	2.42	0.52
11:XK:91:ARG:NH2	18:XR:88:LYS:NZ	2.57	0.52
13:XM:8:GLU:OE1	30:YG:115:ARG:CZ	2.57	0.52
16:XP:4:ILE:N	16:XP:4:ILE:HD12	2.23	0.52
16:XP:34:GLU:OE1	16:XP:55:ARG:HD3	2.10	0.52
17:XQ:62:SER:HB3	17:XQ:72:ARG:HH21	1.72	0.52
19:XS:3:ARG:HG3	19:XS:4:SER:N	2.24	0.52
23:XX:3:G:O2'	23:XX:4:C:OP2	2.27	0.52
25:YA:1814:G:H4'	27:YD:51:VAL:HG21	1.91	0.52
25:YA:859:G:H5'	25:YA:2268:A:HO2'	1.75	0.52
25:YA:26:G:C6	25:YA:27:G:C2	2.97	0.52
25:YA:2808:U:H5'	25:YA:2891:G:O6	2.09	0.52
25:YA:451:C:H4'	29:YF:52:LYS:HZ2	1.72	0.52
27:YD:155:LEU:CD1	27:YD:155:LEU:N	2.71	0.52
27:YD:28:GLU:O	27:YD:29:PRO:C	2.45	0.52
28:YE:7:VAL:CG2	28:YE:8:LYS:H	2.10	0.52
25:YA:1029:A:H5''	36:YQ:128:LYS:HE2	1.92	0.52
38:YS:62:LYS:HB3	38:YS:97:ARG:CD	2.39	0.52
39:YT:94:ALA:O	39:YT:95:ARG:HB3	2.09	0.52
45:YZ:149:SER:HB2	45:YZ:172:ALA:O	2.10	0.52
1:QA:1192:C:C5	1:QA:1193:G:C8	2.98	0.52
1:QA:258:G:H2'	1:QA:259:G:H8	1.75	0.52
1:QA:791:G:C6	1:QA:792:A:N1	2.77	0.52
2:QB:92:TYR:CE1	2:QB:151:GLY:HA3	2.45	0.52
2:QB:188:ALA:HB3	2:QB:200:ILE:CG2	2.40	0.52
4:QD:29:PRO:CG	4:QD:30:LYS:NZ	2.73	0.52
1:QA:15:G:H4'	5:QE:24:ARG:NH1	2.25	0.52
11:QK:91:ARG:NH2	18:QR:88:LYS:NZ	2.57	0.52
49:R3:56:VAL:CG1	49:R3:57:GLU:H	2.19	0.52
50:R4:63:TYR:C	50:R4:65:ASP:N	2.62	0.52
25:RA:1352:U:O2'	25:RA:1353:A:H5'	2.08	0.52
25:RA:1359:A:N6	25:RA:1373:A:C4	2.78	0.52
25:RA:1342:A:C5	25:RA:1397:U:C6	2.98	0.52
25:RA:1448:G:H1'	25:RA:1528:A:N6	2.24	0.52

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:155:C:N4	25:RA:171:G:H1	2.06	0.52
25:RA:1728:G:N3	25:RA:1728:G:H5''	2.24	0.52
25:RA:900:A:H3'	25:RA:901:A:C8	2.36	0.52
25:RA:952:G:C6	25:RA:966:G:C6	2.98	0.52
27:RD:210:GLY:O	27:RD:213:ARG:N	2.43	0.52
28:RE:170:LEU:CD2	28:RE:185:LYS:HB2	2.40	0.52
29:RF:140:LEU:O	29:RF:143:ALA:HB3	2.09	0.52
32:RI:21:VAL:HG13	32:RI:22:LYS:O	2.10	0.52
32:RI:68:LEU:HA	32:RI:71:ILE:CG2	2.40	0.52
33:RN:7:LYS:HD3	33:RN:9:VAL:CA	2.38	0.52
38:RS:56:LEU:O	38:RS:58:LEU:HD22	2.09	0.52
39:RT:16:ARG:HD3	39:RT:19:LEU:HG	1.92	0.52
1:XA:1085:U:H3'	1:XA:1086:U:C5	2.45	0.52
2:XB:200:ILE:HG22	2:XB:201:ILE:N	2.24	0.52
2:XB:233:SER:OG	2:XB:234:PRO:HD2	2.09	0.52
4:XD:176:LEU:HD12	4:XD:182:LYS:O	2.10	0.52
1:XA:1347:G:OP2	9:XI:107:ARG:HG2	2.09	0.52
10:XJ:4:ILE:HB	10:XJ:74:ILE:CD1	2.36	0.52
11:XK:77:MET:HE3	11:XK:80:VAL:HG12	1.90	0.52
13:XM:73:GLU:O	13:XM:76:ALA:N	2.42	0.52
18:XR:36:ASN:ND2	18:XR:36:ASN:O	2.32	0.52
47:Y1:4:VAL:HG22	47:Y1:5:CYS:N	2.25	0.52
48:Y2:7:ARG:NH1	48:Y2:7:ARG:HG3	2.25	0.52
50:Y4:54:GLY:O	50:Y4:71:ARG:HA	2.08	0.52
51:Y5:55:ARG:HG3	51:Y5:57:VAL:H	1.74	0.52
54:Y8:61:LEU:O	54:Y8:62:LEU:CB	2.57	0.52
25:YA:1063:G:H22	25:YA:1076:C:H1'	1.74	0.52
25:YA:24:G:H2'	25:YA:25:U:O4'	2.09	0.52
25:YA:272:G:H2'	25:YA:273:G:H8	1.74	0.52
25:YA:2790:A:C2	25:YA:2791:C:H2'	2.45	0.52
25:YA:503:A:C5	25:YA:506:G:C5	2.98	0.52
25:YA:869:G:O2'	25:YA:870:A:H5'	2.10	0.52
27:YD:36:PRO:HA	27:YD:62:TYR:O	2.09	0.52
29:YF:162:LEU:HD23	29:YF:165:ARG:NH2	2.25	0.52
33:YN:114:ARG:C	33:YN:116:LEU:H	2.13	0.52
34:YO:79:PHE:CD2	39:YT:72:VAL:HG22	2.45	0.52
38:YS:25:ARG:HH11	38:YS:25:ARG:CB	2.22	0.52
39:YT:100:TYR:HB3	39:YT:103:ARG:NH1	2.25	0.52
42:YW:9:TYR:CD2	42:YW:102:HIS:HE1	2.28	0.52
1:QA:892:A:H2'	1:QA:893:C:C6	2.44	0.52
2:QB:9:GLU:N	2:QB:9:GLU:OE2	2.42	0.52
4:QD:31:CYS:O	4:QD:32:ALA:HB3	2.10	0.52

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:QJ:4:ILE:HB	10:QJ:74:ILE:CD1	2.37	0.52
12:QL:32:PHE:HE1	12:QL:86:ARG:HG3	1.73	0.52
53:R7:38:GLY:O	53:R7:39:ARG:C	2.48	0.52
25:RA:1001:A:H2'	25:RA:1002:G:O4'	2.09	0.52
25:RA:2695:C:H2'	25:RA:2696:U:H6	1.74	0.52
25:RA:515:A:H1'	25:RA:581:C:H1'	1.91	0.52
25:RA:571:A:C5	25:RA:575:A:C8	2.98	0.52
25:RA:582:G:H2'	25:RA:583:G:C8	2.44	0.52
25:RA:704:G:H1'	25:RA:727:A:N6	2.25	0.52
27:RD:133:LEU:HG	27:RD:189:CYS:O	2.10	0.52
27:RD:134:ARG:HB2	27:RD:135:PHE:HD2	1.75	0.52
27:RD:35:LYS:HD3	27:RD:63:ARG:CA	2.39	0.52
27:RD:66:ASP:OD2	27:RD:69:ARG:HG2	2.09	0.52
27:RD:77:ALA:HB2	27:RD:97:TYR:CG	2.44	0.52
28:RE:179:GLU:OE1	28:RE:179:GLU:HA	2.10	0.52
30:RG:97:ASP:N	30:RG:100:TRP:HD1	2.05	0.52
33:RN:103:VAL:O	33:RN:106:MET:N	2.42	0.52
33:RN:112:LEU:HD23	33:RN:112:LEU:C	2.30	0.52
33:RN:57:ALA:O	33:RN:58:ASP:HB3	2.09	0.52
35:RP:13:ASN:O	35:RP:14:LYS:C	2.48	0.52
37:RR:56:LYS:C	37:RR:58:GLY:N	2.62	0.52
41:RV:34:GLU:O	41:RV:36:PRO:HD3	2.10	0.52
1:XA:1004:A:H1'	1:XA:1036:G:H22	1.74	0.52
1:XA:328:C:H4'	1:XA:329:A:C5'	2.40	0.52
8:XH:102:ARG:NH1	8:XH:105:ARG:HH22	2.07	0.52
50:Y4:15:ILE:H	50:Y4:15:ILE:HD13	1.73	0.52
50:Y4:48:ARG:CZ	50:Y4:51:ASP:HA	2.40	0.52
25:YA:1071:G:O2'	25:YA:1089:G:OP2	2.20	0.52
25:YA:1093:G:OP1	31:YH:170:ARG:HD2	2.09	0.52
25:YA:1156:A:C8	40:YU:51:LYS:HD2	2.45	0.52
25:YA:121:G:H2'	25:YA:122:G:C8	2.44	0.52
25:YA:1590:U:H2'	25:YA:1591:G:C8	2.44	0.52
25:YA:2378:A:H4'	38:YS:23:ARG:NE	2.25	0.52
25:YA:2689:U:P	25:YA:2719:G:H22	2.33	0.52
26:YB:16:G:C6	26:YB:69:G:C2	2.97	0.52
27:YD:174:ILE:CD1	27:YD:174:ILE:N	2.73	0.52
28:YE:176:ILE:HG22	28:YE:176:ILE:O	2.10	0.52
30:YG:124:SER:HB2	30:YG:131:TYR:CE1	2.44	0.52
31:YH:24:VAL:O	31:YH:24:VAL:HG23	2.09	0.52
33:YN:103:VAL:O	33:YN:106:MET:N	2.42	0.52
33:YN:57:ALA:O	33:YN:58:ASP:HB3	2.10	0.52
34:YO:2:ILE:CD1	34:YO:82:ASN:HD22	2.14	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:YR:52:ILE:CG2	37:YR:94:TYR:HD1	2.22	0.52
39:YT:99:LEU:HB2	39:YT:101:PHE:CE1	2.45	0.52
39:YT:23:ARG:HG2	39:YT:120:ARG:HH12	1.75	0.52
44:YY:91:GLU:HG3	44:YY:92:ASN:N	2.25	0.52
1:QA:1147:C:O2	9:QI:16:ARG:NH1	2.43	0.52
1:QA:164:U:H2'	1:QA:165:C:H6	1.75	0.52
1:QA:955:U:OP1	13:QM:121:LYS:HD2	2.09	0.52
1:QA:988:G:H2'	1:QA:989:C:O4'	2.10	0.52
15:QO:62:GLN:N	15:QO:65:ARG:HH12	2.06	0.52
20:QT:89:ARG:HH22	20:QT:106:ALA:HB2	1.75	0.52
46:RO:21:LEU:HD11	46:RO:41:ARG:HG2	1.92	0.52
47:R1:76:ARG:NH1	47:R1:76:ARG:HG2	2.19	0.52
25:RA:1050:A:H2'	25:RA:1051:G:O4'	2.09	0.52
25:RA:1478:G:HO2'	25:RA:1558:A:H2	1.55	0.52
25:RA:151:C:H6	25:RA:151:C:O5'	1.93	0.52
27:RD:35:LYS:HG2	27:RD:64:ILE:HG22	1.92	0.52
28:RE:116:VAL:HG22	28:RE:122:PHE:HB2	1.91	0.52
28:RE:39:PRO:HG2	28:RE:40:GLU:OE1	2.09	0.52
31:RH:24:VAL:O	31:RH:24:VAL:HG23	2.09	0.52
38:RS:95:HIS:CG	38:RS:96:GLY:N	2.77	0.52
39:RT:23:ARG:HG2	39:RT:120:ARG:HH12	1.75	0.52
39:RT:94:ALA:O	39:RT:95:ARG:HB3	2.09	0.52
41:RV:41:GLY:HA3	41:RV:46:VAL:CG1	2.38	0.52
45:RZ:111:VAL:O	45:RZ:113:ALA:N	2.43	0.52
1:XA:1167:A:C6	1:XA:1169:A:C6	2.98	0.52
1:XA:335:C:O2'	1:XA:1433:A:N3	2.33	0.52
1:XA:815:A:H5''	1:XA:817:C:N4	2.25	0.52
2:XB:87:ARG:HH11	2:XB:223:ILE:HD12	1.73	0.52
6:XF:86:ARG:O	6:XF:87:ARG:CG	2.50	0.52
11:XK:46:GLY:HA2	11:XK:50:TYR:O	2.10	0.52
13:XM:92:HIS:CD2	13:XM:98:VAL:HG21	2.43	0.52
16:XP:45:THR:HG23	16:XP:46:PRO:CD	2.39	0.52
52:Y6:30:THR:HG23	52:Y6:30:THR:O	2.09	0.52
25:YA:1021:A:C3'	25:YA:1021:A:C8	2.91	0.52
25:YA:2522:U:O2'	25:YA:2647:U:OP1	2.19	0.52
25:YA:2747:G:O6	25:YA:2755:C:H5''	2.10	0.52
25:YA:317:G:N2	25:YA:318:C:O2	2.43	0.52
25:YA:347:A:H2'	25:YA:348:G:C8	2.45	0.52
27:YD:43:ARG:NH1	27:YD:44:ASN:OD1	2.42	0.52
28:YE:61:ARG:O	28:YE:63:LEU:N	2.42	0.52
32:YI:8:PRO:HG3	32:YI:14:ASP:HB2	1.91	0.52
33:YN:112:LEU:C	33:YN:112:LEU:HD23	2.30	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:YN:7:LYS:HD3	33:YN:9:VAL:N	2.25	0.52
34:YO:113:LYS:HG2	34:YO:117:LEU:CD1	2.38	0.52
34:YO:43:VAL:HG23	34:YO:56:ASP:O	2.10	0.52
39:YT:42:ILE:N	39:YT:42:ILE:HD12	2.25	0.52
41:YV:35:LEU:CD2	41:YV:57:VAL:HG22	2.32	0.52
1:QA:1432:G:H1'	1:QA:1469:G:N2	2.25	0.52
1:QA:224:C:H2'	1:QA:225:C:C6	2.45	0.52
2:QB:53:ARG:O	2:QB:56:ARG:HB2	2.09	0.52
3:QC:22:TRP:CZ3	3:QC:32:LEU:HD12	2.45	0.52
4:QD:10:ARG:O	4:QD:14:ARG:HB2	2.09	0.52
4:QD:12:CYS:HA	4:QD:19:LEU:HD23	1.83	0.52
1:QA:1069:C:C3'	5:QE:25:ARG:HH12	2.23	0.52
6:QF:10:LEU:HD13	6:QF:61:LEU:HD11	1.92	0.52
7:QG:151:TYR:HA	7:QG:153:HIS:CE1	2.45	0.52
9:QI:13:ALA:HB2	9:QI:67:GLY:C	2.28	0.52
9:QI:13:ALA:HB2	9:QI:68:GLY:HA3	1.92	0.52
13:QM:81:LEU:HD13	13:QM:88:ARG:HD2	1.91	0.52
16:QP:34:GLU:OE1	16:QP:55:ARG:HD3	2.10	0.52
6:QF:99:ALA:HB1	18:QR:23:LYS:NZ	2.25	0.52
19:QS:50:ALA:CB	19:QS:57:HIS:HB3	2.37	0.52
49:R3:7:LYS:HE2	49:R3:32:GLN:NE2	2.25	0.52
50:R4:50:VAL:O	50:R4:51:ASP:C	2.48	0.52
55:R9:27:CYS:SG	55:R9:28:GLU:N	2.83	0.52
25:RA:222:A:HO2'	25:RA:223:A:P	2.31	0.52
25:RA:2697:G:C2	25:RA:2711:A:C2	2.97	0.52
25:RA:2861:G:H2'	25:RA:2862:G:C8	2.45	0.52
25:RA:746:A:O2'	25:RA:747:U:P	2.67	0.52
26:RB:75:G:H1	26:RB:102:G:H22	1.54	0.52
26:RB:30:C:H4'	26:RB:58:A:H2	1.73	0.52
28:RE:54:GLN:O	28:RE:55:ASN:HB2	2.09	0.52
31:RH:121:ILE:HG12	31:RH:135:GLY:HA3	1.91	0.52
31:RH:2:SER:O	31:RH:3:ARG:C	2.47	0.52
32:RI:4:ILE:HG12	32:RI:18:VAL:HG22	1.92	0.52
40:RU:39:LEU:O	40:RU:40:PHE:C	2.48	0.52
41:RV:3:ALA:HB3	41:RV:14:VAL:HG23	1.92	0.52
1:XA:1120:G:H1	1:XA:1153:C:N4	2.08	0.52
1:XA:160:A:H1'	1:XA:344:A:C5	2.45	0.52
1:XA:185:A:H61	1:XA:192:U:H3	1.57	0.52
1:XA:646:U:H2'	1:XA:647:C:C6	2.43	0.52
3:XC:140:ARG:HH11	3:XC:140:ARG:HG3	1.75	0.52
4:XD:155:LEU:O	4:XD:159:ARG:HG2	2.10	0.52
4:XD:65:ARG:NH1	4:XD:70:ILE:O	2.43	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1070:U:H5'	5:XE:18:ARG:HH22	1.75	0.52
9:XI:13:ALA:HB2	9:XI:68:GLY:HA3	1.91	0.52
9:XI:3:GLN:HB3	9:XI:20:ARG:CG	2.40	0.52
12:XL:127:GLU:O	12:XL:128:ALA:HB3	2.10	0.52
13:XM:98:VAL:HG12	13:XM:98:VAL:O	2.10	0.52
16:XP:1:MET:SD	16:XP:3:LYS:HE3	2.49	0.52
18:XR:44:LEU:N	18:XR:44:LEU:HD12	2.24	0.52
19:XS:65:ASN:ND2	19:XS:65:ASN:H	2.08	0.52
59:XX:101:A:OP2	59:XX:101:A:H8	1.93	0.52
49:Y3:9:VAL:HG12	49:Y3:32:GLN:HE22	1.74	0.52
25:YA:2102:U:H3	25:YA:2187:G:H1	1.56	0.52
25:YA:2478:A:OP1	55:Y9:31:LYS:HD3	2.09	0.52
25:YA:79:G:O2'	25:YA:346:A:N3	2.30	0.52
25:YA:275:G:OP2	25:YA:363:G:N1	2.42	0.52
25:YA:704:G:O2'	25:YA:705:A:P	2.68	0.52
25:YA:863:A:O2'	26:YB:100:G:O2'	2.25	0.52
28:YE:55:ASN:C	28:YE:57:LYS:N	2.62	0.52
29:YF:108:LYS:O	29:YF:112:MET:HG3	2.10	0.52
31:YH:153:LYS:HG3	31:YH:161:GLY:HA2	1.91	0.52
33:YN:12:ARG:NH1	33:YN:50:ASP:OD1	2.43	0.52
36:YQ:119:ARG:HG2	36:YQ:119:ARG:NH1	2.20	0.52
38:YS:83:LYS:O	38:YS:109:GLY:CA	2.46	0.52
44:YY:9:LYS:O	44:YY:9:LYS:HG2	2.10	0.52
1:QA:909:A:H2	1:QA:1413:A:N3	2.08	0.52
2:QB:232:PRO:O	2:QB:233:SER:O	2.27	0.52
3:QC:150:LYS:HG3	3:QC:169:ALA:HB2	1.92	0.52
3:QC:195:VAL:HG12	3:QC:196:LEU:H	1.75	0.52
4:QD:106:TYR:CE1	4:QD:112:VAL:O	2.62	0.52
7:QG:85:TYR:HE1	7:QG:154:TYR:HE1	1.55	0.52
7:QG:89:MET:HE3	7:QG:156:TRP:H	1.74	0.52
12:QL:46:LYS:CG	12:QL:47:LYS:N	2.73	0.52
13:QM:34:LEU:HD12	13:QM:41:PRO:HG3	1.92	0.52
48:R2:9:GLN:O	48:R2:12:GLU:HB3	2.10	0.52
49:R3:6:VAL:HG12	49:R3:56:VAL:HG22	1.92	0.52
50:R4:54:GLY:HA2	50:R4:57:GLU:HG2	1.92	0.52
52:R6:30:THR:HG23	52:R6:30:THR:O	2.09	0.52
25:RA:1140:C:H1'	25:RA:1143:A:C2	2.45	0.52
25:RA:155:C:H5'	25:RA:161:U:OP2	2.10	0.52
25:RA:2867:G:O2'	25:RA:2868:A:P	2.67	0.52
25:RA:2814:C:N4	25:RA:2886:G:H1	2.07	0.52
25:RA:483:A:H4'	44:RY:49:VAL:CA	2.32	0.52
27:RD:174:ILE:N	27:RD:174:ILE:CD1	2.73	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:54:GLN:H	28:RE:54:GLN:NE2	2.08	0.52
31:RH:4:ILE:O	31:RH:6:ARG:N	2.43	0.52
33:RN:114:ARG:C	33:RN:116:LEU:H	2.13	0.52
34:RO:4:PRO:O	34:RO:5:GLN:CB	2.58	0.52
35:RP:147:LEU:O	35:RP:148:LEU:CB	2.57	0.52
35:RP:88:LEU:HD23	35:RP:89:ALA:N	2.24	0.52
37:RR:41:ALA:O	37:RR:43:GLU:N	2.43	0.52
44:RY:91:GLU:HG3	44:RY:92:ASN:N	2.25	0.52
1:XA:790:A:N6	1:XA:791:G:N1	2.58	0.52
3:XC:175:LEU:HD12	3:XC:175:LEU:H	1.75	0.52
4:XD:147:ALA:HA	4:XD:182:LYS:HA	1.91	0.52
13:XM:66:LEU:O	13:XM:68:GLY:N	2.43	0.52
6:XF:99:ALA:HB1	18:XR:23:LYS:NZ	2.25	0.52
53:Y7:38:GLY:O	53:Y7:39:ARG:C	2.48	0.52
25:YA:1203:G:N2	25:YA:1243:G:O6	2.42	0.52
25:YA:1657:C:O2'	25:YA:1658:C:H5'	2.10	0.52
25:YA:1756:G:H4'	25:YA:1758:G:O4'	2.10	0.52
25:YA:2700:C:C2'	25:YA:2701:C:H5'	2.39	0.52
25:YA:962:G:H2'	25:YA:963:U:H6	1.75	0.52
27:YD:133:LEU:HG	27:YD:189:CYS:O	2.10	0.52
28:YE:170:LEU:CD2	28:YE:185:LYS:HB2	2.40	0.52
28:YE:54:GLN:O	28:YE:55:ASN:HB2	2.09	0.52
32:YI:9:LEU:O	32:YI:10:GLU:HG3	2.10	0.52
40:YU:107:ALA:O	40:YU:111:GLU:OE1	2.28	0.52
40:YU:59:ARG:O	40:YU:63:VAL:HG23	2.10	0.52
1:QA:948:C:H2'	1:QA:949:A:H8	1.75	0.52
6:QF:10:LEU:HD13	6:QF:61:LEU:HD13	1.92	0.52
7:QG:106:GLN:O	7:QG:110:GLN:HG3	2.10	0.52
10:QJ:39:PRO:HB3	10:QJ:70:ARG:NH1	2.23	0.52
13:QM:66:LEU:O	13:QM:68:GLY:N	2.43	0.52
14:QN:7:ILE:CG1	14:QN:8:GLU:N	2.73	0.52
15:QO:16:ALA:HB1	15:QO:21:ASP:HB3	1.92	0.52
1:QA:375:U:C4'	16:QP:17:TYR:HE2	2.21	0.52
19:QS:63:THR:O	19:QS:66:MET:HG2	2.09	0.52
19:QS:5:LEU:CD2	50:R4:67:TYR:CZ	2.92	0.52
51:R5:40:LYS:HD3	51:R5:46:CYS:SG	2.50	0.52
25:RA:1666:G:H2'	25:RA:1667:G:H1'	1.92	0.52
25:RA:1844:C:H2'	25:RA:1845:G:C8	2.45	0.52
25:RA:220:G:H21	25:RA:429:A:H62	1.58	0.52
25:RA:769:G:H2'	25:RA:770:G:C8	2.43	0.52
25:RA:806:C:OP2	35:RP:41:ARG:NE	2.41	0.52
26:RB:2:C:H2'	26:RB:3:C:C6	2.45	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:64:LYS:C	28:RE:66:HIS:H	2.12	0.52
29:RF:108:LYS:O	29:RF:112:MET:HG3	2.10	0.52
32:RI:60:GLU:HG3	32:RI:61:ARG:NH1	2.25	0.52
33:RN:108:PRO:O	33:RN:113:GLY:HA3	2.10	0.52
34:RO:23:ARG:O	34:RO:39:ILE:HB	2.10	0.52
37:RR:52:ILE:CG2	37:RR:94:TYR:HD1	2.22	0.52
40:RU:107:ALA:O	40:RU:111:GLU:OE1	2.28	0.52
40:RU:92:ARG:NH2	40:RU:94:ASN:HD22	2.07	0.52
45:RZ:17:ALA:O	45:RZ:21:ALA:N	2.41	0.52
1:XA:247:G:N1	1:XA:277:C:N3	2.39	0.52
1:XA:977:A:H8	1:XA:1223:C:N3	2.07	0.52
2:XB:170:GLU:HA	2:XB:172:ILE:CD1	2.40	0.52
2:XB:53:ARG:O	2:XB:56:ARG:HB2	2.10	0.52
2:XB:5:ILE:HD13	2:XB:5:ILE:N	2.24	0.52
3:XC:112:SER:HB3	3:XC:115:LEU:HD12	1.92	0.52
4:XD:26:CYS:HB3	4:XD:31:CYS:SG	2.49	0.52
7:XG:89:MET:CE	7:XG:156:TRP:H	2.22	0.52
13:XM:34:LEU:HD12	13:XM:41:PRO:HG3	1.92	0.52
15:XO:26:GLU:OE2	15:XO:77:ARG:NH1	2.43	0.52
19:XS:15:LEU:H	19:XS:15:LEU:HD23	1.75	0.52
47:Y1:83:GLU:CG	47:Y1:84:GLY:N	2.71	0.52
49:Y3:49:LYS:O	49:Y3:49:LYS:HG2	2.10	0.52
13:XM:65:LYS:CE	50:Y4:50:VAL:HG11	2.39	0.52
50:Y4:68:ARG:HD3	50:Y4:69:LYS:HG2	1.92	0.52
52:Y6:34:LEU:HD23	52:Y6:36:LEU:HD22	1.92	0.52
54:Y8:52:LYS:N	54:Y8:53:PRO:HD2	2.22	0.52
25:YA:1035:U:H2'	25:YA:1036:G:C8	2.45	0.52
25:YA:1337:G:H2'	25:YA:1338:G:O4'	2.10	0.52
25:YA:2210:G:H2'	25:YA:2210:G:N3	2.25	0.52
25:YA:2500:U:O2'	25:YA:2504:U:OP1	2.24	0.52
25:YA:2712:U:O2'	25:YA:2712(A):A:P	2.68	0.52
25:YA:864:G:O2'	25:YA:866:A:N6	2.43	0.52
25:YA:922:U:H2'	25:YA:923:C:C6	2.45	0.52
26:YB:7:G:H1	26:YB:113:C:N4	2.00	0.52
27:YD:35:LYS:HG2	27:YD:64:ILE:HG22	1.92	0.52
30:YG:34:LEU:HD13	30:YG:34:LEU:C	2.30	0.52
30:YG:37:VAL:HG22	30:YG:159:VAL:CA	2.34	0.52
34:YO:16:ALA:HA	34:YO:46:ALA:HB2	1.92	0.52
38:YS:106:ARG:HA	38:YS:110:LEU:CG	2.39	0.52
38:YS:89:ARG:HG2	38:YS:89:ARG:HH11	1.74	0.52
39:YT:16:ARG:HD3	39:YT:19:LEU:HG	1.92	0.52
1:QA:1129:C:O2	1:QA:1132:C:N4	2.43	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:449:C:H2'	1:QA:450:G:O4'	2.09	0.51
1:QA:596:C:N3	1:QA:644:G:N2	2.53	0.51
1:QA:682:G:C6	1:QA:683:G:N7	2.78	0.51
1:QA:97:U:O2'	1:QA:99:C:H5'	2.10	0.51
5:QE:78:HIS:HB2	8:QH:104:ARG:C	2.31	0.51
13:QM:98:VAL:O	13:QM:98:VAL:HG12	2.10	0.51
19:QS:15:LEU:H	19:QS:15:LEU:HD23	1.74	0.51
19:QS:40:ILE:HG23	19:QS:67:VAL:O	2.11	0.51
49:R3:49:LYS:HG2	49:R3:49:LYS:O	2.10	0.51
50:R4:40:HIS:N	50:R4:41:PRO:CD	2.73	0.51
25:RA:1012:U:H3	33:RN:25:ARG:NH1	2.02	0.51
25:RA:1405:U:O2'	25:RA:1406:U:O5'	2.28	0.51
25:RA:1466:G:N3	25:RA:1466:G:H2'	2.24	0.51
25:RA:2028:U:H2'	25:RA:2029:G:C8	2.46	0.51
25:RA:2469:A:H2	25:RA:2481:G:H21	1.58	0.51
25:RA:2543:G:H21	25:RA:2646:C:H5''	1.74	0.51
25:RA:375:C:H6	25:RA:375:C:O5'	1.92	0.51
25:RA:530:G:C5	25:RA:2022:U:H5''	2.45	0.51
25:RA:704:G:H2'	25:RA:726:G:H22	1.75	0.51
31:RH:55:PRO:HG2	31:RH:61:HIS:ND1	2.25	0.51
34:RO:2:ILE:N	34:RO:2:ILE:HD12	2.24	0.51
35:RP:112:LEU:HD11	35:RP:114:ILE:CG2	2.40	0.51
42:RW:28:SER:HB3	42:RW:31:GLU:HB2	1.91	0.51
43:RX:52:VAL:O	43:RX:52:VAL:HG12	2.09	0.51
43:RX:65:ARG:CD	43:RX:65:ARG:H	2.23	0.51
44:RY:61:ILE:HG23	44:RY:62:GLU:N	2.24	0.51
44:RY:75:ILE:C	44:RY:75:ILE:HD13	2.30	0.51
44:RY:9:LYS:HG2	44:RY:9:LYS:O	2.10	0.51
45:RZ:129:SER:O	45:RZ:131:ARG:N	2.39	0.51
45:RZ:129:SER:C	45:RZ:131:ARG:H	2.12	0.51
45:RZ:3:TYR:O	45:RZ:57:ILE:HG23	2.10	0.51
1:XA:1085:U:H3'	1:XA:1086:U:H5	1.75	0.51
1:XA:1285:A:H4'	1:XA:1286:A:H5'	1.92	0.51
1:XA:132:C:H42	1:XA:230:G:H1	1.57	0.51
1:XA:292:G:C5	1:XA:293:G:H1'	2.45	0.51
1:XA:360:A:H2'	1:XA:361:G:C8	2.45	0.51
1:XA:926:G:O5'	1:XA:926:G:H8	1.92	0.51
3:XC:40:ARG:O	3:XC:44:GLU:HG3	2.10	0.51
4:XD:162:LEU:HD11	4:XD:181:MET:HB3	1.92	0.51
5:XE:101:ILE:HD13	5:XE:101:ILE:N	2.25	0.51
6:XF:30:LEU:O	6:XF:35:ALA:HB3	2.10	0.51
7:XG:16:LEU:HD11	9:XI:45:ALA:HB2	1.92	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:538:G:O3'	12:XL:114:LYS:HD3	2.10	0.51
13:XM:90:LEU:CB	13:XM:93:ARG:HD2	2.40	0.51
1:XA:377:G:P	16:XP:5:ARG:HH11	2.34	0.51
20:XT:83:ARG:O	20:XT:86:ARG:HB3	2.09	0.51
47:Y1:91:LYS:HE3	47:Y1:91:LYS:CA	2.40	0.51
50:Y4:14:ILE:O	50:Y4:14:ILE:HG23	2.10	0.51
25:YA:1069:A:H4'	25:YA:1070:A:H5''	1.93	0.51
25:YA:1252:G:C2	25:YA:1253:A:C2	2.98	0.51
25:YA:2735:G:H2'	25:YA:2736:G:H8	1.75	0.51
25:YA:839:U:H2'	25:YA:840:C:C6	2.44	0.51
29:YF:67:GLN:O	29:YF:68:LYS:CB	2.39	0.51
32:YI:21:VAL:HG21	32:YI:25:TYR:HD1	1.76	0.51
37:YR:41:ALA:O	37:YR:43:GLU:N	2.43	0.51
26:YB:50:G:OP1	38:YS:62:LYS:HB2	2.10	0.51
39:YT:111:ARG:O	39:YT:112:ARG:CG	2.55	0.51
44:YY:74:PRO:O	44:YY:80:GLY:HA2	2.10	0.51
1:QA:519:C:OP2	12:QL:50:SER:OG	2.28	0.51
4:QD:196:LEU:HD12	4:QD:196:LEU:H	1.75	0.51
7:QG:15:ASP:CB	7:QG:20:ASP:H	2.13	0.51
1:QA:690:G:H22	11:QK:55:LYS:NZ	2.08	0.51
13:QM:90:LEU:CB	13:QM:93:ARG:HD2	2.41	0.51
1:QA:278:G:N2	17:QQ:95:TYR:HB3	2.25	0.51
18:QR:64:ARG:O	18:QR:66:LEU:N	2.43	0.51
46:R0:10:THR:HG22	46:R0:12:ASN:H	1.75	0.51
50:R4:14:ILE:HG23	50:R4:14:ILE:O	2.10	0.51
25:RA:109:G:C2	25:RA:110:G:C8	2.99	0.51
25:RA:1356:G:N2	25:RA:1376:C:C2	2.78	0.51
25:RA:1410:G:H5''	25:RA:1410:G:H8	1.74	0.51
25:RA:1681:G:O5'	25:RA:1681:G:H8	1.93	0.51
25:RA:2881:C:H5''	37:RR:117:VAL:HG21	1.92	0.51
26:RB:12:C:H2'	46:R0:73:GLY:HA3	1.92	0.51
28:RE:105:THR:HB	28:RE:197:ILE:HG12	1.92	0.51
29:RF:127:GLU:OE1	29:RF:127:GLU:HA	2.07	0.51
30:RG:97:ASP:O	30:RG:101:ILE:HG23	2.10	0.51
31:RH:126:PRO:HD2	31:RH:127:GLU:N	2.25	0.51
33:RN:16:ILE:HG22	33:RN:17:ASP:N	2.26	0.51
35:RP:112:LEU:HD22	35:RP:113:LYS:N	2.25	0.51
35:RP:31:ALA:C	35:RP:32:THR:HG23	2.31	0.51
26:RB:50:G:OP1	38:RS:63:THR:HG23	2.10	0.51
39:RT:20:PRO:HD2	39:RT:86:ILE:HG23	1.92	0.51
39:RT:42:ILE:N	39:RT:42:ILE:HD12	2.25	0.51
40:RU:59:ARG:O	40:RU:63:VAL:HG23	2.11	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:RV:75:PHE:CD1	41:RV:75:PHE:C	2.83	0.51
43:RX:47:PHE:CD1	43:RX:47:PHE:N	2.78	0.51
1:XA:1052:U:H5''	1:XA:1053:G:OP2	2.10	0.51
1:XA:193:C:OP1	20:XT:57:ARG:HD2	2.10	0.51
1:XA:1111:A:N1	3:XC:177:THR:HG23	2.25	0.51
3:XC:181:ASN:HD21	3:XC:204:LEU:CD1	2.12	0.51
4:XD:106:TYR:CE1	4:XD:112:VAL:O	2.62	0.51
4:XD:127:THR:CG2	4:XD:128:VAL:N	2.73	0.51
4:XD:162:LEU:HD13	4:XD:181:MET:HB3	1.92	0.51
6:XF:101:ALA:HA	18:XR:28:GLU:OE1	2.10	0.51
6:XF:75:LEU:HD23	6:XF:79:LEU:HG	1.90	0.51
7:XG:151:TYR:HA	7:XG:153:HIS:CE1	2.45	0.51
9:XI:88:TYR:O	9:XI:89:ASN:CB	2.58	0.51
13:XM:77:ASN:ND2	50:Y4:71:ARG:NH1	2.58	0.51
1:XA:191:G:O2'	20:XT:101:GLY:O	2.28	0.51
51:Y5:40:LYS:HD3	51:Y5:46:CYS:SG	2.50	0.51
25:YA:1641:A:H3'	25:YA:1642:G:H8	1.75	0.51
25:YA:1741:C:H5'	25:YA:1742:C:OP2	2.09	0.51
25:YA:2578:G:H4'	25:YA:2578:G:OP2	2.10	0.51
25:YA:534:U:O2	40:YU:49:HIS:HE1	1.93	0.51
25:YA:685:A:N3	25:YA:689:A:C6	2.79	0.51
26:YB:105:G:C2	26:YB:106:G:C8	2.97	0.51
27:YD:35:LYS:HD2	27:YD:104:TYR:CD1	2.45	0.51
28:YE:51:PHE:CD1	28:YE:52:LEU:N	2.76	0.51
30:YG:97:ASP:O	30:YG:101:ILE:HG23	2.10	0.51
31:YH:6:ARG:C	31:YH:8:PRO:HD2	2.30	0.51
33:YN:120:LEU:CD1	33:YN:122:VAL:HG23	2.38	0.51
33:YN:94:HIS:O	33:YN:95:PRO:O	2.28	0.51
35:YP:112:LEU:HD22	35:YP:113:LYS:H	1.75	0.51
35:YP:112:LEU:HD11	35:YP:114:ILE:CG2	2.40	0.51
25:YA:2415:G:O3'	35:YP:66:GLY:HA3	2.10	0.51
38:YS:67:ARG:HH11	38:YS:67:ARG:HB2	1.66	0.51
41:YV:75:PHE:C	41:YV:75:PHE:CD1	2.83	0.51
43:YX:52:VAL:HG12	43:YX:52:VAL:O	2.09	0.51
44:YY:101:LYS:O	44:YY:102:CYS:SG	2.66	0.51
1:QA:1004:A:H2	1:QA:1024:G:C8	2.28	0.51
1:QA:216:G:H2'	1:QA:217:C:C6	2.46	0.51
1:QA:328:C:H2'	1:QA:328:C:O2	2.10	0.51
1:QA:6:G:H4'	1:QA:298:A:H4'	1.92	0.51
3:QC:22:TRP:CH2	3:QC:32:LEU:HB2	2.45	0.51
3:QC:40:ARG:O	3:QC:44:GLU:HG3	2.11	0.51
3:QC:35:GLU:OE2	3:QC:95:THR:HG23	2.11	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:162:LEU:HD11	4:QD:181:MET:HB3	1.92	0.51
6:QF:75:LEU:HD21	6:QF:79:LEU:HD11	1.91	0.51
13:QM:2:ALA:O	13:QM:9:ILE:HB	2.10	0.51
16:QP:21:VAL:O	16:QP:33:ILE:HG12	2.11	0.51
22:QV:74:C:H42	25:RA:2252:G:H1	1.58	0.51
49:R3:17:LYS:HA	49:R3:20:LYS:HD2	1.93	0.51
25:RA:120:U:H4'	25:RA:121:G:H5''	1.91	0.51
25:RA:190:A:N6	25:RA:207:A:H1'	2.25	0.51
25:RA:2627:G:N3	25:RA:2781:A:H2	2.09	0.51
26:RB:37:C:N4	26:RB:38:C:N3	2.59	0.51
26:RB:46:A:C5	26:RB:47:C:C5	2.98	0.51
29:RF:198:ALA:C	29:RF:200:GLU:N	2.62	0.51
30:RG:34:LEU:HD13	30:RG:34:LEU:C	2.30	0.51
33:RN:12:ARG:NH1	33:RN:50:ASP:OD1	2.43	0.51
34:RO:24:VAL:HG21	34:RO:32:TYR:O	2.10	0.51
34:RO:43:VAL:HG23	34:RO:56:ASP:O	2.10	0.51
38:RS:87:PHE:O	38:RS:88:ASP:O	2.28	0.51
39:RT:99:LEU:HB2	39:RT:101:PHE:CE1	2.45	0.51
41:RV:29:PRO:O	41:RV:61:VAL:O	2.29	0.51
2:XB:134:GLU:HB3	2:XB:138:LEU:CD1	2.39	0.51
3:XC:22:TRP:CZ3	3:XC:32:LEU:HD12	2.45	0.51
3:XC:20:SER:CB	3:XC:40:ARG:HH22	2.14	0.51
3:XC:35:GLU:OE2	3:XC:95:THR:HG23	2.10	0.51
7:XG:11:GLN:C	7:XG:12:LEU:HD22	2.31	0.51
8:XH:12:ARG:NH1	8:XH:27:PRO:HD2	2.25	0.51
8:XH:51:VAL:HG11	8:XH:60:ARG:HG3	1.92	0.51
12:XL:23:LYS:O	12:XL:24:VAL:HG23	2.10	0.51
16:XP:21:VAL:O	16:XP:33:ILE:HG12	2.11	0.51
19:XS:40:ILE:HG23	19:XS:67:VAL:O	2.11	0.51
21:XU:3:LYS:HB3	21:XU:14:TRP:CD1	2.46	0.51
25:YA:1343:G:H1	25:YA:1404:C:H42	1.58	0.51
25:YA:1422:G:C5	25:YA:1423:G:N7	2.78	0.51
25:YA:1652:A:C2'	25:YA:1653:G:H5'	2.41	0.51
25:YA:2318:G:H22	38:YS:2:ALA:N	2.09	0.51
25:YA:2459:A:C6	25:YA:2460:U:C2	2.99	0.51
25:YA:1638:C:H4'	25:YA:2710:C:O2	2.11	0.51
25:YA:27:G:H1'	25:YA:513:A:N6	2.25	0.51
25:YA:2845:G:O2'	25:YA:2846:G:H5'	2.10	0.51
25:YA:392:C:H5''	25:YA:409:C:H5''	1.91	0.51
25:YA:656:G:H2'	25:YA:657:U:O4'	2.11	0.51
27:YD:30:GLU:HG3	27:YD:63:ARG:NH2	2.26	0.51
27:YD:67:PHE:CE1	27:YD:157:ARG:NH2	2.79	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:YE:203:LYS:HE3	28:YE:204:ALA:CB	2.40	0.51
29:YF:125:LEU:HA	29:YF:194:MET:O	2.10	0.51
30:YG:44:GLY:CA	30:YG:88:ILE:HD11	2.40	0.51
33:YN:134:ARG:O	33:YN:136:GLU:N	2.43	0.51
34:YO:14:THR:HG21	34:YO:86:ILE:HD13	1.91	0.51
41:YV:14:VAL:HA	41:YV:18:LEU:HD12	1.93	0.51
44:YY:94:LYS:HE3	44:YY:101:LYS:HZ1	1.75	0.51
44:YY:75:ILE:C	44:YY:75:ILE:HD13	2.31	0.51
45:YZ:19:ARG:HD3	45:YZ:25:PRO:HD2	1.91	0.51
1:QA:634:C:C2'	1:QA:635:G:H5'	2.40	0.51
1:QA:797:C:OP1	11:QK:124:LYS:HE2	2.11	0.51
1:QA:924:C:N4	1:QA:925:G:O6	2.44	0.51
3:QC:11:ARG:O	3:QC:13:GLY:N	2.43	0.51
4:QD:65:ARG:NH1	4:QD:70:ILE:O	2.43	0.51
6:QF:63:TYR:N	6:QF:63:TYR:HD2	2.09	0.51
6:QF:69:GLU:C	6:QF:71:ARG:H	2.13	0.51
9:QI:126:SER:O	9:QI:128:ARG:N	2.35	0.51
9:QI:3:GLN:HB3	9:QI:20:ARG:CG	2.40	0.51
10:QJ:17:ASP:HA	10:QJ:20:ALA:HB3	1.93	0.51
13:QM:57:ARG:CB	13:QM:57:ARG:HH11	2.14	0.51
17:QQ:48:GLU:O	17:QQ:49:GLU:C	2.48	0.51
20:QT:83:ARG:O	20:QT:86:ARG:HB3	2.10	0.51
47:R1:8:SER:HB3	47:R1:66:HIS:CE1	2.46	0.51
50:R4:36:CYS:O	50:R4:39:CYS:CB	2.55	0.51
25:RA:1093:G:OP1	31:RH:170:ARG:HD2	2.10	0.51
25:RA:1378:A:O2'	25:RA:1379:A:O5'	2.18	0.51
25:RA:246:C:N4	54:R8:8:LYS:HG3	2.25	0.51
25:RA:626:U:H5''	25:RA:627:A:H5'	1.93	0.51
26:RB:66:A:C2	26:RB:108:C:C4	2.98	0.51
28:RE:77:ILE:O	28:RE:78:LEU:C	2.47	0.51
29:RF:162:LEU:HD23	29:RF:165:ARG:NH2	2.25	0.51
30:RG:114:ILE:CG2	30:RG:115:ARG:N	2.73	0.51
31:RH:89:ILE:O	31:RH:89:ILE:CG1	2.57	0.51
32:RI:120:ILE:HG12	32:RI:126:TYR:CE1	2.46	0.51
36:RQ:64:ILE:HA	36:RQ:106:VAL:CG1	2.33	0.51
37:RR:28:LEU:CD2	37:RR:114:VAL:HG12	2.41	0.51
39:RT:34:VAL:CG1	39:RT:36:GLU:HG2	2.39	0.51
25:RA:336:C:HO2'	44:RY:35:TYR:HH	1.59	0.51
1:XA:1324:A:H4'	1:XA:1362:C:H4'	1.93	0.51
1:XA:277:C:C4	1:XA:278:G:N7	2.78	0.51
1:XA:582:U:H2'	1:XA:583:A:C8	2.45	0.51
1:XA:60:A:H4'	1:XA:61:G:O5'	2.10	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:738:C:H2'	1:XA:739:C:C6	2.45	0.51
3:XC:113:ALA:C	3:XC:115:LEU:H	2.14	0.51
4:XD:83:SER:HA	4:XD:89:THR:HG23	1.92	0.51
1:XA:1148:U:OP1	9:XI:7:THR:HG21	2.10	0.51
20:XT:89:ARG:HH22	20:XT:106:ALA:HB2	1.75	0.51
21:XU:6:ARG:HE	21:XU:15:ARG:NH2	2.08	0.51
48:Y2:15:LYS:H	48:Y2:67:LYS:HE2	1.73	0.51
50:Y4:54:GLY:HA2	50:Y4:57:GLU:HG2	1.92	0.51
54:Y8:29:LYS:HB2	54:Y8:44:LYS:HG2	1.91	0.51
25:YA:1492:G:H3'	25:YA:1493:C:H5'	1.92	0.51
25:YA:49:A:N6	25:YA:177:G:C4	2.78	0.51
25:YA:195:A:H5''	35:YP:46:LYS:NZ	2.25	0.51
25:YA:2205:C:O5'	25:YA:2205:C:H6	1.92	0.51
25:YA:2408:U:H2'	25:YA:2409:G:C8	2.45	0.51
25:YA:934:G:H2'	25:YA:935:C:H6	1.74	0.51
27:YD:259:THR:O	27:YD:260:ARG:C	2.49	0.51
28:YE:95:ILE:H	28:YE:95:ILE:CD1	2.19	0.51
33:YN:12:ARG:NH1	33:YN:50:ASP:OD2	2.40	0.51
34:YO:23:ARG:O	34:YO:39:ILE:HB	2.09	0.51
34:YO:4:PRO:O	34:YO:5:GLN:CB	2.58	0.51
41:YV:1:MET:HE2	41:YV:43:GLU:HG2	1.92	0.51
42:YW:14:PRO:O	42:YW:17:VAL:N	2.42	0.51
1:QA:1127:G:N2	1:QA:1145:C:O2	2.44	0.51
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.59	0.51
1:QA:129(A):G:N2	1:QA:188:U:HO2'	2.07	0.51
1:QA:573:A:N3	1:QA:883:C:O2'	2.42	0.51
1:QA:696:A:H8	1:QA:696:A:O5'	1.94	0.51
3:QC:112:SER:HB3	3:QC:115:LEU:HD12	1.92	0.51
3:QC:36:ASP:HB3	3:QC:40:ARG:NH1	2.25	0.51
5:QE:107:ARG:O	5:QE:108:ALA:C	2.49	0.51
7:QG:16:LEU:HD11	9:QI:45:ALA:HB2	1.92	0.51
8:QH:102:ARG:NH1	8:QH:105:ARG:HH12	2.09	0.51
50:R4:12:ALA:HB1	50:R4:30:GLU:H	1.76	0.51
25:RA:247:G:H4'	25:RA:386:G:C5	2.46	0.51
25:RA:2516:G:C5	25:RA:2517:C:C4	2.98	0.51
25:RA:2600:A:C6	25:RA:2601:C:N4	2.79	0.51
25:RA:2745:C:C4	25:RA:2746:U:C4	2.98	0.51
25:RA:828:U:H4'	25:RA:831:G:N1	2.26	0.51
25:RA:829:A:N7	25:RA:2247:A:O2'	2.37	0.51
29:RF:32:LEU:O	29:RF:36:VAL:HG23	2.11	0.51
33:RN:131:GLN:CG	33:RN:132:ALA:H	2.20	0.51
36:RQ:25:ASP:HA	36:RQ:100:GLY:O	2.11	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:RR:117:VAL:CG2	37:RR:118:GLU:N	2.74	0.51
41:RV:38:LEU:HD13	41:RV:55:ALA:HB3	1.91	0.51
44:RY:75:ILE:CG1	44:RY:76:CYS:N	2.73	0.51
44:RY:95:LYS:O	44:RY:96:ILE:O	2.28	0.51
1:XA:1054:C:N4	24:XY:34:C:C6	2.78	0.51
1:XA:1389:C:H2'	1:XA:1390:U:O4'	2.10	0.51
1:XA:267:C:H2'	1:XA:268:C:H6	1.76	0.51
1:XA:475:G:H2'	1:XA:476:G:H8	1.76	0.51
1:XA:668:G:O2'	15:XO:46:HIS:HB3	2.11	0.51
3:XC:29:TYR:OH	14:XN:54:PRO:HD2	2.09	0.51
18:XR:64:ARG:O	18:XR:66:LEU:N	2.43	0.51
50:Y4:42:PHE:O	50:Y4:44:THR:N	2.44	0.51
51:Y5:20:ARG:C	51:Y5:22:HIS:H	2.14	0.51
25:YA:1338:G:O2'	25:YA:1393:A:N1	2.37	0.51
25:YA:1449:A:H5'	25:YA:1449(A):G:OP2	2.10	0.51
25:YA:1506:C:H3'	25:YA:1507:A:H5''	1.91	0.51
25:YA:17:G:H2'	25:YA:18:C:H6	1.75	0.51
25:YA:1993:U:H4'	28:YE:128:SER:OG	2.10	0.51
25:YA:2729:G:H2'	25:YA:2730:C:C6	2.46	0.51
25:YA:628:G:H2'	25:YA:629:G:H8	1.75	0.51
27:YD:134:ARG:HB2	27:YD:135:PHE:HD2	1.75	0.51
29:YF:65:TRP:HZ2	29:YF:72:ARG:NH2	2.09	0.51
25:YA:807:U:OP2	35:YP:41:ARG:NH1	2.43	0.51
39:YT:14:TYR:H	39:YT:14:TYR:HD1	1.56	0.51
44:YY:77:PRO:O	44:YY:78:ALA:HB2	2.10	0.51
1:QA:1015:A:H1'	1:QA:1219:U:H5'	1.93	0.51
1:QA:389:A:H2'	1:QA:390:C:H5'	1.93	0.51
1:QA:409:G:H1	1:QA:433:C:N4	2.06	0.51
1:QA:940:C:H2'	1:QA:941:G:C8	2.46	0.51
2:QB:82:ARG:HA	2:QB:92:TYR:CE2	2.45	0.51
3:QC:113:ALA:C	3:QC:115:LEU:H	2.14	0.51
4:QD:127:THR:CG2	4:QD:128:VAL:N	2.73	0.51
4:QD:54:TYR:CE1	4:QD:206:PHE:HE1	2.29	0.51
6:QF:30:LEU:O	6:QF:35:ALA:HB3	2.10	0.51
9:QI:88:TYR:O	9:QI:89:ASN:CB	2.58	0.51
10:QJ:81:THR:C	10:QJ:83:GLU:N	2.64	0.51
12:QL:23:LYS:O	12:QL:24:VAL:HG23	2.11	0.51
13:QM:16:ASP:HB3	13:QM:34:LEU:HD11	1.93	0.51
13:QM:87:TYR:C	13:QM:89:GLY:N	2.64	0.51
15:QO:17:ARG:NH1	15:QO:77:ARG:NH1	2.59	0.51
21:QU:10:ARG:HH11	21:QU:10:ARG:HG3	1.75	0.51
21:QU:3:LYS:HB3	21:QU:14:TRP:CD1	2.45	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:R6:9:LEU:HB3	52:R6:26:ASN:O	2.11	0.51
53:R7:36:GLN:HG2	53:R7:36:GLN:O	2.10	0.51
25:RA:1188:U:O2'	25:RA:1189:A:H5'	2.10	0.51
25:RA:130:C:H4'	25:RA:1349:A:O4'	2.11	0.51
25:RA:1705:G:C6	25:RA:1706:U:C4	2.98	0.51
25:RA:1899:G:H21	25:RA:1902:C:H42	1.58	0.51
25:RA:2625:G:H2'	25:RA:2626:C:C6	2.46	0.51
25:RA:2643:G:H2'	25:RA:2644:G:O4'	2.10	0.51
25:RA:848:G:C2	25:RA:933:A:H1'	2.45	0.51
27:RD:259:THR:O	27:RD:260:ARG:C	2.49	0.51
27:RD:67:PHE:CE1	27:RD:157:ARG:NH2	2.79	0.51
28:RE:105:THR:HG23	28:RE:166:THR:OG1	2.10	0.51
28:RE:119:ARG:HD3	28:RE:160:TYR:HB2	1.92	0.51
30:RG:44:GLY:CA	30:RG:88:ILE:HD11	2.40	0.51
33:RN:26:LEU:HG	33:RN:30:ILE:HD11	1.93	0.51
33:RN:6:PRO:HG2	33:RN:43:THR:OG1	2.11	0.51
34:RO:16:ALA:HA	34:RO:46:ALA:HB2	1.92	0.51
34:RO:79:PHE:CD2	39:RT:72:VAL:HG22	2.45	0.51
34:RO:2:ILE:CD1	34:RO:82:ASN:HD22	2.14	0.51
35:RP:112:LEU:HD22	35:RP:113:LYS:H	1.75	0.51
42:RW:25:ARG:HB2	42:RW:25:ARG:HH11	1.74	0.51
42:RW:7:ALA:HB2	42:RW:50:VAL:CG2	2.40	0.51
1:XA:129(A):G:N2	1:XA:191(A):G:C5	2.79	0.51
1:XA:421:U:H5''	1:XA:422:C:OP2	2.11	0.51
1:XA:505:G:H2'	1:XA:505:G:N3	2.26	0.51
1:XA:889:A:H4'	1:XA:890:G:OP1	2.09	0.51
3:XC:11:ARG:O	3:XC:13:GLY:N	2.43	0.51
3:XC:22:TRP:CH2	3:XC:32:LEU:HB2	2.45	0.51
4:XD:196:LEU:HD12	4:XD:196:LEU:H	1.75	0.51
10:XJ:17:ASP:HA	10:XJ:20:ALA:HB3	1.93	0.51
12:XL:24:VAL:CG1	12:XL:24:VAL:O	2.58	0.51
13:XM:87:TYR:C	13:XM:89:GLY:N	2.64	0.51
14:XN:44:LEU:O	14:XN:48:ALA:N	2.41	0.51
16:XP:20:VAL:HG23	16:XP:34:GLU:O	2.11	0.51
16:XP:72:ARG:HD3	16:XP:73:LEU:HD23	1.91	0.51
50:Y4:50:VAL:O	50:Y4:51:ASP:C	2.48	0.51
13:XM:80:ARG:NH2	50:Y4:70:GLY:HA3	2.26	0.51
25:YA:1962:C:O2'	25:YA:1964:G:OP2	2.28	0.51
25:YA:2336:A:O5'	25:YA:2336:A:H8	1.92	0.51
25:YA:216:A:C8	25:YA:432:A:C6	2.99	0.51
25:YA:836:G:H5''	25:YA:837:C:OP2	2.10	0.51
26:YB:5:C:H2'	26:YB:6:C:H6	1.74	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:YB:63:G:C2	26:YB:64:C:C2	2.99	0.51
30:YG:114:ILE:CG2	30:YG:115:ARG:N	2.73	0.51
25:YA:2745:C:H1'	31:YH:143:GLN:HG2	1.91	0.51
33:YN:131:GLN:HE21	33:YN:132:ALA:H	1.58	0.51
35:YP:31:ALA:C	35:YP:32:THR:HG23	2.31	0.51
39:YT:14:TYR:CD1	39:YT:14:TYR:N	2.78	0.51
41:YV:41:GLY:N	41:YV:46:VAL:HG13	2.26	0.51
42:YW:70:TYR:HD2	42:YW:70:TYR:N	2.06	0.51
43:YX:36:LYS:HA	43:YX:39:ILE:HD12	1.90	0.51
1:QA:102:G:C6	1:QA:103:C:C4	2.99	0.51
1:QA:359:U:H2'	1:QA:360:A:H8	1.72	0.51
1:QA:502:G:H2'	1:QA:503:C:O4'	2.11	0.51
2:QB:134:GLU:HB3	2:QB:138:LEU:HD12	1.93	0.51
2:QB:24:TRP:CE3	2:QB:26:PRO:HA	2.45	0.51
4:QD:52:SER:O	4:QD:53:ASP:C	2.49	0.51
11:QK:46:GLY:HA2	11:QK:50:TYR:O	2.10	0.51
1:QA:376:G:OP1	16:QP:5:ARG:HB2	2.10	0.51
6:QF:101:ALA:HA	18:QR:28:GLU:OE1	2.11	0.51
47:R1:87:PRO:O	47:R1:91:LYS:HB2	2.11	0.51
47:R1:94:LEU:O	47:R1:95:LEU:HG	2.11	0.51
43:RX:5:TYR:CE2	48:R2:30:ARG:HG3	2.45	0.51
48:R2:15:LYS:H	48:R2:67:LYS:HE2	1.73	0.51
50:R4:61:ARG:C	50:R4:63:TYR:H	2.14	0.51
25:RA:2459:A:C2	25:RA:2460:U:H1'	2.46	0.51
25:RA:2475:C:H42	25:RA:2529:G:H22	1.57	0.51
25:RA:554:U:O2'	25:RA:556:G:H8	1.93	0.51
25:RA:860:U:C5	25:RA:917:A:C2	2.98	0.51
28:RE:7:VAL:HG11	39:RT:1:MET:HE3	1.92	0.51
30:RG:51:ARG:HB3	30:RG:51:ARG:HH11	1.76	0.51
25:RA:558:G:OP1	33:RN:111:PRO:HD2	2.11	0.51
34:RO:15:GLY:O	34:RO:46:ALA:HB1	2.10	0.51
25:RA:2414:G:H21	35:RP:67:MET:CE	2.23	0.51
41:RV:5:VAL:HG22	41:RV:14:VAL:HG22	1.93	0.51
42:RW:9:TYR:CD2	42:RW:102:HIS:HE1	2.28	0.51
1:XA:339:C:OP2	34:YO:97:ARG:NH1	2.43	0.51
1:XA:411:A:C4	1:XA:413:G:H1'	2.46	0.51
3:XC:139:GLN:O	3:XC:143:GLU:HB2	2.11	0.51
4:XD:108:LEU:HD11	4:XD:174:LEU:CD2	2.37	0.51
5:XE:107:ARG:O	5:XE:108:ALA:C	2.49	0.51
6:XF:10:LEU:HD13	6:XF:61:LEU:HD13	1.93	0.51
11:XK:29:ILE:HG13	11:XK:44:SER:HB3	1.92	0.51
1:XA:538:G:OP1	12:XL:113:ARG:HD2	2.10	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:XM:2:ALA:O	13:XM:9:ILE:HB	2.10	0.51
13:XM:4:ILE:HG22	13:XM:5:ALA:H	1.75	0.51
22:XV:15:G:H22	22:XV:48:C:H42	1.57	0.51
22:XV:4:G:HO2'	22:XV:5:G:H8	1.58	0.51
22:XV:58:A:O2'	22:XV:60:U:OP2	2.16	0.51
22:XV:68:C:H2'	22:XV:69:C:H6	1.76	0.51
43:YX:5:TYR:CE2	48:Y2:30:ARG:HG3	2.45	0.51
50:Y4:12:ALA:HB1	50:Y4:30:GLU:H	1.76	0.51
25:YA:1291:C:C2	25:YA:1292:U:C5	2.99	0.51
25:YA:1529:A:C8	25:YA:1530:G:C8	2.99	0.51
25:YA:1888:G:H5''	25:YA:1888:G:N3	2.25	0.51
25:YA:1918:A:O2'	25:YA:1920:C:N4	2.43	0.51
25:YA:270(B):A:O2'	25:YA:364:C:H2'	2.10	0.51
25:YA:394:A:H5'	25:YA:395:U:OP2	2.11	0.51
25:YA:470:A:H2'	25:YA:471:A:O4'	2.10	0.51
28:YE:77:ILE:O	28:YE:78:LEU:C	2.48	0.51
30:YG:51:ARG:HB3	30:YG:51:ARG:HH11	1.76	0.51
31:YH:19:VAL:HG13	31:YH:43:VAL:CG2	2.41	0.51
31:YH:55:PRO:HG2	31:YH:61:HIS:ND1	2.26	0.51
31:YH:72:ILE:O	31:YH:75:ALA:HB3	2.11	0.51
34:YO:24:VAL:HG21	34:YO:32:TYR:O	2.11	0.51
35:YP:95:VAL:HG13	35:YP:100:LEU:CD2	2.40	0.51
37:YR:118:GLU:HG3	37:YR:118:GLU:OXT	2.11	0.51
43:YX:18:TYR:C	43:YX:20:GLY:N	2.64	0.51
1:QA:189:U:C2	17:QQ:72:ARG:NH1	2.78	0.51
2:QB:187:LEU:O	2:QB:187:LEU:HD13	2.11	0.51
3:QC:175:LEU:HD12	3:QC:175:LEU:H	1.75	0.51
4:QD:22:LYS:HB2	4:QD:26:CYS:CB	2.41	0.51
8:QH:104:ARG:HD2	8:QH:138:TRP:CD2	2.46	0.51
13:QM:9:ILE:C	13:QM:9:ILE:HD12	2.31	0.51
48:R2:36:ARG:O	48:R2:40:SER:HB2	2.10	0.51
54:R8:10:ALA:O	54:R8:14:VAL:HG12	2.11	0.51
25:RA:1392:A:H62	25:RA:1393:A:N6	2.09	0.51
25:RA:1826:G:H2'	25:RA:1827:C:C6	2.45	0.51
25:RA:1832:C:N4	25:RA:1833:U:C4	2.79	0.51
25:RA:185:U:H4'	25:RA:218:A:H4'	1.93	0.51
25:RA:2818:G:H2'	25:RA:2819:G:C8	2.46	0.51
25:RA:531:C:OP1	25:RA:561:G:N1	2.44	0.51
25:RA:930:U:H4'	25:RA:931:G:O5'	2.11	0.51
25:RA:947:G:H2'	25:RA:948:G:C8	2.46	0.51
26:RB:89(A):A:C5	26:RB:90:C:H1'	2.46	0.51
27:RD:76:PRO:HA	27:RD:118:VAL:HG23	1.93	0.51

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:RF:127:GLU:O	29:RF:129:PHE:N	2.40	0.51
33:RN:134:ARG:O	33:RN:136:GLU:N	2.43	0.51
34:RO:113:LYS:O	34:RO:116:SER:HB3	2.11	0.51
34:RO:35:VAL:O	34:RO:35:VAL:HG23	2.11	0.51
41:RV:35:LEU:CD2	41:RV:57:VAL:HG22	2.32	0.51
45:RZ:151:HIS:HA	45:RZ:170:THR:HA	1.92	0.51
1:XA:1329:A:H5'	13:XM:29:ARG:HG3	1.92	0.51
4:XD:112:VAL:HG12	4:XD:116:GLN:OE1	2.11	0.51
4:XD:206:PHE:CD2	4:XD:207:TYR:CD1	2.99	0.51
4:XD:52:SER:O	4:XD:53:ASP:C	2.49	0.51
7:XG:15:ASP:CB	7:XG:20:ASP:H	2.13	0.51
8:XH:104:ARG:HD2	8:XH:138:TRP:CD2	2.46	0.51
13:XM:9:ILE:HD12	13:XM:9:ILE:C	2.31	0.51
14:XN:40:CYS:SG	14:XN:43:CYS:CA	2.98	0.51
16:XP:1:MET:O	16:XP:3:LYS:HG3	2.11	0.51
16:XP:43:LYS:C	16:XP:45:THR:H	2.14	0.51
19:XS:41:VAL:CG1	19:XS:45:VAL:N	2.74	0.51
47:Y1:60:PHE:HE2	47:Y1:91:LYS:HZ1	1.57	0.51
52:Y6:20:ASN:O	52:Y6:21:TYR:CB	2.59	0.51
25:YA:1155:A:O2'	25:YA:1156:A:H2'	2.10	0.51
25:YA:1239:G:H2'	25:YA:1240:U:O4'	2.11	0.51
25:YA:1251:C:OP1	40:YU:10:ARG:HG3	2.11	0.51
25:YA:1842:G:N2	25:YA:1901:A:C4	2.79	0.51
26:YB:13:A:C2	26:YB:70:C:O4'	2.64	0.51
27:YD:94:LEU:C	27:YD:94:LEU:HD13	2.31	0.51
29:YF:192:LEU:HD21	29:YF:194:MET:HE2	1.92	0.51
1:QA:359:U:OP1	32:YI:87:LYS:HD3	2.10	0.51
34:YO:24:VAL:HG13	34:YO:24:VAL:O	2.11	0.51
35:YP:101:VAL:HA	35:YP:105:LEU:O	2.10	0.51
35:YP:62:LEU:CD2	35:YP:62:LEU:H	2.19	0.51
36:YQ:133:ARG:HG2	36:YQ:134:ARG:N	2.26	0.51
36:YQ:58:PHE:O	36:YQ:58:PHE:HD1	1.94	0.51
43:YX:47:PHE:N	43:YX:47:PHE:CD1	2.78	0.51
43:YX:65:ARG:CD	43:YX:65:ARG:H	2.24	0.51
1:QA:923:A:O2'	1:QA:1399:C:OP2	2.19	0.51
1:QA:190:G:O2'	1:QA:191(A):G:OP2	2.29	0.51
1:QA:224:C:H2'	1:QA:225:C:H6	1.75	0.51
1:QA:555:C:H2'	1:QA:556:C:C6	2.46	0.51
3:QC:21:ARG:CD	3:QC:21:ARG:N	2.74	0.51
4:QD:112:VAL:HG12	4:QD:116:GLN:OE1	2.11	0.51
5:QE:12:LEU:HD23	5:QE:13:ILE:H	1.76	0.51
5:QE:60:TYR:CE1	5:QE:64:ARG:NH2	2.77	0.51

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:86:ARG:O	6:QF:87:ARG:CG	2.50	0.51
10:QJ:54:PHE:O	10:QJ:55:LYS:HG3	2.11	0.51
13:QM:120:LYS:O	13:QM:121:LYS:HB2	2.11	0.51
47:R1:92:LYS:C	47:R1:94:LEU:N	2.62	0.51
25:RA:1043:C:O2'	25:RA:1048:A:O2'	2.14	0.51
25:RA:363(B):G:H2'	25:RA:363(C):G:H8	1.73	0.51
25:RA:879:G:H2'	25:RA:880:G:O4'	2.10	0.51
31:RH:131:VAL:CG1	31:RH:132:ARG:N	2.74	0.51
33:RN:112:LEU:HD23	33:RN:113:GLY:N	2.26	0.51
34:RO:20:MET:HG2	34:RO:21:CYS:O	2.11	0.51
36:RQ:36:ALA:HB1	36:RQ:127:ILE:HD12	1.93	0.51
44:RY:2:ARG:NH1	44:RY:2:ARG:HG2	2.22	0.51
44:RY:46:LYS:HE3	44:RY:63:LYS:HB3	1.93	0.51
1:XA:1057:G:H2'	1:XA:1058:G:O4'	2.10	0.51
1:XA:1240:U:OP2	7:XG:116:ALA:N	2.44	0.51
1:XA:1301:U:C4	1:XA:1303:C:C6	2.99	0.51
2:XB:15:VAL:H	2:XB:16:HIS:HD1	1.59	0.51
3:XC:150:LYS:HG3	3:XC:169:ALA:HB2	1.92	0.51
3:XC:70:VAL:CG1	3:XC:71:ALA:N	2.73	0.51
4:XD:11:LEU:HD22	4:XD:66:ARG:CD	2.19	0.51
5:XE:126:ARG:CG	5:XE:126:ARG:HH11	2.21	0.51
12:XL:27:LEU:C	12:XL:29:GLY:N	2.64	0.51
16:XP:39:TYR:OH	16:XP:41:PRO:HB3	2.11	0.51
21:XU:10:ARG:HH11	21:XU:10:ARG:HG3	1.75	0.51
47:Y1:92:LYS:C	47:Y1:94:LEU:N	2.62	0.51
25:YA:1899:G:N2	25:YA:1902:C:H5	2.08	0.51
25:YA:2401:U:H2'	25:YA:2402:C:H5''	1.93	0.51
25:YA:2416:C:C2	25:YA:2417:C:C5	2.99	0.51
25:YA:2723:C:O3'	37:YR:1:MET:HE2	2.10	0.51
25:YA:628:G:H2'	25:YA:629:G:C8	2.45	0.51
25:YA:655:A:H8	25:YA:656:G:O4'	1.94	0.51
25:YA:60:G:C2	25:YA:74:A:C5	2.98	0.51
25:YA:898:C:H2'	25:YA:899:A:H5'	1.92	0.51
27:YD:210:GLY:O	27:YD:213:ARG:N	2.43	0.51
27:YD:28:GLU:OE1	27:YD:29:PRO:HD2	2.11	0.51
28:YE:37:ARG:HE	28:YE:37:ARG:N	2.09	0.51
28:YE:54:GLN:NE2	28:YE:54:GLN:H	2.08	0.51
29:YF:198:ALA:C	29:YF:200:GLU:N	2.62	0.51
30:YG:109:VAL:O	30:YG:113:ARG:HG3	2.10	0.51
32:YI:77:LEU:HD11	32:YI:140:LEU:HD12	1.92	0.51
33:YN:108:PRO:O	33:YN:113:GLY:HA3	2.10	0.51
33:YN:78:TYR:HD1	33:YN:78:TYR:N	2.07	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:YP:13:ASN:O	35:YP:14:LYS:C	2.49	0.51
36:YQ:25:ASP:HA	36:YQ:100:GLY:O	2.11	0.51
45:YZ:146:ILE:HG22	45:YZ:176:PRO:HD3	1.92	0.51
1:QA:1368:G:OP1	9:QI:111:ARG:NH2	2.44	0.51
1:QA:181:G:O2'	1:QA:182:U:O5'	2.27	0.51
1:QA:539:A:N6	1:QA:540:G:O6	2.44	0.51
1:QA:959:A:H3'	1:QA:960:U:H5''	1.92	0.51
2:QB:23:ARG:HH11	2:QB:23:ARG:HG2	1.76	0.51
3:QC:132:ARG:O	3:QC:136:GLN:HB2	2.11	0.51
4:QD:155:LEU:O	4:QD:159:ARG:HG2	2.10	0.51
4:QD:162:LEU:HD13	4:QD:181:MET:HB3	1.92	0.51
4:QD:83:SER:HA	4:QD:89:THR:HG23	1.92	0.51
5:QE:101:ILE:HD13	5:QE:101:ILE:N	2.25	0.51
9:QI:79:LEU:HD22	9:QI:101:PHE:O	2.11	0.51
11:QK:91:ARG:HH22	18:QR:88:LYS:NZ	2.09	0.51
16:QP:1:MET:O	16:QP:3:LYS:HG3	2.11	0.51
16:QP:83:GLU:HG3	16:QP:84:ALA:H	1.76	0.51
19:QS:26:GLY:O	19:QS:27:GLU:HB2	2.11	0.51
50:R4:42:PHE:O	50:R4:44:THR:N	2.44	0.51
25:RA:2612:C:C4	25:RA:2613:U:H5	2.29	0.51
25:RA:201:C:O2'	25:RA:386:G:N1	2.41	0.51
25:RA:856:C:H5''	25:RA:856:C:H6	1.75	0.51
27:RD:94:LEU:C	27:RD:94:LEU:HD13	2.31	0.51
28:RE:37:ARG:HE	28:RE:37:ARG:N	2.09	0.51
31:RH:6:ARG:C	31:RH:8:PRO:HD2	2.30	0.51
34:RO:23:ARG:HH11	34:RO:23:ARG:HG2	1.76	0.51
25:RA:2406:U:C2	35:RP:72:PRO:HB2	2.46	0.51
38:RS:89:ARG:O	38:RS:89:ARG:HD2	2.11	0.51
41:RV:14:VAL:HA	41:RV:18:LEU:HD12	1.93	0.51
1:XA:1064:G:OP1	1:XA:1386:G:H4'	2.11	0.51
1:XA:438:G:H2'	1:XA:494:U:O4	2.11	0.51
1:XA:892:A:O2'	1:XA:1415:G:H4'	2.11	0.51
2:XB:82:ARG:HA	2:XB:92:TYR:CE2	2.45	0.51
3:XC:21:ARG:CD	3:XC:21:ARG:N	2.74	0.51
3:XC:99:VAL:O	3:XC:99:VAL:HG23	2.11	0.51
6:XF:10:LEU:HD13	6:XF:61:LEU:HD11	1.92	0.51
6:XF:63:TYR:N	6:XF:63:TYR:CD2	2.79	0.51
9:XI:79:LEU:HD22	9:XI:101:PHE:O	2.10	0.51
53:Y7:36:GLN:O	53:Y7:36:GLN:HG2	2.09	0.51
25:YA:1048:A:H5'	25:YA:1049:C:OP2	2.11	0.51
25:YA:1798:U:C2	25:YA:1822:G:N2	2.79	0.51
25:YA:2466:C:H5'	55:Y9:5:ALA:HB3	1.92	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:YF:108:LYS:HA	29:YF:108:LYS:NZ	2.27	0.51
31:YH:4:ILE:O	31:YH:6:ARG:N	2.43	0.51
33:YN:118:LYS:O	33:YN:120:LEU:N	2.43	0.51
33:YN:16:ILE:HG22	33:YN:17:ASP:N	2.25	0.51
33:YN:26:LEU:HG	33:YN:30:ILE:HD11	1.93	0.51
34:YO:113:LYS:O	34:YO:116:SER:HB3	2.11	0.51
38:YS:86:ALA:O	38:YS:87:PHE:HB3	2.09	0.51
38:YS:87:PHE:O	38:YS:88:ASP:O	2.29	0.51
38:YS:95:HIS:CG	38:YS:96:GLY:N	2.77	0.51
44:YY:95:LYS:O	44:YY:96:ILE:O	2.28	0.51
1:QA:1118:C:H1'	1:QA:1179:A:C4	2.45	0.50
1:QA:17:U:H2'	1:QA:18:C:C6	2.46	0.50
1:QA:922:G:C2	1:QA:923:A:C4	2.98	0.50
3:QC:48:TYR:O	3:QC:51:GLY:N	2.41	0.50
4:QD:206:PHE:CD2	4:QD:207:TYR:CD1	2.99	0.50
1:QA:15:G:C4'	5:QE:24:ARG:NH1	2.74	0.50
9:QI:29:ASN:OD1	9:QI:64:THR:HA	2.11	0.50
13:QM:30:ALA:O	13:QM:31:LYS:C	2.49	0.50
21:QU:14:TRP:CE3	21:QU:15:ARG:HD3	2.46	0.50
47:R1:4:VAL:HG23	47:R1:10:LYS:C	2.32	0.50
25:RA:1711:C:H2'	25:RA:1712:C:C6	2.47	0.50
25:RA:1930:G:O2'	25:RA:1931:U:P	2.68	0.50
25:RA:2404:C:H1'	35:RP:67:MET:CE	2.40	0.50
25:RA:257:A:H2'	25:RA:258:G:O4'	2.11	0.50
25:RA:404:C:HO2'	25:RA:405:U:P	2.32	0.50
25:RA:826:U:C6	25:RA:828:U:H6	2.29	0.50
25:RA:974(A):C:H4'	25:RA:975:G:O5'	2.10	0.50
27:RD:30:GLU:HG3	27:RD:63:ARG:NH2	2.25	0.50
29:RF:65:TRP:HZ2	29:RF:72:ARG:NH2	2.08	0.50
31:RH:72:ILE:O	31:RH:75:ALA:HB3	2.11	0.50
33:RN:7:LYS:HD3	33:RN:9:VAL:N	2.25	0.50
35:RP:101:VAL:HA	35:RP:105:LEU:O	2.10	0.50
37:RR:1:MET:O	37:RR:2:ARG:CB	2.60	0.50
39:RT:57:PHE:CG	39:RT:58:ASN:N	2.79	0.50
1:XA:148:G:H2'	1:XA:149:A:C8	2.46	0.50
1:XA:451:A:N6	1:XA:481:G:O4'	2.43	0.50
2:XB:187:LEU:HD13	2:XB:187:LEU:O	2.11	0.50
4:XD:178:VAL:O	4:XD:180:GLY:N	2.44	0.50
6:XF:63:TYR:HD2	6:XF:63:TYR:N	2.09	0.50
8:XH:29:SER:CB	8:XH:32:LYS:HG3	2.28	0.50
9:XI:105:ASP:C	9:XI:107:ARG:H	2.14	0.50
13:XM:66:LEU:O	13:XM:70:LEU:HB2	2.11	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:XO:16:ALA:HB1	15:XO:21:ASP:HB3	1.92	0.50
25:YA:270(R):G:H1'	47:Y1:78:LYS:HZ1	1.75	0.50
48:Y2:36:ARG:O	48:Y2:40:SER:HB2	2.10	0.50
49:Y3:56:VAL:CG1	49:Y3:57:GLU:N	2.74	0.50
49:Y3:7:LYS:HE2	49:Y3:32:GLN:NE2	2.25	0.50
25:YA:1357:U:H2'	25:YA:1358:G:H8	1.75	0.50
25:YA:1401:G:O5'	25:YA:1401:G:H8	1.94	0.50
25:YA:1864:U:H3	25:YA:1878:G:H1	1.59	0.50
28:YE:116:VAL:HG22	28:YE:122:PHE:HB2	1.91	0.50
28:YE:105:THR:HG23	28:YE:166:THR:OG1	2.10	0.50
29:YF:32:LEU:O	29:YF:36:VAL:HG23	2.11	0.50
25:YA:1258:C:O4'	29:YF:84:VAL:HG11	2.11	0.50
26:YB:43:C:H1'	30:YG:93:THR:O	2.11	0.50
31:YH:126:PRO:HD2	31:YH:127:GLU:N	2.26	0.50
35:YP:49:ARG:HE	54:Y8:59:LYS:HG2	1.76	0.50
37:YR:92:GLY:N	37:YR:94:TYR:HE2	2.09	0.50
38:YS:26:LEU:CD2	38:YS:87:PHE:CD1	2.94	0.50
38:YS:83:LYS:HG2	38:YS:109:GLY:H	1.76	0.50
39:YT:51:ARG:HG3	39:YT:98:LYS:HG3	1.93	0.50
1:QA:1221:G:P	19:QS:36:ARG:HD3	2.51	0.50
1:QA:1223:C:P	19:QS:78:ARG:HH12	2.34	0.50
1:QA:1224:G:N1	1:QA:1322:C:H1'	2.26	0.50
1:QA:1478:C:H2'	1:QA:1479:C:C6	2.46	0.50
1:QA:376:G:O3'	16:QP:5:ARG:HD2	2.11	0.50
1:QA:570:G:H2'	1:QA:571:U:H6	1.74	0.50
1:QA:658:G:H2'	1:QA:659:U:C6	2.47	0.50
1:QA:912:C:O2'	1:QA:913:A:H5'	2.12	0.50
1:QA:942:G:H2'	1:QA:943:U:H6	1.76	0.50
3:QC:99:VAL:HG23	3:QC:99:VAL:O	2.11	0.50
7:QG:23:VAL:O	7:QG:27:ILE:CD1	2.60	0.50
1:QA:878:G:H5'	8:QH:89:PRO:HG2	1.93	0.50
13:QM:66:LEU:O	13:QM:70:LEU:HB2	2.11	0.50
16:QP:20:VAL:HG23	16:QP:34:GLU:O	2.11	0.50
19:QS:43:GLU:OE2	19:QS:43:GLU:N	2.44	0.50
25:RA:2666:C:H3'	25:RA:2667:C:H6	1.76	0.50
25:RA:2726:U:O2'	25:RA:2727:G:H5'	2.11	0.50
25:RA:49:A:H5''	25:RA:51:G:C5'	2.41	0.50
25:RA:654(U):A:H8	25:RA:654(U):A:O5'	1.95	0.50
28:RE:137:HIS:HB3	28:RE:138:PRO:CD	2.37	0.50
25:RA:2032:G:H1'	28:RE:145:LYS:HD3	1.93	0.50
30:RG:92:VAL:HG13	30:RG:92:VAL:O	2.12	0.50
31:RH:152:ARG:C	31:RH:153:LYS:HE2	2.32	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:RH:151:ILE:C	31:RH:152:ARG:O	2.49	0.50
34:RO:24:VAL:O	34:RO:24:VAL:HG13	2.11	0.50
34:RO:47:ILE:CG1	34:RO:48:PRO:HD2	2.41	0.50
35:RP:95:VAL:HG13	35:RP:100:LEU:CD2	2.40	0.50
35:RP:104:GLY:C	35:RP:105:LEU:HD12	2.31	0.50
36:RQ:133:ARG:HG2	36:RQ:134:ARG:N	2.26	0.50
40:RU:112:ARG:HH11	40:RU:112:ARG:HG2	1.76	0.50
42:RW:88:ARG:HB3	42:RW:92:ARG:CB	2.41	0.50
44:RY:44:ILE:CG1	44:RY:45:VAL:H	2.25	0.50
44:RY:74:PRO:O	44:RY:80:GLY:HA2	2.10	0.50
45:RZ:103:ARG:HD3	45:RZ:136:PHE:CG	2.46	0.50
1:XA:1399:C:H4'	1:XA:1400:C:C5'	2.41	0.50
1:XA:15:G:H2'	1:XA:16:A:C8	2.46	0.50
1:XA:19:C:O2'	1:XA:572:A:N1	2.35	0.50
2:XB:24:TRP:CE3	2:XB:26:PRO:HA	2.45	0.50
14:XN:48:ALA:CA	14:XN:53:LEU:HD12	2.41	0.50
21:XU:14:TRP:CE3	21:XU:15:ARG:HD3	2.46	0.50
47:Y1:4:VAL:HG23	47:Y1:10:LYS:C	2.32	0.50
47:Y1:83:GLU:CD	47:Y1:85:LEU:H	2.15	0.50
47:Y1:85:LEU:HA	47:Y1:87:PRO:HD2	1.92	0.50
25:YA:1593:G:H2'	25:YA:1594:G:C8	2.46	0.50
25:YA:1370:C:O2'	25:YA:1811:G:O2'	2.29	0.50
25:YA:2244:U:H2'	25:YA:2245:U:O4'	2.10	0.50
25:YA:2308:G:N3	25:YA:2308:G:H2'	2.26	0.50
25:YA:264:C:O2'	25:YA:265:A:H5''	2.11	0.50
25:YA:592:G:N2	25:YA:593:G:H1'	2.27	0.50
25:YA:823:G:H2'	25:YA:824:A:C8	2.46	0.50
31:YH:103:LEU:CD1	31:YH:131:VAL:HG21	2.41	0.50
31:YH:133:VAL:HG12	31:YH:141:VAL:HG13	1.93	0.50
32:YI:87:LYS:HA	32:YI:122:GLU:HG2	1.93	0.50
33:YN:73:THR:HG22	33:YN:82:LEU:HD11	1.93	0.50
34:YO:23:ARG:HG2	34:YO:23:ARG:HH11	1.76	0.50
26:YB:52:A:H62	38:YS:33:LYS:HG3	1.75	0.50
39:YT:57:PHE:CG	39:YT:58:ASN:N	2.79	0.50
41:YV:5:VAL:HG22	41:YV:14:VAL:HG22	1.93	0.50
1:QA:1459:C:OP1	20:QT:27:LYS:NZ	2.45	0.50
1:QA:236:G:O5'	1:QA:236:G:H8	1.93	0.50
1:QA:248:C:H2'	1:QA:249:U:H6	1.76	0.50
1:QA:625:G:C4	1:QA:626:U:C5	3.00	0.50
1:QA:674:G:O2'	1:QA:675:A:H5'	2.11	0.50
1:QA:857:C:H2'	1:QA:858:G:O4'	2.10	0.50
3:QC:70:VAL:CG1	3:QC:71:ALA:N	2.73	0.50

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:163:GLU:OE1	27:YD:134:ARG:NH2	2.44	0.50
4:QD:30:LYS:CG	4:QD:35:ARG:NE	2.64	0.50
4:QD:7:PRO:HB2	4:QD:10:ARG:HD2	1.92	0.50
5:QE:45:PHE:CD2	5:QE:47:LYS:HD2	2.47	0.50
5:QE:83:GLU:HG2	5:QE:88:LYS:CG	2.41	0.50
8:QH:12:ARG:NH1	8:QH:27:PRO:HD2	2.25	0.50
8:QH:95:VAL:HB	8:QH:99:GLU:O	2.12	0.50
14:QN:8:GLU:C	14:QN:10:ALA:H	2.14	0.50
47:R1:91:LYS:CA	47:R1:91:LYS:HE3	2.40	0.50
51:R5:37:LYS:HD2	51:R5:37:LYS:O	2.12	0.50
25:RA:1413:G:N2	25:RA:1414:G:H1'	2.26	0.50
25:RA:1530:G:H2'	25:RA:1531:C:C6	2.47	0.50
25:RA:1538:G:H2'	25:RA:1539:G:H8	1.75	0.50
25:RA:1568:G:OP2	27:RD:63:ARG:NH2	2.39	0.50
25:RA:1860:G:H1	25:RA:1882:C:H42	1.57	0.50
25:RA:2069:G:C2'	25:RA:2070:G:H5'	2.42	0.50
25:RA:2151:G:H2'	25:RA:2152:G:H8	1.74	0.50
25:RA:2377:A:H2'	25:RA:2378:A:C8	2.46	0.50
25:RA:2548:G:N2	25:RA:2560:C:O2	2.37	0.50
25:RA:315:G:H2'	25:RA:316:C:C6	2.45	0.50
25:RA:676:A:H2	25:RA:802:A:H61	1.60	0.50
31:RH:169:VAL:HG13	31:RH:170:ARG:N	2.26	0.50
32:RI:29:TYR:O	32:RI:33:ARG:HD3	2.11	0.50
1:XA:407:G:H1	1:XA:435:C:N4	2.05	0.50
1:XA:452:A:H4'	16:XP:72:ARG:NH2	2.26	0.50
1:XA:505:G:H5''	1:XA:506:G:OP2	2.10	0.50
2:XB:53:ARG:HA	2:XB:56:ARG:HG3	1.93	0.50
9:XI:10:ARG:HG3	9:XI:105:ASP:HB2	1.92	0.50
13:XM:120:LYS:O	13:XM:121:LYS:HB2	2.10	0.50
15:XO:17:ARG:NH1	15:XO:77:ARG:NH1	2.59	0.50
1:XA:474:G:H5'	16:XP:81:ARG:HG3	1.92	0.50
47:Y1:80:LEU:HB2	47:Y1:81:LYS:CE	2.41	0.50
50:Y4:10:VAL:HG23	50:Y4:11:PRO:HD2	1.93	0.50
25:YA:1204:A:H1'	25:YA:1206:G:N9	2.27	0.50
25:YA:1687:G:H1'	25:YA:1702:G:N2	2.26	0.50
25:YA:185:U:H4'	25:YA:218:A:H4'	1.93	0.50
25:YA:1871:A:H2'	25:YA:1872:A:C8	2.46	0.50
25:YA:2532:G:H1'	25:YA:2663:G:N2	2.27	0.50
25:YA:270(J):G:N2	25:YA:270(Q):C:C2	2.79	0.50
25:YA:2869:G:H2'	25:YA:2870:C:H6	1.76	0.50
25:YA:483:A:H4'	44:YY:49:VAL:CA	2.36	0.50
25:YA:558:G:P	33:YN:111:PRO:HD2	2.51	0.50

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:841:A:C2	25:YA:938:G:C2	2.99	0.50
26:YB:24:G:O6	26:YB:56:G:O2'	2.26	0.50
33:YN:112:LEU:HD23	33:YN:113:GLY:N	2.26	0.50
35:YP:114:ILE:HD13	35:YP:125:VAL:CG2	2.41	0.50
40:YU:112:ARG:HG2	40:YU:112:ARG:HH11	1.76	0.50
42:YW:70:TYR:N	42:YW:70:TYR:CD2	2.75	0.50
44:YY:46:LYS:HE3	44:YY:63:LYS:HB3	1.93	0.50
25:YA:298:G:P	44:YY:85:VAL:HG22	2.51	0.50
1:QA:1051:C:H2'	1:QA:1052:U:C6	2.46	0.50
2:QB:200:ILE:O	2:QB:201:ILE:HD13	2.12	0.50
2:QB:53:ARG:HA	2:QB:56:ARG:HG3	1.93	0.50
10:QJ:98:ILE:H	10:QJ:98:ILE:CD1	2.24	0.50
13:QM:82:MET:O	13:QM:83:ASP:C	2.49	0.50
16:QP:39:TYR:OH	16:QP:41:PRO:HB3	2.11	0.50
52:R6:9:LEU:HD13	52:R6:26:ASN:HD22	1.76	0.50
25:RA:2477:C:H41	55:R9:10:ILE:HG23	1.75	0.50
25:RA:1359:A:N6	25:RA:1372:U:N3	2.59	0.50
25:RA:1534:G:H8	25:RA:1534:G:OP1	1.95	0.50
25:RA:1770:G:C6	25:RA:1771:C:C4	2.99	0.50
25:RA:2106:G:N2	25:RA:2107:C:O2	2.43	0.50
25:RA:508:G:O2'	25:RA:509:C:P	2.69	0.50
25:RA:869:G:C2	25:RA:870:A:C8	2.99	0.50
28:RE:37:ARG:H	28:RE:37:ARG:HE	1.59	0.50
29:RF:45:ARG:NH1	29:RF:45:ARG:CG	2.71	0.50
30:RG:43:LEU:O	30:RG:88:ILE:HG12	2.12	0.50
31:RH:153:LYS:HG3	31:RH:161:GLY:HA2	1.91	0.50
32:RI:102:SER:O	32:RI:106:GLY:N	2.40	0.50
33:RN:87:LEU:C	33:RN:87:LEU:HD23	2.32	0.50
35:RP:114:ILE:HD13	35:RP:125:VAL:CG2	2.41	0.50
37:RR:70:LEU:O	37:RR:72:ASP:N	2.42	0.50
38:RS:35:ILE:CD1	38:RS:101:LEU:HD23	2.41	0.50
38:RS:26:LEU:CD2	38:RS:87:PHE:CD1	2.94	0.50
39:RT:54:ARG:HG2	39:RT:54:ARG:NH1	2.23	0.50
45:RZ:8:TYR:HB2	45:RZ:38:TYR:CE2	2.47	0.50
1:XA:1035:A:C6	1:XA:1036:G:H1'	2.46	0.50
1:XA:1064:G:N2	1:XA:1190:G:H2'	2.27	0.50
1:XA:1238:A:C6	1:XA:1303:C:O4'	2.65	0.50
1:XA:411:A:C6	1:XA:429:U:C5	3.00	0.50
1:XA:994:A:H61	1:XA:1047:G:H4'	1.77	0.50
2:XB:103:THR:N	2:XB:180:LEU:HD11	2.26	0.50
3:XC:184:TYR:HA	3:XC:200:ALA:O	2.12	0.50
9:XI:48:GLU:N	9:XI:49:PRO:CD	2.74	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:XI:83:ARG:HA	9:XI:86:VAL:CG1	2.42	0.50
10:XJ:84:GLN:C	10:XJ:86:MET:H	2.14	0.50
47:Y1:87:PRO:O	47:Y1:91:LYS:HB2	2.10	0.50
47:Y1:94:LEU:O	47:Y1:95:LEU:HG	2.11	0.50
49:Y3:17:LYS:HA	49:Y3:20:LYS:HD2	1.92	0.50
50:Y4:61:ARG:C	50:Y4:63:TYR:H	2.14	0.50
25:YA:2286:A:H2'	52:Y6:31:PRO:HG2	1.94	0.50
25:YA:1026:U:H1'	25:YA:1027:A:H5''	1.92	0.50
25:YA:1022:G:N2	25:YA:1142(A):A:H2	2.08	0.50
25:YA:1171:G:O6	25:YA:1174:A:N6	2.43	0.50
25:YA:1331:A:C6	25:YA:1333:C:C2	2.99	0.50
25:YA:1530:G:C2	25:YA:1531:C:C2	2.99	0.50
25:YA:2013:A:C2'	25:YA:2014:A:H5'	2.41	0.50
25:YA:637:A:H4'	25:YA:638:G:O5'	2.12	0.50
26:YB:15:A:H1'	26:YB:109:G:N9	2.27	0.50
27:YD:10:THR:CG2	27:YD:13:ARG:HB3	2.35	0.50
27:YD:233:HIS:H	27:YD:233:HIS:CD2	2.29	0.50
31:YH:152:ARG:C	31:YH:153:LYS:HE2	2.32	0.50
34:YO:15:GLY:O	34:YO:46:ALA:HB1	2.10	0.50
38:YS:83:LYS:HG2	38:YS:109:GLY:HA2	1.90	0.50
44:YY:75:ILE:CG1	44:YY:76:CYS:N	2.73	0.50
1:QA:1126:U:H1'	1:QA:1280:A:N7	2.27	0.50
1:QA:1135:U:H4'	1:QA:1136:U:H5	1.77	0.50
1:QA:1158:C:N3	1:QA:1160:G:C8	2.79	0.50
1:QA:1316:G:H2'	1:QA:1318:A:OP2	2.12	0.50
1:QA:564:C:H5'	17:QQ:32:TYR:CE2	2.46	0.50
3:QC:52:LEU:H	3:QC:52:LEU:CD2	2.20	0.50
4:QD:28:SER:CB	4:QD:29:PRO:CD	2.85	0.50
4:QD:13:ARG:CB	4:QD:33:MET:CE	2.89	0.50
6:QF:63:TYR:CD2	6:QF:63:TYR:N	2.79	0.50
7:QG:50:ILE:HA	7:QG:54:THR:HG22	1.94	0.50
8:QH:83:ILE:HB	8:QH:137:VAL:HG13	1.93	0.50
9:QI:10:ARG:HG3	9:QI:105:ASP:HB2	1.92	0.50
9:QI:53:VAL:HG21	9:QI:92:TYR:CZ	2.45	0.50
14:QN:48:ALA:CA	14:QN:53:LEU:HD12	2.42	0.50
15:QO:26:GLU:OE2	15:QO:77:ARG:NH1	2.43	0.50
22:QV:68:C:H2'	22:QV:69:C:H6	1.76	0.50
25:RA:747:U:N3	51:R5:2:ALA:N	2.58	0.50
51:R5:48:GLU:HA	51:R5:59:GLU:HG2	1.94	0.50
54:R8:56:GLU:O	54:R8:57:ARG:C	2.50	0.50
25:RA:1091:G:N2	25:RA:1101:U:H1'	2.26	0.50
25:RA:27:G:N2	25:RA:512:G:O2'	2.44	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:RE:176:ILE:O	28:RE:176:ILE:HG22	2.10	0.50
29:RF:108:LYS:NZ	29:RF:108:LYS:HA	2.27	0.50
34:RO:107:ARG:HA	34:RO:112:MET:HE1	1.94	0.50
38:RS:60:GLY:O	38:RS:61:ASN:CB	2.56	0.50
39:RT:51:ARG:HG3	39:RT:98:LYS:HG3	1.94	0.50
42:RW:22:ASP:HA	42:RW:25:ARG:HH12	1.75	0.50
44:RY:88:LYS:HA	44:RY:88:LYS:NZ	2.27	0.50
1:XA:1225:A:H5''	1:XA:1226:C:OP2	2.12	0.50
1:XA:753:A:H4'	1:XA:754:C:O5'	2.11	0.50
9:XI:53:VAL:HG21	9:XI:92:TYR:CZ	2.45	0.50
16:XP:83:GLU:HG3	16:XP:84:ALA:H	1.77	0.50
17:XQ:13:ASP:C	17:XQ:15:MET:H	2.15	0.50
17:XQ:48:GLU:O	17:XQ:49:GLU:C	2.48	0.50
48:Y2:41:ILE:HD11	48:Y2:44:LEU:CB	2.42	0.50
50:Y4:57:GLU:O	50:Y4:61:ARG:O	2.30	0.50
51:Y5:56:LYS:N	51:Y5:56:LYS:HD2	2.13	0.50
25:YA:1503:U:H2'	25:YA:1504:C:H6	1.77	0.50
25:YA:2322:A:H2'	25:YA:2323:G:O4'	2.11	0.50
25:YA:2472:G:N2	25:YA:2477:C:H5'	2.27	0.50
25:YA:2849:U:O2	25:YA:2867:G:H1'	2.12	0.50
27:YD:10:THR:HG23	27:YD:13:ARG:CB	2.34	0.50
27:YD:182:LEU:H	27:YD:272:ALA:CB	2.25	0.50
30:YG:111:LEU:N	30:YG:112:PRO:CD	2.75	0.50
30:YG:43:LEU:O	30:YG:88:ILE:HG12	2.12	0.50
30:YG:6:ALA:H	50:Y4:23:GLU:CG	2.25	0.50
31:YH:143:GLN:HE21	31:YH:143:GLN:C	2.15	0.50
31:YH:169:VAL:HG13	31:YH:170:ARG:N	2.26	0.50
31:YH:24:VAL:HG21	31:YH:72:ILE:HG12	1.94	0.50
36:YQ:132:VAL:HG12	36:YQ:133:ARG:N	2.27	0.50
37:YR:117:VAL:CG2	37:YR:118:GLU:N	2.74	0.50
38:YS:26:LEU:HD22	38:YS:87:PHE:CD1	2.46	0.50
39:YT:20:PRO:HD2	39:YT:86:ILE:HG23	1.92	0.50
41:YV:51:VAL:CG1	41:YV:52:VAL:H	2.22	0.50
42:YW:22:ASP:HA	42:YW:25:ARG:HH12	1.75	0.50
1:QA:1230:C:H6	1:QA:1230:C:O5'	1.95	0.50
1:QA:1237:C:H5''	1:QA:1238:A:O4'	2.10	0.50
1:QA:374:A:C6	1:QA:375:U:C4	3.00	0.50
1:QA:941:G:O6	1:QA:1342:C:N4	2.37	0.50
2:QB:15:VAL:H	2:QB:16:HIS:HD1	1.59	0.50
2:QB:170:GLU:HA	2:QB:172:ILE:CD1	2.41	0.50
3:QC:34:LEU:O	3:QC:38:ARG:HG3	2.11	0.50
4:QD:107:ARG:C	4:QD:109:GLY:H	2.14	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:178:VAL:O	4:QD:180:GLY:N	2.44	0.50
4:QD:198:VAL:CG1	4:QD:199:ASN:N	2.75	0.50
4:QD:13:ARG:HH22	4:QD:36:ARG:CZ	2.24	0.50
7:QG:11:GLN:C	7:QG:12:LEU:HD22	2.31	0.50
8:QH:20:TYR:HD1	8:QH:65:TYR:HD2	1.55	0.50
10:QJ:56:HIS:O	10:QJ:58:ASP:O	2.30	0.50
10:QJ:84:GLN:C	10:QJ:86:MET:H	2.14	0.50
17:QQ:13:ASP:C	17:QQ:15:MET:H	2.15	0.50
19:QS:41:VAL:CG1	19:QS:45:VAL:N	2.74	0.50
47:R1:80:LEU:HB2	47:R1:81:LYS:CE	2.41	0.50
48:R2:16:LEU:O	48:R2:17:SER:CB	2.56	0.50
50:R4:1:MET:O	50:R4:1:MET:HG3	2.12	0.50
52:R6:41:PRO:HD2	52:R6:46:HIS:H	1.77	0.50
25:RA:278:A:H61	25:RA:362:U:H3	1.57	0.50
25:RA:2828:C:O2'	25:RA:2829:C:H5'	2.11	0.50
25:RA:652:C:H5'	25:RA:653:A:OP2	2.11	0.50
27:RD:237:GLU:OE1	27:RD:237:GLU:HA	2.12	0.50
27:RD:32:SER:O	27:RD:33:LEU:CB	2.60	0.50
27:RD:35:LYS:HD2	27:RD:104:TYR:CD1	2.46	0.50
28:RE:61:ARG:CB	28:RE:62:PRO:HD3	2.41	0.50
30:RG:109:VAL:O	30:RG:113:ARG:HG3	2.10	0.50
31:RH:16:SER:O	31:RH:17:VAL:HG23	2.12	0.50
36:RQ:108:GLY:O	36:RQ:109:VAL:HG23	2.12	0.50
39:RT:23:ARG:CB	39:RT:24:PRO:HD2	2.40	0.50
44:RY:48:ALA:HB2	44:RY:61:ILE:CD1	2.41	0.50
44:RY:90:LEU:H	44:RY:90:LEU:HD22	1.73	0.50
44:RY:94:LYS:HE3	44:RY:101:LYS:HZ1	1.76	0.50
45:RZ:103:ARG:O	45:RZ:138:GLU:HA	2.11	0.50
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.75	0.50
3:XC:11:ARG:HG3	3:XC:15:THR:HG21	1.93	0.50
4:XD:165:MET:HE3	4:XD:168:ARG:HD2	1.93	0.50
4:XD:54:TYR:CE1	4:XD:206:PHE:HE1	2.29	0.50
7:XG:50:ILE:HA	7:XG:54:THR:HG22	1.94	0.50
8:XH:102:ARG:NH1	8:XH:105:ARG:HH12	2.09	0.50
10:XJ:54:PHE:O	10:XJ:55:LYS:HG3	2.10	0.50
14:XN:8:GLU:C	14:XN:10:ALA:H	2.13	0.50
15:XO:39:LEU:O	15:XO:40:SER:C	2.50	0.50
19:XS:50:ALA:CB	19:XS:57:HIS:HB3	2.37	0.50
21:XU:6:ARG:HH21	21:XU:15:ARG:NE	2.09	0.50
25:YA:747:U:C4	51:Y5:2:ALA:N	2.80	0.50
25:YA:1511:A:O2'	25:YA:1512:G:H5'	2.12	0.50
25:YA:2577:A:H5''	25:YA:2578:G:H5'	1.93	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2620:C:H2'	25:YA:2621:A:O4'	2.12	0.50
25:YA:303:U:H2'	25:YA:304:G:H8	1.77	0.50
25:YA:546:C:OP1	25:YA:547:A:N6	2.45	0.50
25:YA:796:C:H2'	25:YA:797:C:C6	2.47	0.50
25:YA:962:G:H2'	25:YA:963:U:O4'	2.12	0.50
25:YA:729:G:C5	27:YD:208:LYS:HB2	2.47	0.50
29:YF:45:ARG:CG	29:YF:45:ARG:NH1	2.71	0.50
31:YH:131:VAL:CG1	31:YH:132:ARG:N	2.74	0.50
33:YN:87:LEU:HD23	33:YN:87:LEU:C	2.32	0.50
35:YP:138:LEU:HD11	35:YP:144:GLU:CG	2.42	0.50
38:YS:89:ARG:O	38:YS:89:ARG:HD2	2.11	0.50
40:YU:92:ARG:CD	40:YU:94:ASN:HB3	2.42	0.50
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.75	0.50
1:QA:934:C:H5	1:QA:1344:C:H2'	1.77	0.50
1:QA:246:A:N6	1:QA:281:G:H1'	2.26	0.50
1:QA:371:G:O3'	1:QA:372:C:H4'	2.12	0.50
1:QA:67:C:H2'	1:QA:68:G:H8	1.76	0.50
3:QC:139:GLN:O	3:QC:143:GLU:HB2	2.11	0.50
4:QD:128:VAL:O	4:QD:130:GLY:N	2.45	0.50
5:QE:32:VAL:O	5:QE:43:LEU:HD12	2.12	0.50
9:QI:5:TYR:HA	9:QI:17:VAL:O	2.12	0.50
16:QP:59:TRP:HA	16:QP:59:TRP:HE3	1.77	0.50
18:QR:30:ASP:C	18:QR:32:ARG:H	2.15	0.50
50:R4:10:VAL:HG23	50:R4:11:PRO:HD2	1.93	0.50
19:QS:2:PRO:CB	50:R4:68:ARG:HH22	2.24	0.50
53:R7:46:VAL:HG12	53:R7:47:ARG:N	2.27	0.50
25:RA:1022:G:C2	25:RA:1140:C:N3	2.80	0.50
25:RA:1028:A:H2'	25:RA:1029:A:C8	2.47	0.50
25:RA:1061:U:H2'	25:RA:1063:G:P	2.52	0.50
25:RA:107:C:H2'	25:RA:108:U:H6	1.76	0.50
25:RA:999:U:C5	25:RA:1154:G:C5	2.99	0.50
25:RA:153:C:OP2	47:R1:88:LYS:HE2	2.12	0.50
25:RA:1854:A:H5''	25:RA:1855:G:OP2	2.11	0.50
25:RA:1764:G:C6	25:RA:1989:G:C2	3.00	0.50
25:RA:2524:G:C2	25:RA:2525:G:H1'	2.47	0.50
25:RA:2555:U:H2'	25:RA:2556:C:H5'	1.94	0.50
25:RA:2625:G:C6	25:RA:2626:C:C4	3.00	0.50
25:RA:2679:A:H1'	25:RA:2729:G:H22	1.77	0.50
25:RA:696:G:C2	25:RA:697:C:C6	3.00	0.50
25:RA:703:U:H2'	25:RA:704:G:O4'	2.12	0.50
25:RA:727:A:C2'	25:RA:728:G:H5'	2.42	0.50
27:RD:28:GLU:OE1	27:RD:29:PRO:HD2	2.11	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:RB:42:C:O2'	30:RG:67:LYS:O	2.20	0.50
31:RH:133:VAL:HG12	31:RH:141:VAL:HG13	1.93	0.50
31:RH:143:GLN:HE21	31:RH:143:GLN:C	2.15	0.50
25:RA:1278:A:OP1	37:RR:36:THR:HG22	2.11	0.50
37:RR:92:GLY:N	37:RR:94:TYR:HE2	2.10	0.50
39:RT:38:ASN:O	39:RT:39:ARG:O	2.30	0.50
40:RU:92:ARG:NH1	40:RU:95:LEU:HD11	2.26	0.50
25:RA:483:A:C4'	44:RY:49:VAL:HA	2.34	0.50
1:XA:250:A:H1'	1:XA:251:G:OP2	2.11	0.50
1:XA:264:U:H2'	1:XA:265:G:O4'	2.12	0.50
1:XA:632:A:C8	1:XA:633:G:C8	3.00	0.50
1:XA:734:G:C2	1:XA:735:C:C2	3.00	0.50
8:XH:95:VAL:HB	8:XH:99:GLU:O	2.12	0.50
1:XA:1199:U:H4'	10:XJ:54:PHE:CE2	2.46	0.50
10:XJ:81:THR:C	10:XJ:83:GLU:N	2.64	0.50
12:XL:28:LYS:O	12:XL:29:GLY:C	2.50	0.50
12:XL:62:SER:C	12:XL:64:TYR:H	2.14	0.50
15:XO:17:ARG:NH1	15:XO:77:ARG:CZ	2.74	0.50
19:XS:26:GLY:O	19:XS:27:GLU:HB2	2.11	0.50
48:Y2:9:GLN:O	48:Y2:12:GLU:HB3	2.10	0.50
50:Y4:22:ILE:HD12	50:Y4:22:ILE:H	1.77	0.50
51:Y5:37:LYS:HD2	51:Y5:37:LYS:O	2.12	0.50
51:Y5:50:GLY:O	51:Y5:51:TYR:CB	2.59	0.50
52:Y6:9:LEU:HB3	52:Y6:26:ASN:O	2.12	0.50
53:Y7:46:VAL:HG12	53:Y7:47:ARG:N	2.27	0.50
53:Y7:9:ARG:HH12	53:Y7:47:ARG:HG3	1.76	0.50
25:YA:1028:A:H61	25:YA:1125:G:H2'	1.77	0.50
25:YA:1140:C:OP1	33:YN:24:GLY:N	2.43	0.50
25:YA:1586:A:H3'	25:YA:1587:A:C8	2.46	0.50
25:YA:1773:A:H2'	25:YA:1774:C:O4'	2.12	0.50
25:YA:2514:U:H2'	25:YA:2515:C:O4'	2.12	0.50
25:YA:981:A:OP2	25:YA:982:C:N4	2.38	0.50
27:YD:218:ARG:HB3	27:YD:219:PRO:HD2	1.94	0.50
27:YD:35:LYS:HE2	27:YD:104:TYR:HB2	1.94	0.50
34:YO:35:VAL:O	34:YO:35:VAL:HG23	2.11	0.50
35:YP:104:GLY:C	35:YP:105:LEU:HD12	2.32	0.50
36:YQ:36:ALA:HB1	36:YQ:127:ILE:HD12	1.93	0.50
37:YR:28:LEU:CD2	37:YR:114:VAL:HG12	2.41	0.50
41:YV:51:VAL:CG1	41:YV:52:VAL:N	2.75	0.50
41:YV:29:PRO:O	41:YV:61:VAL:O	2.29	0.50
26:YB:105:G:OP1	45:YZ:31:ARG:HB2	2.12	0.50
1:QA:109:A:C4	1:QA:327:A:C2	3.00	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:828:A:N6	1:QA:859:A:H5''	2.27	0.50
2:QB:16:HIS:HB3	2:QB:210:SER:CB	2.42	0.50
5:QE:51:VAL:CB	5:QE:52:PRO:HD3	2.38	0.50
8:QH:51:VAL:HG11	8:QH:60:ARG:HG3	1.92	0.50
9:QI:83:ARG:HA	9:QI:86:VAL:CG1	2.41	0.50
12:QL:24:VAL:CG1	12:QL:24:VAL:O	2.58	0.50
16:QP:45:THR:HG23	16:QP:46:PRO:CD	2.39	0.50
22:QV:75:C:H2'	22:QV:76:A:O4'	2.12	0.50
51:R5:50:GLY:O	51:R5:51:TYR:CB	2.59	0.50
25:RA:1869:G:C2	25:RA:1878:G:C6	3.00	0.50
25:RA:2123:G:H22	25:RA:2176:A:H1'	1.77	0.50
25:RA:860:U:O2'	25:RA:2267:A:H4'	2.11	0.50
25:RA:314:A:O2'	25:RA:315:G:H5'	2.12	0.50
25:RA:531:C:C5	25:RA:2035:G:C2	3.00	0.50
25:RA:565:C:H4'	25:RA:1253:A:C6	2.47	0.50
25:RA:604:G:O6	25:RA:624:C:N4	2.44	0.50
25:RA:833:U:O4	25:RA:834:C:N4	2.45	0.50
25:RA:999:U:H5	25:RA:1154:G:C5	2.29	0.50
26:RB:32:C:C2	26:RB:51:G:N2	2.80	0.50
27:RD:2:ALA:CB	27:RD:20:ASP:CB	2.90	0.50
28:RE:119:ARG:HD3	28:RE:160:TYR:CD2	2.47	0.50
28:RE:203:LYS:HE3	28:RE:204:ALA:CB	2.40	0.50
28:RE:2:LYS:HG2	28:RE:95:ILE:CG2	2.42	0.50
32:RI:57:ARG:HA	32:RI:60:GLU:HB3	1.93	0.50
36:RQ:2:LEU:HD23	36:RQ:2:LEU:N	2.27	0.50
34:RO:104:ARG:NE	39:RT:34:VAL:HG11	2.26	0.50
44:RY:16:ALA:O	44:RY:21:LYS:HD3	2.11	0.50
1:XA:1179:A:O3'	9:XI:103:THR:HG23	2.12	0.50
1:XA:1053:G:H2'	1:XA:1199:U:H5	1.77	0.50
1:XA:1206:G:C6	1:XA:1207:G:C5	3.00	0.50
1:XA:1244:C:N3	1:XA:1294:G:N2	2.60	0.50
1:XA:1400:C:H4'	1:XA:1401:G:OP2	2.11	0.50
1:XA:389:A:C6	1:XA:390:C:H1'	2.46	0.50
1:XA:544:G:H2'	1:XA:545:C:H6	1.76	0.50
2:XB:200:ILE:O	2:XB:201:ILE:HD13	2.12	0.50
3:XC:132:ARG:O	3:XC:136:GLN:HB2	2.11	0.50
4:XD:20:TYR:CD2	4:XD:27:TYR:CD2	3.00	0.50
13:XM:102:ARG:O	13:XM:102:ARG:HG3	2.11	0.50
13:XM:117:VAL:O	13:XM:118:ALA:C	2.51	0.50
13:XM:120:LYS:O	13:XM:121:LYS:CB	2.60	0.50
14:XN:41:ARG:HE	14:XN:42:ILE:HG13	1.76	0.50
20:XT:49:ALA:CB	20:XT:99:LEU:HD22	2.42	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:Y3:7:LYS:CB	49:Y3:34:GLU:HG2	2.41	0.50
50:Y4:36:CYS:O	50:Y4:39:CYS:CB	2.55	0.50
25:YA:1053:C:H42	25:YA:1106:G:H1	1.60	0.50
25:YA:1169:G:H1	25:YA:1180:C:H42	1.58	0.50
25:YA:162:U:H6	25:YA:162:U:OP1	1.95	0.50
25:YA:2093:G:H2'	25:YA:2094:G:C8	2.44	0.50
25:YA:2468:G:O2'	25:YA:2481:G:N2	2.45	0.50
25:YA:2646:C:OP2	25:YA:2732:G:O2'	2.25	0.50
25:YA:534:U:O2'	40:YU:45:TYR:HB3	2.12	0.50
25:YA:952:G:C6	25:YA:953:A:N7	2.80	0.50
27:YD:65:ILE:HD13	27:YD:65:ILE:C	2.32	0.50
28:YE:105:THR:HB	28:YE:197:ILE:HG12	1.92	0.50
28:YE:2:LYS:HG2	28:YE:95:ILE:CG2	2.42	0.50
30:YG:103:LEU:HD21	30:YG:178:PHE:CZ	2.47	0.50
30:YG:114:ILE:HG21	30:YG:117:PHE:HB2	1.93	0.50
30:YG:35:GLU:CD	30:YG:35:GLU:C	2.71	0.50
30:YG:49:ASP:OD1	30:YG:51:ARG:HG3	2.12	0.50
30:YG:83:ARG:HH11	30:YG:83:ARG:HG2	1.76	0.50
31:YH:16:SER:O	31:YH:17:VAL:HG23	2.12	0.50
32:YI:97:ILE:HD12	32:YI:140:LEU:HD11	1.93	0.50
34:YO:105:GLU:O	34:YO:108:GLU:HB2	2.12	0.50
35:YP:112:LEU:HD22	35:YP:113:LYS:N	2.26	0.50
36:YQ:108:GLY:O	36:YQ:109:VAL:HG23	2.12	0.50
25:YA:1266:G:N7	42:YW:15:ARG:NH1	2.58	0.50
44:YY:48:ALA:HB2	44:YY:61:ILE:CD1	2.41	0.50
45:YZ:5:LEU:O	45:YZ:6:LYS:HB2	2.12	0.50
1:QA:1053:G:H5'	1:QA:1054:C:H5'	1.93	0.50
1:QA:282:A:C6	1:QA:283:C:C2	3.00	0.50
3:QC:11:ARG:HG3	3:QC:15:THR:HG21	1.94	0.50
3:QC:184:TYR:HA	3:QC:200:ALA:O	2.12	0.50
7:QG:50:ILE:HG21	7:QG:58:PRO:HA	1.93	0.50
8:QH:84:ARG:O	8:QH:135:CYS:HB2	2.12	0.50
10:QJ:22:LYS:NZ	10:QJ:23:ILE:HG12	2.27	0.50
12:QL:28:LYS:O	12:QL:29:GLY:C	2.50	0.50
1:QA:1204:A:OP1	14:QN:3:ARG:NH2	2.43	0.50
21:QU:2:GLY:O	21:QU:4:GLY:N	2.45	0.50
52:R6:20:ASN:O	52:R6:21:TYR:CB	2.59	0.50
52:R6:34:LEU:HD23	52:R6:36:LEU:HD22	1.92	0.50
55:R9:7:VAL:HG12	55:R9:25:VAL:HG21	1.94	0.50
25:RA:1336:A:H2'	25:RA:1337:G:C8	2.47	0.50
25:RA:1534:G:H1	25:RA:1538:G:N2	2.10	0.50
25:RA:1570:A:H2'	25:RA:1571:A:C8	2.47	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2131:G:O3'	25:RA:2132:U:H4'	2.12	0.50
25:RA:2154:G:H2'	25:RA:2155:G:C8	2.47	0.50
25:RA:222:A:O2'	25:RA:223:A:P	2.70	0.50
25:RA:611:C:C2	25:RA:618:G:N2	2.80	0.50
25:RA:595:C:N4	25:RA:662:G:H1	2.08	0.50
25:RA:870:A:C2	25:RA:908:C:C2	3.00	0.50
27:RD:123:ALA:HB3	27:RD:131:LEU:HG	1.94	0.50
31:RH:153:LYS:O	31:RH:154:PRO:O	2.30	0.50
31:RH:19:VAL:HG13	31:RH:43:VAL:CG2	2.41	0.50
31:RH:19:VAL:HG13	31:RH:43:VAL:HG23	1.93	0.50
32:RI:52:ARG:HB2	32:RI:56:LYS:HG2	1.94	0.50
33:RN:137:LYS:HG3	33:RN:138:LEU:H	1.77	0.50
33:RN:46:VAL:O	33:RN:47:ALA:CB	2.58	0.50
25:RA:1190:G:C5'	35:RP:32:THR:HA	2.41	0.50
35:RP:6:LEU:CD2	35:RP:6:LEU:N	2.75	0.50
36:RQ:80:GLU:HG3	36:RQ:81:VAL:N	2.27	0.50
25:RA:2495:G:H5''	36:RQ:81:VAL:CG1	2.41	0.50
37:RR:96:ARG:NH2	37:RR:117:VAL:HG23	2.27	0.50
44:RY:81:LYS:HD3	44:RY:97:ARG:HD3	1.94	0.50
1:XA:1014:A:H4'	19:XS:14:HIS:HE2	1.77	0.50
1:XA:1221:G:O3'	19:XS:77:THR:HG21	2.12	0.50
1:XA:1298:C:H1'	1:XA:1299:A:C2	2.46	0.50
1:XA:280:C:C2	17:XQ:38:ARG:HG3	2.46	0.50
1:XA:356:A:N3	1:XA:368:U:O2'	2.39	0.50
1:XA:664:G:N2	1:XA:742:G:C2	2.80	0.50
1:XA:762:C:H2'	1:XA:763:G:C8	2.46	0.50
3:XC:36:ASP:HB3	3:XC:40:ARG:NH1	2.25	0.50
5:XE:126:ARG:NH1	5:XE:126:ARG:HG3	2.19	0.50
10:XJ:40:LEU:HB2	10:XJ:69:ASN:CB	2.40	0.50
53:Y7:12:ARG:HG3	53:Y7:12:ARG:NH1	2.27	0.50
25:YA:1792:G:O2'	25:YA:1830:C:OP1	2.29	0.50
25:YA:1813:G:H1'	27:YD:50:THR:OG1	2.12	0.50
25:YA:2277:G:C5'	36:YQ:85:LYS:HG3	2.42	0.50
25:YA:2758:A:C2	25:YA:2759:G:H1'	2.47	0.50
25:YA:2756:U:H3	25:YA:2758:A:H62	1.60	0.50
25:YA:282:A:N3	25:YA:282:A:H2'	2.27	0.50
25:YA:39:C:H2'	25:YA:40:C:H6	1.76	0.50
27:YD:227:ASN:HB3	27:YD:228:PRO:CD	2.30	0.50
30:YG:16:ARG:HB3	30:YG:17:PRO:HD3	1.94	0.50
35:YP:147:LEU:O	35:YP:148:LEU:HB2	2.11	0.50
38:YS:35:ILE:CD1	38:YS:101:LEU:HD23	2.41	0.50
38:YS:52:SER:O	38:YS:56:LEU:CD2	2.60	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:YY:16:ALA:O	44:YY:21:LYS:HD3	2.11	0.50
1:QA:1052:U:H5''	1:QA:1053:G:OP2	2.11	0.49
1:QA:616:G:C2	1:QA:617:G:C8	3.00	0.49
3:QC:35:GLU:O	3:QC:39:ILE:HG13	2.12	0.49
3:QC:36:ASP:HA	3:QC:39:ILE:HD12	1.94	0.49
11:QK:32:ILE:HD12	11:QK:72:ALA:CB	2.36	0.49
14:QN:22:THR:O	14:QN:23:ARG:CB	2.59	0.49
15:QO:17:ARG:NH1	15:QO:77:ARG:CZ	2.74	0.49
16:QP:39:TYR:CE2	16:QP:41:PRO:HD3	2.47	0.49
20:QT:37:SER:O	20:QT:41:ILE:HG12	2.12	0.49
20:QT:49:ALA:CB	20:QT:99:LEU:HD22	2.42	0.49
53:R7:12:ARG:HG3	53:R7:12:ARG:NH1	2.27	0.49
35:RP:61:ARG:HH21	54:R8:13:ARG:HD2	1.77	0.49
25:RA:2818:G:H2'	25:RA:2819:G:H8	1.77	0.49
25:RA:530:G:N1	25:RA:2022:U:OP1	2.45	0.49
25:RA:622:G:O2'	25:RA:623:G:H5'	2.12	0.49
25:RA:738:G:C6	25:RA:739:G:C2	2.99	0.49
25:RA:774:A:H2	25:RA:787:U:HO2'	1.58	0.49
26:RB:15:A:H1'	26:RB:109:G:C4	2.47	0.49
27:RD:35:LYS:HE2	27:RD:104:TYR:HB2	1.94	0.49
29:RF:11:VAL:CG1	29:RF:12:LEU:N	2.75	0.49
30:RG:103:LEU:HD21	30:RG:178:PHE:CZ	2.47	0.49
30:RG:111:LEU:N	30:RG:112:PRO:CD	2.75	0.49
31:RH:103:LEU:CD1	31:RH:131:VAL:HG21	2.41	0.49
32:RI:9:LEU:O	32:RI:10:GLU:HG3	2.11	0.49
32:RI:130:TYR:O	32:RI:131:LYS:HD2	2.11	0.49
32:RI:63:ALA:HA	32:RI:66:GLU:HG2	1.94	0.49
38:RS:62:LYS:HB3	38:RS:97:ARG:CD	2.39	0.49
41:RV:41:GLY:N	41:RV:46:VAL:HG13	2.26	0.49
1:XA:1070:U:P	5:XE:25:ARG:NH1	2.84	0.49
1:XA:1502:A:H2	1:XA:1505:G:H22	1.55	0.49
2:XB:16:HIS:HB3	2:XB:210:SER:CB	2.42	0.49
2:XB:23:ARG:HH11	2:XB:23:ARG:HG2	1.76	0.49
5:XE:32:VAL:O	5:XE:43:LEU:HD12	2.12	0.49
8:XH:84:ARG:O	8:XH:135:CYS:HB2	2.12	0.49
9:XI:29:ASN:OD1	9:XI:64:THR:HA	2.12	0.49
1:XA:963:G:H21	10:XJ:55:LYS:HD3	1.77	0.49
11:XK:106:LYS:O	11:XK:107:SER:HB3	2.12	0.49
11:XK:25:TYR:CD1	11:XK:25:TYR:N	2.80	0.49
48:Y2:69:ARG:CB	48:Y2:69:ARG:HH11	2.25	0.49
50:Y4:9:LEU:H	50:Y4:27:THR:CG2	2.25	0.49
52:Y6:44:ARG:O	52:Y6:45:LYS:CB	2.60	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:Y8:56:GLU:O	54:Y8:57:ARG:C	2.50	0.49
25:YA:1212:G:O2'	25:YA:1236:G:N2	2.32	0.49
25:YA:1344:G:H5'	25:YA:1384:A:C6	2.47	0.49
25:YA:2272:U:H5''	25:YA:2273:A:OP1	2.12	0.49
25:YA:2292:C:P	38:YS:17:ARG:HH22	2.35	0.49
25:YA:2352:A:N6	25:YA:2365:G:O2'	2.45	0.49
25:YA:2773:C:H2'	25:YA:2774:C:H6	1.76	0.49
25:YA:423:A:H5''	25:YA:424:G:C5'	2.42	0.49
25:YA:481:G:H1'	25:YA:507:A:N1	2.28	0.49
25:YA:918:A:C5	25:YA:919:G:H1'	2.47	0.49
28:YE:46:ALA:HB1	28:YE:80:GLU:HB2	1.94	0.49
32:YI:37:VAL:HG12	32:YI:38:LEU:HD12	1.92	0.49
33:YN:137:LYS:HG3	33:YN:138:LEU:H	1.77	0.49
33:YN:6:PRO:HG2	33:YN:43:THR:OG1	2.11	0.49
33:YN:46:VAL:O	33:YN:47:ALA:CB	2.57	0.49
34:YO:47:ILE:CG1	34:YO:48:PRO:HD2	2.42	0.49
34:YO:55:GLY:O	34:YO:56:ASP:C	2.50	0.49
44:YY:19:LYS:O	44:YY:19:LYS:CG	2.60	0.49
1:QA:1053:G:N7	1:QA:1200:C:H5''	2.27	0.49
1:QA:1397:C:H1'	23:QX:8:A:H62	1.76	0.49
1:QA:1486:G:H2'	1:QA:1487:G:O4'	2.12	0.49
1:QA:190:G:H2'	1:QA:190:G:N3	2.26	0.49
1:QA:292:G:C5	1:QA:293:G:H1'	2.47	0.49
1:QA:821:G:C2	1:QA:822:C:C2	3.00	0.49
1:QA:985:C:H2'	1:QA:986:A:C8	2.47	0.49
5:QE:10:MET:HB2	5:QE:32:VAL:HG22	1.94	0.49
8:QH:14:ARG:HG2	8:QH:14:ARG:O	2.12	0.49
9:QI:48:GLU:N	9:QI:49:PRO:CD	2.74	0.49
11:QK:29:ILE:HG13	11:QK:44:SER:HB3	1.93	0.49
12:QL:6:THR:O	12:QL:7:ILE:C	2.51	0.49
1:QA:552:U:O2'	12:QL:86:ARG:O	2.28	0.49
21:QU:6:ARG:HH21	21:QU:15:ARG:NE	2.09	0.49
46:R0:41:ARG:O	46:R0:57:PHE:HD1	1.95	0.49
52:R6:37:ARG:HA	52:R6:37:ARG:HE	1.77	0.49
25:RA:1517:G:H2'	25:RA:1518:C:C6	2.47	0.49
25:RA:570:G:H2'	25:RA:2030:A:C6	2.47	0.49
25:RA:2507:C:H2'	25:RA:2508:G:O4'	2.12	0.49
25:RA:2720:U:H2'	25:RA:2721:A:O4'	2.11	0.49
27:RD:218:ARG:HB3	27:RD:219:PRO:HD2	1.94	0.49
28:RE:23:VAL:HG12	28:RE:173:VAL:HG21	1.94	0.49
28:RE:61:ARG:O	28:RE:62:PRO:C	2.50	0.49
1:XA:1054:C:C4	1:XA:1196:U:H5	2.30	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:73:G:H2'	1:XA:74:C:H6	1.77	0.49
3:XC:34:LEU:O	3:XC:38:ARG:HG3	2.11	0.49
4:XD:107:ARG:C	4:XD:109:GLY:H	2.14	0.49
4:XD:33:MET:CE	4:XD:37:PRO:HA	2.43	0.49
7:XG:50:ILE:HG21	7:XG:58:PRO:HA	1.93	0.49
8:XH:83:ILE:HB	8:XH:137:VAL:HG13	1.94	0.49
8:XH:91:ARG:NH1	8:XH:91:ARG:HG2	2.25	0.49
8:XH:91:ARG:HH11	8:XH:91:ARG:CG	2.22	0.49
9:XI:113:LYS:H	9:XI:119:ALA:HA	1.77	0.49
9:XI:33:PHE:HZ	9:XI:47:LEU:HD21	1.76	0.49
13:XM:14:ARG:HG3	13:XM:16:ASP:OD2	2.13	0.49
47:Y1:67:ILE:N	47:Y1:68:PRO:CD	2.76	0.49
47:Y1:81:LYS:O	47:Y1:82:LEU:O	2.30	0.49
49:Y3:21:ALA:O	49:Y3:25:ALA:N	2.41	0.49
25:YA:747:U:N3	51:Y5:2:ALA:N	2.59	0.49
25:YA:1496:A:H5'	25:YA:1497:U:OP1	2.12	0.49
25:YA:2654:A:N6	25:YA:2667:C:N4	2.58	0.49
25:YA:2675:A:H8	25:YA:2675:A:OP2	1.94	0.49
25:YA:2756:U:H5''	55:Y9:19:ARG:CB	2.42	0.49
25:YA:2842:G:O2'	25:YA:2843:G:H5'	2.13	0.49
25:YA:489:G:N7	42:YW:49:LYS:NZ	2.60	0.49
27:YD:76:PRO:HA	27:YD:118:VAL:HG23	1.93	0.49
28:YE:37:ARG:H	28:YE:37:ARG:HE	1.59	0.49
29:YF:11:VAL:CG1	29:YF:12:LEU:N	2.75	0.49
26:YB:42:C:O2'	30:YG:67:LYS:O	2.27	0.49
32:YI:88:ILE:HG12	32:YI:122:GLU:H	1.77	0.49
34:YO:69:ILE:O	34:YO:76:ALA:HA	2.11	0.49
35:YP:36:LYS:HB2	35:YP:40:SER:HB3	1.94	0.49
38:YS:60:GLY:O	38:YS:61:ASN:CB	2.55	0.49
34:YO:104:ARG:NE	39:YT:34:VAL:HG11	2.26	0.49
41:YV:3:ALA:HB3	41:YV:14:VAL:HG23	1.92	0.49
1:QA:1322:C:O2	1:QA:1322:C:H2'	2.11	0.49
1:QA:1502:A:H3'	1:QA:1503:A:H3'	1.95	0.49
1:QA:762:C:H2'	1:QA:763:G:H8	1.76	0.49
1:QA:790:A:C6	1:QA:791:G:C6	3.00	0.49
4:QD:13:ARG:CA	4:QD:33:MET:HE3	2.43	0.49
4:QD:206:PHE:HD2	4:QD:207:TYR:CE1	2.30	0.49
4:QD:23:GLY:H	4:QD:26:CYS:HB2	1.77	0.49
5:QE:41:VAL:CG1	5:QE:112:LEU:O	2.60	0.49
1:QA:718:G:H1'	11:QK:116:HIS:HA	1.93	0.49
11:QK:62:GLN:O	11:QK:63:LEU:C	2.51	0.49
12:QL:62:SER:C	12:QL:64:TYR:H	2.14	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:QM:108:ARG:O	13:QM:109:THR:C	2.50	0.49
14:QN:8:GLU:O	14:QN:10:ALA:N	2.45	0.49
16:QP:83:GLU:HA	16:QP:83:GLU:OE2	2.12	0.49
21:QU:6:ARG:HE	21:QU:15:ARG:NH2	2.09	0.49
47:R1:20:ARG:NH1	47:R1:20:ARG:HG2	2.24	0.49
47:R1:83:GLU:CD	47:R1:85:LEU:H	2.15	0.49
50:R4:23:GLU:C	50:R4:24:THR:HG1	2.16	0.49
25:RA:137:C:N4	25:RA:137(A):G:O6	2.44	0.49
25:RA:1949:G:H1	25:RA:1957:C:H42	1.60	0.49
25:RA:2309:A:C6	25:RA:2310:A:C6	3.01	0.49
25:RA:2495:G:H2'	25:RA:2496:C:C6	2.47	0.49
25:RA:2872:G:C2	25:RA:2873:A:N6	2.80	0.49
25:RA:602:G:H8	25:RA:602:G:OP2	1.96	0.49
26:RB:5:C:O2	26:RB:116:G:N2	2.45	0.49
26:RB:15:A:H1'	26:RB:109:G:N9	2.27	0.49
26:RB:2:C:H2'	26:RB:3:C:H6	1.78	0.49
27:RD:10:THR:HG23	27:RD:13:ARG:CB	2.34	0.49
27:RD:25:THR:O	27:RD:27:THR:HG22	2.12	0.49
25:RA:607:U:OP1	29:RF:102:PRO:HA	2.13	0.49
33:RN:42:TRP:HA	33:RN:48:MET:CE	2.42	0.49
38:RS:83:LYS:HG2	38:RS:109:GLY:HA2	1.90	0.49
41:RV:76:LYS:HG3	41:RV:81:TYR:CD1	2.47	0.49
43:RX:18:TYR:C	43:RX:20:GLY:N	2.64	0.49
1:XA:1070:U:H2'	1:XA:1071:C:C6	2.47	0.49
1:XA:598:U:H4'	8:XH:94:TYR:CD2	2.47	0.49
1:XA:880:C:OP1	12:XL:8:ASN:ND2	2.45	0.49
1:XA:891:U:H2'	1:XA:892:A:C8	2.42	0.49
2:XB:207:ALA:O	2:XB:209:ARG:N	2.45	0.49
3:XC:195:VAL:HG12	3:XC:196:LEU:H	1.75	0.49
3:XC:35:GLU:O	3:XC:39:ILE:HG13	2.13	0.49
4:XD:118:ARG:NH2	4:XD:136:PRO:HB2	2.27	0.49
5:XE:41:VAL:CG1	5:XE:112:LEU:O	2.60	0.49
8:XH:109:ILE:HG12	8:XH:110:ALA:N	2.27	0.49
9:XI:43:ALA:HA	9:XI:74:ILE:HD13	1.94	0.49
9:XI:5:TYR:HA	9:XI:17:VAL:O	2.12	0.49
13:XM:108:ARG:O	13:XM:109:THR:C	2.50	0.49
13:XM:82:MET:O	13:XM:83:ASP:C	2.49	0.49
15:XO:32:LEU:O	15:XO:33:THR:C	2.51	0.49
21:XU:2:GLY:O	21:XU:4:GLY:N	2.45	0.49
47:Y1:93:GLU:O	47:Y1:97:LEU:HD11	2.12	0.49
50:Y4:42:PHE:O	50:Y4:43:TYR:C	2.51	0.49
54:Y8:10:ALA:O	54:Y8:14:VAL:HG12	2.11	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1021:A:OP2	33:YN:65:LYS:NZ	2.43	0.49
25:YA:1048:A:P	25:YA:1110:G:H22	2.34	0.49
25:YA:1293:C:H2'	25:YA:1294:U:H6	1.77	0.49
25:YA:1864:U:C3'	25:YA:1869:G:H5''	2.42	0.49
25:YA:1917:U:H2'	25:YA:1918:A:O4'	2.11	0.49
25:YA:2286:A:C2'	52:Y6:31:PRO:HG2	2.42	0.49
25:YA:840:C:OP2	25:YA:932:G:N2	2.44	0.49
25:YA:856:C:H1'	46:Y0:27:GLU:HB3	1.93	0.49
33:YN:82:LEU:HD12	33:YN:83:LYS:N	2.27	0.49
39:YT:39:ARG:CG	39:YT:40:THR:H	2.22	0.49
40:YU:92:ARG:NH1	40:YU:95:LEU:HD11	2.26	0.49
42:YW:51:LEU:HD23	42:YW:105:VAL:HG11	1.95	0.49
42:YW:29:LEU:O	42:YW:29:LEU:HD23	2.13	0.49
44:YY:88:LYS:HA	44:YY:88:LYS:NZ	2.27	0.49
56:Z8:76:PPU:HN2	56:Z8:76:PPU:HD2	1.76	0.49
1:QA:1162:C:C2	1:QA:1175:G:C2	3.00	0.49
1:QA:911:U:H2'	1:QA:912:C:C6	2.47	0.49
3:QC:178:LEU:N	3:QC:178:LEU:HD22	2.27	0.49
6:QF:72:VAL:HG13	6:QF:73:ASN:N	2.27	0.49
9:QI:105:ASP:C	9:QI:107:ARG:H	2.14	0.49
15:QO:77:ARG:HA	15:QO:80:ALA:HB3	1.95	0.49
19:QS:62:ILE:C	19:QS:63:THR:HG22	2.32	0.49
48:R2:41:ILE:HD11	48:R2:44:LEU:CB	2.42	0.49
49:R3:7:LYS:CB	49:R3:34:GLU:HG2	2.41	0.49
50:R4:22:ILE:HD12	50:R4:22:ILE:H	1.77	0.49
50:R4:57:GLU:O	50:R4:61:ARG:O	2.30	0.49
51:R5:20:ARG:C	51:R5:22:HIS:H	2.14	0.49
35:RP:49:ARG:HE	54:R8:59:LYS:HG2	1.76	0.49
25:RA:1021:A:H8	25:RA:1021:A:H3'	1.77	0.49
25:RA:1425:G:H2'	25:RA:1426:G:C8	2.48	0.49
25:RA:1312:U:C4	25:RA:1603:A:C6	3.00	0.49
25:RA:2464:C:H2'	25:RA:2465:C:O4'	2.12	0.49
25:RA:352:G:H3'	25:RA:353:G:C8	2.47	0.49
25:RA:638:G:C5	25:RA:639:U:C4	3.00	0.49
25:RA:67:U:N3	25:RA:74:A:H2	2.10	0.49
25:RA:751:A:C6	25:RA:789:A:C5	3.01	0.49
25:RA:842:G:N2	25:RA:937:U:C2	2.80	0.49
27:RD:35:LYS:CG	27:RD:64:ILE:HG22	2.42	0.49
27:RD:72:LYS:O	27:RD:73:VAL:C	2.51	0.49
30:RG:49:ASP:OD1	30:RG:51:ARG:HG3	2.12	0.49
31:RH:120:GLY:HA3	31:RH:140:LYS:NZ	2.28	0.49
33:RN:73:THR:HG22	33:RN:82:LEU:HD11	1.93	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:RP:114:ILE:HD11	35:RP:130:PHE:HE1	1.70	0.49
35:RP:147:LEU:O	35:RP:148:LEU:HB2	2.11	0.49
35:RP:64:LYS:C	35:RP:66:GLY:N	2.56	0.49
36:RQ:29:PHE:N	36:RQ:105:GLU:OE2	2.41	0.49
37:RR:118:GLU:OXT	37:RR:118:GLU:HG3	2.11	0.49
38:RS:99:LYS:O	38:RS:101:LEU:N	2.45	0.49
40:RU:79:PHE:HE2	40:RU:83:LEU:HD22	1.78	0.49
42:RW:29:LEU:HD23	42:RW:29:LEU:O	2.13	0.49
25:RA:1341:U:O4	43:RX:16:LYS:HE2	2.11	0.49
1:XA:1126:U:H1'	1:XA:1280:A:N7	2.28	0.49
1:XA:657:G:C2	1:XA:658:G:C8	3.00	0.49
1:XA:720:C:H5''	18:XR:52:PRO:HA	1.94	0.49
1:XA:93:U:H2'	1:XA:95:G:O4'	2.13	0.49
5:XE:12:LEU:HD23	5:XE:13:ILE:H	1.76	0.49
1:XA:1128:C:H5'	9:XI:16:ARG:NH2	2.27	0.49
10:XJ:63:PHE:CD1	14:YN:58:LYS:HA	2.35	0.49
17:XQ:3:LYS:HD2	17:XQ:60:ILE:HD11	1.95	0.49
20:XT:26:ASN:CB	20:XT:71:THR:HG23	2.43	0.49
23:XX:3:G:H2'	23:XX:4:C:OP2	2.11	0.49
47:Y1:19:GLN:OE1	47:Y1:19:GLN:HA	2.12	0.49
47:Y1:8:SER:HB3	47:Y1:66:HIS:CE1	2.47	0.49
25:YA:2419:U:O4	54:Y8:30:ARG:CZ	2.61	0.49
25:YA:2104:G:N2	25:YA:2186:G:C4	2.81	0.49
25:YA:732:C:H2'	25:YA:733:G:O4'	2.12	0.49
25:YA:80:G:H1'	25:YA:346:A:C6	2.47	0.49
25:YA:851:U:H1'	49:Y3:46:ASN:ND2	2.23	0.49
27:YD:35:LYS:CG	27:YD:64:ILE:HG22	2.42	0.49
28:YE:179:GLU:HA	28:YE:179:GLU:OE1	2.10	0.49
33:YN:68:GLU:HG2	33:YN:88:GLU:CD	2.33	0.49
33:YN:73:THR:CG2	33:YN:82:LEU:HD11	2.43	0.49
36:YQ:2:LEU:HD23	36:YQ:2:LEU:N	2.27	0.49
38:YS:99:LYS:O	38:YS:101:LEU:N	2.45	0.49
25:YA:993:G:OP1	40:YU:50:ARG:NH1	2.45	0.49
25:YA:2012:G:H4'	42:YW:96:ILE:HD11	1.93	0.49
44:YY:44:ILE:CG1	44:YY:45:VAL:H	2.24	0.49
1:QA:1014:A:H4'	19:QS:14:HIS:HE2	1.77	0.49
1:QA:1208:C:H2'	1:QA:1209:C:C6	2.47	0.49
1:QA:1511:G:H2'	1:QA:1512:U:O4'	2.13	0.49
1:QA:192:U:H2'	1:QA:193:C:C6	2.47	0.49
2:QB:181:PHE:O	2:QB:183:PRO:HD3	2.12	0.49
5:QE:93:PRO:HG3	8:QH:105:ARG:CG	2.36	0.49
9:QI:43:ALA:HA	9:QI:74:ILE:HD13	1.94	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1372:U:OP1	9:QI:71:SER:HB3	2.12	0.49
12:QL:8:ASN:OD1	17:QQ:34:LYS:HE2	2.12	0.49
46:R0:27:GLU:HB2	46:R0:69:PHE:HD1	1.76	0.49
25:RA:94:G:N3	48:R2:47:ASN:OD1	2.46	0.49
50:R4:9:LEU:H	50:R4:27:THR:CG2	2.25	0.49
50:R4:42:PHE:O	50:R4:44:THR:O	2.31	0.49
25:RA:1293:C:O5'	25:RA:1293:C:H6	1.95	0.49
25:RA:1668:A:C5	25:RA:1674:G:C5	3.00	0.49
25:RA:222:A:N6	25:RA:224:G:C2	2.81	0.49
25:RA:2404:C:H2'	25:RA:2405:G:O4'	2.12	0.49
25:RA:270(T):G:C5'	47:R1:97:LEU:HD22	2.42	0.49
25:RA:752:A:O2'	25:RA:753:C:OP2	2.23	0.49
28:RE:179:GLU:O	28:RE:180:ASN:HB2	2.12	0.49
28:RE:55:ASN:O	28:RE:57:LYS:N	2.44	0.49
29:RF:196:LEU:C	29:RF:197:ASP:O	2.50	0.49
30:RG:107:LEU:HD11	30:RG:178:PHE:CD1	2.48	0.49
30:RG:83:ARG:HG2	30:RG:83:ARG:HH11	1.76	0.49
31:RH:128:PRO:HD2	31:RH:129:THR:N	2.25	0.49
31:RH:23:ARG:HD2	31:RH:34:GLU:OE2	2.12	0.49
33:RN:120:LEU:HD11	33:RN:122:VAL:CG2	2.42	0.49
33:RN:30:ILE:O	33:RN:34:LEU:HD23	2.13	0.49
34:RO:105:GLU:O	34:RO:108:GLU:HB2	2.12	0.49
37:RR:67:LEU:HD13	37:RR:76:VAL:CG2	2.27	0.49
37:RR:71:GLN:HE21	37:RR:71:GLN:HA	1.77	0.49
38:RS:18:ILE:O	38:RS:19:LYS:O	2.31	0.49
40:RU:92:ARG:CD	40:RU:94:ASN:HB3	2.42	0.49
41:RV:91:TYR:HD1	41:RV:91:TYR:C	2.16	0.49
43:RX:70:LEU:CD2	43:RX:70:LEU:N	2.72	0.49
44:RY:77:PRO:O	44:RY:78:ALA:HB2	2.11	0.49
1:XA:1296:C:O2'	1:XA:1302:U:H5	1.94	0.49
1:XA:1346:A:N1	1:XA:1374:A:H5''	2.27	0.49
1:XA:1418:A:C2	1:XA:1483:A:C2	3.00	0.49
1:XA:418:C:H2'	1:XA:419:C:C6	2.47	0.49
2:XB:15:VAL:H	2:XB:16:HIS:CE1	2.30	0.49
2:XB:68:ILE:O	2:XB:91:PRO:HD2	2.13	0.49
4:XD:198:VAL:HG12	4:XD:199:ASN:H	1.74	0.49
8:XH:14:ARG:O	8:XH:14:ARG:HG2	2.12	0.49
9:XI:43:ALA:C	9:XI:45:ALA:H	2.16	0.49
10:XJ:22:LYS:NZ	10:XJ:23:ILE:HG12	2.28	0.49
16:XP:59:TRP:HE3	16:XP:59:TRP:HA	1.77	0.49
19:XS:62:ILE:C	19:XS:63:THR:HG22	2.32	0.49
47:Y1:40:ARG:NH2	47:Y1:42:GLN:HG2	2.27	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:Y5:2:ALA:O	51:Y5:3:LYS:CB	2.60	0.49
52:Y6:20:ASN:CG	52:Y6:21:TYR:N	2.66	0.49
25:YA:1769:G:C2	25:YA:1984:G:C4	3.01	0.49
25:YA:1782:C:C4	25:YA:2587:A:N1	2.81	0.49
25:YA:2070:G:N1	25:YA:2071:A:C2	2.80	0.49
25:YA:2387:U:O2'	46:Y0:19:LYS:NZ	2.41	0.49
25:YA:607:U:N3	25:YA:621:A:H2	2.00	0.49
25:YA:970:C:O2'	25:YA:984:A:O2'	2.29	0.49
27:YD:2:ALA:CB	27:YD:20:ASP:HB3	2.42	0.49
28:YE:17:ASP:N	28:YE:17:ASP:OD2	2.46	0.49
28:YE:61:ARG:O	28:YE:62:PRO:C	2.51	0.49
28:YE:61:ARG:CB	28:YE:62:PRO:CD	2.90	0.49
30:YG:107:LEU:HD11	30:YG:178:PHE:CD1	2.48	0.49
31:YH:103:LEU:H	31:YH:103:LEU:HD23	1.77	0.49
31:YH:153:LYS:HA	31:YH:153:LYS:HZ3	1.75	0.49
31:YH:153:LYS:O	31:YH:154:PRO:O	2.29	0.49
31:YH:19:VAL:HG13	31:YH:43:VAL:HG23	1.93	0.49
33:YN:95:PRO:O	33:YN:97:ARG:N	2.46	0.49
34:YO:20:MET:HG2	34:YO:21:CYS:O	2.11	0.49
36:YQ:29:PHE:N	36:YQ:105:GLU:OE2	2.41	0.49
37:YR:18:LEU:C	37:YR:18:LEU:HD13	2.33	0.49
40:YU:81:HIS:CE1	40:YU:117:GLN:HG3	2.48	0.49
41:YV:91:TYR:HD1	41:YV:91:TYR:C	2.16	0.49
45:YZ:5:LEU:HB3	45:YZ:59:LEU:HA	1.95	0.49
1:QA:1152:A:H2'	1:QA:1153:C:H6	1.72	0.49
1:QA:1267:C:C5	1:QA:1268:A:C5	2.99	0.49
1:QA:126:G:H1	1:QA:235:C:H42	1.60	0.49
1:QA:1343:G:H2'	1:QA:1344:C:C6	2.48	0.49
1:QA:6:G:N2	5:QE:98:THR:HG1	2.11	0.49
6:QF:51:PRO:HA	6:QF:55:ASP:O	2.13	0.49
9:QI:79:LEU:HD13	9:QI:79:LEU:O	2.12	0.49
11:QK:91:ARG:NH2	18:QR:88:LYS:HZ1	2.10	0.49
13:QM:14:ARG:HG3	13:QM:16:ASP:OD2	2.13	0.49
20:QT:60:GLU:HG3	20:QT:81:LYS:HE3	1.94	0.49
20:QT:97:ALA:HB3	20:QT:99:LEU:CD1	2.43	0.49
22:QV:56:C:O2'	30:RG:78:SER:HB2	2.13	0.49
47:R1:67:ILE:N	47:R1:68:PRO:CD	2.76	0.49
48:R2:33:MET:O	48:R2:37:PHE:HD1	1.95	0.49
50:R4:10:VAL:CG2	50:R4:11:PRO:HD2	2.43	0.49
50:R4:68:ARG:HD3	50:R4:69:LYS:HG2	1.93	0.49
25:RA:1107:G:H2'	25:RA:1108:U:C6	2.48	0.49
25:RA:1191:G:N2	25:RA:1192:G:H1'	2.27	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1405:U:H2'	25:RA:1406:U:C6	2.46	0.49
25:RA:1844:C:H2'	25:RA:1845:G:H8	1.77	0.49
25:RA:2481:G:O2'	25:RA:2482:G:P	2.70	0.49
25:RA:307:G:N2	25:RA:310:A:O5'	2.42	0.49
25:RA:273(A):G:C2	25:RA:364:C:N3	2.81	0.49
25:RA:449:A:C2'	25:RA:450:G:H5'	2.43	0.49
25:RA:751:A:H5''	25:RA:752:A:OP1	2.13	0.49
25:RA:818:G:H5'	25:RA:819:A:OP2	2.12	0.49
25:RA:858:U:O2	25:RA:2268:A:H2'	2.12	0.49
25:RA:868:U:C4	25:RA:869:G:N7	2.81	0.49
25:RA:877:U:H6	25:RA:877:U:OP2	1.94	0.49
25:RA:928:G:O2'	49:R3:43:ILE:HD11	2.13	0.49
34:RO:69:ILE:O	34:RO:76:ALA:HA	2.12	0.49
34:RO:8:LEU:N	34:RO:8:LEU:CD2	2.76	0.49
36:RQ:132:VAL:HG12	36:RQ:133:ARG:N	2.27	0.49
37:RR:18:LEU:C	37:RR:18:LEU:HD13	2.33	0.49
39:RT:94:ALA:O	39:RT:95:ARG:CB	2.61	0.49
41:RV:7:THR:HG23	41:RV:22:VAL:HG11	1.94	0.49
43:RX:51:VAL:HG13	43:RX:81:VAL:HG23	1.93	0.49
44:RY:35:TYR:CD1	44:RY:69:ALA:HB3	2.48	0.49
1:XA:320:C:H2'	1:XA:321:A:C8	2.47	0.49
1:XA:347:G:O2'	1:XA:348:G:OP2	2.26	0.49
1:XA:945:G:C6	1:XA:1337:G:C5	3.01	0.49
3:XC:178:LEU:N	3:XC:178:LEU:HD22	2.28	0.49
4:XD:196:LEU:C	4:XD:198:VAL:N	2.66	0.49
4:XD:206:PHE:HD2	4:XD:207:TYR:CE1	2.30	0.49
6:XF:72:VAL:HG13	6:XF:73:ASN:N	2.27	0.49
8:XH:61:VAL:HG12	8:XH:63:LEU:HD13	1.94	0.49
14:XN:8:GLU:O	14:XN:10:ALA:N	2.45	0.49
6:XF:101:ALA:HA	18:XR:28:GLU:HG2	1.95	0.49
19:XS:9:VAL:O	19:XS:10:PHE:HB3	2.13	0.49
50:Y4:1:MET:O	50:Y4:1:MET:HG3	2.12	0.49
25:YA:1264:G:H5'	51:Y5:11:THR:HG21	1.95	0.49
54:Y8:52:LYS:H	54:Y8:53:PRO:HD2	1.66	0.49
55:Y9:7:VAL:HG12	55:Y9:25:VAL:HG21	1.94	0.49
25:YA:1047:G:N2	25:YA:1110:G:H2'	2.28	0.49
25:YA:1048:A:OP2	25:YA:1110:G:N2	2.45	0.49
25:YA:1265:A:C8	25:YA:1267:U:C2	3.01	0.49
25:YA:1341:U:OP1	25:YA:1397:U:N3	2.38	0.49
25:YA:1414:G:N2	25:YA:1589:C:C2	2.81	0.49
25:YA:1829:A:H2'	25:YA:1830:C:O4'	2.13	0.49
25:YA:2647:U:H2'	25:YA:2648:C:C6	2.46	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2737:G:H2'	25:YA:2738:A:C8	2.48	0.49
25:YA:2792:G:C6	25:YA:2805:G:C2	3.01	0.49
25:YA:528:A:N1	25:YA:2042:A:H2'	2.27	0.49
25:YA:566:U:H5"	35:YP:29:LYS:NZ	2.27	0.49
26:YB:7:G:C2	26:YB:114:G:C2	3.01	0.49
31:YH:98:LEU:HD12	31:YH:102:ALA:O	2.13	0.49
35:YP:30:THR:O	35:YP:33:ARG:HB2	2.12	0.49
37:YR:33:ARG:NH2	51:Y5:55:ARG:CG	2.66	0.49
39:YT:57:PHE:O	39:YT:59:THR:N	2.46	0.49
41:YV:79:VAL:O	41:YV:79:VAL:HG22	2.12	0.49
43:YX:51:VAL:HG13	43:YX:81:VAL:HG23	1.93	0.49
44:YY:61:ILE:HG22	44:YY:62:GLU:N	2.28	0.49
44:YY:95:LYS:N	44:YY:95:LYS:CD	2.75	0.49
44:YY:81:LYS:CD	44:YY:97:ARG:HE	2.20	0.49
45:YZ:52:SER:O	45:YZ:54:HIS:N	2.46	0.49
1:QA:1239:A:H4'	1:QA:1240:U:C5'	2.43	0.49
1:QA:942:G:C2	1:QA:1342:C:C2	3.01	0.49
2:QB:103:THR:N	2:QB:180:LEU:HD11	2.27	0.49
2:QB:180:LEU:O	2:QB:181:PHE:HB2	2.12	0.49
2:QB:68:ILE:O	2:QB:91:PRO:HD2	2.13	0.49
3:QC:173:VAL:N	3:QC:174:PRO:HD3	2.27	0.49
4:QD:9:CYS:SG	4:QD:22:LYS:CE	3.01	0.49
6:QF:101:ALA:HA	18:QR:28:GLU:HG2	1.95	0.49
9:QI:43:ALA:C	9:QI:45:ALA:H	2.16	0.49
10:QJ:49:VAL:HG22	14:QN:41:ARG:CG	2.42	0.49
13:QM:102:ARG:HG3	13:QM:102:ARG:O	2.12	0.49
13:QM:120:LYS:O	13:QM:121:LYS:CB	2.60	0.49
46:R0:14:ARG:O	46:R0:15:ASP:HB2	2.11	0.49
51:R5:2:ALA:O	51:R5:3:LYS:CB	2.60	0.49
25:RA:1695:G:H1'	27:RD:8:PRO:O	2.12	0.49
25:RA:2556:C:H2'	25:RA:2557:G:O4'	2.12	0.49
25:RA:2576:G:O2'	25:RA:2579:C:OP2	2.22	0.49
25:RA:863:A:H2'	25:RA:864:G:H8	1.76	0.49
26:RB:81:G:C2	26:RB:82:G:N7	2.80	0.49
30:RG:114:ILE:HG21	30:RG:117:PHE:HB2	1.93	0.49
30:RG:35:GLU:C	30:RG:35:GLU:CD	2.71	0.49
31:RH:98:LEU:HD12	31:RH:102:ALA:O	2.13	0.49
31:RH:103:LEU:H	31:RH:103:LEU:HD23	1.77	0.49
31:RH:24:VAL:HG21	31:RH:72:ILE:HG12	1.94	0.49
33:RN:95:PRO:O	33:RN:97:ARG:N	2.46	0.49
35:RP:47:ASP:OD1	35:RP:49:ARG:NH1	2.46	0.49
36:RQ:23:GLY:O	36:RQ:24:GLY:O	2.30	0.49

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2277:G:P	36:RQ:85:LYS:HB2	2.53	0.49
39:RT:16:ARG:NE	39:RT:19:LEU:HD21	2.28	0.49
44:RY:84:ARG:HD3	44:RY:86:ARG:NH1	2.28	0.49
1:XA:1004:A:H1'	1:XA:1036:G:N2	2.27	0.49
1:XA:544:G:H2'	1:XA:545:C:C6	2.48	0.49
1:XA:662:G:O2'	1:XA:836:G:H5'	2.13	0.49
13:XM:16:ASP:HB3	13:XM:34:LEU:HD11	1.93	0.49
13:XM:30:ALA:O	13:XM:31:LYS:C	2.49	0.49
19:XS:11:VAL:O	19:XS:12:ASP:CB	2.61	0.49
20:XT:37:SER:O	20:XT:41:ILE:HG12	2.12	0.49
20:XT:60:GLU:HG3	20:XT:81:LYS:HE3	1.94	0.49
47:Y1:80:LEU:C	47:Y1:81:LYS:CE	2.77	0.49
50:Y4:47:GLN:O	50:Y4:48:ARG:CB	2.61	0.49
52:Y6:7:ILE:C	52:Y6:9:LEU:N	2.65	0.49
52:Y6:9:LEU:HD13	52:Y6:26:ASN:HD22	1.76	0.49
54:Y8:16:ILE:CD1	54:Y8:57:ARG:HG2	2.42	0.49
25:YA:1600:C:OP1	43:YX:58:HIS:NE2	2.35	0.49
25:YA:2807:G:H3'	25:YA:2808:U:H5''	1.95	0.49
25:YA:525:U:H5''	25:YA:556:G:H5'	1.95	0.49
25:YA:52:A:H8	25:YA:52:A:O5'	1.96	0.49
25:YA:607:U:OP1	29:YF:102:PRO:HA	2.11	0.49
25:YA:844:C:C5	25:YA:845:G:C5	3.01	0.49
26:YB:39:A:C4	26:YB:44:G:N2	2.81	0.49
27:YD:123:ALA:HB3	27:YD:131:LEU:HG	1.94	0.49
27:YD:2:ALA:CB	27:YD:20:ASP:CB	2.90	0.49
28:YE:179:GLU:O	28:YE:180:ASN:HB2	2.12	0.49
30:YG:56:ALA:HB2	30:YG:153:ARG:NE	2.27	0.49
32:YI:75:LEU:HB3	32:YI:105:HIS:CD2	2.47	0.49
37:YR:96:ARG:NH2	37:YR:117:VAL:HG23	2.27	0.49
38:YS:25:ARG:HH12	38:YS:42:ASP:CG	2.16	0.49
39:YT:38:ASN:O	39:YT:39:ARG:O	2.30	0.49
41:YV:29:PRO:O	41:YV:61:VAL:HG22	2.12	0.49
44:YY:84:ARG:HD3	44:YY:86:ARG:NH1	2.28	0.49
1:QA:1198:G:H2'	1:QA:1199:U:O4'	2.13	0.49
1:QA:144:G:H1	1:QA:178:C:N4	2.11	0.49
1:QA:304:U:H2'	1:QA:305:G:C8	2.47	0.49
1:QA:622:A:C8	1:QA:623:C:C6	3.01	0.49
1:QA:971:G:H5''	1:QA:972:C:H5''	1.94	0.49
2:QB:42:ILE:HD11	2:QB:202:PRO:HB2	1.95	0.49
10:QJ:49:VAL:CG1	10:QJ:50:ILE:N	2.76	0.49
11:QK:110:ASP:HB2	18:QR:88:LYS:HD3	1.95	0.49
11:QK:25:TYR:N	11:QK:25:TYR:CD1	2.80	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:QL:85:ILE:HD11	12:QL:98:TYR:CB	2.42	0.49
17:QQ:74:LEU:HD12	17:QQ:75:ARG:NE	2.28	0.49
6:QF:97:PHE:CD2	18:QR:31:LEU:HD21	2.48	0.49
46:R0:18:ALA:HB3	46:R0:20:ARG:NH1	2.28	0.49
47:R1:40:ARG:NH2	47:R1:42:GLN:HG2	2.27	0.49
25:RA:270(S):G:C1'	47:R1:78:LYS:HD2	2.38	0.49
47:R1:81:LYS:O	47:R1:82:LEU:O	2.30	0.49
30:RG:6:ALA:H	50:R4:23:GLU:CG	2.25	0.49
51:R5:48:GLU:HA	51:R5:59:GLU:CG	2.43	0.49
52:R6:8:LYS:O	52:R6:27:LYS:HA	2.13	0.49
53:R7:9:ARG:HH12	53:R7:47:ARG:HG3	1.76	0.49
25:RA:1265:A:C8	25:RA:1267:U:C2	3.00	0.49
25:RA:1797:C:O2'	27:RD:259:THR:HB	2.13	0.49
25:RA:2566:A:H4'	25:RA:2567:G:O5'	2.13	0.49
25:RA:2838:G:C6	25:RA:2839:G:C5	3.00	0.49
25:RA:31:C:O3'	25:RA:1238:G:H5''	2.12	0.49
25:RA:704:G:H2'	25:RA:726:G:N2	2.28	0.49
25:RA:977:G:C6	25:RA:987:G:C5	3.01	0.49
25:RA:1820:U:O4	27:RD:199:ALA:HB1	2.13	0.49
27:RD:2:ALA:CB	27:RD:20:ASP:HB3	2.42	0.49
28:RE:119:ARG:HD3	28:RE:160:TYR:HD2	1.78	0.49
30:RG:143:GLU:HA	50:R4:28:LYS:HD3	1.95	0.49
31:RH:137:ASP:CB	31:RH:140:LYS:HB2	2.43	0.49
31:RH:54:ARG:HD3	31:RH:65:HIS:ND1	2.27	0.49
33:RN:73:THR:CG2	33:RN:82:LEU:HD11	2.43	0.49
35:RP:101:VAL:CG1	35:RP:102:ARG:N	2.75	0.49
25:RA:871:U:H4'	36:RQ:69:PHE:CE2	2.48	0.49
39:RT:16:ARG:HD3	39:RT:19:LEU:CG	2.43	0.49
42:RW:30:GLU:O	42:RW:34:ASN:ND2	2.46	0.49
44:RY:95:LYS:CD	44:RY:95:LYS:N	2.76	0.49
1:XA:1230:C:H2'	1:XA:1231:G:C8	2.47	0.49
1:XA:1464:G:H2'	1:XA:1465:C:C6	2.48	0.49
1:XA:439:A:OP2	1:XA:493:G:N1	2.42	0.49
1:XA:736:C:H2'	1:XA:737:A:C8	2.47	0.49
1:XA:97:U:H2'	1:XA:99:C:C6	2.47	0.49
2:XB:95:GLN:NE2	2:XB:147:LYS:HE2	2.27	0.49
3:XC:188:LEU:CD2	3:XC:188:LEU:N	2.76	0.49
1:XA:1079:G:O3'	5:XE:14:ARG:NH2	2.46	0.49
5:XE:45:PHE:CD2	5:XE:47:LYS:HD2	2.47	0.49
2:XB:178:ARG:NE	8:XH:71:GLY:O	2.45	0.49
9:XI:110:GLU:HG3	9:XI:110:GLU:O	2.12	0.49
16:XP:83:GLU:OE2	16:XP:83:GLU:HA	2.13	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:Y8:58:ILE:O	54:Y8:61:LEU:HD12	2.13	0.49
25:YA:1157:G:C6	25:YA:1158:C:C4	3.01	0.49
25:YA:1443:G:N2	25:YA:1549:C:C2	2.81	0.49
25:YA:1676:A:H2'	25:YA:1677:A:O4'	2.12	0.49
25:YA:1882:C:H5'	25:YA:1883:G:OP2	2.12	0.49
25:YA:2292:C:N4	25:YA:2340:G:H1	2.11	0.49
25:YA:2625:G:H2'	25:YA:2626:C:O4'	2.12	0.49
25:YA:2849:U:H4'	25:YA:2868:A:C2	2.47	0.49
25:YA:301:G:H1	25:YA:316:C:N4	2.06	0.49
25:YA:993:G:C4	25:YA:994:C:C5	3.01	0.49
27:YD:130:ALA:C	27:YD:131:LEU:HD12	2.33	0.49
30:YG:3:LEU:HD21	50:Y4:25:TYR:CE1	2.48	0.49
37:YR:1:MET:O	37:YR:2:ARG:CB	2.60	0.49
1:QA:221:C:H2'	1:QA:222:U:C6	2.45	0.49
1:QA:345:C:H5'	1:QA:346:G:C5	2.47	0.49
1:QA:397:A:H5'	1:QA:398:C:OP1	2.13	0.49
2:QB:16:HIS:HB3	2:QB:210:SER:HB2	1.95	0.49
2:QB:193:ASP:OD2	2:QB:196:LEU:CG	2.57	0.49
5:QE:78:HIS:CD2	8:QH:104:ARG:CD	2.96	0.49
9:QI:110:GLU:HG3	9:QI:110:GLU:O	2.12	0.49
9:QI:112:LYS:HD3	9:QI:113:LYS:O	2.13	0.49
10:QJ:33:GLN:HB2	10:QJ:75:ILE:CD1	2.43	0.49
10:QJ:49:VAL:HG23	14:QN:34:TYR:OH	2.13	0.49
17:QQ:63:ARG:HG2	17:QQ:64:PRO:N	2.28	0.49
17:QQ:67:LYS:HA	17:QQ:70:ARG:HH12	1.76	0.49
20:QT:53:LEU:HA	20:QT:56:MET:CB	2.43	0.49
20:QT:26:ASN:CB	20:QT:71:THR:HG23	2.42	0.49
47:R1:19:GLN:OE1	47:R1:19:GLN:HA	2.12	0.49
52:R6:7:ILE:C	52:R6:9:LEU:N	2.65	0.49
52:R6:7:ILE:O	52:R6:9:LEU:N	2.46	0.49
54:R8:33:ASN:O	54:R8:35:GLN:N	2.46	0.49
54:R8:58:ILE:O	54:R8:61:LEU:HD12	2.13	0.49
25:RA:1059:G:H2'	25:RA:1060:U:H4'	1.95	0.49
25:RA:1247:A:O2'	25:RA:1248:G:H5''	2.13	0.49
25:RA:579:G:O2'	25:RA:2019:A:OP1	2.21	0.49
25:RA:2851:A:H2'	25:RA:2852:G:O4'	2.13	0.49
27:RD:182:LEU:H	27:RD:272:ALA:CB	2.25	0.49
27:RD:233:HIS:CD2	27:RD:233:HIS:H	2.29	0.49
28:RE:38:THR:O	28:RE:42:ASP:HB2	2.13	0.49
28:RE:95:ILE:H	28:RE:95:ILE:CD1	2.18	0.49
30:RG:113:ARG:HD2	50:R4:33:VAL:CG1	2.43	0.49
30:RG:115:ARG:HG2	30:RG:115:ARG:NH1	2.27	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:RQ:132:VAL:HG11	45:RZ:81:ARG:NH2	2.28	0.49
38:RS:48:LEU:CD1	38:RS:48:LEU:N	2.76	0.49
39:RT:111:ARG:O	39:RT:112:ARG:CG	2.55	0.49
34:RO:107:ARG:NH1	39:RT:36:GLU:OE1	2.46	0.49
41:RV:29:PRO:O	41:RV:61:VAL:HG22	2.12	0.49
43:RX:44:GLU:OE1	43:RX:50:LYS:HD2	2.13	0.49
1:XA:109:A:C6	1:XA:326:G:C6	3.01	0.49
1:XA:1171:G:H2'	1:XA:1172:C:H6	1.77	0.49
1:XA:1492:A:OP1	12:XL:47:LYS:CG	2.61	0.49
1:XA:369:C:OP2	1:XA:388:G:N2	2.39	0.49
1:XA:415:A:H2'	1:XA:416:G:C8	2.48	0.49
2:XB:69:LEU:HB3	2:XB:162:ILE:HG22	1.95	0.49
2:XB:7:VAL:CG2	2:XB:8:LYS:HD3	2.43	0.49
4:XD:128:VAL:O	4:XD:130:GLY:N	2.45	0.49
4:XD:9:CYS:SG	4:XD:22:LYS:CD	2.98	0.49
8:XH:45:ILE:O	8:XH:45:ILE:HG13	2.13	0.49
9:XI:22:GLY:HA3	9:XI:60:ASP:OD2	2.13	0.49
9:XI:79:LEU:HD13	9:XI:79:LEU:O	2.12	0.49
11:XK:13:GLN:HG3	11:XK:75:TYR:O	2.13	0.49
12:XL:85:ILE:HD11	12:XL:98:TYR:CB	2.42	0.49
13:XM:12:ASN:O	13:XM:13:LYS:HB2	2.13	0.49
13:XM:23:TYR:HB3	13:XM:67:GLU:CG	2.39	0.49
13:XM:90:LEU:HA	13:XM:93:ARG:CD	2.34	0.49
16:XP:57:ARG:HG3	16:XP:57:ARG:HH11	1.78	0.49
20:XT:97:ALA:HB3	20:XT:99:LEU:CD1	2.43	0.49
50:Y4:53:GLU:O	50:Y4:57:GLU:HG3	2.13	0.49
25:YA:1145:C:H2'	25:YA:1146:C:C6	2.48	0.49
25:YA:1264:G:C3'	25:YA:1265:A:H5''	2.39	0.49
25:YA:1296:G:OP1	25:YA:2709:G:O2'	2.22	0.49
25:YA:190:A:C6	25:YA:191:A:C6	3.01	0.49
25:YA:1916:A:H2'	25:YA:1917:U:O4'	2.12	0.49
25:YA:2001:A:C2	25:YA:2002:G:C4	3.00	0.49
25:YA:2127:G:H2'	25:YA:2128:C:O4'	2.13	0.49
25:YA:222:A:O2'	25:YA:223:A:O5'	2.30	0.49
25:YA:2287:A:H5''	25:YA:2287:A:H8	1.78	0.49
25:YA:2832:U:H1'	25:YA:2834:G:C4	2.47	0.49
25:YA:777:A:C2	25:YA:778:G:C5	3.01	0.49
27:YD:44:ASN:H	27:YD:44:ASN:ND2	1.97	0.49
28:YE:119:ARG:HD3	28:YE:160:TYR:CD2	2.47	0.49
30:YG:143:GLU:HA	50:Y4:28:LYS:HD3	1.95	0.49
31:YH:124:GLU:HB3	31:YH:132:ARG:CG	2.43	0.49
31:YH:151:ILE:C	31:YH:152:ARG:O	2.49	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:YI:63:ALA:HA	32:YI:66:GLU:HG2	1.95	0.49
33:YN:56:ASN:ND2	33:YN:125:GLY:C	2.65	0.49
37:YR:71:GLN:HA	37:YR:71:GLN:HE21	1.77	0.49
44:YY:81:LYS:HD3	44:YY:97:ARG:HD3	1.94	0.49
1:QA:1119:C:H2'	1:QA:1120:G:C8	2.48	0.49
1:QA:222:U:H2'	1:QA:223:U:C6	2.48	0.49
1:QA:737:A:H2'	1:QA:738:C:C6	2.48	0.49
1:QA:962:C:C2	1:QA:963:G:C8	3.01	0.49
2:QB:207:ALA:O	2:QB:209:ARG:N	2.45	0.49
3:QC:188:LEU:CD2	3:QC:188:LEU:N	2.76	0.49
4:QD:30:LYS:HD2	4:QD:35:ARG:HH21	1.78	0.49
5:QE:78:HIS:CE1	5:QE:142:LEU:HD23	2.48	0.49
8:QH:29:SER:CB	8:QH:32:LYS:HG3	2.28	0.49
8:QH:61:VAL:HG12	8:QH:63:LEU:HD13	1.94	0.49
9:QI:79:LEU:O	9:QI:83:ARG:HG2	2.13	0.49
11:QK:82:VAL:O	11:QK:108:ILE:HA	2.13	0.49
12:QL:119:LYS:C	12:QL:120:TYR:HD1	2.16	0.49
14:QN:23:ARG:HD3	14:QN:28:GLY:O	2.13	0.49
11:QK:91:ARG:HH22	18:QR:88:LYS:HZ3	1.59	0.49
1:QA:1305:G:C5'	21:QU:4:GLY:HA3	2.41	0.49
47:R1:25:LYS:C	47:R1:27:GLU:H	2.16	0.49
50:R4:47:GLN:O	50:R4:48:ARG:CB	2.61	0.49
51:R5:52:TYR:O	51:R5:53:ALA:CB	2.60	0.49
52:R6:27:LYS:CB	52:R6:27:LYS:NZ	2.73	0.49
52:R6:44:ARG:O	52:R6:45:LYS:CB	2.60	0.49
54:R8:41:ILE:HG13	54:R8:42:ARG:N	2.28	0.49
25:RA:1201:C:N4	25:RA:1244:G:H1	2.11	0.49
25:RA:1773:A:H2'	25:RA:1774:C:O4'	2.12	0.49
25:RA:182:A:N3	25:RA:433:C:O2'	2.41	0.49
25:RA:1872:A:H5'	25:RA:1878:G:OP2	2.12	0.49
25:RA:2404:C:O2	25:RA:2414:G:C2	2.66	0.49
25:RA:2422:A:C8	25:RA:2424:C:C5	3.01	0.49
28:RE:46:ALA:HB1	28:RE:80:GLU:HB2	1.94	0.49
29:RF:45:ARG:HG2	29:RF:45:ARG:NH1	2.28	0.49
34:RO:55:GLY:O	34:RO:56:ASP:C	2.50	0.49
36:RQ:86:GLY:O	36:RQ:88:GLY:N	2.46	0.49
37:RR:44:LEU:HD22	37:RR:48:VAL:CG2	2.42	0.49
37:RR:52:ILE:CG2	37:RR:94:TYR:CD1	2.96	0.49
38:RS:11:LYS:O	38:RS:11:LYS:HG2	2.12	0.49
40:RU:81:HIS:CE1	40:RU:117:GLN:HG3	2.48	0.49
1:XA:179:A:H2'	1:XA:180:U:C6	2.47	0.49
1:XA:601:C:H2'	1:XA:602:A:H8	1.75	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:96:G:H2'	1:XA:97:U:O4'	2.12	0.49
2:XB:39:ILE:O	2:XB:41:ILE:HD12	2.12	0.49
3:XC:76:VAL:HG21	3:XC:103:VAL:HG11	1.95	0.49
4:XD:33:MET:HE2	4:XD:37:PRO:HA	1.95	0.49
11:XK:41:THR:HG22	11:XK:42:TRP:N	2.28	0.49
13:XM:65:LYS:HZ2	13:XM:69:GLU:HG2	1.77	0.49
13:XM:73:GLU:O	13:XM:76:ALA:HB3	2.13	0.49
52:Y6:37:ARG:HA	52:Y6:37:ARG:HE	1.77	0.49
25:YA:1045:A:H4'	25:YA:1046:A:C5'	2.43	0.49
25:YA:106:C:H2'	25:YA:107:C:C6	2.47	0.49
25:YA:1650:G:N2	25:YA:2007:C:O2	2.44	0.49
25:YA:2782:G:O5'	25:YA:2782:G:C8	2.65	0.49
26:YB:3:C:H2'	26:YB:4:C:C6	2.48	0.49
30:YG:113:ARG:HD2	50:Y4:33:VAL:CG1	2.43	0.49
30:YG:115:ARG:HG2	30:YG:115:ARG:HH11	1.77	0.49
30:YG:77:ILE:O	30:YG:81:LYS:O	2.31	0.49
31:YH:54:ARG:HD3	31:YH:65:HIS:ND1	2.27	0.49
33:YN:4:TYR:OH	33:YN:7:LYS:NZ	2.46	0.49
35:YP:101:VAL:CG1	35:YP:102:ARG:N	2.75	0.49
35:YP:14:LYS:O	35:YP:15:ARG:C	2.51	0.49
35:YP:47:ASP:OD1	35:YP:49:ARG:NH1	2.46	0.49
35:YP:6:LEU:O	35:YP:7:ARG:O	2.31	0.49
36:YQ:86:GLY:O	36:YQ:88:GLY:N	2.46	0.49
38:YS:11:LYS:HG2	38:YS:11:LYS:O	2.12	0.49
38:YS:48:LEU:CD1	38:YS:48:LEU:N	2.76	0.49
38:YS:55:ALA:O	38:YS:56:LEU:HB3	2.13	0.49
40:YU:64:ARG:NH2	40:YU:64:ARG:CG	2.70	0.49
41:YV:35:LEU:HD22	41:YV:57:VAL:O	2.13	0.49
41:YV:76:LYS:HG3	41:YV:81:TYR:CD1	2.48	0.49
41:YV:91:TYR:CD1	41:YV:91:TYR:C	2.87	0.49
42:YW:88:ARG:HB3	42:YW:92:ARG:CB	2.42	0.49
1:QA:1326:C:OP1	21:QU:12:LYS:HE3	2.13	0.48
1:QA:468:A:C8	1:QA:474:G:C8	3.01	0.48
2:QB:170:GLU:C	2:QB:172:ILE:HD12	2.33	0.48
4:QD:9:CYS:SG	4:QD:22:LYS:CD	2.98	0.48
5:QE:11:ILE:CG1	5:QE:31:LEU:HD12	2.42	0.48
9:QI:18:PHE:O	9:QI:61:ALA:HA	2.13	0.48
11:QK:19:ALA:CB	11:QK:32:ILE:HG22	2.42	0.48
13:QM:4:ILE:HG22	13:QM:5:ALA:H	1.75	0.48
16:QP:43:LYS:HE2	16:QP:48:TRP:CZ3	2.47	0.48
52:R6:20:ASN:CG	52:R6:21:TYR:N	2.66	0.48
25:RA:1349:A:N3	25:RA:1349:A:H3'	2.27	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1427:A:C4	25:RA:1428:C:N4	2.81	0.48
25:RA:1462:C:H4'	25:RA:2703:C:H5'	1.94	0.48
25:RA:2199:A:H5''	25:RA:2205:C:OP2	2.12	0.48
25:RA:2747:G:H5''	31:RH:70:THR:HG21	1.94	0.48
25:RA:372:G:H8	47:R1:65:SER:O	1.96	0.48
25:RA:676:A:C8	25:RA:2069:G:N2	2.80	0.48
25:RA:862:G:H2'	25:RA:863:A:O4'	2.13	0.48
29:RF:129:PHE:CD2	29:RF:163:VAL:HG21	2.48	0.48
30:RG:36:LYS:HA	30:RG:95:ARG:HG2	1.95	0.48
31:RH:124:GLU:HB3	31:RH:132:ARG:CG	2.43	0.48
31:RH:12:PRO:HD3	31:RH:48:GLY:O	2.13	0.48
31:RH:42:ARG:O	31:RH:52:VAL:HA	2.12	0.48
32:RI:86:THR:H	32:RI:123:LEU:HD12	1.78	0.48
35:RP:30:THR:O	35:RP:33:ARG:HB2	2.12	0.48
36:RQ:31:ASP:O	36:RQ:32:TYR:CG	2.66	0.48
25:RA:1251:C:OP1	40:RU:10:ARG:HG3	2.12	0.48
41:RV:18:LEU:HB3	41:RV:96:ILE:CG1	2.43	0.48
42:RW:51:LEU:HD23	42:RW:105:VAL:HG11	1.95	0.48
42:RW:36:LEU:CD1	42:RW:47:VAL:HG12	2.43	0.48
43:RX:11:PRO:HB3	43:RX:92:LEU:CD2	2.43	0.48
44:RY:101:LYS:O	44:RY:102:CYS:SG	2.66	0.48
44:RY:6:HIS:O	44:RY:7:VAL:CG1	2.59	0.48
45:RZ:4:ARG:NH1	45:RZ:58:VAL:HG21	2.28	0.48
1:XA:1095:U:OP1	1:XA:1108:G:N2	2.46	0.48
2:XB:134:GLU:HB3	2:XB:138:LEU:HD12	1.93	0.48
3:XC:87:LEU:C	3:XC:89:GLU:N	2.65	0.48
4:XD:163:GLU:O	4:XD:165:MET:N	2.46	0.48
7:XG:23:VAL:O	7:XG:27:ILE:CD1	2.60	0.48
7:XG:63:LYS:HD2	7:XG:63:LYS:O	2.13	0.48
10:XJ:3:LYS:O	10:XJ:100:THR:HA	2.13	0.48
20:XT:53:LEU:HA	20:XT:56:MET:CB	2.43	0.48
22:XV:75:C:H2'	22:XV:76:A:O4'	2.12	0.48
51:Y5:49:CYS:SG	51:Y5:58:LEU:HB2	2.53	0.48
52:Y6:7:ILE:O	52:Y6:9:LEU:N	2.46	0.48
54:Y8:33:ASN:O	54:Y8:35:GLN:N	2.46	0.48
54:Y8:35:GLN:HA	54:Y8:35:GLN:OE1	2.13	0.48
25:YA:1784:A:H4'	25:YA:1785:A:O5'	2.13	0.48
25:YA:2677:G:C4	25:YA:2731:G:N2	2.81	0.48
25:YA:2744:G:O2'	25:YA:2745:C:H5'	2.13	0.48
25:YA:2824:C:C5	25:YA:2825:C:C4	3.01	0.48
25:YA:38:A:O5'	25:YA:38:A:H8	1.95	0.48
25:YA:643:A:N1	25:YA:2369:A:O2'	2.29	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:664:C:H4'	25:YA:941:A:OP1	2.13	0.48
26:YB:54:G:O2'	26:YB:55:U:H5'	2.13	0.48
27:YD:48:ARG:HH11	27:YD:48:ARG:HG3	1.78	0.48
30:YG:115:ARG:HG2	30:YG:115:ARG:NH1	2.26	0.48
34:YO:107:ARG:HA	34:YO:112:MET:HE1	1.94	0.48
35:YP:52:GLU:OE2	35:YP:57:THR:HA	2.13	0.48
39:YT:135:ALA:C	39:YT:137:LYS:H	2.16	0.48
40:YU:91:ASP:O	40:YU:95:LEU:N	2.43	0.48
44:YY:47:LYS:C	44:YY:49:VAL:H	2.16	0.48
44:YY:97:ARG:HG2	44:YY:97:ARG:NH1	2.28	0.48
56:Z6:76:PPU:HN2	56:Z6:76:PPU:HD2	1.76	0.48
1:QA:1122:U:N3	1:QA:1123:A:N7	2.61	0.48
1:QA:407:G:N1	1:QA:435:C:N3	2.56	0.48
1:QA:830:G:N2	1:QA:857:C:C2	2.81	0.48
2:QB:5:ILE:HG21	2:QB:224:GLN:HG2	1.95	0.48
5:QE:100:VAL:O	5:QE:107:ARG:NH2	2.47	0.48
8:QH:122:ARG:O	8:QH:125:ARG:N	2.46	0.48
10:QJ:94:VAL:CG1	10:QJ:95:GLU:N	2.76	0.48
47:R1:80:LEU:C	47:R1:81:LYS:CE	2.77	0.48
47:R1:93:GLU:O	47:R1:97:LEU:HD11	2.12	0.48
51:R5:45:VAL:O	51:R5:45:VAL:HG12	2.13	0.48
51:R5:56:LYS:HD2	51:R5:56:LYS:N	2.13	0.48
25:RA:1059:G:C5	25:RA:1060:U:H1'	2.48	0.48
25:RA:130:C:O3'	25:RA:1349:A:H1'	2.13	0.48
25:RA:1469:A:H2'	25:RA:1470:G:O4'	2.13	0.48
25:RA:1718:G:C2	25:RA:1725:G:C8	3.01	0.48
25:RA:1839:G:C8	25:RA:1927:A:H1'	2.48	0.48
25:RA:1995:U:N3	25:RA:1996:C:C4	2.81	0.48
26:RB:4:C:C2	26:RB:117:G:N2	2.80	0.48
30:RG:115:ARG:HH11	30:RG:115:ARG:HG2	1.77	0.48
30:RG:77:ILE:O	30:RG:81:LYS:O	2.31	0.48
33:RN:10:GLU:HA	33:RN:11:PRO:HD3	1.74	0.48
35:RP:36:LYS:HB2	35:RP:40:SER:HB3	1.94	0.48
36:RQ:112:GLU:CD	36:RQ:112:GLU:H	2.17	0.48
37:RR:70:LEU:C	37:RR:72:ASP:H	2.16	0.48
41:RV:22:VAL:HG12	41:RV:23:GLU:H	1.76	0.48
41:RV:79:VAL:HG22	41:RV:79:VAL:O	2.12	0.48
41:RV:91:TYR:CD1	41:RV:91:TYR:C	2.87	0.48
1:XA:1148:U:H2'	1:XA:1149:C:O4'	2.12	0.48
1:XA:1161:C:C2'	1:XA:1162:C:H5'	2.43	0.48
2:XB:154:LEU:O	2:XB:155:LEU:HB2	2.13	0.48
2:XB:16:HIS:HD2	2:XB:210:SER:HA	1.77	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:XC:173:VAL:N	3:XC:174:PRO:HD3	2.27	0.48
4:XD:121:VAL:O	4:XD:134:ASP:HA	2.13	0.48
4:XD:9:CYS:SG	4:XD:22:LYS:CE	3.01	0.48
5:XE:78:HIS:CD2	8:XH:104:ARG:CG	2.91	0.48
5:XE:83:GLU:HG2	5:XE:88:LYS:CG	2.42	0.48
6:XF:51:PRO:HA	6:XF:55:ASP:O	2.12	0.48
9:XI:79:LEU:O	9:XI:83:ARG:HG2	2.13	0.48
10:XJ:33:GLN:HB2	10:XJ:75:ILE:CD1	2.43	0.48
11:XK:34:ASP:HB2	11:XK:35:PRO:HD2	1.95	0.48
12:XL:6:THR:O	12:XL:7:ILE:C	2.51	0.48
13:XM:3:ARG:HA	13:XM:9:ILE:HG12	1.95	0.48
21:XU:9:ARG:HH11	21:XU:9:ARG:HG2	1.78	0.48
48:Y2:16:LEU:O	48:Y2:17:SER:CB	2.56	0.48
53:Y7:48:LYS:CG	53:Y7:49:ARG:H	2.23	0.48
25:YA:1056:G:H5'	25:YA:1085:A:H2	1.78	0.48
25:YA:1048:A:C5	25:YA:1111:A:H2	2.31	0.48
25:YA:1230:C:H2'	25:YA:1231:G:C8	2.48	0.48
25:YA:211:A:H2'	25:YA:212:G:O4'	2.13	0.48
25:YA:2298:A:H5''	25:YA:2299:G:OP2	2.12	0.48
25:YA:2532:G:H4'	25:YA:2657:A:H2	1.78	0.48
25:YA:2074:U:HO2'	25:YA:2597:G:HO2'	1.56	0.48
25:YA:319:C:H2'	25:YA:320:A:O4'	2.13	0.48
25:YA:374:A:H3'	25:YA:375:C:H6	1.78	0.48
25:YA:53:A:C8	25:YA:54:G:C8	3.01	0.48
26:YB:44:G:OP1	50:Y4:1:MET:N	2.35	0.48
28:YE:47:VAL:O	28:YE:48:GLN:C	2.52	0.48
30:YG:92:VAL:O	30:YG:92:VAL:HG13	2.12	0.48
31:YH:42:ARG:O	31:YH:52:VAL:HA	2.13	0.48
35:YP:144:GLU:O	35:YP:144:GLU:OE1	2.31	0.48
36:YQ:63:LYS:HB2	45:YZ:116:VAL:HG21	1.96	0.48
38:YS:33:LYS:HB3	38:YS:34:HIS:CD2	2.48	0.48
1:XA:1432:G:OP1	39:YT:107:ASP:HB2	2.13	0.48
25:YA:456:C:C5	43:YX:69:TYR:CZ	3.02	0.48
1:QA:1442:G:C5	1:QA:1446:A:C6	3.02	0.48
1:QA:411:A:H62	1:QA:413:G:N2	2.04	0.48
1:QA:565:U:OP2	1:QA:566:G:O2'	2.14	0.48
1:QA:838:G:N2	1:QA:849:C:C2	2.81	0.48
2:QB:39:ILE:O	2:QB:41:ILE:HD12	2.13	0.48
4:QD:121:VAL:O	4:QD:134:ASP:HA	2.14	0.48
5:QE:42:GLY:CA	5:QE:136:MET:HE1	2.42	0.48
9:QI:18:PHE:HB2	9:QI:62:TYR:HB3	1.95	0.48
11:QK:106:LYS:O	11:QK:107:SER:HB3	2.12	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:QL:38:THR:CG2	12:QL:57:LYS:HB3	2.44	0.48
15:QO:32:LEU:O	15:QO:33:THR:C	2.51	0.48
46:R0:56:ASP:OD2	46:R0:58:THR:N	2.43	0.48
48:R2:69:ARG:HH11	48:R2:69:ARG:HB3	1.78	0.48
53:R7:12:ARG:HG3	53:R7:12:ARG:HH11	1.78	0.48
25:RA:1047:G:O2'	25:RA:1110:G:N2	2.47	0.48
25:RA:693:C:O4'	25:RA:1354:A:H1'	2.13	0.48
25:RA:1399:C:O5'	25:RA:1399:C:H6	1.96	0.48
25:RA:1661:G:C6	25:RA:2000:G:C6	3.01	0.48
25:RA:1783:A:H5'	25:RA:2608:G:H4'	1.95	0.48
25:RA:270(I):G:H1	25:RA:270(Q):C:N4	2.10	0.48
25:RA:2747:G:H2'	25:RA:2748:A:H8	1.78	0.48
25:RA:67:U:H2'	25:RA:68:G:C8	2.44	0.48
29:RF:128:ALA:O	29:RF:129:PHE:HB2	2.13	0.48
29:RF:155:LEU:HD23	29:RF:186:ILE:HA	1.95	0.48
30:RG:125:PHE:HB3	30:RG:166:ASP:HB2	1.95	0.48
31:RH:10:PRO:C	31:RH:11:VAL:HG22	2.34	0.48
31:RH:123:PHE:O	31:RH:125:VAL:HG23	2.13	0.48
33:RN:12:ARG:NH1	33:RN:50:ASP:CG	2.67	0.48
35:RP:35:HIS:O	35:RP:36:LYS:O	2.31	0.48
35:RP:52:GLU:OE2	35:RP:57:THR:HA	2.13	0.48
26:RB:9:G:H5'	38:RS:19:LYS:NZ	2.28	0.48
38:RS:33:LYS:HB3	38:RS:34:HIS:CD2	2.48	0.48
38:RS:59:LYS:HG2	38:RS:60:GLY:N	2.13	0.48
1:XA:1226:C:N4	13:XM:104:ARG:HD2	2.27	0.48
1:XA:1321:C:C5'	1:XA:1322:C:H5''	2.43	0.48
1:XA:1348:U:C5	1:XA:1349:A:N7	2.81	0.48
2:XB:181:PHE:O	2:XB:183:PRO:HD3	2.12	0.48
2:XB:16:HIS:HB3	2:XB:210:SER:HB2	1.95	0.48
2:XB:5:ILE:HG21	2:XB:224:GLN:HG2	1.95	0.48
10:XJ:56:HIS:O	10:XJ:58:ASP:O	2.30	0.48
10:XJ:98:ILE:H	10:XJ:98:ILE:CD1	2.24	0.48
11:XK:91:ARG:HH22	18:XR:88:LYS:NZ	2.09	0.48
16:XP:39:TYR:CE2	16:XP:41:PRO:HD3	2.47	0.48
16:XP:43:LYS:HE2	16:XP:48:TRP:CZ3	2.47	0.48
52:Y6:27:LYS:O	52:Y6:28:ARG:HG2	2.13	0.48
25:YA:1322:A:H2'	25:YA:1323:U:H6	1.79	0.48
25:YA:1972:A:H2'	25:YA:1973:G:H8	1.78	0.48
25:YA:2063:C:H5'	25:YA:2063:C:H6	1.77	0.48
25:YA:2263:C:H2'	25:YA:2264:C:H6	1.77	0.48
25:YA:2854:G:H2'	25:YA:2855:C:C6	2.49	0.48
25:YA:2864:G:C2	25:YA:2865:U:C2	3.01	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:301:G:H1'	25:YA:302:C:C6	2.47	0.48
25:YA:696:G:C2	25:YA:697:C:C5	3.02	0.48
27:YD:198:ASN:C	27:YD:198:ASN:HD22	2.16	0.48
27:YD:25:THR:O	27:YD:27:THR:HG22	2.12	0.48
28:YE:38:THR:O	28:YE:42:ASP:HB2	2.13	0.48
29:YF:155:LEU:HD23	29:YF:186:ILE:HA	1.95	0.48
31:YH:13:LYS:HE2	31:YH:13:LYS:CA	2.40	0.48
31:YH:23:ARG:HD2	31:YH:34:GLU:OE2	2.12	0.48
32:YI:133:HIS:HB2	32:YI:134:PRO:CD	2.44	0.48
36:YQ:34:LEU:HD23	36:YQ:104:PHE:HD1	1.77	0.48
36:YQ:112:GLU:CD	36:YQ:112:GLU:H	2.17	0.48
36:YQ:23:GLY:O	36:YQ:24:GLY:O	2.30	0.48
37:YR:52:ILE:CG2	37:YR:94:TYR:CD1	2.95	0.48
40:YU:52:ARG:NH1	40:YU:52:ARG:CG	2.76	0.48
41:YV:18:LEU:HB3	41:YV:96:ILE:CG1	2.43	0.48
1:QA:1171:G:H2'	1:QA:1172:C:C6	2.48	0.48
1:QA:1220:G:O3'	19:QS:36:ARG:HD3	2.14	0.48
1:QA:12:U:H2'	1:QA:13:U:H5''	1.94	0.48
1:QA:1411:C:H2'	1:QA:1412:C:C6	2.48	0.48
1:QA:563:A:N7	1:QA:567:G:H1'	2.28	0.48
1:QA:597:G:N2	8:QH:94:TYR:OH	2.47	0.48
1:QA:627:G:O2'	1:QA:628:G:H5'	2.13	0.48
1:QA:735:C:H2'	1:QA:736:C:C6	2.46	0.48
2:QB:15:VAL:H	2:QB:16:HIS:CE1	2.30	0.48
2:QB:214:ILE:O	2:QB:218:ALA:HB2	2.13	0.48
4:QD:163:GLU:O	4:QD:165:MET:N	2.46	0.48
4:QD:196:LEU:HB3	4:QD:197:PRO:HD2	1.95	0.48
9:QI:113:LYS:H	9:QI:119:ALA:HA	1.77	0.48
12:QL:27:LEU:C	12:QL:29:GLY:N	2.64	0.48
15:QO:50:HIS:O	15:QO:53:HIS:N	2.47	0.48
22:QV:4:G:O2'	22:QV:5:G:H8	1.96	0.48
25:RA:96:G:H4'	48:R2:48:HIS:CD2	2.48	0.48
48:R2:69:ARG:CB	48:R2:69:ARG:HH11	2.25	0.48
54:R8:35:GLN:HA	54:R8:35:GLN:OE1	2.13	0.48
25:RA:2607:G:H2'	25:RA:2608:G:O4'	2.14	0.48
25:RA:301:G:H1'	25:RA:302:C:C6	2.48	0.48
25:RA:476:G:H4'	25:RA:502:A:N1	2.29	0.48
25:RA:724:U:H2'	25:RA:725:G:O4'	2.14	0.48
26:RB:16:G:H2'	26:RB:17:C:C6	2.49	0.48
28:RE:78:LEU:CD2	28:RE:79:ARG:HD2	2.43	0.48
29:RF:198:ALA:O	29:RF:201:VAL:HG12	2.13	0.48
30:RG:16:ARG:HB3	30:RG:17:PRO:HD3	1.94	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:95:PRO:O	33:RN:96:GLU:C	2.51	0.48
35:RP:101:VAL:C	35:RP:103:ALA:H	2.17	0.48
35:RP:112:LEU:HD12	35:RP:127:ALA:CB	2.44	0.48
38:RS:46:VAL:HG12	38:RS:47:THR:N	2.28	0.48
39:RT:132:LYS:O	39:RT:136:GLN:HG3	2.14	0.48
41:RV:35:LEU:HD22	41:RV:57:VAL:O	2.14	0.48
43:RX:53:LYS:HZ2	43:RX:55:ASN:HD21	1.62	0.48
44:RY:57:GLN:O	44:RY:58:GLY:O	2.32	0.48
1:XA:1130:A:O2'	9:XI:3:GLN:NE2	2.45	0.48
1:XA:1206:G:C4	1:XA:1207:G:C8	3.01	0.48
1:XA:1213:A:N6	1:XA:1215:G:N3	2.60	0.48
1:XA:28:G:N2	1:XA:555:C:O2	2.46	0.48
2:XB:97:TRP:HZ2	2:XB:102:LEU:HD13	1.78	0.48
2:XB:193:ASP:OD2	2:XB:196:LEU:CG	2.58	0.48
2:XB:206:ASP:HA	2:XB:211:ILE:HD11	1.94	0.48
4:XD:114:ARG:CG	4:XD:114:ARG:HH11	2.16	0.48
4:XD:3:ARG:O	4:XD:5:ILE:HG13	2.14	0.48
7:XG:80:VAL:HG12	7:XG:81:GLY:N	2.28	0.48
9:XI:112:LYS:HD3	9:XI:113:LYS:O	2.13	0.48
9:XI:118:LYS:CB	9:XI:118:LYS:NZ	2.75	0.48
10:XJ:94:VAL:CG1	10:XJ:95:GLU:N	2.76	0.48
12:XL:119:LYS:C	12:XL:120:TYR:HD1	2.16	0.48
17:XQ:74:LEU:HD12	17:XQ:75:ARG:NE	2.28	0.48
20:XT:37:SER:HB3	20:XT:84:LEU:CD2	2.43	0.48
9:XI:128:ARG:NH2	22:XV:35:A:P	2.86	0.48
22:XV:4:G:O2'	22:XV:5:G:H8	1.96	0.48
24:XY:40:G:O2'	24:XY:41:A:H5'	2.13	0.48
51:Y5:48:GLU:HA	51:Y5:59:GLU:HG2	1.94	0.48
25:YA:1301:A:O2'	25:YA:1302:A:H3'	2.13	0.48
25:YA:2182:G:H2'	25:YA:2183:C:C6	2.48	0.48
25:YA:2415:G:H4'	35:YP:66:GLY:C	2.33	0.48
25:YA:2504:U:H6	25:YA:2504:U:O5'	1.96	0.48
25:YA:242:G:N2	25:YA:255:A:OP2	2.37	0.48
25:YA:333:G:H5''	25:YA:334:C:OP2	2.13	0.48
25:YA:612:G:C2	25:YA:617:G:C6	3.01	0.48
29:YF:107:LYS:O	29:YF:110:LEU:N	2.47	0.48
31:YH:137:ASP:CB	31:YH:140:LYS:HB2	2.43	0.48
32:YI:79:ILE:HG22	32:YI:81:VAL:HG22	1.94	0.48
33:YN:30:ILE:O	33:YN:34:LEU:HD23	2.13	0.48
33:YN:42:TRP:HA	33:YN:48:MET:CE	2.42	0.48
25:YA:910:A:C5	36:YQ:13:GLN:HG3	2.49	0.48
39:YT:58:ASN:N	39:YT:58:ASN:HD22	2.10	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1258:G:C6	1:QA:1259:C:N4	2.81	0.48
2:QB:154:LEU:O	2:QB:155:LEU:HB2	2.13	0.48
2:QB:7:VAL:CG2	2:QB:8:LYS:HD3	2.43	0.48
4:QD:118:ARG:NH2	4:QD:136:PRO:HB2	2.28	0.48
4:QD:183:GLY:C	4:QD:184:LYS:HG3	2.34	0.48
5:QE:78:HIS:NE2	8:QH:104:ARG:NE	2.62	0.48
10:QJ:3:LYS:O	10:QJ:100:THR:HA	2.14	0.48
1:QA:707:C:H5''	11:QK:85:ARG:NH1	2.28	0.48
13:QM:73:GLU:O	13:QM:76:ALA:HB3	2.13	0.48
13:QM:3:ARG:HA	13:QM:9:ILE:HG12	1.94	0.48
25:RA:1163:G:C2	25:RA:1164:G:C8	3.02	0.48
25:RA:1954:G:H21	25:RA:1956:U:H3	1.62	0.48
25:RA:2320:A:C8	25:RA:2333:A:N6	2.81	0.48
25:RA:2524:G:H2'	25:RA:2525:G:O4'	2.13	0.48
26:RB:42:C:O2	30:RG:93:THR:N	2.30	0.48
27:RD:35:LYS:HD2	27:RD:104:TYR:CE1	2.49	0.48
27:RD:65:ILE:C	27:RD:65:ILE:HD13	2.32	0.48
31:RH:104:GLU:HG3	31:RH:114:VAL:HG22	1.96	0.48
32:RI:29:TYR:O	32:RI:32:PRO:HD2	2.12	0.48
35:RP:14:LYS:O	35:RP:15:ARG:C	2.51	0.48
36:RQ:34:LEU:HD23	36:RQ:104:PHE:HD1	1.77	0.48
37:RR:42:LYS:HA	37:RR:45:ARG:HD2	1.96	0.48
41:RV:6:LYS:HD3	41:RV:11:GLN:HG2	1.96	0.48
43:RX:35:THR:O	43:RX:37:THR:N	2.47	0.48
44:RY:47:LYS:C	44:RY:49:VAL:H	2.16	0.48
45:RZ:150:LEU:HD23	45:RZ:171:ILE:CG1	2.43	0.48
1:XA:1517:G:H1'	25:YA:1919:A:O3'	2.14	0.48
1:XA:321:A:N7	1:XA:328:C:O2	2.46	0.48
1:XA:613:C:O2	1:XA:627:G:N2	2.34	0.48
2:XB:140:HIS:C	2:XB:142:LEU:H	2.16	0.48
2:XB:164:VAL:HB	2:XB:186:ALA:HB1	1.96	0.48
2:XB:42:ILE:HD11	2:XB:202:PRO:HB2	1.95	0.48
5:XE:11:ILE:CG1	5:XE:31:LEU:HD12	2.42	0.48
7:XG:107:ALA:CB	7:XG:134:ALA:HB2	2.44	0.48
8:XH:86:ILE:HG13	8:XH:133:LEU:CD2	2.44	0.48
9:XI:18:PHE:O	9:XI:61:ALA:HA	2.13	0.48
16:XP:40:ASP:C	16:XP:42:ARG:H	2.17	0.48
16:XP:69:THR:O	16:XP:73:LEU:HG	2.14	0.48
17:XQ:67:LYS:HA	17:XQ:70:ARG:HH12	1.77	0.48
46:Y0:14:ARG:HB2	46:Y0:14:ARG:HE	1.45	0.48
51:Y5:52:TYR:O	51:Y5:53:ALA:CB	2.61	0.48
25:YA:1024:G:C6	25:YA:1025:G:C6	3.01	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1419:A:N7	25:YA:1421:G:C6	2.81	0.48
25:YA:1658:C:H2'	25:YA:1659:U:H6	1.79	0.48
25:YA:1682:G:C6	25:YA:1683:C:C4	3.02	0.48
25:YA:270(R):G:H2'	25:YA:270(S):G:C8	2.48	0.48
25:YA:2733:A:C2	25:YA:2734:A:H1'	2.49	0.48
25:YA:301:G:C4	25:YA:302:C:C5	3.01	0.48
25:YA:653:A:O2'	25:YA:654:A:OP1	2.25	0.48
25:YA:836:G:C6	25:YA:837:C:C4	3.01	0.48
29:YF:128:ALA:O	29:YF:129:PHE:HB2	2.13	0.48
31:YH:12:PRO:HD3	31:YH:48:GLY:O	2.13	0.48
31:YH:82:GLY:O	31:YH:83:TYR:O	2.31	0.48
32:YI:57:ARG:HA	32:YI:60:GLU:HB3	1.96	0.48
32:YI:99:GLU:HG2	32:YI:103:ARG:HH21	1.79	0.48
33:YN:95:PRO:O	33:YN:96:GLU:C	2.51	0.48
35:YP:6:LEU:N	35:YP:6:LEU:CD2	2.75	0.48
35:YP:71:VAL:HG13	35:YP:72:PRO:CD	2.43	0.48
39:YT:16:ARG:HD3	39:YT:19:LEU:CG	2.43	0.48
41:YV:7:THR:HG23	41:YV:22:VAL:HG11	1.94	0.48
44:YY:35:TYR:CD1	44:YY:69:ALA:HB3	2.48	0.48
1:QA:1120:G:H2'	1:QA:1121:U:C6	2.49	0.48
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.49	0.48
1:QA:1511:G:C6	1:QA:1512:U:N3	2.82	0.48
1:QA:281:G:H8	1:QA:281:G:OP2	1.96	0.48
1:QA:528:C:O2'	1:QA:535:A:O2'	2.17	0.48
1:QA:559:A:C5'	1:QA:560:U:H3'	2.44	0.48
1:QA:729:A:N1	1:QA:764:C:O2'	2.44	0.48
1:QA:814:A:N7	1:QA:816:A:C4	2.82	0.48
1:QA:939:G:H5''	7:QG:102:ARG:HH12	1.79	0.48
1:QA:940:C:H2'	1:QA:941:G:H8	1.77	0.48
2:QB:140:HIS:C	2:QB:142:LEU:H	2.16	0.48
2:QB:200:ILE:H	2:QB:200:ILE:HD12	1.79	0.48
4:QD:196:LEU:C	4:QD:198:VAL:N	2.66	0.48
1:QA:18:C:C5'	5:QE:127:ASN:HD21	2.21	0.48
5:QE:87:SER:HB3	5:QE:131:ILE:HD13	1.95	0.48
8:QH:6:ILE:O	8:QH:10:LEU:HG	2.14	0.48
11:QK:34:ASP:HB2	11:QK:35:PRO:HD2	1.95	0.48
16:QP:71:ARG:HB2	16:QP:71:ARG:HH11	1.79	0.48
19:QS:24:ALA:O	19:QS:25:LYS:HB2	2.13	0.48
19:QS:27:GLU:O	19:QS:28:LYS:CG	2.53	0.48
19:QS:36:ARG:NH1	19:QS:36:ARG:HB3	2.28	0.48
46:R0:68:GLU:OE1	46:R0:82:ARG:NH1	2.47	0.48
47:R1:56:GLN:H	47:R1:56:GLN:NE2	2.10	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:R4:42:PHE:O	50:R4:43:TYR:C	2.51	0.48
52:R6:14:THR:OG1	52:R6:19:ARG:NE	2.40	0.48
54:R8:56:GLU:O	54:R8:58:ILE:N	2.47	0.48
25:RA:103:A:H8	25:RA:103:A:OP2	1.96	0.48
25:RA:1322:A:C5	25:RA:1323:U:C5	3.01	0.48
25:RA:1433:U:C6	25:RA:1433:U:H5''	2.44	0.48
25:RA:1534:G:N1	25:RA:1538:G:N2	2.61	0.48
25:RA:1790:C:H5''	25:RA:1791:A:OP1	2.13	0.48
25:RA:1792:G:H2'	25:RA:1793:C:H6	1.77	0.48
25:RA:2143:C:H2'	25:RA:2144:U:O4'	2.14	0.48
25:RA:2417:C:H2'	25:RA:2418:A:H8	1.78	0.48
25:RA:2877:G:O2'	25:RA:2878:U:H5'	2.14	0.48
25:RA:327:G:N2	44:RY:70:SER:OG	2.46	0.48
25:RA:449:A:O2'	25:RA:450:G:H5'	2.14	0.48
25:RA:628:G:H4'	25:RA:651:G:O2'	2.14	0.48
25:RA:624:C:O2	25:RA:657:U:H4'	2.14	0.48
25:RA:71:A:H5'	25:RA:72:U:H2'	1.95	0.48
27:RD:48:ARG:HG3	27:RD:48:ARG:HH11	1.78	0.48
28:RE:93:VAL:H	28:RE:95:ILE:CD1	2.23	0.48
29:RF:107:LYS:O	29:RF:110:LEU:N	2.47	0.48
30:RG:136:ARG:O	30:RG:154:GLY:CA	2.62	0.48
31:RH:7:LEU:N	31:RH:8:PRO:CD	2.77	0.48
33:RN:34:LEU:O	33:RN:49:GLY:HA3	2.13	0.48
35:RP:144:GLU:OE1	35:RP:144:GLU:O	2.31	0.48
1:XA:17:U:H1'	1:XA:1080:A:H1'	1.95	0.48
1:XA:1333:A:H2'	1:XA:1334:G:O4'	2.13	0.48
1:XA:827:U:C5	1:XA:870:U:C4	3.01	0.48
1:XA:574:A:N3	1:XA:883:C:H1'	2.28	0.48
1:XA:939:G:H2'	1:XA:940:C:C6	2.48	0.48
2:XB:180:LEU:O	2:XB:181:PHE:HB2	2.13	0.48
3:XC:153:VAL:HA	3:XC:197:GLY:O	2.14	0.48
4:XD:196:LEU:HB3	4:XD:197:PRO:HD2	1.96	0.48
5:XE:100:VAL:O	5:XE:107:ARG:NH2	2.47	0.48
5:XE:87:SER:HB3	5:XE:131:ILE:HD13	1.95	0.48
9:XI:7:THR:O	9:XI:83:ARG:HD2	2.14	0.48
10:XJ:49:VAL:CG1	10:XJ:50:ILE:N	2.76	0.48
15:XO:24:SER:OG	15:XO:25:THR:N	2.47	0.48
47:Y1:56:GLN:H	47:Y1:56:GLN:NE2	2.10	0.48
48:Y2:33:MET:O	48:Y2:37:PHE:HD1	1.95	0.48
52:Y6:41:PRO:HD2	52:Y6:46:HIS:H	1.77	0.48
25:YA:1055:G:O2'	25:YA:1085:A:C6	2.62	0.48
25:YA:1607:C:N4	25:YA:1621:U:H2'	2.28	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:198:C:O2'	25:YA:199:A:H5'	2.13	0.48
25:YA:210:C:H2'	25:YA:211:A:C8	2.49	0.48
25:YA:2259:G:C2	25:YA:2282:G:N1	2.81	0.48
25:YA:2432:A:H5''	25:YA:2433:A:OP2	2.14	0.48
25:YA:2477:C:H2'	55:Y9:1:MET:CG	2.42	0.48
25:YA:2494:G:O2'	25:YA:2495:G:H5'	2.14	0.48
25:YA:2505:G:O2'	25:YA:2506:U:H5'	2.14	0.48
25:YA:2756:U:H4'	25:YA:2757:A:OP1	2.12	0.48
25:YA:27:G:N2	25:YA:512:G:HO2'	2.08	0.48
25:YA:288:C:H2'	25:YA:289:A:H8	1.79	0.48
25:YA:301:G:C6	25:YA:317:G:C6	3.02	0.48
25:YA:921:G:H4'	25:YA:2269:A:C5	2.49	0.48
25:YA:960:A:C8	25:YA:962:G:C8	3.01	0.48
26:YB:9:G:C6	26:YB:10:C:C4	3.01	0.48
28:YE:174:ASP:O	28:YE:182:LEU:HD12	2.14	0.48
29:YF:198:ALA:O	29:YF:201:VAL:HG12	2.13	0.48
31:YH:120:GLY:HA3	31:YH:140:LYS:NZ	2.27	0.48
36:YQ:31:ASP:O	36:YQ:32:TYR:CG	2.66	0.48
36:YQ:79:LEU:HD12	46:Y0:5:LYS:HD3	1.95	0.48
38:YS:18:ILE:O	38:YS:19:LYS:O	2.31	0.48
1:QA:1064:G:HO2'	1:QA:1065:U:P	2.35	0.48
1:QA:1234:C:H4'	1:QA:1364:U:H1'	1.96	0.48
1:QA:1498:U:H6	1:QA:1498:U:O5'	1.96	0.48
1:QA:192:U:H2'	1:QA:193:C:H6	1.79	0.48
2:QB:16:HIS:HD2	2:QB:210:SER:HA	1.77	0.48
3:QC:71:ALA:HA	3:QC:106:VAL:HB	1.95	0.48
4:QD:163:GLU:C	4:QD:165:MET:N	2.67	0.48
4:QD:165:MET:HE3	4:QD:168:ARG:HD2	1.96	0.48
4:QD:165:MET:CE	4:QD:168:ARG:HD2	2.44	0.48
7:QG:78:ARG:HG3	7:QG:78:ARG:HH11	1.79	0.48
9:QI:17:VAL:HG11	9:QI:81:ILE:HA	1.96	0.48
12:QL:127:GLU:O	12:QL:128:ALA:CB	2.62	0.48
30:RG:3:LEU:HD21	50:R4:25:TYR:CE1	2.48	0.48
52:R6:27:LYS:O	52:R6:28:ARG:HG2	2.13	0.48
25:RA:1077:A:N3	25:RA:1077:A:H3'	2.28	0.48
25:RA:1373:A:N6	25:RA:1374:G:C2	2.82	0.48
25:RA:1478:G:C2	25:RA:1479:G:C8	3.01	0.48
25:RA:1952:A:OP1	34:RO:44:LYS:NZ	2.28	0.48
25:RA:2867:G:HO2'	25:RA:2868:A:H8	1.60	0.48
25:RA:418:G:O2'	25:RA:419:C:H5'	2.13	0.48
25:RA:57:C:H2'	25:RA:58:G:O4'	2.14	0.48
26:RB:113:C:H2'	26:RB:114:G:C8	2.47	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:RB:5:C:H2'	26:RB:6:C:H6	1.78	0.48
27:RD:25:THR:O	27:RD:26:LYS:C	2.52	0.48
28:RE:93:VAL:C	28:RE:95:ILE:H	2.17	0.48
29:RF:155:LEU:HA	29:RF:174:VAL:HG12	1.95	0.48
32:RI:52:ARG:NH1	32:RI:52:ARG:HB3	2.29	0.48
36:RQ:87:LYS:O	36:RQ:89:ASN:N	2.43	0.48
25:RA:1654:A:OP2	37:RR:2:ARG:HD2	2.14	0.48
44:RY:44:ILE:O	44:RY:62:GLU:O	2.32	0.48
1:XA:14:U:H2'	1:XA:16:A:OP2	2.13	0.48
1:XA:585:G:O2'	1:XA:879:C:H5''	2.14	0.48
3:XC:195:VAL:CG1	3:XC:196:LEU:H	2.27	0.48
3:XC:148:GLY:O	3:XC:202:ILE:HA	2.14	0.48
4:XD:154:ASN:O	4:XD:155:LEU:O	2.32	0.48
4:XD:22:LYS:HD3	4:XD:26:CYS:SG	2.49	0.48
5:XE:78:HIS:CE1	5:XE:142:LEU:HD23	2.48	0.48
5:XE:84:PHE:HD2	5:XE:130:ASN:O	1.97	0.48
5:XE:96:PRO:HA	5:XE:117:ASP:OD2	2.14	0.48
7:XG:79:ARG:O	7:XG:80:VAL:HG23	2.14	0.48
10:XJ:47:PHE:CE1	10:XJ:63:PHE:HB2	2.32	0.48
16:XP:25:ARG:HH11	16:XP:25:ARG:HG3	1.79	0.48
19:XS:43:GLU:N	19:XS:43:GLU:OE2	2.45	0.48
48:Y2:69:ARG:HH11	48:Y2:69:ARG:HB3	1.79	0.48
50:Y4:42:PHE:O	50:Y4:44:THR:O	2.31	0.48
53:Y7:12:ARG:HG3	53:Y7:12:ARG:HH11	1.78	0.48
25:YA:1004:C:H6	25:YA:1004:C:O5'	1.97	0.48
25:YA:1204:A:C2	25:YA:1241:A:N1	2.79	0.48
25:YA:1728:G:H3'	25:YA:1729:A:C5'	2.43	0.48
25:YA:1815:A:OP2	27:YD:54:ARG:NH2	2.47	0.48
25:YA:1826:G:O2'	27:YD:242:ARG:NH2	2.46	0.48
25:YA:2100:G:C4	25:YA:2190:G:C2	3.02	0.48
25:YA:2208:U:O2'	25:YA:2209:C:H5'	2.12	0.48
25:YA:2266:A:H4'	25:YA:2267:A:N3	2.28	0.48
25:YA:2790:A:H2'	25:YA:2791:C:H5''	1.95	0.48
25:YA:823:G:H2'	25:YA:824:A:H8	1.79	0.48
25:YA:839:U:H2'	25:YA:840:C:H6	1.79	0.48
26:YB:30:C:H2'	26:YB:31:C:O4'	2.14	0.48
27:YD:35:LYS:HD2	27:YD:104:TYR:CE1	2.49	0.48
28:YE:23:VAL:HG12	28:YE:173:VAL:HG21	1.94	0.48
28:YE:77:ILE:CD1	28:YE:78:LEU:N	2.70	0.48
29:YF:45:ARG:HG2	29:YF:45:ARG:NH1	2.28	0.48
30:YG:125:PHE:HB3	30:YG:166:ASP:HB2	1.95	0.48
31:YH:124:GLU:HB3	31:YH:132:ARG:CD	2.44	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2758:A:C4	31:YH:67:LEU:HD21	2.48	0.48
31:YH:7:LEU:N	31:YH:8:PRO:CD	2.77	0.48
35:YP:101:VAL:C	35:YP:103:ALA:H	2.17	0.48
35:YP:35:HIS:O	35:YP:36:LYS:O	2.31	0.48
36:YQ:19:GLY:O	36:YQ:98:LYS:HD3	2.14	0.48
37:YR:107:ASP:C	37:YR:107:ASP:OD2	2.52	0.48
39:YT:96:ARG:CB	39:YT:96:ARG:NH1	2.77	0.48
44:YY:11:ASP:HB2	44:YY:27:VAL:HG11	1.94	0.48
1:QA:1112:C:O2	3:QC:179:ARG:HG2	2.13	0.48
1:QA:335:C:H2'	1:QA:336:C:C6	2.49	0.48
2:QB:206:ASP:HA	2:QB:211:ILE:HD11	1.94	0.48
2:QB:87:ARG:NH1	2:QB:220:ASP:OD1	2.46	0.48
3:QC:87:LEU:C	3:QC:89:GLU:N	2.65	0.48
4:QD:100:ARG:CZ	4:QD:137:SER:HA	2.44	0.48
4:QD:13:ARG:HA	4:QD:33:MET:CE	2.44	0.48
5:QE:75:THR:HG23	5:QE:76:ILE:O	2.14	0.48
1:QA:1298:C:C6	7:QG:114:ARG:NH1	2.82	0.48
7:QG:79:ARG:O	7:QG:80:VAL:HG23	2.14	0.48
7:QG:80:VAL:HG12	7:QG:81:GLY:N	2.28	0.48
8:QH:109:ILE:HG12	8:QH:110:ALA:N	2.28	0.48
8:QH:45:ILE:O	8:QH:45:ILE:HG13	2.13	0.48
16:QP:57:ARG:HH11	16:QP:57:ARG:HG3	1.79	0.48
16:QP:60:LEU:CA	16:QP:64:ALA:HB3	2.43	0.48
19:QS:9:VAL:O	19:QS:10:PHE:HB3	2.13	0.48
21:QU:9:ARG:HH11	21:QU:9:ARG:HG2	1.78	0.48
51:R5:49:CYS:SG	51:R5:58:LEU:HB2	2.53	0.48
25:RA:2115:G:N1	25:RA:2164:C:OP2	2.47	0.48
25:RA:2553:G:N2	56:Z6:76:PPU:C2	2.76	0.48
25:RA:719:C:O2'	25:RA:720:C:H5'	2.14	0.48
25:RA:807:U:C2	25:RA:808:G:C8	3.01	0.48
26:RB:11:C:H5''	26:RB:12:C:OP2	2.14	0.48
27:RD:130:ALA:C	27:RD:131:LEU:HD12	2.33	0.48
27:RD:198:ASN:HD22	27:RD:198:ASN:C	2.17	0.48
28:RE:77:ILE:CD1	28:RE:78:LEU:N	2.70	0.48
26:RB:56:G:P	30:RG:27:ASN:ND2	2.87	0.48
31:RH:131:VAL:HG12	31:RH:132:ARG:N	2.29	0.48
33:RN:18:ALA:O	33:RN:19:GLU:C	2.52	0.48
35:RP:138:LEU:HD11	35:RP:144:GLU:CG	2.42	0.48
36:RQ:19:GLY:O	36:RQ:98:LYS:HD3	2.14	0.48
37:RR:107:ASP:C	37:RR:107:ASP:OD2	2.52	0.48
37:RR:61:HIS:O	37:RR:65:LEU:HD13	2.14	0.48
39:RT:135:ALA:C	39:RT:137:LYS:H	2.16	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:RT:57:PHE:O	39:RT:59:THR:N	2.46	0.48
45:RZ:9:TYR:HE2	45:RZ:61:LEU:HD13	1.79	0.48
1:XA:1031:G:OP2	1:XA:1031:G:H8	1.97	0.48
1:XA:1521:G:H2'	1:XA:1522:U:C6	2.49	0.48
1:XA:456:C:H2'	1:XA:457:C:C6	2.47	0.48
1:XA:767:A:H2'	1:XA:768:A:O4'	2.12	0.48
1:XA:975:A:N6	1:XA:1367:C:O4'	2.46	0.48
2:XB:214:ILE:O	2:XB:218:ALA:HB2	2.13	0.48
2:XB:5:ILE:O	2:XB:6:THR:O	2.32	0.48
3:XC:71:ALA:HA	3:XC:106:VAL:HB	1.95	0.48
4:XD:163:GLU:C	4:XD:165:MET:N	2.66	0.48
4:XD:198:VAL:CG1	4:XD:199:ASN:N	2.75	0.48
4:XD:6:GLY:O	4:XD:8:VAL:HG23	2.14	0.48
5:XE:60:TYR:CE1	5:XE:64:ARG:NH2	2.77	0.48
8:XH:10:LEU:H	8:XH:10:LEU:CD2	2.15	0.48
8:XH:44:PHE:CD1	8:XH:80:ILE:HG12	2.49	0.48
9:XI:59:PHE:CZ	9:XI:88:TYR:CE1	3.01	0.48
11:XK:19:ALA:CB	11:XK:32:ILE:HG22	2.42	0.48
11:XK:82:VAL:O	11:XK:108:ILE:HA	2.13	0.48
12:XL:38:THR:CG2	12:XL:57:LYS:HB3	2.44	0.48
13:XM:50:GLU:O	13:XM:54:VAL:HG23	2.13	0.48
47:Y1:8:SER:OG	47:Y1:10:LYS:HG3	2.13	0.48
47:Y1:76:ARG:HD2	47:Y1:76:ARG:N	2.29	0.48
50:Y4:10:VAL:CG2	50:Y4:11:PRO:HD2	2.43	0.48
50:Y4:36:CYS:O	50:Y4:37:SER:C	2.52	0.48
25:YA:1301:A:C2	25:YA:1303:G:C6	3.02	0.48
25:YA:2040:C:H2'	25:YA:2041:U:O4'	2.14	0.48
25:YA:2063:C:C4	25:YA:2064:C:C4	3.01	0.48
25:YA:2363:C:O2'	46:Y0:39:ARG:NH1	2.42	0.48
25:YA:2583:G:C6	25:YA:2584:U:C5	3.01	0.48
25:YA:2795:G:H3'	25:YA:2797:U:H5'	1.96	0.48
25:YA:281:G:O2'	25:YA:282:A:O4'	2.25	0.48
25:YA:2838:G:C4	25:YA:2839:G:C8	3.02	0.48
25:YA:761:A:H8	25:YA:761:A:O5'	1.97	0.48
25:YA:888:C:C3'	25:YA:889:C:H4'	2.44	0.48
27:YD:35:LYS:CG	27:YD:64:ILE:CG2	2.92	0.48
28:YE:55:ASN:O	28:YE:57:LYS:N	2.44	0.48
29:YF:129:PHE:CD2	29:YF:163:VAL:HG21	2.48	0.48
29:YF:34:TRP:HD1	35:YP:6:LEU:HB3	1.79	0.48
31:YH:10:PRO:C	31:YH:11:VAL:HG22	2.34	0.48
37:YR:42:LYS:HA	37:YR:45:ARG:HD2	1.95	0.48
38:YS:56:LEU:HD23	38:YS:56:LEU:C	2.34	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:YT:16:ARG:NE	39:YT:19:LEU:HD21	2.27	0.48
39:YT:94:ALA:O	39:YT:95:ARG:CB	2.61	0.48
43:YX:44:GLU:OE1	43:YX:50:LYS:HD2	2.13	0.48
1:QA:1199:U:H5''	1:QA:1200:C:OP2	2.14	0.48
1:QA:190:G:O2'	1:QA:191(A):G:P	2.72	0.48
1:QA:115:G:C2	1:QA:289:G:N7	2.82	0.48
1:QA:615:C:C2	1:QA:616:G:C8	3.02	0.48
1:QA:74:C:H42	1:QA:96:G:H1	1.60	0.48
1:QA:953:G:C5'	1:QA:965:A:H61	2.26	0.48
1:QA:953:G:H2'	1:QA:954:G:O4'	2.14	0.48
2:QB:97:TRP:HZ2	2:QB:102:LEU:HD13	1.78	0.48
1:QA:1190:G:OP1	3:QC:5:ILE:HG23	2.14	0.48
6:QF:89:MET:O	6:QF:90:VAL:C	2.51	0.48
8:QH:86:ILE:HG12	8:QH:135:CYS:HA	1.96	0.48
11:QK:19:ALA:CA	11:QK:32:ILE:HG22	2.43	0.48
11:QK:41:THR:HG22	11:QK:42:TRP:N	2.28	0.48
11:QK:48:ILE:HG21	11:QK:63:LEU:HD13	1.96	0.48
13:QM:117:VAL:O	13:QM:118:ALA:C	2.51	0.48
15:QO:61:GLY:C	15:QO:65:ARG:NH1	2.67	0.48
16:QP:43:LYS:C	16:QP:45:THR:H	2.14	0.48
19:QS:11:VAL:O	19:QS:12:ASP:CB	2.61	0.48
1:QA:103:C:P	20:QT:17:ARG:HH21	2.36	0.48
24:QY:40:G:O2'	24:QY:41:A:H5'	2.13	0.48
50:R4:60:GLN:O	50:R4:63:TYR:HB3	2.14	0.48
25:RA:2351:G:O6	54:R8:39:LYS:HG2	2.14	0.48
25:RA:1259:G:H2'	25:RA:1260:G:C8	2.49	0.48
25:RA:135:G:C2	25:RA:136:G:C8	3.02	0.48
25:RA:1946:U:H2'	25:RA:1947:C:H6	1.79	0.48
25:RA:804:A:H2'	25:RA:806:C:C4	2.49	0.48
25:RA:836:G:H2'	25:RA:837:C:C6	2.48	0.48
25:RA:845:G:O2'	25:RA:846:C:H5	1.97	0.48
25:RA:857:C:H4'	46:R0:23:VAL:HG21	1.95	0.48
25:RA:934:G:H2'	25:RA:935:C:C6	2.49	0.48
27:RD:130:ALA:HA	27:RD:192:THR:HA	1.96	0.48
32:RI:3:VAL:HG12	32:RI:38:LEU:HA	1.95	0.48
33:RN:56:ASN:ND2	33:RN:125:GLY:C	2.66	0.48
33:RN:57:ALA:O	33:RN:58:ASP:CB	2.61	0.48
33:RN:75:TYR:C	33:RN:76:SER:O	2.52	0.48
33:RN:82:LEU:HD12	33:RN:83:LYS:N	2.27	0.48
35:RP:71:VAL:HG13	35:RP:72:PRO:CD	2.44	0.48
35:RP:75:ILE:CD1	35:RP:75:ILE:H	2.14	0.48
37:RR:63:ARG:NH1	37:RR:63:ARG:HG3	2.29	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:RZ:103:ARG:HD3	45:RZ:136:PHE:CD1	2.49	0.48
1:XA:1044:A:C6	1:XA:1045:C:H1'	2.49	0.48
1:XA:131:C:H2'	1:XA:132:C:C6	2.48	0.48
1:XA:1357:A:C6	1:XA:1358:U:C4	3.02	0.48
1:XA:1234:C:H1'	1:XA:1364:U:O2	2.13	0.48
1:XA:1387:G:C6	1:XA:1388:C:N4	2.82	0.48
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.48	0.48
1:XA:254:G:OP1	17:XQ:67:LYS:O	2.31	0.48
1:XA:683:G:C6	1:XA:684:A:C5	3.01	0.48
1:XA:889:A:C8	1:XA:891:U:C2	3.02	0.48
1:XA:936:C:H2'	1:XA:937:A:O4'	2.13	0.48
2:XB:170:GLU:C	2:XB:172:ILE:HD12	2.33	0.48
2:XB:24:TRP:CD1	2:XB:26:PRO:HD3	2.49	0.48
3:XC:36:ASP:HA	3:XC:39:ILE:HD12	1.94	0.48
4:XD:33:MET:HE1	4:XD:37:PRO:O	2.14	0.48
4:XD:60:GLU:O	4:XD:63:LYS:HB3	2.14	0.48
5:XE:75:THR:HG23	5:XE:76:ILE:O	2.14	0.48
12:XL:61:THR:O	12:XL:63:GLY:N	2.45	0.48
13:XM:72:ALA:O	13:XM:76:ALA:HB2	2.14	0.48
16:XP:34:GLU:HG2	16:XP:35:LYS:N	2.29	0.48
19:XS:41:VAL:CB	19:XS:42:PRO:CA	2.76	0.48
20:XT:30:LYS:O	20:XT:33:ILE:HG12	2.14	0.48
52:Y6:8:LYS:O	52:Y6:27:LYS:HA	2.13	0.48
54:Y8:53:PRO:CD	54:Y8:54:GLU:N	2.77	0.48
25:YA:1899:G:H21	25:YA:1902:C:H5	1.61	0.48
25:YA:2088:G:C6	25:YA:2089:U:C4	3.01	0.48
25:YA:2420:C:OP1	54:Y8:34:TRP:HB2	2.14	0.48
26:YB:94:C:H2'	26:YB:95:U:H6	1.79	0.48
27:YD:25:THR:O	27:YD:26:LYS:C	2.52	0.48
28:YE:64:LYS:C	28:YE:66:HIS:N	2.68	0.48
28:YE:93:VAL:C	28:YE:95:ILE:H	2.17	0.48
31:YH:45:VAL:HG13	31:YH:45:VAL:O	2.14	0.48
33:YN:120:LEU:HD11	33:YN:122:VAL:CG2	2.42	0.48
36:YQ:42:ILE:HD12	36:YQ:42:ILE:N	2.29	0.48
38:YS:66:ALA:HA	38:YS:69:VAL:HG12	1.96	0.48
43:YX:11:PRO:HB3	43:YX:92:LEU:CD2	2.43	0.48
45:YZ:134:PRO:HB3	45:YZ:137:ILE:HD11	1.96	0.48
1:QA:1252:A:H2'	1:QA:1253:G:O4'	2.14	0.48
1:QA:245:C:C2	1:QA:284:G:C2	3.02	0.48
1:QA:49:U:C2	1:QA:361:G:N2	2.82	0.48
1:QA:678:U:H2'	1:QA:679:C:C6	2.48	0.48
2:QB:24:TRP:CD1	2:QB:26:PRO:HD3	2.49	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:QC:153:VAL:HA	3:QC:197:GLY:O	2.13	0.48
5:QE:141:GLN:HA	5:QE:143:ARG:HH12	1.79	0.48
5:QE:84:PHE:HD2	5:QE:130:ASN:O	1.97	0.48
7:QG:97:GLN:O	7:QG:101:LEU:HG	2.14	0.48
7:QG:44:TYR:C	7:QG:46:ALA:N	2.66	0.48
13:QM:90:LEU:HA	13:QM:93:ARG:CD	2.33	0.48
14:QN:43:CYS:O	14:QN:46:GLU:N	2.43	0.48
15:QO:39:LEU:O	15:QO:40:SER:C	2.50	0.48
18:QR:31:LEU:HD23	18:QR:31:LEU:N	2.29	0.48
20:QT:13:LEU:HD12	20:QT:13:LEU:C	2.34	0.48
20:QT:30:LYS:O	20:QT:33:ILE:HG12	2.14	0.48
20:QT:50:GLU:HA	20:QT:100:ILE:CG2	2.44	0.48
20:QT:64:ASP:O	20:QT:67:ALA:N	2.47	0.48
25:RA:1359:A:N6	25:RA:1372:U:H3	2.11	0.48
25:RA:1576:U:O2'	25:RA:1577:C:H5'	2.14	0.48
25:RA:226:G:O2'	25:RA:228:A:N6	2.47	0.48
25:RA:2712:U:O2'	25:RA:2712(A):A:P	2.71	0.48
25:RA:39:C:H2'	25:RA:40:C:H6	1.79	0.48
25:RA:646:A:N3	25:RA:646:A:H5'	2.29	0.48
25:RA:71:A:H4'	25:RA:72:U:C5'	2.42	0.48
28:RE:61:ARG:CB	28:RE:62:PRO:CD	2.90	0.48
28:RE:64:LYS:C	28:RE:66:HIS:N	2.68	0.48
29:RF:34:TRP:HD1	35:RP:6:LEU:HB3	1.79	0.48
29:RF:51:THR:O	29:RF:93:LYS:NZ	2.38	0.48
25:RA:1007:C:H5''	33:RN:35:ARG:NH1	2.29	0.48
36:RQ:119:ARG:O	36:RQ:123:HIS:HD2	1.97	0.48
40:RU:79:PHE:HE2	40:RU:83:LEU:CD2	2.27	0.48
1:XA:1304:G:N2	1:XA:1332:A:N7	2.61	0.48
1:XA:267:C:H2'	1:XA:268:C:C6	2.48	0.48
1:XA:988:G:N2	1:XA:989:C:H1'	2.28	0.48
3:XC:95:THR:CG2	3:XC:96:GLY:H	2.09	0.48
7:XG:97:GLN:O	7:XG:101:LEU:HG	2.14	0.48
7:XG:51:GLN:HA	7:XG:51:GLN:OE1	2.14	0.48
10:XJ:74:ILE:HG12	10:XJ:74:ILE:O	2.14	0.48
11:XK:115:PRO:C	11:XK:117:ASN:H	2.17	0.48
13:XM:8:GLU:C	13:XM:9:ILE:HG23	2.35	0.48
11:XK:110:ASP:HB2	18:XR:88:LYS:HD3	1.95	0.48
19:XS:24:ALA:O	19:XS:25:LYS:HB2	2.13	0.48
20:XT:50:GLU:HA	20:XT:100:ILE:CG2	2.43	0.48
13:XM:50:GLU:OE1	50:Y4:32:TYR:CE2	2.67	0.48
50:Y4:60:GLN:O	50:Y4:63:TYR:HB3	2.13	0.48
50:Y4:8:LYS:O	50:Y4:9:LEU:CB	2.62	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1416:G:N2	25:YA:1417:C:N3	2.62	0.48
25:YA:2009:G:H2'	25:YA:2010:G:H5'	1.96	0.48
25:YA:2418:A:OP2	54:Y8:29:LYS:HE2	2.13	0.48
25:YA:2396:G:C2	25:YA:2421:G:C2	3.01	0.48
25:YA:2494:G:C4	25:YA:2495:G:C8	3.02	0.48
25:YA:2756:U:N3	25:YA:2759:G:O6	2.47	0.48
25:YA:478:A:C6	25:YA:480:A:C6	3.01	0.48
25:YA:572:A:C8	25:YA:573:G:C8	3.02	0.48
27:YD:130:ALA:HA	27:YD:192:THR:HA	1.95	0.48
27:YD:27:THR:O	27:YD:29:PRO:CD	2.62	0.48
28:YE:119:ARG:HD3	28:YE:160:TYR:HD2	1.78	0.48
28:YE:15:PHE:CD1	28:YE:20:ALA:HB2	2.49	0.48
28:YE:61:ARG:CB	28:YE:62:PRO:HD3	2.41	0.48
31:YH:127:GLU:HB3	31:YH:128:PRO:HD2	1.92	0.48
31:YH:41:MET:HG3	31:YH:54:ARG:HA	1.96	0.48
33:YN:34:LEU:O	33:YN:49:GLY:HA3	2.13	0.48
36:YQ:60:ARG:HB2	36:YQ:60:ARG:NH2	2.28	0.48
37:YR:1:MET:SD	37:YR:1:MET:N	2.75	0.48
37:YR:63:ARG:NH1	37:YR:63:ARG:HG3	2.29	0.48
40:YU:79:PHE:HE2	40:YU:83:LEU:CD2	2.27	0.48
40:YU:79:PHE:HE2	40:YU:83:LEU:HD22	1.78	0.48
41:YV:21:ARG:HD2	41:YV:91:TYR:CZ	2.49	0.48
41:YV:38:LEU:HD23	41:YV:39:LEU:H	1.79	0.48
43:YX:6:ASP:OD1	48:Y2:29:LYS:NZ	2.47	0.48
1:QA:1014:A:C2	1:QA:1219:U:H1'	2.49	0.47
1:QA:978:A:H5'	1:QA:1224:G:O6	2.13	0.47
1:QA:189:U:O2'	17:QQ:63:ARG:NH2	2.47	0.47
1:QA:243:A:N6	1:QA:281:G:O2'	2.45	0.47
1:QA:563:A:C8	1:QA:567:G:H1'	2.49	0.47
1:QA:570:G:C4	1:QA:571:U:C5	3.02	0.47
1:QA:615:C:H2'	1:QA:616:G:O4'	2.14	0.47
1:QA:96:G:C6	1:QA:97:U:C4	3.02	0.47
4:QD:153:ARG:CZ	4:QD:181:MET:HG3	2.44	0.47
5:QE:82:VAL:CG1	5:QE:83:GLU:H	2.27	0.47
5:QE:96:PRO:HA	5:QE:117:ASP:OD2	2.14	0.47
8:QH:44:PHE:CD1	8:QH:80:ILE:HG12	2.49	0.47
9:QI:22:GLY:HA3	9:QI:60:ASP:OD2	2.13	0.47
9:QI:7:THR:O	9:QI:83:ARG:HD2	2.14	0.47
11:QK:115:PRO:C	11:QK:117:ASN:H	2.17	0.47
13:QM:50:GLU:O	13:QM:54:VAL:HG23	2.13	0.47
15:QO:24:SER:OG	15:QO:25:THR:N	2.47	0.47
16:QP:21:VAL:HG23	16:QP:34:GLU:H	1.79	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:QP:34:GLU:HG2	16:QP:35:LYS:N	2.29	0.47
20:QT:37:SER:HB3	20:QT:84:LEU:CD2	2.44	0.47
22:QV:19:G:H4'	22:QV:20:U:OP2	2.14	0.47
23:QX:4:C:C3'	23:QX:5:C:H5'	2.41	0.47
51:R5:57:VAL:O	51:R5:57:VAL:HG13	2.13	0.47
54:R8:43:GLN:C	54:R8:44:LYS:HD2	2.34	0.47
25:RA:1005:C:O2'	33:RN:28:THR:HG21	2.13	0.47
25:RA:1181:C:H2'	25:RA:1182:A:C8	2.49	0.47
25:RA:1628:G:H2'	25:RA:1629:U:H6	1.78	0.47
25:RA:2384:G:H5''	25:RA:2386:C:OP1	2.14	0.47
25:RA:469:G:O6	53:R7:37:LYS:HE2	2.12	0.47
25:RA:492:A:H2'	25:RA:493:G:O4'	2.13	0.47
25:RA:966:G:H1'	25:RA:2267:A:H62	1.79	0.47
27:RD:145:VAL:O	27:RD:153:ALA:HA	2.14	0.47
29:RF:53:THR:C	29:RF:55:GLY:N	2.67	0.47
33:RN:137:LYS:CG	33:RN:138:LEU:N	2.77	0.47
36:RQ:42:ILE:N	36:RQ:42:ILE:HD12	2.29	0.47
38:RS:55:ALA:O	38:RS:56:LEU:HB3	2.13	0.47
41:RV:35:LEU:HD21	41:RV:57:VAL:CG2	2.30	0.47
41:RV:35:LEU:O	41:RV:37:VAL:N	2.47	0.47
44:RY:11:ASP:HB2	44:RY:27:VAL:HG11	1.94	0.47
44:RY:56:PRO:O	44:RY:58:GLY:N	2.47	0.47
25:RA:335:C:H4'	44:RY:73:ARG:CZ	2.44	0.47
1:XA:1274:G:H2'	1:XA:1275:A:H8	1.79	0.47
1:XA:1324:A:C4'	1:XA:1362:C:H4'	2.43	0.47
1:XA:455:C:O5'	1:XA:455:C:H6	1.97	0.47
4:XD:100:ARG:CZ	4:XD:137:SER:HA	2.44	0.47
1:XA:18:C:H5''	5:XE:127:ASN:ND2	2.29	0.47
5:XE:42:GLY:CA	5:XE:136:MET:HE1	2.44	0.47
6:XF:79:LEU:O	6:XF:85:VAL:HG11	2.14	0.47
6:XF:89:MET:O	6:XF:90:VAL:C	2.51	0.47
8:XH:86:ILE:HG22	8:XH:87:SER:N	2.29	0.47
14:YN:15:LYS:HD2	14:YN:16:PHE:CE2	2.49	0.47
14:YN:6:LEU:HD22	14:YN:23:ARG:NH2	2.29	0.47
17:XQ:63:ARG:HG2	17:XQ:64:PRO:N	2.28	0.47
21:XU:15:ARG:HG2	21:XU:15:ARG:NH1	2.28	0.47
47:Y1:25:LYS:C	47:Y1:27:GLU:H	2.17	0.47
47:Y1:94:LEU:O	47:Y1:95:LEU:CB	2.62	0.47
52:Y6:20:ASN:ND2	52:Y6:42:TRP:CZ2	2.82	0.47
25:YA:1169:G:N2	25:YA:1181:C:C2	2.82	0.47
25:YA:1389:G:C2	25:YA:1399:C:O2	2.67	0.47
25:YA:1815:A:C5	25:YA:1817:G:C6	3.02	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2280:G:H2'	25:YA:2281:C:H5'	1.95	0.47
25:YA:2408:U:O2'	25:YA:2409:G:H5'	2.14	0.47
25:YA:2421:G:H5''	25:YA:2422:A:OP2	2.14	0.47
25:YA:2431:U:H2'	25:YA:2433:A:OP2	2.13	0.47
25:YA:2647:U:H2'	25:YA:2648:C:H6	1.78	0.47
25:YA:2700:C:O2'	25:YA:2701:C:H5'	2.14	0.47
25:YA:30:G:O2'	25:YA:31:C:H5'	2.14	0.47
25:YA:836:G:C5	25:YA:837:C:C4	3.02	0.47
30:YG:111:LEU:HD22	30:YG:120:LEU:HD21	1.96	0.47
33:YN:75:TYR:C	33:YN:76:SER:O	2.52	0.47
35:YP:61:ARG:HH21	54:Y8:13:ARG:HD2	1.78	0.47
37:YR:10:LEU:O	37:YR:12:ARG:HG3	2.13	0.47
37:YR:44:LEU:HD22	37:YR:48:VAL:CG2	2.43	0.47
37:YR:70:LEU:C	37:YR:72:ASP:H	2.16	0.47
42:YW:32:ALA:O	42:YW:33:ARG:C	2.51	0.47
44:YY:81:LYS:HZ2	44:YY:98:VAL:CG1	2.27	0.47
45:YZ:48:PHE:CZ	45:YZ:52:SER:HA	2.48	0.47
1:QA:1066:C:H3'	1:QA:1067:A:C8	2.49	0.47
1:QA:1347:G:N2	1:QA:1373:G:H2'	2.29	0.47
1:QA:1502:A:H2	1:QA:1505:G:N2	2.12	0.47
1:QA:32:A:H3'	1:QA:33:A:H8	1.78	0.47
1:QA:734:G:H2'	1:QA:735:C:C6	2.49	0.47
2:QB:116:GLU:HA	2:QB:119:GLU:HB3	1.96	0.47
3:QC:76:VAL:HG21	3:QC:103:VAL:HG11	1.95	0.47
7:QG:51:GLN:OE1	7:QG:51:GLN:HA	2.14	0.47
7:QG:63:LYS:HD2	7:QG:63:LYS:O	2.13	0.47
7:QG:69:VAL:O	7:QG:69:VAL:CG1	2.62	0.47
10:QJ:39:PRO:CB	10:QJ:70:ARG:HH12	2.27	0.47
10:QJ:4:ILE:CB	10:QJ:74:ILE:HD11	2.36	0.47
11:QK:13:GLN:HG3	11:QK:75:TYR:O	2.14	0.47
17:QQ:3:LYS:HD2	17:QQ:60:ILE:HD11	1.95	0.47
47:R1:8:SER:OG	47:R1:10:LYS:HG3	2.13	0.47
54:R8:53:PRO:CD	54:R8:54:GLU:N	2.77	0.47
25:RA:1356:G:C6	25:RA:1357:U:C4	3.02	0.47
25:RA:2544:G:H2'	25:RA:2545:G:C8	2.46	0.47
25:RA:270(R):G:H2'	25:RA:270(S):G:C8	2.49	0.47
25:RA:301:G:H1	25:RA:316:C:N4	2.12	0.47
25:RA:582:G:H2'	25:RA:583:G:H8	1.78	0.47
27:RD:35:LYS:CG	27:RD:64:ILE:CG2	2.92	0.47
28:RE:120:TRP:O	28:RE:121:ASN:HB2	2.14	0.47
30:RG:12:TYR:O	30:RG:16:ARG:HB3	2.15	0.47
33:RN:113:GLY:O	33:RN:116:LEU:HB2	2.14	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:118:LYS:O	33:RN:120:LEU:N	2.43	0.47
33:RN:4:TYR:OH	33:RN:7:LYS:NZ	2.46	0.47
34:RO:8:LEU:HB2	34:RO:19:ILE:CD1	2.43	0.47
35:RP:47:ASP:OD1	35:RP:50:ARG:NH2	2.47	0.47
37:RR:41:ALA:C	37:RR:43:GLU:N	2.68	0.47
38:RS:56:LEU:C	38:RS:56:LEU:HD23	2.34	0.47
40:RU:107:ALA:O	40:RU:110:VAL:HB	2.14	0.47
40:RU:92:ARG:CZ	40:RU:94:ASN:HD22	2.28	0.47
41:RV:48:GLY:O	41:RV:49:THR:C	2.52	0.47
42:RW:32:ALA:O	42:RW:33:ARG:C	2.52	0.47
42:RW:66:GLU:O	42:RW:69:LEU:HG	2.15	0.47
1:XA:1006:C:H2'	1:XA:1007:C:C6	2.49	0.47
1:XA:1287:A:H2'	1:XA:1288:A:C8	2.49	0.47
1:XA:1366:C:H2'	1:XA:1367:C:C6	2.41	0.47
1:XA:1505:G:H4'	1:XA:1506:U:H5''	1.97	0.47
1:XA:714:G:H2'	1:XA:715:A:C8	2.49	0.47
4:XD:79:PHE:HE2	4:XD:83:SER:HB2	1.79	0.47
5:XE:141:GLN:HA	5:XE:143:ARG:HH12	1.79	0.47
7:XG:8:GLU:N	7:XG:8:GLU:CD	2.67	0.47
8:XH:16:ALA:HB2	8:XH:24:THR:CG2	2.44	0.47
11:XK:48:ILE:HG21	11:XK:63:LEU:HD13	1.96	0.47
11:XK:62:GLN:O	11:XK:63:LEU:C	2.51	0.47
1:XA:35:G:O2'	12:XL:118:SER:O	2.18	0.47
14:YN:26:ARG:NH1	14:YN:43:CYS:SG	2.86	0.47
15:XO:50:HIS:O	15:XO:53:HIS:N	2.47	0.47
18:XR:30:ASP:C	18:XR:32:ARG:H	2.15	0.47
19:XS:36:ARG:NH1	19:XS:36:ARG:HB3	2.28	0.47
22:XV:19:G:H4'	22:XV:20:U:OP2	2.14	0.47
53:Y7:25:PRO:HA	53:Y7:28:ARG:CZ	2.45	0.47
54:Y8:41:ILE:HG13	54:Y8:42:ARG:N	2.28	0.47
25:YA:142:G:O3'	43:YX:35:THR:HG21	2.15	0.47
25:YA:152:G:H2'	25:YA:153:C:H6	1.77	0.47
25:YA:1771:C:HO2'	25:YA:1786:A:H8	1.60	0.47
25:YA:2151:G:H2'	25:YA:2152:G:C8	2.48	0.47
25:YA:2133:G:H2'	25:YA:2157:G:N2	2.28	0.47
25:YA:2263:C:H2'	25:YA:2264:C:C6	2.50	0.47
25:YA:2388:A:C8	25:YA:2389:G:C5	3.02	0.47
25:YA:2529:G:H5''	25:YA:2530:A:H5''	1.95	0.47
25:YA:2648:C:H1'	25:YA:2673:G:N2	2.29	0.47
25:YA:809:G:H2'	25:YA:810:U:C6	2.48	0.47
29:YF:127:GLU:OE1	29:YF:127:GLU:HA	2.07	0.47
29:YF:132:VAL:O	29:YF:133:ASN:C	2.52	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:97:ASP:N	30:YG:100:TRP:HD1	2.05	0.47
30:YG:12:TYR:O	30:YG:16:ARG:HB3	2.14	0.47
33:YN:137:LYS:CG	33:YN:138:LEU:H	2.27	0.47
33:YN:18:ALA:O	33:YN:19:GLU:C	2.53	0.47
33:YN:57:ALA:O	33:YN:58:ASP:CB	2.62	0.47
34:YO:8:LEU:HB2	34:YO:19:ILE:CD1	2.43	0.47
37:YR:41:ALA:C	37:YR:43:GLU:N	2.68	0.47
39:YT:132:LYS:O	39:YT:136:GLN:HG3	2.13	0.47
34:YO:107:ARG:NH1	39:YT:36:GLU:OE1	2.46	0.47
44:YY:57:GLN:O	44:YY:58:GLY:O	2.32	0.47
1:QA:957:U:O2	1:QA:959:A:C8	2.67	0.47
2:QB:164:VAL:HB	2:QB:186:ALA:HB1	1.95	0.47
2:QB:24:TRP:CZ3	2:QB:26:PRO:HA	2.49	0.47
4:QD:3:ARG:O	4:QD:5:ILE:HG13	2.14	0.47
4:QD:6:GLY:O	4:QD:8:VAL:HG23	2.14	0.47
7:QG:8:GLU:N	7:QG:8:GLU:CD	2.67	0.47
9:QI:9:ARG:HA	9:QI:76:ALA:HB1	1.97	0.47
10:QJ:40:LEU:HB2	10:QJ:69:ASN:CB	2.40	0.47
13:QM:12:ASN:O	13:QM:13:LYS:HB2	2.13	0.47
14:QN:6:LEU:CD2	14:QN:23:ARG:NH2	2.77	0.47
18:QR:31:LEU:H	18:QR:31:LEU:CD2	2.27	0.47
1:QA:186:C:O2	20:QT:85:MET:HE1	2.13	0.47
47:R1:94:LEU:O	47:R1:95:LEU:CB	2.62	0.47
30:RG:5:VAL:HG22	50:R4:25:TYR:CE2	2.50	0.47
50:R4:36:CYS:O	50:R4:37:SER:C	2.52	0.47
50:R4:50:VAL:CG1	50:R4:50:VAL:O	2.63	0.47
25:RA:2372:G:H4'	52:R6:46:HIS:CD2	2.49	0.47
25:RA:1009:A:OP1	33:RN:37:LYS:NZ	2.47	0.47
25:RA:1058:G:N2	25:RA:1080:C:O2	2.25	0.47
25:RA:1165:U:H3	25:RA:1184:G:H1	1.60	0.47
25:RA:1932:A:N6	25:RA:1933:G:C2	2.82	0.47
25:RA:2025:C:H2'	25:RA:2026:C:C6	2.49	0.47
25:RA:2126:A:H4'	25:RA:2127:G:O5'	2.14	0.47
25:RA:2469:A:N7	25:RA:2482:G:C8	2.82	0.47
25:RA:388:G:H5'	25:RA:389:G:OP2	2.13	0.47
28:RE:174:ASP:O	28:RE:182:LEU:HD12	2.14	0.47
26:RB:57:A:C4	30:RG:29:TRP:HB2	2.49	0.47
31:RH:124:GLU:HB3	31:RH:132:ARG:CD	2.44	0.47
31:RH:154:PRO:CG	31:RH:162:ILE:O	2.61	0.47
33:RN:97:ARG:HA	33:RN:100:GLU:HB3	1.96	0.47
33:RN:131:GLN:HE21	33:RN:132:ALA:H	1.58	0.47
33:RN:68:GLU:HG2	33:RN:88:GLU:CD	2.33	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:67:LEU:O	33:RN:88:GLU:HG3	2.14	0.47
35:RP:6:LEU:O	35:RP:7:ARG:O	2.31	0.47
36:RQ:21:THR:HB	36:RQ:22:LYS:H	1.42	0.47
36:RQ:57:HIS:ND1	36:RQ:58:PHE:N	2.62	0.47
37:RR:10:LEU:O	37:RR:12:ARG:HG3	2.14	0.47
40:RU:91:ASP:O	40:RU:92:ARG:C	2.53	0.47
41:RV:2:PHE:CD2	41:RV:13:ARG:NH2	2.82	0.47
41:RV:66:ARG:NH1	41:RV:88:ARG:NH1	2.62	0.47
44:RY:75:ILE:HG12	44:RY:76:CYS:H	1.79	0.47
45:RZ:102:LEU:HB3	45:RZ:104:PHE:HE1	1.78	0.47
1:XA:1269:A:H2	1:XA:1312:G:N3	2.12	0.47
1:XA:1369:C:H2'	1:XA:1370:G:C8	2.49	0.47
1:XA:403:C:N4	1:XA:547:A:H5'	2.29	0.47
1:XA:61:G:H2'	1:XA:62:U:O4'	2.14	0.47
2:XB:181:PHE:HE1	8:XH:70:GLN:O	1.97	0.47
2:XB:24:TRP:CZ3	2:XB:26:PRO:HA	2.49	0.47
2:XB:4:GLU:CG	2:XB:5:ILE:H	2.00	0.47
4:XD:165:MET:CE	4:XD:168:ARG:HD2	2.44	0.47
4:XD:9:CYS:SG	4:XD:22:LYS:HE3	2.55	0.47
5:XE:153:LYS:HB2	5:XE:153:LYS:HZ3	1.79	0.47
9:XI:42:ARG:NH2	9:XI:75:ASP:OD2	2.47	0.47
11:XK:32:ILE:HD11	11:XK:68:ALA:O	2.14	0.47
11:XK:19:ALA:CA	11:XK:32:ILE:HG22	2.43	0.47
20:XT:64:ASP:O	20:XT:67:ALA:N	2.47	0.47
47:Y1:81:LYS:HE2	47:Y1:81:LYS:H	1.62	0.47
54:Y8:56:GLU:O	54:Y8:58:ILE:N	2.47	0.47
55:Y9:27:CYS:SG	55:Y9:28:GLU:N	2.87	0.47
25:YA:1045:A:H1'	25:YA:1047:G:C2	2.49	0.47
25:YA:1109:C:HO2'	25:YA:1110:G:P	2.36	0.47
25:YA:1407:C:N4	25:YA:1595:G:H1	2.10	0.47
25:YA:1831:G:N2	25:YA:1974:C:O2	2.46	0.47
25:YA:1835:G:C4	25:YA:1931:U:N3	2.82	0.47
25:YA:2059:A:H5'	25:YA:2060:A:OP2	2.15	0.47
25:YA:2294:C:H5	38:YS:13:ARG:NH1	2.12	0.47
25:YA:2298:A:H62	25:YA:2318:G:H8	1.61	0.47
25:YA:2522:U:H3	25:YA:2543:G:H1	1.63	0.47
25:YA:431:U:O5'	25:YA:431:U:H6	1.97	0.47
27:YD:32:SER:O	27:YD:33:LEU:CB	2.60	0.47
27:YD:33:LEU:HB3	27:YD:34:VAL:H	1.49	0.47
25:YA:1657:C:H4'	28:YE:133:LYS:HB3	1.96	0.47
29:YF:155:LEU:HA	29:YF:174:VAL:HG12	1.95	0.47
31:YH:154:PRO:CG	31:YH:162:ILE:O	2.61	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:YI:88:ILE:HG12	32:YI:122:GLU:N	2.29	0.47
32:YI:129:THR:HG22	32:YI:137:PRO:HB3	1.96	0.47
33:YN:12:ARG:NH1	33:YN:50:ASP:CG	2.67	0.47
35:YP:47:ASP:OD1	35:YP:50:ARG:NH2	2.47	0.47
39:YT:36:GLU:O	39:YT:37:GLY:C	2.53	0.47
41:YV:2:PHE:CD2	41:YV:13:ARG:NH2	2.83	0.47
42:YW:30:GLU:O	42:YW:34:ASN:ND2	2.46	0.47
1:QA:1095:U:H5''	1:QA:1109:C:O2	2.14	0.47
1:QA:1133:G:N2	1:QA:1141:C:O2	2.38	0.47
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.49	0.47
1:QA:321:A:H62	1:QA:328:C:H1'	1.80	0.47
1:QA:881:G:OP1	12:QL:12:ARG:NH2	2.46	0.47
3:QC:16:ARG:NH2	3:QC:183:ASP:OD2	2.47	0.47
4:QD:154:ASN:O	4:QD:155:LEU:O	2.32	0.47
5:QE:79:GLU:OE2	8:QH:104:ARG:C	2.51	0.47
9:QI:33:PHE:HZ	9:QI:47:LEU:HD21	1.76	0.47
10:QJ:24:VAL:HG21	10:QJ:37:PRO:CG	2.43	0.47
14:QN:15:LYS:HD2	14:QN:16:PHE:CE2	2.49	0.47
38:RS:43:GLU:HG2	46:R0:49:LYS:HE2	1.96	0.47
47:R1:29:GLY:C	47:R1:30:VAL:CG2	2.82	0.47
47:R1:7:ILE:HD12	47:R1:62:VAL:HG11	1.96	0.47
50:R4:55:ARG:C	50:R4:59:PHE:HB3	2.35	0.47
25:RA:1328:G:O5'	25:RA:1328:G:H8	1.98	0.47
25:RA:1711:C:H2'	25:RA:1712:C:H6	1.80	0.47
25:RA:2439:A:C5'	25:RA:2439:A:C8	2.96	0.47
28:RE:129:HIS:O	28:RE:130:GLY:C	2.53	0.47
28:RE:195:LEU:HD12	28:RE:196:VAL:N	2.29	0.47
28:RE:3:GLY:HA3	28:RE:81:ILE:HG21	1.97	0.47
30:RG:106:LEU:HA	30:RG:110:ALA:HB3	1.95	0.47
30:RG:13:GLU:O	30:RG:13:GLU:HG3	2.14	0.47
31:RH:82:GLY:O	31:RH:83:TYR:O	2.32	0.47
32:RI:19:VAL:HG22	32:RI:20:ASP:H	1.78	0.47
35:RP:126:VAL:HA	35:RP:145:PRO:HD2	1.95	0.47
25:RA:2404:C:C1'	35:RP:67:MET:HE1	2.43	0.47
39:RT:96:ARG:CB	39:RT:96:ARG:NH1	2.77	0.47
41:RV:4:ILE:HA	41:RV:12:TYR:O	2.14	0.47
41:RV:21:ARG:HD2	41:RV:91:TYR:CZ	2.49	0.47
44:RY:5:MET:HE1	44:RY:32:PRO:HB3	1.95	0.47
44:RY:97:ARG:NH1	44:RY:97:ARG:HG2	2.28	0.47
44:RY:81:LYS:NZ	44:RY:98:VAL:HB	2.30	0.47
1:XA:1004:A:N1	1:XA:1024:G:H2'	2.28	0.47
4:XD:29:PRO:O	4:XD:30:LYS:HB3	2.15	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:XH:33:GLU:C	8:XH:35:ILE:N	2.65	0.47
8:XH:86:ILE:HG12	8:XH:135:CYS:HA	1.96	0.47
9:XI:5:TYR:OH	9:XI:7:THR:HG23	2.15	0.47
10:XJ:24:VAL:HG21	10:XJ:37:PRO:CG	2.43	0.47
13:XM:30:ALA:O	13:XM:33:ALA:N	2.47	0.47
1:XA:1202:G:H1'	14:XN:29:ARG:HD2	1.96	0.47
6:XF:97:PHE:CD2	18:XR:31:LEU:HD21	2.48	0.47
20:XT:13:LEU:HD12	20:XT:13:LEU:C	2.34	0.47
47:Y1:7:ILE:HD12	47:Y1:62:VAL:HG11	1.96	0.47
25:YA:1144:G:C6	25:YA:1145:C:C4	3.02	0.47
25:YA:1804:C:H42	25:YA:1813:G:H1	1.62	0.47
25:YA:186:G:C2	25:YA:211:A:C2	3.02	0.47
25:YA:2328:A:H2'	25:YA:2329:G:C8	2.50	0.47
25:YA:2400:G:C5	25:YA:2401:U:C5	3.02	0.47
25:YA:2408:U:H2'	25:YA:2409:G:H8	1.78	0.47
25:YA:2616:C:O2	25:YA:2616:C:C2'	2.60	0.47
25:YA:399:G:H2'	25:YA:400:G:O4'	2.15	0.47
25:YA:456:C:C4	43:YX:69:TYR:CE1	3.02	0.47
25:YA:604:G:H5''	25:YA:604:G:H8	1.79	0.47
25:YA:814:C:O2'	25:YA:815:C:H5'	2.14	0.47
25:YA:954:G:OP1	36:YQ:15:GLY:N	2.39	0.47
26:YB:114:G:H8	26:YB:114:G:O5'	1.97	0.47
27:YD:134:ARG:HB2	27:YD:135:PHE:CD2	2.49	0.47
25:YA:1693:U:H1'	27:YD:14:ARG:NH2	2.29	0.47
28:YE:65:GLY:HA2	28:YE:70:ALA:HB3	1.95	0.47
29:YF:196:LEU:C	29:YF:197:ASP:O	2.50	0.47
30:YG:83:ARG:HB2	30:YG:86:MET:HE3	1.97	0.47
31:YH:123:PHE:O	31:YH:125:VAL:HG23	2.13	0.47
33:YN:137:LYS:CG	33:YN:138:LEU:N	2.77	0.47
33:YN:9:VAL:HG21	33:YN:48:MET:CB	2.44	0.47
35:YP:112:LEU:HD12	35:YP:127:ALA:CB	2.44	0.47
36:YQ:59:ARG:CD	36:YQ:59:ARG:N	2.73	0.47
37:YR:117:VAL:O	37:YR:118:GLU:CB	2.62	0.47
40:YU:92:ARG:CZ	40:YU:94:ASN:HD22	2.27	0.47
41:YV:35:LEU:O	41:YV:37:VAL:N	2.47	0.47
41:YV:36:PRO:HA	41:YV:56:SER:CB	2.44	0.47
41:YV:59:ALA:HB2	41:YV:96:ILE:HD13	1.97	0.47
45:YZ:72:ARG:HH22	45:YZ:97:GLU:HB2	1.78	0.47
1:QA:1129:C:H5'	1:QA:1130:A:OP1	2.15	0.47
1:QA:1287:A:H2'	1:QA:1288:A:H8	1.75	0.47
1:QA:507:C:C4	1:QA:508:C:C4	3.02	0.47
4:QD:135:LEU:O	4:QD:137:SER:N	2.48	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:60:GLU:O	4:QD:63:LYS:HB3	2.14	0.47
6:QF:22:GLU:CD	6:QF:82:ARG:HH21	2.18	0.47
6:QF:79:LEU:O	6:QF:85:VAL:HG11	2.14	0.47
8:QH:39:LEU:HD11	8:QH:111:ILE:HD11	1.96	0.47
9:QI:112:LYS:HD3	9:QI:112:LYS:C	2.35	0.47
9:QI:42:ARG:NH2	9:QI:75:ASP:OD2	2.47	0.47
15:QO:8:LYS:HZ3	15:QO:8:LYS:HB2	1.79	0.47
16:QP:40:ASP:C	16:QP:42:ARG:H	2.17	0.47
17:QQ:98:LEU:O	17:QQ:99:SER:C	2.53	0.47
52:R6:8:LYS:O	52:R6:27:LYS:HG2	2.15	0.47
25:RA:2349:G:OP2	54:R8:42:ARG:HD3	2.14	0.47
25:RA:2710:C:OP1	37:RR:15:SER:HB2	2.14	0.47
25:RA:2854:G:C6	25:RA:2855:C:C4	3.02	0.47
25:RA:34:C:O4'	25:RA:34:C:OP1	2.33	0.47
25:RA:540:G:H5'	25:RA:541:C:OP2	2.14	0.47
25:RA:595:C:H5''	25:RA:595:C:H6	1.79	0.47
25:RA:83:G:C2	25:RA:102:G:H1'	2.49	0.47
27:RD:134:ARG:HB2	27:RD:135:PHE:CD2	2.49	0.47
28:RE:56:PRO:O	28:RE:57:LYS:CB	2.61	0.47
30:RG:106:LEU:HA	30:RG:110:ALA:CB	2.44	0.47
30:RG:56:ALA:HB2	30:RG:153:ARG:NE	2.27	0.47
31:RH:45:VAL:O	31:RH:45:VAL:HG13	2.14	0.47
31:RH:67:LEU:O	31:RH:71:LEU:HB2	2.14	0.47
32:RI:78:THR:H	32:RI:104:GLN:NE2	2.05	0.47
35:RP:147:LEU:N	35:RP:147:LEU:HD22	2.29	0.47
35:RP:19:VAL:CG2	35:RP:20:GLY:H	1.98	0.47
38:RS:83:LYS:HG2	38:RS:109:GLY:H	1.76	0.47
41:RV:38:LEU:HD23	41:RV:39:LEU:H	1.79	0.47
41:RV:16:PRO:HA	41:RV:96:ILE:O	2.14	0.47
44:RY:81:LYS:HZ2	44:RY:98:VAL:CG1	2.26	0.47
1:XA:1158:C:N3	1:XA:1160:G:N7	2.63	0.47
1:XA:1292:U:H2'	1:XA:1293:G:H8	1.80	0.47
1:XA:1333:A:C8	1:XA:1334:G:C8	3.02	0.47
1:XA:187:C:H1'	1:XA:191(A):G:N2	2.30	0.47
1:XA:655:A:N1	1:XA:754:C:N4	2.63	0.47
2:XB:200:ILE:H	2:XB:200:ILE:HD12	1.79	0.47
4:XD:114:ARG:CG	4:XD:114:ARG:NH1	2.77	0.47
4:XD:183:GLY:C	4:XD:184:LYS:HG3	2.34	0.47
10:XJ:49:VAL:HG23	14:XN:34:TYR:OH	2.13	0.47
15:XO:61:GLY:C	15:XO:65:ARG:NH1	2.67	0.47
20:XT:26:ASN:ND2	20:XT:26:ASN:N	2.62	0.47
48:Y2:17:SER:CB	48:Y2:18:PRO:CA	2.92	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:Y5:48:GLU:HA	51:Y5:59:GLU:CG	2.43	0.47
25:YA:443:A:H1'	25:YA:1201:C:O4'	2.14	0.47
25:YA:1364:G:N7	47:Y1:2:SER:N	2.62	0.47
25:YA:1764:G:C6	25:YA:1989:G:C2	3.02	0.47
25:YA:2163:C:H2'	25:YA:2164:C:C6	2.50	0.47
25:YA:325:G:N2	25:YA:326:G:C4	2.82	0.47
25:YA:984:A:H5''	25:YA:985:C:C5	2.47	0.47
26:YB:44:G:H1'	26:YB:47:C:N4	2.29	0.47
28:YE:56:PRO:O	28:YE:57:LYS:CB	2.61	0.47
29:YF:53:THR:C	29:YF:55:GLY:N	2.68	0.47
30:YG:5:VAL:HG22	50:Y4:25:TYR:CE2	2.50	0.47
33:YN:57:ALA:HA	33:YN:60:ILE:CD1	2.43	0.47
33:YN:67:LEU:O	33:YN:88:GLU:HG3	2.14	0.47
37:YR:56:LYS:HE2	37:YR:94:TYR:OH	2.14	0.47
38:YS:40:ILE:HG22	38:YS:41:ASP:N	2.28	0.47
38:YS:56:LEU:O	38:YS:57:LYS:C	2.53	0.47
40:YU:106:PHE:O	40:YU:109:LEU:HB2	2.15	0.47
1:QA:1342:C:O2'	9:QI:124:GLN:HA	2.14	0.47
1:QA:1386:G:C2	1:QA:1387:G:C8	3.02	0.47
1:QA:164:U:H2'	1:QA:165:C:C6	2.49	0.47
1:QA:559:A:H5''	1:QA:560:U:H3'	1.96	0.47
1:QA:728:A:C6	1:QA:729:A:C6	3.03	0.47
2:QB:69:LEU:HB3	2:QB:162:ILE:HG22	1.95	0.47
3:QC:148:GLY:O	3:QC:202:ILE:HA	2.13	0.47
8:QH:86:ILE:HG22	8:QH:87:SER:N	2.29	0.47
13:QM:72:ALA:O	13:QM:76:ALA:HB2	2.14	0.47
1:QA:1216:G:H5''	14:QN:5:ALA:CB	2.45	0.47
14:QN:8:GLU:C	14:QN:10:ALA:N	2.68	0.47
43:RX:6:ASP:OD1	48:R2:29:LYS:NZ	2.47	0.47
52:R6:20:ASN:ND2	52:R6:42:TRP:CZ2	2.82	0.47
54:R8:44:LYS:HD2	54:R8:44:LYS:N	2.30	0.47
55:R9:1:MET:SD	55:R9:31:LYS:O	2.72	0.47
25:RA:103:A:C8	25:RA:103:A:OP2	2.67	0.47
25:RA:1054:A:N6	25:RA:1055:G:C6	2.82	0.47
25:RA:1328:G:H2'	25:RA:1330:C:C5	2.50	0.47
25:RA:1468:C:H2'	25:RA:1469:A:H8	1.78	0.47
25:RA:1889:A:O2'	25:RA:2087:G:H5'	2.15	0.47
25:RA:26:G:H1'	25:RA:514:A:H61	1.79	0.47
25:RA:516:C:O2'	25:RA:517:C:H5'	2.14	0.47
25:RA:2531:A:H4'	31:RH:157:TYR:CD2	2.50	0.47
32:RI:133:HIS:HB2	32:RI:134:PRO:CD	2.45	0.47
37:RR:117:VAL:O	37:RR:118:GLU:CB	2.62	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:RV:2:PHE:C	41:RV:2:PHE:CD1	2.88	0.47
44:RY:19:LYS:HE3	44:RY:20:TYR:CE1	2.49	0.47
44:RY:39:VAL:O	44:RY:40:GLU:OE2	2.32	0.47
44:RY:95:LYS:HB2	44:RY:95:LYS:HZ1	1.78	0.47
44:RY:81:LYS:CD	44:RY:97:ARG:HE	2.20	0.47
1:XA:722:A:H2'	1:XA:724:G:C8	2.50	0.47
1:XA:857:C:H2'	1:XA:858:G:O4'	2.14	0.47
2:XB:172:ILE:O	2:XB:175:ARG:CB	2.63	0.47
2:XB:224:GLN:HA	2:XB:229:VAL:HG23	1.97	0.47
2:XB:71:VAL:HG23	2:XB:164:VAL:HG13	1.97	0.47
2:XB:96:ARG:HD2	2:XB:96:ARG:N	2.20	0.47
7:XG:92:SER:HB3	7:XG:95:ARG:CB	2.45	0.47
8:XH:6:ILE:O	8:XH:10:LEU:HG	2.14	0.47
9:XI:106:ALA:O	9:XI:108:VAL:HG13	2.15	0.47
17:XQ:29:HIS:N	17:XQ:33:GLY:O	2.48	0.47
1:XA:1220:G:H21	19:XS:54:GLY:CA	2.28	0.47
20:XT:49:ALA:HB2	20:XT:99:LEU:HD22	1.97	0.47
47:Y1:29:GLY:C	47:Y1:30:VAL:CG2	2.82	0.47
47:Y1:83:GLU:OE1	47:Y1:85:LEU:HB2	2.14	0.47
25:YA:1034:G:C6	25:YA:1035:U:C4	3.02	0.47
25:YA:2092:U:H4'	25:YA:2093:G:O5'	2.15	0.47
25:YA:2243:U:O2'	25:YA:2244:U:H5'	2.15	0.47
25:YA:2601:C:H2'	25:YA:2602:A:OP2	2.14	0.47
25:YA:2770:G:H5''	25:YA:2771:C:OP2	2.15	0.47
25:YA:2871:C:H5''	25:YA:2872:G:OP1	2.14	0.47
25:YA:463:G:C6	25:YA:467:G:C6	3.03	0.47
25:YA:679:C:H2'	25:YA:680:G:C8	2.49	0.47
26:YB:82:G:C4	26:YB:83:G:C8	3.03	0.47
27:YD:72:LYS:O	27:YD:73:VAL:C	2.51	0.47
30:YG:106:LEU:HA	30:YG:110:ALA:CB	2.44	0.47
30:YG:14:GLU:O	30:YG:17:PRO:HG2	2.15	0.47
30:YG:36:LYS:HA	30:YG:95:ARG:HG2	1.95	0.47
31:YH:127:GLU:OE2	31:YH:130:ARG:NH2	2.48	0.47
31:YH:131:VAL:HG12	31:YH:132:ARG:N	2.29	0.47
25:YA:2675:A:OP1	34:YO:31:LYS:HB2	2.14	0.47
35:YP:147:LEU:HD22	35:YP:147:LEU:N	2.29	0.47
25:YA:1228:G:OP1	40:YU:13:LYS:HG2	2.15	0.47
41:YV:48:GLY:O	41:YV:49:THR:C	2.52	0.47
43:YX:35:THR:O	43:YX:37:THR:N	2.47	0.47
44:YY:19:LYS:HE3	44:YY:20:TYR:CE1	2.49	0.47
44:YY:39:VAL:O	44:YY:40:GLU:OE2	2.32	0.47
1:QA:181:G:HO2'	1:QA:182:U:C5'	2.27	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:600:C:H2'	1:QA:601:C:H6	1.79	0.47
1:QA:757:U:O2'	1:QA:879:C:H1'	2.14	0.47
1:QA:763:G:H2'	1:QA:764:C:H6	1.80	0.47
1:QA:78:G:C2	1:QA:79:G:H1'	2.50	0.47
2:QB:223:ILE:HA	2:QB:226:ARG:HB3	1.97	0.47
2:QB:5:ILE:O	2:QB:6:THR:O	2.32	0.47
7:QG:79:ARG:NH1	7:QG:79:ARG:HG2	2.30	0.47
8:QH:80:ILE:HG23	8:QH:137:VAL:HG12	1.97	0.47
8:QH:33:GLU:C	8:QH:35:ILE:N	2.65	0.47
12:QL:50:SER:O	12:QL:51:ALA:HB2	2.14	0.47
14:QN:36:PHE:CD1	14:QN:36:PHE:C	2.88	0.47
1:QA:760:G:O2'	17:QQ:98:LEU:HD23	2.14	0.47
18:QR:82:THR:HG22	18:QR:83:GLU:H	1.79	0.47
50:R4:8:LYS:O	50:R4:9:LEU:CB	2.62	0.47
25:RA:2284:C:C5	52:R6:27:LYS:HE2	2.49	0.47
25:RA:1153:C:H2'	25:RA:1154:G:O4'	2.14	0.47
25:RA:120:U:H4'	25:RA:121:G:C5'	2.45	0.47
25:RA:1630:G:N2	25:RA:1636:C:O2	2.40	0.47
25:RA:1652:A:N7	25:RA:1653:G:C6	2.83	0.47
25:RA:2845:G:O2'	25:RA:2846:G:H5'	2.14	0.47
25:RA:300:A:OP1	44:RY:84:ARG:NH2	2.47	0.47
25:RA:389:G:N1	35:RP:71:VAL:HG12	2.28	0.47
25:RA:483:A:O5'	25:RA:484:C:H5	1.98	0.47
25:RA:656:G:H2'	25:RA:657:U:O4'	2.14	0.47
25:RA:796:C:H2'	25:RA:797:C:C6	2.50	0.47
25:RA:863:A:O2'	25:RA:864:G:H5'	2.14	0.47
26:RB:21:G:H2'	26:RB:22:U:O4'	2.15	0.47
26:RB:47:C:H5'	26:RB:48:A:OP2	2.15	0.47
27:RD:72:LYS:CG	27:RD:103:ARG:NH2	2.77	0.47
29:RF:162:LEU:HD23	29:RF:165:ARG:HH21	1.80	0.47
29:RF:184:TYR:CD2	29:RF:188:ARG:HD2	2.50	0.47
33:RN:57:ALA:CA	33:RN:60:ILE:HD11	2.44	0.47
34:RO:37:ASP:O	34:RO:62:VAL:HG23	2.14	0.47
36:RQ:66:ILE:H	36:RQ:104:PHE:HA	1.80	0.47
38:RS:108:GLY:O	38:RS:110:LEU:N	2.48	0.47
38:RS:40:ILE:HG22	38:RS:41:ASP:N	2.29	0.47
38:RS:25:ARG:HH12	38:RS:42:ASP:CG	2.16	0.47
25:RA:1335:U:OP2	43:RX:65:ARG:NH2	2.47	0.47
1:XA:1128:C:C2	1:XA:1144:G:N2	2.83	0.47
1:XA:1316:G:N2	1:XA:1318:A:H3'	2.29	0.47
1:XA:1441:G:H5''	1:XA:1442:G:H5'	1.97	0.47
1:XA:690:G:H22	11:XK:55:LYS:HZ1	1.61	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:936:C:O2	1:XA:1382:C:N4	2.47	0.47
2:XB:168:THR:CB	2:XB:192:SER:HB2	2.41	0.47
2:XB:223:ILE:HA	2:XB:226:ARG:HB3	1.97	0.47
3:XC:127:ARG:NH1	3:XC:127:ARG:CG	2.74	0.47
3:XC:16:ARG:NH2	3:XC:183:ASP:OD2	2.48	0.47
3:XC:203:PHE:O	3:XC:204:LEU:HD23	2.14	0.47
4:XD:153:ARG:CZ	4:XD:181:MET:HG3	2.44	0.47
6:XF:19:LEU:C	6:XF:19:LEU:HD23	2.35	0.47
6:XF:40:VAL:HG22	6:XF:41:GLU:N	2.30	0.47
6:XF:9:VAL:HB	6:XF:87:ARG:HB2	1.97	0.47
7:XG:78:ARG:HG3	7:XG:78:ARG:HH11	1.78	0.47
8:XH:39:LEU:HD11	8:XH:111:ILE:HD11	1.96	0.47
8:XH:82:HIS:CD2	8:XH:83:ILE:N	2.82	0.47
9:XI:18:PHE:HB2	9:XI:62:TYR:HB3	1.96	0.47
11:XK:102:GLY:O	11:XK:103:LEU:C	2.53	0.47
12:XL:115:LYS:O	12:XL:117:ARG:N	2.47	0.47
15:XO:76:GLU:O	15:XO:78:TYR:N	2.48	0.47
18:XR:31:LEU:H	18:XR:31:LEU:CD2	2.27	0.47
50:Y4:50:VAL:O	50:Y4:50:VAL:CG1	2.63	0.47
54:Y8:43:GLN:C	54:Y8:44:LYS:HD2	2.35	0.47
25:YA:1270:C:H5'	25:YA:1271:G:C5'	2.45	0.47
25:YA:1292:U:H2'	25:YA:1293:C:H6	1.77	0.47
25:YA:1460:A:H4'	25:YA:1461:G:OP2	2.14	0.47
25:YA:2352:A:H2'	25:YA:2353:G:O4'	2.14	0.47
25:YA:271(B):G:HO2'	25:YA:271(C):U:P	2.37	0.47
25:YA:755:C:H2'	25:YA:756:C:C6	2.49	0.47
25:YA:823:G:C6	25:YA:835:A:N1	2.83	0.47
26:YB:78:A:C2	26:YB:99:A:C4	3.03	0.47
27:YD:72:LYS:CG	27:YD:103:ARG:NH2	2.77	0.47
28:YE:52:LEU:HB2	28:YE:75:VAL:CG2	2.40	0.47
28:YE:89:ASP:O	28:YE:90:THR:O	2.33	0.47
30:YG:16:ARG:NH2	30:YG:28:VAL:O	2.48	0.47
32:YI:11:ASN:O	32:YI:12:LEU:HB2	2.15	0.47
35:YP:115:LEU:CD1	35:YP:116:GLY:N	2.78	0.47
38:YS:46:VAL:HG12	38:YS:47:THR:N	2.28	0.47
39:YT:29:ARG:NH1	39:YT:46:GLU:OE1	2.48	0.47
34:YO:104:ARG:HD3	39:YT:36:GLU:OE2	2.15	0.47
40:YU:107:ALA:O	40:YU:110:VAL:HB	2.14	0.47
42:YW:66:GLU:O	42:YW:69:LEU:HG	2.14	0.47
1:QA:1068:G:N7	1:QA:1094:G:C8	2.83	0.47
1:QA:1158:C:C2	1:QA:1160:G:C8	3.03	0.47
1:QA:116:A:H8	1:QA:116:A:O5'	1.98	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1237:C:OP1	1:QA:1238:A:H1'	2.15	0.47
1:QA:502:G:C2	1:QA:503:C:C2	3.03	0.47
1:QA:685:G:N2	1:QA:686:U:C4	2.83	0.47
3:QC:195:VAL:CG1	3:QC:196:LEU:H	2.27	0.47
4:QD:7:PRO:O	4:QD:10:ARG:HG2	2.15	0.47
4:QD:173:TRP:C	4:QD:186:LEU:HB2	2.35	0.47
6:QF:19:LEU:HD23	6:QF:19:LEU:C	2.35	0.47
7:QG:107:ALA:CB	7:QG:134:ALA:HB2	2.44	0.47
9:QI:106:ALA:O	9:QI:108:VAL:HG13	2.15	0.47
11:QK:124:LYS:O	11:QK:126:ARG:N	2.40	0.47
13:QM:8:GLU:C	13:QM:9:ILE:HG23	2.34	0.47
17:QQ:76:LEU:HD11	17:QQ:79:SER:H	1.80	0.47
20:QT:28:ALA:C	20:QT:30:LYS:N	2.67	0.47
36:RQ:83:MET:H	46:R0:7:LEU:HD12	1.78	0.47
25:RA:1045:A:H4'	25:RA:1046:A:C5'	2.45	0.47
25:RA:1222:C:C2	25:RA:1229(A):G:C2	3.03	0.47
25:RA:1346:G:C6	25:RA:1347:G:N7	2.83	0.47
25:RA:2380:C:C4	25:RA:2381:C:C4	3.03	0.47
25:RA:244:A:H2'	25:RA:245:G:O4'	2.15	0.47
25:RA:2543:G:H2'	25:RA:2544:G:C8	2.49	0.47
25:RA:2734:A:N6	25:RA:2770:G:O2'	2.32	0.47
25:RA:2832:U:O2'	25:RA:2833:G:P	2.73	0.47
25:RA:459:U:H5''	53:R7:40:TRP:CD2	2.50	0.47
25:RA:852:G:H2'	25:RA:853:G:C8	2.49	0.47
25:RA:968:G:C2	25:RA:969:U:C2	3.03	0.47
26:RB:49:C:H2'	26:RB:50:G:C8	2.49	0.47
26:RB:59:A:H2'	26:RB:60:C:O4'	2.14	0.47
28:RE:197:ILE:CD1	28:RE:199:ARG:HH12	2.26	0.47
33:RN:137:LYS:CG	33:RN:138:LEU:H	2.27	0.47
34:RO:120:GLU:OE1	39:RT:67:SER:OG	2.24	0.47
35:RP:37:GLY:O	35:RP:41:ARG:HD3	2.15	0.47
36:RQ:34:LEU:HD11	36:RQ:129:THR:CB	2.35	0.47
44:RY:94:LYS:HE3	44:RY:101:LYS:HZ3	1.77	0.47
1:XA:1020:U:H2'	1:XA:1021:G:H8	1.80	0.47
1:XA:509:A:C2	1:XA:510:A:C2	3.02	0.47
2:XB:220:ASP:O	2:XB:223:ILE:N	2.48	0.47
5:XE:82:VAL:CG1	5:XE:83:GLU:H	2.27	0.47
7:XG:50:ILE:HG21	7:XG:61:VAL:HG21	1.97	0.47
13:XM:23:TYR:HB2	13:XM:67:GLU:OE1	2.15	0.47
13:XM:87:TYR:C	13:XM:89:GLY:H	2.18	0.47
14:XN:8:GLU:C	14:XN:10:ALA:N	2.68	0.47
16:XP:21:VAL:HG23	16:XP:34:GLU:H	1.79	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:XQ:63:ARG:HG2	17:XQ:64:PRO:CD	2.45	0.47
17:XQ:98:LEU:O	17:XQ:99:SER:C	2.53	0.47
26:YB:11:C:OP1	46:Y0:72:ARG:HD2	2.15	0.47
50:Y4:33:VAL:CG1	50:Y4:34:GLU:H	2.22	0.47
50:Y4:38:LYS:C	50:Y4:40:HIS:H	2.07	0.47
51:Y5:57:VAL:O	51:Y5:57:VAL:HG13	2.14	0.47
25:YA:1048:A:C5	25:YA:1111:A:C2	3.03	0.47
25:YA:1417:C:H2'	25:YA:1418:G:O4'	2.15	0.47
25:YA:1483:G:N2	25:YA:1507:A:H1'	2.30	0.47
25:YA:1900:A:N1	25:YA:1970:A:C6	2.83	0.47
25:YA:2210:G:H5'	25:YA:2211:G:C4	2.49	0.47
25:YA:576:U:OP1	25:YA:2503:A:OP1	2.32	0.47
25:YA:2533:A:H2'	25:YA:2534:A:O4'	2.14	0.47
25:YA:284:U:H2'	25:YA:285:C:C6	2.49	0.47
25:YA:612:G:N3	25:YA:613:U:O2	2.47	0.47
27:YD:145:VAL:O	27:YD:153:ALA:HA	2.14	0.47
27:YD:231:HIS:ND1	27:YD:232:PRO:HD2	2.30	0.47
27:YD:35:LYS:HD3	27:YD:63:ARG:HB3	1.96	0.47
25:YA:1817:G:OP1	27:YD:88:ARG:NH2	2.46	0.47
28:YE:78:LEU:CD2	28:YE:79:ARG:HD2	2.43	0.47
33:YN:63:THR:HG22	33:YN:66:LYS:HZ1	1.79	0.47
35:YP:126:VAL:HA	35:YP:145:PRO:HD2	1.95	0.47
39:YT:111:ARG:C	39:YT:113:LYS:N	2.64	0.47
39:YT:51:ARG:CG	39:YT:98:LYS:HG3	2.44	0.47
40:YU:104:GLN:H	40:YU:104:GLN:CD	2.16	0.47
43:YX:43:VAL:HG11	43:YX:51:VAL:HG21	1.97	0.47
44:YY:44:ILE:O	44:YY:62:GLU:O	2.32	0.47
44:YY:56:PRO:O	44:YY:57:GLN:C	2.53	0.47
1:QA:1076:C:C2	1:QA:1082:G:N2	2.82	0.47
1:QA:955:U:H2'	1:QA:956:U:C6	2.48	0.47
2:QB:220:ASP:O	2:QB:223:ILE:N	2.48	0.47
3:QC:11:ARG:HH11	3:QC:11:ARG:HG2	1.80	0.47
4:QD:135:LEU:C	4:QD:137:SER:H	2.18	0.47
1:QA:619:U:O2	4:QD:135:LEU:HD23	2.15	0.47
4:QD:30:LYS:CD	4:QD:30:LYS:N	2.73	0.47
8:QH:82:HIS:CD2	8:QH:83:ILE:N	2.82	0.47
1:QA:1228:C:OP1	13:QM:114:ARG:HA	2.15	0.47
18:QR:32:ARG:HH11	18:QR:65:ILE:HD13	1.80	0.47
20:QT:99:LEU:O	20:QT:100:ILE:HB	2.15	0.47
21:QU:14:TRP:CE3	21:QU:15:ARG:NH1	2.83	0.47
25:RA:1042:G:H2'	25:RA:1043:C:C6	2.50	0.47
25:RA:1139:G:O2'	25:RA:1143:A:N1	2.29	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1204:A:C2	25:RA:1241:A:C2	3.02	0.47
25:RA:1285:G:N2	25:RA:1328:G:H5''	2.29	0.47
25:RA:1286:A:HO2'	25:RA:1288:U:P	2.31	0.47
25:RA:1301:A:N3	25:RA:1301:A:H2'	2.30	0.47
25:RA:1342:A:C6	25:RA:1345:C:N3	2.82	0.47
25:RA:1910:G:H1	25:RA:1920:C:H42	1.63	0.47
25:RA:2558:C:H2'	25:RA:2559:C:O4'	2.15	0.47
25:RA:826:U:H2'	25:RA:828:U:O4'	2.15	0.47
26:RB:24:G:H4'	26:RB:25:A:O5'	2.15	0.47
26:RB:44:G:N2	26:RB:48:A:N3	2.63	0.47
28:RE:63:LEU:O	28:RE:64:LYS:CB	2.62	0.47
28:RE:65:GLY:HA2	28:RE:70:ALA:HB3	1.95	0.47
38:RS:66:ALA:HA	38:RS:69:VAL:HG12	1.96	0.47
40:RU:8:VAL:O	40:RU:9:VAL:C	2.53	0.47
41:RV:36:PRO:HA	41:RV:56:SER:CB	2.45	0.47
43:RX:26:TYR:HB3	43:RX:92:LEU:HD12	1.97	0.47
44:RY:61:ILE:HG22	44:RY:62:GLU:N	2.28	0.47
1:XA:1296:C:H1'	1:XA:1302:U:C5	2.50	0.47
1:XA:1305:G:N2	1:XA:1331:G:C4	2.83	0.47
1:XA:1352:C:N3	1:XA:1370:G:N2	2.52	0.47
1:XA:313:A:H2'	1:XA:314:C:H6	1.80	0.47
1:XA:902:G:H2'	1:XA:903:G:C8	2.46	0.47
2:XB:116:GLU:HA	2:XB:119:GLU:HB3	1.96	0.47
4:XD:173:TRP:C	4:XD:186:LEU:HB2	2.36	0.47
5:XE:13:ILE:O	5:XE:13:ILE:HG22	2.14	0.47
14:XN:41:ARG:NE	14:XN:42:ILE:HG13	2.29	0.47
19:XS:9:VAL:HG12	50:Y4:66:SER:O	2.14	0.47
25:YA:2756:U:H5''	55:Y9:19:ARG:HB3	1.97	0.47
25:YA:1534:G:N3	25:YA:1534:G:H2'	2.30	0.47
25:YA:1899:G:N2	25:YA:1902:C:C5	2.83	0.47
25:YA:2056:G:N2	25:YA:2057:A:C4	2.83	0.47
25:YA:2335:A:C8	25:YA:2337:G:C5	3.03	0.47
25:YA:557:U:H2'	25:YA:558:G:H8	1.80	0.47
25:YA:680:G:H1	25:YA:797:C:H42	1.61	0.47
26:YB:45:A:O4'	30:YG:95:ARG:NH1	2.48	0.47
28:YE:120:TRP:O	28:YE:121:ASN:HB2	2.15	0.47
28:YE:188:VAL:O	28:YE:188:VAL:HG13	2.15	0.47
28:YE:22:PRO:O	28:YE:22:PRO:CG	2.63	0.47
30:YG:106:LEU:HA	30:YG:110:ALA:HB3	1.95	0.47
31:YH:67:LEU:O	31:YH:71:LEU:HB2	2.15	0.47
33:YN:73:THR:HA	33:YN:83:LYS:O	2.15	0.47
35:YP:81:GLN:HB3	35:YP:110:TYR:HB3	1.97	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:YQ:34:LEU:HD11	36:YQ:129:THR:CB	2.35	0.47
40:YU:66:ASN:CB	40:YU:76:TYR:HB2	2.44	0.47
40:YU:91:ASP:O	40:YU:92:ARG:C	2.53	0.47
41:YV:4:ILE:HA	41:YV:12:TYR:O	2.14	0.47
42:YW:4:LYS:HA	42:YW:106:ILE:HA	1.97	0.47
43:YX:53:LYS:HZ2	43:YX:55:ASN:HD21	1.62	0.47
44:YY:81:LYS:NZ	44:YY:98:VAL:HB	2.30	0.47
25:RA:2555:U:O2	56:Z6:74:C:C6	2.68	0.47
1:QA:976:G:H5''	1:QA:1358:U:O2'	2.15	0.47
2:QB:71:VAL:HG23	2:QB:164:VAL:HG13	1.97	0.47
3:QC:203:PHE:O	3:QC:204:LEU:HD23	2.15	0.47
3:QC:23:TYR:CG	3:QC:24:ALA:N	2.83	0.47
4:QD:110:PHE:H	4:QD:110:PHE:HD1	1.63	0.47
4:QD:30:LYS:H	4:QD:30:LYS:CD	2.24	0.47
5:QE:13:ILE:HG22	5:QE:13:ILE:O	2.14	0.47
5:QE:96:PRO:HA	5:QE:117:ASP:CG	2.35	0.47
1:QA:973:G:N3	10:QJ:55:LYS:HE2	2.30	0.47
10:QJ:47:PHE:CE1	10:QJ:63:PHE:HB2	2.33	0.47
12:QL:115:LYS:O	12:QL:117:ARG:N	2.47	0.47
13:QM:23:TYR:HB3	13:QM:67:GLU:CG	2.39	0.47
14:QN:41:ARG:HH11	14:QN:41:ARG:CG	2.28	0.47
15:QO:76:GLU:O	15:QO:78:TYR:N	2.48	0.47
17:QQ:63:ARG:HG2	17:QQ:64:PRO:CD	2.45	0.47
18:QR:46:GLU:HG3	18:QR:47:THR:N	2.29	0.47
22:QV:76:A:C2	25:RA:2450:A:H2'	2.50	0.47
50:R4:3:GLU:HG3	50:R4:4:GLY:H	1.79	0.47
51:R5:20:ARG:C	51:R5:22:HIS:N	2.68	0.47
53:R7:25:PRO:HA	53:R7:28:ARG:CZ	2.45	0.47
25:RA:1009:A:OP2	25:RA:1010:A:OP2	2.32	0.47
25:RA:1210:A:O5'	25:RA:1212:G:H5'	2.15	0.47
25:RA:1281:G:C5	25:RA:1282:U:C5	3.03	0.47
25:RA:1543:A:C2	25:RA:1545:A:C8	3.03	0.47
25:RA:217:G:H2'	25:RA:218:A:O4'	2.14	0.47
25:RA:2549:G:N2	25:RA:2560:C:C2	2.82	0.47
25:RA:2626:C:N4	25:RA:2777:G:H1	2.10	0.47
25:RA:2842:G:N2	25:RA:2876:G:H1'	2.30	0.47
25:RA:2881:C:H2'	25:RA:2882:A:C8	2.50	0.47
25:RA:2887:U:O2'	25:RA:2888:C:H5'	2.14	0.47
25:RA:413:C:O5'	25:RA:413:C:H6	1.98	0.47
25:RA:467:G:O5'	25:RA:467:G:H8	1.98	0.47
25:RA:47:C:O2	25:RA:178:G:N2	2.30	0.47
25:RA:520:G:H2'	25:RA:521:G:C8	2.50	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:804:A:H2'	25:RA:806:C:N4	2.29	0.47
26:RB:45:A:C2'	26:RB:46:A:H5'	2.45	0.47
27:RD:165:ILE:C	27:RD:166:GLN:HE21	2.18	0.47
28:RE:17:ASP:OD2	28:RE:17:ASP:N	2.46	0.47
30:RG:16:ARG:NH2	30:RG:28:VAL:O	2.48	0.47
30:RG:44:GLY:HA2	30:RG:88:ILE:HG12	1.97	0.47
31:RH:18:GLU:HA	31:RH:18:GLU:OE2	2.14	0.47
32:RI:69:LYS:O	32:RI:73:GLU:HB2	2.15	0.47
34:RO:53:LYS:CD	34:RO:56:ASP:OD1	2.63	0.47
35:RP:23:PRO:HG2	35:RP:23:PRO:O	2.14	0.47
35:RP:98:GLU:HG2	35:RP:99:LEU:N	2.30	0.47
37:RR:74:LYS:O	37:RR:76:VAL:N	2.45	0.47
38:RS:61:ASN:O	38:RS:65:VAL:HG23	2.15	0.47
45:RZ:165:VAL:HG12	45:RZ:166:SER:N	2.30	0.47
45:RZ:35:ARG:HB3	45:RZ:35:ARG:HH11	1.79	0.47
1:XA:1122:U:C4	1:XA:1123:A:N7	2.83	0.47
1:XA:345:C:H4'	1:XA:346:G:O5'	2.15	0.47
1:XA:433:C:O5'	1:XA:433:C:H6	1.97	0.47
1:XA:745:C:OP1	1:XA:851:G:O2'	2.27	0.47
1:XA:16:A:N1	1:XA:919:A:H2	2.13	0.47
2:XB:86:GLU:C	2:XB:88:ALA:H	2.17	0.47
3:XC:52:LEU:H	3:XC:52:LEU:CD2	2.20	0.47
6:XF:40:VAL:HG22	6:XF:41:GLU:H	1.80	0.47
7:XG:70:LYS:O	7:XG:138:LYS:HE3	2.15	0.47
7:XG:50:ILE:CG2	7:XG:61:VAL:HG21	2.45	0.47
8:XH:68:ARG:HG2	8:XH:68:ARG:HH11	1.80	0.47
11:XK:32:ILE:HD12	11:XK:72:ALA:CB	2.36	0.47
18:XR:31:LEU:HD23	18:XR:31:LEU:N	2.29	0.47
19:XS:40:ILE:CG1	19:XS:41:VAL:N	2.78	0.47
50:Y4:50:VAL:O	50:Y4:50:VAL:HG13	2.15	0.47
52:Y6:20:ASN:O	52:Y6:21:TYR:HB2	2.15	0.47
52:Y6:8:LYS:O	52:Y6:27:LYS:HG2	2.15	0.47
25:YA:2055:C:H4'	25:YA:2056:G:H5''	1.97	0.47
25:YA:2469:A:H2	25:YA:2481:G:N2	2.10	0.47
25:YA:902:C:O2'	25:YA:903:C:H5'	2.15	0.47
27:YD:136:ILE:HD12	27:YD:136:ILE:N	2.30	0.47
27:YD:183:ARG:CG	27:YD:183:ARG:NH1	2.69	0.47
27:YD:205:VAL:O	27:YD:206:LEU:C	2.52	0.47
28:YE:101:ARG:HD2	28:YE:171:GLU:HA	1.97	0.47
28:YE:20:ALA:C	28:YE:21:VAL:HG13	2.35	0.47
28:YE:61:ARG:O	28:YE:63:LEU:CG	2.57	0.47
29:YF:162:LEU:HD23	29:YF:165:ARG:HH21	1.79	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:88:ILE:O	30:YG:88:ILE:CD1	2.54	0.47
31:YH:104:GLU:HG3	31:YH:114:VAL:HG22	1.96	0.47
33:YN:57:ALA:CA	33:YN:60:ILE:HD11	2.44	0.47
34:YO:53:LYS:CD	34:YO:56:ASP:OD1	2.63	0.47
36:YQ:80:GLU:HG3	36:YQ:81:VAL:N	2.27	0.47
44:YY:56:PRO:O	44:YY:58:GLY:N	2.48	0.47
1:QA:1190:G:P	3:QC:5:ILE:HG23	2.55	0.47
1:QA:1362:C:H2'	1:QA:1362(A):C:H5''	1.96	0.47
1:QA:1401:G:N2	1:QA:1501:C:O2	2.43	0.47
1:QA:719:C:C2	18:QR:50:ILE:HD13	2.50	0.47
1:QA:20:U:H1'	1:QA:916:G:N2	2.29	0.47
2:QB:172:ILE:O	2:QB:175:ARG:CB	2.63	0.47
2:QB:86:GLU:C	2:QB:88:ALA:H	2.17	0.47
4:QD:146:ILE:HG22	4:QD:146:ILE:O	2.15	0.47
4:QD:79:PHE:HE2	4:QD:83:SER:HB2	1.79	0.47
6:QF:41:GLU:HG2	6:QF:43:LEU:CD1	2.44	0.47
6:QF:40:VAL:HG22	6:QF:41:GLU:N	2.30	0.47
7:QG:70:LYS:O	7:QG:138:LYS:HE3	2.15	0.47
10:QJ:74:ILE:HG12	10:QJ:74:ILE:O	2.14	0.47
10:QJ:80:LYS:NZ	10:QJ:80:LYS:HB2	2.30	0.47
11:QK:32:ILE:HD11	11:QK:68:ALA:O	2.14	0.47
11:QK:96:ARG:O	11:QK:97:ALA:C	2.54	0.47
13:QM:77:ASN:CG	50:R4:71:ARG:CZ	2.83	0.47
16:QP:25:ARG:HG3	16:QP:25:ARG:HH11	1.79	0.47
16:QP:69:THR:O	16:QP:73:LEU:HG	2.14	0.47
21:QU:15:ARG:HG2	21:QU:15:ARG:NH1	2.29	0.47
50:R4:53:GLU:O	50:R4:57:GLU:HG3	2.14	0.47
53:R7:2:LYS:HG2	53:R7:3:ARG:N	2.30	0.47
25:RA:134:C:H2'	25:RA:135:G:C8	2.50	0.47
25:RA:1678:G:N2	25:RA:1989:G:N2	2.60	0.47
25:RA:1826:G:H2'	25:RA:1827:C:H6	1.79	0.47
25:RA:2123:G:N2	25:RA:2176:A:H1'	2.30	0.47
25:RA:322:A:C5	25:RA:340:A:C2	3.02	0.47
25:RA:76:C:H1'	48:R2:62:THR:HG21	1.96	0.47
25:RA:971:C:H2'	25:RA:972:G:O4'	2.15	0.47
26:RB:46:A:H2'	26:RB:47:C:H6	1.79	0.47
26:RB:36:C:H42	26:RB:49:C:H1'	1.80	0.47
27:RD:102:LYS:O	27:RD:103:ARG:HG3	2.15	0.47
27:RD:205:VAL:O	27:RD:206:LEU:C	2.52	0.47
27:RD:231:HIS:ND1	27:RD:232:PRO:HD2	2.30	0.47
29:RF:65:TRP:CH2	29:RF:72:ARG:HB3	2.50	0.47
31:RH:41:MET:HG3	31:RH:54:ARG:HA	1.96	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:RI:78:THR:N	32:RI:104:GLN:HE22	2.05	0.47
35:RP:12:ALA:C	35:RP:14:LYS:H	2.17	0.47
37:RR:56:LYS:C	37:RR:58:GLY:H	2.18	0.47
37:RR:56:LYS:HE2	37:RR:94:TYR:OH	2.14	0.47
25:RA:1614:A:N1	42:RW:91:GLY:HA2	2.29	0.47
1:XA:1094:G:HO2'	1:XA:1095:U:P	2.34	0.47
1:XA:1309:G:C6	1:XA:1329:A:C2	3.02	0.47
1:XA:224:C:H2'	1:XA:225:C:H6	1.77	0.47
1:XA:236:G:OP1	17:XQ:40:LYS:NZ	2.32	0.47
1:XA:667:G:O5'	1:XA:667:G:H8	1.98	0.47
1:XA:778:G:O5'	1:XA:778:G:H8	1.98	0.47
2:XB:92:TYR:CD1	2:XB:92:TYR:C	2.88	0.47
1:XA:1205:U:H5'	3:XC:190:ARG:NH2	2.30	0.47
4:XD:110:PHE:H	4:XD:110:PHE:HD1	1.62	0.47
4:XD:31:CYS:O	4:XD:32:ALA:CB	2.62	0.47
5:XE:77:PRO:HG2	5:XE:142:LEU:HD22	1.97	0.47
5:XE:96:PRO:HA	5:XE:117:ASP:CG	2.35	0.47
6:XF:69:GLU:O	6:XF:71:ARG:N	2.48	0.47
9:XI:17:VAL:HG11	9:XI:81:ILE:HA	1.96	0.47
50:Y4:55:ARG:C	50:Y4:59:PHE:HB3	2.35	0.47
54:Y8:9:GLY:O	54:Y8:13:ARG:HG2	2.15	0.47
25:YA:1525:G:H2'	25:YA:1526:G:C8	2.50	0.47
25:YA:1449:A:C2	25:YA:1530:G:H1'	2.50	0.47
25:YA:1769:G:C6	25:YA:1984:G:C6	3.03	0.47
25:YA:1803:A:O2'	27:YD:259:THR:HG21	2.15	0.47
25:YA:1914:C:H2'	25:YA:1915:U:O4'	2.15	0.47
25:YA:2437:U:O2'	25:YA:2438:U:H5'	2.15	0.47
25:YA:2439:A:O2'	25:YA:2440:C:OP2	2.29	0.47
25:YA:2525:G:C2	25:YA:2539:C:C2	3.03	0.47
25:YA:2576:G:OP1	25:YA:2577:A:OP1	2.32	0.47
25:YA:2688:U:C5	25:YA:2720:U:OP2	2.67	0.47
25:YA:270(I):G:N3	25:YA:270(R):G:N2	2.63	0.47
25:YA:2857:G:N1	25:YA:2861:G:C6	2.83	0.47
25:YA:313:C:H6	25:YA:313:C:O5'	1.98	0.47
25:YA:980:A:C6	25:YA:981:A:N1	2.83	0.47
30:YG:104:GLU:OE1	50:Y4:23:GLU:HB3	2.15	0.47
30:YG:13:GLU:O	30:YG:13:GLU:HG3	2.14	0.47
30:YG:52:ILE:HG22	30:YG:52:ILE:O	2.15	0.47
31:YH:18:GLU:HA	31:YH:18:GLU:OE2	2.15	0.47
31:YH:94:TYR:N	31:YH:94:TYR:CD1	2.82	0.47
31:YH:9:ILE:O	31:YH:10:PRO:O	2.33	0.47
32:YI:120:ILE:HD11	32:YI:126:TYR:CZ	2.50	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:YO:37:ASP:O	34:YO:62:VAL:HG23	2.14	0.47
35:YP:12:ALA:C	35:YP:14:LYS:H	2.16	0.47
25:YA:1030:G:OP2	36:YQ:128:LYS:HE2	2.15	0.47
40:YU:27:LEU:O	40:YU:30:LYS:N	2.41	0.47
44:YY:68:HIS:O	44:YY:71:LYS:HB2	2.14	0.47
1:QA:1159:U:O2'	1:QA:1160:G:N7	2.49	0.46
1:QA:1366:C:H2'	1:QA:1367:C:C6	2.49	0.46
1:QA:1523:G:H2'	1:QA:1524:C:C6	2.50	0.46
1:QA:252:U:C4	1:QA:253:U:O4	2.68	0.46
1:QA:410:G:H5''	1:QA:411:A:OP1	2.15	0.46
1:QA:56:U:H4'	32:YI:82:ARG:HH12	1.79	0.46
1:QA:73:G:C2	1:QA:74:C:C2	3.04	0.46
2:QB:174:VAL:O	2:QB:178:ARG:HB3	2.16	0.46
2:QB:168:THR:CB	2:QB:192:SER:HB2	2.41	0.46
3:QC:172:ARG:O	3:QC:173:VAL:HG23	2.15	0.46
3:QC:58:GLU:O	3:QC:59:ARG:HG3	2.15	0.46
7:QG:92:SER:HB3	7:QG:95:ARG:CB	2.45	0.46
11:QK:102:GLY:O	11:QK:103:LEU:C	2.53	0.46
15:QO:82:ILE:O	15:QO:86:GLY:N	2.49	0.46
17:QQ:59:ILE:N	17:QQ:59:ILE:CD1	2.78	0.46
19:QS:3:ARG:HG3	19:QS:4:SER:N	2.24	0.46
48:R2:17:SER:CB	48:R2:18:PRO:CA	2.92	0.46
52:R6:48:VAL:O	52:R6:49:HIS:HB2	2.15	0.46
55:R9:19:ARG:NH2	55:R9:26:ILE:HD11	2.30	0.46
25:RA:154:G:C2	25:RA:173:G:C2	3.03	0.46
25:RA:1605:C:H5'	25:RA:1610:A:N6	2.30	0.46
25:RA:2380:C:H2'	25:RA:2381:C:O4'	2.16	0.46
25:RA:2590:A:O2'	25:RA:2591:C:H5'	2.14	0.46
25:RA:270(S):G:C2'	25:RA:270(T):G:H5'	2.45	0.46
25:RA:571:A:C5	25:RA:575:A:N7	2.83	0.46
25:RA:733:G:O6	25:RA:761:A:C8	2.68	0.46
25:RA:747:U:N1	51:R5:2:ALA:HB3	2.30	0.46
26:RB:80:U:O2'	26:RB:81:G:H5''	2.15	0.46
27:RD:183:ARG:NH1	27:RD:183:ARG:CG	2.69	0.46
27:RD:18:VAL:CG1	27:RD:19:ALA:N	2.78	0.46
27:RD:35:LYS:HD3	27:RD:63:ARG:HB3	1.96	0.46
28:RE:188:VAL:HG13	28:RE:188:VAL:O	2.15	0.46
28:RE:47:VAL:O	28:RE:48:GLN:C	2.51	0.46
28:RE:87:GLU:O	28:RE:89:ASP:N	2.48	0.46
30:RG:98:ARG:CA	30:RG:101:ILE:HG12	2.40	0.46
26:RB:43:C:H1'	30:RG:93:THR:O	2.15	0.46
32:RI:11:ASN:O	32:RI:12:LEU:HB2	2.15	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:9:VAL:HG21	33:RN:48:MET:CB	2.45	0.46
37:RR:78:LYS:HG2	37:RR:78:LYS:O	2.15	0.46
38:RS:52:SER:O	38:RS:56:LEU:CD2	2.60	0.46
1:XA:1187:G:C4	1:XA:1188:A:C8	3.03	0.46
1:XA:1298:C:H4'	1:XA:1299:A:C4	2.50	0.46
1:XA:338:A:C6	1:XA:339:C:C4	3.03	0.46
1:XA:342:C:C2	1:XA:348:G:N2	2.83	0.46
2:XB:15:VAL:HG23	2:XB:209:ARG:HE	1.80	0.46
3:XC:113:ALA:O	3:XC:115:LEU:N	2.48	0.46
3:XC:124:ILE:C	3:XC:126:ARG:H	2.19	0.46
4:XD:126:ILE:HG22	4:XD:127:THR:H	1.80	0.46
4:XD:192:GLU:HG3	4:XD:192:GLU:H	1.57	0.46
7:XG:140:ASP:HA	7:XG:143:ARG:HH11	1.79	0.46
8:XH:39:LEU:C	8:XH:45:ILE:HG12	2.35	0.46
13:XM:119:GLY:HA3	22:XV:29:G:OP1	2.15	0.46
15:XO:76:GLU:C	15:XO:78:TYR:N	2.69	0.46
25:YA:851:U:H5'	49:Y3:49:LYS:HD2	1.97	0.46
51:Y5:45:VAL:HG12	51:Y5:45:VAL:O	2.13	0.46
54:Y8:29:LYS:HE3	54:Y8:41:ILE:O	2.15	0.46
25:YA:1021:A:H62	25:YA:1141:U:H3	1.63	0.46
25:YA:1471:A:C8	25:YA:1521:G:N2	2.83	0.46
25:YA:2084:C:O2'	25:YA:2085:C:H5'	2.15	0.46
25:YA:2293:C:H42	25:YA:2339:G:H1	1.63	0.46
25:YA:2824:C:C4	25:YA:2825:C:C4	3.03	0.46
25:YA:2869:G:H2'	25:YA:2870:C:O4'	2.15	0.46
25:YA:754:C:H2'	25:YA:755:C:C6	2.51	0.46
25:YA:928:G:H5''	25:YA:929:G:OP2	2.14	0.46
30:YG:135:LEU:HD11	30:YG:157:ILE:HD12	1.98	0.46
31:YH:86:GLU:O	31:YH:132:ARG:HA	2.16	0.46
33:YN:35:ARG:O	33:YN:35:ARG:HG3	2.16	0.46
33:YN:46:VAL:HG13	33:YN:47:ALA:N	2.31	0.46
35:YP:46:LYS:O	35:YP:48:PRO:N	2.48	0.46
37:YR:61:HIS:O	37:YR:65:LEU:HD13	2.14	0.46
41:YV:2:PHE:CD1	41:YV:2:PHE:C	2.88	0.46
41:YV:6:LYS:HD3	41:YV:11:GLN:HG2	1.96	0.46
1:QA:540:G:H2'	1:QA:541:G:O4'	2.15	0.46
1:QA:618:C:N4	1:QA:621:A:N7	2.62	0.46
1:QA:953:G:C6	1:QA:954:G:C4	3.04	0.46
1:QA:980:C:H3'	1:QA:981:U:H6	1.80	0.46
2:QB:95:GLN:NE2	2:QB:147:LYS:HE2	2.27	0.46
4:QD:9:CYS:SG	4:QD:22:LYS:HE3	2.55	0.46
5:QE:12:LEU:HB3	5:QE:31:LEU:HB2	1.98	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:QI:59:PHE:CZ	9:QI:88:TYR:CE1	3.01	0.46
11:QK:104:GLN:O	11:QK:106:LYS:HG3	2.15	0.46
12:QL:43:VAL:HG23	12:QL:93:LEU:HD22	1.97	0.46
13:QM:80:ARG:O	13:QM:82:MET:O	2.33	0.46
19:QS:24:ALA:O	19:QS:25:LYS:CB	2.63	0.46
19:QS:40:ILE:CG1	19:QS:41:VAL:N	2.78	0.46
20:QT:53:LEU:HD12	20:QT:100:ILE:HG23	1.98	0.46
25:RA:1365:A:OP2	47:R1:3:LYS:HB2	2.15	0.46
47:R1:79:GLY:N	47:R1:80:LEU:HD23	2.30	0.46
51:R5:43:HIS:N	51:R5:43:HIS:ND1	2.63	0.46
54:R8:29:LYS:HE3	54:R8:41:ILE:O	2.15	0.46
25:RA:1542:G:O6	25:RA:1543:A:C6	2.65	0.46
25:RA:1846:G:H5'	25:RA:1847:A:OP2	2.15	0.46
25:RA:2071:A:H2	25:RA:2441:C:N3	2.12	0.46
25:RA:2102:U:H2'	25:RA:2103:C:C6	2.50	0.46
25:RA:2224:G:OP1	27:RD:268:ARG:HD3	2.15	0.46
25:RA:224:G:C2	25:RA:225:A:C4	3.03	0.46
25:RA:2538:C:H2'	25:RA:2539:C:C6	2.50	0.46
25:RA:1662:C:O2'	25:RA:2687:U:OP1	2.29	0.46
25:RA:2711:A:H5''	25:RA:2712:U:H5'	1.97	0.46
25:RA:612:G:C2	25:RA:617:G:C5	3.03	0.46
26:RB:33:G:O2'	26:RB:34:U:H5'	2.16	0.46
27:RD:27:THR:O	27:RD:29:PRO:CD	2.62	0.46
31:RH:153:LYS:HG3	31:RH:162:ILE:H	1.78	0.46
31:RH:4:ILE:CD1	31:RH:4:ILE:H	2.25	0.46
34:RO:104:ARG:HD3	39:RT:36:GLU:OE2	2.15	0.46
39:RT:57:PHE:O	39:RT:58:ASN:C	2.53	0.46
41:RV:30:GLY:O	41:RV:31:ALA:O	2.34	0.46
44:RY:68:HIS:O	44:RY:71:LYS:HB2	2.15	0.46
1:XA:1124:G:C8	1:XA:1124:G:OP2	2.67	0.46
1:XA:44:G:H2'	1:XA:45:U:O4'	2.15	0.46
1:XA:655:A:C2	1:XA:754:C:C4	3.04	0.46
1:XA:977:A:H1'	1:XA:982:U:O4	2.15	0.46
1:XA:986:A:H2'	1:XA:987:G:C8	2.50	0.46
2:XB:174:VAL:O	2:XB:178:ARG:HB3	2.15	0.46
3:XC:11:ARG:HG2	3:XC:11:ARG:HH11	1.79	0.46
3:XC:134:ILE:HG23	3:XC:151:VAL:HB	1.98	0.46
6:XF:41:GLU:HG2	6:XF:43:LEU:CD1	2.44	0.46
8:XH:80:ILE:HG23	8:XH:137:VAL:HG12	1.97	0.46
9:XI:112:LYS:C	9:XI:112:LYS:HD3	2.35	0.46
10:XJ:80:LYS:HB2	10:XJ:80:LYS:NZ	2.30	0.46
16:XP:13:HIS:C	16:XP:15:PRO:HD3	2.36	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:XP:60:LEU:CA	16:XP:64:ALA:HB3	2.43	0.46
18:XR:46:GLU:HG3	18:XR:47:THR:N	2.29	0.46
20:XT:28:ALA:C	20:XT:30:LYS:N	2.67	0.46
47:Y1:76:ARG:CD	47:Y1:76:ARG:H	2.28	0.46
25:YA:1004:C:H5''	25:YA:1005:C:OP1	2.15	0.46
25:YA:1104:C:H2'	25:YA:1105:U:C6	2.49	0.46
25:YA:1203:G:N1	25:YA:1241:A:OP2	2.44	0.46
25:YA:1319:G:O6	25:YA:1333:C:N4	2.46	0.46
25:YA:2404:C:O3'	35:YP:77:ARG:NH2	2.48	0.46
25:YA:24:G:C5	25:YA:25:U:C5	3.03	0.46
25:YA:273:G:C2	25:YA:273(A):G:C8	3.03	0.46
25:YA:531:C:H4'	25:YA:532:A:H5''	1.97	0.46
25:YA:83:G:O2'	25:YA:84:A:P	2.74	0.46
26:YB:77:U:P	45:YZ:19:ARG:HH22	2.38	0.46
27:YD:165:ILE:C	27:YD:166:GLN:HE21	2.18	0.46
28:YE:103:ASP:OD2	28:YE:168:MET:HG2	2.15	0.46
29:YF:108:LYS:HA	29:YF:108:LYS:HZ3	1.79	0.46
29:YF:46:ARG:NH1	29:YF:46:ARG:CG	2.71	0.46
31:YH:89:ILE:HD13	31:YH:89:ILE:H	1.80	0.46
37:YR:56:LYS:C	37:YR:58:GLY:H	2.18	0.46
38:YS:24:LEU:HB2	38:YS:85:VAL:HG12	1.98	0.46
38:YS:5:THR:HG1	38:YS:7:TYR:HB3	1.79	0.46
40:YU:73:GLY:O	40:YU:74:LEU:CB	2.63	0.46
41:YV:5:VAL:HG13	41:YV:14:VAL:HG21	1.97	0.46
43:YX:26:TYR:HB3	43:YX:92:LEU:HD12	1.97	0.46
1:QA:1122:U:C4	1:QA:1123:A:N7	2.83	0.46
1:QA:1154:G:N3	1:QA:1155:G:C8	2.84	0.46
1:QA:1054:C:P	1:QA:1197:G:OP2	2.67	0.46
1:QA:1053:G:N7	1:QA:1199:U:H3'	2.31	0.46
1:QA:1321:C:N4	1:QA:1322:C:N3	2.64	0.46
1:QA:509:A:C8	1:QA:509:A:H3'	2.51	0.46
1:QA:513:C:H42	1:QA:538:G:H1	1.62	0.46
1:QA:540:G:H2'	1:QA:541:G:H8	1.77	0.46
1:QA:715:A:H2'	1:QA:716:A:C8	2.51	0.46
7:QG:50:ILE:CG2	7:QG:61:VAL:HG21	2.45	0.46
8:QH:39:LEU:C	8:QH:45:ILE:HG12	2.35	0.46
8:QH:28:ALA:CB	8:QH:57:PRO:HB2	2.45	0.46
9:QI:28:VAL:O	9:QI:29:ASN:C	2.53	0.46
13:QM:87:TYR:C	13:QM:89:GLY:H	2.19	0.46
17:QQ:29:HIS:N	17:QQ:33:GLY:O	2.47	0.46
48:R2:7:ARG:NH1	48:R2:7:ARG:HG3	2.25	0.46
25:RA:2419:U:O4	54:R8:30:ARG:CZ	2.63	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1749:A:H2'	25:RA:1750:G:O4'	2.15	0.46
25:RA:1777:U:O2'	25:RA:1778:U:H5'	2.15	0.46
25:RA:2197:U:H1'	25:RA:2198:A:N7	2.30	0.46
25:RA:2327:A:N6	25:RA:2387:U:O4	2.48	0.46
25:RA:309:G:O3'	44:RY:18:GLY:HA2	2.15	0.46
25:RA:587:C:C5	25:RA:671:C:H1'	2.50	0.46
25:RA:869:G:N2	25:RA:908:C:O2	2.48	0.46
26:RB:48:A:H2'	26:RB:49:C:C6	2.50	0.46
27:RD:27:THR:CG2	27:RD:28:GLU:N	2.66	0.46
31:RH:127:GLU:OE2	31:RH:130:ARG:NH2	2.47	0.46
31:RH:9:ILE:O	31:RH:10:PRO:O	2.33	0.46
33:RN:134:ARG:N	33:RN:135:PRO:CD	2.58	0.46
34:RO:112:MET:O	34:RO:115:VAL:CG2	2.64	0.46
36:RQ:133:ARG:CG	36:RQ:134:ARG:N	2.78	0.46
43:RX:12:VAL:HG13	43:RX:12:VAL:O	2.15	0.46
43:RX:24:GLY:O	43:RX:82:GLN:HA	2.16	0.46
45:RZ:43:GLU:O	45:RZ:47:VAL:HG23	2.15	0.46
1:XA:1096:C:H2'	1:XA:1097:C:C6	2.49	0.46
1:XA:1150:U:O2	10:XJ:39:PRO:HG2	2.16	0.46
1:XA:278:G:N2	17:XQ:95:TYR:HB3	2.30	0.46
1:XA:60:A:H8	1:XA:60:A:P	2.37	0.46
1:XA:735:C:H2'	1:XA:736:C:C6	2.50	0.46
1:XA:980:C:H5'	1:XA:981:U:OP2	2.16	0.46
1:XA:987:G:H1	1:XA:1218:C:N4	2.08	0.46
2:XB:77:ALA:HB1	2:XB:211:ILE:HG21	1.97	0.46
1:XA:1112:C:O2	3:XC:178:LEU:HB2	2.15	0.46
3:XC:6:HIS:C	3:XC:8:ILE:H	2.18	0.46
3:XC:73:PRO:O	3:XC:77:ILE:HG13	2.16	0.46
9:XI:9:ARG:HA	9:XI:76:ALA:HB1	1.96	0.46
10:XJ:38:ILE:CD1	10:XJ:71:LEU:HB3	2.46	0.46
11:XK:80:VAL:O	11:XK:106:LYS:HD3	2.16	0.46
12:XL:127:GLU:O	12:XL:128:ALA:CB	2.62	0.46
15:XO:82:ILE:HD11	15:XO:88:ARG:HG2	1.95	0.46
18:XR:43:PHE:C	18:XR:44:LEU:HD12	2.36	0.46
20:XT:93:GLU:O	20:XT:93:GLU:HG2	2.15	0.46
20:XT:96:GLY:O	20:XT:99:LEU:HD13	2.16	0.46
50:Y4:15:ILE:HG22	50:Y4:20:ASN:CA	2.45	0.46
52:Y6:15:GLU:HB3	52:Y6:16:CYS:H	1.46	0.46
55:Y9:19:ARG:NH2	55:Y9:26:ILE:HD11	2.31	0.46
25:YA:1568:G:OP1	27:YD:61:LEU:N	2.48	0.46
25:YA:1605:C:C5	25:YA:1606:G:C5	3.03	0.46
25:YA:270(S):G:O5'	25:YA:270(S):G:H8	1.96	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:282:A:C8	25:YA:359:A:C6	3.04	0.46
25:YA:377:C:H2'	25:YA:378:C:C6	2.50	0.46
25:YA:971:C:N4	25:YA:972:G:C2	2.84	0.46
27:YD:117:VAL:CG2	27:YD:128:GLY:C	2.84	0.46
29:YF:184:TYR:CD2	29:YF:188:ARG:HD2	2.50	0.46
30:YG:20:ILE:HD13	30:YG:25:TYR:HB2	1.98	0.46
32:YI:53:ALA:O	32:YI:56:LYS:HG3	2.14	0.46
25:YA:1006:C:H1'	33:YN:106:MET:CE	2.44	0.46
33:YN:30:ILE:O	33:YN:34:LEU:CD2	2.63	0.46
34:YO:61:VAL:O	34:YO:84:ALA:HB1	2.16	0.46
35:YP:37:GLY:O	35:YP:41:ARG:HD3	2.15	0.46
35:YP:85:LEU:HD23	35:YP:88:LEU:HD22	1.96	0.46
40:YU:8:VAL:O	40:YU:9:VAL:C	2.53	0.46
41:YV:61:VAL:HA	41:YV:94:LEU:HD23	1.97	0.46
42:YW:36:LEU:CD1	42:YW:47:VAL:HG12	2.44	0.46
1:QA:1415:G:C6	1:QA:1486:G:C6	3.04	0.46
1:QA:230:G:C2	1:QA:231:G:C4	3.04	0.46
1:QA:451:A:H1'	1:QA:452:A:C8	2.51	0.46
1:QA:590:C:H2'	1:QA:591:U:C6	2.49	0.46
2:QB:224:GLN:HA	2:QB:229:VAL:HG23	1.97	0.46
3:QC:127:ARG:NH1	3:QC:127:ARG:CG	2.74	0.46
11:QK:34:ASP:HB2	11:QK:35:PRO:CD	2.45	0.46
10:QJ:49:VAL:HG22	14:QN:41:ARG:CD	2.45	0.46
14:QN:41:ARG:HH11	14:QN:41:ARG:HG2	1.79	0.46
1:QA:474:G:H5''	16:QP:81:ARG:HE	1.81	0.46
20:QT:44:ALA:O	20:QT:91:LEU:HB3	2.16	0.46
20:QT:98:PRO:O	20:QT:100:ILE:N	2.42	0.46
25:RA:2232:U:P	47:R1:40:ARG:HH12	2.39	0.46
47:R1:49:VAL:HG12	47:R1:51:VAL:CG2	2.45	0.46
49:R3:56:VAL:CG1	49:R3:57:GLU:N	2.74	0.46
49:R3:59:VAL:CG1	49:R3:60:GLU:H	2.28	0.46
52:R6:18:ARG:O	52:R6:19:ARG:O	2.33	0.46
54:R8:52:LYS:O	54:R8:52:LYS:CG	2.64	0.46
25:RA:1135:C:N4	25:RA:1139:G:C6	2.84	0.46
25:RA:1309:G:HO2'	25:RA:1611:C:HO2'	1.60	0.46
25:RA:195:A:H2'	25:RA:198:C:N4	2.30	0.46
25:RA:2156:G:C6	25:RA:2157:G:N2	2.83	0.46
25:RA:219:G:O2'	25:RA:220:G:H5'	2.16	0.46
25:RA:2320:A:N3	25:RA:2320:A:H2'	2.31	0.46
25:RA:966:G:H2'	25:RA:967:C:C6	2.50	0.46
28:RE:33:VAL:HG12	28:RE:90:THR:H	1.81	0.46
29:RF:132:VAL:O	29:RF:133:ASN:C	2.52	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:RF:31:HIS:O	29:RF:34:TRP:HB3	2.15	0.46
30:RG:95:ARG:O	30:RG:96:ARG:C	2.54	0.46
25:RA:2667:C:O2	31:RH:109:PHE:HB3	2.15	0.46
32:RI:112:LYS:HG2	32:RI:112:LYS:H	1.33	0.46
32:RI:48:GLU:O	32:RI:51:ILE:HB	2.15	0.46
35:RP:81:GLN:HB3	35:RP:110:TYR:HB3	1.97	0.46
37:RR:29:LEU:CD1	37:RR:29:LEU:N	2.79	0.46
39:RT:29:ARG:NH1	39:RT:46:GLU:OE1	2.48	0.46
39:RT:36:GLU:O	39:RT:37:GLY:C	2.53	0.46
40:RU:27:LEU:HD12	40:RU:31:SER:HB3	1.98	0.46
42:RW:4:LYS:HA	42:RW:106:ILE:HA	1.98	0.46
44:RY:15:VAL:O	44:RY:21:LYS:HA	2.16	0.46
44:RY:35:TYR:O	44:RY:35:TYR:CD1	2.69	0.46
1:XA:1053:G:N7	1:XA:1199:U:H3'	2.30	0.46
1:XA:1206:G:C5	1:XA:1207:G:N7	2.84	0.46
1:XA:1263:C:H2'	1:XA:1264:C:H6	1.80	0.46
1:XA:1446:A:O2'	1:XA:1447:G:O4'	2.34	0.46
1:XA:352:C:H4'	1:XA:354:G:OP1	2.15	0.46
2:XB:24:TRP:CZ2	2:XB:26:PRO:HB3	2.51	0.46
2:XB:17:PHE:CD2	2:XB:44:LEU:HD21	2.47	0.46
3:XC:172:ARG:O	3:XC:173:VAL:CG2	2.63	0.46
3:XC:23:TYR:CG	3:XC:24:ALA:N	2.83	0.46
4:XD:135:LEU:C	4:XD:137:SER:H	2.18	0.46
4:XD:135:LEU:O	4:XD:137:SER:N	2.48	0.46
6:XF:100:ASN:HA	6:XF:100:ASN:HD22	1.48	0.46
7:XG:108:ALA:C	7:XG:110:GLN:H	2.19	0.46
8:XH:86:ILE:CG1	8:XH:133:LEU:HD22	2.46	0.46
12:XL:43:VAL:HG13	12:XL:55:VAL:CG2	2.45	0.46
14:XN:36:PHE:C	14:XN:36:PHE:CD1	2.88	0.46
15:XO:77:ARG:HA	15:XO:80:ALA:HB3	1.95	0.46
17:XQ:92:ARG:NH1	17:XQ:92:ARG:HG3	2.30	0.46
51:Y5:20:ARG:C	51:Y5:22:HIS:N	2.68	0.46
25:YA:1166:C:N4	25:YA:1183:G:H1	2.11	0.46
25:YA:1204:A:H1'	25:YA:1206:G:C8	2.51	0.46
25:YA:1203:G:H3'	25:YA:1204:A:H5''	1.96	0.46
25:YA:1374:G:C6	25:YA:1375:C:N3	2.83	0.46
25:YA:1608:A:C8	25:YA:1611:C:N4	2.83	0.46
25:YA:2822:G:H2'	25:YA:2823:A:H5''	1.97	0.46
25:YA:65:C:H5'	43:YX:71:GLY:HA3	1.96	0.46
25:YA:846:C:C4	25:YA:930:U:C4	3.04	0.46
27:YD:102:LYS:O	27:YD:103:ARG:HG3	2.15	0.46
27:YD:18:VAL:CG1	27:YD:19:ALA:N	2.78	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:198:ASN:ND2	27:YD:198:ASN:C	2.69	0.46
25:YA:2572:A:C4	28:YE:144:ARG:NH2	2.83	0.46
28:YE:54:GLN:CA	28:YE:54:GLN:HE21	2.27	0.46
31:YH:4:ILE:HG13	31:YH:6:ARG:HD3	1.97	0.46
34:YO:104:ARG:HG2	34:YO:121:VAL:HG12	1.97	0.46
35:YP:144:GLU:N	35:YP:144:GLU:OE1	2.48	0.46
36:YQ:109:VAL:HG13	36:YQ:113:GLN:OE1	2.16	0.46
37:YR:79:LEU:HD23	37:YR:79:LEU:O	2.16	0.46
38:YS:28:VAL:HG11	38:YS:98:VAL:HG12	1.97	0.46
39:YT:96:ARG:CB	39:YT:96:ARG:HH11	2.29	0.46
25:YA:2451:A:N1	56:Z8:76:PPU:HE2	2.30	0.46
1:QA:1172:C:H2'	1:QA:1173:G:H8	1.79	0.46
1:QA:1310:G:OP1	13:QM:77:ASN:ND2	2.46	0.46
1:QA:1326:C:OP1	21:QU:17:THR:OG1	2.18	0.46
1:QA:564:C:C4	1:QA:565:U:C4	3.04	0.46
1:QA:579:G:C6	1:QA:580:U:C4	3.04	0.46
1:QA:688:G:H2'	1:QA:689:C:H6	1.80	0.46
6:QF:3:ARG:HH11	6:QF:3:ARG:HG3	1.81	0.46
7:QG:95:ARG:NE	7:QG:99:LEU:HD11	2.30	0.46
13:QM:23:TYR:HB2	13:QM:67:GLU:OE1	2.15	0.46
13:QM:30:ALA:O	13:QM:33:ALA:N	2.47	0.46
13:QM:65:LYS:NZ	13:QM:69:GLU:HG2	2.30	0.46
17:QQ:100:LYS:O	17:QQ:101:ARG:HB2	2.15	0.46
18:QR:43:PHE:C	18:QR:51:LEU:HD12	2.36	0.46
47:R1:76:ARG:HD2	47:R1:76:ARG:N	2.29	0.46
47:R1:83:GLU:OE1	47:R1:85:LEU:HB2	2.15	0.46
48:R2:15:LYS:H	48:R2:67:LYS:HZ3	1.63	0.46
25:RA:1204:A:C2	25:RA:1206:G:C2	3.04	0.46
25:RA:1988:C:H2'	25:RA:1989:G:O4'	2.16	0.46
25:RA:2703:C:H2'	25:RA:2703:C:O2	2.14	0.46
25:RA:588:U:O4	25:RA:670:A:H1'	2.16	0.46
25:RA:1818:U:H2'	27:RD:157:ARG:HG3	1.98	0.46
28:RE:89:ASP:O	28:RE:90:THR:O	2.33	0.46
13:QM:7:VAL:CG1	30:RG:115:ARG:HH12	2.28	0.46
31:RH:86:GLU:O	31:RH:132:ARG:HA	2.15	0.46
33:RN:46:VAL:HG13	33:RN:47:ALA:N	2.31	0.46
34:RO:101:PRO:HA	34:RO:120:GLU:O	2.16	0.46
36:RQ:66:ILE:O	36:RQ:104:PHE:N	2.49	0.46
37:RR:75:LEU:HA	37:RR:78:LYS:HB3	1.97	0.46
37:RR:85:PRO:C	37:RR:87:TYR:H	2.19	0.46
43:RX:8:ILE:CD1	43:RX:42:ALA:HB1	2.46	0.46
1:XA:437:U:H2'	1:XA:438:G:O4'	2.15	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:468:A:O3'	16:XP:80:PHE:O	2.33	0.46
1:XA:51:A:N7	1:XA:114:U:O2'	2.44	0.46
1:XA:833:U:H3	1:XA:853:G:H1	1.64	0.46
8:XH:122:ARG:O	8:XH:125:ARG:N	2.46	0.46
10:XJ:32:ALA:HB3	10:XJ:76:ASN:CB	2.34	0.46
11:XK:34:ASP:HB2	11:XK:35:PRO:CD	2.45	0.46
16:XP:30:GLY:O	16:XP:31:LYS:C	2.54	0.46
17:XQ:76:LEU:HD11	17:XQ:79:SER:H	1.80	0.46
49:Y3:28:LEU:HA	49:Y3:33:GLN:OE1	2.16	0.46
51:Y5:36:CYS:C	51:Y5:38:ALA:H	2.19	0.46
51:Y5:54:GLY:O	51:Y5:55:ARG:C	2.54	0.46
54:Y8:40:GLU:C	54:Y8:42:ARG:N	2.68	0.46
25:YA:1180:C:H5'	25:YA:1181:C:OP2	2.15	0.46
25:YA:1862:G:C2	25:YA:1863:G:N7	2.84	0.46
25:YA:2031:A:N7	25:YA:2498:C:H1'	2.30	0.46
25:YA:2073:C:H2'	25:YA:2074:U:C6	2.47	0.46
25:YA:2301:C:C4	25:YA:2302:G:N7	2.84	0.46
25:YA:2556:C:H2'	25:YA:2557:G:O4'	2.14	0.46
25:YA:2532:G:H4'	25:YA:2657:A:C2	2.50	0.46
25:YA:682:G:C6	25:YA:683:C:C4	3.03	0.46
26:YB:111:U:H2'	26:YB:112:G:C8	2.51	0.46
27:YD:105:ILE:HG23	27:YD:106:ILE:O	2.15	0.46
27:YD:48:ARG:NH1	27:YD:48:ARG:HG3	2.31	0.46
27:YD:35:LYS:HE3	27:YD:65:ILE:N	2.31	0.46
28:YE:3:GLY:HA3	28:YE:81:ILE:HG21	1.97	0.46
28:YE:63:LEU:O	28:YE:64:LYS:CB	2.62	0.46
30:YG:102:PHE:HA	30:YG:105:LYS:HE3	1.98	0.46
30:YG:36:LYS:O	30:YG:37:VAL:HG23	2.15	0.46
31:YH:106:THR:HG22	31:YH:112:PRO:HB3	1.97	0.46
31:YH:53:GLU:HA	31:YH:53:GLU:OE1	2.16	0.46
33:YN:97:ARG:HA	33:YN:100:GLU:HB3	1.97	0.46
34:YO:7:TYR:CD1	34:YO:20:MET:HB2	2.50	0.46
35:YP:23:PRO:O	35:YP:23:PRO:HG2	2.15	0.46
36:YQ:87:LYS:O	36:YQ:89:ASN:N	2.43	0.46
37:YR:1:MET:O	37:YR:2:ARG:HB2	2.15	0.46
38:YS:13:ARG:O	38:YS:14:VAL:HB	2.15	0.46
39:YT:6:LEU:O	39:YT:10:VAL:HG23	2.16	0.46
39:YT:118:ARG:NH2	39:YT:121:ILE:HD12	2.31	0.46
40:YU:98:LEU:C	40:YU:98:LEU:HD23	2.36	0.46
41:YV:16:PRO:HA	41:YV:96:ILE:O	2.14	0.46
42:YW:48:ALA:O	42:YW:49:LYS:C	2.53	0.46
1:QA:1195:C:N3	1:QA:1197:G:C8	2.84	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1223:C:OP1	19:QS:78:ARG:NH1	2.48	0.46
1:QA:429:U:C4'	1:QA:430:A:H5''	2.45	0.46
2:QB:170:GLU:CA	2:QB:172:ILE:HD12	2.46	0.46
2:QB:17:PHE:CD2	2:QB:44:LEU:HD21	2.47	0.46
3:QC:108:ASN:HB3	3:QC:111:LEU:HG	1.98	0.46
4:QD:126:ILE:HG22	4:QD:127:THR:H	1.80	0.46
5:QE:12:LEU:HD21	5:QE:14:ARG:HB3	1.98	0.46
7:QG:57:GLU:O	7:QG:59:LEU:N	2.49	0.46
8:QH:91:ARG:NH1	8:QH:91:ARG:HG2	2.25	0.46
9:QI:40:LEU:C	9:QI:42:ARG:H	2.18	0.46
10:QJ:44:VAL:HG12	10:QJ:45:ARG:N	2.30	0.46
10:QJ:95:GLU:HA	10:QJ:95:GLU:OE2	2.16	0.46
15:QO:76:GLU:C	15:QO:78:TYR:N	2.68	0.46
16:QP:30:GLY:O	16:QP:31:LYS:C	2.54	0.46
20:QT:98:PRO:C	20:QT:100:ILE:H	2.18	0.46
20:QT:26:ASN:ND2	20:QT:26:ASN:N	2.62	0.46
20:QT:49:ALA:HB2	20:QT:99:LEU:HD22	1.97	0.46
46:R0:43:THR:O	46:R0:43:THR:HG23	2.16	0.46
49:R3:18:ASP:O	49:R3:21:ALA:N	2.49	0.46
25:RA:145:G:H2'	25:RA:146:G:C8	2.51	0.46
25:RA:1461:G:H2'	25:RA:1462:C:H6	1.79	0.46
25:RA:1797:C:C4	25:RA:1798:U:C5	3.04	0.46
25:RA:2197:U:O2'	25:RA:2198:A:H5''	2.16	0.46
25:RA:2211:G:N3	25:RA:2211:G:H2'	2.31	0.46
25:RA:256:A:C2	25:RA:257:A:C4	3.03	0.46
25:RA:26:G:C6	25:RA:27:G:N1	2.84	0.46
25:RA:345:A:C2'	25:RA:347:A:H62	2.29	0.46
26:RB:29:A:P	38:RS:32:LEU:HG	2.56	0.46
27:RD:136:ILE:N	27:RD:136:ILE:HD12	2.30	0.46
27:RD:61:LEU:HB3	27:RD:63:ARG:NH1	2.31	0.46
28:RE:20:ALA:C	28:RE:21:VAL:HG13	2.35	0.46
28:RE:54:GLN:CA	28:RE:54:GLN:HE21	2.27	0.46
30:RG:37:VAL:HG22	30:RG:159:VAL:CA	2.34	0.46
31:RH:4:ILE:HG13	31:RH:6:ARG:HD3	1.97	0.46
33:RN:30:ILE:O	33:RN:34:LEU:CD2	2.63	0.46
35:RP:85:LEU:HD23	35:RP:88:LEU:HD22	1.97	0.46
36:RQ:109:VAL:HG13	36:RQ:113:GLN:OE1	2.16	0.46
38:RS:13:ARG:O	38:RS:14:VAL:HB	2.16	0.46
26:RB:116:G:H4'	38:RS:54:LEU:O	2.16	0.46
38:RS:56:LEU:O	38:RS:57:LYS:C	2.53	0.46
38:RS:28:VAL:HG11	38:RS:98:VAL:HG12	1.97	0.46
39:RT:118:ARG:NH2	39:RT:121:ILE:HD12	2.31	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:RT:96:ARG:CB	39:RT:96:ARG:HH11	2.29	0.46
41:RV:47:VAL:O	41:RV:48:GLY:O	2.34	0.46
1:XA:1157:A:N1	1:XA:1180:A:C5	2.84	0.46
1:XA:1178:G:C8	1:XA:1180:A:OP2	2.69	0.46
1:XA:156:G:H1	1:XA:165:C:H42	1.63	0.46
1:XA:890:G:O2'	1:XA:906:G:N1	2.47	0.46
1:XA:948:C:C5	13:XM:106:ASN:ND2	2.78	0.46
3:XC:42:LEU:HD12	3:XC:45:LYS:HZ3	1.79	0.46
3:XC:58:GLU:O	3:XC:59:ARG:HG3	2.15	0.46
6:XF:22:GLU:CD	6:XF:82:ARG:HH21	2.18	0.46
5:XE:93:PRO:HG3	8:XH:105:ARG:HG3	1.98	0.46
10:XJ:44:VAL:HG12	10:XJ:45:ARG:N	2.30	0.46
1:XA:1492:A:OP1	12:XL:47:LYS:HG3	2.16	0.46
21:XU:14:TRP:CE3	21:XU:15:ARG:NH1	2.83	0.46
24:XY:40:G:H2'	24:XY:41:A:C8	2.51	0.46
49:Y3:59:VAL:CG1	49:Y3:60:GLU:H	2.29	0.46
19:XS:5:LEU:CD2	50:Y4:66:SER:HB2	2.45	0.46
25:YA:1587:A:H2'	25:YA:1588:C:C6	2.51	0.46
25:YA:1843:C:N4	25:YA:1844:C:N4	2.64	0.46
25:YA:195:A:H5''	35:YP:46:LYS:HZ3	1.81	0.46
25:YA:2024:G:C6	25:YA:2025:C:C4	3.04	0.46
25:YA:2063:C:C4	25:YA:2064:C:C5	3.04	0.46
25:YA:2097:C:H2'	25:YA:2098:U:O4'	2.16	0.46
25:YA:2336:A:H61	46:Y0:43:THR:CG2	2.28	0.46
25:YA:2389:G:H5''	25:YA:2390:U:C5'	2.45	0.46
25:YA:2592:G:C6	25:YA:2593:U:N3	2.84	0.46
25:YA:2661:G:H2'	25:YA:2662:A:C8	2.51	0.46
25:YA:2674:G:H2'	25:YA:2675:A:C8	2.51	0.46
25:YA:2877:G:H2'	25:YA:2878:U:O4'	2.16	0.46
25:YA:348:G:C2	25:YA:349:G:C8	3.03	0.46
26:YB:95:U:H2'	26:YB:96:G:H8	1.79	0.46
27:YD:148:GLU:HB2	27:YD:151:LYS:HD2	1.98	0.46
27:YD:211:ARG:HG2	27:YD:211:ARG:HH11	1.80	0.46
28:YE:87:GLU:O	28:YE:89:ASP:N	2.48	0.46
31:YH:86:GLU:O	31:YH:87:LEU:CB	2.64	0.46
33:YN:128:HIS:HB2	33:YN:129:PRO:CD	2.46	0.46
34:YO:101:PRO:HA	34:YO:120:GLU:O	2.16	0.46
34:YO:8:LEU:N	34:YO:8:LEU:CD2	2.76	0.46
35:YP:1:MET:O	35:YP:2:LYS:HG3	2.16	0.46
36:YQ:66:ILE:H	36:YQ:104:PHE:HA	1.80	0.46
36:YQ:87:LYS:HG2	36:YQ:87:LYS:O	2.15	0.46
37:YR:75:LEU:HA	37:YR:78:LYS:HB3	1.97	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:YV:22:VAL:HG12	41:YV:23:GLU:H	1.76	0.46
43:YX:12:VAL:O	43:YX:12:VAL:HG13	2.15	0.46
43:YX:35:THR:O	43:YX:35:THR:HG23	2.16	0.46
43:YX:65:ARG:N	43:YX:65:ARG:CD	2.79	0.46
44:YY:15:VAL:O	44:YY:21:LYS:HA	2.16	0.46
1:QA:1349:A:H2'	1:QA:1350:A:H8	1.81	0.46
1:QA:156:G:N2	1:QA:165:C:N3	2.57	0.46
1:QA:701:C:O2'	1:QA:702:A:OP2	2.29	0.46
2:QB:163:PHE:CE1	2:QB:215:LEU:HD22	2.50	0.46
3:QC:113:ALA:O	3:QC:115:LEU:N	2.48	0.46
3:QC:124:ILE:C	3:QC:126:ARG:H	2.19	0.46
3:QC:15:THR:HG22	3:QC:15:THR:O	2.15	0.46
3:QC:6:HIS:C	3:QC:8:ILE:H	2.18	0.46
6:QF:101:ALA:HA	18:QR:28:GLU:CG	2.46	0.46
6:QF:68:PRO:HG3	6:QF:71:ARG:NH2	2.31	0.46
6:QF:72:VAL:HG23	6:QF:90:VAL:HG11	1.98	0.46
7:QG:54:THR:HG23	7:QG:54:THR:O	2.16	0.46
8:QH:110:ALA:HB3	8:QH:121:ASP:HB3	1.98	0.46
8:QH:86:ILE:HG13	8:QH:133:LEU:CD2	2.44	0.46
12:QL:126:LYS:C	12:QL:128:ALA:N	2.69	0.46
22:QV:49:G:O6	22:QV:65:C:N4	2.49	0.46
50:R4:15:ILE:HG22	50:R4:20:ASN:CA	2.45	0.46
50:R4:56:VAL:HA	50:R4:60:GLN:CB	2.28	0.46
25:RA:1386:C:C5'	25:RA:1396:U:H5	2.28	0.46
25:RA:140:A:C8	25:RA:1408:C:O2'	2.66	0.46
25:RA:1632:A:N7	25:RA:1633:G:C6	2.83	0.46
25:RA:1638:C:H2'	25:RA:1639:U:O4'	2.15	0.46
25:RA:1764:G:H4'	25:RA:1764:G:OP2	2.16	0.46
25:RA:186:G:H2'	25:RA:187:G:H8	1.81	0.46
25:RA:2100:G:H1	25:RA:2189:U:H3	1.63	0.46
25:RA:2376:A:N6	38:RS:89:ARG:HH11	2.12	0.46
25:RA:2426:A:H3'	25:RA:2427:C:H5'	1.98	0.46
25:RA:250:G:H2'	25:RA:251:A:C8	2.51	0.46
25:RA:2801:A:O5'	25:RA:2801:A:H8	1.98	0.46
25:RA:462:C:C2	25:RA:463:G:C8	3.03	0.46
25:RA:787:U:H5''	25:RA:788:A:H5'	1.97	0.46
25:RA:78:A:H2'	25:RA:79:G:H8	1.81	0.46
27:RD:117:VAL:CG2	27:RD:128:GLY:C	2.84	0.46
27:RD:69:ARG:C	27:RD:71:ASP:N	2.69	0.46
28:RE:50:GLY:CA	28:RE:74:PRO:HG3	2.45	0.46
25:RA:451:C:H4'	29:RF:52:LYS:HZ1	1.79	0.46
30:RG:111:LEU:HD22	30:RG:120:LEU:HD21	1.96	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:14:GLU:O	30:RG:17:PRO:HD2	2.16	0.46
30:RG:135:LEU:HD11	30:RG:157:ILE:HD12	1.98	0.46
33:RN:36:GLY:O	33:RN:42:TRP:HE3	1.98	0.46
35:RP:45:LEU:CD1	35:RP:45:LEU:N	2.79	0.46
35:RP:6:LEU:HD22	35:RP:6:LEU:N	2.31	0.46
38:RS:24:LEU:HB2	38:RS:85:VAL:HG12	1.98	0.46
40:RU:69:CYS:O	40:RU:74:LEU:HD12	2.16	0.46
43:RX:35:THR:HG23	43:RX:35:THR:O	2.16	0.46
44:RY:56:PRO:O	44:RY:57:GLN:C	2.53	0.46
45:RZ:48:PHE:CZ	45:RZ:52:SER:HA	2.51	0.46
1:XA:1127:G:N2	1:XA:1145:C:C2	2.82	0.46
1:XA:781:A:H4'	1:XA:1522:U:O2'	2.16	0.46
4:XD:146:ILE:CD1	4:XD:146:ILE:N	2.73	0.46
8:XH:49:GLU:O	8:XH:49:GLU:HG3	2.14	0.46
9:XI:40:LEU:C	9:XI:42:ARG:H	2.18	0.46
13:XM:23:TYR:HB3	13:XM:67:GLU:HA	1.98	0.46
16:XP:71:ARG:HH11	16:XP:71:ARG:HB2	1.79	0.46
20:XT:99:LEU:O	20:XT:100:ILE:HB	2.15	0.46
54:Y8:44:LYS:HD2	54:Y8:44:LYS:N	2.30	0.46
25:YA:1174:A:H2'	25:YA:1174:A:N3	2.31	0.46
25:YA:1621:U:HO2'	25:YA:1622:G:H8	1.64	0.46
25:YA:2171:A:O2'	25:YA:2172:U:O5'	2.34	0.46
25:YA:2209:C:O2	25:YA:2216:G:C2	2.68	0.46
25:YA:2660:A:H2'	25:YA:2661:G:O4'	2.15	0.46
25:YA:2682:U:O4	25:YA:2728:U:H1'	2.16	0.46
25:YA:524:U:H2'	25:YA:525:U:C6	2.51	0.46
25:YA:78:A:H2'	25:YA:79:G:C8	2.50	0.46
25:YA:841:A:H2'	25:YA:842:G:C8	2.51	0.46
25:YA:937:U:H2'	25:YA:938:G:O4'	2.15	0.46
27:YD:61:LEU:HB3	27:YD:63:ARG:NH1	2.31	0.46
28:YE:137:HIS:CB	28:YE:138:PRO:HD2	2.41	0.46
28:YE:7:VAL:HG11	39:YT:1:MET:CE	2.45	0.46
30:YG:116:ASP:O	30:YG:117:PHE:CB	2.51	0.46
30:YG:95:ARG:O	30:YG:96:ARG:C	2.54	0.46
31:YH:151:ILE:O	31:YH:152:ARG:O	2.34	0.46
33:YN:36:GLY:O	33:YN:42:TRP:HE3	1.98	0.46
25:YA:389:G:N1	35:YP:71:VAL:HG12	2.30	0.46
25:YA:2277:G:H5''	36:YQ:85:LYS:CB	2.46	0.46
37:YR:78:LYS:HG2	37:YR:78:LYS:O	2.15	0.46
38:YS:61:ASN:O	38:YS:65:VAL:HG23	2.15	0.46
41:YV:36:PRO:HA	41:YV:56:SER:HG	1.81	0.46
45:YZ:73:GLN:HB3	45:YZ:87:ASP:OD1	2.16	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1510:U:O2	1:QA:1526:G:C2	2.68	0.46
1:QA:458:C:C2	1:QA:464:G:C8	3.04	0.46
1:QA:784:C:H4'	25:RA:1837:C:OP1	2.16	0.46
3:QC:8:ILE:C	3:QC:10:PHE:N	2.69	0.46
4:QD:187:ARG:HG2	4:QD:187:ARG:HH11	1.81	0.46
11:QK:41:THR:CG2	11:QK:42:TRP:N	2.79	0.46
13:QM:10:PRO:HG3	13:QM:18:ALA:O	2.16	0.46
13:QM:3:ARG:O	13:QM:4:ILE:HD13	2.16	0.46
16:QP:58:TYR:O	16:QP:61:SER:OG	2.27	0.46
47:R1:60:PHE:CE2	47:R1:91:LYS:NZ	2.84	0.46
50:R4:50:VAL:O	50:R4:50:VAL:HG13	2.15	0.46
25:RA:1709:U:H2'	25:RA:1710:C:C6	2.51	0.46
25:RA:2128:C:O2'	25:RA:2129:C:H5'	2.16	0.46
25:RA:2226:C:H2'	25:RA:2227:A:O4'	2.16	0.46
25:RA:271:G:H2'	25:RA:272:G:H8	1.81	0.46
25:RA:807:U:H2'	25:RA:808:G:H8	1.80	0.46
28:RE:103:ASP:OD2	28:RE:168:MET:HG2	2.15	0.46
28:RE:172:VAL:HG13	28:RE:182:LEU:HD11	1.98	0.46
28:RE:7:VAL:HG11	39:RT:1:MET:CE	2.45	0.46
30:RG:104:GLU:OE1	50:R4:23:GLU:HB3	2.15	0.46
31:RH:13:LYS:HE2	31:RH:13:LYS:CA	2.40	0.46
32:RI:13:GLY:HA3	32:RI:17:GLN:OE1	2.16	0.46
34:RO:86:ILE:CD1	34:RO:86:ILE:H	2.28	0.46
35:RP:1:MET:O	35:RP:2:LYS:HG3	2.16	0.46
38:RS:26:LEU:HD22	38:RS:87:PHE:CD1	2.46	0.46
39:RT:58:ASN:N	39:RT:58:ASN:HD22	2.10	0.46
39:RT:51:ARG:CG	39:RT:98:LYS:HG3	2.44	0.46
45:RZ:5:LEU:HB3	45:RZ:59:LEU:HA	1.98	0.46
1:XA:1126:U:C5	1:XA:1127:G:C4	3.04	0.46
1:XA:1497:G:C2'	1:XA:1498:U:H5'	2.38	0.46
1:XA:636:U:H2'	1:XA:637:G:H8	1.78	0.46
4:XD:30:LYS:O	4:XD:32:ALA:N	2.49	0.46
9:XI:83:ARG:C	9:XI:86:VAL:HG12	2.36	0.46
10:XJ:4:ILE:O	10:XJ:74:ILE:HD13	2.16	0.46
12:XL:27:LEU:HD13	12:XL:28:LYS:N	2.30	0.46
17:XQ:100:LYS:O	17:XQ:101:ARG:HB2	2.15	0.46
1:XA:1314:C:C5	19:XS:4:SER:HB2	2.47	0.46
49:Y3:18:ASP:O	49:Y3:21:ALA:N	2.49	0.46
49:Y3:43:ILE:O	49:Y3:47:VAL:HG23	2.16	0.46
25:YA:1473:G:H8	25:YA:1473:G:O5'	1.98	0.46
25:YA:2151:G:H2'	25:YA:2152:G:H8	1.81	0.46
25:YA:2236:C:H2'	25:YA:2237:G:O4'	2.15	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2439:A:C5'	25:YA:2439:A:H8	2.26	0.46
25:YA:2469:A:OP1	25:YA:2469:A:H4'	2.14	0.46
25:YA:2547:U:H2'	25:YA:2548:G:C8	2.50	0.46
25:YA:2592:G:C6	25:YA:2593:U:C2	3.04	0.46
25:YA:273:G:N3	25:YA:273(A):G:C8	2.84	0.46
25:YA:2831:G:O2'	25:YA:2883:A:H2'	2.16	0.46
25:YA:696:G:N2	25:YA:697:C:C2	2.84	0.46
26:YB:74:U:H2'	26:YB:75:G:O4'	2.16	0.46
28:YE:129:HIS:O	28:YE:130:GLY:C	2.53	0.46
30:YG:14:GLU:HB3	30:YG:15:VAL:H	1.56	0.46
31:YH:88:LEU:HD22	31:YH:163:TYR:O	2.16	0.46
33:YN:36:GLY:O	33:YN:42:TRP:CE3	2.69	0.46
25:YA:952:G:P	36:YQ:16:ARG:HH12	2.39	0.46
36:YQ:63:LYS:HE2	36:YQ:65:PHE:CZ	2.51	0.46
37:YR:3:HIS:C	37:YR:5:LYS:H	2.17	0.46
38:YS:74:ALA:O	38:YS:75:GLU:C	2.54	0.46
40:YU:69:CYS:O	40:YU:74:LEU:HD12	2.16	0.46
42:YW:28:SER:C	42:YW:30:GLU:N	2.69	0.46
1:QA:1072:G:H2'	1:QA:1073:U:C6	2.51	0.46
1:QA:1101:A:H4'	1:QA:1102:A:O5'	2.16	0.46
1:QA:1502:A:H2	1:QA:1505:G:H22	1.64	0.46
1:QA:153:C:H6	1:QA:153:C:O5'	1.99	0.46
1:QA:46:G:O2'	1:QA:365:U:H1'	2.16	0.46
1:QA:493:G:H2'	1:QA:494:U:C5	2.50	0.46
1:QA:598:U:H2'	1:QA:599:C:C6	2.50	0.46
1:QA:578:C:H1'	1:QA:729:A:H1'	1.98	0.46
1:QA:937:A:C2	1:QA:1379:G:C6	3.03	0.46
2:QB:162:ILE:CD1	2:QB:184:VAL:HG13	2.44	0.46
2:QB:92:TYR:C	2:QB:92:TYR:CD1	2.88	0.46
3:QC:172:ARG:O	3:QC:173:VAL:CG2	2.63	0.46
3:QC:43:LEU:HD22	3:QC:47:LEU:CD2	2.46	0.46
3:QC:53:ALA:O	3:QC:54:ARG:HB2	2.16	0.46
3:QC:68:VAL:HG12	3:QC:70:VAL:HG23	1.98	0.46
3:QC:87:LEU:C	3:QC:89:GLU:H	2.19	0.46
4:QD:13:ARG:NH2	4:QD:36:ARG:NH2	2.64	0.46
5:QE:55:VAL:O	5:QE:58:ALA:HB3	2.16	0.46
6:QF:44:GLY:HA2	6:QF:59:TYR:CE2	2.51	0.46
8:QH:49:GLU:O	8:QH:49:GLU:HG3	2.14	0.46
1:QA:1061:G:O4'	10:QJ:56:HIS:CD2	2.69	0.46
1:QA:468:A:H1'	16:QP:82:GLN:HE21	1.79	0.46
17:QQ:84:LEU:O	17:QQ:86:GLU:N	2.49	0.46
20:QT:22:ARG:O	20:QT:26:ASN:ND2	2.49	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:QT:56:MET:HG3	20:QT:88:VAL:HG21	1.98	0.46
46:R0:51:VAL:HG21	46:R0:79:VAL:O	2.16	0.46
52:R6:15:GLU:OE2	52:R6:44:ARG:NH1	2.49	0.46
25:RA:2466:C:H5'	55:R9:5:ALA:HB3	1.98	0.46
25:RA:1312:U:H5'	25:RA:1312:U:H6	1.81	0.46
25:RA:1853:A:N3	25:RA:2233:U:O2'	2.43	0.46
25:RA:1854:A:N1	25:RA:2087:G:O2'	2.36	0.46
25:RA:2298:A:C8	25:RA:2299:G:C8	3.04	0.46
25:RA:2723:C:O3'	37:RR:1:MET:HE2	2.16	0.46
25:RA:452:G:C2	25:RA:458:G:C5	3.04	0.46
25:RA:49:A:H5''	25:RA:51:G:H5'	1.97	0.46
25:RA:686:G:N7	53:R7:5:TRP:CH2	2.84	0.46
25:RA:689:A:H2'	25:RA:690:G:C8	2.51	0.46
25:RA:879:G:N3	25:RA:880:G:H1'	2.31	0.46
27:RD:105:ILE:HG23	27:RD:106:ILE:O	2.15	0.46
27:RD:35:LYS:HE3	27:RD:65:ILE:N	2.31	0.46
28:RE:47:VAL:HG23	28:RE:47:VAL:O	2.16	0.46
28:RE:95:ILE:O	28:RE:95:ILE:HG22	2.16	0.46
30:RG:121:ASN:C	30:RG:123:ASN:H	2.19	0.46
30:RG:14:GLU:O	30:RG:17:PRO:HG2	2.15	0.46
31:RH:37:VAL:HG11	31:RH:68:THR:HG23	1.98	0.46
31:RH:59:ARG:CG	31:RH:59:ARG:NH1	2.79	0.46
31:RH:88:LEU:HD22	31:RH:163:TYR:O	2.16	0.46
33:RN:112:LEU:O	33:RN:116:LEU:HG	2.16	0.46
34:RO:61:VAL:O	34:RO:84:ALA:HB1	2.16	0.46
36:RQ:23:GLY:O	36:RQ:24:GLY:C	2.54	0.46
25:RA:1654:A:OP1	37:RR:1:MET:O	2.33	0.46
38:RS:89:ARG:O	38:RS:90:GLY:C	2.54	0.46
40:RU:106:PHE:O	40:RU:109:LEU:HB2	2.15	0.46
40:RU:98:LEU:HD23	40:RU:98:LEU:C	2.36	0.46
43:RX:43:VAL:HG11	43:RX:51:VAL:HG21	1.97	0.46
44:RY:90:LEU:N	44:RY:90:LEU:CD2	2.73	0.46
1:XA:1145:C:H5'	1:XA:1146:A:OP1	2.16	0.46
1:XA:385:C:H2'	1:XA:386:C:C6	2.51	0.46
2:XB:122:PHE:HD1	2:XB:139:LYS:NZ	2.09	0.46
3:XC:108:ASN:HB3	3:XC:111:LEU:HG	1.97	0.46
7:XG:140:ASP:C	7:XG:142:GLU:N	2.69	0.46
7:XG:57:GLU:O	7:XG:59:LEU:N	2.49	0.46
9:XI:11:LYS:O	9:XI:12:GLU:HB2	2.16	0.46
9:XI:28:VAL:O	9:XI:29:ASN:C	2.53	0.46
9:XI:42:ARG:O	9:XI:45:ALA:HB3	2.16	0.46
10:XJ:21:GLN:O	10:XJ:21:GLN:HG2	2.16	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:XJ:39:PRO:CB	10:XJ:70:ARG:HH12	2.27	0.46
1:XA:503:C:OP2	12:XL:116:SER:HB3	2.16	0.46
17:XQ:84:LEU:O	17:XQ:86:GLU:N	2.49	0.46
19:XS:24:ALA:O	19:XS:25:LYS:CB	2.63	0.46
47:Y1:80:LEU:CB	47:Y1:81:LYS:HE2	2.44	0.46
51:Y5:43:HIS:N	51:Y5:43:HIS:ND1	2.63	0.46
52:Y6:11:LEU:HD11	52:Y6:51:GLU:HG3	1.98	0.46
54:Y8:48:PHE:N	54:Y8:48:PHE:HD1	2.14	0.46
25:YA:1222:C:H2'	25:YA:1223:C:C6	2.48	0.46
25:YA:1548:C:H2'	25:YA:1549:C:C6	2.51	0.46
25:YA:1727:U:H2'	25:YA:1728:G:O4'	2.16	0.46
25:YA:1777:U:H2'	25:YA:1777:U:O2	2.16	0.46
25:YA:1832:C:N4	25:YA:1833:U:C4	2.84	0.46
25:YA:2127:G:O6	25:YA:2161:C:N4	2.49	0.46
25:YA:2271:G:OP1	46:Y0:18:ALA:HB1	2.15	0.46
25:YA:2612:C:C5	25:YA:2613:U:H5	2.34	0.46
25:YA:2724:C:OP1	28:YE:118:LYS:NZ	2.49	0.46
25:YA:357:A:H2'	25:YA:358:U:H6	1.81	0.46
25:YA:596:G:C4	25:YA:662:G:N2	2.84	0.46
25:YA:618(A):C:O2	25:YA:618(A):C:H2'	2.16	0.46
25:YA:742:G:H2'	25:YA:743:G:H8	1.80	0.46
26:YB:7:G:N3	26:YB:114:G:N2	2.64	0.46
27:YD:14:ARG:HG3	27:YD:15:PHE:N	2.31	0.46
27:YD:36:PRO:HB3	27:YD:62:TYR:O	2.16	0.46
28:YE:195:LEU:HD12	28:YE:196:VAL:N	2.29	0.46
30:YG:6:ALA:HB3	30:YG:104:GLU:OE2	2.16	0.46
30:YG:129:GLY:O	30:YG:130:ASN:OD1	2.34	0.46
30:YG:14:GLU:O	30:YG:17:PRO:HD2	2.16	0.46
31:YH:128:PRO:HD2	31:YH:129:THR:N	2.25	0.46
31:YH:51:ARG:NH1	31:YH:51:ARG:HG3	2.30	0.46
35:YP:98:GLU:HG2	35:YP:99:LEU:N	2.30	0.46
39:YT:54:ARG:HG2	39:YT:54:ARG:NH1	2.23	0.46
45:YZ:165:VAL:O	45:YZ:166:SER:OG	2.31	0.46
1:QA:1087:G:N2	1:QA:1099:G:N3	2.64	0.46
1:QA:1103:C:H2'	1:QA:1104:G:O4'	2.16	0.46
1:QA:1411:C:C2	1:QA:1412:C:C5	3.04	0.46
1:QA:1511:G:C6	1:QA:1512:U:C2	3.03	0.46
1:QA:392:G:H2'	1:QA:393:A:C8	2.51	0.46
1:QA:421:U:H5''	1:QA:422:C:OP2	2.16	0.46
2:QB:95:GLN:OE1	2:QB:95:GLN:HA	2.16	0.46
4:QD:52:SER:N	4:QD:55:ALA:HB3	2.31	0.46
5:QE:150:ARG:HG2	5:QE:150:ARG:O	2.16	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:69:GLU:O	6:QF:71:ARG:N	2.48	0.46
9:QI:5:TYR:OH	9:QI:7:THR:HG23	2.15	0.46
18:QR:43:PHE:C	18:QR:44:LEU:HD12	2.36	0.46
20:QT:93:GLU:O	20:QT:93:GLU:HG2	2.15	0.46
24:QY:40:G:H2'	24:QY:41:A:C8	2.51	0.46
49:R3:7:LYS:HE2	49:R3:32:GLN:HA	1.98	0.46
51:R5:41:PRO:HA	51:R5:42:PRO:HD3	1.82	0.46
55:R9:25:VAL:HG11	55:R9:34:GLN:HE21	1.79	0.46
25:RA:1090:U:H3	25:RA:1102:C:H1'	1.81	0.46
25:RA:1731:G:N2	25:RA:1732:A:C4	2.84	0.46
25:RA:1870:C:O5'	25:RA:1870:C:H6	1.98	0.46
25:RA:2094:G:N2	25:RA:2196:C:H1'	2.31	0.46
25:RA:2271:G:OP1	46:R0:18:ALA:HB1	2.16	0.46
25:RA:2455:G:O5'	25:RA:2455:G:H8	1.98	0.46
25:RA:2724:C:OP1	28:RE:118:LYS:NZ	2.43	0.46
25:RA:29:U:H2'	25:RA:30:G:H8	1.78	0.46
25:RA:307:G:H22	25:RA:310:A:P	2.39	0.46
25:RA:34:C:H41	25:RA:447:A:H61	1.64	0.46
25:RA:464:U:H4'	53:R7:5:TRP:CZ3	2.51	0.46
25:RA:709:U:O2	25:RA:723:G:N2	2.49	0.46
27:RD:80:ALA:O	27:RD:113:VAL:HG13	2.16	0.46
28:RE:61:ARG:O	28:RE:63:LEU:CG	2.57	0.46
30:RG:76:SER:CB	30:RG:83:ARG:HA	2.46	0.46
32:RI:88:ILE:HD11	32:RI:122:GLU:O	2.16	0.46
33:RN:73:THR:HA	33:RN:83:LYS:O	2.15	0.46
34:RO:7:TYR:CD1	34:RO:20:MET:HB2	2.50	0.46
35:RP:115:LEU:CD1	35:RP:116:GLY:N	2.78	0.46
35:RP:46:LYS:O	35:RP:48:PRO:N	2.48	0.46
36:RQ:26:TYR:O	36:RQ:27:VAL:O	2.34	0.46
36:RQ:85:LYS:HD3	36:RQ:86:GLY:H	1.80	0.46
36:RQ:87:LYS:O	36:RQ:87:LYS:HG2	2.15	0.46
38:RS:109:GLY:O	38:RS:110:LEU:HB2	2.16	0.46
40:RU:79:PHE:CE2	40:RU:83:LEU:HD13	2.51	0.46
1:XA:1415:G:H2'	1:XA:1416:G:H8	1.81	0.46
1:XA:622:A:C8	1:XA:623:C:C6	3.03	0.46
1:XA:781:A:C6	1:XA:802:A:C2	3.03	0.46
2:XB:162:ILE:CD1	2:XB:184:VAL:HG13	2.44	0.46
2:XB:87:ARG:NH1	2:XB:220:ASP:OD1	2.46	0.46
3:XC:78:GLY:HA3	3:XC:83:ARG:HB3	1.98	0.46
4:XD:146:ILE:HG22	4:XD:146:ILE:O	2.15	0.46
4:XD:173:TRP:NE1	4:XD:174:LEU:HG	2.31	0.46
4:XD:92:VAL:O	4:XD:96:LEU:CD2	2.64	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:40:ALA:O	7:XG:41:ARG:C	2.54	0.46
7:XG:54:THR:HG23	7:XG:54:THR:O	2.16	0.46
11:XK:17:GLY:HA3	11:XK:77:MET:HE1	1.97	0.46
11:XK:32:ILE:HD11	11:XK:72:ALA:HB2	1.95	0.46
13:XM:3:ARG:O	13:XM:4:ILE:HD13	2.16	0.46
19:XS:15:LEU:N	19:XS:15:LEU:CD2	2.79	0.46
46:Y0:21:LEU:HD11	46:Y0:41:ARG:CZ	2.46	0.46
47:Y1:79:GLY:N	47:Y1:80:LEU:HD23	2.30	0.46
49:Y3:7:LYS:HE2	49:Y3:32:GLN:HA	1.98	0.46
55:Y9:25:VAL:HG11	55:Y9:34:GLN:HE21	1.81	0.46
25:YA:1022:G:HO2'	25:YA:1023:U:P	2.38	0.46
25:YA:1624:G:H2'	25:YA:1625:C:H6	1.81	0.46
25:YA:2562:U:O2'	34:YO:23:ARG:NH1	2.49	0.46
25:YA:2591:C:OP2	27:YD:238:GLY:HA3	2.15	0.46
25:YA:2752:C:H5'	25:YA:2753:A:OP2	2.16	0.46
25:YA:2692:C:OP1	25:YA:2871:C:H5'	2.16	0.46
25:YA:299:A:H5''	25:YA:299:A:H8	1.81	0.46
25:YA:381:G:C5	25:YA:394:A:C2	3.04	0.46
25:YA:467:G:OP1	53:Y7:33:ARG:NH1	2.49	0.46
25:YA:747:U:N1	51:Y5:2:ALA:HB3	2.30	0.46
25:YA:910:A:N6	25:YA:911:A:N6	2.64	0.46
27:YD:11:PRO:O	27:YD:12:SER:CB	2.65	0.46
27:YD:79:VAL:HG21	27:YD:111:LEU:HD21	1.98	0.46
28:YE:1:MET:HA	28:YE:200:GLU:OE2	2.16	0.46
29:YF:31:HIS:O	29:YF:34:TRP:HB3	2.15	0.46
30:YG:76:SER:CB	30:YG:83:ARG:HA	2.46	0.46
32:YI:67:ARG:NH2	32:YI:68:LEU:HB2	2.31	0.46
33:YN:96:GLU:O	33:YN:99:LEU:N	2.34	0.46
36:YQ:11:LYS:HE2	36:YQ:87:LYS:HA	1.98	0.46
38:YS:108:GLY:O	38:YS:110:LEU:N	2.48	0.46
40:YU:92:ARG:C	40:YU:94:ASN:N	2.69	0.46
44:YY:11:ASP:HB2	44:YY:27:VAL:CG1	2.46	0.46
44:YY:48:ALA:CB	44:YY:61:ILE:HD13	2.45	0.46
45:YZ:114:GLY:HA3	45:YZ:177:PRO:HG3	1.97	0.46
1:QA:1036:G:H3'	1:QA:1037:C:C6	2.51	0.45
1:QA:1360:A:H2'	1:QA:1361:G:C8	2.51	0.45
1:QA:15:G:O4'	5:QE:24:ARG:NH1	2.49	0.45
1:QA:918:A:H2'	1:QA:919:A:O4'	2.15	0.45
1:QA:953:G:H5''	1:QA:965:A:H61	1.81	0.45
1:QA:9:G:C2	1:QA:10:A:C4	3.04	0.45
2:QB:77:ALA:HB1	2:QB:211:ILE:HG21	1.97	0.45
4:QD:180:GLY:O	4:QD:181:MET:C	2.54	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:QD:29:PRO:CD	4:QD:30:LYS:H	2.29	0.45
4:QD:93:PHE:CZ	4:QD:97:LEU:HD11	2.51	0.45
5:QE:64:ARG:HH11	5:QE:64:ARG:HG3	1.81	0.45
7:QG:107:ALA:O	7:QG:110:GLN:HB2	2.16	0.45
8:QH:68:ARG:HH11	8:QH:68:ARG:HG2	1.81	0.45
10:QJ:4:ILE:O	10:QJ:74:ILE:HD13	2.16	0.45
11:QK:80:VAL:O	11:QK:106:LYS:HD3	2.15	0.45
12:QL:27:LEU:HD13	12:QL:28:LYS:N	2.30	0.45
13:QM:28:ALA:C	13:QM:30:ALA:N	2.70	0.45
13:QM:23:TYR:HB3	13:QM:67:GLU:HA	1.98	0.45
15:QO:82:ILE:HD11	15:QO:88:ARG:HG2	1.95	0.45
15:QO:30:ALA:HA	15:QO:85:LEU:HD11	1.97	0.45
47:R1:85:LEU:N	47:R1:85:LEU:HD22	2.31	0.45
52:R6:7:ILE:O	52:R6:8:LYS:HG2	2.16	0.45
54:R8:48:PHE:HD1	54:R8:48:PHE:N	2.14	0.45
25:RA:1266:G:N7	42:RW:15:ARG:NH1	2.64	0.45
25:RA:1558:A:H4'	25:RA:1559:G:O5'	2.16	0.45
25:RA:1731:G:C2	25:RA:1732:A:C4	3.04	0.45
25:RA:2134:A:H62	25:RA:2157:G:H1'	1.80	0.45
25:RA:2252:G:H2'	25:RA:2253:G:C8	2.51	0.45
25:RA:2311:A:H1'	30:RG:82:LEU:HD11	1.98	0.45
25:RA:2536:G:C6	25:RA:2537:U:C4	3.04	0.45
25:RA:399:G:O6	25:RA:400:G:C2	2.68	0.45
25:RA:719:C:H6	25:RA:719:C:O5'	1.99	0.45
26:RB:71:C:C4	26:RB:72:G:N7	2.84	0.45
27:RD:211:ARG:HH11	27:RD:211:ARG:HG2	1.80	0.45
30:RG:52:ILE:O	30:RG:52:ILE:HG22	2.15	0.45
25:RA:270(L):U:C4	32:RI:50:ARG:NH1	2.84	0.45
25:RA:637:A:C8	35:RP:117:GLU:OE2	2.69	0.45
35:RP:90:ARG:HB3	35:RP:91:PHE:H	1.60	0.45
36:RQ:104:PHE:O	36:RQ:105:GLU:CB	2.65	0.45
36:RQ:63:LYS:HE2	36:RQ:65:PHE:CZ	2.50	0.45
39:RT:6:LEU:O	39:RT:10:VAL:HG23	2.16	0.45
44:RY:19:LYS:CG	44:RY:19:LYS:O	2.60	0.45
44:RY:75:ILE:HA	44:RY:80:GLY:HA2	1.99	0.45
1:XA:1396:A:O4'	1:XA:1398:A:H1'	2.16	0.45
1:XA:129(A):G:O2'	1:XA:189:U:H3'	2.16	0.45
1:XA:376:G:H2'	1:XA:377:G:H8	1.77	0.45
2:XB:163:PHE:CE1	2:XB:215:LEU:HD22	2.50	0.45
3:XC:15:THR:HG22	3:XC:15:THR:O	2.15	0.45
4:XD:199:ASN:O	4:XD:201:GLN:N	2.50	0.45
1:XA:18:C:H5''	5:XE:127:ASN:HD21	1.80	0.45

*Continued on next page...*



Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:95:ARG:NE	7:XG:99:LEU:HD11	2.30	0.45
8:XH:33:GLU:O	8:XH:35:ILE:N	2.49	0.45
11:XK:41:THR:CG2	11:XK:42:TRP:N	2.79	0.45
15:XO:5:LYS:O	15:XO:8:LYS:CG	2.63	0.45
16:XP:19:ILE:HB	16:XP:37:GLY:O	2.17	0.45
16:XP:40:ASP:O	16:XP:42:ARG:N	2.50	0.45
19:XS:63:THR:HG23	19:XS:66:MET:CE	2.46	0.45
20:XT:22:ARG:O	20:XT:26:ASN:ND2	2.49	0.45
20:XT:96:GLY:O	20:XT:97:ALA:CB	2.64	0.45
51:Y5:16:ARG:O	51:Y5:20:ARG:HG3	2.16	0.45
55:Y9:1:MET:SD	55:Y9:31:LYS:O	2.74	0.45
25:YA:1654:A:C2	28:YE:113:PHE:CD1	3.04	0.45
25:YA:1669:A:H5''	25:YA:1670:C:OP2	2.16	0.45
25:YA:17:G:H2'	25:YA:18:C:C6	2.51	0.45
25:YA:2306:C:H3'	25:YA:2307:G:H5''	1.97	0.45
25:YA:2346:A:C2	25:YA:2383:G:C2	3.04	0.45
25:YA:2375:G:H8	25:YA:2375:G:O5'	1.99	0.45
25:YA:2412:A:N6	25:YA:2413:G:N3	2.64	0.45
25:YA:242:G:N2	25:YA:254:G:H2'	2.31	0.45
25:YA:270(G):C:H2'	25:YA:270(H):C:C6	2.51	0.45
25:YA:2820:A:N3	37:YR:4:LEU:HD21	2.31	0.45
25:YA:547:A:OP2	25:YA:547:A:H8	1.99	0.45
25:YA:565:C:H4'	25:YA:1253:A:C6	2.51	0.45
26:YB:55:U:H2'	26:YB:56:G:C8	2.51	0.45
27:YD:206:LEU:HD23	27:YD:206:LEU:HA	1.49	0.45
27:YD:241:PRO:O	27:YD:242:ARG:C	2.53	0.45
28:YE:51:PHE:HD1	28:YE:52:LEU:H	1.59	0.45
35:YP:144:GLU:HA	35:YP:145:PRO:HD3	1.76	0.45
36:YQ:65:PHE:O	36:YQ:66:ILE:CG1	2.48	0.45
41:YV:5:VAL:HG22	41:YV:14:VAL:CG2	2.46	0.45
45:YZ:5:LEU:HB3	45:YZ:59:LEU:HD23	1.98	0.45
1:QA:1179:A:H2'	1:QA:1180:A:O4'	2.16	0.45
1:QA:189:U:C4	17:QQ:72:ARG:NH2	2.85	0.45
1:QA:62:U:H2'	1:QA:63:C:C6	2.51	0.45
2:QB:24:TRP:CZ2	2:QB:26:PRO:HB3	2.51	0.45
2:QB:96:ARG:N	2:QB:96:ARG:HD2	2.20	0.45
3:QC:108:ASN:HB3	3:QC:111:LEU:HD12	1.98	0.45
4:QD:150:GLU:C	4:QD:152:SER:H	2.20	0.45
9:QI:11:LYS:O	9:QI:12:GLU:HB2	2.16	0.45
11:QK:121:PRO:HD2	11:QK:126:ARG:CD	2.46	0.45
12:QL:113:ARG:NH2	12:QL:120:TYR:CE2	2.85	0.45
12:QL:64:TYR:O	12:QL:65:GLU:HB2	2.16	0.45

Continued on next page...



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:QJ:63:PHE:CD1	14:QN:58:LYS:HA	2.35	0.45
1:QA:377:G:P	16:QP:5:ARG:HH11	2.38	0.45
24:QY:39:C:O2'	24:QY:40:G:P	2.75	0.45
51:R5:54:GLY:O	51:R5:55:ARG:C	2.54	0.45
54:R8:40:GLU:C	54:R8:42:ARG:N	2.68	0.45
25:RA:1085:A:O2'	25:RA:1086:A:OP1	2.28	0.45
25:RA:1321:A:H2'	25:RA:1322:A:O4'	2.16	0.45
25:RA:1533:C:H2'	25:RA:1534:G:N7	2.31	0.45
25:RA:1628:G:H2'	25:RA:1629:U:C6	2.51	0.45
25:RA:177:G:H3'	25:RA:178:G:C8	2.50	0.45
25:RA:2116:G:H1	25:RA:2162:G:P	2.40	0.45
25:RA:2505:G:H2'	25:RA:2576:G:O6	2.17	0.45
25:RA:2712:U:C2'	25:RA:2712(A):A:O5'	2.64	0.45
25:RA:2776:A:C6	25:RA:2778:A:C6	3.04	0.45
25:RA:292:C:O5'	25:RA:292:C:H6	1.98	0.45
26:RB:16:G:C2	26:RB:17:C:C4	3.04	0.45
26:RB:17:C:H2'	26:RB:18:G:O4'	2.15	0.45
27:RD:65:ILE:HD11	27:RD:67:PHE:CE1	2.51	0.45
28:RE:15:PHE:CD1	28:RE:20:ALA:HB2	2.50	0.45
30:RG:88:ILE:CD1	30:RG:88:ILE:O	2.54	0.45
31:RH:137:ASP:HB2	31:RH:140:LYS:HE3	1.98	0.45
31:RH:151:ILE:O	31:RH:152:ARG:O	2.34	0.45
32:RI:14:ASP:H	32:RI:17:GLN:HB2	1.81	0.45
33:RN:17:ASP:O	33:RN:55:VAL:O	2.34	0.45
35:RP:21:ARG:HB3	35:RP:22:GLY:H	1.65	0.45
36:RQ:81:VAL:HG23	36:RQ:82:ARG:N	2.32	0.45
37:RR:1:MET:O	37:RR:2:ARG:HB2	2.15	0.45
38:RS:5:THR:OG1	38:RS:8:GLU:HG3	2.17	0.45
39:RT:24:PRO:HD3	39:RT:52:ILE:HD12	1.98	0.45
40:RU:57:PHE:O	40:RU:59:ARG:N	2.50	0.45
42:RW:28:SER:C	42:RW:30:GLU:N	2.69	0.45
45:RZ:165:VAL:HG12	45:RZ:166:SER:OG	2.17	0.45
1:XA:105:G:H2'	1:XA:106:C:C6	2.51	0.45
1:XA:1216:G:N1	1:XA:1217:C:C4	2.84	0.45
1:XA:1306:A:H61	1:XA:1331:G:H1'	1.79	0.45
1:XA:475:G:H2'	1:XA:476:G:C8	2.50	0.45
1:XA:75:C:H2'	1:XA:76:G:O4'	2.16	0.45
3:XC:43:LEU:HD22	3:XC:47:LEU:CD2	2.46	0.45
3:XC:53:ALA:O	3:XC:54:ARG:HB2	2.16	0.45
3:XC:8:ILE:C	3:XC:10:PHE:N	2.69	0.45
4:XD:100:ARG:NH2	4:XD:137:SER:HA	2.32	0.45
10:XJ:29:ARG:HH11	10:XJ:29:ARG:HG2	1.81	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:XJ:95:GLU:HA	10:XJ:95:GLU:OE2	2.16	0.45
12:XL:47:LYS:HB2	12:XL:48:PRO:HD3	1.98	0.45
13:XM:10:PRO:HG3	13:XM:18:ALA:O	2.16	0.45
13:XM:80:ARG:O	13:XM:82:MET:O	2.33	0.45
17:XQ:3:LYS:HD3	17:XQ:61:GLU:O	2.17	0.45
18:XR:32:ARG:HH11	18:XR:65:ILE:HD13	1.80	0.45
11:XK:91:ARG:HH22	18:XR:88:LYS:HZ3	1.63	0.45
20:XT:24:LEU:O	20:XT:24:LEU:HD13	2.16	0.45
47:Y1:49:VAL:HG12	47:Y1:51:VAL:CG2	2.45	0.45
50:Y4:42:PHE:CD1	50:Y4:42:PHE:C	2.90	0.45
25:YA:1021:A:O2'	25:YA:1123:C:H5''	2.16	0.45
25:YA:1036:G:H1	25:YA:1119:C:H42	1.64	0.45
25:YA:1140:C:P	33:YN:24:GLY:HA3	2.56	0.45
25:YA:1245:G:N2	25:YA:1246:A:H1'	2.30	0.45
25:YA:1374:G:H2'	25:YA:1375:C:O4'	2.17	0.45
25:YA:1488:G:C6	25:YA:1489:U:C4	3.04	0.45
25:YA:1785:A:OP2	25:YA:1982:C:H5'	2.17	0.45
25:YA:1838:C:C2	25:YA:1898:U:C4	3.03	0.45
25:YA:1936:A:H3'	25:YA:1937:A:H5'	1.98	0.45
25:YA:2405:G:O5'	25:YA:2405:G:H8	2.00	0.45
25:YA:2766:G:C2	25:YA:2767:C:C6	3.03	0.45
25:YA:389:G:H22	35:YP:72:PRO:CD	2.29	0.45
25:YA:811:U:O2'	25:YA:812:C:H5''	2.16	0.45
25:YA:855:G:C6	25:YA:856:C:N4	2.85	0.45
25:YA:97:C:H2'	25:YA:97:C:O2	2.17	0.45
27:YD:118:VAL:O	27:YD:129:ASN:HA	2.16	0.45
28:YE:77:ILE:O	28:YE:78:LEU:O	2.35	0.45
29:YF:65:TRP:CH2	29:YF:72:ARG:HB3	2.50	0.45
31:YH:109:PHE:CE1	31:YH:152:ARG:NH1	2.85	0.45
33:YN:10:GLU:HA	33:YN:11:PRO:HD3	1.73	0.45
34:YO:112:MET:O	34:YO:115:VAL:CG2	2.64	0.45
35:YP:115:LEU:HA	35:YP:134:ALA:CB	2.47	0.45
38:YS:109:GLY:O	38:YS:110:LEU:HB2	2.16	0.45
39:YT:107:ASP:HB2	39:YT:108:ARG:H	1.48	0.45
25:YA:1252:G:O4'	40:YU:33:ARG:HD3	2.16	0.45
41:YV:4:ILE:HG22	41:YV:39:LEU:HD23	1.98	0.45
43:YX:24:GLY:O	43:YX:82:GLN:HA	2.16	0.45
43:YX:8:ILE:CD1	43:YX:42:ALA:HB1	2.46	0.45
44:YY:35:TYR:O	44:YY:35:TYR:CD1	2.69	0.45
1:QA:1129:C:O2'	1:QA:1131:G:N7	2.46	0.45
1:QA:1237:C:C5	1:QA:1336:C:C4	3.04	0.45
1:QA:1288:A:C4	1:QA:1289:A:C8	3.03	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1346:A:H5'	9:QI:120:ARG:NH1	2.22	0.45
1:QA:1385:G:C6	1:QA:1386:G:N7	2.84	0.45
1:QA:1525:G:H2'	1:QA:1526:G:C8	2.51	0.45
2:QB:22:LYS:O	2:QB:24:TRP:N	2.50	0.45
2:QB:30:ARG:O	2:QB:31:TYR:HD2	2.00	0.45
4:QD:114:ARG:NH1	4:QD:114:ARG:CG	2.77	0.45
4:QD:133:VAL:HG12	4:QD:135:LEU:H	1.81	0.45
4:QD:100:ARG:NH2	4:QD:137:SER:HA	2.31	0.45
4:QD:52:SER:H	4:QD:55:ALA:HB3	1.82	0.45
4:QD:92:VAL:O	4:QD:96:LEU:CD2	2.64	0.45
6:QF:40:VAL:HG22	6:QF:41:GLU:H	1.80	0.45
7:QG:95:ARG:HG2	7:QG:99:LEU:HD12	1.98	0.45
9:QI:42:ARG:O	9:QI:45:ALA:HB3	2.16	0.45
10:QJ:21:GLN:O	10:QJ:21:GLN:HG2	2.16	0.45
10:QJ:96:ILE:CD1	10:QJ:96:ILE:N	2.79	0.45
14:QN:26:ARG:NE	14:QN:47:LEU:HD21	2.30	0.45
16:QP:40:ASP:O	16:QP:42:ARG:N	2.50	0.45
46:R0:26:TYR:H	46:R0:29:GLN:NE2	2.13	0.45
49:R3:60:GLU:HG2	49:R3:60:GLU:O	2.16	0.45
50:R4:38:LYS:C	50:R4:40:HIS:H	2.07	0.45
51:R5:36:CYS:C	51:R5:38:ALA:H	2.19	0.45
52:R6:20:ASN:O	52:R6:21:TYR:HB2	2.15	0.45
25:RA:1540:G:C6	25:RA:1541:U:C4	3.05	0.45
25:RA:570:G:H2'	25:RA:2030:A:C5	2.51	0.45
25:RA:2405:G:HO2'	25:RA:2406:U:P	2.39	0.45
25:RA:675:A:C8	25:RA:804:A:C6	3.05	0.45
25:RA:910:A:H2	25:RA:2264:C:O2	1.99	0.45
26:RB:70:C:H2'	26:RB:71:C:C6	2.52	0.45
27:RD:145:VAL:HB	27:RD:155:LEU:HB2	1.99	0.45
27:RD:148:GLU:HB2	27:RD:151:LYS:HD2	1.98	0.45
27:RD:198:ASN:ND2	27:RD:198:ASN:C	2.69	0.45
27:RD:2:ALA:HB1	27:RD:20:ASP:CB	2.46	0.45
27:RD:31:LYS:C	27:RD:32:SER:O	2.54	0.45
31:RH:94:TYR:N	31:RH:94:TYR:CD1	2.82	0.45
32:RI:124:GLY:H	32:RI:142:VAL:HG23	1.81	0.45
33:RN:129:PRO:C	33:RN:131:GLN:H	2.20	0.45
35:RP:62:LEU:CD2	35:RP:62:LEU:H	2.19	0.45
36:RQ:5:ARG:O	36:RQ:6:ARG:O	2.34	0.45
40:RU:73:GLY:O	40:RU:74:LEU:CB	2.64	0.45
40:RU:92:ARG:C	40:RU:94:ASN:N	2.69	0.45
42:RW:34:ASN:O	42:RW:35:ILE:C	2.55	0.45
42:RW:65:LEU:CD1	42:RW:68:ARG:NH1	2.75	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:RY:47:LYS:O	44:RY:49:VAL:N	2.48	0.45
45:RZ:54:HIS:NE2	45:RZ:101:PRO:HG3	2.31	0.45
45:RZ:94:GLU:HB2	45:RZ:130:PRO:CD	2.39	0.45
1:XA:17:U:C1'	1:XA:1080:A:H1'	2.46	0.45
1:XA:1422:G:C2	1:XA:1423:G:C5	3.05	0.45
1:XA:1412:C:N4	1:XA:1488:G:H1	2.13	0.45
1:XA:260:G:H2'	1:XA:261:U:C6	2.52	0.45
1:XA:346:G:H1'	1:XA:347:G:H5'	1.97	0.45
1:XA:701:C:HO2'	1:XA:702:A:P	2.33	0.45
2:XB:51:LEU:O	2:XB:55:PHE:HD2	2.00	0.45
2:XB:95:GLN:OE1	2:XB:95:GLN:HA	2.16	0.45
4:XD:104:VAL:O	4:XD:107:ARG:N	2.49	0.45
4:XD:187:ARG:HH11	4:XD:187:ARG:HG2	1.81	0.45
5:XE:150:ARG:O	5:XE:150:ARG:HG2	2.16	0.45
7:XG:79:ARG:HG2	7:XG:79:ARG:NH1	2.29	0.45
9:XI:80:GLY:C	9:XI:82:ALA:N	2.70	0.45
12:XL:113:ARG:NH2	12:XL:120:TYR:CE2	2.85	0.45
15:XO:82:ILE:O	15:XO:86:GLY:N	2.49	0.45
1:XA:564:C:C6	17:XQ:31:LEU:HD11	2.51	0.45
18:XR:43:PHE:C	18:XR:51:LEU:HD12	2.36	0.45
25:YA:855:G:O2'	46:Y0:27:GLU:OE2	2.20	0.45
25:YA:76:C:O2'	48:Y2:62:THR:HG21	2.17	0.45
50:Y4:3:GLU:HG3	50:Y4:4:GLY:H	1.79	0.45
52:Y6:17:LYS:O	52:Y6:18:ARG:CB	2.64	0.45
52:Y6:45:LYS:HD3	52:Y6:45:LYS:HA	1.79	0.45
25:YA:1412:A:C6	25:YA:1413:G:C6	3.05	0.45
25:YA:1930:G:HO2'	25:YA:1931:U:P	2.39	0.45
25:YA:2013:A:H2'	25:YA:2014:A:H5'	1.98	0.45
25:YA:298:G:N2	25:YA:341:G:O6	2.50	0.45
25:YA:583:G:H5''	40:YU:10:ARG:NH1	2.26	0.45
25:YA:972:G:OP2	25:YA:974:G:H5''	2.16	0.45
25:YA:996:A:H2'	25:YA:997:G:H8	1.80	0.45
26:YB:7:G:H2'	26:YB:8:U:O4'	2.16	0.45
27:YD:2:ALA:HB1	27:YD:20:ASP:CB	2.46	0.45
29:YF:167:ALA:HB1	29:YF:173:VAL:HG11	1.98	0.45
33:YN:120:LEU:C	33:YN:120:LEU:HD13	2.37	0.45
34:YO:86:ILE:CD1	34:YO:86:ILE:H	2.28	0.45
36:YQ:30:GLY:CA	36:YQ:107:ALA:HB2	2.39	0.45
36:YQ:23:GLY:O	36:YQ:24:GLY:C	2.54	0.45
36:YQ:26:TYR:O	36:YQ:27:VAL:O	2.34	0.45
36:YQ:85:LYS:HD3	36:YQ:86:GLY:H	1.81	0.45
37:YR:10:LEU:O	37:YR:11:ASN:C	2.55	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:YR:85:PRO:C	37:YR:87:TYR:H	2.19	0.45
26:YB:50:G:P	38:YS:62:LYS:HB2	2.57	0.45
41:YV:47:VAL:O	41:YV:48:GLY:O	2.34	0.45
42:YW:40:ASN:C	42:YW:41:LYS:HG2	2.37	0.45
45:YZ:163:LEU:H	45:YZ:163:LEU:HG	1.61	0.45
25:RA:2584:U:H5''	56:Z6:76:PPU:H92	1.97	0.45
1:QA:920:U:O4'	1:QA:1080:A:C2	2.70	0.45
1:QA:1091:U:O2	1:QA:1093:A:C8	2.70	0.45
1:QA:1346:A:C4	7:QG:10:ARG:NH1	2.85	0.45
1:QA:1405:G:C2	1:QA:1406:U:C5	3.05	0.45
1:QA:1428:A:H2'	1:QA:1429:C:O4'	2.17	0.45
1:QA:1476:G:C6	1:QA:1477:C:C4	3.04	0.45
1:QA:248:C:H2'	1:QA:249:U:C6	2.51	0.45
1:QA:988:G:C2	1:QA:989:C:C2	3.03	0.45
2:QB:240:GLN:HG2	2:QB:240:GLN:O	2.16	0.45
3:QC:134:ILE:HG23	3:QC:151:VAL:HB	1.98	0.45
4:QD:101:LEU:HD21	4:QD:121:VAL:HG13	1.99	0.45
4:QD:104:VAL:O	4:QD:107:ARG:N	2.49	0.45
4:QD:173:TRP:NE1	4:QD:174:LEU:HG	2.31	0.45
12:QL:6:THR:H	12:QL:9:GLN:NE2	1.97	0.45
14:QN:23:ARG:C	14:QN:24:CYS:O	2.54	0.45
16:QP:19:ILE:HB	16:QP:37:GLY:O	2.16	0.45
19:QS:10:PHE:CD1	19:QS:38:SER:HB2	2.52	0.45
19:QS:63:THR:HG23	19:QS:66:MET:CE	2.46	0.45
20:QT:71:THR:HG22	20:QT:72:LEU:N	2.32	0.45
49:R3:43:ILE:O	49:R3:47:VAL:HG23	2.16	0.45
25:RA:1061:U:H2'	25:RA:1063:G:OP1	2.16	0.45
25:RA:1658:C:H42	25:RA:2002:G:H1	1.64	0.45
25:RA:1848:A:H2'	25:RA:1849:G:O4'	2.17	0.45
25:RA:2046:G:C4	25:RA:2047:U:C5	3.04	0.45
25:RA:2736:G:C2	25:RA:2737:G:C8	3.04	0.45
25:RA:92:G:H2'	25:RA:93:C:C6	2.52	0.45
25:RA:977:G:C6	25:RA:987:G:C6	3.03	0.45
25:RA:85:G:C5	25:RA:98:G:C2	3.05	0.45
27:RD:166:GLN:NE2	27:RD:166:GLN:CA	2.78	0.45
28:RE:1:MET:HA	28:RE:200:GLU:OE2	2.16	0.45
30:RG:20:ILE:HD13	30:RG:25:TYR:HB2	1.98	0.45
31:RH:106:THR:HG22	31:RH:112:PRO:HB3	1.97	0.45
31:RH:109:PHE:CE1	31:RH:152:ARG:NH1	2.84	0.45
31:RH:89:ILE:HD13	31:RH:89:ILE:H	1.81	0.45
33:RN:22:THR:O	33:RN:60:ILE:HG22	2.16	0.45
34:RO:104:ARG:HG2	34:RO:121:VAL:HG12	1.97	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:RQ:93:TYR:CD1	36:RQ:93:TYR:N	2.84	0.45
40:RU:79:PHE:C	40:RU:79:PHE:HD2	2.18	0.45
42:RW:40:ASN:C	42:RW:41:LYS:HG2	2.36	0.45
43:RX:35:THR:O	43:RX:36:LYS:C	2.55	0.45
1:XA:1097:C:H2'	1:XA:1098:C:H6	1.82	0.45
1:XA:1190:G:H5'	3:XC:176:HIS:NE2	2.32	0.45
1:XA:947:G:O2'	1:XA:1306:A:H4'	2.17	0.45
1:XA:186:C:O3'	20:XT:82:SER:HB3	2.17	0.45
1:XA:538:G:H5''	12:XL:114:LYS:HB2	1.97	0.45
1:XA:987:G:C2	1:XA:988:G:N7	2.85	0.45
2:XB:214:ILE:HD13	2:XB:217:ARG:HH22	1.81	0.45
2:XB:25:ASN:HA	2:XB:26:PRO:HD2	1.86	0.45
3:XC:172:ARG:O	3:XC:173:VAL:HG23	2.15	0.45
3:XC:22:TRP:HB3	3:XC:59:ARG:HB2	1.99	0.45
4:XD:52:SER:H	4:XD:55:ALA:HB3	1.81	0.45
5:XE:10:MET:HB2	5:XE:32:VAL:HG22	1.94	0.45
6:XF:3:ARG:HH11	6:XF:3:ARG:HG3	1.80	0.45
6:XF:44:GLY:HA2	6:XF:59:TYR:CE2	2.51	0.45
6:XF:61:LEU:HD23	6:XF:63:TYR:OH	2.17	0.45
7:XG:107:ALA:O	7:XG:110:GLN:HB2	2.15	0.45
8:XH:64:LYS:HB3	8:XH:79:VAL:HG21	1.98	0.45
11:XK:104:GLN:O	11:XK:106:LYS:HG3	2.16	0.45
12:XL:126:LYS:C	12:XL:128:ALA:N	2.69	0.45
12:XL:64:TYR:O	12:XL:65:GLU:HB2	2.16	0.45
13:XM:15:VAL:O	13:XM:19:LEU:CD2	2.64	0.45
20:XT:71:THR:HG22	20:XT:72:LEU:N	2.32	0.45
46:Y0:42:GLY:C	46:Y0:57:PHE:HD1	2.19	0.45
47:Y1:85:LEU:N	47:Y1:85:LEU:HD22	2.31	0.45
47:Y1:60:PHE:CE2	47:Y1:91:LYS:NZ	2.84	0.45
25:YA:851:U:C1'	49:Y3:46:ASN:HD21	2.26	0.45
25:YA:1058:G:C2	25:YA:1059:G:N7	2.85	0.45
25:YA:1589:C:H2'	25:YA:1590:U:H6	1.82	0.45
25:YA:2072:G:N2	25:YA:2073:C:C2	2.84	0.45
25:YA:2146:C:H4'	25:YA:2147:G:C8	2.52	0.45
25:YA:2277:G:H5''	36:YQ:85:LYS:HG3	1.98	0.45
25:YA:2532:G:O5'	25:YA:2532:G:H8	2.00	0.45
25:YA:2592:G:N1	25:YA:2601:C:N3	2.52	0.45
27:YD:65:ILE:HD11	27:YD:67:PHE:CE1	2.51	0.45
28:YE:13:ARG:HH11	28:YE:13:ARG:HB3	1.82	0.45
28:YE:47:VAL:O	28:YE:47:VAL:HG23	2.16	0.45
29:YF:7:TYR:CD1	29:YF:7:TYR:N	2.85	0.45
30:YG:44:GLY:HA2	30:YG:88:ILE:HG12	1.97	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:YI:69:LYS:HG3	32:YI:136:VAL:HB	1.99	0.45
33:YN:114:ARG:O	33:YN:115:ARG:CB	2.65	0.45
33:YN:113:GLY:O	33:YN:116:LEU:HB2	2.14	0.45
34:YO:97:ARG:H	34:YO:117:LEU:CD2	2.24	0.45
25:YA:2250:G:C5	36:YQ:82:ARG:HD2	2.52	0.45
37:YR:29:LEU:CD1	37:YR:29:LEU:N	2.79	0.45
38:YS:78:LEU:HD21	38:YS:108:GLY:HA2	1.99	0.45
41:YV:30:GLY:O	41:YV:31:ALA:O	2.34	0.45
44:YY:2:ARG:O	44:YY:3:VAL:C	2.55	0.45
44:YY:75:ILE:HA	44:YY:80:GLY:HA2	1.99	0.45
1:QA:1224:G:O2'	1:QA:1322:C:OP2	2.33	0.45
1:QA:575:G:OP1	1:QA:575:G:H4'	2.16	0.45
1:QA:835:U:H2'	1:QA:836:G:H8	1.82	0.45
2:QB:15:VAL:HG23	2:QB:209:ARG:HE	1.80	0.45
4:QD:199:ASN:O	4:QD:201:GLN:N	2.49	0.45
4:QD:13:ARG:CB	4:QD:33:MET:HE2	2.47	0.45
5:QE:12:LEU:HB3	5:QE:31:LEU:CB	2.47	0.45
6:QF:9:VAL:HB	6:QF:87:ARG:HB2	1.97	0.45
7:QG:148:ASN:C	7:QG:150:ALA:N	2.69	0.45
8:QH:97:VAL:CG1	8:QH:98:LYS:H	2.30	0.45
13:QM:65:LYS:HZ1	50:R4:52:THR:CB	2.29	0.45
15:QO:82:ILE:CG2	15:QO:83:GLU:N	2.79	0.45
16:QP:13:HIS:C	16:QP:15:PRO:HD3	2.36	0.45
1:QA:280:C:C2	17:QQ:38:ARG:HG3	2.51	0.45
51:R5:16:ARG:O	51:R5:20:ARG:HG3	2.16	0.45
25:RA:172:C:H2'	25:RA:173:G:C8	2.52	0.45
25:RA:1943:U:C4	25:RA:1945:G:O4'	2.69	0.45
25:RA:1986:A:H2'	25:RA:1987:G:C8	2.51	0.45
25:RA:2272:U:H5''	25:RA:2273:A:OP1	2.16	0.45
25:RA:2468:G:H5''	36:RQ:120:ILE:HD12	1.97	0.45
25:RA:328:U:H4'	44:RY:68:HIS:CD2	2.52	0.45
25:RA:35:G:H1'	25:RA:454:A:C4	2.51	0.45
25:RA:54:G:C6	25:RA:117:G:N2	2.84	0.45
25:RA:698:C:O2'	25:RA:734:A:N6	2.49	0.45
25:RA:774:A:HO2'	25:RA:775:G:P	2.38	0.45
26:RB:87:G:N2	26:RB:90:C:C2	2.84	0.45
27:RD:109:ASP:HB2	27:RD:197:GLY:CA	2.46	0.45
28:RE:22:PRO:O	28:RE:22:PRO:CG	2.63	0.45
30:RG:14:GLU:HB3	30:RG:15:VAL:H	1.56	0.45
30:RG:51:ARG:NH2	30:RG:52:ILE:HD11	2.32	0.45
32:RI:6:LEU:HB2	32:RI:35:LEU:HA	1.97	0.45
34:RO:40:VAL:CG1	34:RO:41:ALA:N	2.80	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:RO:47:ILE:HG13	34:RO:48:PRO:HD2	1.99	0.45
35:RP:144:GLU:N	35:RP:144:GLU:OE1	2.48	0.45
35:RP:31:ALA:C	35:RP:32:THR:CG2	2.85	0.45
38:RS:74:ALA:O	38:RS:75:GLU:C	2.54	0.45
39:RT:36:GLU:CG	39:RT:41:ARG:HD3	2.46	0.45
40:RU:53:ARG:C	40:RU:55:ARG:H	2.20	0.45
41:RV:59:ALA:HB2	41:RV:96:ILE:HD13	1.97	0.45
42:RW:48:ALA:O	42:RW:49:LYS:C	2.54	0.45
44:RY:36:ALA:HB1	44:RY:67:LEU:O	2.16	0.45
45:RZ:25:PRO:HD2	45:RZ:84:GLU:O	2.15	0.45
1:XA:1158:C:C2	1:XA:1160:G:C8	3.04	0.45
1:XA:1446:A:C5	39:YT:118:ARG:NH1	2.84	0.45
1:XA:123:C:O2'	1:XA:290:C:O2	2.34	0.45
1:XA:317:G:C5	1:XA:318:G:N7	2.84	0.45
2:XB:240:GLN:O	2:XB:240:GLN:HG2	2.16	0.45
2:XB:95:GLN:NE2	2:XB:96:ARG:NH1	2.65	0.45
5:XE:12:LEU:HB3	5:XE:31:LEU:HB2	1.98	0.45
7:XG:148:ASN:C	7:XG:150:ALA:N	2.69	0.45
7:XG:95:ARG:HG2	7:XG:99:LEU:HD12	1.98	0.45
13:XM:57:ARG:HD2	13:XM:61:GLU:OE2	2.17	0.45
13:XM:65:LYS:NZ	13:XM:69:GLU:HG2	2.30	0.45
1:XA:667:G:H4'	15:XO:51:HIS:ND1	2.30	0.45
15:XO:77:ARG:HA	15:XO:80:ALA:HB2	1.99	0.45
19:XS:69:HIS:O	19:XS:70:LYS:O	2.34	0.45
20:XT:84:LEU:HD13	20:XT:84:LEU:C	2.37	0.45
47:Y1:54:ALA:O	47:Y1:55:GLY:O	2.35	0.45
25:YA:2615:U:C2	51:Y5:7:PRO:HA	2.52	0.45
52:Y6:11:LEU:H	52:Y6:25:LYS:HA	1.81	0.45
52:Y6:9:LEU:CD1	52:Y6:26:ASN:ND2	2.80	0.45
53:Y7:24:THR:O	53:Y7:28:ARG:HG3	2.16	0.45
25:YA:1412:A:H2'	25:YA:1413:G:O4'	2.17	0.45
25:YA:1541:U:H2'	25:YA:1542:G:O4'	2.17	0.45
25:YA:1641:A:H3'	25:YA:1642:G:C8	2.52	0.45
25:YA:187:G:C6	25:YA:188:G:C5	3.05	0.45
25:YA:1965:C:H3'	25:YA:1966:A:H2'	1.98	0.45
25:YA:1834:U:H1'	25:YA:1969:A:C2	2.52	0.45
25:YA:2020:A:C2	25:YA:2022:U:O4'	2.70	0.45
25:YA:205:G:HO2'	25:YA:206:U:P	2.38	0.45
25:YA:2228:G:H5''	25:YA:2229:C:OP2	2.16	0.45
25:YA:2310:A:H62	30:YG:77:ILE:CG2	2.27	0.45
25:YA:2335:A:N7	25:YA:2337:G:C5	2.84	0.45
25:YA:2412:A:N6	25:YA:2413:G:C2	2.84	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2447:G:O6	25:YA:2504:U:O4	2.35	0.45
25:YA:1050:A:C8	25:YA:2751:G:C4	3.04	0.45
25:YA:701:G:H5''	25:YA:701:G:H8	1.81	0.45
26:YB:88:C:H2'	26:YB:89:G:C8	2.51	0.45
27:YD:109:ASP:HB2	27:YD:197:GLY:CA	2.46	0.45
27:YD:198:ASN:ND2	27:YD:198:ASN:O	2.50	0.45
27:YD:68:LYS:HD2	27:YD:70:TRP:CZ2	2.52	0.45
28:YE:111:ARG:NE	28:YE:160:TYR:CE1	2.76	0.45
31:YH:16:SER:OG	31:YH:17:VAL:N	2.50	0.45
36:YQ:104:PHE:O	36:YQ:105:GLU:CB	2.65	0.45
36:YQ:133:ARG:CG	36:YQ:134:ARG:N	2.78	0.45
25:YA:2470:G:C5'	36:YQ:56:ARG:HH22	2.29	0.45
38:YS:5:THR:OG1	38:YS:8:GLU:HG3	2.17	0.45
40:YU:95:LEU:HD13	41:YV:4:ILE:HD12	1.98	0.45
44:YY:97:ARG:HG2	44:YY:97:ARG:HH11	1.82	0.45
1:QA:1129:C:C4'	1:QA:1130:A:H5'	2.44	0.45
1:QA:1127:G:N2	1:QA:1147:C:H41	2.14	0.45
1:QA:1179:A:C6	1:QA:1180:A:C2	3.05	0.45
1:QA:1298:C:HO2'	1:QA:1299:A:P	2.37	0.45
1:QA:1237:C:HO2'	1:QA:1300:G:H22	1.57	0.45
1:QA:922:G:N3	1:QA:1398:A:H2	2.14	0.45
1:QA:248:C:O2'	1:QA:249:U:H5'	2.16	0.45
1:QA:686:U:O2'	1:QA:687:A:O5'	2.35	0.45
1:QA:814:A:C8	1:QA:816:A:C8	3.04	0.45
1:QA:991:U:O2	1:QA:993:G:H8	2.00	0.45
2:QB:24:TRP:CD2	2:QB:26:PRO:HD3	2.52	0.45
3:QC:34:LEU:C	3:QC:34:LEU:HD23	2.37	0.45
3:QC:78:GLY:HA3	3:QC:83:ARG:HB3	1.98	0.45
3:QC:92:ALA:HB2	3:QC:99:VAL:HG11	1.99	0.45
5:QE:52:PRO:HB2	5:QE:53:LEU:HD12	1.97	0.45
6:QF:35:ALA:HA	6:QF:67:MET:HB3	1.99	0.45
7:QG:50:ILE:HG21	7:QG:61:VAL:HG21	1.97	0.45
8:QH:33:GLU:O	8:QH:35:ILE:N	2.49	0.45
9:QI:80:GLY:C	9:QI:82:ALA:N	2.70	0.45
1:QA:1060:C:O2	10:QJ:56:HIS:CE1	2.70	0.45
13:QM:108:ARG:O	13:QM:111:LYS:N	2.48	0.45
15:QO:5:LYS:O	15:QO:8:LYS:CG	2.63	0.45
17:QQ:41:LYS:HZ3	17:QQ:92:ARG:HH22	1.60	0.45
20:QT:24:LEU:HD13	20:QT:24:LEU:O	2.17	0.45
47:R1:80:LEU:CB	47:R1:81:LYS:HE2	2.44	0.45
49:R3:28:LEU:HA	49:R3:33:GLN:OE1	2.16	0.45
25:RA:70:G:C2	25:RA:114:U:C4	3.04	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1534:G:H1	25:RA:1538:G:H21	1.63	0.45
25:RA:2396:G:C2'	25:RA:2397:G:H5'	2.47	0.45
25:RA:241:A:H5'	25:RA:243:U:O4'	2.17	0.45
27:RD:213:ARG:HA	27:RD:213:ARG:HD2	1.60	0.45
27:RD:36:PRO:HB3	27:RD:62:TYR:O	2.16	0.45
29:RF:123:LEU:HD12	29:RF:124:LEU:H	1.82	0.45
31:RH:86:GLU:O	31:RH:87:LEU:CB	2.64	0.45
33:RN:128:HIS:HB2	33:RN:129:PRO:CD	2.46	0.45
33:RN:5:VAL:O	33:RN:5:VAL:HG13	2.16	0.45
35:RP:92:GLU:HA	35:RP:123:LEU:HD23	1.98	0.45
35:RP:88:LEU:O	35:RP:90:ARG:N	2.50	0.45
36:RQ:30:GLY:CA	36:RQ:107:ALA:HB2	2.39	0.45
40:RU:76:TYR:CD2	40:RU:76:TYR:C	2.90	0.45
45:RZ:104:PHE:HB3	45:RZ:141:VAL:CG1	2.47	0.45
1:XA:1305:G:N2	1:XA:1331:G:H2'	2.32	0.45
1:XA:243:A:H4'	1:XA:244:U:O5'	2.17	0.45
1:XA:592:G:C2	1:XA:593:G:C8	3.05	0.45
1:XA:730:G:C5	1:XA:731:G:H1'	2.52	0.45
2:XB:170:GLU:CA	2:XB:172:ILE:HD12	2.46	0.45
3:XC:34:LEU:HD23	3:XC:34:LEU:C	2.37	0.45
3:XC:42:LEU:HD12	3:XC:45:LYS:NZ	2.32	0.45
4:XD:101:LEU:HD21	4:XD:121:VAL:HG13	1.99	0.45
4:XD:133:VAL:HG12	4:XD:135:LEU:H	1.81	0.45
5:XE:55:VAL:O	5:XE:58:ALA:HB3	2.16	0.45
11:XK:48:ILE:HD11	11:XK:64:ALA:N	2.32	0.45
13:XM:65:LYS:NZ	50:Y4:52:THR:CG2	2.78	0.45
1:XA:974:A:N3	14:XN:31:ARG:NE	2.64	0.45
15:XO:30:ALA:HA	15:XO:85:LEU:HD11	1.97	0.45
17:XQ:48:GLU:O	17:XQ:50:LYS:N	2.50	0.45
19:XS:3:ARG:CG	19:XS:4:SER:H	2.20	0.45
1:XA:186(A):C:H1'	20:XT:104:LEU:HD13	1.99	0.45
25:YA:2397:G:H5''	47:Y1:28:GLY:HA2	1.99	0.45
25:YA:1092:C:O2'	31:YH:170:ARG:NE	2.49	0.45
25:YA:1318:C:H5''	25:YA:1319:G:OP2	2.17	0.45
25:YA:1423:G:H2'	25:YA:1424:G:H8	1.82	0.45
25:YA:1580:A:H8	25:YA:1580:A:OP2	2.00	0.45
25:YA:213:A:H2'	25:YA:214:G:O4'	2.16	0.45
25:YA:222:A:HO2'	25:YA:223:A:P	2.39	0.45
25:YA:2436:G:C5	25:YA:2437:U:C5	3.04	0.45
25:YA:2574:G:H2'	25:YA:2575:C:C6	2.52	0.45
25:YA:2652:C:H2'	25:YA:2653:U:O4'	2.16	0.45
25:YA:1637:A:H4'	25:YA:2711:A:O2'	2.17	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:807:U:H2'	25:YA:808:G:H8	1.82	0.45
26:YB:72:G:H5''	26:YB:73:A:OP1	2.16	0.45
27:YD:25:THR:CG2	27:YD:25:THR:O	2.65	0.45
27:YD:69:ARG:C	27:YD:71:ASP:N	2.69	0.45
28:YE:199:ARG:HH11	28:YE:199:ARG:HG3	1.82	0.45
28:YE:33:VAL:HG12	28:YE:90:THR:H	1.81	0.45
29:YF:117:ARG:NH2	29:YF:189:THR:O	2.50	0.45
30:YG:51:ARG:NH2	30:YG:52:ILE:HD11	2.32	0.45
33:YN:7:LYS:HD3	33:YN:9:VAL:H	1.80	0.45
25:YA:2881:C:O3'	37:YR:96:ARG:HG3	2.17	0.45
40:YU:27:LEU:HD12	40:YU:31:SER:HB3	1.98	0.45
43:YX:47:PHE:O	43:YX:48:LYS:C	2.55	0.45
45:YZ:3:TYR:O	45:YZ:58:VAL:HG23	2.16	0.45
45:YZ:95:PRO:HG2	45:YZ:127:LYS:HD3	1.99	0.45
1:QA:1089:G:H1	1:QA:1096:C:H42	1.64	0.45
1:QA:1114:C:O2	14:QN:60:SER:HB3	2.17	0.45
1:QA:1216:G:H5''	14:QN:5:ALA:HB2	1.99	0.45
1:QA:186(D):C:H2'	1:QA:186(E):C:C6	2.52	0.45
1:QA:339:C:H2'	1:QA:340:U:C6	2.51	0.45
1:QA:342:C:H2'	1:QA:343:U:O4'	2.17	0.45
1:QA:368:U:OP1	32:YI:91:SER:OG	2.31	0.45
1:QA:392:G:H2'	1:QA:393:A:H8	1.82	0.45
1:QA:701:C:H1'	1:QA:703:G:C6	2.52	0.45
1:QA:895:G:H1	1:QA:904:C:H42	1.63	0.45
1:QA:939:G:H5''	7:QG:102:ARG:NH1	2.31	0.45
1:QA:96:G:H2'	1:QA:97:U:O4'	2.17	0.45
2:QB:95:GLN:NE2	2:QB:96:ARG:NH1	2.64	0.45
4:QD:120:LEU:CD2	4:QD:125:HIS:HB2	2.46	0.45
5:QE:77:PRO:HG2	5:QE:142:LEU:HD22	1.98	0.45
7:QG:108:ALA:C	7:QG:110:GLN:H	2.19	0.45
7:QG:111:ARG:HD2	7:QG:123:GLU:HB2	1.98	0.45
2:QB:178:ARG:HE	8:QH:71:GLY:H	1.62	0.45
9:QI:83:ARG:C	9:QI:86:VAL:HG12	2.36	0.45
18:QR:63:GLN:HA	18:QR:63:GLN:OE1	2.17	0.45
46:R0:50:ASN:HB3	46:R0:63:VAL:HG22	1.98	0.45
47:R1:73:LEU:C	47:R1:75:GLU:N	2.70	0.45
48:R2:28:LYS:HB3	48:R2:57:ILE:HG12	1.98	0.45
52:R6:11:LEU:H	52:R6:25:LYS:HA	1.81	0.45
25:RA:1032:A:H4'	55:R9:16:VAL:HG11	1.98	0.45
25:RA:1022:G:N2	25:RA:1142(A):A:H2	2.14	0.45
25:RA:1510:A:H2'	25:RA:1510:A:N3	2.32	0.45
25:RA:1429:G:C5	25:RA:1568:G:C6	3.05	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:48:G:C2	25:RA:178:G:C6	3.05	0.45
25:RA:1831:G:H1	25:RA:1974:C:H42	1.65	0.45
25:RA:2649:U:H2'	25:RA:2650:U:C6	2.52	0.45
25:RA:27:G:C4	25:RA:512:G:N2	2.85	0.45
25:RA:590:A:H2'	25:RA:591:C:C6	2.52	0.45
27:RD:14:ARG:HG3	27:RD:15:PHE:N	2.31	0.45
28:RE:21:VAL:HG23	28:RE:22:PRO:CD	2.46	0.45
29:RF:184:TYR:CE2	29:RF:188:ARG:HD2	2.52	0.45
30:RG:102:PHE:HA	30:RG:105:LYS:HE3	1.98	0.45
33:RN:118:LYS:C	33:RN:120:LEU:H	2.20	0.45
33:RN:35:ARG:O	33:RN:35:ARG:HG3	2.16	0.45
25:RA:557:U:O2	33:RN:45:ASN:HB2	2.16	0.45
35:RP:81:GLN:CD	35:RP:106:LEU:O	2.55	0.45
37:RR:17:ARG:O	37:RR:20:LEU:HB3	2.17	0.45
25:RA:2722:G:H4'	37:RR:4:LEU:HB2	1.98	0.45
42:RW:14:PRO:O	42:RW:16:LYS:N	2.50	0.45
44:RY:2:ARG:O	44:RY:3:VAL:C	2.55	0.45
1:XA:1129:C:N3	1:XA:1132:C:N4	2.63	0.45
1:XA:960:U:H1'	1:XA:1223:C:H5'	1.99	0.45
1:XA:1237:C:O2'	1:XA:1300:G:N1	2.49	0.45
1:XA:1314:C:H5''	19:XS:6:LYS:HZ1	1.81	0.45
1:XA:1322:C:OP2	19:XS:78:ARG:NH2	2.50	0.45
1:XA:598:U:H2'	1:XA:599:C:C6	2.51	0.45
1:XA:775:G:O2'	1:XA:776:G:H5'	2.17	0.45
4:XD:178:VAL:O	4:XD:181:MET:N	2.50	0.45
4:XD:52:SER:N	4:XD:55:ALA:HB3	2.32	0.45
5:XE:82:VAL:HG12	5:XE:83:GLU:H	1.77	0.45
6:XF:68:PRO:HG3	6:XF:71:ARG:NH2	2.31	0.45
8:XH:102:ARG:NH1	8:XH:105:ARG:CZ	2.80	0.45
12:XL:126:LYS:HB2	12:XL:126:LYS:HZ3	1.81	0.45
16:XP:22:THR:CA	16:XP:33:ILE:HG12	2.41	0.45
6:XF:101:ALA:HA	18:XR:28:GLU:CG	2.46	0.45
18:XR:63:GLN:OE1	18:XR:63:GLN:HA	2.17	0.45
20:XT:53:LEU:HD12	20:XT:100:ILE:HG23	1.98	0.45
26:YB:12:C:H2'	46:Y0:73:GLY:HA3	1.99	0.45
50:Y4:68:ARG:O	50:Y4:69:LYS:HB2	2.17	0.45
52:Y6:48:VAL:O	52:Y6:49:HIS:HB2	2.15	0.45
25:YA:1049:C:C2'	25:YA:1050:A:H5''	2.40	0.45
25:YA:1446:C:C2	25:YA:1447:G:C8	3.05	0.45
25:YA:1821:A:N6	25:YA:1822:G:O6	2.50	0.45
25:YA:1845:G:OP1	27:YD:258:LYS:NZ	2.43	0.45
25:YA:2038:G:H2'	25:YA:2039:C:O4'	2.17	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2131:G:C4'	25:YA:2132:U:H4'	2.46	0.45
25:YA:2493:U:H2'	25:YA:2494:G:O4'	2.16	0.45
25:YA:2737:G:H2'	25:YA:2738:A:H8	1.80	0.45
25:YA:2639:A:H1'	25:YA:2778:A:C2	2.52	0.45
25:YA:383:U:H5''	25:YA:384:U:OP2	2.16	0.45
25:YA:489:G:C5	25:YA:1284:A:C2	3.04	0.45
25:YA:564:C:H2'	25:YA:565:C:O4'	2.17	0.45
25:YA:581:C:H2'	25:YA:582:G:H8	1.81	0.45
25:YA:747:U:H6	25:YA:747:U:O5'	1.99	0.45
26:YB:34:U:O2'	26:YB:44:G:O6	2.34	0.45
26:YB:24:G:C2	26:YB:56:G:C2	3.04	0.45
27:YD:166:GLN:CA	27:YD:166:GLN:NE2	2.78	0.45
28:YE:2:LYS:O	28:YE:199:ARG:HA	2.17	0.45
28:YE:95:ILE:HG22	28:YE:95:ILE:O	2.16	0.45
29:YF:155:LEU:HA	29:YF:174:VAL:CG1	2.46	0.45
32:YI:56:LYS:NZ	32:YI:57:ARG:HA	2.31	0.45
33:YN:20:GLY:HA2	33:YN:61:ARG:HD2	1.99	0.45
33:YN:22:THR:O	33:YN:60:ILE:HG22	2.16	0.45
34:YO:22:ILE:HG12	34:YO:41:ALA:HA	1.98	0.45
35:YP:45:LEU:CD1	35:YP:45:LEU:N	2.79	0.45
35:YP:88:LEU:HD23	35:YP:88:LEU:C	2.37	0.45
39:YT:24:PRO:HD3	39:YT:52:ILE:HD12	1.98	0.45
40:YU:79:PHE:CE2	40:YU:83:LEU:HD13	2.51	0.45
45:YZ:29:TYR:HE2	45:YZ:87:ASP:HB3	1.81	0.45
1:QA:1051:C:C4	1:QA:1052:U:C4	3.05	0.45
1:QA:1118:C:O5'	1:QA:1118:C:H6	1.99	0.45
1:QA:341:C:C2'	1:QA:342:C:H5'	2.47	0.45
1:QA:518:C:H5'	1:QA:530:G:O4'	2.17	0.45
1:QA:921:U:O2'	5:QE:19:MET:N	2.48	0.45
1:QA:972:C:H4'	10:QJ:57:LYS:HG3	1.99	0.45
2:QB:214:ILE:HD13	2:QB:217:ARG:HH22	1.81	0.45
2:QB:33:TYR:HD1	2:QB:33:TYR:O	2.00	0.45
4:QD:29:PRO:HD2	4:QD:30:LYS:H	1.80	0.45
7:QG:95:ARG:HG3	7:QG:95:ARG:HH11	1.82	0.45
8:QH:86:ILE:CG1	8:QH:133:LEU:HD22	2.46	0.45
10:QJ:38:ILE:CD1	10:QJ:71:LEU:HB3	2.46	0.45
11:QK:32:ILE:HD11	11:QK:72:ALA:HB2	1.96	0.45
13:QM:66:LEU:HB2	13:QM:67:GLU:H	1.61	0.45
20:QT:96:GLY:O	20:QT:99:LEU:HD13	2.16	0.45
51:R5:15:ARG:HA	51:R5:18:ALA:HB3	1.99	0.45
54:R8:16:ILE:CD1	54:R8:57:ARG:HG2	2.42	0.45
25:RA:1181:C:H2'	25:RA:1182:A:H8	1.81	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:330:A:H2	25:RA:1210:A:H2'	1.80	0.45
25:RA:1303:G:H1'	25:RA:1641:A:N1	2.32	0.45
25:RA:1937:A:N7	25:RA:1939:U:H2'	2.32	0.45
25:RA:1693:U:C5	25:RA:1977:A:H1'	2.52	0.45
25:RA:2086:U:H2'	25:RA:2087:G:C8	2.52	0.45
25:RA:2075:U:H2'	25:RA:2238:G:N2	2.32	0.45
25:RA:64:A:C4	43:RX:66:LEU:HD13	2.52	0.45
25:RA:902:C:H2'	25:RA:903:C:H6	1.81	0.45
26:RB:105:G:C2	26:RB:106:G:C8	3.05	0.45
27:RD:92:ILE:HD12	27:RD:104:TYR:HD2	1.81	0.45
28:RE:36:ARG:CB	28:RE:36:ARG:HH11	2.28	0.45
29:RF:119:ARG:CG	29:RF:119:ARG:HH11	2.29	0.45
29:RF:196:LEU:O	29:RF:200:GLU:HG2	2.17	0.45
30:RG:36:LYS:O	30:RG:37:VAL:HG23	2.16	0.45
32:RI:133:HIS:HB2	32:RI:134:PRO:HD2	1.98	0.45
35:RP:21:ARG:HE	35:RP:21:ARG:HA	1.82	0.45
40:RU:97:ASP:HA	40:RU:100:VAL:CG2	2.47	0.45
33:RN:1:MET:HE3	40:RU:95:LEU:HD21	1.98	0.45
43:RX:47:PHE:O	43:RX:48:LYS:C	2.55	0.45
45:RZ:74:VAL:HG22	45:RZ:86:VAL:HG22	1.98	0.45
1:XA:1054:C:H6	1:XA:1054:C:H5''	1.81	0.45
1:XA:1084:G:N7	1:XA:1085:U:C4	2.85	0.45
1:XA:1060:C:C2	1:XA:1198:G:C2	3.05	0.45
1:XA:265:G:N2	1:XA:267:C:H5'	2.32	0.45
1:XA:440:A:H5''	1:XA:442:C:H5	1.81	0.45
1:XA:559:A:H4'	1:XA:560:U:H5''	1.98	0.45
1:XA:598:U:H2'	1:XA:599:C:H6	1.82	0.45
1:XA:652:U:C4	1:XA:752:G:N3	2.84	0.45
1:XA:993:G:N3	1:XA:993:G:H2'	2.32	0.45
2:XB:77:ALA:HB2	2:XB:211:ILE:HG21	1.99	0.45
3:XC:92:ALA:HB2	3:XC:99:VAL:HG11	1.99	0.45
5:XE:7:GLU:HB3	5:XE:112:LEU:HD13	1.99	0.45
10:XJ:63:PHE:HB3	14:XN:57:ARG:O	2.17	0.45
20:XT:10:LEU:C	20:XT:12:ALA:H	2.21	0.45
1:XA:186(A):C:O4'	20:XT:85:MET:SD	2.75	0.45
48:Y2:28:LYS:HB3	48:Y2:57:ILE:HG12	1.98	0.45
25:YA:126:A:OP2	53:Y7:18:PHE:N	2.50	0.45
53:Y7:2:LYS:HG2	53:Y7:3:ARG:N	2.31	0.45
54:Y8:36:LYS:HB3	54:Y8:40:GLU:HG2	1.98	0.45
25:YA:1273:U:H4'	25:YA:1275:A:OP1	2.17	0.45
25:YA:2011:U:C2'	25:YA:2012:G:H5'	2.46	0.45
25:YA:2064:C:H2'	25:YA:2065:C:C6	2.51	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:205:G:O2'	25:YA:206:U:P	2.75	0.45
25:YA:2118:U:H3	25:YA:2147:G:HO2'	1.65	0.45
25:YA:2196:C:H2'	25:YA:2197:U:H6	1.82	0.45
25:YA:228:A:C5	25:YA:230:U:O2	2.70	0.45
25:YA:221:A:N3	25:YA:233:A:H1'	2.30	0.45
25:YA:2457:U:C4	25:YA:2458:G:C6	3.04	0.45
25:YA:565:C:H2'	25:YA:566:U:O4'	2.16	0.45
25:YA:7:G:H2'	25:YA:8:A:H8	1.82	0.45
27:YD:92:ILE:HD12	27:YD:104:TYR:HD2	1.82	0.45
29:YF:196:LEU:O	29:YF:200:GLU:HG2	2.17	0.45
25:YA:586:A:H5'	29:YF:89:VAL:HG21	1.98	0.45
30:YG:121:ASN:C	30:YG:123:ASN:H	2.19	0.45
31:YH:7:LEU:HD12	31:YH:7:LEU:C	2.37	0.45
35:YP:21:ARG:HA	35:YP:21:ARG:HE	1.82	0.45
35:YP:92:GLU:HA	35:YP:123:LEU:HD23	1.99	0.45
36:YQ:34:LEU:HB2	36:YQ:118:LEU:HD22	1.99	0.45
34:YO:104:ARG:NH2	39:YT:34:VAL:HG11	2.32	0.45
39:YT:57:PHE:O	39:YT:58:ASN:C	2.53	0.45
42:YW:14:PRO:O	42:YW:16:LYS:N	2.50	0.45
42:YW:21:VAL:HG12	42:YW:21:VAL:O	2.17	0.45
44:YY:25:GLY:HA3	44:YY:39:VAL:CG1	2.47	0.45
1:QA:1271:G:H5'	1:QA:1314:C:H5'	1.99	0.45
1:QA:1346:A:O2'	1:QA:1347:G:P	2.75	0.45
1:QA:976:G:C6	1:QA:1363:A:C2	3.05	0.45
1:QA:37:U:O2'	1:QA:500:G:H4'	2.16	0.45
1:QA:588:G:C4	1:QA:589:C:C5	3.04	0.45
1:QA:607:A:C2	16:QP:31:LYS:HB2	2.52	0.45
1:QA:797:C:O2'	1:QA:798:G:H5'	2.17	0.45
1:QA:982:U:H5''	14:QN:6:LEU:CD1	2.47	0.45
2:QB:30:ARG:HH21	2:QB:194:PRO:HG2	1.82	0.45
4:QD:3:ARG:O	4:QD:4:TYR:C	2.55	0.45
7:QG:15:ASP:HB3	7:QG:20:ASP:N	2.15	0.45
8:QH:41:ARG:NH1	8:QH:41:ARG:CG	2.76	0.45
8:QH:64:LYS:HB3	8:QH:79:VAL:HG21	1.98	0.45
10:QJ:51:ARG:HG2	10:QJ:51:ARG:HH11	1.81	0.45
13:QM:110:ARG:HH11	13:QM:110:ARG:HG3	1.82	0.45
13:QM:15:VAL:O	13:QM:19:LEU:CD2	2.64	0.45
13:QM:3:ARG:HD2	13:QM:9:ILE:CG1	2.45	0.45
10:QJ:63:PHE:HB3	14:QN:57:ARG:O	2.17	0.45
16:QP:39:TYR:CZ	16:QP:41:PRO:HB3	2.52	0.45
19:QS:41:VAL:HG13	19:QS:44:MET:CB	2.39	0.45
47:R1:82:LEU:HD13	47:R1:83:GLU:C	2.36	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:R6:9:LEU:CD1	52:R6:26:ASN:ND2	2.79	0.45
25:RA:1310:G:OP2	53:R7:9:ARG:NH1	2.49	0.45
25:RA:1062:G:H2'	25:RA:1063:G:H8	1.81	0.45
25:RA:1167:U:C2	25:RA:1183:G:N2	2.85	0.45
25:RA:1429:G:H2'	25:RA:1430:C:H6	1.82	0.45
25:RA:1567:A:HO2'	25:RA:1568:G:P	2.40	0.45
25:RA:1588:C:H2'	25:RA:1589:C:H6	1.81	0.45
25:RA:2510:C:H2'	25:RA:2511:U:C6	2.52	0.45
25:RA:264:C:C2'	25:RA:265:A:H5''	2.47	0.45
25:RA:2655:G:O2'	25:RA:2656:U:C5	2.70	0.45
25:RA:783:A:H2'	25:RA:783:A:H8	1.46	0.45
27:RD:118:VAL:O	27:RD:129:ASN:HA	2.16	0.45
27:RD:166:GLN:NE2	27:RD:166:GLN:HA	2.32	0.45
27:RD:68:LYS:HD2	27:RD:70:TRP:CZ2	2.52	0.45
28:RE:2:LYS:O	28:RE:199:ARG:HA	2.17	0.45
28:RE:77:ILE:O	28:RE:78:LEU:O	2.34	0.45
31:RH:53:GLU:OE1	31:RH:53:GLU:HA	2.16	0.45
33:RN:120:LEU:HD13	33:RN:120:LEU:C	2.37	0.45
25:RA:2562:U:C1'	34:RO:23:ARG:NH1	2.76	0.45
35:RP:115:LEU:HA	35:RP:134:ALA:CB	2.47	0.45
35:RP:88:LEU:HD23	35:RP:88:LEU:C	2.37	0.45
35:RP:96:THR:HG22	35:RP:126:VAL:CB	2.47	0.45
36:RQ:11:LYS:HE2	36:RQ:87:LYS:HA	1.98	0.45
41:RV:61:VAL:HA	41:RV:94:LEU:HD23	1.97	0.45
44:RY:84:ARG:HD3	44:RY:86:ARG:HH11	1.82	0.45
1:XA:1031:G:O6	1:XA:1032:A:N6	2.49	0.45
1:XA:1077:G:H2'	1:XA:1079:G:N7	2.32	0.45
1:XA:1118:C:H1'	1:XA:1179:A:C5	2.52	0.45
1:XA:1179:A:H4'	9:XI:103:THR:HA	1.99	0.45
1:XA:1207:G:H2'	1:XA:1208:C:C6	2.52	0.45
1:XA:1388:C:H2'	1:XA:1389:C:C6	2.51	0.45
1:XA:1429:C:H2'	1:XA:1430:C:C6	2.52	0.45
1:XA:246:A:C4	1:XA:282:A:N6	2.85	0.45
1:XA:47:C:H5''	1:XA:365:U:C6	2.52	0.45
1:XA:390:C:O3'	16:XP:28:ARG:NH2	2.48	0.45
1:XA:392:G:P	16:XP:12:LYS:HG3	2.57	0.45
1:XA:665:A:H1'	1:XA:733:A:O4'	2.16	0.45
1:XA:831:U:H2'	1:XA:832:C:H6	1.82	0.45
1:XA:961:U:H2'	1:XA:962:C:H6	1.81	0.45
1:XA:977:A:O2'	1:XA:981:U:N3	2.38	0.45
2:XB:98:LEU:O	2:XB:101:MET:HG3	2.17	0.45
2:XB:189:ASP:OD2	2:XB:205:ASP:OD1	2.34	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:XB:229:VAL:O	2:XB:229:VAL:HG12	2.17	0.45
2:XB:22:LYS:O	2:XB:24:TRP:N	2.50	0.45
2:XB:68:ILE:HB	2:XB:70:PHE:HE1	1.82	0.45
3:XC:87:LEU:C	3:XC:89:GLU:H	2.19	0.45
5:XE:101:ILE:H	5:XE:101:ILE:HD13	1.82	0.45
5:XE:12:LEU:HB3	5:XE:31:LEU:CB	2.47	0.45
5:XE:12:LEU:HD21	5:XE:14:ARG:HB3	1.98	0.45
5:XE:52:PRO:HB2	5:XE:53:LEU:HD12	1.97	0.45
6:XF:22:GLU:OE1	6:XF:82:ARG:NH2	2.46	0.45
7:XG:44:TYR:C	7:XG:46:ALA:N	2.66	0.45
7:XG:45:ASP:O	7:XG:49:ILE:HG12	2.17	0.45
7:XG:95:ARG:HG3	7:XG:95:ARG:HH11	1.82	0.45
9:XI:47:LEU:HD22	9:XI:47:LEU:H	1.81	0.45
10:XJ:6:ILE:O	10:XJ:71:LEU:HD12	2.17	0.45
13:XM:108:ARG:O	13:XM:111:LYS:N	2.47	0.45
17:XQ:33:GLY:O	17:XQ:34:LYS:C	2.56	0.45
25:YA:270(T):G:OP1	47:Y1:97:LEU:HD13	2.16	0.45
52:Y6:15:GLU:OE2	52:Y6:44:ARG:NH1	2.49	0.45
52:Y6:18:ARG:O	52:Y6:19:ARG:O	2.33	0.45
52:Y6:7:ILE:O	52:Y6:8:LYS:HG2	2.16	0.45
54:Y8:52:LYS:CG	54:Y8:52:LYS:O	2.64	0.45
25:YA:1169:G:N2	25:YA:1181:C:O2	2.49	0.45
25:YA:1416:G:HO2'	25:YA:1417:C:H6	1.60	0.45
25:YA:1422:G:N2	25:YA:1577:C:H1'	2.32	0.45
25:YA:2470:G:H5'	36:YQ:56:ARG:HH22	1.81	0.45
25:YA:2649:U:H2'	25:YA:2650:U:C6	2.51	0.45
25:YA:479:A:N3	25:YA:481:G:H5''	2.32	0.45
25:YA:528:A:C8	25:YA:528:A:H3'	2.52	0.45
25:YA:558:G:OP2	33:YN:111:PRO:HD2	2.17	0.45
25:YA:721:C:H3'	25:YA:722:A:H8	1.81	0.45
25:YA:780:G:H21	25:YA:783:A:N6	2.15	0.45
25:YA:828:U:H2'	25:YA:829:A:C8	2.52	0.45
27:YD:226:MET:H	27:YD:226:MET:HG2	1.53	0.45
27:YD:45:ASN:CG	27:YD:46:GLN:N	2.68	0.45
28:YE:21:VAL:HG23	28:YE:22:PRO:CD	2.46	0.45
32:YI:56:LYS:CE	32:YI:57:ARG:HG2	2.46	0.45
34:YO:53:LYS:CD	34:YO:53:LYS:N	2.69	0.45
35:YP:112:LEU:CD1	35:YP:114:ILE:HG23	2.47	0.45
35:YP:75:ILE:HG12	35:YP:77:ARG:HH12	1.82	0.45
35:YP:81:GLN:CD	35:YP:106:LEU:O	2.55	0.45
36:YQ:58:PHE:O	36:YQ:58:PHE:CD1	2.70	0.45
37:YR:12:ARG:HG3	37:YR:12:ARG:NH1	2.32	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:YR:17:ARG:O	37:YR:20:LEU:HB3	2.17	0.45
42:YW:88:ARG:CB	42:YW:92:ARG:HB3	2.47	0.45
25:YA:298:G:OP1	44:YY:85:VAL:HG22	2.17	0.45
1:QA:410:G:C2	1:QA:429:U:C2	3.05	0.45
1:QA:667:G:H4'	15:QO:51:HIS:ND1	2.31	0.45
1:QA:823:G:H2'	1:QA:824:C:O4'	2.17	0.45
1:QA:922:G:H4'	5:QE:20:GLN:HA	1.98	0.45
3:QC:73:PRO:O	3:QC:77:ILE:HG13	2.16	0.45
4:QD:166:LYS:HG2	27:YD:135:PHE:CZ	2.51	0.45
4:QD:178:VAL:O	4:QD:181:MET:N	2.50	0.45
1:QA:545:C:H5''	4:QD:72:GLU:HG2	1.99	0.45
4:QD:94:LEU:O	4:QD:98:GLU:N	2.50	0.45
7:QG:26:PHE:HZ	7:QG:120:ILE:HG23	1.82	0.45
7:QG:40:ALA:O	7:QG:41:ARG:C	2.54	0.45
10:QJ:62:HIS:CD2	10:QJ:62:HIS:N	2.85	0.45
13:QM:57:ARG:HD2	13:QM:61:GLU:OE2	2.17	0.45
16:QP:50:LYS:O	16:QP:50:LYS:HD3	2.17	0.45
17:QQ:33:GLY:O	17:QQ:34:LYS:C	2.55	0.45
17:QQ:3:LYS:HD3	17:QQ:61:GLU:O	2.16	0.45
19:QS:69:HIS:O	19:QS:70:LYS:O	2.34	0.45
20:QT:10:LEU:C	20:QT:12:ALA:H	2.20	0.45
20:QT:28:ALA:O	20:QT:30:LYS:N	2.50	0.45
23:QX:5:C:H2'	23:QX:6:C:C6	2.51	0.45
47:R1:49:VAL:HG12	47:R1:51:VAL:HG23	1.99	0.45
47:R1:94:LEU:O	47:R1:95:LEU:HB2	2.17	0.45
52:R6:11:LEU:HD11	52:R6:51:GLU:HG3	1.98	0.45
54:R8:9:GLY:O	54:R8:13:ARG:HG2	2.16	0.45
54:R8:36:LYS:HB3	54:R8:40:GLU:HG2	1.99	0.45
25:RA:1431:U:H2'	25:RA:1432:C:C6	2.52	0.45
25:RA:781:A:H2	25:RA:1776:G:N3	2.15	0.45
25:RA:1977:A:H2'	25:RA:1978:A:O4'	2.17	0.45
25:RA:2188:C:H2'	25:RA:2189:U:O4'	2.17	0.45
25:RA:2216:G:H2'	25:RA:2217:G:C8	2.52	0.45
25:RA:2525:G:N2	25:RA:2539:C:C2	2.85	0.45
25:RA:2817:G:C2	25:RA:2830:G:N3	2.85	0.45
25:RA:459:U:H2'	25:RA:460:A:H8	1.80	0.45
25:RA:547:A:H3'	25:RA:548:A:H8	1.79	0.45
25:RA:710:G:H2'	25:RA:711:G:C8	2.52	0.45
27:RD:241:PRO:O	27:RD:242:ARG:C	2.55	0.45
28:RE:101:ARG:HD2	28:RE:171:GLU:HA	1.98	0.45
28:RE:2:LYS:HG2	28:RE:95:ILE:HG22	1.99	0.45
25:RA:1258:C:O4'	29:RF:84:VAL:HG11	2.17	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:RI:19:VAL:HG22	32:RI:20:ASP:N	2.32	0.45
33:RN:63:THR:HG22	33:RN:66:LYS:HZ1	1.82	0.45
33:RN:96:GLU:O	33:RN:99:LEU:N	2.34	0.45
34:RO:19:ILE:H	34:RO:19:ILE:HD13	1.82	0.45
34:RO:2:ILE:HD11	34:RO:82:ASN:ND2	2.16	0.45
34:RO:78:ARG:HH21	39:RT:103:ARG:HH22	1.64	0.45
35:RP:115:LEU:CB	35:RP:131:SER:HB2	2.47	0.45
36:RQ:10:ARG:O	36:RQ:11:LYS:CB	2.64	0.45
36:RQ:90:VAL:C	36:RQ:92:GLY:N	2.70	0.45
37:RR:10:LEU:O	37:RR:11:ASN:C	2.55	0.45
40:RU:86:ALA:CB	40:RU:88:ILE:HD11	2.47	0.45
41:RV:69:LYS:HG3	41:RV:87:HIS:O	2.17	0.45
42:RW:21:VAL:HG12	42:RW:21:VAL:O	2.17	0.45
44:RY:73:ARG:HE	44:RY:73:ARG:HB3	1.51	0.45
45:RZ:9:TYR:CE2	45:RZ:61:LEU:HD13	2.53	0.45
1:XA:1266:G:N2	1:XA:1270:C:C2	2.85	0.45
1:XA:524:G:H2'	1:XA:525:C:C6	2.52	0.45
1:XA:771:G:C5	1:XA:772:U:C4	3.04	0.45
1:XA:963:G:H1	1:XA:972:C:H42	1.64	0.45
2:XB:178:ARG:HD2	8:XH:71:GLY:CA	2.46	0.45
4:XD:150:GLU:C	4:XD:152:SER:H	2.20	0.45
4:XD:94:LEU:O	4:XD:98:GLU:N	2.50	0.45
7:XG:16:LEU:HD13	9:XI:45:ALA:HB2	1.99	0.45
9:XI:7:THR:O	9:XI:83:ARG:CD	2.65	0.45
11:XK:75:TYR:N	11:XK:75:TYR:CD1	2.85	0.45
12:XL:117:ARG:NH2	12:XL:124:LYS:HD3	2.32	0.45
13:XM:28:ALA:C	13:XM:30:ALA:N	2.70	0.45
13:XM:56:LEU:HD13	13:XM:56:LEU:O	2.17	0.45
13:XM:66:LEU:C	13:XM:70:LEU:HB2	2.37	0.45
1:XA:976:G:P	14:XN:32:SER:H	2.40	0.45
1:XA:580:U:H5''	15:XO:58:MET:HG2	1.98	0.45
15:XO:82:ILE:CG2	15:XO:83:GLU:N	2.79	0.45
20:XT:44:ALA:O	20:XT:91:LEU:HB3	2.16	0.45
51:Y5:56:LYS:O	51:Y5:58:LEU:N	2.50	0.45
25:YA:1827:C:H2'	25:YA:1828:G:O4'	2.17	0.45
25:YA:181:A:H2'	25:YA:182:A:C8	2.52	0.45
25:YA:1846:G:N2	25:YA:1895:C:C2	2.84	0.45
25:YA:2463:C:O2	25:YA:2488:A:C2	2.70	0.45
25:YA:2472:G:H2'	25:YA:2475:C:H42	1.82	0.45
25:YA:2050:C:N4	25:YA:2618:G:H1	2.13	0.45
25:YA:2677:G:H2'	25:YA:2678:C:C6	2.49	0.45
25:YA:2751:G:C8	25:YA:2751:G:O5'	2.70	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:295:G:H1	25:YA:343:C:N4	2.15	0.45
25:YA:455:C:HO2'	25:YA:472:A:H2	1.62	0.45
25:YA:66:C:H2'	25:YA:67:U:H6	1.82	0.45
28:YE:4:ILE:HG12	28:YE:91:VAL:HG11	1.99	0.45
34:YO:19:ILE:HD13	34:YO:19:ILE:H	1.83	0.45
34:YO:97:ARG:HA	34:YO:117:LEU:HD22	1.99	0.45
36:YQ:5:ARG:O	36:YQ:6:ARG:O	2.35	0.45
38:YS:89:ARG:O	38:YS:90:GLY:C	2.54	0.45
40:YU:76:TYR:CD2	40:YU:76:TYR:C	2.90	0.45
45:YZ:144:LEU:HD11	45:YZ:149:SER:HA	1.99	0.45
25:YA:2584:U:H5''	56:Z8:76:PPU:H92	1.99	0.45
25:YA:2452:C:O4'	56:Z8:76:PPU:HB2	2.17	0.45
1:QA:1122:U:C2	1:QA:1123:A:C8	3.05	0.44
1:QA:1216:G:H2'	1:QA:1217:C:H6	1.83	0.44
1:QA:1241:G:H2'	1:QA:1242:C:C6	2.52	0.44
1:QA:1297:C:O2'	1:QA:1298:C:P	2.75	0.44
1:QA:430:A:C2	1:QA:431:A:H1'	2.51	0.44
1:QA:6:G:C8	5:QE:119:LEU:HD11	2.52	0.44
1:QA:926:G:H2'	1:QA:1505:G:N3	2.31	0.44
3:QC:140:ARG:CG	3:QC:140:ARG:HH11	2.30	0.44
3:QC:42:LEU:HD12	3:QC:45:LYS:NZ	2.31	0.44
3:QC:22:TRP:HB3	3:QC:59:ARG:HB2	1.99	0.44
5:QE:101:ILE:HD13	5:QE:101:ILE:H	1.82	0.44
5:QE:36:ASP:C	5:QE:37:ARG:HG2	2.38	0.44
8:QH:82:HIS:CD2	8:QH:82:HIS:C	2.91	0.44
10:QJ:33:GLN:HB2	10:QJ:75:ILE:HD11	1.99	0.44
12:QL:120:TYR:O	12:QL:121:GLY:O	2.36	0.44
1:QA:1225:A:OP1	13:QM:102:ARG:HA	2.17	0.44
13:QM:16:ASP:O	13:QM:19:LEU:HD23	2.17	0.44
13:QM:39:ILE:HD12	13:QM:56:LEU:HD23	1.99	0.44
13:QM:56:LEU:O	13:QM:56:LEU:HD13	2.17	0.44
20:QT:84:LEU:HD13	20:QT:84:LEU:C	2.36	0.44
47:R1:48:LYS:HA	47:R1:60:PHE:O	2.17	0.44
47:R1:60:PHE:HZ	47:R1:90:ILE:HG21	1.82	0.44
54:R8:17:THR:O	54:R8:20:GLY:N	2.46	0.44
25:RA:1005:C:N4	25:RA:1006:C:H41	2.15	0.44
25:RA:1115:G:C6	25:RA:1116:C:N4	2.85	0.44
25:RA:1131:G:C2	25:RA:1132:A:C5	3.05	0.44
25:RA:1286:A:O2'	25:RA:1287:A:H5''	2.17	0.44
25:RA:1319:G:C6	25:RA:1320:C:N4	2.85	0.44
25:RA:142:G:H2'	25:RA:143:C:H6	1.82	0.44
25:RA:2026:C:C2	25:RA:2027:G:C8	3.05	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2252:G:H2'	25:RA:2253:G:H8	1.81	0.44
25:RA:2303:G:C2'	25:RA:2304:G:H5'	2.47	0.44
25:RA:2517:C:C6	25:RA:2542:A:N7	2.86	0.44
25:RA:2532:G:H1'	25:RA:2663:G:N2	2.33	0.44
25:RA:2630:G:H2'	25:RA:2631:G:C8	2.51	0.44
25:RA:2631:G:N3	25:RA:2810:A:H2	2.15	0.44
25:RA:476:G:N1	25:RA:479:A:OP2	2.49	0.44
25:RA:520:G:H2'	25:RA:521:G:H8	1.82	0.44
25:RA:612:G:N2	25:RA:617:G:C5	2.85	0.44
25:RA:974(A):C:H2'	25:RA:974(A):C:O2	2.16	0.44
27:RD:145:VAL:HG12	27:RD:146:GLU:N	2.32	0.44
27:RD:198:ASN:ND2	27:RD:198:ASN:O	2.50	0.44
27:RD:79:VAL:HG21	27:RD:111:LEU:HD21	1.97	0.44
30:RG:129:GLY:O	30:RG:130:ASN:OD1	2.34	0.44
30:RG:16:ARG:CZ	30:RG:31:VAL:HG11	2.47	0.44
30:RG:6:ALA:HB3	30:RG:104:GLU:OE2	2.16	0.44
25:RA:2311:A:C8	30:RG:82:LEU:HD11	2.52	0.44
31:RH:149:ARG:HA	31:RH:162:ILE:HG21	1.99	0.44
33:RN:57:ALA:HA	33:RN:60:ILE:CD1	2.43	0.44
35:RP:75:ILE:HG12	35:RP:77:ARG:HH12	1.82	0.44
36:RQ:119:ARG:CG	36:RQ:119:ARG:HH11	2.25	0.44
39:RT:54:ARG:CG	39:RT:54:ARG:NH1	2.80	0.44
40:RU:66:ASN:CB	40:RU:76:TYR:HB2	2.44	0.44
41:RV:5:VAL:HG13	41:RV:14:VAL:HG21	1.98	0.44
41:RV:4:ILE:HG22	41:RV:39:LEU:HD23	1.98	0.44
45:RZ:93:ASP:N	45:RZ:93:ASP:OD1	2.47	0.44
1:XA:1301:U:O2	1:XA:1301:U:H2'	2.17	0.44
1:XA:1343:G:C6	1:XA:1344:C:N4	2.85	0.44
1:XA:20:U:O2'	1:XA:21:G:H5'	2.17	0.44
1:XA:511:C:O2'	1:XA:534:U:H1'	2.17	0.44
1:XA:803:G:C6	1:XA:804:U:N3	2.85	0.44
1:XA:895:G:H1	1:XA:904:C:N4	2.02	0.44
6:XF:23:LYS:HG2	6:XF:27:GLN:OE1	2.18	0.44
7:XG:111:ARG:HD2	7:XG:123:GLU:HB2	1.99	0.44
7:XG:26:PHE:HZ	7:XG:120:ILE:HG23	1.82	0.44
9:XI:5:TYR:CD2	9:XI:6:GLY:N	2.85	0.44
10:XJ:51:ARG:HG2	10:XJ:51:ARG:HH11	1.82	0.44
13:XM:110:ARG:HG3	13:XM:110:ARG:HH11	1.82	0.44
15:XO:25:THR:HG22	15:XO:70:LEU:HD22	1.99	0.44
17:XQ:59:ILE:N	17:XQ:59:ILE:CD1	2.78	0.44
20:XT:36:LEU:C	20:XT:38:LYS:N	2.71	0.44
20:XT:56:MET:HG3	20:XT:88:VAL:HG21	1.98	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:XU:6:ARG:C	21:XU:8:THR:H	2.20	0.44
47:Y1:48:LYS:HA	47:Y1:60:PHE:O	2.17	0.44
49:Y3:60:GLU:HG2	49:Y3:60:GLU:O	2.16	0.44
52:Y6:7:ILE:HG23	52:Y6:8:LYS:N	2.32	0.44
25:YA:2419:U:O4	54:Y8:30:ARG:NE	2.50	0.44
25:YA:729:G:H2'	25:YA:1775:U:O2	2.17	0.44
25:YA:1778:U:H2'	25:YA:1784:A:H62	1.80	0.44
1:QA:1031:G:O6	25:YA:2167:U:N3	2.50	0.44
25:YA:2331:G:N2	25:YA:2385:C:C4	2.85	0.44
25:YA:2557:G:C6	25:YA:2558:C:C4	3.05	0.44
25:YA:503:A:C8	25:YA:506:G:N7	2.85	0.44
25:YA:978:G:C2	25:YA:986:C:C2	3.05	0.44
27:YD:80:ALA:O	27:YD:113:VAL:HG13	2.16	0.44
27:YD:145:VAL:HG12	27:YD:146:GLU:N	2.32	0.44
27:YD:52:ARG:HB2	27:YD:53:PHE:CD2	2.52	0.44
29:YF:144:LYS:C	29:YF:146:ALA:H	2.21	0.44
30:YG:83:ARG:HG3	30:YG:86:MET:CE	2.46	0.44
32:YI:79:ILE:N	32:YI:141:LYS:O	2.49	0.44
33:YN:112:LEU:O	33:YN:116:LEU:HG	2.16	0.44
33:YN:5:VAL:HG13	33:YN:5:VAL:O	2.17	0.44
35:YP:75:ILE:HG12	35:YP:77:ARG:NH1	2.32	0.44
38:YS:83:LYS:CE	38:YS:109:GLY:HA2	2.47	0.44
41:YV:61:VAL:O	41:YV:61:VAL:HG22	2.16	0.44
41:YV:69:LYS:HG3	41:YV:87:HIS:O	2.17	0.44
45:YZ:112:ARG:O	45:YZ:114:GLY:N	2.50	0.44
45:YZ:123:ASP:O	45:YZ:124:ILE:HG13	2.17	0.44
1:QA:1426:C:H1'	1:QA:1475:G:N2	2.31	0.44
1:QA:1521:G:H2'	1:QA:1522:U:C6	2.53	0.44
1:QA:491:G:C2	1:QA:492:G:C4	3.05	0.44
1:QA:939:G:H5"	7:QG:102:ARG:CZ	2.47	0.44
2:QB:98:LEU:O	2:QB:101:MET:HG3	2.17	0.44
3:QC:43:LEU:HD11	3:QC:66:VAL:HG11	1.98	0.44
5:QE:147:ASP:OD2	5:QE:147:ASP:N	2.50	0.44
5:QE:31:LEU:HD23	5:QE:45:PHE:CD1	2.53	0.44
6:QF:3:ARG:HG2	6:QF:93:SER:OG	2.17	0.44
6:QF:76:ALA:HB1	6:QF:80:ARG:HH21	1.82	0.44
10:QJ:29:ARG:HH11	10:QJ:29:ARG:HG2	1.81	0.44
12:QL:120:TYR:CD1	12:QL:120:TYR:N	2.86	0.44
12:QL:117:ARG:NH2	12:QL:124:LYS:HD3	2.32	0.44
12:QL:126:LYS:HB2	12:QL:126:LYS:HZ2	1.82	0.44
13:QM:101:GLN:HB2	13:QM:101:GLN:HE21	1.66	0.44
15:QO:54:ARG:O	15:QO:55:GLY:C	2.55	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:QO:29:VAL:HB	15:QO:81:LEU:HD21	1.99	0.44
16:QP:15:PRO:O	16:QP:16:HIS:ND1	2.51	0.44
18:QR:82:THR:CG2	18:QR:83:GLU:N	2.79	0.44
20:QT:89:ARG:HH12	20:QT:106:ALA:HB1	1.82	0.44
51:R5:56:LYS:O	51:R5:58:LEU:N	2.50	0.44
54:R8:15:LYS:HD3	54:R8:15:LYS:C	2.37	0.44
25:RA:1077:A:H2	25:RA:1078:U:H4'	1.82	0.44
25:RA:1301:A:H2	25:RA:1626:G:N3	2.14	0.44
25:RA:1498:C:O4'	25:RA:1577:C:H4'	2.17	0.44
25:RA:1509:C:H2'	25:RA:1511:A:C8	2.53	0.44
25:RA:118:A:H1'	25:RA:178:G:O4'	2.18	0.44
25:RA:2261:C:HO2'	25:RA:2327:A:H2	1.65	0.44
25:RA:2518:A:H8	25:RA:2518:A:O5'	1.99	0.44
25:RA:2528:U:O3'	25:RA:2529:G:H8	2.01	0.44
25:RA:2572:A:H62	28:RE:145:LYS:HG3	1.82	0.44
25:RA:934:G:H2'	25:RA:935:C:H6	1.82	0.44
26:RB:75:G:HO2'	45:RZ:85:HIS:CD2	2.31	0.44
27:RD:143:HIS:HD2	27:RD:144:ALA:HB2	1.83	0.44
27:RD:48:ARG:HG3	27:RD:48:ARG:NH1	2.31	0.44
28:RE:4:ILE:HG12	28:RE:91:VAL:HG11	1.99	0.44
29:RF:7:TYR:CD1	29:RF:7:TYR:N	2.85	0.44
30:RG:44:GLY:HA2	30:RG:88:ILE:HD11	1.99	0.44
31:RH:51:ARG:HG3	31:RH:51:ARG:NH1	2.30	0.44
25:RA:2641:G:H5''	33:RN:76:SER:HB3	1.99	0.44
33:RN:7:LYS:HD3	33:RN:9:VAL:H	1.81	0.44
34:RO:22:ILE:HG12	34:RO:41:ALA:HA	1.98	0.44
25:RA:2377:A:H4'	38:RS:111:GLU:O	2.17	0.44
38:RS:29:PHE:HD2	38:RS:92:TYR:HH	1.64	0.44
39:RT:49:VAL:CG1	39:RT:49:VAL:O	2.64	0.44
41:RV:5:VAL:HG22	41:RV:14:VAL:CG2	2.46	0.44
42:RW:67:ASP:N	42:RW:67:ASP:OD2	2.50	0.44
45:RZ:177:PRO:HB2	45:RZ:178:GLU:H	1.58	0.44
45:RZ:53:ILE:HA	45:RZ:70:LEU:HD21	2.00	0.44
1:XA:1357:A:C5	1:XA:1358:U:C4	3.05	0.44
1:XA:289:G:H2'	1:XA:290:C:H6	1.82	0.44
1:XA:5:U:O2'	1:XA:6:G:N3	2.50	0.44
1:XA:729:A:H2'	1:XA:730:G:H8	1.82	0.44
1:XA:883:C:N3	1:XA:884:U:C4	2.85	0.44
2:XB:188:ALA:CB	2:XB:200:ILE:HG23	2.47	0.44
2:XB:30:ARG:O	2:XB:31:TYR:HD2	2.00	0.44
3:XC:43:LEU:HD11	3:XC:66:VAL:HG11	1.98	0.44
4:XD:206:PHE:CD2	4:XD:207:TYR:CE1	3.05	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:XH:97:VAL:CG1	8:XH:98:LYS:H	2.30	0.44
9:XI:118:LYS:O	9:XI:119:ALA:CB	2.65	0.44
10:XJ:54:PHE:CD2	10:XJ:55:LYS:HD2	2.53	0.44
10:XJ:54:PHE:CE2	10:XJ:55:LYS:HD2	2.52	0.44
11:XK:13:GLN:HG3	11:XK:75:TYR:CA	2.48	0.44
12:XL:120:TYR:CD1	12:XL:120:TYR:N	2.85	0.44
13:XM:65:LYS:HB3	50:Y4:50:VAL:HG21	1.97	0.44
15:XO:83:GLU:C	15:XO:85:LEU:N	2.71	0.44
16:XP:72:ARG:CD	16:XP:73:LEU:HD23	2.48	0.44
19:XS:45:VAL:O	19:XS:62:ILE:O	2.35	0.44
20:XT:89:ARG:HH12	20:XT:106:ALA:HB1	1.82	0.44
24:XY:39:C:O2'	24:XY:40:G:P	2.74	0.44
51:Y5:40:LYS:HZ1	51:Y5:48:GLU:CB	2.19	0.44
52:Y6:19:ARG:HA	52:Y6:19:ARG:HD2	1.77	0.44
25:YA:120:U:C2	25:YA:149:A:C6	3.06	0.44
25:YA:1840:G:H1	25:YA:1902:C:H42	1.63	0.44
25:YA:2286:A:H4'	25:YA:2287:A:O4'	2.16	0.44
25:YA:2458:G:C4	25:YA:2490:G:C6	3.04	0.44
25:YA:2557:G:C6	25:YA:2558:C:N4	2.85	0.44
25:YA:2711:A:OP1	25:YA:2712(A):A:P	2.74	0.44
25:YA:529:A:H8	25:YA:530:G:C6	2.36	0.44
25:YA:658:C:H2'	25:YA:659:C:C6	2.52	0.44
25:YA:592:G:N2	25:YA:665:C:N3	2.57	0.44
25:YA:722:A:H2'	25:YA:723:G:C8	2.53	0.44
25:YA:902:C:H2'	25:YA:903:C:C6	2.53	0.44
26:YB:32:C:C2	26:YB:33:G:C8	3.05	0.44
27:YD:166:GLN:NE2	27:YD:166:GLN:HA	2.32	0.44
27:YD:177:LEU:O	27:YD:179:SER:N	2.51	0.44
25:YA:784:A:N7	27:YD:229:VAL:HG21	2.31	0.44
25:YA:2228:G:OP1	27:YD:261:LYS:HE2	2.17	0.44
30:YG:129:GLY:HA2	30:YG:169:ALA:HB2	1.99	0.44
31:YH:137:ASP:HB2	31:YH:140:LYS:HE3	1.98	0.44
25:YA:2642:G:H4'	33:YN:78:TYR:CE2	2.52	0.44
35:YP:45:LEU:HD12	35:YP:45:LEU:N	2.32	0.44
36:YQ:93:TYR:N	36:YQ:93:TYR:CD1	2.85	0.44
25:YA:1654:A:OP1	37:YR:1:MET:O	2.34	0.44
38:YS:78:LEU:HD21	38:YS:108:GLY:CA	2.47	0.44
38:YS:3:ARG:O	38:YS:4:LEU:O	2.35	0.44
34:YO:104:ARG:NH1	39:YT:36:GLU:CD	2.71	0.44
39:YT:36:GLU:CG	39:YT:41:ARG:HD3	2.46	0.44
40:YU:57:PHE:O	40:YU:59:ARG:N	2.50	0.44
1:QA:133:U:H5''	1:QA:134:A:OP1	2.17	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1323:G:N2	1:QA:1361:G:O2'	2.50	0.44
1:QA:1507:A:H2'	1:QA:1508:G:O4'	2.17	0.44
1:QA:819:A:N7	1:QA:1529:G:C2	2.85	0.44
1:QA:730:G:H3'	1:QA:731:G:O4'	2.16	0.44
1:QA:877:C:H5''	8:QH:88:LYS:CD	2.47	0.44
2:QB:189:ASP:OD2	2:QB:205:ASP:OD1	2.35	0.44
3:QC:69:HIS:N	3:QC:69:HIS:ND1	2.66	0.44
4:QD:122:ARG:HA	4:QD:134:ASP:HB2	2.00	0.44
4:QD:25:ARG:CZ	4:QD:30:LYS:HE3	2.46	0.44
5:QE:80:ILE:HG13	5:QE:82:VAL:HG23	1.99	0.44
7:QG:140:ASP:HA	7:QG:143:ARG:HH11	1.79	0.44
11:QK:83:ILE:HG12	11:QK:109:VAL:HG23	1.99	0.44
12:QL:61:THR:O	12:QL:63:GLY:N	2.45	0.44
1:QA:1329:A:OP1	13:QM:28:ALA:HB3	2.17	0.44
20:QT:83:ARG:C	20:QT:86:ARG:HB3	2.38	0.44
47:R1:10:LYS:HD2	47:R1:66:HIS:HE1	1.82	0.44
48:R2:41:ILE:O	48:R2:41:ILE:HD12	2.16	0.44
50:R4:15:ILE:N	50:R4:15:ILE:CD1	2.78	0.44
50:R4:15:ILE:CG2	50:R4:20:ASN:ND2	2.81	0.44
30:RG:67:LYS:CE	50:R4:6:HIS:NE2	2.74	0.44
52:R6:17:LYS:O	52:R6:18:ARG:CB	2.64	0.44
53:R7:24:THR:O	53:R7:28:ARG:HG3	2.16	0.44
54:R8:47:LYS:HD2	54:R8:48:PHE:N	2.33	0.44
25:RA:1006:C:H5'	33:RN:28:THR:HG23	1.98	0.44
25:RA:1270:C:H5''	25:RA:1271:G:C5'	2.34	0.44
25:RA:1363:C:C2	25:RA:1364:G:C8	3.05	0.44
25:RA:1519:G:C6	25:RA:1520:U:C4	3.05	0.44
25:RA:1581:G:C8	25:RA:1581:G:H5''	2.52	0.44
25:RA:2261:C:C2	25:RA:2280:G:C2	3.06	0.44
25:RA:2656:U:C5	25:RA:2664:G:N2	2.85	0.44
25:RA:264:C:O2'	25:RA:265:A:H5''	2.17	0.44
25:RA:270(S):G:H2'	25:RA:270(T):G:H5'	1.98	0.44
25:RA:322:A:C6	25:RA:340:A:C2	3.05	0.44
25:RA:428:A:H3'	25:RA:429:A:C8	2.51	0.44
25:RA:44:A:O2'	25:RA:45:G:H5'	2.16	0.44
25:RA:688:U:H5'	25:RA:1780:A:C2	2.52	0.44
25:RA:778:G:O5'	25:RA:778:G:H8	2.00	0.44
29:RF:132:VAL:HG23	29:RF:133:ASN:H	1.82	0.44
31:RH:7:LEU:C	31:RH:7:LEU:HD12	2.37	0.44
33:RN:36:GLY:O	33:RN:42:TRP:CE3	2.69	0.44
33:RN:96:GLU:CG	33:RN:97:ARG:N	2.72	0.44
38:RS:78:LEU:HD21	38:RS:108:GLY:HA2	1.98	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:RO:104:ARG:NH2	39:RT:34:VAL:HG11	2.32	0.44
42:RW:74:ALA:O	42:RW:75:TYR:CB	2.65	0.44
42:RW:88:ARG:HG2	42:RW:88:ARG:HH11	1.82	0.44
43:RX:87:GLN:HB2	43:RX:87:GLN:HE21	1.55	0.44
45:RZ:150:LEU:HD23	45:RZ:171:ILE:HG12	2.00	0.44
1:XA:1100:C:H2'	1:XA:1102:A:O5'	2.17	0.44
1:XA:1448:C:H42	1:XA:1455:G:H1	1.64	0.44
1:XA:506:G:C5	1:XA:507:C:C4	3.04	0.44
1:XA:515:G:C5	1:XA:516:U:C5	3.05	0.44
1:XA:686:U:H2'	1:XA:687:A:C8	2.52	0.44
1:XA:807:A:H2'	1:XA:808:C:O4'	2.17	0.44
1:XA:1158:C:H4'	2:XB:133:LYS:HZ3	1.82	0.44
3:XC:140:ARG:HH11	3:XC:140:ARG:CG	2.30	0.44
4:XD:76:ARG:O	4:XD:79:PHE:HB3	2.17	0.44
9:XI:13:ALA:HB2	9:XI:68:GLY:CA	2.47	0.44
10:XJ:61:GLU:CG	14:YN:58:LYS:HE2	2.47	0.44
10:XJ:33:GLN:HB2	10:XJ:75:ILE:HD11	1.99	0.44
20:XT:98:PRO:C	20:XT:100:ILE:H	2.19	0.44
1:XA:191(F):U:O2	20:XT:105:SER:HB2	2.17	0.44
47:Y1:60:PHE:HE2	47:Y1:91:LYS:NZ	2.15	0.44
47:Y1:10:LYS:HD2	47:Y1:66:HIS:HE1	1.82	0.44
50:Y4:15:ILE:CG2	50:Y4:20:ASN:ND2	2.81	0.44
50:Y4:33:VAL:CG1	50:Y4:34:GLU:N	2.80	0.44
54:Y8:15:LYS:HD3	54:Y8:15:LYS:C	2.37	0.44
25:YA:1352:U:O2'	25:YA:1353:A:H5'	2.18	0.44
25:YA:1620:G:O2'	25:YA:1621:U:H5'	2.17	0.44
25:YA:1820:U:H4'	25:YA:1821:A:OP2	2.17	0.44
25:YA:1942:C:C4	25:YA:1943:U:C4	3.05	0.44
25:YA:2283:C:OP2	52:Y6:5:VAL:HG13	2.18	0.44
25:YA:2312:U:C5	25:YA:2313:C:H5	2.35	0.44
25:YA:2445:G:C2'	25:YA:2446:G:H5'	2.48	0.44
25:YA:601:C:O2'	25:YA:605:C:OP1	2.32	0.44
25:YA:729:G:H2'	25:YA:1775:U:H1'	2.00	0.44
25:YA:85:G:OP1	44:YY:8:LYS:HA	2.17	0.44
25:YA:728:G:H4'	27:YD:13:ARG:HD2	1.99	0.44
28:YE:50:GLY:CA	28:YE:74:PRO:HG3	2.46	0.44
30:YG:63:ILE:HG12	30:YG:64:THR:N	2.33	0.44
32:YI:5:LEU:HD11	32:YI:19:VAL:HG12	2.00	0.44
36:YQ:60:ARG:HH21	36:YQ:60:ARG:HB2	1.82	0.44
38:YS:56:LEU:O	38:YS:57:LYS:O	2.36	0.44
42:YW:28:SER:O	42:YW:30:GLU:N	2.51	0.44
45:YZ:179:ASP:CG	45:YZ:180:VAL:HG22	2.37	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2452:C:O2	56:Z8:76:PPU:CE1	2.65	0.44
1:QA:273:A:N6	1:QA:274:A:C6	2.85	0.44
1:QA:373:A:C2	1:QA:374:A:C8	3.05	0.44
1:QA:571:U:O2	1:QA:918:A:H5'	2.17	0.44
2:QB:132:LYS:HA	2:QB:135:GLN:CB	2.43	0.44
2:QB:229:VAL:O	2:QB:229:VAL:HG12	2.18	0.44
2:QB:47:THR:O	2:QB:51:LEU:N	2.32	0.44
4:QD:60:GLU:HG2	4:QD:202:LEU:HD12	2.00	0.44
4:QD:76:ARG:O	4:QD:79:PHE:HB3	2.17	0.44
8:QH:16:ALA:HB2	8:QH:24:THR:CG2	2.45	0.44
17:QQ:13:ASP:O	17:QQ:15:MET:N	2.51	0.44
17:QQ:48:GLU:O	17:QQ:50:LYS:N	2.50	0.44
17:QQ:92:ARG:HG3	17:QQ:92:ARG:NH1	2.30	0.44
20:QT:48:LYS:HB3	20:QT:51:GLU:CG	2.48	0.44
20:QT:44:ALA:HB1	20:QT:91:LEU:HB2	2.00	0.44
1:QA:1340:A:O2'	22:QV:31:G:O3'	2.35	0.44
47:R1:54:ALA:O	47:R1:55:GLY:O	2.35	0.44
50:R4:68:ARG:HH11	50:R4:69:LYS:HG2	1.82	0.44
52:R6:34:LEU:O	52:R6:36:LEU:HD22	2.17	0.44
25:RA:1061:U:H3'	25:RA:1062:G:H5''	1.98	0.44
25:RA:1464:C:H2'	25:RA:1465:G:H8	1.82	0.44
25:RA:1466:G:H2'	25:RA:1547:C:C5	2.53	0.44
25:RA:1542:G:H5''	25:RA:1543:A:OP2	2.17	0.44
25:RA:1948:G:N2	25:RA:1958:C:O2	2.43	0.44
25:RA:2458:G:O2'	25:RA:2490:G:O6	2.24	0.44
25:RA:2584:U:C6	25:RA:2585:U:N3	2.86	0.44
25:RA:2623:G:C2	25:RA:2624:G:C8	3.05	0.44
25:RA:2693:A:H2'	25:RA:2694:G:H8	1.81	0.44
25:RA:278:A:OP2	25:RA:278:A:H8	2.01	0.44
25:RA:2837:G:C2'	25:RA:2838:G:H5'	2.47	0.44
25:RA:681:G:H2'	25:RA:682:G:C8	2.53	0.44
25:RA:780:G:H21	25:RA:783:A:H62	1.63	0.44
25:RA:929:G:O5'	25:RA:929:G:H8	2.01	0.44
27:RD:155:LEU:HD12	27:RD:155:LEU:N	2.32	0.44
29:RF:155:LEU:HA	29:RF:174:VAL:CG1	2.46	0.44
33:RN:67:LEU:HA	33:RN:87:LEU:HD13	2.00	0.44
35:RP:45:LEU:HD12	35:RP:45:LEU:N	2.32	0.44
36:RQ:81:VAL:HG23	46:R0:7:LEU:CD1	2.48	0.44
37:RR:41:ALA:C	37:RR:43:GLU:H	2.20	0.44
38:RS:78:LEU:HD21	38:RS:108:GLY:CA	2.47	0.44
41:RV:61:VAL:O	41:RV:61:VAL:HG22	2.16	0.44
42:RW:29:LEU:HD11	42:RW:55:ALA:HB2	1.98	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:RZ:54:HIS:CE1	45:RZ:101:PRO:HG3	2.53	0.44
45:RZ:1:MET:HG2	45:RZ:2:GLU:H	1.81	0.44
1:XA:765:G:N2	1:XA:813:U:OP2	2.45	0.44
1:XA:818:G:HO2'	1:XA:820:U:H6	1.65	0.44
1:XA:922:G:C2	1:XA:1396:A:C6	3.05	0.44
2:XB:24:TRP:CD2	2:XB:26:PRO:HD3	2.52	0.44
4:XD:68:TYR:O	4:XD:69:GLY:C	2.55	0.44
8:XH:110:ALA:HB3	8:XH:121:ASP:HB3	1.99	0.44
9:XI:4:TYR:CZ	9:XI:88:TYR:HB2	2.52	0.44
10:XJ:38:ILE:CG1	10:XJ:71:LEU:HB3	2.48	0.44
10:XJ:62:HIS:N	10:XJ:62:HIS:CD2	2.85	0.44
11:XK:53:SER:C	11:XK:55:LYS:H	2.21	0.44
13:XM:16:ASP:O	13:XM:19:LEU:HD23	2.17	0.44
14:XN:24:CYS:HB3	14:XN:28:GLY:H	1.83	0.44
15:XO:29:VAL:HB	15:XO:81:LEU:HD21	1.99	0.44
16:XP:50:LYS:O	16:XP:50:LYS:HD3	2.17	0.44
16:XP:72:ARG:HD3	16:XP:72:ARG:O	2.18	0.44
20:XT:83:ARG:C	20:XT:86:ARG:HB3	2.38	0.44
22:XV:35:A:C2	23:XX:3:G:C2	3.05	0.44
54:Y8:47:LYS:HD2	54:Y8:48:PHE:N	2.33	0.44
25:YA:1263:U:O2'	51:Y5:11:THR:HG23	2.17	0.44
25:YA:1266:G:C8	42:YW:15:ARG:NH1	2.86	0.44
25:YA:1423:G:C2	25:YA:1424:G:C8	3.06	0.44
25:YA:1729:A:N6	25:YA:1731:G:C2	2.86	0.44
25:YA:2145:C:H2'	25:YA:2147:G:N2	2.33	0.44
25:YA:2196:C:H2'	25:YA:2197:U:C6	2.52	0.44
25:YA:2280:G:C2'	25:YA:2281:C:H5'	2.48	0.44
25:YA:655:A:C8	25:YA:656:G:O4'	2.70	0.44
26:YB:13:A:C6	26:YB:70:C:H5'	2.52	0.44
26:YB:79:C:H42	26:YB:97:G:H1	1.64	0.44
27:YD:12:SER:C	27:YD:14:ARG:N	2.70	0.44
4:QD:166:LYS:CD	27:YD:135:PHE:HZ	2.30	0.44
30:YG:19:LEU:HA	30:YG:22:ARG:HB2	1.99	0.44
30:YG:51:ARG:HB3	30:YG:51:ARG:NH1	2.33	0.44
33:YN:63:THR:HG23	33:YN:66:LYS:HE3	2.00	0.44
34:YO:40:VAL:CG1	34:YO:41:ALA:N	2.80	0.44
36:YQ:66:ILE:O	36:YQ:104:PHE:N	2.49	0.44
39:YT:80:SER:HA	39:YT:81:PRO:HD3	1.73	0.44
42:YW:1:MET:CE	42:YW:2:GLU:H	2.31	0.44
1:QA:1158:C:N3	1:QA:1160:G:N7	2.66	0.44
1:QA:1052:U:O2	1:QA:1207:G:N2	2.50	0.44
1:QA:507:C:H3'	1:QA:508:C:H2'	2.00	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:741:G:H2'	1:QA:742:G:O4'	2.17	0.44
1:QA:779:C:O2'	1:QA:780:A:H5'	2.18	0.44
1:QA:830:G:C2	1:QA:857:C:C2	3.05	0.44
1:QA:977:A:C2	1:QA:1224:G:C6	3.06	0.44
1:QA:532:A:H2	3:QC:156:ARG:HH12	1.63	0.44
4:QD:13:ARG:CB	4:QD:33:MET:HE3	2.47	0.44
4:QD:68:TYR:O	4:QD:69:GLY:C	2.55	0.44
5:QE:62:ALA:O	5:QE:64:ARG:N	2.51	0.44
7:QG:45:ASP:O	7:QG:49:ILE:HG12	2.17	0.44
9:QI:7:THR:O	9:QI:83:ARG:CD	2.66	0.44
10:QJ:61:GLU:CG	14:QN:58:LYS:HE2	2.47	0.44
16:QP:72:ARG:CD	16:QP:73:LEU:HD23	2.47	0.44
16:QP:83:GLU:HG3	16:QP:84:ALA:N	2.33	0.44
20:QT:36:LEU:C	20:QT:38:LYS:N	2.71	0.44
49:R3:50:VAL:HB	49:R3:53:LEU:HD12	2.00	0.44
53:R7:32:LYS:O	53:R7:33:ARG:C	2.56	0.44
53:R7:48:LYS:CG	53:R7:49:ARG:H	2.23	0.44
25:RA:1437:C:C4	25:RA:1438:U:C4	3.05	0.44
25:RA:2088:G:C2	25:RA:2089:U:C2	3.05	0.44
25:RA:2404:C:C2	25:RA:2414:G:C2	3.06	0.44
25:RA:2494:G:H2'	25:RA:2495:G:H8	1.81	0.44
25:RA:2061:G:H5''	25:RA:2503:A:N1	2.32	0.44
25:RA:2539:C:H5''	55:R9:3:VAL:HG21	1.99	0.44
25:RA:2623:G:H2'	25:RA:2624:G:H8	1.82	0.44
25:RA:2693:A:H2'	25:RA:2694:G:C8	2.53	0.44
25:RA:2805:G:H2'	25:RA:2807:G:C8	2.53	0.44
25:RA:301:G:C4	25:RA:302:C:C5	3.05	0.44
25:RA:445:C:O2'	25:RA:446:G:H5'	2.17	0.44
25:RA:715:G:H2'	25:RA:716:A:C8	2.52	0.44
27:RD:52:ARG:HB2	27:RD:53:PHE:CD2	2.53	0.44
29:RF:117:ARG:NH2	29:RF:189:THR:O	2.50	0.44
29:RF:174:VAL:O	29:RF:174:VAL:CG1	2.65	0.44
30:RG:129:GLY:HA2	30:RG:169:ALA:HB2	1.99	0.44
33:RN:20:GLY:HA2	33:RN:61:ARG:HD2	1.99	0.44
33:RN:57:ALA:O	33:RN:124:ALA:HA	2.18	0.44
34:RO:91:LEU:N	34:RO:91:LEU:CD2	2.80	0.44
35:RP:101:VAL:HA	35:RP:106:LEU:HB2	1.99	0.44
35:RP:83:VAL:HG11	35:RP:112:LEU:HD21	1.97	0.44
25:RA:671:C:H5	35:RP:33:ARG:HE	1.66	0.44
37:RR:3:HIS:C	37:RR:5:LYS:H	2.16	0.44
43:RX:70:LEU:HD23	43:RX:70:LEU:H	1.77	0.44
44:RY:88:LYS:HB3	44:RY:90:LEU:CD2	2.48	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:RY:97:ARG:HG2	44:RY:97:ARG:HH11	1.82	0.44
44:RY:95:LYS:HB2	44:RY:99:CYS:O	2.18	0.44
45:RZ:102:LEU:HD13	45:RZ:123:ASP:HA	1.99	0.44
1:XA:1316:G:H2'	1:XA:1317:C:H5''	2.00	0.44
1:XA:430:A:OP1	4:XD:9:CYS:HB2	2.18	0.44
1:XA:652:U:HO2'	1:XA:653:A:P	2.40	0.44
1:XA:864:A:H2'	1:XA:865:A:C8	2.52	0.44
2:XB:30:ARG:HH21	2:XB:194:PRO:HG2	1.82	0.44
6:XF:3:ARG:HG2	6:XF:93:SER:OG	2.17	0.44
1:XA:598:U:H4'	8:XH:94:TYR:CG	2.52	0.44
11:XK:83:ILE:HG12	11:XK:109:VAL:HG23	1.99	0.44
13:XM:53:VAL:HG12	13:XM:57:ARG:HH12	1.82	0.44
15:XO:54:ARG:O	15:XO:55:GLY:C	2.55	0.44
20:XT:36:LEU:HD13	20:XT:36:LEU:HA	1.82	0.44
48:Y2:41:ILE:HD12	48:Y2:41:ILE:O	2.16	0.44
50:Y4:2:LYS:HD2	50:Y4:2:LYS:HA	1.61	0.44
50:Y4:39:CYS:HB3	50:Y4:41:PRO:HD2	2.00	0.44
25:YA:1027:A:N6	25:YA:1126:A:C4	2.86	0.44
25:YA:1426:G:O2'	25:YA:1572:A:N6	2.47	0.44
25:YA:1709:U:H2'	25:YA:1710:C:C6	2.52	0.44
25:YA:2087:G:C2'	25:YA:2088:G:H5'	2.48	0.44
25:YA:20:C:C2	25:YA:521:G:N2	2.86	0.44
25:YA:2720:U:O4	25:YA:2872:G:C6	2.70	0.44
25:YA:2808:U:H3	25:YA:2892:A:H62	1.64	0.44
25:YA:407:G:H2'	25:YA:408:G:H8	1.83	0.44
25:YA:1693:U:H1'	27:YD:14:ARG:HH22	1.82	0.44
27:YD:44:ASN:CB	27:YD:49:ILE:HG22	2.46	0.44
29:YF:149:ASP:OD2	29:YF:151:SER:HB3	2.17	0.44
31:YH:37:VAL:HG11	31:YH:68:THR:HG23	1.98	0.44
35:YP:107:LYS:HB2	35:YP:110:TYR:HD2	1.83	0.44
35:YP:6:LEU:HD22	35:YP:6:LEU:N	2.31	0.44
36:YQ:21:THR:HB	36:YQ:22:LYS:H	1.42	0.44
39:YT:135:ALA:C	39:YT:137:LYS:N	2.71	0.44
40:YU:53:ARG:C	40:YU:55:ARG:H	2.20	0.44
40:YU:86:ALA:CB	40:YU:88:ILE:HD11	2.48	0.44
1:QA:1069:C:H5''	5:QE:20:GLN:NE2	2.32	0.44
1:QA:1072:G:H2'	1:QA:1073:U:O4'	2.18	0.44
1:QA:1376:U:OP1	7:QG:98:SER:HB3	2.18	0.44
1:QA:502:G:C6	1:QA:503:C:C4	3.06	0.44
1:QA:728:A:N6	1:QA:729:A:N6	2.66	0.44
1:QA:1073:U:O2'	2:QB:104:ASN:OD1	2.30	0.44
2:QB:192:SER:OG	2:QB:193:ASP:N	2.51	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:29:ALA:O	2:QB:32:ILE:HG22	2.17	0.44
2:QB:51:LEU:O	2:QB:55:PHE:HD2	2.00	0.44
3:QC:42:LEU:HD12	3:QC:45:LYS:HZ3	1.83	0.44
8:QH:88:LYS:HB3	8:QH:89:PRO:HD2	2.00	0.44
10:QJ:70:ARG:HH11	10:QJ:70:ARG:HG3	1.83	0.44
11:QK:48:ILE:HD11	11:QK:64:ALA:N	2.32	0.44
13:QM:66:LEU:C	13:QM:70:LEU:HB2	2.38	0.44
13:QM:90:LEU:HD12	13:QM:91:ARG:N	2.33	0.44
15:QO:10:LYS:O	15:QO:14:GLU:HB2	2.18	0.44
12:QL:7:ILE:HG23	17:QQ:32:TYR:HB3	1.98	0.44
22:QV:58:A:O2'	22:QV:60:U:OP2	2.16	0.44
47:R1:8:SER:CB	47:R1:66:HIS:CE1	3.01	0.44
48:R2:4:SER:OG	48:R2:5:GLU:OE2	2.26	0.44
52:R6:11:LEU:HD12	52:R6:51:GLU:HG3	2.00	0.44
25:RA:1882:C:H5'	25:RA:1883:G:OP2	2.18	0.44
25:RA:2176:A:C5	25:RA:2177:C:C4	3.06	0.44
25:RA:2845:G:C2'	25:RA:2846:G:H5'	2.47	0.44
25:RA:428:A:H3'	25:RA:429:A:H8	1.83	0.44
27:RD:95:LEU:HD12	27:RD:95:LEU:O	2.17	0.44
25:RA:588:U:H1'	29:RF:90:PHE:CG	2.52	0.44
31:RH:84:SER:OG	31:RH:85:LYS:N	2.51	0.44
32:RI:102:SER:OG	32:RI:108:THR:HG22	2.18	0.44
34:RO:77:ILE:O	34:RO:77:ILE:HG23	2.17	0.44
38:RS:3:ARG:O	38:RS:4:LEU:O	2.35	0.44
40:RU:52:ARG:NH1	40:RU:52:ARG:CG	2.76	0.44
25:RA:1221:C:OP1	41:RV:68:LYS:HE2	2.18	0.44
1:XA:1015:A:H2'	1:XA:1016:A:C8	2.52	0.44
1:XA:1022:G:H2'	1:XA:1023:G:C8	2.53	0.44
1:XA:1309:G:H2'	1:XA:1310:G:O4'	2.17	0.44
1:XA:1429:C:H2'	1:XA:1430:C:H6	1.82	0.44
1:XA:538:G:H8	1:XA:538:G:O5'	2.01	0.44
1:XA:657:G:C2	1:XA:750:G:C5	3.06	0.44
1:XA:771:G:H2'	1:XA:772:U:C6	2.53	0.44
2:XB:54:THR:HG21	2:XB:201:ILE:HD11	2.00	0.44
1:XA:1100:C:OP2	2:XB:96:ARG:HG2	2.17	0.44
3:XC:108:ASN:HB3	3:XC:111:LEU:HD12	1.99	0.44
4:XD:132:ARG:HG2	4:XD:132:ARG:HH11	1.83	0.44
7:XG:38:LEU:O	7:XG:42:ILE:HG13	2.17	0.44
10:XJ:16:LEU:HD13	10:XJ:16:LEU:C	2.38	0.44
11:XK:121:PRO:HD2	11:XK:126:ARG:CD	2.46	0.44
11:XK:124:LYS:HB3	11:XK:125:PHE:H	1.67	0.44
18:XR:82:THR:HG22	18:XR:83:GLU:H	1.80	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:Y4:23:GLU:O	50:Y4:24:THR:OG1	2.34	0.44
52:Y6:34:LEU:O	52:Y6:36:LEU:HD22	2.17	0.44
25:YA:1690:A:H2'	25:YA:1691:C:O4'	2.17	0.44
25:YA:1870:C:H2'	25:YA:1871:A:O4'	2.17	0.44
25:YA:2219:G:H5''	27:YD:269:PHE:CZ	2.53	0.44
25:YA:2262:U:OP2	46:Y0:19:LYS:HE3	2.17	0.44
25:YA:2283:C:C2	25:YA:2389:G:C2	3.06	0.44
25:YA:2563:U:H4'	34:YO:28:SER:HA	1.99	0.44
25:YA:270(T):G:H5''	47:Y1:97:LEU:CD2	2.42	0.44
25:YA:2748:A:H2'	25:YA:2749:A:H8	1.82	0.44
25:YA:463:G:N1	25:YA:467:G:C6	2.85	0.44
25:YA:467:G:O5'	25:YA:467:G:H8	1.99	0.44
27:YD:145:VAL:HB	27:YD:155:LEU:HB2	1.99	0.44
28:YE:172:VAL:HG13	28:YE:182:LEU:HD11	1.98	0.44
29:YF:201:VAL:HG13	29:YF:202:PHE:N	2.33	0.44
30:YG:16:ARG:CZ	30:YG:31:VAL:HG11	2.47	0.44
31:YH:6:ARG:CG	31:YH:7:LEU:N	2.81	0.44
35:YP:31:ALA:C	35:YP:32:THR:CG2	2.85	0.44
38:YS:110:LEU:HA	38:YS:112:PHE:CZ	2.53	0.44
42:YW:14:PRO:HB3	42:YW:18:ARG:HE	1.83	0.44
43:YX:35:THR:O	43:YX:36:LYS:C	2.55	0.44
1:QA:1015:A:H2'	1:QA:1016:A:C8	2.52	0.44
1:QA:1160:G:H1	1:QA:1177:G:H21	1.64	0.44
1:QA:1326:C:H2'	1:QA:1327:C:H6	1.83	0.44
1:QA:1347:G:H2'	1:QA:1373:G:O6	2.18	0.44
1:QA:109:A:C6	1:QA:327:A:C6	3.06	0.44
1:QA:416:G:N7	1:QA:417:C:C4	2.86	0.44
1:QA:51:A:N1	1:QA:314:C:O2'	2.46	0.44
1:QA:539:A:C6	1:QA:540:G:C6	3.05	0.44
1:QA:636:U:H2'	1:QA:637:G:H8	1.78	0.44
1:QA:694:A:N1	1:QA:787:A:O2'	2.50	0.44
1:QA:867:G:O2'	1:QA:868:C:H5'	2.18	0.44
2:QB:17:PHE:CG	2:QB:44:LEU:HD11	2.53	0.44
2:QB:90:MET:HA	2:QB:91:PRO:HD3	1.82	0.44
4:QD:206:PHE:CD2	4:QD:207:TYR:CE1	3.05	0.44
7:QG:21:VAL:HG23	7:QG:22:LEU:N	2.32	0.44
7:QG:62:PHE:O	7:QG:64:GLN:N	2.51	0.44
8:QH:28:ALA:O	8:QH:29:SER:HB2	2.17	0.44
9:QI:47:LEU:HD22	9:QI:47:LEU:H	1.81	0.44
9:QI:4:TYR:CZ	9:QI:88:TYR:HB2	2.51	0.44
10:QJ:54:PHE:CD2	10:QJ:55:LYS:HD2	2.52	0.44
11:QK:77:MET:HE3	11:QK:80:VAL:HG12	1.98	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:QV:53:G:HO2'	22:QV:54:U:H6	1.64	0.44
25:RA:1199:U:H2'	25:RA:1200:C:C6	2.53	0.44
25:RA:1334:G:H2'	25:RA:1335:U:H6	1.82	0.44
25:RA:1373:A:C6	25:RA:1374:G:C4	3.05	0.44
25:RA:1448:G:H5'	25:RA:1543:A:OP1	2.18	0.44
25:RA:2055:C:H4'	25:RA:2056:G:H5''	2.00	0.44
25:RA:2702:U:H2'	25:RA:2702:U:O2	2.17	0.44
25:RA:2821:A:OP2	25:RA:2822:G:OP2	2.36	0.44
25:RA:2867:G:O2'	25:RA:2868:A:O5'	2.36	0.44
25:RA:57:C:H6	25:RA:57:C:O5'	2.01	0.44
25:RA:997:G:OP2	40:RU:58:ARG:HD2	2.18	0.44
27:RD:30:GLU:HG3	27:RD:63:ARG:NE	2.32	0.44
27:RD:30:GLU:CD	27:RD:63:ARG:HE	2.21	0.44
28:RE:11:MET:O	28:RE:12:THR:HB	2.18	0.44
28:RE:199:ARG:HG3	28:RE:199:ARG:HH11	1.82	0.44
29:RF:65:TRP:CZ2	29:RF:72:ARG:NH2	2.86	0.44
30:RG:67:LYS:N	30:RG:67:LYS:HD2	2.33	0.44
25:RA:2562:U:C2'	34:RO:23:ARG:HH12	2.30	0.44
35:RP:81:GLN:HG3	35:RP:82:GLY:N	2.33	0.44
37:RR:12:ARG:HG3	37:RR:12:ARG:NH1	2.32	0.44
39:RT:135:ALA:C	39:RT:137:LYS:N	2.71	0.44
43:RX:3:THR:HA	43:RX:6:ASP:OD2	2.18	0.44
1:XA:1183:A:O2'	1:XA:1184:G:OP1	2.25	0.44
1:XA:1432:G:H8	1:XA:1432:G:O5'	2.01	0.44
1:XA:1446:A:HO2'	1:XA:1447:G:P	2.41	0.44
1:XA:179:A:H2'	1:XA:180:U:H6	1.82	0.44
1:XA:416:G:H1	1:XA:427:U:H3	1.66	0.44
1:XA:837:G:C2	1:XA:850:U:O2	2.71	0.44
1:XA:79:G:N2	1:XA:90:C:O2	2.45	0.44
3:XC:188:LEU:HD12	3:XC:195:VAL:CG1	2.48	0.44
3:XC:69:HIS:ND1	3:XC:69:HIS:N	2.66	0.44
4:XD:52:SER:HB3	4:XD:55:ALA:HB3	2.00	0.44
1:XA:546:G:P	4:XD:72:GLU:HB3	2.58	0.44
4:XD:93:PHE:CZ	4:XD:97:LEU:HD11	2.52	0.44
4:XD:9:CYS:SG	4:XD:32:ALA:HB2	2.58	0.44
5:XE:62:ALA:C	5:XE:64:ARG:H	2.21	0.44
5:XE:62:ALA:O	5:XE:64:ARG:N	2.51	0.44
5:XE:80:ILE:HG13	5:XE:82:VAL:HG23	1.99	0.44
5:XE:94:ALA:HB2	5:XE:119:LEU:HG	2.00	0.44
8:XH:28:ALA:O	8:XH:29:SER:HB2	2.18	0.44
8:XH:6:ILE:HB	8:XH:85:ARG:HH11	1.74	0.44
10:XJ:100:THR:O	10:XJ:101:VAL:HB	2.17	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:XK:70:LYS:HA	11:XK:73:MET:HE2	1.99	0.44
12:XL:27:LEU:C	12:XL:29:GLY:H	2.20	0.44
1:XA:948:C:H5	13:XM:106:ASN:HD22	1.58	0.44
1:XA:981:U:H5'	14:XN:21:TYR:CZ	2.52	0.44
1:XA:1202:G:C1'	14:XN:29:ARG:HD2	2.47	0.44
10:XJ:53:PRO:C	14:XN:41:ARG:NH2	2.71	0.44
14:XN:47:LEU:O	14:XN:48:ALA:C	2.56	0.44
15:XO:87:ILE:CG2	15:XO:88:ARG:N	2.71	0.44
16:XP:15:PRO:O	16:XP:16:HIS:ND1	2.51	0.44
50:Y4:39:CYS:O	50:Y4:40:HIS:CB	2.66	0.44
25:YA:2349:G:OP2	54:Y8:42:ARG:HD3	2.18	0.44
25:YA:1053:C:N4	25:YA:1054:A:N7	2.66	0.44
25:YA:1288:U:C2	25:YA:1327:C:O2	2.70	0.44
25:YA:1494:A:O2'	25:YA:1495:A:H5'	2.17	0.44
25:YA:2033:A:N6	25:YA:2036:C:C2	2.86	0.44
25:YA:2210:G:H5'	25:YA:2211:G:C5	2.53	0.44
25:YA:2399:G:H2'	25:YA:2400:G:O4'	2.17	0.44
25:YA:2636:U:H2'	25:YA:2637:U:C6	2.53	0.44
25:YA:2655:G:HO2'	25:YA:2656:U:P	2.38	0.44
25:YA:2734:A:N6	25:YA:2770:G:O2'	2.49	0.44
25:YA:377:C:H2'	25:YA:378:C:H6	1.83	0.44
25:YA:381:G:H1	25:YA:393:C:H42	1.66	0.44
25:YA:84:A:H2	25:YA:98:G:N3	2.15	0.44
25:YA:971:C:N4	25:YA:972:G:C4	2.86	0.44
27:YD:143:HIS:HD2	27:YD:144:ALA:HB2	1.82	0.44
27:YD:17:THR:HG21	27:YD:204:ILE:HA	1.99	0.44
28:YE:120:TRP:CE3	28:YE:155:LYS:HD3	2.53	0.44
29:YF:184:TYR:CE2	29:YF:188:ARG:HD2	2.52	0.44
29:YF:24:LEU:N	29:YF:24:LEU:HD12	2.33	0.44
29:YF:65:TRP:CZ2	29:YF:72:ARG:NH2	2.86	0.44
32:YI:76:THR:OG1	32:YI:139:GLN:OE1	2.33	0.44
34:YO:120:GLU:OE1	39:YT:67:SER:OG	2.24	0.44
35:YP:115:LEU:CB	35:YP:131:SER:HB2	2.47	0.44
35:YP:13:ASN:C	35:YP:15:ARG:H	2.21	0.44
35:YP:88:LEU:O	35:YP:90:ARG:N	2.50	0.44
36:YQ:27:VAL:HG13	36:YQ:28:ALA:N	2.32	0.44
38:YS:110:LEU:HA	38:YS:112:PHE:CE1	2.53	0.44
39:YT:99:LEU:CD1	39:YT:99:LEU:O	2.65	0.44
40:YU:97:ASP:HA	40:YU:100:VAL:CG2	2.47	0.44
40:YU:79:PHE:CE2	40:YU:83:LEU:CD1	3.00	0.44
41:YV:72:VAL:HG13	41:YV:85:LYS:HB3	2.00	0.44
44:YY:36:ALA:HB1	44:YY:67:LEU:O	2.16	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:YY:88:LYS:HB3	44:YY:90:LEU:CD2	2.48	0.44
1:QA:1034:G:H2'	1:QA:1035:A:H8	1.80	0.44
1:QA:1187:G:H5'	1:QA:1188:A:OP2	2.17	0.44
1:QA:1333:A:H2'	1:QA:1334:G:O4'	2.18	0.44
1:QA:502:G:H1	1:QA:543:C:H42	1.64	0.44
1:QA:616:G:H2'	1:QA:617:G:H5'	2.00	0.44
1:QA:593:G:H1	1:QA:646:U:H3	1.65	0.44
1:QA:854:G:C2	1:QA:855:G:C8	3.05	0.44
2:QB:136:VAL:O	2:QB:140:HIS:N	2.44	0.44
2:QB:77:ALA:HB2	2:QB:211:ILE:HG21	2.00	0.44
2:QB:47:THR:HG22	2:QB:51:LEU:CG	2.48	0.44
9:QI:13:ALA:HB2	9:QI:68:GLY:CA	2.47	0.44
9:QI:43:ALA:O	9:QI:45:ALA:N	2.51	0.44
9:QI:5:TYR:CD2	9:QI:6:GLY:N	2.86	0.44
10:QJ:6:ILE:O	10:QJ:71:LEU:HD12	2.18	0.44
11:QK:13:GLN:HG3	11:QK:75:TYR:CA	2.48	0.44
11:QK:53:SER:C	11:QK:55:LYS:H	2.20	0.44
1:QA:363:A:C4	12:QL:31:PRO:HD2	2.53	0.44
13:QM:36:LYS:C	13:QM:36:LYS:CD	2.85	0.44
1:QA:474:G:H5''	16:QP:81:ARG:NE	2.32	0.44
20:QT:101:GLY:C	20:QT:103:GLY:H	2.21	0.44
1:QA:323:U:H5'	20:QT:23:ARG:HB2	2.00	0.44
20:QT:50:GLU:O	20:QT:52:ALA:N	2.51	0.44
24:QY:39:C:HO2'	24:QY:40:G:P	2.40	0.44
50:R4:33:VAL:CG1	50:R4:34:GLU:H	2.22	0.44
50:R4:39:CYS:HB3	50:R4:41:PRO:HD2	2.00	0.44
51:R5:3:LYS:O	51:R5:4:HIS:C	2.56	0.44
51:R5:52:TYR:CD1	51:R5:52:TYR:N	2.85	0.44
25:RA:1264:G:H5'	51:R5:11:THR:HG21	2.00	0.44
25:RA:1359:A:C6	25:RA:1373:A:C4	3.05	0.44
25:RA:1460:A:H5''	25:RA:1461:G:O5'	2.18	0.44
25:RA:1523:U:H6	25:RA:1523:U:O5'	2.00	0.44
25:RA:1339:G:H21	25:RA:1603:A:H1'	1.79	0.44
25:RA:1680:U:H5''	25:RA:1681:G:OP2	2.18	0.44
25:RA:1946:U:H2'	25:RA:1947:C:C6	2.53	0.44
25:RA:1954:G:H1'	25:RA:1956:U:O4	2.18	0.44
25:RA:2083:G:C6	25:RA:2084:C:C4	3.06	0.44
25:RA:2241:A:H2'	25:RA:2242:G:C8	2.53	0.44
25:RA:2262:U:O4	46:R0:15:ASP:HA	2.18	0.44
25:RA:2458:G:C4	25:RA:2490:G:C6	3.06	0.44
25:RA:2626:C:H2'	25:RA:2627:G:O4'	2.18	0.44
25:RA:455:C:C4	25:RA:472:A:C5	3.06	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:526:A:N1	25:RA:2625:G:O2'	2.44	0.44
27:RD:10:THR:O	27:RD:11:PRO:C	2.56	0.44
27:RD:11:PRO:O	27:RD:12:SER:CB	2.65	0.44
28:RE:52:LEU:HB2	28:RE:75:VAL:CG2	2.40	0.44
31:RH:125:VAL:CG1	31:RH:126:PRO:CG	2.94	0.44
32:RI:144:VAL:HG22	32:RI:145:VAL:H	1.83	0.44
37:RR:33:ARG:HA	37:RR:114:VAL:O	2.18	0.44
37:RR:79:LEU:O	37:RR:79:LEU:HD23	2.16	0.44
34:RO:104:ARG:NH1	39:RT:36:GLU:CD	2.71	0.44
40:RU:79:PHE:CE2	40:RU:83:LEU:CD1	3.00	0.44
41:RV:35:LEU:N	41:RV:35:LEU:HD22	2.23	0.44
41:RV:72:VAL:HG13	41:RV:85:LYS:HB3	2.00	0.44
1:XA:1061:G:C5	1:XA:1062:U:C5	3.06	0.44
1:XA:1207:G:C2	1:XA:1208:C:C2	3.05	0.44
1:XA:1374:A:O2'	7:XG:28:ASN:HB3	2.17	0.44
1:XA:262:A:H2'	1:XA:263:A:C8	2.53	0.44
1:XA:428:G:C5	1:XA:430:A:C6	3.05	0.44
1:XA:498:A:N6	1:XA:547:A:C8	2.85	0.44
2:XB:192:SER:OG	2:XB:193:ASP:N	2.50	0.44
2:XB:33:TYR:O	2:XB:33:TYR:HD1	2.00	0.44
4:XD:3:ARG:O	4:XD:4:TYR:C	2.55	0.44
5:XE:147:ASP:N	5:XE:147:ASP:OD2	2.50	0.44
5:XE:48:ALA:HB2	5:XE:57:LYS:HD3	2.00	0.44
8:XH:109:ILE:HD11	8:XH:120:THR:HG22	2.00	0.44
8:XH:1:MET:CE	8:XH:1:MET:H3	2.31	0.44
11:XK:106:LYS:O	11:XK:107:SER:CB	2.66	0.44
11:XK:96:ARG:O	11:XK:97:ALA:C	2.54	0.44
19:XS:10:PHE:CD1	19:XS:38:SER:HB2	2.52	0.44
13:XM:80:ARG:NH1	19:XS:65:ASN:O	2.51	0.44
50:Y4:68:ARG:HH11	50:Y4:69:LYS:HG2	1.82	0.44
25:YA:1319:G:N3	25:YA:1319:G:H2'	2.32	0.44
25:YA:1793:C:N4	25:YA:1826:G:H1	2.15	0.44
25:YA:1853:A:N3	25:YA:2233:U:O2'	2.50	0.44
25:YA:2063:C:N4	25:YA:2064:C:C4	2.86	0.44
25:YA:2621:A:N6	25:YA:2622:C:N4	2.66	0.44
25:YA:273(D):C:H2'	25:YA:273(E):U:C6	2.53	0.44
25:YA:2794:C:N4	25:YA:2795:G:O6	2.50	0.44
25:YA:323:G:O2'	25:YA:1205:U:N3	2.48	0.44
25:YA:347:A:H2'	25:YA:348:G:H8	1.83	0.44
25:YA:415:A:N1	25:YA:2409:G:C6	2.86	0.44
25:YA:442:G:O4'	29:YF:46:ARG:HD3	2.18	0.44
25:YA:679:C:H2'	25:YA:680:G:H8	1.83	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:155:LEU:N	27:YD:155:LEU:HD12	2.32	0.44
28:YE:2:LYS:HG2	28:YE:95:ILE:HG22	1.99	0.44
32:YI:56:LYS:HZ1	32:YI:57:ARG:HG2	1.83	0.44
33:YN:109:LYS:H	33:YN:109:LYS:CD	2.26	0.44
35:YP:19:VAL:HG22	35:YP:21:ARG:H	1.83	0.44
35:YP:70:GLN:OE1	35:YP:70:GLN:N	2.51	0.44
37:YR:41:ALA:C	37:YR:43:GLU:H	2.21	0.44
39:YT:49:VAL:CG1	39:YT:49:VAL:O	2.64	0.44
42:YW:88:ARG:HH11	42:YW:88:ARG:HG2	1.82	0.44
44:YY:15:VAL:HB	44:YY:20:TYR:O	2.17	0.44
45:YZ:24:LEU:N	45:YZ:39:VAL:O	2.49	0.44
1:QA:1122:U:H2'	1:QA:1123:A:C8	2.53	0.44
1:QA:1137:C:O2'	1:QA:1138:G:C2	2.69	0.44
1:QA:1239:A:H62	1:QA:1299:A:N6	2.15	0.44
1:QA:523:A:H61	12:QL:92:ASP:HB2	1.82	0.44
1:QA:585:G:O5'	1:QA:585:G:H8	2.00	0.44
1:QA:731:G:OP1	1:QA:766:A:H1'	2.17	0.44
1:QA:778:G:H2'	1:QA:779:C:O4'	2.17	0.44
4:QD:146:ILE:H	4:QD:146:ILE:CD1	2.30	0.44
8:QH:118:VAL:O	8:QH:119:LEU:HD23	2.17	0.44
9:QI:10:ARG:NE	9:QI:105:ASP:CB	2.81	0.44
10:QJ:10:GLY:O	10:QJ:68:HIS:N	2.51	0.44
10:QJ:38:ILE:CG1	10:QJ:71:LEU:HB3	2.48	0.44
11:QK:106:LYS:O	11:QK:107:SER:CB	2.65	0.44
13:QM:53:VAL:HG12	13:QM:57:ARG:HH12	1.82	0.44
16:QP:23:ASP:O	16:QP:26:ARG:HB2	2.18	0.44
18:QR:20:ALA:O	18:QR:21:LYS:HG3	2.18	0.44
19:QS:51:VAL:HG12	19:QS:52:TYR:N	2.33	0.44
50:R4:42:PHE:CD1	50:R4:42:PHE:C	2.90	0.44
54:R8:40:GLU:O	54:R8:43:GLN:N	2.50	0.44
25:RA:1022:G:HO2'	25:RA:1023:U:P	2.37	0.44
25:RA:1022:G:N1	25:RA:1140:C:N3	2.65	0.44
25:RA:1027:A:C6	25:RA:1126:A:C4	3.06	0.44
25:RA:140:A:C6	25:RA:141:A:N6	2.86	0.44
25:RA:270(I):G:H2'	25:RA:270(J):G:C8	2.52	0.44
25:RA:2877:G:C2'	25:RA:2878:U:H5'	2.48	0.44
25:RA:324:A:H61	25:RA:338:G:C2'	2.30	0.44
25:RA:738:G:C2	25:RA:759:G:C5	3.06	0.44
25:RA:76:C:O2'	25:RA:77:C:H5'	2.18	0.44
25:RA:922:U:C4	25:RA:923:C:N4	2.86	0.44
27:RD:12:SER:O	27:RD:14:ARG:N	2.51	0.44
27:RD:155:LEU:HD23	27:RD:177:LEU:HD21	2.00	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:25:THR:CG2	27:RD:25:THR:O	2.65	0.44
27:RD:45:ASN:CG	27:RD:46:GLN:N	2.68	0.44
28:RE:51:PHE:CD1	28:RE:52:LEU:N	2.76	0.44
29:RF:201:VAL:HG13	29:RF:202:PHE:N	2.33	0.44
26:RB:55:U:C5'	30:RG:28:VAL:HG21	2.48	0.44
31:RH:119:GLU:CD	31:RH:120:GLY:H	2.22	0.44
35:RP:75:ILE:HG12	35:RP:77:ARG:NH1	2.32	0.44
36:RQ:34:LEU:HB2	36:RQ:118:LEU:HD22	2.00	0.44
39:RT:111:ARG:C	39:RT:113:LYS:N	2.64	0.44
44:RY:11:ASP:HB2	44:RY:27:VAL:CG1	2.46	0.44
1:XA:971:G:N2	1:XA:1363:A:OP2	2.44	0.44
1:XA:319:G:H5'	1:XA:1468:A:H4'	2.00	0.44
1:XA:57:G:H2'	1:XA:58:C:O4'	2.18	0.44
1:XA:775:G:H2'	1:XA:776:G:H8	1.83	0.44
3:XC:14:ILE:C	3:XC:16:ARG:H	2.21	0.44
3:XC:68:VAL:HG12	3:XC:70:VAL:HG23	1.98	0.44
4:XD:95:GLY:O	4:XD:99:SER:N	2.51	0.44
6:XF:35:ALA:HA	6:XF:67:MET:HB3	1.99	0.44
8:XH:23:SER:HB3	8:XH:62:TYR:HA	2.00	0.44
8:XH:88:LYS:HB3	8:XH:89:PRO:HD2	2.00	0.44
18:XR:53:ARG:C	18:XR:55:ARG:H	2.22	0.44
19:XS:8:GLY:O	19:XS:9:VAL:CG2	2.57	0.44
20:XT:28:ALA:O	20:XT:30:LYS:N	2.50	0.44
20:XT:48:LYS:HB3	20:XT:51:GLU:CG	2.48	0.44
47:Y1:49:VAL:HG12	47:Y1:51:VAL:HG23	1.99	0.44
25:YA:83:G:N2	25:YA:103:A:OP2	2.47	0.44
25:YA:1067:A:OP1	25:YA:1067:A:H8	2.01	0.44
25:YA:1517:G:H2'	25:YA:1518:C:C6	2.53	0.44
25:YA:1683:C:H2'	25:YA:1684:C:C6	2.53	0.44
25:YA:1776:G:H2'	25:YA:1777:U:H5'	2.00	0.44
25:YA:2416:C:N3	25:YA:2417:C:C5	2.86	0.44
25:YA:2422:A:C8	25:YA:2424:C:H5	2.35	0.44
25:YA:2552:U:C2	25:YA:2554:U:H5''	2.53	0.44
25:YA:701:G:H5''	25:YA:701:G:C8	2.53	0.44
25:YA:725:G:C6	25:YA:726:G:N1	2.86	0.44
26:YB:9:G:H1	26:YB:111:U:H3	1.65	0.44
27:YD:30:GLU:HG3	27:YD:63:ARG:NE	2.32	0.44
29:YF:42:ALA:O	29:YF:45:ARG:HB2	2.18	0.44
31:YH:109:PHE:C	31:YH:111:HIS:H	2.21	0.44
31:YH:153:LYS:HG3	31:YH:162:ILE:H	1.79	0.44
32:YI:47:LEU:O	32:YI:51:ILE:N	2.47	0.44
32:YI:56:LYS:HZ2	32:YI:57:ARG:HA	1.83	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:YN:67:LEU:HA	33:YN:87:LEU:HD13	2.00	0.44
34:YO:91:LEU:CD2	34:YO:91:LEU:N	2.80	0.44
25:YA:943:U:P	35:YP:36:LYS:HD3	2.58	0.44
36:YQ:81:VAL:HG23	36:YQ:82:ARG:N	2.32	0.44
38:YS:57:LYS:O	38:YS:58:LEU:HB3	2.18	0.44
38:YS:86:ALA:O	38:YS:87:PHE:CB	2.65	0.44
39:YT:29:ARG:HA	39:YT:45:PHE:O	2.17	0.44
42:YW:67:ASP:N	42:YW:67:ASP:OD2	2.50	0.44
44:YY:95:LYS:HB2	44:YY:99:CYS:O	2.17	0.44
1:QA:1058:G:H2'	1:QA:1059:C:O4'	2.18	0.43
1:QA:391:G:C6	1:QA:392:G:C5	3.06	0.43
1:QA:557:G:H2'	1:QA:558:G:C8	2.52	0.43
2:QB:115:LEU:HD21	2:QB:153:ARG:HD3	1.99	0.43
2:QB:87:ARG:HH11	2:QB:223:ILE:HD11	1.83	0.43
4:QD:72:GLU:O	4:QD:73:ARG:C	2.52	0.43
7:QG:38:LEU:O	7:QG:42:ILE:HG13	2.17	0.43
10:QJ:54:PHE:CE2	10:QJ:55:LYS:HD2	2.52	0.43
15:QO:25:THR:HG22	15:QO:70:LEU:HD22	1.99	0.43
50:R4:39:CYS:O	50:R4:40:HIS:CB	2.66	0.43
50:R4:48:ARG:C	50:R4:49:PHE:HD1	2.22	0.43
25:RA:593:G:O2'	54:R8:61:LEU:HD13	2.17	0.43
25:RA:1046:A:N3	25:RA:1046:A:H3'	2.33	0.43
25:RA:1306:C:O2	25:RA:1623:G:C2	2.71	0.43
25:RA:1441:G:H4'	25:RA:1627:G:O3'	2.18	0.43
25:RA:145:G:H2'	25:RA:146:G:H8	1.83	0.43
25:RA:1592:C:H2'	25:RA:1593:G:H8	1.83	0.43
25:RA:1638:C:H5''	25:RA:2710:C:O2'	2.18	0.43
25:RA:1676:A:N6	25:RA:1677:A:C6	2.86	0.43
25:RA:1678:G:N3	25:RA:1678:G:H2'	2.33	0.43
25:RA:16:G:H2'	25:RA:17:G:H8	1.82	0.43
25:RA:1858:G:O2'	25:RA:1884:A:N6	2.51	0.43
25:RA:1900:A:N1	25:RA:1970:A:C6	2.86	0.43
25:RA:1975:G:C4	25:RA:1976:U:C6	3.05	0.43
25:RA:2292:C:H2'	25:RA:2293:C:C6	2.53	0.43
25:RA:2341:G:H2'	25:RA:2342:C:C6	2.53	0.43
25:RA:2704:C:H2'	25:RA:2705:A:O4'	2.18	0.43
25:RA:2737:G:C2	25:RA:2738:A:C4	3.06	0.43
25:RA:312:G:H4'	25:RA:331:A:C2	2.52	0.43
25:RA:222:A:H5''	25:RA:421:U:OP1	2.17	0.43
25:RA:512:G:O2'	25:RA:513:A:P	2.76	0.43
25:RA:612:G:C4	25:RA:613:U:O2	2.71	0.43
25:RA:259:G:H21	25:RA:621:A:H8	1.66	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:776:G:C6	25:RA:793:A:C8	3.06	0.43
25:RA:846:C:N4	25:RA:931:G:H1	2.10	0.43
27:RD:44:ASN:ND2	27:RD:44:ASN:H	1.97	0.43
28:RE:13:ARG:HB3	28:RE:13:ARG:HH11	1.82	0.43
28:RE:3:GLY:CA	28:RE:81:ILE:HG21	2.48	0.43
29:RF:24:LEU:N	29:RF:24:LEU:HD12	2.33	0.43
25:RA:442:G:H1'	29:RF:48:THR:HG21	1.99	0.43
32:RI:129:THR:HA	32:RI:137:PRO:HA	2.00	0.43
32:RI:60:GLU:HG3	32:RI:61:ARG:HH12	1.83	0.43
33:RN:114:ARG:O	33:RN:115:ARG:CB	2.65	0.43
33:RN:30:ILE:HG22	33:RN:34:LEU:CD2	2.48	0.43
34:RO:97:ARG:HA	34:RO:117:LEU:HD22	2.00	0.43
35:RP:101:VAL:HG13	35:RP:102:ARG:N	2.33	0.43
36:RQ:27:VAL:HG13	36:RQ:28:ALA:N	2.32	0.43
38:RS:38:GLN:CG	38:RS:47:THR:HG21	2.48	0.43
38:RS:86:ALA:O	38:RS:87:PHE:CB	2.65	0.43
39:RT:105:LEU:C	39:RT:107:ASP:OD1	2.56	0.43
39:RT:29:ARG:HA	39:RT:45:PHE:O	2.17	0.43
39:RT:99:LEU:O	39:RT:99:LEU:CD1	2.65	0.43
41:RV:25:LEU:H	41:RV:92:THR:CG2	2.28	0.43
43:RX:14:SER:HB2	43:RX:15:GLU:OE1	2.18	0.43
44:RY:15:VAL:HB	44:RY:20:TYR:O	2.17	0.43
1:XA:1054:C:C5	1:XA:1196:U:C5	3.05	0.43
1:XA:1286:A:H2'	1:XA:1287:A:H4'	2.00	0.43
1:XA:161:A:C6	1:XA:162:A:C6	3.06	0.43
1:XA:143:A:H2	1:XA:220:G:H22	1.66	0.43
1:XA:280:C:N3	17:XQ:38:ARG:HG3	2.33	0.43
1:XA:313:A:H2'	1:XA:314:C:C6	2.53	0.43
1:XA:450:G:N7	1:XA:481:G:C6	2.85	0.43
2:XB:77:ALA:HB1	2:XB:165:VAL:HG11	2.00	0.43
2:XB:178:ARG:HD2	8:XH:71:GLY:C	2.38	0.43
2:XB:95:GLN:HE21	2:XB:147:LYS:CE	2.28	0.43
3:XC:59:ARG:HH12	3:XC:97:LYS:CD	2.31	0.43
5:XE:20:GLN:O	5:XE:21:ALA:C	2.57	0.43
6:XF:27:GLN:HG2	6:XF:27:GLN:H	1.65	0.43
7:XG:69:VAL:CG1	7:XG:69:VAL:O	2.62	0.43
7:XG:89:MET:HE1	7:XG:156:TRP:H	1.83	0.43
9:XI:10:ARG:NE	9:XI:105:ASP:CB	2.81	0.43
9:XI:29:ASN:OD1	9:XI:65:VAL:N	2.48	0.43
11:XK:108:ILE:HG21	18:XR:88:LYS:OXT	2.19	0.43
14:XN:17:LYS:HG3	14:XN:18:VAL:N	2.33	0.43
17:XQ:41:LYS:HZ3	17:XQ:92:ARG:HH22	1.61	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:XR:82:THR:CG2	18:XR:83:GLU:N	2.79	0.43
30:YG:67:LYS:CE	50:Y4:6:HIS:NE2	2.74	0.43
25:YA:1065:U:H5''	25:YA:1066:U:H6	1.82	0.43
25:YA:1308:A:H2'	25:YA:1309:G:O4'	2.18	0.43
25:YA:1360:A:C6	25:YA:1372:U:C4	3.06	0.43
25:YA:242:G:H5''	54:Y8:3:LYS:CE	2.39	0.43
25:YA:1783:A:H5'	25:YA:2608:G:H4'	2.00	0.43
25:YA:2762:G:H2'	25:YA:2763:G:H5'	2.00	0.43
25:YA:290:G:H2'	25:YA:291:C:H6	1.83	0.43
25:YA:422:A:C6	25:YA:423:A:C5	3.06	0.43
25:YA:663:G:C5	25:YA:664:C:C5	3.06	0.43
25:YA:869:G:H2'	25:YA:870:A:C8	2.53	0.43
27:YD:44:ASN:HB2	27:YD:49:ILE:HA	1.93	0.43
25:YA:1567:A:H5'	27:YD:58:HIS:ND1	2.32	0.43
29:YF:174:VAL:CG1	29:YF:174:VAL:O	2.65	0.43
34:YO:47:ILE:HG13	34:YO:48:PRO:HD2	1.99	0.43
34:YO:77:ILE:HG23	34:YO:77:ILE:O	2.17	0.43
35:YP:101:VAL:HA	35:YP:106:LEU:HB2	1.99	0.43
25:YA:389:G:H1	35:YP:71:VAL:HG12	1.83	0.43
25:YA:2250:G:C4	36:YQ:82:ARG:HG3	2.53	0.43
37:YR:33:ARG:HA	37:YR:114:VAL:O	2.18	0.43
38:YS:14:VAL:CG1	38:YS:15:ARG:N	2.81	0.43
39:YT:107:ASP:OD2	39:YT:109:GLU:HB2	2.18	0.43
42:YW:111:HIS:CG	42:YW:112:GLY:H	2.36	0.43
1:QA:444:C:H2'	1:QA:445:G:C8	2.53	0.43
1:QA:443:C:C2	1:QA:492:G:N2	2.86	0.43
1:QA:624:C:O3'	16:QP:10:GLY:HA2	2.18	0.43
5:QE:7:GLU:HB3	5:QE:112:LEU:HD13	1.99	0.43
5:QE:94:ALA:HB2	5:QE:119:LEU:HG	2.00	0.43
7:QG:155:ARG:HD3	7:QG:155:ARG:H	1.83	0.43
8:QH:23:SER:HB3	8:QH:62:TYR:HA	2.00	0.43
11:QK:34:ASP:OD1	11:QK:38:ASN:HB2	2.18	0.43
11:QK:75:TYR:N	11:QK:75:TYR:CD1	2.86	0.43
12:QL:27:LEU:C	12:QL:29:GLY:H	2.20	0.43
13:QM:19:LEU:HD22	13:QM:19:LEU:N	2.33	0.43
14:QN:12:ARG:C	14:QN:14:PRO:CD	2.81	0.43
47:R1:53:VAL:CG1	47:R1:54:ALA:N	2.81	0.43
50:R4:49:PHE:HD1	50:R4:49:PHE:N	2.16	0.43
54:R8:58:ILE:O	54:R8:61:LEU:CD1	2.67	0.43
54:R8:58:ILE:O	54:R8:61:LEU:CG	2.66	0.43
25:RA:1337:G:C4	25:RA:1338:G:C8	3.06	0.43
25:RA:1442:G:O2'	25:RA:1443:G:H5'	2.18	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1557:C:H5''	25:RA:1558:A:OP2	2.19	0.43
25:RA:1627:G:N2	25:RA:1640:C:H1'	2.32	0.43
25:RA:2142:C:H2'	25:RA:2143:C:H6	1.82	0.43
25:RA:2154:G:H2'	25:RA:2155:G:H8	1.83	0.43
25:RA:2315:G:H2'	25:RA:2316:C:C6	2.53	0.43
25:RA:2353:G:H2'	25:RA:2354:G:O4'	2.17	0.43
25:RA:2419:U:H2'	25:RA:2420:C:H6	1.83	0.43
25:RA:2549:G:H5''	25:RA:2549:G:H8	1.83	0.43
25:RA:2591:C:OP1	27:RD:239:ARG:HG3	2.17	0.43
25:RA:2689:U:H4'	25:RA:2690:C:O5'	2.18	0.43
25:RA:479:A:N3	25:RA:481:G:H5''	2.33	0.43
25:RA:571:A:N1	25:RA:575:A:OP1	2.51	0.43
25:RA:780:G:H21	25:RA:783:A:N6	2.16	0.43
27:RD:102:LYS:O	27:RD:103:ARG:CG	2.66	0.43
27:RD:237:GLU:HB3	27:RD:238:GLY:H	1.49	0.43
29:RF:149:ASP:OD2	29:RF:151:SER:HB3	2.17	0.43
29:RF:63:LYS:CE	29:RF:67:GLN:HB2	2.48	0.43
30:RG:139:LEU:HA	30:RG:144:ILE:HG21	2.00	0.43
30:RG:19:LEU:HA	30:RG:22:ARG:HB2	1.99	0.43
31:RH:109:PHE:C	31:RH:111:HIS:H	2.22	0.43
32:RI:118:LYS:HA	32:RI:119:PRO:HD3	1.82	0.43
32:RI:114:LEU:HD12	32:RI:129:THR:O	2.18	0.43
32:RI:128:LEU:N	32:RI:138:ILE:O	2.47	0.43
32:RI:5:LEU:HA	32:RI:36:ALA:HA	1.99	0.43
34:RO:63:VAL:O	34:RO:63:VAL:HG23	2.18	0.43
42:RW:14:PRO:HB3	42:RW:18:ARG:HE	1.83	0.43
42:RW:70:TYR:HD2	42:RW:70:TYR:N	2.06	0.43
43:RX:7:VAL:O	43:RX:30:VAL:CG1	2.66	0.43
44:RY:25:GLY:HA3	44:RY:39:VAL:CG1	2.47	0.43
44:RY:88:LYS:HA	44:RY:88:LYS:HZ2	1.83	0.43
1:XA:101:A:OP2	1:XA:101:A:H8	2.00	0.43
1:XA:1054:C:P	1:XA:1197:G:OP1	2.76	0.43
1:XA:1222:G:OP1	19:XS:77:THR:HG21	2.18	0.43
1:XA:1256:A:H2	1:XA:1277:C:C6	2.36	0.43
1:XA:1468:A:O5'	1:XA:1468:A:H8	2.01	0.43
1:XA:501:C:OP1	12:XL:117:ARG:NH2	2.45	0.43
2:XB:162:ILE:O	2:XB:185:ILE:HG13	2.18	0.43
3:XC:106:VAL:HG11	3:XC:109:PRO:HA	2.00	0.43
5:XE:31:LEU:HD23	5:XE:45:PHE:CD1	2.53	0.43
7:XG:62:PHE:O	7:XG:64:GLN:N	2.51	0.43
10:XJ:51:ARG:NH1	10:XJ:51:ARG:HG2	2.33	0.43
10:XJ:96:ILE:H	10:XJ:96:ILE:HD13	1.83	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:XJ:96:ILE:N	10:XJ:96:ILE:CD1	2.79	0.43
13:XM:39:ILE:HD12	13:XM:56:LEU:HD23	1.99	0.43
16:XP:20:VAL:HG22	16:XP:21:VAL:H	1.83	0.43
18:XR:20:ALA:O	18:XR:21:LYS:HG3	2.18	0.43
50:Y4:48:ARG:NH1	50:Y4:51:ASP:HA	2.34	0.43
50:Y4:59:PHE:CE1	50:Y4:70:GLY:N	2.87	0.43
53:Y7:19:ARG:NH1	53:Y7:19:ARG:HG2	2.33	0.43
25:YA:1310:G:OP2	53:Y7:9:ARG:NH1	2.51	0.43
54:Y8:58:ILE:O	54:Y8:61:LEU:CD1	2.67	0.43
25:YA:1326:U:O2'	25:YA:1327:C:H5'	2.18	0.43
25:YA:181:A:C2	25:YA:182:A:C4	3.06	0.43
25:YA:2114:A:N3	25:YA:2114:A:H3'	2.33	0.43
25:YA:2060:A:N7	25:YA:2502:G:C2	2.86	0.43
25:YA:2511:U:H2'	25:YA:2512:C:O4'	2.18	0.43
25:YA:307:G:O5'	25:YA:307:G:H8	2.01	0.43
25:YA:635:C:O2'	25:YA:639:U:OP1	2.35	0.43
25:YA:722:A:C2	25:YA:723:G:C4	3.06	0.43
26:YB:40:U:C2	26:YB:43:C:OP2	2.71	0.43
27:YD:102:LYS:O	27:YD:103:ARG:CG	2.66	0.43
27:YD:10:THR:O	27:YD:11:PRO:C	2.56	0.43
27:YD:213:ARG:HA	27:YD:213:ARG:HD2	1.60	0.43
27:YD:95:LEU:HD12	27:YD:95:LEU:O	2.17	0.43
31:YH:137:ASP:OD1	31:YH:138:LYS:N	2.51	0.43
31:YH:92:ILE:CD1	31:YH:160:LYS:HD3	2.48	0.43
33:YN:129:PRO:C	33:YN:131:GLN:H	2.20	0.43
35:YP:96:THR:HG22	35:YP:126:VAL:CB	2.46	0.43
38:YS:38:GLN:CG	38:YS:47:THR:HG21	2.48	0.43
39:YT:114:LEU:HD23	39:YT:114:LEU:HA	1.74	0.43
43:YX:3:THR:HA	43:YX:6:ASP:OD2	2.18	0.43
1:QA:1247:U:H2'	1:QA:1248:A:O4'	2.18	0.43
1:QA:1472:U:N3	1:QA:1473:A:N7	2.65	0.43
1:QA:191(E):G:H2'	1:QA:191(F):U:H6	1.81	0.43
1:QA:677:U:H1'	11:QK:119:CYS:SG	2.57	0.43
2:QB:87:ARG:NH1	2:QB:223:ILE:HD12	2.33	0.43
3:QC:69:HIS:HA	3:QC:104:GLN:HB2	2.00	0.43
3:QC:106:VAL:HG11	3:QC:109:PRO:HA	2.00	0.43
4:QD:9:CYS:HG	4:QD:31:CYS:C	2.05	0.43
7:QG:16:LEU:HD13	9:QI:45:ALA:HB2	1.99	0.43
10:QJ:100:THR:O	10:QJ:101:VAL:HB	2.17	0.43
13:QM:69:GLU:O	13:QM:70:LEU:C	2.56	0.43
22:QV:4:G:C6	22:QV:70:G:N1	2.86	0.43
24:QY:39:C:H4'	24:QY:40:G:OP1	2.18	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:R1:80:LEU:O	47:R1:81:LYS:CD	2.65	0.43
47:R1:92:LYS:O	47:R1:93:GLU:C	2.56	0.43
52:R6:20:ASN:O	52:R6:21:TYR:CG	2.71	0.43
52:R6:7:ILE:HG23	52:R6:8:LYS:N	2.32	0.43
53:R7:5:TRP:CD1	53:R7:7:PRO:HG3	2.53	0.43
25:RA:1056:G:N1	25:RA:1104:C:N4	2.67	0.43
25:RA:1138:G:H21	33:RN:106:MET:HE3	1.83	0.43
25:RA:1197:G:N2	25:RA:1250:G:C5	2.87	0.43
25:RA:1485:G:H5''	25:RA:1485:G:C8	2.51	0.43
25:RA:1653:G:H4'	25:RA:1654:A:O5'	2.18	0.43
25:RA:1725:G:H5'	25:RA:1726:G:OP2	2.17	0.43
25:RA:1954:G:N2	25:RA:1956:U:H3	2.16	0.43
25:RA:186:G:C2	25:RA:211:A:C2	3.06	0.43
25:RA:2273:A:O2'	25:RA:2274:A:H5'	2.18	0.43
25:RA:2536:G:C5	25:RA:2537:U:C5	3.06	0.43
25:RA:2674:G:H2'	25:RA:2675:A:C8	2.53	0.43
25:RA:27:G:O2'	25:RA:28:A:C8	2.68	0.43
25:RA:298:G:P	44:RY:85:VAL:HG22	2.58	0.43
27:RD:17:THR:HG22	27:RD:204:ILE:HA	1.97	0.43
28:RE:16:ARG:O	28:RE:18:ASP:O	2.36	0.43
28:RE:31:CYS:HB3	28:RE:49:LEU:HG	2.01	0.43
29:RF:144:LYS:C	29:RF:146:ALA:H	2.20	0.43
30:RG:83:ARG:HG3	30:RG:86:MET:CE	2.46	0.43
31:RH:136:ILE:N	31:RH:136:ILE:HD12	2.31	0.43
31:RH:137:ASP:OD1	31:RH:138:LYS:N	2.51	0.43
35:RP:107:LYS:HB2	35:RP:110:TYR:HD2	1.83	0.43
36:RQ:62:GLY:O	45:RZ:178:GLU:HG2	2.18	0.43
37:RR:81:ASP:OD2	37:RR:81:ASP:N	2.50	0.43
38:RS:14:VAL:CG1	38:RS:15:ARG:N	2.81	0.43
38:RS:56:LEU:O	38:RS:57:LYS:O	2.36	0.43
38:RS:57:LYS:O	38:RS:58:LEU:HB3	2.18	0.43
41:RV:66:ARG:NH1	41:RV:88:ARG:CD	2.74	0.43
43:RX:14:SER:O	43:RX:15:GLU:C	2.57	0.43
44:RY:48:ALA:CB	44:RY:61:ILE:HD13	2.45	0.43
44:RY:6:HIS:ND1	44:RY:6:HIS:N	2.66	0.43
1:XA:411:A:C5	1:XA:413:G:N3	2.86	0.43
1:XA:661:G:H1	1:XA:744:C:H42	1.66	0.43
1:XA:927:G:OP2	1:XA:927:G:H4'	2.18	0.43
2:XB:47:THR:HG22	2:XB:51:LEU:CG	2.48	0.43
3:XC:22:TRP:CB	3:XC:59:ARG:HB2	2.48	0.43
4:XD:180:GLY:O	4:XD:181:MET:C	2.55	0.43
6:XF:72:VAL:HG23	6:XF:90:VAL:HG11	1.98	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:60:LYS:O	7:XG:61:VAL:C	2.56	0.43
7:XG:78:ARG:CG	7:XG:78:ARG:HH11	2.30	0.43
12:XL:27:LEU:HD13	12:XL:28:LYS:H	1.84	0.43
1:XA:1322:C:H5'	13:XM:100:GLY:HA2	1.99	0.43
17:XQ:13:ASP:O	17:XQ:15:MET:N	2.51	0.43
19:XS:63:THR:HG23	19:XS:66:MET:HE3	2.01	0.43
22:XV:49:G:O6	22:XV:65:C:N4	2.49	0.43
22:XV:54:U:C4	22:XV:55:U:C4	3.06	0.43
47:Y1:82:LEU:HD12	47:Y1:82:LEU:O	2.10	0.43
47:Y1:60:PHE:HZ	47:Y1:90:ILE:HG21	1.82	0.43
52:Y6:11:LEU:HD12	52:Y6:51:GLU:HG3	2.00	0.43
52:Y6:20:ASN:O	52:Y6:21:TYR:CG	2.71	0.43
54:Y8:40:GLU:O	54:Y8:43:GLN:N	2.50	0.43
54:Y8:58:ILE:O	54:Y8:61:LEU:CG	2.66	0.43
25:YA:1145:C:H2'	25:YA:1146:C:H6	1.84	0.43
25:YA:1176:G:OP1	25:YA:1176:G:H4'	2.19	0.43
25:YA:1341:U:H2'	25:YA:1397:U:O2	2.18	0.43
25:YA:1504:C:H5'	25:YA:1505:C:OP2	2.18	0.43
25:YA:1906:G:N2	25:YA:1925:C:O2	2.51	0.43
25:YA:2018:G:C6	25:YA:2019:A:C5	3.07	0.43
25:YA:2416:C:H2'	25:YA:2417:C:H6	1.83	0.43
25:YA:2502:G:H5''	25:YA:2503:A:H5''	2.00	0.43
25:YA:2869:G:H2'	25:YA:2870:C:C6	2.53	0.43
25:YA:384:U:H2'	25:YA:385:C:H6	1.83	0.43
25:YA:629:G:H5'	25:YA:650:C:O2'	2.19	0.43
25:YA:695:G:C2	25:YA:696:G:C8	3.07	0.43
27:YD:272:ALA:HB1	27:YD:273:ARG:H	1.58	0.43
27:YD:35:LYS:HB3	27:YD:36:PRO:HA	2.01	0.43
27:YD:44:ASN:HB3	27:YD:49:ILE:CG2	2.47	0.43
28:YE:11:MET:O	28:YE:12:THR:HB	2.18	0.43
31:YH:35:VAL:CG2	31:YH:75:ALA:HB2	2.48	0.43
31:YH:53:GLU:CD	31:YH:54:ARG:H	2.21	0.43
32:YI:5:LEU:N	32:YI:5:LEU:HD12	2.33	0.43
33:YN:87:LEU:CD2	33:YN:87:LEU:C	2.87	0.43
28:YE:25:VAL:HG21	39:YT:8:LYS:HG3	2.00	0.43
41:YV:66:ARG:NH1	41:YV:88:ARG:NH1	2.61	0.43
43:YX:14:SER:HB2	43:YX:15:GLU:OE1	2.18	0.43
44:YY:75:ILE:HG12	44:YY:76:CYS:H	1.79	0.43
1:QA:1437:C:H2'	1:QA:1438:G:C8	2.54	0.43
1:QA:187:C:N4	1:QA:188:U:C2	2.85	0.43
1:QA:234:C:H2'	1:QA:235:C:C6	2.53	0.43
1:QA:35:G:N2	12:QL:118:SER:OG	2.51	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:818:G:C3'	1:QA:819:A:H5''	2.48	0.43
2:QB:100:GLY:N	2:QB:176:GLU:OE2	2.52	0.43
3:QC:67:THR:O	3:QC:69:HIS:CE1	2.72	0.43
4:QD:132:ARG:HH11	4:QD:132:ARG:HG2	1.83	0.43
1:QA:620:C:C2	4:QD:135:LEU:HG	2.53	0.43
5:QE:62:ALA:C	5:QE:64:ARG:H	2.21	0.43
7:QG:15:ASP:OD1	7:QG:23:VAL:HG11	2.19	0.43
7:QG:60:LYS:O	7:QG:61:VAL:C	2.57	0.43
7:QG:78:ARG:HH11	7:QG:78:ARG:CG	2.31	0.43
9:QI:100:GLY:C	9:QI:102:LEU:N	2.72	0.43
9:QI:41:VAL:O	9:QI:41:VAL:HG12	2.18	0.43
12:QL:25:PRO:C	12:QL:27:LEU:N	2.70	0.43
19:QS:45:VAL:O	19:QS:62:ILE:O	2.35	0.43
22:QV:12:G:N3	25:RA:1923:U:O2'	2.50	0.43
22:QV:15:G:N2	22:QV:48:C:H42	2.17	0.43
22:QV:74:C:N3	25:RA:2252:G:N2	2.61	0.43
52:R6:15:GLU:HB3	52:R6:16:CYS:H	1.46	0.43
25:RA:111:A:C2	25:RA:112:U:C2	3.06	0.43
25:RA:693:C:O2'	25:RA:1353:A:N3	2.46	0.43
25:RA:2016:U:H2'	25:RA:2017:U:O4'	2.18	0.43
25:RA:2133:G:H2'	25:RA:2157:G:N2	2.33	0.43
25:RA:2159:G:H2'	25:RA:2160:G:C8	2.54	0.43
25:RA:856:C:C6	25:RA:856:C:C3'	3.02	0.43
26:RB:45:A:C2	26:RB:46:A:H1'	2.54	0.43
25:RA:1500:G:O2'	27:RD:100:GLY:O	2.28	0.43
27:RD:227:ASN:CB	27:RD:228:PRO:CD	2.93	0.43
28:RE:36:ARG:HB3	28:RE:36:ARG:NH1	2.30	0.43
28:RE:52:LEU:O	28:RE:74:PRO:HA	2.18	0.43
28:RE:69:LYS:C	28:RE:71:GLY:N	2.71	0.43
29:RF:101:LEU:HD12	29:RF:102:PRO:N	2.33	0.43
29:RF:167:ALA:HB1	29:RF:173:VAL:HG11	1.99	0.43
38:RS:110:LEU:HA	38:RS:112:PHE:CE1	2.53	0.43
39:RT:105:LEU:O	39:RT:105:LEU:HG	2.19	0.43
39:RT:114:LEU:HA	39:RT:114:LEU:HD23	1.74	0.43
39:RT:89:VAL:O	39:RT:90:GLN:HB2	2.19	0.43
40:RU:88:ILE:HG22	40:RU:90:VAL:CG2	2.44	0.43
44:RY:95:LYS:HA	44:RY:101:LYS:N	2.33	0.43
1:XA:1074:G:O2'	1:XA:1101:A:N1	2.45	0.43
1:XA:1231:G:O3'	9:XI:126:SER:OG	2.36	0.43
1:XA:1365:G:OP2	1:XA:1365:G:H3'	2.19	0.43
1:XA:638:G:H2'	1:XA:639:G:O4'	2.18	0.43
1:XA:853:G:O2'	1:XA:854:G:H5'	2.18	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:920:U:H5''	1:XA:921:U:OP2	2.18	0.43
2:XB:132:LYS:HA	2:XB:135:GLN:CB	2.43	0.43
3:XC:27:LYS:NZ	3:XC:27:LYS:HB3	2.34	0.43
3:XC:69:HIS:HA	3:XC:104:GLN:HB2	2.00	0.43
6:XF:73:ASN:O	6:XF:76:ALA:HB3	2.19	0.43
6:XF:91:VAL:CG1	18:XR:72:ARG:NH1	2.82	0.43
7:XG:75:VAL:HG13	7:XG:145:ALA:HA	2.00	0.43
9:XI:43:ALA:O	9:XI:45:ALA:N	2.51	0.43
12:XL:120:TYR:O	12:XL:121:GLY:O	2.36	0.43
12:XL:22:SER:C	12:XL:24:VAL:H	2.22	0.43
13:XM:36:LYS:CD	13:XM:36:LYS:C	2.85	0.43
13:XM:69:GLU:O	13:XM:70:LEU:C	2.56	0.43
20:XT:44:ALA:C	20:XT:91:LEU:HB3	2.39	0.43
20:XT:50:GLU:O	20:XT:52:ALA:N	2.51	0.43
46:Y0:74:ARG:O	46:Y0:74:ARG:HD3	2.18	0.43
48:Y2:59:ARG:O	48:Y2:62:THR:HG23	2.18	0.43
25:YA:1230:C:H2'	25:YA:1231:G:H8	1.83	0.43
25:YA:1445:C:C2	25:YA:1446:C:C5	3.07	0.43
25:YA:1454:U:O2	37:YR:64:ARG:NH1	2.41	0.43
25:YA:2400:G:H2'	25:YA:2400:G:N3	2.33	0.43
25:YA:2259:G:H1'	25:YA:2427:C:C2	2.53	0.43
25:YA:24:G:C4	25:YA:25:U:C6	3.06	0.43
25:YA:252:G:H21	25:YA:253:C:H1'	1.82	0.43
25:YA:2637:U:C4	25:YA:2638:G:C6	3.07	0.43
25:YA:2667:C:H2'	25:YA:2668:G:O4'	2.19	0.43
25:YA:552:G:H2'	25:YA:553:U:O4'	2.18	0.43
25:YA:683:C:H42	25:YA:794:G:H1	1.64	0.43
28:YE:3:GLY:CA	28:YE:81:ILE:HG21	2.49	0.43
28:YE:48:GLN:HB3	28:YE:48:GLN:HE21	1.55	0.43
29:YF:192:LEU:HD21	29:YF:194:MET:HE3	2.00	0.43
30:YG:31:VAL:HG13	30:YG:31:VAL:O	2.18	0.43
30:YG:44:GLY:HA2	30:YG:88:ILE:HD11	2.00	0.43
30:YG:67:LYS:N	30:YG:67:LYS:HD2	2.33	0.43
33:YN:103:VAL:O	33:YN:104:LYS:C	2.56	0.43
33:YN:17:ASP:O	33:YN:55:VAL:O	2.34	0.43
34:YO:51:ALA:O	34:YO:53:LYS:HE3	2.18	0.43
34:YO:63:VAL:HG23	34:YO:63:VAL:O	2.17	0.43
35:YP:36:LYS:HZ3	35:YP:36:LYS:HG3	1.42	0.43
38:YS:110:LEU:HD23	38:YS:112:PHE:CE2	2.54	0.43
39:YT:105:LEU:C	39:YT:107:ASP:OD1	2.56	0.43
39:YT:89:VAL:O	39:YT:90:GLN:HB2	2.19	0.43
40:YU:99:ALA:HA	40:YU:106:PHE:HB2	2.01	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:YV:1:MET:HE1	41:YV:43:GLU:HG2	2.00	0.43
41:YV:66:ARG:NH1	41:YV:88:ARG:CD	2.74	0.43
42:YW:34:ASN:O	42:YW:35:ILE:C	2.55	0.43
42:YW:50:VAL:O	42:YW:53:SER:N	2.50	0.43
42:YW:29:LEU:HD11	42:YW:55:ALA:HB2	1.98	0.43
26:YB:77:U:H4'	45:YZ:84:GLU:OE1	2.17	0.43
1:QA:1208:C:H2'	1:QA:1209:C:H6	1.84	0.43
1:QA:1216:G:H2'	1:QA:1217:C:C6	2.53	0.43
1:QA:1255:G:O2'	1:QA:1258:G:O2'	2.20	0.43
1:QA:189:U:HO2'	1:QA:190:G:P	2.41	0.43
1:QA:901:A:H8	1:QA:901:A:O5'	2.01	0.43
2:QB:109:SER:C	2:QB:111:ARG:H	2.21	0.43
3:QC:14:ILE:C	3:QC:16:ARG:H	2.21	0.43
3:QC:27:LYS:NZ	3:QC:27:LYS:HB3	2.34	0.43
4:QD:25:ARG:C	4:QD:27:TYR:H	2.21	0.43
6:QF:91:VAL:CG1	18:QR:72:ARG:NH1	2.81	0.43
7:QG:23:VAL:O	7:QG:27:ILE:HD12	2.19	0.43
1:QA:1240:U:C5	7:QG:32:ARG:HD2	2.54	0.43
7:QG:88:PRO:HB3	7:QG:145:ALA:HA	2.01	0.43
2:QB:195:ASP:O	8:QH:68:ARG:NH2	2.51	0.43
10:QJ:16:LEU:C	10:QJ:16:LEU:HD13	2.38	0.43
10:QJ:90:LEU:N	10:QJ:91:PRO:CD	2.81	0.43
11:QK:105:VAL:HG23	11:QK:105:VAL:O	2.19	0.43
11:QK:20:TYR:C	11:QK:21:ILE:HD12	2.38	0.43
12:QL:27:LEU:HD13	12:QL:28:LYS:H	1.83	0.43
15:QO:64:ARG:CD	15:QO:68:ARG:NH2	2.82	0.43
15:QO:83:GLU:C	15:QO:85:LEU:N	2.71	0.43
15:QO:83:GLU:OE1	15:QO:83:GLU:HA	2.18	0.43
16:QP:72:ARG:O	16:QP:72:ARG:HD3	2.18	0.43
25:RA:1078:U:O2'	25:RA:1079:C:OP2	2.30	0.43
25:RA:1747:G:C2'	25:RA:1748:G:H5'	2.48	0.43
25:RA:1774:C:O5'	25:RA:1774:C:H6	2.00	0.43
25:RA:2114:A:H5''	25:RA:2117:A:O5'	2.18	0.43
25:RA:2163:C:OP1	25:RA:2172:U:H5''	2.19	0.43
25:RA:2400:G:N2	25:RA:2417:C:C2	2.86	0.43
25:RA:2417:C:H2'	25:RA:2418:A:C8	2.52	0.43
25:RA:571:A:C6	25:RA:575:A:H8	2.37	0.43
25:RA:728:G:H4'	27:RD:13:ARG:HD2	1.99	0.43
25:RA:846:C:O2'	25:RA:847:U:OP2	2.16	0.43
25:RA:864:G:N2	25:RA:913:U:C2	2.87	0.43
27:RD:206:LEU:HA	27:RD:206:LEU:HD23	1.49	0.43
30:RG:131:TYR:HE2	30:RG:133:LEU:HD22	1.84	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:59:GLU:O	30:RG:62:LEU:HB3	2.19	0.43
31:RH:92:ILE:CD1	31:RH:160:LYS:HD3	2.48	0.43
32:RI:109:ILE:HB	32:RI:130:TYR:OH	2.19	0.43
33:RN:103:VAL:O	33:RN:104:LYS:C	2.57	0.43
34:RO:51:ALA:O	34:RO:53:LYS:HE3	2.19	0.43
25:RA:832:G:P	35:RP:38:GLN:HB3	2.59	0.43
35:RP:81:GLN:HE21	35:RP:81:GLN:HB2	1.59	0.43
37:RR:54:LEU:O	37:RR:62:ALA:HB1	2.19	0.43
26:RB:28:C:OP2	38:RS:33:LYS:HE3	2.18	0.43
41:RV:15:GLU:O	41:RV:96:ILE:HB	2.19	0.43
43:RX:31:HIS:HA	43:RX:32:PRO:HD3	1.88	0.43
45:RZ:14:LYS:HA	45:RZ:15:PRO:HD3	1.87	0.43
1:XA:1041:A:C6	1:XA:1042:G:C5	3.06	0.43
1:XA:1154:G:H2'	1:XA:1155:G:H8	1.84	0.43
1:XA:1370:G:O3'	9:XI:12:GLU:HG3	2.18	0.43
1:XA:1502:A:H2	1:XA:1505:G:N1	2.15	0.43
1:XA:486:U:C2	1:XA:487:A:C8	3.06	0.43
1:XA:590:C:H42	1:XA:649:G:H1	1.66	0.43
2:XB:115:LEU:HD21	2:XB:153:ARG:HD3	2.00	0.43
2:XB:127:ILE:HG23	2:XB:128:GLU:N	2.34	0.43
2:XB:29:ALA:O	2:XB:32:ILE:HG22	2.17	0.43
4:XD:120:LEU:HA	4:XD:120:LEU:HD23	1.83	0.43
4:XD:163:GLU:HA	4:XD:163:GLU:OE2	2.19	0.43
4:XD:60:GLU:HG2	4:XD:202:LEU:HD12	2.00	0.43
5:XE:36:ASP:C	5:XE:37:ARG:HG2	2.38	0.43
5:XE:67:VAL:HG22	5:XE:68:GLU:N	2.33	0.43
6:XF:85:VAL:HG12	6:XF:85:VAL:O	2.18	0.43
9:XI:41:VAL:HG12	9:XI:41:VAL:O	2.18	0.43
12:XL:6:THR:H	12:XL:9:GLN:NE2	1.97	0.43
13:XM:87:TYR:HA	13:XM:90:LEU:HG	2.01	0.43
15:XO:83:GLU:HA	15:XO:83:GLU:OE1	2.19	0.43
18:XR:63:GLN:O	18:XR:66:LEU:HB3	2.18	0.43
19:XS:36:ARG:NH1	19:XS:52:TYR:O	2.51	0.43
20:XT:101:GLY:C	20:XT:103:GLY:H	2.22	0.43
47:Y1:94:LEU:O	47:Y1:95:LEU:HB2	2.17	0.43
51:Y5:15:ARG:HA	51:Y5:18:ALA:HB3	1.99	0.43
53:Y7:17:GLY:O	53:Y7:20:ALA:HB3	2.18	0.43
25:YA:1423:G:N3	25:YA:1424:G:C8	2.86	0.43
25:YA:1710:C:N3	25:YA:1749:A:C2	2.86	0.43
25:YA:188:G:H1	25:YA:208:C:N4	2.11	0.43
25:YA:1964:G:N2	25:YA:1967:C:C2	2.87	0.43
25:YA:2094:G:C2	25:YA:2095:C:C2	3.06	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2119:A:N1	25:YA:2170:A:N7	2.67	0.43
25:YA:304:G:C2	25:YA:314:A:C2	3.07	0.43
25:YA:380:U:H2'	25:YA:381:G:C8	2.47	0.43
27:YD:43:ARG:CZ	27:YD:49:ILE:HG21	2.49	0.43
28:YE:3:GLY:HA3	28:YE:81:ILE:CD1	2.48	0.43
28:YE:69:LYS:C	28:YE:71:GLY:N	2.71	0.43
25:YA:448:U:H1'	29:YF:84:VAL:CG2	2.49	0.43
31:YH:149:ARG:HA	31:YH:162:ILE:HG21	1.99	0.43
37:YR:48:VAL:O	37:YR:49:ASP:C	2.57	0.43
37:YR:54:LEU:O	37:YR:62:ALA:HB1	2.19	0.43
1:QA:1215:G:C6	1:QA:1216:G:N7	2.87	0.43
1:QA:417:C:O2'	1:QA:418:C:H5'	2.18	0.43
1:QA:514:C:N3	1:QA:537:G:N1	2.58	0.43
2:QB:142:LEU:HD23	2:QB:142:LEU:O	2.19	0.43
2:QB:32:ILE:HD13	2:QB:190:THR:CG2	2.48	0.43
2:QB:200:ILE:N	2:QB:200:ILE:HD12	2.34	0.43
2:QB:54:THR:HG21	2:QB:201:ILE:HD11	2.00	0.43
3:QC:59:ARG:HH12	3:QC:97:LYS:CD	2.31	0.43
4:QD:163:GLU:OE2	4:QD:163:GLU:HA	2.19	0.43
5:QE:67:VAL:HG22	5:QE:68:GLU:N	2.33	0.43
6:QF:61:LEU:HD23	6:QF:63:TYR:OH	2.17	0.43
6:QF:88:VAL:HG12	6:QF:89:MET:N	2.34	0.43
9:QI:95:LYS:HD3	9:QI:95:LYS:C	2.39	0.43
10:QJ:51:ARG:HG2	10:QJ:51:ARG:NH1	2.33	0.43
11:QK:124:LYS:HB3	11:QK:125:PHE:H	1.67	0.43
11:QK:62:GLN:O	11:QK:64:ALA:N	2.52	0.43
12:QL:119:LYS:HB2	12:QL:120:TYR:HD1	1.83	0.43
15:QO:77:ARG:HA	15:QO:80:ALA:HB2	1.99	0.43
16:QP:21:VAL:HG23	16:QP:34:GLU:N	2.34	0.43
18:QR:29:PHE:HD2	18:QR:29:PHE:N	2.17	0.43
19:QS:36:ARG:NH1	19:QS:52:TYR:O	2.51	0.43
19:QS:8:GLY:O	19:QS:9:VAL:CG2	2.57	0.43
22:QV:54:U:C4	22:QV:55:U:C4	3.06	0.43
47:R1:44:PRO:O	47:R1:46:LEU:N	2.51	0.43
54:R8:40:GLU:O	54:R8:41:ILE:C	2.56	0.43
25:RA:1332:G:H2'	25:RA:1332:G:H8	1.70	0.43
25:RA:1434:A:N6	25:RA:1558:A:H62	1.95	0.43
25:RA:1718:G:C2	25:RA:1742:C:C2	3.07	0.43
25:RA:1853:A:C6	25:RA:1889:A:C5	3.05	0.43
25:RA:1929:G:H4'	25:RA:1930:G:OP1	2.19	0.43
25:RA:1995:U:C2	25:RA:1996:C:C5	3.07	0.43
25:RA:2329:G:H2'	25:RA:2330:G:C8	2.54	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2338:G:C2	25:RA:2339:G:N7	2.86	0.43
25:RA:2645:G:H8	25:RA:2645:G:O5'	2.01	0.43
25:RA:270(V):G:H2'	25:RA:270(W):G:H8	1.83	0.43
25:RA:2847:U:C5	25:RA:2848:G:C6	3.06	0.43
25:RA:464:U:H2'	25:RA:465:G:O4'	2.19	0.43
25:RA:572:A:C5	25:RA:573:G:C8	3.07	0.43
25:RA:602:G:O2'	25:RA:604:G:O2'	2.23	0.43
25:RA:620:G:H4'	25:RA:621:A:C5'	2.47	0.43
25:RA:70:G:H4'	25:RA:71:A:OP1	2.18	0.43
27:RD:69:ARG:NH2	27:RD:130:ALA:HB2	2.19	0.43
27:RD:177:LEU:O	27:RD:179:SER:N	2.51	0.43
27:RD:76:PRO:O	27:RD:98:VAL:CG2	2.65	0.43
28:RE:143:ASN:N	28:RE:143:ASN:ND2	2.65	0.43
28:RE:120:TRP:CE3	28:RE:155:LYS:HD3	2.53	0.43
29:RF:62:ARG:NH1	29:RF:62:ARG:CB	2.82	0.43
35:RP:135:LEU:HD13	35:RP:139:LYS:HE3	2.01	0.43
38:RS:110:LEU:HD23	38:RS:112:PHE:CE2	2.53	0.43
39:RT:6:LEU:HD12	39:RT:9:LEU:HD12	2.00	0.43
1:XA:908:A:H2'	1:XA:909:A:H8	1.81	0.43
1:XA:925:G:C2	1:XA:927:G:C8	3.06	0.43
1:XA:957:U:N3	1:XA:960:U:OP2	2.51	0.43
4:XD:122:ARG:HA	4:XD:134:ASP:HB2	2.00	0.43
7:XG:122:HIS:HA	7:XG:125:MET:HB2	2.00	0.43
7:XG:148:ASN:O	7:XG:150:ALA:N	2.51	0.43
7:XG:88:PRO:HB3	7:XG:145:ALA:HA	2.01	0.43
10:XJ:90:LEU:N	10:XJ:91:PRO:CD	2.82	0.43
13:XM:90:LEU:HD12	13:XM:91:ARG:N	2.33	0.43
14:XN:12:ARG:C	14:XN:14:PRO:CD	2.81	0.43
15:XO:17:ARG:HD3	15:XO:26:GLU:HG3	2.01	0.43
15:XO:25:THR:O	15:XO:29:VAL:HG23	2.18	0.43
16:XP:39:TYR:CZ	16:XP:41:PRO:HB3	2.52	0.43
20:XT:44:ALA:HB1	20:XT:91:LEU:HB2	2.00	0.43
47:Y1:44:PRO:O	47:Y1:46:LEU:N	2.51	0.43
50:Y4:43:TYR:O	50:Y4:46:GLN:HA	2.19	0.43
25:YA:1375:C:H2'	25:YA:1376:C:H6	1.83	0.43
25:YA:1524:G:C6	25:YA:1525:G:N7	2.86	0.43
25:YA:2090:G:H2'	25:YA:2091:U:O4'	2.19	0.43
25:YA:231:C:C5	25:YA:232:G:C5	3.07	0.43
25:YA:2375:G:C8	25:YA:2375:G:H3'	2.54	0.43
25:YA:2388:A:N7	25:YA:2389:G:C5	2.87	0.43
25:YA:2414:G:H21	35:YP:67:MET:CE	2.32	0.43
25:YA:2805:G:N2	25:YA:2807:G:C2	2.87	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2816:C:O3'	37:YR:99:LYS:NZ	2.51	0.43
25:YA:704:G:O2'	25:YA:705:A:O5'	2.33	0.43
25:YA:856:C:H1'	46:Y0:27:GLU:CB	2.47	0.43
25:YA:950:G:C6	25:YA:951:C:C4	3.06	0.43
28:YE:13:ARG:HH11	28:YE:13:ARG:HB2	1.81	0.43
28:YE:143:ASN:ND2	28:YE:143:ASN:N	2.65	0.43
28:YE:16:ARG:O	28:YE:18:ASP:O	2.36	0.43
28:YE:51:PHE:O	28:YE:74:PRO:CB	2.67	0.43
30:YG:131:TYR:HE2	30:YG:133:LEU:HD22	1.83	0.43
31:YH:136:ILE:N	31:YH:136:ILE:HD12	2.31	0.43
31:YH:59:ARG:NH1	31:YH:59:ARG:CG	2.79	0.43
33:YN:118:LYS:C	33:YN:120:LEU:H	2.20	0.43
34:YO:61:VAL:O	34:YO:61:VAL:HG13	2.18	0.43
25:YA:2470:G:C5'	36:YQ:56:ARG:NH2	2.81	0.43
44:YY:6:HIS:ND1	44:YY:6:HIS:N	2.66	0.43
1:QA:1346:A:C5	7:QG:10:ARG:NH1	2.87	0.43
1:QA:321:A:N6	1:QA:329:A:OP2	2.52	0.43
1:QA:596:C:N4	1:QA:644:G:H1	2.16	0.43
1:QA:669:U:H2'	1:QA:670:G:O4'	2.17	0.43
1:QA:828:A:H5'	1:QA:870:U:O4	2.18	0.43
1:QA:874:G:H2'	1:QA:875:C:C6	2.52	0.43
2:QB:231:GLU:HA	2:QB:232:PRO:HD3	1.83	0.43
3:QC:12:LEU:C	3:QC:14:ILE:H	2.21	0.43
4:QD:24:GLU:O	4:QD:28:SER:OG	2.21	0.43
4:QD:25:ARG:NH1	4:QD:30:LYS:CE	2.75	0.43
5:QE:78:HIS:HE1	5:QE:143:ARG:N	2.12	0.43
7:QG:122:HIS:HA	7:QG:125:MET:HB2	2.00	0.43
19:QS:21:GLU:HG3	19:QS:22:LEU:CD1	2.49	0.43
53:R7:19:ARG:NH1	53:R7:19:ARG:HG2	2.33	0.43
55:R9:7:VAL:HG21	55:R9:36:GLN:HB2	2.00	0.43
25:RA:1022:G:O6	33:RN:66:LYS:HE2	2.18	0.43
25:RA:1068:G:O2'	25:RA:1096:A:N3	2.52	0.43
25:RA:1027:A:C6	25:RA:1126:A:C5	3.06	0.43
25:RA:1526:G:C6	25:RA:1527:G:C2	3.06	0.43
25:RA:2029:G:H2'	25:RA:2031:A:OP2	2.19	0.43
25:RA:220:G:H21	25:RA:429:A:N6	2.17	0.43
25:RA:2255:G:H21	46:R0:9:SER:HB3	1.83	0.43
25:RA:2642:G:C2	25:RA:2643:G:C4	3.07	0.43
25:RA:2653:U:O2'	31:RH:110:SER:HB2	2.19	0.43
25:RA:26:G:C2	25:RA:27:G:N2	2.87	0.43
25:RA:847:U:OP2	25:RA:929:G:O6	2.36	0.43
26:RB:52:A:O2'	26:RB:53:A:N7	2.52	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:44:ASN:CB	27:RD:49:ILE:HG22	2.46	0.43
28:RE:188:VAL:HA	28:RE:189:PRO:HD2	1.79	0.43
28:RE:203:LYS:C	28:RE:203:LYS:HD2	2.39	0.43
25:RA:588:U:H1'	29:RF:90:PHE:CD1	2.53	0.43
30:RG:51:ARG:HB3	30:RG:51:ARG:NH1	2.33	0.43
33:RN:1:MET:O	33:RN:1:MET:HG3	2.19	0.43
33:RN:96:GLU:O	33:RN:97:ARG:C	2.57	0.43
35:RP:70:GLN:N	35:RP:70:GLN:OE1	2.51	0.43
36:RQ:83:MET:H	46:R0:7:LEU:CD1	2.32	0.43
40:RU:95:LEU:HD13	41:RV:4:ILE:HD12	1.98	0.43
1:XA:1324:A:C5	1:XA:1325:C:C5	3.07	0.43
1:XA:1486:G:H5''	1:XA:1487:G:OP2	2.18	0.43
1:XA:329:A:C5	1:XA:332:G:C6	3.07	0.43
2:XB:32:ILE:HD13	2:XB:190:THR:CG2	2.48	0.43
2:XB:33:TYR:CD1	2:XB:33:TYR:C	2.92	0.43
3:XC:101:LEU:C	3:XC:101:LEU:HD23	2.39	0.43
4:XD:90:GLY:O	4:XD:93:PHE:HB3	2.19	0.43
5:XE:64:ARG:HH11	5:XE:64:ARG:HG3	1.81	0.43
5:XE:72:GLN:C	5:XE:74:GLY:H	2.22	0.43
6:XF:48:LEU:HA	6:XF:48:LEU:HD23	1.85	0.43
10:XJ:30:SER:OG	10:XJ:81:THR:HG22	2.19	0.43
11:XK:20:TYR:C	11:XK:21:ILE:HD12	2.38	0.43
16:XP:21:VAL:HG23	16:XP:34:GLU:N	2.34	0.43
47:Y1:92:LYS:O	47:Y1:93:GLU:C	2.56	0.43
48:Y2:62:THR:O	48:Y2:65:ASN:HB2	2.18	0.43
50:Y4:15:ILE:CD1	50:Y4:15:ILE:N	2.78	0.43
25:YA:1027:A:C6	25:YA:1126:A:C5	3.07	0.43
25:YA:124:G:N2	25:YA:126:A:O2'	2.51	0.43
25:YA:1288:U:H4'	25:YA:1289:C:OP2	2.19	0.43
25:YA:1346:G:C5	25:YA:1347:G:N7	2.87	0.43
25:YA:1365:A:N6	25:YA:1366:A:C6	2.87	0.43
25:YA:140:A:H1'	25:YA:1408:C:O2'	2.19	0.43
25:YA:1409:C:H2'	25:YA:1410:G:O4'	2.19	0.43
25:YA:2001:A:C2	25:YA:2002:G:C5	3.06	0.43
25:YA:2069:G:N2	25:YA:2070:G:C4	2.87	0.43
25:YA:2456:C:C4	25:YA:2457:U:C5	3.06	0.43
25:YA:2662:A:H2'	25:YA:2663:G:O4'	2.18	0.43
25:YA:273(E):U:H2'	25:YA:273(F):C:H6	1.83	0.43
25:YA:275:G:N2	25:YA:276:A:H62	2.17	0.43
25:YA:476:G:N2	25:YA:479:A:C8	2.86	0.43
25:YA:729:G:C4	25:YA:1775:U:C2	3.07	0.43
25:YA:735:A:H5''	25:YA:736:C:OP2	2.18	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:YD:11:PRO:O	27:YD:12:SER:OG	2.29	0.43
27:YD:30:GLU:CD	27:YD:63:ARG:HE	2.21	0.43
28:YE:155:LYS:O	28:YE:156:MET:HG3	2.19	0.43
30:YG:114:ILE:O	30:YG:116:ASP:N	2.51	0.43
30:YG:136:ARG:O	30:YG:154:GLY:CA	2.62	0.43
31:YH:120:GLY:O	31:YH:136:ILE:HD12	2.19	0.43
33:YN:26:LEU:HG	33:YN:30:ILE:CD1	2.49	0.43
33:YN:30:ILE:HG22	33:YN:34:LEU:CD2	2.48	0.43
33:YN:57:ALA:O	33:YN:124:ALA:HA	2.18	0.43
36:YQ:83:MET:H	46:Y0:7:LEU:CD2	2.25	0.43
37:YR:51:LEU:HD13	37:YR:66:VAL:HG22	2.01	0.43
37:YR:74:LYS:O	37:YR:76:VAL:N	2.45	0.43
38:YS:42:ASP:C	38:YS:44:LYS:N	2.72	0.43
38:YS:30:ARG:NH2	38:YS:92:TYR:HD1	2.17	0.43
39:YT:64:ARG:HG2	39:YT:64:ARG:HH11	1.84	0.43
40:YU:79:PHE:C	40:YU:79:PHE:HD2	2.18	0.43
43:YX:70:LEU:H	43:YX:70:LEU:HD23	1.77	0.43
44:YY:84:ARG:HD3	44:YY:86:ARG:HH11	1.83	0.43
1:QA:1069:C:H5''	5:QE:20:GLN:HE21	1.84	0.43
1:QA:1107:C:C4	1:QA:1108:G:C8	3.07	0.43
1:QA:935:A:H1'	1:QA:1384:C:N3	2.33	0.43
1:QA:392:G:OP2	16:QP:12:LYS:HG3	2.19	0.43
1:QA:454:C:N4	1:QA:479:C:N3	2.67	0.43
1:QA:515:G:C6	1:QA:516:U:C4	3.06	0.43
1:QA:59:A:C5	1:QA:354:G:C6	3.06	0.43
1:QA:7:G:H5'	1:QA:298:A:O4'	2.19	0.43
1:QA:825:G:H2'	1:QA:826:C:O4'	2.18	0.43
2:QB:127:ILE:HG23	2:QB:128:GLU:N	2.34	0.43
2:QB:77:ALA:HB1	2:QB:165:VAL:HG11	2.00	0.43
2:QB:95:GLN:HE21	2:QB:147:LYS:CE	2.28	0.43
4:QD:90:GLY:O	4:QD:93:PHE:HB3	2.19	0.43
6:QF:73:ASN:O	6:QF:76:ALA:HB3	2.19	0.43
7:QG:148:ASN:O	7:QG:150:ALA:N	2.51	0.43
9:QI:26:VAL:CG1	9:QI:63:ILE:HD13	2.49	0.43
11:QK:108:ILE:HG21	18:QR:88:LYS:OXT	2.19	0.43
11:QK:75:TYR:N	11:QK:75:TYR:HD1	2.17	0.43
14:QN:17:LYS:HG3	14:QN:18:VAL:N	2.33	0.43
18:QR:43:PHE:HA	18:QR:51:LEU:HD12	2.01	0.43
20:QT:44:ALA:C	20:QT:91:LEU:HB3	2.39	0.43
50:R4:48:ARG:NH1	50:R4:51:ASP:HA	2.34	0.43
50:R4:68:ARG:O	50:R4:69:LYS:HB2	2.17	0.43
25:RA:1069:A:H4'	25:RA:1070:A:H5''	2.01	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1285:G:H21	25:RA:1328:G:H5''	1.83	0.43
25:RA:144:C:H2'	25:RA:145:G:C8	2.54	0.43
25:RA:1527:G:H5''	25:RA:1528:A:OP1	2.19	0.43
25:RA:2056:G:C2	25:RA:2057:A:C8	3.06	0.43
25:RA:2128:C:H2'	25:RA:2129:C:C6	2.53	0.43
25:RA:2422:A:N7	25:RA:2424:C:C5	2.87	0.43
25:RA:2516:G:C6	25:RA:2517:C:C4	3.07	0.43
25:RA:2572:A:C2	28:RE:144:ARG:NH2	2.87	0.43
25:RA:624:C:H2'	25:RA:625:G:H5'	2.01	0.43
26:RB:39:A:O2'	26:RB:46:A:N1	2.34	0.43
27:RD:44:ASN:HB3	27:RD:49:ILE:CG2	2.47	0.43
28:RE:51:PHE:O	28:RE:74:PRO:CB	2.67	0.43
31:RH:6:ARG:CG	31:RH:7:LEU:N	2.81	0.43
31:RH:35:VAL:CG2	31:RH:75:ALA:HB2	2.48	0.43
33:RN:42:TRP:HA	33:RN:48:MET:HE1	1.99	0.43
33:RN:61:ARG:HA	33:RN:61:ARG:NE	2.33	0.43
33:RN:63:THR:HG23	33:RN:66:LYS:HE3	2.00	0.43
35:RP:112:LEU:CD1	35:RP:114:ILE:HG23	2.47	0.43
35:RP:120:ALA:HB1	35:RP:138:LEU:CB	2.49	0.43
35:RP:19:VAL:HG22	35:RP:21:ARG:H	1.83	0.43
37:RR:10:LEU:O	37:RR:12:ARG:N	2.52	0.43
39:RT:107:ASP:OD2	39:RT:109:GLU:HB2	2.18	0.43
42:RW:111:HIS:CG	42:RW:112:GLY:H	2.37	0.43
42:RW:19:LEU:O	42:RW:22:ASP:HB2	2.19	0.43
1:XA:1025:U:O2'	1:XA:1026:G:H8	2.02	0.43
1:XA:1311:G:N2	1:XA:1327:C:C2	2.87	0.43
1:XA:1347:G:HO2'	1:XA:1348:U:P	2.42	0.43
1:XA:1439:C:C4	1:XA:1440:C:C5	3.07	0.43
1:XA:1440:C:H2'	1:XA:1441:G:O4'	2.18	0.43
1:XA:881:G:H2'	1:XA:882:C:O4'	2.18	0.43
1:XA:967:C:H6	1:XA:967:C:O5'	2.02	0.43
1:XA:977:A:C8	1:XA:1223:C:C4	3.07	0.43
2:XB:163:PHE:HD2	2:XB:163:PHE:HA	1.70	0.43
3:XC:12:LEU:C	3:XC:14:ILE:H	2.21	0.43
6:XF:45:LEU:CD1	6:XF:59:TYR:HD1	2.31	0.43
9:XI:26:VAL:CG1	9:XI:63:ILE:HD13	2.48	0.43
10:XJ:70:ARG:HG3	10:XJ:70:ARG:HH11	1.83	0.43
11:XK:75:TYR:HD1	11:XK:75:TYR:N	2.16	0.43
46:Y0:57:PHE:HD2	46:Y0:57:PHE:N	2.17	0.43
47:Y1:29:GLY:O	47:Y1:31:GLY:N	2.49	0.43
50:Y4:48:ARG:C	50:Y4:49:PHE:HD1	2.22	0.43
51:Y5:40:LYS:HE2	51:Y5:47:PRO:CG	2.49	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:Y7:32:LYS:O	53:Y7:33:ARG:C	2.55	0.43
25:YA:1019:U:O2'	25:YA:1021:A:H2	1.95	0.43
25:YA:1199:U:H2'	25:YA:1200:C:C6	2.54	0.43
25:YA:120:U:O4'	25:YA:120:U:O2	2.37	0.43
25:YA:137(A):G:H1'	43:YX:41:ASN:HD22	1.84	0.43
25:YA:1485:G:C2'	25:YA:1486:A:H5'	2.48	0.43
25:YA:1894:C:H2'	25:YA:1895:C:H6	1.84	0.43
25:YA:2277:G:H5''	36:YQ:85:LYS:HB2	2.00	0.43
25:YA:2492:U:O2'	25:YA:2493:U:H5'	2.19	0.43
25:YA:2584:U:H2'	25:YA:2585:U:C6	2.54	0.43
25:YA:2621:A:C6	25:YA:2622:C:C4	3.07	0.43
25:YA:2632:A:N3	25:YA:2632:A:H2'	2.34	0.43
25:YA:2675:A:N6	25:YA:2676:C:C4	2.87	0.43
25:YA:481:G:C4	25:YA:507:A:C2	3.07	0.43
25:YA:593:G:C6	25:YA:594:U:C4	3.06	0.43
25:YA:971:C:C4	25:YA:972:G:C4	3.06	0.43
27:YD:17:THR:HG22	27:YD:204:ILE:HA	1.98	0.43
25:YA:1816:G:C8	27:YD:62:TYR:CE1	3.07	0.43
30:YG:145:THR:O	30:YG:146:TYR:HB3	2.19	0.43
30:YG:59:GLU:O	30:YG:62:LEU:HB3	2.18	0.43
31:YH:86:GLU:H	31:YH:86:GLU:CD	2.16	0.43
32:YI:40:THR:O	32:YI:44:LEU:HB2	2.18	0.43
33:YN:90:MET:O	33:YN:91:LEU:C	2.57	0.43
39:YT:19:LEU:HA	39:YT:20:PRO:HD3	1.88	0.43
41:YV:35:LEU:HD22	41:YV:35:LEU:N	2.23	0.43
44:YY:47:LYS:O	44:YY:49:VAL:N	2.48	0.43
1:QA:1060:C:N4	1:QA:1198:G:O6	2.51	0.43
1:QA:1154:G:H2'	1:QA:1155:G:C8	2.41	0.43
1:QA:1307:U:O5'	1:QA:1307:U:H6	2.00	0.43
1:QA:1312:G:N7	19:QS:2:PRO:HD2	2.34	0.43
1:QA:132:C:H2'	1:QA:133:U:O4'	2.19	0.43
1:QA:49:U:H5	1:QA:365:U:O4	2.01	0.43
1:QA:596:C:H42	1:QA:644:G:H1	1.66	0.43
1:QA:701:C:O2'	1:QA:702:A:P	2.76	0.43
1:QA:973:G:O6	1:QA:974:A:N6	2.52	0.43
5:QE:48:ALA:HB2	5:QE:57:LYS:HD3	2.00	0.43
9:QI:29:ASN:OD1	9:QI:65:VAL:N	2.48	0.43
11:QK:44:SER:O	11:QK:48:ILE:HG12	2.18	0.43
13:QM:87:TYR:HA	13:QM:90:LEU:HG	2.01	0.43
17:QQ:77:VAL:O	17:QQ:78:GLU:HB2	2.18	0.43
18:QR:53:ARG:C	18:QR:55:ARG:H	2.22	0.43
46:R0:7:LEU:N	46:R0:7:LEU:HD23	2.34	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:R2:6:VAL:O	48:R2:7:ARG:C	2.57	0.43
50:R4:43:TYR:O	50:R4:46:GLN:HA	2.19	0.43
50:R4:59:PHE:CE1	50:R4:70:GLY:N	2.87	0.43
25:RA:107:C:H2'	25:RA:108:U:C6	2.53	0.43
25:RA:1340:U:OP2	43:RX:78:LYS:NZ	2.50	0.43
25:RA:1590:U:C2	25:RA:1591:G:C8	3.06	0.43
25:RA:1666:G:N2	25:RA:1995:U:C2	2.86	0.43
25:RA:2087:G:C4	25:RA:2088:G:C8	3.06	0.43
25:RA:2128:C:C2'	25:RA:2129:C:H5'	2.49	0.43
25:RA:2168:G:N3	25:RA:2168:G:H2'	2.34	0.43
25:RA:2317:C:H2'	25:RA:2318:G:O4'	2.19	0.43
25:RA:2560:C:H2'	25:RA:2561:A:C8	2.54	0.43
25:RA:2578:G:O2'	25:RA:2579:C:H5'	2.18	0.43
25:RA:2728:U:O2'	25:RA:2729:G:H5'	2.18	0.43
25:RA:482:A:O2'	25:RA:497:A:N1	2.45	0.43
25:RA:715:G:C6	25:RA:716:A:C6	3.06	0.43
25:RA:84:A:N1	25:RA:98:G:O2'	2.39	0.43
27:RD:33:LEU:HB3	27:RD:34:VAL:H	1.49	0.43
29:RF:176:LEU:HD11	29:RF:180:GLY:O	2.19	0.43
25:RA:615:G:C8	29:RF:44:ARG:NH1	2.87	0.43
32:RI:79:ILE:HA	32:RI:79:ILE:HD13	1.70	0.43
33:RN:7:LYS:N	33:RN:7:LYS:HD2	2.29	0.43
33:RN:87:LEU:C	33:RN:87:LEU:CD2	2.86	0.43
33:RN:90:MET:O	33:RN:91:LEU:C	2.57	0.43
34:RO:17:ARG:HH11	34:RO:17:ARG:HG2	1.84	0.43
34:RO:61:VAL:O	34:RO:61:VAL:HG13	2.18	0.43
35:RP:52:GLU:OE2	35:RP:58:THR:N	2.52	0.43
37:RR:48:VAL:O	37:RR:49:ASP:C	2.57	0.43
39:RT:64:ARG:HH11	39:RT:64:ARG:HG2	1.84	0.43
40:RU:91:ASP:O	40:RU:95:LEU:N	2.42	0.43
1:XA:1298:C:H4'	1:XA:1299:A:N9	2.33	0.43
1:XA:935:A:O2'	1:XA:1383:C:N3	2.48	0.43
1:XA:262:A:C6	1:XA:263:A:C6	3.06	0.43
1:XA:32:A:H2'	1:XA:33:A:H8	1.81	0.43
1:XA:411:A:C5	1:XA:429:U:C5	3.07	0.43
1:XA:415:A:H2'	1:XA:416:G:H8	1.83	0.43
1:XA:422:C:O4'	1:XA:422:C:OP2	2.37	0.43
1:XA:524:G:C6	1:XA:525:C:N4	2.87	0.43
1:XA:530:G:H4'	1:XA:531:U:OP2	2.19	0.43
1:XA:554:C:H2'	1:XA:555:C:C6	2.54	0.43
1:XA:756:C:H2'	1:XA:757:U:O4'	2.18	0.43
2:XB:100:GLY:N	2:XB:176:GLU:OE2	2.51	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:XB:197:VAL:CG1	2:XB:198:ASP:N	2.82	0.43
3:XC:67:THR:O	3:XC:69:HIS:CE1	2.72	0.43
4:XD:59:ARG:NE	4:XD:59:ARG:HA	2.34	0.43
6:XF:3:ARG:HB3	6:XF:93:SER:CB	2.48	0.43
6:XF:76:ALA:HB1	6:XF:80:ARG:HH21	1.82	0.43
7:XG:23:VAL:O	7:XG:27:ILE:HD12	2.19	0.43
7:XG:79:ARG:HH12	7:XG:82:GLY:HA2	1.84	0.43
8:XH:118:VAL:O	8:XH:119:LEU:HD23	2.18	0.43
8:XH:64:LYS:CB	8:XH:79:VAL:HG21	2.48	0.43
8:XH:86:ILE:CB	8:XH:133:LEU:HD22	2.49	0.43
9:XI:22:GLY:O	9:XI:23:ASN:C	2.57	0.43
13:XM:54:VAL:O	13:XM:58:GLU:OE2	2.37	0.43
15:XO:71:GLN:HB2	15:XO:78:TYR:CE1	2.54	0.43
22:XV:53:G:HO2'	22:XV:54:U:H6	1.65	0.43
48:Y2:27:GLU:CD	48:Y2:27:GLU:H	2.17	0.43
49:Y3:50:VAL:HB	49:Y3:53:LEU:HD12	2.00	0.43
19:XS:64:GLU:CD	50:Y4:55:ARG:HH22	2.21	0.43
25:YA:118:A:N3	25:YA:178:G:H1'	2.34	0.43
25:YA:1327:C:C4	25:YA:1328:G:C6	3.07	0.43
25:YA:1628:G:O2'	25:YA:1629:U:H5'	2.19	0.43
25:YA:2517:C:C4	25:YA:2542:A:C6	3.07	0.43
25:YA:2792:G:C5	25:YA:2805:G:N2	2.86	0.43
25:YA:2827:C:O5'	25:YA:2827:C:H6	2.01	0.43
25:YA:579:G:C8	25:YA:2017:U:C4	3.07	0.43
25:YA:607:U:N3	25:YA:621:A:C2	2.81	0.43
25:YA:951:C:H42	25:YA:966:G:H1	1.67	0.43
28:YE:52:LEU:O	28:YE:74:PRO:HA	2.19	0.43
31:YH:125:VAL:CG1	31:YH:126:PRO:CG	2.94	0.43
32:YI:96:ASP:N	32:YI:96:ASP:OD2	2.49	0.43
39:YT:89:VAL:O	39:YT:90:GLN:CB	2.67	0.43
40:YU:43:GLY:HA3	41:YV:73:SER:OG	2.19	0.43
44:YY:94:LYS:HE3	44:YY:101:LYS:HZ3	1.79	0.43
1:QA:1272:G:H2'	1:QA:1273:G:O4'	2.19	0.43
1:QA:303:A:H2'	1:QA:304:U:O4'	2.18	0.43
1:QA:377:G:P	16:QP:5:ARG:NH1	2.91	0.43
1:QA:683:G:C6	1:QA:684:A:C6	3.07	0.43
1:QA:9:G:C6	1:QA:26:A:N6	2.87	0.43
2:QB:178:ARG:NH2	8:QH:74:PRO:CB	2.70	0.43
2:QB:162:ILE:O	2:QB:185:ILE:HG13	2.18	0.43
2:QB:33:TYR:CD1	2:QB:33:TYR:C	2.92	0.43
2:QB:33:TYR:HD1	2:QB:33:TYR:C	2.22	0.43
2:QB:68:ILE:HB	2:QB:70:PHE:HE1	1.82	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:QC:76:VAL:CG2	3:QC:103:VAL:HG11	2.49	0.43
3:QC:188:LEU:HD12	3:QC:195:VAL:CG1	2.48	0.43
4:QD:52:SER:O	4:QD:55:ALA:N	2.52	0.43
5:QE:105:VAL:HB	5:QE:106:PRO:CD	2.49	0.43
6:QF:27:GLN:H	6:QF:27:GLN:HG2	1.65	0.43
6:QF:85:VAL:O	6:QF:85:VAL:HG12	2.18	0.43
7:QG:79:ARG:HH12	7:QG:82:GLY:HA2	1.84	0.43
8:QH:64:LYS:CB	8:QH:79:VAL:HG21	2.49	0.43
16:QP:40:ASP:C	16:QP:42:ARG:N	2.73	0.43
17:QQ:22:LEU:HD13	17:QQ:41:LYS:HG2	2.01	0.43
19:QS:41:VAL:CG1	19:QS:45:VAL:H	2.31	0.43
22:QV:43:A:H2'	22:QV:44:A:C8	2.54	0.43
47:R1:13:ILE:CG1	47:R1:42:GLN:HB2	2.49	0.43
48:R2:62:THR:O	48:R2:65:ASN:HB2	2.19	0.43
50:R4:22:ILE:CG2	50:R4:23:GLU:N	2.81	0.43
25:RA:2370:G:H21	52:R6:45:LYS:CE	2.32	0.43
52:R6:50:ARG:HH11	52:R6:50:ARG:HG2	1.84	0.43
53:R7:17:GLY:O	53:R7:20:ALA:HB3	2.19	0.43
54:R8:28:GLY:O	54:R8:29:LYS:O	2.36	0.43
25:RA:1006:C:H2'	25:RA:1007:C:C6	2.54	0.43
25:RA:1026:U:H1'	25:RA:1027:A:O5'	2.19	0.43
25:RA:1341:U:H4'	25:RA:1342:A:OP2	2.19	0.43
25:RA:1640:C:H5'	25:RA:1641:A:OP2	2.19	0.43
25:RA:1728:G:C6	25:RA:1730:U:OP2	2.72	0.43
25:RA:1933:G:C2	25:RA:1934:C:C2	3.07	0.43
25:RA:2094:G:C6	25:RA:2095:C:C4	3.07	0.43
25:RA:2104:G:H1	25:RA:2185:C:H42	1.67	0.43
25:RA:2340:G:O2'	25:RA:2341:G:H5'	2.19	0.43
25:RA:2539:C:C5'	55:R9:3:VAL:HG21	2.49	0.43
25:RA:273(A):G:C2	25:RA:273(B):C:C2	3.07	0.43
25:RA:316:C:H6	25:RA:316:C:H5''	1.84	0.43
25:RA:535:C:H1'	25:RA:559:G:N2	2.34	0.43
25:RA:448:U:O4	25:RA:583:G:H1'	2.18	0.43
27:RD:17:THR:HG21	27:RD:204:ILE:HA	1.99	0.43
28:RE:18:ASP:O	28:RE:19:ARG:C	2.56	0.43
28:RE:25:VAL:HG21	39:RT:8:LYS:HG3	2.00	0.43
30:RG:114:ILE:O	30:RG:116:ASP:N	2.51	0.43
30:RG:25:TYR:CZ	30:RG:32:PRO:HD3	2.54	0.43
31:RH:53:GLU:CD	31:RH:54:ARG:H	2.21	0.43
32:RI:37:VAL:CG1	32:RI:38:LEU:HD12	2.49	0.43
38:RS:52:SER:HB2	38:RS:55:ALA:CB	2.49	0.43
41:RV:44:LYS:HB3	41:RV:45:THR:H	1.56	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:RV:72:VAL:HG13	41:RV:72:VAL:O	2.19	0.43
42:RW:28:SER:O	42:RW:30:GLU:N	2.50	0.43
45:RZ:158:PRO:HG2	45:RZ:161:VAL:HG21	2.01	0.43
45:RZ:1:MET:HG2	45:RZ:2:GLU:N	2.34	0.43
45:RZ:5:LEU:O	45:RZ:6:LYS:HB2	2.19	0.43
1:XA:1226:C:H42	13:XM:104:ARG:HD2	1.84	0.43
1:XA:1357:A:N6	1:XA:1358:U:O4	2.52	0.43
1:XA:1352:C:N4	1:XA:1370:G:H1	2.17	0.43
1:XA:398:C:H6	1:XA:398:C:O5'	2.02	0.43
1:XA:684:A:H2'	1:XA:685:G:C8	2.54	0.43
1:XA:748:C:OP2	1:XA:748:C:H6	2.02	0.43
1:XA:764:C:H3'	1:XA:765:G:H8	1.83	0.43
1:XA:842:C:H5'	1:XA:843:U:OP1	2.19	0.43
1:XA:892:A:C6	1:XA:893:C:C4	3.06	0.43
2:XB:87:ARG:NH1	2:XB:223:ILE:HD12	2.33	0.43
3:XC:149:ALA:O	3:XC:169:ALA:CA	2.67	0.43
7:XG:79:ARG:NH1	7:XG:82:GLY:HA2	2.34	0.43
9:XI:95:LYS:HD3	9:XI:95:LYS:C	2.39	0.43
11:XK:34:ASP:OD1	11:XK:38:ASN:HB2	2.18	0.43
14:YN:44:LEU:CD1	14:YN:48:ALA:HB2	2.47	0.43
15:XO:10:LYS:O	15:XO:14:GLU:HB2	2.18	0.43
15:XO:8:LYS:NZ	15:XO:31:LEU:HD11	2.34	0.43
19:XS:51:VAL:HG12	19:XS:52:TYR:N	2.33	0.43
1:XA:1222:G:P	19:XS:77:THR:HG21	2.58	0.43
20:XT:96:GLY:O	20:XT:99:LEU:CD1	2.67	0.43
48:Y2:4:SER:OG	48:Y2:5:GLU:OE2	2.26	0.43
25:YA:2014:A:O2'	51:Y5:2:ALA:HB2	2.19	0.43
51:Y5:56:LYS:O	51:Y5:57:VAL:C	2.57	0.43
53:Y7:5:TRP:CD1	53:Y7:7:PRO:HG3	2.53	0.43
25:YA:99:U:H4'	25:YA:101:G:H5''	2.00	0.43
25:YA:1459:G:C2'	25:YA:1460:A:H5'	2.48	0.43
25:YA:180:G:H5''	25:YA:181:A:P	2.59	0.43
25:YA:2443:C:O2'	25:YA:2444:G:H5'	2.18	0.43
25:YA:426:C:O2'	25:YA:427:U:H5'	2.18	0.43
25:YA:653:A:HO2'	25:YA:654:A:P	2.40	0.43
25:YA:910:A:H2'	25:YA:2264:C:O2'	2.19	0.43
26:YB:15:A:H1'	26:YB:109:G:C8	2.53	0.43
28:YE:23:VAL:HG12	28:YE:184:VAL:O	2.19	0.43
29:YF:45:ARG:HH11	29:YF:45:ARG:HG2	1.82	0.43
31:YH:125:VAL:HG12	31:YH:126:PRO:CD	2.49	0.43
35:YP:101:VAL:HG13	35:YP:102:ARG:N	2.33	0.43
25:YA:389:G:C6	35:YP:70:GLN:HB3	2.54	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:YQ:57:HIS:ND1	36:YQ:58:PHE:N	2.66	0.43
37:YR:94:TYR:CD2	37:YR:94:TYR:N	2.87	0.43
38:YS:105:ALA:C	38:YS:110:LEU:HD21	2.39	0.43
25:YA:993:G:OP1	40:YU:50:ARG:CZ	2.66	0.43
1:QA:265:G:H5'	17:QQ:64:PRO:O	2.19	0.42
1:QA:451:A:N6	1:QA:481:G:C4	2.87	0.42
1:QA:766:A:H2'	1:QA:767:A:O4'	2.19	0.42
1:QA:937:A:H1'	1:QA:1379:G:N2	2.33	0.42
2:QB:95:GLN:HB3	2:QB:148:TYR:HD1	1.84	0.42
4:QD:19:LEU:O	4:QD:20:TYR:C	2.57	0.42
7:QG:111:ARG:HH11	7:QG:111:ARG:CB	2.23	0.42
8:QH:20:TYR:CD1	8:QH:65:TYR:HD2	2.35	0.42
1:QA:877:C:H5''	8:QH:88:LYS:HD3	2.00	0.42
12:QL:120:TYR:O	12:QL:121:GLY:C	2.57	0.42
1:QA:728:A:C5	15:QO:54:ARG:HD2	2.53	0.42
15:QO:8:LYS:NZ	15:QO:31:LEU:HD11	2.34	0.42
16:QP:75:ARG:C	16:QP:77:ALA:N	2.72	0.42
19:QS:29:ARG:HG2	19:QS:29:ARG:HH11	1.84	0.42
46:R0:47:PRO:HB2	46:R0:51:VAL:O	2.19	0.42
52:R6:19:ARG:HD2	52:R6:19:ARG:HA	1.76	0.42
53:R7:47:ARG:HB2	53:R7:48:LYS:H	1.64	0.42
25:RA:1743:G:C2	25:RA:1746:G:C8	3.07	0.42
25:RA:1924:C:H2'	25:RA:1925:C:O4'	2.18	0.42
25:RA:234:C:H2'	25:RA:235:U:O4'	2.19	0.42
25:RA:945:A:C6	25:RA:2448:A:C5	3.07	0.42
25:RA:2538:C:C2	25:RA:2539:C:C5	3.07	0.42
25:RA:2562:U:C2'	25:RA:2563:U:H5'	2.49	0.42
25:RA:2650:U:H2'	25:RA:2651:C:H6	1.84	0.42
25:RA:2752:C:H5'	25:RA:2753:A:OP2	2.19	0.42
25:RA:291:C:H2'	25:RA:292:C:C6	2.53	0.42
25:RA:28:A:C4	25:RA:513:A:C8	3.07	0.42
25:RA:532:A:N7	25:RA:2021:C:H2'	2.34	0.42
25:RA:784:A:O2'	25:RA:785:G:H5''	2.19	0.42
26:RB:15:A:H1'	26:RB:109:G:C8	2.54	0.42
27:RD:71:ASP:CB	27:RD:103:ARG:HH22	2.32	0.42
27:RD:134:ARG:HG3	27:RD:134:ARG:H	1.55	0.42
27:RD:33:LEU:O	27:RD:35:LYS:N	2.52	0.42
28:RE:23:VAL:HG12	28:RE:184:VAL:O	2.19	0.42
29:RF:183:VAL:O	29:RF:184:TYR:C	2.57	0.42
29:RF:20:LEU:HD12	29:RF:21:ALA:N	2.26	0.42
29:RF:64:ILE:HG23	29:RF:65:TRP:CD1	2.54	0.42
30:RG:31:VAL:O	30:RG:31:VAL:HG13	2.18	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:4:ASP:O	30:RG:5:VAL:HB	2.19	0.42
32:RI:78:THR:OG1	32:RI:104:GLN:NE2	2.52	0.42
33:RN:30:ILE:HG22	33:RN:34:LEU:HD21	2.01	0.42
38:RS:105:ALA:C	38:RS:110:LEU:HD21	2.39	0.42
38:RS:110:LEU:HA	38:RS:112:PHE:CZ	2.53	0.42
39:RT:80:SER:HA	39:RT:81:PRO:HD3	1.73	0.42
40:RU:64:ARG:CG	40:RU:64:ARG:NH2	2.70	0.42
40:RU:98:LEU:O	40:RU:102:GLU:N	2.49	0.42
45:RZ:121:HIS:CE1	45:RZ:169:GLU:HG2	2.54	0.42
1:XA:1028:C:C4	1:XA:1034:G:C2	3.07	0.42
1:XA:978:A:O2'	1:XA:1322:C:N3	2.42	0.42
1:XA:273:A:N6	1:XA:274:A:N6	2.67	0.42
1:XA:428:G:H4'	1:XA:429:U:OP1	2.18	0.42
1:XA:439:A:OP2	1:XA:493:G:N2	2.52	0.42
1:XA:523:A:H61	12:XL:92:ASP:HB2	1.83	0.42
2:XB:130:ARG:NH2	2:XB:138:LEU:HD21	2.34	0.42
2:XB:60:ASP:C	2:XB:62:ALA:N	2.71	0.42
2:XB:69:LEU:HD12	2:XB:91:PRO:O	2.19	0.42
4:XD:90:GLY:HA3	4:XD:204:ILE:HD11	2.01	0.42
5:XE:105:VAL:HB	5:XE:106:PRO:CD	2.49	0.42
5:XE:126:ARG:NH1	5:XE:126:ARG:CG	2.79	0.42
2:XB:178:ARG:HH22	8:XH:68:ARG:HH22	1.66	0.42
8:XH:82:HIS:CD2	8:XH:82:HIS:C	2.90	0.42
10:XJ:10:GLY:O	10:XJ:68:HIS:N	2.51	0.42
11:XK:105:VAL:O	11:XK:105:VAL:HG23	2.19	0.42
11:XK:44:SER:O	11:XK:48:ILE:HG12	2.18	0.42
16:XP:75:ARG:C	16:XP:77:ALA:N	2.72	0.42
19:XS:29:ARG:HH11	19:XS:29:ARG:HG2	1.84	0.42
22:XV:4:G:C6	22:XV:70:G:N1	2.86	0.42
47:Y1:53:VAL:CG1	47:Y1:54:ALA:N	2.81	0.42
48:Y2:6:VAL:O	48:Y2:7:ARG:C	2.57	0.42
49:Y3:46:ASN:O	49:Y3:50:VAL:HG22	2.19	0.42
51:Y5:3:LYS:O	51:Y5:4:HIS:C	2.56	0.42
52:Y6:50:ARG:HH11	52:Y6:50:ARG:HG2	1.84	0.42
25:YA:103:A:H5''	25:YA:104:U:OP2	2.18	0.42
25:YA:1053:C:N3	25:YA:1106:G:N2	2.59	0.42
25:YA:1244:G:C2	25:YA:1245:G:C8	3.07	0.42
25:YA:1798:U:C4	25:YA:1819:A:C2	3.07	0.42
25:YA:1852:C:H5''	25:YA:1853:A:OP1	2.18	0.42
25:YA:1954:G:N3	25:YA:2551:C:H5''	2.34	0.42
25:YA:2027:G:H8	25:YA:2027:G:H5''	1.84	0.42
25:YA:322:A:H3'	25:YA:323:G:H5'	1.99	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:669:G:N1	25:YA:801:G:O6	2.52	0.42
25:YA:942:G:O2'	25:YA:1189:A:H2'	2.18	0.42
26:YB:61:G:N1	26:YB:62:C:C4	2.87	0.42
27:YD:108:PRO:HG2	27:YD:111:LEU:HB2	2.01	0.42
27:YD:181:GLU:HA	27:YD:272:ALA:CB	2.39	0.42
28:YE:203:LYS:C	28:YE:203:LYS:HD2	2.39	0.42
30:YG:139:LEU:HA	30:YG:144:ILE:HG21	2.00	0.42
30:YG:16:ARG:NE	30:YG:31:VAL:HG11	2.34	0.42
30:YG:25:TYR:CZ	30:YG:32:PRO:HD3	2.54	0.42
32:YI:9:LEU:HD11	32:YI:12:LEU:HD23	2.01	0.42
33:YN:62:VAL:HG12	33:YN:66:LYS:HB2	2.01	0.42
34:YO:78:ARG:HH21	39:YT:103:ARG:HH22	1.64	0.42
36:YQ:25:ASP:H	36:YQ:102:VAL:HG23	1.84	0.42
37:YR:81:ASP:N	37:YR:81:ASP:OD2	2.51	0.42
42:YW:65:LEU:CD1	42:YW:68:ARG:NH1	2.75	0.42
44:YY:97:ARG:HH21	44:YY:98:VAL:CG2	2.32	0.42
45:YZ:72:ARG:NH2	45:YZ:97:GLU:HB2	2.34	0.42
1:QA:1063:C:C6	1:QA:1064:G:C8	3.07	0.42
1:QA:1178:G:H2'	1:QA:1180:A:OP2	2.20	0.42
1:QA:1216:G:N2	1:QA:1217:C:C2	2.87	0.42
1:QA:1286:A:C8	1:QA:1287:A:H4'	2.54	0.42
1:QA:1324:A:C5	1:QA:1325:C:C5	3.07	0.42
1:QA:1396:A:H4'	1:QA:1397:C:C5'	2.48	0.42
1:QA:148:G:N2	1:QA:149:A:C4	2.87	0.42
1:QA:451:A:N7	1:QA:481:G:C2	2.87	0.42
1:QA:575:G:N1	1:QA:821:G:N7	2.67	0.42
1:QA:756:C:H2'	1:QA:757:U:O4'	2.19	0.42
2:QB:188:ALA:CB	2:QB:200:ILE:HG23	2.47	0.42
2:QB:211:ILE:O	2:QB:215:LEU:HB2	2.19	0.42
3:QC:101:LEU:C	3:QC:101:LEU:HD23	2.38	0.42
5:QE:75:THR:CG2	5:QE:76:ILE:N	2.80	0.42
6:QF:22:GLU:OE1	6:QF:82:ARG:NH2	2.46	0.42
7:QG:126:ASP:OD2	7:QG:126:ASP:N	2.53	0.42
7:QG:79:ARG:NH1	7:QG:82:GLY:HA2	2.34	0.42
8:QH:91:ARG:HH11	8:QH:91:ARG:CG	2.23	0.42
10:QJ:30:SER:OG	10:QJ:81:THR:HG22	2.19	0.42
13:QM:54:VAL:O	13:QM:58:GLU:OE2	2.37	0.42
16:QP:20:VAL:CG2	16:QP:21:VAL:N	2.81	0.42
18:QR:73:ALA:HB3	18:QR:79:LEU:CD1	2.47	0.42
19:QS:29:ARG:HD3	19:QS:30:LEU:H	1.83	0.42
19:QS:62:ILE:HG22	19:QS:63:THR:N	2.34	0.42
19:QS:66:MET:HG3	19:QS:66:MET:O	2.19	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:QT:96:GLY:O	20:QT:99:LEU:CD1	2.67	0.42
21:QU:6:ARG:C	21:QU:8:THR:H	2.20	0.42
51:R5:3:LYS:CE	51:R5:3:LYS:HA	2.36	0.42
52:R6:33:LYS:C	52:R6:35:GLU:H	2.22	0.42
25:RA:110:G:C2	25:RA:111:A:C8	3.07	0.42
25:RA:1487:G:C4	25:RA:1488:G:C8	3.06	0.42
22:QV:11:A:H4'	25:RA:1909:C:O2'	2.19	0.42
25:RA:1927:A:H2'	25:RA:1928:A:C8	2.55	0.42
25:RA:2050:C:C4	25:RA:2051:A:C6	3.07	0.42
25:RA:2198:A:O2'	25:RA:2199:A:O5'	2.31	0.42
25:RA:2210:G:C3'	25:RA:2211:G:H8	2.26	0.42
25:RA:2410:G:H2'	25:RA:2411:A:O4'	2.20	0.42
25:RA:270(O):U:H5''	25:RA:270(P):C:OP2	2.19	0.42
25:RA:2891:G:H8	25:RA:2891:G:OP2	2.02	0.42
25:RA:418:G:C2'	25:RA:419:C:H5'	2.48	0.42
25:RA:833:U:C4	25:RA:834:C:N4	2.87	0.42
25:RA:994:C:H3'	40:RU:54:LYS:HE3	2.00	0.42
28:RE:3:GLY:HA3	28:RE:81:ILE:CD1	2.47	0.42
31:RH:16:SER:OG	31:RH:17:VAL:N	2.50	0.42
31:RH:26:VAL:CG1	31:RH:33:LEU:HB2	2.49	0.42
33:RN:10:GLU:OE2	33:RN:11:PRO:CD	2.67	0.42
33:RN:15:LEU:HD13	33:RN:15:LEU:C	2.40	0.42
35:RP:119:GLU:OE1	35:RP:119:GLU:HA	2.18	0.42
35:RP:13:ASN:C	35:RP:15:ARG:H	2.21	0.42
36:RQ:81:VAL:HG23	46:R0:7:LEU:HD11	2.00	0.42
37:RR:51:LEU:HD13	37:RR:66:VAL:HG22	2.01	0.42
39:RT:50:ILE:HD11	39:RT:102:ILE:HG12	2.01	0.42
40:RU:79:PHE:CD2	40:RU:83:LEU:HD13	2.54	0.42
42:RW:88:ARG:CB	42:RW:92:ARG:HB3	2.47	0.42
45:RZ:27:VAL:HG12	45:RZ:87:ASP:HB3	2.00	0.42
1:XA:1299:A:H2'	1:XA:1301:U:H1'	2.01	0.42
1:XA:1370:G:O2'	1:XA:1371:G:H5'	2.19	0.42
1:XA:1461:G:H2'	1:XA:1462:G:H8	1.81	0.42
1:XA:162:A:N7	1:XA:163:C:H1'	2.35	0.42
1:XA:380:G:N2	1:XA:384:G:C6	2.87	0.42
1:XA:451:A:H4'	1:XA:452:A:O4'	2.20	0.42
1:XA:456:C:C2	1:XA:477:G:N2	2.87	0.42
1:XA:560:U:O2'	1:XA:561:U:OP2	2.26	0.42
1:XA:658:G:H2'	1:XA:659:U:H6	1.84	0.42
2:XB:142:LEU:O	2:XB:145:LEU:HB2	2.19	0.42
2:XB:163:PHE:CD2	2:XB:185:ILE:HD12	2.54	0.42
2:XB:17:PHE:CG	2:XB:44:LEU:HD11	2.53	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:XI:25:LYS:O	9:XI:60:ASP:OD1	2.37	0.42
10:XJ:74:ILE:CD1	10:XJ:74:ILE:H	2.21	0.42
11:XK:62:GLN:O	11:XK:64:ALA:N	2.52	0.42
12:XL:120:TYR:O	12:XL:121:GLY:C	2.57	0.42
14:XN:48:ALA:HA	14:XN:53:LEU:HD12	2.01	0.42
16:XP:20:VAL:CG2	16:XP:21:VAL:N	2.82	0.42
16:XP:23:ASP:O	16:XP:26:ARG:HB2	2.18	0.42
19:XS:21:GLU:HG3	19:XS:22:LEU:CD1	2.49	0.42
19:XS:62:ILE:HG22	19:XS:63:THR:N	2.34	0.42
20:XT:13:LEU:CD1	20:XT:17:ARG:NH1	2.82	0.42
46:Y0:66:VAL:O	46:Y0:81:VAL:HA	2.19	0.42
47:Y1:13:ILE:CG1	47:Y1:42:GLN:HB2	2.49	0.42
47:Y1:56:GLN:HB2	47:Y1:57:GLU:H	1.47	0.42
47:Y1:72:GLU:O	47:Y1:75:GLU:HB2	2.19	0.42
47:Y1:8:SER:CB	47:Y1:66:HIS:CE1	3.01	0.42
53:Y7:47:ARG:HB2	53:Y7:48:LYS:H	1.64	0.42
25:YA:1026:U:O2	25:YA:1027:A:H3'	2.18	0.42
25:YA:1071:G:O5'	25:YA:1071:G:H8	2.02	0.42
25:YA:1350:C:N3	25:YA:1382:G:N2	2.66	0.42
25:YA:1510:A:N3	25:YA:1510:A:H2'	2.34	0.42
25:YA:1530:G:C6	25:YA:1531:C:C4	3.07	0.42
25:YA:1592:C:H2'	25:YA:1593:G:H8	1.84	0.42
25:YA:1761:C:H42	25:YA:1762:A:N6	2.13	0.42
25:YA:1786:A:H4'	25:YA:1787:A:OP2	2.18	0.42
25:YA:1952:A:OP1	34:YO:44:LYS:NZ	2.39	0.42
25:YA:2086:U:H2'	25:YA:2087:G:H8	1.75	0.42
25:YA:270(T):G:OP1	47:Y1:97:LEU:HD22	2.19	0.42
25:YA:426:C:C2'	25:YA:427:U:H5'	2.48	0.42
25:YA:451:C:H4'	29:YF:52:LYS:HZ1	1.80	0.42
25:YA:685:A:C8	25:YA:774:A:C6	3.07	0.42
25:YA:696:G:O2'	25:YA:697:C:H5'	2.18	0.42
27:YD:155:LEU:HD23	27:YD:177:LEU:HD21	2.00	0.42
25:YA:2600:A:H62	27:YD:237:GLU:HG2	1.83	0.42
27:YD:31:LYS:C	27:YD:32:SER:O	2.54	0.42
28:YE:197:ILE:CD1	28:YE:199:ARG:HH12	2.26	0.42
30:YG:7:LEU:CD2	30:YG:176:LEU:HD22	2.45	0.42
30:YG:77:ILE:H	30:YG:82:LEU:HB2	1.84	0.42
33:YN:43:THR:HA	33:YN:44:PRO:HD2	1.92	0.42
35:YP:119:GLU:OE1	35:YP:119:GLU:HA	2.18	0.42
35:YP:120:ALA:HB1	35:YP:138:LEU:CB	2.49	0.42
35:YP:52:GLU:OE2	35:YP:58:THR:N	2.52	0.42
38:YS:64:GLU:O	38:YS:68:GLN:HG3	2.19	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1446:A:N3	39:YT:118:ARG:HD2	2.34	0.42
25:YA:559:G:N2	40:YU:49:HIS:CE1	2.81	0.42
41:YV:38:LEU:CD2	41:YV:39:LEU:N	2.82	0.42
42:YW:19:LEU:O	42:YW:22:ASP:HB2	2.19	0.42
1:QA:1065:U:O2'	1:QA:1066:C:OP2	2.28	0.42
1:QA:408:A:C6	1:QA:409:G:C5	3.07	0.42
1:QA:614:A:OP1	4:QD:85:LYS:NZ	2.52	0.42
1:QA:728:A:C6	1:QA:729:A:N6	2.88	0.42
2:QB:99:GLY:O	2:QB:108:ILE:HD11	2.20	0.42
2:QB:204:ASN:C	2:QB:204:ASN:HD22	2.22	0.42
2:QB:60:ASP:C	2:QB:62:ALA:N	2.72	0.42
2:QB:92:TYR:HD1	2:QB:92:TYR:C	2.22	0.42
3:QC:83:ARG:O	3:QC:86:VAL:HG22	2.19	0.42
4:QD:22:LYS:CD	4:QD:26:CYS:SG	3.05	0.42
5:QE:71:LEU:HD11	5:QE:113:ALA:O	2.20	0.42
6:QF:23:LYS:HG2	6:QF:27:GLN:OE1	2.18	0.42
7:QG:75:VAL:HG13	7:QG:145:ALA:HA	2.00	0.42
14:QN:47:LEU:O	14:QN:48:ALA:C	2.57	0.42
50:R4:2:LYS:HD2	50:R4:2:LYS:HA	1.61	0.42
52:R6:7:ILE:O	52:R6:8:LYS:CG	2.68	0.42
25:RA:459:U:OP1	53:R7:39:ARG:HA	2.19	0.42
25:RA:1021:A:N6	25:RA:1141:U:H3	2.07	0.42
25:RA:1285:G:H22	25:RA:1329:U:P	2.38	0.42
25:RA:1779:U:C6	25:RA:1783:A:C5	3.07	0.42
25:RA:1889:A:C6	25:RA:1890:A:C6	3.07	0.42
25:RA:1899:G:O4'	25:RA:1901:A:C8	2.73	0.42
25:RA:2053:G:O6	25:RA:2614:A:H2	2.03	0.42
25:RA:2128:C:H2'	25:RA:2129:C:H6	1.85	0.42
25:RA:2207:C:O2'	27:RD:151:LYS:NZ	2.41	0.42
25:RA:2261:C:C2	25:RA:2280:G:N2	2.87	0.42
25:RA:2289:G:N2	25:RA:2344:U:C2	2.86	0.42
25:RA:299:A:N3	25:RA:319:C:O2'	2.41	0.42
25:RA:345:A:H5''	25:RA:346:A:OP1	2.19	0.42
25:RA:817:C:H3'	25:RA:818:G:H8	1.84	0.42
25:RA:867:C:C4	25:RA:868:U:C4	3.08	0.42
26:RB:43:C:C4	26:RB:45:A:C6	3.07	0.42
27:RD:108:PRO:HG2	27:RD:111:LEU:HB2	2.01	0.42
25:RA:1568:G:H1'	27:RD:58:HIS:HE1	1.83	0.42
28:RE:48:GLN:HB3	28:RE:48:GLN:HE21	1.55	0.42
28:RE:54:GLN:N	28:RE:54:GLN:CD	2.73	0.42
30:RG:41:GLN:NE2	30:RG:154:GLY:O	2.52	0.42
30:RG:63:ILE:HG12	30:RG:64:THR:N	2.33	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:26:LEU:HG	33:RN:30:ILE:CD1	2.49	0.42
34:RO:2:ILE:N	34:RO:2:ILE:CD1	2.82	0.42
34:RO:31:LYS:O	34:RO:32:TYR:HD2	2.02	0.42
35:RP:114:ILE:CD1	35:RP:130:PHE:CE1	2.98	0.42
35:RP:49:ARG:HG2	35:RP:49:ARG:HH11	1.84	0.42
25:RA:2839:G:N2	37:RR:92:GLY:HA3	2.33	0.42
40:RU:27:LEU:O	40:RU:30:LYS:N	2.41	0.42
44:RY:42:VAL:HG11	44:RY:65:ALA:HB3	2.02	0.42
45:RZ:150:LEU:HD21	45:RZ:172:ALA:HB3	2.01	0.42
45:RZ:24:LEU:HD12	45:RZ:25:PRO:N	2.35	0.42
1:XA:1129:C:C4'	1:XA:1130:A:H5'	2.45	0.42
1:XA:1124:G:H3'	1:XA:1145:C:H41	1.84	0.42
1:XA:1277:C:O2'	1:XA:1279:A:H1'	2.19	0.42
1:XA:1306:A:H2'	1:XA:1307:U:C6	2.53	0.42
1:XA:777:A:H2'	1:XA:778:G:C8	2.55	0.42
3:XC:83:ARG:O	3:XC:86:VAL:HG22	2.19	0.42
4:XD:19:LEU:O	4:XD:20:TYR:C	2.57	0.42
1:XA:1342:C:O2'	9:XI:124:GLN:HA	2.19	0.42
9:XI:8:GLY:CA	9:XI:79:LEU:HD12	2.49	0.42
9:XI:88:TYR:O	9:XI:89:ASN:HB2	2.20	0.42
13:XM:3:ARG:HD2	13:XM:9:ILE:CG1	2.45	0.42
16:XP:40:ASP:C	16:XP:42:ARG:N	2.73	0.42
17:XQ:77:VAL:O	17:XQ:78:GLU:HB2	2.18	0.42
48:Y2:48:HIS:O	48:Y2:49:LYS:C	2.57	0.42
50:Y4:23:GLU:C	50:Y4:24:THR:HG1	2.22	0.42
52:Y6:33:LYS:C	52:Y6:35:GLU:H	2.22	0.42
54:Y8:28:GLY:O	54:Y8:29:LYS:O	2.36	0.42
54:Y8:53:PRO:HD2	54:Y8:54:GLU:H	1.84	0.42
25:YA:1429:G:N3	25:YA:1430:C:C6	2.87	0.42
25:YA:154:G:H2'	25:YA:155:C:O4'	2.18	0.42
25:YA:1901:A:H2'	25:YA:1901:A:N3	2.33	0.42
25:YA:1964:G:H4'	25:YA:1965:C:OP2	2.20	0.42
25:YA:2061:G:H5''	25:YA:2503:A:C2	2.54	0.42
25:YA:2312:U:H3'	25:YA:2312:U:H6	1.84	0.42
25:YA:2357:U:OP1	46:Y0:20:ARG:NE	2.52	0.42
25:YA:2489:G:O6	25:YA:2490:G:O6	2.37	0.42
25:YA:2758:A:C6	25:YA:2759:G:C8	3.07	0.42
25:YA:2863:C:O2'	25:YA:2864:G:H5'	2.19	0.42
25:YA:568:U:O2'	25:YA:570:G:N7	2.41	0.42
28:YE:94:GLU:C	28:YE:96:PHE:N	2.73	0.42
29:YF:63:LYS:CE	29:YF:67:GLN:HB2	2.49	0.42
30:YG:121:ASN:HA	30:YG:181:ARG:NH2	2.34	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:34:LEU:HD11	30:YG:99:MET:CE	2.49	0.42
32:YI:32:PRO:C	32:YI:34:GLY:H	2.23	0.42
35:YP:107:LYS:O	35:YP:108:LYS:C	2.58	0.42
35:YP:125:VAL:C	35:YP:145:PRO:HD2	2.39	0.42
37:YR:10:LEU:O	37:YR:12:ARG:N	2.52	0.42
40:YU:91:ASP:OD2	40:YU:96:ALA:HB2	2.19	0.42
45:YZ:128:VAL:HG22	45:YZ:129:SER:H	1.85	0.42
45:YZ:96:VAL:O	45:YZ:127:LYS:HA	2.18	0.42
1:QA:1046:A:N3	1:QA:1046:A:H2'	2.34	0.42
1:QA:1156:G:H2'	1:QA:1157:A:H5''	2.01	0.42
1:QA:1065:U:C5	1:QA:1190:G:H1'	2.55	0.42
1:QA:1353:G:C2	1:QA:1370:G:C2	3.07	0.42
1:QA:949:A:C1'	1:QA:1364:U:H3	2.22	0.42
2:QB:16:HIS:CD2	2:QB:213:LEU:HD13	2.54	0.42
2:QB:69:LEU:HD12	2:QB:91:PRO:O	2.19	0.42
3:QC:113:ALA:C	3:QC:115:LEU:N	2.72	0.42
3:QC:149:ALA:O	3:QC:169:ALA:CA	2.67	0.42
4:QD:127:THR:HG23	4:QD:130:GLY:O	2.20	0.42
4:QD:59:ARG:NE	4:QD:59:ARG:HA	2.35	0.42
9:QI:71:SER:O	9:QI:74:ILE:N	2.52	0.42
10:QJ:49:VAL:HG13	10:QJ:50:ILE:N	2.35	0.42
13:QM:4:ILE:CG2	13:QM:5:ALA:H	2.29	0.42
16:QP:55:ARG:O	16:QP:56:ALA:C	2.57	0.42
20:QT:96:GLY:O	20:QT:97:ALA:CB	2.64	0.42
22:QV:1:C:O2'	22:QV:2:G:H5'	2.19	0.42
9:QI:128:ARG:CD	22:QV:32:C:OP2	2.66	0.42
49:R3:46:ASN:O	49:R3:50:VAL:HG22	2.19	0.42
51:R5:20:ARG:HA	51:R5:23:HIS:CE1	2.54	0.42
25:RA:1069:A:H2'	25:RA:1073:A:N7	2.34	0.42
25:RA:1003:G:N2	25:RA:1153:C:C2	2.87	0.42
25:RA:1161:C:O2'	41:RV:8:GLY:HA2	2.19	0.42
25:RA:1416:G:H2'	25:RA:1417:C:C5	2.54	0.42
25:RA:1494:A:C6	25:RA:1495:A:C6	3.06	0.42
25:RA:1507:A:N6	25:RA:1508:A:N7	2.67	0.42
25:RA:2712:U:O2'	25:RA:2712(A):A:H8	1.99	0.42
25:RA:2756:U:OP2	55:R9:19:ARG:NE	2.53	0.42
25:RA:2795:G:H3'	25:RA:2797:U:H5'	2.01	0.42
25:RA:301:G:HO2'	25:RA:302:C:H6	1.67	0.42
25:RA:686:G:O6	53:R7:12:ARG:NH1	2.51	0.42
25:RA:727:A:C2	27:RD:9:TYR:CD2	3.07	0.42
25:RA:822:U:H5	25:RA:944:G:H1'	1.84	0.42
25:RA:859:G:O2'	25:RA:860:U:O5'	2.37	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:948:G:C2	25:RA:970:C:O2	2.71	0.42
25:RA:977:G:H2'	25:RA:978:G:H8	1.84	0.42
27:RD:14:ARG:CG	27:RD:15:PHE:N	2.83	0.42
28:RE:155:LYS:O	28:RE:156:MET:HG3	2.19	0.42
28:RE:24:THR:HB	28:RE:184:VAL:HG23	2.01	0.42
29:RF:132:VAL:CG2	29:RF:133:ASN:N	2.80	0.42
29:RF:63:LYS:HE2	29:RF:67:GLN:HB2	2.00	0.42
30:RG:109:VAL:C	30:RG:112:PRO:HD2	2.39	0.42
30:RG:27:ASN:HB3	30:RG:30:GLU:OE2	2.20	0.42
30:RG:55:LYS:O	30:RG:59:GLU:HB2	2.19	0.42
31:RH:58:GLU:O	31:RH:60:ARG:N	2.53	0.42
31:RH:89:ILE:H	31:RH:89:ILE:CD1	2.32	0.42
37:RR:10:LEU:C	37:RR:12:ARG:N	2.72	0.42
37:RR:29:LEU:HD11	37:RR:48:VAL:CG1	2.50	0.42
40:RU:92:ARG:NH2	41:RV:11:GLN:O	2.53	0.42
42:RW:8:ARG:NH1	42:RW:8:ARG:HG3	2.34	0.42
1:XA:1287:A:N6	1:XA:1288:A:N6	2.67	0.42
1:XA:139:G:N2	1:XA:225:C:C2	2.87	0.42
1:XA:67:C:O2'	1:XA:171:A:N3	2.39	0.42
1:XA:176:C:O2'	1:XA:1451:A:N1	2.51	0.42
1:XA:130:A:O2'	1:XA:263:A:O2'	2.36	0.42
1:XA:295:C:H2'	1:XA:296:U:C6	2.49	0.42
1:XA:409:G:H2'	1:XA:410:G:C8	2.54	0.42
2:XB:142:LEU:HD23	2:XB:142:LEU:O	2.18	0.42
2:XB:33:TYR:HD1	2:XB:33:TYR:C	2.22	0.42
2:XB:44:LEU:CD1	2:XB:44:LEU:H	2.26	0.42
3:XC:143:GLU:C	3:XC:145:GLY:H	2.23	0.42
4:XD:10:ARG:NH1	4:XD:10:ARG:HG3	2.33	0.42
4:XD:206:PHE:CD2	4:XD:207:TYR:HD1	2.37	0.42
4:XD:36:ARG:HA	4:XD:37:PRO:HD2	1.82	0.42
6:XF:36:ARG:CZ	6:XF:38:GLU:HG2	2.50	0.42
7:XG:11:GLN:HG3	7:XG:12:LEU:H	1.84	0.42
8:XH:20:TYR:CD1	8:XH:65:TYR:HD2	2.35	0.42
9:XI:100:GLY:C	9:XI:102:LEU:N	2.71	0.42
9:XI:128:ARG:HD3	22:XV:32:C:OP2	2.19	0.42
11:XK:33:THR:HB	11:XK:37:GLY:C	2.40	0.42
12:XL:119:LYS:HB2	12:XL:120:TYR:HD1	1.83	0.42
1:XA:363:A:C4	12:XL:31:PRO:HD2	2.54	0.42
16:XP:83:GLU:HG3	16:XP:84:ALA:N	2.33	0.42
19:XS:18:LYS:O	19:XS:18:LYS:HD2	2.19	0.42
24:XY:39:C:H4'	24:XY:40:G:OP1	2.18	0.42
25:YA:1364:G:C8	47:Y1:2:SER:N	2.87	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:Y1:73:LEU:C	47:Y1:75:GLU:N	2.70	0.42
25:YA:2372:G:H4'	52:Y6:46:HIS:CD2	2.54	0.42
53:Y7:12:ARG:HH21	53:Y7:44:PRO:HB3	1.85	0.42
25:YA:1138:G:H21	33:YN:106:MET:CE	2.16	0.42
25:YA:1422:G:C6	25:YA:1423:G:C5	3.07	0.42
25:YA:1931:U:C6	25:YA:1932:A:C8	3.07	0.42
25:YA:2090:G:C2	25:YA:2230:G:C5	3.07	0.42
25:YA:2282:G:H4'	25:YA:2389:G:O2'	2.19	0.42
25:YA:2283:C:C5	25:YA:2389:G:H2'	2.55	0.42
25:YA:237:C:O2'	25:YA:238:C:H5'	2.18	0.42
25:YA:2492:U:C2	25:YA:2493:U:C5	3.07	0.42
25:YA:2498:C:OP2	25:YA:2499:C:OP2	2.37	0.42
25:YA:2529:G:O6	55:Y9:31:LYS:NZ	2.53	0.42
25:YA:2689:U:OP1	25:YA:2719:G:N1	2.42	0.42
25:YA:428:A:N6	25:YA:429:A:C6	2.88	0.42
25:YA:644:A:C6	25:YA:646:A:C6	3.07	0.42
25:YA:77:C:C4	25:YA:78:A:N7	2.88	0.42
25:YA:980:A:N6	25:YA:981:A:N1	2.67	0.42
26:YB:16:G:H2'	26:YB:17:C:C6	2.54	0.42
27:YD:177:LEU:C	27:YD:179:SER:H	2.23	0.42
27:YD:33:LEU:O	27:YD:35:LYS:N	2.52	0.42
28:YE:179:GLU:CB	28:YE:181:LEU:HD23	2.24	0.42
28:YE:104:VAL:CG1	28:YE:188:VAL:HG23	2.49	0.42
28:YE:36:ARG:HH11	28:YE:36:ARG:CB	2.28	0.42
25:YA:2785:C:O2'	28:YE:64:LYS:HD3	2.20	0.42
30:YG:114:ILE:HG22	30:YG:117:PHE:HB2	2.01	0.42
25:YA:2306:C:N4	30:YG:42:GLY:O	2.51	0.42
25:YA:8:A:H5''	33:YN:51:PHE:CZ	2.54	0.42
34:YO:1:MET:HG2	34:YO:67:LYS:HG2	2.01	0.42
35:YP:98:GLU:O	35:YP:99:LEU:C	2.57	0.42
36:YQ:20:ALA:HA	36:YQ:98:LYS:HB3	2.02	0.42
38:YS:99:LYS:C	38:YS:101:LEU:N	2.72	0.42
39:YT:110:ILE:CG2	39:YT:111:ARG:N	2.82	0.42
42:YW:81:ALA:C	42:YW:82:LEU:HD12	2.40	0.42
44:YY:60:PHE:CD2	44:YY:60:PHE:N	2.87	0.42
1:QA:1022:G:C6	1:QA:1023:G:C6	3.07	0.42
1:QA:1202:G:O4'	14:QN:29:ARG:HD2	2.19	0.42
1:QA:185:A:C2	1:QA:193:C:C2	3.07	0.42
1:QA:189:U:O2'	1:QA:190:G:OP1	2.37	0.42
1:QA:521:G:O2'	1:QA:522:C:H5'	2.20	0.42
1:QA:730:G:H5''	1:QA:731:G:OP2	2.19	0.42
3:QC:22:TRP:CB	3:QC:59:ARG:HB2	2.48	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:QC:58:GLU:HB2	3:QC:65:ALA:HB3	2.01	0.42
4:QD:150:GLU:O	4:QD:152:SER:N	2.53	0.42
5:QE:31:LEU:HD23	5:QE:45:PHE:HD1	1.85	0.42
8:QH:109:ILE:HD11	8:QH:120:THR:HG22	2.00	0.42
13:QM:13:LYS:HA	13:QM:44:ARG:CD	2.48	0.42
13:QM:16:ASP:HB3	13:QM:34:LEU:CD1	2.49	0.42
15:QO:17:ARG:HD3	15:QO:26:GLU:HG3	2.01	0.42
15:QO:25:THR:O	15:QO:29:VAL:HG23	2.18	0.42
1:QA:754:C:H5'	15:QO:72:ARG:HH22	1.84	0.42
18:QR:64:ARG:O	18:QR:65:ILE:C	2.58	0.42
18:QR:74:ARG:NH2	18:QR:81:PHE:HA	2.35	0.42
20:QT:13:LEU:CD1	20:QT:17:ARG:NH1	2.82	0.42
46:R0:53:MET:HA	46:R0:58:THR:O	2.18	0.42
46:R0:66:VAL:O	46:R0:82:ARG:N	2.52	0.42
48:R2:59:ARG:O	48:R2:62:THR:HG23	2.19	0.42
25:RA:16:G:O2'	25:RA:17:G:H5'	2.19	0.42
25:RA:1716:U:O2'	25:RA:1717:G:H5'	2.20	0.42
25:RA:1824:G:O2'	25:RA:1825:A:H5'	2.20	0.42
25:RA:1837:C:H42	25:RA:1903:G:H1	1.67	0.42
1:QA:1409:C:H5'	25:RA:1916:A:C2	2.54	0.42
25:RA:532:A:C8	25:RA:2021:C:C5	3.07	0.42
25:RA:2059:A:H5'	25:RA:2060:A:OP2	2.20	0.42
25:RA:2088:G:C6	25:RA:2089:U:C4	3.07	0.42
25:RA:2405:G:P	35:RP:77:ARG:HH21	2.41	0.42
25:RA:2509:G:C2'	25:RA:2510:C:H5'	2.49	0.42
25:RA:2583:G:C6	25:RA:2584:U:C5	3.07	0.42
25:RA:2818:G:OP2	37:RR:42:LYS:NZ	2.42	0.42
25:RA:822:U:H2'	25:RA:823:G:C8	2.55	0.42
25:RA:856:C:H3'	25:RA:857:C:H5	1.85	0.42
28:RE:28:ALA:HB3	28:RE:93:VAL:CG2	2.46	0.42
28:RE:35:GLN:HB3	28:RE:48:GLN:HB2	2.01	0.42
30:RG:145:THR:O	30:RG:146:TYR:HB3	2.19	0.42
31:RH:125:VAL:HG12	31:RH:126:PRO:CD	2.49	0.42
31:RH:136:ILE:O	31:RH:137:ASP:O	2.38	0.42
38:RS:102:ALA:C	38:RS:104:GLY:N	2.73	0.42
42:RW:14:PRO:O	42:RW:15:ARG:C	2.58	0.42
42:RW:81:ALA:C	42:RW:82:LEU:HD12	2.40	0.42
44:RY:20:TYR:CE1	44:RY:42:VAL:HA	2.55	0.42
1:XA:1000:A:O5'	1:XA:1000:A:H8	2.03	0.42
1:XA:1061:G:H2'	1:XA:1062:U:O4'	2.19	0.42
1:XA:445:G:N1	1:XA:446:G:C6	2.87	0.42
1:XA:525:C:H2'	1:XA:526:C:H6	1.85	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:654:G:C4	1:XA:753:A:C6	3.07	0.42
1:XA:729:A:H2'	1:XA:730:G:C8	2.55	0.42
2:XB:158:LEU:HD12	2:XB:158:LEU:C	2.39	0.42
2:XB:16:HIS:CD2	2:XB:213:LEU:HD13	2.54	0.42
2:XB:200:ILE:HD12	2:XB:200:ILE:N	2.34	0.42
1:XA:620:C:C2	4:XD:135:LEU:HG	2.55	0.42
6:XF:45:LEU:O	6:XF:46:ARG:HB2	2.19	0.42
7:XG:140:ASP:O	7:XG:142:GLU:N	2.52	0.42
14:YN:9:LYS:O	14:YN:9:LYS:HG2	2.19	0.42
15:XO:64:ARG:CD	15:XO:68:ARG:NH2	2.82	0.42
21:XU:5:ASP:O	21:XU:11:GLY:HA3	2.20	0.42
22:XV:15:G:N2	22:XV:48:C:H42	2.17	0.42
50:Y4:54:GLY:HA2	50:Y4:57:GLU:CG	2.50	0.42
1:XA:1312:G:H5''	50:Y4:67:TYR:OH	2.20	0.42
51:Y5:20:ARG:HA	51:Y5:23:HIS:CE1	2.55	0.42
25:YA:1085:A:H4'	25:YA:1086:A:OP1	2.19	0.42
25:YA:1851:U:H5''	25:YA:1852:C:OP2	2.19	0.42
25:YA:1860:G:O5'	25:YA:1860:G:H8	2.02	0.42
25:YA:191:A:H2'	25:YA:192:C:O4'	2.19	0.42
25:YA:2123:G:H2'	25:YA:2124:G:H8	1.84	0.42
25:YA:243:U:H6	25:YA:243:U:O5'	2.03	0.42
25:YA:2656:U:H3	25:YA:2665:A:H2	1.67	0.42
25:YA:774:A:H2	25:YA:787:U:HO2'	1.64	0.42
25:YA:78:A:H2'	25:YA:79:G:H8	1.83	0.42
25:YA:7:G:H1	25:YA:2896:C:H42	1.67	0.42
25:YA:863:A:O2'	25:YA:864:G:H5'	2.19	0.42
28:YE:117:MET:HA	28:YE:122:PHE:N	2.35	0.42
28:YE:176:ILE:N	28:YE:176:ILE:HD12	2.35	0.42
29:YF:11:VAL:HG12	29:YF:12:LEU:H	1.84	0.42
29:YF:128:ALA:O	29:YF:129:PHE:CB	2.67	0.42
30:YG:117:PHE:CE1	30:YG:119:GLY:CA	3.03	0.42
30:YG:73:ALA:O	30:YG:84:LYS:O	2.38	0.42
31:YH:26:VAL:CG1	31:YH:33:LEU:HB2	2.50	0.42
32:YI:110:ASP:HB3	32:YI:112:LYS:N	2.34	0.42
33:YN:15:LEU:C	33:YN:15:LEU:HD13	2.40	0.42
35:YP:37:GLY:O	35:YP:38:GLN:C	2.58	0.42
38:YS:15:ARG:O	38:YS:19:LYS:HD3	2.20	0.42
43:YX:87:GLN:C	43:YX:88:LYS:HG3	2.40	0.42
44:YY:95:LYS:HA	44:YY:101:LYS:N	2.33	0.42
44:YY:51:VAL:CG1	44:YY:52:SER:N	2.74	0.42
45:YZ:150:LEU:HD22	45:YZ:171:ILE:HB	2.01	0.42
1:QA:1329:A:C5'	13:QM:29:ARG:HG3	2.50	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1336:C:H1'	1:QA:1337:G:C2	2.54	0.42
1:QA:347:G:O2'	1:QA:348:G:P	2.78	0.42
1:QA:686:U:O4	1:QA:703:G:O2'	2.31	0.42
1:QA:957:U:H2'	1:QA:959:A:OP2	2.20	0.42
2:QB:158:LEU:HD12	2:QB:158:LEU:C	2.39	0.42
3:QC:143:GLU:C	3:QC:145:GLY:H	2.23	0.42
3:QC:142:MET:HG2	3:QC:149:ALA:HB2	2.02	0.42
3:QC:35:GLU:O	3:QC:38:ARG:N	2.53	0.42
4:QD:29:PRO:CG	4:QD:30:LYS:CE	2.86	0.42
4:QD:93:PHE:CE1	4:QD:97:LEU:HD11	2.55	0.42
6:QF:45:LEU:O	6:QF:46:ARG:HB2	2.19	0.42
8:QH:102:ARG:NH1	8:QH:105:ARG:CZ	2.80	0.42
9:QI:118:LYS:NZ	9:QI:118:LYS:CB	2.76	0.42
9:QI:25:LYS:O	9:QI:60:ASP:OD1	2.37	0.42
17:QQ:77:VAL:HG12	17:QQ:77:VAL:O	2.20	0.42
24:QY:36:G:C2	24:QY:37:1MG:C4	3.07	0.42
47:R1:60:PHE:HE2	47:R1:91:LYS:NZ	2.16	0.42
50:R4:54:GLY:HA2	50:R4:57:GLU:CG	2.50	0.42
25:RA:1149:G:H2'	25:RA:1150:C:C6	2.55	0.42
25:RA:1464:C:H2'	25:RA:1465:G:C8	2.54	0.42
25:RA:2396:G:N2	25:RA:2421:G:C8	2.81	0.42
25:RA:2464:C:O2	25:RA:2487:G:C2	2.73	0.42
25:RA:2555:U:C2	56:Z6:74:C:C6	3.07	0.42
25:RA:271(A):C:H1'	25:RA:272:G:H1'	2.02	0.42
25:RA:2758:A:C4	31:RH:67:LEU:HD21	2.55	0.42
25:RA:319:C:H2'	25:RA:320:A:C8	2.54	0.42
25:RA:604:G:H2'	25:RA:605:C:C6	2.55	0.42
25:RA:638:G:C6	25:RA:639:U:C4	3.07	0.42
25:RA:685:A:C2	25:RA:689:A:C6	3.07	0.42
25:RA:820:A:H2'	25:RA:821:A:O4'	2.20	0.42
25:RA:911:A:H2'	36:RQ:9:TYR:OH	2.19	0.42
26:RB:45:A:H2'	26:RB:46:A:O4'	2.19	0.42
26:RB:6:C:H42	26:RB:114:G:H1	1.67	0.42
27:RD:43:ARG:CZ	27:RD:49:ILE:HG21	2.49	0.42
25:RA:1567:A:H4'	27:RD:58:HIS:CE1	2.54	0.42
28:RE:101:ARG:C	28:RE:201:THR:OG1	2.58	0.42
28:RE:143:ASN:HB2	28:RE:147:PRO:HD2	2.00	0.42
28:RE:104:VAL:CG1	28:RE:188:VAL:HG23	2.49	0.42
29:RF:164:ARG:HG2	29:RF:164:ARG:NH1	2.34	0.42
25:RA:598:G:O2'	29:RF:31:HIS:NE2	2.46	0.42
31:RH:120:GLY:O	31:RH:136:ILE:HD12	2.19	0.42
33:RN:131:GLN:HB3	33:RN:131:GLN:HE21	1.57	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:RN:75:TYR:HA	33:RN:82:LEU:HA	2.01	0.42
35:RP:37:GLY:O	35:RP:38:GLN:C	2.58	0.42
25:RA:2870:C:H5''	37:RR:65:LEU:HD21	2.02	0.42
38:RS:51:ALA:HB3	38:RS:73:LEU:HD23	2.01	0.42
38:RS:95:HIS:O	38:RS:96:GLY:C	2.57	0.42
39:RT:89:VAL:O	39:RT:90:GLN:CB	2.67	0.42
40:RU:91:ASP:OD2	40:RU:96:ALA:HB2	2.19	0.42
25:RA:142:G:H1'	43:RX:37:THR:HG22	2.01	0.42
45:RZ:69:THR:HB	45:RZ:88:PHE:HB3	2.01	0.42
1:XA:1036:G:C8	1:XA:1037:C:C4	3.08	0.42
1:XA:1126:U:H5	1:XA:1127:G:C4	2.38	0.42
1:XA:1348:U:C6	1:XA:1349:A:C8	3.07	0.42
1:XA:1399:C:C2	1:XA:1401:G:C5	3.07	0.42
1:XA:1490:C:O2'	1:XA:1491:G:H5'	2.19	0.42
1:XA:487:A:H5''	1:XA:488:C:OP2	2.20	0.42
1:XA:498:A:H4'	1:XA:500:G:OP1	2.19	0.42
1:XA:693:G:C2	1:XA:694:A:C4	3.07	0.42
2:XB:92:TYR:C	2:XB:92:TYR:HD1	2.22	0.42
3:XC:113:ALA:C	3:XC:115:LEU:N	2.72	0.42
7:XG:15:ASP:OD1	7:XG:23:VAL:HG11	2.19	0.42
8:XH:85:ARG:HA	8:XH:135:CYS:HB3	2.02	0.42
9:XI:71:SER:O	9:XI:74:ILE:N	2.52	0.42
7:XG:151:TYR:HE1	11:XK:54:ARG:HD3	1.85	0.42
13:XM:88:ARG:HD2	13:XM:88:ARG:O	2.20	0.42
16:XP:45:THR:CG2	16:XP:46:PRO:HD2	2.47	0.42
18:XR:43:PHE:HA	18:XR:51:LEU:HD12	2.01	0.42
18:XR:74:ARG:NH2	18:XR:81:PHE:HA	2.35	0.42
19:XS:39:THR:CG2	19:XS:40:ILE:H	2.23	0.42
19:XS:41:VAL:HG12	19:XS:45:VAL:H	1.85	0.42
24:XY:36:G:C2	24:XY:37:1MG:C4	3.07	0.42
46:Y0:74:ARG:C	46:Y0:74:ARG:HD3	2.40	0.42
13:XM:77:ASN:CG	50:Y4:71:ARG:NH1	2.72	0.42
52:Y6:25:LYS:HE2	52:Y6:27:LYS:CD	2.49	0.42
53:Y7:9:ARG:NH1	53:Y7:47:ARG:HG3	2.35	0.42
35:YP:64:LYS:HG3	54:Y8:25:MET:CE	2.50	0.42
25:YA:99:U:C6	25:YA:102:G:C2	3.08	0.42
25:YA:1788:C:H5''	27:YD:222:ARG:NH2	2.35	0.42
25:YA:2467:C:OP1	55:Y9:6:SER:OG	2.26	0.42
25:YA:2675:A:C5	25:YA:2676:C:C5	3.07	0.42
25:YA:278:A:H4'	25:YA:279:C:OP1	2.20	0.42
25:YA:396:G:H1'	47:Y1:42:GLN:HB3	2.02	0.42
25:YA:66:C:H2'	25:YA:67:U:C6	2.54	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:89:G:N1	25:YA:90:U:O4	2.52	0.42
26:YB:30:C:OP2	38:YS:32:LEU:HD11	2.20	0.42
27:YD:25:THR:HG23	27:YD:27:THR:HB	2.02	0.42
27:YD:2:ALA:O	27:YD:3:VAL:CB	2.68	0.42
27:YD:75:ILE:HG21	27:YD:99:ASP:HB2	2.02	0.42
28:YE:36:ARG:HB3	28:YE:36:ARG:NH1	2.31	0.42
29:YF:62:ARG:NH1	29:YF:62:ARG:CB	2.82	0.42
30:YG:55:LYS:O	30:YG:59:GLU:HB2	2.19	0.42
30:YG:4:ASP:O	30:YG:5:VAL:HB	2.19	0.42
31:YH:105:LEU:N	31:YH:105:LEU:CD1	2.81	0.42
38:YS:52:SER:HB2	38:YS:55:ALA:CB	2.49	0.42
38:YS:95:HIS:O	38:YS:96:GLY:C	2.57	0.42
39:YT:3:ARG:O	39:YT:4:GLY:C	2.58	0.42
39:YT:54:ARG:HA	39:YT:59:THR:HG23	2.02	0.42
39:YT:96:ARG:CZ	39:YT:96:ARG:HB2	2.49	0.42
41:YV:38:LEU:CD1	41:YV:55:ALA:HB1	2.50	0.42
41:YV:59:ALA:HA	41:YV:95:LEU:O	2.19	0.42
1:QA:1050:G:C6	1:QA:1051:C:C4	3.08	0.42
1:QA:1183:A:O2'	1:QA:1184:G:OP1	2.30	0.42
1:QA:122:G:H2'	1:QA:123:C:O4'	2.19	0.42
1:QA:1332:A:C2'	1:QA:1333:A:H5'	2.50	0.42
1:QA:927:G:C2	1:QA:1391:U:O2	2.73	0.42
1:QA:413:G:H22	1:QA:429:U:H5''	1.83	0.42
1:QA:494:U:H6	1:QA:494:U:O5'	2.03	0.42
1:QA:687:A:C6	1:QA:704:A:N7	2.88	0.42
1:QA:936:C:H2'	1:QA:937:A:O4'	2.20	0.42
2:QB:67:THR:C	2:QB:68:ILE:HD12	2.40	0.42
3:QC:88:ARG:NH2	3:QC:101:LEU:O	2.53	0.42
7:QG:11:GLN:HG3	7:QG:12:LEU:H	1.85	0.42
7:QG:18:TYR:CD2	7:QG:59:LEU:HD13	2.55	0.42
8:QH:33:GLU:O	8:QH:36:LEU:N	2.53	0.42
8:QH:95:VAL:HG23	8:QH:95:VAL:O	2.20	0.42
9:QI:22:GLY:O	9:QI:23:ASN:C	2.57	0.42
11:QK:21:ILE:HD13	11:QK:84:VAL:HG12	2.02	0.42
18:QR:63:GLN:O	18:QR:66:LEU:HB3	2.18	0.42
18:QR:76:LEU:HD22	18:QR:76:LEU:N	2.35	0.42
19:QS:30:LEU:O	19:QS:31:ILE:HB	2.19	0.42
19:QS:41:VAL:HG11	19:QS:45:VAL:HG13	2.02	0.42
21:QU:5:ASP:O	21:QU:11:GLY:HA3	2.20	0.42
22:QV:17:C:O2	22:QV:17:C:H2'	2.20	0.42
22:QV:74:C:N4	25:RA:2252:G:H1	2.15	0.42
25:RA:2352:A:C2	46:R0:33:ALA:O	2.72	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:R1:72:GLU:O	47:R1:75:GLU:HB2	2.20	0.42
48:R2:41:ILE:CD1	48:R2:41:ILE:C	2.81	0.42
55:R9:2:LYS:HD2	55:R9:2:LYS:HA	1.93	0.42
25:RA:1414:G:C6	25:RA:1415:U:C4	3.07	0.42
25:RA:1411:C:N4	25:RA:1591:G:H1	2.17	0.42
25:RA:1966:A:H4'	25:RA:1967:C:OP1	2.19	0.42
25:RA:190:A:C8	25:RA:207:A:C6	3.08	0.42
25:RA:2255:G:H1	25:RA:2275:C:N4	2.18	0.42
25:RA:2324:C:H5''	25:RA:2325:G:C5'	2.49	0.42
25:RA:2335:A:C8	25:RA:2337:G:C5	3.07	0.42
25:RA:2399:G:C2	25:RA:2400:G:C4	3.08	0.42
25:RA:250:G:OP1	54:R8:13:ARG:NH2	2.53	0.42
25:RA:302:C:H2'	25:RA:303:U:H6	1.83	0.42
25:RA:792:G:H5''	25:RA:793:A:H5'	2.02	0.42
25:RA:90:U:H6	25:RA:90:U:OP1	2.02	0.42
26:RB:85:G:H2'	26:RB:86:G:H8	1.85	0.42
27:RD:182:LEU:N	27:RD:272:ALA:HB3	2.32	0.42
28:RE:121:ASN:O	28:RE:122:PHE:C	2.57	0.42
29:RF:192:LEU:HD21	29:RF:194:MET:HE3	2.01	0.42
30:RG:121:ASN:HA	30:RG:181:ARG:NH2	2.34	0.42
31:RH:169:VAL:HG22	31:RH:170:ARG:N	2.26	0.42
33:RN:43:THR:HA	33:RN:44:PRO:HD2	1.92	0.42
34:RO:97:ARG:CA	34:RO:117:LEU:HD22	2.50	0.42
34:RO:1:MET:HG2	34:RO:67:LYS:HG2	2.02	0.42
34:RO:50:GLY:O	34:RO:51:ALA:C	2.57	0.42
35:RP:115:LEU:HB3	35:RP:131:SER:HB2	2.02	0.42
38:RS:83:LYS:CE	38:RS:109:GLY:HA2	2.47	0.42
38:RS:30:ARG:NH2	38:RS:92:TYR:HD1	2.17	0.42
38:RS:83:LYS:HE3	38:RS:84:GLN:CG	2.49	0.42
39:RT:134:GLU:OE1	39:RT:135:ALA:N	2.53	0.42
39:RT:24:PRO:HA	39:RT:49:VAL:CG1	2.39	0.42
39:RT:3:ARG:O	39:RT:4:GLY:C	2.58	0.42
40:RU:39:LEU:O	40:RU:42:ALA:N	2.53	0.42
41:RV:59:ALA:HA	41:RV:95:LEU:O	2.19	0.42
40:RU:43:GLY:HA3	41:RV:73:SER:OG	2.19	0.42
42:RW:71:VAL:HA	42:RW:107:LEU:HD12	2.02	0.42
45:RZ:110:GLY:HA2	45:RZ:111:VAL:O	2.20	0.42
1:XA:1310:G:C2	1:XA:1328:C:N3	2.88	0.42
1:XA:1398:A:H5''	1:XA:1399:C:OP1	2.20	0.42
1:XA:1403:C:H1'	1:XA:1500:A:N1	2.35	0.42
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.55	0.42
1:XA:445:G:H2'	1:XA:446:G:C8	2.54	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:544:G:C6	1:XA:545:C:N4	2.88	0.42
1:XA:811:C:C2'	1:XA:812:C:H5'	2.50	0.42
1:XA:818:G:O2'	1:XA:819:A:H5''	2.19	0.42
1:XA:909:A:OP1	12:XL:21:LYS:HG2	2.20	0.42
2:XB:211:ILE:O	2:XB:215:LEU:HB2	2.20	0.42
3:XC:23:TYR:CD2	3:XC:24:ALA:N	2.88	0.42
4:XD:146:ILE:CD1	4:XD:146:ILE:H	2.30	0.42
8:XH:11:THR:HA	8:XH:14:ARG:NH1	2.35	0.42
9:XI:35:GLU:O	9:XI:35:GLU:HG2	2.19	0.42
13:XM:16:ASP:HB3	13:XM:34:LEU:CD1	2.49	0.42
16:XP:55:ARG:O	16:XP:56:ALA:C	2.57	0.42
1:XA:564:C:H5'	17:XQ:32:TYR:CE2	2.54	0.42
1:XA:189:U:H3	17:XQ:63:ARG:CB	2.33	0.42
18:XR:29:PHE:N	18:XR:29:PHE:HD2	2.17	0.42
19:XS:4:SER:O	19:XS:5:LEU:HD13	2.20	0.42
49:Y3:7:LYS:O	49:Y3:7:LYS:HG2	2.19	0.42
50:Y4:12:ALA:HB1	50:Y4:30:GLU:N	2.35	0.42
52:Y6:7:ILE:O	52:Y6:8:LYS:CG	2.68	0.42
43:YX:60:ARG:HH12	53:Y7:47:ARG:HH22	1.67	0.42
25:YA:1029:A:N6	25:YA:1125:G:O2'	2.47	0.42
25:YA:1431:U:H2'	25:YA:1432:C:O4'	2.19	0.42
25:YA:1973:G:H2'	25:YA:1974:C:C6	2.54	0.42
25:YA:2009:G:C2'	25:YA:2010:G:H5'	2.49	0.42
25:YA:2063:C:H2'	25:YA:2064:C:H5'	2.00	0.42
25:YA:2286:A:H8	52:Y6:37:ARG:HH11	1.68	0.42
25:YA:2317:C:H2'	25:YA:2318:G:O4'	2.20	0.42
25:YA:2420:C:N4	54:Y8:30:ARG:HD2	2.34	0.42
25:YA:2646:C:O5'	25:YA:2646:C:H6	2.02	0.42
25:YA:429:A:C6	25:YA:430:G:N1	2.88	0.42
25:YA:49:A:N7	25:YA:120:U:C5	2.87	0.42
25:YA:507:A:H5''	25:YA:508:G:H5'	2.01	0.42
25:YA:846:C:N4	25:YA:931:G:H1	2.17	0.42
26:YB:34:U:OP1	30:YG:2:PRO:HG2	2.19	0.42
27:YD:71:ASP:CB	27:YD:103:ARG:HH22	2.32	0.42
27:YD:12:SER:O	27:YD:14:ARG:N	2.51	0.42
27:YD:263:ARG:CB	27:YD:263:ARG:NH1	2.75	0.42
28:YE:128:SER:O	28:YE:129:HIS:HB2	2.19	0.42
28:YE:143:ASN:HB2	28:YE:147:PRO:HD2	2.00	0.42
28:YE:152:LYS:HG2	33:YN:78:TYR:CD1	2.55	0.42
28:YE:28:ALA:HB3	28:YE:93:VAL:CG2	2.46	0.42
29:YF:109:GLY:O	29:YF:110:LEU:C	2.58	0.42
29:YF:183:VAL:HG22	29:YF:184:TYR:N	2.35	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:109:VAL:C	30:YG:112:PRO:HD2	2.40	0.42
31:YH:119:GLU:CD	31:YH:120:GLY:H	2.22	0.42
31:YH:136:ILE:O	31:YH:137:ASP:O	2.38	0.42
31:YH:77:LYS:HB3	31:YH:77:LYS:HZ2	1.78	0.42
31:YH:89:ILE:CD1	31:YH:89:ILE:H	2.32	0.42
33:YN:75:TYR:HA	33:YN:82:LEU:HA	2.02	0.42
34:YO:20:MET:O	34:YO:41:ALA:CB	2.67	0.42
34:YO:50:GLY:O	34:YO:51:ALA:C	2.57	0.42
35:YP:83:VAL:HG11	35:YP:112:LEU:HD21	1.97	0.42
35:YP:65:ARG:HH21	54:Y8:15:LYS:HB3	1.84	0.42
36:YQ:20:ALA:HB2	36:YQ:99:PRO:HD2	1.99	0.42
37:YR:10:LEU:C	37:YR:12:ARG:N	2.72	0.42
37:YR:28:LEU:HD12	37:YR:29:LEU:HD12	2.01	0.42
38:YS:26:LEU:HB3	38:YS:87:PHE:HA	2.02	0.42
40:YU:79:PHE:CD2	40:YU:83:LEU:HD13	2.54	0.42
41:YV:47:VAL:HG13	41:YV:48:GLY:N	2.27	0.42
1:QA:1015:A:C6	1:QA:1016:A:C6	3.08	0.42
1:QA:145:G:H2'	1:QA:146:G:O4'	2.20	0.42
1:QA:49:U:C5	1:QA:364:A:C6	3.08	0.42
1:QA:35:G:C5	1:QA:36:C:N4	2.87	0.42
1:QA:392:G:OP1	16:QP:13:HIS:N	2.42	0.42
1:QA:598:U:H2'	1:QA:599:C:H6	1.85	0.42
1:QA:309:G:H1'	1:QA:608:A:C2	2.54	0.42
1:QA:833:U:O2	1:QA:854:G:C2	2.73	0.42
1:QA:978:A:HO2'	1:QA:1322:C:N4	2.17	0.42
2:QB:200:ILE:CG2	2:QB:201:ILE:N	2.83	0.42
4:QD:95:GLY:O	4:QD:99:SER:N	2.51	0.42
1:QA:1151:A:N3	10:QJ:39:PRO:HG3	2.35	0.42
10:QJ:75:ILE:CG1	10:QJ:76:ASN:H	2.17	0.42
16:QP:8:ARG:NH1	16:QP:8:ARG:HG2	2.31	0.42
17:QQ:76:LEU:HD21	17:QQ:79:SER:HB2	2.01	0.42
20:QT:36:LEU:HD13	20:QT:36:LEU:HA	1.82	0.42
20:QT:99:LEU:O	20:QT:100:ILE:CB	2.68	0.42
25:RA:1137:G:H2'	25:RA:1138:G:O4'	2.20	0.42
25:RA:1326:U:O2'	25:RA:1327:C:H5'	2.20	0.42
25:RA:1475:G:C2	25:RA:1519:G:C2	3.08	0.42
25:RA:171:G:N2	25:RA:172:C:C2	2.88	0.42
25:RA:1844:C:O2'	25:RA:1845:G:H5'	2.20	0.42
25:RA:2441:C:H2'	25:RA:2442:C:H6	1.85	0.42
25:RA:2588:G:O6	25:RA:2607:G:C6	2.73	0.42
25:RA:2831:G:O2'	25:RA:2883:A:H2'	2.19	0.42
25:RA:528:A:C2	25:RA:2043:C:H4'	2.55	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:92:G:O2'	25:RA:93:C:H5'	2.20	0.42
25:RA:974(A):C:H4'	25:RA:975:G:C5'	2.49	0.42
26:RB:42:C:C4	26:RB:43:C:C5	3.07	0.42
27:RD:168:ARG:O	27:RD:169:GLU:HB2	2.19	0.42
28:RE:128:SER:O	28:RE:129:HIS:HB2	2.19	0.42
28:RE:137:HIS:CB	28:RE:138:PRO:HD2	2.42	0.42
25:RA:2787:C:O2'	28:RE:61:ARG:HB3	2.20	0.42
30:RG:16:ARG:NE	30:RG:31:VAL:HG11	2.34	0.42
30:RG:51:ARG:CB	30:RG:51:ARG:NH1	2.83	0.42
36:RQ:118:LEU:HD23	36:RQ:118:LEU:HA	1.87	0.42
37:RR:44:LEU:HD23	37:RR:44:LEU:HA	1.79	0.42
38:RS:83:LYS:HE3	38:RS:84:GLN:HG3	2.02	0.42
39:RT:110:ILE:CG2	39:RT:111:ARG:N	2.82	0.42
40:RU:99:ALA:HA	40:RU:106:PHE:HB2	2.01	0.42
25:RA:1216:G:P	40:RU:12:ARG:HH21	2.43	0.42
40:RU:97:ASP:HA	40:RU:100:VAL:HG23	2.02	0.42
43:RX:54:VAL:C	43:RX:55:ASN:HD22	2.23	0.42
44:RY:60:PHE:CD2	44:RY:60:PHE:N	2.87	0.42
1:XA:1206:G:C5	1:XA:1207:G:C8	3.07	0.42
1:XA:122:G:H2'	1:XA:123:C:O4'	2.19	0.42
1:XA:1234:C:O2'	1:XA:1235:U:H5'	2.19	0.42
1:XA:259:G:N2	1:XA:260:G:H1'	2.34	0.42
1:XA:376:G:H1	1:XA:387:U:H3	1.67	0.42
1:XA:587:G:N2	1:XA:755:G:C5	2.88	0.42
1:XA:92:G:C5	1:XA:93:U:C4	3.08	0.42
2:XB:109:SER:C	2:XB:111:ARG:N	2.73	0.42
2:XB:162:ILE:O	2:XB:185:ILE:CG1	2.67	0.42
2:XB:97:TRP:HZ3	2:XB:172:ILE:HG22	1.85	0.42
2:XB:67:THR:C	2:XB:68:ILE:HD12	2.40	0.42
5:XE:71:LEU:HD11	5:XE:113:ALA:O	2.20	0.42
5:XE:31:LEU:HD23	5:XE:45:PHE:HD1	1.85	0.42
6:XF:88:VAL:HG12	6:XF:89:MET:N	2.34	0.42
8:XH:4:ASP:HA	8:XH:5:PRO:HD3	1.85	0.42
9:XI:6:GLY:HA3	9:XI:84:ALA:HB2	2.01	0.42
10:XJ:49:VAL:HG13	10:XJ:50:ILE:N	2.35	0.42
12:XL:109:GLY:HA3	12:XL:121:GLY:O	2.20	0.42
12:XL:53:ARG:HH12	12:XL:92:ASP:CB	2.33	0.42
16:XP:1:MET:H2	16:XP:24:ALA:HB3	1.84	0.42
17:XQ:82:MET:C	17:XQ:84:LEU:N	2.72	0.42
18:XR:64:ARG:O	18:XR:65:ILE:C	2.58	0.42
19:XS:30:LEU:O	19:XS:31:ILE:HB	2.19	0.42
19:XS:41:VAL:HG13	19:XS:44:MET:CB	2.38	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:XV:43:A:H2'	22:XV:44:A:C8	2.54	0.42
46:Y0:38:VAL:O	46:Y0:58:THR:HG23	2.19	0.42
46:Y0:57:PHE:CD2	46:Y0:57:PHE:N	2.88	0.42
36:YQ:81:VAL:CG2	46:Y0:7:LEU:HD11	2.50	0.42
51:Y5:40:LYS:HE2	51:Y5:47:PRO:HG2	2.02	0.42
52:Y6:36:LEU:HD13	52:Y6:50:ARG:HH12	1.81	0.42
54:Y8:40:GLU:O	54:Y8:41:ILE:C	2.56	0.42
55:Y9:17:ILE:CG2	55:Y9:18:ARG:N	2.82	0.42
25:YA:1204:A:H1'	25:YA:1206:G:C4	2.54	0.42
25:YA:1316:U:O2'	25:YA:1317:A:H5'	2.20	0.42
25:YA:1471:A:C2	25:YA:1472:A:C4	3.08	0.42
25:YA:1526:G:O2'	25:YA:1527:G:H5'	2.19	0.42
25:YA:1770:G:C5	25:YA:1771:C:C5	3.08	0.42
25:YA:1991:U:C2'	25:YA:1992:G:H5''	2.49	0.42
25:YA:2419:U:O2'	25:YA:2420:C:H5'	2.20	0.42
25:YA:2060:A:C5	25:YA:2502:G:C2	3.08	0.42
25:YA:250:G:H2'	25:YA:251:A:O4'	2.19	0.42
25:YA:2699:C:H2'	25:YA:2700:C:O4'	2.20	0.42
25:YA:270:A:C2	25:YA:366:C:H4'	2.55	0.42
25:YA:401:A:H2'	25:YA:402:A:C8	2.55	0.42
25:YA:416:C:H2'	25:YA:417:C:C6	2.55	0.42
25:YA:516:C:OP1	51:Y5:13:LYS:NZ	2.52	0.42
25:YA:547:A:OP2	25:YA:547:A:C8	2.72	0.42
25:YA:571:A:O2'	25:YA:573:G:O5'	2.37	0.42
27:YD:158:ALA:HB3	27:YD:161:THR:CG2	2.49	0.42
27:YD:165:ILE:O	27:YD:166:GLN:NE2	2.53	0.42
28:YE:9:VAL:HB	28:YE:10:GLY:H	1.70	0.42
28:YE:18:ASP:O	28:YE:19:ARG:C	2.55	0.42
28:YE:31:CYS:HB3	28:YE:49:LEU:HG	2.01	0.42
28:YE:35:GLN:HB3	28:YE:48:GLN:HB2	2.01	0.42
29:YF:101:LEU:HD12	29:YF:102:PRO:N	2.33	0.42
30:YG:99:MET:O	30:YG:103:LEU:HB2	2.20	0.42
31:YH:58:GLU:O	31:YH:60:ARG:N	2.53	0.42
31:YH:84:SER:O	31:YH:85:LYS:CB	2.64	0.42
33:YN:96:GLU:O	33:YN:97:ARG:C	2.57	0.42
34:YO:2:ILE:HG12	34:YO:8:LEU:HD11	2.02	0.42
34:YO:97:ARG:CA	34:YO:117:LEU:HD22	2.50	0.42
36:YQ:27:VAL:HG11	36:YQ:134:ARG:HG3	2.00	0.42
40:YU:27:LEU:C	40:YU:29:SER:N	2.73	0.42
41:YV:25:LEU:H	41:YV:92:THR:CG2	2.29	0.42
42:YW:74:ALA:O	42:YW:75:TYR:CB	2.65	0.42
44:YY:91:GLU:CG	44:YY:92:ASN:N	2.83	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1349:A:C4	1:QA:1350:A:C8	3.07	0.42
1:QA:1348:U:C5	1:QA:1349:A:N7	2.88	0.42
1:QA:1368:G:O2'	1:QA:1369:C:H5'	2.19	0.42
1:QA:769:G:H4'	1:QA:1513:A:H4'	2.02	0.42
1:QA:186(A):C:H2'	1:QA:186(B):C:C6	2.54	0.42
1:QA:337:C:H2'	1:QA:338:A:H8	1.85	0.42
1:QA:481:G:O2'	1:QA:482:A:P	2.78	0.42
1:QA:524:G:C6	1:QA:525:C:N4	2.88	0.42
1:QA:892:A:H2'	1:QA:893:C:H6	1.84	0.42
1:QA:960:U:O2	1:QA:960:U:C2'	2.67	0.42
2:QB:109:SER:C	2:QB:111:ARG:N	2.72	0.42
2:QB:130:ARG:NH2	2:QB:138:LEU:HD21	2.34	0.42
2:QB:162:ILE:O	2:QB:185:ILE:CG1	2.67	0.42
2:QB:197:VAL:CG1	2:QB:198:ASP:N	2.82	0.42
3:QC:120:VAL:O	3:QC:123:GLN:HB2	2.20	0.42
4:QD:30:LYS:HG3	4:QD:35:ARG:CZ	2.47	0.42
4:QD:201:GLN:HE22	5:QE:116:THR:HG23	1.83	0.42
5:QE:20:GLN:O	5:QE:21:ALA:C	2.57	0.42
6:QF:45:LEU:CD1	6:QF:59:TYR:HD1	2.31	0.42
7:QG:140:ASP:O	7:QG:142:GLU:N	2.52	0.42
8:QH:74:PRO:O	8:QH:75:ARG:C	2.58	0.42
1:QA:1370:G:O3'	9:QI:12:GLU:HG3	2.20	0.42
9:QI:35:GLU:HG2	9:QI:35:GLU:O	2.19	0.42
11:QK:72:ALA:HB1	11:QK:77:MET:HG2	2.02	0.42
16:QP:45:THR:CG2	16:QP:46:PRO:HD2	2.47	0.42
16:QP:21:VAL:HG21	16:QP:59:TRP:NE1	2.35	0.42
17:QQ:11:VAL:HG23	17:QQ:12:SER:N	2.35	0.42
19:QS:18:LYS:O	19:QS:18:LYS:HD2	2.19	0.42
22:QV:75:C:OP1	25:RA:2602:A:OP1	2.37	0.42
49:R3:37:LEU:HD12	49:R3:43:ILE:CG2	2.50	0.42
50:R4:26:SER:C	50:R4:27:THR:O	2.58	0.42
50:R4:38:LYS:HG3	50:R4:44:THR:OG1	2.20	0.42
50:R4:68:ARG:HB2	50:R4:69:LYS:H	1.35	0.42
51:R5:40:LYS:HE2	51:R5:47:PRO:HG2	2.02	0.42
54:R8:56:GLU:C	54:R8:58:ILE:N	2.73	0.42
25:RA:1335:U:OP1	43:RX:65:ARG:NE	2.52	0.42
25:RA:1612:C:N4	25:RA:1619:G:H1	2.18	0.42
25:RA:1785:A:O2'	25:RA:1786:A:H2'	2.20	0.42
25:RA:1835:G:N3	25:RA:1931:U:N3	2.67	0.42
25:RA:195:A:OP1	35:RP:46:LYS:HE2	2.19	0.42
25:RA:1975:G:C5	25:RA:1976:U:C5	3.08	0.42
25:RA:570:G:H2'	25:RA:2030:A:N6	2.35	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:2123:G:N1	25:RA:2176:A:C4	2.88	0.42
25:RA:2259:G:C2	25:RA:2282:G:N1	2.88	0.42
25:RA:2341:G:C6	25:RA:2342:C:C4	3.08	0.42
25:RA:2508:G:C2	25:RA:2582:G:O6	2.73	0.42
25:RA:2627:G:N3	25:RA:2781:A:C2	2.87	0.42
25:RA:28:A:C2	25:RA:513:A:C8	3.08	0.42
25:RA:714:U:O2	25:RA:716:A:C8	2.72	0.42
26:RB:63:G:C2	26:RB:64:C:C2	3.07	0.42
26:RB:70:C:H2'	26:RB:71:C:H6	1.84	0.42
27:RD:158:ALA:HB3	27:RD:161:THR:CG2	2.49	0.42
27:RD:165:ILE:O	27:RD:166:GLN:NE2	2.53	0.42
27:RD:196:VAL:O	27:RD:196:VAL:CG1	2.68	0.42
28:RE:10:GLY:HA3	39:RT:8:LYS:HD3	2.02	0.42
28:RE:117:MET:HA	28:RE:122:PHE:N	2.35	0.42
30:RG:73:ALA:O	30:RG:84:LYS:O	2.38	0.42
30:RG:78:SER:O	30:RG:80:PHE:N	2.53	0.42
30:RG:99:MET:O	30:RG:103:LEU:HB2	2.20	0.42
33:RN:27:ALA:O	33:RN:28:THR:C	2.57	0.42
33:RN:62:VAL:HG12	33:RN:66:LYS:HB2	2.01	0.42
29:RF:34:TRP:CA	35:RP:6:LEU:HD12	2.46	0.42
36:RQ:27:VAL:HG11	36:RQ:134:ARG:HG3	2.01	0.42
37:RR:55:ALA:HA	37:RR:80:PHE:CE2	2.55	0.42
40:RU:35:ALA:O	40:RU:39:LEU:HG	2.19	0.42
42:RW:59:VAL:CG1	42:RW:60:ASN:N	2.78	0.42
1:XA:1320:C:H6	1:XA:1320:C:H5'	1.85	0.42
1:XA:154:C:O5'	1:XA:154:C:H6	2.03	0.42
1:XA:289:G:H2'	1:XA:290:C:C6	2.54	0.42
1:XA:539:A:OP2	12:XL:115:LYS:HE3	2.20	0.42
1:XA:588:G:C2	1:XA:589:C:C5	3.08	0.42
1:XA:691:G:N7	11:XK:26:ASN:ND2	2.68	0.42
1:XA:895:G:H2'	1:XA:896:C:H6	1.83	0.42
2:XB:109:SER:C	2:XB:111:ARG:H	2.22	0.42
2:XB:5:ILE:HB	2:XB:221:LEU:HD23	2.01	0.42
3:XC:35:GLU:O	3:XC:38:ARG:N	2.53	0.42
4:XD:150:GLU:O	4:XD:152:SER:N	2.53	0.42
4:XD:52:SER:O	4:XD:55:ALA:N	2.52	0.42
6:XF:46:ARG:HG3	6:XF:47:ARG:N	2.34	0.42
7:XG:18:TYR:CD2	7:XG:59:LEU:HD13	2.55	0.42
7:XG:79:ARG:CZ	7:XG:82:GLY:HA2	2.50	0.42
8:XH:28:ALA:CB	8:XH:57:PRO:HB2	2.45	0.42
13:XM:19:LEU:HD22	13:XM:19:LEU:N	2.33	0.42
18:XR:74:ARG:NE	18:XR:80:PRO:O	2.48	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:XS:29:ARG:HD3	19:XS:30:LEU:H	1.84	0.42
19:XS:41:VAL:CG1	19:XS:45:VAL:H	2.32	0.42
19:XS:58:VAL:HG23	19:XS:58:VAL:O	2.20	0.42
19:XS:66:MET:O	19:XS:66:MET:HG3	2.19	0.42
20:XT:63:ILE:CG2	20:XT:77:ALA:HB1	2.47	0.42
46:Y0:14:ARG:O	46:Y0:15:ASP:HB2	2.20	0.42
46:Y0:42:GLY:O	46:Y0:57:PHE:HD1	2.02	0.42
54:Y8:26:LYS:HD3	54:Y8:26:LYS:HA	1.86	0.42
25:YA:104:U:H5''	25:YA:105:C:OP2	2.20	0.42
25:YA:1061:U:H4'	25:YA:1070:A:H1'	2.02	0.42
25:YA:1270:C:N4	25:YA:1648:C:N4	2.67	0.42
25:YA:1279:G:H4'	37:YR:31:HIS:CD2	2.44	0.42
25:YA:1429:G:C4	25:YA:1430:C:C5	3.08	0.42
25:YA:1509:C:N4	25:YA:1511:A:H62	2.17	0.42
25:YA:1608:A:H1'	25:YA:1610:A:OP2	2.19	0.42
25:YA:190:A:C4	25:YA:207:A:C2	3.08	0.42
25:YA:2123:G:H1	25:YA:2175:C:N4	2.13	0.42
25:YA:2413:G:H2'	25:YA:2414:G:O4'	2.19	0.42
25:YA:2629:A:N6	25:YA:2895:U:C2	2.88	0.42
25:YA:2716:U:C2'	25:YA:2717:G:H5'	2.50	0.42
25:YA:2756:U:O5'	25:YA:2756:U:H6	2.02	0.42
25:YA:625:G:OP1	54:Y8:64:TYR:HD1	2.03	0.42
25:YA:60:G:N2	25:YA:74:A:C4	2.88	0.42
25:YA:871:U:OP1	36:YQ:5:ARG:HG2	2.20	0.42
26:YB:60:C:C2	26:YB:61:G:C8	3.07	0.42
27:YD:14:ARG:CG	27:YD:15:PHE:N	2.83	0.42
29:YF:123:LEU:HD12	29:YF:124:LEU:H	1.82	0.42
29:YF:132:VAL:HG23	29:YF:133:ASN:H	1.83	0.42
30:YG:27:ASN:HB3	30:YG:30:GLU:OE2	2.20	0.42
32:YI:47:LEU:O	32:YI:51:ILE:HG13	2.19	0.42
32:YI:48:GLU:O	32:YI:51:ILE:HB	2.20	0.42
37:YR:28:LEU:C	37:YR:28:LEU:HD13	2.40	0.42
37:YR:34:ILE:HG22	37:YR:35:THR:N	2.35	0.42
39:YT:105:LEU:HG	39:YT:105:LEU:O	2.19	0.42
28:YE:25:VAL:CG1	39:YT:11:GLU:HG2	2.50	0.42
39:YT:6:LEU:HD12	39:YT:9:LEU:HD12	2.01	0.42
40:YU:6:THR:HG21	40:YU:10:ARG:CZ	2.50	0.42
45:YZ:10:ARG:HH11	45:YZ:36:LYS:HD3	1.85	0.42
1:QA:1350:A:H2'	1:QA:1351:U:O4'	2.20	0.42
1:QA:1446:A:O2'	1:QA:1447:G:O5'	2.37	0.42
1:QA:198:G:H2'	1:QA:199:G:O4'	2.20	0.42
1:QA:464:G:O6	1:QA:466:C:H5'	2.20	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:76:G:C6	1:QA:77:C:C4	3.08	0.42
3:QC:47:LEU:HD11	3:QC:76:VAL:CG1	2.42	0.42
4:QD:178:VAL:HG12	4:QD:179:GLU:N	2.35	0.42
6:QF:46:ARG:HG3	6:QF:47:ARG:N	2.34	0.42
7:QG:44:TYR:O	7:QG:47:CYS:N	2.53	0.42
7:QG:80:VAL:CG1	7:QG:81:GLY:N	2.83	0.42
7:QG:95:ARG:O	7:QG:96:GLN:C	2.58	0.42
8:QH:86:ILE:CB	8:QH:133:LEU:HD22	2.49	0.42
9:QI:6:GLY:HA3	9:QI:84:ALA:HB2	2.01	0.42
11:QK:33:THR:HB	11:QK:37:GLY:C	2.40	0.42
12:QL:21:LYS:CD	12:QL:21:LYS:N	2.83	0.42
12:QL:38:THR:HG22	12:QL:57:LYS:HB3	2.01	0.42
15:QO:71:GLN:HB2	15:QO:78:TYR:CE1	2.54	0.42
17:QQ:82:MET:C	17:QQ:84:LEU:N	2.72	0.42
18:QR:84:LYS:HG2	18:QR:84:LYS:H	1.56	0.42
19:QS:15:LEU:CD2	19:QS:15:LEU:N	2.79	0.42
19:QS:7:LYS:CG	19:QS:8:GLY:N	2.83	0.42
20:QT:101:GLY:C	20:QT:103:GLY:N	2.73	0.42
20:QT:10:LEU:O	20:QT:12:ALA:N	2.53	0.42
47:R1:74:VAL:O	47:R1:74:VAL:CG1	2.64	0.42
47:R1:76:ARG:CD	47:R1:76:ARG:H	2.29	0.42
49:R3:37:LEU:N	49:R3:37:LEU:HD23	2.35	0.42
25:RA:747:U:OP1	51:R5:3:LYS:HG2	2.20	0.42
51:R5:56:LYS:O	51:R5:57:VAL:C	2.57	0.42
52:R6:25:LYS:HE2	52:R6:27:LYS:CD	2.49	0.42
53:R7:9:ARG:NH1	53:R7:47:ARG:HG3	2.35	0.42
25:RA:1024:G:O6	25:RA:1025:G:C2	2.73	0.42
25:RA:1197:G:H8	25:RA:1197:G:O5'	2.03	0.42
25:RA:1495:A:H2'	25:RA:1496:A:N3	2.35	0.42
25:RA:1418:G:N1	25:RA:1579:A:OP2	2.35	0.42
25:RA:1718:G:N2	25:RA:1742:C:C2	2.88	0.42
25:RA:1948:G:C2'	25:RA:1949:G:H5'	2.49	0.42
25:RA:2250:G:C5	36:RQ:82:ARG:HD2	2.54	0.42
25:RA:2347:C:C2	25:RA:2348:U:C5	3.08	0.42
25:RA:2745:C:H2'	25:RA:2746:U:C6	2.54	0.42
25:RA:2757:A:C2	31:RH:63:SER:HB3	2.54	0.42
25:RA:2773:C:O2'	25:RA:2774:C:H5'	2.20	0.42
25:RA:2817:G:N2	25:RA:2830:G:H1'	2.35	0.42
25:RA:2875:C:H4'	39:RT:5:ALA:HB2	2.02	0.42
25:RA:39:C:H2'	25:RA:40:C:C6	2.53	0.42
25:RA:579:G:H2'	25:RA:580:C:H6	1.85	0.42
25:RA:629:G:H1	25:RA:634:C:H42	1.68	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:859:G:O2'	25:RA:860:U:P	2.77	0.42
26:RB:63:G:H2'	26:RB:64:C:C6	2.55	0.42
27:RD:110:GLY:O	27:RD:111:LEU:C	2.59	0.42
27:RD:9:TYR:CZ	27:RD:13:ARG:HD3	2.54	0.42
25:RA:1844:C:OP1	27:RD:257:LEU:HD23	2.19	0.42
27:RD:35:LYS:HB3	27:RD:36:PRO:HA	2.00	0.42
28:RE:7:VAL:CG2	28:RE:8:LYS:H	2.11	0.42
29:RF:118:ALA:HA	29:RF:123:LEU:HB3	2.02	0.42
29:RF:61:GLY:O	29:RF:62:ARG:C	2.58	0.42
30:RG:22:ARG:HH22	30:RG:175:LEU:HD21	1.85	0.42
30:RG:34:LEU:HD11	30:RG:99:MET:CE	2.49	0.42
31:RH:105:LEU:N	31:RH:105:LEU:CD1	2.81	0.42
31:RH:146:ALA:HA	31:RH:164:TYR:OH	2.20	0.42
31:RH:66:GLY:O	31:RH:67:LEU:C	2.58	0.42
34:RO:16:ALA:HA	34:RO:46:ALA:CB	2.50	0.42
35:RP:107:LYS:O	35:RP:108:LYS:C	2.58	0.42
35:RP:144:GLU:HA	35:RP:145:PRO:HD3	1.76	0.42
35:RP:98:GLU:O	35:RP:99:LEU:C	2.57	0.42
36:RQ:134:ARG:HD3	45:RZ:122:ARG:NH1	2.34	0.42
36:RQ:65:PHE:O	36:RQ:66:ILE:CG1	2.48	0.42
38:RS:99:LYS:C	38:RS:101:LEU:N	2.72	0.42
38:RS:49:VAL:HG21	38:RS:77:ALA:HA	2.02	0.42
38:RS:53:SER:HA	38:RS:56:LEU:CD2	2.50	0.42
39:RT:39:ARG:CG	39:RT:40:THR:H	2.22	0.42
34:RO:71:ARG:HH11	39:RT:74:ARG:HH21	1.65	0.42
41:RV:35:LEU:HB2	41:RV:37:VAL:CG2	2.49	0.42
42:RW:19:LEU:HD12	42:RW:19:LEU:HA	1.79	0.42
43:RX:57:LEU:HD12	43:RX:57:LEU:H	1.85	0.42
1:XA:102:G:C4	1:XA:103:C:C5	3.08	0.42
1:XA:1095:U:P	1:XA:1108:G:H22	2.43	0.42
1:XA:1279:A:O2'	1:XA:1282:C:N4	2.53	0.42
1:XA:1312:G:C2	1:XA:1326:C:N3	2.88	0.42
1:XA:1336:C:O2'	1:XA:1337:G:O5'	2.37	0.42
1:XA:1413:A:C2	1:XA:1488:G:C2	3.08	0.42
1:XA:195:A:N7	1:XA:196:A:C6	2.88	0.42
1:XA:674:G:N2	1:XA:717:C:O2	2.52	0.42
1:XA:825:G:H2'	1:XA:826:C:O4'	2.19	0.42
3:XC:58:GLU:HB2	3:XC:65:ALA:HB3	2.01	0.42
5:XE:153:LYS:C	5:XE:153:LYS:HD3	2.41	0.42
5:XE:31:LEU:HD22	5:XE:31:LEU:HA	1.86	0.42
6:XF:36:ARG:NH2	6:XF:38:GLU:HG2	2.35	0.42
7:XG:24:THR:HA	7:XG:27:ILE:HD13	2.01	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:95:ARG:O	7:XG:96:GLN:C	2.58	0.42
8:XH:105:ARG:O	8:XH:107:LEU:N	2.47	0.42
8:XH:95:VAL:HG23	8:XH:95:VAL:O	2.20	0.42
1:XA:972:C:O3'	10:XJ:57:LYS:HG2	2.19	0.42
14:XN:9:LYS:HE2	14:XN:9:LYS:HB3	1.85	0.42
15:XO:54:ARG:NH1	15:XO:58:MET:SD	2.93	0.42
17:XQ:76:LEU:HD21	17:XQ:79:SER:HB2	2.01	0.42
19:XS:42:PRO:HD3	50:Y4:63:TYR:CE2	2.50	0.42
20:XT:99:LEU:O	20:XT:100:ILE:CB	2.68	0.42
47:Y1:80:LEU:O	47:Y1:81:LYS:CD	2.65	0.42
52:Y6:24:GLU:HB3	52:Y6:25:LYS:H	1.56	0.42
53:Y7:25:PRO:HA	53:Y7:28:ARG:NH2	2.35	0.42
25:YA:1061:U:H3'	25:YA:1062:G:C5'	2.50	0.42
25:YA:1252:G:O2'	25:YA:1253:A:H5''	2.20	0.42
25:YA:1607:C:N4	25:YA:1622:G:OP2	2.36	0.42
25:YA:2095:C:H2'	25:YA:2096:U:O4'	2.19	0.42
25:YA:2294:C:H2'	25:YA:2295:C:H6	1.84	0.42
26:YB:44:G:C2	26:YB:48:A:C2	3.07	0.42
27:YD:196:VAL:CG1	27:YD:196:VAL:O	2.68	0.42
28:YE:10:GLY:HA3	39:YT:8:LYS:HD3	2.02	0.42
25:YA:660:G:O3'	29:YF:38:ARG:NH2	2.52	0.42
30:YG:78:SER:O	30:YG:80:PHE:N	2.53	0.42
32:YI:128:LEU:HD13	32:YI:128:LEU:HA	1.68	0.42
33:YN:10:GLU:OE2	33:YN:11:PRO:CD	2.68	0.42
33:YN:30:ILE:HG22	33:YN:34:LEU:HD21	2.01	0.42
33:YN:52:VAL:CG1	33:YN:53:VAL:N	2.82	0.42
34:YO:2:ILE:CD1	34:YO:2:ILE:N	2.82	0.42
35:YP:135:LEU:HD13	35:YP:139:LYS:HE3	2.01	0.42
39:YT:50:ILE:HD11	39:YT:102:ILE:HG12	2.01	0.42
40:YU:35:ALA:O	40:YU:39:LEU:HG	2.19	0.42
42:YW:96:ILE:O	42:YW:96:ILE:CG2	2.68	0.42
43:YX:14:SER:O	43:YX:15:GLU:C	2.57	0.42
44:YY:20:TYR:CE1	44:YY:42:VAL:HA	2.55	0.42
45:YZ:150:LEU:CD1	45:YZ:150:LEU:H	2.33	0.42
1:QA:177:C:H2'	1:QA:178:C:H6	1.85	0.41
1:QA:363:A:H2'	1:QA:364:A:O4'	2.20	0.41
1:QA:559:A:H4'	1:QA:560:U:C5'	2.50	0.41
1:QA:803:G:H2'	1:QA:804:U:O4'	2.20	0.41
1:QA:811:C:C5	1:QA:812:C:N4	2.88	0.41
2:QB:125:PRO:O	2:QB:126:GLU:HB2	2.20	0.41
2:QB:142:LEU:O	2:QB:145:LEU:HB2	2.19	0.41
2:QB:155:LEU:C	2:QB:157:ARG:H	2.23	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:163:PHE:CD2	2:QB:185:ILE:HD12	2.54	0.41
4:QD:111:ALA:HB3	4:QD:117:ALA:HB2	2.02	0.41
4:QD:150:GLU:C	4:QD:152:SER:N	2.73	0.41
4:QD:31:CYS:SG	4:QD:31:CYS:O	2.78	0.41
4:QD:13:ARG:NH2	4:QD:36:ARG:CZ	2.83	0.41
6:QF:36:ARG:CZ	6:QF:38:GLU:HG2	2.50	0.41
8:QH:85:ARG:HA	8:QH:135:CYS:HB3	2.02	0.41
8:QH:53:VAL:HG12	8:QH:54:ASP:OD2	2.20	0.41
9:QI:8:GLY:CA	9:QI:79:LEU:HD12	2.49	0.41
10:QJ:29:ARG:O	10:QJ:30:SER:HB3	2.20	0.41
10:QJ:84:GLN:H	10:QJ:84:GLN:HG3	1.50	0.41
12:QL:117:ARG:HB3	12:QL:122:THR:HB	2.02	0.41
12:QL:52:LEU:O	12:QL:54:LYS:NZ	2.30	0.41
14:QN:3:ARG:CG	14:QN:4:LYS:N	2.83	0.41
15:QO:54:ARG:NH1	15:QO:58:MET:SD	2.93	0.41
17:QQ:27:PHE:HA	17:QQ:28:PRO:HD3	1.92	0.41
19:QS:58:VAL:HG23	19:QS:58:VAL:O	2.20	0.41
47:R1:29:GLY:O	47:R1:31:GLY:N	2.49	0.41
47:R1:81:LYS:CD	47:R1:81:LYS:N	2.83	0.41
52:R6:41:PRO:HG3	52:R6:44:ARG:HB2	2.01	0.41
53:R7:25:PRO:HA	53:R7:28:ARG:NH2	2.35	0.41
43:RX:60:ARG:HH12	53:R7:47:ARG:HH22	1.67	0.41
25:RA:1053:C:C4	25:RA:1054:A:N7	2.88	0.41
25:RA:1677:A:H2'	25:RA:1678:G:C8	2.54	0.41
25:RA:2399:G:C6	25:RA:2418:A:C6	3.08	0.41
25:RA:2469:A:H3'	25:RA:2470:G:H8	1.83	0.41
25:RA:2620:C:H6	25:RA:2620:C:O5'	2.01	0.41
25:RA:2837:G:H8	25:RA:2837:G:O5'	2.03	0.41
25:RA:397:G:H1'	25:RA:2231:C:O2'	2.19	0.41
25:RA:415:A:N1	25:RA:2409:G:C6	2.88	0.41
25:RA:452:G:C6	25:RA:453:C:N4	2.88	0.41
25:RA:510:C:H2'	25:RA:511:U:O4'	2.20	0.41
25:RA:78:A:C2	25:RA:109:G:C2	3.08	0.41
26:RB:116:G:H5'	38:RS:55:ALA:HA	2.02	0.41
25:RA:1798:U:H5''	27:RD:259:THR:HG22	2.01	0.41
28:RE:144:ARG:HB3	28:RE:145:LYS:H	1.58	0.41
28:RE:176:ILE:N	28:RE:176:ILE:HD12	2.35	0.41
28:RE:11:MET:HE3	28:RE:186:GLY:HA2	2.02	0.41
30:RG:60:LEU:C	30:RG:60:LEU:HD23	2.41	0.41
31:RH:128:PRO:CG	31:RH:129:THR:H	2.33	0.41
31:RH:86:GLU:H	31:RH:86:GLU:CD	2.16	0.41
32:RI:135:GLU:HB2	32:RI:136:VAL:H	1.55	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:RO:86:ILE:N	34:RO:86:ILE:CD1	2.83	0.41
36:RQ:20:ALA:HA	36:RQ:98:LYS:HB3	2.02	0.41
39:RT:96:ARG:HB2	39:RT:96:ARG:CZ	2.49	0.41
41:RV:21:ARG:HD2	41:RV:91:TYR:CE2	2.55	0.41
43:RX:60:ARG:HA	43:RX:75:ASP:OD2	2.20	0.41
43:RX:87:GLN:C	43:RX:88:LYS:HG3	2.40	0.41
44:RY:91:GLU:CG	44:RY:92:ASN:N	2.83	0.41
45:RZ:71:VAL:HB	45:RZ:88:PHE:CE2	2.55	0.41
1:XA:104:G:C4	1:XA:105:G:C8	3.08	0.41
1:XA:1104:G:H2'	1:XA:1105:A:O4'	2.20	0.41
1:XA:113:G:H2'	1:XA:114:U:C6	2.54	0.41
2:XB:99:GLY:O	2:XB:108:ILE:HD11	2.19	0.41
3:XC:59:ARG:NH1	3:XC:97:LYS:HE3	2.34	0.41
4:XD:150:GLU:C	4:XD:152:SER:N	2.73	0.41
4:XD:198:VAL:CG1	4:XD:199:ASN:H	2.32	0.41
4:XD:94:LEU:HA	4:XD:97:LEU:HD12	2.01	0.41
11:XK:72:ALA:HB1	11:XK:77:MET:HG2	2.02	0.41
14:XN:3:ARG:CG	14:XN:4:LYS:N	2.83	0.41
15:XO:50:HIS:O	15:XO:53:HIS:HB3	2.20	0.41
17:XQ:74:LEU:HD13	17:XQ:74:LEU:O	2.20	0.41
19:XS:41:VAL:HG11	19:XS:45:VAL:HG13	2.02	0.41
21:XU:2:GLY:C	21:XU:4:GLY:H	2.23	0.41
50:Y4:49:PHE:HD1	50:Y4:49:PHE:N	2.17	0.41
25:YA:1282:U:H2'	25:YA:1283:G:O4'	2.20	0.41
25:YA:1322:A:C5	25:YA:1323:U:C5	3.08	0.41
25:YA:1350:C:N3	25:YA:1382:G:C2	2.88	0.41
25:YA:1316:U:H1'	25:YA:1392:A:H2	1.85	0.41
25:YA:1408:C:C2	25:YA:1595:G:N2	2.88	0.41
25:YA:1682:G:C5	25:YA:1683:C:C4	3.07	0.41
25:YA:1778:U:O2'	25:YA:1779:U:H5'	2.20	0.41
25:YA:1816:G:N7	27:YD:62:TYR:CE1	2.88	0.41
25:YA:1826:G:H4'	27:YD:242:ARG:NH2	2.31	0.41
25:YA:1925:C:C2'	25:YA:1926:U:H5'	2.49	0.41
25:YA:1999:C:H5''	25:YA:2723:C:O2'	2.20	0.41
25:YA:2037:G:H2'	25:YA:2038:G:H8	1.79	0.41
25:YA:2080:G:N2	25:YA:2241:A:C4	2.87	0.41
25:YA:2309:A:C8	25:YA:2309:A:H3'	2.55	0.41
25:YA:2837:G:C5	25:YA:2838:G:N7	2.88	0.41
26:YB:87:G:C2	26:YB:90:C:N3	2.88	0.41
27:YD:109:ASP:HB2	27:YD:197:GLY:HA2	2.02	0.41
27:YD:110:GLY:O	27:YD:111:LEU:C	2.58	0.41
27:YD:9:TYR:CZ	27:YD:13:ARG:HD3	2.54	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:YE:4:ILE:HG22	28:YE:198:VAL:HB	2.02	0.41
30:YG:41:GLN:NE2	30:YG:154:GLY:O	2.52	0.41
33:YN:58:ASP:HB3	33:YN:95:PRO:HB3	2.02	0.41
34:YO:31:LYS:O	34:YO:32:TYR:HD2	2.03	0.41
35:YP:115:LEU:HB3	35:YP:131:SER:HB2	2.02	0.41
35:YP:114:ILE:CD1	35:YP:130:PHE:CE1	2.98	0.41
36:YQ:34:LEU:HD23	36:YQ:104:PHE:CD1	2.55	0.41
38:YS:49:VAL:HG21	38:YS:77:ALA:HA	2.02	0.41
38:YS:92:TYR:HB2	38:YS:98:VAL:HG11	2.02	0.41
40:YU:57:PHE:C	40:YU:59:ARG:N	2.74	0.41
41:YV:35:LEU:HB2	41:YV:37:VAL:CG2	2.49	0.41
41:YV:72:VAL:HG13	41:YV:72:VAL:O	2.19	0.41
43:YX:57:LEU:H	43:YX:57:LEU:HD12	1.85	0.41
43:YX:60:ARG:HH22	53:Y7:47:ARG:HH12	1.68	0.41
45:YZ:100:VAL:HA	45:YZ:101:PRO:HD3	1.86	0.41
1:QA:1004:A:C8	1:QA:1026:G:N7	2.89	0.41
1:QA:1084:G:H2'	1:QA:1085:U:C6	2.55	0.41
1:QA:296:U:O2'	1:QA:556:C:O2	2.31	0.41
1:QA:634:C:O2'	1:QA:635:G:H5'	2.20	0.41
2:QB:231:GLU:HG3	2:QB:233:SER:H	1.86	0.41
5:QE:26:PHE:CD1	5:QE:26:PHE:N	2.87	0.41
5:QE:72:GLN:C	5:QE:74:GLY:H	2.23	0.41
7:QG:17:VAL:HG12	7:QG:18:TYR:CD1	2.55	0.41
9:QI:43:ALA:C	9:QI:45:ALA:N	2.73	0.41
12:QL:10:LEU:CD1	17:QQ:32:TYR:CD2	3.03	0.41
13:QM:88:ARG:O	13:QM:88:ARG:HD2	2.19	0.41
14:QN:41:ARG:HG3	14:QN:42:ILE:N	2.35	0.41
14:QN:9:LYS:O	14:QN:9:LYS:HG2	2.19	0.41
22:QV:23:C:H2'	22:QV:24:U:C6	2.55	0.41
48:R2:50:ILE:H	48:R2:50:ILE:HG13	1.64	0.41
30:RG:143:GLU:C	50:R4:28:LYS:HZ2	2.24	0.41
50:R4:61:ARG:C	50:R4:63:TYR:N	2.73	0.41
50:R4:64:GLY:C	50:R4:66:SER:N	2.73	0.41
13:QM:77:ASN:OD1	50:R4:71:ARG:NH1	2.52	0.41
51:R5:40:LYS:HE2	51:R5:47:PRO:CG	2.49	0.41
52:R6:6:ARG:HA	52:R6:6:ARG:NE	2.35	0.41
25:RA:1229(A):G:C6	25:RA:1230:C:C4	3.09	0.41
25:RA:1535:U:H5''	25:RA:1537:C:C4	2.55	0.41
25:RA:2397:G:H5''	47:R1:28:GLY:HA2	2.01	0.41
25:RA:825:C:O2'	25:RA:2428:G:H2'	2.20	0.41
25:RA:1783:A:C6	25:RA:2587:A:C2	3.08	0.41
25:RA:270(E):G:C2	25:RA:270(F):U:C2	3.08	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:270(I):G:H2'	25:RA:270(J):G:H8	1.86	0.41
25:RA:2712:U:H1'	25:RA:2712(A):A:N7	2.35	0.41
25:RA:328:U:H4'	44:RY:68:HIS:NE2	2.35	0.41
25:RA:432:A:H2'	25:RA:433:C:O4'	2.20	0.41
25:RA:544:C:C2	25:RA:550:G:N2	2.88	0.41
26:RB:31:C:C2'	26:RB:32:C:H5'	2.50	0.41
25:RA:1824:G:OP1	27:RD:52:ARG:HD3	2.21	0.41
28:RE:94:GLU:C	28:RE:96:PHE:N	2.73	0.41
29:RF:198:ALA:HA	29:RF:201:VAL:CG1	2.41	0.41
29:RF:42:ALA:O	29:RF:45:ARG:HB2	2.18	0.41
28:RE:152:LYS:HG2	33:RN:78:TYR:CD1	2.55	0.41
35:RP:125:VAL:C	35:RP:145:PRO:HD2	2.39	0.41
38:RS:99:LYS:HE2	38:RS:103:GLU:OE2	2.20	0.41
38:RS:64:GLU:O	38:RS:68:GLN:HG3	2.19	0.41
28:RE:25:VAL:CG1	39:RT:11:GLU:HG2	2.50	0.41
41:RV:81:TYR:C	41:RV:82:ARG:CG	2.89	0.41
41:RV:16:PRO:HB3	41:RV:97:LYS:O	2.20	0.41
1:XA:1126:U:H1'	1:XA:1280:A:C5	2.55	0.41
1:XA:1158:C:H4'	2:XB:133:LYS:HZ1	1.83	0.41
1:XA:1279:A:HO2'	1:XA:1282:C:N4	2.18	0.41
1:XA:198:G:N7	1:XA:220:G:N2	2.68	0.41
1:XA:414:A:H2'	1:XA:415:A:H8	1.83	0.41
1:XA:416:G:H2'	1:XA:417:C:C6	2.55	0.41
1:XA:428:G:O4'	1:XA:430:A:C8	2.74	0.41
1:XA:891:U:C2	1:XA:892:A:C8	3.08	0.41
3:XC:76:VAL:CG2	3:XC:103:VAL:HG11	2.49	0.41
3:XC:113:ALA:HB3	3:XC:114:PRO:CD	2.43	0.41
5:XE:51:VAL:CB	5:XE:52:PRO:HD3	2.38	0.41
7:XG:87:VAL:HG11	7:XG:155:ARG:HA	2.03	0.41
7:XG:44:TYR:O	7:XG:47:CYS:N	2.53	0.41
10:XJ:40:LEU:HB3	10:XJ:41:PRO:HD2	2.02	0.41
1:XA:695:A:OP1	11:XK:52:GLY:HA3	2.20	0.41
12:XL:89:ARG:HB3	12:XL:97:ARG:HA	2.02	0.41
13:XM:77:ASN:HA	50:Y4:71:ARG:HH22	1.71	0.41
14:XN:18:VAL:CG2	14:XN:19:ARG:N	2.82	0.41
1:XA:1226:C:H4'	19:XS:80:TYR:CZ	2.55	0.41
52:Y6:41:PRO:HG3	52:Y6:44:ARG:HB2	2.02	0.41
25:YA:458:G:O2'	53:Y7:39:ARG:HD3	2.20	0.41
25:YA:1053:C:C4	25:YA:1054:A:C8	3.08	0.41
25:YA:1169:G:H1	25:YA:1180:C:N4	2.18	0.41
25:YA:1717:G:H2'	25:YA:1718:G:O4'	2.20	0.41
25:YA:1769:G:C2	25:YA:1984:G:C5	3.08	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1936:A:C8	25:YA:1940:U:O2	2.73	0.41
25:YA:570:G:H2'	25:YA:2030:A:C6	2.55	0.41
25:YA:2263:C:O2	25:YA:2277:G:N2	2.35	0.41
25:YA:2766:G:C2	25:YA:2767:C:C5	3.08	0.41
25:YA:2816:C:H2'	25:YA:2817:G:H8	1.85	0.41
25:YA:2887:U:C2	25:YA:2888:C:C5	3.08	0.41
25:YA:588:U:H1'	29:YF:90:PHE:CG	2.55	0.41
25:YA:630:G:H4'	25:YA:640:C:H4'	2.02	0.41
25:YA:680:G:C4	25:YA:798:G:N2	2.88	0.41
25:YA:684:G:C4	25:YA:794:G:N2	2.88	0.41
25:YA:928:G:O6	25:YA:929:G:C2	2.73	0.41
26:YB:110:G:C5	26:YB:111:U:C6	3.08	0.41
28:YE:35:GLN:HG3	28:YE:37:ARG:NH2	2.35	0.41
29:YF:80:ALA:O	29:YF:83:PHE:HB2	2.20	0.41
31:YH:84:SER:OG	31:YH:85:LYS:N	2.51	0.41
34:YO:17:ARG:HG2	34:YO:17:ARG:HH11	1.84	0.41
34:YO:92:GLU:O	34:YO:93:PRO:C	2.58	0.41
35:YP:81:GLN:HB2	35:YP:81:GLN:HE21	1.59	0.41
36:YQ:118:LEU:HD13	36:YQ:131:ILE:HG23	2.02	0.41
37:YR:85:PRO:C	37:YR:87:TYR:N	2.73	0.41
39:YT:24:PRO:HA	39:YT:49:VAL:CG1	2.39	0.41
41:YV:15:GLU:O	41:YV:96:ILE:HB	2.19	0.41
1:QA:1099:G:C6	1:QA:1100:C:N3	2.89	0.41
1:QA:128:G:C6	1:QA:129:U:C5	3.09	0.41
1:QA:1316:G:N2	1:QA:1318:A:H3'	2.35	0.41
1:QA:1348:U:N3	1:QA:1374:A:H2	2.18	0.41
1:QA:16:A:N1	1:QA:919:A:C2	2.88	0.41
1:QA:378:G:O2'	1:QA:379:C:H5'	2.20	0.41
1:QA:396:G:O2'	1:QA:398:C:OP1	2.18	0.41
1:QA:849:C:H2'	1:QA:850:U:O4'	2.20	0.41
1:QA:965:A:C2	1:QA:969:A:C2	3.09	0.41
8:QH:11:THR:HA	8:QH:14:ARG:NH1	2.35	0.41
9:QI:118:LYS:HB3	9:QI:118:LYS:NZ	2.34	0.41
11:QK:92:GLU:O	11:QK:95:ILE:N	2.54	0.41
12:QL:22:SER:C	12:QL:24:VAL:H	2.22	0.41
14:QN:22:THR:HB	14:QN:33:VAL:CG1	2.50	0.41
16:QP:22:THR:HB	16:QP:32:TYR:HB3	2.03	0.41
17:QQ:11:VAL:CG2	17:QQ:20:THR:HB	2.50	0.41
13:QM:80:ARG:NH1	19:QS:65:ASN:O	2.51	0.41
20:QT:50:GLU:HA	20:QT:100:ILE:HG22	2.02	0.41
23:QX:4:C:O2	23:QX:4:C:H2'	2.20	0.41
25:RA:1389:G:C2	25:RA:1399:C:O2	2.72	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1437:C:N4	25:RA:1438:U:O4	2.53	0.41
25:RA:1569:A:H2'	25:RA:1570:A:O4'	2.20	0.41
25:RA:2259:G:C2	25:RA:2282:G:C2	3.08	0.41
25:RA:648:G:H1'	25:RA:2351:G:OP1	2.20	0.41
25:RA:709:U:H2'	25:RA:710:G:H8	1.85	0.41
25:RA:816:C:C4	25:RA:1192:G:C2	3.07	0.41
25:RA:834:C:H2'	25:RA:835:A:H8	1.85	0.41
27:RD:13:ARG:O	27:RD:13:ARG:HG2	2.20	0.41
25:RA:2621:A:OP1	28:RE:119:ARG:NH2	2.53	0.41
28:RE:13:ARG:HH11	28:RE:13:ARG:HB2	1.82	0.41
28:RE:35:GLN:HG3	28:RE:37:ARG:NH2	2.35	0.41
30:RG:53:LEU:CD1	30:RG:87:PRO:HB2	2.51	0.41
26:RB:45:A:C4'	30:RG:95:ARG:NH1	2.83	0.41
31:RH:86:GLU:HG3	31:RH:165:ALA:CA	2.49	0.41
32:RI:94:ALA:HB1	32:RI:114:LEU:HD23	2.02	0.41
33:RN:62:VAL:CG1	33:RN:66:LYS:HB2	2.51	0.41
34:RO:31:LYS:HA	34:RO:31:LYS:HD3	1.92	0.41
35:RP:18:ARG:HD2	35:RP:27:HIS:CD2	2.56	0.41
26:RB:9:G:H5'	38:RS:19:LYS:HZ3	1.84	0.41
38:RS:42:ASP:C	38:RS:44:LYS:N	2.72	0.41
40:RU:83:LEU:HG	40:RU:88:ILE:HG13	2.02	0.41
40:RU:91:ASP:OD2	40:RU:96:ALA:CA	2.68	0.41
41:RV:38:LEU:CD1	41:RV:55:ALA:HB1	2.50	0.41
45:RZ:94:GLU:HG3	45:RZ:129:SER:OG	2.21	0.41
1:XA:1250:A:H2'	1:XA:1251:A:C8	2.54	0.41
1:XA:1336:C:O2	1:XA:1336:C:H2'	2.20	0.41
1:XA:1347:G:H22	1:XA:1373:G:H2'	1.86	0.41
1:XA:29:G:N2	1:XA:554:C:O2	2.40	0.41
1:XA:776:G:O2'	1:XA:777:A:C8	2.74	0.41
2:XB:155:LEU:C	2:XB:157:ARG:H	2.23	0.41
2:XB:166:ASP:O	2:XB:170:GLU:OE1	2.39	0.41
3:XC:88:ARG:NH2	3:XC:101:LEU:O	2.53	0.41
3:XC:142:MET:HG2	3:XC:149:ALA:HB2	2.02	0.41
6:XF:67:MET:HB2	6:XF:68:PRO:CD	2.47	0.41
1:XA:1240:U:O2'	7:XG:38:LEU:HD23	2.19	0.41
9:XI:118:LYS:NZ	9:XI:118:LYS:HB3	2.34	0.41
12:XL:53:ARG:HH12	12:XL:92:ASP:HB3	1.85	0.41
14:XN:22:THR:HB	14:XN:33:VAL:CG1	2.50	0.41
16:XP:9:PHE:HB3	16:XP:10:GLY:H	1.64	0.41
16:XP:21:VAL:HG21	16:XP:59:TRP:NE1	2.35	0.41
17:XQ:22:LEU:HD13	17:XQ:41:LYS:HG2	2.01	0.41
17:XQ:51:TYR:HA	17:XQ:52:LYS:HZ2	1.85	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:XT:48:LYS:O	20:XT:49:ALA:C	2.59	0.41
1:XA:186:C:C5'	20:XT:78:ALA:HB1	2.49	0.41
51:Y5:39:MET:C	51:Y5:40:LYS:HG3	2.39	0.41
51:Y5:41:PRO:HA	51:Y5:42:PRO:HD3	1.82	0.41
25:YA:1332:G:H8	25:YA:1332:G:H2'	1.46	0.41
25:YA:1589:C:H2'	25:YA:1590:U:C6	2.55	0.41
25:YA:1651:G:C2	25:YA:2007:C:N3	2.89	0.41
25:YA:1747:G:O2'	25:YA:1748:G:H5'	2.20	0.41
25:YA:1767:C:H2'	25:YA:1768:U:O4'	2.20	0.41
25:YA:1799:G:H5'	25:YA:1819:A:H61	1.85	0.41
25:YA:1857:G:N2	25:YA:1886:C:N4	2.68	0.41
25:YA:237:C:H2'	25:YA:238:C:H6	1.84	0.41
25:YA:2404:C:H1'	35:YP:67:MET:HE2	2.03	0.41
25:YA:2584:U:H4'	56:Z8:76:PPU:C5	2.49	0.41
25:YA:2630:G:C2	25:YA:2631:G:C4	3.07	0.41
25:YA:2693:A:H2'	25:YA:2694:G:H8	1.85	0.41
25:YA:479:A:C2	25:YA:481:G:H5''	2.56	0.41
25:YA:503:A:C6	25:YA:506:G:C6	3.08	0.41
25:YA:624:C:C6	25:YA:624:C:H5''	2.55	0.41
25:YA:878:A:N6	25:YA:899:A:HO2'	2.18	0.41
27:YD:134:ARG:HG3	27:YD:134:ARG:H	1.55	0.41
27:YD:182:LEU:N	27:YD:272:ALA:HB3	2.32	0.41
29:YF:176:LEU:HD11	29:YF:180:GLY:O	2.19	0.41
29:YF:183:VAL:O	29:YF:184:TYR:C	2.57	0.41
29:YF:53:THR:O	29:YF:55:GLY:N	2.53	0.41
32:YI:88:ILE:H	32:YI:122:GLU:H	1.69	0.41
32:YI:3:VAL:HG12	32:YI:38:LEU:HA	2.02	0.41
33:YN:1:MET:HG3	33:YN:1:MET:O	2.19	0.41
35:YP:49:ARG:HG2	35:YP:49:ARG:HH11	1.84	0.41
38:YS:51:ALA:HB3	38:YS:73:LEU:HD23	2.01	0.41
39:YT:134:GLU:O	39:YT:135:ALA:CB	2.69	0.41
39:YT:23:ARG:CB	39:YT:24:PRO:HD2	2.40	0.41
39:YT:62:THR:HG22	39:YT:75:ILE:CG1	2.35	0.41
40:YU:97:ASP:HA	40:YU:100:VAL:HG23	2.02	0.41
40:YU:83:LEU:HG	40:YU:88:ILE:HG13	2.02	0.41
40:YU:92:ARG:NH2	41:YV:11:GLN:O	2.53	0.41
42:YW:17:VAL:O	42:YW:18:ARG:C	2.57	0.41
42:YW:73:ALA:HB3	42:YW:106:ILE:CG1	2.46	0.41
42:YW:8:ARG:NH1	42:YW:8:ARG:HG3	2.34	0.41
44:YY:6:HIS:O	44:YY:7:VAL:CG1	2.59	0.41
45:YZ:10:ARG:NH2	45:YZ:26:GLY:H	2.16	0.41
1:QA:1253:G:H2'	1:QA:1254:C:C6	2.56	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1381:U:C4	1:QA:1382:C:C4	3.09	0.41
1:QA:1394:A:H4'	1:QA:1395:C:OP2	2.20	0.41
1:QA:354:G:H2'	1:QA:355:C:H5'	2.01	0.41
1:QA:521:G:O5'	12:QL:73:GLU:HG3	2.20	0.41
1:QA:675:A:H2'	1:QA:676:A:O4'	2.19	0.41
1:QA:765:G:H5''	1:QA:766:A:OP1	2.20	0.41
1:QA:858:G:H8	1:QA:858:G:OP2	2.03	0.41
2:QB:97:TRP:HZ3	2:QB:172:ILE:HG22	1.85	0.41
4:QD:101:LEU:CD2	4:QD:121:VAL:HG11	2.50	0.41
4:QD:30:LYS:HB3	4:QD:35:ARG:CG	2.36	0.41
6:QF:92:LYS:HZ2	6:QF:92:LYS:HB2	1.84	0.41
7:QG:141:VAL:CG1	7:QG:141:VAL:O	2.65	0.41
7:QG:92:SER:HB3	7:QG:95:ARG:HB2	2.03	0.41
8:QH:122:ARG:HG3	8:QH:122:ARG:HH11	1.85	0.41
9:QI:83:ARG:HA	9:QI:86:VAL:HG12	2.02	0.41
10:QJ:45:ARG:HG3	10:QJ:45:ARG:HH11	1.86	0.41
1:QA:1227:A:OP2	13:QM:111:LYS:HE3	2.20	0.41
13:QM:119:GLY:O	13:QM:120:LYS:O	2.39	0.41
14:QN:48:ALA:HA	14:QN:53:LEU:HD12	2.01	0.41
16:QP:20:VAL:HG22	16:QP:21:VAL:H	1.83	0.41
17:QQ:74:LEU:HD13	17:QQ:74:LEU:O	2.20	0.41
18:QR:20:ALA:C	18:QR:21:LYS:HG3	2.41	0.41
20:QT:95:ALA:O	20:QT:97:ALA:N	2.53	0.41
46:R0:48:GLY:H	46:R0:51:VAL:HB	1.86	0.41
54:R8:16:ILE:HD11	54:R8:57:ARG:CG	2.44	0.41
25:RA:1371:G:H8	25:RA:1371:G:O5'	2.03	0.41
25:RA:2037:G:C6	25:RA:2038:G:C6	3.08	0.41
25:RA:2257:U:C4	25:RA:2258:C:N4	2.88	0.41
25:RA:2413:G:N2	25:RA:2414:G:H1'	2.35	0.41
25:RA:2439:A:H5'	25:RA:2439:A:H8	1.78	0.41
25:RA:270(A):A:O2'	25:RA:270(B):A:H5'	2.19	0.41
25:RA:527:C:H2'	25:RA:2779:U:C5	2.56	0.41
25:RA:871:U:OP1	36:RQ:5:ARG:HG2	2.21	0.41
25:RA:9:U:O4	25:RA:2629:A:C8	2.74	0.41
26:RB:109:G:C6	26:RB:110:G:C5	3.09	0.41
27:RD:269:PHE:N	27:RD:269:PHE:CD2	2.88	0.41
28:RE:179:GLU:CB	28:RE:181:LEU:HD23	2.23	0.41
29:RF:53:THR:O	29:RF:55:GLY:N	2.53	0.41
30:RG:135:LEU:N	30:RG:135:LEU:CD1	2.84	0.41
33:RN:114:ARG:C	33:RN:116:LEU:N	2.74	0.41
33:RN:21:LYS:O	33:RN:22:THR:O	2.39	0.41
33:RN:52:VAL:CG1	33:RN:53:VAL:N	2.82	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:RP:64:LYS:HG3	54:R8:25:MET:CE	2.50	0.41
36:RQ:34:LEU:HD23	36:RQ:104:PHE:CD1	2.55	0.41
37:RR:28:LEU:HD12	37:RR:29:LEU:HD12	2.01	0.41
39:RT:134:GLU:O	39:RT:135:ALA:CB	2.69	0.41
25:RA:534:U:O2	40:RU:49:HIS:HE1	2.04	0.41
41:RV:38:LEU:CD2	41:RV:39:LEU:N	2.82	0.41
41:RV:38:LEU:CD1	41:RV:55:ALA:CB	2.99	0.41
25:RA:142:G:H1'	43:RX:37:THR:CG2	2.50	0.41
1:XA:114:U:H2'	1:XA:115:G:C8	2.55	0.41
1:XA:1296:C:H1'	1:XA:1302:U:H5	1.84	0.41
1:XA:147:G:C4	1:XA:148:G:C8	3.08	0.41
1:XA:164:U:H2'	1:XA:165:C:C6	2.55	0.41
1:XA:20:U:H2'	1:XA:21:G:O4'	2.21	0.41
1:XA:233:C:H2'	1:XA:234:C:H6	1.86	0.41
1:XA:358:U:H2'	1:XA:359:U:O4'	2.20	0.41
1:XA:571:U:O2	1:XA:918:A:H5'	2.21	0.41
1:XA:683:G:C6	1:XA:684:A:C6	3.08	0.41
1:XA:779:C:H4'	11:XK:121:PRO:O	2.20	0.41
1:XA:836:G:C6	1:XA:851:G:C6	3.08	0.41
1:XA:969:A:C2	1:XA:970:C:C2	3.08	0.41
2:XB:130:ARG:HH22	2:XB:138:LEU:HD21	1.85	0.41
2:XB:23:ARG:H	2:XB:23:ARG:CD	2.30	0.41
2:XB:75:LYS:C	2:XB:77:ALA:H	2.24	0.41
3:XC:129:ALA:C	3:XC:131:ARG:N	2.72	0.41
3:XC:128:PHE:O	3:XC:130:VAL:N	2.54	0.41
1:XA:1191:A:OP1	3:XC:4:LYS:HG3	2.20	0.41
3:XC:59:ARG:HH12	3:XC:97:LYS:CE	2.33	0.41
7:XG:101:LEU:O	7:XG:104:LEU:HB2	2.20	0.41
7:XG:141:VAL:CG1	7:XG:141:VAL:O	2.65	0.41
8:XH:38:ILE:CD1	8:XH:118:VAL:HG12	2.49	0.41
10:XJ:45:ARG:HH11	10:XJ:45:ARG:HG3	1.86	0.41
11:XK:124:LYS:HB3	11:XK:125:PHE:CD1	2.47	0.41
11:XK:56:GLY:O	11:XK:89:ALA:HB3	2.21	0.41
1:XA:1316:G:H5''	14:XN:17:LYS:CE	2.50	0.41
17:XQ:11:VAL:HG23	17:XQ:12:SER:N	2.35	0.41
1:XA:254:G:O2'	17:XQ:16:GLN:O	2.37	0.41
18:XR:76:LEU:N	18:XR:76:LEU:HD22	2.35	0.41
18:XR:84:LYS:H	18:XR:84:LYS:HG2	1.56	0.41
36:YQ:80:GLU:OE1	46:Y0:7:LEU:HG	2.20	0.41
49:Y3:37:LEU:N	49:Y3:37:LEU:HD23	2.35	0.41
49:Y3:39:ASP:O	49:Y3:40:THR:C	2.59	0.41
25:YA:1200:C:H1'	40:YU:2:PRO:HG2	2.02	0.41

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1216:G:OP2	40:YU:12:ARG:NH2	2.43	0.41
25:YA:1448:G:H1'	25:YA:1528:A:N6	2.35	0.41
25:YA:1449:A:N3	25:YA:1530:G:H1'	2.35	0.41
25:YA:1764:G:C5	25:YA:1989:G:N2	2.89	0.41
25:YA:1869:G:N2	25:YA:1878:G:C5	2.88	0.41
25:YA:1922:G:C2'	25:YA:1923:U:H5'	2.50	0.41
25:YA:1984:G:C2	25:YA:1985:G:C8	3.08	0.41
25:YA:2081:C:C5	25:YA:2237:G:N2	2.88	0.41
25:YA:2355:C:H5''	25:YA:2356:C:OP2	2.20	0.41
25:YA:2581:G:N3	25:YA:2581:G:H2'	2.36	0.41
25:YA:2616:C:O2	25:YA:2616:C:H2'	2.19	0.41
25:YA:422:A:C6	25:YA:423:A:C6	3.08	0.41
26:YB:106:G:C2	26:YB:107:U:C5	3.09	0.41
27:YD:145:VAL:CG1	27:YD:146:GLU:N	2.84	0.41
25:YA:2572:A:N3	28:YE:144:ARG:NH2	2.68	0.41
28:YE:167:VAL:CG1	28:YE:189:PRO:HD3	2.50	0.41
29:YF:20:LEU:HD12	29:YF:21:ALA:N	2.26	0.41
30:YG:51:ARG:CB	30:YG:51:ARG:NH1	2.82	0.41
32:YI:112:LYS:H	32:YI:112:LYS:HG2	1.39	0.41
33:YN:109:LYS:N	33:YN:109:LYS:CD	2.83	0.41
33:YN:114:ARG:C	33:YN:116:LEU:N	2.74	0.41
33:YN:27:ALA:O	33:YN:28:THR:C	2.57	0.41
35:YP:39:LYS:HA	35:YP:45:LEU:HD11	1.83	0.41
36:YQ:27:VAL:HG22	36:YQ:105:GLU:CD	2.41	0.41
36:YQ:132:VAL:HG11	45:YZ:81:ARG:NH1	2.35	0.41
37:YR:55:ALA:HA	37:YR:80:PHE:CE2	2.55	0.41
39:YT:134:GLU:OE1	39:YT:135:ALA:N	2.53	0.41
41:YV:81:TYR:C	41:YV:82:ARG:CG	2.89	0.41
41:YV:16:PRO:HB3	41:YV:97:LYS:O	2.20	0.41
42:YW:25:ARG:CB	42:YW:25:ARG:NH1	2.79	0.41
43:YX:31:HIS:HA	43:YX:32:PRO:HD3	1.88	0.41
44:YY:95:LYS:CD	44:YY:95:LYS:H	2.32	0.41
1:QA:1064:G:O2'	1:QA:1065:U:P	2.77	0.41
1:QA:1072:G:OP1	5:QE:49:PRO:HD2	2.20	0.41
1:QA:1234:C:C4'	1:QA:1364:U:H1'	2.50	0.41
1:QA:1504:G:H4'	1:QA:1505:G:O4'	2.20	0.41
1:QA:258:G:H1	1:QA:268:C:H42	1.68	0.41
1:QA:590:C:O2'	1:QA:591:U:H5'	2.21	0.41
1:QA:935:A:N6	7:QG:3:ARG:HG3	2.36	0.41
2:QB:166:ASP:O	2:QB:170:GLU:OE1	2.38	0.41
7:QG:79:ARG:CZ	7:QG:82:GLY:HA2	2.51	0.41
11:QK:22:HIS:HB3	11:QK:29:ILE:HG22	2.03	0.41

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:QK:20:TYR:N	11:QK:31:THR:O	2.54	0.41
11:QK:56:GLY:O	11:QK:89:ALA:HB3	2.21	0.41
46:R0:70:GLN:NE2	46:R0:72:ARG:HD3	2.36	0.41
48:R2:61:LEU:HD23	48:R2:64:LEU:HD12	2.03	0.41
50:R4:12:ALA:HB1	50:R4:30:GLU:N	2.34	0.41
50:R4:4:GLY:O	50:R4:5:ILE:C	2.59	0.41
25:RA:686:G:C2	53:R7:11:LYS:HE3	2.54	0.41
25:RA:1021:A:C8	25:RA:1021:A:C3'	3.03	0.41
25:RA:1085:A:O2'	25:RA:1086:A:P	2.78	0.41
25:RA:121:G:H1'	25:RA:148:C:C2	2.56	0.41
25:RA:1337:G:O5'	25:RA:1337:G:H8	2.02	0.41
25:RA:1451:C:H4'	25:RA:1453:A:H5'	2.03	0.41
25:RA:1565:C:C2	25:RA:1567:A:C8	3.08	0.41
25:RA:1820:U:O2	27:RD:202:LYS:N	2.53	0.41
25:RA:2456:C:C4	25:RA:2457:U:C5	3.08	0.41
25:RA:363:G:H2'	25:RA:363(A):A:H8	1.84	0.41
25:RA:685:A:H5''	25:RA:788:A:H62	1.86	0.41
25:RA:871:U:H2'	25:RA:872:A:C8	2.55	0.41
26:RB:31:C:H2'	26:RB:32:C:H5'	2.02	0.41
27:RD:134:ARG:HD3	27:RD:135:PHE:HE2	1.82	0.41
27:RD:158:ALA:O	27:RD:196:VAL:HG11	2.21	0.41
27:RD:2:ALA:O	27:RD:3:VAL:CB	2.68	0.41
27:RD:68:LYS:HG3	27:RD:68:LYS:O	2.20	0.41
27:RD:75:ILE:HG21	27:RD:99:ASP:HB2	2.02	0.41
25:RA:2572:A:N3	28:RE:144:ARG:NH2	2.68	0.41
29:RF:111:ALA:O	29:RF:112:MET:C	2.59	0.41
30:RG:117:PHE:CE1	30:RG:119:GLY:CA	3.03	0.41
30:RG:77:ILE:H	30:RG:82:LEU:HB2	1.84	0.41
32:RI:29:TYR:O	32:RI:33:ARG:HB2	2.21	0.41
32:RI:37:VAL:HG12	32:RI:38:LEU:HD12	2.03	0.41
25:RA:2318:G:N2	38:RS:2:ALA:HA	2.35	0.41
41:RV:61:VAL:O	41:RV:61:VAL:CG2	2.68	0.41
42:RW:55:ALA:O	42:RW:58:ALA:HB3	2.21	0.41
44:RY:86:ARG:HA	44:RY:86:ARG:HD2	1.91	0.41
1:XA:1039:C:H6	1:XA:1039:C:OP2	2.04	0.41
1:XA:1259:C:H1'	1:XA:1283:G:H21	1.85	0.41
1:XA:1451:A:H2'	1:XA:1451:A:N3	2.36	0.41
1:XA:160:A:H2'	1:XA:161:A:O4'	2.21	0.41
1:XA:23:C:H2'	1:XA:24:U:O4'	2.20	0.41
1:XA:442:C:H2'	1:XA:443:C:C6	2.54	0.41
1:XA:53:A:N1	1:XA:54:C:C2	2.88	0.41
1:XA:126:G:H4'	1:XA:634:C:O2	2.19	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:XB:200:ILE:CG2	2:XB:201:ILE:N	2.83	0.41
3:XC:108:ASN:CG	3:XC:111:LEU:HG	2.41	0.41
3:XC:46:GLU:C	3:XC:48:TYR:H	2.23	0.41
4:XD:111:ALA:HB3	4:XD:117:ALA:HB2	2.02	0.41
4:XD:127:THR:HG23	4:XD:130:GLY:O	2.20	0.41
5:XE:68:GLU:CG	5:XE:68:GLU:O	2.68	0.41
5:XE:78:HIS:HE1	5:XE:143:ARG:N	2.12	0.41
9:X1:127:LYS:CE	22:XV:34:C:OP2	2.68	0.41
11:XK:20:TYR:N	11:XK:31:THR:O	2.54	0.41
12:XL:41:ARG:NH2	12:XL:43:VAL:HG12	2.35	0.41
12:XL:62:SER:HB2	12:XL:64:TYR:CD1	2.56	0.41
14:XN:34:TYR:CD1	14:XN:34:TYR:N	2.89	0.41
16:XP:20:VAL:CG2	16:XP:32:TYR:CD2	3.04	0.41
19:XS:39:THR:HG23	19:XS:68:GLY:O	2.21	0.41
20:XT:101:GLY:C	20:XT:103:GLY:N	2.73	0.41
20:XT:10:LEU:O	20:XT:12:ALA:N	2.53	0.41
22:XV:17:C:O2	22:XV:17:C:H2'	2.20	0.41
36:YQ:83:MET:SD	46:Y0:7:LEU:HD13	2.60	0.41
49:Y3:37:LEU:HD12	49:Y3:43:ILE:CG2	2.50	0.41
50:Y4:38:LYS:HG3	50:Y4:44:THR:OG1	2.20	0.41
50:Y4:4:GLY:O	50:Y4:5:ILE:C	2.59	0.41
54:Y8:14:VAL:CG1	54:Y8:60:LEU:HD11	2.50	0.41
25:YA:1026:U:H1'	25:YA:1027:A:C5'	2.51	0.41
25:YA:1081:U:H3'	25:YA:1082:U:C5'	2.50	0.41
25:YA:1105:U:H6	25:YA:1105:U:OP2	2.03	0.41
25:YA:1398:C:O5'	25:YA:1398:C:H6	2.03	0.41
25:YA:1432:C:H2'	25:YA:1433:U:O4'	2.20	0.41
25:YA:1508:A:O2'	25:YA:1509:C:O4'	2.35	0.41
25:YA:1674:G:H1'	25:YA:1676:A:N6	2.36	0.41
25:YA:2584:U:C6	25:YA:2585:U:C4	3.09	0.41
25:YA:2662:A:O5'	25:YA:2662:A:H8	2.03	0.41
25:YA:270(T):G:H2'	25:YA:270(U):C:C6	2.54	0.41
25:YA:2749:A:H1'	31:YH:63:SER:OG	2.21	0.41
25:YA:456:C:C5	43:YX:69:TYR:CE1	3.09	0.41
25:YA:811:U:O2	25:YA:1250:G:H5''	2.21	0.41
25:YA:947:G:N2	25:YA:971:C:C2	2.89	0.41
26:YB:89(A):A:H8	26:YB:89(A):A:O5'	2.04	0.41
27:YD:168:ARG:O	27:YD:169:GLU:HB2	2.19	0.41
25:YA:729:G:N7	27:YD:208:LYS:HB2	2.36	0.41
27:YD:269:PHE:N	27:YD:269:PHE:CD2	2.88	0.41
28:YE:161:GLY:O	28:YE:162:ALA:HB3	2.20	0.41
28:YE:54:GLN:N	28:YE:54:GLN:CD	2.73	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:YF:129:PHE:O	29:YF:142:TRP:HD1	2.03	0.41
29:YF:64:ILE:HG23	29:YF:65:TRP:CD1	2.54	0.41
33:YN:21:LYS:O	33:YN:22:THR:O	2.39	0.41
33:YN:28:THR:O	33:YN:29:LYS:C	2.59	0.41
29:YF:34:TRP:CA	35:YP:6:LEU:HD12	2.47	0.41
26:YB:116:G:H4'	38:YS:54:LEU:HD13	2.01	0.41
38:YS:66:ALA:HA	38:YS:69:VAL:CG1	2.51	0.41
38:YS:83:LYS:HE3	38:YS:84:GLN:CG	2.49	0.41
41:YV:21:ARG:HD2	41:YV:91:TYR:CE2	2.55	0.41
42:YW:14:PRO:C	42:YW:16:LYS:N	2.73	0.41
42:YW:1:MET:HG3	42:YW:2:GLU:N	2.36	0.41
42:YW:29:LEU:HD23	42:YW:29:LEU:C	2.41	0.41
43:YX:7:VAL:O	43:YX:30:VAL:CG1	2.67	0.41
45:YZ:45:ASP:O	45:YZ:49:ARG:HG2	2.20	0.41
45:YZ:5:LEU:HD12	45:YZ:7:ALA:HB2	2.01	0.41
1:QA:1079:G:H5'	5:QE:129:ILE:HG21	2.03	0.41
1:QA:1095:U:H2'	1:QA:1096:C:O4'	2.20	0.41
1:QA:1149:C:H6	1:QA:1149:C:O5'	2.03	0.41
1:QA:1219:U:OP1	14:QN:19:ARG:NH2	2.41	0.41
1:QA:1337:G:H5''	1:QA:1338:G:OP1	2.20	0.41
1:QA:1385:G:C2	1:QA:1386:G:C8	3.09	0.41
1:QA:255:G:OP1	17:QQ:69:LYS:NZ	2.54	0.41
1:QA:515:G:C5	1:QA:516:U:C5	3.08	0.41
1:QA:77:C:H42	1:QA:92:G:H1	1.68	0.41
2:QB:5:ILE:HB	2:QB:221:LEU:HD23	2.01	0.41
3:QC:78:GLY:HA3	3:QC:83:ARG:HB2	2.03	0.41
4:QD:198:VAL:CG1	4:QD:199:ASN:H	2.32	0.41
4:QD:52:SER:HB3	4:QD:55:ALA:HB3	2.00	0.41
5:QE:10:MET:CE	5:QE:13:ILE:HD13	2.51	0.41
6:QF:92:LYS:CB	6:QF:92:LYS:NZ	2.84	0.41
7:QG:103:TRP:O	7:QG:104:LEU:C	2.58	0.41
7:QG:118:VAL:HG23	7:QG:119:ARG:N	2.35	0.41
7:QG:22:LEU:O	7:QG:25:ALA:HB3	2.21	0.41
7:QG:78:ARG:NH1	7:QG:78:ARG:CG	2.84	0.41
9:QI:71:SER:O	9:QI:72:GLY:C	2.58	0.41
10:QJ:40:LEU:HB3	10:QJ:41:PRO:HD2	2.02	0.41
10:QJ:45:ARG:HB2	10:QJ:65:LEU:HB3	2.03	0.41
12:QL:53:ARG:HH12	12:QL:92:ASP:HB3	1.85	0.41
13:QM:47:ASP:O	13:QM:48:LEU:HB3	2.20	0.41
18:QR:53:ARG:O	18:QR:55:ARG:N	2.53	0.41
19:QS:41:VAL:HG12	19:QS:45:VAL:H	1.84	0.41
21:QU:2:GLY:C	21:QU:4:GLY:H	2.23	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:QV:16:C:O2'	22:QV:17:C:OP1	2.39	0.41
22:QV:21:A:N6	22:QV:46:G:H2'	2.36	0.41
46:R0:12:ASN:HB3	46:R0:13:GLY:H	1.57	0.41
50:R4:14:ILE:HA	50:R4:31:ILE:O	2.21	0.41
19:QS:5:LEU:HD21	50:R4:67:TYR:CE2	2.52	0.41
52:R6:8:LYS:O	52:R6:9:LEU:HB2	2.20	0.41
25:RA:1065:U:O2'	25:RA:1074:G:N2	2.54	0.41
25:RA:1619:G:O5'	25:RA:1619:G:H8	2.03	0.41
25:RA:1649:G:C6	25:RA:2009:G:C6	3.08	0.41
25:RA:1668:A:N7	25:RA:1674:G:C6	2.88	0.41
25:RA:1716:U:H2'	25:RA:1717:G:H8	1.84	0.41
25:RA:226:G:O2'	25:RA:227:A:H5'	2.21	0.41
25:RA:2415:G:C6	25:RA:2416:C:C4	3.08	0.41
25:RA:2259:G:H1'	25:RA:2427:C:H2'	2.01	0.41
25:RA:2871:C:H5''	25:RA:2872:G:OP1	2.20	0.41
25:RA:639:U:H2'	25:RA:640:C:H6	1.85	0.41
25:RA:78:A:H2'	25:RA:79:G:C8	2.55	0.41
25:RA:912:C:O2	25:RA:912:C:H2'	2.19	0.41
28:RE:167:VAL:CG1	28:RE:189:PRO:HD3	2.50	0.41
28:RE:93:VAL:HG21	28:RE:180:ASN:HA	2.03	0.41
28:RE:197:ILE:HD11	28:RE:199:ARG:NH1	2.30	0.41
30:RG:47:LYS:HE3	30:RG:47:LYS:HB2	1.80	0.41
35:RP:9:ASN:HB2	35:RP:10:PRO:HD2	2.03	0.41
37:RR:28:LEU:C	37:RR:28:LEU:HD13	2.40	0.41
42:RW:29:LEU:C	42:RW:29:LEU:HD23	2.41	0.41
44:RY:13:VAL:O	44:RY:24:VAL:HA	2.20	0.41
44:RY:97:ARG:HH21	44:RY:98:VAL:CG2	2.32	0.41
1:XA:104:G:O2'	1:XA:105:G:H5'	2.20	0.41
1:XA:126:G:C2	1:XA:127:G:H1'	2.55	0.41
1:XA:1410:G:C2	1:XA:1491:G:C2	3.09	0.41
1:XA:227:G:H2'	1:XA:228:A:O4'	2.19	0.41
1:XA:242:C:C2	1:XA:285:G:N2	2.88	0.41
1:XA:337:C:H2'	1:XA:338:A:H8	1.83	0.41
1:XA:402:G:C2'	1:XA:403:C:H5'	2.50	0.41
1:XA:411:A:C5	1:XA:413:G:H1'	2.55	0.41
1:XA:939:G:H2'	1:XA:940:C:H6	1.83	0.41
2:XB:231:GLU:HG3	2:XB:233:SER:H	1.86	0.41
2:XB:62:ALA:O	2:XB:65:GLY:N	2.53	0.41
2:XB:95:GLN:O	2:XB:96:ARG:C	2.59	0.41
4:XD:170:VAL:CG2	4:XD:171:GLY:H	2.17	0.41
4:XD:209:ARG:NE	4:XD:209:ARG:HA	2.36	0.41
7:XG:103:TRP:O	7:XG:104:LEU:C	2.59	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:111:ARG:HH11	7:XG:111:ARG:CB	2.23	0.41
7:XG:126:ASP:N	7:XG:126:ASP:OD2	2.53	0.41
7:XG:17:VAL:HG12	7:XG:18:TYR:CD1	2.55	0.41
8:XH:122:ARG:HH11	8:XH:122:ARG:HG3	1.85	0.41
9:XI:20:ARG:O	9:XI:21:PRO:C	2.59	0.41
9:XI:49:PRO:O	9:XI:85:LEU:HD21	2.20	0.41
10:XJ:29:ARG:O	10:XJ:30:SER:HB3	2.20	0.41
11:XK:21:ILE:HD13	11:XK:84:VAL:HG12	2.02	0.41
12:XL:8:ASN:O	12:XL:11:VAL:HG23	2.20	0.41
13:XM:13:LYS:HA	13:XM:44:ARG:CD	2.48	0.41
17:XQ:77:VAL:O	17:XQ:77:VAL:HG12	2.20	0.41
18:XR:53:ARG:O	18:XR:55:ARG:N	2.53	0.41
18:XR:74:ARG:HG2	18:XR:79:LEU:HB2	2.01	0.41
19:XS:39:THR:O	19:XS:40:ILE:HB	2.20	0.41
20:XT:89:ARG:HH12	20:XT:106:ALA:CB	2.34	0.41
47:Y1:86:SER:O	47:Y1:89:GLU:HB2	2.21	0.41
50:Y4:61:ARG:C	50:Y4:63:TYR:N	2.73	0.41
52:Y6:27:LYS:CB	52:Y6:27:LYS:NZ	2.73	0.41
54:Y8:25:MET:HB3	54:Y8:26:LYS:H	1.69	0.41
25:YA:1047:G:HO2'	25:YA:1048:A:H8	1.64	0.41
25:YA:1056:G:H5'	25:YA:1085:A:C2	2.56	0.41
25:YA:1171:G:C6	25:YA:1174:A:N6	2.89	0.41
25:YA:770:G:N3	25:YA:1354:A:H2	2.18	0.41
25:YA:1534:G:O2'	25:YA:1535:U:H4'	2.21	0.41
25:YA:1547:C:H2'	25:YA:1548:C:C6	2.55	0.41
25:YA:1627:G:H2'	25:YA:1628:G:H8	1.86	0.41
25:YA:1761:C:C4	25:YA:1762:A:N7	2.89	0.41
25:YA:1945:G:O2'	25:YA:1946:U:H5'	2.21	0.41
25:YA:2263:C:H42	25:YA:2278:A:N6	2.18	0.41
25:YA:2488:A:N6	25:YA:2489:G:C6	2.88	0.41
25:YA:2458:G:C5	25:YA:2490:G:C6	3.08	0.41
25:YA:2677:G:O2'	25:YA:2678:C:H5'	2.21	0.41
25:YA:2712:U:OP1	25:YA:2714:G:H4'	2.20	0.41
25:YA:284:U:H2'	25:YA:285:C:O4'	2.20	0.41
25:YA:301:G:C6	25:YA:317:G:C5	3.09	0.41
25:YA:465:G:C2	25:YA:466:A:C2	3.09	0.41
25:YA:747:U:O2'	42:YW:88:ARG:HG3	2.21	0.41
25:YA:873:G:H1	25:YA:904:C:H42	1.68	0.41
25:YA:915:C:O2'	26:YB:100:G:H5''	2.20	0.41
27:YD:145:VAL:O	27:YD:154:LYS:N	2.48	0.41
27:YD:158:ALA:O	27:YD:196:VAL:HG11	2.21	0.41
30:YG:22:ARG:HH22	30:YG:175:LEU:HD21	1.85	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:YG:60:LEU:HD23	30:YG:60:LEU:C	2.41	0.41
30:YG:67:LYS:NZ	50:Y4:6:HIS:CD2	2.89	0.41
30:YG:95:ARG:CA	30:YG:99:MET:HB3	2.50	0.41
31:YH:86:GLU:HG3	31:YH:165:ALA:CA	2.49	0.41
32:YI:114:LEU:HD13	32:YI:130:TYR:CD1	2.56	0.41
35:YP:12:ALA:C	35:YP:14:LYS:N	2.73	0.41
40:YU:39:LEU:O	40:YU:42:ALA:N	2.53	0.41
41:YV:38:LEU:O	41:YV:51:VAL:HA	2.20	0.41
42:YW:14:PRO:HG3	42:YW:101:SER:OG	2.21	0.41
42:YW:14:PRO:C	42:YW:18:ARG:HD2	2.41	0.41
43:YX:60:ARG:HA	43:YX:75:ASP:OD2	2.20	0.41
43:YX:83:VAL:CG1	43:YX:87:GLN:HB2	2.50	0.41
45:YZ:150:LEU:HD13	45:YZ:150:LEU:H	1.86	0.41
45:YZ:39:VAL:HG21	45:YZ:44:PHE:HB2	2.02	0.41
1:QA:198:G:C6	1:QA:220:G:C2	3.09	0.41
1:QA:132:C:C2	1:QA:231:G:N2	2.88	0.41
1:QA:310:G:H4'	16:QP:31:LYS:HD3	2.03	0.41
1:QA:448:A:C2	1:QA:449:C:C4	3.09	0.41
1:QA:767:A:H2'	1:QA:768:A:O4'	2.21	0.41
2:QB:115:LEU:O	2:QB:119:GLU:N	2.54	0.41
2:QB:71:VAL:HG23	2:QB:164:VAL:HG22	2.02	0.41
2:QB:168:THR:CG2	2:QB:192:SER:HB2	2.51	0.41
2:QB:32:ILE:HD13	2:QB:190:THR:HG21	2.03	0.41
3:QC:108:ASN:CG	3:QC:111:LEU:HG	2.41	0.41
3:QC:108:ASN:HB3	3:QC:111:LEU:CG	2.51	0.41
3:QC:55:VAL:O	3:QC:55:VAL:HG12	2.20	0.41
4:QD:120:LEU:HA	4:QD:120:LEU:HD23	1.83	0.41
4:QD:36:ARG:HA	4:QD:37:PRO:HD2	1.82	0.41
4:QD:94:LEU:HA	4:QD:97:LEU:HD12	2.01	0.41
5:QE:27:ARG:CG	5:QE:28:PHE:N	2.84	0.41
5:QE:64:ARG:CZ	5:QE:64:ARG:HB2	2.51	0.41
5:QE:6:PHE:HB2	5:QE:63:ARG:HH12	1.86	0.41
7:QG:101:LEU:O	7:QG:104:LEU:HB2	2.20	0.41
7:QG:24:THR:HA	7:QG:27:ILE:HD13	2.02	0.41
1:QA:972:C:O3'	10:QJ:57:LYS:HG2	2.21	0.41
10:QJ:71:LEU:HD12	10:QJ:72:VAL:H	1.85	0.41
12:QL:90:VAL:HG12	12:QL:92:ASP:H	1.86	0.41
13:QM:82:MET:HG2	13:QM:93:ARG:HG3	2.03	0.41
14:QN:9:LYS:HB3	14:QN:9:LYS:HE2	1.85	0.41
15:QO:74:ASP:C	15:QO:76:GLU:H	2.24	0.41
16:QP:6:LEU:N	16:QP:6:LEU:CD1	2.84	0.41
17:QQ:89:LEU:HD23	17:QQ:89:LEU:HA	1.92	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:R2:41:ILE:HD12	48:R2:43:GLN:N	2.35	0.41
54:R8:14:VAL:CG1	54:R8:60:LEU:HD11	2.50	0.41
25:RA:1050:A:C8	25:RA:2751:G:C8	3.09	0.41
25:RA:1155:A:HO2'	25:RA:1156:A:H2'	1.85	0.41
25:RA:1429:G:H2'	25:RA:1430:C:C6	2.56	0.41
25:RA:1443:G:H1	25:RA:1548:C:H42	1.69	0.41
25:RA:2338:G:N1	25:RA:2339:G:C5	2.89	0.41
25:RA:2463:C:O5'	25:RA:2463:C:H6	2.04	0.41
25:RA:2654:A:N6	25:RA:2667:C:N4	2.69	0.41
25:RA:2653:U:C2	25:RA:2668:G:N2	2.89	0.41
25:RA:312:G:C6	25:RA:313:C:N3	2.89	0.41
25:RA:556:G:C6	25:RA:557:U:C4	3.08	0.41
25:RA:668:G:N7	25:RA:670:A:C8	2.89	0.41
25:RA:780:G:C2	25:RA:782:A:C2	3.09	0.41
27:RD:12:SER:C	27:RD:14:ARG:N	2.70	0.41
29:RF:183:VAL:HG22	29:RF:184:TYR:N	2.35	0.41
31:RH:137:ASP:HB2	31:RH:140:LYS:CE	2.51	0.41
31:RH:45:VAL:O	31:RH:45:VAL:CG1	2.69	0.41
32:RI:97:ILE:HD12	32:RI:140:LEU:CD1	2.51	0.41
25:RA:1007:C:O3'	33:RN:108:PRO:HB3	2.21	0.41
33:RN:133:GLN:CB	33:RN:135:PRO:HD3	2.42	0.41
37:RR:47:PHE:O	37:RR:51:LEU:HD23	2.21	0.41
38:RS:15:ARG:O	38:RS:19:LYS:HD3	2.20	0.41
40:RU:6:THR:HG21	40:RU:10:ARG:CZ	2.50	0.41
40:RU:76:TYR:O	40:RU:80:ILE:HG12	2.21	0.41
41:RV:22:VAL:CG1	41:RV:23:GLU:H	2.32	0.41
42:RW:17:VAL:O	42:RW:18:ARG:C	2.57	0.41
44:RY:2:ARG:O	44:RY:3:VAL:O	2.38	0.41
25:RA:297:C:H5''	44:RY:85:VAL:HG21	2.03	0.41
45:RZ:4:ARG:HH12	45:RZ:58:VAL:HG21	1.86	0.41
1:XA:108:G:H5''	1:XA:109:A:C5'	2.48	0.41
1:XA:1141:C:O2'	1:XA:1142:G:H5'	2.21	0.41
1:XA:1176:A:N6	1:XA:1177:G:C6	2.89	0.41
1:XA:1221:G:H4'	19:XS:53:ASN:O	2.21	0.41
1:XA:1414:U:H2'	1:XA:1415:G:C8	2.55	0.41
1:XA:1430:C:C2	1:XA:1471:G:N2	2.89	0.41
1:XA:848:C:O5'	1:XA:848:C:H6	2.04	0.41
1:XA:892:A:C6	1:XA:907:A:C8	3.09	0.41
1:XA:998(A):C:H2'	1:XA:999:U:H6	1.85	0.41
3:XC:47:LEU:CD1	3:XC:76:VAL:HG12	2.42	0.41
4:XD:93:PHE:CE1	4:XD:97:LEU:HD11	2.55	0.41
5:XE:68:GLU:HG3	5:XE:70:PRO:HD3	2.03	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:XG:80:VAL:CG1	7:XG:81:GLY:N	2.83	0.41
7:XG:92:SER:HB3	7:XG:95:ARG:HB2	2.03	0.41
8:XH:1:MET:O	8:XH:2:LEU:HB2	2.21	0.41
9:XI:43:ALA:C	9:XI:45:ALA:N	2.73	0.41
10:XJ:45:ARG:HB2	10:XJ:65:LEU:HB3	2.03	0.41
12:XL:25:PRO:HD2	12:XL:97:ARG:HH11	1.86	0.41
16:XP:22:THR:HB	16:XP:32:TYR:HB3	2.03	0.41
18:XR:20:ALA:C	18:XR:21:LYS:HG3	2.41	0.41
19:XS:13:ASP:O	19:XS:14:HIS:O	2.39	0.41
19:XS:7:LYS:CG	19:XS:8:GLY:N	2.83	0.41
48:Y2:61:LEU:HD23	48:Y2:61:LEU:HA	1.85	0.41
1:XA:1312:G:P	50:Y4:58:ARG:HH12	2.43	0.41
25:YA:592:G:H21	54:Y8:4:MET:HE1	1.85	0.41
25:YA:1374:G:C6	25:YA:1375:C:C4	3.09	0.41
25:YA:1776:G:N3	25:YA:1777:U:C6	2.88	0.41
25:YA:1798:U:C2	25:YA:1822:G:C2	3.09	0.41
25:YA:2232:U:P	47:Y1:40:ARG:HH12	2.44	0.41
25:YA:2366:A:N6	25:YA:2367:G:C2	2.89	0.41
25:YA:2056:G:C8	25:YA:2577:A:C6	3.09	0.41
25:YA:270(U):C:H2'	25:YA:270(V):G:C8	2.56	0.41
25:YA:540:G:N3	25:YA:540:G:H2'	2.35	0.41
25:YA:705:A:C2	25:YA:727:A:H1'	2.55	0.41
25:YA:701:G:N2	25:YA:732:C:C4	2.89	0.41
25:YA:823:G:C6	25:YA:835:A:C2	3.09	0.41
25:YA:989:G:OP1	25:YA:1157:G:H4'	2.20	0.41
26:YB:101:A:H8	26:YB:101:A:OP2	2.04	0.41
27:YD:154:LYS:C	27:YD:155:LEU:HD12	2.41	0.41
28:YE:24:THR:HB	28:YE:184:VAL:HG23	2.02	0.41
28:YE:63:LEU:CD1	28:YE:64:LYS:N	2.71	0.41
30:YG:44:GLY:C	30:YG:46:ALA:N	2.73	0.41
33:YN:62:VAL:CG1	33:YN:66:LYS:HB2	2.51	0.41
34:YO:10:VAL:HG21	34:YO:16:ALA:HB3	2.03	0.41
34:YO:1:MET:HE2	34:YO:67:LYS:HG2	2.03	0.41
38:YS:53:SER:HA	38:YS:56:LEU:CD2	2.50	0.41
39:YT:28:VAL:HG23	39:YT:87:ASP:O	2.21	0.41
34:YO:71:ARG:HH11	39:YT:74:ARG:HH21	1.65	0.41
40:YU:92:ARG:O	40:YU:92:ARG:CG	2.54	0.41
42:YW:55:ALA:O	42:YW:58:ALA:HB3	2.20	0.41
44:YY:95:LYS:HZ1	44:YY:95:LYS:HB2	1.86	0.41
25:RA:2451:A:N1	56:Z6:76:PPU:HE2	2.35	0.41
1:QA:102:G:C6	1:QA:103:C:N4	2.89	0.41
1:QA:107:G:H2'	1:QA:108:G:O4'	2.20	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:151:A:H2'	1:QA:152:A:O4'	2.21	0.41
1:QA:562:C:H4'	1:QA:563:A:O5'	2.21	0.41
1:QA:612:C:O2	1:QA:629:G:N2	2.53	0.41
1:QA:674:G:C2'	1:QA:675:A:H5'	2.51	0.41
1:QA:709:G:H2'	1:QA:710:G:C8	2.51	0.41
1:QA:988:G:C6	1:QA:989:C:C4	3.09	0.41
6:QF:36:ARG:NH2	6:QF:38:GLU:HG2	2.35	0.41
7:QG:121:ALA:O	7:QG:125:MET:HG3	2.21	0.41
12:QL:109:GLY:HA3	12:QL:121:GLY:O	2.20	0.41
12:QL:62:SER:HB2	12:QL:64:TYR:CD1	2.56	0.41
13:QM:117:VAL:O	13:QM:119:GLY:N	2.53	0.41
16:QP:12:LYS:HE2	16:QP:12:LYS:HB3	1.73	0.41
16:QP:22:THR:CA	16:QP:33:ILE:HG12	2.42	0.41
17:QQ:67:LYS:O	17:QQ:68:ARG:HB3	2.21	0.41
19:QS:39:THR:HG23	19:QS:68:GLY:O	2.21	0.41
47:R1:94:LEU:HA	47:R1:94:LEU:HD23	1.81	0.41
48:R2:18:PRO:C	48:R2:20:GLU:N	2.74	0.41
54:R8:3:LYS:HB3	54:R8:3:LYS:HE2	1.82	0.41
25:RA:1530:G:H2'	25:RA:1531:C:H6	1.86	0.41
25:RA:1980:G:O2'	25:RA:1982:C:OP2	2.35	0.41
25:RA:2032:G:O4'	25:RA:2032:G:N3	2.50	0.41
25:RA:2125:G:O2'	25:RA:2173:A:N6	2.54	0.41
25:RA:2164:C:H2'	25:RA:2165:G:O4'	2.20	0.41
25:RA:2199:A:H3'	25:RA:2205:C:C6	2.55	0.41
25:RA:2308:G:H2'	25:RA:2308:G:N3	2.35	0.41
25:RA:2445:G:C2'	25:RA:2446:G:H5'	2.51	0.41
25:RA:2625:G:C2	25:RA:2626:C:C2	3.08	0.41
25:RA:2647:U:H2'	25:RA:2648:C:C6	2.56	0.41
25:RA:298:G:H5''	25:RA:299:A:OP1	2.21	0.41
25:RA:415:A:H2'	25:RA:416:C:C6	2.56	0.41
25:RA:422:A:H2'	25:RA:423:A:C8	2.56	0.41
25:RA:546:C:C5	25:RA:547:A:C4	3.08	0.41
25:RA:80:G:C2	25:RA:81:G:C4	3.09	0.41
25:RA:83:G:O2'	25:RA:84:A:C8	2.74	0.41
25:RA:870:A:H2'	25:RA:871:U:H6	1.82	0.41
27:RD:147:LEU:CD1	27:RD:155:LEU:HD21	2.51	0.41
27:RD:197:GLY:O	27:RD:198:ASN:HB3	2.21	0.41
28:RE:111:ARG:NE	28:RE:160:TYR:CE1	2.76	0.41
29:RF:46:ARG:NH1	29:RF:46:ARG:CG	2.72	0.41
30:RG:44:GLY:C	30:RG:46:ALA:N	2.73	0.41
30:RG:61:ALA:CB	30:RG:67:LYS:HA	2.50	0.41
25:RA:2311:A:C1'	30:RG:82:LEU:HD11	2.51	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:RG:95:ARG:HA	30:RG:99:MET:HB3	2.03	0.41
33:RN:10:GLU:OE2	33:RN:11:PRO:HD2	2.21	0.41
34:RO:48:PRO:O	34:RO:50:GLY:N	2.54	0.41
35:RP:55:ARG:NH2	35:RP:55:ARG:HG2	2.36	0.41
36:RQ:139:GLU:CG	36:RQ:140:ALA:N	2.84	0.41
37:RR:55:ALA:O	37:RR:58:GLY:HA3	2.21	0.41
37:RR:94:TYR:CD2	37:RR:94:TYR:N	2.87	0.41
39:RT:84:GLN:HG2	39:RT:85:LYS:N	2.36	0.41
40:RU:33:ARG:O	40:RU:37:GLU:HB2	2.21	0.41
41:RV:67:GLY:O	41:RV:68:LYS:C	2.59	0.41
42:RW:14:PRO:C	42:RW:18:ARG:HD2	2.41	0.41
42:RW:96:ILE:O	42:RW:96:ILE:CG2	2.68	0.41
43:RX:83:VAL:CG1	43:RX:87:GLN:HB2	2.50	0.41
1:XA:1015:A:H2'	1:XA:1016:A:H8	1.85	0.41
1:XA:259:G:C2	1:XA:260:G:H1'	2.55	0.41
1:XA:304:U:H2'	1:XA:305:G:C8	2.56	0.41
1:XA:677:U:H1'	11:XK:119:CYS:SG	2.60	0.41
1:XA:688:G:H2'	1:XA:689:C:O4'	2.20	0.41
2:XB:115:LEU:O	2:XB:119:GLU:N	2.54	0.41
2:XB:204:ASN:HD22	2:XB:204:ASN:C	2.22	0.41
2:XB:212:GLN:O	2:XB:212:GLN:NE2	2.54	0.41
2:XB:87:ARG:HH11	2:XB:223:ILE:HD11	1.82	0.41
3:XC:70:VAL:HG12	3:XC:71:ALA:H	1.84	0.41
4:XD:178:VAL:HG12	4:XD:179:GLU:N	2.35	0.41
5:XE:26:PHE:N	5:XE:26:PHE:CD1	2.88	0.41
8:XH:109:ILE:HG13	8:XH:120:THR:HB	2.03	0.41
9:XI:113:LYS:H	9:XI:113:LYS:CD	2.28	0.41
12:XL:38:THR:HG22	12:XL:57:LYS:HB3	2.01	0.41
12:XL:62:SER:O	12:XL:64:TYR:N	2.54	0.41
12:XL:90:VAL:HG12	12:XL:92:ASP:H	1.85	0.41
13:XM:110:ARG:HG3	13:XM:110:ARG:O	2.20	0.41
14:XN:15:LYS:HD3	14:XN:15:LYS:HA	1.86	0.41
15:XO:69:TYR:CZ	15:XO:73:GLU:HG3	2.55	0.41
17:XQ:11:VAL:HG23	17:XQ:12:SER:H	1.85	0.41
53:Y7:24:THR:HB	53:Y7:25:PRO:HD2	2.03	0.41
54:Y8:56:GLU:C	54:Y8:58:ILE:N	2.73	0.41
25:YA:1445:C:H2'	25:YA:1446:C:H6	1.86	0.41
25:YA:1519:G:C5	25:YA:1520:U:C5	3.08	0.41
25:YA:1797:C:C2'	25:YA:1798:U:H5'	2.51	0.41
25:YA:2212:A:H1'	25:YA:2215:G:C5	2.56	0.41
25:YA:222:A:H2'	25:YA:222:A:H8	1.76	0.41
25:YA:2417:C:O2'	25:YA:2418:A:H5'	2.20	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2487:G:H2'	25:YA:2488:A:O4'	2.21	0.41
25:YA:2610:C:H4'	25:YA:2611:U:OP2	2.21	0.41
25:YA:2680:C:O2'	25:YA:2681:C:H5'	2.21	0.41
25:YA:2702:U:O2	25:YA:2702:U:H2'	2.20	0.41
25:YA:460:A:C2	25:YA:470:A:C4	3.09	0.41
25:YA:554:U:H2'	25:YA:556:G:H8	1.85	0.41
26:YB:55:U:N3	26:YB:56:G:N7	2.69	0.41
27:YD:197:GLY:O	27:YD:198:ASN:HB3	2.21	0.41
27:YD:215:LEU:HG	27:YD:215:LEU:H	1.59	0.41
28:YE:11:MET:HE3	28:YE:186:GLY:HA2	2.03	0.41
28:YE:36:ARG:O	28:YE:37:ARG:C	2.59	0.41
31:YH:169:VAL:HG22	31:YH:170:ARG:N	2.26	0.41
34:YO:48:PRO:O	34:YO:50:GLY:N	2.54	0.41
36:YQ:90:VAL:C	36:YQ:92:GLY:N	2.71	0.41
42:YW:68:ARG:O	42:YW:110:LYS:N	2.46	0.41
45:YZ:1:MET:HG2	45:YZ:2:GLU:N	2.35	0.41
1:QA:1162:C:C2	1:QA:1175:G:N2	2.88	0.41
1:QA:1092:A:C2	1:QA:1183:A:C2	3.09	0.41
1:QA:1238:A:H62	1:QA:1299:A:N6	2.18	0.41
1:QA:129(A):G:H4'	1:QA:130:A:H5''	2.02	0.41
1:QA:18:C:O3'	5:QE:127:ASN:ND2	2.49	0.41
1:QA:199:G:C2'	1:QA:200:G:H5'	2.50	0.41
1:QA:587:G:C2	1:QA:755:G:C5	3.09	0.41
1:QA:724:G:H2'	1:QA:725:G:C8	2.52	0.41
1:QA:855:G:H2'	1:QA:856:C:C6	2.55	0.41
2:QB:223:ILE:O	2:QB:226:ARG:HB3	2.21	0.41
3:QC:23:TYR:CD2	3:QC:24:ALA:N	2.88	0.41
6:QF:3:ARG:HB3	6:QF:93:SER:CB	2.47	0.41
8:QH:38:ILE:CD1	8:QH:118:VAL:HG12	2.49	0.41
9:QI:88:TYR:O	9:QI:89:ASN:HB2	2.20	0.41
12:QL:43:VAL:HG13	12:QL:55:VAL:HG21	2.03	0.41
12:QL:8:ASN:O	12:QL:11:VAL:HG23	2.20	0.41
13:QM:8:GLU:C	13:QM:9:ILE:CG2	2.90	0.41
14:QN:26:ARG:HB3	14:QN:27:CYS:H	1.64	0.41
15:QO:69:TYR:CZ	15:QO:73:GLU:HG3	2.56	0.41
15:QO:25:THR:CG2	15:QO:70:LEU:HB2	2.48	0.41
17:QQ:11:VAL:HG23	17:QQ:12:SER:H	1.85	0.41
19:QS:4:SER:O	19:QS:5:LEU:HD13	2.20	0.41
47:R1:18:ILE:HG22	47:R1:18:ILE:O	2.21	0.41
48:R2:65:ASN:O	48:R2:66:GLU:C	2.59	0.41
53:R7:24:THR:HB	53:R7:25:PRO:HD2	2.03	0.41
25:RA:1008:C:N4	25:RA:1136:G:C6	2.89	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:1110:G:H2'	25:RA:1111:A:C8	2.56	0.41
25:RA:1132:A:O2'	25:RA:1133:U:H5'	2.20	0.41
25:RA:51:G:N2	25:RA:120:U:O2'	2.53	0.41
25:RA:1268:A:C2	25:RA:2013:A:C4	3.08	0.41
25:RA:1821:A:H8	25:RA:1821:A:O5'	2.04	0.41
25:RA:2152:G:H2'	25:RA:2153:G:C8	2.51	0.41
25:RA:2256:G:C2	25:RA:2275:C:N4	2.89	0.41
25:RA:304:G:N1	25:RA:305:U:C2	2.89	0.41
25:RA:370:G:H3'	25:RA:423:A:C2	2.56	0.41
25:RA:951:C:O2'	25:RA:952:G:H5'	2.21	0.41
25:RA:959:A:N3	25:RA:2457:U:O2'	2.45	0.41
25:RA:978:G:H1	25:RA:985:C:N4	2.19	0.41
26:RB:42:C:N4	26:RB:43:C:C4	2.89	0.41
27:RD:177:LEU:C	27:RD:179:SER:H	2.23	0.41
28:RE:4:ILE:HG22	28:RE:198:VAL:HB	2.02	0.41
30:RG:67:LYS:NZ	50:R4:6:HIS:CD2	2.89	0.41
32:RI:16:GLY:O	32:RI:18:VAL:HG23	2.21	0.41
33:RN:58:ASP:HB3	33:RN:95:PRO:HB3	2.02	0.41
34:RO:10:VAL:HG21	34:RO:16:ALA:HB3	2.03	0.41
35:RP:66:GLY:O	35:RP:67:MET:CB	2.63	0.41
36:RQ:20:ALA:HB1	36:RQ:99:PRO:CG	2.51	0.41
38:RS:100:ALA:CA	38:RS:103:GLU:HG2	2.49	0.41
38:RS:66:ALA:HA	38:RS:69:VAL:CG1	2.51	0.41
39:RT:28:VAL:HG23	39:RT:87:ASP:O	2.21	0.41
39:RT:76:PHE:HA	39:RT:77:PRO:HD3	1.75	0.41
40:RU:57:PHE:O	40:RU:60:LEU:N	2.54	0.41
42:RW:14:PRO:HG3	42:RW:101:SER:OG	2.21	0.41
42:RW:1:MET:HG3	42:RW:2:GLU:N	2.36	0.41
44:RY:43:ASN:O	44:RY:43:ASN:OD1	2.39	0.41
1:XA:1221:G:O3'	19:XS:77:THR:CG2	2.68	0.41
1:XA:1310:G:N2	1:XA:1328:C:C2	2.89	0.41
1:XA:1502:A:H2	1:XA:1505:G:N2	2.18	0.41
1:XA:1523:G:C5	1:XA:1524:C:C5	3.09	0.41
1:XA:456:C:H2'	1:XA:457:C:H6	1.86	0.41
1:XA:746:A:H8	1:XA:746:A:O5'	2.04	0.41
1:XA:921:U:C4	1:XA:922:G:N7	2.89	0.41
2:XB:114:ARG:O	2:XB:118:LEU:HG	2.21	0.41
2:XB:95:GLN:HB3	2:XB:148:TYR:HD1	1.84	0.41
4:XD:101:LEU:CD2	4:XD:121:VAL:HG11	2.50	0.41
4:XD:15:GLU:OE1	4:XD:15:GLU:N	2.54	0.41
8:XH:33:GLU:O	8:XH:36:LEU:N	2.53	0.41
9:XI:105:ASP:C	9:XI:107:ARG:N	2.74	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:XJ:54:PHE:CZ	10:XJ:55:LYS:CE	3.04	0.41
13:XM:117:VAL:CG2	13:XM:118:ALA:H	2.31	0.41
13:XM:15:VAL:O	13:XM:19:LEU:HD22	2.21	0.41
1:XA:582:U:H5'	15:XO:64:ARG:NH2	2.35	0.41
17:XQ:86:GLU:O	17:XQ:87:LYS:C	2.59	0.41
1:XA:1320:C:C5'	19:XS:70:LYS:HG3	2.51	0.41
48:Y2:41:ILE:HD12	48:Y2:43:GLN:N	2.35	0.41
48:Y2:53:LEU:O	48:Y2:57:ILE:HG13	2.21	0.41
50:Y4:26:SER:C	50:Y4:27:THR:O	2.58	0.41
52:Y6:8:LYS:O	52:Y6:9:LEU:HB2	2.21	0.41
25:YA:2756:U:OP2	55:Y9:19:ARG:CZ	2.68	0.41
25:YA:1042:G:C2	25:YA:1043:C:C2	3.08	0.41
25:YA:1187:G:H5''	41:YV:81:TYR:HE2	1.76	0.41
25:YA:1858:G:O2'	25:YA:1884:A:N6	2.53	0.41
25:YA:219:G:H2'	25:YA:220:G:O4'	2.20	0.41
25:YA:2406:U:O4'	35:YP:75:ILE:HG22	2.21	0.41
25:YA:2537:U:H2'	25:YA:2538:C:H6	1.83	0.41
25:YA:2641:G:H2'	25:YA:2642:G:O4'	2.20	0.41
25:YA:2688:U:H1'	25:YA:2721:A:H61	1.85	0.41
25:YA:2720:U:H2'	25:YA:2721:A:C8	2.56	0.41
25:YA:596:G:H2'	25:YA:597:U:O4'	2.20	0.41
25:YA:871:U:H5'	25:YA:872:A:P	2.60	0.41
25:YA:918:A:H1'	26:YB:80:U:O2'	2.21	0.41
25:YA:2208:U:H1'	27:YD:151:LYS:HE2	2.03	0.41
28:YE:62:PRO:O	28:YE:63:LEU:C	2.59	0.41
29:YF:13:SER:OG	29:YF:14:PRO:HD2	2.21	0.41
29:YF:68:LYS:O	29:YF:69:HIS:HB2	2.21	0.41
30:YG:78:SER:O	30:YG:79:ASN:C	2.59	0.41
31:YH:145:ALA:O	31:YH:148:ILE:HB	2.21	0.41
31:YH:146:ALA:HB2	31:YH:164:TYR:OH	2.21	0.41
35:YP:101:VAL:O	35:YP:103:ALA:N	2.53	0.41
35:YP:18:ARG:HD2	35:YP:27:HIS:CD2	2.56	0.41
37:YR:29:LEU:HD11	37:YR:48:VAL:CG1	2.50	0.41
37:YR:55:ALA:O	37:YR:58:GLY:HA3	2.21	0.41
40:YU:57:PHE:O	40:YU:60:LEU:N	2.54	0.41
40:YU:91:ASP:OD2	40:YU:96:ALA:CA	2.69	0.41
43:YX:54:VAL:C	43:YX:55:ASN:HD22	2.24	0.41
44:YY:13:VAL:O	44:YY:24:VAL:HA	2.20	0.41
44:YY:2:ARG:O	44:YY:3:VAL:O	2.38	0.41
1:QA:1118:C:H1'	1:QA:1179:A:C5	2.56	0.41
1:QA:1160:G:H2'	1:QA:1161:C:O5'	2.20	0.41
1:QA:1275:A:C2	1:QA:1276:G:H1'	2.56	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1404:C:H2'	1:QA:1405:G:C8	2.56	0.41
1:QA:572:A:C2	1:QA:916:G:N2	2.89	0.41
1:QA:946:A:H2'	1:QA:947:G:C8	2.56	0.41
2:QB:17:PHE:HB2	2:QB:42:ILE:CG2	2.50	0.41
3:QC:47:LEU:CD1	3:QC:76:VAL:HG12	2.42	0.41
6:QF:75:LEU:HD23	6:QF:75:LEU:C	2.41	0.41
7:QG:87:VAL:HG11	7:QG:155:ARG:HA	2.03	0.41
8:QH:6:ILE:HB	8:QH:85:ARG:HH11	1.74	0.41
9:QI:9:ARG:CG	9:QI:14:VAL:HG22	2.51	0.41
12:QL:89:ARG:HB3	12:QL:97:ARG:HA	2.02	0.41
13:QM:110:ARG:O	13:QM:110:ARG:HG3	2.20	0.41
13:QM:15:VAL:O	13:QM:19:LEU:HD22	2.21	0.41
13:QM:28:ALA:C	13:QM:30:ALA:H	2.25	0.41
14:QN:18:VAL:CG2	14:QN:19:ARG:H	2.32	0.41
15:QO:50:HIS:O	15:QO:53:HIS:HB3	2.20	0.41
16:QP:50:LYS:C	16:QP:50:LYS:HD3	2.42	0.41
17:QQ:51:TYR:HA	17:QQ:52:LYS:HZ2	1.85	0.41
17:QQ:60:ILE:HG23	17:QQ:60:ILE:O	2.21	0.41
46:R0:40:GLN:OE1	46:R0:45:PHE:N	2.54	0.41
48:R2:48:HIS:O	48:R2:49:LYS:C	2.57	0.41
25:RA:1401:G:C6	25:RA:1402:C:C4	3.09	0.41
25:RA:1484:G:H2'	25:RA:1485:G:H5''	2.03	0.41
25:RA:1579:A:H2'	25:RA:1580:A:O4'	2.20	0.41
25:RA:1271:G:N2	25:RA:1617:C:O4'	2.54	0.41
25:RA:1694:C:H4'	25:RA:1695:G:O5'	2.20	0.41
25:RA:1837:C:C2	25:RA:1903:G:N2	2.83	0.41
25:RA:194:G:H2'	25:RA:195:A:O4'	2.21	0.41
25:RA:224:G:H2'	25:RA:225:A:O4'	2.21	0.41
25:RA:2287:A:N6	25:RA:2344:U:N3	2.66	0.41
25:RA:2351:G:H2'	25:RA:2365:G:N2	2.36	0.41
25:RA:2250:G:H8	25:RA:2496:C:H5''	1.82	0.41
25:RA:24:G:C5	25:RA:25:U:C5	3.09	0.41
25:RA:2633:G:H1'	28:RE:62:PRO:HG2	2.03	0.41
25:RA:2767:C:H2'	25:RA:2768:C:C6	2.55	0.41
25:RA:2795:G:H3'	25:RA:2797:U:C5'	2.50	0.41
25:RA:312:G:H5''	25:RA:313:C:OP2	2.20	0.41
25:RA:503:A:C4	25:RA:506:G:N7	2.89	0.41
25:RA:529:A:N3	25:RA:529:A:H2'	2.36	0.41
25:RA:537:C:H5'	25:RA:539:G:OP2	2.20	0.41
25:RA:658:C:H2'	25:RA:659:C:C6	2.55	0.41
25:RA:893:C:H5'	25:RA:894:C:OP2	2.21	0.41
25:RA:944:G:H5''	25:RA:945:A:O5'	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:RD:145:VAL:CG1	27:RD:146:GLU:N	2.83	0.41
27:RD:272:ALA:HB1	27:RD:273:ARG:H	1.58	0.41
28:RE:161:GLY:O	28:RE:162:ALA:HB3	2.20	0.41
28:RE:51:PHE:CG	28:RE:52:LEU:N	2.89	0.41
30:RG:7:LEU:CD2	30:RG:176:LEU:HD22	2.45	0.41
30:RG:95:ARG:CA	30:RG:99:MET:HB3	2.50	0.41
32:RI:88:ILE:H	32:RI:88:ILE:HG12	1.46	0.41
33:RN:133:GLN:C	33:RN:134:ARG:HG2	2.41	0.41
33:RN:56:ASN:ND2	33:RN:126:PRO:N	2.69	0.41
34:RO:2:ILE:HG12	34:RO:8:LEU:HD11	2.02	0.41
35:RP:101:VAL:HG23	35:RP:106:LEU:HB3	2.03	0.41
36:RQ:27:VAL:HG22	36:RQ:105:GLU:CD	2.41	0.41
36:RQ:76:LYS:HB3	36:RQ:90:VAL:CG1	2.51	0.41
38:RS:6:ALA:O	38:RS:10:ARG:HD3	2.21	0.41
40:RU:83:LEU:CD1	40:RU:113:ALA:HB2	2.50	0.41
42:RW:50:VAL:O	42:RW:53:SER:N	2.50	0.41
44:RY:49:VAL:O	44:RY:50:ARG:C	2.59	0.41
1:XA:1039:C:H2'	1:XA:1040:U:O4'	2.20	0.41
1:XA:1068:G:C8	1:XA:1094:G:C8	3.08	0.41
1:XA:1118:C:OP1	9:XI:9:ARG:HD3	2.21	0.41
1:XA:1175:G:H2'	1:XA:1176:A:C8	2.55	0.41
1:XA:1221:G:C6	1:XA:1222:G:C5	3.08	0.41
1:XA:1244:C:H2'	1:XA:1245:A:H8	1.86	0.41
1:XA:189:U:O2	17:XQ:63:ARG:NH2	2.54	0.41
1:XA:51:A:C6	1:XA:353:A:C2	3.09	0.41
1:XA:960:U:C2	1:XA:1225:A:C8	3.08	0.41
3:XC:19:GLU:HA	3:XC:54:ARG:NH1	2.14	0.41
3:XC:47:LEU:HD11	3:XC:76:VAL:CG1	2.42	0.41
4:QD:27:TYR:CZ	6:XF:15:ASP:OD2	2.69	0.41
7:XG:118:VAL:HG23	7:XG:119:ARG:N	2.35	0.41
8:XH:33:GLU:C	8:XH:35:ILE:H	2.25	0.41
9:XI:10:ARG:CG	9:XI:105:ASP:HB2	2.51	0.41
12:XL:21:LYS:N	12:XL:21:LYS:CD	2.83	0.41
12:XL:91:LYS:HE2	12:XL:91:LYS:HB2	1.76	0.41
13:XM:117:VAL:O	13:XM:119:GLY:N	2.53	0.41
1:XA:728:A:C5	15:XO:54:ARG:HD2	2.56	0.41
18:XR:73:ALA:HB3	18:XR:79:LEU:CD1	2.47	0.41
30:YG:112:PRO:CA	50:Y4:37:SER:HB2	2.51	0.41
50:Y4:60:GLN:HB3	50:Y4:61:ARG:H	1.56	0.41
54:Y8:40:GLU:O	54:Y8:42:ARG:N	2.54	0.41
25:YA:1376:C:O2'	25:YA:1377:G:H5'	2.20	0.41
25:YA:1494:A:C6	25:YA:1495:A:C5	3.08	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1537:C:H2'	25:YA:1538:G:O4'	2.21	0.41
25:YA:1564:C:O2'	25:YA:1565:C:H5'	2.21	0.41
25:YA:1576:U:H2'	25:YA:1577:C:H6	1.86	0.41
25:YA:1637:A:C6	25:YA:1638:C:C4	3.09	0.41
25:YA:1859:A:N6	25:YA:1883:G:O2'	2.54	0.41
25:YA:18:C:N3	25:YA:522:G:N1	2.63	0.41
25:YA:2056:G:C5	25:YA:2577:A:C4	3.08	0.41
25:YA:2197:U:O2'	25:YA:2198:A:H2'	2.21	0.41
25:YA:2290:G:C6	25:YA:2291:U:C4	3.09	0.41
25:YA:2550:G:C5	25:YA:2551:C:C5	3.08	0.41
25:YA:2693:A:H2'	25:YA:2694:G:C8	2.55	0.41
25:YA:270(T):G:H2'	25:YA:270(U):C:H6	1.86	0.41
25:YA:373:U:H1'	25:YA:423:A:N3	2.36	0.41
25:YA:38:A:H1'	29:YF:48:THR:OG1	2.21	0.41
25:YA:456:C:N4	43:YX:69:TYR:CE2	2.89	0.41
25:YA:48:G:H22	25:YA:177:G:H5'	1.86	0.41
25:YA:534:U:O2	40:YU:49:HIS:CE1	2.73	0.41
25:YA:826:U:H2'	25:YA:828:U:O4'	2.21	0.41
25:YA:867:C:C4	25:YA:868:U:C4	3.09	0.41
27:YD:117:VAL:HG22	27:YD:118:VAL:N	2.35	0.41
30:YG:18:GLU:OE2	30:YG:18:GLU:HA	2.21	0.41
30:YG:53:LEU:CD1	30:YG:87:PRO:HB2	2.51	0.41
31:YH:137:ASP:HB2	31:YH:140:LYS:CE	2.51	0.41
31:YH:146:ALA:HA	31:YH:164:TYR:OH	2.20	0.41
32:YI:109:ILE:HB	32:YI:130:TYR:OH	2.21	0.41
33:YN:101:HIS:HD2	33:YN:102:ALA:N	2.19	0.41
33:YN:9:VAL:HB	33:YN:10:GLU:H	1.70	0.41
35:YP:101:VAL:HG23	35:YP:106:LEU:HB3	2.03	0.41
41:YV:38:LEU:CD1	41:YV:55:ALA:CB	2.99	0.41
44:YY:49:VAL:O	44:YY:50:ARG:C	2.59	0.41
45:YZ:103:ARG:HD3	45:YZ:138:GLU:OE1	2.20	0.41
1:QA:1074:G:H5''	1:QA:1075:C:OP2	2.21	0.41
1:QA:1431:C:C2	1:QA:1470:G:N2	2.90	0.41
1:QA:157:G:H1	1:QA:164:U:H3	1.69	0.41
1:QA:63:C:OP1	1:QA:383:A:N6	2.53	0.41
1:QA:668:G:O2'	1:QA:669:U:H5'	2.21	0.41
1:QA:759:A:H2'	1:QA:760:G:H5'	2.03	0.41
2:QB:143:GLU:O	2:QB:147:LYS:HB2	2.21	0.41
3:QC:129:ALA:C	3:QC:131:ARG:N	2.72	0.41
4:QD:15:GLU:OE1	4:QD:15:GLU:N	2.54	0.41
4:QD:199:ASN:OD1	4:QD:201:GLN:HB3	2.21	0.41
4:QD:29:PRO:HD2	4:QD:30:LYS:HE2	2.03	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:QE:101:ILE:HD13	5:QE:118:ILE:O	2.21	0.41
5:QE:82:VAL:HG12	5:QE:83:GLU:H	1.77	0.41
12:QL:53:ARG:HH12	12:QL:92:ASP:CB	2.33	0.41
15:QO:3:ILE:H	15:QO:3:ILE:CD1	2.20	0.41
17:QQ:86:GLU:O	17:QQ:87:LYS:C	2.59	0.41
19:QS:29:ARG:NH1	19:QS:29:ARG:HG2	2.36	0.41
19:QS:31:ILE:HG23	19:QS:31:ILE:O	2.21	0.41
50:R4:63:TYR:O	50:R4:65:ASP:N	2.54	0.41
54:R8:64:TYR:HB3	54:R8:65:GLU:H	1.40	0.41
25:RA:1123:C:H2'	25:RA:1124:C:C6	2.56	0.41
25:RA:1130:U:O2'	25:RA:1131:G:O5'	2.36	0.41
25:RA:1188:U:H2'	25:RA:1189:A:H5'	2.03	0.41
25:RA:816:C:N4	25:RA:1192:G:N1	2.68	0.41
25:RA:1350:C:C2'	25:RA:1351:C:H5'	2.51	0.41
25:RA:188:G:N2	25:RA:209:C:C2	2.89	0.41
25:RA:1910:G:N2	25:RA:1921:G:C4	2.89	0.41
25:RA:229:A:OP1	25:RA:229:A:H4'	2.21	0.41
25:RA:2305:A:H2'	25:RA:2306:C:C6	2.56	0.41
25:RA:2331:G:H4'	46:R0:43:THR:N	2.36	0.41
25:RA:244:A:C8	25:RA:245:G:C8	3.09	0.41
25:RA:2536:G:H2'	25:RA:2537:U:O4'	2.21	0.41
25:RA:2563:U:O2	25:RA:2565:A:H8	2.04	0.41
25:RA:303:U:O5'	25:RA:303:U:H6	2.02	0.41
25:RA:553:U:H2'	25:RA:554:U:O4'	2.21	0.41
25:RA:581:C:N4	25:RA:582:G:O6	2.53	0.41
25:RA:663:G:C6	25:RA:664:C:C4	3.09	0.41
25:RA:921:G:H2'	25:RA:922:U:O4'	2.20	0.41
26:RB:14:U:H2'	26:RB:15:A:C2	2.56	0.41
26:RB:46:A:C4	26:RB:47:C:C6	3.08	0.41
26:RB:54:G:H2'	26:RB:55:U:H5'	2.03	0.41
27:RD:154:LYS:C	27:RD:155:LEU:HD12	2.41	0.41
27:RD:31:LYS:O	27:RD:32:SER:O	2.39	0.41
28:RE:147:PRO:HB2	28:RE:149:ARG:HG2	2.03	0.41
31:RH:145:ALA:O	31:RH:148:ILE:HB	2.21	0.41
31:RH:26:VAL:HG12	31:RH:33:LEU:HB2	2.03	0.41
34:RO:20:MET:O	34:RO:41:ALA:CB	2.67	0.41
34:RO:31:LYS:C	34:RO:32:TYR:CD2	2.94	0.41
34:RO:47:ILE:HD12	34:RO:48:PRO:CD	2.43	0.41
35:RP:65:ARG:C	35:RP:66:GLY:O	2.59	0.41
36:RQ:139:GLU:HG2	36:RQ:140:ALA:N	2.36	0.41
36:RQ:39:PRO:HA	36:RQ:97:VAL:O	2.21	0.41
36:RQ:52:VAL:O	36:RQ:53:ALA:C	2.59	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:RR:22:ARG:O	37:RR:26:LYS:HG3	2.21	0.41
40:RU:27:LEU:C	40:RU:29:SER:N	2.74	0.41
42:RW:14:PRO:C	42:RW:16:LYS:N	2.73	0.41
1:XA:1044:A:C5	1:XA:1045:C:H1'	2.56	0.41
1:XA:1104:G:N2	1:XA:1105:A:H1'	2.36	0.41
1:XA:1285:A:H4'	1:XA:1286:A:C5'	2.50	0.41
1:XA:1415:G:H2'	1:XA:1416:G:C8	2.55	0.41
1:XA:148:G:H1	1:XA:174:C:H42	1.68	0.41
1:XA:357:G:C2	1:XA:358:U:C5	3.09	0.41
1:XA:453:A:H4'	16:XP:72:ARG:HB2	2.03	0.41
1:XA:484:G:N7	1:XA:486:U:C2	2.89	0.41
1:XA:700:G:H4'	1:XA:704:A:H1'	2.03	0.41
1:XA:775:G:H2'	1:XA:776:G:C8	2.56	0.41
5:XE:132:ALA:O	5:XE:133:TYR:C	2.59	0.41
5:XE:90:VAL:C	5:XE:91:LEU:HD12	2.42	0.41
11:XK:31:THR:O	11:XK:31:THR:HG23	2.21	0.41
12:XL:117:ARG:HB3	12:XL:122:THR:HB	2.02	0.41
13:XM:54:VAL:HG12	13:XM:54:VAL:O	2.21	0.41
14:XN:44:LEU:HD12	14:XN:53:LEU:HD12	1.94	0.41
14:XN:43:CYS:C	14:XN:45:ARG:N	2.73	0.41
15:XO:11:VAL:O	15:XO:12:ILE:C	2.60	0.41
16:XP:50:LYS:HD3	16:XP:51:VAL:O	2.21	0.41
16:XP:8:ARG:HG2	16:XP:8:ARG:NH1	2.31	0.41
17:XQ:63:ARG:HG2	17:XQ:64:PRO:HD2	2.03	0.41
17:XQ:94:ASN:O	17:XQ:97:SER:N	2.53	0.41
19:XS:3:ARG:CG	19:XS:4:SER:N	2.83	0.41
22:XV:23:C:H2'	22:XV:24:U:C6	2.55	0.41
47:Y1:82:LEU:HD13	47:Y1:83:GLU:C	2.36	0.41
47:Y1:85:LEU:N	47:Y1:85:LEU:CD2	2.84	0.41
48:Y2:11:GLU:HA	48:Y2:14:ARG:HD2	2.02	0.41
48:Y2:65:ASN:O	48:Y2:66:GLU:C	2.59	0.41
50:Y4:64:GLY:C	50:Y4:66:SER:N	2.73	0.41
52:Y6:6:ARG:NE	52:Y6:6:ARG:HA	2.35	0.41
25:YA:1033:U:H2'	25:YA:1033:U:H6	1.67	0.41
25:YA:1085:A:C2	25:YA:1086:A:C8	3.09	0.41
25:YA:1423:G:O2'	25:YA:1424:G:H5'	2.21	0.41
25:YA:153:C:O5'	25:YA:153:C:H6	2.04	0.41
25:YA:1654:A:H2'	25:YA:1655:A:H8	1.86	0.41
25:YA:1729:A:HO2'	25:YA:1730:U:P	2.44	0.41
25:YA:191:A:O5'	25:YA:191:A:H8	2.04	0.41
25:YA:910:A:H2	25:YA:2264:C:O2	2.03	0.41
25:YA:2391:G:OP2	54:Y8:32:LEU:HD13	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2457:U:C2'	25:YA:2458:G:H5'	2.51	0.41
25:YA:2472:G:H22	25:YA:2477:C:H5'	1.85	0.41
25:YA:2864:G:N2	25:YA:2865:U:O2	2.54	0.41
25:YA:374:A:H3'	25:YA:375:C:C6	2.56	0.41
25:YA:48:G:C2	25:YA:178:G:C5	3.09	0.41
25:YA:690:G:H2'	25:YA:691:C:O4'	2.21	0.41
25:YA:730:C:OP2	25:YA:731:C:OP2	2.38	0.41
25:YA:784:A:C5	27:YD:229:VAL:HG21	2.56	0.41
26:YB:4:C:H42	26:YB:116:G:H1	1.68	0.41
26:YB:40:U:N3	26:YB:43:C:H5''	2.23	0.41
26:YB:55:U:C2	26:YB:56:G:C8	3.09	0.41
27:YD:147:LEU:CD1	27:YD:155:LEU:HD21	2.51	0.41
27:YD:228:PRO:HD3	27:YD:234:GLY:O	2.21	0.41
27:YD:31:LYS:O	27:YD:32:SER:O	2.39	0.41
27:YD:68:LYS:HG3	27:YD:68:LYS:O	2.20	0.41
29:YF:59:TYR:HB3	29:YF:60:SER:H	1.70	0.41
31:YH:20:ALA:HB3	31:YH:23:ARG:HG2	2.03	0.41
31:YH:45:VAL:O	31:YH:45:VAL:CG1	2.69	0.41
32:YI:92:VAL:HG13	32:YI:120:ILE:CG2	2.39	0.41
34:YO:31:LYS:HD3	34:YO:31:LYS:HA	1.92	0.41
37:YR:61:HIS:CE1	37:YR:65:LEU:HD11	2.56	0.41
38:YS:93:LYS:HE3	38:YS:93:LYS:HB2	1.93	0.41
39:YT:76:PHE:HA	39:YT:77:PRO:HD3	1.75	0.41
40:YU:57:PHE:O	40:YU:58:ARG:C	2.59	0.41
40:YU:5:LYS:C	40:YU:7:GLY:N	2.74	0.41
33:YN:1:MET:HE3	40:YU:95:LEU:HD21	1.98	0.41
45:YZ:24:LEU:HA	45:YZ:25:PRO:HD3	1.88	0.41
1:QA:1157:A:O2'	1:QA:1158:C:H5''	2.21	0.40
1:QA:1053:G:H2'	1:QA:1199:U:H5	1.86	0.40
1:QA:1313:U:OP1	19:QS:5:LEU:HB2	2.21	0.40
1:QA:219:C:C4	1:QA:220:G:C8	3.08	0.40
1:QA:385:C:H2'	1:QA:386:C:O4'	2.21	0.40
1:QA:654:G:C2	1:QA:753:A:C4	3.08	0.40
1:QA:97:U:H2'	1:QA:99:C:C6	2.55	0.40
2:QB:212:GLN:O	2:QB:212:GLN:NE2	2.54	0.40
3:QC:140:ARG:NH1	3:QC:140:ARG:HB2	2.36	0.40
3:QC:46:GLU:C	3:QC:48:TYR:H	2.23	0.40
3:QC:92:ALA:HB2	3:QC:99:VAL:HG13	2.04	0.40
5:QE:153:LYS:HD3	5:QE:153:LYS:C	2.41	0.40
5:QE:90:VAL:C	5:QE:91:LEU:HD12	2.42	0.40
8:QH:97:VAL:O	8:QH:100:ILE:HG13	2.21	0.40
8:QH:18:ARG:HA	8:QH:18:ARG:HD2	1.92	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:QH:1:MET:O	8:QH:2:LEU:HB2	2.21	0.40
9:QI:13:ALA:H	9:QI:68:GLY:HA3	1.86	0.40
9:QI:49:PRO:O	9:QI:85:LEU:HD21	2.20	0.40
10:QJ:101:VAL:HG13	10:QJ:101:VAL:O	2.21	0.40
11:QK:83:ILE:HG12	11:QK:109:VAL:CG2	2.51	0.40
13:QM:39:ILE:CD1	13:QM:56:LEU:HB2	2.51	0.40
20:QT:47:GLY:C	20:QT:49:ALA:N	2.72	0.40
46:R0:36:ILE:HD13	46:R0:36:ILE:O	2.21	0.40
46:R0:64:ASP:HB3	46:R0:65:GLY:H	1.61	0.40
47:R1:85:LEU:N	47:R1:85:LEU:CD2	2.84	0.40
48:R2:11:GLU:HA	48:R2:14:ARG:HD2	2.02	0.40
48:R2:32:LEU:HD23	48:R2:32:LEU:O	2.21	0.40
50:R4:26:SER:O	50:R4:27:THR:O	2.40	0.40
50:R4:42:PHE:CZ	50:R4:43:TYR:HB3	2.57	0.40
25:RA:1216:G:N2	25:RA:1233:C:O2	2.28	0.40
25:RA:1574:C:H6	25:RA:1574:C:O5'	2.03	0.40
25:RA:1587:A:H8	25:RA:1587:A:OP2	2.05	0.40
25:RA:2134:A:H62	25:RA:2157:G:C1'	2.34	0.40
25:RA:2193:G:C5	25:RA:2194:G:N7	2.89	0.40
25:RA:2360:A:H2'	25:RA:2361:A:O4'	2.21	0.40
25:RA:2485:G:C2	25:RA:2486:G:C8	3.09	0.40
25:RA:2600:A:H2'	25:RA:2601:C:C6	2.56	0.40
25:RA:2839:G:H5'	37:RR:46:GLY:HA2	2.03	0.40
25:RA:2846:G:C6	25:RA:2847:U:C4	3.09	0.40
25:RA:282:A:C6	25:RA:284:U:C2	3.09	0.40
25:RA:852:G:O2'	25:RA:853:G:H5'	2.21	0.40
25:RA:841:A:C2	25:RA:938:G:C2	3.09	0.40
26:RB:113:C:C2	26:RB:114:G:C8	3.08	0.40
27:RD:263:ARG:CB	27:RD:263:ARG:NH1	2.75	0.40
29:RF:128:ALA:O	29:RF:129:PHE:CB	2.67	0.40
29:RF:144:LYS:C	29:RF:146:ALA:N	2.75	0.40
29:RF:13:SER:OG	29:RF:14:PRO:HD2	2.21	0.40
33:RN:23:LEU:CD1	33:RN:99:LEU:HD23	2.51	0.40
35:RP:84:ASN:HB2	35:RP:87:ASP:OD2	2.22	0.40
41:RV:38:LEU:O	41:RV:51:VAL:HA	2.21	0.40
41:RV:55:ALA:O	41:RV:56:SER:OG	2.31	0.40
42:RW:88:ARG:HD2	42:RW:88:ARG:HA	1.92	0.40
44:RY:87:LYS:HB2	44:RY:87:LYS:HZ2	1.85	0.40
1:XA:1157:A:H62	1:XA:1178:G:N2	2.19	0.40
1:XA:122:G:C2	1:XA:123:C:C2	3.10	0.40
1:XA:1464:G:H2'	1:XA:1465:C:H6	1.85	0.40
1:XA:1415:G:C4	1:XA:1486:G:C2	3.09	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:XA:1500:A:OP1	1:XA:1508:G:OP1	2.39	0.40
1:XA:163:C:H2'	1:XA:164:U:H6	1.86	0.40
1:XA:34:C:H6	1:XA:34:C:O5'	2.04	0.40
1:XA:375:U:H4'	16:XP:17:TYR:CE2	2.53	0.40
1:XA:435:C:H5'	1:XA:436:C:OP2	2.21	0.40
1:XA:452:A:N6	1:XA:480:U:C2	2.89	0.40
1:XA:537:G:H2'	1:XA:538:G:C8	2.56	0.40
1:XA:538:G:H2'	1:XA:539:A:O4'	2.21	0.40
1:XA:684:A:C5	1:XA:685:G:N7	2.89	0.40
1:XA:89:U:O2'	1:XA:90:C:OP1	2.33	0.40
1:XA:920:U:H1'	1:XA:1080:A:C2	2.56	0.40
1:XA:924:C:H2'	1:XA:925:G:C8	2.55	0.40
2:XB:125:PRO:O	2:XB:126:GLU:HB2	2.21	0.40
2:XB:143:GLU:O	2:XB:147:LYS:HB2	2.22	0.40
2:XB:37:ASN:C	2:XB:39:ILE:N	2.74	0.40
2:XB:17:PHE:HB2	2:XB:42:ILE:CG2	2.50	0.40
2:XB:47:THR:O	2:XB:51:LEU:N	2.32	0.40
3:XC:108:ASN:HB3	3:XC:111:LEU:CG	2.51	0.40
3:XC:5:ILE:CD1	3:XC:5:ILE:H	2.34	0.40
4:XD:19:LEU:HG	4:XD:21:LEU:HG	2.03	0.40
5:XE:10:MET:CE	5:XE:13:ILE:HD13	2.51	0.40
7:XG:21:VAL:HG23	7:XG:22:LEU:N	2.32	0.40
9:XI:118:LYS:HZ2	9:XI:118:LYS:HB2	1.85	0.40
9:XI:9:ARG:CG	9:XI:14:VAL:HG22	2.51	0.40
11:XK:92:GLU:O	11:XK:95:ILE:N	2.54	0.40
13:XM:28:ALA:C	13:XM:30:ALA:H	2.24	0.40
17:XQ:68:ARG:HG3	17:XQ:68:ARG:O	2.21	0.40
17:XQ:85:VAL:HG12	17:XQ:85:VAL:O	2.20	0.40
19:XS:10:PHE:CD2	19:XS:11:VAL:N	2.90	0.40
20:XT:50:GLU:HA	20:XT:100:ILE:HG22	2.02	0.40
22:XV:21:A:N6	22:XV:46:G:H2'	2.36	0.40
48:Y2:18:PRO:C	48:Y2:20:GLU:N	2.73	0.40
48:Y2:47:ASN:N	48:Y2:47:ASN:HD22	1.99	0.40
25:YA:2286:A:H8	52:Y6:37:ARG:NH1	2.19	0.40
52:Y6:50:ARG:NH1	52:Y6:50:ARG:HG2	2.37	0.40
54:Y8:64:TYR:HB3	54:Y8:65:GLU:H	1.40	0.40
55:Y9:2:LYS:HD2	55:Y9:2:LYS:HA	1.96	0.40
25:YA:1449:A:O2'	25:YA:1530:G:N2	2.50	0.40
25:YA:1506:C:H5'	25:YA:1507:A:OP2	2.20	0.40
25:YA:1590:U:H2'	25:YA:1591:G:H8	1.85	0.40
25:YA:1835:G:N3	25:YA:1931:U:N3	2.67	0.40
25:YA:2018:G:C6	25:YA:2019:A:C6	3.09	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:2056:G:H1	51:Y5:4:HIS:HD2	1.68	0.40
25:YA:2564:A:C5	25:YA:2565:A:C6	3.08	0.40
25:YA:918:A:C6	25:YA:919:G:H1'	2.55	0.40
26:YB:40:U:H3	26:YB:43:C:C5'	2.23	0.40
27:YD:13:ARG:HG2	27:YD:13:ARG:O	2.20	0.40
28:YE:101:ARG:C	28:YE:201:THR:OG1	2.58	0.40
28:YE:93:VAL:HG21	28:YE:180:ASN:HA	2.03	0.40
29:YF:62:ARG:CZ	29:YF:62:ARG:HB3	2.52	0.40
30:YG:47:LYS:HE3	30:YG:47:LYS:HB2	1.80	0.40
31:YH:66:GLY:O	31:YH:67:LEU:C	2.58	0.40
33:YN:10:GLU:OE2	33:YN:11:PRO:HD2	2.21	0.40
34:YO:106:LEU:HA	34:YO:106:LEU:HD23	1.88	0.40
34:YO:13:ASN:HD21	34:YO:97:ARG:HB3	1.86	0.40
34:YO:16:ALA:HA	34:YO:46:ALA:CB	2.50	0.40
34:YO:47:ILE:HD12	34:YO:48:PRO:CD	2.43	0.40
35:YP:84:ASN:HB2	35:YP:87:ASP:OD2	2.22	0.40
36:YQ:139:GLU:CG	36:YQ:140:ALA:N	2.84	0.40
36:YQ:52:VAL:O	36:YQ:53:ALA:C	2.59	0.40
38:YS:20:ARG:HE	38:YS:21:THR:HA	1.86	0.40
38:YS:24:LEU:N	38:YS:24:LEU:HD22	2.36	0.40
38:YS:89:ARG:HG2	38:YS:89:ARG:NH1	2.36	0.40
39:YT:10:VAL:O	39:YT:11:GLU:C	2.60	0.40
39:YT:39:ARG:HG2	39:YT:40:THR:N	2.25	0.40
39:YT:20:PRO:HG2	39:YT:86:ILE:O	2.21	0.40
25:YA:1219:G:OP2	40:YU:19:LYS:HD2	2.21	0.40
40:YU:76:TYR:O	40:YU:80:ILE:HG12	2.21	0.40
42:YW:71:VAL:HA	42:YW:107:LEU:HD12	2.02	0.40
42:YW:14:PRO:O	42:YW:15:ARG:C	2.58	0.40
44:YY:97:ARG:NH2	44:YY:98:VAL:CG2	2.85	0.40
44:YY:98:VAL:O	44:YY:99:CYS:HB3	2.21	0.40
1:QA:1057:G:C2	1:QA:1204:A:N3	2.89	0.40
1:QA:126:G:H1	1:QA:235:C:N4	2.18	0.40
1:QA:1424:C:H2'	1:QA:1425:U:O4'	2.21	0.40
1:QA:1525:G:H2'	1:QA:1526:G:H8	1.85	0.40
1:QA:255:G:C4	1:QA:256:U:C5	3.09	0.40
1:QA:390:C:H4'	16:QP:28:ARG:HH21	1.87	0.40
1:QA:509:A:H5''	4:QD:55:ALA:HB2	2.02	0.40
1:QA:52:G:O2'	1:QA:53:A:H5'	2.21	0.40
1:QA:838:G:C5	1:QA:842:C:H1'	2.56	0.40
1:QA:960:U:O2	1:QA:1225:A:C5	2.74	0.40
2:QB:130:ARG:HH22	2:QB:138:LEU:HD21	1.85	0.40
2:QB:62:ALA:O	2:QB:65:GLY:N	2.53	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:QB:95:GLN:O	2:QB:96:ARG:C	2.59	0.40
3:QC:178:LEU:CD2	3:QC:178:LEU:N	2.85	0.40
3:QC:59:ARG:NH1	3:QC:97:LYS:HE3	2.34	0.40
4:QD:63:LYS:O	4:QD:67:ILE:HG13	2.21	0.40
1:QA:1079:G:H4'	5:QE:14:ARG:HH22	1.86	0.40
5:QE:41:VAL:O	5:QE:66:MET:HA	2.21	0.40
7:QG:140:ASP:C	7:QG:142:GLU:N	2.68	0.40
10:QJ:22:LYS:CD	10:QJ:22:LYS:C	2.89	0.40
11:QK:25:TYR:H	11:QK:25:TYR:HD1	1.69	0.40
13:QM:36:LYS:HE3	13:QM:59:TYR:CD1	2.57	0.40
1:QA:995:C:H5'	14:QN:8:GLU:HG2	2.03	0.40
15:QO:11:VAL:O	15:QO:12:ILE:C	2.60	0.40
1:QA:310:G:OP2	16:QP:27:LYS:HE3	2.21	0.40
17:QQ:85:VAL:HG12	17:QQ:85:VAL:O	2.20	0.40
18:QR:37:VAL:O	18:QR:40:LEU:N	2.54	0.40
18:QR:52:PRO:HG2	18:QR:55:ARG:HG2	2.04	0.40
18:QR:74:ARG:HG2	18:QR:79:LEU:HB2	2.01	0.40
19:QS:32:LYS:HA	19:QS:50:ALA:HB3	2.03	0.40
20:QT:44:ALA:HB3	20:QT:91:LEU:HD12	2.03	0.40
47:R1:96:LYS:O	47:R1:96:LYS:HG2	2.21	0.40
52:R6:50:ARG:NH1	52:R6:50:ARG:HG2	2.37	0.40
52:R6:7:ILE:CG1	52:R6:8:LYS:N	2.75	0.40
25:RA:1022:G:H4'	25:RA:1023:U:H5'	2.02	0.40
25:RA:1079:C:O4'	25:RA:1088:A:N6	2.53	0.40
25:RA:1439:A:H2'	25:RA:1440:G:O4'	2.21	0.40
25:RA:1487:G:H1	25:RA:1502:C:H42	1.69	0.40
25:RA:14:A:N1	25:RA:2044:C:O2'	2.34	0.40
25:RA:1644:C:H2'	25:RA:1644:C:O2	2.20	0.40
25:RA:1691:C:H2'	25:RA:1692:U:O4'	2.20	0.40
25:RA:1930:G:H2'	25:RA:1968:G:H1	1.84	0.40
25:RA:2116:G:H22	25:RA:2162:G:P	2.45	0.40
25:RA:2193:G:C4	25:RA:2194:G:C8	3.09	0.40
25:RA:2259:G:C1'	25:RA:2427:C:H2'	2.52	0.40
25:RA:2320:A:H1'	25:RA:2321:G:C6	2.56	0.40
25:RA:2328:A:H2'	25:RA:2329:G:C8	2.56	0.40
25:RA:2439:A:C5'	25:RA:2439:A:H8	2.32	0.40
25:RA:2534:A:C6	25:RA:2535:G:N7	2.89	0.40
25:RA:2623:G:N3	25:RA:2624:G:C8	2.89	0.40
25:RA:2847:U:C2'	25:RA:2848:G:H5'	2.52	0.40
25:RA:2841:C:C2	25:RA:2877:G:N2	2.89	0.40
25:RA:472:A:H2'	25:RA:473:G:H5'	2.03	0.40
25:RA:478:A:N6	25:RA:480:A:N1	2.69	0.40

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:563:G:C6	25:RA:564:C:C4	3.09	0.40
26:RB:66:A:N3	26:RB:108:C:C4	2.90	0.40
26:RB:83:G:N2	26:RB:84:C:C2	2.89	0.40
27:RD:176:ARG:CG	27:RD:176:ARG:HH11	2.30	0.40
28:RE:119:ARG:HG2	28:RE:160:TYR:HB2	2.03	0.40
28:RE:62:PRO:O	28:RE:63:LEU:C	2.59	0.40
33:RN:137:LYS:HD2	33:RN:137:LYS:HA	1.88	0.40
34:RO:106:LEU:HA	34:RO:106:LEU:HD23	1.89	0.40
35:RP:19:VAL:HG22	35:RP:21:ARG:N	2.36	0.40
38:RS:106:ARG:CZ	38:RS:106:ARG:HB2	2.49	0.40
39:RT:39:ARG:HG2	39:RT:40:THR:N	2.25	0.40
25:RA:1252:G:O4'	40:RU:33:ARG:HD3	2.20	0.40
40:RU:34:LYS:CA	40:RU:34:LYS:CE	2.96	0.40
42:RW:1:MET:CE	42:RW:2:GLU:H	2.31	0.40
44:RY:95:LYS:HA	44:RY:101:LYS:CB	2.51	0.40
26:RB:104:A:H4'	45:RZ:89:PHE:CE2	2.57	0.40
1:XA:1089:G:H2'	1:XA:1090:U:O4'	2.21	0.40
1:XA:1121:U:C4	1:XA:1122:U:C5	3.09	0.40
1:XA:1142:G:H2'	1:XA:1143:G:C8	2.56	0.40
1:XA:949:A:H61	1:XA:1232:U:H3	1.69	0.40
1:XA:1259:C:O2'	1:XA:1283:G:N2	2.54	0.40
1:XA:936:C:H1'	1:XA:1382:C:N4	2.36	0.40
1:XA:52:G:C4	1:XA:53:A:C8	3.09	0.40
1:XA:648:A:C6	1:XA:649:G:C6	3.09	0.40
1:XA:724:G:C2	1:XA:725:G:C8	3.09	0.40
1:XA:78:G:O2'	1:XA:79:G:OP1	2.30	0.40
1:XA:825:G:C6	1:XA:826:C:N3	2.89	0.40
1:XA:939:G:C6	1:XA:940:C:N4	2.89	0.40
1:XA:980:C:H5''	1:XA:981:U:C5	2.55	0.40
2:XB:132:LYS:HA	2:XB:135:GLN:CG	2.51	0.40
2:XB:172:ILE:CD1	2:XB:172:ILE:H	2.18	0.40
2:XB:97:TRP:CH2	2:XB:176:GLU:HB2	2.54	0.40
2:XB:168:THR:CG2	2:XB:192:SER:HB2	2.51	0.40
2:XB:223:ILE:O	2:XB:226:ARG:HB3	2.21	0.40
2:XB:76:GLN:OE1	2:XB:206:ASP:HB3	2.21	0.40
3:XC:140:ARG:HB2	3:XC:140:ARG:NH1	2.36	0.40
3:XC:138:VAL:HG22	3:XC:151:VAL:HG23	2.03	0.40
3:XC:55:VAL:O	3:XC:55:VAL:HG12	2.20	0.40
5:XE:6:PHE:HB2	5:XE:63:ARG:HH12	1.86	0.40
7:XG:121:ALA:O	7:XG:125:MET:HG3	2.21	0.40
8:XH:53:VAL:HG12	8:XH:54:ASP:OD2	2.20	0.40
13:XM:119:GLY:O	13:XM:120:LYS:O	2.38	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:XM:8:GLU:C	13:XM:9:ILE:CG2	2.90	0.40
14:XM:47:LEU:O	14:XM:50:LYS:N	2.52	0.40
14:XM:48:ALA:O	14:XM:51:GLY:N	2.53	0.40
1:XA:719:C:O2'	18:XR:50:ILE:O	2.35	0.40
19:XS:31:ILE:HG23	19:XS:31:ILE:O	2.21	0.40
22:XV:16:C:O2'	22:XV:17:C:OP1	2.39	0.40
46:Y0:37:LEU:O	46:Y0:38:VAL:HG23	2.20	0.40
48:Y2:18:PRO:C	48:Y2:20:GLU:H	2.24	0.40
50:Y4:63:TYR:O	50:Y4:65:ASP:N	2.54	0.40
25:YA:1214:A:N6	25:YA:1235:G:O2'	2.53	0.40
25:YA:1246:A:N1	25:YA:1247:A:C4	2.89	0.40
25:YA:1374:G:C2'	25:YA:1375:C:H5'	2.51	0.40
25:YA:1449:A:C6	25:YA:1449(A):G:C4	3.09	0.40
25:YA:1578:U:C2'	25:YA:1579:A:H5'	2.51	0.40
25:YA:1628:G:C2	25:YA:1629:U:C4	3.08	0.40
25:YA:1660:C:O2	25:YA:2000:G:N2	2.52	0.40
25:YA:1769:G:N2	25:YA:1984:G:C4	2.90	0.40
25:YA:1926:U:O2	25:YA:1928:A:C8	2.74	0.40
25:YA:2320:A:C8	25:YA:2333:A:N6	2.90	0.40
25:YA:2360:A:H2'	25:YA:2361:A:O4'	2.22	0.40
25:YA:2486:G:N2	25:YA:2487:G:H1'	2.36	0.40
25:YA:2506:U:H6	56:Z8:76:PPU:HN'3	1.69	0.40
25:YA:2517:C:C6	25:YA:2542:A:N7	2.88	0.40
25:YA:2629:A:O2'	25:YA:2630:G:H5''	2.21	0.40
25:YA:2762:G:C6	25:YA:2763:G:C4	3.09	0.40
25:YA:2818:G:N2	25:YA:2819:G:C4	2.89	0.40
25:YA:388:G:OP2	47:Y1:32:LYS:HG2	2.21	0.40
25:YA:540:G:H5'	25:YA:541:C:OP2	2.21	0.40
25:YA:707:G:C6	25:YA:708:C:C4	3.10	0.40
28:YE:119:ARG:HG2	28:YE:160:TYR:HB2	2.03	0.40
31:YH:26:VAL:HG12	31:YH:33:LEU:HB2	2.03	0.40
32:YI:124:GLY:H	32:YI:142:VAL:HG23	1.86	0.40
39:YT:29:ARG:HB2	39:YT:29:ARG:NH1	2.36	0.40
39:YT:50:ILE:CG2	39:YT:62:THR:OG1	2.67	0.40
25:YA:997:G:OP1	40:YU:93:LYS:HD3	2.21	0.40
25:YA:517:C:O2'	42:YW:18:ARG:NH2	2.55	0.40
42:YW:66:GLU:HG2	42:YW:67:ASP:N	2.37	0.40
42:YW:82:LEU:N	42:YW:98:LYS:O	2.42	0.40
44:YY:42:VAL:HG21	44:YY:67:LEU:CD1	2.52	0.40
44:YY:97:ARG:O	44:YY:97:ARG:CG	2.69	0.40
1:QA:1320:C:C4	1:QA:1321:C:N3	2.90	0.40
1:QA:1336:C:O2	1:QA:1336:C:H2'	2.20	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:QA:1402:C:H2'	1:QA:1403:C:O4'	2.21	0.40
1:QA:1409:C:H5'	25:RA:1916:A:N1	2.36	0.40
1:QA:187:C:H6	1:QA:187:C:O5'	2.04	0.40
1:QA:109:A:C6	1:QA:326:G:C6	3.10	0.40
1:QA:645:C:C4	1:QA:646:U:C4	3.09	0.40
1:QA:689:C:C2'	1:QA:690:G:H5'	2.51	0.40
1:QA:977:A:H8	1:QA:982:U:O4	2.04	0.40
2:QB:76:GLN:OE1	2:QB:206:ASP:HB3	2.21	0.40
4:QD:110:PHE:HE2	4:QD:148:VAL:HG23	1.86	0.40
4:QD:96:LEU:C	4:QD:98:GLU:N	2.72	0.40
5:QE:32:VAL:CG2	5:QE:58:ALA:HB1	2.51	0.40
6:QF:61:LEU:HB3	6:QF:63:TYR:CE2	2.53	0.40
6:QF:98:LEU:C	6:QF:98:LEU:HD12	2.41	0.40
14:QN:34:TYR:CD1	14:QN:34:TYR:N	2.89	0.40
10:QJ:65:LEU:HA	14:QN:55:GLY:O	2.22	0.40
16:QP:20:VAL:CG2	16:QP:32:TYR:CD2	3.04	0.40
47:R1:82:LEU:HD13	47:R1:83:GLU:CA	2.49	0.40
51:R5:6:VAL:HA	51:R5:7:PRO:HD3	1.81	0.40
52:R6:36:LEU:CD1	52:R6:50:ARG:NH1	2.82	0.40
54:R8:40:GLU:O	54:R8:42:ARG:N	2.54	0.40
54:R8:53:PRO:HD2	54:R8:54:GLU:H	1.84	0.40
54:R8:53:PRO:CG	54:R8:54:GLU:N	2.84	0.40
25:RA:1026:U:H4'	25:RA:1027:A:OP1	2.20	0.40
25:RA:1360:A:C6	25:RA:1372:U:C4	3.10	0.40
25:RA:14:A:C6	25:RA:526:A:C2	3.10	0.40
25:RA:1543:A:H2	25:RA:1545:A:N7	2.20	0.40
25:RA:1563:G:C5	25:RA:1564:C:C5	3.09	0.40
25:RA:1797:C:H4'	27:RD:257:LEU:O	2.22	0.40
25:RA:1839:G:H2'	25:RA:1839:G:N3	2.35	0.40
25:RA:2067:G:C2	25:RA:2069:G:C8	3.09	0.40
25:RA:2105:C:H2'	25:RA:2106:G:C8	2.55	0.40
25:RA:2171:A:C2	25:RA:2172:U:C2	3.08	0.40
25:RA:2352:A:C5	25:RA:2366:A:C2	3.09	0.40
25:RA:2623:G:H5'	25:RA:2826:A:H1'	2.04	0.40
25:RA:572:A:H2'	25:RA:573:G:O4'	2.21	0.40
26:RB:111:U:H2'	26:RB:112:G:H8	1.85	0.40
27:RD:117:VAL:HG22	27:RD:118:VAL:N	2.36	0.40
27:RD:228:PRO:HD3	27:RD:234:GLY:O	2.21	0.40
29:RF:36:VAL:HG11	29:RF:183:VAL:HG11	2.04	0.40
29:RF:62:ARG:HB3	29:RF:62:ARG:CZ	2.52	0.40
29:RF:80:ALA:O	29:RF:83:PHE:HB2	2.20	0.40
30:RG:41:GLN:HB3	30:RG:43:LEU:CD1	2.51	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:RH:20:ALA:HB3	31:RH:23:ARG:HG2	2.03	0.40
32:RI:45:LYS:O	32:RI:48:GLU:N	2.54	0.40
35:RP:65:ARG:HH21	54:R8:15:LYS:HB3	1.84	0.40
35:RP:65:ARG:O	35:RP:66:GLY:C	2.60	0.40
38:RS:12:PHE:HD2	38:RS:12:PHE:HA	1.80	0.40
38:RS:24:LEU:HD22	38:RS:24:LEU:N	2.36	0.40
38:RS:62:LYS:HD3	38:RS:97:ARG:CZ	2.52	0.40
41:RV:95:LEU:C	41:RV:95:LEU:HD13	2.42	0.40
44:RY:5:MET:CE	44:RY:32:PRO:HB3	2.51	0.40
44:RY:57:GLN:O	44:RY:58:GLY:C	2.60	0.40
45:RZ:111:VAL:HG22	45:RZ:112:ARG:N	2.34	0.40
1:XA:1060:C:C5	3:XC:2:GLY:HA2	2.56	0.40
1:XA:1178:G:H8	1:XA:1178:G:H3'	1.85	0.40
1:XA:1205:U:O2'	3:XC:195:VAL:HG23	2.21	0.40
1:XA:59:A:H1'	1:XA:354:G:C2	2.56	0.40
1:XA:490:G:H2'	1:XA:491:G:C8	2.56	0.40
1:XA:792:A:C8	1:XA:794:A:C5	3.09	0.40
3:XC:120:VAL:O	3:XC:123:GLN:HB2	2.20	0.40
3:XC:178:LEU:CD2	3:XC:178:LEU:N	2.85	0.40
4:XD:110:PHE:HE2	4:XD:148:VAL:HG23	1.85	0.40
4:XD:68:TYR:OH	4:XD:196:LEU:HD21	2.22	0.40
6:XF:40:VAL:HA	6:XF:62:TRP:O	2.22	0.40
1:XA:738:C:H5''	6:XF:69:GLU:HB2	2.02	0.40
8:XH:20:TYR:CD1	8:XH:65:TYR:CD2	2.98	0.40
9:XI:56:LEU:HB3	9:XI:57:GLY:H	1.66	0.40
10:XJ:84:GLN:H	10:XJ:84:GLN:HG3	1.50	0.40
11:XK:21:ILE:CD1	11:XK:82:VAL:HG13	2.51	0.40
13:XM:47:ASP:O	13:XM:48:LEU:HB3	2.20	0.40
17:XQ:82:MET:C	17:XQ:84:LEU:H	2.25	0.40
17:XQ:83:ASP:O	17:XQ:87:LYS:HG2	2.22	0.40
18:XR:37:VAL:O	18:XR:40:LEU:N	2.54	0.40
1:XA:192:U:C4'	20:XT:103:GLY:HA2	2.51	0.40
47:Y1:91:LYS:HG3	47:Y1:92:LYS:N	2.32	0.40
47:Y1:96:LYS:O	47:Y1:96:LYS:HG2	2.21	0.40
48:Y2:37:PHE:O	48:Y2:40:SER:HB3	2.22	0.40
50:Y4:21:VAL:O	50:Y4:22:ILE:O	2.40	0.40
50:Y4:51:ASP:CG	50:Y4:51:ASP:O	2.60	0.40
50:Y4:52:THR:O	50:Y4:53:GLU:CB	2.69	0.40
54:Y8:17:THR:O	54:Y8:20:GLY:N	2.46	0.40
54:Y8:39:LYS:O	54:Y8:39:LYS:HD2	2.22	0.40
25:YA:1093:G:H4'	31:YH:170:ARG:CZ	2.52	0.40
25:YA:1291:C:H2'	25:YA:1292:U:C5	2.57	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1387:C:C2	25:YA:1388:G:C8	3.10	0.40
25:YA:1436:G:H1'	25:YA:1477:A:O2'	2.21	0.40
25:YA:1509:C:N3	25:YA:1511:A:N6	2.69	0.40
25:YA:1380:G:N2	25:YA:1570:A:N1	2.65	0.40
25:YA:1778:U:C5	25:YA:1784:A:C5	3.09	0.40
25:YA:1794:U:H2'	25:YA:1795:C:H6	1.86	0.40
25:YA:2308:G:N2	25:YA:2311:A:C2	2.89	0.40
25:YA:2316:C:H1'	30:YG:128:ARG:HH22	1.86	0.40
25:YA:2507:C:H2'	25:YA:2508:G:C8	2.54	0.40
25:YA:2655:G:O2'	25:YA:2656:U:P	2.80	0.40
25:YA:2824:C:C5	25:YA:2825:C:C5	3.09	0.40
25:YA:2845:G:H5''	39:YT:55:ASN:HA	2.03	0.40
25:YA:860:U:C5	25:YA:861:A:N7	2.89	0.40
25:YA:99:U:H4'	25:YA:101:G:C5'	2.52	0.40
27:YD:35:LYS:CE	27:YD:64:ILE:C	2.89	0.40
28:YE:93:VAL:H	28:YE:95:ILE:CD1	2.23	0.40
29:YF:119:ARG:HH11	29:YF:119:ARG:CG	2.29	0.40
29:YF:118:ALA:HA	29:YF:123:LEU:HB3	2.02	0.40
29:YF:33:LEU:O	29:YF:37:VAL:HG23	2.21	0.40
29:YF:61:GLY:O	29:YF:62:ARG:C	2.57	0.40
31:YH:128:PRO:CG	31:YH:129:THR:H	2.33	0.40
32:YI:115:ALA:HB3	32:YI:128:LEU:HD12	2.02	0.40
33:YN:7:LYS:CG	33:YN:8:GLN:N	2.81	0.40
34:YO:86:ILE:CD1	34:YO:86:ILE:N	2.83	0.40
35:YP:126:VAL:HG12	35:YP:147:LEU:CD2	2.23	0.40
36:YQ:20:ALA:HB1	36:YQ:99:PRO:CG	2.51	0.40
25:YA:1216:G:P	40:YU:12:ARG:HH21	2.44	0.40
40:YU:33:ARG:O	40:YU:37:GLU:HB2	2.21	0.40
25:YA:482:A:C4'	44:YY:47:LYS:HD2	2.28	0.40
44:YY:95:LYS:HA	44:YY:101:LYS:CB	2.51	0.40
45:YZ:15:PRO:O	45:YZ:19:ARG:HB2	2.21	0.40
45:YZ:23:LYS:HB3	45:YZ:38:TYR:HD1	1.87	0.40
1:QA:1002:G:H1	1:QA:1038:C:H42	1.69	0.40
1:QA:1122:U:H2'	1:QA:1123:A:O4'	2.22	0.40
1:QA:475:G:O2'	1:QA:476:G:H5'	2.21	0.40
1:QA:673:G:C4	1:QA:734:G:N2	2.89	0.40
1:QA:757:U:H2'	1:QA:758:G:O4'	2.22	0.40
1:QA:995:C:O5'	1:QA:995:C:H6	2.03	0.40
3:QC:128:PHE:O	3:QC:130:VAL:N	2.54	0.40
4:QD:11:LEU:O	4:QD:12:CYS:C	2.59	0.40
4:QD:129:ASN:CA	4:QD:145:GLU:HB2	2.51	0.40
4:QD:73:ARG:O	4:QD:74:GLN:C	2.58	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:QF:8:ILE:HG22	6:QF:10:LEU:HD12	2.03	0.40
7:QG:69:VAL:HG12	7:QG:100:ALA:HA	2.03	0.40
8:QH:105:ARG:O	8:QH:107:LEU:N	2.47	0.40
20:QT:82:SER:O	20:QT:86:ARG:CB	2.70	0.40
22:QV:75:C:OP1	25:RA:2602:A:P	2.80	0.40
48:R2:53:LEU:O	48:R2:57:ILE:HG13	2.21	0.40
50:R4:21:VAL:O	50:R4:22:ILE:O	2.40	0.40
30:RG:112:PRO:CA	50:R4:37:SER:HB2	2.51	0.40
25:RA:1309:G:P	53:R7:9:ARG:HD3	2.61	0.40
54:R8:32:LEU:HA	54:R8:32:LEU:HD23	1.94	0.40
55:R9:10:ILE:HD12	55:R9:32:HIS:CG	2.56	0.40
25:RA:1005:C:O2	25:RA:1143:A:C5	2.75	0.40
25:RA:1007:C:OP2	25:RA:1008:C:O2'	2.31	0.40
25:RA:1312:U:H4'	25:RA:1313:U:O5'	2.21	0.40
25:RA:191:A:H2'	25:RA:192:C:C6	2.57	0.40
25:RA:1973:G:H2'	25:RA:1974:C:C6	2.56	0.40
25:RA:1985:G:C2'	25:RA:1986:A:H5'	2.52	0.40
25:RA:2224:G:H4'	25:RA:2226:C:C2	2.57	0.40
25:RA:2376:A:OP1	25:RA:2376:A:H8	2.04	0.40
25:RA:2422:A:OP2	52:R6:6:ARG:NH1	2.54	0.40
25:RA:2592:G:H2'	25:RA:2593:U:O4'	2.22	0.40
25:RA:270(T):G:C6	25:RA:270(U):C:C4	3.09	0.40
25:RA:43:G:C6	25:RA:44:A:C5	3.09	0.40
25:RA:259:G:C2'	25:RA:621:A:O2'	2.70	0.40
25:RA:88:G:H2'	25:RA:88:G:N3	2.34	0.40
26:RB:5:C:H2'	26:RB:6:C:C6	2.57	0.40
27:RD:185:VAL:HG12	27:RD:186:HIS:N	2.37	0.40
27:RD:72:LYS:HG3	27:RD:97:TYR:CE2	2.56	0.40
28:RE:93:VAL:C	28:RE:95:ILE:N	2.75	0.40
25:RA:320:A:N3	29:RF:169:ASN:ND2	2.70	0.40
29:RF:68:LYS:O	29:RF:69:HIS:HB2	2.21	0.40
30:RG:78:SER:O	30:RG:79:ASN:C	2.59	0.40
32:RI:52:ARG:HB3	32:RI:52:ARG:HH11	1.87	0.40
33:RN:28:THR:O	33:RN:29:LYS:C	2.59	0.40
34:RO:13:ASN:HD21	34:RO:97:ARG:HB3	1.86	0.40
34:RO:92:GLU:O	34:RO:93:PRO:C	2.58	0.40
36:RQ:66:ILE:O	36:RQ:67:ARG:HB2	2.22	0.40
37:RR:18:LEU:HD11	37:RR:22:ARG:NE	2.36	0.40
37:RR:84:ALA:O	37:RR:85:PRO:C	2.59	0.40
25:RA:2882:A:P	37:RR:96:ARG:NH1	2.95	0.40
38:RS:92:TYR:HB2	38:RS:98:VAL:HG11	2.02	0.40
39:RT:23:ARG:O	39:RT:49:VAL:HG11	2.21	0.40

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:RW:100:THR:O	42:RW:100:THR:HG23	2.22	0.40
43:RX:60:ARG:HH22	53:R7:47:ARG:HH12	1.68	0.40
44:RY:90:LEU:HB2	44:RY:91:GLU:H	1.53	0.40
44:RY:98:VAL:O	44:RY:99:CYS:HB3	2.21	0.40
1:XA:1073:U:OP2	5:XE:57:LYS:NZ	2.34	0.40
1:XA:1178:G:H3'	1:XA:1178:G:C8	2.57	0.40
1:XA:1327:C:OP1	21:XU:21:TYR:HD1	2.05	0.40
1:XA:1489:G:H2'	1:XA:1490:C:O4'	2.21	0.40
1:XA:665:A:C5	1:XA:733:A:C5	3.09	0.40
1:XA:89:U:H2'	1:XA:90:C:H6	1.86	0.40
1:XA:8:A:N6	4:XD:205:GLU:O	2.53	0.40
3:XC:13:GLY:O	3:XC:14:ILE:HB	2.22	0.40
3:XC:92:ALA:HB2	3:XC:99:VAL:HG13	2.03	0.40
1:XA:489:C:P	4:XD:132:ARG:HH22	2.42	0.40
6:XF:8:ILE:HG22	6:XF:10:LEU:HD12	2.03	0.40
7:XG:50:ILE:HA	7:XG:54:THR:CG2	2.52	0.40
8:XH:74:PRO:O	8:XH:75:ARG:C	2.58	0.40
13:XM:122:LYS:HE2	13:XM:122:LYS:O	2.21	0.40
13:XM:56:LEU:HD13	13:XM:60:VAL:CG2	2.51	0.40
15:XO:70:LEU:HD23	15:XO:81:LEU:HD23	2.04	0.40
16:XP:50:LYS:HD3	16:XP:50:LYS:C	2.42	0.40
17:XQ:8:GLY:HA3	17:XQ:21:VAL:HG12	2.03	0.40
20:XT:49:ALA:HA	20:XT:92:LEU:HD21	2.04	0.40
22:XV:74:C:H2'	22:XV:75:C:H5'	2.03	0.40
47:Y1:94:LEU:HA	47:Y1:94:LEU:HD23	1.82	0.40
48:Y2:15:LYS:H	48:Y2:67:LYS:HZ3	1.70	0.40
49:Y3:17:LYS:O	49:Y3:20:LYS:HB2	2.21	0.40
50:Y4:42:PHE:CZ	50:Y4:43:TYR:HB3	2.57	0.40
25:YA:1613:G:C2	25:YA:1617:C:C2	3.09	0.40
25:YA:2043:C:C2	25:YA:2777:G:N2	2.89	0.40
25:YA:2585:U:H5	56:Z8:76:PPU:O2'	2.04	0.40
25:YA:2624:G:C2'	25:YA:2625:G:H5'	2.51	0.40
25:YA:2705:A:H2'	25:YA:2706:G:O4'	2.21	0.40
25:YA:270(F):U:H2'	25:YA:270(G):C:H6	1.86	0.40
25:YA:330:A:O2'	25:YA:331:A:C8	2.58	0.40
25:YA:764:A:H5'	27:YD:210:GLY:HA2	2.04	0.40
25:YA:911:A:H5''	25:YA:912:C:H5''	2.04	0.40
29:YF:124:LEU:HD12	29:YF:125:LEU:O	2.22	0.40
29:YF:198:ALA:HA	29:YF:201:VAL:CG1	2.41	0.40
30:YG:98:ARG:CA	30:YG:101:ILE:HG12	2.40	0.40
30:YG:61:ALA:CB	30:YG:67:LYS:HA	2.51	0.40
34:YO:31:LYS:C	34:YO:32:TYR:CD2	2.95	0.40

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:YQ:139:GLU:HG2	36:YQ:140:ALA:N	2.36	0.40
42:YW:19:LEU:HA	42:YW:19:LEU:HD12	1.79	0.40
42:YW:74:ALA:C	42:YW:75:TYR:HD1	2.24	0.40
44:YY:21:LYS:HE2	44:YY:21:LYS:HB2	1.96	0.40
45:YZ:14:LYS:O	45:YZ:18:LEU:HD12	2.21	0.40
1:QA:111:G:H8	1:QA:111:G:O5'	2.04	0.40
1:QA:1349:A:H2'	1:QA:1350:A:C8	2.56	0.40
1:QA:1347:G:H2'	1:QA:1373:G:C6	2.57	0.40
1:QA:149:A:C2	1:QA:172:A:N6	2.89	0.40
1:QA:230:G:H2'	1:QA:231:G:O4'	2.22	0.40
2:QB:114:ARG:O	2:QB:118:LEU:HG	2.21	0.40
2:QB:75:LYS:C	2:QB:77:ALA:H	2.24	0.40
3:QC:172:ARG:C	3:QC:173:VAL:HG23	2.42	0.40
4:QD:3:ARG:HB3	4:QD:69:GLY:O	2.22	0.40
5:QE:126:ARG:CG	5:QE:126:ARG:NH1	2.79	0.40
7:QG:122:HIS:ND1	7:QG:122:HIS:N	2.69	0.40
8:QH:109:ILE:HG13	8:QH:120:THR:HB	2.03	0.40
8:QH:36:LEU:O	8:QH:45:ILE:HD11	2.22	0.40
9:QI:128:ARG:HH21	22:QV:35:A:P	2.44	0.40
11:QK:21:ILE:CD1	11:QK:82:VAL:HG13	2.51	0.40
13:QM:4:ILE:O	13:QM:5:ALA:C	2.60	0.40
13:QM:54:VAL:HG12	13:QM:54:VAL:O	2.21	0.40
15:QO:77:ARG:CA	15:QO:80:ALA:HB3	2.52	0.40
16:QP:26:ARG:HH21	16:QP:31:LYS:HG2	1.86	0.40
17:QQ:8:GLY:HA3	17:QQ:21:VAL:HG12	2.03	0.40
17:QQ:68:ARG:O	17:QQ:68:ARG:HG3	2.22	0.40
19:QS:39:THR:O	19:QS:40:ILE:HB	2.20	0.40
20:QT:89:ARG:HH12	20:QT:106:ALA:CB	2.34	0.40
1:QA:1267:C:O2'	21:QU:20:LYS:HG3	2.21	0.40
47:R1:86:SER:O	47:R1:89:GLU:HB2	2.21	0.40
49:R3:7:LYS:HG2	49:R3:7:LYS:O	2.20	0.40
52:R6:36:LEU:N	52:R6:36:LEU:HD23	2.37	0.40
25:RA:1204:A:C2	25:RA:1206:G:N2	2.90	0.40
25:RA:1225:C:O2'	41:RV:85:LYS:HA	2.21	0.40
25:RA:1480:G:C2	25:RA:1514:U:O2	2.74	0.40
25:RA:1771:C:H2'	25:RA:1772:G:C8	2.56	0.40
25:RA:1799:G:H5'	25:RA:1819:A:N6	2.33	0.40
25:RA:199:A:N1	25:RA:2434:A:C2	2.90	0.40
25:RA:2464:C:O2	25:RA:2487:G:N2	2.54	0.40
25:RA:2472:G:H21	25:RA:2478:A:H62	1.69	0.40
25:RA:2654:A:O3'	25:RA:2655:G:H4'	2.22	0.40
25:RA:2711:A:C8	25:RA:2714:G:O4'	2.75	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:RA:511:U:C5	25:RA:512:G:C5	3.10	0.40
27:RD:92:ILE:CD1	27:RD:104:TYR:CD2	3.05	0.40
27:RD:142:VAL:HA	27:RD:194:GLY:H	1.86	0.40
29:RF:33:LEU:O	29:RF:37:VAL:HG23	2.21	0.40
29:RF:64:ILE:HA	29:RF:64:ILE:HD12	1.89	0.40
30:RG:114:ILE:HG22	30:RG:117:PHE:HB2	2.01	0.40
33:RN:101:HIS:HD2	33:RN:102:ALA:N	2.19	0.40
33:RN:75:TYR:O	33:RN:76:SER:O	2.40	0.40
34:RO:112:MET:O	34:RO:115:VAL:HG23	2.22	0.40
25:RA:2684:U:O2'	34:RO:68:GLU:HG3	2.21	0.40
35:RP:2:LYS:O	35:RP:5:ASP:CB	2.70	0.40
37:RR:34:ILE:HG22	37:RR:35:THR:N	2.35	0.40
38:RS:5:THR:HG1	38:RS:7:TYR:HB3	1.86	0.40
38:RS:89:ARG:NH1	38:RS:89:ARG:HG2	2.36	0.40
39:RT:50:ILE:HD11	39:RT:102:ILE:CG1	2.52	0.40
39:RT:10:VAL:O	39:RT:11:GLU:C	2.59	0.40
39:RT:54:ARG:HA	39:RT:59:THR:HG23	2.02	0.40
40:RU:62:ILE:HG23	40:RU:76:TYR:CE1	2.57	0.40
45:RZ:119:GLU:HG3	45:RZ:122:ARG:HD2	2.03	0.40
1:XA:1225:A:H3'	1:XA:1226:C:C6	2.57	0.40
1:XA:1327:C:H2'	1:XA:1328:C:C6	2.57	0.40
1:XA:1376:U:H2'	1:XA:1377:A:C8	2.57	0.40
1:XA:799:G:C6	1:XA:800:G:C4	3.09	0.40
2:XB:183:PRO:HA	2:XB:198:ASP:OD1	2.22	0.40
3:XC:70:VAL:CG1	3:XC:71:ALA:H	2.35	0.40
4:XD:190:ASP:OD1	4:XD:191:ARG:N	2.55	0.40
4:XD:199:ASN:OD1	4:XD:201:GLN:HB3	2.21	0.40
5:XE:36:ASP:O	5:XE:37:ARG:HG2	2.22	0.40
6:XF:98:LEU:C	6:XF:98:LEU:HD12	2.41	0.40
7:XG:46:ALA:O	7:XG:49:ILE:HB	2.21	0.40
8:XH:97:VAL:O	8:XH:100:ILE:HG13	2.21	0.40
9:XI:13:ALA:H	9:XI:68:GLY:HA3	1.86	0.40
9:XI:71:SER:O	9:XI:72:GLY:C	2.58	0.40
10:XJ:65:LEU:HA	14:XI:55:GLY:O	2.21	0.40
11:XK:83:ILE:HG12	11:XK:109:VAL:CG2	2.52	0.40
13:XM:88:ARG:HG2	13:XM:98:VAL:CG1	2.52	0.40
15:XO:74:ASP:C	15:XO:76:GLU:H	2.24	0.40
20:XT:44:ALA:HB3	20:XT:91:LEU:HD12	2.03	0.40
36:YQ:79:LEU:CD1	46:Y0:5:LYS:HD3	2.52	0.40
47:Y1:86:SER:O	47:Y1:89:GLU:N	2.54	0.40
54:Y8:32:LEU:HA	54:Y8:32:LEU:HD23	1.94	0.40
25:YA:1002:G:H2'	25:YA:1003:G:O4'	2.21	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:YA:1071:G:N2	25:YA:1090:U:C5	2.89	0.40
25:YA:1183:G:H4'	49:Y3:29:ARG:NH2	2.36	0.40
25:YA:136:G:N2	25:YA:143:C:N3	2.53	0.40
25:YA:1446:C:C2'	25:YA:1447:G:H5'	2.52	0.40
25:YA:1448:G:H1'	25:YA:1528:A:H62	1.86	0.40
25:YA:1776:G:N2	25:YA:1777:U:H1'	2.37	0.40
25:YA:1957:C:O2'	25:YA:1985:G:H1'	2.21	0.40
25:YA:2518:A:H4'	25:YA:2519:U:OP1	2.21	0.40
25:YA:2639:A:H2'	25:YA:2640:G:O4'	2.22	0.40
25:YA:263:C:H2'	25:YA:264:C:O4'	2.21	0.40
25:YA:2823:A:C5	25:YA:2824:C:C5	3.09	0.40
25:YA:740:U:H2'	25:YA:741:G:H8	1.85	0.40
25:YA:996:A:H2'	25:YA:997:G:C8	2.55	0.40
27:YD:107:ALA:HA	27:YD:108:PRO:HD2	2.01	0.40
27:YD:230:ASP:OD2	27:YD:230:ASP:N	2.54	0.40
28:YE:154:LYS:C	28:YE:154:LYS:HD3	2.42	0.40
28:YE:92:THR:HB	28:YE:93:VAL:H	1.57	0.40
29:YF:36:VAL:HG11	29:YF:183:VAL:HG11	2.04	0.40
30:YG:137:GLU:OE2	30:YG:139:LEU:HD11	2.22	0.40
30:YG:11:TYR:O	30:YG:16:ARG:HB2	2.22	0.40
31:YH:170:ARG:HB3	31:YH:171:LEU:H	1.47	0.40
25:YA:1111:A:OP1	31:YH:3:ARG:NH1	2.55	0.40
33:YN:56:ASN:ND2	33:YN:126:PRO:N	2.69	0.40
33:YN:133:GLN:C	33:YN:134:ARG:HG2	2.41	0.40
33:YN:53:VAL:HG22	33:YN:121:LYS:HB2	2.04	0.40
35:YP:2:LYS:O	35:YP:5:ASP:CB	2.70	0.40
36:YQ:39:PRO:HA	36:YQ:97:VAL:O	2.21	0.40
37:YR:22:ARG:O	37:YR:26:LYS:HG3	2.21	0.40
37:YR:2:ARG:HG2	37:YR:5:LYS:HZ1	1.86	0.40
37:YR:31:HIS:C	37:YR:33:ARG:H	2.25	0.40
38:YS:102:ALA:C	38:YS:104:GLY:N	2.73	0.40
38:YS:59:LYS:CG	38:YS:60:GLY:N	2.80	0.40
38:YS:83:LYS:HE3	38:YS:84:GLN:HG3	2.02	0.40
39:YT:125:ARG:O	39:YT:128:GLU:N	2.50	0.40
39:YT:26:ASP:HB3	39:YT:92:GLY:H	1.86	0.40
41:YV:35:LEU:C	41:YV:37:VAL:N	2.75	0.40
41:YV:70:ILE:HG22	41:YV:70:ILE:O	2.21	0.40
41:YV:95:LEU:HD13	41:YV:95:LEU:C	2.42	0.40
43:YX:9:LEU:HA	48:Y2:36:ARG:HH21	1.86	0.40
45:YZ:76:LEU:HA	45:YZ:83:PRO:HA	2.03	0.40
25:RA:2451:A:C2	56:Z6:76:PPU:HD2	2.56	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the sym-

metry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:RI:91:SER:OG	1:XA:368:U:OP1[4_555]	2.02	0.18

## 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	QB	235/256 (92%)	153 (65%)	52 (22%)	30 (13%)	0	13
2	XB	235/256 (92%)	153 (65%)	52 (22%)	30 (13%)	0	13
3	QC	203/239 (85%)	128 (63%)	56 (28%)	19 (9%)	1	23
3	XC	203/239 (85%)	129 (64%)	55 (27%)	19 (9%)	1	23
4	QD	206/209 (99%)	136 (66%)	50 (24%)	20 (10%)	1	21
4	XD	206/209 (99%)	135 (66%)	49 (24%)	22 (11%)	1	17
5	QE	149/162 (92%)	103 (69%)	31 (21%)	15 (10%)	1	20
5	XE	149/162 (92%)	103 (69%)	30 (20%)	16 (11%)	1	17
6	QF	99/101 (98%)	66 (67%)	24 (24%)	9 (9%)	1	24
6	XF	99/101 (98%)	66 (67%)	24 (24%)	9 (9%)	1	24
7	QG	153/156 (98%)	102 (67%)	36 (24%)	15 (10%)	1	21
7	XG	153/156 (98%)	103 (67%)	36 (24%)	14 (9%)	1	24
8	QH	136/138 (99%)	92 (68%)	29 (21%)	15 (11%)	1	16
8	XH	136/138 (99%)	92 (68%)	29 (21%)	15 (11%)	1	16
9	QI	125/128 (98%)	77 (62%)	32 (26%)	16 (13%)	0	13
9	XI	125/128 (98%)	77 (62%)	32 (26%)	16 (13%)	0	13
10	QJ	97/105 (92%)	68 (70%)	20 (21%)	9 (9%)	1	23
10	XJ	97/105 (92%)	68 (70%)	19 (20%)	10 (10%)	1	19
11	QK	117/129 (91%)	87 (74%)	21 (18%)	9 (8%)	1	29
11	XK	117/129 (91%)	87 (74%)	22 (19%)	8 (7%)	2	34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	QL	123/132 (93%)	84 (68%)	24 (20%)	15 (12%)	1	14
12	XL	123/132 (93%)	83 (68%)	24 (20%)	16 (13%)	0	12
13	QM	119/126 (94%)	71 (60%)	29 (24%)	19 (16%)	0	7
13	XM	119/126 (94%)	72 (60%)	25 (21%)	22 (18%)	0	5
14	QN	58/61 (95%)	31 (53%)	15 (26%)	12 (21%)	0	3
14	XN	58/61 (95%)	32 (55%)	14 (24%)	12 (21%)	0	3
15	QO	86/89 (97%)	61 (71%)	19 (22%)	6 (7%)	2	33
15	XO	86/89 (97%)	60 (70%)	20 (23%)	6 (7%)	2	33
16	QP	82/88 (93%)	48 (58%)	23 (28%)	11 (13%)	0	11
16	XP	82/88 (93%)	48 (58%)	23 (28%)	11 (13%)	0	11
17	QQ	98/105 (93%)	75 (76%)	15 (15%)	8 (8%)	1	27
17	XQ	98/105 (93%)	75 (76%)	15 (15%)	8 (8%)	1	27
18	QR	68/88 (77%)	46 (68%)	14 (21%)	8 (12%)	1	14
18	XR	68/88 (77%)	46 (68%)	14 (21%)	8 (12%)	1	14
19	QS	82/93 (88%)	46 (56%)	18 (22%)	18 (22%)	0	2
19	XS	82/93 (88%)	46 (56%)	18 (22%)	18 (22%)	0	2
20	QT	97/106 (92%)	63 (65%)	16 (16%)	18 (19%)	0	4
20	XT	97/106 (92%)	63 (65%)	15 (16%)	19 (20%)	0	4
21	QU	23/27 (85%)	16 (70%)	3 (13%)	4 (17%)	0	6
21	XU	23/27 (85%)	16 (70%)	3 (13%)	4 (17%)	0	6
27	RD	270/276 (98%)	203 (75%)	48 (18%)	19 (7%)	2	33
27	YD	270/276 (98%)	204 (76%)	47 (17%)	19 (7%)	2	33
28	RE	203/206 (98%)	120 (59%)	41 (20%)	42 (21%)	0	3
28	YE	203/206 (98%)	120 (59%)	41 (20%)	42 (21%)	0	3
29	RF	200/210 (95%)	144 (72%)	36 (18%)	20 (10%)	1	20
29	YF	200/210 (95%)	144 (72%)	36 (18%)	20 (10%)	1	20
30	RG	179/182 (98%)	119 (66%)	39 (22%)	21 (12%)	1	15
30	YG	179/182 (98%)	119 (66%)	39 (22%)	21 (12%)	1	15
31	RH	168/180 (93%)	94 (56%)	36 (21%)	38 (23%)	0	2
31	YH	168/180 (93%)	94 (56%)	36 (21%)	38 (23%)	0	2
32	RI	144/148 (97%)	99 (69%)	32 (22%)	13 (9%)	1	24

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	YI	144/148 (97%)	93 (65%)	30 (21%)	21 (15%)	0	9
33	RN	136/140 (97%)	84 (62%)	30 (22%)	22 (16%)	0	7
33	YN	136/140 (97%)	84 (62%)	30 (22%)	22 (16%)	0	7
34	RO	120/122 (98%)	90 (75%)	21 (18%)	9 (8%)	2	30
34	YO	120/122 (98%)	90 (75%)	21 (18%)	9 (8%)	2	30
35	RP	148/150 (99%)	97 (66%)	19 (13%)	32 (22%)	0	3
35	YP	148/150 (99%)	97 (66%)	19 (13%)	32 (22%)	0	3
36	RQ	139/141 (99%)	95 (68%)	30 (22%)	14 (10%)	1	20
36	YQ	139/141 (99%)	97 (70%)	28 (20%)	14 (10%)	1	20
37	RR	116/118 (98%)	82 (71%)	20 (17%)	14 (12%)	1	14
37	YR	116/118 (98%)	82 (71%)	20 (17%)	14 (12%)	1	14
38	RS	109/112 (97%)	62 (57%)	28 (26%)	19 (17%)	0	6
38	YS	109/112 (97%)	62 (57%)	28 (26%)	19 (17%)	0	6
39	RT	135/146 (92%)	83 (62%)	32 (24%)	20 (15%)	0	9
39	YT	135/146 (92%)	83 (62%)	32 (24%)	20 (15%)	0	9
40	RU	115/118 (98%)	87 (76%)	19 (16%)	9 (8%)	1	29
40	YU	115/118 (98%)	86 (75%)	20 (17%)	9 (8%)	1	29
41	RV	99/101 (98%)	73 (74%)	16 (16%)	10 (10%)	1	20
41	YV	99/101 (98%)	73 (74%)	16 (16%)	10 (10%)	1	20
42	RW	111/113 (98%)	75 (68%)	22 (20%)	14 (13%)	0	13
42	YW	111/113 (98%)	75 (68%)	22 (20%)	14 (13%)	0	13
43	RX	90/96 (94%)	77 (86%)	8 (9%)	5 (6%)	3	40
43	YX	90/96 (94%)	77 (86%)	8 (9%)	5 (6%)	3	40
44	RY	100/110 (91%)	58 (58%)	16 (16%)	26 (26%)	0	2
44	YY	100/110 (91%)	57 (57%)	16 (16%)	27 (27%)	0	1
45	RZ	181/206 (88%)	113 (62%)	46 (25%)	22 (12%)	1	14
45	YZ	181/206 (88%)	128 (71%)	36 (20%)	17 (9%)	1	23
46	R0	80/85 (94%)	66 (82%)	10 (12%)	4 (5%)	3	43
46	Y0	80/85 (94%)	66 (82%)	10 (12%)	4 (5%)	3	43
47	R1	95/98 (97%)	64 (67%)	20 (21%)	11 (12%)	1	15
47	Y1	95/98 (97%)	64 (67%)	20 (21%)	11 (12%)	1	15

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	R2	67/72 (93%)	47 (70%)	11 (16%)	9 (13%)	0	11
48	Y2	67/72 (93%)	47 (70%)	11 (16%)	9 (13%)	0	11
49	R3	57/60 (95%)	45 (79%)	9 (16%)	3 (5%)	3	41
49	Y3	57/60 (95%)	45 (79%)	9 (16%)	3 (5%)	3	41
50	R4	69/71 (97%)	23 (33%)	20 (29%)	26 (38%)	0	0
50	Y4	69/71 (97%)	23 (33%)	20 (29%)	26 (38%)	0	0
51	R5	57/60 (95%)	33 (58%)	9 (16%)	15 (26%)	0	2
51	Y5	57/60 (95%)	33 (58%)	9 (16%)	15 (26%)	0	2
52	R6	47/54 (87%)	15 (32%)	18 (38%)	14 (30%)	0	1
52	Y6	47/54 (87%)	15 (32%)	18 (38%)	14 (30%)	0	1
53	R7	47/49 (96%)	37 (79%)	7 (15%)	3 (6%)	2	36
53	Y7	47/49 (96%)	37 (79%)	7 (15%)	3 (6%)	2	36
54	R8	62/65 (95%)	36 (58%)	15 (24%)	11 (18%)	0	5
54	Y8	62/65 (95%)	36 (58%)	15 (24%)	11 (18%)	0	5
55	R9	35/37 (95%)	31 (89%)	4 (11%)	0	100	100
55	Y9	35/37 (95%)	31 (89%)	4 (11%)	0	100	100
All	All	11470/12128 (95%)	7621 (66%)	2356 (20%)	1493 (13%)	0	12

All (1493) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	QB	6	THR
2	QB	15	VAL
2	QB	26	PRO
2	QB	84	GLU
2	QB	88	ALA
2	QB	126	GLU
2	QB	230	VAL
2	QB	233	SER
3	QC	4	LYS
3	QC	12	LEU
3	QC	14	ILE
3	QC	29	TYR
3	QC	61	ALA
3	QC	189	ALA
3	QC	190	ARG

Continued on next page...



*Continued from previous page...*

Mol	Chain	Res	Type
4	QD	28	SER
4	QD	29	PRO
4	QD	51	PRO
4	QD	89	THR
4	QD	129	ASN
4	QD	154	ASN
4	QD	155	LEU
4	QD	178	VAL
5	QE	146	ALA
7	QG	5	ARG
7	QG	7	ALA
8	QH	50	ARG
8	QH	129	VAL
9	QI	23	ASN
9	QI	56	LEU
9	QI	95	LYS
9	QI	111	ARG
9	QI	117	HIS
10	QJ	30	SER
10	QJ	33	GLN
11	QK	91	ARG
12	QL	18	VAL
12	QL	27	LEU
12	QL	45	PRO
12	QL	62	SER
12	QL	121	GLY
13	QM	67	GLU
13	QM	70	LEU
13	QM	83	ASP
13	QM	106	ASN
13	QM	108	ARG
13	QM	118	ALA
14	QN	3	ARG
14	QN	16	PHE
14	QN	23	ARG
14	QN	24	CYS
14	QN	44	LEU
15	QO	88	ARG
16	QP	44	THR
16	QP	67	THR
17	QQ	34	LYS
17	QQ	49	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
18	QR	22	VAL
19	QS	3	ARG
19	QS	12	ASP
19	QS	14	HIS
19	QS	25	LYS
19	QS	26	GLY
19	QS	31	ILE
19	QS	41	VAL
19	QS	70	LYS
19	QS	78	ARG
19	QS	79	THR
20	QT	48	LYS
20	QT	49	ALA
20	QT	74	LYS
20	QT	95	ALA
20	QT	96	GLY
20	QT	100	ILE
21	QU	7	ARG
21	QU	9	ARG
21	QU	22	ARG
27	RD	26	LYS
27	RD	28	GLU
27	RD	123	ALA
27	RD	231	HIS
28	RE	4	ILE
28	RE	7	VAL
28	RE	9	VAL
28	RE	22	PRO
28	RE	54	GLN
28	RE	57	LYS
28	RE	60	ASN
28	RE	63	LEU
28	RE	64	LYS
28	RE	68	ALA
28	RE	70	ALA
28	RE	73	GLU
28	RE	90	THR
28	RE	92	THR
28	RE	93	VAL
28	RE	169	ASN
28	RE	187	ALA
28	RE	189	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
29	RF	25	PRO
29	RF	66	PRO
29	RF	68	LYS
29	RF	73	ALA
29	RF	89	VAL
29	RF	128	ALA
29	RF	176	LEU
30	RG	4	ASP
30	RG	14	GLU
30	RG	79	ASN
30	RG	86	MET
31	RH	10	PRO
31	RH	12	PRO
31	RH	83	TYR
31	RH	85	LYS
31	RH	86	GLU
31	RH	87	LEU
31	RH	90	LYS
31	RH	92	ILE
31	RH	126	PRO
31	RH	127	GLU
31	RH	128	PRO
31	RH	137	ASP
31	RH	138	LYS
31	RH	153	LYS
31	RH	154	PRO
31	RH	155	SER
31	RH	169	VAL
32	RI	10	GLU
32	RI	117	GLU
32	RI	133	HIS
33	RN	6	PRO
33	RN	9	VAL
33	RN	22	THR
33	RN	36	GLY
33	RN	58	ASP
33	RN	95	PRO
33	RN	97	ARG
33	RN	119	ARG
33	RN	131	GLN
33	RN	133	GLN
33	RN	134	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
34	RO	49	ARG
35	RP	5	ASP
35	RP	10	PRO
35	RP	15	ARG
35	RP	19	VAL
35	RP	21	ARG
35	RP	25	SER
35	RP	27	HIS
35	RP	36	LYS
35	RP	38	GLN
35	RP	42	SER
35	RP	65	ARG
35	RP	95	VAL
35	RP	106	LEU
35	RP	107	LYS
35	RP	141	ALA
35	RP	148	LEU
36	RQ	6	ARG
36	RQ	18	LYS
36	RQ	22	LYS
36	RQ	27	VAL
36	RQ	81	VAL
36	RQ	90	VAL
36	RQ	134	ARG
37	RR	2	ARG
37	RR	3	HIS
37	RR	4	LEU
37	RR	14	SER
37	RR	58	GLY
37	RR	86	ARG
37	RR	117	VAL
38	RS	4	LEU
38	RS	12	PHE
38	RS	14	VAL
38	RS	23	ARG
38	RS	56	LEU
38	RS	57	LYS
38	RS	88	ASP
38	RS	89	ARG
38	RS	90	GLY
38	RS	107	GLU
39	RT	2	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
39	RT	3	ARG
39	RT	39	ARG
39	RT	55	ASN
39	RT	58	ASN
39	RT	90	GLN
39	RT	94	ALA
39	RT	97	ALA
39	RT	106	SER
39	RT	107	ASP
41	RV	28	GLU
41	RV	31	ALA
41	RV	45	THR
41	RV	48	GLY
41	RV	49	THR
41	RV	50	PRO
41	RV	53	GLU
41	RV	79	VAL
42	RW	59	VAL
42	RW	67	ASP
42	RW	75	TYR
42	RW	111	HIS
43	RX	36	LYS
44	RY	3	VAL
44	RY	23	ARG
44	RY	48	ALA
44	RY	49	VAL
44	RY	50	ARG
44	RY	53	PRO
44	RY	58	GLY
44	RY	63	LYS
44	RY	77	PRO
44	RY	78	ALA
44	RY	96	ILE
45	RZ	6	LYS
45	RZ	51	ALA
45	RZ	179	ASP
47	R1	30	VAL
47	R1	54	ALA
47	R1	81	LYS
47	R1	82	LEU
47	R1	95	LEU
48	R2	16	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
48	R2	43	GLN
48	R2	47	ASN
48	R2	48	HIS
48	R2	71	ASN
49	R3	3	ARG
50	R4	5	ILE
50	R4	14	ILE
50	R4	16	CYS
50	R4	22	ILE
50	R4	23	GLU
50	R4	36	CYS
50	R4	37	SER
50	R4	40	HIS
50	R4	42	PHE
50	R4	43	TYR
50	R4	49	PHE
50	R4	50	VAL
50	R4	51	ASP
50	R4	53	GLU
50	R4	62	ARG
50	R4	66	SER
50	R4	68	ARG
51	R5	3	LYS
51	R5	4	HIS
51	R5	35	GLU
51	R5	51	TYR
51	R5	53	ALA
52	R6	7	ILE
52	R6	14	THR
52	R6	15	GLU
52	R6	19	ARG
52	R6	21	TYR
52	R6	33	LYS
52	R6	45	LYS
52	R6	48	VAL
54	R8	29	LYS
54	R8	31	HIS
54	R8	34	TRP
54	R8	52	LYS
54	R8	62	LEU
2	XB	6	THR
2	XB	15	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
2	XB	26	PRO
2	XB	84	GLU
2	XB	88	ALA
2	XB	126	GLU
2	XB	230	VAL
2	XB	233	SER
3	XC	4	LYS
3	XC	12	LEU
3	XC	14	ILE
3	XC	29	TYR
3	XC	61	ALA
3	XC	189	ALA
3	XC	190	ARG
4	XD	28	SER
4	XD	30	LYS
4	XD	51	PRO
4	XD	89	THR
4	XD	129	ASN
4	XD	154	ASN
4	XD	155	LEU
4	XD	178	VAL
5	XE	146	ALA
7	XG	5	ARG
7	XG	7	ALA
8	XH	50	ARG
8	XH	129	VAL
9	XI	23	ASN
9	XI	56	LEU
9	XI	95	LYS
9	XI	111	ARG
9	XI	117	HIS
10	XJ	30	SER
10	XJ	33	GLN
11	XK	91	ARG
12	XL	18	VAL
12	XL	27	LEU
12	XL	46	LYS
12	XL	62	SER
12	XL	121	GLY
13	XM	70	LEU
13	XM	83	ASP
13	XM	106	ASN

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
13	XM	108	ARG
13	XM	118	ALA
14	XN	3	ARG
14	XN	16	PHE
14	XN	23	ARG
14	XN	43	CYS
14	XN	44	LEU
15	XO	88	ARG
16	XP	44	THR
16	XP	67	THR
17	XQ	34	LYS
17	XQ	49	GLU
18	XR	22	VAL
19	XS	3	ARG
19	XS	12	ASP
19	XS	14	HIS
19	XS	25	LYS
19	XS	26	GLY
19	XS	31	ILE
19	XS	41	VAL
19	XS	70	LYS
19	XS	78	ARG
19	XS	79	THR
20	XT	48	LYS
20	XT	49	ALA
20	XT	74	LYS
20	XT	95	ALA
20	XT	96	GLY
20	XT	100	ILE
21	XU	7	ARG
21	XU	9	ARG
21	XU	22	ARG
27	YD	26	LYS
27	YD	28	GLU
27	YD	123	ALA
27	YD	231	HIS
28	YE	4	ILE
28	YE	7	VAL
28	YE	9	VAL
28	YE	22	PRO
28	YE	54	GLN
28	YE	57	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
28	YE	60	ASN
28	YE	63	LEU
28	YE	64	LYS
28	YE	68	ALA
28	YE	70	ALA
28	YE	73	GLU
28	YE	90	THR
28	YE	92	THR
28	YE	93	VAL
28	YE	169	ASN
28	YE	187	ALA
28	YE	189	PRO
29	YF	25	PRO
29	YF	66	PRO
29	YF	68	LYS
29	YF	73	ALA
29	YF	89	VAL
29	YF	128	ALA
29	YF	176	LEU
30	YG	4	ASP
30	YG	14	GLU
30	YG	79	ASN
30	YG	86	MET
31	YH	10	PRO
31	YH	12	PRO
31	YH	83	TYR
31	YH	85	LYS
31	YH	86	GLU
31	YH	87	LEU
31	YH	90	LYS
31	YH	92	ILE
31	YH	126	PRO
31	YH	127	GLU
31	YH	128	PRO
31	YH	137	ASP
31	YH	138	LYS
31	YH	153	LYS
31	YH	154	PRO
31	YH	155	SER
31	YH	169	VAL
32	YI	10	GLU
32	YI	72	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
32	YI	133	HIS
32	YI	145	VAL
33	YN	6	PRO
33	YN	9	VAL
33	YN	22	THR
33	YN	36	GLY
33	YN	58	ASP
33	YN	95	PRO
33	YN	97	ARG
33	YN	119	ARG
33	YN	131	GLN
33	YN	133	GLN
33	YN	134	ARG
34	YO	49	ARG
35	YP	5	ASP
35	YP	10	PRO
35	YP	15	ARG
35	YP	19	VAL
35	YP	21	ARG
35	YP	25	SER
35	YP	27	HIS
35	YP	36	LYS
35	YP	38	GLN
35	YP	42	SER
35	YP	65	ARG
35	YP	95	VAL
35	YP	106	LEU
35	YP	107	LYS
35	YP	141	ALA
35	YP	148	LEU
36	YQ	6	ARG
36	YQ	18	LYS
36	YQ	22	LYS
36	YQ	27	VAL
36	YQ	81	VAL
36	YQ	90	VAL
36	YQ	134	ARG
37	YR	2	ARG
37	YR	3	HIS
37	YR	4	LEU
37	YR	14	SER
37	YR	58	GLY

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
37	YR	86	ARG
37	YR	117	VAL
38	YS	4	LEU
38	YS	12	PHE
38	YS	14	VAL
38	YS	23	ARG
38	YS	56	LEU
38	YS	57	LYS
38	YS	88	ASP
38	YS	89	ARG
38	YS	90	GLY
38	YS	107	GLU
39	YT	2	ASN
39	YT	3	ARG
39	YT	39	ARG
39	YT	55	ASN
39	YT	58	ASN
39	YT	90	GLN
39	YT	94	ALA
39	YT	97	ALA
39	YT	106	SER
39	YT	107	ASP
41	YV	28	GLU
41	YV	31	ALA
41	YV	45	THR
41	YV	48	GLY
41	YV	49	THR
41	YV	50	PRO
41	YV	53	GLU
41	YV	79	VAL
42	YW	59	VAL
42	YW	67	ASP
42	YW	75	TYR
42	YW	111	HIS
43	YX	36	LYS
44	YY	3	VAL
44	YY	23	ARG
44	YY	48	ALA
44	YY	49	VAL
44	YY	50	ARG
44	YY	58	GLY
44	YY	63	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
44	YY	77	PRO
44	YY	78	ALA
44	YY	96	ILE
45	YZ	6	LYS
45	YZ	51	ALA
45	YZ	146	ILE
45	YZ	152	ALA
45	YZ	166	SER
47	Y1	30	VAL
47	Y1	54	ALA
47	Y1	81	LYS
47	Y1	82	LEU
47	Y1	95	LEU
48	Y2	16	LEU
48	Y2	43	GLN
48	Y2	47	ASN
48	Y2	48	HIS
48	Y2	71	ASN
49	Y3	3	ARG
50	Y4	5	ILE
50	Y4	14	ILE
50	Y4	16	CYS
50	Y4	22	ILE
50	Y4	23	GLU
50	Y4	36	CYS
50	Y4	37	SER
50	Y4	40	HIS
50	Y4	42	PHE
50	Y4	43	TYR
50	Y4	49	PHE
50	Y4	50	VAL
50	Y4	51	ASP
50	Y4	53	GLU
50	Y4	62	ARG
50	Y4	66	SER
50	Y4	68	ARG
51	Y5	3	LYS
51	Y5	4	HIS
51	Y5	35	GLU
51	Y5	51	TYR
51	Y5	53	ALA
52	Y6	7	ILE

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
52	Y6	14	THR
52	Y6	15	GLU
52	Y6	19	ARG
52	Y6	21	TYR
52	Y6	33	LYS
52	Y6	45	LYS
52	Y6	48	VAL
54	Y8	29	LYS
54	Y8	31	HIS
54	Y8	34	TRP
54	Y8	52	LYS
54	Y8	62	LEU
2	QB	18	GLY
2	QB	65	GLY
2	QB	208	ILE
2	QB	216	SER
2	QB	237	ALA
3	QC	60	ALA
3	QC	79	ARG
3	QC	129	ALA
3	QC	145	GLY
4	QD	7	PRO
4	QD	20	TYR
4	QD	164	ALA
4	QD	170	VAL
4	QD	179	GLU
4	QD	181	MET
4	QD	200	GLU
5	QE	21	ALA
5	QE	63	ARG
5	QE	108	ALA
6	QF	70	ASP
7	QG	4	ARG
7	QG	63	LYS
7	QG	141	VAL
8	QH	68	ARG
8	QH	69	ARG
8	QH	76	PRO
8	QH	122	ARG
8	QH	128	GLY
9	QI	31	GLN
9	QI	41	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
9	QI	100	GLY
9	QI	109	VAL
10	QJ	36	GLY
10	QJ	68	HIS
11	QK	103	LEU
11	QK	107	SER
11	QK	124	LYS
11	QK	125	PHE
11	QK	126	ARG
12	QL	65	GLU
12	QL	110	VAL
12	QL	115	LYS
12	QL	116	SER
12	QL	128	ALA
13	QM	49	THR
13	QM	68	GLY
13	QM	120	LYS
14	QN	14	PRO
14	QN	15	LYS
14	QN	27	CYS
15	QO	77	ARG
16	QP	49	LEU
17	QQ	14	LYS
17	QQ	33	GLY
17	QQ	78	GLU
17	QQ	100	LYS
18	QR	27	GLY
18	QR	54	ARG
18	QR	64	ARG
18	QR	65	ILE
19	QS	13	ASP
19	QS	45	VAL
20	QT	11	SER
20	QT	28	ALA
20	QT	62	LEU
20	QT	99	LEU
20	QT	102	GLY
20	QT	103	GLY
21	QU	3	LYS
27	RD	3	VAL
27	RD	32	SER
27	RD	58	HIS

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
27	RD	122	ASP
27	RD	169	GLU
28	RE	8	LYS
28	RE	37	ARG
28	RE	53	PRO
28	RE	61	ARG
28	RE	78	LEU
28	RE	88	GLY
28	RE	186	GLY
28	RE	190	GLY
28	RE	204	ALA
29	RF	18	ARG
29	RF	107	LYS
29	RF	108	LYS
29	RF	111	ALA
29	RF	132	VAL
29	RF	134	GLY
29	RF	168	ARG
30	RG	5	VAL
30	RG	36	LYS
30	RG	81	LYS
30	RG	82	LEU
30	RG	96	ARG
30	RG	110	ALA
30	RG	115	ARG
30	RG	126	ASP
30	RG	136	ARG
31	RH	3	ARG
31	RH	8	PRO
31	RH	55	PRO
31	RH	59	ARG
31	RH	84	SER
31	RH	151	ILE
31	RH	156	ALA
31	RH	168	PRO
32	RI	11	ASN
32	RI	13	GLY
32	RI	72	LEU
32	RI	115	ALA
32	RI	145	VAL
33	RN	23	LEU
33	RN	76	SER

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
34	RO	51	ALA
34	RO	56	ASP
34	RO	68	GLU
35	RP	6	LEU
35	RP	11	GLY
35	RP	12	ALA
35	RP	16	ARG
36	RQ	13	GLN
36	RQ	24	GLY
36	RQ	28	ALA
36	RQ	57	HIS
37	RR	11	ASN
38	RS	87	PHE
38	RS	96	GLY
38	RS	100	ALA
38	RS	109	GLY
38	RS	111	GLU
39	RT	4	GLY
39	RT	36	GLU
39	RT	43	GLN
39	RT	67	SER
39	RT	124	ASP
40	RU	9	VAL
40	RU	28	ARG
40	RU	73	GLY
40	RU	90	VAL
42	RW	63	ASP
42	RW	66	GLU
42	RW	68	ARG
43	RX	67	GLY
44	RY	4	LYS
44	RY	41	GLY
44	RY	56	PRO
44	RY	57	GLN
44	RY	99	CYS
45	RZ	66	SER
45	RZ	111	VAL
45	RZ	112	ARG
45	RZ	116	VAL
45	RZ	130	PRO
45	RZ	158	PRO
45	RZ	177	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
46	R0	3	HIS
46	R0	64	ASP
47	R1	45	ASN
47	R1	55	GLY
47	R1	84	GLY
48	R2	24	LEU
48	R2	44	LEU
48	R2	70	GLN
50	R4	9	LEU
50	R4	24	THR
51	R5	43	HIS
51	R5	55	ARG
53	R7	39	ARG
2	XB	18	GLY
2	XB	65	GLY
2	XB	208	ILE
2	XB	216	SER
2	XB	237	ALA
3	XC	60	ALA
3	XC	79	ARG
3	XC	129	ALA
3	XC	145	GLY
4	XD	7	PRO
4	XD	20	TYR
4	XD	32	ALA
4	XD	164	ALA
4	XD	170	VAL
4	XD	179	GLU
4	XD	181	MET
4	XD	200	GLU
5	XE	21	ALA
5	XE	63	ARG
5	XE	108	ALA
6	XF	70	ASP
7	XG	4	ARG
7	XG	63	LYS
7	XG	141	VAL
8	XH	68	ARG
8	XH	69	ARG
8	XH	76	PRO
8	XH	122	ARG
9	XI	31	GLN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
9	XI	41	VAL
9	XI	100	GLY
9	XI	109	VAL
10	XJ	36	GLY
10	XJ	68	HIS
11	XK	103	LEU
11	XK	107	SER
11	XK	124	LYS
11	XK	125	PHE
11	XK	126	ARG
12	XL	65	GLU
12	XL	110	VAL
12	XL	115	LYS
12	XL	116	SER
12	XL	128	ALA
13	XM	49	THR
13	XM	67	GLU
13	XM	68	GLY
13	XM	120	LYS
14	XN	14	PRO
14	XN	15	LYS
14	XN	40	CYS
15	XO	77	ARG
16	XP	49	LEU
17	XQ	14	LYS
17	XQ	33	GLY
17	XQ	78	GLU
17	XQ	100	LYS
18	XR	27	GLY
18	XR	54	ARG
18	XR	64	ARG
18	XR	65	ILE
19	XS	13	ASP
19	XS	45	VAL
20	XT	11	SER
20	XT	28	ALA
20	XT	62	LEU
20	XT	99	LEU
20	XT	102	GLY
20	XT	103	GLY
21	XU	3	LYS
27	YD	3	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
27	YD	32	SER
27	YD	58	HIS
27	YD	122	ASP
27	YD	169	GLU
28	YE	8	LYS
28	YE	20	ALA
28	YE	37	ARG
28	YE	53	PRO
28	YE	61	ARG
28	YE	78	LEU
28	YE	88	GLY
28	YE	186	GLY
28	YE	190	GLY
28	YE	204	ALA
29	YF	18	ARG
29	YF	107	LYS
29	YF	108	LYS
29	YF	111	ALA
29	YF	132	VAL
29	YF	134	GLY
29	YF	168	ARG
30	YG	5	VAL
30	YG	36	LYS
30	YG	81	LYS
30	YG	82	LEU
30	YG	96	ARG
30	YG	110	ALA
30	YG	126	ASP
30	YG	136	ARG
31	YH	3	ARG
31	YH	8	PRO
31	YH	55	PRO
31	YH	59	ARG
31	YH	84	SER
31	YH	151	ILE
31	YH	156	ALA
31	YH	168	PRO
32	YI	11	ASN
32	YI	15	VAL
32	YI	29	TYR
32	YI	84	GLY
32	YI	87	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
32	YI	102	SER
32	YI	113	ARG
32	YI	118	LYS
33	YN	23	LEU
33	YN	76	SER
34	YO	51	ALA
34	YO	56	ASP
34	YO	68	GLU
35	YP	6	LEU
35	YP	11	GLY
35	YP	12	ALA
35	YP	16	ARG
36	YQ	13	GLN
36	YQ	24	GLY
36	YQ	28	ALA
37	YR	11	ASN
38	YS	61	ASN
38	YS	87	PHE
38	YS	96	GLY
38	YS	100	ALA
38	YS	109	GLY
38	YS	111	GLU
39	YT	4	GLY
39	YT	36	GLU
39	YT	43	GLN
39	YT	67	SER
39	YT	124	ASP
40	YU	9	VAL
40	YU	28	ARG
40	YU	73	GLY
40	YU	90	VAL
42	YW	63	ASP
42	YW	66	GLU
43	YX	67	GLY
44	YY	4	LYS
44	YY	41	GLY
44	YY	53	PRO
44	YY	56	PRO
44	YY	57	GLN
44	YY	99	CYS
45	YZ	13	GLU
45	YZ	81	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
45	YZ	153	SER
45	YZ	159	PRO
46	Y0	12	ASN
46	Y0	18	ALA
46	Y0	55	ARG
47	Y1	45	ASN
47	Y1	55	GLY
47	Y1	84	GLY
48	Y2	24	LEU
48	Y2	44	LEU
48	Y2	70	GLN
50	Y4	9	LEU
50	Y4	24	THR
51	Y5	43	HIS
51	Y5	55	ARG
53	Y7	39	ARG
2	QB	155	LEU
2	QB	159	PRO
2	QB	175	ARG
3	QC	16	ARG
3	QC	45	LYS
3	QC	81	GLY
4	QD	26	CYS
4	QD	136	PRO
5	QE	37	ARG
6	QF	41	GLU
6	QF	87	ARG
7	QG	35	LYS
7	QG	62	PHE
7	QG	149	ARG
8	QH	2	LEU
9	QI	12	GLU
9	QI	13	ALA
10	QJ	57	LYS
12	QL	51	ALA
12	QL	123	LYS
13	QM	12	ASN
13	QM	101	GLN
13	QM	121	LYS
14	QN	9	LYS
14	QN	48	ALA
15	QO	14	GLU

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
15	QO	23	GLY
16	QP	8	ARG
16	QP	83	GLU
17	QQ	30	PRO
17	QQ	99	SER
18	QR	55	ARG
19	QS	6	LYS
19	QS	27	GLU
20	QT	82	SER
20	QT	98	PRO
27	RD	111	LEU
27	RD	242	ARG
27	RD	262	ARG
28	RE	20	ALA
28	RE	62	PRO
28	RE	69	LYS
28	RE	71	GLY
28	RE	82	ARG
28	RE	117	MET
28	RE	130	GLY
28	RE	132	HIS
30	RG	128	ARG
30	RG	174	GLU
31	RH	50	VAL
31	RH	81	GLU
31	RH	152	ARG
32	RI	15	VAL
32	RI	112	LYS
33	RN	45	ASN
33	RN	130	HIS
33	RN	132	ALA
33	RN	135	PRO
35	RP	7	ARG
35	RP	14	LYS
35	RP	43	GLY
35	RP	89	ALA
35	RP	102	ARG
35	RP	115	LEU
36	RQ	88	GLY
36	RQ	91	GLU
37	RR	42	LYS
37	RR	45	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
37	RR	71	GLN
37	RR	107	ASP
38	RS	19	LYS
38	RS	61	ASN
38	RS	74	ALA
38	RS	75	GLU
39	RT	112	ARG
40	RU	46	ALA
40	RU	58	ARG
40	RU	93	LYS
41	RV	54	GLY
42	RW	93	ALA
43	RX	48	LYS
43	RX	87	GLN
44	RY	21	LYS
44	RY	39	VAL
44	RY	42	VAL
44	RY	69	ALA
44	RY	91	GLU
44	RY	102	CYS
45	RZ	61	LEU
45	RZ	81	ARG
45	RZ	108	PRO
45	RZ	166	SER
46	R0	15	ASP
46	R0	57	PHE
47	R1	74	VAL
47	R1	91	LYS
47	R1	93	GLU
50	R4	27	THR
50	R4	46	GLN
52	R6	18	ARG
53	R7	32	LYS
54	R8	46	ARG
54	R8	47	LYS
2	XB	155	LEU
2	XB	159	PRO
2	XB	175	ARG
3	XC	16	ARG
3	XC	45	LYS
3	XC	81	GLY
4	XD	29	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
4	XD	73	ARG
4	XD	136	PRO
5	XE	37	ARG
6	XF	41	GLU
6	XF	87	ARG
7	XG	62	PHE
7	XG	149	ARG
8	XH	2	LEU
8	XH	128	GLY
9	XI	12	GLU
9	XI	13	ALA
12	XL	45	PRO
12	XL	51	ALA
12	XL	123	LYS
13	XM	12	ASN
13	XM	101	GLN
13	XM	121	LYS
14	XN	9	LYS
14	XN	48	ALA
15	XO	14	GLU
15	XO	23	GLY
16	XP	8	ARG
16	XP	83	GLU
17	XQ	30	PRO
17	XQ	99	SER
18	XR	55	ARG
19	XS	6	LYS
19	XS	27	GLU
20	XT	82	SER
20	XT	98	PRO
27	YD	12	SER
27	YD	111	LEU
27	YD	239	ARG
27	YD	242	ARG
27	YD	262	ARG
28	YE	62	PRO
28	YE	69	LYS
28	YE	71	GLY
28	YE	82	ARG
28	YE	117	MET
28	YE	130	GLY
28	YE	132	HIS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
30	YG	115	ARG
30	YG	128	ARG
30	YG	174	GLU
31	YH	50	VAL
31	YH	81	GLU
31	YH	152	ARG
31	YH	159	GLU
32	YI	9	LEU
32	YI	104	GLN
32	YI	114	LEU
32	YI	115	ALA
33	YN	45	ASN
33	YN	130	HIS
33	YN	135	PRO
35	YP	7	ARG
35	YP	14	LYS
35	YP	43	GLY
35	YP	89	ALA
35	YP	102	ARG
35	YP	115	LEU
36	YQ	57	HIS
36	YQ	88	GLY
36	YQ	91	GLU
37	YR	42	LYS
37	YR	45	ARG
37	YR	71	GLN
37	YR	107	ASP
38	YS	19	LYS
38	YS	74	ALA
38	YS	75	GLU
39	YT	78	LEU
39	YT	112	ARG
40	YU	46	ALA
40	YU	58	ARG
40	YU	93	LYS
41	YV	54	GLY
42	YW	68	ARG
42	YW	93	ALA
43	YX	48	LYS
43	YX	87	GLN
44	YY	21	LYS
44	YY	39	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
44	YY	42	VAL
44	YY	69	ALA
44	YY	91	GLU
44	YY	102	CYS
47	Y1	74	VAL
47	Y1	91	LYS
47	Y1	93	GLU
50	Y4	27	THR
50	Y4	46	GLN
52	Y6	18	ARG
53	Y7	32	LYS
54	Y8	46	ARG
54	Y8	47	LYS
2	QB	19	HIS
2	QB	131	PRO
2	QB	160	ASP
2	QB	177	ALA
3	QC	168	ALA
4	QD	151	LYS
5	QE	70	PRO
5	QE	72	GLN
5	QE	124	GLY
6	QF	13	ASN
6	QF	40	VAL
6	QF	42	GLU
7	QG	41	ARG
7	QG	109	ASN
7	QG	116	ALA
7	QG	117	ALA
8	QH	27	PRO
8	QH	49	GLU
10	QJ	93	GLY
12	QL	64	TYR
13	QM	4	ILE
13	QM	14	ARG
13	QM	69	GLU
13	QM	77	ASN
14	QN	26	ARG
15	QO	86	GLY
16	QP	26	ARG
16	QP	28	ARG
16	QP	48	TRP

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
19	QS	28	LYS
19	QS	44	MET
19	QS	64	GLU
20	QT	40	ALA
20	QT	51	GLU
27	RD	12	SER
27	RD	73	VAL
27	RD	238	GLY
28	RE	66	HIS
28	RE	126	PRO
29	RF	43	LYS
29	RF	130	ALA
29	RF	136	THR
29	RF	145	GLU
30	RG	12	TYR
30	RG	117	PHE
30	RG	146	TYR
31	RH	13	LYS
31	RH	109	PHE
31	RH	159	GLU
32	RI	80	PRO
33	RN	96	GLU
33	RN	127	ASP
34	RO	17	ARG
34	RO	97	ARG
35	RP	29	LYS
35	RP	47	ASP
35	RP	139	LYS
39	RT	37	GLY
39	RT	78	LEU
39	RT	95	ARG
40	RU	74	LEU
42	RW	14	PRO
42	RW	48	ALA
45	RZ	13	GLU
45	RZ	59	LEU
45	RZ	62	PRO
50	R4	8	LYS
51	R5	14	ALA
51	R5	37	LYS
51	R5	45	VAL
51	R5	48	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
52	R6	8	LYS
52	R6	9	LEU
52	R6	10	LEU
52	R6	49	HIS
54	R8	25	MET
54	R8	53	PRO
54	R8	57	ARG
2	XB	19	HIS
2	XB	131	PRO
2	XB	160	ASP
3	XC	168	ALA
4	XD	151	LYS
5	XE	70	PRO
5	XE	72	GLN
5	XE	124	GLY
6	XF	13	ASN
6	XF	40	VAL
6	XF	42	GLU
7	XG	35	LYS
7	XG	41	ARG
7	XG	116	ALA
7	XG	117	ALA
8	XH	27	PRO
8	XH	29	SER
8	XH	49	GLU
10	XJ	57	LYS
10	XJ	93	GLY
12	XL	64	TYR
13	XM	4	ILE
13	XM	14	ARG
13	XM	69	GLU
13	XM	77	ASN
14	XN	22	THR
15	XO	86	GLY
16	XP	26	ARG
16	XP	28	ARG
16	XP	48	TRP
19	XS	28	LYS
19	XS	44	MET
19	XS	64	GLU
20	XT	40	ALA
20	XT	51	GLU

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
27	YD	73	VAL
28	YE	66	HIS
28	YE	126	PRO
29	YF	43	LYS
29	YF	130	ALA
29	YF	136	THR
29	YF	145	GLU
30	YG	12	TYR
30	YG	117	PHE
30	YG	146	TYR
31	YH	13	LYS
31	YH	109	PHE
32	YI	18	VAL
32	YI	83	ALA
33	YN	96	GLU
33	YN	127	ASP
33	YN	132	ALA
34	YO	17	ARG
34	YO	97	ARG
35	YP	29	LYS
35	YP	47	ASP
35	YP	139	LYS
39	YT	37	GLY
39	YT	95	ARG
40	YU	74	LEU
42	YW	14	PRO
42	YW	48	ALA
45	YZ	59	LEU
50	Y4	8	LYS
51	Y5	14	ALA
51	Y5	37	LYS
51	Y5	45	VAL
51	Y5	48	GLU
52	Y6	8	LYS
52	Y6	9	LEU
52	Y6	10	LEU
52	Y6	49	HIS
54	Y8	25	MET
54	Y8	53	PRO
2	QB	23	ARG
2	QB	25	ASN
2	QB	98	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
2	QB	129	GLU
2	QB	194	PRO
2	QB	229	VAL
2	QB	231	GLU
3	QC	125	GLU
5	QE	74	GLY
5	QE	77	PRO
5	QE	112	LEU
5	QE	128	PRO
5	QE	132	ALA
6	QF	12	PRO
6	QF	32	ASN
6	QF	96	PRO
8	QH	29	SER
8	QH	34	GLU
8	QH	103	VAL
9	QI	44	VAL
9	QI	89	ASN
10	QJ	53	PRO
10	QJ	59	SER
10	QJ	75	ILE
11	QK	64	ALA
11	QK	105	VAL
12	QL	63	GLY
18	QR	58	LEU
19	QS	11	VAL
27	RD	33	LEU
28	RE	79	ARG
29	RF	47	GLY
29	RF	118	ALA
31	RH	11	VAL
31	RH	27	LYS
31	RH	47	GLU
31	RH	77	LYS
31	RH	170	ARG
32	RI	118	LYS
33	RN	29	LYS
33	RN	104	LYS
33	RN	128	HIS
34	RO	25	LEU
35	RP	50	ARG
35	RP	97	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
35	RP	108	LYS
37	RR	85	PRO
40	RU	91	ASP
42	RW	32	ALA
44	RY	7	VAL
45	RZ	5	LEU
45	RZ	7	ALA
45	RZ	153	SER
45	RZ	165	VAL
49	R3	13	ILE
50	R4	30	GLU
50	R4	33	VAL
51	R5	42	PRO
52	R6	35	GLU
54	R8	64	TYR
2	XB	23	ARG
2	XB	25	ASN
2	XB	98	LEU
2	XB	129	GLU
2	XB	177	ALA
2	XB	194	PRO
2	XB	229	VAL
2	XB	231	GLU
3	XC	125	GLU
5	XE	74	GLY
5	XE	77	PRO
5	XE	112	LEU
5	XE	128	PRO
5	XE	132	ALA
6	XF	12	PRO
6	XF	96	PRO
7	XG	109	ASN
8	XH	34	GLU
8	XH	103	VAL
9	XI	44	VAL
9	XI	88	TYR
9	XI	89	ASN
10	XJ	53	PRO
10	XJ	59	SER
10	XJ	75	ILE
11	XK	64	ALA
11	XK	105	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
12	XL	63	GLY
18	XR	58	LEU
19	XS	11	VAL
27	YD	33	LEU
28	YE	79	ARG
29	YF	47	GLY
29	YF	118	ALA
31	YH	11	VAL
31	YH	27	LYS
31	YH	47	GLU
31	YH	77	LYS
31	YH	170	ARG
32	YI	12	LEU
33	YN	29	LYS
33	YN	104	LYS
33	YN	128	HIS
34	YO	25	LEU
35	YP	50	ARG
35	YP	97	PRO
35	YP	108	LYS
37	YR	85	PRO
40	YU	91	ASP
42	YW	32	ALA
44	YY	7	VAL
45	YZ	53	ILE
45	YZ	117	LEU
46	Y0	15	ASP
49	Y3	13	ILE
50	Y4	30	GLU
50	Y4	33	VAL
50	Y4	70	GLY
51	Y5	42	PRO
52	Y6	35	GLU
53	Y7	44	PRO
54	Y8	57	ARG
54	Y8	64	TYR
3	QC	51	GLY
5	QE	115	VAL
9	QI	88	TYR
11	QK	106	LYS
12	QL	48	PRO
14	QN	20	ALA

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
16	QP	57	ARG
27	RD	178	PRO
30	RG	109	VAL
30	RG	181	ARG
31	RH	7	LEU
31	RH	26	VAL
39	RT	38	ASN
41	RV	36	PRO
42	RW	11	ARG
42	RW	33	ARG
43	RX	19	ALA
50	R4	69	LYS
50	R4	70	GLY
51	R5	57	VAL
53	R7	44	PRO
3	XC	51	GLY
5	XE	115	VAL
6	XF	32	ASN
10	XJ	85	LEU
13	XM	13	LYS
13	XM	48	LEU
13	XM	109	THR
14	XN	20	ALA
16	XP	57	ARG
20	XT	70	SER
27	YD	178	PRO
27	YD	241	PRO
30	YG	109	VAL
30	YG	181	ARG
31	YH	7	LEU
31	YH	26	VAL
39	YT	38	ASN
41	YV	36	PRO
42	YW	11	ARG
42	YW	33	ARG
43	YX	19	ALA
44	YY	33	LYS
45	YZ	61	LEU
50	Y4	69	LYS
51	Y5	57	VAL
2	QB	202	PRO
2	QB	239	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
4	QD	88	VAL
5	QE	49	PRO
7	QG	55	GLY
7	QG	58	PRO
8	QH	106	GLY
18	QR	37	VAL
20	QT	63	ILE
28	RE	86	PRO
28	RE	184	VAL
36	RQ	86	GLY
37	RR	32	GLY
42	RW	35	ILE
45	RZ	53	ILE
2	XB	202	PRO
2	XB	239	VAL
3	XC	114	PRO
4	XD	88	VAL
5	XE	49	PRO
7	XG	55	GLY
7	XG	58	PRO
18	XR	37	VAL
20	XT	63	ILE
28	YE	86	PRO
28	YE	184	VAL
32	YI	71	ILE
36	YQ	86	GLY
37	YR	32	GLY
42	YW	35	ILE
2	QB	227	GLY
3	QC	114	PRO
4	QD	90	GLY
9	QI	24	GLY
13	QM	60	VAL
15	QO	18	PHE
16	QP	53	VAL
27	RD	241	PRO
44	RY	27	VAL
44	RY	32	PRO
51	R5	46	CYS
2	XB	227	GLY
3	XC	134	ILE
4	XD	90	GLY

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
8	XH	106	GLY
9	XI	24	GLY
13	XM	60	VAL
15	XO	18	PHE
16	XP	53	VAL
30	YG	52	ILE
44	YY	27	VAL
44	YY	32	PRO
45	YZ	171	ILE
51	Y5	46	CYS
3	QC	134	ILE
13	QM	84	ILE
27	RD	34	VAL
30	RG	52	ILE
34	RO	114	ILE
44	RY	51	VAL
51	R5	34	PRO
12	XL	48	PRO
13	XM	84	ILE
27	YD	34	VAL
34	YO	114	ILE
44	YY	51	VAL
45	YZ	94	GLU
45	YZ	160	GLY
51	Y5	34	PRO
9	QI	21	PRO
13	QM	78	ILE
16	QP	41	PRO
28	RE	52	LEU
28	RE	55	ASN
32	RI	18	VAL
34	RO	27	GLY
49	R3	40	THR
9	XI	21	PRO
13	XM	78	ILE
28	YE	52	LEU
28	YE	55	ASN
32	YI	110	ASP
34	YO	27	GLY
45	YZ	143	GLY
49	Y3	40	THR
7	QG	14	PRO

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
8	QH	51	VAL
20	QT	97	ALA
5	XE	129	ILE
8	XH	51	VAL
16	XP	41	PRO
20	XT	97	ALA
48	R2	18	PRO
48	Y2	18	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	QB	205/220 (93%)	181 (88%)	24 (12%)	8	43
2	XB	205/220 (93%)	181 (88%)	24 (12%)	8	43
3	QC	159/188 (85%)	143 (90%)	16 (10%)	11	51
3	XC	159/188 (85%)	143 (90%)	16 (10%)	11	51
4	QD	180/181 (99%)	160 (89%)	20 (11%)	9	46
4	XD	180/181 (99%)	165 (92%)	15 (8%)	16	62
5	QE	116/123 (94%)	107 (92%)	9 (8%)	18	64
5	XE	116/123 (94%)	107 (92%)	9 (8%)	18	64
6	QF	90/90 (100%)	76 (84%)	14 (16%)	4	28
6	XF	90/90 (100%)	76 (84%)	14 (16%)	4	28
7	QG	126/127 (99%)	115 (91%)	11 (9%)	15	59
7	XG	126/127 (99%)	115 (91%)	11 (9%)	15	59
8	QH	119/119 (100%)	106 (89%)	13 (11%)	9	47
8	XH	119/119 (100%)	106 (89%)	13 (11%)	9	47
9	QI	98/99 (99%)	87 (89%)	11 (11%)	9	45
9	XI	98/99 (99%)	87 (89%)	11 (11%)	9	45
10	QJ	89/92 (97%)	81 (91%)	8 (9%)	14	57
10	XJ	89/92 (97%)	81 (91%)	8 (9%)	14	57

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	QK	90/99 (91%)	81 (90%)	9 (10%)	11	52
11	XK	90/99 (91%)	81 (90%)	9 (10%)	11	52
12	QL	104/109 (95%)	90 (86%)	14 (14%)	6	36
12	XL	104/109 (95%)	89 (86%)	15 (14%)	5	32
13	QM	97/101 (96%)	81 (84%)	16 (16%)	3	25
13	XM	97/101 (96%)	81 (84%)	16 (16%)	3	25
14	QN	49/50 (98%)	40 (82%)	9 (18%)	2	18
14	XN	49/50 (98%)	44 (90%)	5 (10%)	11	51
15	QO	79/80 (99%)	73 (92%)	6 (8%)	19	66
15	XO	79/80 (99%)	73 (92%)	6 (8%)	19	66
16	QP	72/74 (97%)	63 (88%)	9 (12%)	7	40
16	XP	72/74 (97%)	63 (88%)	9 (12%)	7	40
17	QQ	95/97 (98%)	89 (94%)	6 (6%)	25	73
17	XQ	95/97 (98%)	89 (94%)	6 (6%)	25	73
18	QR	61/77 (79%)	54 (88%)	7 (12%)	8	44
18	XR	61/77 (79%)	54 (88%)	7 (12%)	8	44
19	QS	73/80 (91%)	62 (85%)	11 (15%)	4	30
19	XS	73/80 (91%)	62 (85%)	11 (15%)	4	30
20	QT	76/82 (93%)	68 (90%)	8 (10%)	10	49
20	XT	76/82 (93%)	68 (90%)	8 (10%)	10	49
21	QU	20/22 (91%)	19 (95%)	1 (5%)	34	80
21	XU	20/22 (91%)	19 (95%)	1 (5%)	34	80
27	RD	214/218 (98%)	177 (83%)	37 (17%)	3	21
27	YD	214/218 (98%)	178 (83%)	36 (17%)	3	24
28	RE	165/166 (99%)	128 (78%)	37 (22%)	1	11
28	YE	165/166 (99%)	127 (77%)	38 (23%)	1	9
29	RF	161/166 (97%)	140 (87%)	21 (13%)	6	38
29	YF	161/166 (97%)	140 (87%)	21 (13%)	6	38
30	RG	155/156 (99%)	130 (84%)	25 (16%)	3	27
30	YG	155/156 (99%)	130 (84%)	25 (16%)	3	27
31	RH	142/148 (96%)	114 (80%)	28 (20%)	2	15

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	YH	142/148 (96%)	114 (80%)	28 (20%)	2	15
32	RI	122/124 (98%)	94 (77%)	28 (23%)	1	9
32	YI	122/124 (98%)	92 (75%)	30 (25%)	1	8
33	RN	117/119 (98%)	98 (84%)	19 (16%)	3	26
33	YN	117/119 (98%)	98 (84%)	19 (16%)	3	26
34	RO	100/100 (100%)	90 (90%)	10 (10%)	11	52
34	YO	100/100 (100%)	90 (90%)	10 (10%)	11	52
35	RP	116/116 (100%)	89 (77%)	27 (23%)	1	9
35	YP	116/116 (100%)	89 (77%)	27 (23%)	1	9
36	RQ	111/111 (100%)	93 (84%)	18 (16%)	3	26
36	YQ	111/111 (100%)	93 (84%)	18 (16%)	3	26
37	RR	101/101 (100%)	84 (83%)	17 (17%)	3	24
37	YR	101/101 (100%)	84 (83%)	17 (17%)	3	24
38	RS	87/88 (99%)	74 (85%)	13 (15%)	4	30
38	YS	87/88 (99%)	74 (85%)	13 (15%)	4	30
39	RT	120/127 (94%)	97 (81%)	23 (19%)	2	16
39	YT	120/127 (94%)	97 (81%)	23 (19%)	2	16
40	RU	93/94 (99%)	80 (86%)	13 (14%)	5	34
40	YU	93/94 (99%)	80 (86%)	13 (14%)	5	34
41	RV	82/82 (100%)	71 (87%)	11 (13%)	6	36
41	YV	82/82 (100%)	71 (87%)	11 (13%)	6	36
42	RW	92/92 (100%)	77 (84%)	15 (16%)	3	26
42	YW	92/92 (100%)	77 (84%)	15 (16%)	3	26
43	RX	74/78 (95%)	63 (85%)	11 (15%)	4	30
43	YX	74/78 (95%)	63 (85%)	11 (15%)	4	30
44	RY	85/91 (93%)	70 (82%)	15 (18%)	3	21
44	YY	85/91 (93%)	70 (82%)	15 (18%)	3	21
45	RZ	162/179 (90%)	133 (82%)	29 (18%)	2	20
45	YZ	162/179 (90%)	131 (81%)	31 (19%)	2	16
46	R0	65/67 (97%)	58 (89%)	7 (11%)	9	48
46	Y0	65/67 (97%)	58 (89%)	7 (11%)	9	48

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
47	R1	82/83 (99%)	67 (82%)	15 (18%)	2	18
47	Y1	82/83 (99%)	67 (82%)	15 (18%)	2	18
48	R2	64/67 (96%)	57 (89%)	7 (11%)	9	47
48	Y2	64/67 (96%)	57 (89%)	7 (11%)	9	47
49	R3	51/52 (98%)	40 (78%)	11 (22%)	1	11
49	Y3	51/52 (98%)	40 (78%)	11 (22%)	1	11
50	R4	63/63 (100%)	44 (70%)	19 (30%)	0	5
50	Y4	63/63 (100%)	44 (70%)	19 (30%)	0	5
51	R5	51/52 (98%)	39 (76%)	12 (24%)	1	9
51	Y5	51/52 (98%)	39 (76%)	12 (24%)	1	9
52	R6	48/52 (92%)	38 (79%)	10 (21%)	2	13
52	Y6	48/52 (92%)	38 (79%)	10 (21%)	2	13
53	R7	42/42 (100%)	39 (93%)	3 (7%)	21	68
53	Y7	42/42 (100%)	39 (93%)	3 (7%)	21	68
54	R8	54/55 (98%)	39 (72%)	15 (28%)	0	6
54	Y8	54/55 (98%)	39 (72%)	15 (28%)	0	6
55	R9	34/34 (100%)	32 (94%)	2 (6%)	28	75
55	Y9	34/34 (100%)	32 (94%)	2 (6%)	28	75
All	All	9702/10066 (96%)	8266 (85%)	1436 (15%)	4	31

All (1436) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	QB	5	ILE
2	QB	8	LYS
2	QB	16	HIS
2	QB	23	ARG
2	QB	24	TRP
2	QB	33	TYR
2	QB	36	ARG
2	QB	63	MET
2	QB	67	THR
2	QB	73	THR
2	QB	82	ARG
2	QB	92	TYR
2	QB	94	ASN

Continued on next page...

*Continued from previous page...*

Mol	Chain	Res	Type
2	QB	121	LEU
2	QB	155	LEU
2	QB	163	PHE
2	QB	165	VAL
2	QB	168	THR
2	QB	172	ILE
2	QB	174	VAL
2	QB	178	ARG
2	QB	196	LEU
2	QB	204	ASN
2	QB	215	LEU
3	QC	3	ASN
3	QC	5	ILE
3	QC	12	LEU
3	QC	16	ARG
3	QC	21	ARG
3	QC	29	TYR
3	QC	56	ASP
3	QC	69	HIS
3	QC	94	LEU
3	QC	127	ARG
3	QC	131	ARG
3	QC	154	SER
3	QC	184	TYR
3	QC	192	THR
3	QC	193	TYR
3	QC	196	LEU
4	QD	3	ARG
4	QD	7	PRO
4	QD	9	CYS
4	QD	12	CYS
4	QD	13	ARG
4	QD	14	ARG
4	QD	30	LYS
4	QD	31	CYS
4	QD	50	ARG
4	QD	53	ASP
4	QD	73	ARG
4	QD	79	PHE
4	QD	86	LYS
4	QD	94	LEU
4	QD	96	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
4	QD	114	ARG
4	QD	122	ARG
4	QD	131	ARG
4	QD	181	MET
4	QD	200	GLU
5	QE	10	MET
5	QE	13	ILE
5	QE	16	THR
5	QE	31	LEU
5	QE	53	LEU
5	QE	73	ASN
5	QE	79	GLU
5	QE	101	ILE
5	QE	153	LYS
6	QF	17	SER
6	QF	21	LEU
6	QF	27	GLN
6	QF	36	ARG
6	QF	55	ASP
6	QF	63	TYR
6	QF	69	GLU
6	QF	74	ASP
6	QF	77	ARG
6	QF	87	ARG
6	QF	92	LYS
6	QF	94	GLN
6	QF	97	PHE
6	QF	100	ASN
7	QG	8	GLU
7	QG	12	LEU
7	QG	78	ARG
7	QG	84	ASN
7	QG	98	SER
7	QG	111	ARG
7	QG	114	ARG
7	QG	124	LEU
7	QG	137	LYS
7	QG	148	ASN
7	QG	155	ARG
8	QH	1	MET
8	QH	10	LEU
8	QH	27	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
8	QH	41	ARG
8	QH	52	ASP
8	QH	63	LEU
8	QH	69	ARG
8	QH	81	HIS
8	QH	99	GLU
8	QH	119	LEU
8	QH	121	ASP
8	QH	129	VAL
8	QH	137	VAL
9	QI	7	THR
9	QI	9	ARG
9	QI	48	GLU
9	QI	65	VAL
9	QI	83	ARG
9	QI	95	LYS
9	QI	104	ARG
9	QI	113	LYS
9	QI	114	TYR
9	QI	121	ARG
9	QI	128	ARG
10	QJ	22	LYS
10	QJ	47	PHE
10	QJ	57	LYS
10	QJ	62	HIS
10	QJ	74	ILE
10	QJ	80	LYS
10	QJ	84	GLN
10	QJ	96	ILE
11	QK	26	ASN
11	QK	32	ILE
11	QK	63	LEU
11	QK	75	TYR
11	QK	92	GLU
11	QK	109	VAL
11	QK	114	VAL
11	QK	116	HIS
11	QK	125	PHE
12	QL	17	LYS
12	QL	20	LYS
12	QL	27	LEU
12	QL	41	ARG

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
12	QL	53	ARG
12	QL	57	LYS
12	QL	60	LEU
12	QL	62	SER
12	QL	70	ILE
12	QL	73	GLU
12	QL	81	SER
12	QL	89	ARG
12	QL	112	ASP
12	QL	120	TYR
13	QM	3	ARG
13	QM	8	GLU
13	QM	13	LYS
13	QM	35	GLU
13	QM	47	ASP
13	QM	56	LEU
13	QM	57	ARG
13	QM	64	TRP
13	QM	66	LEU
13	QM	70	LEU
13	QM	88	ARG
13	QM	90	LEU
13	QM	101	GLN
13	QM	115	LYS
13	QM	116	THR
13	QM	122	LYS
14	QN	3	ARG
14	QN	12	ARG
14	QN	14	PRO
14	QN	16	PHE
14	QN	26	ARG
14	QN	29	ARG
14	QN	41	ARG
14	QN	43	CYS
14	QN	44	LEU
15	QO	3	ILE
15	QO	8	LYS
15	QO	26	GLU
15	QO	39	LEU
15	QO	62	GLN
15	QO	65	ARG
16	QP	1	MET

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
16	QP	26	ARG
16	QP	28	ARG
16	QP	59	TRP
16	QP	62	VAL
16	QP	69	THR
16	QP	71	ARG
16	QP	72	ARG
16	QP	82	GLN
17	QQ	12	SER
17	QQ	48	GLU
17	QQ	52	LYS
17	QQ	59	ILE
17	QQ	68	ARG
17	QQ	74	LEU
18	QR	26	LEU
18	QR	29	PHE
18	QR	32	ARG
18	QR	36	ASN
18	QR	46	GLU
18	QR	54	ARG
18	QR	55	ARG
19	QS	5	LEU
19	QS	10	PHE
19	QS	12	ASP
19	QS	13	ASP
19	QS	15	LEU
19	QS	29	ARG
19	QS	30	LEU
19	QS	41	VAL
19	QS	63	THR
19	QS	65	ASN
19	QS	83	HIS
20	QT	11	SER
20	QT	24	LEU
20	QT	26	ASN
20	QT	41	ILE
20	QT	62	LEU
20	QT	73	HIS
20	QT	75	ASN
20	QT	93	GLU
21	QU	6	ARG
27	RD	10	THR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
27	RD	17	THR
27	RD	26	LYS
27	RD	33	LEU
27	RD	43	ARG
27	RD	44	ASN
27	RD	61	LEU
27	RD	65	ILE
27	RD	67	PHE
27	RD	71	ASP
27	RD	73	VAL
27	RD	94	LEU
27	RD	98	VAL
27	RD	105	ILE
27	RD	106	ILE
27	RD	131	LEU
27	RD	134	ARG
27	RD	135	PHE
27	RD	155	LEU
27	RD	157	ARG
27	RD	166	GLN
27	RD	173	VAL
27	RD	183	ARG
27	RD	192	THR
27	RD	198	ASN
27	RD	200	ASP
27	RD	215	LEU
27	RD	217	ARG
27	RD	218	ARG
27	RD	226	MET
27	RD	230	ASP
27	RD	237	GLU
27	RD	257	LEU
27	RD	259	THR
27	RD	261	LYS
27	RD	262	ARG
27	RD	271	ILE
28	RE	2	LYS
28	RE	4	ILE
28	RE	13	ARG
28	RE	16	ARG
28	RE	17	ASP
28	RE	25	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
28	RE	26	ILE
28	RE	27	LEU
28	RE	33	VAL
28	RE	36	ARG
28	RE	37	ARG
28	RE	38	THR
28	RE	41	LYS
28	RE	45	THR
28	RE	54	GLN
28	RE	61	ARG
28	RE	62	PRO
28	RE	66	HIS
28	RE	73	GLU
28	RE	75	VAL
28	RE	77	ILE
28	RE	79	ARG
28	RE	80	GLU
28	RE	101	ARG
28	RE	113	PHE
28	RE	117	MET
28	RE	119	ARG
28	RE	143	ASN
28	RE	146	THR
28	RE	154	LYS
28	RE	167	VAL
28	RE	179	GLU
28	RE	184	VAL
28	RE	196	VAL
28	RE	200	GLU
28	RE	202	LYS
28	RE	203	LYS
29	RF	7	TYR
29	RF	9	ILE
29	RF	25	PRO
29	RF	32	LEU
29	RF	45	ARG
29	RF	46	ARG
29	RF	65	TRP
29	RF	66	PRO
29	RF	67	GLN
29	RF	70	THR
29	RF	82	ILE

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
29	RF	106	ARG
29	RF	108	LYS
29	RF	117	ARG
29	RF	124	LEU
29	RF	127	GLU
29	RF	145	GLU
29	RF	164	ARG
29	RF	181	LEU
29	RF	183	VAL
29	RF	206	ILE
30	RG	4	ASP
30	RG	22	ARG
30	RG	26	GLN
30	RG	33	ARG
30	RG	34	LEU
30	RG	35	GLU
30	RG	43	LEU
30	RG	45	GLU
30	RG	63	ILE
30	RG	67	LYS
30	RG	71	THR
30	RG	88	ILE
30	RG	94	LEU
30	RG	96	ARG
30	RG	97	ASP
30	RG	103	LEU
30	RG	115	ARG
30	RG	118	ARG
30	RG	133	LEU
30	RG	147	ASP
30	RG	155	MET
30	RG	156	ASP
30	RG	159	VAL
30	RG	167	GLU
30	RG	174	GLU
31	RH	3	ARG
31	RH	4	ILE
31	RH	9	ILE
31	RH	10	PRO
31	RH	11	VAL
31	RH	16	SER
31	RH	27	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
31	RH	32	GLU
31	RH	37	VAL
31	RH	41	MET
31	RH	43	VAL
31	RH	59	ARG
31	RH	64	LEU
31	RH	77	LYS
31	RH	81	GLU
31	RH	85	LYS
31	RH	88	LEU
31	RH	89	ILE
31	RH	105	LEU
31	RH	132	ARG
31	RH	139	GLN
31	RH	143	GLN
31	RH	152	ARG
31	RH	153	LYS
31	RH	154	PRO
31	RH	155	SER
31	RH	158	HIS
31	RH	169	VAL
32	RI	1	MET
32	RI	2	LYS
32	RI	3	VAL
32	RI	10	GLU
32	RI	27	ARG
32	RI	31	LEU
32	RI	33	ARG
32	RI	38	LEU
32	RI	40	THR
32	RI	42	SER
32	RI	51	ILE
32	RI	56	LYS
32	RI	57	ARG
32	RI	67	ARG
32	RI	70	GLU
32	RI	85	GLU
32	RI	88	ILE
32	RI	93	THR
32	RI	101	LEU
32	RI	112	LYS
32	RI	113	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
32	RI	118	LYS
32	RI	129	THR
32	RI	135	GLU
32	RI	138	ILE
32	RI	139	GLN
32	RI	142	VAL
32	RI	145	VAL
33	RN	2	LYS
33	RN	7	LYS
33	RN	43	THR
33	RN	48	MET
33	RN	60	ILE
33	RN	61	ARG
33	RN	65	LYS
33	RN	73	THR
33	RN	78	TYR
33	RN	90	MET
33	RN	93	THR
33	RN	94	HIS
33	RN	101	HIS
33	RN	109	LYS
33	RN	112	LEU
33	RN	120	LEU
33	RN	127	ASP
33	RN	131	GLN
33	RN	136	GLU
34	RO	8	LEU
34	RO	9	GLU
34	RO	17	ARG
34	RO	19	ILE
34	RO	23	ARG
34	RO	31	LYS
34	RO	39	ILE
34	RO	49	ARG
34	RO	53	LYS
34	RO	65	THR
35	RP	5	ASP
35	RP	9	ASN
35	RP	10	PRO
35	RP	16	ARG
35	RP	21	ARG
35	RP	27	HIS

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
35	RP	29	LYS
35	RP	30	THR
35	RP	32	THR
35	RP	36	LYS
35	RP	38	GLN
35	RP	41	ARG
35	RP	50	ARG
35	RP	55	ARG
35	RP	61	ARG
35	RP	62	LEU
35	RP	64	LYS
35	RP	65	ARG
35	RP	75	ILE
35	RP	81	GLN
35	RP	88	LEU
35	RP	91	PHE
35	RP	99	LEU
35	RP	100	LEU
35	RP	108	LYS
35	RP	144	GLU
35	RP	146	VAL
36	RQ	2	LEU
36	RQ	25	ASP
36	RQ	26	TYR
36	RQ	27	VAL
36	RQ	45	GLN
36	RQ	46	GLN
36	RQ	54	MET
36	RQ	55	VAL
36	RQ	58	PHE
36	RQ	60	ARG
36	RQ	79	LEU
36	RQ	83	MET
36	RQ	89	ASN
36	RQ	90	VAL
36	RQ	91	GLU
36	RQ	130	LYS
36	RQ	135	ASP
36	RQ	139	GLU
37	RR	14	SER
37	RR	31	HIS
37	RR	37	THR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
37	RR	44	LEU
37	RR	51	LEU
37	RR	57	ARG
37	RR	66	VAL
37	RR	67	LEU
37	RR	71	GLN
37	RR	75	LEU
37	RR	76	VAL
37	RR	81	ASP
37	RR	95	THR
37	RR	104	ARG
37	RR	105	ARG
37	RR	107	ASP
37	RR	113	LEU
38	RS	4	LEU
38	RS	12	PHE
38	RS	17	ARG
38	RS	18	ILE
38	RS	20	ARG
38	RS	44	LYS
38	RS	56	LEU
38	RS	57	LYS
38	RS	89	ARG
38	RS	101	LEU
38	RS	103	GLU
38	RS	106	ARG
38	RS	111	GLU
39	RT	2	ASN
39	RT	14	TYR
39	RT	22	PHE
39	RT	23	ARG
39	RT	26	ASP
39	RT	27	THR
39	RT	42	ILE
39	RT	51	ARG
39	RT	58	ASN
39	RT	65	LYS
39	RT	73	GLU
39	RT	78	LEU
39	RT	86	ILE
39	RT	87	ASP
39	RT	99	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
39	RT	100	TYR
39	RT	104	ASN
39	RT	107	ASP
39	RT	111	ARG
39	RT	112	ARG
39	RT	115	ARG
39	RT	128	GLU
39	RT	134	GLU
40	RU	5	LYS
40	RU	9	VAL
40	RU	31	SER
40	RU	52	ARG
40	RU	74	LEU
40	RU	76	TYR
40	RU	79	PHE
40	RU	88	ILE
40	RU	92	ARG
40	RU	98	LEU
40	RU	108	GLU
40	RU	114	LYS
40	RU	117	GLN
41	RV	13	ARG
41	RV	14	VAL
41	RV	18	LEU
41	RV	35	LEU
41	RV	38	LEU
41	RV	39	LEU
41	RV	40	LEU
41	RV	66	ARG
41	RV	75	PHE
41	RV	91	TYR
41	RV	99	ILE
42	RW	11	ARG
42	RW	14	PRO
42	RW	16	LYS
42	RW	18	ARG
42	RW	19	LEU
42	RW	20	VAL
42	RW	63	ASP
42	RW	67	ASP
42	RW	69	LEU
42	RW	70	TYR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
42	RW	87	PRO
42	RW	88	ARG
42	RW	92	ARG
42	RW	107	LEU
42	RW	109	GLU
43	RX	3	THR
43	RX	6	ASP
43	RX	15	GLU
43	RX	27	THR
43	RX	30	VAL
43	RX	55	ASN
43	RX	57	LEU
43	RX	65	ARG
43	RX	70	LEU
43	RX	80	ILE
43	RX	88	LYS
44	RY	7	VAL
44	RY	11	ASP
44	RY	27	VAL
44	RY	45	VAL
44	RY	57	GLN
44	RY	64	GLU
44	RY	75	ILE
44	RY	77	PRO
44	RY	79	CYS
44	RY	87	LYS
44	RY	88	LYS
44	RY	89	PHE
44	RY	90	LEU
44	RY	95	LYS
44	RY	97	ARG
45	RZ	2	GLU
45	RZ	4	ARG
45	RZ	16	SER
45	RZ	20	ARG
45	RZ	24	LEU
45	RZ	35	ARG
45	RZ	76	LEU
45	RZ	81	ARG
45	RZ	82	ARG
45	RZ	87	ASP
45	RZ	90	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
45	RZ	92	SER
45	RZ	93	ASP
45	RZ	94	GLU
45	RZ	112	ARG
45	RZ	117	LEU
45	RZ	121	HIS
45	RZ	123	ASP
45	RZ	128	VAL
45	RZ	145	GLU
45	RZ	148	ASP
45	RZ	150	LEU
45	RZ	151	HIS
45	RZ	163	LEU
45	RZ	166	SER
45	RZ	168	GLU
45	RZ	179	ASP
45	RZ	182	LYS
45	RZ	183	LEU
46	R0	5	LYS
46	R0	7	LEU
46	R0	10	THR
46	R0	11	ARG
46	R0	36	ILE
46	R0	43	THR
46	R0	74	ARG
47	R1	2	SER
47	R1	11	ARG
47	R1	21	ARG
47	R1	30	VAL
47	R1	40	ARG
47	R1	41	ARG
47	R1	56	GLN
47	R1	76	ARG
47	R1	80	LEU
47	R1	81	LYS
47	R1	83	GLU
47	R1	87	PRO
47	R1	91	LYS
47	R1	92	LYS
47	R1	97	LEU
48	R2	7	ARG
48	R2	9	GLN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
48	R2	16	LEU
48	R2	24	LEU
48	R2	53	LEU
48	R2	62	THR
48	R2	64	LEU
49	R3	4	LEU
49	R3	8	LEU
49	R3	9	VAL
49	R3	10	LYS
49	R3	17	LYS
49	R3	30	ARG
49	R3	31	LEU
49	R3	32	GLN
49	R3	37	LEU
49	R3	40	THR
49	R3	44	ARG
50	R4	6	HIS
50	R4	15	ILE
50	R4	18	CYS
50	R4	21	VAL
50	R4	23	GLU
50	R4	39	CYS
50	R4	42	PHE
50	R4	48	ARG
50	R4	49	PHE
50	R4	50	VAL
50	R4	51	ASP
50	R4	53	GLU
50	R4	57	GLU
50	R4	61	ARG
50	R4	62	ARG
50	R4	63	TYR
50	R4	67	TYR
50	R4	68	ARG
50	R4	71	ARG
51	R5	3	LYS
51	R5	4	HIS
51	R5	6	VAL
51	R5	11	THR
51	R5	19	ARG
51	R5	25	LEU
51	R5	36	CYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
51	R5	37	LYS
51	R5	43	HIS
51	R5	52	TYR
51	R5	56	LYS
51	R5	58	LEU
52	R6	6	ARG
52	R6	8	LYS
52	R6	18	ARG
52	R6	19	ARG
52	R6	28	ARG
52	R6	34	LEU
52	R6	37	ARG
52	R6	42	TRP
52	R6	44	ARG
52	R6	46	HIS
53	R7	1	MET
53	R7	9	ARG
53	R7	43	THR
54	R8	15	LYS
54	R8	16	ILE
54	R8	30	ARG
54	R8	35	GLN
54	R8	39	LYS
54	R8	43	GLN
54	R8	44	LYS
54	R8	47	LYS
54	R8	48	PHE
54	R8	49	VAL
54	R8	52	LYS
54	R8	53	PRO
54	R8	62	LEU
54	R8	63	PRO
54	R8	65	GLU
55	R9	1	MET
55	R9	17	ILE
2	XB	5	ILE
2	XB	8	LYS
2	XB	16	HIS
2	XB	23	ARG
2	XB	24	TRP
2	XB	33	TYR
2	XB	36	ARG

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
2	XB	63	MET
2	XB	67	THR
2	XB	73	THR
2	XB	82	ARG
2	XB	92	TYR
2	XB	94	ASN
2	XB	121	LEU
2	XB	155	LEU
2	XB	163	PHE
2	XB	165	VAL
2	XB	168	THR
2	XB	172	ILE
2	XB	174	VAL
2	XB	178	ARG
2	XB	196	LEU
2	XB	204	ASN
2	XB	215	LEU
3	XC	3	ASN
3	XC	5	ILE
3	XC	12	LEU
3	XC	16	ARG
3	XC	21	ARG
3	XC	29	TYR
3	XC	56	ASP
3	XC	69	HIS
3	XC	94	LEU
3	XC	127	ARG
3	XC	131	ARG
3	XC	154	SER
3	XC	184	TYR
3	XC	192	THR
3	XC	193	TYR
3	XC	196	LEU
4	XD	3	ARG
4	XD	7	PRO
4	XD	9	CYS
4	XD	30	LYS
4	XD	50	ARG
4	XD	53	ASP
4	XD	79	PHE
4	XD	86	LYS
4	XD	94	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
4	XD	96	LEU
4	XD	114	ARG
4	XD	122	ARG
4	XD	131	ARG
4	XD	181	MET
4	XD	200	GLU
5	XE	10	MET
5	XE	13	ILE
5	XE	16	THR
5	XE	31	LEU
5	XE	53	LEU
5	XE	73	ASN
5	XE	79	GLU
5	XE	101	ILE
5	XE	153	LYS
6	XF	17	SER
6	XF	21	LEU
6	XF	27	GLN
6	XF	36	ARG
6	XF	55	ASP
6	XF	63	TYR
6	XF	69	GLU
6	XF	74	ASP
6	XF	77	ARG
6	XF	87	ARG
6	XF	92	LYS
6	XF	94	GLN
6	XF	97	PHE
6	XF	100	ASN
7	XG	8	GLU
7	XG	12	LEU
7	XG	78	ARG
7	XG	84	ASN
7	XG	98	SER
7	XG	111	ARG
7	XG	114	ARG
7	XG	124	LEU
7	XG	137	LYS
7	XG	148	ASN
7	XG	155	ARG
8	XH	1	MET
8	XH	10	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
8	XH	27	PRO
8	XH	41	ARG
8	XH	52	ASP
8	XH	63	LEU
8	XH	69	ARG
8	XH	81	HIS
8	XH	99	GLU
8	XH	119	LEU
8	XH	121	ASP
8	XH	129	VAL
8	XH	137	VAL
9	XI	7	THR
9	XI	9	ARG
9	XI	48	GLU
9	XI	65	VAL
9	XI	83	ARG
9	XI	95	LYS
9	XI	104	ARG
9	XI	113	LYS
9	XI	114	TYR
9	XI	121	ARG
9	XI	128	ARG
10	XJ	22	LYS
10	XJ	47	PHE
10	XJ	57	LYS
10	XJ	62	HIS
10	XJ	74	ILE
10	XJ	80	LYS
10	XJ	84	GLN
10	XJ	96	ILE
11	XK	26	ASN
11	XK	32	ILE
11	XK	63	LEU
11	XK	75	TYR
11	XK	92	GLU
11	XK	109	VAL
11	XK	114	VAL
11	XK	116	HIS
11	XK	125	PHE
12	XL	17	LYS
12	XL	20	LYS
12	XL	27	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
12	XL	41	ARG
12	XL	44	THR
12	XL	53	ARG
12	XL	57	LYS
12	XL	60	LEU
12	XL	62	SER
12	XL	70	ILE
12	XL	73	GLU
12	XL	81	SER
12	XL	89	ARG
12	XL	112	ASP
12	XL	120	TYR
13	XM	3	ARG
13	XM	8	GLU
13	XM	13	LYS
13	XM	35	GLU
13	XM	47	ASP
13	XM	56	LEU
13	XM	57	ARG
13	XM	64	TRP
13	XM	66	LEU
13	XM	70	LEU
13	XM	88	ARG
13	XM	90	LEU
13	XM	101	GLN
13	XM	115	LYS
13	XM	116	THR
13	XM	122	LYS
14	XN	3	ARG
14	XN	12	ARG
14	XN	14	PRO
14	XN	16	PHE
14	XN	41	ARG
15	XO	3	ILE
15	XO	8	LYS
15	XO	26	GLU
15	XO	39	LEU
15	XO	62	GLN
15	XO	65	ARG
16	XP	1	MET
16	XP	26	ARG
16	XP	28	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
16	XP	59	TRP
16	XP	62	VAL
16	XP	69	THR
16	XP	71	ARG
16	XP	72	ARG
16	XP	82	GLN
17	XQ	12	SER
17	XQ	48	GLU
17	XQ	52	LYS
17	XQ	59	ILE
17	XQ	68	ARG
17	XQ	74	LEU
18	XR	26	LEU
18	XR	29	PHE
18	XR	32	ARG
18	XR	36	ASN
18	XR	46	GLU
18	XR	54	ARG
18	XR	55	ARG
19	XS	5	LEU
19	XS	10	PHE
19	XS	12	ASP
19	XS	13	ASP
19	XS	15	LEU
19	XS	29	ARG
19	XS	30	LEU
19	XS	41	VAL
19	XS	63	THR
19	XS	65	ASN
19	XS	83	HIS
20	XT	11	SER
20	XT	24	LEU
20	XT	26	ASN
20	XT	41	ILE
20	XT	62	LEU
20	XT	73	HIS
20	XT	75	ASN
20	XT	93	GLU
21	XU	6	ARG
27	YD	10	THR
27	YD	17	THR
27	YD	26	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
27	YD	33	LEU
27	YD	43	ARG
27	YD	44	ASN
27	YD	61	LEU
27	YD	65	ILE
27	YD	67	PHE
27	YD	71	ASP
27	YD	73	VAL
27	YD	94	LEU
27	YD	98	VAL
27	YD	105	ILE
27	YD	106	ILE
27	YD	131	LEU
27	YD	134	ARG
27	YD	135	PHE
27	YD	155	LEU
27	YD	157	ARG
27	YD	166	GLN
27	YD	173	VAL
27	YD	183	ARG
27	YD	192	THR
27	YD	198	ASN
27	YD	200	ASP
27	YD	215	LEU
27	YD	217	ARG
27	YD	218	ARG
27	YD	226	MET
27	YD	230	ASP
27	YD	237	GLU
27	YD	257	LEU
27	YD	259	THR
27	YD	261	LYS
27	YD	262	ARG
28	YE	2	LYS
28	YE	4	ILE
28	YE	13	ARG
28	YE	16	ARG
28	YE	17	ASP
28	YE	25	VAL
28	YE	26	ILE
28	YE	27	LEU
28	YE	33	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
28	YE	36	ARG
28	YE	37	ARG
28	YE	38	THR
28	YE	41	LYS
28	YE	45	THR
28	YE	54	GLN
28	YE	61	ARG
28	YE	62	PRO
28	YE	66	HIS
28	YE	73	GLU
28	YE	75	VAL
28	YE	77	ILE
28	YE	78	LEU
28	YE	79	ARG
28	YE	80	GLU
28	YE	101	ARG
28	YE	113	PHE
28	YE	117	MET
28	YE	119	ARG
28	YE	143	ASN
28	YE	146	THR
28	YE	154	LYS
28	YE	167	VAL
28	YE	179	GLU
28	YE	184	VAL
28	YE	196	VAL
28	YE	200	GLU
28	YE	202	LYS
28	YE	203	LYS
29	YF	7	TYR
29	YF	9	ILE
29	YF	25	PRO
29	YF	32	LEU
29	YF	45	ARG
29	YF	46	ARG
29	YF	65	TRP
29	YF	66	PRO
29	YF	67	GLN
29	YF	70	THR
29	YF	82	ILE
29	YF	106	ARG
29	YF	108	LYS

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
29	YF	117	ARG
29	YF	124	LEU
29	YF	127	GLU
29	YF	145	GLU
29	YF	164	ARG
29	YF	181	LEU
29	YF	183	VAL
29	YF	206	ILE
30	YG	4	ASP
30	YG	22	ARG
30	YG	26	GLN
30	YG	33	ARG
30	YG	34	LEU
30	YG	35	GLU
30	YG	43	LEU
30	YG	45	GLU
30	YG	63	ILE
30	YG	67	LYS
30	YG	71	THR
30	YG	88	ILE
30	YG	94	LEU
30	YG	96	ARG
30	YG	97	ASP
30	YG	103	LEU
30	YG	115	ARG
30	YG	118	ARG
30	YG	133	LEU
30	YG	147	ASP
30	YG	155	MET
30	YG	156	ASP
30	YG	159	VAL
30	YG	167	GLU
30	YG	174	GLU
31	YH	3	ARG
31	YH	4	ILE
31	YH	9	ILE
31	YH	10	PRO
31	YH	11	VAL
31	YH	16	SER
31	YH	27	LYS
31	YH	32	GLU
31	YH	37	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
31	YH	41	MET
31	YH	43	VAL
31	YH	59	ARG
31	YH	64	LEU
31	YH	77	LYS
31	YH	81	GLU
31	YH	85	LYS
31	YH	88	LEU
31	YH	89	ILE
31	YH	105	LEU
31	YH	132	ARG
31	YH	139	GLN
31	YH	143	GLN
31	YH	152	ARG
31	YH	153	LYS
31	YH	154	PRO
31	YH	155	SER
31	YH	158	HIS
31	YH	169	VAL
32	YI	1	MET
32	YI	2	LYS
32	YI	3	VAL
32	YI	12	LEU
32	YI	27	ARG
32	YI	33	ARG
32	YI	38	LEU
32	YI	56	LYS
32	YI	67	ARG
32	YI	70	GLU
32	YI	72	LEU
32	YI	81	VAL
32	YI	85	GLU
32	YI	92	VAL
32	YI	93	THR
32	YI	96	ASP
32	YI	101	LEU
32	YI	105	HIS
32	YI	110	ASP
32	YI	112	LYS
32	YI	113	ARG
32	YI	118	LYS
32	YI	128	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
32	YI	130	TYR
32	YI	131	LYS
32	YI	135	GLU
32	YI	136	VAL
32	YI	140	LEU
32	YI	141	LYS
32	YI	142	VAL
33	YN	2	LYS
33	YN	7	LYS
33	YN	43	THR
33	YN	48	MET
33	YN	60	ILE
33	YN	61	ARG
33	YN	65	LYS
33	YN	73	THR
33	YN	78	TYR
33	YN	90	MET
33	YN	93	THR
33	YN	94	HIS
33	YN	101	HIS
33	YN	109	LYS
33	YN	112	LEU
33	YN	120	LEU
33	YN	127	ASP
33	YN	131	GLN
33	YN	136	GLU
34	YO	8	LEU
34	YO	9	GLU
34	YO	17	ARG
34	YO	19	ILE
34	YO	23	ARG
34	YO	31	LYS
34	YO	39	ILE
34	YO	49	ARG
34	YO	53	LYS
34	YO	65	THR
35	YP	5	ASP
35	YP	9	ASN
35	YP	10	PRO
35	YP	16	ARG
35	YP	21	ARG
35	YP	27	HIS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
35	YP	29	LYS
35	YP	30	THR
35	YP	32	THR
35	YP	36	LYS
35	YP	38	GLN
35	YP	41	ARG
35	YP	50	ARG
35	YP	55	ARG
35	YP	61	ARG
35	YP	62	LEU
35	YP	64	LYS
35	YP	65	ARG
35	YP	75	ILE
35	YP	81	GLN
35	YP	88	LEU
35	YP	91	PHE
35	YP	99	LEU
35	YP	100	LEU
35	YP	108	LYS
35	YP	144	GLU
35	YP	146	VAL
36	YQ	2	LEU
36	YQ	25	ASP
36	YQ	26	TYR
36	YQ	27	VAL
36	YQ	45	GLN
36	YQ	46	GLN
36	YQ	54	MET
36	YQ	55	VAL
36	YQ	59	ARG
36	YQ	60	ARG
36	YQ	79	LEU
36	YQ	83	MET
36	YQ	89	ASN
36	YQ	90	VAL
36	YQ	91	GLU
36	YQ	130	LYS
36	YQ	135	ASP
36	YQ	139	GLU
37	YR	14	SER
37	YR	31	HIS
37	YR	37	THR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
37	YR	44	LEU
37	YR	51	LEU
37	YR	57	ARG
37	YR	66	VAL
37	YR	67	LEU
37	YR	71	GLN
37	YR	75	LEU
37	YR	76	VAL
37	YR	81	ASP
37	YR	95	THR
37	YR	104	ARG
37	YR	105	ARG
37	YR	107	ASP
37	YR	113	LEU
38	YS	4	LEU
38	YS	12	PHE
38	YS	17	ARG
38	YS	18	ILE
38	YS	20	ARG
38	YS	44	LYS
38	YS	56	LEU
38	YS	57	LYS
38	YS	89	ARG
38	YS	101	LEU
38	YS	103	GLU
38	YS	106	ARG
38	YS	111	GLU
39	YT	2	ASN
39	YT	14	TYR
39	YT	22	PHE
39	YT	23	ARG
39	YT	26	ASP
39	YT	27	THR
39	YT	42	ILE
39	YT	51	ARG
39	YT	58	ASN
39	YT	65	LYS
39	YT	73	GLU
39	YT	78	LEU
39	YT	86	ILE
39	YT	87	ASP
39	YT	99	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
39	YT	100	TYR
39	YT	104	ASN
39	YT	107	ASP
39	YT	111	ARG
39	YT	112	ARG
39	YT	115	ARG
39	YT	128	GLU
39	YT	134	GLU
40	YU	5	LYS
40	YU	9	VAL
40	YU	31	SER
40	YU	52	ARG
40	YU	74	LEU
40	YU	76	TYR
40	YU	79	PHE
40	YU	88	ILE
40	YU	92	ARG
40	YU	98	LEU
40	YU	108	GLU
40	YU	114	LYS
40	YU	117	GLN
41	YV	13	ARG
41	YV	14	VAL
41	YV	18	LEU
41	YV	35	LEU
41	YV	38	LEU
41	YV	39	LEU
41	YV	40	LEU
41	YV	66	ARG
41	YV	75	PHE
41	YV	91	TYR
41	YV	99	ILE
42	YW	11	ARG
42	YW	14	PRO
42	YW	16	LYS
42	YW	18	ARG
42	YW	19	LEU
42	YW	20	VAL
42	YW	63	ASP
42	YW	67	ASP
42	YW	69	LEU
42	YW	70	TYR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
42	YW	87	PRO
42	YW	88	ARG
42	YW	92	ARG
42	YW	107	LEU
42	YW	109	GLU
43	YX	3	THR
43	YX	6	ASP
43	YX	15	GLU
43	YX	27	THR
43	YX	30	VAL
43	YX	55	ASN
43	YX	57	LEU
43	YX	65	ARG
43	YX	70	LEU
43	YX	80	ILE
43	YX	88	LYS
44	YY	7	VAL
44	YY	11	ASP
44	YY	27	VAL
44	YY	45	VAL
44	YY	57	GLN
44	YY	64	GLU
44	YY	75	ILE
44	YY	77	PRO
44	YY	79	CYS
44	YY	87	LYS
44	YY	88	LYS
44	YY	89	PHE
44	YY	90	LEU
44	YY	95	LYS
44	YY	97	ARG
45	YZ	2	GLU
45	YZ	8	TYR
45	YZ	20	ARG
45	YZ	39	VAL
45	YZ	41	LEU
45	YZ	52	SER
45	YZ	53	ILE
45	YZ	60	GLU
45	YZ	66	SER
45	YZ	70	LEU
45	YZ	71	VAL

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
45	YZ	76	LEU
45	YZ	81	ARG
45	YZ	82	ARG
45	YZ	87	ASP
45	YZ	91	LEU
45	YZ	93	ASP
45	YZ	94	GLU
45	YZ	122	ARG
45	YZ	123	ASP
45	YZ	136	PHE
45	YZ	139	VAL
45	YZ	140	ASP
45	YZ	141	VAL
45	YZ	144	LEU
45	YZ	150	LEU
45	YZ	151	HIS
45	YZ	156	LYS
45	YZ	163	LEU
45	YZ	181	GLU
45	YZ	182	LYS
46	Y0	10	THR
46	Y0	11	ARG
46	Y0	14	ARG
46	Y0	25	ARG
46	Y0	36	ILE
46	Y0	68	GLU
46	Y0	74	ARG
47	Y1	2	SER
47	Y1	11	ARG
47	Y1	21	ARG
47	Y1	30	VAL
47	Y1	40	ARG
47	Y1	41	ARG
47	Y1	56	GLN
47	Y1	76	ARG
47	Y1	80	LEU
47	Y1	81	LYS
47	Y1	83	GLU
47	Y1	87	PRO
47	Y1	91	LYS
47	Y1	92	LYS
47	Y1	97	LEU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
48	Y2	7	ARG
48	Y2	9	GLN
48	Y2	16	LEU
48	Y2	24	LEU
48	Y2	53	LEU
48	Y2	62	THR
48	Y2	64	LEU
49	Y3	4	LEU
49	Y3	8	LEU
49	Y3	9	VAL
49	Y3	10	LYS
49	Y3	17	LYS
49	Y3	30	ARG
49	Y3	31	LEU
49	Y3	32	GLN
49	Y3	37	LEU
49	Y3	40	THR
49	Y3	44	ARG
50	Y4	6	HIS
50	Y4	15	ILE
50	Y4	18	CYS
50	Y4	21	VAL
50	Y4	23	GLU
50	Y4	39	CYS
50	Y4	42	PHE
50	Y4	48	ARG
50	Y4	49	PHE
50	Y4	50	VAL
50	Y4	51	ASP
50	Y4	53	GLU
50	Y4	57	GLU
50	Y4	61	ARG
50	Y4	62	ARG
50	Y4	63	TYR
50	Y4	67	TYR
50	Y4	68	ARG
50	Y4	71	ARG
51	Y5	3	LYS
51	Y5	4	HIS
51	Y5	6	VAL
51	Y5	11	THR
51	Y5	19	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
51	Y5	25	LEU
51	Y5	36	CYS
51	Y5	37	LYS
51	Y5	43	HIS
51	Y5	52	TYR
51	Y5	56	LYS
51	Y5	58	LEU
52	Y6	6	ARG
52	Y6	8	LYS
52	Y6	18	ARG
52	Y6	19	ARG
52	Y6	28	ARG
52	Y6	34	LEU
52	Y6	37	ARG
52	Y6	42	TRP
52	Y6	44	ARG
52	Y6	46	HIS
53	Y7	1	MET
53	Y7	9	ARG
53	Y7	43	THR
54	Y8	15	LYS
54	Y8	16	ILE
54	Y8	30	ARG
54	Y8	35	GLN
54	Y8	39	LYS
54	Y8	43	GLN
54	Y8	44	LYS
54	Y8	47	LYS
54	Y8	48	PHE
54	Y8	49	VAL
54	Y8	52	LYS
54	Y8	53	PRO
54	Y8	62	LEU
54	Y8	63	PRO
54	Y8	65	GLU
55	Y9	1	MET
55	Y9	17	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

Mol	Chain	Res	Type
2	QB	95	GLN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
2	QB	135	GLN
2	QB	204	ASN
2	QB	212	GLN
3	QC	181	ASN
5	QE	72	GLN
5	QE	73	ASN
5	QE	78	HIS
5	QE	127	ASN
6	QF	64	GLN
6	QF	100	ASN
7	QG	28	ASN
7	QG	37	ASN
7	QG	86	GLN
7	QG	148	ASN
10	QJ	13	HIS
10	QJ	78	ASN
11	QK	117	ASN
12	QL	9	GLN
13	QM	40	ASN
13	QM	62	ASN
13	QM	101	GLN
19	QS	47	HIS
19	QS	65	ASN
20	QT	26	ASN
27	RD	44	ASN
27	RD	143	HIS
27	RD	166	GLN
27	RD	198	ASN
28	RE	48	GLN
31	RH	143	GLN
31	RH	147	ASN
32	RI	104	GLN
33	RN	56	ASN
33	RN	101	HIS
33	RN	131	GLN
34	RO	5	GLN
34	RO	82	ASN
35	RP	81	GLN
35	RP	84	ASN
36	RQ	123	HIS
37	RR	3	HIS
39	RT	55	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
39	RT	58	ASN
40	RU	81	HIS
40	RU	94	ASN
41	RV	11	GLN
42	RW	61	ASN
43	RX	55	ASN
43	RX	87	GLN
44	RY	57	GLN
46	R0	29	GLN
47	R1	56	GLN
48	R2	9	GLN
48	R2	47	ASN
49	R3	19	GLN
49	R3	32	GLN
52	R6	32	ASN
2	XB	95	GLN
2	XB	135	GLN
2	XB	204	ASN
2	XB	212	GLN
3	XC	181	ASN
5	XE	72	GLN
5	XE	73	ASN
5	XE	78	HIS
6	XF	64	GLN
6	XF	100	ASN
7	XG	28	ASN
7	XG	86	GLN
7	XG	148	ASN
10	XJ	78	ASN
12	XL	9	GLN
13	XM	77	ASN
13	XM	101	GLN
19	XS	47	HIS
19	XS	65	ASN
20	XT	26	ASN
27	YD	44	ASN
27	YD	143	HIS
27	YD	166	GLN
27	YD	198	ASN
28	YE	48	GLN
31	YH	143	GLN
31	YH	147	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
33	YN	56	ASN
33	YN	101	HIS
33	YN	131	GLN
34	YO	5	GLN
34	YO	82	ASN
35	YP	81	GLN
35	YP	84	ASN
39	YT	55	ASN
39	YT	58	ASN
40	YU	49	HIS
40	YU	94	ASN
41	YV	11	GLN
42	YW	61	ASN
43	YX	55	ASN
43	YX	87	GLN
44	YY	57	GLN
47	Y1	56	GLN
48	Y2	9	GLN
48	Y2	47	ASN
49	Y3	19	GLN
49	Y3	32	GLN
52	Y6	32	ASN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1498/1522 (98%)	385 (25%)	49 (3%)
1	XA	1498/1522 (98%)	378 (25%)	60 (4%)
22	QV	76/77 (98%)	30 (39%)	1 (1%)
22	XV	76/77 (98%)	30 (39%)	1 (1%)
23	QX	7/25 (28%)	5 (71%)	1 (14%)
23	XX	6/25 (24%)	3 (50%)	0
24	QY	13/18 (72%)	5 (38%)	1 (7%)
24	XY	13/18 (72%)	5 (38%)	1 (7%)
25	RA	2879/2916 (98%)	835 (29%)	82 (2%)
25	YA	2880/2916 (98%)	865 (30%)	93 (3%)
26	RB	119/122 (97%)	32 (26%)	3 (2%)
26	YB	119/122 (97%)	42 (35%)	2 (1%)
56	Z6	1/3 (33%)	0	0
56	Z8	1/3 (33%)	0	0
All	All	9186/9366 (98%)	2615 (28%)	294 (3%)

All (2615) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	7	G
1	QA	9	G
1	QA	10	A
1	QA	22	G
1	QA	32	A
1	QA	39	G
1	QA	47	C
1	QA	48	C
1	QA	51	A
1	QA	64	G
1	QA	65	U
1	QA	66	G
1	QA	73	G
1	QA	76	G
1	QA	79	G
1	QA	80	G
1	QA	91	C
1	QA	95	G
1	QA	101	A
1	QA	108	G
1	QA	111	G
1	QA	115	G
1	QA	116	A
1	QA	121	C
1	QA	122	G
1	QA	129(A)	G
1	QA	130	A
1	QA	142	G
1	QA	144	G
1	QA	146	G
1	QA	147	G
1	QA	169	C
1	QA	171	A
1	QA	172	A
1	QA	173	U
1	QA	174	C
1	QA	182	U
1	QA	183	G
1	QA	190	G
1	QA	191(A)	G
1	QA	195	A
1	QA	197	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	200	G
1	QA	209	U
1	QA	216	G
1	QA	226	G
1	QA	243	A
1	QA	244	U
1	QA	245	C
1	QA	247	G
1	QA	251	G
1	QA	252	U
1	QA	267	C
1	QA	277	C
1	QA	278	G
1	QA	279	A
1	QA	280	C
1	QA	281	G
1	QA	282	A
1	QA	289	G
1	QA	298	A
1	QA	305	G
1	QA	306	G
1	QA	316	G
1	QA	319	G
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	342	C
1	QA	344	A
1	QA	346	G
1	QA	347	G
1	QA	351	G
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	355	C
1	QA	356	A
1	QA	367	U
1	QA	372	C
1	QA	373	A
1	QA	374	A
1	QA	382	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	384	G
1	QA	388	G
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	406	G
1	QA	410	G
1	QA	411	A
1	QA	412	A
1	QA	413	G
1	QA	414	A
1	QA	417	C
1	QA	421	U
1	QA	422	C
1	QA	423	G
1	QA	424	G
1	QA	428	G
1	QA	429	U
1	QA	430	A
1	QA	438	G
1	QA	439	A
1	QA	440	A
1	QA	442	C
1	QA	451	A
1	QA	452	A
1	QA	465	A
1	QA	466	C
1	QA	467	G
1	QA	468	A
1	QA	482	A
1	QA	483	C
1	QA	484	G
1	QA	485	G
1	QA	496	A
1	QA	497	U
1	QA	498	A
1	QA	505	G
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	513	C
1	QA	518	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	525	C
1	QA	527	G
1	QA	532	A
1	QA	533	A
1	QA	534	U
1	QA	535	A
1	QA	547	A
1	QA	554	C
1	QA	558	G
1	QA	559	A
1	QA	560	U
1	QA	561	U
1	QA	562	C
1	QA	567	G
1	QA	568	G
1	QA	572	A
1	QA	573	A
1	QA	576	G
1	QA	579	G
1	QA	588	G
1	QA	595	G
1	QA	596	C
1	QA	607	A
1	QA	614	A
1	QA	615	C
1	QA	620	C
1	QA	624	C
1	QA	630	G
1	QA	631	G
1	QA	635	G
1	QA	646	U
1	QA	652	U
1	QA	653	A
1	QA	665	A
1	QA	673	G
1	QA	674	G
1	QA	675	A
1	QA	679	C
1	QA	685	G
1	QA	687	A
1	QA	688	G
1	QA	701	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	702	A
1	QA	703	G
1	QA	717	C
1	QA	718	G
1	QA	721	G
1	QA	724	G
1	QA	729	A
1	QA	731	G
1	QA	734	G
1	QA	748	C
1	QA	749	C
1	QA	752	G
1	QA	753	A
1	QA	754	C
1	QA	755	G
1	QA	763	G
1	QA	774	G
1	QA	785	G
1	QA	786	G
1	QA	788	U
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	804	U
1	QA	812	C
1	QA	813	U
1	QA	817	C
1	QA	818	G
1	QA	819	A
1	QA	826	C
1	QA	828	A
1	QA	836	G
1	QA	841	U
1	QA	843	U
1	QA	848	C
1	QA	859	A
1	QA	870	U
1	QA	871	U
1	QA	872	A
1	QA	873	A
1	QA	881	G
1	QA	885	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	889	A
1	QA	890	G
1	QA	902	G
1	QA	914	A
1	QA	927	G
1	QA	934	C
1	QA	935	A
1	QA	940	C
1	QA	954	G
1	QA	960	U
1	QA	961	U
1	QA	966	G
1	QA	968	A
1	QA	969	A
1	QA	971	G
1	QA	972	C
1	QA	974	A
1	QA	976	G
1	QA	977	A
1	QA	978	A
1	QA	980	C
1	QA	981	U
1	QA	982	U
1	QA	984	C
1	QA	988	G
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	995	C
1	QA	1001	G
1	QA	1002	G
1	QA	1004	A
1	QA	1006	C
1	QA	1009	G
1	QA	1024	G
1	QA	1025	U
1	QA	1026	G
1	QA	1028	C
1	QA	1029	G
1	QA	1032(A)	G
1	QA	1036	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	1040	U
1	QA	1053	G
1	QA	1054	C
1	QA	1055	A
1	QA	1064	G
1	QA	1065	U
1	QA	1066	C
1	QA	1067	A
1	QA	1074	G
1	QA	1081	G
1	QA	1094	G
1	QA	1095	U
1	QA	1099	G
1	QA	1101	A
1	QA	1111	A
1	QA	1112	C
1	QA	1113	C
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1127	G
1	QA	1130	A
1	QA	1131	G
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1140	C
1	QA	1146	A
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1160	G
1	QA	1161	C
1	QA	1163	C
1	QA	1170	A
1	QA	1171	G
1	QA	1177	G
1	QA	1180	A
1	QA	1181	G
1	QA	1182	G
1	QA	1183	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	1185	G
1	QA	1187	G
1	QA	1190	G
1	QA	1196	U
1	QA	1197	G
1	QA	1199	U
1	QA	1200	C
1	QA	1201	A
1	QA	1202	G
1	QA	1206	G
1	QA	1207	G
1	QA	1212	U
1	QA	1213	A
1	QA	1218	C
1	QA	1224	G
1	QA	1225	A
1	QA	1227	A
1	QA	1238	A
1	QA	1240	U
1	QA	1241	G
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1270	C
1	QA	1272	G
1	QA	1273	G
1	QA	1280	A
1	QA	1281	U
1	QA	1282	C
1	QA	1286	A
1	QA	1287	A
1	QA	1297	C
1	QA	1298	C
1	QA	1299	A
1	QA	1301	U
1	QA	1302	U
1	QA	1303	C
1	QA	1305	G
1	QA	1306	A
1	QA	1314	C
1	QA	1317	C
1	QA	1321	C

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	1322	C
1	QA	1323	G
1	QA	1331	G
1	QA	1333	A
1	QA	1334	G
1	QA	1335	C
1	QA	1336	C
1	QA	1337	G
1	QA	1338	G
1	QA	1347	G
1	QA	1348	U
1	QA	1349	A
1	QA	1353	G
1	QA	1362(A)	C
1	QA	1364	U
1	QA	1370	G
1	QA	1388	C
1	QA	1396	A
1	QA	1397	C
1	QA	1401	G
1	QA	1411	C
1	QA	1419	G
1	QA	1426	C
1	QA	1427	U
1	QA	1439	C
1	QA	1442	G
1	QA	1443	G
1	QA	1446	A
1	QA	1447	G
1	QA	1450	U
1	QA	1452	C
1	QA	1453	G
1	QA	1454	G
1	QA	1461	G
1	QA	1485	U
1	QA	1487	G
1	QA	1492	A
1	QA	1497	G
1	QA	1499	A
1	QA	1503	A
1	QA	1504	G
1	QA	1505	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	1506	U
1	QA	1510	U
1	QA	1517	G
1	QA	1519	A
1	QA	1520	G
1	QA	1529	G
1	QA	1530	G
22	QV	3	C
22	QV	4	G
22	QV	5	G
22	QV	7	G
22	QV	8	U
22	QV	14	A
22	QV	16	C
22	QV	17	C
22	QV	17(A)	U
22	QV	18	G
22	QV	19	G
22	QV	21	A
22	QV	22	G
22	QV	25	C
22	QV	31	G
22	QV	37	A
22	QV	42	G
22	QV	47	U
22	QV	48	C
22	QV	49	G
22	QV	50	U
22	QV	51	C
22	QV	52	G
22	QV	54	U
22	QV	59	A
22	QV	63	G
22	QV	67	C
22	QV	72	A
22	QV	75	C
22	QV	76	A
23	QX	3	G
23	QX	4	C
23	QX	5	C
23	QX	7	U
23	QX	8	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
24	QY	31	G
24	QY	33	U
24	QY	36	G
24	QY	39	C
24	QY	40	G
25	RA	9	U
25	RA	10	G
25	RA	11	G
25	RA	15	G
25	RA	27	G
25	RA	34	C
25	RA	35	G
25	RA	46	C
25	RA	49	A
25	RA	50	U
25	RA	51	G
25	RA	54	G
25	RA	55	G
25	RA	61	G
25	RA	63	U
25	RA	69	C
25	RA	71	A
25	RA	72	U
25	RA	73	A
25	RA	74	A
25	RA	75	G
25	RA	83	G
25	RA	84	A
25	RA	88	G
25	RA	95	G
25	RA	99	U
25	RA	101	G
25	RA	102	G
25	RA	103	A
25	RA	104	U
25	RA	118	A
25	RA	120	U
25	RA	121	G
25	RA	122	G
25	RA	131	G
25	RA	137(A)	G
25	RA	146	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	149	A
25	RA	154	G
25	RA	161	U
25	RA	177	G
25	RA	181	A
25	RA	195	A
25	RA	196	A
25	RA	200	U
25	RA	201	C
25	RA	205	G
25	RA	215	G
25	RA	216	A
25	RA	221	A
25	RA	222	A
25	RA	223	A
25	RA	224	G
25	RA	226	G
25	RA	227	A
25	RA	228	A
25	RA	229	A
25	RA	230	U
25	RA	232	G
25	RA	233	A
25	RA	242	G
25	RA	243	U
25	RA	248	G
25	RA	249	C
25	RA	252	G
25	RA	265	A
25	RA	266	G
25	RA	269	U
25	RA	270(K)	C
25	RA	270(L)	U
25	RA	270(M)	U
25	RA	270(N)	G
25	RA	270(P)	C
25	RA	270(T)	G
25	RA	270(W)	G
25	RA	271(C)	U
25	RA	271	G
25	RA	273(E)	U
25	RA	275	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	276	A
25	RA	277	C
25	RA	278	A
25	RA	279	C
25	RA	283	A
25	RA	299	A
25	RA	300	A
25	RA	305	U
25	RA	306	U
25	RA	311	A
25	RA	316	C
25	RA	317	G
25	RA	323	G
25	RA	324	A
25	RA	329	G
25	RA	330	A
25	RA	333	G
25	RA	334	C
25	RA	335	C
25	RA	338	G
25	RA	342	G
25	RA	346	A
25	RA	347	A
25	RA	350	U
25	RA	352	G
25	RA	354	G
25	RA	360	G
25	RA	363(E)	U
25	RA	364	C
25	RA	371	A
25	RA	372	G
25	RA	373	U
25	RA	385	C
25	RA	386	G
25	RA	395	U
25	RA	396	G
25	RA	405	U
25	RA	411	G
25	RA	412	A
25	RA	413	C
25	RA	416	C
25	RA	428	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	442	G
25	RA	444	C
25	RA	448	U
25	RA	454	A
25	RA	455	C
25	RA	456	C
25	RA	457	A
25	RA	470	A
25	RA	477	A
25	RA	481	G
25	RA	483	A
25	RA	493	G
25	RA	494	G
25	RA	498	G
25	RA	503	A
25	RA	504	U
25	RA	505	A
25	RA	509	C
25	RA	513	A
25	RA	518	G
25	RA	527	C
25	RA	528	A
25	RA	529	A
25	RA	531	C
25	RA	532	A
25	RA	533	G
25	RA	537	C
25	RA	539	G
25	RA	540	G
25	RA	546	C
25	RA	549	G
25	RA	553	U
25	RA	556	G
25	RA	563	G
25	RA	567	A
25	RA	568	U
25	RA	571	A
25	RA	573	G
25	RA	574	C
25	RA	575	A
25	RA	588	U
25	RA	595	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	598	G
25	RA	599	G
25	RA	603	A
25	RA	604	G
25	RA	607	U
25	RA	609(A)	G
25	RA	614	U
25	RA	615	G
25	RA	617	G
25	RA	621	A
25	RA	624	C
25	RA	627	A
25	RA	629	G
25	RA	631	A
25	RA	637	A
25	RA	638	G
25	RA	645	C
25	RA	646	A
25	RA	647	G
25	RA	651	G
25	RA	652	C
25	RA	654	A
25	RA	654(B)	C
25	RA	654(V)	A
25	RA	657	U
25	RA	664	C
25	RA	668	G
25	RA	669	G
25	RA	676	A
25	RA	686	G
25	RA	690	G
25	RA	696	G
25	RA	698	C
25	RA	702	G
25	RA	704	G
25	RA	705	A
25	RA	714	U
25	RA	717	G
25	RA	722	A
25	RA	728	G
25	RA	730	C
25	RA	747	U

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	751	A
25	RA	752	A
25	RA	753	C
25	RA	758	C
25	RA	765	G
25	RA	775	G
25	RA	776	G
25	RA	782	A
25	RA	784	A
25	RA	785	G
25	RA	789	A
25	RA	790	C
25	RA	791	C
25	RA	792	G
25	RA	801	G
25	RA	805	G
25	RA	811	U
25	RA	812	C
25	RA	818	G
25	RA	819	A
25	RA	822	U
25	RA	825	C
25	RA	827	U
25	RA	828	U
25	RA	831	G
25	RA	846	C
25	RA	847	U
25	RA	856	C
25	RA	857	C
25	RA	859	G
25	RA	860	U
25	RA	861	A
25	RA	865	C
25	RA	869	G
25	RA	872	A
25	RA	875	G
25	RA	877	U
25	RA	881	G
25	RA	882	G
25	RA	884	C
25	RA	885	C
25	RA	886	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	888	C
25	RA	889	C
25	RA	893	C
25	RA	896	A
25	RA	897	C
25	RA	899	A
25	RA	900	A
25	RA	901	A
25	RA	904	C
25	RA	907	U
25	RA	909	A
25	RA	910	A
25	RA	914	C
25	RA	915	C
25	RA	916	G
25	RA	917	A
25	RA	932	G
25	RA	941	A
25	RA	942	G
25	RA	944	G
25	RA	945	A
25	RA	946	G
25	RA	957	A
25	RA	959	A
25	RA	961	C
25	RA	969	U
25	RA	972	G
25	RA	973	A
25	RA	974	G
25	RA	974(A)	C
25	RA	975	G
25	RA	983	A
25	RA	989	G
25	RA	990	A
25	RA	991	C
25	RA	996	A
25	RA	1003	G
25	RA	1005	C
25	RA	1008	C
25	RA	1010	A
25	RA	1011	G
25	RA	1012	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	RA	1013	C
25	RA	1015	G
25	RA	1020	A
25	RA	1022	G
25	RA	1023	U
25	RA	1025	G
25	RA	1026	U
25	RA	1027	A
25	RA	1033	U
25	RA	1037	G
25	RA	1038	C
25	RA	1044	G
25	RA	1045	A
25	RA	1046	A
25	RA	1049	C
25	RA	1050	A
25	RA	1055	G
25	RA	1057	A
25	RA	1059	G
25	RA	1060	U
25	RA	1061	U
25	RA	1065	U
25	RA	1066	U
25	RA	1067	A
25	RA	1068	G
25	RA	1069	A
25	RA	1070	A
25	RA	1071	G
25	RA	1076	C
25	RA	1077	A
25	RA	1078	U
25	RA	1079	C
25	RA	1082	U
25	RA	1083	U
25	RA	1084	A
25	RA	1085	A
25	RA	1086	A
25	RA	1087	G
25	RA	1088	A
25	RA	1090	U
25	RA	1091	G
25	RA	1093	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1095	A
25	RA	1096	A
25	RA	1099	G
25	RA	1104	C
25	RA	1105	U
25	RA	1110	G
25	RA	1111	A
25	RA	1112	G
25	RA	1115	G
25	RA	1126	A
25	RA	1128	A
25	RA	1130	U
25	RA	1131	G
25	RA	1135	C
25	RA	1136	G
25	RA	1142	U
25	RA	1142(A)	A
25	RA	1143	A
25	RA	1151	G
25	RA	1155	A
25	RA	1169	G
25	RA	1173	G
25	RA	1174	A
25	RA	1175	U
25	RA	1176	G
25	RA	1178	C
25	RA	1179	C
25	RA	1180	C
25	RA	1183	G
25	RA	1186	G
25	RA	1195	G
25	RA	1197	G
25	RA	1204	A
25	RA	1205	U
25	RA	1206	G
25	RA	1210	A
25	RA	1211	U
25	RA	1212	G
25	RA	1220	A
25	RA	1238	G
25	RA	1247	A
25	RA	1248	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1249	U
25	RA	1251	C
25	RA	1253	A
25	RA	1255	U
25	RA	1256	G
25	RA	1265	A
25	RA	1271	G
25	RA	1272	A
25	RA	1273	U
25	RA	1274	A
25	RA	1275	A
25	RA	1287	A
25	RA	1288	U
25	RA	1292	U
25	RA	1300	U
25	RA	1301	A
25	RA	1302	A
25	RA	1306	C
25	RA	1308	A
25	RA	1312	U
25	RA	1313	U
25	RA	1314	C
25	RA	1316	U
25	RA	1319	G
25	RA	1320	C
25	RA	1321	A
25	RA	1329	U
25	RA	1331	A
25	RA	1332	G
25	RA	1342	A
25	RA	1349	A
25	RA	1351	C
25	RA	1356	G
25	RA	1365	A
25	RA	1368	G
25	RA	1374	G
25	RA	1379	A
25	RA	1380	G
25	RA	1384	A
25	RA	1385	G
25	RA	1386	C
25	RA	1391	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1393	A
25	RA	1406	U
25	RA	1407	C
25	RA	1408	C
25	RA	1410	G
25	RA	1411	C
25	RA	1416	G
25	RA	1419	A
25	RA	1420	U
25	RA	1421	G
25	RA	1427	A
25	RA	1428	C
25	RA	1429	G
25	RA	1433	U
25	RA	1444(A)	A
25	RA	1445	C
25	RA	1448	G
25	RA	1449	A
25	RA	1449(A)	G
25	RA	1455	G
25	RA	1458	C
25	RA	1459	G
25	RA	1460	A
25	RA	1461	G
25	RA	1467	C
25	RA	1471	A
25	RA	1479	G
25	RA	1482	U
25	RA	1483	G
25	RA	1485	G
25	RA	1486	A
25	RA	1493	C
25	RA	1497	U
25	RA	1502	C
25	RA	1503	U
25	RA	1504	C
25	RA	1506	C
25	RA	1507	A
25	RA	1508	A
25	RA	1510	A
25	RA	1514	U
25	RA	1515	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1520	U
25	RA	1522	G
25	RA	1526	G
25	RA	1529	A
25	RA	1534	G
25	RA	1535	U
25	RA	1536	A
25	RA	1537	C
25	RA	1541	U
25	RA	1543	A
25	RA	1544	C
25	RA	1545	A
25	RA	1547	C
25	RA	1554	A
25	RA	1558	A
25	RA	1559	G
25	RA	1560	G
25	RA	1568	G
25	RA	1569	A
25	RA	1578	U
25	RA	1579	A
25	RA	1580	A
25	RA	1581	G
25	RA	1582	C
25	RA	1585	C
25	RA	1586	A
25	RA	1587	A
25	RA	1592	C
25	RA	1593	G
25	RA	1595	G
25	RA	1597	A
25	RA	1602	U
25	RA	1608	A
25	RA	1609	A
25	RA	1616	A
25	RA	1617	C
25	RA	1618	A
25	RA	1639	U
25	RA	1648	C
25	RA	1654	A
25	RA	1667	G
25	RA	1674	G

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1681	G
25	RA	1694	C
25	RA	1695	G
25	RA	1699	G
25	RA	1701	A
25	RA	1704	G
25	RA	1725	G
25	RA	1728	G
25	RA	1729	A
25	RA	1730	U
25	RA	1731	G
25	RA	1733	G
25	RA	1741	C
25	RA	1742	C
25	RA	1743	G
25	RA	1749	A
25	RA	1752	C
25	RA	1754	C
25	RA	1756	G
25	RA	1763	G
25	RA	1764	G
25	RA	1766	U
25	RA	1773	A
25	RA	1776	G
25	RA	1779	U
25	RA	1780	A
25	RA	1791	A
25	RA	1799	G
25	RA	1800	C
25	RA	1801	G
25	RA	1811	G
25	RA	1815	A
25	RA	1816	G
25	RA	1817	G
25	RA	1819	A
25	RA	1820	U
25	RA	1829	A
25	RA	1830	C
25	RA	1835	G
25	RA	1839	G
25	RA	1843	C
25	RA	1845	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	RA	1847	A
25	RA	1848	A
25	RA	1850	G
25	RA	1858	G
25	RA	1869	G
25	RA	1870	C
25	RA	1872	A
25	RA	1878	G
25	RA	1882	C
25	RA	1887	C
25	RA	1888	G
25	RA	1889	A
25	RA	1896	G
25	RA	1903	G
25	RA	1906	G
25	RA	1913	A
25	RA	1918	A
25	RA	1927	A
25	RA	1930	G
25	RA	1931	U
25	RA	1934	C
25	RA	1936	A
25	RA	1937	A
25	RA	1938	A
25	RA	1939	U
25	RA	1941	C
25	RA	1947	C
25	RA	1955	U
25	RA	1963	U
25	RA	1964	G
25	RA	1966	A
25	RA	1967	C
25	RA	1968	G
25	RA	1969	A
25	RA	1970	A
25	RA	1971	A
25	RA	1972	A
25	RA	1981	A
25	RA	1982	C
25	RA	1991	U
25	RA	1992	G
25	RA	1993	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	2000	G
25	RA	2004	G
25	RA	2023	G
25	RA	2031	A
25	RA	2032	G
25	RA	2033	A
25	RA	2039	C
25	RA	2043	C
25	RA	2049	G
25	RA	2055	C
25	RA	2056	G
25	RA	2058	A
25	RA	2059	A
25	RA	2060	A
25	RA	2061	G
25	RA	2062	A
25	RA	2069	G
25	RA	2076	U
25	RA	2086	U
25	RA	2089	U
25	RA	2093	G
25	RA	2097	C
25	RA	2099	U
25	RA	2100	G
25	RA	2107	C
25	RA	2108	C
25	RA	2111	C
25	RA	2113	U
25	RA	2114	A
25	RA	2115	G
25	RA	2116	G
25	RA	2117	A
25	RA	2119	A
25	RA	2120	G
25	RA	2126	A
25	RA	2127	G
25	RA	2128	C
25	RA	2129	C
25	RA	2131	G
25	RA	2132	U
25	RA	2133	G
25	RA	2135	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	RA	2136	C
25	RA	2146	C
25	RA	2148	G
25	RA	2157	G
25	RA	2158	A
25	RA	2161	C
25	RA	2166	G
25	RA	2167	U
25	RA	2168	G
25	RA	2169	A
25	RA	2173	A
25	RA	2176	A
25	RA	2190	G
25	RA	2192	G
25	RA	2198	A
25	RA	2199	A
25	RA	2205	C
25	RA	2208	U
25	RA	2210	G
25	RA	2211	G
25	RA	2212	A
25	RA	2215	G
25	RA	2225	A
25	RA	2226	C
25	RA	2238	G
25	RA	2239	G
25	RA	2248	C
25	RA	2251	G
25	RA	2257	U
25	RA	2268	A
25	RA	2273	A
25	RA	2275	C
25	RA	2280	G
25	RA	2283	C
25	RA	2286	A
25	RA	2287	A
25	RA	2288	A
25	RA	2294	C
25	RA	2299	G
25	RA	2303	G
25	RA	2305	A
25	RA	2307	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	2308	G
25	RA	2310	A
25	RA	2311	A
25	RA	2319	G
25	RA	2320	A
25	RA	2322	A
25	RA	2325	G
25	RA	2326	C
25	RA	2328	A
25	RA	2334	G
25	RA	2336	A
25	RA	2345	G
25	RA	2346	A
25	RA	2347	C
25	RA	2350	C
25	RA	2354	G
25	RA	2362	G
25	RA	2372	G
25	RA	2376	A
25	RA	2382	G
25	RA	2383	G
25	RA	2384	G
25	RA	2385	C
25	RA	2388	A
25	RA	2392	A
25	RA	2394	C
25	RA	2397	G
25	RA	2399	G
25	RA	2402	C
25	RA	2403	C
25	RA	2406	U
25	RA	2423	U
25	RA	2424	C
25	RA	2425	A
25	RA	2426	A
25	RA	2429	G
25	RA	2430	A
25	RA	2435	A
25	RA	2439	A
25	RA	2440	C
25	RA	2441	C
25	RA	2445	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	RA	2446	G
25	RA	2448	A
25	RA	2450	A
25	RA	2452	C
25	RA	2468	G
25	RA	2469	A
25	RA	2474	C
25	RA	2475	C
25	RA	2476	A
25	RA	2482	G
25	RA	2483	C
25	RA	2484	G
25	RA	2494	G
25	RA	2497	A
25	RA	2498	C
25	RA	2502	G
25	RA	2505	G
25	RA	2506	U
25	RA	2507	C
25	RA	2519	U
25	RA	2525	G
25	RA	2529	G
25	RA	2538	C
25	RA	2539	C
25	RA	2542	A
25	RA	2543	G
25	RA	2544	G
25	RA	2551	C
25	RA	2554	U
25	RA	2557	G
25	RA	2559	C
25	RA	2563	U
25	RA	2567	G
25	RA	2568	C
25	RA	2569	G
25	RA	2572	A
25	RA	2573	C
25	RA	2574	G
25	RA	2582	G
25	RA	2586	C
25	RA	2591	C
25	RA	2596	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	2602	A
25	RA	2605	U
25	RA	2609	U
25	RA	2610	C
25	RA	2611	U
25	RA	2612	C
25	RA	2614	A
25	RA	2621	A
25	RA	2623	G
25	RA	2629	A
25	RA	2630	G
25	RA	2636	U
25	RA	2638	G
25	RA	2646	C
25	RA	2655	G
25	RA	2656	U
25	RA	2665	A
25	RA	2666	C
25	RA	2667	C
25	RA	2669	G
25	RA	2673	G
25	RA	2675	A
25	RA	2682	U
25	RA	2689	U
25	RA	2690	C
25	RA	2693	A
25	RA	2698	U
25	RA	2702	U
25	RA	2703	C
25	RA	2707	G
25	RA	2712	U
25	RA	2712(A)	A
25	RA	2713	A
25	RA	2714	G
25	RA	2724	C
25	RA	2726	U
25	RA	2733	A
25	RA	2734	A
25	RA	2744	G
25	RA	2748	A
25	RA	2750	A
25	RA	2751	G

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	2752	C
25	RA	2757	A
25	RA	2761	G
25	RA	2764	A
25	RA	2765	A
25	RA	2766	G
25	RA	2770	G
25	RA	2771	C
25	RA	2777	G
25	RA	2778	A
25	RA	2779	U
25	RA	2780	G
25	RA	2790	A
25	RA	2791	C
25	RA	2797	U
25	RA	2807	G
25	RA	2810	A
25	RA	2812	G
25	RA	2818	G
25	RA	2820	A
25	RA	2821	A
25	RA	2825	C
25	RA	2833	G
25	RA	2834	G
25	RA	2835	A
25	RA	2838	G
25	RA	2839	G
25	RA	2844	G
25	RA	2846	G
25	RA	2849	U
25	RA	2853	C
25	RA	2866	U
25	RA	2867	G
25	RA	2868	A
25	RA	2872	G
25	RA	2878	U
25	RA	2880	C
25	RA	2886	G
25	RA	2891	G
25	RA	2892	A
25	RA	2893	G
25	RA	2894	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
26	RB	8	U
26	RB	11	C
26	RB	12	C
26	RB	13	A
26	RB	15	A
26	RB	19	G
26	RB	21	G
26	RB	24	G
26	RB	25	A
26	RB	26	A
26	RB	27	C
26	RB	28	C
26	RB	32	C
26	RB	33	G
26	RB	41	U
26	RB	42	C
26	RB	44	G
26	RB	45	A
26	RB	52	A
26	RB	53	A
26	RB	56	G
26	RB	59	A
26	RB	67	G
26	RB	73	A
26	RB	81	G
26	RB	82	G
26	RB	89	G
26	RB	90	C
26	RB	96	G
26	RB	101	A
26	RB	109	G
26	RB	112	G
1	XA	6	G
1	XA	19	C
1	XA	22	G
1	XA	32	A
1	XA	39	G
1	XA	48	C
1	XA	51	A
1	XA	54	C
1	XA	60	A
1	XA	61	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	64	G
1	XA	65	U
1	XA	66	G
1	XA	78	G
1	XA	79	G
1	XA	81	G
1	XA	89	U
1	XA	90	C
1	XA	91	C
1	XA	92	G
1	XA	95	G
1	XA	101	A
1	XA	108	G
1	XA	112	G
1	XA	116	A
1	XA	120	A
1	XA	121	C
1	XA	122	G
1	XA	129(A)	G
1	XA	130	A
1	XA	138	G
1	XA	144	G
1	XA	147	G
1	XA	150	C
1	XA	163	C
1	XA	172	A
1	XA	173	U
1	XA	174	C
1	XA	182	U
1	XA	190	G
1	XA	191(A)	G
1	XA	195	A
1	XA	197	A
1	XA	201	C
1	XA	209	U
1	XA	216	G
1	XA	218	C
1	XA	222	U
1	XA	226	G
1	XA	243	A
1	XA	244	U
1	XA	245	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	247	G
1	XA	250	A
1	XA	251	G
1	XA	267	C
1	XA	270	A
1	XA	280	C
1	XA	281	G
1	XA	282	A
1	XA	289	G
1	XA	306	G
1	XA	310	G
1	XA	315	A
1	XA	316	G
1	XA	318	G
1	XA	321	A
1	XA	328	C
1	XA	329	A
1	XA	332	G
1	XA	342	C
1	XA	345	C
1	XA	346	G
1	XA	347	G
1	XA	348	G
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	356	A
1	XA	361	G
1	XA	367	U
1	XA	373	A
1	XA	375	U
1	XA	384	G
1	XA	388	G
1	XA	389	A
1	XA	390	C
1	XA	397	A
1	XA	406	G
1	XA	410	G
1	XA	411	A
1	XA	412	A
1	XA	413	G
1	XA	414	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	421	U
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	429	U
1	XA	430	A
1	XA	435	C
1	XA	440	A
1	XA	442	C
1	XA	452	A
1	XA	466	C
1	XA	467	G
1	XA	475	G
1	XA	482	A
1	XA	485	G
1	XA	486	U
1	XA	487	A
1	XA	496	A
1	XA	497	U
1	XA	500	G
1	XA	505	G
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	513	C
1	XA	518	C
1	XA	527	G
1	XA	530	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	536	C
1	XA	539	A
1	XA	542	G
1	XA	545	C
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	561	U
1	XA	562	C
1	XA	563	A
1	XA	564	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	565	U
1	XA	572	A
1	XA	573	A
1	XA	576	G
1	XA	577	G
1	XA	579	G
1	XA	581	G
1	XA	582	U
1	XA	595	G
1	XA	596	C
1	XA	614	A
1	XA	616	G
1	XA	618	C
1	XA	630	G
1	XA	631	G
1	XA	633	G
1	XA	652	U
1	XA	653	A
1	XA	659	U
1	XA	665	A
1	XA	672	U
1	XA	688	G
1	XA	701	C
1	XA	702	A
1	XA	704	A
1	XA	718	G
1	XA	728	A
1	XA	731	G
1	XA	742	G
1	XA	748	C
1	XA	749	C
1	XA	752	G
1	XA	753	A
1	XA	754	C
1	XA	755	G
1	XA	764	C
1	XA	774	G
1	XA	775	G
1	XA	777	A
1	XA	786	G
1	XA	787	A
1	XA	792	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	793	U
1	XA	794	A
1	XA	796	C
1	XA	800	G
1	XA	801	U
1	XA	810	C
1	XA	812	C
1	XA	813	U
1	XA	815	A
1	XA	816	A
1	XA	817	C
1	XA	818	G
1	XA	819	A
1	XA	821	G
1	XA	828	A
1	XA	836	G
1	XA	841	U
1	XA	843	U
1	XA	848	C
1	XA	859	A
1	XA	870	U
1	XA	871	U
1	XA	872	A
1	XA	873	A
1	XA	875	C
1	XA	885	G
1	XA	902	G
1	XA	914	A
1	XA	917	G
1	XA	920	U
1	XA	922	G
1	XA	927	G
1	XA	934	C
1	XA	935	A
1	XA	942	G
1	XA	945	G
1	XA	950	U
1	XA	954	G
1	XA	960	U
1	XA	961	U
1	XA	966	G
1	XA	967	C

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	968	A
1	XA	969	A
1	XA	972	C
1	XA	974	A
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	981	U
1	XA	982	U
1	XA	983	A
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	994	A
1	XA	995	C
1	XA	1001	G
1	XA	1004	A
1	XA	1005	A
1	XA	1006	C
1	XA	1008	C
1	XA	1021	G
1	XA	1024	G
1	XA	1025	U
1	XA	1028	C
1	XA	1029	G
1	XA	1032(A)	G
1	XA	1036	G
1	XA	1039	C
1	XA	1040	U
1	XA	1047	G
1	XA	1053	G
1	XA	1054	C
1	XA	1064	G
1	XA	1065	U
1	XA	1066	C
1	XA	1074	G
1	XA	1085	U
1	XA	1094	G
1	XA	1095	U
1	XA	1096	C
1	XA	1101	A
1	XA	1124	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1130	A
1	XA	1131	G
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1146	A
1	XA	1157	A
1	XA	1158	C
1	XA	1159	U
1	XA	1160	G
1	XA	1162	C
1	XA	1169	A
1	XA	1171	G
1	XA	1176	A
1	XA	1177	G
1	XA	1181	G
1	XA	1182	G
1	XA	1183	A
1	XA	1186	G
1	XA	1189	C
1	XA	1190	G
1	XA	1193	G
1	XA	1194	U
1	XA	1196	U
1	XA	1198	G
1	XA	1200	C
1	XA	1201	A
1	XA	1202	G
1	XA	1211	U
1	XA	1212	U
1	XA	1213	A
1	XA	1225	A
1	XA	1236	A
1	XA	1237	C
1	XA	1238	A
1	XA	1240	U
1	XA	1241	G
1	XA	1256	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	1257	U
1	XA	1258	G
1	XA	1264	C
1	XA	1270	C
1	XA	1272	G
1	XA	1273	G
1	XA	1277	C
1	XA	1279	A
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1286	A
1	XA	1287	A
1	XA	1290	G
1	XA	1296	C
1	XA	1298	C
1	XA	1299	A
1	XA	1300	G
1	XA	1301	U
1	XA	1302	U
1	XA	1303	C
1	XA	1305	G
1	XA	1317	C
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G
1	XA	1324	A
1	XA	1331	G
1	XA	1335	C
1	XA	1336	C
1	XA	1337	G
1	XA	1338	G
1	XA	1347	G
1	XA	1348	U
1	XA	1353	G
1	XA	1355	G
1	XA	1356	G
1	XA	1362(A)	C
1	XA	1363	A
1	XA	1364	U
1	XA	1365	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	1368	G
1	XA	1370	G
1	XA	1372	U
1	XA	1381	U
1	XA	1397	C
1	XA	1398	A
1	XA	1399	C
1	XA	1401	G
1	XA	1419	G
1	XA	1429	C
1	XA	1442	G
1	XA	1443	G
1	XA	1446	A
1	XA	1447	G
1	XA	1450	U
1	XA	1452	C
1	XA	1453	G
1	XA	1454	G
1	XA	1487	G
1	XA	1492	A
1	XA	1494	G
1	XA	1497	G
1	XA	1499	A
1	XA	1503	A
1	XA	1504	G
1	XA	1505	G
1	XA	1506	U
1	XA	1517	G
1	XA	1519	A
1	XA	1520	G
1	XA	1529	G
1	XA	1530	G
22	XV	3	C
22	XV	4	G
22	XV	5	G
22	XV	7	G
22	XV	8	U
22	XV	14	A
22	XV	16	C
22	XV	17	C
22	XV	17(A)	U
22	XV	18	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
22	XV	19	G
22	XV	21	A
22	XV	22	G
22	XV	25	C
22	XV	31	G
22	XV	37	A
22	XV	42	G
22	XV	47	U
22	XV	48	C
22	XV	49	G
22	XV	50	U
22	XV	51	C
22	XV	52	G
22	XV	54	U
22	XV	59	A
22	XV	63	G
22	XV	67	C
22	XV	72	A
22	XV	75	C
22	XV	76	A
23	XX	3	G
23	XX	4	C
23	XX	5	C
24	XY	31	G
24	XY	33	U
24	XY	36	G
24	XY	39	C
24	XY	40	G
25	YA	9	U
25	YA	14	A
25	YA	15	G
25	YA	26	G
25	YA	34	C
25	YA	35	G
25	YA	40	C
25	YA	46	C
25	YA	50	U
25	YA	51	G
25	YA	55	G
25	YA	61	G
25	YA	63	U
25	YA	71	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	72	U
25	YA	73	A
25	YA	74	A
25	YA	75	G
25	YA	77	C
25	YA	79	G
25	YA	84	A
25	YA	97	C
25	YA	99	U
25	YA	101	G
25	YA	102	G
25	YA	103	A
25	YA	106	C
25	YA	110	G
25	YA	113	G
25	YA	114	U
25	YA	117	G
25	YA	118	A
25	YA	120	U
25	YA	125	G
25	YA	131	G
25	YA	141(A)	C
25	YA	149	A
25	YA	155	C
25	YA	161	U
25	YA	162	U
25	YA	173	G
25	YA	177	G
25	YA	178	G
25	YA	181	A
25	YA	188	G
25	YA	196	A
25	YA	199	A
25	YA	202	U
25	YA	204	A
25	YA	206	U
25	YA	213	A
25	YA	214	G
25	YA	216	A
25	YA	221	A
25	YA	222	A
25	YA	223	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	224	G
25	YA	228	A
25	YA	229	A
25	YA	230	U
25	YA	232	G
25	YA	233	A
25	YA	241	A
25	YA	242	G
25	YA	243	U
25	YA	245	G
25	YA	248	G
25	YA	249	C
25	YA	252	G
25	YA	265	A
25	YA	266	G
25	YA	269	U
25	YA	270(L)	U
25	YA	270(M)	U
25	YA	270(N)	G
25	YA	270(O)	U
25	YA	270(P)	C
25	YA	270(W)	G
25	YA	271(A)	C
25	YA	271(B)	G
25	YA	271(C)	U
25	YA	271	G
25	YA	274	G
25	YA	275	G
25	YA	276	A
25	YA	278	A
25	YA	279	C
25	YA	284	U
25	YA	285	C
25	YA	287	C
25	YA	288	C
25	YA	294	A
25	YA	299	A
25	YA	305	U
25	YA	311	A
25	YA	316	C
25	YA	322	A
25	YA	323	G

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	324	A
25	YA	329	G
25	YA	330	A
25	YA	331	A
25	YA	332	A
25	YA	334	C
25	YA	338	G
25	YA	342	G
25	YA	343	C
25	YA	345	A
25	YA	349	G
25	YA	352	G
25	YA	353	G
25	YA	363(E)	U
25	YA	364	C
25	YA	365	C
25	YA	366	C
25	YA	371	A
25	YA	372	G
25	YA	373	U
25	YA	374	A
25	YA	383	U
25	YA	386	G
25	YA	387	U
25	YA	388	G
25	YA	395	U
25	YA	396	G
25	YA	405	U
25	YA	406	G
25	YA	411	G
25	YA	426	C
25	YA	428	A
25	YA	441	U
25	YA	444	C
25	YA	447	A
25	YA	448	U
25	YA	454	A
25	YA	457	A
25	YA	470	A
25	YA	473	G
25	YA	478	A
25	YA	479	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	480	A
25	YA	481	G
25	YA	483	A
25	YA	504	U
25	YA	505	A
25	YA	508	G
25	YA	509	C
25	YA	510	C
25	YA	518	G
25	YA	531	C
25	YA	532	A
25	YA	533	G
25	YA	536	A
25	YA	537	C
25	YA	539	G
25	YA	540	G
25	YA	546	C
25	YA	547	A
25	YA	549	G
25	YA	556	G
25	YA	558	G
25	YA	562	U
25	YA	563	G
25	YA	571	A
25	YA	572	A
25	YA	573	G
25	YA	574	C
25	YA	575	A
25	YA	584	C
25	YA	586	A
25	YA	587	C
25	YA	588	U
25	YA	603	A
25	YA	607	U
25	YA	609(A)	G
25	YA	613	U
25	YA	614	U
25	YA	615	G
25	YA	617	G
25	YA	618	G
25	YA	618(A)	C
25	YA	620	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	621	A
25	YA	622	G
25	YA	624	C
25	YA	626	U
25	YA	627	A
25	YA	629	G
25	YA	630	G
25	YA	631	A
25	YA	634	C
25	YA	637	A
25	YA	638	G
25	YA	645	C
25	YA	646	A
25	YA	651	G
25	YA	654	A
25	YA	654(A)	G
25	YA	654(B)	C
25	YA	654(T)	C
25	YA	654(V)	A
25	YA	657	U
25	YA	662	G
25	YA	664	C
25	YA	668	G
25	YA	669	G
25	YA	670	A
25	YA	682	G
25	YA	686	G
25	YA	695	G
25	YA	702	G
25	YA	705	A
25	YA	715	G
25	YA	717	G
25	YA	722	A
25	YA	724	U
25	YA	730	C
25	YA	740	U
25	YA	741	G
25	YA	745	G
25	YA	747	U
25	YA	752	A
25	YA	753	C
25	YA	765	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	771	G
25	YA	773	U
25	YA	776	G
25	YA	782	A
25	YA	784	A
25	YA	785	G
25	YA	790	C
25	YA	792	G
25	YA	794	G
25	YA	797	C
25	YA	805	G
25	YA	812	C
25	YA	819	A
25	YA	825	C
25	YA	827	U
25	YA	828	U
25	YA	831	G
25	YA	836	G
25	YA	845	G
25	YA	846	C
25	YA	847	U
25	YA	853	G
25	YA	856	C
25	YA	857	C
25	YA	859	G
25	YA	860	U
25	YA	871	U
25	YA	872	A
25	YA	881	G
25	YA	882	G
25	YA	884	C
25	YA	885	C
25	YA	886	C
25	YA	888	C
25	YA	889	C
25	YA	890	A
25	YA	896	A
25	YA	897	C
25	YA	899	A
25	YA	900	A
25	YA	901	A
25	YA	905	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	907	U
25	YA	910	A
25	YA	916	G
25	YA	917	A
25	YA	920	G
25	YA	928	G
25	YA	932	G
25	YA	941	A
25	YA	945	A
25	YA	946	G
25	YA	948	G
25	YA	959	A
25	YA	961	C
25	YA	973	A
25	YA	974	G
25	YA	974(A)	C
25	YA	975	G
25	YA	978	G
25	YA	980	A
25	YA	983	A
25	YA	989	G
25	YA	990	A
25	YA	996	A
25	YA	997	G
25	YA	1003	G
25	YA	1004	C
25	YA	1005	C
25	YA	1011	G
25	YA	1012	U
25	YA	1013	C
25	YA	1020	A
25	YA	1022	G
25	YA	1023	U
25	YA	1024	G
25	YA	1025	G
25	YA	1026	U
25	YA	1027	A
25	YA	1033	U
25	YA	1045	A
25	YA	1046	A
25	YA	1047	G
25	YA	1050	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	1054	A
25	YA	1055	G
25	YA	1057	A
25	YA	1059	G
25	YA	1060	U
25	YA	1061	U
25	YA	1066	U
25	YA	1067	A
25	YA	1068	G
25	YA	1069	A
25	YA	1070	A
25	YA	1071	G
25	YA	1076	C
25	YA	1077	A
25	YA	1078	U
25	YA	1079	C
25	YA	1080	C
25	YA	1082	U
25	YA	1083	U
25	YA	1084	A
25	YA	1085	A
25	YA	1086	A
25	YA	1087	G
25	YA	1088	A
25	YA	1090	U
25	YA	1093	G
25	YA	1095	A
25	YA	1096	A
25	YA	1097	U
25	YA	1099	G
25	YA	1103	A
25	YA	1104	C
25	YA	1105	U
25	YA	1110	G
25	YA	1111	A
25	YA	1112	G
25	YA	1126	A
25	YA	1127	A
25	YA	1128	A
25	YA	1129	A
25	YA	1130	U
25	YA	1131	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	YA	1135	C
25	YA	1136	G
25	YA	1142	U
25	YA	1142(A)	A
25	YA	1143	A
25	YA	1148	A
25	YA	1151	G
25	YA	1160	G
25	YA	1173	G
25	YA	1174	A
25	YA	1175	U
25	YA	1176	G
25	YA	1178	C
25	YA	1179	C
25	YA	1180	C
25	YA	1195	G
25	YA	1204	A
25	YA	1205	U
25	YA	1210	A
25	YA	1211	U
25	YA	1214	A
25	YA	1218	C
25	YA	1219	G
25	YA	1220	A
25	YA	1221	C
25	YA	1225	C
25	YA	1228	G
25	YA	1234	U
25	YA	1236	G
25	YA	1238	G
25	YA	1242	A
25	YA	1244	G
25	YA	1246	A
25	YA	1247	A
25	YA	1248	G
25	YA	1250	G
25	YA	1253	A
25	YA	1256	G
25	YA	1257	C
25	YA	1259	G
25	YA	1264	G
25	YA	1265	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	1267	U
25	YA	1271	G
25	YA	1272	A
25	YA	1273	U
25	YA	1275	A
25	YA	1281	G
25	YA	1289	C
25	YA	1299	G
25	YA	1300	U
25	YA	1301	A
25	YA	1302	A
25	YA	1305	C
25	YA	1309	G
25	YA	1311	G
25	YA	1312	U
25	YA	1313	U
25	YA	1316	U
25	YA	1317	A
25	YA	1318	C
25	YA	1319	G
25	YA	1321	A
25	YA	1329	U
25	YA	1338	G
25	YA	1342	A
25	YA	1348	G
25	YA	1349	A
25	YA	1358	G
25	YA	1365	A
25	YA	1368	G
25	YA	1379	A
25	YA	1380	G
25	YA	1384	A
25	YA	1385	G
25	YA	1386	C
25	YA	1388	G
25	YA	1390	U
25	YA	1391	U
25	YA	1393	A
25	YA	1395	A
25	YA	1396	U
25	YA	1398	C
25	YA	1402	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	1403	C
25	YA	1407	C
25	YA	1408	C
25	YA	1411	C
25	YA	1412	A
25	YA	1415	U
25	YA	1416	G
25	YA	1417	C
25	YA	1419	A
25	YA	1420	U
25	YA	1421	G
25	YA	1428	C
25	YA	1429	G
25	YA	1433	U
25	YA	1444(A)	A
25	YA	1445	C
25	YA	1447	G
25	YA	1448	G
25	YA	1449	A
25	YA	1449(A)	G
25	YA	1451	C
25	YA	1455	G
25	YA	1458	C
25	YA	1459	G
25	YA	1460	A
25	YA	1461	G
25	YA	1467	C
25	YA	1471	A
25	YA	1477	A
25	YA	1480	G
25	YA	1482	U
25	YA	1483	G
25	YA	1484	G
25	YA	1485	G
25	YA	1490	A
25	YA	1493	C
25	YA	1494	A
25	YA	1495	A
25	YA	1497	U
25	YA	1505	C
25	YA	1506	C
25	YA	1507	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	1508	A
25	YA	1510	A
25	YA	1511	A
25	YA	1513	C
25	YA	1514	U
25	YA	1522	G
25	YA	1527	G
25	YA	1533	C
25	YA	1534	G
25	YA	1535	U
25	YA	1536	A
25	YA	1537	C
25	YA	1543	A
25	YA	1544	C
25	YA	1545	A
25	YA	1546	C
25	YA	1547	C
25	YA	1549	C
25	YA	1558	A
25	YA	1559	G
25	YA	1569	A
25	YA	1570	A
25	YA	1578	U
25	YA	1579	A
25	YA	1581	G
25	YA	1585	C
25	YA	1586	A
25	YA	1587	A
25	YA	1589	C
25	YA	1590	U
25	YA	1592	C
25	YA	1595	G
25	YA	1602	U
25	YA	1606	G
25	YA	1608	A
25	YA	1609	A
25	YA	1612	C
25	YA	1613	G
25	YA	1617	C
25	YA	1618	A
25	YA	1626	G
25	YA	1630(A)	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	YA	1640	C
25	YA	1646	C
25	YA	1648	C
25	YA	1654	A
25	YA	1660	C
25	YA	1667	G
25	YA	1669	A
25	YA	1674	G
25	YA	1678	G
25	YA	1681	G
25	YA	1682	G
25	YA	1685	C
25	YA	1686	C
25	YA	1695	G
25	YA	1698	A
25	YA	1699	G
25	YA	1700	A
25	YA	1701	A
25	YA	1718	G
25	YA	1725	G
25	YA	1728	G
25	YA	1729	A
25	YA	1730	U
25	YA	1731	G
25	YA	1732	A
25	YA	1733	G
25	YA	1734	C
25	YA	1742	C
25	YA	1750	G
25	YA	1754	C
25	YA	1755	A
25	YA	1756	G
25	YA	1762	A
25	YA	1763	G
25	YA	1764	G
25	YA	1772	G
25	YA	1773	A
25	YA	1779	U
25	YA	1780	A
25	YA	1781	C
25	YA	1791	A
25	YA	1799	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	YA	1800	C
25	YA	1801	G
25	YA	1815	A
25	YA	1816	G
25	YA	1819	A
25	YA	1820	U
25	YA	1829	A
25	YA	1834	U
25	YA	1835	G
25	YA	1839	G
25	YA	1847	A
25	YA	1848	A
25	YA	1850	G
25	YA	1851	U
25	YA	1858	G
25	YA	1860	G
25	YA	1864	U
25	YA	1869	G
25	YA	1871	A
25	YA	1872	A
25	YA	1878	G
25	YA	1882	C
25	YA	1888	G
25	YA	1889	A
25	YA	1896	G
25	YA	1900	A
25	YA	1903	G
25	YA	1906	G
25	YA	1913	A
25	YA	1914	C
25	YA	1923	U
25	YA	1926	U
25	YA	1930	G
25	YA	1931	U
25	YA	1934	C
25	YA	1936	A
25	YA	1937	A
25	YA	1938	A
25	YA	1939	U
25	YA	1940	U
25	YA	1943	U
25	YA	1944	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	YA	1955	U
25	YA	1956	U
25	YA	1960	A
25	YA	1963	U
25	YA	1964	G
25	YA	1967	C
25	YA	1968	G
25	YA	1969	A
25	YA	1970	A
25	YA	1971	A
25	YA	1972	A
25	YA	1981	A
25	YA	1982	C
25	YA	1991	U
25	YA	1993	U
25	YA	2010	G
25	YA	2013	A
25	YA	2020	A
25	YA	2023	G
25	YA	2031	A
25	YA	2033	A
25	YA	2043	C
25	YA	2055	C
25	YA	2056	G
25	YA	2059	A
25	YA	2060	A
25	YA	2061	G
25	YA	2062	A
25	YA	2063	C
25	YA	2069	G
25	YA	2071	A
25	YA	2078	C
25	YA	2092	U
25	YA	2093	G
25	YA	2096	U
25	YA	2100	G
25	YA	2111	C
25	YA	2113	U
25	YA	2114	A
25	YA	2115	G
25	YA	2116	G
25	YA	2117	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2118	U
25	YA	2119	A
25	YA	2120	G
25	YA	2126	A
25	YA	2127	G
25	YA	2128	C
25	YA	2131	G
25	YA	2132	U
25	YA	2133	G
25	YA	2136	C
25	YA	2146	C
25	YA	2147	G
25	YA	2148	G
25	YA	2158	A
25	YA	2166	G
25	YA	2167	U
25	YA	2168	G
25	YA	2169	A
25	YA	2171	A
25	YA	2173	A
25	YA	2176	A
25	YA	2178	C
25	YA	2190	G
25	YA	2191	G
25	YA	2192	G
25	YA	2198	A
25	YA	2199	A
25	YA	2209	C
25	YA	2210	G
25	YA	2211	G
25	YA	2212	A
25	YA	2215	G
25	YA	2225	A
25	YA	2228	G
25	YA	2234	G
25	YA	2238	G
25	YA	2239	G
25	YA	2242	G
25	YA	2243	U
25	YA	2251	G
25	YA	2264	C
25	YA	2273	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2274	A
25	YA	2275	C
25	YA	2278	A
25	YA	2280	G
25	YA	2283	C
25	YA	2287	A
25	YA	2288	A
25	YA	2294	C
25	YA	2298	A
25	YA	2299	G
25	YA	2307	G
25	YA	2308	G
25	YA	2310	A
25	YA	2311	A
25	YA	2315	G
25	YA	2319	G
25	YA	2320	A
25	YA	2324	C
25	YA	2325	G
25	YA	2334	G
25	YA	2335	A
25	YA	2336	A
25	YA	2340	G
25	YA	2342	C
25	YA	2343	C
25	YA	2345	G
25	YA	2346	A
25	YA	2347	C
25	YA	2350	C
25	YA	2352	A
25	YA	2355	C
25	YA	2376	A
25	YA	2379	G
25	YA	2382	G
25	YA	2383	G
25	YA	2385	C
25	YA	2386	C
25	YA	2387	U
25	YA	2389	G
25	YA	2390	U
25	YA	2392	A
25	YA	2396	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2400	G
25	YA	2402	C
25	YA	2403	C
25	YA	2406	U
25	YA	2410	G
25	YA	2413	G
25	YA	2421	G
25	YA	2422	A
25	YA	2423	U
25	YA	2424	C
25	YA	2425	A
25	YA	2426	A
25	YA	2428	G
25	YA	2429	G
25	YA	2430	A
25	YA	2432	A
25	YA	2434	A
25	YA	2435	A
25	YA	2439	A
25	YA	2440	C
25	YA	2441	C
25	YA	2446	G
25	YA	2448	A
25	YA	2450	A
25	YA	2455	G
25	YA	2460	U
25	YA	2464	C
25	YA	2468	G
25	YA	2469	A
25	YA	2475	C
25	YA	2476	A
25	YA	2477	C
25	YA	2480	C
25	YA	2482	G
25	YA	2494	G
25	YA	2499	C
25	YA	2502	G
25	YA	2505	G
25	YA	2506	U
25	YA	2507	C
25	YA	2519	U
25	YA	2520	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2529	G
25	YA	2542	A
25	YA	2543	G
25	YA	2551	C
25	YA	2554	U
25	YA	2559	C
25	YA	2566	A
25	YA	2567	G
25	YA	2573	C
25	YA	2574	G
25	YA	2582	G
25	YA	2586	C
25	YA	2590	A
25	YA	2599	G
25	YA	2601	C
25	YA	2602	A
25	YA	2609	U
25	YA	2611	U
25	YA	2612	C
25	YA	2621	A
25	YA	2623	G
25	YA	2629	A
25	YA	2632	A
25	YA	2633	G
25	YA	2645	G
25	YA	2655	G
25	YA	2656	U
25	YA	2657	A
25	YA	2665	A
25	YA	2666	C
25	YA	2673	G
25	YA	2675	A
25	YA	2682	U
25	YA	2683	C
25	YA	2689	U
25	YA	2690	C
25	YA	2693	A
25	YA	2701	C
25	YA	2702	U
25	YA	2703	C
25	YA	2707	G
25	YA	2712	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2712(A)	A
25	YA	2713	A
25	YA	2714	G
25	YA	2720	U
25	YA	2724	C
25	YA	2726	U
25	YA	2733	A
25	YA	2734	A
25	YA	2739	U
25	YA	2741	A
25	YA	2744	G
25	YA	2749	A
25	YA	2750	A
25	YA	2752	C
25	YA	2755	C
25	YA	2757	A
25	YA	2758	A
25	YA	2759	G
25	YA	2761	G
25	YA	2762	G
25	YA	2765	A
25	YA	2766	G
25	YA	2770	G
25	YA	2777	G
25	YA	2778	A
25	YA	2779	U
25	YA	2789	C
25	YA	2790	A
25	YA	2791	C
25	YA	2794	C
25	YA	2797	U
25	YA	2807	G
25	YA	2808	U
25	YA	2818	G
25	YA	2820	A
25	YA	2821	A
25	YA	2830	G
25	YA	2831	G
25	YA	2833	G
25	YA	2834	G
25	YA	2835	A
25	YA	2846	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2849	U
25	YA	2865	U
25	YA	2866	U
25	YA	2867	G
25	YA	2868	A
25	YA	2871	C
25	YA	2872	G
25	YA	2891	G
25	YA	2892	A
25	YA	2894	G
25	YA	2897	U
26	YB	2	C
26	YB	7	G
26	YB	8	U
26	YB	10	C
26	YB	12	C
26	YB	15	A
26	YB	16	G
26	YB	19	G
26	YB	21	G
26	YB	22	U
26	YB	24	G
26	YB	25	A
26	YB	26	A
26	YB	32	C
26	YB	34	U
26	YB	35	U
26	YB	39	A
26	YB	41	U
26	YB	42	C
26	YB	43	C
26	YB	44	G
26	YB	45	A
26	YB	47	C
26	YB	52	A
26	YB	53	A
26	YB	56	G
26	YB	64	C
26	YB	67	G
26	YB	72	G
26	YB	73	A
26	YB	75	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
26	YB	82	G
26	YB	87	G
26	YB	88	C
26	YB	89	G
26	YB	90	C
26	YB	96	G
26	YB	101	A
26	YB	105	G
26	YB	106	G
26	YB	109	G
26	YB	115	G

All (294) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	31	G
1	QA	115	G
1	QA	173	U
1	QA	181	G
1	QA	190	G
1	QA	243	A
1	QA	250	A
1	QA	251	G
1	QA	266	G
1	QA	328	C
1	QA	410	G
1	QA	412	A
1	QA	429	U
1	QA	481	G
1	QA	484	G
1	QA	509	A
1	QA	533	A
1	QA	560	U
1	QA	595	G
1	QA	687	A
1	QA	701	C
1	QA	753	A
1	QA	792	A
1	QA	812	C
1	QA	884	U
1	QA	913	A
1	QA	934	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	QA	960	U
1	QA	971	G
1	QA	972	C
1	QA	992	U
1	QA	1025	U
1	QA	1027	C
1	QA	1064	G
1	QA	1065	U
1	QA	1200	C
1	QA	1201	A
1	QA	1280	A
1	QA	1285	A
1	QA	1297	C
1	QA	1298	C
1	QA	1305	G
1	QA	1336	C
1	QA	1346	A
1	QA	1347	G
1	QA	1446	A
1	QA	1498	U
1	QA	1503	A
1	QA	1528	U
22	QV	53	G
23	QX	6	C
24	QY	39	C
25	RA	74	A
25	RA	83	G
25	RA	99	U
25	RA	102	G
25	RA	196	A
25	RA	221	A
25	RA	222	A
25	RA	227	A
25	RA	229	A
25	RA	242	G
25	RA	271(B)	G
25	RA	271(C)	U
25	RA	277	C
25	RA	345	A
25	RA	370	G
25	RA	372	G
25	RA	503	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	508	G
25	RA	512	G
25	RA	562	U
25	RA	587	C
25	RA	620	G
25	RA	627	A
25	RA	637	A
25	RA	704	G
25	RA	746	A
25	RA	752	A
25	RA	762	U
25	RA	774	A
25	RA	846	C
25	RA	856	C
25	RA	859	G
25	RA	974(A)	C
25	RA	1022	G
25	RA	1026	U
25	RA	1045	A
25	RA	1078	U
25	RA	1085	A
25	RA	1130	U
25	RA	1141	U
25	RA	1178	C
25	RA	1204	A
25	RA	1210	A
25	RA	1220	A
25	RA	1247	A
25	RA	1265	A
25	RA	1301	A
25	RA	1312	U
25	RA	1405	U
25	RA	1427	A
25	RA	1460	A
25	RA	1558	A
25	RA	1608	A
25	RA	1653	G
25	RA	1694	C
25	RA	1698	A
25	RA	1799	G
25	RA	1801	G
25	RA	1819	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	RA	1929	G
25	RA	1930	G
25	RA	1992	G
25	RA	2031	A
25	RA	2060	A
25	RA	2126	A
25	RA	2238	G
25	RA	2282	G
25	RA	2311	A
25	RA	2335	A
25	RA	2405	G
25	RA	2439	A
25	RA	2481	G
25	RA	2506	U
25	RA	2518	A
25	RA	2581	G
25	RA	2610	C
25	RA	2689	U
25	RA	2712	U
25	RA	2776	A
25	RA	2832	U
25	RA	2848	G
25	RA	2867	G
26	RB	24	G
26	RB	66	A
26	RB	108	C
1	XA	31	G
1	XA	60	A
1	XA	64	G
1	XA	78	G
1	XA	89	U
1	XA	115	G
1	XA	181	G
1	XA	243	A
1	XA	244	U
1	XA	250	A
1	XA	266	G
1	XA	281	G
1	XA	328	C
1	XA	345	C
1	XA	372	C
1	XA	388	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	410	G
1	XA	412	A
1	XA	429	U
1	XA	481	G
1	XA	484	G
1	XA	485	G
1	XA	509	A
1	XA	530	G
1	XA	531	U
1	XA	532	A
1	XA	560	U
1	XA	595	G
1	XA	687	A
1	XA	701	C
1	XA	703	G
1	XA	752	G
1	XA	753	A
1	XA	793	U
1	XA	812	C
1	XA	815	A
1	XA	819	A
1	XA	913	A
1	XA	934	C
1	XA	960	U
1	XA	974	A
1	XA	992	U
1	XA	1027	C
1	XA	1054	C
1	XA	1065	U
1	XA	1094	G
1	XA	1182	G
1	XA	1200	C
1	XA	1201	A
1	XA	1279	A
1	XA	1285	A
1	XA	1297	C
1	XA	1301	U
1	XA	1305	G
1	XA	1336	C
1	XA	1347	G
1	XA	1364	U
1	XA	1446	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	XA	1498	U
1	XA	1503	A
22	XV	53	G
24	XY	39	C
25	YA	74	A
25	YA	83	G
25	YA	99	U
25	YA	102	G
25	YA	196	A
25	YA	205	G
25	YA	221	A
25	YA	222	A
25	YA	226	G
25	YA	227	A
25	YA	229	A
25	YA	242	G
25	YA	271(B)	G
25	YA	278	A
25	YA	332	A
25	YA	372	G
25	YA	404	C
25	YA	503	A
25	YA	562	U
25	YA	574	C
25	YA	587	C
25	YA	620	G
25	YA	637	A
25	YA	645	C
25	YA	653	A
25	YA	669	G
25	YA	704	G
25	YA	752	A
25	YA	846	C
25	YA	856	C
25	YA	858	U
25	YA	859	G
25	YA	961	C
25	YA	973	A
25	YA	974	G
25	YA	974(A)	C
25	YA	1012	U
25	YA	1022	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	1026	U
25	YA	1045	A
25	YA	1078	U
25	YA	1085	A
25	YA	1109	C
25	YA	1128	A
25	YA	1130	U
25	YA	1175	U
25	YA	1178	C
25	YA	1204	A
25	YA	1210	A
25	YA	1220	A
25	YA	1379	A
25	YA	1416	G
25	YA	1460	A
25	YA	1558	A
25	YA	1608	A
25	YA	1653	G
25	YA	1667	G
25	YA	1694	C
25	YA	1698	A
25	YA	1799	G
25	YA	1819	A
25	YA	1899	G
25	YA	1929	G
25	YA	1930	G
25	YA	1943	U
25	YA	1955	U
25	YA	1992	G
25	YA	2035	G
25	YA	2060	A
25	YA	2092	U
25	YA	2126	A
25	YA	2211	G
25	YA	2238	G
25	YA	2318	G
25	YA	2335	A
25	YA	2351	G
25	YA	2405	G
25	YA	2439	A
25	YA	2481	G
25	YA	2506	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
25	YA	2518	A
25	YA	2566	A
25	YA	2610	C
25	YA	2655	G
25	YA	2681	C
25	YA	2689	U
25	YA	2712	U
25	YA	2751	G
25	YA	2756	U
25	YA	2776	A
25	YA	2832	U
25	YA	2867	G
25	YA	2873	A
26	YB	24	G
26	YB	66	A

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

4 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
24	1MG	QY	37	24	24,26,27	3.01	6 (25%)	34,39,42	3.50	12 (35%)
24	1MG	XY	37	24	24,26,27	3.01	6 (25%)	34,39,42	3.63	12 (35%)
56	PPU	Z6	76	25,56	38,40,41	2.43	9 (23%)	54,57,60	2.62	14 (25%)
56	PPU	Z8	76	25,56	38,40,41	2.42	8 (21%)	54,57,60	2.60	14 (25%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	1MG	QY	37	24	-	0/8/25/26	0/3/3/3

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	1MG	XY	37	24	-	0/8/25/26	0/3/3/3
56	PPU	Z6	76	25,56	-	0/26/43/44	0/4/4/4
56	PPU	Z8	76	25,56	-	0/26/43/44	0/4/4/4

All (29) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	Z6	76	PPU	O-C	9.20	1.41	1.23
56	Z8	76	PPU	O-C	9.16	1.41	1.23
24	XY	37	1MG	C4-N3	8.22	1.49	1.35
24	QY	37	1MG	C4-N3	8.20	1.49	1.35
24	QY	37	1MG	C2-N1	7.44	1.47	1.37
24	XY	37	1MG	C2-N1	7.31	1.47	1.37
24	XY	37	1MG	C2-N2	6.72	1.48	1.33
24	QY	37	1MG	C2-N2	6.68	1.48	1.33
56	Z6	76	PPU	C-N3'	5.46	1.46	1.34
56	Z6	76	PPU	C9-N6	-5.39	1.32	1.45
56	Z8	76	PPU	C9-N6	-5.37	1.32	1.45
56	Z8	76	PPU	C-N3'	5.36	1.46	1.34
56	Z8	76	PPU	C10-N6	-5.15	1.32	1.45
56	Z6	76	PPU	C10-N6	-5.14	1.32	1.45
24	XY	37	1MG	P-OP1	4.85	1.52	1.46
24	QY	37	1MG	P-OP1	4.71	1.52	1.46
24	QY	37	1MG	C5-N7	-3.70	1.33	1.38
24	XY	37	1MG	C5-N7	-3.62	1.33	1.38
56	Z8	76	PPU	C4-N9	-3.09	1.33	1.37
56	Z6	76	PPU	C8-N9	-3.09	1.32	1.36
56	Z6	76	PPU	C4-N9	-3.07	1.33	1.37
56	Z8	76	PPU	C8-N9	-3.00	1.32	1.36
56	Z6	76	PPU	O4'-C1'	2.94	1.44	1.41
56	Z8	76	PPU	O4'-C1'	2.91	1.44	1.41
56	Z8	76	PPU	C6-C5	-2.58	1.40	1.44
56	Z6	76	PPU	C6-C5	-2.57	1.40	1.44
24	XY	37	1MG	C8-N9	-2.25	1.33	1.36
24	QY	37	1MG	C8-N9	-2.16	1.33	1.36
56	Z6	76	PPU	C5-N7	-2.02	1.32	1.39

All (52) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	XY	37	1MG	C6-C5-N7	-14.13	133.49	134.24
24	QY	37	1MG	C6-C5-N7	-13.30	133.53	134.24

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	XY	37	1MG	C6-N1-C2	12.01	124.00	120.71
24	QY	37	1MG	C6-N1-C2	11.88	123.97	120.71
56	Z8	76	PPU	N3-C2-N1	-8.54	121.38	128.89
56	Z6	76	PPU	N3-C2-N1	-8.53	121.39	128.89
56	Z6	76	PPU	C3'-N3'-C	-8.18	110.17	123.19
56	Z8	76	PPU	C3'-N3'-C	-8.16	110.20	123.19
56	Z6	76	PPU	C5-C4-N3	-6.38	119.76	125.98
56	Z8	76	PPU	C5-C4-N3	-6.27	119.87	125.98
56	Z8	76	PPU	C2'-C1'-N9	-5.49	98.40	113.35
56	Z6	76	PPU	C2'-C1'-N9	-5.44	98.53	113.35
56	Z6	76	PPU	C2'-C3'-N3'	5.17	125.08	113.08
56	Z8	76	PPU	C2'-C3'-N3'	5.17	125.07	113.08
56	Z6	76	PPU	C2-N1-C6	4.74	121.80	111.52
56	Z8	76	PPU	C2-N1-C6	4.70	121.69	111.52
56	Z6	76	PPU	C4'-O4'-C1'	-4.00	105.33	109.72
56	Z8	76	PPU	C4'-O4'-C1'	-3.95	105.38	109.72
24	XY	37	1MG	N3-C4-N9	3.94	132.68	126.91
56	Z6	76	PPU	N3-C4-N9	3.94	132.14	125.39
24	QY	37	1MG	N2-C2-N1	3.89	123.73	118.45
24	XY	37	1MG	N2-C2-N1	3.89	123.73	118.45
56	Z8	76	PPU	N3-C4-N9	3.86	132.02	125.39
24	QY	37	1MG	N3-C4-N9	3.83	132.52	126.91
56	Z6	76	PPU	C4-C5-N7	-3.56	105.97	109.41
56	Z8	76	PPU	C4-C5-N7	-3.52	106.01	109.41
24	XY	37	1MG	C8-N9-C4	3.51	109.81	106.96
24	XY	37	1MG	C5-C4-N3	-3.37	122.19	126.07
24	QY	37	1MG	C8-N9-C4	3.31	109.65	106.96
24	QY	37	1MG	C5-C4-N3	-3.28	122.29	126.07
56	Z6	76	PPU	CM-OC-CZ	-3.18	110.14	117.54
56	Z8	76	PPU	CM-OC-CZ	-3.14	110.22	117.54
24	XY	37	1MG	C4-C5-N7	-2.81	106.69	109.41
24	QY	37	1MG	C4-C5-N7	-2.76	106.74	109.41
56	Z6	76	PPU	O4'-C1'-N9	-2.69	102.25	108.10
56	Z8	76	PPU	O4'-C1'-N9	-2.67	102.28	108.10
56	Z6	76	PPU	C4'-C3'-N3'	-2.66	107.95	113.56
24	QY	37	1MG	N3-C2-N1	-2.65	119.06	123.84
56	Z8	76	PPU	C2-N3-C4	2.64	120.86	113.27
56	Z6	76	PPU	C2-N3-C4	2.63	120.83	113.27
56	Z8	76	PPU	C4'-C3'-N3'	-2.61	108.06	113.56
24	XY	37	1MG	N3-C2-N1	-2.60	119.14	123.84
24	XY	37	1MG	C1'-N9-C4	-2.47	122.37	126.64
24	QY	37	1MG	C1'-N9-C4	-2.39	122.51	126.64

*Continued on next page...*

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	QY	37	1MG	C8-N7-C5	2.37	110.91	103.58
24	XY	37	1MG	C8-N7-C5	2.36	110.90	103.58
24	XY	37	1MG	C2-N3-C4	2.25	118.00	115.30
24	QY	37	1MG	C2-N3-C4	2.23	117.98	115.30
24	XY	37	1MG	N7-C8-N9	-2.09	107.46	112.20
24	QY	37	1MG	N7-C8-N9	-2.07	107.51	112.20
56	Z6	76	PPU	CA-C-N3'	2.06	121.73	115.94
56	Z8	76	PPU	CA-C-N3'	2.04	121.68	115.94

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

Of 681 ligands modelled in this entry, 680 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
59	A	XX	101	-	22,24,25	0.96	1 (4%)	32,35,38	1.12	3 (9%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	A	XX	101	-	-	0/8/25/26	0/3/3/3

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	XX	101	A	C1'-N9	2.36	1.56	1.48

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	XX	101	A	C1'-N9-C4	3.28	132.29	126.64
59	XX	101	A	C5-C6-N6	2.75	126.94	120.72
59	XX	101	A	C8-N9-C4	-2.54	104.89	106.96

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

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	QA	1500/1522 (98%)	-0.08	38 (2%) 54 41	3, 59, 153, 236	0
1	XA	1500/1522 (98%)	-0.13	33 (2%) 59 44	1, 53, 148, 240	0
2	QB	237/256 (92%)	0.43	13 (5%) 24 20	41, 113, 151, 177	0
2	XB	237/256 (92%)	0.29	5 (2%) 60 46	21, 96, 142, 157	0
3	QC	205/239 (85%)	0.42	13 (6%) 19 18	22, 104, 139, 161	0
3	XC	205/239 (85%)	0.09	3 (1%) 70 54	22, 79, 122, 161	0
4	QD	208/209 (99%)	0.12	3 (1%) 72 56	8, 69, 116, 153	0
4	XD	208/209 (99%)	0.23	4 (1%) 64 48	16, 74, 114, 159	0
5	QE	151/162 (93%)	0.49	3 (1%) 62 46	32, 95, 133, 161	0
5	XE	151/162 (93%)	0.02	0 100 100	20, 63, 108, 140	0
6	QF	101/101 (100%)	0.10	0 100 100	15, 68, 105, 139	0
6	XF	101/101 (100%)	0.33	2 (1%) 62 46	4, 66, 107, 134	0
7	QG	155/156 (99%)	0.30	8 (5%) 26 22	26, 89, 133, 154	0
7	XG	155/156 (99%)	0.28	7 (4%) 32 26	28, 83, 124, 148	0
8	QH	138/138 (100%)	0.15	1 (0%) 84 72	21, 79, 122, 132	0
8	XH	138/138 (100%)	0.04	0 100 100	14, 68, 108, 133	0
9	QI	127/128 (99%)	0.55	7 (5%) 24 20	49, 102, 138, 161	0
9	XI	127/128 (99%)	0.34	3 (2%) 56 42	13, 91, 134, 162	0
10	QJ	99/105 (94%)	0.98	18 (18%) 2 3	57, 108, 148, 192	0
10	XJ	99/105 (94%)	0.70	9 (9%) 9 11	40, 94, 140, 165	0
11	QK	119/129 (92%)	0.44	8 (6%) 17 17	25, 72, 127, 150	0
11	XK	119/129 (92%)	0.22	4 (3%) 43 33	4, 59, 109, 129	0
12	QL	125/132 (94%)	0.37	10 (8%) 12 13	15, 64, 124, 159	0
12	XL	125/132 (94%)	0.13	1 (0%) 83 69	6, 48, 102, 157	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	QM	121/126 (96%)	0.36	4 (3%) 44 34	48, 101, 151, 159	0
13	XM	121/126 (96%)	0.26	4 (3%) 44 34	38, 85, 119, 158	0
14	QN	60/61 (98%)	0.77	2 (3%) 44 34	52, 108, 148, 159	0
14	XN	60/61 (98%)	0.20	0 100 100	33, 72, 116, 130	0
15	QO	88/89 (98%)	0.14	1 (1%) 77 61	17, 71, 119, 151	0
15	XO	88/89 (98%)	0.17	0 100 100	7, 59, 102, 127	0
16	QP	84/88 (95%)	0.12	1 (1%) 75 60	14, 59, 114, 134	0
16	XP	84/88 (95%)	0.17	2 (2%) 56 42	28, 68, 122, 176	0
17	QQ	100/105 (95%)	0.31	3 (3%) 48 36	30, 70, 116, 148	0
17	XQ	100/105 (95%)	0.28	2 (2%) 62 46	19, 71, 106, 144	0
18	QR	70/88 (79%)	0.19	1 (1%) 72 56	22, 70, 125, 150	0
18	XR	70/88 (79%)	0.13	1 (1%) 72 56	9, 65, 106, 140	0
19	QS	84/93 (90%)	0.96	11 (13%) 4 5	69, 116, 148, 161	0
19	XS	84/93 (90%)	0.31	3 (3%) 41 32	48, 87, 132, 145	0
20	QT	99/106 (93%)	0.29	2 (2%) 62 46	16, 73, 113, 135	0
20	XT	99/106 (93%)	0.40	5 (5%) 27 23	23, 77, 124, 157	0
21	QU	25/27 (92%)	1.96	9 (36%) 1 2	31, 92, 141, 158	0
21	XU	25/27 (92%)	1.38	6 (24%) 1 3	32, 83, 121, 143	0
22	QV	77/77 (100%)	0.18	1 (1%) 74 58	21, 85, 147, 180	0
22	XV	77/77 (100%)	0.16	3 (3%) 37 30	6, 64, 119, 169	0
23	QX	8/25 (32%)	0.70	2 (25%) 1 3	50, 74, 138, 138	0
23	XX	7/25 (28%)	0.68	0 100 100	18, 51, 81, 90	0
24	QY	14/18 (77%)	1.45	3 (21%) 1 3	106, 175, 223, 238	0
24	XY	14/18 (77%)	1.86	3 (21%) 1 3	55, 149, 189, 217	0
25	RA	2882/2916 (98%)	-0.12	108 (3%) 39 31	0, 30, 174, 252	0
25	YA	2883/2916 (98%)	-0.20	89 (3%) 47 36	0, 20, 159, 242	0
26	RB	120/122 (98%)	0.08	0 100 100	39, 82, 133, 170	0
26	YB	120/122 (98%)	-0.08	1 (0%) 83 69	16, 68, 104, 146	0
27	RD	272/276 (98%)	0.03	2 (0%) 84 72	0, 34, 82, 147	0
27	YD	272/276 (98%)	-0.04	0 100 100	0, 18, 64, 125	0
28	RE	205/206 (99%)	0.08	2 (0%) 79 64	1, 49, 112, 170	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	YE	205/206 (99%)	0.08	4 (1%) 62 46	0, 47, 104, 155	0
29	RF	202/210 (96%)	-0.00	1 (0%) 88 77	0, 55, 108, 143	0
29	YF	202/210 (96%)	-0.05	0 100 100	0, 32, 96, 124	0
30	RG	181/182 (99%)	0.87	18 (9%) 8 10	39, 113, 160, 177	0
30	YG	181/182 (99%)	0.38	6 (3%) 44 34	18, 92, 131, 177	0
31	RH	170/180 (94%)	0.85	15 (8%) 10 12	45, 112, 156, 177	0
31	YH	170/180 (94%)	0.14	1 (0%) 86 74	11, 66, 116, 131	0
32	RI	146/148 (98%)	0.07	4 (2%) 52 39	3, 77, 124, 177	0
32	YI	146/148 (98%)	0.02	2 (1%) 72 56	3, 64, 125, 140	0
33	RN	138/140 (98%)	0.24	1 (0%) 84 72	6, 61, 118, 144	0
33	YN	138/140 (98%)	-0.04	0 100 100	4, 45, 98, 131	0
34	RO	122/122 (100%)	-0.04	0 100 100	2, 42, 80, 107	0
34	YO	122/122 (100%)	-0.04	0 100 100	2, 41, 82, 126	0
35	RP	150/150 (100%)	0.27	8 (5%) 25 22	1, 58, 130, 158	0
35	YP	150/150 (100%)	0.13	2 (1%) 74 58	1, 46, 101, 160	0
36	RQ	141/141 (100%)	0.17	3 (2%) 60 46	3, 58, 103, 133	0
36	YQ	141/141 (100%)	0.01	0 100 100	0, 47, 97, 115	0
37	RR	118/118 (100%)	-0.08	0 100 100	1, 34, 87, 136	0
37	YR	118/118 (100%)	0.03	1 (0%) 83 69	2, 38, 98, 136	0
38	RS	111/112 (99%)	0.19	0 100 100	23, 83, 117, 138	0
38	YS	111/112 (99%)	0.22	0 100 100	13, 73, 115, 168	0
39	RT	137/146 (93%)	0.20	0 100 100	8, 58, 130, 152	0
39	YT	137/146 (93%)	0.11	3 (2%) 59 44	9, 56, 122, 170	0
40	RU	117/118 (99%)	0.12	2 (1%) 67 52	1, 49, 113, 166	0
40	YU	117/118 (99%)	-0.12	2 (1%) 67 52	1, 31, 97, 145	0
41	RV	101/101 (100%)	0.13	1 (0%) 79 64	1, 68, 120, 193	0
41	YV	101/101 (100%)	0.02	1 (0%) 79 64	1, 45, 97, 171	0
42	RW	113/113 (100%)	0.18	3 (2%) 52 39	2, 34, 95, 131	0
42	YW	113/113 (100%)	0.07	1 (0%) 81 67	1, 24, 84, 155	0
43	RX	92/96 (95%)	0.14	2 (2%) 59 44	4, 44, 91, 131	0
43	YX	92/96 (95%)	0.17	0 100 100	1, 25, 64, 106	0

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	RY	102/110 (92%)	0.58	5 (4%) 28 23	10, 84, 138, 174	0
44	YY	102/110 (92%)	-0.03	2 (1%) 62 46	2, 50, 106, 160	0
45	RZ	183/206 (88%)	0.27	3 (1%) 68 53	20, 88, 136, 160	0
45	YZ	183/206 (88%)	0.17	4 (2%) 59 44	20, 78, 137, 167	0
46	R0	82/85 (96%)	-0.07	1 (1%) 75 60	6, 44, 83, 137	0
46	Y0	82/85 (96%)	-0.07	0 100 100	2, 32, 70, 88	0
47	R1	97/98 (98%)	0.53	5 (5%) 26 22	2, 47, 126, 202	0
47	Y1	97/98 (98%)	0.34	6 (6%) 20 18	0, 32, 114, 142	0
48	R2	69/72 (95%)	0.06	1 (1%) 72 56	8, 72, 116, 128	0
48	Y2	69/72 (95%)	-0.05	0 100 100	0, 39, 97, 137	0
49	R3	59/60 (98%)	0.26	3 (5%) 27 23	7, 60, 126, 152	0
49	Y3	59/60 (98%)	-0.11	0 100 100	3, 40, 87, 128	0
50	R4	71/71 (100%)	0.98	12 (16%) 2 4	78, 145, 193, 235	0
50	Y4	71/71 (100%)	0.62	5 (7%) 16 15	69, 122, 166, 194	0
51	R5	59/60 (98%)	0.41	6 (10%) 7 9	4, 39, 139, 166	0
51	Y5	59/60 (98%)	0.27	2 (3%) 43 33	1, 40, 132, 156	0
52	R6	49/54 (90%)	1.84	18 (36%) 1 2	48, 122, 152, 191	0
52	Y6	49/54 (90%)	0.81	4 (8%) 12 12	47, 108, 148, 175	0
53	R7	49/49 (100%)	0.19	1 (2%) 62 46	1, 27, 75, 161	0
53	Y7	49/49 (100%)	0.23	1 (2%) 62 46	1, 15, 84, 140	0
54	R8	64/65 (98%)	0.25	2 (3%) 47 36	4, 41, 94, 153	0
54	Y8	64/65 (98%)	0.13	0 100 100	2, 34, 85, 138	0
55	R9	37/37 (100%)	3.09	24 (64%) 0 1	53, 103, 154, 162	0
55	Y9	37/37 (100%)	2.80	29 (78%) 0 1	60, 98, 136, 154	0
56	Z6	3/3 (100%)	3.40	1 (33%) 1 2	15, 15, 17, 30	0
56	Z8	3/3 (100%)	4.20	1 (33%) 1 2	10, 10, 19, 22	0
All	All	20874/21494 (97%)	0.09	681 (3%) 44 34	0, 55, 139, 252	0

All (681) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
25	RA	2173	A	12.6
56	Z8	76	PPU	11.6

Continued on next page...



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	RA	1058	G	11.2
25	RA	1057	A	10.6
25	RA	1094	U	10.3
25	YA	2799	A	10.2
25	RA	2799	A	10.2
25	RA	1059	G	10.2
25	YA	1536	A	10.2
25	RA	2801	A	10.0
25	RA	1084	A	9.6
25	RA	1083	U	9.4
25	RA	1095	A	9.3
25	RA	1096	A	9.1
55	R9	14	CYS	9.1
56	Z6	76	PPU	9.0
24	XY	32	U	8.9
28	YE	205	ALA	8.3
40	RU	118	GLY	8.2
52	R6	43	CYS	8.2
25	YA	2801	A	8.1
24	QY	32	U	7.7
25	RA	1536	A	7.5
25	RA	1082	U	7.5
25	RA	2798	C	7.4
25	YA	1060	U	7.4
25	YA	1061	U	7.2
25	RA	2174	C	7.1
25	RA	654	A	6.9
25	RA	1064	C	6.8
55	R9	11	CYS	6.8
44	RY	103	GLY	6.6
25	RA	1098	A	6.6
7	QG	81	GLY	6.6
25	RA	2797	U	6.6
25	RA	1087	G	6.6
25	YA	1096	A	6.6
25	RA	1067	A	6.5
25	RA	1060	U	6.5
1	XA	87	A	6.5
25	RA	1061	U	6.4
11	XK	11	LYS	6.4
28	RE	205	ALA	6.4
7	QG	82	GLY	6.3

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	RA	1085	A	6.3
10	QJ	83	GLU	6.1
55	Y9	34	GLN	6.1
47	R1	97	LEU	6.0
7	QG	83	ALA	5.9
25	YA	1075	C	5.9
55	R9	1	MET	5.9
55	R9	34	GLN	5.9
11	QK	128	ALA	5.8
25	RA	2125	G	5.8
31	RH	18	GLU	5.7
25	RA	1093	G	5.7
7	XG	85	TYR	5.7
28	RE	204	ALA	5.7
25	RA	1068	G	5.7
25	RA	1097	U	5.6
3	QC	155	GLY	5.6
25	RA	1086	A	5.6
25	YA	2125	G	5.5
25	YA	1064	C	5.5
50	R4	71	ARG	5.4
55	Y9	1	MET	5.4
11	QK	11	LYS	5.4
13	QM	121	LYS	5.4
7	XG	78	ARG	5.3
55	Y9	28	GLU	5.3
25	RA	2802	G	5.3
1	XA	88	C	5.3
25	YA	2795	G	5.2
50	R4	67	TYR	5.2
25	RA	1070	A	5.2
25	YA	2126	A	5.1
25	YA	2798	C	5.1
25	YA	654	A	5.1
1	QA	1020	U	5.1
25	RA	1065	U	5.1
55	R9	15	LYS	5.0
40	RU	117	GLN	5.0
11	QK	12	ARG	5.0
55	R9	25	VAL	5.0
25	RA	1066	U	5.0
1	QA	1026	G	5.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
12	QL	129	ALA	4.9
21	XU	26	LYS	4.9
25	RA	2894	G	4.9
25	RA	11	G	4.9
25	RA	2116	G	4.9
7	XG	84	ASN	4.8
25	RA	2126	A	4.8
50	R4	70	GLY	4.8
7	XG	86	GLN	4.7
25	RA	2138	C	4.7
25	RA	889	C	4.7
22	QV	47	U	4.7
52	R6	46	HIS	4.7
21	QU	25	LYS	4.7
55	R9	24	TYR	4.7
31	RH	25	LYS	4.7
25	RA	890	A	4.6
25	YA	2116	G	4.6
52	R6	41	PRO	4.6
52	R6	40	CYS	4.6
1	QA	1033	G	4.6
25	YA	1058	G	4.5
18	XR	88	LYS	4.5
25	RA	2121	G	4.4
25	RA	1063	G	4.4
44	RY	102	CYS	4.4
1	QA	1035	A	4.4
55	R9	13	LYS	4.4
7	QG	78	ARG	4.4
55	R9	12	ASP	4.4
25	RA	2124	G	4.3
10	XJ	33	GLN	4.3
25	YA	1070	A	4.3
1	QA	1029	G	4.3
25	YA	2135	A	4.3
1	XA	81	G	4.3
19	QS	6	LYS	4.3
47	R1	98	LEU	4.3
25	YA	2136	C	4.2
25	RA	2175	C	4.2
25	YA	1097	U	4.2
20	XT	8	ARG	4.2

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	QS	85	LYS	4.2
51	R5	54	GLY	4.1
55	R9	9	ARG	4.1
25	YA	2122	U	4.1
11	QK	129	SER	4.1
30	YG	25	TYR	4.1
21	QU	18	TYR	4.1
2	QB	240	GLN	4.1
55	R9	17	ILE	4.1
18	QR	88	LYS	4.1
13	QM	120	LYS	4.0
25	RA	1080	C	4.0
52	R6	45	LYS	4.0
52	R6	50	ARG	4.0
25	YA	654(A)	G	4.0
52	R6	6	ARG	4.0
47	R1	96	LYS	4.0
1	XA	89	U	4.0
25	RA	1103	A	3.9
25	YA	1508	A	3.9
11	QK	127	LYS	3.9
55	Y9	24	TYR	3.9
31	RH	43	VAL	3.9
10	QJ	5	ARG	3.9
55	Y9	10	ILE	3.9
4	QD	35	ARG	3.9
25	YA	1534	G	3.9
25	YA	2169	A	3.9
25	YA	2167	U	3.9
25	YA	2151	G	3.9
25	RA	2795	G	3.9
25	YA	2121	G	3.9
22	XV	17(A)	U	3.8
30	RG	182	LYS	3.8
10	QJ	4	ILE	3.8
10	QJ	6	ILE	3.8
1	XA	1138	G	3.8
1	XA	210	U	3.8
1	QA	1032	A	3.8
55	Y9	13	LYS	3.8
25	YA	1057	A	3.8
1	QA	1027	C	3.8

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	QA	1032(B)	G	3.8
10	QJ	33	GLN	3.7
31	RH	42	ARG	3.7
3	QC	160	ALA	3.7
28	YE	204	ALA	3.7
52	R6	22	ALA	3.7
25	RA	2167	U	3.7
25	YA	2797	U	3.7
10	XJ	5	ARG	3.7
2	XB	96	ARG	3.7
51	R5	60	VAL	3.7
55	Y9	25	VAL	3.7
1	QA	1002	G	3.7
25	RA	1081	U	3.7
25	YA	887	A	3.7
2	QB	4	GLU	3.7
10	QJ	100	THR	3.6
30	RG	58	GLN	3.6
24	XY	33	U	3.6
55	R9	26	ILE	3.6
25	YA	2141	G	3.6
11	XK	12	ARG	3.6
9	QI	95	LYS	3.6
25	RA	2119	A	3.6
12	QL	127	GLU	3.6
35	RP	88	LEU	3.5
21	QU	26	LYS	3.5
25	YA	889	C	3.5
25	YA	2804	C	3.5
50	R4	68	ARG	3.5
55	Y9	4	ARG	3.5
9	XI	8	GLY	3.5
55	R9	10	ILE	3.5
50	Y4	32	TYR	3.5
10	QJ	101	VAL	3.5
11	XK	129	SER	3.5
25	RA	1108	U	3.5
25	RA	1104	C	3.5
55	Y9	32	HIS	3.4
2	QB	30	ARG	3.4
25	YA	878	A	3.4
49	R3	60	GLU	3.4

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
45	RZ	145	GLU	3.4
13	QM	75	ALA	3.4
55	Y9	9	ARG	3.4
25	YA	1076	C	3.4
24	QY	31	G	3.4
48	R2	43	GLN	3.4
22	XV	8	U	3.4
25	YA	1065	U	3.4
55	R9	4	ARG	3.4
1	XA	1026	G	3.4
2	QB	231	GLU	3.3
7	QG	80	VAL	3.3
25	RA	271(C)	U	3.3
25	YA	2107	C	3.3
55	Y9	36	GLN	3.3
25	YA	2802	G	3.3
25	RA	1075	C	3.3
25	YA	2803	C	3.3
52	Y6	43	CYS	3.3
25	RA	1099	G	3.3
44	YY	63	LYS	3.3
25	YA	1537	C	3.3
25	RA	1088	A	3.3
51	R5	55	ARG	3.3
1	XA	80	G	3.3
11	QK	119	CYS	3.2
25	RA	1044	G	3.2
25	RA	896	A	3.2
55	R9	36	GLN	3.2
7	XG	77	SER	3.2
9	QI	127	LYS	3.2
55	Y9	11	CYS	3.2
2	QB	31	TYR	3.2
25	YA	1059	G	3.2
25	YA	2117	A	3.2
21	QU	22	ARG	3.2
25	RA	1054	A	3.2
25	RA	2811	G	3.2
20	XT	106	ALA	3.2
31	RH	170	ARG	3.2
52	R6	47	THR	3.2
55	Y9	29	ASN	3.2

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
22	XV	47	U	3.2
30	RG	84	LYS	3.2
25	RA	1074	G	3.1
25	YA	1069	A	3.1
20	XT	9	ASN	3.1
25	RA	1109	C	3.1
25	YA	1098	A	3.1
1	QA	1450	U	3.1
25	YA	2119	A	3.1
31	RH	30	LYS	3.1
39	YT	137	LYS	3.1
25	RA	546	C	3.1
31	RH	24	VAL	3.1
52	R6	7	ILE	3.1
31	RH	141	VAL	3.1
25	RA	12	U	3.1
30	RG	72	ARG	3.1
25	RA	2136	C	3.0
31	RH	41	MET	3.0
3	QC	193	TYR	3.0
1	QA	1001	G	3.0
25	YA	2178	C	3.0
55	Y9	12	ASP	3.0
7	QG	79	ARG	3.0
37	YR	1	MET	3.0
52	R6	18	ARG	3.0
21	XU	25	LYS	3.0
1	QA	994	A	3.0
19	QS	79	THR	3.0
25	RA	1092	C	3.0
9	QI	110	GLU	3.0
26	YB	88	C	3.0
55	R9	19	ARG	3.0
1	QA	81	G	3.0
44	RY	55	TYR	3.0
19	QS	39	THR	3.0
1	XA	1032(A)	G	3.0
1	XA	313	A	3.0
25	YA	2132	U	2.9
25	YA	2123	G	2.9
52	R6	49	HIS	2.9
45	RZ	146	ILE	2.9

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	QH	116	LYS	2.9
12	QL	128	ALA	2.9
2	QB	6	THR	2.9
10	XJ	4	ILE	2.9
50	Y4	67	TYR	2.9
44	RY	58	GLY	2.9
55	Y9	21	GLY	2.9
55	R9	32	HIS	2.9
25	YA	10	G	2.9
42	YW	113	LYS	2.9
21	QU	24	ARG	2.9
44	RY	86	ARG	2.9
55	R9	18	ARG	2.9
55	Y9	35	ARG	2.9
25	RA	2168	G	2.9
3	XC	193	TYR	2.9
12	QL	5	PRO	2.9
55	Y9	14	CYS	2.9
25	YA	362	U	2.9
1	QA	1032(A)	G	2.8
25	RA	1079	C	2.8
10	QJ	98	ILE	2.8
1	XA	380	G	2.8
25	YA	1026	U	2.8
25	YA	1099	G	2.8
25	RA	2170	A	2.8
25	RA	2803	C	2.8
40	YU	117	GLN	2.8
50	Y4	1	MET	2.8
16	QP	84	ALA	2.8
19	QS	40	ILE	2.8
1	QA	1531	A	2.8
50	R4	66	SER	2.8
10	QJ	64	GLU	2.8
3	QC	103	VAL	2.8
52	R6	5	VAL	2.8
51	R5	2	ALA	2.8
10	XJ	6	ILE	2.8
21	QU	21	TYR	2.8
19	QS	7	LYS	2.7
30	RG	85	GLY	2.7
50	R4	40	HIS	2.7

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	RA	2127	G	2.7
1	XA	1450	U	2.7
25	YA	1535	U	2.7
1	QA	1236	A	2.7
7	QG	84	ASN	2.7
2	QB	96	ARG	2.7
47	Y1	96	LYS	2.7
17	QQ	101	ARG	2.7
42	RW	113	LYS	2.7
9	XI	102	LEU	2.7
13	XM	121	LYS	2.7
47	R1	23	LYS	2.7
52	Y6	49	HIS	2.7
28	YE	56	PRO	2.7
45	YZ	162	GLU	2.7
47	Y1	23	LYS	2.7
52	R6	13	CYS	2.7
3	QC	196	LEU	2.7
53	Y7	48	LYS	2.7
1	XA	612	C	2.7
45	YZ	167	PRO	2.7
32	RI	59	ALA	2.7
55	R9	35	ARG	2.7
17	XQ	36	ILE	2.7
1	QA	1322	C	2.7
25	RA	2147	G	2.7
40	YU	118	GLY	2.7
1	QA	1451	A	2.7
13	QM	122	LYS	2.7
17	QQ	32	TYR	2.6
25	RA	1026	U	2.6
54	R8	65	GLU	2.6
12	XL	19	ARG	2.6
55	Y9	16	VAL	2.6
45	YZ	144	LEU	2.6
10	QJ	97	GLU	2.6
16	XP	1	MET	2.6
14	QN	17	LYS	2.6
25	RA	1043	C	2.6
25	YA	271(C)	U	2.6
2	XB	4	GLU	2.6
50	Y4	30	GLU	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
52	R6	44	ARG	2.6
25	YA	2140	C	2.6
52	Y6	13	CYS	2.6
35	YP	118	GLY	2.6
55	Y9	27	CYS	2.6
25	RA	2790	A	2.6
16	XP	83	GLU	2.6
55	R9	27	CYS	2.6
10	QJ	99	LYS	2.6
14	QN	8	GLU	2.6
1	QA	1234	C	2.6
25	YA	1550	C	2.6
30	RG	13	GLU	2.6
10	XJ	72	VAL	2.6
21	XU	18	TYR	2.6
25	YA	2629	A	2.6
10	QJ	72	VAL	2.6
7	QG	85	TYR	2.6
30	RG	12	TYR	2.6
55	R9	2	LYS	2.6
1	XA	134	A	2.6
12	QL	19	ARG	2.6
20	QT	104	LEU	2.6
47	Y1	98	LEU	2.6
1	QA	1050	G	2.5
1	XA	1032	A	2.5
25	RA	1045	A	2.5
51	Y5	54	GLY	2.5
3	QC	154	SER	2.5
31	RH	21	PRO	2.5
12	QL	15	ARG	2.5
1	QA	1321	C	2.5
30	RG	26	GLN	2.5
55	Y9	22	ARG	2.5
25	YA	2173	A	2.5
50	R4	39	CYS	2.5
35	RP	118	GLY	2.5
32	RI	62	LYS	2.5
3	QC	156	ARG	2.5
25	RA	2139	C	2.5
3	QC	197	GLY	2.5
21	XU	22	ARG	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
31	RH	101	ARG	2.5
47	Y1	22	GLY	2.5
1	XA	1033	G	2.5
25	RA	1112	G	2.5
19	QS	64	GLU	2.5
47	R1	27	GLU	2.5
2	QB	132	LYS	2.5
27	RD	26	LYS	2.5
53	R7	48	LYS	2.5
52	R6	37	ARG	2.5
1	QA	873	A	2.5
25	YA	11	G	2.5
25	YA	1074	G	2.5
4	QD	36	ARG	2.5
25	RA	2137	C	2.5
25	YA	1092	C	2.5
47	Y1	21	ARG	2.5
10	QJ	88	LEU	2.5
10	XJ	71	LEU	2.5
25	RA	2176	A	2.5
43	RX	92	LEU	2.5
35	RP	150	ALA	2.5
9	QI	35	GLU	2.4
31	YH	3	ARG	2.4
35	RP	135	LEU	2.4
1	XA	77	C	2.4
25	RA	1089	G	2.4
25	YA	2168	G	2.4
30	RG	118	ARG	2.4
30	RG	82	LEU	2.4
36	RQ	91	GLU	2.4
42	RW	92	ARG	2.4
49	R3	2	PRO	2.4
50	R4	45	GLY	2.4
21	QU	9	ARG	2.4
25	RA	1049	C	2.4
25	RA	2891	G	2.4
30	YG	87	PRO	2.4
4	XD	24	GLU	2.4
10	XJ	98	ILE	2.4
1	QA	1000	A	2.4
1	QA	1044	A	2.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
51	R5	53	ALA	2.4
55	Y9	2	LYS	2.4
1	XA	78	G	2.4
25	YA	338	G	2.4
25	YA	1066	U	2.4
1	XA	1006	C	2.4
20	XT	24	LEU	2.4
25	YA	2805	G	2.4
30	RG	87	PRO	2.4
55	Y9	19	ARG	2.4
1	QA	915	A	2.4
10	XJ	80	LYS	2.4
50	R4	1	MET	2.4
35	RP	149	GLU	2.4
41	YV	45	THR	2.4
25	YA	2894	G	2.4
25	YA	2170	A	2.4
1	XA	1137	C	2.4
31	RH	3	ARG	2.4
45	RZ	138	GLU	2.4
12	QL	14	GLY	2.4
25	RA	1105	U	2.4
1	XA	1032(B)	G	2.4
1	QA	1235	U	2.4
12	QL	13	LYS	2.4
25	RA	878	A	2.4
1	QA	1006	C	2.3
2	QB	21	ARG	2.3
20	QT	8	ARG	2.3
51	Y5	59	GLU	2.3
55	R9	16	VAL	2.3
25	YA	277	C	2.3
1	XA	630	G	2.3
25	RA	2141	G	2.3
19	QS	84	GLY	2.3
55	Y9	18	ARG	2.3
25	YA	1545(A)	A	2.3
3	XC	179	ARG	2.3
19	QS	8	GLY	2.3
25	RA	2152	G	2.3
50	R4	69	LYS	2.3
31	RH	88	LEU	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
39	YT	84	GLN	2.3
19	QS	3	ARG	2.3
25	YA	2138	C	2.3
43	RX	68	ARG	2.3
35	YP	132	LYS	2.3
52	R6	39	TYR	2.3
2	XB	95	GLN	2.3
7	XG	79	ARG	2.3
30	RG	75	LYS	2.3
25	RA	2132	U	2.3
13	XM	120	LYS	2.3
21	XU	17	THR	2.3
25	YA	276	A	2.3
1	XA	314	C	2.3
19	XS	7	LYS	2.3
25	RA	2128	C	2.3
25	YA	2175	C	2.3
39	YT	1	MET	2.3
1	QA	220	G	2.3
24	QY	33	U	2.3
25	RA	614	U	2.3
54	R8	64	TYR	2.3
25	YA	1063	G	2.3
1	QA	1115	C	2.3
2	QB	39	ILE	2.3
30	RG	9	ARG	2.3
55	Y9	8	LYS	2.3
25	YA	654(U)	A	2.3
6	XF	2	ARG	2.3
2	QB	146	GLN	2.3
25	RA	2545	G	2.3
1	XA	1007	C	2.3
55	Y9	33	LYS	2.3
55	Y9	23	VAL	2.3
44	YY	64	GLU	2.3
25	YA	654(S)	G	2.2
3	QC	153	VAL	2.2
1	QA	1270	C	2.2
25	YA	2139	C	2.2
29	RF	196	LEU	2.2
30	RG	8	LYS	2.2
13	XM	94	ARG	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	RA	2118	U	2.2
28	YE	61	ARG	2.2
30	RG	86	MET	2.2
25	RA	654(A)	G	2.2
1	QA	1194	U	2.2
25	YA	1082	U	2.2
25	YA	654(T)	C	2.2
21	XU	16	GLY	2.2
55	Y9	7	VAL	2.2
1	QA	1003	G	2.2
1	XA	611	A	2.2
42	RW	64	MET	2.2
1	QA	1129	C	2.2
25	YA	2794	C	2.2
17	XQ	37	LYS	2.2
35	RP	91	PHE	2.2
45	YZ	113	ALA	2.2
13	XM	122	LYS	2.2
25	YA	1083	U	2.2
55	R9	33	LYS	2.2
25	RA	34	C	2.2
55	R9	5	ALA	2.2
32	YI	12	LEU	2.2
1	QA	1031	G	2.2
1	XA	841	U	2.2
9	QI	36	TYR	2.2
31	RH	83	TYR	2.2
3	XC	192	THR	2.2
32	YI	113	ARG	2.2
52	Y6	6	ARG	2.2
19	XS	17	GLU	2.2
25	YA	1078	U	2.2
3	QC	166	GLU	2.2
17	QQ	7	THR	2.2
24	XY	31	G	2.2
5	QE	12	LEU	2.2
30	YG	182	LYS	2.2
1	XA	1027	C	2.1
25	YA	1100	C	2.1
1	QA	1117	G	2.1
1	XA	79	G	2.1
4	XD	156	GLU	2.1

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	RA	2166	G	2.1
25	RA	2810	A	2.1
25	RA	1644	C	2.1
1	QA	1257	U	2.1
25	RA	2162	G	2.1
25	YA	1048	A	2.1
25	YA	1654	A	2.1
10	QJ	3	LYS	2.1
50	R4	22	ILE	2.1
55	Y9	17	ILE	2.1
25	RA	277	C	2.1
4	QD	86	LYS	2.1
9	QI	27	THR	2.1
10	QJ	85	LEU	2.1
11	XK	127	LYS	2.1
23	QX	8	A	2.1
1	QA	1036	G	2.1
25	RA	2833	G	2.1
33	RN	84	LYS	2.1
35	RP	119	GLU	2.1
30	RG	138	GLN	2.1
2	QB	101	MET	2.1
41	RV	36	PRO	2.1
25	RA	1535	U	2.1
36	RQ	1	MET	2.1
25	YA	2124	G	2.1
30	YG	89	GLY	2.1
6	XF	38	GLU	2.1
10	QJ	10	GLY	2.1
32	RI	10	GLU	2.1
47	Y1	27	GLU	2.1
7	XG	154	TYR	2.1
3	QC	159	GLY	2.1
15	QO	30	ALA	2.1
19	QS	82	GLY	2.1
52	R6	11	LEU	2.1
25	RA	2893	G	2.1
50	R4	11	PRO	2.1
2	QB	233	SER	2.1
11	QK	13	GLN	2.1
19	XS	6	LYS	2.1
27	RD	34	VAL	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
10	QJ	71	LEU	2.1
5	QE	155	GLU	2.1
11	QK	126	ARG	2.1
1	XA	162	A	2.1
21	QU	20	LYS	2.1
25	RA	1847	A	2.1
9	QI	62	TYR	2.1
30	YG	46	ALA	2.1
1	XA	1043	C	2.1
2	XB	240	GLN	2.1
4	XD	158	ILE	2.1
9	XI	110	GLU	2.1
10	XJ	95	GLU	2.1
31	RH	19	VAL	2.1
51	R5	37	LYS	2.0
55	Y9	15	LYS	2.0
3	QC	194	GLY	2.0
1	XA	220	G	2.0
5	QE	31	LEU	2.0
25	YA	2112	G	2.0
49	R3	3	ARG	2.0
35	RP	1	MET	2.0
12	QL	10	LEU	2.0
1	QA	979	C	2.0
25	RA	895	U	2.0
25	RA	1113	U	2.0
25	RA	2791	C	2.0
21	QU	23	PRO	2.0
1	XA	1286	A	2.0
25	RA	1048	A	2.0
25	RA	2169	A	2.0
25	YA	2176	A	2.0
46	R0	2	ALA	2.0
4	XD	125	HIS	2.0
1	XA	1005	A	2.0
10	QJ	74	ILE	2.0
12	QL	16	GLU	2.0
25	YA	1088	A	2.0
30	RG	116	ASP	2.0
23	QX	6	C	2.0
25	YA	2628	C	2.0
30	RG	2	PRO	2.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
50	Y4	47	GLN	2.0
2	XB	130	ARG	2.0
20	XT	23	ARG	2.0
32	RI	9	LEU	2.0
30	YG	52	ILE	2.0
3	QC	105	GLU	2.0
36	RQ	141	GLN	2.0

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

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	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
24	1MG	QY	37	24/25	0.19	-	130,130,130,130	0
24	1MG	XY	37	24/25	0.23	-	56,56,56,56	0
56	PPU	Z8	76	37/38	0.38	-	10,10,10,10	0
56	PPU	Z6	76	37/38	0.32	-	14,14,14,14	0

## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

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	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	YA	3180	1/1	0.51	-	38,38,38,38	0
57	MG	YA	3161	1/1	0.20	-	1,1,1,1	0
57	MG	YA	3017	1/1	0.18	-	1,1,1,1	0
57	MG	XA	1627	1/1	0.27	-	14,14,14,14	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3128	1/1	0.47	-	7,7,7,7	0
57	MG	YA	3091	1/1	0.38	-	13,13,13,13	0
57	MG	YA	3032	1/1	0.31	-	1,1,1,1	0
57	MG	YA	3226	1/1	0.40	-	1,1,1,1	0
57	MG	RA	3073	1/1	0.40	-	2,2,2,2	0
57	MG	QA	1644	1/1	0.29	-	4,4,4,4	0
57	MG	RA	3186	1/1	0.19	-	8,8,8,8	0
57	MG	QA	1618	1/1	0.53	-	3,3,3,3	0
57	MG	YA	3196	1/1	0.54	-	1,1,1,1	0
57	MG	YA	3191	1/1	0.07	-	7,7,7,7	0
57	MG	YA	3148	1/1	0.11	-	7,7,7,7	0
57	MG	RA	3063	1/1	0.94	-	3,3,3,3	0
57	MG	YA	3166	1/1	0.33	-	4,4,4,4	0
57	MG	RA	3158	1/1	0.25	-	15,15,15,15	0
57	MG	XA	1642	1/1	0.62	-	5,5,5,5	0
57	MG	YA	3115	1/1	0.35	-	4,4,4,4	0
57	MG	RA	3034	1/1	0.93	-	9,9,9,9	0
57	MG	XA	1651	1/1	0.27	-	25,25,25,25	0
57	MG	YA	3205	1/1	0.13	-	10,10,10,10	0
57	MG	RA	3053	1/1	0.15	-	2,2,2,2	0
57	MG	RA	3003	1/1	1.01	-	5,5,5,5	0
57	MG	RA	3121	1/1	0.74	-	5,5,5,5	0
57	MG	YA	3265	1/1	1.06	-	4,4,4,4	0
57	MG	YA	3051	1/1	0.42	-	3,3,3,3	0
57	MG	RA	3111	1/1	0.43	-	11,11,11,11	0
57	MG	XA	1648	1/1	0.54	-	3,3,3,3	0
57	MG	YA	3242	1/1	0.76	-	4,4,4,4	0
57	MG	YA	3026	1/1	1.18	-	1,1,1,1	0
57	MG	XA	1666	1/1	0.27	-	50,50,50,50	0
57	MG	YA	3024	1/1	0.46	-	50,50,50,50	0
57	MG	RA	3154	1/1	0.11	-	11,11,11,11	0
57	MG	QA	1604	1/1	0.26	-	0,0,0,0	0
57	MG	RA	3210	1/1	0.18	-	45,45,45,45	0
57	MG	YA	3108	1/1	0.49	-	1,1,1,1	0
57	MG	RA	3120	1/1	0.23	-	1,1,1,1	0
57	MG	YA	3055	1/1	0.28	-	0,0,0,0	0
57	MG	XA	1632	1/1	0.82	-	14,14,14,14	0
57	MG	RA	3118	1/1	0.23	-	2,2,2,2	0
57	MG	RA	3193	1/1	0.34	-	22,22,22,22	0
57	MG	YA	3208	1/1	0.20	-	15,15,15,15	0
57	MG	YA	3245	1/1	0.29	-	2,2,2,2	0
57	MG	RA	3194	1/1	0.23	-	6,6,6,6	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3151	1/1	0.34	-	9,9,9,9	0
57	MG	YA	3128	1/1	0.53	-	12,12,12,12	0
57	MG	YA	3018	1/1	0.68	-	3,3,3,3	0
57	MG	RA	3011	1/1	0.19	-	6,6,6,6	0
57	MG	XA	1665	1/1	0.53	-	7,7,7,7	0
57	MG	RA	3004	1/1	0.95	-	10,10,10,10	0
57	MG	XA	1622	1/1	0.11	-	7,7,7,7	0
57	MG	YA	3111	1/1	0.20	-	15,15,15,15	0
57	MG	YA	3044	1/1	0.32	-	6,6,6,6	0
57	MG	YA	3162	1/1	0.22	-	0,0,0,0	0
57	MG	YA	3154	1/1	0.23	-	1,1,1,1	0
57	MG	YA	3178	1/1	0.19	-	2,2,2,2	0
57	MG	YA	3075	1/1	0.26	-	0,0,0,0	0
57	MG	YA	3117	1/1	0.93	-	6,6,6,6	0
57	MG	QA	1636	1/1	0.11	-	16,16,16,16	0
57	MG	RA	3179	1/1	0.34	-	4,4,4,4	0
57	MG	RA	3088	1/1	0.59	-	15,15,15,15	0
57	MG	RA	3049	1/1	1.22	-	13,13,13,13	0
57	MG	YA	3143	1/1	0.15	-	8,8,8,8	0
57	MG	XA	1635	1/1	0.56	-	4,4,4,4	0
57	MG	YA	3257	1/1	0.22	-	3,3,3,3	0
57	MG	RA	3012	1/1	0.52	-	4,4,4,4	0
57	MG	YA	3213	1/1	0.15	-	19,19,19,19	0
57	MG	YA	3218	1/1	0.34	-	5,5,5,5	0
57	MG	RA	3138	1/1	0.82	-	29,29,29,29	0
57	MG	RA	3065	1/1	0.37	-	7,7,7,7	0
57	MG	YA	3255	1/1	1.25	-	0,0,0,0	0
57	MG	RA	3032	1/1	1.06	-	50,50,50,50	0
57	MG	YA	3155	1/1	0.38	-	7,7,7,7	0
57	MG	YA	3224	1/1	0.40	-	0,0,0,0	0
57	MG	RA	3205	1/1	0.32	-	12,12,12,12	0
57	MG	RA	3220	1/1	0.29	-	26,26,26,26	0
57	MG	RA	3144	1/1	0.27	-	0,0,0,0	0
57	MG	XA	1631	1/1	0.20	-	31,31,31,31	0
57	MG	RA	3109	1/1	0.21	-	8,8,8,8	0
57	MG	QA	1650	1/1	0.68	-	11,11,11,11	0
57	MG	RA	3191	1/1	0.30	-	67,67,67,67	0
57	MG	RA	3236	1/1	0.43	-	0,0,0,0	0
57	MG	RA	3020	1/1	0.72	-	50,50,50,50	0
57	MG	YA	3207	1/1	0.84	-	7,7,7,7	0
57	MG	RA	3052	1/1	0.87	-	50,50,50,50	0
57	MG	RA	3123	1/1	0.12	-	7,7,7,7	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3006	1/1	0.55	-	3,3,3,3	0
57	MG	XA	1664	1/1	0.27	-	8,8,8,8	0
57	MG	RA	3100	1/1	0.17	-	2,2,2,2	0
57	MG	QA	1655	1/1	0.56	-	20,20,20,20	0
57	MG	RA	3133	1/1	0.18	-	0,0,0,0	0
57	MG	YA	3199	1/1	0.10	-	55,55,55,55	0
57	MG	QA	1663	1/1	0.08	-	47,47,47,47	0
58	ZN	XD	301	1/1	0.42	-	50,50,50,50	0
57	MG	QA	1607	1/1	0.11	-	13,13,13,13	0
57	MG	RA	3081	1/1	0.71	-	1,1,1,1	0
57	MG	R0	101	1/1	0.30	-	0,0,0,0	0
57	MG	QA	1614	1/1	0.50	-	9,9,9,9	0
57	MG	YA	3109	1/1	0.34	-	2,2,2,2	0
57	MG	YA	3156	1/1	0.69	-	2,2,2,2	0
57	MG	RA	3038	1/1	0.32	-	8,8,8,8	0
57	MG	XA	1607	1/1	0.33	-	16,16,16,16	0
57	MG	RA	3208	1/1	0.59	-	15,15,15,15	0
58	ZN	R9	101	1/1	0.42	-	145,145,145,145	0
57	MG	RA	3181	1/1	0.17	-	3,3,3,3	0
57	MG	YA	3041	1/1	0.71	-	0,0,0,0	0
57	MG	YA	3233	1/1	0.18	-	7,7,7,7	0
57	MG	YA	3103	1/1	0.17	-	5,5,5,5	0
57	MG	YA	3010	1/1	0.36	-	5,5,5,5	0
57	MG	YA	3023	1/1	0.31	-	2,2,2,2	0
57	MG	YA	3101	1/1	0.57	-	2,2,2,2	0
57	MG	RE	302	1/1	0.25	-	1,1,1,1	0
57	MG	YA	3133	1/1	0.12	-	1,1,1,1	0
57	MG	YA	3266	1/1	0.23	-	2,2,2,2	0
57	MG	RA	3001	1/1	0.55	-	3,3,3,3	0
57	MG	RA	3215	1/1	0.24	-	27,27,27,27	0
57	MG	RA	3051	1/1	0.46	-	7,7,7,7	0
57	MG	YA	3138	1/1	0.15	-	0,0,0,0	0
57	MG	RA	3083	1/1	0.40	-	6,6,6,6	0
57	MG	XA	1658	1/1	0.44	-	9,9,9,9	0
57	MG	RA	3149	1/1	0.15	-	20,20,20,20	0
57	MG	XA	1617	1/1	0.24	-	15,15,15,15	0
57	MG	QA	1648	1/1	0.36	-	12,12,12,12	0
57	MG	RA	3026	1/1	0.59	-	50,50,50,50	0
57	MG	QA	1611	1/1	0.32	-	6,6,6,6	0
57	MG	RA	3070	1/1	0.93	-	0,0,0,0	0
57	MG	YA	3056	1/1	0.18	-	5,5,5,5	0
57	MG	QA	1602	1/1	0.81	-	12,12,12,12	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3098	1/1	0.58	-	14,14,14,14	0
57	MG	YA	3189	1/1	0.48	-	6,6,6,6	0
57	MG	XA	1609	1/1	0.53	-	10,10,10,10	0
57	MG	RA	3091	1/1	0.40	-	9,9,9,9	0
57	MG	YA	3247	1/1	0.43	-	14,14,14,14	0
57	MG	RA	3155	1/1	0.42	-	10,10,10,10	0
57	MG	RA	3048	1/1	0.20	-	3,3,3,3	0
57	MG	YA	3164	1/1	0.39	-	8,8,8,8	0
57	MG	RA	3188	1/1	0.31	-	5,5,5,5	0
57	MG	RA	3219	1/1	0.81	-	40,40,40,40	0
57	MG	RA	3168	1/1	0.40	-	1,1,1,1	0
57	MG	YA	3014	1/1	1.20	-	50,50,50,50	0
57	MG	XA	1654	1/1	0.31	-	26,26,26,26	0
57	MG	YA	3012	1/1	1.53	-	50,50,50,50	0
57	MG	YA	3177	1/1	0.20	-	3,3,3,3	0
57	MG	RA	3196	1/1	0.21	-	0,0,0,0	0
57	MG	R8	101	1/1	0.33	-	0,0,0,0	0
57	MG	QA	1646	1/1	0.58	-	10,10,10,10	0
57	MG	RA	3019	1/1	0.39	-	8,8,8,8	0
57	MG	XA	1663	1/1	0.49	-	15,15,15,15	0
57	MG	RA	3235	1/1	0.63	-	1,1,1,1	0
57	MG	YA	3136	1/1	0.16	-	21,21,21,21	0
57	MG	XA	1621	1/1	0.33	-	3,3,3,3	0
57	MG	XA	1630	1/1	0.70	-	10,10,10,10	0
57	MG	YA	3254	1/1	0.62	-	2,2,2,2	0
57	MG	XA	1633	1/1	0.22	-	3,3,3,3	0
57	MG	RA	3239	1/1	0.43	-	14,14,14,14	0
57	MG	YA	3067	1/1	0.29	-	5,5,5,5	0
57	MG	QA	1637	1/1	0.34	-	0,0,0,0	0
57	MG	YA	3015	1/1	1.12	-	50,50,50,50	0
57	MG	YA	3058	1/1	0.50	-	15,15,15,15	0
57	MG	YA	3013	1/1	0.55	-	5,5,5,5	0
57	MG	YA	3228	1/1	0.49	-	17,17,17,17	0
57	MG	RA	3029	1/1	0.34	-	1,1,1,1	0
57	MG	YA	3102	1/1	0.47	-	14,14,14,14	0
57	MG	XA	1603	1/1	0.61	-	8,8,8,8	0
57	MG	RA	3233	1/1	0.62	-	2,2,2,2	0
57	MG	RR	202	1/1	0.29	-	0,0,0,0	0
57	MG	YA	3140	1/1	0.26	-	12,12,12,12	0
57	MG	RA	3167	1/1	0.21	-	3,3,3,3	0
57	MG	RA	3094	1/1	0.45	-	0,0,0,0	0
57	MG	YA	3047	1/1	0.54	-	3,3,3,3	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3082	1/1	0.26	-	3,3,3,3	0
57	MG	YA	3087	1/1	0.64	-	11,11,11,11	0
57	MG	XA	1626	1/1	0.17	-	6,6,6,6	0
57	MG	XA	1656	1/1	1.08	-	10,10,10,10	0
57	MG	XX	102	1/1	0.09	-	50,50,50,50	0
57	MG	YA	3078	1/1	0.32	-	2,2,2,2	0
57	MG	YA	3187	1/1	0.16	-	2,2,2,2	0
57	MG	RA	3165	1/1	0.45	-	13,13,13,13	0
57	MG	QA	1605	1/1	1.06	-	7,7,7,7	0
57	MG	YA	3110	1/1	0.11	-	2,2,2,2	0
57	MG	YA	3120	1/1	0.58	-	8,8,8,8	0
57	MG	YA	3119	1/1	0.78	-	8,8,8,8	0
57	MG	YA	3221	1/1	0.46	-	18,18,18,18	0
57	MG	YA	3168	1/1	0.35	-	41,41,41,41	0
57	MG	XA	1638	1/1	0.39	-	20,20,20,20	0
57	MG	RA	3037	1/1	0.48	-	5,5,5,5	0
57	MG	YA	3065	1/1	0.14	-	5,5,5,5	0
57	MG	RA	3101	1/1	0.48	-	11,11,11,11	0
57	MG	QA	1653	1/1	0.08	-	67,67,67,67	0
57	MG	YA	3193	1/1	0.23	-	3,3,3,3	0
57	MG	YA	3262	1/1	0.58	-	8,8,8,8	0
57	MG	YA	3197	1/1	0.16	-	1,1,1,1	0
57	MG	XA	1619	1/1	0.30	-	5,5,5,5	0
57	MG	YA	3034	1/1	0.48	-	2,2,2,2	0
57	MG	RA	3182	1/1	0.22	-	4,4,4,4	0
57	MG	XA	1606	1/1	0.58	-	10,10,10,10	0
57	MG	YA	3098	1/1	0.29	-	1,1,1,1	0
57	MG	YA	3165	1/1	0.22	-	11,11,11,11	0
57	MG	XA	1647	1/1	0.37	-	1,1,1,1	0
57	MG	RA	3116	1/1	0.50	-	9,9,9,9	0
57	MG	YA	3170	1/1	0.14	-	8,8,8,8	0
57	MG	YA	3069	1/1	0.52	-	2,2,2,2	0
57	MG	YA	3074	1/1	0.18	-	11,11,11,11	0
57	MG	YA	3020	1/1	0.89	-	0,0,0,0	0
57	MG	QA	1638	1/1	0.69	-	34,34,34,34	0
57	MG	RA	3084	1/1	0.18	-	4,4,4,4	0
57	MG	YA	3145	1/1	0.35	-	9,9,9,9	0
57	MG	QA	1632	1/1	0.14	-	42,42,42,42	0
57	MG	YA	3022	1/1	0.29	-	1,1,1,1	0
57	MG	XA	1628	1/1	0.52	-	10,10,10,10	0
57	MG	YA	3076	1/1	1.28	-	50,50,50,50	0
57	MG	RA	3018	1/1	0.72	-	6,6,6,6	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3202	1/1	0.24	-	1,1,1,1	0
57	MG	RA	3043	1/1	0.19	-	10,10,10,10	0
57	MG	YA	3174	1/1	0.22	-	40,40,40,40	0
57	MG	RA	3211	1/1	0.26	-	2,2,2,2	0
57	MG	YA	3183	1/1	0.52	-	16,16,16,16	0
57	MG	YA	3185	1/1	0.15	-	2,2,2,2	0
57	MG	XA	1661	1/1	0.17	-	2,2,2,2	0
57	MG	RA	3189	1/1	0.18	-	4,4,4,4	0
57	MG	XA	1637	1/1	0.42	-	25,25,25,25	0
57	MG	RA	3125	1/1	0.41	-	1,1,1,1	0
57	MG	RA	3166	1/1	0.26	-	34,34,34,34	0
57	MG	YA	3060	1/1	0.57	-	10,10,10,10	0
57	MG	RA	3068	1/1	0.13	-	6,6,6,6	0
57	MG	YA	3238	1/1	0.22	-	11,11,11,11	0
57	MG	XA	1605	1/1	0.56	-	3,3,3,3	0
57	MG	RA	3218	1/1	0.33	-	23,23,23,23	0
57	MG	YA	3192	1/1	0.53	-	11,11,11,11	0
57	MG	RA	3058	1/1	0.76	-	3,3,3,3	0
57	MG	YA	3043	1/1	1.07	-	2,2,2,2	0
57	MG	YA	3246	1/1	0.33	-	7,7,7,7	0
57	MG	RA	3102	1/1	0.19	-	4,4,4,4	0
57	MG	YA	3003	1/1	0.18	-	2,2,2,2	0
57	MG	YA	3123	1/1	0.16	-	18,18,18,18	0
57	MG	XA	1668	1/1	0.23	-	18,18,18,18	0
57	MG	RA	3127	1/1	0.24	-	0,0,0,0	0
57	MG	RA	3159	1/1	0.23	-	6,6,6,6	0
57	MG	QA	1626	1/1	0.38	-	57,57,57,57	0
57	MG	RA	3228	1/1	0.47	-	11,11,11,11	0
57	MG	RA	3199	1/1	0.83	-	6,6,6,6	0
57	MG	YA	3134	1/1	0.60	-	11,11,11,11	0
57	MG	RA	3147	1/1	0.29	-	9,9,9,9	0
57	MG	YB	201	1/1	0.28	-	7,7,7,7	0
57	MG	RA	3229	1/1	1.51	-	50,50,50,50	0
57	MG	RA	3093	1/1	0.49	-	10,10,10,10	0
57	MG	RA	3115	1/1	0.41	-	6,6,6,6	0
57	MG	YA	3149	1/1	0.19	-	15,15,15,15	0
57	MG	QA	1609	1/1	0.74	-	4,4,4,4	0
57	MG	YA	3157	1/1	0.61	-	0,0,0,0	0
57	MG	RA	3198	1/1	0.20	-	12,12,12,12	0
57	MG	RA	3113	1/1	0.15	-	0,0,0,0	0
57	MG	RA	3002	1/1	0.83	-	6,6,6,6	0
57	MG	RF	301	1/1	0.38	-	2,2,2,2	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3024	1/1	0.23	-	16,16,16,16	0
57	MG	YA	3054	1/1	0.20	-	1,1,1,1	0
57	MG	XA	1671	1/1	0.20	-	3,3,3,3	0
57	MG	XA	1649	1/1	0.21	-	0,0,0,0	0
57	MG	YA	3139	1/1	0.34	-	7,7,7,7	0
57	MG	QA	1629	1/1	0.86	-	0,0,0,0	0
57	MG	QA	1658	1/1	0.22	-	16,16,16,16	0
57	MG	YA	3253	1/1	0.61	-	6,6,6,6	0
57	MG	QA	1661	1/1	0.35	-	64,64,64,64	0
57	MG	YA	3268	1/1	0.45	-	6,6,6,6	0
57	MG	RA	3077	1/1	0.53	-	0,0,0,0	0
57	MG	YA	3172	1/1	1.41	-	1,1,1,1	0
57	MG	RA	3017	1/1	0.43	-	11,11,11,11	0
57	MG	RA	3153	1/1	0.35	-	15,15,15,15	0
57	MG	XA	1659	1/1	0.30	-	0,0,0,0	0
57	MG	RA	3042	1/1	0.18	-	2,2,2,2	0
57	MG	RA	3078	1/1	0.33	-	3,3,3,3	0
57	MG	RA	3027	1/1	0.51	-	13,13,13,13	0
57	MG	RA	3160	1/1	0.35	-	4,4,4,4	0
57	MG	YA	3084	1/1	0.30	-	17,17,17,17	0
57	MG	RA	3072	1/1	0.43	-	3,3,3,3	0
57	MG	RA	3062	1/1	1.87	-	50,50,50,50	0
57	MG	YA	3112	1/1	0.12	-	21,21,21,21	0
57	MG	XA	1662	1/1	0.91	-	11,11,11,11	0
57	MG	YA	3105	1/1	0.28	-	4,4,4,4	0
57	MG	YA	3045	1/1	0.55	-	13,13,13,13	0
57	MG	RA	3216	1/1	0.56	-	7,7,7,7	0
57	MG	RA	3022	1/1	0.33	-	4,4,4,4	0
57	MG	RA	3201	1/1	0.69	-	10,10,10,10	0
57	MG	YA	3209	1/1	0.27	-	15,15,15,15	0
57	MG	YA	3096	1/1	0.52	-	3,3,3,3	0
57	MG	RA	3173	1/1	0.49	-	48,48,48,48	0
57	MG	QA	1640	1/1	0.40	-	9,9,9,9	0
57	MG	YA	3092	1/1	0.26	-	12,12,12,12	0
57	MG	YA	3169	1/1	0.15	-	6,6,6,6	0
57	MG	RA	3136	1/1	0.35	-	0,0,0,0	0
57	MG	QA	1608	1/1	0.10	-	10,10,10,10	0
57	MG	RA	3169	1/1	0.24	-	16,16,16,16	0
57	MG	XA	1672	1/1	0.39	-	0,0,0,0	0
57	MG	YA	3217	1/1	0.20	-	35,35,35,35	0
57	MG	XA	1636	1/1	0.38	-	3,3,3,3	0
57	MG	YA	3042	1/1	0.55	-	2,2,2,2	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3013	1/1	0.55	-	4,4,4,4	0
57	MG	RA	3213	1/1	0.47	-	8,8,8,8	0
57	MG	RA	3140	1/1	0.63	-	9,9,9,9	0
57	MG	QA	1623	1/1	0.45	-	14,14,14,14	0
57	MG	QA	1615	1/1	0.68	-	4,4,4,4	0
57	MG	RA	3089	1/1	0.60	-	11,11,11,11	0
57	MG	YA	3070	1/1	0.44	-	15,15,15,15	0
57	MG	YA	3029	1/1	0.88	-	10,10,10,10	0
57	MG	RA	3030	1/1	0.34	-	5,5,5,5	0
57	MG	YA	3152	1/1	0.61	-	5,5,5,5	0
57	MG	QA	1656	1/1	0.12	-	30,30,30,30	0
57	MG	QA	1619	1/1	0.42	-	4,4,4,4	0
57	MG	R5	101	1/1	0.54	-	5,5,5,5	0
57	MG	XA	1657	1/1	0.48	-	8,8,8,8	0
57	MG	YA	3061	1/1	0.12	-	17,17,17,17	0
57	MG	RA	3092	1/1	0.52	-	7,7,7,7	0
57	MG	YA	3248	1/1	0.38	-	0,0,0,0	0
57	MG	YA	3256	1/1	0.37	-	7,7,7,7	0
57	MG	YA	3107	1/1	0.60	-	15,15,15,15	0
57	MG	QA	1631	1/1	0.44	-	26,26,26,26	0
57	MG	YA	3122	1/1	0.34	-	3,3,3,3	0
57	MG	RA	3041	1/1	0.43	-	4,4,4,4	0
57	MG	YA	3158	1/1	0.33	-	6,6,6,6	0
57	MG	XA	1667	1/1	0.27	-	17,17,17,17	0
57	MG	YA	3001	1/1	1.17	-	50,50,50,50	0
57	MG	YA	3049	1/1	0.91	-	50,50,50,50	0
57	MG	YA	3186	1/1	0.59	-	11,11,11,11	0
57	MG	YA	3097	1/1	0.67	-	5,5,5,5	0
57	MG	RA	3114	1/1	0.33	-	1,1,1,1	0
57	MG	YA	3062	1/1	0.38	-	6,6,6,6	0
57	MG	XA	1615	1/1	0.28	-	6,6,6,6	0
57	MG	RA	3230	1/1	0.76	-	5,5,5,5	0
57	MG	YA	3137	1/1	0.21	-	10,10,10,10	0
57	MG	RA	3184	1/1	0.25	-	8,8,8,8	0
57	MG	RA	3157	1/1	0.50	-	0,0,0,0	0
57	MG	RA	3054	1/1	0.28	-	3,3,3,3	0
57	MG	XA	1644	1/1	0.16	-	5,5,5,5	0
57	MG	YA	3008	1/1	0.35	-	10,10,10,10	0
57	MG	YA	3240	1/1	0.16	-	72,72,72,72	0
57	MG	RA	3150	1/1	0.49	-	37,37,37,37	0
57	MG	YA	3040	1/1	0.49	-	10,10,10,10	0
57	MG	RP	201	1/1	1.18	-	21,21,21,21	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	QF	201	1/1	1.06	-	36,36,36,36	0
57	MG	RA	3064	1/1	0.21	-	5,5,5,5	0
57	MG	RA	3110	1/1	0.55	-	3,3,3,3	0
57	MG	RA	3056	1/1	0.36	-	5,5,5,5	0
57	MG	RA	3045	1/1	0.12	-	1,1,1,1	0
57	MG	XA	1652	1/1	0.24	-	66,66,66,66	0
57	MG	YA	3036	1/1	0.31	-	2,2,2,2	0
57	MG	RA	3225	1/1	0.25	-	10,10,10,10	0
57	MG	YA	3153	1/1	0.40	-	20,20,20,20	0
57	MG	QA	1659	1/1	0.23	-	4,4,4,4	0
57	MG	RA	3016	1/1	0.36	-	8,8,8,8	0
57	MG	QA	1660	1/1	0.72	-	2,2,2,2	0
57	MG	RA	3214	1/1	0.31	-	5,5,5,5	0
57	MG	RA	3146	1/1	0.15	-	5,5,5,5	0
57	MG	XA	1650	1/1	0.28	-	18,18,18,18	0
57	MG	RA	3067	1/1	0.26	-	2,2,2,2	0
57	MG	YA	3007	1/1	0.17	-	7,7,7,7	0
57	MG	YA	3200	1/1	0.96	-	4,4,4,4	0
57	MG	RA	3080	1/1	0.35	-	21,21,21,21	0
57	MG	QA	1625	1/1	0.27	-	0,0,0,0	0
57	MG	RA	3238	1/1	0.46	-	16,16,16,16	0
57	MG	YA	3188	1/1	0.53	-	1,1,1,1	0
57	MG	YA	3195	1/1	0.43	-	9,9,9,9	0
57	MG	YA	3267	1/1	0.40	-	4,4,4,4	0
57	MG	XA	1660	1/1	0.14	-	24,24,24,24	0
57	MG	XV	101	1/1	0.43	-	14,14,14,14	0
57	MG	RA	3047	1/1	0.59	-	5,5,5,5	0
57	MG	QA	1651	1/1	0.20	-	9,9,9,9	0
58	ZN	QN	101	1/1	0.13	-	104,104,104,104	0
57	MG	RA	3163	1/1	1.05	-	12,12,12,12	0
57	MG	YA	3085	1/1	0.51	-	13,13,13,13	0
58	ZN	Y9	101	1/1	0.46	-	138,138,138,138	0
57	MG	RA	3099	1/1	0.22	-	10,10,10,10	0
57	MG	RA	3074	1/1	0.14	-	8,8,8,8	0
57	MG	RA	3161	1/1	0.13	-	1,1,1,1	0
57	MG	XA	1669	1/1	0.21	-	38,38,38,38	0
57	MG	YA	3114	1/1	0.34	-	13,13,13,13	0
57	MG	RA	3203	1/1	0.40	-	24,24,24,24	0
57	MG	RA	3204	1/1	0.26	-	18,18,18,18	0
59	A	XX	101	22/23	0.31	-	91,91,91,91	0
57	MG	YA	3227	1/1	0.27	-	0,0,0,0	0
57	MG	YQ	201	1/1	0.22	-	99,99,99,99	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3050	1/1	0.58	-	11,11,11,11	0
57	MG	YA	3100	1/1	0.94	-	6,6,6,6	0
57	MG	RA	3190	1/1	0.18	-	16,16,16,16	0
57	MG	YA	3088	1/1	0.64	-	50,50,50,50	0
57	MG	RA	3134	1/1	0.12	-	25,25,25,25	0
57	MG	XA	1623	1/1	0.17	-	14,14,14,14	0
57	MG	RA	3223	1/1	0.28	-	47,47,47,47	0
57	MG	YA	3035	1/1	0.31	-	9,9,9,9	0
57	MG	RA	3212	1/1	0.48	-	1,1,1,1	0
57	MG	XA	1624	1/1	0.54	-	3,3,3,3	0
57	MG	YA	3079	1/1	0.24	-	4,4,4,4	0
57	MG	QA	1643	1/1	0.30	-	33,33,33,33	0
57	MG	YA	3236	1/1	0.27	-	5,5,5,5	0
57	MG	YA	3212	1/1	0.23	-	8,8,8,8	0
57	MG	RA	3129	1/1	0.14	-	31,31,31,31	0
57	MG	RA	3175	1/1	0.13	-	1,1,1,1	0
57	MG	RA	3105	1/1	0.46	-	11,11,11,11	0
57	MG	RA	3135	1/1	0.17	-	7,7,7,7	0
57	MG	YA	3269	1/1	0.80	-	1,1,1,1	0
57	MG	YA	3206	1/1	0.37	-	26,26,26,26	0
57	MG	RA	3082	1/1	0.32	-	0,0,0,0	0
57	MG	XA	1645	1/1	0.27	-	1,1,1,1	0
57	MG	YA	3201	1/1	0.63	-	9,9,9,9	0
57	MG	QA	1621	1/1	0.12	-	5,5,5,5	0
57	MG	RB	202	1/1	0.09	-	4,4,4,4	0
57	MG	YA	3086	1/1	0.76	-	6,6,6,6	0
57	MG	YA	3072	1/1	0.21	-	2,2,2,2	0
57	MG	XA	1601	1/1	0.98	-	1,1,1,1	0
57	MG	YA	3223	1/1	0.37	-	34,34,34,34	0
57	MG	XA	1614	1/1	0.14	-	26,26,26,26	0
57	MG	Y5	101	1/1	0.43	-	6,6,6,6	0
57	MG	XA	1608	1/1	0.14	-	37,37,37,37	0
57	MG	XA	1613	1/1	0.08	-	0,0,0,0	0
57	MG	YA	3028	1/1	0.40	-	6,6,6,6	0
57	MG	YA	3225	1/1	0.18	-	10,10,10,10	0
57	MG	RA	3015	1/1	0.69	-	5,5,5,5	0
57	MG	RA	3035	1/1	0.41	-	11,11,11,11	0
57	MG	YA	3064	1/1	0.33	-	8,8,8,8	0
57	MG	RA	3172	1/1	0.45	-	4,4,4,4	0
57	MG	YA	3259	1/1	0.75	-	8,8,8,8	0
57	MG	YA	3125	1/1	0.39	-	12,12,12,12	0
57	MG	Y7	101	1/1	0.61	-	15,15,15,15	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3187	1/1	0.45	-	3,3,3,3	0
57	MG	RA	3066	1/1	0.52	-	6,6,6,6	0
57	MG	RA	3142	1/1	0.54	-	36,36,36,36	0
57	MG	YA	3182	1/1	0.15	-	8,8,8,8	0
57	MG	YA	3053	1/1	0.56	-	4,4,4,4	0
57	MG	RA	3152	1/1	0.12	-	4,4,4,4	0
57	MG	YA	3127	1/1	0.28	-	2,2,2,2	0
57	MG	XA	1602	1/1	0.16	-	7,7,7,7	0
57	MG	YA	3099	1/1	0.75	-	10,10,10,10	0
57	MG	QA	1610	1/1	0.24	-	7,7,7,7	0
57	MG	YA	3116	1/1	0.43	-	3,3,3,3	0
57	MG	YA	3190	1/1	0.22	-	21,21,21,21	0
57	MG	RA	3112	1/1	0.19	-	6,6,6,6	0
57	MG	RA	3234	1/1	0.37	-	9,9,9,9	0
57	MG	RA	3176	1/1	0.32	-	3,3,3,3	0
57	MG	RA	3237	1/1	1.28	-	1,1,1,1	0
57	MG	XA	1604	1/1	0.92	-	10,10,10,10	0
57	MG	RA	3090	1/1	0.19	-	75,75,75,75	0
57	MG	YA	3204	1/1	0.12	-	11,11,11,11	0
57	MG	YA	3160	1/1	0.40	-	1,1,1,1	0
57	MG	RA	3108	1/1	0.08	-	0,0,0,0	0
57	MG	RA	3185	1/1	0.15	-	9,9,9,9	0
57	MG	RA	3025	1/1	0.15	-	3,3,3,3	0
57	MG	RA	3192	1/1	0.26	-	21,21,21,21	0
58	ZN	QD	301	1/1	0.35	-	50,50,50,50	0
57	MG	YA	3077	1/1	0.30	-	2,2,2,2	0
57	MG	YA	3090	1/1	0.40	-	1,1,1,1	0
57	MG	QA	1630	1/1	0.15	-	7,7,7,7	0
57	MG	YA	3216	1/1	0.25	-	19,19,19,19	0
57	MG	YA	3244	1/1	0.09	-	9,9,9,9	0
57	MG	YA	3046	1/1	0.35	-	3,3,3,3	0
57	MG	QA	1652	1/1	0.15	-	12,12,12,12	0
57	MG	RA	3124	1/1	0.42	-	10,10,10,10	0
57	MG	QA	1627	1/1	0.24	-	10,10,10,10	0
57	MG	YA	3151	1/1	0.18	-	5,5,5,5	0
57	MG	YA	3237	1/1	0.34	-	7,7,7,7	0
57	MG	RA	3046	1/1	0.84	-	50,50,50,50	0
57	MG	YA	3011	1/1	0.32	-	0,0,0,0	0
57	MG	QA	1613	1/1	0.61	-	15,15,15,15	0
57	MG	RR	201	1/1	0.25	-	13,13,13,13	0
57	MG	YA	3093	1/1	0.35	-	7,7,7,7	0
57	MG	YA	3229	1/1	0.27	-	3,3,3,3	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3060	1/1	0.31	-	6,6,6,6	0
57	MG	QA	1620	1/1	0.37	-	6,6,6,6	0
57	MG	YA	3094	1/1	0.86	-	11,11,11,11	0
57	MG	XB	301	1/1	0.22	-	2,2,2,2	0
57	MG	RA	3055	1/1	0.92	-	5,5,5,5	0
57	MG	YA	3131	1/1	0.42	-	3,3,3,3	0
57	MG	RA	3007	1/1	0.34	-	16,16,16,16	0
57	MG	RA	3095	1/1	0.75	-	1,1,1,1	0
57	MG	RA	3178	1/1	0.33	-	1,1,1,1	0
57	MG	YP	201	1/1	0.14	-	94,94,94,94	0
57	MG	RA	3031	1/1	0.68	-	5,5,5,5	0
57	MG	RA	3164	1/1	0.17	-	4,4,4,4	0
57	MG	QA	1635	1/1	0.51	-	13,13,13,13	0
57	MG	YA	3118	1/1	0.29	-	14,14,14,14	0
57	MG	RA	3059	1/1	0.47	-	11,11,11,11	0
57	MG	YA	3019	1/1	0.50	-	5,5,5,5	0
57	MG	YA	3210	1/1	0.65	-	3,3,3,3	0
57	MG	YA	3211	1/1	0.50	-	7,7,7,7	0
57	MG	YA	3066	1/1	0.65	-	7,7,7,7	0
57	MG	XA	1640	1/1	0.12	-	75,75,75,75	0
57	MG	RA	3096	1/1	0.55	-	4,4,4,4	0
57	MG	YA	3033	1/1	0.43	-	4,4,4,4	0
57	MG	YA	3030	1/1	0.98	-	5,5,5,5	0
57	MG	XA	1612	1/1	0.19	-	19,19,19,19	0
57	MG	XA	1646	1/1	0.30	-	7,7,7,7	0
57	MG	QA	1641	1/1	0.23	-	7,7,7,7	0
57	MG	XA	1653	1/1	0.42	-	8,8,8,8	0
57	MG	RA	3119	1/1	0.42	-	3,3,3,3	0
57	MG	YA	3163	1/1	0.17	-	4,4,4,4	0
57	MG	QA	1622	1/1	0.32	-	14,14,14,14	0
57	MG	YA	3231	1/1	0.11	-	45,45,45,45	0
57	MG	YA	3203	1/1	0.16	-	53,53,53,53	0
57	MG	YA	3144	1/1	0.12	-	4,4,4,4	0
57	MG	RA	3170	1/1	0.96	-	5,5,5,5	0
57	MG	RA	3177	1/1	0.72	-	7,7,7,7	0
57	MG	YA	3126	1/1	0.38	-	7,7,7,7	0
57	MG	RA	3061	1/1	0.16	-	53,53,53,53	0
57	MG	RA	3174	1/1	0.49	-	4,4,4,4	0
57	MG	RA	3107	1/1	0.19	-	10,10,10,10	0
57	MG	QA	1639	1/1	0.15	-	3,3,3,3	0
57	MG	XA	1611	1/1	0.34	-	7,7,7,7	0
58	ZN	XN	101	1/1	0.19	-	84,84,84,84	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3159	1/1	0.19	-	6,6,6,6	0
57	MG	YA	3095	1/1	0.45	-	2,2,2,2	0
57	MG	RE	301	1/1	0.25	-	12,12,12,12	0
57	MG	RA	3132	1/1	0.13	-	3,3,3,3	0
57	MG	YA	3142	1/1	0.55	-	19,19,19,19	0
57	MG	YA	3104	1/1	0.55	-	10,10,10,10	0
57	MG	RA	3097	1/1	0.49	-	2,2,2,2	0
57	MG	QA	1633	1/1	0.63	-	4,4,4,4	0
57	MG	RA	3231	1/1	0.25	-	14,14,14,14	0
57	MG	YA	3171	1/1	0.42	-	13,13,13,13	0
57	MG	YA	3222	1/1	0.18	-	8,8,8,8	0
57	MG	YA	3252	1/1	0.65	-	8,8,8,8	0
57	MG	RA	3104	1/1	0.21	-	3,3,3,3	0
57	MG	RA	3023	1/1	0.28	-	16,16,16,16	0
57	MG	YA	3113	1/1	0.19	-	1,1,1,1	0
57	MG	RA	3137	1/1	0.42	-	10,10,10,10	0
57	MG	RA	3008	1/1	0.53	-	0,0,0,0	0
57	MG	RA	3076	1/1	0.60	-	7,7,7,7	0
57	MG	YA	3004	1/1	0.41	-	12,12,12,12	0
57	MG	RA	3141	1/1	0.23	-	2,2,2,2	0
57	MG	RA	3130	1/1	0.60	-	2,2,2,2	0
57	MG	YA	3009	1/1	0.74	-	8,8,8,8	0
57	MG	XM	201	1/1	0.11	-	85,85,85,85	0
57	MG	RB	201	1/1	0.14	-	8,8,8,8	0
57	MG	RA	3206	1/1	0.29	-	3,3,3,3	0
57	MG	RA	3202	1/1	0.13	-	16,16,16,16	0
57	MG	YA	3147	1/1	0.55	-	4,4,4,4	0
57	MG	QA	1654	1/1	0.14	-	17,17,17,17	0
57	MG	YA	3184	1/1	0.34	-	7,7,7,7	0
57	MG	RA	3057	1/1	0.30	-	2,2,2,2	0
57	MG	YA	3243	1/1	0.42	-	32,32,32,32	0
57	MG	YA	3198	1/1	0.25	-	51,51,51,51	0
57	MG	RA	3033	1/1	0.61	-	50,50,50,50	0
57	MG	YA	3258	1/1	0.44	-	1,1,1,1	0
57	MG	QH	201	1/1	0.19	-	47,47,47,47	0
57	MG	RA	3224	1/1	0.40	-	5,5,5,5	0
57	MG	QA	1662	1/1	0.24	-	37,37,37,37	0
57	MG	QM	201	1/1	0.15	-	44,44,44,44	0
57	MG	YA	3135	1/1	0.23	-	6,6,6,6	0
57	MG	YA	3234	1/1	0.58	-	17,17,17,17	0
57	MG	YA	3215	1/1	0.18	-	14,14,14,14	0
57	MG	RA	3232	1/1	0.45	-	13,13,13,13	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3146	1/1	0.42	-	0,0,0,0	0
57	MG	QA	1603	1/1	0.88	-	14,14,14,14	0
57	MG	RA	3197	1/1	0.59	-	3,3,3,3	0
57	MG	RA	3006	1/1	1.03	-	50,50,50,50	0
57	MG	YA	3261	1/1	0.27	-	4,4,4,4	0
57	MG	YA	3263	1/1	0.76	-	4,4,4,4	0
57	MG	YA	3081	1/1	0.40	-	9,9,9,9	0
57	MG	YA	3059	1/1	0.33	-	5,5,5,5	0
57	MG	XA	1625	1/1	0.18	-	5,5,5,5	0
57	MG	YA	3106	1/1	0.27	-	8,8,8,8	0
57	MG	RA	3122	1/1	0.59	-	5,5,5,5	0
57	MG	YA	3005	1/1	0.23	-	3,3,3,3	0
57	MG	RA	3207	1/1	0.24	-	11,11,11,11	0
57	MG	XA	1616	1/1	0.29	-	1,1,1,1	0
57	MG	YA	3141	1/1	0.59	-	0,0,0,0	0
57	MG	YA	3181	1/1	0.30	-	3,3,3,3	0
57	MG	YA	3031	1/1	0.58	-	0,0,0,0	0
57	MG	RA	3156	1/1	0.11	-	9,9,9,9	0
57	MG	YA	3251	1/1	0.15	-	9,9,9,9	0
57	MG	YA	3167	1/1	0.56	-	2,2,2,2	0
57	MG	YA	3038	1/1	0.18	-	7,7,7,7	0
57	MG	RA	3227	1/1	0.54	-	22,22,22,22	0
57	MG	YA	3232	1/1	0.36	-	2,2,2,2	0
57	MG	RA	3009	1/1	0.39	-	10,10,10,10	0
57	MG	RA	3028	1/1	0.49	-	14,14,14,14	0
57	MG	YA	3073	1/1	0.25	-	1,1,1,1	0
57	MG	QA	1612	1/1	0.48	-	7,7,7,7	0
57	MG	RA	3221	1/1	0.33	-	22,22,22,22	0
57	MG	QX	101	1/1	0.41	-	4,4,4,4	0
57	MG	QA	1664	1/1	0.41	-	54,54,54,54	0
57	MG	YA	3071	1/1	0.21	-	28,28,28,28	0
57	MG	YA	3176	1/1	0.48	-	6,6,6,6	0
57	MG	YE	301	1/1	0.18	-	0,0,0,0	0
57	MG	QA	1634	1/1	0.19	-	7,7,7,7	0
57	MG	YA	3021	1/1	0.42	-	12,12,12,12	0
57	MG	YA	3260	1/1	0.98	-	50,50,50,50	0
57	MG	XA	1641	1/1	1.12	-	21,21,21,21	0
57	MG	YA	3050	1/1	0.51	-	50,50,50,50	0
57	MG	YA	3121	1/1	0.46	-	62,62,62,62	0
57	MG	YA	3068	1/1	0.51	-	2,2,2,2	0
57	MG	RA	3040	1/1	0.39	-	14,14,14,14	0
57	MG	XA	1639	1/1	0.14	-	5,5,5,5	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	YA	3027	1/1	0.12	-	1,1,1,1	0
57	MG	QA	1649	1/1	0.39	-	6,6,6,6	0
57	MG	QA	1601	1/1	0.39	-	9,9,9,9	0
57	MG	YA	3214	1/1	0.24	-	2,2,2,2	0
57	MG	YA	3016	1/1	0.23	-	6,6,6,6	0
57	MG	YA	3230	1/1	0.14	-	8,8,8,8	0
57	MG	RA	3162	1/1	0.23	-	2,2,2,2	0
57	MG	RA	3044	1/1	0.91	-	10,10,10,10	0
57	MG	YA	3048	1/1	0.19	-	4,4,4,4	0
57	MG	QA	1624	1/1	0.57	-	0,0,0,0	0
57	MG	QA	1647	1/1	0.28	-	33,33,33,33	0
57	MG	YA	3220	1/1	0.66	-	33,33,33,33	0
57	MG	RA	3075	1/1	0.20	-	3,3,3,3	0
57	MG	YA	3194	1/1	0.19	-	0,0,0,0	0
57	MG	RA	3131	1/1	0.70	-	9,9,9,9	0
57	MG	XA	1634	1/1	0.56	-	0,0,0,0	0
57	MG	RA	3039	1/1	0.42	-	10,10,10,10	0
57	MG	YA	3129	1/1	0.74	-	15,15,15,15	0
57	MG	RA	3036	1/1	0.86	-	6,6,6,6	0
57	MG	RA	3171	1/1	0.17	-	12,12,12,12	0
57	MG	YA	3002	1/1	1.04	-	50,50,50,50	0
57	MG	YA	3150	1/1	0.43	-	4,4,4,4	0
57	MG	XA	1655	1/1	0.28	-	9,9,9,9	0
57	MG	RA	3087	1/1	0.91	-	11,11,11,11	0
57	MG	RA	3195	1/1	0.23	-	24,24,24,24	0
57	MG	QA	1617	1/1	0.20	-	4,4,4,4	0
57	MG	YA	3173	1/1	0.26	-	35,35,35,35	0
57	MG	RA	3085	1/1	0.80	-	5,5,5,5	0
57	MG	YA	3264	1/1	0.16	-	9,9,9,9	0
57	MG	YA	3052	1/1	0.71	-	14,14,14,14	0
57	MG	YA	3039	1/1	0.27	-	6,6,6,6	0
57	MG	YA	3124	1/1	0.21	-	9,9,9,9	0
57	MG	YA	3239	1/1	0.20	-	5,5,5,5	0
57	MG	QV	101	1/1	0.23	-	1,1,1,1	0
57	MG	YA	3250	1/1	1.21	-	11,11,11,11	0
57	MG	RA	3217	1/1	0.34	-	74,74,74,74	0
57	MG	RA	3139	1/1	0.23	-	2,2,2,2	0
57	MG	XA	1670	1/1	0.15	-	43,43,43,43	0
57	MG	QA	1657	1/1	0.14	-	7,7,7,7	0
57	MG	XA	1643	1/1	0.33	-	5,5,5,5	0
57	MG	YA	3025	1/1	0.19	-	4,4,4,4	0
57	MG	RA	3126	1/1	0.45	-	2,2,2,2	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	RA	3183	1/1	0.42	-	57,57,57,57	0
57	MG	YA	3249	1/1	0.37	-	10,10,10,10	0
57	MG	RA	3226	1/1	0.37	-	9,9,9,9	0
57	MG	QA	1642	1/1	0.50	-	16,16,16,16	0
57	MG	RA	3021	1/1	0.19	-	2,2,2,2	0
57	MG	YA	3037	1/1	0.22	-	13,13,13,13	0
57	MG	RA	3079	1/1	0.64	-	5,5,5,5	0
57	MG	YA	3235	1/1	0.25	-	3,3,3,3	0
57	MG	YA	3130	1/1	0.22	-	20,20,20,20	0
57	MG	YB	202	1/1	0.66	-	24,24,24,24	0
57	MG	RA	3071	1/1	0.24	-	1,1,1,1	0
57	MG	RA	3010	1/1	0.57	-	14,14,14,14	0
57	MG	RA	3222	1/1	0.31	-	14,14,14,14	0
57	MG	XA	1618	1/1	0.49	-	3,3,3,3	0
57	MG	QA	1606	1/1	0.15	-	16,16,16,16	0
57	MG	RA	3005	1/1	0.66	-	12,12,12,12	0
57	MG	QA	1645	1/1	0.14	-	38,38,38,38	0
57	MG	RA	3180	1/1	0.11	-	6,6,6,6	0
57	MG	YA	3241	1/1	0.21	-	5,5,5,5	0
57	MG	RA	3117	1/1	0.18	-	25,25,25,25	0
57	MG	QA	1616	1/1	0.13	-	29,29,29,29	0
57	MG	RA	3014	1/1	0.28	-	13,13,13,13	0
57	MG	YA	3083	1/1	0.46	-	9,9,9,9	0
57	MG	YA	3219	1/1	0.16	-	7,7,7,7	0
57	MG	RA	3145	1/1	0.46	-	3,3,3,3	0
57	MG	RA	3209	1/1	0.29	-	17,17,17,17	0
57	MG	YB	203	1/1	0.15	-	37,37,37,37	0
57	MG	YA	3175	1/1	0.24	-	9,9,9,9	0
57	MG	RA	3086	1/1	0.24	-	0,0,0,0	0
57	MG	YA	3089	1/1	0.44	-	5,5,5,5	0
57	MG	RA	3069	1/1	0.81	-	4,4,4,4	0
57	MG	RA	3143	1/1	0.31	-	7,7,7,7	0
57	MG	YA	3057	1/1	0.84	-	4,4,4,4	0
57	MG	RD	301	1/1	0.51	-	1,1,1,1	0
57	MG	RA	3106	1/1	0.41	-	13,13,13,13	0
57	MG	RA	3103	1/1	0.49	-	9,9,9,9	0
57	MG	RA	3148	1/1	0.30	-	5,5,5,5	0
57	MG	YA	3179	1/1	0.25	-	0,0,0,0	0
57	MG	YA	3132	1/1	0.10	-	5,5,5,5	0
57	MG	RA	3200	1/1	0.16	-	1,1,1,1	0
57	MG	XA	1610	1/1	0.22	-	3,3,3,3	0
57	MG	XA	1620	1/1	0.17	-	2,2,2,2	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	QA	1628	1/1	0.19	-	8,8,8,8	0
57	MG	YA	3080	1/1	1.45	-	50,50,50,50	0
57	MG	YA	3063	1/1	0.29	-	11,11,11,11	0
57	MG	XV	102	1/1	0.65	-	9,9,9,9	0
57	MG	XA	1629	1/1	0.15	-	8,8,8,8	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.