



Full wwPDB EM Validation Report ⓘ

Nov 19, 2022 – 07:10 pm GMT

PDB ID : 4V5N
EMDB ID : EMD-1799
Title : tRNA translocation on the 70S ribosome: the post- translocational translocation intermediate TI(POST)
Authors : Ratje, A.H.; Loerke, J.; Mikolajka, A.; Bruenner, M.; Hildebrand, P.W.; Starosta, A.L.; Doenhoefer, A.; Connell, S.R.; Fucini, P.; Mielke, T.; Whitford, P.C.; Onuchic, J.N.; Yu, Y.; Sanbonmatsu, K.Y.; Hartmann, R.K.; Penczek, P.A.; Wilson, D.N.; Spahn, C.M.T.
Deposited on : 2010-10-21
Resolution : 7.60 Å(reported)
Based on initial models : 2WRJ, 2WRI

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

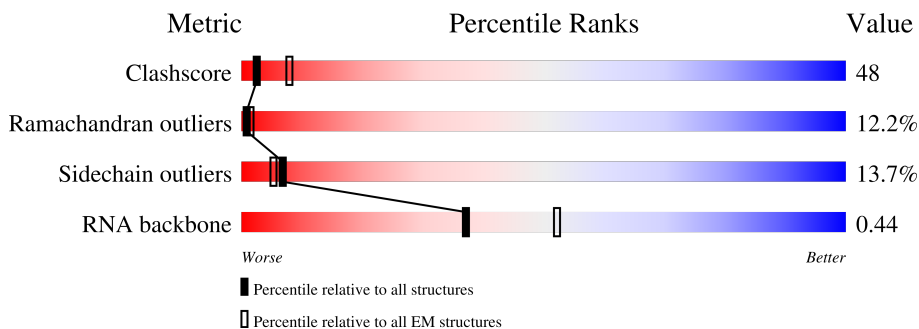
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.60 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)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1522	97% (Poor fit) 22% (0 outliers), 58% (1 outlier), 18% (2 outliers), 2% (3+ outliers)
2	AB	256	91% (Poor fit) 23% (0 outliers), 49% (1 outlier), 14% (2 outliers), 5% (3+ outliers), 9% (Not modelled)
3	AC	239	86% (Poor fit) 24% (0 outliers), 44% (1 outlier), 14% (2 outliers), 5% (3+ outliers), 14% (Not modelled)
4	AD	209	100% (Poor fit) 30% (0 outliers), 49% (1 outlier), 16% (2 outliers), 5% (3+ outliers)
5	AE	162	93% (Poor fit) 31% (0 outliers), 44% (1 outlier), 14% (2 outliers), 7% (3+ outliers)

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Mol	Chain	Length	Quality of chain
6	AF	101	100% 33% 50% 15%
7	AG	156	99% 34% 48% 15%
8	AH	138	100% 30% 57% 10%
9	AI	128	99% 18% 59% 17% 5%
10	AJ	105	93% 11% 54% 22% 6% 7%
11	AK	129	92% 29% 54% 8% 8%
12	AL	132	94% 22% 51% 15% 6% 6%
13	AM	126	98% 18% 55% 19% 6%
14	AN	61	98% 34% 44% 10% 10%
15	AO	89	99% 34% 44% 19%
16	AP	88	94% 11% 66% 15% 6%
17	AQ	105	94% 25% 56% 10% 6%
18	AR	88	80% 20% 42% 15% 20%
19	AS	93	84% 8% 49% 23% 16%
20	AT	106	93% 18% 48% 23% 5% 7%
21	AU	27	89% 30% 37% 19% 11%
22	AV	77	99% 29% 51% 19%
23	AX	11	100% 9% 45% 45%
24	AY	691	96% 21% 52% 20%
25	B0	85	99% 40% 41% 14%
26	B1	98	95% 15% 54% 22% 5%
27	B2	72	99% 8% 57% 29%
28	B3	60	98% 17% 58% 15% 8%
29	B4	71	80% 13% 37% 15% 15% 20%
30	B5	60	98% 37% 37% 15% 10%

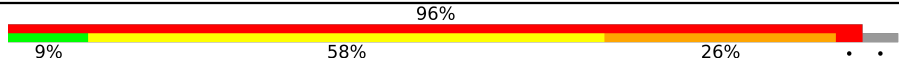
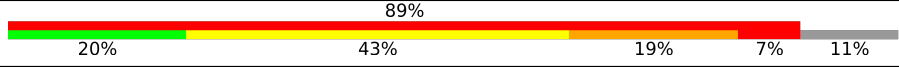
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Mol	Chain	Length	Quality of chain
31	B6	54	93% 6% 37% 33% 17% 7%
32	B7	49	98% 20% 57% 18% ..
33	B8	65	97% 17% 58% 11% 11% .
34	B9	37	100% 30% 43% 22% 5%
35	BA	2915	97% 24% 54% 21%
36	BB	122	98% 16% 66% 15% .
37	BC	229	100% 36% 52% 8% .
38	BD	276	100% 26% 48% 21% .
39	BE	206	99% 19% 49% 26% ..
40	BF	210	99% 17% 58% 21% ..
41	BG	182	99% 15% 55% 22% 7% .
42	BH	180	92% 17% 53% 18% . 8%
43	BK	147	95% 24% 51% 18% . 5%
44	BL	121	55% 39% 15% .. 45%
45	BN	140	99% 21% 52% 21% ..
46	BO	122	100% 26% 55% 17% .
47	BP	150	97% 16% 48% 25% 8% .
48	BQ	141	100% 23% 52% 18% 6%
49	BR	118	99% 22% 53% 20% ..
50	BS	112	88% 8% 53% 20% 7% 12%
51	BT	146	94% 12% 47% 21% 14% 6%
52	BU	118	99% 20% 52% 22% 5% .
53	BV	101	100% 21% 51% 22% 6%
54	BW	113	100% 19% 65% 12% .
55	BX	96	96% 23% 53% 20% .

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Mol	Chain	Length	Quality of chain
56	BY	110	 <p>96%</p> <p>9% 58% 26% . .</p>
57	BZ	206	 <p>89%</p> <p>20% 43% 19% 7% 11%</p>

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 152777 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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					AltConf	Trace
			Total	C	N	O	P		
1	AA	1504	32329	14390	5992	10444	1503	0	0

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	AB	234	1900	1213	341	341	5	0	0

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AC	206	1612	1016	314	281	1	0	0

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

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

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	AE	150	1146	724	217	201	4	0	0

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

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

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

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

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

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

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

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

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	AJ	98	794	499	156	138	1	0	0

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

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

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	AL	124	970	611	195	163	1	0	0

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	AM	124	987	611	205	169	2	0	0

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14 TYPE Z.

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

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

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

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms				AltConf	Trace	
16	AP	83	Total	C	N	O	S	0	0
			700	443	139	117	1		

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

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

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

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

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms				AltConf	Trace	
19	AS	78	Total	C	N	O	S	0	0
			629	403	114	110	2		

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

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

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	AU	24	Total	C	N	O	0	0
			208	128	50	30		

- Molecule 22 is a RNA chain called TRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	77	Total	C	N	O	P	0	0
			1640	732	297	535	76		

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AX	11	Total	C	N	O	P	0	0
			230	105	41	74	10		

- Molecule 24 is a protein called ELONGATION FACTOR G.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AY	666	Total	C	N	O	S	0	0
			5214	3316	892	988	18		

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	B0	84	Total	C	N	O	S	0	0
			662	410	140	111	1		

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	B1	93	Total	C	N	O	S	0	0
			731	460	145	125	1		

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	B2	71	Total	C	N	O	S	0	0
			598	370	121	106	1		

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	B3	59	Total	C	N	O	S	0	0
			467	298	90	78	1		

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	B4	57	Total	C	N	O	S	0	0
			450	285	77	83	5		

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	B5	59	Total	C	N	O	S	0	0
			459	288	90	76	5		

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	B6	50	Total	C	N	O	S	0	0
			433	270	88	71	4		

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L34.

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

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	B8	63	Total	C	N	O	S	0	0
			507	326	101	78	2		

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	B9	37	Total	C	N	O	S	0	0
			307	188	68	47	4		

- Molecule 35 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
35	BA	2901	62474	27806	11681	20087	2900	0	0

- Molecule 36 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
36	BB	119	2551	1136	471	826	118	0	0

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
37	BC	228	1742	1101	319	319	3	0	0

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
38	BD	275	2145	1353	428	361	3	0	0

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	BE	204	1563	988	299	270	6	0	0

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	BF	207	1623	1035	303	282	3	0	0

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	BG	181	1474	942	268	260	4	0	0

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	BH	166	1268	803	237	227	1	0	0

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
43	BK	139	1025	653	181	186	5	0	0

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L7/L12.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
44	BL	67	477	301	81	95	0	0

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
45	BN	138	1104	712	206	182	4	0	0

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	BO	122	933	588	171	170	4	0	0

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
47	BP	146	1114	692	227	193	2	0	0

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L16.

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

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms				AltConf	Trace
49	BR	117	Total	C	N	O	0	0
			960	599	202	159		

- Molecule 50 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
50	BS	98	Total	C	N	O	0	0
			770	486	154	130		

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BT	137	Total	C	N	O	S	0	0
			1141	710	234	196	1		

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BU	117	Total	C	N	O	S	0	0
			958	604	202	151	1		

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BV	101	Total	C	N	O	S	0	0
			779	501	142	135	1		

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BW	113	Total	C	N	O	S	0	0
			896	563	176	155	2		

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms				AltConf	Trace
55	BX	92	Total	C	N	O	0	0
			725	471	131	123		

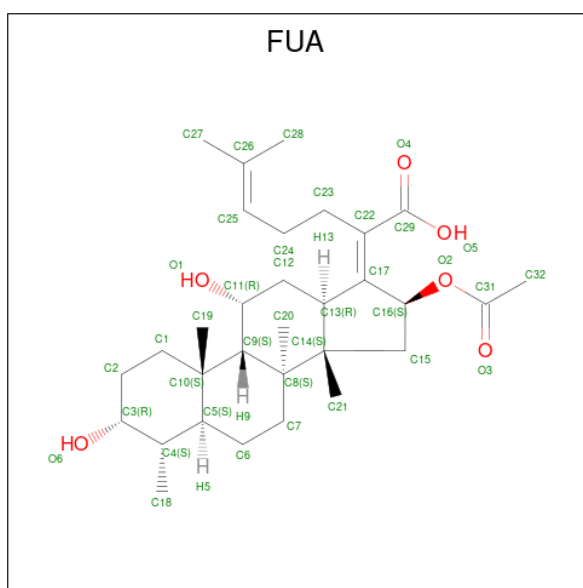
- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
56	BY	106	810	520	154	131	5	0	0

- Molecule 57 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
57	BZ	184	1467	936	261	268	2	0	0

- Molecule 58 is FUSIDIC ACID (three-letter code: FUA) (formula: $C_{31}H_{48}O_6$).



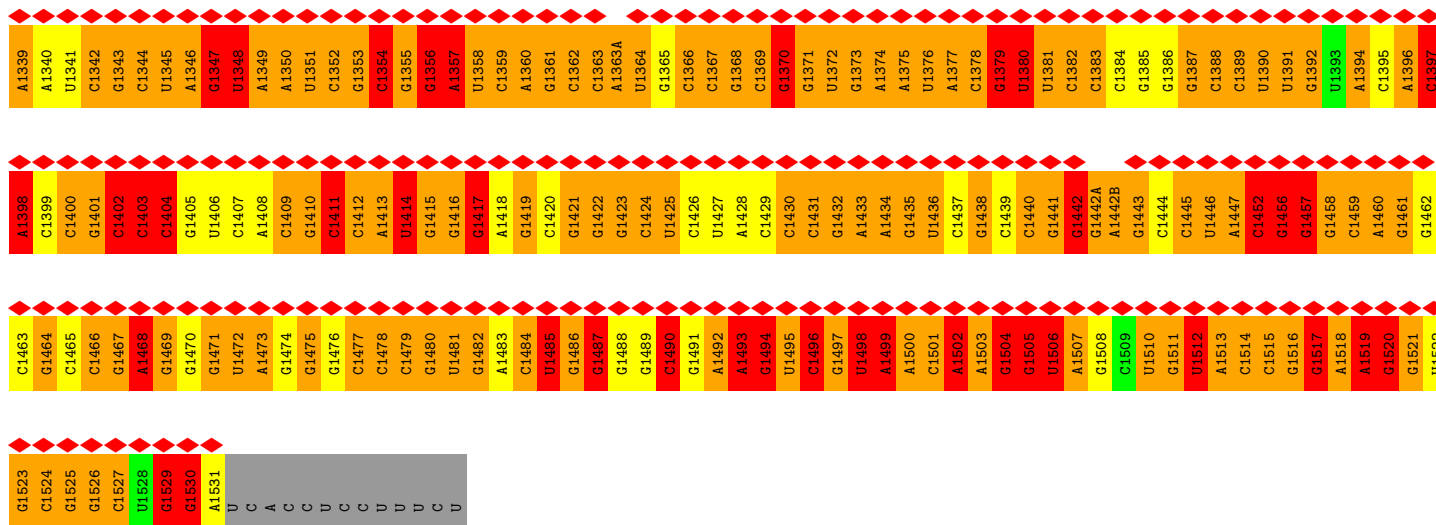
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
58	AY	1	37	31	6	0

- Molecule 59 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).

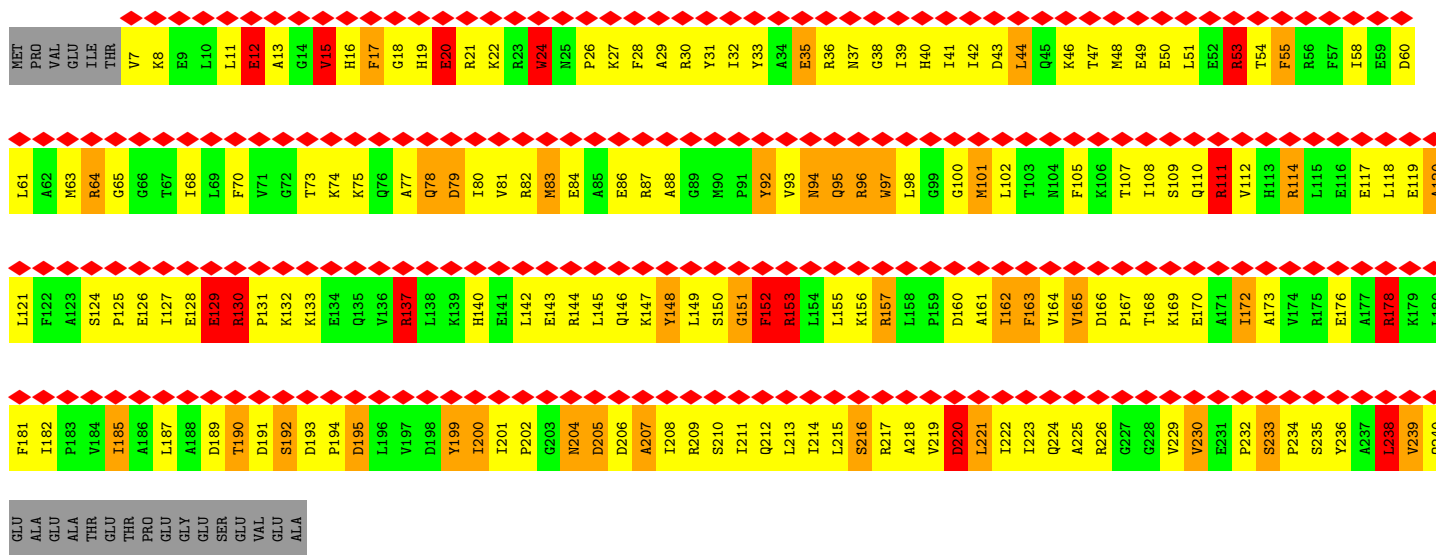


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
59	AY	1	28	10	5	11	2	0

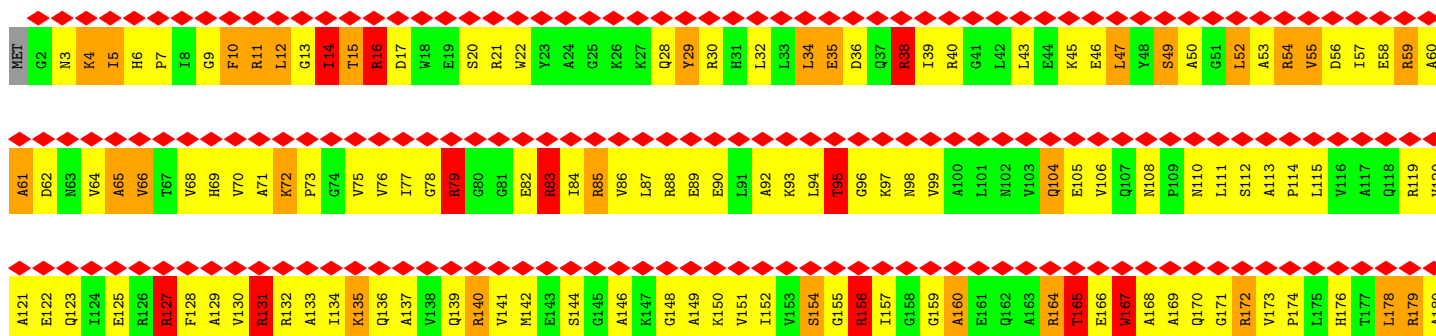
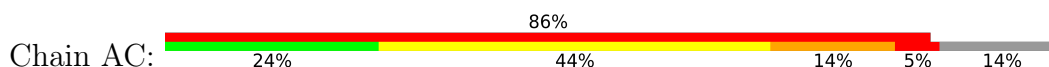
A1279	A1280	U1281	C1282	G1283	A1284	A1285	A1286	A1287	A1288	A1289	G1290	G1291	U1292	G1293	G1294	G1295	C1296	C1297	C1298	A1299	G1300	U1301	U1302	C1303	G1304	G1305	A1306	U1307	U1308	G1309	G1310	G1311	U1312	U1313	C1314	U1315	G1316	C1317	A1318	A1319	C1320	C1321	C1322	G1323	A1324	C1325	C1326	C1327	C1328	A1329	U1330	G1331	A1332	A1333	G1334	C1335	C1336	G1337	G1338					
U1219	G1220	G1221	G1222	C1223	G1224	A1225	C1226	A1227	A1228	A1229	C1230	G1231	U1232	G1233	C1234	U1235	A1236	C1237	A1238	A1239	U1240	G1241	C1242	C1243	A1244	A1245	C1246	U1247	A1248	C1249	A1250	A1251	C1252	G1253	C1254	G1255	U1256	U1257	G1258	C1259	C1260	A1261	C1262	C1263	A1264	G1265	G1266	C1267	A1268	A1269	C1270	G1271	U1272	G1273	G1274	A1275	G1276	C1277	U1278					
C1158	U1159	G1160	C1161	C1162	C1163	G1164	C1165	G1166	A1168	A1169	A1170	G1171	C1172	G1173	G1174	G1175	A1176	G1177	G1178	A1179	A1180	G1181	G1182	A1183	G1184	G1185	G1186	G1187	A1188	C1189	G1190	A1191	G1192	G1193	U1194	C1195	U1196	G1197	G1198	U1199	C1200	A1201	C1202	C1203	A1204	U1205	G1206	G1207	C1208	C1209	C1210	U1211	U1212	A1213	C1214	G1215	G1216	C1217	C1218					
C1098	G1099	C1100	A1101	A1102	C1103	G1104	A1105	G1106	C1107	G1108	C1109	A1110	A1111	C1112	C1113	C1114	C1115	C1116	G1117	C1118	C1119	G1120	U1121	U1122	A1123	G1124	U1125	U1126	G1127	C1128	C1129	A1130	G1131	C1132	G1133	G1134	U1135	U1136	C1137	G1138	G1139	C1140	C1141	G1142	G1143	G1144	C1145	A1146	C1147	U1148	C1149	U1150	U1151	A1152	C1153	G1154	G1155	G1156	A1157					
C1038	C1039	U1040	A1041	G1042	A1043	A1044	C1045	A1046	G1047	G1048	U1049	G1050	C1051	U1052	G1053	C1054	A1055	U1056	G1057	C1058	C1059	C1060	G1061	U1062	C1063	G1064	U1065	C1066	A1067	G1068	C1069	U1070	C1071	G1072	U1073	G1074	C1075	C1076	G1077	U1078	U1079	A1080	G1081	G1082	U1083	G1084	U1085	U1086	U1087	G1088	U1089	U1090	U1091	A1092	A1093	G1094	U1095	C1096	C1097					
A983	C984	C985	A986	G987	G988	C989	C990	U991	U992	G993	A994	C995	A996	U997	G998	C999	U1000	A1001	G1001A	G1002	G1003	A1004	A1005	C1006	C1007	C1008	G1009	G1010	U1011	A992	C993	G994	G995	G996	G997	A998	C999	A990	A901	G902	G903	C904	U905	G906	U907	A908	A909	C910	U911	U912	A913	A914	G915	G916	G917	A918	U919	U920	U921	G922				
A923	C924	C925	G926	G927	G928	C929	C930	C931	C932	G933	C934	A935	C936	A937	A938	C939	C940	G941	G942	U943	G944	G945	A946	G947	C948	A949	U950	G951	U952	A953	G954	U955	C956	U957	A958	A959	U960	U961	C962	G963	A964	A965	G966	C967	A968	A969	C970	G971	C972	G973	A974	A975	G976	A977	A978	C979	U980	U981	U982					
U863	A864	A865	C866	G867	C868	G869	U870	U871	A872	A873	G874	C875	G876	C877	G878	C879	C880	G881	C882	C883	U884	G885	G886	G887	G888	A889	G890	U891	A892	C893	G894	G895	G896	C897	G898	C899	C900	A901	G902	G903	C904	U905	G906	U907	A908	A909	C910	U911	U912	A913	A914	G915	G916	G917	A918	U919	U920	U921	G922					
C797	G798	G799	G800	U801	A802	G803	U804	C805	C806	A807	C808	G809	C810	C811	C812	U813	A814	A815	A816	C817	G818	A819	U820	G821	C822	G823	C824	G825	C826	U827	A828	G829	G830	U831	C832	U833	U834	U835	G836	G837	G838	U839	C840	U841	C842	C843	U844	C845	C846	G847	C848	G849	C850	C851	C852	C853	G854	G855	G856	C857	G858	A859	G861	C862
A737	C738	C739	U740	G741	G742	C743	C744	C745	A746	C747	C748	C749	G750	U751	G752	A753	C754	G755	C756	U757	G758	A759	G760	G761	C762	G763	C764	G765	A766	C767	A768	G769	C770	G771	U772	G773	G774	G775	G776	A777	G778	C779	A780	U781	A782	C783	C784	G785	G786	A787	U788	U789	A790	G791	A792	U793	A794	C795	C796					
U677	U678	C679	C680	C681	G682	G683	A684	G685	G686	A687	G688	C689	G690	G691	U692	G693	A694	A695	A696	G697	G698	C699	G700	C701	A702	G703	A704	U705	A706	C707	C708	G709	G710	G711	A712	G713	G714	A715	A716	C717	G718	C719	C720	G721	A722	U723	G724	A665	G666	G667	G668	U669	A609	G610	A611	C612	G613	A614	C615	G616				
G617	C618	U619	C620	A621	A622	C623	C624	G625	U626	G627	G628	G629	G630	G631	A632	G633	C634	G635	U636	G637	G638	G639	A640	U641	A642	C643	G644	G645	A646	C647	A648	G649	G650	C651	U652	A653	G654	A655	C656	G657	U658	C599	C600	C601	A602	U603	G604	A665	U605	G606	A607	A608	A609	G610	A611	C612	G613	A614	C615	G616				
G557	G558	A559	U560	U561	C562	A563	C564	U565	G566	G567	G568	C569	G570	U571	A572	A573	A574	G575	G576	G577	C578	G579	U580	G581	U582	A583	G584	G585	C586	G587	G588	C589	C590	U591	G592	G593	G594	G595	C596	G597	U598	C599	C600	C601	A602	U603	G604	A665	U605	G606	A607	A608	A609	G610	A611	C612	G613	A614	C615	G616				

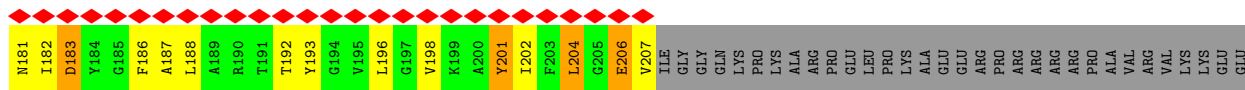


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

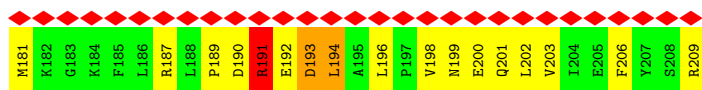
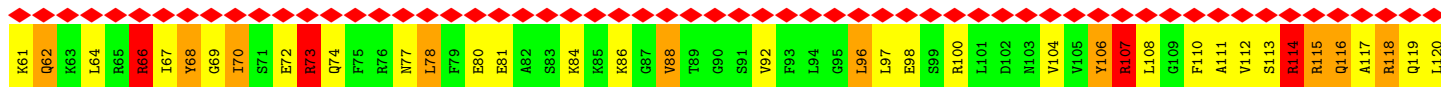
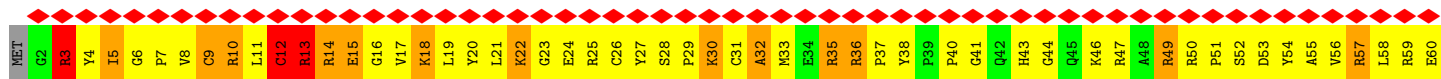


• Molecule 3: 30S RIBOSOMAL PROTEIN S3

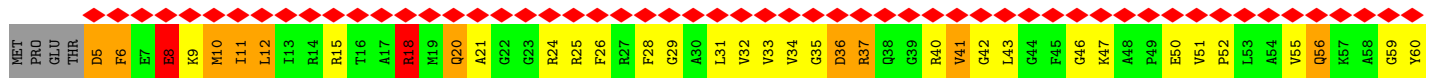




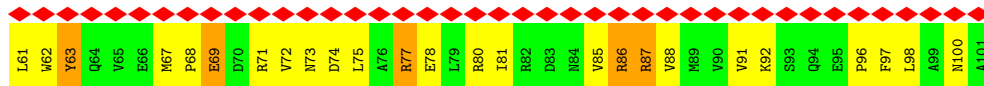
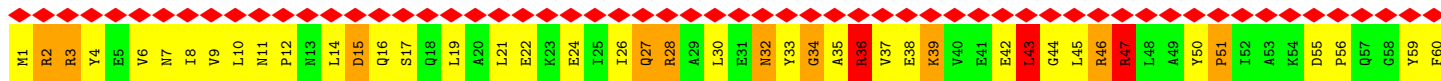
• Molecule 4: 30S RIBOSOMAL PROTEIN S4



• Molecule 5: 30S RIBOSOMAL PROTEIN S5

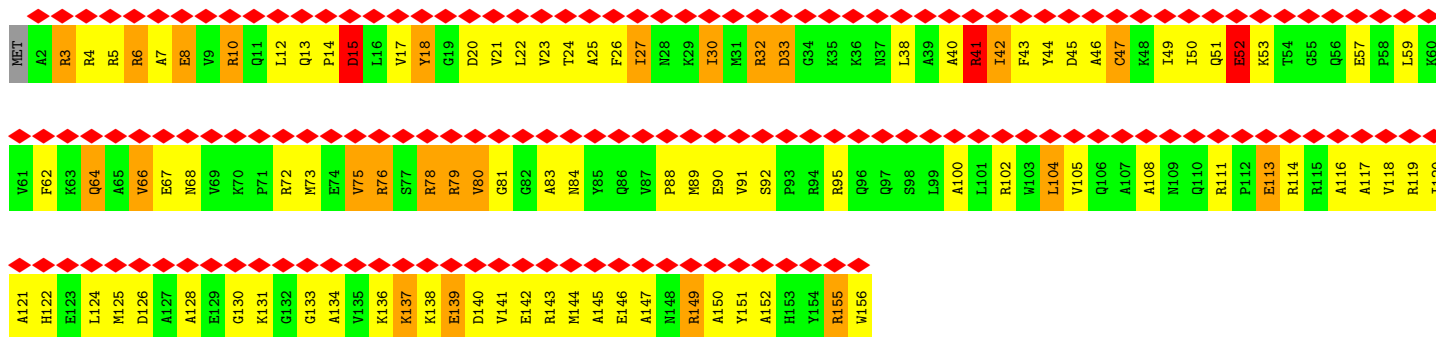


• Molecule 6: 30S RIBOSOMAL PROTEIN S6

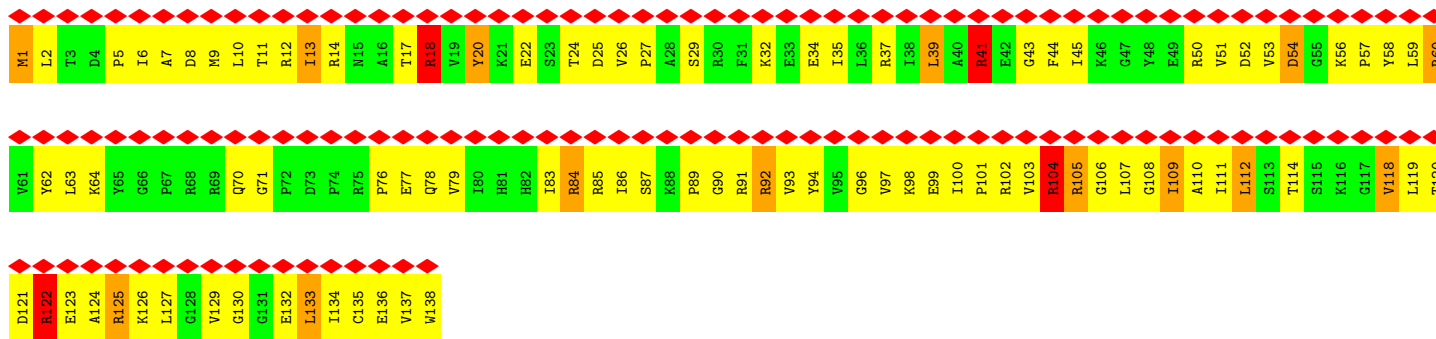


• Molecule 7: 30S RIBOSOMAL PROTEIN S7

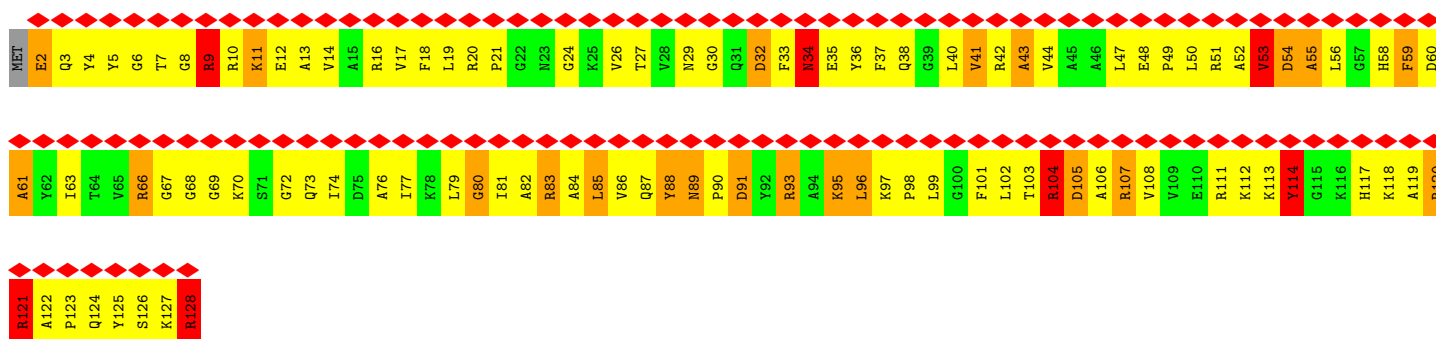
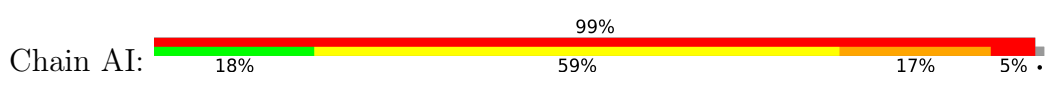




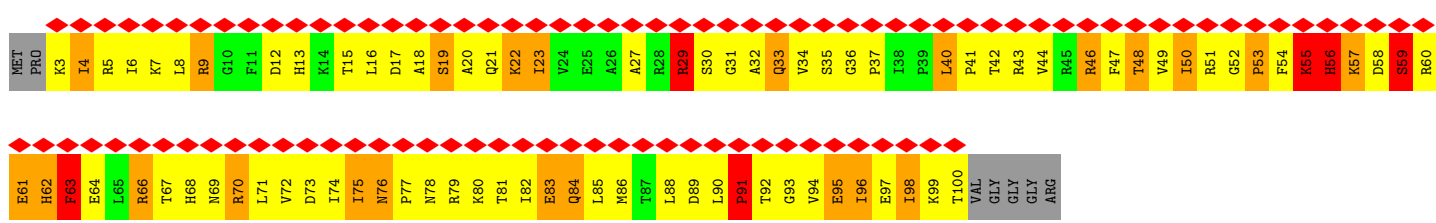
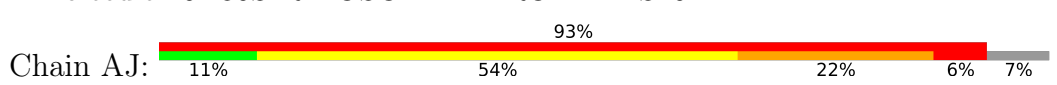
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



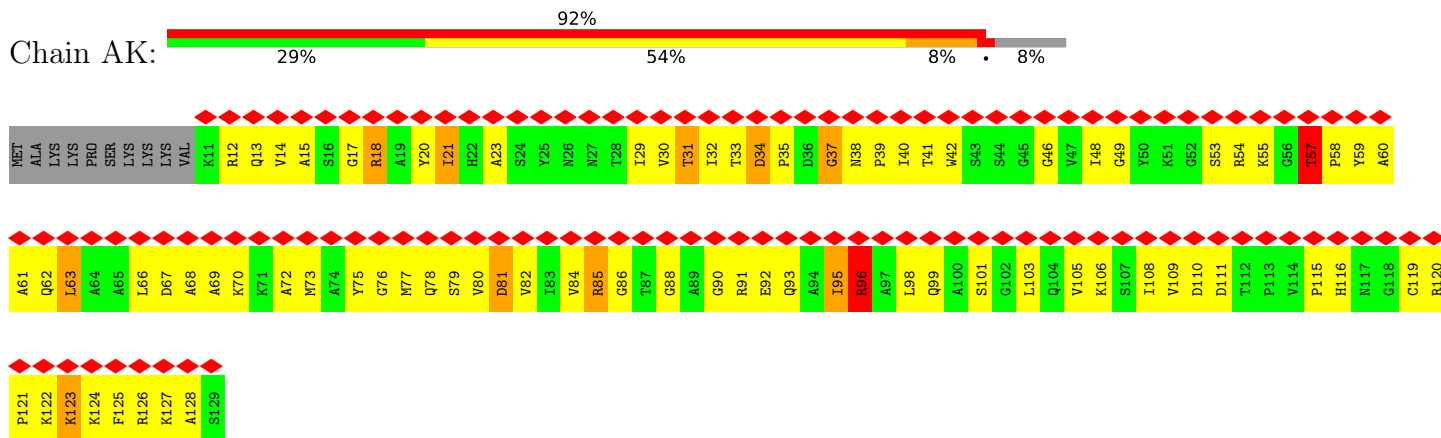
• Molecule 9: 30S RIBOSOMAL PROTEIN S9



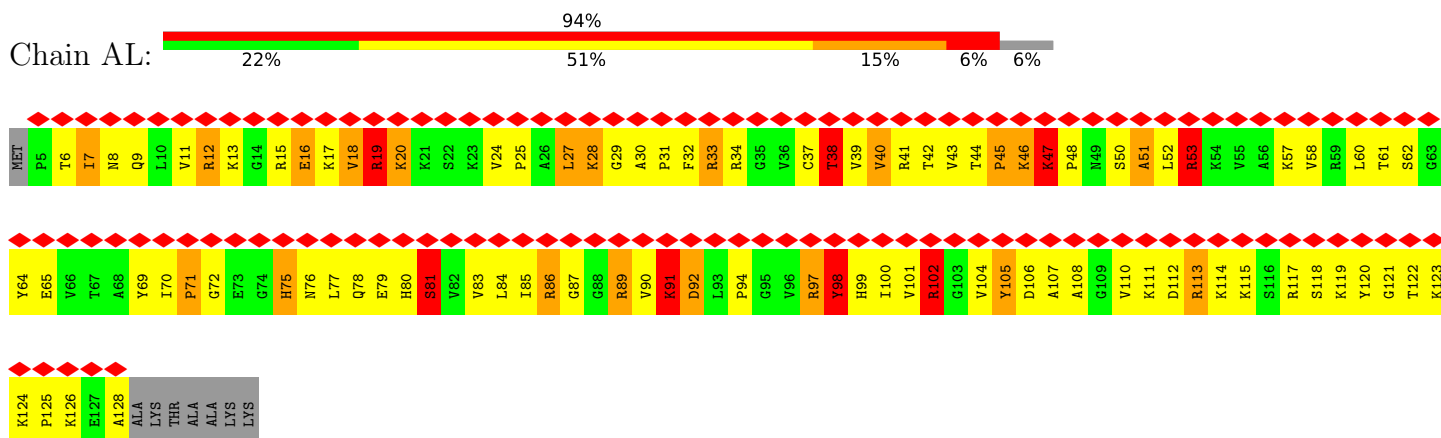
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



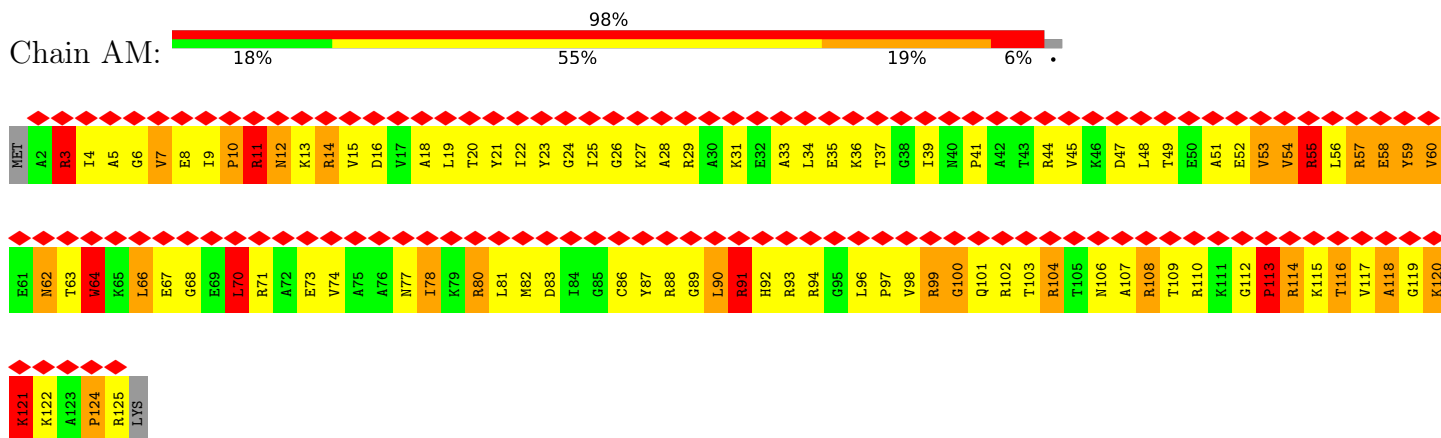
• Molecule 11: 30S RIBOSOMAL PROTEIN S11



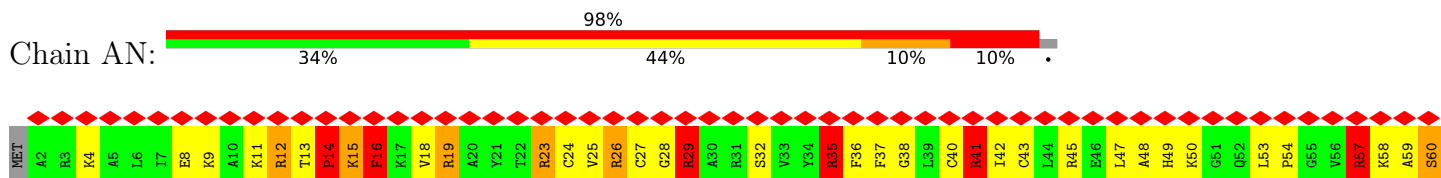
• Molecule 12: 30S RIBOSOMAL PROTEIN S12



• Molecule 13: 30S RIBOSOMAL PROTEIN S13

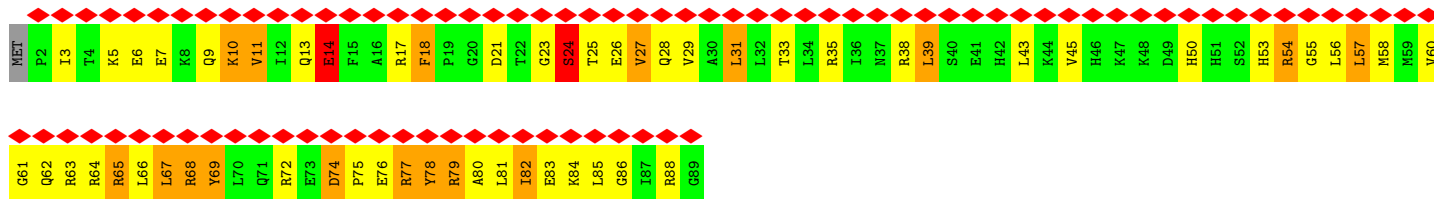


• Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z

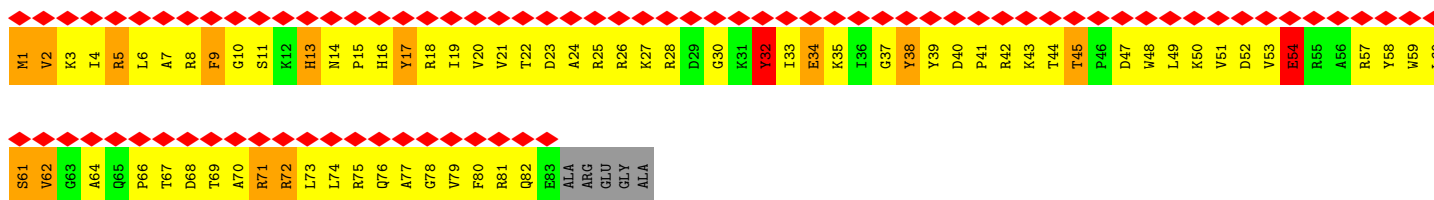
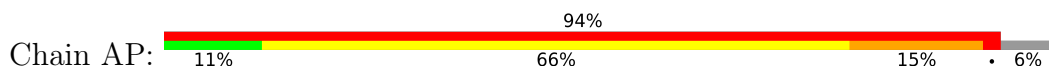


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• Molecule 15: 30S RIBOSOMAL PROTEIN S15



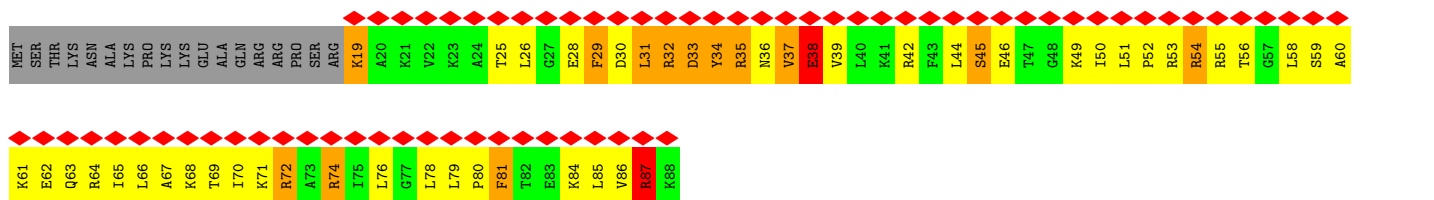
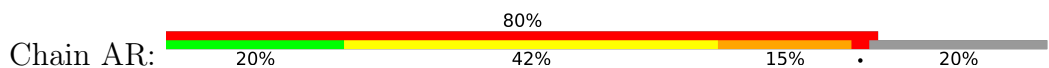
• Molecule 16: 30S RIBOSOMAL PROTEIN S16



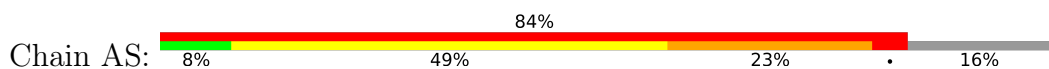
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

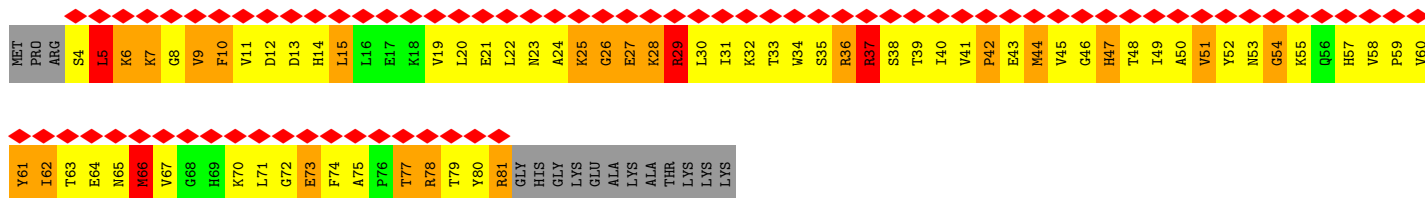


• Molecule 18: 30S RIBOSOMAL PROTEIN S18

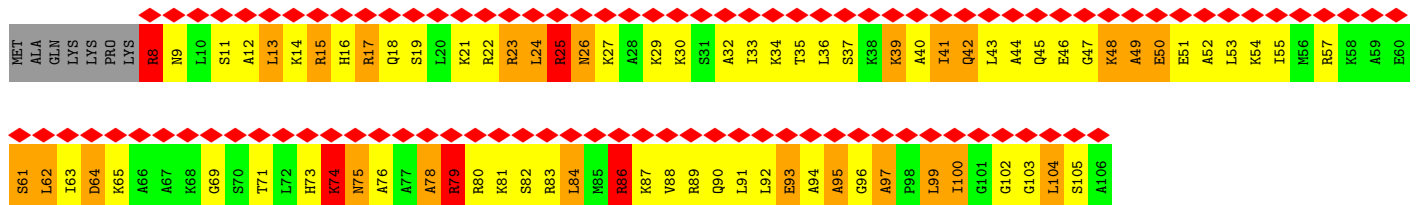
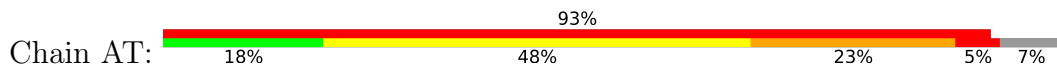


• Molecule 19: 30S RIBOSOMAL PROTEIN S19

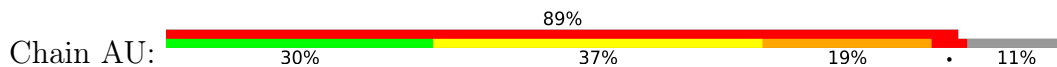




• Molecule 20: 30S RIBOSOMAL PROTEIN S20



• Molecule 21: 30S RIBOSOMAL PROTEIN THX



• Molecule 22: TRNA



• Molecule 23: MRNA



• Molecule 24: ELONGATION FACTOR G



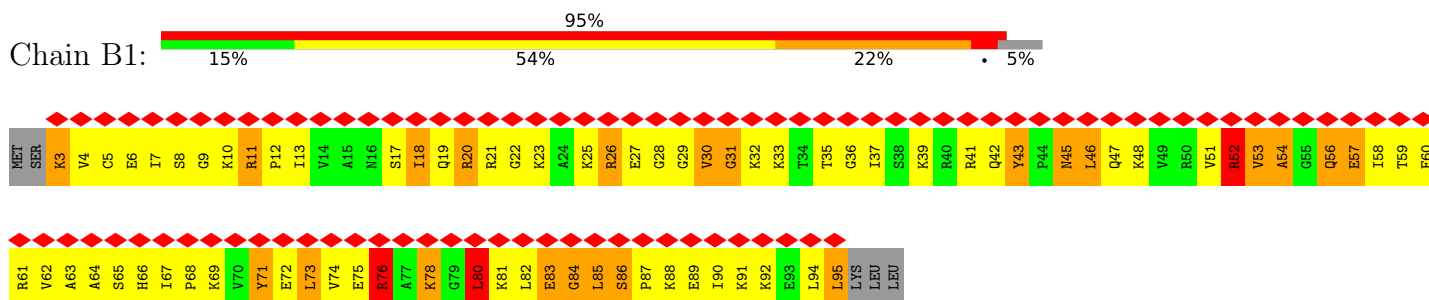
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GLY	V122	R182	L242	H302	H362	E422	A482	V542	L602	K662
ILE	V123	M183	V243	P303	R363	K423	Y483	A543	E603	T663
T64	Q124	K184	A244	D304	E364	L424	R484	K544	P604	Q664
I65	A125	P185	A245	P305	E365	S425	E485	G545	I605	G665
T66	E126	A186	I246	N306	V366	Q426	T486	I546	M606	R666
A67	K127	Y187	R247	G307	E367	A427	I487	E547	R607	G667
A68	Y128	Y188	K248	P308	E368	L428	T488	E548	V608	S668
V69	K129	G189	G249	L309	L369	A429	T489	A549	E609	F669
T70	V130	M190	T250	A310	K370	R430	P490	M550	V610	V670
T71	P131	D191	I251	A311	A371	L431	V491	Q551	T611	M671
C72	R132	L192	D252	L312	G372	A432	D492	S552	T612	F672
F73	I133	G193	K253	A313	D373	E433	Y493	G553	P613	F673
W74	A134	T194	L254	F314	L374	E434	E494	P554	E614	D674
K75	F135	D195	I255	K315	G375	D435	G495	L555	E615	H675
D76	A136	I196	T256	I316	A376	P436	K496	I556	Y616	Y676
H77	M137	R197	T257	M317	V377	T437	F497	G557	M617	Q677
R78	K138	E198	V258	A318	V378	F438	I498	F558	G618	E678
I79	M139	I199	F259	D319	G379	R439	R499	P559	D619	V679
N80	D140	P200	L260	P320	L380	V440	Q500	V560	V620	P680
I81	K141	I201	G261	Y321	K381	S441	T501	V561	I621	K681
I82	T142	P202	S262	G322	E382	T442	G502	D562	D623	Q682
D83	G143	E203	A263	G323	T383	H443	G503	L563	L624	Q684
T84	A144	E204	L264	R324	I384	P444	R504	K564	M625	E685
P85	D145	Y205	K265	L325	T385	E445	G505	V565	A626	K686
G86	L146	L206	M266	I326	G386	T446	Q506	T566	R627	L687
H87	W147	D207	K267	F327	D387	G447	Y507	L567	R628	L688
V88	L148	Q208	G268	I328	T388	Q448	G508	Y568	G629	G689
D89	V149	A209	V269	R329	L389	T449	H509	D569	Q630	GLY
F90	I150	R210	Q270	V330	V390	L450	V510	G570	L631	GLN
T91	R151	E211	L271	Y331	G391	I451	K511	S571	L632	
I92	M152	Y212	L272	S332	E392	S452	L512	Y572	G633	
E93	M153	H213	L273	G333	D393	G453	K513	H573	G634	
V94	Q154	E214	D274	T334	A394	M454	V514	E574	M634	
E95	E155	K215	A275	L335	P395	G455	E515	V575	E635	
R96	R156	L216	V276	T336	R396	E456	P516	D576	P636	
S97	L157	L217	V277	S337	V397	L457	L517	S577	R637	
M98	G158	E218	D278	G338	L398	H458	P518	S578	G638	
R99	A159	V219	Y279	S339	L399	L459	R519	E579	M639	
V100	P160	A220	L280	Y340	E400	E460	G520	M580	A640	
L101	P161	A221	P281	V341	S401	I461	S521	A581	Q641	
D102	V162	D222	S282	Y342	I402	I462	G522	F582	V642	
G103	V163	F223	P283	N343	E403	V463	F523	K583	L643	
A104	M164	D224	L284	T344	V404	D464	E524	L584	R644	
I105	Q165	E225	D285	T345	V405	R465	F525	A585	A645	
V106	L166	N226	L286	K346	E406	L466	V526	G586	F646	
V107	P167	I227	P287	G347	P407	K467	N527	S587	V647	
F108	I168	M228	P288	R348	V408	R468	A528	M588	P648	
D109	G169	L229	I289	K349	I409	E469	I529	A589	L649	
S110	R170	K230	E290	D350	D410	F470	V530	I590	A650	
S111	E171	Y231	G291	R351	V411	K471	G531	K591	E651	
Q112	D172	L232	T292	V352	A412	V472	G532	E592	M652	
G113	T173	E233	T293	A353	I413	D473	A593	A593	F653	
V114	F174	G234	T294	R354	E414	A474	I534	V594	G654	
E115	S175	E235	E295	L355	P415	M475	P535	Q595	Y655	
P116	G176	E236	G296	L356	K416	V476	K536	K596	A656	
Q117	I177	E237	E297	R357	T417	G477	E537	G597	T657	
S118	I178	T238	E298	M358	K418	K478	Y538	D598	L659	
E119	D179	E239	V299	H359	A419	P479	I539	P599	R660	
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● Molecule 25: 50S RIBOSOMAL PROTEIN L27

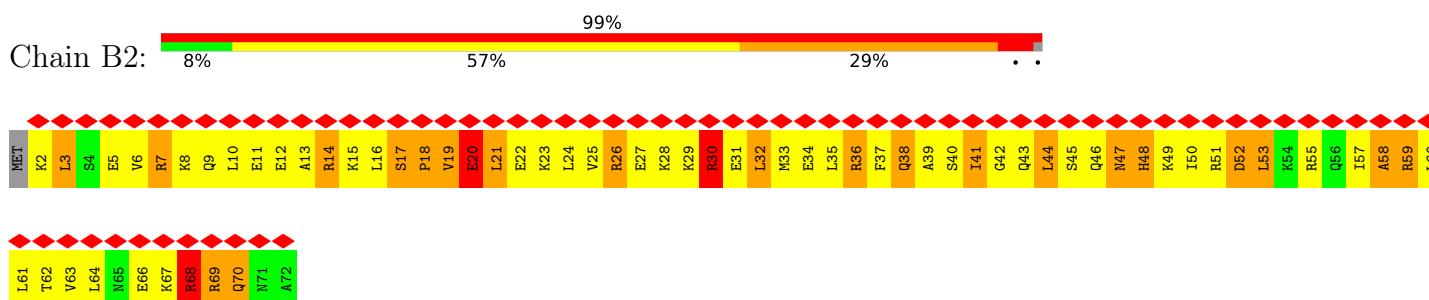


MET	A61	L62	V63	D64	G65	V66	V67	E68	F69	T70	R71	M72	G73	R74	D75	S16	Q17	K19	R20	L21	G22	V23	K24	R25	Y26	E27	G28	Q29	V30	V31	R32	A33	G34	N35	L36	L37	V38	R39	Q40	R41	G42	T43	R44	F45	K46	P47	C48	K49	N50	V51	S52	M53	G54	R55	D56	F57	L59	F60
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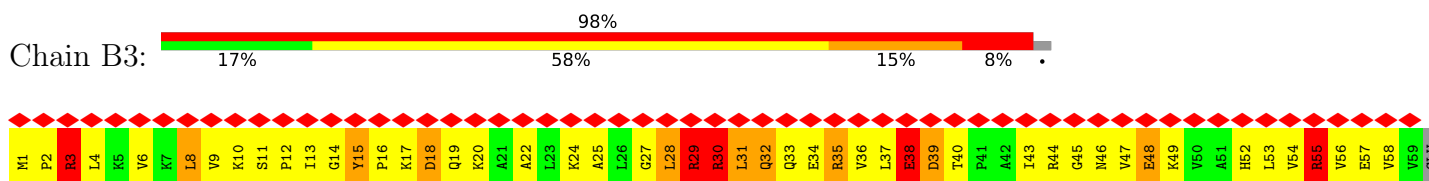
- Molecule 26: 50S RIBOSOMAL PROTEIN L28



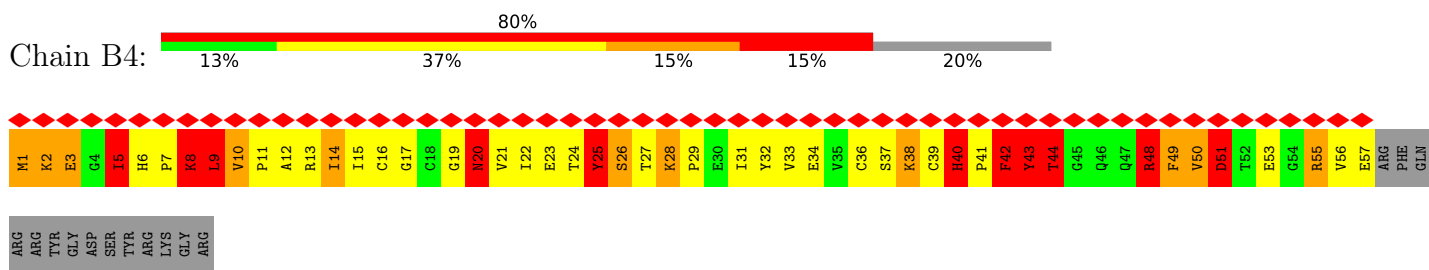
- Molecule 27: 50S RIBOSOMAL PROTEIN L29



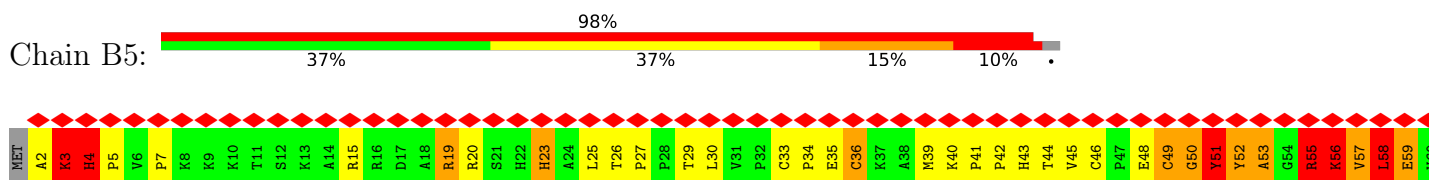
- Molecule 28: 50S RIBOSOMAL PROTEIN L30



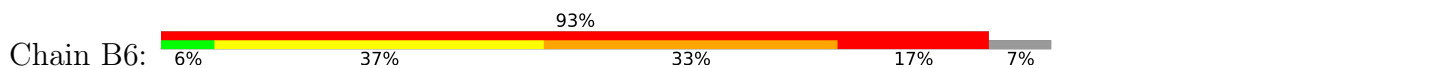
- Molecule 29: 50S RIBOSOMAL PROTEIN L31

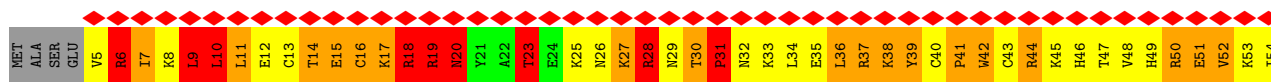


- Molecule 30: 50S RIBOSOMAL PROTEIN L32



- Molecule 31: 50S RIBOSOMAL PROTEIN L33





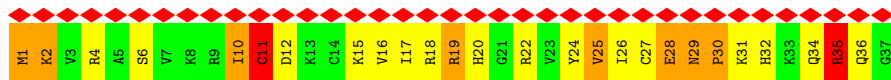
• Molecule 32: 50S RIBOSOMAL PROTEIN L34



• Molecule 33: 50S RIBOSOMAL PROTEIN L35



• Molecule 34: 50S RIBOSOMAL PROTEIN L36



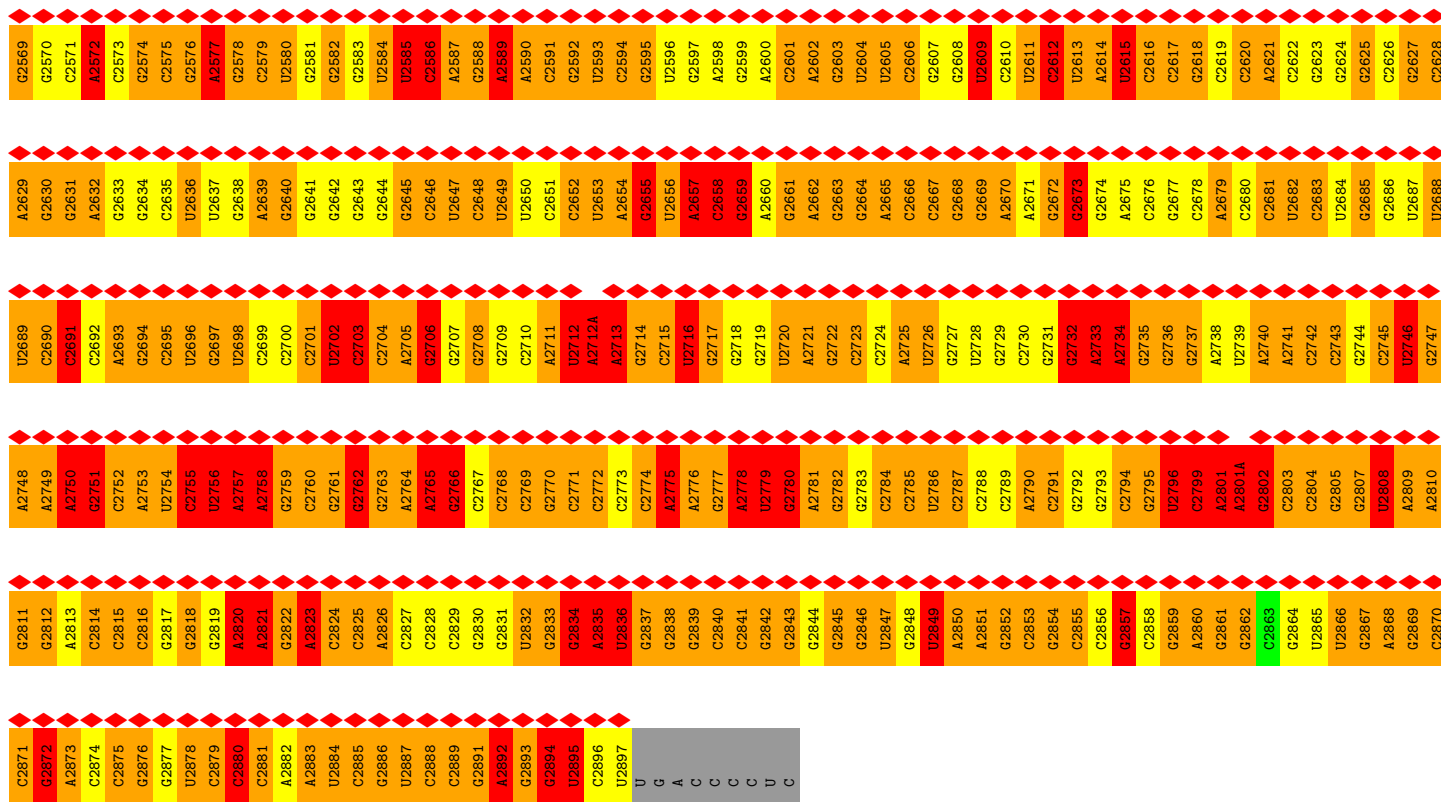
• Molecule 35: 23S RIBOSOMAL RNA



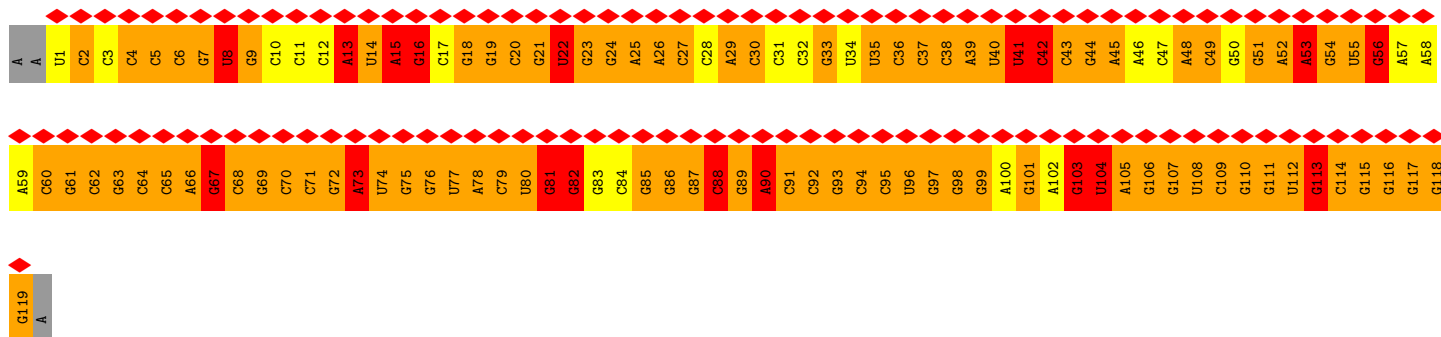
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C337	C338	U339	A340	C341	C342	C343	C344	A345	A346	A347	C348	C349	U350	C351	C352	C353	C354	C355	C356	A357	U358	A359	C360	C361	U362	C363	A363A	C363B	C363C	C363D	U363E	A363F	C365	C366	C370	A371	C372	U373	A374	C375	C376	C377	C378	C379	U380	C381	C382	U383	U384	C385	C386	U387	C388	C389	A390	C391	C392	C393	C394	C395	C396																					
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G1696	C1636	G1515	G1456	U1397	G1337	C1218	A1157	U1097	G1037
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A1698	C1638	G1517	G1458	C1399	G1339	A1220	A1159	G1099	G1039
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A1701	G1641	G1520	A1460	G1401	U1341	C1221A	C1161	U1101	C1041
G1702	G1642	U1523	C1462	C1403	A1342	G1222	G1162	C1102	G1042
G1703	A1643	G1524	G1463	G1404	G1343	G1223	G1163	C1103	C1043
G1704	C1644	G1525	C1464	U1405	C1345	G1225	U1165	U1105	G1044
G1705	G1645	G1526	G1465	U1406	G1346	G1226	A1166	A1045	A1045
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C1708	C1648	G1529	C1468	C1409	A1349	G1228	G1168	A1048	A1048
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G1710	G1650	C1531	A1470	G1411	C1351	C1231	G1170	A1050	A1050
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C1712	G1652	C1533	A1472	G1413	U1353	C1233	G1173	C1052	C1052
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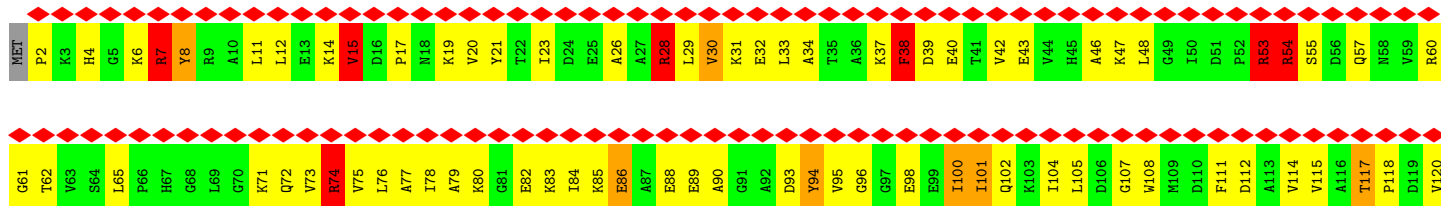
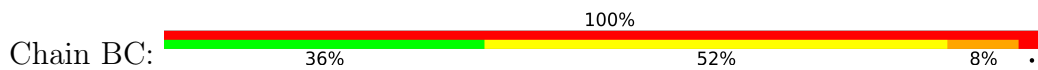
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A2019	A2020	C2021	U2022	G2023	G2024	C2025	C2026	C2027	C2028	G2029	A2030	A2031	G2032	A2033	U2034	G2035	C2036	G2037	G2038	C2039	C2040	U2041	A2042	C2043	C2044	C2045	G2046	U2047	G2048	G2049	C2050	A2051	G2052	G2053	A2054	C2055	G2056	A2057	A2058	A2059	A2060	G2061	A2062	C2063	G2064	C2065	C2066	G2067	U2068	G2069	G2070	A2071	G2072	C2073	U2074	U2075	U2076	A2077	C2078									
G1959	A1960	C1961	C1962	U1963	U1964	C1965	A1966	C1967	U1968	A1969	A1970	A1971	A1972	G1973	C1974	G1975	U1976	A1977	A1978	C1979	U1980	A1981	C1982	G1983	C1984	G1985	A1986	G1987	C1988	G1989	C1990	U1991	U1992	U1993	C1994	U1995	C1996	G1997	G1998	C1999	G2000	A2001	G2002	G2003	G2004	A2005	C2006	C2007	C2008	G2009	G2010	U2011	G2012	A2013	A2014	A2015	U2016	U2017	G2018									
G1899	A1900	A1901	C1902	G1903	U1904	C1905	G1906	G1907	C1908	C1909	G1910	U1911	A1912	A1913	C1914	U1915	A1916	U1917	A1918	U1919	C1920	G1921	U1922	U1923	C1924	G1925	U1926	A1927	A1928	G1929	G1930	U1931	A1932	G1933	C1934	G1935	A1936	A1937	G1938	U1939	U1940	C1941	C1942	U1943	U1944	G1945	U1946	C1947	C1948	G1949	G1950	U1951	C1952	A1953	U1954	U1955	U1956	C1957	C1958									
G1830	C1831	C1832	U1833	U1834	G1835	C1836	C1837	C1838	G1839	G1840	U1841	G1842	C1843	C1844	G1845	G1846	A1847	A1848	A1849	G1850	U1851	C1852	A1853	A1854	G1855	G1856	G1857	G1858	A1859	G1860	G1861	G1862	A1863	U1864	G1865	C1866	A1867	A1868	U1869	A1870	C1871	C1872	G1873	G1874	A1875	G1876	C1877	G1878	C1879	C1880	C1881	G1882	G1883	A1884	A1885	G1886	U1887	G1888	A1889	A1890	G1891	C1892	C1893	A1894	C1895	U1896	G1897	U1898
G1770	C1771	G1772	A1773	C1774	U1775	G1776	U1777	U1778	U1779	A1780	C1781	C1782	C1783	A1784	A1785	A1786	A1787	C1788	A1789	C1790	A1791	G1792	C1793	U1794	C1795	U1796	C1797	U1798	G1799	C1800	G1801	A1802	C1803	C1804	U1805	C1806	G1807	U1808	A1809	A1810	G1811	A1812	G1813	G1814	A1815	G1816	G1817	U1818	U1819	U1820	A1821	G1822	G1823	G1824	A1825	G1826	G1827	G1828	A1829									

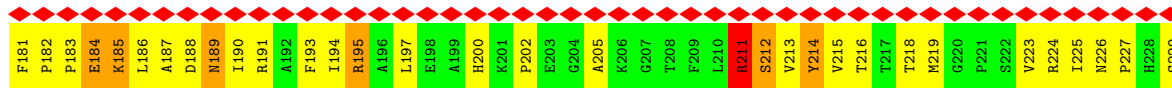
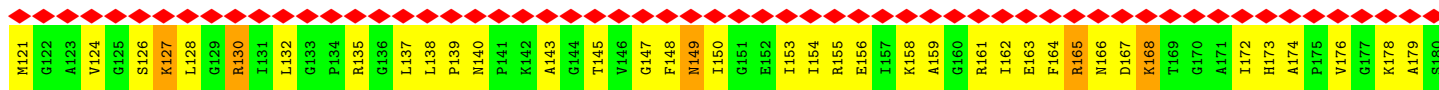


• Molecule 36: 5S RIBOSOMAL RNA

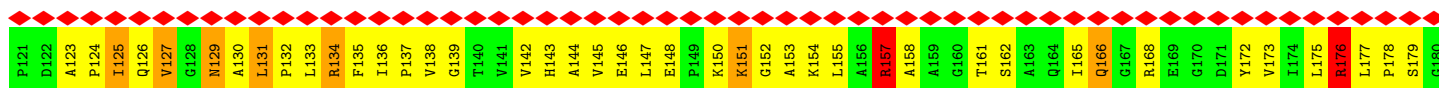
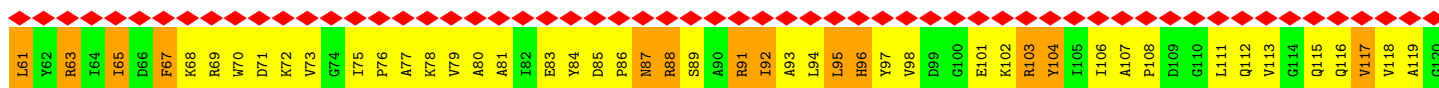
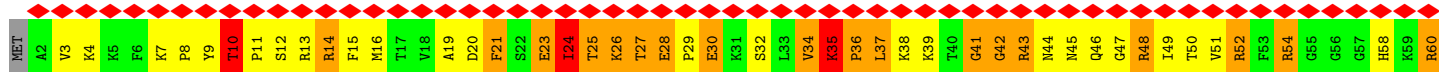


• Molecule 37: 50S RIBOSOMAL PROTEIN L1

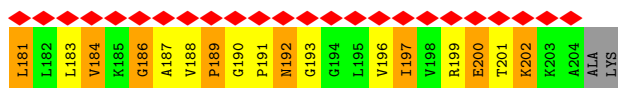
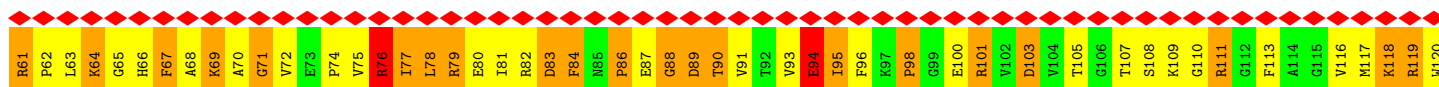
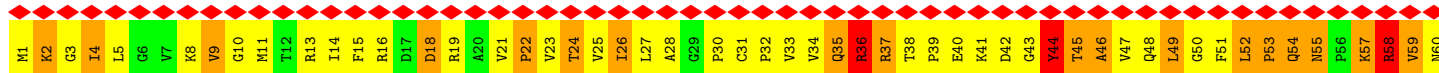
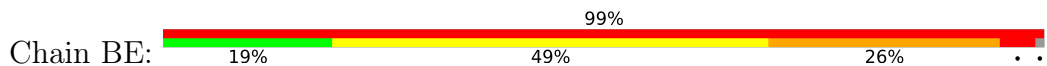




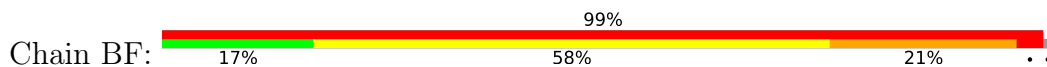
• Molecule 38: 50S RIBOSOMAL PROTEIN L2

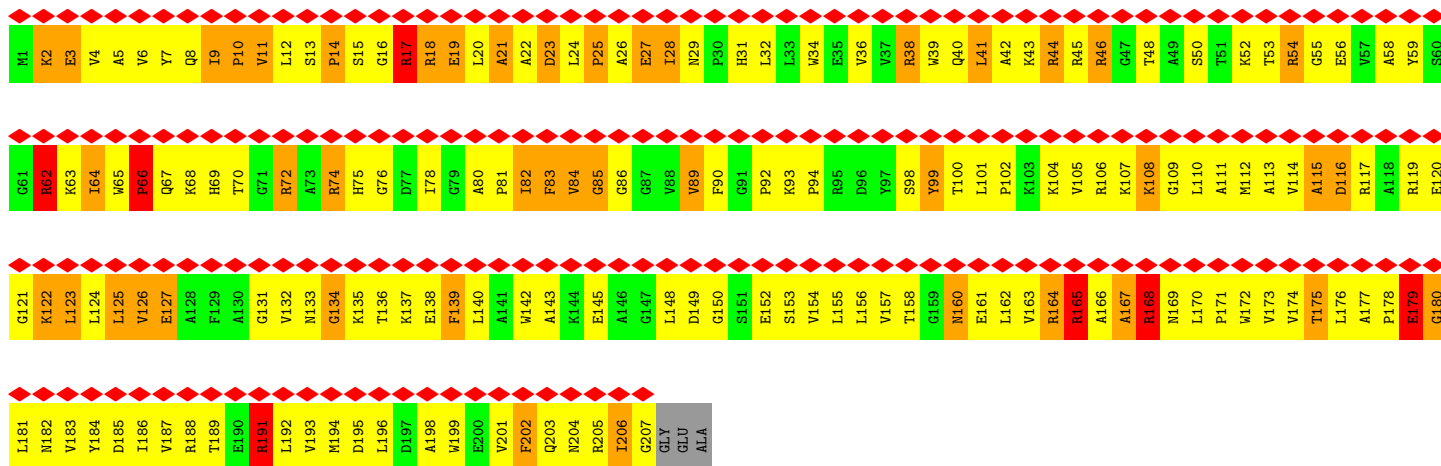


• Molecule 39: 50S RIBOSOMAL PROTEIN L3

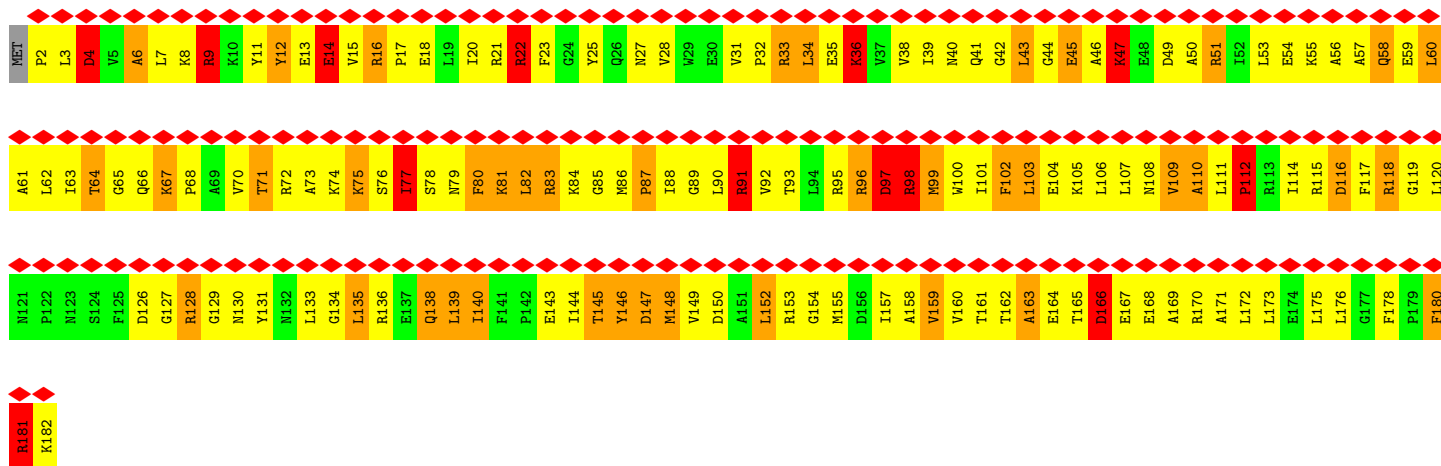
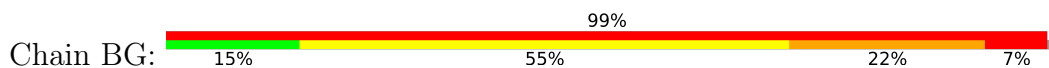


• Molecule 40: 50S RIBOSOMAL PROTEIN L4

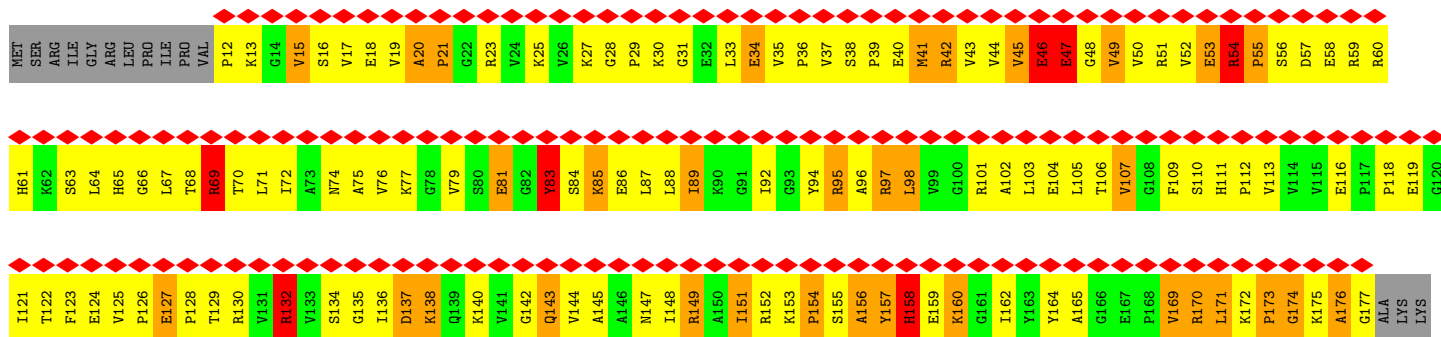
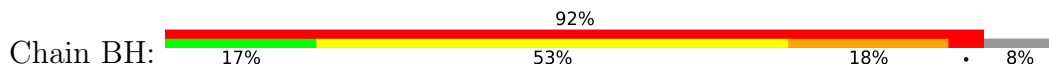




• Molecule 41: 50S RIBOSOMAL PROTEIN L5

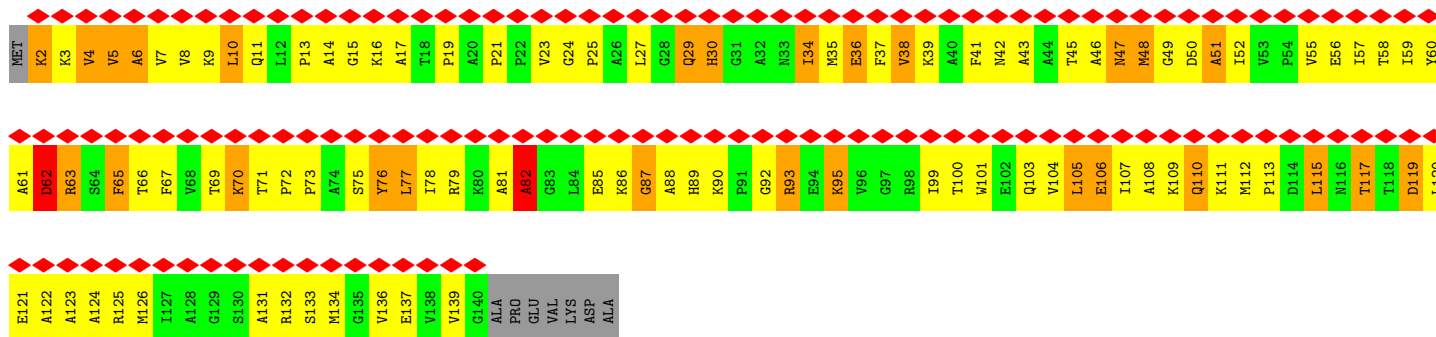


• Molecule 42: 50S RIBOSOMAL PROTEIN L6

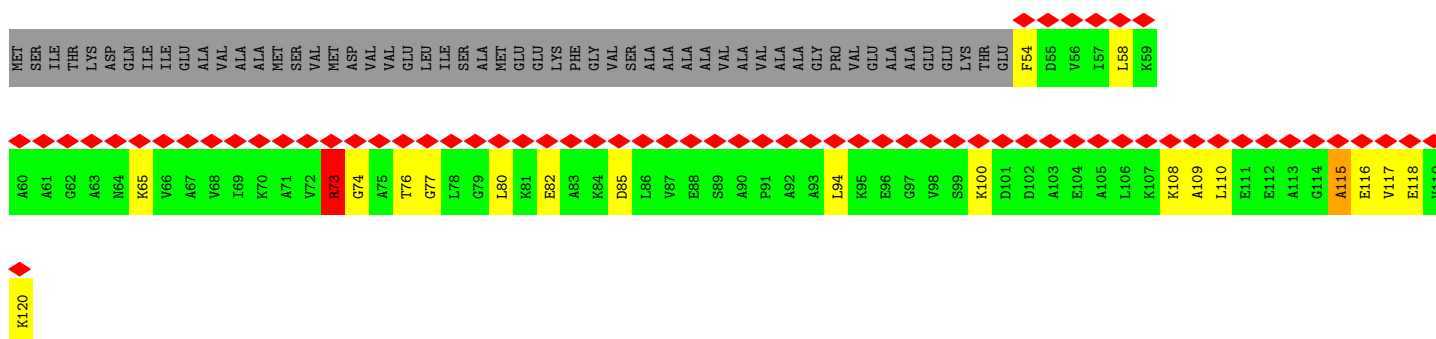
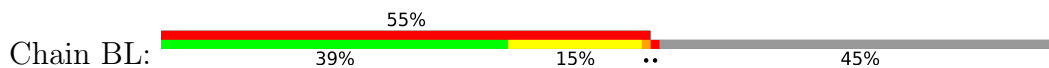


• Molecule 43: 50S RIBOSOMAL PROTEIN L11

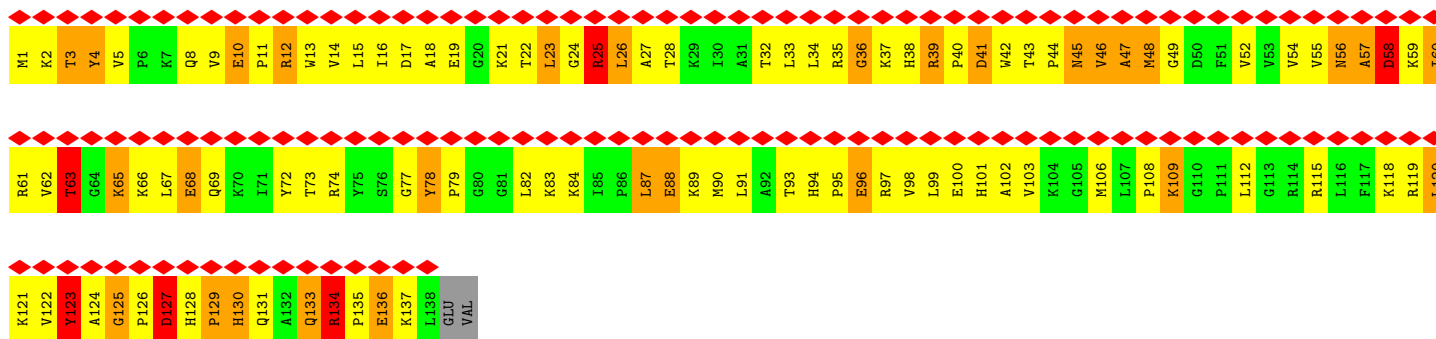




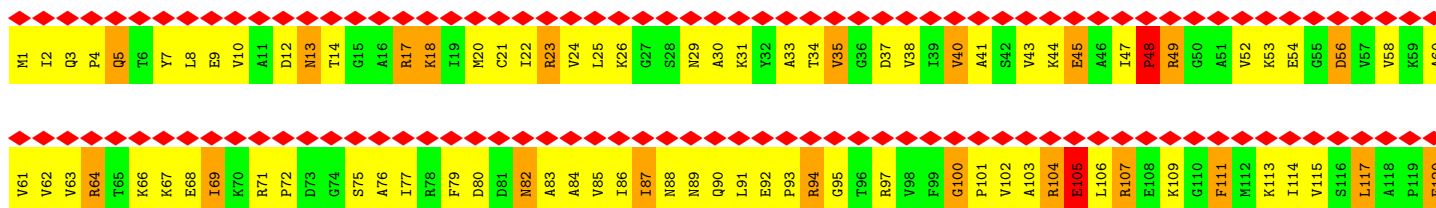
● Molecule 44: 50S RIBOSOMAL PROTEIN L7/L12



● Molecule 45: 50S RIBOSOMAL PROTEIN L13

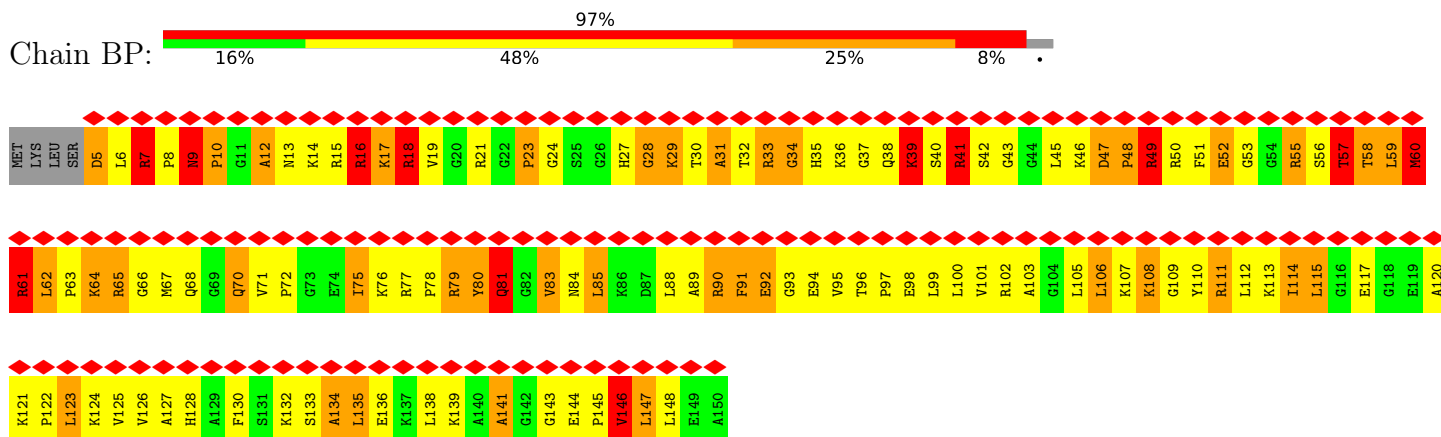


● Molecule 46: 50S RIBOSOMAL PROTEIN L14

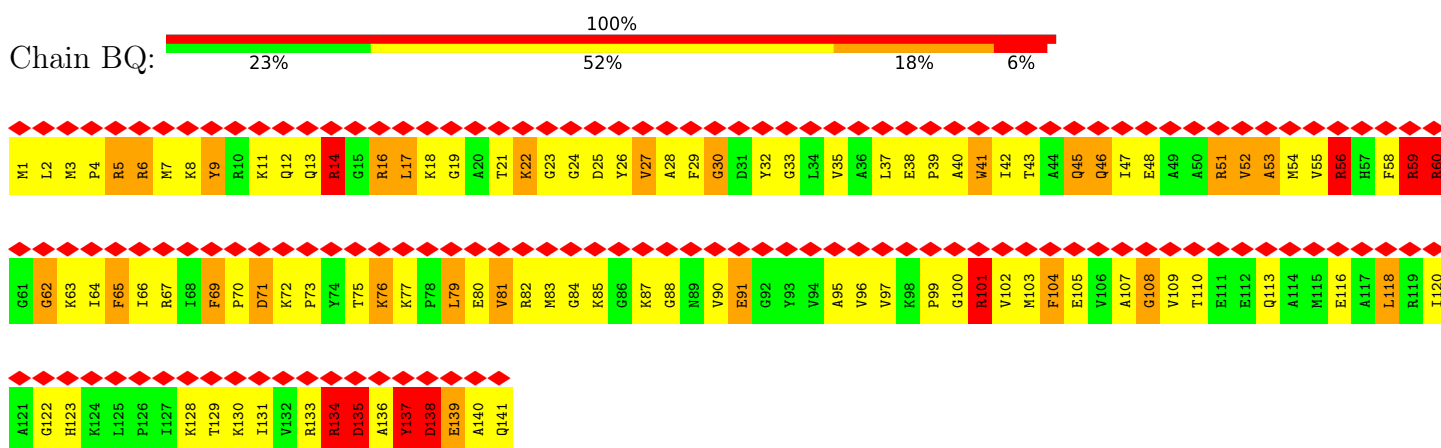


V121
L122

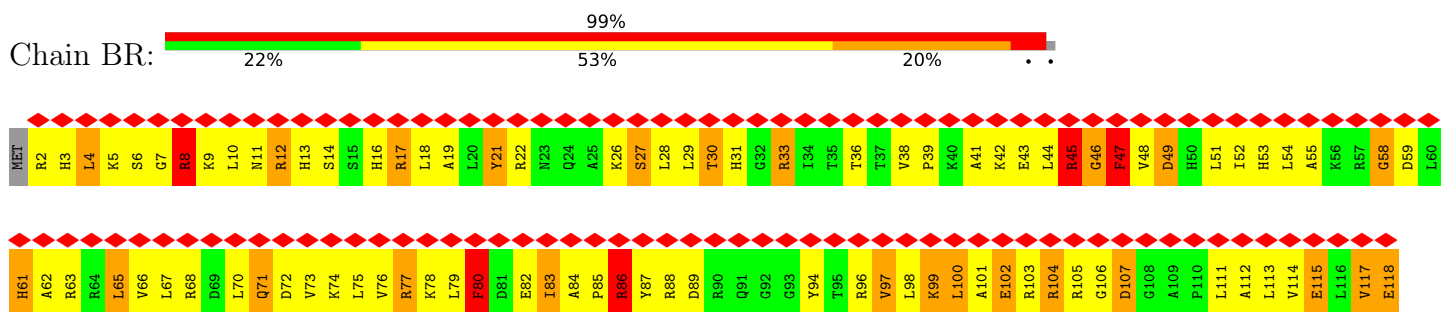
• Molecule 47: 50S RIBOSOMAL PROTEIN L15



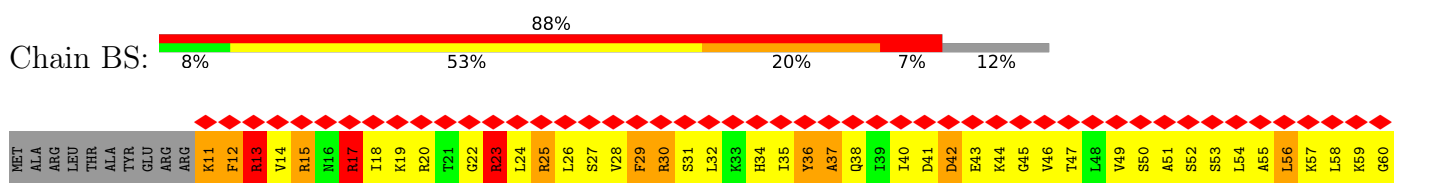
• Molecule 48: 50S RIBOSOMAL PROTEIN L16

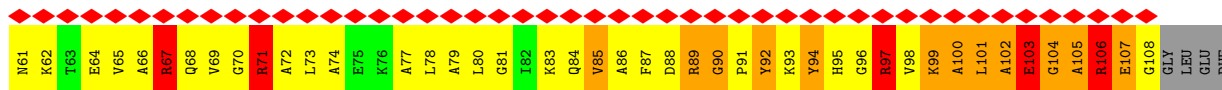


• Molecule 49: 50S RIBOSOMAL PROTEIN L17

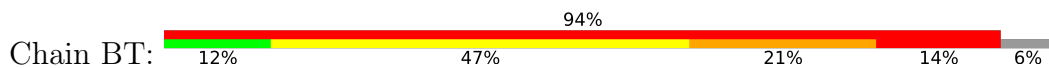


• Molecule 50: 50S RIBOSOMAL PROTEIN L18

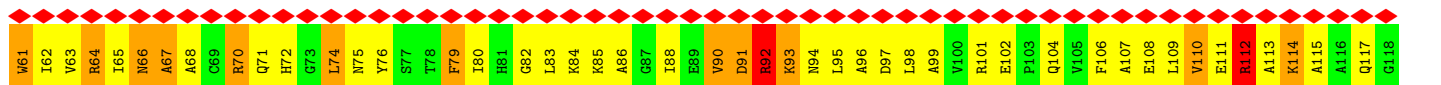
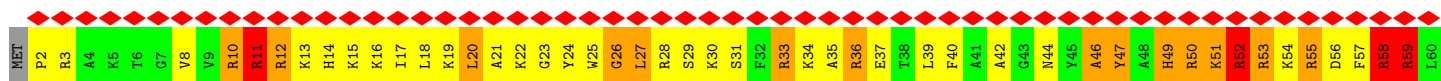




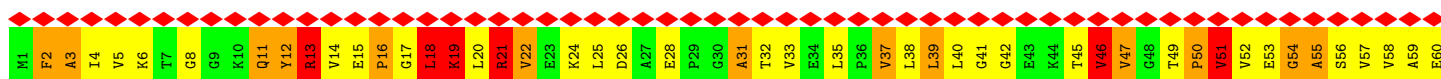
• Molecule 51: 50S RIBOSOMAL PROTEIN L19



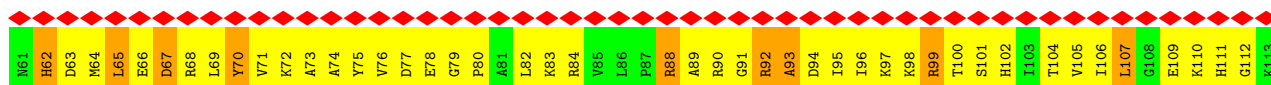
• Molecule 52: 50S RIBOSOMAL PROTEIN L20



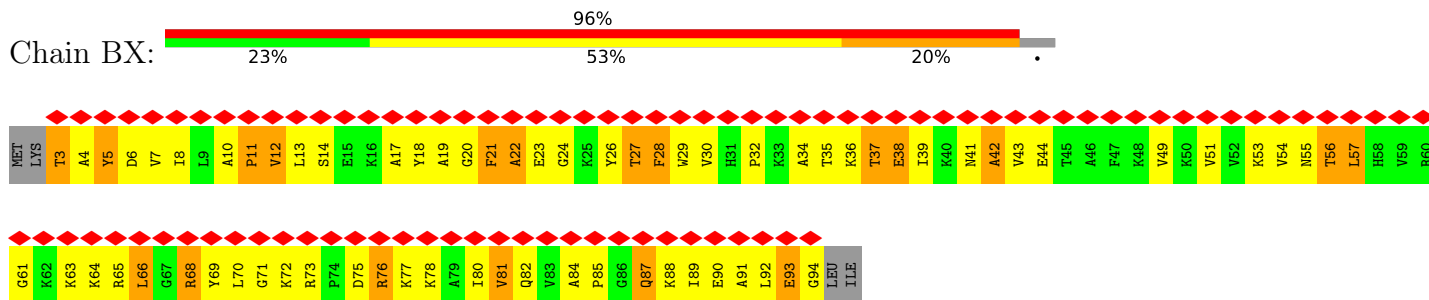
• Molecule 53: 50S RIBOSOMAL PROTEIN L21



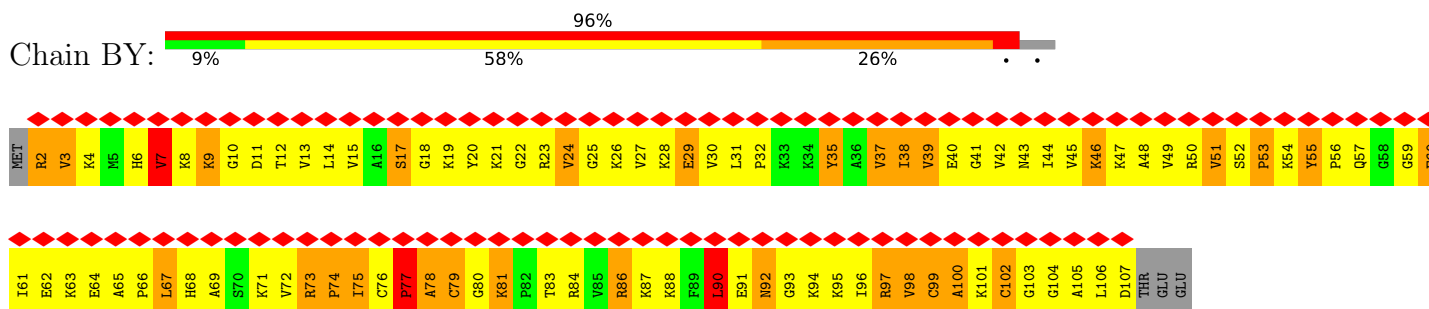
• Molecule 54: 50S RIBOSOMAL PROTEIN L22



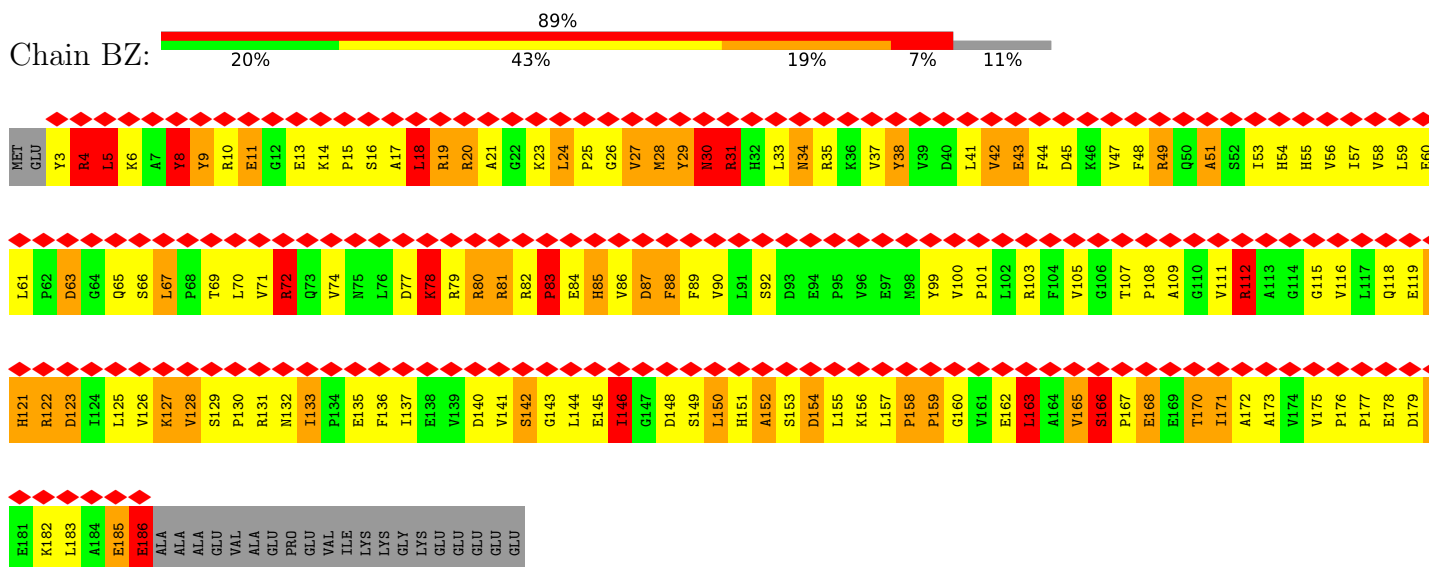
• Molecule 55: 50S RIBOSOMAL PROTEIN L23



• Molecule 56: 50S RIBOSOMAL PROTEIN L24



• Molecule 57: 50S RIBOSOMAL PROTEIN L25



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	Not provided	
Resolution determination method	Not provided	
CTF correction method	DEFOCUS GROUPS	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	65520	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	11.899	Depositor
Minimum map value	-4.902	Depositor
Average map value	0.213	Depositor
Map value standard deviation	0.884	Depositor
Recommended contour level	2.5	Depositor
Map size (\AA)	378, 378, 378	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles ($^\circ$)	90, 90, 90	wwPDB
Pixel spacing (\AA)	1.26, 1.26, 1.26	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	2.73	2519/36190 (7.0%)	2.44	3195/56486 (5.7%)
2	AB	1.36	3/1935 (0.2%)	1.50	19/2609 (0.7%)
3	AC	1.44	1/1636 (0.1%)	1.59	20/2205 (0.9%)
4	AD	1.38	0/1733	1.56	26/2318 (1.1%)
5	AE	1.45	1/1162 (0.1%)	1.44	9/1564 (0.6%)
6	AF	1.39	0/856	1.57	12/1154 (1.0%)
7	AG	1.34	1/1276 (0.1%)	1.51	12/1709 (0.7%)
8	AH	1.41	1/1136 (0.1%)	1.60	15/1527 (1.0%)
9	AI	1.48	4/1029 (0.4%)	2.08	17/1379 (1.2%)
10	AJ	1.33	0/807	1.53	8/1085 (0.7%)
11	AK	1.40	1/900 (0.1%)	1.50	6/1213 (0.5%)
12	AL	1.42	1/986 (0.1%)	1.58	13/1320 (1.0%)
13	AM	1.33	0/998	1.68	17/1336 (1.3%)
14	AN	1.52	1/501 (0.2%)	1.72	9/664 (1.4%)
15	AO	1.36	1/745 (0.1%)	1.58	9/992 (0.9%)
16	AP	1.47	1/716 (0.1%)	1.59	11/963 (1.1%)
17	AQ	1.43	1/836 (0.1%)	1.57	11/1117 (1.0%)
18	AR	1.41	1/579 (0.2%)	1.56	12/768 (1.6%)
19	AS	1.30	0/642	1.50	6/865 (0.7%)
20	AT	1.32	0/765	1.53	10/1007 (1.0%)
21	AU	1.50	1/212 (0.5%)	1.82	8/277 (2.9%)
22	AV	2.70	127/1832 (6.9%)	2.42	155/2855 (5.4%)
23	AX	2.50	14/257 (5.4%)	2.35	20/398 (5.0%)
24	AY	1.35	3/5312 (0.1%)	1.53	54/7193 (0.8%)
25	B0	1.32	0/671	1.75	11/892 (1.2%)
26	B1	1.34	1/738 (0.1%)	1.58	9/981 (0.9%)
27	B2	1.32	2/600 (0.3%)	1.60	9/793 (1.1%)
28	B3	1.42	0/472	1.51	5/634 (0.8%)
29	B4	1.28	0/460	1.67	9/621 (1.4%)
30	B5	1.26	0/473	1.57	6/639 (0.9%)
31	B6	1.29	0/440	1.71	9/586 (1.5%)
32	B7	1.37	0/426	1.76	9/561 (1.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	B8	1.35	0/515	1.68	7/679 (1.0%)
34	B9	1.36	1/310 (0.3%)	1.54	3/407 (0.7%)
35	BA	2.69	4845/69972 (6.9%)	2.42	5972/109237 (5.5%)
36	BB	2.63	174/2853 (6.1%)	2.36	226/4451 (5.1%)
37	BC	1.32	1/1774 (0.1%)	1.51	18/2391 (0.8%)
38	BD	1.40	5/2195 (0.2%)	1.62	27/2955 (0.9%)
39	BE	1.37	3/1596 (0.2%)	1.52	17/2153 (0.8%)
40	BF	1.36	1/1658 (0.1%)	1.64	27/2244 (1.2%)
41	BG	1.34	1/1499 (0.1%)	1.97	24/2016 (1.2%)
42	BH	1.32	4/1292 (0.3%)	1.50	11/1744 (0.6%)
43	BK	1.27	1/1044 (0.1%)	1.39	8/1416 (0.6%)
44	BL	1.08	0/478	1.54	3/640 (0.5%)
45	BN	1.34	2/1131 (0.2%)	1.52	11/1525 (0.7%)
46	BO	1.40	2/943 (0.2%)	1.55	9/1269 (0.7%)
47	BP	1.38	1/1131 (0.1%)	1.64	20/1504 (1.3%)
48	BQ	1.43	3/1143 (0.3%)	1.59	18/1527 (1.2%)
49	BR	1.35	2/974 (0.2%)	1.57	14/1302 (1.1%)
50	BS	1.36	1/778 (0.1%)	1.71	13/1036 (1.3%)
51	BT	1.32	0/1155	1.77	33/1542 (2.1%)
52	BU	1.35	1/975 (0.1%)	1.59	18/1297 (1.4%)
53	BV	1.27	0/790	1.55	9/1057 (0.9%)
54	BW	1.33	0/907	1.59	11/1216 (0.9%)
55	BX	1.37	0/739	1.39	5/993 (0.5%)
56	BY	1.29	0/823	1.43	4/1098 (0.4%)
57	BZ	1.41	2/1499 (0.1%)	1.54	16/2035 (0.8%)
All	All	2.35	7735/165495 (4.7%)	2.21	10265/246445 (4.2%)

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
1	AA	1	111
2	AB	0	10
3	AC	0	1
4	AD	0	14
5	AE	0	3
6	AF	0	5
7	AG	0	11
8	AH	0	8
9	AI	0	9

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Mol	Chain	#Chirality outliers	#Planarity outliers
10	AJ	0	3
11	AK	0	3
12	AL	0	3
13	AM	0	6
14	AN	0	3
15	AO	0	2
16	AP	0	2
18	AR	0	1
20	AT	0	7
21	AU	0	1
22	AV	0	4
23	AX	0	2
24	AY	0	19
25	B0	0	3
26	B1	0	3
27	B2	0	5
28	B3	0	4
29	B4	0	1
30	B5	0	1
31	B6	0	3
32	B7	0	2
33	B8	0	3
35	BA	2	161
36	BB	0	2
37	BC	0	7
38	BD	0	8
39	BE	0	6
40	BF	0	4
41	BG	0	4
42	BH	0	5
43	BK	0	5
44	BL	0	3
45	BN	0	5
46	BO	0	4
47	BP	0	6
48	BQ	0	4
49	BR	0	3
50	BS	0	3
51	BT	0	10
52	BU	0	4
53	BV	0	3
54	BW	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
55	BX	0	1
56	BY	0	2
57	BZ	0	6
All	All	3	514

All (7735) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1696	G	N7-C5	-15.22	1.30	1.39
1	AA	607	A	N7-C5	-14.64	1.30	1.39
35	BA	406	G	N7-C5	-14.28	1.30	1.39
1	AA	1144	G	C8-N7	-14.17	1.22	1.30
1	AA	1129	C	N3-C4	-13.63	1.24	1.33
1	AA	327	A	C6-N1	-13.51	1.26	1.35
1	AA	393	A	N9-C4	-13.43	1.29	1.37
1	AA	332	G	N7-C5	-13.32	1.31	1.39
35	BA	2012	G	N7-C5	-13.18	1.31	1.39
35	BA	503	A	N3-C4	-13.15	1.26	1.34
35	BA	596	G	C8-N7	-13.12	1.23	1.30
35	BA	2576	G	N3-C4	-12.96	1.26	1.35
1	AA	890	G	N9-C8	-12.87	1.28	1.37
22	AV	5	G	N7-C5	-12.82	1.31	1.39
1	AA	548	G	C8-N7	-12.77	1.23	1.30
35	BA	1409	C	C4-C5	-12.74	1.32	1.43
35	BA	2077	A	N7-C5	-12.59	1.31	1.39
35	BA	2639	A	N3-C4	-12.53	1.27	1.34
1	AA	524	G	C8-N7	-12.47	1.23	1.30
1	AA	1405	G	N7-C5	-12.46	1.31	1.39
1	AA	250	A	N9-C4	-12.43	1.30	1.37
35	BA	196	A	N3-C4	-12.33	1.27	1.34
35	BA	1596	A	N3-C4	-12.33	1.27	1.34
35	BA	1842	G	C6-N1	-12.29	1.30	1.39
1	AA	9	G	N7-C5	-12.21	1.31	1.39
35	BA	1946	U	C4-O4	-12.19	1.13	1.23
1	AA	1401	G	N7-C5	-12.06	1.32	1.39
35	BA	1840	G	N7-C5	-12.05	1.32	1.39
1	AA	604	G	N7-C5	-11.99	1.32	1.39
1	AA	897	C	N3-C4	-11.98	1.25	1.33
35	BA	2054	A	N7-C5	-11.96	1.32	1.39
1	AA	1204	A	N7-C5	-11.90	1.32	1.39
35	BA	2251	G	C5-C4	-11.88	1.30	1.38
35	BA	2846	G	N9-C8	-11.87	1.29	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	956	U	C2-N3	-11.86	1.29	1.37
35	BA	2010	G	N7-C5	-11.85	1.32	1.39
35	BA	1964	G	C8-N7	-11.80	1.23	1.30
35	BA	1719	G	C6-N1	-11.79	1.31	1.39
1	AA	1487	G	N7-C5	-11.75	1.32	1.39
1	AA	98	G	C8-N7	-11.74	1.24	1.30
35	BA	2420	C	C4-C5	-11.72	1.33	1.43
1	AA	124	G	N7-C5	-11.71	1.32	1.39
35	BA	143	G	C2-N3	-11.71	1.23	1.32
1	AA	117	G	C8-N7	-11.68	1.24	1.30
1	AA	1529	G	N3-C4	-11.68	1.27	1.35
35	BA	955	C	N1-C6	-11.59	1.30	1.37
1	AA	577	G	N7-C5	-11.59	1.32	1.39
35	BA	1631(A)	A	N7-C5	-11.58	1.32	1.39
1	AA	448	A	C6-N1	-11.57	1.27	1.35
35	BA	1466	G	N7-C5	-11.55	1.32	1.39
1	AA	792	A	C5-C4	-11.54	1.30	1.38
35	BA	2779	U	C4-O4	-11.50	1.14	1.23
1	AA	994	A	C6-N1	-11.46	1.27	1.35
35	BA	1936	A	N9-C4	-11.46	1.30	1.37
35	BA	2717	G	N9-C8	-11.45	1.29	1.37
1	AA	1238	A	N7-C5	-11.38	1.32	1.39
35	BA	2654	A	C5-C4	-11.38	1.30	1.38
1	AA	711	G	C8-N7	-11.37	1.24	1.30
35	BA	975	C	N1-C6	-11.37	1.30	1.37
35	BA	1980	G	C8-N7	-11.36	1.24	1.30
35	BA	1919	A	N7-C5	-11.35	1.32	1.39
35	BA	2595	G	C8-N7	-11.34	1.24	1.30
35	BA	2781	A	N3-C4	-11.33	1.28	1.34
1	AA	191	G	C2-N3	-11.29	1.23	1.32
1	AA	665	A	N9-C4	-11.29	1.31	1.37
35	BA	1297	C	N1-C6	-11.28	1.30	1.37
1	AA	1071	C	N1-C6	-11.26	1.30	1.37
35	BA	686	G	N7-C5	-11.24	1.32	1.39
35	BA	68	G	C2-N2	-11.23	1.23	1.34
35	BA	792	G	N7-C5	-11.22	1.32	1.39
35	BA	1401	G	N7-C5	-11.22	1.32	1.39
35	BA	498	G	N7-C5	-11.21	1.32	1.39
1	AA	1515	C	N1-C6	-11.17	1.30	1.37
35	BA	2333	A	C5-C4	-11.15	1.30	1.38
1	AA	1209	C	N1-C6	-11.14	1.30	1.37
1	AA	1197	G	N1-C2	-11.14	1.28	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	158	G	N7-C5	-11.11	1.32	1.39
35	BA	654(E)	G	N7-C5	-11.10	1.32	1.39
1	AA	1501	C	N3-C4	-11.10	1.26	1.33
35	BA	428	A	N9-C4	-11.09	1.31	1.37
1	AA	31	G	C5-C4	-11.07	1.30	1.38
22	AV	11	A	N7-C5	-11.01	1.32	1.39
35	BA	1226	A	N3-C4	-11.01	1.28	1.34
35	BA	396	G	C6-N1	-11.01	1.31	1.39
35	BA	1129	A	N7-C5	-11.01	1.32	1.39
1	AA	282	A	N3-C4	-10.99	1.28	1.34
35	BA	404	C	N1-C6	-10.98	1.30	1.37
35	BA	1478	G	C8-N7	-10.98	1.24	1.30
1	AA	6	G	N3-C4	-10.97	1.27	1.35
1	AA	1493	A	N3-C4	-10.94	1.28	1.34
35	BA	711	G	N3-C4	-10.93	1.27	1.35
35	BA	2569	G	N3-C4	-10.91	1.27	1.35
35	BA	283	A	N9-C4	-10.89	1.31	1.37
35	BA	152	G	C8-N7	-10.85	1.24	1.30
35	BA	2450	A	N3-C4	-10.84	1.28	1.34
1	AA	947	G	C8-N7	-10.83	1.24	1.30
35	BA	1018	C	N1-C6	-10.82	1.30	1.37
1	AA	1219	U	C4'-C3'	-10.79	1.41	1.53
1	AA	1177	G	C8-N7	-10.78	1.24	1.30
35	BA	1675	C	N1-C6	-10.75	1.30	1.37
35	BA	1416	G	C8-N7	-10.75	1.24	1.30
35	BA	1853	A	N7-C5	-10.74	1.32	1.39
35	BA	1634	A	C5-C6	-10.74	1.31	1.41
1	AA	1399	C	N1-C6	-10.71	1.30	1.37
35	BA	2625	G	N3-C4	-10.66	1.27	1.35
35	BA	317	G	C8-N7	-10.63	1.24	1.30
35	BA	1708	C	N1-C6	-10.62	1.30	1.37
35	BA	2058	A	N9-C8	-10.62	1.29	1.37
36	BB	58	A	N7-C5	-10.62	1.32	1.39
35	BA	2738	A	N7-C5	-10.60	1.32	1.39
35	BA	758	C	C5-C6	-10.58	1.25	1.34
35	BA	1640	C	N1-C6	-10.55	1.30	1.37
35	BA	1562	A	N9-C4	-10.54	1.31	1.37
1	AA	900	A	C6-N1	-10.53	1.28	1.35
1	AA	250	A	C5-C4	-10.53	1.31	1.38
1	AA	583	A	N7-C5	-10.51	1.32	1.39
35	BA	616	G	N7-C5	-10.51	1.32	1.39
1	AA	768	A	N9-C4	-10.51	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2117	A	N9-C4	-10.51	1.31	1.37
1	AA	1082	G	C8-N7	-10.50	1.24	1.30
35	BA	2171	A	N3-C4	-10.50	1.28	1.34
1	AA	1249	C	N1-C6	-10.49	1.30	1.37
35	BA	580	C	C5-C6	-10.48	1.25	1.34
35	BA	2112	G	N7-C5	-10.48	1.32	1.39
1	AA	1319	A	C6-N1	-10.47	1.28	1.35
1	AA	103	C	N3-C4	-10.44	1.26	1.33
35	BA	1699	G	N7-C5	10.43	1.45	1.39
1	AA	975	A	C5-C6	-10.41	1.31	1.41
1	AA	1330	U	N3-C4	-10.39	1.29	1.38
35	BA	677	A	N7-C5	-10.38	1.33	1.39
35	BA	2703	C	C4-C5	-10.37	1.34	1.43
35	BA	844	C	N1-C6	-10.37	1.30	1.37
35	BA	2317	C	N1-C6	-10.36	1.30	1.37
35	BA	123	G	N9-C8	-10.36	1.30	1.37
35	BA	2459	A	N7-C5	-10.36	1.33	1.39
35	BA	288	C	C4-C5	-10.36	1.34	1.43
35	BA	1180	C	C5-C6	-10.35	1.26	1.34
35	BA	8	A	C6-N1	-10.34	1.28	1.35
1	AA	290	C	C2-O2	-10.33	1.15	1.24
1	AA	817	C	N1-C6	-10.31	1.30	1.37
35	BA	254	G	N7-C5	-10.31	1.33	1.39
35	BA	481	G	C5-C4	-10.29	1.31	1.38
1	AA	660	G	C8-N7	-10.29	1.24	1.30
35	BA	1099	G	N7-C5	-10.27	1.33	1.39
35	BA	1068	G	C8-N7	-10.26	1.24	1.30
35	BA	1586	A	N7-C5	-10.26	1.33	1.39
1	AA	718	G	N3-C4	-10.24	1.28	1.35
35	BA	2298	A	N9-C4	-10.24	1.31	1.37
1	AA	632	A	C6-N6	-10.23	1.25	1.33
35	BA	145	G	N9-C8	-10.23	1.30	1.37
1	AA	1418	A	N7-C5	-10.22	1.33	1.39
35	BA	909	A	C8-N7	-10.20	1.24	1.31
35	BA	2169	A	N9-C4	-10.18	1.31	1.37
1	AA	199	G	C8-N7	-10.18	1.24	1.30
35	BA	1689	A	C5-C4	-10.17	1.31	1.38
35	BA	204	A	C5-C4	-10.17	1.31	1.38
35	BA	2365	G	C5-C4	-10.17	1.31	1.38
35	BA	2138	C	N1-C6	-10.16	1.31	1.37
35	BA	2894	G	C8-N7	-10.16	1.24	1.30
35	BA	1721	G	N7-C5	-10.16	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	145	G	N7-C5	-10.14	1.33	1.39
35	BA	483	A	N7-C5	-10.14	1.33	1.39
35	BA	796	C	N1-C6	-10.14	1.31	1.37
1	AA	814	A	N9-C4	-10.13	1.31	1.37
1	AA	746	A	C6-N1	-10.11	1.28	1.35
35	BA	1772	G	N7-C5	-10.10	1.33	1.39
1	AA	662	G	N7-C5	-10.09	1.33	1.39
35	BA	776	G	N7-C5	-10.09	1.33	1.39
1	AA	282	A	C6-N1	-10.09	1.28	1.35
35	BA	2126	A	N7-C5	-10.09	1.33	1.39
35	BA	54	G	N3-C4	-10.08	1.28	1.35
35	BA	31	C	N1-C6	-10.08	1.31	1.37
35	BA	854	G	C8-N7	-10.07	1.25	1.30
35	BA	2029	G	C5-C4	-10.05	1.31	1.38
1	AA	254	G	C8-N7	-10.04	1.25	1.30
1	AA	729	A	N7-C5	-10.04	1.33	1.39
35	BA	1377	G	N7-C5	-10.04	1.33	1.39
1	AA	725	G	N7-C5	-10.04	1.33	1.39
35	BA	2429	G	N1-C2	-10.03	1.29	1.37
35	BA	2367	G	N7-C5	-10.02	1.33	1.39
1	AA	834	C	N1-C6	-10.01	1.31	1.37
35	BA	1935	G	C6-N1	-10.01	1.32	1.39
1	AA	1156	G	C8-N7	-10.00	1.25	1.30
35	BA	1077	A	N3-C4	-9.98	1.28	1.34
35	BA	1819	A	N9-C8	-9.98	1.29	1.37
35	BA	2042	A	C8-N7	-9.98	1.24	1.31
1	AA	1324	A	C6-N1	-9.95	1.28	1.35
35	BA	2565	A	N9-C4	-9.95	1.31	1.37
35	BA	2834	G	N1-C2	-9.94	1.29	1.37
1	AA	111	G	C8-N7	-9.94	1.25	1.30
22	AV	6	G	N3-C4	-9.92	1.28	1.35
1	AA	539	A	N7-C5	-9.92	1.33	1.39
35	BA	230	U	C2-N3	-9.91	1.30	1.37
35	BA	272(C)	G	C8-N7	-9.91	1.25	1.30
1	AA	1227	A	N7-C5	-9.90	1.33	1.39
1	AA	596	C	N1-C6	-9.89	1.31	1.37
35	BA	735	A	N9-C4	-9.89	1.31	1.37
35	BA	2241	A	N3-C4	-9.88	1.28	1.34
1	AA	535	A	C8-N7	-9.88	1.24	1.31
1	AA	769	G	C2-N3	-9.87	1.24	1.32
35	BA	1309	G	N7-C5	-9.87	1.33	1.39
22	AV	15	G	C8-N7	-9.86	1.25	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	799	G	N7-C5	-9.86	1.33	1.39
35	BA	1773	A	N7-C5	9.86	1.45	1.39
35	BA	2852	G	C5-C4	-9.85	1.31	1.38
35	BA	912	C	N3-C4	-9.84	1.27	1.33
35	BA	2501	C	C4-C5	-9.84	1.35	1.43
35	BA	1252	G	C5-C4	-9.84	1.31	1.38
35	BA	1636	C	N1-C6	-9.82	1.31	1.37
35	BA	542	C	N1-C6	-9.81	1.31	1.37
35	BA	647	G	N3-C4	-9.81	1.28	1.35
22	AV	19	G	C8-N7	-9.81	1.25	1.30
35	BA	931	G	C8-N7	-9.81	1.25	1.30
35	BA	1079	C	C2-N3	-9.80	1.27	1.35
35	BA	2191	G	N7-C5	-9.80	1.33	1.39
35	BA	614(B)	G	C8-N7	-9.79	1.25	1.30
35	BA	1669	A	N9-C8	-9.79	1.29	1.37
35	BA	278	A	N9-C4	-9.78	1.31	1.37
35	BA	1845	G	N3-C4	-9.77	1.28	1.35
35	BA	1960	A	C8-N7	-9.76	1.24	1.31
1	AA	873	A	N9-C4	-9.75	1.32	1.37
35	BA	2020	A	C6-N1	-9.74	1.28	1.35
1	AA	966	G	N9-C8	-9.73	1.31	1.37
35	BA	1151	G	N9-C8	-9.73	1.31	1.37
35	BA	1744	C	N3-C4	-9.73	1.27	1.33
22	AV	76	A	N3-C4	-9.72	1.29	1.34
35	BA	1388	G	C8-N7	-9.71	1.25	1.30
1	AA	608	A	N3-C4	-9.71	1.29	1.34
1	AA	1464	G	C5-C4	-9.71	1.31	1.38
1	AA	746	A	N7-C5	-9.70	1.33	1.39
35	BA	1942	C	N1-C6	-9.70	1.31	1.37
1	AA	1146	A	N7-C5	9.70	1.45	1.39
35	BA	2675	A	C8-N7	-9.69	1.24	1.31
35	BA	216	A	N9-C4	-9.69	1.32	1.37
1	AA	46	G	C8-N7	-9.67	1.25	1.30
1	AA	1236	A	N3-C4	-9.67	1.29	1.34
1	AA	819	A	N7-C5	-9.67	1.33	1.39
35	BA	939	G	N7-C5	-9.66	1.33	1.39
1	AA	1291	G	N3-C4	-9.65	1.28	1.35
35	BA	2497	A	C8-N7	-9.65	1.24	1.31
1	AA	694	A	N3-C4	-9.65	1.29	1.34
35	BA	2393	A	C6-N1	-9.64	1.28	1.35
35	BA	444	C	N1-C6	-9.63	1.31	1.37
35	BA	738	G	N3-C4	9.63	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1422	G	N3-C4	-9.63	1.28	1.35
1	AA	433	C	N1-C6	-9.62	1.31	1.37
35	BA	986	C	N1-C6	-9.62	1.31	1.37
35	BA	1220	A	N3-C4	-9.62	1.29	1.34
1	AA	1053	G	N7-C5	-9.60	1.33	1.39
1	AA	719	C	N1-C6	-9.60	1.31	1.37
35	BA	2562	U	C2-N3	-9.60	1.31	1.37
35	BA	1484	G	C6-N1	-9.60	1.32	1.39
35	BA	1899	G	C2-N3	-9.60	1.25	1.32
35	BA	2855	C	N1-C6	-9.60	1.31	1.37
1	AA	289	G	N1-C2	-9.59	1.30	1.37
35	BA	653	A	N3-C4	9.58	1.40	1.34
35	BA	975(A)	G	C8-N7	-9.58	1.25	1.30
35	BA	306	U	C4-O4	-9.58	1.16	1.23
35	BA	1102	C	N1-C6	-9.57	1.31	1.37
35	BA	749	C	C5-C6	-9.57	1.26	1.34
1	AA	1080	A	N7-C5	-9.57	1.33	1.39
35	BA	1238	G	N9-C4	-9.56	1.30	1.38
1	AA	1227	A	C6-N1	-9.55	1.28	1.35
1	AA	1502	A	N9-C4	-9.55	1.32	1.37
35	BA	1044	G	C6-N1	-9.55	1.32	1.39
1	AA	1409	C	N1-C6	-9.54	1.31	1.37
35	BA	2704	C	N1-C6	-9.52	1.31	1.37
35	BA	941	A	N3-C4	-9.52	1.29	1.34
35	BA	748	G	N7-C5	-9.50	1.33	1.39
35	BA	477	A	N9-C4	-9.49	1.32	1.37
35	BA	768	G	C8-N7	-9.49	1.25	1.30
1	AA	1374	A	N3-C4	-9.48	1.29	1.34
35	BA	1311	G	C6-N1	-9.48	1.32	1.39
35	BA	2308	G	C6-N1	-9.48	1.32	1.39
1	AA	1316	G	N7-C5	-9.47	1.33	1.39
1	AA	863	U	C2-N3	-9.46	1.31	1.37
35	BA	1132	A	N3-C4	-9.45	1.29	1.34
35	BA	1899	G	C2-N2	-9.45	1.25	1.34
1	AA	314	C	N1-C6	-9.45	1.31	1.37
35	BA	536	A	N9-C4	-9.45	1.32	1.37
35	BA	58	G	C2-N2	-9.44	1.25	1.34
35	BA	2001	A	N9-C4	-9.44	1.32	1.37
35	BA	312	G	C8-N7	-9.43	1.25	1.30
35	BA	271(U)	G	P-O5'	-9.42	1.50	1.59
36	BB	93	G	C8-N7	-9.41	1.25	1.30
1	AA	1268	A	N7-C5	-9.41	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1344	C	C5-C6	-9.41	1.26	1.34
35	BA	2444	G	N7-C5	-9.41	1.33	1.39
22	AV	62	C	N1-C6	-9.39	1.31	1.37
35	BA	763	G	C2-N3	-9.39	1.25	1.32
35	BA	2532	G	C2-N3	-9.39	1.25	1.32
35	BA	248	G	N3-C4	-9.39	1.28	1.35
35	BA	1971	A	N7-C5	-9.38	1.33	1.39
35	BA	2088	G	N1-C2	-9.37	1.30	1.37
1	AA	344	A	N9-C4	-9.37	1.32	1.37
35	BA	2305	A	C6-N1	-9.36	1.28	1.35
35	BA	950	G	C6-N1	-9.36	1.32	1.39
1	AA	184	G	N3-C4	-9.35	1.28	1.35
1	AA	1396	A	N3-C4	-9.35	1.29	1.34
35	BA	1231	G	N7-C5	-9.35	1.33	1.39
35	BA	338	G	N3-C4	-9.34	1.28	1.35
35	BA	2318	G	C8-N7	9.34	1.36	1.30
36	BB	75	G	N7-C5	-9.34	1.33	1.39
1	AA	550	G	N3-C4	-9.33	1.28	1.35
1	AA	803	G	C8-N7	-9.33	1.25	1.30
35	BA	1197	G	C8-N7	-9.33	1.25	1.30
35	BA	917	A	N9-C4	-9.32	1.32	1.37
35	BA	1509(A)	A	N9-C4	-9.32	1.32	1.37
35	BA	825	C	N1-C6	-9.32	1.31	1.37
1	AA	851	G	C5-C4	-9.31	1.31	1.38
35	BA	1695	G	C8-N7	-9.31	1.25	1.30
35	BA	1112	G	N7-C5	-9.31	1.33	1.39
35	BA	2665	A	C8-N7	9.30	1.38	1.31
35	BA	596	G	N7-C5	-9.30	1.33	1.39
35	BA	815	C	C5-C6	-9.30	1.26	1.34
35	BA	2287	A	C5-C4	-9.29	1.32	1.38
35	BA	2030	A	C8-N7	-9.28	1.25	1.31
35	BA	2248	C	C2-N3	-9.28	1.28	1.35
35	BA	321	G	N1-C2	-9.27	1.30	1.37
35	BA	2644	G	C6-N1	-9.27	1.33	1.39
1	AA	741	G	C5-C4	-9.26	1.31	1.38
35	BA	827	U	C5-C6	-9.26	1.25	1.34
22	AV	32	C	P-O5'	-9.26	1.50	1.59
35	BA	2603	G	N3-C4	-9.25	1.28	1.35
1	AA	778	G	C6-N1	-9.25	1.33	1.39
35	BA	93	G	N7-C5	-9.24	1.33	1.39
35	BA	1106	G	N7-C5	-9.24	1.33	1.39
35	BA	2758	A	N9-C4	-9.24	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	694	A	C2-N3	-9.23	1.25	1.33
35	BA	589	C	C4-N4	-9.23	1.25	1.33
35	BA	136	G	C5-C6	-9.22	1.33	1.42
35	BA	583	G	C8-N7	-9.22	1.25	1.30
35	BA	1332	G	C6-N1	-9.22	1.33	1.39
35	BA	1343	G	N7-C5	-9.21	1.33	1.39
1	AA	73	G	N9-C8	-9.21	1.31	1.37
35	BA	173	G	N3-C4	-9.21	1.29	1.35
23	AX	16	A	P-O5'	-9.20	1.50	1.59
35	BA	1378	A	C6-N1	-9.20	1.29	1.35
36	BB	77	U	C4-O4	-9.19	1.16	1.23
1	AA	7	G	C8-N7	-9.19	1.25	1.30
35	BA	1822	G	N7-C5	-9.19	1.33	1.39
35	BA	2717	G	N7-C5	-9.19	1.33	1.39
35	BA	256	A	C5-C4	-9.19	1.32	1.38
35	BA	2266	A	N9-C4	-9.19	1.32	1.37
35	BA	2805	G	N9-C8	-9.19	1.31	1.37
35	BA	2569	G	C4'-C3'	-9.18	1.43	1.53
35	BA	792	G	N9-C8	-9.18	1.31	1.37
35	BA	1452	A	N9-C8	-9.18	1.30	1.37
35	BA	1524	G	C5-C6	-9.17	1.33	1.42
1	AA	770	C	N1-C6	-9.16	1.31	1.37
35	BA	2883	A	C5-C4	-9.16	1.32	1.38
1	AA	1457	G	C8-N7	-9.16	1.25	1.30
1	AA	432	A	C6-N6	-9.16	1.26	1.33
35	BA	628	G	N9-C4	-9.15	1.30	1.38
35	BA	1669	A	N3-C4	-9.14	1.29	1.34
1	AA	183	G	N1-C2	-9.13	1.30	1.37
1	AA	869	G	N9-C4	-9.13	1.30	1.38
1	AA	1166	G	C8-N7	-9.13	1.25	1.30
35	BA	457	A	N3-C4	-9.12	1.29	1.34
22	AV	31	G	N9-C8	-9.12	1.31	1.37
35	BA	2711	A	N9-C4	-9.12	1.32	1.37
35	BA	1059	G	N7-C5	9.12	1.44	1.39
35	BA	2404	C	C4-C5	-9.12	1.35	1.43
35	BA	2744	G	N9-C8	-9.12	1.31	1.37
35	BA	1021	A	C5-C4	-9.11	1.32	1.38
1	AA	713	G	C5-C4	-9.11	1.31	1.38
35	BA	852	G	N7-C5	-9.11	1.33	1.39
35	BA	2394	C	C2-O2	-9.11	1.16	1.24
1	AA	604	G	N3-C4	-9.10	1.29	1.35
35	BA	2472	G	N9-C8	-9.10	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1360	A	N3-C4	-9.09	1.29	1.34
35	BA	1302	A	C6-N1	-9.09	1.29	1.35
35	BA	2660	A	C6-N1	-9.09	1.29	1.35
1	AA	507	C	N1-C6	-9.09	1.31	1.37
35	BA	210	C	N1-C6	-9.09	1.31	1.37
36	BB	68	C	C5-C6	-9.08	1.27	1.34
35	BA	727	A	C5-C4	-9.08	1.32	1.38
35	BA	2026	C	N3-C4	-9.08	1.27	1.33
1	AA	856	C	C4-C5	-9.07	1.35	1.43
1	AA	784	C	C4-C5	-9.07	1.35	1.43
35	BA	451	C	C2-N3	-9.07	1.28	1.35
1	AA	1248	A	N9-C4	-9.07	1.32	1.37
35	BA	1274	A	N9-C4	-9.06	1.32	1.37
36	BB	24	G	N9-C4	-9.06	1.30	1.38
1	AA	78	G	N7-C5	-9.06	1.33	1.39
35	BA	131	G	N7-C5	-9.06	1.33	1.39
35	BA	276	A	N7-C5	-9.06	1.33	1.39
1	AA	1026	G	C6-N1	-9.06	1.33	1.39
35	BA	2598	A	C6-N1	-9.06	1.29	1.35
22	AV	9	G	N9-C8	-9.06	1.31	1.37
1	AA	907	A	N7-C5	-9.05	1.33	1.39
1	AA	142	G	C5-C4	-9.05	1.32	1.38
22	AV	76	A	C8-N7	-9.05	1.25	1.31
35	BA	1890	A	N9-C4	-9.05	1.32	1.37
35	BA	689	A	C5-C6	-9.05	1.32	1.41
1	AA	821	G	C2-N3	-9.04	1.25	1.32
35	BA	1910	G	C2-N3	-9.04	1.25	1.32
1	AA	128	G	N9-C4	-9.04	1.30	1.38
1	AA	956	U	C5-C6	-9.02	1.26	1.34
1	AA	395	C	C5-C6	-9.02	1.27	1.34
1	AA	432	A	N9-C4	-9.02	1.32	1.37
35	BA	614(A)	U	C2-N3	9.02	1.44	1.37
35	BA	802	A	N3-C4	-9.02	1.29	1.34
35	BA	1226	A	N9-C4	-9.02	1.32	1.37
1	AA	342	C	N1-C6	-9.02	1.31	1.37
35	BA	55	G	N7-C5	-9.02	1.33	1.39
35	BA	1919	A	C6-N1	-9.01	1.29	1.35
35	BA	2725	A	N9-C4	-9.01	1.32	1.37
35	BA	654(C)	G	N3-C4	-9.01	1.29	1.35
1	AA	1333	A	C6-N1	-9.00	1.29	1.35
35	BA	281	G	C8-N7	-8.99	1.25	1.30
35	BA	1933	G	N9-C8	-8.98	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2287	A	N7-C5	-8.98	1.33	1.39
36	BB	7	G	C8-N7	-8.98	1.25	1.30
35	BA	2400	G	N7-C5	8.98	1.44	1.39
35	BA	2345	G	C8-N7	-8.97	1.25	1.30
1	AA	609	A	N3-C4	-8.97	1.29	1.34
35	BA	2416	C	C4-N4	-8.96	1.25	1.33
1	AA	1046	A	N9-C8	-8.96	1.30	1.37
1	AA	1152	A	N7-C5	-8.96	1.33	1.39
35	BA	363	G	N3-C4	-8.96	1.29	1.35
1	AA	141	A	N3-C4	-8.95	1.29	1.34
1	AA	383	A	N3-C4	-8.95	1.29	1.34
1	AA	821	G	N3-C4	-8.95	1.29	1.35
1	AA	756	C	C2-N3	8.95	1.43	1.35
35	BA	1424	G	N7-C5	-8.95	1.33	1.39
1	AA	744	C	C2-N3	-8.94	1.28	1.35
35	BA	2842	G	C5-C4	-8.94	1.32	1.38
35	BA	2662	A	N7-C5	-8.94	1.33	1.39
35	BA	224	G	N7-C5	-8.94	1.33	1.39
35	BA	1532	C	N1-C6	-8.94	1.31	1.37
35	BA	1552	G	N7-C5	-8.94	1.33	1.39
1	AA	33	A	N1-C2	-8.93	1.26	1.34
35	BA	654(F)	C	N1-C6	-8.93	1.31	1.37
35	BA	1829	A	N3-C4	-8.93	1.29	1.34
1	AA	350	G	C8-N7	-8.93	1.25	1.30
1	AA	1023	G	C8-N7	-8.93	1.25	1.30
1	AA	667	G	C2-N3	-8.93	1.25	1.32
35	BA	2136	C	N1-C6	-8.92	1.31	1.37
35	BA	879	G	C8-N7	-8.92	1.25	1.30
35	BA	2399	G	C8-N7	-8.92	1.25	1.30
35	BA	1171	G	N3-C4	-8.91	1.29	1.35
1	AA	1091	U	C2-N3	-8.91	1.31	1.37
1	AA	1104	G	N7-C5	-8.90	1.33	1.39
35	BA	2487	G	C5-C4	-8.90	1.32	1.38
1	AA	867	G	C6-N1	-8.90	1.33	1.39
35	BA	400	G	C5-C4	-8.90	1.32	1.38
1	AA	161	A	N7-C5	-8.90	1.33	1.39
1	AA	952	U	C2-N3	-8.89	1.31	1.37
1	AA	1299	A	N7-C5	-8.88	1.33	1.39
1	AA	1374	A	C5-C4	-8.89	1.32	1.38
1	AA	1388	C	N1-C6	-8.88	1.31	1.37
1	AA	1184	G	C6-N1	-8.88	1.33	1.39
35	BA	2451	A	N3-C4	-8.87	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2833	G	C8-N7	-8.87	1.25	1.30
35	BA	1405	U	C2-N3	-8.86	1.31	1.37
35	BA	472	A	N7-C5	-8.86	1.33	1.39
35	BA	1120	G	N3-C4	-8.86	1.29	1.35
1	AA	1526	G	C8-N7	-8.85	1.25	1.30
35	BA	2759	G	C5-C4	-8.85	1.32	1.38
35	BA	1741	A	C4'-C3'	-8.84	1.43	1.53
1	AA	661	G	N1-C2	-8.83	1.30	1.37
35	BA	2056	G	N1-C2	-8.83	1.30	1.37
1	AA	707	C	N1-C6	-8.83	1.31	1.37
35	BA	2158	A	N9-C4	-8.82	1.32	1.37
1	AA	638	G	N9-C4	-8.81	1.30	1.38
9	AI	53	VAL	C-N	8.81	1.54	1.34
35	BA	802	A	N9-C4	-8.81	1.32	1.37
35	BA	1953	A	N7-C5	-8.81	1.33	1.39
35	BA	909	A	N9-C8	-8.80	1.30	1.37
35	BA	575	A	C6-N1	-8.79	1.29	1.35
36	BB	29	A	N3-C4	-8.79	1.29	1.34
35	BA	113	G	C6-N1	-8.79	1.33	1.39
35	BA	2084	C	N1-C6	-8.79	1.31	1.37
35	BA	2464	C	N3-C4	-8.79	1.27	1.33
35	BA	2753	A	C6-N1	-8.79	1.29	1.35
1	AA	530	G	N9-C8	-8.78	1.31	1.37
35	BA	797	C	N1-C6	-8.78	1.31	1.37
35	BA	2664	G	N7-C5	8.78	1.44	1.39
35	BA	1670	C	C5-C6	-8.78	1.27	1.34
35	BA	2373	G	C5-C4	-8.78	1.32	1.38
35	BA	1285	G	C6-O6	-8.77	1.16	1.24
1	AA	616	G	N9-C4	-8.77	1.30	1.38
35	BA	962	G	C8-N7	-8.77	1.25	1.30
35	BA	626	U	N3-C4	-8.76	1.30	1.38
1	AA	1417	G	C6-O6	8.76	1.32	1.24
35	BA	1563	G	C2-N3	-8.75	1.25	1.32
1	AA	537	G	C5-C4	-8.74	1.32	1.38
35	BA	1275	A	N3-C4	-8.74	1.29	1.34
1	AA	593	G	C8-N7	-8.74	1.25	1.30
1	AA	762	C	N3-C4	-8.74	1.27	1.33
35	BA	2082	A	N9-C4	-8.74	1.32	1.37
35	BA	2412	A	N7-C5	-8.74	1.34	1.39
35	BA	259	G	N9-C4	-8.74	1.30	1.38
1	AA	119	A	N1-C2	-8.73	1.26	1.34
1	AA	431	A	N9-C4	-8.73	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2110	G	C8-N7	-8.73	1.25	1.30
35	BA	2656	U	C2-O2	-8.73	1.14	1.22
35	BA	2795	G	C8-N7	-8.73	1.25	1.30
35	BA	271	A	C6-N1	-8.73	1.29	1.35
35	BA	122	G	N3-C4	-8.73	1.29	1.35
35	BA	1404	C	C4-C5	8.73	1.50	1.43
35	BA	260	G	C2-N3	-8.73	1.25	1.32
1	AA	1164	G	C5-C4	-8.72	1.32	1.38
35	BA	959	A	N7-C5	-8.72	1.34	1.39
35	BA	1698	A	N9-C4	-8.72	1.32	1.37
1	AA	883	C	N1-C6	-8.71	1.31	1.37
35	BA	1133	U	C2-O2	-8.71	1.14	1.22
35	BA	1432	C	N1-C6	-8.71	1.31	1.37
22	AV	15	G	C5-C4	-8.70	1.32	1.38
1	AA	1467	G	N9-C8	-8.70	1.31	1.37
1	AA	157	G	C8-N7	-8.69	1.25	1.30
35	BA	180	G	C5-C4	-8.69	1.32	1.38
1	AA	251	G	C2-N3	-8.69	1.25	1.32
1	AA	337	C	N1-C6	-8.69	1.31	1.37
35	BA	831	G	C6-N1	-8.69	1.33	1.39
1	AA	1289	A	N9-C4	-8.69	1.32	1.37
35	BA	1960	A	N9-C4	-8.69	1.32	1.37
35	BA	2049	G	N7-C5	-8.69	1.34	1.39
1	AA	1157	A	N3-C4	-8.68	1.29	1.34
1	AA	736	C	N1-C6	-8.68	1.31	1.37
35	BA	1221(A)	C	N3-C4	-8.67	1.27	1.33
1	AA	130	A	C6-N1	-8.67	1.29	1.35
1	AA	477	A	N9-C4	-8.67	1.32	1.37
35	BA	1703	G	N7-C5	-8.67	1.34	1.39
1	AA	553	A	C6-N1	-8.66	1.29	1.35
35	BA	492	A	N3-C4	-8.66	1.29	1.34
36	BB	31	C	N1-C6	-8.66	1.31	1.37
35	BA	1310	G	C5-C4	-8.66	1.32	1.38
35	BA	2487	G	C2-N3	-8.66	1.25	1.32
35	BA	692	C	N1-C6	-8.66	1.31	1.37
35	BA	2119	A	N7-C5	-8.65	1.34	1.39
22	AV	31	G	C6-N1	-8.65	1.33	1.39
35	BA	106	C	C2-N3	-8.65	1.28	1.35
35	BA	2124	G	N9-C8	-8.65	1.31	1.37
35	BA	2866	U	C2-N3	-8.65	1.31	1.37
1	AA	114	U	N3-C4	-8.64	1.30	1.38
35	BA	2868	A	N7-C5	-8.64	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1442	G	N3-C4	-8.64	1.29	1.35
1	AA	1133	G	N9-C4	-8.64	1.31	1.38
35	BA	194	G	C5-C4	-8.63	1.32	1.38
35	BA	2853	C	N3-C4	-8.63	1.27	1.33
1	AA	1350	A	C6-N1	-8.63	1.29	1.35
1	AA	1442(B)	A	N3-C4	-8.63	1.29	1.34
35	BA	2704	C	P-O5'	-8.63	1.51	1.59
35	BA	2770	G	N1-C2	-8.63	1.30	1.37
1	AA	1092	A	N3-C4	-8.63	1.29	1.34
1	AA	1198	G	N9-C8	-8.63	1.31	1.37
35	BA	1258	C	N1-C6	-8.62	1.31	1.37
35	BA	2689	U	C4'-C3'	-8.62	1.43	1.53
22	AV	10	G	N1-C2	-8.62	1.30	1.37
35	BA	751	A	N9-C4	-8.62	1.32	1.37
1	AA	298	A	C6-N6	-8.62	1.27	1.33
1	AA	353	A	C6-N6	-8.62	1.27	1.33
35	BA	1427	A	C6-N6	-8.62	1.27	1.33
1	AA	185	A	N9-C4	-8.61	1.32	1.37
35	BA	270	A	N9-C4	-8.61	1.32	1.37
35	BA	1287	A	N9-C4	-8.61	1.32	1.37
35	BA	2623	G	N3-C4	-8.61	1.29	1.35
1	AA	281	G	C8-N7	-8.61	1.25	1.30
1	AA	1497	G	N3-C4	-8.61	1.29	1.35
1	AA	1146	A	C6-N1	-8.60	1.29	1.35
1	AA	1153	C	O3'-P	-8.60	1.50	1.61
35	BA	658	C	C5-C6	-8.60	1.27	1.34
35	BA	681	G	N9-C8	-8.59	1.31	1.37
35	BA	1028	A	N9-C4	-8.59	1.32	1.37
35	BA	2662	A	N9-C4	-8.59	1.32	1.37
35	BA	374	A	C6-N1	-8.59	1.29	1.35
35	BA	1818	U	P-O5'	-8.59	1.51	1.59
35	BA	1063	G	C5-C4	-8.59	1.32	1.38
1	AA	109	A	C5-C4	-8.58	1.32	1.38
1	AA	612	C	N1-C6	-8.58	1.32	1.37
35	BA	2644	G	C8-N7	-8.58	1.25	1.30
35	BA	2303	G	N9-C4	-8.57	1.31	1.38
35	BA	2777	G	N7-C5	-8.57	1.34	1.39
1	AA	421	U	N1-C6	-8.57	1.30	1.38
35	BA	798	G	C6-N1	-8.57	1.33	1.39
35	BA	229	A	N7-C5	-8.57	1.34	1.39
35	BA	1854	A	N3-C4	-8.56	1.29	1.34
35	BA	1786	A	N9-C8	8.56	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1197	G	N1-C2	-8.55	1.30	1.37
35	BA	1426	G	N7-C5	-8.55	1.34	1.39
35	BA	1482	G	N7-C5	-8.55	1.34	1.39
35	BA	1780	A	N7-C5	-8.55	1.34	1.39
35	BA	794	G	C5-C4	-8.55	1.32	1.38
35	BA	805	G	N9-C8	-8.55	1.31	1.37
1	AA	801	U	N3-C4	-8.54	1.30	1.38
35	BA	246	C	C4-C5	-8.54	1.36	1.43
1	AA	1133	G	C6-O6	-8.54	1.16	1.24
35	BA	2225	A	N3-C4	-8.53	1.29	1.34
41	BG	112	PRO	C-N	8.53	1.53	1.34
1	AA	1482	G	N3-C4	-8.52	1.29	1.35
1	AA	818	G	N7-C5	-8.52	1.34	1.39
35	BA	2533	A	N7-C5	-8.52	1.34	1.39
1	AA	226	G	C8-N7	-8.51	1.25	1.30
35	BA	391	G	C8-N7	-8.51	1.25	1.30
1	AA	1228	C	O3'-P	-8.51	1.50	1.61
1	AA	1348	U	C2-N3	-8.51	1.31	1.37
35	BA	869	G	C5-C4	-8.51	1.32	1.38
35	BA	997	G	N7-C5	-8.51	1.34	1.39
35	BA	1259	G	N9-C8	-8.51	1.31	1.37
35	BA	2278	A	C5-C4	-8.51	1.32	1.38
35	BA	82	G	N9-C8	-8.51	1.31	1.37
35	BA	1953	A	N1-C2	-8.51	1.26	1.34
1	AA	825	G	C5-C4	-8.50	1.32	1.38
35	BA	2123	G	N7-C5	-8.50	1.34	1.39
35	BA	496	G	N7-C5	-8.49	1.34	1.39
1	AA	61	G	N9-C4	-8.49	1.31	1.38
35	BA	78	A	C8-N7	-8.49	1.25	1.31
1	AA	1280	A	N3-C4	-8.48	1.29	1.34
1	AA	1524	C	N1-C6	-8.48	1.32	1.37
35	BA	1247	A	N9-C4	-8.48	1.32	1.37
35	BA	1597	A	N3-C4	-8.48	1.29	1.34
1	AA	24	U	C4-O4	-8.48	1.16	1.23
1	AA	628	G	C2-N2	-8.48	1.26	1.34
1	AA	1118	C	N1-C6	-8.48	1.32	1.37
1	AA	1338	G	N9-C8	-8.48	1.31	1.37
1	AA	220	G	C8-N7	-8.47	1.25	1.30
35	BA	1276	A	C8-N7	-8.47	1.25	1.31
35	BA	2447	G	N3-C4	-8.47	1.29	1.35
35	BA	705	A	N7-C5	-8.47	1.34	1.39
35	BA	2407	G	N7-C5	-8.47	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	475	U	C2-O2	-8.47	1.14	1.22
1	AA	823	G	N9-C4	-8.46	1.31	1.38
35	BA	872	A	N3-C4	-8.46	1.29	1.34
35	BA	1450	G	N9-C8	-8.46	1.31	1.37
35	BA	538	G	C2-N3	-8.46	1.25	1.32
35	BA	538	G	N7-C5	-8.46	1.34	1.39
35	BA	1710	C	N1-C6	-8.46	1.32	1.37
1	AA	378	G	N7-C5	-8.45	1.34	1.39
35	BA	518	G	C8-N7	8.46	1.36	1.30
35	BA	1108	U	P-O5'	-8.46	1.51	1.59
35	BA	2647	U	C2-N3	-8.46	1.31	1.37
35	BA	2561	A	C6-N1	-8.45	1.29	1.35
35	BA	2448	A	N9-C4	8.45	1.43	1.37
1	AA	714	G	C5-C6	-8.45	1.33	1.42
1	AA	1331	G	N1-C2	-8.44	1.30	1.37
35	BA	2532	G	C8-N7	-8.44	1.25	1.30
35	BA	1814	G	N9-C8	-8.44	1.31	1.37
1	AA	71	C	C2-N3	-8.43	1.29	1.35
1	AA	931	C	N1-C6	-8.43	1.32	1.37
1	AA	1068	G	N3-C4	-8.43	1.29	1.35
35	BA	353	G	N7-C5	-8.42	1.34	1.39
35	BA	2857	G	N9-C8	8.42	1.43	1.37
35	BA	1039	G	C8-N7	-8.42	1.25	1.30
35	BA	2463	C	N1-C6	-8.42	1.32	1.37
35	BA	571	A	N3-C4	-8.42	1.29	1.34
35	BA	171	G	C5-C4	-8.42	1.32	1.38
1	AA	755	G	N9-C4	-8.42	1.31	1.38
35	BA	919	G	N3-C4	-8.42	1.29	1.35
1	AA	1527	C	C4-C5	-8.41	1.36	1.43
35	BA	38	A	N7-C5	-8.41	1.34	1.39
35	BA	2842	G	N7-C5	-8.41	1.34	1.39
1	AA	1482	G	C8-N7	-8.41	1.25	1.30
35	BA	1793	C	C2-O2	8.41	1.32	1.24
35	BA	1818	U	C5'-C4'	-8.40	1.41	1.51
35	BA	2518	A	N7-C5	-8.40	1.34	1.39
1	AA	362	G	C2-N3	-8.40	1.26	1.32
35	BA	65	C	C3'-C2'	-8.40	1.43	1.52
35	BA	1011	G	C5-C4	-8.40	1.32	1.38
35	BA	1103	A	N3-C4	-8.40	1.29	1.34
1	AA	1304	G	N7-C5	-8.40	1.34	1.39
35	BA	258	G	C8-N7	8.40	1.35	1.30
35	BA	2087	G	C6-N1	-8.39	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1387	G	C5-C6	-8.39	1.33	1.42
35	BA	1642	G	N7-C5	-8.39	1.34	1.39
35	BA	2273	A	N7-C5	-8.39	1.34	1.39
35	BA	2184	G	N9-C8	-8.38	1.31	1.37
1	AA	969	A	C5-C4	-8.37	1.32	1.38
1	AA	760	G	C6-N1	-8.37	1.33	1.39
1	AA	973	G	C2-N3	-8.37	1.26	1.32
1	AA	1022	G	N3-C4	-8.37	1.29	1.35
1	AA	1375	A	C5-C4	-8.37	1.32	1.38
1	AA	1462	G	C6-N1	-8.37	1.33	1.39
1	AA	1484	C	C2-N3	-8.37	1.29	1.35
35	BA	2274	A	N9-C4	-8.37	1.32	1.37
35	BA	271(X)	G	C2-N3	-8.37	1.26	1.32
35	BA	1276	A	N3-C4	-8.37	1.29	1.34
35	BA	2505	G	C6-N1	-8.37	1.33	1.39
35	BA	2752	C	C4-N4	-8.36	1.26	1.33
1	AA	620	C	N1-C6	-8.36	1.32	1.37
35	BA	2842	G	N9-C8	-8.36	1.31	1.37
35	BA	547	A	C6-N1	-8.36	1.29	1.35
35	BA	1473	G	N9-C8	-8.35	1.32	1.37
35	BA	2312	U	C2-N3	-8.35	1.31	1.37
35	BA	1284	A	N7-C5	-8.35	1.34	1.39
35	BA	2634	G	N3-C4	-8.35	1.29	1.35
1	AA	1438	G	N7-C5	-8.34	1.34	1.39
35	BA	2223	G	C3'-C2'	-8.34	1.43	1.52
35	BA	722	A	N9-C4	-8.34	1.32	1.37
35	BA	918	A	N9-C4	-8.34	1.32	1.37
35	BA	1498	C	N3-C4	-8.34	1.28	1.33
35	BA	2418	A	C6-N1	-8.34	1.29	1.35
35	BA	1971	A	N3-C4	-8.34	1.29	1.34
36	BB	101	G	C8-N7	-8.34	1.25	1.30
35	BA	6	A	C6-N1	-8.33	1.29	1.35
1	AA	438	G	C6-N1	-8.33	1.33	1.39
1	AA	1176	A	N9-C4	-8.33	1.32	1.37
1	AA	1204	A	C6-N6	-8.33	1.27	1.33
35	BA	2624	G	C6-N1	-8.33	1.33	1.39
35	BA	845	G	C6-N1	-8.32	1.33	1.39
9	AI	104	ARG	C-N	8.32	1.53	1.34
35	BA	2277	G	N3-C4	-8.32	1.29	1.35
35	BA	2526	G	C2-N3	-8.32	1.26	1.32
35	BA	351	G	N9-C8	-8.32	1.32	1.37
35	BA	2150	U	N3-C4	-8.32	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1410	G	C5-C4	-8.31	1.32	1.38
1	AA	1162	C	C2-O2	-8.31	1.17	1.24
35	BA	1170	G	N9-C8	-8.31	1.32	1.37
1	AA	260	G	C6-N1	-8.31	1.33	1.39
22	AV	73	A	N7-C5	-8.30	1.34	1.39
35	BA	1035	U	C2-N3	-8.30	1.31	1.37
35	BA	811	U	C2-N3	-8.30	1.31	1.37
35	BA	2739	U	C2-N3	-8.30	1.31	1.37
1	AA	1398	A	C4'-C3'	-8.29	1.44	1.53
35	BA	583	G	N3-C4	-8.29	1.29	1.35
1	AA	1015	A	N7-C5	-8.29	1.34	1.39
35	BA	654	A	C8-N7	-8.29	1.25	1.31
36	BB	82	G	N7-C5	-8.29	1.34	1.39
35	BA	188	G	N9-C8	-8.29	1.32	1.37
1	AA	909	A	N7-C5	-8.29	1.34	1.39
35	BA	272(C)	G	N3-C4	-8.28	1.29	1.35
1	AA	1392	G	C2-N3	-8.28	1.26	1.32
35	BA	2298	A	C8-N7	-8.28	1.25	1.31
1	AA	1055	A	N1-C2	-8.28	1.26	1.34
35	BA	1587	A	N1-C2	-8.28	1.26	1.34
35	BA	1811	G	N3-C4	-8.28	1.29	1.35
35	BA	2090	G	N3-C4	-8.28	1.29	1.35
35	BA	2428	G	C4'-C3'	-8.28	1.44	1.53
1	AA	1227	A	N3-C4	-8.27	1.29	1.34
1	AA	455	C	C4-C5	-8.27	1.36	1.43
1	AA	630	G	C8-N7	-8.27	1.25	1.30
35	BA	1347	G	C5'-C4'	-8.27	1.41	1.51
35	BA	1324	G	C2-N3	-8.27	1.26	1.32
35	BA	471	A	N3-C4	-8.27	1.29	1.34
1	AA	1415	G	C8-N7	-8.26	1.25	1.30
35	BA	2591	C	C2-O2	-8.26	1.17	1.24
35	BA	1741	A	N9-C8	-8.26	1.31	1.37
35	BA	1740	G	N7-C5	-8.26	1.34	1.39
35	BA	1658	C	N3-C4	-8.25	1.28	1.33
35	BA	13	A	N7-C5	-8.24	1.34	1.39
1	AA	138	G	C2-N3	-8.24	1.26	1.32
35	BA	1649	G	C2-N3	-8.24	1.26	1.32
35	BA	1425	G	N7-C5	-8.24	1.34	1.39
35	BA	1894	C	N1-C6	-8.23	1.32	1.37
35	BA	1979	C	N3-C4	-8.23	1.28	1.33
35	BA	837	C	N1-C6	-8.22	1.32	1.37
35	BA	1664	A	N3-C4	8.22	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	164	U	C4-O4	-8.22	1.17	1.23
35	BA	233	A	N3-C4	-8.22	1.29	1.34
1	AA	385	C	C4-C5	-8.22	1.36	1.43
35	BA	2825	C	C4-C5	-8.22	1.36	1.43
1	AA	33	A	N9-C4	-8.21	1.32	1.37
1	AA	273	A	N9-C4	-8.21	1.32	1.37
35	BA	1651	G	C2-N3	-8.21	1.26	1.32
35	BA	1793	C	P-O5'	-8.21	1.51	1.59
1	AA	658	G	C6-O6	-8.21	1.16	1.24
35	BA	1930	G	N3-C4	-8.21	1.29	1.35
35	BA	2485	G	N9-C4	-8.21	1.31	1.38
35	BA	2812	G	C6-O6	-8.21	1.16	1.24
1	AA	1480	G	C8-N7	-8.20	1.26	1.30
35	BA	143	G	C8-N7	-8.20	1.26	1.30
35	BA	2761	G	C5-C4	-8.20	1.32	1.38
1	AA	135	C	N1-C6	-8.20	1.32	1.37
22	AV	76	A	C6-N6	-8.20	1.27	1.33
35	BA	1765	C	N1-C6	-8.20	1.32	1.37
35	BA	1831	G	C6-N1	-8.20	1.33	1.39
35	BA	2499	C	N1-C6	-8.20	1.32	1.37
35	BA	2733	A	N7-C5	-8.20	1.34	1.39
35	BA	89	G	C4'-C3'	-8.20	1.44	1.53
1	AA	236	G	N3-C4	-8.20	1.29	1.35
35	BA	1393	A	N9-C4	-8.19	1.32	1.37
35	BA	2235	G	N7-C5	-8.19	1.34	1.39
1	AA	382	A	C6-N1	-8.18	1.29	1.35
1	AA	1081	G	N3-C4	-8.18	1.29	1.35
35	BA	1603	A	C6-N1	-8.18	1.29	1.35
1	AA	785	G	N9-C4	-8.18	1.31	1.38
35	BA	2237	G	N9-C4	-8.18	1.31	1.38
1	AA	948	C	C4'-C3'	-8.18	1.44	1.53
22	AV	67	C	N1-C6	-8.18	1.32	1.37
35	BA	2156	G	N7-C5	-8.17	1.34	1.39
35	BA	953	A	C8-N7	-8.17	1.25	1.31
1	AA	1415	G	N7-C5	-8.17	1.34	1.39
35	BA	1722	A	N3-C4	-8.17	1.29	1.34
36	BB	86	G	N7-C5	-8.17	1.34	1.39
35	BA	613	G	N9-C8	8.16	1.43	1.37
36	BB	24	G	N9-C8	-8.16	1.32	1.37
35	BA	1627	G	C8-N7	-8.16	1.26	1.30
35	BA	2131	G	N7-C5	-8.16	1.34	1.39
35	BA	2873	A	N7-C5	-8.16	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	736	C	C4'-C3'	-8.16	1.44	1.53
1	AA	1090	U	N3-C4	-8.16	1.31	1.38
35	BA	1476	C	C4-C5	-8.16	1.36	1.43
35	BA	2152	G	C8-N7	-8.16	1.26	1.30
1	AA	857	C	C5-C6	-8.15	1.27	1.34
1	AA	231	G	C2-N3	-8.15	1.26	1.32
35	BA	2643	G	N7-C5	-8.15	1.34	1.39
1	AA	1080	A	C6-N6	-8.14	1.27	1.33
35	BA	1032	A	C2-N3	-8.14	1.26	1.33
35	BA	322	A	N9-C4	-8.14	1.32	1.37
35	BA	1618	A	N7-C5	-8.14	1.34	1.39
35	BA	827	U	C4-C5	-8.14	1.36	1.43
35	BA	859	G	N9-C8	-8.14	1.32	1.37
35	BA	1577	C	N3-C4	-8.14	1.28	1.33
1	AA	965	A	N9-C4	-8.13	1.32	1.37
35	BA	346	A	C5-C4	-8.13	1.33	1.38
1	AA	92	C	N1-C6	8.13	1.42	1.37
35	BA	1662	C	C2-N3	-8.13	1.29	1.35
1	AA	838	G	N9-C8	-8.13	1.32	1.37
35	BA	2515	C	N1-C6	-8.12	1.32	1.37
1	AA	1002	G	C8-N7	-8.12	1.26	1.30
35	BA	2764	A	N3-C4	-8.12	1.29	1.34
35	BA	2831	G	C2-N3	-8.12	1.26	1.32
1	AA	912	C	N3-C4	-8.12	1.28	1.33
23	AX	16	A	C5-C4	-8.12	1.33	1.38
35	BA	117	G	C6-O6	-8.12	1.16	1.24
35	BA	1674	G	N1-C2	-8.12	1.31	1.37
36	BB	19	G	N7-C5	-8.12	1.34	1.39
35	BA	2755	C	C4-C5	-8.12	1.36	1.43
1	AA	1056	U	C4-C5	-8.11	1.36	1.43
35	BA	1933	G	C6-N1	-8.11	1.33	1.39
1	AA	574	A	C5-C4	-8.11	1.33	1.38
35	BA	392	C	N3-C4	-8.11	1.28	1.33
35	BA	1772	G	C5-C6	-8.11	1.34	1.42
35	BA	1106	G	N9-C4	-8.10	1.31	1.38
36	BB	74	U	P-O5'	-8.10	1.51	1.59
35	BA	1237	A	N3-C4	-8.10	1.29	1.34
35	BA	1373	A	C6-N1	-8.10	1.29	1.35
1	AA	148	G	N7-C5	-8.09	1.34	1.39
1	AA	1117	G	N7-C5	-8.09	1.34	1.39
35	BA	2664	G	C5-C4	-8.09	1.32	1.38
35	BA	1932	A	N1-C2	-8.09	1.27	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2349	G	N7-C5	-8.09	1.34	1.39
35	BA	906	G	C8-N7	-8.08	1.26	1.30
35	BA	2480	C	N1-C2	-8.08	1.32	1.40
1	AA	1429	C	N3-C4	-8.08	1.28	1.33
1	AA	772	U	C4-C5	-8.08	1.36	1.43
1	AA	814	A	N1-C2	-8.08	1.27	1.34
35	BA	1007	C	C4-C5	-8.07	1.36	1.43
1	AA	351	G	N7-C5	-8.07	1.34	1.39
1	AA	324	G	C2-N3	-8.06	1.26	1.32
35	BA	1755	A	N3-C4	-8.06	1.30	1.34
35	BA	2462	U	C2-N3	-8.06	1.32	1.37
36	BB	104	U	C4-C5	-8.06	1.36	1.43
35	BA	2110	G	N7-C5	-8.06	1.34	1.39
1	AA	1403	C	C5-C6	-8.06	1.27	1.34
1	AA	430	A	N3-C4	-8.06	1.30	1.34
1	AA	563	A	N3-C4	-8.06	1.30	1.34
35	BA	1701	A	N3-C4	-8.06	1.30	1.34
35	BA	2534	A	C6-N1	-8.06	1.29	1.35
35	BA	1977	A	N7-C5	-8.06	1.34	1.39
36	BB	85	G	N9-C8	-8.06	1.32	1.37
35	BA	38	A	N3-C4	8.05	1.39	1.34
35	BA	453	C	N1-C6	-8.05	1.32	1.37
1	AA	527	G	N3-C4	-8.05	1.29	1.35
35	BA	1056	G	N7-C5	-8.04	1.34	1.39
1	AA	189(F)	U	C2-N3	-8.04	1.32	1.37
35	BA	2574	G	N3-C4	-8.04	1.29	1.35
22	AV	43	A	N3-C4	-8.04	1.30	1.34
35	BA	1580	A	N3-C4	-8.04	1.30	1.34
35	BA	817	C	C5-C6	-8.04	1.27	1.34
35	BA	1416	G	N3-C4	-8.04	1.29	1.35
35	BA	272(E)	G	C6-N1	-8.03	1.33	1.39
35	BA	1546	C	N3-C4	-8.03	1.28	1.33
1	AA	787	A	O3'-P	-8.03	1.51	1.61
1	AA	854	G	C6-N1	-8.03	1.33	1.39
35	BA	1639	U	C4-C5	-8.03	1.36	1.43
35	BA	2221	G	N9-C8	-8.03	1.32	1.37
35	BA	271(T)	C	N1-C6	-8.02	1.32	1.37
35	BA	2851	A	C5-C4	-8.02	1.33	1.38
35	BA	647	G	N7-C5	-8.02	1.34	1.39
35	BA	927	G	C6-N1	-8.02	1.33	1.39
35	BA	1546	C	N1-C6	-8.02	1.32	1.37
35	BA	1948	G	N7-C5	-8.01	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2200	C	N3-C4	-8.01	1.28	1.33
35	BA	2893	G	N7-C5	-8.01	1.34	1.39
1	AA	1318	A	N9-C4	-8.01	1.33	1.37
35	BA	2803	C	C2-O2	-8.01	1.17	1.24
1	AA	942	G	N9-C8	-8.01	1.32	1.37
35	BA	1431	U	C4'-C3'	-8.01	1.44	1.53
1	AA	461	A	N9-C4	-8.01	1.33	1.37
35	BA	359	A	N9-C4	-8.01	1.33	1.37
35	BA	1559	G	N7-C5	-8.01	1.34	1.39
35	BA	1571	A	N9-C8	-8.00	1.31	1.37
35	BA	2121	G	N1-C2	-8.00	1.31	1.37
23	AX	12	A	P-O5'	-8.00	1.51	1.59
35	BA	2398	U	C5'-C4'	-8.00	1.41	1.51
1	AA	774	G	C6-N1	-8.00	1.33	1.39
1	AA	331	G	C8-N7	-8.00	1.26	1.30
36	BB	19	G	C5-C6	-7.99	1.34	1.42
1	AA	280	C	C4-C5	-7.99	1.36	1.43
1	AA	1064	G	N3-C4	-7.99	1.29	1.35
35	BA	363	G	C6-N1	-7.99	1.33	1.39
35	BA	1226	A	C6-N1	-7.99	1.29	1.35
35	BA	2253	G	N9-C8	-7.99	1.32	1.37
1	AA	1190	G	N7-C5	-7.99	1.34	1.39
35	BA	2082	A	N7-C5	-7.99	1.34	1.39
22	AV	5	G	N9-C4	-7.99	1.31	1.38
35	BA	2883	A	C6-N1	-7.99	1.29	1.35
1	AA	929	G	C8-N7	-7.98	1.26	1.30
35	BA	2426	A	N9-C4	-7.98	1.33	1.37
1	AA	1115	C	C5-C6	-7.98	1.27	1.34
1	AA	939	G	C5-C6	-7.97	1.34	1.42
1	AA	1494	G	N3-C4	-7.97	1.29	1.35
36	BB	82	G	N3-C4	-7.97	1.29	1.35
1	AA	508	C	C5-C6	-7.97	1.27	1.34
35	BA	565	C	C5-C6	-7.97	1.27	1.34
1	AA	160	A	P-O5'	-7.97	1.51	1.59
1	AA	1081	G	N7-C5	-7.97	1.34	1.39
35	BA	952	G	C5-C4	-7.97	1.32	1.38
35	BA	2024	G	N1-C2	-7.97	1.31	1.37
1	AA	1042	G	C8-N7	-7.96	1.26	1.30
35	BA	700	G	C8-N7	-7.96	1.26	1.30
35	BA	745	G	C5-C6	-7.96	1.34	1.42
35	BA	869	G	C8-N7	-7.96	1.26	1.30
1	AA	1112	C	C2-O2	-7.96	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	952	U	N1-C2	-7.96	1.31	1.38
35	BA	114	U	C2-O2	-7.95	1.15	1.22
35	BA	629	G	N3-C4	-7.95	1.29	1.35
1	AA	228	A	C5-C4	-7.95	1.33	1.38
35	BA	1031	G	C2-N3	-7.95	1.26	1.32
35	BA	1163	G	C2-N3	-7.95	1.26	1.32
35	BA	1378	A	C6-N6	-7.95	1.27	1.33
35	BA	1510	G	C5-C4	-7.95	1.32	1.38
35	BA	2053	G	N3-C4	-7.95	1.29	1.35
36	BB	71	C	N1-C6	-7.95	1.32	1.37
35	BA	44	G	C5-C6	-7.95	1.34	1.42
35	BA	1862	G	C8-N7	-7.94	1.26	1.30
35	BA	1610	A	N9-C4	7.94	1.42	1.37
35	BA	1953	A	N9-C4	-7.94	1.33	1.37
35	BA	2080	G	C5-C4	-7.94	1.32	1.38
1	AA	967	C	C4-N4	-7.94	1.26	1.33
35	BA	1536	C	N3-C4	-7.94	1.28	1.33
36	BB	52	A	C8-N7	-7.94	1.25	1.31
35	BA	1369	G	N7-C5	-7.94	1.34	1.39
1	AA	1457	G	N3-C4	-7.94	1.29	1.35
1	AA	401	C	N3-C4	-7.93	1.28	1.33
22	AV	4	G	N9-C4	-7.93	1.31	1.38
35	BA	231	C	C2-N3	-7.93	1.29	1.35
35	BA	2208	A	C8-N7	-7.93	1.25	1.31
1	AA	189(G)	G	N7-C5	7.93	1.44	1.39
35	BA	363(B)	G	N9-C8	-7.93	1.32	1.37
1	AA	839	U	C4-C5	-7.93	1.36	1.43
35	BA	527	C	N1-C6	-7.93	1.32	1.37
35	BA	1574	C	N1-C6	-7.93	1.32	1.37
1	AA	767	A	C8-N7	-7.93	1.26	1.31
35	BA	1816	G	C5-C4	-7.93	1.32	1.38
35	BA	1383	C	C4'-O4'	-7.92	1.35	1.45
1	AA	55	A	N7-C5	-7.92	1.34	1.39
35	BA	81	G	N7-C5	-7.92	1.34	1.39
35	BA	1293	C	C5-C6	-7.92	1.28	1.34
35	BA	2493	U	N1-C2	-7.92	1.31	1.38
22	AV	35	A	N3-C4	-7.92	1.30	1.34
35	BA	946	G	C8-N7	-7.92	1.26	1.30
22	AV	21	A	N9-C4	-7.91	1.33	1.37
35	BA	641	C	C5-C6	-7.91	1.28	1.34
1	AA	759	A	N7-C5	-7.91	1.34	1.39
1	AA	906	G	N7-C5	-7.91	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	977	A	N9-C4	7.91	1.42	1.37
35	BA	248	G	N7-C5	-7.91	1.34	1.39
35	BA	1236	G	C2-N3	-7.91	1.26	1.32
1	AA	107	G	N9-C8	-7.90	1.32	1.37
35	BA	767	U	C2-O2	-7.90	1.15	1.22
1	AA	313	A	C4'-C3'	-7.90	1.44	1.53
1	AA	1082	G	N3-C4	-7.90	1.29	1.35
1	AA	690	G	N9-C4	-7.90	1.31	1.38
35	BA	869	G	N7-C5	-7.90	1.34	1.39
35	BA	649	G	N9-C8	-7.90	1.32	1.37
35	BA	2004	G	C6-O6	-7.90	1.17	1.24
1	AA	518	C	C4-C5	-7.89	1.36	1.43
1	AA	689	C	C2-N3	-7.89	1.29	1.35
1	AA	1520	G	N7-C5	-7.89	1.34	1.39
35	BA	2603	G	N7-C5	-7.89	1.34	1.39
35	BA	497	A	N3-C4	-7.89	1.30	1.34
1	AA	533	A	C5-C4	-7.89	1.33	1.38
1	AA	777	A	C5-C4	-7.89	1.33	1.38
35	BA	730	C	C2-O2	-7.89	1.17	1.24
35	BA	1440	G	N3-C4	-7.89	1.29	1.35
35	BA	2151	G	N9-C4	-7.89	1.31	1.38
1	AA	577	G	C8-N7	-7.88	1.26	1.30
1	AA	50	A	C8-N7	-7.88	1.26	1.31
35	BA	2103	C	C4-C5	-7.88	1.36	1.43
1	AA	231	G	C5-C4	-7.88	1.32	1.38
1	AA	1294	G	N7-C5	-7.88	1.34	1.39
35	BA	1699	G	C5-C4	-7.88	1.32	1.38
35	BA	40	C	C5-C6	-7.87	1.28	1.34
1	AA	790	A	C8-N7	-7.87	1.26	1.31
35	BA	1541	G	N7-C5	-7.87	1.34	1.39
1	AA	1306	A	C5-C4	-7.86	1.33	1.38
35	BA	95	G	N3-C4	-7.86	1.29	1.35
35	BA	1139	G	C8-N7	7.86	1.35	1.30
35	BA	1277	G	N7-C5	-7.86	1.34	1.39
35	BA	761	A	N9-C4	-7.85	1.33	1.37
1	AA	197	A	N3-C4	-7.85	1.30	1.34
22	AV	21	A	C6-N1	-7.85	1.30	1.35
35	BA	225	A	N3-C4	-7.85	1.30	1.34
35	BA	2511	U	C4'-C3'	-7.85	1.44	1.53
1	AA	1412	C	C2-N3	-7.85	1.29	1.35
1	AA	52	G	C2-N3	-7.85	1.26	1.32
35	BA	1665	A	N3-C4	-7.85	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	852	G	C4'-C3'	-7.85	1.44	1.53
1	AA	856	C	N1-C6	-7.85	1.32	1.37
35	BA	1780	A	N1-C2	-7.85	1.27	1.34
1	AA	1289	A	N7-C5	-7.84	1.34	1.39
35	BA	927	G	C8-N7	-7.84	1.26	1.30
35	BA	2655	G	N9-C8	-7.84	1.32	1.37
35	BA	2173	A	N7-C5	7.84	1.44	1.39
1	AA	1405	G	N3-C4	-7.84	1.29	1.35
1	AA	828	A	N3-C4	-7.84	1.30	1.34
35	BA	1748	G	N9-C4	-7.84	1.31	1.38
35	BA	410	G	N7-C5	-7.84	1.34	1.39
35	BA	1170	G	N7-C5	-7.84	1.34	1.39
35	BA	2869	G	C8-N7	-7.84	1.26	1.30
1	AA	909	A	N1-C2	-7.84	1.27	1.34
35	BA	374	A	N1-C2	-7.84	1.27	1.34
1	AA	271	C	N1-C6	-7.83	1.32	1.37
1	AA	725	G	N1-C2	-7.83	1.31	1.37
35	BA	2222	G	C8-N7	-7.83	1.26	1.30
1	AA	1151	A	N9-C4	-7.83	1.33	1.37
1	AA	1483	A	C5-C4	-7.83	1.33	1.38
1	AA	6	G	C2-N3	-7.83	1.26	1.32
1	AA	586	C	N1-C6	-7.82	1.32	1.37
35	BA	1351	C	N1-C6	-7.82	1.32	1.37
35	BA	2178	C	N1-C6	-7.82	1.32	1.37
35	BA	332	A	C5-C4	-7.82	1.33	1.38
35	BA	2054	A	C6-N1	-7.82	1.30	1.35
1	AA	730	G	C5-C4	-7.82	1.32	1.38
1	AA	1009	G	C3'-C2'	-7.82	1.44	1.52
1	AA	867	G	C6-O6	-7.82	1.17	1.24
1	AA	1044	A	N9-C4	-7.82	1.33	1.37
35	BA	2230	G	C4'-C3'	-7.81	1.44	1.53
35	BA	2361	A	N7-C5	7.81	1.44	1.39
1	AA	1256	A	P-O5'	-7.81	1.51	1.59
35	BA	1840	G	C8-N7	-7.81	1.26	1.30
1	AA	420	U	C4-O4	-7.81	1.17	1.23
1	AA	1442(A)	G	C6-N1	-7.81	1.34	1.39
36	BB	59	A	C6-N6	-7.81	1.27	1.33
35	BA	878	A	N7-C5	-7.81	1.34	1.39
35	BA	1823	G	P-O5'	-7.81	1.51	1.59
36	BB	52	A	N7-C5	-7.81	1.34	1.39
35	BA	363(F)	A	N7-C5	7.80	1.44	1.39
35	BA	1763	G	C6-N1	-7.80	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1265	G	C5-C4	-7.80	1.32	1.38
35	BA	1363	C	C2-N3	-7.80	1.29	1.35
35	BA	1660	C	N1-C6	-7.79	1.32	1.37
35	BA	2239	G	N9-C8	-7.79	1.32	1.37
35	BA	2294	C	N1-C6	-7.79	1.32	1.37
35	BA	2671	A	C2'-C1'	-7.79	1.44	1.53
35	BA	873	G	C2-N2	-7.79	1.26	1.34
35	BA	957	A	N3-C4	-7.79	1.30	1.34
35	BA	2608	G	N7-C5	-7.79	1.34	1.39
36	BB	76	G	C5-C4	7.79	1.43	1.38
35	BA	233	A	C6-N1	-7.78	1.30	1.35
1	AA	1003	G	C8-N7	-7.78	1.26	1.30
35	BA	320	A	C5-C4	-7.78	1.33	1.38
35	BA	1321	A	C5-C4	-7.78	1.33	1.38
35	BA	1865	G	C2'-O2'	-7.78	1.31	1.41
35	BA	2088	G	C5-C4	-7.78	1.32	1.38
35	BA	909	A	C5-C6	-7.77	1.34	1.41
1	AA	236	G	C6-N1	-7.77	1.34	1.39
35	BA	2735	G	C6-N1	-7.77	1.34	1.39
35	BA	2549	G	N7-C5	-7.77	1.34	1.39
1	AA	524	G	N9-C8	-7.77	1.32	1.37
35	BA	1625	C	C4-C5	-7.77	1.36	1.43
1	AA	865	A	C6-N6	-7.77	1.27	1.33
1	AA	573	A	N7-C5	-7.76	1.34	1.39
1	AA	579	G	N9-C4	-7.76	1.31	1.38
35	BA	1271	G	C6-O6	-7.76	1.17	1.24
35	BA	2162	G	N9-C4	-7.76	1.31	1.38
35	BA	497	A	C5-C4	-7.76	1.33	1.38
1	AA	105	G	N7-C5	-7.76	1.34	1.39
35	BA	579	G	N7-C5	-7.76	1.34	1.39
35	BA	1142(A)	A	N3-C4	-7.76	1.30	1.34
35	BA	1583	A	C3'-C2'	-7.76	1.44	1.52
35	BA	2439	A	N3-C4	-7.76	1.30	1.34
1	AA	196	A	N9-C4	-7.75	1.33	1.37
1	AA	1389	C	C2-N3	-7.75	1.29	1.35
1	AA	1499	A	C8-N7	-7.75	1.26	1.31
35	BA	90	U	C4-O4	-7.75	1.17	1.23
35	BA	2179	C	C4-C5	-7.75	1.36	1.43
35	BA	2701	C	C5-C6	-7.75	1.28	1.34
35	BA	1569	A	N3-C4	7.75	1.39	1.34
1	AA	571	U	N3-C4	-7.74	1.31	1.38
1	AA	945	G	C3'-C2'	-7.74	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1917	U	O3'-P	-7.74	1.51	1.61
1	AA	1523	G	N1-C2	-7.74	1.31	1.37
1	AA	1299	A	C5'-C4'	-7.73	1.42	1.51
35	BA	183	C	N3-C4	-7.73	1.28	1.33
35	BA	279	C	N1-C6	7.73	1.41	1.37
35	BA	289	A	N3-C4	-7.73	1.30	1.34
35	BA	2509	G	C4'-C3'	-7.73	1.44	1.53
1	AA	1516	G	C5-C6	-7.73	1.34	1.42
35	BA	1910	G	N3-C4	-7.73	1.30	1.35
35	BA	2383	G	N3-C4	-7.73	1.30	1.35
35	BA	52	A	C5-C6	-7.72	1.34	1.41
1	AA	1498	U	N3-C4	-7.72	1.31	1.38
35	BA	500	G	C6-N1	-7.72	1.34	1.39
35	BA	94	C	C2-N3	-7.72	1.29	1.35
35	BA	654(O)	G	N7-C5	-7.72	1.34	1.39
35	BA	2883	A	N1-C2	-7.72	1.27	1.34
1	AA	938	A	N9-C8	-7.72	1.31	1.37
35	BA	892	G	C8-N7	-7.72	1.26	1.30
35	BA	136	G	N9-C4	7.72	1.44	1.38
35	BA	1112	G	C4'-C3'	-7.72	1.44	1.53
1	AA	297	G	N7-C5	-7.71	1.34	1.39
35	BA	213	A	N1-C2	-7.71	1.27	1.34
35	BA	425	G	N7-C5	-7.71	1.34	1.39
1	AA	1490	C	N1-C6	-7.71	1.32	1.37
35	BA	632	A	N3-C4	-7.71	1.30	1.34
35	BA	1274	A	C8-N7	-7.71	1.26	1.31
35	BA	827	U	O3'-P	-7.71	1.51	1.61
35	BA	875	G	C2-N3	-7.71	1.26	1.32
35	BA	1395	A	N9-C4	-7.70	1.33	1.37
1	AA	1323	G	N7-C5	-7.70	1.34	1.39
35	BA	60	G	C8-N7	-7.70	1.26	1.30
1	AA	313	A	N7-C5	-7.70	1.34	1.39
1	AA	1270	C	N3-C4	-7.70	1.28	1.33
35	BA	72	U	C2-N3	-7.70	1.32	1.37
35	BA	2317	C	C2-N3	-7.70	1.29	1.35
1	AA	154	C	N1-C6	-7.69	1.32	1.37
35	BA	2075	U	N1-C6	-7.69	1.31	1.38
1	AA	109	A	C6-N6	-7.69	1.27	1.33
1	AA	408	A	C6-N1	-7.69	1.30	1.35
35	BA	135	G	N3-C4	-7.69	1.30	1.35
35	BA	693	C	N1-C2	-7.69	1.32	1.40
35	BA	1911	U	N1-C6	-7.69	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BB	46	A	N7-C5	-7.69	1.34	1.39
1	AA	574	A	N9-C8	-7.68	1.31	1.37
36	BB	51	G	C8-N7	-7.68	1.26	1.30
1	AA	1464	G	N9-C8	-7.68	1.32	1.37
35	BA	325	G	C2-N3	-7.68	1.26	1.32
1	AA	682	G	C8-N7	-7.68	1.26	1.30
35	BA	465	G	C8-N7	-7.68	1.26	1.30
35	BA	2286	A	C5-C6	-7.68	1.34	1.41
35	BA	1512	U	N3-C4	-7.68	1.31	1.38
1	AA	1078	U	C2-N3	-7.67	1.32	1.37
22	AV	29	G	N1-C2	-7.67	1.31	1.37
35	BA	2052	G	C6-N1	7.67	1.45	1.39
35	BA	2679	A	C5-C6	-7.67	1.34	1.41
35	BA	545	C	C5-C6	-7.67	1.28	1.34
35	BA	84	A	N7-C5	-7.67	1.34	1.39
35	BA	1365	A	N7-C5	-7.67	1.34	1.39
35	BA	2149	G	N7-C5	-7.67	1.34	1.39
35	BA	2554	U	N3-C4	-7.67	1.31	1.38
35	BA	1493	C	C5-C6	-7.67	1.28	1.34
35	BA	1827	C	N1-C6	-7.67	1.32	1.37
1	AA	29	G	N3-C4	-7.67	1.30	1.35
1	AA	1035	A	N3-C4	-7.67	1.30	1.34
35	BA	139(A)	G	C4'-C3'	-7.67	1.44	1.53
35	BA	272	G	N3-C4	-7.67	1.30	1.35
35	BA	674	G	C2-N3	-7.67	1.26	1.32
35	BA	978	G	N3-C4	-7.67	1.30	1.35
35	BA	1104	C	C2-N3	-7.67	1.29	1.35
35	BA	1212	G	N9-C8	-7.67	1.32	1.37
35	BA	1520	G	N9-C8	-7.67	1.32	1.37
35	BA	1709	U	N1-C2	7.67	1.45	1.38
35	BA	654(E)	G	C6-N1	-7.67	1.34	1.39
35	BA	2536	G	C8-N7	-7.67	1.26	1.30
35	BA	2618	G	C8-N7	-7.67	1.26	1.30
1	AA	266	G	N7-C5	-7.66	1.34	1.39
35	BA	948	G	N7-C5	-7.66	1.34	1.39
35	BA	1058	G	N7-C5	-7.66	1.34	1.39
35	BA	1861	G	C5-C4	-7.66	1.32	1.38
1	AA	650	G	N3-C4	-7.66	1.30	1.35
35	BA	2662	A	C8-N7	-7.66	1.26	1.31
1	AA	617	G	N7-C5	-7.66	1.34	1.39
35	BA	695	G	N7-C5	-7.66	1.34	1.39
1	AA	659	U	N3-C4	-7.66	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1234	C	N3-C4	-7.66	1.28	1.33
35	BA	2801	A	N9-C4	-7.65	1.33	1.37
1	AA	19	C	N1-C6	-7.65	1.32	1.37
1	AA	739	C	N3-C4	-7.65	1.28	1.33
35	BA	669	G	N1-C2	-7.65	1.31	1.37
35	BA	2540	C	N3-C4	-7.65	1.28	1.33
35	BA	1231	G	N9-C4	-7.65	1.31	1.38
35	BA	1702	G	C6-O6	-7.65	1.17	1.24
35	BA	1523	U	C2'-C1'	-7.65	1.45	1.53
36	BB	63	G	C8-N7	-7.65	1.26	1.30
35	BA	74	A	C8-N7	-7.64	1.26	1.31
35	BA	1970	A	C6-N1	-7.64	1.30	1.35
35	BA	294	A	N3-C4	-7.64	1.30	1.34
35	BA	1182	A	N9-C4	-7.64	1.33	1.37
1	AA	484	G	N7-C5	-7.64	1.34	1.39
1	AA	945	G	N7-C5	-7.64	1.34	1.39
1	AA	958	A	N7-C5	-7.64	1.34	1.39
35	BA	437	G	N7-C5	-7.64	1.34	1.39
35	BA	655	A	N7-C5	-7.64	1.34	1.39
1	AA	500	G	C6-N1	-7.64	1.34	1.39
34	B9	28	GLU	CD-OE2	-7.64	1.17	1.25
35	BA	1579	A	N9-C4	-7.63	1.33	1.37
35	BA	2035	G	C6-O6	-7.63	1.17	1.24
35	BA	2309	A	N9-C4	-7.63	1.33	1.37
35	BA	2250	G	C6-N1	-7.63	1.34	1.39
35	BA	2396	G	C6-N1	-7.63	1.34	1.39
1	AA	353	A	C5-C4	-7.63	1.33	1.38
1	AA	1272	G	C2'-O2'	-7.63	1.31	1.41
1	AA	902	G	N7-C5	7.63	1.43	1.39
1	AA	1163	C	C4'-C3'	-7.63	1.44	1.53
35	BA	1929	G	N7-C5	-7.63	1.34	1.39
35	BA	2509	G	C8-N7	-7.63	1.26	1.30
35	BA	2674	G	C6-N1	-7.63	1.34	1.39
35	BA	360	G	C6-O6	-7.62	1.17	1.24
35	BA	1830	C	C4-C5	-7.62	1.36	1.43
35	BA	414	C	C2-N3	-7.62	1.29	1.35
1	AA	765	G	N9-C8	-7.62	1.32	1.37
1	AA	1120	G	N7-C5	-7.62	1.34	1.39
1	AA	1300	G	N9-C8	-7.62	1.32	1.37
35	BA	702	G	N7-C5	-7.62	1.34	1.39
35	BA	1229	G	N3-C4	7.62	1.40	1.35
36	BB	57	A	N7-C5	-7.62	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	682	G	C6-N1	7.62	1.44	1.39
35	BA	418	G	C2-N2	-7.62	1.26	1.34
1	AA	577	G	C6-N1	-7.62	1.34	1.39
35	BA	916	G	N3-C4	-7.62	1.30	1.35
22	AV	64	G	C2-N3	-7.61	1.26	1.32
1	AA	1374	A	C6-N6	-7.61	1.27	1.33
1	AA	1390	U	C2-O2	-7.61	1.15	1.22
35	BA	792	G	C2-N3	-7.61	1.26	1.32
1	AA	1484	C	N1-C6	-7.61	1.32	1.37
35	BA	2624	G	N9-C8	-7.61	1.32	1.37
36	BB	6	C	C4-C5	-7.61	1.36	1.43
35	BA	777	A	C8-N7	7.60	1.36	1.31
35	BA	1077	A	N9-C4	-7.60	1.33	1.37
35	BA	1678	G	C4'-C3'	-7.60	1.44	1.53
35	BA	452	G	C6-N1	-7.60	1.34	1.39
35	BA	2434	A	N7-C5	-7.60	1.34	1.39
1	AA	889	A	C6-N1	-7.59	1.30	1.35
35	BA	1649	G	C8-N7	-7.59	1.26	1.30
35	BA	2253	G	C2-N3	-7.59	1.26	1.32
1	AA	202	U	C4-C5	-7.59	1.36	1.43
35	BA	1241	A	N1-C2	-7.59	1.27	1.34
36	BB	118	G	C5-C4	-7.59	1.33	1.38
1	AA	718	G	N1-C2	-7.59	1.31	1.37
35	BA	1201	C	C5-C6	-7.59	1.28	1.34
35	BA	1441	G	N1-C2	-7.59	1.31	1.37
35	BA	1768	U	C2-O2	-7.59	1.15	1.22
36	BB	101	G	C6-N1	-7.59	1.34	1.39
35	BA	1223	G	N3-C4	-7.59	1.30	1.35
35	BA	2439	A	C6-N1	-7.59	1.30	1.35
1	AA	716	A	C3'-C2'	-7.59	1.44	1.52
35	BA	1359	A	N9-C4	-7.58	1.33	1.37
35	BA	1460	A	N1-C2	-7.58	1.27	1.34
35	BA	2141	G	N9-C8	-7.58	1.32	1.37
35	BA	2163	C	N3-C4	-7.58	1.28	1.33
1	AA	1502	A	N7-C5	-7.58	1.34	1.39
35	BA	463	G	N9-C8	-7.58	1.32	1.37
35	BA	1206	G	C8-N7	-7.58	1.26	1.30
35	BA	1027	A	N3-C4	-7.58	1.30	1.34
35	BA	1979	C	N1-C6	-7.58	1.32	1.37
1	AA	488	C	C4-N4	-7.57	1.27	1.33
35	BA	1063	G	N9-C8	-7.57	1.32	1.37
35	BA	1831	G	C6-O6	-7.57	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BB	61	G	N9-C8	-7.57	1.32	1.37
35	BA	2031	A	N9-C4	-7.57	1.33	1.37
35	BA	2470	G	N1-C2	-7.57	1.31	1.37
36	BB	1	U	C5-C6	-7.57	1.27	1.34
57	BZ	186	GLU	CD-OE1	-7.57	1.17	1.25
35	BA	2809	A	C8-N7	-7.57	1.26	1.31
35	BA	1538	G	N7-C5	-7.57	1.34	1.39
35	BA	2810	A	N7-C5	-7.57	1.34	1.39
1	AA	810	C	N3-C4	-7.56	1.28	1.33
35	BA	1250	G	C4'-C3'	-7.56	1.44	1.53
35	BA	2641	G	C4'-C3'	-7.56	1.44	1.53
1	AA	922	G	P-O5'	-7.56	1.52	1.59
1	AA	1392	G	N9-C8	7.56	1.43	1.37
35	BA	2758	A	N1-C2	-7.56	1.27	1.34
35	BA	2787	C	P-O5'	-7.55	1.52	1.59
1	AA	1042	G	C6-N1	-7.55	1.34	1.39
35	BA	2046	G	N9-C4	-7.55	1.31	1.38
35	BA	2553	G	C8-N7	-7.55	1.26	1.30
35	BA	2665	A	C4'-C3'	-7.55	1.44	1.53
1	AA	535	A	C5-C4	-7.54	1.33	1.38
36	BB	53	A	C5-C6	-7.54	1.34	1.41
35	BA	457	A	C5-C6	-7.54	1.34	1.41
35	BA	1767	C	N3-C4	-7.54	1.28	1.33
35	BA	503	A	C6-N6	-7.54	1.27	1.33
35	BA	1223	G	C6-N1	-7.54	1.34	1.39
35	BA	1482	G	C6-N1	-7.54	1.34	1.39
35	BA	2149	G	C6-N1	-7.54	1.34	1.39
35	BA	2199	A	N7-C5	7.54	1.43	1.39
1	AA	807	A	N9-C4	-7.53	1.33	1.37
35	BA	1333	C	N3-C4	-7.53	1.28	1.33
35	BA	2810	A	N9-C4	-7.53	1.33	1.37
1	AA	650	G	C8-N7	7.53	1.35	1.30
1	AA	1504	G	N9-C4	-7.53	1.31	1.38
1	AA	219	C	C2-N3	-7.53	1.29	1.35
35	BA	1419	A	C6-N1	-7.53	1.30	1.35
35	BA	1943	U	C2-N3	7.53	1.43	1.37
35	BA	2340	G	N3-C4	-7.53	1.30	1.35
35	BA	2761	G	C2'-C1'	-7.52	1.45	1.53
1	AA	906	G	N1-C2	-7.52	1.31	1.37
35	BA	1631(A)	A	N1-C2	-7.52	1.27	1.34
35	BA	2062	A	N3-C4	7.52	1.39	1.34
35	BA	690	G	N3-C4	7.52	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	775	G	C6-O6	-7.52	1.17	1.24
35	BA	2153	G	C6-N1	-7.52	1.34	1.39
35	BA	2772	C	C3'-C2'	-7.52	1.44	1.52
1	AA	453	A	C5-C4	-7.52	1.33	1.38
35	BA	671	C	N1-C6	-7.52	1.32	1.37
35	BA	2026	C	P-O5'	-7.52	1.52	1.59
35	BA	2430	A	C6-N1	-7.52	1.30	1.35
35	BA	227	A	C6-N6	-7.51	1.27	1.33
35	BA	1152	C	N3-C4	-7.51	1.28	1.33
35	BA	1189	A	C6-N1	-7.51	1.30	1.35
35	BA	880	G	C8-N7	-7.51	1.26	1.30
35	BA	2550	G	C8-N7	-7.51	1.26	1.30
1	AA	189(A)	C	N1-C6	-7.50	1.32	1.37
35	BA	908	C	N1-C6	-7.50	1.32	1.37
35	BA	152	G	C6-N1	-7.50	1.34	1.39
35	BA	2619	C	C4-N4	-7.50	1.27	1.33
35	BA	1946	U	C5-C6	-7.50	1.27	1.34
35	BA	2631	G	N9-C4	-7.50	1.31	1.38
1	AA	973	G	C5-C4	-7.50	1.33	1.38
1	AA	728	A	N3-C4	-7.49	1.30	1.34
35	BA	890	A	N3-C4	-7.49	1.30	1.34
36	BB	2	C	N1-C6	-7.49	1.32	1.37
1	AA	506	G	N7-C5	-7.49	1.34	1.39
35	BA	1047	G	N7-C5	-7.49	1.34	1.39
1	AA	688	G	C6-N1	-7.49	1.34	1.39
1	AA	1320	C	C2-N3	-7.49	1.29	1.35
35	BA	1941	C	N3-C4	-7.49	1.28	1.33
35	BA	2638	G	P-O5'	-7.48	1.52	1.59
1	AA	836	G	C2-N3	-7.48	1.26	1.32
35	BA	1431	U	C2-N3	-7.48	1.32	1.37
1	AA	643	C	C4-C5	-7.48	1.36	1.43
1	AA	921	U	O3'-P	-7.48	1.52	1.61
1	AA	945	G	N9-C4	-7.48	1.31	1.38
35	BA	423	A	N9-C4	-7.48	1.33	1.37
1	AA	639	G	C8-N7	7.47	1.35	1.30
35	BA	1313	U	C2-N3	-7.47	1.32	1.37
35	BA	1840	G	C2-N3	-7.47	1.26	1.32
1	AA	520	A	C8-N7	-7.47	1.26	1.31
35	BA	638	G	C6-N1	-7.47	1.34	1.39
35	BA	949	C	C5-C6	-7.47	1.28	1.34
35	BA	1178	C	N3-C4	-7.47	1.28	1.33
35	BA	2561	A	N7-C5	-7.47	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2822	G	C6-N1	-7.47	1.34	1.39
1	AA	7	G	N9-C8	-7.47	1.32	1.37
1	AA	360	A	N9-C8	-7.47	1.31	1.37
1	AA	310	G	C5'-C4'	-7.47	1.42	1.51
1	AA	885	G	C2-N2	-7.47	1.27	1.34
35	BA	121	G	N7-C5	-7.47	1.34	1.39
35	BA	174	C	N3-C4	-7.47	1.28	1.33
1	AA	33	A	C3'-C2'	-7.46	1.44	1.52
35	BA	704	G	C5-C4	-7.46	1.33	1.38
35	BA	777	A	N9-C4	7.46	1.42	1.37
35	BA	1147	C	N1-C6	-7.46	1.32	1.37
35	BA	2072	G	C5-C6	-7.46	1.34	1.42
1	AA	1042	G	C6-O6	-7.46	1.17	1.24
35	BA	2605	U	C2-N3	-7.46	1.32	1.37
1	AA	255	G	N1-C2	-7.46	1.31	1.37
35	BA	2067	G	N1-C2	-7.46	1.31	1.37
22	AV	53	G	C5-C4	-7.45	1.33	1.38
35	BA	1046	A	C4'-C3'	-7.45	1.45	1.53
36	BB	118	G	N1-C2	-7.45	1.31	1.37
1	AA	768	A	N3-C4	-7.45	1.30	1.34
1	AA	521	G	C2-N2	-7.45	1.27	1.34
35	BA	345	A	N7-C5	-7.45	1.34	1.39
35	BA	1087	G	C5-C4	-7.45	1.33	1.38
22	AV	50	U	C4-C5	-7.44	1.36	1.43
35	BA	42	G	N9-C8	-7.44	1.32	1.37
35	BA	1455	G	N9-C8	-7.44	1.32	1.37
35	BA	2123	G	C2-N3	-7.44	1.26	1.32
35	BA	2156	G	N9-C8	-7.44	1.32	1.37
35	BA	2403	C	C2-N3	-7.44	1.29	1.35
36	BB	67	G	N9-C4	-7.44	1.31	1.38
35	BA	272(J)	C	N1-C6	-7.44	1.32	1.37
1	AA	384	G	C8-N7	-7.44	1.26	1.30
35	BA	710	G	C8-N7	-7.44	1.26	1.30
1	AA	308	C	C5-C6	-7.44	1.28	1.34
1	AA	726	C	C4-C5	-7.44	1.37	1.43
1	AA	764	C	C4-C5	-7.44	1.37	1.43
35	BA	2060	A	N3-C4	-7.44	1.30	1.34
1	AA	510	A	C6-N1	-7.43	1.30	1.35
35	BA	1382	G	N9-C8	-7.43	1.32	1.37
35	BA	1445	A	C5-C4	-7.43	1.33	1.38
35	BA	2604	U	C2-N3	-7.43	1.32	1.37
1	AA	545	C	C2-N3	-7.43	1.29	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	932	C	C3'-C2'	-7.43	1.44	1.52
35	BA	921	G	N9-C4	-7.43	1.32	1.38
35	BA	837	C	C3'-C2'	-7.43	1.44	1.52
35	BA	2013	A	N9-C4	-7.43	1.33	1.37
35	BA	570	G	C6-N1	-7.42	1.34	1.39
35	BA	2783	G	C6-N1	-7.42	1.34	1.39
35	BA	2742	C	N1-C6	-7.42	1.32	1.37
35	BA	2802	G	N3-C4	-7.42	1.30	1.35
22	AV	56	C	N3-C4	-7.42	1.28	1.33
35	BA	726	G	N7-C5	-7.42	1.34	1.39
35	BA	962	G	N9-C8	-7.42	1.32	1.37
1	AA	1082	G	C6-N1	-7.42	1.34	1.39
35	BA	2282	G	N3-C4	-7.42	1.30	1.35
1	AA	1111	A	C8-N7	-7.42	1.26	1.31
1	AA	1170	A	C5-C4	-7.42	1.33	1.38
1	AA	1306	A	C8-N7	-7.42	1.26	1.31
1	AA	1157	A	N9-C4	-7.42	1.33	1.37
1	AA	1030(D)	A	C6-N6	-7.41	1.28	1.33
1	AA	694	A	N7-C5	-7.41	1.34	1.39
1	AA	1322	C	N1-C6	-7.41	1.32	1.37
35	BA	2823	A	C8-N7	-7.41	1.26	1.31
1	AA	329	A	C6-N6	-7.41	1.28	1.33
35	BA	2032	G	C5-C6	-7.41	1.34	1.42
35	BA	2095	C	C4-C5	-7.41	1.37	1.43
1	AA	452	A	N3-C4	-7.40	1.30	1.34
1	AA	807	A	N7-C5	-7.40	1.34	1.39
35	BA	1287	A	N3-C4	-7.40	1.30	1.34
35	BA	1215	G	C6-N1	-7.40	1.34	1.39
35	BA	2677	G	N9-C4	7.40	1.43	1.38
35	BA	195	A	C5-C4	-7.40	1.33	1.38
35	BA	212	G	N9-C4	-7.40	1.32	1.38
35	BA	467	G	C2-N3	-7.40	1.26	1.32
35	BA	1005	C	C4-C5	-7.40	1.37	1.43
1	AA	309	G	N1-C2	-7.40	1.31	1.37
1	AA	1270	C	P-O5'	-7.40	1.52	1.59
35	BA	1577	C	C5-C6	-7.40	1.28	1.34
1	AA	772	U	C4-O4	-7.40	1.17	1.23
35	BA	908	C	C4-N4	-7.40	1.27	1.33
35	BA	1037	G	N9-C8	-7.39	1.32	1.37
35	BA	1246	A	P-O5'	-7.39	1.52	1.59
1	AA	742	G	N9-C4	-7.39	1.32	1.38
1	AA	886	G	P-O5'	-7.39	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1052	C	C4-N4	-7.39	1.27	1.33
35	BA	1665	A	C2'-C1'	-7.39	1.45	1.53
35	BA	733	G	N7-C5	-7.39	1.34	1.39
35	BA	1528(A)	A	N7-C5	-7.39	1.34	1.39
35	BA	2266	A	N3-C4	-7.39	1.30	1.34
35	BA	880	G	C5-C6	-7.39	1.34	1.42
35	BA	1436	G	C2-N3	-7.39	1.26	1.32
35	BA	1597	A	C5-C4	-7.39	1.33	1.38
1	AA	761	G	C8-N7	-7.39	1.26	1.30
1	AA	813	U	C4-C5	-7.39	1.36	1.43
35	BA	783	A	P-O5'	-7.39	1.52	1.59
1	AA	1237	C	C3'-C2'	-7.38	1.44	1.52
35	BA	1022	G	N9-C8	-7.38	1.32	1.37
35	BA	2771	C	C5-C6	-7.38	1.28	1.34
35	BA	1549	C	N3-C4	-7.38	1.28	1.33
35	BA	717	G	C8-N7	-7.38	1.26	1.30
35	BA	738	G	C5-C4	-7.38	1.33	1.38
35	BA	790	C	C4-C5	-7.38	1.37	1.43
35	BA	1642	G	C5-C4	-7.38	1.33	1.38
35	BA	1792	G	C2-N2	-7.38	1.27	1.34
1	AA	493	G	N3-C4	-7.38	1.30	1.35
35	BA	674	G	N7-C5	-7.38	1.34	1.39
35	BA	1031	G	N7-C5	-7.38	1.34	1.39
35	BA	2673	G	N7-C5	-7.38	1.34	1.39
1	AA	1262	C	C2-N3	-7.38	1.29	1.35
1	AA	1483	A	C4'-O4'	-7.38	1.35	1.45
35	BA	975(A)	G	C5-C4	-7.38	1.33	1.38
1	AA	393	A	N3-C4	-7.37	1.30	1.34
1	AA	542	G	C5'-C4'	-7.37	1.42	1.51
35	BA	2792	G	C2-N3	-7.37	1.26	1.32
1	AA	836	G	N3-C4	-7.37	1.30	1.35
35	BA	261	G	C8-N7	-7.37	1.26	1.30
1	AA	93	G	N7-C5	-7.37	1.34	1.39
1	AA	252	U	C2-N3	-7.37	1.32	1.37
1	AA	1333	A	N9-C4	-7.37	1.33	1.37
1	AA	525	C	C3'-C2'	-7.36	1.44	1.52
35	BA	2255	G	C4'-C3'	-7.36	1.45	1.53
1	AA	392	G	C2-N2	7.36	1.42	1.34
35	BA	2247	A	N7-C5	-7.36	1.34	1.39
35	BA	1673	U	N1-C6	-7.36	1.31	1.38
35	BA	2325	G	N9-C8	-7.36	1.32	1.37
35	BA	209	C	N3-C4	-7.36	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	267	C	N3-C4	-7.36	1.28	1.33
35	BA	711	G	C5-C6	-7.36	1.34	1.42
35	BA	402	A	C8-N7	-7.35	1.26	1.31
35	BA	1961	C	C5-C6	-7.35	1.28	1.34
1	AA	169	C	N1-C6	-7.35	1.32	1.37
1	AA	739	C	N1-C6	-7.35	1.32	1.37
35	BA	2505	G	C8-N7	-7.35	1.26	1.30
1	AA	564	C	C5-C6	-7.35	1.28	1.34
35	BA	1545	A	C6-N1	-7.35	1.30	1.35
35	BA	2826	A	C5-C6	-7.35	1.34	1.41
35	BA	1711	C	N1-C6	-7.34	1.32	1.37
1	AA	935	A	C6-N6	-7.34	1.28	1.33
35	BA	125	G	C5-C4	-7.34	1.33	1.38
35	BA	271(A)	A	N9-C8	-7.34	1.31	1.37
1	AA	104	G	C5'-C4'	-7.33	1.42	1.51
35	BA	347	A	C6-N1	-7.33	1.30	1.35
35	BA	1527	G	C8-N7	-7.33	1.26	1.30
35	BA	2647	U	C2'-C1'	-7.33	1.45	1.53
1	AA	1416	G	C2-N3	-7.33	1.26	1.32
35	BA	563	G	C2-N3	-7.33	1.26	1.32
1	AA	1491	G	C2'-C1'	-7.33	1.45	1.53
35	BA	2008	C	C5-C6	-7.33	1.28	1.34
1	AA	488	C	N1-C6	-7.32	1.32	1.37
35	BA	926	A	N7-C5	-7.32	1.34	1.39
35	BA	1813	G	N7-C5	-7.32	1.34	1.39
35	BA	1956	U	C2-N3	-7.32	1.32	1.37
35	BA	2033	A	C6-N1	-7.32	1.30	1.35
1	AA	394	G	O3'-P	-7.32	1.52	1.61
35	BA	1676	A	N3-C4	-7.32	1.30	1.34
35	BA	671	C	N3-C4	-7.32	1.28	1.33
35	BA	2753	A	N7-C5	-7.32	1.34	1.39
35	BA	1641	A	P-O5'	-7.32	1.52	1.59
35	BA	1718	G	N9-C8	-7.31	1.32	1.37
35	BA	2795	G	N3-C4	-7.31	1.30	1.35
35	BA	570	G	N7-C5	-7.31	1.34	1.39
35	BA	2133	G	N7-C5	-7.31	1.34	1.39
1	AA	1173	G	N9-C8	-7.31	1.32	1.37
1	AA	1017	G	C6-O6	-7.31	1.17	1.24
35	BA	2049	G	C6-O6	-7.31	1.17	1.24
35	BA	248	G	N1-C2	-7.30	1.31	1.37
1	AA	315	A	N9-C4	-7.30	1.33	1.37
35	BA	1273	U	C2-N3	-7.30	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1294	U	C2-N3	-7.30	1.32	1.37
35	BA	1956	U	N1-C2	-7.30	1.31	1.38
35	BA	1997	G	C8-N7	-7.30	1.26	1.30
35	BA	2436	G	C8-N7	-7.30	1.26	1.30
35	BA	2807	G	C8-N7	-7.30	1.26	1.30
1	AA	750	G	N9-C8	-7.30	1.32	1.37
1	AA	1032	G	N7-C5	-7.30	1.34	1.39
35	BA	2152	G	N7-C5	-7.30	1.34	1.39
1	AA	829	G	P-O5'	-7.30	1.52	1.59
35	BA	2731	G	C5-C4	-7.30	1.33	1.38
1	AA	201	C	C4-C5	-7.29	1.37	1.43
1	AA	273	A	C6-N6	-7.29	1.28	1.33
35	BA	614(A)	U	C2'-C1'	-7.29	1.45	1.53
1	AA	1162	C	N1-C6	-7.29	1.32	1.37
35	BA	149	A	C6-N1	-7.29	1.30	1.35
35	BA	2094	G	N3-C4	-7.29	1.30	1.35
35	BA	322	A	P-O5'	-7.29	1.52	1.59
35	BA	1471	A	P-O5'	-7.29	1.52	1.59
1	AA	1363(A)	A	N9-C4	-7.29	1.33	1.37
35	BA	56	A	N9-C4	-7.29	1.33	1.37
1	AA	338	A	C6-N1	-7.29	1.30	1.35
1	AA	710	G	N3-C4	-7.29	1.30	1.35
1	AA	902	G	N3-C4	-7.29	1.30	1.35
1	AA	1002	G	C6-N1	-7.29	1.34	1.39
35	BA	2425	A	N9-C4	-7.28	1.33	1.37
35	BA	971	C	C4-C5	-7.28	1.37	1.43
1	AA	716	A	N7-C5	-7.28	1.34	1.39
35	BA	321	G	N7-C5	-7.28	1.34	1.39
35	BA	1901	A	C6-N1	-7.28	1.30	1.35
35	BA	2302	G	N3-C4	-7.28	1.30	1.35
22	AV	28	C	C4-C5	-7.28	1.37	1.43
1	AA	1063	C	C2-O2	-7.28	1.18	1.24
1	AA	1164	G	N9-C8	-7.28	1.32	1.37
35	BA	2329	G	N9-C8	-7.28	1.32	1.37
35	BA	2578	G	C6-N1	-7.28	1.34	1.39
1	AA	1036	G	N7-C5	-7.27	1.34	1.39
35	BA	909	A	N1-C2	-7.27	1.27	1.34
36	BB	87	G	N7-C5	-7.27	1.34	1.39
1	AA	1130	A	C2'-C1'	-7.27	1.45	1.53
1	AA	1238	A	C5-C4	-7.27	1.33	1.38
1	AA	894	G	N7-C5	-7.27	1.34	1.39
35	BA	41	C	N1-C6	7.27	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1464	C	N3-C4	-7.27	1.28	1.33
35	BA	1584	C	C4-C5	-7.27	1.37	1.43
35	BA	2279	G	N7-C5	-7.27	1.34	1.39
1	AA	1019	C	N1-C6	-7.27	1.32	1.37
1	AA	1431	C	N1-C6	-7.27	1.32	1.37
1	AA	70	G	N1-C2	-7.26	1.31	1.37
35	BA	702	G	N1-C2	-7.26	1.31	1.37
35	BA	1700	A	N9-C8	-7.26	1.31	1.37
35	BA	1922	G	N1-C2	-7.26	1.31	1.37
35	BA	886	C	N3-C4	-7.26	1.28	1.33
35	BA	1823	G	N1-C2	-7.26	1.31	1.37
35	BA	2674	G	C5-C4	-7.26	1.33	1.38
1	AA	27	G	C2-N3	-7.26	1.26	1.32
1	AA	1374	A	N9-C8	-7.26	1.31	1.37
35	BA	1206	G	C2-N3	-7.26	1.26	1.32
35	BA	2882	A	C8-N7	-7.26	1.26	1.31
1	AA	299	G	C6-N1	-7.25	1.34	1.39
35	BA	42	G	C5-C4	-7.25	1.33	1.38
1	AA	722	A	C2-N3	-7.25	1.27	1.33
22	AV	11	A	C4'-C3'	-7.25	1.45	1.53
35	BA	1246	A	N9-C4	-7.25	1.33	1.37
35	BA	1704	G	C3'-C2'	-7.25	1.44	1.52
35	BA	675	A	N7-C5	-7.25	1.34	1.39
35	BA	956	G	C8-N7	-7.25	1.26	1.30
35	BA	1456	G	C8-N7	-7.25	1.26	1.30
35	BA	1606	G	N9-C8	-7.25	1.32	1.37
35	BA	2551	C	C5-C6	-7.25	1.28	1.34
35	BA	2893	G	C8-N7	-7.25	1.26	1.30
35	BA	271(Y)	U	C2'-O2'	-7.25	1.32	1.41
1	AA	296	U	C4-C5	-7.25	1.37	1.43
35	BA	1136	G	N7-C5	-7.24	1.34	1.39
35	BA	1928	A	C5-C4	-7.24	1.33	1.38
35	BA	1720	U	C2-O2	-7.24	1.15	1.22
35	BA	1616	A	C5-C6	-7.24	1.34	1.41
35	BA	1616	A	P-O5'	-7.24	1.52	1.59
35	BA	651	G	O4'-C1'	-7.24	1.32	1.41
35	BA	1236	G	C5-C4	-7.24	1.33	1.38
35	BA	2577	A	C6-N1	-7.24	1.30	1.35
1	AA	559	A	O3'-P	-7.23	1.52	1.61
1	AA	189(E)	U	C2'-C1'	-7.23	1.45	1.53
47	BP	52	GLU	CD-OE2	-7.23	1.17	1.25
1	AA	983	A	N3-C4	-7.23	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1332	A	C6-N1	-7.23	1.30	1.35
36	BB	59	A	C6-N1	-7.23	1.30	1.35
1	AA	1038	C	C5-C6	-7.23	1.28	1.34
1	AA	1244	C	C4'-C3'	-7.23	1.45	1.53
1	AA	1335	C	C4'-C3'	-7.23	1.45	1.53
35	BA	1509	C	C5-C6	-7.23	1.28	1.34
35	BA	1775	U	C4-C5	-7.23	1.37	1.43
35	BA	2444	G	C8-N7	-7.23	1.26	1.30
35	BA	1285	G	N9-C8	-7.23	1.32	1.37
1	AA	1160	G	N3-C4	-7.22	1.30	1.35
35	BA	342	G	N7-C5	-7.22	1.34	1.39
35	BA	463	G	N7-C5	-7.22	1.34	1.39
35	BA	512	G	N9-C8	7.22	1.43	1.37
35	BA	953	A	N7-C5	-7.22	1.34	1.39
35	BA	1332	G	N7-C5	-7.22	1.34	1.39
35	BA	1374	G	N7-C5	-7.22	1.34	1.39
35	BA	2639	A	N7-C5	-7.22	1.34	1.39
35	BA	2025	C	N1-C6	-7.22	1.32	1.37
1	AA	255	G	N3-C4	-7.22	1.30	1.35
35	BA	2850	A	P-O5'	-7.22	1.52	1.59
1	AA	368	U	C4-C5	-7.22	1.37	1.43
35	BA	388	G	N9-C4	-7.22	1.32	1.38
35	BA	1818	U	O3'-P	-7.21	1.52	1.61
35	BA	203	C	C4-N4	-7.21	1.27	1.33
1	AA	555	C	N3-C4	-7.21	1.28	1.33
35	BA	252	G	C6-N1	-7.21	1.34	1.39
35	BA	226	G	C5-C4	-7.21	1.33	1.38
35	BA	277	C	C2-O2	-7.21	1.18	1.24
35	BA	862	G	C6-O6	-7.21	1.17	1.24
1	AA	578	C	C4-N4	-7.21	1.27	1.33
1	AA	1001(A)	G	N7-C5	-7.21	1.34	1.39
1	AA	1269	A	N3-C4	-7.21	1.30	1.34
35	BA	1969	A	N7-C5	-7.21	1.34	1.39
1	AA	293	G	C8-N7	-7.20	1.26	1.30
35	BA	921	G	N3-C4	-7.20	1.30	1.35
35	BA	1355	G	N3-C4	-7.20	1.30	1.35
35	BA	2402	C	C5-C6	-7.20	1.28	1.34
1	AA	645	C	N3-C4	-7.20	1.28	1.33
1	AA	1298	C	P-O5'	-7.20	1.52	1.59
1	AA	286	G	N3-C4	-7.20	1.30	1.35
1	AA	1176	A	N7-C5	-7.20	1.34	1.39
35	BA	1841	U	C2-O2	-7.20	1.15	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2233	U	C2-N3	-7.20	1.32	1.37
1	AA	189(C)	C	N1-C6	-7.20	1.32	1.37
1	AA	1244	C	N1-C6	-7.20	1.32	1.37
1	AA	1316	G	C2-N3	-7.20	1.26	1.32
1	AA	1367	C	N1-C6	-7.20	1.32	1.37
35	BA	679	C	N1-C6	-7.20	1.32	1.37
35	BA	1751	C	N1-C6	-7.20	1.32	1.37
35	BA	1849	G	C2-N3	-7.20	1.26	1.32
1	AA	878	G	C6-N1	-7.20	1.34	1.39
35	BA	1205	U	N1-C6	7.20	1.44	1.38
35	BA	107	C	C5-C6	-7.19	1.28	1.34
22	AV	64	G	N9-C4	-7.19	1.32	1.38
35	BA	1471	A	N3-C4	-7.19	1.30	1.34
35	BA	1750	G	C5-C4	-7.19	1.33	1.38
35	BA	2310	A	N7-C5	-7.19	1.34	1.39
35	BA	2661	G	N9-C4	-7.19	1.32	1.38
1	AA	1028	C	C5-C6	-7.19	1.28	1.34
36	BB	51	G	C2'-C1'	-7.19	1.45	1.53
35	BA	81	G	C8-N7	-7.19	1.26	1.30
35	BA	122	G	C8-N7	-7.19	1.26	1.30
35	BA	811	U	C2-O2	-7.19	1.15	1.22
1	AA	452	A	C6-N1	-7.19	1.30	1.35
1	AA	1049	U	C2-N3	7.19	1.42	1.37
35	BA	218	A	N3-C4	7.19	1.39	1.34
35	BA	1572	A	C6-N1	-7.19	1.30	1.35
35	BA	1577	C	C2-O2	-7.19	1.18	1.24
1	AA	460	G	N9-C8	-7.18	1.32	1.37
1	AA	1178	G	N9-C8	-7.18	1.32	1.37
35	BA	1118	C	N3-C4	-7.18	1.28	1.33
35	BA	2587	A	N9-C4	-7.18	1.33	1.37
1	AA	670	G	N3-C4	-7.18	1.30	1.35
35	BA	140	G	N3-C4	-7.18	1.30	1.35
35	BA	489	G	N7-C5	-7.18	1.34	1.39
35	BA	996	A	C5-C6	-7.18	1.34	1.41
35	BA	1607	C	C2-N3	-7.18	1.30	1.35
35	BA	2578	G	C6-O6	-7.18	1.17	1.24
1	AA	417	C	N1-C6	-7.18	1.32	1.37
1	AA	1299	A	C6-N1	7.18	1.40	1.35
35	BA	1644	C	N3-C4	-7.18	1.28	1.33
35	BA	2346	A	C6-N6	-7.18	1.28	1.33
35	BA	2355	C	N3-C4	-7.18	1.28	1.33
35	BA	1560	G	N9-C4	7.18	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1765	C	C3'-C2'	-7.18	1.44	1.52
1	AA	111	G	N7-C5	-7.17	1.34	1.39
1	AA	166	G	C6-O6	-7.17	1.17	1.24
35	BA	1649	G	C6-N1	-7.17	1.34	1.39
1	AA	1512	U	C4'-C3'	-7.17	1.45	1.53
35	BA	859	G	C2-N3	-7.17	1.27	1.32
35	BA	2627	G	C2-N3	-7.17	1.27	1.32
35	BA	553	G	N1-C2	-7.17	1.32	1.37
35	BA	2269	A	N9-C4	-7.17	1.33	1.37
1	AA	630	G	N9-C8	-7.17	1.32	1.37
1	AA	671	G	N9-C8	-7.17	1.32	1.37
35	BA	598	G	N7-C5	-7.17	1.34	1.39
35	BA	2338	G	C5-C6	-7.17	1.35	1.42
35	BA	196	A	C6-N1	-7.17	1.30	1.35
35	BA	1345	C	N1-C6	-7.17	1.32	1.37
1	AA	663	A	C5-C4	-7.16	1.33	1.38
35	BA	1781	C	C2-N3	-7.16	1.30	1.35
35	BA	35	G	C2-N3	-7.16	1.27	1.32
1	AA	1496	C	N3-C4	-7.16	1.28	1.33
1	AA	887	G	N7-C5	-7.16	1.34	1.39
35	BA	1321	A	C8-N7	-7.16	1.26	1.31
35	BA	646	A	N9-C4	-7.15	1.33	1.37
35	BA	681	G	C6-N1	-7.15	1.34	1.39
1	AA	268	C	C5-C6	-7.15	1.28	1.34
35	BA	391	G	N1-C2	-7.15	1.32	1.37
35	BA	559	G	C8-N7	-7.15	1.26	1.30
35	BA	2360	A	N7-C5	-7.15	1.34	1.39
35	BA	2805	G	C8-N7	-7.15	1.26	1.30
1	AA	195	A	N3-C4	-7.15	1.30	1.34
35	BA	1749	A	C6-N1	-7.15	1.30	1.35
35	BA	2121	G	N9-C8	-7.15	1.32	1.37
35	BA	2207	G	N3-C4	-7.15	1.30	1.35
35	BA	2664	G	C6-N1	-7.15	1.34	1.39
1	AA	1192	C	C4-C5	-7.14	1.37	1.43
35	BA	806	C	C4-C5	-7.14	1.37	1.43
35	BA	2331	G	C5-C4	-7.14	1.33	1.38
1	AA	157	G	N7-C5	-7.14	1.34	1.39
1	AA	1401	G	C8-N7	-7.14	1.26	1.30
1	AA	1213	A	N3-C4	-7.14	1.30	1.34
1	AA	614	A	C8-N7	-7.14	1.26	1.31
1	AA	761	G	C4'-C3'	-7.14	1.45	1.53
1	AA	302	G	P-O5'	-7.14	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2219	G	C6-O6	-7.14	1.17	1.24
35	BA	2892	A	N1-C2	-7.13	1.27	1.34
1	AA	770	C	N3-C4	-7.13	1.28	1.33
1	AA	1250	A	N9-C8	-7.13	1.32	1.37
35	BA	2202	C	C4-C5	-7.13	1.37	1.43
35	BA	2294	C	C5'-C4'	-7.13	1.42	1.51
35	BA	2754	U	C4-C5	-7.13	1.37	1.43
1	AA	907	A	C5-C6	-7.13	1.34	1.41
1	AA	1518	A	C5-C6	-7.13	1.34	1.41
1	AA	966	G	C3'-C2'	-7.13	1.45	1.52
35	BA	331	A	N3-C4	-7.13	1.30	1.34
35	BA	1487	G	C5-C6	-7.13	1.35	1.42
35	BA	1912	A	C6-N1	-7.13	1.30	1.35
35	BA	2308	G	N7-C5	-7.12	1.34	1.39
1	AA	518	C	N1-C6	-7.12	1.32	1.37
1	AA	1298	C	C2-N3	-7.12	1.30	1.35
35	BA	2497	A	N3-C4	-7.12	1.30	1.34
1	AA	722	A	N9-C4	-7.12	1.33	1.37
1	AA	119	A	C5-C6	-7.12	1.34	1.41
1	AA	165	C	C4'-C3'	-7.12	1.45	1.53
35	BA	266	G	N7-C5	-7.12	1.34	1.39
35	BA	309	G	C2-N3	-7.12	1.27	1.32
35	BA	1973	G	C2-N3	-7.12	1.27	1.32
35	BA	533	G	C8-N7	-7.12	1.26	1.30
1	AA	832	C	N3-C4	-7.12	1.28	1.33
35	BA	432	A	N3-C4	-7.12	1.30	1.34
35	BA	1760	A	C6-N1	-7.12	1.30	1.35
35	BA	1969	A	N3-C4	-7.12	1.30	1.34
35	BA	2314	C	N1-C6	-7.12	1.32	1.37
35	BA	2765	A	N3-C4	-7.12	1.30	1.34
35	BA	1539	G	N1-C2	-7.11	1.32	1.37
1	AA	1092	A	C6-N1	-7.11	1.30	1.35
35	BA	1262	A	C6-N1	-7.11	1.30	1.35
35	BA	1369	G	C6-N1	-7.11	1.34	1.39
35	BA	1005	C	P-O5'	-7.11	1.52	1.59
35	BA	1464	C	N1-C6	-7.11	1.32	1.37
22	AV	16	C	C4-C5	-7.11	1.37	1.43
35	BA	1371	G	N7-C5	-7.11	1.34	1.39
1	AA	1299	A	N9-C8	-7.10	1.32	1.37
35	BA	79	G	N3-C4	-7.10	1.30	1.35
35	BA	1954	G	N3-C4	-7.10	1.30	1.35
35	BA	2892	A	C8-N7	-7.10	1.26	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	631	G	C2'-C1'	-7.10	1.45	1.53
1	AA	1230	C	N1-C6	-7.10	1.32	1.37
35	BA	516	C	C4-N4	7.10	1.40	1.33
35	BA	1062	G	C5-C4	-7.10	1.33	1.38
35	BA	1144	G	C6-O6	-7.10	1.17	1.24
36	BB	38	C	N1-C6	-7.10	1.32	1.37
35	BA	414	C	C3'-C2'	-7.10	1.45	1.52
1	AA	1186	G	N1-C2	-7.10	1.32	1.37
35	BA	773	U	N1-C6	-7.10	1.31	1.38
35	BA	913	U	C4-O4	-7.10	1.18	1.23
35	BA	1515	G	N7-C5	-7.10	1.34	1.39
35	BA	1651	G	C5-C6	-7.10	1.35	1.42
1	AA	394	G	C8-N7	-7.10	1.26	1.30
35	BA	2773	C	C5-C6	-7.10	1.28	1.34
35	BA	915	C	N1-C6	-7.10	1.32	1.37
35	BA	2456	C	P-O5'	-7.10	1.52	1.59
1	AA	189(J)	G	N7-C5	-7.09	1.34	1.39
1	AA	1024	G	N1-C2	-7.09	1.32	1.37
1	AA	1284	C	C4-N4	-7.09	1.27	1.33
35	BA	710	G	N7-C5	-7.09	1.34	1.39
35	BA	1245	G	N7-C5	-7.09	1.34	1.39
35	BA	1450(A)	C	N3-C4	-7.09	1.28	1.33
1	AA	1517	G	C2-N3	-7.09	1.27	1.32
35	BA	950	G	N3-C4	-7.09	1.30	1.35
1	AA	1132	C	C2-N3	-7.09	1.30	1.35
1	AA	247	G	C6-N1	-7.09	1.34	1.39
1	AA	971	G	C8-N7	-7.09	1.26	1.30
35	BA	337	C	N3-C4	-7.09	1.28	1.33
35	BA	762	U	C2-N3	-7.09	1.32	1.37
35	BA	1656	C	N1-C6	-7.09	1.32	1.37
35	BA	2321	G	C6-N1	-7.09	1.34	1.39
35	BA	2582	G	C6-N1	-7.09	1.34	1.39
35	BA	2749	A	C2-N3	-7.09	1.27	1.33
35	BA	60	G	N3-C4	-7.09	1.30	1.35
35	BA	654(A)	G	N3-C4	-7.09	1.30	1.35
35	BA	2671	A	C4'-C3'	-7.09	1.45	1.53
1	AA	185	A	P-O5'	-7.09	1.52	1.59
1	AA	13	U	C2-N3	-7.08	1.32	1.37
1	AA	639	G	C2-N3	-7.08	1.27	1.32
35	BA	465	G	C6-N1	-7.08	1.34	1.39
35	BA	750	A	C5-C4	-7.08	1.33	1.38
35	BA	835	A	N9-C4	-7.08	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1354	A	C5-C4	-7.08	1.33	1.38
35	BA	2171	A	C6-N1	-7.08	1.30	1.35
35	BA	79	G	N7-C5	-7.08	1.35	1.39
35	BA	1229	G	C5-C4	-7.08	1.33	1.38
35	BA	1913	A	N7-C5	-7.08	1.35	1.39
35	BA	2487	G	N7-C5	-7.08	1.35	1.39
36	BB	36	C	C2-N3	-7.08	1.30	1.35
35	BA	84	A	C6-N6	-7.08	1.28	1.33
35	BA	2834	G	C2-N2	-7.08	1.27	1.34
35	BA	1123	C	N3-C4	-7.08	1.28	1.33
35	BA	1568	G	C2-N3	-7.08	1.27	1.32
35	BA	2824	C	C2-N3	-7.08	1.30	1.35
1	AA	526	C	C5-C6	-7.08	1.28	1.34
1	AA	1531	A	N3-C4	-7.08	1.30	1.34
35	BA	140	G	C5-C6	7.08	1.49	1.42
35	BA	1810	A	N9-C4	-7.08	1.33	1.37
35	BA	1952	A	N9-C4	-7.08	1.33	1.37
1	AA	1067	A	N7-C5	-7.08	1.35	1.39
35	BA	24	G	N7-C5	-7.08	1.35	1.39
35	BA	1366	A	N7-C5	-7.08	1.35	1.39
35	BA	1552	G	C5-C4	-7.08	1.33	1.38
35	BA	1711	C	C4-C5	-7.08	1.37	1.43
35	BA	2190	G	N7-C5	-7.08	1.35	1.39
1	AA	618	C	C3'-C2'	-7.07	1.45	1.52
35	BA	2048	G	C2-N3	-7.07	1.27	1.32
35	BA	2358	G	C5-C6	-7.07	1.35	1.42
35	BA	1069	A	C6-N1	-7.07	1.30	1.35
1	AA	68	G	N1-C2	-7.07	1.32	1.37
1	AA	537	G	C8-N7	-7.07	1.26	1.30
1	AA	767	A	C6-N6	-7.07	1.28	1.33
1	AA	818	G	N3-C4	-7.07	1.30	1.35
35	BA	681	G	C8-N7	-7.07	1.26	1.30
35	BA	751	A	C8-N7	-7.07	1.26	1.31
35	BA	2652	C	N1-C6	-7.07	1.32	1.37
35	BA	2821	A	C6-N6	-7.07	1.28	1.33
1	AA	32	A	N9-C4	7.07	1.42	1.37
35	BA	424	G	C6-N1	-7.07	1.34	1.39
35	BA	1994	C	C2-O2	7.07	1.30	1.24
1	AA	1078	U	N1-C6	-7.07	1.31	1.38
35	BA	144	C	N3-C4	-7.07	1.29	1.33
35	BA	654(N)	G	N3-C4	-7.07	1.30	1.35
1	AA	1328	C	N1-C6	-7.06	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2645	G	C8-N7	-7.06	1.26	1.30
1	AA	392	G	N7-C5	-7.06	1.35	1.39
1	AA	831	U	N3-C4	-7.06	1.32	1.38
35	BA	1654	A	C5-C4	-7.06	1.33	1.38
35	BA	2258	C	C4'-C3'	-7.06	1.45	1.53
35	BA	2757	A	N9-C4	7.06	1.42	1.37
35	BA	650	C	P-O5'	-7.06	1.52	1.59
35	BA	1058	G	N3-C4	-7.06	1.30	1.35
35	BA	1971	A	N9-C4	-7.06	1.33	1.37
35	BA	1090	U	C5-C6	-7.06	1.27	1.34
35	BA	1023	U	C4-C5	-7.05	1.37	1.43
1	AA	895	G	N7-C5	-7.05	1.35	1.39
35	BA	125	G	N7-C5	-7.05	1.35	1.39
35	BA	1050	A	C6-N1	7.05	1.40	1.35
35	BA	2582	G	C8-N7	-7.05	1.26	1.30
1	AA	1108	G	N9-C8	-7.05	1.32	1.37
1	AA	1421	G	C2-N3	-7.05	1.27	1.32
35	BA	728	G	N3-C4	-7.05	1.30	1.35
35	BA	2530	A	P-O5'	-7.05	1.52	1.59
1	AA	311	C	N1-C6	-7.05	1.32	1.37
35	BA	511	U	C2'-C1'	-7.05	1.45	1.53
35	BA	626	U	C2-N3	-7.05	1.32	1.37
36	BB	95	C	O3'-P	-7.05	1.52	1.61
1	AA	502	G	C5-C6	-7.04	1.35	1.42
1	AA	592	G	C5-C4	-7.04	1.33	1.38
1	AA	644	G	C5-C4	-7.04	1.33	1.38
1	AA	836	G	N7-C5	-7.04	1.35	1.39
1	AA	932	C	P-O5'	-7.04	1.52	1.59
35	BA	134	C	C5-C6	-7.04	1.28	1.34
35	BA	2878	U	C2-N3	-7.04	1.32	1.37
1	AA	919	A	N3-C4	-7.04	1.30	1.34
35	BA	692	C	C5-C6	-7.04	1.28	1.34
35	BA	1509	C	C2-N3	-7.04	1.30	1.35
35	BA	2360	A	N3-C4	-7.04	1.30	1.34
35	BA	1144	G	C8-N7	7.04	1.35	1.30
1	AA	875	C	C4-C5	-7.04	1.37	1.43
35	BA	560	C	C2'-C1'	-7.04	1.45	1.53
35	BA	1529	G	N9-C4	-7.04	1.32	1.38
35	BA	2470	G	C6-N1	-7.04	1.34	1.39
1	AA	104	G	N1-C2	-7.03	1.32	1.37
1	AA	593	G	N3-C4	-7.03	1.30	1.35
35	BA	957	A	N9-C8	-7.03	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1423	G	N3-C4	-7.03	1.30	1.35
35	BA	1708	C	N3-C4	-7.03	1.29	1.33
35	BA	1833	U	P-O5'	-7.03	1.52	1.59
35	BA	332	A	N7-C5	-7.03	1.35	1.39
35	BA	1896	G	C5-C4	-7.03	1.33	1.38
35	BA	1623	G	C8-N7	-7.03	1.26	1.30
35	BA	1784	A	C5-C6	-7.03	1.34	1.41
35	BA	1353	A	C6-N1	-7.03	1.30	1.35
35	BA	1429	G	C5-C4	-7.03	1.33	1.38
35	BA	2310	A	N9-C4	-7.03	1.33	1.37
35	BA	2636	U	C4'-C3'	-7.03	1.45	1.53
35	BA	862	G	C8-N7	-7.02	1.26	1.30
49	BR	115	GLU	CD-OE1	-7.02	1.18	1.25
1	AA	1268	A	C6-N6	-7.02	1.28	1.33
35	BA	1800	C	C4-C5	-7.02	1.37	1.43
35	BA	714	U	N1-C6	-7.02	1.31	1.38
35	BA	1906	G	C6-N1	-7.02	1.34	1.39
35	BA	2121	G	C6-N1	-7.02	1.34	1.39
35	BA	2234	G	C6-N1	-7.02	1.34	1.39
35	BA	2384	G	C6-N1	-7.02	1.34	1.39
35	BA	2740	A	N7-C5	-7.02	1.35	1.39
1	AA	148	G	C6-O6	-7.02	1.17	1.24
1	AA	1294	G	C6-O6	-7.02	1.17	1.24
35	BA	514	A	C5-C4	-7.01	1.33	1.38
35	BA	2458	G	N1-C2	-7.01	1.32	1.37
1	AA	858	G	N7-C5	-7.01	1.35	1.39
35	BA	2115	G	N9-C8	-7.01	1.32	1.37
1	AA	727	G	C2-N3	-7.01	1.27	1.32
35	BA	1438	U	O3'-P	-7.01	1.52	1.61
35	BA	2044	C	C5-C6	-7.01	1.28	1.34
35	BA	346	A	N9-C4	-7.01	1.33	1.37
35	BA	2418	A	C5-C4	-7.01	1.33	1.38
1	AA	236	G	N7-C5	-7.01	1.35	1.39
1	AA	826	C	O3'-P	-7.01	1.52	1.61
35	BA	656	G	N3-C4	-7.01	1.30	1.35
35	BA	1425	G	N3-C4	-7.01	1.30	1.35
35	BA	1695	G	N3-C4	-7.01	1.30	1.35
35	BA	2000	G	N3-C4	-7.01	1.30	1.35
35	BA	563	G	C6-N1	-7.00	1.34	1.39
35	BA	2411	A	N9-C4	7.00	1.42	1.37
1	AA	412	A	C8-N7	-7.00	1.26	1.31
1	AA	481	G	C2-N2	-7.00	1.27	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	38	A	N9-C4	-7.00	1.33	1.37
35	BA	2572	A	C6-N6	-7.00	1.28	1.33
1	AA	1461	G	C2-N3	-7.00	1.27	1.32
1	AA	638	G	C5-C4	-7.00	1.33	1.38
35	BA	949	C	C4-N4	-7.00	1.27	1.33
35	BA	1311	G	C2-N3	-7.00	1.27	1.32
35	BA	34	C	N3-C4	-6.99	1.29	1.33
35	BA	734	A	C6-N6	6.99	1.39	1.33
35	BA	1928	A	C2-N3	-6.99	1.27	1.33
35	BA	308	G	C8-N7	-6.99	1.26	1.30
35	BA	1795	C	C4-N4	-6.99	1.27	1.33
35	BA	1627	G	C5-C6	-6.99	1.35	1.42
35	BA	2440	C	C4-C5	-6.99	1.37	1.43
35	BA	211	A	N3-C4	-6.99	1.30	1.34
1	AA	781	A	N1-C2	-6.99	1.28	1.34
35	BA	2331	G	C8-N7	-6.99	1.26	1.30
1	AA	485	G	N3-C4	-6.98	1.30	1.35
35	BA	2005	A	C6-N1	-6.98	1.30	1.35
1	AA	106	C	N3-C4	-6.98	1.29	1.33
1	AA	186	C	N3-C4	-6.98	1.29	1.33
1	AA	383	A	N9-C4	-6.98	1.33	1.37
1	AA	559	A	C6-N6	-6.98	1.28	1.33
1	AA	642	A	C6-N6	-6.98	1.28	1.33
35	BA	779	U	C3'-C2'	-6.98	1.45	1.52
35	BA	1459	G	C5-C6	-6.98	1.35	1.42
1	AA	302	G	C2-N3	-6.98	1.27	1.32
1	AA	496	A	N9-C8	-6.98	1.32	1.37
35	BA	1412	A	N9-C8	-6.98	1.32	1.37
35	BA	2537	U	P-O5'	-6.98	1.52	1.59
1	AA	285	G	C5-C4	-6.98	1.33	1.38
1	AA	527	G	C6-N1	-6.98	1.34	1.39
35	BA	704	G	C6-N1	-6.98	1.34	1.39
35	BA	936	C	P-O5'	-6.98	1.52	1.59
1	AA	147	G	N7-C5	-6.98	1.35	1.39
35	BA	1634	A	N7-C5	-6.98	1.35	1.39
35	BA	1861	G	N7-C5	-6.98	1.35	1.39
35	BA	379	G	C2-N2	-6.97	1.27	1.34
35	BA	2594	C	N1-C2	-6.97	1.33	1.40
1	AA	79	G	C8-N7	-6.97	1.26	1.30
1	AA	818	G	C8-N7	-6.97	1.26	1.30
1	AA	1202	G	C5-C4	-6.97	1.33	1.38
1	AA	1471	G	N3-C4	-6.97	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BB	69	G	N3-C4	-6.97	1.30	1.35
1	AA	327	A	C5-C4	-6.97	1.33	1.38
35	BA	451	C	O3'-P	-6.97	1.52	1.61
1	AA	1139	G	N7-C5	-6.97	1.35	1.39
1	AA	615	C	C2-O2	-6.97	1.18	1.24
35	BA	626	U	P-O5'	-6.97	1.52	1.59
35	BA	1094	U	C2-O2	-6.97	1.16	1.22
35	BA	2056	G	C2-N2	-6.97	1.27	1.34
36	BB	49	C	C4-C5	-6.97	1.37	1.43
35	BA	1502	C	N1-C6	-6.96	1.32	1.37
35	BA	2567	G	C8-N7	-6.96	1.26	1.30
35	BA	2743	C	N1-C6	-6.96	1.32	1.37
1	AA	1015	A	C8-N7	-6.96	1.26	1.31
35	BA	44	G	O3'-P	-6.96	1.52	1.61
35	BA	1834	U	C4-O4	-6.96	1.18	1.23
35	BA	359	A	N1-C2	-6.96	1.28	1.34
35	BA	2691	C	N1-C6	-6.96	1.32	1.37
1	AA	518	C	N3-C4	6.96	1.38	1.33
1	AA	705	U	C4-O4	-6.96	1.18	1.23
1	AA	1154	G	N3-C4	-6.96	1.30	1.35
35	BA	2025	C	C5-C6	-6.96	1.28	1.34
35	BA	2302	G	N1-C2	-6.96	1.32	1.37
1	AA	234	C	C5'-C4'	-6.95	1.43	1.51
35	BA	1389	G	C2-N2	-6.95	1.27	1.34
35	BA	1695	G	N9-C8	-6.95	1.32	1.37
35	BA	1332	G	N1-C2	-6.95	1.32	1.37
1	AA	353	A	N9-C4	-6.95	1.33	1.37
1	AA	1179	A	C6-N1	-6.95	1.30	1.35
35	BA	1496	A	N7-C5	-6.95	1.35	1.39
35	BA	2454	G	N7-C5	-6.95	1.35	1.39
36	BB	72	G	N7-C5	-6.95	1.35	1.39
35	BA	866	A	C5-C6	-6.95	1.34	1.41
35	BA	1637	A	C6-N6	-6.95	1.28	1.33
35	BA	1334	G	C6-O6	-6.95	1.17	1.24
35	BA	1908	C	C2-N3	-6.95	1.30	1.35
1	AA	1057	G	C5-C4	-6.95	1.33	1.38
35	BA	102	G	C5-C4	-6.95	1.33	1.38
35	BA	139	G	N7-C5	-6.95	1.35	1.39
35	BA	1137	G	C6-N1	-6.95	1.34	1.39
35	BA	2553	G	C5-C4	-6.95	1.33	1.38
35	BA	654(F)	C	N3-C4	-6.94	1.29	1.33
35	BA	1927	A	C6-N6	-6.94	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	885	G	N3-C4	-6.94	1.30	1.35
35	BA	2712	U	C4'-C3'	-6.94	1.45	1.53
35	BA	2817	G	C5-C4	-6.94	1.33	1.38
1	AA	244	U	C2-N3	-6.94	1.32	1.37
1	AA	726	C	N1-C6	-6.94	1.32	1.37
22	AV	14	A	N9-C4	-6.94	1.33	1.37
35	BA	239	U	C2-N3	-6.94	1.32	1.37
35	BA	381	G	N9-C8	-6.94	1.32	1.37
36	BB	97	G	C6-O6	-6.94	1.18	1.24
36	BB	39	A	N3-C4	-6.94	1.30	1.34
1	AA	310	G	C2-N3	-6.93	1.27	1.32
1	AA	1173	G	N3-C4	-6.93	1.30	1.35
22	AV	10	G	C6-N1	-6.93	1.34	1.39
35	BA	112	U	C2-N3	-6.93	1.32	1.37
35	BA	2051	A	C8-N7	-6.93	1.26	1.31
35	BA	2113	U	C4-O4	-6.93	1.18	1.23
1	AA	1298	C	N3-C4	-6.93	1.29	1.33
36	BB	33	G	C8-N7	-6.93	1.26	1.30
1	AA	792	A	C6-N1	-6.93	1.30	1.35
35	BA	1204	A	C5-C6	-6.93	1.34	1.41
35	BA	1842	G	C6-O6	-6.93	1.18	1.24
35	BA	271(V)	G	C2-N2	-6.93	1.27	1.34
35	BA	654(I)	C	N1-C6	-6.93	1.32	1.37
35	BA	1823	G	N9-C8	-6.93	1.33	1.37
35	BA	2000	G	C5-C6	-6.93	1.35	1.42
35	BA	2127	G	N7-C5	-6.93	1.35	1.39
35	BA	1273	U	C4-O4	-6.92	1.18	1.23
36	BB	96	U	C4'-C3'	-6.92	1.45	1.53
1	AA	648	A	C5-C4	-6.92	1.33	1.38
35	BA	973	A	N3-C4	-6.92	1.30	1.34
35	BA	2765	A	C6-N1	-6.92	1.30	1.35
1	AA	543	C	C4-N4	-6.92	1.27	1.33
1	AA	1077	G	C2-N3	-6.92	1.27	1.32
35	BA	1096	A	N7-C5	-6.92	1.35	1.39
35	BA	2489	G	P-O5'	-6.92	1.52	1.59
1	AA	1350	A	N9-C4	-6.92	1.33	1.37
35	BA	2703	C	N1-C6	-6.92	1.32	1.37
1	AA	319	G	C5-C6	-6.92	1.35	1.42
35	BA	308	G	N7-C5	6.92	1.43	1.39
35	BA	488	G	C4'-C3'	-6.92	1.45	1.53
35	BA	2439	A	P-O5'	-6.92	1.52	1.59
1	AA	1434	A	N3-C4	-6.92	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	795	C	N3-C4	-6.92	1.29	1.33
35	BA	1945	G	C2-N3	-6.92	1.27	1.32
35	BA	1997	G	C2-N3	-6.92	1.27	1.32
35	BA	2725	A	N3-C4	-6.92	1.30	1.34
35	BA	42	G	C6-N1	-6.91	1.34	1.39
35	BA	326	G	N7-C5	-6.91	1.35	1.39
1	AA	142	G	C8-N7	-6.91	1.26	1.30
35	BA	458	G	C8-N7	-6.91	1.26	1.30
35	BA	2862	G	C8-N7	-6.91	1.26	1.30
35	BA	1192	G	N9-C8	-6.91	1.33	1.37
35	BA	1432	C	N3-C4	-6.91	1.29	1.33
35	BA	2156	G	C2-N2	-6.91	1.27	1.34
35	BA	2421	G	N9-C8	-6.91	1.33	1.37
35	BA	82	G	N7-C5	-6.91	1.35	1.39
35	BA	1820	U	N1-C6	-6.91	1.31	1.38
35	BA	1338	G	N7-C5	6.91	1.43	1.39
35	BA	1212	G	C8-N7	-6.91	1.26	1.30
35	BA	1299	G	C8-N7	-6.91	1.26	1.30
35	BA	271(I)	G	N9-C8	-6.90	1.33	1.37
35	BA	1078	U	N1-C2	6.90	1.44	1.38
35	BA	1214	A	C3'-C2'	-6.90	1.45	1.52
35	BA	1640	C	C5-C6	-6.90	1.28	1.34
1	AA	116	A	C6-N1	-6.90	1.30	1.35
1	AA	765	G	N1-C2	-6.90	1.32	1.37
1	AA	823	G	C2-N3	-6.90	1.27	1.32
1	AA	1527	C	N3-C4	-6.90	1.29	1.33
35	BA	73	A	C6-N1	-6.90	1.30	1.35
35	BA	945	A	N9-C4	-6.90	1.33	1.37
35	BA	1010	A	C8-N7	-6.90	1.26	1.31
35	BA	2360	A	N9-C8	-6.90	1.32	1.37
35	BA	1482	G	P-O5'	-6.90	1.52	1.59
1	AA	1405	G	C5-C4	-6.90	1.33	1.38
35	BA	271(F)	C	C3'-C2'	-6.90	1.45	1.52
35	BA	1279	G	C6-N1	-6.90	1.34	1.39
1	AA	676	A	C6-N1	-6.90	1.30	1.35
1	AA	971	G	C2-N3	-6.90	1.27	1.32
1	AA	1289	A	C6-N1	-6.90	1.30	1.35
35	BA	656	G	N7-C5	-6.90	1.35	1.39
35	BA	1364	G	N3-C4	-6.90	1.30	1.35
35	BA	1614	A	N7-C5	-6.90	1.35	1.39
35	BA	1884	A	N7-C5	-6.90	1.35	1.39
35	BA	2434	A	C6-N1	-6.90	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1255	G	N9-C8	-6.89	1.33	1.37
1	AA	1443	G	N9-C8	-6.89	1.33	1.37
35	BA	598	G	N9-C8	-6.89	1.33	1.37
35	BA	2342	C	N3-C4	-6.89	1.29	1.33
1	AA	327	A	C6-N6	6.89	1.39	1.33
1	AA	54	C	C2-N3	-6.89	1.30	1.35
1	AA	1144	G	N9-C4	-6.89	1.32	1.38
35	BA	2101	G	N3-C4	-6.89	1.30	1.35
1	AA	1355	G	N9-C8	-6.89	1.33	1.37
35	BA	393	C	N1-C6	-6.89	1.33	1.37
1	AA	923	A	C5'-C4'	-6.89	1.43	1.51
1	AA	1201	A	N9-C8	-6.89	1.32	1.37
35	BA	1647	G	C8-N7	-6.89	1.26	1.30
35	BA	2751	G	C5-C4	-6.89	1.33	1.38
35	BA	2758	A	C5-C4	-6.88	1.33	1.38
35	BA	2782	G	C4'-C3'	-6.88	1.45	1.53
1	AA	883	C	C5-C6	-6.88	1.28	1.34
35	BA	219	G	C2-N3	-6.88	1.27	1.32
35	BA	1136	G	C2-N3	-6.88	1.27	1.32
1	AA	381	C	C5-C6	-6.88	1.28	1.34
1	AA	796	C	C5-C6	-6.88	1.28	1.34
35	BA	52	A	N3-C4	-6.88	1.30	1.34
35	BA	105	C	N3-C4	-6.88	1.29	1.33
35	BA	381	G	C4'-C3'	-6.88	1.45	1.53
35	BA	1079	C	C5-C6	-6.88	1.28	1.34
35	BA	2821	A	N3-C4	-6.88	1.30	1.34
1	AA	1058	G	C4'-O4'	-6.88	1.36	1.45
35	BA	1321	A	N1-C2	-6.88	1.28	1.34
35	BA	1440	G	N9-C8	-6.88	1.33	1.37
35	BA	2451	A	N9-C8	-6.88	1.32	1.37
1	AA	644	G	N3-C4	-6.87	1.30	1.35
1	AA	1127	G	N3-C4	-6.87	1.30	1.35
1	AA	1311	G	N3-C4	-6.87	1.30	1.35
1	AA	1299	A	C8-N7	-6.87	1.26	1.31
1	AA	1473	A	C6-N6	-6.87	1.28	1.33
1	AA	984	C	C2-O2	-6.87	1.18	1.24
35	BA	271(U)	G	N3-C4	-6.87	1.30	1.35
35	BA	1422	G	N9-C8	-6.87	1.33	1.37
35	BA	1671	U	C4-O4	6.87	1.29	1.23
1	AA	777	A	C6-N6	-6.87	1.28	1.33
1	AA	1138	G	C6-O6	-6.87	1.18	1.24
1	AA	1276	G	C5-C4	-6.87	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	351	G	C5-C4	-6.87	1.33	1.38
35	BA	469	G	C6-O6	-6.87	1.18	1.24
35	BA	968	G	N7-C5	-6.87	1.35	1.39
35	BA	1114	G	N7-C5	-6.87	1.35	1.39
35	BA	1556	C	N1-C6	6.87	1.41	1.37
1	AA	381	C	N1-C6	-6.86	1.33	1.37
1	AA	755	G	C2-N2	-6.86	1.27	1.34
35	BA	1070	A	N1-C2	-6.86	1.28	1.34
35	BA	1921	G	N9-C8	-6.86	1.33	1.37
35	BA	2869	G	C5-C4	-6.86	1.33	1.38
35	BA	2870	C	N3-C4	-6.86	1.29	1.33
1	AA	520	A	N3-C4	-6.86	1.30	1.34
1	AA	1016	A	N3-C4	-6.86	1.30	1.34
35	BA	812	C	N1-C6	-6.86	1.33	1.37
35	BA	917	A	C5-C4	-6.86	1.33	1.38
35	BA	1825	A	N9-C4	-6.86	1.33	1.37
35	BA	2062	A	N9-C4	-6.86	1.33	1.37
35	BA	2237	G	C5-C4	-6.86	1.33	1.38
35	BA	2731	G	C2-N3	-6.86	1.27	1.32
35	BA	997	G	C6-N1	-6.85	1.34	1.39
35	BA	289	A	C5-C6	-6.85	1.34	1.41
35	BA	948	G	C8-N7	-6.85	1.26	1.30
35	BA	1215	G	N3-C4	-6.85	1.30	1.35
35	BA	1297	C	C4-C5	-6.85	1.37	1.43
35	BA	2027	G	C8-N7	-6.85	1.26	1.30
35	BA	2062	A	N7-C5	-6.85	1.35	1.39
35	BA	2161	C	C5-C6	-6.85	1.28	1.34
1	AA	403	C	C4-N4	-6.85	1.27	1.33
1	AA	887	G	N9-C4	-6.85	1.32	1.38
1	AA	1102	A	N9-C4	-6.85	1.33	1.37
35	BA	910	A	C6-N6	-6.85	1.28	1.33
35	BA	1392	A	C6-N6	-6.85	1.28	1.33
1	AA	194	C	P-O5'	-6.85	1.52	1.59
1	AA	327	A	C2'-O2'	-6.85	1.32	1.41
1	AA	798	G	C5-C4	-6.85	1.33	1.38
42	BH	119	GLU	CD-OE2	-6.85	1.18	1.25
1	AA	541	G	C4'-C3'	-6.85	1.45	1.53
35	BA	296	C	C2-N3	-6.85	1.30	1.35
35	BA	2191	G	N3-C4	-6.85	1.30	1.35
35	BA	1780	A	N9-C4	6.84	1.42	1.37
35	BA	2224	G	C2-N3	6.84	1.38	1.32
1	AA	258	G	O3'-P	-6.84	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	958	A	C5-C4	-6.84	1.33	1.38
1	AA	1345	U	N1-C2	-6.84	1.32	1.38
35	BA	1203	G	C2-N3	-6.84	1.27	1.32
1	AA	695	A	C6-N1	-6.84	1.30	1.35
1	AA	1108	G	C2-N3	-6.84	1.27	1.32
35	BA	294	A	C6-N1	-6.84	1.30	1.35
1	AA	1428	A	C5-C6	-6.83	1.34	1.41
35	BA	6	A	C8-N7	-6.83	1.26	1.31
35	BA	349	G	C8-N7	-6.83	1.26	1.30
35	BA	799	G	C5-C4	-6.83	1.33	1.38
35	BA	2039	C	N3-C4	-6.83	1.29	1.33
35	BA	2302	G	C8-N7	-6.83	1.26	1.30
35	BA	826	U	C2-N3	-6.83	1.32	1.37
35	BA	2143	C	C2-O2	-6.83	1.18	1.24
1	AA	1004	A	N3-C4	-6.83	1.30	1.34
1	AA	1433	A	N3-C4	-6.83	1.30	1.34
35	BA	21	A	N7-C5	-6.83	1.35	1.39
35	BA	340	A	N1-C2	-6.83	1.28	1.34
35	BA	2299	G	C6-N1	-6.83	1.34	1.39
35	BA	2305	A	N7-C5	-6.83	1.35	1.39
35	BA	2461	C	C4-N4	-6.83	1.27	1.33
1	AA	704	A	C8-N7	-6.83	1.26	1.31
1	AA	1010	G	C8-N7	-6.83	1.26	1.30
1	AA	1251	A	N9-C4	6.83	1.42	1.37
35	BA	27	G	C5'-C4'	-6.83	1.43	1.51
35	BA	214	G	C8-N7	-6.83	1.26	1.30
35	BA	1742	G	C8-N7	-6.83	1.26	1.30
36	BB	45	A	C5-C4	-6.83	1.33	1.38
1	AA	1483	A	P-O5'	-6.82	1.52	1.59
36	BB	67	G	N3-C4	-6.82	1.30	1.35
35	BA	1848	A	N7-C5	-6.82	1.35	1.39
1	AA	1067	A	N3-C4	-6.82	1.30	1.34
1	AA	1479	C	C4-C5	-6.82	1.37	1.43
35	BA	119	A	C5-C6	-6.82	1.34	1.41
35	BA	2751	G	C8-N7	-6.82	1.26	1.30
1	AA	578	C	N3-C4	-6.82	1.29	1.33
1	AA	1061	G	N9-C8	-6.82	1.33	1.37
1	AA	286	G	N7-C5	-6.82	1.35	1.39
35	BA	1349	A	N3-C4	-6.82	1.30	1.34
1	AA	1147	C	C4'-O4'	-6.81	1.36	1.45
1	AA	1456	G	C6-O6	-6.81	1.18	1.24
35	BA	2560	C	C5-C6	-6.81	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2660	A	P-O5'	-6.81	1.52	1.59
35	BA	870	A	C4'-C3'	-6.81	1.45	1.53
35	BA	1075	C	C2-N3	-6.81	1.30	1.35
35	BA	2053	G	C6-N1	-6.81	1.34	1.39
35	BA	2175	C	C2-N3	-6.81	1.30	1.35
35	BA	1743	C	C4'-C3'	-6.81	1.45	1.53
1	AA	670	G	C8-N7	-6.81	1.26	1.30
1	AA	1142	G	C8-N7	-6.81	1.26	1.30
35	BA	616	G	C8-N7	-6.81	1.26	1.30
35	BA	1611	C	C4-C5	-6.81	1.37	1.43
35	BA	2323	G	C8-N7	-6.81	1.26	1.30
36	BB	61	G	C6-N1	-6.81	1.34	1.39
1	AA	679	C	N3-C4	-6.80	1.29	1.33
35	BA	900	A	C8-N7	-6.80	1.26	1.31
1	AA	718	G	N7-C5	-6.80	1.35	1.39
35	BA	109	G	N7-C5	-6.80	1.35	1.39
36	BB	116	G	N7-C5	-6.80	1.35	1.39
35	BA	988	A	N9-C4	-6.80	1.33	1.37
1	AA	1095	U	C4'-C3'	-6.80	1.45	1.53
35	BA	983	A	C5-C4	-6.80	1.33	1.38
35	BA	1120	G	C4'-C3'	-6.80	1.45	1.53
1	AA	633	G	P-O5'	-6.80	1.52	1.59
1	AA	1015	A	C6-N1	-6.80	1.30	1.35
35	BA	963	U	N3-C4	-6.80	1.32	1.38
35	BA	1317	A	N9-C4	6.80	1.42	1.37
35	BA	1856	G	C6-O6	-6.80	1.18	1.24
35	BA	1922	G	N9-C8	-6.80	1.33	1.37
35	BA	2453	A	C4'-C3'	-6.80	1.45	1.53
35	BA	2740	A	C6-N1	-6.80	1.30	1.35
35	BA	548	A	C5-C6	-6.79	1.34	1.41
35	BA	2393	A	C2-N3	-6.79	1.27	1.33
1	AA	283	C	C2-N3	-6.79	1.30	1.35
1	AA	409	G	P-O5'	-6.79	1.52	1.59
1	AA	547	A	C2'-C1'	-6.79	1.45	1.53
1	AA	831	U	C4-C5	-6.79	1.37	1.43
1	AA	1148	U	N3-C4	-6.79	1.32	1.38
22	AV	23	C	C2-N3	-6.79	1.30	1.35
35	BA	657	U	N3-C4	-6.79	1.32	1.38
35	BA	1045	A	C5-C4	-6.79	1.33	1.38
35	BA	1848	A	C5-C4	-6.79	1.33	1.38
35	BA	2787	C	N1-C6	6.79	1.41	1.37
1	AA	394	G	N3-C4	-6.79	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	683	G	C6-N1	-6.79	1.34	1.39
35	BA	1108	U	C4'-C3'	-6.79	1.45	1.53
1	AA	1149	C	C2-N3	-6.79	1.30	1.35
35	BA	1496	A	N3-C4	-6.79	1.30	1.34
1	AA	265	G	C5-C4	-6.79	1.33	1.38
1	AA	1288	A	N9-C8	-6.79	1.32	1.37
35	BA	791	C	C5-C6	-6.79	1.28	1.34
35	BA	1149	G	C5-C4	-6.79	1.33	1.38
1	AA	51	A	N9-C4	-6.78	1.33	1.37
35	BA	567	A	C5-C6	-6.78	1.34	1.41
35	BA	220	G	C6-N1	-6.78	1.34	1.39
35	BA	647	G	C5-C4	-6.78	1.33	1.38
35	BA	1526	G	C5-C4	-6.78	1.33	1.38
35	BA	1661	G	C6-N1	-6.78	1.34	1.39
36	BB	86	G	N9-C4	-6.78	1.32	1.38
35	BA	717	G	N1-C2	6.78	1.43	1.37
35	BA	108	U	C5-C6	-6.78	1.28	1.34
35	BA	2881	C	N3-C4	-6.78	1.29	1.33
35	BA	1643	G	C6-N1	-6.78	1.34	1.39
35	BA	1786	A	N9-C4	-6.78	1.33	1.37
36	BB	7	G	C5-C4	-6.78	1.33	1.38
35	BA	1609	A	C5-C4	-6.77	1.34	1.38
35	BA	1853	A	C6-N6	-6.77	1.28	1.33
35	BA	2765	A	N7-C5	-6.77	1.35	1.39
22	AV	54	U	C4-O4	-6.77	1.18	1.23
35	BA	1239	G	N3-C4	-6.77	1.30	1.35
35	BA	1755	A	N9-C4	-6.77	1.33	1.37
36	BB	70	C	C2-N3	-6.77	1.30	1.35
1	AA	571	U	C2-N3	-6.77	1.33	1.37
1	AA	587	G	O3'-P	-6.77	1.53	1.61
1	AA	1381	U	C2'-C1'	-6.77	1.46	1.53
35	BA	603	A	N7-C5	-6.77	1.35	1.39
35	BA	781	A	N7-C5	-6.77	1.35	1.39
1	AA	539	A	N9-C4	-6.76	1.33	1.37
1	AA	1156	G	C6-N1	-6.76	1.34	1.39
1	AA	1241	G	C8-N7	6.76	1.35	1.30
35	BA	548	A	N3-C4	-6.76	1.30	1.34
35	BA	1359	A	C3'-C2'	-6.76	1.45	1.52
35	BA	2370	G	C6-N1	-6.76	1.34	1.39
1	AA	48	C	N1-C6	-6.76	1.33	1.37
35	BA	238	C	N1-C6	-6.76	1.33	1.37
35	BA	522	G	C5-C6	-6.76	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	595	C	N1-C6	-6.76	1.33	1.37
1	AA	294	U	P-O5'	-6.76	1.52	1.59
1	AA	1490	C	N3-C4	-6.76	1.29	1.33
35	BA	2273	A	N9-C8	-6.76	1.32	1.37
1	AA	270	A	N1-C2	-6.76	1.28	1.34
1	AA	1090	U	C4'-C3'	-6.76	1.45	1.53
35	BA	1283	G	N3-C4	-6.76	1.30	1.35
35	BA	1786	A	C2-N3	-6.76	1.27	1.33
35	BA	2782	G	C6-O6	-6.76	1.18	1.24
35	BA	1126	A	N3-C4	-6.76	1.30	1.34
35	BA	2326	C	N1-C6	-6.76	1.33	1.37
1	AA	773	G	N1-C2	-6.75	1.32	1.37
35	BA	438	G	C8-N7	-6.75	1.26	1.30
35	BA	1883	G	C8-N7	-6.75	1.26	1.30
35	BA	2328	A	C6-N6	-6.75	1.28	1.33
1	AA	381	C	C2-N3	-6.75	1.30	1.35
35	BA	2309	A	C5-C6	-6.75	1.34	1.41
1	AA	534	U	C1'-N1	-6.75	1.37	1.46
1	AA	820	U	C4-O4	-6.75	1.18	1.23
35	BA	1010	A	N7-C5	6.75	1.43	1.39
35	BA	2605	U	N1-C6	-6.75	1.31	1.38
35	BA	2884	U	N1-C6	-6.75	1.31	1.38
35	BA	1410	G	C8-N7	-6.75	1.26	1.30
35	BA	1530	C	C5-C6	-6.75	1.28	1.34
35	BA	2376	A	N7-C5	-6.75	1.35	1.39
1	AA	1354	C	N1-C6	-6.74	1.33	1.37
1	AA	1497	G	N9-C8	-6.74	1.33	1.37
35	BA	982	C	N1-C6	-6.74	1.33	1.37
35	BA	1185	C	C4-C5	-6.74	1.37	1.43
35	BA	2357	U	C4-O4	-6.74	1.18	1.23
35	BA	2594	C	C2-N3	6.74	1.41	1.35
35	BA	560	C	C5-C6	-6.74	1.28	1.34
35	BA	2726	U	C2-N3	-6.74	1.33	1.37
35	BA	585	G	C6-O6	-6.74	1.18	1.24
1	AA	35	G	C6-N1	-6.74	1.34	1.39
1	AA	1048	G	C5-C6	-6.74	1.35	1.42
1	AA	1313	U	C4-C5	-6.74	1.37	1.43
35	BA	2072	G	N3-C4	-6.74	1.30	1.35
1	AA	600	C	C4'-O4'	-6.73	1.36	1.45
1	AA	829	G	N1-C2	-6.73	1.32	1.37
1	AA	60	A	N3-C4	-6.73	1.30	1.34
35	BA	1296	G	N9-C4	-6.73	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2287	A	N3-C4	-6.73	1.30	1.34
35	BA	2422	A	C6-N1	-6.73	1.30	1.35
35	BA	2549	G	N9-C8	-6.73	1.33	1.37
36	BB	37	C	N3-C4	-6.73	1.29	1.33
35	BA	1596	A	C5-C4	-6.73	1.34	1.38
35	BA	636	G	N1-C2	-6.73	1.32	1.37
35	BA	871	U	N1-C6	-6.73	1.31	1.38
35	BA	2270	G	C6-N1	-6.73	1.34	1.39
35	BA	2447	G	C6-N1	-6.73	1.34	1.39
35	BA	1490	A	N9-C4	-6.73	1.33	1.37
1	AA	1175	G	C5-C6	-6.72	1.35	1.42
35	BA	1011	G	C2-N3	-6.72	1.27	1.32
35	BA	1448	G	C5-C6	-6.72	1.35	1.42
35	BA	2354	G	C2-N3	-6.72	1.27	1.32
35	BA	2414	G	N7-C5	-6.72	1.35	1.39
1	AA	109	A	N1-C2	-6.72	1.28	1.34
1	AA	189(G)	G	C8-N7	-6.72	1.26	1.30
1	AA	917	G	C8-N7	-6.72	1.26	1.30
35	BA	760	G	C8-N7	-6.72	1.26	1.30
35	BA	833	U	N3-C4	-6.72	1.32	1.38
35	BA	874	G	C8-N7	-6.72	1.26	1.30
35	BA	1068	G	C5-C4	-6.72	1.33	1.38
35	BA	1229	G	C2-N3	-6.72	1.27	1.32
35	BA	1302	A	N3-C4	-6.72	1.30	1.34
35	BA	1747	G	C2-N3	-6.72	1.27	1.32
35	BA	712	G	C4'-C3'	-6.72	1.45	1.53
35	BA	2887	U	N1-C2	6.72	1.44	1.38
35	BA	426	C	C4-N4	-6.72	1.27	1.33
35	BA	1722	A	C5-C4	-6.71	1.34	1.38
35	BA	2370	G	C5-C6	-6.71	1.35	1.42
35	BA	2361	A	C5-C6	-6.71	1.35	1.41
1	AA	676	A	N7-C5	-6.71	1.35	1.39
35	BA	338	G	N7-C5	-6.71	1.35	1.39
1	AA	111	G	N9-C4	-6.71	1.32	1.38
35	BA	2801	A	C8-N7	-6.71	1.26	1.31
1	AA	285	G	C6-N1	-6.71	1.34	1.39
1	AA	1039	C	N1-C6	-6.71	1.33	1.37
35	BA	814	C	C4-C5	-6.71	1.37	1.43
1	AA	28	G	N9-C8	-6.71	1.33	1.37
1	AA	102	G	N9-C8	-6.71	1.33	1.37
35	BA	663	G	C5-C4	6.71	1.43	1.38
35	BA	2796	U	C4-C5	-6.71	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	288	A	C5-C4	-6.70	1.34	1.38
1	AA	918	A	N7-C5	-6.70	1.35	1.39
35	BA	1067	A	C6-N1	-6.70	1.30	1.35
1	AA	861	G	C6-N1	-6.70	1.34	1.39
1	AA	1465	C	N3-C4	-6.70	1.29	1.33
35	BA	271(D)	G	C2'-C1'	-6.70	1.46	1.53
35	BA	874	G	C6-N1	-6.70	1.34	1.39
1	AA	656	C	C5-C6	-6.70	1.28	1.34
1	AA	734	G	C5-C4	-6.70	1.33	1.38
1	AA	1160	G	C5-C4	-6.70	1.33	1.38
1	AA	1258	G	N3-C4	-6.70	1.30	1.35
22	AV	24	U	C3'-C2'	-6.70	1.45	1.52
35	BA	684	G	N3-C4	6.70	1.40	1.35
35	BA	2286	A	C2-N3	-6.70	1.27	1.33
22	AV	11	A	C8-N7	-6.70	1.26	1.31
35	BA	2350	C	C2-N3	-6.70	1.30	1.35
35	BA	1577	C	P-O5'	-6.70	1.53	1.59
35	BA	1684	C	N1-C6	-6.69	1.33	1.37
35	BA	1830	C	C4-N4	-6.69	1.27	1.33
35	BA	1451	C	C2-N3	-6.69	1.30	1.35
35	BA	1572	A	N3-C4	-6.69	1.30	1.34
1	AA	771	G	C4'-C3'	-6.69	1.45	1.53
1	AA	1251	A	C5-C4	-6.69	1.34	1.38
35	BA	463	G	C4'-C3'	-6.69	1.45	1.53
35	BA	1032	A	N3-C4	-6.69	1.30	1.34
35	BA	2298	A	N3-C4	-6.69	1.30	1.34
1	AA	524	G	C5-C6	-6.68	1.35	1.42
35	BA	1093	G	N7-C5	-6.68	1.35	1.39
35	BA	1764	G	N1-C2	-6.68	1.32	1.37
35	BA	836	G	N9-C4	-6.68	1.32	1.38
35	BA	1993	U	C2-N3	-6.68	1.33	1.37
35	BA	1267	U	N3-C4	-6.68	1.32	1.38
35	BA	2033	A	O4'-C1'	-6.68	1.32	1.41
35	BA	2383	G	C4'-C3'	-6.68	1.45	1.53
35	BA	978	G	C2-N2	-6.68	1.27	1.34
35	BA	2170	A	P-O5'	-6.68	1.53	1.59
35	BA	2177	C	P-O5'	-6.68	1.53	1.59
1	AA	1273	G	C8-N7	-6.67	1.26	1.30
35	BA	36	G	C8-N7	-6.67	1.26	1.30
35	BA	556	G	C8-N7	-6.67	1.26	1.30
1	AA	959	A	N7-C5	-6.67	1.35	1.39
35	BA	669	G	N7-C5	-6.67	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2740	A	O3'-P	-6.67	1.53	1.61
1	AA	1529	G	N1-C2	-6.67	1.32	1.37
35	BA	596	G	N3-C4	-6.67	1.30	1.35
35	BA	942	G	C2-N2	-6.67	1.27	1.34
35	BA	1116	C	N3-C4	6.67	1.38	1.33
1	AA	1298	C	C4-C5	-6.67	1.37	1.43
1	AA	967	C	N1-C6	-6.67	1.33	1.37
1	AA	973	G	C8-N7	-6.67	1.26	1.30
35	BA	272(G)	C	N1-C6	-6.67	1.33	1.37
35	BA	392	C	C5-C6	-6.67	1.29	1.34
35	BA	702	G	C8-N7	-6.67	1.26	1.30
35	BA	2261	C	C4'-O4'	-6.67	1.36	1.45
35	BA	2552	U	C3'-C2'	-6.67	1.45	1.52
35	BA	244	A	N9-C4	-6.66	1.33	1.37
35	BA	1045	A	C8-N7	-6.66	1.26	1.31
35	BA	1373	A	N9-C4	-6.66	1.33	1.37
35	BA	176	G	N9-C8	-6.66	1.33	1.37
35	BA	1218	C	N1-C6	-6.66	1.33	1.37
35	BA	1675	C	C2-O2	-6.66	1.18	1.24
1	AA	1106	G	C2-N2	-6.66	1.27	1.34
35	BA	1671	U	C2-O2	-6.66	1.16	1.22
1	AA	223	U	C3'-C2'	-6.66	1.45	1.52
1	AA	639	G	C6-N1	-6.66	1.34	1.39
35	BA	709	U	C2-N3	-6.66	1.33	1.37
35	BA	1186	G	C6-N1	-6.66	1.34	1.39
35	BA	1603	A	N9-C4	-6.66	1.33	1.37
35	BA	1775	U	N1-C6	-6.66	1.31	1.38
35	BA	88	G	N9-C4	-6.66	1.32	1.38
1	AA	289	G	C8-N7	-6.66	1.26	1.30
1	AA	919	A	C2-N3	-6.66	1.27	1.33
35	BA	100	G	C8-N7	-6.66	1.26	1.30
35	BA	2219	G	N3-C4	-6.65	1.30	1.35
35	BA	2805	G	N3-C4	-6.65	1.30	1.35
35	BA	407	G	C6-N1	-6.65	1.34	1.39
35	BA	863	A	C4'-C3'	-6.65	1.45	1.53
35	BA	2178	C	C4-C5	-6.65	1.37	1.43
35	BA	2399	G	C2'-C1'	-6.65	1.46	1.53
1	AA	800	G	N9-C8	-6.65	1.33	1.37
1	AA	923	A	C5-C6	-6.65	1.35	1.41
1	AA	1101	A	N9-C4	-6.65	1.33	1.37
48	BQ	137	TYR	CG-CD2	-6.65	1.30	1.39
1	AA	127	G	C6-O6	-6.65	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1562	A	C4'-C3'	-6.65	1.45	1.53
1	AA	172	A	C5-C6	-6.65	1.35	1.41
1	AA	570	G	N7-C5	-6.65	1.35	1.39
1	AA	689	C	C4-C5	-6.65	1.37	1.43
35	BA	279	C	C4-C5	-6.65	1.37	1.43
35	BA	1583	A	N7-C5	-6.65	1.35	1.39
35	BA	1755	A	C5-C4	6.64	1.43	1.38
35	BA	2771	C	P-O5'	-6.64	1.53	1.59
1	AA	320	C	C4-C5	-6.64	1.37	1.43
1	AA	799	G	C8-N7	-6.64	1.26	1.30
1	AA	1416	G	C6-N1	-6.64	1.34	1.39
35	BA	56	A	C8-N7	-6.64	1.26	1.31
1	AA	798	G	C4'-C3'	-6.64	1.45	1.53
1	AA	1071	C	C2-N3	-6.64	1.30	1.35
1	AA	1181	G	C2-N2	-6.64	1.27	1.34
35	BA	348	G	N1-C2	-6.64	1.32	1.37
35	BA	2054	A	N9-C8	-6.64	1.32	1.37
35	BA	2714	G	N1-C2	-6.64	1.32	1.37
1	AA	343	U	C2-N3	-6.64	1.33	1.37
22	AV	24	U	C2-N3	-6.64	1.33	1.37
35	BA	1389	G	N9-C4	-6.64	1.32	1.38
1	AA	785	G	C5-C6	-6.64	1.35	1.42
35	BA	397	G	C5-C6	-6.64	1.35	1.42
35	BA	758	C	C4'-C3'	-6.64	1.45	1.53
35	BA	1898	U	N1-C6	-6.63	1.31	1.38
35	BA	2274	A	C5-C4	-6.63	1.34	1.38
1	AA	944	G	N3-C4	-6.63	1.30	1.35
35	BA	2073	C	C2'-O2'	-6.63	1.33	1.41
1	AA	926	G	C3'-C2'	-6.63	1.45	1.52
1	AA	994	A	N7-C5	-6.63	1.35	1.39
36	BB	105	A	N7-C5	-6.63	1.35	1.39
1	AA	886	G	C5-C6	6.63	1.49	1.42
35	BA	412	A	C8-N7	-6.63	1.26	1.31
1	AA	1047	G	N3-C4	-6.63	1.30	1.35
1	AA	1323	G	C5-C6	-6.63	1.35	1.42
1	AA	1494	G	C6-N1	-6.63	1.34	1.39
35	BA	1440	G	N7-C5	6.63	1.43	1.39
35	BA	1626	G	N3-C4	-6.63	1.30	1.35
35	BA	2572	A	P-O5'	-6.63	1.53	1.59
1	AA	112	G	C2-N2	-6.62	1.27	1.34
1	AA	517	G	C2-N2	-6.62	1.27	1.34
35	BA	2583	G	C4'-O4'	-6.62	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2348	U	P-O5'	-6.62	1.53	1.59
36	BB	26	A	P-O5'	-6.62	1.53	1.59
1	AA	1395	C	C5'-C4'	-6.62	1.43	1.51
22	AV	27	U	N1-C2	-6.62	1.32	1.38
35	BA	44	G	C8-N7	-6.62	1.26	1.30
35	BA	2128	C	C2-N3	-6.62	1.30	1.35
35	BA	275	G	N9-C8	-6.62	1.33	1.37
35	BA	966	G	C5-C4	-6.62	1.33	1.38
35	BA	590	A	N7-C5	-6.62	1.35	1.39
1	AA	1220	G	N3-C4	-6.62	1.30	1.35
35	BA	406	G	C8-N7	-6.62	1.26	1.30
35	BA	1323	U	C2-N3	-6.62	1.33	1.37
35	BA	2485	G	N1-C2	-6.62	1.32	1.37
1	AA	1499	A	N9-C4	-6.61	1.33	1.37
35	BA	219	G	C5-C4	-6.61	1.33	1.38
35	BA	582	G	C2-N2	-6.61	1.27	1.34
35	BA	2823	A	N9-C4	-6.61	1.33	1.37
35	BA	2132	U	C4-C5	-6.61	1.37	1.43
1	AA	288	A	C5-C6	-6.61	1.35	1.41
1	AA	752	G	N3-C4	-6.61	1.30	1.35
1	AA	893	C	C5-C6	-6.61	1.29	1.34
1	AA	1231	G	N7-C5	-6.61	1.35	1.39
1	AA	1272	G	N3-C4	-6.61	1.30	1.35
35	BA	699	A	N9-C8	-6.61	1.32	1.37
35	BA	983	A	N1-C2	6.61	1.40	1.34
35	BA	1776	G	N7-C5	-6.61	1.35	1.39
35	BA	2134	A	C5-C6	-6.61	1.35	1.41
35	BA	2453	A	N7-C5	-6.61	1.35	1.39
35	BA	2702	U	C4'-C3'	-6.61	1.45	1.53
35	BA	271(S)	G	C5-C4	-6.61	1.33	1.38
1	AA	489	C	N1-C6	-6.61	1.33	1.37
1	AA	491	G	C2-N3	-6.61	1.27	1.32
1	AA	1297	C	N1-C6	-6.61	1.33	1.37
35	BA	109	G	C6-N1	-6.61	1.34	1.39
35	BA	673	C	N1-C6	-6.61	1.33	1.37
35	BA	1154	G	N7-C5	-6.61	1.35	1.39
35	BA	2591	C	N1-C6	-6.61	1.33	1.37
35	BA	2685	G	C6-N1	-6.61	1.34	1.39
35	BA	433	C	P-O5'	-6.60	1.53	1.59
1	AA	189(I)	G	N9-C8	-6.60	1.33	1.37
1	AA	231	G	N9-C8	-6.60	1.33	1.37
35	BA	696	G	O3'-P	-6.60	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1565	C	N1-C2	-6.60	1.33	1.40
35	BA	2147	G	C2'-C1'	-6.60	1.46	1.53
36	BB	41	U	C2-O2	-6.60	1.16	1.22
35	BA	222	A	N9-C8	-6.60	1.32	1.37
35	BA	1506	C	C2-N3	-6.60	1.30	1.35
35	BA	1714	G	N9-C4	-6.60	1.32	1.38
1	AA	409	G	N7-C5	-6.60	1.35	1.39
1	AA	856	C	O3'-P	-6.60	1.53	1.61
35	BA	2885	C	N3-C4	-6.60	1.29	1.33
35	BA	244	A	C6-N6	-6.60	1.28	1.33
35	BA	1678	G	C5-C6	-6.60	1.35	1.42
35	BA	2100	G	C6-O6	-6.60	1.18	1.24
1	AA	444	C	C2-N3	-6.60	1.30	1.35
35	BA	742	G	N3-C4	-6.59	1.30	1.35
35	BA	1078	U	C4-O4	-6.59	1.18	1.23
35	BA	2202	C	N3-C4	-6.59	1.29	1.33
35	BA	2458	G	C6-N1	-6.59	1.34	1.39
1	AA	374	A	C4'-C3'	-6.59	1.45	1.53
35	BA	531	C	N1-C6	-6.59	1.33	1.37
35	BA	2520	C	N1-C6	-6.59	1.33	1.37
1	AA	353	A	N3-C4	-6.59	1.30	1.34
1	AA	728	A	C6-N6	-6.59	1.28	1.33
1	AA	1263	C	C5-C6	-6.59	1.29	1.34
35	BA	1960	A	N3-C4	-6.59	1.30	1.34
35	BA	2159	G	N9-C8	6.59	1.42	1.37
35	BA	26	G	C8-N7	-6.59	1.26	1.30
35	BA	628	G	N3-C4	-6.59	1.30	1.35
35	BA	637	A	C6-N1	-6.59	1.30	1.35
35	BA	2228	G	N3-C4	-6.59	1.30	1.35
35	BA	2545	G	N3-C4	-6.59	1.30	1.35
1	AA	992	U	P-O5'	-6.59	1.53	1.59
1	AA	684	A	N7-C5	-6.59	1.35	1.39
1	AA	798	G	N7-C5	-6.59	1.35	1.39
1	AA	1503	A	C4'-C3'	-6.59	1.46	1.53
35	BA	2250	G	C5-C6	-6.59	1.35	1.42
35	BA	1058	G	C8-N7	6.58	1.34	1.30
35	BA	53	A	C6-N1	-6.58	1.30	1.35
35	BA	145	G	N3-C4	-6.58	1.30	1.35
35	BA	865	C	C4-C5	-6.58	1.37	1.43
35	BA	869	G	N9-C8	-6.58	1.33	1.37
1	AA	189(A)	C	C4-C5	-6.58	1.37	1.43
1	AA	494	U	C2-N3	-6.58	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	668	G	C6-N1	-6.58	1.34	1.39
35	BA	1213	A	C8-N7	-6.58	1.26	1.31
35	BA	1496	A	C8-N7	-6.58	1.26	1.31
35	BA	1683	C	C4-C5	-6.58	1.37	1.43
35	BA	2404	C	N3-C4	-6.58	1.29	1.33
1	AA	331	G	C6-N1	-6.57	1.34	1.39
1	AA	953	G	C6-N1	-6.57	1.34	1.39
1	AA	1056	U	C3'-C2'	-6.57	1.45	1.52
1	AA	1398	A	C6-N6	-6.57	1.28	1.33
35	BA	1854	A	C6-N6	-6.57	1.28	1.33
35	BA	2054	A	N3-C4	6.57	1.38	1.34
35	BA	2744	G	C6-N1	-6.57	1.34	1.39
35	BA	1968	G	N3-C4	-6.57	1.30	1.35
1	AA	1356	G	C5-C4	-6.57	1.33	1.38
35	BA	370	G	N9-C8	-6.57	1.33	1.37
35	BA	1265	A	N9-C4	-6.57	1.33	1.37
35	BA	1528(A)	A	C5-C4	-6.57	1.34	1.38
1	AA	1523	G	N9-C4	-6.57	1.32	1.38
35	BA	1207	C	N1-C6	-6.57	1.33	1.37
35	BA	1404	C	C2-O2	-6.57	1.18	1.24
35	BA	2752	C	N1-C6	-6.57	1.33	1.37
1	AA	797	C	N1-C2	-6.57	1.33	1.40
35	BA	731	C	N1-C2	-6.57	1.33	1.40
35	BA	2757	A	C2'-C1'	-6.57	1.46	1.53
1	AA	101	A	C2-N3	-6.56	1.27	1.33
35	BA	2672	G	C6-O6	-6.56	1.18	1.24
1	AA	77	G	C6-N1	-6.56	1.34	1.39
1	AA	119	A	C6-N1	-6.56	1.30	1.35
1	AA	882	C	N1-C6	-6.56	1.33	1.37
35	BA	2834	G	N7-C5	-6.56	1.35	1.39
35	BA	2844	G	N7-C5	-6.56	1.35	1.39
1	AA	52	G	N3-C4	-6.56	1.30	1.35
1	AA	259	G	C3'-C2'	-6.56	1.45	1.52
35	BA	295	G	C2-N3	-6.56	1.27	1.32
35	BA	2845	G	N3-C4	-6.56	1.30	1.35
1	AA	606	G	C5-C4	-6.56	1.33	1.38
35	BA	207	A	N3-C4	-6.56	1.30	1.34
35	BA	956	G	C4'-C3'	-6.56	1.46	1.53
35	BA	1024	G	C5-C4	-6.56	1.33	1.38
1	AA	671	G	N9-C4	-6.56	1.32	1.38
1	AA	1142	G	P-O5'	-6.56	1.53	1.59
35	BA	1229	G	P-OP1	-6.56	1.37	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1053	G	C2'-C1'	-6.56	1.46	1.53
1	AA	1068	G	C8-N7	-6.56	1.27	1.30
35	BA	278	A	N7-C5	-6.56	1.35	1.39
24	AY	6	GLU	CD-OE2	-6.55	1.18	1.25
24	AY	651	GLU	CD-OE2	-6.55	1.18	1.25
1	AA	171	A	N9-C4	-6.55	1.33	1.37
1	AA	1493	A	N7-C5	6.55	1.43	1.39
35	BA	870	A	C6-N1	-6.55	1.30	1.35
35	BA	2866	U	C5-C6	-6.55	1.28	1.34
35	BA	2759	G	N9-C4	-6.55	1.32	1.38
1	AA	655	A	C5-C6	-6.55	1.35	1.41
1	AA	601	C	C5-C6	-6.55	1.29	1.34
35	BA	1232	G	C2-N3	-6.55	1.27	1.32
35	BA	2147	G	C2-N3	-6.55	1.27	1.32
1	AA	162	A	N9-C8	-6.54	1.32	1.37
35	BA	2372	G	N1-C2	-6.54	1.32	1.37
1	AA	735	C	C2-O2	-6.54	1.18	1.24
1	AA	853	G	N9-C8	-6.54	1.33	1.37
1	AA	1128	C	C2-O2	-6.54	1.18	1.24
22	AV	35	A	C5-C4	-6.54	1.34	1.38
35	BA	10	G	C8-N7	-6.54	1.27	1.30
35	BA	321	G	C8-N7	-6.54	1.27	1.30
35	BA	341	G	N9-C8	-6.54	1.33	1.37
35	BA	654(P)	C	N1-C6	-6.54	1.33	1.37
35	BA	763	G	N9-C4	-6.54	1.32	1.38
35	BA	812	C	C2-O2	-6.54	1.18	1.24
1	AA	1409	C	C4-C5	-6.54	1.37	1.43
35	BA	1643	G	C5-C6	-6.54	1.35	1.42
1	AA	1456	G	C5-C4	6.54	1.43	1.38
35	BA	864	G	C4'-C3'	-6.54	1.46	1.53
35	BA	1654	A	C6-N1	-6.54	1.30	1.35
35	BA	122	G	C6-O6	6.54	1.30	1.24
35	BA	379	G	N3-C4	-6.54	1.30	1.35
35	BA	1782	C	C4-C5	-6.54	1.37	1.43
35	BA	2250	G	N7-C5	6.54	1.43	1.39
1	AA	1258	G	N7-C5	-6.54	1.35	1.39
35	BA	903	C	C5-C6	-6.54	1.29	1.34
35	BA	2774	C	N1-C6	-6.54	1.33	1.37
1	AA	602	A	P-O5'	-6.54	1.53	1.59
1	AA	1198	G	C2-N3	6.54	1.38	1.32
35	BA	2387	U	C2-N3	-6.54	1.33	1.37
1	AA	930	C	C3'-C2'	-6.53	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1177	G	N9-C4	-6.53	1.32	1.38
1	AA	1442(B)	A	N1-C2	-6.53	1.28	1.34
35	BA	796	C	N3-C4	-6.53	1.29	1.33
35	BA	977	G	N3-C4	-6.53	1.30	1.35
35	BA	1296	G	P-O5'	6.53	1.66	1.59
35	BA	1486	A	C6-N6	-6.53	1.28	1.33
35	BA	2654	A	C6-N1	-6.53	1.30	1.35
36	BB	17	C	C4'-C3'	-6.53	1.46	1.53
1	AA	55	A	N9-C4	6.53	1.41	1.37
35	BA	2090	G	N1-C2	-6.53	1.32	1.37
1	AA	370	C	C4-C5	-6.53	1.37	1.43
35	BA	2342	C	P-O5'	-6.53	1.53	1.59
1	AA	250	A	C8-N7	-6.53	1.26	1.31
35	BA	1681	G	C2-N3	-6.53	1.27	1.32
35	BA	2516	G	C2-N3	-6.53	1.27	1.32
35	BA	2534	A	C8-N7	-6.53	1.26	1.31
1	AA	344	A	N7-C5	-6.53	1.35	1.39
35	BA	1475	G	C6-N1	-6.53	1.34	1.39
36	BB	24	G	N7-C5	-6.53	1.35	1.39
36	BB	107	G	C2-N2	-6.53	1.28	1.34
35	BA	926	A	C5-C4	6.52	1.43	1.38
35	BA	2287	A	C4'-C3'	-6.52	1.46	1.53
1	AA	189(D)	C	C2'-C1'	-6.52	1.46	1.53
1	AA	1011	G	N3-C4	-6.52	1.30	1.35
35	BA	442	G	C5-C4	-6.52	1.33	1.38
35	BA	539	G	C2-N3	-6.52	1.27	1.32
35	BA	702	G	N3-C4	-6.52	1.30	1.35
35	BA	760	G	N3-C4	-6.52	1.30	1.35
35	BA	942	G	C2-N3	-6.52	1.27	1.32
35	BA	1741	A	C5-C4	-6.52	1.34	1.38
35	BA	2435	A	C5-C4	-6.52	1.34	1.38
35	BA	255	A	N1-C2	-6.52	1.28	1.34
35	BA	1600	C	C2-O2	-6.52	1.18	1.24
35	BA	1985	G	N1-C2	-6.52	1.32	1.37
1	AA	981	U	C5-C6	-6.52	1.28	1.34
35	BA	948	G	N9-C4	-6.52	1.32	1.38
35	BA	1683	C	C2-N3	-6.52	1.30	1.35
1	AA	146	G	N9-C8	-6.52	1.33	1.37
1	AA	1107	C	N3-C4	-6.52	1.29	1.33
1	AA	1508	G	C5-C4	-6.52	1.33	1.38
35	BA	2723	C	N3-C4	-6.52	1.29	1.33
1	AA	751	U	C4-C5	-6.51	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	411	G	C6-N1	-6.51	1.34	1.39
1	AA	276	G	C6-O6	-6.51	1.18	1.24
1	AA	300	A	N1-C2	-6.51	1.28	1.34
1	AA	1048	G	O3'-P	-6.51	1.53	1.61
1	AA	1471	G	N9-C4	-6.51	1.32	1.38
35	BA	228	A	C5-C6	-6.51	1.35	1.41
35	BA	2407	G	N9-C4	-6.51	1.32	1.38
35	BA	2563	U	N1-C6	-6.51	1.32	1.38
35	BA	1071	G	P-O5'	-6.51	1.53	1.59
35	BA	2194	G	N7-C5	6.51	1.43	1.39
1	AA	129(A)	G	N3-C4	-6.51	1.30	1.35
1	AA	172	A	N9-C8	-6.51	1.32	1.37
1	AA	218	C	C4-N4	-6.51	1.28	1.33
35	BA	784	A	N7-C5	-6.51	1.35	1.39
35	BA	1177	A	N7-C5	-6.51	1.35	1.39
35	BA	2157	G	N9-C4	-6.51	1.32	1.38
35	BA	587	C	C2-N3	-6.50	1.30	1.35
1	AA	437	U	C2-N3	-6.50	1.33	1.37
1	AA	1387	G	C2-N2	-6.50	1.28	1.34
35	BA	1854	A	N1-C2	-6.50	1.28	1.34
35	BA	2264	C	C5-C6	-6.50	1.29	1.34
1	AA	238	G	C2-N3	-6.50	1.27	1.32
1	AA	275	G	N3-C4	-6.50	1.30	1.35
1	AA	1079	G	N1-C2	-6.50	1.32	1.37
1	AA	1223	C	N3-C4	-6.50	1.29	1.33
35	BA	654(O)	G	N9-C8	-6.50	1.33	1.37
35	BA	800	A	N9-C4	-6.50	1.33	1.37
35	BA	1186	G	C2-N3	-6.50	1.27	1.32
35	BA	1555	G	N3-C4	-6.50	1.30	1.35
35	BA	2048	G	N3-C4	-6.50	1.30	1.35
35	BA	2253	G	C5-C4	-6.50	1.33	1.38
36	BB	13	A	N9-C8	-6.50	1.32	1.37
35	BA	2456	C	C2-N3	-6.50	1.30	1.35
1	AA	1189	C	C4'-C3'	-6.50	1.46	1.53
35	BA	1748	G	C6-O6	-6.50	1.18	1.24
35	BA	1789	A	C6-N6	-6.50	1.28	1.33
35	BA	1876	A	C4'-O4'	-6.50	1.37	1.45
35	BA	2015	A	P-O5'	-6.50	1.53	1.59
1	AA	1520	G	C2-N3	-6.50	1.27	1.32
1	AA	309	G	N9-C8	-6.50	1.33	1.37
1	AA	1077	G	N9-C8	-6.50	1.33	1.37
22	AV	48	C	N3-C4	-6.50	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	282	A	C6-N6	-6.50	1.28	1.33
35	BA	341	G	C6-N1	-6.49	1.35	1.39
35	BA	366	C	C4-N4	-6.49	1.28	1.33
35	BA	970	C	N1-C6	-6.49	1.33	1.37
35	BA	1212	G	N9-C4	-6.49	1.32	1.38
35	BA	2491	U	C2-N3	-6.49	1.33	1.37
1	AA	1240	U	C4-C5	-6.49	1.37	1.43
22	AV	53	G	C8-N7	-6.49	1.27	1.30
35	BA	1030	G	C5-C4	-6.49	1.33	1.38
35	BA	1136	G	C8-N7	-6.49	1.27	1.30
35	BA	2642	G	C8-N7	-6.49	1.27	1.30
35	BA	1179	C	C4-C5	-6.49	1.37	1.43
35	BA	1890	A	N9-C8	-6.49	1.32	1.37
35	BA	2029	G	N1-C2	-6.49	1.32	1.37
35	BA	2483	C	C5-C6	-6.49	1.29	1.34
1	AA	929	G	C2-N2	-6.49	1.28	1.34
1	AA	1390	U	C2-N3	-6.49	1.33	1.37
35	BA	2894	G	C2-N3	-6.49	1.27	1.32
1	AA	1032	G	C5-C4	6.49	1.42	1.38
35	BA	1340	U	C5-C6	-6.49	1.28	1.34
35	BA	1360	A	C5-C6	-6.49	1.35	1.41
35	BA	1971	A	C2-N3	-6.49	1.27	1.33
1	AA	43	C	N1-C2	-6.48	1.33	1.40
1	AA	228	A	N9-C4	-6.48	1.33	1.37
1	AA	504	C	N1-C2	-6.48	1.33	1.40
1	AA	894	G	N9-C4	-6.48	1.32	1.38
35	BA	2057	A	N3-C4	-6.48	1.30	1.34
1	AA	159	G	C5-C4	-6.48	1.33	1.38
1	AA	750	G	C5-C4	-6.48	1.33	1.38
1	AA	1013	G	C5-C4	-6.48	1.33	1.38
36	BB	107	G	C5-C4	-6.48	1.33	1.38
35	BA	725	G	N3-C4	-6.48	1.30	1.35
1	AA	124	G	P-O5'	-6.48	1.53	1.59
35	BA	754	C	N3-C4	-6.48	1.29	1.33
35	BA	1854	A	N9-C4	-6.48	1.33	1.37
35	BA	2705	A	N9-C4	6.48	1.41	1.37
1	AA	1166	G	C5'-C4'	-6.48	1.43	1.51
35	BA	32	C	N1-C6	-6.47	1.33	1.37
35	BA	583	G	N9-C8	-6.47	1.33	1.37
35	BA	587	C	N1-C2	-6.47	1.33	1.40
35	BA	1278	A	C6-N1	-6.47	1.31	1.35
35	BA	2351	G	N3-C4	6.47	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	614	A	C4'-C3'	-6.47	1.46	1.53
35	BA	26	G	C4'-C3'	-6.47	1.46	1.53
35	BA	869	G	C5-C6	-6.47	1.35	1.42
35	BA	233	A	C5-C6	-6.47	1.35	1.41
35	BA	548	A	N9-C8	-6.47	1.32	1.37
35	BA	1795	C	C5-C6	-6.47	1.29	1.34
35	BA	1841	U	C4-C5	-6.47	1.37	1.43
35	BA	962	G	N9-C4	-6.47	1.32	1.38
35	BA	2083	G	N9-C4	-6.47	1.32	1.38
1	AA	42	G	C6-N1	-6.47	1.35	1.39
1	AA	1281	U	C2-N3	-6.46	1.33	1.37
35	BA	982	C	C4-C5	-6.46	1.37	1.43
1	AA	621	A	N3-C4	-6.46	1.30	1.34
35	BA	103	A	C6-N1	-6.46	1.31	1.35
35	BA	2886	G	C2-N3	-6.46	1.27	1.32
1	AA	68	G	C6-O6	-6.46	1.18	1.24
1	AA	1503	A	O4'-C1'	-6.46	1.33	1.41
35	BA	565	C	C2-N3	-6.46	1.30	1.35
35	BA	2456	C	N1-C2	-6.46	1.33	1.40
35	BA	2722	G	C2-N2	-6.46	1.28	1.34
1	AA	204	U	C5-C6	-6.46	1.28	1.34
1	AA	275	G	C8-N7	-6.46	1.27	1.30
1	AA	684	A	N9-C8	-6.46	1.32	1.37
1	AA	1339	A	N9-C4	-6.46	1.33	1.37
1	AA	1419	G	C5'-C4'	-6.46	1.43	1.51
35	BA	34	C	O3'-P	-6.46	1.53	1.61
35	BA	1087	G	C3'-C2'	-6.46	1.45	1.52
1	AA	649	G	N3-C4	-6.46	1.30	1.35
35	BA	349	G	N3-C4	-6.46	1.30	1.35
35	BA	522	G	N3-C4	-6.46	1.30	1.35
35	BA	1431	U	C5-C6	-6.46	1.28	1.34
1	AA	863	U	N1-C2	-6.45	1.32	1.38
35	BA	826	U	N1-C2	-6.45	1.32	1.38
35	BA	941	A	N9-C4	-6.45	1.33	1.37
35	BA	1985	G	C2-N2	-6.45	1.28	1.34
35	BA	2056	G	N3-C4	-6.45	1.30	1.35
35	BA	2131	G	N3-C4	-6.45	1.30	1.35
35	BA	2283	C	C2-N3	-6.45	1.30	1.35
1	AA	1169	A	N7-C5	-6.45	1.35	1.39
35	BA	678	C	C2-O2	-6.45	1.18	1.24
35	BA	2524	G	N7-C5	-6.45	1.35	1.39
36	BB	44	G	C6-O6	-6.45	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	317	G	C5-C6	-6.45	1.35	1.42
1	AA	1526	G	C3'-C2'	-6.45	1.45	1.52
35	BA	1385	G	N9-C4	-6.45	1.32	1.38
35	BA	1893	C	N1-C6	-6.45	1.33	1.37
1	AA	1337	G	N9-C8	-6.45	1.33	1.37
35	BA	2509	G	N9-C8	-6.45	1.33	1.37
35	BA	258	G	C6-N1	-6.45	1.35	1.39
35	BA	2496	C	C4-N4	-6.45	1.28	1.33
1	AA	710	G	C8-N7	-6.44	1.27	1.30
1	AA	1208	C	C4'-O4'	-6.44	1.37	1.45
35	BA	1400	G	C8-N7	-6.44	1.27	1.30
35	BA	2702	U	C2-N3	-6.44	1.33	1.37
1	AA	289	G	C2-N3	-6.44	1.27	1.32
35	BA	693	C	N1-C6	-6.44	1.33	1.37
35	BA	735	A	C5-C4	-6.44	1.34	1.38
35	BA	1814	G	C2-N3	-6.44	1.27	1.32
1	AA	1201	A	P-O5'	-6.44	1.53	1.59
35	BA	238	C	C2'-C1'	-6.44	1.46	1.53
35	BA	1168	G	C2'-C1'	-6.44	1.46	1.53
1	AA	695	A	N9-C4	-6.44	1.33	1.37
35	BA	571	A	N9-C4	-6.44	1.33	1.37
1	AA	116	A	N3-C4	-6.44	1.30	1.34
1	AA	1005	A	C4'-C3'	-6.44	1.46	1.53
35	BA	2157	G	C5-C4	-6.44	1.33	1.38
35	BA	1251	C	N1-C6	-6.44	1.33	1.37
35	BA	1566	A	C5-C4	-6.44	1.34	1.38
1	AA	104	G	C4'-C3'	-6.43	1.46	1.53
1	AA	30	U	C5'-C4'	-6.43	1.43	1.51
1	AA	501	C	C4-C5	-6.43	1.37	1.43
1	AA	1121	U	C4-C5	-6.43	1.37	1.43
1	AA	1228	C	C4-C5	-6.43	1.37	1.43
1	AA	1375	A	N7-C5	-6.43	1.35	1.39
36	BB	45	A	N7-C5	-6.43	1.35	1.39
1	AA	129	U	C4-O4	-6.43	1.18	1.23
35	BA	771	G	N9-C8	-6.43	1.33	1.37
35	BA	2519	U	C4-O4	-6.43	1.18	1.23
1	AA	83	U	C5-C6	-6.43	1.28	1.34
1	AA	1351	U	C2-N3	-6.43	1.33	1.37
35	BA	763	G	C5-C6	-6.43	1.35	1.42
35	BA	2032	G	C4'-O4'	-6.43	1.37	1.45
1	AA	551	U	C2'-C1'	-6.42	1.46	1.53
1	AA	665	A	C6-N1	-6.42	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	37	A	C6-N1	-6.42	1.31	1.35
35	BA	375	C	C2'-C1'	-6.42	1.46	1.53
35	BA	768	G	C2-N2	-6.42	1.28	1.34
35	BA	783	A	N3-C4	-6.42	1.30	1.34
35	BA	1382	G	C8-N7	6.42	1.34	1.30
1	AA	590	C	C2-O2	-6.42	1.18	1.24
1	AA	922	G	C4'-C3'	-6.42	1.46	1.53
1	AA	993	G	C5-C4	-6.42	1.33	1.38
35	BA	1141	U	C4'-O4'	-6.42	1.37	1.45
1	AA	523	A	C8-N7	-6.42	1.27	1.31
35	BA	2446	G	N3-C4	-6.42	1.30	1.35
1	AA	263	A	C5-C6	-6.42	1.35	1.41
35	BA	2569	G	C5-C4	-6.42	1.33	1.38
35	BA	1075	C	C4-N4	-6.42	1.28	1.33
1	AA	391	G	C6-O6	-6.41	1.18	1.24
1	AA	1201	A	N7-C5	-6.41	1.35	1.39
1	AA	1470	G	N3-C4	-6.41	1.30	1.35
35	BA	649	G	C6-N1	6.41	1.44	1.39
35	BA	968	G	N3-C4	-6.41	1.30	1.35
35	BA	1228	G	C2-N3	-6.41	1.27	1.32
35	BA	1543	C	N3-C4	-6.41	1.29	1.33
35	BA	1144	G	N9-C8	6.41	1.42	1.37
35	BA	2865	U	C4-O4	-6.41	1.18	1.23
1	AA	958	A	C6-N1	-6.41	1.31	1.35
1	AA	1179	A	N9-C4	-6.41	1.34	1.37
1	AA	1222	G	N9-C8	-6.41	1.33	1.37
1	AA	1379	G	N9-C8	-6.41	1.33	1.37
35	BA	1209	G	C6-N1	-6.41	1.35	1.39
35	BA	1277	G	N3-C4	-6.41	1.30	1.35
35	BA	1426	G	C4'-O4'	-6.41	1.37	1.45
35	BA	2012	G	N3-C4	-6.41	1.30	1.35
36	BB	28	C	C2-N3	-6.41	1.30	1.35
35	BA	271(I)	G	N7-C5	-6.41	1.35	1.39
35	BA	901	A	N7-C5	-6.41	1.35	1.39
22	AV	9	G	C8-N7	-6.41	1.27	1.30
35	BA	140	G	C8-N7	-6.41	1.27	1.30
35	BA	2407	G	C8-N7	6.41	1.34	1.30
35	BA	2699	C	N3-C4	-6.41	1.29	1.33
1	AA	319	G	C6-O6	-6.40	1.18	1.24
1	AA	662	G	N9-C8	-6.40	1.33	1.37
1	AA	819	A	C4'-C3'	-6.40	1.46	1.53
35	BA	1149	G	C6-N1	-6.40	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1321	A	N9-C4	-6.40	1.34	1.37
35	BA	1922	G	C6-N1	-6.40	1.35	1.39
36	BB	19	G	O3'-P	-6.40	1.53	1.61
1	AA	47	C	C4-C5	-6.40	1.37	1.43
35	BA	1233	C	C4-C5	-6.40	1.37	1.43
35	BA	1563	G	C2'-C1'	-6.40	1.46	1.53
35	BA	2058	A	N7-C5	-6.40	1.35	1.39
35	BA	2425	A	N7-C5	-6.40	1.35	1.39
35	BA	2499	C	C5-C6	-6.40	1.29	1.34
1	AA	1495	U	N1-C2	-6.40	1.32	1.38
22	AV	72	A	C5-C6	-6.40	1.35	1.41
35	BA	251	A	N3-C4	-6.40	1.31	1.34
1	AA	878	G	N3-C4	-6.40	1.30	1.35
35	BA	1232	G	N1-C2	6.40	1.42	1.37
35	BA	1601	G	N3-C4	-6.40	1.30	1.35
35	BA	2250	G	C8-N7	-6.40	1.27	1.30
35	BA	636	G	C5-C4	-6.39	1.33	1.38
35	BA	1768	U	C4-O4	6.39	1.28	1.23
35	BA	2716	U	C2-N3	-6.39	1.33	1.37
1	AA	782	A	N7-C5	6.39	1.43	1.39
1	AA	1155	G	N9-C8	-6.39	1.33	1.37
1	AA	1171	G	N9-C8	-6.39	1.33	1.37
35	BA	336	C	C5-C6	-6.39	1.29	1.34
35	BA	662	G	N9-C4	-6.39	1.32	1.38
35	BA	938	G	N9-C4	-6.39	1.32	1.38
35	BA	798	G	N7-C5	-6.39	1.35	1.39
1	AA	1119	C	N1-C6	-6.39	1.33	1.37
1	AA	1320	C	N1-C6	-6.39	1.33	1.37
35	BA	185	U	C4'-C3'	-6.39	1.46	1.53
35	BA	774	A	C8-N7	-6.39	1.27	1.31
35	BA	1090	U	C2-O2	6.39	1.28	1.22
35	BA	1663	C	C3'-C2'	-6.39	1.45	1.52
35	BA	772	C	N3-C4	-6.38	1.29	1.33
35	BA	2049	G	C8-N7	-6.38	1.27	1.30
1	AA	383	A	C6-N6	-6.38	1.28	1.33
1	AA	892	A	N9-C4	-6.38	1.34	1.37
35	BA	2384	G	N7-C5	-6.38	1.35	1.39
35	BA	2675	A	C6-N6	-6.38	1.28	1.33
36	BB	119	G	N9-C8	6.38	1.42	1.37
1	AA	649	G	C8-N7	-6.38	1.27	1.30
1	AA	734	G	C5-C6	-6.38	1.35	1.42
1	AA	940	C	C4'-C3'	-6.38	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	948	C	C4-C5	-6.38	1.37	1.43
1	AA	1027	C	N3-C4	-6.38	1.29	1.33
35	BA	654(N)	G	N1-C2	-6.38	1.32	1.37
35	BA	707	G	C8-N7	-6.38	1.27	1.30
35	BA	1311	G	C5-C6	-6.38	1.35	1.42
35	BA	1634	A	N9-C8	-6.38	1.32	1.37
35	BA	2246	G	C2-N3	-6.38	1.27	1.32
35	BA	2642	G	P-O5'	-6.38	1.53	1.59
35	BA	2707	G	C8-N7	-6.38	1.27	1.30
1	AA	294	U	N3-C4	-6.38	1.32	1.38
1	AA	819	A	N9-C4	-6.38	1.34	1.37
1	AA	1349	A	C6-N1	-6.38	1.31	1.35
1	AA	1358	U	C5-C6	-6.38	1.28	1.34
35	BA	258	G	N7-C5	-6.38	1.35	1.39
35	BA	517	C	C3'-C2'	-6.38	1.45	1.52
35	BA	2307	G	N9-C8	-6.38	1.33	1.37
36	BB	114	C	C5-C6	-6.38	1.29	1.34
1	AA	807	A	C8-N7	-6.38	1.27	1.31
35	BA	1105	U	C2-N3	-6.37	1.33	1.37
35	BA	1710	C	C5'-C4'	-6.37	1.43	1.51
35	BA	2159	G	C5-C4	-6.37	1.33	1.38
35	BA	292	C	C5-C6	-6.37	1.29	1.34
35	BA	512	G	C6-N1	-6.37	1.35	1.39
1	AA	230	G	N3-C4	-6.37	1.30	1.35
1	AA	435	C	C2-O2	-6.37	1.18	1.24
1	AA	1032	G	N3-C4	-6.37	1.30	1.35
35	BA	536	A	N7-C5	-6.37	1.35	1.39
35	BA	1787	A	C8-N7	-6.37	1.27	1.31
35	BA	1953	A	N9-C8	-6.37	1.32	1.37
35	BA	2468	G	N7-C5	-6.37	1.35	1.39
1	AA	538	G	C2-N3	-6.37	1.27	1.32
35	BA	2675	A	N3-C4	-6.37	1.31	1.34
35	BA	272(H)	C	N1-C6	-6.37	1.33	1.37
35	BA	581	C	C4-N4	-6.37	1.28	1.33
35	BA	1417	C	N1-C6	-6.37	1.33	1.37
1	AA	498	U	N1-C2	-6.37	1.32	1.38
1	AA	703	G	C6-N1	-6.37	1.35	1.39
35	BA	1079	C	N3-C4	6.37	1.38	1.33
1	AA	538	G	N3-C4	-6.36	1.30	1.35
1	AA	687	A	N9-C4	-6.36	1.34	1.37
1	AA	697	U	N3-C4	-6.36	1.32	1.38
35	BA	2030	A	N9-C4	-6.36	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1672	C	N3-C4	-6.36	1.29	1.33
35	BA	2387	U	O3'-P	-6.36	1.53	1.61
1	AA	321	A	N9-C4	6.36	1.41	1.37
1	AA	1162	C	C4-C5	-6.36	1.37	1.43
35	BA	142	A	N9-C4	6.36	1.41	1.37
35	BA	1232	G	C6-N1	-6.36	1.35	1.39
35	BA	2893	G	N9-C8	-6.36	1.33	1.37
1	AA	864	A	C6-N1	-6.36	1.31	1.35
35	BA	418	G	C8-N7	-6.36	1.27	1.30
35	BA	911	A	C4'-C3'	-6.36	1.46	1.53
1	AA	264	U	C2-N3	-6.36	1.33	1.37
1	AA	1432	G	N7-C5	-6.36	1.35	1.39
35	BA	87	C	C5-C6	-6.36	1.29	1.34
35	BA	1890	A	N7-C5	-6.36	1.35	1.39
1	AA	427	U	C4-O4	6.36	1.28	1.23
1	AA	481	G	N9-C4	-6.36	1.32	1.38
1	AA	689	C	N1-C6	-6.36	1.33	1.37
1	AA	925	G	N9-C4	-6.36	1.32	1.38
35	BA	258	G	N9-C4	-6.36	1.32	1.38
35	BA	297	C	N1-C6	-6.36	1.33	1.37
35	BA	2035	G	C2-N3	-6.36	1.27	1.32
35	BA	432	A	C6-N1	-6.35	1.31	1.35
36	BB	26	A	C2'-C1'	-6.35	1.46	1.53
1	AA	1168	A	C8-N7	-6.35	1.27	1.31
35	BA	251	A	N7-C5	-6.35	1.35	1.39
35	BA	271(R)	G	C8-N7	-6.35	1.27	1.30
35	BA	765	G	P-O5'	-6.35	1.53	1.59
1	AA	1126	U	N3-C4	-6.35	1.32	1.38
35	BA	508	G	C5-C4	-6.35	1.33	1.38
1	AA	278	G	C4'-C3'	-6.35	1.46	1.53
35	BA	386	G	N9-C8	-6.35	1.33	1.37
35	BA	1356	G	C5-C6	-6.35	1.36	1.42
22	AV	49	G	C3'-C2'	-6.35	1.45	1.52
35	BA	1299	G	N3-C4	-6.35	1.31	1.35
35	BA	1464	C	C3'-C2'	-6.35	1.45	1.52
35	BA	2700	C	C5-C6	-6.35	1.29	1.34
1	AA	561	U	C4-O4	-6.35	1.18	1.23
22	AV	70	G	C8-N7	-6.35	1.27	1.30
35	BA	31	C	C2-N3	-6.35	1.30	1.35
35	BA	1057	A	C5-C4	-6.35	1.34	1.38
35	BA	2852	G	O3'-P	-6.35	1.53	1.61
1	AA	1527	C	C3'-C2'	-6.34	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	78	A	C6-N6	-6.34	1.28	1.33
1	AA	310	G	C6-O6	-6.34	1.18	1.24
22	AV	5	G	C6-O6	-6.34	1.18	1.24
35	BA	75	G	C4'-C3'	-6.34	1.46	1.53
35	BA	2329	G	C4'-O4'	-6.34	1.37	1.45
1	AA	296	U	C2-N3	-6.34	1.33	1.37
1	AA	1416	G	N3-C4	-6.34	1.31	1.35
35	BA	1028	A	C2-N3	-6.34	1.27	1.33
35	BA	1153	C	C2'-C1'	-6.34	1.46	1.53
35	BA	2482	G	N9-C4	-6.34	1.32	1.38
35	BA	2668	G	N3-C4	-6.34	1.31	1.35
35	BA	487	C	O4'-C1'	-6.34	1.33	1.41
35	BA	1419	A	P-O5'	-6.34	1.53	1.59
35	BA	299	A	C6-N1	-6.34	1.31	1.35
35	BA	722	A	C6-N1	-6.34	1.31	1.35
1	AA	1233	G	N1-C2	-6.34	1.32	1.37
35	BA	1253	A	N9-C8	-6.34	1.32	1.37
35	BA	1368	G	N1-C2	-6.34	1.32	1.37
35	BA	1889	A	C8-N7	-6.34	1.27	1.31
1	AA	332	G	C4'-C3'	-6.33	1.46	1.53
1	AA	862	C	C4-C5	-6.33	1.37	1.43
1	AA	1332	A	N7-C5	-6.33	1.35	1.39
22	AV	35	A	N9-C4	-6.33	1.34	1.37
35	BA	2576	G	N7-C5	-6.33	1.35	1.39
35	BA	259	G	C2'-C1'	-6.33	1.46	1.53
35	BA	1442	G	C2-N3	6.33	1.37	1.32
1	AA	794	A	C5-C4	-6.33	1.34	1.38
35	BA	1676	A	O3'-P	-6.33	1.53	1.61
35	BA	127	A	N3-C4	-6.33	1.31	1.34
35	BA	1551	C	C4-C5	-6.33	1.37	1.43
35	BA	1721	G	N9-C8	-6.33	1.33	1.37
35	BA	1999	C	N3-C4	-6.33	1.29	1.33
35	BA	2564	A	N3-C4	-6.33	1.31	1.34
1	AA	88	A	C5-C6	6.33	1.46	1.41
1	AA	502	G	N7-C5	-6.33	1.35	1.39
35	BA	425	G	C2-N2	-6.33	1.28	1.34
35	BA	821	A	N9-C4	-6.33	1.34	1.37
1	AA	1124	G	C8-N7	-6.33	1.27	1.30
35	BA	1669	A	N1-C2	-6.33	1.28	1.34
35	BA	1915	U	C5-C6	-6.33	1.28	1.34
36	BB	9	G	C2-N3	-6.33	1.27	1.32
1	AA	679	C	P-O5'	-6.32	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1200	C	C4-C5	-6.32	1.37	1.43
35	BA	566	U	C4-C5	-6.32	1.37	1.43
1	AA	1068	G	N9-C4	-6.32	1.32	1.38
1	AA	1105	A	C6-N1	-6.32	1.31	1.35
1	AA	1434	A	N7-C5	-6.32	1.35	1.39
35	BA	2580	U	C2-O2	-6.32	1.16	1.22
1	AA	1076	C	C4-C5	-6.32	1.37	1.43
1	AA	1314	C	C5-C6	-6.32	1.29	1.34
1	AA	1339	A	C2-N3	-6.32	1.27	1.33
1	AA	1426	C	C2-N3	-6.32	1.30	1.35
35	BA	309	G	N9-C4	-6.32	1.32	1.38
35	BA	602	G	C6-N1	-6.32	1.35	1.39
35	BA	1502	C	P-O5'	6.32	1.66	1.59
35	BA	1982	C	N3-C4	-6.32	1.29	1.33
35	BA	2776	A	N9-C8	-6.32	1.32	1.37
1	AA	750	G	C8-N7	-6.31	1.27	1.30
1	AA	805	C	N1-C6	-6.31	1.33	1.37
35	BA	1399	C	N1-C6	-6.31	1.33	1.37
35	BA	2880	C	N1-C6	-6.31	1.33	1.37
1	AA	80	G	N7-C5	-6.31	1.35	1.39
1	AA	619	U	N3-C4	-6.31	1.32	1.38
1	AA	678	U	N1-C6	-6.31	1.32	1.38
1	AA	1233	G	C6-O6	-6.31	1.18	1.24
35	BA	52	A	C6-N1	-6.31	1.31	1.35
35	BA	64	A	N7-C5	-6.31	1.35	1.39
35	BA	842	G	C4'-C3'	-6.31	1.46	1.53
35	BA	1696	G	C4'-C3'	-6.31	1.46	1.53
35	BA	1713	U	C2-N3	-6.31	1.33	1.37
35	BA	1759	A	C6-N1	-6.31	1.31	1.35
35	BA	1808	U	N1-C6	-6.31	1.32	1.38
35	BA	1168	G	C3'-C2'	-6.31	1.45	1.52
35	BA	1722	A	N1-C2	-6.31	1.28	1.34
1	AA	657	G	C8-N7	-6.31	1.27	1.30
1	AA	1387	G	C8-N7	-6.31	1.27	1.30
35	BA	1413	G	C8-N7	-6.31	1.27	1.30
35	BA	1882	C	N1-C2	-6.31	1.33	1.40
1	AA	670	G	C5-C6	-6.30	1.36	1.42
1	AA	733	A	C5'-C4'	-6.30	1.43	1.51
35	BA	1216	G	C3'-C2'	-6.30	1.45	1.52
35	BA	2259	G	C2-N3	-6.30	1.27	1.32
35	BA	2353	G	C5-C6	-6.30	1.36	1.42
35	BA	1030	G	N9-C4	-6.30	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1432	G	C8-N7	-6.30	1.27	1.30
35	BA	1452	A	C6-N6	6.30	1.39	1.33
35	BA	1924	C	C4'-C3'	-6.30	1.46	1.53
35	BA	2510	C	C4'-C3'	-6.30	1.46	1.53
36	BB	33	G	N3-C4	-6.30	1.31	1.35
1	AA	57	G	N9-C4	-6.30	1.32	1.38
35	BA	495	G	N9-C4	-6.30	1.32	1.38
35	BA	1846	G	N9-C4	-6.30	1.32	1.38
1	AA	538	G	C6-N1	-6.30	1.35	1.39
1	AA	1274	G	C6-O6	-6.30	1.18	1.24
35	BA	647	G	P-O5'	-6.30	1.53	1.59
35	BA	1902	C	C4'-C3'	-6.30	1.46	1.53
35	BA	2144	U	C4-C5	-6.30	1.37	1.43
36	BB	14	U	P-O5'	-6.30	1.53	1.59
1	AA	1104	G	C2-N2	-6.29	1.28	1.34
1	AA	1488	G	C2-N2	-6.29	1.28	1.34
35	BA	123	G	C2-N2	-6.29	1.28	1.34
35	BA	883	G	C2-N2	-6.29	1.28	1.34
1	AA	262	A	P-O5'	-6.29	1.53	1.59
1	AA	608	A	C6-N1	-6.29	1.31	1.35
1	AA	828	A	N9-C8	-6.29	1.32	1.37
35	BA	271(D)	G	C8-N7	-6.29	1.27	1.30
35	BA	2112	G	C4'-C3'	-6.29	1.46	1.53
1	AA	186	C	N1-C6	-6.29	1.33	1.37
1	AA	966	G	C5-C4	-6.29	1.33	1.38
35	BA	2077	A	N1-C2	-6.29	1.28	1.34
35	BA	2360	A	C8-N7	-6.29	1.27	1.31
1	AA	1377	A	C6-N1	-6.29	1.31	1.35
35	BA	703	U	N1-C6	-6.29	1.32	1.38
35	BA	1498	C	C2-N3	-6.29	1.30	1.35
35	BA	552	G	C5-C4	-6.29	1.33	1.38
35	BA	762	U	C4'-O4'	-6.29	1.37	1.45
35	BA	1303	G	C4'-C3'	-6.29	1.46	1.53
1	AA	21	G	N9-C8	-6.29	1.33	1.37
1	AA	1078	U	N1-C2	-6.29	1.32	1.38
1	AA	1115	C	N3-C4	-6.29	1.29	1.33
35	BA	635	C	N1-C6	-6.29	1.33	1.37
35	BA	1237	A	C8-N7	-6.29	1.27	1.31
35	BA	2223	G	C2-N3	-6.29	1.27	1.32
35	BA	2442	C	C2-O2	-6.29	1.18	1.24
35	BA	204	A	N7-C5	-6.28	1.35	1.39
35	BA	529	A	N7-C5	-6.28	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	586	A	N7-C5	-6.28	1.35	1.39
35	BA	1860	G	N9-C4	-6.28	1.32	1.38
35	BA	2045	C	C3'-C2'	-6.28	1.45	1.52
35	BA	2188	C	C4-C5	-6.28	1.38	1.43
35	BA	1373	A	C5-C4	-6.28	1.34	1.38
1	AA	147	G	C8-N7	-6.28	1.27	1.30
1	AA	683	G	N9-C8	-6.28	1.33	1.37
1	AA	975	A	C6-N6	-6.28	1.28	1.33
22	AV	51	C	C2-O2	-6.28	1.18	1.24
35	BA	1826	G	C8-N7	-6.28	1.27	1.30
35	BA	1844	C	N1-C2	-6.28	1.33	1.40
35	BA	2177	C	C5-C6	-6.28	1.29	1.34
35	BA	2319	G	N1-C2	-6.28	1.32	1.37
35	BA	2692	C	C2-O2	-6.28	1.18	1.24
35	BA	2833	G	N9-C8	-6.28	1.33	1.37
36	BB	25	A	O3'-P	-6.28	1.53	1.61
35	BA	1011	G	N9-C8	6.28	1.42	1.37
35	BA	1149	G	N9-C4	-6.28	1.32	1.38
1	AA	8	A	N3-C4	-6.28	1.31	1.34
1	AA	23	C	C5'-C4'	-6.28	1.43	1.51
1	AA	512	U	C4-O4	-6.28	1.18	1.23
35	BA	989	G	N3-C4	-6.28	1.31	1.35
35	BA	1845	G	N7-C5	-6.28	1.35	1.39
35	BA	1950	G	N7-C5	-6.28	1.35	1.39
35	BA	2370	G	N7-C5	-6.28	1.35	1.39
1	AA	659	U	C4'-C3'	-6.28	1.46	1.53
35	BA	1205	U	C4'-C3'	-6.28	1.46	1.53
35	BA	2486	G	N9-C8	-6.28	1.33	1.37
35	BA	2536	G	N9-C8	-6.28	1.33	1.37
35	BA	2675	A	N9-C8	-6.28	1.32	1.37
35	BA	143(A)	C	N3-C4	-6.27	1.29	1.33
35	BA	1020	A	P-O5'	-6.27	1.53	1.59
1	AA	589	C	N3-C4	6.27	1.38	1.33
35	BA	394	A	C4'-C3'	-6.27	1.46	1.53
35	BA	1365	A	N3-C4	-6.27	1.31	1.34
35	BA	2835	A	N3-C4	-6.27	1.31	1.34
1	AA	769	G	C5-C4	-6.27	1.33	1.38
1	AA	928	G	C2-N3	-6.27	1.27	1.32
22	AV	6	G	C2-N3	-6.27	1.27	1.32
35	BA	89	G	N3-C4	-6.27	1.31	1.35
35	BA	804	A	N9-C4	-6.27	1.34	1.37
35	BA	2446	G	C5-C4	-6.27	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	457	C	C2-N3	-6.27	1.30	1.35
35	BA	1121	C	C2-N3	-6.27	1.30	1.35
1	AA	867	G	C5-C4	-6.27	1.33	1.38
35	BA	630	G	C2-N3	-6.27	1.27	1.32
35	BA	2161	C	O3'-P	-6.26	1.53	1.61
35	BA	2826	A	N9-C4	-6.26	1.34	1.37
36	BB	22	U	C5-C6	-6.26	1.28	1.34
38	BD	181	GLU	CD-OE2	-6.26	1.18	1.25
43	BK	106	GLU	CD-OE2	-6.26	1.18	1.25
35	BA	603	A	C8-N7	-6.26	1.27	1.31
1	AA	93	G	N1-C2	-6.26	1.32	1.37
1	AA	1321	C	N1-C6	-6.26	1.33	1.37
35	BA	433	C	N1-C6	-6.26	1.33	1.37
35	BA	1892	C	N1-C6	-6.26	1.33	1.37
35	BA	2416	C	N1-C6	-6.26	1.33	1.37
1	AA	897	C	C4-N4	-6.26	1.28	1.33
1	AA	1170	A	C5-C6	-6.26	1.35	1.41
35	BA	178	G	C6-N1	-6.26	1.35	1.39
35	BA	937	U	N3-C4	-6.26	1.32	1.38
35	BA	1528(A)	A	N3-C4	-6.26	1.31	1.34
35	BA	2164	C	C4-C5	-6.26	1.38	1.43
1	AA	827	U	N1-C6	-6.26	1.32	1.38
35	BA	629	G	C6-O6	-6.26	1.18	1.24
35	BA	2801(A)	A	C8-N7	6.26	1.35	1.31
1	AA	931	C	C5-C6	-6.26	1.29	1.34
35	BA	124	G	C2-N2	-6.26	1.28	1.34
35	BA	1306	C	C4-C5	-6.26	1.38	1.43
1	AA	887	G	C5-C4	-6.25	1.33	1.38
1	AA	371	G	N7-C5	-6.25	1.35	1.39
1	AA	728	A	O5'-C5'	-6.25	1.32	1.42
35	BA	197	A	N7-C5	-6.25	1.35	1.39
35	BA	1247	A	N3-C4	-6.25	1.31	1.34
35	BA	1278	A	N3-C4	-6.25	1.31	1.34
35	BA	1650	G	N7-C5	-6.25	1.35	1.39
1	AA	817	C	C4-C5	-6.25	1.38	1.43
35	BA	2198	A	C8-N7	-6.25	1.27	1.31
1	AA	1443	G	C5-C4	-6.25	1.33	1.38
35	BA	1127	A	C6-N1	-6.25	1.31	1.35
35	BA	2100	G	C5-C4	-6.25	1.33	1.38
35	BA	1609	A	C2-N3	-6.25	1.27	1.33
1	AA	100	C	N3-C4	-6.25	1.29	1.33
1	AA	106	C	C4'-C3'	-6.25	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	654	G	C8-N7	-6.25	1.27	1.30
1	AA	1411	C	C4-C5	-6.25	1.38	1.43
35	BA	1207	C	N3-C4	-6.25	1.29	1.33
35	BA	1403	C	C4'-C3'	-6.25	1.46	1.53
35	BA	1631(A)	A	N3-C4	-6.25	1.31	1.34
35	BA	1693	U	N3-C4	-6.25	1.32	1.38
35	BA	2763	G	N1-C2	-6.25	1.32	1.37
23	AX	16	A	C6-N1	-6.25	1.31	1.35
35	BA	210	C	C3'-C2'	-6.25	1.45	1.52
35	BA	655	A	C2-N3	-6.25	1.27	1.33
1	AA	767	A	C5-C4	-6.24	1.34	1.38
35	BA	849	A	C5-C4	-6.24	1.34	1.38
1	AA	957	U	N3-C4	-6.24	1.32	1.38
35	BA	2677	G	N1-C2	-6.24	1.32	1.37
36	BB	101	G	N1-C2	-6.24	1.32	1.37
35	BA	1863	G	C4'-C3'	-6.24	1.46	1.53
35	BA	1194	A	C5-C4	-6.24	1.34	1.38
35	BA	2124	G	C5-C6	-6.24	1.36	1.42
1	AA	1471	G	C2-N3	-6.24	1.27	1.32
35	BA	1548	C	C4'-C3'	-6.24	1.46	1.53
35	BA	2233	U	N1-C6	-6.24	1.32	1.38
36	BB	53	A	C6-N6	-6.24	1.28	1.33
1	AA	461	A	C3'-C2'	-6.24	1.45	1.52
1	AA	723	U	P-O5'	-6.24	1.53	1.59
35	BA	962	G	N7-C5	-6.24	1.35	1.39
35	BA	1459	G	P-O5'	-6.24	1.53	1.59
1	AA	860	A	C4'-C3'	-6.23	1.46	1.53
22	AV	5	G	C8-N7	-6.23	1.27	1.30
35	BA	1293	C	C4'-C3'	-6.23	1.46	1.53
35	BA	2886	G	C5-C4	-6.23	1.33	1.38
36	BB	18	G	C8-N7	-6.23	1.27	1.30
1	AA	299	G	N9-C8	-6.23	1.33	1.37
1	AA	1182	G	N9-C8	-6.23	1.33	1.37
1	AA	1311	G	C2-N2	-6.23	1.28	1.34
1	AA	1433	A	C2-N3	-6.23	1.27	1.33
1	AA	1526	G	C2-N3	-6.23	1.27	1.32
35	BA	870	A	N9-C4	-6.23	1.34	1.37
35	BA	1881	C	C4-C5	-6.23	1.38	1.43
35	BA	2405	G	N9-C8	-6.23	1.33	1.37
35	BA	2814	C	C5-C6	-6.23	1.29	1.34
1	AA	1397	C	C2-N3	-6.23	1.30	1.35
35	BA	1889	A	C5'-C4'	-6.23	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	523	C	N3-C4	-6.23	1.29	1.33
1	AA	157	G	C2-N3	-6.23	1.27	1.32
1	AA	773	G	C6-N1	-6.23	1.35	1.39
1	AA	1238	A	C6-N1	-6.23	1.31	1.35
1	AA	1413	A	C4'-O4'	-6.23	1.37	1.45
35	BA	1313	U	C4-C5	-6.23	1.38	1.43
35	BA	1583	A	N9-C4	-6.23	1.34	1.37
35	BA	2557	G	N7-C5	-6.23	1.35	1.39
35	BA	2694	G	C2-N3	-6.23	1.27	1.32
1	AA	1510	U	C2-O2	-6.23	1.16	1.22
35	BA	1076	C	C4-C5	-6.22	1.38	1.43
1	AA	1299	A	P-O5'	-6.22	1.53	1.59
22	AV	73	A	C5-C6	-6.22	1.35	1.41
35	BA	2272	U	C2-N3	-6.22	1.33	1.37
36	BB	92	C	N1-C2	-6.22	1.33	1.40
1	AA	785	G	O3'-P	-6.22	1.53	1.61
1	AA	1290	G	O3'-P	-6.22	1.53	1.61
35	BA	35	G	N9-C8	-6.22	1.33	1.37
35	BA	1558	A	N3-C4	-6.22	1.31	1.34
35	BA	2151	G	N9-C8	-6.22	1.33	1.37
1	AA	225	C	N1-C6	6.22	1.40	1.37
35	BA	387	U	C4-O4	6.22	1.28	1.23
1	AA	234	C	P-O5'	-6.22	1.53	1.59
1	AA	1513	A	N9-C8	-6.22	1.32	1.37
35	BA	548	A	N7-C5	6.22	1.43	1.39
1	AA	714	G	N3-C4	-6.22	1.31	1.35
1	AA	1144	G	N3-C4	-6.22	1.31	1.35
35	BA	17	G	C6-N1	-6.22	1.35	1.39
35	BA	129	C	N1-C6	-6.22	1.33	1.37
35	BA	492	A	C8-N7	-6.22	1.27	1.31
35	BA	743	G	N9-C8	-6.22	1.33	1.37
35	BA	1361	G	N3-C4	-6.22	1.31	1.35
35	BA	1478	G	C2-N3	-6.22	1.27	1.32
35	BA	1480	G	N9-C8	-6.22	1.33	1.37
35	BA	1822	G	N3-C4	-6.22	1.31	1.35
35	BA	2070	G	C6-N1	-6.22	1.35	1.39
35	BA	2335	A	N7-C5	-6.22	1.35	1.39
36	BB	56	G	N3-C4	-6.22	1.31	1.35
36	BB	66	A	C8-N7	-6.22	1.27	1.31
1	AA	514	C	C4-C5	-6.21	1.38	1.43
35	BA	2342	C	C4-C5	-6.21	1.38	1.43
35	BA	2517	C	C4-C5	-6.21	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BB	29	A	N9-C4	6.21	1.41	1.37
1	AA	154	C	C4-N4	-6.21	1.28	1.33
1	AA	166	G	C6-N1	-6.21	1.35	1.39
1	AA	313	A	P-O5'	-6.21	1.53	1.59
1	AA	875	C	N1-C6	-6.21	1.33	1.37
1	AA	1097	C	C4-N4	-6.21	1.28	1.33
35	BA	44	G	C6-N1	-6.21	1.35	1.39
35	BA	1492	G	C4'-C3'	-6.21	1.46	1.53
35	BA	1817	G	P-O5'	-6.21	1.53	1.59
35	BA	1823	G	C6-N1	-6.21	1.35	1.39
35	BA	2702	U	C4-C5	-6.21	1.38	1.43
1	AA	500	G	C2'-C1'	-6.21	1.46	1.53
1	AA	998	G	N7-C5	-6.21	1.35	1.39
35	BA	888	C	C4-C5	-6.21	1.38	1.43
35	BA	1837	C	C4-C5	-6.21	1.38	1.43
35	BA	1896	G	N7-C5	-6.21	1.35	1.39
1	AA	13	U	C4-O4	-6.21	1.18	1.23
1	AA	1457	G	N9-C4	-6.21	1.32	1.38
35	BA	1842	G	N9-C8	-6.21	1.33	1.37
1	AA	1375	A	N9-C8	-6.20	1.32	1.37
35	BA	274	G	N7-C5	-6.20	1.35	1.39
35	BA	646	A	N7-C5	-6.20	1.35	1.39
35	BA	2377	A	C6-N6	-6.20	1.28	1.33
1	AA	191	G	C5-C6	-6.20	1.36	1.42
1	AA	1500	A	N9-C4	-6.20	1.34	1.37
35	BA	2333	A	N9-C4	-6.20	1.34	1.37
1	AA	658	G	C8-N7	-6.20	1.27	1.30
1	AA	767	A	N1-C2	-6.20	1.28	1.34
1	AA	1420	C	C2'-C1'	-6.20	1.46	1.53
1	AA	1442	G	N9-C8	-6.20	1.33	1.37
1	AA	1447	A	C6-N1	-6.20	1.31	1.35
1	AA	1517	G	C8-N7	-6.20	1.27	1.30
35	BA	805	G	C5-C4	-6.20	1.34	1.38
35	BA	1769	G	C8-N7	-6.20	1.27	1.30
1	AA	352	C	N1-C6	-6.20	1.33	1.37
35	BA	1982	C	C4-N4	-6.20	1.28	1.33
35	BA	2869	G	O3'-P	-6.20	1.53	1.61
36	BB	68	C	N1-C6	-6.20	1.33	1.37
1	AA	1511	G	N3-C4	-6.20	1.31	1.35
35	BA	27	G	C6-N1	-6.20	1.35	1.39
35	BA	221	A	C5-C4	-6.20	1.34	1.38
35	BA	363(D)	G	P-O5'	-6.20	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	603	A	N3-C4	-6.20	1.31	1.34
35	BA	1380	G	C6-N1	-6.20	1.35	1.39
35	BA	2030	A	C5-C4	-6.20	1.34	1.38
35	BA	2750	A	C2'-C1'	-6.20	1.46	1.53
35	BA	712	G	C2-N2	-6.19	1.28	1.34
35	BA	2746	U	C4-O4	-6.19	1.18	1.23
1	AA	473	G	C5-C4	-6.19	1.34	1.38
1	AA	938	A	N7-C5	-6.19	1.35	1.39
35	BA	21	A	N9-C8	-6.19	1.32	1.37
35	BA	544	G	N9-C4	-6.19	1.32	1.38
35	BA	593	G	N1-C2	-6.19	1.32	1.37
35	BA	1361	G	C5-C4	-6.19	1.34	1.38
35	BA	2664	G	N1-C2	-6.19	1.32	1.37
35	BA	2867	G	C2-N2	-6.19	1.28	1.34
35	BA	228	A	C8-N7	-6.19	1.27	1.31
35	BA	2399	G	N3-C4	-6.19	1.31	1.35
35	BA	2830	G	N3-C4	-6.19	1.31	1.35
22	AV	38	A	C2-N3	-6.19	1.27	1.33
35	BA	900	A	C6-N6	-6.19	1.28	1.33
35	BA	2523	G	C5-C6	-6.19	1.36	1.42
39	BE	87	GLU	CD-OE1	-6.19	1.18	1.25
22	AV	54	U	C2-N3	-6.19	1.33	1.37
35	BA	1926	U	C2-N3	-6.19	1.33	1.37
35	BA	2700	C	C4'-O4'	-6.19	1.37	1.45
1	AA	11	G	N7-C5	-6.18	1.35	1.39
1	AA	292	G	N7-C5	-6.18	1.35	1.39
1	AA	709	G	C5-C4	-6.18	1.34	1.38
1	AA	838	G	N7-C5	-6.18	1.35	1.39
1	AA	1220	G	N9-C4	-6.18	1.33	1.38
1	AA	1477	C	P-O5'	6.18	1.66	1.59
22	AV	16	C	N3-C4	-6.18	1.29	1.33
35	BA	645	C	C4'-C3'	-6.18	1.46	1.53
35	BA	1271	G	N7-C5	-6.18	1.35	1.39
35	BA	1565	C	N3-C4	-6.18	1.29	1.33
35	BA	1571	A	N7-C5	-6.18	1.35	1.39
35	BA	2368	C	N1-C6	-6.18	1.33	1.37
1	AA	444	C	C5-C6	-6.18	1.29	1.34
1	AA	621	A	C6-N6	-6.18	1.29	1.33
1	AA	643	C	C2-N3	-6.18	1.30	1.35
35	BA	423	A	C6-N6	-6.18	1.29	1.33
35	BA	652	C	C5-C6	-6.18	1.29	1.34
35	BA	1140	C	C2-O2	-6.18	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	112	G	C8-N7	-6.18	1.27	1.30
35	BA	1154	G	N1-C2	-6.18	1.32	1.37
1	AA	264	U	N3-C4	-6.18	1.32	1.38
1	AA	722	A	C6-N1	-6.18	1.31	1.35
1	AA	861	G	C5-C4	-6.18	1.34	1.38
35	BA	561	G	C5-C6	-6.18	1.36	1.42
35	BA	1396	U	N3-C4	-6.18	1.32	1.38
35	BA	1925	C	N3-C4	-6.18	1.29	1.33
35	BA	2291	U	C4-C5	-6.18	1.38	1.43
35	BA	104	U	C4-O4	-6.18	1.18	1.23
35	BA	1677	A	C5'-C4'	-6.18	1.44	1.51
35	BA	1759	A	N9-C4	-6.18	1.34	1.37
35	BA	1847	A	N3-C4	-6.18	1.31	1.34
36	BB	41	U	C4-O4	-6.18	1.18	1.23
1	AA	1215	G	C8-N7	-6.17	1.27	1.30
35	BA	272(F)	C	C2-N3	-6.17	1.30	1.35
35	BA	1223	G	C8-N7	6.17	1.34	1.30
35	BA	1470	G	C6-N1	-6.17	1.35	1.39
35	BA	1550	C	C2-N3	-6.17	1.30	1.35
35	BA	1606	G	C5-C4	-6.17	1.34	1.38
35	BA	1985	G	C4'-O4'	-6.17	1.37	1.45
35	BA	2145	C	C2-N3	-6.17	1.30	1.35
35	BA	2284	C	C2-N3	-6.17	1.30	1.35
1	AA	1170	A	N7-C5	-6.17	1.35	1.39
35	BA	870	A	C3'-C2'	-6.17	1.46	1.52
35	BA	1688	U	C5-C6	-6.17	1.28	1.34
35	BA	2888	C	N1-C6	-6.17	1.33	1.37
1	AA	107	G	C4'-C3'	-6.17	1.46	1.53
35	BA	112	U	C4-O4	-6.17	1.18	1.23
35	BA	1338	G	C5-C6	-6.17	1.36	1.42
35	BA	1890	A	C6-N6	6.17	1.38	1.33
1	AA	1391	U	C2'-C1'	-6.17	1.46	1.53
35	BA	492	A	C6-N6	-6.17	1.29	1.33
35	BA	605	C	C2-N3	-6.17	1.30	1.35
1	AA	630	G	N7-C5	-6.17	1.35	1.39
35	BA	1507	A	C2-N3	6.17	1.39	1.33
35	BA	1593	G	P-O5'	-6.17	1.53	1.59
35	BA	1659	U	C4'-C3'	-6.17	1.46	1.53
35	BA	363(F)	A	N9-C4	-6.17	1.34	1.37
1	AA	189(L)	G	C2'-O2'	-6.16	1.33	1.41
1	AA	525	C	N3-C4	-6.16	1.29	1.33
1	AA	923	A	P-O5'	-6.16	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	359	A	C3'-C2'	-6.16	1.46	1.52
36	BB	70	C	C5-C6	-6.16	1.29	1.34
1	AA	414	A	C8-N7	-6.16	1.27	1.31
35	BA	2039	C	N1-C2	-6.16	1.33	1.40
35	BA	2288	A	N1-C2	-6.16	1.28	1.34
1	AA	121	C	C5-C6	-6.16	1.29	1.34
1	AA	168	G	C6-N1	-6.16	1.35	1.39
1	AA	386	C	C2'-C1'	-6.16	1.46	1.53
1	AA	939	G	C5-C4	-6.16	1.34	1.38
1	AA	954	G	C6-O6	-6.16	1.18	1.24
35	BA	931	G	N7-C5	6.16	1.43	1.39
35	BA	1003	G	C6-O6	-6.16	1.18	1.24
35	BA	2370	G	C2-N2	-6.16	1.28	1.34
1	AA	461	A	C6-N1	-6.16	1.31	1.35
1	AA	1306	A	C6-N1	-6.16	1.31	1.35
1	AA	1433	A	N9-C8	-6.16	1.32	1.37
1	AA	1519	A	N1-C2	6.16	1.39	1.34
35	BA	475	U	C4-O4	-6.16	1.18	1.23
35	BA	1208	C	C4-N4	-6.16	1.28	1.33
1	AA	492	G	N7-C5	-6.15	1.35	1.39
35	BA	65	C	N1-C6	-6.15	1.33	1.37
35	BA	614(A)	U	N3-C4	-6.15	1.32	1.38
35	BA	1404	C	N1-C6	-6.15	1.33	1.37
35	BA	1462	C	N1-C6	-6.15	1.33	1.37
35	BA	514	A	N9-C4	-6.15	1.34	1.37
35	BA	586	A	N9-C4	-6.15	1.34	1.37
35	BA	1271	G	C2-N3	-6.15	1.27	1.32
35	BA	1418	G	N1-C2	-6.15	1.32	1.37
35	BA	2463	C	N3-C4	-6.15	1.29	1.33
35	BA	442	G	N9-C8	-6.15	1.33	1.37
35	BA	563	G	N3-C4	-6.15	1.31	1.35
35	BA	880	G	N9-C8	-6.15	1.33	1.37
35	BA	1478	G	N3-C4	-6.15	1.31	1.35
1	AA	1498	U	C2-O2	-6.15	1.16	1.22
35	BA	146	G	C8-N7	-6.15	1.27	1.30
35	BA	1163	G	C8-N7	-6.15	1.27	1.30
1	AA	151	A	C5-C4	-6.15	1.34	1.38
1	AA	738	C	C4-C5	-6.15	1.38	1.43
1	AA	903	G	C5-C6	-6.15	1.36	1.42
35	BA	44	G	C2-N3	-6.15	1.27	1.32
35	BA	234	C	C3'-C2'	-6.15	1.46	1.52
1	AA	584	G	N9-C8	-6.15	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	667	G	N3-C4	-6.15	1.31	1.35
35	BA	2794	C	C4-N4	-6.15	1.28	1.33
1	AA	1246	C	C5-C6	-6.14	1.29	1.34
1	AA	1413	A	C8-N7	-6.14	1.27	1.31
1	AA	1440	C	C5-C6	-6.14	1.29	1.34
35	BA	1102	C	C5-C6	-6.14	1.29	1.34
35	BA	2433	A	C8-N7	-6.14	1.27	1.31
1	AA	77	G	C8-N7	-6.14	1.27	1.30
1	AA	475	G	C8-N7	-6.14	1.27	1.30
1	AA	496	A	N9-C4	6.14	1.41	1.37
1	AA	939	G	N9-C4	-6.14	1.33	1.38
35	BA	468	G	C8-N7	-6.14	1.27	1.30
35	BA	1975	G	N9-C4	-6.14	1.33	1.38
35	BA	2259	G	C8-N7	-6.14	1.27	1.30
1	AA	1075	C	C2-N3	-6.14	1.30	1.35
35	BA	2815	C	C5-C6	-6.14	1.29	1.34
1	AA	622	A	P-O5'	-6.14	1.53	1.59
1	AA	1166	G	C6-O6	-6.14	1.18	1.24
35	BA	1249	U	C2-N3	-6.14	1.33	1.37
35	BA	2754	U	P-O5'	-6.14	1.53	1.59
1	AA	188	C	C2-N3	-6.13	1.30	1.35
1	AA	223	U	C2-O2	-6.13	1.16	1.22
1	AA	238	G	N9-C8	-6.13	1.33	1.37
1	AA	624	C	N3-C4	-6.13	1.29	1.33
1	AA	863	U	C2-O2	-6.13	1.16	1.22
1	AA	1299	A	N1-C2	-6.13	1.28	1.34
35	BA	102	G	C8-N7	-6.13	1.27	1.30
35	BA	676	A	C6-N1	-6.13	1.31	1.35
35	BA	1287	A	N1-C2	-6.13	1.28	1.34
35	BA	1549	C	N1-C6	-6.13	1.33	1.37
35	BA	2683	C	N3-C4	-6.13	1.29	1.33
35	BA	2894	G	N9-C4	-6.13	1.33	1.38
35	BA	2486	G	N7-C5	-6.13	1.35	1.39
1	AA	761	G	N3-C4	-6.13	1.31	1.35
1	AA	1350	A	N9-C8	-6.13	1.32	1.37
1	AA	1418	A	N9-C8	-6.13	1.32	1.37
35	BA	1502	C	N3-C4	6.13	1.38	1.33
35	BA	2638	G	N3-C4	-6.13	1.31	1.35
1	AA	367	U	P-O5'	-6.13	1.53	1.59
35	BA	127	A	N9-C4	-6.13	1.34	1.37
35	BA	798	G	C2-N2	-6.13	1.28	1.34
35	BA	1494	A	N9-C4	-6.13	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2558	C	P-O5'	-6.13	1.53	1.59
35	BA	654	A	N3-C4	-6.12	1.31	1.34
35	BA	828	U	N3-C4	-6.12	1.32	1.38
35	BA	2748	A	C6-N6	-6.12	1.29	1.33
1	AA	262	A	C5-C4	6.12	1.43	1.38
1	AA	1383	C	N1-C6	-6.12	1.33	1.37
35	BA	1943	U	C2'-O2'	-6.12	1.33	1.41
1	AA	639	G	C5-C4	-6.12	1.34	1.38
1	AA	765	G	C5-C4	-6.12	1.34	1.38
35	BA	283	A	C5-C4	-6.12	1.34	1.38
35	BA	2558	C	C4'-C3'	-6.12	1.46	1.53
35	BA	2813	A	C6-N6	6.12	1.38	1.33
1	AA	273	A	C2'-O2'	-6.12	1.33	1.41
1	AA	139	G	N9-C8	-6.12	1.33	1.37
35	BA	631	A	N9-C4	6.12	1.41	1.37
36	BB	25	A	N3-C4	-6.12	1.31	1.34
35	BA	1747(A)	G	N7-C5	-6.12	1.35	1.39
1	AA	60	A	C5-C4	-6.12	1.34	1.38
1	AA	304	U	C2-N3	-6.12	1.33	1.37
1	AA	608	A	C5-C4	-6.12	1.34	1.38
1	AA	955	U	C5-C6	-6.12	1.28	1.34
1	AA	1390	U	C5-C6	-6.12	1.28	1.34
35	BA	280	C	C5-C6	-6.12	1.29	1.34
35	BA	515	A	C5-C4	-6.12	1.34	1.38
35	BA	940	G	C5'-C4'	-6.12	1.44	1.51
35	BA	1581	G	C8-N7	-6.12	1.27	1.30
35	BA	2409	G	C8-N7	-6.12	1.27	1.30
1	AA	98	G	N7-C5	6.11	1.43	1.39
1	AA	636	U	C4'-C3'	-6.11	1.46	1.53
1	AA	1001(A)	G	C5-C6	-6.11	1.36	1.42
35	BA	2396	G	N7-C5	6.11	1.43	1.39
1	AA	568	G	C6-O6	-6.11	1.18	1.24
1	AA	342	C	C4-C5	-6.11	1.38	1.43
1	AA	650	G	C3'-C2'	-6.11	1.46	1.52
1	AA	791	G	N7-C5	-6.11	1.35	1.39
1	AA	890	G	N9-C4	-6.11	1.33	1.38
22	AV	22	G	N7-C5	-6.11	1.35	1.39
35	BA	48	G	N7-C5	-6.11	1.35	1.39
35	BA	637	A	N9-C8	-6.11	1.32	1.37
36	BB	72	G	C6-N1	-6.11	1.35	1.39
1	AA	348	G	N9-C8	-6.11	1.33	1.37
1	AA	791	G	C2-N3	-6.11	1.27	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	925	G	C5-C4	6.11	1.42	1.38
1	AA	1057	G	C6-O6	-6.11	1.18	1.24
35	BA	106	C	C4-N4	-6.11	1.28	1.33
35	BA	927	G	N7-C5	6.11	1.43	1.39
35	BA	1085	A	C6-N1	-6.11	1.31	1.35
1	AA	310	G	N1-C2	-6.11	1.32	1.37
1	AA	510	A	N3-C4	-6.11	1.31	1.34
1	AA	1055	A	N7-C5	-6.11	1.35	1.39
35	BA	696	G	N1-C2	-6.11	1.32	1.37
35	BA	856	C	C4-C5	-6.11	1.38	1.43
35	BA	2137	C	C4-C5	-6.11	1.38	1.43
35	BA	2171	A	N9-C8	-6.11	1.32	1.37
1	AA	1078	U	C5'-C4'	-6.10	1.44	1.51
35	BA	430	G	C2-N3	-6.10	1.27	1.32
35	BA	1450(A)	C	N1-C6	-6.10	1.33	1.37
35	BA	2588	G	P-O5'	-6.10	1.53	1.59
1	AA	579	G	C8-N7	-6.10	1.27	1.30
1	AA	862	C	C2-N3	-6.10	1.30	1.35
1	AA	958	A	C5-C6	-6.10	1.35	1.41
1	AA	1202	G	N9-C8	-6.10	1.33	1.37
35	BA	642	G	N9-C8	-6.10	1.33	1.37
35	BA	1685	C	C4-N4	-6.10	1.28	1.33
35	BA	1786	A	C5-C6	-6.10	1.35	1.41
35	BA	2251	G	C8-N7	-6.10	1.27	1.30
35	BA	2511	U	C5-C6	-6.10	1.28	1.34
35	BA	2874	C	N3-C4	6.10	1.38	1.33
36	BB	86	G	N3-C4	-6.10	1.31	1.35
1	AA	790	A	P-O5'	-6.10	1.53	1.59
35	BA	516	C	P-O5'	-6.10	1.53	1.59
35	BA	2837	G	C6-N1	-6.10	1.35	1.39
35	BA	480	A	C5-C4	-6.10	1.34	1.38
23	AX	13	A	C6-N1	-6.10	1.31	1.35
35	BA	791	C	N3-C4	-6.10	1.29	1.33
35	BA	1499	C	O3'-P	-6.10	1.53	1.61
35	BA	2179	C	C4'-C3'	-6.10	1.46	1.53
35	BA	2678	C	C4-N4	-6.10	1.28	1.33
35	BA	2690	C	N3-C4	-6.10	1.29	1.33
1	AA	70	G	C8-N7	-6.10	1.27	1.30
35	BA	2444	G	N3-C4	-6.10	1.31	1.35
35	BA	2484	G	C8-N7	-6.10	1.27	1.30
35	BA	2513	G	C8-N7	-6.10	1.27	1.30
35	BA	2822	G	N3-C4	-6.10	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1447	A	C5-C4	-6.09	1.34	1.38
35	BA	254	G	C2-N3	-6.09	1.27	1.32
35	BA	1381	G	C5-C4	-6.09	1.34	1.38
35	BA	1574	C	C2-O2	-6.09	1.19	1.24
1	AA	265	G	N7-C5	-6.09	1.35	1.39
35	BA	271(A)	A	N3-C4	-6.09	1.31	1.34
35	BA	866	A	N3-C4	-6.09	1.31	1.34
1	AA	784	C	N1-C6	-6.09	1.33	1.37
1	AA	1385	G	C2-N2	-6.09	1.28	1.34
35	BA	538	G	C2-N2	-6.09	1.28	1.34
1	AA	11	G	C8-N7	-6.09	1.27	1.30
1	AA	204	U	C2-N3	-6.09	1.33	1.37
1	AA	981	U	C2-N3	-6.09	1.33	1.37
1	AA	1077	G	C6-N1	-6.09	1.35	1.39
1	AA	1508	G	C2-N3	-6.09	1.27	1.32
35	BA	80	G	C5-C4	-6.09	1.34	1.38
35	BA	591	C	C4-N4	-6.09	1.28	1.33
35	BA	1238	G	C8-N7	-6.09	1.27	1.30
35	BA	2550	G	N3-C4	6.09	1.39	1.35
35	BA	2661	G	N3-C4	6.09	1.39	1.35
1	AA	739	C	C4'-O4'	-6.09	1.37	1.45
1	AA	872	A	C8-N7	-6.09	1.27	1.31
35	BA	683	C	C4-C5	-6.09	1.38	1.43
35	BA	2874	C	O3'-P	-6.09	1.53	1.61
1	AA	382	A	N9-C8	-6.09	1.32	1.37
1	AA	600	C	C5-C6	-6.09	1.29	1.34
35	BA	118	A	C6-N6	-6.09	1.29	1.33
35	BA	499	U	N3-C4	-6.09	1.32	1.38
35	BA	1852	C	C2-N3	-6.09	1.30	1.35
1	AA	1115	C	N1-C6	-6.08	1.33	1.37
35	BA	261	G	C6-N1	-6.08	1.35	1.39
35	BA	922	U	C4'-C3'	-6.08	1.46	1.53
35	BA	2081	C	C4-N4	-6.08	1.28	1.33
1	AA	302	G	C8-N7	-6.08	1.27	1.30
1	AA	550	G	C8-N7	-6.08	1.27	1.30
35	BA	952	G	C8-N7	-6.08	1.27	1.30
35	BA	1815	A	N1-C2	-6.08	1.28	1.34
35	BA	2250	G	P-O5'	-6.08	1.53	1.59
1	AA	1151	A	N3-C4	-6.08	1.31	1.34
1	AA	1329	A	C8-N7	-6.08	1.27	1.31
35	BA	446	G	N1-C2	-6.08	1.32	1.37
35	BA	1188	U	C2-O2	-6.08	1.16	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1295	C	C5-C6	-6.08	1.29	1.34
1	AA	524	G	N3-C4	-6.08	1.31	1.35
1	AA	942	G	C2-N2	-6.08	1.28	1.34
35	BA	307	G	N7-C5	-6.08	1.35	1.39
35	BA	1750	G	N7-C5	-6.08	1.35	1.39
35	BA	1932	A	N7-C5	-6.08	1.35	1.39
35	BA	2339	G	N7-C5	-6.08	1.35	1.39
35	BA	2660	A	N7-C5	-6.08	1.35	1.39
35	BA	2669	G	N3-C4	-6.08	1.31	1.35
36	BB	53	A	N7-C5	-6.08	1.35	1.39
1	AA	778	G	C4'-C3'	-6.08	1.46	1.53
35	BA	1436	G	C6-O6	-6.08	1.18	1.24
1	AA	290	C	O3'-P	-6.08	1.53	1.61
1	AA	1037	C	C5-C6	-6.08	1.29	1.34
35	BA	204	A	C8-N7	-6.08	1.27	1.31
35	BA	2158	A	C8-N7	-6.08	1.27	1.31
35	BA	2259	G	N9-C4	-6.08	1.33	1.38
35	BA	2361	A	N9-C4	-6.08	1.34	1.37
35	BA	2829	C	C5-C6	-6.08	1.29	1.34
22	AV	38	A	C3'-O3'	-6.08	1.33	1.42
35	BA	336	C	N3-C4	-6.08	1.29	1.33
35	BA	1502	C	C3'-O3'	-6.08	1.33	1.42
35	BA	2832	U	C4'-C3'	-6.08	1.46	1.53
35	BA	408	G	C5-C4	-6.07	1.34	1.38
35	BA	753	C	N1-C6	-6.07	1.33	1.37
35	BA	881	G	C6-N1	-6.07	1.35	1.39
35	BA	2227	A	N3-C4	-6.07	1.31	1.34
1	AA	292	G	N1-C2	-6.07	1.32	1.37
35	BA	121	G	N9-C4	-6.07	1.33	1.38
35	BA	603	A	N9-C8	-6.07	1.32	1.37
35	BA	610	G	N1-C2	-6.07	1.32	1.37
35	BA	771	G	N9-C4	-6.07	1.33	1.38
35	BA	2540	C	C4'-C3'	-6.07	1.46	1.53
1	AA	823	G	N9-C8	-6.07	1.33	1.37
1	AA	1255	G	C6-N1	6.07	1.43	1.39
1	AA	1294	G	N9-C8	-6.07	1.33	1.37
1	AA	1482	G	N9-C8	-6.07	1.33	1.37
35	BA	682	G	N9-C8	-6.07	1.33	1.37
35	BA	1842	G	C8-N7	6.07	1.34	1.30
1	AA	39	G	C6-N1	-6.07	1.35	1.39
35	BA	32	C	O3'-P	-6.07	1.53	1.61
35	BA	1529	G	C6-N1	-6.07	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	718	A	C2-N3	-6.07	1.28	1.33
1	AA	441	A	C6-N6	-6.07	1.29	1.33
1	AA	743	U	P-O5'	-6.07	1.53	1.59
1	AA	969	A	C6-N6	-6.07	1.29	1.33
35	BA	903	C	N3-C4	6.07	1.38	1.33
35	BA	1636	C	N1-C2	-6.07	1.34	1.40
35	BA	1689	A	C6-N6	-6.07	1.29	1.33
35	BA	2286	A	C6-N6	-6.07	1.29	1.33
35	BA	2069	G	C6-N1	-6.06	1.35	1.39
35	BA	2241	A	C6-N1	-6.06	1.31	1.35
1	AA	454	C	C2-N3	-6.06	1.30	1.35
1	AA	665	A	N7-C5	-6.06	1.35	1.39
1	AA	730	G	C8-N7	-6.06	1.27	1.30
1	AA	1193	G	N7-C5	-6.06	1.35	1.39
1	AA	1247	U	C2-N3	-6.06	1.33	1.37
1	AA	1269	A	O3'-P	-6.06	1.53	1.61
35	BA	1002	G	N7-C5	-6.06	1.35	1.39
35	BA	1168	G	C5-C4	-6.06	1.34	1.38
35	BA	1641	A	N7-C5	-6.06	1.35	1.39
35	BA	1844	C	C4'-C3'	-6.06	1.46	1.53
35	BA	2429	G	N7-C5	-6.06	1.35	1.39
35	BA	2623	G	C5-C4	-6.06	1.34	1.38
35	BA	2655	G	C5-C4	-6.06	1.34	1.38
35	BA	2713	A	N7-C5	-6.06	1.35	1.39
1	AA	377	G	C6-O6	-6.06	1.18	1.24
35	BA	1571	A	N3-C4	-6.06	1.31	1.34
35	BA	1741	A	N3-C4	-6.06	1.31	1.34
35	BA	2326	C	C3'-C2'	-6.06	1.46	1.52
35	BA	2358	G	C6-O6	-6.06	1.18	1.24
35	BA	314	A	N9-C4	-6.06	1.34	1.37
35	BA	881	G	C2-N3	-6.06	1.27	1.32
35	BA	2772	C	N1-C6	-6.06	1.33	1.37
35	BA	1168	G	C6-N1	-6.06	1.35	1.39
35	BA	1195	G	N9-C8	6.06	1.42	1.37
1	AA	390	C	C4-C5	-6.06	1.38	1.43
22	AV	43	A	N7-C5	-6.06	1.35	1.39
35	BA	1938	A	N7-C5	-6.06	1.35	1.39
1	AA	35	G	N9-C8	-6.05	1.33	1.37
1	AA	679	C	C5-C6	6.05	1.39	1.34
35	BA	2140	C	C4-N4	-6.05	1.28	1.33
35	BA	380	U	N3-C4	-6.05	1.33	1.38
35	BA	1214	A	N9-C4	-6.05	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1283	G	N1-C2	-6.05	1.32	1.37
35	BA	2755	C	C2-N3	6.05	1.40	1.35
1	AA	291	C	C4-C5	-6.05	1.38	1.43
1	AA	1085	U	C5-C6	-6.05	1.28	1.34
35	BA	291	C	N3-C4	-6.05	1.29	1.33
35	BA	486	C	N1-C2	-6.05	1.34	1.40
35	BA	520	G	P-O5'	6.05	1.65	1.59
35	BA	2519	U	C5-C6	-6.05	1.28	1.34
1	AA	1411	C	C4'-C3'	-6.05	1.46	1.53
35	BA	2674	G	C2-N2	-6.05	1.28	1.34
1	AA	1074	G	C6-N1	-6.05	1.35	1.39
1	AA	1505	G	C6-N1	-6.05	1.35	1.39
35	BA	1037	G	N1-C2	-6.05	1.32	1.37
35	BA	187	G	N3-C4	-6.05	1.31	1.35
35	BA	1024	G	C6-O6	-6.05	1.18	1.24
35	BA	1180	C	C2'-C1'	-6.05	1.46	1.53
35	BA	1353	A	C6-N6	-6.05	1.29	1.33
35	BA	1369	G	C4'-C3'	-6.05	1.46	1.53
1	AA	1049	U	C4-O4	-6.04	1.18	1.23
1	AA	1380	U	C4-O4	-6.04	1.18	1.23
35	BA	1594	G	C2-N2	-6.04	1.28	1.34
1	AA	927	G	P-OP1	-6.04	1.38	1.49
1	AA	992	U	C4'-C3'	-6.04	1.46	1.53
1	AA	1403	C	C4'-C3'	-6.04	1.46	1.53
35	BA	935	C	C5-C6	-6.04	1.29	1.34
35	BA	1239	G	C8-N7	-6.04	1.27	1.30
35	BA	1250	G	N1-C2	-6.04	1.32	1.37
1	AA	419	C	N1-C6	-6.04	1.33	1.37
35	BA	28	A	C8-N7	6.04	1.35	1.31
35	BA	220	G	C4'-C3'	-6.04	1.46	1.53
35	BA	1011	G	P-O5'	-6.04	1.53	1.59
35	BA	1351	C	C4-C5	-6.04	1.38	1.43
35	BA	1173	G	C8-N7	-6.04	1.27	1.30
22	AV	22	G	C2-N3	-6.04	1.27	1.32
35	BA	248	G	C2-N3	-6.04	1.27	1.32
35	BA	2395	C	N1-C6	-6.04	1.33	1.37
22	AV	19	G	N1-C2	-6.03	1.32	1.37
35	BA	238	C	C4-C5	-6.03	1.38	1.43
35	BA	271	A	N9-C4	-6.03	1.34	1.37
35	BA	1630	G	N1-C2	-6.03	1.32	1.37
35	BA	2487	G	C6-N1	-6.03	1.35	1.39
35	BA	283	A	N3-C4	6.03	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	312	G	C5-C4	-6.03	1.34	1.38
35	BA	389	G	C2-N3	-6.03	1.27	1.32
35	BA	632	A	C2'-C1'	-6.03	1.46	1.53
35	BA	716	A	N1-C2	-6.03	1.28	1.34
35	BA	801	G	N7-C5	-6.03	1.35	1.39
35	BA	1803	A	N9-C4	6.03	1.41	1.37
35	BA	2157	G	C2'-O2'	-6.03	1.33	1.41
35	BA	2245	U	C2-N3	-6.03	1.33	1.37
35	BA	2503	A	C5-C4	-6.03	1.34	1.38
35	BA	2570	G	C5-C4	-6.03	1.34	1.38
35	BA	1165	U	C4-O4	-6.03	1.18	1.23
35	BA	1505	C	C4-C5	-6.03	1.38	1.43
1	AA	1483	A	C6-N6	-6.03	1.29	1.33
35	BA	676	A	C6-N6	-6.03	1.29	1.33
35	BA	719	C	C5-C6	-6.03	1.29	1.34
35	BA	952	G	N3-C4	6.03	1.39	1.35
35	BA	1231	G	C6-N1	-6.03	1.35	1.39
35	BA	1340	U	C2'-O2'	-6.03	1.33	1.41
35	BA	1509(B)	A	N9-C4	-6.03	1.34	1.37
35	BA	2847	U	N1-C6	-6.03	1.32	1.38
1	AA	183	G	N3-C4	-6.03	1.31	1.35
1	AA	399	G	C2-N3	-6.03	1.27	1.32
1	AA	709	G	N9-C4	-6.03	1.33	1.38
35	BA	244	A	C5-C6	-6.03	1.35	1.41
35	BA	643	A	C5-C4	-6.03	1.34	1.38
35	BA	987	G	C4'-C3'	-6.03	1.46	1.53
35	BA	1044	G	C4'-C3'	-6.03	1.46	1.53
35	BA	1821	A	C5-C4	-6.03	1.34	1.38
35	BA	2461	C	N3-C4	-6.03	1.29	1.33
35	BA	2564	A	N7-C5	-6.03	1.35	1.39
36	BB	53	A	C5'-C4'	-6.03	1.44	1.51
35	BA	243	U	C4-O4	6.02	1.28	1.23
35	BA	2688	U	N3-C4	-6.02	1.33	1.38
36	BB	98	G	C8-N7	-6.02	1.27	1.30
1	AA	239	U	C4'-C3'	-6.02	1.46	1.53
35	BA	21	A	C2-N3	-6.02	1.28	1.33
35	BA	655	A	N3-C4	-6.02	1.31	1.34
35	BA	1103	A	N9-C4	-6.02	1.34	1.37
35	BA	2352	A	C6-N1	-6.02	1.31	1.35
1	AA	567	G	N3-C4	-6.02	1.31	1.35
1	AA	635	G	C4'-C3'	-6.02	1.46	1.53
23	AX	15	A	C4'-C3'	-6.02	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1349	A	N7-C5	-6.02	1.35	1.39
1	AA	532	A	N3-C4	-6.02	1.31	1.34
1	AA	537	G	N9-C8	-6.02	1.33	1.37
1	AA	850	U	C4-C5	-6.02	1.38	1.43
35	BA	966	G	N9-C8	-6.02	1.33	1.37
35	BA	990	A	N3-C4	-6.02	1.31	1.34
35	BA	1219	G	C2'-C1'	-6.02	1.46	1.53
35	BA	1509(B)	A	N3-C4	-6.02	1.31	1.34
35	BA	2083	G	C8-N7	-6.02	1.27	1.30
35	BA	2295	C	C4'-O4'	-6.02	1.37	1.45
36	BB	67	G	C2-N2	-6.02	1.28	1.34
35	BA	377	C	N1-C6	-6.02	1.33	1.37
1	AA	1007	C	C5-C6	-6.01	1.29	1.34
35	BA	71	A	C8-N7	-6.01	1.27	1.31
35	BA	287	C	N3-C4	-6.01	1.29	1.33
35	BA	695	G	C5-C4	-6.01	1.34	1.38
35	BA	848	G	C5-C6	-6.01	1.36	1.42
35	BA	1563	G	N9-C4	-6.01	1.33	1.38
35	BA	1889	A	C6-N1	-6.01	1.31	1.35
35	BA	2060	A	C5-C4	6.01	1.43	1.38
35	BA	2854	G	C3'-C2'	-6.01	1.46	1.52
1	AA	378	G	C4'-C3'	-6.01	1.46	1.53
22	AV	28	C	C4'-C3'	-6.01	1.46	1.53
35	BA	821	A	P-O5'	-6.01	1.53	1.59
35	BA	1862	G	N7-C5	-6.01	1.35	1.39
1	AA	1067	A	C5-C6	-6.01	1.35	1.41
35	BA	271(R)	G	C2-N3	-6.01	1.27	1.32
35	BA	1935	G	C3'-C2'	-6.01	1.46	1.52
1	AA	675	A	C6-N1	-6.01	1.31	1.35
1	AA	1166	G	P-O5'	-6.01	1.53	1.59
35	BA	628	G	C4'-C3'	-6.01	1.46	1.53
35	BA	707	G	C5-C4	-6.01	1.34	1.38
35	BA	1318	C	C4'-C3'	-6.01	1.46	1.53
35	BA	1393	A	C5-C4	-6.01	1.34	1.38
35	BA	1557	C	N1-C6	-6.01	1.33	1.37
35	BA	1759	A	C4'-C3'	-6.01	1.46	1.53
35	BA	1918	A	P-O5'	-6.01	1.53	1.59
35	BA	2478	A	C6-N6	-6.01	1.29	1.33
1	AA	951	G	N9-C8	-6.01	1.33	1.37
1	AA	1146	A	C2-N3	-6.01	1.28	1.33
1	AA	1422	G	N7-C5	-6.01	1.35	1.39
35	BA	125	G	N9-C8	-6.01	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1232	G	C5-C6	-6.01	1.36	1.42
35	BA	390	A	C5'-C4'	-6.00	1.44	1.51
35	BA	2167	U	C4-C5	-6.00	1.38	1.43
1	AA	521	G	C6-O6	-6.00	1.18	1.24
1	AA	706	A	C5-C4	-6.00	1.34	1.38
1	AA	1118	C	N3-C4	-6.00	1.29	1.33
35	BA	299	A	C5-C6	-6.00	1.35	1.41
35	BA	1472	A	N3-C4	-6.00	1.31	1.34
35	BA	2101	G	C5-C4	-6.00	1.34	1.38
1	AA	406	G	C2-N2	-6.00	1.28	1.34
35	BA	708	C	C2-N3	-6.00	1.30	1.35
35	BA	966	G	N9-C4	-6.00	1.33	1.38
35	BA	1606	G	C2-N2	-6.00	1.28	1.34
35	BA	1864	U	C4-C5	-6.00	1.38	1.43
1	AA	716	A	P-O5'	-6.00	1.53	1.59
35	BA	955	C	C2-O2	-6.00	1.19	1.24
1	AA	1452	C	N1-C6	-6.00	1.33	1.37
35	BA	2378	A	N3-C4	-6.00	1.31	1.34
35	BA	2648	C	N1-C6	-6.00	1.33	1.37
1	AA	584	G	C2-N3	-6.00	1.27	1.32
1	AA	976	G	C2'-C1'	-6.00	1.46	1.53
35	BA	1624	G	C4'-C3'	-6.00	1.46	1.52
35	BA	2277	G	C5-C6	-6.00	1.36	1.42
1	AA	1164	G	C6-O6	-6.00	1.18	1.24
1	AA	817	C	C4-N4	-5.99	1.28	1.33
1	AA	926	G	N3-C4	-5.99	1.31	1.35
22	AV	51	C	C4'-C3'	-5.99	1.46	1.52
35	BA	1006	C	C4'-C3'	-5.99	1.46	1.52
35	BA	1401	G	C4'-C3'	-5.99	1.46	1.52
1	AA	226	G	N9-C4	-5.99	1.33	1.38
1	AA	1005	A	C8-N7	-5.99	1.27	1.31
35	BA	525	U	C2-O2	-5.99	1.17	1.22
35	BA	1406	U	C2-O2	-5.99	1.17	1.22
1	AA	942	G	O3'-P	-5.99	1.53	1.61
35	BA	232	G	N9-C8	-5.99	1.33	1.37
35	BA	1793	C	N1-C6	-5.99	1.33	1.37
1	AA	709	G	N7-C5	-5.99	1.35	1.39
1	AA	1022	G	N7-C5	-5.99	1.35	1.39
1	AA	1289	A	C5-C4	-5.99	1.34	1.38
1	AA	1419	G	N7-C5	-5.99	1.35	1.39
36	BB	39	A	C6-N6	-5.99	1.29	1.33
36	BB	112	U	N1-C2	-5.99	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1073	U	C4-O4	-5.99	1.18	1.23
35	BA	382	G	C2-N3	-5.99	1.27	1.32
35	BA	807	U	C5-C6	-5.99	1.28	1.34
35	BA	1890	A	C8-N7	-5.99	1.27	1.31
35	BA	2378	A	C8-N7	-5.99	1.27	1.31
22	AV	7	G	C6-O6	-5.99	1.18	1.24
35	BA	1396	U	N1-C6	-5.99	1.32	1.38
35	BA	2293	C	N1-C6	-5.99	1.33	1.37
35	BA	2769	C	N3-C4	-5.99	1.29	1.33
35	BA	1229	G	C8-N7	-5.98	1.27	1.30
35	BA	2472	G	C8-N7	-5.98	1.27	1.30
1	AA	602	A	C6-N1	-5.98	1.31	1.35
35	BA	349	G	C2-N3	-5.98	1.27	1.32
35	BA	529	A	N9-C8	-5.98	1.32	1.37
35	BA	1330	C	C2-N3	-5.98	1.30	1.35
35	BA	672	C	P-O5'	-5.98	1.53	1.59
35	BA	393	C	C4-C5	-5.98	1.38	1.43
35	BA	614	U	O3'-P	-5.98	1.53	1.61
35	BA	2253	G	C6-N1	-5.98	1.35	1.39
35	BA	2614	A	C6-N6	-5.98	1.29	1.33
35	BA	1382	G	C4'-C3'	-5.98	1.46	1.52
35	BA	1528(A)	A	C4'-C3'	-5.98	1.46	1.52
35	BA	1765	C	C2'-C1'	-5.98	1.46	1.53
35	BA	2867	G	C5'-C4'	-5.98	1.44	1.51
1	AA	931	C	N3-C4	-5.97	1.29	1.33
1	AA	521	G	C5-C4	-5.97	1.34	1.38
1	AA	742	G	C2-N3	-5.97	1.27	1.32
35	BA	866	A	N9-C8	-5.97	1.32	1.37
35	BA	1125	G	C5-C4	-5.97	1.34	1.38
35	BA	1512	U	C2-O2	-5.97	1.17	1.22
1	AA	33	A	C5-C6	-5.97	1.35	1.41
1	AA	163	C	O3'-P	-5.97	1.53	1.61
35	BA	188	G	N3-C4	-5.97	1.31	1.35
1	AA	799	G	C5'-C4'	-5.97	1.44	1.51
1	AA	912	C	C5-C6	-5.97	1.29	1.34
35	BA	1405	U	C4'-C3'	-5.97	1.46	1.52
35	BA	2848	G	N9-C8	-5.97	1.33	1.37
1	AA	988	G	N1-C2	-5.97	1.32	1.37
35	BA	1624	G	C2'-C1'	-5.97	1.46	1.53
1	AA	689	C	N1-C2	5.97	1.46	1.40
1	AA	775	G	C6-O6	-5.97	1.18	1.24
1	AA	1287	A	N1-C2	-5.97	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1238	G	C2-N2	-5.97	1.28	1.34
35	BA	2286	A	N3-C4	-5.97	1.31	1.34
1	AA	575	G	C8-N7	-5.96	1.27	1.30
35	BA	621	A	C8-N7	-5.96	1.27	1.31
35	BA	730	C	C5-C6	-5.96	1.29	1.34
35	BA	1427	A	P-O5'	-5.96	1.53	1.59
35	BA	1648	C	N3-C4	-5.96	1.29	1.33
35	BA	2569	G	C8-N7	-5.96	1.27	1.30
35	BA	2876	G	N9-C4	-5.96	1.33	1.38
42	BH	46	GLU	CD-OE1	-5.96	1.19	1.25
35	BA	799	G	C6-N1	-5.96	1.35	1.39
1	AA	649	G	C5-C4	-5.96	1.34	1.38
1	AA	1318	A	N1-C2	-5.96	1.28	1.34
35	BA	745	G	P-O5'	-5.96	1.53	1.59
35	BA	1894	C	C2'-C1'	-5.96	1.46	1.53
35	BA	154(A)	C	C5-C6	-5.96	1.29	1.34
35	BA	2041	U	C4'-C3'	-5.96	1.46	1.52
1	AA	635	G	C8-N7	-5.96	1.27	1.30
1	AA	1130	A	N9-C4	-5.96	1.34	1.37
1	AA	1463	C	C2-O2	-5.96	1.19	1.24
35	BA	792	G	C8-N7	5.96	1.34	1.30
35	BA	975	C	C2-O2	-5.96	1.19	1.24
35	BA	1068	G	N9-C4	-5.96	1.33	1.38
35	BA	1845	G	N9-C8	-5.96	1.33	1.37
35	BA	2492	U	C2-O2	-5.96	1.17	1.22
1	AA	137	C	C4-C5	-5.96	1.38	1.43
1	AA	563	A	N7-C5	-5.96	1.35	1.39
35	BA	941	A	C2'-C1'	-5.96	1.46	1.53
35	BA	1801	G	N7-C5	-5.96	1.35	1.39
35	BA	1921	G	N7-C5	-5.96	1.35	1.39
35	BA	2356	C	C4-C5	-5.96	1.38	1.43
35	BA	2497	A	N7-C5	-5.96	1.35	1.39
1	AA	1236	A	N7-C5	5.96	1.42	1.39
35	BA	1354	A	O3'-P	-5.96	1.54	1.61
35	BA	1492	G	O3'-P	-5.96	1.54	1.61
1	AA	473	G	N1-C2	-5.95	1.32	1.37
1	AA	520	A	N1-C2	-5.95	1.28	1.34
35	BA	45	C	N1-C6	-5.95	1.33	1.37
35	BA	347	A	N9-C4	-5.95	1.34	1.37
35	BA	2000	G	N1-C2	-5.95	1.32	1.37
35	BA	2046	G	N1-C2	-5.95	1.32	1.37
1	AA	24	U	C5-C6	-5.95	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	72	U	C2'-C1'	-5.95	1.46	1.53
35	BA	967	C	C2'-C1'	-5.95	1.46	1.53
35	BA	2193	G	C2-N3	-5.95	1.27	1.32
1	AA	111	G	C5-C4	-5.95	1.34	1.38
1	AA	1242	C	C4-N4	-5.95	1.28	1.33
35	BA	372	G	C5-C6	-5.95	1.36	1.42
35	BA	1577	C	C4-N4	-5.95	1.28	1.33
35	BA	1609	A	C5-C6	-5.95	1.35	1.41
35	BA	1702	G	C5-C4	-5.95	1.34	1.38
35	BA	1823	G	C5-C4	-5.95	1.34	1.38
36	BB	13	A	C6-N6	-5.95	1.29	1.33
1	AA	727	G	N3-C4	-5.95	1.31	1.35
1	AA	1276	G	C5-C6	-5.95	1.36	1.42
1	AA	1385	G	C1'-N9	-5.95	1.38	1.46
35	BA	353	G	N9-C8	-5.95	1.33	1.37
35	BA	712	G	N3-C4	-5.95	1.31	1.35
35	BA	1397	U	C4-C5	-5.95	1.38	1.43
35	BA	1449	A	N3-C4	-5.95	1.31	1.34
35	BA	2639	A	C6-N1	-5.94	1.31	1.35
1	AA	1410	G	N9-C8	-5.94	1.33	1.37
35	BA	2193	G	C4'-C3'	-5.94	1.46	1.52
35	BA	2776	A	C8-N7	-5.94	1.27	1.31
1	AA	774	G	C2-N2	-5.94	1.28	1.34
1	AA	1152	A	N1-C2	-5.94	1.29	1.34
1	AA	668	G	N7-C5	-5.94	1.35	1.39
1	AA	1152	A	C6-N1	-5.94	1.31	1.35
22	AV	34	C	C4'-C3'	-5.94	1.46	1.52
35	BA	1525	G	N7-C5	-5.94	1.35	1.39
35	BA	2460	U	N1-C6	-5.94	1.32	1.38
1	AA	192	U	C4-C5	-5.94	1.38	1.43
1	AA	821	G	C5-C6	-5.94	1.36	1.42
1	AA	941	G	C6-O6	-5.94	1.18	1.24
1	AA	1272	G	C5-C4	5.94	1.42	1.38
35	BA	177	G	P-O5'	-5.94	1.53	1.59
35	BA	1183	G	C5-C6	-5.94	1.36	1.42
35	BA	2061	G	N9-C8	-5.94	1.33	1.37
1	AA	995	C	N3-C4	-5.94	1.29	1.33
22	AV	23	C	C4'-C3'	-5.94	1.46	1.52
35	BA	641	C	N3-C4	-5.94	1.29	1.33
1	AA	619	U	N1-C6	-5.93	1.32	1.38
1	AA	1337	G	C6-O6	-5.93	1.18	1.24
22	AV	34	C	N1-C6	-5.93	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	480	A	N3-C4	5.93	1.38	1.34
35	BA	953	A	C5-C4	-5.93	1.34	1.38
35	BA	1567	A	N9-C4	-5.93	1.34	1.37
35	BA	2195	C	C2'-C1'	-5.93	1.46	1.53
1	AA	302	G	N7-C5	-5.93	1.35	1.39
1	AA	803	G	N7-C5	-5.93	1.35	1.39
1	AA	872	A	N7-C5	-5.93	1.35	1.39
35	BA	115	C	C4-N4	-5.93	1.28	1.33
35	BA	333	G	N7-C5	-5.93	1.35	1.39
35	BA	585	G	N7-C5	-5.93	1.35	1.39
35	BA	623	G	N7-C5	-5.93	1.35	1.39
35	BA	2494	G	N7-C5	-5.93	1.35	1.39
36	BB	9	G	C8-N7	-5.93	1.27	1.30
1	AA	979	C	C5-C6	-5.93	1.29	1.34
35	BA	2691	C	N3-C4	-5.93	1.29	1.33
1	AA	530	G	C5-C4	-5.93	1.34	1.38
1	AA	921	U	C4-C5	-5.93	1.38	1.43
35	BA	266	G	C5-C6	-5.93	1.36	1.42
35	BA	589	C	C2-N3	-5.93	1.31	1.35
35	BA	1904	G	C5-C4	-5.93	1.34	1.38
23	AX	14	A	N3-C4	-5.93	1.31	1.34
35	BA	2057	A	N1-C2	-5.93	1.29	1.34
35	BA	378	C	O3'-P	-5.93	1.54	1.61
35	BA	512	G	N7-C5	-5.93	1.35	1.39
35	BA	1762	A	C5-C6	-5.93	1.35	1.41
35	BA	1844	C	C3'-C2'	-5.93	1.46	1.52
1	AA	483	C	C4-C5	-5.92	1.38	1.43
35	BA	2241	A	C5-C4	-5.92	1.34	1.38
35	BA	2611	U	P-O5'	-5.92	1.53	1.59
35	BA	2699	C	O3'-P	-5.92	1.54	1.61
36	BB	44	G	C1'-N9	-5.92	1.38	1.46
1	AA	1212	U	C2-N3	-5.92	1.33	1.37
35	BA	784	A	C6-N1	-5.92	1.31	1.35
35	BA	828	U	C2-N3	-5.92	1.33	1.37
1	AA	635	G	N3-C4	-5.92	1.31	1.35
35	BA	654(O)	G	C6-N1	-5.92	1.35	1.39
35	BA	2015	A	N9-C4	-5.92	1.34	1.37
35	BA	2173	A	C5-C6	-5.92	1.35	1.41
35	BA	2576	G	N1-C2	-5.92	1.33	1.37
1	AA	1504	G	C3'-C2'	-5.92	1.46	1.52
35	BA	1745	C	N3-C4	-5.92	1.29	1.33
35	BA	1843	C	N3-C4	-5.92	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1965	C	C4'-C3'	-5.92	1.46	1.52
35	BA	2361	A	C8-N7	-5.92	1.27	1.31
35	BA	2867	G	C8-N7	-5.92	1.27	1.30
36	BB	76	G	C4'-C3'	-5.92	1.46	1.52
1	AA	508	C	N1-C6	-5.92	1.33	1.37
1	AA	942	G	N1-C2	-5.92	1.33	1.37
1	AA	1054	C	C5-C6	-5.92	1.29	1.34
35	BA	589	C	N1-C6	-5.92	1.33	1.37
35	BA	886	C	N1-C6	-5.92	1.33	1.37
35	BA	951	C	N1-C2	-5.92	1.34	1.40
35	BA	1304	C	N1-C6	-5.92	1.33	1.37
35	BA	1844	C	C5-C6	-5.92	1.29	1.34
35	BA	1908	C	C4-N4	-5.92	1.28	1.33
35	BA	2078	C	N1-C6	5.92	1.40	1.37
1	AA	442	C	C4'-C3'	-5.92	1.46	1.52
35	BA	137	C	C4-C5	-5.92	1.38	1.43
35	BA	695	G	C6-O6	-5.92	1.18	1.24
35	BA	1994	C	O4'-C1'	-5.92	1.33	1.41
35	BA	2064	C	C4-C5	-5.92	1.38	1.43
1	AA	1308	U	C3'-O3'	-5.91	1.33	1.42
35	BA	418	G	N7-C5	-5.91	1.35	1.39
35	BA	802	A	N7-C5	-5.91	1.35	1.39
35	BA	988	A	N7-C5	-5.91	1.35	1.39
35	BA	1423	G	C2-N3	-5.91	1.28	1.32
35	BA	1756	G	O3'-P	-5.91	1.54	1.61
35	BA	2822	G	C2-N3	-5.91	1.28	1.32
35	BA	474	G	C4'-C3'	-5.91	1.46	1.52
35	BA	856	C	C2'-O2'	-5.91	1.33	1.41
35	BA	924	C	C4'-C3'	-5.91	1.46	1.52
35	BA	2121	G	C8-N7	-5.91	1.27	1.30
1	AA	106	C	N1-C6	-5.91	1.33	1.37
1	AA	1189	C	N1-C6	-5.91	1.33	1.37
1	AA	1519	A	C3'-C2'	-5.91	1.46	1.52
35	BA	2773	C	C4-C5	-5.91	1.38	1.43
35	BA	2819	G	C6-O6	-5.91	1.18	1.24
35	BA	621	A	N9-C4	-5.91	1.34	1.37
36	BB	85	G	C3'-C2'	-5.91	1.46	1.52
1	AA	1095	U	C2'-O2'	-5.91	1.33	1.41
1	AA	1233	G	N9-C4	-5.91	1.33	1.38
1	AA	1529	G	C2-N2	-5.91	1.28	1.34
35	BA	1161	C	C2-N3	-5.91	1.31	1.35
35	BA	1309	G	C8-N7	-5.91	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1478	G	P-O5'	-5.91	1.53	1.59
35	BA	1710	C	C2-O2	-5.91	1.19	1.24
35	BA	2455	G	N1-C2	5.91	1.42	1.37
35	BA	2655	G	P-O5'	-5.91	1.53	1.59
35	BA	2756	U	P-O5'	-5.91	1.53	1.59
35	BA	1948	G	C2-N2	5.90	1.40	1.34
1	AA	14	U	C4-O4	5.90	1.28	1.23
1	AA	906	G	C5-C4	-5.90	1.34	1.38
35	BA	255	A	N9-C4	-5.90	1.34	1.37
35	BA	2024	G	N7-C5	5.90	1.42	1.39
1	AA	937	A	C6-N1	-5.90	1.31	1.35
35	BA	1931	U	N1-C6	-5.90	1.32	1.38
35	BA	2324	C	C2-N3	-5.90	1.31	1.35
35	BA	1511	C	C3'-C2'	-5.90	1.46	1.52
35	BA	1552	G	C6-N1	-5.90	1.35	1.39
1	AA	7	G	N1-C2	-5.90	1.33	1.37
1	AA	235	C	C4-C5	-5.90	1.38	1.43
1	AA	1096	C	C4-C5	-5.90	1.38	1.43
1	AA	1158	C	C4-C5	-5.90	1.38	1.43
35	BA	837	C	C4-C5	-5.90	1.38	1.43
35	BA	1287	A	C5-C4	-5.90	1.34	1.38
35	BA	1572	A	C8-N7	-5.90	1.27	1.31
1	AA	286	G	C5-C6	-5.90	1.36	1.42
1	AA	1160	G	C6-O6	-5.90	1.18	1.24
35	BA	2576	G	C6-O6	-5.90	1.18	1.24
1	AA	1291	G	C6-N1	-5.89	1.35	1.39
35	BA	363(D)	G	N7-C5	-5.89	1.35	1.39
35	BA	409	C	C4-N4	-5.89	1.28	1.33
35	BA	527	C	C4-N4	-5.89	1.28	1.33
35	BA	692	C	C4-N4	-5.89	1.28	1.33
35	BA	1197	G	C4'-C3'	-5.89	1.46	1.52
35	BA	1547	C	P-O5'	-5.89	1.53	1.59
35	BA	1747	G	P-O5'	-5.89	1.53	1.59
1	AA	10	A	C6-N6	-5.89	1.29	1.33
1	AA	316	G	P-O5'	-5.89	1.53	1.59
1	AA	876	G	C5-C6	-5.89	1.36	1.42
35	BA	256	A	N9-C8	-5.89	1.33	1.37
35	BA	1424	G	C2-N2	-5.89	1.28	1.34
35	BA	1539	G	C6-O6	-5.89	1.18	1.24
35	BA	1589	C	C5-C6	-5.89	1.29	1.34
35	BA	1797	C	C4-C5	-5.89	1.38	1.43
35	BA	1929	G	N1-C2	-5.89	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	515	A	C4'-C3'	-5.89	1.46	1.52
1	AA	602	A	N3-C4	-5.89	1.31	1.34
1	AA	1001	A	N3-C4	-5.89	1.31	1.34
1	AA	1124	G	N9-C8	-5.89	1.33	1.37
1	AA	1293	G	C2'-O2'	-5.89	1.33	1.41
35	BA	356	G	N9-C8	-5.89	1.33	1.37
35	BA	1125	G	N3-C4	-5.89	1.31	1.35
35	BA	1187	G	C6-O6	5.89	1.29	1.24
35	BA	1938	A	C6-N1	-5.89	1.31	1.35
35	BA	2037	G	C6-N1	-5.89	1.35	1.39
35	BA	2230	G	N7-C5	-5.89	1.35	1.39
1	AA	434	U	C2-N3	5.89	1.41	1.37
1	AA	1354	C	C4-C5	-5.89	1.38	1.43
35	BA	1066	U	C4-C5	-5.89	1.38	1.43
35	BA	2633	G	C4'-C3'	-5.89	1.46	1.52
35	BA	2659	G	N9-C4	-5.89	1.33	1.38
1	AA	189(K)	U	N3-C4	-5.89	1.33	1.38
22	AV	35	A	C6-N6	-5.89	1.29	1.33
35	BA	1389	G	C8-N7	-5.89	1.27	1.30
35	BA	1930	G	C6-O6	-5.89	1.18	1.24
1	AA	346	G	N7-C5	5.88	1.42	1.39
1	AA	1214	C	N1-C6	-5.88	1.33	1.37
35	BA	690	G	N9-C4	-5.88	1.33	1.38
35	BA	784	A	N9-C4	-5.88	1.34	1.37
1	AA	1154	G	N7-C5	-5.88	1.35	1.39
1	AA	1527	C	C5-C6	-5.88	1.29	1.34
35	BA	109	G	N9-C8	-5.88	1.33	1.37
35	BA	135	G	N1-C2	-5.88	1.33	1.37
35	BA	272(B)	G	N3-C4	-5.88	1.31	1.35
35	BA	727	A	C2'-O2'	-5.88	1.34	1.41
35	BA	797	C	C2-O2	-5.88	1.19	1.24
35	BA	1123	C	C4-C5	-5.88	1.38	1.43
35	BA	1203	G	N7-C5	-5.88	1.35	1.39
35	BA	2187	G	N9-C8	-5.88	1.33	1.37
35	BA	2481	G	N3-C4	-5.88	1.31	1.35
36	BB	28	C	C5-C6	-5.88	1.29	1.34
15	AO	14	GLU	CD-OE1	-5.88	1.19	1.25
35	BA	291	C	N1-C6	5.88	1.40	1.37
35	BA	925	C	C4-N4	-5.88	1.28	1.33
35	BA	2524	G	C5-C4	-5.88	1.34	1.38
35	BA	2057	A	C8-N7	-5.88	1.27	1.31
1	AA	556	C	C4'-C3'	-5.88	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	928	G	C2-N2	-5.88	1.28	1.34
22	AV	5	G	N9-C8	-5.88	1.33	1.37
35	BA	582	G	C2-N3	-5.88	1.28	1.32
35	BA	741	G	N3-C4	-5.88	1.31	1.35
35	BA	1380	G	N9-C8	-5.88	1.33	1.37
35	BA	1684	C	N3-C4	5.88	1.38	1.33
35	BA	2072	G	N9-C8	-5.88	1.33	1.37
35	BA	2886	G	C5-C6	-5.88	1.36	1.42
35	BA	479	A	N1-C2	-5.88	1.29	1.34
35	BA	592	G	C5-C4	-5.88	1.34	1.38
35	BA	1110	G	N7-C5	-5.88	1.35	1.39
35	BA	1677	A	C6-N6	-5.88	1.29	1.33
35	BA	569	U	C2-N3	-5.88	1.33	1.37
1	AA	292	G	N9-C8	-5.87	1.33	1.37
35	BA	271(H)	G	N9-C8	-5.87	1.33	1.37
35	BA	619	G	C2-N2	-5.87	1.28	1.34
35	BA	684	G	N9-C8	-5.87	1.33	1.37
35	BA	1145	C	C5-C6	-5.87	1.29	1.34
35	BA	1304	C	C4-C5	-5.87	1.38	1.43
1	AA	222	U	C4-O4	-5.87	1.19	1.23
35	BA	58	G	C5-C6	-5.87	1.36	1.42
35	BA	427	U	P-O5'	-5.87	1.53	1.59
35	BA	1599	C	C2'-C1'	-5.87	1.46	1.53
35	BA	2851	A	N1-C2	-5.87	1.29	1.34
1	AA	811	C	C4-C5	-5.87	1.38	1.43
1	AA	1123	A	N3-C4	-5.87	1.31	1.34
1	AA	1268	A	N3-C4	-5.87	1.31	1.34
35	BA	1916	A	N3-C4	-5.87	1.31	1.34
1	AA	736	C	C4-N4	-5.87	1.28	1.33
35	BA	26	G	P-O5'	-5.87	1.53	1.59
35	BA	1119	C	C5-C6	-5.87	1.29	1.34
35	BA	1280	G	O4'-C1'	-5.87	1.34	1.41
35	BA	1639	U	P-O5'	-5.87	1.53	1.59
35	BA	1687	G	P-O5'	-5.87	1.53	1.59
35	BA	2049	G	C2-N3	-5.87	1.28	1.32
35	BA	2612	C	P-O5'	-5.87	1.53	1.59
35	BA	2667	C	C2-O2	-5.87	1.19	1.24
1	AA	855	G	N3-C4	-5.87	1.31	1.35
35	BA	482	A	C4'-C3'	-5.87	1.46	1.52
35	BA	1357	U	N1-C6	-5.87	1.32	1.38
35	BA	467	G	N7-C5	-5.87	1.35	1.39
35	BA	2223	G	N7-C5	-5.87	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	809	G	N1-C2	-5.86	1.33	1.37
35	BA	1021	A	N3-C4	-5.86	1.31	1.34
35	BA	2032	G	O4'-C1'	-5.86	1.34	1.41
1	AA	168	G	N9-C8	-5.86	1.33	1.37
1	AA	830	G	N3-C4	-5.86	1.31	1.35
1	AA	1343	G	N3-C4	-5.86	1.31	1.35
1	AA	1456	G	N3-C4	-5.86	1.31	1.35
35	BA	909	A	C2-N3	-5.86	1.28	1.33
35	BA	1992	G	N9-C8	-5.86	1.33	1.37
35	BA	2747	G	N3-C4	-5.86	1.31	1.35
1	AA	996	A	C5-C4	-5.86	1.34	1.38
35	BA	1021	A	C3'-C2'	-5.86	1.46	1.52
35	BA	1283	G	C8-N7	-5.86	1.27	1.30
35	BA	1810	A	C5-C4	-5.86	1.34	1.38
35	BA	2389	G	N1-C2	-5.86	1.33	1.37
35	BA	2499	C	C4'-C3'	-5.86	1.46	1.52
35	BA	1328	G	N7-C5	-5.86	1.35	1.39
1	AA	430	A	N9-C4	5.86	1.41	1.37
1	AA	725	G	N9-C8	-5.86	1.33	1.37
1	AA	768	A	C6-N1	-5.86	1.31	1.35
1	AA	966	G	C6-N1	-5.86	1.35	1.39
1	AA	1225	A	C6-N1	-5.86	1.31	1.35
1	AA	1227	A	C8-N7	-5.86	1.27	1.31
35	BA	953	A	C6-N1	-5.86	1.31	1.35
35	BA	1435	G	N9-C8	-5.86	1.33	1.37
35	BA	2325	G	C6-N1	-5.86	1.35	1.39
35	BA	1452	A	C5-C6	-5.86	1.35	1.41
1	AA	1059	C	N1-C6	-5.85	1.33	1.37
1	AA	1492	A	C2'-C1'	5.85	1.59	1.53
1	AA	1524	C	N3-C4	-5.85	1.29	1.33
35	BA	2456	C	N3-C4	-5.85	1.29	1.33
35	BA	2872	G	C2-N3	-5.85	1.28	1.32
1	AA	715	A	C6-N6	-5.85	1.29	1.33
1	AA	1280	A	P-O5'	-5.85	1.53	1.59
1	AA	1408	A	C2-N3	-5.85	1.28	1.33
35	BA	639	U	P-O5'	-5.85	1.53	1.59
35	BA	777	A	C2-N3	-5.85	1.28	1.33
35	BA	1628	G	P-O5'	-5.85	1.53	1.59
35	BA	1651	G	C8-N7	-5.85	1.27	1.30
35	BA	1927	A	P-O5'	-5.85	1.53	1.59
35	BA	1959	G	C6-N1	-5.85	1.35	1.39
35	BA	486	C	N1-C6	5.85	1.40	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1635	G	C5'-C4'	-5.85	1.44	1.51
35	BA	1950	G	N9-C4	-5.85	1.33	1.38
35	BA	2158	A	N3-C4	-5.85	1.31	1.34
1	AA	10	A	O3'-P	-5.85	1.54	1.61
1	AA	689	C	P-O5'	-5.85	1.53	1.59
1	AA	1272	G	C6-O6	-5.85	1.18	1.24
22	AV	67	C	P-O5'	-5.85	1.53	1.59
22	AV	16	C	C5'-C4'	-5.85	1.44	1.51
35	BA	884	C	C4-N4	-5.85	1.28	1.33
1	AA	663	A	C6-N1	-5.85	1.31	1.35
1	AA	690	G	C2-N2	-5.85	1.28	1.34
1	AA	709	G	N1-C2	-5.85	1.33	1.37
1	AA	965	A	N9-C8	-5.85	1.33	1.37
1	AA	1166	G	C2-N2	-5.85	1.28	1.34
35	BA	890	A	C8-N7	-5.85	1.27	1.31
35	BA	975(A)	G	N9-C8	-5.85	1.33	1.37
35	BA	1356	G	N1-C2	-5.85	1.33	1.37
35	BA	2543	G	N9-C4	-5.85	1.33	1.38
36	BB	40	U	C3'-C2'	-5.85	1.46	1.52
36	BB	100	A	C2'-O2'	-5.85	1.34	1.41
35	BA	2426	A	N3-C4	-5.84	1.31	1.34
1	AA	585	G	C5-C4	-5.84	1.34	1.38
1	AA	681	C	P-O5'	-5.84	1.53	1.59
35	BA	2513	G	C2'-O2'	-5.84	1.34	1.41
1	AA	410	G	O3'-P	-5.84	1.54	1.61
1	AA	1460	A	N9-C8	-5.84	1.33	1.37
35	BA	786	C	N1-C6	-5.84	1.33	1.37
35	BA	2828	C	N1-C6	-5.84	1.33	1.37
1	AA	888	G	C4'-C3'	-5.84	1.46	1.52
1	AA	935	A	N7-C5	-5.84	1.35	1.39
35	BA	1231	G	N9-C8	-5.84	1.33	1.37
1	AA	868	C	C2-N3	-5.84	1.31	1.35
1	AA	913	A	C6-N6	-5.84	1.29	1.33
1	AA	1062	U	N1-C6	-5.84	1.32	1.38
35	BA	1632	A	C6-N6	5.84	1.38	1.33
35	BA	2040	C	C2-N3	-5.84	1.31	1.35
35	BA	2531	A	N3-C4	-5.84	1.31	1.34
1	AA	1202	G	N7-C5	5.84	1.42	1.39
1	AA	1337	G	N7-C5	5.84	1.42	1.39
35	BA	2022	U	C5'-C4'	-5.84	1.44	1.51
1	AA	330	C	N1-C6	-5.83	1.33	1.37
35	BA	1015	G	C6-O6	-5.83	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1749	A	C8-N7	-5.83	1.27	1.31
1	AA	645	C	C4-C5	-5.83	1.38	1.43
35	BA	122	G	N7-C5	-5.83	1.35	1.39
35	BA	268	C	C2-N3	-5.83	1.31	1.35
35	BA	355	G	C5'-C4'	-5.83	1.44	1.51
35	BA	381	G	C5-C6	-5.83	1.36	1.42
35	BA	770	G	N7-C5	-5.83	1.35	1.39
35	BA	1042	G	N3-C4	-5.83	1.31	1.35
35	BA	2120	G	C6-N1	-5.83	1.35	1.39
35	BA	2799	C	N3-C4	-5.83	1.29	1.33
1	AA	167	G	N9-C8	-5.83	1.33	1.37
1	AA	572	A	C6-N1	-5.83	1.31	1.35
35	BA	1261	C	O3'-P	-5.83	1.54	1.61
35	BA	1350	C	C5-C6	-5.83	1.29	1.34
35	BA	1661	G	C4'-C3'	-5.83	1.46	1.52
35	BA	1700	A	C6-N1	-5.83	1.31	1.35
1	AA	432	A	C5-C6	-5.83	1.35	1.41
1	AA	777	A	N9-C4	-5.83	1.34	1.37
22	AV	21	A	C8-N7	-5.83	1.27	1.31
35	BA	614(C)	A	C2'-C1'	-5.83	1.47	1.53
35	BA	718	A	N9-C4	5.83	1.41	1.37
35	BA	2426	A	N7-C5	-5.83	1.35	1.39
35	BA	2469	A	C8-N7	-5.83	1.27	1.31
35	BA	2627	G	N3-C4	-5.83	1.31	1.35
36	BB	114	C	C4-N4	-5.83	1.28	1.33
1	AA	386	C	P-O5'	-5.83	1.53	1.59
35	BA	1777	U	O3'-P	-5.83	1.54	1.61
35	BA	2747	G	C8-N7	-5.83	1.27	1.30
1	AA	7	G	C2'-C1'	-5.83	1.47	1.53
35	BA	817	C	C4'-C3'	-5.83	1.46	1.52
35	BA	1035	U	N1-C2	-5.83	1.33	1.38
1	AA	585	G	N3-C4	-5.82	1.31	1.35
1	AA	974	A	C6-N6	-5.82	1.29	1.33
35	BA	732	C	C4-C5	-5.82	1.38	1.43
35	BA	1649	G	N3-C4	-5.82	1.31	1.35
35	BA	2616	C	O3'-P	-5.82	1.54	1.61
1	AA	673	G	N7-C5	-5.82	1.35	1.39
1	AA	1151	A	N9-C8	-5.82	1.33	1.37
1	AA	1311	G	N7-C5	-5.82	1.35	1.39
1	AA	1416	G	N1-C2	-5.82	1.33	1.37
1	AA	1467	G	C5-C4	-5.82	1.34	1.38
35	BA	1611	C	C2-O2	-5.82	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2035	G	N1-C2	-5.82	1.33	1.37
1	AA	1030(B)	C	N1-C6	5.82	1.40	1.37
35	BA	24	G	C8-N7	-5.82	1.27	1.30
35	BA	262	A	N1-C2	-5.82	1.29	1.34
35	BA	510	C	C4-C5	-5.82	1.38	1.43
35	BA	1656	C	N1-C2	5.82	1.46	1.40
35	BA	1672	C	C4-C5	-5.82	1.38	1.43
35	BA	2199	A	O4'-C1'	-5.82	1.34	1.41
35	BA	2664	G	C6-O6	-5.82	1.19	1.24
35	BA	2710	C	C4-C5	-5.82	1.38	1.43
1	AA	88	A	C6-N6	-5.82	1.29	1.33
1	AA	120	A	C5-C6	-5.82	1.35	1.41
1	AA	1121	U	C4'-C3'	-5.82	1.46	1.52
35	BA	1289	C	C2'-C1'	-5.82	1.47	1.53
1	AA	728	A	C6-N1	5.82	1.39	1.35
1	AA	1086	U	N1-C6	-5.82	1.32	1.38
22	AV	11	A	C6-N1	5.82	1.39	1.35
35	BA	219	G	N3-C4	-5.82	1.31	1.35
35	BA	994	C	C5-C6	5.82	1.39	1.34
35	BA	1096	A	C5-C4	-5.82	1.34	1.38
35	BA	1114	G	C5-C4	-5.82	1.34	1.38
35	BA	1450	G	C5-C4	-5.82	1.34	1.38
35	BA	2157	G	N1-C2	-5.82	1.33	1.37
36	BB	57	A	N9-C4	5.82	1.41	1.37
1	AA	126	G	C6-N1	-5.82	1.35	1.39
1	AA	504	C	N1-C6	-5.82	1.33	1.37
1	AA	951	G	N7-C5	-5.82	1.35	1.39
1	AA	1340	A	C5-C6	-5.82	1.35	1.41
35	BA	896	A	N7-C5	-5.82	1.35	1.39
35	BA	1080	C	C4-C5	-5.82	1.38	1.43
35	BA	1203	G	C6-O6	-5.82	1.19	1.24
35	BA	2720	U	C2-N3	-5.82	1.33	1.37
37	BC	86	GLU	CD-OE1	-5.82	1.19	1.25
35	BA	199	A	C2-N3	-5.81	1.28	1.33
35	BA	1407	C	P-O5'	-5.81	1.53	1.59
1	AA	9	G	N9-C4	-5.81	1.33	1.38
1	AA	1319	A	C2'-C1'	-5.81	1.47	1.53
1	AA	1427	U	C4-O4	-5.81	1.19	1.23
35	BA	956	G	C6-O6	-5.81	1.19	1.24
35	BA	1746	G	N9-C4	-5.81	1.33	1.38
35	BA	2642	G	N9-C4	-5.81	1.33	1.38
35	BA	383	U	C5'-C4'	-5.81	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2000	G	C5'-C4'	-5.81	1.44	1.51
1	AA	1073	U	C4'-C3'	-5.81	1.46	1.52
35	BA	497	A	N7-C5	-5.81	1.35	1.39
35	BA	744	G	N7-C5	-5.81	1.35	1.39
35	BA	2860	A	C8-N7	5.81	1.35	1.31
1	AA	448	A	N9-C8	-5.81	1.33	1.37
1	AA	617	G	N1-C2	-5.81	1.33	1.37
1	AA	1377	A	C5-C6	-5.81	1.35	1.41
1	AA	1464	G	N1-C2	-5.81	1.33	1.37
1	AA	1494	G	N9-C8	-5.81	1.33	1.37
35	BA	132	G	N9-C4	-5.81	1.33	1.38
35	BA	701	G	N3-C4	-5.81	1.31	1.35
35	BA	765	G	N3-C4	-5.81	1.31	1.35
35	BA	987	G	C6-O6	-5.81	1.19	1.24
35	BA	1147	C	C2-O2	-5.81	1.19	1.24
35	BA	1361	G	N9-C8	-5.81	1.33	1.37
35	BA	1566	A	N1-C2	-5.81	1.29	1.34
35	BA	2413	G	C8-N7	-5.81	1.27	1.30
35	BA	2818	G	C8-N7	-5.81	1.27	1.30
36	BB	104	U	C2'-C1'	-5.81	1.47	1.53
1	AA	1054	C	C4'-C3'	-5.81	1.46	1.52
35	BA	765	G	C5-C4	-5.81	1.34	1.38
35	BA	2439	A	C2-N3	-5.81	1.28	1.33
1	AA	64	G	P-O5'	-5.80	1.53	1.59
1	AA	366	C	N3-C4	-5.80	1.29	1.33
22	AV	40	C	N1-C6	-5.80	1.33	1.37
35	BA	539	G	N9-C4	-5.80	1.33	1.38
35	BA	894	C	N1-C6	-5.80	1.33	1.37
35	BA	1680	U	C4'-O4'	-5.80	1.38	1.45
35	BA	2438	U	C5-C6	-5.80	1.28	1.34
36	BB	72	G	N9-C4	-5.80	1.33	1.38
1	AA	1491	G	O3'-P	-5.80	1.54	1.61
35	BA	2679	A	C2'-O2'	-5.80	1.34	1.41
1	AA	197	A	C5-C4	-5.80	1.34	1.38
1	AA	1131	G	N3-C4	-5.80	1.31	1.35
35	BA	551	G	C5'-C4'	-5.80	1.44	1.51
35	BA	2037	G	C6-O6	-5.80	1.19	1.24
36	BB	57	A	C2-N3	-5.80	1.28	1.33
1	AA	31	G	N9-C8	5.80	1.42	1.37
1	AA	1379	G	C2-N2	-5.80	1.28	1.34
35	BA	674	G	P-O5'	5.80	1.65	1.59
35	BA	1091	G	C2-N2	-5.80	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2342	C	C3'-C2'	-5.80	1.46	1.52
1	AA	129(A)	G	N9-C8	-5.80	1.33	1.37
35	BA	2625	G	C6-O6	-5.80	1.19	1.24
1	AA	226	G	N7-C5	-5.80	1.35	1.39
1	AA	492	G	C3'-C2'	-5.80	1.46	1.52
1	AA	1502	A	C2-N3	-5.80	1.28	1.33
35	BA	316	C	C3'-C2'	-5.80	1.46	1.52
35	BA	1156	A	O3'-P	-5.80	1.54	1.61
35	BA	1206	G	C2'-C1'	-5.80	1.47	1.53
35	BA	1366	A	C2'-C1'	-5.80	1.47	1.53
35	BA	1603	A	C5-C4	-5.80	1.34	1.38
36	BB	81	G	N7-C5	-5.80	1.35	1.39
1	AA	452	A	C6-N6	-5.79	1.29	1.33
1	AA	453	A	C8-N7	-5.79	1.27	1.31
1	AA	729	A	C5-C6	-5.79	1.35	1.41
35	BA	275	G	C2-N3	-5.79	1.28	1.32
35	BA	1535	A	C5-C6	-5.79	1.35	1.41
1	AA	319	G	C6-N1	-5.79	1.35	1.39
1	AA	778	G	C5'-C4'	-5.79	1.44	1.51
1	AA	1175	G	N9-C4	-5.79	1.33	1.38
35	BA	1157	G	C5'-C4'	-5.79	1.44	1.51
35	BA	1624	G	C6-O6	5.79	1.29	1.24
35	BA	1787	A	N3-C4	-5.79	1.31	1.34
35	BA	2252	G	C6-N1	-5.79	1.35	1.39
35	BA	2740	A	P-O5'	-5.79	1.53	1.59
1	AA	887	G	N3-C4	-5.79	1.31	1.35
1	AA	1011	G	N9-C8	-5.79	1.33	1.37
35	BA	664	C	C2-N3	-5.79	1.31	1.35
35	BA	877	U	P-O5'	-5.79	1.53	1.59
35	BA	1200	C	N1-C6	-5.79	1.33	1.37
35	BA	1291	C	C4'-C3'	-5.79	1.46	1.52
35	BA	1781	C	C5-C6	-5.79	1.29	1.34
1	AA	500	G	C8-N7	5.79	1.34	1.30
35	BA	1475	G	N9-C4	-5.79	1.33	1.38
35	BA	2191	G	C8-N7	-5.79	1.27	1.30
35	BA	2698	U	N1-C6	-5.79	1.32	1.38
35	BA	2796	U	N1-C6	-5.79	1.32	1.38
1	AA	800	G	N7-C5	-5.79	1.35	1.39
1	AA	1109	C	N1-C6	-5.79	1.33	1.37
1	AA	1292	U	C2'-C1'	-5.79	1.47	1.53
35	BA	320	A	C2'-C1'	-5.79	1.47	1.53
35	BA	751	A	C6-N1	-5.79	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1028	A	N7-C5	-5.79	1.35	1.39
35	BA	2151	G	N7-C5	-5.79	1.35	1.39
1	AA	663	A	C8-N7	-5.78	1.27	1.31
1	AA	837	G	O3'-P	-5.78	1.54	1.61
35	BA	2883	A	N9-C8	-5.78	1.33	1.37
35	BA	271(Y)	U	C2-O2	-5.78	1.17	1.22
1	AA	703	G	N1-C2	-5.78	1.33	1.37
1	AA	764	C	C3'-C2'	-5.78	1.46	1.52
1	AA	1081	G	C8-N7	-5.78	1.27	1.30
22	AV	73	A	N9-C8	-5.78	1.33	1.37
35	BA	927	G	C2-N2	-5.78	1.28	1.34
35	BA	1272	A	C6-N6	-5.78	1.29	1.33
35	BA	1770	G	C2-N3	-5.78	1.28	1.32
35	BA	2327	A	C6-N6	-5.78	1.29	1.33
1	AA	582	U	C4-C5	-5.78	1.38	1.43
35	BA	634	C	C5'-C4'	-5.78	1.44	1.51
35	BA	697	C	C5'-C4'	-5.78	1.44	1.51
35	BA	2156	G	C5-C4	-5.78	1.34	1.38
1	AA	717	C	C4'-C3'	-5.78	1.46	1.52
35	BA	606	U	C2'-O2'	-5.78	1.34	1.41
35	BA	1963	U	C4'-C3'	-5.78	1.46	1.52
35	BA	2001	A	N7-C5	-5.78	1.35	1.39
1	AA	373	A	C6-N6	-5.78	1.29	1.33
1	AA	841	U	C5-C6	-5.78	1.28	1.34
35	BA	849	A	N1-C2	-5.78	1.29	1.34
35	BA	892	G	N9-C4	-5.78	1.33	1.38
35	BA	1073	A	C5-C4	-5.78	1.34	1.38
35	BA	1459	G	N9-C8	5.78	1.41	1.37
35	BA	2021	C	C2-N3	-5.78	1.31	1.35
35	BA	2537	U	C4'-C3'	-5.78	1.46	1.52
35	BA	274	G	C6-O6	-5.77	1.19	1.24
35	BA	780	G	C8-N7	-5.77	1.27	1.30
35	BA	927	G	N3-C4	-5.77	1.31	1.35
35	BA	1034	G	N3-C4	-5.77	1.31	1.35
35	BA	2080	G	N3-C4	-5.77	1.31	1.35
35	BA	2167	U	C3'-C2'	-5.77	1.46	1.52
35	BA	2794	C	N1-C6	5.77	1.40	1.37
1	AA	807	A	N1-C2	-5.77	1.29	1.34
1	AA	901	A	N1-C2	-5.77	1.29	1.34
22	AV	51	C	P-O5'	-5.77	1.53	1.59
35	BA	878	A	N1-C2	-5.77	1.29	1.34
35	BA	2586	C	C4'-C3'	-5.77	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2788	C	C4-N4	-5.77	1.28	1.33
35	BA	2859	G	C4'-C3'	-5.77	1.46	1.52
35	BA	413	C	C2-N3	-5.77	1.31	1.35
35	BA	2474	C	C2-O2	5.77	1.29	1.24
1	AA	261	U	N3-C4	-5.77	1.33	1.38
8	AH	37	ARG	NE-CZ	-5.77	1.25	1.33
35	BA	278	A	C6-N6	-5.77	1.29	1.33
1	AA	824	C	C5-C6	-5.77	1.29	1.34
1	AA	1263	C	P-O5'	-5.77	1.53	1.59
35	BA	37	C	C5'-C4'	-5.77	1.44	1.51
35	BA	1234	U	C4-C5	-5.77	1.38	1.43
35	BA	1602	U	C4-C5	-5.77	1.38	1.43
35	BA	1912	A	C8-N7	-5.77	1.27	1.31
1	AA	733	A	N7-C5	-5.77	1.35	1.39
1	AA	855	G	N7-C5	-5.77	1.35	1.39
35	BA	123	G	N7-C5	-5.77	1.35	1.39
35	BA	602	G	N7-C5	-5.77	1.35	1.39
35	BA	873	G	N9-C4	-5.77	1.33	1.38
1	AA	224	C	N3-C4	-5.76	1.29	1.33
1	AA	511	C	C4'-C3'	-5.76	1.46	1.52
35	BA	1002	G	N9-C8	-5.76	1.33	1.37
35	BA	1160	G	C5-C6	-5.76	1.36	1.42
35	BA	1374	G	N9-C8	-5.76	1.33	1.37
35	BA	1524	G	C6-O6	-5.76	1.19	1.24
35	BA	2007	C	P-O5'	-5.76	1.53	1.59
1	AA	946	A	N9-C4	5.76	1.41	1.37
1	AA	1264	C	C2'-O2'	-5.76	1.34	1.41
35	BA	941	A	C5-C4	5.76	1.42	1.38
36	BB	28	C	C4-N4	5.76	1.39	1.33
1	AA	14	U	N1-C6	-5.76	1.32	1.38
1	AA	329	A	N3-C4	-5.76	1.31	1.34
1	AA	1400	C	C2-N3	-5.76	1.31	1.35
35	BA	1656	C	C2-O2	-5.76	1.19	1.24
35	BA	2533	A	N3-C4	-5.76	1.31	1.34
1	AA	892	A	C5'-C4'	-5.76	1.44	1.51
1	AA	1047	G	N7-C5	-5.76	1.35	1.39
1	AA	1473	A	C6-N1	-5.76	1.31	1.35
35	BA	317	G	N7-C5	-5.76	1.35	1.39
35	BA	411	G	C5-C6	-5.76	1.36	1.42
35	BA	752	A	N7-C5	-5.76	1.35	1.39
35	BA	893	C	N1-C6	-5.76	1.33	1.37
35	BA	1562	A	C2'-C1'	-5.76	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1815	A	N7-C5	-5.76	1.35	1.39
35	BA	1914	C	C2'-C1'	-5.76	1.47	1.53
35	BA	1973	G	N7-C5	-5.76	1.35	1.39
35	BA	2265	U	N3-C4	-5.76	1.33	1.38
35	BA	2347	C	N3-C4	-5.76	1.29	1.33
1	AA	154	C	C4'-C3'	-5.76	1.46	1.52
1	AA	821	G	C5-C4	-5.76	1.34	1.38
1	AA	1341	U	C3'-C2'	-5.76	1.46	1.52
35	BA	2147	G	C5-C4	-5.76	1.34	1.38
35	BA	2168	G	C4'-C3'	-5.76	1.46	1.52
35	BA	2557	G	N3-C4	-5.76	1.31	1.35
1	AA	580	U	C2-N3	5.76	1.41	1.37
35	BA	734	A	C5-C4	-5.75	1.34	1.38
1	AA	286	G	C2-N3	-5.75	1.28	1.32
1	AA	408	A	N9-C8	-5.75	1.33	1.37
35	BA	188	G	N1-C2	-5.75	1.33	1.37
35	BA	654(B)	C	C4-N4	-5.75	1.28	1.33
35	BA	659	C	C4-N4	-5.75	1.28	1.33
35	BA	2868	A	C2'-O2'	-5.75	1.34	1.41
35	BA	2062	A	C8-N7	-5.75	1.27	1.31
35	BA	2134	A	C8-N7	-5.75	1.27	1.31
35	BA	2411	A	C5-C6	-5.75	1.35	1.41
1	AA	913	A	C4'-O4'	-5.75	1.38	1.45
1	AA	1357	A	C6-N1	-5.75	1.31	1.35
35	BA	293	U	C4'-C3'	-5.75	1.46	1.52
35	BA	1259	G	O3'-P	5.75	1.68	1.61
35	BA	1445(A)	C	C4'-C3'	-5.75	1.46	1.52
35	BA	1960	A	C6-N1	-5.75	1.31	1.35
35	BA	802	A	N9-C8	-5.75	1.33	1.37
35	BA	1675	C	C4-C5	-5.75	1.38	1.43
35	BA	1813	G	C6-O6	-5.75	1.19	1.24
35	BA	2614	A	C5-C6	-5.75	1.35	1.41
35	BA	2823	A	N1-C2	-5.75	1.29	1.34
35	BA	2236	C	P-O5'	-5.75	1.54	1.59
1	AA	1071	C	C4-C5	-5.74	1.38	1.43
22	AV	17(A)	U	C5-C6	-5.74	1.28	1.34
22	AV	47	U	C4-C5	-5.74	1.38	1.43
35	BA	337	C	C5'-C4'	-5.74	1.44	1.51
35	BA	1492	G	N9-C8	-5.74	1.33	1.37
35	BA	1579	A	C5'-C4'	-5.74	1.44	1.51
1	AA	423	G	N7-C5	-5.74	1.35	1.39
1	AA	627	G	N3-C4	-5.74	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	362	U	N1-C6	5.74	1.43	1.38
35	BA	928	G	N3-C4	-5.74	1.31	1.35
35	BA	2218	U	C2'-O2'	-5.74	1.34	1.41
35	BA	2812	G	C2-N3	-5.74	1.28	1.32
1	AA	934	C	N1-C6	-5.74	1.33	1.37
1	AA	983	A	C6-N6	-5.74	1.29	1.33
1	AA	988	G	C4'-C3'	-5.74	1.46	1.52
1	AA	1064	G	C4'-C3'	-5.74	1.46	1.52
1	AA	71	C	N3-C4	-5.74	1.29	1.33
1	AA	396	G	C5-C6	-5.74	1.36	1.42
1	AA	1038	C	C4-N4	-5.74	1.28	1.33
35	BA	47	C	C5-C6	-5.74	1.29	1.34
35	BA	509	C	C5-C6	-5.74	1.29	1.34
35	BA	658	C	N3-C4	-5.74	1.29	1.33
35	BA	986	C	C5-C6	-5.74	1.29	1.34
35	BA	1403	C	N3-C4	-5.74	1.29	1.33
35	BA	1955	U	N3-C4	-5.74	1.33	1.38
1	AA	156	G	C5-C4	-5.74	1.34	1.38
35	BA	1353	A	N3-C4	-5.74	1.31	1.34
35	BA	1810	A	N3-C4	-5.74	1.31	1.34
35	BA	2032	G	C6-O6	-5.74	1.19	1.24
35	BA	2407	G	C6-O6	-5.74	1.19	1.24
35	BA	2729	G	C6-O6	-5.74	1.19	1.24
1	AA	282	A	C8-N7	5.74	1.35	1.31
1	AA	490	G	C8-N7	-5.74	1.27	1.30
1	AA	1065	U	C5-C6	-5.74	1.28	1.34
35	BA	30	G	N7-C5	-5.74	1.35	1.39
35	BA	73	A	C6-N6	-5.74	1.29	1.33
35	BA	124	G	C6-N1	-5.74	1.35	1.39
35	BA	353	G	N3-C4	-5.74	1.31	1.35
35	BA	824	A	C2'-C1'	-5.74	1.47	1.53
35	BA	873	G	C8-N7	-5.74	1.27	1.30
35	BA	1347	G	C5-C6	-5.74	1.36	1.42
35	BA	1771	C	N1-C6	-5.74	1.33	1.37
35	BA	979	G	N1-C2	5.73	1.42	1.37
35	BA	2766	G	N1-C2	5.73	1.42	1.37
1	AA	553	A	C4'-O4'	-5.73	1.38	1.45
1	AA	1098	C	C5-C6	-5.73	1.29	1.34
35	BA	225	A	C6-N6	-5.73	1.29	1.33
35	BA	408	G	O3'-P	-5.73	1.54	1.61
35	BA	766	C	C5-C6	-5.73	1.29	1.34
35	BA	777	A	N1-C2	-5.73	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	858	U	C2'-C1'	-5.73	1.47	1.53
35	BA	1290	C	C5-C6	-5.73	1.29	1.34
35	BA	1392	A	N1-C2	-5.73	1.29	1.34
35	BA	2018	G	N9-C4	-5.73	1.33	1.38
35	BA	2363	C	C2-O2	-5.73	1.19	1.24
35	BA	2432	A	N1-C2	-5.73	1.29	1.34
35	BA	2741	A	N1-C2	-5.73	1.29	1.34
45	BN	78	TYR	CE2-CZ	-5.73	1.31	1.38
1	AA	310	G	C5-C4	-5.73	1.34	1.38
35	BA	805	G	C5-C6	-5.73	1.36	1.42
35	BA	921	G	C6-N1	-5.73	1.35	1.39
1	AA	1146	A	N9-C4	-5.73	1.34	1.37
1	AA	1247	U	C4-O4	-5.73	1.19	1.23
35	BA	1006	C	C2'-C1'	-5.73	1.47	1.53
35	BA	1468	C	C4-C5	-5.73	1.38	1.43
35	BA	1764	G	C2'-C1'	-5.73	1.47	1.53
1	AA	1271	G	C8-N7	-5.73	1.27	1.30
1	AA	1347	G	N9-C8	-5.73	1.33	1.37
35	BA	62	C	C2-O2	-5.73	1.19	1.24
35	BA	194	G	C4'-O4'	-5.73	1.38	1.45
35	BA	654(C)	G	N1-C2	-5.73	1.33	1.37
35	BA	848	G	C8-N7	-5.73	1.27	1.30
35	BA	1044	G	C8-N7	-5.73	1.27	1.30
35	BA	1320	C	C5'-C4'	-5.73	1.44	1.51
35	BA	1883	G	C4'-C3'	-5.73	1.46	1.52
35	BA	2379	G	C6-O6	-5.73	1.19	1.24
35	BA	2748	A	N9-C8	-5.73	1.33	1.37
35	BA	2799	C	C4'-C3'	-5.73	1.46	1.52
45	BN	10	GLU	CD-OE2	-5.73	1.19	1.25
1	AA	487	A	C6-N1	-5.73	1.31	1.35
35	BA	1501	C	P-O5'	-5.73	1.54	1.59
35	BA	1685	C	N1-C2	-5.73	1.34	1.40
1	AA	801	U	C5'-C4'	-5.72	1.44	1.51
35	BA	286	C	C2-O2	-5.72	1.19	1.24
35	BA	1745(A)	C	C4-C5	-5.72	1.38	1.43
35	BA	2056	G	C6-N1	-5.72	1.35	1.39
35	BA	2648	C	C2-O2	-5.72	1.19	1.24
1	AA	136	C	P-O5'	-5.72	1.54	1.59
1	AA	453	A	P-O5'	-5.72	1.54	1.59
35	BA	977	G	C8-N7	-5.72	1.27	1.30
35	BA	1626	G	N7-C5	-5.72	1.35	1.39
35	BA	2141	G	N7-C5	-5.72	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2627	G	C2-N2	-5.72	1.28	1.34
35	BA	2817	G	C6-O6	-5.72	1.19	1.24
1	AA	800	G	C5-C4	-5.72	1.34	1.38
35	BA	1819	A	C5-C6	-5.72	1.35	1.41
1	AA	191	G	N9-C8	5.72	1.41	1.37
1	AA	484	G	C5-C6	-5.72	1.36	1.42
1	AA	1228	C	C2'-C1'	-5.72	1.47	1.53
21	AU	14	TRP	NE1-CE2	-5.72	1.30	1.37
35	BA	309	G	C5-C6	-5.72	1.36	1.42
1	AA	1499	A	N3-C4	-5.72	1.31	1.34
1	AA	104	G	N7-C5	-5.72	1.35	1.39
1	AA	708	C	N3-C4	-5.72	1.29	1.33
35	BA	83	G	C5-C4	5.72	1.42	1.38
35	BA	294	A	N7-C5	-5.72	1.35	1.39
35	BA	1741	A	N1-C2	-5.72	1.29	1.34
35	BA	2561	A	C5-C4	-5.72	1.34	1.38
1	AA	275	G	N7-C5	5.71	1.42	1.39
1	AA	565	U	C2-N3	-5.71	1.33	1.37
1	AA	668	G	N9-C4	-5.71	1.33	1.38
1	AA	671	G	C3'-C2'	-5.71	1.46	1.52
35	BA	647	G	N1-C2	-5.71	1.33	1.37
35	BA	1439	A	C2'-C1'	-5.71	1.47	1.53
35	BA	1524	G	N3-C4	-5.71	1.31	1.35
35	BA	1772	G	N3-C4	-5.71	1.31	1.35
35	BA	2192	G	C3'-C2'	-5.71	1.46	1.52
35	BA	2257	U	C3'-C2'	-5.71	1.46	1.52
35	BA	2371	G	C2-N2	-5.71	1.28	1.34
1	AA	695	A	C4'-O4'	-5.71	1.38	1.45
35	BA	968	G	P-O5'	-5.71	1.54	1.59
1	AA	773	G	N7-C5	-5.71	1.35	1.39
1	AA	1334	G	N7-C5	-5.71	1.35	1.39
1	AA	1423	G	N9-C8	-5.71	1.33	1.37
35	BA	1452	A	C5-C4	-5.71	1.34	1.38
35	BA	1479	G	C2-N3	-5.71	1.28	1.32
35	BA	1669	A	N7-C5	-5.71	1.35	1.39
35	BA	2162	G	N7-C5	-5.71	1.35	1.39
35	BA	2813	A	C5-C4	-5.71	1.34	1.38
1	AA	711	G	C5-C4	-5.71	1.34	1.38
1	AA	1069	C	N1-C6	-5.71	1.33	1.37
35	BA	435	C	N3-C4	-5.71	1.29	1.33
35	BA	731	C	N1-C6	-5.71	1.33	1.37
35	BA	940	G	C5-C4	-5.71	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1156	A	N9-C4	-5.71	1.34	1.37
35	BA	1342	A	N9-C4	-5.71	1.34	1.37
35	BA	2083	G	C2'-C1'	-5.71	1.47	1.53
35	BA	2720	U	C4'-O4'	-5.71	1.38	1.45
36	BB	11	C	N3-C4	-5.71	1.29	1.33
1	AA	829	G	C6-N1	-5.71	1.35	1.39
35	BA	531	C	C2-N3	-5.71	1.31	1.35
35	BA	714	U	C4-O4	-5.71	1.19	1.23
35	BA	1114	G	N1-C2	5.71	1.42	1.37
35	BA	1831	G	C8-N7	5.71	1.34	1.30
35	BA	1464	C	C4-C5	-5.71	1.38	1.43
35	BA	1878	G	C2-N2	-5.71	1.28	1.34
1	AA	38	G	C5-C4	-5.71	1.34	1.38
1	AA	513	C	N3-C4	-5.71	1.29	1.33
1	AA	642	A	C3'-C2'	-5.71	1.46	1.52
1	AA	876	G	O4'-C1'	-5.71	1.34	1.41
1	AA	1521	G	C5-C4	-5.71	1.34	1.38
35	BA	2625	G	C5-C6	-5.71	1.36	1.42
35	BA	55	G	P-O5'	-5.70	1.54	1.59
35	BA	1299	G	C6-O6	5.70	1.29	1.24
35	BA	1492	G	C6-N1	-5.70	1.35	1.39
35	BA	2669	G	C6-N1	-5.70	1.35	1.39
36	BB	97	G	N1-C2	-5.70	1.33	1.37
1	AA	485	G	C8-N7	-5.70	1.27	1.30
1	AA	372	C	C2-N3	5.70	1.40	1.35
1	AA	1256	A	C5-C6	-5.70	1.35	1.41
35	BA	290	G	C4'-C3'	-5.70	1.46	1.52
35	BA	1625	C	C2-N3	-5.70	1.31	1.35
1	AA	744	C	C5'-C4'	-5.70	1.44	1.51
1	AA	756	C	N3-C4	-5.70	1.29	1.33
1	AA	1294	G	N3-C4	-5.70	1.31	1.35
1	AA	1468	A	N3-C4	-5.70	1.31	1.34
35	BA	331	A	C6-N1	-5.70	1.31	1.35
35	BA	435	C	C5-C6	-5.70	1.29	1.34
35	BA	958	U	C2'-C1'	-5.70	1.47	1.53
35	BA	1908	C	C5-C6	-5.70	1.29	1.34
35	BA	135	G	P-O5'	-5.70	1.54	1.59
35	BA	2482	G	P-O5'	-5.70	1.54	1.59
1	AA	379	C	C2-N3	-5.70	1.31	1.35
1	AA	605	U	N1-C6	-5.70	1.32	1.38
1	AA	617	G	C6-N1	5.70	1.43	1.39
1	AA	625	G	C8-N7	-5.70	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	642	A	C4'-C3'	-5.70	1.46	1.52
1	AA	714	G	N1-C2	-5.70	1.33	1.37
1	AA	1179	A	C2'-C1'	-5.70	1.47	1.53
35	BA	124	G	C3'-C2'	-5.70	1.46	1.52
35	BA	491	G	C8-N7	-5.70	1.27	1.30
35	BA	804	A	C5-C6	-5.70	1.35	1.41
35	BA	1192	G	C4'-C3'	-5.70	1.46	1.52
35	BA	1475	G	C4'-C3'	-5.70	1.46	1.52
35	BA	1564	C	C2-N3	-5.70	1.31	1.35
35	BA	2446	G	N1-C2	-5.70	1.33	1.37
35	BA	2760	C	N1-C2	-5.70	1.34	1.40
1	AA	538	G	C5-C4	-5.69	1.34	1.38
35	BA	1142(A)	A	C8-N7	-5.69	1.27	1.31
35	BA	2498	C	N3-C4	-5.69	1.29	1.33
35	BA	2730	C	C5-C6	-5.69	1.29	1.34
1	AA	254	G	C6-N1	-5.69	1.35	1.39
1	AA	305	G	N7-C5	-5.69	1.35	1.39
1	AA	1285	A	N3-C4	-5.69	1.31	1.34
1	AA	1368	G	N7-C5	-5.69	1.35	1.39
1	AA	1382	C	C4-C5	-5.69	1.38	1.43
35	BA	1432	C	C4-C5	-5.69	1.38	1.43
35	BA	1587	A	N7-C5	-5.69	1.35	1.39
35	BA	1968	G	N7-C5	-5.69	1.35	1.39
35	BA	2790	A	N9-C4	5.69	1.41	1.37
35	BA	323	G	C5-C6	-5.69	1.36	1.42
35	BA	722	A	C5-C4	-5.69	1.34	1.38
35	BA	1079	C	C4-N4	-5.69	1.28	1.33
35	BA	2362	G	N9-C4	-5.69	1.33	1.38
1	AA	1362	C	C4-C5	5.69	1.47	1.43
22	AV	17	C	C5'-C4'	-5.69	1.44	1.51
35	BA	1768	U	C5'-C4'	-5.69	1.44	1.51
35	BA	2303	G	C5-C4	-5.69	1.34	1.38
1	AA	619	U	C2-N3	-5.69	1.33	1.37
1	AA	1159	U	P-OP1	-5.69	1.39	1.49
35	BA	142(A)	C	N3-C4	5.69	1.38	1.33
35	BA	171	G	N3-C4	-5.69	1.31	1.35
35	BA	821	A	C6-N6	5.69	1.38	1.33
35	BA	2053	G	P-O5'	-5.69	1.54	1.59
35	BA	476	G	C4'-C3'	-5.69	1.46	1.52
35	BA	918	A	N7-C5	-5.69	1.35	1.39
35	BA	1765	C	C2-O2	-5.69	1.19	1.24
35	BA	2787	C	C4'-C3'	-5.69	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	329	A	C5-C4	-5.68	1.34	1.38
35	BA	667	U	N3-C4	-5.68	1.33	1.38
35	BA	1384	A	N9-C4	-5.68	1.34	1.37
35	BA	1672	C	C2-N3	-5.68	1.31	1.35
35	BA	1983	C	N1-C6	-5.68	1.33	1.37
35	BA	2577	A	C5-C6	-5.68	1.35	1.41
1	AA	1358	U	N1-C2	-5.68	1.33	1.38
35	BA	593	G	C4'-C3'	-5.68	1.46	1.52
1	AA	718	G	N9-C4	-5.68	1.33	1.38
35	BA	670	A	N7-C5	-5.68	1.35	1.39
35	BA	847	U	C4-C5	-5.68	1.38	1.43
35	BA	1749	A	N7-C5	-5.68	1.35	1.39
35	BA	2665	A	C5-C6	-5.68	1.35	1.41
35	BA	2779	U	C4-C5	-5.68	1.38	1.43
35	BA	2853	C	C4-C5	-5.68	1.38	1.43
1	AA	1265	G	N9-C4	5.68	1.42	1.38
35	BA	1192	G	C2-N3	-5.68	1.28	1.32
35	BA	1549	C	C4-N4	-5.68	1.28	1.33
1	AA	227	G	N1-C2	-5.68	1.33	1.37
1	AA	1280	A	N9-C8	-5.68	1.33	1.37
1	AA	1475	G	N1-C2	-5.68	1.33	1.37
35	BA	1250	G	P-O5'	-5.68	1.54	1.59
35	BA	2057	A	C3'-C2'	-5.68	1.46	1.52
35	BA	2094	G	P-O5'	-5.68	1.54	1.59
35	BA	2526	G	N1-C2	-5.68	1.33	1.37
35	BA	2718	G	C5-C6	-5.68	1.36	1.42
1	AA	796	C	P-O5'	-5.67	1.54	1.59
1	AA	1361	G	C5'-C4'	-5.67	1.44	1.51
35	BA	363	G	P-O5'	-5.67	1.54	1.59
35	BA	462	C	C5-C6	-5.67	1.29	1.34
35	BA	1129	A	N9-C4	5.67	1.41	1.37
35	BA	2829	C	P-O5'	-5.67	1.54	1.59
22	AV	64	G	C4'-C3'	-5.67	1.46	1.52
35	BA	355	G	C5-C4	-5.67	1.34	1.38
35	BA	1541	G	C2'-C1'	-5.67	1.47	1.53
35	BA	2376	A	N3-C4	-5.67	1.31	1.34
1	AA	764	C	N1-C6	-5.67	1.33	1.37
1	AA	1041	A	C6-N1	-5.67	1.31	1.35
1	AA	1473	A	C8-N7	-5.67	1.27	1.31
22	AV	54	U	C5-C6	-5.67	1.29	1.34
35	BA	20	C	C2-N3	-5.67	1.31	1.35
35	BA	823	G	C5-C6	-5.67	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1380	G	N1-C2	-5.67	1.33	1.37
35	BA	1627	G	C6-N1	-5.67	1.35	1.39
35	BA	1693	U	C2-N3	-5.67	1.33	1.37
35	BA	1886	C	C2-N3	-5.67	1.31	1.35
35	BA	1961	C	N3-C4	-5.67	1.29	1.33
35	BA	2063	C	C2-N3	-5.67	1.31	1.35
35	BA	2244	U	C5-C6	-5.67	1.29	1.34
35	BA	2385	C	N1-C6	-5.67	1.33	1.37
35	BA	2670	A	C6-N1	-5.67	1.31	1.35
36	BB	79	C	C3'-C2'	-5.67	1.46	1.52
35	BA	594	U	N1-C6	-5.67	1.32	1.38
1	AA	755	G	N7-C5	-5.67	1.35	1.39
1	AA	902	G	C8-N7	-5.67	1.27	1.30
1	AA	1176	A	C5-C4	-5.67	1.34	1.38
1	AA	1185	G	N7-C5	-5.67	1.35	1.39
35	BA	785	G	C4'-C3'	-5.67	1.46	1.52
35	BA	1168	G	N9-C8	5.67	1.41	1.37
35	BA	1527	G	N7-C5	-5.67	1.35	1.39
35	BA	2379	G	N7-C5	-5.67	1.35	1.39
1	AA	881	G	C6-N1	-5.67	1.35	1.39
1	AA	921	U	P-O5'	-5.67	1.54	1.59
35	BA	1543	C	N1-C6	-5.67	1.33	1.37
35	BA	1850	G	C6-O6	-5.67	1.19	1.24
35	BA	2828	C	N3-C4	-5.67	1.29	1.33
36	BB	98	G	C6-O6	-5.67	1.19	1.24
1	AA	1323	G	N3-C4	-5.67	1.31	1.35
1	AA	6	G	N9-C8	-5.66	1.33	1.37
1	AA	527	G	C8-N7	-5.66	1.27	1.30
1	AA	873	A	C6-N6	-5.66	1.29	1.33
35	BA	241	A	P-O5'	-5.66	1.54	1.59
35	BA	1689	A	N1-C2	-5.66	1.29	1.34
35	BA	2518	A	C5'-C4'	5.66	1.58	1.51
35	BA	2665	A	C5-C4	-5.66	1.34	1.38
35	BA	2677	G	N9-C8	-5.66	1.33	1.37
35	BA	2736	G	C8-N7	-5.66	1.27	1.30
1	AA	514	C	C3'-C2'	-5.66	1.46	1.52
1	AA	1430	C	C2-N3	-5.66	1.31	1.35
35	BA	36	G	C5-C4	-5.66	1.34	1.38
35	BA	526	A	C2-N3	-5.66	1.28	1.33
35	BA	1268	A	C2-N3	-5.66	1.28	1.33
35	BA	2247	A	C2-N3	-5.66	1.28	1.33
1	AA	1306	A	N9-C4	-5.66	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	432	A	C8-N7	-5.66	1.27	1.31
35	BA	592	G	C2'-C1'	-5.66	1.47	1.53
35	BA	951	C	N1-C6	-5.66	1.33	1.37
35	BA	1107	G	N7-C5	-5.66	1.35	1.39
35	BA	1279	G	N7-C5	-5.66	1.35	1.39
35	BA	1508	A	N7-C5	-5.66	1.35	1.39
35	BA	2145	C	N1-C6	-5.66	1.33	1.37
35	BA	2414	G	N3-C4	-5.66	1.31	1.35
1	AA	216	G	N1-C2	5.66	1.42	1.37
35	BA	726	G	N9-C8	-5.66	1.33	1.37
35	BA	1621	U	C4-C5	-5.66	1.38	1.43
35	BA	2601	C	C3'-C2'	-5.66	1.46	1.52
38	BD	86	PRO	N-CD	-5.66	1.40	1.47
35	BA	2464	C	C2-N3	-5.66	1.31	1.35
35	BA	1086	A	C6-N1	-5.66	1.31	1.35
35	BA	1338	G	C4'-C3'	-5.66	1.46	1.52
35	BA	2441	C	N3-C4	-5.66	1.29	1.33
1	AA	404	U	C2-O2	-5.65	1.17	1.22
1	AA	619	U	C5-C6	-5.65	1.29	1.34
36	BB	48	A	N9-C4	-5.65	1.34	1.37
1	AA	1444	C	C4-N4	-5.65	1.28	1.33
35	BA	848	G	N1-C2	-5.65	1.33	1.37
35	BA	2022	U	N3-C4	-5.65	1.33	1.38
35	BA	2374	C	C5'-C4'	-5.65	1.44	1.51
35	BA	2399	G	N9-C4	-5.65	1.33	1.38
35	BA	2561	A	N9-C8	-5.65	1.33	1.37
1	AA	360	A	N1-C2	-5.65	1.29	1.34
1	AA	454	C	C5-C6	-5.65	1.29	1.34
1	AA	475	G	N7-C5	5.65	1.42	1.39
24	AY	297	GLU	CD-OE1	5.65	1.31	1.25
35	BA	177	G	C5-C4	-5.65	1.34	1.38
35	BA	272(B)	G	C5-C4	-5.65	1.34	1.38
35	BA	737	C	C5-C6	-5.65	1.29	1.34
35	BA	2049	G	C5-C4	-5.65	1.34	1.38
35	BA	2106	G	C8-N7	-5.65	1.27	1.30
35	BA	2685	G	N7-C5	5.65	1.42	1.39
35	BA	2756	U	C2-N3	5.65	1.41	1.37
1	AA	252	U	N1-C6	-5.65	1.32	1.38
1	AA	258	G	N3-C4	-5.65	1.31	1.35
1	AA	127	G	N9-C4	-5.65	1.33	1.38
1	AA	938	A	C5-C6	-5.65	1.35	1.41
35	BA	731	C	P-O5'	-5.65	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1048	A	N1-C2	-5.65	1.29	1.34
35	BA	1173	G	N9-C4	-5.65	1.33	1.38
35	BA	1632	A	N3-C4	-5.65	1.31	1.34
35	BA	2562	U	C4-C5	-5.65	1.38	1.43
35	BA	2842	G	N9-C4	-5.65	1.33	1.38
35	BA	801	G	C6-N1	-5.65	1.35	1.39
35	BA	1772	G	C4'-O4'	-5.65	1.38	1.45
36	BB	75	G	C2-N3	-5.64	1.28	1.32
1	AA	29	G	C8-N7	-5.64	1.27	1.30
1	AA	31	G	N1-C2	-5.64	1.33	1.37
1	AA	487	A	C4'-C3'	-5.64	1.47	1.52
1	AA	1394	A	N9-C4	-5.64	1.34	1.37
27	B2	20	GLU	CG-CD	-5.64	1.43	1.51
35	BA	398	G	N7-C5	-5.64	1.35	1.39
35	BA	654(D)	G	C8-N7	-5.64	1.27	1.30
35	BA	739	G	C5-C6	-5.64	1.36	1.42
35	BA	918	A	C5-C4	-5.64	1.34	1.38
35	BA	1089	G	C8-N7	-5.64	1.27	1.30
35	BA	1131	G	N3-C4	-5.64	1.31	1.35
35	BA	1254	A	N1-C2	-5.64	1.29	1.34
35	BA	1381	G	N3-C4	-5.64	1.31	1.35
35	BA	1534	U	C4-C5	-5.64	1.38	1.43
35	BA	1606	G	N3-C4	-5.64	1.31	1.35
35	BA	2396	G	C4'-C3'	-5.64	1.47	1.52
35	BA	2682	U	O3'-P	-5.64	1.54	1.61
1	AA	363	A	N3-C4	-5.64	1.31	1.34
1	AA	1098	C	N1-C6	-5.64	1.33	1.37
35	BA	1204	A	N3-C4	-5.64	1.31	1.34
35	BA	1207	C	P-O5'	-5.64	1.54	1.59
35	BA	2721	A	C2-N3	-5.64	1.28	1.33
1	AA	1229	A	C3'-C2'	-5.64	1.46	1.52
35	BA	1280	G	C2-N2	-5.64	1.28	1.34
35	BA	1471	A	C6-N1	-5.64	1.31	1.35
35	BA	2323	G	C2-N2	-5.64	1.28	1.34
35	BA	2334	G	C2-N2	-5.64	1.28	1.34
35	BA	2830	G	C6-N1	-5.64	1.35	1.39
35	BA	2811	G	N1-C2	-5.64	1.33	1.37
1	AA	189(J)	G	C2'-C1'	-5.64	1.47	1.53
1	AA	1376	U	C4'-O4'	-5.64	1.38	1.45
22	AV	14	A	N9-C8	5.64	1.42	1.37
35	BA	15	G	N3-C4	5.64	1.39	1.35
35	BA	52	A	N7-C5	-5.64	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	438	G	N9-C8	-5.64	1.33	1.37
35	BA	553	G	C3'-C2'	-5.64	1.46	1.52
35	BA	795	C	C5-C6	-5.64	1.29	1.34
35	BA	961	C	N1-C2	-5.64	1.34	1.40
35	BA	2149	G	N9-C8	-5.64	1.33	1.37
35	BA	2273	A	N9-C4	-5.64	1.34	1.37
1	AA	21	G	C2-N3	-5.63	1.28	1.32
35	BA	146	G	O4'-C1'	5.63	1.49	1.41
35	BA	739	G	C6-O6	-5.63	1.19	1.24
35	BA	1216	G	P-O5'	-5.63	1.54	1.59
35	BA	1845	G	C2-N3	-5.63	1.28	1.32
1	AA	703	G	N3-C4	-5.63	1.31	1.35
35	BA	269	U	C2-N3	-5.63	1.33	1.37
35	BA	1997	G	N1-C2	5.63	1.42	1.37
35	BA	2505	G	C2'-C1'	-5.63	1.47	1.53
1	AA	120	A	C8-N7	-5.63	1.27	1.31
1	AA	151	A	C8-N7	-5.63	1.27	1.31
1	AA	612	C	P-O5'	-5.63	1.54	1.59
1	AA	794	A	C8-N7	-5.63	1.27	1.31
1	AA	814	A	C4'-C3'	-5.63	1.47	1.52
1	AA	1318	A	C8-N7	-5.63	1.27	1.31
35	BA	1624	G	N7-C5	-5.63	1.35	1.39
35	BA	2032	G	C2-N2	-5.63	1.28	1.34
1	AA	774	G	C5-C4	-5.63	1.34	1.38
1	AA	587	G	C2-N3	-5.63	1.28	1.32
1	AA	1401	G	C5-C6	-5.63	1.36	1.42
1	AA	1460	A	C2-N3	-5.63	1.28	1.33
22	AV	38	A	C4'-C3'	-5.63	1.47	1.52
35	BA	363(A)	A	N9-C4	-5.63	1.34	1.37
35	BA	506	G	C2-N2	-5.63	1.28	1.34
35	BA	1790	C	C2-N3	-5.63	1.31	1.35
35	BA	2473	U	C4'-C3'	-5.63	1.47	1.52
35	BA	2746	U	C2-N3	-5.63	1.33	1.37
1	AA	97	G	N3-C4	-5.63	1.31	1.35
1	AA	790	A	C5-C6	-5.63	1.35	1.41
35	BA	466	A	C5-C4	-5.63	1.34	1.38
35	BA	607	U	N3-C4	-5.63	1.33	1.38
35	BA	2503	A	O3'-P	-5.63	1.54	1.61
35	BA	2744	G	C5'-C4'	-5.63	1.44	1.51
1	AA	616	G	N7-C5	-5.62	1.35	1.39
1	AA	989	C	N1-C6	5.62	1.40	1.37
35	BA	1466	G	C5-C4	-5.62	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1836	C	C3'-C2'	-5.62	1.46	1.52
35	BA	2495	G	N9-C4	-5.62	1.33	1.38
35	BA	2894	G	N7-C5	-5.62	1.35	1.39
1	AA	629	G	C6-N1	-5.62	1.35	1.39
1	AA	665	A	C2-N3	-5.62	1.28	1.33
1	AA	1240	U	C2-N3	-5.62	1.33	1.37
35	BA	330	A	C2-N3	-5.62	1.28	1.33
35	BA	1332	G	C6-O6	-5.62	1.19	1.24
35	BA	1801	G	C8-N7	-5.62	1.27	1.30
35	BA	1948	G	N1-C2	-5.62	1.33	1.37
35	BA	2436	G	C6-N1	-5.62	1.35	1.39
35	BA	2621	A	C6-N1	-5.62	1.31	1.35
35	BA	2707	G	C2-N2	-5.62	1.28	1.34
35	BA	396	G	N3-C4	-5.62	1.31	1.35
35	BA	1865	G	N9-C8	-5.62	1.33	1.37
22	AV	42	G	C2-N2	-5.62	1.28	1.34
1	AA	447	G	P-O5'	-5.62	1.54	1.59
35	BA	204	A	N3-C4	5.62	1.38	1.34
35	BA	435	C	N1-C2	-5.62	1.34	1.40
35	BA	1017	G	P-O5'	-5.62	1.54	1.59
35	BA	1320	C	O4'-C1'	-5.62	1.34	1.41
35	BA	1722	A	N7-C5	-5.62	1.35	1.39
35	BA	1964	G	N7-C5	-5.62	1.35	1.39
35	BA	2346	A	N7-C5	-5.62	1.35	1.39
38	BD	245	PRO	N-CD	-5.62	1.40	1.47
35	BA	22	C	C4-N4	-5.62	1.28	1.33
35	BA	98	G	C8-N7	-5.62	1.27	1.30
35	BA	190	A	N1-C2	-5.62	1.29	1.34
35	BA	1610	A	C6-N1	-5.62	1.31	1.35
35	BA	2882	A	C6-N1	-5.62	1.31	1.35
1	AA	250	A	N9-C8	-5.62	1.33	1.37
1	AA	295	C	N3-C4	-5.62	1.30	1.33
1	AA	1178	G	N1-C2	-5.62	1.33	1.37
1	AA	1213	A	N7-C5	5.62	1.42	1.39
1	AA	1367	C	N3-C4	-5.62	1.30	1.33
35	BA	886	C	C4-C5	-5.62	1.38	1.43
35	BA	1023	U	C5-C6	-5.62	1.29	1.34
35	BA	1350	C	C4'-C3'	-5.62	1.47	1.52
35	BA	1450(A)	C	C2-O2	-5.62	1.19	1.24
35	BA	1603	A	N9-C8	5.62	1.42	1.37
35	BA	1963	U	C4'-O4'	-5.62	1.38	1.45
35	BA	2070	G	N9-C8	-5.62	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1233	C	C4-N4	-5.61	1.28	1.33
35	BA	2286	A	C1'-N9	-5.61	1.39	1.46
1	AA	766	A	N7-C5	-5.61	1.35	1.39
35	BA	2117	A	C5-C4	-5.61	1.34	1.38
35	BA	2859	G	C8-N7	-5.61	1.27	1.30
36	BB	38	C	N3-C4	-5.61	1.30	1.33
48	BQ	41	TRP	CD2-CE2	-5.61	1.34	1.41
1	AA	681	C	C2-N3	-5.61	1.31	1.35
1	AA	1398	A	N3-C4	-5.61	1.31	1.34
35	BA	21	A	P-O5'	-5.61	1.54	1.59
35	BA	1283	G	C5-C4	-5.61	1.34	1.38
35	BA	1287	A	P-O5'	-5.61	1.54	1.59
35	BA	1643	G	C5-C4	-5.61	1.34	1.38
1	AA	1150	U	C4-O4	-5.61	1.19	1.23
35	BA	820	A	C2'-C1'	-5.61	1.47	1.53
35	BA	1417	C	C5-C6	-5.61	1.29	1.34
35	BA	2796	U	C2-N3	-5.61	1.33	1.37
1	AA	191	G	N9-C4	-5.61	1.33	1.38
1	AA	475	G	C2-N3	-5.61	1.28	1.32
1	AA	549	C	N3-C4	-5.61	1.30	1.33
1	AA	726	C	N3-C4	-5.61	1.30	1.33
1	AA	918	A	C2-N3	-5.61	1.28	1.33
1	AA	1369	C	P-O5'	-5.61	1.54	1.59
35	BA	972	G	N3-C4	-5.61	1.31	1.35
35	BA	1560	G	N3-C4	-5.61	1.31	1.35
35	BA	2031	A	C5-C4	-5.61	1.34	1.38
35	BA	2674	G	N3-C4	-5.61	1.31	1.35
1	AA	1363(A)	A	C8-N7	-5.60	1.27	1.31
35	BA	2108	C	C2'-O2'	-5.60	1.34	1.41
1	AA	376	G	O3'-P	-5.60	1.54	1.61
1	AA	562	C	C5-C6	-5.60	1.29	1.34
1	AA	1025	U	C5-C6	-5.60	1.29	1.34
35	BA	220	G	N9-C4	-5.60	1.33	1.38
35	BA	654(T)	C	C4-C5	-5.60	1.38	1.43
35	BA	2355	C	C4-C5	-5.60	1.38	1.43
35	BA	2621	A	N3-C4	-5.60	1.31	1.34
35	BA	1775	U	C2-N3	-5.60	1.33	1.37
1	AA	422	C	C4-N4	-5.60	1.28	1.33
1	AA	876	G	N7-C5	-5.60	1.35	1.39
35	BA	219	G	N7-C5	-5.60	1.35	1.39
35	BA	320	A	N7-C5	-5.60	1.35	1.39
35	BA	808	G	N3-C4	-5.60	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1072	C	C5-C6	5.60	1.38	1.34
35	BA	1117	G	C2'-C1'	-5.60	1.47	1.53
35	BA	1282	U	P-O5'	-5.60	1.54	1.59
35	BA	1926	U	C5'-C4'	-5.60	1.44	1.51
35	BA	2358	G	N7-C5	-5.60	1.35	1.39
35	BA	386	G	C8-N7	-5.60	1.27	1.30
35	BA	978	G	N1-C2	5.60	1.42	1.37
35	BA	1935	G	C5'-C4'	-5.60	1.44	1.51
1	AA	361	G	N1-C2	-5.60	1.33	1.37
1	AA	546	G	C2'-C1'	-5.60	1.47	1.53
1	AA	695	A	P-O5'	-5.60	1.54	1.59
35	BA	1952	A	N9-C8	-5.60	1.33	1.37
1	AA	549	C	C5'-C4'	-5.59	1.44	1.51
1	AA	822	C	C4'-C3'	-5.59	1.47	1.52
1	AA	1087	G	N7-C5	-5.59	1.35	1.39
35	BA	179	G	N7-C5	-5.59	1.35	1.39
35	BA	820	A	C5-C4	-5.59	1.34	1.38
35	BA	1115	G	C2-N3	-5.59	1.28	1.32
35	BA	1167	U	C5'-C4'	-5.59	1.44	1.51
35	BA	1485	G	N7-C5	-5.59	1.35	1.39
35	BA	2036	C	N3-C4	-5.59	1.30	1.33
36	BB	71	C	C2-N3	-5.59	1.31	1.35
1	AA	736	C	C4-C5	-5.59	1.38	1.43
1	AA	1458	G	C2-N2	-5.59	1.28	1.34
1	AA	1011	G	C8-N7	-5.59	1.27	1.30
22	AV	25	C	C4'-C3'	-5.59	1.47	1.52
22	AV	39	C	N1-C6	-5.59	1.33	1.37
35	BA	325	G	C6-O6	-5.59	1.19	1.24
35	BA	1232	G	P-O5'	-5.59	1.54	1.59
35	BA	1851	U	C2-O2	-5.59	1.17	1.22
1	AA	474	G	P-O5'	-5.59	1.54	1.59
1	AA	722	A	O3'-P	-5.59	1.54	1.61
35	BA	206	U	N3-C4	-5.59	1.33	1.38
35	BA	302	C	N3-C4	-5.59	1.30	1.33
35	BA	1370	C	C2-O2	5.59	1.29	1.24
35	BA	2696	U	C2-N3	-5.59	1.33	1.37
1	AA	1296	C	N3-C4	5.59	1.37	1.33
35	BA	717	G	C5-C6	-5.59	1.36	1.42
35	BA	1256	G	N7-C5	-5.59	1.35	1.39
35	BA	2380	C	C2-O2	-5.59	1.19	1.24
35	BA	2461	C	C2-O2	-5.59	1.19	1.24
35	BA	2846	G	N7-C5	-5.59	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	214	G	N3-C4	5.59	1.39	1.35
35	BA	379	G	C5-C4	-5.59	1.34	1.38
35	BA	657	U	C2'-O2'	-5.59	1.34	1.41
35	BA	763	G	C5-C4	-5.59	1.34	1.38
35	BA	1148	A	O3'-P	-5.59	1.54	1.61
35	BA	1221(A)	C	C4'-C3'	-5.59	1.47	1.52
35	BA	1689	A	N9-C4	-5.59	1.34	1.37
35	BA	2281	C	C4-N4	-5.59	1.28	1.33
35	BA	2772	C	C2'-C1'	-5.59	1.47	1.53
1	AA	941	G	C2-N3	-5.58	1.28	1.32
35	BA	148	C	C2-N3	-5.58	1.31	1.35
35	BA	523	C	N1-C6	-5.58	1.33	1.37
35	BA	541	C	C3'-O3'	-5.58	1.34	1.42
35	BA	2671	A	C6-N1	-5.58	1.31	1.35
1	AA	176	C	C4-N4	-5.58	1.28	1.33
1	AA	776	G	N1-C2	5.58	1.42	1.37
1	AA	1273	G	N9-C4	-5.58	1.33	1.38
35	BA	269	U	C4'-C3'	-5.58	1.47	1.52
35	BA	522	G	C3'-C2'	-5.58	1.46	1.52
35	BA	576	U	N1-C2	-5.58	1.33	1.38
35	BA	664	C	C4-C5	-5.58	1.38	1.43
35	BA	1244	G	N3-C4	-5.58	1.31	1.35
35	BA	1372	U	C4'-C3'	-5.58	1.47	1.52
35	BA	1602	U	C2'-C1'	-5.58	1.47	1.53
35	BA	1621	U	N1-C2	-5.58	1.33	1.38
35	BA	1934	C	P-O5'	-5.58	1.54	1.59
35	BA	2319	G	N3-C4	-5.58	1.31	1.35
35	BA	2360	A	C4'-C3'	-5.58	1.47	1.52
35	BA	2692	C	C2'-C1'	-5.58	1.47	1.53
1	AA	64	G	N7-C5	-5.58	1.35	1.39
1	AA	616	G	C6-N1	-5.58	1.35	1.39
1	AA	1102	A	C8-N7	-5.58	1.27	1.31
1	AA	1112	C	O3'-P	-5.58	1.54	1.61
23	AX	14	A	N7-C5	-5.58	1.35	1.39
23	AX	19	U	N3-C4	-5.58	1.33	1.38
35	BA	10	G	N7-C5	-5.58	1.35	1.39
35	BA	1212	G	N1-C2	-5.58	1.33	1.37
35	BA	1226	A	C5-C6	-5.58	1.36	1.41
35	BA	2158	A	C5-C6	-5.58	1.36	1.41
35	BA	2329	G	C5-C4	-5.58	1.34	1.38
35	BA	2363	C	N1-C2	-5.58	1.34	1.40
35	BA	2654	A	C6-N6	-5.58	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2851	A	N9-C8	-5.58	1.33	1.37
1	AA	778	G	N9-C4	-5.58	1.33	1.38
1	AA	1099	G	C8-N7	-5.58	1.27	1.30
1	AA	1106	G	N3-C4	-5.58	1.31	1.35
35	BA	94	C	C5-C6	-5.58	1.29	1.34
35	BA	427	U	C4-C5	-5.58	1.38	1.43
35	BA	673	C	N3-C4	-5.58	1.30	1.33
35	BA	1865	G	C8-N7	-5.58	1.27	1.30
35	BA	1904	G	N3-C4	-5.58	1.31	1.35
35	BA	2133	G	C8-N7	-5.58	1.27	1.30
35	BA	2337	G	C8-N7	-5.58	1.27	1.30
35	BA	2450	A	N1-C2	-5.58	1.29	1.34
1	AA	1271	G	C6-N1	-5.58	1.35	1.39
35	BA	609	A	C6-N6	-5.58	1.29	1.33
35	BA	272(A)	U	N3-C4	5.58	1.43	1.38
1	AA	441	A	C6-N1	-5.57	1.31	1.35
1	AA	740	U	C4-C5	-5.57	1.38	1.43
1	AA	1438	G	N9-C8	-5.57	1.33	1.37
35	BA	921	G	N9-C8	-5.57	1.33	1.37
35	BA	1403	C	C2-O2	-5.57	1.19	1.24
35	BA	1461	G	N9-C8	-5.57	1.33	1.37
35	BA	1549	C	C5-C6	-5.57	1.29	1.34
35	BA	2038	G	N9-C4	-5.57	1.33	1.38
1	AA	645	C	N1-C6	-5.57	1.33	1.37
1	AA	1246	C	N1-C6	-5.57	1.33	1.37
35	BA	803	U	N3-C4	-5.57	1.33	1.38
35	BA	1587	A	C3'-C2'	-5.57	1.46	1.52
36	BB	3	C	N1-C6	-5.57	1.33	1.37
1	AA	570	G	C2-N2	-5.57	1.28	1.34
1	AA	885	G	C5'-C4'	-5.57	1.44	1.51
1	AA	1334	G	C8-N7	-5.57	1.27	1.30
35	BA	2131	G	C8-N7	-5.57	1.27	1.30
35	BA	2307	G	C5-C4	-5.57	1.34	1.38
1	AA	21	G	N9-C4	-5.57	1.33	1.38
35	BA	1103	A	N1-C2	-5.57	1.29	1.34
1	AA	329	A	N9-C4	5.57	1.41	1.37
35	BA	2288	A	C6-N6	-5.57	1.29	1.33
1	AA	580	U	C4-O4	-5.57	1.19	1.23
1	AA	1275	A	N1-C2	-5.57	1.29	1.34
35	BA	2506	U	C4-O4	-5.57	1.19	1.23
35	BA	2820	A	C5-C6	-5.57	1.36	1.41
1	AA	1021	G	C8-N7	-5.56	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1358	U	O3'-P	-5.56	1.54	1.61
35	BA	55	G	C2'-O2'	-5.56	1.34	1.41
35	BA	1235	G	C8-N7	-5.56	1.27	1.30
35	BA	2390	U	C2-N3	-5.56	1.33	1.37
35	BA	2837	G	C8-N7	-5.56	1.27	1.30
1	AA	140	A	N9-C8	5.56	1.42	1.37
1	AA	1092	A	N7-C5	-5.56	1.35	1.39
1	AA	1184	G	N7-C5	-5.56	1.35	1.39
1	AA	1195	C	C4'-C3'	-5.56	1.47	1.52
35	BA	450	G	C2'-C1'	-5.56	1.47	1.53
35	BA	613	G	N7-C5	-5.56	1.35	1.39
35	BA	1120	G	N7-C5	-5.56	1.35	1.39
35	BA	1425	G	O3'-P	-5.56	1.54	1.61
35	BA	1508	A	N9-C8	-5.56	1.33	1.37
35	BA	1701	A	C2'-C1'	-5.56	1.47	1.53
35	BA	2883	A	N7-C5	-5.56	1.35	1.39
1	AA	874	G	C5-C4	-5.56	1.34	1.38
1	AA	1394	A	C2-N3	5.56	1.38	1.33
35	BA	982	C	N3-C4	-5.56	1.30	1.33
35	BA	1200	C	N3-C4	-5.56	1.30	1.33
35	BA	1608	A	N9-C4	-5.56	1.34	1.37
35	BA	1653	G	C5-C4	-5.56	1.34	1.38
35	BA	2409	G	C2-N3	-5.56	1.28	1.32
1	AA	340	U	C4-O4	-5.56	1.19	1.23
1	AA	379	C	N1-C6	-5.56	1.33	1.37
1	AA	448	A	C4'-C3'	-5.56	1.47	1.52
1	AA	1018	C	P-O5'	-5.56	1.54	1.59
35	BA	290	G	O3'-P	-5.56	1.54	1.61
35	BA	870	A	N3-C4	-5.56	1.31	1.34
35	BA	1641	A	N3-C4	-5.56	1.31	1.34
35	BA	2069	G	C5-C4	5.56	1.42	1.38
35	BA	2279	G	C6-O6	-5.56	1.19	1.24
36	BB	55	U	C3'-C2'	-5.56	1.46	1.52
1	AA	357	G	N9-C8	-5.56	1.33	1.37
1	AA	1183	A	C5-C4	-5.56	1.34	1.38
35	BA	1057	A	C2-N3	-5.56	1.28	1.33
35	BA	1254	A	N9-C8	-5.56	1.33	1.37
35	BA	1973	G	N1-C2	-5.56	1.33	1.37
36	BB	82	G	N1-C2	-5.56	1.33	1.37
35	BA	489	G	O3'-P	-5.56	1.54	1.61
35	BA	502	A	C4'-C3'	-5.56	1.47	1.52
35	BA	2190	G	C6-N1	-5.56	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2221	G	C3'-C2'	-5.56	1.46	1.52
35	BA	2762	G	C6-N1	-5.56	1.35	1.39
1	AA	231	G	C5-C6	-5.55	1.36	1.42
1	AA	926	G	C5-C6	-5.55	1.36	1.42
35	BA	883	G	N9-C4	-5.55	1.33	1.38
35	BA	1095	A	N9-C4	-5.55	1.34	1.37
35	BA	1324	G	N1-C2	-5.55	1.33	1.37
35	BA	1331	A	N9-C8	-5.55	1.33	1.37
35	BA	1741	A	N9-C4	-5.55	1.34	1.37
35	BA	1831	G	N1-C2	-5.55	1.33	1.37
35	BA	2187	G	C6-O6	-5.55	1.19	1.24
35	BA	2156	G	P-O5'	-5.55	1.54	1.59
1	AA	1504	G	C3'-O3'	-5.55	1.34	1.42
1	AA	52	G	C6-O6	-5.55	1.19	1.24
1	AA	151	A	N9-C8	-5.55	1.33	1.37
1	AA	189(H)	G	N3-C4	5.55	1.39	1.35
1	AA	1171	G	N1-C2	-5.55	1.33	1.37
35	BA	469	G	C5-C4	-5.55	1.34	1.38
35	BA	590	A	C5-C6	-5.55	1.36	1.41
35	BA	706	A	C5-C6	-5.55	1.36	1.41
35	BA	867	C	C5-C6	-5.55	1.29	1.34
35	BA	884	C	C5-C6	-5.55	1.29	1.34
35	BA	1183	G	C6-O6	-5.55	1.19	1.24
1	AA	439	A	C3'-O3'	-5.55	1.34	1.42
1	AA	1254	C	C4-N4	-5.55	1.28	1.33
35	BA	1531	C	C4-C5	-5.55	1.38	1.43
1	AA	460	G	C8-N7	5.55	1.34	1.30
1	AA	540	G	C2-N3	-5.55	1.28	1.32
1	AA	541	G	C2-N3	-5.55	1.28	1.32
1	AA	550	G	C2-N3	-5.55	1.28	1.32
1	AA	801	U	C5-C6	-5.55	1.29	1.34
1	AA	1081	G	C2-N2	-5.55	1.29	1.34
35	BA	399	G	C2-N2	-5.55	1.29	1.34
35	BA	423	A	C5-C4	-5.55	1.34	1.38
35	BA	772	C	C3'-C2'	-5.55	1.46	1.52
35	BA	1031	G	C3'-C2'	-5.55	1.46	1.52
35	BA	1191	G	C3'-C2'	-5.55	1.46	1.52
1	AA	684	A	O3'-P	-5.54	1.54	1.61
35	BA	1164	G	C5-C4	-5.54	1.34	1.38
35	BA	1456	G	C5-C4	-5.54	1.34	1.38
1	AA	189(A)	C	P-O5'	-5.54	1.54	1.59
1	AA	965	A	P-O5'	-5.54	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1225	G	P-O5'	-5.54	1.54	1.59
35	BA	1426	G	N1-C2	-5.54	1.33	1.37
35	BA	2400	G	N9-C8	5.54	1.41	1.37
1	AA	65	U	C2-N3	-5.54	1.33	1.37
1	AA	480	U	C2-N3	-5.54	1.33	1.37
1	AA	1323	G	C8-N7	5.54	1.34	1.30
35	BA	27	G	N9-C8	-5.54	1.33	1.37
35	BA	55	G	N9-C8	-5.54	1.33	1.37
35	BA	157	U	C2-N3	-5.54	1.33	1.37
35	BA	520	G	N9-C4	5.54	1.42	1.38
35	BA	604	G	C2-N3	-5.54	1.28	1.32
35	BA	1170	G	C8-N7	5.54	1.34	1.30
35	BA	2428	G	N9-C8	-5.54	1.33	1.37
35	BA	2566	A	C6-N1	-5.54	1.31	1.35
35	BA	2794	C	C2-N3	-5.54	1.31	1.35
36	BB	65	C	N1-C6	-5.54	1.33	1.37
1	AA	475	G	C6-N1	-5.54	1.35	1.39
1	AA	729	A	N9-C8	-5.54	1.33	1.37
35	BA	363(F)	A	N9-C8	-5.54	1.33	1.37
35	BA	2447	G	C5-C4	5.54	1.42	1.38
1	AA	193	C	N3-C4	-5.54	1.30	1.33
1	AA	338	A	C4'-C3'	-5.54	1.47	1.52
1	AA	888	G	N7-C5	-5.54	1.35	1.39
35	BA	272(I)	U	C4-O4	-5.54	1.19	1.23
35	BA	703	U	C4-O4	-5.54	1.19	1.23
35	BA	706	A	C4'-C3'	-5.54	1.47	1.52
35	BA	1381	G	N7-C5	-5.54	1.35	1.39
35	BA	2042	A	N3-C4	-5.54	1.31	1.34
35	BA	2391	G	N7-C5	-5.54	1.35	1.39
35	BA	2623	G	N7-C5	-5.54	1.35	1.39
1	AA	264	U	C4'-O4'	-5.54	1.38	1.45
35	BA	581	C	C2-O2	-5.54	1.19	1.24
35	BA	1504	C	P-O5'	-5.54	1.54	1.59
35	BA	2169	A	C8-N7	-5.54	1.27	1.31
1	AA	92	C	O3'-P	-5.54	1.54	1.61
1	AA	511	C	C4-N4	-5.54	1.28	1.33
1	AA	805	C	O4'-C1'	-5.54	1.34	1.41
1	AA	1113	C	C4-N4	-5.54	1.28	1.33
35	BA	1185	C	C5'-C4'	-5.54	1.44	1.51
35	BA	2337	G	N9-C8	-5.54	1.33	1.37
35	BA	2447	G	C1'-N9	-5.54	1.39	1.46
1	AA	510	A	C4'-O4'	-5.53	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	876	G	C5-C4	-5.53	1.34	1.38
1	AA	1360	A	N9-C4	5.53	1.41	1.37
1	AA	1501	C	C4'-C3'	-5.53	1.47	1.52
22	AV	22	G	C5-C4	-5.53	1.34	1.38
35	BA	304	G	C2'-C1'	-5.53	1.47	1.53
35	BA	1670	C	C4-C5	-5.53	1.38	1.43
35	BA	2097	C	C5'-C4'	-5.53	1.44	1.51
35	BA	2207	G	C5-C4	-5.53	1.34	1.38
35	BA	2525	G	C4'-C3'	-5.53	1.47	1.52
35	BA	2779	U	C5-C6	-5.53	1.29	1.34
35	BA	306	U	P-OP2	5.53	1.58	1.49
36	BB	95	C	N1-C2	-5.53	1.34	1.40
1	AA	1440	C	C2'-C1'	-5.53	1.47	1.53
35	BA	1658	C	C4'-O4'	-5.53	1.38	1.45
35	BA	1971	A	C6-N1	-5.53	1.31	1.35
35	BA	2871	C	C4-C5	-5.53	1.38	1.43
1	AA	309	G	C5-C6	-5.53	1.36	1.42
35	BA	636	G	N3-C4	-5.53	1.31	1.35
35	BA	1455	G	C3'-O3'	-5.53	1.34	1.42
35	BA	1980	G	N3-C4	-5.53	1.31	1.35
35	BA	2002	G	N3-C4	-5.53	1.31	1.35
35	BA	2246	G	N3-C4	-5.53	1.31	1.35
1	AA	732	C	C5'-C4'	-5.53	1.44	1.51
35	BA	377	C	N3-C4	-5.53	1.30	1.33
35	BA	694	U	N1-C6	-5.53	1.32	1.38
35	BA	705	A	C5-C6	-5.53	1.36	1.41
35	BA	739	G	C2'-O2'	-5.53	1.34	1.41
35	BA	2493	U	C3'-O3'	-5.53	1.34	1.42
1	AA	487	A	N9-C8	-5.53	1.33	1.37
1	AA	536	C	C3'-C2'	-5.53	1.46	1.52
1	AA	575	G	C4'-C3'	-5.53	1.47	1.52
1	AA	649	G	N1-C2	-5.53	1.33	1.37
1	AA	892	A	C6-N1	-5.53	1.31	1.35
1	AA	959	A	C5-C4	-5.53	1.34	1.38
1	AA	1289	A	C3'-C2'	-5.53	1.46	1.52
35	BA	956	G	C2-N3	-5.53	1.28	1.32
35	BA	1174	A	N1-C2	-5.53	1.29	1.34
35	BA	2757	A	C3'-C2'	-5.53	1.46	1.52
35	BA	667	U	C5-C6	-5.52	1.29	1.34
35	BA	677	A	C5-C6	-5.52	1.36	1.41
35	BA	1341	U	C2'-O2'	-5.52	1.34	1.41
35	BA	420	C	N3-C4	-5.52	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1626	G	C3'-C2'	-5.52	1.46	1.52
35	BA	2619	C	C4'-C3'	-5.52	1.47	1.52
35	BA	2700	C	N3-C4	-5.52	1.30	1.33
1	AA	579	G	N1-C2	-5.52	1.33	1.37
1	AA	774	G	C2'-C1'	-5.52	1.47	1.53
35	BA	173	G	C6-O6	-5.52	1.19	1.24
35	BA	873	G	N7-C5	5.52	1.42	1.39
35	BA	877	U	C2-N3	-5.52	1.33	1.37
35	BA	1489	U	C2'-C1'	-5.52	1.47	1.53
35	BA	1500	G	N1-C2	-5.52	1.33	1.37
1	AA	22	G	C2-N2	-5.52	1.29	1.34
1	AA	39	G	C2-N2	-5.52	1.29	1.34
1	AA	734	G	C6-N1	-5.52	1.35	1.39
1	AA	1457	G	N7-C5	-5.52	1.35	1.39
35	BA	938	G	N9-C8	-5.52	1.33	1.37
35	BA	1227	G	C2-N2	-5.52	1.29	1.34
35	BA	1409	C	C5'-C4'	-5.52	1.44	1.51
35	BA	2577	A	C8-N7	-5.52	1.27	1.31
35	BA	2659	G	C8-N7	-5.52	1.27	1.30
1	AA	156	G	C2-N3	-5.52	1.28	1.32
1	AA	259	G	N3-C4	-5.52	1.31	1.35
1	AA	1177	G	N9-C8	5.52	1.41	1.37
1	AA	1355	G	N3-C4	-5.52	1.31	1.35
35	BA	110	G	N9-C4	-5.52	1.33	1.38
35	BA	318	C	N3-C4	-5.52	1.30	1.33
35	BA	1072	C	C4-N4	-5.52	1.28	1.33
35	BA	2727	G	C5-C4	-5.52	1.34	1.38
1	AA	1355	G	C3'-C2'	-5.52	1.46	1.52
35	BA	1083	U	N1-C2	-5.52	1.33	1.38
35	BA	1374	G	O3'-P	-5.52	1.54	1.61
35	BA	2180	U	C2-O2	-5.52	1.17	1.22
35	BA	2288	A	C5-C6	-5.52	1.36	1.41
1	AA	132	C	P-O5'	-5.51	1.54	1.59
22	AV	27	U	C4-C5	-5.51	1.38	1.43
22	AV	38	A	C8-N7	-5.51	1.27	1.31
35	BA	235	U	C4'-O4'	-5.51	1.38	1.45
35	BA	2342	C	C2-O2	-5.51	1.19	1.24
35	BA	2551	C	C4-N4	5.51	1.39	1.33
35	BA	2635	C	P-O5'	-5.51	1.54	1.59
35	BA	2694	G	C6-N1	-5.51	1.35	1.39
1	AA	12	U	C2-O2	5.51	1.27	1.22
35	BA	26	G	N3-C4	-5.51	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	185	A	C6-N6	5.51	1.38	1.33
1	AA	836	G	C8-N7	-5.51	1.27	1.30
1	AA	956	U	C4'-O4'	-5.51	1.38	1.45
1	AA	1290	G	C8-N7	-5.51	1.27	1.30
35	BA	370	G	C6-O6	-5.51	1.19	1.24
35	BA	1520	G	P-O5'	-5.51	1.54	1.59
35	BA	2433	A	N9-C4	-5.51	1.34	1.37
52	BU	33	ARG	NE-CZ	-5.51	1.25	1.33
1	AA	27	G	N9-C8	-5.51	1.33	1.37
1	AA	384	G	N3-C4	5.51	1.39	1.35
1	AA	706	A	N3-C4	5.51	1.38	1.34
1	AA	1061	G	C3'-C2'	-5.51	1.46	1.52
1	AA	1163	C	C5'-C4'	-5.51	1.44	1.51
35	BA	393	C	C5-C6	5.51	1.38	1.34
35	BA	1158	C	C4'-C3'	-5.51	1.47	1.52
35	BA	1909	C	C2-O2	-5.51	1.19	1.24
1	AA	764	C	P-O5'	-5.51	1.54	1.59
1	AA	1000	U	C4-O4	-5.51	1.19	1.23
1	AA	103	C	N1-C6	5.51	1.40	1.37
1	AA	906	G	C8-N7	-5.51	1.27	1.30
35	BA	385	C	C4-C5	-5.51	1.38	1.43
35	BA	1072	C	C4-C5	-5.51	1.38	1.43
35	BA	1973	G	C3'-C2'	-5.51	1.46	1.52
35	BA	1974	C	C4-C5	-5.51	1.38	1.43
35	BA	2074	U	P-OP1	5.51	1.58	1.49
35	BA	2291	U	N1-C2	5.51	1.43	1.38
35	BA	2362	G	C2'-C1'	-5.51	1.47	1.53
1	AA	1513	A	P-O5'	-5.50	1.54	1.59
35	BA	874	G	C4'-C3'	-5.50	1.47	1.52
35	BA	1766	U	N3-C4	-5.50	1.33	1.38
35	BA	2846	G	C4'-C3'	-5.50	1.47	1.52
1	AA	630	G	N3-C4	5.50	1.39	1.35
35	BA	298	G	C5-C6	-5.50	1.36	1.42
35	BA	672	C	C2-N3	-5.50	1.31	1.35
35	BA	1742	G	N9-C8	-5.50	1.33	1.37
35	BA	1863	G	N9-C4	-5.50	1.33	1.38
35	BA	2784	C	C5'-C4'	-5.50	1.44	1.51
35	BA	2880	C	C2-N3	-5.50	1.31	1.35
1	AA	136	C	C5-C6	-5.50	1.29	1.34
1	AA	389	A	P-O5'	-5.50	1.54	1.59
1	AA	878	G	N7-C5	-5.50	1.35	1.39
1	AA	931	C	C4'-C3'	-5.50	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	504	U	C2-O2	-5.50	1.17	1.22
35	BA	771	G	N7-C5	-5.50	1.35	1.39
35	BA	781	A	N3-C4	-5.50	1.31	1.34
35	BA	1194	A	C2-N3	-5.50	1.28	1.33
35	BA	1257	C	N3-C4	-5.50	1.30	1.33
35	BA	1350	C	N3-C4	-5.50	1.30	1.33
35	BA	2079	U	C4-C5	-5.50	1.38	1.43
35	BA	2636	U	C4-C5	-5.50	1.38	1.43
35	BA	2737	G	N7-C5	-5.50	1.35	1.39
35	BA	2838	G	C5-C4	-5.50	1.34	1.38
1	AA	155	C	C2-O2	-5.50	1.19	1.24
35	BA	1299	G	C2'-C1'	5.50	1.59	1.53
1	AA	1012	U	N1-C6	-5.50	1.33	1.38
1	AA	1333	A	C5-C4	-5.50	1.34	1.38
35	BA	71	A	C5-C4	-5.50	1.34	1.38
35	BA	238	C	N1-C2	-5.50	1.34	1.40
35	BA	372	G	C6-N1	-5.50	1.35	1.39
35	BA	1992	G	N9-C4	-5.50	1.33	1.38
1	AA	896	C	C5-C6	-5.50	1.29	1.34
35	BA	763	G	N3-C4	-5.50	1.31	1.35
35	BA	1337	G	C2-N2	-5.50	1.29	1.34
35	BA	1785	A	N1-C2	-5.50	1.29	1.34
35	BA	2615	U	C4-O4	-5.50	1.19	1.23
1	AA	325	A	C4'-C3'	-5.50	1.47	1.52
1	AA	656	C	C2-O2	-5.50	1.19	1.24
1	AA	1329	A	N7-C5	-5.50	1.35	1.39
1	AA	1501	C	C2-O2	-5.50	1.19	1.24
35	BA	1903	G	N7-C5	-5.50	1.35	1.39
35	BA	2421	G	N7-C5	-5.50	1.35	1.39
35	BA	2693	A	N7-C5	-5.50	1.35	1.39
35	BA	179	G	N9-C8	-5.49	1.34	1.37
1	AA	231	G	C8-N7	-5.49	1.27	1.30
1	AA	292	G	C6-N1	-5.49	1.35	1.39
1	AA	360	A	C4'-C3'	-5.49	1.47	1.52
1	AA	1190	G	C6-N1	-5.49	1.35	1.39
1	AA	1218	C	C4'-C3'	-5.49	1.47	1.52
35	BA	841	A	C8-N7	5.49	1.35	1.31
35	BA	1864	U	P-O5'	-5.49	1.54	1.59
35	BA	2714	G	C8-N7	-5.49	1.27	1.30
35	BA	2780	G	C8-N7	-5.49	1.27	1.30
1	AA	483	C	O4'-C1'	-5.49	1.34	1.41
1	AA	810	C	N1-C6	-5.49	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1293	G	N3-C4	-5.49	1.31	1.35
35	BA	151	C	N1-C6	-5.49	1.33	1.37
35	BA	594	U	O4'-C1'	-5.49	1.34	1.41
35	BA	700	G	O3'-P	-5.49	1.54	1.61
35	BA	1813	G	C5-C4	-5.49	1.34	1.38
35	BA	2688	U	N1-C2	-5.49	1.33	1.38
1	AA	163	C	C4-C5	-5.49	1.38	1.43
1	AA	1040	U	P-O5'	-5.49	1.54	1.59
35	BA	596	G	N1-C2	-5.49	1.33	1.37
35	BA	599	G	C6-O6	-5.49	1.19	1.24
35	BA	819	A	N3-C4	-5.49	1.31	1.34
35	BA	875	G	C2-N2	-5.49	1.29	1.34
35	BA	931	G	P-O5'	-5.49	1.54	1.59
35	BA	1085	A	N9-C8	-5.49	1.33	1.37
35	BA	1747	G	N9-C4	-5.49	1.33	1.38
35	BA	1990	C	C4-C5	-5.49	1.38	1.43
35	BA	2063	C	P-O5'	-5.49	1.54	1.59
35	BA	2074	U	C2-N3	-5.49	1.33	1.37
35	BA	2686	G	C2-N2	-5.49	1.29	1.34
35	BA	2883	A	C2-N3	-5.49	1.28	1.33
35	BA	414	C	C2'-C1'	-5.49	1.47	1.53
35	BA	428	A	C2'-O2'	-5.49	1.34	1.41
35	BA	1533	G	C2'-C1'	-5.49	1.47	1.53
35	BA	1628	G	N9-C8	5.49	1.41	1.37
1	AA	200	G	C8-N7	-5.49	1.27	1.30
1	AA	521	G	C5-C6	-5.49	1.36	1.42
1	AA	1094	G	C5-C6	-5.49	1.36	1.42
1	AA	1411	C	N1-C6	-5.49	1.33	1.37
1	AA	1504	G	C5-C6	-5.49	1.36	1.42
35	BA	280	C	C2-N3	-5.49	1.31	1.35
35	BA	977	G	C4'-C3'	-5.49	1.47	1.52
35	BA	1381	G	C8-N7	-5.49	1.27	1.30
35	BA	1765	C	C2-N3	-5.49	1.31	1.35
35	BA	2236	C	C2-N3	-5.49	1.31	1.35
1	AA	1045	C	N3-C4	-5.48	1.30	1.33
35	BA	1486	A	C6-N1	5.48	1.39	1.35
35	BA	1584	C	N3-C4	-5.48	1.30	1.33
35	BA	2855	C	N1-C2	-5.48	1.34	1.40
1	AA	9	G	C3'-C2'	-5.48	1.46	1.52
1	AA	50	A	N9-C8	-5.48	1.33	1.37
1	AA	401	C	C4-N4	-5.48	1.29	1.33
1	AA	1428	A	N9-C8	-5.48	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	88	G	C2-N3	-5.48	1.28	1.32
35	BA	154	G	N7-C5	-5.48	1.35	1.39
35	BA	654(T)	C	C4-N4	-5.48	1.29	1.33
35	BA	1750	G	C6-N1	-5.48	1.35	1.39
35	BA	1962	C	C5-C6	-5.48	1.29	1.34
35	BA	2199	A	C5-C4	-5.48	1.34	1.38
35	BA	2638	G	N1-C2	5.48	1.42	1.37
35	BA	2644	G	N7-C5	-5.48	1.35	1.39
35	BA	2867	G	C6-N1	-5.48	1.35	1.39
35	BA	88	G	C5-C4	-5.48	1.34	1.38
35	BA	229	A	C6-N6	5.48	1.38	1.33
35	BA	914	C	C5'-C4'	-5.48	1.44	1.51
35	BA	1364	G	C4'-C3'	-5.48	1.47	1.52
35	BA	1943	U	C5-C6	-5.48	1.29	1.34
35	BA	2362	G	N3-C4	-5.48	1.31	1.35
35	BA	2497	A	N9-C4	-5.48	1.34	1.37
1	AA	1261	A	C5-C6	-5.48	1.36	1.41
35	BA	391	G	N9-C4	-5.48	1.33	1.38
1	AA	790	A	C5-C4	5.48	1.42	1.38
1	AA	1468	A	N9-C8	-5.48	1.33	1.37
35	BA	960	A	C5-C4	-5.48	1.34	1.38
22	AV	31	G	C5-C4	-5.48	1.34	1.38
35	BA	850	C	C4-C5	5.48	1.47	1.43
35	BA	1947	C	C2-O2	-5.48	1.19	1.24
1	AA	547	A	N1-C2	-5.47	1.29	1.34
1	AA	996	A	C8-N7	-5.47	1.27	1.31
1	AA	1010	G	N9-C4	-5.47	1.33	1.38
35	BA	501	A	N1-C2	-5.47	1.29	1.34
35	BA	1071	G	N9-C4	-5.47	1.33	1.38
35	BA	2747	G	N1-C2	-5.47	1.33	1.37
35	BA	297	C	N3-C4	-5.47	1.30	1.33
35	BA	720	C	N1-C6	-5.47	1.33	1.37
35	BA	1622	G	C2-N3	-5.47	1.28	1.32
35	BA	1908	C	N3-C4	-5.47	1.30	1.33
35	BA	2468	G	C2-N3	-5.47	1.28	1.32
35	BA	2708	G	C2-N2	-5.47	1.29	1.34
1	AA	61	G	C6-N1	-5.47	1.35	1.39
1	AA	753	A	N7-C5	-5.47	1.35	1.39
22	AV	13	C	C4-C5	-5.47	1.38	1.43
35	BA	765	G	N9-C8	-5.47	1.34	1.37
35	BA	2706	G	N7-C5	-5.47	1.35	1.39
1	AA	189(E)	U	N1-C6	-5.47	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	609	A	O3'-P	-5.47	1.54	1.61
35	BA	728	G	C4'-O4'	-5.47	1.38	1.45
35	BA	1612	C	C4-N4	-5.47	1.29	1.33
35	BA	1774	C	N3-C4	5.47	1.37	1.33
35	BA	2350	C	O3'-P	-5.47	1.54	1.61
46	BO	95	GLY	N-CA	-5.47	1.37	1.46
1	AA	259	G	N7-C5	5.47	1.42	1.39
35	BA	380	U	C4'-C3'	-5.47	1.47	1.52
1	AA	713	G	C8-N7	5.47	1.34	1.30
1	AA	999	C	C2-N3	-5.47	1.31	1.35
1	AA	1104	G	C8-N7	-5.47	1.27	1.30
1	AA	1203	C	N1-C6	-5.47	1.33	1.37
35	BA	695	G	C2'-C1'	-5.47	1.47	1.53
35	BA	1127	A	C5-C4	-5.47	1.34	1.38
35	BA	1359	A	O4'-C1'	-5.47	1.34	1.41
35	BA	1844	C	C4-N4	-5.47	1.29	1.33
1	AA	515	G	C5-C4	-5.46	1.34	1.38
1	AA	596	C	O3'-P	-5.46	1.54	1.61
1	AA	655	A	C4'-C3'	-5.46	1.47	1.52
1	AA	742	G	N7-C5	-5.46	1.35	1.39
1	AA	1422	G	C5-C4	5.46	1.42	1.38
1	AA	1497	G	N7-C5	-5.46	1.35	1.39
35	BA	417	C	N1-C6	5.46	1.40	1.37
35	BA	538	G	N9-C4	-5.46	1.33	1.38
35	BA	2222	G	N7-C5	-5.46	1.35	1.39
35	BA	2255	G	C5-C4	-5.46	1.34	1.38
35	BA	2633	G	C5-C4	-5.46	1.34	1.38
35	BA	2834	G	C6-O6	-5.46	1.19	1.24
1	AA	1030(C)	G	C3'-C2'	-5.46	1.46	1.52
35	BA	2469	A	C3'-C2'	-5.46	1.46	1.52
1	AA	104	G	P-O5'	-5.46	1.54	1.59
1	AA	761	G	C2-N2	-5.46	1.29	1.34
1	AA	1287	A	C5-C4	-5.46	1.34	1.38
35	BA	2477	C	C2-O2	5.46	1.29	1.24
35	BA	2781	A	N1-C2	-5.46	1.29	1.34
1	AA	320	C	N1-C6	-5.46	1.33	1.37
1	AA	673	G	C2'-C1'	-5.46	1.47	1.53
1	AA	730	G	C2'-C1'	-5.46	1.47	1.53
1	AA	1229	A	C6-N1	-5.46	1.31	1.35
1	AA	1256	A	C6-N1	-5.46	1.31	1.35
35	BA	654(N)	G	C8-N7	5.46	1.34	1.30
35	BA	919	G	C8-N7	-5.46	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1006	C	N1-C6	-5.46	1.33	1.37
35	BA	1311	G	C5-C4	-5.46	1.34	1.38
35	BA	2387	U	N3-C4	-5.46	1.33	1.38
1	AA	189(D)	C	C4-C5	-5.46	1.38	1.43
35	BA	595	C	C4-C5	-5.46	1.38	1.43
35	BA	1303	G	N3-C4	-5.46	1.31	1.35
35	BA	2424	C	C4-C5	-5.46	1.38	1.43
35	BA	2518	A	C5-C6	-5.46	1.36	1.41
1	AA	758	G	N9-C4	-5.46	1.33	1.38
22	AV	14	A	C2'-C1'	-5.46	1.47	1.53
35	BA	716	A	C5-C4	-5.46	1.34	1.38
35	BA	837	C	C4'-O4'	-5.46	1.38	1.45
35	BA	984	A	C6-N6	-5.46	1.29	1.33
35	BA	1989	G	C2-N2	-5.46	1.29	1.34
35	BA	2231	C	N3-C4	-5.46	1.30	1.33
1	AA	1366	C	O4'-C1'	-5.46	1.34	1.41
35	BA	2603	G	N1-C2	-5.46	1.33	1.37
1	AA	410	G	C2-N2	-5.45	1.29	1.34
1	AA	687	A	C8-N7	-5.45	1.27	1.31
1	AA	1221	G	P-O5'	-5.45	1.54	1.59
2	AB	35	GLU	CD-OE1	-5.45	1.19	1.25
35	BA	643	A	P-O5'	-5.45	1.54	1.59
35	BA	1087	G	C8-N7	-5.45	1.27	1.30
35	BA	1170	G	C2-N2	-5.45	1.29	1.34
35	BA	1573	G	C5-C4	-5.45	1.34	1.38
35	BA	1896	G	C8-N7	-5.45	1.27	1.30
35	BA	1988	C	C4-C5	-5.45	1.38	1.43
35	BA	2329	G	C8-N7	-5.45	1.27	1.30
35	BA	2704	C	C4-C5	-5.45	1.38	1.43
35	BA	634	C	N1-C2	5.45	1.45	1.40
35	BA	1850	G	C5-C6	-5.45	1.36	1.42
1	AA	321	A	C6-N6	-5.45	1.29	1.33
1	AA	537	G	C3'-C2'	-5.45	1.46	1.52
1	AA	868	C	C2'-C1'	-5.45	1.47	1.53
1	AA	990	C	C2'-C1'	-5.45	1.47	1.53
35	BA	457	A	C2-N3	-5.45	1.28	1.33
35	BA	472	A	N9-C8	-5.45	1.33	1.37
35	BA	1361	G	C6-N1	-5.45	1.35	1.39
35	BA	1610	A	C6-N6	-5.45	1.29	1.33
35	BA	1799	G	C6-N1	-5.45	1.35	1.39
35	BA	1945	G	N9-C8	-5.45	1.34	1.37
35	BA	2534	A	C4'-C3'	-5.45	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2743	C	O3'-P	-5.45	1.54	1.61
35	BA	2820	A	N3-C4	-5.45	1.31	1.34
35	BA	2833	G	C4'-C3'	-5.45	1.47	1.52
1	AA	130	A	P-O5'	-5.45	1.54	1.59
1	AA	1331	G	C5-C4	-5.45	1.34	1.38
35	BA	466	A	C4'-O4'	-5.45	1.38	1.45
35	BA	947	G	C2-N3	-5.45	1.28	1.32
35	BA	2772	C	C2-O2	-5.45	1.19	1.24
35	BA	342	G	C3'-O3'	-5.45	1.34	1.42
35	BA	1311	G	N3-C4	-5.45	1.31	1.35
35	BA	1563	G	C6-N1	5.45	1.43	1.39
1	AA	605	U	C5-C6	-5.45	1.29	1.34
1	AA	648	A	C4'-O4'	-5.45	1.38	1.45
35	BA	215	G	N7-C5	-5.45	1.35	1.39
35	BA	332	A	C6-N6	-5.45	1.29	1.33
35	BA	577	G	N7-C5	-5.45	1.35	1.39
35	BA	2060	A	N7-C5	-5.45	1.35	1.39
35	BA	694	U	C4-O4	-5.44	1.19	1.23
35	BA	713	G	N9-C4	5.44	1.42	1.38
35	BA	1570	A	N3-C4	-5.44	1.31	1.34
35	BA	1681	G	N9-C8	-5.44	1.34	1.37
1	AA	548	G	C6-O6	-5.44	1.19	1.24
35	BA	893	C	C2-N3	-5.44	1.31	1.35
35	BA	1559	G	C2-N3	-5.44	1.28	1.32
1	AA	785	G	P-O5'	-5.44	1.54	1.59
1	AA	1196	U	C5'-C4'	-5.44	1.44	1.51
35	BA	570	G	C8-N7	-5.44	1.27	1.30
35	BA	735	A	O3'-P	-5.44	1.54	1.61
35	BA	1355	G	C8-N7	-5.44	1.27	1.30
35	BA	2111	C	P-O5'	-5.44	1.54	1.59
35	BA	2397	G	P-O5'	-5.44	1.54	1.59
35	BA	371	A	C8-N7	5.44	1.35	1.31
35	BA	652	C	C4-C5	-5.44	1.38	1.43
35	BA	1667	G	N1-C2	5.44	1.42	1.37
35	BA	1804	C	C4-C5	-5.44	1.38	1.43
36	BB	94	C	C2-O2	-5.44	1.19	1.24
1	AA	119	A	N9-C4	-5.44	1.34	1.37
1	AA	431	A	C6-N1	-5.44	1.31	1.35
1	AA	451	A	C5-C4	5.44	1.42	1.38
1	AA	1250	A	C5-C4	5.44	1.42	1.38
35	BA	117	G	N9-C4	-5.44	1.33	1.38
35	BA	282	A	C6-N1	-5.44	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	520	G	C2-N2	-5.44	1.29	1.34
35	BA	1045	A	N9-C4	-5.44	1.34	1.37
35	BA	1550	C	C4'-C3'	-5.44	1.47	1.52
35	BA	2410	G	C6-N1	5.44	1.43	1.39
35	BA	2519	U	C5'-C4'	-5.44	1.44	1.51
1	AA	908	A	P-O5'	-5.44	1.54	1.59
35	BA	415	A	P-O5'	-5.44	1.54	1.59
36	BB	107	G	N1-C2	-5.44	1.33	1.37
1	AA	568	G	C6-N1	-5.43	1.35	1.39
1	AA	665	A	C5-C4	-5.43	1.34	1.38
1	AA	1311	G	C6-N1	-5.43	1.35	1.39
1	AA	1513	A	C5-C4	-5.43	1.34	1.38
22	AV	38	A	C5-C6	-5.43	1.36	1.41
35	BA	95	G	C2-N3	-5.43	1.28	1.32
35	BA	566	U	C4-O4	-5.43	1.19	1.23
35	BA	1137	G	N7-C5	-5.43	1.35	1.39
35	BA	1457	A	N7-C5	-5.43	1.35	1.39
35	BA	1633	G	C6-N1	-5.43	1.35	1.39
35	BA	1816	G	N7-C5	-5.43	1.35	1.39
35	BA	1844	C	C4-C5	-5.43	1.38	1.43
35	BA	1988	C	N1-C6	-5.43	1.33	1.37
35	BA	2133	G	C6-N1	-5.43	1.35	1.39
36	BB	49	C	N3-C4	-5.43	1.30	1.33
1	AA	645	C	C2-N3	-5.43	1.31	1.35
35	BA	16	G	C8-N7	-5.43	1.27	1.30
35	BA	196	A	C2'-C1'	-5.43	1.47	1.53
35	BA	601	C	P-O5'	-5.43	1.54	1.59
35	BA	2893	G	N9-C4	-5.43	1.33	1.38
1	AA	665	A	N3-C4	-5.43	1.31	1.34
35	BA	496	G	N1-C2	-5.43	1.33	1.37
35	BA	993	G	C4'-C3'	-5.43	1.47	1.52
35	BA	1191	G	C6-N1	-5.43	1.35	1.39
35	BA	1210	A	N9-C4	-5.43	1.34	1.37
35	BA	1693	U	C4'-C3'	-5.43	1.47	1.52
36	BB	37	C	C5-C6	-5.43	1.30	1.34
1	AA	942	G	N9-C4	-5.43	1.33	1.38
35	BA	1970	A	N7-C5	-5.43	1.35	1.39
35	BA	1990	C	N1-C2	-5.43	1.34	1.40
35	BA	2661	G	P-OP2	-5.43	1.39	1.49
1	AA	143	A	C6-N1	-5.43	1.31	1.35
1	AA	197	A	C6-N6	-5.43	1.29	1.33
1	AA	491	G	N3-C4	5.43	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	569	C	C2-N3	-5.43	1.31	1.35
1	AA	933	G	C5-C6	-5.43	1.36	1.42
1	AA	1373	G	N1-C2	-5.43	1.33	1.37
1	AA	1385	G	N3-C4	-5.43	1.31	1.35
1	AA	1413	A	C6-N1	-5.43	1.31	1.35
35	BA	2676	C	C3'-C2'	-5.43	1.46	1.52
40	BF	179	GLU	CD-OE2	-5.43	1.19	1.25
1	AA	1161	C	C4'-O4'	-5.42	1.38	1.45
35	BA	240	G	C6-N1	-5.42	1.35	1.39
35	BA	272(H)	C	C2-O2	-5.42	1.19	1.24
35	BA	790	C	N1-C2	5.42	1.45	1.40
35	BA	992	C	C2-O2	-5.42	1.19	1.24
35	BA	1282	U	C2-O2	-5.42	1.17	1.22
35	BA	2517	C	C2-O2	-5.42	1.19	1.24
1	AA	932	C	C4'-C3'	-5.42	1.47	1.52
35	BA	506	G	C6-O6	-5.42	1.19	1.24
35	BA	991	C	O5'-C5'	-5.42	1.34	1.42
35	BA	1779	U	C5'-C4'	-5.42	1.44	1.51
1	AA	1247	U	C2-O2	-5.42	1.17	1.22
1	AA	1335	C	C4-C5	-5.42	1.38	1.43
1	AA	1415	G	C2-N2	-5.42	1.29	1.34
35	BA	271(E)	U	C4-C5	-5.42	1.38	1.43
35	BA	480	A	C5-C6	-5.42	1.36	1.41
35	BA	1423	G	C5-C4	-5.42	1.34	1.38
35	BA	2329	G	C2-N2	-5.42	1.29	1.34
35	BA	2740	A	C5-C6	-5.42	1.36	1.41
1	AA	189(B)	C	C5-C6	-5.42	1.30	1.34
35	BA	195	A	N9-C4	-5.42	1.34	1.37
35	BA	942	G	N9-C4	-5.42	1.33	1.38
35	BA	1241	A	O3'-P	-5.42	1.54	1.61
35	BA	1465	G	N9-C4	-5.42	1.33	1.38
35	BA	2766	G	O3'-P	-5.42	1.54	1.61
1	AA	223	U	O3'-P	-5.42	1.54	1.61
1	AA	983	A	O3'-P	-5.42	1.54	1.61
35	BA	271(Y)	U	C5-C6	-5.42	1.29	1.34
35	BA	536	A	O3'-P	-5.42	1.54	1.61
35	BA	606	U	O5'-C5'	-5.42	1.34	1.42
1	AA	1079	G	N7-C5	-5.42	1.36	1.39
35	BA	272	G	N7-C5	-5.42	1.36	1.39
35	BA	2333	A	N7-C5	-5.42	1.36	1.39
50	BS	103	GLU	CD-OE1	-5.42	1.19	1.25
1	AA	605	U	C2-N3	-5.41	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1115	C	C4-N4	-5.41	1.29	1.33
35	BA	201	C	C4-N4	-5.41	1.29	1.33
35	BA	395	U	C2-N3	-5.41	1.33	1.37
35	BA	590	A	P-O5'	-5.41	1.54	1.59
35	BA	786	C	N3-C4	-5.41	1.30	1.33
35	BA	824	A	N9-C8	-5.41	1.33	1.37
35	BA	947	G	N1-C2	-5.41	1.33	1.37
35	BA	2632	A	N9-C8	-5.41	1.33	1.37
35	BA	2758	A	N9-C8	-5.41	1.33	1.37
35	BA	736	C	C5'-C4'	-5.41	1.44	1.51
35	BA	926	A	C6-N1	5.41	1.39	1.35
35	BA	1691	C	C4-C5	-5.41	1.38	1.43
35	BA	1877	A	N3-C4	-5.41	1.31	1.34
35	BA	1981	A	N9-C4	-5.41	1.34	1.37
1	AA	168	G	C8-N7	5.41	1.34	1.30
1	AA	460	G	C4'-C3'	-5.41	1.47	1.52
1	AA	963	G	C4'-C3'	-5.41	1.47	1.52
35	BA	1200	C	C4-N4	-5.41	1.29	1.33
35	BA	1360	A	C4'-C3'	-5.41	1.47	1.52
1	AA	700	G	C6-N1	-5.41	1.35	1.39
1	AA	1188	A	C8-N7	-5.41	1.27	1.31
1	AA	1216	G	C6-N1	-5.41	1.35	1.39
1	AA	1239	A	O3'-P	-5.41	1.54	1.61
1	AA	1398	A	C8-N7	-5.41	1.27	1.31
1	AA	1495	U	C4-C5	-5.41	1.38	1.43
35	BA	34	C	C5'-C4'	-5.41	1.44	1.51
35	BA	417	C	C4-C5	-5.41	1.38	1.43
35	BA	1099	G	C5-C6	5.41	1.47	1.42
35	BA	1536	C	C4-C5	-5.41	1.38	1.43
35	BA	2486	G	C6-O6	-5.41	1.19	1.24
36	BB	33	G	C5-C6	-5.41	1.36	1.42
1	AA	191	G	C8-N7	-5.41	1.27	1.30
1	AA	1508	G	C2-N2	-5.41	1.29	1.34
35	BA	154	G	C8-N7	-5.41	1.27	1.30
35	BA	563	G	N9-C8	-5.41	1.34	1.37
35	BA	1017	G	C8-N7	-5.41	1.27	1.30
35	BA	1428	C	N3-C4	-5.41	1.30	1.33
35	BA	1788	C	N3-C4	-5.41	1.30	1.33
35	BA	2241	A	C6-N6	-5.41	1.29	1.33
35	BA	904	C	C5-C6	-5.41	1.30	1.34
35	BA	1547	C	N1-C2	-5.41	1.34	1.40
36	BB	115	G	C5-C4	-5.41	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	348	G	P-O5'	-5.40	1.54	1.59
35	BA	107	C	N1-C6	-5.40	1.33	1.37
35	BA	2651	C	P-O5'	-5.40	1.54	1.59
1	AA	1384	C	C4-C5	-5.40	1.38	1.43
1	AA	1411	C	N3-C4	-5.40	1.30	1.33
11	AK	37	GLY	N-CA	-5.40	1.38	1.46
35	BA	631	A	C8-N7	-5.40	1.27	1.31
35	BA	1461	G	N7-C5	-5.40	1.36	1.39
35	BA	2154	G	N1-C2	-5.40	1.33	1.37
1	AA	610	G	C4'-C3'	-5.40	1.47	1.52
1	AA	1421	G	C8-N7	-5.40	1.27	1.30
1	AA	1461	G	C4'-C3'	-5.40	1.47	1.52
35	BA	73	A	C5-C6	-5.40	1.36	1.41
35	BA	241	A	N1-C2	-5.40	1.29	1.34
35	BA	497	A	C4'-C3'	-5.40	1.47	1.52
38	BD	63	ARG	CZ-NH2	-5.40	1.26	1.33
1	AA	436	C	C2-N3	-5.40	1.31	1.35
1	AA	528	C	C4-C5	-5.40	1.38	1.43
1	AA	673	G	C2-N3	-5.40	1.28	1.32
35	BA	468	G	C2-N2	-5.40	1.29	1.34
35	BA	719	C	C2-N3	-5.40	1.31	1.35
35	BA	1303	G	C2-N3	-5.40	1.28	1.32
35	BA	1320	C	C2-N3	-5.40	1.31	1.35
35	BA	2729	G	O3'-P	-5.40	1.54	1.61
1	AA	227	G	C8-N7	5.40	1.34	1.30
1	AA	806	C	C2-O2	-5.40	1.19	1.24
1	AA	1060	C	C2-O2	-5.40	1.19	1.24
35	BA	484	C	C2-O2	-5.40	1.19	1.24
35	BA	777	A	C5'-C4'	-5.40	1.44	1.51
35	BA	975(A)	G	N1-C2	-5.40	1.33	1.37
35	BA	2224	G	N1-C2	-5.40	1.33	1.37
35	BA	2632	A	N7-C5	-5.40	1.36	1.39
1	AA	108	G	C5-C4	-5.40	1.34	1.38
35	BA	145	G	C1'-N9	-5.40	1.39	1.46
35	BA	1443	G	C5-C4	-5.40	1.34	1.38
35	BA	1922	G	C5-C4	-5.40	1.34	1.38
1	AA	60	A	N9-C8	-5.39	1.33	1.37
1	AA	184	G	N1-C2	-5.39	1.33	1.37
1	AA	727	G	C5-C6	-5.39	1.36	1.42
1	AA	1134	G	N1-C2	-5.39	1.33	1.37
1	AA	1295	G	N9-C4	-5.39	1.33	1.38
1	AA	1394	A	O3'-P	-5.39	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	214	G	N9-C4	-5.39	1.33	1.38
35	BA	511	U	C5-C6	-5.39	1.29	1.34
35	BA	604	G	N9-C4	-5.39	1.33	1.38
35	BA	610	G	C6-O6	-5.39	1.19	1.24
35	BA	992	C	C5-C6	-5.39	1.30	1.34
35	BA	2849	U	C5-C6	-5.39	1.29	1.34
1	AA	219	C	N1-C6	5.39	1.40	1.37
1	AA	446	G	N3-C4	-5.39	1.31	1.35
1	AA	1024	G	N3-C4	-5.39	1.31	1.35
35	BA	322	A	N3-C4	-5.39	1.31	1.34
35	BA	714	U	C2-N3	-5.39	1.33	1.37
35	BA	1827	C	C2-O2	-5.39	1.19	1.24
35	BA	2167	U	C5-C6	5.39	1.39	1.34
35	BA	2345	G	C6-N1	-5.39	1.35	1.39
1	AA	840	C	N1-C6	-5.39	1.33	1.37
35	BA	1610	A	N7-C5	-5.39	1.36	1.39
35	BA	2106	G	N7-C5	-5.39	1.36	1.39
35	BA	2201	C	N1-C6	-5.39	1.33	1.37
35	BA	2640	G	N7-C5	-5.39	1.36	1.39
35	BA	2729	G	C3'-O3'	-5.39	1.34	1.42
1	AA	570	G	C5-C4	-5.39	1.34	1.38
35	BA	514	A	C4'-O4'	-5.39	1.38	1.45
35	BA	716	A	C4'-C3'	-5.39	1.47	1.52
35	BA	1117	G	N9-C4	-5.39	1.33	1.38
35	BA	1315	C	C4-C5	-5.39	1.38	1.43
35	BA	1820	U	C4'-C3'	-5.39	1.47	1.52
35	BA	2280	G	C5'-C4'	-5.39	1.44	1.51
36	BB	79	C	C5'-C4'	-5.39	1.44	1.51
49	BR	68	ARG	CZ-NH2	-5.39	1.26	1.33
1	AA	183	G	C8-N7	-5.39	1.27	1.30
1	AA	655	A	C3'-C2'	-5.39	1.46	1.52
35	BA	1011	G	C8-N7	-5.39	1.27	1.30
35	BA	2541	A	P-O5'	-5.39	1.54	1.59
35	BA	2733	A	P-O5'	-5.39	1.54	1.59
1	AA	42	G	C6-O6	-5.39	1.19	1.24
1	AA	434	U	C5'-C4'	-5.39	1.44	1.51
1	AA	441	A	N3-C4	-5.39	1.31	1.34
1	AA	1316	G	N3-C4	-5.39	1.31	1.35
35	BA	777	A	C5-C4	-5.39	1.34	1.38
35	BA	1020	A	N3-C4	-5.39	1.31	1.34
35	BA	2155	G	C6-N1	-5.39	1.35	1.39
1	AA	797	C	P-O5'	-5.38	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1147	C	C3'-C2'	-5.38	1.46	1.52
35	BA	8	A	C2-N3	-5.38	1.28	1.33
35	BA	261	G	N7-C5	-5.38	1.36	1.39
35	BA	634	C	C4-C5	-5.38	1.38	1.43
35	BA	851	U	N1-C6	-5.38	1.33	1.38
35	BA	994	C	N1-C6	-5.38	1.33	1.37
35	BA	1169	G	P-O5'	-5.38	1.54	1.59
35	BA	1469	A	C5-C6	-5.38	1.36	1.41
1	AA	253	U	N1-C2	-5.38	1.33	1.38
35	BA	1267	U	C4'-C3'	-5.38	1.47	1.52
35	BA	1678	G	C2-N2	-5.38	1.29	1.34
35	BA	2297	C	N1-C2	-5.38	1.34	1.40
1	AA	332	G	N9-C4	-5.38	1.33	1.38
1	AA	741	G	N3-C4	-5.38	1.31	1.35
1	AA	1011	G	P-O5'	-5.38	1.54	1.59
1	AA	1530	G	N9-C4	-5.38	1.33	1.38
22	AV	30	G	C2'-C1'	-5.38	1.47	1.53
35	BA	440	G	C6-N1	-5.38	1.35	1.39
35	BA	488	G	C2'-O2'	-5.38	1.34	1.41
35	BA	676	A	P-O5'	-5.38	1.54	1.59
35	BA	916	G	C8-N7	-5.38	1.27	1.30
35	BA	1354	A	N9-C4	-5.38	1.34	1.37
35	BA	2088	G	N3-C4	-5.38	1.31	1.35
35	BA	2708	G	N3-C4	-5.38	1.31	1.35
1	AA	1151	A	C8-N7	-5.38	1.27	1.31
35	BA	1331	A	N1-C2	-5.38	1.29	1.34
35	BA	2304	G	N9-C8	-5.38	1.34	1.37
35	BA	2446	G	N9-C8	-5.38	1.34	1.37
1	AA	1423	G	P-O5'	-5.38	1.54	1.59
35	BA	136	G	C8-N7	5.38	1.34	1.30
35	BA	223	A	N7-C5	-5.38	1.36	1.39
35	BA	1414	G	N7-C5	-5.38	1.36	1.39
35	BA	2337	G	C5-C6	-5.38	1.36	1.42
1	AA	982	U	C4-O4	-5.38	1.19	1.23
1	AA	1235	U	C2-N3	-5.38	1.33	1.37
35	BA	398	G	N9-C4	-5.38	1.33	1.38
35	BA	1194	A	N1-C2	-5.38	1.29	1.34
35	BA	1815	A	C2'-C1'	-5.38	1.47	1.53
35	BA	2836	U	C2-N3	-5.38	1.33	1.37
1	AA	40	C	C2-N3	-5.38	1.31	1.35
35	BA	2372	G	P-O5'	-5.38	1.54	1.59
1	AA	721	G	C5-C4	-5.37	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	80	G	C2'-C1'	-5.37	1.47	1.53
1	AA	91	C	N1-C6	-5.37	1.33	1.37
1	AA	322	C	C5-C6	-5.37	1.30	1.34
1	AA	1499	A	N7-C5	-5.37	1.36	1.39
22	AV	73	A	C2-N3	-5.37	1.28	1.33
35	BA	228	A	P-O5'	5.37	1.65	1.59
35	BA	950	G	P-O5'	-5.37	1.54	1.59
35	BA	1095	A	N7-C5	-5.37	1.36	1.39
35	BA	1814	G	C2-N2	-5.37	1.29	1.34
35	BA	1826	G	N7-C5	-5.37	1.36	1.39
35	BA	2052	G	C5-C6	-5.37	1.36	1.42
35	BA	2188	C	O3'-P	-5.37	1.54	1.61
35	BA	2814	C	C5'-C4'	-5.37	1.45	1.51
1	AA	453	A	N9-C8	-5.37	1.33	1.37
1	AA	936	C	C2-N3	-5.37	1.31	1.35
22	AV	43	A	N9-C8	-5.37	1.33	1.37
35	BA	1277	G	C2-N3	-5.37	1.28	1.32
35	BA	2237	G	C2-N3	-5.37	1.28	1.32
36	BB	90	A	N9-C8	-5.37	1.33	1.37
1	AA	643	C	P-OP2	-5.37	1.39	1.49
35	BA	1904	G	C4'-C3'	-5.37	1.47	1.52
35	BA	2356	C	C2-O2	-5.37	1.19	1.24
35	BA	2527	C	C4'-C3'	-5.37	1.47	1.52
1	AA	952	U	C4'-O4'	-5.37	1.38	1.45
35	BA	592	G	O3'-P	-5.37	1.54	1.61
35	BA	669	G	C2'-C1'	-5.37	1.47	1.53
1	AA	560	U	C2-N3	-5.37	1.33	1.37
1	AA	853	G	C2-N3	-5.37	1.28	1.32
1	AA	1299	A	C5-C6	-5.37	1.36	1.41
1	AA	1334	G	C4'-C3'	-5.37	1.47	1.52
1	AA	1504	G	C2-N3	-5.37	1.28	1.32
35	BA	247	G	N3-C4	-5.37	1.31	1.35
35	BA	654(G)	C	N1-C6	-5.37	1.33	1.37
35	BA	1337	G	C2-N3	-5.37	1.28	1.32
35	BA	1696	G	N3-C4	-5.37	1.31	1.35
35	BA	1765	C	P-O5'	-5.37	1.54	1.59
35	BA	2385	C	C2-N3	-5.37	1.31	1.35
35	BA	2538	C	C5'-C4'	-5.37	1.45	1.51
36	BB	76	G	C2-N3	-5.37	1.28	1.32
1	AA	963	G	C2'-C1'	-5.36	1.47	1.53
1	AA	1215	G	C5-C4	-5.36	1.34	1.38
35	BA	215	G	C5-C4	-5.36	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	780	G	N7-C5	5.36	1.42	1.39
35	BA	883	G	N7-C5	5.36	1.42	1.39
35	BA	1479	G	N7-C5	5.36	1.42	1.39
35	BA	2139	C	O3'-P	-5.36	1.54	1.61
35	BA	2597	G	C5'-C4'	-5.36	1.45	1.51
35	BA	2655	G	C2-N2	-5.36	1.29	1.34
35	BA	1767	C	P-O5'	-5.36	1.54	1.59
35	BA	1857	G	C6-O6	-5.36	1.19	1.24
35	BA	2093	G	C6-O6	-5.36	1.19	1.24
35	BA	271(D)	G	C2-N3	-5.36	1.28	1.32
35	BA	654(F)	C	C4-C5	5.36	1.47	1.43
35	BA	1478	G	C3'-C2'	-5.36	1.46	1.52
35	BA	1506	C	N1-C6	-5.36	1.33	1.37
35	BA	1890	A	P-O5'	5.36	1.65	1.59
35	BA	2189	U	C5-C6	-5.36	1.29	1.34
35	BA	2308	G	C5-C6	-5.36	1.36	1.42
35	BA	2532	G	C2-N2	-5.36	1.29	1.34
35	BA	721	C	C3'-O3'	-5.36	1.34	1.42
1	AA	781	A	C8-N7	-5.36	1.27	1.31
1	AA	1177	G	P-O5'	-5.36	1.54	1.59
1	AA	1305	G	C5-C4	-5.36	1.34	1.38
35	BA	467	G	C5'-C4'	-5.36	1.45	1.51
35	BA	544	G	O4'-C1'	-5.36	1.34	1.41
35	BA	1355	G	C5-C6	-5.36	1.36	1.42
35	BA	1433	U	C4-C5	-5.36	1.38	1.43
35	BA	2043	C	O4'-C1'	-5.36	1.34	1.41
35	BA	2088	G	N9-C4	-5.36	1.33	1.38
35	BA	2223	G	C5-C4	-5.36	1.34	1.38
1	AA	397	A	C4'-C3'	-5.36	1.47	1.52
1	AA	410	G	C2-N3	-5.36	1.28	1.32
1	AA	1125	U	P-O5'	-5.36	1.54	1.59
35	BA	350	U	O4'-C1'	-5.36	1.34	1.41
35	BA	1254	A	C6-N1	-5.36	1.31	1.35
35	BA	1936	A	C5-C4	-5.36	1.35	1.38
35	BA	2168	G	N1-C2	-5.36	1.33	1.37
35	BA	2801	A	N3-C4	-5.36	1.31	1.34
1	AA	1118	C	C5-C6	-5.35	1.30	1.34
1	AA	1140	C	C4-C5	-5.35	1.38	1.43
35	BA	633	A	N9-C8	-5.35	1.33	1.37
35	BA	1131	G	N1-C2	-5.35	1.33	1.37
36	BB	57	A	C5-C6	-5.35	1.36	1.41
1	AA	881	G	C2-N3	-5.35	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	885	G	C2-N3	-5.35	1.28	1.32
35	BA	115	C	O3'-P	-5.35	1.54	1.61
35	BA	1564	C	O3'-P	-5.35	1.54	1.61
35	BA	2824	C	O3'-P	-5.35	1.54	1.61
35	BA	2825	C	C2-N3	-5.35	1.31	1.35
1	AA	942	G	C6-N1	-5.35	1.35	1.39
35	BA	15	G	C6-N1	-5.35	1.35	1.39
35	BA	401	A	C5-C4	-5.35	1.35	1.38
35	BA	1344	G	C6-N1	-5.35	1.35	1.39
35	BA	1457	A	N3-C4	-5.35	1.31	1.34
35	BA	1691	C	C4'-C3'	-5.35	1.47	1.52
35	BA	2082	A	C2-N3	-5.35	1.28	1.33
35	BA	2159	G	N3-C4	5.35	1.39	1.35
35	BA	2566	A	C2-N3	-5.35	1.28	1.33
35	BA	2829	C	N1-C2	-5.35	1.34	1.40
1	AA	189(E)	U	N3-C4	-5.35	1.33	1.38
1	AA	595	G	N9-C4	-5.35	1.33	1.38
1	AA	992	U	N1-C6	-5.35	1.33	1.38
1	AA	1117	G	N9-C8	-5.35	1.34	1.37
1	AA	1373	G	N7-C5	-5.35	1.36	1.39
35	BA	186	G	N9-C4	5.35	1.42	1.38
35	BA	402	A	N7-C5	-5.35	1.36	1.39
35	BA	457	A	C2'-C1'	-5.35	1.47	1.53
35	BA	563	G	C8-N7	-5.35	1.27	1.30
35	BA	1436	G	C8-N7	-5.35	1.27	1.30
35	BA	1665	A	N7-C5	-5.35	1.36	1.39
35	BA	2023	G	N9-C8	-5.35	1.34	1.37
35	BA	2294	C	C2'-C1'	-5.35	1.47	1.53
35	BA	2539	C	C5-C6	-5.35	1.30	1.34
35	BA	2812	G	C8-N7	-5.35	1.27	1.30
1	AA	1228	C	N1-C2	-5.35	1.34	1.40
35	BA	96	G	C2-N3	-5.35	1.28	1.32
35	BA	1063	G	C2-N3	-5.35	1.28	1.32
35	BA	1374	G	C2-N3	-5.35	1.28	1.32
35	BA	1828	G	P-OP2	5.35	1.58	1.49
1	AA	179	A	C4'-C3'	-5.34	1.47	1.52
1	AA	269	C	C4-C5	-5.34	1.38	1.43
1	AA	1194	U	C4-C5	-5.34	1.38	1.43
1	AA	1289	A	C6-N6	-5.34	1.29	1.33
1	AA	1381	U	C2-O2	-5.34	1.17	1.22
14	AN	60	SER	CB-OG	-5.34	1.35	1.42
35	BA	74	A	N9-C4	-5.34	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	98	G	N3-C4	-5.34	1.31	1.35
35	BA	251	A	C8-N7	5.34	1.35	1.31
35	BA	792	G	C4'-C3'	-5.34	1.47	1.52
35	BA	2766	G	N7-C5	5.34	1.42	1.39
1	AA	106	C	O3'-P	-5.34	1.54	1.61
1	AA	614	A	C2'-O2'	-5.34	1.34	1.41
17	AQ	86	GLU	CD-OE2	-5.34	1.19	1.25
35	BA	818	G	N9-C4	-5.34	1.33	1.38
35	BA	2540	C	C2'-O2'	-5.34	1.34	1.41
1	AA	288	A	C4'-C3'	-5.34	1.47	1.52
1	AA	299	G	C6-O6	5.34	1.28	1.24
1	AA	1161	C	C5-C6	5.34	1.38	1.34
22	AV	66	C	C4-N4	-5.34	1.29	1.33
35	BA	956	G	C5-C6	-5.34	1.37	1.42
35	BA	1302	A	N7-C5	-5.34	1.36	1.39
35	BA	2052	G	C6-O6	5.34	1.28	1.24
35	BA	2132	U	P-OP2	-5.34	1.39	1.49
35	BA	2844	G	C8-N7	-5.34	1.27	1.30
36	BB	95	C	N3-C4	-5.34	1.30	1.33
1	AA	129(A)	G	C3'-C2'	-5.34	1.46	1.52
1	AA	432	A	C8-N7	-5.34	1.27	1.31
1	AA	1131	G	N9-C4	-5.34	1.33	1.38
22	AV	55	U	C5-C6	-5.34	1.29	1.34
35	BA	285	C	N1-C2	-5.34	1.34	1.40
35	BA	804	A	C6-N1	-5.34	1.31	1.35
35	BA	2317	C	C4-C5	-5.34	1.38	1.43
35	BA	2380	C	N1-C2	-5.34	1.34	1.40
35	BA	473	G	C4'-C3'	-5.34	1.47	1.52
1	AA	313	A	N9-C4	-5.34	1.34	1.37
1	AA	323	U	C4-C5	-5.34	1.38	1.43
1	AA	485	G	N9-C8	-5.34	1.34	1.37
1	AA	812	C	C2-N3	-5.34	1.31	1.35
35	BA	315	G	N7-C5	-5.34	1.36	1.39
35	BA	700	G	C5-C4	-5.34	1.34	1.38
35	BA	768	G	P-O5'	-5.34	1.54	1.59
35	BA	900	A	N7-C5	-5.34	1.36	1.39
35	BA	1245	G	C2-N3	5.34	1.37	1.32
35	BA	1255	U	C4-C5	-5.34	1.38	1.43
35	BA	1918	A	C5-C6	-5.34	1.36	1.41
35	BA	1927	A	N7-C5	-5.34	1.36	1.39
35	BA	2127	G	C2-N3	-5.34	1.28	1.32
35	BA	2781	A	N9-C4	-5.34	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BB	61	G	P-O5'	-5.34	1.54	1.59
1	AA	616	G	C5-C6	-5.33	1.37	1.42
1	AA	1147	C	N1-C6	-5.33	1.33	1.37
35	BA	1624	G	C3'-O3'	-5.33	1.34	1.42
1	AA	715	A	C2-N3	-5.33	1.28	1.33
35	BA	1319	G	C6-N1	-5.33	1.35	1.39
35	BA	2778	A	C2-N3	-5.33	1.28	1.33
1	AA	302	G	C4'-C3'	-5.33	1.47	1.52
35	BA	272(D)	G	N9-C8	-5.33	1.34	1.37
35	BA	414	C	C5-C6	-5.33	1.30	1.34
35	BA	2008	C	C5'-C4'	-5.33	1.45	1.51
35	BA	2175	C	P-O5'	-5.33	1.54	1.59
36	BB	97	G	C2-N3	-5.33	1.28	1.32
1	AA	960	U	C5-C6	-5.33	1.29	1.34
23	AX	21	C	N3-C4	-5.33	1.30	1.33
35	BA	746	A	N3-C4	-5.33	1.31	1.34
36	BB	59	A	N3-C4	-5.33	1.31	1.34
1	AA	26	A	N9-C8	-5.33	1.33	1.37
1	AA	306	G	C8-N7	-5.33	1.27	1.30
1	AA	655	A	C6-N1	-5.33	1.31	1.35
1	AA	1201	A	C6-N1	-5.33	1.31	1.35
22	AV	57	A	C1'-N9	-5.33	1.39	1.46
35	BA	204	A	C6-N1	-5.33	1.31	1.35
35	BA	227	A	N7-C5	-5.33	1.36	1.39
35	BA	274	G	C6-N1	-5.33	1.35	1.39
35	BA	415	A	C6-N1	-5.33	1.31	1.35
35	BA	691	C	C2'-O2'	-5.33	1.34	1.41
35	BA	1330	C	C4'-C3'	-5.33	1.47	1.52
35	BA	1472	A	C5-C6	-5.33	1.36	1.41
35	BA	1839	G	C5'-C4'	-5.33	1.45	1.51
35	BA	1919	A	C2'-O2'	-5.33	1.34	1.41
35	BA	2584	U	C2-N3	-5.33	1.34	1.37
35	BA	2871	C	C5-C6	-5.33	1.30	1.34
35	BA	2881	C	P-O5'	-5.33	1.54	1.59
36	BB	77	U	P-O5'	-5.33	1.54	1.59
1	AA	107	G	C2'-C1'	-5.33	1.47	1.53
35	BA	144	C	N1-C2	-5.33	1.34	1.40
35	BA	1201	C	C2-N3	-5.33	1.31	1.35
1	AA	740	U	C2'-O2'	-5.33	1.34	1.41
35	BA	188	G	C6-O6	-5.33	1.19	1.24
35	BA	455	C	C4-C5	-5.33	1.38	1.43
35	BA	2120	G	N9-C8	5.33	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2706	G	C5-C4	-5.33	1.34	1.38
1	AA	189	G	C6-N1	-5.32	1.35	1.39
1	AA	234	C	C2-N3	-5.32	1.31	1.35
1	AA	281	G	C6-N1	-5.32	1.35	1.39
1	AA	334	C	C2-N3	-5.32	1.31	1.35
1	AA	385	C	C2-N3	-5.32	1.31	1.35
1	AA	566	G	C6-N1	-5.32	1.35	1.39
1	AA	594	G	C6-N1	-5.32	1.35	1.39
1	AA	930	C	C2-N3	-5.32	1.31	1.35
35	BA	347	A	N7-C5	-5.32	1.36	1.39
35	BA	683	C	N3-C4	-5.32	1.30	1.33
35	BA	808	G	N7-C5	-5.32	1.36	1.39
35	BA	1050	A	N7-C5	-5.32	1.36	1.39
35	BA	1076	C	C4-N4	-5.32	1.29	1.33
35	BA	1835	G	C8-N7	5.32	1.34	1.30
35	BA	2141	G	C5-C6	-5.32	1.37	1.42
35	BA	2156	G	C6-N1	-5.32	1.35	1.39
35	BA	2621	A	N7-C5	-5.32	1.36	1.39
35	BA	2677	G	C5-C6	-5.32	1.37	1.42
35	BA	2270	G	N7-C5	5.32	1.42	1.39
35	BA	2655	G	N3-C4	-5.32	1.31	1.35
1	AA	30	U	C2-O2	-5.32	1.17	1.22
1	AA	247	G	C2-N3	-5.32	1.28	1.32
1	AA	1178	G	C2-N3	-5.32	1.28	1.32
35	BA	428	A	C5-C6	-5.32	1.36	1.41
35	BA	2559	C	C5'-C4'	-5.32	1.45	1.51
1	AA	540	G	N1-C2	-5.32	1.33	1.37
35	BA	1827	C	P-O5'	-5.32	1.54	1.59
35	BA	2402	C	P-O5'	-5.32	1.54	1.59
1	AA	1226	C	O4'-C1'	-5.32	1.34	1.41
1	AA	1302	U	C2-N3	-5.32	1.34	1.37
1	AA	1401	G	C2-N2	-5.32	1.29	1.34
35	BA	418	G	N3-C4	-5.32	1.31	1.35
35	BA	577	G	C2-N2	-5.32	1.29	1.34
35	BA	983	A	C8-N7	-5.32	1.27	1.31
35	BA	1166	C	C4'-C3'	-5.32	1.47	1.52
35	BA	1351	C	C2-N3	-5.32	1.31	1.35
35	BA	1503	U	C4'-C3'	-5.32	1.47	1.52
35	BA	2330	G	C4'-C3'	-5.32	1.47	1.52
35	BA	2480	C	C4-C5	-5.32	1.38	1.43
35	BA	2597	G	N3-C4	-5.32	1.31	1.35
35	BA	2834	G	C4'-C3'	-5.32	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	783	C	N1-C6	-5.32	1.33	1.37
1	AA	1483	A	C5-C6	-5.32	1.36	1.41
35	BA	88	G	N9-C8	-5.32	1.34	1.37
35	BA	394	A	C2-N3	-5.32	1.28	1.33
35	BA	1698	A	C5-C6	-5.32	1.36	1.41
35	BA	1749	A	C2-N3	-5.32	1.28	1.33
35	BA	1769	G	N9-C8	-5.32	1.34	1.37
1	AA	1351	U	N1-C6	-5.31	1.33	1.38
36	BB	13	A	C5-C6	5.31	1.45	1.41
36	BB	115	G	C4'-O4'	-5.31	1.38	1.45
1	AA	68	G	C2-N3	-5.31	1.28	1.32
1	AA	483	C	C5-C6	-5.31	1.30	1.34
22	AV	25	C	N3-C4	-5.31	1.30	1.33
35	BA	14	A	C8-N7	-5.31	1.27	1.31
35	BA	402	A	N9-C4	-5.31	1.34	1.37
35	BA	808	G	C5-C6	-5.31	1.37	1.42
35	BA	2662	A	C6-N1	-5.31	1.31	1.35
35	BA	2663	G	C6-N1	-5.31	1.35	1.39
36	BB	111	G	C2-N2	-5.31	1.29	1.34
1	AA	246	A	N3-C4	-5.31	1.31	1.34
1	AA	1144	G	C2'-C1'	-5.31	1.47	1.53
35	BA	610	G	C2'-C1'	-5.31	1.47	1.53
35	BA	1226	A	C5-C4	5.31	1.42	1.38
1	AA	959	A	C6-N6	-5.31	1.29	1.33
1	AA	1007	C	N1-C6	-5.31	1.33	1.37
1	AA	1220	G	C8-N7	-5.31	1.27	1.30
35	BA	1322	A	C6-N1	5.31	1.39	1.35
35	BA	1370	C	N1-C6	-5.31	1.33	1.37
35	BA	2087	G	C8-N7	-5.31	1.27	1.30
35	BA	2371	G	C8-N7	-5.31	1.27	1.30
35	BA	2486	G	C8-N7	-5.31	1.27	1.30
35	BA	2644	G	N9-C8	5.31	1.41	1.37
1	AA	545	C	N3-C4	-5.31	1.30	1.33
1	AA	1090	U	C2-O2	-5.31	1.17	1.22
35	BA	598	G	C6-N1	-5.31	1.35	1.39
35	BA	616	G	C2-N3	-5.31	1.28	1.32
35	BA	980	A	N1-C2	-5.31	1.29	1.34
35	BA	1277	G	C6-N1	-5.31	1.35	1.39
35	BA	1626	G	C2-N3	5.31	1.36	1.32
35	BA	2088	G	C6-N1	5.31	1.43	1.39
35	BA	2130	U	C4-O4	-5.31	1.19	1.23
35	BA	2196	C	N3-C4	-5.31	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1434	A	N9-C4	-5.31	1.34	1.37
22	AV	23	C	P-O5'	-5.31	1.54	1.59
35	BA	408	G	N3-C4	-5.31	1.31	1.35
35	BA	1472	A	O4'-C1'	-5.31	1.34	1.41
35	BA	2729	G	N9-C4	-5.31	1.33	1.38
35	BA	2870	C	C4-N4	-5.31	1.29	1.33
1	AA	834	C	O3'-P	-5.30	1.54	1.61
1	AA	925	G	N7-C5	-5.30	1.36	1.39
35	BA	40	C	C4'-C3'	-5.30	1.47	1.52
35	BA	2022	U	C4-C5	-5.30	1.38	1.43
36	BB	27	C	C4'-C3'	-5.30	1.47	1.52
36	BB	94	C	N1-C2	-5.30	1.34	1.40
1	AA	416	G	C8-N7	-5.30	1.27	1.30
1	AA	906	G	C3'-O3'	-5.30	1.34	1.42
1	AA	980	C	C5-C6	-5.30	1.30	1.34
1	AA	1320	C	C5-C6	-5.30	1.30	1.34
1	AA	1381	U	C4'-O4'	-5.30	1.38	1.45
1	AA	1402	C	N1-C2	5.30	1.45	1.40
35	BA	290	G	C3'-O3'	-5.30	1.34	1.42
35	BA	1652	A	P-O5'	-5.30	1.54	1.59
1	AA	204	U	C2'-C1'	-5.30	1.47	1.53
1	AA	1337	G	C2-N2	-5.30	1.29	1.34
1	AA	1423	G	C3'-C2'	-5.30	1.47	1.52
35	BA	641	C	C4-N4	-5.30	1.29	1.33
35	BA	1422	G	C6-O6	-5.30	1.19	1.24
35	BA	2452	C	N3-C4	-5.30	1.30	1.33
36	BB	97	G	C5-C6	-5.30	1.37	1.42
1	AA	657	G	N7-C5	-5.30	1.36	1.39
1	AA	851	G	N9-C8	-5.30	1.34	1.37
1	AA	1438	G	N3-C4	-5.30	1.31	1.35
22	AV	56	C	C5-C6	-5.30	1.30	1.34
35	BA	134	C	C2-N3	-5.30	1.31	1.35
35	BA	1648	C	C2-N3	-5.30	1.31	1.35
35	BA	2582	G	N3-C4	-5.30	1.31	1.35
1	AA	117	G	C5-C6	-5.30	1.37	1.42
1	AA	1261	A	N3-C4	-5.30	1.31	1.34
35	BA	2315	G	C3'-C2'	-5.30	1.47	1.52
1	AA	52	G	C8-N7	-5.30	1.27	1.30
1	AA	55	A	C6-N6	-5.30	1.29	1.33
1	AA	1143	G	C8-N7	-5.30	1.27	1.30
22	AV	54	U	C2-O2	-5.30	1.17	1.22
35	BA	205	G	N1-C2	5.30	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	488	G	C8-N7	-5.30	1.27	1.30
35	BA	603	A	C6-N6	-5.30	1.29	1.33
35	BA	1444	G	C8-N7	-5.30	1.27	1.30
35	BA	2334	G	C8-N7	-5.30	1.27	1.30
35	BA	2569	G	N1-C2	-5.29	1.33	1.37
1	AA	170	U	N1-C6	-5.29	1.33	1.38
1	AA	315	A	C5'-C4'	-5.29	1.45	1.51
1	AA	315	A	N7-C5	-5.29	1.36	1.39
1	AA	453	A	N7-C5	-5.29	1.36	1.39
35	BA	1235	G	C4'-C3'	-5.29	1.47	1.52
35	BA	1330	C	C4-N4	-5.29	1.29	1.33
35	BA	1599	C	C2-N3	-5.29	1.31	1.35
35	BA	1862	G	C5-C4	-5.29	1.34	1.38
35	BA	1962	C	C5'-C4'	-5.29	1.45	1.51
35	BA	1978	A	N7-C5	-5.29	1.36	1.39
1	AA	432	A	C5-C4	-5.29	1.35	1.38
1	AA	646	U	C2-N3	-5.29	1.34	1.37
1	AA	760	G	C4'-C3'	-5.29	1.47	1.52
1	AA	1289	A	C5-C6	-5.29	1.36	1.41
35	BA	283	A	C6-N1	-5.29	1.31	1.35
35	BA	1000	A	C6-N1	-5.29	1.31	1.35
35	BA	1904	G	C6-O6	-5.29	1.19	1.24
35	BA	2324	C	N1-C6	-5.29	1.33	1.37
1	AA	171	A	C8-N7	-5.29	1.27	1.31
35	BA	2101	G	N1-C2	-5.29	1.33	1.37
35	BA	2228	G	C3'-O3'	-5.29	1.34	1.42
36	BB	100	A	C8-N7	-5.29	1.27	1.31
35	BA	271(C)	C	C5-C6	-5.29	1.30	1.34
35	BA	598	G	C5-C4	-5.29	1.34	1.38
35	BA	770	G	N9-C8	-5.29	1.34	1.37
35	BA	1294	U	C3'-C2'	-5.29	1.47	1.52
35	BA	2007	C	C5-C6	-5.29	1.30	1.34
35	BA	2353	G	C8-N7	-5.29	1.27	1.30
35	BA	2862	G	C5-C4	-5.29	1.34	1.38
35	BA	2886	G	N9-C8	-5.29	1.34	1.37
1	AA	541	G	C6-N1	-5.29	1.35	1.39
35	BA	271(Q)	G	C2-N3	-5.29	1.28	1.32
35	BA	966	G	C6-N1	-5.29	1.35	1.39
35	BA	1308	A	C5-C4	-5.29	1.35	1.38
35	BA	1594	G	C6-N1	-5.29	1.35	1.39
35	BA	2003	G	C6-N1	-5.29	1.35	1.39
35	BA	2868	A	N1-C2	5.29	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	643	C	N3-C4	-5.29	1.30	1.33
1	AA	835	U	C2-N3	-5.29	1.34	1.37
1	AA	904	C	N1-C6	-5.29	1.33	1.37
1	AA	1469	G	C3'-C2'	-5.29	1.47	1.52
1	AA	1502	A	O3'-P	-5.29	1.54	1.61
18	AR	38	GLU	CD-OE1	-5.29	1.19	1.25
35	BA	1792	G	C5'-C4'	-5.29	1.45	1.51
35	BA	1811	G	N7-C5	-5.29	1.36	1.39
35	BA	1931	U	C4-C5	-5.29	1.38	1.43
35	BA	1960	A	N7-C5	-5.29	1.36	1.39
35	BA	2548	G	N7-C5	-5.29	1.36	1.39
1	AA	305	G	P-O5'	-5.28	1.54	1.59
1	AA	658	G	N9-C8	-5.28	1.34	1.37
35	BA	977	G	C5-C6	-5.28	1.37	1.42
35	BA	1046	A	C1'-N9	-5.28	1.39	1.46
35	BA	1159	U	C3'-C2'	-5.28	1.47	1.52
35	BA	2606	C	C2'-C1'	-5.28	1.47	1.53
35	BA	2717	G	P-O5'	-5.28	1.54	1.59
1	AA	378	G	N9-C4	-5.28	1.33	1.38
1	AA	1273	G	C2-N2	-5.28	1.29	1.34
35	BA	412	A	P-OP2	-5.28	1.40	1.49
1	AA	756	C	C2-O2	-5.28	1.19	1.24
1	AA	987	G	C6-N1	-5.28	1.35	1.39
22	AV	43	A	C4'-C3'	-5.28	1.47	1.52
35	BA	207	A	C6-N6	-5.28	1.29	1.33
35	BA	672	C	C4'-O4'	-5.28	1.38	1.45
35	BA	2171	A	N9-C4	-5.28	1.34	1.37
35	BA	2611	U	N1-C6	-5.28	1.33	1.38
35	BA	129	C	N1-C2	-5.28	1.34	1.40
35	BA	1710	C	N1-C2	-5.28	1.34	1.40
35	BA	2725	A	C5'-C4'	-5.28	1.45	1.51
35	BA	2747	G	N9-C8	-5.28	1.34	1.37
1	AA	555	C	C4'-C3'	-5.28	1.47	1.52
1	AA	608	A	C2'-C1'	-5.28	1.47	1.53
1	AA	748	C	C4'-C3'	5.28	1.58	1.53
1	AA	1021	G	C5-C4	-5.28	1.34	1.38
1	AA	1490	C	C4-C5	-5.28	1.38	1.43
35	BA	141	A	C4'-C3'	-5.28	1.47	1.52
35	BA	180	G	P-O5'	-5.28	1.54	1.59
35	BA	1347	G	C5-C4	-5.28	1.34	1.38
35	BA	2197	U	C4-C5	-5.28	1.38	1.43
1	AA	411	A	C5'-C4'	-5.28	1.45	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	46	G	C6-O6	5.28	1.28	1.24
35	BA	620	G	C8-N7	-5.28	1.27	1.30
35	BA	960	A	C6-N1	-5.28	1.31	1.35
35	BA	1076	C	N3-C4	5.28	1.37	1.33
35	BA	1427	A	C5-C6	5.28	1.45	1.41
35	BA	2063	C	C2-O2	-5.28	1.19	1.24
36	BB	19	G	C8-N7	-5.28	1.27	1.30
36	BB	103	G	O5'-C5'	-5.28	1.34	1.42
1	AA	241	C	C2'-C1'	-5.27	1.47	1.53
1	AA	775	G	C4'-C3'	-5.27	1.47	1.52
35	BA	386	G	N7-C5	-5.27	1.36	1.39
35	BA	1144	G	P-O5'	-5.27	1.54	1.59
35	BA	1628	G	C5'-C4'	-5.27	1.45	1.51
35	BA	1678	G	P-O5'	-5.27	1.54	1.59
35	BA	2508	G	C5'-C4'	-5.27	1.45	1.51
35	BA	2830	G	C4'-C3'	-5.27	1.47	1.52
35	BA	2835	A	C3'-O3'	5.27	1.49	1.42
35	BA	17	G	C2-N3	-5.27	1.28	1.32
35	BA	63	U	N3-C4	-5.27	1.33	1.38
35	BA	1330	C	C4-C5	-5.27	1.38	1.43
35	BA	2067	G	C2-N3	-5.27	1.28	1.32
35	BA	2319	G	C2-N3	-5.27	1.28	1.32
35	BA	2808	U	N3-C4	-5.27	1.33	1.38
35	BA	2869	G	C5-C6	-5.27	1.37	1.42
35	BA	2163	C	C2-O2	-5.27	1.19	1.24
35	BA	2195	C	C2-O2	-5.27	1.19	1.24
35	BA	2670	A	C5-C6	-5.27	1.36	1.41
1	AA	772	U	C5-C6	-5.27	1.29	1.34
35	BA	443	A	N7-C5	5.27	1.42	1.39
35	BA	2548	G	C4'-O4'	-5.27	1.38	1.45
1	AA	298	A	N7-C5	-5.27	1.36	1.39
1	AA	309	G	O3'-P	-5.27	1.54	1.61
1	AA	734	G	P-O5'	-5.27	1.54	1.59
1	AA	770	C	C4-N4	-5.27	1.29	1.33
35	BA	1128	A	N3-C4	5.27	1.38	1.34
35	BA	1507	A	C8-N7	-5.27	1.27	1.31
35	BA	2514	U	N1-C6	-5.27	1.33	1.38
1	AA	300	A	C5-C6	-5.27	1.36	1.41
1	AA	1306	A	C5-C6	-5.27	1.36	1.41
1	AA	1321	C	C2'-O2'	-5.27	1.34	1.41
35	BA	699	A	C5-C6	-5.27	1.36	1.41
35	BA	2030	A	N3-C4	-5.27	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	55	A	C2-N3	-5.26	1.28	1.33
1	AA	162	A	C5-C4	-5.26	1.35	1.38
1	AA	753	A	C6-N1	-5.26	1.31	1.35
1	AA	804	U	C2-N3	-5.26	1.34	1.37
1	AA	1061	G	N9-C4	-5.26	1.33	1.38
35	BA	1285	G	C2'-C1'	-5.26	1.47	1.53
35	BA	1562	A	C5-C4	-5.26	1.35	1.38
35	BA	1865	G	N9-C4	-5.26	1.33	1.38
35	BA	2057	A	O3'-P	-5.26	1.54	1.61
35	BA	232	G	C5-C4	-5.26	1.34	1.38
35	BA	1300	U	C4'-C3'	-5.26	1.47	1.52
35	BA	2070	G	C5-C4	-5.26	1.34	1.38
35	BA	2621	A	N9-C4	-5.26	1.34	1.37
36	BB	88	C	C4-C5	-5.26	1.38	1.43
1	AA	160	A	N3-C4	5.26	1.38	1.34
1	AA	1078	U	C4-C5	-5.26	1.38	1.43
35	BA	850	C	C2-N3	-5.26	1.31	1.35
35	BA	937	U	N1-C2	-5.26	1.33	1.38
35	BA	1208	C	C2-N3	-5.26	1.31	1.35
35	BA	1221	C	C5-C6	5.26	1.38	1.34
35	BA	1512	U	N1-C2	-5.26	1.33	1.38
35	BA	2134	A	N9-C8	-5.26	1.33	1.37
35	BA	2488	A	C5'-C4'	-5.26	1.45	1.51
1	AA	298	A	C2-N3	-5.26	1.28	1.33
1	AA	417	C	C5'-C4'	-5.26	1.45	1.51
1	AA	479	C	N1-C6	-5.26	1.33	1.37
1	AA	527	G	C6-O6	-5.26	1.19	1.24
1	AA	547	A	N3-C4	-5.26	1.31	1.34
1	AA	1298	C	C5-C6	-5.26	1.30	1.34
35	BA	150	C	C4-N4	-5.26	1.29	1.33
35	BA	213	A	N3-C4	-5.26	1.31	1.34
35	BA	334	C	N1-C6	-5.26	1.33	1.37
35	BA	942	G	C6-O6	-5.26	1.19	1.24
35	BA	1005	C	C4-N4	-5.26	1.29	1.33
35	BA	1764	G	C6-O6	-5.26	1.19	1.24
35	BA	1827	C	C4-N4	-5.26	1.29	1.33
35	BA	1945	G	C4'-C3'	-5.26	1.47	1.52
35	BA	2467	C	C4-C5	-5.26	1.38	1.43
35	BA	2882	A	C4'-C3'	-5.26	1.47	1.52
36	BB	39	A	C5-C4	-5.26	1.35	1.38
1	AA	173	U	P-O5'	-5.26	1.54	1.59
1	AA	1424	C	N3-C4	-5.26	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	181	A	P-O5'	-5.26	1.54	1.59
35	BA	395	U	O4'-C1'	-5.26	1.34	1.41
35	BA	2428	G	N1-C2	-5.26	1.33	1.37
36	BB	71	C	N3-C4	-5.26	1.30	1.33
1	AA	1125	U	C4-C5	-5.26	1.38	1.43
36	BB	62	C	C2-N3	-5.26	1.31	1.35
1	AA	1426	C	C5-C6	-5.25	1.30	1.34
35	BA	562	U	N3-C4	-5.25	1.33	1.38
35	BA	1688	U	C4'-O4'	-5.25	1.38	1.45
35	BA	2027	G	C6-O6	-5.25	1.19	1.24
35	BA	2110	G	C6-O6	-5.25	1.19	1.24
35	BA	2306	C	P-O5'	-5.25	1.54	1.59
35	BA	2456	C	C5-C6	-5.25	1.30	1.34
35	BA	2769	C	C5-C6	-5.25	1.30	1.34
35	BA	2881	C	C4-C5	5.25	1.47	1.43
1	AA	1135	U	N1-C2	5.25	1.43	1.38
35	BA	66	C	C4-C5	-5.25	1.38	1.43
35	BA	804	A	N3-C4	-5.25	1.31	1.34
35	BA	1053	C	C4-C5	-5.25	1.38	1.43
35	BA	2801	A	C5-C6	-5.25	1.36	1.41
1	AA	292	G	C2'-C1'	-5.25	1.47	1.53
1	AA	573	A	C2'-C1'	-5.25	1.47	1.53
1	AA	881	G	N3-C4	-5.25	1.31	1.35
1	AA	1519	A	C6-N6	-5.25	1.29	1.33
35	BA	1632	A	C2'-C1'	-5.25	1.47	1.53
35	BA	1778	U	C5-C6	-5.25	1.29	1.34
35	BA	1876	A	C6-N6	-5.25	1.29	1.33
35	BA	1963	U	C3'-C2'	-5.25	1.47	1.52
35	BA	2640	G	N9-C8	-5.25	1.34	1.37
22	AV	10	G	N7-C5	-5.25	1.36	1.39
35	BA	765	G	C5'-C4'	-5.25	1.45	1.51
35	BA	1139	G	N7-C5	-5.25	1.36	1.39
35	BA	1304	C	C5-C6	-5.25	1.30	1.34
35	BA	2090	G	C8-N7	-5.25	1.27	1.30
35	BA	2436	G	C4'-C3'	-5.25	1.47	1.52
35	BA	502	A	P-O5'	-5.25	1.54	1.59
35	BA	2135	A	C3'-C2'	-5.25	1.47	1.52
35	BA	2176	A	C5'-C4'	-5.25	1.45	1.51
35	BA	2183	C	N1-C6	-5.25	1.34	1.37
36	BB	6	C	C3'-C2'	-5.25	1.47	1.52
1	AA	944	G	C5-C4	-5.25	1.34	1.38
1	AA	1269	A	C2-N3	-5.25	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1309	G	C5-C6	-5.25	1.37	1.42
35	BA	644	A	C2-N3	-5.25	1.28	1.33
35	BA	1993	U	N1-C2	5.25	1.43	1.38
35	BA	2074	U	C4-O4	5.25	1.27	1.23
35	BA	2131	G	C6-O6	-5.25	1.19	1.24
35	BA	2298	A	C6-N1	-5.25	1.31	1.35
35	BA	2423	U	N1-C6	-5.25	1.33	1.38
35	BA	2885	C	C4-N4	-5.25	1.29	1.33
1	AA	530	G	P-O5'	-5.25	1.54	1.59
1	AA	1064	G	P-O5'	-5.25	1.54	1.59
35	BA	1307	A	P-O5'	-5.25	1.54	1.59
35	BA	1901	A	C8-N7	-5.25	1.27	1.31
35	BA	2775	A	P-O5'	-5.25	1.54	1.59
1	AA	270	A	C4'-O4'	-5.24	1.38	1.45
1	AA	870	U	N3-C4	-5.24	1.33	1.38
35	BA	80	G	N9-C8	5.24	1.41	1.37
35	BA	103	A	C8-N7	5.24	1.35	1.31
35	BA	505	A	C5-C4	-5.24	1.35	1.38
35	BA	654(J)	A	C5-C4	-5.24	1.35	1.38
35	BA	896	A	N9-C4	-5.24	1.34	1.37
35	BA	1115	G	C2'-C1'	-5.24	1.47	1.53
35	BA	1194	A	N7-C5	-5.24	1.36	1.39
35	BA	1231	G	C8-N7	-5.24	1.27	1.30
35	BA	1519	G	C4'-O4'	-5.24	1.38	1.45
35	BA	1696	G	N1-C2	-5.24	1.33	1.37
35	BA	2277	G	C8-N7	-5.24	1.27	1.30
35	BA	2753	A	O4'-C1'	5.24	1.48	1.41
36	BB	90	A	C5-C4	-5.24	1.35	1.38
1	AA	507	C	N3-C4	-5.24	1.30	1.33
1	AA	538	G	C2'-C1'	-5.24	1.47	1.53
1	AA	784	C	C4-N4	-5.24	1.29	1.33
1	AA	1356	G	C6-O6	-5.24	1.19	1.24
35	BA	654(L)	G	C6-O6	-5.24	1.19	1.24
35	BA	921	G	C5-C4	-5.24	1.34	1.38
35	BA	1741	A	O3'-P	-5.24	1.54	1.61
35	BA	1992	G	C6-O6	-5.24	1.19	1.24
35	BA	2528	U	C4-C5	-5.24	1.38	1.43
35	BA	2648	C	C2-N3	-5.24	1.31	1.35
36	BB	12	C	C2-N3	-5.24	1.31	1.35
1	AA	426	G	N7-C5	5.24	1.42	1.39
22	AV	12	G	C6-N1	-5.24	1.35	1.39
35	BA	1542	A	C5-C4	-5.24	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1953	A	C5-C6	-5.24	1.36	1.41
35	BA	1972	A	C6-N6	-5.24	1.29	1.33
35	BA	1981	A	N1-C2	-5.24	1.29	1.34
35	BA	2337	G	N1-C2	-5.24	1.33	1.37
1	AA	355	C	C2-N3	-5.24	1.31	1.35
1	AA	523	A	C2'-C1'	-5.24	1.47	1.53
1	AA	1370	G	C2'-C1'	-5.24	1.47	1.53
35	BA	788	A	N7-C5	-5.24	1.36	1.39
35	BA	1222	C	C2-N3	-5.24	1.31	1.35
35	BA	1992	G	C2'-C1'	-5.24	1.47	1.53
35	BA	2473	U	C2-N3	-5.24	1.34	1.37
1	AA	39	G	C8-N7	5.24	1.34	1.30
1	AA	1520	G	N9-C8	-5.24	1.34	1.37
35	BA	485	C	C4-C5	-5.24	1.38	1.43
35	BA	654(S)	G	N9-C8	-5.24	1.34	1.37
35	BA	676	A	O3'-P	-5.24	1.54	1.61
35	BA	700	G	C4'-C3'	-5.24	1.47	1.52
35	BA	2177	C	N1-C6	-5.24	1.34	1.37
35	BA	2320	A	N3-C4	-5.24	1.31	1.34
35	BA	2690	C	N1-C6	-5.24	1.34	1.37
35	BA	2887	U	N3-C4	-5.23	1.33	1.38
1	AA	898	G	C5-C6	-5.23	1.37	1.42
1	AA	1132	C	C4'-C3'	-5.23	1.47	1.52
1	AA	1399	C	P-O5'	-5.23	1.54	1.59
16	AP	26	ARG	NE-CZ	-5.23	1.26	1.33
35	BA	8	A	N9-C4	-5.23	1.34	1.37
35	BA	1130	U	C2-N3	-5.23	1.34	1.37
35	BA	2304	G	C2-N3	-5.23	1.28	1.32
35	BA	2838	G	C2-N3	-5.23	1.28	1.32
36	BB	13	A	N9-C4	-5.23	1.34	1.37
1	AA	475	G	N9-C8	-5.23	1.34	1.37
1	AA	976	G	N3-C4	-5.23	1.31	1.35
22	AV	21	A	C5-C6	-5.23	1.36	1.41
23	AX	11	U	C2-O2	-5.23	1.17	1.22
26	B1	31	GLY	C-O	-5.23	1.15	1.23
35	BA	1480	G	N7-C5	-5.23	1.36	1.39
35	BA	1666	G	N3-C4	-5.23	1.31	1.35
35	BA	1811	G	N9-C8	-5.23	1.34	1.37
35	BA	1928	A	C5-C6	-5.23	1.36	1.41
35	BA	1975	G	C8-N7	-5.23	1.27	1.30
1	AA	425	G	C2-N3	-5.23	1.28	1.32
1	AA	915	A	N9-C8	-5.23	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1077	G	C4'-C3'	-5.23	1.47	1.52
1	AA	1121	U	N1-C2	-5.23	1.33	1.38
1	AA	1443	G	P-O5'	-5.23	1.54	1.59
35	BA	108	U	C4-O4	-5.23	1.19	1.23
35	BA	123	G	C2-N3	-5.23	1.28	1.32
35	BA	385	C	C4'-C3'	-5.23	1.47	1.52
35	BA	1045	A	C4'-C3'	-5.23	1.47	1.52
35	BA	2532	G	N1-C2	-5.23	1.33	1.37
36	BB	91	C	P-O5'	-5.23	1.54	1.59
1	AA	959	A	N3-C4	-5.23	1.31	1.34
1	AA	1279	A	C8-N7	-5.23	1.27	1.31
35	BA	263	C	C3'-C2'	-5.23	1.47	1.52
35	BA	1918	A	C2'-C1'	-5.23	1.47	1.53
1	AA	674	G	N9-C4	-5.23	1.33	1.38
1	AA	819	A	C5-C6	-5.23	1.36	1.41
1	AA	1502	A	C4'-C3'	-5.23	1.47	1.52
35	BA	39	C	N1-C6	5.23	1.40	1.37
35	BA	1189	A	C4'-C3'	-5.23	1.47	1.52
35	BA	1848	A	C6-N1	-5.23	1.31	1.35
35	BA	2028	U	N3-C4	-5.23	1.33	1.38
1	AA	246	A	N7-C5	-5.22	1.36	1.39
1	AA	595	G	C5-C4	-5.22	1.34	1.38
22	AV	18	G	C2-N2	-5.22	1.29	1.34
35	BA	357	A	N7-C5	-5.22	1.36	1.39
35	BA	437	G	C2-N2	-5.22	1.29	1.34
35	BA	480	A	N9-C8	-5.22	1.33	1.37
35	BA	732	C	N3-C4	-5.22	1.30	1.33
35	BA	1045	A	C2-N3	-5.22	1.28	1.33
35	BA	1592	C	C4-N4	-5.22	1.29	1.33
35	BA	1633	G	N3-C4	-5.22	1.31	1.35
35	BA	1987	G	C8-N7	-5.22	1.27	1.30
35	BA	2375	G	C4'-O4'	-5.22	1.38	1.45
36	BB	15	A	N7-C5	-5.22	1.36	1.39
1	AA	199	G	C6-N1	-5.22	1.35	1.39
1	AA	239	U	N3-C4	-5.22	1.33	1.38
1	AA	1057	G	C6-N1	-5.22	1.35	1.39
35	BA	323	G	C6-N1	-5.22	1.35	1.39
35	BA	969	U	C4'-C3'	-5.22	1.47	1.52
35	BA	1187	G	C6-N1	-5.22	1.35	1.39
35	BA	1191	G	C8-N7	5.22	1.34	1.30
35	BA	1458	C	C4'-C3'	-5.22	1.47	1.52
35	BA	2282	G	C2'-O2'	-5.22	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2586	C	C4-C5	-5.22	1.38	1.43
36	BB	66	A	C4'-C3'	-5.22	1.47	1.52
1	AA	431	A	N3-C4	5.22	1.38	1.34
1	AA	1104	G	C5-C4	-5.22	1.34	1.38
1	AA	1337	G	C2-N3	-5.22	1.28	1.32
1	AA	1397	C	P-O5'	-5.22	1.54	1.59
35	BA	814	C	C2-O2	-5.22	1.19	1.24
35	BA	1132	A	C6-N1	-5.22	1.31	1.35
35	BA	1213	A	N7-C5	-5.22	1.36	1.39
35	BA	1354	A	C4'-O4'	-5.22	1.38	1.45
35	BA	1492	G	P-O5'	-5.22	1.54	1.59
35	BA	1655	A	C6-N1	-5.22	1.31	1.35
35	BA	2851	A	C4'-O4'	-5.22	1.38	1.45
1	AA	1106	G	C6-N1	-5.22	1.35	1.39
35	BA	19	C	C4-C5	-5.22	1.38	1.43
35	BA	285	C	N1-C6	-5.22	1.34	1.37
35	BA	1551	C	N1-C6	-5.22	1.34	1.37
35	BA	1637	A	C8-N7	-5.22	1.27	1.31
35	BA	1827	C	C5'-C4'	-5.22	1.45	1.51
35	BA	2639	A	C2-N3	-5.22	1.28	1.33
1	AA	340	U	C2'-O2'	-5.21	1.34	1.41
1	AA	595	G	N1-C2	-5.21	1.33	1.37
1	AA	1160	G	N9-C8	-5.21	1.34	1.37
35	BA	2285	C	C2-O2	-5.21	1.19	1.24
35	BA	2321	G	N9-C8	-5.21	1.34	1.37
35	BA	2757	A	C6-N6	-5.21	1.29	1.33
35	BA	191	A	N9-C4	-5.21	1.34	1.37
35	BA	1316	U	N3-C4	-5.21	1.33	1.38
1	AA	853	G	C4'-O4'	-5.21	1.38	1.45
1	AA	1099	G	N9-C4	5.21	1.42	1.38
1	AA	1399	C	C3'-C2'	-5.21	1.47	1.52
35	BA	459	U	C3'-C2'	-5.21	1.47	1.52
35	BA	578	A	C2-N3	-5.21	1.28	1.33
35	BA	743	G	N9-C4	5.21	1.42	1.38
35	BA	1570	A	C8-N7	-5.21	1.27	1.31
35	BA	1757	U	N1-C2	5.21	1.43	1.38
1	AA	521	G	O3'-P	-5.21	1.54	1.61
1	AA	53	A	C6-N1	-5.21	1.31	1.35
1	AA	259	G	C2-N3	-5.21	1.28	1.32
35	BA	757	U	C4-C5	-5.21	1.38	1.43
35	BA	1188	U	N3-C4	-5.21	1.33	1.38
35	BA	1639	U	C4'-C3'	-5.21	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2523	G	C2-N2	-5.21	1.29	1.34
1	AA	300	A	C8-N7	-5.21	1.27	1.31
1	AA	909	A	C5-C4	-5.21	1.35	1.38
1	AA	971	G	N1-C2	-5.21	1.33	1.37
35	BA	538	G	C6-N1	-5.21	1.35	1.39
35	BA	1878	G	C5-C6	-5.21	1.37	1.42
1	AA	13	U	C5-C6	-5.21	1.29	1.34
1	AA	405	U	C5-C6	-5.21	1.29	1.34
1	AA	635	G	C3'-O3'	-5.21	1.34	1.42
1	AA	1099	G	C2-N2	-5.21	1.29	1.34
1	AA	1466	C	N1-C2	-5.21	1.34	1.40
35	BA	639	U	N1-C6	-5.21	1.33	1.38
35	BA	1691	C	N1-C2	-5.21	1.34	1.40
35	BA	2786	U	C2-N3	-5.21	1.34	1.37
1	AA	226	G	C5-C4	-5.20	1.34	1.38
1	AA	236	G	N9-C8	-5.20	1.34	1.37
1	AA	961	U	C2-O2	-5.20	1.17	1.22
1	AA	988	G	C8-N7	-5.20	1.27	1.30
1	AA	1081	G	C5-C4	-5.20	1.34	1.38
35	BA	255	A	C6-N1	-5.20	1.31	1.35
35	BA	389	G	C5-C6	-5.20	1.37	1.42
35	BA	547	A	N3-C4	-5.20	1.31	1.34
35	BA	864	G	C6-O6	-5.20	1.19	1.24
35	BA	932	G	C6-O6	-5.20	1.19	1.24
35	BA	1088	A	C6-N1	-5.20	1.31	1.35
35	BA	1419	A	C6-N6	-5.20	1.29	1.33
35	BA	1613	G	C5'-C4'	-5.20	1.45	1.51
35	BA	1708	C	C4-C5	-5.20	1.38	1.43
35	BA	2127	G	C8-N7	-5.20	1.27	1.30
35	BA	2725	A	C6-N1	-5.20	1.31	1.35
35	BA	604	G	C4'-C3'	-5.20	1.47	1.52
35	BA	2250	G	C3'-C2'	-5.20	1.47	1.52
1	AA	244	U	C5-C6	-5.20	1.29	1.34
1	AA	784	C	C2-O2	-5.20	1.19	1.24
1	AA	813	U	C2-N3	-5.20	1.34	1.37
1	AA	869	G	N7-C5	-5.20	1.36	1.39
1	AA	1398	A	N7-C5	-5.20	1.36	1.39
1	AA	1415	G	N1-C2	-5.20	1.33	1.37
35	BA	33	U	C5-C6	-5.20	1.29	1.34
35	BA	722	A	C8-N7	-5.20	1.27	1.31
35	BA	1055	G	N7-C5	-5.20	1.36	1.39
1	AA	1385	G	C3'-C2'	-5.20	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	241	A	C6-N1	-5.20	1.31	1.35
35	BA	440	G	N9-C4	-5.20	1.33	1.38
35	BA	582	G	C5-C4	-5.20	1.34	1.38
35	BA	670	A	C6-N1	-5.20	1.31	1.35
35	BA	1296	G	C8-N7	-5.20	1.27	1.30
35	BA	1551	C	C2-N3	-5.20	1.31	1.35
35	BA	1836	C	C2-N3	-5.20	1.31	1.35
35	BA	2112	G	C5-C4	-5.20	1.34	1.38
35	BA	2112	G	C8-N7	-5.20	1.27	1.30
35	BA	2382	G	C5-C4	-5.20	1.34	1.38
35	BA	2674	G	O5'-C5'	-5.20	1.34	1.42
1	AA	1220	G	C6-N1	-5.20	1.35	1.39
35	BA	58	G	C6-N1	-5.20	1.35	1.39
35	BA	334	C	O3'-P	-5.20	1.54	1.61
35	BA	754	C	C5-C6	-5.20	1.30	1.34
35	BA	1659	U	C4-O4	-5.20	1.19	1.23
35	BA	1794	U	O3'-P	-5.20	1.54	1.61
35	BA	2412	A	C5-C6	-5.20	1.36	1.41
1	AA	382	A	C5-C4	-5.20	1.35	1.38
1	AA	588	G	C4'-C3'	-5.20	1.47	1.52
1	AA	624	C	C4-C5	-5.20	1.38	1.43
1	AA	1350	A	C5-C6	5.20	1.45	1.41
35	BA	1168	G	C4'-C3'	-5.20	1.47	1.52
35	BA	1317	A	N3-C4	-5.20	1.31	1.34
35	BA	1991	U	P-O5'	-5.20	1.54	1.59
35	BA	2508	G	P-O5'	-5.20	1.54	1.59
1	AA	388	G	N7-C5	-5.19	1.36	1.39
1	AA	1082	G	N7-C5	-5.19	1.36	1.39
35	BA	49	A	C6-N6	-5.19	1.29	1.33
35	BA	570	G	C2-N3	-5.19	1.28	1.32
35	BA	1593	G	N7-C5	-5.19	1.36	1.39
38	BD	23	GLU	CD-OE1	-5.19	1.20	1.25
1	AA	315	A	P-O5'	-5.19	1.54	1.59
1	AA	564	C	C5'-C4'	-5.19	1.45	1.51
1	AA	1093	A	P-O5'	-5.19	1.54	1.59
1	AA	1403	C	N3-C4	-5.19	1.30	1.33
35	BA	33	U	N1-C6	5.19	1.42	1.38
35	BA	363(A)	A	C5-C6	-5.19	1.36	1.41
35	BA	393	C	C4'-C3'	-5.19	1.47	1.52
35	BA	399	G	N9-C4	-5.19	1.33	1.38
35	BA	654(I)	C	N3-C4	-5.19	1.30	1.33
35	BA	755	C	P-O5'	-5.19	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	892	G	C2-N2	-5.19	1.29	1.34
35	BA	2124	G	C5'-C4'	-5.19	1.45	1.51
35	BA	2155	G	N9-C4	-5.19	1.33	1.38
35	BA	2861	G	C1'-N9	-5.19	1.39	1.46
1	AA	227	G	C5'-C4'	-5.19	1.45	1.51
1	AA	674	G	P-O5'	-5.19	1.54	1.59
1	AA	1102	A	C2-N3	-5.19	1.28	1.33
1	AA	1428	A	C2-N3	-5.19	1.28	1.33
35	BA	118	A	C2-N3	-5.19	1.28	1.33
35	BA	216	A	C6-N6	-5.19	1.29	1.33
35	BA	381	G	N1-C2	5.19	1.42	1.37
35	BA	654(K)	C	C3'-C2'	-5.19	1.47	1.52
35	BA	660	G	C2-N3	-5.19	1.28	1.32
35	BA	1128	A	C6-N6	-5.19	1.29	1.33
35	BA	1449	A	P-O5'	-5.19	1.54	1.59
35	BA	1582	C	N1-C6	-5.19	1.34	1.37
35	BA	1584	C	N1-C6	-5.19	1.34	1.37
35	BA	1785	A	C6-N6	-5.19	1.29	1.33
35	BA	2376	A	P-O5'	-5.19	1.54	1.59
1	AA	836	G	C5-C6	-5.19	1.37	1.42
35	BA	146	G	O3'-P	-5.19	1.54	1.61
35	BA	1137	G	O3'-P	-5.19	1.54	1.61
35	BA	1395	A	O3'-P	-5.19	1.54	1.61
35	BA	2576	G	N9-C4	-5.19	1.33	1.38
1	AA	350	G	N1-C2	-5.19	1.33	1.37
1	AA	786	G	N1-C2	-5.19	1.33	1.37
1	AA	1046	A	C2-N3	5.19	1.38	1.33
35	BA	769	G	N7-C5	-5.19	1.36	1.39
35	BA	968	G	C2'-C1'	-5.19	1.47	1.53
35	BA	1835	G	N1-C2	-5.19	1.33	1.37
35	BA	1847	A	N9-C8	-5.19	1.33	1.37
35	BA	2628	C	N3-C4	-5.19	1.30	1.33
35	BA	2641	G	C3'-C2'	-5.19	1.47	1.52
35	BA	764	A	N1-C2	-5.19	1.29	1.34
35	BA	1777	U	C3'-O3'	-5.19	1.34	1.42
35	BA	2272	U	C3'-O3'	-5.19	1.34	1.42
35	BA	2674	G	C3'-O3'	-5.19	1.34	1.42
1	AA	93	G	C5'-C4'	-5.18	1.45	1.51
1	AA	280	C	N1-C6	-5.18	1.34	1.37
35	BA	407	G	C2-N2	5.18	1.39	1.34
35	BA	1253	A	N3-C4	-5.18	1.31	1.34
35	BA	1356	G	C2-N2	-5.18	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1805	U	N1-C6	-5.18	1.33	1.38
35	BA	2332	U	C2-N3	-5.18	1.34	1.37
35	BA	2768	C	N1-C6	-5.18	1.34	1.37
1	AA	699	C	C4'-O4'	-5.18	1.38	1.45
35	BA	45	C	C4-C5	-5.18	1.38	1.43
35	BA	330	A	N9-C4	-5.18	1.34	1.37
35	BA	689	A	N9-C4	-5.18	1.34	1.37
35	BA	1876	A	C6-N1	-5.18	1.31	1.35
1	AA	283	C	O3'-P	-5.18	1.54	1.61
35	BA	939	G	O3'-P	-5.18	1.54	1.61
35	BA	1082	U	C4-C5	5.18	1.48	1.43
1	AA	360	A	C6-N6	-5.18	1.29	1.33
1	AA	438	G	C2'-O2'	-5.18	1.34	1.41
1	AA	1164	G	P-O5'	-5.18	1.54	1.59
1	AA	1235	U	N1-C2	-5.18	1.33	1.38
1	AA	1505	G	C2-N3	-5.18	1.28	1.32
35	BA	2485	G	P-O5'	-5.18	1.54	1.59
35	BA	2525	G	N9-C4	-5.18	1.33	1.38
1	AA	758	G	C2'-C1'	-5.18	1.47	1.53
1	AA	1024	G	C8-N7	-5.18	1.27	1.30
35	BA	1021	A	C8-N7	-5.18	1.27	1.31
35	BA	1443	G	C8-N7	-5.18	1.27	1.30
35	BA	2093	G	C8-N7	-5.18	1.27	1.30
35	BA	2139	C	C5'-C4'	-5.18	1.45	1.51
35	BA	2391	G	C8-N7	-5.18	1.27	1.30
1	AA	529	G	C5-C4	-5.18	1.34	1.38
1	AA	1442(B)	A	N7-C5	-5.18	1.36	1.39
1	AA	1510	U	N3-C4	-5.18	1.33	1.38
22	AV	46	G	C6-N1	-5.18	1.35	1.39
35	BA	300	A	N9-C4	-5.18	1.34	1.37
35	BA	308	G	C6-N1	-5.18	1.35	1.39
35	BA	336	C	C3'-C2'	-5.18	1.47	1.52
35	BA	1143	A	C2-N3	-5.18	1.28	1.33
35	BA	1383	C	C4-N4	-5.18	1.29	1.33
35	BA	2010	G	C6-O6	-5.18	1.19	1.24
35	BA	2665	A	N7-C5	-5.18	1.36	1.39
1	AA	6	G	O3'-P	-5.17	1.54	1.61
1	AA	1072	G	C2-N3	-5.17	1.28	1.32
35	BA	2374	C	C4'-C3'	-5.17	1.47	1.52
36	BB	72	G	C2-N3	-5.17	1.28	1.32
1	AA	669	U	C2-N3	-5.17	1.34	1.37
1	AA	878	G	P-O5'	-5.17	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	351	G	C5'-C4'	-5.17	1.45	1.51
35	BA	756	C	C2-O2	-5.17	1.19	1.24
35	BA	2500	U	C2-N3	-5.17	1.34	1.37
1	AA	909	A	C5-C6	-5.17	1.36	1.41
35	BA	1217	C	C4'-C3'	-5.17	1.47	1.52
35	BA	1896	G	N9-C8	-5.17	1.34	1.37
1	AA	1030(A)	G	N7-C5	-5.17	1.36	1.39
1	AA	1133	G	N7-C5	-5.17	1.36	1.39
1	AA	1283	G	N7-C5	-5.17	1.36	1.39
35	BA	862	G	N7-C5	-5.17	1.36	1.39
35	BA	2355	C	C2-N3	-5.17	1.31	1.35
35	BA	2752	C	N3-C4	-5.17	1.30	1.33
35	BA	823	G	N9-C8	5.17	1.41	1.37
35	BA	1518	U	P-O5'	5.17	1.65	1.59
35	BA	2133	G	N1-C2	-5.17	1.33	1.37
35	BA	2598	A	C2'-C1'	-5.17	1.47	1.53
1	AA	115	G	C6-O6	-5.17	1.19	1.24
1	AA	239	U	C5-C6	-5.17	1.29	1.34
1	AA	280	C	P-O5'	-5.17	1.54	1.59
1	AA	647	C	N1-C6	-5.17	1.34	1.37
1	AA	970	C	N1-C6	-5.17	1.34	1.37
35	BA	51	G	P-O5'	-5.17	1.54	1.59
35	BA	377	C	P-O5'	-5.17	1.54	1.59
35	BA	1554	A	C5'-C4'	-5.17	1.45	1.51
35	BA	1663	C	N3-C4	5.17	1.37	1.33
35	BA	2107	C	N1-C6	-5.17	1.34	1.37
1	AA	664	G	C2-N3	-5.17	1.28	1.32
35	BA	1646	C	C4-N4	5.17	1.38	1.33
1	AA	90	U	C2'-C1'	-5.16	1.47	1.53
1	AA	270	A	N9-C4	-5.16	1.34	1.37
35	BA	454	A	C5-C6	-5.16	1.36	1.41
35	BA	635	C	C5-C6	-5.16	1.30	1.34
35	BA	2201	C	C4-C5	-5.16	1.38	1.43
35	BA	2474	C	C4-C5	-5.16	1.38	1.43
35	BA	2618	G	N3-C4	-5.16	1.31	1.35
1	AA	79	G	C2-N2	-5.16	1.29	1.34
1	AA	1401	G	C6-O6	-5.16	1.19	1.24
1	AA	614	A	C6-N6	-5.16	1.29	1.33
1	AA	820	U	N1-C2	5.16	1.43	1.38
5	AE	8	GLU	CD-OE1	-5.16	1.20	1.25
35	BA	447	A	C6-N1	5.16	1.39	1.35
35	BA	1528(A)	A	C6-N1	-5.16	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1829	A	C6-N1	-5.16	1.31	1.35
35	BA	1920	C	N1-C6	-5.16	1.34	1.37
35	BA	2592	G	C5-C4	-5.16	1.34	1.38
1	AA	153	C	N1-C2	5.16	1.45	1.40
1	AA	251	G	C5-C6	-5.16	1.37	1.42
1	AA	569	C	O3'-P	-5.16	1.54	1.61
1	AA	610	G	C2-N2	-5.16	1.29	1.34
35	BA	18	C	C5-C6	-5.16	1.30	1.34
35	BA	461	C	C5-C6	-5.16	1.30	1.34
35	BA	495	G	O3'-P	-5.16	1.54	1.61
35	BA	1098	A	N3-C4	5.16	1.38	1.34
35	BA	1189	A	N3-C4	-5.16	1.31	1.34
35	BA	1254	A	N3-C4	-5.16	1.31	1.34
35	BA	1543	C	O3'-P	-5.16	1.54	1.61
35	BA	1619	G	C5-C6	-5.16	1.37	1.42
35	BA	1833	U	N1-C6	-5.16	1.33	1.38
1	AA	322	C	P-O5'	-5.16	1.54	1.59
1	AA	1030(D)	A	N9-C4	-5.16	1.34	1.37
35	BA	657	U	C2-N3	-5.16	1.34	1.37
35	BA	878	A	N9-C4	-5.16	1.34	1.37
35	BA	1104	C	P-O5'	-5.16	1.54	1.59
35	BA	1534	U	C2-N3	-5.16	1.34	1.37
35	BA	2661	G	C5-C4	5.16	1.42	1.38
1	AA	259	G	C5-C4	-5.16	1.34	1.38
1	AA	1081	G	N9-C4	-5.16	1.33	1.38
22	AV	42	G	C2-N3	-5.16	1.28	1.32
35	BA	569	U	N1-C6	-5.16	1.33	1.38
35	BA	695	G	N9-C4	-5.16	1.33	1.38
35	BA	1634	A	C6-N1	-5.16	1.31	1.35
35	BA	1682	G	C5-C6	-5.16	1.37	1.42
35	BA	1961	C	N1-C6	5.16	1.40	1.37
35	BA	2089	U	C5'-C4'	-5.16	1.45	1.51
35	BA	2124	G	N9-C4	-5.16	1.33	1.38
1	AA	699	C	C4'-C3'	-5.15	1.47	1.52
35	BA	1196	C	C4'-C3'	-5.15	1.47	1.52
35	BA	2561	A	C3'-O3'	-5.15	1.34	1.42
1	AA	992	U	C2-N3	-5.15	1.34	1.37
1	AA	1061	G	C8-N7	-5.15	1.27	1.30
1	AA	49	U	C4'-C3'	-5.15	1.47	1.52
1	AA	116	A	N9-C8	-5.15	1.33	1.37
1	AA	746	A	C6-N6	-5.15	1.29	1.33
35	BA	1354	A	C1'-N9	-5.15	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	41	C	C4'-C3'	-5.15	1.47	1.52
35	BA	465	G	O3'-P	-5.15	1.54	1.61
35	BA	672	C	N3-C4	-5.15	1.30	1.33
35	BA	807	U	C4-C5	-5.15	1.39	1.43
35	BA	1215	G	C4'-C3'	-5.15	1.47	1.52
35	BA	1142	U	N1-C6	-5.15	1.33	1.38
35	BA	1610	A	N3-C4	-5.15	1.31	1.34
35	BA	2705	A	C3'-O3'	-5.15	1.34	1.42
1	AA	1027	C	C5-C6	-5.14	1.30	1.34
1	AA	1042	G	C5-C4	-5.14	1.34	1.38
35	BA	563	G	C5-C4	-5.14	1.34	1.38
35	BA	869	G	N1-C2	-5.14	1.33	1.37
35	BA	2233	U	C4-C5	-5.14	1.39	1.43
35	BA	315	G	N3-C4	-5.14	1.31	1.35
35	BA	1419	A	C2-N3	-5.14	1.28	1.33
35	BA	1558	A	C2-N3	-5.14	1.28	1.33
35	BA	1893	C	N3-C4	-5.14	1.30	1.33
35	BA	2120	G	C2'-C1'	5.14	1.59	1.53
1	AA	35	G	C2'-C1'	-5.14	1.47	1.53
1	AA	345	C	C2'-C1'	-5.14	1.47	1.53
1	AA	1498	U	C2'-C1'	-5.14	1.47	1.53
35	BA	748	G	P-OP1	-5.14	1.40	1.49
35	BA	2399	G	P-O5'	-5.14	1.54	1.59
35	BA	2814	C	C3'-O3'	-5.14	1.34	1.42
1	AA	26	A	N9-C4	-5.14	1.34	1.37
1	AA	864	A	C8-N7	-5.14	1.27	1.31
1	AA	901	A	N7-C5	-5.14	1.36	1.39
1	AA	1067	A	N9-C4	-5.14	1.34	1.37
22	AV	12	G	N1-C2	-5.14	1.33	1.37
35	BA	282	A	C8-N7	-5.14	1.27	1.31
35	BA	933	A	N9-C4	-5.14	1.34	1.37
35	BA	1366	A	N9-C4	-5.14	1.34	1.37
35	BA	1553	A	C5-C6	-5.14	1.36	1.41
1	AA	952	U	P-O5'	-5.14	1.54	1.59
1	AA	1289	A	C2'-C1'	-5.14	1.47	1.53
22	AV	51	C	C4-N4	-5.14	1.29	1.33
35	BA	365	C	C5'-C4'	-5.14	1.45	1.51
35	BA	1150	C	P-O5'	-5.14	1.54	1.59
35	BA	1571	A	C5-C4	-5.14	1.35	1.38
1	AA	608	A	C6-N6	-5.14	1.29	1.33
1	AA	895	G	N3-C4	-5.14	1.31	1.35
1	AA	1459	C	C4'-O4'	-5.14	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1515	C	C2-O2	-5.14	1.19	1.24
3	AC	167	TRP	CB-CG	-5.14	1.41	1.50
35	BA	2283	C	C4-N4	5.14	1.38	1.33
1	AA	342	C	C3'-C2'	-5.13	1.47	1.52
22	AV	53	G	C5'-C4'	-5.13	1.45	1.51
35	BA	478	A	N3-C4	5.13	1.38	1.34
35	BA	1799	G	C5'-C4'	-5.13	1.45	1.51
57	BZ	72	ARG	NE-CZ	-5.13	1.26	1.33
1	AA	1279	A	N7-C5	-5.13	1.36	1.39
35	BA	132	G	N7-C5	-5.13	1.36	1.39
35	BA	213	A	N7-C5	-5.13	1.36	1.39
35	BA	603	A	C5-C4	-5.13	1.35	1.38
35	BA	2533	A	C8-N7	-5.13	1.27	1.31
35	BA	2762	G	N7-C5	-5.13	1.36	1.39
1	AA	279	A	C5-C6	-5.13	1.36	1.41
35	BA	746	A	O3'-P	-5.13	1.54	1.61
35	BA	1180	C	C2-N3	5.13	1.39	1.35
35	BA	1256	G	N3-C4	-5.13	1.31	1.35
35	BA	1764	G	C1'-N9	-5.13	1.39	1.46
35	BA	2058	A	N9-C4	-5.13	1.34	1.37
35	BA	2239	G	C2-N3	-5.13	1.28	1.32
35	BA	2802	G	C8-N7	-5.13	1.27	1.30
36	BB	18	G	O3'-P	-5.13	1.54	1.61
1	AA	256	U	N1-C6	-5.13	1.33	1.38
1	AA	305	G	N1-C2	5.13	1.41	1.37
1	AA	1396	A	C5-C4	5.13	1.42	1.38
35	BA	319	C	N1-C2	-5.13	1.35	1.40
35	BA	1951	U	N1-C6	-5.13	1.33	1.38
1	AA	243	A	P-O5'	-5.13	1.54	1.59
1	AA	1242	C	P-O5'	-5.13	1.54	1.59
35	BA	654	A	C3'-C2'	-5.13	1.47	1.52
35	BA	1382	G	C6-O6	-5.13	1.19	1.24
35	BA	1750	G	C2'-O2'	-5.13	1.34	1.41
35	BA	2100	G	N9-C8	-5.13	1.34	1.37
35	BA	2608	G	C6-N1	-5.13	1.35	1.39
35	BA	2708	G	N7-C5	5.13	1.42	1.39
1	AA	39	G	N3-C4	-5.13	1.31	1.35
1	AA	60	A	C6-N6	5.13	1.38	1.33
1	AA	262	A	O3'-P	-5.13	1.54	1.61
1	AA	537	G	C2-N2	-5.13	1.29	1.34
1	AA	666	G	N9-C4	5.13	1.42	1.38
1	AA	807	A	N3-C4	-5.13	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1203	C	C2-N3	-5.13	1.31	1.35
35	BA	139	G	C2-N3	-5.13	1.28	1.32
35	BA	642	G	C4'-C3'	-5.13	1.47	1.52
35	BA	777	A	N3-C4	-5.13	1.31	1.34
35	BA	1193	G	N7-C5	-5.13	1.36	1.39
35	BA	1378	A	N1-C2	-5.13	1.29	1.34
35	BA	1392	A	N9-C4	-5.13	1.34	1.37
35	BA	1609	A	N7-C5	-5.13	1.36	1.39
35	BA	1877	A	N7-C5	-5.13	1.36	1.39
35	BA	1919	A	N9-C8	-5.13	1.33	1.37
35	BA	2173	A	C2'-C1'	-5.13	1.47	1.53
35	BA	2229	C	C4-C5	5.13	1.47	1.43
35	BA	2330	G	N3-C4	-5.13	1.31	1.35
35	BA	2588	G	C5-C6	5.13	1.47	1.42
35	BA	2589	A	N9-C8	-5.13	1.33	1.37
35	BA	2592	G	C2-N2	-5.13	1.29	1.34
1	AA	889	A	P-O5'	-5.12	1.54	1.59
22	AV	23	C	N1-C6	5.12	1.40	1.37
35	BA	1952	A	C3'-C2'	-5.12	1.47	1.52
35	BA	140	G	N9-C8	-5.12	1.34	1.37
35	BA	1568	G	C6-O6	-5.12	1.19	1.24
1	AA	1077	G	P-O5'	-5.12	1.54	1.59
22	AV	19	G	C5-C4	5.12	1.42	1.38
35	BA	27	G	C2-N3	-5.12	1.28	1.32
35	BA	123	G	N3-C4	-5.12	1.31	1.35
35	BA	1005	C	C2-N3	-5.12	1.31	1.35
35	BA	1010	A	C5'-C4'	-5.12	1.45	1.51
35	BA	2230	G	N3-C4	-5.12	1.31	1.35
35	BA	2709	G	N7-C5	-5.12	1.36	1.39
35	BA	57	C	N3-C4	5.12	1.37	1.33
35	BA	2485	G	C2'-O2'	-5.12	1.34	1.41
1	AA	105	G	C5-C4	-5.12	1.34	1.38
1	AA	324	G	C8-N7	-5.12	1.27	1.30
1	AA	585	G	C3'-C2'	-5.12	1.47	1.52
35	BA	125	G	C6-N1	-5.12	1.35	1.39
35	BA	939	G	C8-N7	-5.12	1.27	1.30
42	BH	47	GLU	CD-OE2	-5.12	1.20	1.25
35	BA	194	G	C4'-C3'	-5.12	1.47	1.52
35	BA	270	A	C5-C4	-5.12	1.35	1.38
35	BA	483	A	C5-C4	-5.12	1.35	1.38
35	BA	1722	A	C6-N1	-5.12	1.31	1.35
1	AA	69	G	C2-N3	-5.12	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	601	C	N1-C2	-5.12	1.35	1.40
1	AA	863	U	C4-C5	-5.12	1.39	1.43
1	AA	939	G	C2-N3	-5.12	1.28	1.32
35	BA	268	C	C5-C6	-5.12	1.30	1.34
35	BA	561	G	P-O5'	-5.12	1.54	1.59
35	BA	1390	U	C5-C6	-5.12	1.29	1.34
35	BA	1860	G	C2-N3	-5.12	1.28	1.32
35	BA	2205	C	P-O5'	-5.12	1.54	1.59
35	BA	2271	G	C5-C6	-5.12	1.37	1.42
35	BA	2316	C	C5-C6	-5.12	1.30	1.34
35	BA	2438	U	C4-C5	-5.12	1.39	1.43
1	AA	299	G	C5-C6	5.11	1.47	1.42
1	AA	317	G	C4'-C3'	-5.11	1.47	1.52
22	AV	31	G	N9-C4	-5.11	1.33	1.38
35	BA	271(O)	C	C2'-C1'	-5.11	1.47	1.53
35	BA	272(E)	G	N9-C4	-5.11	1.33	1.38
35	BA	552	G	C4'-O4'	-5.11	1.39	1.45
35	BA	609	A	N9-C4	-5.11	1.34	1.37
35	BA	848	G	C6-N1	-5.11	1.35	1.39
35	BA	1032	A	N9-C4	-5.11	1.34	1.37
35	BA	1062	G	C4'-O4'	-5.11	1.39	1.45
35	BA	1406	U	N1-C6	-5.11	1.33	1.38
35	BA	1463	C	C2-O2	-5.11	1.19	1.24
35	BA	1599	C	C4-C5	-5.11	1.38	1.43
35	BA	1678	G	N9-C4	-5.11	1.33	1.38
35	BA	1971	A	C4'-C3'	-5.11	1.47	1.52
35	BA	2627	G	C6-N1	-5.11	1.35	1.39
35	BA	2689	U	C4-O4	-5.11	1.19	1.23
35	BA	2796	U	N3-C4	-5.11	1.33	1.38
1	AA	738	C	C5'-C4'	-5.11	1.45	1.51
1	AA	1228	C	P-O5'	-5.11	1.54	1.59
35	BA	214	G	N1-C2	-5.11	1.33	1.37
35	BA	425	G	N1-C2	-5.11	1.33	1.37
35	BA	603	A	O4'-C1'	-5.11	1.35	1.41
35	BA	822	U	C4-C5	-5.11	1.39	1.43
35	BA	1742	G	C5'-C4'	-5.11	1.45	1.51
35	BA	1890	A	C6-N1	-5.11	1.31	1.35
35	BA	2071	A	P-O5'	-5.11	1.54	1.59
1	AA	1006	C	C4'-O4'	-5.11	1.39	1.45
1	AA	1079	G	O3'-P	-5.11	1.55	1.61
1	AA	1104	G	C6-O6	-5.11	1.19	1.24
9	AI	72	GLY	N-CA	-5.11	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	116	C	O3'-P	-5.11	1.55	1.61
35	BA	811	U	C5-C6	-5.11	1.29	1.34
35	BA	2403	C	N1-C6	-5.11	1.34	1.37
35	BA	2820	A	C1'-N9	-5.11	1.39	1.46
35	BA	2118	U	O4'-C1'	-5.11	1.35	1.41
36	BB	8	U	C2-N3	-5.11	1.34	1.37
1	AA	661	G	N9-C8	-5.11	1.34	1.37
1	AA	1329	A	C6-N6	-5.11	1.29	1.33
1	AA	1516	G	N9-C8	5.11	1.41	1.37
35	BA	83	G	N9-C8	-5.11	1.34	1.37
35	BA	765	G	N1-C2	-5.11	1.33	1.37
35	BA	1015	G	N9-C8	-5.11	1.34	1.37
35	BA	1774	C	C2-N3	-5.11	1.31	1.35
35	BA	2199	A	N9-C4	-5.11	1.34	1.37
36	BB	101	G	N9-C8	-5.11	1.34	1.37
1	AA	122	G	C5-C6	-5.11	1.37	1.42
1	AA	963	G	C6-O6	-5.11	1.19	1.24
35	BA	401	A	N9-C4	5.11	1.41	1.37
35	BA	1017	G	C3'-C2'	-5.11	1.47	1.52
35	BA	2873	A	N9-C4	5.11	1.41	1.37
1	AA	39	G	C2-N3	5.10	1.36	1.32
1	AA	109	A	C5-C6	-5.10	1.36	1.41
1	AA	283	C	C4'-O4'	-5.10	1.39	1.45
1	AA	350	G	N7-C5	-5.10	1.36	1.39
1	AA	419	C	C4-N4	-5.10	1.29	1.33
1	AA	622	A	C6-N6	-5.10	1.29	1.33
1	AA	930	C	C4-N4	-5.10	1.29	1.33
22	AV	15	G	P-O5'	-5.10	1.54	1.59
35	BA	764	A	N9-C8	-5.10	1.33	1.37
35	BA	900	A	C4'-C3'	-5.10	1.47	1.52
35	BA	1301	A	C6-N6	-5.10	1.29	1.33
35	BA	1767	C	C4'-C3'	-5.10	1.47	1.52
35	BA	1965	C	O3'-P	-5.10	1.55	1.61
35	BA	2037	G	P-O5'	-5.10	1.54	1.59
35	BA	2091	U	C4-O4	-5.10	1.19	1.23
35	BA	2130	U	C5-C6	-5.10	1.29	1.34
35	BA	2208	A	C5-C6	-5.10	1.36	1.41
35	BA	2330	G	N1-C2	-5.10	1.33	1.37
35	BA	2414	G	P-O5'	-5.10	1.54	1.59
35	BA	2896	C	C2-O2	-5.10	1.19	1.24
1	AA	823	G	C5-C6	-5.10	1.37	1.42
22	AV	38	A	C6-N1	-5.10	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	179	G	C1'-N9	-5.10	1.39	1.46
35	BA	374	A	C5-C4	-5.10	1.35	1.38
1	AA	377	G	N3-C4	-5.10	1.31	1.35
1	AA	608	A	C4'-C3'	-5.10	1.47	1.52
1	AA	913	A	C3'-O3'	5.10	1.49	1.42
1	AA	1131	G	C2-N2	-5.10	1.29	1.34
12	AL	72	GLY	N-CA	-5.10	1.38	1.46
35	BA	288	C	C4-N4	-5.10	1.29	1.33
35	BA	850	C	N3-C4	-5.10	1.30	1.33
35	BA	1764	G	C5-C6	5.10	1.47	1.42
35	BA	1936	A	C4'-C3'	-5.10	1.47	1.52
35	BA	2223	G	P-O5'	-5.10	1.54	1.59
35	BA	2522	U	C5-C6	5.10	1.38	1.34
35	BA	2546	U	N1-C6	-5.10	1.33	1.38
1	AA	789	U	N1-C2	5.10	1.43	1.38
1	AA	1293	G	C5-C4	-5.10	1.34	1.38
1	AA	1517	G	C5'-C4'	-5.10	1.45	1.51
35	BA	1110	G	C2-N3	-5.10	1.28	1.32
35	BA	1120	G	C5-C4	-5.10	1.34	1.38
35	BA	1277	G	C5-C4	-5.10	1.34	1.38
35	BA	2718	G	C6-N1	-5.10	1.35	1.39
1	AA	397	A	N7-C5	-5.10	1.36	1.39
1	AA	543	C	C4-C5	-5.10	1.38	1.43
1	AA	848	C	C5-C6	-5.10	1.30	1.34
1	AA	1477	C	C5-C6	-5.10	1.30	1.34
35	BA	225	A	C5-C4	-5.10	1.35	1.38
35	BA	2325	G	C6-O6	-5.10	1.19	1.24
35	BA	2530	A	C1'-N9	-5.10	1.39	1.46
36	BB	100	A	N7-C5	-5.10	1.36	1.39
35	BA	49	A	C8-N7	-5.09	1.27	1.31
35	BA	60	G	N9-C4	-5.09	1.33	1.38
35	BA	278	A	C2-N3	-5.09	1.28	1.33
35	BA	798	G	N3-C4	-5.09	1.31	1.35
35	BA	1583	A	C6-N1	-5.09	1.31	1.35
23	AX	19	U	C2-N3	-5.09	1.34	1.37
35	BA	147	U	C2-N3	-5.09	1.34	1.37
35	BA	272(F)	C	C5-C6	5.09	1.38	1.34
35	BA	1533	G	C8-N7	-5.09	1.27	1.30
35	BA	2729	G	N1-C2	-5.09	1.33	1.37
1	AA	31	G	C6-O6	-5.09	1.19	1.24
1	AA	224	C	N1-C6	-5.09	1.34	1.37
1	AA	1105	A	O3'-P	-5.09	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1353	G	C2-N2	-5.09	1.29	1.34
35	BA	271(R)	G	C6-N1	-5.09	1.35	1.39
35	BA	491	G	C2-N3	-5.09	1.28	1.32
35	BA	1246	A	C2'-C1'	-5.09	1.47	1.53
35	BA	2445	G	C5-C4	-5.09	1.34	1.38
35	BA	2745	C	O3'-P	-5.09	1.55	1.61
36	BB	69	G	C2-N3	-5.09	1.28	1.32
1	AA	1224	G	N1-C2	-5.09	1.33	1.37
1	AA	1428	A	P-O5'	-5.09	1.54	1.59
1	AA	1434	A	C4'-C3'	-5.09	1.47	1.52
35	BA	406	G	N1-C2	-5.09	1.33	1.37
35	BA	651	G	C5-C6	-5.09	1.37	1.42
35	BA	1272	A	C5'-C4'	5.09	1.57	1.51
35	BA	1397	U	P-O5'	-5.09	1.54	1.59
35	BA	1826	G	N1-C2	-5.09	1.33	1.37
35	BA	2750	A	C8-N7	5.09	1.35	1.31
36	BB	102	A	C6-N6	5.09	1.38	1.33
1	AA	1248	A	C8-N7	-5.09	1.27	1.31
35	BA	383	U	N3-C4	-5.09	1.33	1.38
35	BA	1352	U	C2-N3	-5.09	1.34	1.37
1	AA	399	G	C6-N1	-5.09	1.35	1.39
1	AA	1075	C	C3'-C2'	-5.09	1.47	1.52
35	BA	205	G	C6-N1	-5.09	1.35	1.39
35	BA	604	G	N9-C8	-5.09	1.34	1.37
35	BA	725	G	N9-C8	-5.09	1.34	1.37
35	BA	768	G	C6-O6	-5.09	1.19	1.24
35	BA	795	C	C2'-C1'	-5.09	1.47	1.53
35	BA	1841	U	C2'-C1'	-5.09	1.47	1.53
35	BA	1948	G	C3'-C2'	-5.09	1.47	1.52
35	BA	2443	C	C2'-C1'	-5.09	1.47	1.53
35	BA	306	U	C5-C6	-5.08	1.29	1.34
35	BA	1337	G	N9-C4	5.08	1.42	1.38
35	BA	2572	A	O4'-C1'	-5.08	1.35	1.41
35	BA	2663	G	C4'-C3'	-5.08	1.47	1.52
1	AA	151	A	N9-C4	5.08	1.40	1.37
1	AA	562	C	C4-N4	-5.08	1.29	1.33
1	AA	1022	G	N9-C8	-5.08	1.34	1.37
1	AA	1516	G	N7-C5	5.08	1.42	1.39
2	AB	12	GLU	CG-CD	-5.08	1.44	1.51
35	BA	742	G	N9-C4	-5.08	1.33	1.38
35	BA	860	U	C4-O4	-5.08	1.19	1.23
35	BA	1400	G	N9-C8	5.08	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1408	C	N3-C4	-5.08	1.30	1.33
35	BA	2761	G	C2-N2	-5.08	1.29	1.34
39	BE	144	ARG	NE-CZ	-5.08	1.26	1.33
1	AA	171	A	N7-C5	-5.08	1.36	1.39
1	AA	487	A	C6-N6	-5.08	1.29	1.33
1	AA	1029	C	C3'-C2'	-5.08	1.47	1.52
35	BA	35	G	C2'-C1'	-5.08	1.47	1.53
35	BA	262	A	C6-N6	-5.08	1.29	1.33
35	BA	314	A	C5'-C4'	-5.08	1.45	1.51
35	BA	1046	A	C2-N3	-5.08	1.28	1.33
35	BA	1851	U	C5'-C4'	-5.08	1.45	1.51
35	BA	1932	A	C1'-N9	-5.08	1.39	1.46
35	BA	2315	G	N7-C5	-5.08	1.36	1.39
35	BA	2706	G	C5'-C4'	-5.08	1.45	1.51
35	BA	64	A	N9-C4	-5.08	1.34	1.37
35	BA	89	G	C2-N3	-5.08	1.28	1.32
35	BA	1450	G	O4'-C1'	-5.08	1.35	1.41
35	BA	1711	C	N3-C4	-5.08	1.30	1.33
35	BA	2064	C	N3-C4	-5.08	1.30	1.33
35	BA	2879	C	N1-C6	5.08	1.40	1.37
1	AA	6	G	N1-C2	-5.08	1.33	1.37
1	AA	258	G	C5-C6	-5.08	1.37	1.42
1	AA	776	G	C3'-C2'	-5.08	1.47	1.52
1	AA	852	G	N1-C2	-5.08	1.33	1.37
1	AA	1457	G	C3'-C2'	-5.08	1.47	1.52
7	AG	47	CYS	CB-SG	-5.08	1.73	1.81
35	BA	96	G	N9-C8	-5.08	1.34	1.37
35	BA	223	A	N3-C4	-5.08	1.31	1.34
35	BA	834	C	C5'-C4'	-5.08	1.45	1.51
35	BA	1007	C	C3'-O3'	-5.08	1.35	1.42
35	BA	1065	U	C2'-C1'	-5.08	1.47	1.53
35	BA	1547	C	O3'-P	-5.08	1.55	1.61
35	BA	1682	G	N9-C8	-5.08	1.34	1.37
35	BA	1721	G	P-O5'	-5.08	1.54	1.59
35	BA	1834	U	C3'-C2'	-5.08	1.47	1.52
35	BA	1917	U	N1-C2	5.08	1.43	1.38
35	BA	1978	A	N3-C4	-5.08	1.31	1.34
35	BA	2096	U	N3-C4	-5.08	1.33	1.38
35	BA	2384	G	N1-C2	-5.08	1.33	1.37
1	AA	198	G	C8-N7	-5.07	1.27	1.30
1	AA	1266	G	C8-N7	-5.07	1.27	1.30
1	AA	1374	A	C4'-C3'	-5.07	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	542	C	P-O5'	-5.07	1.54	1.59
35	BA	1027	A	C6-N6	-5.07	1.29	1.33
35	BA	2128	C	O3'-P	-5.07	1.55	1.61
35	BA	2202	C	N1-C6	-5.07	1.34	1.37
1	AA	641	U	N3-C4	-5.07	1.33	1.38
35	BA	271(Z)	C	C5-C6	-5.07	1.30	1.34
1	AA	282	A	N1-C2	-5.07	1.29	1.34
1	AA	671	G	C5-C4	-5.07	1.34	1.38
35	BA	87	C	C2-N3	-5.07	1.31	1.35
35	BA	139	G	C6-N1	-5.07	1.36	1.39
35	BA	627	A	N9-C8	-5.07	1.33	1.37
35	BA	725	G	C5-C4	-5.07	1.34	1.38
35	BA	742	G	C6-N1	-5.07	1.36	1.39
35	BA	822	U	O3'-P	-5.07	1.55	1.61
35	BA	1748	G	N1-C2	-5.07	1.33	1.37
35	BA	1974	C	C2-N3	-5.07	1.31	1.35
35	BA	2490	G	N1-C2	-5.07	1.33	1.37
35	BA	2669	G	N1-C2	-5.07	1.33	1.37
35	BA	2729	G	C6-N1	-5.07	1.36	1.39
36	BB	27	C	C2-N3	-5.07	1.31	1.35
1	AA	1378	C	C3'-O3'	-5.07	1.35	1.42
23	AX	21	C	C3'-C2'	-5.07	1.47	1.52
35	BA	1528	A	C2-N3	-5.07	1.28	1.33
35	BA	2809	A	C5-C4	-5.07	1.35	1.38
1	AA	492	G	C8-N7	-5.07	1.27	1.30
35	BA	736	C	N1-C6	-5.07	1.34	1.37
35	BA	868	U	C5-C6	-5.07	1.29	1.34
35	BA	1439	A	C6-N1	-5.07	1.32	1.35
35	BA	1929	G	C8-N7	-5.07	1.27	1.30
35	BA	2625	G	C1'-N9	-5.07	1.39	1.46
1	AA	64	G	O3'-P	-5.07	1.55	1.61
1	AA	256	U	C2-O2	-5.07	1.17	1.22
1	AA	476	G	N1-C2	-5.07	1.33	1.37
1	AA	691	G	C2'-O2'	-5.07	1.35	1.41
1	AA	1074	G	N9-C8	-5.07	1.34	1.37
35	BA	390	A	C2-N3	-5.07	1.28	1.33
35	BA	1897	G	N1-C2	-5.07	1.33	1.37
35	BA	2105	C	C3'-C2'	-5.07	1.47	1.52
35	BA	2372	G	C3'-C2'	-5.07	1.47	1.52
35	BA	2816	C	C2-N3	-5.07	1.31	1.35
35	BA	2832	U	C4-O4	-5.07	1.19	1.23
35	BA	2887	U	C4-O4	5.07	1.27	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	302	C	C2'-C1'	-5.06	1.47	1.53
35	BA	536	A	C5-C4	5.06	1.42	1.38
35	BA	2478	A	N9-C4	-5.06	1.34	1.37
35	BA	2621	A	C6-N6	-5.06	1.29	1.33
1	AA	67	C	C2'-O2'	-5.06	1.35	1.41
1	AA	1183	A	C6-N1	-5.06	1.32	1.35
1	AA	1500	A	N3-C4	-5.06	1.31	1.34
2	AB	153	ARG	NE-CZ	-5.06	1.26	1.33
22	AV	15	G	C4'-C3'	-5.06	1.47	1.52
35	BA	153	C	C5-C6	-5.06	1.30	1.34
35	BA	277	C	C3'-C2'	-5.06	1.47	1.52
35	BA	453	C	C5-C6	-5.06	1.30	1.34
35	BA	716	A	N3-C4	5.06	1.37	1.34
35	BA	2425	A	C6-N1	-5.06	1.32	1.35
35	BA	2546	U	C5-C6	5.06	1.38	1.34
35	BA	2600	A	P-O5'	-5.06	1.54	1.59
35	BA	2836	U	C3'-C2'	-5.06	1.47	1.52
36	BB	115	G	C2'-O2'	-5.06	1.35	1.41
42	BH	170	ARG	CZ-NH1	-5.06	1.26	1.33
46	BO	17	ARG	CZ-NH1	-5.06	1.26	1.33
1	AA	1108	G	N3-C4	-5.06	1.31	1.35
1	AA	1133	G	N3-C4	5.06	1.39	1.35
35	BA	1148	A	C2'-C1'	-5.06	1.47	1.53
35	BA	1162	G	N3-C4	5.06	1.39	1.35
35	BA	1540	U	P-OP2	-5.06	1.40	1.49
36	BB	18	G	C5-C6	-5.06	1.37	1.42
1	AA	259	G	N9-C8	-5.06	1.34	1.37
1	AA	366	C	C4-C5	-5.06	1.39	1.43
1	AA	874	G	N9-C8	-5.06	1.34	1.37
1	AA	895	G	C4'-C3'	-5.06	1.47	1.52
1	AA	1326	C	N3-C4	-5.06	1.30	1.33
1	AA	1341	U	N3-C4	-5.06	1.33	1.38
35	BA	102	G	C4'-C3'	-5.06	1.47	1.52
35	BA	680	G	C6-O6	-5.06	1.19	1.24
35	BA	1569	A	C6-N6	-5.06	1.29	1.33
35	BA	1593	G	N9-C8	-5.06	1.34	1.37
35	BA	2715	C	C2-O2	5.06	1.29	1.24
1	AA	527	G	C5-C6	-5.06	1.37	1.42
1	AA	763	G	C5-C6	-5.06	1.37	1.42
1	AA	1404	C	C5-C6	-5.06	1.30	1.34
35	BA	265	A	N7-C5	5.06	1.42	1.39
35	BA	363	G	N7-C5	5.06	1.42	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	491	G	N9-C4	-5.06	1.33	1.38
35	BA	542	C	C5-C6	-5.06	1.30	1.34
35	BA	1655	A	C1'-N9	-5.06	1.39	1.46
35	BA	2654	A	N9-C4	-5.06	1.34	1.37
1	AA	17	U	C4-O4	-5.06	1.19	1.23
1	AA	573	A	N9-C8	-5.06	1.33	1.37
1	AA	1245	A	C2-N3	-5.06	1.28	1.33
1	AA	1330	U	C2-N3	-5.06	1.34	1.37
22	AV	23	C	C4-N4	-5.06	1.29	1.33
35	BA	363(E)	U	C2-N3	-5.06	1.34	1.37
35	BA	1639	U	C4-O4	-5.06	1.19	1.23
35	BA	2031	A	N9-C8	-5.06	1.33	1.37
35	BA	2267	A	N9-C8	-5.06	1.33	1.37
1	AA	1119	C	N3-C4	-5.05	1.30	1.33
22	AV	60	U	C2'-O2'	-5.05	1.35	1.41
35	BA	68	G	C5'-C4'	-5.05	1.45	1.51
35	BA	262	A	C2'-O2'	-5.05	1.35	1.41
35	BA	436	C	N3-C4	-5.05	1.30	1.33
35	BA	1807	G	C8-N7	-5.05	1.27	1.30
35	BA	2340	G	C2'-C1'	-5.05	1.47	1.53
35	BA	2389	G	C8-N7	-5.05	1.27	1.30
35	BA	2512	C	N3-C4	-5.05	1.30	1.33
35	BA	2763	G	C5-C4	-5.05	1.34	1.38
1	AA	292	G	N9-C4	-5.05	1.33	1.38
1	AA	617	G	C2-N2	-5.05	1.29	1.34
35	BA	513	A	N7-C5	-5.05	1.36	1.39
35	BA	1302	A	C5-C4	-5.05	1.35	1.38
35	BA	1764	G	C2-N3	-5.05	1.28	1.32
35	BA	1891	G	C2-N2	-5.05	1.29	1.34
35	BA	2048	G	C3'-C2'	-5.05	1.47	1.52
35	BA	2569	G	N9-C4	-5.05	1.33	1.38
35	BA	2764	A	C5-C4	-5.05	1.35	1.38
1	AA	267	C	C2-O2	-5.05	1.20	1.24
1	AA	793	U	C5'-C4'	-5.05	1.45	1.51
1	AA	995	C	C2'-O2'	-5.05	1.35	1.41
1	AA	1246	C	C3'-O3'	-5.05	1.35	1.42
35	BA	56	A	C2'-O2'	-5.05	1.35	1.41
35	BA	1252	G	N1-C2	-5.05	1.33	1.37
35	BA	1618	A	C6-N1	-5.05	1.32	1.35
1	AA	247	G	O3'-P	-5.05	1.55	1.61
1	AA	855	G	C2-N2	-5.05	1.29	1.34
1	AA	898	G	C5-C4	-5.05	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1001(A)	G	C6-N1	-5.05	1.36	1.39
1	AA	1038	C	N3-C4	-5.05	1.30	1.33
1	AA	1160	G	C6-N1	-5.05	1.36	1.39
35	BA	187	G	C6-N1	-5.05	1.36	1.39
35	BA	695	G	P-O5'	-5.05	1.54	1.59
35	BA	1154	G	P-O5'	-5.05	1.54	1.59
35	BA	1491	G	C6-N1	-5.05	1.36	1.39
35	BA	1495	A	N1-C2	-5.05	1.29	1.34
35	BA	1699	G	C5-C6	-5.05	1.37	1.42
35	BA	2015	A	N3-C4	-5.05	1.31	1.34
1	AA	99	U	C5-C6	-5.05	1.29	1.34
1	AA	294	U	C4'-C3'	-5.05	1.47	1.52
1	AA	814	A	N7-C5	-5.05	1.36	1.39
1	AA	1212	U	O3'-P	-5.05	1.55	1.61
1	AA	1361	G	C8-N7	-5.05	1.27	1.30
35	BA	911	A	O3'-P	-5.05	1.55	1.61
35	BA	998	C	P-O5'	-5.05	1.54	1.59
35	BA	1624	G	C5-C6	-5.05	1.37	1.42
35	BA	1777	U	N1-C6	-5.05	1.33	1.38
35	BA	1898	U	C2-O2	-5.05	1.17	1.22
35	BA	1962	C	C2-N3	-5.05	1.31	1.35
35	BA	2684	U	N3-C4	-5.05	1.33	1.38
35	BA	2741	A	N7-C5	-5.05	1.36	1.39
35	BA	190	A	C6-N6	-5.04	1.29	1.33
35	BA	399	G	N3-C4	-5.04	1.31	1.35
35	BA	432	A	C6-N6	-5.04	1.29	1.33
35	BA	1659	U	C2-N3	-5.04	1.34	1.37
1	AA	953	G	N9-C4	-5.04	1.33	1.38
35	BA	297	C	C5-C6	-5.04	1.30	1.34
35	BA	1697	G	N9-C8	-5.04	1.34	1.37
35	BA	2512	C	C5-C6	-5.04	1.30	1.34
1	AA	124	G	C8-N7	-5.04	1.27	1.30
1	AA	721	G	C8-N7	-5.04	1.27	1.30
1	AA	781	A	C4'-C3'	-5.04	1.47	1.52
35	BA	224	G	C5-C4	5.04	1.41	1.38
35	BA	263	C	C4'-C3'	-5.04	1.47	1.52
35	BA	775	G	C2-N2	-5.04	1.29	1.34
35	BA	1088	A	N7-C5	-5.04	1.36	1.39
35	BA	1133	U	C2'-C1'	-5.04	1.47	1.53
35	BA	1274	A	C4'-C3'	-5.04	1.47	1.52
35	BA	1409	C	N1-C6	-5.04	1.34	1.37
35	BA	2087	G	C2'-C1'	-5.04	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	79	G	P-O5'	-5.04	1.54	1.59
1	AA	978	A	C6-N6	-5.04	1.29	1.33
35	BA	1084	A	C6-N6	-5.04	1.29	1.33
35	BA	1215	G	N7-C5	5.04	1.42	1.39
35	BA	2405	G	N7-C5	5.04	1.42	1.39
1	AA	618	C	C4-N4	-5.04	1.29	1.33
1	AA	789	U	N3-C4	-5.04	1.33	1.38
35	BA	218	A	C1'-N9	-5.04	1.39	1.46
35	BA	245	G	N3-C4	-5.04	1.31	1.35
35	BA	293	U	C2'-C1'	-5.04	1.47	1.53
35	BA	1927	A	C2-N3	-5.04	1.29	1.33
35	BA	2604	U	C1'-N1	-5.04	1.39	1.46
1	AA	438	G	O4'-C1'	-5.04	1.35	1.41
1	AA	877	C	P-O5'	-5.04	1.54	1.59
35	BA	1511	C	C4-C5	-5.04	1.39	1.43
35	BA	1632	A	C5-C4	-5.04	1.35	1.38
35	BA	2543	G	N1-C2	-5.04	1.33	1.37
1	AA	18	C	N1-C6	-5.04	1.34	1.37
1	AA	590	C	N1-C6	-5.04	1.34	1.37
1	AA	940	C	N1-C6	-5.04	1.34	1.37
1	AA	1200	C	N1-C6	-5.04	1.34	1.37
35	BA	116	C	N1-C6	-5.04	1.34	1.37
35	BA	218	A	N9-C4	5.04	1.40	1.37
35	BA	806	C	C5'-C4'	-5.04	1.45	1.51
35	BA	1045	A	C4'-O4'	-5.04	1.39	1.45
35	BA	1830	C	N1-C6	-5.04	1.34	1.37
35	BA	2508	G	C5-C6	-5.04	1.37	1.42
36	BB	33	G	N7-C5	-5.04	1.36	1.39
1	AA	566	G	N9-C8	-5.03	1.34	1.37
1	AA	569	C	C2-O2	-5.03	1.20	1.24
1	AA	587	G	C6-N1	-5.03	1.36	1.39
1	AA	928	G	P-O5'	-5.03	1.54	1.59
1	AA	1136	U	P-O5'	-5.03	1.54	1.59
1	AA	1376	U	N3-C4	-5.03	1.33	1.38
1	AA	1431	C	C4-N4	-5.03	1.29	1.33
1	AA	1529	G	C6-N1	-5.03	1.36	1.39
35	BA	79	G	C6-N1	-5.03	1.36	1.39
35	BA	180	G	C2-N2	-5.03	1.29	1.34
35	BA	333	G	C2'-C1'	-5.03	1.47	1.53
35	BA	443	A	C5-C4	5.03	1.42	1.38
35	BA	553	G	C6-N1	-5.03	1.36	1.39
35	BA	728	G	C2-N2	-5.03	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	932	G	C5-C4	-5.03	1.34	1.38
35	BA	938	G	N3-C4	-5.03	1.31	1.35
35	BA	1031	G	C2-N2	-5.03	1.29	1.34
35	BA	1243	G	N9-C4	5.03	1.42	1.38
35	BA	1312	U	N3-C4	-5.03	1.33	1.38
35	BA	1904	G	C2-N3	5.03	1.36	1.32
35	BA	2133	G	C4'-O4'	-5.03	1.39	1.45
35	BA	2251	G	C2'-C1'	-5.03	1.47	1.53
35	BA	2326	C	N3-C4	-5.03	1.30	1.33
35	BA	2389	G	C6-N1	-5.03	1.36	1.39
35	BA	2526	G	N3-C4	-5.03	1.31	1.35
35	BA	2882	A	N9-C4	-5.03	1.34	1.37
1	AA	731	G	C4'-C3'	-5.03	1.47	1.52
1	AA	898	G	N1-C2	-5.03	1.33	1.37
1	AA	1295	G	C4'-C3'	-5.03	1.47	1.52
1	AA	1307	U	C4'-C3'	-5.03	1.47	1.52
35	BA	51	G	C4'-C3'	-5.03	1.47	1.52
35	BA	2577	A	C3'-C2'	-5.03	1.47	1.52
1	AA	107	G	C5-C6	-5.03	1.37	1.42
1	AA	313	A	C6-N1	-5.03	1.32	1.35
1	AA	718	G	C2'-C1'	-5.03	1.47	1.53
1	AA	1180	A	N3-C4	-5.03	1.31	1.34
1	AA	1273	G	O3'-P	-5.03	1.55	1.61
1	AA	1355	G	C6-N1	5.03	1.43	1.39
1	AA	1372	U	C2'-C1'	-5.03	1.47	1.53
35	BA	250	G	C5-C6	-5.03	1.37	1.42
35	BA	2346	A	C2'-C1'	-5.03	1.47	1.53
35	BA	271(F)	C	O4'-C1'	-5.03	1.35	1.41
35	BA	672	C	P-OP2	-5.03	1.40	1.49
35	BA	1110	G	N9-C4	-5.03	1.33	1.38
35	BA	1248	G	C3'-C2'	-5.03	1.47	1.52
35	BA	1267	U	N1-C6	-5.03	1.33	1.38
35	BA	2693	A	P-OP1	-5.03	1.40	1.49
1	AA	229	U	C4-C5	-5.03	1.39	1.43
1	AA	499	A	O3'-P	-5.03	1.55	1.61
1	AA	530	G	C5-C6	-5.03	1.37	1.42
1	AA	741	G	C6-N1	-5.03	1.36	1.39
1	AA	1482	G	C5-C4	-5.03	1.34	1.38
35	BA	274	G	C5-C4	-5.03	1.34	1.38
35	BA	625	G	N7-C5	-5.03	1.36	1.39
35	BA	716	A	N9-C4	-5.03	1.34	1.37
35	BA	1033	U	N1-C2	5.03	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1071	G	N7-C5	-5.03	1.36	1.39
35	BA	1093	G	N9-C8	-5.03	1.34	1.37
35	BA	1153	C	C2-N3	-5.03	1.31	1.35
35	BA	2639	A	C2'-C1'	5.03	1.58	1.53
35	BA	2882	A	C5-C4	-5.03	1.35	1.38
1	AA	31	G	C5'-C4'	-5.03	1.45	1.51
1	AA	850	U	C3'-C2'	-5.03	1.47	1.52
35	BA	646	A	C6-N1	-5.03	1.32	1.35
35	BA	2007	C	C4'-O4'	-5.03	1.39	1.45
35	BA	2185	C	C5'-C4'	-5.03	1.45	1.51
35	BA	2585	U	C4-O4	5.03	1.27	1.23
1	AA	270	A	P-O5'	-5.02	1.54	1.59
1	AA	703	G	P-O5'	-5.02	1.54	1.59
35	BA	797	C	O3'-P	-5.02	1.55	1.61
1	AA	1466	C	C2-N3	-5.02	1.31	1.35
9	AI	83	ARG	CZ-NH2	-5.02	1.26	1.33
35	BA	749	C	N1-C2	-5.02	1.35	1.40
35	BA	783	A	N1-C2	-5.02	1.29	1.34
35	BA	1286	A	N1-C2	-5.02	1.29	1.34
35	BA	1781	C	N1-C6	-5.02	1.34	1.37
35	BA	2110	G	N3-C4	-5.02	1.31	1.35
35	BA	2186	G	C4'-C3'	-5.02	1.47	1.52
35	BA	2254	C	O3'-P	-5.02	1.55	1.61
35	BA	2293	C	C2-N3	-5.02	1.31	1.35
35	BA	2327	A	N7-C5	-5.02	1.36	1.39
22	AV	44	A	C2-N3	-5.02	1.29	1.33
35	BA	221	A	P-O5'	-5.02	1.54	1.59
35	BA	545	C	P-O5'	-5.02	1.54	1.59
35	BA	685	A	C6-N6	-5.02	1.29	1.33
35	BA	685	A	C8-N7	-5.02	1.28	1.31
35	BA	751	A	C6-N6	-5.02	1.29	1.33
35	BA	872	A	C2-N3	-5.02	1.29	1.33
35	BA	1948	G	P-O5'	-5.02	1.54	1.59
35	BA	2790	A	C6-N6	-5.02	1.29	1.33
35	BA	2804	C	C2'-C1'	-5.02	1.47	1.53
22	AV	2	G	C2-N3	-5.02	1.28	1.32
35	BA	322	A	C5'-C4'	-5.02	1.45	1.51
35	BA	1767	C	C5-C6	-5.02	1.30	1.34
35	BA	2888	C	C2-O2	-5.02	1.20	1.24
1	AA	367	U	C5'-C4'	-5.02	1.45	1.51
1	AA	500	G	P-O5'	-5.02	1.54	1.59
1	AA	971	G	C5-C6	-5.02	1.37	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1519	A	C4'-C3'	-5.02	1.47	1.52
35	BA	176	G	C6-N1	-5.02	1.36	1.39
35	BA	599	G	C5-C4	-5.02	1.34	1.38
35	BA	654(M)	C	C4-N4	-5.02	1.29	1.33
35	BA	762	U	C2-O2	-5.02	1.17	1.22
35	BA	1120	G	N1-C2	-5.02	1.33	1.37
35	BA	1523	U	N1-C6	-5.02	1.33	1.38
35	BA	1542	A	P-O5'	-5.02	1.54	1.59
35	BA	2203	U	C2-O2	-5.02	1.17	1.22
35	BA	2275	C	N1-C6	-5.02	1.34	1.37
35	BA	2663	G	N3-C4	-5.02	1.31	1.35
35	BA	2823	A	C2-N3	-5.02	1.29	1.33
35	BA	2839	G	N3-C4	-5.02	1.31	1.35
36	BB	56	G	N9-C8	-5.02	1.34	1.37
1	AA	950	U	C3'-O3'	-5.02	1.35	1.42
1	AA	1269	A	N7-C5	5.02	1.42	1.39
35	BA	36	G	C3'-C2'	-5.02	1.47	1.52
35	BA	305	U	C4-C5	-5.02	1.39	1.43
35	BA	818	G	C3'-C2'	-5.02	1.47	1.52
35	BA	2053	G	C3'-C2'	-5.02	1.47	1.52
48	BQ	38	GLU	CD-OE2	-5.02	1.20	1.25
1	AA	728	A	N9-C8	-5.01	1.33	1.37
1	AA	922	G	N9-C4	-5.01	1.33	1.38
1	AA	1117	G	P-OP1	-5.01	1.40	1.49
1	AA	1417	G	N9-C4	-5.01	1.33	1.38
23	AX	19	U	C4-O4	-5.01	1.19	1.23
35	BA	79	G	C2-N3	-5.01	1.28	1.32
35	BA	515	A	N9-C8	-5.01	1.33	1.37
35	BA	2223	G	N1-C2	-5.01	1.33	1.37
35	BA	2392	A	C5-C4	5.01	1.42	1.38
35	BA	2438	U	C2'-C1'	-5.01	1.47	1.53
1	AA	226	G	C5-C6	-5.01	1.37	1.42
1	AA	594	G	C5-C4	-5.01	1.34	1.38
1	AA	1382	C	C4-N4	-5.01	1.29	1.33
35	BA	201	C	P-OP1	-5.01	1.40	1.49
35	BA	1402	C	C4-N4	-5.01	1.29	1.33
1	AA	458	C	N3-C4	-5.01	1.30	1.33
27	B2	20	GLU	CD-OE1	-5.01	1.20	1.25
35	BA	237	C	P-O5'	-5.01	1.54	1.59
35	BA	634	C	N1-C6	-5.01	1.34	1.37
35	BA	676	A	N9-C4	5.01	1.40	1.37
35	BA	1937	A	C4'-C3'	-5.01	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2028	U	C2-N3	5.01	1.41	1.37
35	BA	2584	U	C4-C5	5.01	1.48	1.43
35	BA	2790	A	P-O5'	-5.01	1.54	1.59
36	BB	112	U	P-O5'	-5.01	1.54	1.59
1	AA	142	G	O4'-C1'	-5.01	1.35	1.41
1	AA	867	G	O4'-C1'	-5.01	1.35	1.41
35	BA	1317	A	C5-C6	-5.01	1.36	1.41
35	BA	1359	A	C1'-N9	-5.01	1.39	1.46
35	BA	1788	C	C2-O2	-5.01	1.20	1.24
35	BA	2135	A	N7-C5	-5.01	1.36	1.39
35	BA	2777	G	C5-C6	-5.01	1.37	1.42
1	AA	1056	U	C3'-O3'	-5.01	1.35	1.42
35	BA	643	A	N9-C4	-5.01	1.34	1.37
35	BA	840	C	P-O5'	-5.01	1.54	1.59
35	BA	970	C	C2-N3	-5.01	1.31	1.35
1	AA	314	C	C5'-C4'	-5.01	1.45	1.51
1	AA	326	G	C5-C4	-5.01	1.34	1.38
1	AA	374	A	N3-C4	-5.01	1.31	1.34
1	AA	476	G	C2-N2	-5.01	1.29	1.34
1	AA	706	A	C6-N6	-5.01	1.29	1.33
1	AA	748	C	C3'-O3'	5.01	1.49	1.42
1	AA	898	G	C1'-N9	-5.01	1.39	1.46
1	AA	1442(B)	A	C5-C4	-5.01	1.35	1.38
35	BA	228	A	C5-C4	-5.01	1.35	1.38
35	BA	271(D)	G	N9-C8	5.01	1.41	1.37
35	BA	945	A	C6-N6	-5.01	1.29	1.33
35	BA	1139	G	C5-C6	-5.01	1.37	1.42
35	BA	1884	A	N3-C4	-5.01	1.31	1.34
35	BA	2151	G	C2-N2	-5.01	1.29	1.34
35	BA	2429	G	C2-N2	-5.01	1.29	1.34
35	BA	2490	G	N9-C8	-5.01	1.34	1.37
35	BA	2595	G	C6-N1	-5.01	1.36	1.39
1	AA	1295	G	C2'-C1'	-5.00	1.47	1.53
35	BA	201	C	C4'-C3'	-5.00	1.47	1.52
35	BA	346	A	C5-C6	-5.00	1.36	1.41
35	BA	487	C	C5-C6	-5.00	1.30	1.34
35	BA	1287	A	C5-C6	-5.00	1.36	1.41
35	BA	2127	G	C4'-C3'	-5.00	1.47	1.52
1	AA	189(I)	G	N7-C5	-5.00	1.36	1.39
1	AA	384	G	N7-C5	-5.00	1.36	1.39
1	AA	568	G	C5'-C4'	-5.00	1.45	1.51
1	AA	1203	C	C5'-C4'	-5.00	1.45	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1408	A	C3'-C2'	-5.00	1.47	1.52
1	AA	1486	G	N7-C5	-5.00	1.36	1.39
35	BA	1449	A	C6-N1	-5.00	1.32	1.35
35	BA	2159	G	C5'-C4'	-5.00	1.45	1.51
35	BA	2242	G	C5'-C4'	-5.00	1.45	1.51
35	BA	2578	G	C2-N3	-5.00	1.28	1.32
1	AA	773	G	C5-C6	-5.00	1.37	1.42
1	AA	1211	U	C4-O4	5.00	1.27	1.23
35	BA	206	U	C2'-C1'	-5.00	1.47	1.53
35	BA	400	G	C5-C6	-5.00	1.37	1.42
35	BA	605	C	C2'-C1'	-5.00	1.47	1.53
35	BA	1281	G	C6-N1	-5.00	1.36	1.39
35	BA	1603	A	C6-N6	-5.00	1.29	1.33
36	BB	60	C	C4-C5	-5.00	1.39	1.43
39	BE	44	TYR	CG-CD1	-5.00	1.32	1.39

All (10265) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BG	112	PRO	O-C-N	-44.90	50.85	122.70
9	AI	53	VAL	O-C-N	-38.46	61.16	122.70
9	AI	104	ARG	O-C-N	-29.23	75.94	122.70
41	BG	112	PRO	CA-C-N	20.32	161.90	117.20
1	AA	1463	C	C6-N1-C2	18.92	127.87	120.30
35	BA	654(T)	C	N3-C4-C5	17.13	128.75	121.90
40	BF	72	ARG	NE-CZ-NH1	-15.65	112.47	120.30
17	AQ	70	ARG	NE-CZ-NH2	-15.17	112.71	120.30
15	AO	35	ARG	NE-CZ-NH1	-15.11	112.75	120.30
25	B0	11	ARG	NE-CZ-NH2	-15.11	112.75	120.30
22	AV	49	G	C4-C5-N7	14.99	116.80	110.80
35	BA	318	C	N3-C4-C5	14.67	127.77	121.90
33	B8	57	ARG	NE-CZ-NH1	-14.65	112.97	120.30
54	BW	37	ARG	NE-CZ-NH1	-14.64	112.98	120.30
3	AC	16	ARG	NE-CZ-NH1	14.58	127.59	120.30
22	AV	49	G	N9-C4-C5	-14.44	99.62	105.40
40	BF	38	ARG	NE-CZ-NH1	14.15	127.38	120.30
38	BD	244	ARG	NE-CZ-NH2	-14.13	113.24	120.30
50	BS	23	ARG	NE-CZ-NH2	-14.05	113.28	120.30
35	BA	2540	C	N3-C4-C5	13.88	127.45	121.90
35	BA	844	C	C5-C6-N1	13.82	127.91	121.00
24	AY	78	ARG	NE-CZ-NH2	-13.72	113.44	120.30
35	BA	719	C	C6-N1-C2	-13.50	114.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1485	U	C5-C6-N1	13.49	129.45	122.70
35	BA	780	G	N3-C4-N9	13.46	134.08	126.00
35	BA	1363	C	C2-N3-C4	13.37	126.58	119.90
1	AA	1042	G	C4-C5-N7	-13.36	105.46	110.80
35	BA	1091	G	C5-C6-N1	-13.35	104.82	111.50
27	B2	7	ARG	NE-CZ-NH2	-13.33	113.64	120.30
35	BA	710	G	C8-N9-C4	-13.28	101.09	106.40
41	BG	9	ARG	NE-CZ-NH2	-13.27	113.67	120.30
3	AC	131	ARG	NE-CZ-NH1	13.17	126.88	120.30
35	BA	190	A	C2-N3-C4	-13.10	104.05	110.60
35	BA	53	A	N1-C6-N6	13.08	126.45	118.60
35	BA	1484	G	C4-C5-N7	12.97	115.99	110.80
35	BA	2742	C	N3-C4-C5	-12.90	116.74	121.90
35	BA	689	A	N9-C4-C5	12.88	110.95	105.80
13	AM	11	ARG	NE-CZ-NH1	-12.87	113.87	120.30
50	BS	97	ARG	NE-CZ-NH2	-12.85	113.88	120.30
26	B1	52	ARG	NE-CZ-NH2	-12.78	113.91	120.30
1	AA	570	G	C8-N9-C4	-12.75	101.30	106.40
24	AY	484	ARG	NE-CZ-NH1	12.73	126.66	120.30
35	BA	780	G	N3-C4-C5	-12.71	122.24	128.60
35	BA	1884	A	N1-C2-N3	-12.65	122.98	129.30
36	BB	93	G	C4-C5-N7	-12.63	105.75	110.80
35	BA	663	G	N9-C4-C5	-12.62	100.35	105.40
35	BA	1797	C	N3-C4-C5	12.61	126.94	121.90
35	BA	2376	A	C8-N9-C4	-12.57	100.77	105.80
35	BA	1534	U	C5-C6-N1	12.56	128.98	122.70
35	BA	693	C	C4-C5-C6	-12.53	111.14	117.40
41	BG	112	PRO	C-N-CA	-12.52	90.40	121.70
50	BS	25	ARG	NE-CZ-NH1	-12.52	114.04	120.30
39	BE	19	ARG	NE-CZ-NH1	-12.46	114.07	120.30
35	BA	1303	G	C5-C6-O6	12.45	136.07	128.60
1	AA	293	G	N1-C6-O6	12.42	127.35	119.90
35	BA	360	G	C5-N7-C8	-12.38	98.11	104.30
35	BA	2443	C	N3-C4-C5	-12.37	116.95	121.90
35	BA	2470	G	C8-N9-C4	-12.34	101.46	106.40
35	BA	2516	G	C4-C5-N7	12.32	115.73	110.80
1	AA	8	A	N1-C2-N3	-12.30	123.15	129.30
35	BA	1992	G	C2'-C3'-O3'	12.29	136.55	109.50
1	AA	1222	G	N9-C4-C5	-12.27	100.49	105.40
35	BA	2275	C	N3-C4-C5	12.20	126.78	121.90
1	AA	587	G	C5-N7-C8	12.16	110.38	104.30
13	AM	104	ARG	NE-CZ-NH1	-12.14	114.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1628	G	C4-C5-N7	12.13	115.65	110.80
3	AC	16	ARG	NE-CZ-NH2	-12.10	114.25	120.30
35	BA	1484	G	C5-N7-C8	-12.05	98.28	104.30
35	BA	731	C	C6-N1-C2	12.04	125.12	120.30
35	BA	1702	G	C4-C5-N7	12.04	115.62	110.80
1	AA	918	A	C5-C6-N1	-12.01	111.69	117.70
35	BA	338	G	C8-N9-C4	12.00	111.20	106.40
49	BR	77	ARG	NE-CZ-NH2	-12.00	114.30	120.30
35	BA	1540	U	O4'-C1'-N1	11.96	117.77	108.20
35	BA	2463	C	C6-N1-C2	11.95	125.08	120.30
35	BA	1767	C	C2-N3-C4	11.95	125.87	119.90
35	BA	2677	G	C2-N3-C4	-11.94	105.93	111.90
14	AN	23	ARG	NE-CZ-NH2	-11.94	114.33	120.30
1	AA	1511	G	C8-N9-C4	-11.93	101.63	106.40
25	B0	20	ARG	NE-CZ-NH1	11.90	126.25	120.30
35	BA	1980	G	C2-N3-C4	-11.89	105.96	111.90
36	BB	47	C	C2-N3-C4	11.86	125.83	119.90
1	AA	1042	G	N9-C4-C5	11.85	110.14	105.40
35	BA	1373	A	N7-C8-N9	-11.84	107.88	113.80
9	AI	83	ARG	NE-CZ-NH1	-11.81	114.39	120.30
35	BA	798	G	C4-C5-N7	11.80	115.52	110.80
1	AA	425	G	C8-N9-C4	11.77	111.11	106.40
36	BB	60	C	N3-C4-C5	-11.76	117.19	121.90
35	BA	1070	A	C8-N9-C4	-11.76	101.10	105.80
35	BA	1473	G	N1-C6-O6	-11.76	112.85	119.90
1	AA	616	G	C5-C6-O6	-11.76	121.55	128.60
1	AA	5	U	C5-C6-N1	11.75	128.57	122.70
14	AN	29	ARG	NE-CZ-NH2	-11.75	114.42	120.30
35	BA	477	A	N1-C2-N3	11.74	135.17	129.30
1	AA	197	A	C4-C5-N7	11.73	116.56	110.70
17	AQ	42	TYR	CB-CG-CD2	11.71	128.03	121.00
1	AA	1320	C	N3-C4-C5	-11.68	117.23	121.90
35	BA	1350	C	C6-N1-C2	-11.68	115.63	120.30
35	BA	1021	A	N1-C2-N3	-11.66	123.47	129.30
13	AM	14	ARG	NE-CZ-NH2	-11.65	114.48	120.30
1	AA	1112	C	N3-C4-C5	-11.64	117.24	121.90
1	AA	438	G	C5-C6-N1	11.61	117.30	111.50
35	BA	592	G	C2-N3-C4	11.60	117.70	111.90
1	AA	840	C	C6-N1-C2	-11.58	115.67	120.30
35	BA	798	G	N9-C4-C5	-11.58	100.77	105.40
1	AA	1515	C	N3-C4-C5	-11.58	117.27	121.90
35	BA	13	A	C8-N9-C4	-11.56	101.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BO	94	ARG	NE-CZ-NH1	-11.50	114.55	120.30
53	BV	13	ARG	NE-CZ-NH2	-11.48	114.56	120.30
35	BA	1448	G	N1-C6-O6	-11.48	113.01	119.90
1	AA	1077	G	C8-N9-C4	11.47	110.99	106.40
51	BT	125	ARG	NE-CZ-NH1	-11.44	114.58	120.30
1	AA	1318	A	N1-C2-N3	11.43	135.01	129.30
35	BA	780	G	C2-N3-C4	11.43	117.61	111.90
35	BA	1612	C	C6-N1-C2	-11.43	115.73	120.30
20	AT	25	ARG	NE-CZ-NH2	11.42	126.01	120.30
1	AA	5	U	C4-C5-C6	-11.41	112.85	119.70
35	BA	2156	G	N1-C6-O6	-11.41	113.05	119.90
35	BA	2361	A	C8-N9-C4	11.37	110.35	105.80
35	BA	2711	A	N9-C4-C5	11.35	110.34	105.80
1	AA	161	A	N1-C6-N6	11.34	125.41	118.60
7	AG	155	ARG	NE-CZ-NH2	11.34	125.97	120.30
35	BA	2032	G	C5-C6-N1	11.34	117.17	111.50
35	BA	966	G	C4-C5-N7	11.33	115.33	110.80
35	BA	1959	G	N1-C6-O6	11.33	126.70	119.90
1	AA	1102	A	C8-N9-C4	11.31	110.33	105.80
35	BA	271(A)	A	N7-C8-N9	11.31	119.46	113.80
32	B7	10	ARG	NE-CZ-NH1	-11.29	114.66	120.30
35	BA	41	C	C6-N1-C2	-11.28	115.79	120.30
35	BA	1153	C	C6-N1-C2	-11.28	115.79	120.30
1	AA	818	G	N1-C6-O6	11.28	126.67	119.90
1	AA	1401	G	C8-N9-C4	-11.28	101.89	106.40
35	BA	960	A	N1-C2-N3	-11.28	123.66	129.30
35	BA	1350	C	C5-C6-N1	11.24	126.62	121.00
1	AA	146	G	N7-C8-N9	11.22	118.71	113.10
35	BA	966	G	C8-N9-C4	11.22	110.89	106.40
35	BA	1153	C	C5-C6-N1	11.21	126.60	121.00
15	AO	68	ARG	NE-CZ-NH2	-11.13	114.73	120.30
35	BA	1170	G	C8-N9-C4	11.13	110.85	106.40
35	BA	1531	C	N3-C4-C5	11.13	126.35	121.90
35	BA	693	C	C5-C6-N1	11.12	126.56	121.00
1	AA	829	G	C5-C6-O6	-11.12	121.93	128.60
51	BT	96	ARG	NE-CZ-NH1	-11.12	114.74	120.30
1	AA	829	G	N1-C6-O6	11.11	126.57	119.90
1	AA	1072	G	N3-C4-C5	-11.11	123.04	128.60
35	BA	2405	G	C4-C5-N7	-11.11	106.36	110.80
35	BA	677	A	N7-C8-N9	-11.11	108.25	113.80
6	AF	2	ARG	NE-CZ-NH2	-11.09	114.76	120.30
1	AA	1022	G	C5-N7-C8	11.07	109.84	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BW	8	ARG	NE-CZ-NH2	-11.07	114.76	120.30
35	BA	2275	C	C4-C5-C6	-11.06	111.87	117.40
35	BA	2134	A	N9-C4-C5	-11.04	101.38	105.80
37	BC	94	TYR	CB-CG-CD1	-11.04	114.38	121.00
35	BA	1642	G	C8-N9-C4	-11.02	101.99	106.40
35	BA	109	G	C5-C6-O6	-11.02	121.99	128.60
1	AA	535	A	N1-C6-N6	-11.01	112.00	118.60
35	BA	1575	C	N3-C4-C5	-11.00	117.50	121.90
35	BA	2703	C	C4-C5-C6	10.99	122.90	117.40
1	AA	274	A	N7-C8-N9	10.99	119.29	113.80
1	AA	1417	G	C4-C5-N7	-10.99	106.41	110.80
35	BA	686	G	O4'-C1'-N9	-10.98	99.42	108.20
35	BA	1418	G	N1-C6-O6	10.98	126.49	119.90
1	AA	117	G	N9-C4-C5	-10.97	101.01	105.40
38	BD	176	ARG	NE-CZ-NH1	-10.97	114.82	120.30
1	AA	880	C	N3-C4-C5	10.97	126.29	121.90
1	AA	1088	G	N3-C4-N9	-10.96	119.43	126.00
35	BA	385	C	C6-N1-C2	-10.95	115.92	120.30
1	AA	372	C	N3-C4-C5	10.95	126.28	121.90
1	AA	1200	C	C4-C5-C6	10.95	122.87	117.40
24	AY	31	ARG	NE-CZ-NH2	-10.93	114.83	120.30
1	AA	668	G	N3-C4-C5	-10.93	123.14	128.60
35	BA	614(A)	U	N3-C4-O4	-10.93	111.75	119.40
36	BB	15	A	N1-C6-N6	10.92	125.15	118.60
35	BA	1390	U	C5-C6-N1	10.91	128.16	122.70
1	AA	1080	A	N1-C2-N3	-10.89	123.85	129.30
1	AA	1366	C	C6-N1-C2	10.88	124.65	120.30
1	AA	1422	G	N9-C4-C5	-10.88	101.05	105.40
35	BA	321	G	C8-N9-C4	-10.87	102.05	106.40
35	BA	1156	A	C8-N9-C4	10.87	110.15	105.80
1	AA	1077	G	N9-C4-C5	-10.87	101.05	105.40
1	AA	1140	C	C5-C6-N1	-10.86	115.57	121.00
35	BA	2606	C	N3-C4-C5	10.84	126.24	121.90
35	BA	390	A	C8-N9-C4	-10.83	101.47	105.80
35	BA	2231	C	N3-C4-C5	10.83	126.23	121.90
1	AA	974	A	C8-N9-C4	-10.81	101.48	105.80
24	AY	132	ARG	NE-CZ-NH2	-10.80	114.90	120.30
35	BA	1373	A	C8-N9-C4	10.80	110.12	105.80
35	BA	654(T)	C	C2-N3-C4	-10.80	114.50	119.90
35	BA	2474	C	C6-N1-C2	-10.79	115.98	120.30
35	BA	1534	U	C6-N1-C2	-10.79	114.53	121.00
35	BA	271(R)	G	C2-N3-C4	10.78	117.29	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	338	G	N7-C8-N9	-10.78	107.71	113.10
35	BA	696	G	O4'-C1'-N9	-10.78	99.58	108.20
1	AA	117	G	C4-C5-N7	10.75	115.10	110.80
35	BA	677	A	C5-N7-C8	10.73	109.27	103.90
35	BA	742	G	C5-N7-C8	-10.73	98.93	104.30
35	BA	1389	G	C8-N9-C4	10.73	110.69	106.40
1	AA	1241	G	C4-C5-N7	10.72	115.09	110.80
3	AC	79	ARG	NE-CZ-NH2	-10.72	114.94	120.30
35	BA	1702	G	C6-C5-N7	-10.72	123.97	130.40
1	AA	1355	G	C4-C5-N7	-10.72	106.51	110.80
35	BA	1971	A	N1-C6-N6	-10.72	112.17	118.60
36	BB	58	A	C8-N9-C4	-10.72	101.51	105.80
33	B8	57	ARG	NE-CZ-NH2	10.71	125.66	120.30
35	BA	1925	C	N3-C4-C5	10.71	126.19	121.90
35	BA	2671	A	C5-C6-N1	10.71	123.05	117.70
35	BA	2885	C	C6-N1-C2	-10.71	116.02	120.30
35	BA	177	G	C5-C6-O6	-10.70	122.18	128.60
35	BA	135	G	C4-C5-N7	10.70	115.08	110.80
44	BL	73	ARG	NE-CZ-NH1	-10.69	114.95	120.30
35	BA	53	A	C2-N3-C4	-10.69	105.25	110.60
35	BA	1145	C	C6-N1-C2	10.69	124.57	120.30
1	AA	1157	A	C8-N9-C4	10.68	110.07	105.80
24	AY	660	ARG	NE-CZ-NH1	-10.67	114.96	120.30
1	AA	1063	C	N3-C4-C5	-10.66	117.64	121.90
1	AA	1047	G	C5-N7-C8	10.66	109.63	104.30
35	BA	990	A	N1-C2-N3	10.66	134.63	129.30
35	BA	338	G	N9-C4-C5	-10.65	101.14	105.40
35	BA	579	G	C4-C5-N7	10.65	115.06	110.80
35	BA	1515	G	N3-C4-C5	-10.61	123.30	128.60
35	BA	329	G	C4-C5-N7	-10.61	106.56	110.80
1	AA	189(D)	C	N1-C2-O2	-10.59	112.54	118.90
35	BA	614	U	C5-C6-N1	-10.58	117.41	122.70
35	BA	2677	G	N3-C4-C5	10.58	133.89	128.60
24	AY	470	PHE	CB-CG-CD1	10.58	128.21	120.80
35	BA	199	A	N1-C2-N3	10.58	134.59	129.30
1	AA	915	A	N7-C8-N9	-10.58	108.51	113.80
30	B5	19	ARG	NE-CZ-NH1	-10.57	115.01	120.30
35	BA	1989	G	C2-N3-C4	10.57	117.18	111.90
1	AA	253	U	C5-C6-N1	10.55	127.97	122.70
22	AV	27	U	C2-N3-C4	-10.54	120.68	127.00
35	BA	1027	A	C5-C6-N1	-10.54	112.43	117.70
1	AA	617	G	C6-C5-N7	-10.53	124.08	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2807	G	N1-C6-O6	10.53	126.22	119.90
1	AA	604	G	C8-N9-C4	-10.53	102.19	106.40
10	AJ	29	ARG	NE-CZ-NH1	-10.52	115.04	120.30
35	BA	1564	C	N3-C4-C5	-10.52	117.69	121.90
35	BA	1022	G	C6-C5-N7	10.52	136.71	130.40
38	BD	48	ARG	NE-CZ-NH2	-10.52	115.04	120.30
35	BA	708	C	C5-C6-N1	10.51	126.26	121.00
1	AA	848	C	C4-C5-C6	10.51	122.65	117.40
1	AA	1293	G	N7-C8-N9	-10.50	107.85	113.10
25	B0	32	ARG	NE-CZ-NH2	10.50	125.55	120.30
35	BA	991	C	C2-N3-C4	10.50	125.15	119.90
12	AL	102	ARG	NE-CZ-NH1	-10.50	115.05	120.30
1	AA	989	C	N1-C2-O2	-10.48	112.61	118.90
1	AA	578	C	C4-C5-C6	10.48	122.64	117.40
1	AA	1498	U	C2'-C3'-O3'	10.48	132.56	109.50
35	BA	1457	A	N1-C2-N3	-10.48	124.06	129.30
1	AA	1024	G	C5-C6-O6	-10.47	122.32	128.60
35	BA	2467	C	N3-C4-C5	-10.46	117.72	121.90
1	AA	1417	G	N1-C6-O6	10.46	126.18	119.90
35	BA	676	A	N7-C8-N9	-10.46	108.57	113.80
1	AA	1092	A	C8-N9-C4	-10.46	101.62	105.80
35	BA	1584	C	N3-C4-C5	10.46	126.08	121.90
35	BA	2128	C	N3-C4-C5	-10.45	117.72	121.90
35	BA	386	G	C4-C5-N7	-10.45	106.62	110.80
40	BF	165	ARG	NE-CZ-NH1	-10.44	115.08	120.30
1	AA	193	C	O4'-C1'-N1	10.43	116.55	108.20
22	AV	9	G	C8-N9-C4	10.43	110.57	106.40
30	B5	15	ARG	NE-CZ-NH2	10.40	125.50	120.30
35	BA	2589	A	C5-N7-C8	-10.40	98.70	103.90
1	AA	186	C	C6-N1-C2	10.39	124.46	120.30
1	AA	1286	A	N7-C8-N9	10.39	118.99	113.80
35	BA	1756	G	C4-C5-N7	-10.38	106.65	110.80
4	AD	159	ARG	NE-CZ-NH1	-10.38	115.11	120.30
1	AA	799	G	N9-C4-C5	-10.37	101.25	105.40
1	AA	633	G	C8-N9-C4	-10.36	102.26	106.40
35	BA	1440	G	C8-N9-C4	10.36	110.54	106.40
35	BA	2049	G	C5-N7-C8	10.35	109.47	104.30
35	BA	1144	G	C5-C6-N1	-10.34	106.33	111.50
36	BB	11	C	N3-C4-C5	-10.34	117.76	121.90
35	BA	802	A	C8-N9-C4	10.34	109.94	105.80
35	BA	2864	G	C5-C6-N1	-10.34	106.33	111.50
39	BE	160	TYR	CB-CG-CD1	10.34	127.20	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	446	G	N7-C8-N9	10.34	118.27	113.10
1	AA	1252	A	N7-C8-N9	-10.33	108.63	113.80
35	BA	1942	C	C5-C6-N1	10.33	126.17	121.00
1	AA	1265	G	C8-N9-C4	-10.33	102.27	106.40
36	BB	49	C	N3-C4-C5	10.33	126.03	121.90
1	AA	668	G	N3-C4-N9	10.32	132.19	126.00
22	AV	27	U	N1-C2-N3	10.32	121.09	114.90
35	BA	1848	A	N7-C8-N9	-10.32	108.64	113.80
35	BA	2499	C	C2-N3-C4	-10.31	114.74	119.90
52	BU	58	ARG	NE-CZ-NH1	-10.31	115.14	120.30
1	AA	921	U	C5'-C4'-C3'	-10.30	99.52	116.00
35	BA	219	G	N1-C2-N3	10.29	130.08	123.90
1	AA	189(L)	G	O4'-C1'-N9	10.29	116.43	108.20
35	BA	1548	C	C6-N1-C2	10.28	124.41	120.30
35	BA	1452	A	C2-N3-C4	-10.27	105.46	110.60
35	BA	1643	G	C2-N3-C4	-10.27	106.76	111.90
35	BA	604	G	C8-N9-C4	10.26	110.50	106.40
35	BA	2495	G	N9-C4-C5	10.26	109.50	105.40
51	BT	91	ARG	NE-CZ-NH2	-10.26	115.17	120.30
1	AA	689	C	N3-C4-C5	10.26	126.00	121.90
1	AA	1270	C	C2-N3-C4	10.25	125.03	119.90
1	AA	1277	C	C2-N3-C4	10.24	125.02	119.90
1	AA	1397	C	C6-N1-C2	10.24	124.40	120.30
35	BA	1069	A	C8-N9-C4	-10.23	101.71	105.80
11	AK	18	ARG	NE-CZ-NH1	-10.23	115.19	120.30
35	BA	1379	A	N9-C1'-C2'	10.22	127.29	114.00
1	AA	1320	C	C4-C5-C6	10.22	122.51	117.40
35	BA	1908	C	C2-N3-C4	10.21	125.01	119.90
35	BA	2128	C	C4-C5-C6	10.21	122.51	117.40
50	BS	17	ARG	NE-CZ-NH2	10.21	125.41	120.30
35	BA	2807	G	C5-C6-O6	-10.20	122.48	128.60
35	BA	487	C	C4-C5-C6	10.19	122.50	117.40
35	BA	615	G	C5-C6-N1	10.18	116.59	111.50
1	AA	1280	A	C5-C6-N1	10.18	122.79	117.70
1	AA	488	C	N3-C4-C5	-10.17	117.83	121.90
35	BA	1717	G	C5-C6-O6	-10.17	122.50	128.60
35	BA	2392	A	N7-C8-N9	10.16	118.88	113.80
35	BA	271(A)	A	C5-N7-C8	-10.16	98.82	103.90
35	BA	479	A	C6-N1-C2	10.16	124.70	118.60
1	AA	197	A	N9-C4-C5	-10.16	101.74	105.80
35	BA	1168	G	N9-C4-C5	10.16	109.46	105.40
35	BA	135	G	N9-C4-C5	-10.15	101.34	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	137	ARG	NE-CZ-NH1	10.15	125.37	120.30
35	BA	382	G	N9-C4-C5	-10.14	101.34	105.40
35	BA	2787	C	N1-C2-O2	10.14	124.99	118.90
35	BA	2454	G	C5-N7-C8	10.14	109.37	104.30
40	BF	139	PHE	CB-CG-CD1	10.14	127.90	120.80
49	BR	33	ARG	NE-CZ-NH2	-10.13	115.23	120.30
35	BA	2467	C	C2-N3-C4	10.13	124.97	119.90
35	BA	2116	G	C2-N3-C4	-10.13	106.84	111.90
1	AA	108	G	N9-C4-C5	10.12	109.45	105.40
37	BC	53	ARG	NE-CZ-NH2	10.12	125.36	120.30
1	AA	268	C	N1-C2-O2	10.09	124.95	118.90
1	AA	528	C	N3-C4-C5	10.09	125.93	121.90
35	BA	2595	G	N9-C4-C5	-10.07	101.37	105.40
35	BA	1149	G	C8-N9-C4	-10.06	102.37	106.40
35	BA	1426	G	C8-N9-C4	10.06	110.43	106.40
1	AA	915	A	C8-N9-C4	10.06	109.82	105.80
35	BA	6	A	N9-C4-C5	-10.05	101.78	105.80
1	AA	108	G	C8-N9-C4	-10.04	102.38	106.40
1	AA	193	C	N3-C4-C5	-10.04	117.88	121.90
1	AA	35	G	C5-C6-O6	-10.04	122.58	128.60
1	AA	821	G	C2-N3-C4	10.03	116.92	111.90
36	BB	113	G	C4-C5-N7	10.03	114.81	110.80
35	BA	968	G	N3-C4-C5	10.03	133.61	128.60
35	BA	2730	C	C5-C6-N1	10.03	126.01	121.00
35	BA	2748	A	C8-N9-C4	10.02	109.81	105.80
35	BA	1330	C	N3-C4-C5	10.02	125.91	121.90
35	BA	2848	G	C5-C6-O6	10.02	134.61	128.60
35	BA	1185	C	C6-N1-C2	-10.01	116.30	120.30
1	AA	1257	U	O4'-C1'-N1	-10.01	100.19	108.20
35	BA	155	U	C4-C5-C6	10.01	125.70	119.70
35	BA	621	A	C4-C5-C6	10.00	122.00	117.00
36	BB	7	G	C8-N9-C4	-9.99	102.40	106.40
35	BA	708	C	C6-N1-C2	-9.99	116.30	120.30
1	AA	692	U	C4-C5-C6	9.98	125.69	119.70
1	AA	1190	G	N3-C4-C5	9.98	133.59	128.60
35	BA	2150	U	C5-C6-N1	-9.98	117.71	122.70
1	AA	6	G	C8-N9-C4	9.98	110.39	106.40
35	BA	2050	C	C5-C6-N1	9.98	125.99	121.00
1	AA	375	U	C5-C4-O4	9.97	131.88	125.90
1	AA	1054	C	O4'-C1'-N1	-9.97	100.22	108.20
35	BA	708	C	C4-C5-C6	-9.96	112.42	117.40
35	BA	251	A	N1-C2-N3	9.96	134.28	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2595	G	C8-N9-C4	9.96	110.38	106.40
35	BA	228	A	N7-C8-N9	9.95	118.78	113.80
35	BA	408	G	C6-N1-C2	-9.95	119.13	125.10
22	AV	17	C	N3-C4-C5	9.94	125.88	121.90
35	BA	2737	G	C8-N9-C4	-9.95	102.42	106.40
1	AA	988	G	N3-C4-N9	9.94	131.97	126.00
35	BA	2779	U	N3-C4-O4	-9.94	112.44	119.40
1	AA	38	G	N9-C4-C5	9.93	109.37	105.40
1	AA	1439	C	C6-N1-C2	9.92	124.27	120.30
1	AA	656	C	C6-N1-C2	9.91	124.27	120.30
1	AA	1385	G	C5-C6-O6	-9.91	122.65	128.60
35	BA	1363	C	N3-C4-C5	-9.90	117.94	121.90
35	BA	93	G	C4-C5-N7	9.90	114.76	110.80
35	BA	479	A	N1-C2-N3	-9.90	124.35	129.30
1	AA	816	A	C2-N3-C4	9.89	115.55	110.60
35	BA	844	C	C4-C5-C6	-9.89	112.46	117.40
35	BA	2132	U	C5-C4-O4	9.88	131.83	125.90
35	BA	475	U	C5-C6-N1	-9.87	117.76	122.70
35	BA	1091	G	C4-C5-C6	9.87	124.72	118.80
35	BA	2871	C	C4-C5-C6	9.86	122.33	117.40
1	AA	293	G	C5-C6-O6	-9.86	122.69	128.60
35	BA	1629	U	C5-C4-O4	-9.85	119.99	125.90
35	BA	1558	A	C8-N9-C4	-9.84	101.86	105.80
1	AA	606	G	N9-C4-C5	9.84	109.34	105.40
1	AA	1259	C	N3-C4-C5	9.84	125.83	121.90
35	BA	2270	G	C2-N3-C4	-9.83	106.98	111.90
35	BA	197	A	N9-C4-C5	-9.83	101.87	105.80
35	BA	1354	A	N7-C8-N9	-9.83	108.89	113.80
35	BA	1358	G	N9-C4-C5	-9.82	101.47	105.40
35	BA	2728	U	C5-C6-N1	-9.82	117.79	122.70
1	AA	393	A	C2-N3-C4	9.82	115.51	110.60
36	BB	68	C	C2-N3-C4	-9.82	114.99	119.90
35	BA	1044	G	C2-N3-C4	-9.82	106.99	111.90
35	BA	2748	A	N9-C4-C5	-9.82	101.87	105.80
54	BW	11	ARG	NE-CZ-NH1	-9.82	115.39	120.30
35	BA	113	G	C2-N3-C4	-9.81	107.00	111.90
35	BA	1628	G	C8-N9-C4	-9.81	102.48	106.40
35	BA	220	G	N9-C4-C5	9.80	109.32	105.40
35	BA	61	G	O4'-C1'-N9	-9.80	100.36	108.20
35	BA	914	C	C5-C6-N1	-9.80	116.10	121.00
35	BA	2421	G	N7-C8-N9	9.79	118.00	113.10
35	BA	10	G	N3-C4-C5	9.79	133.50	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2520	C	C5-C6-N1	9.79	125.90	121.00
35	BA	1255	U	O4'-C1'-N1	9.79	116.03	108.20
39	BE	164	ARG	NE-CZ-NH2	-9.79	115.41	120.30
1	AA	575	G	C2'-C3'-O3'	9.79	131.03	109.50
1	AA	670	G	C8-N9-C4	-9.78	102.49	106.40
35	BA	1573	G	O4'-C1'-N9	-9.78	100.38	108.20
1	AA	1289	A	C8-N9-C4	9.78	109.71	105.80
35	BA	1640	C	N1-C2-O2	9.78	124.77	118.90
35	BA	2246	G	C8-N9-C4	9.77	110.31	106.40
1	AA	1074	G	C5-C6-N1	9.77	116.38	111.50
35	BA	649	G	N7-C8-N9	9.77	117.98	113.10
35	BA	2555	U	C5-C6-N1	-9.76	117.82	122.70
1	AA	103	C	C5-C6-N1	-9.76	116.12	121.00
1	AA	1132	C	N1-C2-O2	9.76	124.75	118.90
35	BA	419	C	N3-C4-C5	9.75	125.80	121.90
1	AA	1252	A	C5-N7-C8	9.75	108.77	103.90
21	AU	6	ARG	NE-CZ-NH2	-9.74	115.43	120.30
1	AA	1403	C	C4-C5-C6	9.73	122.27	117.40
25	B0	20	ARG	NE-CZ-NH2	-9.73	115.43	120.30
35	BA	1192	G	C8-N9-C4	9.73	110.29	106.40
35	BA	318	C	C5-C4-N4	-9.73	113.39	120.20
35	BA	2531	A	N1-C6-N6	-9.73	112.76	118.60
12	AL	53	ARG	NE-CZ-NH1	-9.72	115.44	120.30
1	AA	1022	G	N7-C8-N9	-9.71	108.24	113.10
35	BA	1406	U	C5-C6-N1	-9.71	117.84	122.70
35	BA	1922	G	N3-C4-C5	-9.71	123.74	128.60
36	BB	7	G	N7-C8-N9	9.71	117.96	113.10
1	AA	702	A	C5-C6-N1	9.71	122.55	117.70
1	AA	868	C	N3-C4-C5	-9.70	118.02	121.90
35	BA	746	A	N1-C2-N3	9.70	134.15	129.30
35	BA	934	G	C4-C5-N7	9.69	114.68	110.80
1	AA	1105	A	C8-N9-C4	-9.69	101.92	105.80
35	BA	1329	U	C5-C4-O4	9.69	131.71	125.90
35	BA	2779	U	N3-C2-O2	-9.69	115.42	122.20
1	AA	1483	A	C8-N9-C4	9.69	109.67	105.80
35	BA	188	G	N3-C4-C5	-9.68	123.76	128.60
35	BA	201	C	C5-C6-N1	9.68	125.84	121.00
35	BA	537	C	C2-N3-C4	-9.68	115.06	119.90
1	AA	569	C	C6-N1-C2	9.68	124.17	120.30
35	BA	955	C	N3-C4-C5	-9.68	118.03	121.90
35	BA	1613	G	C5-C6-O6	9.67	134.40	128.60
49	BR	12	ARG	NE-CZ-NH1	-9.66	115.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BB	103	G	C5'-C4'-C3'	-9.66	100.54	116.00
35	BA	791	C	N3-C4-C5	9.66	125.76	121.90
35	BA	1998	G	C4-C5-N7	9.66	114.66	110.80
35	BA	1361	G	N3-C4-C5	9.66	133.43	128.60
8	AH	37	ARG	NE-CZ-NH2	9.65	125.13	120.30
35	BA	1640	C	N3-C2-O2	-9.65	115.15	121.90
1	AA	269	C	C5-C6-N1	9.64	125.82	121.00
35	BA	2495	G	C4-C5-N7	-9.64	106.94	110.80
1	AA	1431	C	C6-N1-C2	9.63	124.15	120.30
35	BA	2335	A	C5'-C4'-O4'	9.63	120.66	109.10
35	BA	1853	A	N1-C2-N3	-9.62	124.49	129.30
2	AB	92	TYR	CB-CG-CD2	-9.62	115.23	121.00
35	BA	1922	G	C5-C6-O6	-9.62	122.83	128.60
1	AA	1022	G	C6-C5-N7	9.60	136.16	130.40
1	AA	1226	C	C6-N1-C2	-9.60	116.46	120.30
32	B7	21	ARG	NE-CZ-NH1	-9.60	115.50	120.30
35	BA	1416	G	O4'-C1'-N9	9.60	115.88	108.20
35	BA	1881	C	C5-C6-N1	-9.60	116.20	121.00
35	BA	742	G	N7-C8-N9	9.59	117.90	113.10
1	AA	1293	G	C5-N7-C8	9.58	109.09	104.30
35	BA	143(A)	C	C2-N3-C4	9.58	124.69	119.90
35	BA	706	A	C8-N9-C4	-9.58	101.97	105.80
1	AA	310	G	C8-N9-C4	-9.58	102.57	106.40
35	BA	821	A	C8-N9-C4	9.58	109.63	105.80
47	BP	79	ARG	NE-CZ-NH1	-9.58	115.51	120.30
35	BA	1801	G	N9-C4-C5	-9.57	101.57	105.40
35	BA	2804	C	N1-C2-O2	9.57	124.64	118.90
35	BA	2718	G	C5-N7-C8	9.57	109.08	104.30
35	BA	2885	C	C5-C6-N1	9.57	125.78	121.00
35	BA	1154	G	N3-C2-N2	9.56	126.59	119.90
35	BA	1596	A	N1-C2-N3	-9.56	124.52	129.30
1	AA	809	G	C5-C6-N1	-9.55	106.72	111.50
1	AA	282	A	N7-C8-N9	-9.55	109.03	113.80
35	BA	945	A	N9-C1'-C2'	9.55	126.41	114.00
35	BA	1410	G	C4-C5-N7	9.55	114.62	110.80
35	BA	2193	G	N1-C2-N3	9.55	129.63	123.90
35	BA	503	A	N9-C4-C5	-9.54	101.98	105.80
35	BA	1469	A	N1-C2-N3	9.54	134.07	129.30
35	BA	1596	A	C2-N3-C4	9.54	115.37	110.60
1	AA	485	G	C5-C6-N1	-9.54	106.73	111.50
1	AA	1433	A	N7-C8-N9	9.54	118.57	113.80
35	BA	1799	G	C2'-C3'-O3'	9.54	130.48	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1174	G	C4-C5-N7	-9.53	106.99	110.80
35	BA	2469	A	N1-C2-N3	-9.53	124.54	129.30
35	BA	2049	G	C4-C5-N7	-9.52	106.99	110.80
1	AA	1285	A	N1-C6-N6	-9.51	112.90	118.60
22	AV	22	G	C5-C6-O6	9.50	134.30	128.60
35	BA	2742	C	N3-C4-N4	9.50	124.65	118.00
1	AA	1338	G	N9-C4-C5	-9.49	101.60	105.40
1	AA	457	C	O4'-C1'-N1	9.49	115.79	108.20
1	AA	1039	C	C6-N1-C2	-9.49	116.50	120.30
1	AA	1222	G	C4-C5-N7	9.49	114.60	110.80
35	BA	1977	A	C8-N9-C4	-9.49	102.00	105.80
1	AA	1428	A	N9-C4-C5	-9.49	102.00	105.80
36	BB	117	G	C8-N9-C4	-9.48	102.61	106.40
1	AA	360	A	N9-C4-C5	9.47	109.59	105.80
1	AA	250	A	N9-C4-C5	9.47	109.59	105.80
35	BA	271(U)	G	C5-C6-N1	-9.47	106.76	111.50
35	BA	918	A	N9-C4-C5	9.47	109.59	105.80
35	BA	55	G	C2-N3-C4	9.47	116.64	111.90
35	BA	2811	G	C8-N9-C4	-9.47	102.61	106.40
1	AA	109	A	N1-C2-N3	9.46	134.03	129.30
35	BA	632	A	N7-C8-N9	9.46	118.53	113.80
1	AA	676	A	C2-N3-C4	-9.46	105.87	110.60
35	BA	2044	C	N3-C4-C5	-9.46	118.12	121.90
1	AA	1233	G	C6-N1-C2	9.45	130.77	125.10
1	AA	331	G	N9-C4-C5	-9.45	101.62	105.40
22	AV	23	C	C5-C6-N1	-9.45	116.28	121.00
1	AA	779	C	C6-N1-C2	-9.44	116.52	120.30
35	BA	1943	U	N1-C2-O2	9.44	129.41	122.80
1	AA	1018	C	C6-N1-C2	-9.44	116.52	120.30
1	AA	500	G	O4'-C1'-N9	-9.44	100.65	108.20
35	BA	792	G	N1-C6-O6	9.43	125.56	119.90
35	BA	2021	C	C6-N1-C2	-9.43	116.53	120.30
1	AA	693	G	C8-N9-C4	9.42	110.17	106.40
35	BA	1840	G	C8-N9-C4	-9.42	102.63	106.40
35	BA	454	A	N1-C2-N3	9.41	134.01	129.30
35	BA	1474	C	N3-C4-C5	9.41	125.66	121.90
29	B4	43	TYR	N-CA-C	9.40	136.39	111.00
1	AA	125	U	N3-C4-O4	9.40	125.98	119.40
1	AA	940	C	C6-N1-C2	9.40	124.06	120.30
35	BA	2738	A	C8-N9-C4	-9.40	102.04	105.80
35	BA	2642	G	N3-C2-N2	-9.39	113.33	119.90
35	BA	408	G	C5-C6-N1	9.39	116.19	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1133	G	C5-C6-N1	9.38	116.19	111.50
35	BA	690	G	C2-N3-C4	-9.38	107.21	111.90
1	AA	1467	G	N9-C4-C5	-9.37	101.65	105.40
1	AA	38	G	C2-N3-C4	9.37	116.59	111.90
35	BA	476	G	C2-N3-C4	-9.37	107.22	111.90
35	BA	2775	A	N1-C2-N3	9.37	133.99	129.30
35	BA	2663	G	C4-C5-N7	9.37	114.55	110.80
1	AA	525	C	C5-C6-N1	-9.36	116.32	121.00
35	BA	672	C	N3-C2-O2	-9.36	115.35	121.90
35	BA	2538	C	N3-C4-C5	9.36	125.64	121.90
35	BA	318	C	C2-N3-C4	-9.35	115.22	119.90
35	BA	2821	A	C8-N9-C4	-9.35	102.06	105.80
35	BA	1290	C	C2-N3-C4	-9.35	115.23	119.90
35	BA	689	A	C8-N9-C4	-9.35	102.06	105.80
35	BA	2765	A	N1-C2-N3	-9.35	124.63	129.30
35	BA	1582	C	C6-N1-C2	-9.34	116.56	120.30
35	BA	1088	A	C6-N1-C2	-9.34	113.00	118.60
35	BA	2768	C	O4'-C1'-N1	-9.34	100.73	108.20
35	BA	2240	C	N3-C4-C5	9.33	125.63	121.90
35	BA	360	G	N7-C8-N9	9.32	117.76	113.10
35	BA	1545	A	N1-C6-N6	9.31	124.19	118.60
1	AA	1447	A	N1-C2-N3	-9.31	124.64	129.30
46	BO	17	ARG	NE-CZ-NH2	-9.31	115.65	120.30
1	AA	158	G	N1-C6-O6	9.30	125.48	119.90
35	BA	1406	U	C6-N1-C2	9.30	126.58	121.00
35	BA	1756	G	C4-C5-C6	9.30	124.38	118.80
1	AA	1022	G	C8-N9-C4	9.30	110.12	106.40
35	BA	1678	G	N9-C4-C5	9.30	109.12	105.40
1	AA	1032	G	N9-C4-C5	-9.30	101.68	105.40
1	AA	739	C	N3-C4-C5	9.30	125.62	121.90
35	BA	65	C	N1-C2-O2	9.29	124.48	118.90
36	BB	36	C	C5-C4-N4	-9.29	113.69	120.20
35	BA	1922	G	C4-C5-N7	-9.29	107.08	110.80
35	BA	2483	C	C5-C6-N1	9.29	125.64	121.00
35	BA	1117	G	C2-N3-C4	-9.28	107.26	111.90
35	BA	2748	A	N1-C6-N6	-9.28	113.03	118.60
35	BA	1487	G	C4-C5-N7	9.28	114.51	110.80
1	AA	1149	C	C5-C6-N1	-9.28	116.36	121.00
35	BA	2271	G	N1-C2-N3	9.28	129.47	123.90
35	BA	2525	G	C4-C5-N7	-9.28	107.09	110.80
35	BA	2121	G	C8-N9-C4	9.27	110.11	106.40
1	AA	169	C	C6-N1-C2	9.26	124.01	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	497	A	N7-C8-N9	-9.26	109.17	113.80
1	AA	1417	G	C5-C6-N1	-9.26	106.87	111.50
35	BA	2116	G	N3-C4-C5	9.26	133.23	128.60
35	BA	1925	C	C4-C5-C6	-9.25	112.78	117.40
35	BA	1426	G	N9-C4-C5	-9.25	101.70	105.40
35	BA	1407	C	C6-N1-C2	-9.24	116.60	120.30
35	BA	2607	G	C8-N9-C4	-9.24	102.70	106.40
1	AA	47	C	N3-C4-C5	9.24	125.59	121.90
9	AI	66	ARG	NE-CZ-NH1	9.24	124.92	120.30
35	BA	654(I)	C	C4-C5-C6	9.23	122.02	117.40
35	BA	2364	C	N3-C4-C5	9.23	125.59	121.90
1	AA	1048	G	C5-C6-O6	-9.23	123.06	128.60
1	AA	587	G	C4-C5-N7	-9.23	107.11	110.80
35	BA	1755	A	O4'-C1'-N9	9.23	115.58	108.20
1	AA	903	G	C4-C5-C6	9.22	124.33	118.80
35	BA	473	G	C5-N7-C8	-9.22	99.69	104.30
1	AA	860	A	N1-C2-N3	9.22	133.91	129.30
8	AH	125	ARG	NE-CZ-NH2	-9.22	115.69	120.30
1	AA	600	C	C6-N1-C2	9.22	123.99	120.30
35	BA	253	C	C5-C6-N1	9.21	125.61	121.00
1	AA	151	A	N9-C4-C5	-9.21	102.12	105.80
1	AA	1413	A	N1-C2-N3	9.21	133.90	129.30
35	BA	654(T)	C	C4-C5-C6	-9.21	112.80	117.40
24	AY	197	ARG	NE-CZ-NH2	9.21	124.90	120.30
35	BA	48	G	C4-C5-N7	9.21	114.48	110.80
35	BA	2520	C	C4-C5-C6	-9.21	112.80	117.40
35	BA	2834	G	N7-C8-N9	-9.20	108.50	113.10
35	BA	849	A	N1-C2-N3	9.20	133.90	129.30
35	BA	966	G	N9-C4-C5	-9.20	101.72	105.40
1	AA	1531	A	C5-C6-N1	-9.20	113.10	117.70
35	BA	178	G	C8-N9-C4	-9.20	102.72	106.40
35	BA	602	G	C8-N9-C4	-9.20	102.72	106.40
1	AA	60	A	O4'-C1'-N9	-9.19	100.85	108.20
1	AA	221	C	C6-N1-C2	-9.19	116.62	120.30
1	AA	805	C	N3-C4-N4	9.19	124.43	118.00
1	AA	1190	G	C2-N3-C4	-9.19	107.31	111.90
1	AA	617	G	C4-C5-N7	9.18	114.47	110.80
1	AA	1511	G	N9-C4-C5	9.18	109.07	105.40
35	BA	2193	G	N3-C2-N2	-9.18	113.48	119.90
47	BP	80	TYR	CB-CG-CD2	9.18	126.50	121.00
35	BA	300	A	C5-C6-N1	9.17	122.29	117.70
35	BA	1628	G	C5-N7-C8	-9.17	99.71	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	986	C	N3-C4-C5	-9.16	118.23	121.90
1	AA	1387	G	C4-C5-C6	9.16	124.29	118.80
35	BA	1800	C	C5-C4-N4	-9.15	113.80	120.20
1	AA	934	C	C5-C6-N1	9.15	125.57	121.00
1	AA	1165	C	C5-C6-N1	9.14	125.57	121.00
35	BA	2240	C	C2-N3-C4	-9.14	115.33	119.90
1	AA	818	G	C5-C6-N1	-9.14	106.93	111.50
35	BA	2470	G	N7-C8-N9	9.14	117.67	113.10
35	BA	1088	A	N1-C2-N3	9.14	133.87	129.30
35	BA	1650	G	C8-N9-C4	-9.13	102.75	106.40
1	AA	263	A	N1-C2-N3	-9.13	124.74	129.30
35	BA	920	G	N1-C6-O6	-9.12	114.43	119.90
1	AA	1371	G	N3-C2-N2	9.12	126.28	119.90
22	AV	28	C	N3-C4-C5	9.11	125.55	121.90
35	BA	1993	U	C5-C6-N1	9.11	127.26	122.70
36	BB	29	A	N7-C8-N9	-9.11	109.25	113.80
1	AA	633	G	N9-C4-C5	9.11	109.04	105.40
8	AH	84	ARG	NE-CZ-NH1	-9.11	115.75	120.30
35	BA	1997	G	N9-C4-C5	-9.10	101.76	105.40
35	BA	2137	C	N3-C4-C5	-9.10	118.26	121.90
35	BA	1228	G	C8-N9-C4	-9.09	102.76	106.40
35	BA	1123	C	C6-N1-C2	-9.08	116.67	120.30
35	BA	1568	G	O4'-C1'-N9	-9.08	100.93	108.20
35	BA	1186	G	C5-C6-O6	-9.08	123.16	128.60
35	BA	853	G	C5-C6-O6	-9.07	123.16	128.60
1	AA	1437	C	C6-N1-C2	-9.06	116.67	120.30
1	AA	522	C	N3-C4-N4	-9.06	111.66	118.00
35	BA	1156	A	N9-C1'-C2'	9.06	125.78	114.00
35	BA	1749	A	C2-N3-C4	-9.06	106.07	110.60
1	AA	676	A	N9-C4-C5	-9.05	102.18	105.80
35	BA	1962	C	N1-C2-O2	9.05	124.33	118.90
30	B5	19	ARG	NE-CZ-NH2	9.05	124.83	120.30
35	BA	52	A	N9-C4-C5	-9.05	102.18	105.80
35	BA	1086	A	C4-C5-N7	-9.05	106.18	110.70
35	BA	2436	G	C5-C6-N1	9.04	116.02	111.50
52	BU	59	ARG	NE-CZ-NH2	-9.04	115.78	120.30
1	AA	701	C	O4'-C1'-N1	9.04	115.43	108.20
35	BA	686	G	C2-N3-C4	-9.04	107.38	111.90
35	BA	1610	A	N9-C4-C5	-9.04	102.19	105.80
35	BA	98	G	N1-C6-O6	9.03	125.32	119.90
35	BA	248	G	C4-C5-N7	9.04	114.41	110.80
35	BA	1721	G	C4-C5-N7	9.04	114.41	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	809	G	C6-N1-C2	9.03	130.52	125.10
35	BA	1217	C	C6-N1-C2	-9.03	116.69	120.30
1	AA	1094	G	N1-C6-O6	-9.02	114.49	119.90
1	AA	628	G	C2-N3-C4	9.02	116.41	111.90
35	BA	199	A	N7-C8-N9	9.02	118.31	113.80
24	AY	465	ARG	NE-CZ-NH2	-9.02	115.79	120.30
35	BA	616	G	C8-N9-C4	-9.02	102.79	106.40
2	AB	157	ARG	NE-CZ-NH2	-9.01	115.79	120.30
35	BA	1959	G	C5-C6-O6	-9.01	123.20	128.60
1	AA	511	C	C5-C6-N1	9.00	125.50	121.00
35	BA	1608	A	C8-N9-C4	-9.00	102.20	105.80
35	BA	1859	A	C2-N3-C4	-9.00	106.10	110.60
35	BA	360	G	C4-C5-N7	9.00	114.40	110.80
35	BA	2742	C	C2-N3-C4	9.00	124.40	119.90
35	BA	1011	G	C8-N9-C4	-8.99	102.80	106.40
35	BA	113	G	N9-C4-C5	-8.99	101.80	105.40
1	AA	55	A	C5-N7-C8	8.99	108.39	103.90
1	AA	1087	G	C8-N9-C4	-8.99	102.81	106.40
35	BA	1052	C	O4'-C1'-N1	-8.99	101.01	108.20
35	BA	2622	C	N3-C4-C5	8.99	125.50	121.90
1	AA	988	G	N3-C4-C5	-8.98	124.11	128.60
35	BA	1922	G	N9-C4-C5	8.98	108.99	105.40
35	BA	2293	C	C6-N1-C2	-8.98	116.71	120.30
1	AA	384	G	C5-C6-O6	-8.98	123.21	128.60
37	BC	111	PHE	CB-CG-CD2	-8.98	114.52	120.80
1	AA	1213	A	C2-N3-C4	8.97	115.08	110.60
22	AV	66	C	N3-C4-C5	8.97	125.49	121.90
35	BA	744	G	C4-C5-N7	8.97	114.39	110.80
35	BA	1149	G	N3-C4-N9	-8.97	120.62	126.00
35	BA	2372	G	N1-C6-O6	-8.97	114.52	119.90
1	AA	915	A	C5-N7-C8	8.97	108.38	103.90
1	AA	1027	C	C6-N1-C2	-8.97	116.71	120.30
1	AA	538	G	C2-N3-C4	8.96	116.38	111.90
35	BA	2503	A	C8-N9-C4	-8.96	102.21	105.80
1	AA	829	G	N9-C4-C5	8.96	108.98	105.40
35	BA	75	G	C5-C6-O6	8.96	133.98	128.60
35	BA	1817	G	C4-C5-N7	8.96	114.39	110.80
1	AA	1371	G	C2-N3-C4	8.96	116.38	111.90
1	AA	701	C	C6-N1-C2	-8.96	116.72	120.30
1	AA	538	G	C5-N7-C8	8.95	108.78	104.30
1	AA	1290	G	N7-C8-N9	8.95	117.58	113.10
1	AA	21	G	C4-C5-N7	-8.95	107.22	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	425	G	N7-C8-N9	-8.95	108.63	113.10
1	AA	1492	A	N9-C4-C5	8.95	109.38	105.80
8	AH	60	ARG	NE-CZ-NH1	-8.95	115.83	120.30
35	BA	1511	C	C4-C5-C6	-8.95	112.92	117.40
35	BA	718	A	C4-C5-C6	-8.95	112.53	117.00
1	AA	506	G	C8-N9-C4	-8.95	102.82	106.40
35	BA	2718	G	N7-C8-N9	-8.95	108.63	113.10
35	BA	1484	G	N3-C4-C5	8.94	133.07	128.60
35	BA	2454	G	N7-C8-N9	-8.94	108.63	113.10
35	BA	144	C	C6-N1-C2	-8.94	116.72	120.30
35	BA	1635	G	N3-C4-C5	8.94	133.07	128.60
35	BA	47	C	C5-C6-N1	-8.94	116.53	121.00
22	AV	9	G	O4'-C1'-N9	8.94	115.35	108.20
35	BA	654(I)	C	C5-C6-N1	-8.93	116.53	121.00
1	AA	454	C	C6-N1-C2	-8.93	116.73	120.30
35	BA	2443	C	C4-C5-C6	8.93	121.86	117.40
1	AA	1248	A	N9-C4-C5	8.93	109.37	105.80
1	AA	958	A	C4-C5-N7	8.93	115.16	110.70
1	AA	1480	G	C5-C6-O6	-8.93	123.25	128.60
14	AN	57	ARG	NE-CZ-NH2	-8.93	115.84	120.30
26	B1	52	ARG	NE-CZ-NH1	8.92	124.76	120.30
36	BB	29	A	C5-N7-C8	8.92	108.36	103.90
35	BA	2041	U	C4-C5-C6	8.92	125.05	119.70
35	BA	1473	G	C5-C6-O6	8.92	133.95	128.60
42	BH	170	ARG	NE-CZ-NH1	-8.92	115.84	120.30
1	AA	41	G	C5-C6-N1	8.91	115.96	111.50
1	AA	960	U	N3-C2-O2	-8.91	115.96	122.20
1	AA	1251	A	N1-C2-N3	8.91	133.75	129.30
35	BA	27	G	C5-C6-N1	8.91	115.95	111.50
35	BA	454	A	C2-N3-C4	-8.91	106.15	110.60
35	BA	1120	G	N7-C8-N9	-8.91	108.65	113.10
1	AA	273	A	C5-C6-N1	-8.90	113.25	117.70
35	BA	672	C	C2-N3-C4	-8.90	115.45	119.90
37	BC	224	ARG	NE-CZ-NH2	-8.90	115.85	120.30
35	BA	801	G	N3-C2-N2	8.90	126.13	119.90
50	BS	97	ARG	NE-CZ-NH1	8.90	124.75	120.30
1	AA	1531	A	C8-N9-C4	8.89	109.36	105.80
35	BA	1303	G	N1-C6-O6	-8.89	114.57	119.90
35	BA	2161	C	N3-C4-C5	-8.89	118.34	121.90
35	BA	2346	A	N1-C2-N3	8.89	133.74	129.30
35	BA	2515	C	C6-N1-C2	-8.89	116.75	120.30
1	AA	362	G	N1-C6-O6	8.88	125.23	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AM	59	TYR	CB-CG-CD1	8.88	126.33	121.00
35	BA	178	G	N9-C4-C5	8.88	108.95	105.40
35	BA	2156	G	C5-C6-O6	8.88	133.93	128.60
35	BA	706	A	N9-C4-C5	8.88	109.35	105.80
35	BA	2811	G	N9-C4-C5	8.88	108.95	105.40
1	AA	7	G	N1-C6-O6	-8.88	114.57	119.90
1	AA	18	C	N3-C4-C5	-8.87	118.35	121.90
1	AA	1410	G	N3-C2-N2	8.87	126.11	119.90
35	BA	956	G	N7-C8-N9	8.87	117.54	113.10
35	BA	1942	C	C4-C5-C6	-8.87	112.97	117.40
35	BA	2446	G	N3-C2-N2	-8.87	113.69	119.90
1	AA	905	U	N3-C2-O2	8.87	128.41	122.20
35	BA	2271	G	C2-N3-C4	-8.87	107.47	111.90
35	BA	96	G	N1-C6-O6	8.87	125.22	119.90
35	BA	758	C	C5-C4-N4	-8.87	113.99	120.20
35	BA	1295	C	N3-C4-C5	-8.87	118.35	121.90
35	BA	1701	A	N7-C8-N9	8.87	118.23	113.80
35	BA	1703	G	C8-N9-C4	-8.87	102.85	106.40
1	AA	1142	G	N7-C8-N9	8.86	117.53	113.10
35	BA	271(B)	C	N3-C4-C5	8.87	125.45	121.90
41	BG	91	ARG	NE-CZ-NH2	8.86	124.73	120.30
35	BA	1542	A	C8-N9-C4	-8.86	102.25	105.80
35	BA	2303	G	N9-C4-C5	8.86	108.94	105.40
35	BA	632	A	N1-C6-N6	-8.86	113.28	118.60
1	AA	1215	G	C8-N9-C4	-8.86	102.86	106.40
1	AA	702	A	N1-C2-N3	-8.86	124.87	129.30
7	AG	10	ARG	NE-CZ-NH1	-8.86	115.87	120.30
35	BA	1252	G	N1-C6-O6	8.86	125.21	119.90
1	AA	70	G	N9-C4-C5	-8.85	101.86	105.40
35	BA	543	C	N1-C2-O2	-8.85	113.59	118.90
35	BA	1430	C	C4-C5-C6	8.85	121.82	117.40
1	AA	119	A	N9-C4-C5	8.84	109.34	105.80
35	BA	675	A	N1-C2-N3	8.84	133.72	129.30
1	AA	587	G	N3-C4-C5	-8.84	124.18	128.60
35	BA	2389	G	N1-C6-O6	-8.84	114.60	119.90
1	AA	246	A	N9-C4-C5	8.84	109.33	105.80
36	BB	117	G	C5-C6-O6	8.84	133.90	128.60
35	BA	2738	A	N1-C6-N6	8.84	123.90	118.60
35	BA	1094	U	C4-C5-C6	8.83	125.00	119.70
36	BB	43	C	C6-N1-C2	-8.83	116.77	120.30
1	AA	616	G	C5-C6-N1	8.83	115.92	111.50
35	BA	359	A	N1-C2-N3	-8.83	124.88	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	541	C	N3-C4-C5	8.83	125.43	121.90
35	BA	2308	G	N7-C8-N9	8.83	117.52	113.10
35	BA	13	A	N1-C6-N6	-8.83	113.30	118.60
35	BA	2516	G	N3-C4-C5	8.82	133.01	128.60
36	BB	12	C	N3-C2-O2	-8.82	115.72	121.90
1	AA	742	G	N9-C4-C5	8.82	108.93	105.40
1	AA	860	A	C2-N3-C4	-8.82	106.19	110.60
35	BA	1879	C	C2-N3-C4	-8.82	115.49	119.90
35	BA	2155	G	C5-C6-O6	-8.82	123.31	128.60
35	BA	2428	G	C6-N1-C2	8.82	130.39	125.10
24	AY	504	ARG	NE-CZ-NH2	8.81	124.71	120.30
35	BA	1484	G	N9-C4-C5	-8.81	101.88	105.40
1	AA	984	C	C6-N1-C2	8.81	123.82	120.30
35	BA	1252	G	C5-N7-C8	-8.81	99.90	104.30
35	BA	746	A	C6-N1-C2	-8.81	113.32	118.60
1	AA	1511	G	N7-C8-N9	8.80	117.50	113.10
45	BN	72	TYR	CB-CG-CD2	-8.80	115.72	121.00
35	BA	34	C	N1-C2-O2	8.80	124.18	118.90
35	BA	1070	A	N9-C4-C5	8.80	109.32	105.80
25	B0	72	ARG	NE-CZ-NH1	-8.80	115.90	120.30
1	AA	1200	C	N3-C4-C5	-8.80	118.38	121.90
35	BA	1613	G	N1-C6-O6	-8.79	114.62	119.90
35	BA	2137	C	C4-C5-C6	8.80	121.80	117.40
35	BA	2304	G	C4-C5-N7	-8.79	107.28	110.80
1	AA	1463	C	N1-C2-O2	8.79	124.17	118.90
35	BA	608	A	C5-C6-N1	-8.79	113.31	117.70
35	BA	1022	G	C8-N9-C4	8.78	109.91	106.40
35	BA	1276	A	N9-C4-C5	-8.78	102.29	105.80
35	BA	2436	G	C2-N3-C4	8.78	116.29	111.90
35	BA	2376	A	N7-C8-N9	8.78	118.19	113.80
3	AC	83	ARG	NE-CZ-NH2	-8.77	115.91	120.30
11	AK	18	ARG	NE-CZ-NH2	8.77	124.69	120.30
1	AA	882	C	N3-C2-O2	-8.77	115.77	121.90
1	AA	1424	C	C5-C6-N1	8.76	125.38	121.00
35	BA	328	U	C5-C6-N1	-8.76	118.32	122.70
1	AA	1024	G	N1-C6-O6	8.76	125.16	119.90
35	BA	271(D)	G	C8-N9-C4	-8.76	102.90	106.40
22	AV	72	A	N1-C2-N3	-8.76	124.92	129.30
35	BA	670	A	C8-N9-C4	-8.76	102.30	105.80
1	AA	353	A	N9-C4-C5	8.75	109.30	105.80
1	AA	662	G	C5-N7-C8	8.75	108.68	104.30
35	BA	752	A	C5-C6-N1	-8.75	113.32	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2130	U	N3-C4-O4	-8.75	113.27	119.40
1	AA	505	G	N3-C4-N9	8.75	131.25	126.00
35	BA	1168	G	C8-N9-C4	-8.75	102.90	106.40
35	BA	2308	G	C8-N9-C4	-8.75	102.90	106.40
44	BL	85	ASP	CB-CG-OD2	-8.75	110.43	118.30
1	AA	592	G	C5-C6-O6	-8.74	123.35	128.60
1	AA	916	G	C8-N9-C4	-8.74	102.90	106.40
1	AA	1197	G	N7-C8-N9	8.74	117.47	113.10
35	BA	2763	G	N3-C2-N2	-8.74	113.78	119.90
35	BA	346	A	O4'-C1'-N9	-8.74	101.21	108.20
35	BA	849	A	C8-N9-C4	-8.73	102.31	105.80
1	AA	362	G	C5-C6-O6	-8.73	123.36	128.60
35	BA	1091	G	C5-C6-O6	8.73	133.84	128.60
35	BA	1944	U	O4'-C1'-N1	-8.73	101.22	108.20
35	BA	2695	C	N3-C4-C5	8.73	125.39	121.90
35	BA	904	C	C6-N1-C2	-8.73	116.81	120.30
35	BA	2087	G	N1-C6-O6	-8.73	114.66	119.90
35	BA	118	A	C5-C6-N1	-8.72	113.34	117.70
1	AA	407	G	N1-C6-O6	8.72	125.13	119.90
1	AA	1074	G	C2-N3-C4	8.72	116.26	111.90
1	AA	1178	G	C2-N3-C4	8.72	116.26	111.90
35	BA	821	A	N7-C8-N9	-8.72	109.44	113.80
1	AA	1376	U	O4'-C1'-N1	8.72	115.17	108.20
48	BQ	56	ARG	NE-CZ-NH2	8.71	124.66	120.30
1	AA	797	C	O4'-C1'-N1	-8.71	101.23	108.20
1	AA	1521	G	C2-N3-C4	-8.71	107.55	111.90
1	AA	444	C	O4'-C1'-N1	-8.71	101.23	108.20
35	BA	2833	G	C5-C6-N1	-8.71	107.15	111.50
35	BA	127	A	C4-C5-N7	8.70	115.05	110.70
35	BA	917	A	N7-C8-N9	-8.70	109.45	113.80
35	BA	681	G	C4-C5-N7	-8.70	107.32	110.80
1	AA	620	C	C6-N1-C2	8.70	123.78	120.30
35	BA	1291	C	C5-C6-N1	-8.70	116.65	121.00
35	BA	2687	U	N1-C2-O2	8.70	128.89	122.80
35	BA	1636	C	C5-C4-N4	-8.70	114.11	120.20
35	BA	2472	G	C2-N3-C4	-8.70	107.55	111.90
35	BA	1426	G	C5-C6-N1	8.70	115.85	111.50
35	BA	2834	G	N3-C4-N9	8.69	131.21	126.00
1	AA	301	G	C8-N9-C4	-8.69	102.93	106.40
1	AA	658	G	N3-C4-N9	8.69	131.21	126.00
53	BV	66	ARG	NE-CZ-NH2	-8.69	115.96	120.30
1	AA	18	C	C2-N3-C4	8.68	124.24	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1511	C	N3-C4-C5	8.68	125.37	121.90
35	BA	1388	G	O4'-C1'-N9	-8.68	101.25	108.20
35	BA	1998	G	C5-N7-C8	-8.68	99.96	104.30
1	AA	79	G	N7-C8-N9	8.68	117.44	113.10
1	AA	438	G	N3-C4-C5	-8.68	124.26	128.60
35	BA	300	A	C5-C6-N6	-8.68	116.76	123.70
35	BA	743	G	C8-N9-C4	-8.68	102.93	106.40
1	AA	328	C	N1-C2-O2	8.68	124.11	118.90
35	BA	2051	A	N9-C4-C5	-8.68	102.33	105.80
35	BA	291	C	C5-C4-N4	-8.67	114.13	120.20
35	BA	1561	G	N3-C2-N2	8.67	125.97	119.90
35	BA	2855	C	N3-C4-C5	-8.67	118.43	121.90
35	BA	1070	A	C2-N3-C4	8.67	114.93	110.60
48	BQ	16	ARG	NE-CZ-NH1	-8.66	115.97	120.30
35	BA	1938	A	C8-N9-C4	-8.66	102.33	105.80
51	BT	53	ARG	NE-CZ-NH2	-8.66	115.97	120.30
22	AV	39	C	N3-C4-C5	-8.66	118.44	121.90
35	BA	708	C	N3-C4-N4	-8.66	111.94	118.00
35	BA	886	C	C6-N1-C2	-8.66	116.84	120.30
35	BA	1527	G	N3-C4-C5	-8.66	124.27	128.60
35	BA	2676	C	N3-C4-N4	-8.66	111.94	118.00
1	AA	1271	G	C5-C6-N1	8.65	115.83	111.50
35	BA	2363	C	N1-C2-O2	8.65	124.09	118.90
35	BA	2859	G	C5-C6-N1	-8.65	107.17	111.50
1	AA	680	C	N3-C4-C5	8.65	125.36	121.90
35	BA	1615	C	C2-N3-C4	8.65	124.22	119.90
35	BA	1496	A	O4'-C1'-N9	8.64	115.12	108.20
1	AA	428	G	O4'-C1'-N9	-8.64	101.29	108.20
35	BA	2002	G	C6-C5-N7	8.64	135.59	130.40
1	AA	186	C	C5-C6-N1	-8.64	116.68	121.00
35	BA	260	G	O4'-C1'-N9	-8.64	101.29	108.20
35	BA	1977	A	N1-C6-N6	-8.64	113.42	118.60
35	BA	1558	A	N7-C8-N9	8.64	118.12	113.80
35	BA	283	A	C2-N3-C4	-8.63	106.28	110.60
35	BA	1635	G	C2-N3-C4	-8.63	107.59	111.90
35	BA	1757	U	C5-C4-O4	-8.62	120.72	125.90
35	BA	1971	A	C5-C6-N1	8.63	122.01	117.70
35	BA	643	A	C2-N3-C4	-8.62	106.29	110.60
1	AA	1142	G	C5-C6-N1	8.62	115.81	111.50
35	BA	121	G	N3-C4-C5	-8.62	124.29	128.60
35	BA	1354	A	N1-C2-N3	-8.62	124.99	129.30
35	BA	2469	A	N9-C4-C5	-8.62	102.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	105	C	C2-N3-C4	8.62	124.21	119.90
35	BA	2666	C	C4-C5-C6	8.61	121.71	117.40
1	AA	338	A	N1-C2-N3	8.61	133.61	129.30
36	BB	18	G	N3-C4-N9	8.61	131.17	126.00
35	BA	897	C	C5-C6-N1	8.61	125.30	121.00
35	BA	1117	G	N1-C2-N3	8.61	129.06	123.90
35	BA	2281	C	O4'-C1'-N1	-8.61	101.31	108.20
35	BA	849	A	C5-N7-C8	-8.61	99.60	103.90
1	AA	926	G	C4-C5-C6	8.60	123.96	118.80
36	BB	57	A	C5-N7-C8	8.60	108.20	103.90
22	AV	65	C	N3-C4-C5	8.60	125.34	121.90
35	BA	2403	C	C5-C6-N1	8.60	125.30	121.00
35	BA	2224	G	N1-C2-N3	-8.60	118.74	123.90
35	BA	379	G	N3-C2-N2	8.60	125.92	119.90
35	BA	2646	C	C6-N1-C2	-8.60	116.86	120.30
35	BA	2765	A	C4-C5-C6	-8.60	112.70	117.00
35	BA	766	C	N1-C2-O2	8.59	124.06	118.90
35	BA	271(G)	C	N3-C4-N4	-8.59	111.99	118.00
35	BA	2061	G	N9-C4-C5	-8.59	101.97	105.40
18	AR	55	ARG	NE-CZ-NH1	-8.59	116.01	120.30
1	AA	1063	C	C4-C5-C6	8.58	121.69	117.40
35	BA	2802	G	C8-N9-C4	-8.58	102.97	106.40
35	BA	2804	C	N3-C4-C5	-8.58	118.47	121.90
1	AA	755	G	C4-C5-C6	8.58	123.95	118.80
35	BA	538	G	N9-C1'-C2'	-8.58	102.57	112.00
35	BA	2527	C	N3-C4-N4	8.58	124.00	118.00
35	BA	1128	A	N1-C2-N3	8.58	133.59	129.30
35	BA	2542	A	N9-C1'-C2'	8.58	125.15	114.00
1	AA	120	A	C5-N7-C8	8.57	108.19	103.90
35	BA	931	G	O4'-C1'-N9	-8.57	101.34	108.20
35	BA	602	G	N3-C4-C5	-8.57	124.31	128.60
35	BA	475	U	C4-C5-C6	8.57	124.84	119.70
35	BA	2516	G	C5-N7-C8	-8.57	100.02	104.30
31	B6	6	ARG	NE-CZ-NH1	8.56	124.58	120.30
35	BA	382	G	C4-C5-N7	8.56	114.22	110.80
35	BA	1393	A	N9-C4-C5	8.56	109.22	105.80
35	BA	1547	C	C5-C6-N1	-8.56	116.72	121.00
35	BA	1758	G	C5-C6-O6	8.56	133.74	128.60
35	BA	1787	A	N7-C8-N9	8.56	118.08	113.80
1	AA	101	A	N9-C4-C5	-8.56	102.38	105.80
1	AA	795	C	C5-C4-N4	8.56	126.19	120.20
36	BB	102	A	N1-C2-N3	8.56	133.58	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	754	C	C6-N1-C2	-8.55	116.88	120.30
1	AA	997	U	C5-C4-O4	-8.55	120.77	125.90
1	AA	1042	G	C8-N9-C4	-8.55	102.98	106.40
35	BA	1632	A	C8-N9-C4	8.55	109.22	105.80
1	AA	477	A	C5-N7-C8	-8.55	99.62	103.90
7	AG	32	ARG	NE-CZ-NH1	-8.55	116.02	120.30
35	BA	97	C	N1-C2-O2	-8.55	113.77	118.90
35	BA	564	C	C4-C5-C6	8.55	121.67	117.40
1	AA	668	G	C4'-C3'-C2'	-8.55	94.05	102.60
1	AA	1022	G	C2-N3-C4	8.55	116.17	111.90
35	BA	2134	A	N1-C6-N6	8.55	123.73	118.60
1	AA	560	U	N1-C1'-C2'	8.55	125.11	114.00
35	BA	2663	G	N9-C4-C5	-8.55	101.98	105.40
35	BA	621	A	C5-C6-N1	-8.54	113.43	117.70
35	BA	2640	G	N3-C4-N9	-8.54	120.87	126.00
35	BA	2655	G	C2-N3-C4	8.54	116.17	111.90
35	BA	2794	C	C2-N3-C4	8.54	124.17	119.90
1	AA	528	C	C4-C5-C6	-8.54	113.13	117.40
35	BA	1800	C	N1-C2-O2	8.54	124.02	118.90
36	BB	79	C	C5-C4-N4	-8.54	114.22	120.20
1	AA	346	G	N9-C1'-C2'	8.53	125.09	114.00
9	AI	128	ARG	NE-CZ-NH1	-8.53	116.03	120.30
35	BA	818	G	C5-N7-C8	-8.53	100.03	104.30
35	BA	1969	A	C2-N3-C4	8.53	114.86	110.60
1	AA	145	G	C2-N3-C4	8.53	116.16	111.90
35	BA	2054	A	N1-C2-N3	-8.53	125.04	129.30
19	AS	78	ARG	NE-CZ-NH2	-8.52	116.04	120.30
12	AL	98	TYR	CB-CG-CD2	8.52	126.11	121.00
35	BA	438	G	C5-C6-O6	8.51	133.71	128.60
35	BA	381	G	N3-C4-C5	8.51	132.85	128.60
35	BA	663	G	C8-N9-C4	8.51	109.80	106.40
35	BA	1426	G	N7-C8-N9	-8.51	108.85	113.10
35	BA	1753	G	N9-C4-C5	8.51	108.80	105.40
35	BA	2140	C	C6-N1-C2	8.51	123.70	120.30
1	AA	1097	C	C6-N1-C2	-8.50	116.90	120.30
1	AA	710	G	C5-C6-N1	-8.50	107.25	111.50
1	AA	1155	G	N3-C4-C5	-8.50	124.35	128.60
35	BA	628	G	C5-C6-N1	-8.50	107.25	111.50
1	AA	189(D)	C	N3-C2-O2	8.49	127.85	121.90
35	BA	1515	G	N9-C4-C5	8.49	108.80	105.40
23	AX	11	U	N1-C2-O2	8.49	128.74	122.80
35	BA	2087	G	C4-C5-N7	8.49	114.20	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2532	G	C6-C5-N7	8.49	135.50	130.40
35	BA	267	C	C6-N1-C2	-8.49	116.91	120.30
35	BA	876	C	C2-N3-C4	-8.49	115.66	119.90
35	BA	17	G	N1-C6-O6	-8.48	114.81	119.90
35	BA	651	G	C5-C6-O6	-8.48	123.51	128.60
35	BA	248	G	N3-C2-N2	-8.48	113.97	119.90
35	BA	676	A	C2-N3-C4	-8.48	106.36	110.60
35	BA	2837	G	C4-C5-N7	8.48	114.19	110.80
35	BA	478	A	N7-C8-N9	8.48	118.04	113.80
35	BA	1761	C	C6-N1-C2	-8.47	116.91	120.30
35	BA	980	A	N9-C4-C5	8.47	109.19	105.80
1	AA	901	A	C8-N9-C4	-8.47	102.41	105.80
1	AA	1405	G	C8-N9-C4	-8.47	103.01	106.40
35	BA	2001	A	N7-C8-N9	-8.47	109.56	113.80
1	AA	596	C	C2-N3-C4	-8.47	115.67	119.90
1	AA	1132	C	N3-C2-O2	-8.47	115.97	121.90
35	BA	973	A	C5-C6-N1	-8.47	113.47	117.70
35	BA	1789	A	C2-N3-C4	-8.47	106.37	110.60
35	BA	1641	A	C8-N9-C4	8.46	109.19	105.80
1	AA	826	C	N3-C4-N4	-8.46	112.08	118.00
35	BA	2365	G	O4'-C1'-N9	-8.46	101.43	108.20
35	BA	2826	A	N1-C2-N3	-8.46	125.07	129.30
1	AA	959	A	C4-C5-N7	8.46	114.93	110.70
35	BA	1921	G	C6-C5-N7	8.46	135.47	130.40
32	B7	41	ARG	NE-CZ-NH1	-8.45	116.07	120.30
8	AH	94	TYR	CB-CG-CD1	-8.45	115.93	121.00
35	BA	852	G	C6-C5-N7	-8.45	125.33	130.40
35	BA	47	C	C2-N3-C4	-8.45	115.68	119.90
35	BA	874	G	C5-C6-N1	8.45	115.72	111.50
35	BA	2145	C	N1-C2-O2	-8.45	113.83	118.90
1	AA	173	U	N3-C4-O4	8.44	125.31	119.40
36	BB	36	C	N3-C4-N4	8.44	123.91	118.00
1	AA	250	A	N1-C6-N6	8.44	123.66	118.60
1	AA	854	G	C5-C6-N1	8.44	115.72	111.50
35	BA	1349	A	N9-C4-C5	8.44	109.18	105.80
35	BA	2441	C	O4'-C1'-N1	8.44	114.95	108.20
1	AA	265	G	N7-C8-N9	-8.44	108.88	113.10
35	BA	2427	C	O4'-C1'-N1	8.44	114.95	108.20
35	BA	2300	G	N3-C4-C5	8.43	132.82	128.60
1	AA	1345	U	N3-C4-O4	8.43	125.30	119.40
20	AT	17	ARG	NE-CZ-NH2	-8.43	116.08	120.30
35	BA	274	G	N7-C8-N9	-8.43	108.89	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	670	A	C5-C6-N1	8.43	121.91	117.70
1	AA	994	A	C5-C6-N1	8.42	121.91	117.70
35	BA	615	G	N1-C6-O6	-8.42	114.85	119.90
35	BA	2841	C	C6-N1-C2	8.42	123.67	120.30
1	AA	238	G	C5-C6-O6	8.41	133.65	128.60
35	BA	2094	G	C5-C6-N1	-8.41	107.29	111.50
35	BA	2884	U	N1-C2-O2	-8.41	116.91	122.80
35	BA	1177	A	N9-C4-C5	-8.41	102.44	105.80
35	BA	1339	G	N1-C2-N3	-8.41	118.85	123.90
35	BA	2339	G	C8-N9-C4	-8.41	103.03	106.40
1	AA	189(A)	C	N3-C4-C5	8.41	125.26	121.90
24	AY	132	ARG	NE-CZ-NH1	8.41	124.50	120.30
35	BA	2538	C	C2-N3-C4	-8.41	115.70	119.90
1	AA	1105	A	N9-C4-C5	8.40	109.16	105.80
2	AB	111	ARG	NE-CZ-NH1	8.40	124.50	120.30
35	BA	1011	G	C4-C5-N7	8.40	114.16	110.80
35	BA	1642	G	N9-C4-C5	8.40	108.76	105.40
51	BT	103	ARG	NE-CZ-NH1	-8.40	116.10	120.30
35	BA	463	G	C5-C6-O6	-8.40	123.56	128.60
28	B3	55	ARG	NE-CZ-NH2	-8.40	116.10	120.30
1	AA	1341	U	C2-N3-C4	8.40	132.04	127.00
35	BA	1531	C	C6-N1-C2	8.40	123.66	120.30
35	BA	819	A	O4'-C1'-N9	-8.40	101.48	108.20
35	BA	1619	G	C6-N1-C2	-8.40	120.06	125.10
35	BA	1846	G	N9-C4-C5	8.40	108.76	105.40
35	BA	952	G	C8-N9-C4	-8.39	103.04	106.40
35	BA	990	A	C6-N1-C2	-8.39	113.56	118.60
35	BA	2207	G	C5-C6-O6	8.39	133.64	128.60
35	BA	981	A	O4'-C1'-N9	8.39	114.92	108.20
35	BA	2124	G	C8-N9-C4	8.39	109.76	106.40
1	AA	1387	G	N3-C4-C5	-8.39	124.41	128.60
35	BA	932	G	C4-C5-N7	-8.39	107.44	110.80
29	B4	51	ASP	CB-CG-OD1	8.39	125.85	118.30
35	BA	2286	A	C8-N9-C4	-8.39	102.44	105.80
35	BA	2450	A	N1-C6-N6	-8.39	113.57	118.60
1	AA	128	G	C2-N3-C4	-8.39	107.71	111.90
35	BA	2783	G	C8-N9-C4	-8.38	103.05	106.40
1	AA	1375	A	C6-C5-N7	-8.38	126.43	132.30
35	BA	1992	G	C4-C5-N7	-8.38	107.45	110.80
1	AA	692	U	N3-C4-C5	-8.38	109.57	114.60
35	BA	280	C	C6-N1-C2	-8.38	116.95	120.30
35	BA	2492	U	C5-C6-N1	-8.38	118.51	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	246	A	C2-N3-C4	8.38	114.79	110.60
4	AD	191	ARG	NE-CZ-NH1	-8.38	116.11	120.30
35	BA	1960	A	C5-N7-C8	8.38	108.09	103.90
35	BA	1848	A	C5-N7-C8	8.37	108.09	103.90
41	BG	91	ARG	NE-CZ-NH1	-8.37	116.11	120.30
1	AA	129(A)	G	N9-C4-C5	-8.37	102.05	105.40
1	AA	682	G	N9-C4-C5	-8.37	102.05	105.40
35	BA	1501	C	C5'-C4'-C3'	-8.37	102.61	116.00
1	AA	369	C	C4-C5-C6	8.37	121.58	117.40
1	AA	900	A	C8-N9-C4	-8.37	102.45	105.80
35	BA	27	G	C6-C5-N7	8.37	135.42	130.40
35	BA	801	G	N1-C2-N2	-8.36	108.67	116.20
35	BA	682	G	N1-C6-O6	8.36	124.92	119.90
35	BA	2242	G	C5-C6-O6	8.36	133.62	128.60
51	BT	16	ARG	NE-CZ-NH2	-8.36	116.12	120.30
1	AA	1139	G	C8-N9-C4	-8.36	103.06	106.40
35	BA	1761	C	C5-C6-N1	8.36	125.18	121.00
51	BT	39	ARG	NE-CZ-NH1	-8.36	116.12	120.30
35	BA	88	G	N9-C4-C5	8.35	108.74	105.40
35	BA	2570	G	N1-C6-O6	8.35	124.91	119.90
35	BA	1628	G	N7-C8-N9	8.35	117.27	113.10
1	AA	265	G	N3-C2-N2	8.35	125.74	119.90
35	BA	351	G	N3-C4-N9	-8.35	120.99	126.00
35	BA	2765	A	N1-C6-N6	-8.35	113.59	118.60
1	AA	812	C	N3-C4-C5	-8.34	118.56	121.90
35	BA	179	G	C4-C5-N7	-8.34	107.46	110.80
35	BA	452	G	O4'-C1'-N9	8.34	114.87	108.20
35	BA	615	G	N9-C4-C5	-8.34	102.06	105.40
1	AA	803	G	C5-N7-C8	8.34	108.47	104.30
1	AA	1485	U	C2-N3-C4	8.34	132.00	127.00
35	BA	1566	A	N1-C2-N3	-8.34	125.13	129.30
35	BA	2681	C	O4'-C1'-N1	8.34	114.87	108.20
1	AA	161	A	C5-N7-C8	8.33	108.06	103.90
1	AA	748	C	C6-N1-C2	-8.33	116.97	120.30
35	BA	494	G	C4-C5-N7	-8.33	107.47	110.80
35	BA	1980	G	N1-C2-N3	8.33	128.90	123.90
35	BA	1307	A	C4-C5-N7	8.33	114.86	110.70
35	BA	1714	G	C8-N9-C4	8.33	109.73	106.40
1	AA	1022	G	C4-C5-N7	-8.32	107.47	110.80
35	BA	1898	U	O4'-C1'-N1	8.32	114.86	108.20
1	AA	1087	G	N7-C8-N9	8.32	117.26	113.10
35	BA	271(P)	C	N1-C2-O2	8.32	123.89	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	604	G	N7-C8-N9	-8.32	108.94	113.10
35	BA	2469	A	C4-C5-C6	-8.32	112.84	117.00
35	BA	2765	A	N9-C4-C5	-8.32	102.47	105.80
35	BA	2612	C	O4'-C1'-N1	8.32	114.86	108.20
1	AA	1097	C	N3-C4-C5	-8.32	118.57	121.90
35	BA	2031	A	C8-N9-C4	8.32	109.13	105.80
35	BA	2588	G	N9-C4-C5	8.32	108.73	105.40
1	AA	810	C	C5-C6-N1	-8.32	116.84	121.00
35	BA	1184	G	N3-C4-C5	8.32	132.76	128.60
41	BG	12	TYR	CG-CD1-CE1	-8.31	114.65	121.30
18	AR	64	ARG	NE-CZ-NH2	8.31	124.46	120.30
35	BA	1285	G	C5-C6-O6	8.31	133.59	128.60
35	BA	1960	A	C4-C5-N7	-8.31	106.54	110.70
1	AA	1044	A	C4-C5-N7	-8.31	106.54	110.70
1	AA	1079	G	C8-N9-C4	-8.31	103.08	106.40
35	BA	425	G	C5-N7-C8	8.31	108.45	104.30
1	AA	817	C	O4'-C1'-N1	8.31	114.85	108.20
35	BA	2157	G	N1-C6-O6	-8.31	114.92	119.90
35	BA	693	C	C5-C4-N4	-8.31	114.39	120.20
1	AA	165	C	O4'-C1'-N1	8.31	114.84	108.20
1	AA	320	C	C2-N3-C4	8.30	124.05	119.90
35	BA	174	C	C5-C6-N1	-8.30	116.85	121.00
1	AA	1044	A	N9-C4-C5	8.30	109.12	105.80
1	AA	1398	A	N7-C8-N9	8.30	117.95	113.80
9	AI	51	ARG	NE-CZ-NH2	-8.30	116.15	120.30
24	AY	396	ARG	NE-CZ-NH1	8.30	124.45	120.30
28	B3	29	ARG	NE-CZ-NH1	8.30	124.45	120.30
35	BA	77	C	N3-C4-C5	8.30	125.22	121.90
35	BA	2667	C	C6-N1-C2	-8.30	116.98	120.30
35	BA	614	U	C4-C5-C6	8.30	124.68	119.70
35	BA	132	G	N3-C2-N2	-8.30	114.09	119.90
35	BA	1513	C	N3-C4-N4	-8.30	112.19	118.00
1	AA	1198	G	C2-N3-C4	-8.30	107.75	111.90
1	AA	1286	A	C8-N9-C4	-8.30	102.48	105.80
1	AA	1387	G	N3-C4-N9	8.30	130.98	126.00
35	BA	1027	A	C6-N1-C2	8.30	123.58	118.60
35	BA	2472	G	O4'-C1'-N9	8.29	114.83	108.20
1	AA	1088	G	N9-C4-C5	8.29	108.72	105.40
35	BA	1384	A	N1-C2-N3	-8.29	125.15	129.30
35	BA	2050	C	C4-C5-C6	-8.29	113.25	117.40
52	BU	11	ARG	NE-CZ-NH1	-8.29	116.16	120.30
35	BA	2481	G	N9-C1'-C2'	8.29	124.77	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1855	G	O4'-C1'-N9	-8.28	101.57	108.20
1	AA	677	U	C2-N3-C4	-8.28	122.03	127.00
35	BA	190	A	N1-C2-N3	8.28	133.44	129.30
35	BA	1260	G	N3-C4-C5	8.28	132.74	128.60
35	BA	789	A	C4-C5-N7	-8.27	106.56	110.70
35	BA	1641	A	N9-C4-C5	-8.27	102.49	105.80
35	BA	17	G	C5-C6-N1	8.27	115.64	111.50
35	BA	1487	G	C5-N7-C8	-8.27	100.16	104.30
1	AA	685	G	C5-C6-O6	-8.27	123.64	128.60
35	BA	2470	G	C5-C6-O6	-8.27	123.64	128.60
35	BA	392	C	C6-N1-C2	-8.27	116.99	120.30
7	AG	155	ARG	NE-CZ-NH1	-8.26	116.17	120.30
1	AA	1197	G	C8-N9-C4	-8.26	103.09	106.40
35	BA	1954	G	C5-C6-O6	-8.26	123.64	128.60
35	BA	1328	G	N1-C6-O6	8.26	124.86	119.90
1	AA	521	G	N9-C4-C5	8.26	108.70	105.40
35	BA	272(I)	U	N1-C2-N3	8.26	119.86	114.90
1	AA	941	G	O4'-C1'-N9	8.26	114.81	108.20
1	AA	1215	G	N9-C4-C5	8.26	108.70	105.40
35	BA	2873	A	C5-N7-C8	8.26	108.03	103.90
35	BA	473	G	C4-C5-N7	8.26	114.10	110.80
1	AA	918	A	C8-N9-C4	8.25	109.10	105.80
1	AA	1371	G	N1-C2-N3	-8.25	118.95	123.90
1	AA	411	A	O4'-C1'-N9	-8.25	101.60	108.20
1	AA	867	G	C4-C5-N7	8.25	114.10	110.80
35	BA	1191	G	C6-N1-C2	8.25	130.05	125.10
36	BB	9	G	C4-C5-N7	8.25	114.10	110.80
1	AA	1047	G	C4-C5-N7	-8.25	107.50	110.80
35	BA	2588	G	C8-N9-C4	-8.25	103.10	106.40
1	AA	38	G	C8-N9-C4	-8.24	103.10	106.40
1	AA	767	A	N1-C6-N6	8.24	123.55	118.60
1	AA	1404	C	C5'-C4'-C3'	-8.24	102.81	116.00
1	AA	315	A	C2-N3-C4	-8.24	106.48	110.60
35	BA	297	C	N3-C4-C5	8.24	125.20	121.90
1	AA	173	U	C5-C4-O4	-8.24	120.96	125.90
35	BA	1601	G	N7-C8-N9	-8.23	108.98	113.10
35	BA	1703	G	N7-C8-N9	8.23	117.22	113.10
35	BA	2361	A	N1-C2-N3	-8.23	125.18	129.30
1	AA	1072	G	C2-N3-C4	8.23	116.02	111.90
35	BA	228	A	C8-N9-C4	-8.23	102.51	105.80
35	BA	1741	A	N7-C8-N9	8.23	117.91	113.80
1	AA	398	C	N3-C4-C5	-8.22	118.61	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	935	C	N3-C4-C5	-8.22	118.61	121.90
16	AP	5	ARG	NE-CZ-NH1	8.22	124.41	120.30
35	BA	459	U	C5-C6-N1	-8.22	118.59	122.70
1	AA	688	G	C4-C5-N7	8.22	114.09	110.80
35	BA	259	G	C5-C6-O6	-8.22	123.67	128.60
35	BA	788	A	N9-C1'-C2'	8.22	124.68	114.00
1	AA	1089	G	C4-C5-N7	8.21	114.09	110.80
22	AV	49	G	C6-C5-N7	-8.22	125.47	130.40
1	AA	626	U	N1-C2-N3	-8.21	109.97	114.90
23	AX	14	A	C4-C5-N7	8.21	114.80	110.70
35	BA	437	G	N9-C4-C5	-8.21	102.12	105.40
32	B7	33	ARG	NE-CZ-NH1	-8.20	116.20	120.30
35	BA	86	C	N3-C4-C5	8.20	125.18	121.90
35	BA	2128	C	C5-C6-N1	-8.21	116.90	121.00
1	AA	246	A	O4'-C1'-N9	8.20	114.76	108.20
25	B0	77	ARG	NE-CZ-NH1	-8.20	116.20	120.30
35	BA	271(D)	G	N9-C4-C5	8.20	108.68	105.40
35	BA	1133	U	C4-C5-C6	-8.20	114.78	119.70
35	BA	2781	A	N1-C2-N3	8.20	133.40	129.30
57	BZ	38	TYR	CB-CG-CD1	8.20	125.92	121.00
1	AA	1080	A	C2-N3-C4	8.20	114.70	110.60
1	AA	1300	G	C6-N1-C2	8.20	130.02	125.10
1	AA	1398	A	C8-N9-C4	-8.20	102.52	105.80
35	BA	1360	A	C5-C6-N1	8.20	121.80	117.70
22	AV	12	G	C8-N9-C4	8.20	109.68	106.40
35	BA	1399	C	C2-N3-C4	8.20	124.00	119.90
35	BA	2887	U	C5-C4-O4	-8.19	120.98	125.90
1	AA	1501	C	N3-C4-C5	-8.19	118.62	121.90
35	BA	812	C	C4-C5-C6	8.19	121.50	117.40
35	BA	1789	A	C8-N9-C4	8.19	109.08	105.80
1	AA	570	G	N3-C4-C5	-8.19	124.51	128.60
35	BA	1048	A	N1-C2-N3	8.19	133.39	129.30
1	AA	784	C	C6-N1-C2	8.19	123.58	120.30
1	AA	1504	G	C8-N9-C4	8.19	109.67	106.40
1	AA	954	G	N9-C4-C5	8.18	108.67	105.40
1	AA	1506	U	C5-C6-N1	8.18	126.79	122.70
35	BA	192	C	C2-N3-C4	8.18	123.99	119.90
35	BA	271(C)	C	C6-N1-C2	-8.18	117.03	120.30
35	BA	198	C	N3-C4-C5	-8.18	118.63	121.90
35	BA	601	C	O4'-C1'-N1	8.18	114.74	108.20
35	BA	1184	G	N3-C4-N9	-8.18	121.09	126.00
1	AA	406	G	C2-N3-C4	8.18	115.99	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AU	22	ARG	NE-CZ-NH1	-8.18	116.21	120.30
35	BA	1354	A	C8-N9-C4	8.18	109.07	105.80
1	AA	529	G	C2-N3-C4	8.17	115.99	111.90
1	AA	983	A	C3'-C2'-C1'	8.17	108.04	101.50
1	AA	1438	G	C5-C6-N1	-8.17	107.42	111.50
1	AA	1445	C	N1-C2-N3	-8.17	113.48	119.20
35	BA	2641	G	C2-N3-C4	8.17	115.98	111.90
35	BA	2712(A)	A	C8-N9-C4	8.17	109.07	105.80
36	BB	7	G	N9-C4-C5	8.17	108.67	105.40
1	AA	1075	C	N1-C2-O2	-8.17	114.00	118.90
1	AA	1463	C	C5-C6-N1	-8.17	116.92	121.00
35	BA	1641	A	N7-C8-N9	-8.17	109.72	113.80
35	BA	1672	C	N3-C4-N4	-8.17	112.28	118.00
35	BA	271(X)	G	C5-C6-O6	8.17	133.50	128.60
35	BA	526	A	N1-C2-N3	8.17	133.38	129.30
1	AA	918	A	C6-N1-C2	8.16	123.50	118.60
35	BA	356	G	C2-N3-C4	-8.16	107.82	111.90
35	BA	1405	U	C2-N3-C4	8.16	131.90	127.00
35	BA	2306	C	C6-N1-C2	-8.16	117.03	120.30
35	BA	476	G	N3-C4-C5	8.16	132.68	128.60
1	AA	542	G	C6-N1-C2	-8.16	120.20	125.10
1	AA	854	G	N1-C6-O6	-8.16	115.00	119.90
1	AA	1060	C	N3-C4-C5	-8.16	118.64	121.90
35	BA	208	C	N1-C2-O2	8.16	123.80	118.90
35	BA	2732	G	N9-C1'-C2'	8.16	124.61	114.00
35	BA	1073	A	C4-C5-C6	8.16	121.08	117.00
35	BA	1128	A	C4-C5-N7	-8.16	106.62	110.70
35	BA	186	G	C5-N7-C8	8.15	108.38	104.30
35	BA	241	A	N1-C2-N3	8.15	133.38	129.30
35	BA	1429	G	C4-C5-N7	8.15	114.06	110.80
35	BA	1989	G	N1-C2-N3	-8.15	119.01	123.90
1	AA	963	G	O4'-C1'-N9	-8.15	101.68	108.20
1	AA	1514	C	N1-C2-O2	8.15	123.79	118.90
35	BA	388	G	C5-C6-N1	8.15	115.57	111.50
35	BA	1070	A	N7-C8-N9	8.14	117.87	113.80
35	BA	120	U	O4'-C1'-N1	8.14	114.71	108.20
1	AA	1039	C	C5-C6-N1	8.14	125.07	121.00
35	BA	372	G	N7-C8-N9	-8.14	109.03	113.10
1	AA	1503	A	C2-N3-C4	-8.13	106.53	110.60
35	BA	2268	A	C5-N7-C8	-8.13	99.83	103.90
1	AA	115	G	C2'-C3'-O3'	8.13	127.39	109.50
1	AA	529	G	N3-C4-C5	-8.13	124.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	776	G	C4-C5-N7	-8.13	107.55	110.80
1	AA	1296	C	C6-N1-C2	8.12	123.55	120.30
35	BA	126	A	N7-C8-N9	-8.12	109.74	113.80
35	BA	1460	A	N7-C8-N9	8.12	117.86	113.80
35	BA	1493	C	N1-C1'-C2'	8.12	124.56	114.00
35	BA	2307	G	C4-C5-N7	8.13	114.05	110.80
41	BG	98	ARG	NE-CZ-NH1	-8.12	116.24	120.30
57	BZ	88	PHE	CB-CG-CD1	-8.12	115.11	120.80
35	BA	499	U	C6-N1-C2	-8.12	116.13	121.00
35	BA	476	G	N1-C6-O6	8.12	124.77	119.90
35	BA	2302	G	C5-N7-C8	8.12	108.36	104.30
1	AA	369	C	N3-C4-C5	-8.12	118.65	121.90
1	AA	434	U	N1-C2-O2	8.12	128.48	122.80
1	AA	1048	G	O4'-C1'-N9	8.12	114.69	108.20
1	AA	815	A	C8-N9-C4	8.11	109.05	105.80
35	BA	503	A	C8-N9-C4	8.11	109.05	105.80
1	AA	663	A	C5-C6-N1	-8.11	113.64	117.70
1	AA	1206	G	C5-C6-N1	8.11	115.56	111.50
13	AM	80	ARG	NE-CZ-NH2	-8.11	116.24	120.30
35	BA	1966	A	N7-C8-N9	-8.11	109.74	113.80
35	BA	2238	G	N7-C8-N9	8.11	117.16	113.10
1	AA	1352	C	C6-N1-C2	-8.11	117.06	120.30
35	BA	2549	G	N7-C8-N9	8.11	117.16	113.10
1	AA	363	A	N1-C6-N6	-8.11	113.73	118.60
15	AO	64	ARG	NE-CZ-NH1	-8.11	116.25	120.30
35	BA	232	G	C8-N9-C4	8.11	109.64	106.40
35	BA	420	C	C5-C6-N1	-8.11	116.94	121.00
35	BA	2633	G	N7-C8-N9	8.11	117.15	113.10
1	AA	487	A	N1-C2-N3	-8.11	125.25	129.30
1	AA	774	G	C8-N9-C4	-8.10	103.16	106.40
35	BA	1149	G	N9-C4-C5	8.10	108.64	105.40
35	BA	2338	G	N1-C6-O6	8.10	124.76	119.90
1	AA	829	G	C8-N9-C4	-8.10	103.16	106.40
1	AA	940	C	C5-C6-N1	-8.10	116.95	121.00
35	BA	1186	G	N1-C6-O6	8.10	124.76	119.90
35	BA	2705	A	C8-N9-C4	-8.10	102.56	105.80
1	AA	1250	A	C4-C5-N7	-8.10	106.65	110.70
35	BA	1447	G	N3-C2-N2	8.10	125.57	119.90
35	BA	2011	U	C5-C6-N1	8.10	126.75	122.70
1	AA	529	G	N9-C4-C5	8.10	108.64	105.40
24	AY	628	ARG	NE-CZ-NH2	8.10	124.35	120.30
35	BA	1472	A	C8-N9-C4	-8.10	102.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1636	C	N3-C4-N4	8.10	123.67	118.00
35	BA	2002	G	C2-N3-C4	8.10	115.95	111.90
1	AA	1511	G	N3-C4-N9	-8.09	121.14	126.00
35	BA	905	U	N3-C2-O2	-8.09	116.53	122.20
35	BA	1184	G	C2-N3-C4	-8.09	107.85	111.90
35	BA	1450	G	N3-C2-N2	8.09	125.57	119.90
1	AA	324	G	N9-C4-C5	-8.09	102.16	105.40
35	BA	2050	C	C6-N1-C2	-8.09	117.06	120.30
1	AA	1185	G	N3-C4-C5	-8.09	124.56	128.60
1	AA	670	G	N3-C4-N9	-8.08	121.15	126.00
35	BA	1515	G	C4-C5-N7	-8.08	107.57	110.80
1	AA	702	A	C4-C5-C6	-8.08	112.96	117.00
35	BA	564	C	N3-C4-C5	-8.08	118.67	121.90
35	BA	1365	A	C5-C6-N1	-8.08	113.66	117.70
35	BA	1504	C	C6-N1-C2	-8.08	117.07	120.30
1	AA	974	A	N9-C4-C5	8.08	109.03	105.80
35	BA	1612	C	N3-C4-C5	-8.08	118.67	121.90
35	BA	2819	G	N1-C6-O6	8.08	124.75	119.90
35	BA	1672	C	C5-C4-N4	8.07	125.85	120.20
36	BB	115	G	C4-C5-N7	8.07	114.03	110.80
1	AA	1135	U	C5-C6-N1	-8.07	118.67	122.70
35	BA	75	G	N1-C6-O6	-8.07	115.06	119.90
35	BA	669	G	C5-C6-O6	-8.07	123.76	128.60
35	BA	892	G	C8-N9-C4	8.07	109.63	106.40
57	BZ	72	ARG	NE-CZ-NH1	-8.07	116.26	120.30
40	BF	38	ARG	NE-CZ-NH2	-8.07	116.27	120.30
52	BU	10	ARG	NE-CZ-NH2	-8.07	116.27	120.30
1	AA	265	G	C5-N7-C8	8.07	108.33	104.30
1	AA	1456	G	C4-C5-N7	-8.07	107.57	110.80
35	BA	1309	G	C8-N9-C4	-8.07	103.17	106.40
35	BA	958	U	N3-C2-O2	8.07	127.85	122.20
35	BA	2165	G	C5-N7-C8	8.07	108.33	104.30
35	BA	93	G	C5-N7-C8	-8.06	100.27	104.30
35	BA	792	G	C5-C6-O6	-8.06	123.76	128.60
1	AA	1183	A	C8-N9-C4	8.06	109.03	105.80
35	BA	2804	C	C2-N3-C4	8.06	123.93	119.90
22	AV	55	U	N1-C2-N3	-8.06	110.06	114.90
35	BA	1977	A	N7-C8-N9	8.06	117.83	113.80
35	BA	654	A	C2-N3-C4	-8.06	106.57	110.60
35	BA	528	A	N7-C8-N9	8.06	117.83	113.80
35	BA	854	G	C8-N9-C4	-8.06	103.18	106.40
35	BA	2300	G	C2-N3-C4	-8.06	107.87	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BE	76	ARG	NE-CZ-NH2	-8.06	116.27	120.30
35	BA	853	G	C5-C6-N1	8.06	115.53	111.50
35	BA	1426	G	C4-C5-C6	-8.05	113.97	118.80
1	AA	238	G	N3-C4-N9	8.05	130.83	126.00
35	BA	2038	G	C8-N9-C4	8.05	109.62	106.40
1	AA	109	A	C2-N3-C4	-8.05	106.58	110.60
35	BA	81	G	N1-C6-O6	-8.05	115.07	119.90
35	BA	127	A	C5-N7-C8	-8.05	99.88	103.90
38	BD	69	ARG	NE-CZ-NH2	-8.05	116.28	120.30
14	AN	23	ARG	NE-CZ-NH1	8.04	124.32	120.30
1	AA	880	C	N3-C4-N4	-8.04	112.37	118.00
27	B2	26	ARG	NE-CZ-NH2	-8.04	116.28	120.30
35	BA	461	C	C5-C6-N1	8.04	125.02	121.00
1	AA	713	G	C6-N1-C2	-8.04	120.28	125.10
35	BA	1242	A	N1-C2-N3	8.04	133.32	129.30
35	BA	1702	G	C5-N7-C8	-8.04	100.28	104.30
1	AA	1281	U	N3-C4-O4	8.03	125.02	119.40
35	BA	1393	A	N3-C4-C5	-8.03	121.18	126.80
35	BA	2570	G	N9-C4-C5	8.03	108.61	105.40
1	AA	1117	G	N3-C4-C5	-8.03	124.59	128.60
3	AC	10	PHE	CB-CG-CD2	-8.03	115.18	120.80
1	AA	1289	A	N7-C8-N9	-8.02	109.79	113.80
35	BA	119	A	C8-N9-C4	-8.02	102.59	105.80
35	BA	993	G	C5-C6-N1	8.02	115.51	111.50
35	BA	950	G	C6-N1-C2	-8.02	120.29	125.10
35	BA	2157	G	C5-C6-O6	8.02	133.41	128.60
35	BA	587	C	C2-N3-C4	-8.02	115.89	119.90
36	BB	113	G	C5-N7-C8	-8.02	100.29	104.30
35	BA	2708	G	N7-C8-N9	8.02	117.11	113.10
35	BA	2763	G	N3-C4-C5	-8.02	124.59	128.60
35	BA	1225	G	N1-C6-O6	-8.01	115.09	119.90
35	BA	1426	G	C2-N3-C4	-8.01	107.90	111.90
35	BA	979	G	C5-C6-O6	-8.01	123.80	128.60
5	AE	64	ARG	NE-CZ-NH1	8.01	124.30	120.30
35	BA	180	G	N9-C4-C5	8.01	108.60	105.40
45	BN	12	ARG	NE-CZ-NH2	8.01	124.30	120.30
1	AA	1204	A	C5-N7-C8	8.00	107.90	103.90
35	BA	2842	G	N3-C4-C5	8.00	132.60	128.60
1	AA	344	A	N1-C6-N6	8.00	123.40	118.60
35	BA	480	A	O4'-C1'-N9	-8.00	101.80	108.20
1	AA	1147	C	C4-C5-C6	-8.00	113.40	117.40
35	BA	1881	C	C4-C5-C6	8.00	121.40	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	693	G	N7-C8-N9	-8.00	109.10	113.10
12	AL	102	ARG	NE-CZ-NH2	-8.00	116.30	120.30
35	BA	775	G	O4'-C1'-N9	-8.00	101.80	108.20
35	BA	1455	G	N7-C8-N9	8.00	117.10	113.10
35	BA	1997	G	N3-C4-C5	8.00	132.60	128.60
35	BA	468	G	N9-C4-C5	-7.99	102.20	105.40
35	BA	1174	A	N7-C8-N9	7.99	117.80	113.80
35	BA	2321	G	N7-C8-N9	7.99	117.10	113.10
36	BB	30	C	N3-C4-C5	-7.99	118.70	121.90
1	AA	1222	G	N3-C4-N9	7.99	130.79	126.00
1	AA	1406	U	C4-C5-C6	7.99	124.49	119.70
35	BA	1226	A	C5-N7-C8	-7.99	99.91	103.90
35	BA	1307	A	N9-C4-C5	-7.99	102.61	105.80
35	BA	587	C	N3-C2-O2	-7.98	116.31	121.90
35	BA	845	G	C3'-C2'-C1'	7.98	107.89	101.50
1	AA	408	A	N1-C2-N3	7.98	133.29	129.30
1	AA	828	A	C4-C5-C6	-7.98	113.01	117.00
35	BA	119	A	N7-C8-N9	7.98	117.79	113.80
35	BA	220	G	C8-N9-C4	-7.98	103.21	106.40
35	BA	2726	U	C5-C6-N1	7.98	126.69	122.70
35	BA	599	G	C5-N7-C8	-7.98	100.31	104.30
35	BA	806	C	N1-C2-O2	7.97	123.68	118.90
35	BA	1361	G	N3-C4-N9	-7.97	121.22	126.00
35	BA	1647	G	C8-N9-C4	-7.97	103.21	106.40
35	BA	309	G	N3-C4-C5	7.97	132.59	128.60
35	BA	2363	C	N3-C2-O2	-7.97	116.32	121.90
1	AA	1290	G	C8-N9-C4	-7.97	103.21	106.40
35	BA	821	A	C5-N7-C8	7.97	107.88	103.90
35	BA	1460	A	C5-N7-C8	-7.97	99.92	103.90
35	BA	2679	A	C4'-C3'-C2'	-7.97	94.63	102.60
1	AA	455	C	N1-C2-O2	7.97	123.68	118.90
35	BA	1865	G	C5-C6-O6	7.97	133.38	128.60
1	AA	1175	G	N1-C2-N3	-7.96	119.12	123.90
24	AY	7	TYR	CB-CG-CD1	-7.96	116.22	121.00
35	BA	1787	A	C5-N7-C8	-7.96	99.92	103.90
1	AA	1262	C	C6-N1-C2	-7.96	117.11	120.30
35	BA	1144	G	C6-C5-N7	-7.96	125.62	130.40
35	BA	1448	G	C5-C6-O6	7.96	133.38	128.60
35	BA	613	G	N7-C8-N9	-7.96	109.12	113.10
35	BA	351	G	C4-C5-N7	-7.96	107.62	110.80
1	AA	427	U	N3-C4-C5	7.96	119.37	114.60
1	AA	1329	A	N1-C6-N6	7.96	123.37	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2340	G	N1-C6-O6	7.96	124.67	119.90
1	AA	564	C	N1-C2-O2	-7.96	114.13	118.90
35	BA	1015	G	N3-C2-N2	-7.96	114.33	119.90
38	BD	244	ARG	NE-CZ-NH1	7.96	124.28	120.30
1	AA	939	G	C5-N7-C8	-7.95	100.32	104.30
1	AA	670	G	N9-C4-C5	7.95	108.58	105.40
35	BA	310	A	N1-C2-N3	7.95	133.27	129.30
35	BA	530	G	N9-C4-C5	7.95	108.58	105.40
35	BA	2686	G	C4-C5-N7	7.95	113.98	110.80
1	AA	350	G	N7-C8-N9	7.94	117.07	113.10
1	AA	144	G	N9-C4-C5	7.94	108.58	105.40
35	BA	1986	A	C4-C5-C6	7.94	120.97	117.00
35	BA	2003	G	N7-C8-N9	7.94	117.07	113.10
35	BA	257	A	N1-C2-N3	-7.94	125.33	129.30
1	AA	1295	G	C2-N3-C4	7.94	115.87	111.90
1	AA	377	G	N3-C2-N2	7.94	125.46	119.90
1	AA	1456	G	N9-C1'-C2'	7.94	124.32	114.00
22	AV	68	C	N3-C4-C5	7.94	125.08	121.90
35	BA	1160	G	N1-C6-O6	-7.94	115.14	119.90
1	AA	332	G	C5-C6-O6	-7.94	123.84	128.60
35	BA	742	G	C5-C6-N1	-7.94	107.53	111.50
40	BF	17	ARG	NE-CZ-NH1	-7.94	116.33	120.30
3	AC	54	ARG	NE-CZ-NH1	-7.93	116.33	120.30
24	AY	470	PHE	CB-CG-CD2	-7.93	115.25	120.80
35	BA	1360	A	C4-C5-C6	-7.93	113.03	117.00
1	AA	455	C	C5-C6-N1	7.93	124.97	121.00
35	BA	509	C	C5-C4-N4	7.93	125.75	120.20
35	BA	923	C	C5-C6-N1	7.93	124.97	121.00
35	BA	1448	G	C8-N9-C4	-7.93	103.23	106.40
1	AA	1163	C	N3-C4-C5	-7.93	118.73	121.90
35	BA	268	C	C5-C6-N1	7.93	124.97	121.00
35	BA	1748	G	N1-C6-O6	-7.93	115.14	119.90
1	AA	131	C	N3-C4-C5	-7.93	118.73	121.90
22	AV	66	C	N1-C2-O2	-7.93	114.14	118.90
35	BA	253	C	N1-C2-O2	-7.93	114.14	118.90
35	BA	1933	G	N3-C4-C5	-7.93	124.64	128.60
35	BA	642	G	C5-C6-O6	7.92	133.35	128.60
35	BA	2443	C	C2-N3-C4	7.92	123.86	119.90
35	BA	934	G	N9-C4-C5	-7.92	102.23	105.40
35	BA	1355	G	C8-N9-C4	-7.92	103.23	106.40
35	BA	2389	G	C5-C6-O6	7.92	133.35	128.60
1	AA	193	C	C2-N3-C4	7.92	123.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1079	G	N1-C6-O6	7.92	124.65	119.90
35	BA	756	C	N3-C4-N4	7.92	123.54	118.00
35	BA	962	G	N9-C4-C5	-7.92	102.23	105.40
35	BA	1156	A	N7-C8-N9	-7.92	109.84	113.80
1	AA	527	G	N3-C2-N2	-7.92	114.36	119.90
36	BB	95	C	C6-N1-C2	7.92	123.47	120.30
39	BE	36	ARG	NE-CZ-NH2	-7.92	116.34	120.30
1	AA	1233	G	C4-C5-N7	7.91	113.97	110.80
35	BA	264	C	C2-N3-C4	-7.91	115.94	119.90
35	BA	1431	U	C5-C6-N1	-7.91	118.74	122.70
1	AA	1222	G	C8-N9-C4	7.91	109.56	106.40
35	BA	2247	A	C2-N3-C4	7.91	114.56	110.60
1	AA	745	C	N3-C4-C5	7.91	125.06	121.90
1	AA	1071	C	N3-C4-C5	-7.91	118.74	121.90
35	BA	535	C	C4-C5-C6	-7.91	113.45	117.40
35	BA	584	C	N3-C4-C5	7.91	125.06	121.90
1	AA	521	G	N7-C8-N9	-7.90	109.15	113.10
1	AA	773	G	C4-C5-N7	-7.90	107.64	110.80
23	AX	13	A	O4'-C1'-N9	7.90	114.52	108.20
35	BA	2839	G	N9-C4-C5	-7.90	102.24	105.40
48	BQ	5	ARG	NE-CZ-NH2	7.90	124.25	120.30
1	AA	629	G	C4-C5-N7	-7.90	107.64	110.80
1	AA	1441	G	C6-N1-C2	7.90	129.84	125.10
1	AA	768	A	C5-N7-C8	-7.90	99.95	103.90
35	BA	2147	G	N7-C8-N9	7.90	117.05	113.10
24	AY	11	ARG	NE-CZ-NH1	7.89	124.25	120.30
35	BA	853	G	N9-C4-C5	-7.89	102.24	105.40
35	BA	1400	G	N9-C4-C5	7.89	108.56	105.40
35	BA	1996	C	C5-C4-N4	-7.89	114.67	120.20
35	BA	738	G	N9-C4-C5	7.89	108.56	105.40
35	BA	1701	A	C5-N7-C8	-7.89	99.95	103.90
36	BB	27	C	N3-C4-C5	-7.89	118.74	121.90
1	AA	1054	C	N1-C1'-C2'	7.89	124.26	114.00
35	BA	350	U	C5-C6-N1	-7.89	118.75	122.70
35	BA	444	C	N1-C2-O2	7.89	123.63	118.90
35	BA	87	C	C4-C5-C6	7.89	121.34	117.40
35	BA	2779	U	C5-C4-O4	7.89	130.63	125.90
1	AA	268	C	C5-C6-N1	7.89	124.94	121.00
22	AV	70	G	N1-C2-N3	7.89	128.63	123.90
35	BA	1360	A	N1-C6-N6	-7.89	113.87	118.60
35	BA	1821	A	N1-C2-N3	-7.88	125.36	129.30
51	BT	68	TYR	CB-CG-CD1	7.88	125.73	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2392	A	C5-N7-C8	-7.88	99.96	103.90
1	AA	107	G	N1-C6-O6	-7.88	115.17	119.90
1	AA	140	A	C3'-C2'-C1'	-7.88	95.20	101.50
1	AA	290	C	O4'-C1'-N1	7.88	114.50	108.20
35	BA	489	G	N1-C6-O6	-7.88	115.17	119.90
35	BA	2049	G	C5-C6-O6	7.88	133.33	128.60
1	AA	80	G	N1-C6-O6	-7.87	115.17	119.90
1	AA	426	G	C6-C5-N7	-7.87	125.68	130.40
35	BA	2305	A	N1-C2-N3	-7.87	125.36	129.30
1	AA	1371	G	C5-N7-C8	7.87	108.24	104.30
35	BA	363	G	N9-C4-C5	7.87	108.55	105.40
35	BA	1444	G	N7-C8-N9	7.87	117.04	113.10
35	BA	1565	C	C2-N3-C4	-7.87	115.96	119.90
35	BA	1882	C	C4-C5-C6	-7.87	113.46	117.40
1	AA	1058	G	C5-N7-C8	7.87	108.23	104.30
35	BA	2810	A	N1-C6-N6	7.87	123.32	118.60
1	AA	816	A	N1-C2-N3	-7.87	125.37	129.30
35	BA	1332	G	N9-C4-C5	-7.87	102.25	105.40
35	BA	1741	A	C5-N7-C8	-7.87	99.97	103.90
35	BA	2567	G	N9-C4-C5	-7.87	102.25	105.40
54	BW	11	ARG	NE-CZ-NH2	7.87	124.23	120.30
35	BA	236	C	C6-N1-C2	-7.86	117.16	120.30
35	BA	572	A	O4'-C1'-N9	7.86	114.49	108.20
35	BA	2671	A	C6-N1-C2	-7.86	113.88	118.60
1	AA	1146	A	C5-N7-C8	-7.86	99.97	103.90
35	BA	319	C	C6-N1-C2	7.86	123.44	120.30
35	BA	1032	A	C8-N9-C4	7.86	108.94	105.80
35	BA	2094	G	C8-N9-C4	7.86	109.54	106.40
35	BA	2436	G	C6-C5-N7	7.86	135.12	130.40
38	BD	213	ARG	NE-CZ-NH2	7.86	124.23	120.30
1	AA	865	A	N1-C2-N3	-7.86	125.37	129.30
35	BA	629	G	C6-C5-N7	-7.86	125.69	130.40
35	BA	330	A	N7-C8-N9	-7.86	109.87	113.80
35	BA	1182	A	N1-C2-N3	-7.86	125.37	129.30
35	BA	1399	C	C6-N1-C2	7.85	123.44	120.30
35	BA	475	U	N3-C4-O4	7.85	124.90	119.40
35	BA	489	G	N7-C8-N9	7.85	117.02	113.10
35	BA	587	C	N1-C2-N3	7.85	124.69	119.20
35	BA	2886	G	N7-C8-N9	-7.85	109.18	113.10
1	AA	940	C	C4-C5-C6	7.85	121.32	117.40
1	AA	1165	C	C6-N1-C2	-7.85	117.16	120.30
23	AX	11	U	N3-C2-O2	-7.84	116.71	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	902	C	O4'-C1'-N1	7.84	114.48	108.20
35	BA	904	C	C5-C6-N1	7.84	124.92	121.00
35	BA	1632	A	N7-C8-N9	-7.84	109.88	113.80
1	AA	1042	G	C5-N7-C8	7.84	108.22	104.30
1	AA	328	C	C2'-C3'-O3'	7.84	126.75	109.50
1	AA	570	G	C2-N3-C4	7.84	115.82	111.90
1	AA	690	G	C8-N9-C4	7.84	109.54	106.40
1	AA	916	G	N7-C8-N9	7.84	117.02	113.10
1	AA	265	G	N1-C6-O6	7.84	124.60	119.90
35	BA	296	C	N3-C4-C5	7.84	125.03	121.90
35	BA	1520	G	C8-N9-C4	7.84	109.53	106.40
35	BA	2523	G	N3-C2-N2	-7.84	114.42	119.90
35	BA	506	G	C8-N9-C4	-7.83	103.27	106.40
1	AA	1168	A	N7-C8-N9	7.83	117.72	113.80
10	AJ	66	ARG	NE-CZ-NH2	-7.83	116.38	120.30
35	BA	1393	A	C2-N3-C4	7.83	114.52	110.60
1	AA	431	A	N1-C6-N6	7.83	123.30	118.60
35	BA	1480	G	N7-C8-N9	7.83	117.02	113.10
35	BA	1743	C	N3-C4-C5	7.83	125.03	121.90
35	BA	1756	G	N1-C2-N3	7.83	128.60	123.90
35	BA	2133	G	C6-N1-C2	7.83	129.80	125.10
35	BA	1408	C	C4'-C3'-C2'	-7.82	94.78	102.60
35	BA	2238	G	C5-N7-C8	-7.82	100.39	104.30
35	BA	1073	A	N1-C6-N6	7.82	123.29	118.60
1	AA	608	A	O4'-C1'-N9	7.82	114.46	108.20
35	BA	2675	A	N9-C4-C5	-7.82	102.67	105.80
1	AA	39	G	C4-C5-N7	7.82	113.93	110.80
35	BA	471	A	N1-C2-N3	7.82	133.21	129.30
35	BA	1332	G	C8-N9-C4	7.82	109.53	106.40
1	AA	1161	C	C4-C5-C6	-7.81	113.49	117.40
35	BA	17	G	C6-N1-C2	-7.81	120.41	125.10
35	BA	77	C	C2-N3-C4	-7.81	116.00	119.90
35	BA	1481	U	C1'-O4'-C4'	7.81	116.15	109.90
35	BA	1721	G	C5-N7-C8	-7.81	100.39	104.30
35	BA	2859	G	C4-C5-N7	-7.81	107.68	110.80
22	AV	4	G	N1-C6-O6	7.81	124.58	119.90
35	BA	2388	A	C8-N9-C4	-7.81	102.68	105.80
35	BA	296	C	C4-C5-C6	-7.81	113.50	117.40
35	BA	535	C	N3-C4-C5	7.81	125.02	121.90
35	BA	1094	U	C5-C6-N1	-7.81	118.80	122.70
35	BA	1973	G	O4'-C1'-N9	-7.81	101.95	108.20
35	BA	2304	G	C5'-C4'-O4'	7.81	118.47	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2714	G	N3-C4-C5	-7.81	124.70	128.60
1	AA	830	G	C8-N9-C4	7.81	109.52	106.40
18	AR	34	TYR	CB-CG-CD2	7.80	125.68	121.00
35	BA	1349	A	C5-N7-C8	7.80	107.80	103.90
35	BA	1381	G	C3'-C2'-C1'	7.80	107.74	101.50
35	BA	2463	C	N1-C2-N3	-7.80	113.74	119.20
35	BA	2307	G	N9-C4-C5	-7.80	102.28	105.40
1	AA	1152	A	C6-N1-C2	7.80	123.28	118.60
1	AA	1422	G	C4-C5-N7	7.80	113.92	110.80
22	AV	73	A	C6-N1-C2	7.80	123.28	118.60
35	BA	1862	G	C8-N9-C4	-7.80	103.28	106.40
35	BA	675	A	C2-N3-C4	-7.80	106.70	110.60
13	AM	91	ARG	NE-CZ-NH1	-7.80	116.40	120.30
1	AA	725	G	N3-C4-C5	-7.80	124.70	128.60
1	AA	1291	G	C5-C6-N1	-7.80	107.60	111.50
35	BA	799	G	C4-C5-N7	7.79	113.92	110.80
35	BA	2639	A	C4-C5-C6	-7.79	113.10	117.00
1	AA	475	G	C4-C5-N7	-7.79	107.68	110.80
1	AA	158	G	C5-C6-O6	-7.79	123.93	128.60
1	AA	630	G	N9-C4-C5	-7.79	102.28	105.40
35	BA	2103	C	C6-N1-C2	-7.79	117.19	120.30
1	AA	1068	G	C5-C6-N1	7.79	115.39	111.50
35	BA	2261	C	O4'-C1'-N1	-7.79	101.97	108.20
35	BA	2851	A	C2-N3-C4	-7.78	106.71	110.60
36	BB	60	C	C4-C5-C6	7.78	121.29	117.40
35	BA	2115	G	N1-C6-O6	7.78	124.57	119.90
1	AA	273	A	N1-C6-N6	7.78	123.27	118.60
1	AA	738	C	N3-C4-C5	7.78	125.01	121.90
50	BS	71	ARG	NE-CZ-NH2	-7.78	116.41	120.30
35	BA	98	G	C5-C6-O6	-7.78	123.94	128.60
35	BA	272(I)	U	C5-C6-N1	-7.78	118.81	122.70
1	AA	1487	G	N9-C4-C5	-7.77	102.29	105.40
1	AA	1252	A	C4-C5-N7	-7.77	106.81	110.70
24	AY	357	ARG	NE-CZ-NH2	-7.77	116.41	120.30
35	BA	2132	U	N3-C4-O4	-7.77	113.96	119.40
35	BA	2509	G	N9-C4-C5	-7.77	102.29	105.40
35	BA	1245	G	C5-C6-O6	-7.77	123.94	128.60
35	BA	814	C	C6-N1-C2	7.77	123.41	120.30
35	BA	1811	G	N7-C8-N9	7.77	116.98	113.10
41	BG	118	ARG	NE-CZ-NH1	-7.77	116.42	120.30
35	BA	47	C	C6-N1-C2	7.77	123.41	120.30
1	AA	507	C	N3-C4-C5	-7.77	118.79	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	481	G	C4-C5-N7	7.77	113.91	110.80
35	BA	1616	A	C4-C5-C6	7.77	120.88	117.00
40	BF	72	ARG	NE-CZ-NH2	7.77	124.18	120.30
1	AA	1128	C	C4-C5-C6	-7.76	113.52	117.40
22	AV	32	C	C2-N3-C4	-7.76	116.02	119.90
35	BA	2270	G	N1-C2-N3	7.76	128.56	123.90
1	AA	120	A	C4-C5-N7	-7.76	106.82	110.70
35	BA	1358	G	C8-N9-C4	7.76	109.50	106.40
36	BB	53	A	C5-C6-N1	7.76	121.58	117.70
35	BA	2532	G	C4-C5-C6	-7.76	114.14	118.80
35	BA	2682	U	C5'-C4'-O4'	-7.76	99.79	109.10
1	AA	1485	U	C6-N1-C2	-7.76	116.34	121.00
35	BA	2775	A	C6-N1-C2	-7.76	113.94	118.60
53	BV	21	ARG	NE-CZ-NH2	-7.76	116.42	120.30
1	AA	344	A	N9-C4-C5	7.76	108.90	105.80
1	AA	455	C	C4-C5-C6	-7.76	113.52	117.40
35	BA	2246	G	N7-C8-N9	-7.76	109.22	113.10
1	AA	937	A	C5-N7-C8	-7.75	100.02	103.90
1	AA	1231	G	N7-C8-N9	-7.75	109.22	113.10
35	BA	372	G	C5-C6-O6	-7.75	123.95	128.60
35	BA	1515	G	C2-N3-C4	7.75	115.78	111.90
35	BA	849	A	C5-C6-N1	7.75	121.58	117.70
35	BA	1814	G	C5-N7-C8	-7.75	100.42	104.30
1	AA	311	C	N3-C4-C5	-7.75	118.80	121.90
35	BA	348	G	C8-N9-C4	-7.75	103.30	106.40
1	AA	674	G	N1-C6-O6	-7.75	115.25	119.90
1	AA	1381	U	C5-C6-N1	7.74	126.57	122.70
35	BA	1091	G	C4-C5-N7	-7.74	107.70	110.80
1	AA	426	G	N3-C4-N9	7.74	130.65	126.00
35	BA	188	G	C4-C5-C6	7.74	123.44	118.80
35	BA	388	G	C6-N1-C2	-7.74	120.46	125.10
35	BA	1128	A	C2-N3-C4	-7.74	106.73	110.60
35	BA	723	G	C5-N7-C8	7.74	108.17	104.30
1	AA	1320	C	C6-N1-C2	-7.74	117.21	120.30
35	BA	895	U	O4'-C1'-N1	7.74	114.39	108.20
1	AA	197	A	C5-N7-C8	-7.73	100.03	103.90
35	BA	841	A	C6-C5-N7	-7.73	126.89	132.30
1	AA	50	A	C4-C5-N7	-7.73	106.83	110.70
22	AV	11	A	C8-N9-C4	-7.73	102.71	105.80
35	BA	1559	G	C8-N9-C4	-7.73	103.31	106.40
35	BA	1486	A	O4'-C1'-N9	-7.73	102.02	108.20
1	AA	666	G	N3-C4-C5	7.73	132.46	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	808	G	N7-C8-N9	-7.73	109.24	113.10
35	BA	1711	C	C6-N1-C2	-7.73	117.21	120.30
35	BA	1916	A	C5-N7-C8	7.73	107.76	103.90
35	BA	2564	A	C2-N3-C4	7.73	114.46	110.60
35	BA	481	G	C8-N9-C4	-7.72	103.31	106.40
35	BA	1044	G	N1-C2-N3	7.72	128.53	123.90
35	BA	1228	G	N3-C2-N2	7.72	125.31	119.90
35	BA	1948	G	N7-C8-N9	-7.72	109.24	113.10
35	BA	2000	G	N7-C8-N9	7.72	116.96	113.10
35	BA	153	C	C1'-O4'-C4'	-7.72	103.72	109.90
1	AA	1262	C	N3-C4-N4	7.72	123.40	118.00
35	BA	863	A	C4-C5-C6	-7.72	113.14	117.00
1	AA	83	U	C5-C6-N1	7.72	126.56	122.70
1	AA	327	A	C4-C5-C6	-7.72	113.14	117.00
1	AA	731	G	C5-C6-O6	-7.72	123.97	128.60
35	BA	438	G	C4-C5-N7	-7.72	107.71	110.80
35	BA	1788	C	C6-N1-C2	-7.72	117.21	120.30
35	BA	2087	G	C2-N3-C4	-7.72	108.04	111.90
40	BF	46	ARG	NE-CZ-NH2	7.72	124.16	120.30
35	BA	271(O)	C	C6-N1-C2	7.71	123.39	120.30
35	BA	616	G	C6-N1-C2	-7.71	120.47	125.10
1	AA	1252	A	N9-C4-C5	7.71	108.89	105.80
35	BA	1436	G	C8-N9-C4	-7.71	103.31	106.40
35	BA	2556	C	N3-C4-C5	7.71	124.98	121.90
35	BA	2289	G	C5-C6-O6	-7.71	123.97	128.60
1	AA	1302	U	N3-C4-O4	-7.71	114.00	119.40
1	AA	292	G	C2-N3-C4	-7.71	108.05	111.90
1	AA	302	G	C2-N3-C4	-7.71	108.05	111.90
1	AA	389	A	C5-C6-N1	-7.71	113.85	117.70
1	AA	1359	C	C6-N1-C2	-7.71	117.22	120.30
2	AB	153	ARG	NE-CZ-NH1	-7.71	116.45	120.30
35	BA	309	G	C4-C5-C6	-7.71	114.18	118.80
1	AA	101	A	C8-N9-C4	7.70	108.88	105.80
1	AA	1194	U	O4'-C1'-N1	7.70	114.36	108.20
22	AV	4	G	N9-C1'-C2'	-7.70	103.53	112.00
35	BA	1506	C	N1-C2-O2	7.70	123.52	118.90
35	BA	2561	A	C8-N9-C4	-7.70	102.72	105.80
1	AA	887	G	N9-C1'-C2'	-7.70	103.53	112.00
1	AA	1111	A	N1-C6-N6	7.70	123.22	118.60
1	AA	543	C	N3-C2-O2	-7.70	116.51	121.90
24	AY	504	ARG	NE-CZ-NH1	-7.70	116.45	120.30
35	BA	1111	A	C4-C5-C6	7.70	120.85	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1061	G	C5-C6-O6	-7.70	123.98	128.60
35	BA	1420	U	C5-C6-N1	7.69	126.55	122.70
13	AM	87	TYR	CB-CG-CD2	-7.69	116.39	121.00
1	AA	42	G	N7-C8-N9	-7.69	109.25	113.10
1	AA	918	A	N9-C4-C5	-7.69	102.72	105.80
1	AA	1323	G	C6-C5-N7	-7.69	125.79	130.40
35	BA	619	G	C2-N3-C4	7.69	115.74	111.90
35	BA	654(J)	A	C5-C6-N1	7.69	121.54	117.70
35	BA	654(L)	G	N7-C8-N9	7.69	116.94	113.10
35	BA	903	C	N3-C4-C5	-7.69	118.83	121.90
1	AA	1373	G	C6-C5-N7	7.68	135.01	130.40
35	BA	1642	G	N3-C2-N2	7.68	125.28	119.90
36	BB	115	G	N9-C4-C5	-7.68	102.33	105.40
35	BA	2170	A	N9-C4-C5	7.68	108.87	105.80
35	BA	2845	G	N1-C2-N3	7.68	128.51	123.90
1	AA	852	G	C5-N7-C8	-7.68	100.46	104.30
35	BA	1343	G	C8-N9-C4	-7.68	103.33	106.40
35	BA	1756	G	N9-C4-C5	7.68	108.47	105.40
35	BA	2572	A	C2-N3-C4	7.68	114.44	110.60
6	AF	63	TYR	CB-CG-CD1	-7.68	116.39	121.00
35	BA	623	G	N7-C8-N9	7.68	116.94	113.10
1	AA	668	G	C4-C5-C6	7.68	123.41	118.80
35	BA	1528	A	N7-C8-N9	7.68	117.64	113.80
1	AA	1117	G	C4-C5-C6	7.67	123.41	118.80
35	BA	425	G	N7-C8-N9	-7.67	109.26	113.10
35	BA	2609	U	C3'-C2'-C1'	-7.67	95.36	101.50
35	BA	2495	G	N3-C4-C5	-7.67	124.76	128.60
35	BA	1560	G	C5-N7-C8	7.67	108.14	104.30
35	BA	1747(A)	G	N9-C4-C5	7.67	108.47	105.40
1	AA	1492	A	C8-N9-C4	-7.67	102.73	105.80
35	BA	900	A	C4-C5-C6	-7.67	113.17	117.00
35	BA	1095	A	N1-C2-N3	-7.67	125.47	129.30
35	BA	1514	U	N1-C2-O2	7.67	128.17	122.80
1	AA	916	G	C5-N7-C8	-7.67	100.47	104.30
1	AA	542	G	C5-C6-N1	7.66	115.33	111.50
1	AA	1001(A)	G	C5-C6-N1	7.66	115.33	111.50
35	BA	351	G	N9-C4-C5	7.66	108.47	105.40
35	BA	1217	C	C5-C6-N1	7.66	124.83	121.00
35	BA	2113	U	C5-C6-N1	-7.66	118.87	122.70
35	BA	1846	G	C8-N9-C4	-7.66	103.33	106.40
1	AA	145	G	N3-C4-C5	-7.66	124.77	128.60
1	AA	516	U	N1-C1'-C2'	7.66	123.96	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	908	C	C6-N1-C2	7.66	123.36	120.30
35	BA	1236	G	N9-C1'-C2'	7.66	123.96	114.00
1	AA	1035	A	O4'-C1'-C2'	7.66	114.49	107.60
1	AA	1186	G	C4-C5-N7	7.66	113.86	110.80
1	AA	331	G	C4-C5-N7	7.66	113.86	110.80
35	BA	271(Y)	U	C5-C4-O4	-7.66	121.31	125.90
35	BA	689	A	C4-C5-C6	7.66	120.83	117.00
35	BA	1361	G	C2-N3-C4	-7.66	108.07	111.90
35	BA	445	C	N1-C2-O2	7.65	123.49	118.90
36	BB	90	A	N7-C8-N9	7.65	117.63	113.80
22	AV	11	A	N1-C2-N3	-7.65	125.47	129.30
22	AV	26	G	C4-C5-N7	-7.65	107.74	110.80
35	BA	966	G	C5-N7-C8	-7.65	100.47	104.30
35	BA	1276	A	C8-N9-C4	7.65	108.86	105.80
35	BA	1333	C	N1-C2-O2	-7.65	114.31	118.90
35	BA	473	G	N7-C8-N9	7.65	116.92	113.10
1	AA	6	G	N9-C4-C5	-7.65	102.34	105.40
1	AA	1106	G	N1-C2-N3	-7.65	119.31	123.90
35	BA	1091	G	N9-C4-C5	7.65	108.46	105.40
35	BA	2349	G	C3'-C2'-C1'	-7.65	95.38	101.50
35	BA	2704	C	C5-C4-N4	-7.65	114.85	120.20
1	AA	600	C	C5-C6-N1	-7.65	117.18	121.00
1	AA	1058	G	N7-C8-N9	-7.65	109.28	113.10
35	BA	394	A	C5-N7-C8	-7.65	100.08	103.90
35	BA	1307	A	C2-N3-C4	7.65	114.42	110.60
35	BA	382	G	N3-C4-C5	7.64	132.42	128.60
35	BA	681	G	C2-N3-C4	-7.64	108.08	111.90
35	BA	1170	G	N7-C8-N9	-7.64	109.28	113.10
35	BA	2094	G	N9-C4-C5	-7.64	102.34	105.40
35	BA	2436	G	C8-N9-C4	-7.64	103.34	106.40
1	AA	1174	G	N9-C4-C5	7.64	108.46	105.40
35	BA	682	G	C6-N1-C2	7.64	129.69	125.10
38	BD	217	ARG	NE-CZ-NH1	-7.64	116.48	120.30
1	AA	43	C	N3-C4-C5	7.64	124.95	121.90
1	AA	578	C	N3-C4-C5	-7.64	118.85	121.90
1	AA	703	G	O4'-C1'-N9	7.64	114.31	108.20
19	AS	81	ARG	NE-CZ-NH1	-7.64	116.48	120.30
35	BA	803	U	O4'-C1'-N1	7.64	114.31	108.20
35	BA	2318	G	O4'-C1'-N9	7.64	114.31	108.20
35	BA	2625	G	N3-C4-C5	7.64	132.42	128.60
1	AA	768	A	N7-C8-N9	7.63	117.62	113.80
35	BA	2616	C	O4'-C1'-N1	-7.63	102.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BH	132	ARG	NE-CZ-NH2	-7.63	116.48	120.30
1	AA	1413	A	N1-C6-N6	-7.63	114.02	118.60
48	BQ	56	ARG	NE-CZ-NH1	-7.63	116.48	120.30
35	BA	1654	A	C5'-C4'-C3'	7.63	128.21	116.00
35	BA	2326	C	C5-C6-N1	7.63	124.82	121.00
35	BA	982	C	C2-N3-C4	7.63	123.72	119.90
35	BA	1749	A	N1-C2-N3	7.63	133.11	129.30
1	AA	363	A	C5-C6-N1	7.63	121.51	117.70
1	AA	957	U	N1-C2-N3	-7.63	110.32	114.90
1	AA	1303	C	C2-N3-C4	-7.63	116.09	119.90
35	BA	66	C	N3-C2-O2	7.63	127.24	121.90
1	AA	274	A	C5-N7-C8	-7.62	100.09	103.90
1	AA	385	C	C6-N1-C2	-7.62	117.25	120.30
35	BA	561	G	N1-C2-N2	-7.62	109.34	116.20
35	BA	1588	C	C6-N1-C2	-7.62	117.25	120.30
1	AA	268	C	N3-C2-O2	-7.62	116.56	121.90
1	AA	1254	C	N3-C4-N4	7.62	123.33	118.00
35	BA	271(P)	C	C5-C6-N1	7.62	124.81	121.00
1	AA	350	G	N9-C4-C5	-7.62	102.35	105.40
1	AA	546	G	N3-C4-N9	-7.62	121.43	126.00
35	BA	2677	G	N3-C4-N9	-7.62	121.43	126.00
35	BA	2826	A	C5-N7-C8	-7.62	100.09	103.90
1	AA	333	G	C8-N9-C4	7.62	109.45	106.40
35	BA	938	G	C5-C6-N1	-7.62	107.69	111.50
35	BA	1086	A	C5-N7-C8	7.62	107.71	103.90
35	BA	1528	A	C8-N9-C4	-7.62	102.75	105.80
35	BA	2310	A	C8-N9-C4	7.62	108.85	105.80
35	BA	2492	U	O4'-C1'-N1	-7.62	102.11	108.20
35	BA	2772	C	N3-C4-C5	7.62	124.95	121.90
35	BA	1651	G	N9-C4-C5	-7.61	102.35	105.40
35	BA	2297	C	C6-N1-C2	7.61	123.35	120.30
1	AA	830	G	N9-C4-C5	-7.61	102.36	105.40
35	BA	142(A)	C	N1-C2-O2	7.61	123.47	118.90
51	BT	74	ARG	NE-CZ-NH2	7.61	124.11	120.30
1	AA	60	A	C2'-C3'-O3'	7.61	126.24	109.50
35	BA	272(I)	U	C4-C5-C6	7.61	124.27	119.70
1	AA	1390	U	C2-N3-C4	-7.61	122.44	127.00
35	BA	82	G	N7-C8-N9	7.61	116.90	113.10
35	BA	654(I)	C	N3-C4-N4	7.61	123.32	118.00
35	BA	962	G	C8-N9-C4	7.61	109.44	106.40
35	BA	981	A	C5-C6-N1	-7.61	113.90	117.70
15	AO	35	ARG	NE-CZ-NH2	7.60	124.10	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2481	G	C4-C5-N7	-7.60	107.76	110.80
22	AV	4	G	C5-C6-O6	-7.60	124.04	128.60
35	BA	2225	A	C1'-O4'-C4'	7.60	115.98	109.90
1	AA	189(D)	C	O4'-C1'-N1	7.60	114.28	108.20
1	AA	399	G	C6-C5-N7	-7.60	125.84	130.40
1	AA	521	G	N3-C4-C5	-7.60	124.80	128.60
35	BA	682	G	C5-C6-N1	-7.60	107.70	111.50
2	AB	209	ARG	NE-CZ-NH2	-7.60	116.50	120.30
35	BA	523	C	N3-C4-C5	-7.60	118.86	121.90
35	BA	1141	U	N3-C4-O4	-7.60	114.08	119.40
8	AH	18	ARG	NE-CZ-NH2	-7.60	116.50	120.30
35	BA	204	A	N1-C6-N6	-7.60	114.04	118.60
35	BA	961	C	N3-C2-O2	-7.60	116.58	121.90
35	BA	1113	U	O4'-C1'-N1	7.60	114.28	108.20
36	BB	104	U	C5-C4-O4	-7.60	121.34	125.90
1	AA	1502	A	N9-C1'-C2'	7.59	123.87	114.00
13	AM	29	ARG	NE-CZ-NH2	7.59	124.10	120.30
57	BZ	122	ARG	NE-CZ-NH2	-7.59	116.50	120.30
35	BA	1998	G	N7-C8-N9	7.59	116.90	113.10
1	AA	1185	G	C4-C5-C6	7.59	123.35	118.80
1	AA	1384	C	N3-C4-C5	7.59	124.94	121.90
1	AA	768	A	C8-N9-C4	-7.59	102.77	105.80
1	AA	1042	G	N3-C4-C5	-7.59	124.81	128.60
35	BA	278	A	N1-C6-N6	-7.59	114.05	118.60
22	AV	48	C	N3-C4-C5	7.59	124.94	121.90
35	BA	319	C	N3-C2-O2	7.59	127.21	121.90
1	AA	1194	U	C5-C4-O4	-7.58	121.35	125.90
35	BA	2222	G	N7-C8-N9	7.58	116.89	113.10
1	AA	299	G	C5-C6-N1	-7.58	107.71	111.50
1	AA	1006	C	N3-C4-C5	-7.58	118.87	121.90
35	BA	1614	A	C8-N9-C4	-7.58	102.77	105.80
1	AA	1369	C	N3-C4-C5	-7.58	118.87	121.90
35	BA	240	G	N1-C6-O6	-7.58	115.35	119.90
1	AA	1387	G	C6-C5-N7	-7.58	125.85	130.40
35	BA	1840	G	N7-C8-N9	7.58	116.89	113.10
35	BA	2450	A	C6-N1-C2	-7.58	114.05	118.60
35	BA	2660	A	N1-C2-N3	7.58	133.09	129.30
22	AV	15	G	N3-C4-N9	-7.58	121.45	126.00
35	BA	2307	G	C8-N9-C4	7.58	109.43	106.40
1	AA	426	G	N3-C4-C5	-7.58	124.81	128.60
1	AA	544	G	N7-C8-N9	7.58	116.89	113.10
1	AA	868	C	C5-C4-N4	7.58	125.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1820	U	C2-N3-C4	-7.58	122.45	127.00
1	AA	118	U	N3-C4-O4	7.57	124.70	119.40
35	BA	272(D)	G	C8-N9-C4	-7.57	103.37	106.40
35	BA	291	C	N3-C4-N4	7.57	123.30	118.00
35	BA	2688	U	N1-C2-O2	7.57	128.10	122.80
35	BA	2724	C	C5-C6-N1	-7.57	117.21	121.00
1	AA	514	C	C1'-O4'-C4'	-7.57	103.84	109.90
38	BD	262	ARG	NE-CZ-NH2	7.57	124.08	120.30
35	BA	1227	G	C5-N7-C8	-7.57	100.52	104.30
35	BA	1672	C	C6-N1-C2	-7.57	117.27	120.30
35	BA	1106	G	C5-C6-O6	7.57	133.14	128.60
35	BA	1339	G	N3-C2-N2	7.57	125.20	119.90
35	BA	2839	G	C8-N9-C4	7.57	109.43	106.40
35	BA	627	A	N1-C6-N6	-7.56	114.06	118.60
2	AB	220	ASP	CB-CG-OD2	7.56	125.11	118.30
35	BA	1801	G	C4-C5-N7	7.56	113.83	110.80
35	BA	2553	G	C6-C5-N7	-7.56	125.86	130.40
1	AA	321	A	C8-N9-C4	-7.56	102.78	105.80
1	AA	1140	C	C4-C5-C6	7.56	121.18	117.40
1	AA	1259	C	N1-C2-O2	7.56	123.44	118.90
35	BA	719	C	N1-C2-N3	7.56	124.49	119.20
35	BA	1407	C	N1-C2-O2	-7.56	114.36	118.90
35	BA	1638	C	C5-C6-N1	7.56	124.78	121.00
1	AA	446	G	C8-N9-C4	-7.56	103.38	106.40
1	AA	1282	C	C4-C5-C6	7.56	121.18	117.40
1	AA	1405	G	C2-N3-C4	7.56	115.68	111.90
35	BA	1582	C	C5-C6-N1	7.56	124.78	121.00
1	AA	8	A	C2-N3-C4	7.56	114.38	110.60
35	BA	1118	C	N3-C2-O2	-7.56	116.61	121.90
35	BA	1713	U	C5-C6-N1	-7.56	118.92	122.70
1	AA	89	C	O4'-C1'-N1	7.55	114.24	108.20
1	AA	246	A	C8-N9-C4	-7.55	102.78	105.80
1	AA	958	A	C6-C5-N7	-7.55	127.01	132.30
35	BA	87	C	C5-C6-N1	-7.55	117.22	121.00
35	BA	917	A	N9-C4-C5	7.55	108.82	105.80
35	BA	1463	C	O4'-C1'-N1	-7.55	102.16	108.20
35	BA	2035	G	N9-C1'-C2'	7.55	123.82	114.00
35	BA	2059	A	N1-C6-N6	7.55	123.13	118.60
35	BA	79	G	C5-N7-C8	7.55	108.08	104.30
36	BB	43	C	C5-C6-N1	7.55	124.78	121.00
1	AA	283	C	N3-C4-C5	7.55	124.92	121.90
22	AV	31	G	C2-N3-C4	-7.55	108.12	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2428	G	N9-C1'-C2'	7.55	123.82	114.00
1	AA	911	U	N1-C2-O2	7.55	128.08	122.80
35	BA	1486	A	C6-C5-N7	7.55	137.59	132.30
35	BA	2578	G	N1-C6-O6	7.55	124.43	119.90
35	BA	2846	G	N9-C4-C5	-7.55	102.38	105.40
37	BC	7	ARG	NE-CZ-NH2	7.55	124.08	120.30
35	BA	1472	A	N9-C4-C5	7.55	108.82	105.80
1	AA	1170	A	N7-C8-N9	-7.55	110.03	113.80
1	AA	1411	C	C4-C5-C6	7.55	121.17	117.40
35	BA	181	A	C4-C5-C6	7.55	120.77	117.00
35	BA	1068	G	C8-N9-C4	-7.55	103.38	106.40
35	BA	1755	A	N1-C6-N6	7.55	123.13	118.60
1	AA	418	C	N3-C2-O2	7.54	127.18	121.90
35	BA	90	U	C6-N1-C2	-7.54	116.47	121.00
1	AA	1013	G	O4'-C1'-N9	7.54	114.23	108.20
8	AH	94	TYR	CB-CG-CD2	7.54	125.53	121.00
35	BA	74	A	C6-C5-N7	7.54	137.58	132.30
1	AA	52	G	C2-N3-C4	7.54	115.67	111.90
1	AA	524	G	N9-C4-C5	-7.54	102.38	105.40
35	BA	272(D)	G	N7-C8-N9	7.54	116.87	113.10
35	BA	1744	C	N3-C4-C5	7.54	124.92	121.90
35	BA	1767	C	N3-C2-O2	7.54	127.17	121.90
22	AV	70	G	C2-N3-C4	-7.53	108.13	111.90
1	AA	472	A	C6-N1-C2	-7.53	114.08	118.60
35	BA	530	G	C2-N3-C4	7.53	115.67	111.90
1	AA	158	G	C8-N9-C4	-7.53	103.39	106.40
35	BA	1694	C	N3-C4-N4	-7.53	112.73	118.00
35	BA	2096	U	N3-C4-C5	7.53	119.12	114.60
51	BT	118	ARG	NE-CZ-NH2	-7.53	116.53	120.30
35	BA	1784	A	N1-C6-N6	-7.53	114.08	118.60
35	BA	1838	C	N1-C2-O2	-7.53	114.38	118.90
1	AA	149	A	C8-N9-C4	7.53	108.81	105.80
1	AA	606	G	C8-N9-C4	-7.53	103.39	106.40
1	AA	1304	G	C2-N3-C4	-7.53	108.14	111.90
35	BA	559	G	N1-C6-O6	-7.53	115.38	119.90
35	BA	2400	G	C5-C6-N1	-7.53	107.74	111.50
36	BB	114	C	C4-C5-C6	-7.53	113.64	117.40
1	AA	818	G	C5-N7-C8	7.53	108.06	104.30
35	BA	1152	C	C6-N1-C2	-7.53	117.29	120.30
35	BA	2284	C	C6-N1-C2	-7.53	117.29	120.30
1	AA	481	G	C8-N9-C4	7.52	109.41	106.40
26	B1	76	ARG	NE-CZ-NH2	-7.52	116.54	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	38	G	C4-C5-N7	-7.52	107.79	110.80
29	B4	42	PHE	N-CA-C	7.52	131.31	111.00
35	BA	881	G	C8-N9-C4	-7.52	103.39	106.40
35	BA	2290	G	C5-C6-N1	-7.52	107.74	111.50
35	BA	2665	A	C6-N1-C2	-7.52	114.09	118.60
1	AA	656	C	C5-C6-N1	-7.52	117.24	121.00
1	AA	865	A	C2-N3-C4	7.52	114.36	110.60
1	AA	1487	G	N3-C4-N9	7.52	130.51	126.00
35	BA	1474	C	C2-N3-C4	-7.52	116.14	119.90
35	BA	1789	A	N7-C8-N9	-7.52	110.04	113.80
35	BA	1944	U	C5-C4-O4	-7.52	121.39	125.90
35	BA	2819	G	C8-N9-C4	-7.52	103.39	106.40
1	AA	1211	U	N3-C2-O2	7.52	127.46	122.20
35	BA	1156	A	O4'-C1'-N9	7.52	114.21	108.20
35	BA	2126	A	N1-C2-N3	7.52	133.06	129.30
1	AA	1401	G	N7-C8-N9	7.51	116.86	113.10
35	BA	1001	A	N1-C2-N3	-7.51	125.54	129.30
35	BA	2061	G	C8-N9-C4	7.51	109.41	106.40
35	BA	2154	G	C2-N3-C4	-7.51	108.14	111.90
42	BH	130	ARG	NE-CZ-NH2	-7.51	116.54	120.30
33	B8	56	GLU	OE1-CD-OE2	7.51	132.31	123.30
35	BA	2145	C	C5-C4-N4	-7.51	114.94	120.20
35	BA	492	A	C8-N9-C4	7.51	108.80	105.80
35	BA	1337	G	C5-C6-N1	-7.51	107.75	111.50
36	BB	11	C	C2-N3-C4	7.51	123.66	119.90
1	AA	153	C	C4-C5-C6	7.51	121.15	117.40
1	AA	1253	G	C5'-C4'-O4'	7.51	118.11	109.10
1	AA	531	U	O4'-C1'-N1	-7.50	102.20	108.20
35	BA	2026	C	C4-C5-C6	-7.50	113.65	117.40
1	AA	918	A	N7-C8-N9	-7.50	110.05	113.80
35	BA	1568	G	N3-C4-N9	7.50	130.50	126.00
35	BA	2799	C	C2'-C3'-O3'	7.50	126.01	109.50
38	BD	88	ARG	NE-CZ-NH2	-7.50	116.55	120.30
40	BF	164	ARG	NE-CZ-NH2	-7.50	116.55	120.30
1	AA	455	C	N1-C2-N3	-7.50	113.95	119.20
12	AL	12	ARG	NE-CZ-NH1	-7.50	116.55	120.30
35	BA	41	C	N3-C2-O2	-7.50	116.65	121.90
35	BA	1174	A	C4-C5-C6	-7.50	113.25	117.00
35	BA	1509(A)	A	N1-C2-N3	-7.50	125.55	129.30
1	AA	587	G	N7-C8-N9	-7.50	109.35	113.10
1	AA	1432	G	C4-C5-C6	7.50	123.30	118.80
1	AA	1433	A	C5-N7-C8	-7.50	100.15	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	614(B)	G	N1-C2-N3	7.50	128.40	123.90
35	BA	1784	A	N1-C2-N3	-7.50	125.55	129.30
35	BA	2320	A	C5-C6-N6	-7.50	117.70	123.70
1	AA	159	G	N3-C4-C5	7.50	132.35	128.60
1	AA	1103	C	C4-C5-C6	7.50	121.15	117.40
35	BA	1851	U	C5-C4-O4	-7.50	121.40	125.90
35	BA	1711	C	C4-C5-C6	7.49	121.15	117.40
35	BA	379	G	C2-N3-C4	7.49	115.65	111.90
35	BA	974	G	O4'-C4'-C3'	7.49	112.09	106.10
35	BA	1934	C	O5'-P-OP1	-7.49	98.96	105.70
1	AA	883	C	C2-N3-C4	-7.49	116.16	119.90
1	AA	1280	A	C6-N1-C2	-7.49	114.11	118.60
35	BA	2044	C	N1-C2-O2	7.49	123.39	118.90
35	BA	2493	U	N1-C2-O2	7.49	128.04	122.80
35	BA	1947	C	C6-N1-C2	-7.49	117.31	120.30
1	AA	1266	G	C5-C6-N1	-7.48	107.76	111.50
35	BA	693	C	N3-C4-N4	7.48	123.24	118.00
35	BA	2033	A	C5-N7-C8	7.48	107.64	103.90
1	AA	500	G	C6-N1-C2	7.48	129.59	125.10
35	BA	1561	G	C4-C5-N7	7.48	113.79	110.80
35	BA	2757	A	C2-N3-C4	-7.48	106.86	110.60
22	AV	26	G	N9-C4-C5	7.48	108.39	105.40
24	AY	224	ASP	CB-CG-OD2	-7.48	111.57	118.30
4	AD	168	ARG	NE-CZ-NH2	-7.48	116.56	120.30
35	BA	1690	A	N9-C4-C5	7.48	108.79	105.80
35	BA	315	G	N1-C2-N2	-7.48	109.47	116.20
1	AA	798	G	C5-C6-N1	7.47	115.24	111.50
35	BA	304	G	N7-C8-N9	7.47	116.84	113.10
35	BA	2664	G	N9-C4-C5	7.47	108.39	105.40
35	BA	1068	G	N3-C4-N9	-7.47	121.52	126.00
35	BA	1398	C	C6-N1-C2	7.47	123.29	120.30
35	BA	808	G	N1-C6-O6	-7.47	115.42	119.90
35	BA	766	C	N3-C2-O2	-7.47	116.67	121.90
35	BA	13	A	N7-C8-N9	7.47	117.53	113.80
35	BA	1748	G	C5-N7-C8	-7.47	100.57	104.30
35	BA	2655	G	N9-C4-C5	7.47	108.39	105.40
35	BA	2839	G	C1'-O4'-C4'	-7.47	103.93	109.90
35	BA	1016	G	O4'-C1'-N9	7.46	114.17	108.20
35	BA	1640	C	C2-N3-C4	-7.46	116.17	119.90
35	BA	654(E)	G	N1-C6-O6	-7.46	115.42	119.90
35	BA	696	G	C5-N7-C8	7.46	108.03	104.30
35	BA	1004	C	C6-N1-C2	-7.46	117.31	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1717	G	N1-C6-O6	7.46	124.38	119.90
1	AA	735	C	N1-C2-O2	-7.46	114.42	118.90
1	AA	321	A	C4-C5-C6	-7.46	113.27	117.00
22	AV	9	G	N3-C2-N2	-7.46	114.68	119.90
35	BA	702	G	C2-N3-C4	7.46	115.63	111.90
1	AA	70	G	C4-C5-N7	7.46	113.78	110.80
1	AA	408	A	C2-N3-C4	-7.46	106.87	110.60
35	BA	125	G	O4'-C1'-N9	-7.46	102.23	108.20
35	BA	1385	G	N1-C2-N3	7.46	128.38	123.90
35	BA	742	G	C6-N1-C2	7.46	129.57	125.10
35	BA	1627	G	C2-N3-C4	-7.46	108.17	111.90
35	BA	2169	A	C8-N9-C4	7.46	108.78	105.80
35	BA	115	C	C4-C5-C6	-7.45	113.67	117.40
35	BA	622	G	N7-C8-N9	7.45	116.83	113.10
35	BA	654(I)	C	O4'-C1'-N1	7.45	114.16	108.20
35	BA	1227	G	N7-C8-N9	7.45	116.83	113.10
35	BA	2229	C	C5-C6-N1	7.45	124.73	121.00
35	BA	260	G	C4-C5-N7	7.45	113.78	110.80
4	AD	168	ARG	NE-CZ-NH1	7.45	124.03	120.30
35	BA	2499	C	N3-C4-N4	-7.45	112.78	118.00
1	AA	828	A	O4'-C1'-N9	-7.45	102.24	108.20
1	AA	1211	U	N1-C2-O2	-7.45	117.59	122.80
35	BA	598	G	C8-N9-C4	7.45	109.38	106.40
35	BA	901	A	C5-N7-C8	7.45	107.62	103.90
35	BA	1479	G	C8-N9-C4	7.45	109.38	106.40
35	BA	334	C	C6-N1-C2	7.45	123.28	120.30
1	AA	1211	U	O4'-C1'-N1	7.45	114.16	108.20
35	BA	965	C	C6-N1-C2	-7.45	117.32	120.30
35	BA	1104	C	N1-C2-O2	7.45	123.37	118.90
35	BA	642	G	N1-C6-O6	-7.44	115.43	119.90
1	AA	674	G	C5-N7-C8	-7.44	100.58	104.30
35	BA	912	C	N3-C4-C5	7.44	124.88	121.90
35	BA	1704	G	N9-C1'-C2'	-7.44	103.81	112.00
35	BA	2737	G	N9-C4-C5	7.44	108.38	105.40
35	BA	2478	A	N7-C8-N9	-7.44	110.08	113.80
35	BA	598	G	N7-C8-N9	-7.44	109.38	113.10
57	BZ	19	ARG	NE-CZ-NH1	7.44	124.02	120.30
1	AA	1421	G	N3-C4-C5	7.44	132.32	128.60
1	AA	415	A	N9-C4-C5	-7.43	102.83	105.80
35	BA	1643	G	N9-C4-C5	7.43	108.37	105.40
35	BA	420	C	C6-N1-C2	7.43	123.27	120.30
35	BA	2685	G	C5-N7-C8	-7.43	100.58	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	820	U	C5-C4-O4	-7.43	121.44	125.90
35	BA	592	G	N1-C2-N3	-7.43	119.44	123.90
35	BA	1997	G	N3-C2-N2	7.43	125.10	119.90
35	BA	2752	C	C5-C6-N1	-7.43	117.28	121.00
35	BA	1457	A	C4-C5-C6	-7.43	113.29	117.00
35	BA	1942	C	N3-C2-O2	-7.43	116.70	121.90
1	AA	345	C	O4'-C1'-N1	7.43	114.14	108.20
1	AA	533	A	N1-C2-N3	-7.43	125.59	129.30
1	AA	1233	G	C5-N7-C8	-7.43	100.59	104.30
1	AA	393	A	C5-N7-C8	-7.42	100.19	103.90
22	AV	49	G	N3-C4-C5	7.42	132.31	128.60
35	BA	458	G	N9-C4-C5	-7.42	102.43	105.40
35	BA	2173	A	C8-N9-C4	7.42	108.77	105.80
35	BA	979	G	N1-C6-O6	7.42	124.35	119.90
1	AA	1421	G	C8-N9-C4	-7.42	103.43	106.40
1	AA	189(B)	C	C4-C5-C6	7.42	121.11	117.40
35	BA	743	G	C6-N1-C2	-7.42	120.65	125.10
35	BA	1291	C	C4-C5-C6	7.42	121.11	117.40
35	BA	2353	G	C4-C5-N7	-7.42	107.83	110.80
35	BA	2597	G	N1-C6-O6	7.42	124.35	119.90
36	BB	93	G	C5-N7-C8	7.42	108.01	104.30
1	AA	418	C	C6-N1-C2	7.42	123.27	120.30
1	AA	987	G	C6-C5-N7	7.42	134.85	130.40
1	AA	1227	A	C8-N9-C4	-7.42	102.83	105.80
1	AA	1255	G	C4-C5-N7	-7.42	107.83	110.80
1	AA	1467	G	C4-C5-N7	7.42	113.77	110.80
35	BA	192	C	N3-C4-C5	-7.42	118.93	121.90
35	BA	931	G	C6-C5-N7	-7.42	125.95	130.40
35	BA	980	A	C8-N9-C4	-7.42	102.83	105.80
35	BA	2281	C	C4-C5-C6	7.42	121.11	117.40
35	BA	2792	G	N3-C2-N2	-7.42	114.71	119.90
35	BA	200	U	C5-C4-O4	-7.42	121.45	125.90
35	BA	1081	U	C6-N1-C2	7.42	125.45	121.00
35	BA	2341	G	N7-C8-N9	7.42	116.81	113.10
41	BG	22	ARG	NE-CZ-NH2	-7.42	116.59	120.30
35	BA	932	G	C5-N7-C8	7.41	108.01	104.30
35	BA	1219	G	N3-C4-C5	7.41	132.31	128.60
1	AA	1233	G	N1-C6-O6	7.41	124.35	119.90
1	AA	28	G	C2-N3-C4	7.41	115.61	111.90
1	AA	909	A	C4-C5-N7	7.41	114.41	110.70
1	AA	1212	U	C4-C5-C6	-7.41	115.25	119.70
35	BA	351	G	C8-N9-C4	-7.41	103.44	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1010	A	N1-C6-N6	7.41	123.05	118.60
35	BA	1549	C	C6-N1-C2	-7.41	117.34	120.30
47	BP	49	ARG	NE-CZ-NH1	-7.41	116.60	120.30
36	BB	117	G	N9-C4-C5	7.41	108.36	105.40
1	AA	216	G	N3-C4-C5	7.41	132.30	128.60
35	BA	438	G	C5-C6-N1	-7.41	107.80	111.50
35	BA	481	G	C2-N3-C4	7.41	115.60	111.90
35	BA	2296	U	C4-C5-C6	7.41	124.14	119.70
35	BA	2371	G	C5-C6-N1	-7.41	107.80	111.50
35	BA	2525	G	N9-C4-C5	7.41	108.36	105.40
1	AA	239	U	O4'-C1'-N1	7.40	114.12	108.20
35	BA	2343	C	N3-C4-C5	-7.40	118.94	121.90
1	AA	1424	C	C6-N1-C2	-7.40	117.34	120.30
35	BA	1575	C	C5-C4-N4	7.40	125.38	120.20
1	AA	200	G	C4-C5-N7	-7.40	107.84	110.80
35	BA	155	U	N3-C4-C5	-7.40	110.16	114.60
35	BA	823	G	O4'-C1'-N9	7.40	114.12	108.20
1	AA	1484	C	C2-N3-C4	7.40	123.60	119.90
35	BA	2712	U	C5-C4-O4	-7.39	121.46	125.90
35	BA	2868	A	C8-N9-C4	-7.39	102.84	105.80
51	BT	41	ARG	NE-CZ-NH2	-7.39	116.60	120.30
1	AA	371	G	N9-C4-C5	-7.39	102.44	105.40
35	BA	838	C	C5-C6-N1	7.39	124.70	121.00
1	AA	629	G	C6-C5-N7	7.39	134.84	130.40
1	AA	751	U	N1-C2-O2	7.39	127.97	122.80
22	AV	29	G	C5-C6-N1	-7.39	107.81	111.50
35	BA	430	G	N7-C8-N9	7.39	116.80	113.10
35	BA	2656	U	C5-C4-O4	-7.39	121.47	125.90
35	BA	353	G	C8-N9-C4	-7.39	103.44	106.40
35	BA	536	A	N9-C4-C5	-7.39	102.84	105.80
35	BA	2268	A	C4-C5-N7	7.39	114.39	110.70
1	AA	1035	A	C6-N1-C2	-7.39	114.17	118.60
35	BA	2632	A	C4-C5-C6	7.39	120.69	117.00
49	BR	86	ARG	NE-CZ-NH1	-7.39	116.61	120.30
1	AA	438	G	C5-N7-C8	7.38	107.99	104.30
35	BA	275	G	O4'-C1'-N9	-7.38	102.29	108.20
35	BA	579	G	N9-C4-C5	-7.38	102.45	105.40
1	AA	113	G	C2-N3-C4	7.38	115.59	111.90
35	BA	2708	G	C5-N7-C8	-7.38	100.61	104.30
1	AA	1241	G	C5'-C4'-C3'	-7.38	104.19	116.00
1	AA	1479	C	N3-C4-C5	7.38	124.85	121.90
54	BW	15	ARG	NE-CZ-NH2	-7.38	116.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	297	G	C5-C6-O6	-7.38	124.17	128.60
35	BA	568	U	N3-C2-O2	-7.38	117.04	122.20
35	BA	1426	G	N3-C4-C5	7.38	132.29	128.60
35	BA	1609	A	N1-C6-N6	-7.38	114.17	118.60
1	AA	805	C	N1-C2-O2	7.38	123.33	118.90
1	AA	882	C	N1-C2-O2	7.38	123.33	118.90
35	BA	1391	U	C5-C4-O4	7.38	130.32	125.90
36	BB	21	G	O4'-C1'-N9	7.38	114.10	108.20
1	AA	605	U	N3-C4-C5	-7.37	110.17	114.60
35	BA	73	A	N1-C2-N3	-7.37	125.61	129.30
35	BA	132	G	C5-C6-O6	-7.37	124.18	128.60
6	AF	47	ARG	NE-CZ-NH2	-7.37	116.61	120.30
35	BA	53	A	N9-C4-C5	-7.37	102.85	105.80
35	BA	2026	C	N3-C4-C5	7.37	124.85	121.90
1	AA	1004	A	C8-N9-C4	7.37	108.75	105.80
22	AV	10	G	C8-N9-C4	-7.37	103.45	106.40
1	AA	21	G	N3-C4-C5	-7.37	124.92	128.60
1	AA	808	C	N3-C4-C5	7.37	124.85	121.90
35	BA	790	C	C2-N3-C4	7.37	123.58	119.90
35	BA	1690	A	C8-N9-C4	-7.37	102.85	105.80
35	BA	1796	U	C2-N3-C4	-7.37	122.58	127.00
35	BA	1983	C	C5-C6-N1	7.37	124.69	121.00
49	BR	80	PHE	CB-CG-CD1	7.37	125.96	120.80
1	AA	137	C	C5'-C4'-O4'	7.37	117.94	109.10
1	AA	267	C	C4-C5-C6	7.37	121.08	117.40
35	BA	654(B)	C	N3-C4-C5	7.37	124.85	121.90
35	BA	1455	G	N3-C4-C5	7.37	132.28	128.60
35	BA	2364	C	C6-N1-C2	7.37	123.25	120.30
1	AA	908	A	O4'-C1'-N9	7.36	114.09	108.20
35	BA	177	G	N1-C6-O6	7.36	124.32	119.90
35	BA	731	C	C4-C5-C6	-7.36	113.72	117.40
1	AA	1492	A	C4-C5-C6	7.36	120.68	117.00
1	AA	1445	C	C6-N1-C2	7.36	123.24	120.30
6	AF	47	ARG	NE-CZ-NH1	7.36	123.98	120.30
22	AV	70	G	C6-N1-C2	-7.36	120.68	125.10
35	BA	1174	A	C8-N9-C4	-7.36	102.86	105.80
35	BA	1191	G	C5-C6-O6	7.36	133.02	128.60
35	BA	2421	G	N9-C4-C5	-7.36	102.46	105.40
35	BA	592	G	C4-C5-N7	7.36	113.74	110.80
35	BA	474	G	C4-C5-N7	-7.36	107.86	110.80
35	BA	494	G	C8-N9-C4	-7.36	103.46	106.40
35	BA	1837	C	N3-C4-N4	-7.36	112.85	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	1	C	C5-C4-N4	-7.36	115.05	120.20
35	BA	187	G	O5'-P-OP1	-7.36	99.08	105.70
35	BA	304	G	C5-C6-N1	-7.36	107.82	111.50
35	BA	453	C	N3-C4-C5	-7.36	118.96	121.90
35	BA	650	C	C5-C6-N1	7.36	124.68	121.00
35	BA	2280	G	C8-N9-C4	7.36	109.34	106.40
1	AA	155	C	N1-C2-O2	-7.35	114.49	118.90
1	AA	1311	G	C4-C5-N7	-7.35	107.86	110.80
35	BA	329	G	N9-C4-C5	7.35	108.34	105.40
36	BB	1	U	C5-C4-O4	7.35	130.31	125.90
35	BA	366	C	N3-C4-C5	-7.35	118.96	121.90
35	BA	1365	A	C6-N1-C2	7.35	123.01	118.60
35	BA	2331	G	C2-N3-C4	7.35	115.58	111.90
1	AA	581	G	C8-N9-C4	7.35	109.34	106.40
1	AA	1303	C	N1-C2-O2	-7.35	114.49	118.90
12	AL	89	ARG	NE-CZ-NH1	-7.35	116.62	120.30
1	AA	1373	G	C5-N7-C8	7.35	107.97	104.30
35	BA	437	G	C4-C5-N7	7.35	113.74	110.80
35	BA	762	U	C5-C6-N1	-7.35	119.03	122.70
35	BA	1026	U	C4'-C3'-C2'	7.35	109.95	102.60
35	BA	497	A	C2-N3-C4	7.35	114.27	110.60
35	BA	619	G	C5-C6-O6	7.35	133.01	128.60
35	BA	1296	G	N3-C2-N2	7.35	125.04	119.90
35	BA	2192	G	C2-N3-C4	-7.35	108.23	111.90
1	AA	423	G	O4'-C1'-N9	7.34	114.08	108.20
35	BA	94	C	C2-N3-C4	7.34	123.57	119.90
35	BA	652	C	C4-C5-C6	7.34	121.07	117.40
35	BA	1191	G	N1-C2-N3	-7.34	119.50	123.90
35	BA	601	C	N3-C4-N4	-7.34	112.86	118.00
35	BA	1755	A	N7-C8-N9	7.34	117.47	113.80
35	BA	2470	G	N1-C6-O6	7.34	124.30	119.90
1	AA	1014	A	N1-C6-N6	-7.34	114.20	118.60
35	BA	1086	A	N9-C4-C5	7.34	108.73	105.80
35	BA	1847	A	N1-C2-N3	7.34	132.97	129.30
20	AT	23	ARG	NE-CZ-NH2	-7.33	116.63	120.30
1	AA	1388	C	C5-C6-N1	7.33	124.67	121.00
35	BA	472	A	C4-C5-C6	-7.33	113.33	117.00
35	BA	1971	A	C2-N3-C4	7.33	114.27	110.60
1	AA	185	A	C5-N7-C8	-7.33	100.23	103.90
1	AA	1300	G	C5-N7-C8	-7.33	100.63	104.30
35	BA	480	A	C5-N7-C8	-7.33	100.23	103.90
36	BB	82	G	C5-C6-O6	-7.33	124.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BB	117	G	C5-C6-N1	-7.33	107.83	111.50
1	AA	602	A	C8-N9-C4	-7.33	102.87	105.80
35	BA	1128	A	C5-N7-C8	7.33	107.56	103.90
1	AA	987	G	C5-C6-N1	7.33	115.16	111.50
37	BC	7	ARG	NE-CZ-NH1	-7.33	116.64	120.30
1	AA	1102	A	N9-C4-C5	-7.33	102.87	105.80
35	BA	1403	C	N1-C2-O2	7.33	123.30	118.90
35	BA	1433	U	C5-C4-O4	-7.33	121.50	125.90
35	BA	1487	G	C8-N9-C4	-7.33	103.47	106.40
35	BA	1538	G	N1-C6-O6	7.33	124.30	119.90
35	BA	2511	U	C5-C6-N1	7.33	126.36	122.70
35	BA	2611	U	C5-C4-O4	-7.33	121.50	125.90
52	BU	10	ARG	NE-CZ-NH1	-7.33	116.64	120.30
1	AA	570	G	N7-C8-N9	7.32	116.76	113.10
35	BA	1449	A	C4-C5-C6	-7.32	113.34	117.00
1	AA	142	G	N3-C4-N9	-7.32	121.61	126.00
35	BA	1311	G	N3-C4-C5	7.32	132.26	128.60
35	BA	2763	G	N9-C4-C5	7.32	108.33	105.40
35	BA	1229	G	C8-N9-C4	-7.32	103.47	106.40
1	AA	521	G	C4-C5-C6	7.32	123.19	118.80
35	BA	1506	C	C4-C5-C6	-7.32	113.74	117.40
35	BA	2621	A	C5-C6-N1	-7.32	114.04	117.70
1	AA	38	G	N3-C4-C5	-7.32	124.94	128.60
1	AA	460	G	C6-C5-N7	-7.32	126.01	130.40
35	BA	177	G	C4-C5-N7	7.32	113.73	110.80
35	BA	2163	C	N3-C2-O2	7.32	127.02	121.90
1	AA	1009	G	C1'-O4'-C4'	-7.31	104.05	109.90
1	AA	472	A	N1-C2-N3	7.31	132.96	129.30
24	AY	151	ARG	NE-CZ-NH1	-7.31	116.64	120.30
28	B3	55	ARG	NE-CZ-NH1	-7.31	116.64	120.30
35	BA	2352	A	C2-N3-C4	7.31	114.25	110.60
1	AA	378	G	C8-N9-C4	-7.31	103.48	106.40
35	BA	1390	U	C6-N1-C2	-7.31	116.62	121.00
35	BA	2500	U	N3-C4-O4	-7.31	114.28	119.40
35	BA	74	A	C4-C5-N7	-7.31	107.05	110.70
35	BA	2508	G	C6-C5-N7	7.31	134.78	130.40
35	BA	2736	G	N9-C4-C5	-7.31	102.48	105.40
1	AA	114	U	C5-C4-O4	-7.30	121.52	125.90
57	BZ	122	ARG	NE-CZ-NH1	7.30	123.95	120.30
35	BA	1212	G	C5-C6-O6	7.30	132.98	128.60
10	AJ	46	ARG	NE-CZ-NH2	-7.30	116.65	120.30
35	BA	139(A)	G	N3-C4-C5	-7.30	124.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2410	G	N3-C4-C5	7.30	132.25	128.60
1	AA	537	G	C5-C6-O6	7.30	132.98	128.60
1	AA	1311	G	C6-C5-N7	7.30	134.78	130.40
35	BA	222	A	N7-C8-N9	7.30	117.45	113.80
35	BA	1482	G	C8-N9-C4	-7.30	103.48	106.40
1	AA	421	U	C5-C4-O4	7.30	130.28	125.90
35	BA	103	A	N9-C4-C5	7.30	108.72	105.80
35	BA	960	A	C6-N1-C2	7.30	122.98	118.60
1	AA	1006	C	C4-C5-C6	7.30	121.05	117.40
22	AV	41	C	C2-N3-C4	7.30	123.55	119.90
1	AA	1287	A	O4'-C1'-N9	-7.29	102.37	108.20
24	AY	7	TYR	CB-CG-CD2	7.29	125.38	121.00
35	BA	2750	A	C8-N9-C4	7.29	108.72	105.80
36	BB	115	G	C6-C5-N7	-7.29	126.02	130.40
1	AA	910	C	N3-C4-N4	7.29	123.10	118.00
35	BA	1774	C	C5-C6-N1	7.29	124.65	121.00
35	BA	2100	G	C5-N7-C8	-7.29	100.65	104.30
1	AA	1038	C	O4'-C1'-N1	7.29	114.03	108.20
35	BA	2231	C	C6-N1-C2	7.29	123.22	120.30
35	BA	2652	C	N1-C2-O2	7.29	123.27	118.90
35	BA	2851	A	N1-C2-N3	7.29	132.94	129.30
1	AA	900	A	N9-C4-C5	7.29	108.72	105.80
35	BA	1250	G	N1-C2-N3	-7.29	119.53	123.90
35	BA	2333	A	C6-N1-C2	-7.29	114.23	118.60
35	BA	2826	A	N1-C6-N6	-7.29	114.23	118.60
35	BA	696	G	N7-C8-N9	-7.29	109.46	113.10
35	BA	2175	C	C5-C6-N1	-7.29	117.36	121.00
35	BA	2346	A	C2-N3-C4	-7.29	106.96	110.60
1	AA	511	C	C4-C5-C6	-7.29	113.76	117.40
1	AA	656	C	N1-C2-O2	7.29	123.27	118.90
22	AV	17	C	N3-C2-O2	-7.29	116.80	121.90
26	B1	20	ARG	NE-CZ-NH2	-7.29	116.66	120.30
35	BA	1041	C	C6-N1-C2	-7.29	117.39	120.30
1	AA	471	G	C8-N9-C4	-7.28	103.49	106.40
1	AA	692	U	C5-C6-N1	-7.28	119.06	122.70
1	AA	707	C	N3-C4-C5	-7.28	118.99	121.90
35	BA	524	U	O4'-C1'-N1	7.28	114.03	108.20
35	BA	1663	C	N3-C4-N4	-7.28	112.90	118.00
35	BA	1884	A	C6-N1-C2	7.28	122.97	118.60
35	BA	2321	G	C8-N9-C4	-7.28	103.49	106.40
1	AA	614	A	C4-C5-C6	-7.28	113.36	117.00
1	AA	626	U	C2-N3-C4	7.28	131.37	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	27	G	N7-C8-N9	7.28	116.74	113.10
35	BA	2482	G	C4-C5-N7	-7.28	107.89	110.80
35	BA	589	C	N3-C4-C5	-7.28	118.99	121.90
35	BA	861	A	C4-C5-C6	7.28	120.64	117.00
35	BA	2325	G	C8-N9-C4	7.28	109.31	106.40
1	AA	1002	G	N1-C6-O6	-7.28	115.53	119.90
35	BA	253	C	C6-N1-C2	-7.28	117.39	120.30
35	BA	1838	C	C2-N3-C4	-7.28	116.26	119.90
35	BA	382	G	C8-N9-C4	7.27	109.31	106.40
35	BA	673	C	N1-C2-O2	-7.27	114.54	118.90
36	BB	117	G	C4-C5-C6	7.27	123.17	118.80
35	BA	765	G	C5-N7-C8	-7.27	100.66	104.30
35	BA	1892	C	C5-C6-N1	7.27	124.64	121.00
35	BA	409	C	C6-N1-C2	-7.27	117.39	120.30
35	BA	2383	G	N1-C2-N3	7.27	128.26	123.90
1	AA	1503	A	N1-C2-N3	7.27	132.94	129.30
35	BA	329	G	N3-C4-C5	-7.27	124.97	128.60
35	BA	946	G	O5'-P-OP2	7.27	119.42	110.70
1	AA	859	A	C8-N9-C4	-7.27	102.89	105.80
1	AA	1186	G	N9-C4-C5	-7.27	102.49	105.40
35	BA	950	G	C5-C6-N1	7.27	115.13	111.50
35	BA	1026	U	C6-N1-C2	-7.27	116.64	121.00
35	BA	1308	A	C5-N7-C8	-7.27	100.27	103.90
35	BA	1756	G	N3-C2-N2	-7.27	114.81	119.90
37	BC	211	ARG	NE-CZ-NH1	-7.27	116.67	120.30
35	BA	118	A	C4-C5-C6	7.27	120.63	117.00
35	BA	769	G	C4-C5-N7	7.27	113.71	110.80
1	AA	870	U	O4'-C1'-N1	7.26	114.01	108.20
35	BA	181	A	C5-C6-N1	-7.26	114.07	117.70
35	BA	518	G	O4'-C1'-N9	-7.26	102.39	108.20
35	BA	629	G	C4-C5-N7	7.26	113.71	110.80
35	BA	1226	A	N9-C4-C5	-7.26	102.89	105.80
35	BA	1660	C	C6-N1-C2	7.26	123.21	120.30
35	BA	2439	A	C5-C6-N1	-7.26	114.07	117.70
1	AA	48	C	N1-C2-O2	7.26	123.26	118.90
35	BA	1973	G	N1-C2-N3	7.26	128.26	123.90
19	AS	81	ARG	NE-CZ-NH2	7.26	123.93	120.30
35	BA	346	A	N1-C2-N3	-7.26	125.67	129.30
35	BA	768	G	C8-N9-C4	-7.26	103.50	106.40
35	BA	1635	G	N9-C4-C5	-7.26	102.50	105.40
35	BA	2470	G	N9-C4-C5	7.26	108.30	105.40
1	AA	1032	G	O4'-C1'-N9	7.26	114.01	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	304	G	N1-C6-O6	7.26	124.25	119.90
35	BA	855	G	N7-C8-N9	7.26	116.73	113.10
35	BA	2509	G	N3-C4-N9	7.26	130.35	126.00
35	BA	2783	G	N9-C4-C5	7.26	108.30	105.40
1	AA	149	A	N7-C8-N9	-7.26	110.17	113.80
1	AA	383	A	C5-N7-C8	-7.26	100.27	103.90
1	AA	500	G	C5-C6-N1	-7.26	107.87	111.50
35	BA	872	A	N1-C2-N3	-7.26	125.67	129.30
35	BA	2805	G	C5-C6-N1	7.26	115.13	111.50
35	BA	1019	U	C5-C6-N1	-7.25	119.07	122.70
35	BA	1069	A	N9-C4-C5	7.25	108.70	105.80
1	AA	10	A	N7-C8-N9	7.25	117.43	113.80
1	AA	79	G	C5-N7-C8	-7.25	100.67	104.30
35	BA	271(H)	G	N1-C6-O6	7.25	124.25	119.90
35	BA	1430	C	C5-C6-N1	-7.25	117.37	121.00
35	BA	1650	G	N9-C4-C5	7.25	108.30	105.40
1	AA	492	G	C2-N3-C4	7.25	115.53	111.90
35	BA	385	C	C5-C6-N1	7.25	124.63	121.00
35	BA	517	C	C4-C5-C6	7.25	121.03	117.40
35	BA	1137	G	N1-C2-N3	7.25	128.25	123.90
35	BA	1570	A	C5-N7-C8	-7.25	100.28	103.90
35	BA	2490	G	N3-C4-C5	-7.25	124.97	128.60
1	AA	164	U	N3-C4-O4	7.25	124.47	119.40
1	AA	752	G	C6-C5-N7	7.25	134.75	130.40
1	AA	954	G	C4-C5-N7	-7.25	107.90	110.80
35	BA	879	G	N1-C2-N3	7.25	128.25	123.90
1	AA	454	C	C5-C6-N1	7.25	124.62	121.00
1	AA	684	A	N7-C8-N9	7.25	117.42	113.80
35	BA	536	A	C8-N9-C4	7.25	108.70	105.80
50	BS	30	ARG	NE-CZ-NH1	-7.25	116.67	120.30
35	BA	142(A)	C	C2-N3-C4	7.25	123.52	119.90
35	BA	631	A	C8-N9-C4	-7.25	102.90	105.80
35	BA	2630	G	C6-C5-N7	-7.25	126.05	130.40
1	AA	360	A	N1-C6-N6	7.24	122.95	118.60
1	AA	1202	G	C6-N1-C2	-7.24	120.75	125.10
35	BA	655	A	O4'-C4'-C3'	7.24	111.89	106.10
7	AG	41	ARG	NE-CZ-NH2	7.24	123.92	120.30
1	AA	155	C	C6-N1-C2	-7.24	117.40	120.30
1	AA	741	G	O4'-C1'-N9	-7.24	102.41	108.20
20	AT	79	ARG	NE-CZ-NH2	-7.24	116.68	120.30
35	BA	875	G	C4-C5-N7	-7.24	107.90	110.80
35	BA	956	G	C5-N7-C8	-7.24	100.68	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1037	G	C4-C5-N7	-7.24	107.90	110.80
35	BA	1445(A)	C	C4-C5-C6	7.24	121.02	117.40
35	BA	1471	A	C1'-O4'-C4'	-7.24	104.11	109.90
35	BA	2883	A	C8-N9-C4	-7.24	102.90	105.80
1	AA	35	G	N1-C6-O6	7.24	124.24	119.90
35	BA	633	A	C1'-O4'-C4'	-7.24	104.11	109.90
36	BB	107	G	C5-C6-N1	7.23	115.12	111.50
1	AA	1501	C	C2-N3-C4	7.23	123.52	119.90
35	BA	1489	U	C2-N3-C4	-7.23	122.66	127.00
35	BA	269	U	N3-C4-O4	7.23	124.46	119.40
35	BA	670	A	N1-C6-N6	-7.23	114.26	118.60
35	BA	901	A	O4'-C1'-N9	7.23	113.98	108.20
35	BA	1319	G	C3'-C2'-C1'	7.23	107.28	101.50
35	BA	654	A	N3-C4-C5	7.23	131.86	126.80
1	AA	160	A	N9-C4-C5	7.23	108.69	105.80
1	AA	316	G	C5-C6-O6	7.23	132.94	128.60
35	BA	681	G	C5-N7-C8	7.23	107.91	104.30
35	BA	2441	C	C6-N1-C2	-7.23	117.41	120.30
35	BA	2699	C	N3-C4-C5	7.23	124.79	121.90
36	BB	86	G	C2-N3-C4	7.23	115.51	111.90
1	AA	1193	G	N3-C4-C5	7.22	132.21	128.60
1	AA	1342	C	C6-N1-C2	7.22	123.19	120.30
35	BA	55	G	C6-C5-N7	7.22	134.74	130.40
35	BA	1092	C	N3-C2-O2	-7.22	116.84	121.90
35	BA	1633	G	N7-C8-N9	7.22	116.71	113.10
35	BA	1998	G	O4'-C1'-N9	7.22	113.98	108.20
1	AA	32	A	O4'-C1'-N9	-7.22	102.42	108.20
35	BA	371	A	C4-C5-C6	-7.22	113.39	117.00
35	BA	1055	G	C5-N7-C8	7.22	107.91	104.30
35	BA	1076	C	N1-C2-O2	7.22	123.23	118.90
35	BA	1971	A	C4-C5-C6	-7.22	113.39	117.00
1	AA	136	C	C2-N3-C4	-7.22	116.29	119.90
1	AA	725	G	C5-N7-C8	7.22	107.91	104.30
35	BA	328	U	C6-N1-C2	7.22	125.33	121.00
35	BA	357	A	C5-C6-N1	-7.22	114.09	117.70
35	BA	2123	G	C4-C5-N7	7.22	113.69	110.80
35	BA	2168	G	C8-N9-C4	7.22	109.29	106.40
1	AA	1087	G	N3-C2-N2	-7.22	114.85	119.90
35	BA	635	C	N1-C2-O2	7.22	123.23	118.90
35	BA	849	A	C2-N3-C4	-7.22	106.99	110.60
35	BA	2726	U	O4'-C1'-N1	7.22	113.97	108.20
52	BU	70	ARG	NE-CZ-NH2	-7.22	116.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	76	A	C8-N9-C4	-7.22	102.91	105.80
35	BA	2508	G	N3-C4-N9	-7.22	121.67	126.00
35	BA	1376	C	N1-C2-O2	7.21	123.23	118.90
35	BA	1678	G	O4'-C1'-N9	-7.21	102.43	108.20
1	AA	278	G	C2-N3-C4	7.21	115.51	111.90
35	BA	255	A	C4-C5-C6	-7.21	113.39	117.00
35	BA	386	G	N9-C4-C5	7.21	108.28	105.40
35	BA	1022	G	C4-C5-N7	-7.21	107.92	110.80
35	BA	2714	G	N3-C4-N9	7.21	130.33	126.00
35	BA	333	G	N7-C8-N9	-7.21	109.50	113.10
35	BA	2103	C	N1-C2-O2	-7.21	114.57	118.90
27	B2	30	ARG	NE-CZ-NH1	-7.21	116.70	120.30
35	BA	83	G	C6-C5-N7	7.21	134.72	130.40
1	AA	124	G	C8-N9-C4	-7.21	103.52	106.40
1	AA	355	C	C4-C5-C6	-7.21	113.80	117.40
1	AA	706	A	C6-N1-C2	7.21	122.92	118.60
35	BA	1841	U	C5-C4-O4	-7.21	121.58	125.90
35	BA	1996	C	N3-C4-C5	7.21	124.78	121.90
1	AA	1434	A	C6-N1-C2	-7.21	114.28	118.60
1	AA	920	U	C2-N3-C4	7.20	131.32	127.00
35	BA	112	U	N3-C2-O2	-7.20	117.16	122.20
35	BA	337	C	O4'-C1'-N1	7.20	113.96	108.20
35	BA	672	C	N3-C4-C5	7.20	124.78	121.90
35	BA	2818	G	C5-N7-C8	-7.20	100.70	104.30
35	BA	2854	G	N3-C4-C5	7.20	132.20	128.60
47	BP	53	GLY	N-CA-C	-7.20	95.09	113.10
35	BA	1956	U	O4'-C1'-N1	7.20	113.96	108.20
35	BA	1040	C	O4'-C1'-N1	7.20	113.96	108.20
1	AA	1401	G	C4-C5-N7	7.20	113.68	110.80
35	BA	348	G	C4-C5-N7	7.20	113.68	110.80
35	BA	1515	G	C5-C6-N1	7.20	115.10	111.50
35	BA	1786	A	N9-C1'-C2'	7.20	123.36	114.00
1	AA	1142	G	C5-N7-C8	-7.20	100.70	104.30
1	AA	1529	G	O4'-C1'-N9	7.20	113.96	108.20
23	AX	14	A	C4-C5-C6	-7.20	113.40	117.00
28	B3	30	ARG	NE-CZ-NH2	-7.20	116.70	120.30
35	BA	10	G	N3-C4-N9	-7.20	121.68	126.00
35	BA	142	A	C5-N7-C8	7.20	107.50	103.90
35	BA	2086	U	O4'-C1'-N1	-7.20	102.44	108.20
48	BQ	9	TYR	CB-CG-CD1	-7.20	116.68	121.00
1	AA	892	A	N9-C4-C5	7.19	108.68	105.80
35	BA	119	A	C5-N7-C8	-7.19	100.30	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2805	G	N1-C6-O6	-7.19	115.58	119.90
1	AA	259	G	N1-C6-O6	7.19	124.21	119.90
51	BT	14	TYR	CG-CD1-CE1	-7.19	115.55	121.30
1	AA	19	C	C5-C4-N4	7.19	125.23	120.20
1	AA	350	G	C4-C5-N7	7.19	113.68	110.80
35	BA	86	C	N1-C2-O2	7.19	123.21	118.90
35	BA	768	G	N9-C4-C5	7.19	108.28	105.40
35	BA	2495	G	C2-N3-C4	7.19	115.50	111.90
1	AA	127	G	N7-C8-N9	-7.19	109.51	113.10
1	AA	242	C	C6-N1-C2	-7.19	117.42	120.30
1	AA	1458	G	C4-C5-N7	7.19	113.67	110.80
35	BA	177	G	C8-N9-C4	-7.19	103.53	106.40
35	BA	745	G	C5-N7-C8	7.19	107.89	104.30
1	AA	744	C	C2-N3-C4	7.18	123.49	119.90
1	AA	1233	G	C5-C6-N1	-7.18	107.91	111.50
1	AA	1529	G	C1'-O4'-C4'	-7.18	104.15	109.90
35	BA	394	A	N7-C8-N9	7.18	117.39	113.80
35	BA	654(D)	G	O4'-C1'-N9	7.18	113.95	108.20
35	BA	903	C	C5-C4-N4	7.18	125.23	120.20
35	BA	1527	G	C8-N9-C4	-7.18	103.53	106.40
51	BT	120	ARG	NE-CZ-NH1	-7.18	116.71	120.30
1	AA	1366	C	OP2-P-O3'	7.18	121.00	105.20
35	BA	761	A	C4-C5-C6	-7.18	113.41	117.00
35	BA	1609	A	C4-C5-N7	7.18	114.29	110.70
35	BA	2094	G	C6-N1-C2	7.18	129.41	125.10
1	AA	1423	G	C4-C5-N7	-7.18	107.93	110.80
35	BA	271(D)	G	O4'-C1'-N9	-7.18	102.45	108.20
35	BA	1475	G	C5-C6-O6	-7.18	124.29	128.60
1	AA	230	G	C5-N7-C8	7.18	107.89	104.30
1	AA	1520	G	N3-C4-C5	7.18	132.19	128.60
1	AA	1523	G	N3-C2-N2	-7.18	114.88	119.90
35	BA	363(D)	G	N1-C6-O6	7.18	124.21	119.90
35	BA	2076	U	C4-C5-C6	7.18	124.01	119.70
1	AA	1289	A	C2-N3-C4	-7.18	107.01	110.60
1	AA	100	C	C5-C4-N4	-7.17	115.18	120.20
35	BA	438	G	C6-N1-C2	7.17	129.40	125.10
35	BA	2591	C	N3-C2-O2	-7.17	116.88	121.90
52	BU	36	ARG	NE-CZ-NH1	-7.17	116.71	120.30
1	AA	498	U	C5-C6-N1	7.17	126.29	122.70
35	BA	1992	G	N9-C1'-C2'	7.17	123.32	114.00
35	BA	2686	G	C5-N7-C8	-7.17	100.71	104.30
1	AA	331	G	C2-N3-C4	-7.17	108.32	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	76	A	N7-C8-N9	7.17	117.38	113.80
35	BA	2261	C	N3-C4-C5	-7.17	119.03	121.90
1	AA	236	G	C5-C6-O6	-7.17	124.30	128.60
1	AA	278	G	N1-C6-O6	-7.17	115.60	119.90
1	AA	541	G	O4'-C1'-N9	7.17	113.93	108.20
35	BA	271(U)	G	N1-C2-N3	-7.17	119.60	123.90
35	BA	334	C	C5-C4-N4	-7.17	115.18	120.20
35	BA	1069	A	N7-C8-N9	7.17	117.38	113.80
35	BA	1257	C	O4'-C1'-N1	7.17	113.93	108.20
35	BA	1339	G	C5-N7-C8	-7.17	100.72	104.30
35	BA	2542	A	N1-C2-N3	-7.17	125.72	129.30
1	AA	983	A	C5-N7-C8	-7.17	100.32	103.90
35	BA	363(D)	G	C8-N9-C4	-7.17	103.53	106.40
35	BA	1817	G	N1-C2-N3	-7.17	119.60	123.90
35	BA	2514	U	C5-C6-N1	7.17	126.28	122.70
1	AA	923	A	C6-N1-C2	7.16	122.90	118.60
4	AD	68	TYR	CB-CG-CD1	7.16	125.30	121.00
17	AQ	70	ARG	NE-CZ-NH1	7.16	123.88	120.30
35	BA	1528(A)	A	C8-N9-C4	-7.16	102.93	105.80
35	BA	2151	G	C8-N9-C4	7.16	109.27	106.40
38	BD	260	ARG	NE-CZ-NH2	-7.16	116.72	120.30
35	BA	1285	G	N1-C6-O6	-7.16	115.60	119.90
35	BA	1346	G	C4-C5-N7	7.16	113.67	110.80
1	AA	138	G	C2-N3-C4	7.16	115.48	111.90
35	BA	1368	G	N3-C2-N2	-7.16	114.89	119.90
35	BA	2134	A	C5-N7-C8	-7.16	100.32	103.90
35	BA	900	A	N1-C2-N3	-7.16	125.72	129.30
35	BA	1749	A	C8-N9-C4	-7.16	102.94	105.80
35	BA	1026	U	C5-C6-N1	7.16	126.28	122.70
35	BA	1020	A	N9-C1'-C2'	7.15	123.30	114.00
35	BA	156	U	C5-C6-N1	7.15	126.28	122.70
35	BA	778	G	C5-N7-C8	-7.15	100.72	104.30
35	BA	1435	G	O4'-C1'-N9	-7.15	102.48	108.20
1	AA	1011	G	C4-C5-N7	-7.15	107.94	110.80
1	AA	1213	A	N1-C2-N3	-7.15	125.72	129.30
35	BA	1942	C	C6-N1-C2	-7.15	117.44	120.30
35	BA	575	A	C8-N9-C4	7.15	108.66	105.80
1	AA	360	A	C4-C5-C6	7.15	120.57	117.00
1	AA	1262	C	C5-C6-N1	7.15	124.57	121.00
35	BA	1628	G	C6-C5-N7	-7.15	126.11	130.40
35	BA	1993	U	C6-N1-C2	-7.15	116.71	121.00
35	BA	1509(A)	A	C2-N3-C4	7.14	114.17	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2837	G	C5-N7-C8	-7.14	100.73	104.30
35	BA	152	G	N1-C6-O6	-7.14	115.61	119.90
35	BA	271(N)	U	C5-C4-O4	-7.14	121.61	125.90
35	BA	380	U	C5-C4-O4	-7.14	121.62	125.90
35	BA	492	A	N1-C2-N3	-7.14	125.73	129.30
35	BA	909	A	C4-C5-N7	-7.14	107.13	110.70
54	BW	18	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	AA	40	C	N3-C4-C5	-7.14	119.04	121.90
1	AA	1340	A	C4-C5-N7	-7.14	107.13	110.70
35	BA	1695	G	C6-N1-C2	-7.14	120.82	125.10
35	BA	1631(A)	A	N1-C2-N3	7.14	132.87	129.30
35	BA	743	G	N7-C8-N9	7.13	116.67	113.10
35	BA	900	A	N9-C4-C5	-7.13	102.95	105.80
35	BA	1964	G	N3-C4-C5	-7.13	125.03	128.60
1	AA	1089	G	C5-N7-C8	-7.13	100.73	104.30
35	BA	391	G	C4-C5-N7	-7.13	107.95	110.80
35	BA	2877	G	N3-C4-C5	-7.13	125.03	128.60
39	BE	144	ARG	NE-CZ-NH1	-7.13	116.73	120.30
4	AD	144	ASP	CB-CG-OD1	7.13	124.72	118.30
35	BA	312	G	N9-C1'-C2'	7.13	123.27	114.00
35	BA	1485	G	C5-C6-O6	7.13	132.88	128.60
35	BA	1418	G	O4'-C1'-C2'	7.13	114.02	107.60
1	AA	1405	G	N1-C2-N3	-7.13	119.62	123.90
35	BA	463	G	N1-C6-O6	7.13	124.18	119.90
36	BB	119	G	C5-C6-N1	7.13	115.06	111.50
35	BA	776	G	C8-N9-C4	-7.12	103.55	106.40
35	BA	1623	G	C4-C5-N7	-7.12	107.95	110.80
1	AA	786	G	C4-C5-N7	-7.12	107.95	110.80
1	AA	1157	A	N7-C8-N9	-7.12	110.24	113.80
35	BA	197	A	C8-N9-C4	7.12	108.65	105.80
35	BA	461	C	C6-N1-C2	-7.12	117.45	120.30
35	BA	489	G	C2-N3-C4	-7.12	108.34	111.90
1	AA	1412	C	N3-C2-O2	7.12	126.89	121.90
35	BA	1170	G	N9-C4-C5	-7.12	102.55	105.40
1	AA	1101	A	C5'-C4'-O4'	7.12	117.64	109.10
35	BA	1962	C	N3-C2-O2	-7.12	116.92	121.90
35	BA	2351	G	C2-N3-C4	-7.12	108.34	111.90
35	BA	708	C	N3-C4-C5	7.12	124.75	121.90
35	BA	614(A)	U	C5-C4-O4	7.12	130.17	125.90
1	AA	1082	G	N3-C2-N2	7.11	124.88	119.90
1	AA	1173	G	C5-N7-C8	-7.11	100.74	104.30
13	AM	102	ARG	NE-CZ-NH2	-7.11	116.74	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	222	A	C1'-O4'-C4'	-7.11	104.21	109.90
35	BA	1436	G	N3-C4-N9	-7.11	121.73	126.00
1	AA	831	U	O4'-C1'-N1	7.11	113.89	108.20
1	AA	1030(C)	G	N3-C4-C5	7.11	132.16	128.60
35	BA	1822	G	N3-C4-C5	7.11	132.16	128.60
1	AA	653	A	C4-C5-C6	7.11	120.56	117.00
1	AA	962	C	C6-N1-C2	7.11	123.14	120.30
4	AD	141	ARG	NE-CZ-NH2	-7.11	116.75	120.30
35	BA	1513	C	C5-C4-N4	7.11	125.18	120.20
35	BA	2447	G	N3-C2-N2	-7.11	114.92	119.90
1	AA	589	C	O4'-C1'-N1	-7.11	102.51	108.20
1	AA	750	G	C3'-C2'-C1'	-7.11	95.81	101.50
1	AA	1067	A	N1-C2-N3	-7.11	125.75	129.30
1	AA	1152	A	C4-C5-C6	-7.11	113.45	117.00
1	AA	1264	C	C3'-C2'-C1'	7.11	107.19	101.50
1	AA	1366	C	C5-C4-N4	-7.11	115.22	120.20
48	BQ	138	ASP	CB-CG-OD1	-7.11	111.90	118.30
1	AA	343	U	C5-C4-O4	-7.11	121.64	125.90
35	BA	109	G	C5-C6-N1	7.11	115.05	111.50
35	BA	2147	G	C5-N7-C8	-7.11	100.75	104.30
35	BA	2351	G	C4-C5-N7	-7.10	107.96	110.80
1	AA	150	C	C2-N3-C4	-7.10	116.35	119.90
1	AA	1383	C	N3-C2-O2	7.10	126.87	121.90
35	BA	49	A	C2'-C3'-O3'	7.10	125.13	109.50
35	BA	722	A	N1-C2-N3	7.10	132.85	129.30
35	BA	1228	G	N9-C4-C5	7.10	108.24	105.40
35	BA	1916	A	C5-C6-N1	-7.10	114.15	117.70
35	BA	2428	G	N1-C2-N2	7.10	122.59	116.20
1	AA	564	C	C6-N1-C2	-7.10	117.46	120.30
1	AA	1071	C	C6-N1-C2	-7.10	117.46	120.30
35	BA	859	G	N3-C2-N2	-7.10	114.93	119.90
35	BA	2094	G	N3-C4-C5	7.10	132.15	128.60
1	AA	926	G	C5-C6-N1	-7.10	107.95	111.50
1	AA	1499	A	O4'-C1'-N9	7.10	113.88	108.20
35	BA	644	A	N1-C2-N3	-7.10	125.75	129.30
35	BA	977	G	N1-C6-O6	-7.10	115.64	119.90
35	BA	1818	U	C5'-C4'-C3'	-7.10	104.64	116.00
40	BF	191	ARG	NE-CZ-NH2	-7.10	116.75	120.30
1	AA	230	G	C4-C5-N7	-7.10	107.96	110.80
1	AA	445	G	C4-C5-N7	7.10	113.64	110.80
1	AA	1012	U	C3'-C2'-C1'	7.10	107.18	101.50
36	BB	115	G	N3-C4-N9	7.10	130.26	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	200	G	C5-N7-C8	7.09	107.85	104.30
35	BA	2242	G	N1-C6-O6	-7.09	115.64	119.90
35	BA	1671	U	O4'-C1'-N1	-7.09	102.53	108.20
1	AA	339	C	C3'-C2'-C1'	-7.09	95.83	101.50
35	BA	271(T)	C	N3-C4-C5	7.09	124.74	121.90
35	BA	408	G	C5-C6-O6	-7.09	124.34	128.60
35	BA	1122	G	C5-N7-C8	-7.09	100.75	104.30
35	BA	1470	G	C5-C6-N1	7.09	115.05	111.50
35	BA	2540	C	C6-N1-C2	7.09	123.14	120.30
35	BA	2792	G	C4-C5-N7	7.09	113.64	110.80
1	AA	352	C	C2-N3-C4	-7.09	116.36	119.90
1	AA	688	G	N9-C4-C5	-7.09	102.56	105.40
35	BA	94(A)	G	C2-N3-C4	7.09	115.44	111.90
1	AA	1183	A	N7-C8-N9	-7.09	110.26	113.80
35	BA	750	A	C8-N9-C4	-7.09	102.97	105.80
35	BA	2134	A	C2-N3-C4	-7.09	107.06	110.60
1	AA	577	G	C5-C6-O6	-7.08	124.35	128.60
1	AA	724	G	C5-C6-O6	-7.08	124.35	128.60
1	AA	1467	G	N1-C6-O6	-7.08	115.65	119.90
6	AF	36	ARG	NE-CZ-NH1	-7.08	116.76	120.30
1	AA	26	A	O4'-C1'-N9	-7.08	102.53	108.20
1	AA	1075	C	N3-C2-O2	7.08	126.86	121.90
1	AA	1222	G	C6-C5-N7	-7.08	126.15	130.40
35	BA	1260	G	N1-C6-O6	7.08	124.15	119.90
1	AA	191	G	C2-N3-C4	-7.08	108.36	111.90
35	BA	1914	C	O4'-C1'-N1	7.08	113.86	108.20
35	BA	2403	C	C4-C5-C6	-7.08	113.86	117.40
35	BA	2581	G	O4'-C4'-C3'	7.08	111.77	106.10
35	BA	2839	G	N1-C2-N3	7.08	128.15	123.90
1	AA	274	A	C8-N9-C4	-7.08	102.97	105.80
35	BA	2540	C	C4-C5-C6	-7.08	113.86	117.40
1	AA	1422	G	N3-C4-C5	7.08	132.14	128.60
35	BA	631	A	N7-C8-N9	7.08	117.34	113.80
1	AA	679	C	C6-N1-C2	-7.08	117.47	120.30
1	AA	545	C	N1-C1'-C2'	-7.07	104.22	112.00
1	AA	893	C	N3-C4-C5	-7.07	119.07	121.90
35	BA	422	A	C1'-O4'-C4'	7.07	115.56	109.90
35	BA	654(L)	G	N1-C6-O6	7.07	124.14	119.90
35	BA	669	G	C5-C6-N1	7.07	115.04	111.50
35	BA	1757	U	N3-C4-O4	7.07	124.35	119.40
1	AA	700	G	N9-C1'-C2'	-7.07	104.22	112.00
35	BA	687	C	N1-C2-O2	7.07	123.14	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	254	G	C4-C5-N7	-7.07	107.97	110.80
1	AA	900	A	N1-C2-N3	7.07	132.84	129.30
22	AV	39	C	C2-N3-C4	7.07	123.44	119.90
35	BA	1177	A	C4-C5-C6	-7.07	113.47	117.00
35	BA	2543	G	N9-C4-C5	7.07	108.23	105.40
1	AA	1056	U	N3-C2-O2	-7.07	117.25	122.20
35	BA	2463	C	C5-C6-N1	-7.07	117.47	121.00
1	AA	972	C	C5-C4-N4	-7.07	115.25	120.20
35	BA	595	C	C6-N1-C2	-7.07	117.47	120.30
35	BA	2032	G	C4-C5-C6	-7.07	114.56	118.80
35	BA	2469	A	C4-C5-N7	7.07	114.23	110.70
35	BA	1080	C	C5-C6-N1	-7.07	117.47	121.00
35	BA	1825	A	C6-N1-C2	-7.07	114.36	118.60
35	BA	2222	G	C8-N9-C4	-7.07	103.57	106.40
1	AA	617	G	C5-N7-C8	-7.06	100.77	104.30
1	AA	808	C	C4-C5-C6	-7.06	113.87	117.40
1	AA	1332	A	N7-C8-N9	-7.06	110.27	113.80
35	BA	2728	U	C1'-O4'-C4'	-7.06	104.25	109.90
1	AA	1527	C	C4-C5-C6	7.06	120.93	117.40
35	BA	676	A	C8-N9-C4	7.06	108.62	105.80
35	BA	866	A	C8-N9-C4	7.06	108.62	105.80
1	AA	827	U	O4'-C1'-N1	7.06	113.85	108.20
11	AK	85	ARG	NE-CZ-NH2	-7.06	116.77	120.30
35	BA	1645	G	C5-C6-O6	7.06	132.84	128.60
35	BA	2624	G	C8-N9-C4	7.06	109.22	106.40
35	BA	189	G	N9-C1'-C2'	-7.06	104.24	112.00
35	BA	1465	G	C4-C5-N7	-7.06	107.98	110.80
35	BA	1552	G	C8-N9-C4	-7.06	103.58	106.40
35	BA	1566	A	C2-N3-C4	7.06	114.13	110.60
35	BA	1623	G	C6-C5-N7	7.06	134.63	130.40
36	BB	30	C	C6-N1-C2	-7.06	117.48	120.30
35	BA	2679	A	N1-C2-N3	7.06	132.83	129.30
1	AA	1102	A	N7-C8-N9	-7.05	110.27	113.80
35	BA	2505	G	O4'-C1'-N9	7.05	113.84	108.20
1	AA	723	U	O4'-C1'-N1	7.05	113.84	108.20
22	AV	1	C	C6-N1-C2	7.05	123.12	120.30
35	BA	2089	U	O4'-C1'-N1	7.05	113.84	108.20
35	BA	2785	C	C5-C6-N1	7.05	124.53	121.00
35	BA	471	A	C5-C6-N1	-7.05	114.17	117.70
22	AV	26	G	C5-C6-N1	-7.05	107.98	111.50
35	BA	654(M)	C	N1-C2-O2	7.05	123.13	118.90
34	B9	19	ARG	NE-CZ-NH2	-7.05	116.78	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	228	A	N1-C2-N3	-7.05	125.78	129.30
35	BA	710	G	N7-C8-N9	7.05	116.62	113.10
1	AA	83	U	N1-C2-O2	7.05	127.73	122.80
15	AO	72	ARG	NE-CZ-NH2	-7.05	116.78	120.30
35	BA	382	G	C2-N3-C4	-7.05	108.38	111.90
35	BA	649	G	C5-N7-C8	-7.05	100.78	104.30
35	BA	1153	C	C4-C5-C6	-7.04	113.88	117.40
1	AA	1064	G	N9-C1'-C2'	7.04	123.16	114.00
35	BA	147	U	N1-C2-O2	7.04	127.73	122.80
35	BA	177	G	C5-N7-C8	-7.04	100.78	104.30
35	BA	518	G	C2-N3-C4	7.04	115.42	111.90
35	BA	1941	C	C5-C4-N4	7.04	125.13	120.20
35	BA	2469	A	N7-C8-N9	7.04	117.32	113.80
1	AA	573	A	N1-C6-N6	-7.04	114.38	118.60
35	BA	397	G	C2-N3-C4	7.04	115.42	111.90
35	BA	463	G	N3-C4-N9	7.04	130.22	126.00
35	BA	2524	G	C6-C5-N7	-7.04	126.17	130.40
36	BB	18	G	N3-C4-C5	-7.04	125.08	128.60
1	AA	216	G	C5-N7-C8	-7.04	100.78	104.30
1	AA	375	U	N3-C4-O4	-7.04	114.47	119.40
35	BA	2197	U	C4-C5-C6	-7.04	115.48	119.70
1	AA	1424	C	C4-C5-C6	-7.04	113.88	117.40
35	BA	2663	G	C6-N1-C2	7.04	129.32	125.10
1	AA	715	A	O4'-C1'-N9	7.03	113.83	108.20
1	AA	1026	G	O4'-C1'-N9	7.03	113.83	108.20
1	AA	1183	A	C2-N3-C4	-7.03	107.08	110.60
35	BA	200	U	N3-C2-O2	-7.03	117.28	122.20
35	BA	497	A	N1-C2-N3	-7.03	125.78	129.30
35	BA	537	C	O5'-P-OP2	-7.03	99.37	105.70
35	BA	1176	G	C6-C5-N7	7.03	134.62	130.40
35	BA	1642	G	N3-C4-N9	-7.03	121.78	126.00
35	BA	2381	C	C6-N1-C2	7.03	123.11	120.30
35	BA	2724	C	C4-C5-C6	7.03	120.92	117.40
1	AA	402	G	N9-C4-C5	-7.03	102.59	105.40
35	BA	145	G	C2-N3-C4	-7.03	108.38	111.90
35	BA	714	U	C4-C5-C6	-7.03	115.48	119.70
35	BA	384	U	C1'-O4'-C4'	-7.03	104.28	109.90
35	BA	615	G	C4-C5-N7	7.03	113.61	110.80
35	BA	2388	A	N9-C4-C5	7.03	108.61	105.80
36	BB	119	G	C6-N1-C2	-7.03	120.88	125.10
35	BA	2159	G	N9-C4-C5	7.03	108.21	105.40
1	AA	1412	C	C6-N1-C2	7.03	123.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	104	U	C2-N3-C4	-7.03	122.78	127.00
35	BA	292	C	N3-C4-C5	7.03	124.71	121.90
35	BA	371	A	C5-C6-N1	7.03	121.21	117.70
35	BA	849	A	C6-N1-C2	-7.03	114.38	118.60
35	BA	2722	G	C4-C5-C6	7.03	123.02	118.80
35	BA	2035	G	O4'-C4'-C3'	7.03	111.72	106.10
35	BA	2526	G	C2-N3-C4	7.03	115.41	111.90
35	BA	2663	G	N3-C4-C5	7.02	132.11	128.60
1	AA	260	G	O4'-C4'-C3'	7.02	111.72	106.10
22	AV	43	A	N1-C2-N3	7.02	132.81	129.30
35	BA	65	C	N3-C2-O2	-7.02	116.98	121.90
35	BA	1457	A	O4'-C1'-N9	-7.02	102.58	108.20
35	BA	2516	G	N9-C4-C5	-7.02	102.59	105.40
1	AA	1277	C	N1-C1'-C2'	-7.02	104.28	112.00
35	BA	632	A	C8-N9-C4	-7.02	102.99	105.80
35	BA	2163	C	N1-C2-O2	-7.02	114.69	118.90
14	AN	19	ARG	NE-CZ-NH1	-7.02	116.79	120.30
35	BA	584	C	C5-C4-N4	-7.02	115.29	120.20
35	BA	1096	A	O5'-P-OP1	-7.02	99.38	105.70
35	BA	1817	G	C5-N7-C8	-7.02	100.79	104.30
35	BA	2044	C	N3-C2-O2	-7.02	116.99	121.90
35	BA	731	C	N3-C4-C5	7.02	124.71	121.90
35	BA	873	G	O4'-C1'-N9	7.02	113.81	108.20
35	BA	145	G	N1-C2-N3	7.01	128.11	123.90
35	BA	580	C	C5-C6-N1	7.01	124.51	121.00
35	BA	718	A	C6-C5-N7	7.01	137.21	132.30
35	BA	1957	C	N3-C2-O2	-7.01	116.99	121.90
35	BA	241	A	C8-N9-C4	7.01	108.61	105.80
35	BA	391	G	N3-C4-C5	-7.01	125.09	128.60
35	BA	2175	C	C6-N1-C2	7.01	123.11	120.30
1	AA	809	G	C5'-C4'-O4'	-7.01	100.69	109.10
35	BA	2589	A	C4-C5-N7	7.01	114.21	110.70
1	AA	1065	U	O4'-C1'-N1	7.01	113.81	108.20
35	BA	15	G	C2-N3-C4	-7.01	108.39	111.90
35	BA	629	G	C5-N7-C8	-7.01	100.80	104.30
35	BA	2190	G	C4-C5-N7	7.01	113.60	110.80
35	BA	2293	C	C5-C6-N1	7.01	124.50	121.00
35	BA	117	G	C5-C6-O6	-7.01	124.39	128.60
35	BA	474	G	C5-C6-O6	7.01	132.81	128.60
35	BA	1478	G	N7-C8-N9	7.01	116.60	113.10
1	AA	755	G	N9-C4-C5	7.01	108.20	105.40
35	BA	780	G	C8-N9-C4	7.01	109.20	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	905	U	C5-C4-O4	-7.01	121.70	125.90
35	BA	912	C	C5-C4-N4	-7.01	115.30	120.20
35	BA	386	G	C8-N9-C4	-7.00	103.60	106.40
35	BA	58	G	C5-C6-N1	7.00	115.00	111.50
35	BA	331	A	C5-C6-N1	-7.00	114.20	117.70
35	BA	444	C	N3-C4-C5	-7.00	119.10	121.90
35	BA	2040	C	N3-C4-C5	-7.00	119.10	121.90
35	BA	2445	G	C8-N9-C4	7.00	109.20	106.40
35	BA	2637	U	C5-C4-O4	-7.00	121.70	125.90
1	AA	1377	A	C4-C5-C6	7.00	120.50	117.00
35	BA	2320	A	C5-C6-N1	7.00	121.20	117.70
37	BC	111	PHE	CB-CG-CD1	7.00	125.70	120.80
1	AA	674	G	C5-C6-O6	7.00	132.80	128.60
1	AA	974	A	N7-C8-N9	7.00	117.30	113.80
35	BA	1590	U	C5-C4-O4	-7.00	121.70	125.90
35	BA	2594	C	O4'-C1'-N1	7.00	113.80	108.20
35	BA	129	C	N3-C4-N4	7.00	122.90	118.00
35	BA	505	A	O4'-C1'-N9	7.00	113.80	108.20
35	BA	1748	G	C4-C5-N7	7.00	113.60	110.80
1	AA	650	G	O5'-P-OP1	-7.00	99.41	105.70
35	BA	2103	C	C4-C5-C6	7.00	120.90	117.40
1	AA	268	C	C6-N1-C2	-6.99	117.50	120.30
35	BA	23	G	O4'-C1'-N9	-6.99	102.61	108.20
35	BA	297	C	C2-N3-C4	-6.99	116.40	119.90
1	AA	1447	A	O4'-C1'-N9	6.99	113.79	108.20
1	AA	46	G	N1-C6-O6	-6.99	115.71	119.90
6	AF	46	ARG	NE-CZ-NH1	-6.99	116.81	120.30
35	BA	809	G	N3-C4-N9	6.99	130.19	126.00
35	BA	1470	G	N1-C6-O6	-6.99	115.71	119.90
35	BA	1817	G	N9-C4-C5	-6.99	102.60	105.40
35	BA	272(J)	C	C2-N3-C4	-6.99	116.41	119.90
35	BA	596	G	C5-C6-O6	6.99	132.79	128.60
35	BA	1401	G	O4'-C1'-N9	6.99	113.79	108.20
35	BA	1753	G	C8-N9-C4	-6.99	103.61	106.40
1	AA	287	U	C5-C6-N1	6.99	126.19	122.70
35	BA	739	G	C5-N7-C8	6.99	107.79	104.30
35	BA	1414	G	N9-C4-C5	-6.99	102.61	105.40
35	BA	1565	C	N3-C2-O2	-6.99	117.01	121.90
35	BA	1838	C	N1-C2-N3	6.99	124.09	119.20
35	BA	2633	G	C5-N7-C8	-6.99	100.81	104.30
1	AA	1099	G	C6-N1-C2	-6.98	120.91	125.10
35	BA	1057	A	C1'-O4'-C4'	6.98	115.49	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1704	G	C4-C5-N7	-6.98	108.01	110.80
35	BA	2607	G	N7-C8-N9	6.98	116.59	113.10
1	AA	1133	G	N1-C6-O6	-6.98	115.71	119.90
35	BA	18	C	C5-C6-N1	6.98	124.49	121.00
35	BA	1466	G	C6-C5-N7	-6.98	126.21	130.40
35	BA	316	C	N3-C4-N4	-6.98	113.11	118.00
1	AA	1407	C	C2-N3-C4	-6.98	116.41	119.90
35	BA	654(L)	G	C6-N1-C2	6.98	129.29	125.10
35	BA	1019	U	C2-N3-C4	-6.98	122.81	127.00
35	BA	2462	U	N3-C4-O4	6.98	124.28	119.40
1	AA	242	C	C5-C4-N4	-6.98	115.32	120.20
1	AA	291	C	C5-C6-N1	-6.98	117.51	121.00
1	AA	755	G	C5-C6-N1	-6.98	108.01	111.50
35	BA	1257	C	N3-C4-C5	6.98	124.69	121.90
36	BB	26	A	C5-C6-N1	-6.98	114.21	117.70
1	AA	137	C	N1-C2-O2	6.97	123.08	118.90
1	AA	426	G	C2-N3-C4	6.97	115.39	111.90
1	AA	663	A	N1-C6-N6	6.97	122.78	118.60
35	BA	140	G	C6-C5-N7	6.97	134.59	130.40
1	AA	1196	U	O4'-C1'-N1	6.97	113.78	108.20
35	BA	82	G	C8-N9-C4	-6.97	103.61	106.40
35	BA	790	C	C6-N1-C2	-6.97	117.51	120.30
35	BA	1694	C	C6-N1-C2	6.97	123.09	120.30
35	BA	1960	A	O4'-C1'-N9	-6.97	102.62	108.20
35	BA	2633	G	C8-N9-C4	-6.97	103.61	106.40
1	AA	445	G	C5-N7-C8	-6.97	100.81	104.30
35	BA	973	A	C6-N1-C2	6.97	122.78	118.60
35	BA	1487	G	O4'-C1'-N9	6.97	113.78	108.20
1	AA	1398	A	O4'-C1'-N9	-6.97	102.63	108.20
35	BA	487	C	N3-C4-C5	-6.97	119.11	121.90
35	BA	1753	G	C4-C5-N7	-6.97	108.01	110.80
35	BA	1089	G	N1-C6-O6	6.97	124.08	119.90
35	BA	1610	A	O4'-C4'-C3'	6.97	111.67	106.10
35	BA	1811	G	N3-C2-N2	6.97	124.78	119.90
1	AA	903	G	C6-C5-N7	-6.96	126.22	130.40
1	AA	1171	G	N1-C2-N3	-6.96	119.72	123.90
35	BA	349	G	C2-N3-C4	6.96	115.38	111.90
35	BA	627	A	C5-C6-N6	6.96	129.27	123.70
35	BA	1442	G	C4-C5-N7	-6.96	108.01	110.80
35	BA	2024	G	C5-N7-C8	-6.96	100.82	104.30
1	AA	852	G	C4-C5-N7	6.96	113.58	110.80
1	AA	992	U	O4'-C1'-N1	6.96	113.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	330	A	O4'-C1'-N9	6.96	113.77	108.20
35	BA	997	G	C5-C6-N1	6.96	114.98	111.50
35	BA	2750	A	N7-C8-N9	-6.96	110.32	113.80
36	BB	72	G	O4'-C1'-N9	-6.96	102.63	108.20
1	AA	635	G	O4'-C1'-N9	-6.96	102.63	108.20
1	AA	1340	A	N9-C4-C5	6.96	108.58	105.80
35	BA	2069	G	C4-C5-N7	-6.96	108.02	110.80
1	AA	405	U	N3-C4-O4	6.96	124.27	119.40
1	AA	825	G	N9-C4-C5	6.96	108.18	105.40
35	BA	1929	G	O4'-C1'-N9	-6.96	102.63	108.20
1	AA	1127	G	C2-N3-C4	6.96	115.38	111.90
35	BA	103	A	C2-N3-C4	-6.96	107.12	110.60
35	BA	2201	C	N3-C4-N4	6.96	122.87	118.00
1	AA	1445	C	C2-N3-C4	6.95	123.38	119.90
35	BA	390	A	N7-C8-N9	6.95	117.28	113.80
35	BA	1647	G	N7-C8-N9	6.95	116.58	113.10
35	BA	2266	A	C5-N7-C8	-6.95	100.42	103.90
1	AA	737	A	C8-N9-C4	-6.95	103.02	105.80
35	BA	622	G	C8-N9-C4	-6.95	103.62	106.40
35	BA	1317	A	C8-N9-C4	-6.95	103.02	105.80
35	BA	2046	G	N1-C2-N3	6.95	128.07	123.90
35	BA	2349	G	C5-N7-C8	6.95	107.78	104.30
1	AA	633	G	C4-C5-N7	-6.95	108.02	110.80
1	AA	1297	C	C5-C6-N1	6.95	124.47	121.00
1	AA	1071	C	N1-C2-O2	-6.95	114.73	118.90
35	BA	536	A	N9-C1'-C2'	-6.95	104.36	112.00
1	AA	10	A	N1-C2-N3	6.95	132.77	129.30
1	AA	371	G	C4-C5-N7	6.95	113.58	110.80
1	AA	545	C	C5'-C4'-C3'	6.95	127.11	116.00
35	BA	103	A	C4-C5-N7	-6.95	107.23	110.70
35	BA	1990	C	C5-C6-N1	-6.95	117.53	121.00
35	BA	2531	A	C5-C6-N6	6.95	129.26	123.70
35	BA	2657	A	O4'-C1'-N9	-6.95	102.64	108.20
54	BW	77	ASP	CB-CG-OD2	6.95	124.55	118.30
1	AA	640	A	C8-N9-C4	6.94	108.58	105.80
1	AA	798	G	N1-C6-O6	-6.94	115.73	119.90
1	AA	1230	C	C2-N3-C4	-6.94	116.43	119.90
35	BA	2169	A	N9-C4-C5	-6.94	103.02	105.80
35	BA	2250	G	C2-N3-C4	-6.94	108.43	111.90
35	BA	261	G	C8-N9-C4	-6.94	103.62	106.40
1	AA	916	G	N3-C4-C5	-6.94	125.13	128.60
1	AA	956	U	O4'-C1'-N1	6.94	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	17	C	C5-C4-N4	-6.94	115.34	120.20
35	BA	1666	G	O4'-C1'-N9	6.94	113.75	108.20
35	BA	1814	G	N7-C8-N9	6.94	116.57	113.10
35	BA	2404	C	N1-C2-O2	6.94	123.06	118.90
36	BB	17	C	N3-C2-O2	-6.94	117.04	121.90
1	AA	1406	U	N3-C4-C5	-6.94	110.44	114.60
35	BA	1491	G	C5-C6-N1	6.94	114.97	111.50
1	AA	1274	G	C2-N3-C4	6.94	115.37	111.90
35	BA	1809	A	C4-C5-N7	6.94	114.17	110.70
1	AA	25	C	C3'-C2'-C1'	-6.93	95.95	101.50
1	AA	227	G	C8-N9-C4	6.93	109.17	106.40
1	AA	1063	C	N3-C4-N4	6.93	122.86	118.00
35	BA	258	G	N7-C8-N9	-6.93	109.63	113.10
35	BA	1459	G	C6-C5-N7	-6.93	126.24	130.40
35	BA	2640	G	N3-C4-C5	6.93	132.07	128.60
36	BB	42	C	C5-C6-N1	-6.93	117.53	121.00
1	AA	628	G	N9-C4-C5	6.93	108.17	105.40
1	AA	777	A	N9-C4-C5	6.93	108.57	105.80
1	AA	878	G	N3-C4-N9	-6.93	121.84	126.00
35	BA	154(A)	C	O4'-C1'-N1	-6.93	102.65	108.20
35	BA	2846	G	C2-N3-C4	6.93	115.37	111.90
1	AA	227	G	N7-C8-N9	-6.93	109.63	113.10
1	AA	1015	A	C8-N9-C4	-6.93	103.03	105.80
35	BA	2447	G	C4-C5-N7	-6.93	108.03	110.80
1	AA	191	G	N1-C2-N3	6.93	128.06	123.90
35	BA	1910	G	N7-C8-N9	-6.93	109.64	113.10
35	BA	2443	C	N1-C2-O2	6.93	123.06	118.90
1	AA	446	G	C5-N7-C8	-6.93	100.84	104.30
35	BA	467	G	C5-C6-O6	-6.93	124.44	128.60
35	BA	2280	G	N3-C2-N2	6.93	124.75	119.90
36	BB	49	C	N3-C4-N4	-6.93	113.15	118.00
1	AA	16	A	C4-C5-N7	6.93	114.16	110.70
19	AS	37	ARG	NE-CZ-NH2	-6.93	116.84	120.30
35	BA	2555	U	C4-C5-C6	6.93	123.86	119.70
1	AA	505	G	C5-C6-O6	-6.92	124.44	128.60
1	AA	825	G	N7-C8-N9	-6.92	109.64	113.10
35	BA	710	G	C6-N1-C2	-6.92	120.94	125.10
35	BA	2148	G	C5-C6-O6	6.92	132.75	128.60
1	AA	508	C	C2-N3-C4	-6.92	116.44	119.90
1	AA	632	A	N1-C2-N3	6.92	132.76	129.30
35	BA	429	A	C2-N3-C4	6.92	114.06	110.60
35	BA	1792	G	C5-C6-O6	6.92	132.75	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	917	G	C5-C6-N1	6.92	114.96	111.50
35	BA	147	U	N3-C2-O2	-6.92	117.36	122.20
35	BA	799	G	C2-N3-C4	-6.92	108.44	111.90
35	BA	2123	G	C6-C5-N7	-6.92	126.25	130.40
35	BA	2522	U	C5-C6-N1	-6.92	119.24	122.70
35	BA	853	G	C8-N9-C4	6.92	109.17	106.40
35	BA	2685	G	C4-C5-N7	6.92	113.57	110.80
35	BA	582	G	N3-C2-N2	6.92	124.74	119.90
35	BA	2864	G	C5-C6-O6	6.92	132.75	128.60
1	AA	1467	G	C5-N7-C8	-6.92	100.84	104.30
35	BA	462	C	C6-N1-C2	-6.92	117.53	120.30
35	BA	2394	C	N3-C4-C5	-6.92	119.13	121.90
35	BA	87	C	N3-C4-C5	-6.91	119.14	121.90
35	BA	808	G	C5-C6-N1	6.91	114.96	111.50
35	BA	874	G	N3-C4-C5	6.91	132.06	128.60
35	BA	1032	A	C4-C5-C6	-6.91	113.54	117.00
35	BA	2509	G	C8-N9-C4	6.91	109.17	106.40
35	BA	2642	G	C2-N3-C4	-6.91	108.44	111.90
35	BA	637	A	C4-C5-N7	-6.91	107.24	110.70
36	BB	60	C	C5-C4-N4	6.91	125.04	120.20
1	AA	554	C	N1-C2-O2	-6.91	114.75	118.90
1	AA	604	G	N7-C8-N9	6.91	116.56	113.10
1	AA	644	G	C8-N9-C4	6.91	109.16	106.40
35	BA	118	A	C5-C6-N6	6.91	129.23	123.70
35	BA	905	U	N3-C4-O4	6.91	124.24	119.40
22	AV	15	G	C8-N9-C4	-6.91	103.64	106.40
35	BA	188	G	N7-C8-N9	6.91	116.55	113.10
1	AA	916	G	C6-C5-N7	-6.91	126.26	130.40
1	AA	1442	G	N1-C2-N3	-6.91	119.76	123.90
1	AA	366	C	C6-N1-C2	-6.91	117.54	120.30
35	BA	92	A	N1-C2-N3	6.91	132.75	129.30
35	BA	735	A	C8-N9-C4	6.91	108.56	105.80
35	BA	1182	A	C2-N3-C4	6.91	114.05	110.60
1	AA	813	U	C5-C4-O4	-6.90	121.76	125.90
35	BA	2151	G	N1-C6-O6	-6.90	115.76	119.90
35	BA	2383	G	C6-N1-C2	-6.90	120.96	125.10
49	BR	33	ARG	NE-CZ-NH1	6.90	123.75	120.30
9	AI	91	ASP	CB-CG-OD1	-6.90	112.09	118.30
35	BA	135	G	C8-N9-C4	6.90	109.16	106.40
35	BA	876	C	N3-C4-C5	6.90	124.66	121.90
35	BA	1648	C	N3-C4-C5	-6.90	119.14	121.90
1	AA	1031	G	N1-C2-N3	6.90	128.04	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1685	C	C6-N1-C2	-6.90	117.54	120.30
1	AA	627	G	C2-N3-C4	6.90	115.35	111.90
35	BA	987	G	C4-C5-N7	6.90	113.56	110.80
35	BA	2842	G	N3-C4-N9	-6.90	121.86	126.00
1	AA	682	G	C8-N9-C4	6.89	109.16	106.40
1	AA	824	C	C4-C5-C6	6.89	120.85	117.40
9	AI	114	TYR	CB-CG-CD2	-6.89	116.86	121.00
35	BA	1984	G	N9-C4-C5	6.89	108.16	105.40
1	AA	144	G	C8-N9-C4	-6.89	103.64	106.40
1	AA	147	G	C5-N7-C8	6.89	107.75	104.30
35	BA	654(J)	A	C4-C5-C6	-6.89	113.55	117.00
1	AA	52	G	N3-C2-N2	6.89	124.72	119.90
1	AA	560	U	O4'-C1'-N1	-6.89	102.69	108.20
35	BA	804	A	O4'-C1'-N9	6.89	113.71	108.20
35	BA	1503	U	C5-C6-N1	-6.89	119.26	122.70
35	BA	2695	C	C2-N3-C4	-6.89	116.45	119.90
35	BA	176	G	C8-N9-C4	6.89	109.16	106.40
35	BA	271(S)	G	C6-C5-N7	-6.89	126.27	130.40
1	AA	1265	G	N3-C4-N9	-6.89	121.87	126.00
23	AX	19	U	C3'-C2'-C1'	6.89	107.01	101.50
35	BA	1410	G	C5-N7-C8	-6.89	100.86	104.30
35	BA	2442	C	C5-C4-N4	-6.89	115.38	120.20
35	BA	2873	A	N7-C8-N9	-6.89	110.36	113.80
38	BD	168	ARG	NE-CZ-NH1	6.89	123.74	120.30
35	BA	2398	U	C5-C6-N1	6.88	126.14	122.70
35	BA	2472	G	N3-C4-C5	6.88	132.04	128.60
1	AA	442	C	C4-C5-C6	6.88	120.84	117.40
1	AA	1224	G	C4-C5-N7	-6.88	108.05	110.80
22	AV	5	G	C8-N9-C4	-6.88	103.65	106.40
35	BA	295	G	C5-C6-O6	6.88	132.73	128.60
35	BA	451	C	C6-N1-C2	6.88	123.05	120.30
35	BA	1393	A	C4-C5-C6	6.88	120.44	117.00
35	BA	975	C	C2-N3-C4	-6.88	116.46	119.90
35	BA	1776	G	C5-N7-C8	6.88	107.74	104.30
1	AA	151	A	C4-C5-N7	6.88	114.14	110.70
1	AA	1030(A)	G	N1-C6-O6	6.88	124.03	119.90
35	BA	2453	A	N1-C2-N3	-6.88	125.86	129.30
1	AA	250	A	C5-C6-N6	-6.88	118.20	123.70
20	AT	8	ARG	NE-CZ-NH1	-6.88	116.86	120.30
35	BA	366	C	C4-C5-C6	6.88	120.84	117.40
35	BA	931	G	C5-C6-O6	6.88	132.73	128.60
35	BA	1336	A	N1-C6-N6	6.88	122.73	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1764	G	N1-C2-N3	6.88	128.03	123.90
35	BA	2621	A	N9-C4-C5	6.88	108.55	105.80
6	AF	77	ARG	NE-CZ-NH1	-6.88	116.86	120.30
35	BA	16	G	C5-C6-O6	6.88	132.73	128.60
1	AA	262	A	C5-N7-C8	6.88	107.34	103.90
35	BA	2126	A	C6-C5-N7	-6.88	127.49	132.30
35	BA	2648	C	C2-N3-C4	6.88	123.34	119.90
36	BB	26	A	C6-N1-C2	6.88	122.72	118.60
1	AA	563	A	N7-C8-N9	-6.87	110.36	113.80
35	BA	573	G	C5-C6-N1	6.87	114.94	111.50
1	AA	8	A	N9-C4-C5	6.87	108.55	105.80
35	BA	1999	C	N3-C4-C5	6.87	124.65	121.90
35	BA	2087	G	N9-C4-C5	-6.87	102.65	105.40
1	AA	282	A	C8-N9-C4	6.87	108.55	105.80
1	AA	461	A	N1-C6-N6	-6.87	114.48	118.60
1	AA	1048	G	N1-C6-O6	6.87	124.02	119.90
1	AA	1304	G	N3-C4-C5	6.87	132.03	128.60
35	BA	522	G	C4-C5-N7	-6.87	108.05	110.80
35	BA	2478	A	C8-N9-C4	6.87	108.55	105.80
1	AA	745	C	C2-N3-C4	-6.87	116.47	119.90
1	AA	1467	G	C8-N9-C4	6.87	109.15	106.40
1	AA	524	G	N3-C4-N9	6.87	130.12	126.00
1	AA	1394	A	N9-C4-C5	6.87	108.55	105.80
1	AA	1463	C	N1-C2-N3	-6.87	114.39	119.20
32	B7	47	ARG	NE-CZ-NH1	-6.87	116.87	120.30
35	BA	11	G	C5-C6-O6	-6.87	124.48	128.60
35	BA	552	G	C6-N1-C2	-6.87	120.98	125.10
35	BA	1179	C	O4'-C1'-N1	6.87	113.69	108.20
35	BA	2501	C	C1'-O4'-C4'	-6.87	104.41	109.90
41	BG	181	ARG	NE-CZ-NH2	-6.87	116.87	120.30
1	AA	1300	G	N3-C4-C5	6.86	132.03	128.60
31	B6	10	LEU	CA-CB-CG	6.86	131.08	115.30
1	AA	830	G	N3-C4-C5	6.86	132.03	128.60
35	BA	1190	G	C4-C5-N7	6.86	113.55	110.80
36	BB	51	G	O4'-C1'-C2'	6.86	113.78	107.60
22	AV	31	G	N3-C4-C5	6.86	132.03	128.60
35	BA	1922	G	N1-C6-O6	6.86	124.02	119.90
47	BP	7	ARG	NE-CZ-NH1	6.86	123.73	120.30
1	AA	189(J)	G	C4-C5-C6	-6.86	114.69	118.80
1	AA	198	G	O5'-P-OP1	-6.86	99.53	105.70
1	AA	260	G	C5-C6-N1	6.86	114.93	111.50
35	BA	265	A	N9-C4-C5	6.86	108.54	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	827	U	O5'-P-OP1	6.86	118.93	110.70
35	BA	2345	G	C5'-C4'-O4'	6.86	117.33	109.10
36	BB	62	C	O4'-C1'-N1	6.86	113.69	108.20
36	BB	74	U	O4'-C1'-N1	-6.86	102.71	108.20
1	AA	1354	C	O5'-P-OP2	-6.86	99.53	105.70
35	BA	658	C	C6-N1-C2	-6.86	117.56	120.30
35	BA	752	A	C4-C5-C6	6.86	120.43	117.00
35	BA	761	A	O4'-C1'-N9	6.86	113.68	108.20
36	BB	76	G	N9-C4-C5	-6.86	102.66	105.40
1	AA	1447	A	C2-N3-C4	6.85	114.03	110.60
35	BA	607	U	N3-C2-O2	-6.85	117.40	122.20
35	BA	1470	G	O4'-C1'-N9	6.85	113.68	108.20
35	BA	1774	C	O4'-C1'-N1	6.85	113.68	108.20
1	AA	1231	G	C5'-C4'-O4'	6.85	117.32	109.10
35	BA	2145	C	N3-C2-O2	6.85	126.69	121.90
35	BA	221	A	N9-C4-C5	6.85	108.54	105.80
35	BA	791	C	O4'-C1'-N1	6.85	113.68	108.20
35	BA	1000	A	C4-C5-C6	-6.85	113.58	117.00
35	BA	1288	U	C5-C6-N1	-6.85	119.28	122.70
35	BA	1531	C	C2-N3-C4	-6.85	116.47	119.90
1	AA	7	G	N7-C8-N9	6.85	116.52	113.10
1	AA	767	A	C5-C6-N6	-6.85	118.22	123.70
35	BA	219	G	C2-N3-C4	-6.85	108.48	111.90
35	BA	260	G	N9-C4-C5	-6.85	102.66	105.40
35	BA	1220	A	N9-C4-C5	6.85	108.54	105.80
47	BP	55	ARG	NE-CZ-NH2	-6.85	116.88	120.30
35	BA	1469	A	C6-N1-C2	-6.85	114.49	118.60
35	BA	1926	U	C5'-C4'-O4'	6.84	117.31	109.10
51	BT	118	ARG	NE-CZ-NH1	6.84	123.72	120.30
35	BA	2392	A	N1-C2-N3	6.84	132.72	129.30
1	AA	1106	G	C6-N1-C2	6.84	129.21	125.10
7	AG	78	ARG	NE-CZ-NH2	-6.84	116.88	120.30
16	AP	26	ARG	NE-CZ-NH2	-6.84	116.88	120.30
35	BA	589	C	C6-N1-C2	-6.84	117.56	120.30
35	BA	1073	A	N9-C4-C5	6.84	108.54	105.80
35	BA	1418	G	C5-C6-N1	-6.84	108.08	111.50
36	BB	49	C	C2-N3-C4	-6.84	116.48	119.90
1	AA	113	G	N3-C4-C5	-6.84	125.18	128.60
1	AA	472	A	C5-C6-N1	6.84	121.12	117.70
1	AA	808	C	C6-N1-C2	6.84	123.04	120.30
35	BA	866	A	C2-N3-C4	-6.84	107.18	110.60
35	BA	1609	A	C5-N7-C8	-6.84	100.48	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2060	A	N9-C4-C5	-6.84	103.06	105.80
35	BA	2302	G	N7-C8-N9	-6.84	109.68	113.10
35	BA	2544	G	C6-N1-C2	6.84	129.20	125.10
36	BB	78	A	C8-N9-C4	6.84	108.53	105.80
1	AA	725	G	C2-N3-C4	6.84	115.32	111.90
35	BA	774	A	N1-C2-N3	-6.84	125.88	129.30
35	BA	747	U	C5-C4-O4	-6.83	121.80	125.90
27	B2	36	ARG	NE-CZ-NH1	-6.83	116.88	120.30
35	BA	946	G	C2-N3-C4	-6.83	108.48	111.90
35	BA	2451	A	C4-C5-N7	-6.83	107.28	110.70
36	BB	114	C	C5-C4-N4	-6.83	115.42	120.20
1	AA	1238	A	N7-C8-N9	-6.83	110.38	113.80
35	BA	1227	G	C2-N3-C4	6.83	115.32	111.90
35	BA	1701	A	C8-N9-C4	-6.83	103.07	105.80
35	BA	2033	A	N7-C8-N9	-6.83	110.39	113.80
35	BA	2753	A	C5-C6-N1	6.83	121.12	117.70
1	AA	944	G	N3-C2-N2	6.83	124.68	119.90
1	AA	262	A	C4-C5-N7	-6.83	107.28	110.70
1	AA	343	U	N3-C4-O4	6.83	124.18	119.40
35	BA	1786	A	C8-N9-C4	-6.83	103.07	105.80
35	BA	1061	U	C2-N3-C4	-6.83	122.90	127.00
35	BA	1635	G	C8-N9-C4	6.83	109.13	106.40
35	BA	2291	U	C4-C5-C6	6.83	123.80	119.70
35	BA	1678	G	C4-C5-N7	-6.83	108.07	110.80
1	AA	1196	U	N3-C4-O4	-6.82	114.62	119.40
3	AC	172	ARG	NE-CZ-NH1	-6.82	116.89	120.30
35	BA	1254	A	N1-C6-N6	6.82	122.69	118.60
35	BA	2407	G	C6-N1-C2	-6.82	121.01	125.10
35	BA	2512	C	C2-N3-C4	6.82	123.31	119.90
35	BA	2543	G	C4-C5-N7	-6.82	108.07	110.80
1	AA	265	G	C5-C6-O6	-6.82	124.51	128.60
1	AA	1359	C	C5-C6-N1	6.82	124.41	121.00
35	BA	2545	G	N9-C4-C5	-6.82	102.67	105.40
1	AA	218	C	C6-N1-C2	-6.82	117.57	120.30
1	AA	576	G	N3-C2-N2	6.82	124.67	119.90
35	BA	12	U	N3-C4-O4	6.82	124.17	119.40
35	BA	1674	G	N3-C2-N2	6.82	124.67	119.90
35	BA	1860	G	O4'-C1'-N9	6.82	113.66	108.20
1	AA	1521	G	N3-C4-C5	6.82	132.01	128.60
35	BA	1133	U	N3-C4-C5	6.82	118.69	114.60
1	AA	1383	C	N1-C2-O2	-6.82	114.81	118.90
9	AI	121	ARG	NE-CZ-NH2	-6.82	116.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	363(F)	A	C4-C5-C6	6.82	120.41	117.00
35	BA	476	G	C5-C6-O6	-6.82	124.51	128.60
35	BA	483	A	O4'-C1'-N9	-6.82	102.75	108.20
35	BA	2374	C	C4-C5-C6	-6.82	113.99	117.40
1	AA	542	G	C5-C6-O6	-6.82	124.51	128.60
1	AA	635	G	C6-C5-N7	-6.82	126.31	130.40
9	AI	107	ARG	NE-CZ-NH2	-6.82	116.89	120.30
35	BA	58	G	O4'-C1'-N9	6.82	113.65	108.20
35	BA	524	U	C6-N1-C2	-6.82	116.91	121.00
1	AA	732	C	C6-N1-C2	-6.81	117.57	120.30
9	AI	93	ARG	NE-CZ-NH2	-6.81	116.89	120.30
1	AA	316	G	C5-C6-N1	-6.81	108.09	111.50
35	BA	1140	C	C5-C6-N1	-6.81	117.59	121.00
35	BA	1307	A	C5-N7-C8	-6.81	100.49	103.90
35	BA	1718	G	N1-C2-N3	6.81	127.99	123.90
36	BB	53	A	C2-N3-C4	6.81	114.01	110.60
36	BB	67	G	C6-C5-N7	-6.81	126.31	130.40
1	AA	144	G	C4-C5-N7	-6.81	108.08	110.80
35	BA	152	G	O4'-C1'-N9	6.81	113.65	108.20
35	BA	171	G	N3-C4-C5	6.81	132.00	128.60
35	BA	1092	C	N1-C2-O2	6.81	122.99	118.90
35	BA	1344	G	N1-C6-O6	-6.81	115.81	119.90
35	BA	1608	A	N7-C8-N9	6.81	117.20	113.80
1	AA	225	C	C5-C4-N4	-6.81	115.44	120.20
1	AA	240	C	C2-N3-C4	-6.81	116.50	119.90
35	BA	744	G	C5-C6-N1	6.81	114.90	111.50
35	BA	756	C	C1'-O4'-C4'	-6.81	104.45	109.90
35	BA	1338	G	N3-C2-N2	6.81	124.66	119.90
35	BA	1615	C	N3-C4-C5	-6.81	119.18	121.90
35	BA	2597	G	C5-C6-O6	-6.81	124.52	128.60
35	BA	2603	G	C5-C6-N1	-6.81	108.10	111.50
35	BA	1778	U	C5-C4-O4	-6.80	121.82	125.90
35	BA	2412	A	C8-N9-C4	-6.80	103.08	105.80
35	BA	98	G	N3-C2-N2	6.80	124.66	119.90
35	BA	1885	A	C5-N7-C8	-6.80	100.50	103.90
1	AA	204	U	O4'-C1'-N1	6.80	113.64	108.20
1	AA	1051	C	C1'-O4'-C4'	-6.80	104.46	109.90
35	BA	789	A	N9-C4-C5	6.80	108.52	105.80
1	AA	236	G	C2-N3-C4	6.80	115.30	111.90
1	AA	1060	C	C2-N3-C4	6.80	123.30	119.90
1	AA	1487	G	C5-C6-O6	-6.80	124.52	128.60
35	BA	520	G	C5-C6-O6	-6.80	124.52	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1193	G	C6-C5-N7	6.80	134.48	130.40
35	BA	2300	G	N1-C2-N2	-6.80	110.08	116.20
35	BA	2497	A	C5-C6-N1	-6.80	114.30	117.70
35	BA	2614	A	N9-C4-C5	-6.80	103.08	105.80
1	AA	1120	G	C5-N7-C8	6.79	107.70	104.30
35	BA	422	A	C6-N1-C2	6.79	122.68	118.60
35	BA	725	G	C8-N9-C4	6.79	109.12	106.40
35	BA	777	A	N7-C8-N9	-6.79	110.40	113.80
1	AA	1259	C	N3-C4-N4	-6.79	113.25	118.00
35	BA	977	G	C2-N3-C4	6.79	115.30	111.90
35	BA	1375	C	N3-C4-C5	-6.79	119.18	121.90
35	BA	1709	U	C5-C4-O4	6.79	129.97	125.90
35	BA	1765	C	C6-N1-C2	6.79	123.02	120.30
35	BA	2047	U	C5-C4-O4	6.79	129.97	125.90
35	BA	1260	G	N3-C4-N9	-6.79	121.93	126.00
35	BA	1469	A	C5-C6-N1	6.79	121.09	117.70
1	AA	656	C	O4'-C1'-N1	-6.79	102.77	108.20
1	AA	1199	U	O4'-C1'-N1	-6.79	102.77	108.20
10	AJ	63	PHE	CB-CG-CD2	6.79	125.55	120.80
35	BA	1608	A	N9-C4-C5	6.79	108.52	105.80
35	BA	1709	U	N3-C4-O4	-6.79	114.65	119.40
35	BA	632	A	C5-N7-C8	-6.79	100.51	103.90
35	BA	1954	G	N1-C6-O6	6.79	123.97	119.90
35	BA	2768	C	C6-N1-C2	-6.79	117.59	120.30
1	AA	1408	A	N9-C1'-C2'	-6.78	104.54	112.00
1	AA	1456	G	O4'-C1'-N9	6.78	113.63	108.20
35	BA	733	G	O4'-C1'-N9	-6.78	102.77	108.20
35	BA	914	C	N1-C1'-C2'	-6.78	104.54	112.00
35	BA	1663	C	C5-C4-N4	6.78	124.95	120.20
35	BA	2182	G	N3-C2-N2	-6.78	115.15	119.90
35	BA	2313	C	C5'-C4'-O4'	-6.78	100.96	109.10
1	AA	538	G	N7-C8-N9	-6.78	109.71	113.10
1	AA	1140	C	C6-N1-C2	6.78	123.01	120.30
1	AA	1202	G	N9-C4-C5	6.78	108.11	105.40
1	AA	1494	G	C2-N3-C4	6.78	115.29	111.90
35	BA	659	C	C5-C4-N4	6.78	124.95	120.20
35	BA	1250	G	C2-N3-C4	6.78	115.29	111.90
35	BA	1567	A	N1-C2-N3	6.78	132.69	129.30
35	BA	2376	A	C5-N7-C8	-6.78	100.51	103.90
1	AA	128	G	C8-N9-C4	6.78	109.11	106.40
1	AA	1097	C	C2-N3-C4	6.78	123.29	119.90
35	BA	836	G	C8-N9-C4	6.78	109.11	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	117	G	C6-C5-N7	-6.78	126.33	130.40
1	AA	692	U	C5-C4-O4	6.78	129.97	125.90
1	AA	877	C	C6-N1-C2	6.78	123.01	120.30
35	BA	956	G	C2-N3-C4	-6.78	108.51	111.90
35	BA	1012	U	C5-C4-O4	6.78	129.97	125.90
35	BA	2545	G	C5-C6-O6	-6.78	124.53	128.60
1	AA	1206	G	C5-C6-O6	-6.78	124.53	128.60
1	AA	1411	C	C5-C6-N1	-6.78	117.61	121.00
23	AX	20	U	C2-N3-C4	6.78	131.06	127.00
23	AX	21	C	N3-C4-C5	6.78	124.61	121.90
36	BB	51	G	N3-C4-C5	6.78	131.99	128.60
1	AA	1422	G	C8-N9-C4	6.77	109.11	106.40
8	AH	20	TYR	CB-CG-CD2	6.77	125.06	121.00
35	BA	1878	G	N3-C4-C5	-6.77	125.21	128.60
35	BA	623	G	C8-N9-C4	-6.77	103.69	106.40
35	BA	1450	G	N1-C2-N3	-6.77	119.84	123.90
1	AA	1128	C	C5-C4-N4	-6.77	115.46	120.20
35	BA	474	G	C5-N7-C8	6.77	107.69	104.30
35	BA	585	G	C2-N3-C4	-6.77	108.52	111.90
35	BA	598	G	C5-C6-O6	-6.77	124.54	128.60
35	BA	2727	G	C8-N9-C4	6.77	109.11	106.40
1	AA	412	A	C8-N9-C4	-6.77	103.09	105.80
45	BN	123	TYR	CG-CD1-CE1	6.77	126.72	121.30
1	AA	825	G	N3-C2-N2	-6.77	115.16	119.90
1	AA	831	U	N3-C4-C5	6.77	118.66	114.60
35	BA	1100	C	N1-C2-O2	6.77	122.96	118.90
35	BA	1592	C	N1-C2-O2	6.77	122.96	118.90
1	AA	594	G	C2-N3-C4	-6.76	108.52	111.90
1	AA	1502	A	C6-N1-C2	6.76	122.66	118.60
1	AA	942	G	C8-N9-C4	6.76	109.11	106.40
35	BA	522	G	N3-C4-N9	-6.76	121.94	126.00
35	BA	2665	A	O4'-C1'-N9	6.76	113.61	108.20
35	BA	125	G	C4-C5-N7	6.76	113.50	110.80
35	BA	2116	G	O4'-C1'-N9	6.76	113.61	108.20
35	BA	2199	A	C4-C5-C6	6.76	120.38	117.00
35	BA	2488	A	N9-C4-C5	6.76	108.50	105.80
1	AA	557	G	O4'-C1'-N9	6.76	113.61	108.20
1	AA	826	C	C5-C4-N4	6.76	124.93	120.20
7	AG	6	ARG	NE-CZ-NH1	-6.76	116.92	120.30
35	BA	719	C	C2-N3-C4	-6.76	116.52	119.90
35	BA	1457	A	N7-C8-N9	6.76	117.18	113.80
35	BA	1919	A	C2-N3-C4	6.76	113.98	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	BZ	4	ARG	NE-CZ-NH2	-6.76	116.92	120.30
35	BA	2188	C	N1-C2-O2	6.75	122.95	118.90
50	BS	71	ARG	NE-CZ-NH1	6.75	123.68	120.30
1	AA	470	C	O4'-C1'-N1	-6.75	102.80	108.20
1	AA	511	C	N3-C4-N4	-6.75	113.27	118.00
7	AG	15	ASP	CB-CG-OD2	-6.75	112.22	118.30
22	AV	1	C	N3-C4-C5	6.75	124.60	121.90
35	BA	2001	A	C8-N9-C4	6.75	108.50	105.80
35	BA	2334	G	C5-N7-C8	6.75	107.68	104.30
1	AA	525	C	C4-C5-C6	6.75	120.78	117.40
1	AA	1201	A	C6-C5-N7	6.75	137.03	132.30
35	BA	205	G	C5-N7-C8	6.75	107.68	104.30
35	BA	259	G	C6-N1-C2	-6.75	121.05	125.10
35	BA	558	G	C4-C5-N7	6.75	113.50	110.80
35	BA	2870	C	N1-C2-O2	-6.75	114.85	118.90
1	AA	529	G	C4-C5-N7	-6.75	108.10	110.80
35	BA	961	C	O4'-C1'-N1	6.75	113.60	108.20
35	BA	1261	C	C5-C4-N4	-6.75	115.47	120.20
1	AA	341	C	N3-C4-C5	6.75	124.60	121.90
1	AA	438	G	C2-N3-C4	6.75	115.27	111.90
35	BA	2157	G	C2-N3-C4	6.75	115.28	111.90
36	BB	21	G	N9-C1'-C2'	-6.75	104.58	112.00
35	BA	845	G	N3-C4-C5	-6.75	125.23	128.60
35	BA	2878	U	N3-C2-O2	-6.75	117.48	122.20
1	AA	1288	A	C2-N3-C4	-6.75	107.23	110.60
35	BA	1974	C	C4-C5-C6	6.75	120.77	117.40
52	BU	112	ARG	NE-CZ-NH2	-6.75	116.93	120.30
35	BA	573	G	N7-C8-N9	6.74	116.47	113.10
35	BA	874	G	N1-C6-O6	-6.74	115.85	119.90
35	BA	1838	C	C5'-C4'-C3'	-6.74	105.21	116.00
1	AA	697	U	O4'-C1'-N1	6.74	113.59	108.20
1	AA	1112	C	C4-C5-C6	6.74	120.77	117.40
35	BA	406	G	N9-C1'-C2'	-6.74	104.59	112.00
35	BA	1559	G	C5-C6-N1	-6.74	108.13	111.50
35	BA	2268	A	N7-C8-N9	6.74	117.17	113.80
1	AA	687	A	N1-C6-N6	6.74	122.64	118.60
29	B4	43	TYR	C-N-CA	6.74	138.54	121.70
35	BA	1219	G	C2-N3-C4	-6.74	108.53	111.90
35	BA	1912	A	N1-C2-N3	-6.74	125.93	129.30
35	BA	2035	G	C1'-O4'-C4'	-6.74	104.51	109.90
35	BA	2203	U	O4'-C1'-N1	-6.74	102.81	108.20
35	BA	143(A)	C	C4-C5-C6	-6.74	114.03	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1603	A	N9-C4-C5	6.74	108.50	105.80
35	BA	2606	C	C2-N3-C4	-6.74	116.53	119.90
1	AA	713	G	C5-C6-N1	6.74	114.87	111.50
1	AA	966	G	C4-C5-N7	-6.74	108.11	110.80
1	AA	1008	C	N3-C4-C5	6.74	124.59	121.90
16	AP	17	TYR	CB-CG-CD1	6.74	125.04	121.00
22	AV	17	C	N1-C2-O2	6.74	122.94	118.90
35	BA	188	G	C5-C6-N1	-6.74	108.13	111.50
35	BA	629	G	C5-C6-O6	6.74	132.64	128.60
35	BA	1142	U	C5-C6-N1	6.74	126.07	122.70
36	BB	114	C	C5-C6-N1	6.74	124.37	121.00
1	AA	565	U	C5-C6-N1	6.73	126.07	122.70
35	BA	677	A	C6-N1-C2	-6.73	114.56	118.60
35	BA	2193	G	C8-N9-C4	6.73	109.09	106.40
36	BB	5	C	C6-N1-C2	-6.73	117.61	120.30
1	AA	1013	G	C5-C6-N1	6.73	114.86	111.50
1	AA	1456	G	C5-N7-C8	6.73	107.67	104.30
22	AV	63	G	O4'-C1'-N9	-6.73	102.82	108.20
35	BA	139(A)	G	C4-C5-N7	-6.73	108.11	110.80
35	BA	1085	A	C8-N9-C4	6.73	108.49	105.80
35	BA	1091	G	C8-N9-C4	-6.73	103.71	106.40
35	BA	1213	A	N1-C2-N3	6.73	132.66	129.30
35	BA	1984	G	N3-C4-C5	-6.73	125.23	128.60
35	BA	2568	C	N3-C2-O2	6.73	126.61	121.90
36	BB	76	G	C4-C5-C6	-6.73	114.76	118.80
57	BZ	24	LEU	CA-CB-CG	6.73	130.78	115.30
1	AA	528	C	C5-C6-N1	6.73	124.36	121.00
35	BA	205	G	C4-C5-N7	-6.73	108.11	110.80
35	BA	1614	A	O4'-C1'-C2'	6.73	113.65	107.60
36	BB	79	C	N3-C4-N4	6.73	122.71	118.00
35	BA	53	A	C6-C5-N7	-6.73	127.59	132.30
35	BA	2000	G	C5-N7-C8	-6.73	100.94	104.30
35	BA	871	U	N3-C2-O2	6.72	126.91	122.20
35	BA	918	A	C2-N3-C4	6.72	113.96	110.60
35	BA	1106	G	C4-C5-N7	-6.72	108.11	110.80
35	BA	1455	G	N3-C4-N9	-6.72	121.97	126.00
1	AA	183	G	N1-C6-O6	6.72	123.93	119.90
1	AA	389	A	C4-C5-C6	6.72	120.36	117.00
1	AA	544	G	C8-N9-C4	-6.72	103.71	106.40
35	BA	1382	G	C5-C6-O6	-6.72	124.57	128.60
35	BA	1457	A	C2-N3-C4	6.72	113.96	110.60
1	AA	1385	G	N1-C6-O6	6.72	123.93	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	812	C	N3-C2-O2	-6.72	117.20	121.90
36	BB	51	G	C4-C5-N7	6.72	113.49	110.80
1	AA	78	G	N3-C4-C5	6.72	131.96	128.60
1	AA	1066	C	C6-N1-C2	-6.72	117.61	120.30
1	AA	419	C	N3-C4-N4	6.72	122.70	118.00
35	BA	458	G	N3-C4-N9	6.72	130.03	126.00
35	BA	677	A	C8-N9-C4	6.72	108.49	105.80
35	BA	689	A	C5-C6-N1	6.72	121.06	117.70
35	BA	941	A	C2-N3-C4	6.72	113.96	110.60
35	BA	1943	U	N1-C2-N3	-6.72	110.87	114.90
35	BA	2310	A	N7-C8-N9	-6.72	110.44	113.80
1	AA	523	A	C6-N1-C2	6.71	122.63	118.60
1	AA	1498	U	O5'-P-OP2	-6.71	99.66	105.70
35	BA	316	C	C5-C4-N4	6.71	124.90	120.20
35	BA	983	A	C4-C5-C6	6.71	120.36	117.00
35	BA	2399	G	N9-C1'-C2'	-6.71	104.61	112.00
35	BA	2571	C	C6-N1-C2	-6.71	117.61	120.30
12	AL	98	TYR	CB-CG-CD1	-6.71	116.97	121.00
22	AV	63	G	C2-N3-C4	6.71	115.26	111.90
25	B0	26	TYR	CB-CG-CD1	6.71	125.03	121.00
35	BA	654(N)	G	C6-C5-N7	6.71	134.43	130.40
35	BA	1523	U	N3-C2-O2	6.71	126.90	122.20
35	BA	1583	A	C5-N7-C8	-6.71	100.54	103.90
35	BA	2508	G	N1-C6-O6	-6.71	115.87	119.90
35	BA	2858	C	C3'-C2'-C1'	6.71	106.87	101.50
36	BB	59	A	N1-C6-N6	6.71	122.63	118.60
1	AA	329	A	N1-C2-N3	-6.71	125.94	129.30
1	AA	438	G	C6-C5-N7	6.71	134.43	130.40
1	AA	1311	G	C5-N7-C8	6.71	107.66	104.30
1	AA	284	G	N1-C2-N3	6.71	127.92	123.90
1	AA	919	A	C4-C5-C6	-6.71	113.65	117.00
1	AA	1523	G	C5-C6-N1	6.71	114.85	111.50
35	BA	213	A	C4-C5-C6	-6.71	113.65	117.00
1	AA	738	C	N3-C4-N4	-6.71	113.31	118.00
35	BA	2700	C	N3-C4-N4	-6.71	113.31	118.00
1	AA	578	C	C5-C6-N1	-6.70	117.65	121.00
35	BA	1698	A	O4'-C1'-N9	6.70	113.56	108.20
35	BA	1781	C	N1-C1'-C2'	6.70	122.71	114.00
35	BA	226	G	O4'-C1'-N9	6.70	113.56	108.20
35	BA	481	G	N1-C2-N3	-6.70	119.88	123.90
35	BA	815	C	C6-N1-C2	6.70	122.98	120.30
35	BA	1787	A	C8-N9-C4	-6.70	103.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1835	G	N9-C4-C5	6.70	108.08	105.40
35	BA	2365	G	N7-C8-N9	-6.70	109.75	113.10
1	AA	195	A	N1-C6-N6	6.70	122.62	118.60
1	AA	281	G	C6-C5-N7	6.70	134.42	130.40
1	AA	871	U	C5-C4-O4	-6.70	121.88	125.90
1	AA	1053	G	C5-C6-N1	6.70	114.85	111.50
1	AA	1110	A	C5-N7-C8	-6.70	100.55	103.90
1	AA	1303	C	N3-C4-C5	6.70	124.58	121.90
35	BA	317	G	N9-C4-C5	-6.70	102.72	105.40
35	BA	553	G	C5-N7-C8	-6.70	100.95	104.30
35	BA	1140	C	C6-N1-C2	6.70	122.98	120.30
35	BA	1347	G	C6-C5-N7	-6.70	126.38	130.40
35	BA	1349	A	C8-N9-C4	-6.70	103.12	105.80
35	BA	1487	G	C6-C5-N7	-6.70	126.38	130.40
35	BA	2021	C	C6-N1-C1'	6.70	128.84	120.80
35	BA	2727	G	N7-C8-N9	-6.70	109.75	113.10
35	BA	843	G	N9-C4-C5	-6.70	102.72	105.40
1	AA	198	G	N7-C8-N9	6.70	116.45	113.10
1	AA	360	A	C5-C6-N1	-6.70	114.35	117.70
1	AA	1019	C	N3-C4-C5	-6.70	119.22	121.90
35	BA	2105	C	N3-C4-C5	-6.70	119.22	121.90
35	BA	2605	U	N3-C2-O2	6.70	126.89	122.20
1	AA	485	G	N7-C8-N9	6.69	116.45	113.10
35	BA	2527	C	C5-C4-N4	-6.69	115.52	120.20
40	BF	202	PHE	CB-CG-CD1	-6.69	116.11	120.80
1	AA	351	G	C8-N9-C4	-6.69	103.72	106.40
35	BA	410	G	C8-N9-C4	-6.69	103.72	106.40
35	BA	1528(A)	A	N1-C6-N6	-6.69	114.58	118.60
35	BA	1591	G	C8-N9-C4	-6.69	103.72	106.40
35	BA	2778	A	C2-N3-C4	6.69	113.95	110.60
1	AA	910	C	C5-C4-N4	-6.69	115.52	120.20
35	BA	228	A	C5-N7-C8	-6.69	100.56	103.90
35	BA	1402	C	C6-N1-C2	-6.69	117.62	120.30
35	BA	1781	C	N3-C2-O2	-6.69	117.22	121.90
36	BB	44	G	C4-C5-N7	-6.69	108.12	110.80
1	AA	503	C	C2-N3-C4	-6.69	116.56	119.90
1	AA	677	U	N1-C2-N3	6.69	118.91	114.90
35	BA	1268	A	N7-C8-N9	6.69	117.14	113.80
47	BP	5	ASP	CB-CG-OD2	6.69	124.32	118.30
1	AA	959	A	C6-C5-N7	-6.69	127.62	132.30
35	BA	407	G	C5-N7-C8	-6.69	100.96	104.30
35	BA	286	C	C5'-C4'-O4'	-6.68	101.08	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1077	G	C5'-C4'-O4'	6.68	117.12	109.10
35	BA	332	A	C4'-C3'-C2'	6.68	109.28	102.60
35	BA	1111	A	C5-C6-N1	-6.68	114.36	117.70
35	BA	2015	A	C5-C6-N1	6.68	121.04	117.70
35	BA	2517	C	C5'-C4'-O4'	-6.68	101.08	109.10
35	BA	2845	G	C6-N1-C2	-6.68	121.09	125.10
1	AA	682	G	N3-C4-N9	6.68	130.01	126.00
1	AA	1380	U	C5-C6-N1	-6.68	119.36	122.70
1	AA	1412	C	C2-N3-C4	6.68	123.24	119.90
35	BA	812	C	C5-C6-N1	-6.68	117.66	121.00
1	AA	700	G	N1-C6-O6	-6.68	115.89	119.90
35	BA	194	G	C8-N9-C4	-6.68	103.73	106.40
35	BA	425	G	C5-C6-N1	6.68	114.84	111.50
35	BA	707	G	N9-C4-C5	6.68	108.07	105.40
35	BA	1006	C	N3-C4-C5	-6.68	119.23	121.90
35	BA	1809	A	C6-N1-C2	6.68	122.61	118.60
35	BA	2608	G	C4-C5-N7	-6.68	108.13	110.80
36	BB	93	G	N3-C4-C5	-6.68	125.26	128.60
35	BA	1389	G	N9-C4-C5	-6.68	102.73	105.40
35	BA	1936	A	C5-N7-C8	-6.68	100.56	103.90
35	BA	2839	G	C6-N1-C2	-6.68	121.09	125.10
1	AA	41	G	N1-C6-O6	-6.68	115.89	119.90
1	AA	1434	A	C5-C6-N1	6.68	121.04	117.70
35	BA	1002	G	N9-C4-C5	-6.68	102.73	105.40
35	BA	1722	A	C8-N9-C4	-6.68	103.13	105.80
35	BA	2099	U	N1-C2-N3	6.68	118.91	114.90
37	BC	191	ARG	NE-CZ-NH1	-6.68	116.96	120.30
1	AA	495	A	N9-C4-C5	-6.67	103.13	105.80
22	AV	33	U	C5-C6-N1	-6.67	119.36	122.70
35	BA	971	C	N3-C4-C5	6.67	124.57	121.90
35	BA	1989	G	C3'-C2'-C1'	6.67	106.84	101.50
35	BA	2279	G	C6-N1-C2	-6.67	121.09	125.10
35	BA	2805	G	C6-N1-C2	-6.67	121.10	125.10
38	BD	103	ARG	NE-CZ-NH1	-6.67	116.96	120.30
35	BA	94(A)	G	C5-N7-C8	-6.67	100.96	104.30
35	BA	173	G	C4-C5-N7	6.67	113.47	110.80
35	BA	1307	A	N1-C2-N3	-6.67	125.96	129.30
35	BA	1981	A	C5-N7-C8	-6.67	100.56	103.90
35	BA	2326	C	C6-N1-C2	-6.67	117.63	120.30
35	BA	399	G	N9-C1'-C2'	-6.67	104.66	112.00
35	BA	1629	U	C5-C6-N1	-6.67	119.36	122.70
35	BA	1756	G	N3-C4-C5	-6.67	125.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1779	U	C5'-C4'-O4'	6.67	117.11	109.10
51	BT	108	ARG	NE-CZ-NH2	-6.67	116.97	120.30
35	BA	402	A	O4'-C1'-N9	6.67	113.54	108.20
1	AA	116	A	N7-C8-N9	6.67	117.14	113.80
1	AA	1181	G	N3-C4-C5	-6.67	125.27	128.60
1	AA	1423	G	N1-C6-O6	6.67	123.90	119.90
1	AA	303	A	C5-N7-C8	6.67	107.23	103.90
1	AA	438	G	N1-C6-O6	-6.67	115.90	119.90
35	BA	121	G	C6-N1-C2	-6.67	121.10	125.10
35	BA	300	A	C8-N9-C4	6.67	108.47	105.80
35	BA	1327	C	C6-N1-C2	-6.67	117.63	120.30
35	BA	928	G	C8-N9-C4	-6.67	103.73	106.40
35	BA	1309	G	N7-C8-N9	6.67	116.43	113.10
35	BA	2877	G	C2-N3-C4	6.67	115.23	111.90
22	AV	42	G	C8-N9-C4	-6.66	103.73	106.40
35	BA	573	G	C2-N3-C4	6.66	115.23	111.90
1	AA	498	U	C2-N3-C4	6.66	131.00	127.00
1	AA	679	C	N3-C4-C5	6.66	124.56	121.90
35	BA	503	A	C2'-C3'-O3'	6.66	124.36	113.70
35	BA	1061	U	O4'-C1'-N1	6.66	113.53	108.20
35	BA	1792	G	N7-C8-N9	-6.66	109.77	113.10
1	AA	375	U	N3-C2-O2	6.66	126.86	122.20
1	AA	1165	C	C4-C5-C6	-6.66	114.07	117.40
35	BA	715	G	C1'-O4'-C4'	6.66	115.23	109.90
35	BA	816	C	N3-C4-N4	-6.66	113.34	118.00
35	BA	1777	U	C5'-C4'-C3'	-6.66	105.34	116.00
35	BA	272(D)	G	N9-C4-C5	6.66	108.06	105.40
35	BA	1011	G	N1-C6-O6	-6.66	115.91	119.90
35	BA	2444	G	C8-N9-C4	6.66	109.06	106.40
36	BB	19	G	C5-C6-O6	-6.66	124.60	128.60
39	BE	103	ASP	CB-CG-OD2	-6.66	112.31	118.30
35	BA	390	A	N9-C4-C5	6.66	108.46	105.80
35	BA	925	C	C1'-O4'-C4'	-6.66	104.58	109.90
1	AA	145	G	C5-C6-O6	-6.66	124.61	128.60
35	BA	263	C	C6-N1-C2	6.66	122.96	120.30
35	BA	745	G	C4-C5-N7	-6.66	108.14	110.80
35	BA	1846	G	N3-C4-C5	-6.66	125.27	128.60
1	AA	1111	A	C5-C6-N1	-6.65	114.37	117.70
35	BA	1489	U	N1-C2-N3	6.65	118.89	114.90
35	BA	2201	C	C5-C4-N4	-6.65	115.54	120.20
1	AA	926	G	C6-C5-N7	-6.65	126.41	130.40
1	AA	1086	U	N1-C2-N3	-6.65	110.91	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1307	A	N3-C4-N9	6.65	132.72	127.40
35	BA	1623	G	C5-N7-C8	6.65	107.62	104.30
35	BA	2738	A	N7-C8-N9	6.65	117.12	113.80
1	AA	527	G	C5-C6-N1	6.65	114.82	111.50
35	BA	821	A	C6-C5-N7	6.65	136.95	132.30
36	BB	73	A	C5-C6-N1	-6.65	114.38	117.70
35	BA	1527	G	C2-N3-C4	6.65	115.22	111.90
35	BA	1797	C	N3-C4-N4	-6.65	113.35	118.00
35	BA	2568	C	N1-C2-O2	-6.65	114.91	118.90
57	BZ	8	TYR	CB-CG-CD1	-6.65	117.01	121.00
1	AA	921	U	N3-C4-O4	-6.64	114.75	119.40
1	AA	1289	A	C6-C5-N7	-6.64	127.65	132.30
35	BA	257	A	C2-N3-C4	6.64	113.92	110.60
1	AA	715	A	C2-N3-C4	6.64	113.92	110.60
1	AA	1270	C	N1-C2-N3	-6.64	114.55	119.20
35	BA	118	A	N7-C8-N9	-6.64	110.48	113.80
1	AA	954	G	C8-N9-C4	-6.64	103.74	106.40
1	AA	1002	G	C2-N3-C4	-6.64	108.58	111.90
1	AA	1191	A	C4-C5-N7	6.64	114.02	110.70
35	BA	295	G	C6-N1-C2	6.64	129.08	125.10
35	BA	644	A	C2-N3-C4	6.64	113.92	110.60
35	BA	1800	C	N3-C4-C5	6.64	124.56	121.90
35	BA	2206	G	C8-N9-C4	-6.64	103.74	106.40
35	BA	2524	G	C4-C5-C6	6.64	122.78	118.80
35	BA	1430	C	N3-C4-C5	-6.64	119.25	121.90
1	AA	10	A	C8-N9-C4	-6.64	103.14	105.80
2	AB	30	ARG	NE-CZ-NH2	-6.64	116.98	120.30
35	BA	768	G	C5-C6-N1	6.64	114.82	111.50
36	BB	95	C	N1-C1'-C2'	-6.64	104.70	112.00
48	BQ	59	ARG	NE-CZ-NH1	6.64	123.62	120.30
1	AA	470	C	N3-C4-C5	6.63	124.55	121.90
22	AV	72	A	C2-N3-C4	6.63	113.92	110.60
35	BA	37	C	C2-N3-C4	6.63	123.22	119.90
35	BA	448	U	C2-N3-C4	-6.63	123.02	127.00
35	BA	1548	C	C5-C6-N1	-6.63	117.68	121.00
35	BA	2799	C	N3-C4-C5	6.63	124.55	121.90
35	BA	1928	A	C1'-O4'-C4'	-6.63	104.59	109.90
35	BA	2595	G	C5-N7-C8	6.63	107.62	104.30
1	AA	102	G	N3-C4-C5	-6.63	125.28	128.60
1	AA	220	G	C5-C6-O6	-6.63	124.62	128.60
1	AA	976	G	C8-N9-C4	-6.63	103.75	106.40
35	BA	1467	C	C6-N1-C2	-6.63	117.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2068	U	C6-N1-C2	-6.63	117.02	121.00
1	AA	1358	U	N1-C2-O2	-6.63	118.16	122.80
6	AF	46	ARG	NE-CZ-NH2	6.63	123.61	120.30
1	AA	1128	C	C5-C6-N1	6.63	124.31	121.00
35	BA	806	C	N3-C4-C5	6.63	124.55	121.90
35	BA	1404	C	N1-C2-O2	6.63	122.88	118.90
35	BA	2444	G	N9-C4-C5	-6.63	102.75	105.40
35	BA	2846	G	C8-N9-C4	6.63	109.05	106.40
36	BB	60	C	C2-N3-C4	6.63	123.21	119.90
1	AA	1504	G	C5-C6-O6	6.63	132.58	128.60
35	BA	812	C	N3-C4-N4	6.63	122.64	118.00
35	BA	1068	G	N9-C4-C5	6.63	108.05	105.40
35	BA	1562	A	C8-N9-C4	6.63	108.45	105.80
35	BA	1580	A	C2-N3-C4	-6.63	107.29	110.60
35	BA	2552	U	C5-C4-O4	6.63	129.88	125.90
16	AP	71	ARG	NE-CZ-NH2	-6.62	116.99	120.30
35	BA	397	G	C5-C6-O6	-6.62	124.63	128.60
35	BA	654(L)	G	C5-C6-N1	-6.62	108.19	111.50
35	BA	791	C	C6-N1-C2	6.62	122.95	120.30
35	BA	934	G	C5-N7-C8	-6.62	100.99	104.30
35	BA	1275	A	N1-C2-N3	6.62	132.61	129.30
35	BA	2837	G	N9-C4-C5	-6.62	102.75	105.40
1	AA	749	C	N3-C4-C5	-6.62	119.25	121.90
1	AA	1055	A	N1-C2-N3	6.62	132.61	129.30
35	BA	173	G	C5-C6-O6	-6.62	124.63	128.60
35	BA	791	C	N1-C2-N3	-6.62	114.56	119.20
35	BA	1128	A	C6-C5-N7	6.62	136.94	132.30
35	BA	2275	C	C5-C4-N4	-6.62	115.56	120.20
35	BA	2857	G	N7-C8-N9	-6.62	109.79	113.10
36	BB	79	C	N1-C2-O2	6.62	122.87	118.90
1	AA	918	A	C5-C6-N6	6.62	129.00	123.70
1	AA	1109	C	OP2-P-O3'	6.62	119.76	105.20
1	AA	1300	G	C5-C6-N1	-6.62	108.19	111.50
35	BA	545	C	C4-C5-C6	6.62	120.71	117.40
35	BA	1916	A	C4-C5-N7	-6.62	107.39	110.70
35	BA	2355	C	N1-C2-O2	-6.62	114.93	118.90
1	AA	105	G	C2-N3-C4	6.62	115.21	111.90
1	AA	143	A	N1-C2-N3	6.62	132.61	129.30
1	AA	276	G	N1-C6-O6	-6.62	115.93	119.90
1	AA	1089	G	N9-C4-C5	-6.62	102.75	105.40
1	AA	1092	A	O4'-C1'-N9	6.62	113.49	108.20
1	AA	1494	G	N7-C8-N9	6.62	116.41	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AP	47	ASP	CB-CG-OD1	-6.62	112.34	118.30
35	BA	58	G	C4-C5-N7	6.62	113.45	110.80
35	BA	1403	C	N3-C2-O2	-6.62	117.27	121.90
35	BA	1937	A	N1-C6-N6	6.62	122.57	118.60
1	AA	755	G	C5-C6-O6	6.62	132.57	128.60
35	BA	205	G	N9-C1'-C2'	6.62	122.60	114.00
35	BA	647	G	C4-C5-N7	6.62	113.45	110.80
35	BA	1349	A	C4-C5-N7	-6.62	107.39	110.70
35	BA	1416	G	N3-C4-C5	6.62	131.91	128.60
35	BA	2141	G	C8-N9-C4	6.62	109.05	106.40
1	AA	138	G	N3-C4-C5	-6.62	125.29	128.60
1	AA	1388	C	N1-C2-O2	6.62	122.87	118.90
35	BA	231	C	C6-N1-C2	-6.62	117.65	120.30
1	AA	876	G	C4-C5-C6	6.61	122.77	118.80
1	AA	1105	A	N1-C2-N3	6.61	132.61	129.30
35	BA	995	C	C6-N1-C2	6.61	122.94	120.30
35	BA	2388	A	N7-C8-N9	6.61	117.11	113.80
35	BA	2591	C	N1-C2-O2	6.61	122.87	118.90
1	AA	759	A	C5-N7-C8	6.61	107.20	103.90
17	AQ	81	ARG	CD-NE-CZ	-6.61	114.35	123.60
29	B4	44	THR	N-CA-C	6.61	128.85	111.00
35	BA	1413	G	C4-C5-N7	6.61	113.44	110.80
35	BA	1647	G	C5-C6-N1	6.61	114.81	111.50
40	BF	168	ARG	NE-CZ-NH2	-6.61	116.99	120.30
1	AA	406	G	C8-N9-C4	-6.61	103.76	106.40
1	AA	728	A	C2'-C3'-O3'	6.61	124.28	113.70
1	AA	1137	C	C3'-C2'-C1'	6.61	106.79	101.50
1	AA	1476	G	N3-C2-N2	-6.61	115.27	119.90
35	BA	321	G	C3'-C2'-C1'	6.61	106.79	101.50
35	BA	801	G	C5-C6-N1	6.61	114.80	111.50
35	BA	1536	C	N3-C4-C5	6.61	124.54	121.90
35	BA	2711	A	C6-N1-C2	-6.61	114.64	118.60
1	AA	1155	G	N3-C4-N9	6.61	129.96	126.00
1	AA	1242	C	N3-C2-O2	6.61	126.52	121.90
35	BA	1115	G	C2-N3-C4	6.61	115.20	111.90
35	BA	1819	A	C4-C5-C6	6.61	120.30	117.00
1	AA	301	G	N7-C8-N9	6.60	116.40	113.10
1	AA	522	C	C5-C4-N4	6.60	124.82	120.20
35	BA	1389	G	N7-C8-N9	-6.60	109.80	113.10
18	AR	35	ARG	NE-CZ-NH2	-6.60	117.00	120.30
35	BA	689	A	C4-C5-N7	-6.60	107.40	110.70
35	BA	2422	A	C2'-C3'-O3'	6.60	124.26	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2665	A	C5-C6-N1	6.60	121.00	117.70
1	AA	606	G	N3-C4-N9	-6.60	122.04	126.00
1	AA	1339	A	C5-C6-N1	-6.60	114.40	117.70
35	BA	2766	G	C5-C6-O6	6.60	132.56	128.60
1	AA	821	G	C8-N9-C4	-6.60	103.76	106.40
35	BA	1504	C	C5-C6-N1	6.60	124.30	121.00
38	BD	14	ARG	NE-CZ-NH1	-6.60	117.00	120.30
35	BA	1427	A	C5-N7-C8	-6.60	100.60	103.90
35	BA	1463	C	C5'-C4'-O4'	6.60	117.02	109.10
35	BA	2055	C	N3-C4-N4	6.60	122.62	118.00
35	BA	2230	G	N3-C4-C5	6.60	131.90	128.60
1	AA	457	C	C1'-O4'-C4'	6.59	115.18	109.90
1	AA	1467	G	C5-C6-N1	6.59	114.80	111.50
35	BA	20	C	O4'-C1'-N1	6.59	113.47	108.20
35	BA	173	G	C6-N1-C2	-6.59	121.14	125.10
35	BA	645	C	C2-N3-C4	6.59	123.20	119.90
35	BA	821	A	C2-N3-C4	-6.59	107.30	110.60
35	BA	1017	G	N9-C1'-C2'	-6.59	104.75	112.00
24	AY	674	ASP	CB-CG-OD2	6.59	124.23	118.30
45	BN	25	ARG	NE-CZ-NH1	6.59	123.60	120.30
1	AA	414	A	N1-C6-N6	-6.59	114.65	118.60
1	AA	1499	A	O5'-P-OP1	-6.59	99.77	105.70
35	BA	2666	C	C5-C6-N1	-6.59	117.70	121.00
1	AA	439	A	C4-C5-C6	-6.59	113.70	117.00
1	AA	1342	C	OP2-P-O3'	6.59	119.70	105.20
1	AA	1400	C	O4'-C1'-N1	-6.59	102.93	108.20
22	AV	29	G	N1-C6-O6	6.59	123.85	119.90
35	BA	319	C	C4-C5-C6	-6.59	114.11	117.40
35	BA	1997	G	C6-N1-C2	6.59	129.05	125.10
35	BA	2676	C	C4-C5-C6	-6.59	114.11	117.40
35	BA	2782	G	C5'-C4'-O4'	-6.59	101.19	109.10
35	BA	2831	G	C4-C5-N7	6.59	113.44	110.80
35	BA	2896	C	C3'-C2'-C1'	-6.59	96.23	101.50
35	BA	425	G	C6-C5-N7	6.59	134.35	130.40
35	BA	1197	G	C4-C5-N7	6.59	113.44	110.80
35	BA	2842	G	C4-C5-C6	-6.59	114.85	118.80
35	BA	1396	U	N1-C1'-C2'	6.59	122.56	114.00
35	BA	1427	A	C4-C5-N7	6.59	113.99	110.70
35	BA	1797	C	C2-N3-C4	-6.59	116.61	119.90
36	BB	115	G	C8-N9-C4	6.58	109.03	106.40
20	AT	32	ALA	CB-CA-C	-6.58	100.22	110.10
35	BA	30	G	N7-C8-N9	-6.58	109.81	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	38	G	N1-C2-N3	-6.58	119.95	123.90
35	BA	35	G	C8-N9-C4	-6.58	103.77	106.40
35	BA	392	C	C4-C5-C6	6.58	120.69	117.40
35	BA	759	G	N3-C4-N9	-6.58	122.05	126.00
35	BA	1044	G	N3-C4-C5	6.58	131.89	128.60
35	BA	1287	A	C5-N7-C8	-6.58	100.61	103.90
35	BA	663	G	N3-C4-N9	6.58	129.95	126.00
35	BA	2017	U	N3-C2-O2	-6.58	117.59	122.20
1	AA	189(E)	U	C2-N3-C4	6.58	130.95	127.00
3	AC	201	TYR	CB-CG-CD2	-6.58	117.05	121.00
35	BA	654(I)	C	C6-N1-C2	6.58	122.93	120.30
35	BA	1593	G	N3-C4-C5	-6.58	125.31	128.60
35	BA	1638	C	C4-C5-C6	-6.58	114.11	117.40
51	BT	29	ARG	NE-CZ-NH2	-6.58	117.01	120.30
35	BA	1678	G	C8-N9-C4	-6.58	103.77	106.40
38	BD	14	ARG	NE-CZ-NH2	-6.58	117.01	120.30
35	BA	1113	U	C5-C4-O4	-6.58	121.95	125.90
35	BA	1993	U	C2-N3-C4	6.58	130.95	127.00
35	BA	2200	C	C2-N3-C4	6.58	123.19	119.90
35	BA	2731	G	N7-C8-N9	-6.58	109.81	113.10
1	AA	1078	U	O4'-C1'-N1	-6.57	102.94	108.20
1	AA	1171	G	O4'-C1'-N9	6.57	113.46	108.20
35	BA	55	G	O4'-C1'-N9	6.57	113.46	108.20
35	BA	480	A	C3'-C2'-C1'	6.57	106.76	101.50
35	BA	1933	G	C2-N3-C4	6.57	115.19	111.90
35	BA	2193	G	C3'-C2'-C1'	-6.57	96.24	101.50
1	AA	276	G	C4-C5-N7	6.57	113.43	110.80
23	AX	14	A	N3-C4-C5	6.57	131.40	126.80
35	BA	104	U	C5-C4-O4	-6.57	121.96	125.90
35	BA	530	G	N3-C4-C5	-6.57	125.31	128.60
35	BA	599	G	N3-C4-N9	-6.57	122.06	126.00
35	BA	2110	G	N9-C4-C5	-6.57	102.77	105.40
35	BA	2754	U	O4'-C1'-N1	-6.57	102.94	108.20
33	B8	13	ARG	NE-CZ-NH2	-6.57	117.01	120.30
35	BA	1412	A	N7-C8-N9	6.57	117.08	113.80
35	BA	1718	G	N1-C6-O6	6.57	123.84	119.90
35	BA	1479	G	C5-N7-C8	-6.57	101.02	104.30
35	BA	1124	C	C6-N1-C2	-6.57	117.67	120.30
35	BA	1125	G	N1-C2-N3	-6.57	119.96	123.90
35	BA	1360	A	C4-C5-N7	6.57	113.98	110.70
35	BA	1366	A	C8-N9-C4	-6.57	103.17	105.80
35	BA	1523	U	C5-C4-O4	6.57	129.84	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	216	G	N3-C4-N9	-6.57	122.06	126.00
1	AA	384	G	C5-C6-N1	6.57	114.78	111.50
1	AA	621	A	C5-C6-N1	-6.57	114.42	117.70
1	AA	647	C	C5-C6-N1	6.57	124.28	121.00
35	BA	345	A	C6-N1-C2	6.57	122.54	118.60
35	BA	345	A	N1-C2-N3	-6.57	126.02	129.30
35	BA	497	A	C8-N9-C4	6.57	108.43	105.80
35	BA	580	C	O4'-C1'-N1	6.57	113.45	108.20
35	BA	1446	C	C6-N1-C2	6.57	122.93	120.30
35	BA	1750	G	N3-C4-C5	6.57	131.88	128.60
35	BA	1944	U	O4'-C1'-C2'	6.57	113.51	107.60
35	BA	475	U	C5-C4-O4	-6.56	121.96	125.90
35	BA	992	C	C4-C5-C6	6.56	120.68	117.40
1	AA	773	G	C5-N7-C8	6.56	107.58	104.30
1	AA	1472	U	C5-C6-N1	6.56	125.98	122.70
35	BA	693	C	C3'-C2'-C1'	-6.56	96.25	101.50
35	BA	2277	G	N7-C8-N9	-6.56	109.82	113.10
35	BA	2317	C	C5-C6-N1	6.56	124.28	121.00
35	BA	2489	G	O4'-C1'-N9	-6.56	102.95	108.20
35	BA	2728	U	C4-C5-C6	6.56	123.64	119.70
1	AA	1068	G	C2-N3-C4	6.56	115.18	111.90
35	BA	658	C	N3-C4-C5	-6.56	119.28	121.90
35	BA	2274	A	N9-C4-C5	6.56	108.42	105.80
49	BR	68	ARG	NE-CZ-NH1	-6.56	117.02	120.30
1	AA	191	G	N1-C6-O6	6.56	123.84	119.90
1	AA	1352	C	C3'-C2'-C1'	6.56	106.75	101.50
1	AA	1440	C	C3'-C2'-C1'	6.56	106.75	101.50
22	AV	12	G	N3-C2-N2	6.56	124.49	119.90
35	BA	96	G	C5-C6-O6	-6.56	124.67	128.60
35	BA	1514	U	N1-C2-N3	-6.56	110.96	114.90
35	BA	1825	A	N1-C2-N3	6.56	132.58	129.30
35	BA	2127	G	C1'-O4'-C4'	6.56	115.15	109.90
35	BA	2351	G	C5-N7-C8	6.56	107.58	104.30
1	AA	51	A	C2-N3-C4	6.56	113.88	110.60
1	AA	1481	U	N3-C2-O2	-6.56	117.61	122.20
35	BA	350	U	N3-C2-O2	6.56	126.79	122.20
35	BA	2833	G	C6-N1-C2	6.56	129.03	125.10
1	AA	603	U	C5-C6-N1	-6.56	119.42	122.70
1	AA	1098	C	N3-C4-C5	-6.56	119.28	121.90
23	AX	12	A	N9-C4-C5	6.56	108.42	105.80
31	B6	23	THR	N-CA-C	6.56	128.70	111.00
35	BA	739	G	C8-N9-C4	6.56	109.02	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	266	G	C5'-C4'-O4'	-6.55	101.23	109.10
1	AA	301	G	C2-N3-C4	6.55	115.18	111.90
1	AA	1375	A	C5'-C4'-C3'	-6.55	105.51	116.00
21	AU	7	ARG	NE-CZ-NH2	-6.55	117.02	120.30
35	BA	512	G	C4-C5-N7	6.55	113.42	110.80
35	BA	849	A	N7-C8-N9	6.55	117.08	113.80
35	BA	1284	A	C4-C5-C6	-6.55	113.72	117.00
36	BB	42	C	N3-C2-O2	-6.55	117.31	121.90
35	BA	707	G	C8-N9-C4	-6.55	103.78	106.40
35	BA	1597	A	C8-N9-C4	6.55	108.42	105.80
36	BB	90	A	C5-N7-C8	-6.55	100.62	103.90
1	AA	537	G	N7-C8-N9	-6.55	109.83	113.10
1	AA	1224	G	C2-N3-C4	6.55	115.17	111.90
5	AE	6	PHE	CB-CG-CD1	-6.55	116.21	120.80
13	AM	94	ARG	NE-CZ-NH1	-6.55	117.02	120.30
35	BA	177	G	N7-C8-N9	6.55	116.38	113.10
35	BA	2545	G	N1-C6-O6	6.55	123.83	119.90
1	AA	492	G	C1'-O4'-C4'	-6.55	104.66	109.90
35	BA	1037	G	N9-C4-C5	6.55	108.02	105.40
35	BA	1155	A	C2-N3-C4	-6.55	107.33	110.60
35	BA	2879	C	N3-C4-C5	6.55	124.52	121.90
1	AA	1476	G	C2-N3-C4	-6.55	108.63	111.90
35	BA	271(G)	C	C5-C4-N4	6.55	124.78	120.20
35	BA	1664	A	C2-N3-C4	-6.55	107.33	110.60
35	BA	1793	C	N1-C2-O2	6.55	122.83	118.90
57	BZ	8	TYR	CB-CG-CD2	6.55	124.93	121.00
35	BA	1592	C	N3-C2-O2	-6.54	117.32	121.90
35	BA	2555	U	O4'-C4'-C3'	-6.54	97.45	104.00
35	BA	53	A	C5-C6-N1	-6.54	114.43	117.70
35	BA	66	C	O4'-C1'-N1	6.54	113.44	108.20
35	BA	626	U	C1'-O4'-C4'	6.54	115.14	109.90
35	BA	935	C	C4-C5-C6	6.54	120.67	117.40
35	BA	1183	G	N9-C1'-C2'	-6.54	104.80	112.00
35	BA	1634	A	C4-C5-C6	6.54	120.27	117.00
35	BA	2355	C	C5-C6-N1	-6.54	117.73	121.00
1	AA	570	G	C6-C5-N7	-6.54	126.47	130.40
1	AA	1215	G	C6-N1-C2	-6.54	121.17	125.10
22	AV	17(A)	U	C2-N3-C4	6.54	130.93	127.00
35	BA	893	C	O4'-C1'-N1	6.54	113.43	108.20
35	BA	944	G	N9-C4-C5	-6.54	102.78	105.40
35	BA	1227	G	C5-C6-N1	6.54	114.77	111.50
35	BA	1414	G	C2-N3-C4	6.54	115.17	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1577	C	C4-C5-C6	6.54	120.67	117.40
35	BA	2616	C	C5-C6-N1	6.54	124.27	121.00
35	BA	2518	A	C3'-C2'-C1'	6.54	106.73	101.50
35	BA	2679	A	C3'-C2'-C1'	6.54	106.73	101.50
1	AA	240	C	N3-C4-C5	6.54	124.52	121.90
1	AA	1030(D)	A	N1-C2-N3	-6.54	126.03	129.30
1	AA	1299	A	C8-N9-C4	-6.54	103.18	105.80
35	BA	1756	G	C5-C6-N1	-6.54	108.23	111.50
35	BA	1789	A	C5-N7-C8	6.54	107.17	103.90
1	AA	539	A	C5-N7-C8	-6.54	100.63	103.90
35	BA	700	G	N3-C4-C5	6.54	131.87	128.60
35	BA	1966	A	C5-N7-C8	6.54	107.17	103.90
35	BA	2352	A	N3-C4-C5	-6.54	122.22	126.80
35	BA	2759	G	N1-C2-N3	-6.54	119.98	123.90
35	BA	256	A	C6-C5-N7	-6.54	127.72	132.30
35	BA	1405	U	C1'-O4'-C4'	-6.54	104.67	109.90
35	BA	2539	C	C5-C6-N1	6.54	124.27	121.00
35	BA	1250	G	C8-N9-C4	-6.53	103.79	106.40
35	BA	1608	A	C5-N7-C8	-6.53	100.63	103.90
35	BA	2130	U	C5-C4-O4	6.53	129.82	125.90
36	BB	85	G	N7-C8-N9	6.53	116.37	113.10
1	AA	577	G	C8-N9-C4	-6.53	103.79	106.40
35	BA	375	C	N3-C2-O2	-6.53	117.33	121.90
35	BA	1226	A	C4-C5-N7	6.53	113.97	110.70
1	AA	768	A	N9-C4-C5	6.53	108.41	105.80
35	BA	1685	C	C5-C6-N1	6.53	124.27	121.00
35	BA	1976	U	C5-C4-O4	6.53	129.82	125.90
1	AA	932	C	N3-C4-C5	6.53	124.51	121.90
1	AA	271	C	C6-N1-C2	6.53	122.91	120.30
1	AA	1225	A	N1-C6-N6	-6.53	114.68	118.60
35	BA	1547	C	C6-N1-C2	6.53	122.91	120.30
35	BA	1908	C	N1-C2-O2	6.53	122.82	118.90
35	BA	2272	U	C5-C6-N1	-6.53	119.44	122.70
36	BB	15	A	O4'-C1'-N9	6.53	113.42	108.20
1	AA	125	U	C2-N3-C4	6.53	130.91	127.00
1	AA	679	C	C4-C5-C6	-6.53	114.14	117.40
1	AA	831	U	C5-C4-O4	-6.53	121.98	125.90
1	AA	1197	G	C5-N7-C8	-6.53	101.04	104.30
1	AA	1333	A	C4-C5-N7	-6.53	107.44	110.70
8	AH	41	ARG	NE-CZ-NH1	-6.53	117.04	120.30
35	BA	311	A	N9-C4-C5	-6.53	103.19	105.80
35	BA	398	G	C2-N3-C4	-6.53	108.64	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	980	A	C4-C5-N7	-6.53	107.44	110.70
35	BA	2859	G	C6-N1-C2	6.53	129.01	125.10
1	AA	189(B)	C	N1-C2-O2	6.52	122.81	118.90
35	BA	520	G	N1-C6-O6	6.52	123.81	119.90
1	AA	221	C	C5-C6-N1	6.52	124.26	121.00
35	BA	682	G	N1-C2-N3	-6.52	119.99	123.90
35	BA	2772	C	C4-C5-C6	-6.52	114.14	117.40
36	BB	92	C	O4'-C1'-N1	6.52	113.42	108.20
35	BA	1386	C	N1-C2-O2	6.52	122.81	118.90
1	AA	164	U	N3-C4-C5	-6.52	110.69	114.60
1	AA	625	G	N9-C4-C5	-6.52	102.79	105.40
1	AA	1174	G	C5-N7-C8	6.52	107.56	104.30
35	BA	1279	G	C8-N9-C4	-6.52	103.79	106.40
35	BA	125	G	N9-C4-C5	-6.52	102.79	105.40
35	BA	180	G	C8-N9-C4	-6.52	103.79	106.40
35	BA	782	A	C8-N9-C4	6.52	108.41	105.80
35	BA	1543	C	C6-N1-C2	6.52	122.91	120.30
35	BA	1879	C	N1-C2-O2	-6.52	114.99	118.90
35	BA	2647	U	C5-C4-O4	6.52	129.81	125.90
1	AA	792	A	N7-C8-N9	-6.52	110.54	113.80
1	AA	822	C	N3-C4-C5	-6.52	119.29	121.90
1	AA	1502	A	C5'-C4'-O4'	-6.52	101.28	109.10
35	BA	976	C	C6-N1-C2	-6.52	117.69	120.30
35	BA	1981	A	N1-C2-N3	6.51	132.56	129.30
1	AA	976	G	N3-C4-N9	-6.51	122.09	126.00
35	BA	1022	G	C2-N3-C4	6.51	115.16	111.90
35	BA	1501	C	C5-C6-N1	-6.51	117.74	121.00
35	BA	1885	A	C5'-C4'-O4'	-6.51	101.28	109.10
1	AA	1251	A	C2-N3-C4	-6.51	107.34	110.60
8	AH	104	ARG	NE-CZ-NH2	6.51	123.56	120.30
35	BA	270	A	N1-C2-N3	-6.51	126.05	129.30
35	BA	271(U)	G	N3-C2-N2	6.51	124.46	119.90
35	BA	307	G	C5-C6-N1	-6.51	108.24	111.50
35	BA	1626	G	N1-C6-O6	6.51	123.81	119.90
35	BA	1903	G	C8-N9-C4	-6.51	103.80	106.40
35	BA	2474	C	C5-C6-N1	6.51	124.25	121.00
35	BA	2553	G	N7-C8-N9	-6.51	109.84	113.10
35	BA	2693	A	C8-N9-C4	-6.51	103.19	105.80
1	AA	632	A	C6-N1-C2	-6.51	114.69	118.60
1	AA	1375	A	C4-C5-N7	6.51	113.95	110.70
35	BA	62	C	C3'-C2'-C1'	6.51	106.71	101.50
35	BA	910	A	N1-C2-N3	6.51	132.56	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1562	A	N1-C6-N6	6.51	122.51	118.60
35	BA	1620	G	C5'-C4'-O4'	6.51	116.91	109.10
35	BA	1789	A	N9-C4-C5	-6.51	103.20	105.80
35	BA	2231	C	N3-C4-N4	-6.51	113.44	118.00
35	BA	2834	G	N9-C4-C5	-6.51	102.80	105.40
36	BB	78	A	C4-C5-C6	-6.51	113.75	117.00
1	AA	658	G	C6-N1-C2	-6.51	121.19	125.10
1	AA	526	C	N3-C2-O2	6.51	126.45	121.90
1	AA	1358	U	N1-C1'-C2'	6.51	122.46	114.00
35	BA	441	U	C5-C6-N1	6.51	125.95	122.70
35	BA	1329	U	N3-C4-O4	-6.51	114.85	119.40
35	BA	1391	U	C6-N1-C2	-6.51	117.10	121.00
35	BA	1496	A	C5-C6-N1	-6.51	114.45	117.70
35	BA	1694	C	C5-C6-N1	-6.51	117.75	121.00
35	BA	2384	G	C5-C6-O6	-6.51	124.70	128.60
1	AA	115	G	C4'-C3'-C2'	6.50	109.11	102.60
1	AA	827	U	N1-C2-O2	-6.50	118.25	122.80
1	AA	857	C	C4-C5-C6	6.50	120.65	117.40
35	BA	1051	G	C2-N3-C4	6.50	115.15	111.90
1	AA	976	G	N3-C4-C5	6.50	131.85	128.60
35	BA	113	G	N3-C4-C5	6.50	131.85	128.60
35	BA	122	G	N1-C6-O6	6.50	123.80	119.90
35	BA	665	C	C1'-O4'-C4'	-6.50	104.70	109.90
36	BB	112	U	C5-C6-N1	-6.50	119.45	122.70
1	AA	919	A	N1-C6-N6	-6.50	114.70	118.60
35	BA	11	G	N1-C6-O6	6.50	123.80	119.90
35	BA	102	G	C5-C6-N1	6.50	114.75	111.50
35	BA	506	G	C4-C5-N7	-6.50	108.20	110.80
35	BA	583	G	N1-C2-N3	-6.50	120.00	123.90
35	BA	885	C	O4'-C1'-N1	6.50	113.40	108.20
1	AA	271	C	C2-N3-C4	-6.50	116.65	119.90
1	AA	633	G	N3-C4-C5	-6.50	125.35	128.60
1	AA	1429	C	C6-N1-C2	-6.50	117.70	120.30
35	BA	44	G	N7-C8-N9	6.50	116.35	113.10
35	BA	840	C	N3-C2-O2	-6.50	117.35	121.90
35	BA	1487	G	N7-C8-N9	6.50	116.35	113.10
35	BA	1778	U	O4'-C1'-N1	6.50	113.40	108.20
35	BA	2796	U	O4'-C1'-N1	6.50	113.40	108.20
4	AD	10	ARG	NE-CZ-NH2	-6.50	117.05	120.30
35	BA	36	G	C4-C5-N7	-6.50	108.20	110.80
35	BA	286	C	N3-C2-O2	-6.50	117.35	121.90
35	BA	392	C	C2-N3-C4	-6.49	116.65	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1065	U	C1'-O4'-C4'	-6.49	104.71	109.90
35	BA	1378	A	N7-C8-N9	-6.49	110.55	113.80
35	BA	1878	G	C4-C5-N7	-6.49	108.20	110.80
35	BA	1988	C	C4-C5-C6	6.49	120.65	117.40
1	AA	108	G	N3-C4-N9	-6.49	122.11	126.00
35	BA	775	G	N3-C4-N9	-6.49	122.11	126.00
35	BA	2679	A	N1-C6-N6	-6.49	114.70	118.60
1	AA	1088	G	N3-C4-C5	6.49	131.85	128.60
1	AA	1194	U	N3-C4-O4	6.49	123.94	119.40
1	AA	1531	A	O4'-C1'-N9	-6.49	103.01	108.20
35	BA	1226	A	C4-C5-C6	-6.49	113.75	117.00
35	BA	1601	G	C2-N3-C4	-6.49	108.66	111.90
35	BA	2164	C	C6-N1-C2	-6.49	117.70	120.30
35	BA	2564	A	C8-N9-C4	-6.49	103.20	105.80
35	BA	2674	G	C5'-C4'-C3'	-6.49	105.62	116.00
1	AA	579	G	C2-N3-C4	6.49	115.14	111.90
19	AS	37	ARG	NE-CZ-NH1	6.49	123.54	120.30
35	BA	530	G	C8-N9-C4	-6.49	103.80	106.40
35	BA	1880	C	C4-C5-C6	-6.49	114.16	117.40
35	BA	2766	G	C5-C6-N1	-6.49	108.26	111.50
1	AA	219	C	C2-N3-C4	6.49	123.14	119.90
1	AA	838	G	N3-C2-N2	6.49	124.44	119.90
35	BA	558	G	C5-C6-N1	6.49	114.74	111.50
35	BA	582	G	N1-C2-N2	-6.49	110.36	116.20
35	BA	1300	U	C5-C6-N1	6.49	125.94	122.70
35	BA	572	A	C8-N9-C4	6.49	108.39	105.80
35	BA	1102	C	N3-C4-C5	-6.49	119.31	121.90
35	BA	1899	G	N9-C4-C5	6.49	108.00	105.40
35	BA	2191	G	C4-C5-N7	6.49	113.39	110.80
41	BG	12	TYR	CB-CG-CD2	-6.49	117.11	121.00
1	AA	1185	G	C6-N1-C2	-6.48	121.21	125.10
35	BA	941	A	N9-C4-C5	-6.48	103.21	105.80
35	BA	2799	C	C5-C4-N4	-6.48	115.66	120.20
35	BA	20	C	N3-C2-O2	-6.48	117.36	121.90
35	BA	1026	U	N3-C2-O2	-6.48	117.66	122.20
35	BA	1528(A)	A	C4-C5-N7	6.48	113.94	110.70
35	BA	2139	C	N3-C4-N4	6.48	122.54	118.00
3	AC	127	ARG	NE-CZ-NH1	6.48	123.54	120.30
35	BA	242	G	N1-C2-N3	6.48	127.79	123.90
35	BA	293	U	N3-C4-O4	6.48	123.94	119.40
36	BB	26	A	N1-C6-N6	6.48	122.49	118.60
1	AA	1524	C	C6-N1-C2	6.48	122.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	152	A	C8-N9-C4	6.48	108.39	105.80
1	AA	860	A	O4'-C1'-N9	-6.48	103.02	108.20
1	AA	1200	C	N3-C4-N4	6.48	122.53	118.00
35	BA	1646	C	N3-C4-C5	6.48	124.49	121.90
1	AA	742	G	C8-N9-C4	-6.48	103.81	106.40
35	BA	224	G	C2-N3-C4	-6.48	108.66	111.90
35	BA	768	G	C4-C5-N7	-6.48	108.21	110.80
36	BB	9	G	N9-C4-C5	-6.48	102.81	105.40
1	AA	1452	C	O4'-C1'-N1	6.47	113.38	108.20
35	BA	699	A	C2-N3-C4	-6.47	107.36	110.60
35	BA	2625	G	N7-C8-N9	-6.47	109.86	113.10
4	AD	59	ARG	NE-CZ-NH2	-6.47	117.06	120.30
35	BA	104	U	N3-C4-C5	6.47	118.48	114.60
35	BA	386	G	C5-N7-C8	6.47	107.54	104.30
35	BA	744	G	N3-C4-C5	6.47	131.84	128.60
35	BA	1419	A	N9-C4-C5	-6.47	103.21	105.80
1	AA	28	G	N1-C2-N2	6.47	122.02	116.20
1	AA	793	U	C3'-C2'-C1'	6.47	106.68	101.50
35	BA	1923	U	C2-N3-C4	6.47	130.88	127.00
35	BA	1933	G	N7-C8-N9	6.47	116.33	113.10
1	AA	1030(A)	G	C8-N9-C4	-6.47	103.81	106.40
1	AA	1158	C	N3-C4-N4	-6.47	113.47	118.00
35	BA	672	C	N3-C4-N4	-6.47	113.47	118.00
35	BA	801	G	C4-C5-N7	6.47	113.39	110.80
35	BA	2354	G	C2-N3-C4	6.47	115.13	111.90
1	AA	184	G	N9-C4-C5	-6.47	102.81	105.40
1	AA	801	U	C3'-C2'-C1'	6.47	106.67	101.50
1	AA	824	C	C5-C6-N1	-6.46	117.77	121.00
4	AD	107	ARG	CD-NE-CZ	6.46	132.65	123.60
35	BA	895	U	N1-C1'-C2'	-6.46	104.89	112.00
35	BA	997	G	C4-C5-C6	-6.46	114.92	118.80
35	BA	2038	G	C4-C5-N7	-6.46	108.21	110.80
35	BA	2490	G	N9-C4-C5	6.46	107.99	105.40
36	BB	32	C	C5-C4-N4	-6.46	115.67	120.20
35	BA	479	A	C4-C5-C6	-6.46	113.77	117.00
1	AA	640	A	N7-C8-N9	-6.46	110.57	113.80
1	AA	918	A	C5-N7-C8	6.46	107.13	103.90
1	AA	923	A	C4-C5-N7	6.46	113.93	110.70
35	BA	507	A	O4'-C1'-N9	6.46	113.37	108.20
35	BA	2752	C	C5-C4-N4	-6.46	115.68	120.20
1	AA	511	C	C6-N1-C2	-6.46	117.72	120.30
12	AL	86	ARG	NE-CZ-NH1	-6.46	117.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	156	G	C6-N1-C2	-6.46	121.22	125.10
1	AA	1322	C	O5'-P-OP2	-6.46	99.89	105.70
35	BA	1413	G	O4'-C1'-N9	-6.46	103.03	108.20
1	AA	507	C	C6-N1-C2	-6.46	117.72	120.30
1	AA	756	C	O4'-C1'-N1	6.46	113.36	108.20
3	AC	183	ASP	CB-CG-OD2	-6.46	112.49	118.30
17	AQ	63	ARG	NE-CZ-NH2	-6.46	117.07	120.30
35	BA	2265	U	C2-N3-C4	6.46	130.87	127.00
1	AA	1439	C	N3-C4-C5	6.46	124.48	121.90
35	BA	2066	C	C6-N1-C2	6.46	122.88	120.30
35	BA	2758	A	C8-N9-C4	6.46	108.38	105.80
1	AA	150	C	C5-C6-N1	-6.45	117.77	121.00
1	AA	242	C	N3-C4-C5	6.45	124.48	121.90
1	AA	438	G	N3-C4-N9	6.45	129.87	126.00
1	AA	1030(B)	C	N3-C4-C5	6.45	124.48	121.90
35	BA	266	G	C4-C5-N7	6.45	113.38	110.80
35	BA	537	C	N3-C4-C5	6.45	124.48	121.90
35	BA	1429	G	N3-C4-C5	6.45	131.83	128.60
35	BA	2787	C	N3-C2-O2	-6.45	117.38	121.90
1	AA	18	C	O4'-C1'-N1	6.45	113.36	108.20
35	BA	1969	A	N9-C4-C5	-6.45	103.22	105.80
35	BA	2038	G	N7-C8-N9	-6.45	109.87	113.10
1	AA	1217	C	C5-C4-N4	-6.45	115.69	120.20
35	BA	252	G	N3-C2-N2	-6.45	115.39	119.90
35	BA	598	G	N9-C4-C5	-6.45	102.82	105.40
35	BA	1353	A	N1-C6-N6	6.45	122.47	118.60
35	BA	1448	G	N3-C4-C5	-6.45	125.38	128.60
35	BA	1596	A	C4-C5-N7	6.45	113.92	110.70
51	BT	30	VAL	N-CA-C	6.45	128.42	111.00
1	AA	1281	U	N1-C2-N3	6.45	118.77	114.90
1	AA	1313	U	C1'-O4'-C4'	6.45	115.06	109.90
1	AA	1479	C	O4'-C1'-N1	6.45	113.36	108.20
35	BA	2026	C	C5-C6-N1	6.45	124.22	121.00
35	BA	2306	C	C2-N1-C1'	6.45	125.89	118.80
35	BA	2338	G	C5-C6-O6	-6.45	124.73	128.60
35	BA	2469	A	C5-N7-C8	-6.45	100.67	103.90
35	BA	2478	A	C5-N7-C8	6.45	107.12	103.90
1	AA	401	C	C6-N1-C2	6.45	122.88	120.30
1	AA	1089	G	O4'-C1'-N9	-6.45	103.04	108.20
35	BA	733	G	C5-C6-O6	-6.45	124.73	128.60
35	BA	1571	A	N1-C6-N6	-6.45	114.73	118.60
35	BA	2044	C	C4-C5-C6	6.45	120.62	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2752	C	C5'-C4'-C3'	-6.45	105.69	116.00
1	AA	30	U	C5-C4-O4	6.45	129.77	125.90
1	AA	166	G	C2-N3-C4	6.45	115.12	111.90
1	AA	189(G)	G	C4-C5-N7	-6.45	108.22	110.80
1	AA	344	A	C5-C6-N1	-6.45	114.48	117.70
1	AA	885	G	C4-C5-N7	6.45	113.38	110.80
35	BA	480	A	N1-C6-N6	-6.45	114.73	118.60
35	BA	666	G	N9-C4-C5	6.45	107.98	105.40
35	BA	35	G	N7-C8-N9	6.44	116.32	113.10
35	BA	200	U	N1-C2-O2	6.44	127.31	122.80
35	BA	900	A	N1-C6-N6	-6.44	114.73	118.60
35	BA	920	G	C3'-C2'-C1'	-6.44	96.34	101.50
35	BA	1883	G	C5-N7-C8	6.44	107.52	104.30
35	BA	2712(A)	A	N1-C6-N6	6.44	122.47	118.60
1	AA	1218	C	C6-N1-C2	-6.44	117.72	120.30
35	BA	1968	G	N9-C1'-C2'	-6.44	104.91	112.00
35	BA	2012	G	C4-C5-N7	6.44	113.38	110.80
35	BA	2648	C	N3-C4-C5	-6.44	119.32	121.90
36	BB	100	A	C5-N7-C8	6.44	107.12	103.90
51	BT	125	ARG	NE-CZ-NH2	6.44	123.52	120.30
1	AA	548	G	O4'-C1'-N9	6.44	113.35	108.20
1	AA	1122	U	C5-C6-N1	6.44	125.92	122.70
1	AA	1269	A	N9-C4-C5	-6.44	103.22	105.80
35	BA	255	A	N7-C8-N9	-6.44	110.58	113.80
35	BA	2134	A	C8-N9-C4	6.44	108.38	105.80
35	BA	259	G	C5-N7-C8	-6.44	101.08	104.30
35	BA	271(J)	C	N1-C2-O2	6.44	122.76	118.90
35	BA	748	G	C1'-O4'-C4'	-6.44	104.75	109.90
35	BA	931	G	N9-C4-C5	-6.44	102.83	105.40
35	BA	939	G	C5-N7-C8	6.44	107.52	104.30
35	BA	2000	G	N9-C1'-C2'	-6.44	104.92	112.00
35	BA	2688	U	N3-C2-O2	-6.44	117.69	122.20
1	AA	167	G	C3'-C2'-C1'	-6.44	96.35	101.50
1	AA	1075	C	C5-C6-N1	-6.44	117.78	121.00
9	AI	104	ARG	CA-C-N	-6.44	103.03	117.20
35	BA	62	C	C5-C6-N1	6.44	124.22	121.00
35	BA	653	A	N7-C8-N9	6.44	117.02	113.80
35	BA	1065	U	C5-C6-N1	6.44	125.92	122.70
35	BA	103	A	N7-C8-N9	-6.44	110.58	113.80
1	AA	104	G	C8-N9-C4	-6.43	103.83	106.40
1	AA	314	C	C5-C6-N1	6.43	124.22	121.00
1	AA	1124	G	C4-C5-N7	-6.43	108.23	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	247	G	C5-N7-C8	-6.43	101.08	104.30
35	BA	477	A	C6-N1-C2	-6.43	114.74	118.60
36	BB	106	G	C5-C6-O6	-6.43	124.74	128.60
1	AA	864	A	C8-N9-C4	-6.43	103.23	105.80
1	AA	1214	C	N3-C4-C5	6.43	124.47	121.90
1	AA	1319	A	C4-C5-N7	6.43	113.92	110.70
1	AA	1483	A	N7-C8-N9	-6.43	110.58	113.80
35	BA	363(A)	A	C4-C5-C6	6.43	120.22	117.00
35	BA	593	G	C5-N7-C8	-6.43	101.08	104.30
35	BA	642	G	C2-N3-C4	-6.43	108.68	111.90
35	BA	691	C	N3-C4-C5	-6.43	119.33	121.90
35	BA	1604	C	N3-C4-C5	-6.43	119.33	121.90
1	AA	348	G	N3-C4-N9	6.43	129.86	126.00
35	BA	95	G	C8-N9-C4	-6.43	103.83	106.40
35	BA	370	G	N1-C2-N2	6.43	121.99	116.20
35	BA	962	G	C5'-C4'-O4'	-6.43	101.39	109.10
1	AA	729	A	C5-C6-N6	-6.43	118.56	123.70
35	BA	973	A	C8-N9-C4	6.43	108.37	105.80
1	AA	442	C	C5-C6-N1	-6.43	117.79	121.00
35	BA	627	A	N1-C2-N3	6.43	132.51	129.30
35	BA	1118	C	N3-C4-C5	6.43	124.47	121.90
1	AA	247	G	C2-N3-C4	-6.42	108.69	111.90
1	AA	1318	A	C2-N3-C4	-6.42	107.39	110.60
35	BA	271(U)	G	C6-N1-C2	6.42	128.96	125.10
35	BA	2205	C	C2-N3-C4	-6.42	116.69	119.90
35	BA	2779	U	C6-N1-C2	-6.42	117.15	121.00
1	AA	52	G	C4-C5-N7	-6.42	108.23	110.80
1	AA	960	U	C6-N1-C2	-6.42	117.15	121.00
1	AA	1242	C	C2-N3-C4	6.42	123.11	119.90
35	BA	1916	A	N1-C6-N6	6.42	122.45	118.60
35	BA	1984	G	C2-N3-C4	6.42	115.11	111.90
1	AA	656	C	N3-C4-C5	6.42	124.47	121.90
35	BA	212	G	C4-C5-N7	6.42	113.37	110.80
35	BA	710	G	N3-C4-C5	-6.42	125.39	128.60
35	BA	1291	C	C2-N3-C4	-6.42	116.69	119.90
35	BA	1444	G	C5-N7-C8	-6.42	101.09	104.30
35	BA	2453	A	C4-C5-C6	-6.42	113.79	117.00
35	BA	2564	A	N1-C2-N3	-6.42	126.09	129.30
36	BB	36	C	C3'-C2'-C1'	-6.42	96.36	101.50
1	AA	903	G	N3-C4-C5	-6.42	125.39	128.60
1	AA	1307	U	O5'-P-OP1	-6.42	99.92	105.70
28	B3	31	LEU	O-C-N	6.42	132.97	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1700	A	C5-N7-C8	-6.42	100.69	103.90
35	BA	2199	A	N9-C4-C5	6.42	108.37	105.80
23	AX	21	C	C2-N3-C4	-6.42	116.69	119.90
35	BA	2501	C	C5-C6-N1	-6.42	117.79	121.00
1	AA	189(I)	G	N7-C8-N9	6.42	116.31	113.10
1	AA	1295	G	N3-C4-C5	-6.42	125.39	128.60
35	BA	1643	G	C5-C6-O6	6.42	132.45	128.60
35	BA	2479	G	C6-N1-C2	6.42	128.95	125.10
35	BA	68	G	C4-C5-N7	-6.42	108.23	110.80
1	AA	556	C	N3-C4-C5	6.41	124.47	121.90
29	B4	42	PHE	C-N-CA	6.41	137.73	121.70
35	BA	186	G	C5-C6-N1	6.41	114.71	111.50
35	BA	362	U	C3'-C2'-C1'	6.41	106.63	101.50
35	BA	472	A	N1-C2-N3	-6.41	126.09	129.30
35	BA	654(F)	C	O4'-C1'-N1	6.41	113.33	108.20
35	BA	2603	G	C3'-C2'-C1'	-6.41	96.37	101.50
38	BD	104	TYR	CB-CG-CD1	6.41	124.85	121.00
1	AA	31	G	N9-C4-C5	6.41	107.97	105.40
1	AA	774	G	N1-C6-O6	-6.41	116.05	119.90
11	AK	91	ARG	NE-CZ-NH1	-6.41	117.09	120.30
36	BB	113	G	O4'-C1'-N9	-6.41	103.07	108.20
1	AA	860	A	C6-C5-N7	-6.41	127.81	132.30
2	AB	55	PHE	CB-CG-CD2	-6.41	116.31	120.80
24	AY	619	ASP	CB-CG-OD2	-6.41	112.53	118.30
35	BA	1022	G	C5-N7-C8	6.41	107.50	104.30
35	BA	1577	C	N1-C2-O2	6.41	122.75	118.90
1	AA	81	U	N3-C4-O4	-6.41	114.91	119.40
1	AA	498	U	C5'-C4'-O4'	6.41	116.79	109.10
1	AA	584	G	N1-C6-O6	-6.41	116.05	119.90
35	BA	2627	G	C5-N7-C8	-6.41	101.09	104.30
1	AA	687	A	N7-C8-N9	6.41	117.00	113.80
1	AA	1272	G	C2-N3-C4	6.41	115.10	111.90
35	BA	860	U	C5-C4-O4	6.41	129.74	125.90
1	AA	1422	G	C1'-O4'-C4'	-6.41	104.78	109.90
35	BA	826	U	C5-C6-N1	-6.41	119.50	122.70
35	BA	1243	G	C6-N1-C2	6.41	128.94	125.10
35	BA	1286	A	N9-C4-C5	-6.41	103.24	105.80
51	BT	64	ARG	NE-CZ-NH2	-6.41	117.10	120.30
1	AA	811	C	N1-C2-O2	-6.40	115.06	118.90
24	AY	35	TYR	CB-CG-CD1	6.40	124.84	121.00
35	BA	2585	U	N3-C4-O4	6.40	123.88	119.40
1	AA	832	C	N3-C4-C5	6.40	124.46	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	743	G	C5-C6-N1	6.40	114.70	111.50
1	AA	538	G	O4'-C1'-N9	-6.40	103.08	108.20
1	AA	1295	G	N1-C6-O6	-6.40	116.06	119.90
35	BA	1510	G	N7-C8-N9	-6.40	109.90	113.10
35	BA	2231	C	C5-C6-N1	-6.40	117.80	121.00
35	BA	2578	G	C6-N1-C2	6.40	128.94	125.10
49	BR	103	ARG	NE-CZ-NH2	6.40	123.50	120.30
1	AA	457	C	N3-C4-C5	-6.40	119.34	121.90
35	BA	372	G	C5-N7-C8	6.40	107.50	104.30
1	AA	445	G	C1'-O4'-C4'	-6.40	104.78	109.90
1	AA	563	A	C8-N9-C4	6.40	108.36	105.80
1	AA	582	U	C6-N1-C2	-6.40	117.16	121.00
1	AA	608	A	C6-N1-C2	-6.40	114.76	118.60
35	BA	213	A	C4-C5-N7	6.40	113.90	110.70
36	BB	20	C	O4'-C1'-N1	6.40	113.32	108.20
35	BA	2491	U	C6-N1-C2	-6.40	117.16	121.00
35	BA	290	G	C5-N7-C8	-6.39	101.10	104.30
35	BA	300	A	C6-N1-C2	-6.39	114.76	118.60
35	BA	879	G	C2-N3-C4	-6.39	108.70	111.90
35	BA	909	A	N7-C8-N9	6.39	117.00	113.80
35	BA	1369	G	N1-C6-O6	-6.39	116.06	119.90
35	BA	1598	C	C4'-C3'-C2'	-6.39	96.21	102.60
35	BA	2229	C	N3-C4-C5	-6.39	119.34	121.90
40	BF	23	ASP	CB-CG-OD1	-6.39	112.55	118.30
1	AA	1197	G	C2-N3-C4	-6.39	108.70	111.90
35	BA	940	G	C5-C6-O6	-6.39	124.76	128.60
35	BA	1576	U	C2-N3-C4	6.39	130.84	127.00
9	AI	121	ARG	NE-CZ-NH1	6.39	123.50	120.30
35	BA	2704	C	O4'-C1'-N1	6.39	113.31	108.20
35	BA	619	G	N3-C4-C5	-6.39	125.41	128.60
35	BA	2421	G	C4-C5-N7	6.39	113.36	110.80
35	BA	422	A	C5-C6-N1	-6.39	114.51	117.70
1	AA	142	G	C5-C6-N1	-6.39	108.31	111.50
1	AA	366	C	C2'-C3'-O3'	6.39	123.92	113.70
1	AA	406	G	N1-C2-N3	-6.39	120.07	123.90
1	AA	1425	U	C5-C6-N1	6.39	125.89	122.70
35	BA	1399	C	N1-C2-N3	-6.39	114.73	119.20
36	BB	40	U	N1-C1'-C2'	6.39	122.30	114.00
41	BG	146	TYR	CB-CG-CD2	-6.39	117.17	121.00
56	BY	97	ARG	NE-CZ-NH2	-6.39	117.11	120.30
1	AA	785	G	N1-C6-O6	6.38	123.73	119.90
18	AR	34	TYR	CG-CD1-CE1	6.38	126.41	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	411	G	C5-N7-C8	-6.38	101.11	104.30
35	BA	2576	G	N3-C2-N2	6.38	124.37	119.90
35	BA	2864	G	C4-C5-C6	6.38	122.63	118.80
2	AB	178	ARG	NE-CZ-NH2	-6.38	117.11	120.30
16	AP	17	TYR	CB-CG-CD2	-6.38	117.17	121.00
35	BA	522	G	N9-C4-C5	6.38	107.95	105.40
35	BA	809	G	N3-C4-C5	-6.38	125.41	128.60
35	BA	1661	G	C5'-C4'-O4'	6.38	116.76	109.10
1	AA	1039	C	O4'-C1'-N1	6.38	113.30	108.20
7	AG	95	ARG	NE-CZ-NH2	-6.38	117.11	120.30
35	BA	1624	G	C5-C6-N1	6.38	114.69	111.50
51	BT	39	ARG	NE-CZ-NH2	6.38	123.49	120.30
1	AA	5	U	N3-C4-C5	6.38	118.43	114.60
1	AA	453	A	N9-C4-C5	-6.38	103.25	105.80
1	AA	854	G	N3-C4-N9	6.38	129.83	126.00
1	AA	933	G	C2-N3-C4	-6.38	108.71	111.90
35	BA	118	A	C5-N7-C8	6.38	107.09	103.90
35	BA	2347	C	C5-C4-N4	-6.38	115.73	120.20
35	BA	2792	G	N7-C8-N9	6.38	116.29	113.10
45	BN	3	THR	N-CA-C	-6.38	93.78	111.00
1	AA	729	A	N1-C6-N6	6.38	122.43	118.60
1	AA	1289	A	N9-C4-C5	-6.38	103.25	105.80
35	BA	139	G	C4-C5-N7	6.38	113.35	110.80
35	BA	271(S)	G	C4-C5-C6	6.38	122.63	118.80
35	BA	631	A	O4'-C1'-N9	6.38	113.30	108.20
35	BA	654(C)	G	C6-C5-N7	-6.38	126.57	130.40
35	BA	828	U	C5-C6-N1	-6.38	119.51	122.70
35	BA	935	C	C6-N1-C2	6.38	122.85	120.30
35	BA	1394	U	C5-C6-N1	-6.38	119.51	122.70
35	BA	2015	A	N9-C1'-C2'	6.38	122.29	114.00
35	BA	2161	C	C4-C5-C6	6.38	120.59	117.40
35	BA	2809	A	O4'-C1'-N9	6.38	113.30	108.20
1	AA	189(H)	G	N3-C4-C5	-6.38	125.41	128.60
1	AA	1260	C	N3-C2-O2	6.38	126.36	121.90
1	AA	126	G	C4-C5-C6	6.37	122.62	118.80
1	AA	471	G	C2-N3-C4	6.37	115.09	111.90
1	AA	1049	U	N1-C2-O2	6.37	127.26	122.80
1	AA	1086	U	N1-C2-O2	6.37	127.26	122.80
35	BA	744	G	C5'-C4'-C3'	-6.37	105.80	116.00
35	BA	2060	A	N7-C8-N9	6.37	116.99	113.80
36	BB	117	G	N3-C4-C5	-6.37	125.41	128.60
1	AA	1345	U	N3-C4-C5	-6.37	110.78	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	400	G	N7-C8-N9	-6.37	109.91	113.10
35	BA	615	G	C4-C5-C6	-6.37	114.98	118.80
35	BA	2606	C	C5-C4-N4	-6.37	115.74	120.20
35	BA	2834	G	C8-N9-C4	6.37	108.95	106.40
1	AA	106	C	C6-N1-C2	6.37	122.85	120.30
1	AA	1422	G	C4-C5-C6	-6.37	114.98	118.80
21	AU	21	TYR	CB-CG-CD1	6.37	124.82	121.00
35	BA	2007	C	N1-C2-O2	-6.37	115.08	118.90
1	AA	772	U	C5-C6-N1	6.37	125.89	122.70
35	BA	71	A	N1-C2-N3	-6.37	126.12	129.30
35	BA	902	C	C6-N1-C2	-6.37	117.75	120.30
35	BA	2159	G	C2-N3-C4	-6.37	108.72	111.90
1	AA	1267	C	C5-C6-N1	-6.37	117.82	121.00
35	BA	2639	A	C5-C6-N1	6.37	120.88	117.70
1	AA	639	G	C4'-C3'-C2'	-6.37	96.23	102.60
1	AA	662	G	N3-C4-C5	-6.37	125.42	128.60
1	AA	1419	G	C5-C6-O6	-6.37	124.78	128.60
35	BA	143	G	N1-C2-N2	-6.37	110.47	116.20
35	BA	226	G	C2-N3-C4	6.37	115.08	111.90
35	BA	1781	C	C6-N1-C2	-6.37	117.75	120.30
35	BA	2355	C	C4-C5-C6	6.37	120.58	117.40
1	AA	1086	U	N3-C4-O4	6.36	123.86	119.40
35	BA	271(M)	G	O4'-C1'-N9	6.36	113.29	108.20
35	BA	458	G	C8-N9-C4	6.36	108.95	106.40
35	BA	1561	G	N1-C2-N2	-6.36	110.47	116.20
35	BA	1718	G	C5'-C4'-O4'	-6.36	101.46	109.10
36	BB	15	A	C5-C6-N6	-6.36	118.61	123.70
1	AA	1117	G	C8-N9-C4	-6.36	103.86	106.40
35	BA	784	A	N9-C1'-C2'	6.36	122.27	114.00
35	BA	1654	A	O4'-C1'-N9	6.36	113.29	108.20
1	AA	320	C	N3-C4-C5	-6.36	119.36	121.90
35	BA	119	A	C1'-O4'-C4'	-6.36	104.81	109.90
35	BA	468	G	C4-C5-N7	6.36	113.34	110.80
35	BA	1691	C	O4'-C1'-N1	-6.36	103.11	108.20
35	BA	2181	G	C8-N9-C4	-6.36	103.86	106.40
35	BA	92	A	N1-C6-N6	-6.36	114.78	118.60
35	BA	406	G	N3-C2-N2	6.36	124.35	119.90
1	AA	237	C	N1-C1'-C2'	-6.36	105.01	112.00
1	AA	523	A	C8-N9-C4	-6.36	103.26	105.80
1	AA	527	G	N1-C2-N2	6.36	121.92	116.20
35	BA	179	G	N9-C4-C5	6.36	107.94	105.40
35	BA	1692	U	N3-C2-O2	-6.36	117.75	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1799	G	C6-N1-C2	-6.36	121.28	125.10
35	BA	2647	U	N3-C2-O2	-6.36	117.75	122.20
1	AA	1037	C	N3-C4-C5	-6.36	119.36	121.90
22	AV	17	C	C4-C5-C6	-6.36	114.22	117.40
35	BA	1441	G	N7-C8-N9	6.36	116.28	113.10
1	AA	358	U	C4-C5-C6	-6.35	115.89	119.70
1	AA	979	C	C2-N3-C4	-6.35	116.72	119.90
1	AA	1497	G	C2-N3-C4	6.35	115.08	111.90
2	AB	163	PHE	CB-CG-CD1	6.35	125.25	120.80
35	BA	717	G	C5-C6-N1	6.35	114.68	111.50
35	BA	1466	G	C4-C5-N7	6.35	113.34	110.80
1	AA	143	A	C4-C5-C6	6.35	120.18	117.00
1	AA	824	C	C6-N1-C2	6.35	122.84	120.30
35	BA	647	G	C8-N9-C4	-6.35	103.86	106.40
35	BA	917	A	C4-C5-N7	-6.35	107.53	110.70
35	BA	1266	G	N7-C8-N9	-6.35	109.92	113.10
1	AA	1008	C	C2-N3-C4	-6.35	116.72	119.90
35	BA	16	G	C5-C6-N1	-6.35	108.33	111.50
35	BA	1559	G	N1-C6-O6	6.35	123.71	119.90
35	BA	2462	U	C5-C4-O4	-6.35	122.09	125.90
1	AA	648	A	N9-C4-C5	6.35	108.34	105.80
22	AV	12	G	N9-C4-C5	-6.35	102.86	105.40
22	AV	73	A	N1-C2-N3	-6.35	126.13	129.30
35	BA	118	A	C8-N9-C4	6.35	108.34	105.80
35	BA	472	A	N7-C8-N9	6.35	116.97	113.80
35	BA	1986	A	C5-C6-N1	-6.35	114.53	117.70
35	BA	2481	G	C5-N7-C8	6.35	107.47	104.30
35	BA	2576	G	N1-C2-N2	-6.35	110.49	116.20
35	BA	2696	U	N1-C2-N3	6.35	118.71	114.90
1	AA	537	G	C5-C6-N1	-6.35	108.33	111.50
35	BA	1851	U	O4'-C1'-N1	-6.35	103.12	108.20
1	AA	13	U	O4'-C1'-N1	6.34	113.28	108.20
35	BA	960	A	C5-C6-N6	6.34	128.78	123.70
35	BA	1117	G	C5-C6-O6	6.34	132.41	128.60
35	BA	2667	C	C5-C6-N1	6.34	124.17	121.00
40	BF	62	ARG	NE-CZ-NH1	6.34	123.47	120.30
35	BA	701	G	C8-N9-C4	6.34	108.94	106.40
35	BA	1073	A	C5-C6-N1	-6.34	114.53	117.70
35	BA	1097	U	O4'-C1'-N1	6.34	113.27	108.20
35	BA	1198	U	C2-N3-C4	-6.34	123.19	127.00
1	AA	515	G	N3-C4-N9	-6.34	122.19	126.00
35	BA	1048	A	C2-N3-C4	-6.34	107.43	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1087	G	N3-C4-N9	-6.34	122.20	126.00
35	BA	1987	G	C1'-O4'-C4'	6.34	114.97	109.90
35	BA	2400	G	C4-C5-C6	6.34	122.60	118.80
1	AA	373	A	O4'-C1'-N9	-6.34	103.13	108.20
1	AA	579	G	N3-C4-C5	-6.34	125.43	128.60
1	AA	733	A	O4'-C1'-N9	-6.34	103.13	108.20
35	BA	1313	U	O4'-C1'-N1	6.34	113.27	108.20
35	BA	1825	A	N1-C6-N6	-6.34	114.80	118.60
1	AA	129(A)	G	N1-C2-N2	6.34	121.90	116.20
35	BA	248	G	N9-C4-C5	-6.34	102.86	105.40
1	AA	642	A	N1-C6-N6	-6.34	114.80	118.60
24	AY	197	ARG	NE-CZ-NH1	-6.34	117.13	120.30
35	BA	271(S)	G	C8-N9-C4	-6.34	103.86	106.40
35	BA	800	A	C5-C6-N1	-6.34	114.53	117.70
35	BA	2082	A	C5-N7-C8	-6.34	100.73	103.90
35	BA	2089	U	C4-C5-C6	6.34	123.50	119.70
35	BA	2234	G	N3-C4-C5	-6.34	125.43	128.60
4	AD	73	ARG	NE-CZ-NH2	-6.33	117.13	120.30
35	BA	20	C	N1-C2-O2	6.33	122.70	118.90
35	BA	358	U	C1'-O4'-C4'	-6.33	104.83	109.90
35	BA	559	G	C8-N9-C4	-6.33	103.87	106.40
35	BA	621	A	C6-C5-N7	-6.33	127.87	132.30
35	BA	1275	A	C5-C6-N6	6.33	128.77	123.70
35	BA	1440	G	C4-C5-N7	-6.33	108.27	110.80
1	AA	592	G	C5-C6-N1	6.33	114.67	111.50
1	AA	684	A	O4'-C1'-N9	6.33	113.27	108.20
35	BA	451	C	C5-C6-N1	-6.33	117.83	121.00
35	BA	1098	A	O4'-C1'-N9	6.33	113.27	108.20
35	BA	1631	C	C6-N1-C2	-6.33	117.77	120.30
35	BA	1882	C	N3-C4-C5	6.33	124.43	121.90
35	BA	2030	A	C1'-O4'-C4'	-6.33	104.83	109.90
1	AA	577	G	C5-C6-N1	6.33	114.66	111.50
35	BA	28	A	N1-C6-N6	-6.33	114.80	118.60
35	BA	654(J)	A	O4'-C1'-N9	6.33	113.26	108.20
1	AA	146	G	N3-C4-C5	-6.33	125.44	128.60
35	BA	285	C	C6-N1-C2	6.33	122.83	120.30
1	AA	769	G	C5-N7-C8	6.33	107.46	104.30
24	AY	439	ARG	NE-CZ-NH1	-6.33	117.14	120.30
35	BA	139	G	N3-C4-C5	6.33	131.76	128.60
35	BA	271(U)	G	C4-C5-N7	-6.33	108.27	110.80
35	BA	1022	G	N7-C8-N9	-6.33	109.94	113.10
35	BA	1069	A	N3-C4-C5	-6.33	122.37	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1242	A	C2-N3-C4	-6.33	107.44	110.60
35	BA	1368	G	N1-C2-N3	6.33	127.69	123.90
35	BA	2505	G	N3-C4-N9	6.33	129.79	126.00
1	AA	695	A	C5-C6-N1	-6.32	114.54	117.70
22	AV	76	A	C4-C5-C6	6.32	120.16	117.00
35	BA	304	G	C6-N1-C2	6.32	128.89	125.10
35	BA	1645	G	N3-C2-N2	6.32	124.33	119.90
35	BA	1822	G	N3-C4-N9	-6.32	122.21	126.00
35	BA	1933	G	N9-C4-C5	6.32	107.93	105.40
1	AA	447	G	C6-C5-N7	-6.32	126.61	130.40
35	BA	582	G	C8-N9-C4	-6.32	103.87	106.40
35	BA	895	U	C6-N1-C2	-6.32	117.21	121.00
35	BA	2409	G	C4-C5-C6	-6.32	115.01	118.80
1	AA	1030(C)	G	N3-C4-N9	-6.32	122.21	126.00
35	BA	1655	A	N9-C4-C5	6.32	108.33	105.80
35	BA	2125	G	N1-C2-N3	6.32	127.69	123.90
35	BA	2842	G	N1-C2-N3	-6.32	120.11	123.90
1	AA	798	G	C6-N1-C2	-6.32	121.31	125.10
4	AD	66	ARG	NE-CZ-NH1	6.32	123.46	120.30
35	BA	537	C	N3-C2-O2	-6.32	117.48	121.90
35	BA	2846	G	N3-C4-N9	6.32	129.79	126.00
1	AA	514	C	C2-N3-C4	6.32	123.06	119.90
1	AA	1255	G	C5-C6-N1	-6.32	108.34	111.50
35	BA	557	U	N3-C2-O2	-6.32	117.78	122.20
35	BA	1056	G	N9-C4-C5	-6.32	102.87	105.40
35	BA	2182	G	C2-N3-C4	-6.32	108.74	111.90
35	BA	2322	A	N1-C2-N3	-6.32	126.14	129.30
1	AA	231	G	C2-N3-C4	6.32	115.06	111.90
1	AA	360	A	N9-C1'-C2'	-6.32	105.05	112.00
1	AA	647	C	C2-N3-C4	6.32	123.06	119.90
1	AA	776	G	C2-N3-C4	6.32	115.06	111.90
1	AA	1050	G	N7-C8-N9	-6.32	109.94	113.10
1	AA	1298	C	O4'-C1'-N1	6.32	113.25	108.20
22	AV	40	C	N1-C2-O2	6.32	122.69	118.90
35	BA	730	C	C2-N3-C4	-6.32	116.74	119.90
35	BA	1296	G	C8-N9-C4	6.32	108.93	106.40
35	BA	1933	G	C4-C5-N7	-6.32	108.27	110.80
1	AA	1423	G	C4-C5-C6	6.31	122.59	118.80
35	BA	357	A	N1-C2-N3	-6.31	126.14	129.30
35	BA	1051	G	N3-C4-C5	-6.31	125.44	128.60
35	BA	1242	A	C5-C6-N1	-6.31	114.54	117.70
1	AA	799	G	N3-C4-N9	6.31	129.79	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	309	G	C6-C5-N7	6.31	134.19	130.40
35	BA	532	A	C8-N9-C4	-6.31	103.28	105.80
35	BA	849	A	N9-C1'-C2'	-6.31	105.06	112.00
35	BA	991	C	N3-C4-C5	-6.31	119.38	121.90
35	BA	2361	A	C6-N1-C2	6.31	122.39	118.60
35	BA	2465	C	N1-C2-O2	-6.31	115.11	118.90
1	AA	1013	G	C6-N1-C2	-6.31	121.31	125.10
35	BA	908	C	C5-C6-N1	-6.31	117.84	121.00
35	BA	1185	C	C2-N3-C4	6.31	123.06	119.90
35	BA	1256	G	N1-C2-N3	-6.31	120.11	123.90
35	BA	2859	G	C1'-O4'-C4'	-6.31	104.85	109.90
36	BB	47	C	N3-C4-C5	-6.31	119.38	121.90
1	AA	1234	C	C1'-O4'-C4'	-6.31	104.85	109.90
35	BA	415	A	N9-C4-C5	6.31	108.32	105.80
35	BA	654(U)	A	C8-N9-C4	-6.31	103.28	105.80
35	BA	2332	U	N3-C4-O4	-6.31	114.98	119.40
1	AA	1256	A	O4'-C1'-N9	-6.31	103.16	108.20
35	BA	186	G	O4'-C1'-N9	-6.31	103.16	108.20
35	BA	1820	U	C3'-C2'-C1'	-6.31	96.45	101.50
35	BA	2271	G	C6-N1-C2	-6.31	121.32	125.10
35	BA	2378	A	C2-N3-C4	-6.31	107.45	110.60
1	AA	625	G	C8-N9-C4	6.31	108.92	106.40
23	AX	14	A	C1'-O4'-C4'	-6.30	104.86	109.90
24	AY	108	PHE	CB-CG-CD2	6.30	125.21	120.80
35	BA	71	A	C2-N3-C4	6.30	113.75	110.60
35	BA	718	A	C8-N9-C4	-6.30	103.28	105.80
35	BA	853	G	N3-C4-N9	6.30	129.78	126.00
35	BA	1586	A	N9-C4-C5	-6.30	103.28	105.80
35	BA	1616	A	N9-C4-C5	6.30	108.32	105.80
35	BA	2570	G	C5-C6-N1	-6.30	108.35	111.50
35	BA	290	G	N7-C8-N9	6.30	116.25	113.10
1	AA	256	U	O4'-C1'-N1	-6.30	103.16	108.20
1	AA	801	U	N3-C4-C5	6.30	118.38	114.60
35	BA	349	G	N3-C4-N9	6.30	129.78	126.00
35	BA	466	A	N1-C2-N3	6.30	132.45	129.30
35	BA	2405	G	O4'-C1'-N9	6.30	113.24	108.20
35	BA	651	G	N1-C6-O6	6.30	123.68	119.90
35	BA	700	G	C6-N1-C2	-6.30	121.32	125.10
35	BA	776	G	N3-C4-C5	-6.30	125.45	128.60
35	BA	1122	G	C2-N3-C4	-6.30	108.75	111.90
35	BA	1631(A)	A	O4'-C1'-N9	6.30	113.24	108.20
35	BA	2024	G	N1-C6-O6	-6.30	116.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2759	G	N9-C1'-C2'	-6.30	105.07	112.00
1	AA	602	A	C3'-C2'-C1'	-6.30	96.46	101.50
35	BA	2444	G	O4'-C1'-N9	-6.30	103.16	108.20
1	AA	473	G	C1'-O4'-C4'	-6.30	104.86	109.90
35	BA	799	G	N3-C4-C5	6.30	131.75	128.60
35	BA	1308	A	N7-C8-N9	6.30	116.95	113.80
35	BA	1520	G	N3-C4-N9	6.30	129.78	126.00
1	AA	564	C	N3-C4-C5	6.29	124.42	121.90
35	BA	2353	G	P-O3'-C3'	6.29	127.25	119.70
1	AA	68	G	N1-C2-N3	6.29	127.68	123.90
1	AA	1236	A	N1-C2-N3	6.29	132.45	129.30
35	BA	813	U	C5-C6-N1	-6.29	119.55	122.70
35	BA	872	A	C2-N3-C4	6.29	113.75	110.60
35	BA	1252	G	N7-C8-N9	6.29	116.25	113.10
35	BA	2282	G	C2-N3-C4	6.29	115.05	111.90
36	BB	7	G	C6-N1-C2	-6.29	121.32	125.10
1	AA	41	G	C4-C5-C6	-6.29	115.03	118.80
1	AA	980	C	C2-N3-C4	-6.29	116.75	119.90
35	BA	358	U	O4'-C1'-C2'	6.29	113.26	107.60
35	BA	1127	A	C1'-O4'-C4'	-6.29	104.87	109.90
35	BA	1845	G	N3-C2-N2	-6.29	115.50	119.90
1	AA	1304	G	N9-C4-C5	-6.29	102.88	105.40
22	AV	39	C	N3-C4-N4	6.29	122.40	118.00
24	AY	637	ARG	NE-CZ-NH2	-6.29	117.16	120.30
35	BA	272(I)	U	N3-C4-O4	6.29	123.80	119.40
35	BA	1282	U	C6-N1-C2	-6.29	117.23	121.00
35	BA	1811	G	C5-N7-C8	-6.29	101.16	104.30
35	BA	2234	G	N7-C8-N9	6.29	116.24	113.10
35	BA	2892	A	N9-C4-C5	-6.29	103.28	105.80
1	AA	1492	A	N3-C4-C5	-6.29	122.40	126.80
35	BA	1827	C	C6-N1-C2	-6.29	117.78	120.30
38	BD	60	ARG	NE-CZ-NH1	-6.29	117.16	120.30
1	AA	438	G	C4-C5-N7	-6.29	108.29	110.80
35	BA	220	G	C4-C5-C6	6.29	122.57	118.80
35	BA	867	C	N1-C2-O2	6.29	122.67	118.90
1	AA	53	A	O4'-C1'-N9	6.28	113.23	108.20
1	AA	423	G	C4-C5-N7	-6.28	108.29	110.80
24	AY	203	GLU	OE1-CD-OE2	-6.28	115.76	123.30
35	BA	254	G	C5-N7-C8	6.28	107.44	104.30
35	BA	558	G	N9-C4-C5	-6.28	102.89	105.40
1	AA	235	C	N3-C4-C5	6.28	124.41	121.90
35	BA	174	C	C6-N1-C2	6.28	122.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1252	G	C8-N9-C4	-6.28	103.89	106.40
35	BA	2757	A	N3-C4-C5	6.28	131.20	126.80
1	AA	326	G	N1-C2-N3	-6.28	120.13	123.90
1	AA	570	G	N9-C4-C5	6.28	107.91	105.40
35	BA	765	G	C6-C5-N7	-6.28	126.63	130.40
1	AA	1030(A)	G	C5-C6-O6	-6.28	124.83	128.60
1	AA	1236	A	C5-C6-N1	-6.28	114.56	117.70
1	AA	1359	C	C4-C5-C6	-6.28	114.26	117.40
35	BA	1971	A	C6-N1-C2	-6.28	114.83	118.60
1	AA	101	A	N1-C2-N3	6.28	132.44	129.30
1	AA	1128	C	N3-C4-C5	6.28	124.41	121.90
35	BA	818	G	N7-C8-N9	6.28	116.24	113.10
1	AA	343	U	O4'-C1'-N1	6.27	113.22	108.20
1	AA	554	C	C6-N1-C2	-6.27	117.79	120.30
1	AA	1502	A	N1-C6-N6	6.27	122.36	118.60
35	BA	585	G	O4'-C1'-N9	6.27	113.22	108.20
35	BA	1531	C	C5-C4-N4	-6.27	115.81	120.20
36	BB	51	G	N9-C4-C5	-6.27	102.89	105.40
1	AA	495	A	C8-N9-C4	6.27	108.31	105.80
1	AA	662	G	C4-C5-C6	6.27	122.56	118.80
1	AA	790	A	N1-C2-N3	6.27	132.44	129.30
1	AA	1029	C	C2-N1-C1'	6.27	125.70	118.80
35	BA	1323	U	OP1-P-OP2	-6.27	110.19	119.60
35	BA	854	G	C4-C5-N7	-6.27	108.29	110.80
35	BA	981	A	N1-C6-N6	6.27	122.36	118.60
35	BA	1528(A)	A	C6-N1-C2	-6.27	114.84	118.60
1	AA	80	G	C8-N9-C4	-6.27	103.89	106.40
1	AA	229	U	C2-N3-C4	6.27	130.76	127.00
1	AA	805	C	C5-C4-N4	-6.27	115.81	120.20
35	BA	775	G	N9-C4-C5	6.27	107.91	105.40
35	BA	1932	A	C5-C6-N1	6.27	120.83	117.70
35	BA	2776	A	N7-C8-N9	6.27	116.93	113.80
1	AA	942	G	N3-C2-N2	6.27	124.29	119.90
5	AE	144	THR	CA-CB-CG2	-6.27	103.63	112.40
18	AR	54	ARG	NE-CZ-NH2	-6.27	117.17	120.30
35	BA	201	C	C4-C5-C6	-6.27	114.27	117.40
35	BA	602	G	C2-N3-C4	6.27	115.03	111.90
35	BA	1332	G	C4-C5-N7	6.27	113.31	110.80
35	BA	1421	G	C8-N9-C4	-6.27	103.89	106.40
1	AA	1032	G	N3-C4-N9	6.26	129.76	126.00
1	AA	1502	A	N1-C2-N3	-6.26	126.17	129.30
35	BA	1435	G	C2-N3-C4	-6.26	108.77	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2372	G	C4-C5-N7	6.26	113.31	110.80
35	BA	2392	A	O4'-C1'-N9	6.26	113.21	108.20
35	BA	2565	A	C5-N7-C8	-6.26	100.77	103.90
1	AA	1392	G	N1-C6-O6	-6.26	116.14	119.90
35	BA	45	C	N3-C4-C5	-6.26	119.39	121.90
35	BA	633	A	O4'-C1'-N9	-6.26	103.19	108.20
35	BA	1778	U	C2-N3-C4	-6.26	123.24	127.00
35	BA	1880	C	C1'-O4'-C4'	-6.26	104.89	109.90
35	BA	733	G	N3-C4-C5	-6.26	125.47	128.60
35	BA	1455	G	C5-N7-C8	-6.26	101.17	104.30
35	BA	2145	C	C4'-C3'-C2'	6.26	108.86	102.60
35	BA	2308	G	N3-C4-C5	-6.26	125.47	128.60
35	BA	2398	U	N3-C2-O2	6.26	126.58	122.20
35	BA	2810	A	N9-C4-C5	6.26	108.31	105.80
1	AA	926	G	N3-C4-C5	-6.26	125.47	128.60
1	AA	1231	G	C5-N7-C8	6.26	107.43	104.30
35	BA	1266	G	C8-N9-C4	6.26	108.90	106.40
35	BA	1313	U	N1-C1'-C2'	6.26	122.14	114.00
35	BA	1519	G	C4-C5-N7	-6.26	108.30	110.80
35	BA	2000	G	C8-N9-C4	-6.26	103.90	106.40
35	BA	2137	C	N3-C4-N4	6.26	122.38	118.00
35	BA	2451	A	C2-N3-C4	6.26	113.73	110.60
35	BA	2827	C	C2-N3-C4	6.26	123.03	119.90
36	BB	40	U	C5-C6-N1	6.26	125.83	122.70
47	BP	52	GLU	N-CA-C	6.26	127.90	111.00
35	BA	1215	G	N3-C4-N9	6.26	129.75	126.00
1	AA	21	G	N9-C4-C5	6.26	107.90	105.40
1	AA	1056	U	C2-N3-C4	-6.26	123.25	127.00
35	BA	360	G	C2-N3-C4	6.26	115.03	111.90
35	BA	2264	C	C6-N1-C2	6.26	122.80	120.30
35	BA	2369	A	C4'-C3'-C2'	-6.26	96.34	102.60
1	AA	360	A	C4-C5-N7	-6.25	107.57	110.70
35	BA	1375	C	N1-C2-O2	6.25	122.65	118.90
1	AA	1401	G	O4'-C1'-N9	6.25	113.20	108.20
30	B5	55	ARG	NE-CZ-NH2	-6.25	117.17	120.30
35	BA	719	C	N3-C2-O2	-6.25	117.52	121.90
35	BA	1925	C	C5-C6-N1	6.25	124.13	121.00
35	BA	2064	C	C5'-C4'-O4'	6.25	116.60	109.10
1	AA	646	U	C5-C4-O4	6.25	129.65	125.90
1	AA	1269	A	C5-N7-C8	-6.25	100.78	103.90
1	AA	1273	G	C4-C5-N7	6.25	113.30	110.80
1	AA	174	C	N3-C4-C5	6.25	124.40	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	271(Q)	G	N1-C6-O6	6.25	123.65	119.90
35	BA	684	G	C6-C5-N7	6.25	134.15	130.40
35	BA	763	G	C5-C6-N1	-6.25	108.38	111.50
35	BA	1161	C	N1-C2-O2	-6.25	115.15	118.90
35	BA	1262	A	C4-C5-C6	6.25	120.12	117.00
35	BA	2543	G	N1-C6-O6	6.25	123.65	119.90
1	AA	250	A	C2-N3-C4	6.25	113.72	110.60
35	BA	637	A	C5-C6-N1	-6.25	114.58	117.70
35	BA	861	A	C5-C6-N6	6.25	128.70	123.70
36	BB	112	U	C6-N1-C2	6.25	124.75	121.00
1	AA	68	G	C2-N3-C4	-6.25	108.78	111.90
35	BA	2195	C	C5-C6-N1	-6.25	117.88	121.00
35	BA	2646	C	C5-C6-N1	6.25	124.12	121.00
35	BA	2785	C	C4-C5-C6	-6.25	114.28	117.40
1	AA	650	G	C8-N9-C4	6.24	108.90	106.40
3	AC	38	ARG	NE-CZ-NH2	-6.24	117.18	120.30
35	BA	346	A	C5-C6-N1	6.24	120.82	117.70
35	BA	597	U	C4'-C3'-C2'	-6.24	96.36	102.60
35	BA	620	G	N7-C8-N9	6.24	116.22	113.10
35	BA	671	C	O4'-C1'-N1	6.24	113.19	108.20
35	BA	883	G	C2-N3-C4	-6.24	108.78	111.90
35	BA	1745(A)	C	C4-C5-C6	6.24	120.52	117.40
35	BA	2009	G	N1-C6-O6	6.24	123.65	119.90
35	BA	2832	U	C2-N3-C4	-6.24	123.25	127.00
35	BA	330	A	C8-N9-C4	6.24	108.30	105.80
35	BA	1465	G	N3-C4-C5	-6.24	125.48	128.60
1	AA	1493	A	O4'-C1'-N9	-6.24	103.21	108.20
1	AA	39	G	C2-N3-C4	-6.24	108.78	111.90
1	AA	238	G	N3-C4-C5	-6.24	125.48	128.60
1	AA	598	U	C6-N1-C2	6.24	124.74	121.00
35	BA	968	G	N9-C1'-C2'	-6.24	105.14	112.00
35	BA	1060	U	N3-C4-O4	6.24	123.77	119.40
35	BA	1563	G	C2-N3-C4	6.24	115.02	111.90
35	BA	2817	G	C5-C6-O6	-6.24	124.86	128.60
48	BQ	101	ARG	NE-CZ-NH2	-6.24	117.18	120.30
1	AA	446	G	N1-C2-N3	6.24	127.64	123.90
1	AA	1084	G	N3-C4-C5	-6.24	125.48	128.60
35	BA	113	G	C4-C5-N7	6.24	113.30	110.80
35	BA	1954	G	C4-C5-C6	-6.24	115.06	118.80
35	BA	2569	G	C5-N7-C8	-6.24	101.18	104.30
36	BB	84	C	C5'-C4'-C3'	-6.24	106.02	116.00
1	AA	488	C	N1-C2-N3	6.23	123.56	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	650	C	C4-C5-C6	-6.23	114.28	117.40
35	BA	655	A	C4-C5-N7	6.23	113.82	110.70
1	AA	989	C	C6-N1-C2	-6.23	117.81	120.30
35	BA	1794	U	N3-C4-O4	6.23	123.76	119.40
35	BA	2171	A	C8-N9-C4	6.23	108.29	105.80
40	BF	116	ASP	CB-CG-OD1	6.23	123.91	118.30
1	AA	365	U	C3'-C2'-C1'	6.23	106.48	101.50
1	AA	666	G	C2-N3-C4	-6.23	108.78	111.90
1	AA	1281	U	C5-C4-O4	-6.23	122.16	125.90
1	AA	445	G	N3-C4-C5	6.23	131.71	128.60
35	BA	744	G	C4-C5-C6	-6.23	115.06	118.80
35	BA	1478	G	N9-C4-C5	-6.23	102.91	105.40
1	AA	184	G	C3'-C2'-C1'	6.23	106.48	101.50
35	BA	1100	C	N3-C2-O2	-6.23	117.54	121.90
1	AA	840	C	C5-C6-N1	6.23	124.11	121.00
1	AA	1019	C	C4-C5-C6	6.23	120.51	117.40
1	AA	1505	G	C5-N7-C8	-6.23	101.19	104.30
35	BA	1432	C	C6-N1-C2	6.23	122.79	120.30
35	BA	1496	A	C8-N9-C4	-6.23	103.31	105.80
1	AA	324	G	C4-C5-N7	6.22	113.29	110.80
1	AA	1068	G	O5'-P-OP1	6.22	118.17	110.70
1	AA	1257	U	C3'-C2'-C1'	-6.22	96.52	101.50
1	AA	1344	C	N3-C4-N4	-6.22	113.64	118.00
35	BA	1819	A	N3-C4-C5	-6.22	122.44	126.80
35	BA	2036	C	O5'-P-OP2	-6.22	100.10	105.70
35	BA	2361	A	N9-C4-C5	-6.22	103.31	105.80
36	BB	116	G	N1-C6-O6	6.22	123.63	119.90
1	AA	174	C	C5-C4-N4	-6.22	115.84	120.20
1	AA	315	A	C6-N1-C2	6.22	122.33	118.60
1	AA	1251	A	C4-C5-N7	6.22	113.81	110.70
24	AY	439	ARG	NE-CZ-NH2	6.22	123.41	120.30
35	BA	89	G	N9-C4-C5	6.22	107.89	105.40
35	BA	682	G	N3-C2-N2	6.22	124.26	119.90
35	BA	45	C	C6-N1-C2	-6.22	117.81	120.30
35	BA	1511	C	C5-C6-N1	6.22	124.11	121.00
1	AA	506	G	N7-C8-N9	6.22	116.21	113.10
1	AA	532	A	C5-N7-C8	-6.22	100.79	103.90
13	AM	102	ARG	NE-CZ-NH1	6.22	123.41	120.30
35	BA	201	C	C6-N1-C2	-6.22	117.81	120.30
35	BA	2834	G	C2-N3-C4	6.22	115.01	111.90
1	AA	1055	A	C2-N3-C4	-6.22	107.49	110.60
35	BA	143(A)	C	C5-C6-N1	6.22	124.11	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1009	A	N1-C2-N3	6.22	132.41	129.30
35	BA	1494	A	O4'-C1'-N9	6.22	113.17	108.20
1	AA	419	C	C4-C5-C6	6.22	120.51	117.40
1	AA	792	A	C5'-C4'-C3'	-6.22	106.06	116.00
35	BA	323	G	C8-N9-C4	-6.22	103.91	106.40
35	BA	836	G	C2-N3-C4	-6.22	108.79	111.90
35	BA	1657	C	C6-N1-C2	-6.22	117.81	120.30
35	BA	1909	C	C4-C5-C6	6.22	120.51	117.40
35	BA	1919	A	N3-C4-C5	-6.22	122.45	126.80
35	BA	2009	G	C5-C6-N1	-6.22	108.39	111.50
35	BA	2613	U	C2-N3-C4	6.22	130.73	127.00
1	AA	521	G	C4-C5-N7	-6.21	108.31	110.80
1	AA	1452	C	C5-C4-N4	-6.21	115.85	120.20
35	BA	863	A	N1-C2-N3	-6.21	126.19	129.30
35	BA	921	G	C5-N7-C8	-6.21	101.19	104.30
35	BA	1002	G	N3-C4-N9	6.21	129.73	126.00
35	BA	1446	C	C5-C6-N1	-6.21	117.89	121.00
35	BA	1579	A	N1-C2-N3	6.21	132.41	129.30
1	AA	975	A	O4'-C1'-N9	-6.21	103.23	108.20
1	AA	985	C	C6-N1-C2	6.21	122.78	120.30
1	AA	1516	G	C4-C5-N7	-6.21	108.31	110.80
17	AQ	72	ARG	NE-CZ-NH2	-6.21	117.19	120.30
24	AY	396	ARG	NE-CZ-NH2	-6.21	117.19	120.30
35	BA	1111	A	N1-C6-N6	6.21	122.33	118.60
35	BA	2480	C	C6-N1-C2	6.21	122.78	120.30
1	AA	628	G	C4-C5-N7	-6.21	108.32	110.80
1	AA	1060	C	C6-N1-C2	-6.21	117.81	120.30
35	BA	48	G	N9-C4-C5	-6.21	102.92	105.40
35	BA	473	G	C6-C5-N7	-6.21	126.67	130.40
35	BA	510	C	N3-C2-O2	-6.21	117.55	121.90
35	BA	1221(A)	C	N1-C2-O2	-6.21	115.17	118.90
35	BA	2832	U	N1-C2-N3	6.21	118.63	114.90
1	AA	1461	G	N9-C1'-C2'	-6.21	105.17	112.00
1	AA	185	A	N7-C8-N9	6.21	116.90	113.80
1	AA	381	C	C6-N1-C2	-6.21	117.82	120.30
1	AA	688	G	C5-C6-O6	-6.21	124.88	128.60
1	AA	721	G	N1-C6-O6	-6.21	116.17	119.90
1	AA	885	G	O4'-C1'-N9	6.21	113.17	108.20
35	BA	1566	A	O5'-P-OP2	-6.21	100.11	105.70
35	BA	2616	C	O4'-C1'-C2'	6.21	113.19	107.60
1	AA	765	G	C5-C6-O6	-6.21	124.88	128.60
1	AA	911	U	O4'-C1'-N1	6.21	113.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AT	83	ARG	NE-CZ-NH1	-6.21	117.20	120.30
35	BA	2148	G	N1-C6-O6	-6.21	116.18	119.90
35	BA	2885	C	C2-N3-C4	6.21	123.00	119.90
22	AV	26	G	C4-C5-C6	6.20	122.52	118.80
35	BA	89	G	N7-C8-N9	6.20	116.20	113.10
35	BA	226	G	C5-C6-O6	-6.20	124.88	128.60
35	BA	344	G	N7-C8-N9	-6.20	110.00	113.10
35	BA	406	G	C5-C6-N1	-6.20	108.40	111.50
1	AA	377	G	N1-C2-N3	-6.20	120.18	123.90
1	AA	1002	G	C5-C6-O6	6.20	132.32	128.60
1	AA	1352	C	N1-C2-N3	6.20	123.54	119.20
35	BA	1459	G	C8-N9-C4	-6.20	103.92	106.40
35	BA	1865	G	N1-C6-O6	-6.20	116.18	119.90
35	BA	1951	U	C5-C4-O4	6.20	129.62	125.90
35	BA	2713	A	N1-C2-N3	-6.20	126.20	129.30
35	BA	58	G	C5-N7-C8	-6.20	101.20	104.30
35	BA	1080	C	C4-C5-C6	6.20	120.50	117.40
35	BA	2071	A	N1-C6-N6	6.20	122.32	118.60
35	BA	1261	C	N1-C2-O2	6.20	122.62	118.90
1	AA	243	A	N1-C6-N6	-6.20	114.88	118.60
35	BA	499	U	C5-C6-N1	6.20	125.80	122.70
35	BA	1571	A	C2-N3-C4	6.20	113.70	110.60
42	BH	54	ARG	NE-CZ-NH1	6.20	123.40	120.30
1	AA	78	G	C4-C5-N7	6.20	113.28	110.80
1	AA	351	G	N7-C8-N9	6.20	116.20	113.10
1	AA	1011	G	C5-C6-N1	-6.20	108.40	111.50
35	BA	406	G	C8-N9-C4	-6.20	103.92	106.40
35	BA	1323	U	C6-N1-C2	-6.20	117.28	121.00
35	BA	2796	U	N3-C4-O4	-6.20	115.06	119.40
35	BA	2829	C	N1-C2-O2	-6.20	115.18	118.90
1	AA	299	G	N1-C6-O6	6.19	123.62	119.90
35	BA	418	G	N3-C4-C5	6.19	131.70	128.60
35	BA	1149	G	N7-C8-N9	6.19	116.20	113.10
35	BA	1586	A	C4-C5-C6	-6.19	113.90	117.00
35	BA	2160	G	N1-C6-O6	-6.19	116.18	119.90
35	BA	2774	C	N1-C2-O2	6.19	122.62	118.90
38	BD	63	ARG	NE-CZ-NH2	-6.19	117.20	120.30
1	AA	1338	G	C4-C5-N7	6.19	113.28	110.80
35	BA	1043	C	N3-C4-C5	6.19	124.38	121.90
35	BA	1382	G	C5'-C4'-C3'	-6.19	106.09	116.00
41	BG	51	ARG	CD-NE-CZ	6.19	132.27	123.60
1	AA	103	C	C4-C5-C6	6.19	120.50	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	235	C	C5-C4-N4	-6.19	115.87	120.20
35	BA	467	G	N7-C8-N9	-6.19	110.00	113.10
35	BA	770	G	C8-N9-C4	-6.19	103.92	106.40
35	BA	919	G	N1-C2-N3	6.19	127.61	123.90
35	BA	1364	G	C5'-C4'-O4'	6.19	116.53	109.10
35	BA	1525	G	N1-C6-O6	6.19	123.61	119.90
35	BA	2757	A	C5-C6-N6	6.19	128.65	123.70
35	BA	271(P)	C	C4-C5-C6	-6.19	114.31	117.40
35	BA	381	G	N3-C4-N9	-6.19	122.29	126.00
35	BA	2224	G	P-O5'-C5'	-6.19	111.00	120.90
35	BA	2431	U	N3-C2-O2	6.19	126.53	122.20
35	BA	2446	G	N1-C2-N2	6.19	121.77	116.20
1	AA	436	C	N1-C1'-C2'	-6.19	105.19	112.00
1	AA	901	A	N9-C4-C5	6.19	108.28	105.80
35	BA	585	G	C8-N9-C4	-6.19	103.92	106.40
35	BA	816	C	C5-C4-N4	6.19	124.53	120.20
35	BA	956	G	C4-C5-N7	6.19	113.28	110.80
35	BA	1787	A	C4-C5-N7	6.19	113.79	110.70
35	BA	2670	A	N7-C8-N9	-6.19	110.71	113.80
35	BA	2765	A	C5-C6-N1	6.19	120.79	117.70
35	BA	1789	A	N1-C6-N6	6.19	122.31	118.60
35	BA	2680	C	C5-C6-N1	6.19	124.09	121.00
1	AA	1103	C	C2-N3-C4	-6.18	116.81	119.90
1	AA	1175	G	C8-N9-C4	6.18	108.87	106.40
27	B2	36	ARG	NE-CZ-NH2	6.18	123.39	120.30
35	BA	446	G	C6-N1-C2	6.18	128.81	125.10
35	BA	756	C	C5-C4-N4	-6.18	115.87	120.20
35	BA	1506	C	C5-C6-N1	6.18	124.09	121.00
1	AA	66	G	O4'-C1'-N9	-6.18	103.25	108.20
1	AA	1281	U	C6-N1-C2	-6.18	117.29	121.00
35	BA	269	U	N3-C4-C5	-6.18	110.89	114.60
35	BA	1305	C	N1-C2-N3	-6.18	114.87	119.20
35	BA	2028	U	O4'-C1'-N1	6.18	113.15	108.20
35	BA	2141	G	C5-N7-C8	6.18	107.39	104.30
35	BA	405	U	N3-C2-O2	6.18	126.53	122.20
35	BA	591	C	N3-C4-C5	6.18	124.37	121.90
35	BA	1452	A	N3-C4-C5	6.18	131.13	126.80
35	BA	2830	G	C2-N3-C4	6.18	114.99	111.90
1	AA	157	G	N1-C6-O6	-6.18	116.19	119.90
1	AA	813	U	N1-C2-N3	-6.18	111.19	114.90
1	AA	1227	A	C4-C5-C6	6.18	120.09	117.00
35	BA	113	G	C8-N9-C4	6.18	108.87	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	328	U	O5'-P-OP2	-6.18	100.14	105.70
35	BA	568	U	N1-C2-O2	6.18	127.13	122.80
35	BA	1152	C	N3-C4-C5	6.18	124.37	121.90
35	BA	2582	G	C5-C6-N1	6.18	114.59	111.50
35	BA	868	U	N1-C2-O2	6.18	127.12	122.80
35	BA	1179	C	N3-C4-C5	6.18	124.37	121.90
35	BA	1698	A	C5-C6-N1	6.18	120.79	117.70
35	BA	2878	U	N1-C2-O2	6.18	127.12	122.80
1	AA	430	A	C5-C6-N1	-6.18	114.61	117.70
35	BA	765	G	N7-C8-N9	6.18	116.19	113.10
35	BA	802	A	N9-C4-C5	-6.18	103.33	105.80
35	BA	945	A	C5'-C4'-C3'	6.18	125.88	116.00
35	BA	1224	C	N3-C4-N4	6.18	122.32	118.00
35	BA	2005	A	O4'-C1'-N9	6.18	113.14	108.20
35	BA	2091	U	N3-C2-O2	6.18	126.52	122.20
1	AA	107	G	N3-C2-N2	6.17	124.22	119.90
1	AA	236	G	N1-C6-O6	6.17	123.61	119.90
1	AA	348	G	N9-C4-C5	-6.17	102.93	105.40
35	BA	26	G	C5-N7-C8	6.17	107.39	104.30
35	BA	1193	G	N1-C6-O6	-6.17	116.19	119.90
35	BA	32	C	C6-N1-C2	6.17	122.77	120.30
1	AA	1331	G	C2-N3-C4	-6.17	108.81	111.90
35	BA	173	G	C5-N7-C8	-6.17	101.21	104.30
35	BA	271(H)	G	C4-C5-N7	-6.17	108.33	110.80
1	AA	105	G	N1-C2-N3	-6.17	120.20	123.90
35	BA	2107	C	C2-N3-C4	-6.17	116.81	119.90
1	AA	16	A	C5-N7-C8	-6.17	100.82	103.90
1	AA	613	C	N3-C2-O2	-6.17	117.58	121.90
35	BA	739	G	C4'-C3'-O3'	6.17	125.33	113.00
35	BA	2408	U	C5-C4-O4	-6.17	122.20	125.90
1	AA	77	G	C5-C6-O6	-6.17	124.90	128.60
1	AA	118	U	C5-C4-O4	-6.17	122.20	125.90
1	AA	1168	A	C5-N7-C8	-6.17	100.82	103.90
1	AA	1417	G	N3-C4-C5	-6.17	125.52	128.60
35	BA	271(K)	U	C2-N3-C4	6.17	130.70	127.00
35	BA	372	G	C8-N9-C4	6.17	108.87	106.40
35	BA	1215	G	N9-C1'-C2'	-6.17	105.22	112.00
35	BA	1390	U	C4-C5-C6	-6.17	116.00	119.70
35	BA	1613	G	N1-C2-N3	-6.17	120.20	123.90
35	BA	2047	U	N3-C4-O4	-6.17	115.08	119.40
35	BA	2076	U	N1-C2-N3	6.17	118.60	114.90
35	BA	2429	G	N1-C2-N3	6.17	127.60	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2456	C	C2-N3-C4	6.17	122.98	119.90
35	BA	2580	U	C2-N3-C4	-6.17	123.30	127.00
35	BA	2501	C	C4-C5-C6	6.17	120.48	117.40
1	AA	745	C	N3-C4-N4	-6.16	113.69	118.00
1	AA	765	G	N1-C6-O6	6.16	123.60	119.90
1	AA	850	U	C5-C6-N1	6.16	125.78	122.70
35	BA	145	G	O4'-C1'-N9	-6.16	103.27	108.20
35	BA	236	C	C3'-C2'-C1'	-6.16	96.57	101.50
35	BA	1261	C	C6-N1-C2	6.16	122.77	120.30
35	BA	1314	C	C2-N3-C4	-6.16	116.82	119.90
35	BA	1597	A	N7-C8-N9	-6.16	110.72	113.80
35	BA	1954	G	N1-C2-N3	-6.16	120.20	123.90
37	BC	188	ASP	CB-CG-OD1	-6.16	112.75	118.30
35	BA	819	A	C8-N9-C4	6.16	108.27	105.80
35	BA	1456	G	N3-C2-N2	-6.16	115.59	119.90
1	AA	957	U	C4-C5-C6	-6.16	116.00	119.70
35	BA	271(Z)	C	C5'-C4'-O4'	6.16	116.49	109.10
35	BA	672	C	N1-C2-N3	6.16	123.51	119.20
35	BA	827	U	N3-C4-C5	6.16	118.30	114.60
35	BA	1389	G	C2-N3-C4	-6.16	108.82	111.90
35	BA	2267	A	N7-C8-N9	6.16	116.88	113.80
35	BA	2333	A	C4-C5-C6	6.16	120.08	117.00
1	AA	238	G	N3-C2-N2	-6.16	115.59	119.90
1	AA	551	U	C3'-C2'-C1'	-6.16	96.57	101.50
1	AA	1285	A	C2-N3-C4	6.16	113.68	110.60
35	BA	359	A	C6-N1-C2	6.16	122.30	118.60
35	BA	1674	G	C6-N1-C2	6.16	128.79	125.10
35	BA	1799	G	C5-C6-O6	-6.16	124.91	128.60
35	BA	2027	G	C5'-C4'-C3'	-6.16	106.15	116.00
1	AA	742	G	C5-C6-O6	-6.16	124.91	128.60
22	AV	13	C	C5-C4-N4	-6.16	115.89	120.20
35	BA	729	G	N1-C6-O6	-6.16	116.21	119.90
1	AA	1129	C	C2-N3-C4	6.16	122.98	119.90
35	BA	183	C	C2-N3-C4	6.16	122.98	119.90
35	BA	553	G	C2-N3-C4	-6.16	108.82	111.90
35	BA	1548	C	O4'-C1'-N1	6.16	113.12	108.20
35	BA	1910	G	C5-N7-C8	6.16	107.38	104.30
35	BA	2053	G	N9-C1'-C2'	-6.16	105.23	112.00
41	BG	97	ASP	CB-CG-OD2	-6.16	112.76	118.30
1	AA	860	A	N9-C4-C5	-6.15	103.34	105.80
1	AA	1046	A	C6-N1-C2	-6.15	114.91	118.60
35	BA	299	A	C4-C5-N7	6.15	113.78	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2740	A	C5-C6-N1	6.15	120.78	117.70
1	AA	431	A	C4-C5-N7	-6.15	107.62	110.70
35	BA	97	C	N3-C4-N4	6.15	122.31	118.00
35	BA	444	C	C4-C5-C6	6.15	120.48	117.40
35	BA	739	G	N7-C8-N9	-6.15	110.02	113.10
35	BA	2439	A	N7-C8-N9	-6.15	110.72	113.80
35	BA	2486	G	C5'-C4'-O4'	6.15	116.48	109.10
36	BB	97	G	C8-N9-C4	-6.15	103.94	106.40
1	AA	521	G	C5-N7-C8	6.15	107.38	104.30
1	AA	1325	C	C4-C5-C6	-6.15	114.33	117.40
16	AP	57	ARG	NE-CZ-NH1	6.15	123.38	120.30
35	BA	1231	G	C6-C5-N7	-6.15	126.71	130.40
35	BA	1626	G	N7-C8-N9	-6.15	110.03	113.10
49	BR	21	TYR	CD1-CE1-CZ	-6.15	114.27	119.80
51	BT	29	ARG	N-CA-C	6.15	127.61	111.00
1	AA	587	G	C5-C6-O6	-6.15	124.91	128.60
1	AA	40	C	C4-C5-C6	6.15	120.47	117.40
1	AA	1410	G	C8-N9-C4	-6.15	103.94	106.40
35	BA	531	C	C5-C6-N1	6.15	124.07	121.00
35	BA	1330	C	N3-C4-N4	-6.15	113.70	118.00
35	BA	2182	G	N3-C4-C5	6.15	131.67	128.60
35	BA	2711	A	C5-C6-N1	6.15	120.77	117.70
35	BA	2815	C	N3-C2-O2	-6.15	117.60	121.90
1	AA	400	C	N3-C4-C5	-6.14	119.44	121.90
1	AA	1274	G	N1-C2-N3	-6.14	120.21	123.90
35	BA	570	G	N3-C2-N2	-6.14	115.60	119.90
35	BA	1336	A	C5-N7-C8	6.14	106.97	103.90
35	BA	1702	G	C2-N3-C4	6.14	114.97	111.90
45	BN	123	TYR	CG-CD2-CE2	-6.14	116.38	121.30
1	AA	564	C	C2-N3-C4	-6.14	116.83	119.90
22	AV	15	G	N9-C4-C5	6.14	107.86	105.40
35	BA	2807	G	N1-C2-N3	-6.14	120.22	123.90
1	AA	523	A	N7-C8-N9	6.14	116.87	113.80
1	AA	900	A	C2-N3-C4	-6.14	107.53	110.60
1	AA	1096	C	C6-N1-C2	-6.14	117.84	120.30
35	BA	859	G	N1-C6-O6	6.14	123.58	119.90
35	BA	1635	G	N3-C2-N2	-6.14	115.60	119.90
35	BA	2096	U	O4'-C1'-N1	-6.14	103.29	108.20
35	BA	2126	A	N9-C1'-C2'	6.14	121.98	114.00
1	AA	749	C	C4-C5-C6	6.14	120.47	117.40
35	BA	241	A	N9-C4-C5	-6.14	103.34	105.80
35	BA	1801	G	N3-C4-N9	6.14	129.68	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2392	A	C1'-O4'-C4'	-6.14	104.99	109.90
1	AA	493	G	N1-C6-O6	6.14	123.58	119.90
1	AA	506	G	N9-C4-C5	6.14	107.86	105.40
1	AA	1077	G	N3-C4-N9	6.14	129.68	126.00
1	AA	1404	C	C5-C6-N1	6.14	124.07	121.00
1	AA	1524	C	O4'-C1'-N1	6.14	113.11	108.20
35	BA	654(L)	G	C8-N9-C4	-6.14	103.94	106.40
1	AA	892	A	C6-C5-N7	6.13	136.59	132.30
1	AA	982	U	C5-C4-O4	6.13	129.58	125.90
27	B2	68	ARG	NE-CZ-NH2	-6.13	117.23	120.30
35	BA	1272	A	C2-N3-C4	-6.13	107.53	110.60
35	BA	1551	C	N1-C2-O2	6.13	122.58	118.90
35	BA	1941	C	C2-N3-C4	6.13	122.97	119.90
35	BA	2670	A	O4'-C1'-N9	-6.13	103.29	108.20
1	AA	35	G	C4-C5-N7	-6.13	108.35	110.80
35	BA	665	C	O4'-C1'-C2'	6.13	113.12	107.60
35	BA	1811	G	N1-C2-N3	-6.13	120.22	123.90
1	AA	1256	A	C4-C5-C6	6.13	120.06	117.00
1	AA	1458	G	C6-C5-N7	-6.13	126.72	130.40
35	BA	462	C	C4-C5-C6	6.13	120.47	117.40
35	BA	1473	G	N3-C4-C5	-6.13	125.53	128.60
35	BA	1575	C	C2-N3-C4	6.13	122.97	119.90
35	BA	1799	G	C5-C6-N1	6.13	114.57	111.50
35	BA	2124	G	N9-C4-C5	-6.13	102.95	105.40
35	BA	2341	G	C5-N7-C8	-6.13	101.23	104.30
1	AA	1215	G	O4'-C1'-N9	-6.13	103.30	108.20
35	BA	111	A	C5-C6-N1	6.13	120.77	117.70
1	AA	1262	C	C5-C4-N4	-6.13	115.91	120.20
1	AA	1327	C	N3-C2-O2	6.13	126.19	121.90
33	B8	30	ARG	NE-CZ-NH2	-6.13	117.23	120.30
35	BA	407	G	C2-N3-C4	-6.13	108.84	111.90
35	BA	446	G	N3-C2-N2	6.13	124.19	119.90
35	BA	1574	C	C5-C4-N4	6.13	124.49	120.20
35	BA	1992	G	N9-C4-C5	6.13	107.85	105.40
35	BA	2801	A	C4-C5-N7	-6.13	107.64	110.70
1	AA	903	G	N3-C4-N9	6.13	129.68	126.00
35	BA	511	U	C5-C6-N1	6.13	125.76	122.70
1	AA	419	C	N3-C2-O2	6.12	126.19	121.90
1	AA	855	G	C8-N9-C4	6.12	108.85	106.40
35	BA	472	A	C6-N1-C2	6.12	122.28	118.60
35	BA	585	G	C3'-C2'-C1'	6.12	106.40	101.50
1	AA	791	G	C5-C6-O6	-6.12	124.93	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	902	G	N7-C8-N9	6.12	116.16	113.10
1	AA	1052	U	C6-N1-C2	6.12	124.67	121.00
35	BA	176	G	N9-C4-C5	-6.12	102.95	105.40
35	BA	1977	A	N1-C2-N3	6.12	132.36	129.30
35	BA	2452	C	O4'-C1'-N1	6.12	113.10	108.20
1	AA	97	G	C2-N3-C4	6.12	114.96	111.90
1	AA	99	U	N3-C4-O4	-6.12	115.11	119.40
1	AA	309	G	N1-C6-O6	6.12	123.57	119.90
1	AA	345	C	C6-N1-C2	6.12	122.75	120.30
1	AA	1337	G	C8-N9-C4	6.12	108.85	106.40
35	BA	242	G	N3-C4-N9	6.12	129.67	126.00
35	BA	916	G	O4'-C1'-N9	-6.12	103.30	108.20
35	BA	946	G	C5-C6-O6	-6.12	124.93	128.60
35	BA	1757	U	C5-C6-N1	-6.12	119.64	122.70
35	BA	2510	C	C5-C6-N1	6.12	124.06	121.00
35	BA	2762	G	N1-C2-N3	-6.12	120.23	123.90
51	BT	111	ARG	CD-NE-CZ	6.12	132.17	123.60
35	BA	1087	G	N1-C6-O6	6.12	123.57	119.90
1	AA	311	C	C3'-C2'-C1'	-6.12	96.61	101.50
1	AA	1256	A	C8-N9-C4	6.12	108.25	105.80
35	BA	591	C	C2-N3-C4	-6.12	116.84	119.90
35	BA	997	G	N9-C4-C5	-6.12	102.95	105.40
35	BA	1588	C	C4-C5-C6	-6.12	114.34	117.40
35	BA	2570	G	C4-C5-N7	-6.12	108.35	110.80
35	BA	2877	G	N3-C4-N9	6.12	129.67	126.00
1	AA	933	G	N3-C4-C5	6.12	131.66	128.60
35	BA	1980	G	N3-C4-C5	6.12	131.66	128.60
35	BA	2116	G	N9-C4-C5	-6.12	102.95	105.40
1	AA	1236	A	C2-N3-C4	-6.12	107.54	110.60
1	AA	1445	C	C5-C4-N4	6.12	124.48	120.20
35	BA	1275	A	C5-C6-N1	-6.12	114.64	117.70
35	BA	2835	A	N9-C1'-C2'	6.12	121.95	114.00
1	AA	273	A	C2-N3-C4	-6.11	107.54	110.60
1	AA	921	U	C5-C6-N1	6.11	125.76	122.70
1	AA	1055	A	C8-N9-C4	-6.11	103.36	105.80
1	AA	1521	G	N1-C2-N3	6.11	127.57	123.90
35	BA	1351	C	C5'-C4'-C3'	-6.11	106.22	116.00
42	BH	69	ARG	NE-CZ-NH1	6.11	123.36	120.30
1	AA	789	U	C2-N3-C4	6.11	130.67	127.00
35	BA	1290	C	C6-N1-C2	-6.11	117.86	120.30
35	BA	1745(A)	C	N3-C4-C5	-6.11	119.45	121.90
50	BS	17	ARG	NE-CZ-NH1	-6.11	117.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	16	A	O4'-C1'-N9	-6.11	103.31	108.20
35	BA	129	C	N3-C4-C5	-6.11	119.46	121.90
35	BA	248	G	C5-C6-O6	-6.11	124.93	128.60
35	BA	276	A	N9-C4-C5	-6.11	103.36	105.80
35	BA	966	G	N3-C4-N9	6.11	129.67	126.00
35	BA	1721	G	C6-C5-N7	-6.11	126.73	130.40
1	AA	953	G	C5-C6-N1	6.11	114.56	111.50
35	BA	1028	A	C4-C5-C6	6.11	120.05	117.00
35	BA	2230	G	N3-C4-N9	-6.11	122.33	126.00
1	AA	726	C	C6-N1-C2	-6.11	117.86	120.30
1	AA	1112	C	C2-N3-C4	6.11	122.95	119.90
35	BA	426	C	C2-N3-C4	-6.11	116.85	119.90
52	BU	47	TYR	CB-CG-CD1	6.11	124.66	121.00
1	AA	191	G	N3-C2-N2	-6.11	115.63	119.90
35	BA	1905	C	N3-C4-N4	6.11	122.27	118.00
35	BA	2348	U	C5-C6-N1	6.11	125.75	122.70
35	BA	2600	A	C8-N9-C4	-6.11	103.36	105.80
35	BA	2708	G	N1-C6-O6	6.11	123.56	119.90
40	BF	74	ARG	NE-CZ-NH2	6.11	123.35	120.30
35	BA	152	G	C4-C5-C6	-6.10	115.14	118.80
1	AA	349	A	N1-C6-N6	6.10	122.26	118.60
1	AA	533	A	C2'-C3'-O3'	6.10	123.47	113.70
1	AA	916	G	C5-C6-O6	-6.10	124.94	128.60
1	AA	1214	C	N1-C1'-C2'	6.10	121.93	114.00
35	BA	754	C	N1-C2-O2	6.10	122.56	118.90
35	BA	1473	G	C2-N3-C4	6.10	114.95	111.90
35	BA	2436	G	C5-C6-O6	-6.10	124.94	128.60
1	AA	193	C	C4-C5-C6	6.10	120.45	117.40
1	AA	709	G	C4-C5-C6	-6.10	115.14	118.80
1	AA	1000	U	O4'-C1'-N1	-6.10	103.32	108.20
1	AA	1091	U	N3-C4-O4	6.10	123.67	119.40
1	AA	1359	C	N3-C4-C5	6.10	124.34	121.90
35	BA	902	C	C5-C4-N4	-6.10	115.93	120.20
35	BA	2894	G	C4-C5-N7	-6.10	108.36	110.80
1	AA	141	A	C5-C6-N1	-6.10	114.65	117.70
1	AA	1397	C	N3-C4-C5	6.10	124.34	121.90
35	BA	416	C	N3-C4-C5	6.10	124.34	121.90
35	BA	1937	A	N1-C2-N3	6.10	132.35	129.30
35	BA	2644	G	C5-N7-C8	6.10	107.35	104.30
35	BA	2649	U	N1-C2-O2	6.10	127.07	122.80
35	BA	2161	C	C6-N1-C2	-6.10	117.86	120.30
1	AA	327	A	C2-N3-C4	-6.09	107.55	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	595	G	C4-C5-N7	6.09	113.24	110.80
1	AA	868	C	C2-N3-C4	6.09	122.95	119.90
1	AA	1322	C	O4'-C1'-N1	6.09	113.08	108.20
35	BA	394	A	C5-C6-N1	-6.09	114.65	117.70
35	BA	2544	G	N1-C2-N3	-6.09	120.24	123.90
35	BA	2774	C	N3-C4-N4	-6.09	113.73	118.00
36	BB	51	G	C1'-O4'-C4'	-6.09	105.02	109.90
1	AA	5	U	C6-N1-C2	-6.09	117.34	121.00
1	AA	1147	C	C5-C6-N1	6.09	124.05	121.00
1	AA	1421	G	N3-C4-N9	-6.09	122.35	126.00
35	BA	442	G	N7-C8-N9	-6.09	110.05	113.10
35	BA	811	U	C5'-C4'-C3'	-6.09	106.25	116.00
35	BA	1465	G	N7-C8-N9	-6.09	110.05	113.10
36	BB	104	U	N1-C2-O2	6.09	127.06	122.80
47	BP	65	ARG	NE-CZ-NH2	-6.09	117.25	120.30
1	AA	11	G	C4-C5-N7	6.09	113.24	110.80
1	AA	798	G	N7-C8-N9	-6.09	110.06	113.10
1	AA	1312	G	N1-C6-O6	-6.09	116.25	119.90
35	BA	1221(A)	C	C6-N1-C2	-6.09	117.86	120.30
35	BA	2324	C	N3-C4-C5	-6.09	119.47	121.90
35	BA	2365	G	C2-N3-C4	6.09	114.94	111.90
35	BA	2448	A	N7-C8-N9	-6.09	110.75	113.80
1	AA	241	C	C6-N1-C2	6.09	122.73	120.30
35	BA	589	C	C4-C5-C6	6.09	120.44	117.40
35	BA	700	G	O4'-C1'-N9	6.09	113.07	108.20
35	BA	2055	C	C5-C4-N4	-6.09	115.94	120.20
1	AA	455	C	N3-C4-C5	6.09	124.33	121.90
23	AX	17	U	C3'-C2'-C1'	6.09	106.37	101.50
35	BA	452	G	N3-C4-C5	-6.09	125.56	128.60
35	BA	1826	G	N9-C4-C5	-6.09	102.97	105.40
35	BA	2435	A	C5-C6-N1	6.09	120.74	117.70
1	AA	679	C	N1-C2-O2	-6.08	115.25	118.90
35	BA	2401	U	N1-C1'-C2'	6.08	121.91	114.00
36	BB	107	G	C5-C6-O6	-6.08	124.95	128.60
1	AA	345	C	N3-C4-C5	6.08	124.33	121.90
1	AA	576	G	C4-C5-C6	-6.08	115.15	118.80
35	BA	94(A)	G	C4-C5-N7	6.08	113.23	110.80
35	BA	1302	A	N1-C2-N3	-6.08	126.26	129.30
35	BA	1396	U	N1-C2-O2	6.08	127.06	122.80
1	AA	1249	C	N3-C4-C5	-6.08	119.47	121.90
35	BA	256	A	C5-N7-C8	-6.08	100.86	103.90
35	BA	363(F)	A	C4'-C3'-C2'	6.08	108.68	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	654(A)	G	C4-C5-N7	6.08	113.23	110.80
35	BA	1783	A	O4'-C1'-N9	6.08	113.07	108.20
1	AA	1222	G	C6-N1-C2	-6.08	121.45	125.10
35	BA	1410	G	C5-C6-O6	-6.08	124.95	128.60
35	BA	636	G	C2-N3-C4	6.08	114.94	111.90
35	BA	838	C	C4-C5-C6	-6.08	114.36	117.40
35	BA	1412	A	C5-N7-C8	-6.08	100.86	103.90
35	BA	2128	C	N1-C2-O2	-6.08	115.25	118.90
1	AA	81	U	C5-C4-O4	6.08	129.55	125.90
1	AA	893	C	C4-C5-C6	6.08	120.44	117.40
1	AA	1009	G	N3-C4-C5	-6.08	125.56	128.60
35	BA	229	A	O4'-C1'-N9	6.08	113.06	108.20
35	BA	1538	G	O4'-C1'-N9	6.08	113.06	108.20
35	BA	2059	A	C4'-C3'-C2'	-6.08	96.52	102.60
35	BA	2801(A)	A	O4'-C1'-N9	6.08	113.06	108.20
1	AA	7	G	C5-C6-O6	6.08	132.25	128.60
1	AA	474	G	N1-C6-O6	-6.08	116.25	119.90
1	AA	710	G	C6-N1-C2	6.08	128.75	125.10
1	AA	1047	G	C5-C6-O6	6.08	132.25	128.60
35	BA	1804	C	C4-C5-C6	6.08	120.44	117.40
22	AV	68	C	C4-C5-C6	-6.07	114.36	117.40
35	BA	1682	G	C4-C5-N7	-6.07	108.37	110.80
35	BA	2283	C	N3-C4-C5	-6.07	119.47	121.90
35	BA	2752	C	N3-C4-N4	6.07	122.25	118.00
48	BQ	16	ARG	NE-CZ-NH2	6.07	123.34	120.30
1	AA	119	A	N9-C1'-C2'	6.07	121.89	114.00
1	AA	551	U	O4'-C1'-N1	6.07	113.06	108.20
1	AA	1186	G	C5-C6-O6	-6.07	124.96	128.60
1	AA	1220	G	C5-N7-C8	-6.07	101.27	104.30
35	BA	777	A	N1-C6-N6	6.07	122.24	118.60
35	BA	1065	U	C4-C5-C6	-6.07	116.06	119.70
36	BB	9	G	C4-C5-C6	-6.07	115.16	118.80
1	AA	508	C	C4-C5-C6	6.07	120.43	117.40
35	BA	28	A	N1-C2-N3	-6.07	126.27	129.30
35	BA	267	C	C5-C6-N1	6.07	124.03	121.00
35	BA	2785	C	O4'-C1'-N1	-6.07	103.34	108.20
38	BD	103	ARG	NE-CZ-NH2	6.07	123.33	120.30
1	AA	1288	A	O4'-C1'-N9	-6.07	103.35	108.20
1	AA	1476	G	N1-C2-N3	6.07	127.54	123.90
35	BA	271(C)	C	C5-C6-N1	6.07	124.03	121.00
35	BA	463	G	C1'-O4'-C4'	-6.07	105.05	109.90
35	BA	914	C	C5-C4-N4	-6.07	115.95	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	956	G	C8-N9-C4	-6.07	103.97	106.40
35	BA	1028	A	C5-C6-N1	-6.07	114.67	117.70
35	BA	2028	U	C4-C5-C6	6.07	123.34	119.70
35	BA	2802	G	C6-N1-C2	-6.07	121.46	125.10
1	AA	668	G	C8-N9-C4	6.07	108.83	106.40
1	AA	1196	U	C5-C4-O4	6.07	129.54	125.90
1	AA	1487	G	C4-C5-N7	6.07	113.23	110.80
35	BA	730	C	C5-C6-N1	-6.07	117.97	121.00
35	BA	830	G	C4-C5-C6	6.07	122.44	118.80
35	BA	1921	G	C4-C5-C6	-6.07	115.16	118.80
35	BA	1990	C	N3-C4-C5	6.07	124.33	121.90
35	BA	2233	U	C5'-C4'-O4'	6.07	116.38	109.10
17	AQ	11	VAL	CA-CB-CG1	-6.06	101.80	110.90
35	BA	1498	C	C6-N1-C2	-6.06	117.87	120.30
35	BA	2290	G	N7-C8-N9	6.06	116.13	113.10
1	AA	1436	U	C5-C4-O4	6.06	129.54	125.90
12	AL	89	ARG	NE-CZ-NH2	-6.06	117.27	120.30
35	BA	55	G	C5-C6-N1	6.06	114.53	111.50
35	BA	237	C	C6-N1-C2	-6.06	117.88	120.30
35	BA	1690	A	C4'-C3'-C2'	-6.06	96.54	102.60
35	BA	2725	A	C5'-C4'-O4'	-6.06	101.82	109.10
39	BE	101	ARG	NE-CZ-NH1	-6.06	117.27	120.30
1	AA	1240	U	C4-C5-C6	6.06	123.34	119.70
35	BA	1619	G	N1-C2-N3	6.06	127.54	123.90
35	BA	2003	G	N3-C4-C5	-6.06	125.57	128.60
35	BA	2046	G	C2-N3-C4	-6.06	108.87	111.90
35	BA	2525	G	N3-C4-C5	-6.06	125.57	128.60
1	AA	309	G	C5-C6-O6	-6.06	124.97	128.60
1	AA	363	A	N7-C8-N9	6.06	116.83	113.80
1	AA	445	G	C5-C6-N1	-6.06	108.47	111.50
1	AA	613	C	C6-N1-C2	-6.06	117.88	120.30
1	AA	1159	U	C5-C6-N1	-6.06	119.67	122.70
1	AA	1238	A	C5-N7-C8	6.06	106.93	103.90
22	AV	35	A	N9-C4-C5	6.06	108.22	105.80
35	BA	1120	G	C5-N7-C8	6.06	107.33	104.30
1	AA	923	A	C5-C6-N1	-6.06	114.67	117.70
1	AA	1020	U	N1-C1'-C2'	6.06	121.87	114.00
1	AA	1488	G	C5-N7-C8	-6.06	101.27	104.30
35	BA	50	U	C3'-C2'-C1'	6.06	106.35	101.50
35	BA	378	C	N1-C2-O2	6.06	122.53	118.90
35	BA	1137	G	C2-N3-C4	-6.06	108.87	111.90
35	BA	1308	A	C8-N9-C4	-6.06	103.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1596	A	C6-C5-N7	-6.06	128.06	132.30
35	BA	2479	G	C5-C6-N1	-6.06	108.47	111.50
1	AA	413	G	N3-C4-C5	6.06	131.63	128.60
1	AA	705	U	C5-C4-O4	-6.06	122.27	125.90
35	BA	1885	A	N7-C8-N9	6.06	116.83	113.80
35	BA	141	A	C1'-O4'-C4'	-6.05	105.06	109.90
35	BA	787	U	N3-C4-O4	6.05	123.64	119.40
35	BA	1059	G	N3-C4-C5	-6.05	125.57	128.60
35	BA	2078	C	N1-C2-O2	-6.05	115.27	118.90
35	BA	2500	U	C5-C4-O4	6.05	129.53	125.90
35	BA	100	G	C4-C5-N7	-6.05	108.38	110.80
35	BA	1407	C	N3-C4-C5	-6.05	119.48	121.90
35	BA	1484	G	N7-C8-N9	6.05	116.13	113.10
1	AA	47	C	C5-C4-N4	-6.05	115.96	120.20
2	AB	199	TYR	CB-CG-CD1	-6.05	117.37	121.00
35	BA	410	G	C2-N3-C4	6.05	114.92	111.90
35	BA	616	G	C5-C6-N1	6.05	114.53	111.50
35	BA	1288	U	C6-N1-C2	6.05	124.63	121.00
35	BA	2722	G	C5-C6-N1	-6.05	108.47	111.50
51	BT	54	ARG	NE-CZ-NH2	6.05	123.33	120.30
1	AA	953	G	C5'-C4'-O4'	6.05	116.36	109.10
22	AV	47	U	C5-C4-O4	-6.05	122.27	125.90
35	BA	443	A	N7-C8-N9	6.05	116.83	113.80
35	BA	718	A	C3'-C2'-C1'	6.05	106.34	101.50
35	BA	876	C	C5'-C4'-C3'	6.05	125.68	116.00
35	BA	972	G	C5-N7-C8	6.05	107.33	104.30
35	BA	1609	A	N9-C1'-C2'	6.05	121.86	114.00
35	BA	1703	G	C4-C5-N7	6.05	113.22	110.80
35	BA	2815	C	N1-C2-O2	6.05	122.53	118.90
35	BA	894	C	N3-C4-C5	6.05	124.32	121.90
35	BA	1596	A	C5-N7-C8	-6.05	100.88	103.90
1	AA	476	G	C6-C5-N7	6.05	134.03	130.40
1	AA	598	U	C5-C4-O4	-6.05	122.27	125.90
1	AA	924	C	C6-N1-C2	6.05	122.72	120.30
22	AV	5	G	N9-C4-C5	6.05	107.82	105.40
35	BA	470	A	N1-C6-N6	6.05	122.23	118.60
35	BA	1149	G	C4'-C3'-C2'	-6.05	96.55	102.60
35	BA	2426	A	C2-N3-C4	-6.05	107.58	110.60
1	AA	439	A	N1-C2-N3	-6.04	126.28	129.30
1	AA	550	G	C4-C5-N7	-6.04	108.38	110.80
1	AA	1044	A	C4-C5-C6	6.04	120.02	117.00
1	AA	1067	A	N7-C8-N9	-6.04	110.78	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1293	G	C5-C6-N1	-6.04	108.48	111.50
35	BA	26	G	C5-C6-O6	6.04	132.23	128.60
35	BA	1203	G	N9-C1'-C2'	6.04	121.86	114.00
35	BA	1835	G	C4-C5-C6	6.04	122.43	118.80
35	BA	2100	G	C4-C5-N7	6.04	113.22	110.80
41	BG	147	ASP	CB-CG-OD1	-6.04	112.86	118.30
1	AA	851	G	N9-C4-C5	6.04	107.82	105.40
35	BA	111	A	C4-C5-C6	-6.04	113.98	117.00
35	BA	654(H)	G	N3-C4-C5	-6.04	125.58	128.60
35	BA	1268	A	C6-N1-C2	-6.04	114.97	118.60
35	BA	1985	G	N3-C4-C5	-6.04	125.58	128.60
35	BA	2061	G	N3-C4-N9	6.04	129.63	126.00
35	BA	2067	G	N1-C6-O6	6.04	123.53	119.90
35	BA	2485	G	N3-C4-C5	-6.04	125.58	128.60
1	AA	10	A	C2-N3-C4	-6.04	107.58	110.60
1	AA	1289	A	N1-C6-N6	6.04	122.22	118.60
4	AD	12	CYS	CA-CB-SG	6.04	124.88	114.00
35	BA	189	G	C5-N7-C8	6.04	107.32	104.30
35	BA	1080	C	N3-C2-O2	-6.04	117.67	121.90
35	BA	1142	U	N3-C2-O2	6.04	126.43	122.20
35	BA	1486	A	C5-C6-N6	-6.04	118.87	123.70
35	BA	1578	U	C3'-C2'-C1'	6.04	106.33	101.50
35	BA	2786	U	C3'-C2'-C1'	-6.04	96.67	101.50
1	AA	1117	G	N9-C4-C5	6.04	107.82	105.40
35	BA	271(T)	C	N1-C2-O2	6.04	122.52	118.90
35	BA	757	U	N1-C2-N3	-6.04	111.28	114.90
35	BA	2811	G	N7-C8-N9	6.04	116.12	113.10
53	BV	88	ARG	NE-CZ-NH2	-6.04	117.28	120.30
1	AA	824	C	C5-C4-N4	6.04	124.43	120.20
1	AA	1491	G	C5'-C4'-O4'	6.04	116.35	109.10
4	AD	106	TYR	CB-CG-CD1	6.04	124.62	121.00
35	BA	115	C	C5-C6-N1	6.04	124.02	121.00
35	BA	795	C	N3-C4-C5	6.04	124.32	121.90
35	BA	1125	G	C2-N3-C4	6.04	114.92	111.90
43	BK	63	ARG	NE-CZ-NH2	-6.04	117.28	120.30
35	BA	1309	G	C4-C5-C6	-6.04	115.18	118.80
35	BA	2032	G	N1-C2-N3	-6.04	120.28	123.90
35	BA	2145	C	C5-C6-N1	-6.04	117.98	121.00
1	AA	274	A	N1-C2-N3	6.04	132.32	129.30
1	AA	837	G	C4-C5-N7	-6.04	108.39	110.80
35	BA	271(E)	U	O4'-C1'-N1	6.04	113.03	108.20
35	BA	336	C	C5-C6-N1	6.04	124.02	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	653	A	C8-N9-C4	-6.04	103.39	105.80
35	BA	1215	G	N1-C6-O6	6.04	123.52	119.90
35	BA	2378	A	N1-C2-N3	6.04	132.32	129.30
1	AA	146	G	C5-N7-C8	-6.03	101.28	104.30
1	AA	396	G	N7-C8-N9	6.03	116.12	113.10
1	AA	803	G	C4-C5-N7	-6.03	108.39	110.80
1	AA	1256	A	C4-C5-N7	-6.03	107.68	110.70
1	AA	1318	A	N7-C8-N9	6.03	116.82	113.80
35	BA	670	A	N9-C4-C5	6.03	108.21	105.80
35	BA	1056	G	C4-C5-N7	6.03	113.21	110.80
35	BA	1519	G	OP2-P-O3'	6.03	118.47	105.20
35	BA	2003	G	C8-N9-C4	-6.03	103.99	106.40
35	BA	2032	G	C6-C5-N7	6.03	134.02	130.40
35	BA	2202	C	C6-N1-C2	-6.03	117.89	120.30
35	BA	2383	G	N3-C2-N2	-6.03	115.68	119.90
42	BH	132	ARG	NE-CZ-NH1	-6.03	117.28	120.30
1	AA	622	A	C5-C6-N6	-6.03	118.87	123.70
35	BA	2398	U	C6-N1-C2	-6.03	117.38	121.00
35	BA	2566	A	N9-C4-C5	6.03	108.21	105.80
1	AA	608	A	N1-C6-N6	-6.03	114.98	118.60
1	AA	1337	G	C5'-C4'-O4'	-6.03	101.86	109.10
22	AV	20	U	O4'-C1'-N1	6.03	113.03	108.20
35	BA	1478	G	O4'-C1'-N9	-6.03	103.38	108.20
35	BA	2750	A	O4'-C1'-N9	6.03	113.02	108.20
40	BF	46	ARG	NE-CZ-NH1	-6.03	117.28	120.30
35	BA	1280	G	C3'-C2'-C1'	-6.03	96.68	101.50
37	BC	74	ARG	NE-CZ-NH1	-6.03	117.29	120.30
1	AA	547	A	C5-C6-N6	6.03	128.52	123.70
35	BA	729	G	C5-C6-N1	6.03	114.51	111.50
35	BA	1420	U	O4'-C1'-C2'	6.03	113.03	107.60
35	BA	1910	G	C8-N9-C4	6.03	108.81	106.40
35	BA	2494	G	N1-C6-O6	-6.03	116.28	119.90
35	BA	2548	G	C6-C5-N7	-6.03	126.78	130.40
35	BA	381	G	C5-C6-N1	6.03	114.51	111.50
35	BA	1276	A	N1-C6-N6	-6.03	114.98	118.60
35	BA	2315	G	C8-N9-C4	-6.03	103.99	106.40
35	BA	2810	A	C5-C6-N6	-6.03	118.88	123.70
1	AA	1331	G	O4'-C1'-N9	6.02	113.02	108.20
35	BA	272(B)	G	N7-C8-N9	-6.02	110.09	113.10
1	AA	250	A	N3-C4-C5	-6.02	122.58	126.80
1	AA	801	U	N3-C4-O4	-6.02	115.19	119.40
1	AA	1253	G	O4'-C1'-N9	-6.02	103.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	324	A	C6-C5-N7	-6.02	128.08	132.30
35	BA	513	A	O4'-C1'-C2'	6.02	113.02	107.60
35	BA	1406	U	C5'-C4'-C3'	-6.02	106.36	116.00
35	BA	1943	U	N1-C1'-C2'	6.02	121.83	114.00
36	BB	74	U	C2-N3-C4	-6.02	123.39	127.00
27	B2	7	ARG	NE-CZ-NH1	6.02	123.31	120.30
1	AA	412	A	C4-C5-N7	-6.02	107.69	110.70
1	AA	1103	C	N1-C2-O2	-6.02	115.29	118.90
1	AA	1183	A	N1-C2-N3	6.02	132.31	129.30
35	BA	1239	G	N1-C6-O6	6.02	123.51	119.90
35	BA	1432	C	C5-C6-N1	-6.02	117.99	121.00
35	BA	1710	C	O4'-C1'-N1	6.02	113.02	108.20
35	BA	1903	G	C6-C5-N7	-6.02	126.79	130.40
35	BA	2198	A	N9-C4-C5	-6.02	103.39	105.80
1	AA	200	G	N3-C4-C5	-6.02	125.59	128.60
1	AA	876	G	N9-C4-C5	6.02	107.81	105.40
1	AA	1294	G	N9-C4-C5	-6.02	102.99	105.40
35	BA	286	C	N1-C2-O2	6.02	122.51	118.90
35	BA	181	A	C6-C5-N7	-6.02	128.09	132.30
35	BA	780	G	C5-C6-O6	-6.02	124.99	128.60
1	AA	927	G	N3-C4-C5	-6.01	125.59	128.60
22	AV	10	G	O4'-C1'-N9	-6.01	103.39	108.20
22	AV	12	G	C5-C6-O6	-6.01	124.99	128.60
35	BA	152	G	C6-C5-N7	6.01	134.01	130.40
35	BA	569	U	C2-N3-C4	6.01	130.61	127.00
35	BA	701	G	C5-N7-C8	6.01	107.31	104.30
35	BA	2266	A	C4-C5-N7	6.01	113.71	110.70
1	AA	99	U	C5-C4-O4	6.01	129.51	125.90
35	BA	1315	C	C4-C5-C6	6.01	120.41	117.40
35	BA	2834	G	C5-N7-C8	6.01	107.31	104.30
1	AA	1176	A	C8-N9-C4	-6.01	103.40	105.80
35	BA	171	G	N3-C4-N9	-6.01	122.39	126.00
35	BA	204	A	C5-C6-N1	6.01	120.71	117.70
35	BA	272(C)	G	N9-C4-C5	-6.01	103.00	105.40
35	BA	1297	C	O4'-C1'-N1	-6.01	103.39	108.20
35	BA	1324	G	N1-C2-N3	6.01	127.51	123.90
35	BA	2625	G	C8-N9-C4	6.01	108.80	106.40
36	BB	40	U	C5-C4-O4	6.01	129.51	125.90
1	AA	130	A	N1-C6-N6	6.01	122.21	118.60
1	AA	566	G	C5-C6-O6	-6.01	125.00	128.60
1	AA	898	G	C6-C5-N7	-6.01	126.79	130.40
35	BA	1006	C	O5'-P-OP1	-6.01	100.29	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1389	G	C5-C6-N1	6.01	114.50	111.50
35	BA	1414	G	N3-C4-N9	6.01	129.61	126.00
35	BA	2392	A	C2-N3-C4	-6.01	107.59	110.60
35	BA	2593	U	C3'-C2'-C1'	6.01	106.31	101.50
36	BB	36	C	N1-C2-N3	6.01	123.41	119.20
35	BA	1912	A	C6-N1-C2	6.01	122.20	118.60
35	BA	1936	A	O4'-C1'-N9	6.01	113.01	108.20
35	BA	2186	G	C8-N9-C4	-6.01	104.00	106.40
36	BB	67	G	C5-N7-C8	-6.01	101.30	104.30
1	AA	1280	A	N1-C6-N6	-6.01	115.00	118.60
35	BA	598	G	N1-C6-O6	6.01	123.50	119.90
35	BA	1916	A	N9-C4-C5	6.01	108.20	105.80
1	AA	630	G	N7-C8-N9	6.00	116.10	113.10
35	BA	1309	G	C5-C6-N1	6.00	114.50	111.50
25	B0	32	ARG	NH1-CZ-NH2	-6.00	112.80	119.40
35	BA	580	C	C4-C5-C6	-6.00	114.40	117.40
35	BA	2223	G	N1-C2-N2	-6.00	110.80	116.20
36	BB	7	G	C5-N7-C8	-6.00	101.30	104.30
1	AA	333	G	N1-C6-O6	-6.00	116.30	119.90
1	AA	854	G	N3-C4-C5	-6.00	125.60	128.60
1	AA	1388	C	C4-C5-C6	-6.00	114.40	117.40
35	BA	142(A)	C	N1-C2-N3	-6.00	115.00	119.20
35	BA	242	G	N9-C1'-C2'	6.00	121.80	114.00
35	BA	363	G	C8-N9-C4	-6.00	104.00	106.40
35	BA	386	G	O4'-C1'-N9	-6.00	103.40	108.20
35	BA	2804	C	C3'-C2'-C1'	6.00	106.30	101.50
1	AA	140	A	C5'-C4'-O4'	6.00	116.30	109.10
1	AA	189(H)	G	N9-C4-C5	6.00	107.80	105.40
1	AA	499	A	C5-N7-C8	-6.00	100.90	103.90
1	AA	884	U	N1-C2-O2	-6.00	118.60	122.80
1	AA	1394	A	C5-N7-C8	-6.00	100.90	103.90
35	BA	264	C	N1-C2-O2	-6.00	115.30	118.90
35	BA	1590	U	C1'-O4'-C4'	6.00	114.70	109.90
35	BA	2115	G	N3-C4-C5	6.00	131.60	128.60
1	AA	91	C	C6-N1-C2	-6.00	117.90	120.30
1	AA	297	G	C4-C5-N7	6.00	113.20	110.80
1	AA	566	G	N1-C6-O6	6.00	123.50	119.90
1	AA	1251	A	N7-C8-N9	-6.00	110.80	113.80
1	AA	1342	C	C3'-C2'-C1'	6.00	106.30	101.50
35	BA	54	G	N1-C6-O6	-6.00	116.30	119.90
35	BA	57	C	N3-C4-C5	-6.00	119.50	121.90
35	BA	1180	C	O4'-C1'-N1	-6.00	103.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1593	G	N1-C6-O6	6.00	123.50	119.90
35	BA	1775	U	O4'-C1'-N1	6.00	113.00	108.20
35	BA	2337	G	C1'-O4'-C4'	-6.00	105.10	109.90
35	BA	2670	A	C8-N9-C4	6.00	108.20	105.80
1	AA	628	G	C6-C5-N7	6.00	134.00	130.40
1	AA	787	A	C4-C5-N7	-6.00	107.70	110.70
19	AS	36	ARG	NE-CZ-NH1	-6.00	117.30	120.30
22	AV	12	G	C4-C5-N7	6.00	113.20	110.80
35	BA	1597	A	N9-C4-C5	-6.00	103.40	105.80
35	BA	2315	G	N3-C2-N2	6.00	124.10	119.90
39	BE	37	ARG	NE-CZ-NH2	-6.00	117.30	120.30
1	AA	460	G	C5-N7-C8	-6.00	101.30	104.30
1	AA	890	G	N7-C8-N9	6.00	116.10	113.10
35	BA	1347	G	C4-C5-N7	6.00	113.20	110.80
35	BA	1537	G	N1-C6-O6	-6.00	116.30	119.90
35	BA	1920	C	C6-N1-C2	-6.00	117.90	120.30
35	BA	2235	G	C4-C5-N7	-6.00	108.40	110.80
1	AA	109	A	C6-N1-C2	-5.99	115.00	118.60
1	AA	733	A	N1-C6-N6	5.99	122.20	118.60
26	B1	76	ARG	NE-CZ-NH1	-5.99	117.30	120.30
35	BA	1400	G	C8-N9-C4	-5.99	104.00	106.40
35	BA	2436	G	N9-C4-C5	5.99	107.80	105.40
1	AA	284	G	N1-C6-O6	-5.99	116.31	119.90
35	BA	1212	G	N1-C6-O6	-5.99	116.31	119.90
35	BA	1610	A	C4-C5-N7	5.99	113.70	110.70
1	AA	43	C	C2-N3-C4	-5.99	116.91	119.90
1	AA	649	G	N1-C6-O6	5.99	123.49	119.90
1	AA	1012	U	O4'-C1'-N1	5.99	112.99	108.20
35	BA	887	A	O4'-C1'-N9	-5.99	103.41	108.20
35	BA	1142	U	C2-N3-C4	5.99	130.59	127.00
35	BA	1584	C	C1'-O4'-C4'	5.99	114.69	109.90
1	AA	264	U	C6-N1-C2	-5.99	117.41	121.00
1	AA	840	C	N1-C2-N3	5.99	123.39	119.20
1	AA	1317	C	C2-N3-C4	5.99	122.89	119.90
1	AA	1417	G	N9-C4-C5	5.99	107.80	105.40
9	AI	9	ARG	NE-CZ-NH1	-5.99	117.31	120.30
24	AY	607	ARG	NE-CZ-NH2	-5.99	117.31	120.30
35	BA	1570	A	N7-C8-N9	5.99	116.79	113.80
35	BA	1601	G	C5-N7-C8	5.99	107.29	104.30
35	BA	2398	U	N1-C2-O2	-5.99	118.61	122.80
52	BU	52	ARG	NE-CZ-NH1	-5.99	117.31	120.30
1	AA	710	G	C5-C6-O6	5.99	132.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	991	C	N3-C4-N4	5.99	122.19	118.00
1	AA	129(A)	G	C4-C5-N7	5.99	113.19	110.80
1	AA	1193	G	C2-N3-C4	-5.99	108.91	111.90
35	BA	350	U	C4-C5-C6	5.99	123.29	119.70
35	BA	479	A	N9-C1'-C2'	5.99	121.78	114.00
35	BA	1589	C	C5-C6-N1	5.99	123.99	121.00
35	BA	2617	C	N3-C4-C5	5.99	124.29	121.90
35	BA	2712(A)	A	C6-N1-C2	5.99	122.19	118.60
1	AA	557	G	N1-C2-N3	-5.98	120.31	123.90
1	AA	945	G	N1-C6-O6	5.98	123.49	119.90
35	BA	686	G	N3-C4-C5	5.98	131.59	128.60
35	BA	755	C	C2-N1-C1'	5.98	125.38	118.80
35	BA	844	C	C6-N1-C2	-5.98	117.91	120.30
35	BA	1484	G	C2-N3-C4	-5.98	108.91	111.90
35	BA	1742	G	C6-C5-N7	5.98	133.99	130.40
35	BA	1997	G	C4-C5-N7	5.98	113.19	110.80
36	BB	101	G	N1-C2-N3	5.98	127.49	123.90
45	BN	72	TYR	CB-CG-CD1	5.98	124.59	121.00
35	BA	903	C	C6-N1-C2	-5.98	117.91	120.30
35	BA	1404	C	C6-N1-C2	5.98	122.69	120.30
35	BA	2623	G	N1-C6-O6	-5.98	116.31	119.90
1	AA	695	A	C6-N1-C2	5.98	122.19	118.60
35	BA	206	U	C5-C6-N1	-5.98	119.71	122.70
35	BA	315	G	N1-C2-N3	5.98	127.49	123.90
35	BA	406	G	N1-C6-O6	5.98	123.49	119.90
35	BA	696	G	C4-C5-N7	-5.98	108.41	110.80
35	BA	1104	C	C2-N3-C4	5.98	122.89	119.90
35	BA	1926	U	N3-C4-O4	-5.98	115.21	119.40
35	BA	2049	G	C5-C6-N1	-5.98	108.51	111.50
35	BA	2594	C	C2-N3-C4	-5.98	116.91	119.90
35	BA	2613	U	N3-C4-O4	5.98	123.59	119.40
35	BA	2618	G	N1-C2-N3	-5.98	120.31	123.90
35	BA	654(N)	G	C4-C5-N7	-5.98	108.41	110.80
35	BA	1044	G	C8-N9-C4	5.98	108.79	106.40
1	AA	240	C	C5-C4-N4	-5.98	116.02	120.20
1	AA	854	G	C6-N1-C2	-5.98	121.51	125.10
35	BA	121	G	C5-C6-N1	5.98	114.49	111.50
35	BA	271(D)	G	C4-C5-N7	-5.98	108.41	110.80
35	BA	819	A	N7-C8-N9	-5.98	110.81	113.80
35	BA	1486	A	C5-C6-N1	5.98	120.69	117.70
35	BA	2889	C	N3-C4-C5	-5.98	119.51	121.90
1	AA	624	C	C5-C6-N1	5.98	123.99	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	809	G	C6-C5-N7	-5.98	126.81	130.40
35	BA	1079	C	N3-C4-C5	-5.98	119.51	121.90
35	BA	2735	G	C4-C5-N7	5.98	113.19	110.80
1	AA	759	A	C8-N9-C4	-5.97	103.41	105.80
31	B6	37	ARG	NE-CZ-NH1	5.97	123.29	120.30
35	BA	130	C	N1-C2-O2	-5.97	115.31	118.90
35	BA	846	C	N3-C2-O2	-5.97	117.72	121.90
35	BA	1232	G	C6-N1-C2	-5.97	121.52	125.10
35	BA	1924	C	C5-C4-N4	-5.97	116.02	120.20
35	BA	2347	C	N3-C4-C5	5.97	124.29	121.90
1	AA	129(A)	G	C8-N9-C4	5.97	108.79	106.40
1	AA	598	U	N1-C2-N3	-5.97	111.32	114.90
1	AA	810	C	C4-C5-C6	5.97	120.39	117.40
35	BA	271(P)	C	C3'-C2'-C1'	-5.97	96.72	101.50
35	BA	772	C	N3-C4-N4	5.97	122.18	118.00
35	BA	1033	U	C4-C5-C6	5.97	123.28	119.70
35	BA	1480	G	C5-N7-C8	-5.97	101.31	104.30
35	BA	2603	G	O4'-C1'-C2'	5.97	112.97	107.60
35	BA	2644	G	N7-C8-N9	-5.97	110.11	113.10
1	AA	1289	A	C4-C5-N7	5.97	113.69	110.70
1	AA	1445	C	N3-C4-N4	-5.97	113.82	118.00
1	AA	1515	C	C5-C4-N4	5.97	124.38	120.20
35	BA	2120	G	C6-N1-C2	5.97	128.68	125.10
1	AA	321	A	O4'-C1'-N9	5.97	112.97	108.20
1	AA	699	C	N1-C2-O2	5.97	122.48	118.90
1	AA	978	A	C8-N9-C4	5.97	108.19	105.80
1	AA	1516	G	C5-N7-C8	5.97	107.28	104.30
35	BA	42	G	C2-N3-C4	-5.97	108.92	111.90
35	BA	654(I)	C	C5-C4-N4	-5.97	116.02	120.20
35	BA	665	C	C3'-C2'-C1'	-5.97	96.72	101.50
35	BA	911	A	C1'-O4'-C4'	-5.97	105.12	109.90
35	BA	2087	G	N3-C4-C5	5.97	131.58	128.60
35	BA	2481	G	N3-C4-C5	-5.97	125.61	128.60
35	BA	2735	G	C5-N7-C8	-5.97	101.31	104.30
35	BA	1073	A	C2-N3-C4	-5.97	107.62	110.60
1	AA	1421	G	C4-C5-C6	-5.97	115.22	118.80
35	BA	143	G	N1-C2-N3	5.97	127.48	123.90
35	BA	670	A	O4'-C1'-N9	-5.97	103.43	108.20
35	BA	730	C	C4-C5-C6	5.97	120.38	117.40
35	BA	1223	G	C6-C5-N7	-5.97	126.82	130.40
35	BA	1965	C	N3-C4-C5	5.97	124.29	121.90
35	BA	2450	A	C5-C6-N1	5.97	120.68	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BF	18	ARG	NE-CZ-NH1	-5.97	117.32	120.30
1	AA	856	C	N1-C2-O2	5.96	122.48	118.90
1	AA	1332	A	C8-N9-C4	5.96	108.19	105.80
35	BA	2445	G	N7-C8-N9	-5.96	110.12	113.10
1	AA	963	G	N1-C6-O6	5.96	123.48	119.90
35	BA	1011	G	C5-C6-N1	5.96	114.48	111.50
35	BA	2024	G	N7-C8-N9	5.96	116.08	113.10
1	AA	113	G	N1-C6-O6	-5.96	116.32	119.90
1	AA	848	C	N3-C4-C5	-5.96	119.52	121.90
1	AA	1100	C	N3-C4-C5	-5.96	119.52	121.90
1	AA	1297	C	C4-C5-C6	-5.96	114.42	117.40
11	AK	67	ASP	CB-CG-OD2	5.96	123.67	118.30
35	BA	126	A	N1-C2-N3	5.96	132.28	129.30
35	BA	1121	C	C1'-O4'-C4'	-5.96	105.13	109.90
35	BA	2062	A	O4'-C1'-N9	-5.96	103.43	108.20
35	BA	2424	C	C5-C6-N1	-5.96	118.02	121.00
48	BQ	69	PHE	CB-CG-CD2	5.96	124.97	120.80
1	AA	123	C	N3-C4-C5	-5.96	119.52	121.90
35	BA	524	U	C5-C6-N1	5.96	125.68	122.70
35	BA	1455	G	C2-N3-C4	-5.96	108.92	111.90
53	BV	88	ARG	NE-CZ-NH1	-5.96	117.32	120.30
1	AA	629	G	N9-C4-C5	5.96	107.78	105.40
22	AV	5	G	C5-C6-N1	-5.96	108.52	111.50
35	BA	251	A	C2-N3-C4	-5.96	107.62	110.60
35	BA	447	A	C2-N3-C4	5.96	113.58	110.60
35	BA	569	U	N3-C4-C5	-5.96	111.03	114.60
35	BA	911	A	N7-C8-N9	5.96	116.78	113.80
35	BA	1024	G	N3-C4-C5	5.96	131.58	128.60
1	AA	1285	A	C2'-C3'-O3'	5.96	123.23	113.70
35	BA	782	A	N7-C8-N9	-5.96	110.82	113.80
35	BA	1850	G	N9-C4-C5	5.96	107.78	105.40
35	BA	2178	C	C4-C5-C6	5.96	120.38	117.40
1	AA	294	U	C5-C4-O4	-5.96	122.33	125.90
1	AA	677	U	N3-C4-O4	-5.96	115.23	119.40
35	BA	729	G	N9-C1'-C2'	5.96	121.74	114.00
35	BA	2861	G	O4'-C1'-N9	-5.96	103.44	108.20
1	AA	1292	U	C5-C6-N1	-5.95	119.72	122.70
1	AA	1293	G	C8-N9-C4	5.95	108.78	106.40
35	BA	838	C	C5'-C4'-O4'	-5.95	101.96	109.10
35	BA	1468	C	N1-C2-O2	5.95	122.47	118.90
35	BA	1929	G	N1-C2-N2	5.95	121.56	116.20
39	BE	89	ASP	CB-CG-OD2	-5.95	112.94	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	401	C	C2-N3-C4	5.95	122.88	119.90
1	AA	668	G	N7-C8-N9	-5.95	110.12	113.10
1	AA	920	U	N1-C2-N3	-5.95	111.33	114.90
1	AA	1087	G	C5-N7-C8	-5.95	101.32	104.30
35	BA	1252	G	O4'-C1'-C2'	5.95	112.96	107.60
44	BL	115	ALA	CB-CA-C	5.95	119.03	110.10
57	BZ	112	ARG	NE-CZ-NH1	5.95	123.28	120.30
1	AA	1500	A	O4'-C1'-N9	-5.95	103.44	108.20
1	AA	1525	G	N9-C1'-C2'	-5.95	105.45	112.00
24	AY	123	ARG	NE-CZ-NH2	-5.95	117.32	120.30
35	BA	1938	A	C3'-C2'-C1'	5.95	106.26	101.50
42	BH	97	ARG	NE-CZ-NH2	-5.95	117.32	120.30
1	AA	1425	U	N1-C2-N3	5.95	118.47	114.90
35	BA	425	G	C4-C5-C6	-5.95	115.23	118.80
35	BA	778	G	C5-C6-O6	5.95	132.17	128.60
35	BA	1616	A	N1-C6-N6	5.95	122.17	118.60
35	BA	2402	C	C2-N3-C4	-5.95	116.92	119.90
35	BA	1560	G	N3-C2-N2	-5.95	115.74	119.90
35	BA	2449	U	C3'-C2'-C1'	-5.95	96.74	101.50
1	AA	542	G	C5-N7-C8	-5.95	101.33	104.30
1	AA	1153	C	N3-C2-O2	-5.95	117.74	121.90
1	AA	1269	A	C4-C5-N7	5.95	113.67	110.70
1	AA	1499	A	C3'-C2'-C1'	-5.95	96.74	101.50
35	BA	455	C	C3'-C2'-C1'	5.95	106.26	101.50
35	BA	1348	G	C5-C6-O6	5.95	132.17	128.60
35	BA	1457	A	C5-C6-N1	5.95	120.67	117.70
35	BA	1942	C	C5'-C4'-O4'	5.95	116.23	109.10
1	AA	1088	G	C2-N3-C4	-5.94	108.93	111.90
2	AB	148	TYR	CB-CG-CD1	-5.94	117.43	121.00
35	BA	989	G	C8-N9-C4	-5.94	104.02	106.40
35	BA	2412	A	N9-C1'-C2'	-5.94	105.46	112.00
35	BA	2537	U	C6-N1-C2	-5.94	117.43	121.00
35	BA	2775	A	N1-C6-N6	-5.94	115.03	118.60
35	BA	6	A	C4-C5-N7	5.94	113.67	110.70
35	BA	283	A	C5-N7-C8	-5.94	100.93	103.90
35	BA	801	G	C6-N1-C2	-5.94	121.53	125.10
35	BA	1258	C	C5-C6-N1	-5.94	118.03	121.00
35	BA	1467	C	C5-C4-N4	-5.94	116.04	120.20
35	BA	1901	A	O4'-C1'-N9	5.94	112.95	108.20
35	BA	2700	C	C3'-C2'-C1'	-5.94	96.75	101.50
1	AA	77	G	C5-N7-C8	5.94	107.27	104.30
1	AA	987	G	C4-C5-C6	-5.94	115.24	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	904	C	N3-C2-O2	-5.94	117.74	121.90
35	BA	1703	G	C5-N7-C8	-5.94	101.33	104.30
36	BB	19	G	C5-N7-C8	5.94	107.27	104.30
35	BA	56	A	C2-N3-C4	5.94	113.57	110.60
35	BA	636	G	C5-C6-O6	5.94	132.16	128.60
1	AA	173	U	C5-C6-N1	5.94	125.67	122.70
1	AA	815	A	N9-C4-C5	-5.94	103.42	105.80
1	AA	963	G	C5-C6-O6	-5.94	125.04	128.60
1	AA	1101	A	C5-C6-N1	5.94	120.67	117.70
35	BA	390	A	C4'-C3'-C2'	5.94	108.54	102.60
35	BA	1747	G	N9-C4-C5	5.94	107.78	105.40
35	BA	1863	G	N1-C6-O6	-5.94	116.34	119.90
35	BA	2096	U	C5-C4-O4	-5.94	122.34	125.90
35	BA	2532	G	C5-C6-N1	5.94	114.47	111.50
36	BB	13	A	C2-N3-C4	5.94	113.57	110.60
1	AA	317	G	N3-C2-N2	5.94	124.06	119.90
1	AA	1100	C	N1-C2-O2	-5.94	115.34	118.90
1	AA	127	G	C2-N3-C4	5.93	114.87	111.90
1	AA	166	G	N1-C2-N3	-5.93	120.34	123.90
1	AA	305	G	N3-C4-C5	5.93	131.57	128.60
1	AA	495	A	C1'-O4'-C4'	-5.93	105.15	109.90
1	AA	568	G	C4-C5-C6	-5.93	115.24	118.80
1	AA	684	A	C6-N1-C2	-5.93	115.04	118.60
35	BA	81	G	C5-C6-O6	5.93	132.16	128.60
35	BA	624	C	C6-N1-C2	5.93	122.67	120.30
35	BA	635	C	N3-C2-O2	-5.93	117.75	121.90
35	BA	647	G	C6-C5-N7	-5.93	126.84	130.40
35	BA	1754	C	N1-C2-O2	5.93	122.46	118.90
35	BA	1844	C	C1'-O4'-C4'	-5.93	105.15	109.90
35	BA	2550	G	C6-N1-C2	5.93	128.66	125.10
41	BG	22	ARG	NE-CZ-NH1	-5.93	117.33	120.30
1	AA	283	C	C4-C5-C6	-5.93	114.43	117.40
1	AA	397	A	O4'-C1'-N9	5.93	112.94	108.20
35	BA	74	A	O4'-C1'-C2'	5.93	112.94	107.60
35	BA	817	C	C6-N1-C2	5.93	122.67	120.30
35	BA	1773	A	C8-N9-C4	5.93	108.17	105.80
35	BA	2142	C	C3'-C2'-C1'	-5.93	96.75	101.50
35	BA	2316	C	C6-N1-C2	5.93	122.67	120.30
35	BA	2695	C	N1-C2-O2	-5.93	115.34	118.90
1	AA	912	C	C3'-C2'-C1'	5.93	106.25	101.50
35	BA	1335	U	C5-C6-N1	5.93	125.67	122.70
1	AA	246	A	O4'-C4'-C3'	5.93	110.84	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1256	A	O4'-C1'-C2'	5.93	112.94	107.60
12	AL	15	ARG	NE-CZ-NH1	-5.93	117.33	120.30
35	BA	752	A	C6-N1-C2	5.93	122.16	118.60
35	BA	1245	G	C4-C5-N7	5.93	113.17	110.80
35	BA	1528	A	C2-N3-C4	5.93	113.56	110.60
35	BA	1539	G	C5-C6-O6	-5.93	125.04	128.60
35	BA	2258	C	C5-C4-N4	-5.93	116.05	120.20
48	BQ	60	ARG	NE-CZ-NH2	-5.93	117.33	120.30
35	BA	2447	G	C6-C5-N7	5.93	133.96	130.40
1	AA	113	G	C5-C6-N1	5.93	114.46	111.50
1	AA	1057	G	N3-C4-C5	5.93	131.56	128.60
1	AA	1320	C	N3-C2-O2	-5.93	117.75	121.90
35	BA	78	A	N9-C4-C5	-5.93	103.43	105.80
35	BA	271(G)	C	C4-C5-C6	5.93	120.36	117.40
35	BA	343	C	C5-C6-N1	5.93	123.96	121.00
35	BA	1256	G	C5-C6-N1	-5.93	108.54	111.50
35	BA	1432	C	O4'-C1'-N1	5.93	112.94	108.20
35	BA	2145	C	N3-C4-N4	5.93	122.15	118.00
35	BA	2278	A	N7-C8-N9	-5.93	110.84	113.80
35	BA	2725	A	C2-N3-C4	5.93	113.56	110.60
35	BA	746	A	O4'-C1'-N9	5.92	112.94	108.20
35	BA	2289	G	C5-C6-N1	5.92	114.46	111.50
35	BA	124	G	C1'-O4'-C4'	-5.92	105.16	109.90
35	BA	689	A	C6-N1-C2	-5.92	115.05	118.60
35	BA	2021	C	C1'-O4'-C4'	-5.92	105.16	109.90
1	AA	555	C	C6-N1-C2	-5.92	117.93	120.30
24	AY	348	ARG	NE-CZ-NH1	-5.92	117.34	120.30
35	BA	1770	G	C2-N3-C4	-5.92	108.94	111.90
1	AA	339	C	O4'-C1'-N1	5.92	112.94	108.20
35	BA	482	A	N1-C2-N3	5.92	132.26	129.30
35	BA	497	A	C5-C6-N1	5.92	120.66	117.70
35	BA	800	A	C6-N1-C2	5.92	122.15	118.60
35	BA	864	G	N1-C2-N2	-5.92	110.87	116.20
35	BA	965	C	C5'-C4'-O4'	5.92	116.20	109.10
35	BA	2184	G	N9-C4-C5	5.92	107.77	105.40
35	BA	2263	C	N3-C4-C5	5.92	124.27	121.90
1	AA	591	U	C6-N1-C2	-5.92	117.45	121.00
5	AE	133	TYR	CD1-CE1-CZ	-5.92	114.47	119.80
30	B5	52	TYR	CG-CD2-CE2	5.92	126.03	121.30
35	BA	627	A	C4-C5-N7	-5.92	107.74	110.70
35	BA	1255	U	C6-N1-C2	-5.92	117.45	121.00
35	BA	1385	G	N9-C1'-C2'	5.92	121.69	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1938	A	C2-N3-C4	-5.92	107.64	110.60
35	BA	2144	U	C6-N1-C2	-5.92	117.45	121.00
35	BA	2711	A	C4-C5-N7	-5.92	107.74	110.70
1	AA	494	U	N3-C4-C5	-5.92	111.05	114.60
1	AA	1030(A)	G	C4-C5-N7	-5.92	108.43	110.80
1	AA	1275	A	N7-C8-N9	5.92	116.76	113.80
35	BA	103	A	C5-N7-C8	5.92	106.86	103.90
35	BA	581	C	N3-C4-C5	5.92	124.27	121.90
35	BA	1055	G	N7-C8-N9	-5.92	110.14	113.10
35	BA	1524	G	C8-N9-C4	5.92	108.77	106.40
35	BA	1556	C	O4'-C1'-N1	-5.92	103.47	108.20
35	BA	1608	A	N1-C6-N6	-5.92	115.05	118.60
1	AA	488	C	C6-N1-C2	-5.92	117.93	120.30
1	AA	505	G	N3-C4-C5	-5.92	125.64	128.60
1	AA	989	C	N3-C2-O2	5.92	126.04	121.90
22	AV	54	U	C5'-C4'-O4'	5.92	116.20	109.10
35	BA	139(A)	G	C8-N9-C4	-5.92	104.03	106.40
1	AA	125	U	C5-C4-O4	-5.91	122.35	125.90
1	AA	750	G	C2-N3-C4	-5.91	108.94	111.90
1	AA	1072	G	C4-C5-C6	5.91	122.35	118.80
1	AA	1330	U	C5-C4-O4	-5.91	122.35	125.90
35	BA	892	G	N9-C4-C5	-5.91	103.03	105.40
35	BA	1212	G	O4'-C1'-N9	5.91	112.93	108.20
35	BA	1307	A	C6-C5-N7	-5.91	128.16	132.30
35	BA	1669	A	C4-C5-C6	-5.91	114.04	117.00
35	BA	1893	C	N3-C4-C5	5.91	124.27	121.90
35	BA	2170	A	C1'-O4'-C4'	-5.91	105.17	109.90
35	BA	2331	G	N1-C2-N3	-5.91	120.35	123.90
35	BA	2597	G	C5-N7-C8	5.91	107.26	104.30
35	BA	2622	C	C4-C5-C6	-5.91	114.44	117.40
52	BU	50	ARG	NE-CZ-NH1	-5.91	117.34	120.30
1	AA	1130	A	O4'-C1'-N9	5.91	112.93	108.20
22	AV	55	U	C2-N3-C4	5.91	130.55	127.00
25	B0	78	TYR	CB-CG-CD2	5.91	124.55	121.00
35	BA	628	G	C6-N1-C2	5.91	128.65	125.10
35	BA	760	G	N3-C2-N2	5.91	124.04	119.90
35	BA	1610	A	N1-C2-N3	-5.91	126.34	129.30
35	BA	2093	G	C8-N9-C4	-5.91	104.04	106.40
35	BA	2195	C	C6-N1-C2	5.91	122.66	120.30
1	AA	41	G	N1-C2-N3	5.91	127.45	123.90
1	AA	676	A	C4-C5-N7	5.91	113.65	110.70
1	AA	684	A	C8-N9-C4	-5.91	103.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	839	U	C5-C4-O4	5.91	129.44	125.90
1	AA	959	A	C5-N7-C8	-5.91	100.94	103.90
35	BA	2090	G	N1-C6-O6	5.91	123.44	119.90
35	BA	2190	G	C6-C5-N7	-5.91	126.86	130.40
35	BA	2520	C	C5-C4-N4	-5.91	116.06	120.20
1	AA	189(L)	G	C4-C5-N7	-5.91	108.44	110.80
1	AA	248	C	N3-C2-O2	-5.91	117.77	121.90
35	BA	2417	C	C2-N3-C4	-5.91	116.95	119.90
1	AA	505	G	N9-C4-C5	-5.91	103.04	105.40
1	AA	848	C	C6-N1-C2	-5.91	117.94	120.30
1	AA	975	A	C4-C5-C6	5.91	119.95	117.00
1	AA	1172	C	C4-C5-C6	5.91	120.35	117.40
35	BA	579	G	C6-C5-N7	-5.91	126.86	130.40
35	BA	2056	G	N1-C6-O6	-5.91	116.36	119.90
38	BD	211	ARG	NE-CZ-NH2	-5.91	117.35	120.30
1	AA	45	U	C3'-C2'-C1'	-5.90	96.78	101.50
35	BA	2369	A	N1-C6-N6	5.90	122.14	118.60
1	AA	553	A	C1'-O4'-C4'	5.90	114.62	109.90
1	AA	1211	U	C1'-O4'-C4'	5.90	114.62	109.90
35	BA	354	G	C6-C5-N7	-5.90	126.86	130.40
35	BA	2657	A	N1-C6-N6	5.90	122.14	118.60
1	AA	603	U	O4'-C1'-N1	5.90	112.92	108.20
1	AA	1118	C	N3-C4-C5	-5.90	119.54	121.90
5	AE	150	ARG	NE-CZ-NH1	-5.90	117.35	120.30
35	BA	274	G	C8-N9-C4	5.90	108.76	106.40
35	BA	1169	G	O4'-C1'-N9	5.90	112.92	108.20
35	BA	1459	G	N9-C1'-C2'	5.90	121.67	114.00
35	BA	2113	U	C4-C5-C6	5.90	123.24	119.70
1	AA	910	C	O4'-C1'-N1	5.90	112.92	108.20
20	AT	23	ARG	NE-CZ-NH1	5.90	123.25	120.30
35	BA	260	G	C4-C5-C6	-5.90	115.26	118.80
35	BA	986	C	C2-N3-C4	5.90	122.85	119.90
1	AA	189(A)	C	C4-C5-C6	-5.90	114.45	117.40
35	BA	1214	A	C5-C6-N1	-5.90	114.75	117.70
35	BA	1421	G	C5-C6-O6	-5.90	125.06	128.60
35	BA	1819	A	N9-C1'-C2'	5.90	121.67	114.00
35	BA	2575	C	C6-N1-C2	5.90	122.66	120.30
1	AA	1316	G	C2-N3-C4	5.90	114.85	111.90
35	BA	620	G	N9-C4-C5	-5.90	103.04	105.40
35	BA	799	G	C6-N1-C2	-5.90	121.56	125.10
35	BA	799	G	N1-C2-N3	5.90	127.44	123.90
1	AA	384	G	C3'-C2'-C1'	-5.89	96.78	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	47	C	C4-C5-C6	5.89	120.35	117.40
35	BA	266	G	N3-C2-N2	-5.89	115.77	119.90
35	BA	1321	A	C2-N3-C4	5.89	113.55	110.60
35	BA	1719	G	N3-C2-N2	5.89	124.03	119.90
35	BA	1792	G	C2-N3-C4	5.89	114.85	111.90
35	BA	2106	G	N3-C2-N2	-5.89	115.78	119.90
35	BA	2235	G	N9-C4-C5	5.89	107.76	105.40
36	BB	22	U	C2-N3-C4	-5.89	123.46	127.00
1	AA	663	A	N9-C4-C5	-5.89	103.44	105.80
1	AA	744	C	O4'-C1'-N1	-5.89	103.49	108.20
1	AA	767	A	N9-C4-C5	-5.89	103.44	105.80
1	AA	894	G	C2-N3-C4	5.89	114.85	111.90
1	AA	1324	A	C8-N9-C4	5.89	108.16	105.80
35	BA	55	G	N1-C2-N2	5.89	121.50	116.20
35	BA	249	C	N1-C1'-C2'	5.89	121.66	114.00
35	BA	953	A	N9-C1'-C2'	-5.89	105.52	112.00
35	BA	1612	C	N1-C2-N3	5.89	123.33	119.20
35	BA	1612	C	N3-C2-O2	-5.89	117.78	121.90
35	BA	2894	G	C6-C5-N7	5.89	133.94	130.40
1	AA	926	G	C5-N7-C8	5.89	107.25	104.30
21	AU	10	ARG	NE-CZ-NH1	-5.89	117.35	120.30
22	AV	49	G	C5-N7-C8	-5.89	101.35	104.30
35	BA	770	G	N9-C4-C5	5.89	107.76	105.40
35	BA	2324	C	C3'-C2'-C1'	5.89	106.21	101.50
1	AA	168	G	C6-C5-N7	-5.89	126.87	130.40
8	AH	52	ASP	CB-CG-OD1	-5.89	113.00	118.30
35	BA	502	A	O5'-P-OP1	-5.89	100.40	105.70
35	BA	1398	C	C2-N3-C4	5.89	122.84	119.90
35	BA	1501	C	N3-C2-O2	-5.89	117.78	121.90
35	BA	2260	C	N3-C4-N4	-5.89	113.88	118.00
35	BA	2269	A	N7-C8-N9	-5.89	110.86	113.80
35	BA	2464	C	N1-C1'-C2'	-5.89	105.52	112.00
35	BA	2522	U	N1-C2-O2	-5.89	118.68	122.80
36	BB	4	C	O4'-C1'-N1	-5.89	103.49	108.20
1	AA	821	G	N7-C8-N9	5.89	116.04	113.10
22	AV	52	G	C1'-O4'-C4'	-5.89	105.19	109.90
35	BA	619	G	N1-C6-O6	-5.89	116.37	119.90
35	BA	2629	A	O4'-C1'-N9	-5.89	103.49	108.20
1	AA	618	C	N3-C4-C5	5.89	124.25	121.90
1	AA	1329	A	C4'-C3'-C2'	-5.89	96.71	102.60
22	AV	5	G	N1-C6-O6	5.89	123.43	119.90
35	BA	406	G	C6-N1-C2	5.89	128.63	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2071	A	N9-C4-C5	-5.89	103.44	105.80
35	BA	2197	U	C5-C6-N1	5.89	125.64	122.70
47	BP	21	ARG	NE-CZ-NH1	-5.89	117.36	120.30
1	AA	194	C	N1-C2-O2	5.88	122.43	118.90
1	AA	861	G	C5-C6-N1	5.88	114.44	111.50
1	AA	1392	G	O4'-C1'-N9	-5.88	103.49	108.20
1	AA	1400	C	N1-C2-O2	5.88	122.43	118.90
1	AA	1514	C	N3-C4-C5	5.88	124.25	121.90
35	BA	585	G	N3-C4-N9	-5.88	122.47	126.00
35	BA	917	A	C8-N9-C4	5.88	108.15	105.80
35	BA	1436	G	N9-C1'-C2'	-5.88	105.53	112.00
35	BA	2151	G	N7-C8-N9	-5.88	110.16	113.10
42	BH	54	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	AA	537	G	C2-N3-C4	-5.88	108.96	111.90
24	AY	655	TYR	CZ-CE2-CD2	-5.88	114.50	119.80
35	BA	758	C	N3-C4-C5	5.88	124.25	121.90
35	BA	1290	C	N3-C2-O2	-5.88	117.78	121.90
35	BA	271(Y)	U	C5-C6-N1	5.88	125.64	122.70
35	BA	904	C	N1-C2-O2	5.88	122.43	118.90
35	BA	1413	G	N3-C4-C5	5.88	131.54	128.60
35	BA	2332	U	C5-C6-N1	-5.88	119.76	122.70
37	BC	54	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	AA	174	C	C2-N3-C4	-5.88	116.96	119.90
1	AA	1442(B)	A	N1-C2-N3	5.88	132.24	129.30
35	BA	1344	G	C8-N9-C4	5.88	108.75	106.40
35	BA	1501	C	C4-C5-C6	5.88	120.34	117.40
36	BB	42	C	C4-C5-C6	5.88	120.34	117.40
43	BK	62	ASP	CB-CG-OD2	-5.88	113.01	118.30
1	AA	190	U	C1'-O4'-C4'	5.88	114.60	109.90
1	AA	1188	A	C5-C6-N1	5.88	120.64	117.70
1	AA	1417	G	C4-C5-C6	5.88	122.33	118.80
1	AA	1488	G	N7-C8-N9	5.88	116.04	113.10
22	AV	69	C	C2-N3-C4	5.88	122.84	119.90
35	BA	336	C	N1-C2-O2	5.88	122.43	118.90
35	BA	755	C	C6-N1-C1'	-5.88	113.75	120.80
35	BA	1149	G	C5-N7-C8	-5.88	101.36	104.30
35	BA	1625	C	N3-C4-C5	5.88	124.25	121.90
35	BA	2413	G	N1-C2-N3	5.88	127.43	123.90
35	BA	2665	A	C4-C5-N7	5.88	113.64	110.70
1	AA	680	C	C2-N3-C4	-5.88	116.96	119.90
1	AA	1123	A	C3'-C2'-C1'	5.88	106.20	101.50
24	AY	558	PHE	CB-CG-CD1	-5.88	116.69	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1051	G	N3-C4-N9	5.88	129.53	126.00
35	BA	1127	A	O4'-C1'-C2'	5.88	112.89	107.60
35	BA	2169	A	C2-N3-C4	-5.88	107.66	110.60
35	BA	2748	A	O4'-C1'-N9	5.88	112.90	108.20
46	BO	17	ARG	NE-CZ-NH1	5.88	123.24	120.30
1	AA	1385	G	N7-C8-N9	5.87	116.04	113.10
22	AV	29	G	C6-N1-C2	5.87	128.62	125.10
35	BA	44	G	C5-N7-C8	-5.87	101.36	104.30
35	BA	317	G	N3-C4-N9	5.87	129.52	126.00
35	BA	430	G	C5-N7-C8	-5.87	101.36	104.30
35	BA	1089	G	N1-C2-N2	5.87	121.49	116.20
35	BA	1854	A	C5-N7-C8	-5.87	100.96	103.90
35	BA	2134	A	C4-C5-N7	5.87	113.64	110.70
1	AA	16	A	N9-C4-C5	-5.87	103.45	105.80
1	AA	146	G	N3-C4-N9	5.87	129.52	126.00
1	AA	157	G	C5-C6-O6	5.87	132.12	128.60
1	AA	1083	U	C4-C5-C6	5.87	123.22	119.70
35	BA	481	G	C5-N7-C8	-5.87	101.36	104.30
35	BA	494	G	N9-C4-C5	5.87	107.75	105.40
35	BA	843	G	C8-N9-C4	5.87	108.75	106.40
35	BA	845	G	C6-N1-C2	-5.87	121.58	125.10
35	BA	2718	G	C4-C5-N7	-5.87	108.45	110.80
38	BD	54	ARG	NE-CZ-NH1	-5.87	117.36	120.30
1	AA	298	A	C2-N3-C4	5.87	113.53	110.60
1	AA	786	G	N1-C2-N3	5.87	127.42	123.90
1	AA	1033	G	N1-C6-O6	-5.87	116.38	119.90
1	AA	1035	A	C1'-O4'-C4'	-5.87	105.21	109.90
35	BA	288	C	O4'-C1'-N1	5.87	112.89	108.20
35	BA	635	C	N3-C4-C5	-5.87	119.55	121.90
35	BA	1187	G	N7-C8-N9	5.87	116.03	113.10
35	BA	1385	G	C6-N1-C2	-5.87	121.58	125.10
35	BA	2679	A	C6-N1-C2	-5.87	115.08	118.60
35	BA	183	C	C6-N1-C2	-5.87	117.95	120.30
35	BA	994	C	C2-N3-C4	5.87	122.83	119.90
35	BA	1560	G	O4'-C1'-N9	-5.87	103.51	108.20
35	BA	2400	G	N1-C6-O6	5.87	123.42	119.90
35	BA	2744	G	C4-C5-N7	-5.87	108.45	110.80
1	AA	43	C	C4-C5-C6	-5.87	114.47	117.40
1	AA	425	G	N3-C4-N9	5.87	129.52	126.00
22	AV	30	G	C2-N3-C4	5.87	114.83	111.90
35	BA	637	A	N1-C6-N6	5.87	122.12	118.60
35	BA	1543	C	C5-C6-N1	-5.87	118.07	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2386	C	N3-C4-C5	5.87	124.25	121.90
35	BA	2726	U	C4-C5-C6	-5.87	116.18	119.70
1	AA	17	U	N1-C2-N3	5.86	118.42	114.90
1	AA	658	G	N3-C4-C5	-5.86	125.67	128.60
1	AA	1412	C	N3-C4-C5	-5.86	119.55	121.90
12	AL	97	ARG	NE-CZ-NH1	-5.86	117.37	120.30
35	BA	53	A	C5-C6-N6	-5.86	119.01	123.70
35	BA	554	U	C5-C4-O4	-5.86	122.38	125.90
35	BA	635	C	C4-C5-C6	5.86	120.33	117.40
35	BA	1226	A	C2-N3-C4	-5.86	107.67	110.60
35	BA	2097	C	C4-C5-C6	5.86	120.33	117.40
35	BA	2181	G	C4-C5-N7	-5.86	108.45	110.80
35	BA	2750	A	N9-C4-C5	-5.86	103.45	105.80
35	BA	478	A	C5-N7-C8	-5.86	100.97	103.90
35	BA	1171	G	C5-N7-C8	-5.86	101.37	104.30
35	BA	2548	G	C6-N1-C2	5.86	128.62	125.10
1	AA	928	G	N9-C4-C5	5.86	107.74	105.40
35	BA	139(A)	G	N9-C4-C5	5.86	107.75	105.40
35	BA	535	C	C1'-O4'-C4'	5.86	114.59	109.90
35	BA	1578	U	N1-C2-O2	5.86	126.90	122.80
35	BA	1785	A	N1-C6-N6	5.86	122.12	118.60
35	BA	2435	A	N9-C4-C5	5.86	108.14	105.80
35	BA	2448	A	C5-N7-C8	5.86	106.83	103.90
35	BA	95	G	C2-N3-C4	5.86	114.83	111.90
46	BO	56	ASP	CB-CG-OD2	5.86	123.57	118.30
1	AA	294	U	N3-C4-C5	5.86	118.11	114.60
1	AA	307	C	C3'-C2'-C1'	5.86	106.19	101.50
1	AA	1104	G	C8-N9-C4	-5.86	104.06	106.40
1	AA	1325	C	C5-C6-N1	5.86	123.93	121.00
22	AV	12	G	C5-C6-N1	5.86	114.43	111.50
22	AV	43	A	C6-N1-C2	-5.86	115.08	118.60
25	B0	69	PHE	CB-CG-CD2	-5.86	116.70	120.80
35	BA	123	G	N7-C8-N9	5.86	116.03	113.10
35	BA	2603	G	N9-C1'-C2'	-5.86	105.56	112.00
1	AA	1168	A	C2-N3-C4	-5.86	107.67	110.60
1	AA	1490	C	C6-N1-C1'	5.86	127.83	120.80
35	BA	744	G	C5-N7-C8	-5.86	101.37	104.30
35	BA	957	A	C4-C5-N7	-5.86	107.77	110.70
35	BA	1229	G	N9-C4-C5	5.86	107.74	105.40
35	BA	1283	G	C8-N9-C4	-5.86	104.06	106.40
36	BB	104	U	N3-C4-C5	5.86	118.11	114.60
1	AA	128	G	C5-C6-N1	-5.85	108.57	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	481	G	C5'-C4'-C3'	-5.85	106.63	116.00
1	AA	750	G	C5-C6-O6	5.85	132.11	128.60
1	AA	1336	C	N3-C4-N4	5.85	122.10	118.00
1	AA	429	U	C5'-C4'-O4'	5.85	116.12	109.10
1	AA	506	G	N3-C4-N9	-5.85	122.49	126.00
1	AA	546	G	C4-C5-N7	-5.85	108.46	110.80
1	AA	1375	A	C5-N7-C8	-5.85	100.97	103.90
1	AA	1405	G	N9-C4-C5	5.85	107.74	105.40
35	BA	256	A	C4-C5-N7	5.85	113.63	110.70
35	BA	488	G	C4-C5-N7	-5.85	108.46	110.80
35	BA	1123	C	C4-C5-C6	5.85	120.33	117.40
35	BA	1234	U	O4'-C1'-N1	5.85	112.88	108.20
35	BA	1275	A	C5-N7-C8	-5.85	100.97	103.90
35	BA	1662	C	C3'-C2'-C1'	-5.85	96.82	101.50
35	BA	2134	A	C1'-O4'-C4'	-5.85	105.22	109.90
35	BA	2286	A	N9-C4-C5	5.85	108.14	105.80
35	BA	2421	G	C5-N7-C8	-5.85	101.37	104.30
35	BA	2622	C	O4'-C1'-C2'	5.85	112.87	107.60
36	BB	117	G	N3-C2-N2	-5.85	115.80	119.90
1	AA	526	C	N1-C2-N3	-5.85	115.10	119.20
1	AA	1089	G	C6-C5-N7	-5.85	126.89	130.40
35	BA	457	A	N7-C8-N9	5.85	116.73	113.80
35	BA	2413	G	N7-C8-N9	5.85	116.03	113.10
1	AA	803	G	N1-C2-N3	-5.85	120.39	123.90
35	BA	399	G	C4-C5-N7	-5.85	108.46	110.80
35	BA	654(V)	A	C3'-C2'-C1'	5.85	106.18	101.50
35	BA	1684	C	N3-C2-O2	-5.85	117.81	121.90
35	BA	1923	U	N1-C2-O2	5.85	126.89	122.80
35	BA	2229	C	C2-N3-C4	5.85	122.83	119.90
35	BA	2680	C	C4-C5-C6	-5.85	114.48	117.40
35	BA	2857	G	C5-N7-C8	5.85	107.22	104.30
1	AA	614	A	C5-C6-N1	5.85	120.62	117.70
1	AA	701	C	C5-C6-N1	5.85	123.92	121.00
13	AM	87	TYR	CB-CG-CD1	5.85	124.51	121.00
22	AV	74	C	C6-N1-C2	5.85	122.64	120.30
35	BA	1228	G	N3-C4-N9	-5.85	122.49	126.00
35	BA	1957	C	N1-C2-O2	5.85	122.41	118.90
35	BA	2021	C	N1-C2-N3	5.85	123.29	119.20
1	AA	428	G	C5-N7-C8	5.85	107.22	104.30
1	AA	774	G	C5-C6-N1	5.85	114.42	111.50
35	BA	1785	A	O4'-C1'-N9	5.85	112.88	108.20
36	BB	39	A	N1-C6-N6	-5.85	115.09	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	490	G	C2-N3-C4	-5.84	108.98	111.90
1	AA	1326	C	C5-C6-N1	-5.84	118.08	121.00
35	BA	208	C	N3-C2-O2	-5.84	117.81	121.90
35	BA	386	G	N1-C2-N2	-5.84	110.94	116.20
35	BA	2407	G	C5-N7-C8	-5.84	101.38	104.30
35	BA	2698	U	C5-C4-O4	-5.84	122.39	125.90
1	AA	1493	A	C6-N1-C2	-5.84	115.09	118.60
35	BA	271(J)	C	C3'-C2'-C1'	5.84	106.17	101.50
35	BA	932	G	N7-C8-N9	-5.84	110.18	113.10
35	BA	1074	G	N1-C6-O6	-5.84	116.39	119.90
35	BA	2334	G	O4'-C1'-N9	-5.84	103.53	108.20
35	BA	2439	A	C6-N1-C2	5.84	122.11	118.60
1	AA	11	G	C5-C6-N1	5.84	114.42	111.50
1	AA	246	A	N1-C2-N3	-5.84	126.38	129.30
22	AV	46	G	C5-C6-O6	-5.84	125.09	128.60
35	BA	324	A	N1-C6-N6	-5.84	115.10	118.60
35	BA	1302	A	C6-N1-C2	5.84	122.11	118.60
1	AA	39	G	C6-C5-N7	-5.84	126.90	130.40
1	AA	79	G	C8-N9-C4	-5.84	104.06	106.40
1	AA	790	A	C4-C5-N7	-5.84	107.78	110.70
1	AA	1160	G	C4-C5-N7	5.84	113.14	110.80
1	AA	1531	A	N7-C8-N9	-5.84	110.88	113.80
35	BA	399	G	N7-C8-N9	-5.84	110.18	113.10
35	BA	1252	G	C5-C6-O6	-5.84	125.10	128.60
35	BA	1406	U	O4'-C1'-N1	5.84	112.87	108.20
35	BA	2187	G	C6-N1-C2	5.84	128.60	125.10
35	BA	2274	A	C5-C6-N6	5.84	128.37	123.70
35	BA	2417	C	N1-C2-N3	5.84	123.29	119.20
1	AA	22	G	C1'-O4'-C4'	-5.84	105.23	109.90
35	BA	177	G	C1'-O4'-C4'	-5.84	105.23	109.90
35	BA	846	C	N1-C2-O2	5.84	122.40	118.90
1	AA	504	C	C2-N3-C4	-5.84	116.98	119.90
1	AA	657	G	N7-C8-N9	5.84	116.02	113.10
1	AA	1329	A	C5-C6-N6	-5.84	119.03	123.70
35	BA	2442	C	N3-C4-N4	5.84	122.09	118.00
35	BA	2894	G	C3'-C2'-C1'	5.84	106.17	101.50
35	BA	639	U	N3-C4-O4	5.83	123.48	119.40
35	BA	911	A	C5-N7-C8	-5.83	100.98	103.90
35	BA	1916	A	C4-C5-C6	5.83	119.92	117.00
1	AA	563	A	N9-C4-C5	-5.83	103.47	105.80
1	AA	1072	G	N9-C4-C5	5.83	107.73	105.40
35	BA	133	C	C2-N3-C4	5.83	122.82	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2218	U	C5-C6-N1	-5.83	119.78	122.70
35	BA	2412	A	N7-C8-N9	5.83	116.72	113.80
35	BA	2676	C	N3-C4-C5	5.83	124.23	121.90
35	BA	2792	G	C5-N7-C8	-5.83	101.38	104.30
47	BP	28	GLY	N-CA-C	-5.83	98.52	113.10
1	AA	63	C	C6-N1-C2	5.83	122.63	120.30
1	AA	69	G	C8-N9-C4	5.83	108.73	106.40
1	AA	731	G	C6-N1-C2	-5.83	121.60	125.10
22	AV	19	G	N9-C1'-C2'	5.83	121.58	114.00
35	BA	783	A	C8-N9-C4	-5.83	103.47	105.80
35	BA	1422	G	N3-C4-N9	5.83	129.50	126.00
35	BA	953	A	O4'-C1'-N9	5.83	112.86	108.20
35	BA	1561	G	N3-C4-N9	5.83	129.50	126.00
40	BF	139	PHE	CG-CD1-CE1	5.83	127.21	120.80
1	AA	540	G	C8-N9-C4	-5.83	104.07	106.40
1	AA	966	G	C5-N7-C8	5.83	107.21	104.30
1	AA	1446	U	O4'-C1'-N1	5.83	112.86	108.20
22	AV	19	G	N3-C4-N9	5.83	129.50	126.00
35	BA	115	C	N3-C4-C5	5.83	124.23	121.90
35	BA	2172	U	C5-C6-N1	-5.83	119.79	122.70
35	BA	2839	G	C2-N3-C4	-5.83	108.99	111.90
1	AA	80	G	C5-C6-O6	5.83	132.10	128.60
1	AA	282	A	C5-N7-C8	5.83	106.81	103.90
1	AA	372	C	C4-C5-C6	-5.83	114.49	117.40
1	AA	1442	G	C8-N9-C4	5.83	108.73	106.40
35	BA	44	G	C6-C5-N7	-5.83	126.90	130.40
35	BA	324	A	C4-C5-N7	5.83	113.61	110.70
35	BA	1155	A	C5-C6-N1	-5.83	114.79	117.70
1	AA	258	G	O4'-C1'-N9	-5.83	103.54	108.20
1	AA	482	A	C2-N3-C4	5.83	113.51	110.60
1	AA	510	A	C8-N9-C4	5.83	108.13	105.80
1	AA	1220	G	N3-C4-N9	-5.83	122.50	126.00
35	BA	74	A	C5-C6-N1	5.83	120.61	117.70
35	BA	248	G	N1-C6-O6	5.83	123.39	119.90
35	BA	495	G	N7-C8-N9	-5.83	110.19	113.10
35	BA	1044	G	C3'-C2'-C1'	5.83	106.16	101.50
35	BA	2335	A	N1-C2-N3	-5.83	126.39	129.30
35	BA	2867	G	N7-C8-N9	5.83	116.01	113.10
36	BB	117	G	N7-C8-N9	5.83	116.01	113.10
1	AA	629	G	N3-C4-N9	-5.82	122.51	126.00
1	AA	759	A	N1-C2-N3	-5.82	126.39	129.30
1	AA	787	A	C8-N9-C4	-5.82	103.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1398	A	N1-C2-N3	5.82	132.21	129.30
35	BA	200	U	N3-C4-O4	5.82	123.48	119.40
35	BA	654(T)	C	N3-C4-N4	-5.82	113.92	118.00
35	BA	1305	C	C5-C4-N4	-5.82	116.12	120.20
35	BA	2031	A	N1-C2-N3	-5.82	126.39	129.30
35	BA	2313	C	N3-C2-O2	5.82	125.98	121.90
35	BA	1463	C	C5-C6-N1	5.82	123.91	121.00
35	BA	2725	A	N9-C4-C5	5.82	108.13	105.80
1	AA	176	C	C1'-O4'-C4'	-5.82	105.24	109.90
1	AA	430	A	N9-C4-C5	-5.82	103.47	105.80
1	AA	1411	C	C4'-C3'-C2'	5.82	108.42	102.60
35	BA	119	A	C3'-C2'-C1'	-5.82	96.84	101.50
35	BA	861	A	C8-N9-C4	5.82	108.13	105.80
35	BA	1273	U	N1-C2-N3	5.82	118.39	114.90
35	BA	1997	G	C5-N7-C8	-5.82	101.39	104.30
35	BA	2635	C	C4-C5-C6	5.82	120.31	117.40
36	BB	101	G	N7-C8-N9	5.82	116.01	113.10
1	AA	56	U	N1-C2-O2	5.82	126.87	122.80
1	AA	1190	G	C4-C5-C6	-5.82	115.31	118.80
5	AE	36	ASP	CB-CG-OD2	5.82	123.54	118.30
35	BA	37	C	N3-C4-C5	-5.82	119.57	121.90
1	AA	114	U	C5-C6-N1	-5.82	119.79	122.70
1	AA	975	A	N1-C6-N6	-5.82	115.11	118.60
35	BA	2693	A	N9-C4-C5	5.82	108.13	105.80
1	AA	189(K)	U	C5-C4-O4	5.82	129.39	125.90
1	AA	1375	A	C2-N3-C4	-5.82	107.69	110.60
1	AA	1441	G	N1-C2-N3	-5.82	120.41	123.90
35	BA	343	C	C6-N1-C2	-5.82	117.97	120.30
35	BA	1097	U	N1-C2-O2	-5.82	118.73	122.80
35	BA	1460	A	C8-N9-C4	-5.82	103.47	105.80
35	BA	2345	G	O4'-C1'-C2'	-5.82	99.98	105.80
1	AA	1179	A	N1-C6-N6	5.81	122.09	118.60
35	BA	278	A	N3-C4-N9	-5.81	122.75	127.40
35	BA	511	U	C6-N1-C2	-5.81	117.51	121.00
35	BA	616	G	N1-C2-N3	5.81	127.39	123.90
35	BA	1021	A	C8-N9-C4	-5.81	103.47	105.80
35	BA	1742	G	N7-C8-N9	5.81	116.01	113.10
1	AA	1291	G	C4-C5-N7	5.81	113.12	110.80
35	BA	36	G	N7-C8-N9	-5.81	110.19	113.10
35	BA	43	A	C2-N3-C4	-5.81	107.69	110.60
35	BA	649	G	C8-N9-C4	-5.81	104.08	106.40
35	BA	913	U	N3-C4-O4	5.81	123.47	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1133	U	C6-N1-C2	5.81	124.49	121.00
35	BA	2081	C	C6-N1-C2	5.81	122.62	120.30
35	BA	2122	U	O4'-C1'-N1	5.81	112.85	108.20
35	BA	2699	C	N1-C2-O2	-5.81	115.41	118.90
36	BB	29	A	N1-C2-N3	5.81	132.21	129.30
1	AA	107	G	N1-C2-N2	-5.81	110.97	116.20
1	AA	266	G	N3-C2-N2	-5.81	115.83	119.90
1	AA	1430	C	O5'-P-OP2	-5.81	100.47	105.70
22	AV	7	G	N7-C8-N9	5.81	116.01	113.10
35	BA	737	C	N3-C4-C5	-5.81	119.58	121.90
35	BA	1469	A	C2-N3-C4	-5.81	107.69	110.60
1	AA	68	G	C8-N9-C4	5.81	108.72	106.40
1	AA	515	G	C5'-C4'-C3'	-5.81	106.70	116.00
1	AA	607	A	C2-N3-C4	-5.81	107.70	110.60
1	AA	1424	C	C4'-C3'-C2'	5.81	108.41	102.60
1	AA	1473	A	C8-N9-C4	-5.81	103.48	105.80
22	AV	10	G	C4-C5-N7	5.81	113.12	110.80
35	BA	255	A	C8-N9-C4	5.81	108.12	105.80
35	BA	341	G	N7-C8-N9	5.81	116.00	113.10
35	BA	654(H)	G	C4-C5-C6	5.81	122.29	118.80
35	BA	1122	G	N1-C2-N3	5.81	127.39	123.90
35	BA	1212	G	C2-N3-C4	-5.81	109.00	111.90
1	AA	146	G	C2-N3-C4	5.81	114.80	111.90
1	AA	245	C	N1-C2-O2	-5.81	115.42	118.90
1	AA	357	G	N7-C8-N9	5.81	116.00	113.10
1	AA	575	G	N9-C4-C5	-5.81	103.08	105.40
1	AA	787	A	N9-C4-C5	5.81	108.12	105.80
35	BA	469	G	C5-C6-N1	-5.81	108.60	111.50
35	BA	1193	G	C4-C5-N7	-5.81	108.48	110.80
35	BA	2334	G	C4-C5-N7	-5.81	108.48	110.80
35	BA	2535	G	C6-C5-N7	-5.81	126.92	130.40
35	BA	2659	G	C6-N1-C2	-5.81	121.61	125.10
36	BB	115	G	N3-C2-N2	5.81	123.97	119.90
1	AA	935	A	N1-C2-N3	5.81	132.20	129.30
1	AA	1274	G	N9-C4-C5	5.81	107.72	105.40
35	BA	807	U	C1'-O4'-C4'	5.81	114.55	109.90
36	BB	56	G	O4'-C1'-N9	-5.81	103.56	108.20
1	AA	685	G	N1-C6-O6	5.80	123.38	119.90
1	AA	799	G	C8-N9-C4	5.80	108.72	106.40
35	BA	716	A	C6-N1-C2	5.80	122.08	118.60
35	BA	1339	G	O4'-C1'-N9	5.80	112.84	108.20
35	BA	1465	G	C5-N7-C8	5.80	107.20	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1945	G	N1-C6-O6	5.80	123.38	119.90
36	BB	29	A	N1-C6-N6	-5.80	115.12	118.60
1	AA	1432	G	C4-C5-N7	-5.80	108.48	110.80
24	AY	657	THR	CA-CB-CG2	-5.80	104.28	112.40
35	BA	271(R)	G	N1-C2-N3	-5.80	120.42	123.90
35	BA	924	C	N3-C4-C5	5.80	124.22	121.90
35	BA	2669	G	C4-C5-N7	5.80	113.12	110.80
35	BA	2751	G	C5-C6-O6	5.80	132.08	128.60
1	AA	1251	A	C6-C5-N7	-5.80	128.24	132.30
35	BA	1638	C	C2-N3-C4	5.80	122.80	119.90
1	AA	245	C	O4'-C1'-N1	-5.80	103.56	108.20
1	AA	250	A	C4-C5-N7	-5.80	107.80	110.70
1	AA	535	A	C5-C6-N6	5.80	128.34	123.70
1	AA	1241	G	N9-C4-C5	-5.80	103.08	105.40
35	BA	1028	A	N1-C2-N3	5.80	132.20	129.30
35	BA	1394	U	O5'-P-OP2	-5.80	100.48	105.70
35	BA	2284	C	N3-C4-N4	5.80	122.06	118.00
35	BA	2354	G	N3-C4-C5	-5.80	125.70	128.60
1	AA	880	C	C4-C5-C6	-5.80	114.50	117.40
35	BA	135	G	C6-C5-N7	-5.80	126.92	130.40
35	BA	621	A	N1-C2-N3	5.80	132.20	129.30
1	AA	517	G	C2-N3-C4	-5.80	109.00	111.90
1	AA	943	U	C5-C6-N1	-5.80	119.80	122.70
1	AA	1224	G	N3-C4-C5	-5.80	125.70	128.60
35	BA	506	G	N9-C4-C5	5.80	107.72	105.40
35	BA	828	U	C2-N3-C4	5.80	130.48	127.00
35	BA	1021	A	C2-N3-C4	5.80	113.50	110.60
35	BA	1519	G	C6-N1-C2	-5.80	121.62	125.10
35	BA	1580	A	C5'-C4'-O4'	5.80	116.06	109.10
35	BA	2113	U	C3'-C2'-C1'	5.80	106.14	101.50
35	BA	2279	G	N1-C2-N3	5.80	127.38	123.90
1	AA	424	G	O4'-C1'-N9	5.79	112.84	108.20
1	AA	779	C	N1-C2-N3	5.79	123.26	119.20
1	AA	1333	A	N9-C4-C5	5.79	108.12	105.80
1	AA	662	G	N3-C4-N9	5.79	129.48	126.00
1	AA	959	A	C6-N1-C2	-5.79	115.12	118.60
22	AV	17(A)	U	N1-C2-N3	-5.79	111.42	114.90
35	BA	90	U	C4'-C3'-C2'	5.79	108.39	102.60
35	BA	1063	G	C5-C6-N1	-5.79	108.60	111.50
35	BA	2189	U	C5-C4-O4	5.79	129.38	125.90
35	BA	2706	G	N1-C6-O6	5.79	123.38	119.90
36	BB	11	C	O4'-C1'-N1	5.79	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BB	85	G	C2-N3-C4	5.79	114.80	111.90
1	AA	1239	A	N1-C6-N6	5.79	122.07	118.60
35	BA	905	U	C6-N1-C2	-5.79	117.53	121.00
35	BA	1481	U	N3-C4-C5	-5.79	111.13	114.60
35	BA	2012	G	C8-N9-C4	-5.79	104.08	106.40
35	BA	2792	G	C5-C6-O6	5.79	132.07	128.60
1	AA	1266	G	C4-C5-C6	5.79	122.27	118.80
1	AA	1399	C	C2-N3-C4	-5.79	117.00	119.90
35	BA	183	C	N3-C4-C5	-5.79	119.58	121.90
35	BA	1250	G	C1'-O4'-C4'	-5.79	105.27	109.90
35	BA	1520	G	N9-C4-C5	-5.79	103.08	105.40
35	BA	2712(A)	A	C2-N3-C4	-5.79	107.70	110.60
1	AA	260	G	C4-C5-N7	-5.79	108.48	110.80
1	AA	1129	C	C3'-C2'-C1'	5.79	106.13	101.50
35	BA	285	C	C1'-O4'-C4'	-5.79	105.27	109.90
35	BA	1162	G	C4'-C3'-C2'	-5.79	96.81	102.60
35	BA	2243	U	C5'-C4'-O4'	-5.79	102.16	109.10
1	AA	1041	A	C8-N9-C4	-5.79	103.48	105.80
13	AM	125	ARG	NE-CZ-NH2	-5.79	117.41	120.30
35	BA	528	A	C5-C6-N1	5.79	120.59	117.70
35	BA	1204	A	O4'-C1'-N9	5.79	112.83	108.20
35	BA	2187	G	C5-C6-O6	5.79	132.07	128.60
35	BA	2366	A	C3'-C2'-C1'	5.79	106.13	101.50
1	AA	748	C	N1-C2-O2	-5.79	115.43	118.90
1	AA	1188	A	N1-C6-N6	-5.79	115.13	118.60
1	AA	1291	G	N1-C6-O6	5.79	123.37	119.90
35	BA	374	A	C2-N3-C4	-5.79	107.71	110.60
35	BA	583	G	N7-C8-N9	5.79	115.99	113.10
35	BA	2388	A	O4'-C1'-C2'	5.79	112.81	107.60
35	BA	2482	G	C5-N7-C8	5.79	107.19	104.30
1	AA	956	U	C4-C5-C6	5.78	123.17	119.70
22	AV	9	G	C4-C5-N7	-5.78	108.49	110.80
35	BA	248	G	N1-C2-N2	5.78	121.40	116.20
35	BA	1694	C	C5-C4-N4	5.78	124.25	120.20
1	AA	58	C	C6-N1-C2	5.78	122.61	120.30
35	BA	851	U	N1-C2-N3	-5.78	111.43	114.90
35	BA	909	A	N1-C2-N3	5.78	132.19	129.30
35	BA	1422	G	C5'-C4'-C3'	-5.78	106.75	116.00
35	BA	2101	G	N9-C4-C5	5.78	107.71	105.40
1	AA	6	G	C5-C6-O6	5.78	132.07	128.60
1	AA	667	G	O4'-C1'-N9	-5.78	103.58	108.20
1	AA	831	U	C6-N1-C2	-5.78	117.53	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1478	C	C5-C6-N1	5.78	123.89	121.00
22	AV	73	A	C4-C5-N7	5.78	113.59	110.70
35	BA	861	A	C6-C5-N7	-5.78	128.25	132.30
35	BA	890	A	O5'-P-OP2	-5.78	100.50	105.70
1	AA	848	C	C5-C4-N4	5.78	124.25	120.20
1	AA	1088	G	C4-C5-N7	-5.78	108.49	110.80
35	BA	44	G	N3-C4-N9	5.78	129.47	126.00
35	BA	124	G	P-O5'-C5'	5.78	130.15	120.90
35	BA	719	C	C5-C6-N1	5.78	123.89	121.00
1	AA	15	G	N1-C2-N3	-5.78	120.43	123.90
1	AA	1264	C	C6-N1-C2	-5.78	117.99	120.30
24	AY	386	GLY	N-CA-C	5.78	127.54	113.10
35	BA	69	C	C4-C5-C6	-5.78	114.51	117.40
35	BA	960	A	C5-N7-C8	5.78	106.79	103.90
35	BA	1114	G	N7-C8-N9	-5.78	110.21	113.10
35	BA	1416	G	N7-C8-N9	5.78	115.99	113.10
35	BA	1484	G	C6-N1-C2	5.78	128.57	125.10
35	BA	2095	C	C2-N3-C4	-5.78	117.01	119.90
35	BA	2343	C	C4-C5-C6	5.78	120.29	117.40
35	BA	2360	A	C8-N9-C4	5.78	108.11	105.80
1	AA	230	G	C6-C5-N7	5.78	133.87	130.40
1	AA	837	G	C2-N3-C4	-5.78	109.01	111.90
1	AA	1238	A	N1-C6-N6	5.78	122.06	118.60
35	BA	271(T)	C	C4-C5-C6	-5.78	114.51	117.40
35	BA	363(F)	A	O4'-C1'-C2'	5.78	112.80	107.60
35	BA	894	C	C5-C4-N4	-5.78	116.16	120.20
35	BA	2300	G	C5-C6-O6	-5.78	125.13	128.60
35	BA	2388	A	O5'-P-OP2	-5.78	100.50	105.70
35	BA	2390	U	N1-C2-O2	-5.78	118.76	122.80
39	BE	160	TYR	CD1-CE1-CZ	5.78	125.00	119.80
1	AA	510	A	N7-C8-N9	-5.77	110.91	113.80
1	AA	658	G	N9-C4-C5	-5.77	103.09	105.40
35	BA	1320	C	O4'-C1'-N1	5.77	112.82	108.20
35	BA	1399	C	N1-C2-O2	5.77	122.36	118.90
35	BA	1442	G	C6-N1-C2	-5.77	121.64	125.10
35	BA	1905	C	C3'-C2'-C1'	5.77	106.12	101.50
35	BA	2517	C	C2-N3-C4	5.77	122.79	119.90
1	AA	634	C	C3'-C2'-C1'	-5.77	96.88	101.50
1	AA	724	G	N3-C2-N2	5.77	123.94	119.90
1	AA	1503	A	N9-C4-C5	5.77	108.11	105.80
1	AA	1514	C	O4'-C1'-N1	-5.77	103.58	108.20
31	B6	19	ARG	NE-CZ-NH2	-5.77	117.41	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	212	G	C5-C6-O6	-5.77	125.14	128.60
35	BA	391	G	N9-C4-C5	5.77	107.71	105.40
35	BA	982	C	O4'-C1'-N1	5.77	112.82	108.20
35	BA	2815	C	C2-N3-C4	-5.77	117.01	119.90
1	AA	972	C	C6-N1-C2	-5.77	117.99	120.30
35	BA	2154	G	C4-C5-N7	5.77	113.11	110.80
35	BA	2757	A	N9-C4-C5	-5.77	103.49	105.80
36	BB	93	G	N1-C2-N2	5.77	121.39	116.20
1	AA	186	C	O5'-P-OP2	5.77	117.62	110.70
1	AA	613	C	O4'-C1'-N1	5.77	112.81	108.20
1	AA	1372	U	N3-C4-C5	5.77	118.06	114.60
35	BA	271(V)	G	N1-C6-O6	5.77	123.36	119.90
35	BA	687	C	N3-C2-O2	-5.77	117.86	121.90
35	BA	2359	C	C4-C5-C6	5.77	120.28	117.40
57	BZ	9	TYR	CG-CD1-CE1	5.77	125.92	121.30
1	AA	855	G	N1-C6-O6	-5.77	116.44	119.90
22	AV	49	G	C8-N9-C4	5.77	108.71	106.40
23	AX	18	G	N9-C4-C5	5.77	107.71	105.40
35	BA	397	G	N1-C2-N3	-5.77	120.44	123.90
35	BA	2559	C	N1-C2-O2	-5.77	115.44	118.90
1	AA	33	A	N3-C4-C5	-5.76	122.77	126.80
35	BA	8	A	C4-C5-N7	-5.76	107.82	110.70
35	BA	271(E)	U	N3-C4-C5	5.76	118.06	114.60
35	BA	1022	G	C4-C5-C6	-5.76	115.34	118.80
35	BA	1097	U	C4-C5-C6	5.76	123.16	119.70
35	BA	2195	C	N3-C4-C5	5.76	124.21	121.90
35	BA	2735	G	O4'-C1'-N9	5.76	112.81	108.20
35	BA	225	A	N9-C4-C5	-5.76	103.50	105.80
35	BA	621	A	O4'-C1'-N9	5.76	112.81	108.20
35	BA	1820	U	C5-C6-N1	-5.76	119.82	122.70
1	AA	1372	U	C4-C5-C6	-5.76	116.24	119.70
35	BA	413	C	C5-C6-N1	-5.76	118.12	121.00
35	BA	2279	G	C2-N3-C4	-5.76	109.02	111.90
1	AA	291	C	C4-C5-C6	5.76	120.28	117.40
1	AA	898	G	N1-C2-N2	-5.76	111.02	116.20
1	AA	937	A	C5-C6-N1	5.76	120.58	117.70
1	AA	1121	U	C5-C6-N1	-5.76	119.82	122.70
1	AA	1121	U	N3-C4-O4	-5.76	115.37	119.40
1	AA	1510	U	C5-C6-N1	5.76	125.58	122.70
35	BA	850	C	C1'-O4'-C4'	-5.76	105.29	109.90
35	BA	1558	A	C5-N7-C8	-5.76	101.02	103.90
35	BA	2095	C	C5-C6-N1	-5.76	118.12	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	46	G	C8-N9-C4	-5.76	104.10	106.40
1	AA	1185	G	C6-C5-N7	-5.76	126.94	130.40
35	BA	272(D)	G	N3-C2-N2	5.76	123.93	119.90
46	BO	104	ARG	NE-CZ-NH2	-5.76	117.42	120.30
49	BR	105	ARG	NE-CZ-NH2	-5.76	117.42	120.30
1	AA	492	G	N3-C4-N9	5.76	129.45	126.00
1	AA	752	G	C5-N7-C8	5.76	107.18	104.30
35	BA	294	A	C5-N7-C8	5.76	106.78	103.90
35	BA	1178	C	C4-C5-C6	5.76	120.28	117.40
35	BA	1211	U	C2-N3-C4	-5.76	123.55	127.00
35	BA	1227	G	C4'-C3'-C2'	-5.76	96.84	102.60
35	BA	1421	G	N9-C4-C5	5.76	107.70	105.40
35	BA	2498	C	C5'-C4'-O4'	5.76	116.01	109.10
35	BA	2511	U	C5'-C4'-C3'	-5.76	106.79	116.00
35	BA	2665	A	N1-C2-N3	5.76	132.18	129.30
35	BA	574	C	C4-C5-C6	5.75	120.28	117.40
35	BA	1012	U	O4'-C1'-C2'	-5.75	100.05	105.80
35	BA	2425	A	N9-C4-C5	5.75	108.10	105.80
36	BB	36	C	N1-C2-O2	-5.75	115.45	118.90
1	AA	577	G	OP2-P-O3'	5.75	117.86	105.20
35	BA	604	G	C5-C6-O6	5.75	132.05	128.60
35	BA	1056	G	N3-C4-C5	5.75	131.48	128.60
35	BA	2870	C	N3-C2-O2	5.75	125.93	121.90
49	BR	47	PHE	CB-CG-CD2	5.75	124.83	120.80
1	AA	815	A	C6-C5-N7	-5.75	128.27	132.30
1	AA	1265	G	N7-C8-N9	5.75	115.98	113.10
1	AA	1344	C	O4'-C1'-N1	-5.75	103.60	108.20
35	BA	301	G	C5-N7-C8	-5.75	101.42	104.30
35	BA	914	C	N3-C2-O2	-5.75	117.87	121.90
35	BA	1004	C	C5-C4-N4	-5.75	116.17	120.20
35	BA	1859	A	N1-C2-N3	5.75	132.18	129.30
35	BA	2316	C	O4'-C1'-N1	5.75	112.80	108.20
50	BS	106	ARG	NE-CZ-NH2	-5.75	117.42	120.30
35	BA	2655	G	C6-N1-C2	-5.75	121.65	125.10
1	AA	177	C	C4-C5-C6	5.75	120.27	117.40
1	AA	1146	A	O4'-C1'-N9	-5.75	103.60	108.20
35	BA	173	G	N7-C8-N9	5.75	115.97	113.10
35	BA	326	G	O4'-C1'-N9	-5.75	103.60	108.20
35	BA	596	G	C5-N7-C8	5.75	107.17	104.30
35	BA	1080	C	C2-N3-C4	-5.75	117.03	119.90
35	BA	1212	G	C6-N1-C2	5.75	128.55	125.10
35	BA	2286	A	N3-C4-N9	-5.75	122.80	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2371	G	C2-N3-C4	-5.75	109.03	111.90
35	BA	2517	C	C6-N1-C2	-5.75	118.00	120.30
35	BA	2669	G	O4'-C1'-N9	-5.75	103.60	108.20
35	BA	2731	G	C4-C5-N7	-5.75	108.50	110.80
1	AA	461	A	C5'-C4'-O4'	-5.75	102.20	109.10
1	AA	1498	U	C4'-C3'-C2'	5.75	108.35	102.60
35	BA	74	A	O4'-C1'-N9	5.75	112.80	108.20
35	BA	946	G	O5'-P-OP1	-5.75	100.53	105.70
35	BA	1280	G	N1-C6-O6	5.75	123.35	119.90
35	BA	1290	C	N1-C2-N3	5.75	123.22	119.20
35	BA	1748	G	C6-N1-C2	-5.75	121.65	125.10
35	BA	2181	G	N9-C4-C5	5.75	107.70	105.40
35	BA	2318	G	C4'-C3'-C2'	-5.75	96.85	102.60
35	BA	2827	C	N3-C4-C5	-5.75	119.60	121.90
38	BD	190	TYR	CD1-CE1-CZ	5.75	124.97	119.80
1	AA	128	G	N3-C4-C5	5.75	131.47	128.60
1	AA	242	C	C4-C5-C6	-5.75	114.53	117.40
1	AA	1292	U	C4-C5-C6	5.75	123.15	119.70
1	AA	1416	G	C4-C5-C6	-5.75	115.35	118.80
1	AA	1439	C	C4-C5-C6	-5.75	114.53	117.40
35	BA	1610	A	N7-C8-N9	-5.75	110.93	113.80
35	BA	2059	A	C5-C6-N6	-5.75	119.10	123.70
35	BA	2493	U	N3-C2-O2	-5.75	118.18	122.20
1	AA	167	G	C6-N1-C2	5.74	128.55	125.10
1	AA	1099	G	C5-C6-N1	5.74	114.37	111.50
22	AV	72	A	N1-C6-N6	-5.74	115.15	118.60
35	BA	151	C	N3-C4-C5	-5.74	119.60	121.90
35	BA	1250	G	N1-C2-N2	5.74	121.37	116.20
35	BA	1259	G	C2-N3-C4	5.74	114.77	111.90
35	BA	1275	A	O4'-C4'-C3'	5.74	110.69	106.10
36	BB	56	G	N1-C2-N3	-5.74	120.45	123.90
1	AA	369	C	N1-C2-O2	-5.74	115.45	118.90
1	AA	568	G	O4'-C1'-N9	-5.74	103.61	108.20
1	AA	1443	G	C2-N3-C4	5.74	114.77	111.90
35	BA	397	G	C5-C6-N1	5.74	114.37	111.50
35	BA	2053	G	N3-C4-C5	5.74	131.47	128.60
35	BA	2664	G	C4-C5-N7	-5.74	108.50	110.80
1	AA	515	G	C2-N3-C4	-5.74	109.03	111.90
1	AA	996	A	C8-N9-C4	-5.74	103.50	105.80
1	AA	1285	A	C5-C6-N6	5.74	128.29	123.70
1	AA	1427	U	C1'-O4'-C4'	-5.74	105.31	109.90
35	BA	2169	A	C4-C5-N7	5.74	113.57	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	21	G	C2-N3-C4	5.74	114.77	111.90
35	BA	530	G	N3-C2-N2	5.74	123.92	119.90
1	AA	1056	U	C3'-C2'-C1'	-5.74	96.91	101.50
1	AA	1197	G	C3'-C2'-C1'	5.74	106.09	101.50
35	BA	191	A	C5-N7-C8	5.74	106.77	103.90
1	AA	604	G	C4-C5-N7	5.74	113.09	110.80
1	AA	682	G	C5-C6-N1	-5.74	108.63	111.50
1	AA	838	G	C5-C6-N1	5.74	114.37	111.50
1	AA	1045	C	C5'-C4'-C3'	-5.74	106.82	116.00
1	AA	1193	G	C4-C5-N7	5.74	113.09	110.80
22	AV	49	G	C2-N3-C4	-5.74	109.03	111.90
35	BA	1591	G	N7-C8-N9	5.74	115.97	113.10
42	BH	152	ARG	NE-CZ-NH2	5.74	123.17	120.30
1	AA	167	G	O4'-C1'-N9	-5.73	103.61	108.20
1	AA	1499	A	N9-C4-C5	-5.73	103.51	105.80
35	BA	654(Q)	C	N1-C2-O2	5.73	122.34	118.90
1	AA	492	G	N9-C4-C5	-5.73	103.11	105.40
1	AA	597	G	N1-C6-O6	5.73	123.34	119.90
35	BA	659	C	N3-C4-N4	-5.73	113.99	118.00
35	BA	1582	C	N3-C4-C5	-5.73	119.61	121.90
35	BA	1643	G	C4-C5-N7	-5.73	108.51	110.80
35	BA	2207	G	C5-N7-C8	-5.73	101.43	104.30
1	AA	1100	C	N3-C2-O2	5.73	125.91	121.90
1	AA	1260	C	N1-C2-O2	-5.73	115.46	118.90
35	BA	808	G	C8-N9-C4	5.73	108.69	106.40
35	BA	960	A	N7-C8-N9	-5.73	110.94	113.80
49	BR	17	ARG	NE-CZ-NH1	-5.73	117.44	120.30
1	AA	557	G	C6-N1-C2	5.73	128.54	125.10
1	AA	1096	C	N1-C2-O2	-5.73	115.46	118.90
35	BA	1450(A)	C	C6-N1-C2	-5.73	118.01	120.30
1	AA	614	A	C6-C5-N7	5.73	136.31	132.30
1	AA	885	G	C5-C6-N1	5.73	114.36	111.50
20	AT	86	ARG	NE-CZ-NH1	-5.73	117.44	120.30
35	BA	614(A)	U	N3-C4-C5	5.73	118.04	114.60
35	BA	883	G	C5-N7-C8	-5.73	101.44	104.30
35	BA	1747(A)	G	C8-N9-C4	-5.73	104.11	106.40
35	BA	2332	U	C6-N1-C2	5.73	124.44	121.00
35	BA	2464	C	C6-N1-C2	-5.73	118.01	120.30
1	AA	239	U	C5-C6-N1	-5.73	119.84	122.70
1	AA	731	G	N1-C6-O6	5.73	123.34	119.90
1	AA	795	C	N3-C4-N4	-5.73	113.99	118.00
1	AA	1508	G	N1-C6-O6	5.73	123.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	830	G	C5-C6-N1	-5.73	108.64	111.50
35	BA	1237	A	N9-C4-C5	-5.73	103.51	105.80
35	BA	1239	G	N9-C1'-C2'	-5.73	105.70	112.00
35	BA	2764	A	C2-N3-C4	5.73	113.46	110.60
1	AA	290	C	C4-C5-C6	5.72	120.26	117.40
1	AA	315	A	N3-C4-C5	5.72	130.81	126.80
1	AA	671	G	N3-C4-C5	5.72	131.46	128.60
1	AA	1408	A	N7-C8-N9	5.72	116.66	113.80
35	BA	1479	G	N9-C4-C5	-5.72	103.11	105.40
35	BA	1509	C	O4'-C1'-N1	5.72	112.78	108.20
35	BA	1809	A	C5-C6-N1	-5.72	114.84	117.70
36	BB	107	G	C6-N1-C2	-5.72	121.67	125.10
1	AA	719	C	N1-C2-O2	-5.72	115.47	118.90
1	AA	854	G	N7-C8-N9	-5.72	110.24	113.10
35	BA	144	C	O4'-C1'-N1	5.72	112.78	108.20
35	BA	813	U	C4-C5-C6	5.72	123.13	119.70
35	BA	1653	G	C4-C5-N7	5.72	113.09	110.80
35	BA	2771	C	C5-C6-N1	5.72	123.86	121.00
1	AA	1044	A	C5-N7-C8	5.72	106.76	103.90
1	AA	1523	G	C4'-C3'-C2'	-5.72	96.88	102.60
35	BA	1111	A	C3'-C2'-C1'	5.72	106.08	101.50
35	BA	1252	G	O4'-C1'-N9	-5.72	103.62	108.20
35	BA	2591	C	N3-C4-C5	-5.72	119.61	121.90
36	BB	27	C	N3-C4-N4	5.72	122.00	118.00
35	BA	219	G	C6-N1-C2	-5.72	121.67	125.10
35	BA	975	C	O5'-P-OP2	-5.72	100.55	105.70
35	BA	1542	A	N7-C8-N9	5.72	116.66	113.80
35	BA	1616	A	N3-C4-C5	-5.72	122.80	126.80
35	BA	2440	C	C6-N1-C2	-5.72	118.01	120.30
1	AA	595	G	C5-N7-C8	-5.72	101.44	104.30
35	BA	352	G	N9-C1'-C2'	5.72	121.43	114.00
35	BA	411	G	C1'-O4'-C4'	5.72	114.47	109.90
1	AA	454	C	N3-C4-N4	5.72	122.00	118.00
1	AA	1412	C	O4'-C1'-N1	5.72	112.77	108.20
35	BA	411	G	N7-C8-N9	5.72	115.96	113.10
35	BA	941	A	N1-C2-N3	-5.72	126.44	129.30
35	BA	984	A	O4'-C1'-N9	5.72	112.77	108.20
35	BA	2718	G	C3'-C2'-C1'	-5.72	96.93	101.50
1	AA	185	A	N9-C4-C5	5.71	108.09	105.80
1	AA	220	G	C5'-C4'-C3'	-5.71	106.86	116.00
1	AA	962	C	N1-C2-O2	5.71	122.33	118.90
35	BA	784	A	O5'-P-OP1	-5.71	100.56	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1098	A	N7-C8-N9	-5.71	110.94	113.80
35	BA	1192	G	N9-C4-C5	-5.71	103.11	105.40
35	BA	1260	G	C6-N1-C2	5.71	128.53	125.10
35	BA	2117	A	O4'-C1'-C2'	5.71	112.74	107.60
35	BA	2417	C	C6-N1-C2	-5.71	118.01	120.30
40	BF	23	ASP	CB-CG-OD2	5.71	123.44	118.30
50	BS	67	ARG	NE-CZ-NH2	-5.71	117.44	120.30
1	AA	399	G	C5-C6-N1	-5.71	108.64	111.50
35	BA	2126	A	C2-N3-C4	-5.71	107.74	110.60
1	AA	126	G	C6-C5-N7	-5.71	126.97	130.40
1	AA	925	G	C5'-C4'-O4'	5.71	115.95	109.10
1	AA	1227	A	C6-N1-C2	-5.71	115.17	118.60
35	BA	1567	A	N3-C4-C5	-5.71	122.80	126.80
35	BA	2730	C	C4-C5-C6	-5.71	114.54	117.40
1	AA	927	G	C8-N9-C4	-5.71	104.12	106.40
35	BA	415	A	N1-C2-N3	-5.71	126.44	129.30
35	BA	517	C	C5-C6-N1	-5.71	118.14	121.00
35	BA	722	A	O4'-C1'-N9	5.71	112.77	108.20
35	BA	1964	G	N3-C4-N9	5.71	129.43	126.00
39	BE	100	GLU	OE1-CD-OE2	-5.71	116.45	123.30
1	AA	15	G	O4'-C1'-N9	-5.71	103.63	108.20
18	AR	81	PHE	CB-CG-CD2	-5.71	116.80	120.80
35	BA	1147	C	C6-N1-C2	5.71	122.58	120.30
35	BA	1639	U	C5-C4-O4	-5.71	122.47	125.90
1	AA	656	C	C2-N3-C4	-5.71	117.05	119.90
35	BA	472	A	N3-C4-C5	5.71	130.79	126.80
35	BA	1139	G	C4-C5-N7	5.71	113.08	110.80
35	BA	1527	G	N3-C4-N9	5.71	129.42	126.00
35	BA	1889	A	N9-C4-C5	-5.71	103.52	105.80
35	BA	2224	G	N3-C2-N2	5.71	123.89	119.90
35	BA	2267	A	C5-N7-C8	-5.71	101.05	103.90
35	BA	2702	U	N3-C2-O2	-5.71	118.20	122.20
35	BA	2826	A	C5'-C4'-C3'	-5.71	106.87	116.00
1	AA	340	U	N1-C2-N3	5.71	118.32	114.90
35	BA	1526	G	C5-N7-C8	5.71	107.15	104.30
1	AA	557	G	C4-C5-N7	5.70	113.08	110.80
1	AA	1096	C	C4-C5-C6	5.70	120.25	117.40
1	AA	1406	U	O4'-C1'-N1	-5.70	103.64	108.20
16	AP	9	PHE	CB-CG-CD1	5.70	124.79	120.80
35	BA	334	C	N3-C4-N4	5.70	121.99	118.00
35	BA	788	A	C5-C6-N1	-5.70	114.85	117.70
35	BA	1058	G	C2-N3-C4	5.70	114.75	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2246	G	N9-C4-C5	-5.70	103.12	105.40
35	BA	2601	C	N1-C2-O2	-5.70	115.48	118.90
35	BA	2792	G	N1-C2-N2	5.70	121.33	116.20
35	BA	2834	G	N3-C2-N2	5.70	123.89	119.90
1	AA	405	U	C3'-C2'-C1'	5.70	106.06	101.50
35	BA	1669	A	C6-C5-N7	5.70	136.29	132.30
1	AA	701	C	N3-C4-C5	-5.70	119.62	121.90
1	AA	719	C	N3-C4-C5	-5.70	119.62	121.90
1	AA	1050	G	C5-C6-O6	-5.70	125.18	128.60
3	AC	21	ARG	NE-CZ-NH1	-5.70	117.45	120.30
4	AD	138	TYR	CB-CG-CD2	-5.70	117.58	121.00
35	BA	301	G	C4-C5-N7	5.70	113.08	110.80
35	BA	654(E)	G	N3-C4-C5	-5.70	125.75	128.60
35	BA	741	G	C2-N3-C4	5.70	114.75	111.90
35	BA	940	G	C6-N1-C2	-5.70	121.68	125.10
35	BA	1237	A	N1-C2-N3	5.70	132.15	129.30
35	BA	2565	A	N9-C4-C5	5.70	108.08	105.80
1	AA	39	G	N9-C1'-C2'	-5.70	105.73	112.00
1	AA	317	G	C3'-C2'-C1'	-5.70	96.94	101.50
1	AA	558	G	N3-C4-C5	-5.70	125.75	128.60
1	AA	770	C	C5'-C4'-O4'	5.70	115.94	109.10
1	AA	1295	G	C5-C6-N1	5.70	114.35	111.50
35	BA	573	G	C5-C6-O6	-5.70	125.18	128.60
35	BA	924	C	C1'-O4'-C4'	-5.70	105.34	109.90
35	BA	1020	A	C5'-C4'-O4'	-5.70	102.26	109.10
35	BA	2362	G	O4'-C4'-C3'	-5.70	98.30	104.00
35	BA	53	A	C4-C5-C6	5.70	119.85	117.00
35	BA	55	G	N1-C2-N3	-5.70	120.48	123.90
35	BA	623	G	C2-N3-C4	5.70	114.75	111.90
35	BA	642	G	N3-C4-C5	5.70	131.45	128.60
35	BA	656	G	N9-C1'-C2'	5.70	121.41	114.00
35	BA	956	G	N3-C4-C5	5.70	131.45	128.60
35	BA	1515	G	C5-N7-C8	5.70	107.15	104.30
35	BA	2052	G	N1-C2-N2	5.70	121.33	116.20
1	AA	764	C	C6-N1-C2	5.70	122.58	120.30
1	AA	822	C	N3-C4-N4	5.70	121.99	118.00
1	AA	873	A	C5-C6-N1	5.70	120.55	117.70
10	AJ	9	ARG	NE-CZ-NH2	-5.70	117.45	120.30
35	BA	739	G	C4-C5-N7	-5.70	108.52	110.80
35	BA	809	G	C8-N9-C4	5.70	108.68	106.40
35	BA	1055	G	C4-C5-N7	-5.70	108.52	110.80
35	BA	1998	G	C5-C6-O6	5.70	132.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2351	G	C6-C5-N7	5.70	133.82	130.40
36	BB	57	A	N7-C8-N9	-5.70	110.95	113.80
36	BB	88	C	N3-C4-N4	5.70	121.99	118.00
1	AA	186	C	C5-C4-N4	-5.69	116.21	120.20
35	BA	2722	G	C6-C5-N7	-5.69	126.98	130.40
1	AA	228	A	N9-C4-C5	5.69	108.08	105.80
1	AA	1434	A	C5'-C4'-C3'	-5.69	106.89	116.00
35	BA	899	A	C4-C5-C6	5.69	119.85	117.00
35	BA	1889	A	C8-N9-C4	5.69	108.08	105.80
36	BB	76	G	C8-N9-C4	5.69	108.68	106.40
1	AA	109	A	C5-C6-N1	5.69	120.55	117.70
1	AA	130	A	C5-C6-N6	-5.69	119.15	123.70
1	AA	878	G	C8-N9-C4	-5.69	104.12	106.40
1	AA	897	C	C2-N3-C4	5.69	122.75	119.90
35	BA	861	A	C5-C6-N1	-5.69	114.85	117.70
1	AA	7	G	N3-C4-C5	-5.69	125.76	128.60
1	AA	117	G	C5'-C4'-O4'	5.69	115.92	109.10
1	AA	587	G	C2-N3-C4	5.69	114.74	111.90
1	AA	1168	A	C4-C5-C6	-5.69	114.16	117.00
35	BA	1320	C	N1-C2-O2	-5.69	115.49	118.90
35	BA	1369	G	N3-C4-N9	-5.69	122.59	126.00
35	BA	2817	G	C4-C5-N7	5.69	113.08	110.80
1	AA	1036	G	N3-C4-C5	-5.69	125.76	128.60
1	AA	1154	G	C8-N9-C4	-5.69	104.13	106.40
1	AA	145	G	N1-C2-N3	-5.68	120.49	123.90
1	AA	184	G	P-O5'-C5'	5.68	130.00	120.90
1	AA	1067	A	C8-N9-C4	5.68	108.07	105.80
1	AA	1086	U	C2-N3-C4	5.68	130.41	127.00
1	AA	1480	G	C5-N7-C8	-5.68	101.46	104.30
35	BA	274	G	C5-N7-C8	5.68	107.14	104.30
35	BA	1498	C	C4-C5-C6	-5.68	114.56	117.40
35	BA	1528	A	C5-N7-C8	-5.68	101.06	103.90
35	BA	1923	U	N3-C4-C5	-5.68	111.19	114.60
35	BA	2049	G	N9-C4-C5	5.68	107.67	105.40
38	BD	104	TYR	CB-CG-CD2	-5.68	117.59	121.00
1	AA	8	A	C5-N7-C8	5.68	106.74	103.90
1	AA	133	U	C5'-C4'-O4'	-5.68	102.28	109.10
1	AA	313	A	C3'-C2'-C1'	-5.68	96.95	101.50
1	AA	1363(A)	A	C5'-C4'-O4'	-5.68	102.28	109.10
35	BA	370	G	C8-N9-C4	5.68	108.67	106.40
35	BA	450	G	C6-C5-N7	-5.68	126.99	130.40
35	BA	497	A	OP1-P-OP2	-5.68	111.08	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	882	G	C5-N7-C8	5.68	107.14	104.30
35	BA	2225	A	C6-N1-C2	-5.68	115.19	118.60
35	BA	2763	G	C4-C5-C6	5.68	122.21	118.80
35	BA	509	C	N3-C4-N4	-5.68	114.02	118.00
35	BA	1515	G	C8-N9-C4	-5.68	104.13	106.40
1	AA	543	C	C6-N1-C2	-5.68	118.03	120.30
1	AA	699	C	C4-C5-C6	-5.68	114.56	117.40
35	BA	271(U)	G	C4-C5-C6	5.68	122.21	118.80
35	BA	344	G	C8-N9-C4	5.68	108.67	106.40
35	BA	1185	C	C3'-C2'-C1'	5.68	106.04	101.50
35	BA	2811	G	N3-C4-C5	-5.68	125.76	128.60
36	BB	61	G	C8-N9-C4	5.68	108.67	106.40
1	AA	165	C	N3-C4-N4	5.68	121.97	118.00
1	AA	259	G	C5-C6-O6	-5.68	125.19	128.60
1	AA	719	C	C5-C4-N4	5.68	124.17	120.20
24	AY	160	ARG	NE-CZ-NH1	-5.68	117.46	120.30
35	BA	2190	G	O5'-P-OP1	-5.68	100.59	105.70
1	AA	451	A	C8-N9-C4	5.68	108.07	105.80
35	BA	1007	C	C2-N3-C4	-5.68	117.06	119.90
35	BA	1994	C	N1-C2-N3	-5.68	115.23	119.20
1	AA	1099	G	N1-C6-O6	-5.67	116.50	119.90
1	AA	1174	G	N3-C4-C5	-5.67	125.76	128.60
22	AV	13	C	C2-N3-C4	-5.67	117.06	119.90
22	AV	76	A	N1-C2-N3	5.67	132.14	129.30
35	BA	6	A	N9-C1'-C2'	5.67	121.38	114.00
35	BA	363(F)	A	N1-C2-N3	-5.67	126.46	129.30
35	BA	971	C	C5-C4-N4	-5.67	116.23	120.20
35	BA	1474	C	C4-C5-C6	-5.67	114.56	117.40
35	BA	2075	U	N3-C4-O4	-5.67	115.43	119.40
35	BA	2281	C	N3-C4-C5	-5.67	119.63	121.90
35	BA	2510	C	O4'-C1'-N1	-5.67	103.66	108.20
35	BA	2533	A	N9-C4-C5	-5.67	103.53	105.80
35	BA	2614	A	C8-N9-C4	5.67	108.07	105.80
35	BA	2687	U	N1-C2-N3	-5.67	111.50	114.90
1	AA	135	C	N1-C2-O2	5.67	122.30	118.90
1	AA	741	G	N7-C8-N9	-5.67	110.26	113.10
1	AA	1171	G	C2-N3-C4	5.67	114.74	111.90
35	BA	372	G	C5-C6-N1	5.67	114.33	111.50
35	BA	769	G	N9-C4-C5	-5.67	103.13	105.40
35	BA	1208	C	C5'-C4'-C3'	-5.67	106.93	116.00
35	BA	1711	C	N3-C2-O2	-5.67	117.93	121.90
35	BA	1790	C	O4'-C1'-N1	5.67	112.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2773	C	N3-C4-N4	-5.67	114.03	118.00
47	BP	41	ARG	NE-CZ-NH1	-5.67	117.46	120.30
1	AA	160	A	O5'-P-OP2	5.67	117.50	110.70
1	AA	1165	C	N1-C2-O2	-5.67	115.50	118.90
22	AV	26	G	N3-C2-N2	-5.67	115.93	119.90
35	BA	371	A	C2-N3-C4	5.67	113.44	110.60
35	BA	553	G	C4-C5-N7	5.67	113.07	110.80
35	BA	851	U	C5-C6-N1	5.67	125.53	122.70
35	BA	909	A	C1'-O4'-C4'	5.67	114.44	109.90
35	BA	1319	G	N3-C4-N9	-5.67	122.60	126.00
36	BB	4	C	C5-C6-N1	5.67	123.83	121.00
1	AA	638	G	OP1-P-OP2	-5.67	111.10	119.60
31	B6	50	ARG	NE-CZ-NH1	-5.67	117.47	120.30
35	BA	271(N)	U	N3-C4-C5	5.67	118.00	114.60
35	BA	1596	A	N1-C6-N6	5.67	122.00	118.60
35	BA	2010	G	C5-N7-C8	5.67	107.13	104.30
35	BA	2026	C	C5'-C4'-C3'	-5.67	106.93	116.00
35	BA	2475	C	C3'-C2'-C1'	5.67	106.03	101.50
35	BA	2600	A	N9-C4-C5	5.67	108.07	105.80
1	AA	641	U	C5-C4-O4	-5.67	122.50	125.90
35	BA	1565	C	C5-C6-N1	-5.67	118.17	121.00
35	BA	2852	G	C6-N1-C2	-5.67	121.70	125.10
36	BB	18	G	N7-C8-N9	5.67	115.93	113.10
40	BF	17	ARG	NE-CZ-NH2	-5.67	117.47	120.30
1	AA	1068	G	C6-N1-C2	-5.67	121.70	125.10
1	AA	89	C	C5-C6-N1	-5.66	118.17	121.00
1	AA	263	A	C4-C5-C6	-5.66	114.17	117.00
1	AA	1082	G	C5-N7-C8	5.66	107.13	104.30
35	BA	600	G	C8-N9-C4	5.66	108.67	106.40
35	BA	688	U	C4-C5-C6	-5.66	116.30	119.70
35	BA	1339	G	C4-C5-N7	5.66	113.06	110.80
35	BA	1741	A	C5-C6-N1	-5.66	114.87	117.70
35	BA	2762	G	C6-N1-C2	5.66	128.50	125.10
1	AA	27	G	C5-N7-C8	-5.66	101.47	104.30
1	AA	385	C	C2-N3-C4	5.66	122.73	119.90
1	AA	460	G	N3-C2-N2	5.66	123.86	119.90
1	AA	668	G	C6-C5-N7	-5.66	127.00	130.40
1	AA	1271	G	C6-N1-C2	-5.66	121.70	125.10
1	AA	71	C	C5-C6-N1	-5.66	118.17	121.00
1	AA	428	G	N9-C4-C5	-5.66	103.14	105.40
1	AA	1452	C	N3-C4-C5	5.66	124.16	121.90
35	BA	338	G	N3-C4-N9	5.66	129.40	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	657	U	C6-N1-C2	-5.66	117.60	121.00
35	BA	1144	G	C4-C5-C6	5.66	122.20	118.80
35	BA	1557	C	O4'-C1'-N1	-5.66	103.67	108.20
35	BA	1593	G	C4-C5-C6	5.66	122.20	118.80
35	BA	1863	G	C5-C6-O6	5.66	132.00	128.60
1	AA	100	C	C5'-C4'-O4'	5.66	115.89	109.10
1	AA	304	U	C1'-O4'-C4'	5.66	114.43	109.90
1	AA	1015	A	C5-C6-N1	5.66	120.53	117.70
35	BA	2192	G	N3-C4-C5	5.66	131.43	128.60
35	BA	2225	A	C4'-C3'-C2'	5.66	108.26	102.60
35	BA	2558	C	C2-N3-C4	5.66	122.73	119.90
37	BC	38	PHE	CB-CG-CD1	-5.66	116.84	120.80
1	AA	1031	G	C6-N1-C2	-5.66	121.71	125.10
1	AA	1187	G	N7-C8-N9	-5.66	110.27	113.10
35	BA	127	A	C6-C5-N7	-5.66	128.34	132.30
35	BA	272(A)	U	C5-C6-N1	5.66	125.53	122.70
35	BA	628	G	N1-C2-N3	-5.66	120.51	123.90
35	BA	630	G	C8-N9-C4	-5.66	104.14	106.40
1	AA	102	G	N3-C4-N9	5.66	129.39	126.00
1	AA	438	G	C3'-C2'-C1'	5.66	106.03	101.50
1	AA	1298	C	N1-C2-O2	5.66	122.29	118.90
35	BA	1299	G	N3-C2-N2	5.66	123.86	119.90
35	BA	2041	U	N3-C4-C5	-5.66	111.21	114.60
35	BA	2281	C	N3-C4-N4	5.66	121.96	118.00
55	BX	75	ASP	CB-CG-OD1	5.66	123.39	118.30
35	BA	1187	G	C5-N7-C8	-5.65	101.47	104.30
35	BA	1783	A	C4-C5-N7	-5.65	107.87	110.70
54	BW	37	ARG	NE-CZ-NH2	5.65	123.13	120.30
1	AA	327	A	N3-C4-C5	5.65	130.76	126.80
1	AA	821	G	C4-C5-N7	5.65	113.06	110.80
35	BA	69	C	N3-C4-C5	5.65	124.16	121.90
35	BA	798	G	N3-C4-C5	5.65	131.43	128.60
35	BA	1157	G	C5-C6-O6	5.65	131.99	128.60
35	BA	2306	C	C5'-C4'-C3'	-5.65	106.96	116.00
35	BA	2553	G	C4-C5-N7	5.65	113.06	110.80
35	BA	2560	C	N3-C4-C5	5.65	124.16	121.90
1	AA	502	G	N3-C4-C5	5.65	131.43	128.60
1	AA	562	C	N3-C4-C5	-5.65	119.64	121.90
7	AG	18	TYR	CB-CG-CD1	-5.65	117.61	121.00
35	BA	243	U	C2-N3-C4	5.65	130.39	127.00
35	BA	629	G	N1-C6-O6	-5.65	116.51	119.90
35	BA	870	A	C6-N1-C2	-5.65	115.21	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1210	A	N1-C2-N3	-5.65	126.47	129.30
35	BA	1496	A	C5-C6-N6	5.65	128.22	123.70
35	BA	1588	C	C5-C6-N1	5.65	123.83	121.00
35	BA	1714	G	N7-C8-N9	-5.65	110.27	113.10
35	BA	2080	G	N9-C4-C5	5.65	107.66	105.40
52	BU	92	ARG	NE-CZ-NH1	-5.65	117.47	120.30
35	BA	271(E)	U	C2-N3-C4	-5.65	123.61	127.00
1	AA	247	G	O4'-C1'-N9	5.65	112.72	108.20
1	AA	302	G	N7-C8-N9	5.65	115.92	113.10
1	AA	785	G	N9-C4-C5	5.65	107.66	105.40
1	AA	1202	G	C4-C5-N7	-5.65	108.54	110.80
14	AN	41	ARG	NE-CZ-NH2	-5.65	117.48	120.30
35	BA	29	U	C5-C6-N1	5.65	125.52	122.70
35	BA	787	U	O4'-C1'-N1	5.65	112.72	108.20
35	BA	1830	C	C3'-C2'-C1'	-5.65	96.98	101.50
35	BA	2238	G	C4-C5-N7	5.65	113.06	110.80
35	BA	2537	U	C5-C6-N1	5.65	125.52	122.70
36	BB	24	G	O5'-P-OP2	-5.65	100.62	105.70
1	AA	1015	A	C4-C5-C6	-5.65	114.18	117.00
4	AD	47	ARG	NE-CZ-NH2	-5.65	117.48	120.30
22	AV	73	A	N9-C4-C5	-5.65	103.54	105.80
34	B9	35	ARG	NE-CZ-NH1	-5.65	117.48	120.30
35	BA	1137	G	N9-C4-C5	5.65	107.66	105.40
35	BA	1188	U	N3-C2-O2	-5.65	118.25	122.20
35	BA	1505	C	C2-N3-C4	5.65	122.72	119.90
35	BA	1900	A	N9-C1'-C2'	-5.65	105.79	112.00
35	BA	1972	A	C8-N9-C4	5.65	108.06	105.80
35	BA	2347	C	C4-C5-C6	-5.65	114.58	117.40
1	AA	547	A	N1-C6-N6	-5.64	115.21	118.60
4	AD	118	ARG	NE-CZ-NH2	-5.64	117.48	120.30
22	AV	45	G	N7-C8-N9	5.64	115.92	113.10
35	BA	437	G	C6-N1-C2	5.64	128.49	125.10
35	BA	1481	U	C5-C4-O4	5.64	129.29	125.90
35	BA	1983	C	N1-C2-O2	5.64	122.29	118.90
1	AA	380	G	O4'-C1'-N9	-5.64	103.69	108.20
1	AA	634	C	C6-N1-C2	5.64	122.56	120.30
1	AA	703	G	C5-C6-O6	-5.64	125.21	128.60
35	BA	870	A	C2-N3-C4	-5.64	107.78	110.60
35	BA	1528(A)	A	C6-C5-N7	-5.64	128.35	132.30
35	BA	2371	G	N3-C4-C5	5.64	131.42	128.60
35	BA	2608	G	C8-N9-C4	-5.64	104.14	106.40
35	BA	1268	A	C5-C6-N6	-5.64	119.19	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1740	G	N9-C4-C5	-5.64	103.14	105.40
55	BX	21	PHE	CB-CG-CD1	-5.64	116.85	120.80
1	AA	122	G	C5-N7-C8	5.64	107.12	104.30
1	AA	345	C	C5-C4-N4	-5.64	116.25	120.20
1	AA	775	G	C3'-C2'-C1'	5.64	106.01	101.50
1	AA	1206	G	C4-C5-N7	5.64	113.06	110.80
1	AA	1485	U	C4-C5-C6	-5.64	116.32	119.70
35	BA	132	G	N1-C2-N3	5.64	127.28	123.90
35	BA	151	C	N1-C2-N3	5.64	123.15	119.20
35	BA	432	A	C5-C6-N1	5.64	120.52	117.70
35	BA	814	C	C1'-O4'-C4'	-5.64	105.39	109.90
35	BA	1418	G	C6-N1-C2	5.64	128.48	125.10
35	BA	1643	G	N3-C2-N2	-5.64	115.95	119.90
35	BA	2264	C	C5-C6-N1	-5.64	118.18	121.00
35	BA	2311	A	C2-N3-C4	5.64	113.42	110.60
35	BA	2469	A	N9-C1'-C2'	-5.64	105.80	112.00
35	BA	2516	G	O4'-C1'-N9	5.64	112.71	108.20
48	BQ	101	ARG	NE-CZ-NH1	-5.64	117.48	120.30
1	AA	748	C	N3-C4-C5	5.64	124.16	121.90
1	AA	1495	U	N1-C2-O2	5.64	126.75	122.80
35	BA	1558	A	C4-C5-N7	5.64	113.52	110.70
35	BA	1646	C	C2-N3-C4	-5.64	117.08	119.90
1	AA	200	G	C2-N3-C4	5.64	114.72	111.90
1	AA	868	C	C4-C5-C6	5.64	120.22	117.40
1	AA	1244	C	C1'-O4'-C4'	-5.64	105.39	109.90
1	AA	1342	C	C2-N3-C4	5.64	122.72	119.90
1	AA	1503	A	C8-N9-C4	-5.64	103.55	105.80
4	AD	13	ARG	NE-CZ-NH2	5.64	123.12	120.30
35	BA	1217	C	C5-C4-N4	-5.64	116.25	120.20
35	BA	1262	A	C4-C5-N7	-5.64	107.88	110.70
35	BA	1705	G	N3-C2-N2	5.64	123.85	119.90
35	BA	1819	A	C2'-C3'-O3'	5.64	122.72	113.70
35	BA	1903	G	C4-C5-N7	5.64	113.05	110.80
35	BA	1980	G	N3-C4-N9	-5.64	122.62	126.00
35	BA	1988	C	N1-C2-O2	5.64	122.28	118.90
35	BA	2812	G	N3-C4-C5	5.64	131.42	128.60
57	BZ	18	LEU	CA-CB-CG	5.64	128.26	115.30
1	AA	834	C	N3-C2-O2	5.63	125.84	121.90
1	AA	1122	U	C6-N1-C2	-5.63	117.62	121.00
35	BA	498	G	N3-C4-C5	-5.63	125.78	128.60
35	BA	1598	C	C3'-C2'-C1'	5.63	106.01	101.50
1	AA	158	G	C5-N7-C8	5.63	107.12	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	394	G	C5'-C4'-O4'	5.63	115.86	109.10
35	BA	973	A	N7-C8-N9	-5.63	110.98	113.80
35	BA	2570	G	N3-C4-N9	-5.63	122.62	126.00
1	AA	1291	G	C6-N1-C2	5.63	128.48	125.10
10	AJ	48	THR	CA-CB-CG2	-5.63	104.52	112.40
35	BA	120	U	C2-N3-C4	5.63	130.38	127.00
35	BA	416	C	C2-N3-C4	-5.63	117.08	119.90
35	BA	604	G	C5-C6-N1	-5.63	108.68	111.50
35	BA	1409	C	C2-N3-C4	5.63	122.72	119.90
35	BA	1739	U	O4'-C1'-N1	5.63	112.70	108.20
35	BA	2207	G	C4-C5-N7	5.63	113.05	110.80
35	BA	2428	G	N1-C2-N3	-5.63	120.52	123.90
35	BA	2848	G	C5-C6-N1	-5.63	108.68	111.50
1	AA	69	G	C2-N3-C4	-5.63	109.08	111.90
35	BA	673	C	O4'-C1'-N1	-5.63	103.70	108.20
35	BA	764	A	N1-C2-N3	5.63	132.12	129.30
35	BA	1111	A	O4'-C1'-N9	5.63	112.70	108.20
35	BA	1658	C	N3-C4-C5	5.63	124.15	121.90
35	BA	1717	G	C3'-C2'-C1'	5.63	106.00	101.50
1	AA	555	C	N3-C4-C5	5.63	124.15	121.90
1	AA	577	G	OP1-P-O3'	-5.63	92.82	105.20
1	AA	1418	A	N9-C4-C5	-5.63	103.55	105.80
35	BA	1290	C	C3'-C2'-C1'	5.63	106.00	101.50
35	BA	1747(A)	G	N3-C4-N9	-5.63	122.62	126.00
35	BA	2388	A	C4'-C3'-C2'	5.63	108.23	102.60
35	BA	2599	G	C5-C6-N1	-5.63	108.69	111.50
35	BA	2783	G	C2-N3-C4	5.63	114.71	111.90
43	BK	119	ASP	CB-CG-OD1	-5.63	113.23	118.30
1	AA	401	C	N1-C2-N3	-5.63	115.26	119.20
1	AA	1067	A	C5-N7-C8	5.63	106.71	103.90
32	B7	10	ARG	NE-CZ-NH2	-5.63	117.49	120.30
35	BA	622	G	C4-C5-C6	5.63	122.18	118.80
35	BA	1499	C	N1-C2-O2	5.63	122.28	118.90
35	BA	1929	G	N3-C2-N2	-5.63	115.96	119.90
35	BA	1985	G	N3-C2-N2	-5.63	115.96	119.90
35	BA	2460	U	O4'-C1'-N1	-5.63	103.70	108.20
35	BA	2864	G	O4'-C1'-N9	5.63	112.70	108.20
1	AA	709	G	C2-N3-C4	5.62	114.71	111.90
35	BA	219	G	N7-C8-N9	-5.62	110.29	113.10
35	BA	1260	G	C2-N3-C4	-5.62	109.09	111.90
35	BA	1369	G	N3-C2-N2	5.62	123.84	119.90
1	AA	184	G	N3-C4-C5	5.62	131.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	618	C	C6-N1-C2	5.62	122.55	120.30
1	AA	679	C	C5-C6-N1	5.62	123.81	121.00
1	AA	1355	G	N9-C4-C5	5.62	107.65	105.40
22	AV	69	C	N1-C1'-C2'	-5.62	105.81	112.00
35	BA	188	G	C2-N3-C4	5.62	114.71	111.90
35	BA	271(R)	G	N1-C6-O6	-5.62	116.53	119.90
35	BA	295	G	C5-C6-N1	-5.62	108.69	111.50
35	BA	654(O)	G	N1-C2-N3	-5.62	120.53	123.90
35	BA	768	G	C3'-C2'-C1'	-5.62	97.00	101.50
35	BA	1468	C	C6-N1-C2	5.62	122.55	120.30
43	BK	82	ALA	N-CA-CB	-5.62	102.23	110.10
1	AA	598	U	C4-C5-C6	-5.62	116.33	119.70
1	AA	921	U	C3'-C2'-C1'	5.62	106.00	101.50
35	BA	324	A	C3'-C2'-C1'	5.62	106.00	101.50
35	BA	997	G	N3-C2-N2	5.62	123.84	119.90
35	BA	1036	G	C8-N9-C4	5.62	108.65	106.40
35	BA	1822	G	C4-C5-C6	-5.62	115.43	118.80
35	BA	2541	A	C5-C6-N1	5.62	120.51	117.70
35	BA	2889	C	N3-C2-O2	-5.62	117.97	121.90
1	AA	902	G	C5-N7-C8	-5.62	101.49	104.30
22	AV	23	C	N3-C2-O2	-5.62	117.97	121.90
35	BA	1157	G	N3-C4-N9	-5.62	122.63	126.00
35	BA	2032	G	C5-C6-O6	-5.62	125.23	128.60
1	AA	320	C	C5-C6-N1	5.62	123.81	121.00
1	AA	1014	A	N7-C8-N9	-5.62	110.99	113.80
1	AA	1215	G	C4-C5-C6	5.62	122.17	118.80
35	BA	1400	G	C4-C5-N7	-5.62	108.55	110.80
35	BA	1527	G	C1'-O4'-C4'	5.62	114.39	109.90
35	BA	1916	A	N7-C8-N9	-5.62	110.99	113.80
35	BA	2630	G	C5-N7-C8	-5.62	101.49	104.30
35	BA	2722	G	O4'-C1'-N9	5.62	112.69	108.20
1	AA	301	G	N3-C2-N2	5.62	123.83	119.90
1	AA	1256	A	C5-N7-C8	5.62	106.71	103.90
1	AA	145	G	N3-C2-N2	5.62	123.83	119.90
1	AA	790	A	C2-N3-C4	-5.62	107.79	110.60
1	AA	1251	A	N1-C6-N6	-5.62	115.23	118.60
35	BA	764	A	O4'-C1'-N9	5.62	112.69	108.20
35	BA	1262	A	N3-C4-C5	-5.62	122.87	126.80
35	BA	1811	G	C8-N9-C4	-5.62	104.15	106.40
35	BA	2129	C	C2-N3-C4	-5.62	117.09	119.90
36	BB	93	G	O4'-C1'-N9	5.62	112.69	108.20
1	AA	64	G	C6-N1-C2	-5.61	121.73	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1226	C	C2-N3-C4	5.61	122.71	119.90
1	AA	1384	C	C5'-C4'-O4'	5.61	115.83	109.10
35	BA	93	G	N7-C8-N9	5.61	115.91	113.10
35	BA	199	A	N1-C6-N6	-5.61	115.23	118.60
35	BA	1242	A	C5-N7-C8	5.61	106.71	103.90
35	BA	1409	C	C5-C6-N1	5.61	123.81	121.00
35	BA	2801	A	C6-C5-N7	5.61	136.23	132.30
1	AA	142	G	N3-C4-C5	5.61	131.41	128.60
35	BA	2445	G	N3-C4-C5	5.61	131.41	128.60
36	BB	57	A	C4-C5-C6	5.61	119.81	117.00
1	AA	471	G	N3-C4-C5	-5.61	125.80	128.60
1	AA	1473	A	C5-C6-N1	5.61	120.50	117.70
35	BA	1351	C	N3-C2-O2	5.61	125.83	121.90
35	BA	1583	A	C6-N1-C2	5.61	121.97	118.60
35	BA	2091	U	C2-N3-C4	5.61	130.37	127.00
35	BA	2242	G	C3'-C2'-C1'	5.61	105.99	101.50
35	BA	2282	G	N3-C4-C5	-5.61	125.80	128.60
35	BA	2326	C	N3-C4-C5	-5.61	119.66	121.90
51	BT	129	ARG	NE-CZ-NH1	-5.61	117.50	120.30
22	AV	32	C	C4-C5-C6	5.61	120.20	117.40
35	BA	1327	C	N3-C2-O2	-5.61	117.97	121.90
35	BA	1357	U	N3-C4-C5	-5.61	111.23	114.60
35	BA	1389	G	N3-C4-C5	5.61	131.41	128.60
1	AA	291	C	N3-C4-N4	-5.61	114.08	118.00
1	AA	1200	C	O4'-C1'-N1	5.61	112.69	108.20
32	B7	12	ARG	NE-CZ-NH1	5.61	123.10	120.30
32	B7	39	ARG	NE-CZ-NH1	5.61	123.10	120.30
35	BA	360	G	C5-C6-O6	-5.61	125.23	128.60
35	BA	1411	C	N1-C2-O2	-5.61	115.54	118.90
35	BA	1707	G	C5-C6-N1	-5.61	108.70	111.50
35	BA	2752	C	C6-N1-C2	5.61	122.54	120.30
35	BA	2777	G	C6-C5-N7	-5.61	127.03	130.40
47	BP	61	ARG	NE-CZ-NH2	-5.61	117.50	120.30
51	BT	54	ARG	NE-CZ-NH1	-5.61	117.50	120.30
1	AA	238	G	C5'-C4'-O4'	5.61	115.83	109.10
1	AA	333	G	C6-C5-N7	5.61	133.76	130.40
1	AA	1075	C	C6-N1-C2	5.61	122.54	120.30
35	BA	216	A	C8-N9-C4	5.61	108.04	105.80
35	BA	272(E)	G	N3-C4-C5	-5.61	125.80	128.60
35	BA	280	C	C5-C6-N1	5.61	123.80	121.00
35	BA	374	A	C5-C6-N1	5.61	120.50	117.70
35	BA	453	C	C4-C5-C6	5.61	120.20	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1253	A	C3'-C2'-C1'	5.61	105.98	101.50
35	BA	1305	C	C6-N1-C2	5.61	122.54	120.30
35	BA	1415	U	C5-C6-N1	-5.61	119.90	122.70
35	BA	1426	G	C5-C6-O6	-5.61	125.24	128.60
1	AA	785	G	C5'-C4'-C3'	-5.60	107.03	116.00
1	AA	1145	C	N1-C1'-C2'	-5.60	105.83	112.00
1	AA	1373	G	N3-C2-N2	-5.60	115.98	119.90
35	BA	179	G	N3-C2-N2	5.60	123.82	119.90
35	BA	707	G	N1-C6-O6	5.60	123.26	119.90
35	BA	2184	G	C4-C5-N7	-5.60	108.56	110.80
35	BA	2450	A	C2-N3-C4	5.60	113.40	110.60
1	AA	247	G	C1'-O4'-C4'	-5.60	105.42	109.90
1	AA	1523	G	OP2-P-O3'	5.60	117.53	105.20
17	AQ	9	VAL	CA-CB-CG2	-5.60	102.50	110.90
35	BA	484	C	C5-C6-N1	-5.60	118.20	121.00
35	BA	870	A	C4-C5-N7	5.60	113.50	110.70
35	BA	916	G	C8-N9-C4	-5.60	104.16	106.40
35	BA	1256	G	C4-C5-C6	5.60	122.16	118.80
35	BA	1698	A	C4-C5-C6	-5.60	114.20	117.00
1	AA	445	G	C6-C5-N7	-5.60	127.04	130.40
1	AA	577	G	N7-C8-N9	5.60	115.90	113.10
35	BA	1052	C	C2-N3-C4	-5.60	117.10	119.90
35	BA	1142	U	C4-C5-C6	-5.60	116.34	119.70
42	BH	23	ARG	NE-CZ-NH2	5.60	123.10	120.30
1	AA	681	C	N3-C2-O2	-5.60	117.98	121.90
1	AA	1223	C	N3-C2-O2	5.60	125.82	121.90
9	AI	104	ARG	C-N-CA	-5.60	107.70	121.70
35	BA	843	G	C4-C5-N7	5.60	113.04	110.80
35	BA	1088	A	N9-C4-C5	5.60	108.04	105.80
35	BA	2187	G	C5-C6-N1	-5.60	108.70	111.50
35	BA	2282	G	N1-C6-O6	-5.60	116.54	119.90
35	BA	2509	G	N3-C2-N2	-5.60	115.98	119.90
35	BA	2571	C	N3-C4-C5	-5.60	119.66	121.90
35	BA	2578	G	C5-C6-N1	-5.60	108.70	111.50
1	AA	236	G	N3-C4-C5	-5.60	125.80	128.60
1	AA	602	A	O4'-C1'-C2'	5.60	112.64	107.60
1	AA	1068	G	C5-C6-O6	-5.60	125.24	128.60
35	BA	611	C	C2-N3-C4	-5.60	117.10	119.90
35	BA	1168	G	N3-C4-N9	-5.60	122.64	126.00
35	BA	1858	G	OP2-P-O3'	5.60	117.51	105.20
37	BC	8	TYR	CG-CD2-CE2	-5.60	116.82	121.30
35	BA	502	A	O4'-C1'-N9	5.60	112.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1528(A)	A	C5-N7-C8	-5.60	101.10	103.90
35	BA	2355	C	N3-C2-O2	5.60	125.82	121.90
1	AA	1312	G	C5-C6-O6	5.59	131.96	128.60
35	BA	213	A	N9-C4-C5	-5.59	103.56	105.80
35	BA	1237	A	C2'-C3'-O3'	5.59	122.65	113.70
35	BA	1797	C	C5-C6-N1	-5.59	118.20	121.00
35	BA	1839	G	C6-C5-N7	5.59	133.76	130.40
35	BA	2453	A	C1'-O4'-C4'	-5.59	105.42	109.90
1	AA	297	G	C2-N3-C4	5.59	114.70	111.90
1	AA	1262	C	C4-C5-C6	-5.59	114.60	117.40
35	BA	853	G	C6-N1-C2	-5.59	121.74	125.10
35	BA	1786	A	C1'-O4'-C4'	-5.59	105.42	109.90
35	BA	2135	A	C5-C6-N1	-5.59	114.90	117.70
35	BA	2193	G	C2-N3-C4	-5.59	109.10	111.90
35	BA	2818	G	N7-C8-N9	5.59	115.90	113.10
1	AA	127	G	C5-N7-C8	5.59	107.10	104.30
1	AA	474	G	C5-C6-O6	5.59	131.96	128.60
1	AA	533	A	C8-N9-C4	5.59	108.04	105.80
1	AA	559	A	N9-C4-C5	5.59	108.04	105.80
1	AA	1003	G	C6-N1-C2	5.59	128.46	125.10
1	AA	1057	G	C4-C5-N7	5.59	113.04	110.80
24	AY	30	GLU	OE1-CD-OE2	-5.59	116.59	123.30
35	BA	1297	C	C4-C5-C6	5.59	120.20	117.40
35	BA	1474	C	N3-C2-O2	-5.59	117.99	121.90
1	AA	76	C	C5-C6-N1	5.59	123.80	121.00
1	AA	500	G	N1-C6-O6	5.59	123.25	119.90
1	AA	934	C	C6-N1-C2	-5.59	118.06	120.30
22	AV	45	G	N3-C4-N9	-5.59	122.65	126.00
35	BA	371	A	O4'-C1'-N9	5.59	112.67	108.20
35	BA	539	G	C4-C5-N7	5.59	113.04	110.80
35	BA	662	G	C5-N7-C8	-5.59	101.50	104.30
35	BA	1114	G	N9-C4-C5	-5.59	103.16	105.40
35	BA	2652	C	O4'-C1'-N1	5.59	112.67	108.20
1	AA	611	A	C2-N3-C4	5.59	113.39	110.60
35	BA	400	G	C1'-O4'-C4'	5.59	114.37	109.90
1	AA	480	U	C5-C4-O4	-5.59	122.55	125.90
1	AA	785	G	C4-C5-C6	5.59	122.15	118.80
1	AA	787	A	C5-C6-N1	-5.59	114.91	117.70
1	AA	1046	A	N1-C2-N3	5.59	132.09	129.30
35	BA	181	A	C2-N3-C4	5.59	113.39	110.60
35	BA	247	G	N1-C6-O6	5.59	123.25	119.90
35	BA	821	A	C4-C5-C6	-5.59	114.21	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2864	G	N9-C4-C5	5.59	107.63	105.40
55	BX	5	TYR	CB-CG-CD1	5.59	124.35	121.00
35	BA	271(Q)	G	O4'-C1'-N9	-5.58	103.73	108.20
35	BA	1330	C	C5-C6-N1	-5.58	118.21	121.00
35	BA	1633	G	C8-N9-C4	-5.58	104.17	106.40
35	BA	1860	G	N7-C8-N9	-5.58	110.31	113.10
35	BA	2272	U	C3'-C2'-C1'	-5.58	97.03	101.50
1	AA	189(I)	G	N1-C2-N3	5.58	127.25	123.90
35	BA	9	U	C2-N3-C4	5.58	130.35	127.00
35	BA	211	A	N1-C2-N3	-5.58	126.51	129.30
45	BN	12	ARG	NE-CZ-NH1	-5.58	117.51	120.30
1	AA	473	G	C8-N9-C4	-5.58	104.17	106.40
1	AA	502	G	N7-C8-N9	5.58	115.89	113.10
35	BA	1791	A	N1-C6-N6	-5.58	115.25	118.60
35	BA	2168	G	N9-C4-C5	-5.58	103.17	105.40
35	BA	2641	G	N1-C2-N3	-5.58	120.55	123.90
1	AA	628	G	N3-C4-C5	-5.58	125.81	128.60
1	AA	1094	G	C5-C6-N1	5.58	114.29	111.50
1	AA	1139	G	C4-C5-N7	-5.58	108.57	110.80
1	AA	1347	G	OP2-P-O3'	5.58	117.48	105.20
9	AI	88	TYR	CB-CG-CD2	-5.58	117.65	121.00
22	AV	9	G	N9-C4-C5	-5.58	103.17	105.40
35	BA	132	G	N1-C6-O6	5.58	123.25	119.90
35	BA	1142	U	N1-C2-N3	-5.58	111.55	114.90
35	BA	2206	G	N7-C8-N9	5.58	115.89	113.10
35	BA	2862	G	N3-C2-N2	5.58	123.81	119.90
1	AA	639	G	C3'-C2'-C1'	5.58	105.96	101.50
1	AA	1190	G	N9-C1'-C2'	5.58	121.25	114.00
24	AY	151	ARG	NE-CZ-NH2	-5.58	117.51	120.30
35	BA	231	C	C4-C5-C6	-5.58	114.61	117.40
35	BA	1132	A	N9-C4-C5	5.58	108.03	105.80
35	BA	1375	C	C4-C5-C6	5.58	120.19	117.40
35	BA	1415	U	C3'-C2'-C1'	-5.58	97.04	101.50
35	BA	1431	U	C6-N1-C2	5.58	124.35	121.00
35	BA	2875	C	N3-C4-C5	-5.58	119.67	121.90
1	AA	825	G	N3-C4-C5	-5.58	125.81	128.60
35	BA	188	G	N9-C4-C5	5.58	107.63	105.40
35	BA	292	C	C6-N1-C2	5.58	122.53	120.30
35	BA	1233	C	C5-C6-N1	-5.58	118.21	121.00
1	AA	1488	G	C5-C6-O6	-5.58	125.25	128.60
35	BA	126	A	C8-N9-C4	5.58	108.03	105.80
35	BA	863	A	N9-C4-C5	-5.58	103.57	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1495	A	O4'-C1'-N9	5.58	112.66	108.20
35	BA	1648	C	C5-C6-N1	-5.58	118.21	121.00
35	BA	1780	A	C6-N1-C2	5.58	121.95	118.60
35	BA	2276	G	C5-C6-O6	5.58	131.95	128.60
1	AA	1319	A	C6-C5-N7	-5.57	128.40	132.30
35	BA	271(F)	C	N1-C2-O2	5.57	122.24	118.90
35	BA	723	G	C2-N3-C4	5.57	114.69	111.90
35	BA	761	A	C5-C6-N1	5.57	120.49	117.70
35	BA	1432	C	C4-C5-C6	5.57	120.19	117.40
1	AA	1106	G	C4-C5-N7	5.57	113.03	110.80
35	BA	228	A	C2-N3-C4	5.57	113.39	110.60
35	BA	2094	G	N1-C6-O6	5.57	123.24	119.90
35	BA	2778	A	N3-C4-N9	5.57	131.86	127.40
52	BU	12	ARG	NE-CZ-NH2	-5.57	117.51	120.30
1	AA	642	A	C5-C6-N6	5.57	128.16	123.70
1	AA	1354	C	C5'-C4'-C3'	-5.57	107.09	116.00
35	BA	272(H)	C	N3-C4-C5	-5.57	119.67	121.90
35	BA	316	C	C5-C6-N1	-5.57	118.21	121.00
35	BA	855	G	C8-N9-C4	-5.57	104.17	106.40
35	BA	2679	A	C2-N3-C4	-5.57	107.81	110.60
35	BA	1332	G	O4'-C1'-N9	-5.57	103.75	108.20
35	BA	1768	U	C5-C6-N1	-5.57	119.92	122.70
1	AA	41	G	C6-N1-C2	-5.57	121.76	125.10
1	AA	588	G	O5'-P-OP2	5.57	117.38	110.70
1	AA	926	G	N7-C8-N9	-5.57	110.32	113.10
35	BA	177	G	O4'-C4'-C3'	5.57	110.55	106.10
35	BA	1212	G	C5'-C4'-O4'	-5.57	102.42	109.10
35	BA	1265	A	N9-C4-C5	5.57	108.03	105.80
35	BA	1631(A)	A	C4-C5-C6	-5.57	114.22	117.00
35	BA	2041	U	C5'-C4'-C3'	-5.57	107.09	116.00
35	BA	2190	G	N3-C4-N9	5.57	129.34	126.00
35	BA	2390	U	N3-C2-O2	5.57	126.10	122.20
43	BK	93	ARG	NE-CZ-NH2	5.57	123.08	120.30
1	AA	421	U	C5-C6-N1	5.57	125.48	122.70
1	AA	624	C	C4-C5-C6	-5.57	114.62	117.40
1	AA	1000	U	N3-C2-O2	-5.57	118.30	122.20
35	BA	103	A	N1-C2-N3	5.57	132.08	129.30
1	AA	182	U	C5-C6-N1	5.56	125.48	122.70
1	AA	643	C	C5-C6-N1	-5.56	118.22	121.00
1	AA	972	C	N3-C4-N4	5.56	121.89	118.00
22	AV	45	G	N3-C4-C5	5.56	131.38	128.60
35	BA	824	A	N1-C2-N3	-5.56	126.52	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1381	G	C2-N3-C4	5.56	114.68	111.90
35	BA	2372	G	C4-C5-C6	-5.56	115.46	118.80
35	BA	2886	G	C8-N9-C4	5.56	108.62	106.40
36	BB	57	A	C2-N3-C4	5.56	113.38	110.60
1	AA	872	A	C5-N7-C8	5.56	106.68	103.90
1	AA	1446	U	C5-C4-O4	-5.56	122.56	125.90
35	BA	271(K)	U	N3-C4-O4	5.56	123.29	119.40
35	BA	1089	G	C5-C6-O6	-5.56	125.26	128.60
35	BA	1982	C	C4-C5-C6	5.56	120.18	117.40
35	BA	2814	C	N1-C2-O2	5.56	122.24	118.90
1	AA	878	G	C5-C6-O6	-5.56	125.26	128.60
1	AA	1013	G	C5-C6-O6	-5.56	125.26	128.60
35	BA	295	G	N3-C2-N2	5.56	123.79	119.90
1	AA	281	G	C5-N7-C8	5.56	107.08	104.30
1	AA	476	G	C4-C5-N7	-5.56	108.58	110.80
1	AA	894	G	C5-C6-N1	5.56	114.28	111.50
13	AM	91	ARG	NE-CZ-NH2	5.56	123.08	120.30
23	AX	16	A	N7-C8-N9	-5.56	111.02	113.80
35	BA	802	A	C6-N1-C2	-5.56	115.27	118.60
35	BA	1098	A	C4-C5-C6	-5.56	114.22	117.00
35	BA	1268	A	C5-C6-N1	5.56	120.48	117.70
35	BA	1458	C	C6-N1-C2	5.56	122.52	120.30
35	BA	1767	C	N3-C4-C5	-5.56	119.68	121.90
35	BA	1821	A	C6-N1-C2	5.56	121.94	118.60
35	BA	1992	G	C5-C6-N1	-5.56	108.72	111.50
35	BA	2813	A	C8-N9-C4	5.56	108.02	105.80
46	BO	64	ARG	NE-CZ-NH2	-5.56	117.52	120.30
47	BP	134	ALA	N-CA-CB	5.56	117.89	110.10
26	B1	80	LEU	CB-CG-CD1	-5.56	101.55	111.00
35	BA	489	G	C5-N7-C8	-5.56	101.52	104.30
35	BA	818	G	C4-C5-N7	5.56	113.02	110.80
35	BA	827	U	C6-N1-C2	-5.56	117.67	121.00
35	BA	1021	A	N9-C1'-C2'	-5.56	105.89	112.00
35	BA	1157	G	N3-C2-N2	5.56	123.79	119.90
35	BA	2492	U	O5'-P-OP2	-5.56	100.70	105.70
35	BA	2763	G	C1'-O4'-C4'	5.56	114.35	109.90
35	BA	2780	G	N1-C6-O6	-5.56	116.56	119.90
35	BA	2837	G	N7-C8-N9	5.56	115.88	113.10
35	BA	204	A	C2-N3-C4	-5.56	107.82	110.60
35	BA	2787	C	C2-N3-C4	5.56	122.68	119.90
1	AA	160	A	C8-N9-C4	-5.55	103.58	105.80
1	AA	537	G	C8-N9-C4	5.55	108.62	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	543	C	N1-C2-O2	5.55	122.23	118.90
1	AA	596	C	N1-C2-N3	5.55	123.09	119.20
1	AA	1204	A	N7-C8-N9	-5.55	111.02	113.80
22	AV	17(A)	U	C5-C6-N1	5.55	125.48	122.70
35	BA	271(R)	G	C5-C6-N1	5.55	114.28	111.50
35	BA	1994	C	N3-C2-O2	5.55	125.79	121.90
35	BA	2477	C	C4-C5-C6	5.55	120.18	117.40
35	BA	956	G	C6-C5-N7	-5.55	127.07	130.40
35	BA	2338	G	C6-C5-N7	-5.55	127.07	130.40
1	AA	1302	U	C5-C4-O4	5.55	129.23	125.90
35	BA	97	C	N3-C2-O2	5.55	125.78	121.90
35	BA	463	G	N9-C4-C5	-5.55	103.18	105.40
35	BA	874	G	C6-C5-N7	5.55	133.73	130.40
35	BA	920	G	C5-C6-O6	5.55	131.93	128.60
35	BA	2547	U	N3-C4-O4	-5.55	115.51	119.40
35	BA	2819	G	C5-C6-O6	-5.55	125.27	128.60
1	AA	528	C	N3-C4-N4	-5.55	114.12	118.00
1	AA	667	G	C6-N1-C2	-5.55	121.77	125.10
1	AA	706	A	N1-C2-N3	-5.55	126.53	129.30
1	AA	1283	G	N3-C2-N2	-5.55	116.02	119.90
35	BA	275	G	N7-C8-N9	5.55	115.88	113.10
35	BA	857	C	N3-C4-C5	5.55	124.12	121.90
35	BA	1488	G	O4'-C1'-N9	-5.55	103.76	108.20
35	BA	1686	C	N3-C2-O2	5.55	125.78	121.90
35	BA	2300	G	N3-C4-N9	-5.55	122.67	126.00
35	BA	2322	A	N9-C1'-C2'	-5.55	105.89	112.00
35	BA	2360	A	C5-N7-C8	5.55	106.67	103.90
35	BA	2501	C	O4'-C1'-N1	-5.55	103.76	108.20
35	BA	2555	U	C5'-C4'-C3'	5.55	124.88	116.00
35	BA	2639	A	C2-N3-C4	5.55	113.38	110.60
1	AA	19	C	N3-C4-N4	-5.55	114.12	118.00
1	AA	1105	A	N7-C8-N9	5.55	116.57	113.80
4	AD	13	ARG	NE-CZ-NH1	-5.55	117.53	120.30
35	BA	1753	G	N1-C2-N3	5.55	127.23	123.90
35	BA	1978	A	O5'-P-OP2	-5.55	100.71	105.70
1	AA	540	G	N7-C8-N9	5.55	115.87	113.10
35	BA	531	C	C4-C5-C6	-5.55	114.63	117.40
35	BA	1661	G	N3-C2-N2	5.55	123.78	119.90
35	BA	1866	C	C6-N1-C2	-5.55	118.08	120.30
35	BA	2595	G	N7-C8-N9	-5.55	110.33	113.10
35	BA	1031	G	C6-C5-N7	-5.54	127.07	130.40
35	BA	1975	G	C8-N9-C1'	-5.54	119.79	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2357	U	C5-C4-O4	-5.54	122.57	125.90
35	BA	2473	U	N3-C2-O2	5.54	126.08	122.20
1	AA	1341	U	N3-C4-O4	5.54	123.28	119.40
35	BA	341	G	N3-C4-C5	-5.54	125.83	128.60
35	BA	444	C	N3-C2-O2	-5.54	118.02	121.90
35	BA	819	A	N9-C4-C5	-5.54	103.58	105.80
35	BA	915	C	C3'-C2'-C1'	5.54	105.94	101.50
35	BA	1076	C	C6-N1-C2	5.54	122.52	120.30
35	BA	1429	G	C6-N1-C2	-5.54	121.77	125.10
35	BA	2149	G	C4-C5-N7	5.54	113.02	110.80
35	BA	2526	G	C8-N9-C4	-5.54	104.18	106.40
1	AA	150	C	N3-C4-C5	5.54	124.12	121.90
1	AA	483	C	C6-N1-C2	-5.54	118.08	120.30
1	AA	709	G	N1-C2-N3	-5.54	120.58	123.90
1	AA	1469	G	C5-C6-O6	-5.54	125.28	128.60
1	AA	1490	C	N1-C2-O2	5.54	122.22	118.90
35	BA	982	C	N3-C4-C5	-5.54	119.68	121.90
35	BA	1002	G	C4-C5-N7	5.54	113.02	110.80
35	BA	1319	G	C4'-C3'-C2'	-5.54	97.06	102.60
35	BA	552	G	C3'-C2'-C1'	-5.54	97.07	101.50
35	BA	2855	C	N1-C2-O2	-5.54	115.58	118.90
1	AA	630	G	N1-C6-O6	-5.54	116.58	119.90
1	AA	1414	U	N3-C4-C5	-5.54	111.28	114.60
35	BA	16	G	C5-N7-C8	5.54	107.07	104.30
35	BA	1643	G	C4-C5-C6	5.54	122.12	118.80
35	BA	2395	C	C6-N1-C2	-5.54	118.08	120.30
35	BA	2506	U	C2'-C3'-O3'	5.54	122.56	113.70
1	AA	856	C	N3-C4-C5	-5.54	119.69	121.90
1	AA	1029	C	C5'-C4'-O4'	-5.54	102.46	109.10
35	BA	553	G	N1-C2-N3	5.54	127.22	123.90
35	BA	1353	A	C3'-C2'-C1'	5.54	105.93	101.50
35	BA	2564	A	O4'-C1'-N9	5.54	112.63	108.20
1	AA	221	C	C3'-C2'-C1'	5.54	105.93	101.50
1	AA	633	G	N7-C8-N9	5.54	115.87	113.10
1	AA	1098	C	C5-C4-N4	5.54	124.08	120.20
1	AA	1147	C	C3'-C2'-C1'	-5.54	97.07	101.50
16	AP	54	GLU	OE1-CD-OE2	-5.54	116.66	123.30
35	BA	149	A	N1-C2-N3	5.54	132.07	129.30
35	BA	324	A	C5-N7-C8	-5.54	101.13	103.90
35	BA	947	G	C8-N9-C4	-5.54	104.19	106.40
35	BA	2225	A	N1-C2-N3	5.54	132.07	129.30
35	BA	2467	C	O4'-C1'-N1	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2740	A	N1-C6-N6	-5.54	115.28	118.60
46	BO	58	VAL	CB-CA-C	-5.54	100.88	111.40
46	BO	82	ASN	N-CA-C	-5.54	96.05	111.00
1	AA	617	G	C8-N9-C4	-5.53	104.19	106.40
1	AA	793	U	O4'-C4'-C3'	5.53	110.53	106.10
1	AA	820	U	C5-C6-N1	5.53	125.47	122.70
35	BA	271(E)	U	N1-C2-N3	5.53	118.22	114.90
35	BA	501	A	C4'-C3'-C2'	-5.53	97.07	102.60
35	BA	769	G	C3'-C2'-C1'	5.53	105.93	101.50
35	BA	799	G	N1-C2-N2	-5.53	111.22	116.20
35	BA	1861	G	C6-C5-N7	-5.53	127.08	130.40
35	BA	2664	G	N3-C2-N2	5.53	123.77	119.90
36	BB	4	C	C2-N3-C4	5.53	122.67	119.90
35	BA	129	C	N1-C2-N3	5.53	123.07	119.20
35	BA	344	G	O5'-P-OP1	-5.53	100.72	105.70
35	BA	864	G	C5-C6-O6	-5.53	125.28	128.60
35	BA	1484	G	C4-C5-C6	-5.53	115.48	118.80
35	BA	1792	G	N1-C2-N3	-5.53	120.58	123.90
1	AA	198	G	C5-C6-O6	5.53	131.92	128.60
1	AA	739	C	C5-C4-N4	-5.53	116.33	120.20
1	AA	864	A	N9-C4-C5	5.53	108.01	105.80
1	AA	1009	G	C8-N9-C4	-5.53	104.19	106.40
1	AA	1499	A	N7-C8-N9	5.53	116.56	113.80
35	BA	614(B)	G	C6-N1-C2	-5.53	121.78	125.10
35	BA	923	C	C4'-C3'-C2'	-5.53	97.07	102.60
35	BA	1028	A	C6-C5-N7	-5.53	128.43	132.30
35	BA	1212	G	C2'-C3'-O3'	-5.53	97.33	109.50
35	BA	1809	A	C5-N7-C8	-5.53	101.14	103.90
35	BA	2252	G	N3-C2-N2	-5.53	116.03	119.90
35	BA	2499	C	C4-C5-C6	5.53	120.17	117.40
35	BA	2540	C	C5-C4-N4	-5.53	116.33	120.20
35	BA	2875	C	O4'-C1'-N1	-5.53	103.78	108.20
1	AA	808	C	C5-C4-N4	-5.53	116.33	120.20
35	BA	679	C	N3-C4-C5	-5.53	119.69	121.90
35	BA	847	U	OP1-P-O3'	5.53	117.36	105.20
35	BA	1447	G	N1-C2-N3	-5.53	120.58	123.90
35	BA	1517	G	N1-C6-O6	-5.53	116.58	119.90
35	BA	1656	C	C4-C5-C6	5.53	120.17	117.40
1	AA	105	G	C8-N9-C4	-5.53	104.19	106.40
1	AA	310	G	N7-C8-N9	5.53	115.86	113.10
1	AA	395	C	O5'-P-OP1	-5.53	100.72	105.70
1	AA	751	U	N3-C2-O2	-5.53	118.33	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1480	G	C5-C6-N1	5.53	114.26	111.50
35	BA	863	A	C5-N7-C8	-5.53	101.14	103.90
35	BA	2117	A	C8-N9-C4	5.53	108.01	105.80
35	BA	2124	G	C2-N3-C4	-5.53	109.14	111.90
35	BA	2708	G	C5-C6-O6	-5.53	125.28	128.60
48	BQ	14	ARG	NE-CZ-NH2	-5.53	117.54	120.30
1	AA	635	G	N1-C6-O6	5.53	123.22	119.90
1	AA	962	C	C5-C6-N1	-5.53	118.24	121.00
35	BA	271(P)	C	O4'-C1'-C2'	5.53	112.57	107.60
35	BA	596	G	C5-C6-N1	-5.53	108.74	111.50
35	BA	654(F)	C	C3'-C2'-C1'	5.53	105.92	101.50
35	BA	1307	A	O4'-C1'-N9	5.53	112.62	108.20
35	BA	1566	A	C6-N1-C2	5.53	121.92	118.60
35	BA	1570	A	C4-C5-N7	5.53	113.46	110.70
35	BA	1936	A	N9-C4-C5	5.53	108.01	105.80
35	BA	205	G	C6-C5-N7	5.52	133.72	130.40
35	BA	563	G	N1-C2-N3	5.52	127.21	123.90
35	BA	1017	G	N1-C6-O6	5.52	123.21	119.90
35	BA	1139	G	N7-C8-N9	-5.52	110.34	113.10
35	BA	1436	G	N7-C8-N9	5.52	115.86	113.10
35	BA	1601	G	C6-N1-C2	-5.52	121.78	125.10
1	AA	639	G	C5-N7-C8	-5.52	101.54	104.30
1	AA	792	A	N3-C4-N9	-5.52	122.98	127.40
35	BA	515	A	N1-C6-N6	5.52	121.91	118.60
35	BA	1020	A	C6-C5-N7	-5.52	128.43	132.30
35	BA	1144	G	O4'-C1'-N9	-5.52	103.78	108.20
35	BA	1250	G	N7-C8-N9	5.52	115.86	113.10
35	BA	1551	C	N3-C2-O2	-5.52	118.03	121.90
35	BA	1705	G	N1-C2-N2	-5.52	111.23	116.20
35	BA	1928	A	O4'-C1'-C2'	5.52	112.57	107.60
37	BC	214	TYR	CB-CA-C	-5.52	99.35	110.40
35	BA	1950	G	N7-C8-N9	-5.52	110.34	113.10
35	BA	2409	G	C5-C6-N1	5.52	114.26	111.50
1	AA	754	C	N1-C1'-C2'	5.52	121.18	114.00
1	AA	1334	G	C8-N9-C4	-5.52	104.19	106.40
35	BA	1541	G	N7-C8-N9	-5.52	110.34	113.10
36	BB	11	C	C4-C5-C6	5.52	120.16	117.40
1	AA	279	A	C5'-C4'-C3'	-5.52	107.17	116.00
1	AA	518	C	N3-C2-O2	-5.52	118.04	121.90
1	AA	617	G	N7-C8-N9	5.52	115.86	113.10
1	AA	1304	G	C5'-C4'-C3'	-5.52	107.17	116.00
1	AA	1342	C	N1-C2-N3	-5.52	115.34	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	186	G	C6-N1-C2	-5.52	121.79	125.10
35	BA	294	A	C1'-O4'-C4'	5.52	114.31	109.90
35	BA	704	G	C5-C6-O6	-5.52	125.29	128.60
35	BA	1203	G	C5-N7-C8	5.52	107.06	104.30
35	BA	1311	G	N3-C4-N9	-5.52	122.69	126.00
35	BA	1328	G	N3-C4-C5	-5.52	125.84	128.60
35	BA	2108	C	N3-C4-N4	-5.52	114.14	118.00
35	BA	2147	G	O4'-C1'-N9	-5.52	103.79	108.20
35	BA	2896	C	N1-C2-O2	5.52	122.21	118.90
1	AA	120	A	N3-C4-C5	-5.52	122.94	126.80
1	AA	154	C	C4-C5-C6	-5.52	114.64	117.40
1	AA	310	G	N9-C4-C5	5.52	107.61	105.40
1	AA	1058	G	C8-N9-C4	5.52	108.61	106.40
1	AA	1510	U	N3-C2-O2	5.52	126.06	122.20
35	BA	2002	G	C4-C5-C6	-5.52	115.49	118.80
1	AA	146	G	C8-N9-C4	-5.51	104.19	106.40
1	AA	1070	U	N1-C2-N3	-5.51	111.59	114.90
1	AA	1173	G	C6-C5-N7	-5.51	127.09	130.40
1	AA	1212	U	C5-C6-N1	5.51	125.46	122.70
1	AA	1394	A	N7-C8-N9	5.51	116.56	113.80
17	AQ	91	ARG	NE-CZ-NH2	-5.51	117.54	120.30
22	AV	75	C	C5-C4-N4	5.51	124.06	120.20
35	BA	624	C	N3-C4-C5	5.51	124.11	121.90
35	BA	2414	G	C8-N9-C4	-5.51	104.19	106.40
35	BA	2477	C	P-O5'-C5'	-5.51	112.08	120.90
52	BU	52	ARG	NE-CZ-NH2	-5.51	117.54	120.30
35	BA	2031	A	N7-C8-N9	-5.51	111.04	113.80
35	BA	2535	G	C4-C5-C6	5.51	122.11	118.80
35	BA	2587	A	O4'-C1'-N9	-5.51	103.79	108.20
1	AA	795	C	O5'-P-OP2	-5.51	100.74	105.70
1	AA	1154	G	N3-C2-N2	-5.51	116.04	119.90
1	AA	1508	G	C5-C6-O6	-5.51	125.29	128.60
4	AD	68	TYR	CB-CG-CD2	-5.51	117.69	121.00
35	BA	98	G	N1-C2-N3	-5.51	120.59	123.90
35	BA	1298	C	O4'-C1'-C2'	5.51	112.56	107.60
35	BA	2429	G	N1-C2-N2	-5.51	111.24	116.20
50	BS	30	ARG	NE-CZ-NH2	5.51	123.06	120.30
1	AA	229	U	N1-C2-O2	5.51	126.66	122.80
1	AA	312	C	N3-C4-C5	5.51	124.10	121.90
1	AA	424	G	N9-C4-C5	-5.51	103.20	105.40
1	AA	744	C	C5'-C4'-C3'	-5.51	107.19	116.00
1	AA	818	G	C2-N3-C4	-5.51	109.14	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	950	U	C5-C6-N1	-5.51	119.94	122.70
35	BA	19	C	C5-C4-N4	-5.51	116.34	120.20
35	BA	1171	G	N9-C4-C5	-5.51	103.20	105.40
35	BA	1769	G	C6-C5-N7	5.51	133.71	130.40
1	AA	1371	G	C4-C5-N7	-5.51	108.60	110.80
12	AL	89	ARG	NH1-CZ-NH2	5.51	125.46	119.40
35	BA	467	G	N1-C6-O6	5.51	123.20	119.90
35	BA	914	C	N3-C4-N4	5.51	121.86	118.00
1	AA	64	G	C5-C6-N1	5.51	114.25	111.50
1	AA	156	G	N9-C4-C5	5.51	107.60	105.40
1	AA	596	C	N1-C2-O2	-5.51	115.60	118.90
1	AA	1420	C	C5-C6-N1	-5.51	118.25	121.00
35	BA	321	G	N9-C4-C5	5.51	107.60	105.40
35	BA	1146	C	C2-N3-C4	5.51	122.65	119.90
35	BA	2242	G	N9-C4-C5	5.51	107.60	105.40
35	BA	2287	A	C4-C5-N7	5.51	113.45	110.70
35	BA	2431	U	N1-C2-O2	-5.51	118.95	122.80
1	AA	1332	A	O4'-C1'-C2'	5.50	112.56	107.60
35	BA	453	C	N1-C1'-C2'	-5.50	105.94	112.00
35	BA	2199	A	C2-N3-C4	5.50	113.35	110.60
1	AA	315	A	C5-C6-N1	-5.50	114.95	117.70
1	AA	393	A	N9-C4-C5	5.50	108.00	105.80
1	AA	663	A	C6-N1-C2	5.50	121.90	118.60
1	AA	723	U	C5-C4-O4	-5.50	122.60	125.90
1	AA	1054	C	C2-N3-C4	-5.50	117.15	119.90
1	AA	1092	A	N9-C4-C5	5.50	108.00	105.80
1	AA	1297	C	C5-C4-N4	5.50	124.05	120.20
1	AA	1341	U	N3-C4-C5	-5.50	111.30	114.60
35	BA	426	C	C5-C6-N1	-5.50	118.25	121.00
35	BA	764	A	C3'-C2'-C1'	5.50	105.90	101.50
35	BA	990	A	C5-N7-C8	-5.50	101.15	103.90
35	BA	1754	C	C2-N3-C4	5.50	122.65	119.90
35	BA	1984	G	N1-C6-O6	5.50	123.20	119.90
35	BA	2404	C	N3-C2-O2	-5.50	118.05	121.90
35	BA	2505	G	C3'-C2'-C1'	5.50	105.90	101.50
1	AA	80	G	C3'-C2'-C1'	-5.50	97.10	101.50
1	AA	142	G	N1-C6-O6	5.50	123.20	119.90
1	AA	1413	A	C2-N3-C4	-5.50	107.85	110.60
22	AV	22	G	C5-C6-N1	-5.50	108.75	111.50
35	BA	1899	G	O5'-P-OP2	-5.50	100.75	105.70
35	BA	2824	C	C1'-O4'-C4'	5.50	114.30	109.90
39	BE	36	ARG	NE-CZ-NH1	-5.50	117.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AG	33	ASP	CB-CG-OD2	-5.50	113.35	118.30
35	BA	1339	G	N7-C8-N9	5.50	115.85	113.10
1	AA	544	G	C5-N7-C8	-5.50	101.55	104.30
1	AA	598	U	N1-C2-O2	5.50	126.65	122.80
1	AA	789	U	P-O5'-C5'	-5.50	112.10	120.90
1	AA	949	A	C5-C6-N1	5.50	120.45	117.70
24	AY	616	TYR	CB-CG-CD2	5.50	124.30	121.00
35	BA	123	G	N9-C1'-C2'	-5.50	105.95	112.00
35	BA	1244	G	C5-C6-N1	-5.50	108.75	111.50
1	AA	289	G	C1'-O4'-C4'	5.50	114.30	109.90
1	AA	429	U	N1-C2-O2	-5.50	118.95	122.80
35	BA	470	A	C5'-C4'-C3'	-5.50	107.21	116.00
35	BA	2510	C	N3-C4-N4	-5.50	114.15	118.00
35	BA	2665	A	C6-C5-N7	-5.50	128.45	132.30
36	BB	109	C	C6-N1-C2	-5.50	118.10	120.30
1	AA	356	A	C5-C6-N1	-5.50	114.95	117.70
1	AA	837	G	C4'-C3'-C2'	-5.50	97.11	102.60
1	AA	1353	G	C6-N1-C2	5.50	128.40	125.10
35	BA	252	G	C4-C5-N7	-5.50	108.60	110.80
35	BA	386	G	N1-C6-O6	5.50	123.20	119.90
35	BA	781	A	N7-C8-N9	-5.50	111.05	113.80
35	BA	1104	C	N3-C4-N4	5.50	121.85	118.00
35	BA	1647	G	O4'-C1'-N9	5.50	112.60	108.20
35	BA	1850	G	C8-N9-C4	-5.50	104.20	106.40
1	AA	58	C	C2-N3-C4	-5.49	117.15	119.90
1	AA	179	A	C5-N7-C8	-5.49	101.15	103.90
1	AA	553	A	C6-N1-C2	5.49	121.90	118.60
1	AA	1028	C	C4-C5-C6	5.49	120.15	117.40
1	AA	1089	G	N1-C6-O6	5.49	123.20	119.90
35	BA	36	G	C5-N7-C8	5.49	107.05	104.30
35	BA	763	G	N1-C6-O6	5.49	123.20	119.90
35	BA	972	G	C5'-C4'-O4'	-5.49	102.51	109.10
35	BA	1859	A	C5-C6-N6	-5.49	119.31	123.70
35	BA	2529	G	C8-N9-C4	5.49	108.60	106.40
35	BA	908	C	C4-C5-C6	5.49	120.15	117.40
35	BA	946	G	N3-C4-C5	5.49	131.35	128.60
35	BA	2045	C	C2-N3-C4	-5.49	117.15	119.90
35	BA	2628	C	N1-C2-O2	5.49	122.19	118.90
1	AA	131	C	C4-C5-C6	5.49	120.14	117.40
35	BA	986	C	C5-C4-N4	5.49	124.04	120.20
35	BA	988	A	C2-N3-C4	-5.49	107.86	110.60
35	BA	1002	G	C6-C5-N7	-5.49	127.11	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1210	A	N9-C4-C5	5.49	108.00	105.80
35	BA	2376	A	C4-C5-N7	5.49	113.44	110.70
1	AA	1089	G	N3-C4-N9	5.49	129.29	126.00
3	AC	38	ARG	NE-CZ-NH1	5.49	123.05	120.30
35	BA	677	A	N1-C2-N3	5.49	132.04	129.30
35	BA	789	A	C6-C5-N7	5.49	136.14	132.30
35	BA	1456	G	C2-N3-C4	-5.49	109.16	111.90
35	BA	1879	C	N1-C2-N3	5.49	123.04	119.20
35	BA	2297	C	N1-C2-O2	5.49	122.19	118.90
35	BA	2523	G	N1-C2-N2	5.49	121.14	116.20
35	BA	2759	G	C2-N3-C4	5.49	114.64	111.90
1	AA	537	G	C5-N7-C8	5.49	107.04	104.30
35	BA	1051	G	N9-C1'-C2'	5.49	121.13	114.00
35	BA	1154	G	N1-C2-N2	-5.49	111.26	116.20
1	AA	839	U	N1-C1'-C2'	5.49	121.13	114.00
33	B8	32	LEU	CA-CB-CG	5.49	127.92	115.30
35	BA	654(C)	G	C5-N7-C8	-5.49	101.56	104.30
35	BA	742	G	N1-C6-O6	5.49	123.19	119.90
35	BA	2087	G	C5-C6-O6	5.49	131.89	128.60
1	AA	399	G	C5-N7-C8	-5.48	101.56	104.30
1	AA	911	U	N3-C2-O2	-5.48	118.36	122.20
18	AR	74	ARG	NE-CZ-NH1	5.48	123.04	120.30
35	BA	2683	C	C5-C4-N4	5.48	124.04	120.20
1	AA	50	A	C6-C5-N7	5.48	136.14	132.30
1	AA	362	G	N3-C4-C5	-5.48	125.86	128.60
1	AA	1035	A	C3'-C2'-C1'	-5.48	97.11	101.50
1	AA	1265	G	C5-C6-N1	-5.48	108.76	111.50
22	AV	25	C	C5-C6-N1	-5.48	118.26	121.00
35	BA	792	G	O4'-C1'-N9	5.48	112.59	108.20
35	BA	1117	G	O4'-C1'-N9	5.48	112.59	108.20
35	BA	1704	G	C1'-O4'-C4'	-5.48	105.51	109.90
35	BA	1824	G	C4-C5-C6	-5.48	115.51	118.80
35	BA	2082	A	C4-C5-N7	5.48	113.44	110.70
35	BA	2400	G	C2-N3-C4	-5.48	109.16	111.90
36	BB	36	C	C1'-O4'-C4'	-5.48	105.51	109.90
1	AA	354	G	C6-C5-N7	-5.48	127.11	130.40
1	AA	1099	G	N9-C4-C5	-5.48	103.21	105.40
2	AB	163	PHE	CB-CG-CD2	-5.48	116.96	120.80
35	BA	191	A	N7-C8-N9	-5.48	111.06	113.80
35	BA	488	G	N9-C4-C5	5.48	107.59	105.40
35	BA	585	G	N3-C4-C5	5.48	131.34	128.60
35	BA	892	G	C5'-C4'-O4'	5.48	115.68	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1985	G	N1-C2-N2	5.48	121.13	116.20
36	BB	105	A	C2-N3-C4	-5.48	107.86	110.60
45	BN	109	LYS	N-CA-C	5.48	125.80	111.00
1	AA	1233	G	C2-N3-C4	-5.48	109.16	111.90
1	AA	1417	G	C3'-C2'-C1'	-5.48	97.12	101.50
35	BA	1103	A	C8-N9-C4	5.48	107.99	105.80
1	AA	100	C	N3-C4-N4	5.48	121.83	118.00
1	AA	151	A	C5-N7-C8	-5.48	101.16	103.90
1	AA	820	U	N3-C4-O4	5.48	123.23	119.40
35	BA	487	C	C5-C6-N1	-5.48	118.26	121.00
35	BA	1461	G	N7-C8-N9	5.48	115.84	113.10
35	BA	2147	G	C8-N9-C4	-5.48	104.21	106.40
35	BA	2507	C	N1-C2-O2	-5.48	115.61	118.90
36	BB	40	U	O4'-C1'-N1	5.48	112.58	108.20
35	BA	704	G	C8-N9-C4	-5.48	104.21	106.40
35	BA	1457	A	C8-N9-C4	-5.48	103.61	105.80
35	BA	2801	A	C5-C6-N1	5.48	120.44	117.70
1	AA	558	G	C2-N3-C4	5.47	114.64	111.90
1	AA	795	C	C6-N1-C2	-5.47	118.11	120.30
35	BA	507	A	C2-N3-C4	5.47	113.34	110.60
35	BA	1087	G	O4'-C1'-N9	5.47	112.58	108.20
35	BA	1133	U	N3-C2-O2	5.47	126.03	122.20
35	BA	1328	G	C8-N9-C4	-5.47	104.21	106.40
35	BA	2770	G	C5-C6-O6	5.47	131.88	128.60
1	AA	538	G	N3-C4-C5	-5.47	125.86	128.60
1	AA	1443	G	N9-C4-C5	5.47	107.59	105.40
35	BA	271(J)	C	N3-C2-O2	-5.47	118.07	121.90
35	BA	1215	G	C6-N1-C2	5.47	128.38	125.10
35	BA	1850	G	C5'-C4'-O4'	5.47	115.67	109.10
1	AA	387	U	O4'-C1'-N1	-5.47	103.82	108.20
1	AA	794	A	C3'-C2'-C1'	5.47	105.88	101.50
35	BA	105	C	N3-C4-C5	-5.47	119.71	121.90
35	BA	228	A	N1-C6-N6	-5.47	115.32	118.60
35	BA	379	G	N1-C2-N2	-5.47	111.28	116.20
35	BA	815	C	O4'-C1'-N1	5.47	112.58	108.20
1	AA	185	A	C8-N9-C4	-5.47	103.61	105.80
23	AX	13	A	N1-C2-N3	-5.47	126.56	129.30
35	BA	1118	C	O4'-C1'-N1	5.47	112.58	108.20
35	BA	1386	C	C6-N1-C2	5.47	122.49	120.30
35	BA	1988	C	N3-C2-O2	-5.47	118.07	121.90
35	BA	2165	G	N1-C2-N3	5.47	127.18	123.90
35	BA	2534	A	C5-N7-C8	5.47	106.63	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	281	G	C4-C5-N7	-5.47	108.61	110.80
1	AA	1046	A	C3'-C2'-C1'	-5.47	97.13	101.50
8	AH	52	ASP	CB-CG-OD2	5.47	123.22	118.30
22	AV	40	C	N3-C2-O2	-5.47	118.07	121.90
35	BA	576	U	O4'-C1'-N1	-5.47	103.83	108.20
35	BA	1784	A	C2-N3-C4	5.47	113.33	110.60
35	BA	2699	C	C4-C5-C6	-5.47	114.67	117.40
35	BA	2761	G	C5-N7-C8	-5.47	101.57	104.30
1	AA	363	A	C6-N1-C2	-5.47	115.32	118.60
1	AA	449	C	N3-C4-C5	5.47	124.09	121.90
35	BA	573	G	C5-N7-C8	-5.47	101.57	104.30
35	BA	661	C	C5-C6-N1	5.47	123.73	121.00
35	BA	779	U	C5-C4-O4	5.47	129.18	125.90
35	BA	1032	A	N7-C8-N9	-5.47	111.07	113.80
35	BA	1758	G	C4-C5-N7	5.47	112.99	110.80
35	BA	1955	U	N1-C1'-C2'	5.47	121.11	114.00
35	BA	2065	C	C6-N1-C2	5.47	122.49	120.30
35	BA	2090	G	C5-C6-O6	-5.47	125.32	128.60
35	BA	2772	C	N3-C4-N4	-5.47	114.17	118.00
40	BF	44	ARG	NE-CZ-NH2	-5.47	117.57	120.30
35	BA	271(Z)	C	C3'-C2'-C1'	5.46	105.87	101.50
35	BA	392	C	N1-C2-N3	5.46	123.03	119.20
35	BA	901	A	N7-C8-N9	-5.46	111.07	113.80
35	BA	1612	C	N3-C4-N4	5.46	121.83	118.00
35	BA	1907	G	N1-C6-O6	5.46	123.18	119.90
35	BA	2415	G	N7-C8-N9	-5.46	110.37	113.10
35	BA	2468	G	C6-C5-N7	5.46	133.68	130.40
35	BA	764	A	O4'-C1'-C2'	-5.46	100.34	105.80
35	BA	874	G	C4-C5-C6	-5.46	115.52	118.80
35	BA	1593	G	C5-C6-O6	-5.46	125.32	128.60
35	BA	2127	G	C2-N3-C4	5.46	114.63	111.90
1	AA	117	G	N3-C4-N9	5.46	129.28	126.00
1	AA	1014	A	C5-N7-C8	5.46	106.63	103.90
1	AA	1205	U	C5-C4-O4	-5.46	122.62	125.90
35	BA	280	C	N3-C2-O2	-5.46	118.08	121.90
35	BA	381	G	O4'-C1'-N9	5.46	112.57	108.20
35	BA	880	G	N3-C4-N9	5.46	129.28	126.00
1	AA	329	A	C5-C6-N6	-5.46	119.33	123.70
1	AA	727	G	N9-C1'-C2'	-5.46	105.99	112.00
35	BA	1812	A	C5-N7-C8	5.46	106.63	103.90
35	BA	2274	A	N1-C6-N6	-5.46	115.32	118.60
1	AA	576	G	C5-C6-O6	-5.46	125.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	903	G	N3-C2-N2	-5.46	116.08	119.90
1	AA	1493	A	N1-C2-N3	5.46	132.03	129.30
35	BA	134	C	N1-C2-O2	5.46	122.17	118.90
35	BA	395	U	C5-C4-O4	-5.46	122.62	125.90
35	BA	903	C	C5-C6-N1	5.46	123.73	121.00
35	BA	1702	G	N3-C4-N9	5.46	129.28	126.00
35	BA	2842	G	C4-C5-N7	5.46	112.98	110.80
47	BP	80	TYR	CG-CD1-CE1	5.46	125.67	121.30
1	AA	470	C	C6-N1-C2	5.46	122.48	120.30
1	AA	1401	G	C6-C5-N7	-5.46	127.13	130.40
35	BA	740	U	C5'-C4'-C3'	5.46	124.73	116.00
35	BA	843	G	C4'-C3'-C2'	5.46	108.06	102.60
35	BA	865	C	C1'-O4'-C4'	5.46	114.27	109.90
35	BA	1144	G	C5-C6-O6	5.46	131.87	128.60
35	BA	1451	C	C6-N1-C2	5.46	122.48	120.30
1	AA	982	U	N3-C4-O4	-5.46	115.58	119.40
35	BA	979	G	C3'-C2'-C1'	5.46	105.86	101.50
35	BA	1190	G	N7-C8-N9	5.46	115.83	113.10
35	BA	1711	C	N3-C4-C5	-5.46	119.72	121.90
35	BA	2605	U	N1-C2-O2	-5.46	118.98	122.80
36	BB	23	G	C5-N7-C8	-5.46	101.57	104.30
1	AA	553	A	N1-C2-N3	-5.45	126.57	129.30
1	AA	673	G	C5-N7-C8	5.45	107.03	104.30
35	BA	276	A	C3'-C2'-C1'	-5.45	97.14	101.50
35	BA	343	C	C4-C5-C6	-5.45	114.67	117.40
35	BA	399	G	O4'-C1'-C2'	5.45	112.51	107.60
35	BA	2031	A	N9-C1'-C2'	5.45	121.09	114.00
1	AA	773	G	N3-C2-N2	5.45	123.72	119.90
35	BA	466	A	O4'-C1'-N9	-5.45	103.84	108.20
35	BA	1367	A	C8-N9-C4	5.45	107.98	105.80
35	BA	1994	C	C2-N3-C4	5.45	122.63	119.90
1	AA	825	G	C4-C5-C6	5.45	122.07	118.80
1	AA	963	G	C3'-C2'-C1'	5.45	105.86	101.50
1	AA	999	C	C2-N1-C1'	5.45	124.80	118.80
35	BA	121	G	N3-C4-N9	5.45	129.27	126.00
35	BA	609	A	C3'-C2'-C1'	5.45	105.86	101.50
35	BA	1022	G	N1-C2-N3	-5.45	120.63	123.90
36	BB	87	G	N9-C4-C5	-5.45	103.22	105.40
45	BN	134	ARG	NE-CZ-NH1	-5.45	117.58	120.30
53	BV	88	ARG	NH1-CZ-NH2	5.45	125.40	119.40
1	AA	129(A)	G	N3-C2-N2	-5.45	116.09	119.90
1	AA	668	G	N1-C2-N3	5.45	127.17	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	995	C	C2-N3-C4	5.45	122.62	119.90
1	AA	1220	G	O4'-C1'-N9	-5.45	103.84	108.20
1	AA	1300	G	N1-C2-N3	-5.45	120.63	123.90
1	AA	1394	A	C8-N9-C4	-5.45	103.62	105.80
1	AA	1461	G	C5-N7-C8	5.45	107.02	104.30
35	BA	247	G	C5-C6-N1	-5.45	108.78	111.50
35	BA	765	G	C4-C5-N7	5.45	112.98	110.80
35	BA	1187	G	O4'-C1'-N9	-5.45	103.84	108.20
35	BA	1486	A	C4-C5-N7	-5.45	107.98	110.70
35	BA	1649	G	C4-C5-N7	-5.45	108.62	110.80
35	BA	2494	G	C5-C6-N1	5.45	114.22	111.50
35	BA	2508	G	C4-C5-N7	-5.45	108.62	110.80
35	BA	351	G	C6-C5-N7	5.45	133.67	130.40
35	BA	2033	A	O4'-C1'-C2'	5.45	112.50	107.60
36	BB	94	C	C3'-C2'-C1'	-5.45	97.14	101.50
1	AA	350	G	C5-N7-C8	-5.45	101.58	104.30
1	AA	696	A	C2-N3-C4	-5.45	107.88	110.60
1	AA	1526	G	O4'-C1'-N9	-5.45	103.84	108.20
35	BA	27	G	C4-C5-C6	-5.45	115.53	118.80
35	BA	337	C	C2-N3-C4	5.45	122.62	119.90
35	BA	561	G	N3-C2-N2	5.45	123.71	119.90
35	BA	1061	U	O4'-C1'-C2'	5.45	112.50	107.60
35	BA	1065	U	O4'-C1'-C2'	5.45	112.50	107.60
35	BA	1714	G	N3-C4-C5	5.45	131.32	128.60
35	BA	2407	G	N9-C4-C5	5.45	107.58	105.40
35	BA	2474	C	C2-N3-C4	5.45	122.62	119.90
35	BA	2499	C	C5-C4-N4	5.45	124.01	120.20
38	BD	157	ARG	NE-CZ-NH2	-5.45	117.58	120.30
1	AA	149	A	C5-N7-C8	5.44	106.62	103.90
1	AA	176	C	C5-C6-N1	5.44	123.72	121.00
1	AA	217	C	O4'-C1'-N1	-5.44	103.84	108.20
1	AA	621	A	C4-C5-C6	5.44	119.72	117.00
1	AA	1030	C	C4-C5-C6	5.44	120.12	117.40
35	BA	416	C	C5-C4-N4	-5.44	116.39	120.20
35	BA	1271	G	N3-C4-N9	5.44	129.26	126.00
35	BA	1968	G	C5-C6-O6	5.44	131.87	128.60
36	BB	82	G	C5-N7-C8	-5.44	101.58	104.30
1	AA	48	C	C6-N1-C2	5.44	122.48	120.30
1	AA	731	G	N1-C2-N3	5.44	127.17	123.90
1	AA	755	G	N3-C4-C5	-5.44	125.88	128.60
22	AV	4	G	C5'-C4'-O4'	-5.44	102.57	109.10
22	AV	27	U	N3-C4-C5	5.44	117.86	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	358	U	N3-C4-O4	-5.44	115.59	119.40
35	BA	1661	G	N1-C2-N2	-5.44	111.30	116.20
35	BA	1753	G	C5-N7-C8	5.44	107.02	104.30
35	BA	2418	A	N1-C2-N3	5.44	132.02	129.30
35	BA	2870	C	C6-N1-C2	-5.44	118.12	120.30
1	AA	927	G	C6-C5-N7	-5.44	127.14	130.40
35	BA	692	C	C2-N3-C4	-5.44	117.18	119.90
35	BA	1153	C	C1'-O4'-C4'	-5.44	105.55	109.90
35	BA	2579	C	N3-C4-C5	5.44	124.08	121.90
1	AA	333	G	N1-C2-N3	5.44	127.16	123.90
1	AA	349	A	N9-C4-C5	5.44	107.97	105.80
1	AA	1521	G	C3'-C2'-C1'	5.44	105.85	101.50
2	AB	53	ARG	NE-CZ-NH2	-5.44	117.58	120.30
35	BA	207	A	N1-C2-N3	-5.44	126.58	129.30
35	BA	348	G	O4'-C1'-N9	5.44	112.55	108.20
35	BA	421	U	C6-N1-C2	-5.44	117.74	121.00
35	BA	763	G	N3-C4-N9	-5.44	122.74	126.00
35	BA	1510	G	N1-C6-O6	-5.44	116.64	119.90
35	BA	2313	C	N1-C2-O2	-5.44	115.64	118.90
35	BA	2549	G	C5-N7-C8	-5.44	101.58	104.30
1	AA	961	U	N3-C2-O2	-5.44	118.39	122.20
1	AA	1144	G	O4'-C1'-N9	5.44	112.55	108.20
35	BA	854	G	N9-C4-C5	5.44	107.58	105.40
35	BA	1129	A	C8-N9-C4	-5.44	103.63	105.80
35	BA	2582	G	N7-C8-N9	5.44	115.82	113.10
35	BA	2745	C	N1-C2-O2	-5.44	115.64	118.90
1	AA	378	G	N9-C4-C5	5.43	107.57	105.40
1	AA	452	A	C4'-C3'-C2'	5.43	108.03	102.60
1	AA	585	G	N3-C2-N2	5.43	123.70	119.90
1	AA	707	C	O4'-C1'-N1	-5.43	103.85	108.20
1	AA	728	A	C2-N3-C4	5.43	113.32	110.60
1	AA	1420	C	C5-C4-N4	-5.43	116.39	120.20
35	BA	114	U	C5-C4-O4	-5.43	122.64	125.90
35	BA	2154	G	N9-C4-C5	-5.43	103.23	105.40
35	BA	2540	C	C3'-C2'-C1'	5.43	105.85	101.50
35	BA	2892	A	C5-C6-N1	-5.43	114.98	117.70
1	AA	52	G	C3'-C2'-C1'	-5.43	97.15	101.50
1	AA	502	G	C5-N7-C8	-5.43	101.58	104.30
1	AA	974	A	N1-C6-N6	5.43	121.86	118.60
1	AA	1247	U	C5-C6-N1	5.43	125.42	122.70
35	BA	1514	U	C4-C5-C6	-5.43	116.44	119.70
1	AA	633	G	C4-C5-C6	5.43	122.06	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1027	C	C5-C6-N1	5.43	123.72	121.00
35	BA	381	G	C4-C5-C6	-5.43	115.54	118.80
35	BA	1049	C	C5'-C4'-O4'	-5.43	102.58	109.10
35	BA	1630	G	C5-C6-N1	5.43	114.22	111.50
1	AA	107	G	C5-C6-O6	5.43	131.86	128.60
1	AA	523	A	C5-C6-N1	-5.43	114.98	117.70
1	AA	1179	A	N7-C8-N9	-5.43	111.09	113.80
1	AA	1423	G	C5-N7-C8	5.43	107.01	104.30
35	BA	171	G	N7-C8-N9	-5.43	110.39	113.10
35	BA	779	U	N3-C4-O4	-5.43	115.60	119.40
35	BA	2263	C	N1-C2-O2	-5.43	115.64	118.90
35	BA	2632	A	N3-C4-C5	-5.43	123.00	126.80
41	BG	25	TYR	CB-CG-CD2	-5.43	117.74	121.00
1	AA	1342	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	BA	795	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	BA	2815	C	C6-N1-C2	5.43	122.47	120.30
1	AA	168	G	C4-C5-C6	5.43	122.06	118.80
1	AA	196	A	N1-C6-N6	5.43	121.86	118.60
1	AA	1288	A	N1-C2-N3	5.43	132.01	129.30
24	AY	637	ARG	NE-CZ-NH1	-5.43	117.59	120.30
35	BA	108	U	N3-C4-O4	-5.43	115.60	119.40
35	BA	272(H)	C	N1-C2-O2	5.43	122.16	118.90
35	BA	528	A	C8-N9-C4	-5.43	103.63	105.80
35	BA	2770	G	C5-C6-N1	-5.43	108.79	111.50
1	AA	999	C	C6-N1-C1'	-5.42	114.29	120.80
35	BA	53	A	C8-N9-C4	5.42	107.97	105.80
35	BA	363(F)	A	C4-C5-N7	-5.42	107.99	110.70
35	BA	865	C	N3-C4-C5	5.42	124.07	121.90
35	BA	1149	G	C5-C6-N1	5.42	114.21	111.50
35	BA	1509	C	C5-C6-N1	5.42	123.71	121.00
1	AA	804	U	N3-C4-O4	-5.42	115.60	119.40
1	AA	1403	C	C6-N1-C2	-5.42	118.13	120.30
35	BA	1197	G	C6-N1-C2	5.42	128.35	125.10
35	BA	1226	A	C5-C6-N1	5.42	120.41	117.70
35	BA	1910	G	C5-C6-O6	5.42	131.85	128.60
35	BA	2735	G	N3-C2-N2	5.42	123.70	119.90
35	BA	2779	U	N1-C2-N3	5.42	118.15	114.90
36	BB	78	A	N9-C4-C5	-5.42	103.63	105.80
50	BS	12	PHE	CB-CG-CD2	-5.42	117.00	120.80
1	AA	786	G	N9-C4-C5	5.42	107.57	105.40
1	AA	1228	C	N3-C4-N4	5.42	121.80	118.00
1	AA	1390	U	N1-C2-N3	5.42	118.15	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	654(O)	G	C6-N1-C2	5.42	128.35	125.10
35	BA	816	C	N1-C2-O2	-5.42	115.65	118.90
35	BA	1710	C	C2-N3-C4	-5.42	117.19	119.90
35	BA	2344	U	N1-C1'-C2'	5.42	121.05	114.00
35	BA	2611	U	N1-C2-O2	5.42	126.59	122.80
35	BA	2653	U	C6-N1-C2	5.42	124.25	121.00
36	BB	102	A	C6-N1-C2	-5.42	115.35	118.60
56	BY	7	VAL	CA-CB-CG1	-5.42	102.77	110.90
1	AA	69	G	N1-C6-O6	5.42	123.15	119.90
1	AA	987	G	N3-C4-C5	5.42	131.31	128.60
35	BA	539	G	C5-N7-C8	-5.42	101.59	104.30
35	BA	593	G	N7-C8-N9	5.42	115.81	113.10
43	BK	36	GLU	OE1-CD-OE2	-5.42	116.80	123.30
46	BO	111	PHE	CG-CD2-CE2	-5.42	114.84	120.80
1	AA	88	A	N9-C1'-C2'	5.42	121.04	114.00
1	AA	401	C	C4-C5-C6	-5.42	114.69	117.40
1	AA	744	C	N3-C4-C5	-5.42	119.73	121.90
1	AA	821	G	N1-C2-N3	-5.42	120.65	123.90
1	AA	1190	G	N9-C4-C5	-5.42	103.23	105.40
35	BA	1381	G	C4-C5-C6	5.42	122.05	118.80
1	AA	189(E)	U	C5-C6-N1	5.42	125.41	122.70
1	AA	277	C	O5'-P-OP1	-5.42	100.83	105.70
35	BA	370	G	N3-C2-N2	-5.42	116.11	119.90
35	BA	1194	A	C5-N7-C8	5.42	106.61	103.90
35	BA	1637	A	C8-N9-C4	-5.42	103.63	105.80
35	BA	1979	C	C1'-O4'-C4'	-5.42	105.57	109.90
35	BA	2665	A	N7-C8-N9	-5.42	111.09	113.80
36	BB	93	G	N3-C2-N2	-5.42	116.11	119.90
1	AA	792	A	C5-N7-C8	5.42	106.61	103.90
18	AR	35	ARG	NE-CZ-NH1	5.42	123.01	120.30
35	BA	780	G	C5-C6-N1	5.42	114.21	111.50
35	BA	1984	G	C4-C5-N7	-5.42	108.63	110.80
35	BA	2179	C	C5'-C4'-C3'	-5.42	107.34	116.00
35	BA	2206	G	C4-C5-N7	5.42	112.97	110.80
36	BB	47	C	C5-C6-N1	5.42	123.71	121.00
1	AA	471	G	N9-C4-C5	5.41	107.57	105.40
1	AA	941	G	N1-C2-N3	5.41	127.15	123.90
1	AA	1262	C	O5'-P-OP1	5.41	117.19	110.70
1	AA	1398	A	N1-C6-N6	-5.41	115.35	118.60
35	BA	1104	C	N3-C2-O2	-5.41	118.11	121.90
35	BA	1255	U	C5-C6-N1	5.41	125.41	122.70
35	BA	1954	G	N1-C2-N2	5.41	121.07	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2135	A	C1'-O4'-C4'	-5.41	105.57	109.90
35	BA	2339	G	N1-C2-N2	-5.41	111.33	116.20
36	BB	16	G	C3'-C2'-C1'	5.41	105.83	101.50
41	BG	115	ARG	NE-CZ-NH1	5.41	123.01	120.30
35	BA	297	C	C5-C4-N4	-5.41	116.41	120.20
35	BA	906	G	N1-C2-N2	5.41	121.07	116.20
35	BA	1980	G	C1'-O4'-C4'	-5.41	105.57	109.90
35	BA	2104	G	C5-N7-C8	-5.41	101.59	104.30
35	BA	2428	G	O4'-C1'-N9	5.41	112.53	108.20
35	BA	2731	G	C5-N7-C8	5.41	107.01	104.30
45	BN	58	ASP	CB-CG-OD2	-5.41	113.43	118.30
1	AA	838	G	N9-C4-C5	-5.41	103.24	105.40
1	AA	1286	A	C2-N3-C4	5.41	113.31	110.60
35	BA	961	C	OP1-P-O3'	5.41	117.11	105.20
35	BA	993	G	C6-N1-C2	-5.41	121.85	125.10
35	BA	1312	U	C5'-C4'-C3'	-5.41	107.34	116.00
35	BA	1449	A	N7-C8-N9	-5.41	111.09	113.80
35	BA	2136	C	C3'-C2'-C1'	5.41	105.83	101.50
36	BB	19	G	N1-C6-O6	5.41	123.15	119.90
1	AA	36	C	C5-C4-N4	5.41	123.98	120.20
1	AA	142	G	C6-N1-C2	5.41	128.34	125.10
1	AA	650	G	N3-C4-C5	5.41	131.30	128.60
1	AA	751	U	N3-C4-O4	5.41	123.19	119.40
35	BA	50	U	C5-C4-O4	-5.41	122.66	125.90
35	BA	89	G	C8-N9-C4	-5.41	104.24	106.40
35	BA	1457	A	N1-C6-N6	-5.41	115.36	118.60
35	BA	1491	G	C8-N9-C4	-5.41	104.24	106.40
35	BA	1571	A	N9-C1'-C2'	-5.41	106.05	112.00
35	BA	2483	C	C4-C5-C6	-5.41	114.70	117.40
35	BA	2658	C	C6-N1-C2	-5.41	118.14	120.30
57	BZ	112	ARG	NE-CZ-NH2	-5.41	117.60	120.30
1	AA	640	A	N9-C4-C5	-5.41	103.64	105.80
1	AA	720	C	C5-C4-N4	5.41	123.98	120.20
1	AA	1004	A	O4'-C1'-N9	5.41	112.53	108.20
35	BA	676	A	C6-C5-N7	-5.41	128.51	132.30
35	BA	1630	G	N7-C8-N9	5.41	115.80	113.10
35	BA	1779	U	C5-C6-N1	-5.41	120.00	122.70
35	BA	1827	C	C5-C6-N1	5.41	123.70	121.00
35	BA	2068	U	N1-C2-N3	5.41	118.14	114.90
42	BH	149	ARG	NE-CZ-NH2	-5.41	117.60	120.30
1	AA	562	C	C2-N3-C4	5.41	122.60	119.90
1	AA	686	U	C5-C6-N1	5.41	125.40	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1256	A	N7-C8-N9	-5.41	111.10	113.80
35	BA	566	U	C6-N1-C2	-5.41	117.76	121.00
35	BA	1231	G	N7-C8-N9	5.41	115.80	113.10
36	BB	9	G	C3'-C2'-C1'	5.41	105.83	101.50
36	BB	38	C	N3-C4-C5	5.41	124.06	121.90
1	AA	492	G	C4-C5-N7	5.40	112.96	110.80
1	AA	596	C	O5'-P-OP2	5.40	117.18	110.70
35	BA	1495	A	N9-C1'-C2'	5.40	121.03	114.00
38	BD	268	ARG	NE-CZ-NH2	-5.40	117.60	120.30
1	AA	198	G	C5-C6-N1	-5.40	108.80	111.50
1	AA	310	G	N1-C2-N3	5.40	127.14	123.90
1	AA	1006	C	N1-C2-O2	5.40	122.14	118.90
35	BA	1127	A	C3'-C2'-C1'	-5.40	97.18	101.50
35	BA	1319	G	N3-C2-N2	-5.40	116.12	119.90
35	BA	1559	G	N9-C1'-C2'	5.40	121.02	114.00
35	BA	1674	G	C5'-C4'-O4'	-5.40	102.62	109.10
36	BB	81	G	C5-C6-N1	-5.40	108.80	111.50
48	BQ	51	ARG	NE-CZ-NH2	-5.40	117.60	120.30
1	AA	254	G	N3-C4-C5	-5.40	125.90	128.60
1	AA	299	G	C4'-C3'-C2'	-5.40	97.20	102.60
35	BA	643	A	N1-C2-N3	5.40	132.00	129.30
35	BA	2093	G	C6-N1-C2	-5.40	121.86	125.10
35	BA	2750	A	C2-N3-C4	-5.40	107.90	110.60
1	AA	1435	G	N3-C2-N2	-5.40	116.12	119.90
35	BA	775	G	O4'-C4'-C3'	5.40	110.42	106.10
35	BA	2015	A	C5-N7-C8	-5.40	101.20	103.90
35	BA	2655	G	C4-C5-N7	-5.40	108.64	110.80
1	AA	8	A	C6-N1-C2	5.40	121.84	118.60
1	AA	643	C	N3-C4-C5	5.40	124.06	121.90
1	AA	805	C	N3-C4-C5	-5.40	119.74	121.90
25	B0	74	ARG	NE-CZ-NH2	-5.40	117.60	120.30
35	BA	16	G	C6-N1-C2	5.40	128.34	125.10
35	BA	357	A	C4-C5-C6	5.40	119.70	117.00
35	BA	893	C	C1'-O4'-C4'	5.40	114.22	109.90
35	BA	1914	C	C3'-C2'-C1'	5.40	105.82	101.50
1	AA	279	A	C5-C6-N1	5.40	120.40	117.70
1	AA	541	G	C4-C5-N7	-5.40	108.64	110.80
35	BA	320	A	N1-C2-N3	-5.40	126.60	129.30
35	BA	1855	G	C4-C5-N7	-5.40	108.64	110.80
47	BP	16	ARG	NE-CZ-NH2	5.40	123.00	120.30
1	AA	199	G	O4'-C1'-N9	5.39	112.52	108.20
1	AA	399	G	C5-C6-O6	5.39	131.84	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	943	U	N1-C2-N3	-5.39	111.66	114.90
1	AA	951	G	O4'-C4'-C3'	5.39	110.42	106.10
1	AA	1133	G	C4-C5-C6	-5.39	115.56	118.80
1	AA	1210	C	C2-N3-C4	5.39	122.60	119.90
2	AB	49	GLU	OE1-CD-OE2	-5.39	116.83	123.30
35	BA	94(A)	G	C5-C6-N1	5.39	114.20	111.50
35	BA	968	G	N3-C4-N9	-5.39	122.76	126.00
35	BA	1024	G	C8-N9-C4	5.39	108.56	106.40
35	BA	1653	G	C5-N7-C8	-5.39	101.60	104.30
35	BA	2046	G	C8-N9-C4	5.39	108.56	106.40
35	BA	2499	C	O4'-C1'-N1	5.39	112.52	108.20
1	AA	197	A	C4-C5-C6	-5.39	114.30	117.00
1	AA	570	G	C5-C6-O6	-5.39	125.36	128.60
1	AA	626	U	C4-C5-C6	-5.39	116.46	119.70
1	AA	857	C	N3-C2-O2	-5.39	118.12	121.90
1	AA	922	G	O4'-C1'-N9	5.39	112.51	108.20
1	AA	993	G	N1-C2-N3	-5.39	120.67	123.90
14	AN	29	ARG	NE-CZ-NH1	5.39	123.00	120.30
35	BA	654(L)	G	C5-N7-C8	-5.39	101.60	104.30
35	BA	1003	G	C6-C5-N7	-5.39	127.17	130.40
35	BA	1609	A	C5-C6-N6	5.39	128.01	123.70
35	BA	1627	G	N3-C4-C5	5.39	131.30	128.60
35	BA	2644	G	C1'-O4'-C4'	5.39	114.21	109.90
37	BC	94	TYR	CG-CD2-CE2	-5.39	116.99	121.30
1	AA	64	G	N1-C2-N3	5.39	127.14	123.90
1	AA	199	G	C4-C5-N7	-5.39	108.64	110.80
35	BA	144	C	C5-C6-N1	5.39	123.70	121.00
35	BA	962	G	N3-C4-N9	5.39	129.24	126.00
35	BA	2170	A	C2-N3-C4	5.39	113.30	110.60
35	BA	2839	G	N1-C6-O6	-5.39	116.67	119.90
1	AA	181	G	O5'-P-OP2	5.39	117.17	110.70
35	BA	474	G	N9-C1'-C2'	5.39	121.01	114.00
35	BA	594	U	N3-C4-C5	-5.39	111.37	114.60
35	BA	1301	A	C4-C5-C6	5.39	119.69	117.00
35	BA	1339	G	C8-N9-C4	-5.39	104.24	106.40
35	BA	1363	C	N1-C2-N3	-5.39	115.43	119.20
35	BA	1488	G	C5-N7-C8	5.39	107.00	104.30
35	BA	1767	C	C5-C6-N1	5.39	123.69	121.00
36	BB	9	G	C5-N7-C8	-5.39	101.61	104.30
36	BB	47	C	C4-C5-C6	-5.39	114.70	117.40
36	BB	82	G	C5-C6-N1	5.39	114.19	111.50
1	AA	605	U	C4-C5-C6	5.39	122.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1831	G	C4-C5-N7	5.39	112.95	110.80
35	BA	1846	G	C4-C5-C6	5.39	122.03	118.80
1	AA	1005	A	N9-C4-C5	-5.39	103.64	105.80
1	AA	1279	A	N1-C2-N3	-5.39	126.61	129.30
35	BA	1424	G	C5-C6-N1	5.39	114.19	111.50
35	BA	1892	C	N3-C4-C5	-5.39	119.75	121.90
35	BA	2706	G	C6-C5-N7	-5.39	127.17	130.40
1	AA	316	G	C4-C5-N7	-5.38	108.65	110.80
1	AA	586	C	N1-C1'-C2'	-5.38	106.08	112.00
1	AA	883	C	N3-C4-C5	5.38	124.05	121.90
1	AA	1382	C	N1-C2-N3	-5.38	115.43	119.20
1	AA	1406	U	C5-C6-N1	-5.38	120.01	122.70
22	AV	8	U	C1'-O4'-C4'	5.38	114.21	109.90
35	BA	36	G	C8-N9-C4	5.38	108.55	106.40
35	BA	613	G	C5-N7-C8	5.38	106.99	104.30
35	BA	1262	A	C5-C6-N6	-5.38	119.39	123.70
35	BA	1845	G	C5-C6-N1	-5.38	108.81	111.50
35	BA	2008	C	C6-N1-C2	-5.38	118.15	120.30
40	BF	62	ARG	NE-CZ-NH2	-5.38	117.61	120.30
1	AA	455	C	C2-N3-C4	5.38	122.59	119.90
35	BA	720	C	C6-N1-C2	5.38	122.45	120.30
35	BA	1202	C	C5-C4-N4	5.38	123.97	120.20
35	BA	1429	G	N9-C4-C5	-5.38	103.25	105.40
35	BA	2384	G	C3'-C2'-C1'	-5.38	97.19	101.50
1	AA	894	G	N1-C6-O6	-5.38	116.67	119.90
1	AA	1228	C	C5-C4-N4	-5.38	116.43	120.20
1	AA	1523	G	C5-C6-O6	-5.38	125.37	128.60
35	BA	615	G	N3-C4-C5	5.38	131.29	128.60
35	BA	1041	C	C5-C6-N1	5.38	123.69	121.00
35	BA	1290	C	N3-C4-C5	5.38	124.05	121.90
35	BA	1321	A	N1-C2-N3	-5.38	126.61	129.30
35	BA	1355	G	C6-N1-C2	-5.38	121.87	125.10
35	BA	1593	G	O4'-C1'-N9	5.38	112.51	108.20
35	BA	1998	G	C8-N9-C4	-5.38	104.25	106.40
35	BA	2687	U	C5-C4-O4	5.38	129.13	125.90
1	AA	73	G	N7-C8-N9	5.38	115.79	113.10
17	AQ	25	ARG	NE-CZ-NH2	-5.38	117.61	120.30
31	B6	17	LYS	N-CA-C	-5.38	96.47	111.00
35	BA	1381	G	C4'-C3'-C2'	-5.38	97.22	102.60
35	BA	1816	G	N7-C8-N9	-5.38	110.41	113.10
35	BA	2075	U	C2-N3-C4	-5.38	123.77	127.00
35	BA	2527	C	C5'-C4'-O4'	5.38	115.56	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	576	G	C5-C6-N1	5.38	114.19	111.50
1	AA	1112	C	C5-C4-N4	5.38	123.97	120.20
35	BA	226	G	N1-C2-N3	-5.38	120.67	123.90
35	BA	342	G	N1-C2-N3	-5.38	120.67	123.90
35	BA	899	A	N3-C4-C5	-5.38	123.03	126.80
35	BA	1031	G	O4'-C1'-N9	-5.38	103.90	108.20
35	BA	1458	C	C5-C6-N1	-5.38	118.31	121.00
35	BA	1916	A	O4'-C1'-N9	-5.38	103.90	108.20
35	BA	2142	C	N3-C4-C5	5.38	124.05	121.90
35	BA	2543	G	C5-C6-N1	-5.38	108.81	111.50
35	BA	2606	C	O4'-C4'-C3'	-5.38	98.62	104.00
1	AA	449	C	C5'-C4'-O4'	5.38	115.55	109.10
1	AA	650	G	C5-C6-O6	5.38	131.83	128.60
1	AA	707	C	C3'-C2'-C1'	5.38	105.80	101.50
1	AA	795	C	N3-C4-C5	-5.38	119.75	121.90
1	AA	1524	C	N3-C4-C5	-5.38	119.75	121.90
8	AH	122	ARG	NE-CZ-NH2	5.38	122.99	120.30
21	AU	24	ARG	NE-CZ-NH2	-5.38	117.61	120.30
26	B1	21	ARG	NE-CZ-NH1	-5.38	117.61	120.30
35	BA	357	A	O4'-C1'-N9	-5.38	103.90	108.20
35	BA	535	C	C5-C4-N4	-5.38	116.44	120.20
35	BA	1309	G	C5-C6-O6	-5.38	125.37	128.60
35	BA	1437	C	C5'-C4'-O4'	-5.38	102.65	109.10
35	BA	2673	G	C6-N1-C2	5.38	128.33	125.10
35	BA	2772	C	N1-C2-O2	5.38	122.13	118.90
35	BA	2822	G	C5-C6-O6	5.38	131.82	128.60
1	AA	1347	G	O4'-C1'-N9	5.38	112.50	108.20
35	BA	55	G	C8-N9-C4	-5.38	104.25	106.40
35	BA	543	C	N3-C4-C5	5.38	124.05	121.90
35	BA	945	A	N1-C6-N6	5.38	121.83	118.60
35	BA	2486	G	O4'-C4'-C3'	-5.38	98.62	104.00
35	BA	2530	A	C5-C6-N1	-5.38	115.01	117.70
48	BQ	59	ARG	NE-CZ-NH2	-5.38	117.61	120.30
1	AA	28	G	N3-C2-N2	-5.37	116.14	119.90
1	AA	121	C	N3-C4-N4	-5.37	114.24	118.00
1	AA	726	C	N1-C1'-C2'	-5.37	106.09	112.00
1	AA	1308	U	C2-N3-C4	-5.37	123.78	127.00
35	BA	467	G	O4'-C4'-C3'	-5.37	98.63	104.00
35	BA	800	A	C5-C6-N6	5.37	128.00	123.70
35	BA	897	C	C6-N1-C2	-5.37	118.15	120.30
35	BA	1523	U	N3-C4-C5	-5.37	111.38	114.60
35	BA	1636	C	C6-N1-C2	5.37	122.45	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1884	A	C4-C5-N7	5.37	113.39	110.70
35	BA	1921	G	C1'-O4'-C4'	-5.37	105.60	109.90
1	AA	298	A	C1'-O4'-C4'	5.37	114.20	109.90
35	BA	1057	A	N1-C2-N3	5.37	131.99	129.30
35	BA	1478	G	N1-C6-O6	5.37	123.12	119.90
35	BA	2443	C	C5-C6-N1	-5.37	118.31	121.00
35	BA	2506	U	N1-C1'-C2'	5.37	120.98	114.00
36	BB	112	U	C3'-C2'-C1'	5.37	105.80	101.50
1	AA	202	U	C5'-C4'-C3'	-5.37	107.41	116.00
1	AA	872	A	O4'-C1'-N9	5.37	112.50	108.20
35	BA	1358	G	C4-C5-N7	5.37	112.95	110.80
35	BA	1448	G	N9-C4-C5	5.37	107.55	105.40
35	BA	1613	G	N1-C2-N2	5.37	121.03	116.20
35	BA	1648	C	O4'-C1'-N1	-5.37	103.90	108.20
1	AA	515	G	C1'-O4'-C4'	-5.37	105.61	109.90
1	AA	947	G	C6-C5-N7	5.37	133.62	130.40
1	AA	1284	C	N1-C2-N3	-5.37	115.44	119.20
1	AA	1498	U	C6-N1-C2	-5.37	117.78	121.00
22	AV	73	A	C4-C5-C6	-5.37	114.32	117.00
35	BA	567	A	O4'-C1'-N9	5.37	112.50	108.20
35	BA	647	G	C4-N9-C1'	5.37	133.48	126.50
35	BA	1435	G	C5-C6-N1	-5.37	108.82	111.50
35	BA	1536	C	O4'-C1'-N1	-5.37	103.91	108.20
35	BA	2287	A	N7-C8-N9	-5.37	111.12	113.80
35	BA	2757	A	C5-N7-C8	5.37	106.58	103.90
1	AA	542	G	N7-C8-N9	5.37	115.78	113.10
35	BA	1626	G	C8-N9-C4	5.37	108.55	106.40
1	AA	1066	C	N1-C2-O2	-5.37	115.68	118.90
1	AA	1080	A	C6-N1-C2	5.37	121.82	118.60
22	AV	31	G	N3-C4-N9	-5.37	122.78	126.00
35	BA	54	G	C5-C6-O6	5.37	131.82	128.60
35	BA	599	G	C8-N9-C4	-5.37	104.25	106.40
35	BA	1029	A	C4-C5-C6	5.37	119.68	117.00
35	BA	1586	A	N1-C6-N6	5.37	121.82	118.60
35	BA	1652	A	N1-C2-N3	-5.37	126.62	129.30
35	BA	1711	C	N3-C4-N4	5.37	121.76	118.00
35	BA	2131	G	C4-C5-N7	5.37	112.95	110.80
35	BA	2624	G	C2-N3-C4	-5.37	109.22	111.90
1	AA	637	G	C8-N9-C4	-5.36	104.25	106.40
20	AT	64	ASP	CB-CG-OD2	-5.36	113.47	118.30
35	BA	336	C	C1'-O4'-C4'	-5.36	105.61	109.90
35	BA	601	C	C5-C4-N4	5.36	123.95	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	871	U	C5-C6-N1	-5.36	120.02	122.70
35	BA	1214	A	O4'-C1'-N9	-5.36	103.91	108.20
35	BA	1338	G	C5-N7-C8	-5.36	101.62	104.30
35	BA	1410	G	N9-C4-C5	-5.36	103.25	105.40
35	BA	2207	G	C5-C6-N1	-5.36	108.82	111.50
35	BA	2608	G	C5-N7-C8	5.36	106.98	104.30
35	BA	2836	U	C5-C6-N1	-5.36	120.02	122.70
48	BQ	135	ASP	CB-CG-OD2	-5.36	113.47	118.30
22	AV	68	C	N1-C2-O2	5.36	122.12	118.90
35	BA	1807	G	N1-C2-N2	-5.36	111.37	116.20
1	AA	272	C	C6-N1-C2	-5.36	118.16	120.30
1	AA	285	G	N9-C4-C5	5.36	107.54	105.40
1	AA	461	A	N1-C2-N3	-5.36	126.62	129.30
1	AA	828	A	C5-C6-N1	5.36	120.38	117.70
1	AA	1284	C	C6-N1-C2	5.36	122.44	120.30
35	BA	271(L)	U	C6-N1-C2	-5.36	117.78	121.00
35	BA	353	G	N1-C2-N3	-5.36	120.68	123.90
35	BA	419	C	C2-N3-C4	-5.36	117.22	119.90
35	BA	1429	G	C5-C6-N1	5.36	114.18	111.50
35	BA	2140	C	C1'-O4'-C4'	-5.36	105.61	109.90
35	BA	2406	U	O4'-C1'-N1	-5.36	103.91	108.20
51	BT	115	ARG	NE-CZ-NH2	5.36	122.98	120.30
22	AV	17(A)	U	N1-C1'-C2'	5.36	120.97	114.00
35	BA	1697	G	N7-C8-N9	5.36	115.78	113.10
35	BA	2051	A	N1-C6-N6	5.36	121.81	118.60
35	BA	2067	G	C6-N1-C2	5.36	128.32	125.10
36	BB	41	U	N3-C2-O2	-5.36	118.45	122.20
36	BB	108	U	N1-C2-O2	5.36	126.55	122.80
1	AA	393	A	N1-C2-N3	-5.36	126.62	129.30
1	AA	1049	U	O4'-C1'-C2'	5.36	112.42	107.60
1	AA	1314	C	C5'-C4'-O4'	-5.36	102.67	109.10
22	AV	43	A	C4-C5-N7	-5.36	108.02	110.70
35	BA	210	C	C5'-C4'-O4'	5.36	115.53	109.10
35	BA	821	A	N1-C6-N6	5.36	121.81	118.60
35	BA	1139	G	N1-C6-O6	-5.36	116.69	119.90
35	BA	1156	A	C2-N3-C4	-5.36	107.92	110.60
35	BA	1227	G	N1-C6-O6	-5.36	116.69	119.90
35	BA	1369	G	N1-C2-N2	-5.36	111.38	116.20
35	BA	1442	G	N9-C4-C5	5.36	107.54	105.40
35	BA	1666	G	N9-C4-C5	5.36	107.54	105.40
35	BA	2017	U	N1-C2-O2	5.36	126.55	122.80
1	AA	63	C	N3-C4-C5	5.36	124.04	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	154	C	N1-C2-O2	5.36	122.11	118.90
1	AA	950	U	O4'-C1'-N1	-5.36	103.92	108.20
1	AA	1383	C	C5-C6-N1	5.36	123.68	121.00
35	BA	978	G	OP1-P-O3'	5.36	116.98	105.20
35	BA	2103	C	C1'-O4'-C4'	-5.36	105.62	109.90
35	BA	2709	G	C5-C6-O6	-5.36	125.39	128.60
35	BA	2834	G	N3-C4-C5	-5.36	125.92	128.60
1	AA	587	G	C4'-C3'-C2'	5.35	107.95	102.60
35	BA	607	U	C6-N1-C2	-5.35	117.79	121.00
35	BA	1747(A)	G	C4-C5-N7	-5.35	108.66	110.80
35	BA	2627	G	N3-C4-C5	-5.35	125.92	128.60
1	AA	1035	A	N1-C2-N3	5.35	131.98	129.30
1	AA	1206	G	C5-N7-C8	-5.35	101.62	104.30
1	AA	1426	C	N3-C2-O2	5.35	125.65	121.90
35	BA	518	G	C5-C6-O6	5.35	131.81	128.60
35	BA	520	G	C8-N9-C4	-5.35	104.26	106.40
35	BA	1012	U	N1-C2-O2	-5.35	119.05	122.80
35	BA	1054	A	C8-N9-C4	-5.35	103.66	105.80
35	BA	1447	G	C5-N7-C8	5.35	106.97	104.30
1	AA	839	U	O5'-P-OP1	-5.35	100.89	105.70
1	AA	917	G	C6-C5-N7	5.35	133.61	130.40
1	AA	1151	A	C4-C5-N7	-5.35	108.03	110.70
1	AA	1344	C	C2-N3-C4	-5.35	117.22	119.90
1	AA	1391	U	N3-C4-O4	-5.35	115.66	119.40
1	AA	1457	G	O4'-C1'-N9	5.35	112.48	108.20
35	BA	1497	U	C5-C4-O4	-5.35	122.69	125.90
35	BA	1658	C	C1'-O4'-C4'	5.35	114.18	109.90
35	BA	1683	C	N3-C4-C5	5.35	124.04	121.90
35	BA	1950	G	C4-C5-N7	-5.35	108.66	110.80
35	BA	2643	G	N3-C2-N2	-5.35	116.16	119.90
1	AA	262	A	C6-C5-N7	5.35	136.04	132.30
1	AA	262	A	N9-C4-C5	5.35	107.94	105.80
1	AA	506	G	C5-C6-N1	-5.35	108.83	111.50
1	AA	1290	G	C5-N7-C8	-5.35	101.63	104.30
17	AQ	63	ARG	NE-CZ-NH1	5.35	122.97	120.30
35	BA	777	A	C5-C6-N1	-5.35	115.03	117.70
1	AA	514	C	O4'-C1'-N1	-5.35	103.92	108.20
35	BA	389	G	C5-C6-N1	5.35	114.17	111.50
35	BA	602	G	C6-C5-N7	-5.35	127.19	130.40
35	BA	1025	G	C5-C6-O6	5.35	131.81	128.60
35	BA	1332	G	N7-C8-N9	-5.35	110.43	113.10
35	BA	2618	G	C6-N1-C2	5.35	128.31	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1005	A	C5-N7-C8	5.34	106.57	103.90
1	AA	1469	G	C4-C5-N7	5.34	112.94	110.80
24	AY	300	GLU	OE1-CD-OE2	-5.34	116.89	123.30
35	BA	2289	G	C6-N1-C2	-5.34	121.89	125.10
35	BA	2703	C	C5-C6-N1	-5.34	118.33	121.00
36	BB	39	A	C5-C6-N6	5.34	127.97	123.70
1	AA	613	C	C4-C5-C6	5.34	120.07	117.40
35	BA	633	A	C6-C5-N7	-5.34	128.56	132.30
35	BA	948	G	C5-N7-C8	5.34	106.97	104.30
35	BA	1757	U	C1'-O4'-C4'	-5.34	105.63	109.90
35	BA	2401	U	C2-N3-C4	5.34	130.21	127.00
1	AA	359	U	C5-C6-N1	-5.34	120.03	122.70
1	AA	660	G	N1-C2-N2	5.34	121.01	116.20
1	AA	669	U	N3-C2-O2	5.34	125.94	122.20
1	AA	709	G	N9-C1'-C2'	-5.34	106.12	112.00
35	BA	128	C	C2-N3-C4	5.34	122.57	119.90
35	BA	272(H)	C	N3-C2-O2	-5.34	118.16	121.90
35	BA	510	C	C6-N1-C2	-5.34	118.16	120.30
35	BA	1024	G	C4-C5-N7	5.34	112.94	110.80
35	BA	1613	G	C5-N7-C8	5.34	106.97	104.30
35	BA	2100	G	C8-N9-C4	5.34	108.54	106.40
35	BA	2513	G	N3-C4-N9	5.34	129.21	126.00
35	BA	2786	U	N3-C2-O2	-5.34	118.46	122.20
1	AA	219	C	P-O5'-C5'	5.34	129.44	120.90
1	AA	1253	G	N7-C8-N9	-5.34	110.43	113.10
35	BA	199	A	C2-N3-C4	-5.34	107.93	110.60
35	BA	784	A	OP2-P-O3'	5.34	116.95	105.20
35	BA	1339	G	C5-C6-O6	-5.34	125.40	128.60
35	BA	1418	G	C5-C6-O6	-5.34	125.40	128.60
35	BA	1455	G	C5-C6-N1	-5.34	108.83	111.50
35	BA	1941	C	N3-C4-N4	-5.34	114.26	118.00
35	BA	1950	G	C5-N7-C8	5.34	106.97	104.30
35	BA	2114	A	N1-C6-N6	-5.34	115.40	118.60
35	BA	2748	A	C5-C6-N6	5.34	127.97	123.70
35	BA	2765	A	C2-N3-C4	5.34	113.27	110.60
1	AA	386	C	N3-C2-O2	5.34	125.64	121.90
29	B4	48	ARG	NE-CZ-NH1	5.34	122.97	120.30
35	BA	523	C	C4-C5-C6	5.34	120.07	117.40
35	BA	772	C	C5-C4-N4	-5.34	116.46	120.20
35	BA	1243	G	C4-C5-N7	5.34	112.94	110.80
52	BU	61	TRP	CD1-NE1-CE2	-5.34	104.20	109.00
1	AA	161	A	C5-C6-N6	-5.34	119.43	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	619	U	N1-C2-N3	-5.34	111.70	114.90
1	AA	1433	A	C8-N9-C4	-5.34	103.67	105.80
13	AM	3	ARG	NE-CZ-NH2	-5.34	117.63	120.30
15	AO	69	TYR	CB-CG-CD1	5.34	124.20	121.00
35	BA	622	G	N9-C4-C5	5.34	107.53	105.40
35	BA	1826	G	N3-C2-N2	-5.34	116.16	119.90
38	BD	239	ARG	NE-CZ-NH2	5.34	122.97	120.30
1	AA	1369	C	C5-C4-N4	5.33	123.93	120.20
35	BA	250	G	C4-C5-N7	-5.33	108.67	110.80
35	BA	898	C	N3-C4-C5	5.33	124.03	121.90
35	BA	1536	C	N3-C4-N4	-5.33	114.27	118.00
35	BA	2848	G	N1-C6-O6	-5.33	116.70	119.90
1	AA	238	G	C6-C5-N7	-5.33	127.20	130.40
1	AA	714	G	C4-C5-N7	-5.33	108.67	110.80
1	AA	1287	A	N7-C8-N9	-5.33	111.13	113.80
1	AA	1378	C	N3-C4-C5	5.33	124.03	121.90
23	AX	18	G	C8-N9-C4	-5.33	104.27	106.40
35	BA	266	G	N9-C4-C5	-5.33	103.27	105.40
35	BA	422	A	N1-C2-N3	-5.33	126.63	129.30
35	BA	476	G	N9-C4-C5	-5.33	103.27	105.40
35	BA	1534	U	O4'-C1'-N1	-5.33	103.93	108.20
43	BK	76	TYR	CD1-CE1-CZ	-5.33	115.00	119.80
1	AA	106	C	O3'-P-O5'	-5.33	93.87	104.00
1	AA	1069	C	C5-C4-N4	5.33	123.93	120.20
1	AA	1423	G	N7-C8-N9	-5.33	110.44	113.10
24	AY	568	TYR	CB-CG-CD2	5.33	124.20	121.00
35	BA	1176	G	C8-N9-C4	5.33	108.53	106.40
35	BA	1177	A	N1-C6-N6	-5.33	115.40	118.60
35	BA	1510	G	C5-N7-C8	5.33	106.97	104.30
35	BA	2287	A	C6-C5-N7	-5.33	128.57	132.30
1	AA	198	G	C6-N1-C2	5.33	128.30	125.10
35	BA	1897	G	N3-C4-N9	5.33	129.20	126.00
1	AA	1423	G	C8-N9-C4	5.33	108.53	106.40
1	AA	1491	G	C8-N9-C4	-5.33	104.27	106.40
35	BA	205	G	C1'-O4'-C4'	5.33	114.16	109.90
35	BA	1097	U	C3'-C2'-C1'	5.33	105.76	101.50
35	BA	1643	G	N3-C4-N9	-5.33	122.80	126.00
35	BA	2360	A	N9-C4-C5	-5.33	103.67	105.80
36	BB	5	C	N1-C2-N3	5.33	122.93	119.20
1	AA	104	G	C6-N1-C2	5.33	128.30	125.10
1	AA	836	G	C5-N7-C8	5.33	106.96	104.30
1	AA	1254	C	N3-C4-C5	-5.33	119.77	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	841	A	C5-N7-C8	-5.33	101.24	103.90
36	BB	39	A	C6-C5-N7	-5.33	128.57	132.30
1	AA	70	G	C8-N9-C4	5.33	108.53	106.40
1	AA	528	C	C2-N3-C4	-5.33	117.24	119.90
1	AA	591	U	C5-C6-N1	5.33	125.36	122.70
1	AA	1414	U	O4'-C1'-N1	5.33	112.46	108.20
1	AA	1434	A	C4-C5-C6	-5.33	114.34	117.00
22	AV	42	G	C5'-C4'-O4'	5.33	115.49	109.10
35	BA	864	G	N3-C2-N2	5.33	123.63	119.90
35	BA	2316	C	C5-C6-N1	-5.33	118.34	121.00
35	BA	2329	G	C4-C5-N7	-5.33	108.67	110.80
35	BA	2833	G	O4'-C1'-N9	-5.33	103.94	108.20
1	AA	299	G	C4-C5-C6	5.32	121.99	118.80
1	AA	415	A	O4'-C1'-N9	5.32	112.46	108.20
1	AA	423	G	C5-N7-C8	5.32	106.96	104.30
1	AA	877	C	N3-C2-O2	5.32	125.63	121.90
1	AA	1006	C	C5-C6-N1	-5.32	118.34	121.00
35	BA	206	U	C4-C5-C6	5.32	122.89	119.70
35	BA	271	A	C2-N3-C4	-5.32	107.94	110.60
35	BA	825	C	N3-C2-O2	-5.32	118.17	121.90
35	BA	1960	A	C5-C6-N1	-5.32	115.04	117.70
35	BA	2173	A	N1-C6-N6	5.32	121.80	118.60
35	BA	2509	G	C5-C6-O6	-5.32	125.41	128.60
1	AA	1023	G	C5-C6-O6	-5.32	125.41	128.60
18	AR	32	ARG	NE-CZ-NH2	-5.32	117.64	120.30
35	BA	545	C	N3-C4-C5	-5.32	119.77	121.90
35	BA	988	A	C6-C5-N7	-5.32	128.57	132.30
35	BA	1011	G	C2-N3-C4	5.32	114.56	111.90
35	BA	1450(A)	C	C5-C6-N1	5.32	123.66	121.00
35	BA	2126	A	C4-C5-C6	5.32	119.66	117.00
35	BA	2697	G	C4-C5-N7	-5.32	108.67	110.80
43	BK	65	PHE	CB-CG-CD2	-5.32	117.08	120.80
1	AA	487	A	C6-N1-C2	5.32	121.79	118.60
1	AA	1273	G	C2-N3-C4	5.32	114.56	111.90
1	AA	1333	A	C5-N7-C8	5.32	106.56	103.90
1	AA	1410	G	N7-C8-N9	5.32	115.76	113.10
35	BA	707	G	N7-C8-N9	5.32	115.76	113.10
35	BA	1718	G	C2-N3-C4	-5.32	109.24	111.90
35	BA	2418	A	C2-N3-C4	-5.32	107.94	110.60
35	BA	2514	U	C6-N1-C2	-5.32	117.81	121.00
51	BT	80	SER	N-CA-C	5.32	125.36	111.00
1	AA	1215	G	N1-C2-N3	5.32	127.09	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	744	G	N1-C6-O6	-5.32	116.71	119.90
35	BA	843	G	C5-C6-N1	5.32	114.16	111.50
35	BA	1174	A	N1-C2-N3	5.32	131.96	129.30
35	BA	1789	A	C4-C5-C6	-5.32	114.34	117.00
1	AA	903	G	N1-C2-N3	5.32	127.09	123.90
1	AA	1232	U	C5-C4-O4	-5.32	122.71	125.90
1	AA	1466	C	C4-C5-C6	-5.32	114.74	117.40
24	AY	78	ARG	NE-CZ-NH1	5.32	122.96	120.30
35	BA	841	A	C4-C5-C6	5.32	119.66	117.00
35	BA	1106	G	N7-C8-N9	-5.32	110.44	113.10
35	BA	1435	G	N3-C2-N2	-5.32	116.18	119.90
35	BA	1855	G	C6-C5-N7	5.32	133.59	130.40
35	BA	2339	G	N9-C4-C5	5.32	107.53	105.40
36	BB	51	G	N1-C6-O6	-5.32	116.71	119.90
1	AA	736	C	C6-N1-C2	5.32	122.43	120.30
1	AA	859	A	N9-C4-C5	5.32	107.93	105.80
1	AA	1266	G	N9-C4-C5	5.32	107.53	105.40
1	AA	1490	C	N3-C4-C5	-5.32	119.77	121.90
1	AA	1494	G	N1-C2-N3	-5.32	120.71	123.90
35	BA	667	U	N3-C2-O2	5.32	125.92	122.20
35	BA	723	G	N7-C8-N9	-5.32	110.44	113.10
35	BA	1615	C	N1-C2-N3	-5.32	115.48	119.20
35	BA	2274	A	C5'-C4'-O4'	-5.32	102.72	109.10
35	BA	2813	A	N7-C8-N9	-5.32	111.14	113.80
1	AA	1268	A	C8-N9-C4	-5.31	103.67	105.80
1	AA	1469	G	N1-C2-N2	5.31	120.98	116.20
35	BA	92	A	C2-N3-C4	-5.31	107.94	110.60
35	BA	354	G	N3-C2-N2	5.31	123.62	119.90
35	BA	419	C	C4-C5-C6	-5.31	114.74	117.40
35	BA	852	G	C1'-O4'-C4'	5.31	114.15	109.90
35	BA	1237	A	N9-C1'-C2'	5.31	120.91	114.00
35	BA	1601	G	C8-N9-C4	5.31	108.53	106.40
35	BA	2109	U	C2-N3-C4	-5.31	123.81	127.00
35	BA	2680	C	N3-C4-C5	5.31	124.03	121.90
1	AA	446	G	C6-N1-C2	-5.31	121.91	125.10
1	AA	1222	G	N3-C2-N2	-5.31	116.18	119.90
1	AA	1254	C	O4'-C1'-N1	-5.31	103.95	108.20
3	AC	14	ILE	CA-CB-CG1	-5.31	100.91	111.00
11	AK	96	ARG	NE-CZ-NH2	-5.31	117.64	120.30
35	BA	346	A	C5-C6-N6	-5.31	119.45	123.70
35	BA	1719	G	N1-C2-N3	-5.31	120.71	123.90
35	BA	2379	G	N7-C8-N9	-5.31	110.44	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2877	G	C5'-C4'-C3'	-5.31	107.50	116.00
1	AA	149	A	N9-C4-C5	-5.31	103.68	105.80
1	AA	1521	G	N3-C4-N9	-5.31	122.81	126.00
35	BA	2529	G	N7-C8-N9	-5.31	110.44	113.10
1	AA	1070	U	C6-N1-C2	5.31	124.19	121.00
1	AA	1072	G	N3-C4-N9	5.31	129.19	126.00
1	AA	1096	C	C2-N1-C1'	5.31	124.64	118.80
1	AA	1348	U	C5-C6-N1	-5.31	120.05	122.70
35	BA	241	A	C2-N3-C4	-5.31	107.95	110.60
35	BA	467	G	C2-N3-C4	5.31	114.56	111.90
35	BA	614(B)	G	O5'-P-OP1	-5.31	100.92	105.70
35	BA	958	U	N1-C2-N3	-5.31	111.72	114.90
35	BA	1876	A	N9-C4-C5	-5.31	103.68	105.80
35	BA	2525	G	N1-C2-N2	-5.31	111.42	116.20
39	BE	111	ARG	NE-CZ-NH2	5.31	122.95	120.30
1	AA	585	G	C6-C5-N7	-5.31	127.22	130.40
1	AA	905	U	C5-C6-N1	5.31	125.35	122.70
1	AA	1290	G	C5'-C4'-O4'	5.31	115.47	109.10
35	BA	211	A	C2-N3-C4	5.31	113.25	110.60
35	BA	867	C	C1'-O4'-C4'	5.31	114.15	109.90
35	BA	1191	G	N1-C2-N2	5.31	120.98	116.20
35	BA	1237	A	C6-N1-C2	-5.31	115.42	118.60
35	BA	1242	A	C4-C5-C6	5.31	119.65	117.00
35	BA	1256	G	C2-N3-C4	5.31	114.55	111.90
35	BA	1436	G	N9-C4-C5	5.31	107.52	105.40
35	BA	1445	A	C5'-C4'-C3'	-5.31	107.51	116.00
35	BA	1511	C	N3-C4-N4	-5.31	114.28	118.00
35	BA	2724	C	C6-N1-C2	5.31	122.42	120.30
51	BT	14	TYR	CB-CG-CD1	-5.31	117.81	121.00
1	AA	923	A	N1-C2-N3	-5.31	126.65	129.30
35	BA	186	G	C4-C5-N7	-5.31	108.68	110.80
35	BA	333	G	C3'-C2'-C1'	5.31	105.75	101.50
35	BA	778	G	N1-C6-O6	-5.31	116.72	119.90
35	BA	862	G	C1'-O4'-C4'	-5.31	105.66	109.90
35	BA	1324	G	N3-C4-C5	-5.31	125.95	128.60
35	BA	1349	A	N1-C2-N3	5.31	131.95	129.30
35	BA	1948	G	C6-N1-C2	-5.31	121.92	125.10
35	BA	2794	C	N1-C2-O2	5.31	122.08	118.90
1	AA	189(L)	G	O5'-C5'-C4'	-5.30	101.62	111.70
1	AA	318	G	N3-C4-N9	-5.30	122.82	126.00
1	AA	356	A	C3'-C2'-C1'	5.30	105.74	101.50
1	AA	419	C	C6-N1-C2	5.30	122.42	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AU	21	TYR	CG-CD2-CE2	5.30	125.54	121.30
35	BA	145	G	C6-N1-C2	-5.30	121.92	125.10
35	BA	264	C	N3-C4-C5	5.30	124.02	121.90
35	BA	588	U	C5-C4-O4	-5.30	122.72	125.90
35	BA	960	A	N1-C6-N6	-5.30	115.42	118.60
35	BA	1232	G	C2-N3-C4	-5.30	109.25	111.90
35	BA	2272	U	C2-N3-C4	5.30	130.18	127.00
35	BA	2328	A	C2-N3-C4	-5.30	107.95	110.60
35	BA	2569	G	O4'-C1'-N9	-5.30	103.96	108.20
35	BA	2587	A	C2-N3-C4	-5.30	107.95	110.60
35	BA	2659	G	N9-C4-C5	5.30	107.52	105.40
35	BA	2762	G	C5-C6-O6	5.30	131.78	128.60
1	AA	958	A	N9-C4-C5	-5.30	103.68	105.80
1	AA	1010	G	N3-C4-C5	5.30	131.25	128.60
35	BA	2080	G	C6-N1-C2	-5.30	121.92	125.10
35	BA	2283	C	N1-C2-O2	-5.30	115.72	118.90
35	BA	2428	G	C2-N3-C4	5.30	114.55	111.90
35	BA	2808	U	N3-C4-C5	5.30	117.78	114.60
1	AA	592	G	C5'-C4'-O4'	5.30	115.46	109.10
1	AA	1251	A	C5-C6-N6	5.30	127.94	123.70
1	AA	1398	A	C5'-C4'-C3'	-5.30	107.52	116.00
35	BA	338	G	C5-C6-O6	5.30	131.78	128.60
35	BA	357	A	C6-C5-N7	-5.30	128.59	132.30
35	BA	614(A)	U	C2-N3-C4	-5.30	123.82	127.00
35	BA	852	G	C4-C5-N7	5.30	112.92	110.80
35	BA	1000	A	C6-C5-N7	5.30	136.01	132.30
35	BA	1962	C	C5'-C4'-C3'	-5.30	107.52	116.00
35	BA	2101	G	N1-C6-O6	-5.30	116.72	119.90
35	BA	2603	G	C1'-O4'-C4'	-5.30	105.66	109.90
35	BA	2661	G	N1-C6-O6	-5.30	116.72	119.90
35	BA	2842	G	C5-N7-C8	-5.30	101.65	104.30
47	BP	41	ARG	N-CA-C	-5.30	96.69	111.00
1	AA	132	C	N3-C4-C5	5.30	124.02	121.90
1	AA	335	C	N1-C2-O2	-5.30	115.72	118.90
1	AA	434	U	C5-C6-N1	-5.30	120.05	122.70
1	AA	723	U	N3-C4-C5	5.30	117.78	114.60
1	AA	926	G	C2-N3-C4	5.30	114.55	111.90
1	AA	1015	A	C3'-C2'-C1'	-5.30	97.26	101.50
1	AA	1381	U	C5'-C4'-O4'	5.30	115.46	109.10
22	AV	70	G	N3-C4-C5	5.30	131.25	128.60
35	BA	152	G	C5-C6-N1	5.30	114.15	111.50
35	BA	271(V)	G	C2-N3-C4	-5.30	109.25	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	457	A	C8-N9-C4	-5.30	103.68	105.80
35	BA	1508	A	C6-C5-N7	5.30	136.01	132.30
35	BA	1568	G	N9-C4-C5	-5.30	103.28	105.40
35	BA	2193	G	O4'-C1'-N9	-5.30	103.96	108.20
1	AA	260	G	C6-C5-N7	5.30	133.58	130.40
1	AA	1161	C	N3-C4-C5	5.30	124.02	121.90
1	AA	1215	G	N7-C8-N9	5.30	115.75	113.10
35	BA	1796	U	N1-C2-N3	5.30	118.08	114.90
35	BA	2673	G	O4'-C1'-N9	-5.30	103.96	108.20
36	BB	90	A	C8-N9-C4	-5.30	103.68	105.80
1	AA	55	A	C4'-C3'-C2'	-5.30	97.30	102.60
1	AA	1187	G	O4'-C1'-N9	5.30	112.44	108.20
22	AV	19	G	N9-C4-C5	-5.30	103.28	105.40
35	BA	144	C	N1-C2-O2	-5.30	115.72	118.90
35	BA	628	G	C2-N3-C4	5.30	114.55	111.90
35	BA	1304	C	N1-C2-N3	-5.30	115.49	119.20
35	BA	1418	G	C1'-O4'-C4'	-5.30	105.66	109.90
35	BA	1568	G	C8-N9-C4	5.30	108.52	106.40
35	BA	1646	C	OP1-P-O3'	5.30	116.85	105.20
35	BA	1757	U	N3-C2-O2	5.30	125.91	122.20
35	BA	2260	C	N1-C2-O2	-5.30	115.72	118.90
35	BA	2331	G	N3-C2-N2	5.30	123.61	119.90
35	BA	2448	A	N9-C1'-C2'	5.30	120.89	114.00
35	BA	2872	G	C5-N7-C8	-5.30	101.65	104.30
39	BE	160	TYR	CB-CG-CD2	-5.30	117.82	121.00
35	BA	272(I)	U	N3-C2-O2	-5.29	118.49	122.20
35	BA	701	G	N3-C2-N2	-5.29	116.19	119.90
1	AA	146	G	N1-C6-O6	-5.29	116.72	119.90
1	AA	969	A	N1-C6-N6	5.29	121.78	118.60
1	AA	1479	C	C4'-C3'-C2'	5.29	107.89	102.60
35	BA	323	G	C5-C6-N1	5.29	114.15	111.50
35	BA	1309	G	C6-C5-N7	5.29	133.58	130.40
35	BA	1323	U	N3-C2-O2	-5.29	118.50	122.20
35	BA	1647	G	O5'-P-OP1	-5.29	100.94	105.70
35	BA	1749	A	C5-C6-N1	-5.29	115.05	117.70
35	BA	2098	U	C6-N1-C2	-5.29	117.82	121.00
1	AA	203	U	N1-C1'-C2'	5.29	120.88	114.00
1	AA	227	G	C5-C6-O6	-5.29	125.42	128.60
1	AA	424	G	N3-C4-N9	5.29	129.18	126.00
1	AA	669	U	N1-C2-O2	-5.29	119.09	122.80
1	AA	1490	C	C6-N1-C2	-5.29	118.18	120.30
4	AD	66	ARG	NE-CZ-NH2	-5.29	117.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	234	C	C5-C6-N1	-5.29	118.35	121.00
35	BA	350	U	O4'-C1'-N1	5.29	112.43	108.20
35	BA	574	C	N1-C1'-C2'	5.29	120.88	114.00
35	BA	959	A	C4-C5-C6	-5.29	114.35	117.00
35	BA	1022	G	C2'-C3'-O3'	5.29	122.17	113.70
35	BA	1364	G	C5'-C4'-C3'	-5.29	107.53	116.00
35	BA	1396	U	O4'-C1'-C2'	-5.29	100.51	105.80
35	BA	1582	C	C3'-C2'-C1'	5.29	105.73	101.50
35	BA	2135	A	O4'-C1'-N9	-5.29	103.97	108.20
35	BA	2315	G	N9-C4-C5	5.29	107.52	105.40
35	BA	2852	G	C6-C5-N7	-5.29	127.22	130.40
1	AA	182	U	N1-C2-O2	5.29	126.50	122.80
1	AA	231	G	O4'-C1'-N9	-5.29	103.97	108.20
35	BA	17	G	C1'-O4'-C4'	5.29	114.13	109.90
1	AA	332	G	N9-C4-C5	5.29	107.52	105.40
1	AA	676	A	C6-N1-C2	5.29	121.77	118.60
1	AA	945	G	C5-C6-O6	-5.29	125.43	128.60
22	AV	25	C	O4'-C1'-C2'	5.29	112.36	107.60
30	B5	56	LYS	C-N-CA	5.29	134.92	121.70
35	BA	251	A	C6-N1-C2	-5.29	115.43	118.60
35	BA	632	A	C5-C6-N6	5.29	127.93	123.70
35	BA	807	U	C5'-C4'-C3'	5.29	124.46	116.00
35	BA	1651	G	O4'-C1'-N9	-5.29	103.97	108.20
1	AA	557	G	C5-N7-C8	-5.29	101.66	104.30
22	AV	17	C	C2-N3-C4	-5.29	117.26	119.90
35	BA	799	G	N9-C4-C5	-5.29	103.28	105.40
35	BA	1750	G	N3-C4-N9	-5.29	122.83	126.00
1	AA	865	A	N7-C8-N9	-5.29	111.16	113.80
1	AA	983	A	C4-C5-N7	5.29	113.34	110.70
35	BA	242	G	N3-C2-N2	-5.29	116.20	119.90
35	BA	2460	U	N1-C2-N3	5.29	118.07	114.90
35	BA	2704	C	N3-C4-C5	5.29	124.01	121.90
1	AA	372	C	C5-C4-N4	-5.28	116.50	120.20
1	AA	613	C	N3-C4-N4	5.28	121.70	118.00
1	AA	1171	G	N3-C2-N2	5.28	123.60	119.90
35	BA	481	G	C6-C5-N7	-5.28	127.23	130.40
35	BA	946	G	N3-C4-N9	-5.28	122.83	126.00
35	BA	2229	C	C4-C5-C6	-5.28	114.76	117.40
35	BA	2475	C	C1'-O4'-C4'	5.28	114.13	109.90
35	BA	2631	G	C5-C6-O6	-5.28	125.43	128.60
57	BZ	49	ARG	NE-CZ-NH1	-5.28	117.66	120.30
1	AA	263	A	C2-N3-C4	5.28	113.24	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	304	G	C6-C5-N7	-5.28	127.23	130.40
35	BA	633	A	C4-C5-C6	5.28	119.64	117.00
35	BA	946	G	N1-C6-O6	5.28	123.07	119.90
35	BA	1146	C	C5'-C4'-O4'	5.28	115.44	109.10
36	BB	12	C	N3-C4-C5	5.28	124.01	121.90
1	AA	475	G	O4'-C1'-C2'	5.28	112.35	107.60
1	AA	746	A	C6-N1-C2	5.28	121.77	118.60
1	AA	968	A	O4'-C1'-N9	-5.28	103.97	108.20
1	AA	980	C	N1-C1'-C2'	5.28	120.86	114.00
35	BA	445	C	N3-C4-C5	-5.28	119.79	121.90
35	BA	526	A	C6-N1-C2	-5.28	115.43	118.60
35	BA	743	G	C4-C5-N7	-5.28	108.69	110.80
35	BA	805	G	C5'-C4'-C3'	-5.28	107.55	116.00
35	BA	908	C	N3-C4-C5	-5.28	119.79	121.90
35	BA	1547	C	O4'-C1'-N1	5.28	112.42	108.20
1	AA	404	U	C3'-C2'-C1'	5.28	105.72	101.50
22	AV	45	G	C8-N9-C4	-5.28	104.29	106.40
1	AA	22	G	C8-N9-C4	5.28	108.51	106.40
1	AA	291	C	C6-N1-C2	5.28	122.41	120.30
1	AA	1185	G	C5-N7-C8	5.28	106.94	104.30
6	AF	28	ARG	NE-CZ-NH2	5.28	122.94	120.30
35	BA	66	C	N1-C2-O2	-5.28	115.73	118.90
35	BA	93	G	C6-C5-N7	-5.28	127.23	130.40
35	BA	195	A	N7-C8-N9	-5.28	111.16	113.80
35	BA	543	C	N3-C4-N4	-5.28	114.31	118.00
35	BA	624	C	C4-C5-C6	-5.28	114.76	117.40
35	BA	672	C	OP2-P-O3'	5.28	116.81	105.20
35	BA	738	G	C8-N9-C4	-5.28	104.29	106.40
35	BA	1123	C	N3-C2-O2	-5.28	118.21	121.90
35	BA	1244	G	N1-C6-O6	5.28	123.07	119.90
35	BA	1258	C	C6-N1-C2	5.28	122.41	120.30
35	BA	1785	A	C3'-C2'-C1'	5.28	105.72	101.50
35	BA	1792	G	C6-N1-C2	5.28	128.27	125.10
1	AA	1110	A	C4-C5-C6	-5.28	114.36	117.00
1	AA	1183	A	O4'-C1'-N9	5.28	112.42	108.20
1	AA	1262	C	C2-N3-C4	5.28	122.54	119.90
35	BA	224	G	N9-C4-C5	-5.28	103.29	105.40
35	BA	599	G	N9-C4-C5	5.28	107.51	105.40
35	BA	604	G	C2-N3-C4	-5.28	109.26	111.90
35	BA	727	A	N9-C4-C5	5.28	107.91	105.80
35	BA	1227	G	C8-N9-C4	-5.28	104.29	106.40
35	BA	2490	G	C4-C5-N7	-5.28	108.69	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2762	G	N1-C2-N2	5.28	120.95	116.20
36	BB	64	C	C6-N1-C2	5.28	122.41	120.30
41	BG	22	ARG	NH1-CZ-NH2	5.28	125.20	119.40
1	AA	105	G	N3-C2-N2	5.27	123.59	119.90
1	AA	433	C	N3-C4-C5	-5.27	119.79	121.90
1	AA	1373	G	C4-C5-N7	-5.27	108.69	110.80
35	BA	2152	G	N3-C2-N2	-5.27	116.21	119.90
35	BA	2778	A	C5'-C4'-O4'	-5.27	102.77	109.10
1	AA	33	A	N1-C6-N6	-5.27	115.44	118.60
1	AA	848	C	N3-C2-O2	-5.27	118.21	121.90
1	AA	947	G	N3-C4-C5	5.27	131.24	128.60
1	AA	1242	C	N1-C2-O2	-5.27	115.74	118.90
35	BA	207	A	C6-C5-N7	5.27	135.99	132.30
35	BA	738	G	N3-C4-N9	-5.27	122.84	126.00
35	BA	1212	G	C1'-O4'-C4'	-5.27	105.68	109.90
35	BA	1257	C	C5-C6-N1	-5.27	118.36	121.00
35	BA	1261	C	N3-C4-C5	5.27	124.01	121.90
35	BA	1425	G	N1-C6-O6	5.27	123.06	119.90
35	BA	1566	A	C5-N7-C8	-5.27	101.26	103.90
35	BA	1979	C	C5-C6-N1	-5.27	118.36	121.00
35	BA	2778	A	O4'-C1'-N9	5.27	112.42	108.20
36	BB	52	A	N9-C1'-C2'	5.27	120.85	114.00
1	AA	333	G	O4'-C1'-N9	-5.27	103.98	108.20
1	AA	592	G	N7-C8-N9	-5.27	110.46	113.10
35	BA	514	A	C4-C5-C6	5.27	119.64	117.00
35	BA	903	C	N1-C2-N3	5.27	122.89	119.20
35	BA	1697	G	C5-N7-C8	-5.27	101.66	104.30
1	AA	885	G	N9-C4-C5	-5.27	103.29	105.40
1	AA	1426	C	N1-C2-O2	-5.27	115.74	118.90
35	BA	84	A	C1'-O4'-C4'	-5.27	105.68	109.90
35	BA	256	A	N1-C6-N6	5.27	121.76	118.60
35	BA	271(A)	A	C6-N1-C2	-5.27	115.44	118.60
35	BA	1892	C	C6-N1-C2	-5.27	118.19	120.30
35	BA	2236	C	N3-C4-N4	5.27	121.69	118.00
35	BA	2793	G	N1-C6-O6	-5.27	116.74	119.90
1	AA	869	G	C5'-C4'-O4'	5.27	115.42	109.10
1	AA	948	C	C5-C6-N1	5.27	123.63	121.00
1	AA	1411	C	C5'-C4'-O4'	5.27	115.42	109.10
1	AA	1452	C	C4-C5-C6	-5.27	114.77	117.40
35	BA	1090	U	C2-N3-C4	-5.27	123.84	127.00
35	BA	1468	C	C5-C6-N1	-5.27	118.37	121.00
35	BA	1481	U	C3'-C2'-C1'	5.27	105.71	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1803	A	C4-C5-N7	-5.27	108.07	110.70
35	BA	1858	G	O4'-C1'-N9	5.27	112.41	108.20
35	BA	2300	G	N1-C2-N3	5.27	127.06	123.90
1	AA	110	C	C4-C5-C6	5.27	120.03	117.40
1	AA	482	A	O4'-C1'-N9	-5.27	103.99	108.20
35	BA	94(A)	G	N1-C6-O6	-5.27	116.74	119.90
35	BA	216	A	N7-C8-N9	-5.27	111.17	113.80
35	BA	1465	G	C8-N9-C4	5.27	108.51	106.40
1	AA	721	G	N3-C4-N9	5.26	129.16	126.00
1	AA	1156	G	N3-C2-N2	5.26	123.58	119.90
2	AB	92	TYR	CB-CG-CD1	5.26	124.16	121.00
35	BA	644	A	N7-C8-N9	-5.26	111.17	113.80
35	BA	1381	G	C6-C5-N7	-5.26	127.24	130.40
35	BA	1719	G	C6-N1-C2	5.26	128.26	125.10
35	BA	2159	G	C5-C6-N1	-5.26	108.87	111.50
35	BA	2419	U	N1-C2-N3	5.26	118.06	114.90
35	BA	2718	G	OP2-P-O3'	5.26	116.78	105.20
41	BG	77	ILE	CG1-CB-CG2	-5.26	99.82	111.40
1	AA	794	A	N7-C8-N9	-5.26	111.17	113.80
35	BA	875	G	C5-C6-O6	5.26	131.76	128.60
35	BA	1094	U	N3-C4-O4	5.26	123.08	119.40
35	BA	1097	U	C5-C6-N1	-5.26	120.07	122.70
35	BA	1318	C	O4'-C1'-N1	-5.26	103.99	108.20
35	BA	2045	C	N1-C2-O2	-5.26	115.74	118.90
51	BT	53	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	AA	263	A	C4-C5-N7	5.26	113.33	110.70
1	AA	1277	C	N3-C4-C5	-5.26	119.80	121.90
1	AA	1292	U	N3-C4-O4	5.26	123.08	119.40
35	BA	56	A	N9-C4-C5	-5.26	103.70	105.80
35	BA	448	U	N1-C2-N3	5.26	118.06	114.90
35	BA	743	G	N9-C4-C5	5.26	107.50	105.40
35	BA	1312	U	N3-C4-O4	-5.26	115.72	119.40
35	BA	1676	A	O4'-C1'-N9	5.26	112.41	108.20
35	BA	2320	A	C6-N1-C2	-5.26	115.44	118.60
1	AA	300	A	N1-C2-N3	5.26	131.93	129.30
1	AA	331	G	C8-N9-C4	5.26	108.50	106.40
22	AV	39	C	C5-C6-N1	5.26	123.63	121.00
35	BA	248	G	C5-N7-C8	-5.26	101.67	104.30
35	BA	654	A	N9-C4-C5	-5.26	103.70	105.80
35	BA	981	A	C4-C5-C6	5.26	119.63	117.00
35	BA	1051	G	C6-N1-C2	-5.26	121.94	125.10
35	BA	1300	U	O4'-C1'-N1	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2302	G	C8-N9-C4	5.26	108.50	106.40
1	AA	640	A	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	1227	A	C3'-C2'-C1'	-5.26	97.29	101.50
35	BA	2339	G	C6-N1-C2	-5.26	121.94	125.10
35	BA	2373	G	N7-C8-N9	-5.26	110.47	113.10
1	AA	424	G	N7-C8-N9	5.26	115.73	113.10
1	AA	715	A	C1'-O4'-C4'	-5.26	105.69	109.90
1	AA	956	U	C5-C6-N1	-5.26	120.07	122.70
1	AA	1251	A	N9-C4-C5	-5.26	103.70	105.80
35	BA	676	A	C5-N7-C8	5.26	106.53	103.90
35	BA	860	U	C6-N1-C2	-5.26	117.85	121.00
35	BA	1004	C	N3-C2-O2	-5.26	118.22	121.90
35	BA	1378	A	N1-C2-N3	-5.26	126.67	129.30
35	BA	1529	G	C6-N1-C2	5.26	128.25	125.10
35	BA	1622	G	C4-C5-C6	-5.26	115.65	118.80
35	BA	1972	A	N9-C4-C5	-5.26	103.70	105.80
35	BA	2094	G	C4-C5-N7	5.26	112.90	110.80
35	BA	2487	G	C5-C6-N1	5.26	114.13	111.50
36	BB	37	C	N3-C4-C5	5.26	124.00	121.90
38	BD	230	ASP	CB-CG-OD1	-5.26	113.57	118.30
1	AA	234	C	N1-C2-O2	-5.25	115.75	118.90
1	AA	1224	G	N9-C4-C5	5.25	107.50	105.40
1	AA	1492	A	C2-N3-C4	5.25	113.23	110.60
35	BA	8	A	C5-N7-C8	5.25	106.53	103.90
35	BA	8	A	N7-C8-N9	-5.25	111.17	113.80
35	BA	933	A	O4'-C1'-N9	5.25	112.40	108.20
35	BA	1051	G	C1'-O4'-C4'	-5.25	105.70	109.90
35	BA	1851	U	N3-C4-O4	5.25	123.08	119.40
35	BA	2885	C	N3-C4-N4	5.25	121.68	118.00
1	AA	123	C	C6-N1-C2	-5.25	118.20	120.30
1	AA	791	G	N1-C6-O6	5.25	123.05	119.90
1	AA	1074	G	C6-N1-C2	-5.25	121.95	125.10
1	AA	1415	G	N3-C2-N2	-5.25	116.22	119.90
1	AA	1488	G	OP2-P-O3'	5.25	116.76	105.20
1	AA	1515	C	C4-C5-C6	5.25	120.03	117.40
22	AV	44	A	C5-N7-C8	-5.25	101.27	103.90
22	AV	65	C	N1-C2-O2	5.25	122.05	118.90
35	BA	654(N)	G	N9-C4-C5	5.25	107.50	105.40
35	BA	935	C	C5-C6-N1	-5.25	118.37	121.00
35	BA	1122	G	C1'-O4'-C4'	-5.25	105.70	109.90
35	BA	1748	G	C6-C5-N7	-5.25	127.25	130.40
35	BA	2521	C	N3-C4-C5	5.25	124.00	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2647	U	N3-C4-C5	-5.25	111.45	114.60
35	BA	2738	A	N1-C2-N3	5.25	131.93	129.30
36	BB	96	U	C1'-O4'-C4'	-5.25	105.70	109.90
1	AA	291	C	C5-C4-N4	5.25	123.88	120.20
1	AA	471	G	C5-C6-O6	5.25	131.75	128.60
24	AY	497	PHE	CB-CG-CD2	5.25	124.48	120.80
35	BA	109	G	O4'-C1'-C2'	5.25	112.33	107.60
35	BA	997	G	N1-C2-N3	-5.25	120.75	123.90
35	BA	1032	A	N9-C4-C5	-5.25	103.70	105.80
35	BA	1200	C	O4'-C1'-N1	5.25	112.40	108.20
35	BA	2221	G	N1-C6-O6	5.25	123.05	119.90
35	BA	2482	G	C8-N9-C4	5.25	108.50	106.40
35	BA	2716	U	C5-C6-N1	-5.25	120.08	122.70
35	BA	2814	C	N3-C2-O2	-5.25	118.22	121.90
35	BA	2849	U	O4'-C1'-N1	-5.25	104.00	108.20
1	AA	819	A	C5-C6-N6	-5.25	119.50	123.70
1	AA	1008	C	C5-C4-N4	-5.25	116.53	120.20
1	AA	1462	G	C2-N3-C4	-5.25	109.28	111.90
35	BA	298	G	C5'-C4'-O4'	-5.25	102.80	109.10
35	BA	706	A	N7-C8-N9	5.25	116.42	113.80
35	BA	950	G	N1-C2-N3	5.25	127.05	123.90
1	AA	546	G	N3-C4-C5	5.25	131.22	128.60
1	AA	725	G	C4-C5-N7	-5.25	108.70	110.80
1	AA	1033	G	C1'-O4'-C4'	5.25	114.10	109.90
2	AB	53	ARG	NE-CZ-NH1	5.25	122.92	120.30
4	AD	12	CYS	N-CA-C	-5.25	96.83	111.00
35	BA	222	A	O4'-C1'-N9	5.25	112.40	108.20
35	BA	684	G	N9-C4-C5	5.25	107.50	105.40
35	BA	723	G	N3-C4-C5	-5.25	125.98	128.60
35	BA	927	G	C3'-C2'-C1'	-5.25	97.30	101.50
35	BA	1321	A	C3'-C2'-C1'	5.25	105.70	101.50
35	BA	1361	G	C5-C6-N1	5.25	114.12	111.50
35	BA	2126	A	C5-C6-N1	-5.25	115.08	117.70
35	BA	154	G	C8-N9-C4	-5.25	104.30	106.40
35	BA	710	G	N9-C4-C5	5.25	107.50	105.40
35	BA	1625	C	C5-C6-N1	-5.25	118.38	121.00
35	BA	2023	G	O4'-C1'-N9	5.25	112.40	108.20
35	BA	2576	G	C5-C6-O6	5.25	131.75	128.60
53	BV	83	ARG	NE-CZ-NH1	-5.25	117.68	120.30
1	AA	534	U	C5'-C4'-O4'	-5.25	102.81	109.10
1	AA	617	G	N1-C2-N3	5.25	127.05	123.90
1	AA	97	G	N1-C2-N3	-5.24	120.75	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1402	C	N3-C4-C5	5.24	124.00	121.90
35	BA	90	U	C5-C6-N1	5.24	125.32	122.70
35	BA	324	A	C5-C6-N6	5.24	127.89	123.70
35	BA	779	U	C3'-C2'-C1'	5.24	105.69	101.50
35	BA	862	G	C5-N7-C8	5.24	106.92	104.30
35	BA	1456	G	N1-C2-N3	5.24	127.05	123.90
35	BA	1927	A	N1-C2-N3	5.24	131.92	129.30
52	BU	55	ARG	NE-CZ-NH2	-5.24	117.68	120.30
1	AA	410	G	O4'-C1'-N9	5.24	112.39	108.20
1	AA	975	A	N3-C4-C5	-5.24	123.13	126.80
1	AA	1267	C	C5-C4-N4	-5.24	116.53	120.20
1	AA	1306	A	N1-C6-N6	-5.24	115.45	118.60
35	BA	359	A	C2-N3-C4	5.24	113.22	110.60
35	BA	442	G	N3-C4-N9	-5.24	122.86	126.00
35	BA	1366	A	N9-C4-C5	5.24	107.90	105.80
35	BA	1664	A	N1-C6-N6	-5.24	115.45	118.60
35	BA	1800	C	C6-N1-C2	5.24	122.40	120.30
51	BT	68	TYR	CB-CG-CD2	-5.24	117.86	121.00
1	AA	141	A	C6-N1-C2	5.24	121.74	118.60
1	AA	436	C	C3'-C2'-C1'	5.24	105.69	101.50
1	AA	689	C	C5-C6-N1	-5.24	118.38	121.00
1	AA	828	A	C3'-C2'-C1'	-5.24	97.31	101.50
1	AA	855	G	N9-C4-C5	-5.24	103.30	105.40
22	AV	22	G	N3-C4-N9	-5.24	122.86	126.00
26	B1	71	TYR	CB-CG-CD1	5.24	124.14	121.00
35	BA	271(S)	G	N7-C8-N9	5.24	115.72	113.10
35	BA	1226	A	N1-C6-N6	-5.24	115.45	118.60
35	BA	1624	G	N7-C8-N9	-5.24	110.48	113.10
35	BA	2340	G	P-O5'-C5'	5.24	129.29	120.90
35	BA	2702	U	N1-C2-O2	5.24	126.47	122.80
52	BU	64	ARG	CD-NE-CZ	5.24	130.94	123.60
1	AA	389	A	C5-C6-N6	5.24	127.89	123.70
1	AA	608	A	C6-C5-N7	-5.24	128.63	132.30
1	AA	1133	G	C8-N9-C4	5.24	108.50	106.40
1	AA	1222	G	C5-N7-C8	-5.24	101.68	104.30
35	BA	28	A	C4-N9-C1'	5.24	135.73	126.30
35	BA	425	G	C1'-O4'-C4'	-5.24	105.71	109.90
35	BA	517	C	N3-C4-C5	-5.24	119.81	121.90
35	BA	654(H)	G	C6-C5-N7	-5.24	127.26	130.40
35	BA	787	U	C5-C4-O4	-5.24	122.76	125.90
35	BA	870	A	N1-C2-N3	5.24	131.92	129.30
35	BA	1691	C	C5-C6-N1	-5.24	118.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1921	G	N3-C2-N2	-5.24	116.23	119.90
35	BA	2069	G	C8-N9-C4	-5.24	104.30	106.40
35	BA	2176	A	O4'-C1'-N9	-5.24	104.01	108.20
35	BA	2876	G	O4'-C1'-N9	5.24	112.39	108.20
1	AA	301	G	N1-C2-N3	-5.24	120.76	123.90
1	AA	321	A	N7-C8-N9	5.24	116.42	113.80
1	AA	806	C	C5-C6-N1	5.24	123.62	121.00
10	AJ	56	HIS	N-CA-C	-5.24	96.86	111.00
22	AV	5	G	C4-C5-C6	5.24	121.94	118.80
35	BA	142(A)	C	N3-C4-C5	-5.24	119.81	121.90
35	BA	853	G	C1'-O4'-C4'	-5.24	105.71	109.90
54	BW	92	ARG	NE-CZ-NH2	-5.24	117.68	120.30
1	AA	796	C	O4'-C1'-C2'	-5.24	100.56	105.80
1	AA	1250	A	C5-C6-N1	-5.24	115.08	117.70
1	AA	1410	G	N1-C2-N2	-5.24	111.49	116.20
12	AL	33	ARG	NE-CZ-NH2	-5.24	117.68	120.30
34	B9	25	VAL	CG1-CB-CG2	-5.24	102.52	110.90
35	BA	276	A	C4-C5-C6	-5.24	114.38	117.00
35	BA	534	U	N3-C2-O2	-5.24	118.53	122.20
35	BA	1111	A	C2-N3-C4	-5.24	107.98	110.60
35	BA	2488	A	C4'-C3'-C2'	5.24	107.83	102.60
35	BA	2646	C	N3-C2-O2	-5.24	118.23	121.90
35	BA	2722	G	N9-C4-C5	5.24	107.49	105.40
1	AA	150	C	C5-C4-N4	-5.23	116.54	120.20
1	AA	242	C	C5-C6-N1	5.23	123.62	121.00
1	AA	334	C	C5-C4-N4	-5.23	116.54	120.20
1	AA	1272	G	N1-C2-N2	5.23	120.91	116.20
1	AA	1293	G	N3-C4-C5	5.23	131.22	128.60
1	AA	1467	G	C4-N9-C1'	-5.23	119.70	126.50
41	BG	21	ARG	NE-CZ-NH2	-5.23	117.68	120.30
1	AA	30	U	C4'-C3'-C2'	5.23	107.83	102.60
22	AV	51	C	C2-N3-C4	5.23	122.52	119.90
35	BA	47	C	O4'-C1'-N1	5.23	112.39	108.20
35	BA	874	G	C2-N3-C4	-5.23	109.28	111.90
35	BA	934	G	N3-C4-C5	5.23	131.22	128.60
35	BA	1088	A	C5-C6-N1	5.23	120.32	117.70
35	BA	1223	G	C5-C6-N1	-5.23	108.88	111.50
35	BA	1385	G	N9-C4-C5	5.23	107.49	105.40
35	BA	1721	G	N7-C8-N9	5.23	115.72	113.10
35	BA	2043	C	C3'-C2'-C1'	5.23	105.69	101.50
36	BB	74	U	C5-C6-N1	5.23	125.32	122.70
37	BC	214	TYR	CG-CD1-CE1	-5.23	117.11	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	486	U	C1'-O4'-C4'	-5.23	105.72	109.90
1	AA	557	G	C2-N3-C4	5.23	114.52	111.90
1	AA	654	G	C5-N7-C8	5.23	106.92	104.30
1	AA	1344	C	N3-C4-C5	5.23	123.99	121.90
35	BA	143(A)	C	N3-C2-O2	5.23	125.56	121.90
35	BA	453	C	N1-C2-O2	-5.23	115.76	118.90
35	BA	522	G	C3'-C2'-C1'	5.23	105.68	101.50
35	BA	809	G	C3'-C2'-C1'	-5.23	97.31	101.50
35	BA	1320	C	C5-C6-N1	-5.23	118.39	121.00
35	BA	2223	G	C6-N1-C2	-5.23	121.96	125.10
36	BB	6	C	C4-C5-C6	5.23	120.02	117.40
36	BB	55	U	C5-C4-O4	5.23	129.04	125.90
1	AA	921	U	C6-N1-C2	-5.23	117.86	121.00
1	AA	946	A	O4'-C1'-C2'	5.23	112.31	107.60
35	BA	6	A	N3-C4-N9	5.23	131.58	127.40
35	BA	670	A	C6-C5-N7	5.23	135.96	132.30
35	BA	968	G	C4-C5-C6	-5.23	115.66	118.80
35	BA	1650	G	C8-N9-C1'	5.23	133.80	127.00
35	BA	1717	G	O4'-C1'-N9	-5.23	104.02	108.20
35	BA	1751	C	N3-C2-O2	-5.23	118.24	121.90
48	BQ	118	LEU	CB-CG-CD2	-5.23	102.11	111.00
1	AA	189(K)	U	C2-N3-C4	5.23	130.14	127.00
1	AA	460	G	C4-C5-N7	5.23	112.89	110.80
1	AA	796	C	O4'-C1'-N1	-5.23	104.02	108.20
35	BA	654(R)	C	C6-N1-C2	-5.23	118.21	120.30
35	BA	1311	G	C2-N3-C4	-5.23	109.29	111.90
35	BA	1603	A	C8-N9-C4	-5.23	103.71	105.80
35	BA	1791	A	C5'-C4'-C3'	-5.23	107.64	116.00
35	BA	1926	U	N1-C2-O2	5.23	126.46	122.80
35	BA	2153	G	C5-C6-N1	5.23	114.11	111.50
35	BA	645	C	N1-C2-O2	5.23	122.04	118.90
35	BA	1354	A	C6-N1-C2	5.23	121.74	118.60
35	BA	2159	G	C6-C5-N7	-5.23	127.26	130.40
35	BA	2595	G	C6-C5-N7	5.23	133.54	130.40
35	BA	2673	G	N3-C4-C5	5.23	131.21	128.60
1	AA	564	C	C5-C6-N1	5.22	123.61	121.00
1	AA	1015	A	N1-C2-N3	5.22	131.91	129.30
1	AA	1375	A	C4-C5-C6	5.22	119.61	117.00
24	AY	210	ARG	NE-CZ-NH2	-5.22	117.69	120.30
35	BA	338	G	C5-N7-C8	5.22	106.91	104.30
35	BA	341	G	N1-C2-N3	5.22	127.03	123.90
35	BA	770	G	N1-C2-N3	5.22	127.03	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	909	A	C3'-C2'-C1'	5.22	105.68	101.50
36	BB	105	A	C5-C6-N1	-5.22	115.09	117.70
1	AA	299	G	C3'-C2'-C1'	5.22	105.68	101.50
1	AA	524	G	C2-N3-C4	5.22	114.51	111.90
1	AA	923	A	C6-C5-N7	-5.22	128.64	132.30
1	AA	1117	G	C4-C5-N7	-5.22	108.71	110.80
1	AA	1233	G	N3-C4-C5	5.22	131.21	128.60
1	AA	1408	A	C5-N7-C8	-5.22	101.29	103.90
35	BA	706	A	C4-C5-N7	-5.22	108.09	110.70
35	BA	1066	U	O4'-C1'-N1	-5.22	104.02	108.20
35	BA	1347	G	N9-C4-C5	-5.22	103.31	105.40
35	BA	2197	U	N1-C2-N3	-5.22	111.77	114.90
35	BA	2502	G	N3-C2-N2	5.22	123.56	119.90
35	BA	2572	A	N9-C4-C5	-5.22	103.71	105.80
54	BW	67	ASP	CB-CG-OD2	-5.22	113.60	118.30
1	AA	300	A	C2-N3-C4	-5.22	107.99	110.60
1	AA	937	A	N7-C8-N9	5.22	116.41	113.80
35	BA	2028	U	C1'-O4'-C4'	5.22	114.08	109.90
35	BA	2190	G	N3-C4-C5	-5.22	125.99	128.60
35	BA	2886	G	C5-N7-C8	5.22	106.91	104.30
1	AA	8	A	C4-C5-N7	-5.22	108.09	110.70
1	AA	136	C	O4'-C1'-N1	5.22	112.38	108.20
1	AA	1061	G	N1-C6-O6	5.22	123.03	119.90
1	AA	1142	G	N1-C6-O6	-5.22	116.77	119.90
22	AV	36	U	O4'-C4'-C3'	5.22	110.28	106.10
35	BA	618	C	C5-C6-N1	5.22	123.61	121.00
35	BA	967	C	C2-N3-C4	5.22	122.51	119.90
35	BA	1594	G	O4'-C1'-N9	5.22	112.38	108.20
36	BB	6	C	O4'-C1'-N1	5.22	112.38	108.20
53	BV	12	TYR	CB-CG-CD2	-5.22	117.87	121.00
1	AA	1079	G	C5-C6-O6	-5.22	125.47	128.60
5	AE	140	ARG	NE-CZ-NH2	5.22	122.91	120.30
35	BA	264	C	C4'-C3'-C2'	5.22	107.82	102.60
35	BA	532	A	N1-C2-N3	-5.22	126.69	129.30
35	BA	1699	G	C4-C5-C6	5.22	121.93	118.80
35	BA	1797	C	C6-N1-C2	5.22	122.39	120.30
35	BA	2203	U	C5'-C4'-C3'	-5.22	107.65	116.00
35	BA	2354	G	O4'-C4'-C3'	5.22	110.27	106.10
1	AA	1172	C	C5'-C4'-C3'	-5.22	107.65	116.00
1	AA	1293	G	C1'-O4'-C4'	-5.22	105.73	109.90
32	B7	21	ARG	NH1-CZ-NH2	5.22	125.14	119.40
35	BA	671	C	C5'-C4'-O4'	5.22	115.36	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	752	A	N1-C6-N6	5.22	121.73	118.60
35	BA	785	G	O5'-P-OP1	-5.22	101.01	105.70
35	BA	932	G	C2-N3-C4	5.22	114.51	111.90
35	BA	1189	A	C2-N3-C4	-5.22	107.99	110.60
35	BA	1989	G	C1'-O4'-C4'	-5.22	105.73	109.90
35	BA	2139	C	C5-C4-N4	-5.22	116.55	120.20
1	AA	193	C	N1-C2-O2	-5.21	115.77	118.90
1	AA	722	A	C5-C6-N1	5.21	120.31	117.70
1	AA	1314	C	C4-C5-C6	5.21	120.01	117.40
1	AA	1366	C	C4'-C3'-C2'	-5.21	97.39	102.60
1	AA	1374	A	O4'-C1'-N9	-5.21	104.03	108.20
35	BA	88	G	N3-C4-N9	-5.21	122.87	126.00
35	BA	1143	A	C8-N9-C4	5.21	107.89	105.80
35	BA	1238	G	N9-C4-C5	5.21	107.49	105.40
35	BA	1305	C	C5'-C4'-O4'	5.21	115.36	109.10
35	BA	1829	A	C5'-C4'-O4'	5.21	115.36	109.10
35	BA	1852	C	O4'-C1'-N1	-5.21	104.03	108.20
35	BA	2063	C	N3-C4-N4	-5.21	114.35	118.00
35	BA	2168	G	C2-N3-C4	5.21	114.51	111.90
35	BA	2714	G	N1-C6-O6	-5.21	116.77	119.90
35	BA	2876	G	C5-C6-O6	5.21	131.73	128.60
36	BB	85	G	C5-N7-C8	-5.21	101.69	104.30
1	AA	269	C	C6-N1-C2	-5.21	118.22	120.30
1	AA	1383	C	C2-N1-C1'	5.21	124.53	118.80
35	BA	2112	G	C5-C6-O6	-5.21	125.47	128.60
1	AA	385	C	N3-C4-C5	-5.21	119.81	121.90
1	AA	1175	G	C4-C5-N7	-5.21	108.72	110.80
1	AA	1481	U	N1-C2-O2	5.21	126.45	122.80
15	AO	74	ASP	CB-CG-OD2	5.21	122.99	118.30
35	BA	151	C	C4-C5-C6	5.21	120.01	117.40
35	BA	489	G	C4-C5-N7	5.21	112.88	110.80
35	BA	751	A	O4'-C1'-C2'	5.21	112.29	107.60
35	BA	1308	A	C4-C5-C6	-5.21	114.39	117.00
35	BA	1561	G	C6-C5-N7	-5.21	127.27	130.40
35	BA	1789	A	N3-C4-C5	5.21	130.45	126.80
35	BA	1953	A	C5-C6-N1	-5.21	115.09	117.70
35	BA	2831	G	C5-N7-C8	-5.21	101.69	104.30
56	BY	86	ARG	NE-CZ-NH2	-5.21	117.69	120.30
35	BA	319	C	C5-C4-N4	-5.21	116.55	120.20
35	BA	1031	G	N3-C2-N2	-5.21	116.25	119.90
35	BA	1910	G	N1-C6-O6	-5.21	116.77	119.90
1	AA	332	G	C8-N9-C4	-5.21	104.32	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	706	A	N7-C8-N9	-5.21	111.20	113.80
1	AA	814	A	C8-N9-C4	-5.21	103.72	105.80
1	AA	1361	G	O5'-P-OP2	5.21	116.95	110.70
1	AA	1381	U	C4-C5-C6	-5.21	116.58	119.70
35	BA	363(F)	A	C2'-C3'-O3'	5.21	122.03	113.70
35	BA	424	G	N9-C1'-C2'	-5.21	106.27	112.00
35	BA	612	C	N3-C4-C5	5.21	123.98	121.90
35	BA	720	C	C3'-C2'-C1'	-5.21	97.33	101.50
35	BA	873	G	N9-C1'-C2'	-5.21	106.27	112.00
35	BA	1379	A	N1-C2-N3	5.21	131.91	129.30
35	BA	1616	A	C6-C5-N7	-5.21	128.66	132.30
35	BA	2421	G	C6-N1-C2	5.21	128.22	125.10
1	AA	567	G	C5-C6-N1	5.21	114.10	111.50
22	AV	31	G	C8-N9-C4	5.21	108.48	106.40
35	BA	554	U	N3-C4-O4	5.21	123.05	119.40
35	BA	653	A	O4'-C1'-N9	-5.21	104.03	108.20
35	BA	761	A	C5-N7-C8	-5.21	101.30	103.90
35	BA	2142	C	O4'-C1'-C2'	5.21	112.29	107.60
35	BA	2407	G	C8-N9-C4	-5.21	104.32	106.40
35	BA	2442	C	C5-C6-N1	5.21	123.60	121.00
35	BA	2472	G	N1-C2-N3	5.21	127.02	123.90
1	AA	1432	G	C5-C6-N1	-5.21	108.90	111.50
1	AA	1463	C	O4'-C1'-N1	-5.21	104.04	108.20
35	BA	420	C	C6-N1-C1'	-5.21	114.55	120.80
35	BA	1106	G	C5-N7-C8	5.21	106.90	104.30
35	BA	1122	G	C6-C5-N7	-5.21	127.28	130.40
35	BA	2002	G	C5-C6-N1	5.21	114.10	111.50
1	AA	412	A	C6-C5-N7	5.20	135.94	132.30
1	AA	851	G	C6-N1-C2	-5.20	121.98	125.10
1	AA	1197	G	N1-C2-N3	5.20	127.02	123.90
35	BA	187	G	N1-C2-N2	5.20	120.88	116.20
35	BA	327	G	C5-C6-N1	-5.20	108.90	111.50
35	BA	470	A	N9-C4-C5	5.20	107.88	105.80
35	BA	1007	C	C1'-O4'-C4'	-5.20	105.74	109.90
35	BA	1282	U	N3-C2-O2	-5.20	118.56	122.20
35	BA	1328	G	C5-C6-O6	-5.20	125.48	128.60
35	BA	1473	G	C3'-C2'-C1'	5.20	105.66	101.50
35	BA	1747	G	C5'-C4'-C3'	-5.20	107.67	116.00
35	BA	1754	C	N1-C2-N3	-5.20	115.56	119.20
35	BA	1811	G	C4'-C3'-C2'	-5.20	97.40	102.60
35	BA	2490	G	C4-C5-C6	5.20	121.92	118.80
35	BA	2882	A	C5-N7-C8	-5.20	101.30	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BB	54	G	N3-C2-N2	-5.20	116.26	119.90
35	BA	646	A	N1-C2-N3	-5.20	126.70	129.30
35	BA	857	C	C1'-O4'-C4'	-5.20	105.74	109.90
37	BC	15	VAL	CB-CA-C	-5.20	101.52	111.40
1	AA	564	C	O4'-C1'-N1	5.20	112.36	108.20
1	AA	1499	A	C2-N3-C4	5.20	113.20	110.60
35	BA	141	A	C5-C6-N6	5.20	127.86	123.70
35	BA	225	A	N7-C8-N9	-5.20	111.20	113.80
35	BA	272(C)	G	C5-C6-O6	5.20	131.72	128.60
35	BA	363(F)	A	C3'-C2'-C1'	-5.20	97.34	101.50
35	BA	450	G	N1-C6-O6	5.20	123.02	119.90
35	BA	616	G	N7-C8-N9	5.20	115.70	113.10
35	BA	671	C	C5-C4-N4	-5.20	116.56	120.20
35	BA	751	A	O5'-P-OP2	-5.20	101.02	105.70
35	BA	764	A	C5-N7-C8	-5.20	101.30	103.90
35	BA	860	U	C1'-O4'-C4'	-5.20	105.74	109.90
35	BA	1069	A	C4-C5-C6	5.20	119.60	117.00
35	BA	1206	G	N9-C4-C5	-5.20	103.32	105.40
35	BA	1316	U	C2-N3-C4	5.20	130.12	127.00
35	BA	1961	C	C3'-C2'-C1'	5.20	105.66	101.50
35	BA	2336	A	C8-N9-C4	-5.20	103.72	105.80
35	BA	2426	A	C5-C6-N1	-5.20	115.10	117.70
35	BA	2627	G	N7-C8-N9	5.20	115.70	113.10
35	BA	2864	G	N3-C4-C5	-5.20	126.00	128.60
39	BE	44	TYR	N-CA-C	5.20	125.04	111.00
1	AA	366	C	O4'-C1'-N1	5.20	112.36	108.20
1	AA	487	A	C8-N9-C4	-5.20	103.72	105.80
1	AA	622	A	C8-N9-C4	5.20	107.88	105.80
1	AA	775	G	C5'-C4'-C3'	-5.20	107.68	116.00
1	AA	779	C	N3-C2-O2	-5.20	118.26	121.90
1	AA	862	C	O4'-C1'-N1	5.20	112.36	108.20
1	AA	1370	G	N1-C2-N3	5.20	127.02	123.90
35	BA	374	A	C4-C5-C6	-5.20	114.40	117.00
35	BA	482	A	N9-C4-C5	5.20	107.88	105.80
35	BA	1003	G	N7-C8-N9	5.20	115.70	113.10
1	AA	145	G	C4-C5-N7	-5.20	108.72	110.80
1	AA	288	A	N7-C8-N9	-5.20	111.20	113.80
1	AA	354	G	C2-N3-C4	-5.20	109.30	111.90
22	AV	47	U	N3-C4-O4	5.20	123.04	119.40
35	BA	269	U	C3'-C2'-C1'	5.20	105.66	101.50
35	BA	483	A	C5-C6-N6	-5.20	119.54	123.70
35	BA	573	G	N3-C4-C5	-5.20	126.00	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1012	U	C4-C5-C6	5.20	122.82	119.70
35	BA	1355	G	N3-C4-N9	-5.20	122.88	126.00
35	BA	2538	C	N1-C2-O2	-5.20	115.78	118.90
35	BA	2636	U	N1-C2-N3	-5.20	111.78	114.90
35	BA	2839	G	O4'-C1'-C2'	5.20	112.28	107.60
1	AA	1381	U	N1-C1'-C2'	-5.20	106.29	112.00
35	BA	567	A	N1-C2-N3	-5.20	126.70	129.30
35	BA	1763	G	C5-C6-N1	-5.20	108.90	111.50
35	BA	2799	C	N1-C2-O2	-5.20	115.78	118.90
1	AA	734	G	C6-C5-N7	-5.19	127.28	130.40
1	AA	742	G	N1-C6-O6	5.19	123.02	119.90
35	BA	642	G	N3-C4-N9	-5.19	122.88	126.00
35	BA	915	C	N1-C2-O2	-5.19	115.78	118.90
35	BA	2643	G	C5'-C4'-O4'	5.19	115.33	109.10
1	AA	189(J)	G	N3-C4-C5	5.19	131.20	128.60
1	AA	200	G	C5-C6-O6	5.19	131.72	128.60
1	AA	375	U	C2-N3-C4	5.19	130.12	127.00
1	AA	485	G	C6-N1-C2	5.19	128.22	125.10
1	AA	665	A	N7-C8-N9	-5.19	111.20	113.80
1	AA	1110	A	C6-N1-C2	5.19	121.72	118.60
15	AO	54	ARG	NH1-CZ-NH2	-5.19	113.69	119.40
35	BA	593	G	C2-N3-C4	-5.19	109.30	111.90
35	BA	634	C	C6-N1-C2	-5.19	118.22	120.30
35	BA	1583	A	C4-C5-N7	5.19	113.30	110.70
35	BA	2830	G	N1-C2-N3	-5.19	120.78	123.90
57	BZ	88	PHE	CB-CG-CD2	5.19	124.44	120.80
1	AA	237	C	N3-C4-N4	5.19	121.63	118.00
1	AA	256	U	C5-C6-N1	5.19	125.30	122.70
35	BA	773	U	C5-C6-N1	5.19	125.30	122.70
35	BA	1129	A	O4'-C1'-N9	-5.19	104.05	108.20
35	BA	1382	G	N1-C6-O6	5.19	123.01	119.90
35	BA	1488	G	N7-C8-N9	-5.19	110.50	113.10
35	BA	1784	A	C8-N9-C4	-5.19	103.72	105.80
35	BA	1948	G	OP2-P-O3'	5.19	116.62	105.20
35	BA	2223	G	N9-C1'-C2'	-5.19	106.29	112.00
35	BA	2843	G	N9-C4-C5	5.19	107.48	105.40
36	BB	87	G	C2-N3-C4	-5.19	109.31	111.90
1	AA	25	C	C4'-C3'-C2'	5.19	107.79	102.60
1	AA	792	A	O4'-C1'-N9	5.19	112.35	108.20
1	AA	888	G	C4-C5-C6	5.19	121.91	118.80
1	AA	1343	G	N1-C2-N3	5.19	127.01	123.90
35	BA	2775	A	N9-C4-C5	5.19	107.88	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	186	C	O4'-C1'-N1	-5.19	104.05	108.20
1	AA	566	G	N7-C8-N9	5.19	115.69	113.10
1	AA	592	G	C6-N1-C2	-5.19	121.99	125.10
1	AA	755	G	C4-C5-N7	-5.19	108.72	110.80
22	AV	55	U	N1-C2-O2	5.19	126.43	122.80
35	BA	275	G	N9-C4-C5	-5.19	103.33	105.40
35	BA	298	G	C5-N7-C8	5.19	106.89	104.30
35	BA	654(S)	G	N7-C8-N9	5.19	115.69	113.10
35	BA	1706	U	O5'-P-OP2	-5.19	101.03	105.70
35	BA	2004	G	C4-N9-C1'	5.19	133.24	126.50
35	BA	2163	C	O4'-C1'-N1	5.19	112.35	108.20
35	BA	2487	G	C5-N7-C8	5.19	106.89	104.30
35	BA	2607	G	N3-C4-C5	-5.19	126.01	128.60
35	BA	2724	C	O4'-C1'-N1	-5.19	104.05	108.20
1	AA	338	A	C6-N1-C2	-5.19	115.49	118.60
1	AA	1201	A	C4-C5-N7	-5.19	108.11	110.70
35	BA	1299	G	C5-C6-O6	-5.19	125.49	128.60
35	BA	2051	A	N1-C2-N3	-5.19	126.71	129.30
35	BA	2766	G	N1-C2-N2	5.19	120.87	116.20
1	AA	58	C	N3-C4-C5	5.18	123.97	121.90
1	AA	335	C	C6-N1-C2	-5.18	118.23	120.30
1	AA	473	G	N3-C2-N2	-5.18	116.27	119.90
1	AA	627	G	N1-C2-N3	-5.18	120.79	123.90
1	AA	1337	G	N3-C2-N2	-5.18	116.27	119.90
2	AB	30	ARG	NE-CZ-NH1	5.18	122.89	120.30
35	BA	771	G	N9-C4-C5	5.18	107.47	105.40
35	BA	1194	A	N7-C8-N9	-5.18	111.21	113.80
35	BA	1418	G	C8-N9-C4	5.18	108.47	106.40
35	BA	1758	G	C6-N1-C2	5.18	128.21	125.10
35	BA	2022	U	C4-C5-C6	5.18	122.81	119.70
38	BD	21	PHE	CB-CG-CD1	-5.18	117.17	120.80
1	AA	104	G	N7-C8-N9	5.18	115.69	113.10
1	AA	333	G	N7-C8-N9	-5.18	110.51	113.10
1	AA	714	G	C5-N7-C8	5.18	106.89	104.30
1	AA	792	A	C2-N3-C4	-5.18	108.01	110.60
24	AY	492	ASP	CB-CG-OD2	-5.18	113.64	118.30
35	BA	27	G	C6-N1-C2	-5.18	121.99	125.10
35	BA	376	C	C6-N1-C2	5.18	122.37	120.30
35	BA	484	C	N3-C2-O2	-5.18	118.27	121.90
35	BA	948	G	C4-C5-N7	-5.18	108.73	110.80
35	BA	1013	C	N1-C2-O2	5.18	122.01	118.90
35	BA	1103	A	C5-C6-N1	-5.18	115.11	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1210	A	N7-C8-N9	-5.18	111.21	113.80
35	BA	1486	A	C4-C5-C6	-5.18	114.41	117.00
35	BA	1859	A	N1-C6-N6	5.18	121.71	118.60
35	BA	1932	A	O4'-C1'-N9	5.18	112.35	108.20
35	BA	2136	C	C2-N3-C4	5.18	122.49	119.90
35	BA	2188	C	N3-C2-O2	-5.18	118.27	121.90
35	BA	2332	U	N3-C2-O2	5.18	125.83	122.20
1	AA	854	G	C8-N9-C4	5.18	108.47	106.40
1	AA	1232	U	N1-C2-O2	-5.18	119.17	122.80
35	BA	234	C	C4-C5-C6	5.18	119.99	117.40
35	BA	504	U	C4'-C3'-C2'	5.18	107.78	102.60
1	AA	991	U	C4-C5-C6	5.18	122.81	119.70
1	AA	1000	U	N1-C2-O2	5.18	126.42	122.80
1	AA	1323	G	C4-C5-C6	5.18	121.91	118.80
1	AA	1372	U	N1-C2-N3	-5.18	111.79	114.90
35	BA	331	A	OP1-P-O3'	5.18	116.59	105.20
35	BA	812	C	C5-C4-N4	-5.18	116.57	120.20
35	BA	1370	C	C5-C6-N1	5.18	123.59	121.00
35	BA	1471	A	O4'-C1'-C2'	5.18	112.26	107.60
35	BA	1668	A	C3'-C2'-C1'	-5.18	97.36	101.50
35	BA	2110	G	C4-C5-N7	5.18	112.87	110.80
53	BV	51	VAL	CB-CA-C	-5.18	101.56	111.40
1	AA	91	C	N1-C2-O2	-5.18	115.79	118.90
1	AA	996	A	C2-N3-C4	5.18	113.19	110.60
1	AA	1493	A	C5-C6-N6	-5.18	119.56	123.70
24	AY	236	GLU	OE1-CD-OE2	-5.18	117.09	123.30
35	BA	788	A	C4-C5-C6	5.18	119.59	117.00
35	BA	1296	G	N7-C8-N9	-5.18	110.51	113.10
35	BA	1352	U	O4'-C1'-N1	5.18	112.34	108.20
35	BA	1553	A	C4-C5-C6	-5.18	114.41	117.00
1	AA	637	G	C2-N3-C4	5.18	114.49	111.90
1	AA	650	G	N1-C2-N2	5.18	120.86	116.20
1	AA	762	C	C6-N1-C2	-5.18	118.23	120.30
1	AA	1499	A	C5-N7-C8	-5.18	101.31	103.90
29	B4	48	ARG	NE-CZ-NH2	-5.18	117.71	120.30
35	BA	219	G	N3-C2-N2	-5.18	116.28	119.90
35	BA	350	U	C6-N1-C2	5.18	124.11	121.00
35	BA	614(A)	U	OP1-P-O3'	5.18	116.59	105.20
35	BA	997	G	N7-C8-N9	-5.18	110.51	113.10
35	BA	1573	G	C8-N9-C4	-5.18	104.33	106.40
35	BA	1921	G	N9-C1'-C2'	-5.18	106.31	112.00
36	BB	98	G	C4-C5-N7	5.18	112.87	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	430	A	N9-C1'-C2'	-5.17	106.31	112.00
1	AA	501	C	O4'-C1'-N1	5.17	112.34	108.20
1	AA	607	A	N1-C2-N3	5.17	131.89	129.30
1	AA	1383	C	C4-C5-C6	-5.17	114.81	117.40
1	AA	1500	A	N1-C2-N3	5.17	131.89	129.30
35	BA	1213	A	N9-C4-C5	-5.17	103.73	105.80
35	BA	1426	G	C6-C5-N7	5.17	133.50	130.40
35	BA	1999	C	C5-C4-N4	-5.17	116.58	120.20
1	AA	767	A	C4-C5-N7	5.17	113.29	110.70
4	AD	35	ARG	NE-CZ-NH1	-5.17	117.71	120.30
35	BA	1114	G	C5-C6-O6	-5.17	125.50	128.60
35	BA	1948	G	N1-C2-N3	5.17	127.00	123.90
35	BA	2251	G	N7-C8-N9	-5.17	110.51	113.10
35	BA	2561	A	N1-C2-N3	-5.17	126.71	129.30
1	AA	200	G	N7-C8-N9	-5.17	110.52	113.10
1	AA	265	G	N3-C4-N9	-5.17	122.90	126.00
1	AA	1030(A)	G	N9-C4-C5	5.17	107.47	105.40
18	AR	87	ARG	NE-CZ-NH2	-5.17	117.72	120.30
35	BA	62	C	C5'-C4'-O4'	5.17	115.31	109.10
35	BA	1828	G	N3-C2-N2	-5.17	116.28	119.90
35	BA	1944	U	P-O3'-C3'	5.17	125.91	119.70
35	BA	2354	G	C5-C6-O6	5.17	131.70	128.60
36	BB	75	G	N1-C6-O6	5.17	123.00	119.90
40	BF	54	ARG	NE-CZ-NH2	5.17	122.89	120.30
1	AA	189(L)	G	C5-C6-O6	-5.17	125.50	128.60
1	AA	535	A	C4'-C3'-C2'	5.17	107.77	102.60
35	BA	208	C	N3-C4-C5	5.17	123.97	121.90
1	AA	203	U	N3-C4-O4	-5.17	115.78	119.40
1	AA	668	G	C5-N7-C8	5.17	106.88	104.30
1	AA	862	C	N3-C4-C5	5.17	123.97	121.90
1	AA	1331	G	N1-C2-N3	5.17	127.00	123.90
35	BA	87	C	C6-N1-C2	5.17	122.37	120.30
35	BA	179	G	C5-N7-C8	5.17	106.89	104.30
35	BA	426	C	C6-N1-C2	5.17	122.37	120.30
35	BA	979	G	N9-C4-C5	-5.17	103.33	105.40
35	BA	1106	G	C5-C6-N1	-5.17	108.92	111.50
35	BA	1706	U	C5'-C4'-O4'	-5.17	102.90	109.10
1	AA	31	G	C2-N3-C4	5.17	114.48	111.90
1	AA	143	A	C6-C5-N7	-5.17	128.68	132.30
1	AA	202	U	N3-C4-C5	5.17	117.70	114.60
1	AA	1156	G	N1-C2-N2	-5.17	111.55	116.20
35	BA	1262	A	N9-C4-C5	5.17	107.87	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1761	C	C4-C5-C6	-5.17	114.82	117.40
35	BA	2359	C	C6-N1-C2	5.17	122.37	120.30
1	AA	809	G	C3'-C2'-C1'	5.17	105.63	101.50
35	BA	342	G	O4'-C1'-N9	5.17	112.33	108.20
35	BA	503	A	C4-C5-N7	5.17	113.28	110.70
35	BA	801	G	C1'-O4'-C4'	-5.17	105.77	109.90
35	BA	1130	U	O4'-C1'-N1	5.17	112.33	108.20
35	BA	1264	G	N7-C8-N9	5.17	115.68	113.10
35	BA	1930	G	C2-N3-C4	5.17	114.48	111.90
35	BA	2684	U	C2-N3-C4	5.17	130.10	127.00
1	AA	1274	G	N3-C4-C5	-5.16	126.02	128.60
1	AA	1403	C	N3-C4-N4	5.16	121.61	118.00
35	BA	12	U	N3-C4-C5	-5.16	111.50	114.60
35	BA	674	G	C6-C5-N7	5.16	133.50	130.40
35	BA	681	G	C8-N9-C4	5.16	108.47	106.40
35	BA	1081	U	C2-N1-C1'	-5.16	111.50	117.70
35	BA	1266	G	C5-N7-C8	5.16	106.88	104.30
35	BA	1434	A	C5'-C4'-O4'	5.16	115.30	109.10
35	BA	1770	G	C5-C6-O6	5.16	131.70	128.60
35	BA	1786	A	N9-C4-C5	5.16	107.87	105.80
35	BA	2634	G	O4'-C1'-N9	5.16	112.33	108.20
55	BX	69	TYR	CB-CG-CD2	5.16	124.10	121.00
1	AA	592	G	C8-N9-C4	5.16	108.47	106.40
1	AA	784	C	C5-C4-N4	-5.16	116.59	120.20
1	AA	1080	A	C8-N9-C4	-5.16	103.73	105.80
1	AA	1355	G	C2-N3-C4	5.16	114.48	111.90
35	BA	1164	G	C2-N3-C4	5.16	114.48	111.90
35	BA	1374	G	C6-N1-C2	-5.16	122.00	125.10
35	BA	2599	G	C6-N1-C2	5.16	128.20	125.10
1	AA	197	A	N3-C4-C5	5.16	130.41	126.80
22	AV	54	U	C5-C6-N1	5.16	125.28	122.70
24	AY	673	PHE	CB-CG-CD2	-5.16	117.19	120.80
35	BA	713	G	O4'-C1'-N9	-5.16	104.07	108.20
35	BA	1383	C	O4'-C1'-N1	5.16	112.33	108.20
36	BB	109	C	C5-C6-N1	5.16	123.58	121.00
51	BT	87	ASP	CB-CG-OD1	-5.16	113.66	118.30
1	AA	775	G	C2'-C3'-O3'	5.16	121.95	113.70
1	AA	851	G	C5'-C4'-O4'	5.16	115.29	109.10
35	BA	428	A	C8-N9-C4	5.16	107.86	105.80
35	BA	460	A	C3'-C2'-C1'	5.16	105.63	101.50
35	BA	975(A)	G	C8-N9-C4	5.16	108.46	106.40
35	BA	1430	C	N1-C2-O2	-5.16	115.81	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1645	G	N1-C2-N2	-5.16	111.56	116.20
35	BA	1846	G	C5'-C4'-O4'	-5.16	102.91	109.10
35	BA	2067	G	C3'-C2'-C1'	5.16	105.63	101.50
35	BA	2261	C	C6-N1-C2	-5.16	118.24	120.30
36	BB	28	C	C6-N1-C2	-5.16	118.24	120.30
1	AA	1511	G	C4-C5-N7	-5.16	108.74	110.80
35	BA	1835	G	C4-C5-N7	-5.16	108.74	110.80
35	BA	2418	A	C8-N9-C4	5.16	107.86	105.80
35	BA	2439	A	C5'-C4'-O4'	5.16	115.29	109.10
36	BB	100	A	C4-C5-N7	-5.16	108.12	110.70
1	AA	243	A	C2-N3-C4	5.16	113.18	110.60
1	AA	1029	C	N3-C2-O2	-5.16	118.29	121.90
1	AA	1052	U	N3-C4-O4	5.16	123.01	119.40
1	AA	1361	G	N1-C2-N2	5.16	120.84	116.20
1	AA	1484	C	N3-C2-O2	5.16	125.51	121.90
35	BA	486	C	C5-C4-N4	5.16	123.81	120.20
35	BA	672	C	C5-C6-N1	-5.16	118.42	121.00
35	BA	1198	U	C5-C4-O4	-5.16	122.81	125.90
35	BA	1750	G	C2-N3-C4	-5.16	109.32	111.90
35	BA	2192	G	C5-C6-N1	-5.16	108.92	111.50
36	BB	88	C	C6-N1-C2	-5.16	118.24	120.30
51	BT	95	ARG	NE-CZ-NH2	-5.16	117.72	120.30
1	AA	1074	G	N3-C4-C5	-5.15	126.02	128.60
35	BA	836	G	N1-C6-O6	5.15	122.99	119.90
35	BA	2645	G	O4'-C1'-N9	5.15	112.32	108.20
35	BA	2840	C	N3-C2-O2	-5.15	118.29	121.90
36	BB	97	G	C1'-O4'-C4'	5.15	114.02	109.90
1	AA	33	A	C5-C6-N6	5.15	127.82	123.70
1	AA	253	U	N3-C2-O2	5.15	125.81	122.20
1	AA	550	G	C2-N3-C4	5.15	114.48	111.90
1	AA	728	A	N9-C1'-C2'	5.15	120.70	114.00
1	AA	779	C	C4-C5-C6	5.15	119.98	117.40
1	AA	1074	G	C5-C6-O6	-5.15	125.51	128.60
4	AD	194	LEU	CA-CB-CG	5.15	127.15	115.30
6	AF	87	ARG	NE-CZ-NH1	-5.15	117.72	120.30
35	BA	259	G	N3-C4-C5	-5.15	126.02	128.60
35	BA	386	G	C1'-O4'-C4'	-5.15	105.78	109.90
35	BA	495	G	C5'-C4'-O4'	-5.15	102.92	109.10
35	BA	654(R)	C	N3-C2-O2	-5.15	118.29	121.90
35	BA	1089	G	N3-C2-N2	-5.15	116.29	119.90
35	BA	1445	A	N9-C1'-C2'	5.15	120.70	114.00
35	BA	1533	G	O5'-P-OP1	-5.15	101.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1648	C	C2-N3-C4	5.15	122.48	119.90
35	BA	1835	G	C5'-C4'-C3'	-5.15	107.76	116.00
35	BA	1839	G	O5'-P-OP1	-5.15	101.06	105.70
1	AA	121	C	C5-C6-N1	5.15	123.58	121.00
1	AA	710	G	C8-N9-C4	-5.15	104.34	106.40
1	AA	1195	C	N1-C2-O2	5.15	121.99	118.90
35	BA	231	C	N3-C2-O2	-5.15	118.29	121.90
35	BA	356	G	N1-C2-N3	5.15	126.99	123.90
35	BA	1400	G	C5-N7-C8	5.15	106.88	104.30
35	BA	1835	G	C5-C6-N1	-5.15	108.92	111.50
40	BF	99	TYR	CB-CG-CD1	-5.15	117.91	121.00
1	AA	113	G	N9-C4-C5	5.15	107.46	105.40
35	BA	585	G	N1-C2-N2	5.15	120.83	116.20
35	BA	1517	G	N7-C8-N9	5.15	115.67	113.10
1	AA	161	A	C5-C6-N1	-5.15	115.13	117.70
1	AA	246	A	N3-C4-C5	-5.15	123.20	126.80
1	AA	896	C	C3'-C2'-C1'	-5.15	97.38	101.50
1	AA	939	G	C4-C5-N7	5.15	112.86	110.80
5	AE	18	ARG	NE-CZ-NH1	5.15	122.87	120.30
35	BA	271(A)	A	N1-C2-N3	5.15	131.87	129.30
35	BA	271(Q)	G	C5'-C4'-O4'	5.15	115.28	109.10
35	BA	1566	A	N7-C8-N9	5.15	116.37	113.80
35	BA	2772	C	C4'-C3'-C2'	5.15	107.75	102.60
1	AA	302	G	N1-C2-N3	5.15	126.99	123.90
1	AA	876	G	C6-C5-N7	-5.15	127.31	130.40
16	AP	38	TYR	CD1-CE1-CZ	5.15	124.43	119.80
35	BA	139(A)	G	C1'-O4'-C4'	-5.15	105.78	109.90
35	BA	441	U	C2-N3-C4	5.15	130.09	127.00
1	AA	407	G	C5-C6-O6	-5.14	125.51	128.60
1	AA	835	U	N3-C2-O2	-5.14	118.60	122.20
1	AA	924	C	C5-C6-N1	-5.14	118.43	121.00
1	AA	1214	C	C5-C4-N4	-5.14	116.60	120.20
1	AA	1335	C	C4-C5-C6	5.14	119.97	117.40
1	AA	1359	C	C5-C4-N4	-5.14	116.60	120.20
5	AE	37	ARG	NE-CZ-NH1	-5.14	117.73	120.30
35	BA	251	A	N9-C4-C5	5.14	107.86	105.80
35	BA	1180	C	C4-C5-C6	5.14	119.97	117.40
36	BB	1	U	C3'-C2'-C1'	5.14	105.62	101.50
1	AA	722	A	C6-N1-C2	-5.14	115.51	118.60
1	AA	1046	A	O4'-C1'-C2'	5.14	112.23	107.60
16	AP	72	ARG	NE-CZ-NH2	-5.14	117.73	120.30
22	AV	56	C	C6-N1-C2	-5.14	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1116	C	C4-C5-C6	-5.14	114.83	117.40
35	BA	1911	U	C2-N3-C4	-5.14	123.91	127.00
35	BA	2207	G	C6-C5-N7	-5.14	127.31	130.40
35	BA	2463	C	N1-C2-O2	5.14	121.99	118.90
35	BA	2550	G	O4'-C1'-N9	5.14	112.31	108.20
1	AA	1197	G	O5'-P-OP2	-5.14	101.07	105.70
1	AA	1439	C	C6-N1-C1'	-5.14	114.63	120.80
35	BA	2345	G	C5-C6-O6	-5.14	125.52	128.60
35	BA	2696	U	C2-N3-C4	-5.14	123.92	127.00
35	BA	2845	G	N1-C2-N2	-5.14	111.57	116.20
35	BA	2872	G	O4'-C1'-N9	-5.14	104.09	108.20
1	AA	189(B)	C	C5-C6-N1	-5.14	118.43	121.00
1	AA	289	G	C5-N7-C8	5.14	106.87	104.30
1	AA	432	A	C8-N9-C4	5.14	107.86	105.80
1	AA	1049	U	N3-C4-C5	5.14	117.68	114.60
35	BA	654(A)	G	O4'-C1'-N9	-5.14	104.09	108.20
35	BA	1758	G	C5-C6-N1	-5.14	108.93	111.50
35	BA	1831	G	C5-N7-C8	-5.14	101.73	104.30
35	BA	2777	G	C3'-C2'-C1'	5.14	105.61	101.50
1	AA	453	A	C8-N9-C4	5.14	107.86	105.80
1	AA	547	A	C8-N9-C4	5.14	107.86	105.80
1	AA	1009	G	N9-C4-C5	5.14	107.45	105.40
13	AM	99	ARG	NE-CZ-NH2	-5.14	117.73	120.30
35	BA	599	G	N7-C8-N9	5.14	115.67	113.10
35	BA	963	U	N1-C2-O2	5.14	126.40	122.80
35	BA	1101	U	C5-C6-N1	-5.14	120.13	122.70
35	BA	2549	G	O4'-C1'-N9	-5.14	104.09	108.20
1	AA	109	A	N1-C6-N6	-5.14	115.52	118.60
1	AA	248	C	N1-C2-O2	5.14	121.98	118.90
35	BA	110	G	N3-C2-N2	-5.14	116.30	119.90
35	BA	332	A	N7-C8-N9	-5.14	111.23	113.80
35	BA	517	C	C1'-O4'-C4'	-5.14	105.79	109.90
35	BA	1385	G	C5-C6-O6	-5.14	125.52	128.60
35	BA	1412	A	C2-N3-C4	-5.14	108.03	110.60
35	BA	1994	C	C6-N1-C2	5.14	122.35	120.30
35	BA	2428	G	N3-C4-C5	-5.14	126.03	128.60
1	AA	729	A	N1-C2-N3	-5.13	126.73	129.30
35	BA	182	A	C6-N1-C2	5.13	121.68	118.60
35	BA	621	A	C3'-C2'-C1'	5.13	105.61	101.50
35	BA	1707	G	C6-N1-C2	5.13	128.18	125.10
35	BA	1801	G	C6-C5-N7	-5.13	127.32	130.40
35	BA	2278	A	C8-N9-C4	5.13	107.85	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	164	U	N1-C2-O2	5.13	126.39	122.80
35	BA	1005	C	C6-N1-C2	-5.13	118.25	120.30
35	BA	1259	G	N7-C8-N9	5.13	115.67	113.10
35	BA	2381	C	C5-C6-N1	-5.13	118.43	121.00
35	BA	2831	G	N9-C4-C5	-5.13	103.35	105.40
1	AA	161	A	N7-C8-N9	-5.13	111.23	113.80
1	AA	451	A	C1'-O4'-C4'	5.13	114.00	109.90
1	AA	1524	C	C5'-C4'-C3'	-5.13	107.79	116.00
22	AV	14	A	N1-C2-N3	-5.13	126.73	129.30
35	BA	407	G	C6-C5-N7	-5.13	127.32	130.40
35	BA	860	U	O4'-C4'-C3'	5.13	110.20	106.10
35	BA	875	G	N9-C4-C5	5.13	107.45	105.40
35	BA	1114	G	C4-C5-N7	5.13	112.85	110.80
35	BA	1682	G	N7-C8-N9	-5.13	110.53	113.10
35	BA	1794	U	C4-C5-C6	5.13	122.78	119.70
35	BA	2198	A	C4-C5-C6	-5.13	114.44	117.00
35	BA	2226	C	C6-N1-C2	-5.13	118.25	120.30
35	BA	2343	C	N1-C1'-C2'	5.13	120.67	114.00
35	BA	2671	A	N9-C1'-C2'	-5.13	106.36	112.00
39	BE	200	GLU	OE1-CD-OE2	-5.13	117.14	123.30
1	AA	1423	G	C5-C6-N1	-5.13	108.94	111.50
35	BA	371	A	C5-C6-N6	-5.13	119.60	123.70
35	BA	1488	G	C5-C6-O6	-5.13	125.52	128.60
35	BA	2314	C	N1-C1'-C2'	-5.13	106.36	112.00
35	BA	2597	G	C4-C5-N7	-5.13	108.75	110.80
1	AA	476	G	N1-C6-O6	5.13	122.98	119.90
1	AA	760	G	C6-C5-N7	5.13	133.48	130.40
1	AA	1072	G	C6-N1-C2	-5.13	122.02	125.10
1	AA	1513	A	N9-C4-C5	5.13	107.85	105.80
35	BA	351	G	N9-C1'-C2'	5.13	120.67	114.00
35	BA	674	G	N9-C1'-C2'	-5.13	106.36	112.00
35	BA	701	G	C4-C5-N7	-5.13	108.75	110.80
35	BA	1409	C	C6-N1-C2	-5.13	118.25	120.30
35	BA	1436	G	N3-C2-N2	-5.13	116.31	119.90
35	BA	1964	G	C5-N7-C8	5.13	106.86	104.30
35	BA	2470	G	C1'-O4'-C4'	-5.13	105.80	109.90
35	BA	2781	A	C2-N3-C4	-5.13	108.04	110.60
36	BB	88	C	C5-C4-N4	-5.13	116.61	120.20
1	AA	41	G	C8-N9-C4	5.13	108.45	106.40
1	AA	193	C	N3-C2-O2	5.13	125.49	121.90
1	AA	591	U	C4'-C3'-C2'	5.13	107.73	102.60
1	AA	1197	G	C5'-C4'-O4'	5.13	115.25	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AC	10	PHE	CG-CD2-CE2	-5.13	115.16	120.80
35	BA	262	A	C4-C5-C6	5.13	119.56	117.00
35	BA	1333	C	C1'-O4'-C4'	-5.13	105.80	109.90
35	BA	2078	C	P-O3'-C3'	5.13	125.85	119.70
35	BA	2309	A	C5-C6-N1	5.13	120.26	117.70
35	BA	2340	G	C5-C6-N1	-5.13	108.94	111.50
36	BB	82	G	N7-C8-N9	5.13	115.66	113.10
22	AV	27	U	C6-N1-C2	-5.12	117.92	121.00
35	BA	241	A	C6-C5-N7	-5.12	128.71	132.30
1	AA	47	C	C2-N3-C4	-5.12	117.34	119.90
1	AA	83	U	N1-C2-N3	-5.12	111.83	114.90
1	AA	290	C	N3-C4-C5	-5.12	119.85	121.90
1	AA	490	G	C5-C6-N1	-5.12	108.94	111.50
1	AA	1144	G	O5'-P-OP1	-5.12	101.09	105.70
1	AA	1388	C	C5-C4-N4	-5.12	116.61	120.20
1	AA	1402	C	C5-C6-N1	-5.12	118.44	121.00
27	B2	68	ARG	NE-CZ-NH1	5.12	122.86	120.30
35	BA	117	G	N3-C4-N9	-5.12	122.92	126.00
35	BA	370	G	C2-N3-C4	5.12	114.46	111.90
35	BA	1087	G	C1'-O4'-C4'	-5.12	105.80	109.90
35	BA	1098	A	N1-C2-N3	-5.12	126.74	129.30
35	BA	1350	C	C2-N3-C4	5.12	122.46	119.90
35	BA	1506	C	O4'-C1'-N1	-5.12	104.10	108.20
35	BA	1571	A	C8-N9-C4	-5.12	103.75	105.80
35	BA	1681	G	O4'-C1'-N9	5.12	112.30	108.20
35	BA	1921	G	C8-N9-C4	5.12	108.45	106.40
35	BA	2227	A	C4-C5-C6	-5.12	114.44	117.00
35	BA	2502	G	C5-C6-O6	5.12	131.67	128.60
36	BB	82	G	C8-N9-C4	-5.12	104.35	106.40
49	BR	12	ARG	NE-CZ-NH2	5.12	122.86	120.30
1	AA	454	C	N3-C4-C5	-5.12	119.85	121.90
1	AA	653	A	C2-N3-C4	-5.12	108.04	110.60
1	AA	1526	G	P-O5'-C5'	-5.12	112.70	120.90
22	AV	12	G	N1-C2-N2	-5.12	111.59	116.20
22	AV	70	G	C5-C6-N1	5.12	114.06	111.50
23	AX	20	U	C3'-C2'-C1'	5.12	105.60	101.50
35	BA	271(Z)	C	C5-C6-N1	5.12	123.56	121.00
35	BA	316	C	C4-C5-C6	5.12	119.96	117.40
35	BA	1341	U	N1-C2-O2	5.12	126.39	122.80
35	BA	1800	C	N1-C2-N3	-5.12	115.61	119.20
35	BA	2368	C	C4-C5-C6	-5.12	114.84	117.40
35	BA	2811	G	O4'-C1'-N9	5.12	112.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	147	G	N1-C2-N2	5.12	120.81	116.20
1	AA	299	G	C4-C5-N7	-5.12	108.75	110.80
1	AA	755	G	C6-C5-N7	-5.12	127.33	130.40
35	BA	252	G	N9-C4-C5	5.12	107.45	105.40
35	BA	265	A	C8-N9-C4	-5.12	103.75	105.80
35	BA	654(A)	G	C2-N3-C4	5.12	114.46	111.90
35	BA	1243	G	N1-C2-N3	-5.12	120.83	123.90
35	BA	1344	G	N7-C8-N9	-5.12	110.54	113.10
1	AA	765	G	N1-C2-N3	5.12	126.97	123.90
1	AA	1015	A	O4'-C1'-C2'	5.12	112.21	107.60
1	AA	1327	C	C1'-O4'-C4'	-5.12	105.81	109.90
35	BA	26	G	N7-C8-N9	-5.12	110.54	113.10
35	BA	1198	U	N3-C4-C5	5.12	117.67	114.60
35	BA	1880	C	N3-C4-C5	5.12	123.95	121.90
35	BA	1959	G	C5'-C4'-C3'	-5.12	107.81	116.00
35	BA	2000	G	N3-C4-C5	5.12	131.16	128.60
1	AA	233	C	O4'-C1'-N1	5.12	112.29	108.20
1	AA	259	G	C2-N3-C4	5.12	114.46	111.90
1	AA	1253	G	N9-C1'-C2'	5.12	120.65	114.00
1	AA	1358	U	O4'-C1'-N1	5.12	112.29	108.20
26	B1	11	ARG	NE-CZ-NH1	-5.12	117.74	120.30
35	BA	1778	U	C5'-C4'-O4'	-5.12	102.96	109.10
47	BP	60	MET	CA-CB-CG	5.12	122.00	113.30
1	AA	35	G	C5-N7-C8	5.12	106.86	104.30
1	AA	327	A	C5-N7-C8	-5.12	101.34	103.90
1	AA	435	C	C5'-C4'-C3'	-5.12	107.81	116.00
1	AA	881	G	C5'-C4'-O4'	5.12	115.24	109.10
1	AA	937	A	C4-C5-N7	5.12	113.26	110.70
4	AD	115	ARG	NE-CZ-NH1	-5.12	117.74	120.30
14	AN	12	ARG	NE-CZ-NH1	-5.12	117.74	120.30
35	BA	132	G	C5'-C4'-O4'	-5.12	102.96	109.10
35	BA	654(U)	A	N9-C4-C5	5.12	107.85	105.80
35	BA	1610	A	C2-N3-C4	5.12	113.16	110.60
1	AA	446	G	N1-C2-N2	-5.11	111.60	116.20
1	AA	799	G	C4-C5-N7	5.11	112.85	110.80
1	AA	966	G	C3'-C2'-C1'	-5.11	97.41	101.50
3	AC	11	ARG	NE-CZ-NH1	5.11	122.86	120.30
35	BA	317	G	C5-C6-O6	-5.11	125.53	128.60
35	BA	863	A	C6-N1-C2	5.11	121.67	118.60
35	BA	1070	A	C5-N7-C8	-5.11	101.34	103.90
35	BA	1247	A	C5'-C4'-O4'	-5.11	102.96	109.10
35	BA	2075	U	N3-C4-C5	5.11	117.67	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2170	A	O4'-C4'-C3'	5.11	110.19	106.10
1	AA	1519	A	C6-N1-C2	-5.11	115.53	118.60
35	BA	1047	G	C5'-C4'-C3'	-5.11	107.82	116.00
35	BA	1939	U	C5-C6-N1	5.11	125.26	122.70
35	BA	2454	G	C8-N9-C4	5.11	108.44	106.40
1	AA	159	G	N7-C8-N9	-5.11	110.55	113.10
1	AA	521	G	C5-C6-O6	5.11	131.67	128.60
1	AA	872	A	N7-C8-N9	-5.11	111.25	113.80
1	AA	904	C	O5'-P-OP1	5.11	116.83	110.70
1	AA	1192	C	C6-N1-C2	-5.11	118.26	120.30
35	BA	95	G	N7-C8-N9	5.11	115.66	113.10
35	BA	271(X)	G	N1-C6-O6	-5.11	116.83	119.90
35	BA	573	G	C8-N9-C4	-5.11	104.36	106.40
35	BA	1205	U	C6-N1-C2	-5.11	117.93	121.00
35	BA	1451	C	C5-C6-N1	-5.11	118.44	121.00
35	BA	1515	G	C6-C5-N7	5.11	133.47	130.40
35	BA	2530	A	C6-N1-C2	5.11	121.67	118.60
35	BA	2569	G	C4-C5-N7	5.11	112.84	110.80
52	BU	11	ARG	NE-CZ-NH2	-5.11	117.74	120.30
1	AA	506	G	C6-N1-C2	5.11	128.16	125.10
1	AA	556	C	C5-C6-N1	-5.11	118.44	121.00
1	AA	821	G	C4'-C3'-C2'	-5.11	97.49	102.60
35	BA	569	U	O4'-C1'-N1	-5.11	104.11	108.20
35	BA	618	C	C4-C5-C6	-5.11	114.84	117.40
35	BA	2454	G	O4'-C1'-N9	5.11	112.29	108.20
1	AA	1430	C	OP2-P-O3'	5.11	116.44	105.20
35	BA	290	G	C5-C6-N1	5.11	114.05	111.50
35	BA	654(C)	G	C5-C6-N1	-5.11	108.95	111.50
35	BA	968	G	C2-N3-C4	-5.11	109.35	111.90
35	BA	1673	U	C2-N3-C4	-5.11	123.94	127.00
35	BA	1780	A	C5-C6-N6	5.11	127.79	123.70
35	BA	2135	A	C5'-C4'-O4'	5.11	115.23	109.10
35	BA	2191	G	O5'-C5'-C4'	-5.11	102.00	111.70
35	BA	2228	G	C8-N9-C4	-5.11	104.36	106.40
35	BA	2360	A	O4'-C1'-N9	-5.11	104.11	108.20
35	BA	2406	U	N3-C4-O4	-5.11	115.83	119.40
1	AA	1401	G	C4'-C3'-C2'	-5.11	97.50	102.60
1	AA	1484	C	C5-C4-N4	5.11	123.77	120.20
35	BA	423	A	C6-N1-C2	-5.11	115.54	118.60
35	BA	711	G	C6-C5-N7	-5.11	127.34	130.40
35	BA	759	G	N3-C4-C5	5.11	131.15	128.60
35	BA	1202	C	N3-C4-N4	-5.11	114.43	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1396	U	N3-C2-O2	-5.11	118.63	122.20
35	BA	1477	A	C2-N3-C4	5.11	113.15	110.60
35	BA	1803	A	C8-N9-C4	-5.11	103.76	105.80
35	BA	1816	G	O4'-C1'-N9	-5.11	104.11	108.20
36	BB	30	C	C5-C4-N4	5.11	123.77	120.20
1	AA	251	G	N9-C4-C5	5.10	107.44	105.40
1	AA	805	C	C2-N3-C4	5.10	122.45	119.90
1	AA	1217	C	C4-C5-C6	-5.10	114.85	117.40
1	AA	1349	A	N9-C4-C5	-5.10	103.76	105.80
35	BA	1447	G	N1-C6-O6	5.10	122.96	119.90
35	BA	1998	G	N3-C2-N2	-5.10	116.33	119.90
1	AA	189(K)	U	C5-C6-N1	-5.10	120.15	122.70
1	AA	452	A	C8-N9-C4	5.10	107.84	105.80
1	AA	490	G	N1-C6-O6	5.10	122.96	119.90
1	AA	706	A	C5-C6-N6	5.10	127.78	123.70
1	AA	740	U	C5-C4-O4	5.10	128.96	125.90
1	AA	1036	G	C5'-C4'-O4'	5.10	115.22	109.10
1	AA	1056	U	C5-C4-O4	-5.10	122.84	125.90
1	AA	1104	G	C5-C6-N1	5.10	114.05	111.50
35	BA	279	C	C4-C5-C6	5.10	119.95	117.40
35	BA	1039	G	N3-C4-N9	5.10	129.06	126.00
35	BA	1263	U	C5-C4-O4	5.10	128.96	125.90
35	BA	1514	U	C6-N1-C2	5.10	124.06	121.00
35	BA	1773	A	N9-C1'-C2'	-5.10	106.39	112.00
35	BA	1973	G	N3-C2-N2	-5.10	116.33	119.90
35	BA	2035	G	C8-N9-C4	5.10	108.44	106.40
35	BA	84	A	C5-C6-N1	5.10	120.25	117.70
35	BA	232	G	C8-N9-C1'	-5.10	120.37	127.00
35	BA	1780	A	C5-N7-C8	5.10	106.45	103.90
36	BB	44	G	C5-N7-C8	5.10	106.85	104.30
1	AA	372	C	C3'-C2'-C1'	-5.10	97.42	101.50
1	AA	1045	C	OP2-P-O3'	5.10	116.42	105.20
1	AA	1171	G	C5-N7-C8	-5.10	101.75	104.30
1	AA	1217	C	C5-C6-N1	5.10	123.55	121.00
33	B8	55	ALA	CB-CA-C	5.10	117.75	110.10
35	BA	382	G	C5-C6-O6	-5.10	125.54	128.60
35	BA	489	G	N3-C2-N2	-5.10	116.33	119.90
35	BA	928	G	O4'-C1'-N9	5.10	112.28	108.20
35	BA	1069	A	C4-C5-N7	-5.10	108.15	110.70
35	BA	1770	G	N1-C2-N3	5.10	126.96	123.90
35	BA	2054	A	C6-N1-C2	5.10	121.66	118.60
35	BA	2237	G	N9-C4-C5	5.10	107.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2405	G	N9-C1'-C2'	5.10	120.63	114.00
35	BA	2473	U	OP2-P-O3'	5.10	116.42	105.20
35	BA	2526	G	N9-C4-C5	5.10	107.44	105.40
35	BA	2642	G	N3-C4-C5	5.10	131.15	128.60
1	AA	479	C	N1-C1'-C2'	5.10	120.63	114.00
1	AA	622	A	C2-N3-C4	5.10	113.15	110.60
1	AA	717	C	O4'-C1'-N1	-5.10	104.12	108.20
1	AA	957	U	C2-N3-C4	5.10	130.06	127.00
1	AA	986	A	N9-C4-C5	-5.10	103.76	105.80
1	AA	1141	C	N3-C2-O2	5.10	125.47	121.90
1	AA	1165	C	C2-N3-C4	-5.10	117.35	119.90
22	AV	24	U	N1-C2-O2	-5.10	119.23	122.80
31	B6	50	ARG	NE-CZ-NH2	-5.10	117.75	120.30
35	BA	1100	C	C4-C5-C6	5.10	119.95	117.40
35	BA	1128	A	N9-C4-C5	5.10	107.84	105.80
35	BA	2590	A	C8-N9-C4	-5.10	103.76	105.80
1	AA	266	G	C6-C5-N7	-5.10	127.34	130.40
35	BA	323	G	N7-C8-N9	5.10	115.65	113.10
35	BA	409	C	C1'-O4'-C4'	-5.10	105.82	109.90
35	BA	1025	G	C5-C6-N1	-5.10	108.95	111.50
35	BA	1119	C	O4'-C1'-N1	5.10	112.28	108.20
35	BA	2786	U	C6-N1-C2	-5.10	117.94	121.00
1	AA	812	C	C2-N3-C4	5.09	122.45	119.90
1	AA	903	G	C2-N3-C4	-5.09	109.35	111.90
1	AA	1363(A)	A	OP1-P-OP2	5.09	127.24	119.60
1	AA	1526	G	C5-C6-N1	-5.09	108.95	111.50
13	AM	64	TRP	CE3-CZ3-CH2	5.09	126.80	121.20
35	BA	1059	G	N3-C4-N9	5.09	129.06	126.00
35	BA	1156	A	C6-N1-C2	5.09	121.66	118.60
35	BA	1263	U	C4-C5-C6	5.09	122.76	119.70
35	BA	1531	C	C3'-C2'-C1'	-5.09	97.42	101.50
35	BA	1541	G	C5-N7-C8	5.09	106.85	104.30
35	BA	1598	C	O4'-C4'-C3'	5.09	110.18	106.10
35	BA	1796	U	OP1-P-OP2	-5.09	111.96	119.60
35	BA	1862	G	N1-C2-N3	-5.09	120.84	123.90
35	BA	2141	G	N7-C8-N9	-5.09	110.55	113.10
35	BA	2795	G	C5-C6-N1	-5.09	108.95	111.50
35	BA	2851	A	C5-C6-N1	-5.09	115.15	117.70
36	BB	87	G	N3-C2-N2	-5.09	116.33	119.90
47	BP	59	LEU	CA-CB-CG	5.09	127.02	115.30
1	AA	279	A	N9-C1'-C2'	-5.09	106.40	112.00
1	AA	617	G	C5-C6-N1	-5.09	108.95	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	953	G	O4'-C1'-N9	-5.09	104.13	108.20
35	BA	1117	G	N9-C4-C5	5.09	107.44	105.40
35	BA	1262	A	N1-C6-N6	5.09	121.66	118.60
1	AA	333	G	C2-N3-C4	-5.09	109.35	111.90
1	AA	961	U	C4-C5-C6	5.09	122.75	119.70
1	AA	1029	C	C6-N1-C2	-5.09	118.26	120.30
1	AA	1034	G	C4-C5-N7	5.09	112.84	110.80
23	AX	20	U	C5-C6-N1	5.09	125.25	122.70
35	BA	1098	A	C8-N9-C4	5.09	107.84	105.80
35	BA	1295	C	C5-C4-N4	5.09	123.76	120.20
35	BA	1424	G	C4-C5-N7	5.09	112.84	110.80
35	BA	2101	G	C6-N1-C2	-5.09	122.05	125.10
35	BA	2543	G	N3-C4-N9	-5.09	122.94	126.00
36	BB	17	C	N1-C2-O2	5.09	121.95	118.90
1	AA	416	G	C5-C6-N1	-5.09	108.96	111.50
1	AA	455	C	O4'-C1'-N1	-5.09	104.13	108.20
7	AG	3	ARG	NE-CZ-NH2	-5.09	117.75	120.30
22	AV	62	C	N3-C4-C5	-5.09	119.86	121.90
35	BA	152	G	C5-N7-C8	5.09	106.84	104.30
35	BA	253	C	C4-C5-C6	-5.09	114.86	117.40
35	BA	483	A	N1-C6-N6	5.09	121.65	118.60
35	BA	768	G	C6-C5-N7	5.09	133.45	130.40
35	BA	1515	G	C6-N1-C2	-5.09	122.05	125.10
35	BA	2147	G	P-O3'-C3'	-5.09	113.59	119.70
35	BA	2659	G	C4-C5-N7	-5.09	108.76	110.80
35	BA	2704	C	C4-C5-C6	-5.09	114.86	117.40
1	AA	69	G	N7-C8-N9	-5.09	110.56	113.10
1	AA	164	U	C4-C5-C6	5.09	122.75	119.70
1	AA	261	U	N3-C4-O4	-5.09	115.84	119.40
1	AA	542	G	N1-C2-N2	-5.09	111.62	116.20
35	BA	2118	U	C3'-C2'-C1'	-5.09	97.43	101.50
35	BA	2720	U	N1-C2-O2	-5.09	119.24	122.80
35	BA	2779	U	N1-C2-O2	5.09	126.36	122.80
1	AA	304	U	C5'-C4'-O4'	5.09	115.20	109.10
1	AA	441	A	C8-N9-C4	5.09	107.83	105.80
35	BA	51	G	C6-C5-N7	-5.09	127.35	130.40
35	BA	486	C	N1-C2-O2	-5.09	115.85	118.90
35	BA	758	C	N3-C4-N4	5.09	121.56	118.00
35	BA	1826	G	C4-C5-N7	5.09	112.83	110.80
35	BA	1969	A	N3-C4-N9	5.09	131.47	127.40
36	BB	75	G	N1-C2-N3	5.09	126.95	123.90
1	AA	1355	G	C3'-C2'-C1'	5.08	105.57	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1505	G	N9-C1'-C2'	5.08	120.61	114.00
35	BA	1574	C	C4-C5-C6	5.08	119.94	117.40
35	BA	2253	G	N3-C4-C5	-5.08	126.06	128.60
35	BA	2256	G	N7-C8-N9	5.08	115.64	113.10
35	BA	2627	G	C5-C6-O6	5.08	131.65	128.60
1	AA	499	A	N1-C2-N3	-5.08	126.76	129.30
1	AA	707	C	C5-C6-N1	5.08	123.54	121.00
1	AA	1059	C	N1-C2-O2	5.08	121.95	118.90
1	AA	1286	A	C5-N7-C8	-5.08	101.36	103.90
8	AH	13	ILE	O-C-N	5.08	130.83	122.70
35	BA	31	C	N1-C2-N3	5.08	122.76	119.20
35	BA	116	C	C3'-C2'-C1'	-5.08	97.43	101.50
35	BA	642	G	N7-C8-N9	5.08	115.64	113.10
35	BA	1275	A	C6-C5-N7	-5.08	128.74	132.30
35	BA	1747(A)	G	N1-C2-N3	-5.08	120.85	123.90
35	BA	1831	G	C5-C6-O6	-5.08	125.55	128.60
35	BA	2311	A	O4'-C1'-N9	5.08	112.27	108.20
35	BA	2341	G	C1'-O4'-C4'	5.08	113.97	109.90
1	AA	143	A	N3-C4-C5	-5.08	123.24	126.80
1	AA	189(I)	G	C6-N1-C2	-5.08	122.05	125.10
1	AA	905	U	N1-C2-O2	-5.08	119.24	122.80
1	AA	1349	A	OP1-P-O3'	5.08	116.38	105.20
35	BA	720	C	O4'-C1'-C2'	5.08	112.17	107.60
35	BA	1003	G	C8-N9-C4	-5.08	104.37	106.40
35	BA	1249	U	O4'-C1'-N1	5.08	112.27	108.20
35	BA	1471	A	N1-C6-N6	5.08	121.65	118.60
35	BA	2133	G	N9-C1'-C2'	5.08	120.61	114.00
35	BA	2303	G	C4-C5-N7	-5.08	108.77	110.80
35	BA	2548	G	C4-C5-N7	5.08	112.83	110.80
35	BA	2722	G	C1'-O4'-C4'	5.08	113.97	109.90
35	BA	2751	G	N1-C6-O6	-5.08	116.85	119.90
36	BB	4	C	O5'-C5'-C4'	-5.08	102.05	111.70
36	BB	104	U	N3-C2-O2	-5.08	118.64	122.20
1	AA	375	U	N1-C2-N3	-5.08	111.85	114.90
1	AA	502	G	C8-N9-C4	-5.08	104.37	106.40
1	AA	1178	G	N3-C4-C5	-5.08	126.06	128.60
3	AC	59	ARG	NE-CZ-NH2	5.08	122.84	120.30
35	BA	400	G	C4-C5-N7	5.08	112.83	110.80
35	BA	404	C	N1-C2-O2	5.08	121.95	118.90
35	BA	798	G	C5'-C4'-C3'	5.08	124.13	116.00
35	BA	1145	C	C5-C6-N1	-5.08	118.46	121.00
35	BA	1184	G	C5-C6-N1	-5.08	108.96	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	615	C	C4-C5-C6	5.08	119.94	117.40
1	AA	711	G	C6-N1-C2	5.08	128.15	125.10
1	AA	1465	C	N3-C4-C5	5.08	123.93	121.90
35	BA	182	A	C8-N9-C4	5.08	107.83	105.80
35	BA	201	C	C5-C4-N4	-5.08	116.64	120.20
35	BA	271(H)	G	C5-N7-C8	5.08	106.84	104.30
35	BA	357	A	C6-N1-C2	5.08	121.65	118.60
35	BA	654(U)	A	C5-C6-N1	-5.08	115.16	117.70
35	BA	1158	C	N3-C2-O2	5.08	125.45	121.90
35	BA	1684	C	C3'-C2'-C1'	-5.08	97.44	101.50
35	BA	2419	U	N1-C2-O2	-5.08	119.25	122.80
35	BA	2505	G	N9-C4-C5	-5.08	103.37	105.40
35	BA	2709	G	N9-C4-C5	-5.08	103.37	105.40
1	AA	595	G	C6-C5-N7	-5.08	127.35	130.40
1	AA	785	G	C2'-C3'-O3'	5.08	121.82	113.70
1	AA	888	G	N1-C6-O6	5.08	122.95	119.90
1	AA	1239	A	N1-C2-N3	-5.08	126.76	129.30
35	BA	67	U	O4'-C1'-C2'	5.08	112.17	107.60
35	BA	1088	A	C5-N7-C8	5.08	106.44	103.90
35	BA	1912	A	C5'-C4'-O4'	-5.08	103.01	109.10
35	BA	2485	G	O5'-P-OP1	-5.08	101.13	105.70
1	AA	68	G	N1-C6-O6	-5.08	116.86	119.90
1	AA	190	U	O4'-C4'-C3'	-5.08	98.92	104.00
1	AA	283	C	N3-C2-O2	-5.08	118.35	121.90
1	AA	564	C	N3-C4-N4	-5.08	114.45	118.00
1	AA	784	C	C5-C6-N1	-5.08	118.46	121.00
29	B4	25	TYR	CB-CG-CD1	5.08	124.05	121.00
35	BA	467	G	N3-C4-C5	-5.08	126.06	128.60
35	BA	489	G	C1'-O4'-C4'	5.08	113.96	109.90
35	BA	580	C	N3-C2-O2	5.08	125.45	121.90
35	BA	849	A	N9-C4-C5	5.08	107.83	105.80
35	BA	1316	U	N1-C2-O2	5.08	126.35	122.80
35	BA	1827	C	N1-C2-O2	-5.08	115.86	118.90
35	BA	1904	G	C5'-C4'-C3'	-5.08	107.88	116.00
35	BA	1930	G	N3-C2-N2	5.08	123.45	119.90
35	BA	2516	G	C4-C5-C6	-5.08	115.75	118.80
35	BA	2694	G	C1'-O4'-C4'	-5.08	105.84	109.90
36	BB	62	C	C6-N1-C2	5.08	122.33	120.30
1	AA	1166	G	C3'-C2'-C1'	-5.07	97.44	101.50
35	BA	204	A	N9-C4-C5	-5.07	103.77	105.80
35	BA	663	G	C4-C5-N7	5.07	112.83	110.80
35	BA	676	A	C5'-C4'-C3'	-5.07	107.88	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	722	A	C5'-C4'-C3'	-5.07	107.88	116.00
35	BA	1287	A	N1-C2-N3	-5.07	126.76	129.30
35	BA	1847	A	C5-C6-N1	-5.07	115.16	117.70
35	BA	1865	G	C8-N9-C4	5.07	108.43	106.40
35	BA	2616	C	C1'-O4'-C4'	-5.07	105.84	109.90
35	BA	2895	U	N3-C2-O2	-5.07	118.65	122.20
1	AA	352	C	C1'-O4'-C4'	-5.07	105.84	109.90
1	AA	452	A	N9-C1'-C2'	5.07	120.59	114.00
1	AA	461	A	P-O3'-C3'	5.07	125.79	119.70
1	AA	618	C	O4'-C1'-N1	5.07	112.26	108.20
1	AA	1444	C	C4-C5-C6	5.07	119.94	117.40
35	BA	1177	A	C4-C5-N7	5.07	113.24	110.70
35	BA	1382	G	N1-C2-N3	5.07	126.94	123.90
35	BA	1447	G	C5-C6-O6	-5.07	125.56	128.60
35	BA	2520	C	N3-C4-N4	5.07	121.55	118.00
35	BA	2570	G	C4-C5-C6	5.07	121.84	118.80
35	BA	341	G	C4-C5-C6	5.07	121.84	118.80
35	BA	654(J)	A	C6-N1-C2	-5.07	115.56	118.60
35	BA	926	A	C2-N3-C4	5.07	113.14	110.60
35	BA	955	C	C2-N3-C4	5.07	122.44	119.90
1	AA	996	A	C1'-O4'-C4'	-5.07	105.84	109.90
1	AA	1531	A	N1-C2-N3	5.07	131.83	129.30
35	BA	41	C	N1-C2-O2	5.07	121.94	118.90
35	BA	590	A	C5'-C4'-O4'	5.07	115.18	109.10
35	BA	2039	C	O4'-C1'-N1	5.07	112.25	108.20
1	AA	852	G	N7-C8-N9	5.07	115.63	113.10
35	BA	871	U	C4-C5-C6	5.07	122.74	119.70
35	BA	911	A	C8-N9-C4	-5.07	103.77	105.80
35	BA	1523	U	O4'-C4'-C3'	-5.07	98.93	104.00
35	BA	2897	U	C2'-C3'-O3'	5.07	121.81	113.70
1	AA	195	A	O5'-P-OP2	-5.07	101.14	105.70
1	AA	1010	G	N1-C2-N3	-5.07	120.86	123.90
1	AA	1407	C	N3-C4-C5	5.07	123.93	121.90
1	AA	1519	A	C5-C6-N1	5.07	120.23	117.70
6	AF	63	TYR	CG-CD2-CE2	-5.07	117.25	121.30
35	BA	86	C	N3-C4-N4	-5.07	114.45	118.00
35	BA	531	C	C6-N1-C2	-5.07	118.27	120.30
35	BA	628	G	O4'-C1'-N9	-5.07	104.15	108.20
35	BA	649	G	O4'-C1'-N9	-5.07	104.15	108.20
35	BA	685	A	C4-C5-C6	-5.07	114.47	117.00
35	BA	918	A	C8-N9-C4	-5.07	103.77	105.80
35	BA	1742	G	C4-C5-N7	-5.07	108.77	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	137	C	C2-N3-C4	5.06	122.43	119.90
35	BA	978	G	N1-C2-N3	-5.06	120.86	123.90
35	BA	2083	G	C5-C6-O6	-5.06	125.56	128.60
1	AA	189(B)	C	N3-C2-O2	-5.06	118.36	121.90
1	AA	357	G	C2-N3-C4	-5.06	109.37	111.90
1	AA	759	A	N9-C4-C5	5.06	107.83	105.80
1	AA	1075	C	C4-C5-C6	5.06	119.93	117.40
1	AA	1286	A	C5-C6-N1	5.06	120.23	117.70
15	AO	78	TYR	CG-CD2-CE2	-5.06	117.25	121.30
35	BA	142	A	N7-C8-N9	-5.06	111.27	113.80
35	BA	271(U)	G	C2-N3-C4	5.06	114.43	111.90
35	BA	353	G	N7-C8-N9	5.06	115.63	113.10
35	BA	740	U	C5-C6-N1	5.06	125.23	122.70
35	BA	1960	A	N9-C4-C5	5.06	107.83	105.80
35	BA	2469	A	C2-N3-C4	5.06	113.13	110.60
35	BA	2572	A	N3-C4-N9	5.06	131.45	127.40
49	BR	58	GLY	N-CA-C	5.06	125.76	113.10
1	AA	233	C	N3-C4-N4	5.06	121.54	118.00
1	AA	559	A	N1-C6-N6	5.06	121.64	118.60
1	AA	770	C	N3-C4-N4	5.06	121.54	118.00
1	AA	1201	A	C2'-C3'-O3'	5.06	121.80	113.70
24	AY	160	ARG	CD-NE-CZ	-5.06	116.51	123.60
35	BA	1519	G	O4'-C1'-N9	-5.06	104.15	108.20
35	BA	2583	G	C6-C5-N7	-5.06	127.36	130.40
51	BT	78	LEU	CA-CB-CG	5.06	126.94	115.30
1	AA	344	A	C4-C5-C6	5.06	119.53	117.00
1	AA	597	G	N3-C4-C5	-5.06	126.07	128.60
1	AA	1013	G	C4-C5-N7	5.06	112.82	110.80
14	AN	35	ARG	NE-CZ-NH2	-5.06	117.77	120.30
35	BA	83	G	C4-C5-N7	-5.06	108.78	110.80
35	BA	271(X)	G	N3-C4-C5	5.06	131.13	128.60
35	BA	1527	G	N9-C1'-C2'	5.06	120.58	114.00
35	BA	1549	C	C2-N3-C4	-5.06	117.37	119.90
35	BA	1802	A	N1-C6-N6	-5.06	115.56	118.60
36	BB	101	G	N3-C4-C5	-5.06	126.07	128.60
56	BY	35	TYR	CB-CG-CD2	-5.06	117.97	121.00
1	AA	795	C	N1-C2-O2	-5.06	115.87	118.90
1	AA	1032	G	C3'-C2'-C1'	5.06	105.55	101.50
1	AA	1251	A	C1'-O4'-C4'	-5.06	105.85	109.90
1	AA	1472	U	C6-N1-C2	-5.06	117.97	121.00
22	AV	69	C	N3-C2-O2	5.06	125.44	121.90
35	BA	141	A	N1-C6-N6	-5.06	115.56	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	548	A	C5-N7-C8	-5.06	101.37	103.90
35	BA	1171	G	C8-N9-C4	5.06	108.42	106.40
35	BA	1434	A	N1-C2-N3	5.06	131.83	129.30
35	BA	1534	U	C3'-C2'-C1'	5.06	105.55	101.50
35	BA	2028	U	N1-C2-N3	5.06	117.93	114.90
35	BA	2388	A	C5-C6-N1	-5.06	115.17	117.70
35	BA	2630	G	C4-C5-N7	5.06	112.82	110.80
35	BA	2683	C	C5'-C4'-O4'	5.06	115.17	109.10
35	BA	2693	A	N1-C2-N3	5.06	131.83	129.30
1	AA	747	C	N1-C2-O2	5.06	121.93	118.90
1	AA	1043	C	N3-C4-N4	-5.06	114.46	118.00
1	AA	1069	C	N3-C4-N4	-5.06	114.46	118.00
1	AA	1288	A	C4-C5-C6	5.06	119.53	117.00
35	BA	669	G	C6-N1-C2	-5.06	122.07	125.10
35	BA	932	G	N3-C2-N2	5.06	123.44	119.90
35	BA	2145	C	C6-N1-C2	5.06	122.32	120.30
35	BA	2415	G	C5-N7-C8	5.06	106.83	104.30
1	AA	73	G	C5-C6-O6	-5.05	125.57	128.60
1	AA	532	A	N7-C8-N9	5.05	116.33	113.80
1	AA	904	C	C2-N3-C4	-5.05	117.37	119.90
1	AA	1138	G	N3-C4-C5	-5.05	126.07	128.60
1	AA	1420	C	C4-C5-C6	5.05	119.93	117.40
24	AY	434	GLU	O-C-N	-5.05	114.61	122.70
35	BA	1491	G	O4'-C1'-N9	5.05	112.24	108.20
35	BA	1649	G	N1-C6-O6	5.05	122.93	119.90
35	BA	1767	C	N1-C2-N3	-5.05	115.66	119.20
35	BA	2506	U	C2-N1-C1'	5.05	123.77	117.70
1	AA	118	U	O4'-C1'-N1	5.05	112.24	108.20
1	AA	1023	G	C1'-O4'-C4'	-5.05	105.86	109.90
3	AC	131	ARG	NH1-CZ-NH2	-5.05	113.84	119.40
35	BA	1679	U	C4-C5-C6	-5.05	116.67	119.70
41	BG	21	ARG	NE-CZ-NH1	5.05	122.83	120.30
1	AA	820	U	N1-C1'-C2'	5.05	120.57	114.00
1	AA	1049	U	N3-C2-O2	-5.05	118.66	122.20
1	AA	1220	G	N7-C8-N9	5.05	115.63	113.10
1	AA	1458	G	N1-C6-O6	-5.05	116.87	119.90
3	AC	140	ARG	NE-CZ-NH2	-5.05	117.77	120.30
35	BA	34	C	N3-C2-O2	-5.05	118.36	121.90
35	BA	1107	G	C5-N7-C8	-5.05	101.78	104.30
35	BA	1157	G	C5-C6-N1	-5.05	108.97	111.50
35	BA	1207	C	C4-C5-C6	-5.05	114.87	117.40
35	BA	1492	G	N3-C4-C5	-5.05	126.07	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1702	G	N7-C8-N9	5.05	115.63	113.10
35	BA	2252	G	C4-C5-N7	-5.05	108.78	110.80
1	AA	7	G	C5'-C4'-C3'	-5.05	107.92	116.00
1	AA	195	A	N1-C2-N3	5.05	131.82	129.30
1	AA	683	G	N7-C8-N9	5.05	115.62	113.10
1	AA	852	G	C6-N1-C2	5.05	128.13	125.10
1	AA	1010	G	N3-C4-N9	-5.05	122.97	126.00
1	AA	1090	U	C5'-C4'-O4'	5.05	115.16	109.10
27	B2	69	ARG	NE-CZ-NH2	-5.05	117.78	120.30
35	BA	690	G	N1-C2-N3	5.05	126.93	123.90
35	BA	750	A	N1-C6-N6	5.05	121.63	118.60
35	BA	1559	G	C6-C5-N7	-5.05	127.37	130.40
35	BA	1635	G	C3'-C2'-C1'	5.05	105.54	101.50
35	BA	1888	G	N1-C2-N3	5.05	126.93	123.90
35	BA	2407	G	C1'-O4'-C4'	5.05	113.94	109.90
35	BA	2833	G	C4-C5-N7	-5.05	108.78	110.80
47	BP	41	ARG	NE-CZ-NH2	-5.05	117.78	120.30
1	AA	643	C	O4'-C1'-N1	-5.05	104.16	108.20
1	AA	1152	A	N3-C4-C5	5.05	130.33	126.80
35	BA	1823	G	C8-N9-C4	5.05	108.42	106.40
35	BA	1866	C	N3-C4-N4	5.05	121.53	118.00
35	BA	2392	A	N1-C6-N6	5.05	121.63	118.60
35	BA	2633	G	N9-C4-C5	5.05	107.42	105.40
35	BA	2640	G	C2-N3-C4	-5.05	109.38	111.90
36	BB	18	G	C6-C5-N7	-5.05	127.37	130.40
1	AA	684	A	C1'-O4'-C4'	5.05	113.94	109.90
1	AA	690	G	C4-C5-C6	5.05	121.83	118.80
1	AA	1020	U	N1-C2-N3	-5.05	111.87	114.90
1	AA	1180	A	C8-N9-C4	5.05	107.82	105.80
6	AF	43	LEU	CA-CB-CG	5.05	126.91	115.30
22	AV	27	U	N3-C2-O2	-5.05	118.67	122.20
35	BA	561	G	N1-C2-N3	5.05	126.93	123.90
35	BA	1007	C	C5-C6-N1	-5.05	118.48	121.00
35	BA	1231	G	C5-N7-C8	-5.05	101.78	104.30
35	BA	1365	A	N3-C4-C5	5.05	130.33	126.80
35	BA	1790	C	C2-N3-C4	5.05	122.42	119.90
35	BA	1816	G	C4-C5-N7	5.05	112.82	110.80
35	BA	2128	C	N1-C2-N3	5.05	122.73	119.20
35	BA	2710	C	O4'-C1'-N1	-5.05	104.16	108.20
35	BA	118	A	C1'-O4'-C4'	-5.04	105.86	109.90
35	BA	261	G	O4'-C1'-N9	5.04	112.24	108.20
1	AA	296	U	N3-C4-C5	5.04	117.63	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	505	G	N7-C8-N9	-5.04	110.58	113.10
1	AA	892	A	C4-C5-N7	-5.04	108.18	110.70
1	AA	1374	A	C5'-C4'-O4'	5.04	115.15	109.10
1	AA	1445	C	N3-C2-O2	5.04	125.43	121.90
35	BA	564	C	O4'-C1'-N1	-5.04	104.17	108.20
35	BA	686	G	N7-C8-N9	5.04	115.62	113.10
35	BA	871	U	N1-C2-O2	-5.04	119.27	122.80
35	BA	1367	A	N7-C8-N9	-5.04	111.28	113.80
35	BA	1532	C	C6-N1-C2	5.04	122.32	120.30
35	BA	1893	C	C3'-C2'-C1'	-5.04	97.47	101.50
35	BA	2038	G	C6-C5-N7	5.04	133.43	130.40
35	BA	2512	C	C5-C6-N1	5.04	123.52	121.00
35	BA	2734	A	C5-C6-N1	-5.04	115.18	117.70
35	BA	2894	G	C2-N3-C4	5.04	114.42	111.90
1	AA	90	U	C3'-C2'-C1'	5.04	105.53	101.50
1	AA	819	A	N1-C6-N6	5.04	121.62	118.60
1	AA	981	U	C6-N1-C2	-5.04	117.98	121.00
1	AA	1396	A	N1-C2-N3	5.04	131.82	129.30
1	AA	1530	G	N3-C2-N2	-5.04	116.37	119.90
23	AX	13	A	C6-N1-C2	5.04	121.62	118.60
35	BA	87	C	C2-N3-C4	5.04	122.42	119.90
35	BA	1034	G	C6-N1-C2	-5.04	122.08	125.10
35	BA	1135	C	O4'-C1'-N1	-5.04	104.17	108.20
35	BA	1719	G	P-O3'-C3'	-5.04	113.65	119.70
35	BA	2108	C	N3-C4-C5	5.04	123.92	121.90
35	BA	2114	A	C4-C5-C6	-5.04	114.48	117.00
35	BA	2160	G	N9-C4-C5	-5.04	103.38	105.40
35	BA	2191	G	N3-C4-C5	5.04	131.12	128.60
35	BA	2475	C	N3-C4-C5	5.04	123.92	121.90
36	BB	78	A	C2-N3-C4	-5.04	108.08	110.60
1	AA	710	G	N1-C2-N3	-5.04	120.88	123.90
1	AA	1257	U	N3-C4-C5	-5.04	111.58	114.60
1	AA	1375	A	C5-C6-N1	-5.04	115.18	117.70
35	BA	906	G	C4-N9-C1'	5.04	133.05	126.50
35	BA	1594	G	N1-C2-N2	5.04	120.74	116.20
35	BA	1922	G	C4-C5-C6	5.04	121.82	118.80
35	BA	2555	U	C5-C4-O4	-5.04	122.88	125.90
1	AA	68	G	N9-C4-C5	-5.04	103.39	105.40
1	AA	502	G	N3-C4-N9	-5.04	122.98	126.00
1	AA	628	G	N7-C8-N9	-5.04	110.58	113.10
1	AA	1091	U	C2-N3-C4	5.04	130.02	127.00
1	AA	1429	C	C5-C4-N4	5.04	123.73	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	B6	17	LYS	C-N-CA	5.04	134.30	121.70
35	BA	1850	G	N3-C2-N2	5.04	123.43	119.90
35	BA	2231	C	C2-N3-C4	-5.04	117.38	119.90
35	BA	2532	G	N1-C6-O6	-5.04	116.88	119.90
36	BB	94	C	C1'-O4'-C4'	-5.04	105.87	109.90
36	BB	111	G	C5-N7-C8	-5.04	101.78	104.30
1	AA	189(J)	G	N9-C4-C5	-5.04	103.39	105.40
1	AA	929	G	N1-C6-O6	5.04	122.92	119.90
35	BA	111	A	N7-C8-N9	5.04	116.32	113.80
35	BA	150	C	C1'-O4'-C4'	5.04	113.93	109.90
35	BA	1115	G	O4'-C1'-N9	-5.04	104.17	108.20
35	BA	1919	A	C8-N9-C4	-5.04	103.78	105.80
35	BA	2268	A	C8-N9-C4	-5.04	103.78	105.80
35	BA	2339	G	C4'-C3'-C2'	-5.04	97.56	102.60
35	BA	70	G	N3-C4-C5	5.04	131.12	128.60
35	BA	1088	A	C4-C5-N7	-5.04	108.18	110.70
35	BA	1254	A	C5-C6-N6	-5.04	119.67	123.70
35	BA	2123	G	N7-C8-N9	-5.04	110.58	113.10
35	BA	2647	U	C3'-C2'-C1'	5.04	105.53	101.50
35	BA	2692	C	C3'-C2'-C1'	5.04	105.53	101.50
36	BB	12	C	C2-N3-C4	-5.04	117.38	119.90
1	AA	56	U	C5'-C4'-O4'	5.03	115.14	109.10
1	AA	106	C	N3-C2-O2	5.03	125.42	121.90
1	AA	260	G	C1'-O4'-C4'	-5.03	105.87	109.90
1	AA	437	U	C5-C6-N1	5.03	125.22	122.70
1	AA	647	C	N3-C4-C5	-5.03	119.89	121.90
1	AA	732	C	P-O5'-C5'	5.03	128.95	120.90
1	AA	987	G	C5'-C4'-O4'	5.03	115.14	109.10
1	AA	1046	A	C5-N7-C8	-5.03	101.38	103.90
1	AA	1264	C	N3-C4-N4	-5.03	114.48	118.00
1	AA	1316	G	C6-N1-C2	5.03	128.12	125.10
1	AA	1480	G	N1-C2-N3	-5.03	120.88	123.90
9	AI	104	ARG	NE-CZ-NH2	5.03	122.82	120.30
35	BA	9	U	N3-C2-O2	5.03	125.72	122.20
35	BA	1331	A	C1'-O4'-C4'	-5.03	105.87	109.90
35	BA	2772	C	C5-C6-N1	5.03	123.52	121.00
1	AA	197	A	C6-C5-N7	-5.03	128.78	132.30
1	AA	1036	G	O4'-C1'-N9	-5.03	104.17	108.20
1	AA	1174	G	N7-C8-N9	-5.03	110.58	113.10
35	BA	938	G	C6-N1-C2	5.03	128.12	125.10
35	BA	2450	A	O5'-P-OP2	-5.03	101.17	105.70
55	BX	5	TYR	CG-CD1-CE1	5.03	125.33	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	136	C	N3-C4-C5	5.03	123.91	121.90
1	AA	305	G	O4'-C4'-C3'	5.03	110.12	106.10
1	AA	1013	G	C2-N3-C4	5.03	114.42	111.90
1	AA	1077	G	N1-C6-O6	-5.03	116.88	119.90
1	AA	1248	A	C8-N9-C4	-5.03	103.79	105.80
35	BA	608	A	C2-N3-C4	-5.03	108.08	110.60
35	BA	1380	G	C5-C6-N1	5.03	114.02	111.50
35	BA	1747	G	C8-N9-C4	-5.03	104.39	106.40
35	BA	2495	G	C8-N9-C4	-5.03	104.39	106.40
35	BA	485	C	C4-C5-C6	-5.03	114.89	117.40
35	BA	740	U	C5-C4-O4	-5.03	122.88	125.90
35	BA	880	G	C3'-C2'-C1'	5.03	105.52	101.50
35	BA	940	G	C5-C6-N1	5.03	114.02	111.50
35	BA	1616	A	O4'-C1'-N9	5.03	112.22	108.20
35	BA	1930	G	O4'-C1'-C2'	5.03	112.13	107.60
35	BA	2117	A	N7-C8-N9	-5.03	111.29	113.80
35	BA	2500	U	N3-C2-O2	-5.03	118.68	122.20
35	BA	2527	C	O4'-C1'-N1	-5.03	104.18	108.20
36	BB	1	U	N3-C4-O4	-5.03	115.88	119.40
1	AA	262	A	C8-N9-C4	-5.03	103.79	105.80
1	AA	490	G	C8-N9-C4	-5.03	104.39	106.40
1	AA	638	G	O4'-C1'-N9	5.03	112.22	108.20
1	AA	930	C	N1-C2-O2	-5.03	115.88	118.90
1	AA	1338	G	N1-C2-N2	-5.03	111.67	116.20
1	AA	1407	C	N3-C2-O2	-5.03	118.38	121.90
1	AA	1479	C	C2-N3-C4	-5.03	117.39	119.90
8	AH	37	ARG	NH1-CZ-NH2	-5.03	113.87	119.40
35	BA	222	A	C5-N7-C8	-5.03	101.39	103.90
35	BA	489	G	C4-C5-C6	-5.03	115.78	118.80
35	BA	977	G	N3-C4-C5	-5.03	126.09	128.60
35	BA	987	G	C5-N7-C8	-5.03	101.79	104.30
35	BA	1062	G	C6-N1-C2	5.03	128.12	125.10
35	BA	1213	A	C6-N1-C2	-5.03	115.58	118.60
35	BA	1328	G	N3-C4-N9	5.03	129.02	126.00
35	BA	1400	G	N3-C4-N9	-5.03	122.98	126.00
40	BF	18	ARG	NE-CZ-NH2	5.03	122.81	120.30
40	BF	99	TYR	CZ-CE2-CD2	5.03	124.33	119.80
41	BG	4	ASP	N-CA-C	5.03	124.58	111.00
1	AA	41	G	C6-C5-N7	5.03	133.41	130.40
1	AA	189(E)	U	O4'-C1'-N1	5.03	112.22	108.20
1	AA	264	U	C5-C6-N1	5.03	125.21	122.70
1	AA	1140	C	C1'-O4'-C4'	5.03	113.92	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	301	G	N3-C4-C5	5.03	131.11	128.60
35	BA	627	A	N9-C4-C5	5.03	107.81	105.80
35	BA	654(M)	C	N1-C2-N3	-5.03	115.68	119.20
35	BA	710	G	N1-C2-N3	5.03	126.92	123.90
35	BA	888	C	N1-C1'-C2'	5.03	120.53	114.00
35	BA	1145	C	N1-C2-N3	-5.03	115.68	119.20
35	BA	1445(A)	C	N3-C4-C5	-5.03	119.89	121.90
35	BA	1757	U	C4-C5-C6	5.03	122.72	119.70
35	BA	2155	G	N7-C8-N9	5.03	115.61	113.10
35	BA	2388	A	C4-C5-C6	5.03	119.51	117.00
35	BA	2532	G	C5'-C4'-C3'	-5.03	107.96	116.00
1	AA	499	A	C2-N3-C4	5.02	113.11	110.60
18	AR	33	ASP	CB-CG-OD1	-5.02	113.78	118.30
24	AY	484	ARG	NH1-CZ-NH2	-5.02	113.87	119.40
35	BA	470	A	N1-C2-N3	5.02	131.81	129.30
1	AA	189(D)	C	C5'-C4'-O4'	5.02	115.13	109.10
1	AA	819	A	O4'-C4'-C3'	5.02	110.12	106.10
1	AA	1003	G	C5-C6-O6	5.02	131.61	128.60
1	AA	1031	G	C8-N9-C4	-5.02	104.39	106.40
35	BA	309	G	C8-N9-C4	5.02	108.41	106.40
35	BA	716	A	C6-C5-N7	-5.02	128.78	132.30
35	BA	962	G	C5-C6-N1	5.02	114.01	111.50
35	BA	1112	G	C8-N9-C4	-5.02	104.39	106.40
35	BA	1221(A)	C	N1-C2-N3	5.02	122.72	119.20
35	BA	1247	A	C4'-C3'-C2'	5.02	107.62	102.60
35	BA	1528	A	N3-C4-C5	-5.02	123.28	126.80
35	BA	1779	U	C1'-O4'-C4'	-5.02	105.88	109.90
35	BA	1809	A	N3-C4-C5	5.02	130.31	126.80
35	BA	2015	A	O4'-C1'-C2'	5.02	112.12	107.60
35	BA	2302	G	C4-C5-N7	-5.02	108.79	110.80
35	BA	2365	G	C5-N7-C8	5.02	106.81	104.30
35	BA	2464	C	O4'-C1'-N1	5.02	112.22	108.20
35	BA	2838	G	N7-C8-N9	-5.02	110.59	113.10
1	AA	1205	U	N3-C4-O4	5.02	122.92	119.40
35	BA	278	A	C5-C6-N6	5.02	127.72	123.70
35	BA	829	A	O4'-C4'-C3'	5.02	110.12	106.10
35	BA	1131	G	C2-N3-C4	5.02	114.41	111.90
35	BA	2022	U	O4'-C1'-N1	-5.02	104.18	108.20
1	AA	189(C)	C	O4'-C1'-N1	-5.02	104.18	108.20
1	AA	275	G	C8-N9-C4	5.02	108.41	106.40
1	AA	622	A	C1'-O4'-C4'	-5.02	105.88	109.90
1	AA	1001(A)	G	P-O3'-C3'	5.02	125.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1005	A	C8-N9-C4	5.02	107.81	105.80
1	AA	1349	A	C8-N9-C4	5.02	107.81	105.80
21	AU	24	ARG	NE-CZ-NH1	5.02	122.81	120.30
35	BA	118	A	N1-C2-N3	5.02	131.81	129.30
35	BA	419	C	N3-C4-N4	-5.02	114.49	118.00
35	BA	654(C)	G	C4-C5-N7	5.02	112.81	110.80
35	BA	1110	G	N3-C4-N9	-5.02	122.99	126.00
35	BA	1279	G	C5-C6-O6	-5.02	125.59	128.60
35	BA	1564	C	C4-C5-C6	5.02	119.91	117.40
35	BA	2779	U	C2-N1-C1'	5.02	123.72	117.70
1	AA	832	C	C5-C4-N4	-5.02	116.69	120.20
1	AA	987	G	N3-C2-N2	5.02	123.41	119.90
1	AA	1280	A	C6-C5-N7	5.02	135.81	132.30
22	AV	48	C	C4-C5-C6	-5.02	114.89	117.40
35	BA	1212	G	N3-C4-C5	5.02	131.11	128.60
35	BA	2614	A	N1-C6-N6	5.02	121.61	118.60
1	AA	522	C	N1-C2-O2	-5.02	115.89	118.90
35	BA	113	G	C6-N1-C2	5.02	128.11	125.10
35	BA	410	G	C3'-C2'-C1'	5.02	105.51	101.50
35	BA	2613	U	OP2-P-O3'	5.02	116.24	105.20
1	AA	494	U	C4-C5-C6	5.01	122.71	119.70
1	AA	515	G	N3-C4-C5	5.01	131.11	128.60
1	AA	1384	C	P-O3'-C3'	5.01	125.72	119.70
35	BA	357	A	N1-C6-N6	5.01	121.61	118.60
35	BA	861	A	N1-C2-N3	5.01	131.81	129.30
35	BA	1024	G	N9-C4-C5	-5.01	103.39	105.40
35	BA	1087	G	C5-C6-O6	-5.01	125.59	128.60
35	BA	2133	G	N1-C2-N3	-5.01	120.89	123.90
35	BA	2223	G	C8-N9-C4	-5.01	104.39	106.40
35	BA	2453	A	C5-C6-N1	5.01	120.21	117.70
35	BA	2487	G	N9-C4-C5	5.01	107.41	105.40
35	BA	2659	G	N3-C2-N2	-5.01	116.39	119.90
35	BA	2660	A	C6-N1-C2	-5.01	115.59	118.60
36	BB	52	A	O4'-C1'-C2'	5.01	112.11	107.60
36	BB	87	G	C4-C5-N7	5.01	112.81	110.80
1	AA	5	U	N1-C1'-C2'	-5.01	106.48	112.00
1	AA	290	C	C1'-O4'-C4'	5.01	113.91	109.90
1	AA	1180	A	C5-N7-C8	-5.01	101.39	103.90
24	AY	247	ARG	NE-CZ-NH2	-5.01	117.79	120.30
35	BA	143	G	C8-N9-C4	-5.01	104.39	106.40
35	BA	320	A	N7-C8-N9	-5.01	111.29	113.80
35	BA	1456	G	O4'-C1'-N9	-5.01	104.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2103	C	C2-N3-C4	-5.01	117.39	119.90
35	BA	2433	A	N1-C2-N3	-5.01	126.79	129.30
35	BA	2889	C	N3-C4-N4	5.01	121.51	118.00
48	BQ	5	ARG	NE-CZ-NH1	-5.01	117.79	120.30
1	AA	22	G	N1-C6-O6	5.01	122.91	119.90
1	AA	688	G	N3-C4-N9	5.01	129.01	126.00
1	AA	958	A	C1'-O4'-C4'	-5.01	105.89	109.90
1	AA	1077	G	P-O5'-C5'	-5.01	112.88	120.90
1	AA	1306	A	N1-C2-N3	5.01	131.81	129.30
35	BA	131	G	O4'-C1'-N9	5.01	112.21	108.20
35	BA	136	G	C5-C6-N1	5.01	114.01	111.50
35	BA	890	A	C3'-C2'-C1'	5.01	105.51	101.50
35	BA	2151	G	N9-C1'-C2'	-5.01	106.49	112.00
35	BA	2858	C	N3-C4-N4	-5.01	114.49	118.00
36	BB	80	U	N3-C4-O4	-5.01	115.89	119.40
1	AA	34	C	N1-C2-O2	-5.01	115.89	118.90
1	AA	531	U	C6-N1-C2	5.01	124.01	121.00
1	AA	602	A	N9-C4-C5	5.01	107.80	105.80
1	AA	857	C	C2-N3-C4	-5.01	117.39	119.90
1	AA	1310	G	C5-C6-O6	-5.01	125.59	128.60
35	BA	148	C	C6-N1-C2	5.01	122.30	120.30
35	BA	518	G	C4-C5-N7	5.01	112.80	110.80
35	BA	943	U	C2-N3-C4	5.01	130.01	127.00
35	BA	1347	G	C5'-C4'-C3'	-5.01	107.98	116.00
35	BA	2559	C	C2-N3-C4	-5.01	117.39	119.90
35	BA	2588	G	N1-C2-N2	-5.01	111.69	116.20
1	AA	695	A	C5-C6-N6	5.01	127.71	123.70
35	BA	314	A	N3-C4-N9	-5.01	123.39	127.40
35	BA	748	G	C8-N9-C4	-5.01	104.40	106.40
35	BA	1047	G	C4-C5-N7	5.01	112.80	110.80
35	BA	2124	G	C6-C5-N7	-5.01	127.39	130.40
35	BA	2745	C	N3-C2-O2	5.01	125.41	121.90
1	AA	61	G	C4-C5-C6	5.01	121.80	118.80
1	AA	296	U	C2-N3-C4	-5.01	124.00	127.00
1	AA	1185	G	N3-C4-N9	5.01	129.00	126.00
35	BA	58	G	N9-C4-C5	-5.01	103.40	105.40
35	BA	380	U	N3-C4-O4	5.01	122.90	119.40
35	BA	420	C	N1-C2-O2	5.01	121.90	118.90
35	BA	614	U	C5-C4-O4	5.01	128.90	125.90
35	BA	997	G	N9-C1'-C2'	-5.01	106.49	112.00
35	BA	1784	A	N7-C8-N9	5.01	116.30	113.80
35	BA	1824	G	N1-C2-N2	-5.01	111.69	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2430	A	C5-C6-N1	5.01	120.20	117.70
35	BA	2763	G	C3'-C2'-C1'	5.01	105.50	101.50
1	AA	111	G	N1-C6-O6	-5.00	116.90	119.90
1	AA	767	A	C2-N3-C4	5.00	113.10	110.60
1	AA	1085	U	P-O3'-C3'	5.00	125.71	119.70
10	AJ	95	GLU	OE1-CD-OE2	-5.00	117.29	123.30
22	AV	58	A	N1-C6-N6	-5.00	115.60	118.60
35	BA	68	G	N3-C2-N2	5.00	123.40	119.90
35	BA	404	C	N3-C2-O2	-5.00	118.40	121.90
35	BA	1128	A	O4'-C1'-N9	-5.00	104.20	108.20
35	BA	1244	G	C6-C5-N7	-5.00	127.40	130.40
35	BA	1690	A	O4'-C1'-N9	-5.00	104.20	108.20
35	BA	2154	G	C5-N7-C8	-5.00	101.80	104.30
1	AA	242	C	C5'-C4'-O4'	5.00	115.10	109.10
1	AA	370	C	N3-C4-C5	5.00	123.90	121.90
1	AA	893	C	N3-C4-N4	5.00	121.50	118.00
4	AD	153	ARG	NE-CZ-NH1	-5.00	117.80	120.30
22	AV	36	U	C1'-O4'-C4'	-5.00	105.90	109.90
35	BA	196	A	C2-N3-C4	-5.00	108.10	110.60
35	BA	271(H)	G	C5-C6-N1	-5.00	109.00	111.50
35	BA	388	G	O4'-C1'-N9	5.00	112.20	108.20
35	BA	526	A	N9-C4-C5	5.00	107.80	105.80
35	BA	685	A	C8-N9-C4	-5.00	103.80	105.80
35	BA	2678	C	N1-C1'-C2'	-5.00	106.50	112.00
36	BB	29	A	C5-C6-N6	5.00	127.70	123.70
54	BW	25	ARG	NE-CZ-NH2	-5.00	117.80	120.30
1	AA	152	A	N3-C4-N9	5.00	131.40	127.40
1	AA	1186	G	C5'-C4'-C3'	-5.00	108.00	116.00
1	AA	1524	C	O5'-P-OP1	-5.00	101.20	105.70
22	AV	46	G	N1-C2-N3	-5.00	120.90	123.90
35	BA	278	A	C2-N3-C4	-5.00	108.10	110.60
35	BA	361	G	C4-C5-N7	-5.00	108.80	110.80
35	BA	613	G	C4-C5-N7	5.00	112.80	110.80
35	BA	1559	G	C4-C5-C6	5.00	121.80	118.80
35	BA	2194	G	O4'-C1'-N9	-5.00	104.20	108.20
35	BA	2852	G	C5-C6-O6	-5.00	125.60	128.60

All (3) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	575	G	C3'
35	BA	1799	G	C3'

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Mol	Chain	Res	Type	Atom
35	BA	1992	G	C3'

All (514) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1001	A	Sidechain
1	AA	1002	G	Sidechain
1	AA	1003	G	Sidechain
1	AA	1053	G	Sidechain
1	AA	1055	A	Sidechain
1	AA	1067	A	Sidechain
1	AA	1077	G	Sidechain
1	AA	108	G	Sidechain
1	AA	1081	G	Sidechain
1	AA	110	C	Sidechain
1	AA	1109	C	Sidechain
1	AA	1119	C	Sidechain
1	AA	112	G	Sidechain
1	AA	1129	C	Sidechain
1	AA	1176	A	Sidechain
1	AA	1179	A	Sidechain
1	AA	1183	A	Sidechain
1	AA	1184	G	Sidechain
1	AA	1190	G	Sidechain
1	AA	1201	A	Sidechain
1	AA	1202	G	Sidechain
1	AA	1219	U	Sidechain
1	AA	1226	C	Sidechain
1	AA	1231	G	Sidechain
1	AA	1268	A	Sidechain
1	AA	1278	U	Sidechain
1	AA	1295	G	Sidechain
1	AA	1304	G	Sidechain
1	AA	1331	G	Sidechain
1	AA	1356	G	Sidechain
1	AA	1357	A	Sidechain
1	AA	1370	G	Sidechain
1	AA	1380	U	Sidechain
1	AA	1390	U	Sidechain
1	AA	1401	G	Sidechain
1	AA	1402	C	Sidechain
1	AA	1403	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1414	U	Sidechain
1	AA	1417	G	Sidechain
1	AA	1421	G	Sidechain
1	AA	1456	G	Sidechain
1	AA	1457	G	Sidechain
1	AA	1485	U	Sidechain
1	AA	1496	C	Sidechain
1	AA	1498	U	Sidechain
1	AA	1502	A	Sidechain
1	AA	1506	U	Sidechain
1	AA	1512	U	Sidechain
1	AA	1530	G	Sidechain
1	AA	172	A	Sidechain
1	AA	203	U	Sidechain
1	AA	21	G	Sidechain
1	AA	251	G	Sidechain
1	AA	253	U	Sidechain
1	AA	265	G	Sidechain
1	AA	274	A	Sidechain
1	AA	361	G	Sidechain
1	AA	368	U	Sidechain
1	AA	37	U	Sidechain
1	AA	371	G	Sidechain
1	AA	380	G	Sidechain
1	AA	382	A	Sidechain
1	AA	387	U	Sidechain
1	AA	39	G	Sidechain
1	AA	397	A	Sidechain
1	AA	399	G	Sidechain
1	AA	412	A	Sidechain
1	AA	436	C	Sidechain
1	AA	493	G	Sidechain
1	AA	5	U	Sidechain
1	AA	510	A	Sidechain
1	AA	548	G	Sidechain
1	AA	573	A	Sidechain
1	AA	575	G	Sidechain
1	AA	576	G	Sidechain
1	AA	596	C	Sidechain
1	AA	598	U	Sidechain
1	AA	628	G	Sidechain
1	AA	636	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	641	U	Sidechain
1	AA	657	G	Sidechain
1	AA	661	G	Sidechain
1	AA	666	G	Sidechain
1	AA	667	G	Sidechain
1	AA	669	U	Sidechain
1	AA	672	U	Sidechain
1	AA	676	A	Sidechain
1	AA	690	G	Sidechain
1	AA	694	A	Sidechain
1	AA	697	U	Sidechain
1	AA	741	G	Sidechain
1	AA	748	C	Sidechain
1	AA	760	G	Sidechain
1	AA	768	A	Sidechain
1	AA	769	G	Sidechain
1	AA	773	G	Sidechain
1	AA	793	U	Sidechain
1	AA	835	U	Sidechain
1	AA	867	G	Sidechain
1	AA	876	G	Sidechain
1	AA	878	G	Sidechain
1	AA	879	C	Sidechain
1	AA	882	C	Sidechain
1	AA	887	G	Sidechain
1	AA	894	G	Sidechain
1	AA	898	G	Sidechain
1	AA	931	C	Sidechain
1	AA	955	U	Sidechain
1	AA	961	U	Sidechain
1	AA	971	G	Sidechain
1	AA	981	U	Sidechain
2	AB	130	ARG	Sidechain
2	AB	144	ARG	Sidechain
2	AB	178	ARG	Sidechain
2	AB	20	GLU	Sidechain
2	AB	37	ASN	Sidechain
2	AB	50	GLU	Sidechain
2	AB	53	ARG	Sidechain
2	AB	82	ARG	Sidechain
2	AB	94	ASN	Sidechain
2	AB	96	ARG	Sidechain

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Mol	Chain	Res	Type	Group
3	AC	104	GLN	Sidechain
4	AD	107	ARG	Sidechain
4	AD	114	ARG	Sidechain
4	AD	116	GLN	Sidechain
4	AD	13	ARG	Sidechain
4	AD	132	ARG	Sidechain
4	AD	141	ARG	Sidechain
4	AD	145	GLU	Sidechain
4	AD	168	ARG	Sidechain
4	AD	191	ARG	Sidechain
4	AD	49	ARG	Sidechain
4	AD	53	ASP	Sidechain
4	AD	62	GLN	Sidechain
4	AD	66	ARG	Sidechain
4	AD	73	ARG	Sidechain
5	AE	18	ARG	Sidechain
5	AE	5	ASP	Sidechain
5	AE	64	ARG	Sidechain
6	AF	27	GLN	Sidechain
6	AF	3	ARG	Sidechain
6	AF	36	ARG	Sidechain
6	AF	42	GLU	Sidechain
6	AF	74	ASP	Sidechain
7	AG	13	GLN	Sidechain
7	AG	139	GLU	Sidechain
7	AG	149	ARG	Sidechain
7	AG	15	ASP	Sidechain
7	AG	155	ARG	Sidechain
7	AG	32	ARG	Sidechain
7	AG	41	ARG	Sidechain
7	AG	52	GLU	Sidechain
7	AG	64	GLN	Sidechain
7	AG	76	ARG	Sidechain
7	AG	84	ASN	Sidechain
8	AH	122	ARG	Sidechain
8	AH	125	ARG	Sidechain
8	AH	136	GLU	Sidechain
8	AH	18	ARG	Sidechain
8	AH	22	GLU	Sidechain
8	AH	41	ARG	Sidechain
8	AH	70	GLN	Sidechain
8	AH	84	ARG	Sidechain

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Mol	Chain	Res	Type	Group
9	AI	104	ARG	Mainchain
9	AI	120	ARG	Sidechain
9	AI	128	ARG	Sidechain
9	AI	2	GLU	Sidechain
9	AI	29	ASN	Sidechain
9	AI	34	ASN	Sidechain
9	AI	53	VAL	Mainchain
9	AI	66	ARG	Sidechain
9	AI	9	ARG	Sidechain
10	AJ	29	ARG	Sidechain
10	AJ	83	GLU	Sidechain
10	AJ	95	GLU	Sidechain
11	AK	81	ASP	Sidechain
11	AK	93	GLN	Sidechain
11	AK	96	ARG	Sidechain
12	AL	102	ARG	Sidechain
12	AL	16	GLU	Sidechain
12	AL	19	ARG	Sidechain
13	AM	114	ARG	Sidechain
13	AM	14	ARG	Sidechain
13	AM	3	ARG	Sidechain
13	AM	55	ARG	Sidechain
13	AM	58	GLU	Sidechain
13	AM	62	ASN	Sidechain
14	AN	26	ARG	Sidechain
14	AN	35	ARG	Sidechain
14	AN	57	ARG	Sidechain
15	AO	21	ASP	Sidechain
15	AO	79	ARG	Sidechain
16	AP	32	TYR	Sidechain
16	AP	54	GLU	Sidechain
18	AR	72	ARG	Sidechain
20	AT	15	ARG	Sidechain
20	AT	25	ARG	Sidechain
20	AT	79	ARG	Sidechain
20	AT	8	ARG	Sidechain
20	AT	86	ARG	Sidechain
20	AT	9	ASN	Sidechain
20	AT	90	GLN	Sidechain
21	AU	22	ARG	Sidechain
22	AV	29	G	Sidechain
22	AV	4	G	Sidechain

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Mol	Chain	Res	Type	Group
22	AV	46	G	Sidechain
22	AV	8	U	Sidechain
23	AX	12	A	Sidechain
23	AX	17	U	Sidechain
24	AY	13	ARG	Sidechain
24	AY	151	ARG	Sidechain
24	AY	156	ARG	Sidechain
24	AY	182	ARG	Sidechain
24	AY	210	ARG	Sidechain
24	AY	226	ASN	Sidechain
24	AY	295	GLU	Sidechain
24	AY	300	GLU	Sidechain
24	AY	354	ARG	Sidechain
24	AY	357	ARG	Sidechain
24	AY	363	ARG	Sidechain
24	AY	403	GLU	Sidechain
24	AY	406	GLU	Sidechain
24	AY	445	GLU	Sidechain
24	AY	460	GLU	Sidechain
24	AY	465	ARG	Sidechain
24	AY	598	ASP	Sidechain
24	AY	607	ARG	Sidechain
24	AY	637	ARG	Sidechain
25	B0	11	ARG	Sidechain
25	B0	12	ASN	Sidechain
25	B0	82	ARG	Sidechain
26	B1	52	ARG	Sidechain
26	B1	57	GLU	Sidechain
26	B1	76	ARG	Sidechain
27	B2	30	ARG	Sidechain
27	B2	34	GLU	Sidechain
27	B2	43	GLN	Sidechain
27	B2	68	ARG	Sidechain
27	B2	70	GLN	Sidechain
28	B3	18	ASP	Sidechain
28	B3	3	ARG	Sidechain
28	B3	30	ARG	Sidechain
28	B3	55	ARG	Sidechain
29	B4	20	ASN	Sidechain
30	B5	51	TYR	Sidechain
31	B6	20	ASN	Sidechain
31	B6	28	ARG	Sidechain

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Mol	Chain	Res	Type	Group
31	B6	51	GLU	Sidechain
32	B7	23	ARG	Sidechain
32	B7	35	ARG	Sidechain
33	B8	13	ARG	Sidechain
33	B8	30	ARG	Sidechain
33	B8	42	ARG	Sidechain
35	BA	1001	A	Sidechain
35	BA	1034	G	Sidechain
35	BA	1148	A	Sidechain
35	BA	1155	A	Sidechain
35	BA	1156	A	Sidechain
35	BA	1176	G	Sidechain
35	BA	1178	C	Sidechain
35	BA	1183	G	Sidechain
35	BA	1191	G	Sidechain
35	BA	1199	U	Sidechain
35	BA	1215	G	Sidechain
35	BA	123	G	Sidechain
35	BA	1231	G	Sidechain
35	BA	1236	G	Sidechain
35	BA	1241	A	Sidechain
35	BA	1252	G	Sidechain
35	BA	1253	A	Sidechain
35	BA	1255	U	Sidechain
35	BA	1276	A	Sidechain
35	BA	128	C	Sidechain
35	BA	1297	C	Sidechain
35	BA	1301	A	Sidechain
35	BA	1355	G	Sidechain
35	BA	1359	A	Sidechain
35	BA	1368	G	Sidechain
35	BA	1379	A	Sidechain
35	BA	1416	G	Sidechain
35	BA	1436	G	Sidechain
35	BA	147	U	Sidechain
35	BA	1492	G	Sidechain
35	BA	1493	C	Sidechain
35	BA	1496	A	Sidechain
35	BA	155	U	Sidechain
35	BA	1558	A	Sidechain
35	BA	1578	U	Sidechain
35	BA	1614	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1620	G	Sidechain
35	BA	1622	G	Sidechain
35	BA	1623	G	Sidechain
35	BA	1633	G	Sidechain
35	BA	1638	C	Sidechain
35	BA	1642	G	Sidechain
35	BA	1768	U	Sidechain
35	BA	1772	G	Sidechain
35	BA	1773	A	Sidechain
35	BA	1775	U	Sidechain
35	BA	1776	G	Sidechain
35	BA	178	G	Sidechain
35	BA	1781	C	Sidechain
35	BA	1784	A	Sidechain
35	BA	1810	A	Sidechain
35	BA	1818	U	Sidechain
35	BA	1822	G	Sidechain
35	BA	1827	C	Sidechain
35	BA	1833	U	Sidechain
35	BA	1841	U	Sidechain
35	BA	1919	A	Sidechain
35	BA	1920	C	Sidechain
35	BA	1926	U	Sidechain
35	BA	1929	G	Sidechain
35	BA	1953	A	Sidechain
35	BA	1992	G	Sidechain
35	BA	200	U	Sidechain
35	BA	2000	G	Sidechain
35	BA	2009	G	Sidechain
35	BA	2010	G	Sidechain
35	BA	2031	A	Sidechain
35	BA	2050	C	Sidechain
35	BA	2051	A	Sidechain
35	BA	2052	G	Sidechain
35	BA	2053	G	Sidechain
35	BA	2059	A	Sidechain
35	BA	2070	G	Sidechain
35	BA	2093	G	Sidechain
35	BA	21	A	Sidechain
35	BA	2126	A	Sidechain
35	BA	2133	G	Sidechain
35	BA	2192	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	2229	C	Sidechain
35	BA	2250	G	Sidechain
35	BA	2290	G	Sidechain
35	BA	2310	A	Sidechain
35	BA	2320	A	Sidechain
35	BA	2340	G	Sidechain
35	BA	2344	U	Sidechain
35	BA	2359	C	Sidechain
35	BA	2383	G	Sidechain
35	BA	2387	U	Sidechain
35	BA	2393	A	Sidechain
35	BA	2401	U	Sidechain
35	BA	242	G	Sidechain
35	BA	2434	A	Sidechain
35	BA	2437	U	Sidechain
35	BA	2438	U	Sidechain
35	BA	2464	C	Sidechain
35	BA	2474	C	Sidechain
35	BA	2477	C	Sidechain
35	BA	2494	G	Sidechain
35	BA	2504	U	Sidechain
35	BA	2506	U	Sidechain
35	BA	2508	G	Sidechain
35	BA	2517	C	Sidechain
35	BA	2518	A	Sidechain
35	BA	2550	G	Sidechain
35	BA	2564	A	Sidechain
35	BA	2569	G	Sidechain
35	BA	2588	G	Sidechain
35	BA	2589	A	Sidechain
35	BA	2609	U	Sidechain
35	BA	2620	C	Sidechain
35	BA	2659	G	Sidechain
35	BA	2685	G	Sidechain
35	BA	27	G	Sidechain
35	BA	2708	G	Sidechain
35	BA	271	A	Sidechain
35	BA	271(I)	G	Sidechain
35	BA	2716	U	Sidechain
35	BA	2734	A	Sidechain
35	BA	2746	U	Sidechain
35	BA	2775	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	2779	U	Sidechain
35	BA	283	A	Sidechain
35	BA	2835	A	Sidechain
35	BA	2857	G	Sidechain
35	BA	303	U	Sidechain
35	BA	331	A	Sidechain
35	BA	350	U	Sidechain
35	BA	383	U	Sidechain
35	BA	463	G	Sidechain
35	BA	50	U	Sidechain
35	BA	505	A	Sidechain
35	BA	528	A	Sidechain
35	BA	539	G	Sidechain
35	BA	606	U	Sidechain
35	BA	642	G	Sidechain
35	BA	686	G	Sidechain
35	BA	688	U	Sidechain
35	BA	699	A	Sidechain
35	BA	711	G	Sidechain
35	BA	722	A	Sidechain
35	BA	742	G	Sidechain
35	BA	75	G	Sidechain
35	BA	752	A	Sidechain
35	BA	756	C	Sidechain
35	BA	760	G	Sidechain
35	BA	781	A	Sidechain
35	BA	788	A	Sidechain
35	BA	80	G	Sidechain
35	BA	83	G	Sidechain
35	BA	830	G	Sidechain
35	BA	845	G	Sidechain
35	BA	895	U	Sidechain
35	BA	913	U	Sidechain
35	BA	945	A	Sidechain
35	BA	946	G	Sidechain
35	BA	953	A	Sidechain
35	BA	954	G	Sidechain
35	BA	958	U	Sidechain
35	BA	980	A	Sidechain
35	BA	987	G	Sidechain
35	BA	990	A	Sidechain
36	BB	42	C	Sidechain

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Mol	Chain	Res	Type	Group
36	BB	99	G	Sidechain
37	BC	130	ARG	Sidechain
37	BC	189	ASN	Sidechain
37	BC	211	ARG	Sidechain
37	BC	28	ARG	Sidechain
37	BC	53	ARG	Sidechain
37	BC	7	ARG	Sidechain
37	BC	82	GLU	Sidechain
38	BD	176	ARG	Sidechain
38	BD	217	ARG	Sidechain
38	BD	253	GLN	Sidechain
38	BD	260	ARG	Sidechain
38	BD	262	ARG	Sidechain
38	BD	52	ARG	Sidechain
38	BD	60	ARG	Sidechain
38	BD	88	ARG	Sidechain
39	BE	136	ARG	Sidechain
39	BE	171	GLU	Sidechain
39	BE	179	GLU	Sidechain
39	BE	18	ASP	Sidechain
39	BE	58	ARG	Sidechain
39	BE	76	ARG	Sidechain
40	BF	168	ARG	Sidechain
40	BF	17	ARG	Sidechain
40	BF	191	ARG	Sidechain
40	BF	72	ARG	Sidechain
41	BG	112	PRO	Mainchain,Peptide
41	BG	58	GLN	Sidechain
41	BG	9	ARG	Sidechain
42	BH	101	ARG	Sidechain
42	BH	127	GLU	Sidechain
42	BH	132	ARG	Sidechain
42	BH	34	GLU	Sidechain
42	BH	57	ASP	Sidechain
43	BK	110	GLN	Sidechain
43	BK	119	ASP	Sidechain
43	BK	47	ASN	Sidechain
43	BK	6	ALA	Peptide
43	BK	62	ASP	Sidechain
44	BL	116	GLU	Sidechain
44	BL	73	ARG	Sidechain
44	BL	82	GLU	Sidechain

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Mol	Chain	Res	Type	Group
45	BN	12	ARG	Sidechain
45	BN	136	GLU	Sidechain
45	BN	58	ASP	Sidechain
45	BN	68	GLU	Sidechain
45	BN	88	GLU	Sidechain
46	BO	105	GLU	Sidechain
46	BO	107	ARG	Sidechain
46	BO	13	ASN	Sidechain
46	BO	94	ARG	Sidechain
47	BP	18	ARG	Sidechain
47	BP	7	ARG	Sidechain
47	BP	9	ASN	Sidechain
47	BP	90	ARG	Sidechain
47	BP	92	GLU	Sidechain
47	BP	94	GLU	Sidechain
48	BQ	101	ARG	Sidechain
48	BQ	6	ARG	Sidechain
48	BQ	60	ARG	Sidechain
48	BQ	91	GLU	Sidechain
49	BR	104	ARG	Sidechain
49	BR	59	ASP	Sidechain
49	BR	86	ARG	Sidechain
50	BS	17	ARG	Sidechain
50	BS	23	ARG	Sidechain
50	BS	38	GLN	Sidechain
51	BT	108	ARG	Sidechain
51	BT	115	ARG	Sidechain
51	BT	128	GLU	Sidechain
51	BT	13	ARG	Sidechain
51	BT	29	ARG	Sidechain
51	BT	3	ARG	Sidechain
51	BT	36	GLU	Sidechain
51	BT	43	GLN	Sidechain
51	BT	95	ARG	Sidechain
51	BT	96	ARG	Sidechain
52	BU	11	ARG	Sidechain
52	BU	36	ARG	Sidechain
52	BU	58	ARG	Sidechain
52	BU	59	ARG	Sidechain
53	BV	11	GLN	Sidechain
53	BV	13	ARG	Sidechain
53	BV	83	ARG	Sidechain

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Mol	Chain	Res	Type	Group
54	BW	15	ARG	Sidechain
54	BW	25	ARG	Sidechain
54	BW	40	ASN	Sidechain
54	BW	9	TYR	Sidechain
54	BW	99	ARG	Sidechain
55	BX	68	ARG	Sidechain
56	BY	23	ARG	Sidechain
56	BY	73	ARG	Sidechain
57	BZ	112	ARG	Sidechain
57	BZ	20	ARG	Sidechain
57	BZ	30	ASN	Sidechain
57	BZ	31	ARG	Sidechain
57	BZ	4	ARG	Sidechain
57	BZ	43	GLU	Sidechain

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32329	0	16035	1572	0
2	AB	1900	0	1951	268	0
3	AC	1612	0	1677	202	0
4	AD	1703	0	1767	195	0
5	AE	1146	0	1207	147	0
6	AF	843	0	857	95	0
7	AG	1257	0	1296	109	0
8	AH	1116	0	1177	98	0
9	AI	1010	0	1037	148	0
10	AJ	794	0	840	178	0
11	AK	885	0	904	79	0
12	AL	970	0	1057	149	0
13	AM	987	0	1059	140	0
14	AN	492	0	533	56	0
15	AO	734	0	771	71	0
16	AP	700	0	720	91	0
17	AQ	823	0	891	71	0
18	AR	574	0	644	92	0
19	AS	629	0	652	142	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	AT	763	0	861	124	0
21	AU	208	0	221	15	0
22	AV	1640	0	820	93	0
23	AX	230	0	119	17	0
24	AY	5214	0	5288	759	0
25	B0	662	0	688	86	0
26	B1	731	0	808	132	0
27	B2	598	0	653	123	0
28	B3	467	0	523	75	0
29	B4	450	0	449	101	0
30	B5	459	0	480	97	0
31	B6	433	0	461	177	0
32	B7	418	0	467	45	0
33	B8	507	0	576	112	0
34	B9	307	0	338	41	0
35	BA	62474	0	31032	3259	0
36	BB	2551	0	1278	166	0
37	BC	1742	0	1798	183	0
38	BD	2145	0	2234	311	0
39	BE	1563	0	1629	273	0
40	BF	1623	0	1677	288	0
41	BG	1474	0	1535	278	0
42	BH	1268	0	1337	209	0
43	BK	1025	0	1066	184	0
44	BL	477	0	509	17	0
45	BN	1104	0	1180	154	0
46	BO	933	0	996	116	0
47	BP	1114	0	1187	270	0
48	BQ	1122	0	1179	151	0
49	BR	960	0	1021	157	0
50	BS	770	0	832	177	0
51	BT	1141	0	1202	266	0
52	BU	958	0	1015	166	0
53	BV	779	0	852	142	0
54	BW	896	0	953	123	0
55	BX	725	0	778	97	0
56	BY	810	0	901	174	0
57	BZ	1467	0	1492	249	0
58	AY	37	0	46	17	0
59	AY	28	0	12	6	0
All	All	152777	0	105568	12274	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including

hydrogen atoms). The all-atom clashscore for this structure is 48.

All (12274) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:252:ASP:CB	24:AY:254:LYS:HE3	1.55	1.36
37:BC:118:PRO:HA	37:BC:121:MET:CG	1.60	1.31
53:BV:18:LEU:HD22	53:BV:19:LYS:N	1.45	1.30
1:AA:1158:C:C5'	2:AB:133:LYS:HE2	1.62	1.28
53:BV:18:LEU:CD2	53:BV:19:LYS:H	1.50	1.25
42:BH:157:TYR:CE1	42:BH:171:LEU:HD22	1.71	1.24
35:BA:1378:A:O2'	35:BA:1379:A:H5''	1.35	1.23
1:AA:509:A:H5'	1:AA:510:A:OP2	1.34	1.22
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.23	1.19
4:AD:18:LYS:HE2	4:AD:20:TYR:CE1	1.78	1.19
35:BA:2262:U:H2'	35:BA:2263:C:H5'	1.26	1.17
38:BD:32:SER:O	38:BD:36:PRO:HG3	1.45	1.16
24:AY:490:PRO:HG3	24:AY:516:PRO:HD2	1.26	1.16
51:BT:53:ARG:HB3	51:BT:53:ARG:HH11	1.09	1.16
42:BH:157:TYR:CE1	42:BH:171:LEU:CD2	2.28	1.16
35:BA:1899:G:N2	35:BA:1902:C:H41	1.42	1.16
35:BA:2473:U:H3'	35:BA:2474:C:H5''	1.23	1.15
24:AY:276:VAL:HA	24:AY:280:LEU:HD23	1.29	1.15
1:AA:1238:A:H5'	1:AA:1336:C:H41	1.10	1.15
41:BG:77:ILE:HG22	41:BG:80:PHE:H	1.04	1.15
35:BA:211:A:H2'	35:BA:212:G:H5''	1.28	1.14
39:BE:24:THR:HG22	39:BE:186:GLY:HA2	1.27	1.14
38:BD:166:GLN:HA	38:BD:166:GLN:HE21	1.12	1.14
41:BG:133:LEU:HD11	41:BG:157:ILE:HD12	1.22	1.14
16:AP:20:VAL:HG21	16:AP:32:TYR:HB2	1.30	1.14
24:AY:157:LEU:H	24:AY:157:LEU:HD23	1.05	1.14
35:BA:2645:G:H3'	35:BA:2646:C:H5'	1.29	1.13
25:B0:11:ARG:HH11	25:B0:11:ARG:HB2	1.01	1.13
55:BX:12:VAL:HB	55:BX:17:ALA:HB1	1.19	1.13
35:BA:925:C:H2'	35:BA:926:A:H5''	1.31	1.12
11:AK:111:ASP:HA	18:AR:84:LYS:HD2	1.31	1.11
57:BZ:28:MET:HB3	57:BZ:88:PHE:HB2	1.15	1.11
2:AB:44:LEU:H	2:AB:44:LEU:HD12	1.06	1.11
16:AP:25:ARG:HH11	16:AP:25:ARG:HG3	1.13	1.11
38:BD:34:VAL:HG23	38:BD:35:LYS:H	1.11	1.11
42:BH:157:TYR:HE1	42:BH:171:LEU:CD2	1.60	1.11
53:BV:51:VAL:HG12	53:BV:52:VAL:N	1.64	1.11
35:BA:996:A:H4'	52:BU:92:ARG:HE	1.00	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:99:LYS:H	49:BR:99:LYS:HD3	1.09	1.11
2:AB:147:LYS:HE2	2:AB:148:TYR:CE1	1.86	1.10
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.16	1.10
38:BD:267:SER:HA	38:BD:270:ILE:HD11	1.26	1.10
39:BE:131:ALA:HB3	39:BE:134:ILE:HD11	1.26	1.10
27:B2:41:ILE:HD11	27:B2:44:LEU:HD12	1.19	1.10
48:BQ:60:ARG:HB2	48:BQ:60:ARG:HH11	1.05	1.09
55:BX:11:PRO:HA	55:BX:28:PHE:HB3	1.25	1.09
57:BZ:69:THR:HG22	57:BZ:90:VAL:HA	1.26	1.09
2:AB:172:ILE:H	2:AB:172:ILE:HD12	0.96	1.09
38:BD:263:ARG:HH11	38:BD:263:ARG:HB2	1.01	1.09
51:BT:65:LYS:HE3	51:BT:66:VAL:N	1.66	1.09
4:AD:18:LYS:HE2	4:AD:20:TYR:HE1	0.99	1.09
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.31	1.09
40:BF:53:THR:HG22	40:BF:56:GLU:HG3	1.19	1.08
51:BT:13:ARG:NH1	51:BT:13:ARG:HA	1.68	1.08
1:AA:1100:C:H2'	1:AA:1101:A:H5''	1.36	1.08
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.35	1.08
24:AY:428:LEU:HD13	24:AY:440:VAL:HG11	1.33	1.08
35:BA:612:C:H2'	35:BA:613:G:H5''	1.16	1.08
42:BH:98:LEU:HB2	42:BH:125:VAL:HG21	1.24	1.08
12:AL:41:ARG:HG2	12:AL:42:THR:H	0.93	1.08
37:BC:118:PRO:HA	37:BC:121:MET:HG2	1.11	1.08
50:BS:24:LEU:HB3	50:BS:85:VAL:HG12	1.35	1.08
46:BO:17:ARG:HE	46:BO:47:ILE:HD11	1.15	1.08
35:BA:1747(A):G:C2'	35:BA:1748:G:H5''	1.83	1.08
41:BG:63:ILE:HA	41:BG:143:GLU:HG3	1.35	1.08
10:AJ:6:ILE:HD12	10:AJ:6:ILE:O	1.51	1.07
22:AV:21:A:H61	22:AV:46:G:H2'	1.16	1.07
35:BA:1747(A):G:H2'	35:BA:1748:G:H5''	1.33	1.07
2:AB:118:LEU:HB3	2:AB:142:LEU:HD12	1.30	1.07
51:BT:53:ARG:HB3	51:BT:53:ARG:NH1	1.70	1.07
1:AA:979:C:H3'	1:AA:980:C:H5''	1.26	1.07
23:AX:13:A:H3'	23:AX:14:A:H5''	1.36	1.07
24:AY:35:TYR:OH	24:AY:266:ASN:HB3	1.54	1.07
24:AY:82:ILE:HD12	24:AY:101:LEU:HD22	1.37	1.07
51:BT:65:LYS:HE3	51:BT:66:VAL:H	1.00	1.07
2:AB:147:LYS:HE2	2:AB:148:TYR:HE1	1.12	1.07
53:BV:21:ARG:HB3	53:BV:91:TYR:CD2	1.90	1.07
1:AA:979:C:C3'	1:AA:980:C:H5''	1.83	1.07
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.33	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.19	1.07
26:B1:56:GLN:HA	26:B1:56:GLN:HE21	1.12	1.07
35:BA:1845:G:H2'	35:BA:1846:G:H5''	1.36	1.06
9:AI:79:LEU:HD11	9:AI:83:ARG:HD2	1.26	1.06
26:B1:76:ARG:HH12	26:B1:95:LEU:HD22	1.11	1.06
56:BY:28:LYS:HB3	56:BY:37:VAL:HB	1.34	1.06
27:B2:69:ARG:HH22	35:BA:111:A:H4'	1.13	1.06
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.21	1.05
17:AQ:52:LYS:H	17:AQ:52:LYS:HD2	1.20	1.05
24:AY:84:THR:H	24:AY:85:PRO:HD2	1.20	1.05
31:B6:48:VAL:HG23	31:B6:49:HIS:H	1.14	1.05
42:BH:169:VAL:HG22	42:BH:170:ARG:H	0.89	1.05
20:AT:13:LEU:HD12	20:AT:13:LEU:H	1.18	1.05
24:AY:252:ASP:HB3	24:AY:254:LYS:HE3	1.06	1.05
1:AA:793:U:H3'	1:AA:794:A:H5''	1.30	1.05
3:AC:70:VAL:HG12	3:AC:72:LYS:H	0.91	1.05
35:BA:272(G):C:H2'	35:BA:272(H):C:H5''	1.38	1.05
43:BK:99:ILE:HG23	43:BK:103:GLN:HB2	1.33	1.05
35:BA:1452:A:H3'	35:BA:1453:U:C5'	1.87	1.05
43:BK:77:LEU:HD12	43:BK:107:ILE:HG23	1.36	1.05
2:AB:95:GLN:C	2:AB:96:ARG:HD2	1.77	1.04
35:BA:240:G:H3'	35:BA:241:A:H5''	1.38	1.04
45:BN:46:VAL:HG13	45:BN:47:ALA:H	1.19	1.04
33:B8:48:PHE:O	33:B8:49:VAL:HG13	1.57	1.04
40:BF:8:GLN:HB3	40:BF:126:VAL:HA	1.38	1.04
31:B6:8:LYS:HE3	31:B6:25:LYS:HD3	1.38	1.04
33:B8:13:ARG:HH12	47:BP:59:LEU:HG	1.23	1.04
35:BA:27:G:H22	35:BA:512:G:H2'	1.18	1.04
1:AA:1158:C:H5''	2:AB:133:LYS:CE	1.86	1.04
40:BF:53:THR:HG23	40:BF:55:GLY:H	1.19	1.04
1:AA:1323:G:H2'	1:AA:1324:A:C8	1.93	1.04
24:AY:21:ILE:HD13	24:AY:21:ILE:H	1.22	1.03
42:BH:12:PRO:HB2	42:BH:15:VAL:HG11	1.39	1.03
2:AB:95:GLN:HA	2:AB:96:ARG:HH11	1.18	1.03
57:BZ:151:HIS:HA	57:BZ:171:ILE:HG23	1.41	1.03
40:BF:181:LEU:HB3	40:BF:205:ARG:NH1	1.74	1.03
53:BV:51:VAL:HG12	53:BV:52:VAL:H	0.86	1.03
55:BX:12:VAL:HG23	55:BX:13:LEU:H	1.20	1.03
17:AQ:3:LYS:HB3	17:AQ:61:GLU:HB3	1.40	1.03
30:B5:44:THR:HG21	49:BR:101:ALA:HB2	1.41	1.03
35:BA:1899:G:N2	35:BA:1902:C:N4	2.07	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:38:ASN:C	51:BT:38:ASN:HD22	1.62	1.03
56:BY:76:CYS:HB3	56:BY:96:ILE:HD11	1.37	1.03
24:AY:423:LYS:HB3	24:AY:472:VAL:HG22	1.34	1.02
35:BA:903:C:H2'	35:BA:904:C:H5''	1.41	1.02
40:BF:3:GLU:HA	40:BF:24:LEU:HG	1.38	1.02
33:B8:13:ARG:NH1	47:BP:59:LEU:HG	1.75	1.02
35:BA:1503:U:H2'	35:BA:1504:C:H6	1.18	1.02
40:BF:154:VAL:HG22	40:BF:191:ARG:HB3	1.37	1.02
49:BR:84:ALA:HB3	49:BR:85:PRO:HD3	1.38	1.02
6:AF:30:LEU:HD13	6:AF:37:VAL:HG22	1.40	1.02
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.24	1.02
35:BA:272(I):U:O4	35:BA:363(A):A:N1	1.92	1.02
28:B3:31:LEU:HD13	28:B3:32:GLN:HG2	1.39	1.02
31:B6:48:VAL:HG23	31:B6:49:HIS:N	1.72	1.02
35:BA:2811:G:OP1	39:BE:60:ASN:HB2	1.59	1.02
35:BA:2876:G:H4'	51:BT:3:ARG:HE	1.22	1.02
51:BT:23:ARG:HG2	51:BT:120:ARG:HH12	1.20	1.02
56:BY:8:LYS:HB2	56:BY:28:LYS:NZ	1.73	1.02
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.42	1.01
49:BR:38:VAL:HB	49:BR:39:PRO:HD3	1.41	1.01
38:BD:131:LEU:HD12	38:BD:131:LEU:N	1.74	1.01
55:BX:35:THR:HG22	55:BX:37:THR:H	1.18	1.01
1:AA:939:G:H5''	7:AG:102:ARG:NH2	1.74	1.01
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.39	1.01
35:BA:1142(A):A:C2'	35:BA:1143:A:H5''	1.89	1.01
35:BA:1503:U:H2'	35:BA:1504:C:C6	1.96	1.01
1:AA:1128:C:H2'	1:AA:1129:C:H5''	1.38	1.01
15:AO:78:TYR:O	15:AO:82:ILE:HG22	1.59	1.01
24:AY:468:ARG:HB3	24:AY:468:ARG:HH11	1.26	1.01
35:BA:2310:A:O2'	35:BA:2311:A:H5'	1.59	1.01
49:BR:113:LEU:HD12	49:BR:114:VAL:H	1.24	1.01
1:AA:1128:C:C2'	1:AA:1129:C:H5''	1.90	1.01
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.40	1.01
43:BK:106:GLU:HA	43:BK:109:LYS:HD3	1.40	1.00
2:AB:29:ALA:O	2:AB:32:ILE:HG22	1.60	1.00
3:AC:70:VAL:HG12	3:AC:72:LYS:N	1.77	1.00
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	1.96	1.00
24:AY:513:LYS:HB2	24:AY:566:THR:HB	1.43	1.00
24:AY:546:ILE:HG23	24:AY:590:ILE:HG13	1.43	1.00
25:B0:11:ARG:HB2	25:B0:11:ARG:NH1	1.76	1.00
35:BA:631:A:OP1	47:BP:64:LYS:HE2	1.59	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:965:C:H5'	35:BA:2273:A:H1'	1.42	1.00
35:BA:2584:U:H2'	35:BA:2585:U:H5'	1.39	1.00
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.43	1.00
24:AY:355:LEU:HD12	24:AY:369:LEU:HD13	1.42	1.00
35:BA:1043:C:H2'	35:BA:1044:G:H5''	1.42	1.00
37:BC:118:PRO:CA	37:BC:121:MET:HG2	1.90	1.00
57:BZ:149:SER:HB3	57:BZ:173:ALA:HB2	1.43	1.00
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.38	1.00
42:BH:169:VAL:CG2	42:BH:170:ARG:H	1.74	1.00
1:AA:182:U:H5'	1:AA:183:G:OP2	1.62	1.00
45:BN:9:VAL:HG11	45:BN:39:ARG:HH22	1.27	0.99
19:AS:21:GLU:HG3	19:AS:22:LEU:CD2	1.92	0.99
1:AA:1158:C:H5''	2:AB:133:LYS:HE2	0.99	0.99
35:BA:286:C:H6	35:BA:286:C:H5'	1.22	0.99
38:BD:267:SER:CA	38:BD:270:ILE:HD11	1.91	0.99
42:BH:85:LYS:HZ3	42:BH:87:LEU:HG	1.26	0.99
46:BO:104:ARG:HE	51:BT:33:LYS:HE3	1.25	0.99
25:B0:47:PRO:HG3	25:B0:59:LEU:HD21	1.44	0.99
19:AS:44:MET:N	19:AS:44:MET:SD	2.34	0.99
38:BD:27:THR:HG21	38:BD:83:GLU:HG2	1.43	0.99
51:BT:28:VAL:HG21	51:BT:46:GLU:HG3	1.44	0.99
24:AY:281:PRO:HB2	24:AY:286:ILE:HD11	1.41	0.99
13:AM:97:PRO:HA	13:AM:110:ARG:HD3	1.41	0.99
35:BA:288:C:H2'	35:BA:289:A:H8	1.22	0.99
39:BE:36:ARG:HH11	39:BE:36:ARG:HG2	1.27	0.99
2:AB:124:SER:OG	2:AB:125:PRO:HD2	1.60	0.98
35:BA:154(A):C:H5''	35:BA:155:U:H5''	1.45	0.98
42:BH:169:VAL:HG22	42:BH:170:ARG:N	1.71	0.98
35:BA:1658:C:H2'	35:BA:1659:U:H6	1.27	0.98
1:AA:1452:C:H1'	1:AA:1456:G:N2	1.79	0.98
24:AY:85:PRO:HA	24:AY:94:VAL:HG22	1.41	0.98
35:BA:2175:C:H4'	37:BC:219:MET:O	1.64	0.98
1:AA:686:U:HO2'	1:AA:687:A:H8	1.01	0.98
35:BA:2138:C:H2'	35:BA:2139:C:H6	1.28	0.98
44:BL:73:ARG:HG2	44:BL:73:ARG:HH11	1.29	0.98
22:AV:75:C:O2'	26:B1:30:VAL:HG11	1.63	0.98
35:BA:272(J):C:H3'	35:BA:274:G:H5''	1.46	0.98
40:BF:84:VAL:HG12	40:BF:85:GLY:N	1.76	0.98
48:BQ:60:ARG:HB2	48:BQ:60:ARG:NH1	1.78	0.98
5:AE:101:ILE:HD11	5:AE:119:LEU:HA	1.41	0.98
35:BA:142:A:H1'	35:BA:1408:C:H1'	1.45	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:10:GLY:HA2	56:BY:27:VAL:HG13	1.46	0.98
41:BG:98:ARG:HG2	41:BG:98:ARG:HH11	1.23	0.97
35:BA:1814:G:H3'	35:BA:1815:A:H5''	1.42	0.97
24:AY:252:ASP:HB2	24:AY:254:LYS:HE3	1.43	0.97
28:B3:17:LYS:NZ	28:B3:20:LYS:HE3	1.78	0.97
38:BD:95:LEU:HD12	38:BD:103:ARG:O	1.63	0.97
1:AA:656:C:H4'	15:AO:62:GLN:HE22	1.26	0.97
35:BA:358:U:H2'	35:BA:359:A:H8	1.28	0.97
20:AT:11:SER:HA	20:AT:13:LEU:HD11	1.46	0.97
23:AX:13:A:C3'	23:AX:14:A:H5''	1.94	0.97
53:BV:28:GLU:HB2	53:BV:31:ALA:HB2	1.46	0.97
41:BG:97:ASP:HB2	41:BG:98:ARG:HH12	1.30	0.97
4:AD:57:ARG:HG2	4:AD:57:ARG:HH11	1.30	0.97
35:BA:1038:C:H3'	35:BA:1039:G:H5''	1.43	0.97
38:BD:35:LYS:HG2	38:BD:63:ARG:HA	1.44	0.97
41:BG:77:ILE:HG22	41:BG:80:PHE:N	1.78	0.97
43:BK:30:HIS:HA	43:BK:59:ILE:HD12	1.44	0.97
35:BA:2572:A:H5'	35:BA:2574:G:H4'	1.46	0.97
40:BF:123:LEU:HD12	40:BF:124:LEU:N	1.79	0.97
24:AY:15:ILE:HD11	24:AY:81:ILE:HG12	1.46	0.97
35:BA:1826:G:H4'	38:BD:242:ARG:HH21	1.23	0.97
36:BB:7:G:H2'	36:BB:8:U:H5''	1.45	0.97
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.64	0.96
27:B2:47:ASN:HB2	35:BA:95:G:H1'	1.47	0.96
35:BA:2110:G:O2'	35:BA:2120:G:H5'	1.63	0.96
53:BV:51:VAL:CG1	53:BV:52:VAL:H	1.78	0.96
24:AY:555:LEU:HD21	24:AY:599:PRO:HG3	1.44	0.96
30:B5:58:LEU:O	30:B5:58:LEU:HD22	1.64	0.96
35:BA:2012:G:H4'	54:BW:96:ILE:HD11	1.47	0.96
38:BD:263:ARG:HH11	38:BD:263:ARG:CB	1.77	0.96
1:AA:1026:G:H2'	1:AA:1027:C:H5'	1.48	0.96
35:BA:2133:G:H2'	35:BA:2157:G:N2	1.80	0.96
55:BX:8:ILE:H	55:BX:8:ILE:HD12	1.30	0.96
1:AA:1489:G:H2'	1:AA:1490:C:H5''	1.46	0.96
10:AJ:50:ILE:HD13	10:AJ:50:ILE:H	1.30	0.96
35:BA:2020:A:C2'	35:BA:2021:C:H5''	1.95	0.96
48:BQ:12:GLN:HE21	48:BQ:73:PRO:HD2	1.28	0.96
50:BS:49:VAL:HG12	50:BS:50:SER:H	1.26	0.96
6:AF:37:VAL:HG12	6:AF:38:GLU:H	1.31	0.96
8:AH:41:ARG:HH22	8:AH:123:GLU:CD	1.67	0.96
9:AI:114:TYR:HE2	10:AJ:60:ARG:H	0.96	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:97:ASP:H	41:BG:100:TRP:HD1	1.10	0.96
48:BQ:87:LYS:HG2	48:BQ:88:GLY:H	1.30	0.96
49:BR:63:ARG:HH22	49:BR:77:ARG:HG2	1.29	0.96
43:BK:81:ALA:HB1	43:BK:99:ILE:HD11	1.48	0.96
18:AR:31:LEU:HD23	18:AR:31:LEU:H	1.31	0.95
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.49	0.95
3:AC:72:LYS:HE3	3:AC:72:LYS:HA	1.48	0.95
31:B6:43:CYS:CB	31:B6:44:ARG:HH21	1.78	0.95
35:BA:211:A:C2'	35:BA:212:G:H5''	1.94	0.95
51:BT:13:ARG:HH12	51:BT:15:VAL:HG22	1.28	0.95
5:AE:9:LYS:HB2	5:AE:112:LEU:HD11	1.45	0.95
19:AS:43:GLU:HB2	19:AS:44:MET:SD	2.05	0.95
22:AV:17:C:H6	22:AV:17(A):U:H5	1.03	0.95
35:BA:813:U:H2'	35:BA:814:C:C6	2.01	0.95
37:BC:118:PRO:HA	37:BC:121:MET:HG3	1.48	0.95
46:BO:111:PHE:HB3	46:BO:114:ILE:HD13	1.47	0.95
49:BR:99:LYS:HD3	49:BR:99:LYS:N	1.81	0.95
50:BS:28:VAL:HG12	50:BS:29:PHE:H	1.28	0.95
50:BS:40:ILE:HG22	50:BS:41:ASP:N	1.80	0.95
1:AA:979:C:H3'	1:AA:980:C:C5'	1.96	0.95
11:AK:72:ALA:HB1	11:AK:77:MET:HE3	1.47	0.95
35:BA:1409:C:H2'	35:BA:1410:G:H8	1.31	0.95
35:BA:2476:A:H2'	35:BA:2477:C:H5''	1.43	0.95
2:AB:172:ILE:HD12	2:AB:172:ILE:N	1.81	0.95
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.28	0.95
42:BH:157:TYR:HE1	42:BH:171:LEU:HD21	1.31	0.95
35:BA:2296:U:H4'	35:BA:2297:C:OP1	1.65	0.95
12:AL:41:ARG:CG	12:AL:42:THR:H	1.78	0.95
19:AS:21:GLU:HG3	19:AS:22:LEU:HD23	1.46	0.95
35:BA:996:A:H4'	52:BU:92:ARG:NE	1.82	0.95
35:BA:1947:C:C2'	35:BA:1948:G:H5''	1.97	0.95
55:BX:12:VAL:HG12	55:BX:27:THR:O	1.67	0.95
55:BX:24:GLY:O	55:BX:82:GLN:HA	1.65	0.95
55:BX:27:THR:HB	55:BX:80:ILE:HG22	1.49	0.95
22:AV:46:G:H4'	22:AV:47:U:H5	1.32	0.94
43:BK:17:ALA:CB	43:BK:38:VAL:HG22	1.96	0.94
56:BY:10:GLY:CA	56:BY:27:VAL:HG13	1.97	0.94
28:B3:17:LYS:HG2	35:BA:969:U:OP1	1.66	0.94
47:BP:126:VAL:HA	47:BP:145:PRO:HB2	1.48	0.94
24:AY:252:ASP:HB3	24:AY:254:LYS:CE	1.96	0.94
41:BG:16:ARG:HE	41:BG:31:VAL:HG11	1.32	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1054:C:O2'	1:AA:1055:A:H5''	1.66	0.94
35:BA:212:G:H5'	35:BA:212:G:H8	1.31	0.94
50:BS:49:VAL:HG12	50:BS:50:SER:N	1.80	0.94
35:BA:27:G:HO2'	35:BA:28:A:H8	1.03	0.94
35:BA:2645:G:H3'	35:BA:2646:C:C5'	1.95	0.94
43:BK:17:ALA:HB3	43:BK:38:VAL:HG22	1.50	0.94
49:BR:10:LEU:HB3	49:BR:17:ARG:HD3	1.47	0.94
11:AK:72:ALA:HB1	11:AK:77:MET:CE	1.98	0.94
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.32	0.94
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.77	0.94
24:AY:84:THR:H	24:AY:85:PRO:CD	1.79	0.94
35:BA:108:U:H2'	35:BA:109:G:C8	2.02	0.94
37:BC:101:ILE:H	37:BC:101:ILE:HD12	1.33	0.94
40:BF:84:VAL:HG12	40:BF:85:GLY:H	1.31	0.94
26:B1:86:SER:HB3	26:B1:89:GLU:HB2	1.47	0.94
33:B8:52:LYS:N	33:B8:53:PRO:HD2	1.83	0.94
41:BG:97:ASP:HB2	41:BG:98:ARG:NH1	1.82	0.94
53:BV:18:LEU:HD22	53:BV:19:LYS:H	0.78	0.94
1:AA:656:C:H4'	15:AO:62:GLN:NE2	1.82	0.93
1:AA:975:A:H4'	1:AA:976:G:H5''	1.50	0.93
1:AA:1053:G:N7	1:AA:1200:C:H5''	1.83	0.93
35:BA:2133:G:H2'	35:BA:2157:G:H22	1.31	0.93
38:BD:176:ARG:HG2	38:BD:176:ARG:HH11	1.30	0.93
40:BF:157:VAL:CG2	40:BF:194:MET:HG2	1.99	0.93
35:BA:1052:C:H3'	35:BA:1052:C:H6	1.31	0.93
35:BA:1779:U:H5	35:BA:1784:A:N7	1.67	0.93
38:BD:263:ARG:HB2	38:BD:263:ARG:NH1	1.83	0.93
35:BA:1142(A):A:H4'	45:BN:25:ARG:HH22	1.33	0.93
35:BA:2389:G:H5''	35:BA:2390:U:H5'	1.51	0.93
35:BA:1697:G:H3'	35:BA:1698:A:H5''	1.51	0.93
40:BF:24:LEU:HB3	40:BF:25:PRO:HD2	1.50	0.93
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.03	0.93
35:BA:1223:G:H3'	35:BA:1224:C:H5''	1.51	0.93
37:BC:211:ARG:HH11	37:BC:211:ARG:HG3	1.31	0.93
38:BD:44:ASN:HB3	38:BD:49:ILE:HA	1.49	0.93
57:BZ:151:HIS:HB3	57:BZ:170:THR:HA	1.51	0.93
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	1.98	0.93
35:BA:1020:A:N1	35:BA:1141:U:H2'	1.84	0.93
50:BS:89:ARG:HG3	50:BS:92:TYR:CA	1.99	0.93
3:AC:110:ASN:OD1	3:AC:140:ARG:HD2	1.68	0.93
11:AK:54:ARG:O	11:AK:57:THR:HG22	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:17:C:H5'	22:AV:17(A):U:C6	2.03	0.93
52:BU:110:VAL:HG12	52:BU:114:LYS:HD3	1.48	0.93
4:AD:96:LEU:HD22	4:AD:96:LEU:H	1.33	0.92
12:AL:6:THR:HG23	12:AL:9:GLN:HE21	1.32	0.92
38:BD:166:GLN:HA	38:BD:166:GLN:NE2	1.81	0.92
12:AL:83:VAL:HG11	12:AL:100:ILE:HD13	1.50	0.92
35:BA:1658:C:H2'	35:BA:1659:U:C6	2.03	0.92
35:BA:107:C:H2'	35:BA:108:U:H6	1.31	0.92
35:BA:2573:C:O2	35:BA:2573:C:H2'	1.69	0.92
35:BA:2591:C:H2'	35:BA:2592:G:C8	2.04	0.92
45:BN:54:VAL:HB	45:BN:122:VAL:HG22	1.51	0.92
1:AA:1502:A:H2	1:AA:1505:G:H1	1.02	0.92
2:AB:126:GLU:HA	2:AB:129:GLU:OE2	1.68	0.92
3:AC:70:VAL:CG1	3:AC:72:LYS:H	1.82	0.92
39:BE:107:THR:O	39:BE:190:GLY:HA2	1.68	0.92
24:AY:314:PHE:CD1	24:AY:315:LYS:HB2	2.04	0.92
33:B8:56:GLU:HA	33:B8:59:LYS:HZ1	1.30	0.92
42:BH:137:ASP:HB2	42:BH:140:LYS:HD2	1.52	0.92
45:BN:45:ASN:HD22	45:BN:45:ASN:H	1.17	0.92
33:B8:23:VAL:HG12	33:B8:46:ARG:HH11	1.35	0.92
35:BA:195:A:OP1	47:BP:46:LYS:HE2	1.70	0.92
38:BD:65:ILE:HG22	38:BD:104:TYR:HB3	1.51	0.92
38:BD:166:GLN:HE21	38:BD:166:GLN:CA	1.83	0.92
24:AY:169:GLY:HA3	24:AY:173:THR:O	1.69	0.92
26:B1:76:ARG:NH1	26:B1:95:LEU:HD22	1.84	0.92
26:B1:86:SER:O	26:B1:90:ILE:HG12	1.70	0.92
57:BZ:179:ASP:HB3	57:BZ:182:LYS:HD2	1.50	0.92
35:BA:288:C:H2'	35:BA:289:A:C8	2.05	0.92
49:BR:55:ALA:HA	49:BR:80:PHE:CE1	2.04	0.92
56:BY:14:LEU:HD13	56:BY:24:VAL:HG22	1.50	0.92
3:AC:52:LEU:H	3:AC:52:LEU:HD23	1.33	0.92
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	1.85	0.92
22:AV:17:C:H6	22:AV:17(A):U:C5	1.86	0.92
24:AY:92:ILE:HG12	24:AY:405:PRO:HG2	1.51	0.92
35:BA:480:A:OP2	56:BY:46:LYS:HE3	1.68	0.92
46:BO:17:ARG:O	46:BO:18:LYS:HG3	1.69	0.92
51:BT:29:ARG:CG	51:BT:85:LYS:HA	2.00	0.92
24:AY:539:ILE:HA	24:AY:542:VAL:HG12	1.48	0.92
38:BD:176:ARG:HH11	38:BD:176:ARG:CG	1.79	0.92
41:BG:28:VAL:O	41:BG:31:VAL:HG12	1.70	0.92
41:BG:172:LEU:HD23	41:BG:176:LEU:HD11	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:43:VAL:HG11	42:BH:52:VAL:HA	1.49	0.92
47:BP:30:THR:HG22	47:BP:31:ALA:H	1.32	0.92
30:B5:2:ALA:HA	35:BA:2015:A:H1'	1.52	0.91
30:B5:41:PRO:HG2	30:B5:44:THR:OG1	1.69	0.91
41:BG:68:PRO:HA	41:BG:92:VAL:HG12	1.51	0.91
1:AA:1502:A:H2	1:AA:1505:G:N1	1.68	0.91
47:BP:40:SER:O	47:BP:41:ARG:HD2	1.71	0.91
35:BA:2105:C:H42	35:BA:2184:G:H1	1.18	0.91
56:BY:7:VAL:HB	56:BY:8:LYS:HD2	1.52	0.91
3:AC:72:LYS:HA	3:AC:72:LYS:CE	2.00	0.91
39:BE:98:PRO:HG3	39:BE:175:VAL:HG12	1.52	0.91
35:BA:2150:U:H2'	35:BA:2151:G:C8	2.06	0.91
1:AA:1238:A:H5'	1:AA:1336:C:N4	1.84	0.91
35:BA:2807:G:H3'	35:BA:2808:U:H5''	1.53	0.91
43:BK:58:THR:HB	43:BK:66:THR:CG2	2.00	0.91
28:B3:56:VAL:HG12	28:B3:57:GLU:N	1.84	0.91
35:BA:1845:G:C2'	35:BA:1846:G:H5''	2.00	0.91
1:AA:625:G:H2'	1:AA:626:U:H6	1.34	0.91
23:AX:15:A:H5'	23:AX:16:A:OP1	1.68	0.91
24:AY:496:LYS:HE2	24:AY:498:ILE:HD11	1.53	0.91
24:AY:517:LEU:HD23	24:AY:521:SER:HB3	1.52	0.91
42:BH:85:LYS:NZ	42:BH:87:LEU:HG	1.85	0.91
20:AT:11:SER:HA	20:AT:13:LEU:CD1	2.01	0.91
31:B6:45:LYS:HG2	35:BA:2371:G:H4'	1.51	0.91
53:BV:40:LEU:HA	53:BV:45:THR:HB	1.52	0.91
22:AV:17:C:H5''	22:AV:17(A):U:H6	1.36	0.91
31:B6:27:LYS:HD2	31:B6:30:THR:HB	1.53	0.91
47:BP:55:ARG:HG2	47:BP:56:SER:H	1.35	0.91
57:BZ:165:VAL:HG12	57:BZ:166:SER:N	1.85	0.91
35:BA:279:C:H2'	35:BA:280:C:H5''	1.53	0.90
39:BE:1:MET:HB3	39:BE:200:GLU:OE2	1.70	0.90
1:AA:1473:A:O2'	1:AA:1474:G:H5'	1.71	0.90
38:BD:241:PRO:C	38:BD:242:ARG:HG3	1.92	0.90
2:AB:204:ASN:ND2	2:AB:206:ASP:H	1.69	0.90
18:AR:29:PHE:HD1	18:AR:29:PHE:H	1.18	0.90
35:BA:364:C:H2'	35:BA:365:C:H5''	1.52	0.90
1:AA:697:U:H2'	1:AA:698:G:H5'	1.52	0.90
6:AF:43:LEU:H	6:AF:43:LEU:HD12	1.35	0.90
36:BB:82:G:O2'	36:BB:83:G:H5'	1.70	0.90
41:BG:53:LEU:H	41:BG:53:LEU:HD22	1.36	0.90
24:AY:363:ARG:HH11	24:AY:363:ARG:HG3	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1142(A):A:H2'	35:BA:1143:A:H5''	1.53	0.90
38:BD:35:LYS:HD2	38:BD:36:PRO:N	1.86	0.90
50:BS:49:VAL:HG21	50:BS:77:ALA:HB2	1.52	0.90
4:AD:129:ASN:HD21	4:AD:145:GLU:H	1.16	0.90
35:BA:2584:U:C2'	35:BA:2585:U:H5'	2.01	0.90
13:AM:118:ALA:HB3	13:AM:120:LYS:HD3	1.54	0.90
26:B1:4:VAL:HG23	26:B1:10:LYS:O	1.71	0.90
32:B7:28:ARG:HH11	32:B7:28:ARG:HG3	1.37	0.90
35:BA:533:G:H5''	52:BU:24:TYR:CE1	2.05	0.90
35:BA:2138:C:H2'	35:BA:2139:C:C6	2.05	0.90
48:BQ:55:VAL:HG23	57:BZ:178:GLU:HG2	1.52	0.90
24:AY:427:ALA:HB1	24:AY:466:LEU:HD11	1.50	0.90
38:BD:84:TYR:HD2	38:BD:91:ARG:HH22	1.20	0.90
51:BT:65:LYS:CE	51:BT:66:VAL:H	1.84	0.90
22:AV:20:U:H3'	22:AV:21:A:H5'	1.53	0.90
24:AY:555:LEU:HD21	24:AY:599:PRO:CG	2.00	0.90
32:B7:24:THR:HG23	32:B7:27:GLY:H	1.33	0.90
38:BD:134:ARG:HG2	38:BD:187:GLY:O	1.72	0.90
41:BG:59:GLU:HA	41:BG:62:LEU:HD13	1.54	0.90
2:AB:44:LEU:H	2:AB:44:LEU:CD1	1.85	0.90
13:AM:99:ARG:O	13:AM:101:GLN:HG3	1.71	0.90
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	1.71	0.90
31:B6:14:THR:O	31:B6:49:HIS:HA	1.72	0.90
35:BA:1314:C:H6	35:BA:1314:C:H5'	1.36	0.90
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.06	0.90
42:BH:19:VAL:HG12	42:BH:20:ALA:H	1.36	0.90
45:BN:65:LYS:HZ3	45:BN:65:LYS:HA	1.34	0.90
31:B6:48:VAL:CG2	31:B6:49:HIS:H	1.85	0.89
35:BA:1188:U:O2'	35:BA:1189:A:H5'	1.72	0.89
40:BF:3:GLU:CA	40:BF:24:LEU:HG	2.00	0.89
1:AA:824:C:H2'	1:AA:825:G:H8	1.37	0.89
35:BA:2562:U:H1'	46:BO:23:ARG:HH11	1.36	0.89
36:BB:21:G:H2'	36:BB:21:G:N3	1.85	0.89
40:BF:157:VAL:HG22	40:BF:194:MET:HG2	1.54	0.89
41:BG:90:LEU:HD12	41:BG:91:ARG:H	1.37	0.89
46:BO:69:ILE:HD13	46:BO:77:ILE:HG23	1.55	0.89
1:AA:720:C:H3'	1:AA:721:G:H5''	1.54	0.89
1:AA:980:C:H5	1:AA:981:U:C2	1.89	0.89
35:BA:612:C:C2'	35:BA:613:G:H5''	2.03	0.89
35:BA:1259:G:O2'	35:BA:1260:G:H5'	1.72	0.89
50:BS:34:HIS:CE1	50:BS:54:LEU:HB3	2.06	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BW:29:LEU:HD11	54:BW:51:LEU:HD11	1.54	0.89
35:BA:27:G:N2	35:BA:512:G:H2'	1.86	0.89
35:BA:1007:C:H4'	45:BN:108:PRO:HD3	1.52	0.89
41:BG:76:SER:CB	41:BG:83:ARG:HB3	2.03	0.89
5:AE:9:LYS:CB	5:AE:112:LEU:HD11	2.02	0.89
12:AL:39:VAL:HB	12:AL:57:LYS:HB2	1.54	0.89
16:AP:14:ASN:N	16:AP:15:PRO:HD3	1.84	0.89
24:AY:496:LYS:HE2	24:AY:498:ILE:CD1	2.03	0.89
51:BT:80:SER:HB3	51:BT:81:PRO:HD3	1.53	0.89
35:BA:1827:C:O2'	35:BA:1828:G:H5'	1.73	0.89
39:BE:24:THR:HG23	39:BE:184:VAL:HG23	1.52	0.89
42:BH:37:VAL:HG12	42:BH:38:SER:N	1.87	0.89
43:BK:115:LEU:HD22	43:BK:126:MET:HE1	1.55	0.89
22:AV:61:C:O2'	22:AV:62:C:H5'	1.73	0.89
24:AY:238:THR:HG22	24:AY:241:GLU:HG2	1.52	0.89
31:B6:43:CYS:HB2	31:B6:44:ARG:HH21	1.37	0.89
35:BA:2762:G:H5'	35:BA:2762:G:C8	2.08	0.89
7:AG:27:ILE:HD11	7:AG:40:ALA:HA	1.54	0.89
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.54	0.89
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.51	0.89
35:BA:2287:A:H62	35:BA:2344:U:H3	1.20	0.89
35:BA:2287:A:N6	35:BA:2344:U:H3	1.70	0.89
40:BF:160:ASN:OD1	40:BF:163:VAL:HG23	1.73	0.89
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	1.86	0.89
35:BA:2756:U:H4'	35:BA:2757:A:OP1	1.68	0.89
4:AD:121:VAL:HA	4:AD:126:ILE:HD13	1.53	0.88
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE1	1.91	0.88
33:B8:56:GLU:HA	33:B8:59:LYS:NZ	1.87	0.88
35:BA:2439:A:O2'	35:BA:2587:A:H5''	1.73	0.88
35:BA:1827:C:C2'	35:BA:1828:G:H5'	2.03	0.88
51:BT:28:VAL:HG22	51:BT:46:GLU:HA	1.55	0.88
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.09	0.88
39:BE:33:VAL:HG12	39:BE:90:THR:H	1.36	0.88
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.56	0.88
29:B4:8:LYS:O	29:B4:9:LEU:HB2	1.72	0.88
54:BW:15:ARG:HA	54:BW:18:ARG:HD2	1.56	0.88
1:AA:474:G:H2'	1:AA:475:G:H8	1.38	0.88
35:BA:2313:C:H5'	35:BA:2313:C:H6	1.38	0.88
35:BA:2392:A:H8	47:BP:60:MET:HB3	1.39	0.88
40:BF:7:TYR:HD2	40:BF:16:GLY:HA3	1.39	0.88
41:BG:172:LEU:O	41:BG:176:LEU:HG	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:134:C:H2'	35:BA:135:G:H8	1.39	0.88
35:BA:2461:C:H5'	35:BA:2462:U:OP2	1.73	0.88
38:BD:155:LEU:HD12	38:BD:155:LEU:N	1.87	0.88
43:BK:115:LEU:HD13	43:BK:126:MET:SD	2.14	0.88
40:BF:20:LEU:HD23	40:BF:21:ALA:N	1.89	0.88
42:BH:157:TYR:CD1	42:BH:171:LEU:HD22	2.08	0.88
51:BT:27:THR:O	51:BT:28:VAL:HG23	1.73	0.88
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.56	0.87
24:AY:157:LEU:H	24:AY:157:LEU:CD2	1.87	0.87
24:AY:534:ILE:HD12	24:AY:567:LEU:HD11	1.56	0.87
28:B3:56:VAL:HG12	28:B3:57:GLU:H	1.39	0.87
35:BA:2514:U:H2'	35:BA:2515:C:H6	1.39	0.87
49:BR:2:ARG:HD2	49:BR:5:LYS:HE2	1.53	0.87
51:BT:23:ARG:HB2	51:BT:24:PRO:HD2	1.56	0.87
1:AA:80:G:H3'	1:AA:81:U:H5'	1.54	0.87
24:AY:329:ARG:HD3	24:AY:374:LEU:HD11	1.55	0.87
35:BA:395:U:H2'	35:BA:396:G:N7	1.90	0.87
35:BA:903:C:C2'	35:BA:904:C:H5''	2.05	0.87
47:BP:125:VAL:O	47:BP:145:PRO:HD2	1.73	0.87
52:BU:20:LEU:H	52:BU:20:LEU:HD22	1.39	0.87
56:BY:44:ILE:HG22	56:BY:45:VAL:H	1.37	0.87
3:AC:90:GLU:O	3:AC:93:LYS:HB3	1.74	0.87
4:AD:61:LYS:HE2	4:AD:62:GLN:HE21	1.38	0.87
35:BA:676:A:H8	35:BA:2069:G:H21	1.22	0.87
35:BA:1504:C:H2'	35:BA:1505:C:H5''	1.56	0.87
35:BA:2712:U:O2'	35:BA:2712(A):A:H8	1.57	0.87
47:BP:85:LEU:HD23	47:BP:85:LEU:H	1.37	0.87
2:AB:118:LEU:CB	2:AB:142:LEU:HD12	2.05	0.87
4:AD:160:GLN:O	4:AD:163:GLU:HB3	1.74	0.87
20:AT:23:ARG:O	20:AT:27:LYS:HB2	1.74	0.87
32:B7:41:ARG:HH22	35:BA:460:A:P	1.97	0.87
35:BA:979:G:H3'	35:BA:980:A:C5'	2.05	0.87
3:AC:79:ARG:HB2	3:AC:79:ARG:HH11	1.37	0.87
42:BH:46:GLU:HG3	42:BH:51:ARG:H	1.39	0.87
19:AS:22:LEU:O	19:AS:26:GLY:HA2	1.75	0.87
34:B9:17:ILE:HG21	34:B9:19:ARG:HH21	1.39	0.87
35:BA:107:C:H2'	35:BA:108:U:C6	2.10	0.87
35:BA:1833:U:H2'	35:BA:1834:U:H6	1.39	0.87
39:BE:26:ILE:HG21	39:BE:196:VAL:HG21	1.56	0.87
42:BH:37:VAL:HG12	42:BH:38:SER:H	1.40	0.87
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.53	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:299:A:H5'	35:BA:300:A:OP2	1.74	0.87
35:BA:970:C:H2'	35:BA:971:C:H6	1.39	0.87
35:BA:2577:A:H5'	35:BA:2578:G:H5'	1.54	0.87
45:BN:65:LYS:HA	45:BN:65:LYS:NZ	1.89	0.87
37:BC:23:ILE:HB	37:BC:229:SER:OXT	1.75	0.87
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.40	0.86
35:BA:2425:A:H5'	35:BA:2427:C:O4'	1.75	0.86
39:BE:111:ARG:HA	49:BR:2:ARG:HB3	1.57	0.86
54:BW:10:VAL:HG23	54:BW:101:SER:O	1.75	0.86
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.56	0.86
22:AV:71:C:O2	22:AV:71:C:H2'	1.75	0.86
35:BA:2131:G:H5'	35:BA:2133:G:H1'	1.58	0.86
41:BG:135:LEU:HD11	41:BG:155:MET:HG2	1.58	0.86
43:BK:93:ARG:HG3	57:BZ:112:ARG:HE	1.37	0.86
1:AA:178:C:O2'	1:AA:179:A:H5'	1.75	0.86
1:AA:509:A:C5'	1:AA:510:A:OP2	2.21	0.86
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	1.76	0.86
35:BA:1747(A):G:H2'	35:BA:1748:G:C5'	2.06	0.86
35:BA:2076:U:H5'	35:BA:2238:G:H22	1.40	0.86
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.55	0.86
2:AB:223:ILE:HG12	2:AB:226:ARG:CZ	2.05	0.86
7:AG:78:ARG:HH11	7:AG:78:ARG:HG3	1.39	0.86
46:BO:69:ILE:HD12	46:BO:69:ILE:N	1.90	0.86
50:BS:89:ARG:HG2	50:BS:89:ARG:HH11	1.41	0.86
34:B9:18:ARG:HG2	34:B9:18:ARG:O	1.75	0.86
40:BF:187:VAL:HG13	47:BP:5:ASP:O	1.76	0.86
43:BK:77:LEU:HD23	43:BK:77:LEU:H	1.40	0.86
47:BP:101:VAL:HG12	47:BP:106:LEU:HB3	1.58	0.86
1:AA:625:G:H2'	1:AA:626:U:C6	2.11	0.86
35:BA:2262:U:H2'	35:BA:2263:C:C5'	2.04	0.86
4:AD:18:LYS:CE	4:AD:20:TYR:HE1	1.85	0.86
25:B0:7:LEU:HD12	48:BQ:85:LYS:HE2	1.58	0.86
27:B2:17:SER:HB2	27:B2:18:PRO:HD2	1.57	0.86
28:B3:6:VAL:HB	28:B3:54:VAL:HG11	1.58	0.86
35:BA:745:G:H5'	35:BA:746:A:OP2	1.76	0.86
35:BA:1876:A:H2'	35:BA:1877:A:C8	2.11	0.86
35:BA:2807:G:H1	35:BA:2893:G:H1	1.24	0.86
47:BP:59:LEU:HA	47:BP:61:ARG:NE	1.91	0.86
1:AA:975:A:H5'	1:AA:975:A:H8	1.40	0.86
35:BA:1223:G:H3'	35:BA:1224:C:C5'	2.05	0.86
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.39	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:157:LEU:HD23	24:AY:157:LEU:N	1.89	0.86
35:BA:154(A):C:C5'	35:BA:155:U:H5''	2.06	0.86
35:BA:2262:U:C2'	35:BA:2263:C:H5'	2.05	0.86
35:BA:2438:U:O3'	35:BA:2439:A:H4'	1.71	0.86
24:AY:121:VAL:HG23	24:AY:122:TRP:H	1.41	0.85
35:BA:272(G):C:C2'	35:BA:272(H):C:H5''	2.05	0.85
48:BQ:75:THR:HG22	48:BQ:76:LYS:N	1.88	0.85
50:BS:89:ARG:HG3	50:BS:92:TYR:HA	1.54	0.85
1:AA:1004:A:H61	1:AA:1034:G:H2'	1.41	0.85
3:AC:5:ILE:O	3:AC:5:ILE:HD13	1.75	0.85
47:BP:98:GLU:HA	47:BP:101:VAL:HG22	1.58	0.85
40:BF:40:GLN:HE22	40:BF:182:ASN:HB2	1.37	0.85
41:BG:87:PRO:O	41:BG:88:ILE:HD12	1.77	0.85
42:BH:98:LEU:CB	42:BH:125:VAL:HG21	2.06	0.85
43:BK:6:ALA:HB3	43:BK:59:ILE:HG22	1.59	0.85
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.42	0.85
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.41	0.85
24:AY:21:ILE:HD13	24:AY:21:ILE:N	1.90	0.85
1:AA:973:G:H3'	1:AA:974:A:H5''	1.59	0.85
26:B1:18:ILE:HG21	26:B1:20:ARG:HE	1.40	0.85
26:B1:81:LYS:HE2	35:BA:271(H):G:H4'	1.59	0.85
35:BA:1301:A:O2'	35:BA:1302:A:H2'	1.75	0.85
35:BA:1884:A:H2'	35:BA:1885:A:H5''	1.59	0.85
35:BA:2317:C:C2'	35:BA:2318:G:H5'	2.07	0.85
51:BT:13:ARG:HA	51:BT:13:ARG:CZ	2.05	0.85
56:BY:94:LYS:C	56:BY:102:CYS:HB2	1.97	0.85
35:BA:158:U:H2'	35:BA:171:G:O4'	1.76	0.85
35:BA:1658:C:OP1	39:BE:132:HIS:ND1	2.09	0.85
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.59	0.85
35:BA:272(H):C:H6	35:BA:272(H):C:H5'	1.39	0.85
35:BA:510:C:H3'	35:BA:510:C:OP1	1.77	0.85
12:AL:75:HIS:CD2	12:AL:77:LEU:HD12	2.12	0.85
35:BA:297:C:H2'	35:BA:298:G:O4'	1.76	0.85
51:BT:113:LYS:C	51:BT:114:LEU:HD23	1.97	0.85
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.17	0.85
4:AD:17:VAL:O	4:AD:17:VAL:HG12	1.76	0.85
24:AY:230:LYS:HE2	24:AY:241:GLU:OE2	1.76	0.85
24:AY:613:PRO:C	24:AY:615:GLU:H	1.78	0.85
35:BA:545:C:C3'	35:BA:547:A:H5''	2.06	0.85
47:BP:75:ILE:HD12	47:BP:75:ILE:N	1.91	0.85
49:BR:62:ALA:O	49:BR:66:VAL:HG23	1.77	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:11:LYS:HG2	50:BS:13:ARG:NH2	1.92	0.85
1:AA:129(A):G:O2'	1:AA:189(F):U:H2'	1.76	0.85
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.11	0.85
9:AI:79:LEU:HD11	9:AI:83:ARG:CD	2.07	0.85
14:AN:29:ARG:HH11	14:AN:29:ARG:HG3	1.42	0.85
24:AY:14:ASN:HB2	24:AY:102:ASP:OD1	1.77	0.85
51:BT:23:ARG:HG2	51:BT:120:ARG:NH1	1.91	0.85
53:BV:19:LYS:HE2	53:BV:19:LYS:HA	1.57	0.85
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.55	0.84
35:BA:1947:C:H2'	35:BA:1948:G:H5''	1.56	0.84
42:BH:83:TYR:HB3	42:BH:135:GLY:H	1.42	0.84
56:BY:46:LYS:H	56:BY:62:GLU:HB2	1.40	0.84
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.42	0.84
2:AB:168:THR:HG23	2:AB:192:SER:HB3	1.57	0.84
3:AC:35:GLU:O	3:AC:38:ARG:HG2	1.77	0.84
4:AD:4:TYR:O	4:AD:5:ILE:HB	1.75	0.84
10:AJ:40:LEU:N	10:AJ:40:LEU:HD23	1.92	0.84
27:B2:69:ARG:HH22	35:BA:111:A:C4'	1.90	0.84
35:BA:1609:A:H5'	35:BA:1610:A:OP2	1.77	0.84
39:BE:101:ARG:NE	39:BE:171:GLU:HB2	1.93	0.84
42:BH:28:GLY:HA3	42:BH:79:VAL:CG2	2.07	0.84
53:BV:46:VAL:O	53:BV:47:VAL:HG13	1.78	0.84
3:AC:70:VAL:HG12	3:AC:71:ALA:N	1.91	0.84
4:AD:16:GLY:HA2	4:AD:33:MET:CE	2.06	0.84
4:AD:16:GLY:HA2	4:AD:33:MET:HE1	1.59	0.84
4:AD:129:ASN:ND2	4:AD:145:GLU:H	1.72	0.84
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.59	0.84
22:AV:56:C:C4	35:BA:2169:A:C2	2.65	0.84
24:AY:119:GLU:O	24:AY:121:VAL:HG22	1.75	0.84
35:BA:894:C:O2'	35:BA:895:U:H5'	1.77	0.84
35:BA:1409:C:H2'	35:BA:1410:G:C8	2.12	0.84
35:BA:2245:U:H5'	35:BA:2246:G:H5'	1.59	0.84
43:BK:19:PRO:HB3	43:BK:34:ILE:HD12	1.58	0.84
47:BP:91:PHE:HE2	47:BP:99:LEU:HD21	1.42	0.84
11:AK:111:ASP:OD1	18:AR:84:LYS:HE2	1.78	0.84
58:AY:701:FUA:H323	58:AY:701:FUA:H152	1.59	0.84
41:BG:55:LYS:O	41:BG:58:GLN:HG3	1.78	0.84
43:BK:59:ILE:HG12	43:BK:60:TYR:N	1.91	0.84
49:BR:113:LEU:HD12	49:BR:114:VAL:N	1.91	0.84
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.57	0.84
31:B6:37:ARG:NH1	35:BA:2286:A:N7	2.25	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:142:A:H8	35:BA:1595:G:H21	1.23	0.84
35:BA:491:G:H2'	35:BA:492:A:H8	1.41	0.84
38:BD:165:ILE:HD13	38:BD:175:LEU:HD21	1.57	0.84
42:BH:30:LYS:HD2	42:BH:81:GLU:HG2	1.59	0.84
43:BK:112:MET:HG3	43:BK:113:PRO:HD3	1.58	0.84
28:B3:29:ARG:HB2	28:B3:29:ARG:HH11	1.41	0.84
35:BA:533:G:H5''	52:BU:24:TYR:CD1	2.12	0.84
35:BA:1285:G:H2'	35:BA:1286:A:H5'	1.60	0.84
38:BD:243:GLY:O	38:BD:244:ARG:HB3	1.77	0.84
1:AA:179:A:H2'	1:AA:180:U:C6	2.13	0.84
3:AC:140:ARG:HH11	3:AC:140:ARG:HG3	1.43	0.84
51:BT:108:ARG:CB	51:BT:108:ARG:HH11	1.91	0.84
12:AL:38:THR:HG23	12:AL:57:LYS:HB3	1.59	0.84
26:B1:46:LEU:HB3	26:B1:63:ALA:HA	1.58	0.84
35:BA:2308:G:O6	35:BA:2310:A:H2'	1.77	0.84
38:BD:35:LYS:HB3	38:BD:35:LYS:HZ3	1.42	0.84
42:BH:16:SER:HB2	42:BH:27:LYS:HB2	1.58	0.84
51:BT:55:ASN:N	51:BT:59:THR:HG22	1.92	0.84
56:BY:8:LYS:HB2	56:BY:28:LYS:HZ3	1.38	0.84
2:AB:223:ILE:HG12	2:AB:226:ARG:NH2	1.93	0.83
13:AM:34:LEU:HD13	13:AM:41:PRO:HG3	1.60	0.83
24:AY:17:ILE:O	24:AY:85:PRO:HG2	1.76	0.83
24:AY:215:LYS:O	24:AY:219:VAL:HG23	1.77	0.83
24:AY:513:LYS:CB	24:AY:566:THR:HB	2.07	0.83
35:BA:2796:U:H3'	35:BA:2799:C:H5'	1.60	0.83
36:BB:7:G:C2'	36:BB:8:U:H5''	2.07	0.83
37:BC:77:ALA:HB3	37:BC:95:VAL:HA	1.57	0.83
47:BP:122:PRO:HB3	47:BP:141:ALA:HB1	1.60	0.83
49:BR:100:LEU:H	49:BR:100:LEU:HD22	1.43	0.83
57:BZ:59:LEU:O	57:BZ:66:SER:HA	1.78	0.83
57:BZ:78:LYS:N	57:BZ:78:LYS:HD3	1.93	0.83
1:AA:1505:G:H2'	23:AX:17:U:OP1	1.78	0.83
5:AE:91:LEU:HD13	5:AE:120:THR:CG2	2.08	0.83
24:AY:313:ALA:HA	24:AY:328:ILE:HG22	1.57	0.83
30:B5:44:THR:HG22	30:B5:45:VAL:H	1.42	0.83
1:AA:1364:U:H2'	1:AA:1364:U:O2	1.76	0.83
30:B5:40:LYS:NZ	30:B5:46:CYS:H	1.76	0.83
1:AA:390:C:H2'	1:AA:391:G:C8	2.14	0.83
25:B0:11:ARG:HH11	25:B0:11:ARG:CB	1.90	0.83
30:B5:4:HIS:HB3	30:B5:5:PRO:HD3	1.60	0.83
56:BY:95:LYS:HD3	56:BY:100:ALA:HB1	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:71:THR:HG21	24:AY:357:ARG:HD2	1.61	0.83
35:BA:272(B):G:H2'	35:BA:272(C):G:H8	1.44	0.83
37:BC:85:LYS:O	37:BC:89:GLU:HG3	1.79	0.83
38:BD:34:VAL:HG23	38:BD:35:LYS:N	1.92	0.83
46:BO:43:VAL:HG23	46:BO:56:ASP:O	1.78	0.83
56:BY:76:CYS:SG	56:BY:77:PRO:HD2	2.17	0.83
9:AI:95:LYS:NZ	9:AI:96:LEU:HD12	1.94	0.83
27:B2:3:LEU:HD22	27:B2:7:ARG:NH1	1.92	0.83
35:BA:871:U:OP1	48:BQ:5:ARG:HG3	1.79	0.83
40:BF:43:LYS:HA	40:BF:98:SER:HB3	1.60	0.83
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.60	0.83
35:BA:226:G:H4'	35:BA:227:A:OP1	1.78	0.83
35:BA:2317:C:H2'	35:BA:2318:G:H5'	1.58	0.83
39:BE:24:THR:HG22	39:BE:186:GLY:CA	2.07	0.83
49:BR:72:ASP:OD2	49:BR:75:LEU:HB2	1.79	0.83
52:BU:44:ASN:HD21	53:BV:75:PHE:HB3	1.44	0.83
2:AB:165:VAL:HG23	2:AB:166:ASP:N	1.91	0.83
5:AE:101:ILE:HD13	5:AE:101:ILE:H	1.43	0.83
24:AY:25:LYS:HE3	59:AY:702:GDP:O2B	1.77	0.83
38:BD:267:SER:HA	38:BD:270:ILE:CD1	2.06	0.83
41:BG:60:LEU:O	41:BG:63:ILE:HD11	1.79	0.83
51:BT:83:ILE:HG13	51:BT:84:GLN:N	1.93	0.83
53:BV:28:GLU:HB2	53:BV:31:ALA:CB	2.08	0.83
45:BN:133:GLN:CG	45:BN:135:PRO:HD3	2.08	0.83
51:BT:85:LYS:NZ	51:BT:85:LYS:HB3	1.93	0.83
2:AB:95:GLN:HA	2:AB:96:ARG:NH1	1.94	0.83
2:AB:120:ALA:O	2:AB:121:LEU:HD23	1.78	0.83
2:AB:172:ILE:H	2:AB:172:ILE:CD1	1.75	0.83
6:AF:3:ARG:HG3	6:AF:3:ARG:HH11	1.44	0.83
9:AI:95:LYS:HD3	9:AI:96:LEU:N	1.94	0.83
38:BD:131:LEU:HD13	38:BD:136:ILE:HD11	1.61	0.83
39:BE:48:GLN:HE21	39:BE:78:LEU:HD22	1.44	0.83
51:BT:29:ARG:CB	51:BT:85:LYS:HA	2.08	0.83
57:BZ:166:SER:HB2	57:BZ:167:PRO:C	1.98	0.83
24:AY:423:LYS:HB3	24:AY:472:VAL:CG2	2.09	0.82
35:BA:1541:G:H1'	35:BA:1542:A:C4	2.13	0.82
1:AA:20:U:H2'	1:AA:21:G:O4'	1.78	0.82
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	1.79	0.82
24:AY:431:LEU:HD22	24:AY:466:LEU:HD13	1.60	0.82
38:BD:35:LYS:CG	38:BD:63:ARG:HG3	2.09	0.82
40:BF:50:SER:HB2	40:BF:94:PRO:HD3	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:59:LYS:HD2	50:BS:61:ASN:HB2	1.59	0.82
13:AM:3:ARG:HG2	13:AM:9:ILE:HD11	1.62	0.82
35:BA:1221(A):C:O2'	35:BA:1222:C:H5'	1.79	0.82
35:BA:1669:A:H2'	35:BA:1670:C:H5'	1.60	0.82
1:AA:750:G:N3	15:AO:23:GLY:HA3	1.93	0.82
22:AV:17:C:C6	22:AV:17(A):U:H5	1.94	0.82
42:BH:17:VAL:HG11	42:BH:50:VAL:HG21	1.59	0.82
45:BN:48:MET:HE2	45:BN:48:MET:H	1.44	0.82
55:BX:8:ILE:HD12	55:BX:8:ILE:N	1.93	0.82
1:AA:1318:A:H1'	19:AS:37:ARG:NH2	1.94	0.82
1:AA:1358:U:OP1	14:AN:35:ARG:HG3	1.80	0.82
13:AM:37:THR:HG21	13:AM:56:LEU:HD22	1.61	0.82
24:AY:261:GLY:HA3	24:AY:267:LYS:O	1.79	0.82
39:BE:116:VAL:O	39:BE:117:MET:HB3	1.77	0.82
57:BZ:103:ARG:HH11	57:BZ:103:ARG:HG3	1.45	0.82
1:AA:631:G:H2'	1:AA:632:A:C8	2.14	0.82
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.44	0.82
20:AT:13:LEU:HD12	20:AT:13:LEU:N	1.94	0.82
30:B5:3:LYS:NZ	30:B5:5:PRO:HD2	1.95	0.82
35:BA:272(H):C:H2'	35:BA:272(I):U:H5''	1.61	0.82
41:BG:133:LEU:CD1	41:BG:157:ILE:HD12	2.08	0.82
19:AS:41:VAL:HG21	19:AS:44:MET:HB2	1.60	0.82
35:BA:279:C:C2'	35:BA:280:C:H5''	2.10	0.82
35:BA:975:C:OP2	35:BA:975:C:H4'	1.77	0.82
41:BG:56:ALA:HA	41:BG:59:GLU:OE1	1.80	0.82
2:AB:44:LEU:HD12	2:AB:44:LEU:N	1.91	0.82
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HD22	1.43	0.82
37:BC:78:ILE:O	37:BC:120:VAL:HG21	1.79	0.82
40:BF:53:THR:HG22	40:BF:56:GLU:CG	2.08	0.82
2:AB:147:LYS:HG2	2:AB:148:TYR:CD1	2.15	0.82
22:AV:53:G:O2'	22:AV:54:U:H5'	1.80	0.82
25:B0:27:GLU:HA	25:B0:67:VAL:O	1.80	0.82
26:B1:56:GLN:HA	26:B1:56:GLN:NE2	1.95	0.82
35:BA:2672:G:H2'	35:BA:2673:G:H5''	1.61	0.82
51:BT:55:ASN:H	51:BT:59:THR:HG22	1.43	0.82
57:BZ:42:VAL:HG13	57:BZ:43:GLU:H	1.44	0.82
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.09	0.82
26:B1:76:ARG:HH12	26:B1:95:LEU:CD2	1.90	0.82
35:BA:545:C:H3'	35:BA:547:A:H5''	1.60	0.82
35:BA:2312:U:H2'	35:BA:2313:C:H5''	1.62	0.82
35:BA:2666:C:H5'	35:BA:2667:C:OP2	1.80	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:958:U:H3'	35:BA:958:U:H6	1.44	0.81
53:BV:49:THR:HB	53:BV:50:PRO:CD	2.10	0.81
57:BZ:3:TYR:CE2	57:BZ:51:ALA:HB2	2.14	0.81
1:AA:662:G:H2'	1:AA:663:A:C8	2.15	0.81
50:BS:28:VAL:HG12	50:BS:29:PHE:N	1.95	0.81
53:BV:15:GLU:HB3	53:BV:16:PRO:HD2	1.62	0.81
54:BW:107:LEU:HD22	54:BW:107:LEU:H	1.43	0.81
56:BY:76:CYS:HB3	56:BY:96:ILE:CD1	2.10	0.81
57:BZ:72:ARG:HG3	57:BZ:72:ARG:HH11	1.43	0.81
3:AC:86:VAL:O	3:AC:89:GLU:HB3	1.81	0.81
22:AV:20:U:C3'	22:AV:21:A:H5'	2.10	0.81
34:B9:34:GLN:O	34:B9:35:ARG:HB2	1.80	0.81
35:BA:1390:U:O2'	35:BA:1391:U:H5'	1.79	0.81
35:BA:1540:U:H3'	35:BA:1541:G:H3'	1.62	0.81
35:BA:2132:U:C5	37:BC:6:LYS:HD2	2.16	0.81
42:BH:43:VAL:CG1	42:BH:52:VAL:HA	2.09	0.81
45:BN:129:PRO:O	45:BN:130:HIS:HB3	1.79	0.81
51:BT:29:ARG:HG2	51:BT:85:LYS:HA	1.62	0.81
53:BV:18:LEU:HD22	53:BV:19:LYS:CA	2.09	0.81
1:AA:627:G:O2'	1:AA:628:G:H5'	1.80	0.81
1:AA:793:U:H3'	1:AA:794:A:C5'	2.10	0.81
35:BA:1242:A:H5'	35:BA:1243:G:OP2	1.79	0.81
36:BB:65:C:N4	36:BB:109:C:H2'	1.96	0.81
41:BG:64:THR:HG23	41:BG:66:GLN:H	1.43	0.81
50:BS:96:GLY:O	50:BS:98:VAL:HG23	1.81	0.81
24:AY:451:ILE:O	24:AY:451:ILE:HG23	1.81	0.81
27:B2:3:LEU:HD22	27:B2:7:ARG:HH12	1.44	0.81
35:BA:666:G:H4'	47:BP:49:ARG:NH2	1.95	0.81
35:BA:1361:G:O2'	35:BA:1362:C:H5'	1.78	0.81
35:BA:2171:A:H1'	35:BA:2172:U:C6	2.16	0.81
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.44	0.81
35:BA:272(B):G:H2'	35:BA:272(C):G:C8	2.16	0.81
35:BA:925:C:C2'	35:BA:926:A:H5''	2.07	0.81
35:BA:1782:C:H2'	35:BA:1783:A:H5'	1.60	0.81
35:BA:2439:A:H2'	35:BA:2439:A:N3	1.92	0.81
1:AA:438:G:H4'	1:AA:439:A:OP1	1.78	0.81
13:AM:108:ARG:HA	13:AM:108:ARG:HH11	1.42	0.81
24:AY:9:LEU:HD21	24:AY:284:LEU:HB2	1.60	0.81
35:BA:1876:A:H2'	35:BA:1877:A:H8	1.43	0.81
40:BF:155:LEU:HA	40:BF:174:VAL:HB	1.59	0.81
45:BN:55:VAL:HG22	45:BN:126:PRO:HA	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:89:ARG:CG	50:BS:92:TYR:HA	2.11	0.81
54:BW:18:ARG:HH11	54:BW:18:ARG:HG2	1.42	0.81
1:AA:299:G:H2'	1:AA:300:A:C8	2.16	0.81
1:AA:1489:G:C2'	1:AA:1490:C:H5''	2.10	0.81
12:AL:34:ARG:HG3	12:AL:105:TYR:HE2	1.44	0.81
24:AY:67:ALA:HB1	24:AY:327:PHE:CZ	2.15	0.81
27:B2:28:LYS:HB3	27:B2:57:ILE:HD13	1.62	0.81
35:BA:1070:A:H5'	35:BA:1072:C:OP2	1.81	0.81
35:BA:2258:C:O2'	35:BA:2426:A:H4'	1.80	0.81
38:BD:158:ALA:HB3	38:BD:161:THR:HG21	1.62	0.81
51:BT:32:TYR:N	51:BT:32:TYR:CD1	2.48	0.81
52:BU:110:VAL:HG12	52:BU:114:LYS:CD	2.10	0.81
57:BZ:69:THR:HG22	57:BZ:90:VAL:CA	2.09	0.81
1:AA:270:A:H2'	1:AA:271:C:C6	2.16	0.81
27:B2:28:LYS:HB3	27:B2:57:ILE:CD1	2.11	0.81
35:BA:1043:C:C2'	35:BA:1044:G:H5''	2.11	0.81
35:BA:1348:G:H2'	35:BA:1349:A:H5''	1.59	0.81
35:BA:1782:C:H1'	35:BA:2609:U:H5'	1.62	0.81
35:BA:2020:A:H2'	35:BA:2021:C:H5''	1.60	0.81
50:BS:70:GLY:C	50:BS:101:LEU:HD23	2.01	0.81
9:AI:114:TYR:HE2	10:AJ:60:ARG:N	1.78	0.81
10:AJ:50:ILE:HD11	14:AN:41:ARG:NH1	1.96	0.81
24:AY:613:PRO:O	24:AY:615:GLU:N	2.14	0.81
35:BA:1452:A:H3'	35:BA:1453:U:H5''	1.63	0.81
35:BA:1884:A:C2'	35:BA:1885:A:H5''	2.11	0.81
43:BK:100:THR:HA	43:BK:139:VAL:HB	1.61	0.81
52:BU:91:ASP:OD1	52:BU:96:ALA:HB2	1.81	0.81
16:AP:75:ARG:HH11	16:AP:75:ARG:HG3	1.43	0.80
24:AY:137:ASN:HD21	24:AY:263:ALA:H	1.28	0.80
42:BH:53:GLU:OE1	42:BH:53:GLU:HA	1.81	0.80
46:BO:17:ARG:NE	46:BO:47:ILE:HD11	1.96	0.80
54:BW:78:GLU:OE2	54:BW:99:ARG:HD2	1.78	0.80
1:AA:332:G:H2'	1:AA:333:G:H8	1.46	0.80
4:AD:57:ARG:H	4:AD:57:ARG:HD2	1.44	0.80
18:AR:29:PHE:N	18:AR:29:PHE:CD1	2.45	0.80
35:BA:2097:C:H2'	35:BA:2098:U:C6	2.16	0.80
39:BE:47:VAL:HG12	39:BE:48:GLN:H	1.45	0.80
40:BF:192:LEU:HD21	40:BF:194:MET:CE	2.11	0.80
41:BG:106:LEU:HA	41:BG:110:ALA:CB	2.10	0.80
46:BO:76:ALA:HB3	51:BT:75:ILE:HB	1.63	0.80
48:BQ:29:PHE:HB2	48:BQ:105:GLU:OE2	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:39:LEU:CD1	53:BV:51:VAL:HA	2.12	0.80
2:AB:22:LYS:HE2	2:AB:22:LYS:HA	1.61	0.80
3:AC:94:LEU:HD12	3:AC:94:LEU:O	1.80	0.80
5:AE:98:THR:HB	5:AE:117:ASP:HB3	1.63	0.80
13:AM:78:ILE:O	13:AM:82:MET:HG2	1.80	0.80
18:AR:59:SER:H	18:AR:62:GLU:HB2	1.45	0.80
24:AY:504:ARG:O	24:AY:506:GLN:N	2.13	0.80
31:B6:5:VAL:HG23	35:BA:2283:C:H5'	1.60	0.80
35:BA:9:U:H5	35:BA:2629:A:H62	1.29	0.80
35:BA:143(A):C:H4'	55:BX:38:GLU:OE2	1.82	0.80
35:BA:979:G:H3'	35:BA:980:A:H5'	1.63	0.80
35:BA:2444:G:OP2	40:BF:68:LYS:HE2	1.81	0.80
41:BG:86:MET:N	41:BG:87:PRO:HD3	1.97	0.80
41:BG:98:ARG:HG2	41:BG:98:ARG:NH1	1.95	0.80
42:BH:149:ARG:HD3	42:BH:164:TYR:CE1	2.16	0.80
47:BP:16:ARG:HD3	47:BP:18:ARG:H	1.44	0.80
49:BR:21:TYR:HB3	49:BR:47:PHE:CD2	2.17	0.80
51:BT:28:VAL:CG2	51:BT:46:GLU:HG3	2.11	0.80
1:AA:80:G:H3'	1:AA:81:U:C5'	2.12	0.80
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.46	0.80
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.80	0.80
24:AY:505:GLY:HA3	24:AY:576:ASP:CG	2.01	0.80
27:B2:69:ARG:NH2	35:BA:111:A:H4'	1.94	0.80
32:B7:6:GLN:O	35:BA:686:G:H1'	1.81	0.80
35:BA:1012:U:O4	45:BN:28:THR:HG21	1.81	0.80
38:BD:61:LEU:HB3	38:BD:63:ARG:HH12	1.46	0.80
41:BG:53:LEU:HD22	41:BG:53:LEU:N	1.94	0.80
45:BN:133:GLN:HG2	45:BN:135:PRO:HD3	1.64	0.80
1:AA:1296:C:H5'	1:AA:1297:C:OP2	1.81	0.80
4:AD:114:ARG:HH11	4:AD:114:ARG:HG3	1.45	0.80
5:AE:80:ILE:HG22	8:AH:104:ARG:NH2	1.97	0.80
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	1.62	0.80
10:AJ:9:ARG:HG2	10:AJ:69:ASN:OD1	1.81	0.80
13:AM:78:ILE:HA	13:AM:81:LEU:HD23	1.62	0.80
58:AY:701:FUA:H202	58:AY:701:FUA:H5	1.62	0.80
26:B1:85:LEU:O	26:B1:87:PRO:HD2	1.81	0.80
35:BA:1203:G:H3'	35:BA:1204:A:H5''	1.63	0.80
55:BX:35:THR:HB	55:BX:38:GLU:HB2	1.64	0.80
3:AC:72:LYS:HE3	3:AC:72:LYS:CA	2.11	0.80
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	1.63	0.80
19:AS:40:ILE:HG21	19:AS:66:MET:O	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:636:PRO:HG3	43:BK:21:PRO:HB2	1.64	0.80
25:B0:50:ASN:HA	25:B0:62:LEU:HD12	1.63	0.80
35:BA:1125:G:H3'	35:BA:1126:A:H5''	1.64	0.80
35:BA:1657:C:O2'	35:BA:1658:C:H5'	1.82	0.80
35:BA:2146:C:H4'	35:BA:2147:G:C8	2.17	0.80
40:BF:167:ALA:HB1	40:BF:173:VAL:HG11	1.64	0.80
1:AA:1158:C:H6	2:AB:132:LYS:CE	1.94	0.80
16:AP:25:ARG:HG3	16:AP:25:ARG:NH1	1.90	0.80
25:B0:40:GLN:NE2	25:B0:43:THR:HA	1.96	0.80
35:BA:733:G:H8	35:BA:733:G:O5'	1.63	0.80
39:BE:68:ALA:HB3	39:BE:69:LYS:HE2	1.63	0.80
50:BS:83:LYS:HG2	50:BS:105:ALA:HB3	1.62	0.80
57:BZ:130:PRO:O	57:BZ:133:ILE:HD11	1.81	0.80
1:AA:598:U:H2'	1:AA:599:C:C6	2.16	0.80
30:B5:20:ARG:HG2	30:B5:23:HIS:CD2	2.16	0.80
35:BA:2742:C:O2'	35:BA:2743:C:H5'	1.82	0.80
53:BV:49:THR:HB	53:BV:50:PRO:HD2	1.64	0.80
9:AI:48:GLU:N	9:AI:49:PRO:HD2	1.97	0.80
24:AY:149:VAL:O	24:AY:152:THR:HG22	1.82	0.80
24:AY:252:ASP:CB	24:AY:254:LYS:CE	2.51	0.80
24:AY:435:ASP:OD1	24:AY:437:THR:HG23	1.81	0.80
33:B8:33:ASN:HD22	33:B8:33:ASN:H	1.30	0.80
35:BA:1034:G:H8	35:BA:1034:G:OP1	1.64	0.80
35:BA:1452:A:H3'	35:BA:1453:U:H5'	1.60	0.80
47:BP:55:ARG:HG2	47:BP:56:SER:N	1.97	0.80
1:AA:241:C:O2'	1:AA:242:C:H5'	1.82	0.80
1:AA:539:A:H2'	1:AA:540:G:C8	2.16	0.80
1:AA:1128:C:H2'	1:AA:1129:C:C5'	2.11	0.80
6:AF:1:MET:HE1	6:AF:68:PRO:HD3	1.62	0.80
25:B0:43:THR:H	35:BA:2331:G:H4'	1.47	0.80
35:BA:882:G:H2'	35:BA:883:G:C8	2.16	0.80
35:BA:978:G:H1	35:BA:985:C:N4	1.80	0.80
41:BG:171:ALA:O	41:BG:175:LEU:HG	1.82	0.80
57:BZ:4:ARG:HH12	57:BZ:66:SER:HB2	1.47	0.80
12:AL:70:ILE:HG21	12:AL:77:LEU:CD1	2.13	0.79
35:BA:545:C:H2'	35:BA:547:A:H5''	1.63	0.79
35:BA:545:C:C2'	35:BA:547:A:H5''	2.12	0.79
43:BK:57:ILE:HA	43:BK:66:THR:O	1.81	0.79
53:BV:21:ARG:HG2	53:BV:21:ARG:HH11	1.47	0.79
53:BV:62:LEU:HD21	53:BV:95:LEU:HB2	1.64	0.79
1:AA:291:C:O2'	1:AA:292:G:H5'	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1803:A:O3'	38:BD:259:THR:HG21	1.81	0.79
37:BC:211:ARG:HH11	37:BC:211:ARG:CG	1.95	0.79
38:BD:183:ARG:HH11	38:BD:183:ARG:HG2	1.46	0.79
39:BE:38:THR:HB	39:BE:41:LYS:HG2	1.63	0.79
43:BK:7:VAL:HG13	43:BK:7:VAL:O	1.82	0.79
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.63	0.79
24:AY:180:VAL:HG23	24:AY:216:LEU:HD12	1.64	0.79
25:B0:60:PHE:CE2	35:BA:2365:G:H4'	2.18	0.79
26:B1:73:LEU:HD22	26:B1:94:LEU:HD23	1.64	0.79
35:BA:710:G:H2'	35:BA:711:G:H8	1.46	0.79
35:BA:1113:U:H2'	35:BA:1114:G:C8	2.18	0.79
35:BA:1779:U:C5	35:BA:1784:A:N7	2.50	0.79
54:BW:68:ARG:HA	54:BW:110:LYS:HG2	1.65	0.79
4:AD:122:ARG:NH1	4:AD:134:ASP:HB2	1.98	0.79
6:AF:16:GLN:CD	6:AF:16:GLN:H	1.85	0.79
12:AL:75:HIS:HD2	12:AL:77:LEU:HD12	1.44	0.79
35:BA:1049:C:H2'	35:BA:1050:A:H8	1.48	0.79
51:BT:38:ASN:C	51:BT:38:ASN:ND2	2.36	0.79
51:BT:80:SER:CB	51:BT:81:PRO:HD3	2.12	0.79
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.64	0.79
35:BA:861:A:H2'	35:BA:862:G:O4'	1.82	0.79
35:BA:2241:A:H2'	35:BA:2242:G:C8	2.17	0.79
36:BB:91:C:OP1	48:BQ:16:ARG:HG3	1.83	0.79
43:BK:23:VAL:O	43:BK:23:VAL:HG12	1.79	0.79
3:AC:14:ILE:HG13	3:AC:15:THR:N	1.95	0.79
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.63	0.79
24:AY:154:GLN:HA	24:AY:158:GLY:HA2	1.65	0.79
35:BA:221:A:H61	35:BA:265:A:H8	1.29	0.79
35:BA:2162:G:H2'	35:BA:2163:C:C6	2.17	0.79
38:BD:71:ASP:HB2	38:BD:103:ARG:HH22	1.47	0.79
39:BE:61:ARG:HG2	39:BE:62:PRO:HD3	1.65	0.79
52:BU:68:ALA:O	52:BU:71:GLN:HB3	1.83	0.79
56:BY:90:LEU:HG	56:BY:91:GLU:HG2	1.64	0.79
6:AF:80:ARG:HH11	6:AF:88:VAL:HB	1.47	0.79
10:AJ:32:ALA:HB2	10:AJ:76:ASN:ND2	1.97	0.79
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.47	0.79
4:AD:108:LEU:HD23	4:AD:110:PHE:CZ	2.18	0.79
24:AY:415:PRO:HA	24:AY:474:ALA:HB2	1.65	0.79
29:B4:10:VAL:HG23	29:B4:11:PRO:HD2	1.63	0.79
35:BA:1171:G:H2'	35:BA:1173:G:H4'	1.62	0.79
41:BG:133:LEU:HD11	41:BG:157:ILE:CD1	2.10	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:61:TRP:O	52:BU:65:ILE:HG13	1.82	0.79
1:AA:1284:C:H3'	1:AA:1285:A:H5''	1.64	0.79
3:AC:152:ILE:HG22	3:AC:167:TRP:HA	1.65	0.79
10:AJ:6:ILE:HD11	10:AJ:72:VAL:CB	2.13	0.79
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.64	0.79
24:AY:380:LEU:O	24:AY:381:LYS:HD2	1.83	0.79
35:BA:2126:A:H4'	35:BA:2127:G:O5'	1.82	0.79
1:AA:1442(B):A:N7	51:BT:118:ARG:HG2	1.98	0.79
27:B2:38:GLN:HA	27:B2:41:ILE:HG23	1.62	0.79
35:BA:1788:C:O2'	35:BA:1789:A:H5'	1.82	0.79
35:BA:1963:U:O2	35:BA:1963:U:H2'	1.81	0.79
45:BN:2:LYS:HZ1	53:BV:12:TYR:HA	1.45	0.79
1:AA:731:G:OP1	1:AA:766:A:H1'	1.82	0.78
1:AA:1014:A:H4'	19:AS:14:HIS:CE1	2.18	0.78
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.65	0.78
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.63	0.78
28:B3:17:LYS:HZ3	28:B3:20:LYS:HE3	1.46	0.78
35:BA:614(A):U:H4'	35:BA:614(B):G:H5''	1.64	0.78
35:BA:2720:U:H2'	35:BA:2721:A:H8	1.48	0.78
36:BB:66:A:H61	36:BB:108:U:H2'	1.48	0.78
37:BC:31:LYS:HE3	37:BC:179:ALA:O	1.84	0.78
37:BC:101:ILE:H	37:BC:101:ILE:CD1	1.95	0.78
41:BG:90:LEU:HD12	41:BG:91:ARG:N	1.96	0.78
42:BH:41:MET:CG	42:BH:43:VAL:HG13	2.13	0.78
51:BT:13:ARG:HA	51:BT:13:ARG:HH11	1.46	0.78
52:BU:95:LEU:HD12	53:BV:11:GLN:HG3	1.64	0.78
56:BY:47:LYS:HG3	56:BY:60:PHE:HE1	1.47	0.78
29:B4:5:ILE:O	29:B4:5:ILE:HG12	1.82	0.78
35:BA:662:G:OP1	47:BP:18:ARG:HD2	1.83	0.78
35:BA:1865:G:H2'	35:BA:1866:C:H5''	1.65	0.78
35:BA:2645:G:C3'	35:BA:2646:C:H5'	2.10	0.78
39:BE:77:ILE:HG22	39:BE:78:LEU:CD1	2.12	0.78
40:BF:53:THR:HG23	40:BF:55:GLY:N	1.98	0.78
50:BS:40:ILE:CG2	50:BS:41:ASP:N	2.45	0.78
4:AD:158:ILE:O	4:AD:162:LEU:HB2	1.83	0.78
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.64	0.78
11:AK:111:ASP:HA	18:AR:84:LYS:CD	2.13	0.78
29:B4:14:ILE:O	29:B4:21:VAL:HG13	1.82	0.78
32:B7:35:ARG:HH11	32:B7:35:ARG:HG2	1.49	0.78
35:BA:739:G:OP2	35:BA:739:G:H8	1.67	0.78
35:BA:1375:C:H2'	35:BA:1376:C:H6	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:40:U:O2	36:BB:43:C:H5''	1.83	0.78
38:BD:24:ILE:HD13	38:BD:25:THR:H	1.47	0.78
42:BH:83:TYR:HB3	42:BH:134:SER:HA	1.64	0.78
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.31	0.78
1:AA:943:U:H2'	1:AA:944:G:H5'	1.66	0.78
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.66	0.78
24:AY:128:TYR:O	24:AY:129:LYS:HB2	1.83	0.78
35:BA:1946:U:H2'	35:BA:1947:C:C6	2.18	0.78
38:BD:35:LYS:HG3	38:BD:63:ARG:HG3	1.63	0.78
40:BF:106:ARG:HH11	40:BF:106:ARG:HG3	1.48	0.78
54:BW:64:MET:O	54:BW:65:LEU:HB3	1.83	0.78
1:AA:1117:G:O2'	9:AI:104:ARG:HD3	1.83	0.78
35:BA:2393:A:H5''	47:BP:62:LEU:HB3	1.63	0.78
36:BB:48:A:H4'	50:BS:95:HIS:HD2	1.48	0.78
38:BD:83:GLU:HB2	38:BD:92:ILE:HD11	1.65	0.78
50:BS:106:ARG:HB3	50:BS:106:ARG:HH11	1.46	0.78
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.65	0.78
1:AA:1442:G:H1	1:AA:1461:G:H21	1.30	0.78
10:AJ:55:LYS:CE	10:AJ:55:LYS:H	1.97	0.78
30:B5:56:LYS:HG3	30:B5:57:VAL:H	1.48	0.78
35:BA:841:A:H5'	35:BA:841:A:H8	1.47	0.78
38:BD:172:TYR:HD1	38:BD:186:HIS:HA	1.49	0.78
57:BZ:86:VAL:HG12	57:BZ:87:ASP:H	1.47	0.78
1:AA:103:C:H3'	1:AA:104:G:H8	1.48	0.78
24:AY:431:LEU:CD2	24:AY:466:LEU:HD13	2.14	0.78
33:B8:62:LEU:HD13	35:BA:242:G:H5''	1.64	0.78
39:BE:78:LEU:O	39:BE:79:ARG:HD2	1.84	0.78
42:BH:157:TYR:CE1	42:BH:171:LEU:HD21	2.10	0.78
47:BP:24:GLY:HA2	47:BP:33:ARG:NH1	1.98	0.78
47:BP:127:ALA:O	47:BP:148:LEU:HD11	1.82	0.78
51:BT:45:PHE:CE2	51:BT:74:ARG:HB2	2.18	0.78
13:AM:68:GLY:H	13:AM:71:ARG:HB3	1.49	0.78
24:AY:514:VAL:HG21	24:AY:593:ALA:CB	2.14	0.78
31:B6:41:PRO:HD2	31:B6:45:LYS:O	1.83	0.78
35:BA:965:C:C5'	35:BA:2273:A:H1'	2.13	0.78
35:BA:1052:C:H3'	35:BA:1052:C:C6	2.17	0.78
50:BS:34:HIS:HB3	50:BS:53:SER:HB3	1.64	0.78
51:BT:55:ASN:H	51:BT:59:THR:CG2	1.97	0.78
51:BT:107:ASP:CG	51:BT:108:ARG:H	1.86	0.78
1:AA:792:A:O2'	1:AA:794:A:N7	2.16	0.78
35:BA:1052:C:H2'	35:BA:1053:C:C6	2.19	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1243:G:H1'	47:BP:8:PRO:HB3	1.66	0.78
35:BA:2186:G:H2'	35:BA:2187:G:H5''	1.66	0.78
41:BG:34:LEU:HD11	41:BG:100:TRP:CH2	2.19	0.78
47:BP:24:GLY:CA	47:BP:33:ARG:NH1	2.46	0.78
1:AA:1133:G:H22	1:AA:1143:G:H1'	1.49	0.78
10:AJ:3:LYS:HZ2	10:AJ:76:ASN:HA	1.47	0.78
13:AM:15:VAL:HG12	13:AM:45:VAL:CG2	2.13	0.78
17:AQ:52:LYS:H	17:AQ:52:LYS:CD	1.97	0.78
58:AY:701:FUA:H211	58:AY:701:FUA:O2	1.83	0.78
35:BA:1080:C:H4'	43:BK:125:ARG:HB3	1.64	0.78
37:BC:190:ILE:O	37:BC:194:ILE:HG12	1.83	0.78
51:BT:57:PHE:C	51:BT:58:ASN:HD22	1.88	0.78
19:AS:15:LEU:HD13	19:AS:31:ILE:HD11	1.65	0.77
24:AY:490:PRO:HG3	24:AY:516:PRO:CD	2.12	0.77
26:B1:45:ASN:HB2	35:BA:2230:G:H1'	1.64	0.77
29:B4:42:PHE:N	29:B4:42:PHE:CD1	2.49	0.77
33:B8:61:LEU:HD12	33:B8:62:LEU:H	1.49	0.77
45:BN:62:VAL:HG22	45:BN:66:LYS:HG3	1.64	0.77
57:BZ:29:TYR:HB3	57:BZ:34:ASN:HB2	1.64	0.77
1:AA:824:C:H2'	1:AA:825:G:C8	2.19	0.77
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.66	0.77
5:AE:12:LEU:H	5:AE:12:LEU:HD12	1.49	0.77
20:AT:75:ASN:HD22	20:AT:75:ASN:H	1.30	0.77
24:AY:238:THR:HG23	24:AY:240:GLU:HG2	1.66	0.77
24:AY:428:LEU:CD1	24:AY:440:VAL:HG11	2.14	0.77
25:B0:5:LYS:NZ	25:B0:5:LYS:HB3	1.97	0.77
33:B8:32:LEU:HB3	33:B8:36:LYS:HZ2	1.49	0.77
38:BD:65:ILE:HD13	38:BD:65:ILE:H	1.48	0.77
45:BN:22:THR:O	45:BN:25:ARG:HB2	1.83	0.77
1:AA:176:C:H2'	1:AA:177:C:H6	1.49	0.77
2:AB:107:THR:HA	2:AB:110:GLN:HE21	1.48	0.77
6:AF:37:VAL:HG12	6:AF:38:GLU:N	2.00	0.77
28:B3:28:LEU:HA	28:B3:33:GLN:OE1	1.84	0.77
36:BB:60:C:H2'	36:BB:61:G:H8	1.48	0.77
41:BG:76:SER:CA	41:BG:83:ARG:HB3	2.15	0.77
42:BH:41:MET:O	42:BH:42:ARG:HB3	1.83	0.77
55:BX:12:VAL:CG2	55:BX:13:LEU:H	1.97	0.77
56:BY:90:LEU:HD12	56:BY:91:GLU:OE2	1.84	0.77
1:AA:1221:G:H4'	19:AS:77:THR:HG21	1.67	0.77
25:B0:60:PHE:HE2	35:BA:2365:G:H4'	1.48	0.77
28:B3:17:LYS:HZ2	28:B3:20:LYS:HE3	1.46	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:28:A:N6	35:BA:512:G:H1'	1.99	0.77
38:BD:132:PRO:HG3	38:BD:190:TYR:CE1	2.20	0.77
35:BA:954:G:H4'	48:BQ:13:GLN:NE2	1.99	0.77
35:BA:2455:G:H2'	35:BA:2456:C:C6	2.20	0.77
41:BG:106:LEU:HA	41:BG:110:ALA:HB3	1.64	0.77
43:BK:6:ALA:CB	43:BK:59:ILE:HG22	2.14	0.77
43:BK:103:GLN:O	43:BK:106:GLU:HG2	1.85	0.77
53:BV:77:ALA:O	53:BV:79:VAL:HG23	1.85	0.77
8:AH:29:SER:OG	8:AH:32:LYS:HG3	1.85	0.77
18:AR:45:SER:H	18:AR:51:LEU:HG	1.48	0.77
24:AY:637:ARG:HH11	24:AY:637:ARG:HG3	1.49	0.77
35:BA:1345:C:O2'	35:BA:1346:G:H5'	1.84	0.77
35:BA:1607:C:H4'	35:BA:1608:A:O5'	1.84	0.77
39:BE:117:MET:HA	39:BE:122:PHE:H	1.47	0.77
45:BN:46:VAL:HG13	45:BN:47:ALA:N	1.99	0.77
47:BP:41:ARG:HA	47:BP:41:ARG:HH11	1.46	0.77
49:BR:63:ARG:NH2	49:BR:77:ARG:HG2	1.99	0.77
28:B3:9:VAL:HG23	28:B3:10:LYS:H	1.50	0.77
30:B5:55:ARG:O	30:B5:56:LYS:HB2	1.82	0.77
35:BA:16:G:O2'	35:BA:17:G:H5'	1.85	0.77
35:BA:218:A:C2	35:BA:235:U:H4'	2.18	0.77
35:BA:556:G:H2'	35:BA:557:U:C6	2.20	0.77
35:BA:654:A:N7	35:BA:654(V):A:H4'	2.00	0.77
35:BA:1012:U:C4	45:BN:28:THR:HG21	2.20	0.77
43:BK:93:ARG:HB2	57:BZ:112:ARG:HH21	1.50	0.77
51:BT:53:ARG:HH11	51:BT:53:ARG:CB	1.94	0.77
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.15	0.77
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.85	0.77
17:AQ:52:LYS:HD2	17:AQ:52:LYS:N	1.99	0.77
31:B6:9:LEU:CD2	31:B6:26:ASN:HD22	1.97	0.77
35:BA:83:G:HO2'	35:BA:84:A:H8	1.29	0.77
35:BA:276:A:OP1	35:BA:276:A:H4'	1.84	0.77
47:BP:7:ARG:HB3	47:BP:8:PRO:HD3	1.64	0.77
47:BP:30:THR:HG22	47:BP:31:ALA:N	2.00	0.77
1:AA:1325:C:H2'	1:AA:1326:C:H6	1.50	0.77
1:AA:1358:U:P	14:AN:35:ARG:HG3	2.24	0.77
15:AO:80:ALA:HB1	15:AO:84:LYS:HE2	1.65	0.77
24:AY:15:ILE:CD1	24:AY:81:ILE:HG12	2.15	0.77
35:BA:154(A):C:H3'	35:BA:155:U:C5'	2.14	0.77
35:BA:279:C:C3'	35:BA:280:C:H5''	2.15	0.77
52:BU:20:LEU:H	52:BU:20:LEU:CD2	1.98	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:20:LEU:HD22	52:BU:20:LEU:N	1.98	0.77
52:BU:31:SER:HB3	52:BU:34:LYS:HB2	1.66	0.77
1:AA:269:C:H2'	1:AA:270:A:H8	1.48	0.77
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.20	0.77
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.19	0.77
2:AB:96:ARG:HD2	2:AB:96:ARG:N	1.99	0.77
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	1.97	0.77
11:AK:58:PRO:HA	11:AK:90:GLY:HA3	1.67	0.77
35:BA:759:G:H2'	35:BA:760:G:H8	1.48	0.77
35:BA:955:C:OP2	48:BQ:14:ARG:HD2	1.84	0.77
37:BC:60:ARG:HG3	37:BC:165:ARG:HG3	1.66	0.77
46:BO:104:ARG:NE	51:BT:33:LYS:HE3	2.00	0.77
46:BO:120:GLU:CD	46:BO:122:LEU:HD21	2.05	0.77
51:BT:129:ARG:O	51:BT:129:ARG:HG2	1.84	0.77
53:BV:52:VAL:O	53:BV:52:VAL:HG13	1.84	0.77
54:BW:107:LEU:HD22	54:BW:107:LEU:N	1.99	0.77
55:BX:11:PRO:HA	55:BX:28:PHE:CB	2.12	0.77
24:AY:227:ILE:HD11	24:AY:241:GLU:O	1.85	0.76
30:B5:26:THR:HG23	30:B5:26:THR:O	1.86	0.76
35:BA:1138:G:H2'	35:BA:1139:G:O4'	1.85	0.76
35:BA:2248:C:C2'	35:BA:2249:U:H5'	2.14	0.76
35:BA:2396:G:O2'	35:BA:2397:G:H5'	1.85	0.76
35:BA:2524:G:H8	35:BA:2524:G:H5'	1.50	0.76
39:BE:38:THR:HG22	39:BE:40:GLU:H	1.48	0.76
54:BW:36:LEU:HD11	54:BW:47:VAL:HG12	1.64	0.76
2:AB:223:ILE:HG23	2:AB:226:ARG:NH1	2.00	0.76
24:AY:388:THR:HG21	24:AY:399:LEU:H	1.50	0.76
34:B9:19:ARG:O	34:B9:20:HIS:HB2	1.85	0.76
38:BD:35:LYS:HG2	38:BD:63:ARG:CA	2.15	0.76
41:BG:172:LEU:CD2	41:BG:176:LEU:HD11	2.15	0.76
47:BP:40:SER:C	47:BP:41:ARG:HD2	2.05	0.76
48:BQ:75:THR:CG2	48:BQ:76:LYS:N	2.47	0.76
57:BZ:24:LEU:HD12	57:BZ:41:LEU:CD2	2.14	0.76
1:AA:243:A:H4'	1:AA:244:U:O5'	1.86	0.76
24:AY:196:ILE:O	24:AY:197:ARG:HB2	1.83	0.76
30:B5:2:ALA:N	35:BA:2014:A:HO2'	1.82	0.76
35:BA:2876:G:H4'	51:BT:3:ARG:NE	1.98	0.76
41:BG:82:LEU:HD11	41:BG:87:PRO:HB3	1.67	0.76
46:BO:114:ILE:H	46:BO:114:ILE:HD12	1.51	0.76
55:BX:35:THR:HG22	55:BX:37:THR:N	1.96	0.76
57:BZ:67:LEU:H	57:BZ:67:LEU:HD12	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:867:G:O2'	1:AA:868:C:H5'	1.86	0.76
1:AA:1424:C:H2'	1:AA:1425:U:H6	1.49	0.76
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.67	0.76
11:AK:21:ILE:N	11:AK:21:ILE:HD12	1.99	0.76
13:AM:68:GLY:N	13:AM:71:ARG:HB3	2.00	0.76
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.05	0.76
16:AP:49:LEU:HD22	16:AP:73:LEU:HD22	1.66	0.76
25:B0:26:TYR:HE2	35:BA:857:C:H1'	1.50	0.76
35:BA:1059:G:H2'	35:BA:1060:U:C5	2.21	0.76
48:BQ:27:VAL:HG23	48:BQ:137:TYR:CD2	2.20	0.76
49:BR:7:GLY:O	49:BR:8:ARG:HB2	1.83	0.76
27:B2:41:ILE:CD1	27:B2:44:LEU:HD12	2.10	0.76
35:BA:695:G:OP1	35:BA:1380:G:H4'	1.86	0.76
35:BA:1721:G:C6	35:BA:1739:U:H5'	2.20	0.76
39:BE:1:MET:HB2	39:BE:83:ASP:O	1.85	0.76
56:BY:14:LEU:HD13	56:BY:24:VAL:CG2	2.15	0.76
18:AR:37:VAL:HG23	18:AR:38:GLU:N	1.99	0.76
23:AX:13:A:H3'	23:AX:14:A:C5'	2.15	0.76
26:B1:76:ARG:HH22	26:B1:95:LEU:HD13	1.51	0.76
35:BA:2286:A:H4'	35:BA:2287:A:H5'	1.66	0.76
38:BD:35:LYS:HZ3	38:BD:36:PRO:HD3	1.49	0.76
43:BK:24:GLY:H	43:BK:25:PRO:HD2	1.51	0.76
50:BS:15:ARG:HB3	50:BS:18:ILE:HD11	1.68	0.76
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.20	0.76
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.65	0.76
12:AL:27:LEU:HG	12:AL:62:SER:HB2	1.68	0.76
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.21	0.76
24:AY:72:CYS:SG	24:AY:79:ILE:HB	2.25	0.76
24:AY:406:GLU:HB3	24:AY:407:PRO:HD2	1.68	0.76
35:BA:790:C:H5'	35:BA:791:C:OP2	1.86	0.76
35:BA:1902:C:H4'	38:BD:244:ARG:HB2	1.65	0.76
35:BA:2425:A:H4'	35:BA:2426:A:H5''	1.68	0.76
36:BB:26:A:H2'	36:BB:27:C:C6	2.20	0.76
38:BD:43:ARG:HD2	38:BD:44:ASN:OD1	1.86	0.76
54:BW:9:TYR:H	54:BW:102:HIS:HD2	1.34	0.76
1:AA:1129:C:O2'	1:AA:1130:A:C8	2.38	0.76
13:AM:121:LYS:HD3	13:AM:121:LYS:N	2.00	0.76
35:BA:914:C:H2'	35:BA:915:C:H5'	1.67	0.76
35:BA:1461:G:O2'	35:BA:1462:C:H5'	1.85	0.76
35:BA:2248:C:H2'	35:BA:2249:U:H5'	1.68	0.76
35:BA:2394:C:OP1	47:BP:63:PRO:HD2	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2521:C:H42	35:BA:2544:G:H1	1.34	0.76
40:BF:53:THR:CG2	40:BF:56:GLU:HG3	2.11	0.76
52:BU:25:TRP:O	52:BU:28:ARG:HB2	1.85	0.76
3:AC:94:LEU:O	3:AC:95:THR:HG23	1.85	0.76
24:AY:100:VAL:HG13	24:AY:101:LEU:H	1.51	0.76
24:AY:539:ILE:HA	24:AY:542:VAL:CG1	2.15	0.76
36:BB:103:G:H5'	36:BB:104:U:OP2	1.86	0.76
38:BD:65:ILE:HD13	38:BD:65:ILE:N	2.01	0.76
47:BP:97:PRO:O	47:BP:98:GLU:HB3	1.85	0.76
53:BV:6:LYS:O	53:BV:37:VAL:HG21	1.84	0.76
55:BX:89:ILE:CG2	55:BX:91:ALA:HB3	2.14	0.76
57:BZ:115:GLY:HA2	57:BZ:177:PRO:HD3	1.67	0.76
57:BZ:143:GLY:O	57:BZ:144:LEU:HD13	1.85	0.76
57:BZ:165:VAL:HG12	57:BZ:166:SER:H	1.49	0.76
1:AA:129(A):G:H8	1:AA:129(A):G:H5''	1.51	0.76
1:AA:1160:G:N3	1:AA:1160:G:H2'	2.01	0.76
33:B8:56:GLU:O	33:B8:59:LYS:HE3	1.86	0.76
35:BA:1541:G:H4'	35:BA:1542:A:C5'	2.16	0.76
35:BA:2657:A:H2'	35:BA:2658:C:H5'	1.68	0.76
36:BB:13:A:O2'	36:BB:14:U:H3'	1.86	0.76
38:BD:176:ARG:HB3	38:BD:176:ARG:NH1	2.00	0.76
43:BK:77:LEU:HD12	43:BK:107:ILE:CG2	2.16	0.76
57:BZ:108:PRO:HB3	57:BZ:141:VAL:CG1	2.16	0.76
4:AD:88:VAL:O	4:AD:92:VAL:HG23	1.85	0.75
5:AE:91:LEU:HD13	5:AE:120:THR:HG22	1.68	0.75
24:AY:488:THR:O	24:AY:516:PRO:HG3	1.86	0.75
25:B0:25:ARG:HD2	25:B0:29:GLN:NE2	2.01	0.75
35:BA:548:A:H2'	35:BA:549:G:H5'	1.67	0.75
35:BA:2801(A):A:H4'	35:BA:2802:G:C8	2.21	0.75
37:BC:95:VAL:HG12	37:BC:96:GLY:N	2.01	0.75
37:BC:164:PHE:HB2	37:BC:172:ILE:HD11	1.68	0.75
38:BD:125:ILE:O	38:BD:125:ILE:HG22	1.86	0.75
1:AA:986:A:H1'	19:AS:54:GLY:O	1.85	0.75
9:AI:125:TYR:CE1	9:AI:127:LYS:HB2	2.21	0.75
35:BA:286:C:H5'	35:BA:286:C:C6	2.14	0.75
35:BA:1809:A:H2'	35:BA:1810:A:C8	2.21	0.75
35:BA:2170:A:H5''	37:BC:135:ARG:HH21	1.51	0.75
35:BA:2308:G:N7	35:BA:2310:A:H5'	2.01	0.75
35:BA:2473:U:H3'	35:BA:2474:C:C5'	2.11	0.75
50:BS:40:ILE:CG2	50:BS:41:ASP:H	1.99	0.75
1:AA:814:A:H2'	1:AA:816:A:H5'	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.87	0.75
10:AJ:82:ILE:O	10:AJ:86:MET:HB2	1.86	0.75
11:AK:33:THR:HG22	11:AK:39:PRO:HA	1.67	0.75
25:B0:27:GLU:H	25:B0:27:GLU:CD	1.89	0.75
33:B8:13:ARG:HD3	47:BP:61:ARG:O	1.87	0.75
35:BA:83:G:O2'	35:BA:84:A:H8	1.69	0.75
35:BA:491:G:H2'	35:BA:492:A:C8	2.20	0.75
35:BA:645:C:O2	35:BA:645:C:H5''	1.86	0.75
36:BB:87:G:H2'	36:BB:88:C:H3'	1.68	0.75
37:BC:115:VAL:HG12	37:BC:145:THR:HG23	1.67	0.75
39:BE:59:VAL:HG11	39:BE:63:LEU:HG	1.69	0.75
42:BH:105:LEU:CD2	42:BH:113:VAL:HB	2.16	0.75
43:BK:14:ALA:HA	43:BK:41:PHE:CE2	2.21	0.75
47:BP:98:GLU:CA	47:BP:101:VAL:HG22	2.16	0.75
51:BT:114:LEU:HD23	51:BT:114:LEU:N	2.02	0.75
1:AA:773:G:O2'	1:AA:774:G:H5'	1.87	0.75
1:AA:1239:A:H2'	1:AA:1298:C:N4	2.01	0.75
3:AC:14:ILE:HG13	3:AC:15:THR:H	1.51	0.75
28:B3:31:LEU:CD1	28:B3:32:GLN:HG2	2.14	0.75
35:BA:1718:G:H5'	35:BA:1718:G:H8	1.50	0.75
36:BB:7:G:H5'	50:BS:29:PHE:CE2	2.21	0.75
53:BV:62:LEU:HD22	53:BV:62:LEU:N	2.02	0.75
1:AA:54:C:H2'	1:AA:352:C:H41	1.51	0.75
1:AA:559:A:H4'	1:AA:560:U:H5'	1.66	0.75
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.02	0.75
7:AG:45:ASP:O	7:AG:49:ILE:HG12	1.87	0.75
11:AK:105:VAL:O	11:AK:105:VAL:HG23	1.84	0.75
12:AL:30:ALA:HB3	12:AL:33:ARG:HH21	1.50	0.75
35:BA:134:C:H2'	35:BA:135:G:C8	2.21	0.75
49:BR:65:LEU:HD12	49:BR:65:LEU:O	1.86	0.75
1:AA:203:U:H5''	1:AA:204:U:OP1	1.85	0.75
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.22	0.75
19:AS:15:LEU:HD21	19:AS:33:THR:OG1	1.86	0.75
20:AT:82:SER:O	20:AT:86:ARG:HB2	1.86	0.75
24:AY:637:ARG:HG3	24:AY:637:ARG:NH1	1.98	0.75
29:B4:48:ARG:O	29:B4:48:ARG:HG2	1.84	0.75
34:B9:36:GLN:OE1	35:BA:1124:C:H1'	1.86	0.75
35:BA:1709:U:H2'	35:BA:1710:C:C6	2.22	0.75
35:BA:2103:C:H2'	35:BA:2104:G:H5''	1.67	0.75
35:BA:2483:C:H3'	35:BA:2484:G:H5''	1.68	0.75
43:BK:132:ARG:HH11	43:BK:132:ARG:HG3	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:101:LEU:HD12	50:BS:101:LEU:O	1.86	0.75
55:BX:8:ILE:H	55:BX:8:ILE:CD1	1.97	0.75
1:AA:148:G:H2'	1:AA:149:A:C8	2.21	0.75
10:AJ:82:ILE:HD13	10:AJ:82:ILE:N	2.00	0.75
35:BA:2723:C:H5''	49:BR:2:ARG:HH11	1.50	0.75
39:BE:57:LYS:O	39:BE:58:ARG:HG3	1.87	0.75
42:BH:44:VAL:O	42:BH:46:GLU:HG2	1.87	0.75
47:BP:23:PRO:HB2	47:BP:33:ARG:CD	2.16	0.75
1:AA:447:G:H2'	1:AA:485:G:N2	2.01	0.75
1:AA:1170:A:H2'	1:AA:1171:G:O4'	1.85	0.75
5:AE:12:LEU:CD1	5:AE:31:LEU:HB3	2.17	0.75
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.15	0.75
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.52	0.75
27:B2:36:ARG:HA	27:B2:39:ALA:HB3	1.67	0.75
35:BA:492:A:H2'	35:BA:493:G:H5'	1.69	0.75
50:BS:40:ILE:HG22	50:BS:41:ASP:H	1.49	0.75
50:BS:87:PHE:HB2	50:BS:106:ARG:HH21	1.51	0.75
1:AA:622:A:C8	1:AA:623:C:C5	2.74	0.75
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.69	0.75
27:B2:25:VAL:C	27:B2:27:GLU:H	1.89	0.75
27:B2:50:ILE:C	27:B2:52:ASP:H	1.91	0.75
35:BA:2761:G:H2'	35:BA:2762:G:H5''	1.68	0.75
38:BD:39:LYS:NZ	38:BD:87:ASN:HB3	2.02	0.75
50:BS:59:LYS:CD	50:BS:61:ASN:HB2	2.17	0.75
53:BV:18:LEU:CG	53:BV:19:LYS:H	1.99	0.75
1:AA:353:A:H8	1:AA:353:A:H5'	1.51	0.74
4:AD:187:ARG:NH2	4:AD:193:ASP:OD2	2.19	0.74
20:AT:43:LEU:O	20:AT:46:GLU:N	2.20	0.74
35:BA:492:A:C2'	35:BA:493:G:H5'	2.17	0.74
35:BA:1821:A:H2'	35:BA:1822:G:H8	1.52	0.74
35:BA:2672:G:C2'	35:BA:2673:G:H5''	2.16	0.74
46:BO:120:GLU:OE2	46:BO:122:LEU:HD21	1.85	0.74
1:AA:490:G:H2'	1:AA:491:G:H8	1.52	0.74
7:AG:7:ALA:O	7:AG:8:GLU:HB2	1.85	0.74
13:AM:116:THR:HG21	22:AV:29:G:H4'	1.68	0.74
35:BA:84:A:H5''	56:BY:9:LYS:HZ3	1.51	0.74
40:BF:16:GLY:O	40:BF:17:ARG:HG3	1.87	0.74
40:BF:17:ARG:HG3	40:BF:17:ARG:HH11	1.51	0.74
51:BT:20:PRO:O	51:BT:22:PHE:HD2	1.70	0.74
2:AB:51:LEU:HD22	2:AB:55:PHE:HE2	1.50	0.74
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.69	0.74
19:AS:41:VAL:O	19:AS:41:VAL:HG23	1.84	0.74
35:BA:739:G:H4'	35:BA:740:U:OP1	1.85	0.74
35:BA:1504:C:C2'	35:BA:1505:C:H5''	2.17	0.74
35:BA:1971:A:C4	38:BD:241:PRO:HD3	2.22	0.74
35:BA:2344:U:H4'	35:BA:2345:G:OP1	1.87	0.74
35:BA:2523:G:C2'	35:BA:2524:G:H5''	2.17	0.74
9:AI:79:LEU:HD13	9:AI:83:ARG:HB2	1.69	0.74
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.02	0.74
24:AY:18:ALA:HA	24:AY:85:PRO:HG2	1.69	0.74
24:AY:22:ASP:O	59:AY:702:GDP:H5'	1.86	0.74
31:B6:9:LEU:HD22	31:B6:26:ASN:HD22	1.51	0.74
35:BA:548:A:C2'	35:BA:549:G:H5'	2.17	0.74
35:BA:581:C:H2'	35:BA:582:G:C8	2.22	0.74
35:BA:654(E):G:H2'	35:BA:654(F):C:H5'	1.68	0.74
35:BA:1120:G:H2'	35:BA:1121:C:C6	2.23	0.74
35:BA:1452:A:C3'	35:BA:1453:U:C5'	2.65	0.74
35:BA:1818:U:H5''	38:BD:157:ARG:HB2	1.67	0.74
40:BF:7:TYR:HB3	40:BF:16:GLY:C	2.08	0.74
48:BQ:56:ARG:HA	48:BQ:56:ARG:HE	1.52	0.74
1:AA:975:A:H5'	1:AA:975:A:C8	2.22	0.74
9:AI:40:LEU:HD11	9:AI:70:LYS:HG2	1.70	0.74
20:AT:57:ARG:NH1	20:AT:102:GLY:HA2	2.03	0.74
35:BA:192:C:H2'	35:BA:193:U:H5'	1.69	0.74
35:BA:406:G:HO2'	35:BA:407:G:H8	1.35	0.74
35:BA:2645:G:H4'	35:BA:2732:G:O2'	1.86	0.74
35:BA:2811:G:O2'	35:BA:2812:G:H5'	1.87	0.74
40:BF:181:LEU:HB3	40:BF:205:ARG:HH11	1.50	0.74
43:BK:71:THR:HB	43:BK:72:PRO:HD2	1.69	0.74
46:BO:24:VAL:HG21	46:BO:30:ALA:HB3	1.69	0.74
47:BP:126:VAL:HG12	47:BP:148:LEU:HD21	1.69	0.74
48:BQ:12:GLN:NE2	48:BQ:73:PRO:HD2	2.02	0.74
57:BZ:107:THR:HG23	57:BZ:111:VAL:HG21	1.68	0.74
1:AA:1298:C:O2	1:AA:1298:C:H2'	1.87	0.74
4:AD:153:ARG:HG2	4:AD:153:ARG:HH11	1.52	0.74
35:BA:363(D):G:O2'	35:BA:363(E):U:H5'	1.86	0.74
35:BA:1245:G:H5''	40:BF:34:TRP:HZ2	1.52	0.74
37:BC:71:LYS:HG2	37:BC:72:GLN:H	1.51	0.74
49:BR:78:LYS:O	49:BR:83:ILE:HG12	1.87	0.74
1:AA:309:G:H1'	1:AA:608:A:C2	2.23	0.74
1:AA:1456:G:H2'	1:AA:1457:G:H5'	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:71:TYR:HA	26:B1:74:VAL:HG23	1.70	0.74
33:B8:6:THR:CG2	33:B8:63:PRO:HD3	2.17	0.74
33:B8:32:LEU:HB3	33:B8:36:LYS:NZ	2.01	0.74
35:BA:1514:U:H2'	35:BA:1515:G:C8	2.22	0.74
35:BA:2639:A:H2'	35:BA:2640:G:O4'	1.88	0.74
42:BH:66:GLY:HA2	42:BH:69:ARG:HB3	1.69	0.74
47:BP:126:VAL:HA	47:BP:145:PRO:CB	2.18	0.74
49:BR:73:VAL:O	49:BR:76:VAL:HG12	1.87	0.74
57:BZ:56:VAL:HG12	57:BZ:57:ILE:N	2.01	0.74
1:AA:973:G:O4'	10:AJ:55:LYS:HG3	1.87	0.74
1:AA:1037:C:H2'	1:AA:1038:C:C2	2.23	0.74
9:AI:104:ARG:O	9:AI:105:ASP:HB3	1.85	0.74
24:AY:201:ILE:H	24:AY:201:ILE:HD12	1.52	0.74
24:AY:326:THR:O	24:AY:328:ILE:HG23	1.88	0.74
24:AY:628:ARG:HH12	24:AY:680:PRO:HG2	1.53	0.74
30:B5:3:LYS:HE2	35:BA:2613:U:H2'	1.68	0.74
30:B5:27:PRO:HG3	54:BW:23:LEU:HD11	1.70	0.74
38:BD:172:TYR:CD1	38:BD:186:HIS:HA	2.22	0.74
39:BE:36:ARG:HG2	39:BE:36:ARG:NH1	2.02	0.74
40:BF:165:ARG:HB3	40:BF:165:ARG:HH11	1.51	0.74
41:BG:41:GLN:NE2	41:BG:60:LEU:HD21	2.02	0.74
43:BK:41:PHE:CE1	43:BK:45:THR:HG21	2.22	0.74
47:BP:23:PRO:HB2	47:BP:33:ARG:HG3	1.69	0.74
1:AA:697:U:C2'	1:AA:698:G:H5'	2.18	0.74
2:AB:96:ARG:N	2:AB:96:ARG:CD	2.51	0.74
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.17	0.74
3:AC:70:VAL:O	3:AC:106:VAL:HG23	1.88	0.74
4:AD:173:TRP:HB3	4:AD:187:ARG:NH1	2.03	0.74
24:AY:101:LEU:HD12	24:AY:103:GLY:O	1.87	0.74
24:AY:385:THR:HG21	24:AY:436:PRO:HG3	1.70	0.74
25:B0:5:LYS:HB2	48:BQ:80:GLU:O	1.88	0.74
25:B0:7:LEU:CD1	48:BQ:85:LYS:HE2	2.18	0.74
35:BA:1538:G:H2'	35:BA:1539:G:C8	2.22	0.74
39:BE:63:LEU:O	39:BE:63:LEU:HD23	1.87	0.74
41:BG:98:ARG:HH11	41:BG:98:ARG:H	1.33	0.74
55:BX:27:THR:CB	55:BX:80:ILE:HG22	2.17	0.74
1:AA:1004:A:N6	1:AA:1034:G:H2'	2.02	0.74
8:AH:17:THR:HB	8:AH:78:GLN:OE1	1.88	0.74
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.70	0.74
24:AY:512:ILE:H	24:AY:512:ILE:HD13	1.52	0.74
32:B7:46:VAL:HG12	32:B7:47:ARG:N	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:120:U:O2	35:BA:120:U:H2'	1.87	0.74
35:BA:2262:U:C2'	35:BA:2263:C:C5'	2.65	0.74
35:BA:2272:U:H5''	35:BA:2273:A:OP1	1.86	0.74
51:BT:30:VAL:HG21	51:BT:84:GLN:H	1.53	0.74
1:AA:1132:C:O2'	1:AA:1133:G:H5'	1.88	0.73
1:AA:1158:C:H6	2:AB:132:LYS:HE3	1.53	0.73
7:AG:121:ALA:O	7:AG:125:MET:HG3	1.88	0.73
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.02	0.73
13:AM:119:GLY:HA2	22:AV:29:G:OP1	1.87	0.73
24:AY:453:GLY:HA3	24:AY:459:LEU:HD11	1.70	0.73
35:BA:2787:C:H1'	39:BE:61:ARG:HG3	1.70	0.73
39:BE:131:ALA:CB	39:BE:134:ILE:HD11	2.13	0.73
42:BH:28:GLY:HA3	42:BH:79:VAL:HG21	1.69	0.73
42:BH:56:SER:OG	42:BH:58:GLU:HG3	1.88	0.73
45:BN:74:ARG:NH2	45:BN:83:LYS:HD3	2.03	0.73
53:BV:21:ARG:HB3	53:BV:91:TYR:HD2	1.53	0.73
3:AC:46:GLU:O	3:AC:47:LEU:HB2	1.86	0.73
22:AV:39:C:H2'	22:AV:40:C:H6	1.53	0.73
29:B4:22:ILE:CG2	29:B4:24:THR:HG23	2.18	0.73
35:BA:1081:U:H5''	43:BK:122:ALA:HB1	1.70	0.73
35:BA:1558:A:H4'	35:BA:1559:G:O5'	1.88	0.73
35:BA:1578:U:H2'	35:BA:1579:A:H5''	1.69	0.73
35:BA:2298:A:H62	35:BA:2318:G:H8	1.36	0.73
35:BA:2312:U:C2'	35:BA:2313:C:H5''	2.17	0.73
43:BK:59:ILE:HG12	43:BK:60:TYR:H	1.50	0.73
47:BP:146:VAL:HG13	47:BP:147:LEU:N	2.00	0.73
49:BR:10:LEU:HB3	49:BR:17:ARG:CD	2.18	0.73
51:BT:42:ILE:HG13	51:BT:42:ILE:O	1.88	0.73
1:AA:192:U:H2'	1:AA:193:C:C6	2.22	0.73
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.71	0.73
33:B8:50:LEU:HD12	33:B8:51:ALA:H	1.53	0.73
35:BA:2132:U:C4	37:BC:6:LYS:HD2	2.23	0.73
37:BC:90:ALA:HA	37:BC:155:ARG:NH1	2.04	0.73
41:BG:42:GLY:HA2	41:BG:89:GLY:HA2	1.69	0.73
50:BS:74:ALA:HB2	50:BS:101:LEU:CD2	2.19	0.73
1:AA:630:G:H2'	1:AA:631:G:C5'	2.18	0.73
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.53	0.73
24:AY:276:VAL:CA	24:AY:280:LEU:HD23	2.13	0.73
24:AY:526:VAL:HB	24:AY:566:THR:HA	1.69	0.73
35:BA:1582:C:H2'	35:BA:1583:A:H8	1.54	0.73
39:BE:16:ARG:HD3	39:BE:173:VAL:HG13	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:44:LEU:O	49:BR:44:LEU:HD13	1.87	0.73
1:AA:973:G:H1'	10:AJ:55:LYS:NZ	2.04	0.73
1:AA:1119:C:O2'	1:AA:1120:G:H5'	1.88	0.73
2:AB:223:ILE:HA	2:AB:226:ARG:NE	2.02	0.73
3:AC:58:GLU:N	3:AC:65:ALA:HB3	1.99	0.73
8:AH:114:THR:HG21	8:AH:129:VAL:HG23	1.70	0.73
15:AO:31:LEU:H	15:AO:31:LEU:CD2	2.02	0.73
24:AY:21:ILE:O	24:AY:22:ASP:HB2	1.85	0.73
29:B4:3:GLU:HG3	36:BB:43:C:OP1	1.88	0.73
41:BG:9:ARG:HG3	41:BG:13:GLU:HG2	1.70	0.73
47:BP:85:LEU:HD12	47:BP:120:ALA:HB2	1.71	0.73
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.53	0.73
3:AC:55:VAL:O	3:AC:55:VAL:HG12	1.88	0.73
19:AS:21:GLU:CG	19:AS:22:LEU:HD23	2.18	0.73
22:AV:5:G:N2	22:AV:69:C:C2	2.56	0.73
35:BA:1353:A:H2'	35:BA:1354:A:C8	2.24	0.73
35:BA:1434:A:H61	35:BA:1558:A:H62	1.36	0.73
35:BA:2307:G:N2	35:BA:2308:G:H5''	2.03	0.73
35:BA:2789:C:H1'	35:BA:2892:A:C2	2.22	0.73
4:AD:30:LYS:C	4:AD:32:ALA:H	1.89	0.73
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.03	0.73
35:BA:666:G:H4'	47:BP:49:ARG:HH21	1.54	0.73
35:BA:848:G:N3	35:BA:933:A:H1'	2.03	0.73
35:BA:1539:G:C2	35:BA:1540:U:H1'	2.24	0.73
35:BA:1948:G:C8	35:BA:1948:G:H5'	2.23	0.73
43:BK:17:ALA:HB3	43:BK:38:VAL:CG2	2.17	0.73
51:BT:28:VAL:HG13	51:BT:46:GLU:HA	1.68	0.73
51:BT:29:ARG:HG2	51:BT:85:LYS:CA	2.18	0.73
55:BX:89:ILE:HG22	55:BX:91:ALA:HB3	1.71	0.73
1:AA:50:A:N6	1:AA:361:G:H4'	2.04	0.73
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	1.88	0.73
1:AA:1231:G:O2'	1:AA:1232:U:H5'	1.89	0.73
4:AD:33:MET:O	4:AD:37:PRO:HG3	1.89	0.73
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.71	0.73
19:AS:78:ARG:HB2	19:AS:81:ARG:HH11	1.51	0.73
24:AY:517:LEU:HB3	24:AY:521:SER:CB	2.19	0.73
28:B3:28:LEU:HD23	28:B3:28:LEU:N	2.03	0.73
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.51	0.73
35:BA:637:A:OP1	47:BP:133:SER:HB3	1.88	0.73
35:BA:654(G):C:H2'	35:BA:654(H):G:H8	1.54	0.73
38:BD:28:GLU:H	38:BD:29:PRO:HD2	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:43:ARG:HB3	38:BD:54:ARG:HB2	1.69	0.73
1:AA:579:G:H5'	1:AA:728:A:H1'	1.69	0.73
1:AA:1068:G:OP2	1:AA:1094:G:H5'	1.88	0.73
9:AI:53:VAL:C	9:AI:55:ALA:H	1.91	0.73
13:AM:63:THR:HG22	13:AM:64:TRP:H	1.52	0.73
17:AQ:31:LEU:O	17:AQ:31:LEU:HD12	1.88	0.73
22:AV:46:G:O3'	22:AV:47:U:H6	1.70	0.73
22:AV:56:C:N4	35:BA:2169:A:N1	2.37	0.73
28:B3:16:PRO:HB2	28:B3:18:ASP:OD1	1.89	0.73
31:B6:43:CYS:HB2	31:B6:44:ARG:NH2	2.04	0.73
33:B8:54:GLU:O	33:B8:58:ILE:HG12	1.88	0.73
35:BA:358:U:H2'	35:BA:359:A:C8	2.19	0.73
35:BA:1190:G:H5'	47:BP:35:HIS:H	1.52	0.73
35:BA:1223:G:C3'	35:BA:1224:C:H5''	2.16	0.73
35:BA:1452:A:C3'	35:BA:1453:U:H5''	2.18	0.73
39:BE:11:MET:HB2	39:BE:23:VAL:O	1.89	0.73
40:BF:120:GLU:HB3	40:BF:122:LYS:HG2	1.70	0.73
48:BQ:2:LEU:HG	48:BQ:69:PHE:HE1	1.52	0.73
48:BQ:54:MET:HG2	48:BQ:64:ILE:HD13	1.71	0.73
3:AC:99:VAL:HG23	3:AC:99:VAL:O	1.87	0.73
7:AG:18:TYR:HD2	7:AG:59:LEU:HD13	1.53	0.73
13:AM:27:LYS:HE2	13:AM:31:LYS:HE3	1.71	0.73
35:BA:84:A:H5''	56:BY:9:LYS:NZ	2.02	0.73
35:BA:108:U:H2'	35:BA:109:G:H8	1.51	0.73
35:BA:2523:G:H2'	35:BA:2524:G:H5''	1.71	0.73
36:BB:115:G:H2'	36:BB:116:G:H8	1.54	0.73
37:BC:101:ILE:HD12	37:BC:101:ILE:N	1.98	0.73
38:BD:84:TYR:HA	38:BD:91:ARG:HH12	1.53	0.73
40:BF:163:VAL:O	40:BF:166:ALA:HB3	1.87	0.73
43:BK:42:ASN:O	43:BK:46:ALA:HB2	1.89	0.73
54:BW:59:VAL:O	54:BW:59:VAL:HG12	1.88	0.73
55:BX:12:VAL:HG23	55:BX:13:LEU:N	1.98	0.73
57:BZ:149:SER:HB3	57:BZ:173:ALA:CB	2.18	0.73
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.04	0.72
3:AC:148:GLY:HA3	3:AC:172:ARG:O	1.89	0.72
11:AK:124:LYS:HD2	11:AK:125:PHE:CD1	2.24	0.72
13:AM:63:THR:HG22	13:AM:64:TRP:N	2.02	0.72
30:B5:2:ALA:CA	35:BA:2015:A:H1'	2.19	0.72
35:BA:2470:G:P	48:BQ:56:ARG:HH12	2.11	0.72
38:BD:117:VAL:HG23	38:BD:129:ASN:HA	1.71	0.72
39:BE:51:PHE:CD1	39:BE:52:LEU:HD12	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:149:ARG:HA	42:BH:162:ILE:HG13	1.71	0.72
50:BS:74:ALA:HB2	50:BS:101:LEU:HD22	1.71	0.72
2:AB:54:THR:O	2:AB:58:ILE:HG13	1.89	0.72
26:B1:80:LEU:HD13	26:B1:82:LEU:HD11	1.70	0.72
35:BA:786:C:O2'	35:BA:787:U:H5'	1.90	0.72
35:BA:965:C:H5'	35:BA:2273:A:C1'	2.19	0.72
35:BA:2476:A:C2'	35:BA:2477:C:H5''	2.18	0.72
40:BF:25:PRO:HG3	40:BF:119:ARG:HB2	1.69	0.72
41:BG:45:GLU:O	41:BG:51:ARG:HD3	1.89	0.72
42:BH:19:VAL:HG12	42:BH:20:ALA:N	2.03	0.72
42:BH:41:MET:HG2	42:BH:43:VAL:HG13	1.70	0.72
48:BQ:55:VAL:CG2	57:BZ:178:GLU:HG2	2.18	0.72
51:BT:115:ARG:HB3	51:BT:115:ARG:HH11	1.52	0.72
1:AA:622:A:C8	1:AA:623:C:C6	2.78	0.72
1:AA:1158:C:H5'	2:AB:133:LYS:HE2	1.67	0.72
1:AA:1381:U:C5	1:AA:1382:C:C5	2.77	0.72
3:AC:58:GLU:O	3:AC:59:ARG:HG3	1.89	0.72
13:AM:10:PRO:CB	13:AM:18:ALA:HB1	2.18	0.72
19:AS:14:HIS:HD2	19:AS:15:LEU:HD23	1.52	0.72
24:AY:165:GLN:C	24:AY:166:LEU:HD12	2.09	0.72
31:B6:11:LEU:O	31:B6:11:LEU:HD13	1.89	0.72
31:B6:54:ILE:CD1	35:BA:2420:C:H5'	2.19	0.72
35:BA:322:A:H3'	40:BF:169:ASN:HD21	1.55	0.72
35:BA:1516:C:H2'	35:BA:1517:G:H5'	1.71	0.72
38:BD:131:LEU:N	38:BD:131:LEU:CD1	2.49	0.72
40:BF:84:VAL:CG1	40:BF:85:GLY:N	2.53	0.72
40:BF:176:LEU:HG	40:BF:177:ALA:O	1.89	0.72
48:BQ:52:VAL:O	48:BQ:55:VAL:HG12	1.88	0.72
56:BY:31:LEU:HB2	56:BY:32:PRO:HA	1.70	0.72
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.90	0.72
19:AS:46:GLY:N	19:AS:62:ILE:HG23	2.04	0.72
24:AY:138:LYS:HD3	24:AY:141:LYS:HE3	1.71	0.72
33:B8:2:PRO:HA	35:BA:591:C:O2	1.88	0.72
35:BA:991:C:H6	35:BA:991:C:H5'	1.55	0.72
35:BA:1348:G:C2'	35:BA:1349:A:H5''	2.19	0.72
35:BA:2415:G:O3'	47:BP:66:GLY:HA3	1.89	0.72
41:BG:34:LEU:HB2	41:BG:99:MET:HE1	1.71	0.72
41:BG:111:LEU:HB2	41:BG:112:PRO:HD3	1.69	0.72
45:BN:45:ASN:H	45:BN:45:ASN:ND2	1.87	0.72
49:BR:75:LEU:O	49:BR:75:LEU:HD13	1.88	0.72
51:BT:108:ARG:HH11	51:BT:108:ARG:HB3	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:539:A:H2'	1:AA:540:G:H8	1.52	0.72
24:AY:409:ILE:HD11	24:AY:654:GLY:HA2	1.72	0.72
35:BA:624:C:H41	47:BP:107:LYS:NZ	1.87	0.72
35:BA:2122:U:H2'	35:BA:2123:G:C8	2.23	0.72
35:BA:2518:A:H5''	35:BA:2519:U:OP2	1.89	0.72
49:BR:2:ARG:CD	49:BR:5:LYS:HE2	2.20	0.72
56:BY:55:TYR:N	56:BY:55:TYR:HD1	1.88	0.72
3:AC:82:GLU:O	3:AC:86:VAL:HG13	1.88	0.72
29:B4:41:PRO:C	29:B4:42:PHE:CD1	2.62	0.72
31:B6:40:CYS:HB2	31:B6:46:HIS:CE1	2.25	0.72
35:BA:978:G:H1	35:BA:985:C:H42	1.38	0.72
35:BA:1378:A:HO2'	35:BA:1379:A:H5''	1.52	0.72
35:BA:2189:U:C2'	35:BA:2190:G:H5''	2.19	0.72
41:BG:76:SER:HA	41:BG:83:ARG:HB3	1.71	0.72
45:BN:9:VAL:HG11	45:BN:39:ARG:NH2	2.03	0.72
47:BP:98:GLU:HA	47:BP:101:VAL:CG2	2.20	0.72
51:BT:83:ILE:HG13	51:BT:84:GLN:H	1.53	0.72
1:AA:269:C:H2'	1:AA:270:A:C8	2.24	0.72
3:AC:137:ALA:HA	3:AC:140:ARG:NH2	2.03	0.72
5:AE:36:ASP:OD2	5:AE:40:ARG:HB2	1.90	0.72
9:AI:95:LYS:HZ3	9:AI:96:LEU:HD12	1.52	0.72
16:AP:21:VAL:O	16:AP:33:ILE:HB	1.89	0.72
22:AV:47:U:H3'	22:AV:48:C:H5'	1.71	0.72
35:BA:1902:C:H1'	38:BD:244:ARG:HG3	1.71	0.72
39:BE:38:THR:HG23	39:BE:39:PRO:HD2	1.72	0.72
39:BE:60:ASN:OD1	39:BE:62:PRO:HD2	1.88	0.72
41:BG:131:TYR:HB3	41:BG:159:VAL:HG13	1.70	0.72
43:BK:78:ILE:HD11	43:BK:136:VAL:HG11	1.72	0.72
51:BT:80:SER:HB3	51:BT:81:PRO:CD	2.18	0.72
52:BU:53:ARG:HA	52:BU:56:ASP:OD2	1.90	0.72
1:AA:584:G:H2'	1:AA:585:G:C8	2.25	0.72
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.49	0.72
1:AA:1342:C:O2'	1:AA:1343:G:H5'	1.89	0.72
1:AA:1490:C:H6	1:AA:1490:C:C5'	2.01	0.72
4:AD:8:VAL:HB	4:AD:21:LEU:HD12	1.70	0.72
12:AL:117:ARG:NH2	12:AL:124:LYS:HB2	2.05	0.72
12:AL:119:LYS:O	12:AL:120:TYR:HB2	1.89	0.72
24:AY:85:PRO:HA	24:AY:94:VAL:CG2	2.18	0.72
24:AY:604:PRO:C	24:AY:605:ILE:HD12	2.10	0.72
27:B2:41:ILE:HG13	27:B2:41:ILE:O	1.88	0.72
33:B8:6:THR:HG22	33:B8:63:PRO:HD3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:57:ALA:O	41:BG:68:PRO:HG2	1.88	0.72
47:BP:6:LEU:HB3	47:BP:9:ASN:HD21	1.55	0.72
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.25	0.72
13:AM:15:VAL:HG12	13:AM:45:VAL:HG23	1.70	0.72
29:B4:1:MET:HE2	41:BG:66:GLN:CD	2.10	0.72
30:B5:55:ARG:C	30:B5:55:ARG:HD3	2.09	0.72
34:B9:32:HIS:O	34:B9:34:GLN:HG3	1.90	0.72
35:BA:2313:C:H5'	35:BA:2313:C:C6	2.25	0.72
42:BH:98:LEU:HB2	42:BH:125:VAL:CG2	2.13	0.72
51:BT:13:ARG:HH12	51:BT:15:VAL:CG2	2.01	0.72
54:BW:20:VAL:HG23	54:BW:21:VAL:N	2.04	0.72
57:BZ:79:ARG:O	57:BZ:80:ARG:HB2	1.88	0.72
1:AA:474:G:H2'	1:AA:475:G:C8	2.24	0.72
1:AA:666:G:H5'	1:AA:726:C:H1'	1.70	0.72
2:AB:147:LYS:HG2	2:AB:148:TYR:CE1	2.24	0.72
13:AM:116:THR:CG2	13:AM:117:VAL:N	2.53	0.72
17:AQ:50:LYS:O	17:AQ:50:LYS:HG3	1.90	0.72
22:AV:21:A:N6	22:AV:46:G:H2'	1.99	0.72
35:BA:2511:U:O3'	39:BE:123:ALA:HB3	1.90	0.72
40:BF:176:LEU:HD11	40:BF:180:GLY:HA3	1.71	0.72
42:BH:12:PRO:HD3	42:BH:49:VAL:HG12	1.72	0.72
57:BZ:56:VAL:HG13	57:BZ:69:THR:O	1.89	0.72
2:AB:178:ARG:HG2	2:AB:178:ARG:HH11	1.55	0.71
3:AC:86:VAL:HG23	3:AC:87:LEU:N	2.05	0.71
21:AU:23:PRO:C	21:AU:25:LYS:H	1.93	0.71
28:B3:56:VAL:CG1	28:B3:57:GLU:N	2.53	0.71
35:BA:295:G:O2'	35:BA:296:C:H5'	1.90	0.71
35:BA:2329:G:H2'	35:BA:2330:G:C8	2.25	0.71
39:BE:176:ILE:HG22	39:BE:178:GLU:HB3	1.72	0.71
41:BG:16:ARG:NE	41:BG:31:VAL:HG11	2.04	0.71
46:BO:105:GLU:O	46:BO:109:LYS:HG2	1.90	0.71
55:BX:30:VAL:HG22	55:BX:77:LYS:O	1.90	0.71
1:AA:1275:A:O2'	1:AA:1276:G:H5'	1.90	0.71
1:AA:1442:G:C6	1:AA:1442(B):A:H2	2.08	0.71
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.72	0.71
25:B0:46:LYS:O	25:B0:78:TYR:HA	1.91	0.71
35:BA:218:A:H2	35:BA:235:U:H4'	1.53	0.71
35:BA:2672:G:C3'	35:BA:2673:G:H5''	2.19	0.71
1:AA:80:G:H5''	1:AA:81:U:H5'	1.73	0.71
2:AB:167:PRO:HG2	2:AB:192:SER:OG	1.90	0.71
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.30	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:1:MET:HE2	41:BG:66:GLN:OE1	1.89	0.71
35:BA:200:U:H2'	35:BA:201:C:H5'	1.70	0.71
35:BA:1790:C:H5''	35:BA:1791:A:OP1	1.90	0.71
35:BA:2579:C:H4'	39:BE:134:ILE:HG12	1.70	0.71
57:BZ:18:LEU:O	57:BZ:21:ALA:HB3	1.89	0.71
1:AA:176:C:H2'	1:AA:177:C:C6	2.26	0.71
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.25	0.71
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.25	0.71
20:AT:8:ARG:HH11	20:AT:8:ARG:HG3	1.54	0.71
24:AY:162:VAL:HG21	24:AY:255:ILE:HD11	1.71	0.71
24:AY:534:ILE:HD11	24:AY:570:GLY:HA3	1.73	0.71
31:B6:43:CYS:HB3	31:B6:44:ARG:HH21	1.55	0.71
35:BA:643:A:O2'	35:BA:644:A:H5'	1.91	0.71
35:BA:1203:G:H3'	35:BA:1204:A:C5'	2.20	0.71
40:BF:78:ILE:HA	40:BF:83:PHE:CD2	2.26	0.71
42:BH:159:GLU:HG3	42:BH:160:LYS:H	1.55	0.71
47:BP:106:LEU:HD21	47:BP:112:LEU:HG	1.72	0.71
1:AA:999:C:H2'	1:AA:1000:U:C6	2.24	0.71
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.05	0.71
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.72	0.71
13:AM:90:LEU:O	13:AM:93:ARG:N	2.24	0.71
20:AT:45:GLN:HA	20:AT:91:LEU:HB3	1.71	0.71
24:AY:137:ASN:ND2	24:AY:263:ALA:H	1.87	0.71
29:B4:9:LEU:HD23	41:BG:65:GLY:HA3	1.71	0.71
35:BA:803:U:O2'	35:BA:804:A:H5'	1.91	0.71
35:BA:970:C:H2'	35:BA:971:C:C6	2.25	0.71
35:BA:1053:C:C3'	35:BA:1054:A:H5''	2.21	0.71
35:BA:1644:C:O2	35:BA:1644:C:H2'	1.89	0.71
45:BN:3:THR:HG22	45:BN:4:TYR:H	1.55	0.71
51:BT:115:ARG:HH11	51:BT:115:ARG:CB	2.03	0.71
53:BV:38:LEU:HD12	53:BV:56:SER:HA	1.73	0.71
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HG2	1.72	0.71
19:AS:21:GLU:HG3	19:AS:22:LEU:HD22	1.72	0.71
24:AY:21:ILE:H	24:AY:21:ILE:CD1	2.01	0.71
24:AY:293:THR:HB	24:AY:294:PRO:HD2	1.71	0.71
24:AY:614:GLU:HB3	24:AY:617:MET:HE3	1.72	0.71
27:B2:69:ARG:O	27:B2:70:GLN:HB2	1.89	0.71
28:B3:56:VAL:CG1	28:B3:57:GLU:H	2.04	0.71
33:B8:33:ASN:H	33:B8:33:ASN:ND2	1.87	0.71
35:BA:26:G:H1'	35:BA:515:A:H61	1.56	0.71
35:BA:363(B):G:H2'	35:BA:363(C):G:H8	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1294:U:H6	35:BA:1294:U:H5''	1.54	0.71
36:BB:2:C:O5'	36:BB:2:C:H6	1.73	0.71
38:BD:44:ASN:HB2	38:BD:48:ARG:O	1.90	0.71
42:BH:43:VAL:HG11	42:BH:51:ARG:O	1.90	0.71
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	1.89	0.71
1:AA:1054:C:OP2	1:AA:1197:G:OP2	2.08	0.71
9:AI:104:ARG:O	9:AI:105:ASP:CB	2.25	0.71
10:AJ:40:LEU:HB3	10:AJ:41:PRO:HD2	1.73	0.71
35:BA:272(H):C:H2'	35:BA:272(I):U:C5'	2.20	0.71
35:BA:406:G:O2'	35:BA:407:G:H8	1.74	0.71
35:BA:582:G:H2'	35:BA:583:G:H8	1.54	0.71
35:BA:1996:C:H4'	35:BA:1997:G:H5'	1.72	0.71
40:BF:198:ALA:O	40:BF:201:VAL:HG12	1.89	0.71
41:BG:131:TYR:HE2	41:BG:133:LEU:HB3	1.55	0.71
42:BH:144:VAL:HA	42:BH:147:ASN:HB2	1.72	0.71
47:BP:47:ASP:HB3	47:BP:48:PRO:O	1.90	0.71
47:BP:75:ILE:N	47:BP:75:ILE:CD1	2.52	0.71
1:AA:72:C:H2'	1:AA:73:G:C8	2.26	0.71
1:AA:160:A:H1'	1:AA:344:A:C8	2.25	0.71
1:AA:461:A:O2'	1:AA:470:C:H5'	1.90	0.71
1:AA:723:U:H5'	1:AA:724:G:OP2	1.91	0.71
1:AA:999:C:H2'	1:AA:1000:U:C5	2.25	0.71
5:AE:76:ILE:HG13	5:AE:142:LEU:HD13	1.72	0.71
10:AJ:13:HIS:O	10:AJ:17:ASP:HB2	1.89	0.71
12:AL:7:ILE:O	12:AL:11:VAL:HG23	1.90	0.71
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.26	0.71
24:AY:415:PRO:HA	24:AY:474:ALA:CB	2.20	0.71
28:B3:38:GLU:HB3	28:B3:43:ILE:HG13	1.72	0.71
31:B6:33:LYS:HG2	31:B6:34:LEU:H	1.55	0.71
35:BA:389:G:O4'	35:BA:2413:G:H4'	1.89	0.71
35:BA:580:C:H2'	35:BA:581:C:H6	1.55	0.71
35:BA:2147:G:H2'	35:BA:2148:G:O4'	1.90	0.71
35:BA:2732:G:H3'	35:BA:2733:A:H5'	1.71	0.71
37:BC:48:LEU:N	37:BC:48:LEU:HD12	2.06	0.71
38:BD:94:LEU:HD23	38:BD:95:LEU:N	2.06	0.71
48:BQ:17:LEU:C	48:BQ:18:LYS:HD2	2.11	0.71
1:AA:8:A:N6	4:AD:209:ARG:HB2	2.06	0.71
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.26	0.71
1:AA:473:G:H2'	1:AA:474:G:H8	1.56	0.71
8:AH:5:PRO:O	8:AH:8:ASP:HB3	1.91	0.71
10:AJ:40:LEU:CB	10:AJ:41:PRO:HD2	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:33:ARG:CG	12:AL:60:LEU:HD12	2.21	0.71
20:AT:45:GLN:HB2	20:AT:91:LEU:HD13	1.72	0.71
35:BA:1514:U:H2'	35:BA:1515:G:H8	1.56	0.71
38:BD:144:ALA:HB3	38:BD:192:THR:HG23	1.73	0.71
41:BG:56:ALA:HB1	41:BG:153:ARG:CZ	2.20	0.71
54:BW:33:ARG:O	54:BW:37:ARG:HB2	1.91	0.71
27:B2:21:LEU:O	27:B2:24:LEU:HB3	1.91	0.71
35:BA:195:A:H5''	35:BA:196:A:OP2	1.91	0.71
35:BA:958:U:H3'	35:BA:958:U:C6	2.26	0.71
35:BA:1058:G:N2	35:BA:1081:U:H1'	2.05	0.71
35:BA:2512:C:H2'	35:BA:2513:G:O4'	1.91	0.71
42:BH:149:ARG:HD3	42:BH:164:TYR:HE1	1.55	0.71
43:BK:70:LYS:N	43:BK:70:LYS:HE3	2.06	0.71
50:BS:49:VAL:CG1	50:BS:50:SER:H	2.01	0.71
50:BS:49:VAL:CG1	50:BS:50:SER:N	2.54	0.71
53:BV:58:VAL:O	53:BV:97:LYS:HB2	1.91	0.71
55:BX:10:ALA:O	55:BX:28:PHE:HB2	1.91	0.71
55:BX:54:VAL:HG22	55:BX:81:VAL:HG12	1.71	0.71
1:AA:759:A:H2'	1:AA:760:G:H5'	1.72	0.70
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.06	0.70
3:AC:114:PRO:HD3	3:AC:183:ASP:OD1	1.91	0.70
25:B0:60:PHE:HE1	25:B0:62:LEU:HD23	1.55	0.70
35:BA:768:G:H2'	35:BA:769:G:H8	1.56	0.70
35:BA:1711:C:O2'	35:BA:1712:C:H5'	1.91	0.70
35:BA:2198:A:H4'	35:BA:2199:A:OP1	1.89	0.70
35:BA:2329:G:H2'	35:BA:2330:G:H8	1.56	0.70
40:BF:34:TRP:HB2	47:BP:10:PRO:HB2	1.71	0.70
40:BF:157:VAL:HG21	40:BF:194:MET:HG2	1.72	0.70
49:BR:11:ASN:O	49:BR:12:ARG:HB2	1.90	0.70
52:BU:112:ARG:CZ	53:BV:46:VAL:HG21	2.21	0.70
1:AA:192:U:H2'	1:AA:193:C:H6	1.56	0.70
1:AA:1026:G:C2'	1:AA:1027:C:H5'	2.19	0.70
4:AD:126:ILE:HD12	4:AD:126:ILE:N	2.06	0.70
24:AY:238:THR:HG22	24:AY:241:GLU:CG	2.20	0.70
58:AY:701:FUA:H231	58:AY:701:FUA:H122	1.73	0.70
28:B3:52:HIS:H	28:B3:52:HIS:CD2	2.06	0.70
31:B6:45:LYS:HG2	35:BA:2371:G:C4'	2.20	0.70
32:B7:23:ARG:C	32:B7:28:ARG:HH12	1.93	0.70
35:BA:940:G:H3'	35:BA:941:A:H5''	1.72	0.70
35:BA:1052:C:H6	35:BA:1052:C:C3'	2.04	0.70
38:BD:270:ILE:H	38:BD:270:ILE:HD12	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:95:ILE:HD13	39:BE:95:ILE:N	2.07	0.70
42:BH:118:PRO:HG2	42:BH:121:ILE:HD12	1.73	0.70
47:BP:84:ASN:HA	47:BP:115:LEU:O	1.91	0.70
48:BQ:76:LYS:HB3	48:BQ:91:GLU:HG3	1.72	0.70
1:AA:663:A:O2'	1:AA:664:G:H5'	1.91	0.70
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.26	0.70
4:AD:194:LEU:HB3	4:AD:196:LEU:HD13	1.71	0.70
13:AM:56:LEU:HD13	13:AM:56:LEU:C	2.11	0.70
19:AS:6:LYS:CE	19:AS:6:LYS:H	2.04	0.70
20:AT:49:ALA:HB1	20:AT:99:LEU:HG	1.73	0.70
24:AY:170:ARG:O	24:AY:171:GLU:HG2	1.92	0.70
24:AY:468:ARG:HH11	24:AY:468:ARG:CB	2.04	0.70
26:B1:88:LYS:O	26:B1:88:LYS:HG2	1.91	0.70
29:B4:19:GLY:O	29:B4:21:VAL:HG23	1.91	0.70
35:BA:2543:G:H5'	35:BA:2543:G:H8	1.55	0.70
35:BA:2585:U:O2'	35:BA:2586:C:H5'	1.92	0.70
52:BU:88:ILE:HG22	53:BV:47:VAL:O	1.90	0.70
52:BU:107:ALA:HA	52:BU:110:VAL:HG23	1.72	0.70
53:BV:79:VAL:O	53:BV:80:GLN:HB2	1.91	0.70
4:AD:187:ARG:CG	4:AD:187:ARG:HH11	2.05	0.70
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	1.73	0.70
27:B2:14:ARG:HG3	27:B2:14:ARG:HH11	1.56	0.70
30:B5:44:THR:HG22	30:B5:45:VAL:N	2.05	0.70
35:BA:654(S):G:H3'	35:BA:654(T):C:C5'	2.21	0.70
35:BA:2133:G:C2'	35:BA:2157:G:H22	2.03	0.70
51:BT:30:VAL:HG21	51:BT:83:ILE:HG12	1.71	0.70
55:BX:18:TYR:C	55:BX:20:GLY:H	1.94	0.70
1:AA:1126:U:O4'	1:AA:1281:U:H1'	1.92	0.70
2:AB:238:LEU:O	2:AB:238:LEU:HG	1.91	0.70
4:AD:24:GLU:O	4:AD:27:TYR:HB2	1.91	0.70
4:AD:152:SER:O	4:AD:155:LEU:HG	1.92	0.70
5:AE:33:VAL:HG12	5:AE:34:VAL:N	2.05	0.70
5:AE:116:THR:HG22	5:AE:117:ASP:OD1	1.90	0.70
13:AM:10:PRO:HG2	13:AM:11:ARG:H	1.56	0.70
22:AV:46:G:H4'	22:AV:47:U:C5	2.23	0.70
35:BA:2195:C:O2'	35:BA:2196:C:H5'	1.91	0.70
36:BB:65:C:H41	36:BB:109:C:H2'	1.56	0.70
38:BD:44:ASN:CB	38:BD:49:ILE:HA	2.19	0.70
38:BD:77:ALA:HB2	38:BD:97:TYR:CD1	2.26	0.70
40:BF:2:LYS:HG3	40:BF:25:PRO:HG2	1.73	0.70
40:BF:106:ARG:HG3	40:BF:106:ARG:NH1	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:111:LEU:HA	41:BG:114:ILE:CD1	2.21	0.70
42:BH:170:ARG:O	42:BH:171:LEU:CB	2.40	0.70
54:BW:29:LEU:CD1	54:BW:51:LEU:HD11	2.21	0.70
56:BY:8:LYS:HB2	56:BY:28:LYS:HZ2	1.51	0.70
57:BZ:130:PRO:O	57:BZ:133:ILE:CD1	2.38	0.70
1:AA:979:C:C2'	1:AA:980:C:H5''	2.21	0.70
25:B0:60:PHE:HE1	25:B0:62:LEU:CD2	2.04	0.70
35:BA:2259:G:O2'	35:BA:2260:C:H5'	1.92	0.70
35:BA:2572:A:H5'	35:BA:2574:G:C4'	2.22	0.70
37:BC:98:GLU:O	37:BC:101:ILE:HD13	1.92	0.70
38:BD:27:THR:CG2	38:BD:83:GLU:HG2	2.21	0.70
48:BQ:109:VAL:HG12	48:BQ:113:GLN:HB2	1.73	0.70
56:BY:47:LYS:HG3	56:BY:60:PHE:CE1	2.27	0.70
1:AA:339:C:OP2	46:BO:97:ARG:NH1	2.24	0.70
1:AA:998:G:H2'	1:AA:999:C:C2	2.27	0.70
20:AT:49:ALA:CB	20:AT:99:LEU:HG	2.21	0.70
35:BA:1294:U:H5''	35:BA:1294:U:C6	2.26	0.70
40:BF:40:GLN:NE2	40:BF:182:ASN:HB2	2.06	0.70
43:BK:99:ILE:HD12	43:BK:103:GLN:HB3	1.74	0.70
46:BO:2:ILE:HD11	46:BO:82:ASN:HD22	1.56	0.70
47:BP:62:LEU:H	47:BP:62:LEU:CD2	2.03	0.70
48:BQ:66:ILE:HG13	48:BQ:66:ILE:O	1.91	0.70
50:BS:98:VAL:C	50:BS:100:ALA:H	1.92	0.70
1:AA:433:C:O2'	1:AA:434:U:H5'	1.92	0.70
1:AA:1423:G:C5'	46:BO:49:ARG:HH22	2.05	0.70
1:AA:1432:G:OP1	51:BT:107:ASP:HB2	1.92	0.70
2:AB:215:LEU:O	2:AB:218:ALA:HB3	1.91	0.70
24:AY:9:LEU:CD2	24:AY:284:LEU:HB2	2.22	0.70
24:AY:380:LEU:C	24:AY:381:LYS:HD2	2.11	0.70
24:AY:388:THR:CG2	24:AY:399:LEU:HD13	2.22	0.70
31:B6:43:CYS:O	31:B6:44:ARG:HB2	1.91	0.70
35:BA:528:A:H2	35:BA:2043:C:C5'	2.02	0.70
35:BA:1367:A:H2'	35:BA:1368:G:H5'	1.74	0.70
35:BA:1528(A):A:H62	35:BA:1541:G:N2	1.90	0.70
45:BN:45:ASN:HD22	45:BN:45:ASN:N	1.86	0.70
54:BW:14:PRO:HG2	54:BW:78:GLU:HB2	1.73	0.70
1:AA:294:U:H2'	1:AA:295:C:H6	1.56	0.70
7:AG:27:ILE:CD1	7:AG:40:ALA:HA	2.22	0.70
16:AP:77:ALA:HB3	16:AP:79:VAL:HG23	1.73	0.70
35:BA:402:A:C2'	35:BA:403:U:H5'	2.22	0.70
35:BA:903:C:H2'	35:BA:904:C:C5'	2.18	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1722:A:O2'	35:BA:1739:U:H5''	1.92	0.70
35:BA:2463:C:O2'	35:BA:2464:C:H5'	1.90	0.70
38:BD:80:ALA:HB3	38:BD:94:LEU:HB3	1.74	0.70
40:BF:157:VAL:HG12	40:BF:176:LEU:HD23	1.74	0.70
43:BK:23:VAL:HG13	43:BK:27:LEU:HD22	1.73	0.70
48:BQ:35:VAL:HG23	48:BQ:101:ARG:O	1.92	0.70
51:BT:33:LYS:HE2	51:BT:43:GLN:OE1	1.92	0.70
1:AA:383:A:H2'	1:AA:384:G:H5'	1.73	0.70
17:AQ:52:LYS:HD3	17:AQ:55:ASP:OD2	1.91	0.70
24:AY:113:GLY:C	24:AY:115:GLU:H	1.95	0.70
31:B6:33:LYS:HG2	31:B6:34:LEU:N	2.05	0.70
35:BA:1028:A:N6	35:BA:1125:G:H2'	2.07	0.70
35:BA:1405:U:H2'	35:BA:1406:U:C6	2.27	0.70
35:BA:1542:A:H5'	35:BA:1543:C:OP2	1.92	0.70
35:BA:2103:C:C3'	35:BA:2104:G:H5''	2.21	0.70
35:BA:2636:U:H4'	39:BE:80:GLU:OE1	1.92	0.70
38:BD:24:ILE:HD13	38:BD:25:THR:N	2.06	0.70
39:BE:24:THR:CG2	39:BE:186:GLY:HA2	2.16	0.70
56:BY:4:LYS:O	56:BY:6:HIS:HD2	1.75	0.70
1:AA:973:G:H1'	10:AJ:55:LYS:CE	2.22	0.69
20:AT:73:HIS:H	20:AT:76:ALA:HB3	1.56	0.69
24:AY:122:TRP:CE3	24:AY:132:ARG:HD2	2.26	0.69
24:AY:272:LEU:O	24:AY:275:ALA:HB3	1.92	0.69
29:B4:9:LEU:HD13	29:B4:26:SER:O	1.92	0.69
31:B6:10:LEU:H	31:B6:10:LEU:CD2	2.04	0.69
35:BA:528:A:H2	35:BA:2043:C:H5'	1.56	0.69
35:BA:1430:C:H2'	35:BA:1431:U:C6	2.27	0.69
35:BA:1541:G:O2'	35:BA:1542:A:H5''	1.92	0.69
35:BA:1668:A:N6	35:BA:1676:A:H61	1.90	0.69
35:BA:2168:G:N2	35:BA:2170:A:H3'	2.06	0.69
35:BA:2442:C:H2'	35:BA:2443:C:H6	1.57	0.69
35:BA:2464:C:HO2'	35:BA:2465:C:H6	1.36	0.69
36:BB:86:G:H2'	36:BB:87:G:C8	2.27	0.69
36:BB:87:G:H3'	36:BB:88:C:H5''	1.74	0.69
39:BE:117:MET:O	39:BE:117:MET:HG2	1.92	0.69
40:BF:32:LEU:C	40:BF:32:LEU:HD23	2.12	0.69
42:BH:37:VAL:CG1	42:BH:38:SER:H	2.05	0.69
43:BK:6:ALA:O	43:BK:58:THR:HG23	1.91	0.69
46:BO:115:VAL:HG13	46:BO:121:VAL:HG21	1.74	0.69
48:BQ:69:PHE:CD1	48:BQ:70:PRO:HD2	2.27	0.69
49:BR:83:ILE:HA	49:BR:86:ARG:HD3	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:78:LEU:HD11	50:BS:103:GLU:HB3	1.74	0.69
51:BT:50:ILE:N	51:BT:50:ILE:HD12	2.06	0.69
56:BY:17:SER:CB	56:BY:71:LYS:HD2	2.21	0.69
57:BZ:141:VAL:HG13	57:BZ:144:LEU:HD23	1.74	0.69
57:BZ:145:GLU:OE1	57:BZ:146:ILE:HD13	1.92	0.69
1:AA:194:C:H2'	1:AA:195:A:H5''	1.72	0.69
1:AA:560:U:H4'	1:AA:561:U:H5''	1.73	0.69
1:AA:1057:G:H5''	3:AC:154:SER:CB	2.22	0.69
1:AA:1248:A:C2'	1:AA:1249:C:H5'	2.21	0.69
12:AL:28:LYS:HE2	12:AL:33:ARG:HH12	1.58	0.69
12:AL:86:ARG:NH2	12:AL:99:HIS:CD2	2.60	0.69
25:B0:44:ARG:HG2	25:B0:44:ARG:HH11	1.56	0.69
26:B1:26:ARG:HG3	26:B1:27:GLU:H	1.56	0.69
35:BA:1395:A:H4'	35:BA:1397:U:C5	2.27	0.69
35:BA:1819:A:H4'	35:BA:1820:U:H5'	1.74	0.69
35:BA:2762:G:C8	35:BA:2762:G:C5'	2.75	0.69
36:BB:48:A:H4'	50:BS:95:HIS:CD2	2.27	0.69
39:BE:47:VAL:HG12	39:BE:48:GLN:N	2.06	0.69
40:BF:64:ILE:HG22	40:BF:76:GLY:O	1.92	0.69
43:BK:109:LYS:HA	43:BK:112:MET:CE	2.21	0.69
48:BQ:108:GLY:O	48:BQ:109:VAL:HG23	1.92	0.69
50:BS:66:ALA:O	50:BS:99:LYS:HA	1.91	0.69
54:BW:5:ALA:O	54:BW:6:ILE:HB	1.92	0.69
56:BY:17:SER:HB2	56:BY:71:LYS:HD2	1.73	0.69
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.23	0.69
2:AB:204:ASN:HD22	2:AB:206:ASP:H	1.37	0.69
8:AH:123:GLU:O	8:AH:127:LEU:HD23	1.92	0.69
12:AL:76:ASN:CG	12:AL:76:ASN:O	2.30	0.69
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.54	0.69
24:AY:498:ILE:HG22	24:AY:507:TYR:CD2	2.27	0.69
35:BA:364:C:C2'	35:BA:365:C:H5''	2.22	0.69
35:BA:1038:C:C3'	35:BA:1039:G:H5''	2.21	0.69
35:BA:2020:A:O2'	35:BA:2021:C:H5''	1.92	0.69
35:BA:2756:U:H1'	35:BA:2757:A:C8	2.27	0.69
38:BD:226:MET:HB3	38:BD:230:ASP:HB2	1.73	0.69
40:BF:206:ILE:HG22	40:BF:207:GLY:N	2.07	0.69
49:BR:28:LEU:HD23	49:BR:28:LEU:C	2.12	0.69
1:AA:1348:U:H2'	1:AA:1349:A:H8	1.58	0.69
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.07	0.69
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.22	0.69
25:B0:19:LYS:HD3	25:B0:41:ARG:HH22	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:4:HIS:CB	30:B5:5:PRO:HD3	2.22	0.69
30:B5:44:THR:CG2	49:BR:101:ALA:HB2	2.20	0.69
35:BA:1748:G:H2'	35:BA:1749:A:O4'	1.92	0.69
35:BA:2068:U:N3	35:BA:2430:A:C2	2.61	0.69
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.26	0.69
41:BG:34:LEU:HA	41:BG:161:THR:HA	1.73	0.69
52:BU:92:ARG:O	52:BU:94:ASN:N	2.26	0.69
54:BW:20:VAL:HG23	54:BW:21:VAL:H	1.58	0.69
10:AJ:7:LYS:O	10:AJ:96:ILE:HA	1.92	0.69
13:AM:66:LEU:O	13:AM:70:LEU:HB3	1.92	0.69
24:AY:201:ILE:H	24:AY:201:ILE:CD1	2.05	0.69
35:BA:1001:A:H2'	35:BA:1002:G:O4'	1.93	0.69
35:BA:1541:G:H4'	35:BA:1542:A:O5'	1.92	0.69
38:BD:145:VAL:HG12	38:BD:146:GLU:N	2.06	0.69
39:BE:47:VAL:HG23	39:BE:84:PHE:O	1.92	0.69
45:BN:43:THR:O	45:BN:46:VAL:HG12	1.91	0.69
51:BT:89:VAL:HB	51:BT:91:ARG:HG3	1.73	0.69
56:BY:49:VAL:O	56:BY:51:VAL:HG23	1.93	0.69
1:AA:159:G:H2'	1:AA:160:A:H5''	1.74	0.69
1:AA:188:C:H2'	1:AA:189:G:H8	1.56	0.69
1:AA:833:U:H2'	1:AA:834:C:C6	2.28	0.69
5:AE:24:ARG:HG3	5:AE:26:PHE:CZ	2.27	0.69
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.75	0.69
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.04	0.69
22:AV:71:C:O2	22:AV:71:C:C2'	2.41	0.69
33:B8:23:VAL:HG12	33:B8:46:ARG:NH1	2.05	0.69
35:BA:322:A:H3'	40:BF:169:ASN:ND2	2.08	0.69
35:BA:654(M):C:HO2'	35:BA:654(N):G:H8	1.37	0.69
35:BA:900:A:H5'	35:BA:900:A:H8	1.56	0.69
36:BB:88:C:H2'	36:BB:89:G:C8	2.26	0.69
40:BF:170:LEU:HD22	40:BF:170:LEU:N	2.07	0.69
40:BF:181:LEU:HB3	40:BF:205:ARG:HH12	1.58	0.69
46:BO:69:ILE:HD13	46:BO:77:ILE:CG2	2.23	0.69
47:BP:115:LEU:HA	47:BP:134:ALA:HB3	1.74	0.69
50:BS:67:ARG:HH21	50:BS:100:ALA:HB3	1.56	0.69
53:BV:18:LEU:HD22	53:BV:19:LYS:HA	1.73	0.69
1:AA:512:U:H2'	1:AA:513:C:H6	1.57	0.69
1:AA:624:C:H2'	1:AA:625:G:H8	1.58	0.69
3:AC:150:LYS:HB2	3:AC:169:ALA:CB	2.23	0.69
24:AY:201:ILE:HD12	24:AY:201:ILE:N	2.07	0.69
24:AY:609:GLU:HA	24:AY:643:ILE:O	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:271(Z):C:H1'	35:BA:272(C):G:H1'	1.74	0.69
35:BA:1196:C:O2'	35:BA:1227:G:H4'	1.93	0.69
35:BA:1510:G:O2'	35:BA:1511:C:H5'	1.92	0.69
35:BA:2462:U:H2'	35:BA:2463:C:C6	2.28	0.69
42:BH:37:VAL:CG1	42:BH:38:SER:N	2.56	0.69
45:BN:65:LYS:HB3	45:BN:69:GLN:HG3	1.73	0.69
1:AA:736:C:H2'	1:AA:737:A:C8	2.26	0.69
1:AA:1226:C:H5''	13:AM:103:THR:OG1	1.93	0.69
1:AA:1277:C:H2'	1:AA:1278:U:C5'	2.22	0.69
1:AA:1303:C:N4	1:AA:1304:G:C6	2.61	0.69
4:AD:33:MET:HG3	4:AD:37:PRO:HA	1.75	0.69
4:AD:194:LEU:HB3	4:AD:196:LEU:CD1	2.23	0.69
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HD12	1.74	0.69
10:AJ:61:GLU:OE1	14:AN:45:ARG:HD2	1.92	0.69
12:AL:6:THR:OG1	12:AL:9:GLN:HG3	1.93	0.69
13:AM:6:GLY:C	13:AM:8:GLU:H	1.94	0.69
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.93	0.69
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.58	0.69
16:AP:33:ILE:O	16:AP:34:GLU:HB2	1.91	0.69
24:AY:117:GLN:HE22	24:AY:120:THR:HG23	1.55	0.69
25:B0:43:THR:HG22	35:BA:2331:G:O3'	1.93	0.69
26:B1:41:ARG:NH2	35:BA:1365:A:H5'	2.07	0.69
26:B1:81:LYS:C	26:B1:82:LEU:HD12	2.13	0.69
31:B6:15:GLU:OE2	31:B6:44:ARG:NH2	2.26	0.69
31:B6:18:ARG:HG3	31:B6:19:ARG:H	1.58	0.69
35:BA:402:A:O2'	35:BA:403:U:H5'	1.93	0.69
35:BA:677:A:H4'	35:BA:2070:G:O2'	1.92	0.69
35:BA:1504:C:C3'	35:BA:1505:C:H5''	2.23	0.69
35:BA:2562:U:H1'	46:BO:23:ARG:NH1	2.08	0.69
35:BA:2593:U:H2'	35:BA:2594:C:H6	1.58	0.69
35:BA:2761:G:C2'	35:BA:2762:G:H5''	2.23	0.69
37:BC:101:ILE:O	37:BC:105:LEU:HB2	1.92	0.69
56:BY:55:TYR:N	56:BY:55:TYR:CD1	2.59	0.69
57:BZ:146:ILE:HD13	57:BZ:146:ILE:H	1.58	0.69
1:AA:487:A:H2'	1:AA:488:C:O4'	1.92	0.69
9:AI:79:LEU:CD1	9:AI:83:ARG:HB2	2.23	0.69
12:AL:25:PRO:C	12:AL:27:LEU:H	1.95	0.69
24:AY:355:LEU:HD12	24:AY:369:LEU:CD1	2.22	0.69
24:AY:409:ILE:CD1	24:AY:654:GLY:HA2	2.22	0.69
35:BA:500:G:N2	35:BA:502:A:H3'	2.08	0.69
35:BA:629:G:H5''	35:BA:650:C:O2'	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1573:G:H2'	35:BA:1574:C:H5'	1.74	0.69
35:BA:2820:A:C8	39:BE:191:PRO:HB2	2.27	0.69
35:BA:2852:G:H2'	35:BA:2853:C:C6	2.27	0.69
40:BF:192:LEU:HD21	40:BF:194:MET:HE3	1.74	0.69
43:BK:21:PRO:HG3	43:BK:25:PRO:HD3	1.73	0.69
51:BT:28:VAL:CG2	51:BT:46:GLU:HA	2.22	0.69
51:BT:82:LEU:N	51:BT:82:LEU:HD12	2.07	0.69
55:BX:12:VAL:HG12	55:BX:27:THR:HG23	1.75	0.69
1:AA:818:G:O2'	1:AA:819:A:H5'	1.92	0.69
8:AH:50:ARG:HG2	8:AH:50:ARG:HH11	1.57	0.69
12:AL:119:LYS:HB2	12:AL:120:TYR:HD1	1.58	0.69
24:AY:343:ASN:ND2	24:AY:345:THR:H	1.91	0.69
35:BA:1344:G:H1	35:BA:1403:C:H42	1.40	0.69
35:BA:2103:C:H2'	35:BA:2103:C:O2	1.92	0.69
39:BE:77:ILE:HG22	39:BE:78:LEU:HD12	1.74	0.69
43:BK:93:ARG:CG	57:BZ:112:ARG:HE	2.06	0.69
47:BP:91:PHE:CE2	47:BP:99:LEU:HD21	2.27	0.69
47:BP:125:VAL:O	47:BP:125:VAL:HG13	1.92	0.69
56:BY:79:CYS:SG	56:BY:80:GLY:N	2.65	0.69
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	1.74	0.68
20:AT:26:ASN:HD22	20:AT:26:ASN:N	1.90	0.68
26:B1:6:GLU:OE1	26:B1:60:PHE:HA	1.92	0.68
31:B6:27:LYS:HB3	31:B6:30:THR:HG22	1.75	0.68
35:BA:395:U:H2'	35:BA:396:G:C8	2.29	0.68
35:BA:710:G:H2'	35:BA:711:G:C8	2.28	0.68
40:BF:165:ARG:HH11	40:BF:165:ARG:CB	2.05	0.68
41:BG:102:PHE:HD2	41:BG:103:LEU:HD23	1.58	0.68
50:BS:28:VAL:CG1	50:BS:29:PHE:H	2.03	0.68
51:BT:54:ARG:HG2	51:BT:54:ARG:HH11	1.56	0.68
1:AA:538:G:O2'	1:AA:539:A:H5'	1.93	0.68
1:AA:1190:G:OP1	3:AC:5:ILE:HD12	1.92	0.68
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.56	0.68
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.09	0.68
16:AP:39:TYR:HB2	16:AP:49:LEU:HD13	1.76	0.68
24:AY:84:THR:HG23	58:AY:701:FUA:O3	1.92	0.68
31:B6:7:ILE:O	31:B6:27:LYS:HD3	1.92	0.68
31:B6:17:LYS:HB2	31:B6:44:ARG:HH12	1.57	0.68
35:BA:134:C:O2'	35:BA:135:G:H5'	1.93	0.68
35:BA:1161:C:H2'	35:BA:1162:G:H8	1.58	0.68
35:BA:1815:A:OP2	35:BA:1822:G:H5''	1.93	0.68
35:BA:2039:C:H2'	35:BA:2040:C:C6	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2068:U:N3	35:BA:2430:A:H2	1.91	0.68
35:BA:2392:A:C8	47:BP:60:MET:HB3	2.27	0.68
38:BD:176:ARG:HH11	38:BD:176:ARG:CB	2.06	0.68
40:BF:20:LEU:HD22	40:BF:23:ASP:OD2	1.93	0.68
41:BG:53:LEU:N	41:BG:53:LEU:CD2	2.56	0.68
48:BQ:59:ARG:HA	57:BZ:180:VAL:HG23	1.75	0.68
1:AA:1234:C:O2'	1:AA:1235:U:H5'	1.94	0.68
1:AA:1258:G:O2'	1:AA:1259:C:H5'	1.94	0.68
1:AA:1318:A:H2'	1:AA:1319:A:H5'	1.74	0.68
1:AA:1334:G:H5'	1:AA:1335:C:OP2	1.93	0.68
2:AB:95:GLN:CA	2:AB:96:ARG:HH11	2.02	0.68
5:AE:10:MET:HG2	5:AE:11:ILE:N	2.08	0.68
10:AJ:75:ILE:CG1	10:AJ:76:ASN:H	2.04	0.68
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.25	0.68
24:AY:555:LEU:HD11	24:AY:599:PRO:HB2	1.76	0.68
35:BA:322:A:OP2	40:BF:169:ASN:HB2	1.93	0.68
35:BA:389:G:H1	47:BP:71:VAL:HG12	1.57	0.68
35:BA:2476:A:N1	35:BA:2477:C:C5	2.61	0.68
43:BK:77:LEU:HD23	43:BK:77:LEU:N	2.07	0.68
51:BT:115:ARG:HH11	51:BT:115:ARG:CG	2.04	0.68
53:BV:38:LEU:O	53:BV:39:LEU:HD13	1.94	0.68
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.29	0.68
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.74	0.68
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	1.93	0.68
24:AY:628:ARG:HG2	24:AY:628:ARG:HH11	1.58	0.68
58:AY:701:FUA:H201	58:AY:701:FUA:O1	1.93	0.68
35:BA:1434:A:N3	35:BA:1434:A:H2'	2.08	0.68
35:BA:1494:A:O2'	35:BA:1495:A:H5''	1.93	0.68
35:BA:1567:A:H2'	38:BD:84:TYR:HE1	1.57	0.68
35:BA:2778:A:H5'	35:BA:2779:U:OP2	1.94	0.68
42:BH:106:THR:HG22	42:BH:112:PRO:HB3	1.75	0.68
47:BP:32:THR:HG22	47:BP:37:GLY:HA2	1.76	0.68
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.08	0.68
12:AL:126:LYS:HG3	12:AL:128:ALA:H	1.58	0.68
14:AN:25:VAL:HG23	14:AN:38:GLY:O	1.93	0.68
24:AY:19:ALA:HA	24:AY:121:VAL:HG11	1.74	0.68
26:B1:86:SER:HA	26:B1:89:GLU:OE2	1.93	0.68
31:B6:54:ILE:HD13	35:BA:2420:C:H4'	1.74	0.68
33:B8:25:MET:HB2	47:BP:62:LEU:HD21	1.75	0.68
35:BA:548:A:C3'	35:BA:549:G:H5'	2.24	0.68
35:BA:1217:C:OP2	52:BU:15:LYS:NZ	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1947:C:H2'	35:BA:1948:G:C5'	2.24	0.68
47:BP:95:VAL:HG23	47:BP:125:VAL:HG23	1.75	0.68
51:BT:83:ILE:HG13	51:BT:84:GLN:HG2	1.76	0.68
52:BU:19:LYS:HB3	52:BU:20:LEU:HD22	1.75	0.68
56:BY:88:LYS:HZ3	56:BY:93:GLY:C	1.97	0.68
5:AE:15:ARG:HG3	5:AE:28:PHE:CE2	2.29	0.68
9:AI:5:TYR:CE1	9:AI:18:PHE:HE1	2.11	0.68
10:AJ:20:ALA:C	10:AJ:22:LYS:H	1.96	0.68
12:AL:34:ARG:O	12:AL:61:THR:HG23	1.94	0.68
15:AO:31:LEU:H	15:AO:31:LEU:HD23	1.57	0.68
23:AX:11:U:H2'	23:AX:11:U:O2	1.94	0.68
24:AY:65:ILE:HD13	24:AY:65:ILE:H	1.59	0.68
24:AY:416:LYS:HD2	24:AY:417:THR:H	1.57	0.68
24:AY:544:LYS:O	24:AY:548:GLU:HB2	1.93	0.68
25:B0:51:VAL:CG2	25:B0:81:VAL:HG23	2.24	0.68
31:B6:8:LYS:CE	31:B6:25:LYS:HD3	2.19	0.68
35:BA:630:G:H4'	35:BA:640:C:H4'	1.73	0.68
35:BA:751:A:H5'	54:BW:90:ARG:HA	1.75	0.68
35:BA:2310:A:HO2'	35:BA:2311:A:H5'	1.58	0.68
51:BT:32:TYR:O	51:BT:33:LYS:HB2	1.92	0.68
51:BT:62:THR:HG22	51:BT:75:ILE:HG13	1.74	0.68
52:BU:34:LYS:HE2	52:BU:34:LYS:HA	1.76	0.68
7:AG:145:ALA:O	7:AG:146:GLU:HB2	1.92	0.68
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.13	0.68
19:AS:14:HIS:CD2	19:AS:15:LEU:HD23	2.29	0.68
29:B4:42:PHE:N	29:B4:42:PHE:HD1	1.92	0.68
31:B6:12:GLU:HB3	31:B6:23:THR:HG22	1.74	0.68
35:BA:2314:C:O2'	35:BA:2315:G:H5'	1.93	0.68
39:BE:51:PHE:HD1	39:BE:52:LEU:N	1.92	0.68
46:BO:17:ARG:HE	46:BO:47:ILE:CD1	2.00	0.68
57:BZ:103:ARG:HD2	57:BZ:136:PHE:CD2	2.29	0.68
1:AA:192:U:O4'	20:AT:103:GLY:HA2	1.93	0.68
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.57	0.68
16:AP:20:VAL:CG2	16:AP:32:TYR:HB2	2.15	0.68
24:AY:418:LYS:H	24:AY:418:LYS:CD	2.06	0.68
24:AY:495:GLY:O	24:AY:509:HIS:HA	1.94	0.68
35:BA:139:G:C6	35:BA:140:G:H2'	2.29	0.68
35:BA:586:A:H5'	40:BF:89:VAL:HG21	1.76	0.68
35:BA:849:A:C8	35:BA:850:C:C5	2.82	0.68
35:BA:990:A:N6	35:BA:1186:G:H1'	2.07	0.68
35:BA:2801:A:H4'	35:BA:2801(A):A:O4'	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2809:A:H2'	35:BA:2810:A:C8	2.29	0.68
38:BD:35:LYS:NZ	38:BD:36:PRO:HD3	2.09	0.68
42:BH:68:THR:O	42:BH:72:ILE:HG12	1.94	0.68
47:BP:27:HIS:HD2	47:BP:28:GLY:N	1.92	0.68
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.29	0.68
2:AB:221:LEU:HD13	2:AB:221:LEU:O	1.94	0.68
9:AI:81:ILE:O	9:AI:85:LEU:HG	1.94	0.68
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD13	1.75	0.68
26:B1:71:TYR:HA	26:B1:74:VAL:CG2	2.24	0.68
29:B4:56:VAL:O	29:B4:57:GLU:HB2	1.94	0.68
31:B6:15:GLU:HG2	31:B6:16:CYS:O	1.93	0.68
35:BA:1599:C:H2'	35:BA:1600:C:H6	1.58	0.68
35:BA:2720:U:H2'	35:BA:2721:A:C8	2.28	0.68
35:BA:2745:C:H2'	35:BA:2746:U:C6	2.29	0.68
41:BG:114:ILE:HG12	41:BG:140:ILE:HG21	1.74	0.68
42:BH:85:LYS:HE3	42:BH:145:ALA:HB1	1.75	0.68
52:BU:66:ASN:ND2	52:BU:76:TYR:H	1.92	0.68
52:BU:95:LEU:HD13	53:BV:4:ILE:HG23	1.75	0.68
1:AA:390:C:H2'	1:AA:391:G:H8	1.57	0.68
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.75	0.68
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.76	0.68
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.29	0.68
2:AB:178:ARG:HH11	2:AB:178:ARG:CG	2.07	0.68
4:AD:9:CYS:HB3	4:AD:32:ALA:HB2	1.76	0.68
4:AD:13:ARG:HA	4:AD:33:MET:HE1	1.75	0.68
19:AS:8:GLY:O	19:AS:9:VAL:HG23	1.94	0.68
24:AY:25:LYS:HZ2	24:AY:86:GLY:HA2	1.59	0.68
25:B0:60:PHE:CE1	25:B0:62:LEU:HD23	2.29	0.68
28:B3:57:GLU:HG2	28:B3:58:VAL:N	2.09	0.68
31:B6:6:ARG:O	31:B6:7:ILE:HB	1.94	0.68
33:B8:25:MET:O	33:B8:47:LYS:HG2	1.93	0.68
35:BA:16:G:H2'	35:BA:17:G:H8	1.59	0.68
35:BA:259:G:H1'	35:BA:621:A:O2'	1.94	0.68
35:BA:2502:G:H5''	35:BA:2503:A:H5'	1.74	0.68
40:BF:131:GLY:HA2	40:BF:138:GLU:HB3	1.75	0.68
1:AA:346:G:OP1	51:BT:41:ARG:NH2	2.28	0.67
1:AA:370:C:O2'	1:AA:371:G:H5'	1.94	0.67
1:AA:945:G:C2	1:AA:946:A:C8	2.82	0.67
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.74	0.67
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.93	0.67
26:B1:64:ALA:HA	26:B1:67:ILE:HG13	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:B7:24:THR:HG23	32:B7:27:GLY:N	2.07	0.67
35:BA:1064:C:H4'	43:BK:89:HIS:HD2	1.58	0.67
35:BA:1948:G:H5'	35:BA:1948:G:H8	1.59	0.67
35:BA:2026:C:N3	35:BA:2027:G:C8	2.62	0.67
35:BA:2196:C:O2'	35:BA:2197:U:H5'	1.94	0.67
37:BC:76:LEU:HD21	37:BC:104:ILE:HD11	1.76	0.67
42:BH:144:VAL:O	42:BH:148:ILE:HG12	1.93	0.67
56:BY:26:LYS:HG2	56:BY:27:VAL:H	1.59	0.67
56:BY:84:ARG:HG2	56:BY:84:ARG:HH11	1.59	0.67
1:AA:35:G:H2'	1:AA:36:C:C6	2.29	0.67
1:AA:201:C:H2'	1:AA:202:U:H5''	1.75	0.67
1:AA:737:A:H2'	1:AA:738:C:C6	2.29	0.67
1:AA:1277:C:H3'	1:AA:1277:C:H6	1.59	0.67
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.76	0.67
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.75	0.67
6:AF:8:ILE:HG23	6:AF:85:VAL:HG13	1.74	0.67
19:AS:33:THR:HG22	19:AS:49:ILE:HG22	1.77	0.67
24:AY:342:TYR:CE2	24:AY:396:ARG:HD2	2.29	0.67
24:AY:418:LYS:H	24:AY:418:LYS:HD3	1.59	0.67
58:AY:701:FUA:H323	58:AY:701:FUA:C15	2.21	0.67
31:B6:15:GLU:OE2	31:B6:44:ARG:NH1	2.26	0.67
35:BA:177:G:H3'	35:BA:178:G:H8	1.58	0.67
35:BA:532:A:N3	35:BA:532:A:H2'	2.07	0.67
35:BA:817:C:H2'	35:BA:818:G:O4'	1.94	0.67
35:BA:2297:C:O2'	35:BA:2298:A:H5'	1.94	0.67
37:BC:65:LEU:HD13	37:BC:189:ASN:ND2	2.09	0.67
40:BF:161:GLU:O	40:BF:165:ARG:HG3	1.95	0.67
42:BH:85:LYS:C	42:BH:85:LYS:HD3	2.15	0.67
45:BN:67:LEU:CD2	45:BN:87:LEU:HB3	2.23	0.67
49:BR:97:VAL:HG13	49:BR:114:VAL:HG22	1.76	0.67
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.27	0.67
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.28	0.67
1:AA:630:G:C2'	1:AA:631:G:H5''	2.25	0.67
1:AA:1158:C:C6	2:AB:132:LYS:HE3	2.28	0.67
3:AC:65:ALA:O	3:AC:66:VAL:HB	1.94	0.67
9:AI:88:TYR:O	9:AI:89:ASN:HB2	1.94	0.67
13:AM:23:TYR:HB3	13:AM:67:GLU:HB3	1.75	0.67
20:AT:88:VAL:O	20:AT:92:LEU:HG	1.95	0.67
24:AY:653:PHE:CG	24:AY:654:GLY:N	2.62	0.67
33:B8:33:ASN:N	33:B8:36:LYS:HD2	2.09	0.67
35:BA:1035:U:H2'	35:BA:1036:G:H8	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2206:G:N2	35:BA:2207:G:H4'	2.09	0.67
35:BA:2312:U:H2'	35:BA:2313:C:C5'	2.24	0.67
35:BA:2346:A:H1'	35:BA:2383:G:C8	2.29	0.67
35:BA:2855:C:H2'	35:BA:2856:C:C6	2.29	0.67
42:BH:46:GLU:OE1	42:BH:51:ARG:HB2	1.95	0.67
43:BK:21:PRO:HA	43:BK:23:VAL:N	2.08	0.67
48:BQ:43:THR:O	48:BQ:47:ILE:HG13	1.94	0.67
1:AA:539:A:OP2	12:AL:115:LYS:HE3	1.94	0.67
4:AD:13:ARG:HA	4:AD:33:MET:CE	2.25	0.67
5:AE:42:GLY:HA3	5:AE:66:MET:HG2	1.76	0.67
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.14	0.67
10:AJ:32:ALA:HB3	10:AJ:78:ASN:HD21	1.60	0.67
24:AY:30:GLU:HG3	24:AY:31:ARG:N	2.09	0.67
27:B2:47:ASN:ND2	35:BA:94(A):G:H21	1.92	0.67
31:B6:51:GLU:O	31:B6:52:VAL:HB	1.94	0.67
35:BA:88:G:OP1	35:BA:90:U:H5	1.77	0.67
35:BA:514:A:H2'	35:BA:515:A:C8	2.29	0.67
35:BA:1747(A):G:O2'	35:BA:1748:G:H5''	1.95	0.67
35:BA:2839:G:H1	35:BA:2878:U:H3	1.43	0.67
39:BE:51:PHE:CD1	39:BE:52:LEU:N	2.63	0.67
51:BT:28:VAL:HG22	51:BT:46:GLU:CA	2.23	0.67
56:BY:51:VAL:C	56:BY:53:PRO:HD2	2.15	0.67
1:AA:1320:C:OP1	19:AS:70:LYS:NZ	2.28	0.67
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.58	0.67
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HG22	1.76	0.67
16:AP:60:LEU:HA	16:AP:64:ALA:HB3	1.75	0.67
35:BA:207:A:H2'	35:BA:208:C:O4'	1.93	0.67
35:BA:320:A:H4'	35:BA:322:A:C8	2.29	0.67
35:BA:756:C:O2'	35:BA:757:U:H5'	1.95	0.67
35:BA:825:C:O2'	35:BA:826:U:H5'	1.94	0.67
37:BC:2:PRO:HB2	37:BC:4:HIS:O	1.95	0.67
39:BE:26:ILE:CG2	39:BE:196:VAL:HG21	2.24	0.67
41:BG:63:ILE:CA	41:BG:143:GLU:HG3	2.20	0.67
41:BG:101:ILE:O	41:BG:104:GLU:HB3	1.94	0.67
43:BK:99:ILE:HG23	43:BK:103:GLN:CB	2.19	0.67
52:BU:79:PHE:CE1	52:BU:83:LEU:HD11	2.30	0.67
53:BV:16:PRO:O	53:BV:96:ILE:O	2.12	0.67
24:AY:539:ILE:CA	24:AY:542:VAL:HG12	2.24	0.67
27:B2:13:ALA:HA	27:B2:16:LEU:CD1	2.24	0.67
28:B3:54:VAL:HG12	28:B3:55:ARG:N	2.09	0.67
30:B5:43:HIS:CD2	35:BA:2815:C:O2'	2.47	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:6:ARG:HD2	31:B6:6:ARG:N	2.08	0.67
31:B6:11:LEU:HD23	31:B6:51:GLU:HG3	1.76	0.67
35:BA:1068:G:N2	35:BA:1096:A:H5'	2.09	0.67
35:BA:2291:U:H2'	35:BA:2292:C:C6	2.29	0.67
35:BA:2473:U:C3'	35:BA:2474:C:H5''	2.13	0.67
39:BE:101:ARG:NH1	39:BE:169:ASN:HD22	1.93	0.67
41:BG:119:GLY:HA3	41:BG:181:ARG:N	2.10	0.67
51:BT:33:LYS:NZ	51:BT:43:GLN:HE22	1.93	0.67
57:BZ:67:LEU:HD12	57:BZ:67:LEU:N	2.09	0.67
1:AA:101:A:O2'	1:AA:102:G:H5'	1.95	0.67
1:AA:1222:G:O2'	1:AA:1223:C:H5'	1.94	0.67
1:AA:1490:C:H6	1:AA:1490:C:H5'	1.60	0.67
1:AA:1515:C:O2'	1:AA:1516:G:H5'	1.95	0.67
3:AC:46:GLU:HB3	3:AC:83:ARG:HH22	1.60	0.67
6:AF:33:TYR:HA	6:AF:71:ARG:HH21	1.59	0.67
20:AT:30:LYS:NZ	20:AT:34:LYS:HE2	2.10	0.67
22:AV:6:G:H1	22:AV:67:C:H42	1.43	0.67
24:AY:84:THR:N	24:AY:85:PRO:HD2	2.03	0.67
24:AY:227:ILE:HD13	24:AY:242:LEU:HA	1.77	0.67
26:B1:11:ARG:HB2	26:B1:12:PRO:HD2	1.76	0.67
27:B2:2:LYS:CB	35:BA:97:C:H5''	2.24	0.67
35:BA:654(G):C:H2'	35:BA:654(H):G:C8	2.29	0.67
35:BA:1326:U:H5''	35:BA:2011:U:H1'	1.76	0.67
35:BA:2443:C:O2	35:BA:2443:C:H2'	1.93	0.67
35:BA:2840:C:H5''	49:BR:53:HIS:HD2	1.58	0.67
54:BW:88:ARG:HD3	54:BW:94:ASP:OD2	1.94	0.67
56:BY:8:LYS:HE2	56:BY:72:VAL:HG23	1.77	0.67
1:AA:218:C:H5'	1:AA:470:C:H41	1.60	0.67
1:AA:1030(A):G:H1'	1:AA:1031:G:H1	1.58	0.67
2:AB:7:VAL:O	2:AB:11:LEU:HG	1.94	0.67
2:AB:24:TRP:CH2	2:AB:26:PRO:HA	2.29	0.67
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.76	0.67
8:AH:127:LEU:HB3	8:AH:129:VAL:CG1	2.25	0.67
18:AR:58:LEU:HB3	18:AR:62:GLU:HB3	1.77	0.67
22:AV:3:C:H2'	22:AV:4:G:H5'	1.77	0.67
30:B5:3:LYS:CE	35:BA:2613:U:H2'	2.25	0.67
35:BA:739:G:OP2	35:BA:739:G:C8	2.48	0.67
35:BA:806:C:OP2	47:BP:39:LYS:HD3	1.95	0.67
35:BA:1827:C:H2'	35:BA:1828:G:H5'	1.75	0.67
35:BA:2074:U:H2'	35:BA:2075:U:C6	2.29	0.67
40:BF:106:ARG:HH11	40:BF:106:ARG:CG	2.07	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:34:GLY:O	47:BP:35:HIS:HB2	1.95	0.67
47:BP:115:LEU:N	47:BP:115:LEU:HD23	2.09	0.67
49:BR:84:ALA:HB3	49:BR:85:PRO:CD	2.19	0.67
57:BZ:67:LEU:HD23	57:BZ:90:VAL:HG11	1.76	0.67
57:BZ:167:PRO:O	57:BZ:168:GLU:HB2	1.94	0.67
1:AA:491:G:H2'	1:AA:492:G:H8	1.58	0.67
3:AC:20:SER:HB3	3:AC:40:ARG:HH22	1.60	0.67
8:AH:109:ILE:HG13	8:AH:120:THR:HB	1.76	0.67
12:AL:20:LYS:HD3	12:AL:20:LYS:H	1.59	0.67
14:AN:29:ARG:HH11	14:AN:29:ARG:CG	2.08	0.67
24:AY:141:LYS:O	24:AY:144:ALA:HB2	1.95	0.67
26:B1:4:VAL:CG2	26:B1:10:LYS:O	2.43	0.67
29:B4:1:MET:HG2	41:BG:98:ARG:NE	2.08	0.67
35:BA:120:U:O2'	35:BA:149:A:C8	2.47	0.67
35:BA:142:A:H5'	35:BA:142(A):C:OP2	1.94	0.67
35:BA:1697:G:H3'	35:BA:1698:A:C5'	2.24	0.67
35:BA:1853:A:H2'	35:BA:1854:A:C8	2.30	0.67
35:BA:2186:G:C2'	35:BA:2187:G:H5''	2.25	0.67
35:BA:2748:A:H2	42:BH:63:SER:HG	1.41	0.67
41:BG:144:ILE:HD11	41:BG:149:VAL:HB	1.76	0.67
42:BH:46:GLU:HG3	42:BH:51:ARG:N	2.10	0.67
42:BH:128:PRO:HG2	42:BH:129:THR:HG23	1.77	0.67
43:BK:106:GLU:CA	43:BK:109:LYS:HD3	2.23	0.67
45:BN:133:GLN:HE21	45:BN:135:PRO:CG	2.08	0.67
46:BO:24:VAL:CG2	46:BO:30:ALA:HB3	2.25	0.67
56:BY:97:ARG:C	56:BY:98:VAL:HG23	2.14	0.67
57:BZ:30:ASN:HD22	57:BZ:31:ARG:HG3	1.59	0.67
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.10	0.67
4:AD:96:LEU:HD22	4:AD:96:LEU:N	2.10	0.67
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.96	0.67
10:AJ:3:LYS:NZ	10:AJ:77:PRO:HD2	2.10	0.67
12:AL:34:ARG:HG3	12:AL:105:TYR:CE2	2.28	0.67
25:B0:16:SER:HB2	35:BA:2262:U:H5	1.60	0.67
35:BA:1058:G:H21	43:BK:126:MET:HE3	1.60	0.67
35:BA:1242:A:N1	47:BP:8:PRO:HG2	2.10	0.67
35:BA:2408:U:H2'	35:BA:2409:G:H8	1.60	0.67
37:BC:29:LEU:O	37:BC:32:GLU:HG2	1.94	0.67
40:BF:154:VAL:HG11	40:BF:193:VAL:HG23	1.77	0.67
42:BH:83:TYR:HB3	42:BH:135:GLY:N	2.08	0.67
46:BO:64:ARG:NE	51:BT:70:VAL:HG21	2.09	0.67
47:BP:30:THR:O	47:BP:33:ARG:N	2.22	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:84:GLU:O	57:BZ:85:HIS:HB2	1.93	0.67
1:AA:1497:G:O2'	1:AA:1498:U:H5'	1.96	0.66
3:AC:50:ALA:HA	3:AC:72:LYS:HB3	1.77	0.66
22:AV:46:G:O3'	22:AV:47:U:C6	2.47	0.66
24:AY:121:VAL:HG23	24:AY:122:TRP:N	2.09	0.66
24:AY:314:PHE:HD1	24:AY:315:LYS:HB2	1.56	0.66
35:BA:190:A:H2'	35:BA:191:A:C8	2.30	0.66
35:BA:445:C:O2'	35:BA:446:G:H5'	1.94	0.66
35:BA:1052:C:C6	35:BA:1052:C:C3'	2.75	0.66
35:BA:1943:U:O2	35:BA:1943:U:H2'	1.93	0.66
35:BA:2056:G:H2'	35:BA:2056:G:N3	2.09	0.66
35:BA:2762:G:C5'	35:BA:2762:G:H8	2.08	0.66
38:BD:35:LYS:HD2	38:BD:35:LYS:C	2.16	0.66
39:BE:179:GLU:O	39:BE:180:ASN:HB2	1.95	0.66
41:BG:61:ALA:HA	41:BG:64:THR:HG22	1.77	0.66
43:BK:77:LEU:H	43:BK:77:LEU:CD2	1.97	0.66
48:BQ:97:VAL:HG21	48:BQ:103:MET:HE3	1.76	0.66
1:AA:1206:G:H4'	3:AC:192:THR:O	1.93	0.66
1:AA:1319:A:OP1	19:AS:10:PHE:CE1	2.49	0.66
4:AD:26:CYS:HA	4:AD:31:CYS:HA	1.75	0.66
10:AJ:32:ALA:N	10:AJ:78:ASN:ND2	2.43	0.66
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.76	0.66
19:AS:8:GLY:C	19:AS:9:VAL:HG23	2.15	0.66
26:B1:57:GLU:HG2	26:B1:58:ILE:H	1.59	0.66
26:B1:59:THR:O	26:B1:91:LYS:HE3	1.94	0.66
31:B6:19:ARG:HG2	35:BA:2400:G:O5'	1.95	0.66
35:BA:1677:A:H2'	35:BA:1678:G:C8	2.31	0.66
35:BA:1780:A:H5'	35:BA:1781:C:OP2	1.95	0.66
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.78	0.66
43:BK:79:ARG:HD2	43:BK:85:GLU:O	1.94	0.66
47:BP:30:THR:CG2	47:BP:31:ALA:H	2.08	0.66
47:BP:58:THR:O	47:BP:61:ARG:NE	2.19	0.66
1:AA:368:U:P	24:AY:353:ALA:HB1	2.35	0.66
4:AD:57:ARG:HH11	4:AD:57:ARG:CG	2.02	0.66
10:AJ:55:LYS:H	10:AJ:55:LYS:HE3	1.59	0.66
11:AK:72:ALA:CB	11:AK:77:MET:HE3	2.25	0.66
12:AL:92:ASP:O	12:AL:94:PRO:HD3	1.95	0.66
32:B7:4:THR:HB	35:BA:788:A:O2'	1.96	0.66
35:BA:481:G:H2'	35:BA:507:A:N1	2.10	0.66
35:BA:2097:C:H2'	35:BA:2098:U:H6	1.60	0.66
36:BB:112:U:H2'	36:BB:113:G:H8	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:158:ALA:O	38:BD:196:VAL:HG11	1.96	0.66
40:BF:154:VAL:HG11	40:BF:193:VAL:CG2	2.26	0.66
45:BN:87:LEU:HD22	45:BN:91:LEU:HG	1.77	0.66
47:BP:96:THR:O	47:BP:99:LEU:HB3	1.96	0.66
50:BS:13:ARG:HG3	50:BS:14:VAL:H	1.60	0.66
50:BS:17:ARG:O	50:BS:20:ARG:HG2	1.95	0.66
56:BY:87:LYS:O	56:BY:88:LYS:HB2	1.95	0.66
57:BZ:115:GLY:H	57:BZ:177:PRO:CG	2.07	0.66
1:AA:398:C:O2'	1:AA:399:G:H5'	1.96	0.66
1:AA:675:A:O2'	1:AA:676:A:H5'	1.95	0.66
9:AI:79:LEU:HD13	9:AI:79:LEU:C	2.15	0.66
10:AJ:4:ILE:HD13	10:AJ:74:ILE:HG13	1.78	0.66
17:AQ:69:LYS:O	17:AQ:70:ARG:CD	2.41	0.66
35:BA:2228:G:H2'	35:BA:2229:C:C6	2.31	0.66
36:BB:54:G:H2'	36:BB:55:U:H6	1.59	0.66
43:BK:134:MET:HG3	43:BK:136:VAL:HG12	1.77	0.66
47:BP:23:PRO:HB2	47:BP:33:ARG:CG	2.25	0.66
51:BT:118:ARG:HA	51:BT:121:ILE:HD12	1.77	0.66
1:AA:980:C:C5	1:AA:981:U:C2	2.80	0.66
1:AA:1130:A:H5'	9:AI:18:PHE:HE2	1.61	0.66
4:AD:57:ARG:HG2	4:AD:57:ARG:NH1	2.08	0.66
4:AD:196:LEU:C	4:AD:198:VAL:H	1.98	0.66
12:AL:119:LYS:HB2	12:AL:120:TYR:CD1	2.31	0.66
24:AY:6:GLU:O	24:AY:6:GLU:HG2	1.94	0.66
26:B1:86:SER:CB	26:B1:89:GLU:HB2	2.22	0.66
29:B4:50:VAL:O	29:B4:51:ASP:HB3	1.95	0.66
31:B6:5:VAL:HG12	31:B6:6:ARG:N	2.10	0.66
38:BD:270:ILE:CD1	38:BD:270:ILE:H	2.08	0.66
41:BG:131:TYR:HB3	41:BG:159:VAL:CG1	2.25	0.66
51:BT:85:LYS:HB3	51:BT:85:LYS:HZ3	1.58	0.66
52:BU:107:ALA:HA	52:BU:110:VAL:CG2	2.25	0.66
1:AA:630:G:H2'	1:AA:631:G:H5''	1.78	0.66
1:AA:1108:G:H5'	3:AC:176:HIS:CD2	2.30	0.66
1:AA:1392:G:N2	1:AA:1502:A:H8	1.93	0.66
2:AB:222:ILE:HB	2:AB:226:ARG:HH21	1.61	0.66
5:AE:64:ARG:CZ	5:AE:64:ARG:HB2	2.26	0.66
10:AJ:30:SER:HA	10:AJ:80:LYS:HE2	1.75	0.66
22:AV:38:A:O2'	22:AV:39:C:H5'	1.94	0.66
29:B4:8:LYS:HD3	29:B4:9:LEU:O	1.95	0.66
35:BA:68:G:H2'	35:BA:69:C:C6	2.30	0.66
35:BA:675:A:OP1	40:BF:63:LYS:HE2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2260:C:H2'	35:BA:2261:C:H6	1.60	0.66
35:BA:2498:C:O2'	35:BA:2499:C:H5'	1.95	0.66
35:BA:2524:G:H5'	35:BA:2524:G:C8	2.30	0.66
35:BA:2761:G:C3'	35:BA:2762:G:H5''	2.26	0.66
35:BA:2884:U:H2'	35:BA:2885:C:H5'	1.77	0.66
38:BD:35:LYS:HB3	38:BD:35:LYS:NZ	2.10	0.66
41:BG:49:ASP:O	41:BG:50:ALA:HB3	1.94	0.66
41:BG:111:LEU:HA	41:BG:114:ILE:HD11	1.77	0.66
47:BP:23:PRO:O	47:BP:33:ARG:HD2	1.95	0.66
52:BU:92:ARG:NH1	53:BV:11:GLN:O	2.22	0.66
2:AB:109:SER:O	2:AB:112:VAL:HB	1.95	0.66
3:AC:9:GLY:HA2	3:AC:12:LEU:HG	1.77	0.66
10:AJ:67:THR:HG22	10:AJ:67:THR:O	1.95	0.66
15:AO:11:VAL:O	15:AO:14:GLU:HB3	1.95	0.66
24:AY:100:VAL:HG23	24:AY:329:ARG:HG2	1.77	0.66
24:AY:486:THR:HG21	24:AY:602:LEU:HD11	1.78	0.66
24:AY:554:PRO:HG3	24:AY:594:VAL:HG12	1.78	0.66
25:B0:10:THR:HG21	35:BA:2277:G:OP2	1.95	0.66
26:B1:80:LEU:HB3	26:B1:82:LEU:HD11	1.78	0.66
35:BA:1142:U:O5'	35:BA:1142:U:H6	1.79	0.66
35:BA:2131:G:H5'	35:BA:2133:G:C1'	2.25	0.66
35:BA:2408:U:H2'	35:BA:2409:G:C8	2.31	0.66
38:BD:129:ASN:O	38:BD:193:VAL:HG12	1.96	0.66
41:BG:173:LEU:HA	41:BG:176:LEU:HD12	1.78	0.66
42:BH:149:ARG:HA	42:BH:162:ILE:CD1	2.25	0.66
47:BP:79:ARG:O	47:BP:111:ARG:HB2	1.94	0.66
57:BZ:4:ARG:O	57:BZ:5:LEU:HB2	1.95	0.66
57:BZ:42:VAL:HG13	57:BZ:43:GLU:N	2.08	0.66
1:AA:1370:G:C2	1:AA:1371:G:C8	2.84	0.66
4:AD:158:ILE:CG2	4:AD:162:LEU:HD12	2.25	0.66
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.11	0.66
10:AJ:6:ILE:HD12	10:AJ:6:ILE:C	2.16	0.66
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.10	0.66
24:AY:71:THR:HG21	24:AY:357:ARG:CD	2.26	0.66
24:AY:395:PRO:O	24:AY:397:VAL:N	2.28	0.66
35:BA:83:G:N2	35:BA:102:G:H2'	2.11	0.66
35:BA:252:G:OP2	47:BP:50:ARG:NH2	2.28	0.66
35:BA:654(N):G:C2'	35:BA:654(O):G:H5'	2.25	0.66
35:BA:940:G:H5'	35:BA:941:A:OP2	1.94	0.66
35:BA:2150:U:H2'	35:BA:2151:G:H8	1.58	0.66
35:BA:2199:A:H3'	35:BA:2200:C:H6	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2796:U:H3'	35:BA:2799:C:C5'	2.26	0.66
35:BA:2855:C:H2'	35:BA:2856:C:H6	1.61	0.66
41:BG:46:ALA:HB2	41:BG:88:ILE:HG12	1.78	0.66
50:BS:95:HIS:CG	50:BS:96:GLY:H	2.13	0.66
53:BV:24:LYS:HA	53:BV:92:THR:HG23	1.76	0.66
1:AA:1219:U:H2'	1:AA:1220:G:H8	1.61	0.66
1:AA:1489:G:C3'	1:AA:1490:C:H5''	2.26	0.66
2:AB:95:GLN:C	2:AB:96:ARG:CD	2.61	0.66
2:AB:112:VAL:CG2	2:AB:149:LEU:HD13	2.26	0.66
3:AC:84:ILE:O	3:AC:88:ARG:HG3	1.96	0.66
8:AH:50:ARG:HG2	8:AH:50:ARG:NH1	2.08	0.66
11:AK:17:GLY:O	11:AK:80:VAL:HA	1.96	0.66
14:AN:41:ARG:HG2	14:AN:41:ARG:HH11	1.60	0.66
16:AP:53:VAL:HG23	16:AP:54:GLU:H	1.59	0.66
24:AY:530:VAL:HG22	24:AY:531:GLY:N	2.11	0.66
27:B2:2:LYS:HB2	35:BA:97:C:H5''	1.76	0.66
33:B8:29:LYS:HG2	33:B8:29:LYS:O	1.94	0.66
35:BA:295:G:H2'	35:BA:296:C:H6	1.59	0.66
35:BA:552:G:H5'	35:BA:552:G:H8	1.61	0.66
35:BA:2055:C:H4'	35:BA:2056:G:H5''	1.76	0.66
35:BA:2832:U:H1'	35:BA:2834:G:N3	2.11	0.66
35:BA:2850:A:H5'	35:BA:2868:A:H2	1.59	0.66
36:BB:77:U:O2'	36:BB:78:A:H5'	1.95	0.66
42:BH:127:GLU:HB3	42:BH:128:PRO:HD2	1.77	0.66
43:BK:21:PRO:HA	43:BK:23:VAL:H	1.61	0.66
45:BN:23:LEU:CB	45:BN:60:ILE:HG21	2.26	0.66
47:BP:135:LEU:HD13	47:BP:135:LEU:O	1.96	0.66
49:BR:54:LEU:HD23	49:BR:66:VAL:HG22	1.76	0.66
50:BS:85:VAL:HG23	50:BS:106:ARG:HG3	1.78	0.66
57:BZ:23:LYS:HD3	57:BZ:38:TYR:CE2	2.31	0.66
1:AA:183:G:H2'	1:AA:184:G:C8	2.31	0.66
3:AC:14:ILE:CG1	3:AC:15:THR:N	2.58	0.66
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.78	0.66
19:AS:6:LYS:HD2	19:AS:7:LYS:N	2.10	0.66
24:AY:252:ASP:HB2	24:AY:254:LYS:HG2	1.77	0.66
24:AY:252:ASP:O	24:AY:253:LEU:HB2	1.96	0.66
24:AY:265:LYS:O	24:AY:267:LYS:HG3	1.96	0.66
31:B6:8:LYS:HZ1	35:BA:2285:C:H5	1.43	0.66
35:BA:510:C:O2'	35:BA:511:U:H5'	1.96	0.66
35:BA:1960:A:H5''	35:BA:1960:A:H8	1.61	0.66
35:BA:2122:U:H2'	35:BA:2123:G:H8	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2205:C:H5'	35:BA:2206:G:OP2	1.96	0.66
35:BA:2461:C:O2	35:BA:2461:C:H2'	1.95	0.66
40:BF:28:ILE:HD13	40:BF:28:ILE:H	1.61	0.66
2:AB:121:LEU:HD22	2:AB:126:GLU:HB2	1.77	0.65
2:AB:148:TYR:O	2:AB:149:LEU:HD23	1.96	0.65
16:AP:9:PHE:CE2	16:AP:18:ARG:CZ	2.80	0.65
18:AR:44:LEU:HD11	18:AR:70:ILE:HG21	1.78	0.65
24:AY:82:ILE:HD12	24:AY:101:LEU:CD2	2.22	0.65
33:B8:4:MET:CE	33:B8:61:LEU:HD22	2.26	0.65
35:BA:7:G:O2'	35:BA:8:A:H5'	1.95	0.65
35:BA:302:C:P	56:BY:73:ARG:HH12	2.19	0.65
35:BA:621:A:H2'	35:BA:622:G:H5'	1.77	0.65
35:BA:1782:C:C2'	35:BA:1783:A:H5'	2.25	0.65
35:BA:1831:G:H2'	35:BA:1832:C:C6	2.31	0.65
35:BA:2307:G:H21	35:BA:2308:G:C5'	2.08	0.65
36:BB:26:A:H2'	36:BB:27:C:H6	1.59	0.65
37:BC:215:VAL:HG23	37:BC:225:ILE:HG12	1.76	0.65
47:BP:114:ILE:HD12	47:BP:115:LEU:N	2.11	0.65
48:BQ:108:GLY:O	48:BQ:109:VAL:CG2	2.44	0.65
52:BU:95:LEU:CD1	53:BV:11:GLN:HG3	2.24	0.65
1:AA:1490:C:H5'	1:AA:1490:C:C6	2.30	0.65
2:AB:204:ASN:HD22	2:AB:204:ASN:C	1.99	0.65
3:AC:35:GLU:OE1	3:AC:97:LYS:HE3	1.95	0.65
5:AE:72:GLN:O	5:AE:73:ASN:HB2	1.96	0.65
20:AT:43:LEU:HB3	20:AT:48:LYS:HB2	1.77	0.65
35:BA:544:G:H21	35:BA:547:A:H2'	1.61	0.65
35:BA:582:G:H2'	35:BA:583:G:C8	2.30	0.65
35:BA:1012:U:C5	45:BN:28:THR:HG21	2.31	0.65
35:BA:2051:A:H4'	39:BE:141:ILE:CD1	2.26	0.65
39:BE:81:ILE:O	39:BE:81:ILE:HG22	1.96	0.65
54:BW:68:ARG:CA	54:BW:110:LYS:HG2	2.26	0.65
1:AA:1053:G:N7	1:AA:1200:C:C5'	2.60	0.65
2:AB:124:SER:HG	2:AB:125:PRO:HD2	1.62	0.65
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.77	0.65
6:AF:78:GLU:OE1	6:AF:78:GLU:HA	1.96	0.65
24:AY:97:SER:O	24:AY:100:VAL:HG13	1.97	0.65
24:AY:457:LEU:O	24:AY:461:ILE:HG13	1.95	0.65
35:BA:902:C:H2'	35:BA:903:C:C6	2.31	0.65
35:BA:1386:C:H2'	35:BA:1387:C:H6	1.61	0.65
37:BC:127:LYS:O	37:BC:128:LEU:HG	1.96	0.65
39:BE:177:PRO:HG2	39:BE:178:GLU:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:77:ARG:HB2	47:BP:78:PRO:HD2	1.79	0.65
54:BW:37:ARG:NH1	54:BW:37:ARG:HG3	2.12	0.65
56:BY:67:LEU:HD11	56:BY:71:LYS:HE2	1.79	0.65
1:AA:328:C:O2	1:AA:328:C:H2'	1.95	0.65
13:AM:51:ALA:O	13:AM:55:ARG:HB3	1.97	0.65
19:AS:64:GLU:HG2	29:B4:48:ARG:NH2	2.11	0.65
24:AY:459:LEU:H	24:AY:459:LEU:HD12	1.61	0.65
35:BA:271(E):U:H2'	35:BA:271(F):C:C6	2.31	0.65
35:BA:962:G:O2'	35:BA:963:U:H5'	1.96	0.65
35:BA:1010:A:H1'	35:BA:1153:C:H1'	1.79	0.65
35:BA:1218:C:H2'	35:BA:1219:G:H8	1.61	0.65
42:BH:86:GLU:CB	42:BH:132:ARG:HB3	2.27	0.65
45:BN:73:THR:HG23	45:BN:82:LEU:HD11	1.77	0.65
46:BO:2:ILE:CD1	46:BO:82:ASN:HD22	2.09	0.65
51:BT:65:LYS:HA	51:BT:65:LYS:NZ	2.11	0.65
54:BW:68:ARG:O	54:BW:109:GLU:HA	1.97	0.65
1:AA:66:G:H4'	1:AA:173:U:C5	2.31	0.65
13:AM:68:GLY:H	13:AM:71:ARG:CB	2.08	0.65
25:B0:48:GLY:HA3	25:B0:80:HIS:HD1	1.62	0.65
30:B5:40:LYS:HZ3	30:B5:46:CYS:H	1.44	0.65
31:B6:11:LEU:HG	31:B6:26:ASN:HD21	1.60	0.65
35:BA:139(A):G:N2	55:BX:44:GLU:OE2	2.30	0.65
35:BA:528:A:C2	35:BA:2043:C:H4'	2.31	0.65
35:BA:1163:G:O2'	35:BA:1164:G:H5'	1.95	0.65
35:BA:1658:C:OP1	39:BE:132:HIS:O	2.15	0.65
40:BF:17:ARG:HG3	40:BF:17:ARG:NH1	2.11	0.65
43:BK:93:ARG:HG3	57:BZ:112:ARG:NE	2.11	0.65
47:BP:112:LEU:HD22	47:BP:113:LYS:N	2.11	0.65
50:BS:95:HIS:CG	50:BS:96:GLY:N	2.65	0.65
1:AA:129(A):G:H5''	1:AA:129(A):G:C8	2.31	0.65
1:AA:773:G:C2'	1:AA:774:G:H5'	2.26	0.65
1:AA:781:A:C3'	1:AA:782:A:H5'	2.26	0.65
1:AA:1189:C:H5''	3:AC:5:ILE:HG21	1.77	0.65
2:AB:140:HIS:O	2:AB:143:GLU:HB2	1.97	0.65
20:AT:97:ALA:O	20:AT:99:LEU:HD23	1.96	0.65
24:AY:90:PHE:HZ	58:AY:701:FUA:H121	1.60	0.65
24:AY:252:ASP:HB2	24:AY:254:LYS:CE	2.22	0.65
24:AY:652:MET:HG3	24:AY:652:MET:O	1.95	0.65
31:B6:6:ARG:HD2	31:B6:6:ARG:H	1.62	0.65
35:BA:212:G:H5'	35:BA:212:G:C8	2.23	0.65
35:BA:1656:C:H2'	35:BA:1657:C:C6	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2076:U:H5'	35:BA:2238:G:N2	2.11	0.65
35:BA:2103:C:C2'	35:BA:2104:G:H5''	2.25	0.65
35:BA:2346:A:C2	35:BA:2383:G:C2	2.84	0.65
40:BF:116:ASP:OD2	47:BP:5:ASP:HB2	1.97	0.65
42:BH:12:PRO:HB2	42:BH:15:VAL:CG1	2.22	0.65
42:BH:89:ILE:O	42:BH:89:ILE:HG13	1.97	0.65
43:BK:37:PHE:O	43:BK:41:PHE:HB3	1.96	0.65
48:BQ:56:ARG:HA	48:BQ:56:ARG:NE	2.11	0.65
50:BS:98:VAL:HG12	50:BS:100:ALA:H	1.62	0.65
52:BU:112:ARG:NH2	53:BV:46:VAL:HG11	2.12	0.65
55:BX:18:TYR:C	55:BX:20:GLY:N	2.48	0.65
1:AA:261:U:O2	1:AA:263:A:C8	2.50	0.65
1:AA:1003:G:C2	1:AA:1004:A:H1'	2.32	0.65
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.50	0.65
2:AB:55:PHE:HA	2:AB:58:ILE:HD12	1.77	0.65
3:AC:142:MET:CE	3:AC:171:GLY:HA3	2.27	0.65
24:AY:18:ALA:O	24:AY:19:ALA:HB2	1.96	0.65
24:AY:228:MET:HE2	24:AY:229:LEU:HG	1.79	0.65
24:AY:343:ASN:HD22	24:AY:344:THR:N	1.94	0.65
26:B1:56:GLN:HE21	26:B1:56:GLN:CA	1.96	0.65
31:B6:54:ILE:HD11	35:BA:2420:C:H5'	1.78	0.65
35:BA:799:G:H3'	35:BA:800:A:H5''	1.77	0.65
35:BA:814:C:H2'	35:BA:815:C:H6	1.62	0.65
35:BA:1236:G:HO2'	35:BA:1237:A:H8	1.45	0.65
35:BA:1438:U:O2'	35:BA:1439:A:H5'	1.96	0.65
35:BA:2892:A:H62	35:BA:2893:G:N2	1.94	0.65
43:BK:77:LEU:HD13	43:BK:110:GLN:OE1	1.96	0.65
1:AA:197:A:H4'	1:AA:198:G:H5'	1.78	0.65
1:AA:1325:C:H2'	1:AA:1326:C:C6	2.32	0.65
1:AA:1409:C:O2'	1:AA:1410:G:H5'	1.97	0.65
4:AD:25:ARG:HH12	4:AD:30:LYS:HB2	1.62	0.65
4:AD:119:GLN:HG3	4:AD:123:HIS:NE2	2.12	0.65
35:BA:385:C:O2	47:BP:71:VAL:HG21	1.96	0.65
35:BA:803:U:C2'	35:BA:804:A:H5'	2.26	0.65
35:BA:1362:C:O2'	35:BA:1363:C:H5'	1.96	0.65
37:BC:95:VAL:HG12	37:BC:96:GLY:H	1.60	0.65
40:BF:20:LEU:HD23	40:BF:21:ALA:CB	2.27	0.65
42:BH:148:ILE:O	42:BH:151:ILE:HG12	1.97	0.65
48:BQ:39:PRO:HB3	48:BQ:99:PRO:HD3	1.79	0.65
49:BR:45:ARG:HG3	49:BR:46:GLY:H	1.60	0.65
54:BW:82:LEU:N	54:BW:82:LEU:HD12	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:159:G:C2'	1:AA:160:A:H5''	2.27	0.65
1:AA:499:A:H4'	1:AA:500:G:OP1	1.95	0.65
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.61	0.65
2:AB:60:ASP:O	2:AB:64:ARG:NH2	2.29	0.65
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.26	0.65
18:AR:69:THR:O	18:AR:72:ARG:HB2	1.96	0.65
24:AY:519:ARG:HH11	24:AY:677:GLN:HB2	1.61	0.65
35:BA:310:A:OP2	56:BY:18:GLY:HA2	1.97	0.65
35:BA:363(B):G:H2'	35:BA:363(C):G:C8	2.32	0.65
35:BA:1820:U:C2	38:BD:202:LYS:HG2	2.32	0.65
35:BA:2189:U:H2'	35:BA:2190:G:H5''	1.78	0.65
35:BA:2573:C:O2	35:BA:2573:C:C2'	2.43	0.65
36:BB:7:G:H5'	50:BS:29:PHE:CD2	2.32	0.65
39:BE:152:LYS:HG3	39:BE:153:GLY:N	2.11	0.65
42:BH:105:LEU:HD23	42:BH:113:VAL:HB	1.77	0.65
47:BP:59:LEU:HA	47:BP:61:ARG:CZ	2.27	0.65
52:BU:76:TYR:O	52:BU:79:PHE:HB3	1.97	0.65
55:BX:35:THR:O	55:BX:39:ILE:HG12	1.96	0.65
57:BZ:78:LYS:N	57:BZ:78:LYS:CD	2.59	0.65
1:AA:368:U:OP1	24:AY:353:ALA:HB1	1.97	0.65
4:AD:13:ARG:O	4:AD:16:GLY:N	2.26	0.65
15:AO:55:GLY:HA2	15:AO:58:MET:HE3	1.79	0.65
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	1.79	0.65
25:B0:25:ARG:HD2	25:B0:29:GLN:HE21	1.60	0.65
30:B5:56:LYS:CG	30:B5:57:VAL:H	2.09	0.65
35:BA:271(H):G:H1	35:BA:271(P):C:H42	1.45	0.65
35:BA:811:U:O2'	35:BA:812:C:H5''	1.97	0.65
35:BA:1791:A:C6	35:BA:1829:A:H5'	2.32	0.65
35:BA:2171:A:H1'	35:BA:2172:U:C5	2.32	0.65
35:BA:2347:C:H2'	35:BA:2348:U:C6	2.31	0.65
35:BA:2668:G:O2'	35:BA:2669:G:H5'	1.97	0.65
36:BB:82:G:C2'	36:BB:83:G:H5'	2.27	0.65
38:BD:35:LYS:HG2	38:BD:63:ARG:HG3	1.77	0.65
38:BD:248:SER:HB2	38:BD:249:PRO:HD2	1.79	0.65
40:BF:174:VAL:HG21	40:BF:189:THR:HG21	1.78	0.65
42:BH:159:GLU:HG3	42:BH:160:LYS:N	2.11	0.65
42:BH:159:GLU:OE1	42:BH:159:GLU:HA	1.97	0.65
52:BU:113:ALA:C	52:BU:115:ALA:H	2.00	0.65
1:AA:67:C:H2'	1:AA:68:G:C8	2.32	0.64
1:AA:452:A:H4'	16:AP:72:ARG:CZ	2.27	0.64
1:AA:509:A:C2	1:AA:510:A:C2	2.85	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:865:A:H5'	1:AA:1078:U:O4	1.96	0.64
3:AC:10:PHE:CZ	3:AC:178:LEU:HD11	2.33	0.64
11:AK:72:ALA:HB1	11:AK:77:MET:HE2	1.80	0.64
16:AP:53:VAL:HG23	16:AP:54:GLU:N	2.11	0.64
17:AQ:59:ILE:HG23	17:AQ:71:PHE:CB	2.26	0.64
24:AY:228:MET:O	24:AY:231:TYR:HB3	1.97	0.64
29:B4:14:ILE:N	29:B4:14:ILE:HD12	2.11	0.64
29:B4:21:VAL:O	29:B4:21:VAL:HG12	1.96	0.64
33:B8:61:LEU:C	33:B8:63:PRO:HD2	2.17	0.64
35:BA:6:A:O2'	45:BN:130:HIS:HB2	1.96	0.64
35:BA:565:C:O2'	35:BA:566:U:H5'	1.97	0.64
35:BA:654(M):C:O2'	35:BA:654(N):G:H8	1.80	0.64
35:BA:962:G:H2'	35:BA:963:U:O4'	1.98	0.64
35:BA:1819:A:H4'	35:BA:1820:U:C5'	2.27	0.64
35:BA:1841:U:H2'	35:BA:1842:G:C8	2.32	0.64
40:BF:4:VAL:HG13	40:BF:19:GLU:OE2	1.96	0.64
43:BK:75:SER:O	43:BK:79:ARG:HG3	1.96	0.64
46:BO:69:ILE:HD12	46:BO:69:ILE:H	1.61	0.64
56:BY:105:ALA:C	56:BY:107:ASP:H	1.99	0.64
57:BZ:24:LEU:HD12	57:BZ:41:LEU:HD21	1.79	0.64
1:AA:297:G:H4'	1:AA:557:G:H4'	1.79	0.64
1:AA:598:U:H2'	1:AA:599:C:H6	1.62	0.64
1:AA:1038:C:H2'	1:AA:1039:C:C5	2.32	0.64
5:AE:101:ILE:O	5:AE:101:ILE:HG12	1.97	0.64
16:AP:25:ARG:HH11	16:AP:25:ARG:CG	1.99	0.64
22:AV:17:C:C6	22:AV:17(A):U:C5	2.76	0.64
24:AY:404:VAL:N	24:AY:405:PRO:HD3	2.12	0.64
24:AY:406:GLU:CB	24:AY:407:PRO:HD2	2.27	0.64
30:B5:3:LYS:HZ2	30:B5:5:PRO:HD2	1.60	0.64
31:B6:50:ARG:HG3	31:B6:51:GLU:O	1.96	0.64
35:BA:259:G:H21	35:BA:621:A:H8	1.44	0.64
35:BA:359:A:H2'	35:BA:360:G:O4'	1.98	0.64
35:BA:365:C:H6	35:BA:365:C:H5'	1.63	0.64
35:BA:671:C:O2'	35:BA:672:C:H5'	1.97	0.64
35:BA:1142(A):A:O2'	35:BA:1143:A:H5''	1.96	0.64
35:BA:1485:G:H1'	35:BA:1505:C:H42	1.63	0.64
35:BA:1654:A:H2	39:BE:113:PHE:CD2	2.14	0.64
35:BA:2840:C:H5''	49:BR:53:HIS:CD2	2.32	0.64
47:BP:108:LYS:HD2	47:BP:108:LYS:N	2.13	0.64
50:BS:90:GLY:C	50:BS:92:TYR:H	2.00	0.64
56:BY:7:VAL:HB	56:BY:8:LYS:CD	2.25	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1364:U:O2	1:AA:1364:U:C2'	2.46	0.64
3:AC:94:LEU:O	3:AC:94:LEU:CD1	2.45	0.64
6:AF:37:VAL:CG1	6:AF:38:GLU:H	2.08	0.64
19:AS:9:VAL:HG21	29:B4:53:GLU:HG2	1.80	0.64
20:AT:26:ASN:N	20:AT:26:ASN:ND2	2.46	0.64
24:AY:115:GLU:CD	24:AY:118:SER:HB3	2.18	0.64
31:B6:11:LEU:HG	31:B6:26:ASN:ND2	2.13	0.64
31:B6:16:CYS:O	31:B6:17:LYS:HB2	1.97	0.64
35:BA:139:G:H1	35:BA:142(A):C:H42	1.44	0.64
35:BA:2305:A:C4	41:BG:154:GLY:HA3	2.32	0.64
35:BA:2873:A:H4'	49:BR:8:ARG:NH2	2.13	0.64
36:BB:81:G:H2'	36:BB:82:G:H5'	1.80	0.64
39:BE:51:PHE:N	39:BE:74:PRO:HG3	2.12	0.64
40:BF:4:VAL:HG22	40:BF:19:GLU:OE1	1.97	0.64
40:BF:157:VAL:HG23	40:BF:157:VAL:O	1.96	0.64
46:BO:13:ASN:HD21	46:BO:97:ARG:CG	2.11	0.64
50:BS:59:LYS:HG2	50:BS:60:GLY:N	2.12	0.64
51:BT:108:ARG:HG3	51:BT:109:GLU:N	2.11	0.64
52:BU:49:HIS:HA	52:BU:52:ARG:HB2	1.78	0.64
53:BV:15:GLU:CB	53:BV:16:PRO:HD2	2.27	0.64
56:BY:91:GLU:O	56:BY:92:ASN:HB2	1.96	0.64
1:AA:1392:G:N2	1:AA:1502:A:C8	2.66	0.64
2:AB:12:GLU:HA	2:AB:16:HIS:ND1	2.12	0.64
4:AD:17:VAL:O	4:AD:17:VAL:CG1	2.45	0.64
6:AF:4:TYR:CE1	6:AF:92:LYS:HD2	2.32	0.64
10:AJ:47:PHE:CE2	14:AN:37:PHE:CE1	2.86	0.64
13:AM:37:THR:HG21	13:AM:56:LEU:CD2	2.27	0.64
19:AS:41:VAL:O	19:AS:41:VAL:CG2	2.45	0.64
31:B6:8:LYS:NZ	35:BA:2285:C:C5	2.65	0.64
31:B6:10:LEU:HD12	33:B8:34:TRP:HB2	1.78	0.64
33:B8:50:LEU:CD1	33:B8:51:ALA:H	2.10	0.64
35:BA:654(V):A:H3'	35:BA:655:A:H2'	1.78	0.64
35:BA:1814:G:C3'	35:BA:1815:A:H5''	2.22	0.64
39:BE:9:VAL:HG22	39:BE:25:VAL:HB	1.79	0.64
41:BG:71:THR:HG23	41:BG:90:LEU:N	2.11	0.64
42:BH:19:VAL:CG1	42:BH:20:ALA:H	2.10	0.64
42:BH:96:ALA:HB1	42:BH:103:LEU:HD11	1.79	0.64
45:BN:57:ALA:H	45:BN:124:ALA:HA	1.60	0.64
47:BP:101:VAL:HA	47:BP:107:LYS:H	1.62	0.64
52:BU:101:ARG:C	52:BU:102:GLU:HG2	2.17	0.64
53:BV:5:VAL:HG23	53:BV:37:VAL:O	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:4:ARG:HD3	7:AG:5:ARG:NH1	2.12	0.64
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.62	0.64
22:AV:3:C:H42	22:AV:70:G:H1	1.45	0.64
30:B5:4:HIS:O	35:BA:2056:G:N2	2.31	0.64
35:BA:58:G:H1	35:BA:69:C:H42	1.45	0.64
35:BA:710:G:H1	35:BA:721:C:H42	1.46	0.64
35:BA:1168:G:H2'	35:BA:1169:G:C8	2.33	0.64
35:BA:1245:G:C5'	40:BF:34:TRP:HZ2	2.11	0.64
35:BA:1682:G:H2'	35:BA:1683:C:C6	2.31	0.64
35:BA:2556:C:H2'	35:BA:2557:G:O4'	1.96	0.64
36:BB:87:G:C3'	36:BB:88:C:H5''	2.28	0.64
39:BE:133:LYS:C	39:BE:134:ILE:HG13	2.17	0.64
47:BP:122:PRO:O	47:BP:123:LEU:HB3	1.97	0.64
48:BQ:110:THR:CG2	48:BQ:113:GLN:HG3	2.27	0.64
56:BY:96:ILE:HD12	56:BY:99:CYS:SG	2.38	0.64
57:BZ:107:THR:HG23	57:BZ:111:VAL:CB	2.27	0.64
1:AA:283:C:O5'	1:AA:283:C:H6	1.80	0.64
1:AA:318:G:O2'	1:AA:319:G:H5'	1.97	0.64
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.97	0.64
6:AF:37:VAL:O	6:AF:38:GLU:HG3	1.97	0.64
24:AY:282:SER:O	24:AY:284:LEU:N	2.31	0.64
24:AY:423:LYS:CB	24:AY:472:VAL:HG22	2.19	0.64
26:B1:47:GLN:HG3	35:BA:2091:U:O2'	1.97	0.64
35:BA:2469:A:H2	35:BA:2481:G:H21	1.45	0.64
35:BA:2893:G:H5'	35:BA:2894:G:H5'	1.78	0.64
38:BD:276:LYS:C	38:BD:276:LYS:HD3	2.18	0.64
40:BF:192:LEU:HD21	40:BF:194:MET:HG3	1.77	0.64
53:BV:28:GLU:CB	53:BV:31:ALA:HB2	2.25	0.64
57:BZ:103:ARG:HG3	57:BZ:103:ARG:NH1	2.11	0.64
4:AD:203:VAL:O	4:AD:206:PHE:HB3	1.98	0.64
7:AG:18:TYR:CD2	7:AG:59:LEU:HD13	2.33	0.64
9:AI:8:GLY:CA	9:AI:79:LEU:HD12	2.28	0.64
9:AI:41:VAL:O	9:AI:41:VAL:HG12	1.97	0.64
9:AI:79:LEU:CD1	9:AI:83:ARG:HD2	2.16	0.64
10:AJ:3:LYS:O	10:AJ:100:THR:HG23	1.98	0.64
10:AJ:30:SER:HG	10:AJ:81:THR:HG22	1.60	0.64
12:AL:18:VAL:O	12:AL:19:ARG:HB3	1.97	0.64
24:AY:401:SER:O	24:AY:403:GLU:HG3	1.98	0.64
26:B1:88:LYS:O	26:B1:92:LYS:HB2	1.98	0.64
31:B6:30:THR:HG22	31:B6:32:ASN:ND2	2.12	0.64
35:BA:191:A:H2'	35:BA:192:C:H6	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:958:U:C6	35:BA:958:U:C3'	2.81	0.64
35:BA:1204:A:H61	35:BA:1240:U:H2'	1.63	0.64
35:BA:2103:C:N4	35:BA:2186:G:H1	1.96	0.64
36:BB:48:A:H2'	36:BB:49:C:H6	1.62	0.64
36:BB:106:G:H2'	36:BB:107:G:H8	1.62	0.64
38:BD:34:VAL:C	38:BD:36:PRO:HD2	2.18	0.64
42:BH:17:VAL:HG21	42:BH:50:VAL:CG2	2.28	0.64
45:BN:90:MET:HB3	45:BN:98:VAL:HG22	1.79	0.64
48:BQ:27:VAL:HG12	48:BQ:28:ALA:N	2.13	0.64
1:AA:559:A:H4'	1:AA:560:U:C5'	2.27	0.64
1:AA:1076:C:H5'	1:AA:1077:G:OP2	1.97	0.64
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.32	0.64
3:AC:123:GLN:HB3	3:AC:128:PHE:HD2	1.62	0.64
18:AR:31:LEU:HD23	18:AR:31:LEU:N	2.10	0.64
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.97	0.64
26:B1:5:CYS:SG	26:B1:62:VAL:HA	2.38	0.64
31:B6:27:LYS:HB3	31:B6:32:ASN:ND2	2.13	0.64
35:BA:216:A:H2'	35:BA:217:G:H8	1.61	0.64
35:BA:665:C:H2'	35:BA:666:G:H8	1.62	0.64
35:BA:769:G:H2'	35:BA:770:G:H8	1.63	0.64
35:BA:787:U:OP1	35:BA:1780:A:N6	2.31	0.64
35:BA:1080:C:O2'	35:BA:1081:U:H5'	1.98	0.64
35:BA:1358:G:O2'	35:BA:1359:A:H5''	1.98	0.64
38:BD:84:TYR:HA	38:BD:91:ARG:NH1	2.13	0.64
39:BE:38:THR:CG2	39:BE:39:PRO:HD2	2.27	0.64
39:BE:59:VAL:HG22	39:BE:62:PRO:O	1.98	0.64
41:BG:140:ILE:HD12	41:BG:140:ILE:H	1.63	0.64
45:BN:21:LYS:HD2	45:BN:26:LEU:HB3	1.80	0.64
47:BP:62:LEU:N	47:BP:62:LEU:HD23	2.13	0.64
53:BV:19:LYS:NZ	53:BV:20:LEU:H	1.95	0.64
1:AA:449:C:O2	16:AP:42:ARG:HD2	1.97	0.64
1:AA:636:U:H2'	1:AA:637:G:H8	1.63	0.64
1:AA:1445:C:H2'	1:AA:1446:U:H5'	1.79	0.64
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.60	0.64
4:AD:158:ILE:HG22	4:AD:162:LEU:HD12	1.80	0.64
15:AO:31:LEU:CD2	15:AO:31:LEU:N	2.59	0.64
19:AS:11:VAL:HG13	19:AS:11:VAL:O	1.96	0.64
26:B1:45:ASN:C	26:B1:45:ASN:HD22	2.00	0.64
26:B1:86:SER:HB2	26:B1:90:ILE:CD1	2.28	0.64
35:BA:267:C:H2'	35:BA:268:C:H6	1.61	0.64
35:BA:286:C:H2'	35:BA:287:C:C6	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:296:C:O2'	35:BA:297:C:H5'	1.98	0.64
35:BA:814:C:H2'	35:BA:815:C:C6	2.33	0.64
35:BA:1826:G:H4'	38:BD:242:ARG:NH2	2.06	0.64
35:BA:2462:U:H2'	35:BA:2463:C:H6	1.62	0.64
36:BB:20:C:H2'	36:BB:21:G:H5'	1.79	0.64
39:BE:105:THR:OG1	39:BE:199:ARG:NH2	2.30	0.64
40:BF:114:VAL:HG21	40:BF:202:PHE:CE1	2.32	0.64
41:BG:35:GLU:O	41:BG:36:LYS:HB3	1.97	0.64
46:BO:104:ARG:CZ	51:BT:33:LYS:HD2	2.28	0.64
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.33	0.64
2:AB:27:LYS:HD3	2:AB:195:ASP:OD2	1.98	0.64
11:AK:108:ILE:N	11:AK:108:ILE:HD12	2.13	0.64
24:AY:491:VAL:HG12	24:AY:492:ASP:N	2.13	0.64
30:B5:43:HIS:HD2	35:BA:2815:C:O2'	1.79	0.64
35:BA:360:G:H2'	35:BA:361:G:H8	1.62	0.64
35:BA:564:C:O2'	35:BA:565:C:H5'	1.97	0.64
35:BA:910:A:C5	48:BQ:13:GLN:HG3	2.33	0.64
35:BA:2892:A:H62	35:BA:2893:G:H21	1.45	0.64
36:BB:54:G:O2'	36:BB:55:U:H5'	1.97	0.64
38:BD:232:PRO:HD2	38:BD:249:PRO:HA	1.80	0.64
41:BG:60:LEU:C	41:BG:63:ILE:HD11	2.18	0.64
45:BN:35:ARG:HB3	45:BN:42:TRP:CH2	2.33	0.64
49:BR:9:LYS:C	49:BR:10:LEU:HG	2.16	0.64
49:BR:10:LEU:HD22	49:BR:17:ARG:HD3	1.80	0.64
53:BV:35:LEU:HB2	53:BV:57:VAL:HG12	1.80	0.64
1:AA:512:U:H2'	1:AA:513:C:C6	2.33	0.63
1:AA:756:C:O2'	1:AA:757:U:H5'	1.98	0.63
1:AA:830:G:H2'	1:AA:831:U:H6	1.63	0.63
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.33	0.63
2:AB:153:ARG:C	2:AB:155:LEU:H	2.00	0.63
2:AB:233:SER:HB2	2:AB:234:PRO:CD	2.28	0.63
4:AD:5:ILE:HA	4:AD:115:ARG:HH12	1.63	0.63
10:AJ:21:GLN:O	10:AJ:21:GLN:HG2	1.97	0.63
14:AN:8:GLU:O	14:AN:11:LYS:HB2	1.97	0.63
24:AY:613:PRO:C	24:AY:615:GLU:N	2.42	0.63
27:B2:17:SER:CB	27:B2:18:PRO:HD2	2.26	0.63
34:B9:6:SER:HB2	35:BA:2466:C:H5''	1.80	0.63
35:BA:1434:A:H61	35:BA:1558:A:N6	1.96	0.63
35:BA:1721:G:H8	35:BA:1741:A:H62	1.45	0.63
35:BA:2815:C:H2'	35:BA:2816:C:C6	2.33	0.63
35:BA:2820:A:H8	39:BE:191:PRO:CB	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BK:29:GLN:O	43:BK:59:ILE:HD12	1.98	0.63
43:BK:58:THR:HB	43:BK:66:THR:HG22	1.79	0.63
43:BK:58:THR:O	43:BK:66:THR:HG22	1.97	0.63
43:BK:93:ARG:HB2	57:BZ:112:ARG:NH2	2.12	0.63
50:BS:85:VAL:C	50:BS:106:ARG:HG2	2.17	0.63
51:BT:28:VAL:CG1	51:BT:46:GLU:HA	2.28	0.63
1:AA:673:G:H2'	1:AA:674:G:C8	2.33	0.63
1:AA:1065:U:C2'	1:AA:1066:C:OP2	2.45	0.63
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.79	0.63
2:AB:87:ARG:O	2:AB:87:ARG:HD2	1.97	0.63
2:AB:147:LYS:CE	2:AB:148:TYR:CE1	2.75	0.63
10:AJ:4:ILE:HD12	10:AJ:4:ILE:N	2.12	0.63
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.33	0.63
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	1.80	0.63
27:B2:66:GLU:O	27:B2:69:ARG:HG2	1.98	0.63
28:B3:29:ARG:HB2	28:B3:29:ARG:NH1	2.13	0.63
31:B6:15:GLU:OE1	31:B6:44:ARG:NH2	2.32	0.63
35:BA:120:U:H5'	35:BA:121:G:OP1	1.97	0.63
35:BA:946:G:H2'	35:BA:947:G:C8	2.32	0.63
35:BA:2051:A:H4'	39:BE:141:ILE:HD13	1.78	0.63
35:BA:2122:U:H1'	37:BC:167:ASP:OD2	1.99	0.63
35:BA:2762:G:H5'	35:BA:2762:G:H8	1.57	0.63
38:BD:112:GLN:H	38:BD:115:GLN:NE2	1.96	0.63
41:BG:16:ARG:HE	41:BG:31:VAL:CG1	2.10	0.63
42:BH:42:ARG:HH11	42:BH:42:ARG:HG3	1.63	0.63
51:BT:132:LYS:H	51:BT:132:LYS:HD3	1.63	0.63
56:BY:95:LYS:HE2	56:BY:101:LYS:H	1.62	0.63
1:AA:54:C:H2'	1:AA:352:C:N4	2.14	0.63
1:AA:1202:G:C2	14:AN:42:ILE:HG21	2.34	0.63
4:AD:36:ARG:HB3	4:AD:36:ARG:HH11	1.62	0.63
5:AE:12:LEU:H	5:AE:12:LEU:CD1	2.10	0.63
12:AL:6:THR:HG23	12:AL:9:GLN:NE2	2.09	0.63
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.80	0.63
26:B1:6:GLU:OE1	26:B1:61:ARG:N	2.30	0.63
35:BA:63:U:OP1	35:BA:63:U:H4'	1.97	0.63
35:BA:271(M):G:H2'	35:BA:271(N):U:H5''	1.80	0.63
35:BA:902:C:H2'	35:BA:903:C:H6	1.63	0.63
35:BA:965:C:C4'	35:BA:2273:A:H1'	2.29	0.63
38:BD:196:VAL:O	38:BD:196:VAL:HG12	1.96	0.63
40:BF:3:GLU:HA	40:BF:24:LEU:CG	2.22	0.63
43:BK:10:LEU:HD12	43:BK:57:ILE:HD13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BK:17:ALA:HB1	43:BK:38:VAL:HG22	1.75	0.63
47:BP:23:PRO:HB2	47:BP:33:ARG:NE	2.14	0.63
56:BY:86:ARG:HB3	56:BY:88:LYS:NZ	2.14	0.63
1:AA:182:U:H5'	1:AA:183:G:P	2.39	0.63
1:AA:294:U:H2'	1:AA:295:C:C6	2.33	0.63
1:AA:1299:A:H2'	1:AA:1299:A:N3	2.12	0.63
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.63	0.63
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.80	0.63
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.98	0.63
10:AJ:48:THR:HG23	10:AJ:62:HIS:ND1	2.12	0.63
13:AM:108:ARG:HD2	13:AM:108:ARG:N	2.12	0.63
16:AP:1:MET:SD	16:AP:3:LYS:HE3	2.37	0.63
24:AY:156:ARG:HH22	24:AY:666:ARG:HH11	1.43	0.63
24:AY:606:MET:O	24:AY:646:PHE:HA	1.99	0.63
24:AY:636:PRO:CG	43:BK:21:PRO:HB2	2.29	0.63
35:BA:674:G:H2'	35:BA:804:A:H61	1.62	0.63
35:BA:1787:A:H5''	35:BA:1788:C:OP2	1.98	0.63
36:BB:48:A:H2'	36:BB:49:C:C6	2.34	0.63
38:BD:227:ASN:HB3	38:BD:228:PRO:HD2	1.79	0.63
40:BF:160:ASN:HD21	40:BF:162:LEU:CD1	2.11	0.63
40:BF:185:ASP:HA	40:BF:188:ARG:HG2	1.79	0.63
48:BQ:12:GLN:HE21	48:BQ:73:PRO:CD	2.08	0.63
50:BS:67:ARG:NH2	50:BS:100:ALA:HB3	2.13	0.63
52:BU:54:LYS:O	52:BU:58:ARG:HG3	1.99	0.63
1:AA:352:C:H4'	1:AA:354:G:OP1	1.98	0.63
1:AA:584:G:H2'	1:AA:585:G:H8	1.62	0.63
1:AA:715:A:H2'	1:AA:716:A:C8	2.33	0.63
1:AA:953:G:H5'	1:AA:965:A:H61	1.63	0.63
2:AB:111:ARG:HG2	2:AB:111:ARG:NH1	2.13	0.63
3:AC:127:ARG:HG2	3:AC:127:ARG:HH11	1.63	0.63
22:AV:38:A:H2'	22:AV:39:C:O4'	1.99	0.63
24:AY:180:VAL:CG2	24:AY:216:LEU:HD12	2.28	0.63
24:AY:231:TYR:HE2	44:BL:80:LEU:HD23	1.63	0.63
24:AY:237:PRO:HB2	24:AY:242:LEU:HG	1.81	0.63
25:B0:34:GLY:HA3	35:BA:2353:G:H1'	1.80	0.63
26:B1:81:LYS:NZ	35:BA:271(H):G:O3'	2.29	0.63
35:BA:35:G:O2'	35:BA:36:G:H5'	1.99	0.63
35:BA:319:C:P	40:BF:137:LYS:HZ3	2.22	0.63
35:BA:839:U:H2'	35:BA:840:C:C6	2.33	0.63
35:BA:1068:G:H21	35:BA:1096:A:H5'	1.63	0.63
35:BA:2097:C:O2'	35:BA:2098:U:H5'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:117:THR:HG22	37:BC:147:GLY:O	1.98	0.63
39:BE:69:LYS:O	39:BE:70:ALA:C	2.36	0.63
41:BG:85:GLY:C	41:BG:87:PRO:HD3	2.19	0.63
45:BN:120:LEU:CD1	45:BN:122:VAL:HG23	2.28	0.63
49:BR:87:TYR:O	49:BR:89:ASP:N	2.30	0.63
56:BY:12:THR:HG23	56:BY:25:GLY:O	1.99	0.63
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.17	0.63
1:AA:630:G:H2'	1:AA:631:G:H5'	1.80	0.63
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.79	0.63
9:AI:5:TYR:CD1	9:AI:6:GLY:N	2.67	0.63
24:AY:485:GLU:HG3	24:AY:553:GLY:HA3	1.80	0.63
26:B1:45:ASN:HD22	26:B1:46:LEU:N	1.95	0.63
31:B6:11:LEU:HD13	31:B6:11:LEU:C	2.18	0.63
31:B6:47:THR:HG23	31:B6:48:VAL:H	1.63	0.63
35:BA:64:A:H2'	35:BA:65:C:C6	2.33	0.63
35:BA:572:A:C2	35:BA:2033:A:C2	2.86	0.63
35:BA:1145:C:H2'	35:BA:1146:C:C6	2.33	0.63
35:BA:1291:C:H2'	35:BA:1292:U:C6	2.33	0.63
35:BA:2203:U:H1'	38:BD:151:LYS:HE3	1.80	0.63
38:BD:124:PRO:O	38:BD:126:GLN:HG2	1.98	0.63
38:BD:155:LEU:N	38:BD:155:LEU:CD1	2.61	0.63
45:BN:26:LEU:HD12	45:BN:26:LEU:O	1.99	0.63
45:BN:133:GLN:CG	45:BN:134:ARG:N	2.61	0.63
46:BO:47:ILE:CG2	46:BO:48:PRO:HD2	2.29	0.63
50:BS:50:SER:O	50:BS:51:ALA:HB2	1.99	0.63
51:BT:132:LYS:H	51:BT:132:LYS:CD	2.12	0.63
53:BV:87:HIS:NE2	53:BV:89:GLN:HG2	2.14	0.63
56:BY:2:ARG:HD3	56:BY:3:VAL:HG23	1.81	0.63
1:AA:384:G:H2'	1:AA:385:C:C6	2.34	0.63
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.29	0.63
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.98	0.63
19:AS:20:LEU:HA	19:AS:23:ASN:HB2	1.80	0.63
24:AY:135:PHE:CD1	24:AY:272:LEU:HD22	2.34	0.63
31:B6:45:LYS:HG2	35:BA:2371:G:H5''	1.81	0.63
35:BA:145:G:H2'	35:BA:146:G:C8	2.34	0.63
35:BA:840:C:H2'	35:BA:841:A:H5''	1.80	0.63
35:BA:848:G:C2	35:BA:933:A:H1'	2.34	0.63
35:BA:889:C:H2'	35:BA:890:A:O4'	1.99	0.63
35:BA:941:A:H4'	47:BP:35:HIS:HE1	1.62	0.63
35:BA:1639:U:O2'	35:BA:1640:C:H5''	1.99	0.63
36:BB:16:G:N2	36:BB:69:G:H1'	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:29:ARG:NE	51:BT:30:VAL:HG13	2.13	0.63
52:BU:53:ARG:HG3	52:BU:57:PHE:HE1	1.62	0.63
55:BX:7:VAL:HB	55:BX:8:ILE:HD12	1.80	0.63
1:AA:1284:C:H3'	1:AA:1285:A:C5'	2.27	0.63
1:AA:1368:G:H5'	9:AI:112:LYS:O	1.98	0.63
24:AY:97:SER:HA	24:AY:100:VAL:CG1	2.28	0.63
24:AY:181:LEU:CD1	24:AY:242:LEU:HD13	2.28	0.63
24:AY:286:ILE:N	24:AY:286:ILE:HD12	2.14	0.63
26:B1:90:ILE:O	26:B1:94:LEU:HD12	1.99	0.63
30:B5:2:ALA:HB2	35:BA:2015:A:O4'	1.99	0.63
31:B6:48:VAL:O	31:B6:49:HIS:HB2	1.97	0.63
35:BA:154(A):C:H3'	35:BA:155:U:H5''	1.81	0.63
35:BA:2192:G:C3'	35:BA:2193:G:H5''	2.29	0.63
35:BA:2241:A:H2'	35:BA:2242:G:H8	1.61	0.63
35:BA:2472:G:H3'	35:BA:2475:C:N4	2.14	0.63
38:BD:78:LYS:HG2	38:BD:79:VAL:N	2.13	0.63
38:BD:153:ALA:C	38:BD:154:LYS:HG3	2.19	0.63
44:BL:73:ARG:HG2	44:BL:73:ARG:NH1	2.07	0.63
48:BQ:87:LYS:HG2	48:BQ:88:GLY:N	2.10	0.63
52:BU:72:HIS:HE1	52:BU:107:ALA:HB2	1.64	0.63
1:AA:28:G:O2'	1:AA:296:U:OP1	2.16	0.63
1:AA:275:G:H5''	17:AQ:14:LYS:CB	2.29	0.63
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.34	0.63
10:AJ:63:PHE:HB3	14:AN:58:LYS:CA	2.29	0.63
58:AY:701:FUA:C15	58:AY:701:FUA:C32	2.77	0.63
25:B0:49:LYS:O	25:B0:51:VAL:HG23	1.98	0.63
35:BA:674:G:H1'	40:BF:74:ARG:HD3	1.80	0.63
35:BA:996:A:H2'	35:BA:997:G:H8	1.63	0.63
35:BA:1237:A:O2'	35:BA:1238:G:O4'	2.16	0.63
35:BA:1993:U:C5'	39:BE:128:SER:HB3	2.28	0.63
41:BG:97:ASP:O	41:BG:101:ILE:N	2.31	0.63
41:BG:180:PHE:O	41:BG:181:ARG:C	2.37	0.63
45:BN:17:ASP:CG	45:BN:56:ASN:HB3	2.18	0.63
52:BU:117:GLN:OE1	52:BU:117:GLN:HA	1.99	0.63
57:BZ:155:LEU:HG	57:BZ:157:LEU:HD21	1.80	0.63
1:AA:72:C:H2'	1:AA:73:G:H8	1.63	0.62
1:AA:115:G:H1'	1:AA:116:A:N7	2.14	0.62
3:AC:179:ARG:NH2	3:AC:206:GLU:OE2	2.31	0.62
20:AT:75:ASN:H	20:AT:75:ASN:ND2	1.97	0.62
24:AY:526:VAL:HB	24:AY:566:THR:HG23	1.81	0.62
26:B1:30:VAL:H	35:BA:2396:G:H4'	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B2:38:GLN:C	27:B2:40:SER:H	2.03	0.62
29:B4:53:GLU:HB3	29:B4:55:ARG:HE	1.64	0.62
35:BA:2050:C:H2'	35:BA:2051:A:O4'	1.98	0.62
37:BC:115:VAL:HG12	37:BC:145:THR:CG2	2.29	0.62
38:BD:10:THR:HG23	38:BD:13:ARG:HB3	1.81	0.62
40:BF:32:LEU:HD23	40:BF:32:LEU:O	1.98	0.62
42:BH:41:MET:O	42:BH:42:ARG:CB	2.47	0.62
42:BH:76:VAL:HG12	42:BH:77:LYS:N	2.13	0.62
46:BO:10:VAL:HG23	46:BO:10:VAL:O	1.98	0.62
53:BV:81:TYR:C	53:BV:82:ARG:HD2	2.19	0.62
55:BX:57:LEU:HD13	55:BX:57:LEU:N	2.13	0.62
57:BZ:59:LEU:HD11	57:BZ:88:PHE:CD2	2.34	0.62
1:AA:936:C:O2'	1:AA:937:A:H5'	1.99	0.62
1:AA:1005:A:OP1	1:AA:1006:C:N3	2.33	0.62
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.34	0.62
4:AD:61:LYS:HE2	4:AD:62:GLN:NE2	2.12	0.62
4:AD:129:ASN:HD22	4:AD:129:ASN:N	1.96	0.62
10:AJ:3:LYS:NZ	10:AJ:76:ASN:HA	2.13	0.62
24:AY:39:ILE:HG22	24:AY:40:HIS:N	2.14	0.62
24:AY:177:ILE:C	24:AY:178:ILE:HD12	2.19	0.62
27:B2:47:ASN:HD22	35:BA:94(A):G:H21	1.47	0.62
29:B4:31:ILE:HG22	29:B4:31:ILE:O	1.99	0.62
35:BA:303:U:H2'	35:BA:304:G:C8	2.34	0.62
35:BA:363(A):A:H2'	35:BA:363(B):G:H8	1.64	0.62
35:BA:637:A:H2'	47:BP:117:GLU:OE2	1.98	0.62
35:BA:653:A:H5'	35:BA:654:A:OP2	1.99	0.62
35:BA:1133:U:O2	35:BA:1137:G:H5''	1.98	0.62
35:BA:1168:G:H2'	35:BA:1169:G:H8	1.65	0.62
35:BA:1515:G:H2'	35:BA:1516:C:C6	2.34	0.62
35:BA:1713:U:O2'	35:BA:1714:G:H5'	1.99	0.62
35:BA:2794:C:N4	35:BA:2801(A):A:H61	1.96	0.62
35:BA:2846:G:H2'	35:BA:2847:U:O4'	1.99	0.62
36:BB:60:C:H2'	36:BB:61:G:C8	2.33	0.62
36:BB:85:G:O2'	36:BB:86:G:H5'	1.99	0.62
37:BC:124:VAL:HA	37:BC:128:LEU:HD12	1.81	0.62
38:BD:130:ALA:C	38:BD:131:LEU:HD12	2.20	0.62
39:BE:8:LYS:HE2	39:BE:192:ASN:HD22	1.62	0.62
39:BE:36:ARG:NH2	39:BE:88:GLY:H	1.98	0.62
41:BG:102:PHE:CD2	41:BG:103:LEU:HD23	2.33	0.62
42:BH:52:VAL:O	42:BH:52:VAL:HG12	1.98	0.62
42:BH:171:LEU:HD23	42:BH:171:LEU:C	2.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:4:PRO:O	46:BO:5:GLN:HB2	1.96	0.62
54:BW:1:MET:CE	54:BW:2:GLU:H	2.12	0.62
1:AA:368:U:OP2	24:AY:353:ALA:HB2	1.99	0.62
1:AA:665:A:H2'	1:AA:725:G:N2	2.13	0.62
1:AA:1351:U:O4'	7:AG:33:ASP:HB3	1.99	0.62
1:AA:1435:G:H2'	1:AA:1436:U:C5	2.35	0.62
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.81	0.62
13:AM:81:LEU:HD12	13:AM:86:CYS:SG	2.40	0.62
20:AT:89:ARG:HD2	20:AT:104:LEU:CD1	2.30	0.62
23:AX:19:U:H2'	23:AX:20:U:C6	2.33	0.62
24:AY:25:LYS:HE3	59:AY:702:GDP:PB	2.38	0.62
33:B8:33:ASN:O	33:B8:34:TRP:HB3	1.98	0.62
35:BA:580:C:H2'	35:BA:581:C:C6	2.34	0.62
35:BA:654(R):C:HO2'	35:BA:654(S):G:H8	1.46	0.62
35:BA:784:A:H5''	38:BD:227:ASN:ND2	2.14	0.62
35:BA:947:G:H2'	35:BA:948:G:H8	1.63	0.62
35:BA:1218:C:H2'	35:BA:1219:G:C8	2.34	0.62
35:BA:1308:A:H2'	35:BA:1309:G:O4'	1.99	0.62
35:BA:1412:A:O2'	35:BA:1413:G:H5'	1.99	0.62
35:BA:2469:A:H2	35:BA:2481:G:N2	1.96	0.62
38:BD:72:LYS:HB3	38:BD:75:ILE:HB	1.81	0.62
41:BG:35:GLU:HG2	41:BG:36:LYS:HD2	1.81	0.62
41:BG:98:ARG:NH1	41:BG:98:ARG:H	1.97	0.62
55:BX:3:THR:O	55:BX:4:ALA:HB3	2.00	0.62
1:AA:417:C:H2'	1:AA:418:C:C6	2.34	0.62
1:AA:1030(D):A:C2'	1:AA:1031:G:H5'	2.27	0.62
1:AA:1198:G:H2'	1:AA:1199:U:O4'	1.99	0.62
1:AA:1522:U:H6	1:AA:1522:U:O5'	1.83	0.62
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.13	0.62
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.81	0.62
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.99	0.62
12:AL:70:ILE:HD12	12:AL:75:HIS:CD2	2.33	0.62
24:AY:446:THR:O	24:AY:448:GLN:HG2	2.00	0.62
31:B6:35:GLU:CB	31:B6:51:GLU:HB2	2.29	0.62
35:BA:559:G:H22	52:BU:49:HIS:CD2	2.18	0.62
35:BA:2186:G:C3'	35:BA:2187:G:H5''	2.30	0.62
35:BA:2202:C:H2'	38:BD:151:LYS:HZ1	1.65	0.62
39:BE:11:MET:CB	39:BE:24:THR:HA	2.29	0.62
40:BF:38:ARG:O	40:BF:42:ALA:HB2	1.99	0.62
45:BN:15:LEU:HD12	45:BN:136:GLU:HG3	1.80	0.62
48:BQ:3:MET:HB2	48:BQ:4:PRO:HD2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:83:LEU:HD12	52:BU:113:ALA:HB2	1.81	0.62
57:BZ:135:GLU:O	57:BZ:137:ILE:HG12	1.99	0.62
1:AA:368:U:O4'	24:AY:354:ARG:NH2	2.33	0.62
1:AA:992:U:H4'	1:AA:993:G:O5'	2.00	0.62
3:AC:134:ILE:O	3:AC:137:ALA:N	2.32	0.62
5:AE:36:ASP:O	5:AE:37:ARG:HB2	1.99	0.62
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.62	0.62
11:AK:126:ARG:O	11:AK:128:ALA:N	2.33	0.62
13:AM:19:LEU:N	13:AM:19:LEU:HD22	2.13	0.62
19:AS:6:LYS:H	19:AS:6:LYS:NZ	1.97	0.62
35:BA:657:U:H2'	35:BA:658:C:C6	2.34	0.62
35:BA:1721:G:O6	35:BA:1739:U:H5'	1.99	0.62
35:BA:2472:G:H3'	35:BA:2475:C:H42	1.65	0.62
35:BA:2809:A:OP2	35:BA:2891:G:N1	2.33	0.62
36:BB:67:G:O2'	36:BB:68:C:H5'	1.99	0.62
39:BE:38:THR:O	39:BE:42:ASP:HB2	1.98	0.62
43:BK:17:ALA:HB3	43:BK:38:VAL:HG13	1.82	0.62
51:BT:88:ILE:HG22	51:BT:89:VAL:HG23	1.82	0.62
1:AA:475:G:O2'	1:AA:476:G:H5'	1.99	0.62
1:AA:1142:G:C2'	1:AA:1143:G:H5'	2.30	0.62
10:AJ:50:ILE:H	10:AJ:50:ILE:CD1	2.10	0.62
16:AP:9:PHE:HE2	16:AP:18:ARG:CZ	2.11	0.62
19:AS:58:VAL:O	19:AS:60:VAL:HG12	2.00	0.62
24:AY:248:LYS:O	24:AY:248:LYS:HG2	1.99	0.62
35:BA:191:A:O2'	35:BA:192:C:H5'	1.99	0.62
35:BA:319:C:P	40:BF:137:LYS:NZ	2.73	0.62
35:BA:566:U:O2'	35:BA:567:A:H5'	2.00	0.62
35:BA:1073:A:H2'	35:BA:1074:G:H5'	1.80	0.62
35:BA:1494:A:C2'	35:BA:1495:A:H5''	2.30	0.62
35:BA:1656:C:H2'	35:BA:1657:C:H6	1.63	0.62
39:BE:4:ILE:HG13	39:BE:5:LEU:N	2.15	0.62
47:BP:47:ASP:HB3	47:BP:48:PRO:CA	2.28	0.62
53:BV:19:LYS:HG2	53:BV:94:LEU:HB2	1.80	0.62
57:BZ:156:LYS:O	57:BZ:158:PRO:HD3	1.99	0.62
1:AA:122:G:O2'	1:AA:123:C:H5'	1.98	0.62
1:AA:202:U:H5'	1:AA:203:U:H5	1.64	0.62
1:AA:265:G:H2'	1:AA:267:C:H5	1.65	0.62
1:AA:597:G:H1'	1:AA:644:G:N2	2.14	0.62
1:AA:1008:C:H2'	1:AA:1009:G:H8	1.64	0.62
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.35	0.62
3:AC:11:ARG:O	3:AC:13:GLY:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:150:LYS:HB2	3:AC:169:ALA:HB2	1.82	0.62
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.82	0.62
18:AR:44:LEU:CD2	18:AR:79:LEU:HD22	2.30	0.62
24:AY:411:VAL:HG23	24:AY:459:LEU:HD22	1.80	0.62
30:B5:45:VAL:HG22	30:B5:51:TYR:CE2	2.35	0.62
33:B8:48:PHE:O	33:B8:49:VAL:CG1	2.44	0.62
35:BA:144:C:H2'	35:BA:145:G:H8	1.65	0.62
35:BA:878:A:H2'	35:BA:879:G:O4'	2.00	0.62
35:BA:1161:C:H2'	35:BA:1162:G:C8	2.35	0.62
35:BA:1567:A:H5'	38:BD:58:HIS:CD2	2.35	0.62
35:BA:2406:U:C2	47:BP:72:PRO:HB2	2.35	0.62
35:BA:2577:A:C5'	35:BA:2578:G:H5'	2.28	0.62
41:BG:97:ASP:O	41:BG:101:ILE:HB	1.99	0.62
47:BP:85:LEU:CD1	47:BP:120:ALA:HB2	2.29	0.62
50:BS:67:ARG:HB3	50:BS:71:ARG:NH2	2.14	0.62
50:BS:87:PHE:CG	50:BS:88:ASP:N	2.67	0.62
51:BT:57:PHE:O	51:BT:59:THR:HG23	1.98	0.62
52:BU:47:TYR:HA	52:BU:50:ARG:HH11	1.65	0.62
57:BZ:9:TYR:OH	57:BZ:63:ASP:OD2	2.18	0.62
57:BZ:107:THR:HG23	57:BZ:111:VAL:CG2	2.30	0.62
57:BZ:108:PRO:HA	57:BZ:142:SER:HA	1.81	0.62
1:AA:636:U:H2'	1:AA:637:G:C8	2.34	0.62
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.34	0.62
2:AB:31:TYR:HE2	2:AB:200:ILE:HD12	1.64	0.62
2:AB:233:SER:CB	2:AB:234:PRO:CD	2.77	0.62
11:AK:60:ALA:O	11:AK:61:ALA:C	2.36	0.62
24:AY:343:ASN:HD22	24:AY:343:ASN:C	2.03	0.62
28:B3:4:LEU:HD11	28:B3:39:ASP:OD1	2.00	0.62
33:B8:4:MET:O	33:B8:62:LEU:HD12	1.99	0.62
35:BA:145:G:H2'	35:BA:146:G:H8	1.64	0.62
35:BA:483:A:H3'	35:BA:484:C:H6	1.65	0.62
35:BA:528:A:H2	35:BA:2043:C:C4'	2.13	0.62
35:BA:2040:C:H2'	35:BA:2041:U:O4'	2.00	0.62
35:BA:2712:U:HO2'	35:BA:2712(A):A:H8	0.75	0.62
49:BR:7:GLY:O	49:BR:8:ARG:CB	2.46	0.62
50:BS:24:LEU:CB	50:BS:85:VAL:HG12	2.20	0.62
51:BT:24:PRO:HD3	51:BT:52:ILE:HD11	1.81	0.62
1:AA:22:G:O2'	1:AA:23:C:H5'	2.00	0.62
1:AA:1377:A:H2'	7:AG:7:ALA:HB2	1.82	0.62
5:AE:122:GLU:O	5:AE:123:LEU:HD23	1.99	0.62
6:AF:3:ARG:HH11	6:AF:3:ARG:CG	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:15:ASP:C	6:AF:17:SER:N	2.53	0.62
8:AH:104:ARG:O	8:AH:105:ARG:C	2.38	0.62
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.14	0.62
12:AL:33:ARG:HG3	12:AL:60:LEU:HD12	1.82	0.62
24:AY:154:GLN:CA	24:AY:158:GLY:HA2	2.29	0.62
24:AY:494:GLU:HG3	24:AY:511:LYS:HE2	1.80	0.62
30:B5:3:LYS:HD2	30:B5:5:PRO:HD2	1.79	0.62
35:BA:2348:U:H2'	35:BA:2349:G:H5'	1.81	0.62
40:BF:4:VAL:HA	40:BF:19:GLU:HB3	1.81	0.62
47:BP:17:LYS:O	47:BP:17:LYS:HG2	1.99	0.62
48:BQ:55:VAL:HG13	48:BQ:56:ARG:N	2.15	0.62
51:BT:28:VAL:O	51:BT:28:VAL:HG12	2.00	0.62
56:BY:28:LYS:HE3	56:BY:30:VAL:HG22	1.82	0.62
2:AB:163:PHE:CD1	2:AB:185:ILE:HG13	2.35	0.62
25:B0:42:GLY:HA3	35:BA:2331:G:O4'	2.00	0.62
29:B4:12:ALA:HB1	29:B4:29:PRO:HA	1.82	0.62
30:B5:25:LEU:HD12	54:BW:19:LEU:HB3	1.80	0.62
30:B5:48:GLU:O	30:B5:49:CYS:HB3	1.98	0.62
31:B6:47:THR:CG2	31:B6:49:HIS:CE1	2.83	0.62
35:BA:428:A:H3'	35:BA:429:A:C8	2.35	0.62
35:BA:545:C:H2'	35:BA:545:C:O2	1.99	0.62
35:BA:622:G:OP2	47:BP:108:LYS:NZ	2.29	0.62
35:BA:1314:C:H5'	35:BA:1314:C:C6	2.27	0.62
35:BA:1649:G:O2'	35:BA:1650:G:H5'	2.00	0.62
38:BD:229:VAL:HG23	38:BD:230:ASP:N	2.15	0.62
40:BF:185:ASP:HA	40:BF:188:ARG:CG	2.30	0.62
45:BN:94:HIS:N	45:BN:95:PRO:CD	2.62	0.62
47:BP:38:GLN:HG3	47:BP:41:ARG:HG3	1.81	0.62
52:BU:47:TYR:HA	52:BU:50:ARG:NH1	2.13	0.62
55:BX:12:VAL:HB	55:BX:17:ALA:CB	2.12	0.62
1:AA:219:C:H2'	1:AA:220:G:O4'	1.99	0.61
1:AA:1403:C:O2	1:AA:1403:C:H2'	2.00	0.61
3:AC:127:ARG:HG2	3:AC:127:ARG:NH1	2.15	0.61
12:AL:38:THR:CG2	12:AL:57:LYS:HB3	2.28	0.61
15:AO:43:LEU:CD1	15:AO:56:LEU:HD22	2.30	0.61
24:AY:177:ILE:HG13	24:AY:188:TYR:HE2	1.64	0.61
24:AY:230:LYS:NZ	24:AY:237:PRO:HA	2.14	0.61
35:BA:176:G:O2'	35:BA:177:G:H5'	2.00	0.61
35:BA:651:G:H2'	35:BA:652:C:H5'	1.81	0.61
35:BA:676:A:H1'	35:BA:2443:C:H1'	1.82	0.61
35:BA:900:A:H5'	35:BA:900:A:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1009:A:H1'	52:BU:59:ARG:NH1	2.15	0.61
35:BA:1516:C:O2'	35:BA:1517:G:H5''	1.98	0.61
35:BA:2039:C:H2'	35:BA:2040:C:H6	1.65	0.61
35:BA:2115:G:N3	35:BA:2117:A:N7	2.48	0.61
35:BA:2247:A:O2'	35:BA:2248:C:H5'	2.00	0.61
38:BD:76:PRO:HG2	38:BD:98:VAL:HG21	1.81	0.61
38:BD:95:LEU:CD1	38:BD:103:ARG:O	2.44	0.61
40:BF:24:LEU:HB3	40:BF:25:PRO:CD	2.29	0.61
42:BH:89:ILE:C	42:BH:89:ILE:HD12	2.21	0.61
46:BO:1:MET:HG3	46:BO:67:LYS:HG2	1.81	0.61
48:BQ:55:VAL:CG1	48:BQ:56:ARG:N	2.62	0.61
49:BR:21:TYR:HB3	49:BR:47:PHE:CE2	2.33	0.61
52:BU:55:ARG:HA	52:BU:58:ARG:CG	2.30	0.61
53:BV:19:LYS:CE	53:BV:20:LEU:H	2.12	0.61
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.82	0.61
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.01	0.61
4:AD:56:VAL:HG12	4:AD:202:LEU:HD13	1.82	0.61
6:AF:15:ASP:C	6:AF:17:SER:H	2.03	0.61
18:AR:37:VAL:C	18:AR:39:VAL:H	2.04	0.61
19:AS:9:VAL:HG21	29:B4:53:GLU:CG	2.29	0.61
24:AY:250:THR:O	24:AY:252:ASP:N	2.32	0.61
24:AY:424:LEU:O	24:AY:427:ALA:HB3	2.00	0.61
35:BA:212:G:H8	35:BA:212:G:C5'	2.08	0.61
35:BA:528:A:C2	35:BA:2043:C:H5'	2.34	0.61
35:BA:1717:G:C3'	35:BA:1718:G:H5''	2.30	0.61
35:BA:1819:A:H1'	35:BA:1821:A:C6	2.35	0.61
35:BA:2137:C:O2'	35:BA:2138:C:H5'	2.00	0.61
38:BD:32:SER:O	38:BD:36:PRO:CG	2.36	0.61
40:BF:20:LEU:HB3	40:BF:23:ASP:OD2	2.00	0.61
47:BP:41:ARG:HA	47:BP:41:ARG:NH1	2.15	0.61
48:BQ:21:THR:O	48:BQ:22:LYS:HB3	1.98	0.61
52:BU:82:GLY:HA2	52:BU:117:GLN:HE21	1.65	0.61
53:BV:19:LYS:HE2	53:BV:19:LYS:CA	2.30	0.61
57:BZ:149:SER:CB	57:BZ:173:ALA:HB2	2.25	0.61
1:AA:189:G:H2'	1:AA:189(A):C:H6	1.64	0.61
1:AA:255:G:O6	1:AA:266:G:O6	2.17	0.61
1:AA:1031:G:H2'	1:AA:1032:G:H5'	1.81	0.61
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.80	0.61
20:AT:48:LYS:HB3	20:AT:51:GLU:HG2	1.82	0.61
24:AY:17:ILE:HD12	24:AY:17:ILE:N	2.15	0.61
25:B0:74:ARG:HH11	25:B0:74:ARG:HG3	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:30:G:O2'	35:BA:31:C:H5'	1.99	0.61
35:BA:240:G:C3'	35:BA:241:A:H5''	2.23	0.61
35:BA:418:G:H2'	35:BA:419:C:C6	2.35	0.61
35:BA:768:G:H2'	35:BA:769:G:C8	2.35	0.61
35:BA:877:U:O2'	35:BA:878:A:H5''	2.00	0.61
35:BA:1035:U:H2'	35:BA:1036:G:C8	2.35	0.61
35:BA:1516:C:H2'	35:BA:1517:G:C5'	2.30	0.61
35:BA:1654:A:OP2	49:BR:3:HIS:HB2	2.00	0.61
35:BA:2115:G:C3'	35:BA:2116:G:H5''	2.30	0.61
35:BA:2297:C:C2'	35:BA:2298:A:H5'	2.31	0.61
35:BA:2804:C:H2'	35:BA:2805:G:C8	2.35	0.61
45:BN:39:ARG:HB2	45:BN:41:ASP:OD1	2.00	0.61
48:BQ:110:THR:HG23	48:BQ:113:GLN:HG3	1.80	0.61
51:BT:106:SER:HA	51:BT:110:ILE:HG12	1.81	0.61
1:AA:60:A:H5''	1:AA:331:G:H22	1.65	0.61
1:AA:1082:G:O2'	1:AA:1083:U:H5'	2.01	0.61
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.82	0.61
19:AS:64:GLU:C	29:B4:48:ARG:HH22	2.02	0.61
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.81	0.61
24:AY:225:GLU:HB2	24:AY:228:MET:HE1	1.82	0.61
25:B0:16:SER:OG	35:BA:2261:C:H3'	2.00	0.61
31:B6:37:ARG:NH2	35:BA:2286:A:N6	2.49	0.61
31:B6:47:THR:HG23	31:B6:48:VAL:N	2.15	0.61
35:BA:203:C:H3'	35:BA:204:A:H5''	1.81	0.61
35:BA:426:C:O2'	35:BA:427:U:H5'	2.01	0.61
35:BA:528:A:H2	35:BA:2043:C:H4'	1.65	0.61
35:BA:614(A):U:H4'	35:BA:614(B):G:C5'	2.30	0.61
35:BA:615:G:OP2	40:BF:40:GLN:NE2	2.29	0.61
35:BA:648:G:H2'	35:BA:649:G:C8	2.35	0.61
35:BA:848:G:H5'	35:BA:849:A:OP2	2.01	0.61
35:BA:850:C:O2'	35:BA:851:U:H5'	2.00	0.61
35:BA:1075:C:H5'	35:BA:1076:C:OP2	2.00	0.61
35:BA:1833:U:H2'	35:BA:1834:U:C6	2.30	0.61
35:BA:1884:A:H2'	35:BA:1885:A:C5'	2.28	0.61
35:BA:2422:A:H4'	35:BA:2423:U:OP1	1.99	0.61
35:BA:2464:C:O2'	35:BA:2465:C:H6	1.82	0.61
37:BC:195:ARG:HH11	37:BC:195:ARG:HG3	1.64	0.61
38:BD:134:ARG:HG3	38:BD:135:PHE:HD1	1.66	0.61
38:BD:142:VAL:HG23	38:BD:192:THR:C	2.20	0.61
39:BE:101:ARG:HE	39:BE:171:GLU:HB2	1.65	0.61
39:BE:170:LEU:H	39:BE:170:LEU:HD12	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:105:LEU:HD21	42:BH:113:VAL:HB	1.81	0.61
47:BP:102:ARG:HG2	47:BP:102:ARG:O	2.00	0.61
47:BP:112:LEU:H	47:BP:128:HIS:CD2	2.18	0.61
48:BQ:109:VAL:CG1	48:BQ:113:GLN:HB2	2.30	0.61
49:BR:28:LEU:HD22	49:BR:29:LEU:HD12	1.83	0.61
51:BT:54:ARG:HA	51:BT:59:THR:HB	1.82	0.61
1:AA:197:A:N6	1:AA:221:C:H4'	2.16	0.61
1:AA:382:A:H2'	1:AA:383:A:C8	2.35	0.61
1:AA:624:C:H2'	1:AA:625:G:C8	2.36	0.61
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.36	0.61
1:AA:1281:U:H5''	1:AA:1282:C:H5	1.63	0.61
1:AA:1490:C:C5'	1:AA:1490:C:C6	2.83	0.61
3:AC:83:ARG:NH1	3:AC:87:LEU:HD21	2.16	0.61
3:AC:140:ARG:HG3	3:AC:140:ARG:NH1	2.11	0.61
7:AG:22:LEU:O	7:AG:22:LEU:HD23	2.00	0.61
12:AL:28:LYS:O	12:AL:29:GLY:C	2.38	0.61
24:AY:221:ALA:C	24:AY:223:PHE:H	2.02	0.61
24:AY:379:GLY:O	24:AY:380:LEU:HB2	2.01	0.61
26:B1:46:LEU:HB2	26:B1:62:VAL:O	1.99	0.61
27:B2:55:ARG:HH11	27:B2:55:ARG:HG3	1.64	0.61
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.29	0.61
33:B8:4:MET:HE1	33:B8:61:LEU:HD22	1.82	0.61
35:BA:271(U):G:O2'	35:BA:271(V):G:H5'	2.00	0.61
41:BG:34:LEU:HB2	41:BG:99:MET:CE	2.30	0.61
43:BK:6:ALA:HB1	43:BK:8:VAL:HG23	1.82	0.61
43:BK:57:ILE:H	43:BK:57:ILE:HD12	1.65	0.61
43:BK:109:LYS:HA	43:BK:112:MET:HE2	1.81	0.61
50:BS:62:LYS:O	50:BS:65:VAL:HB	2.00	0.61
1:AA:415:A:H2'	1:AA:416:G:C8	2.35	0.61
1:AA:1217:C:O2	1:AA:1217:C:H2'	1.99	0.61
3:AC:178:LEU:O	3:AC:180:ALA:N	2.33	0.61
7:AG:21:VAL:HG23	7:AG:22:LEU:H	1.64	0.61
24:AY:525:PHE:N	24:AY:525:PHE:CD1	2.68	0.61
27:B2:48:HIS:CD2	35:BA:96:G:H4'	2.35	0.61
29:B4:22:ILE:CG2	29:B4:23:GLU:N	2.62	0.61
35:BA:686:G:N2	35:BA:788:A:H61	1.98	0.61
35:BA:2415:G:H4'	47:BP:67:MET:N	2.16	0.61
35:BA:2632:A:N3	39:BE:61:ARG:NH1	2.49	0.61
35:BA:2662:A:H2'	35:BA:2663:G:O4'	2.01	0.61
35:BA:2891:G:H4'	35:BA:2892:A:OP1	2.01	0.61
45:BN:67:LEU:HD23	45:BN:87:LEU:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:76:LYS:HB3	48:BQ:91:GLU:CG	2.29	0.61
51:BT:50:ILE:HG13	51:BT:102:ILE:HD11	1.82	0.61
54:BW:17:VAL:O	54:BW:20:VAL:HG22	1.98	0.61
1:AA:662:G:H2'	1:AA:663:A:H8	1.63	0.61
7:AG:78:ARG:HH11	7:AG:78:ARG:CG	2.12	0.61
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.00	0.61
11:AK:15:ALA:HA	11:AK:76:GLY:O	2.00	0.61
13:AM:97:PRO:CA	13:AM:110:ARG:HD3	2.24	0.61
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.31	0.61
19:AS:15:LEU:O	19:AS:19:VAL:HB	2.00	0.61
24:AY:314:PHE:CE1	24:AY:315:LYS:HB2	2.35	0.61
29:B4:50:VAL:O	29:B4:51:ASP:CB	2.49	0.61
35:BA:85:G:H2'	35:BA:86:C:H5'	1.83	0.61
35:BA:288:C:O2'	35:BA:289:A:H5'	2.01	0.61
35:BA:759:G:H2'	35:BA:760:G:C8	2.33	0.61
35:BA:2193:G:H2'	35:BA:2194:G:C5'	2.30	0.61
35:BA:2244:U:O2	35:BA:2434:A:H2'	2.00	0.61
35:BA:2696:U:H2'	35:BA:2697:G:C8	2.35	0.61
38:BD:76:PRO:HG2	38:BD:98:VAL:CG2	2.31	0.61
38:BD:138:VAL:HG23	38:BD:165:ILE:HG22	1.82	0.61
38:BD:146:GLU:HB2	38:BD:189:CYS:HB3	1.82	0.61
39:BE:45:THR:O	39:BE:46:ALA:HB2	2.01	0.61
41:BG:130:ASN:OD1	41:BG:160:VAL:HA	2.01	0.61
41:BG:131:TYR:CE2	41:BG:133:LEU:HB3	2.34	0.61
50:BS:30:ARG:NH2	50:BS:62:LYS:HD2	2.15	0.61
57:BZ:86:VAL:HG12	57:BZ:87:ASP:N	2.15	0.61
57:BZ:166:SER:HB2	57:BZ:167:PRO:CA	2.30	0.61
1:AA:188:C:H2'	1:AA:189:G:C8	2.36	0.61
1:AA:677:U:H3	1:AA:713:G:H22	1.49	0.61
1:AA:1142:G:H2'	1:AA:1143:G:H5'	1.82	0.61
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.15	0.61
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.00	0.61
4:AD:29:PRO:C	4:AD:30:LYS:HG2	2.20	0.61
4:AD:80:GLU:OE1	4:AD:80:GLU:HA	1.99	0.61
6:AF:46:ARG:HH22	18:AR:37:VAL:HG21	1.64	0.61
12:AL:47:LYS:HB3	12:AL:48:PRO:HD2	1.83	0.61
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.00	0.61
22:AV:47:U:H3'	22:AV:48:C:C5'	2.29	0.61
24:AY:35:TYR:HE2	24:AY:269:VAL:HB	1.66	0.61
24:AY:225:GLU:O	24:AY:228:MET:HB3	2.00	0.61
26:B1:80:LEU:HD23	26:B1:81:LYS:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:90:ILE:O	26:B1:94:LEU:CD1	2.49	0.61
27:B2:3:LEU:O	27:B2:7:ARG:NH1	2.34	0.61
30:B5:27:PRO:CD	54:BW:23:LEU:HD11	2.31	0.61
33:B8:50:LEU:C	33:B8:53:PRO:HD2	2.21	0.61
35:BA:216:A:H2'	35:BA:217:G:C8	2.36	0.61
35:BA:688:U:H4'	35:BA:1780:A:C2	2.36	0.61
35:BA:723:G:H2'	35:BA:724:U:C6	2.35	0.61
35:BA:833:U:H5''	47:BP:48:PRO:HB3	1.83	0.61
35:BA:1485:G:H5'	35:BA:1485:G:H8	1.65	0.61
35:BA:1794:U:O2'	35:BA:1795:C:H5'	2.00	0.61
35:BA:1947:C:O2'	35:BA:1948:G:H5''	2.01	0.61
35:BA:2746:U:O2'	35:BA:2747:G:H5'	2.00	0.61
38:BD:35:LYS:HD2	38:BD:36:PRO:CA	2.30	0.61
39:BE:50:GLY:HA2	39:BE:78:LEU:HB3	1.83	0.61
47:BP:62:LEU:CD2	47:BP:62:LEU:N	2.62	0.61
47:BP:67:MET:O	47:BP:68:GLN:HG3	2.01	0.61
51:BT:23:ARG:O	51:BT:25:GLY:N	2.31	0.61
51:BT:89:VAL:CG1	51:BT:91:ARG:HG3	2.31	0.61
54:BW:6:ILE:HG13	54:BW:104:THR:HG23	1.81	0.61
56:BY:42:VAL:O	56:BY:65:ALA:N	2.32	0.61
56:BY:44:ILE:HG22	56:BY:45:VAL:N	2.13	0.61
1:AA:194:C:C2'	1:AA:195:A:H5''	2.31	0.61
1:AA:943:U:C2'	1:AA:944:G:H5'	2.30	0.61
2:AB:22:LYS:HE2	2:AB:22:LYS:CA	2.29	0.61
3:AC:10:PHE:CE1	3:AC:178:LEU:HD11	2.36	0.61
11:AK:21:ILE:N	11:AK:21:ILE:CD1	2.63	0.61
12:AL:90:VAL:O	12:AL:92:ASP:N	2.33	0.61
13:AM:10:PRO:CG	13:AM:18:ALA:HB1	2.31	0.61
18:AR:59:SER:H	18:AR:62:GLU:CB	2.13	0.61
25:B0:14:ARG:HB2	25:B0:14:ARG:NH1	2.15	0.61
26:B1:73:LEU:CD2	26:B1:94:LEU:HD23	2.30	0.61
29:B4:16:CYS:SG	29:B4:17:GLY:N	2.74	0.61
35:BA:52:A:O2'	35:BA:53:A:H5'	2.00	0.61
35:BA:86:C:H4'	35:BA:104:U:O2	2.00	0.61
35:BA:570:G:H2'	35:BA:2030:A:C5	2.36	0.61
35:BA:1061:U:H4'	35:BA:1070:A:H1'	1.81	0.61
35:BA:1718:G:H5'	35:BA:1718:G:C8	2.34	0.61
38:BD:48:ARG:HH11	38:BD:48:ARG:HG3	1.66	0.61
45:BN:35:ARG:O	45:BN:37:LYS:N	2.34	0.61
48:BQ:18:LYS:HD2	48:BQ:18:LYS:N	2.16	0.61
51:BT:62:THR:CG2	51:BT:75:ILE:HG13	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:2:PHE:CE1	53:BV:13:ARG:NH1	2.68	0.61
56:BY:8:LYS:HD2	56:BY:8:LYS:N	2.16	0.61
56:BY:27:VAL:HG12	56:BY:29:GLU:H	1.66	0.61
56:BY:28:LYS:O	56:BY:38:ILE:HG22	2.00	0.61
57:BZ:115:GLY:HA2	57:BZ:177:PRO:CD	2.30	0.61
2:AB:168:THR:HG23	2:AB:192:SER:CB	2.27	0.61
3:AC:90:GLU:HA	3:AC:93:LYS:HB3	1.82	0.61
4:AD:170:VAL:HG21	4:AD:176:LEU:HD22	1.83	0.61
6:AF:7:ASN:OD1	6:AF:62:TRP:HD1	1.84	0.61
7:AG:120:ILE:HG22	7:AG:124:LEU:CD1	2.30	0.61
10:AJ:47:PHE:CZ	14:AN:37:PHE:CE1	2.82	0.61
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	1.82	0.61
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.01	0.61
19:AS:40:ILE:O	19:AS:40:ILE:HG22	2.01	0.61
24:AY:463:VAL:O	24:AY:467:LYS:HB3	2.00	0.61
28:B3:15:TYR:HD1	28:B3:15:TYR:H	1.48	0.61
29:B4:2:LYS:HB2	36:BB:40:U:O4	2.00	0.61
35:BA:419:C:H2'	35:BA:420:C:H6	1.66	0.61
35:BA:610:G:N2	35:BA:619:G:H1'	2.16	0.61
35:BA:640:C:C4	35:BA:641:C:N4	2.68	0.61
35:BA:1023:U:H2'	35:BA:1024:G:H5'	1.83	0.61
35:BA:1306:C:H2'	35:BA:1307:A:H8	1.65	0.61
35:BA:1614:A:H2'	35:BA:1615:C:H5'	1.81	0.61
35:BA:1685:C:O2'	35:BA:1686:C:H5'	2.01	0.61
35:BA:1850:G:H5'	35:BA:1851:U:OP2	2.00	0.61
35:BA:2014:A:H4'	54:BW:92:ARG:HH12	1.65	0.61
35:BA:2081:C:H2'	35:BA:2082:A:H8	1.66	0.61
36:BB:40:U:H5''	36:BB:41:U:OP2	2.00	0.61
37:BC:139:PRO:HA	37:BC:145:THR:CG2	2.31	0.61
41:BG:18:GLU:OE1	41:BG:18:GLU:HA	2.01	0.61
43:BK:132:ARG:HG3	43:BK:132:ARG:NH1	2.14	0.61
54:BW:68:ARG:HA	54:BW:110:LYS:CG	2.30	0.61
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.83	0.60
8:AH:127:LEU:HB3	8:AH:129:VAL:HG13	1.81	0.60
10:AJ:78:ASN:HB2	10:AJ:81:THR:HG23	1.83	0.60
24:AY:517:LEU:HB3	24:AY:521:SER:HB2	1.82	0.60
35:BA:292:C:O2'	35:BA:293:U:H5'	2.01	0.60
35:BA:1045:A:N3	35:BA:1047:G:N2	2.49	0.60
35:BA:2870:C:H2'	35:BA:2871:C:O4'	2.00	0.60
38:BD:260:ARG:O	38:BD:260:ARG:HG3	2.00	0.60
38:BD:270:ILE:HD12	38:BD:270:ILE:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:124:LEU:HD12	40:BF:125:LEU:N	2.16	0.60
42:BH:137:ASP:HB3	42:BH:140:LYS:HB2	1.82	0.60
46:BO:87:ILE:HD13	46:BO:87:ILE:N	2.16	0.60
47:BP:83:VAL:H	47:BP:115:LEU:CD2	2.14	0.60
50:BS:36:TYR:O	50:BS:37:ALA:HB2	2.00	0.60
52:BU:70:ARG:HH11	52:BU:70:ARG:HG3	1.65	0.60
55:BX:12:VAL:CG1	55:BX:27:THR:HG23	2.31	0.60
55:BX:18:TYR:HD1	55:BX:21:PHE:HE2	1.48	0.60
1:AA:1347:G:H3'	9:AI:108:VAL:O	2.00	0.60
2:AB:74:LYS:O	2:AB:75:LYS:C	2.40	0.60
2:AB:137:ARG:C	2:AB:137:ARG:HD3	2.22	0.60
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.66	0.60
3:AC:108:ASN:HD22	3:AC:111:LEU:HD12	1.66	0.60
4:AD:98:GLU:HG2	4:AD:189:PRO:HG3	1.83	0.60
9:AI:114:TYR:HD2	10:AJ:60:ARG:HG3	1.66	0.60
16:AP:7:ALA:O	16:AP:17:TYR:HA	2.00	0.60
24:AY:92:ILE:HG23	24:AY:93:GLU:N	2.16	0.60
24:AY:180:VAL:HG23	24:AY:216:LEU:CD1	2.30	0.60
24:AY:646:PHE:O	24:AY:647:VAL:HG13	2.00	0.60
31:B6:54:ILE:O	31:B6:54:ILE:HD12	2.01	0.60
35:BA:365:C:H5'	35:BA:365:C:C6	2.36	0.60
35:BA:448:U:O4	35:BA:583:G:H1'	2.00	0.60
35:BA:555:U:H2'	35:BA:556:G:C8	2.36	0.60
35:BA:570:G:H2'	35:BA:2030:A:N7	2.16	0.60
35:BA:2629:A:H2'	35:BA:2629:A:N3	2.15	0.60
39:BE:63:LEU:O	39:BE:64:LYS:C	2.39	0.60
49:BR:78:LYS:O	49:BR:78:LYS:CG	2.48	0.60
51:BT:28:VAL:HG22	51:BT:47:GLY:N	2.15	0.60
51:BT:99:LEU:HD12	51:BT:99:LEU:O	2.00	0.60
52:BU:112:ARG:HH22	53:BV:46:VAL:HG11	1.64	0.60
57:BZ:29:TYR:CB	57:BZ:34:ASN:HB2	2.31	0.60
1:AA:346:G:H2'	1:AA:347:G:O4'	2.01	0.60
1:AA:1061:G:O2'	1:AA:1062:U:H5'	2.01	0.60
3:AC:43:LEU:HD22	3:AC:47:LEU:HD22	1.82	0.60
7:AG:146:GLU:OE2	7:AG:149:ARG:HD2	2.01	0.60
9:AI:73:GLN:O	9:AI:76:ALA:N	2.35	0.60
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.81	0.60
21:AU:6:ARG:HE	21:AU:15:ARG:NH2	1.99	0.60
24:AY:64:THR:HG23	24:AY:64:THR:O	2.00	0.60
24:AY:75:LYS:O	24:AY:77:HIS:CD2	2.55	0.60
28:B3:44:ARG:O	28:B3:48:GLU:HG2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:51:ALA:C	33:B8:53:PRO:HD2	2.20	0.60
35:BA:49:A:H5''	35:BA:51:G:O4'	2.00	0.60
35:BA:319:C:O2'	35:BA:320:A:H5'	2.02	0.60
35:BA:2591:C:H2'	35:BA:2592:G:H8	1.60	0.60
37:BC:88:GLU:HA	37:BC:95:VAL:HG21	1.83	0.60
39:BE:110:GLY:O	49:BR:2:ARG:HD3	2.01	0.60
40:BF:9:ILE:HG12	40:BF:14:PRO:HA	1.84	0.60
40:BF:10:PRO:HG2	40:BF:13:SER:OG	2.01	0.60
40:BF:25:PRO:CG	40:BF:119:ARG:HB2	2.32	0.60
51:BT:29:ARG:HB3	51:BT:85:LYS:HA	1.83	0.60
55:BX:41:ASN:C	55:BX:43:VAL:H	2.04	0.60
56:BY:11:ASP:O	56:BY:27:VAL:HA	2.01	0.60
56:BY:28:LYS:C	56:BY:38:ILE:HG22	2.21	0.60
57:BZ:30:ASN:ND2	57:BZ:31:ARG:HG3	2.16	0.60
1:AA:404:U:H2'	1:AA:405:U:C6	2.36	0.60
3:AC:86:VAL:CG2	3:AC:87:LEU:N	2.64	0.60
5:AE:100:VAL:O	5:AE:100:VAL:HG23	2.01	0.60
9:AI:4:TYR:CE1	9:AI:88:TYR:CD2	2.89	0.60
16:AP:60:LEU:HD23	16:AP:64:ALA:HB3	1.82	0.60
24:AY:12:LEU:O	24:AY:283:PRO:HD3	2.01	0.60
25:B0:43:THR:HG22	35:BA:2331:G:O2'	2.02	0.60
35:BA:1043:C:C3'	35:BA:1044:G:H5''	2.32	0.60
35:BA:1845:G:H2'	35:BA:1846:G:C5'	2.22	0.60
35:BA:2593:U:H2'	35:BA:2594:C:C6	2.36	0.60
35:BA:2716:U:O2'	35:BA:2717:G:H5'	2.01	0.60
41:BG:46:ALA:CB	41:BG:88:ILE:HG12	2.32	0.60
41:BG:63:ILE:C	41:BG:63:ILE:HD12	2.21	0.60
43:BK:56:GLU:O	43:BK:67:PHE:HA	2.00	0.60
45:BN:2:LYS:HZ1	53:BV:12:TYR:CA	2.15	0.60
47:BP:9:ASN:H	47:BP:10:PRO:CD	2.15	0.60
53:BV:40:LEU:CA	53:BV:45:THR:HB	2.30	0.60
57:BZ:77:ASP:C	57:BZ:78:LYS:HD3	2.21	0.60
57:BZ:119:GLU:O	57:BZ:121:HIS:N	2.34	0.60
57:BZ:171:ILE:HG13	57:BZ:172:ALA:N	2.16	0.60
1:AA:1300:G:O2'	1:AA:1301:U:P	2.59	0.60
1:AA:1379:G:H4'	7:AG:156:TRP:HH2	1.66	0.60
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.01	0.60
10:AJ:64:GLU:HG2	14:AN:59:ALA:HB2	1.83	0.60
18:AR:37:VAL:O	18:AR:39:VAL:N	2.34	0.60
18:AR:58:LEU:N	18:AR:58:LEU:HD12	2.16	0.60
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:416:LYS:CD	24:AY:417:THR:H	2.14	0.60
24:AY:605:ILE:HD12	24:AY:605:ILE:N	2.14	0.60
28:B3:28:LEU:CD2	28:B3:35:ARG:HD2	2.32	0.60
35:BA:139(A):G:H22	55:BX:44:GLU:CD	2.05	0.60
35:BA:274:G:O2'	35:BA:275:G:H5''	2.02	0.60
35:BA:319:C:OP1	40:BF:137:LYS:NZ	2.34	0.60
35:BA:799:G:OP2	35:BA:800:A:H3'	2.02	0.60
35:BA:852:G:H2'	35:BA:853:G:H8	1.66	0.60
35:BA:1305:C:O2'	35:BA:1306:C:H5'	2.00	0.60
35:BA:1578:U:C2'	35:BA:1579:A:H5''	2.31	0.60
35:BA:2287:A:N6	35:BA:2344:U:N3	2.47	0.60
39:BE:8:LYS:HG2	39:BE:192:ASN:HA	1.84	0.60
48:BQ:24:GLY:O	48:BQ:102:VAL:HG23	2.02	0.60
51:BT:89:VAL:CG1	51:BT:91:ARG:CG	2.80	0.60
55:BX:8:ILE:HD11	55:BX:42:ALA:O	2.02	0.60
57:BZ:42:VAL:CG1	57:BZ:43:GLU:H	2.14	0.60
57:BZ:103:ARG:HB2	57:BZ:136:PHE:HB2	1.83	0.60
57:BZ:127:LYS:NZ	57:BZ:127:LYS:HB3	2.17	0.60
1:AA:450:G:H1	1:AA:483:C:H42	1.46	0.60
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.32	0.60
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.66	0.60
24:AY:97:SER:HA	24:AY:100:VAL:HG12	1.83	0.60
24:AY:215:LYS:HA	24:AY:218:GLU:HB3	1.84	0.60
34:B9:22:ARG:NH2	35:BA:2741:A:OP1	2.35	0.60
35:BA:1484:G:H2'	35:BA:1485:G:H5''	1.84	0.60
35:BA:1494:A:N3	35:BA:1494:A:H5'	2.17	0.60
35:BA:1841:U:H2'	35:BA:1842:G:H8	1.67	0.60
35:BA:1858:G:H2'	35:BA:1883:G:H22	1.67	0.60
40:BF:18:ARG:C	40:BF:19:GLU:HG2	2.21	0.60
42:BH:18:GLU:HB2	42:BH:25:LYS:HB2	1.84	0.60
42:BH:20:ALA:HB1	42:BH:21:PRO:CD	2.32	0.60
51:BT:28:VAL:HG21	51:BT:46:GLU:CG	2.27	0.60
56:BY:31:LEU:HB2	56:BY:32:PRO:CA	2.30	0.60
1:AA:376:G:H2'	1:AA:377:G:H8	1.66	0.60
1:AA:973:G:O4'	10:AJ:55:LYS:HE2	2.01	0.60
13:AM:10:PRO:HG3	13:AM:18:ALA:HB1	1.84	0.60
19:AS:58:VAL:O	19:AS:58:VAL:HG23	2.01	0.60
25:B0:23:VAL:HG13	25:B0:38:VAL:HG22	1.82	0.60
27:B2:33:MET:O	27:B2:37:PHE:HD1	1.85	0.60
31:B6:45:LYS:HG2	35:BA:2371:G:C5'	2.30	0.60
35:BA:947:G:H2'	35:BA:948:G:C8	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1467:C:H5	35:BA:1546:C:H2'	1.66	0.60
35:BA:2021:C:H4'	35:BA:2022:U:OP2	2.01	0.60
35:BA:2344:U:O2'	35:BA:2345:G:H5''	2.02	0.60
35:BA:2373:G:H2'	35:BA:2374:C:C6	2.36	0.60
35:BA:2377:A:H2'	35:BA:2378:A:C8	2.37	0.60
40:BF:199:TRP:O	40:BF:202:PHE:HB3	2.01	0.60
47:BP:132:LYS:O	47:BP:136:GLU:HG2	2.01	0.60
48:BQ:137:TYR:N	48:BQ:137:TYR:CD1	2.69	0.60
51:BT:51:ARG:O	51:BT:61:PHE:HA	2.01	0.60
53:BV:82:ARG:HD2	53:BV:82:ARG:N	2.16	0.60
1:AA:6:G:H2'	5:AE:119:LEU:CD1	2.31	0.60
1:AA:161:A:H2'	1:AA:162:A:C8	2.37	0.60
1:AA:313:A:O2'	1:AA:314:C:H5'	2.02	0.60
1:AA:955:U:H2'	1:AA:956:U:C6	2.37	0.60
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.36	0.60
1:AA:1277:C:H3'	1:AA:1277:C:C6	2.36	0.60
2:AB:21:ARG:HD2	2:AB:39:ILE:HG12	1.84	0.60
2:AB:169:LYS:O	2:AB:169:LYS:HD3	2.02	0.60
4:AD:108:LEU:HG	4:AD:176:LEU:HD13	1.82	0.60
10:AJ:82:ILE:HD13	10:AJ:82:ILE:H	1.66	0.60
16:AP:32:TYR:O	16:AP:32:TYR:HD1	1.84	0.60
31:B6:40:CYS:HB2	31:B6:46:HIS:ND1	2.17	0.60
35:BA:272(G):C:H42	35:BA:363(C):G:H1	1.50	0.60
35:BA:813:U:H2'	35:BA:814:C:C5	2.35	0.60
35:BA:1216:G:N2	35:BA:1234:U:H1'	2.16	0.60
35:BA:1538:G:H2'	35:BA:1539:G:H8	1.64	0.60
35:BA:1865:G:C2'	35:BA:1866:C:H5''	2.32	0.60
35:BA:2681:C:H5	35:BA:2725:A:H62	1.47	0.60
37:BC:4:HIS:ND1	37:BC:8:TYR:HE2	1.99	0.60
45:BN:82:LEU:HD23	45:BN:82:LEU:C	2.22	0.60
54:BW:12:ILE:HG13	54:BW:42:ARG:NH1	2.17	0.60
57:BZ:9:TYR:CD2	57:BZ:35:ARG:NH2	2.70	0.60
1:AA:218:C:H5'	1:AA:470:C:N4	2.17	0.60
1:AA:423:G:H2'	1:AA:424:G:H5'	1.83	0.60
1:AA:460:G:H5'	1:AA:461:A:OP2	2.02	0.60
1:AA:631:G:H5'	1:AA:631:G:H8	1.66	0.60
1:AA:965:A:C2	1:AA:969:A:C2	2.90	0.60
2:AB:160:ASP:O	2:AB:161:ALA:HB2	2.01	0.60
4:AD:25:ARG:HG2	4:AD:25:ARG:HH11	1.66	0.60
6:AF:2:ARG:HD3	6:AF:92:LYS:HE3	1.82	0.60
10:AJ:33:GLN:N	10:AJ:75:ILE:HD11	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.02	0.60
24:AY:206:LEU:O	24:AY:209:ALA:HB3	2.02	0.60
24:AY:512:ILE:H	24:AY:512:ILE:CD1	2.14	0.60
25:B0:51:VAL:HG22	25:B0:81:VAL:HG23	1.83	0.60
26:B1:18:ILE:HG21	26:B1:20:ARG:NE	2.16	0.60
29:B4:22:ILE:HG22	29:B4:23:GLU:N	2.17	0.60
34:B9:4:ARG:HH12	35:BA:2477:C:N4	1.99	0.60
35:BA:74:A:O2'	35:BA:75:G:OP2	2.15	0.60
35:BA:229:A:H3'	35:BA:230:U:H5'	1.84	0.60
35:BA:614(A):U:O2'	35:BA:614(B):G:H5'	2.01	0.60
35:BA:1824:G:OP1	38:BD:52:ARG:HD3	2.01	0.60
35:BA:1935:G:H1'	35:BA:1964:G:N2	2.17	0.60
35:BA:2820:A:H8	39:BE:191:PRO:HB3	1.67	0.60
36:BB:74:U:H2'	36:BB:75:G:H5'	1.84	0.60
39:BE:49:LEU:HD22	39:BE:49:LEU:N	2.17	0.60
42:BH:149:ARG:HA	42:BH:162:ILE:CG1	2.31	0.60
43:BK:13:PRO:HA	43:BK:52:ILE:HA	1.83	0.60
47:BP:85:LEU:HA	47:BP:88:LEU:HB3	1.83	0.60
51:BT:89:VAL:C	51:BT:91:ARG:H	2.04	0.60
57:BZ:115:GLY:H	57:BZ:177:PRO:HG3	1.66	0.60
1:AA:163:C:O2'	1:AA:164:U:H5'	2.01	0.60
1:AA:748:C:HO2'	1:AA:749:C:H6	1.50	0.60
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.02	0.60
4:AD:98:GLU:CG	4:AD:189:PRO:HG3	2.32	0.60
4:AD:112:VAL:HG12	4:AD:116:GLN:OE1	2.02	0.60
4:AD:153:ARG:HG2	4:AD:153:ARG:NH1	2.16	0.60
5:AE:60:TYR:HE1	5:AE:64:ARG:HH21	1.46	0.60
12:AL:112:ASP:O	12:AL:114:LYS:HG3	2.01	0.60
19:AS:61:TYR:CD2	19:AS:62:ILE:N	2.66	0.60
24:AY:510:VAL:HG13	24:AY:569:ASP:O	2.01	0.60
30:B5:27:PRO:CG	54:BW:23:LEU:HD11	2.31	0.60
31:B6:17:LYS:HB2	31:B6:44:ARG:NH1	2.16	0.60
33:B8:52:LYS:HE2	35:BA:834:C:H4'	1.82	0.60
35:BA:408:G:O2'	35:BA:409:C:H5'	2.02	0.60
35:BA:1058:G:H21	43:BK:126:MET:CE	2.14	0.60
35:BA:1973:G:H2'	35:BA:1974:C:C6	2.36	0.60
35:BA:2488:A:H2'	35:BA:2489:G:C8	2.37	0.60
37:BC:29:LEU:HD23	37:BC:29:LEU:C	2.23	0.60
37:BC:34:ALA:HA	37:BC:40:GLU:OE2	2.01	0.60
37:BC:213:VAL:HG12	37:BC:225:ILE:HD11	1.83	0.60
38:BD:16:MET:HE3	38:BD:208:LYS:HG2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:51:PHE:CD1	39:BE:52:LEU:CD1	2.84	0.60
41:BG:98:ARG:HH11	41:BG:98:ARG:CG	2.00	0.60
41:BG:119:GLY:HA3	41:BG:181:ARG:H	1.65	0.60
47:BP:83:VAL:H	47:BP:115:LEU:HD21	1.67	0.60
50:BS:36:TYR:N	50:BS:36:TYR:CD1	2.69	0.60
50:BS:51:ALA:HB3	50:BS:73:LEU:HB2	1.82	0.60
56:BY:84:ARG:CD	56:BY:97:ARG:HH11	2.14	0.60
57:BZ:119:GLU:O	57:BZ:119:GLU:HG3	2.02	0.60
1:AA:301:G:O2'	1:AA:302:G:H5'	2.02	0.59
1:AA:1318:A:C2'	1:AA:1319:A:H5'	2.32	0.59
2:AB:44:LEU:HA	2:AB:47:THR:OG1	2.02	0.59
8:AH:127:LEU:CB	8:AH:129:VAL:HG13	2.32	0.59
13:AM:78:ILE:CA	13:AM:81:LEU:HD23	2.31	0.59
17:AQ:45:HIS:CG	17:AQ:65:ILE:HD13	2.37	0.59
31:B6:16:CYS:SG	31:B6:48:VAL:CG2	2.89	0.59
31:B6:27:LYS:HB3	31:B6:30:THR:CG2	2.32	0.59
35:BA:158:U:H3'	35:BA:158:U:O2	2.02	0.59
35:BA:271(C):C:H2'	35:BA:271(D):G:H8	1.67	0.59
35:BA:311:A:H5'	35:BA:332:A:C2	2.37	0.59
35:BA:322:A:H5'	35:BA:340:A:H1'	1.82	0.59
35:BA:539:G:O2'	35:BA:540:C:H5'	2.03	0.59
35:BA:936:C:H2'	35:BA:937:U:C6	2.37	0.59
35:BA:1036:G:OP1	42:BH:59:ARG:HD2	2.01	0.59
35:BA:1902:C:C1'	38:BD:244:ARG:HG3	2.32	0.59
36:BB:30:C:OP2	50:BS:32:LEU:HD11	2.02	0.59
37:BC:213:VAL:CG1	37:BC:225:ILE:HD11	2.32	0.59
38:BD:35:LYS:HZ3	38:BD:36:PRO:CD	2.13	0.59
38:BD:96:HIS:CE1	38:BD:102:LYS:HE2	2.37	0.59
42:BH:156:ALA:O	42:BH:158:HIS:CD2	2.55	0.59
46:BO:105:GLU:O	46:BO:109:LYS:CG	2.49	0.59
47:BP:23:PRO:C	47:BP:33:ARG:CZ	2.70	0.59
47:BP:32:THR:CG2	47:BP:37:GLY:HA2	2.31	0.59
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.37	0.59
1:AA:972:C:H4'	10:AJ:57:LYS:HB2	1.83	0.59
1:AA:1004:A:H61	1:AA:1034:G:C2'	2.12	0.59
1:AA:1321:C:H5''	1:AA:1322:C:C5'	2.32	0.59
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.02	0.59
20:AT:48:LYS:HD2	20:AT:51:GLU:OE2	2.02	0.59
24:AY:413:ILE:HG22	24:AY:449:THR:O	2.02	0.59
24:AY:553:GLY:HA2	24:AY:560:VAL:CG2	2.32	0.59
24:AY:679:VAL:HG23	24:AY:684:GLN:NE2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:80:LEU:HB3	26:B1:82:LEU:CD1	2.32	0.59
27:B2:64:LEU:HD13	27:B2:64:LEU:C	2.23	0.59
35:BA:94(A):G:H2'	35:BA:95:G:H5''	1.83	0.59
35:BA:278:A:C2	35:BA:279:C:C2	2.90	0.59
35:BA:294:A:H2'	35:BA:295:G:H5'	1.85	0.59
35:BA:331:A:O2'	35:BA:332:A:OP1	2.19	0.59
35:BA:2696:U:H2'	35:BA:2697:G:H8	1.66	0.59
35:BA:2888:C:H2'	35:BA:2889:C:C6	2.37	0.59
38:BD:65:ILE:N	38:BD:65:ILE:CD1	2.65	0.59
43:BK:100:THR:CA	43:BK:139:VAL:HB	2.32	0.59
51:BT:14:TYR:N	51:BT:14:TYR:CD1	2.69	0.59
51:BT:50:ILE:CG1	51:BT:102:ILE:HD11	2.32	0.59
51:BT:89:VAL:HG12	51:BT:91:ARG:CG	2.32	0.59
51:BT:92:GLY:C	51:BT:94:ALA:H	2.04	0.59
52:BU:84:LYS:C	52:BU:86:ALA:H	2.06	0.59
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.35	0.59
2:AB:17:PHE:HD1	2:AB:17:PHE:H	1.51	0.59
4:AD:18:LYS:C	4:AD:19:LEU:HD12	2.22	0.59
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.02	0.59
9:AI:20:ARG:HH11	9:AI:20:ARG:HG3	1.67	0.59
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	2.02	0.59
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.17	0.59
16:AP:75:ARG:HG3	16:AP:75:ARG:NH1	2.13	0.59
17:AQ:12:SER:HB3	17:AQ:20:THR:OG1	2.02	0.59
22:AV:30:G:N2	22:AV:31:G:H1'	2.17	0.59
22:AV:56:C:N4	35:BA:2169:A:C2	2.68	0.59
24:AY:466:LEU:HA	24:AY:470:PHE:CD2	2.37	0.59
24:AY:539:ILE:O	24:AY:542:VAL:HG12	2.01	0.59
27:B2:39:ALA:HA	27:B2:45:SER:HB3	1.82	0.59
35:BA:484:C:OP1	56:BY:50:ARG:HG3	2.01	0.59
35:BA:1493:C:C4	35:BA:2206:G:O2'	2.55	0.59
35:BA:2178:C:H4'	37:BC:47:LYS:HD3	1.83	0.59
35:BA:2305:A:H5''	41:BG:134:GLY:HA3	1.83	0.59
35:BA:2345:G:C5'	35:BA:2346:A:H5'	2.33	0.59
38:BD:95:LEU:HD12	38:BD:95:LEU:H	1.67	0.59
42:BH:171:LEU:HD23	42:BH:172:LYS:O	2.02	0.59
45:BN:67:LEU:O	45:BN:68:GLU:HB2	2.03	0.59
48:BQ:6:ARG:O	48:BQ:7:MET:HG3	2.01	0.59
52:BU:80:ILE:O	52:BU:84:LYS:HB2	2.03	0.59
53:BV:46:VAL:O	53:BV:47:VAL:CG1	2.48	0.59
54:BW:1:MET:HG3	54:BW:2:GLU:N	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:979:C:C3'	1:AA:980:C:C5'	2.67	0.59
1:AA:1211:U:H5'	1:AA:1212:U:OP1	2.02	0.59
1:AA:1392:G:H21	1:AA:1502:A:H8	1.47	0.59
2:AB:178:ARG:HG2	2:AB:178:ARG:NH1	2.14	0.59
2:AB:236:TYR:CD2	2:AB:239:VAL:HG21	2.37	0.59
5:AE:9:LYS:HB3	5:AE:112:LEU:HD11	1.83	0.59
12:AL:70:ILE:HG21	12:AL:77:LEU:HD12	1.82	0.59
24:AY:238:THR:HG22	24:AY:241:GLU:H	1.66	0.59
25:B0:26:TYR:CE2	35:BA:857:C:H1'	2.37	0.59
26:B1:86:SER:O	26:B1:90:ILE:N	2.35	0.59
27:B2:57:ILE:HG22	27:B2:61:LEU:HD12	1.84	0.59
35:BA:27:G:N2	35:BA:512:G:C2'	2.61	0.59
35:BA:206:U:O2	35:BA:206:U:H2'	2.03	0.59
35:BA:322:A:P	40:BF:169:ASN:HD22	2.25	0.59
35:BA:528:A:C2	35:BA:2043:C:C5'	2.85	0.59
35:BA:653:A:H5'	35:BA:654:A:P	2.42	0.59
35:BA:654(P):C:C2'	35:BA:654(Q):C:H5'	2.31	0.59
35:BA:961:C:N4	35:BA:2031:A:H1'	2.17	0.59
35:BA:2352:A:H2'	35:BA:2353:G:H5'	1.83	0.59
35:BA:2771:C:H2'	35:BA:2772:C:C6	2.37	0.59
36:BB:68:C:H2'	36:BB:69:G:H8	1.67	0.59
38:BD:4:LYS:NZ	38:BD:20:ASP:HA	2.17	0.59
50:BS:89:ARG:HG3	50:BS:92:TYR:CB	2.31	0.59
52:BU:109:LEU:O	52:BU:110:VAL:C	2.41	0.59
1:AA:720:C:O5'	1:AA:720:C:H6	1.86	0.59
2:AB:12:GLU:HB3	2:AB:16:HIS:HB2	1.84	0.59
2:AB:204:ASN:HD22	2:AB:205:ASP:N	2.00	0.59
10:AJ:61:GLU:OE2	14:AN:49:HIS:HE1	1.85	0.59
19:AS:29:ARG:N	19:AS:29:ARG:HD2	2.17	0.59
19:AS:31:ILE:HG23	19:AS:49:ILE:HG23	1.84	0.59
24:AY:35:TYR:CE2	24:AY:269:VAL:HB	2.36	0.59
24:AY:176:GLY:HA3	24:AY:187:THR:HA	1.83	0.59
24:AY:357:ARG:HH21	24:AY:373:ASP:CG	2.06	0.59
27:B2:38:GLN:NE2	27:B2:44:LEU:HB2	2.18	0.59
28:B3:31:LEU:O	28:B3:32:GLN:HB2	2.02	0.59
29:B4:9:LEU:C	29:B4:10:VAL:HG12	2.22	0.59
34:B9:29:ASN:HD21	34:B9:32:HIS:CG	2.20	0.59
35:BA:301:G:H1'	35:BA:302:C:C6	2.37	0.59
35:BA:321:G:C2	35:BA:341:G:H4'	2.37	0.59
35:BA:871:U:H4'	48:BQ:69:PHE:CE2	2.38	0.59
35:BA:975(A):G:O2'	35:BA:976:C:H5'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1053:C:H2'	35:BA:1054:A:H5''	1.84	0.59
35:BA:1827:C:H2'	35:BA:1828:G:C5'	2.31	0.59
35:BA:2172:U:H1'	35:BA:2173:A:OP1	2.02	0.59
50:BS:13:ARG:CG	50:BS:14:VAL:H	2.15	0.59
50:BS:26:LEU:O	50:BS:88:ASP:HB3	2.02	0.59
51:BT:11:GLU:C	51:BT:13:ARG:H	2.05	0.59
53:BV:32:THR:HG23	53:BV:59:ALA:O	2.02	0.59
2:AB:22:LYS:H	2:AB:40:HIS:CE1	2.21	0.59
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	2.03	0.59
8:AH:27:PRO:HA	8:AH:58:TYR:CD1	2.37	0.59
9:AI:59:PHE:N	9:AI:59:PHE:CD1	2.67	0.59
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.03	0.59
24:AY:86:GLY:O	24:AY:87:HIS:HB3	2.03	0.59
29:B4:31:ILE:CG2	29:B4:33:VAL:HG23	2.33	0.59
30:B5:3:LYS:NZ	35:BA:2613:U:H2'	2.17	0.59
30:B5:34:PRO:O	30:B5:35:GLU:HB2	2.03	0.59
33:B8:53:PRO:HA	33:B8:56:GLU:HB2	1.84	0.59
35:BA:271(R):G:O2'	35:BA:271(S):G:H5'	2.02	0.59
35:BA:290:G:O2'	35:BA:291:C:H5'	2.02	0.59
35:BA:821:A:H2'	35:BA:946:G:H5''	1.85	0.59
35:BA:2454:G:O2'	35:BA:2455:G:H5'	2.02	0.59
37:BC:202:PRO:HB2	37:BC:205:ALA:HB2	1.85	0.59
42:BH:156:ALA:O	42:BH:158:HIS:HD2	1.85	0.59
47:BP:112:LEU:N	47:BP:128:HIS:HD2	2.01	0.59
48:BQ:79:LEU:HD23	48:BQ:80:GLU:H	1.68	0.59
49:BR:83:ILE:O	49:BR:87:TYR:HE2	1.86	0.59
55:BX:70:LEU:HD23	55:BX:71:GLY:N	2.17	0.59
57:BZ:67:LEU:H	57:BZ:67:LEU:CD1	2.14	0.59
1:AA:311:C:O2'	1:AA:312:C:H5'	2.03	0.59
1:AA:418:C:H2'	1:AA:419:C:C6	2.37	0.59
1:AA:940:C:O2'	1:AA:941:G:H5'	2.03	0.59
2:AB:32:ILE:HG23	2:AB:32:ILE:O	2.01	0.59
4:AD:199:ASN:C	4:AD:199:ASN:OD1	2.39	0.59
7:AG:68:ASN:O	7:AG:138:LYS:HD2	2.02	0.59
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.23	0.59
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.85	0.59
24:AY:125:ALA:C	24:AY:127:LYS:H	2.05	0.59
29:B4:3:GLU:HG3	36:BB:43:C:P	2.42	0.59
35:BA:143(A):C:O2	35:BA:143(A):C:H2'	2.01	0.59
35:BA:603:A:H4'	35:BA:604:G:O5'	2.02	0.59
35:BA:945:A:O2'	35:BA:946:G:H4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1386:C:H2'	35:BA:1387:C:C6	2.37	0.59
35:BA:1654:A:C2	39:BE:113:PHE:CD2	2.90	0.59
35:BA:1678:G:N2	35:BA:1989:G:N2	2.50	0.59
35:BA:1943:U:O2'	35:BA:1944:U:O5'	2.19	0.59
35:BA:2028:U:H2'	35:BA:2029:G:C8	2.38	0.59
37:BC:4:HIS:ND1	37:BC:8:TYR:CE2	2.70	0.59
37:BC:73:VAL:HG11	37:BC:158:LYS:HA	1.84	0.59
38:BD:147:LEU:HD13	38:BD:155:LEU:HD11	1.85	0.59
40:BF:89:VAL:HG12	40:BF:90:PHE:N	2.18	0.59
41:BG:56:ALA:CB	41:BG:153:ARG:NH2	2.66	0.59
42:BH:65:HIS:HE1	42:BH:69:ARG:HH11	1.49	0.59
45:BN:41:ASP:C	52:BU:64:ARG:HH12	2.05	0.59
49:BR:52:ILE:O	49:BR:55:ALA:HB3	2.03	0.59
52:BU:101:ARG:O	52:BU:102:GLU:HG2	2.03	0.59
56:BY:43:ASN:ND2	56:BY:64:GLU:HG3	2.18	0.59
57:BZ:56:VAL:CG1	57:BZ:57:ILE:N	2.66	0.59
1:AA:1133:G:N2	1:AA:1143:G:H1'	2.17	0.59
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.03	0.59
2:AB:95:GLN:O	2:AB:96:ARG:HD2	2.01	0.59
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.85	0.59
24:AY:438:PHE:C	24:AY:438:PHE:CD1	2.75	0.59
35:BA:534:U:O2'	52:BU:49:HIS:CD2	2.56	0.59
35:BA:990:A:C6	35:BA:1186:G:H1'	2.37	0.59
35:BA:1983:C:O2'	35:BA:1984:G:H5'	2.02	0.59
35:BA:2839:G:H2'	35:BA:2840:C:C6	2.38	0.59
35:BA:2880:C:O5'	35:BA:2880:C:H6	1.86	0.59
40:BF:25:PRO:HG3	40:BF:119:ARG:CB	2.32	0.59
46:BO:13:ASN:ND2	46:BO:97:ARG:HG3	2.18	0.59
55:BX:18:TYR:O	55:BX:20:GLY:N	2.36	0.59
1:AA:64:G:N2	1:AA:67:C:C4	2.70	0.59
1:AA:187:C:OP1	20:AT:82:SER:HB2	2.03	0.59
1:AA:1400:C:O5'	1:AA:1400:C:H6	1.86	0.59
3:AC:79:ARG:HH11	3:AC:79:ARG:CB	2.14	0.59
8:AH:104:ARG:O	8:AH:106:GLY:N	2.36	0.59
10:AJ:21:GLN:O	10:AJ:21:GLN:CG	2.50	0.59
10:AJ:53:PRO:HA	14:AN:42:ILE:HD11	1.84	0.59
19:AS:43:GLU:O	19:AS:45:VAL:HG13	2.03	0.59
29:B4:22:ILE:HG22	29:B4:24:THR:HG23	1.85	0.59
35:BA:154(A):C:N4	35:BA:172:C:H42	2.00	0.59
35:BA:779:U:OP1	38:BD:49:ILE:HG23	2.03	0.59
35:BA:2285:C:H5'	35:BA:2288:A:N6	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2295:C:H2'	35:BA:2296:U:C6	2.38	0.59
35:BA:2455:G:H2'	35:BA:2456:C:H6	1.68	0.59
35:BA:2532:G:H2'	35:BA:2533:A:O4'	2.01	0.59
39:BE:27:LEU:HD12	39:BE:180:ASN:O	2.03	0.59
40:BF:8:GLN:CB	40:BF:126:VAL:HA	2.24	0.59
43:BK:93:ARG:HB2	57:BZ:112:ARG:HE	1.67	0.59
48:BQ:116:GLU:O	48:BQ:120:ILE:HG12	2.02	0.59
50:BS:24:LEU:HB3	50:BS:85:VAL:CG1	2.23	0.59
51:BT:10:VAL:O	51:BT:13:ARG:HG2	2.03	0.59
51:BT:50:ILE:N	51:BT:50:ILE:CD1	2.66	0.59
57:BZ:23:LYS:HD3	57:BZ:38:TYR:HE2	1.66	0.59
1:AA:275:G:H5''	17:AQ:14:LYS:HB3	1.85	0.59
1:AA:659:U:O2'	1:AA:660:G:H5'	2.02	0.59
1:AA:1095:U:P	1:AA:1108:G:H1	2.26	0.59
1:AA:1261:A:H2'	1:AA:1262:C:H5'	1.85	0.59
2:AB:51:LEU:CD2	2:AB:55:PHE:HE2	2.15	0.59
24:AY:238:THR:CG2	24:AY:241:GLU:H	2.16	0.59
27:B2:64:LEU:O	27:B2:68:ARG:HB2	2.03	0.59
27:B2:69:ARG:HH22	35:BA:111:A:C5'	2.14	0.59
28:B3:11:SER:HB3	35:BA:988:A:P	2.42	0.59
31:B6:5:VAL:HG12	31:B6:6:ARG:O	2.03	0.59
34:B9:1:MET:O	34:B9:34:GLN:HG2	2.03	0.59
35:BA:252:G:O2'	35:BA:253:C:H5'	2.03	0.59
35:BA:328:U:H4'	56:BY:68:HIS:CD2	2.37	0.59
35:BA:657:U:H2'	35:BA:658:C:H6	1.68	0.59
35:BA:1287:A:H2'	35:BA:1287:A:N3	2.17	0.59
35:BA:1441:G:H2'	35:BA:1442:G:H8	1.68	0.59
35:BA:1654:A:P	49:BR:3:HIS:HB2	2.42	0.59
35:BA:2105:C:N4	35:BA:2184:G:H1	1.97	0.59
35:BA:2543:G:N3	35:BA:2765:A:H2'	2.18	0.59
35:BA:2555:U:H2'	35:BA:2556:C:H5'	1.85	0.59
38:BD:39:LYS:HZ1	38:BD:87:ASN:HB3	1.66	0.59
40:BF:105:VAL:HA	40:BF:108:LYS:HB2	1.84	0.59
41:BG:67:LYS:HD3	41:BG:68:PRO:HD2	1.85	0.59
42:BH:170:ARG:O	42:BH:171:LEU:HB3	2.03	0.59
43:BK:19:PRO:CB	43:BK:34:ILE:HD12	2.32	0.59
49:BR:28:LEU:HD23	49:BR:28:LEU:O	2.03	0.59
51:BT:36:GLU:HG2	51:BT:36:GLU:O	2.03	0.59
52:BU:39:LEU:O	52:BU:40:PHE:C	2.41	0.59
52:BU:92:ARG:HD3	52:BU:94:ASN:HB3	1.85	0.59
56:BY:2:ARG:HD3	56:BY:2:ARG:C	2.23	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1271:G:H2'	1:AA:1272:G:C8	2.37	0.58
1:AA:1279:A:H5'	1:AA:1280:A:OP1	2.02	0.58
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.38	0.58
2:AB:54:THR:HG22	2:AB:58:ILE:HD11	1.83	0.58
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.03	0.58
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.03	0.58
3:AC:133:ALA:O	3:AC:137:ALA:HB2	2.03	0.58
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.84	0.58
13:AM:90:LEU:O	13:AM:92:HIS:N	2.36	0.58
24:AY:265:LYS:HB3	24:AY:267:LYS:HE3	1.85	0.58
24:AY:406:GLU:CB	24:AY:407:PRO:CD	2.81	0.58
24:AY:453:GLY:HA3	24:AY:459:LEU:CD1	2.32	0.58
26:B1:4:VAL:HG22	26:B1:5:CYS:N	2.18	0.58
35:BA:581:C:H2'	35:BA:582:G:H8	1.63	0.58
35:BA:709:U:H2'	35:BA:710:G:H8	1.67	0.58
35:BA:769:G:O2'	35:BA:770:G:H5'	2.03	0.58
35:BA:938:G:H2'	35:BA:939:G:H8	1.67	0.58
35:BA:1600:C:O2'	35:BA:1601:G:H5'	2.03	0.58
36:BB:95:C:O2'	36:BB:96:U:H5'	2.03	0.58
37:BC:178:LYS:HG2	37:BC:181:PHE:CE1	2.37	0.58
39:BE:2:LYS:CD	39:BE:95:ILE:HG22	2.32	0.58
42:BH:175:LYS:O	42:BH:176:ALA:CB	2.51	0.58
45:BN:23:LEU:HB3	45:BN:60:ILE:HG21	1.84	0.58
47:BP:27:HIS:CD2	47:BP:28:GLY:N	2.71	0.58
47:BP:114:ILE:O	47:BP:130:PHE:HA	2.03	0.58
50:BS:34:HIS:HB3	50:BS:53:SER:CB	2.33	0.58
57:BZ:27:VAL:O	57:BZ:27:VAL:HG13	2.02	0.58
57:BZ:142:SER:H	57:BZ:144:LEU:HD23	1.67	0.58
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.02	0.58
4:AD:4:TYR:O	4:AD:5:ILE:CB	2.46	0.58
10:AJ:4:ILE:HD11	10:AJ:77:PRO:HB3	1.84	0.58
10:AJ:32:ALA:HB3	10:AJ:76:ASN:O	2.03	0.58
12:AL:38:THR:HG23	12:AL:57:LYS:CB	2.31	0.58
24:AY:9:LEU:C	24:AY:11:ARG:H	2.06	0.58
24:AY:16:GLY:N	24:AY:101:LEU:HD13	2.18	0.58
24:AY:20:HIS:ND1	24:AY:21:ILE:CD1	2.66	0.58
24:AY:297:GLU:O	24:AY:297:GLU:HG3	2.00	0.58
24:AY:337:SER:HA	24:AY:355:LEU:CD2	2.33	0.58
29:B4:12:ALA:CB	29:B4:29:PRO:HA	2.33	0.58
35:BA:705:A:N1	35:BA:727:A:H1'	2.18	0.58
35:BA:1183:G:O2'	35:BA:1184:G:H5'	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1556:C:H2'	35:BA:1557:C:C6	2.38	0.58
35:BA:2785:C:H1'	39:BE:64:LYS:NZ	2.18	0.58
36:BB:7:G:C3'	36:BB:8:U:H5''	2.32	0.58
36:BB:15:A:H3'	36:BB:16:G:C5'	2.33	0.58
37:BC:135:ARG:HG2	37:BC:135:ARG:HH11	1.67	0.58
39:BE:113:PHE:HE1	39:BE:158:GLY:N	2.01	0.58
41:BG:67:LYS:HD3	41:BG:68:PRO:N	2.18	0.58
42:BH:72:ILE:O	42:BH:75:ALA:N	2.36	0.58
45:BN:23:LEU:HD23	45:BN:23:LEU:O	2.03	0.58
48:BQ:41:TRP:NE1	48:BQ:96:VAL:HG22	2.18	0.58
49:BR:100:LEU:HD22	49:BR:100:LEU:N	2.16	0.58
52:BU:70:ARG:NH2	52:BU:75:ASN:HB2	2.19	0.58
53:BV:46:VAL:HG13	53:BV:47:VAL:N	2.17	0.58
1:AA:368:U:P	24:AY:353:ALA:CB	2.91	0.58
1:AA:624:C:H4'	16:AP:10:GLY:C	2.23	0.58
1:AA:830:G:H2'	1:AA:831:U:C6	2.36	0.58
1:AA:932:C:H5''	7:AG:3:ARG:HD2	1.85	0.58
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	0.58
1:AA:1404:C:H1'	1:AA:1499:A:N1	2.18	0.58
4:AD:13:ARG:O	4:AD:15:GLU:N	2.36	0.58
9:AI:40:LEU:CD1	9:AI:70:LYS:HG2	2.31	0.58
16:AP:21:VAL:HG11	16:AP:59:TRP:NE1	2.18	0.58
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.85	0.58
24:AY:181:LEU:HD23	24:AY:182:ARG:NH1	2.18	0.58
24:AY:186:TYR:HA	24:AY:198:GLU:HA	1.84	0.58
24:AY:223:PHE:CE2	24:AY:249:GLY:HA3	2.38	0.58
29:B4:1:MET:CE	41:BG:66:GLN:OE1	2.51	0.58
33:B8:42:ARG:HH11	35:BA:2350:C:H5	1.51	0.58
35:BA:907:U:OP1	48:BQ:24:GLY:N	2.31	0.58
35:BA:1145:C:H2'	35:BA:1146:C:H6	1.68	0.58
35:BA:1188:U:C2'	35:BA:1189:A:H5'	2.33	0.58
35:BA:2135:A:H2'	35:BA:2136:C:O4'	2.02	0.58
35:BA:2564:A:OP1	35:BA:2648:C:H4'	2.03	0.58
35:BA:2577:A:H5'	35:BA:2578:G:C5'	2.29	0.58
35:BA:2836:U:C4	35:BA:2883:A:N6	2.71	0.58
35:BA:2888:C:H2'	35:BA:2889:C:H6	1.68	0.58
36:BB:115:G:O4'	50:BS:47:THR:HB	2.03	0.58
38:BD:146:GLU:HG2	38:BD:152:GLY:C	2.23	0.58
38:BD:153:ALA:O	38:BD:154:LYS:HG3	2.04	0.58
39:BE:51:PHE:HD1	39:BE:52:LEU:HD12	1.65	0.58
42:BH:42:ARG:HG3	42:BH:42:ARG:NH1	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:84:ARG:HD2	56:BY:97:ARG:HH11	1.67	0.58
57:BZ:24:LEU:HD21	57:BZ:86:VAL:HG23	1.85	0.58
1:AA:160:A:H1'	1:AA:344:A:C5	2.38	0.58
1:AA:332:G:H2'	1:AA:333:G:C8	2.32	0.58
1:AA:542:G:N2	1:AA:543:C:C2	2.71	0.58
1:AA:894:G:H2'	1:AA:895:G:O4'	2.04	0.58
1:AA:960:U:C5	1:AA:1225:A:C8	2.91	0.58
1:AA:1130:A:C2	1:AA:1146:A:C4	2.91	0.58
1:AA:1158:C:C5'	2:AB:133:LYS:CE	2.57	0.58
1:AA:1190:G:H3'	3:AC:3:ASN:HD22	1.68	0.58
1:AA:1404:C:H1'	1:AA:1499:A:C2	2.38	0.58
1:AA:1510:U:O2	1:AA:1526:G:C2	2.56	0.58
2:AB:129:GLU:O	2:AB:130:ARG:HB2	2.03	0.58
3:AC:77:ILE:O	3:AC:84:ILE:HG22	2.03	0.58
5:AE:78:HIS:O	5:AE:93:PRO:HD3	2.03	0.58
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.04	0.58
24:AY:606:MET:HE3	24:AY:671:MET:HG2	1.85	0.58
35:BA:680:G:H2'	35:BA:681:G:C8	2.39	0.58
35:BA:967:C:O2'	35:BA:968:G:H5'	2.04	0.58
35:BA:1141:U:H5''	45:BN:63:THR:HG23	1.85	0.58
35:BA:1278:A:H5''	49:BR:36:THR:HG22	1.83	0.58
35:BA:2053:G:H1	35:BA:2616:C:H42	1.51	0.58
38:BD:7:LYS:HB3	38:BD:8:PRO:HD2	1.86	0.58
45:BN:89:LYS:O	45:BN:93:THR:HG22	2.03	0.58
52:BU:79:PHE:HE1	52:BU:83:LEU:HD11	1.66	0.58
1:AA:1166:G:H5'	1:AA:1168:A:OP2	2.03	0.58
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.68	0.58
2:AB:95:GLN:HA	2:AB:95:GLN:OE1	2.04	0.58
3:AC:187:ALA:C	3:AC:188:LEU:HD22	2.24	0.58
8:AH:41:ARG:HG2	8:AH:41:ARG:O	2.03	0.58
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.03	0.58
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.39	0.58
11:AK:79:SER:OG	11:AK:106:LYS:HD2	2.03	0.58
13:AM:27:LYS:HE2	13:AM:31:LYS:CE	2.33	0.58
24:AY:343:ASN:HD22	24:AY:345:THR:H	1.49	0.58
24:AY:684:GLN:O	24:AY:688:ILE:HD13	2.03	0.58
27:B2:25:VAL:O	27:B2:27:GLU:N	2.36	0.58
35:BA:64:A:H2'	35:BA:65:C:H6	1.68	0.58
35:BA:1888:G:C5'	35:BA:1888:G:N3	2.66	0.58
35:BA:2820:A:C8	39:BE:191:PRO:CB	2.86	0.58
36:BB:104:U:H6	36:BB:104:U:H5''	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:48:LEU:HD12	37:BC:48:LEU:H	1.67	0.58
37:BC:173:HIS:O	37:BC:174:ALA:HB2	2.03	0.58
37:BC:178:LYS:HG2	37:BC:181:PHE:HE1	1.67	0.58
39:BE:38:THR:HB	39:BE:41:LYS:CG	2.33	0.58
39:BE:69:LYS:HE2	39:BE:69:LYS:H	1.68	0.58
40:BF:109:GLY:HA2	40:BF:112:MET:HB2	1.86	0.58
43:BK:9:LYS:HE2	43:BK:56:GLU:OE2	2.03	0.58
45:BN:19:GLU:O	45:BN:60:ILE:HA	2.04	0.58
45:BN:22:THR:HA	45:BN:61:ARG:O	2.03	0.58
51:BT:89:VAL:HB	51:BT:91:ARG:HE	1.69	0.58
1:AA:174:C:H2'	1:AA:175:C:H6	1.69	0.58
1:AA:177:C:C2	1:AA:178:C:C5	2.92	0.58
1:AA:178:C:C2'	1:AA:179:A:H5'	2.32	0.58
1:AA:427:U:C4	1:AA:428:G:C6	2.91	0.58
1:AA:743:U:H2'	1:AA:744:C:C6	2.38	0.58
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.04	0.58
1:AA:1239:A:H62	1:AA:1299:A:N6	2.00	0.58
1:AA:1452:C:H1'	1:AA:1456:G:C2	2.38	0.58
2:AB:126:GLU:HA	2:AB:129:GLU:CD	2.24	0.58
3:AC:94:LEU:HD12	3:AC:94:LEU:C	2.24	0.58
12:AL:75:HIS:HD2	12:AL:77:LEU:CD1	2.13	0.58
15:AO:74:ASP:C	15:AO:76:GLU:H	2.07	0.58
16:AP:50:LYS:HG2	16:AP:51:VAL:N	2.18	0.58
18:AR:74:ARG:HD3	18:AR:81:PHE:CD1	2.38	0.58
19:AS:43:GLU:CB	19:AS:44:MET:SD	2.88	0.58
22:AV:61:C:H2'	22:AV:62:C:H6	1.68	0.58
24:AY:139:MET:CE	24:AY:146:LEU:HB2	2.33	0.58
24:AY:343:ASN:ND2	24:AY:345:THR:N	2.50	0.58
24:AY:608:VAL:HG13	24:AY:670:VAL:O	2.04	0.58
26:B1:81:LYS:CE	35:BA:271(H):G:H4'	2.30	0.58
29:B4:41:PRO:HA	29:B4:42:PHE:CD1	2.39	0.58
35:BA:648:G:H2'	35:BA:649:G:H8	1.69	0.58
35:BA:709:U:H2'	35:BA:710:G:C8	2.37	0.58
35:BA:886:C:H2'	35:BA:887:A:O4'	2.04	0.58
35:BA:1485:G:H5'	35:BA:1485:G:C8	2.38	0.58
36:BB:81:G:H5'	36:BB:81:G:N3	2.17	0.58
38:BD:176:ARG:HG2	38:BD:176:ARG:NH1	2.11	0.58
38:BD:212:SER:O	38:BD:217:ARG:HB2	2.03	0.58
39:BE:197:ILE:HD11	39:BE:199:ARG:HE	1.69	0.58
45:BN:3:THR:HG22	45:BN:4:TYR:N	2.16	0.58
51:BT:27:THR:O	51:BT:28:VAL:CG2	2.48	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BW:76:VAL:HG13	54:BW:76:VAL:O	2.04	0.58
56:BY:56:PRO:O	56:BY:57:GLN:HB2	2.04	0.58
56:BY:88:LYS:NZ	56:BY:93:GLY:O	2.36	0.58
56:BY:88:LYS:HE2	56:BY:93:GLY:HA3	1.84	0.58
1:AA:714:G:H8	1:AA:714:G:O5'	1.87	0.58
1:AA:1239:A:C2'	1:AA:1298:C:N4	2.66	0.58
1:AA:1313:U:OP2	19:AS:6:LYS:CB	2.52	0.58
1:AA:1346:A:N6	1:AA:1374:A:H3'	2.19	0.58
12:AL:53:ARG:NH1	12:AL:92:ASP:OD2	2.37	0.58
17:AQ:48:GLU:O	17:AQ:50:LYS:N	2.36	0.58
22:AV:28:C:O2	22:AV:43:A:C2	2.57	0.58
24:AY:84:THR:N	24:AY:85:PRO:CD	2.53	0.58
24:AY:138:LYS:HD3	24:AY:141:LYS:CE	2.33	0.58
24:AY:530:VAL:HG22	24:AY:531:GLY:H	1.68	0.58
27:B2:69:ARG:CG	27:B2:70:GLN:H	2.17	0.58
32:B7:46:VAL:CG1	32:B7:47:ARG:N	2.65	0.58
33:B8:39:LYS:HE3	35:BA:2365:G:O6	2.02	0.58
33:B8:61:LEU:CD1	33:B8:62:LEU:H	2.17	0.58
35:BA:286:C:H2'	35:BA:287:C:H6	1.68	0.58
35:BA:419:C:H2'	35:BA:420:C:C6	2.38	0.58
35:BA:492:A:H2'	35:BA:493:G:C5'	2.33	0.58
35:BA:729:G:N7	38:BD:208:LYS:HB2	2.19	0.58
35:BA:737:C:C2'	35:BA:738:G:H5'	2.33	0.58
35:BA:1783:A:C2	35:BA:2587:A:C4	2.91	0.58
35:BA:1899:G:N2	35:BA:1902:C:C4	2.71	0.58
35:BA:2163:C:H2'	35:BA:2164:C:H5'	1.85	0.58
35:BA:2695:C:H2'	35:BA:2696:U:C6	2.39	0.58
36:BB:66:A:N6	36:BB:108:U:H2'	2.18	0.58
38:BD:70:TRP:CD1	38:BD:70:TRP:C	2.76	0.58
38:BD:165:ILE:HD13	38:BD:175:LEU:CD2	2.29	0.58
39:BE:128:SER:OG	39:BE:129:HIS:N	2.34	0.58
39:BE:145:LYS:O	39:BE:148:GLY:N	2.37	0.58
39:BE:163:GLU:HG3	39:BE:164:ARG:N	2.17	0.58
40:BF:7:TYR:CD2	40:BF:16:GLY:HA3	2.29	0.58
40:BF:9:ILE:HG12	40:BF:14:PRO:C	2.24	0.58
40:BF:63:LYS:HG3	40:BF:76:GLY:HA2	1.84	0.58
41:BG:67:LYS:HD3	41:BG:68:PRO:CD	2.33	0.58
41:BG:76:SER:HB3	41:BG:83:ARG:HB3	1.85	0.58
45:BN:24:GLY:HA2	45:BN:27:ALA:HB3	1.86	0.58
47:BP:97:PRO:O	47:BP:98:GLU:CB	2.52	0.58
49:BR:53:HIS:ND1	49:BR:53:HIS:O	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:89:VAL:CB	51:BT:91:ARG:HG3	2.33	0.58
1:AA:680:C:O2'	1:AA:681:C:H5'	2.03	0.58
1:AA:1360:A:H8	1:AA:1360:A:OP1	1.86	0.58
6:AF:43:LEU:H	6:AF:43:LEU:CD1	2.14	0.58
9:AI:58:HIS:C	9:AI:59:PHE:CD1	2.77	0.58
19:AS:10:PHE:HE2	19:AS:37:ARG:O	1.86	0.58
20:AT:33:ILE:O	20:AT:37:SER:OG	2.18	0.58
27:B2:57:ILE:O	27:B2:61:LEU:HD12	2.03	0.58
34:B9:27:CYS:SG	34:B9:29:ASN:ND2	2.77	0.58
35:BA:1220:A:H3'	35:BA:1221:C:H5'	1.85	0.58
35:BA:1568:G:OP2	38:BD:63:ARG:NH2	2.31	0.58
42:BH:16:SER:CB	42:BH:27:LYS:HB2	2.31	0.58
42:BH:19:VAL:O	42:BH:20:ALA:HB2	2.03	0.58
42:BH:30:LYS:N	42:BH:30:LYS:HE2	2.19	0.58
42:BH:170:ARG:HG2	42:BH:170:ARG:HH11	1.69	0.58
43:BK:71:THR:OG1	43:BK:111:LYS:NZ	2.37	0.58
47:BP:39:LYS:HE2	47:BP:40:SER:H	1.69	0.58
48:BQ:27:VAL:H	48:BQ:137:TYR:HD2	1.50	0.58
49:BR:44:LEU:HD13	49:BR:44:LEU:C	2.23	0.58
53:BV:62:LEU:HD22	53:BV:62:LEU:H	1.67	0.58
1:AA:424:G:H2'	1:AA:425:G:H8	1.68	0.58
1:AA:1004:A:H5'	1:AA:1025:U:N3	2.18	0.58
1:AA:1296:C:C6	1:AA:1297:C:H5	2.22	0.58
1:AA:1415:G:H2'	1:AA:1416:G:H8	1.68	0.58
2:AB:75:LYS:HG2	2:AB:78:GLN:HE21	1.68	0.58
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.04	0.58
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.03	0.58
24:AY:418:LYS:HD3	24:AY:418:LYS:N	2.19	0.58
24:AY:485:GLU:HB2	24:AY:560:VAL:HA	1.84	0.58
24:AY:496:LYS:HE2	24:AY:498:ILE:HD13	1.81	0.58
24:AY:554:PRO:HG3	24:AY:594:VAL:CG1	2.33	0.58
35:BA:246:C:H2'	35:BA:247:G:H5'	1.86	0.58
35:BA:267:C:H2'	35:BA:268:C:C6	2.39	0.58
35:BA:486:C:H4'	54:BW:60:ASN:HD21	1.67	0.58
35:BA:797:C:P	40:BF:62:ARG:HG3	2.44	0.58
35:BA:1416:G:HO2'	35:BA:1417:C:H5	1.49	0.58
35:BA:1943:U:H4'	35:BA:1944:U:OP1	2.03	0.58
35:BA:2202:C:H2'	38:BD:151:LYS:NZ	2.18	0.58
37:BC:140:ASN:H	37:BC:145:THR:HB	1.68	0.58
40:BF:26:ALA:O	40:BF:27:GLU:HG3	2.03	0.58
41:BG:32:PRO:HA	41:BG:162:THR:HB	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:41:MET:HG3	42:BH:43:VAL:HG13	1.83	0.58
47:BP:112:LEU:H	47:BP:128:HIS:HD2	1.51	0.58
1:AA:154:C:H2'	1:AA:155:C:C6	2.39	0.58
1:AA:155:C:H2'	1:AA:156:G:H8	1.67	0.58
1:AA:260:G:O2'	1:AA:261:U:H5'	2.03	0.58
1:AA:1065:U:O2'	1:AA:1066:C:P	2.62	0.58
1:AA:1319:A:OP2	19:AS:5:LEU:HD23	2.02	0.58
1:AA:1375:A:H5'	1:AA:1376:U:OP2	2.03	0.58
3:AC:134:ILE:HA	3:AC:137:ALA:HB3	1.86	0.58
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.18	0.58
7:AG:64:GLN:O	7:AG:67:GLU:HB3	2.04	0.58
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.68	0.58
12:AL:119:LYS:CB	12:AL:120:TYR:HD1	2.16	0.58
13:AM:19:LEU:H	13:AM:19:LEU:CD2	2.17	0.58
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.85	0.58
13:AM:116:THR:HG21	22:AV:29:G:C4'	2.33	0.58
15:AO:17:ARG:HD3	15:AO:26:GLU:CG	2.34	0.58
24:AY:8:ASP:HB3	24:AY:11:ARG:HG3	1.86	0.58
24:AY:121:VAL:CG2	24:AY:122:TRP:H	2.16	0.58
26:B1:52:ARG:O	26:B1:53:VAL:HB	2.04	0.58
31:B6:15:GLU:CD	31:B6:44:ARG:NH1	2.57	0.58
34:B9:16:VAL:O	35:BA:1033:U:H5	1.87	0.58
34:B9:29:ASN:O	34:B9:31:LYS:N	2.37	0.58
35:BA:45:C:OP2	35:BA:215:G:H5''	2.04	0.58
35:BA:605:C:H2'	35:BA:606:U:H6	1.68	0.58
35:BA:654(S):G:H3'	35:BA:654(T):C:H5''	1.85	0.58
35:BA:732:C:O2'	35:BA:733:G:H5'	2.03	0.58
35:BA:1150:C:O2'	35:BA:1151:G:H5'	2.04	0.58
35:BA:1930:G:O2'	35:BA:1931:U:P	2.62	0.58
35:BA:2693:A:H2'	35:BA:2694:G:H8	1.68	0.58
40:BF:160:ASN:HD21	40:BF:162:LEU:HD13	1.69	0.58
40:BF:170:LEU:N	40:BF:170:LEU:CD2	2.67	0.58
41:BG:55:LYS:HA	41:BG:58:GLN:HG3	1.85	0.58
43:BK:14:ALA:HA	43:BK:41:PHE:HE2	1.67	0.58
45:BN:133:GLN:HG3	45:BN:135:PRO:HD3	1.85	0.58
53:BV:39:LEU:HA	53:BV:47:VAL:HG11	1.85	0.58
57:BZ:101:PRO:HG2	57:BZ:136:PHE:HA	1.86	0.58
3:AC:40:ARG:HG2	3:AC:55:VAL:HG11	1.85	0.57
4:AD:92:VAL:O	4:AD:96:LEU:HD22	2.04	0.57
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.66	0.57
12:AL:45:PRO:HG3	12:AL:53:ARG:HD3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:74:TRP:CD1	24:AY:273:LEU:HB3	2.39	0.57
30:B5:58:LEU:HD22	30:B5:58:LEU:C	2.24	0.57
35:BA:2656:U:H2'	35:BA:2657:A:H5''	1.86	0.57
37:BC:132:LEU:HB3	37:BC:138:LEU:N	2.19	0.57
38:BD:176:ARG:NH1	38:BD:176:ARG:CB	2.64	0.57
39:BE:168:MET:CE	39:BE:202:LYS:HE2	2.34	0.57
40:BF:84:VAL:O	40:BF:86:GLY:N	2.31	0.57
40:BF:185:ASP:OD1	40:BF:188:ARG:HD3	2.04	0.57
41:BG:107:LEU:HD23	41:BG:111:LEU:CD1	2.34	0.57
42:BH:98:LEU:HD12	42:BH:102:ALA:O	2.04	0.57
45:BN:17:ASP:OD2	45:BN:56:ASN:HB3	2.03	0.57
50:BS:87:PHE:CD2	50:BS:88:ASP:N	2.72	0.57
51:BT:19:LEU:HD13	51:BT:78:LEU:HD22	1.84	0.57
52:BU:97:ASP:C	52:BU:99:ALA:H	2.07	0.57
55:BX:41:ASN:HA	55:BX:44:GLU:HG2	1.86	0.57
56:BY:14:LEU:HD12	56:BY:15:VAL:H	1.67	0.57
56:BY:52:SER:N	56:BY:53:PRO:CD	2.66	0.57
56:BY:61:ILE:HG12	56:BY:62:GLU:N	2.18	0.57
1:AA:191:G:H1'	20:AT:105:SER:HA	1.86	0.57
1:AA:741:G:O2'	1:AA:742:G:H5'	2.03	0.57
1:AA:807:A:H2'	1:AA:808:C:C6	2.38	0.57
1:AA:833:U:H2'	1:AA:834:C:H6	1.68	0.57
1:AA:1225:A:H5''	1:AA:1226:C:OP2	2.02	0.57
2:AB:220:ASP:O	2:AB:223:ILE:HG13	2.03	0.57
4:AD:104:VAL:HG21	4:AD:140:VAL:HG21	1.86	0.57
7:AG:75:VAL:HG21	7:AG:144:MET:HB3	1.84	0.57
10:AJ:3:LYS:N	10:AJ:75:ILE:O	2.37	0.57
10:AJ:32:ALA:N	10:AJ:78:ASN:HD21	2.02	0.57
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.87	0.57
26:B1:57:GLU:HG2	26:B1:58:ILE:N	2.19	0.57
33:B8:23:VAL:CG1	33:B8:46:ARG:HD3	2.34	0.57
35:BA:272(I):U:O2	35:BA:272(I):U:H3'	2.03	0.57
35:BA:967:C:C2'	35:BA:968:G:H5'	2.34	0.57
35:BA:1814:G:H4'	38:BD:51:VAL:HG21	1.86	0.57
35:BA:2230:G:H2'	35:BA:2231:C:H6	1.69	0.57
41:BG:46:ALA:HA	41:BG:51:ARG:CB	2.34	0.57
41:BG:164:GLU:O	41:BG:165:THR:HG23	2.04	0.57
42:BH:89:ILE:O	42:BH:89:ILE:CG1	2.52	0.57
43:BK:75:SER:C	43:BK:78:ILE:HG22	2.24	0.57
43:BK:112:MET:HG3	43:BK:113:PRO:CD	2.33	0.57
48:BQ:41:TRP:HE1	48:BQ:96:VAL:HG22	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:72:VAL:HG23	53:BV:85:LYS:HB2	1.85	0.57
53:BV:98:GLU:HG2	53:BV:99:ILE:N	2.17	0.57
57:BZ:4:ARG:NH1	57:BZ:66:SER:HB2	2.16	0.57
57:BZ:58:VAL:HA	57:BZ:67:LEU:O	2.04	0.57
1:AA:499:A:O2'	1:AA:500:G:C8	2.56	0.57
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.03	0.57
1:AA:631:G:C2'	1:AA:632:A:C8	2.86	0.57
1:AA:745:C:H2'	1:AA:746:A:C8	2.39	0.57
1:AA:973:G:C1'	10:AJ:55:LYS:CE	2.82	0.57
1:AA:1128:C:C2'	1:AA:1129:C:C5'	2.74	0.57
5:AE:136:MET:O	5:AE:138:ALA:N	2.38	0.57
7:AG:43:PHE:O	7:AG:46:ALA:HB3	2.03	0.57
8:AH:124:ALA:HB1	8:AH:129:VAL:HG22	1.85	0.57
9:AI:126:SER:O	9:AI:128:ARG:N	2.37	0.57
12:AL:75:HIS:NE2	12:AL:77:LEU:HB2	2.19	0.57
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.24	0.57
16:AP:60:LEU:HD21	16:AP:66:PRO:HD3	1.86	0.57
16:AP:74:LEU:HD23	16:AP:79:VAL:HG21	1.86	0.57
19:AS:10:PHE:CZ	19:AS:70:LYS:HE2	2.39	0.57
28:B3:40:THR:OG1	28:B3:43:ILE:HG12	2.04	0.57
34:B9:1:MET:N	34:B9:1:MET:SD	2.74	0.57
34:B9:34:GLN:O	34:B9:35:ARG:CB	2.53	0.57
35:BA:654(N):G:H2'	35:BA:654(O):G:H5'	1.85	0.57
35:BA:1063:G:O2'	43:BK:87:GLY:HA3	2.04	0.57
35:BA:1105:U:H2'	35:BA:1106:G:O4'	2.03	0.57
35:BA:2001:A:H2'	35:BA:2002:G:O4'	2.04	0.57
35:BA:2260:C:H6	35:BA:2260:C:O5'	1.87	0.57
35:BA:2296:U:C4'	35:BA:2297:C:OP1	2.46	0.57
35:BA:2691:C:H6	35:BA:2691:C:H5'	1.69	0.57
35:BA:2713:A:H3'	35:BA:2714:G:H5'	1.85	0.57
40:BF:8:GLN:HG2	40:BF:126:VAL:HG12	1.85	0.57
42:BH:30:LYS:CD	42:BH:81:GLU:HG2	2.32	0.57
42:BH:46:GLU:CD	42:BH:51:ARG:HB2	2.24	0.57
47:BP:102:ARG:HB3	47:BP:102:ARG:NH1	2.19	0.57
49:BR:30:THR:OG1	49:BR:75:LEU:HD21	2.04	0.57
49:BR:76:VAL:O	49:BR:79:LEU:HB3	2.05	0.57
53:BV:15:GLU:HB3	53:BV:16:PRO:CD	2.33	0.57
55:BX:27:THR:HB	55:BX:80:ILE:CG2	2.29	0.57
56:BY:37:VAL:HG23	56:BY:38:ILE:N	2.19	0.57
1:AA:300:A:H2'	1:AA:301:G:H5'	1.86	0.57
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:72:LYS:HE3	3:AC:72:LYS:C	2.23	0.57
3:AC:136:GLN:HG3	3:AC:139:GLN:HB3	1.86	0.57
5:AE:76:ILE:HG22	5:AE:118:ILE:HD13	1.86	0.57
12:AL:86:ARG:HG2	12:AL:86:ARG:O	2.03	0.57
24:AY:573:HIS:HD2	24:AY:576:ASP:H	1.52	0.57
30:B5:19:ARG:HA	35:BA:2046:G:H5'	1.85	0.57
33:B8:13:ARG:HB3	47:BP:63:PRO:HB3	1.85	0.57
35:BA:1380:G:O2'	35:BA:1381:G:H5'	2.04	0.57
35:BA:1839:G:H2'	35:BA:1839:G:N3	2.17	0.57
35:BA:2397:G:H2'	35:BA:2398:U:H6	1.68	0.57
35:BA:2840:C:H2'	35:BA:2841:C:C6	2.39	0.57
39:BE:38:THR:HG22	39:BE:40:GLU:N	2.18	0.57
39:BE:183:LEU:N	39:BE:183:LEU:CD1	2.67	0.57
40:BF:125:LEU:HD23	40:BF:125:LEU:H	1.69	0.57
42:BH:89:ILE:HG23	42:BH:129:THR:O	2.05	0.57
45:BN:133:GLN:HE21	45:BN:135:PRO:HG2	1.70	0.57
46:BO:69:ILE:N	46:BO:69:ILE:CD1	2.64	0.57
46:BO:71:ARG:HB2	46:BO:75:SER:OG	2.03	0.57
47:BP:91:PHE:HZ	47:BP:100:LEU:HD11	1.70	0.57
48:BQ:63:LYS:NZ	57:BZ:175:VAL:HG21	2.20	0.57
1:AA:505:G:H5'	1:AA:534:U:H2'	1.86	0.57
1:AA:1324:A:H2'	1:AA:1325:C:C6	2.39	0.57
24:AY:400:GLU:HG2	24:AY:401:SER:N	2.18	0.57
24:AY:491:VAL:HG11	24:AY:596:LYS:HD3	1.86	0.57
26:B1:53:VAL:CG1	26:B1:54:ALA:N	2.68	0.57
35:BA:958:U:H5'	48:BQ:14:ARG:HH11	1.69	0.57
35:BA:1187:G:H5''	53:BV:81:TYR:CE2	2.39	0.57
35:BA:1404:C:O2'	35:BA:1405:U:H5'	2.05	0.57
35:BA:1775:U:H2'	35:BA:1776:G:H5'	1.87	0.57
35:BA:2011:U:H2'	35:BA:2012:G:H5'	1.86	0.57
35:BA:2550:G:C6	35:BA:2551:C:N4	2.72	0.57
35:BA:2815:C:H2'	35:BA:2816:C:H6	1.69	0.57
36:BB:68:C:O2'	36:BB:69:G:H5'	2.03	0.57
39:BE:101:ARG:NH1	39:BE:169:ASN:ND2	2.52	0.57
1:AA:630:G:C2'	1:AA:631:G:C5'	2.83	0.57
1:AA:861:G:O2'	1:AA:862:C:H5'	2.04	0.57
1:AA:1226:C:C5	13:AM:104:ARG:HB2	2.40	0.57
1:AA:1354:C:H2'	1:AA:1355:G:H8	1.70	0.57
4:AD:3:ARG:HG2	4:AD:3:ARG:HH11	1.69	0.57
4:AD:129:ASN:HD21	4:AD:145:GLU:N	1.95	0.57
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:99:SER:C	17:AQ:100:LYS:HG3	2.23	0.57
18:AR:79:LEU:HD22	18:AR:80:PRO:HD2	1.86	0.57
27:B2:25:VAL:C	27:B2:27:GLU:N	2.57	0.57
29:B4:37:SER:O	29:B4:38:LYS:HB2	2.04	0.57
35:BA:285:C:O2'	35:BA:286:C:H5''	2.05	0.57
35:BA:342:G:O2'	35:BA:343:C:H5'	2.04	0.57
35:BA:481:G:OP2	56:BY:47:LYS:HD3	2.04	0.57
35:BA:493:G:H2'	35:BA:494:G:O4'	2.04	0.57
35:BA:1047:G:HO2'	35:BA:1110:G:H1	1.52	0.57
35:BA:1102:C:H2'	35:BA:1103:A:C8	2.39	0.57
35:BA:2200:C:H42	35:BA:2223:G:H1	1.53	0.57
35:BA:2552:U:H2'	35:BA:2554:U:H5''	1.86	0.57
35:BA:2807:G:H3'	35:BA:2808:U:C5'	2.31	0.57
37:BC:46:ALA:HA	37:BC:212:SER:O	2.04	0.57
39:BE:31:CYS:HB3	39:BE:49:LEU:HB3	1.85	0.57
39:BE:177:PRO:HG2	39:BE:178:GLU:N	2.18	0.57
41:BG:39:ILE:CG1	41:BG:92:VAL:HG22	2.35	0.57
41:BG:91:ARG:HD2	41:BG:92:VAL:N	2.19	0.57
43:BK:10:LEU:HD12	43:BK:57:ILE:CD1	2.35	0.57
45:BN:32:THR:HG23	45:BN:37:LYS:HB3	1.87	0.57
48:BQ:33:GLY:O	48:BQ:131:ILE:HA	2.03	0.57
48:BQ:69:PHE:HD1	48:BQ:70:PRO:HD2	1.67	0.57
51:BT:85:LYS:HB3	51:BT:85:LYS:HZ2	1.68	0.57
53:BV:18:LEU:CD2	53:BV:19:LYS:N	2.30	0.57
54:BW:9:TYR:H	54:BW:102:HIS:CD2	2.17	0.57
57:BZ:145:GLU:O	57:BZ:146:ILE:C	2.43	0.57
1:AA:243:A:C2	1:AA:246:A:C8	2.93	0.57
1:AA:1415:G:H2'	1:AA:1416:G:C8	2.40	0.57
1:AA:1456:G:C2'	1:AA:1457:G:H5'	2.34	0.57
3:AC:3:ASN:O	3:AC:4:LYS:HB2	2.04	0.57
3:AC:131:ARG:NH2	3:AC:168:ALA:HB2	2.19	0.57
4:AD:8:VAL:HB	4:AD:21:LEU:CD1	2.34	0.57
13:AM:119:GLY:O	13:AM:120:LYS:HB2	2.03	0.57
17:AQ:12:SER:HB3	17:AQ:20:THR:CB	2.35	0.57
24:AY:628:ARG:HG2	24:AY:628:ARG:NH1	2.20	0.57
24:AY:679:VAL:CG2	24:AY:684:GLN:NE2	2.68	0.57
29:B4:10:VAL:N	29:B4:26:SER:O	2.38	0.57
29:B4:26:SER:HB3	41:BG:105:LYS:NZ	2.20	0.57
33:B8:23:VAL:HG11	33:B8:46:ARG:HD3	1.86	0.57
35:BA:1638:C:H2'	35:BA:1639:U:O4'	2.05	0.57
35:BA:2787:C:H1'	39:BE:61:ARG:CG	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:89:G:C6	36:BB:90:A:C2	2.93	0.57
37:BC:37:LYS:O	37:BC:38:PHE:HB3	2.04	0.57
41:BG:82:LEU:CD1	41:BG:87:PRO:HB3	2.33	0.57
42:BH:159:GLU:O	42:BH:160:LYS:O	2.22	0.57
42:BH:175:LYS:O	42:BH:176:ALA:HB3	2.04	0.57
46:BO:61:VAL:HG21	46:BO:111:PHE:CE2	2.39	0.57
48:BQ:2:LEU:HG	48:BQ:69:PHE:CE1	2.38	0.57
50:BS:54:LEU:O	50:BS:54:LEU:HD13	2.05	0.57
53:BV:28:GLU:OE1	53:BV:31:ALA:HB2	2.05	0.57
57:BZ:3:TYR:CD2	57:BZ:51:ALA:HB2	2.39	0.57
1:AA:8:A:C6	4:AD:209:ARG:HB2	2.39	0.57
1:AA:793:U:C3'	1:AA:794:A:H5''	2.21	0.57
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.40	0.57
9:AI:54:ASP:O	9:AI:56:LEU:N	2.36	0.57
13:AM:11:ARG:O	13:AM:13:LYS:N	2.38	0.57
13:AM:66:LEU:HD12	13:AM:66:LEU:N	2.19	0.57
13:AM:74:VAL:HA	13:AM:77:ASN:HD22	1.69	0.57
15:AO:39:LEU:HD22	15:AO:43:LEU:HG	1.86	0.57
26:B1:64:ALA:C	26:B1:66:HIS:H	2.07	0.57
27:B2:57:ILE:O	27:B2:61:LEU:HB2	2.05	0.57
32:B7:24:THR:C	32:B7:26:GLY:H	2.08	0.57
35:BA:1053:C:H3'	35:BA:1054:A:H5''	1.86	0.57
35:BA:1173:G:H5'	35:BA:1174:A:O5'	2.04	0.57
35:BA:2552:U:C2	35:BA:2554:U:H5'	2.39	0.57
41:BG:61:ALA:O	41:BG:65:GLY:N	2.35	0.57
46:BO:103:ALA:O	46:BO:106:LEU:HG	2.04	0.57
48:BQ:25:ASP:HA	48:BQ:100:GLY:O	2.05	0.57
50:BS:74:ALA:CB	50:BS:101:LEU:HD22	2.34	0.57
51:BT:46:GLU:O	51:BT:65:LYS:HD2	2.04	0.57
51:BT:92:GLY:C	51:BT:94:ALA:N	2.56	0.57
52:BU:79:PHE:O	52:BU:83:LEU:HD13	2.04	0.57
57:BZ:100:VAL:CG2	57:BZ:126:VAL:HG22	2.35	0.57
1:AA:552:U:H4'	12:AL:86:ARG:CG	2.35	0.57
1:AA:969:A:N1	1:AA:970:C:C2	2.73	0.57
1:AA:1328:C:H2'	1:AA:1329:A:H8	1.70	0.57
12:AL:17:LYS:HD3	12:AL:18:VAL:HG22	1.87	0.57
13:AM:52:GLU:HA	13:AM:55:ARG:HD3	1.85	0.57
23:AX:17:U:O2'	23:AX:18:G:H5'	2.04	0.57
24:AY:546:ILE:CG2	24:AY:590:ILE:HG13	2.25	0.57
24:AY:644:ARG:O	24:AY:645:ALA:HB2	2.04	0.57
25:B0:14:ARG:HB2	25:B0:14:ARG:HH11	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:784:A:H5''	38:BD:227:ASN:HD21	1.70	0.57
35:BA:1320:C:H2'	35:BA:1329:U:OP2	2.04	0.57
35:BA:1505:C:C5	35:BA:1506:C:H1'	2.40	0.57
35:BA:1517:G:H5'	35:BA:1517:G:H8	1.69	0.57
35:BA:2182:G:H2'	35:BA:2183:C:C6	2.39	0.57
35:BA:2801(A):A:H4'	35:BA:2802:G:H8	1.67	0.57
40:BF:154:VAL:HG13	40:BF:191:ARG:O	2.05	0.57
46:BO:47:ILE:O	46:BO:48:PRO:O	2.22	0.57
46:BO:52:VAL:O	46:BO:53:LYS:HG3	2.05	0.57
50:BS:42:ASP:C	50:BS:44:LYS:H	2.08	0.57
51:BT:35:LYS:HD3	51:BT:41:ARG:NH1	2.19	0.57
57:BZ:175:VAL:HB	57:BZ:176:PRO:HD2	1.87	0.57
1:AA:642:A:C5	1:AA:643:C:C5	2.92	0.57
1:AA:1100:C:C2'	1:AA:1101:A:H5''	2.23	0.57
3:AC:20:SER:HA	3:AC:57:ILE:O	2.05	0.57
4:AD:121:VAL:CA	4:AD:126:ILE:HD13	2.31	0.57
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.86	0.57
8:AH:26:VAL:HG23	8:AH:27:PRO:HD2	1.86	0.57
9:AI:114:TYR:CD2	10:AJ:60:ARG:HG3	2.40	0.57
19:AS:40:ILE:HG12	19:AS:71:LEU:HD23	1.87	0.57
20:AT:30:LYS:HZ1	20:AT:34:LYS:HE2	1.69	0.57
24:AY:273:LEU:O	24:AY:276:VAL:HB	2.04	0.57
26:B1:43:TYR:N	26:B1:43:TYR:CD1	2.72	0.57
28:B3:29:ARG:HH11	28:B3:29:ARG:CB	2.16	0.57
35:BA:204:A:H8	35:BA:204:A:OP1	1.87	0.57
35:BA:205:G:O2'	35:BA:206:U:OP2	2.23	0.57
35:BA:234:C:H2'	35:BA:235:U:C6	2.39	0.57
35:BA:271(F):C:O2'	35:BA:271(G):C:H5''	2.05	0.57
35:BA:1053:C:C2'	35:BA:1054:A:H5''	2.35	0.57
35:BA:1064:C:H4'	43:BK:89:HIS:CD2	2.39	0.57
35:BA:1271:G:N2	35:BA:1617:C:H1'	2.19	0.57
35:BA:1291:C:H5'	35:BA:1534:U:O2'	2.04	0.57
35:BA:2103:C:H42	35:BA:2186:G:H1	1.52	0.57
35:BA:2107:C:H42	35:BA:2182:G:H1	1.52	0.57
35:BA:2334:G:C4	50:BS:15:ARG:HD3	2.40	0.57
35:BA:2521:C:O2	35:BA:2521:C:H2'	2.03	0.57
39:BE:8:LYS:O	39:BE:193:GLY:N	2.36	0.57
39:BE:70:ALA:O	39:BE:71:GLY:C	2.43	0.57
45:BN:73:THR:CG2	45:BN:82:LEU:HD11	2.34	0.57
45:BN:99:LEU:HD13	45:BN:103:VAL:HG23	1.87	0.57
50:BS:89:ARG:O	50:BS:92:TYR:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:83:ILE:CG1	51:BT:84:GLN:H	2.18	0.57
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.70	0.56
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.88	0.56
2:AB:233:SER:CB	2:AB:234:PRO:HD2	2.34	0.56
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.68	0.56
6:AF:60:PHE:CE2	18:AR:78:LEU:HD21	2.40	0.56
8:AH:126:LYS:HG2	8:AH:127:LEU:HD22	1.86	0.56
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.40	0.56
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.20	0.56
17:AQ:60:ILE:C	17:AQ:71:PHE:HD2	2.08	0.56
24:AY:122:TRP:C	24:AY:124:GLN:H	2.07	0.56
26:B1:3:LYS:HG3	26:B1:4:VAL:H	1.68	0.56
29:B4:2:LYS:CB	36:BB:40:U:O4	2.53	0.56
35:BA:175:G:O2'	35:BA:176:G:H5'	2.05	0.56
35:BA:760:G:C2'	35:BA:761:A:H5'	2.35	0.56
35:BA:1381:G:N2	35:BA:1382:G:H1'	2.21	0.56
35:BA:1591:G:C6	35:BA:1592:C:N4	2.73	0.56
35:BA:1827:C:C2'	35:BA:1828:G:C5'	2.81	0.56
35:BA:2373:G:O2'	35:BA:2374:C:H5'	2.05	0.56
39:BE:48:GLN:NE2	39:BE:78:LEU:HD22	2.19	0.56
39:BE:95:ILE:HD13	39:BE:95:ILE:H	1.69	0.56
40:BF:192:LEU:HD23	40:BF:192:LEU:C	2.25	0.56
54:BW:31:GLU:O	54:BW:35:ILE:HG12	2.05	0.56
56:BY:14:LEU:HD12	56:BY:15:VAL:N	2.20	0.56
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.23	0.56
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.32	0.56
3:AC:22:TRP:CH2	3:AC:32:LEU:HB2	2.40	0.56
10:AJ:8:LEU:HB2	10:AJ:70:ARG:O	2.04	0.56
10:AJ:55:LYS:HE3	10:AJ:55:LYS:N	2.20	0.56
11:AK:124:LYS:CD	11:AK:125:PHE:HE1	2.18	0.56
24:AY:485:GLU:OE1	24:AY:555:LEU:HB2	2.05	0.56
24:AY:514:VAL:HG21	24:AY:593:ALA:HB1	1.86	0.56
30:B5:34:PRO:HG3	35:BA:2885:C:O2'	2.05	0.56
30:B5:48:GLU:O	30:B5:49:CYS:CB	2.51	0.56
31:B6:11:LEU:HD12	31:B6:25:LYS:HA	1.87	0.56
31:B6:15:GLU:CD	31:B6:44:ARG:NH2	2.58	0.56
35:BA:772:C:O2'	35:BA:773:U:H5'	2.05	0.56
35:BA:1100:C:O2	35:BA:1100:C:H2'	2.04	0.56
35:BA:2466:C:O2'	35:BA:2467:C:H5'	2.04	0.56
36:BB:88:C:O2	36:BB:89:G:N7	2.38	0.56
37:BC:174:ALA:HB3	37:BC:193:PHE:CZ	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:131:LEU:HD12	38:BD:131:LEU:H	1.65	0.56
39:BE:47:VAL:CG1	39:BE:48:GLN:H	2.18	0.56
39:BE:101:ARG:HH11	39:BE:169:ASN:ND2	2.02	0.56
40:BF:7:TYR:HA	40:BF:125:LEU:HG	1.87	0.56
46:BO:47:ILE:HG22	46:BO:48:PRO:HD2	1.86	0.56
50:BS:12:PHE:C	50:BS:12:PHE:CD1	2.79	0.56
50:BS:42:ASP:C	50:BS:43:GLU:HG3	2.25	0.56
50:BS:98:VAL:CG1	50:BS:100:ALA:HB2	2.35	0.56
51:BT:83:ILE:CG1	51:BT:84:GLN:N	2.67	0.56
53:BV:4:ILE:HA	53:BV:12:TYR:O	2.03	0.56
54:BW:88:ARG:HB3	54:BW:92:ARG:HB3	1.86	0.56
57:BZ:9:TYR:CD2	57:BZ:35:ARG:NH1	2.70	0.56
1:AA:96:U:O2'	1:AA:97:G:H8	1.89	0.56
1:AA:191:G:C4	20:AT:105:SER:HB3	2.39	0.56
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.40	0.56
1:AA:748:C:O2'	1:AA:749:C:H6	1.87	0.56
1:AA:821:G:O2'	1:AA:822:C:H5'	2.05	0.56
1:AA:953:G:O6	1:AA:1228:C:N4	2.38	0.56
1:AA:1402:C:O2	1:AA:1500:A:N1	2.38	0.56
2:AB:73:THR:O	2:AB:78:GLN:HG2	2.06	0.56
2:AB:80:ILE:H	2:AB:80:ILE:HD12	1.68	0.56
2:AB:98:LEU:O	2:AB:101:MET:HB2	2.05	0.56
3:AC:123:GLN:HB3	3:AC:128:PHE:CD2	2.40	0.56
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.15	0.56
5:AE:60:TYR:CE1	5:AE:64:ARG:NH2	2.62	0.56
8:AH:6:ILE:O	8:AH:9:MET:N	2.38	0.56
19:AS:50:ALA:O	19:AS:51:VAL:C	2.44	0.56
24:AY:160:ARG:HB3	24:AY:254:LYS:O	2.06	0.56
24:AY:509:HIS:C	24:AY:509:HIS:ND1	2.57	0.56
24:AY:606:MET:SD	24:AY:673:PHE:HA	2.45	0.56
25:B0:40:GLN:HE22	25:B0:43:THR:HA	1.65	0.56
26:B1:4:VAL:HG23	26:B1:10:LYS:C	2.25	0.56
32:B7:33:ARG:NH1	35:BA:467:G:OP1	2.38	0.56
32:B7:35:ARG:HG2	32:B7:35:ARG:NH1	2.16	0.56
34:B9:17:ILE:HG21	34:B9:19:ARG:NH2	2.17	0.56
35:BA:139:G:H2'	35:BA:140:G:N7	2.21	0.56
35:BA:205:G:HO2'	35:BA:206:U:P	2.28	0.56
35:BA:363(A):A:O2'	35:BA:363(B):G:H5'	2.05	0.56
35:BA:733:G:O5'	35:BA:733:G:C8	2.52	0.56
35:BA:1329:U:H5'	35:BA:1330:C:H5	1.68	0.56
35:BA:2030:A:H4'	35:BA:2031:A:H8	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2223:G:H2'	35:BA:2224:G:H5'	1.86	0.56
35:BA:2655:G:HO2'	35:BA:2664:G:H1	1.54	0.56
37:BC:212:SER:HG	37:BC:214:TYR:HE1	1.53	0.56
38:BD:43:ARG:CD	38:BD:44:ASN:OD1	2.53	0.56
40:BF:46:ARG:HH11	40:BF:46:ARG:HG3	1.69	0.56
41:BG:108:ASN:O	41:BG:109:VAL:HG23	2.05	0.56
43:BK:99:ILE:HD13	43:BK:103:GLN:OE1	2.05	0.56
47:BP:16:ARG:CD	47:BP:18:ARG:H	2.17	0.56
48:BQ:62:GLY:HA2	57:BZ:116:VAL:HG21	1.86	0.56
49:BR:18:LEU:HD21	49:BR:22:ARG:NE	2.21	0.56
49:BR:117:VAL:CG1	49:BR:118:GLU:N	2.69	0.56
50:BS:73:LEU:O	50:BS:73:LEU:HD23	2.06	0.56
50:BS:92:TYR:CG	50:BS:93:LYS:N	2.73	0.56
50:BS:104:GLY:C	50:BS:106:ARG:H	2.08	0.56
56:BY:97:ARG:HG2	56:BY:98:VAL:HG23	1.88	0.56
57:BZ:71:VAL:HG13	57:BZ:86:VAL:CG1	2.35	0.56
57:BZ:79:ARG:O	57:BZ:80:ARG:CB	2.53	0.56
1:AA:41:G:H2'	1:AA:42:G:H8	1.71	0.56
1:AA:183:G:H2'	1:AA:184:G:H8	1.70	0.56
1:AA:689:C:P	11:AK:46:GLY:HA3	2.45	0.56
1:AA:1294:G:C2'	1:AA:1295:G:H5'	2.36	0.56
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.23	0.56
5:AE:33:VAL:CG1	5:AE:34:VAL:N	2.69	0.56
9:AI:60:ASP:O	9:AI:61:ALA:C	2.43	0.56
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.04	0.56
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.05	0.56
20:AT:73:HIS:H	20:AT:76:ALA:CB	2.19	0.56
24:AY:427:ALA:HB1	24:AY:466:LEU:CD1	2.29	0.56
24:AY:503:GLY:C	24:AY:505:GLY:H	2.08	0.56
31:B6:35:GLU:OE1	31:B6:35:GLU:HA	2.06	0.56
35:BA:11:G:H22	35:BA:2628:C:P	2.29	0.56
35:BA:177:G:H3'	35:BA:178:G:C8	2.38	0.56
35:BA:338:G:H2'	35:BA:339:U:C6	2.40	0.56
35:BA:583:G:OP2	52:BU:10:ARG:HD2	2.05	0.56
35:BA:598:G:H5'	47:BP:15:ARG:HB2	1.86	0.56
35:BA:1142(A):A:H2'	35:BA:1143:A:C5'	2.31	0.56
35:BA:1297:C:H2'	35:BA:1298:C:H6	1.70	0.56
35:BA:1336:A:O2'	35:BA:1337:G:H5'	2.05	0.56
35:BA:1345:C:H42	35:BA:1601:G:H1	1.54	0.56
35:BA:2295:C:H2'	35:BA:2296:U:H6	1.69	0.56
40:BF:157:VAL:HG22	40:BF:194:MET:HA	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:16:ARG:HH11	41:BG:16:ARG:HG3	1.71	0.56
41:BG:56:ALA:CA	41:BG:59:GLU:OE1	2.52	0.56
42:BH:40:GLU:O	42:BH:41:MET:HB2	2.06	0.56
47:BP:33:ARG:O	47:BP:34:GLY:C	2.44	0.56
51:BT:28:VAL:HG22	51:BT:47:GLY:H	1.70	0.56
54:BW:37:ARG:HG3	54:BW:37:ARG:HH11	1.68	0.56
1:AA:1226:C:H5'	13:AM:96:LEU:HD13	1.87	0.56
1:AA:1308:U:H5''	13:AM:98:VAL:HG23	1.87	0.56
2:AB:153:ARG:C	2:AB:155:LEU:N	2.59	0.56
5:AE:139:LEU:C	5:AE:141:GLN:H	2.09	0.56
8:AH:63:LEU:HD22	8:AH:63:LEU:N	2.20	0.56
10:AJ:4:ILE:HB	10:AJ:74:ILE:CG1	2.36	0.56
19:AS:62:ILE:O	19:AS:62:ILE:HG13	2.05	0.56
26:B1:29:GLY:C	26:B1:31:GLY:H	2.09	0.56
35:BA:279:C:H3'	35:BA:280:C:H5''	1.84	0.56
35:BA:285:C:H2'	35:BA:286:C:H5'	1.87	0.56
35:BA:389:G:N1	47:BP:71:VAL:HG12	2.21	0.56
35:BA:409:C:O2'	35:BA:410:G:H5'	2.05	0.56
35:BA:883:G:O2'	35:BA:884:C:H5'	2.05	0.56
35:BA:892:G:H2'	35:BA:893:C:H6	1.70	0.56
35:BA:892:G:H2'	35:BA:893:C:C6	2.40	0.56
35:BA:1272:A:OP2	35:BA:1647:G:OP1	2.24	0.56
35:BA:1529:G:C2	35:BA:1541:G:N2	2.73	0.56
35:BA:1567:A:H2'	38:BD:84:TYR:CE1	2.38	0.56
35:BA:1656:C:O2'	35:BA:1657:C:H5'	2.05	0.56
35:BA:2175:C:H1'	37:BC:218:THR:O	2.05	0.56
35:BA:2774:C:H2'	35:BA:2775:A:O4'	2.04	0.56
37:BC:71:LYS:HG2	37:BC:72:GLN:N	2.20	0.56
38:BD:39:LYS:HZ2	38:BD:87:ASN:HB3	1.69	0.56
41:BG:56:ALA:HB2	41:BG:153:ARG:NH2	2.21	0.56
51:BT:107:ASP:CG	51:BT:108:ARG:N	2.54	0.56
1:AA:189(A):C:H2'	1:AA:189(B):C:H6	1.69	0.56
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.41	0.56
1:AA:812:C:O2'	1:AA:813:U:OP2	2.17	0.56
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.41	0.56
2:AB:95:GLN:HE21	2:AB:147:LYS:HE3	1.70	0.56
2:AB:145:LEU:O	2:AB:149:LEU:HB2	2.05	0.56
4:AD:30:LYS:C	4:AD:32:ALA:N	2.58	0.56
4:AD:189:PRO:HB2	4:AD:194:LEU:CD2	2.35	0.56
5:AE:11:ILE:HG22	5:AE:12:LEU:H	1.70	0.56
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:33:THR:HA	11:AK:40:ILE:HG12	1.87	0.56
12:AL:46:LYS:HZ3	12:AL:94:PRO:HG3	1.71	0.56
12:AL:117:ARG:HH22	12:AL:124:LYS:HB2	1.69	0.56
15:AO:31:LEU:N	15:AO:31:LEU:HD22	2.21	0.56
24:AY:651:GLU:OE1	24:AY:651:GLU:HA	2.06	0.56
24:AY:681:LYS:HA	24:AY:684:GLN:HB2	1.88	0.56
27:B2:24:LEU:O	27:B2:27:GLU:HB2	2.05	0.56
28:B3:54:VAL:CG1	28:B3:55:ARG:N	2.69	0.56
30:B5:36:CYS:SG	30:B5:49:CYS:HB3	2.46	0.56
32:B7:19:ARG:HD3	35:BA:125:G:H5'	1.88	0.56
35:BA:1141:U:H6	45:BN:63:THR:HG21	1.71	0.56
35:BA:1495:A:H2'	35:BA:1496:A:N3	2.21	0.56
35:BA:1654:A:C2	39:BE:113:PHE:HD2	2.24	0.56
35:BA:2110:G:HO2'	35:BA:2120:G:H5'	1.70	0.56
35:BA:2712:U:H1'	35:BA:2712(A):A:C8	2.41	0.56
35:BA:2754:U:H2'	35:BA:2755:C:H5'	1.88	0.56
37:BC:185:LYS:HA	37:BC:185:LYS:HE3	1.87	0.56
38:BD:183:ARG:HD2	38:BD:270:ILE:HG23	1.87	0.56
41:BG:135:LEU:HD11	41:BG:155:MET:CG	2.34	0.56
47:BP:75:ILE:CD1	47:BP:75:ILE:H	2.17	0.56
49:BR:87:TYR:C	49:BR:89:ASP:H	2.09	0.56
49:BR:97:VAL:O	49:BR:98:LEU:HD23	2.05	0.56
50:BS:99:LYS:O	50:BS:101:LEU:N	2.39	0.56
52:BU:49:HIS:C	52:BU:52:ARG:HB2	2.26	0.56
1:AA:27:G:H8	1:AA:27:G:O5'	1.89	0.56
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.36	0.56
4:AD:58:LEU:HD23	4:AD:62:GLN:HG2	1.87	0.56
10:AJ:18:ALA:C	10:AJ:20:ALA:H	2.08	0.56
19:AS:42:PRO:O	29:B4:49:PHE:HZ	1.89	0.56
19:AS:64:GLU:O	29:B4:48:ARG:NH2	2.38	0.56
20:AT:93:GLU:C	20:AT:95:ALA:H	2.08	0.56
24:AY:67:ALA:HB1	24:AY:327:PHE:HZ	1.64	0.56
24:AY:181:LEU:HD11	24:AY:242:LEU:HD13	1.86	0.56
33:B8:50:LEU:HG	33:B8:51:ALA:N	2.21	0.56
35:BA:143:G:H4'	55:BX:35:THR:HG21	1.88	0.56
35:BA:333:G:H2'	35:BA:333:G:N3	2.21	0.56
35:BA:708:C:H42	35:BA:723:G:H1	1.53	0.56
35:BA:904:C:H5'	35:BA:904:C:H6	1.70	0.56
35:BA:1169:G:C2	35:BA:1181:C:N3	2.74	0.56
35:BA:1400:G:H2'	35:BA:1401:G:C8	2.40	0.56
35:BA:2134:A:H1'	35:BA:2158:A:C2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:186:HIS:HD2	38:BD:188:GLU:H	1.54	0.56
40:BF:114:VAL:HG21	40:BF:202:PHE:CZ	2.40	0.56
41:BG:34:LEU:HD13	41:BG:99:MET:CE	2.34	0.56
42:BH:40:GLU:HG3	42:BH:64:LEU:HD12	1.88	0.56
42:BH:86:GLU:HB2	42:BH:132:ARG:HB3	1.87	0.56
47:BP:7:ARG:O	47:BP:10:PRO:HD2	2.06	0.56
51:BT:118:ARG:HA	51:BT:121:ILE:HB	1.86	0.56
55:BX:12:VAL:CG1	55:BX:27:THR:O	2.46	0.56
1:AA:254:G:O2'	1:AA:255:G:H5'	2.05	0.56
1:AA:759:A:C2'	1:AA:760:G:H5'	2.35	0.56
1:AA:1015:A:H2'	1:AA:1016:A:O4'	2.06	0.56
1:AA:1296:C:C5'	1:AA:1297:C:OP2	2.51	0.56
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.05	0.56
13:AM:77:ASN:O	13:AM:80:ARG:N	2.37	0.56
17:AQ:45:HIS:HB2	17:AQ:65:ILE:CD1	2.35	0.56
24:AY:170:ARG:C	24:AY:171:GLU:HG2	2.26	0.56
24:AY:630:GLN:HG2	24:AY:630:GLN:O	2.06	0.56
24:AY:679:VAL:HB	24:AY:683:VAL:HB	1.86	0.56
25:B0:7:LEU:HD22	48:BQ:81:VAL:HG23	1.86	0.56
26:B1:58:ILE:HG23	26:B1:58:ILE:O	2.06	0.56
26:B1:85:LEU:C	26:B1:87:PRO:HD2	2.25	0.56
29:B4:53:GLU:OE1	29:B4:55:ARG:HD3	2.05	0.56
30:B5:7:PRO:HA	35:BA:2615:U:C2	2.41	0.56
31:B6:7:ILE:HG23	31:B6:29:ASN:HD22	1.69	0.56
35:BA:184:C:H2'	35:BA:185:U:C6	2.40	0.56
35:BA:271(C):C:H2'	35:BA:271(D):G:C8	2.40	0.56
35:BA:676:A:H2	35:BA:802:A:H61	1.53	0.56
35:BA:781:A:C8	38:BD:219:PRO:HG3	2.40	0.56
35:BA:1661:G:O2'	35:BA:1662:C:H5'	2.05	0.56
35:BA:1717:G:H2'	35:BA:1718:G:H5''	1.87	0.56
36:BB:65:C:O5'	36:BB:65:C:H6	1.88	0.56
39:BE:14:ILE:HG13	39:BE:21:VAL:HG22	1.88	0.56
39:BE:81:ILE:O	39:BE:81:ILE:CG2	2.54	0.56
40:BF:148:LEU:HD23	40:BF:191:ARG:NH1	2.21	0.56
43:BK:78:ILE:HD11	43:BK:136:VAL:CG1	2.36	0.56
43:BK:95:LYS:HG2	43:BK:137:GLU:HB3	1.88	0.56
47:BP:48:PRO:O	47:BP:50:ARG:N	2.39	0.56
50:BS:59:LYS:HG2	50:BS:60:GLY:H	1.71	0.56
50:BS:65:VAL:O	50:BS:69:VAL:HG12	2.05	0.56
52:BU:26:GLY:C	52:BU:28:ARG:H	2.09	0.56
53:BV:69:LYS:HE3	53:BV:71:LEU:HD21	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:93:G:O2'	1:AA:96:U:H5'	2.06	0.56
1:AA:316:G:C6	1:AA:338:A:C6	2.94	0.56
1:AA:370:C:H2'	1:AA:371:G:H8	1.71	0.56
1:AA:627:G:C2'	1:AA:628:G:H5'	2.36	0.56
3:AC:34:LEU:HD22	3:AC:38:ARG:HD2	1.88	0.56
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.05	0.56
12:AL:7:ILE:HG22	12:AL:8:ASN:N	2.21	0.56
12:AL:105:TYR:CD1	12:AL:105:TYR:N	2.72	0.56
17:AQ:24:GLU:O	17:AQ:25:ARG:HB3	2.06	0.56
18:AR:87:ARG:HB3	18:AR:87:ARG:NH1	2.21	0.56
24:AY:498:ILE:HG22	24:AY:507:TYR:CG	2.40	0.56
27:B2:55:ARG:O	27:B2:58:ALA:HB3	2.06	0.56
27:B2:55:ARG:O	27:B2:59:ARG:HG2	2.06	0.56
31:B6:37:ARG:O	31:B6:48:VAL:O	2.22	0.56
33:B8:50:LEU:O	33:B8:51:ALA:HB3	2.06	0.56
35:BA:178:G:O2'	35:BA:179:G:H5'	2.06	0.56
35:BA:274:G:N3	35:BA:274:G:H2'	2.20	0.56
35:BA:425:G:H2'	35:BA:426:C:H6	1.71	0.56
35:BA:1036:G:OP2	42:BH:59:ARG:NH1	2.38	0.56
35:BA:1188:U:HO2'	35:BA:1189:A:H5'	1.71	0.56
35:BA:1332:G:N2	35:BA:1609:A:H3'	2.21	0.56
35:BA:2299:G:O2'	35:BA:2300:G:H5'	2.04	0.56
35:BA:2681:C:H2'	35:BA:2681:C:O2	2.03	0.56
35:BA:2884:U:C2'	35:BA:2885:C:H5'	2.36	0.56
39:BE:111:ARG:HD2	39:BE:160:TYR:HE2	1.70	0.56
42:BH:105:LEU:HD23	42:BH:105:LEU:H	1.71	0.56
42:BH:156:ALA:O	42:BH:158:HIS:N	2.38	0.56
45:BN:35:ARG:O	45:BN:37:LYS:HB2	2.05	0.56
45:BN:125:GLY:CA	45:BN:126:PRO:O	2.54	0.56
47:BP:67:MET:C	47:BP:68:GLN:HG3	2.26	0.56
50:BS:59:LYS:HD3	50:BS:61:ASN:HD22	1.70	0.56
56:BY:46:LYS:HB2	56:BY:62:GLU:HB2	1.88	0.56
1:AA:50:A:N6	1:AA:361:G:C4'	2.69	0.56
1:AA:1227:A:H2'	13:AM:117:VAL:HG21	1.88	0.56
1:AA:1231:G:C2'	1:AA:1232:U:H5'	2.35	0.56
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.04	0.56
10:AJ:47:PHE:CE2	14:AN:37:PHE:HE1	2.19	0.56
18:AR:87:ARG:CB	18:AR:87:ARG:HH11	2.19	0.56
20:AT:13:LEU:O	20:AT:16:HIS:N	2.39	0.56
24:AY:390:VAL:HG23	24:AY:391:GLY:O	2.06	0.56
26:B1:73:LEU:O	26:B1:73:LEU:HD23	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:548:A:H2'	35:BA:548:A:N3	2.21	0.56
35:BA:654(A):G:C2'	35:BA:654(B):C:H5'	2.35	0.56
35:BA:1494:A:H2'	35:BA:1495:A:H5''	1.87	0.56
35:BA:1668:A:H61	35:BA:1676:A:H61	1.53	0.56
35:BA:1709:U:H3	35:BA:1749:A:H61	1.54	0.56
35:BA:2208:A:H1'	35:BA:2219:G:C4	2.41	0.56
35:BA:2590:A:H5''	38:BD:239:ARG:HE	1.70	0.56
35:BA:2646:C:OP2	35:BA:2732:G:H2'	2.05	0.56
35:BA:2745:C:C4	35:BA:2746:U:C4	2.94	0.56
38:BD:70:TRP:HH2	38:BD:150:LYS:HA	1.63	0.56
38:BD:81:ALA:HA	38:BD:113:VAL:CG2	2.36	0.56
39:BE:69:LYS:HE2	39:BE:69:LYS:N	2.21	0.56
40:BF:74:ARG:HG3	40:BF:74:ARG:O	2.05	0.56
40:BF:110:LEU:CD1	40:BF:206:ILE:HD11	2.36	0.56
42:BH:35:VAL:HG12	42:BH:37:VAL:HG23	1.88	0.56
42:BH:98:LEU:HD22	42:BH:125:VAL:HG23	1.88	0.56
45:BN:67:LEU:HB3	45:BN:88:GLU:CG	2.36	0.56
46:BO:22:ILE:HG12	46:BO:41:ALA:HA	1.87	0.56
46:BO:64:ARG:HH21	46:BO:100:GLY:HA3	1.71	0.56
47:BP:9:ASN:N	47:BP:10:PRO:CD	2.67	0.56
51:BT:30:VAL:HG21	51:BT:83:ILE:CG1	2.36	0.56
51:BT:118:ARG:HA	51:BT:121:ILE:CG1	2.36	0.56
1:AA:483:C:H3'	1:AA:484:G:H5''	1.88	0.55
1:AA:826:C:H2'	1:AA:827:U:H6	1.70	0.55
1:AA:1165:C:C4	1:AA:1166:G:N7	2.74	0.55
1:AA:1517:G:C2'	1:AA:1518:A:H5'	2.36	0.55
2:AB:153:ARG:H	2:AB:155:LEU:H	1.54	0.55
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.25	0.55
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.88	0.55
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.87	0.55
19:AS:65:ASN:HA	29:B4:48:ARG:HH22	1.71	0.55
24:AY:31:ARG:HG2	24:AY:31:ARG:HH11	1.71	0.55
24:AY:176:GLY:CA	24:AY:187:THR:HA	2.36	0.55
24:AY:314:PHE:CD1	24:AY:314:PHE:C	2.79	0.55
24:AY:406:GLU:HB3	24:AY:407:PRO:CD	2.35	0.55
24:AY:507:TYR:CD1	24:AY:507:TYR:C	2.80	0.55
35:BA:841:A:H5'	35:BA:841:A:C8	2.35	0.55
35:BA:2097:C:O5'	35:BA:2097:C:H6	1.89	0.55
35:BA:2514:U:H2'	35:BA:2515:C:C6	2.30	0.55
35:BA:2753:A:O2'	35:BA:2754:U:H5'	2.06	0.55
37:BC:150:ILE:O	37:BC:154:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:139:GLY:H	38:BD:165:ILE:HB	1.71	0.55
40:BF:133:ASN:H	40:BF:162:LEU:HD23	1.71	0.55
48:BQ:76:LYS:CB	48:BQ:91:GLU:HG3	2.36	0.55
50:BS:98:VAL:C	50:BS:100:ALA:N	2.60	0.55
51:BT:7:ILE:O	51:BT:10:VAL:HB	2.05	0.55
55:BX:26:TYR:OH	55:BX:88:LYS:HB2	2.06	0.55
55:BX:41:ASN:O	55:BX:43:VAL:N	2.38	0.55
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.41	0.55
1:AA:1442:G:C5	1:AA:1442(B):A:H2	2.23	0.55
2:AB:126:GLU:O	2:AB:129:GLU:OE1	2.23	0.55
2:AB:223:ILE:HG12	2:AB:226:ARG:NH1	2.21	0.55
3:AC:182:ILE:HG23	3:AC:202:ILE:O	2.07	0.55
6:AF:80:ARG:HH11	6:AF:80:ARG:HG3	1.70	0.55
9:AI:93:ARG:C	9:AI:95:LYS:H	2.09	0.55
22:AV:72:A:H2'	22:AV:73:A:C8	2.41	0.55
24:AY:282:SER:O	24:AY:286:ILE:HD13	2.07	0.55
26:B1:19:GLN:HB3	26:B1:35:THR:HG22	1.86	0.55
27:B2:3:LEU:HB2	35:BA:98:G:OP1	2.06	0.55
28:B3:17:LYS:NZ	28:B3:20:LYS:CE	2.64	0.55
31:B6:5:VAL:HG22	35:BA:2283:C:OP1	2.06	0.55
35:BA:78:A:H2'	35:BA:79:G:H8	1.71	0.55
35:BA:914:C:C2'	35:BA:915:C:H5'	2.36	0.55
35:BA:958:U:OP2	48:BQ:14:ARG:NH1	2.40	0.55
35:BA:1185:C:H5'	35:BA:1186:G:P	2.46	0.55
35:BA:1274:A:N3	35:BA:1297:C:H1'	2.21	0.55
35:BA:2260:C:H2'	35:BA:2261:C:C6	2.41	0.55
35:BA:2749:A:N1	35:BA:2750:A:N6	2.52	0.55
36:BB:106:G:O2'	36:BB:107:G:H5'	2.06	0.55
38:BD:123:ALA:HB3	38:BD:131:LEU:HG	1.88	0.55
41:BG:164:GLU:O	41:BG:165:THR:CG2	2.54	0.55
42:BH:83:TYR:HA	42:BH:135:GLY:O	2.05	0.55
48:BQ:35:VAL:O	48:BQ:129:THR:HG22	2.06	0.55
50:BS:85:VAL:HG23	50:BS:106:ARG:CG	2.36	0.55
51:BT:23:ARG:CG	51:BT:120:ARG:NH1	2.67	0.55
52:BU:88:ILE:HG13	52:BU:88:ILE:O	2.05	0.55
54:BW:1:MET:HE2	54:BW:2:GLU:H	1.71	0.55
1:AA:119:A:O2'	1:AA:120:A:OP2	2.21	0.55
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.07	0.55
1:AA:1305:G:OP1	21:AU:2:GLY:N	2.39	0.55
1:AA:1485:U:O2'	1:AA:1486:G:H5'	2.07	0.55
3:AC:119:ARG:O	3:AC:123:GLN:HG3	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.89	0.55
20:AT:86:ARG:HH11	20:AT:86:ARG:HG3	1.69	0.55
24:AY:348:ARG:CZ	24:AY:382:GLU:HG3	2.36	0.55
24:AY:478:LYS:O	24:AY:480:GLN:NE2	2.40	0.55
27:B2:3:LEU:HD22	27:B2:7:ARG:CZ	2.35	0.55
34:B9:6:SER:CB	35:BA:2466:C:H5''	2.36	0.55
35:BA:1335:U:OP1	55:BX:65:ARG:NH2	2.39	0.55
35:BA:1453:U:H2'	35:BA:1455:G:N7	2.21	0.55
35:BA:1582:C:H2'	35:BA:1583:A:C8	2.37	0.55
35:BA:1774:C:O2	38:BD:11:PRO:HB2	2.06	0.55
35:BA:2088:G:C6	35:BA:2089:U:C4	2.95	0.55
35:BA:2220:G:H2'	35:BA:2221:G:H8	1.71	0.55
35:BA:2393:A:O2'	35:BA:2394:C:H5'	2.06	0.55
35:BA:2406:U:N3	47:BP:72:PRO:HB2	2.21	0.55
35:BA:2428:G:H5'	35:BA:2429:G:OP1	2.06	0.55
35:BA:2617:C:C2'	35:BA:2618:G:H5'	2.37	0.55
35:BA:2631:G:N2	39:BE:61:ARG:HH12	2.04	0.55
37:BC:84:ILE:HG12	37:BC:96:GLY:O	2.06	0.55
39:BE:111:ARG:HA	49:BR:2:ARG:CB	2.33	0.55
39:BE:145:LYS:O	39:BE:146:THR:C	2.45	0.55
42:BH:97:ARG:O	42:BH:97:ARG:HG2	2.05	0.55
56:BY:86:ARG:HB3	56:BY:88:LYS:HZ1	1.69	0.55
57:BZ:115:GLY:CA	57:BZ:177:PRO:HD3	2.37	0.55
1:AA:402:G:O2'	1:AA:403:C:H5'	2.07	0.55
1:AA:1238:A:H62	1:AA:1301:U:H3	1.54	0.55
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.33	0.55
13:AM:116:THR:CG2	13:AM:117:VAL:H	2.18	0.55
15:AO:55:GLY:HA2	15:AO:58:MET:CE	2.35	0.55
18:AR:59:SER:N	18:AR:62:GLU:HB2	2.19	0.55
19:AS:9:VAL:C	19:AS:10:PHE:CD1	2.80	0.55
24:AY:176:GLY:HA3	24:AY:186:TYR:O	2.06	0.55
24:AY:276:VAL:HG12	24:AY:277:VAL:N	2.22	0.55
24:AY:334:THR:HG21	24:AY:370:LYS:HG2	1.88	0.55
24:AY:342:TYR:HE2	24:AY:396:ARG:HD2	1.69	0.55
24:AY:343:ASN:HD21	24:AY:345:THR:CB	2.19	0.55
24:AY:519:ARG:HH22	24:AY:678:GLU:HB3	1.71	0.55
58:AY:701:FUA:O2	58:AY:701:FUA:C21	2.52	0.55
32:B7:12:ARG:HH11	32:B7:12:ARG:HG3	1.71	0.55
35:BA:336:C:C4	35:BA:337:C:C5	2.94	0.55
35:BA:1209:G:H21	35:BA:1210:A:H62	1.54	0.55
35:BA:1301:A:H2'	35:BA:1302:A:H3'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1435:G:H5'	35:BA:1436:G:OP2	2.06	0.55
35:BA:1888:G:N3	35:BA:1888:G:H5'	2.22	0.55
35:BA:2157:G:OP2	35:BA:2157:G:H8	1.89	0.55
35:BA:2230:G:H2'	35:BA:2231:C:C6	2.42	0.55
38:BD:158:ALA:HB3	38:BD:161:THR:CG2	2.34	0.55
39:BE:95:ILE:N	39:BE:95:ILE:CD1	2.68	0.55
40:BF:113:ALA:HB1	40:BF:186:ILE:HG21	1.87	0.55
41:BG:106:LEU:HA	41:BG:110:ALA:HB2	1.87	0.55
41:BG:145:THR:HG23	41:BG:148:MET:HB2	1.88	0.55
52:BU:26:GLY:O	52:BU:28:ARG:N	2.39	0.55
52:BU:70:ARG:HA	52:BU:74:LEU:O	2.06	0.55
56:BY:97:ARG:O	56:BY:98:VAL:HG23	2.07	0.55
57:BZ:72:ARG:HG3	57:BZ:72:ARG:NH1	2.13	0.55
1:AA:100:C:H2'	1:AA:101:A:C8	2.42	0.55
1:AA:429:U:H4'	1:AA:430:A:O5'	2.06	0.55
1:AA:444:C:H42	1:AA:490:G:H1	1.55	0.55
1:AA:617:G:N1	1:AA:618:C:C4	2.74	0.55
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.36	0.55
1:AA:1160:G:O6	1:AA:1181:G:O6	2.24	0.55
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.06	0.55
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.55	0.55
4:AD:70:ILE:O	4:AD:70:ILE:HG12	2.05	0.55
6:AF:80:ARG:HG3	6:AF:80:ARG:NH1	2.22	0.55
11:AK:95:ILE:O	11:AK:98:LEU:HB2	2.07	0.55
12:AL:41:ARG:HB3	12:AL:41:ARG:HH11	1.71	0.55
12:AL:119:LYS:CB	12:AL:120:TYR:CD1	2.90	0.55
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.06	0.55
18:AR:37:VAL:CG2	18:AR:38:GLU:H	2.12	0.55
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.41	0.55
24:AY:125:ALA:C	24:AY:127:LYS:N	2.59	0.55
24:AY:146:LEU:HD23	24:AY:146:LEU:C	2.27	0.55
24:AY:238:THR:HG23	24:AY:240:GLU:H	1.71	0.55
24:AY:281:PRO:HB2	24:AY:286:ILE:CD1	2.26	0.55
24:AY:343:ASN:HD21	24:AY:345:THR:HB	1.72	0.55
31:B6:38:LYS:HD3	35:BA:2344:U:OP1	2.06	0.55
33:B8:25:MET:HG3	47:BP:64:LYS:HB2	1.88	0.55
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.21	0.55
35:BA:272(D):G:H1	35:BA:364:C:H42	1.53	0.55
35:BA:286:C:H6	35:BA:286:C:C5'	2.08	0.55
35:BA:637:A:OP2	47:BP:115:LEU:HB2	2.06	0.55
35:BA:654(E):G:C2'	35:BA:654(F):C:H5'	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:917:A:H2'	35:BA:918:A:O4'	2.06	0.55
35:BA:925:C:C4	35:BA:926:A:N7	2.75	0.55
35:BA:1019:U:H3	35:BA:1142(A):A:N6	2.04	0.55
35:BA:1808:U:H2'	35:BA:1809:A:O4'	2.06	0.55
35:BA:2282:G:H4'	35:BA:2283:C:O5'	2.05	0.55
35:BA:2298:A:N6	35:BA:2318:G:H8	2.03	0.55
35:BA:2590:A:OP2	38:BD:238:GLY:HA2	2.06	0.55
35:BA:2870:C:O2'	35:BA:2871:C:H5'	2.06	0.55
39:BE:4:ILE:CG1	39:BE:5:LEU:N	2.68	0.55
40:BF:139:PHE:HB2	40:BF:166:ALA:HB1	1.88	0.55
45:BN:120:LEU:HD11	45:BN:122:VAL:HG23	1.88	0.55
46:BO:34:THR:O	46:BO:35:VAL:C	2.45	0.55
47:BP:9:ASN:H	47:BP:10:PRO:HD2	1.72	0.55
47:BP:12:ALA:HB1	47:BP:16:ARG:HB3	1.88	0.55
47:BP:146:VAL:O	47:BP:148:LEU:CD1	2.55	0.55
51:BT:6:LEU:O	51:BT:9:LEU:N	2.40	0.55
51:BT:29:ARG:HD2	51:BT:30:VAL:H	1.71	0.55
55:BX:65:ARG:HG2	55:BX:66:LEU:N	2.22	0.55
1:AA:60:A:H5''	1:AA:331:G:N2	2.22	0.55
1:AA:300:A:H2'	1:AA:301:G:O4'	2.07	0.55
1:AA:631:G:H5'	1:AA:631:G:C8	2.41	0.55
1:AA:925:G:H5'	1:AA:926:G:OP1	2.06	0.55
1:AA:936:C:H2'	1:AA:937:A:O4'	2.06	0.55
1:AA:1271:G:H2'	1:AA:1272:G:H8	1.72	0.55
1:AA:1277:C:C6	1:AA:1277:C:C3'	2.89	0.55
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.72	0.55
10:AJ:27:ALA:HB2	10:AJ:85:LEU:HD11	1.88	0.55
11:AK:58:PRO:HA	11:AK:90:GLY:CA	2.35	0.55
12:AL:8:ASN:O	12:AL:12:ARG:HG3	2.05	0.55
19:AS:12:ASP:OD2	19:AS:35:SER:HB2	2.07	0.55
22:AV:3:C:N4	22:AV:70:G:H1	2.03	0.55
26:B1:81:LYS:HZ1	35:BA:271(I):G:P	2.28	0.55
35:BA:64:A:H2'	35:BA:65:C:O4'	2.05	0.55
35:BA:453:C:H4'	35:BA:472:A:N6	2.22	0.55
35:BA:1109:C:H5'	35:BA:1110:G:OP2	2.07	0.55
35:BA:1428:C:N4	35:BA:1569:A:H3'	2.22	0.55
35:BA:1485:G:N3	35:BA:1505:C:N3	2.55	0.55
35:BA:1893:C:H2'	35:BA:1894:C:H5'	1.89	0.55
35:BA:1921:G:O2'	35:BA:1922:G:H5'	2.06	0.55
35:BA:1946:U:H2'	35:BA:1947:C:H6	1.71	0.55
35:BA:1963:U:O2	35:BA:1963:U:C2'	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2276:G:O2'	35:BA:2277:G:H5'	2.06	0.55
41:BG:31:VAL:CG2	41:BG:32:PRO:HD2	2.37	0.55
41:BG:173:LEU:HA	41:BG:176:LEU:CD1	2.36	0.55
43:BK:71:THR:CB	43:BK:72:PRO:HD2	2.37	0.55
46:BO:60:ALA:HA	46:BO:87:ILE:HD13	1.88	0.55
47:BP:57:THR:OG1	47:BP:59:LEU:HB3	2.06	0.55
49:BR:18:LEU:HD21	49:BR:22:ARG:CZ	2.36	0.55
51:BT:50:ILE:HG23	51:BT:99:LEU:O	2.07	0.55
51:BT:98:LYS:HB3	51:BT:100:TYR:HE1	1.70	0.55
55:BX:44:GLU:HB2	55:BX:49:VAL:O	2.07	0.55
1:AA:753:A:H4'	1:AA:754:C:H5''	1.89	0.55
1:AA:1008:C:O5'	1:AA:1008:C:H6	1.89	0.55
1:AA:1329:A:OP1	13:AM:28:ALA:HB3	2.06	0.55
11:AK:109:VAL:HG13	18:AR:85:LEU:O	2.06	0.55
16:AP:8:ARG:HB3	16:AP:28:ARG:HH12	1.72	0.55
19:AS:53:ASN:O	19:AS:55:LYS:N	2.39	0.55
22:AV:35:A:O2'	22:AV:36:U:H5'	2.06	0.55
24:AY:162:VAL:CG2	24:AY:255:ILE:HD11	2.37	0.55
24:AY:228:MET:O	24:AY:232:LEU:HD22	2.07	0.55
24:AY:367:GLU:O	24:AY:367:GLU:HG2	2.06	0.55
24:AY:506:GLN:OE1	24:AY:506:GLN:HA	2.06	0.55
35:BA:79:G:O2'	35:BA:80:G:H5'	2.07	0.55
35:BA:198:C:H42	35:BA:248:G:H1	1.55	0.55
35:BA:624:C:H41	47:BP:107:LYS:HZ3	1.53	0.55
35:BA:941:A:H4'	47:BP:35:HIS:CE1	2.42	0.55
35:BA:1491:G:H2'	35:BA:1491:G:N3	2.21	0.55
35:BA:1542:A:H8	35:BA:1542:A:H3'	1.71	0.55
35:BA:1846:G:H5'	35:BA:1846:G:H8	1.71	0.55
35:BA:2236:C:H2'	35:BA:2237:G:O4'	2.07	0.55
35:BA:2439:A:N3	35:BA:2439:A:C2'	2.69	0.55
35:BA:2602:A:H4'	35:BA:2603:G:C5'	2.36	0.55
41:BG:71:THR:HG23	41:BG:89:GLY:C	2.27	0.55
45:BN:99:LEU:O	45:BN:102:ALA:HB3	2.06	0.55
46:BO:4:PRO:O	46:BO:5:GLN:CB	2.54	0.55
50:BS:11:LYS:HG2	50:BS:13:ARG:HH21	1.66	0.55
50:BS:67:ARG:HB3	50:BS:71:ARG:HH22	1.70	0.55
51:BT:57:PHE:O	51:BT:58:ASN:C	2.45	0.55
54:BW:14:PRO:CG	54:BW:78:GLU:HB2	2.36	0.55
55:BX:63:LYS:HB3	55:BX:72:LYS:HG2	1.88	0.55
57:BZ:53:ILE:HG22	57:BZ:71:VAL:HB	1.88	0.55
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1225:A:H3'	1:AA:1226:C:C6	2.41	0.55
5:AE:80:ILE:HG22	8:AH:104:ARG:HH21	1.69	0.55
5:AE:80:ILE:HD11	5:AE:138:ALA:HB1	1.88	0.55
8:AH:50:ARG:HH11	8:AH:50:ARG:CG	2.17	0.55
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.89	0.55
24:AY:518:PRO:HD2	24:AY:521:SER:OG	2.07	0.55
24:AY:633:GLY:HA3	24:AY:644:ARG:NH1	2.22	0.55
24:AY:634:MET:HA	24:AY:642:VAL:O	2.07	0.55
26:B1:25:LYS:HB3	35:BA:388:G:H5'	1.88	0.55
27:B2:38:GLN:HE21	27:B2:44:LEU:HB2	1.72	0.55
35:BA:221:A:H4'	35:BA:222:A:O5'	2.07	0.55
35:BA:514:A:H2'	35:BA:515:A:H8	1.69	0.55
35:BA:529:A:H4'	35:BA:530:G:O5'	2.07	0.55
35:BA:739:G:HO2'	35:BA:740:U:H6	1.54	0.55
35:BA:996:A:O3'	52:BU:92:ARG:HG2	2.07	0.55
35:BA:1175:U:H4'	35:BA:1176:G:H5'	1.88	0.55
35:BA:1268:A:H2'	35:BA:1269:A:O4'	2.07	0.55
35:BA:1378:A:H4'	35:BA:1379:A:OP1	2.06	0.55
35:BA:1799:G:N2	35:BA:1818:U:H2'	2.22	0.55
37:BC:101:ILE:HG13	37:BC:128:LEU:HD11	1.88	0.55
37:BC:115:VAL:CG1	37:BC:145:THR:HG23	2.35	0.55
40:BF:160:ASN:HD21	40:BF:162:LEU:HB2	1.72	0.55
41:BG:95:ARG:O	41:BG:96:ARG:O	2.25	0.55
41:BG:173:LEU:O	41:BG:178:PHE:HD1	1.89	0.55
43:BK:120:LEU:HA	43:BK:123:ALA:HB3	1.89	0.55
50:BS:31:SER:HB3	50:BS:34:HIS:O	2.07	0.55
57:BZ:9:TYR:CE2	57:BZ:35:ARG:NH1	2.69	0.55
1:AA:353:A:H5'	1:AA:353:A:C8	2.37	0.55
1:AA:642:A:H2'	1:AA:643:C:H6	1.72	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.87	0.55
1:AA:893:C:H2'	1:AA:894:G:H8	1.72	0.55
1:AA:954:G:H2'	1:AA:955:U:C6	2.41	0.55
7:AG:12:LEU:HD13	7:AG:25:ALA:HB2	1.88	0.55
15:AO:83:GLU:C	15:AO:85:LEU:H	2.11	0.55
22:AV:66:C:H2'	22:AV:67:C:C6	2.42	0.55
24:AY:111:SER:O	24:AY:113:GLY:N	2.39	0.55
35:BA:187:G:N3	35:BA:1365:A:H2	2.04	0.55
35:BA:208:C:H2'	35:BA:209:C:H6	1.71	0.55
35:BA:478:A:C6	35:BA:480:A:C6	2.95	0.55
35:BA:1238:G:O2'	35:BA:1239:G:H5'	2.05	0.55
35:BA:2736:G:O2'	35:BA:2737:G:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:84:ILE:O	37:BC:88:GLU:HG3	2.05	0.55
38:BD:11:PRO:C	38:BD:13:ARG:H	2.08	0.55
39:BE:152:LYS:HG3	39:BE:153:GLY:H	1.71	0.55
41:BG:97:ASP:O	41:BG:101:ILE:CB	2.55	0.55
42:BH:136:ILE:HD12	42:BH:136:ILE:N	2.21	0.55
45:BN:22:THR:HB	45:BN:25:ARG:HB2	1.88	0.55
45:BN:23:LEU:HB2	45:BN:60:ILE:HG21	1.88	0.55
49:BR:55:ALA:HB2	49:BR:79:LEU:HD11	1.89	0.55
50:BS:49:VAL:HG21	50:BS:77:ALA:CB	2.30	0.55
53:BV:2:PHE:O	53:BV:14:VAL:O	2.25	0.55
56:BY:13:VAL:HG22	56:BY:14:LEU:H	1.70	0.55
1:AA:324:G:N2	1:AA:326:G:H3'	2.21	0.55
1:AA:356:A:H1'	1:AA:368:U:O2'	2.06	0.55
1:AA:637:G:O2'	1:AA:638:G:H5'	2.07	0.55
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.42	0.55
8:AH:114:THR:HG21	8:AH:129:VAL:CG2	2.36	0.55
9:AI:4:TYR:CE2	9:AI:88:TYR:HB2	2.41	0.55
10:AJ:50:ILE:HD13	10:AJ:50:ILE:N	2.13	0.55
13:AM:120:LYS:N	13:AM:120:LYS:HD2	2.22	0.55
24:AY:12:LEU:HB3	24:AY:283:PRO:HG2	1.88	0.55
24:AY:359:HIS:O	24:AY:361:ASN:N	2.40	0.55
24:AY:414:GLU:O	24:AY:474:ALA:HB1	2.07	0.55
25:B0:24:LYS:O	25:B0:25:ARG:HD3	2.07	0.55
26:B1:58:ILE:HD11	26:B1:91:LYS:HA	1.89	0.55
26:B1:86:SER:HA	26:B1:89:GLU:CD	2.26	0.55
31:B6:48:VAL:CG2	31:B6:49:HIS:N	2.45	0.55
35:BA:1047:G:HO2'	35:BA:1110:G:N2	2.04	0.55
35:BA:1093:G:H21	35:BA:1098:A:H62	1.54	0.55
35:BA:1152:C:OP2	35:BA:1152:C:H6	1.90	0.55
35:BA:1171:G:N2	35:BA:1179:C:N3	2.55	0.55
35:BA:1423:G:O5'	35:BA:1423:G:H8	1.90	0.55
35:BA:2167:U:H2'	35:BA:2168:G:O4'	2.07	0.55
35:BA:2732:G:H5''	35:BA:2733:A:C8	2.41	0.55
35:BA:2747:G:O2'	42:BH:67:LEU:HD12	2.07	0.55
37:BC:102:GLN:O	37:BC:105:LEU:HB3	2.07	0.55
41:BG:106:LEU:CA	41:BG:110:ALA:HB3	2.37	0.55
45:BN:133:GLN:O	45:BN:134:ARG:HB3	2.05	0.55
50:BS:12:PHE:O	50:BS:12:PHE:HD1	1.90	0.55
50:BS:59:LYS:HD2	50:BS:61:ASN:CB	2.35	0.55
51:BT:100:TYR:N	51:BT:100:TYR:CD1	2.74	0.55
53:BV:58:VAL:O	53:BV:58:VAL:HG12	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:108:PRO:HB3	57:BZ:141:VAL:HG12	1.89	0.55
57:BZ:152:ALA:HA	57:BZ:167:PRO:HB2	1.88	0.55
1:AA:447:G:H8	1:AA:447:G:O5'	1.91	0.54
1:AA:1301:U:H3'	1:AA:1302:U:C5'	2.37	0.54
2:AB:53:ARG:O	2:AB:53:ARG:HG2	2.07	0.54
3:AC:90:GLU:C	3:AC:93:LYS:HB3	2.25	0.54
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.87	0.54
10:AJ:50:ILE:HD11	14:AN:41:ARG:CZ	2.37	0.54
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.37	0.54
24:AY:250:THR:O	24:AY:253:LEU:N	2.22	0.54
26:B1:26:ARG:HG3	26:B1:27:GLU:N	2.21	0.54
30:B5:19:ARG:HA	35:BA:2046:G:C5'	2.37	0.54
35:BA:302:C:OP2	56:BY:73:ARG:NH1	2.39	0.54
35:BA:338:G:O2'	35:BA:339:U:H5'	2.06	0.54
35:BA:345:A:H2'	35:BA:345:A:N3	2.21	0.54
35:BA:1555:G:N3	35:BA:1555:G:H2'	2.21	0.54
35:BA:1568:G:P	38:BD:63:ARG:HH22	2.30	0.54
35:BA:2163:C:C2'	35:BA:2164:C:H5'	2.37	0.54
35:BA:2223:G:C2'	35:BA:2224:G:H5'	2.37	0.54
35:BA:2388:A:H5'	35:BA:2389:G:OP2	2.07	0.54
37:BC:118:PRO:HB2	37:BC:148:PHE:CZ	2.42	0.54
42:BH:43:VAL:CG1	42:BH:51:ARG:O	2.54	0.54
42:BH:83:TYR:CB	42:BH:134:SER:HA	2.34	0.54
43:BK:3:LYS:HD3	43:BK:29:GLN:HG2	1.87	0.54
45:BN:133:GLN:HG2	45:BN:134:ARG:N	2.21	0.54
47:BP:50:ARG:O	47:BP:57:THR:HG22	2.07	0.54
48:BQ:55:VAL:CG1	48:BQ:56:ARG:H	2.20	0.54
51:BT:55:ASN:O	51:BT:55:ASN:ND2	2.40	0.54
54:BW:44:ALA:O	54:BW:47:VAL:N	2.40	0.54
56:BY:95:LYS:HD3	56:BY:100:ALA:CB	2.34	0.54
1:AA:1051:C:H2'	1:AA:1052:U:O4'	2.07	0.54
1:AA:1158:C:H4'	2:AB:133:LYS:HD3	1.88	0.54
1:AA:1318:A:O3'	19:AS:10:PHE:CD2	2.60	0.54
1:AA:1493:A:O2'	1:AA:1494:G:OP1	2.25	0.54
2:AB:19:HIS:O	2:AB:20:GLU:O	2.26	0.54
2:AB:200:ILE:O	2:AB:201:ILE:HD13	2.06	0.54
6:AF:4:TYR:HE1	6:AF:92:LYS:HD2	1.71	0.54
14:AN:13:THR:HG22	14:AN:13:THR:O	2.06	0.54
16:AP:67:THR:HG22	16:AP:68:ASP:H	1.72	0.54
18:AR:58:LEU:N	18:AR:58:LEU:CD1	2.70	0.54
20:AT:33:ILE:HD13	20:AT:63:ILE:CG1	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:16:GLY:N	24:AY:101:LEU:CD1	2.70	0.54
24:AY:92:ILE:HG12	24:AY:405:PRO:CG	2.32	0.54
24:AY:120:THR:HB	24:AY:124:GLN:OE1	2.08	0.54
24:AY:128:TYR:CE2	24:AY:130:VAL:HG23	2.42	0.54
25:B0:16:SER:HB2	35:BA:2262:U:C5	2.41	0.54
27:B2:2:LYS:HD2	27:B2:5:GLU:OE1	2.07	0.54
33:B8:51:ALA:N	33:B8:53:PRO:HD2	2.22	0.54
35:BA:381:G:O2'	35:BA:382:G:H5'	2.08	0.54
35:BA:414:C:H6	35:BA:414:C:H5''	1.72	0.54
35:BA:545:C:H3'	35:BA:547:A:C5'	2.35	0.54
35:BA:764:A:C5	38:BD:209:ALA:HB1	2.42	0.54
35:BA:796:C:H2'	35:BA:797:C:C6	2.42	0.54
35:BA:2057:A:C2'	35:BA:2058:A:H5'	2.37	0.54
35:BA:2656:U:C2'	35:BA:2657:A:H5''	2.36	0.54
35:BA:2681:C:H6	35:BA:2683:C:H41	1.55	0.54
35:BA:2818:G:O2'	35:BA:2837:G:H5'	2.07	0.54
36:BB:15:A:H3'	36:BB:16:G:H5'	1.87	0.54
40:BF:100:THR:O	40:BF:100:THR:HG22	2.07	0.54
40:BF:185:ASP:HA	40:BF:188:ARG:CD	2.37	0.54
41:BG:107:LEU:HD23	41:BG:111:LEU:HD12	1.88	0.54
48:BQ:11:LYS:NZ	48:BQ:88:GLY:O	2.33	0.54
49:BR:38:VAL:HB	49:BR:39:PRO:CD	2.26	0.54
50:BS:89:ARG:HG3	50:BS:92:TYR:N	2.21	0.54
50:BS:96:GLY:O	50:BS:98:VAL:N	2.38	0.54
50:BS:98:VAL:HG12	50:BS:100:ALA:N	2.21	0.54
51:BT:91:ARG:O	51:BT:117:ASP:CB	2.55	0.54
53:BV:38:LEU:O	53:BV:51:VAL:HG13	2.07	0.54
57:BZ:137:ILE:CG2	57:BZ:155:LEU:HD12	2.37	0.54
1:AA:174:C:O2'	1:AA:175:C:H5'	2.07	0.54
1:AA:300:A:C2'	1:AA:301:G:H5'	2.37	0.54
1:AA:603:U:H2'	1:AA:604:G:C8	2.42	0.54
1:AA:956:U:H2'	1:AA:957:U:H6	1.72	0.54
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.07	0.54
2:AB:63:MET:HG3	2:AB:63:MET:O	2.06	0.54
4:AD:108:LEU:HD23	4:AD:110:PHE:CE2	2.43	0.54
10:AJ:61:GLU:HG3	14:AN:58:LYS:NZ	2.22	0.54
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.42	0.54
19:AS:31:ILE:HG21	19:AS:49:ILE:HG12	1.89	0.54
22:AV:31:G:H3'	22:AV:32:C:C6	2.43	0.54
24:AY:100:VAL:HG13	24:AY:101:LEU:N	2.22	0.54
24:AY:209:ALA:O	24:AY:210:ARG:C	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:227:ILE:HD11	24:AY:241:GLU:C	2.27	0.54
24:AY:530:VAL:HG13	24:AY:531:GLY:H	1.72	0.54
58:AY:701:FUA:O1	58:AY:701:FUA:C1	2.55	0.54
27:B2:69:ARG:HG3	27:B2:70:GLN:N	2.22	0.54
30:B5:3:LYS:HG2	35:BA:747:U:O4	2.08	0.54
35:BA:211:A:C3'	35:BA:212:G:H5''	2.38	0.54
35:BA:298:G:O5'	35:BA:298:G:H8	1.91	0.54
35:BA:347:A:H2'	35:BA:348:G:C8	2.43	0.54
35:BA:1079:C:H1'	43:BK:132:ARG:HH22	1.72	0.54
35:BA:1270:C:H5''	35:BA:1271:G:H5'	1.89	0.54
35:BA:1389:G:H2'	35:BA:1390:U:C6	2.43	0.54
35:BA:1567:A:C5'	38:BD:58:HIS:CD2	2.90	0.54
35:BA:1902:C:H2'	35:BA:1903:G:O4'	2.06	0.54
35:BA:2193:G:C2'	35:BA:2194:G:H5'	2.37	0.54
41:BG:33:ARG:HD3	41:BG:33:ARG:N	2.22	0.54
50:BS:20:ARG:HG2	50:BS:20:ARG:HH11	1.72	0.54
57:BZ:107:THR:HG23	57:BZ:111:VAL:HG11	1.87	0.54
1:AA:1347:G:O2'	1:AA:1348:U:P	2.64	0.54
4:AD:18:LYS:O	4:AD:19:LEU:HD12	2.08	0.54
9:AI:26:VAL:HG22	9:AI:61:ALA:HB3	1.90	0.54
24:AY:14:ASN:ND2	24:AY:80:ASN:HD22	2.05	0.54
24:AY:210:ARG:O	24:AY:213:HIS:N	2.39	0.54
24:AY:485:GLU:HB2	24:AY:560:VAL:HG22	1.88	0.54
25:B0:5:LYS:HB3	25:B0:5:LYS:HZ2	1.72	0.54
35:BA:200:U:C2'	35:BA:201:C:H5'	2.38	0.54
35:BA:675:A:H4'	40:BF:67:GLN:OE1	2.08	0.54
35:BA:676:A:C8	35:BA:2443:C:H1'	2.41	0.54
35:BA:811:U:O2'	35:BA:1250:G:H2'	2.07	0.54
35:BA:1043:C:H2'	35:BA:1044:G:C5'	2.28	0.54
35:BA:1159:U:H6	35:BA:1159:U:H5''	1.72	0.54
35:BA:1516:C:C2'	35:BA:1517:G:C5'	2.86	0.54
35:BA:1599:C:H2'	35:BA:1600:C:C6	2.40	0.54
35:BA:1759:A:H5'	35:BA:2715:C:H1'	1.90	0.54
35:BA:2732:G:H3'	35:BA:2733:A:C5'	2.38	0.54
35:BA:2754:U:H2'	35:BA:2756:U:OP1	2.06	0.54
35:BA:2880:C:N4	35:BA:2881:C:H41	2.04	0.54
40:BF:10:PRO:HG2	40:BF:11:VAL:H	1.73	0.54
41:BG:77:ILE:HG21	41:BG:80:PHE:HB2	1.90	0.54
45:BN:57:ALA:N	45:BN:124:ALA:HA	2.22	0.54
53:BV:98:GLU:OE2	53:BV:100:ARG:HB3	2.08	0.54
1:AA:416:G:H2'	1:AA:417:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:626:U:O2	1:AA:626:U:H2'	2.07	0.54
1:AA:691:G:H2'	1:AA:692:U:C6	2.42	0.54
1:AA:1270:C:H4'	1:AA:1313:U:O2'	2.08	0.54
2:AB:223:ILE:C	2:AB:225:ALA:H	2.11	0.54
4:AD:122:ARG:HH11	4:AD:134:ASP:HB2	1.71	0.54
10:AJ:33:GLN:H	10:AJ:75:ILE:HD11	1.72	0.54
11:AK:122:LYS:O	11:AK:124:LYS:N	2.41	0.54
15:AO:3:ILE:O	15:AO:3:ILE:HG13	2.07	0.54
24:AY:277:VAL:HG13	24:AY:278:ASP:N	2.23	0.54
24:AY:539:ILE:O	24:AY:540:PRO:C	2.42	0.54
26:B1:76:ARG:CZ	26:B1:95:LEU:HD22	2.37	0.54
29:B4:39:CYS:O	29:B4:40:HIS:HB2	2.06	0.54
31:B6:5:VAL:CG1	31:B6:6:ARG:N	2.70	0.54
35:BA:567:A:N1	35:BA:571:A:H8	2.05	0.54
35:BA:1221:C:H2'	35:BA:1221(A):C:C6	2.42	0.54
35:BA:1998:G:OP2	39:BE:136:ARG:NH2	2.41	0.54
35:BA:2121:G:H5'	35:BA:2122:U:OP2	2.07	0.54
35:BA:2347:C:H2'	35:BA:2348:U:C5	2.42	0.54
35:BA:2397:G:H2'	35:BA:2398:U:C6	2.43	0.54
35:BA:2415:G:H2'	35:BA:2416:C:C6	2.42	0.54
36:BB:49:C:H2'	36:BB:50:G:C8	2.43	0.54
36:BB:106:G:H5''	57:BZ:31:ARG:HB3	1.89	0.54
37:BC:88:GLU:CA	37:BC:95:VAL:HG21	2.37	0.54
38:BD:72:LYS:HE2	38:BD:101:GLU:OE1	2.08	0.54
41:BG:157:ILE:HG22	41:BG:158:ALA:N	2.23	0.54
43:BK:106:GLU:HG3	43:BK:107:ILE:N	2.23	0.54
49:BR:113:LEU:CD1	49:BR:114:VAL:H	2.09	0.54
53:BV:35:LEU:HB2	53:BV:57:VAL:CG1	2.38	0.54
1:AA:151:A:C2'	1:AA:152:A:H5'	2.38	0.54
1:AA:191:G:N3	20:AT:105:SER:HB3	2.23	0.54
1:AA:383:A:C2'	1:AA:384:G:H5'	2.36	0.54
1:AA:769:G:O2'	1:AA:770:C:H5'	2.07	0.54
1:AA:1161:C:O2'	1:AA:1162:C:H5'	2.07	0.54
4:AD:26:CYS:O	4:AD:31:CYS:HB2	2.08	0.54
7:AG:144:MET:O	7:AG:147:ALA:HB3	2.07	0.54
9:AI:4:TYR:CE2	9:AI:59:PHE:HE2	2.25	0.54
13:AM:19:LEU:N	13:AM:19:LEU:CD2	2.70	0.54
24:AY:346:LYS:O	24:AY:347:GLY:C	2.46	0.54
24:AY:411:VAL:HG23	24:AY:459:LEU:CD2	2.37	0.54
35:BA:272(H):C:H6	35:BA:272(H):C:C5'	2.15	0.54
35:BA:291:C:H2'	35:BA:292:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:751:A:C5'	54:BW:90:ARG:HA	2.38	0.54
35:BA:948:G:H1	35:BA:969:U:H3	1.56	0.54
35:BA:1164:G:H1	35:BA:1185:C:H42	1.54	0.54
35:BA:1195:G:O2'	35:BA:1196:C:H5'	2.08	0.54
35:BA:1993:U:H4'	39:BE:128:SER:OG	2.07	0.54
35:BA:2115:G:H3'	35:BA:2116:G:C5'	2.38	0.54
35:BA:2537:U:H2'	35:BA:2538:C:C6	2.43	0.54
35:BA:2787:C:H1'	39:BE:61:ARG:HD3	1.89	0.54
36:BB:81:G:C2	36:BB:82:G:N7	2.75	0.54
37:BC:42:VAL:O	37:BC:176:VAL:HG22	2.08	0.54
39:BE:30:PRO:O	39:BE:32:PRO:HD3	2.07	0.54
40:BF:7:TYR:OH	40:BF:10:PRO:HG3	2.08	0.54
40:BF:32:LEU:O	40:BF:36:VAL:HG23	2.08	0.54
45:BN:95:PRO:HA	45:BN:98:VAL:HG23	1.89	0.54
47:BP:66:GLY:O	47:BP:67:MET:HB3	2.07	0.54
47:BP:85:LEU:H	47:BP:85:LEU:CD2	2.15	0.54
49:BR:99:LYS:N	49:BR:99:LYS:CD	2.56	0.54
1:AA:437:U:H2'	1:AA:438:G:O4'	2.08	0.54
2:AB:162:ILE:HG22	2:AB:182:ILE:HG21	1.89	0.54
6:AF:80:ARG:NH1	6:AF:88:VAL:HB	2.21	0.54
10:AJ:32:ALA:HB1	10:AJ:75:ILE:HG13	1.88	0.54
12:AL:98:TYR:N	12:AL:98:TYR:CD1	2.76	0.54
24:AY:97:SER:O	24:AY:101:LEU:HD23	2.06	0.54
24:AY:168:ILE:HD11	24:AY:178:ILE:HD11	1.89	0.54
24:AY:298:VAL:HG13	24:AY:299:VAL:N	2.22	0.54
24:AY:337:SER:HB2	24:AY:355:LEU:HD23	1.90	0.54
25:B0:78:TYR:N	25:B0:78:TYR:CD1	2.74	0.54
30:B5:44:THR:CG2	30:B5:45:VAL:H	2.18	0.54
31:B6:54:ILE:HD13	35:BA:2420:C:C4'	2.36	0.54
35:BA:621:A:H2'	35:BA:622:G:C5'	2.38	0.54
35:BA:737:C:O2'	35:BA:738:G:H5'	2.08	0.54
35:BA:1059:G:H2'	35:BA:1060:U:C6	2.42	0.54
35:BA:1146:C:O2	35:BA:1146:C:H2'	2.08	0.54
35:BA:1212:G:O2'	35:BA:1236:G:N2	2.40	0.54
35:BA:1331:A:C2'	35:BA:1332:G:H5''	2.38	0.54
35:BA:2759:G:O2'	35:BA:2760:C:H5'	2.08	0.54
35:BA:2861:G:H2'	35:BA:2862:G:H8	1.72	0.54
36:BB:20:C:O2'	36:BB:21:G:H5''	2.07	0.54
37:BC:130:ARG:HG3	37:BC:130:ARG:O	2.07	0.54
41:BG:111:LEU:HA	41:BG:114:ILE:HD12	1.90	0.54
43:BK:109:LYS:O	43:BK:112:MET:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:33:LEU:HD23	45:BN:52:VAL:HG21	1.90	0.54
46:BO:52:VAL:C	46:BO:53:LYS:HG3	2.28	0.54
47:BP:80:TYR:CE1	47:BP:111:ARG:HG2	2.43	0.54
51:BT:13:ARG:NH1	51:BT:15:VAL:HG22	2.11	0.54
1:AA:490:G:H2'	1:AA:491:G:C8	2.38	0.54
1:AA:1281:U:H5'	1:AA:1282:C:OP2	2.06	0.54
2:AB:22:LYS:H	2:AB:40:HIS:HE1	1.54	0.54
2:AB:87:ARG:NH1	2:AB:223:ILE:HD11	2.23	0.54
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.11	0.54
2:AB:185:ILE:HG22	2:AB:199:TYR:CB	2.23	0.54
2:AB:239:VAL:O	2:AB:240:GLN:CB	2.56	0.54
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.23	0.54
9:AI:90:PRO:HG2	9:AI:91:ASP:H	1.72	0.54
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.07	0.54
24:AY:266:ASN:C	24:AY:267:LYS:HG3	2.27	0.54
24:AY:277:VAL:HG13	24:AY:278:ASP:H	1.73	0.54
25:B0:72:ARG:HH11	25:B0:75:LEU:HD13	1.73	0.54
27:B2:41:ILE:HD11	27:B2:44:LEU:CD1	2.13	0.54
35:BA:285:C:H2'	35:BA:286:C:C5'	2.37	0.54
35:BA:654(C):G:H2'	35:BA:654(D):G:C8	2.43	0.54
35:BA:769:G:H4'	35:BA:1379:A:N1	2.23	0.54
35:BA:1336:A:H2'	35:BA:1337:G:C8	2.43	0.54
35:BA:1525:G:H2'	35:BA:1526:G:C8	2.42	0.54
35:BA:2248:C:H2'	35:BA:2249:U:C5'	2.36	0.54
36:BB:86:G:C6	36:BB:92:C:N3	2.75	0.54
38:BD:241:PRO:O	38:BD:242:ARG:CB	2.53	0.54
40:BF:65:TRP:HZ3	40:BF:75:HIS:HD2	1.56	0.54
40:BF:167:ALA:CB	40:BF:173:VAL:HG11	2.36	0.54
41:BG:16:ARG:O	41:BG:20:ILE:HG13	2.08	0.54
41:BG:63:ILE:HD12	41:BG:64:THR:N	2.23	0.54
42:BH:44:VAL:O	42:BH:50:VAL:HG13	2.08	0.54
42:BH:156:ALA:C	42:BH:158:HIS:H	2.11	0.54
46:BO:20:MET:O	46:BO:41:ALA:HB1	2.07	0.54
48:BQ:42:ILE:HG22	48:BQ:43:THR:O	2.07	0.54
54:BW:6:ILE:HG22	54:BW:6:ILE:O	2.07	0.54
1:AA:155:C:H2'	1:AA:156:G:C8	2.42	0.54
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.38	0.54
1:AA:1057:G:N2	1:AA:1204:A:H1'	2.23	0.54
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.37	0.54
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.36	0.54
2:AB:12:GLU:HA	2:AB:16:HIS:CG	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:57:ARG:CG	4:AD:57:ARG:NH1	2.64	0.54
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.35	0.54
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.12	0.54
18:AR:36:ASN:OD1	18:AR:39:VAL:HB	2.08	0.54
22:AV:22:G:O2'	22:AV:23:C:H5'	2.07	0.54
24:AY:21:ILE:CG2	24:AY:88:VAL:HG13	2.38	0.54
24:AY:115:GLU:OE2	24:AY:118:SER:HB3	2.07	0.54
29:B4:9:LEU:CD2	41:BG:65:GLY:HA3	2.36	0.54
35:BA:144:C:H2'	35:BA:145:G:C8	2.42	0.54
35:BA:196:A:H2'	35:BA:2068:U:H5	1.73	0.54
35:BA:307:G:H21	35:BA:330:A:N6	2.06	0.54
35:BA:614(C):A:C2	40:BF:179:GLU:HB3	2.42	0.54
35:BA:652:C:O2'	35:BA:653:A:O5'	2.26	0.54
35:BA:848:G:C4	35:BA:933:A:H8	2.26	0.54
35:BA:1045:A:O2'	35:BA:1047:G:C5	2.61	0.54
35:BA:1223:G:H5'	35:BA:1224:C:OP2	2.07	0.54
35:BA:1487:G:H2'	35:BA:1487:G:N3	2.22	0.54
35:BA:1747(A):G:C2'	35:BA:1748:G:C5'	2.70	0.54
35:BA:1835:G:H1'	35:BA:1931:U:O2	2.08	0.54
35:BA:2228:G:H2'	35:BA:2229:C:H6	1.71	0.54
39:BE:9:VAL:CG2	39:BE:10:GLY:N	2.70	0.54
43:BK:106:GLU:HA	43:BK:109:LYS:CD	2.25	0.54
45:BN:48:MET:H	45:BN:48:MET:CE	2.16	0.54
47:BP:24:GLY:CA	47:BP:33:ARG:HH12	2.20	0.54
54:BW:20:VAL:CG2	54:BW:21:VAL:H	2.20	0.54
57:BZ:3:TYR:HD2	57:BZ:47:VAL:HG13	1.72	0.54
1:AA:417:C:H2'	1:AA:418:C:H6	1.71	0.54
1:AA:1117:G:H5'	1:AA:1117:G:H8	1.72	0.54
1:AA:1260:C:O5'	1:AA:1284:C:H4'	2.08	0.54
1:AA:1409:C:H2'	1:AA:1410:G:H8	1.72	0.54
2:AB:95:GLN:OE1	2:AB:96:ARG:NH1	2.41	0.54
4:AD:36:ARG:HH11	4:AD:36:ARG:CB	2.21	0.54
7:AG:47:CYS:O	7:AG:50:ILE:HB	2.08	0.54
12:AL:75:HIS:CD2	12:AL:77:LEU:CD1	2.88	0.54
16:AP:74:LEU:CD2	16:AP:79:VAL:HG21	2.38	0.54
19:AS:41:VAL:C	19:AS:43:GLU:H	2.10	0.54
24:AY:438:PHE:C	24:AY:438:PHE:HD1	2.10	0.54
25:B0:43:THR:CG2	35:BA:2331:G:O3'	2.56	0.54
29:B4:10:VAL:HG23	29:B4:11:PRO:CD	2.36	0.54
31:B6:30:THR:O	31:B6:32:ASN:N	2.41	0.54
35:BA:121:G:N2	35:BA:122:G:H1'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:295:G:OP1	56:BY:2:ARG:NH2	2.40	0.54
35:BA:299:A:C5'	35:BA:300:A:OP2	2.52	0.54
35:BA:651:G:C2'	35:BA:652:C:H5'	2.38	0.54
35:BA:654(S):G:C5	35:BA:654(T):C:H1'	2.43	0.54
35:BA:1717:G:C2'	35:BA:1718:G:H5''	2.38	0.54
35:BA:1993:U:H4'	39:BE:128:SER:HB3	1.90	0.54
35:BA:2579:C:C4'	39:BE:134:ILE:HG12	2.38	0.54
35:BA:2605:U:H2'	35:BA:2606:C:C6	2.43	0.54
35:BA:2673:G:H5'	35:BA:2673:G:H8	1.73	0.54
38:BD:92:ILE:HA	38:BD:107:ALA:H	1.73	0.54
39:BE:167:VAL:HG13	39:BE:170:LEU:HD11	1.90	0.54
39:BE:176:ILE:CG2	39:BE:178:GLU:HB3	2.38	0.54
39:BE:188:VAL:O	39:BE:189:PRO:O	2.26	0.54
42:BH:171:LEU:CD2	42:BH:171:LEU:C	2.76	0.54
47:BP:91:PHE:HE2	47:BP:99:LEU:CD2	2.18	0.54
49:BR:21:TYR:HB3	49:BR:47:PHE:HD2	1.71	0.54
51:BT:30:VAL:HG22	51:BT:84:GLN:O	2.07	0.54
51:BT:106:SER:O	51:BT:107:ASP:HB3	2.08	0.54
57:BZ:127:LYS:O	57:BZ:128:VAL:HB	2.07	0.54
1:AA:104:G:OP1	20:AT:21:LYS:NZ	2.33	0.53
1:AA:221:C:H5'	1:AA:222:U:OP2	2.08	0.53
1:AA:796:C:C6	1:AA:796:C:H5''	2.43	0.53
1:AA:827:U:H2'	1:AA:870:U:O4	2.08	0.53
1:AA:881:G:P	12:AL:12:ARG:HH22	2.31	0.53
1:AA:1047:G:H5''	14:AN:4:LYS:HD3	1.90	0.53
1:AA:1275:A:C2'	1:AA:1276:G:H5'	2.38	0.53
3:AC:95:THR:O	3:AC:97:LYS:N	2.41	0.53
6:AF:37:VAL:HG12	6:AF:38:GLU:O	2.07	0.53
12:AL:27:LEU:O	12:AL:29:GLY:N	2.41	0.53
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.72	0.53
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.71	0.53
22:AV:3:C:C2'	22:AV:4:G:H5'	2.37	0.53
24:AY:445:GLU:OE1	24:AY:445:GLU:HA	2.07	0.53
24:AY:455:GLY:O	24:AY:456:GLU:C	2.44	0.53
28:B3:45:GLY:HA3	35:BA:851:U:O2'	2.09	0.53
33:B8:7:HIS:HB2	33:B8:59:LYS:HB3	1.90	0.53
35:BA:90:U:O2	35:BA:90:U:H3'	2.08	0.53
35:BA:483:A:H3'	35:BA:484:C:C6	2.43	0.53
35:BA:769:G:H2'	35:BA:770:G:C8	2.41	0.53
35:BA:946:G:H2'	35:BA:947:G:H8	1.73	0.53
35:BA:1227:G:O2'	35:BA:1228:G:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1336:A:OP2	55:BX:64:LYS:HE3	2.07	0.53
35:BA:2076:U:H5	35:BA:2596:U:C2	2.26	0.53
35:BA:2574:G:H2'	35:BA:2575:C:C6	2.43	0.53
35:BA:2591:C:OP2	38:BD:239:ARG:HB3	2.07	0.53
36:BB:91:C:OP2	48:BQ:16:ARG:HD2	2.09	0.53
40:BF:17:ARG:NH1	40:BF:17:ARG:CG	2.69	0.53
41:BG:138:GLN:HG3	41:BG:144:ILE:CD1	2.39	0.53
42:BH:85:LYS:HD3	42:BH:85:LYS:O	2.08	0.53
43:BK:30:HIS:CE1	43:BK:59:ILE:HB	2.43	0.53
47:BP:144:GLU:N	47:BP:145:PRO:HD3	2.22	0.53
49:BR:96:ARG:O	49:BR:114:VAL:HA	2.08	0.53
54:BW:20:VAL:CG2	54:BW:21:VAL:N	2.71	0.53
57:BZ:9:TYR:HB3	57:BZ:35:ARG:NH2	2.23	0.53
57:BZ:158:PRO:HB3	57:BZ:159:PRO:HD2	1.90	0.53
1:AA:489:C:H2'	1:AA:490:G:H8	1.73	0.53
1:AA:579:G:C5'	1:AA:728:A:H1'	2.37	0.53
1:AA:665:A:H2'	1:AA:732:C:O2	2.09	0.53
1:AA:1308:U:H5''	13:AM:98:VAL:CG2	2.37	0.53
2:AB:204:ASN:ND2	2:AB:207:ALA:H	2.06	0.53
3:AC:20:SER:HB3	3:AC:40:ARG:NH2	2.22	0.53
3:AC:131:ARG:HH22	3:AC:168:ALA:HB2	1.73	0.53
4:AD:74:GLN:HA	4:AD:77:ASN:HD22	1.74	0.53
5:AE:101:ILE:H	5:AE:101:ILE:CD1	2.19	0.53
9:AI:53:VAL:C	9:AI:55:ALA:N	2.61	0.53
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.27	0.53
24:AY:171:GLU:HG3	24:AY:172:ASP:H	1.74	0.53
24:AY:464:ASP:O	24:AY:468:ARG:HB2	2.07	0.53
25:B0:5:LYS:HB3	25:B0:5:LYS:HZ3	1.72	0.53
25:B0:73:GLY:C	25:B0:75:LEU:H	2.12	0.53
26:B1:18:ILE:CG2	26:B1:20:ARG:HE	2.17	0.53
26:B1:45:ASN:C	26:B1:45:ASN:ND2	2.61	0.53
27:B2:18:PRO:HG2	27:B2:19:VAL:HG23	1.90	0.53
31:B6:5:VAL:CG2	35:BA:2283:C:H5'	2.35	0.53
31:B6:28:ARG:O	31:B6:32:ASN:HB2	2.08	0.53
31:B6:38:LYS:O	31:B6:39:TYR:HD1	1.91	0.53
35:BA:880:G:H2'	35:BA:881:G:H8	1.74	0.53
35:BA:1114:G:H2'	35:BA:1115:G:H5'	1.89	0.53
35:BA:1142:U:O5'	35:BA:1142:U:C6	2.61	0.53
35:BA:1164:G:H2'	35:BA:1165:U:C6	2.44	0.53
35:BA:1660:C:H5'	35:BA:2712(A):A:H61	1.73	0.53
35:BA:1775:U:H2'	35:BA:1776:G:C5'	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2016:U:O2'	35:BA:2017:U:H5'	2.07	0.53
35:BA:2884:U:H2'	35:BA:2885:C:C5'	2.37	0.53
39:BE:168:MET:HE2	39:BE:202:LYS:HE2	1.89	0.53
48:BQ:75:THR:CG2	48:BQ:76:LYS:H	2.19	0.53
50:BS:70:GLY:C	50:BS:72:ALA:H	2.11	0.53
52:BU:8:VAL:HG23	52:BU:11:ARG:HH21	1.74	0.53
52:BU:53:ARG:HG3	52:BU:57:PHE:CE1	2.41	0.53
57:BZ:128:VAL:CG2	57:BZ:132:ASN:HB2	2.39	0.53
1:AA:296:U:H2'	1:AA:297:G:C8	2.44	0.53
1:AA:957:U:H2'	1:AA:959:A:OP2	2.08	0.53
3:AC:150:LYS:HB2	3:AC:169:ALA:HB1	1.89	0.53
5:AE:26:PHE:N	5:AE:26:PHE:CD1	2.76	0.53
11:AK:85:ARG:HG2	11:AK:111:ASP:O	2.08	0.53
20:AT:8:ARG:HH11	20:AT:8:ARG:CG	2.20	0.53
20:AT:30:LYS:HZ3	20:AT:80:ARG:NH2	2.07	0.53
24:AY:21:ILE:HG21	24:AY:88:VAL:HG13	1.90	0.53
24:AY:115:GLU:OE2	24:AY:118:SER:CB	2.56	0.53
24:AY:485:GLU:O	24:AY:486:THR:HB	2.08	0.53
27:B2:57:ILE:HG22	27:B2:61:LEU:CD1	2.39	0.53
33:B8:32:LEU:CB	33:B8:36:LYS:NZ	2.71	0.53
33:B8:62:LEU:CD1	35:BA:242:G:H5''	2.35	0.53
35:BA:221:A:N6	35:BA:265:A:H8	2.00	0.53
35:BA:272(I):U:H5	35:BA:363(A):A:H2	1.56	0.53
35:BA:566:U:O4	53:BV:78:LYS:HE3	2.09	0.53
35:BA:1024:G:C8	35:BA:1025:G:H2'	2.43	0.53
35:BA:1059:G:H4'	43:BK:115:LEU:HD23	1.89	0.53
35:BA:1169:G:N2	35:BA:1181:C:N3	2.55	0.53
35:BA:1205:U:C5	40:BF:171:PRO:HA	2.42	0.53
35:BA:1858:G:H2'	35:BA:1883:G:N2	2.24	0.53
35:BA:2395:C:C2	35:BA:2396:G:C8	2.97	0.53
37:BC:84:ILE:O	37:BC:95:VAL:HG11	2.08	0.53
38:BD:35:LYS:CG	38:BD:63:ARG:HA	2.29	0.53
40:BF:201:VAL:HA	40:BF:204:ASN:HD22	1.73	0.53
41:BG:42:GLY:O	41:BG:44:GLY:N	2.42	0.53
51:BT:70:VAL:HG12	51:BT:71:GLY:N	2.24	0.53
55:BX:18:TYR:CD1	55:BX:21:PHE:HE2	2.25	0.53
56:BY:75:ILE:O	56:BY:76:CYS:HB2	2.08	0.53
57:BZ:151:HIS:CB	57:BZ:170:THR:HA	2.32	0.53
1:AA:658:G:C6	1:AA:749:C:N4	2.76	0.53
1:AA:674:G:O4'	18:AR:81:PHE:CE2	2.61	0.53
2:AB:7:VAL:C	2:AB:11:LEU:HG	2.28	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:142:MET:HE1	3:AC:171:GLY:HA3	1.89	0.53
6:AF:16:GLN:CD	6:AF:16:GLN:N	2.55	0.53
7:AG:4:ARG:HD3	7:AG:5:ARG:HH12	1.71	0.53
12:AL:30:ALA:CB	12:AL:33:ARG:HH21	2.20	0.53
12:AL:60:LEU:HD22	12:AL:60:LEU:N	2.23	0.53
16:AP:5:ARG:HE	16:AP:22:THR:CG2	2.21	0.53
16:AP:67:THR:HB	16:AP:70:ALA:HB2	1.89	0.53
19:AS:8:GLY:O	19:AS:9:VAL:CG2	2.56	0.53
20:AT:73:HIS:O	20:AT:74:LYS:C	2.46	0.53
22:AV:4:G:O2'	22:AV:5:G:P	2.66	0.53
24:AY:134:ALA:HB3	24:AY:258:VAL:HG22	1.91	0.53
24:AY:486:THR:HG21	24:AY:602:LEU:CD1	2.39	0.53
58:AY:701:FUA:O1	58:AY:701:FUA:H12	2.08	0.53
32:B7:4:THR:O	35:BA:687:C:H5'	2.09	0.53
33:B8:26:LYS:HE2	33:B8:47:LYS:HD2	1.90	0.53
35:BA:582:G:C6	35:BA:1259:G:N1	2.76	0.53
35:BA:643:A:H2'	35:BA:644:A:O4'	2.08	0.53
35:BA:781:A:H2'	35:BA:1777:U:O2'	2.09	0.53
35:BA:811:U:O2	35:BA:1251:C:C5	2.62	0.53
35:BA:811:U:O2	35:BA:1251:C:C6	2.62	0.53
35:BA:1142(A):A:C5	35:BA:1144:G:C5	2.97	0.53
35:BA:1149:G:H2'	35:BA:1150:C:C6	2.44	0.53
35:BA:1252:G:N3	52:BU:33:ARG:HD2	2.23	0.53
35:BA:1577:C:H2'	35:BA:1578:U:O4'	2.08	0.53
35:BA:1993:U:H4'	39:BE:128:SER:CB	2.39	0.53
35:BA:2078:C:C4	35:BA:2079:U:C4	2.97	0.53
35:BA:2306:C:H5''	35:BA:2307:G:O4'	2.07	0.53
35:BA:2617:C:H2'	35:BA:2618:G:H5'	1.91	0.53
41:BG:82:LEU:C	41:BG:83:ARG:HG3	2.29	0.53
43:BK:14:ALA:HA	43:BK:41:PHE:CZ	2.43	0.53
45:BN:96:GLU:O	45:BN:100:GLU:HG3	2.08	0.53
45:BN:128:HIS:HE1	45:BN:134:ARG:HH11	1.56	0.53
47:BP:19:VAL:HG23	47:BP:19:VAL:O	2.09	0.53
1:AA:329:A:H3'	1:AA:330:C:C5'	2.38	0.53
1:AA:541:G:O2'	1:AA:542:G:H5'	2.07	0.53
1:AA:878:G:OP1	8:AH:90:GLY:HA3	2.09	0.53
1:AA:923:A:H5''	5:AE:21:ALA:HB2	1.91	0.53
1:AA:1424:C:H2'	1:AA:1425:U:C6	2.38	0.53
2:AB:75:LYS:HA	2:AB:78:GLN:CG	2.38	0.53
4:AD:129:ASN:HD22	4:AD:129:ASN:H	1.55	0.53
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.52	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:30:LYS:HG3	20:AT:34:LYS:HE3	1.91	0.53
20:AT:80:ARG:HH11	20:AT:80:ARG:HG2	1.73	0.53
24:AY:128:TYR:HE2	24:AY:130:VAL:HG23	1.74	0.53
24:AY:567:LEU:HG	24:AY:567:LEU:O	2.07	0.53
26:B1:76:ARG:HH22	26:B1:95:LEU:CD1	2.21	0.53
35:BA:487:C:H1'	54:BW:53:SER:HA	1.90	0.53
35:BA:797:C:H2'	35:BA:798:G:H8	1.72	0.53
35:BA:1080:C:H4'	43:BK:125:ARG:CB	2.36	0.53
35:BA:1099:G:H2'	35:BA:1100:C:O4'	2.08	0.53
35:BA:1345:C:C2'	35:BA:1346:G:H5'	2.38	0.53
35:BA:1854:A:H8	35:BA:1854:A:O5'	1.92	0.53
35:BA:2000:G:O2'	35:BA:2001:A:H5'	2.07	0.53
35:BA:2189:U:H2'	35:BA:2190:G:C5'	2.37	0.53
35:BA:2224:G:H4'	35:BA:2226:C:C2	2.44	0.53
35:BA:2705:A:H2'	35:BA:2706:G:O4'	2.08	0.53
35:BA:2749:A:C6	35:BA:2750:A:N6	2.77	0.53
37:BC:149:ASN:H	37:BC:149:ASN:HD22	1.55	0.53
40:BF:117:ARG:NH2	47:BP:5:ASP:N	2.56	0.53
43:BK:76:TYR:HB3	43:BK:77:LEU:HD23	1.89	0.53
48:BQ:48:GLU:O	48:BQ:52:VAL:HG23	2.09	0.53
50:BS:12:PHE:O	50:BS:14:VAL:HG23	2.08	0.53
50:BS:74:ALA:HB1	50:BS:103:GLU:CB	2.39	0.53
51:BT:13:ARG:HA	51:BT:13:ARG:NE	2.24	0.53
52:BU:33:ARG:C	52:BU:35:ALA:N	2.55	0.53
53:BV:99:ILE:N	53:BV:99:ILE:HD13	2.23	0.53
1:AA:972:C:H4'	10:AJ:57:LYS:CB	2.39	0.53
3:AC:156:ARG:HB2	3:AC:196:LEU:HD21	1.91	0.53
4:AD:14:ARG:HG3	4:AD:15:GLU:N	2.23	0.53
5:AE:5:ASP:C	5:AE:6:PHE:CD1	2.82	0.53
8:AH:7:ALA:HB2	8:AH:85:ARG:HD3	1.89	0.53
8:AH:112:LEU:N	8:AH:112:LEU:HD23	2.23	0.53
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.90	0.53
24:AY:553:GLY:HA2	24:AY:560:VAL:HG23	1.91	0.53
27:B2:29:LYS:O	27:B2:31:GLU:N	2.42	0.53
28:B3:9:VAL:HG11	28:B3:55:ARG:HD3	1.89	0.53
32:B7:16:HIS:ND1	35:BA:684:G:OP1	2.40	0.53
35:BA:15:G:O2'	35:BA:16:G:H5'	2.08	0.53
35:BA:41:C:H2'	35:BA:42:G:O4'	2.08	0.53
35:BA:85:G:C2'	35:BA:86:C:H5'	2.37	0.53
35:BA:492:A:O2'	35:BA:493:G:H5'	2.09	0.53
35:BA:644:A:C2	35:BA:2369:A:H1'	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1334:G:O3'	55:BX:65:ARG:NH2	2.41	0.53
35:BA:2461:C:O2	35:BA:2461:C:C2'	2.57	0.53
38:BD:210:GLY:O	38:BD:211:ARG:CB	2.57	0.53
41:BG:59:GLU:O	41:BG:63:ILE:HG13	2.08	0.53
43:BK:23:VAL:O	43:BK:23:VAL:CG1	2.51	0.53
43:BK:88:ALA:O	43:BK:90:LYS:N	2.40	0.53
43:BK:103:GLN:C	43:BK:106:GLU:HG2	2.29	0.53
46:BO:101:PRO:C	46:BO:102:VAL:CG1	2.77	0.53
49:BR:4:LEU:O	49:BR:4:LEU:HD13	2.09	0.53
50:BS:13:ARG:O	50:BS:14:VAL:HB	2.07	0.53
51:BT:89:VAL:HG12	51:BT:91:ARG:HG3	1.89	0.53
52:BU:51:LYS:HA	52:BU:54:LYS:HE2	1.91	0.53
55:BX:14:SER:H	55:BX:17:ALA:HB3	1.73	0.53
1:AA:201:C:C2'	1:AA:202:U:H5''	2.39	0.53
1:AA:999:C:H3'	1:AA:999:C:H6	1.74	0.53
1:AA:1254:C:H2'	1:AA:1255:G:C8	2.44	0.53
1:AA:1312:G:O2'	1:AA:1313:U:H5'	2.08	0.53
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.44	0.53
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.73	0.53
3:AC:99:VAL:O	3:AC:99:VAL:CG2	2.56	0.53
3:AC:154:SER:O	3:AC:165:THR:HA	2.09	0.53
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.91	0.53
10:AJ:54:PHE:CD1	10:AJ:55:LYS:NZ	2.75	0.53
12:AL:7:ILE:CG2	12:AL:8:ASN:N	2.71	0.53
12:AL:20:LYS:HD3	12:AL:20:LYS:N	2.24	0.53
19:AS:5:LEU:HG	19:AS:10:PHE:HD1	1.72	0.53
29:B4:1:MET:CE	41:BG:98:ARG:HG3	2.38	0.53
29:B4:2:LYS:HG2	36:BB:44:G:OP2	2.09	0.53
35:BA:624:C:N4	47:BP:107:LYS:NZ	2.56	0.53
35:BA:1278:A:H2'	35:BA:1279:G:C8	2.43	0.53
35:BA:1415:U:H3	35:BA:1587:A:H61	1.57	0.53
35:BA:1469:A:H2'	35:BA:1470:G:O4'	2.08	0.53
35:BA:1948:G:O2'	35:BA:1949:G:H5'	2.08	0.53
35:BA:2131:G:C8	35:BA:2133:G:N2	2.77	0.53
35:BA:2506:U:H4'	35:BA:2507:C:OP1	2.07	0.53
35:BA:2647:U:H2'	35:BA:2648:C:C6	2.44	0.53
38:BD:4:LYS:HZ2	38:BD:20:ASP:HA	1.74	0.53
38:BD:43:ARG:NH1	38:BD:49:ILE:HG22	2.23	0.53
38:BD:241:PRO:O	38:BD:242:ARG:HB2	2.08	0.53
40:BF:10:PRO:HD2	40:BF:13:SER:O	2.09	0.53
41:BG:38:VAL:HG22	41:BG:93:THR:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BK:99:ILE:HD12	43:BK:103:GLN:CB	2.38	0.53
46:BO:13:ASN:ND2	46:BO:97:ARG:CG	2.71	0.53
47:BP:147:LEU:C	47:BP:148:LEU:HD12	2.28	0.53
49:BR:97:VAL:HA	49:BR:113:LEU:O	2.09	0.53
51:BT:108:ARG:HH11	51:BT:108:ARG:HB2	1.70	0.53
54:BW:12:ILE:CG1	54:BW:42:ARG:NH1	2.72	0.53
56:BY:84:ARG:HD2	56:BY:97:ARG:HD2	1.90	0.53
1:AA:513:C:O2'	1:AA:514:C:H5'	2.08	0.53
1:AA:607:A:H2'	1:AA:608:A:O4'	2.09	0.53
1:AA:948:C:H2'	1:AA:949:A:H8	1.73	0.53
5:AE:79:GLU:HB3	5:AE:92:LYS:HA	1.89	0.53
6:AF:45:LEU:O	6:AF:46:ARG:HG3	2.08	0.53
6:AF:47:ARG:HH11	6:AF:47:ARG:HG2	1.74	0.53
7:AG:88:PRO:O	7:AG:88:PRO:HG2	2.08	0.53
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.09	0.53
24:AY:624:LEU:HD11	24:AY:655:TYR:OH	2.08	0.53
26:B1:85:LEU:C	26:B1:87:PRO:CD	2.77	0.53
27:B2:67:LYS:O	27:B2:70:GLN:HG3	2.08	0.53
28:B3:57:GLU:CG	28:B3:58:VAL:N	2.72	0.53
29:B4:5:ILE:O	29:B4:5:ILE:CG1	2.53	0.53
35:BA:17:G:H4'	52:BU:25:TRP:CH2	2.44	0.53
35:BA:624:C:H41	47:BP:107:LYS:HZ2	1.56	0.53
35:BA:832:G:OP1	47:BP:40:SER:HB3	2.08	0.53
35:BA:1133:U:O2	35:BA:1137:G:C5'	2.57	0.53
35:BA:1161:C:H1'	53:BV:8:GLY:O	2.09	0.53
35:BA:1799:G:H8	38:BD:181:GLU:OE1	1.91	0.53
35:BA:1821:A:H2'	35:BA:1822:G:C8	2.39	0.53
35:BA:2188:C:H2'	35:BA:2189:U:C6	2.44	0.53
35:BA:2779:U:H1'	35:BA:2781:A:C6	2.44	0.53
35:BA:2816:C:O2	35:BA:2883:A:O2'	2.25	0.53
37:BC:34:ALA:HB1	37:BC:40:GLU:HB2	1.90	0.53
37:BC:37:LYS:C	37:BC:38:PHE:HD1	2.12	0.53
39:BE:31:CYS:C	39:BE:90:THR:HG23	2.30	0.53
40:BF:65:TRP:CZ3	40:BF:75:HIS:HD2	2.27	0.53
45:BN:99:LEU:HD13	45:BN:103:VAL:CG2	2.38	0.53
46:BO:53:LYS:O	46:BO:54:GLU:C	2.47	0.53
46:BO:106:LEU:O	46:BO:107:ARG:C	2.45	0.53
49:BR:9:LYS:O	49:BR:10:LEU:HD23	2.08	0.53
49:BR:10:LEU:HD22	49:BR:17:ARG:CD	2.39	0.53
52:BU:26:GLY:C	52:BU:28:ARG:N	2.61	0.53
56:BY:99:CYS:SG	56:BY:99:CYS:O	2.66	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:137:ILE:HG22	57:BZ:155:LEU:HD12	1.90	0.53
1:AA:624:C:O2'	1:AA:625:G:H5'	2.09	0.53
1:AA:770:C:O2'	1:AA:771:G:H5'	2.09	0.53
1:AA:1158:C:C6	2:AB:132:LYS:CE	2.84	0.53
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.44	0.53
1:AA:1440:C:H2'	1:AA:1441:G:H5'	1.91	0.53
4:AD:192:GLU:O	4:AD:193:ASP:C	2.45	0.53
14:AN:24:CYS:SG	14:AN:25:VAL:N	2.82	0.53
18:AR:69:THR:O	18:AR:72:ARG:N	2.42	0.53
19:AS:5:LEU:HG	19:AS:10:PHE:CD1	2.44	0.53
26:B1:51:VAL:HG22	26:B1:52:ARG:N	2.24	0.53
27:B2:3:LEU:HD12	35:BA:98:G:H5''	1.89	0.53
27:B2:33:MET:HG2	27:B2:37:PHE:CE1	2.44	0.53
27:B2:48:HIS:ND1	35:BA:95:G:O2'	2.41	0.53
28:B3:31:LEU:HD13	28:B3:32:GLN:CG	2.27	0.53
29:B4:41:PRO:C	29:B4:42:PHE:CG	2.82	0.53
30:B5:44:THR:O	30:B5:51:TYR:HE2	1.92	0.53
35:BA:271(H):G:H1	35:BA:271(P):C:N4	2.06	0.53
35:BA:271(J):C:O2	35:BA:271(J):C:H2'	2.09	0.53
35:BA:848:G:O6	35:BA:928:G:H2'	2.07	0.53
35:BA:851:U:H2'	35:BA:852:G:H8	1.73	0.53
35:BA:1064:C:H5'	43:BK:87:GLY:H	1.74	0.53
35:BA:1323:U:OP1	54:BW:84:ARG:NE	2.40	0.53
35:BA:1516:C:C2'	35:BA:1517:G:H5''	2.39	0.53
35:BA:2103:C:H3'	35:BA:2104:G:H5''	1.91	0.53
35:BA:2240:C:O2'	35:BA:2241:A:H5'	2.08	0.53
36:BB:40:U:H3'	36:BB:41:U:H5''	1.89	0.53
39:BE:101:ARG:HH11	39:BE:169:ASN:HD22	1.55	0.53
39:BE:101:ARG:HD2	39:BE:169:ASN:O	2.09	0.53
39:BE:183:LEU:N	39:BE:183:LEU:HD12	2.23	0.53
40:BF:124:LEU:HD12	40:BF:125:LEU:H	1.72	0.53
43:BK:10:LEU:CD1	43:BK:57:ILE:HD13	2.39	0.53
43:BK:93:ARG:CB	57:BZ:112:ARG:HE	2.21	0.53
43:BK:95:LYS:N	43:BK:95:LYS:HD2	2.24	0.53
44:BL:73:ARG:HG3	44:BL:74:GLY:N	2.23	0.53
48:BQ:30:GLY:HA2	48:BQ:107:ALA:HB2	1.89	0.53
51:BT:35:LYS:HZ3	51:BT:41:ARG:HD2	1.73	0.53
57:BZ:185:GLU:O	57:BZ:186:GLU:C	2.47	0.53
1:AA:296:U:H2'	1:AA:297:G:H8	1.74	0.53
1:AA:523:A:N1	12:AL:92:ASP:HB2	2.24	0.53
1:AA:1237:C:H5''	1:AA:1238:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.91	0.53
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.23	0.53
7:AG:133:GLY:O	7:AG:136:LYS:HB2	2.08	0.53
11:AK:59:TYR:CE2	11:AK:63:LEU:HD11	2.44	0.53
24:AY:25:LYS:NZ	24:AY:86:GLY:HA2	2.24	0.53
24:AY:124:GLN:HA	24:AY:127:LYS:HD2	1.91	0.53
24:AY:512:ILE:HD12	24:AY:589:ALA:HB1	1.90	0.53
25:B0:73:GLY:O	25:B0:75:LEU:N	2.36	0.53
26:B1:26:ARG:HG3	26:B1:27:GLU:HG3	1.90	0.53
27:B2:50:ILE:C	27:B2:52:ASP:N	2.62	0.53
35:BA:186:G:O2'	35:BA:187:G:H5'	2.09	0.53
35:BA:975:C:OP2	35:BA:975:C:C4'	2.54	0.53
35:BA:1826:G:H2'	35:BA:1827:C:H6	1.74	0.53
35:BA:2189:U:C3'	35:BA:2190:G:H5''	2.37	0.53
35:BA:2531:A:H4'	42:BH:157:TYR:CD2	2.44	0.53
37:BC:43:GLU:HG3	37:BC:216:THR:HG23	1.91	0.53
40:BF:170:LEU:HB2	40:BF:173:VAL:HB	1.91	0.53
45:BN:60:ILE:HG22	45:BN:61:ARG:N	2.24	0.53
45:BN:65:LYS:CB	45:BN:69:GLN:HG3	2.39	0.53
45:BN:128:HIS:CE1	45:BN:134:ARG:HH11	2.27	0.53
48:BQ:60:ARG:NH1	48:BQ:60:ARG:CB	2.63	0.53
51:BT:54:ARG:HH11	51:BT:54:ARG:CG	2.22	0.53
53:BV:32:THR:HG22	53:BV:33:VAL:N	2.24	0.53
57:BZ:144:LEU:HD11	57:BZ:150:LEU:HD22	1.91	0.53
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.90	0.52
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.45	0.52
2:AB:55:PHE:HD1	2:AB:221:LEU:HG	1.74	0.52
2:AB:83:MET:HG3	2:AB:234:PRO:HG3	1.91	0.52
2:AB:239:VAL:O	2:AB:239:VAL:HG12	2.09	0.52
3:AC:142:MET:HE2	3:AC:171:GLY:HA3	1.90	0.52
9:AI:3:GLN:NE2	9:AI:20:ARG:HH21	2.07	0.52
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.09	0.52
12:AL:64:TYR:N	12:AL:64:TYR:CD1	2.77	0.52
12:AL:113:ARG:HD2	12:AL:115:LYS:H	1.74	0.52
24:AY:601:ILE:HG21	24:AY:687:LEU:HD12	1.90	0.52
24:AY:633:GLY:HA3	24:AY:644:ARG:HH11	1.73	0.52
30:B5:30:LEU:HD23	30:B5:41:PRO:N	2.24	0.52
30:B5:55:ARG:HH12	49:BR:33:ARG:HG2	1.73	0.52
35:BA:484:C:O2'	35:BA:485:C:H5'	2.09	0.52
35:BA:654(T):C:N3	35:BA:654(U):A:C2	2.77	0.52
35:BA:1057:A:H2'	35:BA:1058:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1259:G:C2'	35:BA:1260:G:H5'	2.39	0.52
35:BA:1260:G:H2'	35:BA:1261:C:C6	2.43	0.52
35:BA:1899:G:N2	35:BA:1902:C:C5	2.78	0.52
35:BA:2626:C:H2'	35:BA:2627:G:O4'	2.09	0.52
36:BB:30:C:OP2	50:BS:32:LEU:HD21	2.09	0.52
38:BD:35:LYS:N	38:BD:36:PRO:HD2	2.22	0.52
38:BD:77:ALA:CB	38:BD:97:TYR:HA	2.39	0.52
39:BE:52:LEU:O	39:BE:74:PRO:HA	2.09	0.52
39:BE:68:ALA:CB	39:BE:69:LYS:HE2	2.38	0.52
42:BH:12:PRO:HD3	42:BH:49:VAL:CG1	2.39	0.52
42:BH:159:GLU:CG	42:BH:160:LYS:H	2.10	0.52
43:BK:59:ILE:O	43:BK:60:TYR:CD1	2.61	0.52
45:BN:115:ARG:HA	45:BN:118:LYS:HE2	1.91	0.52
49:BR:18:LEU:HD23	49:BR:18:LEU:C	2.29	0.52
52:BU:55:ARG:HA	52:BU:58:ARG:HG3	1.90	0.52
1:AA:346:G:P	51:BT:41:ARG:NH2	2.83	0.52
1:AA:452:A:O2'	1:AA:453:A:H8	1.92	0.52
1:AA:812:C:O2'	1:AA:813:U:P	2.67	0.52
1:AA:814:A:H2'	1:AA:816:A:C5'	2.39	0.52
1:AA:1198:G:C6	1:AA:1199:U:N3	2.78	0.52
1:AA:1346:A:H1'	1:AA:1348:U:C5	2.44	0.52
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.91	0.52
6:AF:62:TRP:CE2	18:AR:35:ARG:NH2	2.78	0.52
7:AG:80:VAL:HG23	7:AG:81:GLY:H	1.74	0.52
16:AP:4:ILE:HG13	16:AP:64:ALA:HB1	1.91	0.52
24:AY:8:ASP:O	24:AY:9:LEU:HB3	2.10	0.52
24:AY:76:ASP:O	24:AY:77:HIS:CG	2.63	0.52
24:AY:227:ILE:O	24:AY:227:ILE:HG22	2.10	0.52
24:AY:438:PHE:C	24:AY:439:ARG:HG3	2.29	0.52
24:AY:605:ILE:N	24:AY:605:ILE:CD1	2.72	0.52
24:AY:632:LEU:HD12	24:AY:645:ALA:HA	1.91	0.52
25:B0:52:GLY:HA3	25:B0:62:LEU:HD21	1.90	0.52
27:B2:20:GLU:O	27:B2:21:LEU:C	2.47	0.52
28:B3:19:GLN:O	28:B3:22:ALA:HB3	2.09	0.52
28:B3:40:THR:O	28:B3:44:ARG:HG3	2.10	0.52
31:B6:42:TRP:CE3	31:B6:42:TRP:HA	2.43	0.52
33:B8:28:GLY:H	35:BA:2393:A:P	2.32	0.52
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.70	0.52
35:BA:894:C:C2'	35:BA:895:U:H5'	2.39	0.52
35:BA:918:A:H1'	36:BB:80:U:O2'	2.10	0.52
35:BA:2336:A:N3	35:BA:2385:C:H1'	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2337:G:H2'	35:BA:2338:G:H8	1.74	0.52
35:BA:2777:G:H5''	35:BA:2778:A:H5''	1.90	0.52
35:BA:2832:U:H1'	35:BA:2834:G:C2	2.44	0.52
36:BB:53:A:H2'	36:BB:53:A:N3	2.25	0.52
36:BB:61:G:O2'	36:BB:62:C:H5'	2.09	0.52
38:BD:24:ILE:O	38:BD:25:THR:O	2.27	0.52
38:BD:43:ARG:CB	38:BD:54:ARG:HB2	2.39	0.52
41:BG:133:LEU:C	41:BG:133:LEU:HD12	2.30	0.52
43:BK:15:GLY:HA2	43:BK:42:ASN:HD21	1.75	0.52
49:BR:41:ALA:C	49:BR:43:GLU:H	2.13	0.52
49:BR:97:VAL:HG13	49:BR:114:VAL:CG2	2.39	0.52
50:BS:93:LYS:O	50:BS:94:TYR:C	2.48	0.52
51:BT:33:LYS:HE2	51:BT:43:GLN:NE2	2.25	0.52
57:BZ:28:MET:HB3	57:BZ:88:PHE:CB	2.11	0.52
1:AA:160:A:N6	1:AA:161:A:C2	2.78	0.52
1:AA:165:C:O2'	1:AA:166:G:H5'	2.09	0.52
1:AA:728:A:H2'	1:AA:729:A:C8	2.44	0.52
1:AA:793:U:C3'	1:AA:794:A:C5'	2.85	0.52
1:AA:829:G:O2'	1:AA:830:G:H5'	2.09	0.52
1:AA:1082:G:C2'	1:AA:1083:U:H5'	2.39	0.52
2:AB:21:ARG:O	2:AB:22:LYS:HB2	2.09	0.52
6:AF:21:LEU:O	6:AF:24:GLU:HB3	2.09	0.52
8:AH:96:GLY:O	8:AH:99:GLU:N	2.39	0.52
9:AI:35:GLU:HA	9:AI:38:GLN:HB2	1.90	0.52
10:AJ:12:ASP:OD2	10:AJ:15:THR:HG23	2.08	0.52
10:AJ:92:THR:CG2	10:AJ:93:GLY:H	2.19	0.52
12:AL:64:TYR:N	12:AL:64:TYR:HD1	2.07	0.52
16:AP:19:ILE:N	16:AP:37:GLY:O	2.42	0.52
17:AQ:80:GLY:O	17:AQ:81:ARG:HD2	2.09	0.52
22:AV:20:U:C3'	22:AV:21:A:C5'	2.85	0.52
22:AV:38:A:C2'	22:AV:39:C:H5'	2.39	0.52
22:AV:61:C:H2'	22:AV:62:C:C6	2.45	0.52
24:AY:20:HIS:O	24:AY:23:ALA:HB2	2.10	0.52
24:AY:97:SER:O	24:AY:100:VAL:CG1	2.58	0.52
24:AY:114:VAL:O	24:AY:114:VAL:HG13	2.10	0.52
27:B2:38:GLN:C	27:B2:40:SER:N	2.63	0.52
28:B3:40:THR:HG23	28:B3:43:ILE:CG1	2.39	0.52
35:BA:31:C:H2'	35:BA:32:C:O4'	2.10	0.52
35:BA:272(H):C:H3'	35:BA:272(H):C:C6	2.44	0.52
35:BA:307:G:N2	35:BA:310:A:O5'	2.43	0.52
35:BA:338:G:H2'	35:BA:339:U:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:650:C:C3'	35:BA:651:G:H5''	2.40	0.52
35:BA:1331:A:O2'	35:BA:1332:G:H8	1.93	0.52
35:BA:1584:C:H3'	35:BA:1584:C:O2	2.09	0.52
35:BA:1688:U:O2	35:BA:1700:A:H5''	2.09	0.52
35:BA:1971:A:N3	38:BD:241:PRO:HD3	2.24	0.52
35:BA:2011:U:C2'	35:BA:2012:G:H5'	2.39	0.52
35:BA:2832:U:H1'	35:BA:2834:G:C4	2.44	0.52
36:BB:105:A:H2'	36:BB:106:G:O4'	2.09	0.52
37:BC:93:ASP:O	37:BC:94:TYR:CD1	2.62	0.52
38:BD:183:ARG:HG2	38:BD:183:ARG:NH1	2.13	0.52
39:BE:11:MET:HB3	39:BE:24:THR:HA	1.90	0.52
41:BG:51:ARG:HA	41:BG:51:ARG:HE	1.73	0.52
42:BH:88:LEU:HD23	42:BH:164:TYR:O	2.09	0.52
42:BH:171:LEU:CD2	42:BH:172:LYS:O	2.56	0.52
45:BN:35:ARG:HB3	45:BN:42:TRP:CZ3	2.43	0.52
49:BR:84:ALA:CB	49:BR:85:PRO:HD3	2.24	0.52
50:BS:68:GLN:C	50:BS:70:GLY:N	2.62	0.52
51:BT:51:ARG:HG3	51:BT:98:LYS:HE3	1.91	0.52
55:BX:56:THR:C	55:BX:57:LEU:CD1	2.78	0.52
56:BY:95:LYS:CE	56:BY:101:LYS:H	2.22	0.52
57:BZ:67:LEU:HD23	57:BZ:90:VAL:CG1	2.38	0.52
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.45	0.52
2:AB:87:ARG:HH12	2:AB:223:ILE:HD11	1.74	0.52
2:AB:97:TRP:CZ3	2:AB:173:ALA:HA	2.45	0.52
4:AD:149:ALA:O	4:AD:153:ARG:HG3	2.09	0.52
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.35	0.52
5:AE:152:ARG:HB3	8:AH:43:GLY:HA3	1.90	0.52
9:AI:32:ASP:C	9:AI:32:ASP:OD1	2.47	0.52
9:AI:82:ALA:HA	9:AI:85:LEU:HD11	1.92	0.52
21:AU:6:ARG:HH21	21:AU:15:ARG:NH2	2.07	0.52
22:AV:75:C:H3'	22:AV:75:C:H6	1.74	0.52
24:AY:309:LEU:O	24:AY:390:VAL:HA	2.09	0.52
32:B7:45:ALA:O	32:B7:46:VAL:HG23	2.10	0.52
35:BA:422:A:H2'	35:BA:423:A:C8	2.45	0.52
35:BA:1411:C:N4	35:BA:1412:A:N6	2.57	0.52
35:BA:1887:C:C3'	35:BA:1888:G:H5''	2.39	0.52
35:BA:2102:U:H2'	35:BA:2103:C:C6	2.44	0.52
35:BA:2116:G:N7	35:BA:2117:A:C5	2.78	0.52
35:BA:2667:C:H2'	35:BA:2668:G:H8	1.74	0.52
35:BA:2892:A:N6	35:BA:2893:G:H21	2.08	0.52
36:BB:82:G:HO2'	36:BB:83:G:H5'	1.70	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:65:LEU:HD11	37:BC:162:ILE:HD13	1.91	0.52
37:BC:114:VAL:O	37:BC:139:PRO:HG3	2.10	0.52
39:BE:2:LYS:HA	39:BE:84:PHE:CE1	2.43	0.52
39:BE:108:SER:O	39:BE:162:ALA:HA	2.10	0.52
40:BF:28:ILE:HG21	40:BF:116:ASP:HB2	1.91	0.52
40:BF:40:GLN:OE1	40:BF:184:TYR:HB2	2.10	0.52
40:BF:123:LEU:HD12	40:BF:123:LEU:C	2.28	0.52
41:BG:61:ALA:HB1	41:BG:66:GLN:O	2.10	0.52
41:BG:63:ILE:C	41:BG:63:ILE:CD1	2.77	0.52
41:BG:159:VAL:O	41:BG:159:VAL:HG22	2.08	0.52
43:BK:50:ASP:O	43:BK:51:ALA:O	2.27	0.52
45:BN:46:VAL:O	45:BN:47:ALA:CB	2.57	0.52
51:BT:129:ARG:O	51:BT:129:ARG:CG	2.57	0.52
52:BU:101:ARG:C	52:BU:102:GLU:CG	2.77	0.52
57:BZ:77:ASP:O	57:BZ:79:ARG:N	2.43	0.52
1:AA:405:U:H3'	1:AA:406:G:H5'	1.92	0.52
1:AA:415:A:H2'	1:AA:416:G:H8	1.74	0.52
1:AA:781:A:C2'	1:AA:782:A:H5'	2.39	0.52
1:AA:1033:G:H8	1:AA:1034:G:C8	2.27	0.52
1:AA:1422:G:H4'	46:BO:49:ARG:HH12	1.74	0.52
2:AB:17:PHE:N	2:AB:17:PHE:CD1	2.74	0.52
3:AC:90:GLU:CA	3:AC:93:LYS:HB3	2.39	0.52
6:AF:96:PRO:HB3	18:AR:30:ASP:OD1	2.10	0.52
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.73	0.52
7:AG:134:ALA:O	7:AG:137:LYS:N	2.39	0.52
10:AJ:32:ALA:CB	10:AJ:78:ASN:HD21	2.23	0.52
16:AP:44:THR:O	16:AP:45:THR:HB	2.07	0.52
24:AY:238:THR:C	24:AY:240:GLU:H	2.13	0.52
27:B2:29:LYS:O	27:B2:32:LEU:N	2.42	0.52
35:BA:302:C:H2'	35:BA:303:U:H6	1.75	0.52
35:BA:391:G:O2'	35:BA:392:C:H5'	2.10	0.52
35:BA:1473:G:H2'	35:BA:1474:C:O4'	2.10	0.52
35:BA:1902:C:H4'	38:BD:244:ARG:CB	2.35	0.52
35:BA:2664:G:C2'	35:BA:2665:A:O5'	2.57	0.52
40:BF:41:LEU:HD23	40:BF:44:ARG:HE	1.74	0.52
46:BO:23:ARG:HG2	46:BO:40:VAL:CG2	2.40	0.52
47:BP:27:HIS:CD2	47:BP:27:HIS:C	2.82	0.52
50:BS:93:LYS:O	50:BS:95:HIS:N	2.42	0.52
55:BX:12:VAL:HG12	55:BX:27:THR:C	2.29	0.52
1:AA:261:U:O2	1:AA:263:A:H8	1.93	0.52
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1328:C:H2'	1:AA:1329:A:C8	2.44	0.52
2:AB:11:LEU:HD11	2:AB:217:ARG:NH2	2.24	0.52
3:AC:83:ARG:C	3:AC:85:ARG:N	2.63	0.52
3:AC:90:GLU:HA	3:AC:93:LYS:CB	2.40	0.52
5:AE:79:GLU:HB3	5:AE:93:PRO:HD2	1.91	0.52
20:AT:50:GLU:CG	20:AT:51:GLU:N	2.71	0.52
22:AV:74:C:H2'	22:AV:74:C:O2	2.09	0.52
24:AY:519:ARG:NH1	24:AY:677:GLN:HB2	2.23	0.52
31:B6:6:ARG:C	31:B6:8:LYS:H	2.11	0.52
31:B6:9:LEU:CD2	31:B6:26:ASN:ND2	2.72	0.52
33:B8:33:ASN:HA	33:B8:36:LYS:HG3	1.90	0.52
34:B9:29:ASN:C	34:B9:31:LYS:H	2.13	0.52
35:BA:654(P):C:H2'	35:BA:654(Q):C:H5'	1.90	0.52
35:BA:685:A:H5'	35:BA:774:A:H61	1.74	0.52
35:BA:729:G:OP2	38:BD:13:ARG:NH1	2.42	0.52
35:BA:871:U:O2	35:BA:871:U:H2'	2.08	0.52
35:BA:1141:U:H5''	45:BN:63:THR:CG2	2.39	0.52
35:BA:1288:U:H4'	35:BA:1289:C:OP2	2.09	0.52
35:BA:1910:G:O2'	35:BA:1911:U:H5'	2.10	0.52
35:BA:2130:U:OP1	37:BC:6:LYS:HB2	2.09	0.52
35:BA:2262:U:C2'	35:BA:2263:C:H5''	2.40	0.52
35:BA:2578:G:N2	35:BA:2579:C:C2	2.77	0.52
35:BA:2713:A:C3'	35:BA:2714:G:H5'	2.40	0.52
37:BC:149:ASN:HD22	37:BC:149:ASN:N	2.08	0.52
37:BC:200:HIS:O	37:BC:202:PRO:HD3	2.10	0.52
38:BD:91:ARG:NH1	38:BD:91:ARG:HG2	2.22	0.52
41:BG:120:LEU:HD22	41:BG:133:LEU:HD23	1.91	0.52
48:BQ:56:ARG:HH21	57:BZ:180:VAL:HG21	1.75	0.52
50:BS:64:GLU:O	50:BS:67:ARG:HB2	2.09	0.52
51:BT:33:LYS:CE	51:BT:43:GLN:HE22	2.23	0.52
51:BT:102:ILE:HG22	51:BT:110:ILE:CD1	2.39	0.52
56:BY:84:ARG:HE	56:BY:97:ARG:NH1	2.07	0.52
57:BZ:47:VAL:O	57:BZ:51:ALA:HB3	2.09	0.52
1:AA:489:C:H2'	1:AA:490:G:C8	2.45	0.52
1:AA:1003:G:O2'	1:AA:1004:A:O3'	2.26	0.52
1:AA:1030(C):G:H2'	1:AA:1030(D):A:C8	2.44	0.52
1:AA:1042:G:C2'	1:AA:1043:C:H5'	2.40	0.52
1:AA:1148:U:O3'	9:AI:14:VAL:HG11	2.10	0.52
1:AA:1318:A:C1'	19:AS:37:ARG:HH21	2.05	0.52
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.82	0.52
2:AB:151:GLY:O	2:AB:152:PHE:C	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:61:LYS:CE	4:AD:62:GLN:HE21	2.17	0.52
10:AJ:42:THR:HG23	10:AJ:68:HIS:CA	2.35	0.52
15:AO:9:GLN:HB3	15:AO:13:GLN:NE2	2.24	0.52
15:AO:39:LEU:HD13	15:AO:56:LEU:HD13	1.92	0.52
16:AP:33:ILE:O	16:AP:33:ILE:HG22	2.08	0.52
24:AY:162:VAL:O	24:AY:164:MET:HG2	2.10	0.52
24:AY:289:ILE:O	24:AY:301:ILE:HG12	2.10	0.52
24:AY:610:VAL:HG12	24:AY:669:PHE:HB3	1.91	0.52
25:B0:40:GLN:NE2	25:B0:43:THR:CA	2.71	0.52
26:B1:76:ARG:NH2	26:B1:95:LEU:HD13	2.23	0.52
27:B2:32:LEU:HG	27:B2:53:LEU:HD13	1.92	0.52
30:B5:56:LYS:HG3	30:B5:57:VAL:N	2.21	0.52
33:B8:56:GLU:O	33:B8:59:LYS:CE	2.56	0.52
35:BA:212:G:C8	35:BA:212:G:C5'	2.90	0.52
35:BA:661:C:H4'	47:BP:18:ARG:HG2	1.92	0.52
35:BA:960:A:H2'	35:BA:962:G:H5''	1.91	0.52
35:BA:1225:G:H2'	35:BA:1226:A:C8	2.45	0.52
35:BA:1286:A:O2'	35:BA:1287:A:H5'	2.10	0.52
35:BA:1524:G:O5'	35:BA:1524:G:H8	1.92	0.52
35:BA:2052:G:H4'	39:BE:143:ASN:O	2.09	0.52
35:BA:2291:U:O2'	35:BA:2292:C:H5'	2.09	0.52
35:BA:2688:U:H1'	35:BA:2721:A:N6	2.24	0.52
35:BA:2713:A:H3'	35:BA:2714:G:C5'	2.39	0.52
36:BB:21:G:O2'	36:BB:22:U:P	2.68	0.52
39:BE:51:PHE:CE1	39:BE:52:LEU:HD12	2.45	0.52
39:BE:111:ARG:HG3	49:BR:2:ARG:HG2	1.90	0.52
41:BG:133:LEU:HD12	41:BG:157:ILE:HB	1.90	0.52
41:BG:164:GLU:C	41:BG:165:THR:HG23	2.30	0.52
42:BH:124:GLU:CB	42:BH:132:ARG:HG3	2.39	0.52
42:BH:124:GLU:HB2	42:BH:132:ARG:HG3	1.91	0.52
45:BN:65:LYS:NZ	45:BN:65:LYS:CA	2.67	0.52
48:BQ:12:GLN:NE2	48:BQ:72:LYS:HA	2.24	0.52
51:BT:56:GLY:O	51:BT:59:THR:HG23	2.08	0.52
51:BT:91:ARG:O	51:BT:117:ASP:HB2	2.09	0.52
55:BX:26:TYR:HD2	55:BX:92:LEU:HD12	1.75	0.52
56:BY:84:ARG:HG2	56:BY:84:ARG:NH1	2.25	0.52
57:BZ:145:GLU:OE1	57:BZ:145:GLU:HA	2.09	0.52
57:BZ:154:ASP:N	57:BZ:154:ASP:OD1	2.43	0.52
1:AA:117:G:H2'	1:AA:118:U:O4'	2.10	0.52
1:AA:1332:A:H2'	1:AA:1333:A:C8	2.44	0.52
1:AA:1348:U:H2'	1:AA:1349:A:C8	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1520:G:H2'	1:AA:1521:G:H8	1.74	0.52
3:AC:206:GLU:O	3:AC:207:VAL:C	2.47	0.52
4:AD:108:LEU:CD2	4:AD:110:PHE:CZ	2.92	0.52
7:AG:118:VAL:O	7:AG:121:ALA:HB3	2.10	0.52
7:AG:137:LYS:HE2	7:AG:141:VAL:HG23	1.91	0.52
8:AH:1:MET:HE2	8:AH:1:MET:N	2.25	0.52
9:AI:4:TYR:CD2	9:AI:88:TYR:HB2	2.44	0.52
9:AI:63:ILE:HD13	9:AI:77:ILE:HD13	1.91	0.52
18:AR:25:THR:O	18:AR:25:THR:HG22	2.10	0.52
19:AS:15:LEU:HD21	19:AS:33:THR:CB	2.40	0.52
20:AT:63:ILE:O	20:AT:64:ASP:C	2.45	0.52
24:AY:282:SER:C	24:AY:284:LEU:H	2.14	0.52
24:AY:335:LEU:HD11	24:AY:352:VAL:HG11	1.92	0.52
35:BA:71:A:N3	35:BA:73:A:N6	2.58	0.52
35:BA:285:C:C2'	35:BA:286:C:H5''	2.40	0.52
35:BA:402:A:H2'	35:BA:403:U:H5'	1.91	0.52
35:BA:1226:A:H2'	35:BA:1227:G:H5'	1.91	0.52
35:BA:1529:G:C6	35:BA:1541:G:N1	2.78	0.52
35:BA:1563:G:O2'	35:BA:1564:C:H5'	2.10	0.52
35:BA:1718:G:H8	35:BA:1718:G:C5'	2.19	0.52
35:BA:2838:G:C1'	49:BR:45:ARG:HH11	2.22	0.52
36:BB:118:G:C2	36:BB:119:G:N7	2.78	0.52
37:BC:28:ARG:HH12	37:BC:183:PRO:HB2	1.75	0.52
39:BE:32:PRO:N	39:BE:90:THR:HG23	2.25	0.52
40:BF:6:VAL:H	40:BF:125:LEU:HD21	1.75	0.52
47:BP:47:ASP:HB3	47:BP:48:PRO:HA	1.91	0.52
50:BS:52:SER:HB2	50:BS:55:ALA:HB3	1.90	0.52
52:BU:14:HIS:HD2	52:BU:17:ILE:HD12	1.74	0.52
54:BW:25:ARG:NH2	54:BW:74:ALA:O	2.43	0.52
55:BX:10:ALA:HB1	55:BX:11:PRO:HD2	1.90	0.52
56:BY:95:LYS:CD	56:BY:101:LYS:H	2.22	0.52
1:AA:38:G:C2	1:AA:397:A:C2	2.97	0.52
1:AA:160:A:H1'	1:AA:344:A:N7	2.24	0.52
1:AA:375:U:C2	1:AA:376:G:C8	2.97	0.52
1:AA:458:C:O2	1:AA:458:C:H2'	2.09	0.52
1:AA:622:A:N7	1:AA:623:C:C5	2.77	0.52
1:AA:719:C:H1'	18:AR:49:LYS:HB3	1.92	0.52
1:AA:800:G:H8	1:AA:800:G:O5'	1.93	0.52
1:AA:1506:U:O2'	1:AA:1507:A:H5'	2.10	0.52
2:AB:60:ASP:O	2:AB:64:ARG:NE	2.43	0.52
3:AC:52:LEU:HD12	3:AC:55:VAL:CG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:68:TYR:N	4:AD:68:TYR:CD1	2.76	0.52
4:AD:78:LEU:O	4:AD:81:GLU:HB3	2.09	0.52
7:AG:149:ARG:O	7:AG:152:ALA:HB2	2.09	0.52
8:AH:6:ILE:HD12	8:AH:6:ILE:N	2.23	0.52
10:AJ:27:ALA:CB	10:AJ:85:LEU:HD11	2.40	0.52
11:AK:121:PRO:HB2	11:AK:126:ARG:HB2	1.92	0.52
15:AO:11:VAL:O	15:AO:14:GLU:CB	2.58	0.52
18:AR:56:THR:CB	18:AR:58:LEU:HD13	2.37	0.52
24:AY:92:ILE:HG23	24:AY:93:GLU:H	1.75	0.52
24:AY:410:ASP:HA	24:AY:459:LEU:HD21	1.92	0.52
26:B1:83:GLU:O	26:B1:84:GLY:O	2.27	0.52
30:B5:52:TYR:O	30:B5:53:ALA:HB2	2.10	0.52
33:B8:37:SER:O	33:B8:38:GLY:C	2.47	0.52
35:BA:83:G:O2'	35:BA:84:A:OP2	2.28	0.52
35:BA:519:U:H5''	54:BW:25:ARG:NH2	2.25	0.52
35:BA:654(H):G:H2'	35:BA:654(I):C:H4'	1.92	0.52
35:BA:654(N):G:C3'	35:BA:654(O):G:H5'	2.40	0.52
35:BA:1573:G:C2'	35:BA:1574:C:H5'	2.39	0.52
35:BA:1796:U:OP1	38:BD:276:LYS:HE3	2.09	0.52
35:BA:2380:C:H2'	35:BA:2381:C:H6	1.75	0.52
35:BA:2460:U:O2	35:BA:2460:U:H2'	2.10	0.52
36:BB:79:C:H2'	36:BB:80:U:O4'	2.10	0.52
37:BC:34:ALA:CB	37:BC:179:ALA:HB2	2.39	0.52
40:BF:206:ILE:HG22	40:BF:207:GLY:H	1.73	0.52
1:AA:63:C:O2'	1:AA:380:G:H4'	2.09	0.52
1:AA:187:C:H5''	20:AT:86:ARG:NH1	2.25	0.52
1:AA:189(H):G:O5'	1:AA:189(H):G:H8	1.93	0.52
1:AA:344:A:H5''	1:AA:345:C:OP2	2.09	0.52
1:AA:807:A:C5	1:AA:808:C:C4	2.98	0.52
1:AA:946:A:N6	1:AA:1236:A:N6	2.58	0.52
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.45	0.52
1:AA:1264:C:H42	1:AA:1271:G:H1	1.57	0.52
1:AA:1298:C:O2	1:AA:1298:C:C2'	2.57	0.52
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.10	0.52
3:AC:154:SER:OG	3:AC:196:LEU:HD13	2.10	0.52
6:AF:24:GLU:OE2	6:AF:28:ARG:NH1	2.43	0.52
7:AG:120:ILE:O	7:AG:124:LEU:HB2	2.10	0.52
8:AH:58:TYR:C	8:AH:59:LEU:HD23	2.31	0.52
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.92	0.52
9:AI:79:LEU:HD13	9:AI:83:ARG:CB	2.39	0.52
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:70:LYS:O	19:AS:71:LEU:C	2.48	0.52
24:AY:66:THR:O	24:AY:67:ALA:HB3	2.10	0.52
24:AY:468:ARG:C	24:AY:470:PHE:H	2.13	0.52
24:AY:605:ILE:HD11	24:AY:677:GLN:HG2	1.92	0.52
27:B2:69:ARG:CG	27:B2:70:GLN:N	2.73	0.52
29:B4:8:LYS:O	29:B4:9:LEU:CB	2.49	0.52
31:B6:15:GLU:CD	31:B6:44:ARG:HH12	2.14	0.52
31:B6:16:CYS:C	31:B6:18:ARG:N	2.57	0.52
31:B6:40:CYS:CB	31:B6:46:HIS:CE1	2.92	0.52
33:B8:10:ALA:O	33:B8:14:VAL:HG12	2.10	0.52
34:B9:16:VAL:HA	34:B9:25:VAL:HG22	1.90	0.52
35:BA:72:U:O2'	35:BA:73:A:H5'	2.10	0.52
35:BA:191:A:H2'	35:BA:192:C:C6	2.44	0.52
35:BA:336:C:H5'	35:BA:337:C:OP2	2.10	0.52
35:BA:619:G:H3'	35:BA:620:G:H21	1.74	0.52
35:BA:883:G:H2'	35:BA:884:C:O4'	2.10	0.52
35:BA:1095:A:H2'	35:BA:1096:A:C8	2.45	0.52
35:BA:1797:C:H4'	38:BD:257:LEU:O	2.10	0.52
35:BA:2305:A:O2'	41:BG:136:ARG:HG2	2.09	0.52
39:BE:34:VAL:O	39:BE:34:VAL:HG22	2.09	0.52
44:BL:110:LEU:CB	44:BL:117:VAL:HG21	2.40	0.52
47:BP:115:LEU:HD23	47:BP:115:LEU:H	1.73	0.52
50:BS:70:GLY:O	50:BS:72:ALA:N	2.43	0.52
52:BU:62:ILE:HG23	52:BU:76:TYR:CE2	2.46	0.52
55:BX:87:GLN:O	55:BX:88:LYS:HB3	2.10	0.52
56:BY:102:CYS:SG	56:BY:103:GLY:N	2.83	0.52
57:BZ:143:GLY:C	57:BZ:144:LEU:HD22	2.30	0.52
57:BZ:175:VAL:HB	57:BZ:176:PRO:CD	2.41	0.52
1:AA:765:G:H22	1:AA:812:C:HO2'	1.57	0.51
1:AA:1004:A:H5'	1:AA:1025:U:C4	2.45	0.51
1:AA:1030:C:N4	1:AA:1032:G:C2	2.78	0.51
1:AA:1060:C:H4'	10:AJ:52:GLY:N	2.24	0.51
1:AA:1074:G:O2'	1:AA:1075:C:H5'	2.09	0.51
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.75	0.51
2:AB:21:ARG:HD2	2:AB:39:ILE:CG1	2.40	0.51
2:AB:168:THR:CG2	2:AB:192:SER:HB3	2.37	0.51
5:AE:11:ILE:HD12	5:AE:31:LEU:CD1	2.41	0.51
6:AF:45:LEU:O	6:AF:46:ARG:CG	2.57	0.51
7:AG:139:GLU:O	7:AG:143:ARG:HG3	2.10	0.51
9:AI:36:TYR:CD2	9:AI:37:PHE:CE1	2.97	0.51
9:AI:96:LEU:O	9:AI:99:LEU:O	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:3:LYS:HZ2	10:AJ:77:PRO:HD2	1.74	0.51
17:AQ:3:LYS:CB	17:AQ:61:GLU:HB3	2.28	0.51
23:AX:13:A:C2'	23:AX:14:A:H5''	2.40	0.51
30:B5:36:CYS:HG	30:B5:49:CYS:HB3	1.76	0.51
35:BA:28:A:H62	35:BA:512:G:H1'	1.73	0.51
35:BA:537:C:O5'	35:BA:537:C:H6	1.92	0.51
35:BA:771:G:O2'	35:BA:1355:G:H4'	2.10	0.51
35:BA:856:C:H2'	35:BA:857:C:C6	2.44	0.51
35:BA:943:U:OP2	47:BP:38:GLN:OE1	2.28	0.51
35:BA:954:G:H5''	48:BQ:13:GLN:HB3	1.91	0.51
35:BA:1226:A:C2'	35:BA:1227:G:H5'	2.41	0.51
35:BA:1528:A:O2'	35:BA:1528(A):A:O5'	2.28	0.51
35:BA:1599:C:H6	35:BA:1599:C:O5'	1.93	0.51
35:BA:1666:G:O2'	35:BA:1667:G:H5'	2.09	0.51
35:BA:1831:G:C6	35:BA:1832:C:N4	2.79	0.51
35:BA:2206:G:H21	35:BA:2207:G:H4'	1.75	0.51
37:BC:132:LEU:HB3	37:BC:137:LEU:C	2.31	0.51
40:BF:20:LEU:CD2	40:BF:21:ALA:HB3	2.40	0.51
41:BG:120:LEU:HD22	41:BG:133:LEU:CD2	2.40	0.51
44:BL:117:VAL:HG12	44:BL:118:GLU:N	2.25	0.51
45:BN:55:VAL:HG21	45:BN:127:ASP:N	2.25	0.51
51:BT:117:ASP:OD1	51:BT:119:LYS:HB3	2.10	0.51
1:AA:103:C:H3'	1:AA:104:G:C8	2.37	0.51
1:AA:204:U:O2'	1:AA:216:G:OP2	2.27	0.51
1:AA:642:A:C6	1:AA:643:C:C4	2.98	0.51
1:AA:1022:G:C6	1:AA:1023:G:N7	2.78	0.51
2:AB:165:VAL:CG2	2:AB:166:ASP:N	2.64	0.51
9:AI:56:LEU:HD23	9:AI:56:LEU:C	2.30	0.51
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.40	0.51
10:AJ:23:ILE:HG23	10:AJ:85:LEU:HD22	1.91	0.51
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.84	0.51
13:AM:68:GLY:CA	13:AM:71:ARG:HB3	2.40	0.51
14:AN:36:PHE:CD1	14:AN:36:PHE:C	2.82	0.51
19:AS:33:THR:HG22	19:AS:49:ILE:CG2	2.40	0.51
24:AY:117:GLN:NE2	24:AY:120:THR:HG23	2.23	0.51
24:AY:170:ARG:NH2	24:AY:208:GLN:HE22	2.08	0.51
25:B0:48:GLY:HA3	25:B0:80:HIS:ND1	2.25	0.51
26:B1:7:ILE:HD12	26:B1:7:ILE:N	2.25	0.51
29:B4:41:PRO:HA	29:B4:42:PHE:CE1	2.45	0.51
30:B5:3:LYS:HZ1	35:BA:2613:U:C2'	2.23	0.51
30:B5:25:LEU:CD1	54:BW:19:LEU:HB3	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:112:U:H2'	35:BA:113:G:H5'	1.91	0.51
35:BA:1140:C:O2'	35:BA:1143:A:H2'	2.10	0.51
35:BA:1812:A:H2'	35:BA:1813:G:H8	1.75	0.51
35:BA:1887:C:H2'	35:BA:1888:G:H5''	1.92	0.51
35:BA:2018:G:H21	52:BU:34:LYS:NZ	2.07	0.51
35:BA:2055:C:H5'	35:BA:2056:G:C5'	2.41	0.51
35:BA:2312:U:H4'	41:BG:71:THR:OG1	2.10	0.51
37:BC:164:PHE:HB2	37:BC:172:ILE:CD1	2.38	0.51
41:BG:77:ILE:C	41:BG:79:ASN:N	2.61	0.51
41:BG:98:ARG:O	41:BG:102:PHE:HB2	2.11	0.51
43:BK:15:GLY:H	43:BK:41:PHE:HE2	1.59	0.51
43:BK:76:TYR:HD2	43:BK:77:LEU:HD23	1.75	0.51
50:BS:74:ALA:HB2	50:BS:101:LEU:HD21	1.92	0.51
56:BY:25:GLY:HA3	56:BY:39:VAL:CG1	2.40	0.51
57:BZ:72:ARG:HH11	57:BZ:72:ARG:CG	2.12	0.51
1:AA:473:G:H2'	1:AA:474:G:C8	2.41	0.51
1:AA:866:C:O5'	1:AA:866:C:H6	1.93	0.51
1:AA:892:A:C6	1:AA:893:C:C4	2.98	0.51
1:AA:1128:C:O2'	1:AA:1129:C:H5''	2.10	0.51
4:AD:10:ARG:O	4:AD:13:ARG:HB2	2.11	0.51
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.68	0.51
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.09	0.51
6:AF:2:ARG:HD2	6:AF:69:GLU:HB3	1.92	0.51
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.93	0.51
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.91	0.51
12:AL:47:LYS:HD2	12:AL:48:PRO:HD3	1.91	0.51
16:AP:8:ARG:HB3	16:AP:28:ARG:NH1	2.26	0.51
20:AT:104:LEU:HD23	20:AT:104:LEU:C	2.30	0.51
22:AV:76:A:H1'	35:BA:2421:G:N2	2.25	0.51
24:AY:293:THR:HA	24:AY:397:VAL:HG12	1.93	0.51
24:AY:457:LEU:O	24:AY:460:GLU:HB3	2.10	0.51
35:BA:29:U:O2'	35:BA:30:G:H5'	2.09	0.51
35:BA:272(H):C:C6	35:BA:272(H):C:C3'	2.93	0.51
35:BA:537:C:H2'	35:BA:538:G:H8	1.74	0.51
35:BA:585:G:H2'	35:BA:1251:C:H42	1.75	0.51
35:BA:1081:U:H4'	43:BK:117:THR:HG21	1.91	0.51
35:BA:1210:A:H5''	35:BA:1212:G:O4'	2.10	0.51
35:BA:1450(A):C:H2'	35:BA:1451:C:C6	2.45	0.51
35:BA:1467:C:C5	35:BA:1546:C:H2'	2.45	0.51
35:BA:1710:C:H2'	35:BA:1711:C:C6	2.46	0.51
35:BA:2064:C:H1'	35:BA:2450:A:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2147:G:H2'	35:BA:2148:G:C5'	2.40	0.51
35:BA:2393:A:H5'	47:BP:60:MET:O	2.10	0.51
35:BA:2464:C:O2'	35:BA:2465:C:O5'	2.27	0.51
39:BE:15:PHE:CE2	51:BT:80:SER:HB2	2.46	0.51
39:BE:113:PHE:CE1	39:BE:158:GLY:HA2	2.44	0.51
41:BG:73:ALA:H	41:BG:87:PRO:HG2	1.75	0.51
47:BP:7:ARG:HA	47:BP:7:ARG:CZ	2.40	0.51
47:BP:65:ARG:O	47:BP:68:GLN:OE1	2.28	0.51
47:BP:90:ARG:HG2	47:BP:91:PHE:N	2.24	0.51
47:BP:105:LEU:N	47:BP:105:LEU:HD12	2.25	0.51
53:BV:21:ARG:CB	53:BV:91:TYR:CD2	2.80	0.51
54:BW:5:ALA:HB2	54:BW:54:ALA:HB2	1.92	0.51
54:BW:66:GLU:HG3	54:BW:69:LEU:HD12	1.91	0.51
56:BY:3:VAL:O	56:BY:3:VAL:HG12	2.11	0.51
57:BZ:99:TYR:CE1	57:BZ:125:LEU:HD13	2.45	0.51
1:AA:59:A:H2'	1:AA:59:A:N3	2.25	0.51
1:AA:114:U:H2'	1:AA:115:G:C8	2.45	0.51
1:AA:182:U:H3'	1:AA:183:G:C5'	2.41	0.51
1:AA:423:G:C2'	1:AA:424:G:H5'	2.40	0.51
1:AA:740:U:H2'	1:AA:741:G:H8	1.75	0.51
1:AA:979:C:H2'	1:AA:980:C:H5''	1.91	0.51
1:AA:1027:C:N4	1:AA:1032:G:O6	2.43	0.51
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.44	0.51
1:AA:1458:G:C6	1:AA:1459:C:C4	2.99	0.51
4:AD:57:ARG:HD2	4:AD:57:ARG:N	2.19	0.51
5:AE:29:GLY:HA2	5:AE:46:GLY:O	2.10	0.51
8:AH:60:ARG:HG2	8:AH:62:TYR:CE1	2.44	0.51
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.21	0.51
24:AY:18:ALA:O	24:AY:19:ALA:CB	2.55	0.51
24:AY:288:PRO:HG2	24:AY:300:GLU:OE1	2.10	0.51
24:AY:534:ILE:HD11	24:AY:569:ASP:O	2.11	0.51
27:B2:38:GLN:HA	27:B2:41:ILE:CG2	2.36	0.51
28:B3:15:TYR:HD2	28:B3:19:GLN:HE22	1.58	0.51
31:B6:12:GLU:HG2	31:B6:23:THR:HB	1.91	0.51
35:BA:205:G:O2'	35:BA:206:U:P	2.67	0.51
35:BA:729:G:O2'	35:BA:763:G:H4'	2.10	0.51
35:BA:1192:G:H2'	35:BA:1193:G:O4'	2.11	0.51
35:BA:1270:C:H5''	35:BA:1271:G:C5'	2.41	0.51
35:BA:1610:A:H4'	35:BA:1611:C:OP2	2.11	0.51
35:BA:1704:G:O2'	35:BA:1705:G:H5'	2.09	0.51
35:BA:1748:G:H5'	35:BA:1748:G:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2055:C:H2'	35:BA:2504:U:H4'	1.92	0.51
35:BA:2103:C:O2	35:BA:2103:C:C2'	2.55	0.51
35:BA:2364:C:O2'	35:BA:2365:G:H5'	2.09	0.51
35:BA:2543:G:C2	35:BA:2765:A:H2'	2.46	0.51
37:BC:138:LEU:HD13	37:BC:139:PRO:O	2.10	0.51
41:BG:86:MET:N	41:BG:87:PRO:CD	2.73	0.51
41:BG:109:VAL:C	41:BG:112:PRO:HD2	2.30	0.51
42:BH:89:ILE:O	42:BH:89:ILE:HD12	2.10	0.51
43:BK:24:GLY:N	43:BK:25:PRO:HD2	2.24	0.51
47:BP:89:ALA:HB1	47:BP:121:LYS:HD2	1.93	0.51
47:BP:108:LYS:C	47:BP:110:TYR:H	2.14	0.51
50:BS:78:LEU:CD1	50:BS:103:GLU:HB3	2.40	0.51
52:BU:47:TYR:O	52:BU:51:LYS:HG2	2.11	0.51
56:BY:32:PRO:O	56:BY:35:TYR:N	2.39	0.51
1:AA:57:G:H2'	1:AA:58:C:C6	2.46	0.51
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.76	0.51
2:AB:86:GLU:C	2:AB:88:ALA:H	2.13	0.51
10:AJ:100:THR:O	10:AJ:100:THR:HG22	2.10	0.51
12:AL:28:LYS:HE2	12:AL:33:ARG:NH1	2.24	0.51
12:AL:37:CYS:HB3	12:AL:79:GLU:O	2.11	0.51
12:AL:51:ALA:O	12:AL:52:LEU:HD23	2.10	0.51
16:AP:50:LYS:O	16:AP:51:VAL:HG23	2.11	0.51
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.25	0.51
18:AR:44:LEU:HD22	18:AR:79:LEU:HD22	1.93	0.51
24:AY:659:LEU:C	24:AY:661:SER:H	2.14	0.51
24:AY:678:GLU:CG	24:AY:679:VAL:N	2.74	0.51
26:B1:76:ARG:HH22	26:B1:95:LEU:CB	2.23	0.51
30:B5:27:PRO:HA	54:BW:23:LEU:HD21	1.93	0.51
35:BA:20:C:O2'	35:BA:21:A:H5'	2.11	0.51
35:BA:475:U:O5'	35:BA:475:U:H6	1.93	0.51
35:BA:650:C:H2'	35:BA:651:G:H5''	1.93	0.51
35:BA:665:C:H2'	35:BA:666:G:C8	2.44	0.51
35:BA:676:A:H8	35:BA:2069:G:N2	2.01	0.51
35:BA:912:C:O2'	35:BA:913:U:H5'	2.11	0.51
35:BA:1682:G:H2'	35:BA:1683:C:H6	1.74	0.51
35:BA:1843:C:H2'	35:BA:1844:C:H6	1.75	0.51
35:BA:1902:C:C4'	38:BD:244:ARG:HB2	2.39	0.51
35:BA:2019:A:O3'	52:BU:27:LEU:HD12	2.10	0.51
39:BE:61:ARG:HG2	39:BE:62:PRO:CD	2.39	0.51
47:BP:23:PRO:O	47:BP:29:LYS:O	2.29	0.51
48:BQ:39:PRO:O	48:BQ:40:ALA:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:9:LYS:O	49:BR:10:LEU:HG	2.11	0.51
49:BR:104:ARG:HG3	49:BR:111:LEU:HD21	1.92	0.51
51:BT:35:LYS:HD3	51:BT:41:ARG:HH11	1.75	0.51
52:BU:55:ARG:HA	52:BU:58:ARG:CD	2.41	0.51
1:AA:34:C:H1'	12:AL:32:PHE:CZ	2.46	0.51
1:AA:217:C:O2'	1:AA:470:C:N4	2.44	0.51
1:AA:520:A:N1	1:AA:536:C:H1'	2.26	0.51
4:AD:20:TYR:HD1	4:AD:26:CYS:HB3	1.75	0.51
4:AD:88:VAL:O	4:AD:88:VAL:HG12	2.09	0.51
13:AM:35:GLU:CG	13:AM:36:LYS:N	2.73	0.51
15:AO:29:VAL:HG11	15:AO:67:LEU:HD21	1.92	0.51
19:AS:15:LEU:O	19:AS:19:VAL:N	2.43	0.51
24:AY:252:ASP:N	24:AY:252:ASP:OD1	2.44	0.51
24:AY:259:PHE:N	24:AY:259:PHE:CD1	2.79	0.51
24:AY:389:LEU:HD12	24:AY:389:LEU:N	2.25	0.51
24:AY:428:LEU:HD23	24:AY:428:LEU:N	2.26	0.51
25:B0:19:LYS:O	25:B0:21:LEU:N	2.43	0.51
27:B2:29:LYS:O	27:B2:30:ARG:C	2.48	0.51
34:B9:20:HIS:O	34:B9:22:ARG:HG3	2.10	0.51
35:BA:143:G:H2'	35:BA:143(A):C:H6	1.75	0.51
35:BA:259:G:N2	35:BA:621:A:H8	2.07	0.51
35:BA:710:G:H1	35:BA:721:C:N4	2.07	0.51
35:BA:1301:A:O2'	35:BA:1302:A:C2'	2.54	0.51
35:BA:1558:A:O2'	35:BA:1559:G:OP2	2.29	0.51
35:BA:1629:U:H2'	35:BA:1630:G:C8	2.45	0.51
35:BA:1722:A:C2	35:BA:1740:G:C8	2.99	0.51
35:BA:1812:A:O2'	35:BA:1813:G:H5'	2.11	0.51
35:BA:1842:G:H2'	35:BA:1843:C:C6	2.46	0.51
35:BA:2305:A:H2'	35:BA:2306:C:O4'	2.11	0.51
35:BA:2468:G:C4	35:BA:2481:G:N2	2.78	0.51
35:BA:2810:A:H2'	39:BE:61:ARG:NH2	2.26	0.51
38:BD:275:LYS:O	38:BD:275:LYS:HD2	2.10	0.51
40:BF:20:LEU:CD2	40:BF:21:ALA:CB	2.88	0.51
40:BF:20:LEU:O	40:BF:24:LEU:HD23	2.10	0.51
40:BF:157:VAL:CG2	40:BF:157:VAL:O	2.58	0.51
41:BG:34:LEU:HD13	41:BG:99:MET:HE2	1.93	0.51
43:BK:17:ALA:HB3	43:BK:38:VAL:CG1	2.40	0.51
46:BO:71:ARG:HB3	46:BO:72:PRO:HD2	1.93	0.51
51:BT:66:VAL:HA	51:BT:71:GLY:HA2	1.92	0.51
51:BT:120:ARG:HA	51:BT:123:GLN:HG2	1.92	0.51
51:BT:132:LYS:HG2	51:BT:133:GLU:HG3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:19:LYS:HE2	53:BV:20:LEU:H	1.76	0.51
53:BV:19:LYS:HB3	53:BV:94:LEU:O	2.10	0.51
56:BY:77:PRO:O	56:BY:78:ALA:HB2	2.09	0.51
57:BZ:24:LEU:HD12	57:BZ:41:LEU:HD23	1.92	0.51
57:BZ:81:ARG:HG3	57:BZ:81:ARG:O	2.11	0.51
1:AA:170:U:O2'	1:AA:171:A:H5'	2.10	0.51
1:AA:241:C:HO2'	1:AA:242:C:H5'	1.75	0.51
1:AA:987:G:O2'	1:AA:988:G:H5'	2.10	0.51
1:AA:1267:C:C5	1:AA:1268:A:C5	2.99	0.51
1:AA:1423:G:H5''	46:BO:49:ARG:HH22	1.75	0.51
5:AE:82:VAL:CG2	5:AE:138:ALA:HA	2.38	0.51
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.10	0.51
19:AS:19:VAL:HG12	19:AS:20:LEU:N	2.25	0.51
20:AT:50:GLU:HB2	20:AT:100:ILE:HB	1.92	0.51
24:AY:218:GLU:O	24:AY:221:ALA:HB3	2.11	0.51
24:AY:251:ILE:O	24:AY:251:ILE:HG22	2.10	0.51
24:AY:606:MET:HG3	24:AY:649:LEU:HD21	1.92	0.51
27:B2:13:ALA:HA	27:B2:16:LEU:HD11	1.92	0.51
28:B3:8:LEU:HD22	28:B3:31:LEU:HD23	1.93	0.51
29:B4:1:MET:SD	29:B4:1:MET:N	2.73	0.51
35:BA:657:U:C2	35:BA:658:C:C5	2.98	0.51
35:BA:809:G:O2'	35:BA:810:U:H5'	2.10	0.51
35:BA:813:U:H2'	35:BA:814:C:H6	1.70	0.51
35:BA:2098:U:H6	35:BA:2098:U:O5'	1.94	0.51
35:BA:2516:G:O2'	35:BA:2517:C:H5'	2.11	0.51
35:BA:2723:C:H5''	49:BR:2:ARG:NH1	2.23	0.51
35:BA:2795:G:H2'	35:BA:2795:G:N3	2.26	0.51
36:BB:42:C:O2	41:BG:93:THR:N	2.37	0.51
37:BC:115:VAL:HA	37:BC:145:THR:HG22	1.93	0.51
39:BE:2:LYS:HG2	39:BE:95:ILE:HG22	1.93	0.51
45:BN:58:ASP:HB3	45:BN:95:PRO:HB2	1.92	0.51
47:BP:146:VAL:HG13	47:BP:147:LEU:H	1.74	0.51
49:BR:33:ARG:HG3	49:BR:115:GLU:HG3	1.92	0.51
57:BZ:25:PRO:O	57:BZ:85:HIS:HA	2.11	0.51
1:AA:40:C:H2'	1:AA:41:G:C8	2.46	0.51
1:AA:383:A:H2'	1:AA:384:G:C5'	2.39	0.51
1:AA:392:G:H2'	1:AA:393:A:H8	1.75	0.51
1:AA:965:A:C2	1:AA:969:A:N1	2.79	0.51
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.73	0.51
2:AB:152:PHE:C	2:AB:152:PHE:CD1	2.84	0.51
2:AB:189:ASP:OD2	2:AB:205:ASP:OD1	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:51:PRO:HA	6:AF:55:ASP:O	2.11	0.51
10:AJ:42:THR:CG2	10:AJ:68:HIS:HA	2.36	0.51
12:AL:33:ARG:HG2	12:AL:60:LEU:HD12	1.93	0.51
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.11	0.51
13:AM:99:ARG:O	13:AM:100:GLY:C	2.49	0.51
14:AN:15:LYS:O	14:AN:16:PHE:C	2.47	0.51
15:AO:17:ARG:HG3	15:AO:17:ARG:NH1	2.25	0.51
24:AY:20:HIS:CG	24:AY:117:GLN:HB3	2.45	0.51
24:AY:117:GLN:HE22	24:AY:119:GLU:HG3	1.75	0.51
24:AY:337:SER:HA	24:AY:355:LEU:HD23	1.92	0.51
24:AY:343:ASN:HD22	24:AY:345:THR:N	2.06	0.51
24:AY:525:PHE:H	24:AY:525:PHE:HD1	1.52	0.51
24:AY:631:ILE:HG23	24:AY:632:LEU:N	2.26	0.51
24:AY:635:GLU:H	24:AY:635:GLU:CD	2.14	0.51
28:B3:4:LEU:O	28:B3:36:VAL:HA	2.11	0.51
31:B6:33:LYS:CG	31:B6:34:LEU:H	2.17	0.51
33:B8:50:LEU:CG	33:B8:51:ALA:N	2.74	0.51
35:BA:455:C:N3	35:BA:473:G:H5'	2.26	0.51
35:BA:460:A:C2	35:BA:470:A:C4	2.99	0.51
35:BA:467:G:O2'	35:BA:468:G:H5'	2.10	0.51
35:BA:653:A:C5'	35:BA:654:A:OP2	2.59	0.51
35:BA:1233:C:H2'	35:BA:1234:U:H6	1.76	0.51
35:BA:1263:U:C4	35:BA:1264:G:C6	2.99	0.51
35:BA:1436:G:H1'	35:BA:1477:A:O2'	2.10	0.51
35:BA:2151:G:O2'	35:BA:2152:G:H5'	2.11	0.51
35:BA:2504:U:H6	35:BA:2504:U:O5'	1.93	0.51
35:BA:2665:A:H2'	35:BA:2666:C:O4'	2.11	0.51
36:BB:8:U:O2'	50:BS:40:ILE:HD13	2.11	0.51
39:BE:82:ARG:HG3	39:BE:83:ASP:H	1.75	0.51
40:BF:93:LYS:HD2	40:BF:94:PRO:HD2	1.92	0.51
40:BF:99:TYR:HE2	40:BF:101:LEU:HD13	1.75	0.51
40:BF:168:ARG:HG3	40:BF:175:THR:HB	1.92	0.51
41:BG:127:GLY:C	41:BG:128:ARG:HG2	2.30	0.51
45:BN:26:LEU:HD12	45:BN:26:LEU:C	2.31	0.51
51:BT:106:SER:HB2	51:BT:110:ILE:HG13	1.93	0.51
52:BU:83:LEU:HG	52:BU:88:ILE:HD11	1.91	0.51
53:BV:49:THR:O	53:BV:50:PRO:C	2.48	0.51
57:BZ:4:ARG:HH12	57:BZ:66:SER:CB	2.20	0.51
1:AA:123:C:OP1	1:AA:311:C:O2'	2.29	0.51
1:AA:164:U:H2'	1:AA:165:C:C6	2.46	0.51
1:AA:452:A:C4	1:AA:453:A:C8	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1171:G:H2'	1:AA:1172:C:H6	1.76	0.51
1:AA:1175:G:O6	1:AA:1176:A:N6	2.44	0.51
1:AA:1236:A:H2'	1:AA:1237:C:C5	2.46	0.51
1:AA:1310:G:C2'	1:AA:1311:G:H5'	2.41	0.51
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.10	0.51
3:AC:159:GLY:HA2	3:AC:193:TYR:CE2	2.46	0.51
4:AD:11:LEU:O	4:AD:12:CYS:C	2.50	0.51
15:AO:33:THR:HG23	15:AO:63:ARG:HH12	1.76	0.51
19:AS:27:GLU:O	19:AS:28:LYS:O	2.29	0.51
19:AS:47:HIS:O	19:AS:49:ILE:HG13	2.11	0.51
22:AV:14:A:H1'	22:AV:22:G:N2	2.26	0.51
24:AY:312:LEU:HD11	24:AY:401:SER:OG	2.10	0.51
24:AY:363:ARG:HG3	24:AY:363:ARG:NH1	2.14	0.51
24:AY:434:GLU:O	24:AY:434:GLU:HG2	2.11	0.51
27:B2:40:SER:C	27:B2:42:GLY:H	2.13	0.51
29:B4:7:PRO:O	29:B4:8:LYS:HB3	2.11	0.51
30:B5:3:LYS:HD2	30:B5:5:PRO:CD	2.41	0.51
31:B6:43:CYS:CB	31:B6:44:ARG:NH2	2.60	0.51
32:B7:17:GLY:HA2	32:B7:43:THR:HG21	1.92	0.51
32:B7:46:VAL:HG12	32:B7:47:ARG:H	1.72	0.51
35:BA:271(S):G:H2'	35:BA:271(T):C:O4'	2.10	0.51
35:BA:601:C:O2'	35:BA:605:C:H5''	2.11	0.51
35:BA:687:C:H2'	35:BA:688:U:O4'	2.10	0.51
35:BA:747:U:O2'	54:BW:88:ARG:HG3	2.11	0.51
35:BA:958:U:H5'	48:BQ:14:ARG:NH1	2.25	0.51
35:BA:1020:A:O2'	35:BA:1021:A:P	2.69	0.51
35:BA:1343:G:N3	35:BA:1384:A:H2	2.08	0.51
35:BA:1362:C:H2'	35:BA:1363:C:C6	2.46	0.51
35:BA:1539:G:N3	35:BA:1540:U:H1'	2.25	0.51
35:BA:1635:G:H2'	35:BA:1636:C:C6	2.46	0.51
35:BA:2071:A:OP2	35:BA:2071:A:H8	1.93	0.51
35:BA:2115:G:H3'	35:BA:2116:G:H5''	1.91	0.51
35:BA:2652:C:C4	35:BA:2653:U:C4	2.99	0.51
35:BA:2657:A:O2'	42:BH:160:LYS:HE3	2.10	0.51
35:BA:2839:G:H2'	35:BA:2840:C:H6	1.75	0.51
35:BA:2851:A:C5	35:BA:2852:G:C5	2.99	0.51
38:BD:134:ARG:NE	38:BD:135:PHE:CE1	2.79	0.51
38:BD:239:ARG:HH11	38:BD:239:ARG:HG2	1.74	0.51
40:BF:93:LYS:HB3	40:BF:94:PRO:HD2	1.92	0.51
49:BR:11:ASN:OD1	49:BR:12:ARG:N	2.40	0.51
50:BS:70:GLY:C	50:BS:72:ALA:N	2.61	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:118:ARG:HA	51:BT:121:ILE:CD1	2.41	0.51
52:BU:111:GLU:O	52:BU:115:ALA:HB2	2.11	0.51
57:BZ:80:ARG:O	57:BZ:81:ARG:O	2.29	0.51
1:AA:329:A:H3'	1:AA:330:C:H5'	1.93	0.51
1:AA:642:A:H2'	1:AA:643:C:C6	2.46	0.51
1:AA:1061:G:H2'	1:AA:1062:U:H5'	1.92	0.51
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	1.92	0.51
1:AA:1174:G:O2'	1:AA:1175:G:H5'	2.10	0.51
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.91	0.51
4:AD:18:LYS:HG3	4:AD:31:CYS:SG	2.51	0.51
4:AD:78:LEU:HD21	4:AD:96:LEU:CB	2.41	0.51
7:AG:78:ARG:HG3	7:AG:79:ARG:N	2.26	0.51
16:AP:67:THR:N	16:AP:70:ALA:HB3	2.26	0.51
19:AS:53:ASN:C	19:AS:55:LYS:H	2.14	0.51
24:AY:20:HIS:ND1	24:AY:21:ILE:HD13	2.25	0.51
24:AY:150:ILE:C	24:AY:152:THR:H	2.14	0.51
25:B0:51:VAL:HG21	25:B0:79:VAL:O	2.11	0.51
28:B3:10:LYS:HB3	28:B3:53:LEU:HD23	1.93	0.51
31:B6:15:GLU:N	31:B6:49:HIS:CD2	2.79	0.51
31:B6:45:LYS:HD3	35:BA:2371:G:O3'	2.11	0.51
35:BA:83:G:N2	35:BA:103:A:OP2	2.43	0.51
35:BA:1040:C:H42	35:BA:1115:G:H1	1.58	0.51
35:BA:1385:G:H4'	35:BA:1386:C:OP1	2.11	0.51
35:BA:1492:G:H1	35:BA:1498:C:H42	1.58	0.51
35:BA:1909:C:O2'	35:BA:1910:G:H5'	2.10	0.51
35:BA:2155:G:C2'	35:BA:2156:G:H5'	2.41	0.51
35:BA:2840:C:O2'	35:BA:2841:C:H5'	2.10	0.51
36:BB:87:G:O3'	36:BB:88:C:C6	2.64	0.51
36:BB:115:G:H2'	36:BB:116:G:C8	2.41	0.51
38:BD:125:ILE:O	38:BD:125:ILE:CG2	2.57	0.51
38:BD:241:PRO:C	38:BD:242:ARG:CG	2.64	0.51
39:BE:93:VAL:C	39:BE:95:ILE:N	2.63	0.51
41:BG:100:TRP:O	41:BG:101:ILE:C	2.48	0.51
42:BH:17:VAL:O	42:BH:45:VAL:HG22	2.11	0.51
42:BH:66:GLY:HA2	42:BH:69:ARG:CB	2.39	0.51
46:BO:90:GLN:O	46:BO:92:GLU:HG3	2.11	0.51
47:BP:91:PHE:HD1	47:BP:91:PHE:H	1.58	0.51
49:BR:9:LYS:O	49:BR:10:LEU:CG	2.59	0.51
50:BS:14:VAL:O	50:BS:15:ARG:C	2.49	0.51
51:BT:11:GLU:O	51:BT:13:ARG:N	2.40	0.51
52:BU:70:ARG:HG3	52:BU:70:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:83:LEU:CD1	52:BU:113:ALA:HB2	2.40	0.51
53:BV:89:GLN:OE1	53:BV:89:GLN:HA	2.10	0.51
55:BX:29:TRP:HA	55:BX:78:LYS:HA	1.92	0.51
55:BX:90:GLU:HA	55:BX:93:GLU:HG2	1.93	0.51
1:AA:78:G:H1	1:AA:91:C:H42	1.59	0.50
1:AA:393:A:H5'	1:AA:483:C:O2'	2.11	0.50
1:AA:763:G:H2'	1:AA:764:C:H6	1.76	0.50
1:AA:999:C:C6	1:AA:999:C:O5'	2.65	0.50
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.11	0.50
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.93	0.50
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.32	0.50
3:AC:50:ALA:O	3:AC:70:VAL:HG13	2.10	0.50
8:AH:112:LEU:N	8:AH:112:LEU:CD2	2.73	0.50
10:AJ:4:ILE:HD12	10:AJ:4:ILE:H	1.77	0.50
11:AK:18:ARG:HH21	11:AK:37:GLY:N	2.09	0.50
12:AL:39:VAL:CB	12:AL:57:LYS:HB2	2.35	0.50
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.10	0.50
14:AN:16:PHE:CD1	14:AN:16:PHE:N	2.74	0.50
16:AP:75:ARG:O	16:AP:78:GLY:N	2.44	0.50
18:AR:26:LEU:HD21	18:AR:42:ARG:HD2	1.93	0.50
19:AS:78:ARG:HB2	19:AS:81:ARG:NH1	2.21	0.50
22:AV:74:C:N4	26:B1:23:LYS:HE3	2.26	0.50
24:AY:71:THR:HA	24:AY:79:ILE:O	2.11	0.50
24:AY:156:ARG:HH22	24:AY:666:ARG:NH1	2.09	0.50
24:AY:227:ILE:CD1	24:AY:242:LEU:HA	2.41	0.50
24:AY:634:MET:O	24:AY:634:MET:HG2	2.10	0.50
28:B3:19:GLN:HE22	28:B3:52:HIS:HE1	1.60	0.50
31:B6:17:LYS:CB	31:B6:44:ARG:NH1	2.74	0.50
35:BA:29:U:C2'	35:BA:30:G:H5'	2.41	0.50
35:BA:698:C:H4'	35:BA:735:A:C2	2.46	0.50
35:BA:752:A:O2'	35:BA:753:C:OP2	2.20	0.50
35:BA:816:C:O2'	35:BA:817:C:H5'	2.10	0.50
35:BA:909:A:O2'	35:BA:910:A:H5'	2.11	0.50
35:BA:1011:G:O2'	35:BA:1013:C:H5''	2.11	0.50
35:BA:1052:C:O2'	35:BA:1053:C:O5'	2.29	0.50
35:BA:1091:G:H1	35:BA:1100:C:H42	1.59	0.50
35:BA:1355:G:O2'	35:BA:1356:G:H5'	2.11	0.50
35:BA:1432:C:H2'	35:BA:1433:U:O4'	2.11	0.50
36:BB:91:C:O2'	36:BB:92:C:H5'	2.10	0.50
38:BD:117:VAL:CG2	38:BD:118:VAL:N	2.74	0.50
40:BF:52:LYS:HD3	40:BF:56:GLU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:140:LEU:O	40:BF:143:ALA:HB3	2.11	0.50
41:BG:82:LEU:HD21	41:BG:87:PRO:CB	2.41	0.50
45:BN:134:ARG:HG3	45:BN:134:ARG:O	2.10	0.50
50:BS:29:PHE:CD1	50:BS:29:PHE:C	2.84	0.50
51:BT:33:LYS:NZ	51:BT:43:GLN:NE2	2.59	0.50
53:BV:62:LEU:N	53:BV:62:LEU:CD2	2.70	0.50
54:BW:25:ARG:HB2	54:BW:25:ARG:HH11	1.76	0.50
57:BZ:74:VAL:HG22	57:BZ:86:VAL:HG13	1.93	0.50
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.12	0.50
1:AA:422:C:OP2	1:AA:422:C:H6	1.95	0.50
1:AA:622:A:N7	1:AA:623:C:C6	2.79	0.50
1:AA:674:G:H21	11:AK:116:HIS:HB2	1.76	0.50
1:AA:967:C:O5'	1:AA:967:C:H6	1.94	0.50
1:AA:1238:A:H2'	1:AA:1238:A:N3	2.25	0.50
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.46	0.50
9:AI:5:TYR:CD1	9:AI:18:PHE:CE1	2.99	0.50
12:AL:25:PRO:C	12:AL:27:LEU:N	2.64	0.50
14:AN:32:SER:O	14:AN:40:CYS:HA	2.11	0.50
24:AY:432:ALA:HA	24:AY:438:PHE:CZ	2.45	0.50
30:B5:3:LYS:HZ3	30:B5:5:PRO:HD2	1.74	0.50
31:B6:16:CYS:SG	31:B6:48:VAL:HG21	2.50	0.50
31:B6:35:GLU:HB3	31:B6:51:GLU:HB2	1.92	0.50
31:B6:35:GLU:HG3	31:B6:36:LEU:N	2.26	0.50
31:B6:54:ILE:HD13	35:BA:2420:C:H5'	1.90	0.50
35:BA:271(K):U:H3'	35:BA:271(L):U:H5''	1.93	0.50
35:BA:325:G:O2'	35:BA:326:G:H5'	2.10	0.50
35:BA:451:C:N4	35:BA:454:A:H5'	2.27	0.50
35:BA:786:C:C2'	35:BA:787:U:H5'	2.40	0.50
35:BA:1202:C:H2'	35:BA:1203:G:H5'	1.93	0.50
35:BA:1607:C:H5'	35:BA:1608:A:C8	2.47	0.50
35:BA:2154:G:H21	35:BA:2155:G:H1'	1.75	0.50
35:BA:2199:A:H3'	35:BA:2200:C:C6	2.44	0.50
35:BA:2389:G:H5''	35:BA:2390:U:C5'	2.32	0.50
35:BA:2543:G:O2'	35:BA:2544:G:H5'	2.12	0.50
36:BB:63:G:C2	36:BB:64:C:C2	2.99	0.50
37:BC:95:VAL:CG1	37:BC:96:GLY:N	2.71	0.50
37:BC:117:THR:HG22	37:BC:148:PHE:HA	1.92	0.50
37:BC:185:LYS:HE3	37:BC:185:LYS:CA	2.40	0.50
38:BD:77:ALA:HB2	38:BD:97:TYR:HA	1.93	0.50
41:BG:41:GLN:NE2	41:BG:60:LEU:CD2	2.74	0.50
41:BG:55:LYS:CA	41:BG:58:GLN:HG3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:56:ALA:HB1	41:BG:153:ARG:NE	2.26	0.50
41:BG:99:MET:O	41:BG:100:TRP:C	2.50	0.50
42:BH:40:GLU:HG3	42:BH:64:LEU:CD1	2.41	0.50
42:BH:107:VAL:O	42:BH:107:VAL:HG23	2.10	0.50
47:BP:23:PRO:CB	47:BP:33:ARG:HG3	2.39	0.50
50:BS:95:HIS:O	50:BS:96:GLY:C	2.48	0.50
54:BW:47:VAL:HG12	54:BW:47:VAL:O	2.10	0.50
55:BX:29:TRP:CH2	55:BX:76:ARG:NH2	2.79	0.50
55:BX:63:LYS:CB	55:BX:72:LYS:HG2	2.41	0.50
57:BZ:5:LEU:HD13	57:BZ:59:LEU:CD2	2.41	0.50
57:BZ:9:TYR:HB3	57:BZ:35:ARG:HH22	1.76	0.50
57:BZ:141:VAL:HG12	57:BZ:142:SER:N	2.26	0.50
1:AA:625:G:C4	1:AA:626:U:C5	3.00	0.50
1:AA:1226:C:H5'	13:AM:103:THR:CB	2.40	0.50
1:AA:1226:C:H41	13:AM:104:ARG:HD2	1.77	0.50
1:AA:1345:U:OP1	9:AI:120:ARG:NH1	2.42	0.50
1:AA:1479:C:O2'	1:AA:1480:G:H5'	2.11	0.50
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.32	0.50
7:AG:22:LEU:HD22	7:AG:62:PHE:CE2	2.46	0.50
9:AI:70:LYS:O	9:AI:74:ILE:HG13	2.11	0.50
9:AI:117:HIS:O	9:AI:118:LYS:HG3	2.11	0.50
12:AL:27:LEU:CG	12:AL:62:SER:HB2	2.40	0.50
12:AL:69:TYR:O	12:AL:71:PRO:HD3	2.11	0.50
13:AM:90:LEU:O	13:AM:91:ARG:C	2.49	0.50
24:AY:85:PRO:HG3	24:AY:94:VAL:HG13	1.93	0.50
24:AY:100:VAL:HG22	24:AY:101:LEU:N	2.26	0.50
24:AY:139:MET:HE1	24:AY:146:LEU:HB2	1.93	0.50
24:AY:187:THR:OG1	24:AY:188:TYR:N	2.44	0.50
24:AY:227:ILE:HG23	24:AY:237:PRO:HG2	1.94	0.50
27:B2:7:ARG:HH11	27:B2:7:ARG:HG3	1.76	0.50
27:B2:8:LYS:O	27:B2:12:GLU:N	2.26	0.50
27:B2:18:PRO:HG2	27:B2:19:VAL:H	1.75	0.50
27:B2:69:ARG:HG3	27:B2:70:GLN:H	1.76	0.50
30:B5:27:PRO:HG3	54:BW:23:LEU:CD1	2.40	0.50
31:B6:8:LYS:NZ	35:BA:2285:C:H5	2.06	0.50
32:B7:46:VAL:CG1	32:B7:47:ARG:H	2.24	0.50
35:BA:844:C:H2'	35:BA:845:G:O4'	2.10	0.50
35:BA:1144:G:C6	35:BA:1145:C:C4	2.99	0.50
35:BA:2073:C:H42	35:BA:2436:G:H1	1.60	0.50
35:BA:2154:G:N2	35:BA:2155:G:H1'	2.26	0.50
35:BA:2742:C:C2'	35:BA:2743:C:H5'	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2837:G:H2'	35:BA:2838:G:H8	1.75	0.50
39:BE:2:LYS:HD3	39:BE:95:ILE:HG22	1.94	0.50
40:BF:206:ILE:CG2	40:BF:207:GLY:H	2.24	0.50
45:BN:125:GLY:HA3	45:BN:126:PRO:O	2.10	0.50
46:BO:52:VAL:HG12	46:BO:53:LYS:N	2.25	0.50
47:BP:101:VAL:HB	47:BP:107:LYS:HA	1.92	0.50
47:BP:105:LEU:O	47:BP:106:LEU:HB2	2.11	0.50
49:BR:21:TYR:OH	49:BR:43:GLU:HG2	2.11	0.50
51:BT:23:ARG:HB2	51:BT:24:PRO:CD	2.36	0.50
51:BT:27:THR:OG1	51:BT:28:VAL:N	2.43	0.50
54:BW:80:PRO:O	54:BW:100:THR:HG21	2.12	0.50
57:BZ:155:LEU:HG	57:BZ:157:LEU:CD2	2.40	0.50
1:AA:61:G:H2'	1:AA:62:U:O4'	2.12	0.50
1:AA:177:C:N3	1:AA:178:C:C5	2.79	0.50
1:AA:204:U:HO2'	1:AA:216:G:P	2.34	0.50
1:AA:596:C:O5'	1:AA:596:C:H6	1.94	0.50
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.12	0.50
2:AB:80:ILE:HD12	2:AB:80:ILE:N	2.26	0.50
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.46	0.50
6:AF:24:GLU:O	6:AF:27:GLN:HB2	2.11	0.50
8:AH:44:PHE:C	8:AH:45:ILE:HG23	2.30	0.50
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.94	0.50
15:AO:27:VAL:O	15:AO:31:LEU:HD23	2.11	0.50
15:AO:74:ASP:O	15:AO:76:GLU:N	2.44	0.50
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.27	0.50
19:AS:41:VAL:O	19:AS:43:GLU:N	2.45	0.50
20:AT:11:SER:HA	20:AT:13:LEU:HD12	1.92	0.50
22:AV:73:A:H8	22:AV:73:A:O5'	1.94	0.50
24:AY:17:ILE:N	24:AY:17:ILE:CD1	2.75	0.50
24:AY:236:GLU:HG3	24:AY:236:GLU:O	2.12	0.50
24:AY:460:GLU:O	24:AY:463:VAL:HB	2.12	0.50
24:AY:519:ARG:NH2	24:AY:678:GLU:CB	2.74	0.50
24:AY:519:ARG:NH2	24:AY:678:GLU:HB3	2.26	0.50
24:AY:603:GLU:O	24:AY:676:TYR:HA	2.11	0.50
28:B3:1:MET:HB3	28:B3:2:PRO:HD2	1.93	0.50
35:BA:295:G:H2'	35:BA:296:C:C6	2.43	0.50
35:BA:300:A:P	56:BY:97:ARG:HE	2.34	0.50
35:BA:610:G:H22	35:BA:619:G:H1'	1.76	0.50
35:BA:641:C:H2'	35:BA:642:G:O4'	2.11	0.50
35:BA:692:C:H2'	35:BA:693:C:H6	1.75	0.50
35:BA:827:U:H4'	35:BA:828:U:O2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:999:U:H5''	35:BA:1154:G:O6	2.12	0.50
35:BA:1022:G:N2	35:BA:1142(A):A:H2	2.10	0.50
35:BA:1109:C:O2	35:BA:1109:C:C2'	2.60	0.50
35:BA:1127:A:H2'	35:BA:1128:A:H5''	1.93	0.50
35:BA:1298:C:H1'	35:BA:1302:A:C4	2.46	0.50
35:BA:1465:G:H2'	35:BA:1466:G:H8	1.76	0.50
35:BA:1801:G:H3'	35:BA:1802:A:H5'	1.94	0.50
35:BA:2111:C:C2	35:BA:2147:G:N2	2.80	0.50
35:BA:2128:C:OP1	37:BC:37:LYS:N	2.40	0.50
35:BA:2363:C:H6	35:BA:2363:C:O5'	1.94	0.50
35:BA:2876:G:C4'	51:BT:3:ARG:HE	2.10	0.50
36:BB:54:G:H2'	36:BB:55:U:C6	2.45	0.50
37:BC:71:LYS:CG	37:BC:72:GLN:H	2.12	0.50
37:BC:202:PRO:O	37:BC:205:ALA:HB3	2.11	0.50
38:BD:48:ARG:HG3	38:BD:48:ARG:NH1	2.27	0.50
38:BD:81:ALA:HA	38:BD:113:VAL:HG22	1.92	0.50
38:BD:218:ARG:HH11	38:BD:218:ARG:HG3	1.76	0.50
40:BF:28:ILE:H	40:BF:28:ILE:CD1	2.24	0.50
40:BF:174:VAL:HG21	40:BF:189:THR:CG2	2.42	0.50
43:BK:15:GLY:N	43:BK:41:PHE:HE2	2.09	0.50
45:BN:18:ALA:HB1	45:BN:21:LYS:HB2	1.94	0.50
46:BO:26:LYS:HB3	46:BO:30:ALA:HB2	1.93	0.50
50:BS:30:ARG:HH22	50:BS:62:LYS:HD2	1.76	0.50
55:BX:18:TYR:HA	55:BX:21:PHE:CD2	2.47	0.50
57:BZ:23:LYS:CD	57:BZ:38:TYR:HE2	2.22	0.50
1:AA:368:U:OP1	24:AY:353:ALA:CB	2.59	0.50
1:AA:721:G:H8	1:AA:721:G:OP1	1.93	0.50
1:AA:753:A:H4'	1:AA:754:C:C5'	2.42	0.50
1:AA:836:G:C6	1:AA:851:G:C6	2.99	0.50
1:AA:891:U:H2'	1:AA:892:A:H8	1.76	0.50
1:AA:940:C:H2'	1:AA:941:G:H8	1.77	0.50
1:AA:992:U:H1'	1:AA:993:G:C2	2.46	0.50
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.41	0.50
1:AA:1109:C:C2'	1:AA:1110:A:H5'	2.41	0.50
1:AA:1346:A:N6	1:AA:1375:A:OP2	2.40	0.50
1:AA:1445:C:C2'	1:AA:1446:U:H5'	2.42	0.50
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.12	0.50
3:AC:136:GLN:HA	3:AC:139:GLN:HB2	1.93	0.50
4:AD:170:VAL:HG21	4:AD:176:LEU:CD2	2.41	0.50
7:AG:79:ARG:O	7:AG:80:VAL:HG13	2.11	0.50
10:AJ:29:ARG:HH12	10:AJ:84:GLN:HE22	1.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:7:THR:O	17:AQ:23:VAL:HG13	2.11	0.50
22:AV:49:G:H1	22:AV:65:C:H42	1.60	0.50
24:AY:191:ASP:N	24:AY:191:ASP:OD1	2.43	0.50
24:AY:498:ILE:HG13	24:AY:498:ILE:O	2.12	0.50
24:AY:610:VAL:HG11	24:AY:659:LEU:HD21	1.93	0.50
24:AY:637:ARG:O	24:AY:638:GLY:C	2.48	0.50
31:B6:54:ILE:HD13	35:BA:2420:C:C5'	2.40	0.50
33:B8:49:VAL:O	33:B8:49:VAL:HG23	2.11	0.50
35:BA:92:A:H2'	35:BA:93:G:C8	2.46	0.50
35:BA:291:C:H2'	35:BA:292:C:H6	1.77	0.50
35:BA:619:G:H3'	35:BA:620:G:N2	2.26	0.50
35:BA:821:A:O2'	35:BA:945:A:H3'	2.12	0.50
35:BA:1221:C:H2'	35:BA:1221:C:O2	2.10	0.50
35:BA:1528:A:H2'	35:BA:1528:A:N3	2.26	0.50
35:BA:2128:C:OP1	37:BC:37:LYS:HB2	2.11	0.50
35:BA:2580:U:H5'	39:BE:131:ALA:HB2	1.93	0.50
35:BA:2791:C:H5	35:BA:2801(A):A:H62	1.60	0.50
41:BG:102:PHE:O	41:BG:104:GLU:N	2.45	0.50
43:BK:104:VAL:HG13	43:BK:105:LEU:N	2.26	0.50
47:BP:95:VAL:CG2	47:BP:125:VAL:HG23	2.42	0.50
48:BQ:53:ALA:HA	48:BQ:56:ARG:HB2	1.92	0.50
48:BQ:108:GLY:C	48:BQ:109:VAL:HG23	2.31	0.50
48:BQ:135:ASP:CG	57:BZ:49:ARG:NH1	2.65	0.50
52:BU:37:GLU:O	52:BU:40:PHE:HB2	2.12	0.50
57:BZ:14:LYS:O	57:BZ:16:SER:N	2.45	0.50
57:BZ:69:THR:HA	57:BZ:89:PHE:O	2.12	0.50
1:AA:697:U:H2'	1:AA:698:G:C5'	2.34	0.50
1:AA:1332:A:O2'	1:AA:1333:A:H5'	2.11	0.50
4:AD:28:SER:O	4:AD:30:LYS:N	2.45	0.50
6:AF:61:LEU:O	6:AF:62:TRP:HB2	2.11	0.50
7:AG:91:VAL:HG12	7:AG:92:SER:N	2.26	0.50
9:AI:5:TYR:HD1	9:AI:17:VAL:O	1.94	0.50
24:AY:9:LEU:C	24:AY:9:LEU:HD23	2.32	0.50
24:AY:491:VAL:HG12	24:AY:492:ASP:H	1.76	0.50
24:AY:524:GLU:HG2	24:AY:564:LYS:HG3	1.92	0.50
24:AY:529:ILE:HD11	24:AY:567:LEU:HD11	1.93	0.50
25:B0:49:LYS:HE3	25:B0:80:HIS:CG	2.47	0.50
33:B8:50:LEU:HD12	33:B8:51:ALA:N	2.25	0.50
34:B9:4:ARG:NH1	35:BA:2477:C:N4	2.60	0.50
35:BA:247:G:C8	35:BA:249:C:C6	3.00	0.50
35:BA:797:C:OP1	40:BF:62:ARG:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1073:A:C2'	35:BA:1074:G:H5'	2.42	0.50
35:BA:1265:A:H5'	35:BA:1267:U:H1'	1.92	0.50
35:BA:1285:G:H2'	35:BA:1286:A:C5'	2.39	0.50
35:BA:1541:G:H4'	35:BA:1542:A:O4'	2.12	0.50
35:BA:1754:C:OP1	51:BT:96:ARG:NH1	2.44	0.50
35:BA:1813:G:H1'	38:BD:50:THR:OG1	2.12	0.50
35:BA:2015:A:H2'	35:BA:2016:U:O4'	2.12	0.50
35:BA:2157:G:OP2	35:BA:2157:G:C8	2.65	0.50
35:BA:2248:C:H3'	35:BA:2249:U:C6	2.46	0.50
35:BA:2312:U:H4'	41:BG:71:THR:HG1	1.75	0.50
35:BA:2317:C:O2'	35:BA:2318:G:H5'	2.12	0.50
35:BA:2740:A:H2'	35:BA:2741:A:C8	2.47	0.50
36:BB:38:C:O2	36:BB:48:A:H1'	2.11	0.50
39:BE:177:PRO:CG	39:BE:178:GLU:H	2.24	0.50
47:BP:17:LYS:C	47:BP:19:VAL:H	2.14	0.50
48:BQ:8:LYS:HB2	48:BQ:9:TYR:CD1	2.47	0.50
48:BQ:65:PHE:CD1	48:BQ:65:PHE:N	2.80	0.50
49:BR:38:VAL:CB	49:BR:39:PRO:HD3	2.26	0.50
52:BU:85:LYS:O	52:BU:85:LYS:HG2	2.11	0.50
1:AA:403:C:H2'	1:AA:404:U:C6	2.46	0.50
1:AA:923:A:H2'	1:AA:924:C:H6	1.77	0.50
1:AA:1495:U:H2'	1:AA:1496:C:H6	1.76	0.50
2:AB:189:ASP:O	2:AB:191:ASP:N	2.44	0.50
6:AF:68:PRO:HG2	6:AF:71:ARG:HB2	1.93	0.50
12:AL:6:THR:CG2	12:AL:9:GLN:HE21	2.16	0.50
12:AL:27:LEU:HD21	12:AL:64:TYR:CE1	2.47	0.50
18:AR:76:LEU:C	18:AR:78:LEU:N	2.65	0.50
19:AS:51:VAL:HG21	19:AS:71:LEU:HB3	1.94	0.50
24:AY:359:HIS:CD2	24:AY:364:GLU:HB2	2.47	0.50
24:AY:413:ILE:HG23	24:AY:413:ILE:O	2.11	0.50
24:AY:518:PRO:O	24:AY:520:GLY:N	2.45	0.50
31:B6:47:THR:HG23	31:B6:49:HIS:CE1	2.46	0.50
35:BA:193:U:H2'	35:BA:194:G:H8	1.76	0.50
35:BA:751:A:H8	35:BA:751:A:O5'	1.95	0.50
35:BA:881:G:C2'	35:BA:882:G:H5'	2.41	0.50
35:BA:1015:G:H2'	35:BA:1016:G:H8	1.76	0.50
35:BA:1236:G:O2'	35:BA:1237:A:H8	1.94	0.50
35:BA:1542:A:H3'	35:BA:1542:A:C8	2.45	0.50
35:BA:2121:G:O2'	37:BC:168:LYS:HG2	2.11	0.50
35:BA:2750:A:H2'	35:BA:2752:C:N4	2.27	0.50
35:BA:2767:C:H2'	35:BA:2768:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2784:C:H1'	39:BE:37:ARG:HH12	1.77	0.50
35:BA:2885:C:H2'	35:BA:2886:G:O5'	2.12	0.50
38:BD:79:VAL:O	38:BD:113:VAL:HG13	2.11	0.50
39:BE:13:ARG:HA	39:BE:22:PRO:HA	1.92	0.50
39:BE:57:LYS:C	39:BE:58:ARG:HG3	2.32	0.50
40:BF:9:ILE:HG12	40:BF:15:SER:N	2.27	0.50
40:BF:59:TYR:HE2	40:BF:85:GLY:O	1.94	0.50
41:BG:7:LEU:O	41:BG:11:TYR:N	2.37	0.50
41:BG:99:MET:O	41:BG:102:PHE:HB3	2.12	0.50
41:BG:100:TRP:O	41:BG:104:GLU:HB2	2.11	0.50
42:BH:63:SER:O	42:BH:65:HIS:O	2.30	0.50
46:BO:104:ARG:HH21	51:BT:33:LYS:CE	2.25	0.50
50:BS:36:TYR:N	50:BS:36:TYR:HD1	2.10	0.50
51:BT:117:ASP:O	51:BT:118:ARG:C	2.50	0.50
53:BV:68:LYS:HG3	53:BV:69:LYS:H	1.76	0.50
54:BW:72:LYS:HD3	54:BW:106:ILE:HD12	1.93	0.50
56:BY:15:VAL:O	56:BY:22:GLY:N	2.44	0.50
57:BZ:109:ALA:C	57:BZ:111:VAL:N	2.64	0.50
1:AA:45:U:H2'	1:AA:46:G:C8	2.47	0.50
1:AA:877:C:O2'	1:AA:878:G:H5'	2.12	0.50
1:AA:1413:A:H2'	1:AA:1414:U:O4'	2.12	0.50
1:AA:1458:G:OP1	20:AT:35:THR:HG21	2.12	0.50
2:AB:11:LEU:HB3	2:AB:213:LEU:HD11	1.93	0.50
4:AD:28:SER:HB3	4:AD:29:PRO:CD	2.39	0.50
5:AE:50:GLU:O	5:AE:51:VAL:C	2.49	0.50
6:AF:33:TYR:HB2	6:AF:75:LEU:HD13	1.94	0.50
7:AG:38:LEU:O	7:AG:41:ARG:HB2	2.12	0.50
10:AJ:20:ALA:C	10:AJ:22:LYS:N	2.62	0.50
22:AV:39:C:H2'	22:AV:40:C:C6	2.41	0.50
24:AY:170:ARG:HH22	24:AY:208:GLN:HE22	1.60	0.50
24:AY:680:PRO:O	24:AY:682:GLN:N	2.41	0.50
28:B3:40:THR:HG23	28:B3:43:ILE:HG12	1.92	0.50
29:B4:1:MET:SD	41:BG:98:ARG:HG3	2.52	0.50
30:B5:36:CYS:SG	30:B5:49:CYS:CB	3.00	0.50
30:B5:58:LEU:HD13	30:B5:59:GLU:N	2.27	0.50
31:B6:10:LEU:HB3	33:B8:34:TRP:HD1	1.77	0.50
32:B7:41:ARG:NH2	35:BA:460:A:OP1	2.44	0.50
35:BA:85:G:N3	35:BA:103:A:C2	2.80	0.50
35:BA:272(H):C:C2'	35:BA:272(I):U:H5''	2.35	0.50
35:BA:977:G:H2'	35:BA:978:G:H8	1.77	0.50
35:BA:1198:U:O2	35:BA:1198:U:H2'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1502:C:H2'	35:BA:1503:U:C6	2.47	0.50
35:BA:1925:C:O2'	35:BA:1926:U:H5'	2.12	0.50
35:BA:2057:A:H2'	35:BA:2058:A:O4'	2.12	0.50
35:BA:2348:U:C2'	35:BA:2349:G:H5'	2.42	0.50
35:BA:2373:G:H2'	35:BA:2374:C:H6	1.74	0.50
35:BA:2419:U:O2'	35:BA:2420:C:H5'	2.11	0.50
35:BA:2450:A:O2'	35:BA:2451:A:H5'	2.11	0.50
35:BA:2476:A:C2	35:BA:2477:C:C6	3.00	0.50
35:BA:2631:G:N2	39:BE:61:ARG:NH1	2.60	0.50
35:BA:2895:U:H3'	35:BA:2895:U:H6	1.76	0.50
38:BD:35:LYS:HG3	38:BD:63:ARG:CG	2.39	0.50
39:BE:95:ILE:H	39:BE:95:ILE:CD1	2.16	0.50
42:BH:148:ILE:O	42:BH:162:ILE:HD11	2.11	0.50
50:BS:89:ARG:HG2	50:BS:89:ARG:NH1	2.12	0.50
51:BT:29:ARG:HD3	51:BT:86:ILE:HG22	1.93	0.50
53:BV:39:LEU:HD13	53:BV:51:VAL:HA	1.91	0.50
56:BY:8:LYS:HD2	56:BY:8:LYS:H	1.75	0.50
56:BY:17:SER:OG	56:BY:18:GLY:N	2.44	0.50
57:BZ:10:ARG:NH2	57:BZ:26:GLY:O	2.44	0.50
1:AA:78:G:C2	1:AA:79:G:H1'	2.47	0.50
1:AA:109:A:C6	1:AA:326:G:C6	3.00	0.50
1:AA:312:C:H2'	1:AA:313:A:C8	2.47	0.50
1:AA:376:G:OP1	16:AP:6:LEU:HB2	2.12	0.50
1:AA:391:G:H8	1:AA:391:G:O5'	1.94	0.50
1:AA:674:G:O4'	18:AR:81:PHE:HE2	1.94	0.50
1:AA:1117:G:HO2'	9:AI:104:ARG:HD3	1.74	0.50
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.42	0.50
1:AA:1244:C:O2'	1:AA:1245:A:H5'	2.12	0.50
1:AA:1378:C:O2	7:AG:76:ARG:NH2	2.45	0.50
2:AB:121:LEU:O	2:AB:127:ILE:HG12	2.12	0.50
2:AB:239:VAL:O	2:AB:240:GLN:HB2	2.11	0.50
3:AC:159:GLY:HA2	3:AC:193:TYR:CD2	2.47	0.50
4:AD:67:ILE:HB	4:AD:68:TYR:HD1	1.77	0.50
9:AI:58:HIS:C	9:AI:59:PHE:HD1	2.15	0.50
11:AK:108:ILE:N	11:AK:108:ILE:CD1	2.73	0.50
13:AM:15:VAL:HA	13:AM:18:ALA:HB3	1.94	0.50
15:AO:6:GLU:O	15:AO:9:GLN:HB2	2.12	0.50
18:AR:29:PHE:CD1	18:AR:29:PHE:O	2.65	0.50
24:AY:74:TRP:NE1	24:AY:273:LEU:HB3	2.27	0.50
24:AY:210:ARG:O	24:AY:214:GLU:HG2	2.12	0.50
26:B1:41:ARG:HH22	35:BA:1365:A:H5'	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B2:28:LYS:HB3	27:B2:57:ILE:HD11	1.94	0.50
28:B3:9:VAL:HG23	28:B3:10:LYS:N	2.21	0.50
29:B4:39:CYS:O	29:B4:40:HIS:CB	2.59	0.50
35:BA:37:C:O2	35:BA:37:C:H2'	2.11	0.50
35:BA:190:A:H3'	35:BA:204:A:H61	1.76	0.50
35:BA:1058:G:N2	43:BK:126:MET:CE	2.75	0.50
35:BA:1328:G:H2'	35:BA:1330:C:C4	2.46	0.50
35:BA:1380:G:H2'	35:BA:1381:G:H8	1.77	0.50
35:BA:1495:A:H2'	35:BA:1496:A:C2	2.47	0.50
35:BA:1668:A:N3	35:BA:1670:C:C4	2.79	0.50
35:BA:2415:G:H4'	47:BP:66:GLY:C	2.32	0.50
35:BA:2552:U:O2	35:BA:2554:U:H5'	2.12	0.50
37:BC:118:PRO:C	37:BC:121:MET:HG2	2.32	0.50
38:BD:93:ALA:HB2	38:BD:107:ALA:HB2	1.94	0.50
39:BE:166:THR:HG22	39:BE:166:THR:O	2.12	0.50
39:BE:188:VAL:HG23	39:BE:189:PRO:HD2	1.94	0.50
41:BG:73:ALA:HB3	41:BG:87:PRO:HG3	1.94	0.50
45:BN:43:THR:O	45:BN:46:VAL:CG1	2.57	0.50
52:BU:113:ALA:O	52:BU:115:ALA:N	2.45	0.50
53:BV:54:GLY:O	53:BV:55:ALA:HB2	2.11	0.50
55:BX:10:ALA:HB1	55:BX:11:PRO:CD	2.42	0.50
56:BY:29:GLU:HB2	56:BY:38:ILE:HG21	1.94	0.50
56:BY:39:VAL:HG12	56:BY:40:GLU:N	2.26	0.50
56:BY:52:SER:N	56:BY:53:PRO:HD2	2.27	0.50
57:BZ:107:THR:CG2	57:BZ:111:VAL:HG11	2.42	0.50
1:AA:154:C:O2'	1:AA:155:C:H5'	2.12	0.49
1:AA:403:C:H2'	1:AA:404:U:H6	1.77	0.49
1:AA:745:C:H2'	1:AA:746:A:H8	1.76	0.49
1:AA:961:U:O2'	1:AA:962:C:H5'	2.11	0.49
1:AA:1007:C:C5	1:AA:1008:C:N4	2.80	0.49
1:AA:1131:G:C6	1:AA:1132:C:N4	2.80	0.49
1:AA:1298:C:C5	7:AG:114:ARG:HD3	2.47	0.49
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.77	0.49
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.76	0.49
1:AA:1523:G:OP1	11:AK:123:LYS:HD3	2.12	0.49
2:AB:70:PHE:O	2:AB:92:TYR:HA	2.10	0.49
2:AB:189:ASP:OD1	2:AB:205:ASP:CB	2.56	0.49
3:AC:16:ARG:HG3	3:AC:17:ASP:N	2.26	0.49
4:AD:25:ARG:HH11	4:AD:25:ARG:CG	2.25	0.49
4:AD:62:GLN:O	4:AD:66:ARG:HB2	2.12	0.49
6:AF:26:ILE:O	6:AF:26:ILE:HG22	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:42:THR:HG23	10:AJ:67:THR:O	2.12	0.49
12:AL:18:VAL:CG2	12:AL:19:ARG:H	2.04	0.49
12:AL:83:VAL:HG13	12:AL:107:ALA:HB2	1.94	0.49
13:AM:3:ARG:CA	13:AM:9:ILE:HG13	2.42	0.49
14:AN:29:ARG:CG	14:AN:29:ARG:NH1	2.74	0.49
16:AP:25:ARG:NH1	16:AP:25:ARG:CG	2.66	0.49
24:AY:71:THR:HG22	24:AY:80:ASN:OD1	2.12	0.49
24:AY:75:LYS:O	24:AY:77:HIS:HD2	1.93	0.49
24:AY:92:ILE:CG2	24:AY:93:GLU:H	2.25	0.49
24:AY:289:ILE:CD1	24:AY:331:TYR:CZ	2.95	0.49
25:B0:51:VAL:HG22	25:B0:81:VAL:CG2	2.42	0.49
26:B1:71:TYR:CA	26:B1:74:VAL:HG23	2.42	0.49
29:B4:14:ILE:HG22	29:B4:15:ILE:N	2.27	0.49
30:B5:3:LYS:NZ	35:BA:2613:U:C2'	2.75	0.49
35:BA:106:C:O2'	56:BY:2:ARG:NH2	2.45	0.49
35:BA:272(J):C:C3'	35:BA:274:G:H5''	2.29	0.49
35:BA:614(B):G:N3	40:BF:44:ARG:HD2	2.26	0.49
35:BA:764:A:N3	38:BD:213:ARG:NH1	2.59	0.49
35:BA:2467:C:H2'	35:BA:2468:G:O4'	2.12	0.49
35:BA:2531:A:H5''	42:BH:157:TYR:CZ	2.47	0.49
36:BB:81:G:O6	36:BB:96:U:O2	2.30	0.49
37:BC:7:ARG:O	37:BC:11:LEU:HG	2.11	0.49
38:BD:91:ARG:HG2	38:BD:91:ARG:HH11	1.76	0.49
38:BD:155:LEU:HD23	38:BD:177:LEU:HD22	1.94	0.49
39:BE:103:ASP:OD2	39:BE:201:THR:HA	2.12	0.49
39:BE:186:GLY:O	39:BE:187:ALA:HB3	2.12	0.49
41:BG:109:VAL:O	41:BG:112:PRO:HD2	2.12	0.49
47:BP:9:ASN:N	47:BP:10:PRO:HD2	2.27	0.49
47:BP:102:ARG:HB3	47:BP:102:ARG:CZ	2.42	0.49
50:BS:64:GLU:H	50:BS:64:GLU:CD	2.14	0.49
51:BT:49:VAL:O	51:BT:49:VAL:HG22	2.12	0.49
52:BU:90:VAL:HG21	53:BV:47:VAL:HG21	1.94	0.49
52:BU:92:ARG:NH1	53:BV:11:GLN:HG3	2.28	0.49
57:BZ:109:ALA:C	57:BZ:111:VAL:H	2.13	0.49
1:AA:40:C:H2'	1:AA:41:G:H8	1.77	0.49
1:AA:203:U:C5'	1:AA:204:U:OP1	2.58	0.49
1:AA:448:A:C4	1:AA:487:A:C2	3.00	0.49
1:AA:573:A:C2	1:AA:574:A:C2	3.00	0.49
1:AA:622:A:H2'	1:AA:623:C:H5'	1.94	0.49
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.60	0.49
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1430:C:C2	1:AA:1471:G:N2	2.80	0.49
2:AB:8:LYS:HD3	2:AB:217:ARG:HH12	1.77	0.49
2:AB:172:ILE:N	2:AB:172:ILE:CD1	2.54	0.49
2:AB:223:ILE:HA	2:AB:226:ARG:CZ	2.41	0.49
2:AB:235:SER:OG	2:AB:236:TYR:N	2.45	0.49
3:AC:58:GLU:H	3:AC:65:ALA:CB	2.08	0.49
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.12	0.49
5:AE:20:GLN:NE2	5:AE:21:ALA:O	2.45	0.49
5:AE:136:MET:O	5:AE:137:GLU:C	2.51	0.49
6:AF:67:MET:CE	6:AF:72:VAL:HA	2.41	0.49
9:AI:90:PRO:HG2	9:AI:91:ASP:N	2.28	0.49
20:AT:89:ARG:HD2	20:AT:104:LEU:CG	2.43	0.49
20:AT:89:ARG:HA	20:AT:92:LEU:HD12	1.94	0.49
22:AV:72:A:C6	22:AV:73:A:C6	3.00	0.49
24:AY:215:LYS:O	24:AY:219:VAL:N	2.44	0.49
24:AY:513:LYS:N	24:AY:566:THR:O	2.45	0.49
24:AY:519:ARG:HD3	24:AY:677:GLN:HA	1.94	0.49
24:AY:549:ALA:HB2	24:AY:587:SER:OG	2.12	0.49
25:B0:36:ILE:O	25:B0:36:ILE:HG13	2.11	0.49
26:B1:29:GLY:C	26:B1:31:GLY:N	2.66	0.49
26:B1:64:ALA:C	26:B1:66:HIS:N	2.65	0.49
27:B2:2:LYS:HB3	35:BA:97:C:H5'	1.93	0.49
27:B2:37:PHE:O	27:B2:41:ILE:HG23	2.12	0.49
33:B8:33:ASN:HA	33:B8:36:LYS:HD2	1.93	0.49
35:BA:69:C:O2	35:BA:69:C:H2'	2.12	0.49
35:BA:88:G:H2'	35:BA:88:G:N3	2.27	0.49
35:BA:284:U:H2'	35:BA:285:C:C6	2.48	0.49
35:BA:284:U:H2'	35:BA:285:C:H6	1.77	0.49
35:BA:573:G:O2'	35:BA:574:C:H3'	2.12	0.49
35:BA:979:G:H2'	35:BA:982:C:N4	2.27	0.49
35:BA:1093:G:O2'	35:BA:1094:U:H5'	2.12	0.49
35:BA:1196:C:H2'	35:BA:1197:G:O4'	2.13	0.49
35:BA:1783:A:N1	35:BA:2587:A:N3	2.60	0.49
35:BA:2229:C:O2'	35:BA:2230:G:H5'	2.12	0.49
35:BA:2322:A:O2'	35:BA:2323:G:H5'	2.12	0.49
35:BA:2733:A:H2'	35:BA:2734:A:O4'	2.12	0.49
38:BD:43:ARG:HB3	38:BD:54:ARG:CB	2.40	0.49
38:BD:213:ARG:O	38:BD:215:LEU:N	2.45	0.49
39:BE:152:LYS:O	39:BE:153:GLY:C	2.50	0.49
42:BH:83:TYR:HB3	42:BH:134:SER:CA	2.40	0.49
42:BH:85:LYS:CE	42:BH:87:LEU:HG	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:16:ARG:NE	47:BP:18:ARG:HB2	2.27	0.49
47:BP:38:GLN:HG3	47:BP:39:LYS:H	1.76	0.49
50:BS:28:VAL:HG13	50:BS:36:TYR:O	2.12	0.49
50:BS:66:ALA:HB1	50:BS:97:ARG:O	2.13	0.49
52:BU:53:ARG:O	52:BU:54:LYS:C	2.50	0.49
52:BU:59:ARG:O	52:BU:62:ILE:N	2.45	0.49
53:BV:2:PHE:O	53:BV:3:ALA:HB3	2.12	0.49
57:BZ:141:VAL:O	57:BZ:142:SER:HB3	2.12	0.49
1:AA:859:A:H2'	1:AA:860:A:O4'	2.12	0.49
2:AB:223:ILE:O	2:AB:226:ARG:N	2.45	0.49
5:AE:101:ILE:HD13	5:AE:118:ILE:O	2.12	0.49
13:AM:6:GLY:C	13:AM:8:GLU:N	2.65	0.49
14:AN:37:PHE:CE2	14:AN:53:LEU:HD22	2.48	0.49
15:AO:10:LYS:HG3	15:AO:11:VAL:N	2.27	0.49
18:AR:36:ASN:O	18:AR:37:VAL:C	2.50	0.49
19:AS:10:PHE:CE2	19:AS:37:ARG:O	2.64	0.49
19:AS:29:ARG:O	19:AS:31:ILE:HG22	2.12	0.49
22:AV:27:U:O5'	22:AV:27:U:H6	1.96	0.49
22:AV:32:C:H6	22:AV:32:C:O5'	1.96	0.49
24:AY:20:HIS:N	24:AY:121:VAL:HG11	2.28	0.49
24:AY:39:ILE:HG22	24:AY:41:LYS:N	2.27	0.49
24:AY:227:ILE:HG23	24:AY:237:PRO:CG	2.42	0.49
24:AY:264:LEU:O	24:AY:264:LEU:HD23	2.12	0.49
25:B0:49:LYS:H	25:B0:80:HIS:HD1	1.60	0.49
27:B2:50:ILE:O	27:B2:52:ASP:N	2.44	0.49
28:B3:3:ARG:O	28:B3:4:LEU:HD23	2.13	0.49
31:B6:29:ASN:CG	31:B6:30:THR:N	2.66	0.49
31:B6:42:TRP:CH2	35:BA:643:A:N7	2.80	0.49
34:B9:31:LYS:HE2	35:BA:2478:A:H5'	1.94	0.49
35:BA:203:C:C3'	35:BA:204:A:H5''	2.42	0.49
35:BA:443:A:H3'	40:BF:45:ARG:HH21	1.77	0.49
35:BA:548:A:C3'	35:BA:549:G:C5'	2.90	0.49
35:BA:1006:C:O2'	45:BN:106:MET:HB3	2.11	0.49
35:BA:1101:U:H2'	35:BA:1102:C:C6	2.47	0.49
35:BA:1335:U:O2'	35:BA:1336:A:H5'	2.12	0.49
35:BA:1539:G:H2'	35:BA:1540:U:O4'	2.12	0.49
35:BA:1666:G:C2'	35:BA:1667:G:H5'	2.43	0.49
35:BA:2037:G:H2'	35:BA:2038:G:C8	2.47	0.49
35:BA:2847:U:OP1	51:BT:98:LYS:HD3	2.12	0.49
36:BB:8:U:H6	36:BB:8:U:H5'	1.78	0.49
36:BB:49:C:OP1	50:BS:96:GLY:HA3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:23:VAL:HA	39:BE:184:VAL:O	2.13	0.49
39:BE:52:LEU:O	39:BE:53:PRO:C	2.49	0.49
40:BF:32:LEU:C	40:BF:32:LEU:CD2	2.79	0.49
41:BG:63:ILE:CD1	41:BG:64:THR:HB	2.42	0.49
41:BG:135:LEU:CD1	41:BG:155:MET:HG2	2.36	0.49
49:BR:83:ILE:O	49:BR:87:TYR:CE2	2.65	0.49
49:BR:99:LYS:H	49:BR:99:LYS:CD	1.86	0.49
50:BS:79:ALA:C	50:BS:81:GLY:N	2.65	0.49
56:BY:27:VAL:HG12	56:BY:29:GLU:OE1	2.12	0.49
1:AA:1138:G:C6	1:AA:1140:C:C2	3.00	0.49
1:AA:1522:U:H2'	1:AA:1523:G:C8	2.42	0.49
3:AC:46:GLU:O	3:AC:47:LEU:CB	2.52	0.49
5:AE:90:VAL:C	5:AE:91:LEU:HD22	2.33	0.49
6:AF:33:TYR:HA	6:AF:71:ARG:NH2	2.26	0.49
6:AF:97:PHE:CD2	18:AR:65:ILE:CD1	2.96	0.49
7:AG:79:ARG:O	7:AG:79:ARG:HD2	2.12	0.49
8:AH:35:ILE:HG23	8:AH:111:ILE:HD13	1.95	0.49
10:AJ:50:ILE:HD11	14:AN:41:ARG:HH11	1.77	0.49
16:AP:14:ASN:CG	16:AP:14:ASN:O	2.46	0.49
20:AT:13:LEU:H	20:AT:13:LEU:CD1	1.90	0.49
24:AY:165:GLN:HA	24:AY:178:ILE:O	2.12	0.49
35:BA:579:G:H4'	35:BA:2017:U:H2'	1.93	0.49
35:BA:779:U:H2'	35:BA:780:G:C8	2.47	0.49
35:BA:841:A:C2	35:BA:842:G:C4	3.01	0.49
35:BA:1204:A:N6	35:BA:1240:U:H2'	2.27	0.49
35:BA:1512:U:H2'	35:BA:1513:C:C6	2.48	0.49
35:BA:1692:U:H2'	35:BA:1694:C:C4	2.48	0.49
35:BA:2002:G:OP1	49:BR:17:ARG:NH2	2.45	0.49
35:BA:2009:G:H1'	49:BR:107:ASP:O	2.12	0.49
35:BA:2033:A:O2'	35:BA:2034:U:P	2.70	0.49
35:BA:2134:A:H2'	35:BA:2134:A:N3	2.26	0.49
39:BE:9:VAL:HG13	39:BE:25:VAL:O	2.12	0.49
39:BE:15:PHE:CZ	51:BT:80:SER:HB2	2.47	0.49
42:BH:94:TYR:O	42:BH:95:ARG:HB3	2.11	0.49
43:BK:92:GLY:O	43:BK:95:LYS:HE3	2.11	0.49
46:BO:9:GLU:OE1	46:BO:9:GLU:HA	2.12	0.49
53:BV:62:LEU:H	53:BV:62:LEU:CD2	2.25	0.49
57:BZ:105:VAL:HG13	57:BZ:105:VAL:O	2.11	0.49
1:AA:60:A:C5'	1:AA:331:G:H22	2.25	0.49
1:AA:67:C:H2'	1:AA:68:G:H8	1.78	0.49
1:AA:164:U:H2'	1:AA:165:C:H6	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:434:U:H2'	1:AA:435:C:C6	2.47	0.49
1:AA:738:C:O5'	1:AA:738:C:H6	1.94	0.49
1:AA:1298:C:H5''	7:AG:114:ARG:HH22	1.76	0.49
2:AB:194:PRO:HG2	2:AB:195:ASP:H	1.77	0.49
5:AE:34:VAL:HG11	5:AE:62:ALA:HB1	1.94	0.49
5:AE:149:GLU:O	5:AE:153:LYS:HE2	2.11	0.49
7:AG:78:ARG:HG3	7:AG:79:ARG:H	1.76	0.49
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.61	0.49
11:AK:84:VAL:HG22	11:AK:110:ASP:HA	1.93	0.49
12:AL:27:LEU:HD21	12:AL:64:TYR:CZ	2.47	0.49
12:AL:37:CYS:O	12:AL:38:THR:HB	2.12	0.49
12:AL:46:LYS:NZ	12:AL:94:PRO:HG3	2.28	0.49
12:AL:117:ARG:HB3	12:AL:122:THR:HB	1.94	0.49
22:AV:70:G:C5	22:AV:71:C:C5	3.01	0.49
24:AY:36:THR:OG1	24:AY:72:CYS:HB2	2.12	0.49
30:B5:27:PRO:HD3	54:BW:23:LEU:HD11	1.93	0.49
35:BA:90:U:O2	35:BA:90:U:C2'	2.58	0.49
35:BA:152:G:H1	35:BA:174:C:H42	1.60	0.49
35:BA:565:C:H4'	35:BA:1253:A:N1	2.27	0.49
35:BA:608:A:H2'	35:BA:609:A:C8	2.47	0.49
35:BA:696:G:C2	35:BA:767:U:O2	2.65	0.49
35:BA:840:C:C2'	35:BA:841:A:H5''	2.42	0.49
35:BA:841:A:H2'	35:BA:842:G:O4'	2.11	0.49
35:BA:1028:A:H61	35:BA:1125:G:H2'	1.76	0.49
35:BA:1128:A:C8	35:BA:2518:A:N6	2.80	0.49
35:BA:1197:G:C4	35:BA:1198:U:C5	3.01	0.49
35:BA:1441:G:O2'	35:BA:1442:G:H5'	2.12	0.49
35:BA:1682:G:O2'	35:BA:1683:C:H5'	2.12	0.49
35:BA:1996:C:OP1	46:BO:31:LYS:HE2	2.13	0.49
35:BA:2009:G:O2'	35:BA:2010:G:H5'	2.13	0.49
35:BA:2010:G:H2'	35:BA:2011:U:H6	1.77	0.49
35:BA:2128:C:O2'	35:BA:2174:C:H4'	2.13	0.49
35:BA:2262:U:O2'	35:BA:2263:C:H5''	2.11	0.49
35:BA:2286:A:H4'	35:BA:2287:A:C5'	2.38	0.49
36:BB:18:G:H2'	36:BB:19:G:H8	1.77	0.49
36:BB:87:G:H1	36:BB:91:C:H42	1.59	0.49
37:BC:79:ALA:HB1	37:BC:83:LYS:HB2	1.92	0.49
37:BC:138:LEU:HD13	37:BC:138:LEU:C	2.33	0.49
38:BD:134:ARG:HG3	38:BD:135:PHE:CD1	2.45	0.49
38:BD:227:ASN:O	38:BD:230:ASP:N	2.45	0.49
40:BF:187:VAL:HG12	47:BP:7:ARG:NH2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:82:LEU:HG	41:BG:83:ARG:N	2.28	0.49
42:BH:86:GLU:HB3	42:BH:132:ARG:HB3	1.93	0.49
43:BK:75:SER:HA	43:BK:78:ILE:CG2	2.43	0.49
46:BO:17:ARG:O	46:BO:18:LYS:CG	2.52	0.49
47:BP:47:ASP:HB2	47:BP:51:PHE:HB2	1.95	0.49
47:BP:80:TYR:CD1	47:BP:111:ARG:HB3	2.48	0.49
47:BP:146:VAL:O	47:BP:148:LEU:HD12	2.12	0.49
50:BS:84:GLN:O	50:BS:84:GLN:HG3	2.12	0.49
56:BY:94:LYS:HG3	56:BY:102:CYS:SG	2.53	0.49
57:BZ:115:GLY:N	57:BZ:177:PRO:CG	2.73	0.49
1:AA:424:G:O2'	1:AA:425:G:H5'	2.13	0.49
1:AA:595:G:H2'	1:AA:641:U:O4	2.13	0.49
1:AA:674:G:O2'	1:AA:675:A:H5'	2.12	0.49
1:AA:738:C:H2'	1:AA:739:C:H6	1.78	0.49
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.30	0.49
1:AA:1221:G:H4'	19:AS:77:THR:CG2	2.40	0.49
1:AA:1342:C:H1'	9:AI:124:GLN:HG3	1.94	0.49
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.48	0.49
5:AE:139:LEU:C	5:AE:141:GLN:N	2.66	0.49
9:AI:59:PHE:N	9:AI:59:PHE:HD1	2.08	0.49
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.95	0.49
16:AP:53:VAL:O	16:AP:54:GLU:C	2.49	0.49
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.93	0.49
20:AT:47:GLY:C	20:AT:49:ALA:H	2.15	0.49
26:B1:12:PRO:CG	35:BA:1365:A:H5'	2.43	0.49
28:B3:43:ILE:HD11	35:BA:927:G:O2'	2.13	0.49
29:B4:1:MET:HG2	41:BG:98:ARG:CD	2.42	0.49
29:B4:1:MET:SD	41:BG:98:ARG:CG	3.01	0.49
35:BA:268:C:H2'	35:BA:268:C:O2	2.13	0.49
35:BA:496:G:H2'	35:BA:497:A:O4'	2.13	0.49
35:BA:618:C:H2'	35:BA:619:G:O4'	2.12	0.49
35:BA:692:C:H2'	35:BA:693:C:C6	2.47	0.49
35:BA:809:G:H2'	35:BA:810:U:O4'	2.12	0.49
35:BA:967:C:H2'	35:BA:968:G:H5'	1.95	0.49
35:BA:1344:G:H5'	35:BA:1384:A:N1	2.28	0.49
35:BA:1429:G:H2'	35:BA:1430:C:C6	2.47	0.49
35:BA:1820:U:H3	38:BD:199:ALA:HA	1.76	0.49
35:BA:1930:G:O2'	35:BA:1931:U:H6	1.96	0.49
35:BA:2072:G:C2	35:BA:2073:C:C2	3.00	0.49
35:BA:2072:G:C2	35:BA:2438:U:O2	2.66	0.49
35:BA:2137:C:H2'	35:BA:2138:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2291:U:H2'	35:BA:2292:C:H6	1.76	0.49
35:BA:2312:U:OP1	41:BG:73:ALA:HA	2.13	0.49
38:BD:94:LEU:HD23	38:BD:95:LEU:H	1.77	0.49
38:BD:108:PRO:HB3	38:BD:143:HIS:CE1	2.48	0.49
39:BE:4:ILE:HG13	39:BE:5:LEU:H	1.77	0.49
39:BE:27:LEU:HD12	39:BE:181:LEU:HD13	1.93	0.49
40:BF:2:LYS:CG	40:BF:25:PRO:HG2	2.42	0.49
40:BF:7:TYR:CD1	40:BF:8:GLN:N	2.80	0.49
40:BF:152:GLU:O	40:BF:154:VAL:HG23	2.12	0.49
40:BF:158:THR:HG23	40:BF:160:ASN:H	1.78	0.49
43:BK:36:GLU:HG3	43:BK:36:GLU:O	2.12	0.49
43:BK:78:ILE:HD13	43:BK:134:MET:SD	2.52	0.49
45:BN:62:VAL:HG13	45:BN:62:VAL:O	2.12	0.49
49:BR:7:GLY:HA3	49:BR:8:ARG:NH2	2.28	0.49
52:BU:109:LEU:O	52:BU:112:ARG:HB2	2.12	0.49
54:BW:26:GLY:HA2	54:BW:71:VAL:O	2.12	0.49
55:BX:29:TRP:CZ2	55:BX:76:ARG:NH2	2.79	0.49
56:BY:66:PRO:O	56:BY:67:LEU:HB3	2.12	0.49
1:AA:193:C:C2	1:AA:194:C:C5	3.00	0.49
1:AA:336:C:O2'	1:AA:337:C:H5'	2.13	0.49
1:AA:664:G:H22	1:AA:741:G:H1	1.58	0.49
1:AA:1348:U:H4'	9:AI:120:ARG:HG3	1.95	0.49
3:AC:83:ARG:HD2	3:AC:87:LEU:HD11	1.94	0.49
12:AL:113:ARG:HG2	12:AL:113:ARG:NH1	2.26	0.49
17:AQ:10:VAL:HG12	17:AQ:12:SER:O	2.13	0.49
20:AT:53:LEU:HD12	20:AT:100:ILE:HG22	1.95	0.49
23:AX:15:A:H5'	23:AX:16:A:P	2.51	0.49
24:AY:154:GLN:C	24:AY:158:GLY:HA2	2.33	0.49
24:AY:177:ILE:O	24:AY:178:ILE:HD12	2.11	0.49
24:AY:447:GLY:O	24:AY:448:GLN:C	2.51	0.49
24:AY:678:GLU:HG2	24:AY:679:VAL:N	2.26	0.49
27:B2:24:LEU:HD23	27:B2:24:LEU:C	2.33	0.49
30:B5:19:ARG:HG3	35:BA:2046:G:H5''	1.94	0.49
31:B6:10:LEU:H	31:B6:10:LEU:HD22	1.75	0.49
31:B6:38:LYS:HB3	35:BA:2344:U:H5'	1.95	0.49
34:B9:27:CYS:SG	34:B9:28:GLU:N	2.86	0.49
35:BA:1019:U:N3	35:BA:1142(A):A:N6	2.60	0.49
35:BA:1362:C:H2'	35:BA:1363:C:H6	1.78	0.49
35:BA:1624:G:O2'	35:BA:1625:C:H5'	2.13	0.49
35:BA:1932:A:H2'	35:BA:1933:G:O4'	2.13	0.49
35:BA:2030:A:H5''	35:BA:2031:A:OP1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2140:C:O2	35:BA:2140:C:H2'	2.13	0.49
35:BA:2523:G:C3'	35:BA:2524:G:H5''	2.42	0.49
36:BB:20:C:H2'	36:BB:21:G:C5'	2.42	0.49
40:BF:156:LEU:HD21	40:BF:163:VAL:HG12	1.95	0.49
43:BK:81:ALA:O	43:BK:82:ALA:HB2	2.11	0.49
49:BR:72:ASP:CG	49:BR:75:LEU:H	2.16	0.49
49:BR:117:VAL:HG12	49:BR:118:GLU:N	2.27	0.49
51:BT:100:TYR:HD1	51:BT:100:TYR:H	1.59	0.49
54:BW:47:VAL:O	54:BW:47:VAL:CG1	2.61	0.49
56:BY:17:SER:HB3	56:BY:71:LYS:HB3	1.93	0.49
57:BZ:54:HIS:HE1	57:BZ:123:ASP:OD2	1.95	0.49
57:BZ:128:VAL:HG21	57:BZ:132:ASN:HB2	1.94	0.49
1:AA:37:U:H2'	1:AA:38:G:H5'	1.95	0.49
1:AA:402:G:C6	1:AA:403:C:C4	3.01	0.49
1:AA:427:U:O4	1:AA:428:G:C6	2.66	0.49
1:AA:444:C:O2	1:AA:444:C:H2'	2.13	0.49
1:AA:545:C:O2'	1:AA:546:G:H5'	2.12	0.49
1:AA:687:A:N6	1:AA:703:G:H1'	2.27	0.49
1:AA:1107:C:H2'	1:AA:1108:G:O5'	2.13	0.49
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.78	0.49
1:AA:1313:U:OP2	19:AS:6:LYS:HB2	2.11	0.49
6:AF:1:MET:HE1	6:AF:68:PRO:CD	2.36	0.49
9:AI:79:LEU:O	9:AI:82:ALA:N	2.45	0.49
10:AJ:6:ILE:HG13	10:AJ:72:VAL:O	2.13	0.49
19:AS:10:PHE:HZ	19:AS:70:LYS:CE	2.26	0.49
22:AV:41:C:H2'	22:AV:42:G:O4'	2.12	0.49
22:AV:56:C:C4	35:BA:2169:A:N1	2.79	0.49
24:AY:92:ILE:CG2	24:AY:93:GLU:N	2.75	0.49
24:AY:655:TYR:CZ	24:AY:659:LEU:HD23	2.48	0.49
26:B1:86:SER:HB2	26:B1:90:ILE:HD11	1.93	0.49
27:B2:14:ARG:HG3	27:B2:14:ARG:NH1	2.23	0.49
29:B4:36:CYS:SG	29:B4:37:SER:N	2.85	0.49
35:BA:271(Z):C:H1'	35:BA:272(C):G:C1'	2.41	0.49
35:BA:1115:G:H5'	35:BA:1115:G:H8	1.76	0.49
35:BA:1669:A:C2'	35:BA:1670:C:H5'	2.38	0.49
35:BA:2203:U:H5'	35:BA:2205:C:P	2.52	0.49
35:BA:2688:U:H1'	35:BA:2721:A:H61	1.78	0.49
35:BA:2825:C:H2'	35:BA:2826:A:O4'	2.13	0.49
36:BB:35:U:O2	36:BB:35:U:H2'	2.11	0.49
37:BC:26:ALA:O	37:BC:30:VAL:HG23	2.13	0.49
40:BF:25:PRO:CB	40:BF:119:ARG:HB2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:60:ALA:HA	46:BO:87:ILE:CD1	2.42	0.49
47:BP:85:LEU:HD23	47:BP:115:LEU:O	2.12	0.49
50:BS:99:LYS:O	50:BS:101:LEU:HG	2.13	0.49
51:BT:24:PRO:HB3	51:BT:99:LEU:HD21	1.94	0.49
51:BT:55:ASN:HD22	51:BT:58:ASN:ND2	2.10	0.49
56:BY:76:CYS:SG	56:BY:77:PRO:CD	2.98	0.49
57:BZ:153:SER:HB2	57:BZ:167:PRO:HB3	1.93	0.49
1:AA:99:U:H2'	1:AA:100:C:C6	2.48	0.49
1:AA:950:U:H2'	1:AA:951:G:H8	1.77	0.49
1:AA:972:C:H2'	10:AJ:55:LYS:HG2	1.94	0.49
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.47	0.49
2:AB:214:ILE:O	2:AB:218:ALA:HB2	2.13	0.49
3:AC:120:VAL:O	3:AC:121:ALA:C	2.51	0.49
5:AE:101:ILE:CD1	5:AE:119:LEU:HA	2.29	0.49
7:AG:4:ARG:HB3	7:AG:5:ARG:NH1	2.27	0.49
8:AH:111:ILE:HG22	8:AH:112:LEU:N	2.28	0.49
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.81	0.49
9:AI:126:SER:O	9:AI:128:ARG:HD2	2.13	0.49
14:AN:37:PHE:HE2	14:AN:53:LEU:HD22	1.77	0.49
18:AR:33:ASP:C	18:AR:35:ARG:H	2.16	0.49
24:AY:4:LYS:HE2	24:AY:4:LYS:HB2	1.62	0.49
24:AY:137:ASN:C	24:AY:137:ASN:HD22	2.16	0.49
24:AY:141:LYS:O	24:AY:144:ALA:CB	2.61	0.49
24:AY:343:ASN:ND2	24:AY:345:THR:HB	2.28	0.49
32:B7:26:GLY:O	32:B7:30:VAL:HG23	2.13	0.49
35:BA:271(B):C:O2'	35:BA:271(C):C:H5'	2.13	0.49
35:BA:428:A:H3'	35:BA:429:A:H8	1.78	0.49
35:BA:1090:U:O2	35:BA:1102:C:H1'	2.13	0.49
35:BA:1782:C:H1'	35:BA:2609:U:C5'	2.39	0.49
37:BC:126:SER:C	37:BC:128:LEU:H	2.15	0.49
39:BE:103:ASP:CG	39:BE:201:THR:HA	2.33	0.49
39:BE:110:GLY:HA2	39:BE:162:ALA:H	1.78	0.49
40:BF:46:ARG:HG3	40:BF:46:ARG:NH1	2.28	0.49
40:BF:62:ARG:HH21	40:BF:64:ILE:HA	1.77	0.49
48:BQ:21:THR:HG22	48:BQ:23:GLY:O	2.13	0.49
50:BS:20:ARG:HG2	50:BS:20:ARG:NH1	2.28	0.49
50:BS:41:ASP:O	50:BS:45:GLY:HA2	2.13	0.49
50:BS:89:ARG:HG2	50:BS:92:TYR:HA	1.93	0.49
51:BT:11:GLU:C	51:BT:13:ARG:N	2.66	0.49
51:BT:80:SER:CB	51:BT:81:PRO:CD	2.76	0.49
51:BT:108:ARG:HA	51:BT:111:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BX:57:LEU:N	55:BX:57:LEU:CD1	2.76	0.49
56:BY:95:LYS:HG2	56:BY:101:LYS:N	2.27	0.49
57:BZ:84:GLU:O	57:BZ:85:HIS:CB	2.58	0.49
57:BZ:107:THR:HG23	57:BZ:111:VAL:CG1	2.43	0.49
1:AA:399:G:H2'	1:AA:400:C:C6	2.47	0.49
1:AA:439:A:N6	1:AA:496:A:H1'	2.27	0.49
1:AA:1222:G:C2'	1:AA:1223:C:H5'	2.41	0.49
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.47	0.49
1:AA:1423:G:H5'	46:BO:49:ARG:HH22	1.75	0.49
1:AA:1481:U:H2'	1:AA:1482:G:C8	2.48	0.49
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.25	0.49
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.13	0.49
10:AJ:91:PRO:HB2	10:AJ:94:VAL:HB	1.95	0.49
19:AS:72:GLY:O	19:AS:74:PHE:N	2.46	0.49
33:B8:61:LEU:H	33:B8:61:LEU:HG	1.28	0.49
35:BA:260:G:H1'	35:BA:621:A:H1'	1.94	0.49
35:BA:637:A:OP1	47:BP:133:SER:CB	2.59	0.49
35:BA:764:A:C5	38:BD:209:ALA:CB	2.95	0.49
35:BA:1012:U:H3	45:BN:25:ARG:HE	1.60	0.49
35:BA:1175:U:P	35:BA:1176:G:H5''	2.53	0.49
35:BA:1819:A:H2'	38:BD:179:SER:OG	2.13	0.49
35:BA:1973:G:H2'	35:BA:1974:C:H6	1.78	0.49
35:BA:2026:C:C4	35:BA:2027:G:C8	3.00	0.49
35:BA:2402:C:P	35:BA:2402:C:O4'	2.70	0.49
35:BA:2531:A:OP1	42:BH:177:GLY:C	2.52	0.49
35:BA:2616:C:O2	35:BA:2616:C:H2'	2.12	0.49
35:BA:2735:G:H2'	35:BA:2736:G:H8	1.78	0.49
35:BA:2859:G:C6	35:BA:2860:A:N6	2.81	0.49
38:BD:91:ARG:O	38:BD:107:ALA:HB3	2.13	0.49
39:BE:96:PHE:O	39:BE:175:VAL:HG11	2.13	0.49
40:BF:81:PRO:O	40:BF:83:PHE:N	2.45	0.49
41:BG:152:LEU:O	41:BG:152:LEU:HD23	2.12	0.49
51:BT:33:LYS:HE2	51:BT:43:GLN:CD	2.32	0.49
51:BT:89:VAL:C	51:BT:91:ARG:N	2.64	0.49
52:BU:50:ARG:HH21	53:BV:70:ILE:CG2	2.25	0.49
1:AA:41:G:O2'	1:AA:42:G:H5'	2.13	0.48
1:AA:80:G:C3'	1:AA:81:U:H5'	2.34	0.48
1:AA:509:A:H3'	1:AA:510:A:C8	2.48	0.48
1:AA:511:C:N3	1:AA:541:G:N2	2.61	0.48
1:AA:955:U:H2'	1:AA:956:U:H6	1.75	0.48
1:AA:981:U:O5'	1:AA:981:U:H6	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:994:A:C2	1:AA:995:C:C5	3.01	0.48
1:AA:1129:C:C5	1:AA:1139:G:C5	3.01	0.48
2:AB:169:LYS:O	2:AB:169:LYS:CD	2.61	0.48
2:AB:207:ALA:O	2:AB:211:ILE:HG13	2.13	0.48
2:AB:220:ASP:O	2:AB:223:ILE:N	2.44	0.48
4:AD:173:TRP:O	4:AD:174:LEU:HD23	2.11	0.48
5:AE:9:LYS:NZ	5:AE:111:GLU:OE1	2.46	0.48
5:AE:31:LEU:CD2	5:AE:43:LEU:HD11	2.43	0.48
13:AM:99:ARG:HB2	13:AM:101:GLN:HE21	1.77	0.48
19:AS:19:VAL:HG12	19:AS:20:LEU:CD2	2.43	0.48
24:AY:122:TRP:C	24:AY:124:GLN:N	2.67	0.48
24:AY:122:TRP:CZ2	24:AY:159:ALA:HB2	2.47	0.48
24:AY:341:VAL:HG23	24:AY:350:GLU:HB2	1.95	0.48
24:AY:555:LEU:CD1	24:AY:599:PRO:HB2	2.42	0.48
31:B6:10:LEU:H	31:B6:10:LEU:HD23	1.74	0.48
32:B7:28:ARG:HG3	32:B7:28:ARG:NH1	2.10	0.48
35:BA:112:U:C2'	35:BA:113:G:H5'	2.44	0.48
35:BA:234:C:H2'	35:BA:235:U:H6	1.78	0.48
35:BA:551:G:H2'	35:BA:552:G:H5'	1.95	0.48
35:BA:614(B):G:H1'	40:BF:44:ARG:HD2	1.95	0.48
35:BA:775:G:O6	35:BA:787:U:H2'	2.12	0.48
35:BA:1582:C:O2'	35:BA:1583:A:H5'	2.12	0.48
35:BA:1930:G:O2'	35:BA:1931:U:C6	2.65	0.48
35:BA:2057:A:O2'	35:BA:2058:A:H5'	2.12	0.48
35:BA:2093:G:C6	35:BA:2225:A:C8	3.01	0.48
37:BC:212:SER:OG	37:BC:214:TYR:HE1	1.96	0.48
38:BD:245:PRO:O	38:BD:245:PRO:HG2	2.13	0.48
39:BE:111:ARG:HD2	39:BE:160:TYR:CE2	2.47	0.48
39:BE:116:VAL:O	39:BE:117:MET:CB	2.55	0.48
40:BF:24:LEU:CB	40:BF:25:PRO:HD2	2.31	0.48
40:BF:198:ALA:C	40:BF:201:VAL:HG12	2.33	0.48
41:BG:116:ASP:O	41:BG:117:PHE:HB3	2.12	0.48
43:BK:58:THR:HB	43:BK:66:THR:HG23	1.92	0.48
43:BK:71:THR:HB	43:BK:72:PRO:CD	2.38	0.48
50:BS:79:ALA:C	50:BS:81:GLY:H	2.15	0.48
51:BT:16:ARG:HD2	51:BT:18:ASP:OD1	2.13	0.48
51:BT:128:GLU:O	51:BT:130:ALA:N	2.45	0.48
52:BU:90:VAL:HG12	52:BU:91:ASP:N	2.28	0.48
53:BV:39:LEU:O	53:BV:40:LEU:HB2	2.13	0.48
56:BY:38:ILE:HA	56:BY:38:ILE:HD12	1.75	0.48
57:BZ:15:PRO:HA	57:BZ:18:LEU:HD13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:252:U:C4	1:AA:253:U:O4	2.66	0.48
1:AA:363:A:H5'	12:AL:34:ARG:HB2	1.95	0.48
1:AA:368:U:C5'	24:AY:354:ARG:NH2	2.77	0.48
1:AA:389:A:H2'	1:AA:390:C:H5'	1.95	0.48
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.47	0.48
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.36	0.48
1:AA:1195:C:H2'	1:AA:1197:G:O4'	2.13	0.48
1:AA:1298:C:O2'	1:AA:1299:A:C2	2.66	0.48
1:AA:1489:G:H2'	1:AA:1490:C:C5'	2.32	0.48
2:AB:58:ILE:O	2:AB:61:LEU:HB3	2.13	0.48
2:AB:112:VAL:HG22	2:AB:149:LEU:CD1	2.37	0.48
3:AC:113:ALA:HB3	3:AC:183:ASP:OD1	2.12	0.48
4:AD:129:ASN:ND2	4:AD:129:ASN:N	2.56	0.48
5:AE:36:ASP:O	5:AE:37:ARG:CB	2.61	0.48
9:AI:125:TYR:OH	9:AI:127:LYS:HG3	2.12	0.48
10:AJ:40:LEU:CB	10:AJ:41:PRO:CD	2.90	0.48
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.94	0.48
13:AM:49:THR:C	13:AM:51:ALA:H	2.16	0.48
16:AP:27:LYS:HG2	16:AP:30:GLY:HA3	1.95	0.48
17:AQ:67:LYS:O	17:AQ:69:LYS:N	2.40	0.48
20:AT:16:HIS:O	20:AT:17:ARG:C	2.50	0.48
23:AX:13:A:C3'	23:AX:14:A:C5'	2.80	0.48
24:AY:121:VAL:CA	24:AY:124:GLN:NE2	2.77	0.48
24:AY:191:ASP:O	24:AY:266:ASN:ND2	2.46	0.48
24:AY:238:THR:C	24:AY:240:GLU:N	2.67	0.48
24:AY:252:ASP:HB2	24:AY:254:LYS:CG	2.42	0.48
24:AY:649:LEU:HD21	24:AY:671:MET:HE3	1.94	0.48
26:B1:53:VAL:HG12	26:B1:54:ALA:N	2.27	0.48
27:B2:63:VAL:HA	27:B2:66:GLU:HG2	1.95	0.48
31:B6:9:LEU:HD12	31:B6:28:ARG:HG3	1.95	0.48
33:B8:5:LYS:HG2	35:BA:242:G:C8	2.49	0.48
35:BA:83:G:H22	35:BA:102:G:H2'	1.76	0.48
35:BA:173:G:N3	35:BA:173:G:H2'	2.27	0.48
35:BA:760:G:H2'	35:BA:761:A:H5'	1.94	0.48
35:BA:775:G:C4	35:BA:794:G:C8	3.02	0.48
35:BA:992:C:H2'	35:BA:993:G:H8	1.78	0.48
35:BA:1285:G:C2'	35:BA:1286:A:H5'	2.38	0.48
35:BA:1438:U:H6	35:BA:1438:U:O5'	1.96	0.48
35:BA:1451:C:H4'	35:BA:1452:A:C8	2.48	0.48
35:BA:1614:A:N1	54:BW:91:GLY:HA2	2.28	0.48
36:BB:79:C:O5'	36:BB:79:C:H6	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:149:ASN:HD21	37:BC:153:ILE:HD11	1.78	0.48
38:BD:142:VAL:HG23	38:BD:193:VAL:N	2.28	0.48
40:BF:11:VAL:CG1	40:BF:12:LEU:H	2.22	0.48
42:BH:153:LYS:HG3	42:BH:154:PRO:HD2	1.93	0.48
45:BN:14:VAL:HG11	45:BN:137:LYS:HD2	1.95	0.48
46:BO:37:ASP:O	46:BO:62:VAL:HG23	2.13	0.48
46:BO:111:PHE:O	46:BO:115:VAL:HG23	2.13	0.48
47:BP:38:GLN:HG3	47:BP:41:ARG:CG	2.43	0.48
49:BR:78:LYS:O	49:BR:78:LYS:HG2	2.13	0.48
49:BR:106:GLY:O	49:BR:107:ASP:HB3	2.13	0.48
51:BT:33:LYS:HZ1	51:BT:43:GLN:HE22	1.61	0.48
51:BT:89:VAL:HG12	51:BT:91:ARG:HG2	1.94	0.48
52:BU:49:HIS:CA	52:BU:52:ARG:HB2	2.41	0.48
55:BX:22:ALA:HB3	55:BX:23:GLU:OE2	2.13	0.48
56:BY:15:VAL:O	56:BY:22:GLY:HA2	2.12	0.48
57:BZ:14:LYS:C	57:BZ:16:SER:N	2.64	0.48
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.78	0.48
1:AA:335:C:O2'	1:AA:336:C:H5'	2.14	0.48
1:AA:678:U:H2'	1:AA:679:C:C6	2.49	0.48
1:AA:796:C:N4	1:AA:797:C:N4	2.62	0.48
1:AA:1226:C:OP2	13:AM:103:THR:OG1	2.28	0.48
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.12	0.48
5:AE:76:ILE:HG13	5:AE:142:LEU:CD1	2.43	0.48
9:AI:27:THR:CG2	9:AI:30:GLY:HA2	2.43	0.48
14:AN:26:ARG:HD3	14:AN:43:CYS:HB3	1.96	0.48
24:AY:486:THR:HG23	24:AY:600:VAL:HG13	1.95	0.48
58:AY:701:FUA:O1	58:AY:701:FUA:C20	2.61	0.48
32:B7:5:TRP:CH2	35:BA:686:G:N7	2.81	0.48
35:BA:274:G:N3	35:BA:274:G:C2'	2.75	0.48
35:BA:281:G:N2	35:BA:358:U:C5	2.82	0.48
35:BA:320:A:H2'	40:BF:136:THR:OG1	2.12	0.48
35:BA:545:C:C2'	35:BA:545:C:O2	2.61	0.48
35:BA:717:G:H2'	35:BA:718:A:O4'	2.13	0.48
35:BA:1015:G:H2'	35:BA:1016:G:C8	2.49	0.48
35:BA:1058:G:N2	43:BK:126:MET:HE2	2.28	0.48
35:BA:1232:G:H2'	35:BA:1233:C:H6	1.76	0.48
35:BA:1512:U:H2'	35:BA:1513:C:H6	1.78	0.48
35:BA:1593:G:H2'	35:BA:1594:G:C8	2.48	0.48
35:BA:1614:A:H62	54:BW:93:ALA:HB2	1.78	0.48
42:BH:45:VAL:O	42:BH:47:GLU:N	2.46	0.48
43:BK:19:PRO:HD3	43:BK:35:MET:HE3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BK:109:LYS:HA	43:BK:112:MET:HE3	1.95	0.48
45:BN:45:ASN:ND2	45:BN:45:ASN:N	2.51	0.48
45:BN:94:HIS:N	45:BN:95:PRO:HD3	2.29	0.48
48:BQ:65:PHE:N	48:BQ:65:PHE:HD1	2.11	0.48
50:BS:74:ALA:CB	50:BS:103:GLU:HG3	2.43	0.48
51:BT:65:LYS:HA	51:BT:65:LYS:HZ2	1.77	0.48
53:BV:72:VAL:HG23	53:BV:72:VAL:O	2.14	0.48
57:BZ:63:ASP:OD1	57:BZ:63:ASP:N	2.46	0.48
1:AA:41:G:H2'	1:AA:42:G:C8	2.47	0.48
1:AA:322:C:H6	1:AA:322:C:O5'	1.95	0.48
1:AA:923:A:H2'	1:AA:924:C:C6	2.48	0.48
1:AA:955:U:O2'	1:AA:956:U:H5'	2.12	0.48
1:AA:981:U:H2'	1:AA:982:U:C5	2.48	0.48
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.66	0.48
1:AA:1121:U:C4	1:AA:1122:U:C4	3.02	0.48
2:AB:162:ILE:HD11	2:AB:164:VAL:CG2	2.44	0.48
4:AD:107:ARG:HD2	4:AD:173:TRP:CZ2	2.48	0.48
4:AD:133:VAL:HG12	4:AD:134:ASP:N	2.28	0.48
8:AH:51:VAL:HG11	8:AH:60:ARG:HB2	1.95	0.48
11:AK:30:VAL:HG23	11:AK:68:ALA:HB2	1.95	0.48
13:AM:16:ASP:N	13:AM:16:ASP:OD1	2.45	0.48
20:AT:33:ILE:HD13	20:AT:63:ILE:HG12	1.96	0.48
24:AY:35:TYR:HH	24:AY:266:ASN:HB3	1.72	0.48
31:B6:7:ILE:HA	31:B6:28:ARG:HD3	1.95	0.48
31:B6:27:LYS:CD	31:B6:30:THR:HB	2.34	0.48
32:B7:3:ARG:NH1	35:BA:789:A:C2	2.81	0.48
35:BA:71:A:H4'	35:BA:72:U:H5''	1.95	0.48
35:BA:455:C:N3	35:BA:472:A:H2'	2.28	0.48
35:BA:848:G:N9	35:BA:933:A:H8	2.11	0.48
35:BA:856:C:H2'	35:BA:857:C:H6	1.78	0.48
35:BA:899:A:H8	35:BA:899:A:O5'	1.96	0.48
35:BA:1196:C:O2'	35:BA:1197:G:H5'	2.13	0.48
35:BA:1248:G:OP2	40:BF:92:PRO:HB3	2.13	0.48
35:BA:1751:C:O2'	35:BA:1752:C:H5'	2.13	0.48
35:BA:2193:G:H2'	35:BA:2194:G:H5'	1.95	0.48
41:BG:41:GLN:HB2	41:BG:90:LEU:HB3	1.95	0.48
41:BG:78:SER:HA	41:BG:83:ARG:HE	1.77	0.48
42:BH:44:VAL:HG12	42:BH:45:VAL:H	1.79	0.48
42:BH:66:GLY:CA	42:BH:69:ARG:HB3	2.42	0.48
43:BK:108:ALA:O	43:BK:112:MET:HB3	2.14	0.48
44:BL:108:LYS:HG3	44:BL:109:ALA:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:97:ARG:O	45:BN:101:HIS:HB2	2.14	0.48
46:BO:2:ILE:HB	46:BO:33:ALA:O	2.14	0.48
47:BP:47:ASP:HB3	47:BP:48:PRO:C	2.34	0.48
49:BR:10:LEU:CD2	49:BR:17:ARG:HD3	2.43	0.48
55:BX:61:GLY:HA3	55:BX:73:ARG:O	2.12	0.48
56:BY:17:SER:HB3	56:BY:71:LYS:HD2	1.94	0.48
57:BZ:9:TYR:HE1	57:BZ:61:LEU:HD13	1.78	0.48
1:AA:81:U:HO2'	1:AA:82:U:H6	1.60	0.48
1:AA:423:G:H2'	1:AA:424:G:C5'	2.43	0.48
1:AA:815:A:C2	1:AA:1529:G:C2	3.00	0.48
1:AA:1248:A:C4	1:AA:1249:C:C5	3.02	0.48
2:AB:31:TYR:O	2:AB:42:ILE:HG13	2.14	0.48
3:AC:5:ILE:HG12	3:AC:10:PHE:HB2	1.95	0.48
3:AC:140:ARG:O	3:AC:144:SER:N	2.44	0.48
4:AD:122:ARG:HH12	4:AD:134:ASP:HB2	1.73	0.48
4:AD:126:ILE:N	4:AD:126:ILE:CD1	2.76	0.48
6:AF:30:LEU:HD13	6:AF:37:VAL:CG2	2.28	0.48
10:AJ:22:LYS:NZ	10:AJ:88:LEU:HD23	2.29	0.48
10:AJ:81:THR:OG1	10:AJ:82:ILE:HD13	2.14	0.48
20:AT:43:LEU:HD22	20:AT:48:LYS:HG3	1.95	0.48
24:AY:18:ALA:HA	24:AY:85:PRO:CG	2.42	0.48
24:AY:156:ARG:NH2	24:AY:666:ARG:NH1	2.62	0.48
24:AY:293:THR:CB	24:AY:294:PRO:HD2	2.43	0.48
24:AY:312:LEU:O	24:AY:328:ILE:HB	2.13	0.48
26:B1:5:CYS:O	26:B1:9:GLY:HA2	2.14	0.48
26:B1:18:ILE:CD1	26:B1:37:ILE:HG12	2.43	0.48
30:B5:39:MET:HB2	54:BW:34:ASN:ND2	2.28	0.48
30:B5:44:THR:CG2	30:B5:45:VAL:N	2.76	0.48
31:B6:11:LEU:C	31:B6:12:GLU:HG3	2.29	0.48
33:B8:58:ILE:CG2	47:BP:49:ARG:HD3	2.44	0.48
35:BA:80:G:H4'	35:BA:346:A:C8	2.49	0.48
35:BA:271(P):C:H2'	35:BA:271(Q):G:O4'	2.14	0.48
35:BA:360:G:O2'	35:BA:361:G:H5'	2.13	0.48
35:BA:960:A:C8	35:BA:962:G:C8	3.01	0.48
35:BA:1348:G:C3'	35:BA:1349:A:H5''	2.42	0.48
35:BA:1494:A:O2'	35:BA:1495:A:OP1	2.28	0.48
35:BA:1506:C:O2	35:BA:1506:C:H2'	2.14	0.48
35:BA:1623:G:H2'	35:BA:1624:G:H8	1.78	0.48
35:BA:1943:U:O2'	35:BA:1944:U:H3'	2.13	0.48
35:BA:2307:G:H3'	35:BA:2308:G:C5'	2.43	0.48
35:BA:2521:C:N4	35:BA:2544:G:H1	2.05	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:39:A:C2	36:BB:44:G:C2	3.01	0.48
37:BC:223:VAL:HG12	37:BC:225:ILE:HG23	1.94	0.48
38:BD:73:VAL:O	38:BD:75:ILE:HG12	2.12	0.48
40:BF:44:ARG:HG3	40:BF:44:ARG:O	2.13	0.48
43:BK:59:ILE:CG1	43:BK:60:TYR:N	2.71	0.48
47:BP:47:ASP:OD2	47:BP:50:ARG:NH1	2.45	0.48
51:BT:14:TYR:N	51:BT:14:TYR:HD1	2.11	0.48
52:BU:109:LEU:O	52:BU:112:ARG:N	2.45	0.48
54:BW:10:VAL:O	54:BW:11:ARG:CB	2.60	0.48
54:BW:10:VAL:O	54:BW:11:ARG:HB2	2.13	0.48
56:BY:9:LYS:O	56:BY:28:LYS:HE2	2.13	0.48
1:AA:260:G:H2'	1:AA:261:U:C6	2.48	0.48
1:AA:368:U:C5'	24:AY:354:ARG:HH21	2.27	0.48
1:AA:519:C:H2'	1:AA:520:A:O4'	2.14	0.48
1:AA:1118:C:H42	1:AA:1155:G:H1	1.60	0.48
1:AA:1227:A:N3	13:AM:117:VAL:HG11	2.29	0.48
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.13	0.48
2:AB:102:LEU:O	2:AB:105:PHE:HB2	2.14	0.48
2:AB:181:PHE:N	2:AB:181:PHE:CD1	2.82	0.48
3:AC:84:ILE:HD11	3:AC:88:ARG:HH21	1.78	0.48
9:AI:40:LEU:C	9:AI:42:ARG:H	2.17	0.48
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.52	0.48
12:AL:97:ARG:C	12:AL:98:TYR:CD1	2.87	0.48
12:AL:105:TYR:C	12:AL:107:ALA:H	2.16	0.48
18:AR:26:LEU:CD2	18:AR:42:ARG:NH1	2.77	0.48
22:AV:29:G:O2'	22:AV:30:G:H5'	2.13	0.48
24:AY:230:LYS:NZ	24:AY:230:LYS:HB2	2.29	0.48
24:AY:309:LEU:HD12	24:AY:310:ALA:N	2.28	0.48
29:B4:53:GLU:HB3	29:B4:55:ARG:NE	2.29	0.48
30:B5:19:ARG:HD2	35:BA:1266:G:OP1	2.13	0.48
32:B7:8:ASN:HD22	32:B7:9:ARG:N	2.11	0.48
33:B8:6:THR:HG21	33:B8:63:PRO:HD3	1.95	0.48
35:BA:17:G:H2'	35:BA:18:C:C6	2.48	0.48
35:BA:690:G:H2'	35:BA:691:C:C6	2.47	0.48
35:BA:2140:C:H1'	35:BA:2152:G:N2	2.29	0.48
35:BA:2468:G:C4	35:BA:2481:G:C2	3.01	0.48
35:BA:2481:G:O2'	35:BA:2482:G:P	2.71	0.48
36:BB:21:G:O2'	36:BB:22:U:C5'	2.61	0.48
36:BB:95:C:C2'	36:BB:96:U:H5'	2.44	0.48
38:BD:276:LYS:HD3	38:BD:276:LYS:O	2.13	0.48
41:BG:91:ARG:HD2	41:BG:91:ARG:C	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:76:VAL:O	42:BH:79:VAL:HG22	2.12	0.48
43:BK:8:VAL:HB	43:BK:57:ILE:O	2.14	0.48
43:BK:55:VAL:HG21	43:BK:67:PHE:HD2	1.78	0.48
43:BK:69:THR:C	43:BK:70:LYS:HE3	2.34	0.48
47:BP:71:VAL:O	47:BP:71:VAL:HG22	2.12	0.48
49:BR:33:ARG:CG	49:BR:115:GLU:HG3	2.44	0.48
52:BU:56:ASP:O	52:BU:59:ARG:HB2	2.14	0.48
56:BY:84:ARG:HB2	56:BY:97:ARG:HB2	1.96	0.48
1:AA:151:A:H2'	1:AA:152:A:H5'	1.96	0.48
1:AA:491:G:C4	1:AA:492:G:C8	3.02	0.48
1:AA:537:G:H2'	1:AA:538:G:C8	2.48	0.48
1:AA:986:A:H2'	1:AA:987:G:C8	2.48	0.48
1:AA:1325:C:C2	1:AA:1326:C:C5	3.02	0.48
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.94	0.48
7:AG:52:GLU:O	7:AG:53:LYS:C	2.50	0.48
11:AK:23:ALA:O	11:AK:86:GLY:HA3	2.13	0.48
14:AN:60:SER:O	14:AN:61:TRP:HB3	2.13	0.48
20:AT:63:ILE:C	20:AT:65:LYS:N	2.66	0.48
24:AY:78:ARG:HH11	24:AY:78:ARG:HG3	1.79	0.48
24:AY:150:ILE:O	24:AY:154:GLN:HG2	2.14	0.48
24:AY:250:THR:C	24:AY:252:ASP:H	2.17	0.48
24:AY:471:LYS:O	24:AY:471:LYS:HG2	2.14	0.48
24:AY:523:PHE:CE1	24:AY:550:MET:SD	3.07	0.48
24:AY:548:GLU:O	24:AY:551:GLN:HG2	2.14	0.48
24:AY:662:LYS:NZ	42:BH:175:LYS:HE3	2.29	0.48
58:AY:701:FUA:H231	58:AY:701:FUA:C12	2.41	0.48
26:B1:4:VAL:HA	26:B1:10:LYS:O	2.13	0.48
26:B1:41:ARG:HH22	35:BA:1365:A:C5'	2.27	0.48
27:B2:61:LEU:HA	27:B2:64:LEU:HB3	1.96	0.48
29:B4:9:LEU:CD1	29:B4:10:VAL:H	2.27	0.48
31:B6:43:CYS:O	31:B6:44:ARG:CB	2.60	0.48
34:B9:11:CYS:O	34:B9:11:CYS:SG	2.71	0.48
35:BA:11:G:H2'	35:BA:12:U:C6	2.47	0.48
35:BA:18:C:O2'	52:BU:23:GLY:HA2	2.14	0.48
35:BA:52:A:C2'	35:BA:53:A:H5'	2.44	0.48
35:BA:302:C:O2'	35:BA:303:U:H5'	2.14	0.48
35:BA:329:G:H22	56:BY:19:LYS:HE3	1.79	0.48
35:BA:637:A:C6	35:BA:652:C:H4'	2.48	0.48
35:BA:677:A:O2'	35:BA:678:C:H5'	2.13	0.48
35:BA:706:A:H2'	35:BA:707:G:O4'	2.13	0.48
35:BA:814:C:N3	35:BA:1193:G:O6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:860:U:H5	35:BA:917:A:N7	2.11	0.48
35:BA:881:G:H2'	35:BA:882:G:H5'	1.95	0.48
35:BA:1141:U:H1'	35:BA:1142(A):A:C2	2.49	0.48
35:BA:1174:A:H5'	35:BA:1175:U:H5''	1.95	0.48
35:BA:1203:G:H4'	47:BP:7:ARG:HD2	1.96	0.48
35:BA:1258:C:O4'	40:BF:84:VAL:HG21	2.14	0.48
35:BA:1317:A:H2'	35:BA:1318:C:C6	2.48	0.48
35:BA:1771:C:H2'	35:BA:1772:G:C8	2.48	0.48
35:BA:2193:G:O2'	35:BA:2194:G:H5'	2.13	0.48
36:BB:114:C:H2'	36:BB:115:G:C8	2.48	0.48
39:BE:94:GLU:OE1	39:BE:177:PRO:HB3	2.13	0.48
40:BF:185:ASP:HA	40:BF:188:ARG:HD3	1.96	0.48
42:BH:70:THR:HG22	42:BH:74:ASN:ND2	2.28	0.48
45:BN:21:LYS:HB3	45:BN:26:LEU:HD23	1.96	0.48
48:BQ:1:MET:HE1	48:BQ:45:GLN:N	2.27	0.48
53:BV:32:THR:OG1	53:BV:60:GLU:HG3	2.13	0.48
53:BV:39:LEU:HD12	53:BV:50:PRO:O	2.14	0.48
1:AA:108:G:H5'	1:AA:109:A:H5''	1.95	0.48
1:AA:152:A:H2'	1:AA:153:C:H5'	1.94	0.48
1:AA:189(A):C:O2'	1:AA:189(B):C:H5'	2.14	0.48
1:AA:304:U:H2'	1:AA:305:G:C8	2.48	0.48
1:AA:448:A:P	1:AA:485:G:H22	2.36	0.48
1:AA:1248:A:H2'	1:AA:1249:C:H6	1.79	0.48
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.78	0.48
2:AB:117:GLU:O	2:AB:120:ALA:HB3	2.14	0.48
2:AB:129:GLU:O	2:AB:130:ARG:CB	2.61	0.48
3:AC:10:PHE:CZ	3:AC:178:LEU:CD1	2.97	0.48
3:AC:43:LEU:O	3:AC:47:LEU:HB2	2.14	0.48
5:AE:101:ILE:O	5:AE:101:ILE:CG1	2.62	0.48
7:AG:64:GLN:CG	7:AG:128:ALA:HB1	2.43	0.48
8:AH:9:MET:O	8:AH:13:ILE:HG12	2.14	0.48
9:AI:37:PHE:HB3	9:AI:43:ALA:HB2	1.95	0.48
11:AK:13:GLN:HG2	11:AK:75:TYR:O	2.14	0.48
12:AL:89:ARG:HA	12:AL:97:ARG:HA	1.96	0.48
16:AP:18:ARG:HD2	16:AP:32:TYR:HE2	1.79	0.48
24:AY:9:LEU:O	24:AY:11:ARG:N	2.47	0.48
24:AY:238:THR:CG2	24:AY:241:GLU:HG2	2.35	0.48
27:B2:16:LEU:O	27:B2:20:GLU:HB3	2.13	0.48
35:BA:52:A:C6	35:BA:118:A:C2	3.02	0.48
35:BA:67:U:H2'	35:BA:68:G:H8	1.78	0.48
35:BA:812:C:C2	35:BA:813:U:C5	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1080:C:H2'	35:BA:1081:U:O4'	2.14	0.48
35:BA:1216:G:C5	35:BA:1217:C:C5	3.01	0.48
35:BA:1416:G:O2'	35:BA:1417:C:H5	1.96	0.48
35:BA:1692:U:H2'	35:BA:1694:C:C5	2.49	0.48
35:BA:1820:U:O2	38:BD:201:HIS:HB3	2.13	0.48
35:BA:2008:C:H2'	35:BA:2009:G:H8	1.79	0.48
35:BA:2190:G:H5'	35:BA:2190:G:C8	2.48	0.48
35:BA:2394:C:P	47:BP:63:PRO:HD2	2.53	0.48
35:BA:2482:G:C2	35:BA:2483:C:H1'	2.49	0.48
35:BA:2579:C:O3'	39:BE:131:ALA:HB2	2.14	0.48
35:BA:2617:C:H2'	35:BA:2618:G:C5'	2.44	0.48
35:BA:2873:A:C4'	49:BR:8:ARG:NH2	2.77	0.48
38:BD:175:LEU:HD23	38:BD:175:LEU:HA	1.62	0.48
40:BF:9:ILE:HG23	40:BF:13:SER:O	2.14	0.48
47:BP:24:GLY:HA3	47:BP:33:ARG:HH12	1.78	0.48
1:AA:410:G:C2	1:AA:429:U:C2	3.02	0.48
1:AA:644:G:C5	1:AA:645:C:C5	3.02	0.48
1:AA:781:A:H3'	1:AA:782:A:H5'	1.94	0.48
1:AA:802:A:H3'	1:AA:803:G:H8	1.77	0.48
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.49	0.48
1:AA:1073:U:O2'	1:AA:1074:G:H5'	2.13	0.48
1:AA:1293:G:O2'	1:AA:1294:G:H5'	2.13	0.48
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.48	0.48
2:AB:31:TYR:CE2	2:AB:200:ILE:HD12	2.46	0.48
5:AE:31:LEU:HD22	5:AE:43:LEU:HD11	1.96	0.48
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.94	0.48
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.46	0.48
10:AJ:98:ILE:O	10:AJ:98:ILE:CG2	2.61	0.48
22:AV:28:C:H2'	22:AV:29:G:C8	2.49	0.48
23:AX:11:U:O2	23:AX:11:U:C2'	2.62	0.48
24:AY:14:ASN:HB2	24:AY:102:ASP:CG	2.33	0.48
24:AY:238:THR:HG22	24:AY:241:GLU:CB	2.43	0.48
25:B0:27:GLU:CD	35:BA:856:C:H4'	2.34	0.48
26:B1:18:ILE:CG2	26:B1:20:ARG:NE	2.77	0.48
27:B2:64:LEU:O	27:B2:64:LEU:HD22	2.14	0.48
31:B6:35:GLU:O	31:B6:36:LEU:HB2	2.13	0.48
35:BA:109:G:O2'	35:BA:110:G:H5'	2.14	0.48
35:BA:312:G:H5'	35:BA:331:A:H2'	1.96	0.48
35:BA:484:C:H2'	35:BA:485:C:C6	2.49	0.48
35:BA:622:G:O2'	35:BA:623:G:H5'	2.14	0.48
35:BA:692:C:N3	35:BA:771:G:C2	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1023:U:C2'	35:BA:1024:G:H5'	2.44	0.48
35:BA:1051:G:C4	35:BA:1052:C:N4	2.82	0.48
35:BA:1314:C:OP1	35:BA:1315:C:OP2	2.32	0.48
35:BA:1999:C:H4'	35:BA:2723:C:O2	2.14	0.48
35:BA:2190:G:O2'	35:BA:2191:G:H5'	2.14	0.48
35:BA:2376:A:O2'	50:BS:108:GLY:HA2	2.14	0.48
35:BA:2820:A:O3'	49:BR:5:LYS:HE3	2.14	0.48
38:BD:211:ARG:O	38:BD:215:LEU:HG	2.14	0.48
40:BF:22:ALA:C	40:BF:24:LEU:N	2.67	0.48
41:BG:40:ASN:ND2	41:BG:90:LEU:O	2.47	0.48
42:BH:103:LEU:HB2	42:BH:123:PHE:CD2	2.48	0.48
43:BK:7:VAL:O	43:BK:7:VAL:HG22	2.14	0.48
44:BL:73:ARG:HH11	44:BL:73:ARG:CG	2.06	0.48
45:BN:58:ASP:O	45:BN:59:LYS:HB2	2.14	0.48
46:BO:91:LEU:HD22	46:BO:91:LEU:N	2.29	0.48
49:BR:100:LEU:HD22	49:BR:112:ALA:HA	1.96	0.48
51:BT:58:ASN:HD22	51:BT:58:ASN:N	2.07	0.48
52:BU:115:ALA:C	52:BU:117:GLN:N	2.66	0.48
54:BW:44:ALA:O	54:BW:45:TYR:C	2.51	0.48
56:BY:62:GLU:HG2	56:BY:63:LYS:H	1.77	0.48
1:AA:148:G:H2'	1:AA:149:A:H8	1.74	0.48
1:AA:160:A:H1'	1:AA:344:A:C4	2.49	0.48
1:AA:264:U:H4'	17:AQ:63:ARG:HD3	1.94	0.48
1:AA:692:U:OP1	11:AK:124:LYS:HE2	2.14	0.48
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.14	0.48
1:AA:1500:A:O2'	1:AA:1501:C:H5'	2.12	0.48
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.13	0.48
2:AB:223:ILE:HG12	2:AB:226:ARG:HH22	1.78	0.48
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.79	0.48
3:AC:164:ARG:C	3:AC:165:THR:HG22	2.33	0.48
8:AH:26:VAL:C	8:AH:58:TYR:HD1	2.16	0.48
9:AI:4:TYR:CE2	9:AI:88:TYR:CB	2.97	0.48
12:AL:8:ASN:ND2	17:AQ:34:LYS:HE2	2.29	0.48
22:AV:19:G:C5	22:AV:57:A:C2	3.02	0.48
24:AY:331:TYR:O	24:AY:371:ALA:HB1	2.14	0.48
24:AY:614:GLU:HA	24:AY:617:MET:HB2	1.94	0.48
27:B2:7:ARG:NH1	27:B2:7:ARG:HG3	2.29	0.48
27:B2:47:ASN:CB	35:BA:95:G:H1'	2.32	0.48
31:B6:31:PRO:O	31:B6:32:ASN:OD1	2.31	0.48
35:BA:68:G:H2'	35:BA:69:C:H6	1.74	0.48
35:BA:214:G:H1'	35:BA:216:A:O2'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:754:C:H2'	35:BA:755:C:C6	2.48	0.48
35:BA:852:G:H2'	35:BA:853:G:C8	2.48	0.48
35:BA:1173:G:H4'	35:BA:1174:A:OP2	2.14	0.48
35:BA:2026:C:N4	35:BA:2027:G:N7	2.61	0.48
35:BA:2298:A:H2'	35:BA:2299:G:O4'	2.13	0.48
35:BA:2306:C:H5	35:BA:2307:G:H1'	1.77	0.48
35:BA:2341:G:H2'	35:BA:2342:C:C6	2.49	0.48
35:BA:2712:U:O2'	35:BA:2712(A):A:O5'	2.32	0.48
35:BA:2767:C:H2'	35:BA:2768:C:C6	2.48	0.48
39:BE:36:ARG:HH21	39:BE:88:GLY:H	1.60	0.48
41:BG:77:ILE:CG2	41:BG:80:PHE:H	1.97	0.48
41:BG:82:LEU:C	41:BG:82:LEU:HD23	2.35	0.48
47:BP:90:ARG:CG	47:BP:91:PHE:N	2.72	0.48
47:BP:146:VAL:O	47:BP:148:LEU:HG	2.14	0.48
48:BQ:32:TYR:O	48:BQ:105:GLU:HB2	2.14	0.48
49:BR:113:LEU:CD1	49:BR:114:VAL:N	2.69	0.48
50:BS:89:ARG:CG	50:BS:92:TYR:CA	2.78	0.48
51:BT:89:VAL:CG1	51:BT:91:ARG:HG2	2.44	0.48
52:BU:113:ALA:C	52:BU:115:ALA:N	2.67	0.48
53:BV:19:LYS:HG2	53:BV:94:LEU:CB	2.44	0.48
57:BZ:41:LEU:O	57:BZ:44:PHE:N	2.43	0.48
1:AA:193:C:H2'	1:AA:194:C:C6	2.48	0.47
1:AA:445:G:H2'	1:AA:446:G:H8	1.79	0.47
1:AA:585:G:C5	1:AA:586:C:C5	3.02	0.47
1:AA:707:C:O2'	1:AA:708:C:H5'	2.14	0.47
1:AA:779:C:H2'	1:AA:780:A:O4'	2.14	0.47
1:AA:1042:G:H2'	1:AA:1043:C:H5'	1.96	0.47
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.77	0.47
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.95	0.47
2:AB:35:GLU:O	2:AB:35:GLU:HG2	2.13	0.47
3:AC:86:VAL:HG23	3:AC:87:LEU:HD23	1.96	0.47
5:AE:76:ILE:HG12	5:AE:77:PRO:CD	2.44	0.47
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.13	0.47
12:AL:6:THR:H	12:AL:9:GLN:NE2	2.11	0.47
12:AL:46:LYS:HB2	12:AL:92:ASP:O	2.13	0.47
12:AL:110:VAL:HG21	12:AL:120:TYR:HD2	1.79	0.47
15:AO:61:GLY:O	15:AO:65:ARG:HD2	2.15	0.47
17:AQ:47:PRO:HG2	17:AQ:48:GLU:OE2	2.14	0.47
17:AQ:53:LEU:HD23	17:AQ:85:VAL:HG21	1.95	0.47
20:AT:22:ARG:O	20:AT:26:ASN:ND2	2.47	0.47
22:AV:74:C:O4'	26:B1:22:GLY:HA2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:87:HIS:NE2	24:AY:120:THR:OG1	2.47	0.47
24:AY:312:LEU:HD23	24:AY:313:ALA:H	1.79	0.47
24:AY:526:VAL:N	24:AY:565:VAL:O	2.47	0.47
26:B1:64:ALA:HA	26:B1:67:ILE:CG1	2.43	0.47
31:B6:18:ARG:CG	31:B6:19:ARG:H	2.27	0.47
35:BA:286:C:O2'	35:BA:287:C:H5'	2.13	0.47
35:BA:302:C:H2'	35:BA:303:U:C6	2.48	0.47
35:BA:737:C:H2'	35:BA:738:G:H5'	1.96	0.47
35:BA:841:A:C6	35:BA:842:G:C5	3.02	0.47
35:BA:955:C:OP1	48:BQ:87:LYS:HE2	2.14	0.47
35:BA:1948:G:C8	35:BA:1948:G:C5'	2.96	0.47
35:BA:2020:A:H2'	35:BA:2021:C:C5'	2.38	0.47
35:BA:2033:A:O2'	35:BA:2034:U:O5'	2.30	0.47
35:BA:2274:A:H8	35:BA:2274:A:O5'	1.97	0.47
35:BA:2747:G:H21	35:BA:2757:A:H62	1.62	0.47
38:BD:34:VAL:CG2	38:BD:35:LYS:H	1.87	0.47
38:BD:196:VAL:O	38:BD:196:VAL:CG1	2.60	0.47
39:BE:138:PRO:HG2	39:BE:139:GLY:N	2.29	0.47
41:BG:90:LEU:CD1	41:BG:91:ARG:N	2.71	0.47
42:BH:154:PRO:O	42:BH:156:ALA:N	2.47	0.47
44:BL:54:PHE:CE1	44:BL:100:LYS:HB2	2.49	0.47
52:BU:15:LYS:HA	52:BU:18:LEU:HD12	1.96	0.47
52:BU:16:LYS:O	52:BU:20:LEU:CD2	2.62	0.47
55:BX:12:VAL:CG2	55:BX:13:LEU:N	2.67	0.47
57:BZ:24:LEU:CD2	57:BZ:86:VAL:HG23	2.44	0.47
57:BZ:63:ASP:OD2	57:BZ:65:GLN:NE2	2.46	0.47
1:AA:176:C:C2	1:AA:177:C:C5	3.02	0.47
1:AA:300:A:H2'	1:AA:301:G:C5'	2.44	0.47
1:AA:409:G:H1	1:AA:433:C:H42	1.60	0.47
1:AA:439:A:H2'	1:AA:441:A:H5'	1.96	0.47
1:AA:923:A:C5'	5:AE:21:ALA:HB2	2.43	0.47
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.13	0.47
2:AB:28:PHE:CE1	2:AB:31:TYR:HB2	2.48	0.47
6:AF:19:LEU:O	6:AF:19:LEU:HD23	2.14	0.47
7:AG:72:ARG:HG3	7:AG:73:MET:HG3	1.96	0.47
9:AI:5:TYR:CD1	9:AI:18:PHE:HE1	2.33	0.47
13:AM:20:THR:C	13:AM:22:ILE:H	2.16	0.47
18:AR:29:PHE:HD1	18:AR:29:PHE:N	1.86	0.47
18:AR:66:LEU:HG	18:AR:70:ILE:CD1	2.44	0.47
20:AT:42:GLN:HA	20:AT:42:GLN:HE21	1.78	0.47
20:AT:57:ARG:NH1	20:AT:102:GLY:CA	2.75	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:61:SER:O	20:AT:63:ILE:N	2.47	0.47
24:AY:113:GLY:C	24:AY:115:GLU:N	2.67	0.47
24:AY:156:ARG:NH2	24:AY:666:ARG:HH11	2.12	0.47
24:AY:289:ILE:HD12	24:AY:331:TYR:CZ	2.49	0.47
24:AY:486:THR:HG22	24:AY:602:LEU:HG	1.96	0.47
28:B3:8:LEU:HD22	28:B3:31:LEU:CD2	2.45	0.47
29:B4:1:MET:HG2	41:BG:98:ARG:HE	1.75	0.47
29:B4:1:MET:CE	29:B4:1:MET:H3	2.27	0.47
31:B6:42:TRP:HA	31:B6:42:TRP:HE3	1.78	0.47
35:BA:83:G:O2'	35:BA:84:A:C8	2.58	0.47
35:BA:271(Q):G:H2'	35:BA:271(R):G:O4'	2.14	0.47
35:BA:346:A:H2'	35:BA:346:A:N3	2.29	0.47
35:BA:658:C:H2'	35:BA:659:C:C6	2.49	0.47
35:BA:825:C:H2'	35:BA:826:U:O4'	2.13	0.47
35:BA:861:A:C2	35:BA:917:A:C4	3.02	0.47
35:BA:1164:G:H1	35:BA:1185:C:N4	2.11	0.47
35:BA:1344:G:O2'	35:BA:1385:G:H2'	2.14	0.47
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.14	0.47
35:BA:2478:A:H2'	35:BA:2479:G:O4'	2.14	0.47
35:BA:2849:U:O4	51:BT:23:ARG:NH2	2.48	0.47
38:BD:261:LYS:NZ	38:BD:263:ARG:HH12	2.11	0.47
39:BE:101:ARG:HG3	39:BE:169:ASN:ND2	2.29	0.47
40:BF:195:ASP:OD1	40:BF:196:LEU:N	2.43	0.47
42:BH:86:GLU:HA	42:BH:132:ARG:HA	1.96	0.47
42:BH:138:LYS:C	42:BH:140:LYS:N	2.64	0.47
45:BN:82:LEU:HD21	45:BN:84:LYS:HG2	1.96	0.47
49:BR:61:HIS:O	49:BR:62:ALA:C	2.52	0.47
49:BR:63:ARG:O	49:BR:67:LEU:HD23	2.13	0.47
51:BT:120:ARG:O	51:BT:124:ASP:OD1	2.32	0.47
1:AA:177:C:H2'	1:AA:178:C:H6	1.79	0.47
1:AA:557:G:H2'	1:AA:558:G:O4'	2.14	0.47
1:AA:1002:G:C8	1:AA:1003:G:N7	2.82	0.47
5:AE:144:THR:O	5:AE:145:LYS:C	2.51	0.47
10:AJ:18:ALA:O	10:AJ:20:ALA:N	2.42	0.47
11:AK:41:THR:HG23	11:AK:41:THR:O	2.13	0.47
11:AK:122:LYS:O	11:AK:123:LYS:C	2.53	0.47
12:AL:11:VAL:HG21	17:AQ:34:LYS:HD3	1.97	0.47
12:AL:81:SER:O	12:AL:83:VAL:HG23	2.14	0.47
13:AM:54:VAL:C	13:AM:56:LEU:N	2.67	0.47
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.78	0.47
15:AO:57:LEU:N	15:AO:57:LEU:HD23	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:42:ARG:HB2	16:AP:44:THR:HG23	1.97	0.47
24:AY:25:LYS:HB2	59:AY:702:GDP:O2B	2.14	0.47
24:AY:92:ILE:C	24:AY:92:ILE:HD13	2.35	0.47
24:AY:259:PHE:C	24:AY:260:LEU:HD13	2.35	0.47
24:AY:357:ARG:HH11	24:AY:357:ARG:HG3	1.79	0.47
24:AY:659:LEU:C	24:AY:661:SER:N	2.67	0.47
25:B0:40:GLN:HE22	25:B0:43:THR:CA	2.27	0.47
27:B2:38:GLN:O	27:B2:41:ILE:HG12	2.14	0.47
29:B4:27:THR:O	29:B4:28:LYS:HB3	2.14	0.47
33:B8:58:ILE:HG22	33:B8:58:ILE:O	2.13	0.47
35:BA:42:G:H5'	35:BA:43:A:OP2	2.14	0.47
35:BA:877:U:C2'	35:BA:878:A:H5''	2.45	0.47
35:BA:992:C:H2'	35:BA:993:G:C8	2.49	0.47
35:BA:1266:G:O2'	35:BA:2012:G:O6	2.28	0.47
35:BA:1270:C:H5''	35:BA:1271:G:O5'	2.14	0.47
35:BA:1335:U:H2'	35:BA:1336:A:H8	1.80	0.47
35:BA:1398:C:H2'	35:BA:1399:C:H6	1.78	0.47
35:BA:1523:U:H2'	35:BA:1524:G:C8	2.50	0.47
35:BA:1803:A:C8	35:BA:1804:C:C5	3.02	0.47
35:BA:1891:G:O5'	35:BA:1891:G:H8	1.95	0.47
35:BA:2328:A:H2'	35:BA:2329:G:C8	2.49	0.47
35:BA:2603:G:O2'	35:BA:2604:U:H5'	2.14	0.47
36:BB:68:C:H2'	36:BB:69:G:O4'	2.14	0.47
37:BC:57:GLN:O	37:BC:57:GLN:HG2	2.14	0.47
38:BD:145:VAL:CG1	38:BD:146:GLU:N	2.76	0.47
39:BE:47:VAL:CG1	39:BE:48:GLN:N	2.76	0.47
40:BF:20:LEU:HD13	40:BF:203:GLN:OE1	2.15	0.47
42:BH:169:VAL:CG2	42:BH:170:ARG:N	2.45	0.47
43:BK:41:PHE:C	43:BK:43:ALA:H	2.18	0.47
48:BQ:29:PHE:HB3	48:BQ:65:PHE:CE2	2.49	0.47
48:BQ:71:ASP:O	48:BQ:73:PRO:HD3	2.15	0.47
48:BQ:136:ALA:C	48:BQ:138:ASP:H	2.16	0.47
53:BV:38:LEU:HD23	53:BV:39:LEU:N	2.29	0.47
53:BV:47:VAL:O	53:BV:49:THR:O	2.32	0.47
54:BW:45:TYR:CD1	54:BW:46:PHE:N	2.83	0.47
56:BY:68:HIS:ND1	56:BY:69:ALA:N	2.62	0.47
56:BY:83:THR:O	56:BY:83:THR:OG1	2.32	0.47
57:BZ:127:LYS:O	57:BZ:128:VAL:CB	2.62	0.47
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.97	0.47
1:AA:1033:G:C8	1:AA:1034:G:C8	3.03	0.47
2:AB:54:THR:OG1	2:AB:199:TYR:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:76:ILE:HD11	5:AE:142:LEU:HD22	1.97	0.47
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.94	0.47
13:AM:52:GLU:O	13:AM:53:VAL:C	2.53	0.47
13:AM:81:LEU:H	13:AM:81:LEU:HD22	1.78	0.47
17:AQ:9:VAL:HG11	17:AQ:84:LEU:HD12	1.96	0.47
18:AR:51:LEU:HA	18:AR:52:PRO:HD3	1.58	0.47
18:AR:68:LYS:O	18:AR:69:THR:C	2.52	0.47
22:AV:4:G:O2'	22:AV:5:G:C8	2.68	0.47
24:AY:165:GLN:HB2	24:AY:260:LEU:HD11	1.96	0.47
24:AY:178:ILE:HD12	24:AY:178:ILE:N	2.27	0.47
25:B0:14:ARG:NH1	35:BA:2279:G:O6	2.47	0.47
25:B0:40:GLN:HE22	25:B0:43:THR:C	2.17	0.47
30:B5:26:THR:O	30:B5:26:THR:CG2	2.60	0.47
30:B5:40:LYS:HZ1	30:B5:46:CYS:H	1.58	0.47
30:B5:45:VAL:HG22	30:B5:51:TYR:CD2	2.49	0.47
31:B6:42:TRP:HH2	35:BA:643:A:N7	2.13	0.47
35:BA:483:A:C2	35:BA:484:C:H1'	2.50	0.47
35:BA:495:G:H1'	54:BW:57:ASN:OD1	2.15	0.47
35:BA:577:G:C6	35:BA:578:A:C6	3.02	0.47
35:BA:1290:C:O5'	35:BA:1290:C:H6	1.97	0.47
35:BA:1344:G:C2	35:BA:1404:C:C2	3.02	0.47
35:BA:1376:C:O2	35:BA:1376:C:H2'	2.14	0.47
35:BA:1799:G:H22	35:BA:1818:U:H2'	1.79	0.47
35:BA:1998:G:O2'	35:BA:1999:C:H5'	2.14	0.47
35:BA:2048:G:C2	35:BA:2621:A:C2	3.03	0.47
35:BA:2050:C:O2'	35:BA:2051:A:H5'	2.14	0.47
35:BA:2134:A:H1'	35:BA:2158:A:H2	1.79	0.47
35:BA:2647:U:H2'	35:BA:2648:C:H6	1.79	0.47
37:BC:29:LEU:O	37:BC:32:GLU:CG	2.61	0.47
38:BD:28:GLU:HB2	38:BD:29:PRO:CD	2.45	0.47
39:BE:201:THR:C	39:BE:202:LYS:HD2	2.34	0.47
40:BF:81:PRO:C	40:BF:83:PHE:H	2.18	0.47
40:BF:133:ASN:O	40:BF:134:GLY:C	2.48	0.47
41:BG:43:LEU:HB3	41:BG:45:GLU:HG2	1.97	0.47
41:BG:63:ILE:HA	41:BG:143:GLU:CG	2.26	0.47
48:BQ:56:ARG:NE	48:BQ:56:ARG:CA	2.76	0.47
52:BU:66:ASN:ND2	52:BU:76:TYR:HB2	2.30	0.47
52:BU:76:TYR:CD1	52:BU:76:TYR:C	2.88	0.47
53:BV:4:ILE:O	53:BV:39:LEU:HD23	2.14	0.47
54:BW:88:ARG:CB	54:BW:92:ARG:HB3	2.44	0.47
57:BZ:29:TYR:O	57:BZ:30:ASN:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:354:G:C2	1:AA:355:C:C6	3.03	0.47
1:AA:646:U:H2'	1:AA:647:C:C6	2.50	0.47
1:AA:718:G:C8	11:AK:116:HIS:HB3	2.49	0.47
1:AA:790:A:H8	1:AA:790:A:O5'	1.97	0.47
1:AA:1142:G:H2'	1:AA:1143:G:C5'	2.43	0.47
1:AA:1350:A:C5	1:AA:1351:U:C4	3.02	0.47
1:AA:1375:A:N3	1:AA:1375:A:H2'	2.28	0.47
2:AB:19:HIS:HD2	2:AB:189:ASP:OD2	1.97	0.47
4:AD:140:VAL:HG12	4:AD:141:ARG:O	2.14	0.47
5:AE:12:LEU:N	5:AE:12:LEU:CD1	2.73	0.47
7:AG:17:VAL:HG21	7:AG:44:TYR:CZ	2.50	0.47
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	2.14	0.47
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.96	0.47
14:AN:32:SER:HB3	14:AN:41:ARG:HB3	1.96	0.47
19:AS:40:ILE:CG1	19:AS:71:LEU:HD23	2.43	0.47
20:AT:50:GLU:HB3	20:AT:99:LEU:HD12	1.96	0.47
20:AT:74:LYS:HB2	20:AT:75:ASN:H	1.45	0.47
24:AY:15:ILE:HD12	24:AY:81:ILE:HA	1.96	0.47
24:AY:137:ASN:ND2	24:AY:137:ASN:C	2.68	0.47
24:AY:404:VAL:O	24:AY:404:VAL:HG12	2.15	0.47
24:AY:636:PRO:HA	24:AY:641:GLN:HG3	1.97	0.47
32:B7:19:ARG:HG2	32:B7:19:ARG:NH1	2.30	0.47
33:B8:7:HIS:HB3	33:B8:10:ALA:HB3	1.96	0.47
33:B8:33:ASN:CA	33:B8:36:LYS:HD2	2.43	0.47
33:B8:62:LEU:HD13	35:BA:242:G:C5'	2.40	0.47
35:BA:271(F):C:C2'	35:BA:271(G):C:H5'	2.45	0.47
35:BA:693:C:H2'	35:BA:694:U:C6	2.50	0.47
35:BA:1267:U:H2'	35:BA:1268:A:H8	1.80	0.47
35:BA:1541:G:H4'	35:BA:1542:A:C4'	2.44	0.47
35:BA:1600:C:C2'	35:BA:1601:G:H5'	2.45	0.47
35:BA:1658:C:C2	35:BA:1659:U:C5	3.03	0.47
35:BA:1675:C:O2	39:BE:129:HIS:HA	2.13	0.47
35:BA:2126:A:C4'	35:BA:2127:G:O5'	2.58	0.47
35:BA:2180:U:H2'	35:BA:2181:G:O4'	2.15	0.47
35:BA:2194:G:H8	35:BA:2194:G:O5'	1.97	0.47
35:BA:2688:U:H5	35:BA:2720:U:OP2	1.97	0.47
35:BA:2884:U:H2'	35:BA:2885:C:O4'	2.15	0.47
36:BB:15:A:H1'	36:BB:110:G:C5	2.50	0.47
36:BB:48:A:O2'	36:BB:49:C:H5'	2.15	0.47
36:BB:64:C:O2'	36:BB:65:C:H5'	2.15	0.47
36:BB:112:U:H2'	36:BB:113:G:C8	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:120:VAL:O	37:BC:124:VAL:HG23	2.14	0.47
38:BD:71:ASP:HB2	38:BD:103:ARG:NH2	2.23	0.47
38:BD:145:VAL:O	38:BD:153:ALA:HA	2.15	0.47
38:BD:213:ARG:C	38:BD:215:LEU:H	2.17	0.47
38:BD:218:ARG:HB3	38:BD:219:PRO:HD2	1.97	0.47
40:BF:123:LEU:HD13	40:BF:192:LEU:HD22	1.96	0.47
48:BQ:134:ARG:NH2	57:BZ:122:ARG:NE	2.62	0.47
50:BS:15:ARG:O	50:BS:18:ILE:HG13	2.15	0.47
53:BV:19:LYS:HG3	53:BV:20:LEU:N	2.28	0.47
55:BX:71:GLY:C	55:BX:72:LYS:HG3	2.34	0.47
56:BY:73:ARG:O	56:BY:74:PRO:O	2.33	0.47
1:AA:532:A:C2'	1:AA:533:A:OP1	2.63	0.47
1:AA:950:U:H2'	1:AA:951:G:C8	2.50	0.47
1:AA:1037:C:C5	1:AA:1038:C:N4	2.82	0.47
1:AA:1109:C:H2'	1:AA:1110:A:H5'	1.96	0.47
1:AA:1158:C:H3'	1:AA:1158:C:O2	2.14	0.47
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.43	0.47
1:AA:1494:G:H2'	1:AA:1494:G:N3	2.29	0.47
2:AB:151:GLY:O	2:AB:153:ARG:HB3	2.15	0.47
4:AD:98:GLU:CB	4:AD:189:PRO:HG3	2.44	0.47
4:AD:159:ARG:HH11	4:AD:159:ARG:HG3	1.78	0.47
4:AD:159:ARG:O	4:AD:160:GLN:C	2.52	0.47
4:AD:173:TRP:CB	4:AD:187:ARG:NH1	2.76	0.47
5:AE:101:ILE:HD13	5:AE:101:ILE:N	2.18	0.47
8:AH:64:LYS:HD2	8:AH:79:VAL:HG21	1.97	0.47
8:AH:93:VAL:O	8:AH:132:GLU:HA	2.15	0.47
10:AJ:71:LEU:HD12	10:AJ:72:VAL:H	1.79	0.47
24:AY:33:LEU:HD12	24:AY:33:LEU:N	2.29	0.47
24:AY:69:VAL:HG23	24:AY:82:ILE:HG12	1.97	0.47
24:AY:216:LEU:HD23	24:AY:216:LEU:C	2.35	0.47
24:AY:509:HIS:ND1	24:AY:509:HIS:O	2.47	0.47
24:AY:603:GLU:C	24:AY:676:TYR:HD1	2.17	0.47
25:B0:40:GLN:HE21	25:B0:43:THR:HA	1.75	0.47
26:B1:5:CYS:CB	26:B1:8:SER:HG	2.28	0.47
27:B2:28:LYS:CB	27:B2:57:ILE:HD13	2.38	0.47
33:B8:50:LEU:CG	33:B8:51:ALA:H	2.28	0.47
35:BA:123:G:C6	35:BA:124:G:C5	3.02	0.47
35:BA:271(E):U:H2'	35:BA:271(F):C:H6	1.77	0.47
35:BA:318:C:O5'	35:BA:318:C:H6	1.98	0.47
35:BA:389:G:O4'	35:BA:2413:G:C4'	2.59	0.47
35:BA:483:A:C2	35:BA:484:C:C1'	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:533:G:H1	35:BA:560:C:H42	1.61	0.47
35:BA:863:A:O2'	36:BB:101:G:H1'	2.14	0.47
35:BA:1034:G:C6	35:BA:1035:U:N3	2.83	0.47
35:BA:1169:G:H1	35:BA:1180:C:H42	1.61	0.47
35:BA:1465:G:C4	35:BA:1466:G:C8	3.03	0.47
35:BA:1668:A:H61	35:BA:1676:A:N6	2.12	0.47
35:BA:1814:G:H8	35:BA:1814:G:O5'	1.97	0.47
35:BA:2751:G:OP1	35:BA:2751:G:N2	2.47	0.47
35:BA:2810:A:O2'	39:BE:61:ARG:HB2	2.15	0.47
37:BC:84:ILE:HG23	37:BC:95:VAL:HG12	1.96	0.47
39:BE:38:THR:CB	39:BE:41:LYS:HG2	2.42	0.47
41:BG:133:LEU:CD1	41:BG:157:ILE:HB	2.44	0.47
43:BK:8:VAL:HG12	43:BK:10:LEU:HG	1.96	0.47
47:BP:6:LEU:HB3	47:BP:9:ASN:ND2	2.27	0.47
50:BS:28:VAL:CG1	50:BS:29:PHE:N	2.65	0.47
52:BU:44:ASN:ND2	53:BV:75:PHE:HB3	2.22	0.47
52:BU:49:HIS:O	52:BU:52:ARG:HB2	2.15	0.47
52:BU:57:PHE:C	52:BU:59:ARG:N	2.65	0.47
53:BV:21:ARG:HG2	53:BV:21:ARG:NH1	2.23	0.47
56:BY:81:LYS:NZ	56:BY:98:VAL:O	2.47	0.47
1:AA:37:U:O2'	1:AA:500:G:H4'	2.15	0.47
1:AA:111:G:O6	1:AA:330:C:N4	2.48	0.47
1:AA:117:G:H8	1:AA:117:G:O5'	1.98	0.47
1:AA:122:G:N1	1:AA:123:C:C2	2.83	0.47
1:AA:267:C:H2'	1:AA:268:C:H6	1.80	0.47
1:AA:363:A:OP1	12:AL:33:ARG:HD3	2.15	0.47
1:AA:473:G:H5'	16:AP:81:ARG:HG3	1.95	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.15	0.47
1:AA:1310:G:C2	1:AA:1328:C:N3	2.82	0.47
1:AA:1360:A:H2'	1:AA:1361:G:C8	2.50	0.47
1:AA:1361:G:H5'	1:AA:1362:C:OP2	2.15	0.47
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.48	0.47
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.88	0.47
2:AB:21:ARG:NH2	2:AB:38:GLY:HA3	2.30	0.47
2:AB:124:SER:CB	2:AB:125:PRO:HD2	2.44	0.47
3:AC:151:VAL:O	3:AC:152:ILE:HG23	2.14	0.47
4:AD:200:GLU:O	4:AD:201:GLN:C	2.53	0.47
5:AE:76:ILE:CG2	5:AE:118:ILE:HD13	2.44	0.47
6:AF:26:ILE:O	6:AF:26:ILE:CG2	2.62	0.47
7:AG:134:ALA:O	7:AG:137:LYS:HB2	2.15	0.47
7:AG:137:LYS:HA	7:AG:137:LYS:HE3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:55:LYS:H	10:AJ:55:LYS:HE2	1.77	0.47
10:AJ:62:HIS:H	10:AJ:62:HIS:CD2	2.33	0.47
12:AL:115:LYS:O	12:AL:117:ARG:HG3	2.14	0.47
13:AM:23:TYR:HE1	13:AM:70:LEU:CD2	2.27	0.47
13:AM:58:GLU:O	13:AM:62:ASN:HB2	2.15	0.47
13:AM:91:ARG:HH21	19:AS:81:ARG:NH2	2.13	0.47
13:AM:119:GLY:C	13:AM:121:LYS:H	2.18	0.47
15:AO:10:LYS:HD2	15:AO:10:LYS:C	2.35	0.47
16:AP:74:LEU:O	16:AP:79:VAL:CG2	2.61	0.47
18:AR:76:LEU:C	18:AR:78:LEU:H	2.17	0.47
22:AV:2:G:C6	22:AV:72:A:C2	3.03	0.47
24:AY:119:GLU:O	24:AY:120:THR:OG1	2.33	0.47
24:AY:337:SER:CA	24:AY:355:LEU:HD23	2.45	0.47
24:AY:339:SER:O	24:AY:340:TYR:CD1	2.68	0.47
24:AY:408:VAL:HG23	24:AY:409:ILE:N	2.28	0.47
24:AY:415:PRO:O	24:AY:420:ASP:HB2	2.14	0.47
24:AY:451:ILE:O	24:AY:451:ILE:CG2	2.56	0.47
24:AY:550:MET:CE	24:AY:563:ILE:HD11	2.43	0.47
25:B0:78:TYR:N	25:B0:78:TYR:HD1	2.12	0.47
27:B2:20:GLU:O	27:B2:23:LYS:N	2.47	0.47
27:B2:53:LEU:O	27:B2:53:LEU:HD23	2.15	0.47
28:B3:36:VAL:O	28:B3:37:LEU:HD23	2.15	0.47
29:B4:25:TYR:CD1	29:B4:25:TYR:N	2.81	0.47
29:B4:34:GLU:CD	29:B4:34:GLU:H	2.17	0.47
31:B6:15:GLU:OE2	31:B6:44:ARG:CZ	2.62	0.47
35:BA:11:G:H2'	35:BA:12:U:H6	1.79	0.47
35:BA:58:G:O2'	35:BA:59:U:H5'	2.14	0.47
35:BA:285:C:C2'	35:BA:286:C:C5'	2.93	0.47
35:BA:312:G:H2'	35:BA:313:C:O4'	2.15	0.47
35:BA:418:G:H2'	35:BA:419:C:H6	1.77	0.47
35:BA:425:G:C2	35:BA:426:C:C5	3.02	0.47
35:BA:483:A:H4'	56:BY:49:VAL:HA	1.97	0.47
35:BA:626:U:C2	47:BP:105:LEU:HG	2.50	0.47
35:BA:663:G:C6	35:BA:664:C:C4	3.03	0.47
35:BA:1141:U:H6	45:BN:63:THR:CG2	2.27	0.47
35:BA:1268:A:O2'	35:BA:1269:A:H5'	2.14	0.47
35:BA:1296:G:H8	35:BA:1296:G:O5'	1.97	0.47
35:BA:1301:A:O2'	35:BA:1302:A:O5'	2.24	0.47
35:BA:1453:U:H2'	35:BA:1455:G:C8	2.49	0.47
35:BA:1484:G:C2'	35:BA:1485:G:H5''	2.45	0.47
35:BA:1577:C:H2'	35:BA:1578:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1638:C:H1'	35:BA:2698:U:O2'	2.14	0.47
35:BA:1658:C:O5'	35:BA:1658:C:H6	1.98	0.47
35:BA:1664:A:OP1	35:BA:1665:A:OP2	2.32	0.47
35:BA:1907:G:O2'	35:BA:1908:C:H5'	2.15	0.47
35:BA:2055:C:H5'	35:BA:2056:G:O5'	2.15	0.47
35:BA:2081:C:H2'	35:BA:2082:A:C8	2.46	0.47
35:BA:2155:G:O2'	35:BA:2156:G:H5'	2.15	0.47
35:BA:2572:A:C5'	35:BA:2574:G:H4'	2.32	0.47
35:BA:2672:G:H3'	35:BA:2673:G:H5''	1.92	0.47
35:BA:2771:C:H2'	35:BA:2772:C:H6	1.78	0.47
36:BB:21:G:O6	36:BB:63:G:C6	2.67	0.47
36:BB:51:G:N2	36:BB:52:A:N3	2.62	0.47
37:BC:79:ALA:O	37:BC:120:VAL:HG11	2.14	0.47
37:BC:226:ASN:HA	37:BC:227:PRO:HD2	1.76	0.47
38:BD:67:PHE:CE2	38:BD:157:ARG:NH2	2.83	0.47
38:BD:218:ARG:HG3	38:BD:218:ARG:NH1	2.30	0.47
39:BE:101:ARG:CZ	39:BE:171:GLU:HB2	2.43	0.47
39:BE:120:TRP:CE3	39:BE:155:LYS:HE3	2.50	0.47
40:BF:3:GLU:CB	40:BF:24:LEU:HG	2.44	0.47
40:BF:41:LEU:HD21	40:BF:44:ARG:HH21	1.80	0.47
41:BG:102:PHE:C	41:BG:104:GLU:N	2.68	0.47
41:BG:119:GLY:O	41:BG:181:ARG:HB2	2.14	0.47
41:BG:138:GLN:O	41:BG:144:ILE:HD13	2.14	0.47
42:BH:89:ILE:O	42:BH:89:ILE:CD1	2.62	0.47
45:BN:49:GLY:CA	45:BN:119:ARG:HH12	2.27	0.47
49:BR:55:ALA:HA	49:BR:80:PHE:HE1	1.69	0.47
51:BT:29:ARG:HG2	51:BT:86:ILE:N	2.30	0.47
51:BT:87:ASP:OD1	51:BT:87:ASP:N	2.41	0.47
51:BT:108:ARG:HA	51:BT:111:ARG:HH11	1.80	0.47
53:BV:69:LYS:HE3	53:BV:71:LEU:CD2	2.44	0.47
54:BW:1:MET:CE	54:BW:62:HIS:HD2	2.27	0.47
56:BY:77:PRO:HB2	56:BY:99:CYS:SG	2.55	0.47
56:BY:97:ARG:O	56:BY:98:VAL:CB	2.63	0.47
57:BZ:17:ALA:O	57:BZ:21:ALA:HB2	2.15	0.47
1:AA:328:C:O2'	1:AA:329:A:OP2	2.24	0.47
1:AA:509:A:N1	1:AA:510:A:C2	2.83	0.47
1:AA:703:G:O2'	1:AA:704:A:OP2	2.33	0.47
1:AA:956:U:O2'	1:AA:957:U:H5'	2.15	0.47
1:AA:1005:A:H3'	1:AA:1006:C:C5'	2.45	0.47
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.49	0.47
1:AA:1037:C:H2'	1:AA:1038:C:N1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1237:C:H6	1:AA:1237:C:O5'	1.97	0.47
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.14	0.47
5:AE:150:ARG:O	5:AE:150:ARG:HG2	2.14	0.47
6:AF:62:TRP:O	6:AF:63:TYR:CG	2.68	0.47
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.29	0.47
15:AO:26:GLU:CG	15:AO:77:ARG:NH1	2.78	0.47
15:AO:39:LEU:HD22	15:AO:43:LEU:CD1	2.45	0.47
16:AP:5:ARG:HE	16:AP:22:THR:HG21	1.78	0.47
18:AR:79:LEU:CD2	18:AR:80:PRO:HD2	2.43	0.47
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.79	0.47
22:AV:74:C:H3'	22:AV:74:C:OP2	2.15	0.47
24:AY:19:ALA:HA	24:AY:121:VAL:CG1	2.42	0.47
24:AY:166:LEU:HD21	24:AY:212:TYR:CD2	2.50	0.47
24:AY:211:GLU:HG3	24:AY:212:TYR:N	2.30	0.47
24:AY:226:ASN:C	24:AY:228:MET:H	2.17	0.47
24:AY:499:ARG:HH12	35:BA:1913:A:P	2.38	0.47
27:B2:59:ARG:HG2	27:B2:59:ARG:H	1.31	0.47
31:B6:35:GLU:HB2	31:B6:51:GLU:HB2	1.96	0.47
35:BA:42:G:H2'	35:BA:42:G:N3	2.30	0.47
35:BA:118:A:N3	35:BA:178:G:H1'	2.30	0.47
35:BA:212:G:O2'	35:BA:213:A:H5'	2.15	0.47
35:BA:512:G:C2'	35:BA:513:A:OP2	2.63	0.47
35:BA:545:C:C3'	35:BA:547:A:C5'	2.86	0.47
35:BA:614(A):U:H5''	35:BA:614(B):G:OP1	2.15	0.47
35:BA:648:G:O2'	35:BA:649:G:H5'	2.15	0.47
35:BA:911:A:H2'	48:BQ:9:TYR:OH	2.15	0.47
35:BA:1176:G:O2'	35:BA:1178:C:C6	2.64	0.47
35:BA:1472:A:O2'	35:BA:1473:G:H5'	2.15	0.47
35:BA:1497:U:C2	35:BA:1578:U:OP1	2.68	0.47
35:BA:1742:G:H2'	35:BA:1743:C:O4'	2.15	0.47
35:BA:2070:G:H2'	35:BA:2071:A:C8	2.50	0.47
35:BA:2086:U:H2'	35:BA:2087:G:C8	2.50	0.47
35:BA:2170:A:H5''	37:BC:135:ARG:NH2	2.24	0.47
35:BA:2174:C:O2'	35:BA:2175:C:H5'	2.15	0.47
35:BA:2307:G:H3'	35:BA:2307:G:N3	2.30	0.47
35:BA:2754:U:C2'	35:BA:2755:C:H5'	2.45	0.47
35:BA:2872:G:C2	35:BA:2873:A:N6	2.83	0.47
35:BA:2875:C:O2'	51:BT:5:ALA:HB3	2.15	0.47
36:BB:85:G:O2'	36:BB:86:G:C5'	2.63	0.47
38:BD:177:LEU:O	38:BD:179:SER:N	2.48	0.47
40:BF:75:HIS:HE1	40:BF:82:ILE:HD11	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:45:GLU:OE1	41:BG:45:GLU:CA	2.63	0.47
42:BH:12:PRO:O	42:BH:15:VAL:HG22	2.14	0.47
42:BH:122:THR:HG22	42:BH:123:PHE:N	2.29	0.47
48:BQ:135:ASP:O	48:BQ:138:ASP:OD2	2.32	0.47
49:BR:41:ALA:C	49:BR:43:GLU:N	2.68	0.47
51:BT:28:VAL:HG13	51:BT:46:GLU:CA	2.41	0.47
51:BT:82:LEU:N	51:BT:82:LEU:CD1	2.74	0.47
53:BV:17:GLY:O	53:BV:18:LEU:HB3	2.14	0.47
54:BW:107:LEU:H	54:BW:107:LEU:CD2	2.20	0.47
1:AA:25:C:H2'	1:AA:26:A:C8	2.50	0.47
1:AA:106:C:C2'	1:AA:107:G:H5'	2.45	0.47
1:AA:190:U:O2'	1:AA:191:G:H5'	2.15	0.47
1:AA:318:G:C2	1:AA:336:C:N3	2.83	0.47
1:AA:509:A:H2'	1:AA:509:A:N3	2.30	0.47
1:AA:1118:C:OP1	9:AI:104:ARG:NH1	2.47	0.47
1:AA:1140:C:O2'	1:AA:1141:C:H5'	2.15	0.47
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.50	0.47
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.63	0.47
1:AA:1318:A:C1'	19:AS:37:ARG:NH2	2.72	0.47
4:AD:31:CYS:O	4:AD:32:ALA:CB	2.63	0.47
4:AD:125:HIS:C	4:AD:126:ILE:HD12	2.36	0.47
5:AE:105:VAL:N	5:AE:106:PRO:HD2	2.30	0.47
6:AF:16:GLN:HA	6:AF:19:LEU:HB3	1.95	0.47
9:AI:74:ILE:O	9:AI:74:ILE:HG22	2.14	0.47
24:AY:108:PHE:N	24:AY:135:PHE:O	2.40	0.47
24:AY:122:TRP:O	24:AY:124:GLN:N	2.47	0.47
24:AY:199:ILE:HD12	24:AY:199:ILE:O	2.15	0.47
24:AY:434:GLU:O	24:AY:435:ASP:HB2	2.14	0.47
24:AY:495:GLY:O	24:AY:510:VAL:N	2.43	0.47
24:AY:655:TYR:HD2	24:AY:669:PHE:CE2	2.33	0.47
26:B1:59:THR:O	26:B1:91:LYS:CE	2.62	0.47
26:B1:66:HIS:C	26:B1:68:PRO:HD2	2.36	0.47
27:B2:59:ARG:O	27:B2:62:THR:N	2.47	0.47
29:B4:41:PRO:CA	29:B4:42:PHE:CD1	2.98	0.47
31:B6:35:GLU:HG3	31:B6:36:LEU:H	1.80	0.47
35:BA:41:C:H2'	35:BA:42:G:C1'	2.45	0.47
35:BA:55:G:H2'	35:BA:56:A:H8	1.79	0.47
35:BA:85:G:OP1	56:BY:30:VAL:HB	2.15	0.47
35:BA:94:C:H5'	35:BA:94(A):G:OP2	2.14	0.47
35:BA:120:U:O2	35:BA:120:U:C2'	2.58	0.47
35:BA:350:U:H2'	35:BA:351:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:468:G:H2'	35:BA:469:G:O4'	2.15	0.47
35:BA:532:A:N3	35:BA:532:A:C2'	2.78	0.47
35:BA:589:C:O2'	35:BA:590:A:H5'	2.15	0.47
35:BA:954:G:O2'	35:BA:955:C:H5'	2.15	0.47
35:BA:1314:C:N3	35:BA:1339:G:C2	2.83	0.47
35:BA:1493:C:H4'	35:BA:1494:A:OP1	2.14	0.47
35:BA:1709:U:H3	35:BA:1749:A:N6	2.12	0.47
35:BA:2320:A:C2	35:BA:2333:A:C8	3.03	0.47
35:BA:2693:A:H2'	35:BA:2694:G:C8	2.49	0.47
35:BA:2840:C:H2'	35:BA:2841:C:H6	1.78	0.47
35:BA:2889:C:H2'	35:BA:2891:G:C8	2.50	0.47
36:BB:87:G:H2'	36:BB:88:C:H5''	1.97	0.47
38:BD:213:ARG:HD2	38:BD:213:ARG:HA	1.40	0.47
39:BE:3:GLY:C	39:BE:4:ILE:HG22	2.35	0.47
39:BE:27:LEU:CD1	39:BE:181:LEU:HD13	2.45	0.47
40:BF:24:LEU:N	40:BF:24:LEU:HD22	2.30	0.47
42:BH:36:PRO:HG2	42:BH:36:PRO:O	2.15	0.47
42:BH:127:GLU:HB3	42:BH:128:PRO:CD	2.42	0.47
47:BP:16:ARG:HD3	47:BP:18:ARG:N	2.23	0.47
47:BP:17:LYS:C	47:BP:19:VAL:N	2.67	0.47
50:BS:73:LEU:HD23	50:BS:73:LEU:C	2.34	0.47
54:BW:51:LEU:C	54:BW:51:LEU:HD13	2.34	0.47
56:BY:74:PRO:O	56:BY:80:GLY:HA2	2.15	0.47
1:AA:52:G:H2'	1:AA:53:A:O4'	2.14	0.47
1:AA:59:A:H3'	1:AA:331:G:H22	1.80	0.47
1:AA:542:G:H5'	4:AD:41:GLY:HA2	1.96	0.47
1:AA:803:G:C6	1:AA:804:U:C4	3.03	0.47
1:AA:867:G:H2'	1:AA:868:C:H6	1.79	0.47
1:AA:957:U:O2	1:AA:959:A:H8	1.98	0.47
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.14	0.47
4:AD:61:LYS:CE	4:AD:62:GLN:NE2	2.77	0.47
4:AD:152:SER:O	4:AD:154:ASN:N	2.48	0.47
5:AE:6:PHE:CD1	5:AE:6:PHE:N	2.83	0.47
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.50	0.47
8:AH:112:LEU:HD23	8:AH:112:LEU:O	2.14	0.47
12:AL:105:TYR:O	12:AL:107:ALA:N	2.48	0.47
17:AQ:52:LYS:CD	17:AQ:52:LYS:N	2.67	0.47
18:AR:60:ALA:O	18:AR:61:LYS:C	2.53	0.47
19:AS:6:LYS:H	19:AS:6:LYS:HZ2	1.62	0.47
22:AV:2:G:N1	22:AV:3:C:C4	2.83	0.47
24:AY:117:GLN:NE2	24:AY:119:GLU:HG3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:231:TYR:CE2	44:BL:80:LEU:HD23	2.46	0.47
24:AY:647:VAL:HG21	24:AY:652:MET:SD	2.55	0.47
33:B8:8:LYS:HE3	35:BA:245:G:O6	2.15	0.47
34:B9:1:MET:SD	35:BA:2478:A:OP2	2.73	0.47
35:BA:392:C:O5'	35:BA:392:C:H6	1.97	0.47
35:BA:613:G:H5'	35:BA:613:G:H8	1.80	0.47
35:BA:674:G:C1'	40:BF:74:ARG:HD3	2.43	0.47
35:BA:868:U:C4	35:BA:869:G:N7	2.82	0.47
35:BA:1197:G:H2'	35:BA:1198:U:H6	1.79	0.47
35:BA:1374:G:H2'	35:BA:1375:C:C6	2.50	0.47
35:BA:1541:G:OP2	35:BA:1542:A:OP1	2.32	0.47
35:BA:1669:A:O3'	35:BA:2549:G:H5'	2.14	0.47
35:BA:2051:A:C4'	39:BE:141:ILE:HD13	2.45	0.47
35:BA:2395:C:H2'	35:BA:2396:G:H8	1.79	0.47
35:BA:2579:C:O5'	35:BA:2579:C:H6	1.97	0.47
35:BA:2859:G:H2'	35:BA:2860:A:C8	2.49	0.47
37:BC:127:LYS:C	37:BC:128:LEU:HG	2.35	0.47
37:BC:140:ASN:HB3	37:BC:143:ALA:HB3	1.97	0.47
40:BF:62:ARG:NH2	40:BF:64:ILE:HA	2.31	0.47
41:BG:67:LYS:CD	41:BG:68:PRO:HD2	2.44	0.47
45:BN:67:LEU:HB3	45:BN:88:GLU:HG2	1.97	0.47
46:BO:13:ASN:HD21	46:BO:97:ARG:HG2	1.79	0.47
47:BP:83:VAL:HG11	47:BP:112:LEU:HD21	1.97	0.47
47:BP:136:GLU:O	47:BP:139:LYS:HB3	2.15	0.47
49:BR:53:HIS:HD1	49:BR:53:HIS:C	2.17	0.47
54:BW:4:LYS:HA	54:BW:106:ILE:HG22	1.96	0.47
54:BW:20:VAL:O	54:BW:23:LEU:N	2.46	0.47
54:BW:79:GLY:C	54:BW:100:THR:HG23	2.35	0.47
55:BX:70:LEU:HD23	55:BX:70:LEU:C	2.35	0.47
56:BY:7:VAL:HB	56:BY:8:LYS:CE	2.45	0.47
57:BZ:120:ILE:HG22	57:BZ:120:ILE:O	2.14	0.47
1:AA:46:G:H2'	1:AA:366:C:C5	2.51	0.46
1:AA:315:A:O2'	1:AA:316:G:P	2.73	0.46
1:AA:526:C:C5	1:AA:527:G:H1'	2.50	0.46
1:AA:1003:G:N2	1:AA:1004:A:H1'	2.30	0.46
1:AA:1423:G:H5''	46:BO:49:ARG:NH2	2.30	0.46
2:AB:178:ARG:HA	2:AB:178:ARG:HD3	1.68	0.46
2:AB:222:ILE:O	2:AB:226:ARG:HB2	2.15	0.46
12:AL:41:ARG:HH11	12:AL:41:ARG:CB	2.27	0.46
14:AN:47:LEU:O	14:AN:50:LYS:N	2.48	0.46
16:AP:2:VAL:O	16:AP:2:VAL:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:74:LEU:O	16:AP:77:ALA:HB3	2.15	0.46
18:AR:50:ILE:HD11	18:AR:74:ARG:CZ	2.45	0.46
19:AS:65:ASN:O	19:AS:67:VAL:HG23	2.15	0.46
20:AT:39:LYS:HE2	20:AT:55:ILE:HG13	1.97	0.46
22:AV:65:C:H2'	22:AV:66:C:H5'	1.97	0.46
24:AY:91:THR:O	24:AY:93:GLU:N	2.48	0.46
24:AY:394:ALA:HB1	24:AY:395:PRO:CD	2.44	0.46
29:B4:25:TYR:O	41:BG:105:LYS:NZ	2.48	0.46
31:B6:39:TYR:OH	35:BA:2347:C:OP1	2.21	0.46
33:B8:50:LEU:O	33:B8:52:LYS:N	2.41	0.46
35:BA:272(G):C:C3'	35:BA:272(H):C:H5''	2.43	0.46
35:BA:398:G:H2'	35:BA:399:G:C8	2.50	0.46
35:BA:519:U:O2'	35:BA:520:G:H5'	2.15	0.46
35:BA:654(A):G:H2'	35:BA:654(B):C:O4'	2.15	0.46
35:BA:803:U:H2'	35:BA:804:A:H5'	1.95	0.46
35:BA:823:G:C6	35:BA:824:A:N6	2.83	0.46
35:BA:1114:G:OP2	35:BA:1114:G:H8	1.99	0.46
35:BA:1142(A):A:C5	35:BA:1144:G:N7	2.83	0.46
35:BA:1232:G:H2'	35:BA:1233:C:C6	2.49	0.46
35:BA:1245:G:H5''	40:BF:34:TRP:CZ2	2.42	0.46
35:BA:1275:A:C4	49:BR:16:HIS:ND1	2.83	0.46
35:BA:1344:G:H5'	35:BA:1384:A:C6	2.50	0.46
35:BA:1423:G:H2'	35:BA:1424:G:O4'	2.15	0.46
35:BA:1830:C:H6	35:BA:1830:C:O5'	1.97	0.46
35:BA:2177:C:O2	37:BC:173:HIS:HE1	1.98	0.46
35:BA:2400:G:N2	35:BA:2417:C:C2	2.83	0.46
35:BA:2469:A:O3'	48:BQ:56:ARG:NH1	2.48	0.46
35:BA:2852:G:H2'	35:BA:2853:C:H6	1.76	0.46
36:BB:89:G:N1	36:BB:90:A:C2	2.83	0.46
37:BC:139:PRO:HA	37:BC:145:THR:HB	1.98	0.46
38:BD:35:LYS:CG	38:BD:63:ARG:CG	2.88	0.46
38:BD:267:SER:HA	38:BD:270:ILE:CG1	2.43	0.46
39:BE:32:PRO:CA	39:BE:90:THR:HG23	2.45	0.46
39:BE:34:VAL:O	39:BE:35:GLN:HB2	2.15	0.46
39:BE:177:PRO:CG	39:BE:178:GLU:N	2.78	0.46
40:BF:66:PRO:O	40:BF:67:GLN:HB3	2.15	0.46
40:BF:199:TRP:O	40:BF:199:TRP:CE3	2.68	0.46
41:BG:87:PRO:O	41:BG:88:ILE:CD1	2.57	0.46
43:BK:131:ALA:HA	43:BK:136:VAL:HG13	1.96	0.46
46:BO:3:GLN:HB2	46:BO:4:PRO:HD2	1.96	0.46
52:BU:91:ASP:O	52:BU:95:LEU:HB2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:41:LEU:O	57:BZ:44:PHE:HB3	2.15	0.46
57:BZ:115:GLY:CA	57:BZ:177:PRO:HG3	2.45	0.46
1:AA:602:A:H2'	1:AA:603:U:H6	1.81	0.46
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.78	0.46
1:AA:1368:G:OP2	9:AI:112:LYS:HD3	2.16	0.46
4:AD:35:ARG:C	4:AD:37:PRO:HD3	2.36	0.46
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.81	0.46
5:AE:139:LEU:O	5:AE:141:GLN:N	2.48	0.46
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.97	0.46
9:AI:8:GLY:HA2	9:AI:79:LEU:HD12	1.97	0.46
9:AI:60:ASP:O	9:AI:61:ALA:O	2.34	0.46
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	2.16	0.46
12:AL:39:VAL:O	12:AL:40:VAL:HG22	2.15	0.46
16:AP:59:TRP:HA	16:AP:59:TRP:CE3	2.50	0.46
22:AV:69:C:O2'	22:AV:70:G:H5'	2.15	0.46
24:AY:89:ASP:OD2	24:AY:457:LEU:HD12	2.15	0.46
24:AY:99:ARG:NE	24:AY:128:TYR:HB2	2.29	0.46
24:AY:438:PHE:HB2	24:AY:452:SER:O	2.15	0.46
24:AY:688:ILE:N	24:AY:688:ILE:HD12	2.30	0.46
25:B0:27:GLU:CD	25:B0:27:GLU:N	2.62	0.46
27:B2:21:LEU:O	27:B2:24:LEU:CB	2.59	0.46
30:B5:30:LEU:HA	30:B5:41:PRO:HA	1.97	0.46
31:B6:8:LYS:HA	31:B6:27:LYS:HA	1.98	0.46
35:BA:117:G:C6	35:BA:119:A:C6	3.04	0.46
35:BA:184:C:H2'	35:BA:185:U:H6	1.81	0.46
35:BA:246:C:C2'	35:BA:247:G:H5'	2.44	0.46
35:BA:654(S):G:H3'	35:BA:654(T):C:C4'	2.46	0.46
35:BA:705:A:C2	35:BA:727:A:H1'	2.51	0.46
35:BA:769:G:H4'	35:BA:1379:A:C6	2.49	0.46
35:BA:820:A:C2	35:BA:943:U:H4'	2.49	0.46
35:BA:990:A:OP2	35:BA:991:C:OP2	2.34	0.46
35:BA:1012:U:O4	45:BN:28:THR:CG2	2.57	0.46
35:BA:1271:G:N2	35:BA:1617:C:C1'	2.77	0.46
35:BA:1434:A:N3	35:BA:1434:A:C2'	2.77	0.46
35:BA:1464:C:O2	35:BA:1464:C:H2'	2.16	0.46
35:BA:1570:A:H2'	35:BA:1571:A:C8	2.50	0.46
35:BA:1638:C:O2	35:BA:2698:U:O2'	2.33	0.46
35:BA:1751:C:O2'	35:BA:2861:G:H4'	2.15	0.46
35:BA:2282:G:O2'	35:BA:2283:C:OP2	2.25	0.46
35:BA:2483:C:H5'	35:BA:2484:G:OP2	2.15	0.46
36:BB:114:C:H4'	50:BS:46:VAL:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:95:VAL:CG1	37:BC:96:GLY:H	2.26	0.46
37:BC:104:ILE:HG23	37:BC:108:TRP:O	2.15	0.46
37:BC:185:LYS:O	37:BC:186:LEU:C	2.54	0.46
39:BE:1:MET:HE2	39:BE:1:MET:HA	1.96	0.46
39:BE:32:PRO:HB3	39:BE:69:LYS:HB3	1.97	0.46
39:BE:43:GLY:O	39:BE:44:TYR:HB3	2.15	0.46
39:BE:54:GLN:O	39:BE:55:ASN:CG	2.54	0.46
39:BE:76:ARG:O	39:BE:77:ILE:C	2.53	0.46
40:BF:165:ARG:CB	40:BF:165:ARG:NH1	2.76	0.46
41:BG:46:ALA:C	41:BG:51:ARG:HG3	2.36	0.46
42:BH:29:PRO:HD2	42:BH:79:VAL:O	2.16	0.46
46:BO:14:THR:HG21	46:BO:86:ILE:HD13	1.97	0.46
46:BO:44:LYS:HD3	46:BO:44:LYS:HA	1.75	0.46
46:BO:77:ILE:HD11	51:BT:72:VAL:HG11	1.97	0.46
47:BP:41:ARG:HH11	47:BP:41:ARG:CA	2.22	0.46
47:BP:100:LEU:HA	47:BP:103:ALA:HB3	1.96	0.46
48:BQ:21:THR:OG1	48:BQ:99:PRO:O	2.34	0.46
49:BR:26:LYS:HE2	49:BR:71:GLN:H	1.80	0.46
49:BR:100:LEU:N	49:BR:100:LEU:HD13	2.31	0.46
54:BW:110:LYS:HB3	54:BW:111:HIS:H	1.48	0.46
56:BY:13:VAL:HG23	56:BY:74:PRO:HA	1.96	0.46
57:BZ:127:LYS:HG2	57:BZ:162:GLU:HG3	1.97	0.46
1:AA:9:G:H5'	5:AE:122:GLU:OE2	2.15	0.46
1:AA:265:G:O2'	1:AA:266:G:H5'	2.15	0.46
1:AA:818:G:HO2'	1:AA:820:U:H6	1.59	0.46
1:AA:972:C:O2'	10:AJ:55:LYS:HB3	2.15	0.46
1:AA:974:A:H8	1:AA:974:A:OP1	1.99	0.46
1:AA:1238:A:C8	1:AA:1303:C:HI'	2.49	0.46
2:AB:119:GLU:C	2:AB:121:LEU:H	2.17	0.46
4:AD:61:LYS:HD3	4:AD:206:PHE:CE2	2.51	0.46
9:AI:84:ALA:C	9:AI:86:VAL:H	2.18	0.46
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.97	0.46
16:AP:61:SER:O	16:AP:62:VAL:HG13	2.16	0.46
18:AR:44:LEU:HD11	18:AR:70:ILE:CG2	2.43	0.46
24:AY:39:ILE:CG2	24:AY:41:LYS:HG3	2.45	0.46
24:AY:230:LYS:CD	24:AY:235:GLU:OE1	2.64	0.46
24:AY:290:LYS:HD3	24:AY:298:VAL:HG22	1.97	0.46
24:AY:486:THR:OG1	24:AY:487:ILE:N	2.48	0.46
24:AY:505:GLY:HA3	24:AY:576:ASP:CB	2.45	0.46
25:B0:60:PHE:C	25:B0:60:PHE:CD1	2.88	0.46
27:B2:69:ARG:HH22	35:BA:111:A:H5''	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:45:LYS:HE3	35:BA:2371:G:H5''	1.96	0.46
32:B7:48:LYS:NZ	35:BA:125:G:H21	2.13	0.46
35:BA:41:C:N4	35:BA:437:G:H1	2.12	0.46
35:BA:271(K):U:H3'	35:BA:271(L):U:C5'	2.46	0.46
35:BA:299:A:H1'	35:BA:322:A:N6	2.30	0.46
35:BA:745:G:H21	35:BA:750:A:N6	2.13	0.46
35:BA:960:A:H2'	35:BA:962:G:C5'	2.46	0.46
35:BA:1061:U:H3	43:BK:11:GLN:HG2	1.80	0.46
35:BA:1263:U:H2'	35:BA:1264:G:C8	2.51	0.46
35:BA:1750:G:O2'	35:BA:1751:C:H5'	2.14	0.46
35:BA:1788:C:C2'	35:BA:1789:A:H5'	2.44	0.46
35:BA:1789:A:H2'	35:BA:1790:C:O4'	2.16	0.46
35:BA:1865:G:H2'	35:BA:1866:C:C5'	2.41	0.46
35:BA:2062:A:N3	35:BA:2062:A:O4'	2.48	0.46
35:BA:2836:U:H2'	35:BA:2837:G:C8	2.50	0.46
38:BD:85:ASP:HB2	38:BD:92:ILE:HD12	1.97	0.46
40:BF:25:PRO:HB3	40:BF:119:ARG:HB2	1.96	0.46
42:BH:70:THR:C	42:BH:72:ILE:N	2.63	0.46
42:BH:94:TYR:O	42:BH:95:ARG:CB	2.64	0.46
44:BL:110:LEU:HB3	44:BL:117:VAL:CG2	2.45	0.46
46:BO:64:ARG:O	46:BO:82:ASN:HA	2.14	0.46
46:BO:113:LYS:O	46:BO:117:LEU:HD12	2.16	0.46
49:BR:117:VAL:O	49:BR:118:GLU:HB2	2.14	0.46
53:BV:22:VAL:O	53:BV:22:VAL:HG23	2.15	0.46
57:BZ:151:HIS:CA	57:BZ:171:ILE:HG23	2.29	0.46
1:AA:92:C:H3'	1:AA:93:G:C8	2.50	0.46
1:AA:477:A:O2'	1:AA:479:C:H5'	2.15	0.46
1:AA:652:U:C2	1:AA:752:G:N2	2.84	0.46
1:AA:681:C:O5'	1:AA:681:C:H6	1.98	0.46
1:AA:817:C:C5	1:AA:819:A:H1'	2.50	0.46
1:AA:940:C:H2'	1:AA:941:G:C8	2.50	0.46
1:AA:1026:G:C3'	1:AA:1027:C:H5'	2.44	0.46
1:AA:1144:G:N2	1:AA:1146:A:H62	2.14	0.46
1:AA:1284:C:O5'	1:AA:1284:C:H6	1.98	0.46
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.80	0.46
2:AB:121:LEU:HD21	2:AB:126:GLU:OE2	2.16	0.46
2:AB:142:LEU:CD2	2:AB:146:GLN:NE2	2.78	0.46
2:AB:223:ILE:O	2:AB:226:ARG:HB3	2.16	0.46
4:AD:22:LYS:NZ	4:AD:22:LYS:HB3	2.31	0.46
4:AD:155:LEU:O	4:AD:156:GLU:C	2.54	0.46
5:AE:75:THR:HG23	5:AE:76:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:100:VAL:O	5:AE:100:VAL:CG2	2.62	0.46
8:AH:35:ILE:HG22	8:AH:39:LEU:HD21	1.98	0.46
9:AI:111:ARG:O	9:AI:113:LYS:HD2	2.15	0.46
13:AM:70:LEU:O	13:AM:73:GLU:HB3	2.15	0.46
22:AV:71:C:N3	22:AV:72:A:C8	2.83	0.46
24:AY:409:ILE:HD12	24:AY:654:GLY:HA2	1.97	0.46
27:B2:6:VAL:HG13	27:B2:59:ARG:NH1	2.30	0.46
29:B4:31:ILE:HG23	29:B4:33:VAL:HG23	1.95	0.46
31:B6:8:LYS:O	31:B6:9:LEU:HD13	2.16	0.46
31:B6:11:LEU:HB3	31:B6:26:ASN:HD21	1.81	0.46
33:B8:13:ARG:NH2	35:BA:250:G:OP2	2.48	0.46
33:B8:31:HIS:HE1	35:BA:2392:A:OP2	1.98	0.46
35:BA:474:G:H4'	35:BA:475:U:OP1	2.14	0.46
35:BA:503:A:O2'	35:BA:504:U:O5'	2.30	0.46
35:BA:650:C:H3'	35:BA:651:G:H5''	1.97	0.46
35:BA:662:G:OP1	47:BP:18:ARG:CD	2.61	0.46
35:BA:911:A:N1	35:BA:2277:G:O2'	2.46	0.46
35:BA:1335:U:P	55:BX:65:ARG:NH2	2.88	0.46
35:BA:1448:G:N3	35:BA:1528(A):A:H2	2.13	0.46
35:BA:1858:G:HO2'	35:BA:1859:A:H8	1.61	0.46
35:BA:1887:C:H3'	35:BA:1888:G:H5''	1.96	0.46
35:BA:1978:A:C5	35:BA:1979:C:C5	3.04	0.46
35:BA:2056:G:C5	35:BA:2577:A:C4	3.04	0.46
35:BA:2395:C:H2'	35:BA:2396:G:C8	2.50	0.46
35:BA:2543:G:H2'	35:BA:2544:G:C8	2.50	0.46
35:BA:2582:G:H2'	35:BA:2582:G:N3	2.30	0.46
35:BA:2787:C:C2	39:BE:61:ARG:HD3	2.50	0.46
35:BA:2887:U:H2'	35:BA:2888:C:C6	2.51	0.46
36:BB:74:U:C2'	36:BB:75:G:H5'	2.46	0.46
36:BB:91:C:OP1	48:BQ:16:ARG:CG	2.60	0.46
37:BC:23:ILE:CB	37:BC:229:SER:OXT	2.55	0.46
38:BD:37:LEU:HD23	38:BD:37:LEU:HA	1.59	0.46
40:BF:153:SER:HA	40:BF:172:TRP:O	2.15	0.46
40:BF:192:LEU:CD2	40:BF:194:MET:HG3	2.43	0.46
41:BG:54:GLU:O	41:BG:57:ALA:HB3	2.14	0.46
42:BH:94:TYR:CD2	42:BH:107:VAL:HG12	2.50	0.46
43:BK:9:LYS:O	43:BK:10:LEU:O	2.33	0.46
47:BP:122:PRO:HA	47:BP:141:ALA:O	2.16	0.46
47:BP:146:VAL:CG1	47:BP:147:LEU:N	2.69	0.46
48:BQ:17:LEU:O	48:BQ:18:LYS:HD2	2.14	0.46
48:BQ:25:ASP:OD1	48:BQ:26:TYR:HD1	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:30:GLY:CA	48:BQ:107:ALA:HB2	2.46	0.46
48:BQ:51:ARG:O	48:BQ:54:MET:HB3	2.14	0.46
53:BV:39:LEU:N	53:BV:39:LEU:HD22	2.31	0.46
57:BZ:14:LYS:C	57:BZ:16:SER:H	2.18	0.46
1:AA:19:C:O2'	1:AA:20:U:H5'	2.15	0.46
1:AA:36:C:H4'	12:AL:122:THR:O	2.16	0.46
1:AA:328:C:C2'	1:AA:329:A:OP2	2.63	0.46
1:AA:432:A:C8	1:AA:433:C:C5	3.04	0.46
1:AA:680:C:O5'	1:AA:680:C:H6	1.99	0.46
1:AA:853:G:O2'	1:AA:854:G:H5'	2.15	0.46
1:AA:883:C:O2'	1:AA:884:U:H5'	2.15	0.46
1:AA:936:C:C2'	1:AA:937:A:H5'	2.44	0.46
1:AA:994:A:N7	1:AA:1216:G:H4'	2.30	0.46
1:AA:1227:A:C2'	13:AM:117:VAL:HG21	2.45	0.46
1:AA:1239:A:C2'	1:AA:1298:C:H42	2.19	0.46
1:AA:1296:C:C6	1:AA:1297:C:C5	3.02	0.46
1:AA:1316:G:O2'	14:AN:18:VAL:HG11	2.16	0.46
1:AA:1347:G:C6	9:AI:107:ARG:NH2	2.84	0.46
1:AA:1370:G:C2	1:AA:1371:G:N7	2.84	0.46
1:AA:1378:C:OP1	7:AG:7:ALA:CB	2.63	0.46
1:AA:1430:C:H2'	1:AA:1431:C:C6	2.51	0.46
2:AB:73:THR:HG23	2:AB:170:GLU:OE2	2.15	0.46
3:AC:53:ALA:O	3:AC:54:ARG:HG3	2.16	0.46
4:AD:200:GLU:CD	4:AD:200:GLU:H	2.17	0.46
5:AE:40:ARG:HG2	5:AE:40:ARG:HH11	1.80	0.46
8:AH:100:ILE:HD13	8:AH:112:LEU:HD11	1.97	0.46
8:AH:109:ILE:HG12	8:AH:110:ALA:H	1.79	0.46
13:AM:11:ARG:HG2	13:AM:12:ASN:H	1.80	0.46
13:AM:19:LEU:HD22	13:AM:19:LEU:H	1.78	0.46
13:AM:56:LEU:HD13	13:AM:60:VAL:HG23	1.97	0.46
13:AM:121:LYS:HD3	13:AM:121:LYS:H	1.77	0.46
22:AV:75:C:C3'	22:AV:75:C:C6	2.98	0.46
24:AY:99:ARG:HA	24:AY:128:TYR:CZ	2.51	0.46
24:AY:238:THR:HG23	24:AY:240:GLU:CG	2.39	0.46
24:AY:607:ARG:O	24:AY:671:MET:HA	2.14	0.46
35:BA:182:A:C2	35:BA:183:C:C2	3.04	0.46
35:BA:294:A:C2'	35:BA:295:G:H5'	2.44	0.46
35:BA:608:A:C6	35:BA:609:A:C6	3.04	0.46
35:BA:654(P):C:C5	35:BA:654(Q):C:C5	3.03	0.46
35:BA:876:C:H2'	35:BA:877:U:O4'	2.16	0.46
35:BA:1290:C:H2'	35:BA:1291:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1493:C:H2'	35:BA:1493:C:O2	2.15	0.46
35:BA:1509(B):A:H2'	35:BA:1510:G:C8	2.51	0.46
35:BA:2008:C:H2'	35:BA:2009:G:C8	2.50	0.46
35:BA:2181:G:H8	35:BA:2181:G:O5'	1.98	0.46
35:BA:2425:A:H5''	35:BA:2426:A:H3'	1.98	0.46
35:BA:2734:A:H2'	35:BA:2735:G:H5'	1.97	0.46
35:BA:2801:A:N3	35:BA:2801:A:H2'	2.31	0.46
35:BA:2893:G:H5'	35:BA:2894:G:C5'	2.46	0.46
37:BC:72:GLN:HB3	37:BC:74:ARG:HH12	1.79	0.46
37:BC:74:ARG:H	37:BC:112:ASP:HB2	1.80	0.46
38:BD:248:SER:CB	38:BD:249:PRO:HD2	2.43	0.46
41:BG:6:ALA:O	41:BG:7:LEU:C	2.53	0.46
41:BG:58:GLN:C	41:BG:60:LEU:N	2.69	0.46
41:BG:162:THR:O	41:BG:163:ALA:C	2.52	0.46
47:BP:47:ASP:CB	47:BP:51:PHE:HB2	2.46	0.46
49:BR:79:LEU:O	49:BR:79:LEU:HD22	2.15	0.46
50:BS:83:LYS:HE2	50:BS:83:LYS:HB3	1.66	0.46
51:BT:55:ASN:H	51:BT:59:THR:HG21	1.80	0.46
52:BU:8:VAL:CG2	52:BU:12:ARG:HE	2.28	0.46
53:BV:64:HIS:ND1	53:BV:92:THR:HG22	2.30	0.46
56:BY:105:ALA:O	56:BY:106:LEU:HB2	2.15	0.46
57:BZ:20:ARG:HG3	57:BZ:21:ALA:N	2.31	0.46
57:BZ:108:PRO:HG2	57:BZ:111:VAL:HG23	1.96	0.46
1:AA:55:A:H1'	24:AY:321:TYR:HA	1.97	0.46
1:AA:132:C:H5'	1:AA:262:A:H1'	1.97	0.46
1:AA:436:C:O2'	1:AA:437:U:P	2.74	0.46
1:AA:473:G:O2'	1:AA:474:G:H5'	2.16	0.46
1:AA:748:C:O2'	1:AA:749:C:O5'	2.34	0.46
1:AA:961:U:OP2	1:AA:1223:C:H4'	2.15	0.46
1:AA:1303:C:C2'	1:AA:1304:G:H5'	2.45	0.46
1:AA:1327:C:OP2	21:AU:12:LYS:NZ	2.47	0.46
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.46	0.46
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.51	0.46
5:AE:15:ARG:HG3	5:AE:28:PHE:CZ	2.50	0.46
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.29	0.46
6:AF:7:ASN:OD1	6:AF:62:TRP:CD1	2.67	0.46
9:AI:114:TYR:HD1	9:AI:114:TYR:H	1.64	0.46
10:AJ:51:ARG:H	10:AJ:60:ARG:HA	1.81	0.46
11:AK:79:SER:CB	11:AK:106:LYS:HD2	2.46	0.46
12:AL:41:ARG:HD2	12:AL:43:VAL:HG12	1.98	0.46
13:AM:54:VAL:O	13:AM:56:LEU:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:48:GLU:O	17:AQ:49:GLU:C	2.53	0.46
19:AS:31:ILE:HG23	19:AS:31:ILE:O	2.16	0.46
20:AT:62:LEU:HA	20:AT:65:LYS:HB2	1.98	0.46
24:AY:157:LEU:CD2	24:AY:157:LEU:N	2.61	0.46
25:B0:11:ARG:NH1	25:B0:11:ARG:CB	2.62	0.46
27:B2:46:GLN:OE1	27:B2:46:GLN:HA	2.14	0.46
30:B5:33:CYS:O	30:B5:34:PRO:C	2.52	0.46
31:B6:17:LYS:O	31:B6:20:ASN:ND2	2.49	0.46
31:B6:38:LYS:HB3	35:BA:2344:U:C5'	2.46	0.46
31:B6:47:THR:HG23	31:B6:49:HIS:ND1	2.31	0.46
32:B7:45:ALA:O	32:B7:46:VAL:CG2	2.64	0.46
35:BA:28:A:H1'	35:BA:513:A:C2	2.51	0.46
35:BA:643:A:C2'	35:BA:644:A:H5'	2.45	0.46
35:BA:979:G:N2	35:BA:985:C:N4	2.63	0.46
35:BA:1278:A:H1'	49:BR:27:SER:OG	2.16	0.46
35:BA:1683:C:O2'	35:BA:1684:C:H5'	2.16	0.46
35:BA:1749:A:N6	35:BA:1750:G:C5	2.83	0.46
35:BA:2055:C:H5'	35:BA:2056:G:H5''	1.97	0.46
35:BA:2245:U:H5'	35:BA:2246:G:C5'	2.37	0.46
35:BA:2343:C:H2'	35:BA:2344:U:C6	2.51	0.46
35:BA:2428:G:H4'	35:BA:2429:G:O5'	2.15	0.46
35:BA:2454:G:C2'	35:BA:2455:G:H5'	2.46	0.46
35:BA:2617:C:O2'	35:BA:2618:G:H5'	2.16	0.46
35:BA:2627:G:H2'	35:BA:2628:C:C6	2.51	0.46
37:BC:78:ILE:HG21	37:BC:124:VAL:CG2	2.45	0.46
38:BD:142:VAL:CG2	38:BD:192:THR:C	2.84	0.46
40:BF:74:ARG:O	40:BF:74:ARG:CG	2.64	0.46
41:BG:46:ALA:HA	41:BG:51:ARG:HB3	1.98	0.46
41:BG:119:GLY:CA	41:BG:181:ARG:H	2.28	0.46
41:BG:138:GLN:OE1	41:BG:153:ARG:HG2	2.16	0.46
48:BQ:110:THR:HG22	48:BQ:113:GLN:OE1	2.15	0.46
53:BV:38:LEU:HD12	53:BV:56:SER:CA	2.41	0.46
55:BX:56:THR:OG1	55:BX:57:LEU:N	2.47	0.46
1:AA:250:A:H4'	1:AA:251:G:O5'	2.15	0.46
1:AA:414:A:H2'	1:AA:415:A:O4'	2.16	0.46
1:AA:436:C:O2'	1:AA:437:U:C6	2.66	0.46
1:AA:514:C:H2'	1:AA:515:G:H8	1.80	0.46
1:AA:522:C:N4	12:AL:53:ARG:HH22	2.06	0.46
1:AA:961:U:O2	1:AA:983:A:H2'	2.16	0.46
1:AA:1004:A:H5'	1:AA:1025:U:H3	1.81	0.46
1:AA:1010:G:N1	1:AA:1020:U:H1'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1125:U:H2'	1:AA:1126:U:H2'	1.98	0.46
1:AA:1237:C:H5''	1:AA:1238:A:O4'	2.16	0.46
1:AA:1253:G:C2	1:AA:1254:C:C2	3.04	0.46
1:AA:1459:C:H2'	1:AA:1460:A:H8	1.80	0.46
2:AB:207:ALA:O	2:AB:208:ILE:C	2.54	0.46
4:AD:43:HIS:HB3	4:AD:46:LYS:HD3	1.98	0.46
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.98	0.46
9:AI:49:PRO:O	9:AI:52:ALA:HB3	2.15	0.46
10:AJ:27:ALA:CA	10:AJ:85:LEU:HD11	2.46	0.46
13:AM:49:THR:C	13:AM:51:ALA:N	2.68	0.46
14:AN:18:VAL:CG2	14:AN:19:ARG:N	2.78	0.46
15:AO:76:GLU:C	15:AO:78:TYR:N	2.68	0.46
19:AS:6:LYS:CE	19:AS:6:LYS:N	2.78	0.46
19:AS:79:THR:HG22	19:AS:80:TYR:N	2.30	0.46
20:AT:25:ARG:HH11	20:AT:25:ARG:HG3	1.81	0.46
20:AT:49:ALA:HB3	20:AT:99:LEU:HG	1.94	0.46
22:AV:52:G:C2	22:AV:53:G:C8	3.03	0.46
27:B2:38:GLN:CA	27:B2:41:ILE:HG12	2.46	0.46
35:BA:365:C:H6	35:BA:365:C:C5'	2.28	0.46
35:BA:511:U:H5	35:BA:512:G:C5	2.34	0.46
35:BA:581:C:C2	35:BA:582:G:N7	2.84	0.46
35:BA:645:C:O2	35:BA:645:C:C5'	2.59	0.46
35:BA:880:G:O2'	35:BA:881:G:H5'	2.16	0.46
35:BA:918:A:H5''	36:BB:98:G:O2'	2.16	0.46
35:BA:936:C:H2'	35:BA:937:U:H6	1.80	0.46
35:BA:1005:C:N3	35:BA:1143:A:C2	2.84	0.46
35:BA:1097:U:H2'	35:BA:1098:A:H5'	1.97	0.46
35:BA:1186:G:H2'	35:BA:1187:G:C5'	2.45	0.46
35:BA:1237:A:O2'	35:BA:1238:G:P	2.74	0.46
35:BA:2037:G:C6	35:BA:2038:G:C6	3.03	0.46
35:BA:2056:G:N2	35:BA:2057:A:N9	2.64	0.46
35:BA:2073:C:N4	35:BA:2436:G:H1	2.12	0.46
35:BA:2116:G:N7	35:BA:2117:A:C6	2.84	0.46
35:BA:2118:U:OP1	35:BA:2148:G:H4'	2.16	0.46
35:BA:2297:C:H2'	35:BA:2298:A:C5'	2.45	0.46
36:BB:34:U:O4	36:BB:44:G:H2'	2.15	0.46
37:BC:126:SER:O	37:BC:128:LEU:N	2.49	0.46
38:BD:200:ASP:O	38:BD:201:HIS:C	2.53	0.46
40:BF:24:LEU:O	40:BF:26:ALA:N	2.46	0.46
46:BO:4:PRO:HA	46:BO:21:CYS:SG	2.56	0.46
46:BO:7:TYR:C	46:BO:8:LEU:HD22	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:77:ILE:HD11	51:BT:72:VAL:CG1	2.46	0.46
47:BP:85:LEU:HD23	47:BP:85:LEU:N	2.18	0.46
49:BR:111:LEU:N	49:BR:111:LEU:HD23	2.31	0.46
50:BS:15:ARG:HB3	50:BS:18:ILE:CD1	2.43	0.46
53:BV:47:VAL:HB	53:BV:50:PRO:O	2.15	0.46
53:BV:66:ARG:CZ	53:BV:88:ARG:HH21	2.28	0.46
54:BW:12:ILE:HG23	54:BW:12:ILE:O	2.15	0.46
57:BZ:8:TYR:CD1	57:BZ:8:TYR:N	2.83	0.46
57:BZ:126:VAL:HG23	57:BZ:127:LYS:N	2.28	0.46
1:AA:161:A:H2'	1:AA:162:A:H8	1.80	0.46
1:AA:182:U:H3'	1:AA:183:G:H5'	1.97	0.46
1:AA:502:G:OP1	12:AL:118:SER:CB	2.63	0.46
1:AA:533:A:OP1	1:AA:533:A:H3'	2.16	0.46
1:AA:560:U:H4'	1:AA:561:U:C5'	2.45	0.46
1:AA:722:A:H3'	1:AA:722:A:N3	2.31	0.46
1:AA:812:C:HO2'	1:AA:813:U:P	2.32	0.46
1:AA:1294:G:H2'	1:AA:1295:G:H5'	1.97	0.46
1:AA:1347:G:C2'	1:AA:1348:U:OP2	2.64	0.46
1:AA:1378:C:OP1	7:AG:7:ALA:HB3	2.16	0.46
1:AA:1414:U:H2'	1:AA:1415:G:C8	2.51	0.46
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.51	0.46
2:AB:223:ILE:HG23	2:AB:226:ARG:CZ	2.45	0.46
3:AC:156:ARG:O	3:AC:159:GLY:N	2.44	0.46
5:AE:76:ILE:CD1	5:AE:142:LEU:HD21	2.46	0.46
8:AH:120:THR:O	8:AH:121:ASP:C	2.51	0.46
9:AI:79:LEU:CD1	9:AI:79:LEU:C	2.84	0.46
10:AJ:6:ILE:C	10:AJ:6:ILE:CD1	2.84	0.46
12:AL:58:VAL:O	12:AL:65:GLU:HA	2.16	0.46
16:AP:9:PHE:CE2	16:AP:18:ARG:NE	2.84	0.46
18:AR:53:ARG:HH21	18:AR:59:SER:HA	1.80	0.46
24:AY:230:LYS:HB2	24:AY:230:LYS:HZ2	1.80	0.46
30:B5:51:TYR:HD1	30:B5:52:TYR:H	1.63	0.46
31:B6:12:GLU:HG2	31:B6:23:THR:CG2	2.45	0.46
31:B6:15:GLU:CD	31:B6:44:ARG:HH22	2.16	0.46
33:B8:36:LYS:O	33:B8:37:SER:C	2.53	0.46
34:B9:4:ARG:NH1	35:BA:2477:C:C4	2.77	0.46
35:BA:25:U:H2'	35:BA:26:G:O4'	2.16	0.46
35:BA:83:G:C2'	35:BA:84:A:OP2	2.63	0.46
35:BA:84:A:H5'	56:BY:9:LYS:HB3	1.97	0.46
35:BA:750:A:C3'	35:BA:751:A:H5''	2.46	0.46
35:BA:1022:G:N2	35:BA:1024:G:N2	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1079:C:C1'	43:BK:132:ARG:HH22	2.28	0.46
35:BA:1115:G:H2'	35:BA:1116:C:C6	2.51	0.46
35:BA:1326:U:O2'	35:BA:1327:C:H5'	2.15	0.46
35:BA:1390:U:H3	35:BA:1395:A:H62	1.64	0.46
35:BA:1951:U:H2'	35:BA:1953:A:OP2	2.15	0.46
35:BA:2052:G:OP1	39:BE:141:ILE:HG12	2.16	0.46
35:BA:2078:C:C1'	35:BA:2434:A:H1'	2.46	0.46
35:BA:2189:U:C3'	35:BA:2190:G:C5'	2.93	0.46
35:BA:2310:A:C8	41:BG:75:LYS:NZ	2.69	0.46
35:BA:2392:A:H2	35:BA:2424:C:H42	1.63	0.46
35:BA:2713:A:C3'	35:BA:2714:G:C5'	2.93	0.46
39:BE:25:VAL:HG22	39:BE:183:LEU:HG	1.98	0.46
40:BF:179:GLU:C	40:BF:181:LEU:H	2.19	0.46
42:BH:17:VAL:HB	42:BH:45:VAL:HG13	1.97	0.46
42:BH:41:MET:SD	42:BH:53:GLU:C	2.94	0.46
42:BH:65:HIS:HE1	42:BH:69:ARG:NH1	2.13	0.46
43:BK:57:ILE:HD12	43:BK:57:ILE:N	2.30	0.46
43:BK:78:ILE:CD1	43:BK:136:VAL:HG11	2.45	0.46
44:BL:110:LEU:HB3	44:BL:117:VAL:HG21	1.96	0.46
46:BO:104:ARG:NH2	51:BT:33:LYS:HD2	2.30	0.46
46:BO:114:ILE:O	46:BO:117:LEU:N	2.36	0.46
47:BP:16:ARG:NH1	47:BP:16:ARG:HB2	2.31	0.46
48:BQ:27:VAL:HG11	48:BQ:134:ARG:HD3	1.98	0.46
51:BT:16:ARG:HG3	51:BT:16:ARG:HH11	1.81	0.46
51:BT:24:PRO:HA	51:BT:49:VAL:HG22	1.97	0.46
51:BT:55:ASN:O	51:BT:55:ASN:CG	2.54	0.46
51:BT:57:PHE:C	51:BT:58:ASN:ND2	2.65	0.46
52:BU:12:ARG:HB3	52:BU:16:LYS:HE3	1.97	0.46
54:BW:70:TYR:HB3	54:BW:110:LYS:NZ	2.31	0.46
57:BZ:11:GLU:H	57:BZ:11:GLU:CD	2.17	0.46
57:BZ:99:TYR:HE1	57:BZ:125:LEU:HD13	1.79	0.46
1:AA:10:A:H2'	1:AA:11:G:H8	1.79	0.46
1:AA:147:G:C2	1:AA:148:G:C8	3.03	0.46
1:AA:226:G:O2'	1:AA:227:G:H5'	2.16	0.46
1:AA:450:G:H1	1:AA:483:C:N4	2.12	0.46
1:AA:715:A:H2'	1:AA:716:A:H8	1.81	0.46
1:AA:943:U:H2'	1:AA:944:G:C5'	2.43	0.46
1:AA:961:U:H2'	1:AA:962:C:C5'	2.46	0.46
1:AA:999:C:H3'	1:AA:999:C:C6	2.51	0.46
1:AA:1021:G:H2'	1:AA:1022:G:O5'	2.16	0.46
1:AA:1081:G:O2'	1:AA:1082:G:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1221:G:P	19:AS:36:ARG:HD3	2.55	0.46
1:AA:1368:G:C5'	9:AI:112:LYS:O	2.63	0.46
1:AA:1518:A:H2'	1:AA:1519:A:O4'	2.15	0.46
2:AB:11:LEU:O	2:AB:12:GLU:O	2.34	0.46
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.16	0.46
8:AH:103:VAL:HG23	8:AH:110:ALA:HB2	1.93	0.46
10:AJ:63:PHE:HA	14:AN:59:ALA:CB	2.46	0.46
13:AM:63:THR:CG2	13:AM:64:TRP:H	2.17	0.46
13:AM:70:LEU:HD23	13:AM:71:ARG:N	2.31	0.46
17:AQ:60:ILE:HG22	17:AQ:72:ARG:O	2.16	0.46
24:AY:73:PHE:CE1	24:AY:78:ARG:HB2	2.50	0.46
24:AY:166:LEU:HD12	24:AY:166:LEU:N	2.30	0.46
24:AY:513:LYS:HD2	24:AY:568:TYR:CD2	2.51	0.46
24:AY:524:GLU:O	24:AY:565:VAL:N	2.31	0.46
33:B8:29:LYS:HD2	33:B8:44:LYS:HG2	1.98	0.46
33:B8:48:PHE:HB3	33:B8:49:VAL:H	1.45	0.46
35:BA:532:A:N1	35:BA:2020:A:H1'	2.30	0.46
35:BA:810:U:OP1	35:BA:1253:A:N7	2.49	0.46
35:BA:1109:C:O2	35:BA:1109:C:H2'	2.16	0.46
35:BA:1186:G:H2'	35:BA:1187:G:H5'	1.98	0.46
35:BA:1210:A:O2'	35:BA:1211:U:P	2.74	0.46
35:BA:1219:G:C2	35:BA:1221:C:N4	2.84	0.46
35:BA:1301:A:C8	35:BA:1303:G:C8	3.03	0.46
35:BA:1799:G:H5'	35:BA:1819:A:N6	2.31	0.46
35:BA:1902:C:O2'	38:BD:244:ARG:NE	2.40	0.46
35:BA:2378:A:H2'	35:BA:2379:G:O4'	2.15	0.46
35:BA:2594:C:C2'	35:BA:2595:G:H5'	2.46	0.46
35:BA:2785:C:O2'	35:BA:2786:U:H5'	2.16	0.46
36:BB:4:C:H2'	36:BB:5:C:C6	2.50	0.46
36:BB:13:A:O2'	36:BB:15:A:H5''	2.16	0.46
36:BB:94:C:H2'	36:BB:95:C:H6	1.81	0.46
39:BE:32:PRO:HA	39:BE:90:THR:HG23	1.98	0.46
40:BF:107:LYS:O	40:BF:110:LEU:N	2.44	0.46
41:BG:145:THR:OG1	41:BG:146:TYR:N	2.48	0.46
43:BK:4:VAL:HG12	43:BK:5:VAL:H	1.80	0.46
43:BK:30:HIS:CG	43:BK:59:ILE:HB	2.51	0.46
47:BP:106:LEU:N	47:BP:106:LEU:HD12	2.30	0.46
47:BP:112:LEU:N	47:BP:128:HIS:CD2	2.80	0.46
50:BS:52:SER:O	50:BS:69:VAL:HG23	2.16	0.46
51:BT:6:LEU:O	51:BT:7:ILE:C	2.54	0.46
51:BT:11:GLU:H	51:BT:11:GLU:CD	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:76:PHE:HA	51:BT:77:PRO:HD3	1.63	0.46
52:BU:21:ALA:O	52:BU:22:LYS:C	2.53	0.46
53:BV:32:THR:CG2	53:BV:33:VAL:N	2.79	0.46
54:BW:82:LEU:N	54:BW:82:LEU:CD1	2.79	0.46
57:BZ:41:LEU:HD23	57:BZ:41:LEU:HA	1.70	0.46
1:AA:202:U:H5'	1:AA:203:U:C5	2.49	0.46
1:AA:756:C:H2'	1:AA:757:U:O4'	2.16	0.46
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.16	0.46
1:AA:837:G:O2'	1:AA:838:G:H5'	2.16	0.46
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.29	0.46
1:AA:1002:G:H22	1:AA:1039:C:H2'	1.81	0.46
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.50	0.46
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.51	0.46
1:AA:1321:C:C5'	1:AA:1322:C:C5'	2.93	0.46
1:AA:1411:C:C2'	1:AA:1412:C:H5'	2.46	0.46
1:AA:1495:U:H2'	1:AA:1496:C:C6	2.51	0.46
1:AA:1517:G:O2'	1:AA:1518:A:H5'	2.16	0.46
4:AD:61:LYS:NZ	4:AD:72:GLU:OE1	2.34	0.46
4:AD:196:LEU:C	4:AD:198:VAL:N	2.65	0.46
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.15	0.46
5:AE:42:GLY:CA	5:AE:66:MET:HG2	2.44	0.46
5:AE:82:VAL:HG21	5:AE:138:ALA:CA	2.39	0.46
6:AF:60:PHE:CD1	6:AF:60:PHE:N	2.84	0.46
9:AI:5:TYR:CE1	9:AI:18:PHE:CE1	2.98	0.46
11:AK:15:ALA:HB1	11:AK:78:GLN:HG3	1.97	0.46
11:AK:126:ARG:HG2	11:AK:126:ARG:HH11	1.81	0.46
15:AO:54:ARG:HG2	15:AO:58:MET:HE2	1.98	0.46
17:AQ:53:LEU:CD2	17:AQ:85:VAL:HG21	2.46	0.46
17:AQ:57:VAL:HG23	17:AQ:58:GLU:N	2.30	0.46
26:B1:3:LYS:HE3	35:BA:1364:G:C8	2.51	0.46
26:B1:52:ARG:NH2	35:BA:2218:U:O2'	2.45	0.46
33:B8:53:PRO:HG2	33:B8:54:GLU:N	2.30	0.46
35:BA:13:A:H1'	35:BA:15:G:N7	2.31	0.46
35:BA:226:G:O2'	35:BA:227:A:C8	2.48	0.46
35:BA:303:U:H2'	35:BA:304:G:H8	1.78	0.46
35:BA:685:A:C6	35:BA:774:A:C2	3.04	0.46
35:BA:833:U:O2	47:BP:55:ARG:NH2	2.48	0.46
35:BA:898:C:H2'	35:BA:899:A:O4'	2.16	0.46
35:BA:971:C:O2	35:BA:971:C:H2'	2.16	0.46
35:BA:1332:G:H22	35:BA:1609:A:H3'	1.81	0.46
35:BA:1651:G:C2	35:BA:2007:C:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1668:A:H2	35:BA:1670:C:N3	2.14	0.46
35:BA:1819:A:H1'	35:BA:1821:A:C5	2.51	0.46
35:BA:2258:C:H3'	35:BA:2259:G:H8	1.80	0.46
35:BA:2306:C:C5	35:BA:2307:G:O2'	2.65	0.46
35:BA:2656:U:N3	35:BA:2665:A:H2	2.14	0.46
35:BA:2701:C:O5'	35:BA:2701:C:H6	1.99	0.46
37:BC:60:ARG:HG2	37:BC:61:GLY:H	1.81	0.46
37:BC:155:ARG:O	37:BC:159:ALA:HB2	2.16	0.46
37:BC:156:GLU:CD	37:BC:161:ARG:HD3	2.36	0.46
37:BC:164:PHE:O	37:BC:165:ARG:HB2	2.16	0.46
37:BC:184:GLU:H	37:BC:184:GLU:CD	2.19	0.46
38:BD:161:THR:O	38:BD:162:SER:HB3	2.16	0.46
38:BD:213:ARG:C	38:BD:215:LEU:N	2.69	0.46
40:BF:192:LEU:HD21	40:BF:194:MET:CG	2.43	0.46
42:BH:40:GLU:O	42:BH:41:MET:CB	2.62	0.46
42:BH:41:MET:SD	42:BH:53:GLU:HB2	2.55	0.46
46:BO:17:ARG:HB2	46:BO:45:GLU:HG3	1.96	0.46
46:BO:20:MET:HE3	46:BO:44:LYS:HE3	1.97	0.46
47:BP:102:ARG:NH1	47:BP:102:ARG:CB	2.79	0.46
51:BT:50:ILE:HA	51:BT:99:LEU:CD1	2.46	0.46
56:BY:38:ILE:HG23	56:BY:39:VAL:N	2.30	0.46
1:AA:312:C:H2'	1:AA:313:A:H8	1.80	0.45
1:AA:472:A:H3'	1:AA:473:G:C8	2.52	0.45
1:AA:474:G:N3	1:AA:475:G:C8	2.84	0.45
1:AA:642:A:C5	1:AA:643:C:C4	3.04	0.45
1:AA:675:A:C2'	1:AA:676:A:H5'	2.46	0.45
1:AA:851:G:H2'	1:AA:852:G:H8	1.81	0.45
1:AA:961:U:C2'	1:AA:962:C:H5'	2.46	0.45
1:AA:999:C:H2'	1:AA:1000:U:C4	2.50	0.45
1:AA:1115:C:H1'	14:AN:61:TRP:O	2.15	0.45
1:AA:1124:G:C5'	10:AJ:35:SER:HB2	2.45	0.45
1:AA:1198:G:O2'	1:AA:1199:U:H5'	2.15	0.45
1:AA:1254:C:H2'	1:AA:1255:G:H8	1.81	0.45
1:AA:1347:G:H2'	1:AA:1373:G:O6	2.16	0.45
1:AA:1363(A):A:C4'	1:AA:1364:U:H5''	2.38	0.45
2:AB:87:ARG:NH2	2:AB:219:VAL:HB	2.31	0.45
3:AC:35:GLU:OE2	3:AC:59:ARG:NH1	2.49	0.45
5:AE:81:GLU:HA	5:AE:89:ILE:O	2.16	0.45
7:AG:140:ASP:O	7:AG:144:MET:HG2	2.15	0.45
16:AP:48:TRP:CD1	16:AP:48:TRP:N	2.74	0.45
19:AS:29:ARG:HB3	19:AS:47:HIS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:75:C:H3'	22:AV:75:C:C6	2.51	0.45
22:AV:75:C:HO2'	26:B1:30:VAL:HG11	1.73	0.45
24:AY:145:ASP:OD2	24:AY:148:LEU:HB2	2.16	0.45
24:AY:261:GLY:CA	24:AY:267:LYS:O	2.58	0.45
24:AY:286:ILE:N	24:AY:286:ILE:CD1	2.78	0.45
24:AY:290:LYS:HD3	24:AY:298:VAL:CG2	2.46	0.45
24:AY:329:ARG:HG3	24:AY:331:TYR:CZ	2.51	0.45
24:AY:583:LYS:O	24:AY:587:SER:HB2	2.16	0.45
24:AY:597:GLY:O	24:AY:598:ASP:O	2.34	0.45
27:B2:59:ARG:O	27:B2:60:LEU:C	2.53	0.45
28:B3:15:TYR:O	28:B3:20:LYS:HE2	2.16	0.45
30:B5:2:ALA:N	35:BA:2015:A:N3	2.63	0.45
30:B5:30:LEU:HD23	30:B5:40:LYS:C	2.37	0.45
33:B8:30:ARG:O	33:B8:31:HIS:HB3	2.16	0.45
35:BA:156:U:H5''	35:BA:156:U:O2	2.16	0.45
35:BA:518:G:H4'	54:BW:18:ARG:NH1	2.31	0.45
35:BA:588:U:H1'	40:BF:90:PHE:CG	2.51	0.45
35:BA:945:A:C2	35:BA:2448:A:N1	2.83	0.45
35:BA:1499:C:C2'	35:BA:1500:G:H5'	2.46	0.45
35:BA:1567:A:C5'	38:BD:58:HIS:HD2	2.30	0.45
35:BA:1947:C:H2'	35:BA:1948:G:H8	1.81	0.45
35:BA:2297:C:H2'	35:BA:2298:A:H5'	1.97	0.45
35:BA:2573:C:OP1	35:BA:2574:G:OP1	2.33	0.45
35:BA:2697:G:C6	35:BA:2711:A:N1	2.84	0.45
35:BA:2758:A:C2'	35:BA:2759:G:H5'	2.46	0.45
36:BB:104:U:H6	36:BB:104:U:C5'	2.29	0.45
36:BB:118:G:C2	36:BB:119:G:C8	3.04	0.45
38:BD:206:LEU:HD13	38:BD:212:SER:OG	2.16	0.45
39:BE:170:LEU:HD12	39:BE:170:LEU:N	2.31	0.45
40:BF:11:VAL:HG12	40:BF:12:LEU:N	2.32	0.45
40:BF:110:LEU:HD12	40:BF:206:ILE:HD11	1.96	0.45
40:BF:123:LEU:HD12	40:BF:124:LEU:H	1.73	0.45
42:BH:136:ILE:HD12	42:BH:136:ILE:H	1.81	0.45
42:BH:158:HIS:CD2	42:BH:158:HIS:N	2.83	0.45
43:BK:134:MET:HE2	43:BK:136:VAL:HG11	1.98	0.45
45:BN:125:GLY:HA3	45:BN:126:PRO:C	2.37	0.45
47:BP:45:LEU:HG	47:BP:46:LYS:H	1.80	0.45
47:BP:83:VAL:HG13	47:BP:114:ILE:HA	1.97	0.45
51:BT:65:LYS:CE	51:BT:66:VAL:N	2.56	0.45
51:BT:65:LYS:O	51:BT:72:VAL:N	2.33	0.45
51:BT:93:ARG:HA	51:BT:93:ARG:HD2	1.71	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:90:VAL:O	52:BU:92:ARG:N	2.50	0.45
53:BV:40:LEU:HD13	53:BV:46:VAL:H	1.81	0.45
56:BY:61:ILE:CG1	56:BY:62:GLU:N	2.79	0.45
57:BZ:144:LEU:HD22	57:BZ:144:LEU:N	2.32	0.45
1:AA:9:G:OP1	5:AE:122:GLU:HG3	2.16	0.45
1:AA:238:G:P	17:AQ:25:ARG:HH22	2.39	0.45
1:AA:282:A:H3'	1:AA:283:C:C6	2.52	0.45
1:AA:311:C:C2	1:AA:312:C:C6	3.05	0.45
1:AA:457:C:C4	1:AA:458:C:C5	3.04	0.45
1:AA:472:A:H1'	16:AP:82:GLN:OE1	2.17	0.45
1:AA:660:G:H2'	1:AA:661:G:O4'	2.16	0.45
1:AA:828:A:H2'	1:AA:829:G:O5'	2.15	0.45
1:AA:893:C:O2'	1:AA:894:G:H5'	2.16	0.45
1:AA:1159:U:C5	1:AA:1182:G:C5	3.05	0.45
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.51	0.45
1:AA:1202:G:H2'	1:AA:1203:C:C5'	2.45	0.45
1:AA:1202:G:H2'	1:AA:1203:C:H5'	1.97	0.45
1:AA:1333:A:C2	1:AA:1334:G:H1'	2.50	0.45
5:AE:107:ARG:HG3	5:AE:111:GLU:HG3	1.97	0.45
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.32	0.45
12:AL:111:LYS:HG2	12:AL:112:ASP:OD1	2.16	0.45
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.98	0.45
18:AR:31:LEU:CD2	18:AR:31:LEU:N	2.76	0.45
22:AV:61:C:HO2'	22:AV:62:C:H5'	1.78	0.45
24:AY:17:ILE:HG22	24:AY:25:LYS:HG2	1.96	0.45
24:AY:282:SER:C	24:AY:284:LEU:N	2.68	0.45
24:AY:647:VAL:HA	24:AY:648:PRO:HD3	1.69	0.45
27:B2:12:GLU:O	27:B2:15:LYS:HG3	2.16	0.45
30:B5:50:GLY:HA2	30:B5:56:LYS:HB3	1.99	0.45
31:B6:15:GLU:HB2	31:B6:49:HIS:CE1	2.51	0.45
31:B6:25:LYS:O	35:BA:2286:A:N1	2.48	0.45
33:B8:30:ARG:NH1	35:BA:2419:U:O4	2.49	0.45
35:BA:157:U:H5'	35:BA:158:U:OP2	2.16	0.45
35:BA:614(B):G:H5''	35:BA:614(C):A:OP1	2.16	0.45
35:BA:782:A:C2	38:BD:226:MET:HG2	2.51	0.45
35:BA:1147:C:H2'	35:BA:1148:A:H8	1.81	0.45
35:BA:1325:G:OP2	35:BA:1616:A:H2'	2.16	0.45
35:BA:1363:C:H2'	35:BA:1364:G:H8	1.79	0.45
35:BA:1794:U:H2'	35:BA:1795:C:C6	2.51	0.45
35:BA:1829:A:N3	38:BD:15:PHE:HZ	2.13	0.45
35:BA:2105:C:H2'	35:BA:2106:G:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2837:G:C6	35:BA:2838:G:N7	2.84	0.45
36:BB:29:A:C2	36:BB:56:G:C2	3.04	0.45
36:BB:68:C:H2'	36:BB:69:G:C8	2.49	0.45
36:BB:105:A:P	57:BZ:72:ARG:HH12	2.40	0.45
36:BB:117:G:O2'	36:BB:118:G:H5'	2.17	0.45
37:BC:77:ALA:C	37:BC:78:ILE:HG13	2.36	0.45
38:BD:134:ARG:HD3	38:BD:188:GLU:OE2	2.16	0.45
39:BE:21:VAL:O	39:BE:21:VAL:CG2	2.63	0.45
39:BE:77:ILE:HG22	39:BE:78:LEU:HG	1.98	0.45
39:BE:93:VAL:O	39:BE:95:ILE:N	2.49	0.45
45:BN:126:PRO:O	45:BN:127:ASP:HB2	2.16	0.45
46:BO:18:LYS:HB2	46:BO:45:GLU:HG2	1.98	0.45
47:BP:143:GLY:C	47:BP:145:PRO:HD3	2.36	0.45
51:BT:31:SER:OG	51:BT:32:TYR:N	2.44	0.45
51:BT:118:ARG:O	51:BT:122:ASP:N	2.39	0.45
52:BU:33:ARG:C	52:BU:35:ALA:H	2.19	0.45
54:BW:13:SER:HB3	54:BW:16:LYS:HG3	1.98	0.45
55:BX:7:VAL:CG1	55:BX:39:ILE:HD13	2.47	0.45
56:BY:43:ASN:HA	56:BY:64:GLU:HA	1.96	0.45
1:AA:222:U:H2'	1:AA:223:U:C6	2.51	0.45
1:AA:346:G:N2	1:AA:347:G:C5	2.84	0.45
1:AA:649:G:H2'	1:AA:650:G:O4'	2.16	0.45
1:AA:885:G:H2'	1:AA:886:G:H8	1.81	0.45
1:AA:1011:G:O2'	1:AA:1012:U:H5'	2.16	0.45
1:AA:1226:C:H5'	13:AM:96:LEU:CD1	2.46	0.45
1:AA:1234:C:H4'	1:AA:1364:U:H1'	1.97	0.45
1:AA:1345:U:O2	1:AA:1375:A:N6	2.49	0.45
3:AC:40:ARG:HH11	3:AC:40:ARG:HG3	1.80	0.45
3:AC:149:ALA:HA	3:AC:201:TYR:O	2.17	0.45
4:AD:57:ARG:HG3	4:AD:202:LEU:HD22	1.97	0.45
5:AE:5:ASP:C	5:AE:6:PHE:CG	2.90	0.45
5:AE:76:ILE:CG1	5:AE:77:PRO:CD	2.93	0.45
12:AL:104:VAL:HG12	12:AL:105:TYR:CE1	2.50	0.45
15:AO:18:PHE:CD1	15:AO:18:PHE:C	2.89	0.45
18:AR:29:PHE:HD1	18:AR:29:PHE:O	1.99	0.45
19:AS:65:ASN:CA	29:B4:48:ARG:HH22	2.29	0.45
20:AT:48:LYS:HB3	20:AT:51:GLU:CG	2.46	0.45
20:AT:87:LYS:HD2	20:AT:87:LYS:HA	1.79	0.45
24:AY:257:PRO:HB2	24:AY:259:PHE:HE1	1.81	0.45
24:AY:285:ASP:C	24:AY:286:ILE:HD12	2.37	0.45
25:B0:27:GLU:HG3	25:B0:68:GLU:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:2:LYS:HG2	36:BB:44:G:P	2.56	0.45
31:B6:5:VAL:CG2	35:BA:2283:C:OP1	2.65	0.45
35:BA:67:U:C2	35:BA:68:G:C8	3.04	0.45
35:BA:194:G:H2'	35:BA:195:A:O4'	2.17	0.45
35:BA:685:A:C5	35:BA:774:A:C2	3.04	0.45
35:BA:807:U:OP2	47:BP:39:LYS:HG3	2.16	0.45
35:BA:1047:G:O2'	35:BA:1110:G:N2	2.48	0.45
35:BA:1186:G:C2'	35:BA:1187:G:H5'	2.46	0.45
35:BA:1770:G:C2'	35:BA:1771:C:H5'	2.47	0.45
35:BA:1814:G:C4'	38:BD:51:VAL:HG21	2.47	0.45
37:BC:37:LYS:C	37:BC:38:PHE:CD1	2.89	0.45
37:BC:80:LYS:HB2	37:BC:120:VAL:HG13	1.97	0.45
38:BD:267:SER:C	38:BD:269:PHE:H	2.19	0.45
39:BE:144:ARG:HB3	39:BE:145:LYS:H	1.59	0.45
40:BF:181:LEU:O	40:BF:205:ARG:NH1	2.49	0.45
41:BG:62:LEU:N	41:BG:62:LEU:HD12	2.31	0.45
41:BG:111:LEU:N	41:BG:112:PRO:CD	2.80	0.45
45:BN:55:VAL:CG2	45:BN:127:ASP:N	2.80	0.45
45:BN:120:LEU:HD13	45:BN:121:LYS:N	2.31	0.45
49:BR:54:LEU:CD2	49:BR:66:VAL:HG22	2.46	0.45
51:BT:70:VAL:HG12	51:BT:71:GLY:H	1.80	0.45
52:BU:13:LYS:O	52:BU:16:LYS:HB2	2.16	0.45
53:BV:41:GLY:N	53:BV:45:THR:OG1	2.49	0.45
53:BV:51:VAL:CG1	53:BV:52:VAL:N	2.43	0.45
1:AA:129(A):G:C6	1:AA:189(E):U:H4'	2.52	0.45
1:AA:262:A:C6	1:AA:263:A:C6	3.05	0.45
1:AA:973:G:H1'	10:AJ:55:LYS:HZ3	1.77	0.45
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.57	0.45
1:AA:1511:G:C2'	1:AA:1512:U:H5'	2.46	0.45
2:AB:229:VAL:HG12	2:AB:230:VAL:N	2.31	0.45
5:AE:20:GLN:HE21	5:AE:20:GLN:C	2.19	0.45
6:AF:50:TYR:HB2	6:AF:51:PRO:HD2	1.99	0.45
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.37	0.45
6:AF:87:ARG:HG2	6:AF:87:ARG:HH11	1.82	0.45
7:AG:79:ARG:HG3	7:AG:79:ARG:NH1	2.30	0.45
10:AJ:27:ALA:HA	10:AJ:85:LEU:HD11	1.98	0.45
10:AJ:79:ARG:HG2	10:AJ:79:ARG:NH1	2.30	0.45
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.31	0.45
12:AL:39:VAL:O	12:AL:40:VAL:CG2	2.63	0.45
12:AL:75:HIS:ND1	12:AL:75:HIS:C	2.70	0.45
19:AS:6:LYS:HB3	19:AS:6:LYS:HE3	1.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:31:ILE:CG2	19:AS:49:ILE:HG12	2.47	0.45
22:AV:2:G:C6	22:AV:3:C:N4	2.85	0.45
24:AY:415:PRO:CB	24:AY:421:GLN:HA	2.47	0.45
26:B1:48:LYS:NZ	35:BA:1363:C:OP1	2.44	0.45
27:B2:55:ARG:HG3	27:B2:55:ARG:NH1	2.30	0.45
28:B3:46:ASN:O	28:B3:49:LYS:N	2.48	0.45
35:BA:154(A):C:C3'	35:BA:155:U:H5''	2.47	0.45
35:BA:186:G:C2	35:BA:211:A:C2	3.04	0.45
35:BA:301:G:C4	35:BA:302:C:C4	3.05	0.45
35:BA:620:G:H4'	35:BA:621:A:C5'	2.47	0.45
35:BA:1049:C:H2'	35:BA:1050:A:C8	2.37	0.45
35:BA:1102:C:H2'	35:BA:1103:A:H8	1.79	0.45
35:BA:1146:C:O2	35:BA:1146:C:C2'	2.63	0.45
35:BA:1319:G:C2	35:BA:1334:G:C6	3.04	0.45
35:BA:1418:G:H8	35:BA:1418:G:O5'	2.00	0.45
35:BA:1446:C:H2'	35:BA:1447:G:H8	1.81	0.45
35:BA:1755:A:P	51:BT:113:LYS:NZ	2.90	0.45
35:BA:1835:G:N3	35:BA:1835:G:H2'	2.30	0.45
35:BA:1882:C:H2'	35:BA:1883:G:O4'	2.16	0.45
35:BA:2248:C:O2'	35:BA:2249:U:H5'	2.17	0.45
35:BA:2376:A:H2'	35:BA:2377:A:O4'	2.16	0.45
35:BA:2657:A:H3'	35:BA:2658:C:H6	1.81	0.45
35:BA:2810:A:H2'	39:BE:61:ARG:HH21	1.80	0.45
37:BC:88:GLU:N	37:BC:95:VAL:HG21	2.32	0.45
41:BG:15:VAL:HG21	41:BG:176:LEU:HD23	1.99	0.45
41:BG:68:PRO:CA	41:BG:92:VAL:HG12	2.34	0.45
41:BG:77:ILE:CG2	41:BG:80:PHE:HB2	2.46	0.45
42:BH:19:VAL:CG1	42:BH:20:ALA:N	2.72	0.45
45:BN:91:LEU:HD23	45:BN:98:VAL:HG21	1.98	0.45
45:BN:133:GLN:HG3	45:BN:134:ARG:H	1.82	0.45
46:BO:52:VAL:CG1	46:BO:53:LYS:N	2.79	0.45
47:BP:98:GLU:C	47:BP:101:VAL:HG22	2.35	0.45
49:BR:18:LEU:HD23	49:BR:19:ALA:N	2.32	0.45
51:BT:75:ILE:N	51:BT:75:ILE:HD12	2.31	0.45
52:BU:91:ASP:O	52:BU:92:ARG:HB3	2.16	0.45
54:BW:13:SER:HA	54:BW:14:PRO:HD3	1.86	0.45
54:BW:14:PRO:HG2	54:BW:78:GLU:CB	2.44	0.45
55:BX:12:VAL:O	55:BX:13:LEU:HB2	2.17	0.45
56:BY:31:LEU:CB	56:BY:32:PRO:CA	2.92	0.45
56:BY:84:ARG:NE	56:BY:97:ARG:NH1	2.64	0.45
56:BY:88:LYS:N	56:BY:88:LYS:HD2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:111:VAL:O	57:BZ:112:ARG:HB2	2.16	0.45
57:BZ:158:PRO:HB3	57:BZ:159:PRO:CD	2.46	0.45
1:AA:66:G:C4'	1:AA:173:U:C5	2.99	0.45
1:AA:409:G:H5'	4:AD:25:ARG:HB2	1.98	0.45
1:AA:651:C:H2'	1:AA:652:U:C6	2.51	0.45
1:AA:691:G:O6	11:AK:55:LYS:HE2	2.16	0.45
1:AA:781:A:H3'	1:AA:782:A:C5'	2.47	0.45
1:AA:1015:A:C5	1:AA:1016:A:C5	3.04	0.45
1:AA:1153:C:H2'	1:AA:1154:G:O4'	2.15	0.45
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.52	0.45
2:AB:75:LYS:HG2	2:AB:78:GLN:NE2	2.31	0.45
2:AB:189:ASP:C	2:AB:191:ASP:H	2.18	0.45
3:AC:11:ARG:HH11	3:AC:11:ARG:HG2	1.81	0.45
4:AD:108:LEU:O	4:AD:165:MET:HE2	2.16	0.45
7:AG:73:MET:CA	7:AG:91:VAL:HG23	2.44	0.45
12:AL:39:VAL:C	12:AL:40:VAL:CG2	2.84	0.45
12:AL:123:LYS:O	12:AL:125:PRO:HD3	2.17	0.45
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.64	0.45
19:AS:41:VAL:CG2	19:AS:44:MET:O	2.64	0.45
20:AT:33:ILE:HD13	20:AT:63:ILE:HG13	1.98	0.45
20:AT:63:ILE:O	20:AT:65:LYS:N	2.50	0.45
20:AT:73:HIS:O	20:AT:76:ALA:CB	2.65	0.45
20:AT:103:GLY:O	20:AT:104:LEU:C	2.54	0.45
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	1.98	0.45
24:AY:20:HIS:CE1	24:AY:21:ILE:HG12	2.51	0.45
24:AY:74:TRP:O	24:AY:75:LYS:O	2.35	0.45
24:AY:87:HIS:NE2	24:AY:120:THR:HG21	2.32	0.45
24:AY:202:PRO:O	24:AY:203:GLU:C	2.54	0.45
24:AY:395:PRO:O	24:AY:397:VAL:HG13	2.17	0.45
24:AY:545:GLY:CA	24:AY:583:LYS:HG2	2.46	0.45
32:B7:15:THR:HG22	32:B7:16:HIS:CG	2.51	0.45
32:B7:43:THR:CG2	32:B7:44:PRO:HD2	2.47	0.45
34:B9:15:LYS:N	34:B9:26:ILE:O	2.46	0.45
34:B9:19:ARG:CB	35:BA:2756:U:H5'	2.47	0.45
35:BA:503:A:O2'	35:BA:504:U:P	2.75	0.45
35:BA:540:C:O5'	35:BA:540:C:H6	2.00	0.45
35:BA:1062:G:H21	43:BK:133:SER:HA	1.82	0.45
35:BA:1267:U:H2'	35:BA:1268:A:C8	2.51	0.45
35:BA:1279:G:O5'	35:BA:1279:G:H8	1.99	0.45
35:BA:1298:C:O2	35:BA:1298:C:H2'	2.16	0.45
35:BA:1328:G:H2'	35:BA:1330:C:C5	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1912:A:C2	35:BA:1919:A:C6	3.05	0.45
35:BA:2003:G:C6	35:BA:2004:G:C5	3.05	0.45
35:BA:2248:C:H2'	35:BA:2249:U:O4'	2.17	0.45
35:BA:2586:C:O2'	35:BA:2587:A:H5'	2.17	0.45
35:BA:2845:G:O2'	35:BA:2846:G:H5'	2.16	0.45
39:BE:77:ILE:HG22	39:BE:78:LEU:CG	2.46	0.45
39:BE:116:VAL:HG22	39:BE:122:PHE:CG	2.52	0.45
40:BF:179:GLU:O	40:BF:181:LEU:N	2.48	0.45
41:BG:76:SER:OG	41:BG:83:ARG:HB3	2.16	0.45
41:BG:180:PHE:O	41:BG:182:LYS:N	2.49	0.45
43:BK:2:LYS:HB2	43:BK:2:LYS:NZ	2.32	0.45
45:BN:2:LYS:NZ	53:BV:12:TYR:HA	2.25	0.45
45:BN:23:LEU:HD23	45:BN:23:LEU:C	2.36	0.45
47:BP:55:ARG:CG	47:BP:56:SER:N	2.76	0.45
47:BP:93:GLY:O	47:BP:123:LEU:HB2	2.16	0.45
48:BQ:42:ILE:HG23	48:BQ:46:GLN:HB3	1.98	0.45
48:BQ:110:THR:HG23	48:BQ:113:GLN:CG	2.47	0.45
50:BS:12:PHE:CD1	50:BS:12:PHE:O	2.68	0.45
51:BT:125:ARG:O	51:BT:128:GLU:HB3	2.17	0.45
51:BT:132:LYS:HG2	51:BT:133:GLU:H	1.81	0.45
52:BU:106:PHE:O	52:BU:109:LEU:N	2.44	0.45
54:BW:10:VAL:HG23	54:BW:101:SER:C	2.35	0.45
55:BX:65:ARG:CG	55:BX:66:LEU:N	2.79	0.45
56:BY:88:LYS:HE2	56:BY:93:GLY:CA	2.46	0.45
1:AA:265:G:H2'	1:AA:267:C:C5	2.48	0.45
1:AA:389:A:H2'	1:AA:390:C:C5'	2.47	0.45
1:AA:758:G:H2'	1:AA:759:A:OP2	2.16	0.45
1:AA:763:G:H2'	1:AA:764:C:C6	2.51	0.45
1:AA:802:A:H3'	1:AA:803:G:C8	2.51	0.45
1:AA:1068:G:N2	1:AA:1191:A:N3	2.61	0.45
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.52	0.45
1:AA:1170:A:C2'	1:AA:1171:G:H5'	2.47	0.45
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.52	0.45
2:AB:114:ARG:HH11	2:AB:118:LEU:HD21	1.80	0.45
3:AC:105:GLU:C	3:AC:106:VAL:HG23	2.37	0.45
4:AD:86:LYS:HD3	4:AD:86:LYS:HA	1.60	0.45
4:AD:96:LEU:H	4:AD:96:LEU:CD2	2.16	0.45
4:AD:107:ARG:HD2	4:AD:173:TRP:HZ2	1.81	0.45
5:AE:41:VAL:HG13	5:AE:113:ALA:CA	2.46	0.45
6:AF:3:ARG:CG	6:AF:3:ARG:NH1	2.75	0.45
7:AG:137:LYS:HA	7:AG:137:LYS:CE	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:11:LYS:C	9:AI:13:ALA:H	2.20	0.45
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CD1	2.46	0.45
10:AJ:79:ARG:HA	10:AJ:79:ARG:HD3	1.54	0.45
13:AM:64:TRP:N	13:AM:64:TRP:CD1	2.85	0.45
19:AS:12:ASP:H	19:AS:38:SER:HB3	1.82	0.45
20:AT:30:LYS:O	20:AT:34:LYS:HG3	2.16	0.45
20:AT:75:ASN:O	20:AT:79:ARG:N	2.35	0.45
22:AV:14:A:N3	22:AV:14:A:H2'	2.29	0.45
22:AV:76:A:H4'	22:AV:76:A:OP1	2.17	0.45
24:AY:334:THR:HG23	24:AY:369:LEU:O	2.17	0.45
24:AY:620:VAL:O	24:AY:624:LEU:HD13	2.16	0.45
24:AY:635:GLU:HA	24:AY:636:PRO:HD2	1.70	0.45
31:B6:11:LEU:CD2	31:B6:51:GLU:HG3	2.44	0.45
31:B6:15:GLU:HG3	31:B6:47:THR:HG21	1.98	0.45
32:B7:19:ARG:HG2	32:B7:19:ARG:HH11	1.82	0.45
35:BA:336:C:H4'	56:BY:7:VAL:HG21	1.99	0.45
35:BA:363(A):A:H2'	35:BA:363(B):G:C8	2.49	0.45
35:BA:624:C:N4	47:BP:107:LYS:HZ2	2.14	0.45
35:BA:1362:C:C2'	35:BA:1363:C:H5'	2.47	0.45
35:BA:1394:U:C4	35:BA:1395:A:C6	3.04	0.45
35:BA:1623:G:C2	35:BA:1624:G:N7	2.85	0.45
35:BA:1843:C:H2'	35:BA:1844:C:C6	2.52	0.45
35:BA:2020:A:N1	35:BA:2022:U:C2	2.85	0.45
35:BA:2511:U:C4	35:BA:2512:C:C4	3.04	0.45
35:BA:2748:A:H2	42:BH:63:SER:OG	1.99	0.45
35:BA:2886:G:H2'	35:BA:2887:U:C6	2.51	0.45
36:BB:92:C:H2'	36:BB:93:G:H8	1.81	0.45
37:BC:101:ILE:HG22	37:BC:105:LEU:HD22	1.97	0.45
38:BD:83:GLU:HB2	38:BD:92:ILE:CD1	2.41	0.45
40:BF:167:ALA:HB1	40:BF:173:VAL:CG1	2.41	0.45
40:BF:195:ASP:CG	40:BF:196:LEU:H	2.20	0.45
45:BN:87:LEU:O	45:BN:88:GLU:C	2.54	0.45
45:BN:133:GLN:CG	45:BN:134:ARG:H	2.29	0.45
46:BO:103:ALA:HB1	46:BO:105:GLU:OE1	2.16	0.45
47:BP:123:LEU:HD12	47:BP:124:LYS:O	2.15	0.45
49:BR:12:ARG:HD3	49:BR:16:HIS:CD2	2.51	0.45
50:BS:90:GLY:C	50:BS:92:TYR:N	2.69	0.45
51:BT:38:ASN:ND2	51:BT:40:THR:H	2.14	0.45
53:BV:38:LEU:H	53:BV:51:VAL:HG13	1.82	0.45
54:BW:21:VAL:HG23	54:BW:47:VAL:HG21	1.97	0.45
54:BW:79:GLY:C	54:BW:100:THR:CG2	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:328:C:OP1	1:AA:328:C:H4'	2.17	0.45
1:AA:431:A:H2'	1:AA:432:A:H5'	1.98	0.45
1:AA:1098:C:O2'	1:AA:1099:G:H5'	2.17	0.45
1:AA:1133:G:C4	1:AA:1142:G:N2	2.84	0.45
1:AA:1134:G:C2'	1:AA:1135:U:H5'	2.46	0.45
1:AA:1239:A:O2'	1:AA:1298:C:N4	2.50	0.45
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.31	0.45
1:AA:1354:C:H2'	1:AA:1355:G:C8	2.51	0.45
3:AC:83:ARG:C	3:AC:85:ARG:H	2.20	0.45
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.41	0.45
4:AD:61:LYS:HG3	4:AD:203:VAL:HG13	1.98	0.45
4:AD:191:ARG:NH1	4:AD:191:ARG:O	2.49	0.45
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.17	0.45
5:AE:77:PRO:HG2	5:AE:78:HIS:H	1.81	0.45
5:AE:92:LYS:HA	5:AE:93:PRO:HD2	1.74	0.45
6:AF:10:LEU:HD12	6:AF:59:TYR:HD2	1.82	0.45
6:AF:32:ASN:HD22	6:AF:32:ASN:HA	1.61	0.45
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.16	0.45
16:AP:71:ARG:O	16:AP:72:ARG:C	2.54	0.45
17:AQ:22:LEU:HD13	17:AQ:41:LYS:CG	2.47	0.45
19:AS:65:ASN:HA	29:B4:48:ARG:NH2	2.31	0.45
24:AY:273:LEU:HA	24:AY:276:VAL:HG23	1.99	0.45
24:AY:289:ILE:O	24:AY:301:ILE:N	2.47	0.45
24:AY:435:ASP:HB2	58:AY:701:FUA:H183	1.99	0.45
30:B5:2:ALA:CA	35:BA:2015:A:C1'	2.93	0.45
30:B5:25:LEU:HD12	54:BW:19:LEU:CB	2.47	0.45
33:B8:28:GLY:HA2	33:B8:32:LEU:HD21	1.97	0.45
35:BA:34:C:H5	35:BA:454:A:HO2'	1.63	0.45
35:BA:444:C:H2'	35:BA:445:C:C6	2.52	0.45
35:BA:621:A:C2'	35:BA:622:G:H5'	2.46	0.45
35:BA:781:A:H2	35:BA:1776:G:N3	2.15	0.45
35:BA:991:C:H5'	35:BA:991:C:C6	2.43	0.45
35:BA:1272:A:OP1	35:BA:1272:A:H4'	2.16	0.45
35:BA:1689:A:N6	35:BA:1698:A:H2	2.15	0.45
35:BA:1767:C:H2'	35:BA:1768:U:O4'	2.15	0.45
35:BA:1775:U:C2'	35:BA:1776:G:H5'	2.46	0.45
35:BA:1794:U:H2'	35:BA:1795:C:H6	1.82	0.45
35:BA:1960:A:H5''	35:BA:1960:A:C8	2.48	0.45
35:BA:2163:C:C3'	35:BA:2164:C:H5'	2.46	0.45
36:BB:41:U:O4	41:BG:70:VAL:O	2.34	0.45
39:BE:68:ALA:HB3	39:BE:69:LYS:CE	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:197:ILE:O	39:BE:197:ILE:CG1	2.64	0.45
40:BF:38:ARG:O	40:BF:42:ALA:CB	2.64	0.45
40:BF:167:ALA:HA	40:BF:170:LEU:HD23	1.97	0.45
43:BK:100:THR:OG1	43:BK:103:GLN:HG3	2.16	0.45
45:BN:13:TRP:N	45:BN:13:TRP:CD1	2.83	0.45
47:BP:71:VAL:O	47:BP:71:VAL:CG2	2.65	0.45
47:BP:83:VAL:HG13	47:BP:83:VAL:O	2.17	0.45
48:BQ:19:GLY:HA3	57:BZ:79:ARG:HH12	1.81	0.45
48:BQ:66:ILE:HG22	48:BQ:104:PHE:HD2	1.81	0.45
49:BR:63:ARG:HA	49:BR:80:PHE:CZ	2.52	0.45
51:BT:91:ARG:O	51:BT:117:ASP:HB3	2.16	0.45
51:BT:98:LYS:HB3	51:BT:100:TYR:CE1	2.50	0.45
52:BU:53:ARG:O	52:BU:56:ASP:N	2.41	0.45
53:BV:2:PHE:HB3	53:BV:3:ALA:H	1.41	0.45
54:BW:50:VAL:HG13	54:BW:105:VAL:HG21	1.98	0.45
55:BX:28:PHE:CE2	55:BX:92:LEU:HD11	2.52	0.45
56:BY:50:ARG:HG3	56:BY:50:ARG:H	1.64	0.45
56:BY:96:ILE:HG22	56:BY:97:ARG:N	2.31	0.45
1:AA:585:G:C6	1:AA:586:C:C4	3.05	0.45
1:AA:954:G:H2'	1:AA:955:U:O4'	2.16	0.45
3:AC:32:LEU:HB3	3:AC:59:ARG:HH22	1.82	0.45
5:AE:128:PRO:O	5:AE:129:ILE:C	2.53	0.45
9:AI:26:VAL:HG13	9:AI:61:ALA:O	2.17	0.45
10:AJ:8:LEU:HD13	10:AJ:20:ALA:HB2	1.99	0.45
17:AQ:83:ASP:N	17:AQ:83:ASP:OD1	2.50	0.45
18:AR:45:SER:OG	18:AR:46:GLU:N	2.50	0.45
20:AT:25:ARG:HG3	20:AT:25:ARG:NH1	2.31	0.45
24:AY:139:MET:HE2	24:AY:146:LEU:HB2	1.99	0.45
24:AY:227:ILE:HA	24:AY:230:LYS:HZ2	1.81	0.45
28:B3:15:TYR:N	28:B3:15:TYR:CD1	2.82	0.45
31:B6:9:LEU:HD22	31:B6:26:ASN:ND2	2.26	0.45
31:B6:27:LYS:HG3	31:B6:30:THR:HG21	1.98	0.45
31:B6:52:VAL:HG22	31:B6:53:LYS:N	2.32	0.45
33:B8:25:MET:HG3	47:BP:64:LYS:CB	2.46	0.45
33:B8:50:LEU:C	33:B8:53:PRO:CD	2.84	0.45
35:BA:634:C:H2'	35:BA:635:C:C6	2.52	0.45
35:BA:725:G:C6	35:BA:726:G:N1	2.85	0.45
35:BA:729:G:C5	38:BD:208:LYS:HB2	2.52	0.45
35:BA:826:U:OP1	35:BA:2428:G:H5''	2.16	0.45
35:BA:1069:A:O2'	35:BA:1070:A:H5''	2.17	0.45
35:BA:1301:A:H4'	35:BA:1302:A:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1771:C:O2'	35:BA:1786:A:H8	2.00	0.45
35:BA:2219:G:O2'	35:BA:2220:G:H5'	2.17	0.45
35:BA:2345:G:H5'	35:BA:2346:A:H5'	1.99	0.45
35:BA:2470:G:P	48:BQ:56:ARG:NH1	2.84	0.45
35:BA:2488:A:H2'	35:BA:2489:G:H8	1.82	0.45
35:BA:2838:G:O2'	35:BA:2839:G:H5'	2.16	0.45
39:BE:49:LEU:O	39:BE:78:LEU:CB	2.65	0.45
40:BF:5:ALA:HB3	40:BF:18:ARG:O	2.16	0.45
41:BG:16:ARG:HG3	41:BG:16:ARG:NH1	2.29	0.45
41:BG:81:LYS:HB3	41:BG:82:LEU:H	1.54	0.45
45:BN:97:ARG:O	45:BN:98:VAL:C	2.53	0.45
48:BQ:9:TYR:CD1	48:BQ:9:TYR:N	2.83	0.45
49:BR:83:ILE:O	49:BR:83:ILE:HG22	2.16	0.45
51:BT:99:LEU:O	51:BT:99:LEU:CD1	2.65	0.45
52:BU:29:SER:OG	52:BU:30:LYS:HE2	2.15	0.45
53:BV:66:ARG:NH1	53:BV:88:ARG:HE	2.15	0.45
56:BY:49:VAL:HG12	56:BY:50:ARG:N	2.31	0.45
57:BZ:82:ARG:O	57:BZ:83:PRO:C	2.55	0.45
57:BZ:109:ALA:HB3	57:BZ:144:LEU:O	2.17	0.45
57:BZ:179:ASP:HB3	57:BZ:182:LYS:CD	2.34	0.45
1:AA:275:G:C5'	17:AQ:14:LYS:HB3	2.46	0.45
1:AA:316:G:C2	1:AA:338:A:C2	3.05	0.45
1:AA:541:G:H2'	1:AA:542:G:H8	1.81	0.45
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.32	0.45
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.31	0.45
1:AA:1478:C:O2'	1:AA:1479:C:H5'	2.17	0.45
2:AB:152:PHE:C	2:AB:152:PHE:HD1	2.20	0.45
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.15	0.45
3:AC:136:GLN:O	3:AC:137:ALA:C	2.51	0.45
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.17	0.45
4:AD:58:LEU:HD23	4:AD:58:LEU:O	2.17	0.45
4:AD:138:TYR:CD1	4:AD:138:TYR:C	2.90	0.45
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.99	0.45
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	1.97	0.45
10:AJ:43:ARG:HA	10:AJ:43:ARG:HD2	1.85	0.45
11:AK:30:VAL:HG23	11:AK:30:VAL:O	2.16	0.45
18:AR:45:SER:HA	18:AR:51:LEU:HD21	1.98	0.45
20:AT:23:ARG:O	20:AT:26:ASN:ND2	2.49	0.45
22:AV:11:A:H2'	22:AV:12:G:O4'	2.17	0.45
24:AY:228:MET:HE2	24:AY:229:LEU:CD2	2.47	0.45
24:AY:327:PHE:HA	24:AY:375:GLY:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:584:ILE:O	24:AY:588:MET:HG3	2.17	0.45
25:B0:49:LYS:HD2	25:B0:80:HIS:HB3	1.98	0.45
28:B3:27:GLY:C	28:B3:28:LEU:HD23	2.37	0.45
35:BA:230:U:O2'	35:BA:231:C:H5'	2.17	0.45
35:BA:272(J):C:N4	35:BA:363:G:H22	2.15	0.45
35:BA:392:C:H5''	35:BA:409:C:H5''	1.99	0.45
35:BA:406:G:O2'	35:BA:407:G:P	2.75	0.45
35:BA:525:U:O2'	35:BA:526:A:H5''	2.17	0.45
35:BA:752:A:N7	35:BA:1781:C:C6	2.85	0.45
35:BA:1074:G:H2'	35:BA:1075:C:C6	2.52	0.45
35:BA:1142(A):A:C6	35:BA:1144:G:C5	3.04	0.45
35:BA:1188:U:H4'	53:BV:79:VAL:HG12	1.97	0.45
35:BA:1215:G:H8	35:BA:1215:G:O5'	1.99	0.45
35:BA:1430:C:H6	35:BA:1430:C:O5'	2.00	0.45
35:BA:2102:U:C2	35:BA:2187:G:O6	2.69	0.45
35:BA:2192:G:C2'	35:BA:2193:G:H5''	2.47	0.45
36:BB:85:G:C6	36:BB:93:G:C6	3.05	0.45
37:BC:4:HIS:HB3	37:BC:8:TYR:HD2	1.80	0.45
37:BC:100:ILE:O	37:BC:102:GLN:N	2.50	0.45
39:BE:51:PHE:O	39:BE:53:PRO:HD3	2.16	0.45
39:BE:111:ARG:CZ	49:BR:2:ARG:HH21	2.28	0.45
40:BF:39:TRP:CG	40:BF:101:LEU:HD22	2.52	0.45
40:BF:126:VAL:HG23	40:BF:127:GLU:N	2.32	0.45
40:BF:142:TRP:O	40:BF:145:GLU:HB2	2.17	0.45
42:BH:81:GLU:HB3	42:BH:83:TYR:CE1	2.51	0.45
42:BH:173:PRO:O	42:BH:175:LYS:N	2.50	0.45
43:BK:55:VAL:HG13	43:BK:57:ILE:HD11	1.99	0.45
45:BN:35:ARG:O	45:BN:36:GLY:C	2.55	0.45
46:BO:12:ASP:OD2	46:BO:85:VAL:HG13	2.17	0.45
47:BP:136:GLU:C	47:BP:138:LEU:H	2.19	0.45
49:BR:7:GLY:C	49:BR:8:ARG:NE	2.70	0.45
50:BS:56:LEU:C	50:BS:58:LEU:H	2.20	0.45
50:BS:70:GLY:CA	50:BS:101:LEU:HD23	2.47	0.45
51:BT:58:ASN:ND2	51:BT:58:ASN:N	2.64	0.45
57:BZ:17:ALA:HA	57:BZ:20:ARG:CD	2.46	0.45
57:BZ:100:VAL:CG2	57:BZ:126:VAL:CG2	2.95	0.45
1:AA:298:A:H2'	1:AA:299:G:O4'	2.17	0.45
1:AA:325:A:N6	1:AA:326:G:N1	2.65	0.45
1:AA:891:U:H2'	1:AA:892:A:C8	2.51	0.45
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.43	0.45
1:AA:1094:G:O2'	1:AA:1095:U:OP2	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1234:C:HO2'	1:AA:1364:U:H6	1.60	0.45
1:AA:1314:C:H2'	1:AA:1315:U:H6	1.81	0.45
1:AA:1323:G:H4'	1:AA:1363:C:N3	2.32	0.45
2:AB:61:LEU:O	2:AB:61:LEU:HD12	2.17	0.45
3:AC:93:LYS:HG2	3:AC:93:LYS:O	2.17	0.45
3:AC:169:ALA:O	3:AC:170:GLN:HB2	2.17	0.45
7:AG:22:LEU:HD22	7:AG:62:PHE:HE2	1.82	0.45
11:AK:92:GLU:HB3	11:AK:96:ARG:HH11	1.82	0.45
13:AM:81:LEU:HD22	13:AM:81:LEU:N	2.31	0.45
16:AP:23:ASP:OD1	16:AP:24:ALA:N	2.50	0.45
19:AS:8:GLY:C	19:AS:9:VAL:CG2	2.84	0.45
19:AS:15:LEU:HD21	19:AS:33:THR:HB	1.99	0.45
24:AY:112:GLN:O	24:AY:115:GLU:HB3	2.17	0.45
26:B1:32:LYS:C	26:B1:33:LYS:HG3	2.36	0.45
26:B1:45:ASN:CB	35:BA:2230:G:H1'	2.40	0.45
26:B1:86:SER:C	26:B1:90:ILE:HG12	2.36	0.45
28:B3:12:PRO:O	28:B3:13:ILE:C	2.55	0.45
31:B6:15:GLU:CB	31:B6:47:THR:HG21	2.47	0.45
34:B9:10:ILE:O	34:B9:11:CYS:HB3	2.17	0.45
35:BA:250:G:H2'	35:BA:251:A:C8	2.52	0.45
35:BA:272(J):C:H3'	35:BA:274:G:C5'	2.34	0.45
35:BA:307:G:O5'	35:BA:307:G:H8	2.00	0.45
35:BA:979:G:H2'	35:BA:982:C:H41	1.82	0.45
35:BA:1028:A:C2	35:BA:2487:G:H1'	2.51	0.45
35:BA:1105:U:O5'	35:BA:1105:U:H6	2.00	0.45
35:BA:1125:G:C6	35:BA:1126:A:N6	2.85	0.45
35:BA:1680:U:H2'	35:BA:1681:G:O4'	2.17	0.45
35:BA:1686:C:H2'	35:BA:1687:G:O4'	2.17	0.45
35:BA:1908:C:H2'	35:BA:1909:C:H6	1.80	0.45
35:BA:2113:U:H2'	35:BA:2114:A:H8	1.82	0.45
35:BA:2496:C:OP1	48:BQ:83:MET:HG2	2.17	0.45
35:BA:2551:C:H2'	35:BA:2552:U:C6	2.52	0.45
36:BB:36:C:H2'	36:BB:37:C:C6	2.52	0.45
40:BF:89:VAL:HG12	40:BF:90:PHE:H	1.80	0.45
41:BG:172:LEU:HD23	41:BG:176:LEU:CD1	2.34	0.45
45:BN:54:VAL:CB	45:BN:122:VAL:HG22	2.34	0.45
45:BN:133:GLN:O	45:BN:134:ARG:CB	2.65	0.45
47:BP:99:LEU:HA	47:BP:102:ARG:HH22	1.81	0.45
48:BQ:21:THR:HG23	48:BQ:101:ARG:HB2	1.99	0.45
48:BQ:26:TYR:CE2	48:BQ:140:ALA:HB3	2.52	0.45
48:BQ:63:LYS:HZ2	57:BZ:175:VAL:HG21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:79:LEU:HD23	48:BQ:80:GLU:N	2.31	0.45
49:BR:41:ALA:O	49:BR:43:GLU:N	2.49	0.45
50:BS:17:ARG:C	50:BS:19:LYS:H	2.21	0.45
50:BS:102:ALA:HB3	50:BS:103:GLU:H	1.49	0.45
52:BU:97:ASP:C	52:BU:99:ALA:N	2.69	0.45
52:BU:99:ALA:HB2	52:BU:106:PHE:CE1	2.52	0.45
53:BV:39:LEU:HD11	53:BV:51:VAL:HA	1.97	0.45
54:BW:1:MET:HE1	54:BW:62:HIS:HD2	1.82	0.45
57:BZ:9:TYR:CG	57:BZ:35:ARG:NH2	2.85	0.45
1:AA:51:A:H4'	1:AA:52:G:C5'	2.47	0.44
1:AA:781:A:C3'	1:AA:782:A:C5'	2.95	0.44
1:AA:999:C:C6	1:AA:999:C:C3'	3.00	0.44
1:AA:1144:G:N2	1:AA:1145:C:C2	2.85	0.44
1:AA:1158:C:C6	2:AB:132:LYS:HD3	2.52	0.44
1:AA:1243:C:H42	1:AA:1294:G:H1	1.65	0.44
1:AA:1286:A:H5'	21:AU:25:LYS:HD2	1.99	0.44
2:AB:208:ILE:H	2:AB:208:ILE:HG13	1.28	0.44
7:AG:78:ARG:CG	7:AG:78:ARG:NH1	2.74	0.44
9:AI:125:TYR:HD1	9:AI:126:SER:N	2.14	0.44
17:AQ:45:HIS:CB	17:AQ:65:ILE:CD1	2.94	0.44
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.44	0.44
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.64	0.44
24:AY:149:VAL:O	24:AY:152:THR:N	2.49	0.44
24:AY:165:GLN:NE2	24:AY:260:LEU:HD22	2.32	0.44
24:AY:229:LEU:O	24:AY:231:TYR:N	2.50	0.44
24:AY:286:ILE:HG23	24:AY:287:PRO:HD2	1.99	0.44
27:B2:9:GLN:O	27:B2:13:ALA:N	2.50	0.44
32:B7:36:GLN:C	32:B7:38:GLY:N	2.69	0.44
33:B8:59:LYS:HE3	33:B8:59:LYS:HB2	1.67	0.44
34:B9:17:ILE:HG22	34:B9:18:ARG:N	2.33	0.44
35:BA:55:G:H1	35:BA:115:C:N4	2.15	0.44
35:BA:223:A:C4	35:BA:422:A:C8	3.05	0.44
35:BA:279:C:H2'	35:BA:280:C:C5'	2.36	0.44
35:BA:606:U:C5'	35:BA:607:U:OP2	2.65	0.44
35:BA:723:G:C6	35:BA:724:U:C4	3.04	0.44
35:BA:852:G:O2'	35:BA:853:G:H5'	2.17	0.44
35:BA:953:A:H2'	35:BA:954:G:H8	1.81	0.44
35:BA:1829:A:H2'	35:BA:1830:C:O4'	2.17	0.44
35:BA:1943:U:O2	35:BA:1943:U:C2'	2.63	0.44
35:BA:2020:A:C6	35:BA:2022:U:N3	2.85	0.44
35:BA:2056:G:C2	35:BA:2057:A:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2102:U:H2'	35:BA:2103:C:H6	1.82	0.44
35:BA:2443:C:H5'	40:BF:68:LYS:HD3	1.99	0.44
35:BA:2555:U:C5	35:BA:2556:C:C6	3.04	0.44
35:BA:2667:C:H2'	35:BA:2668:G:C8	2.51	0.44
35:BA:2837:G:C4	35:BA:2838:G:C8	3.06	0.44
38:BD:37:LEU:O	38:BD:38:LYS:C	2.56	0.44
38:BD:133:LEU:O	38:BD:135:PHE:N	2.51	0.44
38:BD:210:GLY:O	38:BD:211:ARG:HB3	2.17	0.44
38:BD:227:ASN:HB3	38:BD:228:PRO:CD	2.47	0.44
40:BF:135:LYS:CB	40:BF:138:GLU:OE2	2.65	0.44
41:BG:91:ARG:C	41:BG:91:ARG:CD	2.85	0.44
42:BH:84:SER:OG	42:BH:85:LYS:N	2.49	0.44
46:BO:20:MET:HG2	46:BO:21:CYS:N	2.31	0.44
47:BP:112:LEU:HD13	47:BP:112:LEU:C	2.38	0.44
50:BS:68:GLN:O	50:BS:70:GLY:N	2.50	0.44
50:BS:106:ARG:HH11	50:BS:106:ARG:CB	2.24	0.44
52:BU:58:ARG:O	52:BU:62:ILE:HD12	2.16	0.44
52:BU:115:ALA:C	52:BU:117:GLN:H	2.20	0.44
56:BY:9:LYS:HD3	56:BY:94:LYS:HE2	1.98	0.44
56:BY:55:TYR:O	56:BY:56:PRO:C	2.55	0.44
1:AA:22:G:H2'	1:AA:23:C:C6	2.52	0.44
1:AA:60:A:C5'	1:AA:331:G:N2	2.80	0.44
1:AA:288:A:H2'	1:AA:289:G:H4'	1.99	0.44
1:AA:411:A:C6	1:AA:429:U:C4	3.06	0.44
1:AA:439:A:C4	1:AA:496:A:C2	3.05	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.52	0.44
1:AA:1126:U:O4	10:AJ:7:LYS:HE2	2.17	0.44
1:AA:1334:G:C5'	1:AA:1335:C:OP2	2.64	0.44
1:AA:1397:C:H6	1:AA:1397:C:H3'	1.81	0.44
3:AC:181:ASN:HD21	3:AC:204:LEU:HD12	1.82	0.44
5:AE:28:PHE:CD2	5:AE:51:VAL:HG22	2.51	0.44
8:AH:6:ILE:C	8:AH:8:ASP:N	2.67	0.44
8:AH:126:LYS:O	8:AH:126:LYS:CG	2.62	0.44
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.18	0.44
9:AI:112:LYS:HD3	9:AI:112:LYS:C	2.38	0.44
11:AK:69:ALA:O	11:AK:70:LYS:C	2.56	0.44
12:AL:41:ARG:CB	12:AL:41:ARG:NH1	2.80	0.44
24:AY:16:GLY:C	24:AY:17:ILE:HD12	2.38	0.44
24:AY:512:ILE:CD1	24:AY:512:ILE:N	2.78	0.44
24:AY:514:VAL:HG21	24:AY:593:ALA:HB2	1.99	0.44
27:B2:48:HIS:CE1	27:B2:49:LYS:HG2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:39:CYS:SG	29:B4:42:PHE:HE2	2.40	0.44
30:B5:2:ALA:O	30:B5:3:LYS:HB3	2.18	0.44
30:B5:55:ARG:HH22	49:BR:33:ARG:HD2	1.83	0.44
31:B6:39:TYR:HB3	31:B6:49:HIS:CE1	2.52	0.44
35:BA:51:G:N3	35:BA:119:A:C2	2.86	0.44
35:BA:187:G:N3	35:BA:1365:A:C2	2.85	0.44
35:BA:374:A:C2'	35:BA:375:C:H5'	2.47	0.44
35:BA:430:G:H2'	35:BA:431:U:H5'	2.00	0.44
35:BA:503:A:H4'	35:BA:504:U:C5'	2.47	0.44
35:BA:510:C:OP1	35:BA:511:U:OP2	2.35	0.44
35:BA:664:C:O2'	35:BA:665:C:H5'	2.17	0.44
35:BA:849:A:H3'	35:BA:850:C:C6	2.52	0.44
35:BA:1009:A:H1'	52:BU:59:ARG:HH11	1.83	0.44
35:BA:1040:C:H2'	35:BA:1041:C:C6	2.53	0.44
35:BA:1124:C:H2'	35:BA:1125:G:O4'	2.16	0.44
35:BA:1329:U:H5'	35:BA:1330:C:C5	2.51	0.44
35:BA:1571:A:H8	35:BA:1571:A:O5'	1.99	0.44
35:BA:1899:G:C2'	35:BA:1900:A:OP2	2.65	0.44
35:BA:2352:A:C2'	35:BA:2353:G:H5'	2.46	0.44
35:BA:2876:G:C5'	51:BT:3:ARG:HA	2.47	0.44
37:BC:60:ARG:HG3	37:BC:165:ARG:CG	2.43	0.44
37:BC:62:THR:HG22	37:BC:163:GLU:HG3	1.98	0.44
39:BE:98:PRO:CG	39:BE:175:VAL:HG12	2.33	0.44
40:BF:31:HIS:O	40:BF:34:TRP:HB3	2.17	0.44
41:BG:42:GLY:O	41:BG:43:LEU:HB2	2.17	0.44
44:BL:58:LEU:HD23	44:BL:58:LEU:C	2.38	0.44
45:BN:16:ILE:O	45:BN:54:VAL:HA	2.17	0.44
47:BP:135:LEU:HD13	47:BP:135:LEU:C	2.37	0.44
48:BQ:70:PRO:HA	48:BQ:95:ALA:HB2	1.99	0.44
53:BV:25:LEU:H	53:BV:92:THR:HG21	1.82	0.44
56:BY:54:LYS:HG2	56:BY:55:TYR:CE1	2.52	0.44
57:BZ:33:LEU:HD12	57:BZ:33:LEU:HA	1.82	0.44
1:AA:159:G:C3'	1:AA:160:A:H5''	2.44	0.44
1:AA:220:G:N2	1:AA:221:C:H1'	2.32	0.44
1:AA:392:G:H2'	1:AA:393:A:C8	2.53	0.44
1:AA:663:A:C2'	1:AA:664:G:H5'	2.47	0.44
3:AC:155:GLY:O	3:AC:156:ARG:CB	2.65	0.44
4:AD:100:ARG:HH22	4:AD:137:SER:HB3	1.81	0.44
8:AH:54:ASP:O	8:AH:56:LYS:HG3	2.17	0.44
8:AH:114:THR:HG22	8:AH:130:GLY:O	2.17	0.44
13:AM:106:ASN:HB3	13:AM:107:ALA:H	1.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:73:HIS:O	20:AT:76:ALA:N	2.50	0.44
20:AT:78:ALA:HA	20:AT:81:LYS:HD3	1.99	0.44
22:AV:2:G:C2	22:AV:3:C:C4	3.05	0.44
24:AY:74:TRP:CH2	24:AY:270:GLN:HG2	2.52	0.44
24:AY:238:THR:O	24:AY:242:LEU:HB2	2.17	0.44
27:B2:3:LEU:HD22	27:B2:7:ARG:NH2	2.32	0.44
27:B2:22:GLU:O	27:B2:23:LYS:C	2.54	0.44
29:B4:1:MET:CE	29:B4:1:MET:N	2.80	0.44
29:B4:8:LYS:CD	29:B4:9:LEU:O	2.64	0.44
30:B5:40:LYS:HD3	30:B5:44:THR:HB	1.99	0.44
31:B6:11:LEU:HD22	31:B6:12:GLU:N	2.32	0.44
31:B6:28:ARG:NH1	31:B6:28:ARG:HB3	2.31	0.44
34:B9:22:ARG:HB2	34:B9:24:TYR:HE1	1.83	0.44
35:BA:27:G:H2'	35:BA:28:A:OP2	2.17	0.44
35:BA:231:C:O2'	35:BA:232:G:H5'	2.18	0.44
35:BA:445:C:O2	35:BA:449:A:H2	2.00	0.44
35:BA:886:C:O2'	35:BA:887:A:H4'	2.17	0.44
35:BA:910:A:C6	48:BQ:13:GLN:HG3	2.52	0.44
35:BA:926:A:C2	35:BA:927:G:C4	3.06	0.44
35:BA:1047:G:N2	35:BA:1110:G:H1'	2.33	0.44
35:BA:1064:C:C5'	43:BK:87:GLY:H	2.31	0.44
35:BA:1461:G:H2'	35:BA:1462:C:H6	1.81	0.44
35:BA:1578:U:H2'	35:BA:1578:U:O2	2.16	0.44
35:BA:1640:C:H2'	35:BA:1641:A:O4'	2.17	0.44
35:BA:1750:G:H2'	35:BA:1751:C:H6	1.82	0.44
35:BA:1897:G:H2'	35:BA:1898:U:O4'	2.18	0.44
35:BA:2069:G:O2'	35:BA:2070:G:H5'	2.16	0.44
35:BA:2381:C:H2'	35:BA:2381:C:O2	2.18	0.44
35:BA:2459:A:C4	35:BA:2460:U:C6	3.06	0.44
35:BA:2514:U:C2	35:BA:2515:C:C5	3.05	0.44
35:BA:2628:C:O2'	35:BA:2781:A:H2'	2.17	0.44
35:BA:2704:C:C5	35:BA:2705:A:N7	2.86	0.44
35:BA:2812:G:N2	35:BA:2889:C:C2	2.86	0.44
35:BA:2837:G:C5	35:BA:2838:G:N7	2.85	0.44
36:BB:71:C:N3	36:BB:106:G:N2	2.63	0.44
38:BD:91:ARG:HH11	38:BD:91:ARG:CG	2.29	0.44
43:BK:37:PHE:C	43:BK:39:LYS:H	2.20	0.44
46:BO:66:LYS:HD3	46:BO:80:ASP:O	2.17	0.44
49:BR:10:LEU:HB3	49:BR:17:ARG:NE	2.32	0.44
50:BS:85:VAL:HB	50:BS:86:ALA:H	1.56	0.44
50:BS:98:VAL:O	50:BS:100:ALA:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:29:ARG:HE	51:BT:84:GLN:HG3	1.83	0.44
52:BU:83:LEU:CD1	52:BU:83:LEU:H	2.31	0.44
52:BU:98:LEU:O	52:BU:106:PHE:HB2	2.17	0.44
55:BX:18:TYR:HA	55:BX:21:PHE:CE2	2.53	0.44
55:BX:56:THR:C	55:BX:57:LEU:HD13	2.37	0.44
1:AA:6:G:H2'	5:AE:119:LEU:HD11	1.98	0.44
1:AA:56:U:O2'	1:AA:57:G:H5'	2.17	0.44
1:AA:59:A:H3'	1:AA:331:G:N2	2.33	0.44
1:AA:356:A:H2'	1:AA:357:G:H8	1.83	0.44
1:AA:446:G:N2	1:AA:447:G:H1'	2.32	0.44
1:AA:538:G:H2'	1:AA:539:A:C8	2.52	0.44
1:AA:614:A:C2	1:AA:627:G:C2	3.05	0.44
1:AA:707:C:H2'	1:AA:708:C:C6	2.52	0.44
1:AA:742:G:H5''	15:AO:58:MET:HE3	2.00	0.44
1:AA:980:C:H3'	1:AA:980:C:H6	1.82	0.44
1:AA:1089:G:C6	1:AA:1090:U:C4	3.06	0.44
1:AA:1103:C:C5'	2:AB:98:LEU:HD13	2.47	0.44
1:AA:1108:G:OP1	3:AC:176:HIS:HD2	2.00	0.44
1:AA:1110:A:H8	1:AA:1110:A:O5'	2.00	0.44
1:AA:1217:C:O2	1:AA:1217:C:C2'	2.61	0.44
1:AA:1228:C:C5	1:AA:1229:A:N7	2.86	0.44
1:AA:1422:G:H4'	46:BO:49:ARG:NH1	2.32	0.44
2:AB:215:LEU:HD13	2:AB:215:LEU:HA	1.76	0.44
4:AD:163:GLU:C	4:AD:165:MET:H	2.21	0.44
12:AL:78:GLN:O	12:AL:79:GLU:C	2.56	0.44
12:AL:113:ARG:HG2	12:AL:113:ARG:HH11	1.81	0.44
15:AO:76:GLU:C	15:AO:78:TYR:H	2.21	0.44
16:AP:9:PHE:CD2	16:AP:18:ARG:CZ	3.00	0.44
17:AQ:25:ARG:O	17:AQ:25:ARG:HG3	2.16	0.44
19:AS:42:PRO:O	29:B4:49:PHE:CZ	2.68	0.44
24:AY:39:ILE:HG22	24:AY:41:LYS:H	1.83	0.44
24:AY:180:VAL:HG23	24:AY:181:LEU:H	1.82	0.44
24:AY:312:LEU:HD22	24:AY:313:ALA:O	2.18	0.44
24:AY:492:ASP:OD2	24:AY:513:LYS:HG3	2.17	0.44
33:B8:47:LYS:HZ3	33:B8:49:VAL:HG13	1.82	0.44
35:BA:65:C:H5'	55:BX:71:GLY:HA3	2.00	0.44
35:BA:408:G:C2'	35:BA:409:C:H5'	2.48	0.44
35:BA:443:A:OP1	40:BF:46:ARG:HB2	2.17	0.44
35:BA:463:G:C2	35:BA:467:G:C6	3.05	0.44
35:BA:614(C):A:N3	35:BA:615:G:H1'	2.32	0.44
35:BA:667:U:H2'	35:BA:668:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:783:A:H2'	35:BA:784:A:O5'	2.17	0.44
35:BA:786:C:O5'	35:BA:786:C:H6	2.01	0.44
35:BA:830:G:H1'	35:BA:2448:A:C6	2.51	0.44
35:BA:860:U:O2	35:BA:860:U:O4'	2.36	0.44
35:BA:1305:C:N3	35:BA:1624:G:C6	2.84	0.44
35:BA:1431:U:O5'	35:BA:1431:U:H6	1.99	0.44
35:BA:1584:C:O2	35:BA:1584:C:C3'	2.65	0.44
35:BA:1683:C:H2'	35:BA:1684:C:H6	1.82	0.44
35:BA:1782:C:O5'	35:BA:1782:C:H6	2.00	0.44
35:BA:1829:A:N3	38:BD:15:PHE:CZ	2.86	0.44
35:BA:2192:G:H2'	35:BA:2193:G:H5''	1.99	0.44
35:BA:2285:C:H4'	35:BA:2288:A:N7	2.33	0.44
35:BA:2326:C:O5'	35:BA:2326:C:H6	2.01	0.44
35:BA:2348:U:H2'	35:BA:2349:G:C5'	2.47	0.44
35:BA:2533:A:N6	35:BA:2534:A:C6	2.85	0.44
35:BA:2626:C:O2'	35:BA:2627:G:H5'	2.18	0.44
35:BA:2895:U:C3'	35:BA:2895:U:C6	2.99	0.44
39:BE:2:LYS:HG2	39:BE:95:ILE:CG2	2.47	0.44
39:BE:45:THR:O	39:BE:46:ALA:CB	2.65	0.44
40:BF:206:ILE:CG2	40:BF:207:GLY:N	2.68	0.44
42:BH:17:VAL:O	42:BH:45:VAL:CG2	2.65	0.44
42:BH:121:ILE:HD11	42:BH:140:LYS:HB3	2.00	0.44
43:BK:41:PHE:O	43:BK:43:ALA:N	2.51	0.44
46:BO:104:ARG:NH2	51:BT:33:LYS:CE	2.81	0.44
49:BR:54:LEU:HD23	49:BR:66:VAL:CG2	2.44	0.44
49:BR:72:ASP:CG	49:BR:75:LEU:HB2	2.36	0.44
49:BR:101:ALA:O	49:BR:102:GLU:HB2	2.17	0.44
56:BY:12:THR:HG22	56:BY:13:VAL:N	2.32	0.44
56:BY:13:VAL:HG22	56:BY:73:ARG:O	2.17	0.44
1:AA:414:A:N6	1:AA:431:A:N3	2.65	0.44
1:AA:913:A:H4'	1:AA:914:A:H4'	1.99	0.44
1:AA:1179:A:O3'	9:AI:103:THR:HA	2.17	0.44
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	2.15	0.44
1:AA:1484:C:H2'	1:AA:1485:U:O4'	2.18	0.44
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	2.00	0.44
2:AB:137:ARG:C	2:AB:137:ARG:CD	2.85	0.44
3:AC:52:LEU:H	3:AC:52:LEU:CD2	2.14	0.44
7:AG:72:ARG:HB3	7:AG:142:GLU:OE1	2.16	0.44
15:AO:7:GLU:O	15:AO:11:VAL:HG23	2.17	0.44
18:AR:65:ILE:H	18:AR:65:ILE:HG12	1.59	0.44
19:AS:35:SER:C	19:AS:37:ARG:N	2.69	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:65:ASN:HA	29:B4:48:ARG:HH12	1.82	0.44
22:AV:26:G:H2'	22:AV:27:U:C6	2.53	0.44
24:AY:89:ASP:HB2	24:AY:90:PHE:H	1.52	0.44
25:B0:19:LYS:HD3	25:B0:41:ARG:NH2	2.28	0.44
28:B3:31:LEU:HD13	28:B3:31:LEU:C	2.38	0.44
29:B4:43:TYR:CD2	29:B4:44:THR:HG23	2.52	0.44
33:B8:42:ARG:C	33:B8:44:LYS:H	2.20	0.44
34:B9:29:ASN:ND2	34:B9:32:HIS:CG	2.85	0.44
35:BA:214:G:H2'	35:BA:215:G:O4'	2.17	0.44
35:BA:272(J):C:H5'	35:BA:274:G:OP2	2.16	0.44
35:BA:511:U:C5	35:BA:512:G:C4	3.06	0.44
35:BA:709:U:O2'	35:BA:710:G:H5'	2.18	0.44
35:BA:745:G:H21	35:BA:750:A:H61	1.66	0.44
35:BA:1092:C:O2'	35:BA:1093:G:H5'	2.18	0.44
35:BA:1193:G:OP1	47:BP:17:LYS:NZ	2.50	0.44
35:BA:1343:G:H1	35:BA:1404:C:H42	1.65	0.44
35:BA:1416:G:O2'	35:BA:1417:C:C5	2.67	0.44
35:BA:1609:A:H1'	35:BA:1616:A:H1'	1.98	0.44
35:BA:2223:G:H2'	35:BA:2224:G:C5'	2.48	0.44
35:BA:2246:G:H1'	35:BA:2426:A:C2	2.53	0.44
35:BA:2308:G:H2'	35:BA:2309:A:C8	2.52	0.44
35:BA:2393:A:H2'	35:BA:2394:C:C6	2.52	0.44
35:BA:2807:G:C3'	35:BA:2808:U:H5''	2.37	0.44
36:BB:7:G:C5'	50:BS:29:PHE:CD2	3.00	0.44
37:BC:211:ARG:CG	37:BC:211:ARG:NH1	2.66	0.44
38:BD:267:SER:C	38:BD:270:ILE:HD11	2.36	0.44
40:BF:31:HIS:O	40:BF:32:LEU:C	2.55	0.44
40:BF:99:TYR:CE2	40:BF:101:LEU:HD13	2.51	0.44
41:BG:14:GLU:C	41:BG:17:PRO:HD2	2.37	0.44
41:BG:63:ILE:HD12	41:BG:64:THR:HB	2.00	0.44
51:BT:90:GLN:HG2	51:BT:120:ARG:NH2	2.32	0.44
51:BT:112:ARG:O	51:BT:112:ARG:HG3	2.16	0.44
51:BT:116:ALA:HB1	51:BT:121:ILE:HD11	1.99	0.44
52:BU:50:ARG:O	52:BU:52:ARG:N	2.50	0.44
52:BU:80:ILE:O	52:BU:80:ILE:HG22	2.18	0.44
55:BX:92:LEU:O	55:BX:94:GLY:N	2.51	0.44
57:BZ:165:VAL:CG1	57:BZ:166:SER:H	2.17	0.44
1:AA:25:C:H5'	1:AA:524:G:H1'	1.98	0.44
1:AA:141:A:H1'	1:AA:182:U:C2	2.53	0.44
1:AA:143:A:H2	1:AA:220:G:H1	1.66	0.44
1:AA:238:G:C6	1:AA:239:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:274:A:H4'	1:AA:275:G:OP1	2.17	0.44
1:AA:334:C:C4	1:AA:335:C:N4	2.85	0.44
1:AA:524:G:H2'	1:AA:525:C:C6	2.52	0.44
1:AA:773:G:H2'	1:AA:774:G:H5'	2.00	0.44
1:AA:797:C:OP1	11:AK:124:LYS:HE3	2.17	0.44
1:AA:1121:U:C4	1:AA:1122:U:O4	2.70	0.44
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.53	0.44
1:AA:1254:C:O4'	1:AA:1356:G:H5''	2.18	0.44
1:AA:1329:A:H5''	13:AM:26:GLY:N	2.32	0.44
1:AA:1527:C:H6	1:AA:1527:C:O5'	2.01	0.44
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.25	0.44
7:AG:6:ARG:O	7:AG:7:ALA:C	2.55	0.44
11:AK:77:MET:C	11:AK:78:GLN:HG3	2.38	0.44
13:AM:19:LEU:HA	13:AM:22:ILE:HD13	2.00	0.44
19:AS:10:PHE:CD1	19:AS:10:PHE:N	2.85	0.44
20:AT:26:ASN:ND2	20:AT:26:ASN:H	2.13	0.44
20:AT:74:LYS:HB2	20:AT:75:ASN:HD22	1.81	0.44
25:B0:19:LYS:CD	25:B0:41:ARG:HH22	2.29	0.44
26:B1:87:PRO:HG2	26:B1:88:LYS:H	1.82	0.44
27:B2:46:GLN:OE1	35:BA:95:G:H4'	2.17	0.44
29:B4:48:ARG:O	29:B4:49:PHE:CD1	2.71	0.44
33:B8:53:PRO:HG2	33:B8:54:GLU:H	1.83	0.44
35:BA:198:C:H2'	35:BA:199:A:H5''	1.98	0.44
35:BA:272(E):G:H2'	35:BA:272(F):C:O4'	2.17	0.44
35:BA:294:A:N6	35:BA:345:A:H1'	2.32	0.44
35:BA:301:G:C4	35:BA:302:C:C5	3.06	0.44
35:BA:332:A:O2'	35:BA:334:C:OP2	2.35	0.44
35:BA:363(E):U:O2'	35:BA:363(F):A:O4'	2.36	0.44
35:BA:381:G:H2'	35:BA:382:G:H8	1.81	0.44
35:BA:773:U:H5'	38:BD:47:GLY:HA2	1.99	0.44
35:BA:1156:A:C2'	35:BA:1157:G:OP1	2.65	0.44
35:BA:1314:C:H6	35:BA:1314:C:C5'	2.19	0.44
35:BA:1602:U:H3'	35:BA:1603:A:H5'	1.99	0.44
35:BA:1881:C:O2'	35:BA:1882:C:H5'	2.17	0.44
35:BA:1891:G:H2'	35:BA:1892:C:O4'	2.18	0.44
35:BA:2307:G:C2	35:BA:2308:G:H5''	2.52	0.44
35:BA:2688:U:O2	35:BA:2688:U:H3'	2.18	0.44
35:BA:2779:U:H5'	35:BA:2780:G:O5'	2.18	0.44
35:BA:2845:G:O5'	35:BA:2845:G:H8	2.01	0.44
37:BC:2:PRO:CB	37:BC:4:HIS:O	2.64	0.44
37:BC:225:ILE:C	37:BC:225:ILE:HD12	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:23:VAL:HA	39:BE:186:GLY:H	1.81	0.44
39:BE:30:PRO:HD3	39:BE:180:ASN:ND2	2.33	0.44
39:BE:144:ARG:O	39:BE:145:LYS:O	2.35	0.44
40:BF:11:VAL:HG12	40:BF:12:LEU:H	1.83	0.44
40:BF:16:GLY:O	40:BF:17:ARG:CG	2.63	0.44
41:BG:77:ILE:HG22	41:BG:80:PHE:CA	2.43	0.44
43:BK:3:LYS:HB3	43:BK:29:GLN:HB3	1.99	0.44
43:BK:3:LYS:HB3	43:BK:3:LYS:HE3	1.83	0.44
43:BK:100:THR:HG22	43:BK:139:VAL:HB	2.00	0.44
50:BS:71:ARG:HH11	50:BS:71:ARG:HG3	1.81	0.44
51:BT:52:ILE:HG21	51:BT:52:ILE:HD13	1.72	0.44
51:BT:126:ALA:C	51:BT:128:GLU:H	2.21	0.44
52:BU:50:ARG:C	52:BU:52:ARG:N	2.68	0.44
1:AA:631:G:H2'	1:AA:632:A:N7	2.33	0.44
1:AA:666:G:C2	1:AA:667:G:C8	3.06	0.44
1:AA:1361:G:C5'	1:AA:1362:C:OP2	2.66	0.44
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.17	0.44
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.32	0.44
4:AD:50:ARG:HA	4:AD:51:PRO:HD3	1.81	0.44
6:AF:12:PRO:HA	6:AF:45:LEU:HD11	1.99	0.44
6:AF:80:ARG:HH11	6:AF:80:ARG:CG	2.31	0.44
8:AH:20:TYR:CE1	8:AH:76:PRO:HG2	2.53	0.44
8:AH:32:LYS:C	8:AH:34:GLU:N	2.70	0.44
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.51	0.44
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.98	0.44
15:AO:24:SER:O	15:AO:25:THR:C	2.54	0.44
15:AO:26:GLU:HG3	15:AO:77:ARG:NH1	2.32	0.44
15:AO:82:ILE:HD13	15:AO:82:ILE:O	2.16	0.44
18:AR:44:LEU:O	18:AR:45:SER:C	2.56	0.44
20:AT:36:LEU:HD21	20:AT:55:ILE:HG23	1.98	0.44
20:AT:84:LEU:C	20:AT:84:LEU:HD12	2.38	0.44
20:AT:84:LEU:C	20:AT:86:ARG:H	2.21	0.44
24:AY:15:ILE:C	24:AY:101:LEU:HD13	2.38	0.44
24:AY:486:THR:CG2	24:AY:602:LEU:HG	2.48	0.44
27:B2:22:GLU:C	27:B2:24:LEU:N	2.70	0.44
29:B4:56:VAL:O	29:B4:56:VAL:HG12	2.17	0.44
31:B6:9:LEU:HD21	31:B6:26:ASN:HD22	1.76	0.44
31:B6:15:GLU:HB2	31:B6:47:THR:HG21	1.99	0.44
31:B6:41:PRO:HG2	31:B6:41:PRO:O	2.18	0.44
33:B8:51:ALA:HA	33:B8:54:GLU:OE1	2.17	0.44
35:BA:30:G:C5	35:BA:31:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:192:C:C2'	35:BA:193:U:H5'	2.46	0.44
35:BA:271(E):U:H3	35:BA:271(S):G:H1	1.65	0.44
35:BA:451:C:H41	35:BA:453:C:H3'	1.83	0.44
35:BA:466:A:C2	35:BA:796:C:O4'	2.71	0.44
35:BA:625:G:O2'	35:BA:626:U:H5'	2.17	0.44
35:BA:869:G:H1'	48:BQ:8:LYS:HD2	2.00	0.44
35:BA:915:C:H2'	35:BA:916:G:H8	1.82	0.44
35:BA:993:G:OP1	52:BU:50:ARG:HD2	2.18	0.44
35:BA:1248:G:C4	52:BU:3:ARG:HD2	2.53	0.44
35:BA:1387:C:H4'	35:BA:1469:A:H5'	2.00	0.44
35:BA:1544:A:O2'	35:BA:1545:A:H5'	2.18	0.44
35:BA:1630:G:C2	35:BA:1637:A:C2	3.06	0.44
35:BA:1820:U:O2	38:BD:202:LYS:HG2	2.18	0.44
35:BA:2313:C:O2'	35:BA:2314:C:H5'	2.18	0.44
35:BA:2317:C:H2'	35:BA:2318:G:C5'	2.37	0.44
35:BA:2378:A:N1	50:BS:19:LYS:HE3	2.33	0.44
36:BB:73:A:C4	36:BB:105:A:C2	3.05	0.44
37:BC:30:VAL:O	37:BC:33:LEU:HB2	2.18	0.44
38:BD:11:PRO:C	38:BD:13:ARG:N	2.71	0.44
38:BD:28:GLU:HB2	38:BD:29:PRO:HD3	2.00	0.44
38:BD:35:LYS:HD2	38:BD:36:PRO:HA	2.00	0.44
39:BE:77:ILE:HB	39:BE:78:LEU:H	1.62	0.44
46:BO:101:PRO:C	46:BO:102:VAL:HG13	2.38	0.44
47:BP:58:THR:C	47:BP:61:ARG:HE	2.12	0.44
48:BQ:32:TYR:N	48:BQ:32:TYR:CD1	2.86	0.44
50:BS:35:ILE:H	50:BS:53:SER:HB2	1.83	0.44
51:BT:2:ASN:O	51:BT:4:GLY:N	2.50	0.44
51:BT:107:ASP:N	51:BT:107:ASP:OD1	2.50	0.44
51:BT:118:ARG:HA	51:BT:121:ILE:CB	2.48	0.44
52:BU:52:ARG:O	52:BU:55:ARG:HG2	2.16	0.44
56:BY:46:LYS:H	56:BY:62:GLU:CB	2.22	0.44
57:BZ:72:ARG:HD3	57:BZ:72:ARG:HA	1.60	0.44
57:BZ:77:ASP:CA	57:BZ:78:LYS:HD3	2.47	0.44
1:AA:1004:A:C6	1:AA:1034:G:H2'	2.53	0.44
1:AA:1054:C:O2	1:AA:1054:C:C2'	2.66	0.44
1:AA:1152:A:OP1	10:AJ:68:HIS:HD2	2.01	0.44
1:AA:1216:G:H2'	1:AA:1217:C:C6	2.53	0.44
2:AB:100:GLY:C	2:AB:102:LEU:N	2.71	0.44
2:AB:112:VAL:C	2:AB:114:ARG:H	2.21	0.44
3:AC:15:THR:HG23	3:AC:181:ASN:HA	1.96	0.44
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:163:GLU:C	4:AD:165:MET:N	2.71	0.44
4:AD:163:GLU:OE1	4:AD:163:GLU:HA	2.18	0.44
8:AH:121:ASP:O	8:AH:122:ARG:C	2.55	0.44
10:AJ:30:SER:O	10:AJ:81:THR:HG23	2.18	0.44
10:AJ:91:PRO:O	10:AJ:91:PRO:HG2	2.17	0.44
11:AK:31:THR:OG1	11:AK:42:TRP:HB3	2.18	0.44
13:AM:56:LEU:C	13:AM:56:LEU:CD1	2.84	0.44
19:AS:10:PHE:HZ	19:AS:70:LYS:NZ	2.16	0.44
19:AS:52:TYR:HB2	19:AS:57:HIS:CE1	2.53	0.44
24:AY:203:GLU:O	24:AY:204:GLU:O	2.36	0.44
24:AY:228:MET:CE	24:AY:229:LEU:CD2	2.96	0.44
28:B3:46:ASN:O	28:B3:47:VAL:C	2.56	0.44
31:B6:15:GLU:OE2	31:B6:20:ASN:ND2	2.51	0.44
33:B8:49:VAL:O	33:B8:53:PRO:HD3	2.18	0.44
35:BA:404:C:H1'	35:BA:406:G:C8	2.52	0.44
35:BA:496:G:C6	35:BA:497:A:C4	3.06	0.44
35:BA:544:G:C2	35:BA:549:G:N1	2.86	0.44
35:BA:614:U:H2'	35:BA:614(A):U:O4'	2.18	0.44
35:BA:949:C:H2'	35:BA:950:G:H8	1.82	0.44
35:BA:980:A:C4	35:BA:1136:G:O4'	2.71	0.44
35:BA:1175:U:H2'	35:BA:1177:A:C2	2.53	0.44
35:BA:1242:A:C6	47:BP:8:PRO:HG2	2.53	0.44
35:BA:1441:G:H2'	35:BA:1442:G:C8	2.49	0.44
35:BA:1494:A:O2'	35:BA:1495:A:H3'	2.18	0.44
35:BA:1530:C:H2'	35:BA:1531:C:C6	2.52	0.44
35:BA:1719:G:O2'	35:BA:1720:U:H5'	2.17	0.44
35:BA:1949:G:H2'	35:BA:1950:G:C8	2.53	0.44
35:BA:2345:G:N7	35:BA:2372:G:C2	2.86	0.44
35:BA:2439:A:HO2'	35:BA:2587:A:H5''	1.80	0.44
35:BA:2704:C:H2'	35:BA:2705:A:O4'	2.17	0.44
38:BD:45:ASN:HB2	38:BD:46:GLN:OE1	2.18	0.44
39:BE:31:CYS:O	39:BE:91:VAL:N	2.45	0.44
39:BE:77:ILE:C	39:BE:78:LEU:HG	2.38	0.44
46:BO:79:PHE:HB3	51:BT:70:VAL:HG11	2.00	0.44
47:BP:91:PHE:HZ	47:BP:100:LEU:CD1	2.30	0.44
48:BQ:84:GLY:O	48:BQ:85:LYS:HB2	2.18	0.44
50:BS:89:ARG:HG3	50:BS:92:TYR:HB3	1.99	0.44
51:BT:62:THR:HA	51:BT:74:ARG:O	2.17	0.44
54:BW:50:VAL:HG13	54:BW:51:LEU:N	2.32	0.44
1:AA:51:A:H4'	1:AA:52:G:H5'	2.00	0.44
1:AA:91:C:C5	1:AA:92:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:143:A:N1	1:AA:220:G:O6	2.51	0.44
1:AA:253:U:H2'	1:AA:254:G:H8	1.83	0.44
1:AA:254:G:O2'	17:AQ:16:GLN:O	2.36	0.44
1:AA:265:G:N2	1:AA:267:C:O4'	2.51	0.44
1:AA:939:G:C6	1:AA:940:C:N4	2.86	0.44
1:AA:1248:A:C5	1:AA:1249:C:C5	3.06	0.44
1:AA:1502:A:H2	1:AA:1505:G:C2	2.35	0.44
3:AC:29:TYR:C	3:AC:29:TYR:CD1	2.91	0.44
3:AC:136:GLN:HG3	3:AC:139:GLN:CB	2.48	0.44
4:AD:108:LEU:O	4:AD:165:MET:CE	2.66	0.44
5:AE:18:ARG:NH2	5:AE:25:ARG:HG2	2.32	0.44
5:AE:20:GLN:O	5:AE:21:ALA:C	2.57	0.44
6:AF:36:ARG:CZ	6:AF:36:ARG:HB3	2.48	0.44
6:AF:67:MET:SD	6:AF:75:LEU:HD22	2.58	0.44
8:AH:53:VAL:O	8:AH:54:ASP:HB2	2.18	0.44
9:AI:2:GLU:HG2	9:AI:3:GLN:N	2.32	0.44
9:AI:27:THR:HG21	9:AI:30:GLY:HA2	2.00	0.44
12:AL:80:HIS:O	12:AL:81:SER:HB2	2.17	0.44
16:AP:60:LEU:HA	16:AP:60:LEU:HD23	1.73	0.44
20:AT:86:ARG:HG3	20:AT:86:ARG:NH1	2.32	0.44
24:AY:680:PRO:HB2	24:AY:682:GLN:HG2	1.98	0.44
27:B2:30:ARG:HB2	55:BX:5:TYR:CE2	2.51	0.44
29:B4:1:MET:HG3	41:BG:66:GLN:HG3	1.99	0.44
35:BA:66:C:C5	35:BA:67:U:C5	3.06	0.44
35:BA:82:G:N1	35:BA:103:A:OP2	2.50	0.44
35:BA:185:U:C2	35:BA:212:G:N2	2.85	0.44
35:BA:239:U:H1'	35:BA:259:G:N2	2.32	0.44
35:BA:389:G:C6	47:BP:70:GLN:HG3	2.53	0.44
35:BA:484:C:OP1	56:BY:49:VAL:HG13	2.17	0.44
35:BA:527:C:O2	35:BA:527:C:O4'	2.33	0.44
35:BA:654(P):C:H2'	35:BA:654(Q):C:C5'	2.48	0.44
35:BA:760:G:C2	35:BA:761:A:H1'	2.53	0.44
35:BA:973:A:O4'	35:BA:1188:U:C6	2.71	0.44
35:BA:984:A:H2'	35:BA:985:C:OP1	2.18	0.44
35:BA:1048:A:H2'	35:BA:1048:A:N3	2.32	0.44
35:BA:1216:G:C4	35:BA:1217:C:C5	3.06	0.44
35:BA:1218:C:C2	35:BA:1219:G:N7	2.86	0.44
35:BA:1623:G:C2	35:BA:1624:G:C8	3.05	0.44
35:BA:1627:G:O2'	35:BA:1628:G:H5'	2.18	0.44
35:BA:1885:A:H8	35:BA:1885:A:H5'	1.83	0.44
35:BA:2022:U:H2'	35:BA:2616:C:O2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2026:C:C4	35:BA:2027:G:N7	2.86	0.44
35:BA:2088:G:C5	35:BA:2089:U:C4	3.06	0.44
35:BA:2148:G:O2'	35:BA:2149:G:H5'	2.17	0.44
35:BA:2154:G:C2	35:BA:2155:G:C4	3.05	0.44
35:BA:2283:C:C4	35:BA:2389:G:C5	3.05	0.44
35:BA:2291:U:OP1	35:BA:2380:C:O2'	2.36	0.44
35:BA:2306:C:C5	35:BA:2307:G:H1'	2.53	0.44
35:BA:2380:C:C4	35:BA:2381:C:C5	3.06	0.44
35:BA:2722:G:O2'	49:BR:5:LYS:HB2	2.18	0.44
35:BA:2735:G:H2'	35:BA:2736:G:C8	2.53	0.44
35:BA:2889:C:H2'	35:BA:2891:G:O4'	2.18	0.44
38:BD:30:GLU:HG3	38:BD:63:ARG:CZ	2.48	0.44
39:BE:23:VAL:HG12	39:BE:184:VAL:O	2.17	0.44
39:BE:110:GLY:HA2	39:BE:162:ALA:N	2.32	0.44
40:BF:7:TYR:HD2	40:BF:16:GLY:CA	2.18	0.44
41:BG:40:ASN:ND2	41:BG:41:GLN:H	2.16	0.44
41:BG:58:GLN:C	41:BG:60:LEU:H	2.21	0.44
42:BH:173:PRO:HG2	42:BH:174:GLY:H	1.82	0.44
46:BO:114:ILE:HD12	46:BO:114:ILE:N	2.25	0.44
49:BR:51:LEU:HD23	49:BR:70:LEU:CD1	2.48	0.44
50:BS:88:ASP:CG	50:BS:89:ARG:N	2.71	0.44
51:BT:16:ARG:HG3	51:BT:16:ARG:NH1	2.33	0.44
51:BT:89:VAL:CB	51:BT:91:ARG:HE	2.31	0.44
52:BU:104:GLN:H	52:BU:104:GLN:HG3	1.47	0.44
53:BV:15:GLU:O	53:BV:96:ILE:HG21	2.18	0.44
54:BW:96:ILE:O	54:BW:96:ILE:HG23	2.17	0.44
56:BY:51:VAL:C	56:BY:53:PRO:CD	2.86	0.44
57:BZ:26:GLY:C	57:BZ:27:VAL:HG12	2.38	0.44
57:BZ:45:ASP:O	57:BZ:49:ARG:HB2	2.18	0.44
57:BZ:145:GLU:OE1	57:BZ:146:ILE:CD1	2.64	0.44
1:AA:261:U:H2'	1:AA:263:A:OP2	2.17	0.43
1:AA:394:G:H2'	1:AA:395:C:C6	2.52	0.43
1:AA:922:G:H4'	5:AE:20:GLN:HA	2.00	0.43
1:AA:1416:G:H2'	1:AA:1417:G:O4'	2.18	0.43
7:AG:18:TYR:HE2	7:AG:59:LEU:HB2	1.83	0.43
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	2.00	0.43
10:AJ:51:ARG:HG3	10:AJ:60:ARG:O	2.18	0.43
12:AL:39:VAL:C	12:AL:40:VAL:HG23	2.38	0.43
14:AN:12:ARG:C	14:AN:14:PRO:HD3	2.38	0.43
17:AQ:60:ILE:C	17:AQ:71:PHE:CD2	2.89	0.43
23:AX:16:A:H2'	23:AX:17:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:65:ILE:O	24:AY:65:ILE:HG12	2.18	0.43
24:AY:84:THR:O	24:AY:85:PRO:C	2.56	0.43
24:AY:607:ARG:HB2	24:AY:672:PHE:HB2	2.00	0.43
24:AY:679:VAL:HA	24:AY:680:PRO:HD3	1.76	0.43
27:B2:24:LEU:HD22	27:B2:60:LEU:HD13	2.00	0.43
27:B2:38:GLN:HA	27:B2:41:ILE:HG12	2.00	0.43
29:B4:10:VAL:HG22	29:B4:11:PRO:O	2.18	0.43
30:B5:36:CYS:HG	30:B5:49:CYS:CB	2.30	0.43
32:B7:19:ARG:HA	32:B7:22:MET:HB2	2.00	0.43
33:B8:33:ASN:O	33:B8:34:TRP:CB	2.65	0.43
33:B8:60:LEU:HA	33:B8:60:LEU:HD23	1.80	0.43
35:BA:143(A):C:O2	35:BA:143(A):C:C2'	2.64	0.43
35:BA:154(A):C:H42	35:BA:172:C:N4	2.16	0.43
35:BA:496:G:C2	35:BA:497:A:H1'	2.53	0.43
35:BA:542:C:H2'	35:BA:543:C:C6	2.53	0.43
35:BA:552:G:H5'	35:BA:552:G:C8	2.48	0.43
35:BA:613:G:C2	35:BA:614:U:C6	3.05	0.43
35:BA:724:U:H6	35:BA:724:U:O5'	2.00	0.43
35:BA:796:C:H2'	35:BA:797:C:H6	1.83	0.43
35:BA:1189:A:C2	35:BA:1190:G:H1'	2.53	0.43
35:BA:1531:C:H2'	35:BA:1532:C:H6	1.82	0.43
35:BA:1668:A:C2	35:BA:1670:C:C4	3.06	0.43
35:BA:1771:C:H1'	35:BA:1786:A:C8	2.53	0.43
35:BA:1788:C:H2'	35:BA:1789:A:O4'	2.17	0.43
35:BA:1943:U:C4	35:BA:1945:G:H1'	2.53	0.43
35:BA:2096:U:H2'	35:BA:2097:C:C6	2.53	0.43
35:BA:2514:U:N3	35:BA:2515:C:C5	2.86	0.43
37:BC:117:THR:O	37:BC:120:VAL:HG22	2.17	0.43
38:BD:27:THR:O	38:BD:27:THR:HG23	2.17	0.43
38:BD:124:PRO:O	38:BD:129:ASN:ND2	2.51	0.43
38:BD:136:ILE:HA	38:BD:137:PRO:HD3	1.80	0.43
38:BD:209:ALA:C	38:BD:210:GLY:O	2.56	0.43
39:BE:113:PHE:CE1	39:BE:158:GLY:CA	3.01	0.43
40:BF:29:ASN:HB3	40:BF:32:LEU:HB3	2.00	0.43
40:BF:125:LEU:N	40:BF:125:LEU:HD23	2.32	0.43
40:BF:133:ASN:N	40:BF:162:LEU:HD23	2.33	0.43
40:BF:183:VAL:O	40:BF:187:VAL:HG23	2.18	0.43
42:BH:149:ARG:HA	42:BH:162:ILE:HD11	1.98	0.43
43:BK:39:LYS:O	43:BK:43:ALA:HB2	2.18	0.43
43:BK:120:LEU:O	43:BK:124:ALA:CB	2.66	0.43
47:BP:112:LEU:HD22	47:BP:112:LEU:C	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:101:LEU:O	50:BS:101:LEU:CD1	2.62	0.43
51:BT:49:VAL:C	51:BT:50:ILE:HD12	2.38	0.43
52:BU:34:LYS:HA	52:BU:34:LYS:CE	2.44	0.43
55:BX:53:LYS:HD2	55:BX:55:ASN:ND2	2.33	0.43
56:BY:54:LYS:C	56:BY:55:TYR:HD1	2.20	0.43
1:AA:9:G:C6	1:AA:26:A:N6	2.86	0.43
1:AA:157:G:C2	1:AA:165:C:C2	3.06	0.43
1:AA:342:C:C4	1:AA:343:U:C4	3.06	0.43
1:AA:1144:G:H21	1:AA:1146:A:H62	1.65	0.43
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.53	0.43
1:AA:1296:C:C5	1:AA:1297:C:C5	3.06	0.43
1:AA:1324:A:H2'	1:AA:1325:C:H6	1.83	0.43
1:AA:1381:U:C5	1:AA:1382:C:C4	3.07	0.43
1:AA:1442(A):G:H2'	51:BT:118:ARG:HH11	1.82	0.43
2:AB:165:VAL:CG2	2:AB:166:ASP:H	2.04	0.43
3:AC:10:PHE:O	3:AC:10:PHE:CD1	2.71	0.43
9:AI:52:ALA:O	9:AI:53:VAL:HG13	2.18	0.43
10:AJ:79:ARG:HG2	10:AJ:79:ARG:HH11	1.84	0.43
17:AQ:43:LEU:HA	17:AQ:43:LEU:HD23	1.71	0.43
18:AR:26:LEU:HD21	18:AR:42:ARG:NH1	2.33	0.43
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.34	0.43
22:AV:70:G:H2'	22:AV:71:C:H6	1.83	0.43
24:AY:120:THR:O	24:AY:121:VAL:C	2.56	0.43
24:AY:207:ASP:C	24:AY:207:ASP:OD1	2.56	0.43
24:AY:219:VAL:C	24:AY:221:ALA:N	2.71	0.43
24:AY:230:LYS:HZ1	24:AY:237:PRO:HA	1.79	0.43
24:AY:355:LEU:CD2	24:AY:355:LEU:N	2.80	0.43
26:B1:11:ARG:HB3	26:B1:11:ARG:HH11	1.84	0.43
27:B2:58:ALA:O	27:B2:59:ARG:C	2.57	0.43
30:B5:7:PRO:HA	35:BA:2615:U:N1	2.33	0.43
32:B7:45:ALA:C	32:B7:46:VAL:HG23	2.38	0.43
33:B8:26:LYS:HA	33:B8:26:LYS:HD3	1.61	0.43
33:B8:61:LEU:N	33:B8:63:PRO:HD2	2.33	0.43
35:BA:32:C:H5'	35:BA:33:U:OP2	2.18	0.43
35:BA:35:G:H2'	35:BA:36:G:H8	1.82	0.43
35:BA:149:A:H8	35:BA:149:A:O5'	2.01	0.43
35:BA:252:G:P	47:BP:50:ARG:HH21	2.40	0.43
35:BA:252:G:P	47:BP:50:ARG:NH2	2.90	0.43
35:BA:674:G:H1'	40:BF:74:ARG:CD	2.46	0.43
35:BA:1050:A:C5	35:BA:1051:G:H1'	2.52	0.43
35:BA:1063:G:O2'	35:BA:1064:C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1441:G:H4'	35:BA:1627:G:O3'	2.18	0.43
35:BA:1518:U:H2'	35:BA:1519:G:O4'	2.17	0.43
35:BA:1719:G:C5	35:BA:1720:U:C5	3.06	0.43
35:BA:2345:G:O2'	35:BA:2381:C:H2'	2.18	0.43
35:BA:2577:A:C5'	35:BA:2578:G:C5'	2.91	0.43
35:BA:2701:C:H2'	35:BA:2702:U:H2'	1.99	0.43
35:BA:2822:G:OP2	39:BE:110:GLY:O	2.36	0.43
37:BC:29:LEU:C	37:BC:29:LEU:CD2	2.86	0.43
37:BC:174:ALA:HB3	37:BC:193:PHE:CE1	2.53	0.43
38:BD:145:VAL:HG13	38:BD:191:ALA:HB2	1.99	0.43
39:BE:2:LYS:CG	39:BE:95:ILE:HG22	2.47	0.43
39:BE:36:ARG:HH21	39:BE:88:GLY:CA	2.31	0.43
39:BE:93:VAL:C	39:BE:95:ILE:H	2.20	0.43
40:BF:50:SER:CB	40:BF:94:PRO:HD3	2.41	0.43
45:BN:65:LYS:CB	45:BN:65:LYS:HZ2	2.30	0.43
46:BO:24:VAL:O	46:BO:24:VAL:HG23	2.16	0.43
49:BR:4:LEU:C	49:BR:6:SER:N	2.70	0.43
49:BR:33:ARG:HA	49:BR:114:VAL:O	2.18	0.43
50:BS:25:ARG:CG	50:BS:26:LEU:N	2.81	0.43
50:BS:106:ARG:O	50:BS:107:GLU:HB2	2.18	0.43
54:BW:45:TYR:CE1	54:BW:46:PHE:CD1	3.06	0.43
55:BX:18:TYR:HD1	55:BX:21:PHE:CE2	2.31	0.43
55:BX:77:LYS:O	55:BX:77:LYS:HG2	2.18	0.43
57:BZ:5:LEU:HD13	57:BZ:59:LEU:HD23	2.01	0.43
1:AA:47:C:C6	1:AA:365:U:H2'	2.53	0.43
1:AA:189(H):G:O5'	1:AA:189(H):G:C8	2.71	0.43
1:AA:316:G:H2'	1:AA:316:G:N3	2.34	0.43
1:AA:399:G:H2'	1:AA:400:C:O4'	2.18	0.43
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.48	0.43
1:AA:571:U:O5'	1:AA:571:U:H6	2.01	0.43
1:AA:645:C:H2'	1:AA:646:U:C6	2.53	0.43
1:AA:781:A:H2'	1:AA:782:A:H5'	1.99	0.43
1:AA:999:C:H6	1:AA:999:C:O5'	2.00	0.43
2:AB:32:ILE:O	2:AB:32:ILE:CG2	2.66	0.43
2:AB:68:ILE:HG22	2:AB:70:PHE:CD1	2.53	0.43
2:AB:92:TYR:C	2:AB:92:TYR:CD1	2.91	0.43
3:AC:43:LEU:O	3:AC:45:LYS:N	2.51	0.43
3:AC:77:ILE:HA	3:AC:84:ILE:CG2	2.49	0.43
3:AC:141:VAL:HG12	3:AC:146:ALA:HB3	1.99	0.43
4:AD:17:VAL:O	4:AD:18:LYS:O	2.36	0.43
4:AD:52:SER:O	4:AD:56:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:73:ARG:HD2	4:AD:77:ASN:HD21	1.82	0.43
5:AE:51:VAL:O	5:AE:52:PRO:C	2.56	0.43
7:AG:40:ALA:O	7:AG:41:ARG:C	2.54	0.43
9:AI:99:LEU:CB	9:AI:101:PHE:CE1	3.02	0.43
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.19	0.43
11:AK:105:VAL:O	11:AK:105:VAL:CG2	2.57	0.43
12:AL:110:VAL:CG2	12:AL:120:TYR:HB3	2.48	0.43
13:AM:54:VAL:HG12	13:AM:58:GLU:CG	2.48	0.43
19:AS:13:ASP:C	19:AS:15:LEU:H	2.22	0.43
20:AT:74:LYS:HD3	20:AT:74:LYS:H	1.82	0.43
23:AX:19:U:H2'	23:AX:20:U:C5	2.52	0.43
24:AY:408:VAL:HG22	24:AY:454:MET:HA	1.99	0.43
24:AY:530:VAL:HG13	24:AY:531:GLY:N	2.33	0.43
30:B5:2:ALA:HB2	35:BA:2015:A:C4'	2.48	0.43
30:B5:33:CYS:SG	30:B5:36:CYS:SG	3.00	0.43
31:B6:11:LEU:HD23	31:B6:51:GLU:CG	2.45	0.43
35:BA:6:A:H2'	35:BA:6:A:N3	2.34	0.43
35:BA:654(P):C:O2'	35:BA:654(Q):C:H5'	2.18	0.43
35:BA:748:G:C8	54:BW:89:ALA:HB1	2.53	0.43
35:BA:756:C:C2'	35:BA:757:U:H5'	2.48	0.43
35:BA:953:A:H2'	35:BA:954:G:C8	2.54	0.43
35:BA:969:U:H5'	35:BA:970:C:OP2	2.19	0.43
35:BA:1116:C:H2'	35:BA:1117:G:H8	1.83	0.43
35:BA:1229:G:C6	35:BA:1230:C:N3	2.86	0.43
35:BA:1351:C:H2'	35:BA:1352:U:O4'	2.18	0.43
35:BA:1683:C:H2'	35:BA:1684:C:C6	2.53	0.43
35:BA:1741:A:H2'	35:BA:1742:G:O4'	2.19	0.43
35:BA:1826:G:H2'	35:BA:1827:C:C6	2.53	0.43
35:BA:1917:U:O2'	35:BA:1918:A:H5'	2.18	0.43
35:BA:1992:G:N2	35:BA:1996:C:O2'	2.52	0.43
35:BA:2328:A:H8	35:BA:2328:A:O5'	2.00	0.43
35:BA:2745:C:H4'	42:BH:142:GLY:O	2.18	0.43
39:BE:107:THR:O	39:BE:107:THR:HG22	2.18	0.43
40:BF:116:ASP:OD1	40:BF:119:ARG:NH2	2.51	0.43
41:BG:73:ALA:H	41:BG:87:PRO:CG	2.31	0.43
42:BH:20:ALA:HB1	42:BH:21:PRO:HD2	2.00	0.43
46:BO:60:ALA:HB1	46:BO:84:ALA:HB1	2.01	0.43
51:BT:48:ILE:HD12	51:BT:48:ILE:N	2.33	0.43
51:BT:84:GLN:O	51:BT:85:LYS:HG3	2.18	0.43
52:BU:71:GLN:O	52:BU:71:GLN:HG2	2.17	0.43
52:BU:117:GLN:OE1	52:BU:117:GLN:CA	2.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BW:4:LYS:CG	54:BW:5:ALA:H	2.31	0.43
55:BX:10:ALA:O	55:BX:28:PHE:CB	2.64	0.43
57:BZ:27:VAL:N	57:BZ:37:VAL:HG22	2.34	0.43
1:AA:382:A:C2	1:AA:383:A:C5	3.07	0.43
1:AA:525:C:O5'	1:AA:525:C:H6	2.01	0.43
1:AA:828:A:C2'	1:AA:829:G:O5'	2.67	0.43
1:AA:946:A:H3'	1:AA:947:G:H8	1.84	0.43
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.82	0.43
1:AA:1442(B):A:C2	51:BT:118:ARG:NH2	2.86	0.43
2:AB:7:VAL:O	2:AB:11:LEU:CG	2.62	0.43
3:AC:30:ARG:HD2	14:AN:38:GLY:HA3	1.99	0.43
3:AC:146:ALA:O	3:AC:148:GLY:N	2.46	0.43
4:AD:14:ARG:C	4:AD:16:GLY:N	2.71	0.43
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.18	0.43
6:AF:97:PHE:HD2	18:AR:65:ILE:HD12	1.84	0.43
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.48	0.43
11:AK:66:LEU:HD22	11:AK:101:SER:HB2	2.01	0.43
12:AL:76:ASN:OD1	12:AL:108:ALA:HB3	2.18	0.43
13:AM:19:LEU:O	13:AM:20:THR:C	2.56	0.43
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.18	0.43
13:AM:56:LEU:HD13	13:AM:57:ARG:N	2.32	0.43
14:AN:41:ARG:HD2	14:AN:41:ARG:C	2.39	0.43
16:AP:38:TYR:O	16:AP:49:LEU:HD12	2.19	0.43
17:AQ:37:LYS:O	17:AQ:38:ARG:NE	2.46	0.43
19:AS:72:GLY:C	19:AS:74:PHE:N	2.72	0.43
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.18	0.43
20:AT:82:SER:O	20:AT:86:ARG:HD2	2.18	0.43
24:AY:92:ILE:HD13	24:AY:92:ILE:O	2.17	0.43
24:AY:160:ARG:O	24:AY:255:ILE:HA	2.18	0.43
24:AY:459:LEU:O	24:AY:463:VAL:HG23	2.18	0.43
24:AY:497:PHE:CE1	24:AY:584:ILE:HG21	2.53	0.43
58:AY:701:FUA:H212	58:AY:701:FUA:H72	1.76	0.43
25:B0:32:ARG:O	25:B0:35:ASN:OD1	2.35	0.43
25:B0:40:GLN:NE2	25:B0:44:ARG:N	2.66	0.43
25:B0:51:VAL:HG12	25:B0:59:LEU:HD22	2.00	0.43
35:BA:408:G:O5'	35:BA:408:G:H8	2.01	0.43
35:BA:436:C:H2'	35:BA:437:G:H8	1.82	0.43
35:BA:602:G:C2	35:BA:656:G:C6	3.06	0.43
35:BA:639:U:O2'	35:BA:640:C:H5'	2.17	0.43
35:BA:733:G:O6	35:BA:761:A:C8	2.71	0.43
35:BA:748:G:O6	35:BA:751:A:H4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:821:A:H5'	35:BA:822:U:C6	2.53	0.43
35:BA:900:A:C5	35:BA:901:A:C8	3.06	0.43
35:BA:1057:A:H2'	35:BA:1058:G:H8	1.82	0.43
35:BA:1229:G:C5	35:BA:1230:C:C4	3.06	0.43
35:BA:1334:G:O2'	35:BA:1335:U:H5'	2.19	0.43
35:BA:1500:G:C6	35:BA:1501:C:C4	3.07	0.43
35:BA:1771:C:HO2'	35:BA:1786:A:H8	1.64	0.43
35:BA:1879:C:O5'	35:BA:1879:C:H6	2.01	0.43
35:BA:2769:C:O2'	35:BA:2770:G:H5'	2.18	0.43
35:BA:2787:C:H1'	39:BE:61:ARG:CD	2.48	0.43
35:BA:2868:A:N6	35:BA:2869:G:C6	2.87	0.43
36:BB:21:G:C6	36:BB:63:G:C6	3.07	0.43
37:BC:46:ALA:O	37:BC:48:LEU:HD12	2.18	0.43
37:BC:102:GLN:O	37:BC:105:LEU:N	2.51	0.43
38:BD:77:ALA:O	38:BD:116:GLN:HG3	2.18	0.43
39:BE:51:PHE:HD1	39:BE:52:LEU:CD1	2.25	0.43
41:BG:81:LYS:O	41:BG:83:ARG:HG3	2.18	0.43
41:BG:111:LEU:O	41:BG:114:ILE:HG13	2.18	0.43
45:BN:46:VAL:CG1	45:BN:47:ALA:H	2.05	0.43
45:BN:134:ARG:O	45:BN:136:GLU:N	2.50	0.43
47:BP:35:HIS:O	47:BP:36:LYS:HB2	2.18	0.43
47:BP:105:LEU:HB3	47:BP:106:LEU:H	1.54	0.43
51:BT:29:ARG:HD2	51:BT:29:ARG:HA	1.69	0.43
56:BY:62:GLU:CG	56:BY:63:LYS:H	2.31	0.43
57:BZ:71:VAL:HG13	57:BZ:86:VAL:HG11	2.00	0.43
57:BZ:166:SER:HB2	57:BZ:167:PRO:O	2.18	0.43
1:AA:142:G:N3	1:AA:196:A:H2	2.16	0.43
1:AA:302:G:H2'	1:AA:303:A:O4'	2.19	0.43
1:AA:341:C:C2	1:AA:349:A:C2	3.06	0.43
1:AA:451:A:O4'	1:AA:452:A:C8	2.72	0.43
1:AA:740:U:O2'	1:AA:741:G:H5'	2.18	0.43
1:AA:861:G:H2'	1:AA:862:C:C6	2.54	0.43
1:AA:928:G:H2'	1:AA:929:G:C8	2.54	0.43
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.84	0.43
1:AA:1230:C:O5'	1:AA:1230:C:H6	2.02	0.43
1:AA:1237:C:H3'	1:AA:1336:C:N4	2.34	0.43
1:AA:1442:G:C5	1:AA:1442(B):A:C2	3.06	0.43
1:AA:1459:C:H2'	1:AA:1460:A:C8	2.53	0.43
2:AB:44:LEU:CD1	2:AB:44:LEU:N	2.63	0.43
2:AB:60:ASP:O	2:AB:64:ARG:CZ	2.66	0.43
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:120:LEU:O	4:AD:121:VAL:C	2.53	0.43
5:AE:8:GLU:HA	5:AE:34:VAL:HA	2.01	0.43
5:AE:146:ALA:C	5:AE:148:VAL:H	2.21	0.43
7:AG:18:TYR:CE2	7:AG:59:LEU:HB2	2.54	0.43
7:AG:116:ALA:O	7:AG:120:ILE:HG12	2.19	0.43
8:AH:56:LYS:HA	8:AH:57:PRO:HD2	1.67	0.43
8:AH:63:LEU:N	8:AH:63:LEU:CD2	2.81	0.43
8:AH:92:ARG:H	8:AH:92:ARG:HG2	1.50	0.43
8:AH:119:LEU:HB3	8:AH:123:GLU:HB3	1.99	0.43
17:AQ:29:HIS:CG	17:AQ:30:PRO:HD2	2.53	0.43
18:AR:50:ILE:HD11	18:AR:74:ARG:NH2	2.33	0.43
22:AV:53:G:C2'	22:AV:54:U:H5'	2.48	0.43
24:AY:39:ILE:CG2	24:AY:40:HIS:N	2.75	0.43
24:AY:122:TRP:O	24:AY:125:ALA:N	2.35	0.43
24:AY:359:HIS:C	24:AY:361:ASN:H	2.22	0.43
24:AY:409:ILE:HD11	24:AY:654:GLY:CA	2.45	0.43
24:AY:442:THR:HG23	24:AY:447:GLY:O	2.17	0.43
29:B4:27:THR:O	29:B4:27:THR:HG23	2.17	0.43
30:B5:35:GLU:O	30:B5:36:CYS:CB	2.66	0.43
33:B8:26:LYS:CE	33:B8:47:LYS:HD2	2.48	0.43
35:BA:84:A:H2	35:BA:98:G:H21	1.63	0.43
35:BA:96:G:N3	35:BA:96:G:H2'	2.34	0.43
35:BA:140:G:N3	35:BA:142:A:N1	2.66	0.43
35:BA:233:A:C2'	35:BA:234:C:H5'	2.48	0.43
35:BA:268:C:C3'	35:BA:269:U:H5'	2.49	0.43
35:BA:511:U:C5	35:BA:512:G:C5	3.06	0.43
35:BA:613:G:H5'	35:BA:613:G:C8	2.54	0.43
35:BA:802:A:C5	35:BA:803:U:C4	3.06	0.43
35:BA:942:G:O2'	35:BA:1189:A:N3	2.44	0.43
35:BA:1092:C:H2'	35:BA:1093:G:H8	1.82	0.43
35:BA:1118:C:H6	35:BA:1118:C:O5'	2.01	0.43
35:BA:1201:C:O2'	35:BA:1202:C:H5'	2.19	0.43
35:BA:1642:G:H2'	35:BA:1643:G:O4'	2.19	0.43
35:BA:1881:C:H2'	35:BA:1882:C:H6	1.83	0.43
35:BA:1942:C:H3'	35:BA:1943:U:H5''	2.00	0.43
35:BA:2019:A:H2'	35:BA:2020:A:O5'	2.18	0.43
35:BA:2334:G:H1'	50:BS:18:ILE:CD1	2.49	0.43
35:BA:2720:U:H2'	35:BA:2721:A:O4'	2.18	0.43
36:BB:40:U:H3'	36:BB:41:U:C5'	2.48	0.43
37:BC:76:LEU:HB3	37:BC:114:VAL:HA	2.01	0.43
38:BD:61:LEU:O	38:BD:63:ARG:NH1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:82:LEU:HD23	41:BG:82:LEU:O	2.19	0.43
42:BH:169:VAL:HG13	42:BH:170:ARG:N	2.33	0.43
43:BK:132:ARG:NH1	43:BK:132:ARG:CG	2.79	0.43
45:BN:58:ASP:C	45:BN:60:ILE:H	2.21	0.43
45:BN:119:ARG:HH11	45:BN:119:ARG:HG3	1.84	0.43
45:BN:127:ASP:O	45:BN:129:PRO:HD2	2.19	0.43
46:BO:17:ARG:HH21	46:BO:47:ILE:CD1	2.31	0.43
48:BQ:90:VAL:HG12	48:BQ:91:GLU:N	2.32	0.43
52:BU:92:ARG:HB3	53:BV:11:GLN:NE2	2.34	0.43
1:AA:495:A:H4'	1:AA:496:A:OP1	2.19	0.43
1:AA:836:G:C5	1:AA:851:G:C6	3.07	0.43
1:AA:967:C:H5'	9:AI:127:LYS:HA	2.01	0.43
1:AA:1061:G:H2'	1:AA:1062:U:C5'	2.48	0.43
1:AA:1090:U:C4'	1:AA:1170:A:H2	2.32	0.43
1:AA:1321:C:C4	1:AA:1322:C:C4	3.07	0.43
3:AC:32:LEU:O	3:AC:35:GLU:HB3	2.19	0.43
3:AC:43:LEU:HD22	3:AC:47:LEU:CD2	2.49	0.43
4:AD:3:ARG:HG2	4:AD:118:ARG:HD3	2.00	0.43
7:AG:91:VAL:HG12	7:AG:92:SER:H	1.84	0.43
9:AI:90:PRO:CG	9:AI:91:ASP:H	2.32	0.43
10:AJ:5:ARG:HG3	10:AJ:71:LEU:HD11	1.99	0.43
12:AL:28:LYS:C	12:AL:30:ALA:N	2.70	0.43
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.33	0.43
18:AR:85:LEU:HD12	18:AR:86:VAL:H	1.83	0.43
24:AY:30:GLU:CG	24:AY:31:ARG:N	2.80	0.43
24:AY:71:THR:HB	24:AY:78:ARG:HH11	1.83	0.43
24:AY:402:ILE:HD12	24:AY:402:ILE:N	2.34	0.43
24:AY:485:GLU:OE2	24:AY:555:LEU:HB2	2.19	0.43
26:B1:12:PRO:HB2	26:B1:41:ARG:HH21	1.83	0.43
26:B1:26:ARG:CD	26:B1:27:GLU:HG3	2.49	0.43
26:B1:84:GLY:O	26:B1:86:SER:N	2.51	0.43
27:B2:69:ARG:HH12	35:BA:111:A:H5'	1.83	0.43
29:B4:14:ILE:HD13	29:B4:22:ILE:HB	2.01	0.43
35:BA:130:C:O3'	35:BA:1349:A:H1'	2.18	0.43
35:BA:271(V):G:H2'	35:BA:271(W):G:O4'	2.18	0.43
35:BA:398:G:H2'	35:BA:399:G:H8	1.82	0.43
35:BA:438:G:H2'	35:BA:440:G:C8	2.54	0.43
35:BA:583:G:H2'	35:BA:584:C:H6	1.82	0.43
35:BA:701:G:N1	35:BA:732:C:C4	2.87	0.43
35:BA:965:C:H4'	35:BA:2273:A:H1'	2.01	0.43
35:BA:979:G:C2	35:BA:982:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:996:A:H2'	35:BA:997:G:C8	2.50	0.43
35:BA:1024:G:OP2	35:BA:1026:U:OP1	2.36	0.43
35:BA:1398:C:H2'	35:BA:1399:C:C6	2.53	0.43
35:BA:1542:A:C8	35:BA:1542:A:C3'	3.01	0.43
35:BA:2161:C:O2'	35:BA:2162:G:H5'	2.19	0.43
35:BA:2375:G:N2	35:BA:2377:A:H3'	2.34	0.43
35:BA:2482:G:C6	35:BA:2483:C:C2	3.07	0.43
35:BA:2810:A:H2'	35:BA:2811:G:O4'	2.19	0.43
36:BB:87:G:C2'	36:BB:88:C:H5''	2.49	0.43
37:BC:86:GLU:HA	37:BC:89:GLU:OE1	2.18	0.43
39:BE:39:PRO:HG2	39:BE:40:GLU:HG3	2.00	0.43
40:BF:139:PHE:O	40:BF:140:LEU:C	2.57	0.43
41:BG:67:LYS:HD3	41:BG:68:PRO:O	2.17	0.43
42:BH:46:GLU:HG2	42:BH:46:GLU:H	1.52	0.43
43:BK:93:ARG:HB2	57:BZ:112:ARG:NE	2.32	0.43
46:BO:25:LEU:HA	46:BO:25:LEU:HD23	1.75	0.43
47:BP:92:GLU:OE2	47:BP:121:LYS:HE2	2.18	0.43
48:BQ:43:THR:OG1	48:BQ:46:GLN:HB2	2.18	0.43
49:BR:48:VAL:O	49:BR:51:LEU:N	2.51	0.43
51:BT:106:SER:HA	51:BT:110:ILE:CG1	2.46	0.43
51:BT:117:ASP:OD2	51:BT:120:ARG:HG3	2.18	0.43
52:BU:55:ARG:HA	52:BU:58:ARG:HD2	2.00	0.43
52:BU:59:ARG:NH1	52:BU:59:ARG:HG2	2.34	0.43
52:BU:70:ARG:NH2	52:BU:75:ASN:CB	2.81	0.43
52:BU:92:ARG:NH1	53:BV:11:GLN:CG	2.82	0.43
54:BW:14:PRO:O	54:BW:15:ARG:C	2.55	0.43
1:AA:80:G:C5'	1:AA:81:U:H5'	2.44	0.43
1:AA:356:A:O2'	1:AA:357:G:H5'	2.19	0.43
1:AA:554:C:H2'	1:AA:555:C:C6	2.54	0.43
1:AA:738:C:C2	1:AA:739:C:C5	3.07	0.43
1:AA:867:G:H2'	1:AA:868:C:C6	2.53	0.43
1:AA:1253:G:H2'	1:AA:1254:C:C6	2.54	0.43
1:AA:1315:U:C4	1:AA:1316:G:C6	3.07	0.43
1:AA:1315:U:H2'	1:AA:1316:G:C8	2.54	0.43
1:AA:1316:G:O3'	14:AN:18:VAL:CG1	2.67	0.43
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.54	0.43
1:AA:1396:A:H4'	1:AA:1397:C:C5'	2.48	0.43
1:AA:1502:A:C2	1:AA:1505:G:N1	2.57	0.43
2:AB:160:ASP:O	2:AB:161:ALA:CB	2.66	0.43
3:AC:43:LEU:C	3:AC:45:LYS:H	2.21	0.43
12:AL:76:ASN:OD1	12:AL:108:ALA:CB	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:66:LEU:O	13:AM:70:LEU:CB	2.62	0.43
13:AM:74:VAL:HA	13:AM:77:ASN:ND2	2.34	0.43
15:AO:78:TYR:O	15:AO:79:ARG:C	2.57	0.43
15:AO:80:ALA:O	15:AO:81:LEU:C	2.57	0.43
18:AR:37:VAL:C	18:AR:39:VAL:N	2.71	0.43
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.19	0.43
24:AY:98:MET:CE	24:AY:125:ALA:HA	2.48	0.43
24:AY:504:ARG:O	24:AY:505:GLY:C	2.56	0.43
25:B0:44:ARG:HH11	25:B0:44:ARG:CG	2.29	0.43
26:B1:78:LYS:O	26:B1:80:LEU:N	2.51	0.43
26:B1:90:ILE:O	26:B1:94:LEU:HD13	2.19	0.43
31:B6:39:TYR:O	31:B6:47:THR:HG22	2.18	0.43
35:BA:208:C:H2'	35:BA:209:C:C6	2.50	0.43
35:BA:271(D):G:H1	35:BA:271(T):C:H42	1.67	0.43
35:BA:425:G:C2	35:BA:426:C:C6	3.07	0.43
35:BA:507:A:H4'	35:BA:509:C:C6	2.53	0.43
35:BA:649:G:H2'	35:BA:650:C:C6	2.53	0.43
35:BA:799:G:C3'	35:BA:800:A:H5''	2.47	0.43
35:BA:803:U:H2'	35:BA:804:A:C5'	2.48	0.43
35:BA:805:G:H4'	35:BA:806:C:OP2	2.18	0.43
35:BA:1152:C:OP2	35:BA:1152:C:C6	2.71	0.43
35:BA:1324:G:C5	35:BA:1328:G:C6	3.06	0.43
35:BA:1613:G:H2'	35:BA:1617:C:H42	1.83	0.43
35:BA:2220:G:C4	35:BA:2221:G:C8	3.07	0.43
35:BA:2439:A:C8	35:BA:2586:C:H4'	2.54	0.43
35:BA:2636:U:OP1	39:BE:79:ARG:HG3	2.18	0.43
35:BA:2657:A:H2'	35:BA:2658:C:C5'	2.43	0.43
35:BA:2745:C:H1'	42:BH:143:GLN:HG2	2.01	0.43
35:BA:2838:G:H1'	49:BR:45:ARG:HH11	1.83	0.43
36:BB:74:U:O2	57:BZ:34:ASN:ND2	2.51	0.43
37:BC:150:ILE:HG13	37:BC:154:ILE:HG13	1.99	0.43
39:BE:65:GLY:HA2	39:BE:70:ALA:CB	2.48	0.43
40:BF:9:ILE:HG12	40:BF:14:PRO:CA	2.49	0.43
40:BF:102:PRO:O	40:BF:106:ARG:HG2	2.19	0.43
41:BG:103:LEU:HA	41:BG:106:LEU:HB3	2.01	0.43
42:BH:170:ARG:O	42:BH:171:LEU:HB2	2.15	0.43
47:BP:112:LEU:O	47:BP:128:HIS:HB2	2.19	0.43
49:BR:82:GLU:C	49:BR:84:ALA:H	2.22	0.43
51:BT:24:PRO:HD3	51:BT:52:ILE:CD1	2.45	0.43
52:BU:52:ARG:O	52:BU:53:ARG:C	2.57	0.43
52:BU:93:LYS:H	52:BU:93:LYS:HD2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:23:LYS:HB3	57:BZ:38:TYR:CD2	2.53	0.43
57:BZ:59:LEU:HD21	57:BZ:88:PHE:CE2	2.54	0.43
57:BZ:171:ILE:C	57:BZ:171:ILE:HD12	2.39	0.43
1:AA:277:C:P	17:AQ:68:ARG:HH12	2.42	0.43
1:AA:430:A:OP2	4:AD:8:VAL:HG22	2.18	0.43
1:AA:475:G:H2'	1:AA:476:G:H8	1.83	0.43
1:AA:610:G:H2'	1:AA:610:G:N3	2.33	0.43
1:AA:777:A:H3'	1:AA:778:G:H8	1.84	0.43
1:AA:928:G:H2'	1:AA:929:G:H8	1.84	0.43
1:AA:992:U:O2'	1:AA:993:G:P	2.77	0.43
1:AA:1237:C:H3'	1:AA:1336:C:H41	1.84	0.43
1:AA:1260:C:H4'	1:AA:1284:C:H5'	2.00	0.43
1:AA:1296:C:O2'	1:AA:1302:U:C5	2.62	0.43
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.83	0.43
2:AB:112:VAL:C	2:AB:114:ARG:N	2.71	0.43
2:AB:204:ASN:ND2	2:AB:204:ASN:C	2.69	0.43
4:AD:171:GLY:O	4:AD:173:TRP:N	2.52	0.43
5:AE:32:VAL:HG12	5:AE:33:VAL:N	2.34	0.43
6:AF:71:ARG:HH11	6:AF:71:ARG:HG3	1.83	0.43
6:AF:81:ILE:O	6:AF:81:ILE:HG22	2.18	0.43
9:AI:17:VAL:O	9:AI:18:PHE:HD1	2.02	0.43
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.18	0.43
17:AQ:99:SER:O	17:AQ:100:LYS:HG3	2.19	0.43
20:AT:47:GLY:O	20:AT:49:ALA:N	2.40	0.43
24:AY:216:LEU:HD23	24:AY:216:LEU:O	2.18	0.43
24:AY:225:GLU:H	24:AY:225:GLU:CD	2.21	0.43
24:AY:370:LYS:O	24:AY:371:ALA:C	2.56	0.43
24:AY:434:GLU:OE1	24:AY:465:ARG:NH2	2.51	0.43
25:B0:77:ARG:HH22	35:BA:857:C:H5'	1.83	0.43
31:B6:28:ARG:HB2	31:B6:29:ASN:H	1.57	0.43
33:B8:15:LYS:HB2	47:BP:65:ARG:NH1	2.33	0.43
33:B8:28:GLY:CA	33:B8:32:LEU:HD21	2.47	0.43
35:BA:143:G:H2'	35:BA:143(A):C:C6	2.54	0.43
35:BA:444:C:O2'	35:BA:445:C:H5'	2.19	0.43
35:BA:605:C:OP1	40:BF:104:LYS:NZ	2.52	0.43
35:BA:1044:G:C2	35:BA:1112:G:C6	3.06	0.43
35:BA:1221:C:O2	35:BA:1221(A):C:C6	2.72	0.43
35:BA:1256:G:O2'	40:BF:82:ILE:HD12	2.19	0.43
35:BA:1462:C:H4'	35:BA:2703:C:H5'	1.99	0.43
35:BA:1528:A:N6	35:BA:1544:A:C2	2.87	0.43
35:BA:1541:G:H1'	35:BA:1542:A:N9	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1984:G:O2'	35:BA:1985:G:H5'	2.18	0.43
35:BA:2521:C:O2	35:BA:2521:C:C2'	2.65	0.43
35:BA:2673:G:H5'	35:BA:2673:G:C8	2.53	0.43
35:BA:2841:C:H2'	35:BA:2842:G:C8	2.53	0.43
36:BB:87:G:O3'	36:BB:88:C:H6	2.02	0.43
40:BF:121:GLY:C	40:BF:123:LEU:H	2.21	0.43
41:BG:35:GLU:O	41:BG:35:GLU:HG2	2.18	0.43
41:BG:109:VAL:O	41:BG:110:ALA:C	2.56	0.43
41:BG:153:ARG:HB3	41:BG:153:ARG:NH1	2.34	0.43
43:BK:6:ALA:HB2	43:BK:59:ILE:HG22	1.98	0.43
48:BQ:35:VAL:HG23	48:BQ:101:ARG:C	2.38	0.43
48:BQ:55:VAL:HG12	48:BQ:56:ARG:H	1.83	0.43
48:BQ:76:LYS:HG3	48:BQ:77:LYS:O	2.19	0.43
49:BR:2:ARG:HB2	49:BR:5:LYS:HZ3	1.84	0.43
49:BR:51:LEU:CD2	49:BR:70:LEU:HD11	2.49	0.43
51:BT:90:GLN:O	51:BT:91:ARG:C	2.57	0.43
56:BY:2:ARG:CD	56:BY:3:VAL:HG23	2.48	0.43
57:BZ:29:TYR:HB3	57:BZ:34:ASN:CB	2.42	0.43
1:AA:270:A:H2'	1:AA:271:C:H6	1.77	0.43
1:AA:630:G:O2'	1:AA:631:G:H5''	2.19	0.43
1:AA:918:A:H2'	1:AA:919:A:O4'	2.19	0.43
1:AA:953:G:N7	13:AM:104:ARG:NH2	2.66	0.43
1:AA:1094:G:HO2'	1:AA:1095:U:P	2.42	0.43
2:AB:95:GLN:CA	2:AB:95:GLN:OE1	2.67	0.43
2:AB:111:ARG:NH1	2:AB:111:ARG:CG	2.77	0.43
4:AD:162:LEU:HD11	4:AD:181:MET:HG2	2.01	0.43
5:AE:33:VAL:HG12	5:AE:112:LEU:HD12	2.01	0.43
7:AG:64:GLN:HG3	7:AG:128:ALA:HB1	2.01	0.43
9:AI:86:VAL:HB	9:AI:96:LEU:HD21	2.01	0.43
10:AJ:81:THR:C	10:AJ:83:GLU:N	2.72	0.43
13:AM:22:ILE:HD12	13:AM:22:ILE:N	2.34	0.43
13:AM:45:VAL:HA	13:AM:48:LEU:HD11	2.01	0.43
15:AO:9:GLN:O	15:AO:10:LYS:C	2.57	0.43
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.18	0.43
20:AT:89:ARG:HD2	20:AT:104:LEU:HG	2.01	0.43
23:AX:16:A:H2'	23:AX:17:U:H6	1.83	0.43
24:AY:485:GLU:CD	24:AY:555:LEU:HB2	2.39	0.43
24:AY:627:ARG:HA	24:AY:651:GLU:CG	2.48	0.43
24:AY:655:TYR:OH	24:AY:659:LEU:HD23	2.19	0.43
26:B1:30:VAL:H	35:BA:2396:G:C4'	2.31	0.43
26:B1:88:LYS:HE2	26:B1:88:LYS:HB3	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:41:PRO:HD3	31:B6:47:THR:HG22	2.01	0.43
31:B6:53:LYS:HG3	31:B6:54:ILE:HG23	2.00	0.43
35:BA:259:G:H1'	35:BA:621:A:HO2'	1.83	0.43
35:BA:437:G:H2'	35:BA:438:G:H8	1.83	0.43
35:BA:503:A:H4'	35:BA:504:U:H5'	1.99	0.43
35:BA:560:C:H2'	35:BA:561:G:O4'	2.19	0.43
35:BA:566:U:H2'	35:BA:567:A:O4'	2.18	0.43
35:BA:630:G:C4'	35:BA:640:C:H4'	2.45	0.43
35:BA:654:A:H4'	35:BA:654(A):G:O5'	2.19	0.43
35:BA:654(P):C:H2'	35:BA:654(Q):C:O4'	2.19	0.43
35:BA:986:C:O2'	35:BA:987:G:H5'	2.18	0.43
35:BA:1750:G:H2'	35:BA:1751:C:C6	2.54	0.43
35:BA:1863:G:H8	35:BA:1863:G:O5'	2.02	0.43
35:BA:2010:G:H2'	35:BA:2011:U:C6	2.53	0.43
35:BA:2206:G:H3'	35:BA:2206:G:N3	2.33	0.43
35:BA:2334:G:N3	50:BS:18:ILE:HD13	2.33	0.43
35:BA:2389:G:C5'	35:BA:2390:U:H5'	2.36	0.43
35:BA:2526:G:H5'	35:BA:2742:C:O2'	2.19	0.43
35:BA:2784:C:H3'	35:BA:2784:C:C6	2.54	0.43
36:BB:9:G:H2'	36:BB:10:C:H6	1.84	0.43
36:BB:20:C:C2'	36:BB:21:G:C5'	2.97	0.43
36:BB:22:U:H2'	36:BB:23:G:C8	2.54	0.43
36:BB:66:A:H2	36:BB:69:G:O6	2.02	0.43
36:BB:86:G:C2	36:BB:92:C:O2	2.72	0.43
37:BC:60:ARG:HG2	37:BC:61:GLY:N	2.34	0.43
38:BD:46:GLN:OE1	38:BD:46:GLN:N	2.52	0.43
39:BE:33:VAL:H	39:BE:90:THR:HA	1.84	0.43
39:BE:59:VAL:CG2	39:BE:63:LEU:HA	2.48	0.43
40:BF:177:ALA:HB1	40:BF:178:PRO:HD2	2.00	0.43
41:BG:98:ARG:HA	41:BG:98:ARG:HD3	1.92	0.43
41:BG:140:ILE:HD12	41:BG:140:ILE:N	2.31	0.43
43:BK:76:TYR:CD2	43:BK:77:LEU:HD23	2.54	0.43
45:BN:78:TYR:HA	45:BN:79:PRO:HD3	1.85	0.43
47:BP:62:LEU:H	47:BP:62:LEU:HD22	1.82	0.43
47:BP:83:VAL:HB	47:BP:105:LEU:HD22	2.00	0.43
49:BR:9:LYS:O	49:BR:10:LEU:CD2	2.66	0.43
49:BR:87:TYR:C	49:BR:89:ASP:N	2.72	0.43
50:BS:13:ARG:CG	50:BS:14:VAL:N	2.79	0.43
51:BT:108:ARG:HB3	51:BT:108:ARG:NH1	2.28	0.43
57:BZ:111:VAL:O	57:BZ:111:VAL:HG12	2.19	0.43
57:BZ:182:LYS:O	57:BZ:183:LEU:HG	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:279:A:H1'	1:AA:281:G:C5	2.54	0.43
1:AA:309:G:H1'	1:AA:608:A:H2	1.80	0.43
1:AA:356:A:N3	1:AA:368:U:H1'	2.34	0.43
1:AA:781:A:O2'	1:AA:1522:U:O2	2.37	0.43
1:AA:939:G:H2'	1:AA:940:C:C6	2.53	0.43
1:AA:948:C:H2'	1:AA:949:A:C8	2.53	0.43
1:AA:973:G:O4'	10:AJ:55:LYS:CG	2.62	0.43
1:AA:994:A:C2	1:AA:995:C:C6	3.07	0.43
1:AA:1137:C:C4'	1:AA:1138:G:C2	3.02	0.43
1:AA:1149:C:H2'	1:AA:1150:U:O4'	2.19	0.43
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.18	0.43
1:AA:1258:G:C6	1:AA:1259:C:N4	2.86	0.43
2:AB:187:LEU:HD23	2:AB:214:ILE:HG21	2.00	0.43
2:AB:223:ILE:CA	2:AB:226:ARG:CZ	2.97	0.43
3:AC:84:ILE:O	3:AC:84:ILE:CG1	2.67	0.43
4:AD:6:GLY:O	4:AD:8:VAL:HG13	2.18	0.43
7:AG:122:HIS:CD2	7:AG:122:HIS:N	2.84	0.43
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.34	0.43
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.19	0.43
9:AI:40:LEU:O	9:AI:42:ARG:N	2.47	0.43
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.34	0.43
12:AL:44:THR:HA	12:AL:45:PRO:HD3	1.90	0.43
12:AL:80:HIS:O	12:AL:81:SER:CB	2.67	0.43
17:AQ:60:ILE:HG21	17:AQ:74:LEU:HD23	2.00	0.43
18:AR:44:LEU:HD21	18:AR:79:LEU:HD13	1.99	0.43
19:AS:6:LYS:HD2	19:AS:6:LYS:C	2.38	0.43
20:AT:42:GLN:HG3	20:AT:43:LEU:N	2.33	0.43
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.45	0.43
22:AV:68:C:H2'	22:AV:69:C:C6	2.54	0.43
24:AY:327:PHE:C	24:AY:328:ILE:HG23	2.39	0.43
24:AY:410:ASP:C	24:AY:411:VAL:HG23	2.39	0.43
24:AY:421:GLN:HE21	24:AY:421:GLN:HB3	1.52	0.43
24:AY:483:TYR:CZ	24:AY:687:LEU:HD11	2.54	0.43
24:AY:554:PRO:HG2	24:AY:555:LEU:HG	1.99	0.43
24:AY:641:GLN:HE21	24:AY:641:GLN:HB2	1.61	0.43
28:B3:8:LEU:O	28:B3:31:LEU:HD22	2.18	0.43
28:B3:17:LYS:HZ3	28:B3:20:LYS:CE	2.24	0.43
30:B5:3:LYS:HE2	35:BA:2613:U:C2'	2.41	0.43
31:B6:7:ILE:O	31:B6:7:ILE:HG22	2.18	0.43
31:B6:9:LEU:HD21	31:B6:26:ASN:ND2	2.34	0.43
31:B6:9:LEU:CD1	31:B6:26:ASN:HB2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:B7:32:LYS:HE2	35:BA:180:G:P	2.59	0.43
33:B8:52:LYS:HE2	35:BA:834:C:C4'	2.47	0.43
35:BA:154(A):C:N4	35:BA:171:G:N1	2.66	0.43
35:BA:182:A:C6	35:BA:183:C:C4	3.07	0.43
35:BA:271(M):G:C2'	35:BA:271(N):U:H5''	2.48	0.43
35:BA:436:C:H2'	35:BA:437:G:C8	2.54	0.43
35:BA:603:A:O2'	35:BA:604:G:P	2.76	0.43
35:BA:662:G:P	47:BP:18:ARG:HD2	2.59	0.43
35:BA:688:U:C4'	35:BA:1780:A:C2	3.02	0.43
35:BA:764:A:N7	38:BD:209:ALA:HB3	2.33	0.43
35:BA:925:C:C3'	35:BA:926:A:H5''	2.48	0.43
35:BA:967:C:H2'	35:BA:968:G:C5'	2.48	0.43
35:BA:979:G:N7	35:BA:981:A:OP1	2.51	0.43
35:BA:1783:A:C2	35:BA:2587:A:C5	3.06	0.43
35:BA:1858:G:O2'	35:BA:1884:A:N6	2.52	0.43
35:BA:1911:U:H2'	35:BA:1918:A:N1	2.34	0.43
35:BA:2012:G:C4'	54:BW:96:ILE:HD11	2.33	0.43
35:BA:2131:G:H8	35:BA:2158:A:H62	1.62	0.43
35:BA:2203:U:H5'	35:BA:2205:C:OP1	2.18	0.43
35:BA:2398:U:O2	35:BA:2398:U:H2'	2.18	0.43
35:BA:2544:G:H2'	35:BA:2545:G:O4'	2.18	0.43
35:BA:2653:U:H2'	35:BA:2654:A:C8	2.53	0.43
35:BA:2795:G:N2	35:BA:2796:U:H5	2.16	0.43
38:BD:24:ILE:CD1	38:BD:25:THR:N	2.80	0.43
39:BE:59:VAL:CG1	39:BE:63:LEU:HA	2.48	0.43
39:BE:111:ARG:CZ	49:BR:2:ARG:NH2	2.82	0.43
40:BF:6:VAL:O	40:BF:6:VAL:HG12	2.19	0.43
41:BG:120:LEU:HB3	41:BG:131:TYR:OH	2.18	0.43
43:BK:61:ALA:C	43:BK:63:ARG:H	2.22	0.43
45:BN:43:THR:HA	45:BN:44:PRO:HD2	1.85	0.43
47:BP:96:THR:HG22	47:BP:126:VAL:HB	2.01	0.43
48:BQ:37:LEU:HG	48:BQ:129:THR:HA	2.01	0.43
49:BR:21:TYR:N	49:BR:21:TYR:CD1	2.86	0.43
51:BT:10:VAL:C	51:BT:12:SER:N	2.72	0.43
51:BT:112:ARG:C	51:BT:115:ARG:HD3	2.39	0.43
53:BV:47:VAL:O	53:BV:47:VAL:HG23	2.19	0.43
56:BY:51:VAL:HG12	56:BY:53:PRO:HD2	2.00	0.43
57:BZ:115:GLY:N	57:BZ:177:PRO:HG3	2.30	0.43
1:AA:318:G:H2'	1:AA:319:G:H8	1.84	0.42
1:AA:505:G:OP2	1:AA:534:U:H2'	2.18	0.42
1:AA:961:U:OP2	1:AA:1223:C:C4'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:29:TYR:C	3:AC:29:TYR:HD1	2.22	0.42
3:AC:73:PRO:HA	3:AC:76:VAL:HG22	2.01	0.42
5:AE:18:ARG:HH22	5:AE:25:ARG:HG2	1.84	0.42
6:AF:27:GLN:NE2	6:AF:27:GLN:HA	2.34	0.42
6:AF:87:ARG:HH11	6:AF:87:ARG:CG	2.32	0.42
7:AG:88:PRO:O	7:AG:88:PRO:CG	2.67	0.42
7:AG:89:MET:HE3	7:AG:156:TRP:OXT	2.19	0.42
7:AG:156:TRP:OXT	7:AG:156:TRP:CG	2.72	0.42
8:AH:6:ILE:HG21	8:AH:85:ARG:NH1	2.33	0.42
9:AI:4:TYR:CD2	9:AI:59:PHE:HE2	2.36	0.42
9:AI:121:ARG:NH1	9:AI:122:ALA:O	2.52	0.42
10:AJ:40:LEU:N	10:AJ:40:LEU:CD2	2.70	0.42
11:AK:18:ARG:HG2	11:AK:81:ASP:HB2	2.00	0.42
13:AM:39:ILE:HD13	13:AM:52:GLU:HB3	2.00	0.42
15:AO:43:LEU:C	15:AO:45:VAL:H	2.22	0.42
24:AY:500:GLN:HE21	24:AY:500:GLN:HB2	1.66	0.42
24:AY:655:TYR:O	24:AY:656:ALA:C	2.58	0.42
27:B2:18:PRO:CG	27:B2:19:VAL:H	2.32	0.42
30:B5:2:ALA:O	35:BA:747:U:C5	2.72	0.42
30:B5:33:CYS:O	30:B5:36:CYS:O	2.37	0.42
31:B6:37:ARG:HH22	35:BA:2286:A:N6	2.16	0.42
31:B6:42:TRP:NE1	35:BA:643:A:OP1	2.52	0.42
33:B8:33:ASN:HA	33:B8:36:LYS:CD	2.48	0.42
35:BA:67:U:H2'	35:BA:68:G:C8	2.54	0.42
35:BA:271(D):G:O2'	35:BA:271(E):U:H5'	2.19	0.42
35:BA:272(I):U:O2	35:BA:272(I):U:H5'	2.19	0.42
35:BA:572:A:N1	35:BA:2033:A:C2	2.87	0.42
35:BA:606:U:O2	35:BA:606:U:H2'	2.18	0.42
35:BA:1108:U:C4	35:BA:1109:C:C6	3.07	0.42
35:BA:1186:G:H2'	35:BA:1187:G:O4'	2.19	0.42
35:BA:1486:A:N1	35:BA:1504:C:C2	2.87	0.42
35:BA:1592:C:H2'	35:BA:1593:G:O4'	2.18	0.42
35:BA:1654:A:OP1	49:BR:3:HIS:HB2	2.19	0.42
35:BA:1803:A:O3'	38:BD:259:THR:CG2	2.59	0.42
35:BA:2026:C:O2	35:BA:2026:C:H2'	2.17	0.42
35:BA:2127:G:H2'	35:BA:2128:C:C6	2.54	0.42
35:BA:2193:G:C2'	35:BA:2194:G:C5'	2.95	0.42
35:BA:2507:C:H2'	35:BA:2508:G:H8	1.84	0.42
35:BA:2795:G:H21	35:BA:2796:U:H5	1.67	0.42
35:BA:2895:U:H3'	35:BA:2895:U:C6	2.54	0.42
36:BB:70:C:O2'	36:BB:71:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:89:G:C6	36:BB:90:A:N1	2.87	0.42
36:BB:96:U:H2'	36:BB:97:G:H8	1.84	0.42
38:BD:28:GLU:OE1	38:BD:29:PRO:HD3	2.19	0.42
39:BE:1:MET:HA	39:BE:1:MET:CE	2.49	0.42
41:BG:77:ILE:O	41:BG:80:PHE:N	2.52	0.42
41:BG:102:PHE:O	41:BG:103:LEU:C	2.57	0.42
46:BO:9:GLU:O	46:BO:83:ALA:HA	2.19	0.42
47:BP:41:ARG:HD2	47:BP:41:ARG:N	2.30	0.42
47:BP:58:THR:O	47:BP:58:THR:HG22	2.19	0.42
48:BQ:66:ILE:HG22	48:BQ:104:PHE:CD2	2.54	0.42
51:BT:74:ARG:HD2	51:BT:76:PHE:CE1	2.54	0.42
53:BV:46:VAL:HG22	53:BV:47:VAL:H	1.84	0.42
53:BV:91:TYR:N	53:BV:91:TYR:CD1	2.87	0.42
54:BW:41:LYS:C	54:BW:43:GLY:N	2.72	0.42
54:BW:73:ALA:O	54:BW:106:ILE:HG13	2.18	0.42
54:BW:74:ALA:O	54:BW:75:TYR:HB3	2.18	0.42
55:BX:53:LYS:HG3	55:BX:54:VAL:N	2.34	0.42
56:BY:8:LYS:CE	56:BY:72:VAL:HG23	2.49	0.42
57:BZ:48:PHE:CE1	57:BZ:71:VAL:HG11	2.54	0.42
1:AA:188:C:O4'	20:AT:89:ARG:NH1	2.52	0.42
1:AA:189(B):C:C2	1:AA:189(J):G:C2	3.07	0.42
1:AA:244:U:C6	1:AA:894:G:C2	3.07	0.42
1:AA:309:G:O2'	1:AA:607:A:N1	2.52	0.42
1:AA:368:U:OP2	24:AY:353:ALA:CB	2.64	0.42
1:AA:444:C:N4	1:AA:491:G:N1	2.67	0.42
1:AA:690:G:H2'	1:AA:691:G:O4'	2.19	0.42
1:AA:814:A:H4'	1:AA:1511:G:H5'	2.01	0.42
1:AA:993:G:N2	1:AA:996:A:N6	2.67	0.42
1:AA:1030(C):G:H2'	1:AA:1030(D):A:H8	1.84	0.42
1:AA:1186:G:C2	1:AA:1187:G:C8	3.07	0.42
2:AB:31:TYR:CD1	2:AB:31:TYR:N	2.85	0.42
2:AB:100:GLY:C	2:AB:102:LEU:H	2.21	0.42
5:AE:82:VAL:HB	5:AE:89:ILE:HG22	2.00	0.42
9:AI:56:LEU:HD23	9:AI:56:LEU:O	2.18	0.42
17:AQ:6:LEU:N	17:AQ:6:LEU:HD23	2.34	0.42
19:AS:72:GLY:C	19:AS:74:PHE:H	2.21	0.42
21:AU:6:ARG:NE	21:AU:15:ARG:NH2	2.66	0.42
24:AY:39:ILE:HG23	24:AY:41:LYS:HG3	2.00	0.42
24:AY:121:VAL:HA	24:AY:124:GLN:NE2	2.35	0.42
24:AY:150:ILE:C	24:AY:152:THR:N	2.71	0.42
24:AY:622:GLY:O	24:AY:625:ASN:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:625:ASN:C	24:AY:627:ARG:H	2.23	0.42
25:B0:47:PRO:HB3	25:B0:51:VAL:O	2.19	0.42
27:B2:17:SER:CB	27:B2:18:PRO:CD	2.97	0.42
27:B2:31:GLU:O	27:B2:35:LEU:N	2.47	0.42
30:B5:44:THR:HG23	49:BR:101:ALA:N	2.34	0.42
35:BA:420:C:H2'	35:BA:421:U:C6	2.54	0.42
35:BA:512:G:O2'	35:BA:513:A:H8	2.01	0.42
35:BA:515:A:C2	35:BA:1261:C:H1'	2.53	0.42
35:BA:523:C:H3'	35:BA:523:C:H6	1.85	0.42
35:BA:557:U:O5'	35:BA:557:U:H6	2.01	0.42
35:BA:738:G:H2'	35:BA:739:G:C8	2.54	0.42
35:BA:825:C:C2'	35:BA:826:U:H5'	2.48	0.42
35:BA:1057:A:H61	35:BA:1081:U:H3	1.68	0.42
35:BA:1084:A:H2'	35:BA:1085:A:C8	2.55	0.42
35:BA:1100:C:O2	35:BA:1100:C:C2'	2.67	0.42
35:BA:1179:C:C4	35:BA:1180:C:C5	3.07	0.42
35:BA:1342:A:C2	35:BA:1345:C:C5	3.07	0.42
35:BA:1422:G:H1'	35:BA:1496:A:H62	1.83	0.42
35:BA:1430:C:H42	35:BA:1563:G:H1	1.66	0.42
35:BA:1786:A:C2	35:BA:2606:C:H1'	2.54	0.42
35:BA:2078:C:O4'	35:BA:2434:A:H1'	2.19	0.42
35:BA:2323:G:H8	35:BA:2323:G:O5'	2.02	0.42
35:BA:2481:G:C2'	35:BA:2482:G:OP2	2.67	0.42
35:BA:2694:G:O2'	35:BA:2695:C:H5'	2.19	0.42
37:BC:30:VAL:O	37:BC:33:LEU:N	2.50	0.42
37:BC:43:GLU:OE2	37:BC:218:THR:HA	2.19	0.42
40:BF:11:VAL:CG1	40:BF:12:LEU:N	2.80	0.42
41:BG:40:ASN:O	41:BG:155:MET:HB2	2.20	0.42
41:BG:170:ARG:HE	41:BG:180:PHE:HD2	1.63	0.42
43:BK:41:PHE:C	43:BK:43:ALA:N	2.72	0.42
43:BK:121:GLU:O	43:BK:125:ARG:HG3	2.19	0.42
48:BQ:45:GLN:NE2	48:BQ:45:GLN:H	2.16	0.42
48:BQ:110:THR:HG23	48:BQ:113:GLN:H	1.82	0.42
52:BU:21:ALA:HA	52:BU:24:TYR:CE2	2.54	0.42
54:BW:13:SER:O	54:BW:16:LYS:HB2	2.18	0.42
1:AA:78:G:H1	1:AA:91:C:N4	2.17	0.42
1:AA:688:G:H2'	1:AA:689:C:C6	2.55	0.42
1:AA:949:A:H2'	1:AA:950:U:O4'	2.19	0.42
1:AA:1006:C:H2'	1:AA:1007:C:C5	2.54	0.42
1:AA:1104:G:P	2:AB:111:ARG:HD2	2.59	0.42
1:AA:1217:C:H5'	14:AN:9:LYS:NZ	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1256:A:N6	1:AA:1278:U:H1'	2.34	0.42
1:AA:1299:A:C2	1:AA:1301:U:N3	2.87	0.42
1:AA:1371:G:C6	1:AA:1372:U:C4	3.08	0.42
1:AA:1505:G:H5''	1:AA:1505:G:C8	2.54	0.42
1:AA:1513:A:C4	1:AA:1514:C:C5	3.08	0.42
3:AC:113:ALA:N	3:AC:114:PRO:CD	2.82	0.42
3:AC:139:GLN:O	3:AC:140:ARG:C	2.56	0.42
9:AI:79:LEU:O	9:AI:80:GLY:C	2.58	0.42
13:AM:23:TYR:CE1	13:AM:70:LEU:HD22	2.47	0.42
14:AN:42:ILE:HD13	14:AN:42:ILE:HA	1.92	0.42
15:AO:74:ASP:C	15:AO:76:GLU:N	2.71	0.42
16:AP:61:SER:C	16:AP:62:VAL:HG13	2.40	0.42
17:AQ:94:ASN:O	17:AQ:95:TYR:C	2.57	0.42
24:AY:121:VAL:HA	24:AY:124:GLN:HE22	1.84	0.42
24:AY:364:GLU:HG2	24:AY:366:VAL:HG13	2.02	0.42
24:AY:416:LYS:CD	24:AY:417:THR:N	2.82	0.42
24:AY:465:ARG:O	24:AY:470:PHE:HD2	2.02	0.42
24:AY:525:PHE:N	24:AY:525:PHE:HD1	2.15	0.42
24:AY:575:VAL:O	24:AY:575:VAL:CG1	2.67	0.42
24:AY:679:VAL:HG23	24:AY:679:VAL:O	2.20	0.42
25:B0:48:GLY:CA	25:B0:80:HIS:HD1	2.28	0.42
26:B1:18:ILE:HD12	26:B1:37:ILE:HG12	2.00	0.42
26:B1:76:ARG:HG2	35:BA:271(R):G:H5'	2.01	0.42
27:B2:13:ALA:C	27:B2:15:LYS:N	2.72	0.42
29:B4:39:CYS:SG	29:B4:42:PHE:CE2	3.11	0.42
31:B6:13:CYS:HA	31:B6:50:ARG:O	2.19	0.42
31:B6:45:LYS:HD3	35:BA:2372:G:OP1	2.19	0.42
35:BA:49:A:C5	35:BA:177:G:C6	3.07	0.42
35:BA:87:C:OP2	35:BA:90:U:O4	2.36	0.42
35:BA:199:A:H2	35:BA:2079:U:O4'	2.01	0.42
35:BA:220:G:N1	35:BA:427:U:H2'	2.34	0.42
35:BA:260:G:C1'	35:BA:621:A:H1'	2.48	0.42
35:BA:286:C:C2	35:BA:287:C:C5	3.08	0.42
35:BA:363(F):A:O2'	35:BA:364:C:O5'	2.37	0.42
35:BA:536:A:H2'	35:BA:537:C:C6	2.54	0.42
35:BA:560:C:H4'	52:BU:52:ARG:CZ	2.50	0.42
35:BA:686:G:N2	35:BA:788:A:N6	2.67	0.42
35:BA:847:U:OP2	35:BA:928:G:O6	2.37	0.42
35:BA:864:G:O5'	35:BA:864:G:H8	2.02	0.42
35:BA:1030:G:OP2	48:BQ:128:LYS:HE2	2.19	0.42
35:BA:1074:G:H2'	35:BA:1075:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1290:C:H2'	35:BA:1291:C:H6	1.84	0.42
35:BA:2088:G:C5	35:BA:2089:U:C5	3.08	0.42
35:BA:2447:G:C5	35:BA:2501:C:N3	2.87	0.42
35:BA:2572:A:H5'	35:BA:2574:G:O3'	2.19	0.42
35:BA:2712:U:C2'	35:BA:2712(A):A:O5'	2.67	0.42
35:BA:2734:A:N7	35:BA:2735:G:C8	2.87	0.42
35:BA:2758:A:C5	42:BH:67:LEU:HD21	2.54	0.42
35:BA:2857:G:C2	35:BA:2861:G:C6	3.07	0.42
35:BA:2892:A:N7	35:BA:2893:G:N3	2.67	0.42
37:BC:84:ILE:HD13	37:BC:84:ILE:HG21	1.87	0.42
38:BD:7:LYS:HB3	38:BD:8:PRO:CD	2.49	0.42
38:BD:67:PHE:HD1	38:BD:67:PHE:HA	1.60	0.42
38:BD:118:VAL:HG22	38:BD:119:ALA:N	2.33	0.42
39:BE:51:PHE:H	39:BE:74:PRO:HG3	1.82	0.42
41:BG:12:TYR:O	41:BG:16:ARG:HB2	2.18	0.42
42:BH:16:SER:HB2	42:BH:27:LYS:CB	2.40	0.42
43:BK:6:ALA:HB3	43:BK:59:ILE:H	1.85	0.42
45:BN:62:VAL:HG22	45:BN:66:LYS:CG	2.43	0.42
47:BP:102:ARG:O	47:BP:102:ARG:CG	2.66	0.42
47:BP:122:PRO:O	47:BP:123:LEU:CB	2.65	0.42
50:BS:35:ILE:HD11	50:BS:99:LYS:HE3	2.01	0.42
50:BS:101:LEU:O	50:BS:102:ALA:O	2.36	0.42
50:BS:101:LEU:CD1	50:BS:101:LEU:C	2.88	0.42
53:BV:6:LYS:HE2	53:BV:37:VAL:HG12	2.01	0.42
54:BW:83:LYS:HE3	54:BW:97:LYS:CD	2.49	0.42
55:BX:14:SER:O	55:BX:17:ALA:HB3	2.19	0.42
57:BZ:4:ARG:HD2	57:BZ:60:GLU:OE2	2.20	0.42
57:BZ:14:LYS:O	57:BZ:17:ALA:N	2.43	0.42
1:AA:187:C:H5''	20:AT:86:ARG:HH11	1.84	0.42
1:AA:452:A:C4'	16:AP:72:ARG:CZ	2.95	0.42
1:AA:483:C:C3'	1:AA:484:G:H5''	2.48	0.42
1:AA:703:G:C2'	1:AA:704:A:OP2	2.67	0.42
1:AA:778:G:H1'	11:AK:119:CYS:HB3	2.01	0.42
1:AA:998:G:H2'	1:AA:999:C:N1	2.34	0.42
1:AA:1037:C:H2'	1:AA:1038:C:N3	2.34	0.42
1:AA:1121:U:O4	1:AA:1122:U:O4	2.38	0.42
1:AA:1319:A:OP1	19:AS:10:PHE:CZ	2.72	0.42
1:AA:1472:U:H2'	1:AA:1473:A:C8	2.54	0.42
2:AB:119:GLU:O	2:AB:121:LEU:N	2.52	0.42
3:AC:92:ALA:C	3:AC:94:LEU:N	2.70	0.42
7:AG:51:GLN:OE1	7:AG:51:GLN:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:2:GLU:O	9:AI:21:PRO:HD3	2.19	0.42
11:AK:12:ARG:HE	11:AK:14:VAL:CG1	2.33	0.42
15:AO:65:ARG:HG2	15:AO:65:ARG:NH1	2.34	0.42
16:AP:8:ARG:O	16:AP:9:PHE:HD1	2.02	0.42
18:AR:87:ARG:NH1	18:AR:87:ARG:CB	2.82	0.42
21:AU:10:ARG:O	21:AU:13:ILE:N	2.50	0.42
24:AY:132:ARG:O	24:AY:132:ARG:HG2	2.16	0.42
24:AY:206:LEU:HD11	24:AY:210:ARG:HH12	1.85	0.42
24:AY:342:TYR:OH	24:AY:347:GLY:HA2	2.19	0.42
26:B1:27:GLU:H	26:B1:27:GLU:HG3	1.70	0.42
28:B3:22:ALA:O	28:B3:25:ALA:HB3	2.18	0.42
33:B8:61:LEU:C	33:B8:63:PRO:CD	2.87	0.42
34:B9:10:ILE:HD12	34:B9:32:HIS:CG	2.54	0.42
35:BA:21:A:O2'	35:BA:22:C:H5'	2.19	0.42
35:BA:27:G:H1'	35:BA:513:A:H62	1.84	0.42
35:BA:272(I):U:O2	35:BA:272(I):U:C3'	2.67	0.42
35:BA:322:A:C3'	40:BF:169:ASN:HD21	2.27	0.42
35:BA:336:C:O3'	56:BY:7:VAL:HG22	2.19	0.42
35:BA:669:G:N3	35:BA:669:G:C2'	2.81	0.42
35:BA:921:G:H4'	35:BA:2269:A:C5	2.54	0.42
35:BA:1042:G:O2'	35:BA:1043:C:H5'	2.20	0.42
35:BA:1141:U:OP1	45:BN:25:ARG:NH1	2.52	0.42
35:BA:1142(A):A:O2'	35:BA:1143:A:H2'	2.19	0.42
35:BA:1301:A:N3	35:BA:1301:A:H5''	2.34	0.42
35:BA:1322:A:OP1	54:BW:11:ARG:HG3	2.19	0.42
35:BA:1602:U:H3'	35:BA:1603:A:C5'	2.49	0.42
35:BA:1654:A:O2'	39:BE:113:PHE:O	2.38	0.42
35:BA:1695:G:H3'	35:BA:1695:G:N3	2.34	0.42
35:BA:1718:G:C8	35:BA:1718:G:C5'	3.00	0.42
35:BA:2019:A:C2'	35:BA:2020:A:O5'	2.68	0.42
35:BA:2222:G:H5''	38:BD:186:HIS:CE1	2.54	0.42
35:BA:2290:G:H1	35:BA:2342:C:H42	1.66	0.42
35:BA:2334:G:C2	50:BS:15:ARG:NH1	2.87	0.42
35:BA:2422:A:H3'	35:BA:2422:A:C8	2.55	0.42
35:BA:2849:U:HO2'	35:BA:2866:U:H5	1.65	0.42
36:BB:9:G:C6	36:BB:113:G:C6	3.07	0.42
36:BB:86:G:C6	36:BB:87:G:C6	3.08	0.42
37:BC:19:LYS:HG2	37:BC:20:VAL:N	2.35	0.42
37:BC:140:ASN:HB3	37:BC:143:ALA:CB	2.49	0.42
37:BC:225:ILE:HD12	37:BC:225:ILE:O	2.19	0.42
38:BD:72:LYS:HD3	38:BD:75:ILE:HG21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:24:LEU:N	40:BF:24:LEU:CD2	2.83	0.42
40:BF:110:LEU:O	40:BF:110:LEU:HD22	2.19	0.42
40:BF:162:LEU:C	40:BF:164:ARG:N	2.73	0.42
40:BF:198:ALA:HA	40:BF:201:VAL:HG12	2.02	0.42
43:BK:5:VAL:HA	43:BK:59:ILE:HG23	2.01	0.42
43:BK:27:LEU:HA	43:BK:30:HIS:HB2	1.99	0.42
44:BL:94:LEU:HD23	44:BL:94:LEU:HA	1.86	0.42
46:BO:88:ASN:C	46:BO:90:GLN:H	2.21	0.42
50:BS:98:VAL:HG12	50:BS:100:ALA:HB2	2.00	0.42
51:BT:32:TYR:O	51:BT:41:ARG:O	2.37	0.42
54:BW:84:ARG:O	54:BW:95:ILE:HA	2.20	0.42
55:BX:64:LYS:HB3	55:BX:64:LYS:HE2	1.79	0.42
57:BZ:14:LYS:O	57:BZ:18:LEU:CD1	2.67	0.42
1:AA:151:A:N1	1:AA:171:A:N1	2.67	0.42
1:AA:260:G:H2'	1:AA:261:U:H6	1.84	0.42
1:AA:332:G:O2'	1:AA:333:G:H5'	2.20	0.42
1:AA:505:G:H2'	1:AA:506:G:C8	2.55	0.42
1:AA:582:U:OP1	15:AO:68:ARG:NH2	2.52	0.42
1:AA:633:G:H5'	1:AA:634:C:OP2	2.19	0.42
1:AA:960:U:C6	1:AA:1225:A:C8	3.08	0.42
1:AA:1027:C:C4	1:AA:1028:C:N4	2.87	0.42
1:AA:1030(A):G:H1'	1:AA:1031:G:N1	2.32	0.42
1:AA:1422:G:H2'	1:AA:1423:G:H8	1.84	0.42
1:AA:1499:A:C2	1:AA:1500:A:C8	3.08	0.42
2:AB:86:GLU:C	2:AB:88:ALA:N	2.72	0.42
2:AB:166:ASP:OD2	2:AB:205:ASP:OD2	2.36	0.42
2:AB:193:ASP:O	2:AB:194:PRO:C	2.58	0.42
2:AB:229:VAL:CG1	2:AB:230:VAL:N	2.83	0.42
3:AC:94:LEU:O	3:AC:95:THR:CG2	2.63	0.42
9:AI:19:LEU:HB3	9:AI:59:PHE:HD2	1.85	0.42
13:AM:88:ARG:HG2	13:AM:88:ARG:HH11	1.84	0.42
16:AP:52:ASP:C	16:AP:52:ASP:OD1	2.55	0.42
18:AR:74:ARG:HD3	18:AR:81:PHE:CE1	2.54	0.42
19:AS:19:VAL:HG12	19:AS:20:LEU:HG	2.02	0.42
19:AS:44:MET:HB3	19:AS:47:HIS:HD2	1.84	0.42
24:AY:8:ASP:HB2	24:AY:11:ARG:CZ	2.50	0.42
24:AY:25:LYS:N	59:AY:702:GDP:O2B	2.53	0.42
24:AY:106:VAL:CG2	24:AY:132:ARG:HG3	2.49	0.42
24:AY:260:LEU:HD13	24:AY:260:LEU:N	2.35	0.42
24:AY:492:ASP:OD2	24:AY:513:LYS:HA	2.20	0.42
24:AY:539:ILE:C	24:AY:542:VAL:HG12	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B3:9:VAL:CG2	28:B3:10:LYS:H	2.27	0.42
32:B7:5:TRP:CZ3	35:BA:464:U:H4'	2.54	0.42
35:BA:31:C:H4'	35:BA:1238:G:H4'	2.01	0.42
35:BA:69:C:O2	35:BA:69:C:C2'	2.68	0.42
35:BA:272(H):C:C2'	35:BA:272(I):U:C5'	2.95	0.42
35:BA:391:G:C2'	35:BA:392:C:H5'	2.49	0.42
35:BA:523:C:H5'	35:BA:541:C:H1'	2.00	0.42
35:BA:820:A:N3	35:BA:943:U:O2'	2.47	0.42
35:BA:1036:G:C6	35:BA:1120:G:C6	3.07	0.42
35:BA:1057:A:O2'	35:BA:1058:G:O5'	2.34	0.42
35:BA:1453:U:OP1	49:BR:63:ARG:NH2	2.50	0.42
35:BA:1582:C:O2'	35:BA:1586:A:C8	2.71	0.42
35:BA:2146:C:H4'	35:BA:2147:G:N7	2.34	0.42
35:BA:2147:G:H2'	35:BA:2148:G:C4'	2.49	0.42
35:BA:2200:C:O2	35:BA:2200:C:H2'	2.19	0.42
35:BA:2246:G:H2'	35:BA:2247:A:C8	2.54	0.42
35:BA:2749:A:C5	35:BA:2750:A:N7	2.88	0.42
38:BD:208:LYS:HB2	38:BD:209:ALA:H	1.62	0.42
39:BE:61:ARG:CG	39:BE:62:PRO:HD3	2.43	0.42
41:BG:35:GLU:O	41:BG:35:GLU:CG	2.66	0.42
42:BH:65:HIS:CE1	42:BH:69:ARG:HH11	2.32	0.42
43:BK:34:ILE:H	43:BK:34:ILE:HG12	1.53	0.42
45:BN:131:GLN:HG3	45:BN:131:GLN:O	2.19	0.42
46:BO:53:LYS:O	46:BO:54:GLU:O	2.38	0.42
47:BP:7:ARG:CB	47:BP:8:PRO:HD3	2.39	0.42
47:BP:16:ARG:CZ	47:BP:18:ARG:HB2	2.49	0.42
49:BR:2:ARG:HB2	49:BR:5:LYS:NZ	2.34	0.42
50:BS:68:GLN:C	50:BS:70:GLY:H	2.23	0.42
51:BT:53:ARG:NH1	51:BT:53:ARG:CB	2.61	0.42
54:BW:14:PRO:O	54:BW:16:LYS:N	2.53	0.42
56:BY:15:VAL:O	56:BY:22:GLY:CA	2.67	0.42
56:BY:39:VAL:HG12	56:BY:40:GLU:H	1.85	0.42
56:BY:105:ALA:C	56:BY:107:ASP:N	2.66	0.42
1:AA:15:G:H2'	1:AA:16:A:C8	2.54	0.42
1:AA:56:U:O5'	1:AA:56:U:H6	2.02	0.42
1:AA:71:C:H6	1:AA:71:C:O5'	2.03	0.42
1:AA:404:U:H2'	1:AA:405:U:H6	1.83	0.42
1:AA:445:G:H2'	1:AA:446:G:C8	2.55	0.42
1:AA:692:U:OP1	11:AK:124:LYS:CE	2.67	0.42
1:AA:741:G:C2'	1:AA:742:G:H5'	2.50	0.42
1:AA:838:G:H2'	1:AA:839:U:H5''	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1030(A):G:H2'	1:AA:1030(B):C:H5'	2.01	0.42
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.19	0.42
1:AA:1381:U:H3'	1:AA:1381:U:C6	2.54	0.42
1:AA:1477:C:O5'	1:AA:1477:C:H6	2.03	0.42
3:AC:49:SER:HB3	3:AC:75:VAL:HG11	2.02	0.42
3:AC:186:PHE:HA	3:AC:198:VAL:O	2.20	0.42
5:AE:41:VAL:HG11	5:AE:109:ILE:O	2.18	0.42
10:AJ:4:ILE:HG22	10:AJ:5:ARG:N	2.33	0.42
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.83	0.42
11:AK:105:VAL:H	11:AK:105:VAL:HG22	1.60	0.42
13:AM:33:ALA:HA	13:AM:59:TYR:HE2	1.85	0.42
15:AO:43:LEU:HD13	15:AO:56:LEU:HD22	1.99	0.42
19:AS:71:LEU:HD23	19:AS:71:LEU:HA	1.84	0.42
19:AS:72:GLY:O	19:AS:75:ALA:N	2.52	0.42
22:AV:35:A:C2	23:AX:18:G:C2	3.08	0.42
24:AY:20:HIS:HB2	24:AY:87:HIS:HD2	1.84	0.42
24:AY:156:ARG:HB2	24:AY:157:LEU:HD23	2.01	0.42
26:B1:12:PRO:HG2	35:BA:1365:A:H5'	2.02	0.42
27:B2:69:ARG:NH2	35:BA:111:A:H5''	2.34	0.42
31:B6:8:LYS:O	31:B6:9:LEU:O	2.38	0.42
31:B6:27:LYS:HD2	31:B6:27:LYS:O	2.20	0.42
31:B6:27:LYS:HB3	31:B6:32:ASN:HD22	1.83	0.42
32:B7:17:GLY:O	32:B7:20:ALA:HB3	2.18	0.42
32:B7:33:ARG:HH11	32:B7:33:ARG:HB2	1.85	0.42
32:B7:41:ARG:NH2	35:BA:460:A:P	2.79	0.42
33:B8:49:VAL:HG23	33:B8:53:PRO:HB3	2.02	0.42
34:B9:17:ILE:HG21	34:B9:19:ARG:HE	1.84	0.42
35:BA:324:A:N6	35:BA:338:G:O2'	2.53	0.42
35:BA:324:A:OP2	35:BA:1205:U:N3	2.45	0.42
35:BA:331:A:C2	35:BA:1209:G:C5	3.08	0.42
35:BA:438:G:H2'	35:BA:440:G:H8	1.85	0.42
35:BA:816:C:O5'	35:BA:816:C:H6	2.03	0.42
35:BA:900:A:H2'	35:BA:901:A:O4'	2.20	0.42
35:BA:999:U:O2	35:BA:1157:G:C2	2.72	0.42
35:BA:1224:C:C5	35:BA:1225:G:C5	3.08	0.42
35:BA:1292:U:H2'	35:BA:1293:C:C6	2.54	0.42
35:BA:1787:A:O2'	35:BA:2589:A:H4'	2.20	0.42
35:BA:1815:A:C5	35:BA:1817:G:C6	3.08	0.42
35:BA:2171:A:H4'	35:BA:2172:U:OP1	2.20	0.42
35:BA:2199:A:N7	35:BA:2225:A:C6	2.87	0.42
35:BA:2313:C:H2'	35:BA:2314:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2404:C:N4	35:BA:2414:G:C6	2.88	0.42
35:BA:2501:C:H6	35:BA:2501:C:H2'	1.60	0.42
35:BA:2649:U:O2'	35:BA:2650:U:H5'	2.19	0.42
35:BA:2659:G:N2	35:BA:2661:G:H3'	2.34	0.42
35:BA:2666:C:H3'	35:BA:2667:C:H6	1.85	0.42
35:BA:2795:G:N2	35:BA:2796:U:C5	2.87	0.42
37:BC:75:VAL:HG12	37:BC:76:LEU:N	2.35	0.42
38:BD:127:VAL:HA	38:BD:193:VAL:HG13	2.02	0.42
38:BD:267:SER:CB	38:BD:270:ILE:HD11	2.46	0.42
41:BG:67:LYS:HG2	41:BG:68:PRO:CD	2.49	0.42
41:BG:72:ARG:HB3	41:BG:87:PRO:HD2	2.01	0.42
41:BG:102:PHE:HD2	41:BG:103:LEU:CD2	2.31	0.42
41:BG:131:TYR:HE2	41:BG:133:LEU:CB	2.29	0.42
42:BH:56:SER:HG	42:BH:61:HIS:CE1	2.34	0.42
42:BH:109:PHE:O	42:BH:111:HIS:N	2.43	0.42
43:BK:6:ALA:CB	43:BK:30:HIS:HE1	2.32	0.42
43:BK:10:LEU:HD11	43:BK:27:LEU:CD1	2.50	0.42
49:BR:28:LEU:CD2	49:BR:29:LEU:HD12	2.50	0.42
54:BW:70:TYR:HB3	54:BW:110:LYS:HZ1	1.85	0.42
55:BX:11:PRO:CA	55:BX:28:PHE:HB3	2.19	0.42
57:BZ:126:VAL:HA	57:BZ:163:LEU:HA	2.02	0.42
1:AA:422:C:O2'	1:AA:423:G:N2	2.53	0.42
1:AA:664:G:H2'	1:AA:666:G:OP1	2.20	0.42
1:AA:1245:A:C2	1:AA:1293:G:C2	3.07	0.42
1:AA:1261:A:C2'	1:AA:1262:C:H5'	2.47	0.42
3:AC:134:ILE:O	3:AC:135:LYS:C	2.58	0.42
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.84	0.42
5:AE:12:LEU:CD1	5:AE:31:LEU:CB	2.92	0.42
6:AF:38:GLU:O	6:AF:39:LYS:O	2.37	0.42
9:AI:32:ASP:OD1	9:AI:34:ASN:N	2.53	0.42
9:AI:79:LEU:HD11	9:AI:83:ARG:HB2	2.01	0.42
11:AK:33:THR:HB	11:AK:38:ASN:O	2.20	0.42
13:AM:96:LEU:HB3	13:AM:97:PRO:CD	2.40	0.42
19:AS:20:LEU:HA	19:AS:20:LEU:HD23	1.78	0.42
20:AT:13:LEU:CD1	20:AT:13:LEU:N	2.66	0.42
20:AT:75:ASN:ND2	20:AT:75:ASN:N	2.65	0.42
24:AY:250:THR:C	24:AY:252:ASP:N	2.72	0.42
24:AY:339:SER:O	24:AY:351:ARG:HD3	2.20	0.42
24:AY:415:PRO:HB2	24:AY:421:GLN:N	2.35	0.42
24:AY:607:ARG:NH2	24:AY:672:PHE:CD2	2.88	0.42
24:AY:681:LYS:HE2	24:AY:681:LYS:HB3	1.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B0:60:PHE:C	25:B0:60:PHE:HD1	2.23	0.42
26:B1:12:PRO:HG3	35:BA:1365:A:H5'	2.01	0.42
26:B1:60:PHE:C	26:B1:62:VAL:H	2.23	0.42
26:B1:71:TYR:HA	26:B1:74:VAL:HG21	2.02	0.42
29:B4:20:ASN:HD22	29:B4:20:ASN:HA	1.40	0.42
33:B8:26:LYS:HD3	33:B8:47:LYS:HD2	2.02	0.42
34:B9:29:ASN:ND2	34:B9:29:ASN:O	2.52	0.42
35:BA:216:A:C4	35:BA:432:A:C2	3.06	0.42
35:BA:332:A:O2'	35:BA:333:G:P	2.78	0.42
35:BA:374:A:H2'	35:BA:375:C:H5'	2.01	0.42
35:BA:531:C:C5	35:BA:2035:G:C2	3.08	0.42
35:BA:645:C:O2	35:BA:645:C:C4'	2.67	0.42
35:BA:688:U:C3'	35:BA:688:U:C6	3.02	0.42
35:BA:846:C:C4	35:BA:930:U:C5	3.08	0.42
35:BA:950:G:H2'	35:BA:951:C:C6	2.55	0.42
35:BA:1045:A:C2	35:BA:1047:G:N2	2.87	0.42
35:BA:1445:A:C8	35:BA:1460:A:C2	3.08	0.42
35:BA:1464:C:H1'	35:BA:1528(A):A:N3	2.35	0.42
35:BA:1491:G:N2	35:BA:1492:G:H1'	2.35	0.42
35:BA:1675:C:H2'	35:BA:1676:A:O4'	2.19	0.42
35:BA:1971:A:N3	38:BD:240:ALA:HA	2.35	0.42
35:BA:2076:U:C5'	35:BA:2238:G:N2	2.81	0.42
35:BA:2078:C:H1'	35:BA:2434:A:H1'	2.02	0.42
35:BA:2377:A:O2'	35:BA:2378:A:H5'	2.19	0.42
35:BA:2453:A:H2'	35:BA:2454:G:H8	1.85	0.42
39:BE:59:VAL:HG21	39:BE:63:LEU:HA	2.01	0.42
40:BF:81:PRO:C	40:BF:83:PHE:N	2.73	0.42
41:BG:166:ASP:O	41:BG:167:GLU:C	2.56	0.42
43:BK:55:VAL:CG2	43:BK:67:PHE:HD2	2.33	0.42
44:BL:58:LEU:HD23	44:BL:58:LEU:O	2.19	0.42
47:BP:96:THR:HB	47:BP:97:PRO:HD2	2.02	0.42
50:BS:11:LYS:CG	50:BS:13:ARG:HH21	2.33	0.42
50:BS:27:SER:C	50:BS:28:VAL:HG23	2.39	0.42
50:BS:31:SER:HB3	50:BS:34:HIS:C	2.40	0.42
51:BT:50:ILE:HA	51:BT:99:LEU:HD11	2.00	0.42
53:BV:2:PHE:O	53:BV:3:ALA:CB	2.68	0.42
54:BW:45:TYR:C	54:BW:45:TYR:CD1	2.92	0.42
54:BW:50:VAL:CG1	54:BW:51:LEU:N	2.83	0.42
54:BW:59:VAL:HG21	54:BW:66:GLU:HB2	2.01	0.42
56:BY:10:GLY:C	56:BY:27:VAL:HG13	2.38	0.42
1:AA:425:G:O2'	1:AA:426:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:587:G:HO2'	1:AA:588:G:P	2.42	0.42
1:AA:619:U:N3	4:AD:134:ASP:OD1	2.52	0.42
1:AA:828:A:H2'	1:AA:829:G:O4'	2.19	0.42
1:AA:1349:A:OP1	9:AI:120:ARG:HB2	2.20	0.42
3:AC:77:ILE:HA	3:AC:84:ILE:HB	2.01	0.42
4:AD:70:ILE:HD13	4:AD:70:ILE:HG21	1.79	0.42
5:AE:72:GLN:HE22	5:AE:144:THR:HG22	1.85	0.42
7:AG:15:ASP:HA	7:AG:24:THR:HG23	2.02	0.42
7:AG:64:GLN:HG2	7:AG:128:ALA:HB1	2.02	0.42
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.50	0.42
8:AH:104:ARG:CZ	8:AH:138:TRP:CH2	3.02	0.42
10:AJ:98:ILE:O	10:AJ:98:ILE:HG22	2.20	0.42
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.82	0.42
16:AP:44:THR:O	16:AP:45:THR:CB	2.68	0.42
24:AY:420:ASP:OD1	24:AY:420:ASP:N	2.53	0.42
24:AY:519:ARG:NH2	24:AY:678:GLU:HB2	2.34	0.42
24:AY:622:GLY:O	24:AY:623:ASP:C	2.57	0.42
58:AY:701:FUA:H213	58:AY:701:FUA:H9	1.77	0.42
26:B1:13:ILE:HG12	26:B1:42:GLN:HB2	2.01	0.42
29:B4:20:ASN:HB3	29:B4:36:CYS:SG	2.59	0.42
29:B4:25:TYR:O	29:B4:26:SER:HB3	2.20	0.42
30:B5:4:HIS:CB	30:B5:5:PRO:CD	2.92	0.42
31:B6:10:LEU:O	31:B6:54:ILE:OXT	2.37	0.42
31:B6:53:LYS:HG3	31:B6:54:ILE:H	1.84	0.42
34:B9:29:ASN:C	34:B9:31:LYS:N	2.70	0.42
35:BA:209:C:H4'	35:BA:681:G:H4'	2.02	0.42
35:BA:253:C:H2'	35:BA:254:G:O4'	2.20	0.42
35:BA:476:G:H4'	35:BA:502:A:N1	2.34	0.42
35:BA:638:G:C5	35:BA:651:G:C2	3.08	0.42
35:BA:688:U:C6	35:BA:688:U:H3'	2.55	0.42
35:BA:701:G:C6	35:BA:732:C:N4	2.88	0.42
35:BA:709:U:O5'	35:BA:709:U:H6	2.02	0.42
35:BA:752:A:HO2'	35:BA:753:C:P	2.39	0.42
35:BA:826:U:OP1	35:BA:2429:G:OP1	2.37	0.42
35:BA:947:G:H8	35:BA:947:G:O5'	2.03	0.42
35:BA:1005:C:C2	35:BA:1006:C:C5	3.08	0.42
35:BA:1035:U:O5'	42:BH:59:ARG:NH1	2.53	0.42
35:BA:1042:G:H2'	35:BA:1043:C:C6	2.55	0.42
35:BA:1097:U:C2'	35:BA:1098:A:H5'	2.50	0.42
35:BA:1241:A:C8	35:BA:1242:A:C8	3.08	0.42
35:BA:1565:C:H2'	38:BD:21:PHE:CE2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1802:A:N1	35:BA:1822:G:H1'	2.35	0.42
35:BA:2053:G:H1	35:BA:2616:C:N4	2.17	0.42
35:BA:2283:C:H2'	35:BA:2284:C:O4'	2.19	0.42
35:BA:2311:A:H3'	35:BA:2312:U:C5	2.54	0.42
35:BA:2625:G:H2'	35:BA:2626:C:C6	2.55	0.42
35:BA:2697:G:H2'	35:BA:2698:U:O4'	2.20	0.42
38:BD:186:HIS:CD2	38:BD:188:GLU:H	2.37	0.42
39:BE:119:ARG:HG2	39:BE:160:TYR:HB2	2.02	0.42
40:BF:41:LEU:HD23	40:BF:44:ARG:NE	2.34	0.42
41:BG:3:LEU:HD12	41:BG:3:LEU:HA	1.87	0.42
45:BN:38:HIS:O	52:BU:67:ALA:HB1	2.19	0.42
46:BO:17:ARG:HH21	46:BO:47:ILE:HD11	1.84	0.42
47:BP:83:VAL:HG12	47:BP:113:LYS:O	2.19	0.42
47:BP:124:LYS:HD3	47:BP:143:GLY:CA	2.50	0.42
48:BQ:37:LEU:HD21	48:BQ:130:LYS:HB2	2.02	0.42
51:BT:5:ALA:O	51:BT:7:ILE:N	2.53	0.42
51:BT:113:LYS:O	51:BT:114:LEU:HD23	2.16	0.42
51:BT:132:LYS:HG2	51:BT:133:GLU:N	2.35	0.42
52:BU:110:VAL:O	52:BU:113:ALA:N	2.50	0.42
53:BV:82:ARG:N	53:BV:82:ARG:CD	2.80	0.42
57:BZ:37:VAL:O	57:BZ:38:TYR:HB3	2.19	0.42
1:AA:204:U:O2'	1:AA:216:G:P	2.78	0.42
1:AA:371:G:N2	1:AA:374:A:N6	2.68	0.42
1:AA:432:A:H2'	1:AA:433:C:O4'	2.20	0.42
1:AA:719:C:O2	18:AR:49:LYS:HA	2.20	0.42
1:AA:765:G:H1	1:AA:812:C:H2'	1.85	0.42
1:AA:803:G:C5	1:AA:804:U:C4	3.07	0.42
1:AA:909:A:H2'	1:AA:910:C:O4'	2.20	0.42
1:AA:1137:C:H5'	1:AA:1138:G:C5	2.55	0.42
1:AA:1254:C:H5'	1:AA:1356:G:H4'	2.01	0.42
1:AA:1517:G:H2'	1:AA:1518:A:H5'	2.02	0.42
2:AB:78:GLN:HB3	2:AB:94:ASN:ND2	2.34	0.42
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	2.02	0.42
5:AE:153:LYS:HD3	5:AE:153:LYS:HA	1.52	0.42
7:AG:120:ILE:O	7:AG:124:LEU:HD12	2.19	0.42
7:AG:126:ASP:O	7:AG:130:GLY:N	2.40	0.42
8:AH:109:ILE:CG1	8:AH:110:ALA:N	2.78	0.42
9:AI:86:VAL:HG13	9:AI:87:GLN:N	2.34	0.42
9:AI:95:LYS:C	9:AI:95:LYS:CD	2.88	0.42
10:AJ:23:ILE:HG22	10:AJ:23:ILE:O	2.20	0.42
11:AK:18:ARG:O	11:AK:32:ILE:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:96:ARG:O	11:AK:99:GLN:HB2	2.19	0.42
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.80	0.42
24:AY:9:LEU:C	24:AY:11:ARG:N	2.68	0.42
24:AY:31:ARG:HD2	24:AY:263:ALA:O	2.20	0.42
24:AY:100:VAL:HG23	24:AY:329:ARG:CG	2.48	0.42
24:AY:165:GLN:HE21	24:AY:177:ILE:HG21	1.85	0.42
25:B0:67:VAL:HG12	25:B0:68:GLU:N	2.33	0.42
26:B1:46:LEU:CB	26:B1:63:ALA:HA	2.41	0.42
28:B3:4:LEU:HD23	28:B3:4:LEU:HA	1.86	0.42
30:B5:29:THR:O	30:B5:42:PRO:HD2	2.19	0.42
30:B5:30:LEU:HD23	30:B5:41:PRO:CA	2.50	0.42
31:B6:11:LEU:C	31:B6:11:LEU:CD1	2.87	0.42
33:B8:32:LEU:H	33:B8:32:LEU:CD2	2.33	0.42
33:B8:37:SER:O	33:B8:40:GLU:HB2	2.20	0.42
33:B8:49:VAL:O	33:B8:53:PRO:HG3	2.19	0.42
34:B9:31:LYS:HD3	35:BA:2478:A:OP1	2.20	0.42
35:BA:74:A:H5''	35:BA:75:G:O4'	2.19	0.42
35:BA:90:U:O2	35:BA:90:U:C3'	2.67	0.42
35:BA:139(A):G:N2	55:BX:44:GLU:CD	2.72	0.42
35:BA:176:G:C2'	35:BA:177:G:H5'	2.50	0.42
35:BA:178:G:C6	35:BA:179:G:N7	2.88	0.42
35:BA:212:G:C8	35:BA:212:G:C4'	3.03	0.42
35:BA:307:G:H2'	35:BA:309:G:OP2	2.20	0.42
35:BA:615:G:OP1	40:BF:182:ASN:HB3	2.20	0.42
35:BA:774:A:O2'	35:BA:775:G:OP2	2.33	0.42
35:BA:776:G:H4'	35:BA:777:A:O5'	2.19	0.42
35:BA:1437:C:H2'	35:BA:1438:U:C6	2.55	0.42
35:BA:1545:A:N7	35:BA:1546:C:C2	2.88	0.42
35:BA:1668:A:N7	35:BA:1674:G:C6	2.88	0.42
35:BA:1722:A:H2	35:BA:1740:G:H2'	1.84	0.42
35:BA:1887:C:C2'	35:BA:1888:G:H5''	2.49	0.42
35:BA:2061:G:O6	35:BA:2501:C:O2	2.37	0.42
35:BA:2206:G:H3'	35:BA:2207:G:C5'	2.50	0.42
35:BA:2308:G:N7	35:BA:2310:A:C5'	2.78	0.42
35:BA:2328:A:N1	35:BA:2329:G:C6	2.88	0.42
35:BA:2369:A:O2'	35:BA:2370:G:H5'	2.19	0.42
35:BA:2428:G:H5'	35:BA:2429:G:P	2.60	0.42
35:BA:2467:C:H4'	48:BQ:123:HIS:CE1	2.54	0.42
35:BA:2572:A:C8	39:BE:144:ARG:CB	3.03	0.42
35:BA:2693:A:C6	35:BA:2717:G:C6	3.08	0.42
35:BA:2776:A:C6	35:BA:2782:G:H1'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2886:G:H2'	35:BA:2887:U:H6	1.85	0.42
36:BB:40:U:C2	36:BB:43:C:H5''	2.51	0.42
36:BB:94:C:H2'	36:BB:95:C:C6	2.55	0.42
38:BD:26:LYS:HA	38:BD:26:LYS:HE2	2.01	0.42
39:BE:33:VAL:CG1	39:BE:90:THR:H	2.20	0.42
40:BF:162:LEU:O	40:BF:166:ALA:N	2.51	0.42
41:BG:7:LEU:O	41:BG:8:LYS:C	2.58	0.42
41:BG:165:THR:O	41:BG:166:ASP:C	2.57	0.42
42:BH:124:GLU:HB2	42:BH:132:ARG:O	2.20	0.42
43:BK:29:GLN:O	43:BK:59:ILE:CD1	2.67	0.42
43:BK:48:MET:HB2	43:BK:49:GLY:H	1.56	0.42
44:BL:76:THR:OG1	44:BL:77:GLY:N	2.51	0.42
45:BN:78:TYR:N	45:BN:78:TYR:CD1	2.86	0.42
45:BN:102:ALA:O	45:BN:106:MET:HE2	2.20	0.42
47:BP:124:LYS:HD3	47:BP:143:GLY:HA3	2.02	0.42
49:BR:28:LEU:C	49:BR:28:LEU:CD2	2.85	0.42
50:BS:98:VAL:HG11	50:BS:100:ALA:HB2	2.00	0.42
50:BS:106:ARG:O	50:BS:107:GLU:CB	2.68	0.42
55:BX:84:ALA:O	55:BX:85:PRO:C	2.57	0.42
56:BY:44:ILE:CG2	56:BY:45:VAL:H	2.19	0.42
57:BZ:41:LEU:O	57:BZ:45:ASP:N	2.51	0.42
57:BZ:56:VAL:HA	57:BZ:70:LEU:HD23	2.02	0.42
57:BZ:118:GLN:HG2	57:BZ:120:ILE:CD1	2.50	0.42
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.34	0.42
1:AA:66:G:H4'	1:AA:173:U:H5	1.83	0.42
1:AA:102:G:N3	1:AA:151:A:H2	2.18	0.42
1:AA:321:A:C2	1:AA:333:G:C2	3.08	0.42
1:AA:765:G:N2	1:AA:812:C:O2'	2.52	0.42
1:AA:790:A:H2	1:AA:1497:G:H5''	1.85	0.42
1:AA:809:G:H2'	1:AA:810:C:O5'	2.20	0.42
1:AA:1118:C:N4	1:AA:1155:G:H1	2.17	0.42
1:AA:1215:G:C4	1:AA:1216:G:C8	3.08	0.42
1:AA:1226:C:C6	13:AM:103:THR:O	2.73	0.42
1:AA:1226:C:C4	13:AM:104:ARG:HB2	2.54	0.42
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.50	0.42
1:AA:1271:G:H5'	1:AA:1314:C:H5''	2.02	0.42
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.19	0.42
1:AA:1493:A:OP2	1:AA:1493:A:H8	2.03	0.42
3:AC:14:ILE:O	3:AC:15:THR:HB	2.20	0.42
3:AC:79:ARG:O	3:AC:82:GLU:OE2	2.38	0.42
6:AF:72:VAL:CG1	6:AF:73:ASN:N	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:91:VAL:CG1	6:AF:92:LYS:N	2.82	0.42
8:AH:35:ILE:HG22	8:AH:39:LEU:CD2	2.50	0.42
9:AI:37:PHE:CE2	9:AI:74:ILE:HG12	2.55	0.42
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	2.01	0.42
9:AI:90:PRO:CG	9:AI:91:ASP:N	2.83	0.42
9:AI:128:ARG:OXT	9:AI:128:ARG:HG2	2.20	0.42
10:AJ:63:PHE:HB2	14:AN:57:ARG:O	2.20	0.42
12:AL:41:ARG:CG	12:AL:42:THR:N	2.53	0.42
14:AN:41:ARG:NH1	14:AN:41:ARG:HG2	2.29	0.42
17:AQ:56:VAL:O	17:AQ:76:LEU:HD12	2.20	0.42
24:AY:28:THR:O	24:AY:32:ILE:HG13	2.20	0.42
24:AY:357:ARG:HG3	24:AY:357:ARG:NH1	2.35	0.42
24:AY:526:VAL:CG1	24:AY:566:THR:HG23	2.50	0.42
24:AY:635:GLU:OE2	24:AY:644:ARG:NH1	2.53	0.42
27:B2:10:LEU:O	27:B2:11:GLU:C	2.56	0.42
28:B3:1:MET:SD	28:B3:40:THR:HG22	2.60	0.42
29:B4:26:SER:HB3	41:BG:105:LYS:HZ2	1.83	0.42
35:BA:154(A):C:N4	35:BA:171:G:H1	2.17	0.42
35:BA:185:U:H2'	35:BA:186:G:C8	2.54	0.42
35:BA:332:A:C6	35:BA:335:C:C2	3.08	0.42
35:BA:347:A:H2'	35:BA:348:G:H8	1.85	0.42
35:BA:545:C:H2'	35:BA:547:A:C5'	2.42	0.42
35:BA:1122:G:H2'	35:BA:1122:G:N3	2.34	0.42
35:BA:1536:C:H2'	35:BA:1537:G:H4'	2.01	0.42
35:BA:1798:U:C4	35:BA:1819:A:C2	3.08	0.42
35:BA:1799:G:H5'	35:BA:1819:A:H61	1.84	0.42
35:BA:2193:G:H2'	35:BA:2194:G:O5'	2.19	0.42
35:BA:2286:A:C6	35:BA:2346:A:N6	2.88	0.42
35:BA:2380:C:C5	35:BA:2381:C:H5	2.38	0.42
37:BC:98:GLU:HA	37:BC:101:ILE:HD11	2.02	0.42
38:BD:35:LYS:CD	38:BD:36:PRO:N	2.72	0.42
38:BD:77:ALA:HB2	38:BD:97:TYR:CG	2.55	0.42
39:BE:147:PRO:HG2	39:BE:148:GLY:N	2.34	0.42
40:BF:116:ASP:OD2	47:BP:5:ASP:N	2.53	0.42
41:BG:47:LYS:HG2	41:BG:81:LYS:CB	2.50	0.42
42:BH:31:GLY:O	42:BH:79:VAL:CG1	2.68	0.42
42:BH:33:LEU:HD21	42:BH:136:ILE:HG22	2.02	0.42
42:BH:128:PRO:HG2	42:BH:129:THR:N	2.35	0.42
43:BK:9:LYS:C	43:BK:10:LEU:O	2.59	0.42
46:BO:115:VAL:CG1	46:BO:121:VAL:HG21	2.47	0.42
48:BQ:21:THR:O	48:BQ:22:LYS:CB	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:75:LEU:HD13	49:BR:75:LEU:C	2.39	0.42
52:BU:80:ILE:O	52:BU:80:ILE:CG2	2.68	0.42
54:BW:49:LYS:HB2	54:BW:49:LYS:HE3	1.73	0.42
54:BW:59:VAL:O	54:BW:59:VAL:CG1	2.61	0.42
56:BY:18:GLY:O	56:BY:21:LYS:HB2	2.20	0.42
56:BY:49:VAL:C	56:BY:51:VAL:H	2.23	0.42
56:BY:95:LYS:HB3	56:BY:100:ALA:HA	2.02	0.42
57:BZ:14:LYS:HB2	57:BZ:17:ALA:HB3	2.02	0.42
1:AA:50:A:H62	1:AA:361:G:H4'	1.79	0.41
1:AA:129(A):G:O2'	1:AA:189(F):U:O5'	2.33	0.41
1:AA:720:C:H2'	1:AA:721:G:C8	2.54	0.41
1:AA:751:U:H2'	1:AA:752:G:O4'	2.20	0.41
1:AA:814:A:H5'	1:AA:1511:G:H4'	2.02	0.41
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	2.02	0.41
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.20	0.41
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.55	0.41
1:AA:1480:G:N2	1:AA:1481:U:H1'	2.35	0.41
4:AD:108:LEU:HD12	4:AD:108:LEU:HA	1.88	0.41
5:AE:33:VAL:CG1	5:AE:112:LEU:HD12	2.49	0.41
6:AF:6:VAL:HB	6:AF:63:TYR:HB2	2.01	0.41
7:AG:81:GLY:O	7:AG:83:ALA:N	2.51	0.41
7:AG:143:ARG:O	7:AG:147:ALA:HB2	2.20	0.41
8:AH:41:ARG:NH2	8:AH:123:GLU:CD	2.52	0.41
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.20	0.41
11:AK:80:VAL:O	11:AK:80:VAL:HG23	2.19	0.41
12:AL:70:ILE:HG23	12:AL:100:ILE:HD12	2.01	0.41
15:AO:83:GLU:C	15:AO:85:LEU:N	2.73	0.41
19:AS:19:VAL:HG12	19:AS:20:LEU:HD23	2.01	0.41
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.19	0.41
22:AV:19:G:C4	22:AV:57:A:C2	3.08	0.41
24:AY:329:ARG:HD3	24:AY:374:LEU:CD1	2.40	0.41
24:AY:388:THR:HG21	24:AY:399:LEU:HD13	1.99	0.41
24:AY:428:LEU:HD13	24:AY:440:VAL:CG1	2.24	0.41
24:AY:438:PHE:O	24:AY:439:ARG:CG	2.68	0.41
24:AY:482:ALA:O	24:AY:676:TYR:HE1	2.03	0.41
24:AY:486:THR:HB	24:AY:561:VAL:O	2.19	0.41
28:B3:13:ILE:HD11	35:BA:989:G:C8	2.54	0.41
35:BA:9:U:C5	35:BA:2629:A:N6	2.86	0.41
35:BA:84:A:H5'	56:BY:9:LYS:CB	2.50	0.41
35:BA:253:C:O2'	35:BA:254:G:H5'	2.20	0.41
35:BA:476:G:C2	35:BA:479:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:569:U:OP1	35:BA:945:A:C8	2.73	0.41
35:BA:801:G:O4'	40:BF:54:ARG:HD3	2.20	0.41
35:BA:933:A:H2'	35:BA:934:G:O4'	2.20	0.41
35:BA:1005:C:C4	35:BA:1006:C:N4	2.88	0.41
35:BA:1167:U:C2	35:BA:1183:G:N2	2.88	0.41
35:BA:1303:G:H5'	35:BA:1642:G:H21	1.84	0.41
35:BA:1343:G:N2	35:BA:1405:U:C2	2.88	0.41
35:BA:1669:A:C2	35:BA:1994:C:H1'	2.54	0.41
35:BA:1709:U:C2	35:BA:1750:G:N2	2.88	0.41
35:BA:1884:A:C2'	35:BA:1885:A:C5'	2.89	0.41
35:BA:2031:A:C5	35:BA:2498:C:H1'	2.55	0.41
35:BA:2290:G:C6	35:BA:2291:U:N3	2.88	0.41
35:BA:2337:G:H2'	35:BA:2338:G:C8	2.55	0.41
35:BA:2495:G:H5''	48:BQ:82:ARG:HG2	2.01	0.41
35:BA:2527:C:O2	35:BA:2527:C:H2'	2.20	0.41
35:BA:2620:C:H1'	39:BE:156:MET:HB2	2.02	0.41
35:BA:2748:A:C5	35:BA:2757:A:C6	3.08	0.41
35:BA:2755:C:O2	35:BA:2755:C:H2'	2.19	0.41
36:BB:82:G:C2'	36:BB:83:G:C5'	2.98	0.41
38:BD:51:VAL:HG12	38:BD:54:ARG:HG2	2.02	0.41
38:BD:134:ARG:HG2	38:BD:187:GLY:C	2.36	0.41
39:BE:62:PRO:C	39:BE:64:LYS:N	2.70	0.41
39:BE:89:ASP:O	39:BE:90:THR:O	2.37	0.41
39:BE:126:PRO:O	39:BE:126:PRO:HG2	2.20	0.41
40:BF:20:LEU:HD23	40:BF:21:ALA:H	1.79	0.41
40:BF:202:PHE:O	40:BF:206:ILE:HG12	2.20	0.41
41:BG:106:LEU:HD12	41:BG:110:ALA:CB	2.50	0.41
41:BG:140:ILE:H	41:BG:140:ILE:CD1	2.13	0.41
42:BH:121:ILE:HA	42:BH:134:SER:O	2.20	0.41
43:BK:70:LYS:HE3	43:BK:70:LYS:CA	2.50	0.41
43:BK:95:LYS:HG2	43:BK:137:GLU:CG	2.50	0.41
45:BN:55:VAL:HG22	45:BN:126:PRO:CA	2.41	0.41
47:BP:125:VAL:O	47:BP:145:PRO:CD	2.56	0.41
48:BQ:21:THR:O	48:BQ:21:THR:HG22	2.20	0.41
48:BQ:24:GLY:O	48:BQ:101:ARG:HD2	2.19	0.41
48:BQ:27:VAL:O	48:BQ:28:ALA:HB3	2.20	0.41
48:BQ:110:THR:CG2	48:BQ:113:GLN:CG	2.94	0.41
48:BQ:118:LEU:HD23	48:BQ:118:LEU:HA	1.67	0.41
49:BR:43:GLU:OE1	49:BR:43:GLU:HA	2.20	0.41
50:BS:17:ARG:O	50:BS:20:ARG:CG	2.67	0.41
56:BY:10:GLY:O	56:BY:27:VAL:HG22	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:14:LYS:HB3	57:BZ:17:ALA:CB	2.50	0.41
1:AA:43:C:O5'	1:AA:43:C:H6	2.03	0.41
1:AA:251:G:H4'	1:AA:252:U:O5'	2.20	0.41
1:AA:291:C:O2'	1:AA:292:G:C5'	2.59	0.41
1:AA:862:C:O2'	1:AA:863:U:H5'	2.21	0.41
1:AA:937:A:C2	1:AA:1379:G:O6	2.73	0.41
1:AA:1050:G:C2	1:AA:1209:C:O2	2.73	0.41
1:AA:1352:C:OP1	21:AU:3:LYS:HE2	2.20	0.41
1:AA:1456:G:N2	1:AA:1457:G:C4	2.88	0.41
4:AD:54:TYR:O	4:AD:55:ALA:C	2.58	0.41
4:AD:180:GLY:C	4:AD:181:MET:HG3	2.40	0.41
5:AE:124:GLY:O	5:AE:125:SER:C	2.56	0.41
7:AG:4:ARG:HB3	7:AG:5:ARG:HH11	1.85	0.41
8:AH:44:PHE:C	8:AH:45:ILE:CG2	2.88	0.41
12:AL:30:ALA:HA	12:AL:31:PRO:HD3	1.86	0.41
13:AM:7:VAL:O	13:AM:7:VAL:HG12	2.21	0.41
13:AM:109:THR:O	13:AM:109:THR:HG22	2.20	0.41
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.34	0.41
18:AR:52:PRO:HB2	18:AR:54:ARG:HG3	2.01	0.41
19:AS:79:THR:CG2	19:AS:80:TYR:N	2.83	0.41
20:AT:36:LEU:HD21	20:AT:55:ILE:CG2	2.50	0.41
20:AT:40:ALA:O	20:AT:41:ILE:C	2.59	0.41
20:AT:93:GLU:C	20:AT:95:ALA:N	2.73	0.41
22:AV:20:U:H3'	22:AV:21:A:C5'	2.36	0.41
24:AY:24:GLY:O	24:AY:25:LYS:C	2.58	0.41
24:AY:128:TYR:O	24:AY:129:LYS:CB	2.63	0.41
24:AY:355:LEU:N	24:AY:355:LEU:HD22	2.35	0.41
26:B1:11:ARG:HB3	26:B1:11:ARG:NH1	2.35	0.41
29:B4:14:ILE:HG22	29:B4:15:ILE:H	1.85	0.41
31:B6:5:VAL:O	31:B6:8:LYS:HB3	2.19	0.41
35:BA:90:U:H4'	35:BA:92:A:C8	2.56	0.41
35:BA:320:A:H4'	35:BA:322:A:N7	2.35	0.41
35:BA:331:A:N3	35:BA:1209:G:C6	2.88	0.41
35:BA:464:U:C2	35:BA:788:A:N6	2.89	0.41
35:BA:968:G:C6	35:BA:969:U:C4	3.08	0.41
35:BA:999:U:OP2	35:BA:1153:C:OP2	2.38	0.41
35:BA:1066:U:O5'	35:BA:1066:U:H6	2.03	0.41
35:BA:1121:C:H2'	35:BA:1122:G:O4'	2.20	0.41
35:BA:1285:G:C5	35:BA:1329:U:C4	3.08	0.41
35:BA:1336:A:H2'	35:BA:1337:G:H8	1.85	0.41
35:BA:1472:A:H2'	35:BA:1473:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1478:G:HO2'	35:BA:1558:A:H2	1.63	0.41
35:BA:1517:G:H5'	35:BA:1517:G:C8	2.53	0.41
35:BA:2056:G:N2	35:BA:2057:A:C8	2.88	0.41
35:BA:2056:G:C5	35:BA:2577:A:C5	3.08	0.41
35:BA:2126:A:O2'	35:BA:2127:G:P	2.77	0.41
35:BA:2137:C:N3	35:BA:2155:G:C2	2.88	0.41
35:BA:2538:C:O5'	35:BA:2538:C:H6	2.03	0.41
35:BA:2601:C:H2'	35:BA:2603:G:C8	2.55	0.41
35:BA:2787:C:O2	39:BE:61:ARG:HD3	2.20	0.41
35:BA:2849:U:H1'	35:BA:2866:U:H6	1.86	0.41
36:BB:73:A:N7	36:BB:74:U:C5	2.88	0.41
37:BC:14:LYS:O	37:BC:15:VAL:HG13	2.20	0.41
37:BC:37:LYS:O	37:BC:38:PHE:CB	2.68	0.41
38:BD:150:LYS:HA	38:BD:150:LYS:HD3	1.96	0.41
39:BE:117:MET:O	39:BE:117:MET:CG	2.62	0.41
40:BF:80:ALA:O	40:BF:83:PHE:HB2	2.20	0.41
41:BG:42:GLY:O	41:BG:88:ILE:HG23	2.20	0.41
41:BG:97:ASP:N	41:BG:100:TRP:HD1	1.94	0.41
51:BT:129:ARG:O	51:BT:131:ALA:N	2.45	0.41
52:BU:46:ALA:O	52:BU:47:TYR:C	2.58	0.41
52:BU:53:ARG:O	52:BU:56:ASP:HB2	2.20	0.41
53:BV:18:LEU:CG	53:BV:19:LYS:N	2.73	0.41
57:BZ:54:HIS:CE1	57:BZ:123:ASP:OD2	2.73	0.41
57:BZ:79:ARG:O	57:BZ:79:ARG:HG3	2.19	0.41
1:AA:64:G:C2	1:AA:67:C:N4	2.88	0.41
1:AA:346:G:OP1	51:BT:41:ARG:CZ	2.68	0.41
1:AA:354:G:C2	1:AA:355:C:C5	3.08	0.41
1:AA:532:A:H2'	1:AA:533:A:OP1	2.20	0.41
1:AA:602:A:H2'	1:AA:603:U:C6	2.55	0.41
1:AA:608:A:O2'	1:AA:609:A:H5'	2.20	0.41
1:AA:664:G:O2'	1:AA:666:G:OP2	2.34	0.41
1:AA:694:A:H2'	1:AA:695:A:O4'	2.20	0.41
1:AA:703:G:O2'	1:AA:704:A:P	2.78	0.41
1:AA:973:G:C3'	1:AA:974:A:H5''	2.40	0.41
1:AA:1002:G:N2	1:AA:1039:C:H2'	2.36	0.41
1:AA:1053:G:C4	1:AA:1199:U:C5	3.09	0.41
2:AB:166:ASP:HB2	2:AB:205:ASP:OD2	2.19	0.41
4:AD:35:ARG:O	4:AD:37:PRO:HD3	2.19	0.41
4:AD:56:VAL:HG12	4:AD:202:LEU:CD1	2.48	0.41
6:AF:11:ASN:HB3	6:AF:14:LEU:CD1	2.51	0.41
6:AF:30:LEU:HD23	6:AF:30:LEU:HA	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:126:LYS:O	8:AH:126:LYS:HG3	2.20	0.41
10:AJ:33:GLN:N	10:AJ:75:ILE:CD1	2.82	0.41
12:AL:91:LYS:HB2	12:AL:91:LYS:HE2	1.86	0.41
15:AO:26:GLU:CG	15:AO:77:ARG:HH12	2.33	0.41
17:AQ:8:GLY:HA3	17:AQ:22:LEU:O	2.20	0.41
18:AR:84:LYS:HA	18:AR:84:LYS:HD3	1.90	0.41
19:AS:7:LYS:HD3	19:AS:7:LYS:HA	1.78	0.41
21:AU:6:ARG:NH2	21:AU:15:ARG:NH2	2.68	0.41
22:AV:35:A:C6	22:AV:36:U:C4	3.07	0.41
24:AY:138:LYS:HE2	59:AY:702:GDP:N9	2.36	0.41
27:B2:69:ARG:O	27:B2:70:GLN:CB	2.59	0.41
28:B3:17:LYS:HZ2	28:B3:20:LYS:CE	2.26	0.41
31:B6:9:LEU:HD13	31:B6:26:ASN:HB2	2.01	0.41
31:B6:27:LYS:O	31:B6:28:ARG:C	2.58	0.41
35:BA:27:G:H1'	35:BA:513:A:N6	2.35	0.41
35:BA:744:G:H3'	35:BA:745:G:H8	1.85	0.41
35:BA:1271:G:H21	35:BA:1617:C:H1'	1.85	0.41
35:BA:1680:U:O2'	35:BA:1681:G:H5'	2.20	0.41
35:BA:1700:A:H2'	35:BA:1701:A:H5'	2.03	0.41
35:BA:1797:C:O2'	35:BA:1798:U:H5'	2.20	0.41
35:BA:2414:G:C2	35:BA:2415:G:C8	3.09	0.41
35:BA:2416:C:H2'	35:BA:2417:C:C6	2.55	0.41
35:BA:2787:C:O2	35:BA:2787:C:H2'	2.19	0.41
35:BA:2843:G:C2	35:BA:2875:C:N3	2.88	0.41
36:BB:62:C:C2	36:BB:63:G:C8	3.07	0.41
36:BB:104:U:O3'	57:BZ:72:ARG:NH1	2.53	0.41
36:BB:111:G:O2'	36:BB:112:U:H5'	2.21	0.41
37:BC:132:LEU:HD22	37:BC:137:LEU:HB2	2.02	0.41
40:BF:41:LEU:CD2	40:BF:44:ARG:HH21	2.34	0.41
41:BG:91:ARG:CG	41:BG:92:VAL:N	2.83	0.41
41:BG:172:LEU:CD2	41:BG:176:LEU:HD21	2.50	0.41
42:BH:118:PRO:CG	42:BH:121:ILE:HD12	2.47	0.41
42:BH:170:ARG:HG2	42:BH:170:ARG:NH1	2.34	0.41
46:BO:104:ARG:NE	51:BT:33:LYS:CE	2.79	0.41
47:BP:85:LEU:HD12	47:BP:120:ALA:CB	2.46	0.41
47:BP:89:ALA:HA	47:BP:121:LYS:HD3	2.02	0.41
52:BU:86:ALA:HB3	52:BU:88:ILE:HG12	2.02	0.41
53:BV:45:THR:O	53:BV:46:VAL:HG12	2.20	0.41
54:BW:25:ARG:HB2	54:BW:25:ARG:NH1	2.35	0.41
57:BZ:141:VAL:CG1	57:BZ:142:SER:N	2.82	0.41
1:AA:37:U:C2'	1:AA:38:G:H5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:369:C:C2	1:AA:393:A:C2	3.08	0.41
1:AA:537:G:H2'	1:AA:538:G:H8	1.85	0.41
1:AA:936:C:H2'	1:AA:937:A:C5'	2.50	0.41
1:AA:1299:A:C6	1:AA:1301:U:O2	2.74	0.41
1:AA:1430:C:H2'	1:AA:1431:C:H6	1.83	0.41
4:AD:192:GLU:H	4:AD:192:GLU:CD	2.22	0.41
6:AF:22:GLU:C	6:AF:24:GLU:H	2.24	0.41
7:AG:27:ILE:O	7:AG:27:ILE:HG23	2.21	0.41
14:AN:18:VAL:HG23	14:AN:19:ARG:N	2.35	0.41
15:AO:27:VAL:O	15:AO:28:GLN:C	2.58	0.41
18:AR:68:LYS:O	18:AR:71:LYS:HB2	2.20	0.41
19:AS:41:VAL:C	19:AS:43:GLU:N	2.74	0.41
21:AU:21:TYR:CD1	21:AU:21:TYR:N	2.88	0.41
22:AV:61:C:C2'	22:AV:62:C:H5'	2.49	0.41
24:AY:12:LEU:HB3	24:AY:283:PRO:CG	2.50	0.41
24:AY:334:THR:HG23	24:AY:370:LYS:HA	2.02	0.41
24:AY:350:GLU:OE1	24:AY:350:GLU:HA	2.21	0.41
27:B2:10:LEU:HA	27:B2:10:LEU:HD23	1.80	0.41
27:B2:13:ALA:C	27:B2:15:LYS:H	2.23	0.41
28:B3:34:GLU:O	28:B3:35:ARG:HB2	2.20	0.41
28:B3:43:ILE:O	28:B3:47:VAL:HG23	2.20	0.41
31:B6:38:LYS:O	31:B6:39:TYR:CD1	2.72	0.41
35:BA:272(I):U:C4	35:BA:363(A):A:N1	2.81	0.41
35:BA:299:A:C6	35:BA:300:A:C6	3.08	0.41
35:BA:444:C:OP2	52:BU:2:PRO:HD3	2.20	0.41
35:BA:483:A:H2'	35:BA:483:A:N3	2.35	0.41
35:BA:823:G:C6	35:BA:824:A:C6	3.08	0.41
35:BA:869:G:C4	35:BA:870:A:C8	3.08	0.41
35:BA:1020:A:C2'	35:BA:1021:A:OP2	2.68	0.41
35:BA:1412:A:C2'	35:BA:1413:G:H5'	2.49	0.41
35:BA:1509(B):A:H2'	35:BA:1510:G:O4'	2.21	0.41
35:BA:1565:C:C2	35:BA:1567:A:C8	3.08	0.41
35:BA:1849:G:N3	35:BA:1849:G:H2'	2.36	0.41
35:BA:1948:G:C5'	35:BA:1948:G:H8	2.27	0.41
35:BA:2196:C:H2'	35:BA:2197:U:C6	2.55	0.41
35:BA:2310:A:O4'	35:BA:2310:A:N3	2.51	0.41
35:BA:2512:C:H5''	39:BE:122:PHE:CE2	2.55	0.41
35:BA:2555:U:C5	35:BA:2556:C:N1	2.88	0.41
35:BA:2876:G:H5'	51:BT:3:ARG:HA	2.01	0.41
36:BB:66:A:H4'	36:BB:67:G:OP1	2.19	0.41
36:BB:76:G:O3'	57:BZ:19:ARG:NH2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:82:G:C2	36:BB:83:G:C8	3.08	0.41
36:BB:103:G:OP2	36:BB:103:G:H8	2.03	0.41
37:BC:156:GLU:OE2	37:BC:161:ARG:HD3	2.21	0.41
38:BD:148:GLU:C	38:BD:151:LYS:HG3	2.40	0.41
38:BD:165:ILE:CD1	38:BD:175:LEU:HD21	2.39	0.41
39:BE:67:PHE:O	39:BE:68:ALA:C	2.59	0.41
39:BE:94:GLU:OE1	39:BE:177:PRO:CB	2.68	0.41
41:BG:2:PRO:HB2	41:BG:3:LEU:H	1.48	0.41
41:BG:34:LEU:HD13	41:BG:99:MET:HE1	2.01	0.41
41:BG:82:LEU:HD21	41:BG:87:PRO:HB3	2.01	0.41
42:BH:35:VAL:HG12	42:BH:37:VAL:CG2	2.50	0.41
45:BN:133:GLN:NE2	45:BN:135:PRO:HG2	2.33	0.41
47:BP:17:LYS:O	47:BP:19:VAL:N	2.53	0.41
50:BS:19:LYS:O	50:BS:19:LYS:HG2	2.20	0.41
50:BS:80:LEU:HD23	50:BS:80:LEU:HA	1.91	0.41
51:BT:45:PHE:HE2	51:BT:74:ARG:HB2	1.75	0.41
53:BV:61:VAL:HG22	53:BV:63:GLY:H	1.85	0.41
54:BW:66:GLU:O	54:BW:68:ARG:N	2.54	0.41
57:BZ:9:TYR:CB	57:BZ:35:ARG:HH22	2.31	0.41
1:AA:113:G:C2	1:AA:315:A:C2	3.09	0.41
1:AA:252:U:H5'	1:AA:253:U:OP2	2.20	0.41
1:AA:409:G:C5'	4:AD:25:ARG:HB2	2.50	0.41
1:AA:1030:C:H41	1:AA:1032:G:N2	2.17	0.41
1:AA:1055:A:H8	1:AA:1055:A:O5'	2.03	0.41
1:AA:1129:C:C5	1:AA:1139:G:C4	3.09	0.41
1:AA:1466:C:N4	1:AA:1467:G:C2	2.89	0.41
3:AC:36:ASP:O	3:AC:39:ILE:N	2.49	0.41
3:AC:65:ALA:O	3:AC:66:VAL:CB	2.60	0.41
3:AC:78:GLY:CA	3:AC:83:ARG:HB3	2.50	0.41
4:AD:60:GLU:OE2	4:AD:198:VAL:HA	2.19	0.41
4:AD:97:LEU:HD23	4:AD:97:LEU:HA	1.72	0.41
5:AE:136:MET:C	5:AE:138:ALA:N	2.74	0.41
9:AI:3:GLN:NE2	9:AI:20:ARG:NH2	2.68	0.41
10:AJ:4:ILE:CB	10:AJ:74:ILE:HD11	2.50	0.41
13:AM:44:ARG:H	13:AM:44:ARG:HG2	1.71	0.41
13:AM:54:VAL:HG12	13:AM:58:GLU:HG2	2.03	0.41
23:AX:16:A:O2'	23:AX:17:U:H5'	2.20	0.41
24:AY:86:GLY:O	24:AY:87:HIS:CB	2.65	0.41
24:AY:130:VAL:HA	24:AY:131:PRO:HD3	1.84	0.41
24:AY:503:GLY:C	24:AY:505:GLY:N	2.74	0.41
25:B0:84:LEU:H	25:B0:84:LEU:HG	1.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:88:LYS:O	26:B1:88:LYS:CG	2.65	0.41
27:B2:59:ARG:O	27:B2:61:LEU:N	2.53	0.41
29:B4:2:LYS:HB2	36:BB:40:U:C4	2.55	0.41
31:B6:12:GLU:HA	31:B6:23:THR:HA	2.03	0.41
35:BA:66:C:C4	35:BA:67:U:C4	3.09	0.41
35:BA:78:A:O2'	35:BA:79:G:H5'	2.20	0.41
35:BA:221:A:N7	35:BA:266:G:C6	2.89	0.41
35:BA:329:G:H4'	35:BA:330:A:OP2	2.21	0.41
35:BA:552:G:O2'	35:BA:553:G:H5'	2.19	0.41
35:BA:605:C:C4	35:BA:606:U:C5	3.09	0.41
35:BA:613:G:H8	35:BA:613:G:C5'	2.34	0.41
35:BA:812:C:H1'	35:BA:1250:G:N2	2.36	0.41
35:BA:939:G:H2'	35:BA:939:G:N3	2.35	0.41
35:BA:1081:U:H4'	43:BK:117:THR:CG2	2.51	0.41
35:BA:1118:C:H2'	35:BA:1119:C:C6	2.56	0.41
35:BA:1313:U:C2	35:BA:1610:A:C2	3.09	0.41
35:BA:1482:G:N3	35:BA:1482:G:H2'	2.36	0.41
35:BA:1528:A:C2	35:BA:1542:A:H2	2.38	0.41
35:BA:1827:C:H2'	35:BA:1828:G:O4'	2.20	0.41
35:BA:1930:G:O2'	35:BA:1931:U:O5'	2.38	0.41
35:BA:2476:A:C3'	35:BA:2477:C:H5''	2.50	0.41
35:BA:2555:U:C2'	35:BA:2556:C:H5'	2.49	0.41
35:BA:2766:G:N3	35:BA:2766:G:H2'	2.34	0.41
35:BA:2835:A:O2'	35:BA:2836:U:P	2.79	0.41
37:BC:19:LYS:CG	37:BC:20:VAL:N	2.83	0.41
37:BC:65:LEU:CD1	37:BC:189:ASN:ND2	2.80	0.41
37:BC:73:VAL:O	37:BC:158:LYS:HE3	2.20	0.41
37:BC:181:PHE:HA	37:BC:182:PRO:HD3	1.74	0.41
38:BD:26:LYS:O	38:BD:27:THR:HB	2.20	0.41
38:BD:41:GLY:O	38:BD:42:GLY:O	2.38	0.41
38:BD:130:ALA:HB2	38:BD:192:THR:HB	2.02	0.41
38:BD:158:ALA:O	38:BD:196:VAL:CG1	2.68	0.41
38:BD:245:PRO:O	38:BD:245:PRO:CG	2.69	0.41
39:BE:167:VAL:HG12	39:BE:189:PRO:CD	2.50	0.41
40:BF:39:TRP:CB	40:BF:101:LEU:HD22	2.51	0.41
40:BF:150:GLY:HA2	40:BF:172:TRP:CE3	2.55	0.41
40:BF:170:LEU:HB2	40:BF:173:VAL:CG2	2.51	0.41
41:BG:81:LYS:O	41:BG:82:LEU:C	2.58	0.41
45:BN:55:VAL:CG2	45:BN:126:PRO:HA	2.43	0.41
48:BQ:29:PHE:CD1	48:BQ:29:PHE:N	2.88	0.41
48:BQ:139:GLU:OE1	48:BQ:141:GLN:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:89:ARG:HE	50:BS:91:PRO:HG2	1.86	0.41
52:BU:12:ARG:O	52:BU:13:LYS:C	2.58	0.41
55:BX:36:LYS:CE	55:BX:54:VAL:O	2.68	0.41
56:BY:28:LYS:HE3	56:BY:28:LYS:HB2	1.72	0.41
56:BY:38:ILE:CG2	56:BY:39:VAL:N	2.84	0.41
57:BZ:14:LYS:O	57:BZ:18:LEU:HD13	2.20	0.41
1:AA:179:A:H2'	1:AA:180:U:H6	1.77	0.41
1:AA:216:G:O2'	1:AA:217:C:O5'	2.39	0.41
1:AA:311:C:H2'	1:AA:312:C:H6	1.85	0.41
1:AA:501:C:H1'	1:AA:549:C:H1'	2.01	0.41
1:AA:946:A:H3'	1:AA:947:G:C8	2.56	0.41
1:AA:1000:U:H3'	1:AA:1000:U:H6	1.86	0.41
1:AA:1139:G:N2	1:AA:1143:G:C6	2.89	0.41
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.21	0.41
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.20	0.41
2:AB:120:ALA:O	2:AB:121:LEU:CD2	2.57	0.41
2:AB:212:GLN:O	2:AB:216:SER:CB	2.69	0.41
3:AC:119:ARG:O	3:AC:122:GLU:HB2	2.21	0.41
4:AD:73:ARG:HA	4:AD:73:ARG:HD3	1.83	0.41
4:AD:84:LYS:HA	4:AD:84:LYS:HD3	1.86	0.41
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.21	0.41
5:AE:5:ASP:O	5:AE:6:PHE:CG	2.72	0.41
5:AE:123:LEU:HD23	5:AE:123:LEU:HA	1.71	0.41
7:AG:4:ARG:HB3	7:AG:5:ARG:HD2	2.03	0.41
7:AG:146:GLU:O	7:AG:147:ALA:C	2.58	0.41
8:AH:6:ILE:O	8:AH:7:ALA:C	2.58	0.41
8:AH:27:PRO:CA	8:AH:58:TYR:CD1	3.03	0.41
9:AI:50:LEU:CB	9:AI:56:LEU:HG	2.50	0.41
13:AM:74:VAL:CA	13:AM:77:ASN:HD22	2.33	0.41
15:AO:26:GLU:HG3	15:AO:77:ARG:HH12	1.85	0.41
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	2.03	0.41
18:AR:66:LEU:O	18:AR:67:ALA:C	2.57	0.41
20:AT:50:GLU:C	20:AT:52:ALA:N	2.73	0.41
20:AT:94:ALA:O	20:AT:95:ALA:CB	2.68	0.41
24:AY:64:THR:C	24:AY:66:THR:H	2.23	0.41
24:AY:162:VAL:O	24:AY:162:VAL:HG12	2.19	0.41
24:AY:174:PHE:HE2	24:AY:267:LYS:HB2	1.85	0.41
24:AY:227:ILE:CD1	24:AY:241:GLU:O	2.63	0.41
24:AY:483:TYR:O	24:AY:484:ARG:HD3	2.21	0.41
24:AY:491:VAL:CG1	24:AY:492:ASP:N	2.79	0.41
24:AY:553:GLY:H	24:AY:557:GLY:C	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B3:40:THR:HG23	28:B3:43:ILE:HG13	2.03	0.41
30:B5:55:ARG:NH2	49:BR:33:ARG:HD2	2.35	0.41
32:B7:4:THR:OG1	32:B7:5:TRP:N	2.54	0.41
34:B9:11:CYS:HB3	34:B9:32:HIS:HE1	1.85	0.41
35:BA:533:G:C5'	52:BU:24:TYR:CD1	2.96	0.41
35:BA:603:A:HO2'	35:BA:604:G:P	2.43	0.41
35:BA:613:G:C6	35:BA:614:U:C5	3.09	0.41
35:BA:669:G:N3	35:BA:669:G:H2'	2.34	0.41
35:BA:814:C:C5	47:BP:27:HIS:CE1	3.07	0.41
35:BA:1007:C:H5''	45:BN:35:ARG:NH1	2.35	0.41
35:BA:1127:A:C6	35:BA:2518:A:C2	3.08	0.41
35:BA:1301:A:HO2'	35:BA:1302:A:P	2.41	0.41
35:BA:2185:C:O2	35:BA:2185:C:H2'	2.20	0.41
35:BA:2679:A:H4'	39:BE:165:VAL:HG11	2.03	0.41
35:BA:2794:C:N4	35:BA:2801(A):A:N6	2.67	0.41
36:BB:93:G:O2'	36:BB:94:C:H5'	2.21	0.41
37:BC:139:PRO:HA	37:BC:145:THR:HG21	2.03	0.41
37:BC:172:ILE:HG21	37:BC:197:LEU:HD11	2.03	0.41
39:BE:69:LYS:O	39:BE:71:GLY:N	2.53	0.41
40:BF:89:VAL:CG1	40:BF:90:PHE:H	2.33	0.41
41:BG:15:VAL:HG22	41:BG:175:LEU:O	2.20	0.41
45:BN:22:THR:O	45:BN:23:LEU:C	2.59	0.41
45:BN:123:TYR:CD1	45:BN:123:TYR:N	2.88	0.41
48:BQ:12:GLN:NE2	48:BQ:72:LYS:HG3	2.36	0.41
49:BR:44:LEU:C	49:BR:44:LEU:CD1	2.89	0.41
51:BT:35:LYS:NZ	51:BT:41:ARG:NH1	2.68	0.41
57:BZ:23:LYS:HB3	57:BZ:38:TYR:HD2	1.85	0.41
57:BZ:107:THR:CG2	57:BZ:111:VAL:HB	2.51	0.41
1:AA:10:A:H2'	1:AA:11:G:C8	2.55	0.41
1:AA:67:C:H4'	1:AA:172:A:O4'	2.20	0.41
1:AA:448:A:O2'	1:AA:449:C:H5'	2.20	0.41
1:AA:579:G:H5'	1:AA:728:A:O2'	2.21	0.41
1:AA:963:G:H21	10:AJ:55:LYS:HD2	1.85	0.41
1:AA:985:C:H2'	1:AA:986:A:C8	2.55	0.41
1:AA:1009:G:N3	1:AA:1009:G:H2'	2.35	0.41
1:AA:1473:A:C2'	1:AA:1474:G:H5'	2.49	0.41
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.55	0.41
3:AC:29:TYR:OH	14:AN:54:PRO:HD2	2.20	0.41
3:AC:47:LEU:HB3	3:AC:52:LEU:HD22	2.02	0.41
3:AC:90:GLU:OE1	3:AC:93:LYS:HD2	2.21	0.41
4:AD:190:ASP:HB3	4:AD:193:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:152:ARG:HA	8:AH:64:LYS:HZ3	1.86	0.41
7:AG:105:VAL:O	7:AG:108:ALA:HB3	2.21	0.41
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.51	0.41
9:AI:104:ARG:O	9:AI:104:ARG:HG2	2.21	0.41
10:AJ:27:ALA:HA	10:AJ:30:SER:OG	2.20	0.41
15:AO:43:LEU:C	15:AO:45:VAL:N	2.74	0.41
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.36	0.41
16:AP:19:ILE:HG12	16:AP:37:GLY:C	2.41	0.41
18:AR:34:TYR:H	18:AR:34:TYR:HD1	1.68	0.41
24:AY:21:ILE:HG21	24:AY:88:VAL:CG1	2.51	0.41
24:AY:99:ARG:CZ	24:AY:128:TYR:HB2	2.51	0.41
24:AY:303:PRO:HA	24:AY:331:TYR:O	2.20	0.41
24:AY:431:LEU:HD22	24:AY:466:LEU:CD1	2.40	0.41
24:AY:528:ALA:HB3	24:AY:567:LEU:O	2.21	0.41
27:B2:19:VAL:HG12	27:B2:23:LYS:HE3	2.02	0.41
27:B2:38:GLN:NE2	27:B2:44:LEU:CB	2.82	0.41
29:B4:55:ARG:HB2	29:B4:55:ARG:NH1	2.36	0.41
30:B5:29:THR:HG21	35:BA:2814:C:O2'	2.21	0.41
31:B6:41:PRO:O	31:B6:42:TRP:C	2.58	0.41
32:B7:7:PRO:HA	35:BA:686:G:H8	1.85	0.41
32:B7:24:THR:C	32:B7:26:GLY:N	2.73	0.41
35:BA:201:C:C5	35:BA:202:U:C5	3.08	0.41
35:BA:310:A:HO2'	35:BA:311:A:P	2.44	0.41
35:BA:658:C:C2	35:BA:659:C:C5	3.08	0.41
35:BA:750:A:C2	35:BA:753:C:C6	3.08	0.41
35:BA:797:C:H2'	35:BA:798:G:C8	2.54	0.41
35:BA:992:C:C2	35:BA:993:G:C8	3.09	0.41
35:BA:1063:G:H5''	43:BK:75:SER:OG	2.21	0.41
35:BA:1313:U:H3'	35:BA:1313:U:O2	2.20	0.41
35:BA:1771:C:C1'	35:BA:1786:A:C8	3.04	0.41
35:BA:1858:G:O2'	35:BA:1859:A:H8	2.04	0.41
35:BA:1945:G:N3	35:BA:1945:G:H2'	2.35	0.41
35:BA:2068:U:C4	35:BA:2430:A:H2	2.38	0.41
35:BA:2345:G:H4'	35:BA:2347:C:H5''	2.02	0.41
35:BA:2346:A:H1'	35:BA:2383:G:N9	2.34	0.41
35:BA:2483:C:C5'	35:BA:2484:G:OP2	2.68	0.41
35:BA:2591:C:OP2	38:BD:239:ARG:CB	2.68	0.41
37:BC:185:LYS:HA	37:BC:185:LYS:CE	2.49	0.41
38:BD:176:ARG:HB3	38:BD:176:ARG:CZ	2.51	0.41
38:BD:205:VAL:O	38:BD:205:VAL:HG12	2.21	0.41
39:BE:14:ILE:HB	39:BE:15:PHE:H	1.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:134:ILE:HG22	39:BE:137:HIS:CB	2.50	0.41
41:BG:8:LYS:HA	41:BG:8:LYS:HD2	1.82	0.41
41:BG:106:LEU:O	41:BG:106:LEU:HG	2.20	0.41
42:BH:41:MET:HG3	42:BH:42:ARG:N	2.35	0.41
46:BO:8:LEU:HD13	46:BO:82:ASN:HB3	2.02	0.41
47:BP:80:TYR:HB3	47:BP:81:GLN:H	1.72	0.41
54:BW:51:LEU:HD22	54:BW:51:LEU:O	2.20	0.41
56:BY:28:LYS:CB	56:BY:37:VAL:HB	2.26	0.41
57:BZ:119:GLU:C	57:BZ:121:HIS:H	2.24	0.41
1:AA:671:G:C2	1:AA:736:C:O2	2.73	0.41
1:AA:811:C:O2'	1:AA:901:A:N1	2.50	0.41
1:AA:962:C:H2'	1:AA:963:G:H8	1.85	0.41
1:AA:992:U:O2	1:AA:992:U:C2'	2.68	0.41
1:AA:1021:G:C2'	1:AA:1022:G:O5'	2.69	0.41
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.55	0.41
1:AA:1055:A:C6	1:AA:1206:G:C5	3.09	0.41
1:AA:1116:C:H2'	1:AA:1117:G:C5'	2.46	0.41
1:AA:1127:G:H5'	1:AA:1280:A:O2'	2.21	0.41
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.21	0.41
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.85	0.41
1:AA:1452:C:C1'	1:AA:1456:G:C2	3.04	0.41
3:AC:28:GLN:O	3:AC:29:TYR:C	2.59	0.41
3:AC:69:HIS:HA	3:AC:104:GLN:HB2	2.03	0.41
3:AC:170:GLN:HG2	3:AC:171:GLY:N	2.35	0.41
4:AD:134:ASP:N	4:AD:134:ASP:OD1	2.53	0.41
5:AE:56:GLN:O	5:AE:59:GLY:N	2.50	0.41
6:AF:33:TYR:O	6:AF:34:GLY:C	2.58	0.41
6:AF:80:ARG:HG2	6:AF:88:VAL:CG2	2.51	0.41
8:AH:44:PHE:O	8:AH:45:ILE:CG2	2.69	0.41
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	2.02	0.41
9:AI:79:LEU:CD1	9:AI:83:ARG:CB	2.95	0.41
10:AJ:99:LYS:HA	10:AJ:99:LYS:HD3	1.87	0.41
11:AK:69:ALA:HB1	11:AK:103:LEU:CD2	2.51	0.41
11:AK:73:MET:O	11:AK:76:GLY:N	2.44	0.41
13:AM:112:GLY:O	13:AM:113:PRO:C	2.58	0.41
17:AQ:46:ASP:OD2	17:AQ:51:TYR:HD2	2.04	0.41
19:AS:9:VAL:O	19:AS:9:VAL:HG12	2.21	0.41
19:AS:40:ILE:HG12	19:AS:71:LEU:CD2	2.49	0.41
20:AT:54:LYS:HA	20:AT:57:ARG:NH2	2.35	0.41
24:AY:20:HIS:H	24:AY:121:VAL:HG11	1.85	0.41
24:AY:149:VAL:O	24:AY:152:THR:CG2	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:204:GLU:HB2	24:AY:205:TYR:H	1.51	0.41
25:B0:20:ARG:H	25:B0:20:ARG:HD2	1.85	0.41
26:B1:4:VAL:HG22	26:B1:5:CYS:H	1.85	0.41
26:B1:83:GLU:CD	26:B1:83:GLU:N	2.73	0.41
27:B2:47:ASN:HB2	35:BA:95:G:C1'	2.35	0.41
28:B3:30:ARG:HH21	35:BA:1158:C:C5'	2.34	0.41
31:B6:10:LEU:CD2	31:B6:10:LEU:N	2.79	0.41
31:B6:30:THR:O	31:B6:31:PRO:C	2.59	0.41
32:B7:36:GLN:C	32:B7:38:GLY:H	2.24	0.41
33:B8:25:MET:HB3	33:B8:26:LYS:H	1.65	0.41
35:BA:123:G:O2'	35:BA:124:G:H5'	2.21	0.41
35:BA:363(F):A:H1'	35:BA:364:C:H5	1.86	0.41
35:BA:1077:A:O2'	35:BA:1078:U:H5'	2.21	0.41
35:BA:1248:G:N3	52:BU:3:ARG:HD2	2.36	0.41
35:BA:1264:G:O3'	35:BA:2615:U:H5'	2.21	0.41
35:BA:1269:A:H2'	35:BA:1270:C:C6	2.55	0.41
35:BA:1316:U:H2'	35:BA:1317:A:C8	2.56	0.41
35:BA:1367:A:C2'	35:BA:1368:G:H5'	2.45	0.41
35:BA:1467:C:OP2	35:BA:1547:C:H5	2.03	0.41
35:BA:2140:C:O2	35:BA:2140:C:C2'	2.68	0.41
35:BA:2845:G:OP1	51:BT:56:GLY:N	2.54	0.41
36:BB:21:G:N7	36:BB:63:G:C2	2.89	0.41
37:BC:4:HIS:CE1	37:BC:8:TYR:CE2	3.09	0.41
38:BD:177:LEU:O	38:BD:178:PRO:C	2.59	0.41
39:BE:109:LYS:HE2	39:BE:191:PRO:HA	2.03	0.41
41:BG:11:TYR:OH	41:BG:33:ARG:HG3	2.21	0.41
41:BG:105:LYS:HE3	41:BG:143:GLU:OE2	2.20	0.41
41:BG:110:ALA:HA	41:BG:140:ILE:O	2.20	0.41
43:BK:99:ILE:O	43:BK:139:VAL:N	2.51	0.41
45:BN:134:ARG:N	45:BN:135:PRO:HD3	2.36	0.41
46:BO:87:ILE:HG22	46:BO:93:PRO:HA	2.01	0.41
47:BP:16:ARG:HD3	47:BP:16:ARG:C	2.40	0.41
47:BP:80:TYR:HE1	47:BP:111:ARG:HG2	1.84	0.41
47:BP:115:LEU:N	47:BP:115:LEU:CD2	2.77	0.41
56:BY:51:VAL:O	56:BY:52:SER:C	2.58	0.41
57:BZ:118:GLN:C	57:BZ:120:ILE:H	2.24	0.41
1:AA:152:A:N6	1:AA:170:U:C2	2.89	0.41
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.51	0.41
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	2.01	0.41
1:AA:333:G:O2'	1:AA:334:C:H5'	2.20	0.41
1:AA:458:C:O2	1:AA:458:C:C2'	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:713:G:H2'	1:AA:714:G:C8	2.55	0.41
1:AA:769:G:C2'	1:AA:770:C:H5'	2.50	0.41
1:AA:932:C:OP2	1:AA:932:C:H6	2.04	0.41
1:AA:1010:G:C2	1:AA:1011:G:C8	3.08	0.41
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.21	0.41
1:AA:1057:G:H2'	1:AA:1058:G:C8	2.56	0.41
1:AA:1115:C:O2'	1:AA:1116:C:H5'	2.21	0.41
1:AA:1170:A:H2'	1:AA:1171:G:C4'	2.51	0.41
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.54	0.41
1:AA:1284:C:P	1:AA:1285:A:H3'	2.61	0.41
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.20	0.41
1:AA:1329:A:H4'	13:AM:24:GLY:O	2.21	0.41
1:AA:1446:U:N3	1:AA:1452:C:N3	2.69	0.41
1:AA:1500:A:C2	1:AA:1501:C:C2	3.09	0.41
1:AA:1511:G:O2'	1:AA:1512:U:H5'	2.20	0.41
2:AB:92:TYR:C	2:AB:93:VAL:CG2	2.89	0.41
3:AC:132:ARG:O	3:AC:133:ALA:C	2.59	0.41
5:AE:101:ILE:HD11	5:AE:119:LEU:CA	2.30	0.41
5:AE:136:MET:HB3	5:AE:140:ARG:HH21	1.84	0.41
6:AF:67:MET:HE1	6:AF:72:VAL:HA	2.01	0.41
7:AG:145:ALA:O	7:AG:146:GLU:CB	2.56	0.41
8:AH:109:ILE:CG2	8:AH:137:VAL:HB	2.51	0.41
10:AJ:27:ALA:HB2	10:AJ:85:LEU:CD1	2.51	0.41
12:AL:24:VAL:HG13	12:AL:98:TYR:CZ	2.56	0.41
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.21	0.41
12:AL:120:TYR:CD1	12:AL:120:TYR:N	2.89	0.41
13:AM:10:PRO:O	13:AM:11:ARG:CB	2.69	0.41
13:AM:96:LEU:CB	13:AM:97:PRO:HD2	2.41	0.41
15:AO:23:GLY:O	15:AO:24:SER:O	2.38	0.41
15:AO:66:LEU:O	15:AO:69:TYR:HB3	2.21	0.41
16:AP:9:PHE:HE2	16:AP:18:ARG:NE	2.19	0.41
18:AR:37:VAL:CG2	18:AR:38:GLU:N	2.73	0.41
18:AR:50:ILE:CD1	18:AR:74:ARG:NH2	2.84	0.41
19:AS:12:ASP:OD2	19:AS:35:SER:CB	2.68	0.41
19:AS:41:VAL:CG2	19:AS:44:MET:HB2	2.42	0.41
20:AT:24:LEU:O	20:AT:24:LEU:HD13	2.20	0.41
24:AY:138:LYS:HD3	24:AY:141:LYS:NZ	2.36	0.41
24:AY:253:LEU:N	24:AY:253:LEU:HD12	2.36	0.41
24:AY:343:ASN:ND2	24:AY:343:ASN:C	2.71	0.41
28:B3:3:ARG:HA	28:B3:37:LEU:O	2.20	0.41
28:B3:24:LYS:O	28:B3:24:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:39:MET:HB2	54:BW:34:ASN:HD22	1.86	0.41
30:B5:58:LEU:C	30:B5:58:LEU:HD13	2.41	0.41
31:B6:15:GLU:OE1	31:B6:41:PRO:CG	2.69	0.41
33:B8:13:ARG:HH12	47:BP:59:LEU:CG	2.12	0.41
33:B8:17:THR:HB	33:B8:18:ALA:H	1.67	0.41
35:BA:118:A:OP2	35:BA:119:A:H5''	2.21	0.41
35:BA:172:C:C4	35:BA:173:G:N7	2.89	0.41
35:BA:182:A:N3	35:BA:433:C:O2'	2.51	0.41
35:BA:212:G:C8	35:BA:212:G:C3'	3.04	0.41
35:BA:212:G:C2'	35:BA:213:A:H5'	2.51	0.41
35:BA:322:A:H5'	35:BA:340:A:C1'	2.50	0.41
35:BA:354:G:H2'	35:BA:355:G:O4'	2.20	0.41
35:BA:541:C:H42	35:BA:552:G:H1	1.69	0.41
35:BA:972:G:OP2	35:BA:974:G:H5''	2.21	0.41
35:BA:1020:A:H1'	35:BA:1021:A:N1	2.35	0.41
35:BA:1093:G:C2'	35:BA:1094:U:H5'	2.51	0.41
35:BA:1108:U:O2	35:BA:1108:U:H2'	2.20	0.41
35:BA:1168:G:C6	35:BA:1182:A:N1	2.89	0.41
35:BA:1221:C:C2	35:BA:1221(A):C:C5	3.08	0.41
35:BA:1230:C:H2'	35:BA:1231:G:H8	1.86	0.41
35:BA:1246:A:OP1	47:BP:16:ARG:NH2	2.54	0.41
35:BA:1363:C:C2	35:BA:1364:G:C8	3.09	0.41
35:BA:1433:U:H1'	35:BA:1561:G:N2	2.36	0.41
35:BA:1499:C:H2'	35:BA:1500:G:O4'	2.20	0.41
35:BA:1530:C:H2'	35:BA:1531:C:H6	1.85	0.41
35:BA:1798:U:O2	35:BA:1802:A:H2	2.03	0.41
35:BA:2051:A:H2'	35:BA:2578:G:O5'	2.20	0.41
35:BA:2131:G:N7	35:BA:2133:G:N2	2.69	0.41
35:BA:2178:C:H2'	35:BA:2179:C:H6	1.84	0.41
35:BA:2259:G:C2'	35:BA:2260:C:H5'	2.50	0.41
35:BA:2348:U:C3'	35:BA:2349:G:H5'	2.51	0.41
35:BA:2723:C:OP1	49:BR:5:LYS:HG2	2.21	0.41
35:BA:2776:A:H4'	35:BA:2777:G:H5''	2.02	0.41
35:BA:2867:G:N7	51:BT:23:ARG:NH1	2.69	0.41
36:BB:40:U:O2'	36:BB:43:C:C5	2.70	0.41
37:BC:29:LEU:O	37:BC:30:VAL:C	2.59	0.41
37:BC:65:LEU:CD1	37:BC:189:ASN:HD21	2.33	0.41
38:BD:45:ASN:OD1	38:BD:45:ASN:N	2.52	0.41
38:BD:51:VAL:HG12	38:BD:51:VAL:O	2.21	0.41
38:BD:52:ARG:H	38:BD:52:ARG:HG3	1.63	0.41
39:BE:49:LEU:N	39:BE:49:LEU:CD2	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:145:LYS:HB3	39:BE:146:THR:H	1.41	0.41
40:BF:111:ALA:O	40:BF:112:MET:C	2.59	0.41
40:BF:135:LYS:HB3	40:BF:138:GLU:OE2	2.20	0.41
41:BG:22:ARG:NH1	41:BG:23:PHE:CE1	2.87	0.41
41:BG:31:VAL:HG22	41:BG:32:PRO:HD2	2.02	0.41
42:BH:28:GLY:HA3	42:BH:79:VAL:CB	2.51	0.41
42:BH:54:ARG:HA	42:BH:55:PRO:HD2	1.87	0.41
42:BH:59:ARG:O	42:BH:60:ARG:C	2.60	0.41
43:BK:37:PHE:C	43:BK:39:LYS:N	2.74	0.41
45:BN:10:GLU:OE2	45:BN:11:PRO:HD2	2.20	0.41
45:BN:25:ARG:HD3	45:BN:25:ARG:HA	1.88	0.41
46:BO:45:GLU:HA	46:BO:54:GLU:HG2	2.03	0.41
47:BP:107:LYS:C	47:BP:109:GLY:N	2.74	0.41
47:BP:107:LYS:HG3	47:BP:107:LYS:O	2.20	0.41
49:BR:12:ARG:HH11	49:BR:12:ARG:HG3	1.86	0.41
50:BS:101:LEU:HD12	50:BS:101:LEU:C	2.41	0.41
51:BT:118:ARG:HB3	51:BT:122:ASP:OD2	2.21	0.41
52:BU:82:GLY:C	52:BU:84:LYS:N	2.74	0.41
52:BU:90:VAL:O	52:BU:91:ASP:C	2.58	0.41
52:BU:92:ARG:NH2	53:BV:11:GLN:H	2.19	0.41
52:BU:98:LEU:HA	52:BU:101:ARG:O	2.21	0.41
55:BX:41:ASN:C	55:BX:43:VAL:N	2.72	0.41
56:BY:27:VAL:CG1	56:BY:29:GLU:OE1	2.69	0.41
56:BY:32:PRO:C	56:BY:35:TYR:H	2.22	0.41
57:BZ:48:PHE:O	57:BZ:49:ARG:C	2.60	0.41
57:BZ:77:ASP:HB2	57:BZ:84:GLU:HG3	2.03	0.41
57:BZ:129:SER:C	57:BZ:131:ARG:H	2.24	0.41
57:BZ:142:SER:C	57:BZ:144:LEU:H	2.24	0.41
57:BZ:158:PRO:O	57:BZ:160:GLY:N	2.54	0.41
1:AA:253:U:H2'	1:AA:254:G:C8	2.55	0.41
1:AA:402:G:C6	1:AA:403:C:N4	2.89	0.41
1:AA:671:G:N2	1:AA:736:C:C2	2.89	0.41
1:AA:901:A:C5	1:AA:902:G:H1'	2.56	0.41
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.21	0.41
1:AA:1312:G:C2'	1:AA:1313:U:H5'	2.51	0.41
1:AA:1372:U:H2'	1:AA:1373:G:H5'	2.02	0.41
1:AA:1442:G:H2'	51:BT:118:ARG:HH12	1.85	0.41
2:AB:108:ILE:HD12	2:AB:108:ILE:HG23	1.81	0.41
3:AC:156:ARG:NH2	3:AC:160:ALA:O	2.53	0.41
5:AE:66:MET:HB2	5:AE:66:MET:HE3	1.99	0.41
6:AF:62:TRP:CD1	18:AR:35:ARG:NH1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.21	0.41
7:AG:50:ILE:CD1	7:AG:125:MET:HG2	2.51	0.41
8:AH:24:THR:O	8:AH:24:THR:HG23	2.21	0.41
8:AH:100:ILE:HA	8:AH:101:PRO:HD3	1.73	0.41
16:AP:40:ASP:HA	16:AP:41:PRO:HD2	1.78	0.41
16:AP:50:LYS:HG2	16:AP:51:VAL:H	1.86	0.41
16:AP:76:GLN:HG2	16:AP:76:GLN:O	2.21	0.41
24:AY:111:SER:O	24:AY:112:GLN:C	2.59	0.41
24:AY:484:ARG:HD3	24:AY:484:ARG:HA	1.68	0.41
26:B1:76:ARG:NH2	26:B1:95:LEU:HD22	2.36	0.41
28:B3:14:GLY:O	35:BA:969:U:H4'	2.21	0.41
34:B9:29:ASN:HA	34:B9:30:PRO:HD2	1.76	0.41
35:BA:55:G:H2'	35:BA:56:A:C8	2.55	0.41
35:BA:212:G:H2'	35:BA:213:A:C5'	2.50	0.41
35:BA:534:U:H5'	52:BU:42:ALA:HB1	2.03	0.41
35:BA:611:C:H2'	35:BA:612:C:C6	2.56	0.41
35:BA:654(E):G:H2'	35:BA:654(F):C:C5'	2.43	0.41
35:BA:806:C:O2'	35:BA:2445:G:H4'	2.21	0.41
35:BA:943:U:OP2	47:BP:38:GLN:CD	2.59	0.41
35:BA:1043:C:H3'	35:BA:1044:G:H5''	2.03	0.41
35:BA:1069:A:C2'	35:BA:1070:A:OP2	2.68	0.41
35:BA:1779:U:C2	35:BA:1783:A:N7	2.89	0.41
35:BA:1960:A:C8	35:BA:1960:A:C5'	3.04	0.41
35:BA:2142:C:O2'	35:BA:2143:C:H5'	2.21	0.41
35:BA:2422:A:H3'	35:BA:2422:A:H8	1.86	0.41
35:BA:2584:U:O2	35:BA:2584:U:O4'	2.39	0.41
35:BA:2688:U:H2'	35:BA:2719:G:N2	2.36	0.41
35:BA:2784:C:C6	35:BA:2784:C:C3'	3.04	0.41
36:BB:5:C:O2'	36:BB:6:C:H5'	2.22	0.41
36:BB:71:C:C5	36:BB:72:G:N7	2.89	0.41
36:BB:98:G:O2'	36:BB:99:G:H5'	2.20	0.41
38:BD:9:TYR:C	38:BD:10:THR:HG22	2.41	0.41
38:BD:145:VAL:HG12	38:BD:146:GLU:H	1.83	0.41
39:BE:4:ILE:CD1	39:BE:28:ALA:HB1	2.51	0.41
39:BE:147:PRO:HG2	39:BE:148:GLY:H	1.85	0.41
39:BE:161:GLY:O	39:BE:162:ALA:C	2.57	0.41
40:BF:132:VAL:O	40:BF:138:GLU:OE1	2.39	0.41
40:BF:187:VAL:CG1	47:BP:7:ARG:HH22	2.34	0.41
43:BK:131:ALA:O	43:BK:136:VAL:HG12	2.20	0.41
46:BO:106:LEU:O	46:BO:109:LYS:N	2.40	0.41
48:BQ:137:TYR:H	48:BQ:137:TYR:HD1	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:45:ARG:CG	49:BR:46:GLY:H	2.32	0.41
50:BS:74:ALA:HB3	50:BS:103:GLU:HG3	2.03	0.41
51:BT:57:PHE:CG	51:BT:58:ASN:N	2.89	0.41
52:BU:17:ILE:C	52:BU:19:LYS:N	2.75	0.41
52:BU:111:GLU:HA	52:BU:114:LYS:HG2	2.03	0.41
53:BV:11:GLN:H	53:BV:11:GLN:HG2	1.55	0.41
56:BY:45:VAL:O	56:BY:45:VAL:HG12	2.21	0.41
57:BZ:24:LEU:HD23	57:BZ:25:PRO:O	2.21	0.41
57:BZ:107:THR:HG23	57:BZ:111:VAL:HB	2.02	0.41
57:BZ:141:VAL:O	57:BZ:142:SER:CB	2.69	0.41
57:BZ:186:GLU:H	57:BZ:186:GLU:HG3	1.67	0.41
1:AA:320:C:H2'	1:AA:321:A:C8	2.57	0.40
1:AA:945:G:N3	1:AA:946:A:C8	2.89	0.40
1:AA:986:A:O2'	1:AA:987:G:H5'	2.22	0.40
1:AA:1074:G:O2'	1:AA:1101:A:N1	2.45	0.40
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.21	0.40
1:AA:1438:G:C2	1:AA:1464:G:C2	3.09	0.40
1:AA:1520:G:H2'	1:AA:1521:G:C8	2.54	0.40
2:AB:12:GLU:CA	2:AB:16:HIS:ND1	2.80	0.40
2:AB:55:PHE:CD1	2:AB:221:LEU:HG	2.55	0.40
2:AB:60:ASP:C	2:AB:64:ARG:HH21	2.21	0.40
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	2.03	0.40
3:AC:47:LEU:HD12	3:AC:47:LEU:HA	1.87	0.40
5:AE:43:LEU:CD2	5:AE:132:ALA:HB1	2.51	0.40
5:AE:150:ARG:O	5:AE:150:ARG:CG	2.69	0.40
6:AF:97:PHE:CD2	18:AR:65:ILE:HD12	2.54	0.40
6:AF:97:PHE:CE2	18:AR:65:ILE:CD1	3.04	0.40
7:AG:45:ASP:HB2	7:AG:117:ALA:CB	2.51	0.40
7:AG:66:VAL:O	7:AG:66:VAL:HG13	2.20	0.40
9:AI:95:LYS:CD	9:AI:96:LEU:HD12	2.51	0.40
12:AL:84:LEU:HD23	12:AL:101:VAL:HG21	2.03	0.40
20:AT:23:ARG:HA	20:AT:26:ASN:HD21	1.85	0.40
24:AY:146:LEU:HD21	24:AY:150:ILE:HD11	2.03	0.40
24:AY:621:ILE:O	24:AY:621:ILE:HG22	2.21	0.40
25:B0:14:ARG:NH1	35:BA:2279:G:N7	2.60	0.40
31:B6:11:LEU:CD1	31:B6:11:LEU:N	2.84	0.40
33:B8:58:ILE:HG22	47:BP:49:ARG:HD3	2.03	0.40
35:BA:94(A):G:C2'	35:BA:95:G:H5''	2.51	0.40
35:BA:109:G:C2'	35:BA:110:G:H5'	2.51	0.40
35:BA:245:G:O2'	35:BA:246:C:H5'	2.22	0.40
35:BA:445:C:C2'	35:BA:446:G:H5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:519:U:H4'	54:BW:25:ARG:HH21	1.86	0.40
35:BA:813:U:C2	35:BA:814:C:C5	3.09	0.40
35:BA:1150:C:O5'	35:BA:1150:C:H6	2.02	0.40
35:BA:1226:A:C3'	35:BA:1227:G:H5'	2.51	0.40
35:BA:1234:U:H2'	35:BA:1235:G:O4'	2.21	0.40
35:BA:1287:A:H5'	35:BA:1288:U:OP2	2.20	0.40
35:BA:1427:A:H4'	35:BA:1428:C:O5'	2.21	0.40
35:BA:1759:A:H4'	35:BA:2715:C:O4'	2.20	0.40
35:BA:1893:C:C2'	35:BA:1894:C:H5'	2.50	0.40
35:BA:2012:G:O3'	54:BW:96:ILE:HG13	2.21	0.40
35:BA:2192:G:H3'	35:BA:2193:G:H5''	2.01	0.40
35:BA:2194:G:C6	35:BA:2195:C:C4	3.09	0.40
35:BA:2372:G:O2'	35:BA:2373:G:H5'	2.21	0.40
35:BA:2655:G:O2'	35:BA:2656:U:OP2	2.39	0.40
35:BA:2749:A:OP2	35:BA:2751:G:OP2	2.39	0.40
35:BA:2853:C:H2'	35:BA:2854:G:H8	1.85	0.40
37:BC:77:ALA:O	37:BC:78:ILE:HG13	2.21	0.40
40:BF:18:ARG:HG2	40:BF:19:GLU:H	1.87	0.40
40:BF:101:LEU:HB3	40:BF:106:ARG:HD3	2.03	0.40
40:BF:185:ASP:CA	40:BF:188:ARG:HG2	2.48	0.40
41:BG:40:ASN:HD22	41:BG:91:ARG:HB2	1.85	0.40
41:BG:73:ALA:HB3	41:BG:87:PRO:CG	2.51	0.40
42:BH:34:GLU:O	42:BH:36:PRO:HD3	2.21	0.40
43:BK:70:LYS:HB3	43:BK:71:THR:H	1.57	0.40
43:BK:104:VAL:CG1	43:BK:105:LEU:N	2.84	0.40
44:BL:110:LEU:CD1	44:BL:115:ALA:HB3	2.51	0.40
45:BN:39:ARG:C	45:BN:41:ASP:H	2.24	0.40
49:BR:17:ARG:HH11	49:BR:17:ARG:HD2	1.69	0.40
50:BS:78:LEU:HD23	50:BS:78:LEU:HA	1.85	0.40
51:BT:19:LEU:HA	51:BT:20:PRO:HD3	1.70	0.40
53:BV:13:ARG:HG3	53:BV:13:ARG:HH11	1.86	0.40
53:BV:71:LEU:HD23	53:BV:86:GLY:HA2	2.03	0.40
55:BX:34:ALA:HA	55:BX:38:GLU:OE1	2.20	0.40
55:BX:89:ILE:CG2	55:BX:91:ALA:CB	2.93	0.40
57:BZ:13:GLU:C	57:BZ:14:LYS:HG3	2.41	0.40
57:BZ:17:ALA:HA	57:BZ:20:ARG:HD3	2.03	0.40
1:AA:453:A:C6	1:AA:454:C:C4	3.09	0.40
1:AA:518:C:H5	1:AA:530:G:OP2	2.04	0.40
1:AA:595:G:H1'	1:AA:596:C:H5	1.86	0.40
1:AA:597:G:C8	1:AA:598:U:C5	3.09	0.40
1:AA:627:G:HO2'	1:AA:628:G:H5'	1.81	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1398:A:H5''	1:AA:1398:A:C8	2.56	0.40
1:AA:1432:G:H2'	1:AA:1433:A:OP2	2.20	0.40
2:AB:223:ILE:C	2:AB:225:ALA:N	2.73	0.40
2:AB:233:SER:HB2	2:AB:234:PRO:HD2	1.99	0.40
3:AC:79:ARG:HH11	3:AC:79:ARG:CG	2.34	0.40
4:AD:111:ALA:HB3	4:AD:117:ALA:HB2	2.03	0.40
5:AE:119:LEU:N	5:AE:119:LEU:HD23	2.36	0.40
6:AF:100:ASN:O	18:AR:28:GLU:HG2	2.20	0.40
12:AL:113:ARG:HH11	12:AL:113:ARG:CG	2.33	0.40
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	2.02	0.40
18:AR:19:LYS:HE2	18:AR:19:LYS:HB2	1.91	0.40
22:AV:35:A:C5	22:AV:36:U:C5	3.09	0.40
24:AY:284:LEU:HA	24:AY:284:LEU:HD12	1.84	0.40
24:AY:617:MET:O	24:AY:620:VAL:HB	2.21	0.40
24:AY:646:PHE:O	24:AY:647:VAL:CG1	2.69	0.40
26:B1:92:LYS:CE	35:BA:153:C:OP1	2.69	0.40
29:B4:10:VAL:CG1	29:B4:27:THR:HA	2.51	0.40
31:B6:41:PRO:O	31:B6:41:PRO:CG	2.69	0.40
34:B9:29:ASN:ND2	34:B9:29:ASN:H	2.19	0.40
35:BA:38:A:N3	40:BF:48:THR:HB	2.36	0.40
35:BA:246:C:H2'	35:BA:247:G:C5'	2.51	0.40
35:BA:371:A:N3	35:BA:371:A:O2'	2.47	0.40
35:BA:551:G:O2'	35:BA:1220:A:N3	2.42	0.40
35:BA:812:C:H2'	35:BA:813:U:H6	1.85	0.40
35:BA:915:C:H2'	35:BA:916:G:C8	2.56	0.40
35:BA:1011:G:O2'	35:BA:1013:C:C5'	2.70	0.40
35:BA:1210:A:O2'	35:BA:1211:U:OP2	2.36	0.40
35:BA:1341:U:OP1	35:BA:1397:U:N3	2.49	0.40
35:BA:1482:G:N2	35:BA:1484:G:C4	2.90	0.40
35:BA:1499:C:O2'	35:BA:1500:G:H5'	2.21	0.40
35:BA:1805:U:H2'	35:BA:1806:C:H6	1.85	0.40
35:BA:1884:A:O2'	35:BA:1885:A:H5''	2.18	0.40
35:BA:2000:G:OP2	49:BR:3:HIS:HE1	2.04	0.40
35:BA:2006:C:O2'	35:BA:2823:A:N3	2.51	0.40
35:BA:2089:U:O2'	35:BA:2090:G:H5'	2.21	0.40
35:BA:2244:U:H6	35:BA:2244:U:O5'	2.05	0.40
35:BA:2442:C:H2'	35:BA:2443:C:C6	2.46	0.40
35:BA:2464:C:O2'	35:BA:2465:C:P	2.80	0.40
35:BA:2645:G:N2	35:BA:2767:C:OP2	2.55	0.40
35:BA:2791:C:H5	35:BA:2801(A):A:N6	2.19	0.40
37:BC:135:ARG:HG2	37:BC:135:ARG:NH1	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:186:LEU:O	37:BC:187:ALA:C	2.59	0.40
38:BD:85:ASP:C	38:BD:85:ASP:OD1	2.60	0.40
38:BD:102:LYS:O	38:BD:103:ARG:HG2	2.22	0.40
38:BD:173:VAL:HG12	38:BD:185:VAL:O	2.20	0.40
40:BF:63:LYS:NZ	40:BF:75:HIS:O	2.52	0.40
41:BG:55:LYS:C	41:BG:58:GLN:HG3	2.40	0.40
42:BH:140:LYS:O	42:BH:144:VAL:HG23	2.22	0.40
43:BK:71:THR:CB	43:BK:72:PRO:CD	3.00	0.40
45:BN:102:ALA:O	45:BN:106:MET:CE	2.69	0.40
46:BO:23:ARG:HG2	46:BO:40:VAL:HG23	2.02	0.40
46:BO:63:VAL:HG23	46:BO:64:ARG:HG3	2.03	0.40
53:BV:32:THR:HG23	53:BV:60:GLU:HA	2.04	0.40
56:BY:45:VAL:HG13	56:BY:60:PHE:O	2.21	0.40
56:BY:87:LYS:HE2	56:BY:87:LYS:HB3	1.89	0.40
56:BY:95:LYS:HE2	56:BY:101:LYS:N	2.34	0.40
57:BZ:171:ILE:CG1	57:BZ:172:ALA:N	2.83	0.40
1:AA:47:C:H6	1:AA:365:U:H2'	1.86	0.40
1:AA:147:G:N3	1:AA:147:G:H2'	2.37	0.40
1:AA:293:G:C6	1:AA:305:G:N1	2.90	0.40
1:AA:296:U:O2'	1:AA:297:G:H5'	2.21	0.40
1:AA:334:C:N4	1:AA:335:C:N4	2.70	0.40
1:AA:373:A:H1'	1:AA:481:G:N3	2.36	0.40
1:AA:602:A:C5	1:AA:603:U:C5	3.08	0.40
1:AA:658:G:H2'	1:AA:659:U:C6	2.56	0.40
1:AA:833:U:H2'	1:AA:834:C:C5	2.54	0.40
1:AA:895:G:H5''	1:AA:896:C:OP2	2.21	0.40
1:AA:1065:U:O2	1:AA:1065:U:H2'	2.21	0.40
1:AA:1104:G:O2'	1:AA:1105:A:H5'	2.22	0.40
2:AB:11:LEU:O	2:AB:16:HIS:CE1	2.74	0.40
2:AB:137:ARG:HD3	2:AB:137:ARG:O	2.22	0.40
3:AC:3:ASN:O	3:AC:4:LYS:CB	2.70	0.40
5:AE:12:LEU:O	5:AE:12:LEU:HD13	2.21	0.40
7:AG:79:ARG:HD2	7:AG:79:ARG:C	2.42	0.40
9:AI:97:LYS:N	9:AI:98:PRO:CD	2.84	0.40
10:AJ:8:LEU:CD2	10:AJ:96:ILE:CG2	2.94	0.40
10:AJ:18:ALA:C	10:AJ:20:ALA:N	2.73	0.40
10:AJ:31:GLY:O	10:AJ:32:ALA:C	2.60	0.40
11:AK:53:SER:H	11:AK:53:SER:HG	1.67	0.40
16:AP:9:PHE:HE2	16:AP:18:ARG:NH1	2.20	0.40
16:AP:58:TYR:CD1	16:AP:59:TRP:N	2.89	0.40
16:AP:80:PHE:O	16:AP:81:ARG:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:30:ASP:C	18:AR:32:ARG:H	2.24	0.40
20:AT:8:ARG:HA	20:AT:8:ARG:HD3	1.78	0.40
24:AY:229:LEU:O	24:AY:232:LEU:N	2.54	0.40
24:AY:356:LEU:C	24:AY:356:LEU:HD23	2.42	0.40
24:AY:534:ILE:CG1	24:AY:570:GLY:O	2.69	0.40
24:AY:637:ARG:O	24:AY:640:ALA:N	2.54	0.40
24:AY:684:GLN:O	24:AY:688:ILE:CD1	2.68	0.40
28:B3:44:ARG:O	28:B3:45:GLY:C	2.60	0.40
35:BA:38:A:H4'	40:BF:50:SER:HB3	2.03	0.40
35:BA:110:G:O2'	35:BA:111:A:H5'	2.21	0.40
35:BA:301:G:C6	35:BA:317:G:C6	3.09	0.40
35:BA:306:U:O5'	35:BA:306:U:H6	2.04	0.40
35:BA:570:G:O6	35:BA:2499:C:OP1	2.39	0.40
35:BA:601:C:H6	35:BA:601:C:O5'	2.04	0.40
35:BA:733:G:C6	35:BA:761:A:N7	2.89	0.40
35:BA:803:U:C2'	35:BA:804:A:C5'	2.96	0.40
35:BA:1077:A:H2	35:BA:1088:A:H2'	1.87	0.40
35:BA:1247:A:O2'	35:BA:1248:G:H5'	2.21	0.40
35:BA:1301:A:HO2'	35:BA:1302:A:C5'	2.30	0.40
35:BA:1313:U:C2	35:BA:1610:A:H2	2.39	0.40
35:BA:1401:G:O2'	35:BA:1402:C:H5'	2.21	0.40
35:BA:1641:A:C3'	35:BA:1642:G:H5'	2.51	0.40
35:BA:1660:C:H4'	35:BA:2712(A):A:N6	2.37	0.40
35:BA:1771:C:H2'	35:BA:1772:G:H8	1.86	0.40
35:BA:1919:A:N3	35:BA:1919:A:H2'	2.36	0.40
35:BA:2048:G:H4'	35:BA:2823:A:C2	2.56	0.40
35:BA:2190:G:H5'	35:BA:2190:G:H8	1.85	0.40
35:BA:2208:A:H1'	35:BA:2219:G:C5	2.56	0.40
35:BA:2662:A:H2'	35:BA:2663:G:C5'	2.52	0.40
35:BA:2756:U:C4'	35:BA:2757:A:OP1	2.55	0.40
38:BD:14:ARG:HG3	38:BD:15:PHE:N	2.36	0.40
40:BF:10:PRO:HG2	40:BF:11:VAL:N	2.37	0.40
41:BG:139:LEU:HA	41:BG:144:ILE:HD13	2.03	0.40
42:BH:30:LYS:HD2	42:BH:83:TYR:OH	2.22	0.40
42:BH:66:GLY:O	42:BH:67:LEU:C	2.58	0.40
42:BH:85:LYS:NZ	42:BH:87:LEU:CG	2.71	0.40
45:BN:60:ILE:HG21	45:BN:60:ILE:HD13	1.89	0.40
46:BO:26:LYS:HB3	46:BO:30:ALA:CB	2.51	0.40
47:BP:122:PRO:HB3	47:BP:141:ALA:CB	2.42	0.40
50:BS:88:ASP:CG	50:BS:89:ARG:H	2.24	0.40
52:BU:8:VAL:HG22	52:BU:12:ARG:HE	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:158:PRO:CB	57:BZ:159:PRO:CD	2.99	0.40
1:AA:189(B):C:C2	1:AA:189(J):G:N2	2.89	0.40
1:AA:784:C:H2'	1:AA:785:G:O4'	2.22	0.40
1:AA:821:G:H2'	1:AA:822:C:H6	1.87	0.40
1:AA:825:G:H2'	1:AA:826:C:C6	2.57	0.40
1:AA:826:C:H2'	1:AA:827:U:C6	2.52	0.40
1:AA:865:A:H5'	1:AA:1078:U:C4	2.56	0.40
1:AA:888:G:O5'	1:AA:888:G:H8	2.04	0.40
1:AA:1358:U:H2'	1:AA:1359:C:O4'	2.21	0.40
2:AB:219:VAL:O	2:AB:220:ASP:C	2.58	0.40
3:AC:59:ARG:HD3	3:AC:64:VAL:HG22	2.03	0.40
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.79	0.40
4:AD:119:GLN:CG	4:AD:123:HIS:NE2	2.82	0.40
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.36	0.40
6:AF:16:GLN:H	6:AF:16:GLN:NE2	2.19	0.40
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	2.02	0.40
9:AI:99:LEU:CB	9:AI:101:PHE:HE1	2.34	0.40
10:AJ:32:ALA:H	10:AJ:78:ASN:CG	2.25	0.40
10:AJ:54:PHE:HA	10:AJ:55:LYS:HE3	2.04	0.40
12:AL:102:ARG:HA	12:AL:102:ARG:HD2	1.86	0.40
12:AL:102:ARG:HB2	12:AL:120:TYR:HA	2.03	0.40
13:AM:15:VAL:H	13:AM:15:VAL:HG22	1.63	0.40
13:AM:20:THR:HA	13:AM:25:ILE:O	2.21	0.40
20:AT:84:LEU:C	20:AT:84:LEU:CD1	2.89	0.40
24:AY:148:LEU:HD12	24:AY:148:LEU:HA	1.93	0.40
24:AY:343:ASN:ND2	24:AY:345:THR:CB	2.84	0.40
24:AY:410:ASP:C	24:AY:411:VAL:CG2	2.89	0.40
24:AY:484:ARG:HD2	24:AY:559:PRO:HB2	2.02	0.40
24:AY:590:ILE:O	24:AY:592:GLU:N	2.55	0.40
24:AY:636:PRO:HB2	43:BK:21:PRO:HG2	2.04	0.40
26:B1:80:LEU:CD2	26:B1:81:LYS:H	2.32	0.40
27:B2:53:LEU:O	27:B2:57:ILE:HG12	2.22	0.40
28:B3:11:SER:OG	28:B3:12:PRO:HD2	2.22	0.40
28:B3:52:HIS:CD2	36:BB:83:G:H5''	2.56	0.40
29:B4:5:ILE:HD13	29:B4:6:HIS:CD2	2.56	0.40
29:B4:14:ILE:HG23	29:B4:31:ILE:CG2	2.51	0.40
30:B5:44:THR:O	30:B5:51:TYR:CE2	2.72	0.40
31:B6:11:LEU:CG	31:B6:26:ASN:HD21	2.32	0.40
35:BA:363(F):A:O2'	35:BA:364:C:P	2.80	0.40
35:BA:681:G:H2'	35:BA:682:G:O4'	2.21	0.40
35:BA:730:C:O2'	35:BA:731:C:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:746:A:H2'	35:BA:2612:C:H5''	2.03	0.40
35:BA:823:G:O6	35:BA:824:A:N6	2.55	0.40
35:BA:1094:U:H2'	35:BA:1096:A:OP2	2.21	0.40
35:BA:1188:U:H2'	35:BA:1189:A:H8	1.85	0.40
35:BA:1285:G:C2'	35:BA:1286:A:C5'	2.99	0.40
35:BA:1336:A:P	55:BX:64:LYS:HE3	2.61	0.40
35:BA:1749:A:C6	35:BA:1750:G:C5	3.09	0.40
35:BA:1803:A:N1	35:BA:1822:G:O2'	2.51	0.40
35:BA:2051:A:N6	35:BA:2614:A:C8	2.90	0.40
35:BA:2464:C:N4	35:BA:2487:G:C6	2.89	0.40
35:BA:2515:C:O2	35:BA:2515:C:H2'	2.21	0.40
35:BA:2526:G:C5	35:BA:2527:C:C5	3.09	0.40
35:BA:2835:A:HO2'	35:BA:2836:U:P	2.44	0.40
36:BB:13:A:N6	36:BB:70:C:H5'	2.36	0.40
37:BC:54:ARG:O	37:BC:55:SER:C	2.60	0.40
41:BG:67:LYS:CG	41:BG:68:PRO:CD	2.99	0.40
41:BG:133:LEU:HD12	41:BG:133:LEU:O	2.22	0.40
42:BH:159:GLU:OE1	42:BH:159:GLU:CA	2.69	0.40
45:BN:65:LYS:NZ	45:BN:65:LYS:CB	2.85	0.40
46:BO:12:ASP:C	46:BO:14:THR:H	2.25	0.40
47:BP:98:GLU:O	47:BP:101:VAL:HG22	2.20	0.40
48:BQ:63:LYS:HB3	48:BQ:65:PHE:HE1	1.87	0.40
48:BQ:63:LYS:HZ3	57:BZ:175:VAL:HG21	1.87	0.40
49:BR:13:HIS:ND1	49:BR:13:HIS:C	2.74	0.40
50:BS:25:ARG:CG	50:BS:26:LEU:H	2.34	0.40
53:BV:4:ILE:O	53:BV:4:ILE:HG22	2.20	0.40
56:BY:39:VAL:HG12	56:BY:40:GLU:HG2	2.03	0.40
1:AA:101:A:C2'	1:AA:102:G:H5'	2.52	0.40
1:AA:309:G:H8	1:AA:309:G:O5'	2.05	0.40
1:AA:522:C:O2'	1:AA:523:A:H5'	2.22	0.40
1:AA:598:U:C4	1:AA:599:C:N4	2.90	0.40
1:AA:684:A:H2'	1:AA:685:G:C8	2.56	0.40
1:AA:748:C:O2'	1:AA:749:C:C6	2.69	0.40
1:AA:751:U:H4'	15:AO:24:SER:HA	2.03	0.40
1:AA:771:G:H2'	1:AA:772:U:C6	2.56	0.40
1:AA:1005:A:OP1	1:AA:1006:C:C4	2.74	0.40
1:AA:1037:C:H2'	1:AA:1038:C:C4	2.56	0.40
1:AA:1190:G:OP1	3:AC:5:ILE:HG23	2.21	0.40
1:AA:1216:G:H2'	1:AA:1217:C:H6	1.87	0.40
1:AA:1266:G:O5'	1:AA:1266:G:H8	2.05	0.40
1:AA:1423:G:C5'	46:BO:49:ARG:NH2	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1442(B):A:C5	51:BT:118:ARG:NE	2.90	0.40
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.21	0.40
3:AC:87:LEU:C	3:AC:89:GLU:N	2.70	0.40
5:AE:129:ILE:O	5:AE:132:ALA:HB3	2.22	0.40
6:AF:8:ILE:CG2	6:AF:85:VAL:HG13	2.45	0.40
8:AH:121:ASP:CG	8:AH:122:ARG:H	2.25	0.40
9:AI:102:LEU:HD23	9:AI:102:LEU:HA	1.84	0.40
11:AK:82:VAL:HB	11:AK:108:ILE:HA	2.02	0.40
13:AM:70:LEU:O	13:AM:73:GLU:N	2.54	0.40
19:AS:48:THR:HG22	19:AS:61:TYR:CD1	2.56	0.40
24:AY:95:GLU:OE1	24:AY:124:GLN:HB3	2.22	0.40
24:AY:177:ILE:HG22	24:AY:178:ILE:N	2.36	0.40
24:AY:203:GLU:HB3	24:AY:204:GLU:H	1.41	0.40
24:AY:227:ILE:O	24:AY:227:ILE:CG2	2.69	0.40
24:AY:319:ASP:HA	24:AY:320:PRO:HD3	1.71	0.40
25:B0:49:LYS:HE3	25:B0:80:HIS:CD2	2.57	0.40
26:B1:20:ARG:HA	26:B1:33:LYS:O	2.22	0.40
26:B1:88:LYS:O	26:B1:92:LYS:CB	2.66	0.40
31:B6:9:LEU:CD1	31:B6:9:LEU:N	2.85	0.40
33:B8:21:LYS:HD3	33:B8:48:PHE:CE1	2.56	0.40
35:BA:42:G:H3'	35:BA:43:A:H8	1.86	0.40
35:BA:88:G:OP1	35:BA:90:U:C5	2.66	0.40
35:BA:562:U:O2	35:BA:572:A:C4	2.75	0.40
35:BA:789:A:N6	35:BA:1614:A:OP2	2.55	0.40
35:BA:996:A:O3'	52:BU:92:ARG:CG	2.69	0.40
35:BA:1233:C:H2'	35:BA:1234:U:C6	2.56	0.40
35:BA:1385:G:H1'	35:BA:1386:C:C6	2.56	0.40
35:BA:1567:A:OP2	38:BD:84:TYR:OH	2.38	0.40
35:BA:1608:A:C6	35:BA:1611:C:C2	3.10	0.40
35:BA:1613:G:N1	35:BA:1619:G:C5	2.89	0.40
35:BA:1930:G:H2'	35:BA:1968:G:N1	2.36	0.40
35:BA:2116:G:C8	35:BA:2117:A:C5	3.10	0.40
35:BA:2521:C:O2'	35:BA:2564:A:N3	2.52	0.40
35:BA:2593:U:C2	35:BA:2594:C:C5	3.10	0.40
35:BA:2740:A:C6	35:BA:2741:A:C6	3.09	0.40
35:BA:2820:A:O2'	35:BA:2821:A:OP1	2.33	0.40
36:BB:82:G:C4	36:BB:83:G:C8	3.10	0.40
37:BC:100:ILE:C	37:BC:102:GLN:H	2.25	0.40
37:BC:126:SER:C	37:BC:128:LEU:N	2.75	0.40
38:BD:68:LYS:O	38:BD:68:LYS:CG	2.69	0.40
38:BD:264:LYS:HD3	38:BD:266:SER:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:11:VAL:HB	40:BF:12:LEU:H	1.45	0.40
40:BF:17:ARG:HH11	40:BF:17:ARG:CG	2.17	0.40
40:BF:112:MET:O	40:BF:115:ALA:HB3	2.21	0.40
40:BF:154:VAL:CG1	40:BF:193:VAL:HG23	2.46	0.40
41:BG:102:PHE:O	41:BG:105:LYS:N	2.54	0.40
41:BG:168:GLU:O	41:BG:169:ALA:C	2.59	0.40
45:BN:24:GLY:CA	45:BN:27:ALA:HB3	2.50	0.40
48:BQ:27:VAL:HG21	48:BQ:134:ARG:HG2	2.03	0.40
49:BR:82:GLU:O	49:BR:85:PRO:HD2	2.21	0.40
51:BT:28:VAL:O	51:BT:29:ARG:HD3	2.21	0.40
52:BU:66:ASN:HD21	52:BU:76:TYR:H	1.67	0.40
53:BV:2:PHE:HB2	53:BV:42:GLY:CA	2.51	0.40
53:BV:52:VAL:O	53:BV:52:VAL:CG1	2.57	0.40
55:BX:32:PRO:HA	55:BX:77:LYS:HD3	2.03	0.40
56:BY:4:LYS:HD2	56:BY:32:PRO:HG3	2.03	0.40
57:BZ:77:ASP:O	57:BZ:77:ASP:CG	2.60	0.40
57:BZ:82:ARG:HH11	57:BZ:82:ARG:HG2	1.86	0.40
57:BZ:129:SER:C	57:BZ:131:ARG:N	2.74	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	232/256 (91%)	149 (64%)	49 (21%)	34 (15%)	0	3
3	AC	204/239 (85%)	129 (63%)	56 (28%)	19 (9%)	0	10
4	AD	206/209 (99%)	138 (67%)	49 (24%)	19 (9%)	1	11
5	AE	148/162 (91%)	113 (76%)	25 (17%)	10 (7%)	1	15
6	AF	99/101 (98%)	77 (78%)	18 (18%)	4 (4%)	3	23
7	AG	153/156 (98%)	108 (71%)	35 (23%)	10 (6%)	1	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	AH	136/138 (99%)	110 (81%)	23 (17%)	3 (2%)	6	35
9	AI	125/128 (98%)	85 (68%)	24 (19%)	16 (13%)	0	5
10	AJ	96/105 (91%)	60 (62%)	23 (24%)	13 (14%)	0	4
11	AK	117/129 (91%)	91 (78%)	21 (18%)	5 (4%)	2	22
12	AL	122/132 (92%)	82 (67%)	23 (19%)	17 (14%)	0	4
13	AM	122/126 (97%)	73 (60%)	26 (21%)	23 (19%)	0	2
14	AN	58/61 (95%)	49 (84%)	5 (9%)	4 (7%)	1	15
15	AO	86/89 (97%)	55 (64%)	24 (28%)	7 (8%)	1	12
16	AP	81/88 (92%)	56 (69%)	19 (24%)	6 (7%)	1	13
17	AQ	97/105 (92%)	78 (80%)	15 (16%)	4 (4%)	3	22
18	AR	68/88 (77%)	49 (72%)	15 (22%)	4 (6%)	1	17
19	AS	76/93 (82%)	37 (49%)	21 (28%)	18 (24%)	0	1
20	AT	97/106 (92%)	49 (50%)	31 (32%)	17 (18%)	0	2
21	AU	22/27 (82%)	13 (59%)	8 (36%)	1 (4%)	2	22
24	AY	662/691 (96%)	440 (66%)	137 (21%)	85 (13%)	0	5
25	B0	82/85 (96%)	66 (80%)	13 (16%)	3 (4%)	3	24
26	B1	91/98 (93%)	65 (71%)	16 (18%)	10 (11%)	0	7
27	B2	69/72 (96%)	32 (46%)	24 (35%)	13 (19%)	0	2
28	B3	57/60 (95%)	41 (72%)	11 (19%)	5 (9%)	1	11
29	B4	55/71 (78%)	28 (51%)	12 (22%)	15 (27%)	0	0
30	B5	57/60 (95%)	36 (63%)	11 (19%)	10 (18%)	0	2
31	B6	48/54 (89%)	23 (48%)	11 (23%)	14 (29%)	0	0
32	B7	46/49 (94%)	38 (83%)	5 (11%)	3 (6%)	1	16
33	B8	61/65 (94%)	34 (56%)	16 (26%)	11 (18%)	0	2
34	B9	35/37 (95%)	21 (60%)	9 (26%)	5 (14%)	0	4
37	BC	226/229 (99%)	161 (71%)	55 (24%)	10 (4%)	2	22
38	BD	273/276 (99%)	192 (70%)	47 (17%)	34 (12%)	0	5
39	BE	202/206 (98%)	120 (59%)	49 (24%)	33 (16%)	0	3
40	BF	205/210 (98%)	141 (69%)	37 (18%)	27 (13%)	0	4
41	BG	179/182 (98%)	113 (63%)	41 (23%)	25 (14%)	0	4
42	BH	164/180 (91%)	85 (52%)	43 (26%)	36 (22%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	BK	137/147 (93%)	87 (64%)	41 (30%)	9 (7%)	1	15
44	BL	65/121 (54%)	57 (88%)	8 (12%)	0	100	100
45	BN	136/140 (97%)	90 (66%)	28 (21%)	18 (13%)	0	4
46	BO	120/122 (98%)	95 (79%)	16 (13%)	9 (8%)	1	13
47	BP	144/150 (96%)	78 (54%)	40 (28%)	26 (18%)	0	2
48	BQ	139/141 (99%)	103 (74%)	23 (16%)	13 (9%)	0	10
49	BR	115/118 (98%)	80 (70%)	20 (17%)	15 (13%)	0	5
50	BS	96/112 (86%)	46 (48%)	30 (31%)	20 (21%)	0	2
51	BT	135/146 (92%)	76 (56%)	32 (24%)	27 (20%)	0	2
52	BU	115/118 (98%)	75 (65%)	27 (24%)	13 (11%)	0	7
53	BV	99/101 (98%)	71 (72%)	11 (11%)	17 (17%)	0	3
54	BW	111/113 (98%)	78 (70%)	22 (20%)	11 (10%)	0	9
55	BX	90/96 (94%)	58 (64%)	24 (27%)	8 (9%)	1	11
56	BY	104/110 (94%)	50 (48%)	30 (29%)	24 (23%)	0	1
57	BZ	182/206 (88%)	113 (62%)	41 (22%)	28 (15%)	0	3
All	All	6645/7104 (94%)	4394 (66%)	1440 (22%)	811 (12%)	1	5

All (811) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	20	GLU
2	AB	195	ASP
2	AB	233	SER
2	AB	239	VAL
3	AC	12	LEU
3	AC	47	LEU
3	AC	61	ALA
3	AC	95	THR
3	AC	129	ALA
3	AC	154	SER
3	AC	156	ARG
4	AD	3	ARG
4	AD	13	ARG
4	AD	14	ARG
4	AD	18	LYS
4	AD	30	LYS
4	AD	44	GLY

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Mol	Chain	Res	Type
4	AD	153	ARG
6	AF	39	LYS
7	AG	8	GLU
7	AG	52	GLU
9	AI	41	VAL
9	AI	43	ALA
9	AI	61	ALA
9	AI	89	ASN
9	AI	105	ASP
10	AJ	33	GLN
10	AJ	56	HIS
10	AJ	59	SER
10	AJ	75	ILE
11	AK	123	LYS
11	AK	127	LYS
12	AL	18	VAL
12	AL	28	LYS
12	AL	46	LYS
12	AL	47	LYS
12	AL	71	PRO
12	AL	91	LYS
12	AL	106	ASP
13	AM	11	ARG
13	AM	12	ASN
13	AM	91	ARG
13	AM	116	THR
13	AM	124	PRO
14	AN	15	LYS
15	AO	24	SER
17	AQ	13	ASP
17	AQ	49	GLU
18	AR	37	VAL
18	AR	38	GLU
18	AR	45	SER
19	AS	10	PHE
19	AS	27	GLU
19	AS	28	LYS
19	AS	29	ARG
19	AS	63	THR
20	AT	48	LYS
20	AT	74	LYS
20	AT	99	LEU

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Mol	Chain	Res	Type
24	AY	19	ALA
24	AY	21	ILE
24	AY	23	ALA
24	AY	39	ILE
24	AY	66	THR
24	AY	68	ALA
24	AY	84	THR
24	AY	85	PRO
24	AY	88	VAL
24	AY	119	GLU
24	AY	121	VAL
24	AY	129	LYS
24	AY	197	ARG
24	AY	203	GLU
24	AY	204	GLU
24	AY	206	LEU
24	AY	209	ALA
24	AY	210	ARG
24	AY	251	ILE
24	AY	276	VAL
24	AY	360	ALA
24	AY	385	THR
24	AY	396	ARG
24	AY	447	GLY
24	AY	448	GLN
24	AY	498	ILE
24	AY	505	GLY
24	AY	530	VAL
24	AY	614	GLU
25	B0	20	ARG
25	B0	74	ARG
26	B1	28	GLY
26	B1	52	ARG
26	B1	53	VAL
26	B1	85	LEU
27	B2	19	VAL
27	B2	47	ASN
27	B2	48	HIS
28	B3	3	ARG
29	B4	3	GLU
29	B4	9	LEU
29	B4	26	SER

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Mol	Chain	Res	Type
29	B4	38	LYS
29	B4	40	HIS
29	B4	43	TYR
29	B4	48	ARG
29	B4	50	VAL
30	B5	49	CYS
30	B5	53	ALA
30	B5	56	LYS
30	B5	57	VAL
31	B6	7	ILE
31	B6	9	LEU
31	B6	18	ARG
31	B6	20	ASN
31	B6	23	THR
31	B6	27	LYS
31	B6	31	PRO
31	B6	44	ARG
31	B6	52	VAL
33	B8	31	HIS
33	B8	33	ASN
33	B8	49	VAL
34	B9	2	LYS
34	B9	12	ASP
34	B9	35	ARG
38	BD	24	ILE
38	BD	25	THR
38	BD	27	THR
38	BD	34	VAL
38	BD	127	VAL
38	BD	225	ALA
38	BD	239	ARG
38	BD	246	PRO
39	BE	35	GLN
39	BE	77	ILE
39	BE	88	GLY
39	BE	90	THR
39	BE	134	ILE
39	BE	145	LYS
39	BE	186	GLY
40	BF	11	VAL
40	BF	21	ALA
40	BF	64	ILE

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Mol	Chain	Res	Type
40	BF	89	VAL
40	BF	167	ALA
41	BG	4	ASP
41	BG	6	ALA
41	BG	87	PRO
41	BG	96	ARG
41	BG	102	PHE
41	BG	109	VAL
41	BG	110	ALA
41	BG	181	ARG
42	BH	41	MET
42	BH	46	GLU
42	BH	55	PRO
42	BH	83	TYR
42	BH	85	LYS
42	BH	154	PRO
42	BH	155	SER
42	BH	156	ALA
42	BH	157	TYR
42	BH	160	LYS
42	BH	169	VAL
42	BH	173	PRO
43	BK	10	LEU
43	BK	51	ALA
43	BK	82	ALA
43	BK	115	LEU
45	BN	8	GLN
45	BN	36	GLY
45	BN	46	VAL
45	BN	47	ALA
45	BN	63	THR
45	BN	130	HIS
45	BN	133	GLN
46	BO	35	VAL
46	BO	48	PRO
47	BP	12	ALA
47	BP	14	LYS
47	BP	17	LYS
47	BP	31	ALA
47	BP	48	PRO
47	BP	52	GLU
47	BP	57	THR

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Mol	Chain	Res	Type
47	BP	58	THR
47	BP	111	ARG
47	BP	135	LEU
47	BP	147	LEU
48	BQ	27	VAL
48	BQ	135	ASP
49	BR	8	ARG
49	BR	14	SER
49	BR	45	ARG
49	BR	88	ARG
49	BR	107	ASP
49	BR	117	VAL
50	BS	13	ARG
50	BS	23	ARG
50	BS	94	TYR
50	BS	97	ARG
50	BS	100	ALA
50	BS	102	ALA
51	BT	6	LEU
51	BT	24	PRO
51	BT	30	VAL
51	BT	80	SER
51	BT	91	ARG
51	BT	103	ARG
51	BT	104	ASN
51	BT	107	ASP
51	BT	129	ARG
51	BT	132	LYS
52	BU	91	ASP
52	BU	93	LYS
52	BU	114	LYS
53	BV	18	LEU
53	BV	19	LYS
53	BV	46	VAL
53	BV	47	VAL
53	BV	67	GLY
54	BW	11	ARG
54	BW	25	ARG
55	BX	12	VAL
56	BY	7	VAL
56	BY	24	VAL
56	BY	38	ILE

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Mol	Chain	Res	Type
56	BY	48	ALA
56	BY	74	PRO
56	BY	77	PRO
56	BY	78	ALA
56	BY	98	VAL
56	BY	99	CYS
56	BY	100	ALA
57	BZ	27	VAL
57	BZ	51	ALA
57	BZ	78	LYS
57	BZ	81	ARG
57	BZ	85	HIS
57	BZ	112	ARG
57	BZ	120	ILE
57	BZ	142	SER
57	BZ	146	ILE
57	BZ	158	PRO
57	BZ	163	LEU
57	BZ	168	GLU
2	AB	12	GLU
2	AB	15	VAL
2	AB	18	GLY
2	AB	64	ARG
2	AB	128	GLU
2	AB	151	GLY
2	AB	153	ARG
2	AB	190	THR
2	AB	224	GLN
3	AC	4	LYS
3	AC	65	ALA
3	AC	96	GLY
3	AC	131	ARG
3	AC	160	ALA
4	AD	5	ILE
4	AD	32	ALA
4	AD	69	GLY
4	AD	171	GLY
5	AE	11	ILE
5	AE	137	GLU
6	AF	34	GLY
7	AG	41	ARG
7	AG	90	GLU

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Mol	Chain	Res	Type
8	AH	2	LEU
8	AH	105	ARG
9	AI	11	LYS
9	AI	34	ASN
9	AI	44	VAL
10	AJ	19	SER
10	AJ	55	LYS
10	AJ	57	LYS
10	AJ	61	GLU
12	AL	38	THR
12	AL	45	PRO
12	AL	81	SER
12	AL	87	GLY
13	AM	4	ILE
13	AM	7	VAL
13	AM	53	VAL
13	AM	55	ARG
13	AM	70	LEU
13	AM	83	ASP
13	AM	90	LEU
13	AM	100	GLY
13	AM	114	ARG
13	AM	118	ALA
14	AN	14	PRO
14	AN	16	PHE
14	AN	29	ARG
15	AO	14	GLU
16	AP	13	HIS
16	AP	34	GLU
19	AS	26	GLY
19	AS	47	HIS
19	AS	54	GLY
19	AS	62	ILE
20	AT	49	ALA
20	AT	62	LEU
20	AT	78	ALA
21	AU	3	LYS
24	AY	10	LYS
24	AY	34	TYR
24	AY	92	ILE
24	AY	114	VAL
24	AY	196	ILE

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Mol	Chain	Res	Type
24	AY	205	TYR
24	AY	361	ASN
24	AY	519	ARG
24	AY	559	PRO
24	AY	617	MET
24	AY	636	PRO
24	AY	678	GLU
26	B1	30	VAL
26	B1	84	GLY
27	B2	18	PRO
27	B2	30	ARG
28	B3	29	ARG
28	B3	38	GLU
29	B4	20	ASN
29	B4	44	THR
29	B4	51	ASP
30	B5	36	CYS
30	B5	58	LEU
30	B5	59	GLU
31	B6	28	ARG
31	B6	36	LEU
33	B8	34	TRP
33	B8	37	SER
34	B9	11	CYS
34	B9	30	PRO
37	BC	30	VAL
37	BC	38	PHE
37	BC	101	ILE
37	BC	127	LYS
37	BC	165	ARG
38	BD	12	SER
38	BD	19	ALA
38	BD	41	GLY
38	BD	42	GLY
38	BD	125	ILE
38	BD	129	ASN
38	BD	134	ARG
38	BD	198	ASN
38	BD	242	ARG
39	BE	53	PRO
39	BE	54	GLN
39	BE	71	GLY

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Mol	Chain	Res	Type
39	BE	118	LYS
39	BE	129	HIS
39	BE	189	PRO
40	BF	3	GLU
40	BF	10	PRO
40	BF	84	VAL
40	BF	115	ALA
40	BF	127	GLU
40	BF	180	GLY
40	BF	206	ILE
41	BG	14	GLU
41	BG	75	LYS
41	BG	81	LYS
41	BG	82	LEU
41	BG	84	LYS
41	BG	99	MET
42	BH	13	LYS
42	BH	21	PRO
42	BH	42	ARG
42	BH	69	ARG
42	BH	138	LYS
42	BH	158	HIS
42	BH	171	LEU
42	BH	176	ALA
43	BK	87	GLY
45	BN	57	ALA
45	BN	58	ASP
45	BN	77	GLY
45	BN	134	ARG
46	BO	5	GLN
46	BO	89	ASN
46	BO	120	GLU
47	BP	34	GLY
47	BP	47	ASP
47	BP	49	ARG
48	BQ	30	GLY
48	BQ	52	VAL
48	BQ	62	GLY
48	BQ	71	ASP
49	BR	42	LYS
49	BR	58	GLY
50	BS	15	ARG

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Mol	Chain	Res	Type
50	BS	37	ALA
50	BS	71	ARG
50	BS	85	VAL
50	BS	103	GLU
50	BS	104	GLY
50	BS	107	GLU
51	BT	3	ARG
51	BT	5	ALA
51	BT	12	SER
51	BT	28	VAL
51	BT	55	ASN
51	BT	58	ASN
51	BT	97	ALA
51	BT	130	ALA
51	BT	133	GLU
51	BT	135	ALA
52	BU	27	LEU
52	BU	52	ARG
52	BU	110	VAL
53	BV	2	PHE
53	BV	22	VAL
53	BV	26	ASP
53	BV	53	GLU
53	BV	55	ALA
53	BV	78	LYS
54	BW	6	ILE
54	BW	63	ASP
55	BX	6	ASP
55	BX	42	ALA
55	BX	87	GLN
55	BX	93	GLU
56	BY	17	SER
56	BY	41	GLY
56	BY	60	PHE
56	BY	92	ASN
56	BY	104	GLY
57	BZ	5	LEU
57	BZ	30	ASN
57	BZ	80	ARG
57	BZ	121	HIS
57	BZ	128	VAL
57	BZ	148	ASP

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Mol	Chain	Res	Type
57	BZ	180	VAL
57	BZ	185	GLU
2	AB	13	ALA
2	AB	95	GLN
2	AB	120	ALA
2	AB	129	GLU
2	AB	207	ALA
2	AB	238	LEU
3	AC	35	GLU
3	AC	165	THR
3	AC	206	GLU
4	AD	40	PRO
4	AD	156	GLU
5	AE	8	GLU
5	AE	118	ILE
5	AE	136	MET
7	AG	10	ARG
7	AG	131	LYS
9	AI	121	ARG
12	AL	27	LEU
12	AL	121	GLY
13	AM	5	ALA
15	AO	77	ARG
17	AQ	89	LEU
19	AS	61	TYR
19	AS	66	MET
19	AS	73	GLU
20	AT	69	GLY
20	AT	96	GLY
24	AY	100	VAL
24	AY	120	THR
24	AY	148	LEU
24	AY	299	VAL
24	AY	347	GLY
24	AY	371	ALA
24	AY	399	LEU
24	AY	416	LYS
24	AY	418	LYS
24	AY	458	HIS
24	AY	471	LYS
24	AY	502	GLY
24	AY	532	GLY

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Mol	Chain	Res	Type
24	AY	535	PRO
24	AY	631	ILE
24	AY	666	ARG
27	B2	20	GLU
27	B2	21	LEU
27	B2	58	ALA
28	B3	32	GLN
28	B3	39	ASP
29	B4	2	LYS
32	B7	18	PHE
33	B8	40	GLU
33	B8	61	LEU
37	BC	12	LEU
37	BC	168	LYS
38	BD	3	VAL
38	BD	30	GLU
38	BD	35	LYS
38	BD	36	PRO
38	BD	206	LEU
38	BD	267	SER
39	BE	44	TYR
39	BE	46	ALA
39	BE	64	LYS
39	BE	66	HIS
39	BE	72	VAL
39	BE	86	PRO
39	BE	94	GLU
39	BE	130	GLY
39	BE	144	ARG
40	BF	108	LYS
41	BG	36	LYS
41	BG	43	LEU
41	BG	47	LYS
41	BG	103	LEU
41	BG	163	ALA
42	BH	81	GLU
42	BH	98	LEU
42	BH	126	PRO
42	BH	165	ALA
43	BK	16	LYS
45	BN	40	PRO
45	BN	129	PRO

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Mol	Chain	Res	Type
46	BO	29	ASN
46	BO	68	GLU
46	BO	100	GLY
47	BP	23	PRO
47	BP	33	ARG
48	BQ	53	ALA
48	BQ	139	GLU
49	BR	102	GLU
50	BS	89	ARG
50	BS	92	TYR
50	BS	105	ALA
51	BT	41	ARG
52	BU	51	LYS
52	BU	67	ALA
53	BV	3	ALA
53	BV	50	PRO
54	BW	18	ARG
55	BX	19	ALA
56	BY	39	VAL
56	BY	46	LYS
56	BY	67	LEU
56	BY	81	LYS
57	BZ	83	PRO
57	BZ	152	ALA
57	BZ	159	PRO
57	BZ	170	THR
2	AB	24	TRP
2	AB	79	ASP
2	AB	97	TRP
2	AB	130	ARG
2	AB	150	SER
2	AB	216	SER
3	AC	15	THR
3	AC	135	LYS
5	AE	72	GLN
5	AE	140	ARG
6	AF	43	LEU
8	AH	104	ARG
9	AI	12	GLU
9	AI	33	PHE
9	AI	54	ASP
10	AJ	84	GLN

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Mol	Chain	Res	Type
10	AJ	91	PRO
12	AL	19	ARG
12	AL	51	ALA
12	AL	92	ASP
13	AM	121	LYS
15	AO	86	GLY
19	AS	5	LEU
19	AS	25	LYS
19	AS	51	VAL
20	AT	39	LYS
20	AT	61	SER
20	AT	97	ALA
20	AT	100	ILE
20	AT	104	LEU
24	AY	25	LYS
24	AY	75	LYS
24	AY	112	GLN
24	AY	239	GLU
24	AY	283	PRO
24	AY	314	PHE
24	AY	402	ILE
24	AY	486	THR
24	AY	506	GLN
24	AY	577	SER
24	AY	598	ASP
24	AY	656	ALA
24	AY	680	PRO
27	B2	26	ARG
31	B6	16	CYS
33	B8	3	LYS
33	B8	35	GLN
37	BC	166	ASN
38	BD	28	GLU
38	BD	214	TRP
38	BD	274	ARG
39	BE	52	LEU
39	BE	55	ASN
39	BE	57	LYS
39	BE	75	VAL
39	BE	83	ASP
40	BF	2	LYS
40	BF	122	LYS

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Mol	Chain	Res	Type
40	BF	126	VAL
40	BF	134	GLY
40	BF	168	ARG
41	BG	22	ARG
41	BG	116	ASP
42	BH	20	ALA
42	BH	47	GLU
42	BH	110	SER
42	BH	137	ASP
42	BH	174	GLY
43	BK	62	ASP
47	BP	39	LYS
47	BP	43	GLY
47	BP	81	GLN
47	BP	106	LEU
47	BP	123	LEU
50	BS	99	LYS
51	BT	26	ASP
51	BT	81	PRO
51	BT	88	ILE
51	BT	90	GLN
52	BU	46	ALA
53	BV	16	PRO
54	BW	93	ALA
55	BX	11	PRO
56	BY	90	LEU
57	BZ	42	VAL
57	BZ	166	SER
2	AB	65	GLY
2	AB	152	PHE
2	AB	157	ARG
2	AB	165	VAL
4	AD	179	GLU
4	AD	191	ARG
4	AD	193	ASP
6	AF	51	PRO
7	AG	14	PRO
7	AG	80	VAL
7	AG	150	ALA
9	AI	55	ALA
9	AI	106	ALA
11	AK	34	ASP

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Mol	Chain	Res	Type
13	AM	10	PRO
13	AM	21	TYR
15	AO	27	VAL
16	AP	54	GLU
16	AP	61	SER
17	AQ	25	ARG
18	AR	87	ARG
20	AT	25	ARG
20	AT	44	ALA
20	AT	95	ALA
24	AY	24	GLY
24	AY	90	PHE
24	AY	123	ARG
24	AY	303	PRO
24	AY	380	LEU
24	AY	406	GLU
24	AY	408	VAL
24	AY	456	GLU
24	AY	548	GLU
26	B1	54	ALA
26	B1	78	LYS
26	B1	86	SER
27	B2	51	ARG
30	B5	3	LYS
32	B7	17	GLY
33	B8	43	GLN
37	BC	107	GLY
38	BD	268	ARG
38	BD	273	ARG
39	BE	2	LYS
39	BE	45	THR
39	BE	84	PHE
39	BE	98	PRO
39	BE	178	GLU
40	BF	27	GLU
40	BF	66	PRO
40	BF	69	HIS
41	BG	97	ASP
41	BG	126	ASP
41	BG	166	ASP
42	BH	95	ARG
43	BK	48	MET

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Mol	Chain	Res	Type
45	BN	125	GLY
46	BO	18	LYS
47	BP	10	PRO
47	BP	141	ALA
48	BQ	22	LYS
48	BQ	59	ARG
48	BQ	134	ARG
49	BR	31	HIS
49	BR	61	HIS
49	BR	83	ILE
50	BS	57	LYS
51	BT	105	LEU
52	BU	53	ARG
52	BU	66	ASN
53	BV	31	ALA
54	BW	9	TYR
54	BW	14	PRO
55	BX	22	ALA
57	BZ	165	VAL
2	AB	78	GLN
2	AB	83	MET
3	AC	66	VAL
4	AD	123	HIS
5	AE	146	ALA
10	AJ	23	ILE
11	AK	57	THR
12	AL	40	VAL
13	AM	113	PRO
19	AS	42	PRO
24	AY	386	GLY
25	B0	42	GLY
26	B1	36	GLY
27	B2	14	ARG
29	B4	8	LYS
30	B5	4	HIS
31	B6	19	ARG
31	B6	41	PRO
39	BE	58	ARG
40	BF	58	ALA
40	BF	85	GLY
42	BH	92	ILE
45	BN	60	ILE

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Mol	Chain	Res	Type
45	BN	112	LEU
45	BN	127	ASP
49	BR	4	LEU
49	BR	49	ASP
54	BW	65	LEU
54	BW	67	ASP
56	BY	3	VAL
2	AB	232	PRO
5	AE	96	PRO
5	AE	129	ILE
15	AO	11	VAL
20	AT	41	ILE
24	AY	42	ILE
24	AY	65	ILE
24	AY	200	PRO
24	AY	415	PRO
27	B2	17	SER
32	B7	25	PRO
37	BC	17	PRO
40	BF	9	ILE
40	BF	14	PRO
40	BF	82	ILE
42	BH	151	ILE
48	BQ	108	GLY
53	BV	54	GLY
54	BW	112	GLY
56	BY	37	VAL
2	AB	230	VAL
3	AC	55	VAL
11	AK	95	ILE
16	AP	62	VAL
19	AS	9	VAL
27	B2	41	ILE
29	B4	5	ILE
38	BD	10	THR
38	BD	244	ARG
42	BH	107	VAL
45	BN	5	VAL
48	BQ	122	GLY
50	BS	22	GLY
50	BS	90	GLY
52	BU	26	GLY

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Mol	Chain	Res	Type
52	BU	90	VAL
56	BY	59	GLY
56	BY	75	ILE
57	BZ	133	ILE
2	AB	131	PRO
9	AI	67	GLY
9	AI	80	GLY
13	AM	54	VAL
13	AM	78	ILE
15	AO	75	PRO
16	AP	45	THR
19	AS	59	PRO
30	B5	50	GLY
33	B8	28	GLY
38	BD	197	GLY
38	BD	234	GLY
40	BF	25	PRO
41	BG	129	GLY
42	BH	45	VAL
42	BH	48	GLY
47	BP	146	VAL
49	BR	46	GLY
51	BT	15	VAL
4	AD	7	PRO
4	AD	88	VAL
7	AG	42	ILE
10	AJ	36	GLY
13	AM	60	VAL
24	AY	618	GLY
29	B4	28	LYS
38	BD	228	PRO
42	BH	39	PRO
47	BP	9	ASN
53	BV	51	VAL
10	AJ	53	PRO
43	BK	73	PRO
47	BP	83	VAL
38	BD	245	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	202/220 (92%)	177 (88%)	25 (12%)	4	19
3	AC	160/188 (85%)	134 (84%)	26 (16%)	2	13
4	AD	180/181 (99%)	162 (90%)	18 (10%)	7	26
5	AE	115/123 (94%)	100 (87%)	15 (13%)	4	18
6	AF	90/90 (100%)	81 (90%)	9 (10%)	7	26
7	AG	126/127 (99%)	116 (92%)	10 (8%)	12	35
8	AH	119/119 (100%)	105 (88%)	14 (12%)	5	20
9	AI	98/99 (99%)	88 (90%)	10 (10%)	7	25
10	AJ	88/92 (96%)	73 (83%)	15 (17%)	2	12
11	AK	90/99 (91%)	85 (94%)	5 (6%)	21	46
12	AL	104/109 (95%)	90 (86%)	14 (14%)	4	17
13	AM	99/101 (98%)	87 (88%)	12 (12%)	5	20
14	AN	49/50 (98%)	45 (92%)	4 (8%)	11	34
15	AO	79/80 (99%)	69 (87%)	10 (13%)	4	18
16	AP	72/74 (97%)	67 (93%)	5 (7%)	15	40
17	AQ	94/97 (97%)	82 (87%)	12 (13%)	4	18
18	AR	61/77 (79%)	58 (95%)	3 (5%)	25	50
19	AS	69/80 (86%)	57 (83%)	12 (17%)	2	11
20	AT	76/82 (93%)	67 (88%)	9 (12%)	5	20
21	AU	19/22 (86%)	19 (100%)	0	100	100
24	AY	563/582 (97%)	478 (85%)	85 (15%)	3	14
25	B0	66/67 (98%)	58 (88%)	8 (12%)	5	20
26	B1	78/83 (94%)	61 (78%)	17 (22%)	1	6
27	B2	66/67 (98%)	58 (88%)	8 (12%)	5	20
28	B3	51/52 (98%)	44 (86%)	7 (14%)	3	17
29	B4	51/63 (81%)	34 (67%)	17 (33%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	B5	51/52 (98%)	45 (88%)	6 (12%)	5	20
31	B6	49/52 (94%)	35 (71%)	14 (29%)	0	2
32	B7	41/42 (98%)	36 (88%)	5 (12%)	5	20
33	B8	53/55 (96%)	45 (85%)	8 (15%)	3	14
34	B9	34/34 (100%)	29 (85%)	5 (15%)	3	15
37	BC	180/181 (99%)	166 (92%)	14 (8%)	12	36
38	BD	217/218 (100%)	179 (82%)	38 (18%)	2	11
39	BE	165/166 (99%)	135 (82%)	30 (18%)	1	10
40	BF	165/166 (99%)	151 (92%)	14 (8%)	10	33
41	BG	155/156 (99%)	121 (78%)	34 (22%)	1	5
42	BH	136/148 (92%)	124 (91%)	12 (9%)	10	31
43	BK	104/111 (94%)	88 (85%)	16 (15%)	2	14
44	BL	46/85 (54%)	43 (94%)	3 (6%)	17	42
45	BN	117/119 (98%)	98 (84%)	19 (16%)	2	13
46	BO	100/100 (100%)	90 (90%)	10 (10%)	7	26
47	BP	112/116 (97%)	89 (80%)	23 (20%)	1	7
48	BQ	111/111 (100%)	94 (85%)	17 (15%)	2	14
49	BR	100/101 (99%)	85 (85%)	15 (15%)	3	15
50	BS	77/88 (88%)	67 (87%)	10 (13%)	4	18
51	BT	120/127 (94%)	97 (81%)	23 (19%)	1	8
52	BU	92/94 (98%)	84 (91%)	8 (9%)	10	31
53	BV	82/82 (100%)	71 (87%)	11 (13%)	4	17
54	BW	91/92 (99%)	82 (90%)	9 (10%)	8	26
55	BX	74/78 (95%)	62 (84%)	12 (16%)	2	13
56	BY	87/91 (96%)	75 (86%)	12 (14%)	3	17
57	BZ	162/179 (90%)	133 (82%)	29 (18%)	2	10
All	All	5586/5868 (95%)	4819 (86%)	767 (14%)	7	17

All (767) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE

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Mol	Chain	Res	Type
2	AB	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	79	ASP
2	AB	101	MET
2	AB	111	ARG
2	AB	114	ARG
2	AB	129	GLU
2	AB	137	ARG
2	AB	152	PHE
2	AB	156	LYS
2	AB	162	ILE
2	AB	172	ILE
2	AB	178	ARG
2	AB	185	ILE
2	AB	192	SER
2	AB	200	ILE
2	AB	204	ASN
2	AB	205	ASP
2	AB	210	SER
2	AB	220	ASP
2	AB	221	LEU
2	AB	238	LEU
3	AC	5	ILE
3	AC	14	ILE
3	AC	16	ARG
3	AC	29	TYR
3	AC	34	LEU
3	AC	38	ARG
3	AC	49	SER
3	AC	52	LEU
3	AC	56	ASP
3	AC	62	ASP
3	AC	72	LYS
3	AC	79	ARG
3	AC	83	ARG
3	AC	85	ARG
3	AC	95	THR
3	AC	98	ASN
3	AC	125	GLU
3	AC	127	ARG
3	AC	156	ARG

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Mol	Chain	Res	Type
3	AC	164	ARG
3	AC	165	THR
3	AC	166	GLU
3	AC	167	TRP
3	AC	178	LEU
3	AC	179	ARG
3	AC	204	LEU
4	AD	3	ARG
4	AD	9	CYS
4	AD	12	CYS
4	AD	15	GLU
4	AD	22	LYS
4	AD	36	ARG
4	AD	49	ARG
4	AD	57	ARG
4	AD	70	ILE
4	AD	73	ARG
4	AD	78	LEU
4	AD	96	LEU
4	AD	114	ARG
4	AD	127	THR
4	AD	131	ARG
4	AD	132	ARG
4	AD	135	LEU
4	AD	168	ARG
5	AE	10	MET
5	AE	12	LEU
5	AE	18	ARG
5	AE	20	GLN
5	AE	41	VAL
5	AE	56	GLN
5	AE	64	ARG
5	AE	67	VAL
5	AE	73	ASN
5	AE	75	THR
5	AE	76	ILE
5	AE	79	GLU
5	AE	101	ILE
5	AE	117	ASP
5	AE	144	THR
6	AF	15	ASP
6	AF	32	ASN

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Mol	Chain	Res	Type
6	AF	43	LEU
6	AF	47	ARG
6	AF	56	PRO
6	AF	69	GLU
6	AF	77	ARG
6	AF	86	ARG
6	AF	98	LEU
7	AG	27	ILE
7	AG	30	ILE
7	AG	57	GLU
7	AG	66	VAL
7	AG	75	VAL
7	AG	79	ARG
7	AG	104	LEU
7	AG	113	GLU
7	AG	137	LYS
7	AG	151	TYR
8	AH	1	MET
8	AH	18	ARG
8	AH	25	ASP
8	AH	39	LEU
8	AH	54	ASP
8	AH	91	ARG
8	AH	92	ARG
8	AH	98	LYS
8	AH	102	ARG
8	AH	104	ARG
8	AH	109	ILE
8	AH	112	LEU
8	AH	118	VAL
8	AH	133	LEU
9	AI	10	ARG
9	AI	32	ASP
9	AI	53	VAL
9	AI	59	PHE
9	AI	85	LEU
9	AI	95	LYS
9	AI	96	LEU
9	AI	114	TYR
9	AI	121	ARG
9	AI	128	ARG
10	AJ	4	ILE

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Mol	Chain	Res	Type
10	AJ	19	SER
10	AJ	22	LYS
10	AJ	40	LEU
10	AJ	50	ILE
10	AJ	55	LYS
10	AJ	59	SER
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	70	ARG
10	AJ	76	ASN
10	AJ	89	ASP
10	AJ	91	PRO
10	AJ	96	ILE
10	AJ	98	ILE
11	AK	21	ILE
11	AK	29	ILE
11	AK	31	THR
11	AK	57	THR
11	AK	63	LEU
12	AL	7	ILE
12	AL	13	LYS
12	AL	16	GLU
12	AL	20	LYS
12	AL	38	THR
12	AL	47	LYS
12	AL	53	ARG
12	AL	75	HIS
12	AL	81	SER
12	AL	85	ILE
12	AL	91	LYS
12	AL	98	TYR
12	AL	105	TYR
12	AL	113	ARG
13	AM	47	ASP
13	AM	57	ARG
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	108	ARG
13	AM	113	PRO
13	AM	115	LYS
13	AM	120	LYS

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Mol	Chain	Res	Type
13	AM	121	LYS
13	AM	122	LYS
13	AM	124	PRO
14	AN	14	PRO
14	AN	16	PHE
14	AN	29	ARG
14	AN	41	ARG
15	AO	10	LYS
15	AO	18	PHE
15	AO	24	SER
15	AO	31	LEU
15	AO	39	LEU
15	AO	57	LEU
15	AO	65	ARG
15	AO	67	LEU
15	AO	82	ILE
15	AO	88	ARG
16	AP	1	MET
16	AP	2	VAL
16	AP	11	SER
16	AP	32	TYR
16	AP	69	THR
17	AQ	7	THR
17	AQ	9	VAL
17	AQ	23	VAL
17	AQ	35	VAL
17	AQ	38	ARG
17	AQ	48	GLU
17	AQ	49	GLU
17	AQ	52	LYS
17	AQ	59	ILE
17	AQ	74	LEU
17	AQ	78	GLU
17	AQ	87	LYS
18	AR	19	LYS
18	AR	29	PHE
18	AR	31	LEU
19	AS	4	SER
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	15	LEU

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Mol	Chain	Res	Type
19	AS	29	ARG
19	AS	30	LEU
19	AS	34	TRP
19	AS	37	ARG
19	AS	44	MET
19	AS	66	MET
19	AS	77	THR
20	AT	13	LEU
20	AT	24	LEU
20	AT	26	ASN
20	AT	42	GLN
20	AT	50	GLU
20	AT	74	LYS
20	AT	75	ASN
20	AT	84	LEU
20	AT	93	GLU
24	AY	4	LYS
24	AY	12	LEU
24	AY	20	HIS
24	AY	21	ILE
24	AY	40	HIS
24	AY	65	ILE
24	AY	83	ASP
24	AY	85	PRO
24	AY	89	ASP
24	AY	92	ILE
24	AY	96	ARG
24	AY	99	ARG
24	AY	100	VAL
24	AY	101	LEU
24	AY	102	ASP
24	AY	111	SER
24	AY	117	GLN
24	AY	122	TRP
24	AY	124	GLN
24	AY	130	VAL
24	AY	132	ARG
24	AY	137	ASN
24	AY	152	THR
24	AY	157	LEU
24	AY	170	ARG
24	AY	173	THR

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Mol	Chain	Res	Type
24	AY	186	TYR
24	AY	192	LEU
24	AY	194	THR
24	AY	197	ARG
24	AY	201	ILE
24	AY	204	GLU
24	AY	218	GLU
24	AY	238	THR
24	AY	240	GLU
24	AY	242	LEU
24	AY	252	ASP
24	AY	259	PHE
24	AY	260	LEU
24	AY	270	GLN
24	AY	289	ILE
24	AY	298	VAL
24	AY	299	VAL
24	AY	312	LEU
24	AY	319	ASP
24	AY	326	THR
24	AY	343	ASN
24	AY	354	ARG
24	AY	357	ARG
24	AY	378	VAL
24	AY	381	LYS
24	AY	388	THR
24	AY	406	GLU
24	AY	410	ASP
24	AY	418	LYS
24	AY	420	ASP
24	AY	421	GLN
24	AY	426	GLN
24	AY	428	LEU
24	AY	438	PHE
24	AY	440	VAL
24	AY	445	GLU
24	AY	468	ARG
24	AY	476	VAL
24	AY	481	VAL
24	AY	487	ILE
24	AY	501	THR
24	AY	504	ARG

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Mol	Chain	Res	Type
24	AY	507	TYR
24	AY	509	HIS
24	AY	512	ILE
24	AY	515	GLU
24	AY	525	PHE
24	AY	527	ASN
24	AY	567	LEU
24	AY	569	ASP
24	AY	572	TYR
24	AY	595	GLN
24	AY	614	GLU
24	AY	625	ASN
24	AY	630	GLN
24	AY	631	ILE
24	AY	634	MET
24	AY	657	THR
24	AY	685	GLU
25	B0	5	LYS
25	B0	11	ARG
25	B0	20	ARG
25	B0	27	GLU
25	B0	41	ARG
25	B0	60	PHE
25	B0	75	LEU
25	B0	84	LEU
26	B1	3	LYS
26	B1	17	SER
26	B1	18	ILE
26	B1	26	ARG
26	B1	39	LYS
26	B1	43	TYR
26	B1	45	ASN
26	B1	46	LEU
26	B1	56	GLN
26	B1	65	SER
26	B1	69	LYS
26	B1	72	GLU
26	B1	73	LEU
26	B1	75	GLU
26	B1	80	LEU
26	B1	83	GLU
26	B1	95	LEU

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Mol	Chain	Res	Type
27	B2	3	LEU
27	B2	30	ARG
27	B2	32	LEU
27	B2	38	GLN
27	B2	44	LEU
27	B2	52	ASP
27	B2	53	LEU
27	B2	59	ARG
28	B3	8	LEU
28	B3	15	TYR
28	B3	28	LEU
28	B3	29	ARG
28	B3	35	ARG
28	B3	38	GLU
28	B3	48	GLU
29	B4	1	MET
29	B4	5	ILE
29	B4	8	LYS
29	B4	9	LEU
29	B4	10	VAL
29	B4	13	ARG
29	B4	14	ILE
29	B4	20	ASN
29	B4	25	TYR
29	B4	32	TYR
29	B4	40	HIS
29	B4	42	PHE
29	B4	43	TYR
29	B4	48	ARG
29	B4	49	PHE
29	B4	51	ASP
29	B4	55	ARG
30	B5	3	LYS
30	B5	4	HIS
30	B5	23	HIS
30	B5	51	TYR
30	B5	55	ARG
30	B5	58	LEU
31	B6	6	ARG
31	B6	9	LEU
31	B6	10	LEU
31	B6	11	LEU

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Mol	Chain	Res	Type
31	B6	14	THR
31	B6	15	GLU
31	B6	18	ARG
31	B6	23	THR
31	B6	28	ARG
31	B6	30	THR
31	B6	31	PRO
31	B6	38	LYS
31	B6	39	TYR
31	B6	42	TRP
32	B7	1	MET
32	B7	4	THR
32	B7	8	ASN
32	B7	41	ARG
32	B7	48	LYS
33	B8	30	ARG
33	B8	31	HIS
33	B8	32	LEU
33	B8	33	ASN
33	B8	34	TRP
33	B8	44	LYS
33	B8	61	LEU
33	B8	64	TYR
34	B9	1	MET
34	B9	2	LYS
34	B9	10	ILE
34	B9	11	CYS
34	B9	29	ASN
37	BC	15	VAL
37	BC	21	TYR
37	BC	28	ARG
37	BC	39	ASP
37	BC	53	ARG
37	BC	54	ARG
37	BC	74	ARG
37	BC	100	ILE
37	BC	117	THR
37	BC	149	ASN
37	BC	184	GLU
37	BC	185	LYS
37	BC	195	ARG
37	BC	212	SER

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Mol	Chain	Res	Type
38	BD	10	THR
38	BD	23	GLU
38	BD	24	ILE
38	BD	26	LYS
38	BD	35	LYS
38	BD	37	LEU
38	BD	43	ARG
38	BD	61	LEU
38	BD	65	ILE
38	BD	67	PHE
38	BD	87	ASN
38	BD	89	SER
38	BD	91	ARG
38	BD	92	ILE
38	BD	95	LEU
38	BD	96	HIS
38	BD	106	ILE
38	BD	111	LEU
38	BD	117	VAL
38	BD	131	LEU
38	BD	151	LYS
38	BD	157	ARG
38	BD	166	GLN
38	BD	183	ARG
38	BD	192	THR
38	BD	200	ASP
38	BD	202	LYS
38	BD	211	ARG
38	BD	228	PRO
38	BD	244	ARG
38	BD	245	PRO
38	BD	246	PRO
38	BD	257	LEU
38	BD	260	ARG
38	BD	266	SER
38	BD	270	ILE
38	BD	273	ARG
38	BD	275	LYS
39	BE	4	ILE
39	BE	9	VAL
39	BE	18	ASP
39	BE	22	PRO

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Mol	Chain	Res	Type
39	BE	24	THR
39	BE	26	ILE
39	BE	36	ARG
39	BE	49	LEU
39	BE	59	VAL
39	BE	61	ARG
39	BE	67	PHE
39	BE	69	LYS
39	BE	76	ARG
39	BE	78	LEU
39	BE	79	ARG
39	BE	86	PRO
39	BE	94	GLU
39	BE	95	ILE
39	BE	118	LYS
39	BE	119	ARG
39	BE	122	PHE
39	BE	134	ILE
39	BE	144	ARG
39	BE	178	GLU
39	BE	179	GLU
39	BE	181	LEU
39	BE	184	VAL
39	BE	192	ASN
39	BE	197	ILE
39	BE	202	LYS
40	BF	19	GLU
40	BF	28	ILE
40	BF	41	LEU
40	BF	62	ARG
40	BF	66	PRO
40	BF	70	THR
40	BF	83	PHE
40	BF	123	LEU
40	BF	125	LEU
40	BF	149	ASP
40	BF	160	ASN
40	BF	165	ARG
40	BF	175	THR
40	BF	179	GLU
41	BG	4	ASP
41	BG	14	GLU

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Mol	Chain	Res	Type
41	BG	16	ARG
41	BG	22	ARG
41	BG	27	ASN
41	BG	33	ARG
41	BG	34	LEU
41	BG	36	LYS
41	BG	45	GLU
41	BG	47	LYS
41	BG	60	LEU
41	BG	64	THR
41	BG	67	LYS
41	BG	71	THR
41	BG	74	LYS
41	BG	77	ILE
41	BG	80	PHE
41	BG	83	ARG
41	BG	91	ARG
41	BG	98	ARG
41	BG	118	ARG
41	BG	128	ARG
41	BG	135	LEU
41	BG	138	GLN
41	BG	139	LEU
41	BG	140	ILE
41	BG	145	THR
41	BG	147	ASP
41	BG	148	MET
41	BG	150	ASP
41	BG	152	LEU
41	BG	159	VAL
41	BG	166	ASP
41	BG	180	PHE
42	BH	15	VAL
42	BH	46	GLU
42	BH	49	VAL
42	BH	53	GLU
42	BH	54	ARG
42	BH	71	LEU
42	BH	83	TYR
42	BH	89	ILE
42	BH	104	GLU
42	BH	116	GLU

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Mol	Chain	Res	Type
42	BH	143	GLN
42	BH	158	HIS
43	BK	2	LYS
43	BK	4	VAL
43	BK	5	VAL
43	BK	29	GLN
43	BK	30	HIS
43	BK	34	ILE
43	BK	38	VAL
43	BK	47	ASN
43	BK	65	PHE
43	BK	70	LYS
43	BK	77	LEU
43	BK	86	LYS
43	BK	95	LYS
43	BK	101	TRP
43	BK	105	LEU
43	BK	117	THR
44	BL	65	LYS
44	BL	73	ARG
44	BL	120	LYS
45	BN	1	MET
45	BN	4	TYR
45	BN	23	LEU
45	BN	25	ARG
45	BN	26	LEU
45	BN	34	LEU
45	BN	39	ARG
45	BN	41	ASP
45	BN	45	ASN
45	BN	48	MET
45	BN	56	ASN
45	BN	63	THR
45	BN	65	LYS
45	BN	87	LEU
45	BN	96	GLU
45	BN	109	LYS
45	BN	120	LEU
45	BN	123	TYR
45	BN	127	ASP
46	BO	23	ARG
46	BO	38	VAL

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Mol	Chain	Res	Type
46	BO	40	VAL
46	BO	45	GLU
46	BO	48	PRO
46	BO	49	ARG
46	BO	69	ILE
46	BO	87	ILE
46	BO	105	GLU
46	BO	117	LEU
47	BP	7	ARG
47	BP	13	ASN
47	BP	16	ARG
47	BP	18	ARG
47	BP	29	LYS
47	BP	39	LYS
47	BP	41	ARG
47	BP	42	SER
47	BP	57	THR
47	BP	60	MET
47	BP	61	ARG
47	BP	62	LEU
47	BP	64	LYS
47	BP	70	GLN
47	BP	75	ILE
47	BP	76	LYS
47	BP	81	GLN
47	BP	85	LEU
47	BP	91	PHE
47	BP	108	LYS
47	BP	114	ILE
47	BP	115	LEU
47	BP	146	VAL
48	BQ	14	ARG
48	BQ	17	LEU
48	BQ	45	GLN
48	BQ	46	GLN
48	BQ	56	ARG
48	BQ	58	PHE
48	BQ	65	PHE
48	BQ	67	ARG
48	BQ	76	LYS
48	BQ	79	LEU
48	BQ	81	VAL

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Mol	Chain	Res	Type
48	BQ	104	PHE
48	BQ	133	ARG
48	BQ	134	ARG
48	BQ	135	ASP
48	BQ	137	TYR
48	BQ	138	ASP
49	BR	8	ARG
49	BR	27	SER
49	BR	30	THR
49	BR	45	ARG
49	BR	47	PHE
49	BR	49	ASP
49	BR	65	LEU
49	BR	71	GLN
49	BR	74	LYS
49	BR	80	PHE
49	BR	94	TYR
49	BR	97	VAL
49	BR	99	LYS
49	BR	100	LEU
49	BR	118	GLU
50	BS	11	LYS
50	BS	13	ARG
50	BS	29	PHE
50	BS	36	TYR
50	BS	42	ASP
50	BS	56	LEU
50	BS	67	ARG
50	BS	97	ARG
50	BS	101	LEU
50	BS	106	ARG
51	BT	6	LEU
51	BT	13	ARG
51	BT	14	TYR
51	BT	16	ARG
51	BT	17	THR
51	BT	18	ASP
51	BT	24	PRO
51	BT	32	TYR
51	BT	38	ASN
51	BT	49	VAL
51	BT	58	ASN

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Mol	Chain	Res	Type
51	BT	65	LYS
51	BT	78	LEU
51	BT	82	LEU
51	BT	90	GLN
51	BT	100	TYR
51	BT	108	ARG
51	BT	112	ARG
51	BT	114	LEU
51	BT	115	ARG
51	BT	128	GLU
51	BT	129	ARG
51	BT	132	LYS
52	BU	20	LEU
52	BU	49	HIS
52	BU	63	VAL
52	BU	74	LEU
52	BU	79	PHE
52	BU	92	ARG
52	BU	108	GLU
52	BU	112	ARG
53	BV	18	LEU
53	BV	19	LYS
53	BV	21	ARG
53	BV	37	VAL
53	BV	39	LEU
53	BV	46	VAL
53	BV	79	VAL
53	BV	89	GLN
53	BV	95	LEU
53	BV	98	GLU
53	BV	99	ILE
54	BW	9	TYR
54	BW	11	ARG
54	BW	40	ASN
54	BW	52	GLU
54	BW	62	HIS
54	BW	70	TYR
54	BW	88	ARG
54	BW	98	LYS
54	BW	107	LEU
55	BX	3	THR
55	BX	27	THR

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Mol	Chain	Res	Type
55	BX	28	PHE
55	BX	37	THR
55	BX	38	GLU
55	BX	51	VAL
55	BX	56	THR
55	BX	57	LEU
55	BX	66	LEU
55	BX	68	ARG
55	BX	76	ARG
55	BX	81	VAL
56	BY	2	ARG
56	BY	7	VAL
56	BY	9	LYS
56	BY	20	TYR
56	BY	29	GLU
56	BY	51	VAL
56	BY	53	PRO
56	BY	55	TYR
56	BY	77	PRO
56	BY	79	CYS
56	BY	90	LEU
56	BY	102	CYS
57	BZ	5	LEU
57	BZ	6	LYS
57	BZ	8	TYR
57	BZ	11	GLU
57	BZ	18	LEU
57	BZ	28	MET
57	BZ	29	TYR
57	BZ	30	ASN
57	BZ	31	ARG
57	BZ	34	ASN
57	BZ	55	HIS
57	BZ	63	ASP
57	BZ	67	LEU
57	BZ	72	ARG
57	BZ	78	LYS
57	BZ	83	PRO
57	BZ	87	ASP
57	BZ	92	SER
57	BZ	112	ARG
57	BZ	123	ASP

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Mol	Chain	Res	Type
57	BZ	127	LYS
57	BZ	140	ASP
57	BZ	146	ILE
57	BZ	150	LEU
57	BZ	154	ASP
57	BZ	163	LEU
57	BZ	166	SER
57	BZ	171	ILE
57	BZ	186	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (173) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	40	HIS
2	AB	78	GLN
2	AB	94	ASN
2	AB	110	GLN
2	AB	113	HIS
2	AB	146	GLN
2	AB	204	ASN
3	AC	28	GLN
3	AC	31	HIS
3	AC	108	ASN
3	AC	118	GLN
3	AC	170	GLN
3	AC	176	HIS
3	AC	181	ASN
4	AD	62	GLN
4	AD	74	GLN
4	AD	77	ASN
4	AD	129	ASN
5	AE	20	GLN
5	AE	73	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	37	ASN
7	AG	68	ASN
7	AG	84	ASN
7	AG	106	GLN

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Mol	Chain	Res	Type
8	AH	82	HIS
9	AI	3	GLN
9	AI	58	HIS
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	68	HIS
10	AJ	76	ASN
10	AJ	78	ASN
10	AJ	84	GLN
11	AK	22	HIS
11	AK	27	ASN
12	AL	9	GLN
12	AL	49	ASN
12	AL	75	HIS
12	AL	99	HIS
13	AM	77	ASN
13	AM	101	GLN
14	AN	49	HIS
15	AO	9	GLN
15	AO	13	GLN
15	AO	28	GLN
15	AO	37	ASN
15	AO	62	GLN
16	AP	76	GLN
17	AQ	16	GLN
19	AS	14	HIS
19	AS	47	HIS
20	AT	16	HIS
20	AT	26	ASN
20	AT	42	GLN
20	AT	75	ASN
24	AY	14	ASN
24	AY	77	HIS
24	AY	124	GLN
24	AY	137	ASN
24	AY	165	GLN
24	AY	208	GLN
24	AY	266	ASN
24	AY	343	ASN
24	AY	421	GLN
24	AY	448	GLN
24	AY	458	HIS

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Mol	Chain	Res	Type
24	AY	480	GLN
24	AY	500	GLN
24	AY	527	ASN
24	AY	543	GLN
24	AY	573	HIS
24	AY	630	GLN
24	AY	641	GLN
25	B0	70	GLN
26	B1	45	ASN
26	B1	56	GLN
27	B2	38	GLN
27	B2	56	GLN
28	B3	19	GLN
28	B3	52	HIS
29	B4	20	ASN
30	B5	22	HIS
30	B5	23	HIS
30	B5	43	HIS
31	B6	20	ASN
31	B6	26	ASN
31	B6	29	ASN
31	B6	32	ASN
32	B7	8	ASN
33	B8	31	HIS
33	B8	33	ASN
33	B8	43	GLN
34	B9	29	ASN
37	BC	58	ASN
37	BC	149	ASN
38	BD	58	HIS
38	BD	96	HIS
38	BD	115	GLN
38	BD	116	GLN
38	BD	166	GLN
38	BD	186	HIS
38	BD	198	ASN
38	BD	227	ASN
39	BE	48	GLN
39	BE	54	GLN
39	BE	55	ASN
39	BE	129	HIS
39	BE	169	ASN

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Mol	Chain	Res	Type
39	BE	192	ASN
40	BF	75	HIS
40	BF	133	ASN
40	BF	160	ASN
40	BF	169	ASN
40	BF	204	ASN
41	BG	27	ASN
41	BG	40	ASN
41	BG	41	GLN
42	BH	65	HIS
42	BH	147	ASN
42	BH	158	HIS
43	BK	29	GLN
43	BK	47	ASN
43	BK	89	HIS
45	BN	45	ASN
45	BN	56	ASN
45	BN	101	HIS
45	BN	128	HIS
45	BN	133	GLN
46	BO	5	GLN
46	BO	82	ASN
47	BP	9	ASN
47	BP	13	ASN
47	BP	27	HIS
47	BP	81	GLN
47	BP	84	ASN
47	BP	128	HIS
48	BQ	12	GLN
48	BQ	13	GLN
49	BR	3	HIS
49	BR	23	ASN
49	BR	24	GLN
49	BR	71	GLN
50	BS	34	HIS
51	BT	38	ASN
51	BT	43	GLN
51	BT	55	ASN
51	BT	58	ASN
51	BT	90	GLN
52	BU	14	HIS
52	BU	44	ASN

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Mol	Chain	Res	Type
52	BU	49	HIS
52	BU	66	ASN
52	BU	72	HIS
52	BU	94	ASN
53	BV	11	GLN
54	BW	34	ASN
54	BW	60	ASN
54	BW	61	ASN
54	BW	62	HIS
54	BW	102	HIS
55	BX	41	ASN
55	BX	55	ASN
55	BX	82	GLN
56	BY	6	HIS
57	BZ	30	ASN
57	BZ	54	HIS
57	BZ	65	GLN
57	BZ	118	GLN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	277 (18%)	43 (2%)
22	AV	76/77 (98%)	16 (21%)	0
23	AX	10/11 (90%)	4 (40%)	0
35	BA	2900/2915 (99%)	637 (21%)	77 (2%)
36	BB	118/122 (96%)	25 (21%)	0
All	All	4607/4647 (99%)	959 (20%)	120 (2%)

All (959) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A

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Mol	Chain	Res	Type
1	AA	60	A
1	AA	61	G
1	AA	62	U
1	AA	81	U
1	AA	88	A
1	AA	89	C
1	AA	90	U
1	AA	91	C
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	104	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129	U
1	AA	129(A)	G
1	AA	131	C
1	AA	144	G
1	AA	146	G
1	AA	147	G
1	AA	149	A
1	AA	160	A
1	AA	163	C
1	AA	181	G
1	AA	182	U
1	AA	189(F)	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	198	G
1	AA	202	U
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	243	A
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C

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Mol	Chain	Res	Type
1	AA	279	A
1	AA	281	G
1	AA	289	G
1	AA	316	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	350	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	366	C
1	AA	367	U
1	AA	372	C
1	AA	397	A
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	429	U
1	AA	435	C
1	AA	437	U
1	AA	439	A
1	AA	444	C
1	AA	452	A
1	AA	460	G
1	AA	461	A
1	AA	471	G
1	AA	481	G
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	509	A
1	AA	511	C
1	AA	527	G
1	AA	531	U

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Mol	Chain	Res	Type
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	536	C
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	631	G
1	AA	632	A
1	AA	650	G
1	AA	653	A
1	AA	682	G
1	AA	683	G
1	AA	686	U
1	AA	687	A
1	AA	688	G
1	AA	700	G
1	AA	704	A
1	AA	721	G
1	AA	722	A
1	AA	723	U
1	AA	724	G
1	AA	728	A
1	AA	731	G
1	AA	744	C
1	AA	748	C
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	813	U
1	AA	816	A
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	828	A
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	858	G
1	AA	859	A
1	AA	867	G
1	AA	874	G
1	AA	895	G
1	AA	907	A
1	AA	914	A
1	AA	921	U
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	946	A
1	AA	960	U
1	AA	961	U
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	979	C
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	997	U
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1027	C
1	AA	1030	C
1	AA	1030(B)	C
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G

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Mol	Chain	Res	Type
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1124	G
1	AA	1125	U
1	AA	1129	C
1	AA	1130	A
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1146	A
1	AA	1152	A
1	AA	1154	G
1	AA	1159	U
1	AA	1181	G
1	AA	1184	G
1	AA	1187	G
1	AA	1190	G
1	AA	1196	U
1	AA	1197	G
1	AA	1199	U
1	AA	1202	G
1	AA	1212	U
1	AA	1214	C
1	AA	1217	C
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1237	C
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1249	C
1	AA	1256	A
1	AA	1257	U

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Mol	Chain	Res	Type
1	AA	1273	G
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1298	C
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1336	C
1	AA	1337	G
1	AA	1338	G
1	AA	1346	A
1	AA	1348	U
1	AA	1354	C
1	AA	1363	C
1	AA	1364	U
1	AA	1365	G
1	AA	1370	G
1	AA	1379	G
1	AA	1394	A
1	AA	1397	C
1	AA	1398	A
1	AA	1404	C
1	AA	1411	C
1	AA	1419	G
1	AA	1434	A
1	AA	1442	G
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1468	A
1	AA	1475	G

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Mol	Chain	Res	Type
1	AA	1487	G
1	AA	1490	C
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1499	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
22	AV	4	G
22	AV	5	G
22	AV	8	U
22	AV	17	C
22	AV	17(A)	U
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	47	U
22	AV	48	C
22	AV	63	G
22	AV	71	C
22	AV	74	C
22	AV	75	C
22	AV	76	A
23	AX	12	A
23	AX	13	A
23	AX	14	A
23	AX	19	U
35	BA	9	U
35	BA	18	C
35	BA	28	A
35	BA	35	G
35	BA	42	G
35	BA	43	A

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Mol	Chain	Res	Type
35	BA	45	C
35	BA	49	A
35	BA	50	U
35	BA	63	U
35	BA	64	A
35	BA	72	U
35	BA	75	G
35	BA	83	G
35	BA	84	A
35	BA	85	G
35	BA	88	G
35	BA	90	U
35	BA	92	A
35	BA	94	C
35	BA	95	G
35	BA	100	G
35	BA	102	G
35	BA	106	C
35	BA	116	C
35	BA	118	A
35	BA	119	A
35	BA	121	G
35	BA	125	G
35	BA	129	C
35	BA	139(A)	G
35	BA	141	A
35	BA	142(A)	C
35	BA	143(A)	C
35	BA	155	U
35	BA	156	U
35	BA	157	U
35	BA	171	G
35	BA	174	C
35	BA	181	A
35	BA	190	A
35	BA	196	A
35	BA	199	A
35	BA	204	A
35	BA	205	G
35	BA	212	G
35	BA	215	G
35	BA	216	A

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Mol	Chain	Res	Type
35	BA	221	A
35	BA	222	A
35	BA	227	A
35	BA	229	A
35	BA	233	A
35	BA	241	A
35	BA	248	G
35	BA	261	G
35	BA	271(J)	C
35	BA	271(K)	U
35	BA	271(L)	U
35	BA	271(O)	C
35	BA	271(R)	G
35	BA	271(Y)	U
35	BA	272	G
35	BA	272(A)	U
35	BA	272(B)	G
35	BA	272(G)	C
35	BA	272(H)	C
35	BA	272(I)	U
35	BA	276	A
35	BA	280	C
35	BA	283	A
35	BA	286	C
35	BA	287	C
35	BA	299	A
35	BA	310	A
35	BA	311	A
35	BA	329	G
35	BA	330	A
35	BA	332	A
35	BA	333	G
35	BA	336	C
35	BA	345	A
35	BA	346	A
35	BA	352	G
35	BA	353	G
35	BA	362	U
35	BA	363	G
35	BA	363(F)	A
35	BA	364	C
35	BA	365	C

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Mol	Chain	Res	Type
35	BA	370	G
35	BA	371	A
35	BA	372	G
35	BA	386	G
35	BA	396	G
35	BA	405	U
35	BA	406	G
35	BA	407	G
35	BA	411	G
35	BA	412	A
35	BA	428	A
35	BA	444	C
35	BA	448	U
35	BA	449	A
35	BA	457	A
35	BA	458	G
35	BA	475	U
35	BA	480	A
35	BA	481	G
35	BA	504	U
35	BA	505	A
35	BA	508	G
35	BA	509	C
35	BA	526	A
35	BA	527	C
35	BA	528	A
35	BA	529	A
35	BA	530	G
35	BA	531	C
35	BA	532	A
35	BA	533	G
35	BA	544	G
35	BA	547	A
35	BA	548	A
35	BA	552	G
35	BA	555	U
35	BA	556	G
35	BA	562	U
35	BA	563	G
35	BA	573	G
35	BA	575	A
35	BA	587	C

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Mol	Chain	Res	Type
35	BA	603	A
35	BA	604	G
35	BA	607	U
35	BA	613	G
35	BA	614(B)	G
35	BA	615	G
35	BA	620	G
35	BA	622	G
35	BA	627	A
35	BA	637	A
35	BA	645	C
35	BA	646	A
35	BA	651	G
35	BA	653	A
35	BA	654	A
35	BA	654(I)	C
35	BA	654(J)	A
35	BA	654(K)	C
35	BA	654(M)	C
35	BA	654(O)	G
35	BA	654(T)	C
35	BA	655	A
35	BA	675	A
35	BA	682	G
35	BA	686	G
35	BA	695	G
35	BA	699	A
35	BA	722	A
35	BA	727	A
35	BA	729	G
35	BA	730	C
35	BA	739	G
35	BA	740	U
35	BA	745	G
35	BA	746	A
35	BA	753	C
35	BA	764	A
35	BA	765	G
35	BA	775	G
35	BA	776	G
35	BA	782	A
35	BA	784	A

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Mol	Chain	Res	Type
35	BA	785	G
35	BA	788	A
35	BA	789	A
35	BA	790	C
35	BA	791	C
35	BA	792	G
35	BA	793	A
35	BA	794	G
35	BA	800	A
35	BA	805	G
35	BA	811	U
35	BA	812	C
35	BA	827	U
35	BA	828	U
35	BA	830	G
35	BA	840	C
35	BA	841	A
35	BA	846	C
35	BA	859	G
35	BA	866	A
35	BA	878	A
35	BA	889	C
35	BA	890	A
35	BA	896	A
35	BA	897	C
35	BA	900	A
35	BA	904	C
35	BA	910	A
35	BA	926	A
35	BA	932	G
35	BA	940	G
35	BA	941	A
35	BA	945	A
35	BA	946	G
35	BA	959	A
35	BA	961	C
35	BA	962	G
35	BA	969	U
35	BA	974	G
35	BA	975	C
35	BA	980	A
35	BA	983	A

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Mol	Chain	Res	Type
35	BA	985	C
35	BA	989	G
35	BA	990	A
35	BA	991	C
35	BA	996	A
35	BA	1005	C
35	BA	1011	G
35	BA	1012	U
35	BA	1013	C
35	BA	1021	A
35	BA	1022	G
35	BA	1023	U
35	BA	1026	U
35	BA	1033	U
35	BA	1034	G
35	BA	1036	G
35	BA	1039	G
35	BA	1040	C
35	BA	1044	G
35	BA	1045	A
35	BA	1046	A
35	BA	1047	G
35	BA	1048	A
35	BA	1049	C
35	BA	1052	C
35	BA	1053	C
35	BA	1054	A
35	BA	1058	G
35	BA	1060	U
35	BA	1062	G
35	BA	1067	A
35	BA	1070	A
35	BA	1073	A
35	BA	1076	C
35	BA	1088	A
35	BA	1109	C
35	BA	1110	G
35	BA	1111	A
35	BA	1112	G
35	BA	1114	G
35	BA	1115	G
35	BA	1122	G

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Mol	Chain	Res	Type
35	BA	1126	A
35	BA	1135	C
35	BA	1136	G
35	BA	1141	U
35	BA	1142(A)	A
35	BA	1143	A
35	BA	1146	C
35	BA	1152	C
35	BA	1155	A
35	BA	1157	G
35	BA	1158	C
35	BA	1159	U
35	BA	1170	G
35	BA	1173	G
35	BA	1174	A
35	BA	1175	U
35	BA	1176	G
35	BA	1177	A
35	BA	1204	A
35	BA	1205	U
35	BA	1210	A
35	BA	1211	U
35	BA	1212	G
35	BA	1213	A
35	BA	1220	A
35	BA	1221	C
35	BA	1224	C
35	BA	1238	G
35	BA	1241	A
35	BA	1247	A
35	BA	1248	G
35	BA	1250	G
35	BA	1251	C
35	BA	1252	G
35	BA	1255	U
35	BA	1256	G
35	BA	1266	G
35	BA	1271	G
35	BA	1272	A
35	BA	1273	U
35	BA	1287	A
35	BA	1288	U

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Mol	Chain	Res	Type
35	BA	1300	U
35	BA	1302	A
35	BA	1314	C
35	BA	1321	A
35	BA	1326	U
35	BA	1329	U
35	BA	1330	C
35	BA	1332	G
35	BA	1342	A
35	BA	1345	C
35	BA	1349	A
35	BA	1359	A
35	BA	1365	A
35	BA	1368	G
35	BA	1379	A
35	BA	1380	G
35	BA	1384	A
35	BA	1385	G
35	BA	1386	C
35	BA	1396	U
35	BA	1403	C
35	BA	1411	C
35	BA	1416	G
35	BA	1421	G
35	BA	1427	A
35	BA	1428	C
35	BA	1434	A
35	BA	1435	G
35	BA	1445	A
35	BA	1445(A)	C
35	BA	1449	A
35	BA	1453	U
35	BA	1455	G
35	BA	1458	C
35	BA	1459	G
35	BA	1460	A
35	BA	1461	G
35	BA	1467	C
35	BA	1476	C
35	BA	1477	A
35	BA	1478	G
35	BA	1482	G

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Mol	Chain	Res	Type
35	BA	1484	G
35	BA	1485	G
35	BA	1488	G
35	BA	1490	A
35	BA	1491	G
35	BA	1493	C
35	BA	1494	A
35	BA	1495	A
35	BA	1496	A
35	BA	1497	U
35	BA	1505	C
35	BA	1509	C
35	BA	1509(A)	A
35	BA	1517	G
35	BA	1528(A)	A
35	BA	1537	G
35	BA	1539	G
35	BA	1541	G
35	BA	1542	A
35	BA	1544	A
35	BA	1553	A
35	BA	1554	A
35	BA	1558	A
35	BA	1559	G
35	BA	1569	A
35	BA	1578	U
35	BA	1579	A
35	BA	1584	C
35	BA	1586	A
35	BA	1588	C
35	BA	1603	A
35	BA	1608	A
35	BA	1609	A
35	BA	1610	A
35	BA	1615	C
35	BA	1616	A
35	BA	1618	A
35	BA	1634	A
35	BA	1640	C
35	BA	1642	G
35	BA	1644	C
35	BA	1648	C

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Mol	Chain	Res	Type
35	BA	1668	A
35	BA	1674	G
35	BA	1678	G
35	BA	1699	G
35	BA	1718	G
35	BA	1722	A
35	BA	1739	U
35	BA	1740	G
35	BA	1744	C
35	BA	1748	G
35	BA	1754	C
35	BA	1756	G
35	BA	1763	G
35	BA	1764	G
35	BA	1773	A
35	BA	1776	G
35	BA	1780	A
35	BA	1781	C
35	BA	1784	A
35	BA	1785	A
35	BA	1787	A
35	BA	1791	A
35	BA	1799	G
35	BA	1800	C
35	BA	1801	G
35	BA	1815	A
35	BA	1816	G
35	BA	1820	U
35	BA	1821	A
35	BA	1829	A
35	BA	1839	G
35	BA	1846	G
35	BA	1847	A
35	BA	1850	G
35	BA	1858	G
35	BA	1862	G
35	BA	1866	C
35	BA	1877	A
35	BA	1878	G
35	BA	1885	A
35	BA	1888	G
35	BA	1889	A

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Mol	Chain	Res	Type
35	BA	1900	A
35	BA	1906	G
35	BA	1912	A
35	BA	1929	G
35	BA	1930	G
35	BA	1931	U
35	BA	1937	A
35	BA	1938	A
35	BA	1943	U
35	BA	1944	U
35	BA	1945	G
35	BA	1948	G
35	BA	1955	U
35	BA	1960	A
35	BA	1963	U
35	BA	1964	G
35	BA	1967	C
35	BA	1969	A
35	BA	1970	A
35	BA	1971	A
35	BA	1972	A
35	BA	1987	G
35	BA	1993	U
35	BA	1997	G
35	BA	2004	G
35	BA	2021	C
35	BA	2022	U
35	BA	2023	G
35	BA	2031	A
35	BA	2033	A
35	BA	2034	U
35	BA	2043	C
35	BA	2055	C
35	BA	2056	G
35	BA	2060	A
35	BA	2061	G
35	BA	2062	A
35	BA	2065	C
35	BA	2069	G
35	BA	2076	U
35	BA	2100	G
35	BA	2103	C

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Mol	Chain	Res	Type
35	BA	2104	G
35	BA	2112	G
35	BA	2116	G
35	BA	2118	U
35	BA	2127	G
35	BA	2128	C
35	BA	2131	G
35	BA	2132	U
35	BA	2133	G
35	BA	2134	A
35	BA	2147	G
35	BA	2157	G
35	BA	2158	A
35	BA	2159	G
35	BA	2163	C
35	BA	2173	A
35	BA	2185	C
35	BA	2187	G
35	BA	2189	U
35	BA	2190	G
35	BA	2192	G
35	BA	2193	G
35	BA	2198	A
35	BA	2199	A
35	BA	2200	C
35	BA	2202	C
35	BA	2203	U
35	BA	2205	C
35	BA	2206	G
35	BA	2207	G
35	BA	2208	A
35	BA	2219	G
35	BA	2225	A
35	BA	2226	C
35	BA	2238	G
35	BA	2239	G
35	BA	2263	C
35	BA	2273	A
35	BA	2283	C
35	BA	2286	A
35	BA	2288	A
35	BA	2297	C

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Mol	Chain	Res	Type
35	BA	2302	G
35	BA	2305	A
35	BA	2307	G
35	BA	2308	G
35	BA	2309	A
35	BA	2313	C
35	BA	2319	G
35	BA	2320	A
35	BA	2325	G
35	BA	2336	A
35	BA	2345	G
35	BA	2346	A
35	BA	2347	C
35	BA	2348	U
35	BA	2349	G
35	BA	2350	C
35	BA	2383	G
35	BA	2385	C
35	BA	2391	G
35	BA	2402	C
35	BA	2403	C
35	BA	2406	U
35	BA	2423	U
35	BA	2424	C
35	BA	2425	A
35	BA	2426	A
35	BA	2427	C
35	BA	2428	G
35	BA	2429	G
35	BA	2430	A
35	BA	2431	U
35	BA	2434	A
35	BA	2435	A
35	BA	2439	A
35	BA	2441	C
35	BA	2448	A
35	BA	2461	C
35	BA	2465	C
35	BA	2468	G
35	BA	2469	A
35	BA	2470	G
35	BA	2473	U

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Mol	Chain	Res	Type
35	BA	2474	C
35	BA	2475	C
35	BA	2476	A
35	BA	2477	C
35	BA	2478	A
35	BA	2482	G
35	BA	2484	G
35	BA	2491	U
35	BA	2502	G
35	BA	2503	A
35	BA	2505	G
35	BA	2518	A
35	BA	2519	U
35	BA	2520	C
35	BA	2524	G
35	BA	2529	G
35	BA	2554	U
35	BA	2566	A
35	BA	2567	G
35	BA	2572	A
35	BA	2576	G
35	BA	2577	A
35	BA	2585	U
35	BA	2586	C
35	BA	2602	A
35	BA	2609	U
35	BA	2610	C
35	BA	2611	U
35	BA	2612	C
35	BA	2615	U
35	BA	2630	G
35	BA	2655	G
35	BA	2657	A
35	BA	2658	C
35	BA	2670	A
35	BA	2673	G
35	BA	2682	U
35	BA	2689	U
35	BA	2690	C
35	BA	2691	C
35	BA	2702	U
35	BA	2703	C

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Mol	Chain	Res	Type
35	BA	2706	G
35	BA	2712	U
35	BA	2712(A)	A
35	BA	2713	A
35	BA	2726	U
35	BA	2732	G
35	BA	2733	A
35	BA	2750	A
35	BA	2751	G
35	BA	2755	C
35	BA	2756	U
35	BA	2757	A
35	BA	2758	A
35	BA	2762	G
35	BA	2763	G
35	BA	2764	A
35	BA	2765	A
35	BA	2766	G
35	BA	2778	A
35	BA	2779	U
35	BA	2780	G
35	BA	2790	A
35	BA	2791	C
35	BA	2796	U
35	BA	2799	C
35	BA	2801	A
35	BA	2802	G
35	BA	2803	C
35	BA	2808	U
35	BA	2820	A
35	BA	2821	A
35	BA	2823	A
35	BA	2824	C
35	BA	2833	G
35	BA	2834	G
35	BA	2836	U
35	BA	2849	U
35	BA	2872	G
35	BA	2879	C
35	BA	2880	C
35	BA	2892	A
35	BA	2894	G

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Mol	Chain	Res	Type
35	BA	2895	U
36	BB	8	U
36	BB	13	A
36	BB	15	A
36	BB	16	G
36	BB	22	U
36	BB	24	G
36	BB	25	A
36	BB	33	G
36	BB	35	U
36	BB	41	U
36	BB	42	C
36	BB	45	A
36	BB	53	A
36	BB	56	G
36	BB	67	G
36	BB	73	A
36	BB	81	G
36	BB	82	G
36	BB	88	C
36	BB	89	G
36	BB	90	A
36	BB	103	G
36	BB	104	U
36	BB	110	G
36	BB	113	G

All (120) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	140	A
1	AA	203	U
1	AA	243	A
1	AA	244	U
1	AA	250	A
1	AA	266	G
1	AA	315	A
1	AA	328	C

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Mol	Chain	Res	Type
1	AA	344	A
1	AA	366	C
1	AA	428	G
1	AA	438	G
1	AA	532	A
1	AA	533	A
1	AA	535	A
1	AA	560	U
1	AA	575	G
1	AA	631	G
1	AA	703	G
1	AA	812	C
1	AA	913	A
1	AA	992	U
1	AA	1049	U
1	AA	1065	U
1	AA	1094	G
1	AA	1101	A
1	AA	1129	C
1	AA	1201	A
1	AA	1225	A
1	AA	1226	C
1	AA	1237	C
1	AA	1285	A
1	AA	1299	A
1	AA	1300	G
1	AA	1347	G
1	AA	1364	U
1	AA	1493	A
1	AA	1498	U
1	AA	1505	G
35	BA	27	G
35	BA	49	A
35	BA	74	A
35	BA	120	U
35	BA	128	C
35	BA	221	A
35	BA	226	G
35	BA	286	C
35	BA	329	G
35	BA	331	A
35	BA	332	A

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Mol	Chain	Res	Type
35	BA	363(F)	A
35	BA	474	G
35	BA	503	A
35	BA	603	A
35	BA	614(A)	U
35	BA	614(C)	A
35	BA	728	G
35	BA	739	G
35	BA	752	A
35	BA	790	C
35	BA	961	C
35	BA	1020	A
35	BA	1022	G
35	BA	1052	C
35	BA	1057	A
35	BA	1156	A
35	BA	1173	G
35	BA	1210	A
35	BA	1212	G
35	BA	1237	A
35	BA	1240	U
35	BA	1301	A
35	BA	1378	A
35	BA	1427	A
35	BA	1453	U
35	BA	1494	A
35	BA	1541	G
35	BA	1558	A
35	BA	1661	G
35	BA	1718	G
35	BA	1799	G
35	BA	1801	G
35	BA	1819	A
35	BA	1828	G
35	BA	1838	C
35	BA	1846	G
35	BA	1930	G
35	BA	1943	U
35	BA	1992	G
35	BA	2033	A
35	BA	2111	C
35	BA	2126	A

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Mol	Chain	Res	Type
35	BA	2172	U
35	BA	2198	A
35	BA	2225	A
35	BA	2282	G
35	BA	2296	U
35	BA	2318	G
35	BA	2344	U
35	BA	2345	G
35	BA	2402	C
35	BA	2422	A
35	BA	2425	A
35	BA	2481	G
35	BA	2611	U
35	BA	2689	U
35	BA	2690	C
35	BA	2756	U
35	BA	2762	G
35	BA	2778	A
35	BA	2779	U
35	BA	2799	C
35	BA	2801(A)	A
35	BA	2835	A
35	BA	2849	U
35	BA	2891	G

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

2 ligands 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
59	GDP	AY	702	-	24,30,30	2.06	6 (25%)	30,47,47	1.83	7 (23%)
58	FUA	AY	701	-	39,40,40	2.24	14 (35%)	49,64,64	1.87	13 (26%)

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	GDP	AY	702	-	-	3/12/32/32	0/3/3/3
58	FUA	AY	701	-	-	5/15/92/92	0/4/4/4

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	AY	702	GDP	C5-C6	-6.09	1.35	1.47
58	AY	701	FUA	C14-C8	-4.93	1.50	1.59
58	AY	701	FUA	C29-C22	4.78	1.54	1.47
58	AY	701	FUA	C23-C22	-4.73	1.39	1.51
58	AY	701	FUA	C23-C24	-4.57	1.38	1.53
58	AY	701	FUA	C24-C25	-3.67	1.38	1.50
58	AY	701	FUA	O1-C11	-3.41	1.36	1.43
58	AY	701	FUA	C10-C5	-3.38	1.49	1.56
59	AY	702	GDP	C8-N7	-3.09	1.29	1.35
59	AY	702	GDP	PA-O2A	-3.02	1.41	1.55
58	AY	701	FUA	C14-C13	-2.92	1.48	1.57
58	AY	701	FUA	C20-C8	-2.78	1.48	1.54
59	AY	702	GDP	C5-C4	-2.70	1.36	1.43
58	AY	701	FUA	C1-C10	-2.51	1.49	1.54
59	AY	702	GDP	C4-N3	-2.43	1.31	1.37
58	AY	701	FUA	C10-C9	-2.27	1.53	1.57
58	AY	701	FUA	O5-C29	-2.18	1.24	1.30
58	AY	701	FUA	C6-C5	-2.16	1.50	1.53
58	AY	701	FUA	C19-C10	-2.14	1.50	1.54
59	AY	702	GDP	PB-O1B	-2.08	1.43	1.50

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	AY	702	GDP	C2-N1-C6	-4.23	117.31	125.10
58	AY	701	FUA	C13-C12-C11	-4.16	106.07	111.90
59	AY	702	GDP	PA-O3A-PB	-4.11	118.74	132.83
58	AY	701	FUA	C6-C5-C10	3.84	116.44	111.65
58	AY	701	FUA	C21-C14-C8	-3.75	108.81	112.27
58	AY	701	FUA	C18-C4-C3	-3.18	107.46	111.36
59	AY	702	GDP	C3'-C2'-C1'	-3.16	96.22	100.98
59	AY	702	GDP	O4'-C1'-C2'	-3.15	102.32	106.93
58	AY	701	FUA	C18-C4-C5	-3.06	108.71	113.04
58	AY	701	FUA	C16-O2-C31	-3.02	112.47	117.06
59	AY	702	GDP	C8-N7-C5	2.99	108.69	102.99
58	AY	701	FUA	C20-C8-C14	-2.87	106.60	110.85
58	AY	701	FUA	C20-C8-C7	2.86	112.72	107.84
59	AY	702	GDP	C5-C6-N1	2.84	118.97	113.95
58	AY	701	FUA	C19-C10-C9	-2.59	106.84	113.09
58	AY	701	FUA	C14-C8-C9	-2.42	104.66	109.40
59	AY	702	GDP	N2-C2-N1	2.39	121.79	116.71
58	AY	701	FUA	C8-C9-C10	-2.34	113.94	116.34
58	AY	701	FUA	C6-C5-C4	-2.09	111.02	114.32
58	AY	701	FUA	O2-C31-C32	2.07	114.89	111.09

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	AY	701	FUA	C13-C17-C22-C29
58	AY	701	FUA	C17-C22-C23-C24
58	AY	701	FUA	C29-C22-C23-C24
59	AY	702	GDP	C5'-O5'-PA-O3A
58	AY	701	FUA	O3-C31-O2-C16
58	AY	701	FUA	C32-C31-O2-C16
59	AY	702	GDP	C5'-O5'-PA-O1A
59	AY	702	GDP	C5'-O5'-PA-O2A

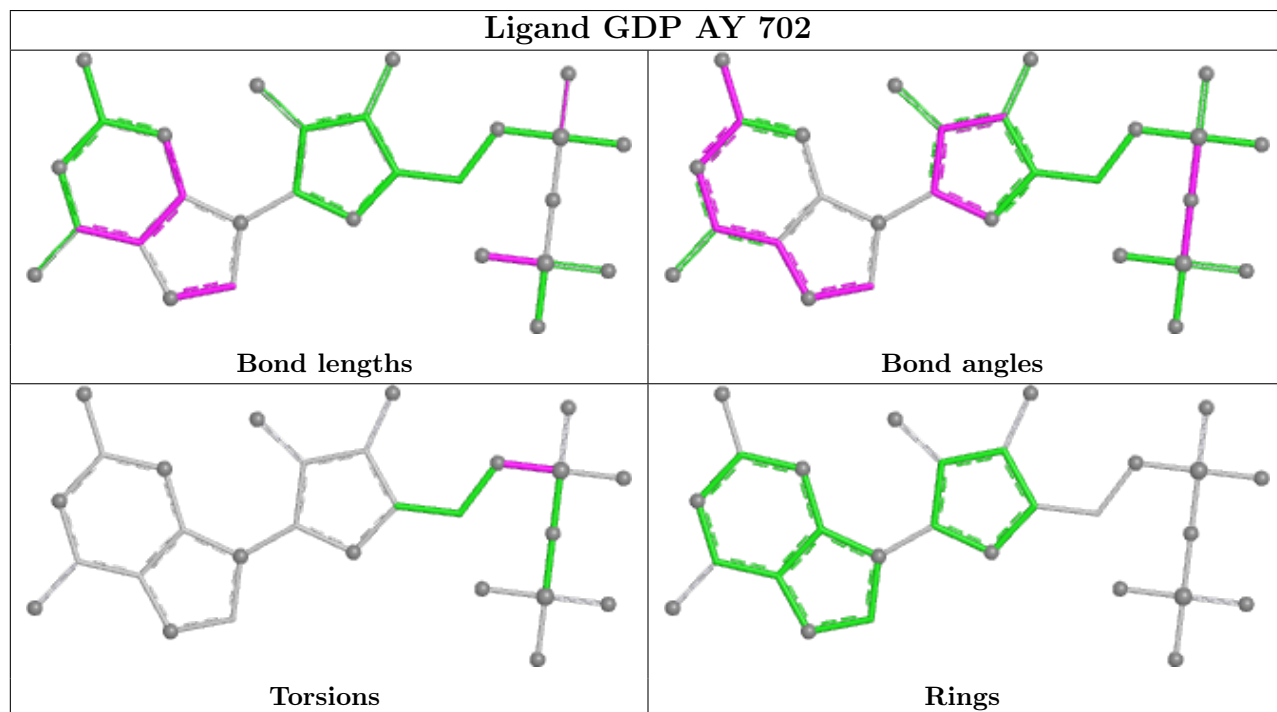
There are no ring outliers.

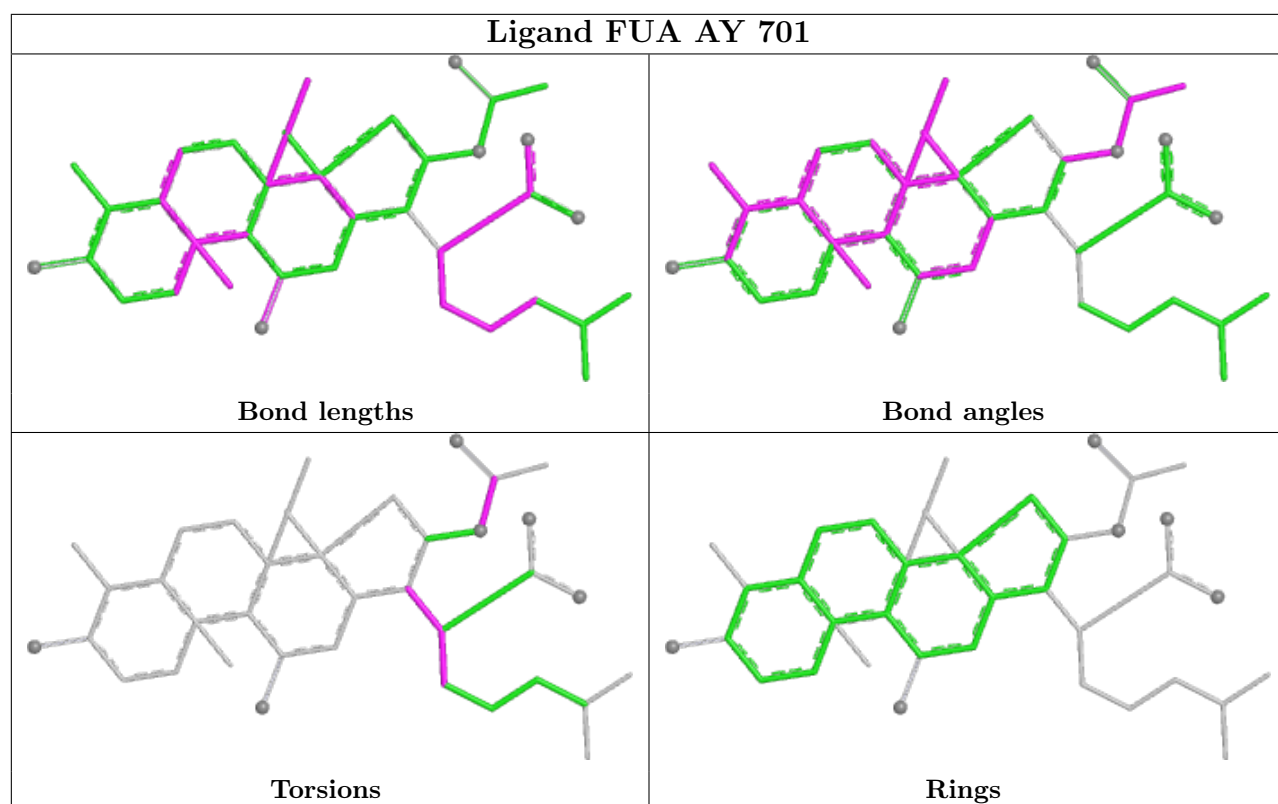
2 monomers are involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	AY	702	GDP	6	0
58	AY	701	FUA	17	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

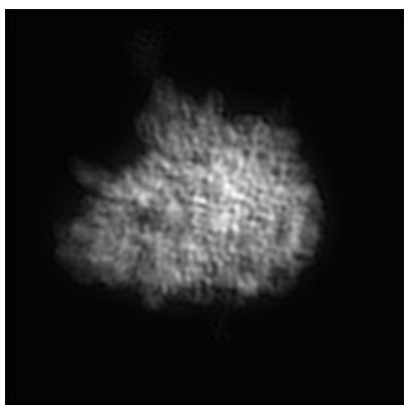
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1799. These allow visual inspection of the internal detail of the map and identification of artifacts.

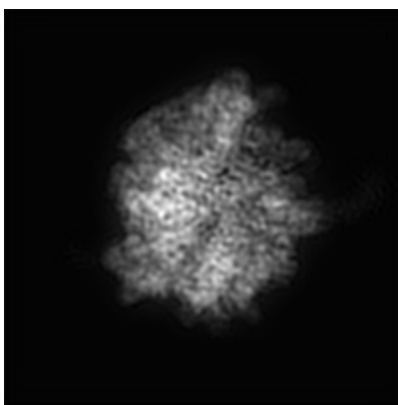
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

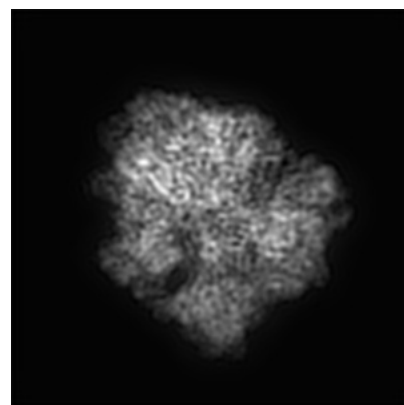
6.1.1 Primary map



X



Y

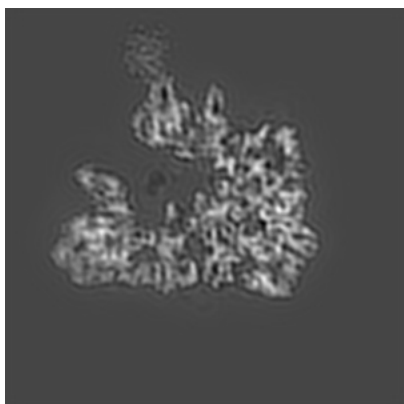


Z

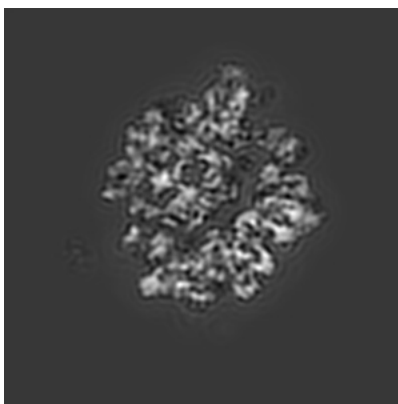
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

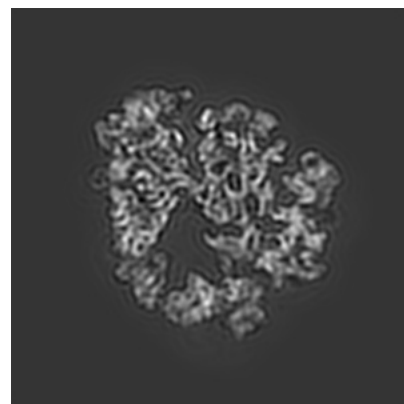
6.2.1 Primary map



X Index: 150



Y Index: 150

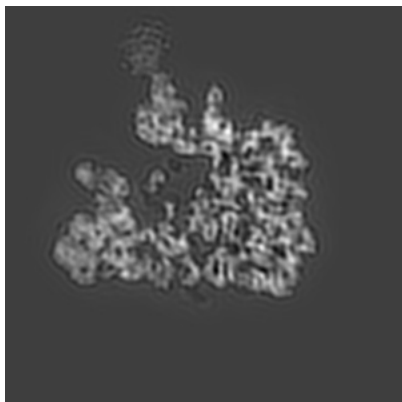


Z Index: 150

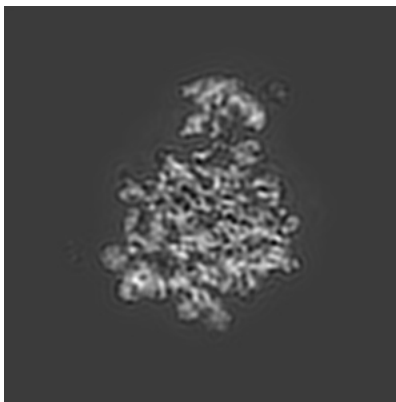
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 153



Y Index: 174



Z Index: 160

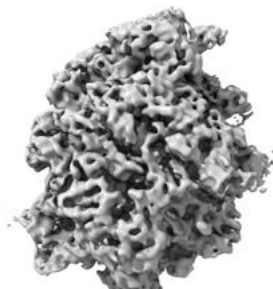
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 2.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

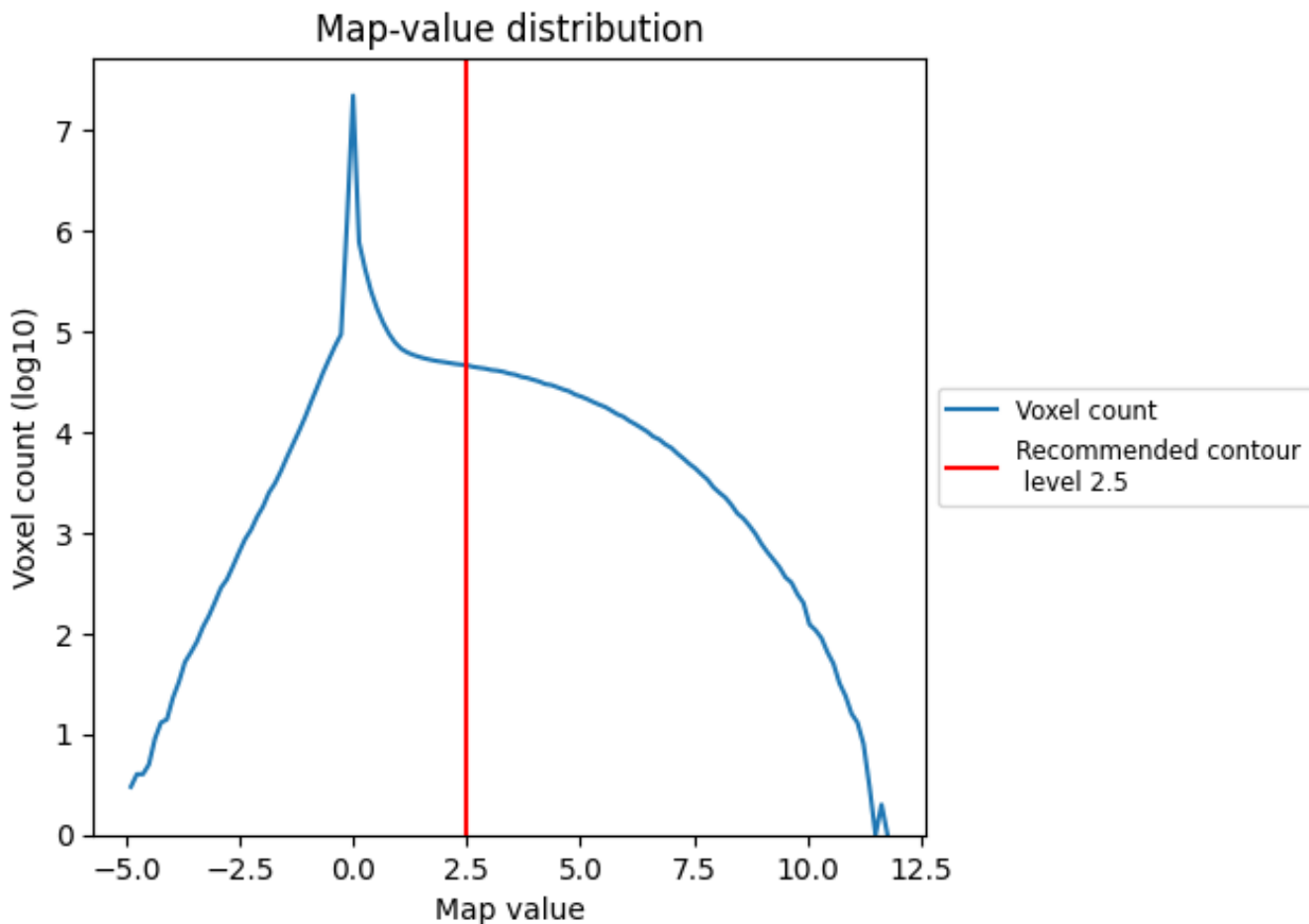
6.5 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

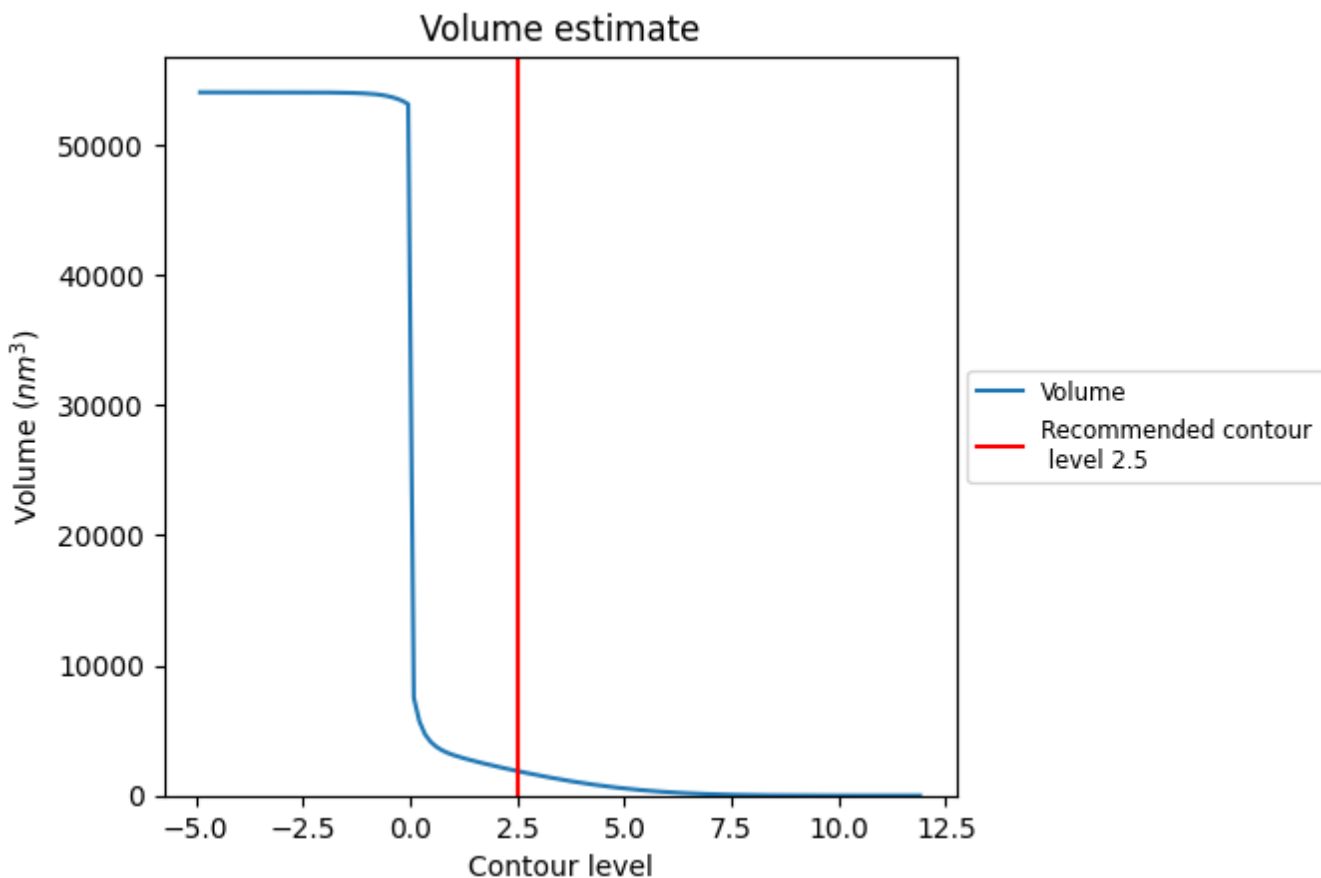
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

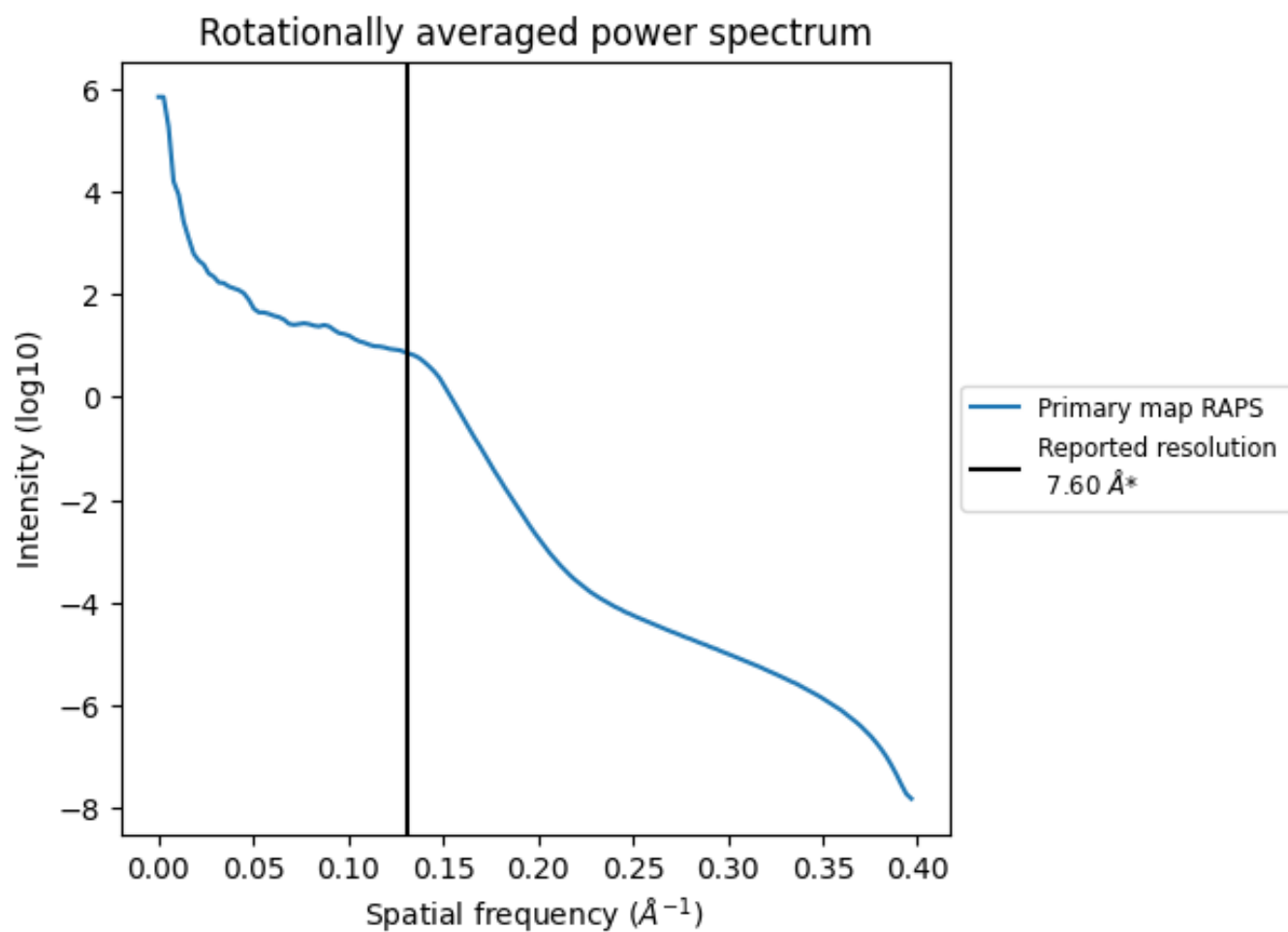
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1886 nm^3 ; this corresponds to an approximate mass of 1703 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.132\AA^{-1}

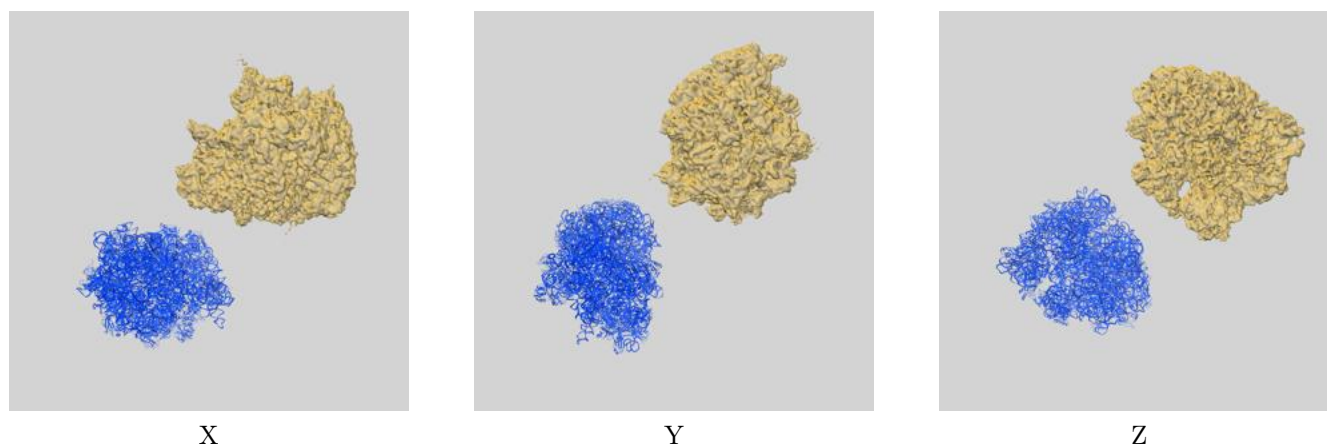
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

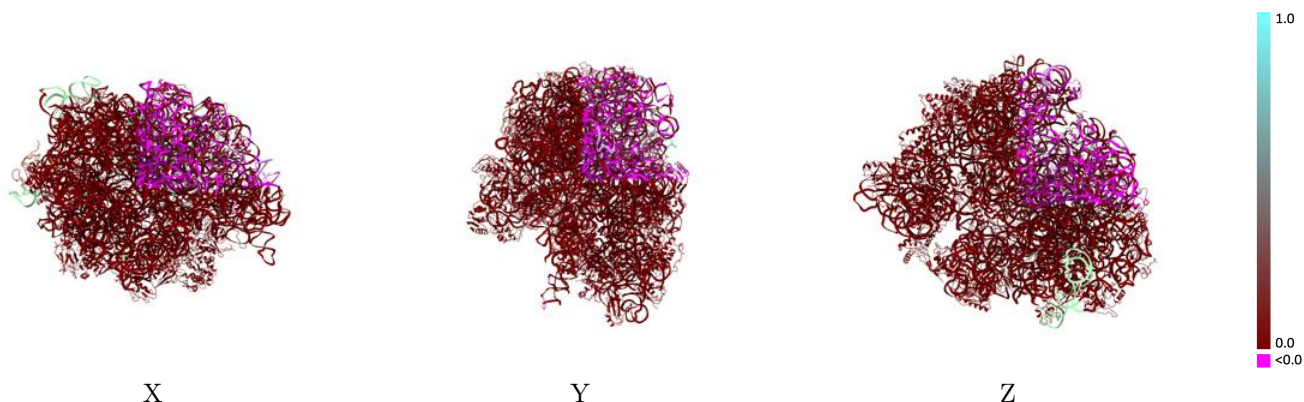
This section contains information regarding the fit between EMDB map EMD-1799 and PDB model 4V5N. Per-residue inclusion information can be found in section 3 on page 16.

9.1 Map-model overlay [i](#)



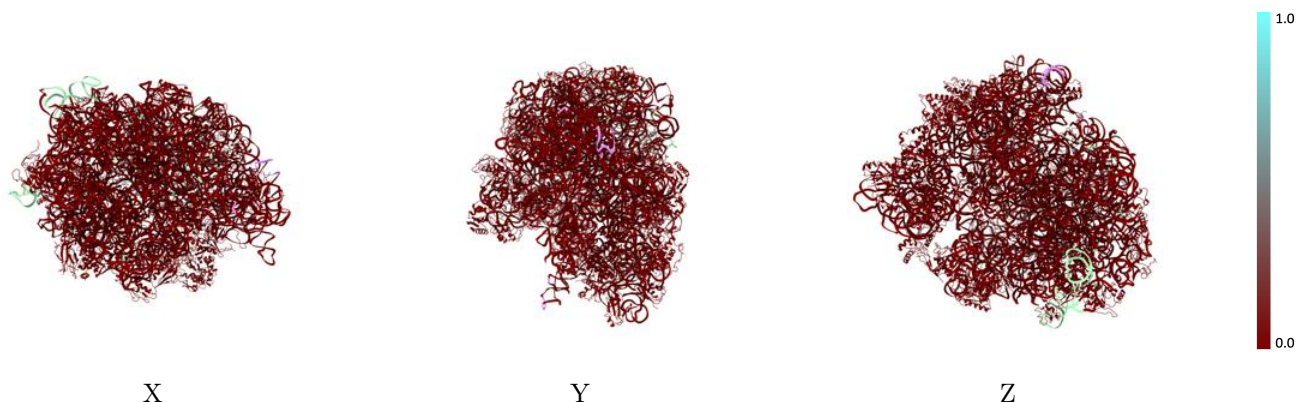
The images above show the 3D surface view of the map at the recommended contour level 2.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



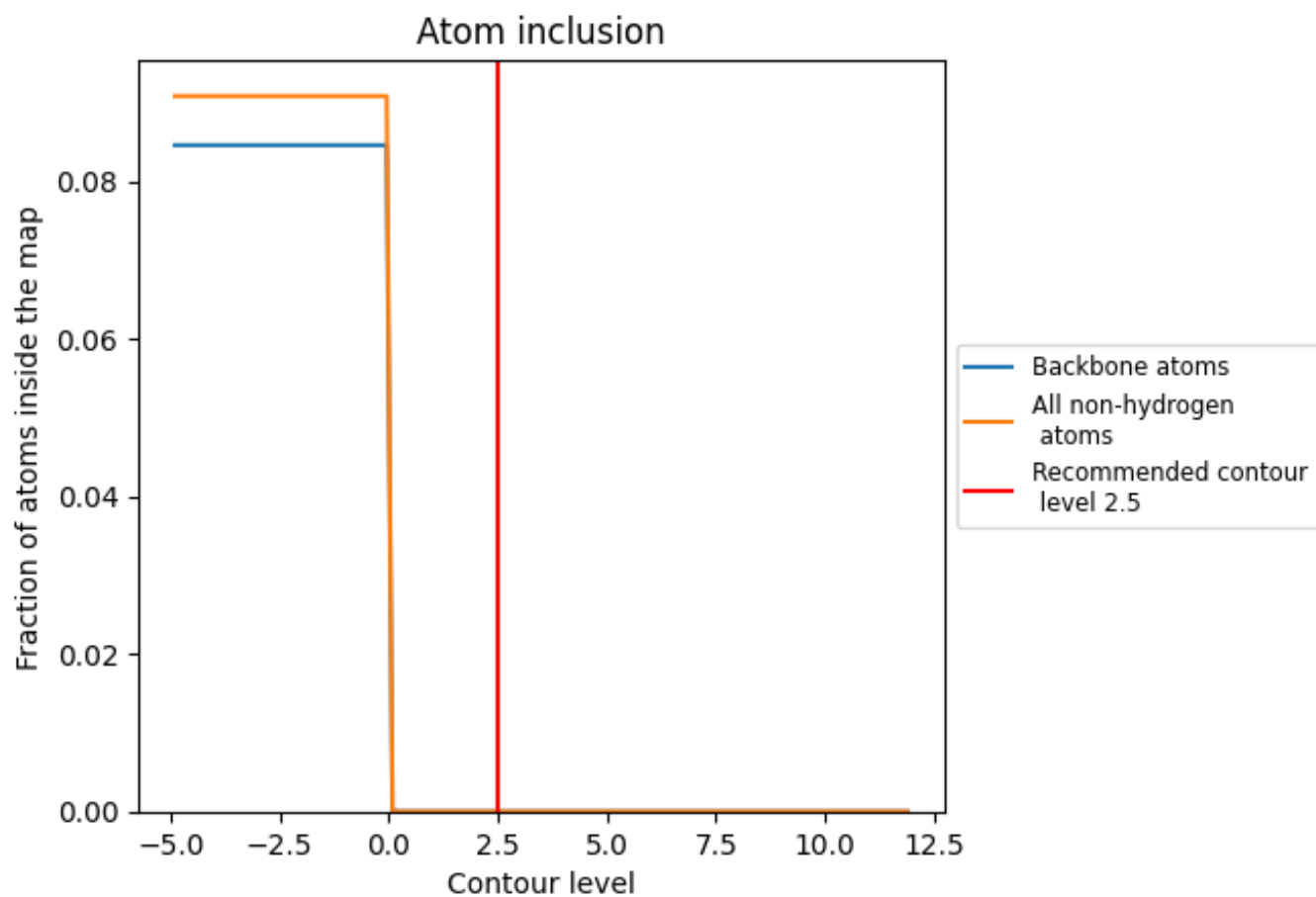
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.5).

9.4 Atom inclusion [i](#)



At the recommended contour level, 0% of all backbone atoms, 0% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (2.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.0000	-0.0010
AA	0.0000	-0.0010
AB	0.0000	0.0000
AC	0.0000	0.0000
AD	0.0000	0.0000
AE	0.0000	0.0000
AF	0.0000	-0.0220
AG	0.0000	0.0000
AH	0.0000	0.0000
AI	0.0000	0.0000
AJ	0.0000	0.0000
AK	0.0000	0.0000
AL	0.0000	0.0000
AM	0.0000	0.0000
AN	0.0000	0.0000
AO	0.0000	0.0000
AP	0.0000	0.0000
AQ	0.0000	-0.0060
AR	0.0000	0.0000
AS	0.0000	0.0000
AT	0.0000	-0.0140
AU	0.0000	0.0000
AV	0.0000	0.0000
AX	0.0000	0.0000
AY	0.0000	0.0000
B0	0.0000	0.0000
B1	0.0000	0.0000
B2	0.0000	0.0000
B3	0.0000	0.0000
B4	0.0000	0.0000
B5	0.0000	0.0000
B6	0.0000	0.0000
B7	0.0000	0.0040
B8	0.0000	0.0000
B9	0.0000	0.0000



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Chain	Atom inclusion	Q-score
BA	0.0000	-0.0020
BB	0.0000	0.0000
BC	0.0000	0.0000
BD	0.0000	-0.0140
BE	0.0000	0.0000
BF	0.0000	0.0000
BG	0.0000	0.0000
BH	0.0000	0.0000
BK	0.0000	0.0000
BL	0.0000	0.0000
BN	0.0000	0.0000
BO	0.0000	0.0000
BP	0.0000	0.0000
BQ	0.0000	0.0000
BR	0.0000	0.0000
BS	0.0000	0.0000
BT	0.0000	0.0000
BU	0.0000	0.0000
BV	0.0000	0.0000
BW	0.0000	0.0000
BX	0.0000	-0.0100
BY	0.0000	0.0000
BZ	0.0000	0.0000