



## wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 03:05 PM BST

PDB ID : 4V7I  
EMDB ID: : EMD-1484  
Title : Ribosome-SecY complex.  
Authors : Gumbart, J.C.; Trabuco, L.G.; Schreiner, E.; Villa, E.; Schulten, K.  
Deposited on : 2009-10-21  
Resolution : 9.60 Å(reported)  
Based on PDB ID : 2I2V, 3BO0

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.  
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

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MolProbity : 4.02b-467  
Mogul : unknown  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk27241

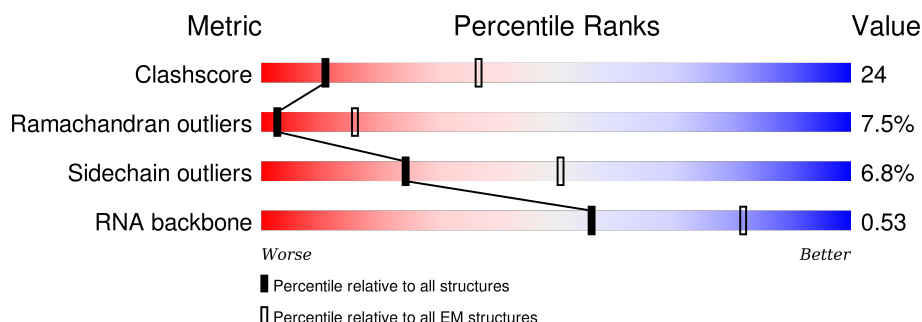
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 9.60 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.















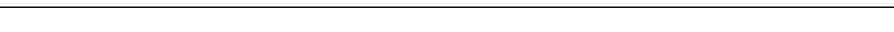

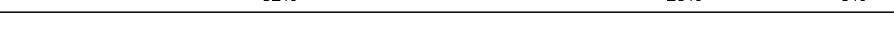

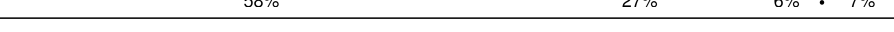








Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ .

Mol	Chain	Length	Quality of chain
1	A7	120	8% 40% 50% .
2	A8	2904	10% 42% 48%
3	AA	442	87% 9% .
4	AB	65	82% 12% 6%
5	AC	53	58% . 40%
6	A5	234	77% 21% .
7	A6	273	61% 31% 6% ..
8	AD	209	63% 25% 10% .









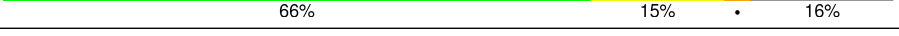

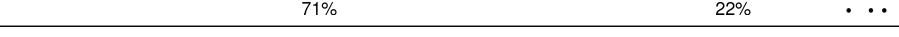
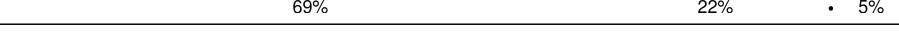

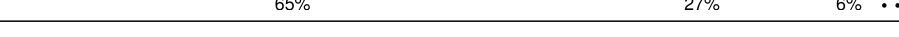




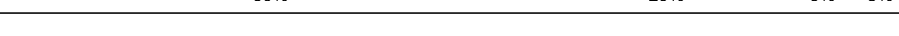



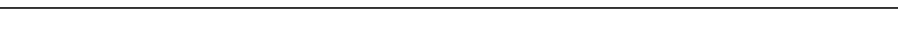
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Mol	Chain	Length	Quality of chain
9	AE	201	 73%22%5%
10	AF	179	 68%23%7%..
11	AG	177	 66%26%7%..
12	AH	149	 70%26%. .
13	AI	142	 74%20%6%..
14	AJ	142	 65%27%6%..
15	AK	123	 68%24%6%..
16	AL	144	 74%17%6%..
17	AM	136	 55%35%9%..
18	AN	127	 60%28%5%6%
19	AO	117	 79%18%..
20	AP	115	 71%22%..
21	AQ	118	 69%22%8%..
22	AR	103	 62%29%9%
23	AS	110	 66%25%6%..
24	AT	100	 58%27%6%7%
25	AU	104	 66%24%5%..
26	AV	94	 65%31%..
27	AW	85	 48%29%12%7%
28	AX	78	 55%38%..
29	AY	63	 86%14%
30	AZ	59	 68%25%..
31	A0	57	 65%25%9%..
32	A1	55	 55%27%5%9%
33	A2	46	 65%28%7%

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Mol	Chain	Length	Quality of chain
34	A3	65	
35	A4	38	
36	BA	1542	
37	BB	241	
38	BC	233	
39	BD	206	
40	BE	167	
41	BF	135	
42	BG	179	
43	BH	130	
44	BI	130	
45	BJ	103	
46	BK	129	
47	BL	124	
48	BM	118	
49	BN	101	
50	BO	89	
51	BP	82	
52	BQ	84	
53	BR	75	
54	BS	92	
55	BT	87	
56	BU	71	

## 2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 148250 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 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A7	117	Total	C	N	O	P	0	0
			2507	1116	459	815	117		

- Molecule 2 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A8	2903	Total	C	N	O	P	0	0
			62321	27801	11467	20150	2903		

- Molecule 3 is a protein called PREPROTEIN TRANSLOCASE SECY SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AA	442	Total	C	N	O	S	0	0
			3408	2266	547	577	18		

- Molecule 4 is a protein called PREPROTEIN TRANSLOCASE SECE SUBUNIT.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	AB	65	Total	C	N	O	0	0
			505	332	88	85		

- Molecule 5 is a protein called Preprotein translocase subunit secG.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	AC	32	Total	C	N	O	0	0
			257	172	42	43		

- Molecule 6 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A5	234	Total	C	N	O	S	0	0
			1733	1081	315	330	7		

- Molecule 7 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A6	271	Total	C	N	O	S	0	0
			2082	1288	423	364	7		

- Molecule 8 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AD	209	Total	C	N	O	S	0	0
			1565	979	288	294	4		

- Molecule 9 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AE	201	Total	C	N	O	S	0	0
			1552	974	283	290	5		

- Molecule 10 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AF	178	Total	C	N	O	S	0	0
			1420	905	251	258	6		

- Molecule 11 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AG	176	Total	C	N	O	S	0	0
			1323	832	243	246	2		

- Molecule 12 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AH	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

- Molecule 13 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AI	141	Total	C	N	O	S	0	0
			1032	651	179	196	6		

- Molecule 14 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AJ	142	Total	C	N	O	S	0	0
			1129	714	212	199	4		

- Molecule 15 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AK	121	Total	C	N	O	S	0	0
			930	582	179	164	5		

- Molecule 16 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AL	143	Total	C	N	O	S	0	0
			1045	649	206	189	1		

- Molecule 17 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AM	136	Total	C	N	O	S	0	0
			1074	686	205	177	6		

- Molecule 18 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AN	120	Total	C	N	O	S	0	0
			960	593	196	166	5		

- Molecule 19 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	AO	116	Total	C	N	O	0	0
			892	552	178	162		

- Molecule 20 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AP	114	Total	C	N	O	S	0	0
			917	574	179	163	1		

- Molecule 21 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	AQ	117	Total	C	N	O	0	0
			947	604	192	151		

- Molecule 22 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AR	103	Total	C	N	O	S	0	0
			816	516	153	145	2		

- Molecule 23 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AS	110	Total	C	N	O	S	0	0
			857	532	166	156	3		

- Molecule 24 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AT	93	Total	C	N	O	S	0	0
			738	466	139	131	2		

- Molecule 25 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	AU	102	Total	C	N	O	0	0
			779	492	146	141		

- Molecule 26 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AV	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

- Molecule 27 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AW	79	Total	C	N	O	S	0	0
			596	367	120	108	1		

- Molecule 28 is a protein called 50S ribosomal protein L28.



Mol	Chain	Residues	Atoms					AltConf	Trace
28	AX	77	Total	C	N	O	S	0	0
			625	388	129	106	2		

- Molecule 29 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AY	63	Total	C	N	O	S	0	0
			509	313	99	95	2		

- Molecule 30 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AZ	58	Total	C	N	O	S	0	0
			449	281	87	79	2		

- Molecule 31 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	A0	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

- Molecule 32 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	A1	50	Total	C	N	O	0	0
			409	263	75	71		

- Molecule 33 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	A2	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

- Molecule 34 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	A3	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

- Molecule 35 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	A4	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- Molecule 36 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BA	1530	Total	C	N	O	P	0	0
			32831	14642	6024	10635	1530		

- Molecule 37 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BB	218	Total	C	N	O	S	0	0
			1704	1081	305	311	7		

- Molecule 38 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BC	206	Total	C	N	O	S	0	0
			1624	1028	305	288	3		

- Molecule 39 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BD	205	Total	C	N	O	S	0	0
			1643	1026	315	298	4		

- Molecule 40 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BE	150	Total	C	N	O	S	0	0
			1105	687	211	201	6		

- Molecule 41 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BF	100	Total	C	N	O	S	0	0
			817	515	148	148	6		

- Molecule 42 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BG	150	Total	C	N	O	S	0	0
			1174	730	226	214	4		

- Molecule 43 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BH	129	Total	C	N	O	S	0	0
			979	616	173	184	6		

- Molecule 44 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BI	127	Total	C	N	O	S	0	0
			1022	634	206	179	3		

- Molecule 45 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BJ	98	Total	C	N	O	S	0	0
			786	493	150	142	1		

- Molecule 46 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BK	117	Total	C	N	O	S	0	0
			877	540	174	160	3		

- Molecule 47 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BL	123	Total	C	N	O	S	0	0
			955	590	196	165	4		

- Molecule 48 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BM	113	Total	C	N	O	S	0	0
			876	541	177	155	3		

- Molecule 49 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BN	100	Total	C	N	O	S	0	0
			805	499	164	139	3		

- Molecule 50 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BO	88	Total	C	N	O	S	0	0
			716	440	146	129	1		

- Molecule 51 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BP	80	Total	C	N	O	S	0	0
			638	400	126	111	1		

- Molecule 52 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BQ	80	Total	C	N	O	S	0	0
			648	411	121	113	3		

- Molecule 53 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				AltConf	Trace
53	BR	55	Total	C	N	O	0	0
			455	288	86	81		

- Molecule 54 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BS	79	Total	C	N	O	S	0	0
			637	408	120	107	2		

- Molecule 55 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	BT	85	Total	C	N	O	S	0	0
			665	411	137	114	3		

- Molecule 56 is a protein called 30S ribosomal protein S21.

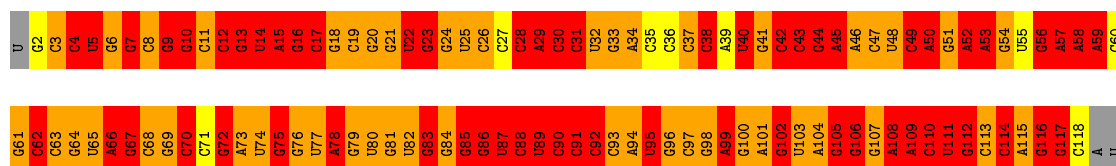
Mol	Chain	Residues	Atoms					AltConf	Trace
56	BU	51	Total	C	N	O	S	0	0
			425	265	86	73	1		

### 3 Residue-property plots

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

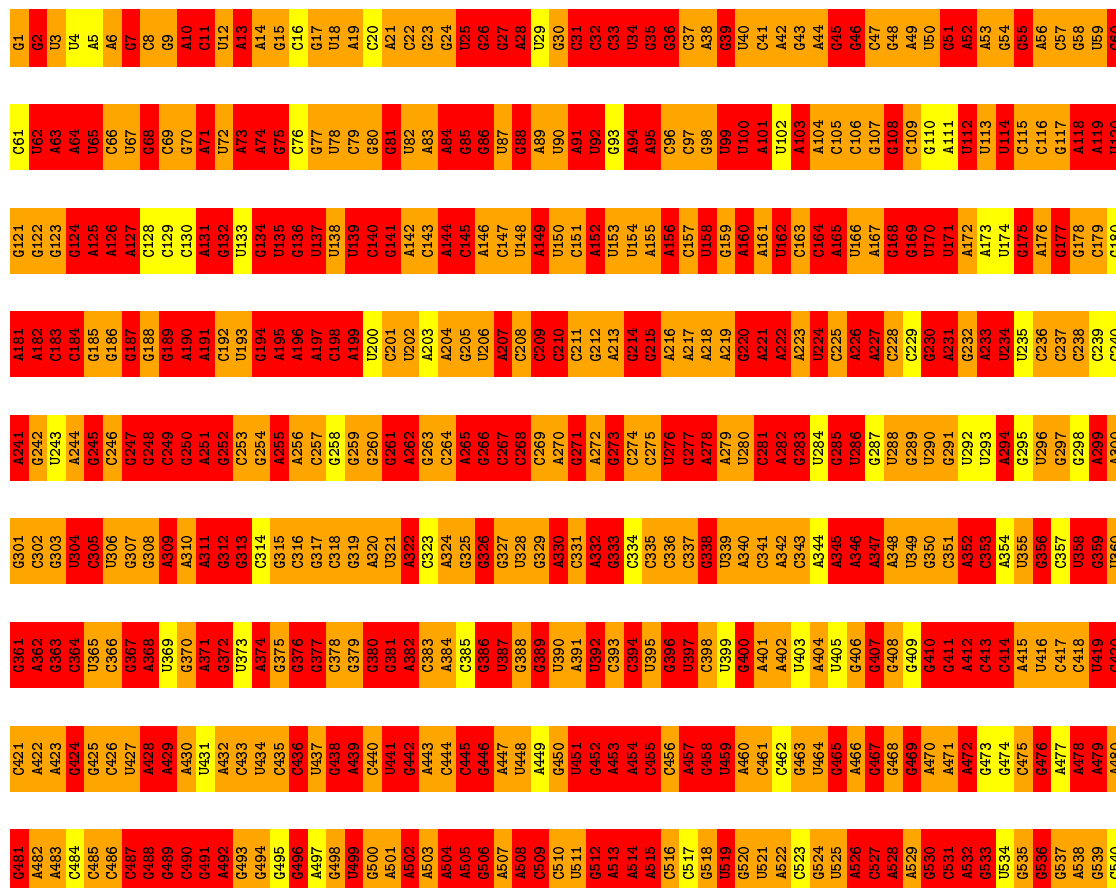
#### • Molecule 1: 5S ribosomal RNA

Chain A7: 



#### • Molecule 2: 23S ribosomal RNA

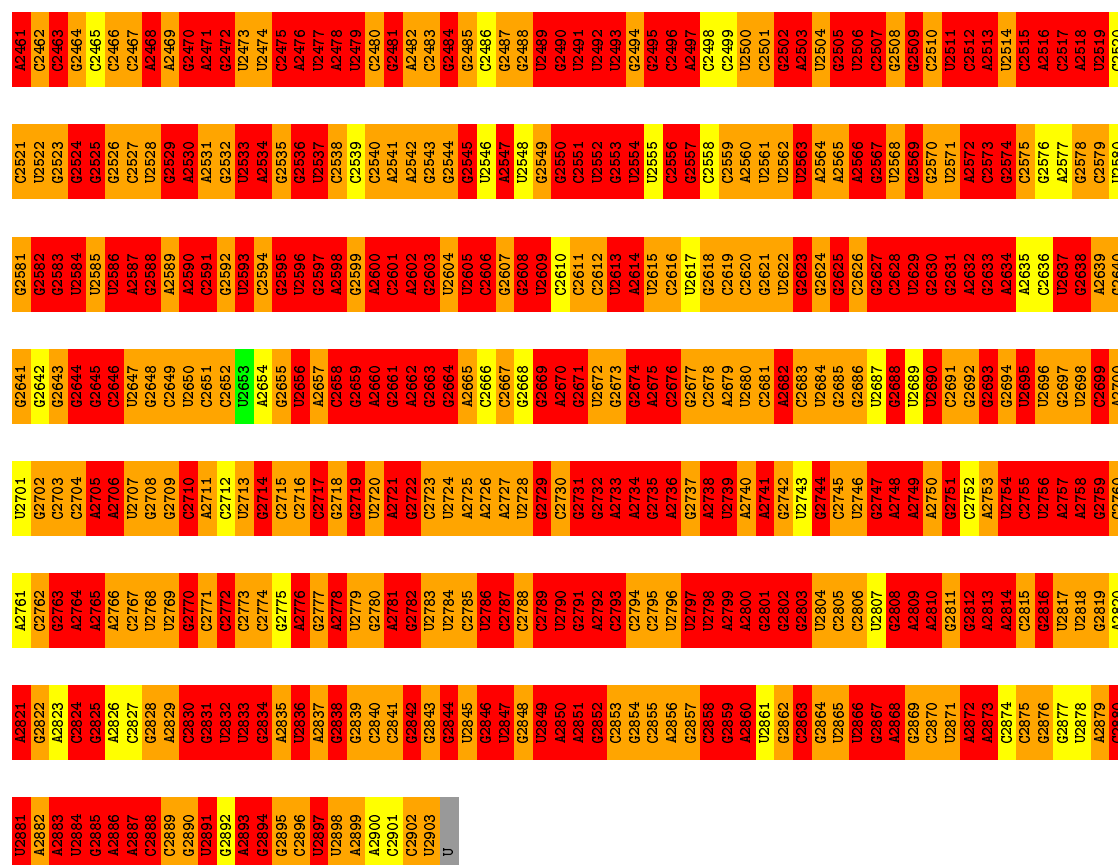
Chain A8: 



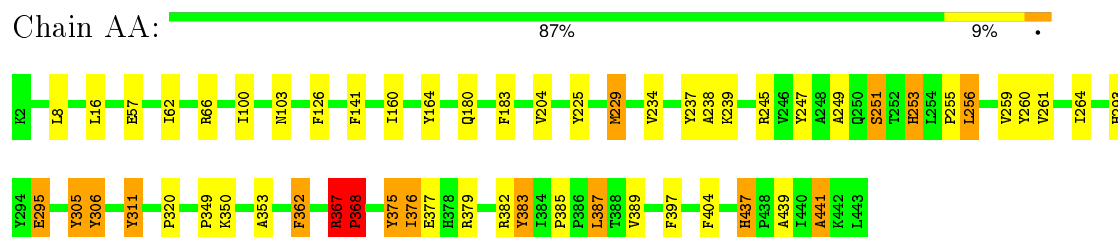
G1441	G1381	A1321	C1261	U1201	U1141	U1081	A1021	C961	C901	G841	A781	A721	A661	C601	A541
G1442	G1382	A1322	A1262	G1202	A1142	U1082	G1022	G962	C902	U842	A782	A722	A662	A602	C542
G1443	A1383	G1323	U1263	U1203	A1143	U1083	U1023	G963	C903	G843	A783	C723	G663	A603	G543
G1444	A1384	G1324	A1264	A1204	A1144	A1084	G1024	C964	G904	A844	A784	C724	G664	G604	C544
G1445	A1385	A1325	A1265	A1205	C1145	A1085	G1025	G965	A905	A845	A785	G725	U665	G605	U545
G1446	C1386	U1326	G1266	G1206	G1146	A1086	G1026	G966	U906	U846	A786	G726	U666	U606	U546
G1447	A1387	A1327	U1267	C1207	A1147	G1087	A1027	U967	G907	U847	C787	A727	U667	U607	A547
G1448	G1388	A1328	A1268	C1208	U1148	A1088	A1028	C968	C908	C848	A788	G728	A668	A608	G548
G1449	G1389	A1329	A1269	U1209	G1149	A1089	A1029	G969	G909	A849	A789	G729	G669	A609	G549
G1450	U1390	C1270	C1270	G1210	C1150	A1090	C1030	U970	A910	A850	A790	A730	A670	C610	C550
G1451	A1391	G1271	A1271	C1211	C1151	G1091	G1031	G971	A911	C851	C791	C731	C671	C611	G551
G1452	A1392	A1272	G1272	G1212	C1152	C1092	A1032	A972	G912	U852	A792	G732	C672	G612	U552
G1453	A1393	A1273	C1273	C1213	C1153	G1093	U1033	G973	U913	C853	A793	G733	C673	C613	G553
G1454	U1394	A1274	A1274	A1214	G1154	U1094	G1034	G974	G914	C854	A794	G734	A674	A614	U554
G1455	A1395	C1275	A1275	G1215	A1155	A1095	U1035	A975	C915	G855	A795	G735	U675	U615	G555
G1456	U1396	A1276	A1276	G1216	A1156	A1096	G1036	G976	G916	G856	A796	G736	A676	A616	A556
G1457	U1397	G1277	G1277	U1217	C1157	U1097	G1037	G977	A917	G857	C797	G737	A677	G617	C557
G1458	G1398	G1278	G1278	G1218	G1158	A1098	G1038	G978	A918	G858	G798	G738	G678	G618	U558
G1459	C1399	G1279	U1279	U1219	U1159	G1099	A1039	A979	U919	G859	G799	A739	C679	G619	G559
U1460	U1340	G1280	G1280	G1220	G1160	C1100	A1040	A980	A920	U860	A800	C740	G680	G620	C560
C1461	G1341	G1281	C1281	C1221	C1161	U1101	G1041	A981	C921	A861	G801	U741	G681	A621	G561
G1462	U1402	U1282	U1282	G1222	G1162	C1102	G1042	C982	C922	G862	A802	A742	G682	G622	U562
C1463	G1343	G1283	G1283	G1223	G1163	A1103	C1043	A983	G923	A863	U803	A743	U683	C623	A563
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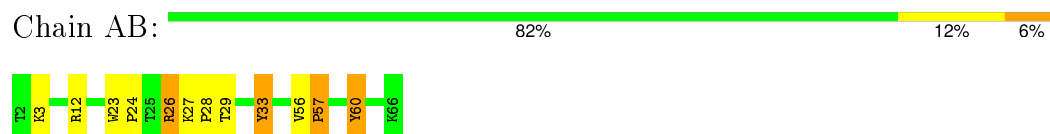




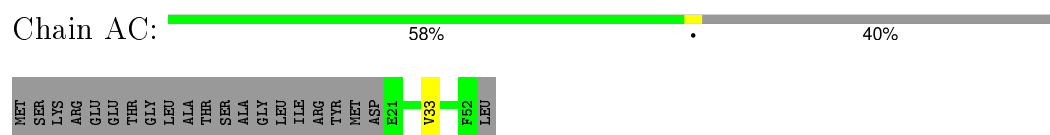
• Molecule 3: PREPROTEIN TRANSLOCASE SECY SUBUNIT



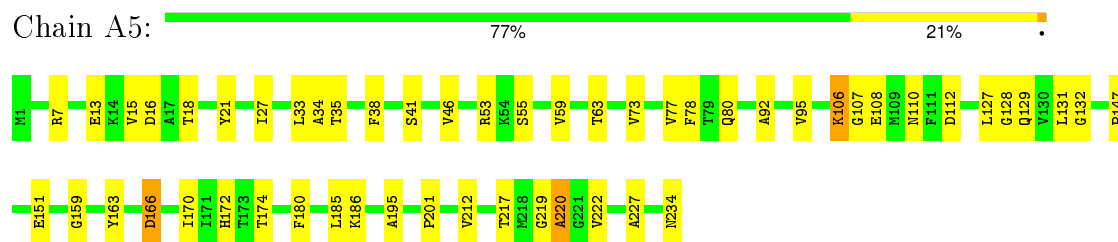
• Molecule 4: PREPROTEIN TRANSLOCASE SECE SUBUNIT



• Molecule 5: Preprotein translocase subunit secG



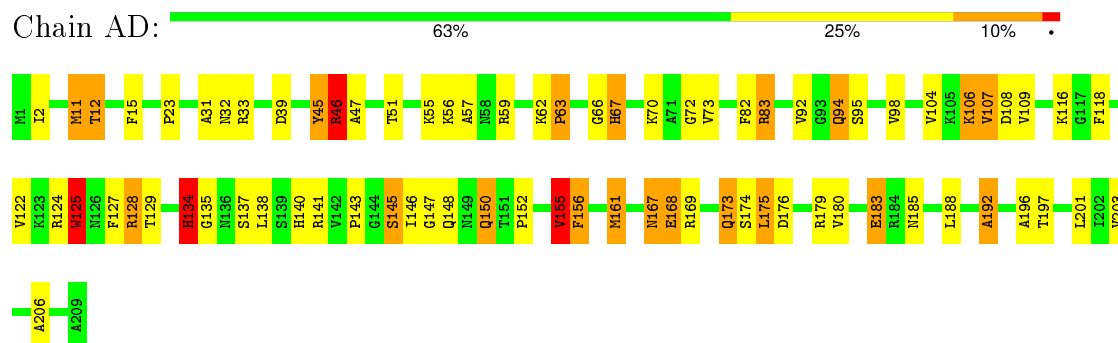
• Molecule 6: 50S ribosomal protein L1



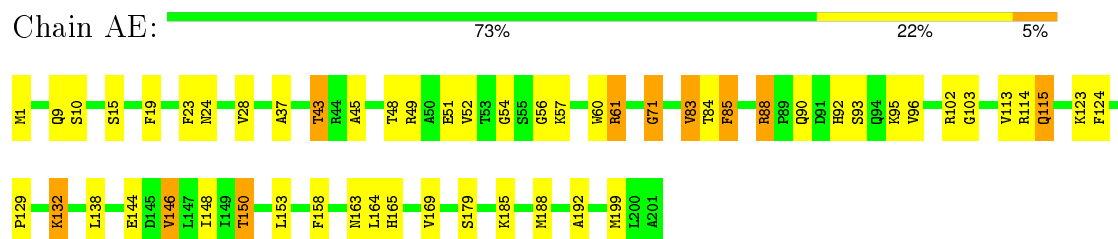
• Molecule 7: 50S ribosomal protein L2



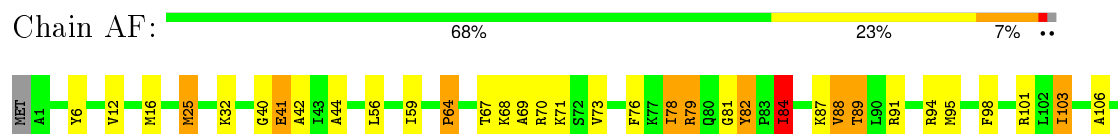
• Molecule 8: 50S ribosomal protein L3

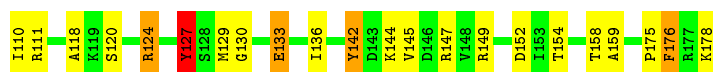


• Molecule 9: 50S ribosomal protein L4



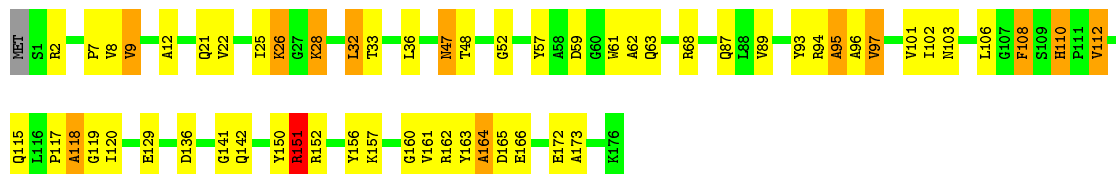
• Molecule 10: 50S ribosomal protein L5





- Molecule 11: 50S ribosomal protein L6

Chain AG: 66% 26% 7% ..



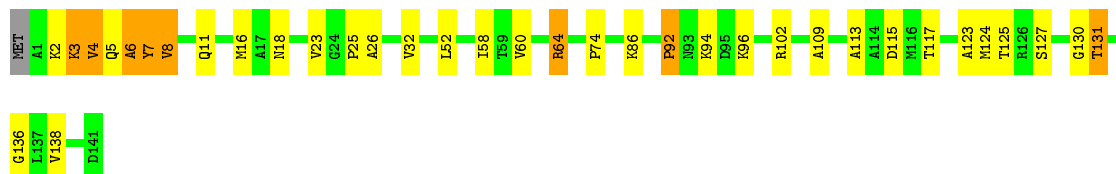
- Molecule 12: 50S ribosomal protein L9

Chain AH: 70% 26% .



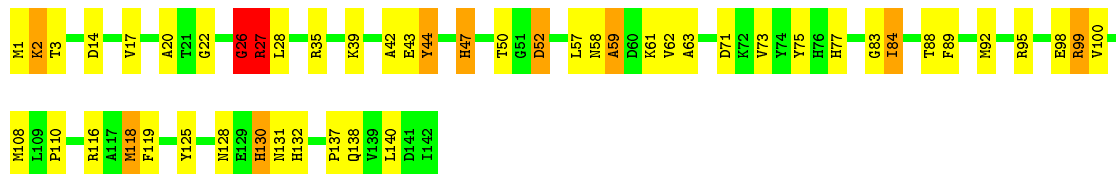
- Molecule 13: 50S ribosomal protein L11

Chain AI: 74% 20% 6% .



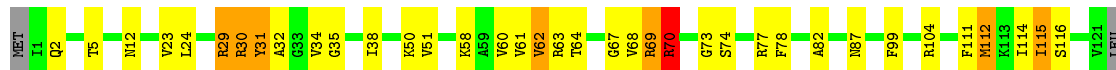
- Molecule 14: 50S ribosomal protein L13

Chain AJ: 65% 27% 6% .

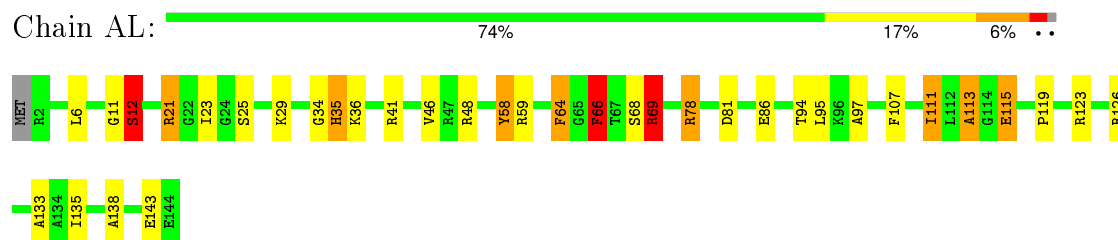


- Molecule 15: 50S ribosomal protein L14

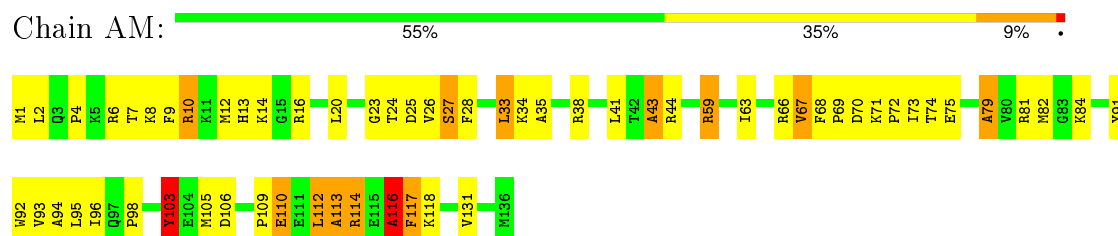
Chain AK: 68% 24% 6% ..



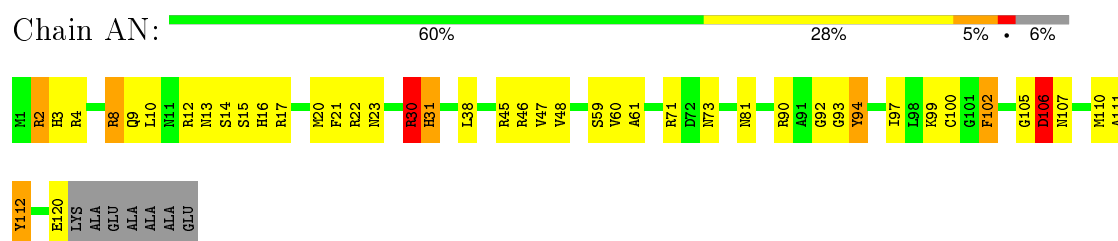
- Molecule 16: 50S ribosomal protein L15



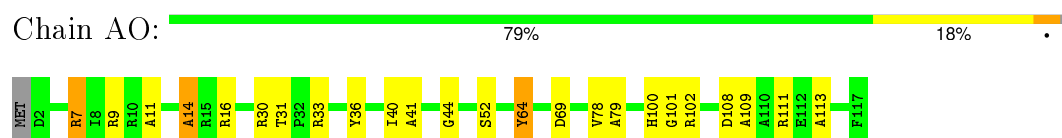
- Molecule 17: 50S ribosomal protein L16



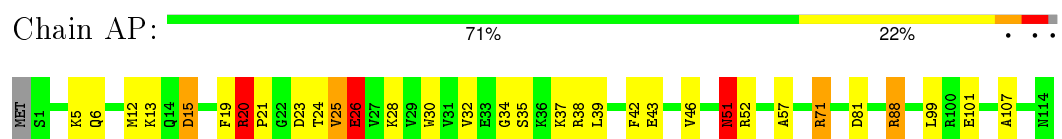
- Molecule 18: 50S ribosomal protein L17



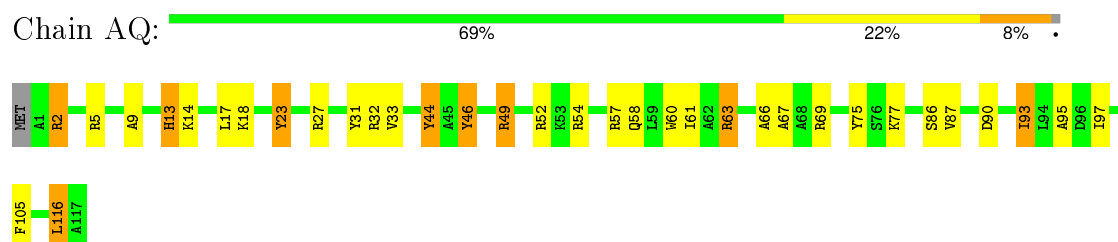
- Molecule 19: 50S ribosomal protein L18



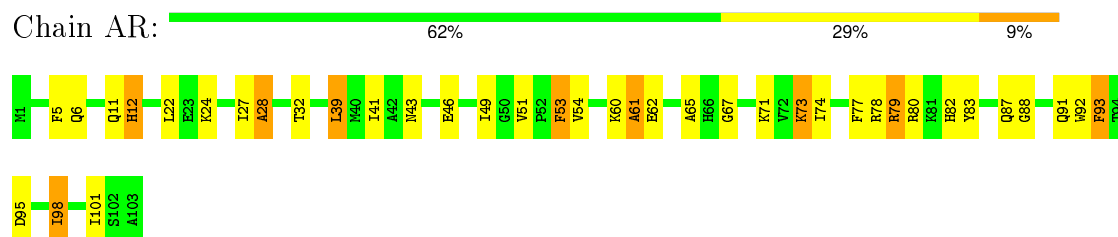
- Molecule 20: 50S ribosomal protein L19



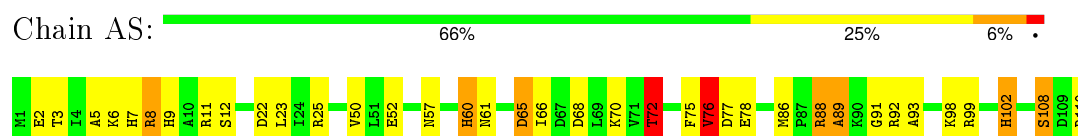
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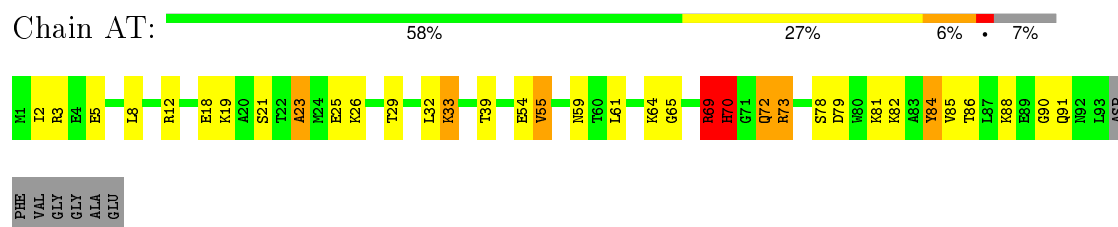
- Molecule 22: 50S ribosomal protein L21



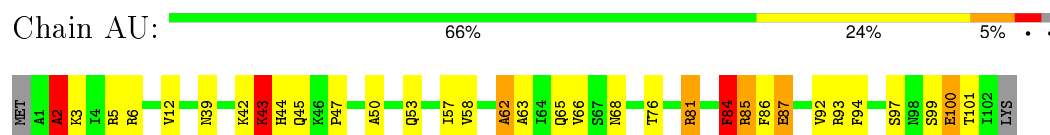
- Molecule 23: 50S ribosomal protein L22



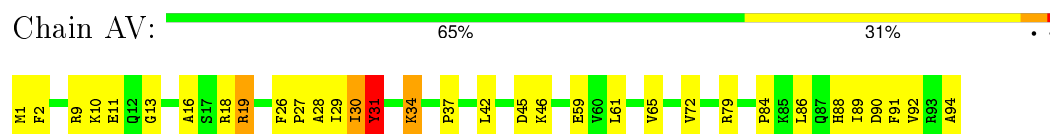
- Molecule 24: 50S ribosomal protein L23



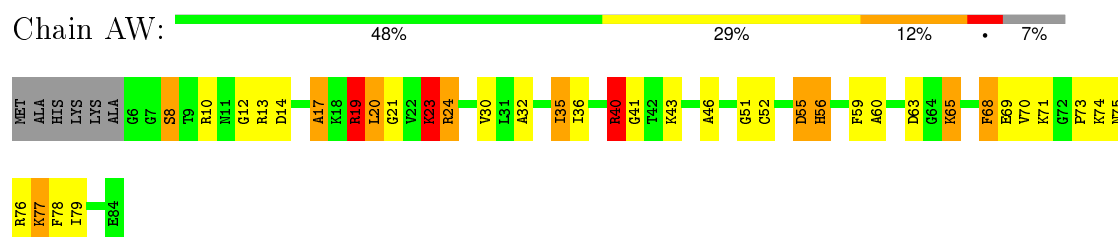
- Molecule 25: 50S ribosomal protein L24



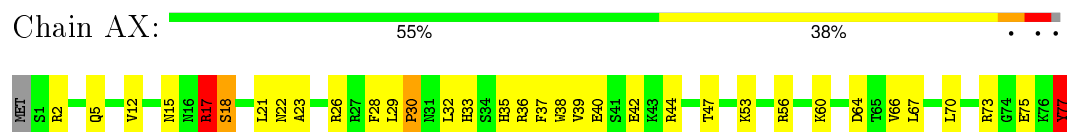
- Molecule 26: 50S ribosomal protein L25



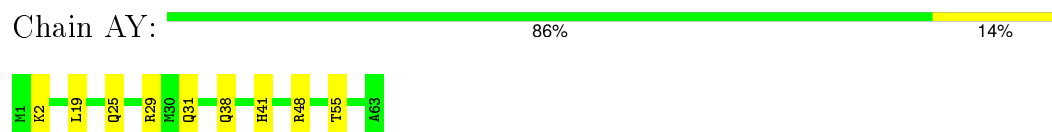
- Molecule 27: 50S ribosomal protein L27



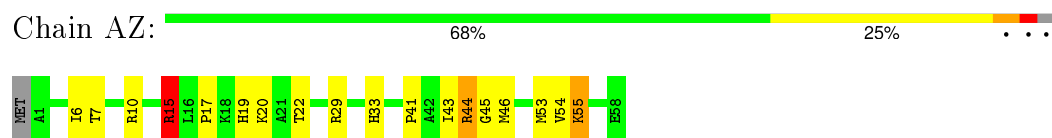
- Molecule 28: 50S ribosomal protein L28



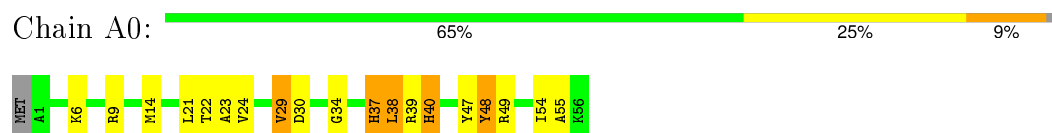
- Molecule 29: 50S ribosomal protein L29



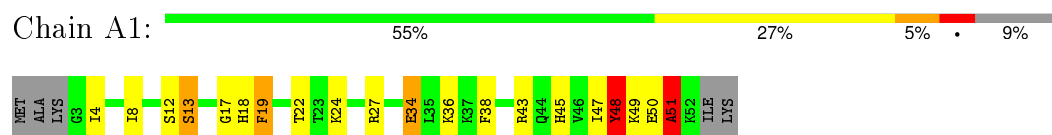
- Molecule 30: 50S ribosomal protein L30



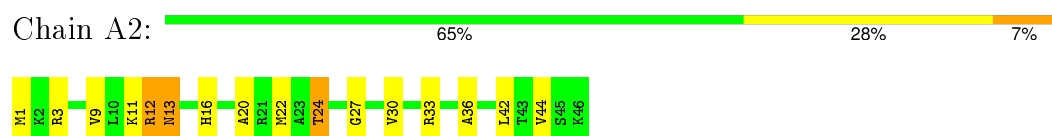
- Molecule 31: 50S ribosomal protein L32



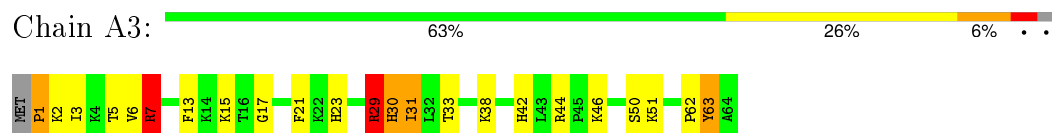
- Molecule 32: 50S ribosomal protein L33



- Molecule 33: 50S ribosomal protein L34

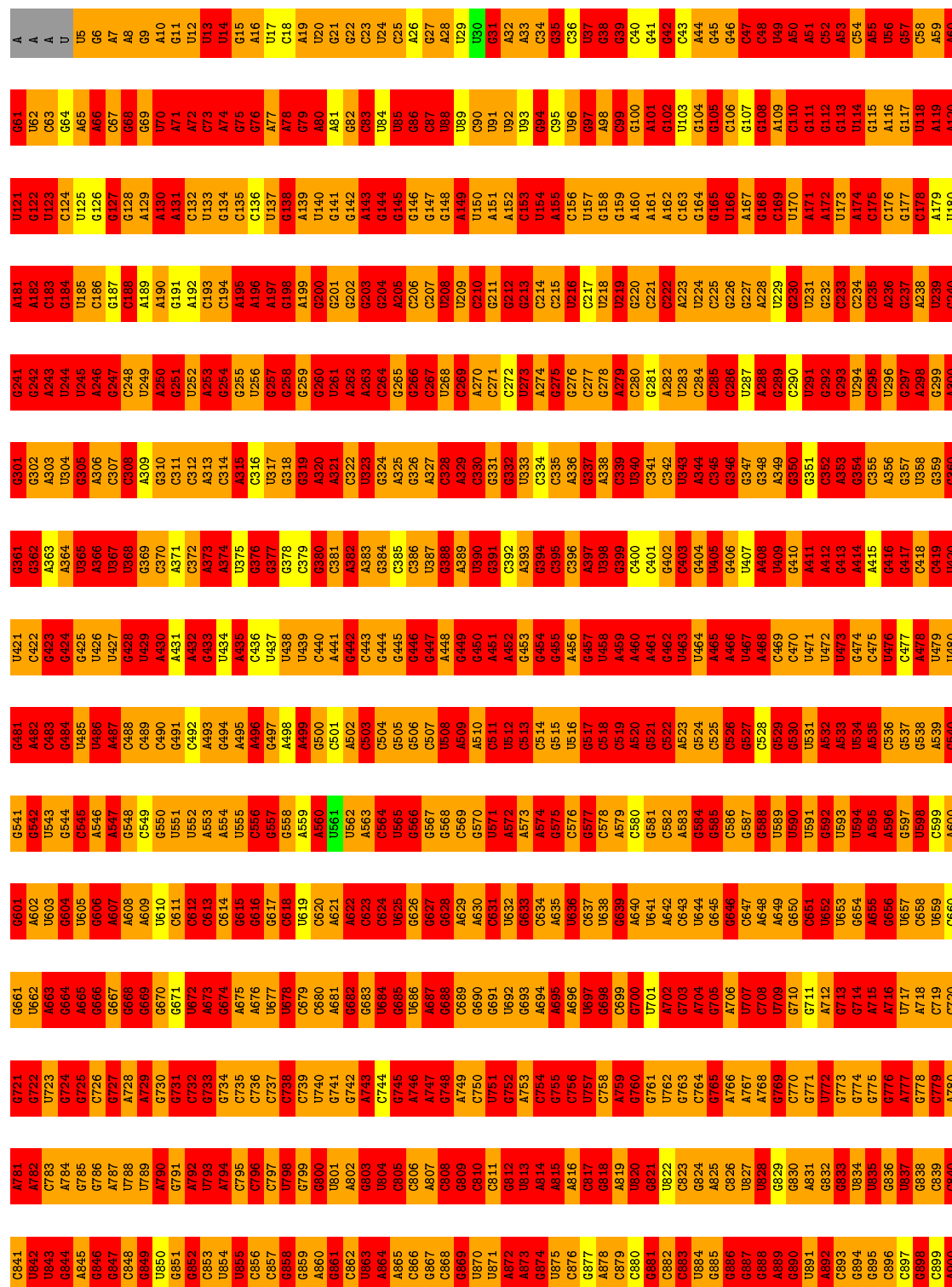


- Molecule 34: 50S ribosomal protein L35



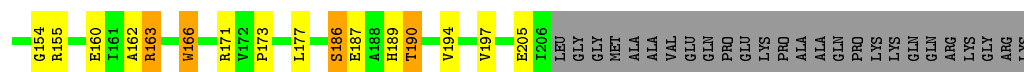
- Molecule 35: 50S ribosomal protein L36





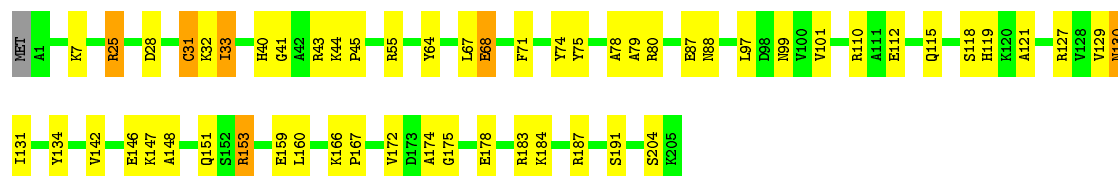






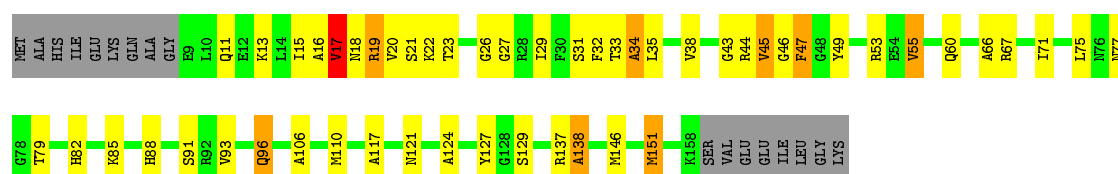
- Molecule 39: 30S ribosomal protein S4

Chain BD: 72% 24% •



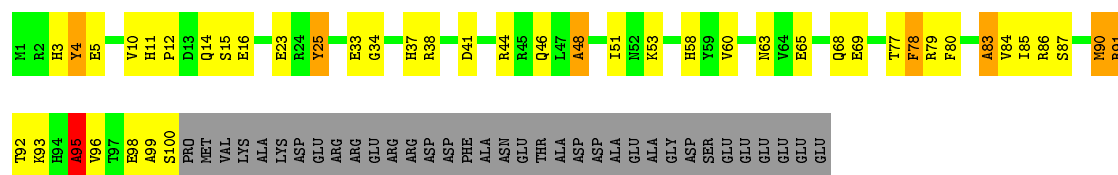
- Molecule 40: 30S ribosomal protein S5

Chain BE: 59% 26% 5% • 10%



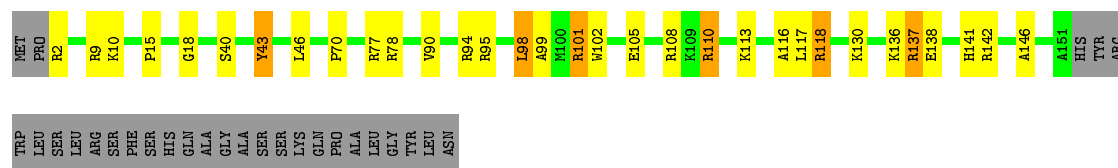
- Molecule 41: 30S ribosomal protein S6

Chain BF: 41% 27% 5% • 26%



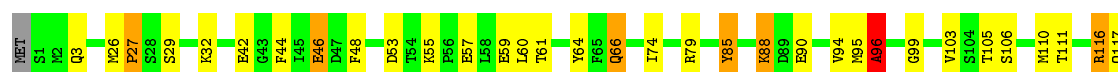
- Molecule 42: 30S ribosomal protein S7

Chain BG: 66% 15% • 16%



- Molecule 43: 30S ribosomal protein S8

Chain BH: 72% 22% 5% • •





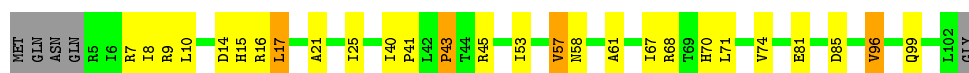
- Molecule 44: 30S ribosomal protein S9

Chain BI: 71% 22%



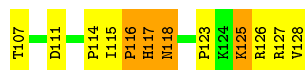
- Molecule 45: 30S ribosomal protein S10

Chain BJ: 69% 22% 5%



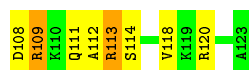
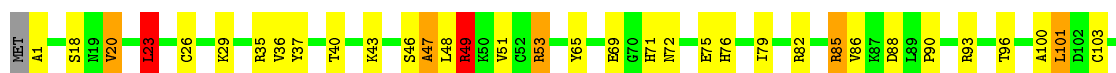
- Molecule 46: 30S ribosomal protein S11

Chain BK: 59% 22% 9% 9%



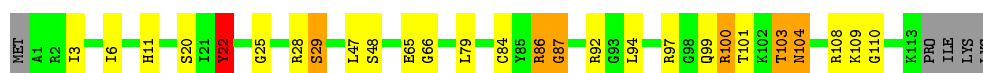
- Molecule 47: 30S ribosomal protein S12

Chain BL: 65% 27% 6%



- Molecule 48: 30S ribosomal protein S13

Chain BM: 73% 17% 5%

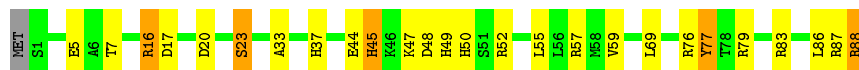


- Molecule 49: 30S ribosomal protein S14

Chain BN: 79% 15%



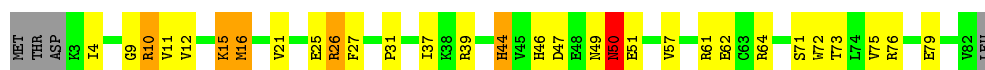
- Molecule 50: 30S ribosomal protein S15



- Molecule 51: 30S ribosomal protein S16



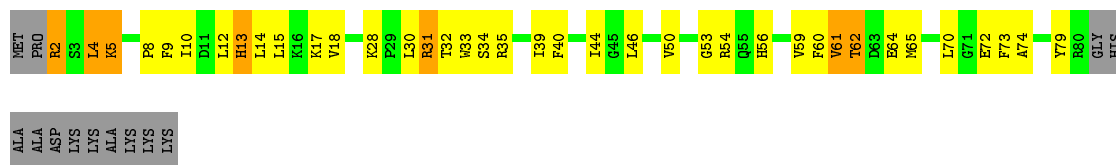
- Molecule 52: 30S ribosomal protein S17



- Molecule 53: 30S ribosomal protein S18



- Molecule 54: 30S ribosomal protein S19

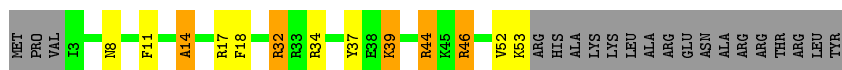


- Molecule 55: 30S ribosomal protein S20



- Molecule 56: 30S ribosomal protein S21





## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	EMAN- PHASE FLIPPING OF PARTICLES FORM THE SAME MICROGRAPH	Depositor
Microscope	TF20	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	1500.00	Depositor
Minimum defocus (nm)	-700.00	Depositor
Maximum defocus (nm)	-3000.00	Depositor
Magnification	50000	Depositor
Image detector	Not provided	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
1	A7	2.22	139/2803 (5.0%)	3.06	443/4371 (10.1%)
10	AF	1.11	0/1444	1.37	6/1937 (0.3%)
11	AG	1.09	0/1343	1.41	12/1816 (0.7%)
12	AH	1.05	0/1122	1.36	7/1515 (0.5%)
13	AI	0.96	0/1046	1.24	3/1410 (0.2%)
14	AJ	1.16	1/1152 (0.1%)	1.37	3/1551 (0.2%)
15	AK	1.21	0/939	1.35	4/1258 (0.3%)
16	AL	1.12	0/1054	1.30	7/1403 (0.5%)
17	AM	1.15	0/1093	1.46	12/1460 (0.8%)
18	AN	1.21	0/973	1.43	9/1301 (0.7%)
19	AO	1.16	0/902	1.30	3/1209 (0.2%)
2	A8	2.30	3372/69800 (4.8%)	3.05	10411/108892 (9.6%)
20	AP	1.16	0/929	1.38	5/1242 (0.4%)
21	AQ	1.24	0/960	1.45	8/1278 (0.6%)
22	AR	1.19	0/829	1.43	5/1107 (0.5%)
23	AS	1.11	0/864	1.40	9/1156 (0.8%)
24	AT	1.04	0/744	1.40	5/994 (0.5%)
25	AU	1.05	0/787	1.34	5/1051 (0.5%)
26	AV	1.11	0/766	1.38	4/1025 (0.4%)
27	AW	1.11	0/603	1.37	4/797 (0.5%)
28	AX	1.23	0/635	1.54	6/848 (0.7%)
29	AY	1.08	0/510	1.23	0/677
3	AA	0.95	0/3484	1.15	15/4732 (0.3%)
30	AZ	1.13	0/453	1.34	3/605 (0.5%)
31	A0	1.15	0/450	1.30	2/599 (0.3%)
32	A1	1.03	0/416	1.57	5/554 (0.9%)
33	A2	1.33	0/380	1.51	1/498 (0.2%)
34	A3	1.06	0/513	1.33	2/676 (0.3%)
35	A4	1.20	0/303	1.31	1/397 (0.3%)
36	BA	2.16	1315/36762 (3.6%)	2.97	5321/57350 (9.3%)
37	BB	1.01	0/1735	1.19	4/2338 (0.2%)
38	BC	1.04	0/1651	1.24	5/2225 (0.2%)
39	BD	1.09	0/1665	1.25	7/2227 (0.3%)
4	AB	0.98	0/514	1.20	1/694 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
40	BE	1.08	0/1118	1.32	5/1504 (0.3%)
41	BF	1.11	0/835	1.35	9/1128 (0.8%)
42	BG	1.06	0/1187	1.20	3/1591 (0.2%)
43	BH	1.08	0/989	1.39	5/1326 (0.4%)
44	BI	1.20	0/1034	1.33	4/1375 (0.3%)
45	BJ	1.08	0/796	1.25	2/1077 (0.2%)
46	BK	1.15	0/893	1.36	3/1205 (0.2%)
47	BL	1.21	0/969	1.41	5/1300 (0.4%)
48	BM	1.13	0/884	1.26	6/1181 (0.5%)
49	BN	1.10	0/817	1.34	5/1088 (0.5%)
5	AC	0.98	0/262	1.02	0/354
50	BO	1.19	0/724	1.33	3/966 (0.3%)
51	BP	1.14	0/648	1.29	6/870 (0.7%)
52	BQ	1.09	0/657	1.33	4/881 (0.5%)
53	BR	1.15	0/462	1.41	5/621 (0.8%)
54	BS	1.09	1/652 (0.2%)	1.36	7/877 (0.8%)
55	BT	1.13	0/671	1.30	3/888 (0.3%)
56	BU	1.21	0/430	1.26	2/570 (0.4%)
6	A5	0.98	0/1748	1.20	3/2355 (0.1%)
7	A6	1.15	0/2121	1.35	8/2852 (0.3%)
8	AD	1.10	0/1586	1.41	10/2134 (0.5%)
9	AE	1.05	0/1571	1.28	7/2113 (0.3%)
All	All	1.96	4828/160678 (3.0%)	2.65	16443/239449 (6.9%)

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	A7	0	56
10	AF	0	5
11	AG	0	6
12	AH	0	2
13	AI	0	3
14	AJ	0	6
15	AK	0	4
16	AL	0	4
17	AM	0	13
18	AN	0	4
19	AO	0	3
2	A8	0	1380

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Mol	Chain	#Chirality outliers	#Planarity outliers
20	AP	0	5
21	AQ	0	7
22	AR	0	4
23	AS	0	2
24	AT	0	3
25	AU	0	4
26	AV	0	1
27	AW	0	1
28	AX	0	2
29	AY	0	2
3	AA	0	12
30	AZ	0	2
31	A0	0	3
32	A1	0	3
33	A2	0	1
34	A3	0	4
35	A4	0	1
36	BA	0	678
37	BB	0	5
38	BC	0	2
39	BD	0	12
4	AB	0	2
40	BE	0	1
41	BF	0	3
42	BG	0	3
43	BH	0	4
44	BI	0	1
45	BJ	0	1
46	BK	0	5
47	BL	0	9
48	BM	0	7
49	BN	0	4
50	BO	0	5
51	BP	0	3
52	BQ	0	1
53	BR	0	4
54	BS	0	2
55	BT	0	1
56	BU	0	3
6	A5	0	3
7	A6	0	18
8	AD	0	9

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Mol	Chain	#Chirality outliers	#Planarity outliers
9	AE	0	6
All	All	0	2335

All (4828) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2469	A	N7-C5	-14.86	1.30	1.39
2	A8	1689	A	N7-C5	-14.56	1.30	1.39
2	A8	2412	A	N7-C5	-13.83	1.30	1.39
2	A8	2860	A	N7-C5	-13.77	1.30	1.39
2	A8	633	A	N7-C5	-13.76	1.30	1.39
36	BA	1418	A	N7-C5	-13.60	1.31	1.39
2	A8	2030	A	N7-C5	-13.43	1.31	1.39
36	BA	487	A	N7-C5	-12.85	1.31	1.39
2	A8	1641	A	N7-C5	-12.69	1.31	1.39
2	A8	1722	A	N7-C5	-12.68	1.31	1.39
2	A8	1571	A	N7-C5	-12.67	1.31	1.39
2	A8	2082	A	N7-C5	-12.38	1.31	1.39
2	A8	1872	A	N7-C5	-12.28	1.31	1.39
36	BA	577	G	P-O5'	-12.07	1.47	1.59
2	A8	1928	A	N7-C5	-11.92	1.32	1.39
36	BA	1468	A	N7-C5	-11.73	1.32	1.39
2	A8	1890	A	N7-C5	-11.55	1.32	1.39
2	A8	2425	A	N9-C4	-11.53	1.30	1.37
2	A8	1810	A	N7-C5	-11.52	1.32	1.39
2	A8	1029	A	N7-C5	-11.51	1.32	1.39
36	BA	172	A	N7-C5	-11.45	1.32	1.39
2	A8	918	A	N7-C5	-11.07	1.32	1.39
2	A8	2600	A	P-O5'	-10.95	1.48	1.59
2	A8	447	A	N7-C5	-10.86	1.32	1.39
2	A8	2416	C	P-O5'	-10.76	1.49	1.59
36	BA	1306	A	N7-C5	-10.76	1.32	1.39
2	A8	1652	A	P-O5'	-10.76	1.49	1.59
36	BA	762	U	P-O5'	-10.74	1.49	1.59
2	A8	2725	A	N7-C5	-10.69	1.32	1.39
2	A8	301	G	C2'-C1'	-10.68	1.41	1.53
2	A8	167	A	N7-C5	-10.63	1.32	1.39
2	A8	2728	U	P-O5'	-10.60	1.49	1.59
2	A8	2663	G	N7-C5	-10.53	1.32	1.39
2	A8	819	A	N7-C5	-10.53	1.32	1.39
2	A8	2415	G	N7-C5	-10.52	1.32	1.39
2	A8	266	G	N7-C5	-10.49	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	347	A	N7-C5	-10.46	1.32	1.39
2	A8	2482	A	N7-C5	-10.43	1.32	1.39
2	A8	2727	A	N7-C5	-10.41	1.33	1.39
2	A8	575	A	N7-C5	-10.40	1.33	1.39
2	A8	1932	A	N7-C5	-10.31	1.33	1.39
2	A8	204	A	O3'-P	-10.31	1.48	1.61
2	A8	161	A	N7-C5	-10.30	1.33	1.39
36	BA	449	G	N7-C5	-10.28	1.33	1.39
2	A8	2190	G	C2'-C1'	-10.27	1.42	1.53
36	BA	465	A	N7-C5	-10.24	1.33	1.39
2	A8	2466	C	C2'-C1'	-10.22	1.42	1.53
2	A8	734	A	N9-C4	-10.20	1.31	1.37
2	A8	2298	A	N7-C5	-10.16	1.33	1.39
2	A8	1795	C	P-O5'	-10.09	1.49	1.59
2	A8	1802	A	N7-C5	-10.09	1.33	1.39
2	A8	727	A	N7-C5	-10.05	1.33	1.39
2	A8	2268	A	N7-C5	-10.04	1.33	1.39
2	A8	2810	A	N7-C5	-10.04	1.33	1.39
2	A8	2446	G	N7-C5	-10.04	1.33	1.39
2	A8	1739	A	N7-C5	-10.03	1.33	1.39
2	A8	2706	A	N7-C5	-10.00	1.33	1.39
2	A8	1021	A	N7-C5	-9.98	1.33	1.39
2	A8	2392	A	N7-C5	-9.95	1.33	1.39
2	A8	1572	A	N7-C5	-9.93	1.33	1.39
2	A8	1014	A	P-O5'	-9.89	1.49	1.59
2	A8	1334	G	P-O5'	-9.82	1.50	1.59
2	A8	471	A	N7-C5	-9.82	1.33	1.39
2	A8	861	A	N7-C5	-9.81	1.33	1.39
2	A8	1625	C	P-O5'	-9.80	1.50	1.59
2	A8	1165	A	C2'-C1'	-9.78	1.42	1.53
2	A8	1792	G	P-O5'	-9.78	1.50	1.59
2	A8	732	C	P-O5'	-9.76	1.50	1.59
2	A8	52	A	N7-C5	-9.76	1.33	1.39
36	BA	432	A	N7-C5	-9.76	1.33	1.39
36	BA	696	A	N7-C5	-9.73	1.33	1.39
2	A8	1626	A	N7-C5	-9.72	1.33	1.39
2	A8	1528	A	N7-C5	-9.69	1.33	1.39
2	A8	949	G	C2'-C1'	-9.66	1.42	1.53
2	A8	206	U	P-O5'	-9.65	1.50	1.59
1	A7	58	A	N7-C5	-9.60	1.33	1.39
36	BA	787	A	N9-C4	-9.60	1.32	1.37
2	A8	1596	A	C2'-C1'	-9.59	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2741	A	N7-C5	-9.58	1.33	1.39
2	A8	2714	G	N7-C5	-9.57	1.33	1.39
36	BA	452	A	N7-C5	-9.55	1.33	1.39
2	A8	400	G	N7-C5	-9.54	1.33	1.39
2	A8	2042	A	N9-C4	-9.52	1.32	1.37
2	A8	1111	A	P-O5'	-9.52	1.50	1.59
36	BA	1479	C	C2'-C1'	-9.51	1.42	1.53
36	BA	501	C	P-O5'	-9.48	1.50	1.59
2	A8	160	A	N7-C5	-9.47	1.33	1.39
36	BA	1068	G	N7-C5	-9.46	1.33	1.39
2	A8	2425	A	N7-C5	-9.44	1.33	1.39
2	A8	1522	A	C2'-C1'	-9.44	1.43	1.53
2	A8	676	A	N9-C4	-9.43	1.32	1.37
2	A8	1498	C	P-O5'	-9.43	1.50	1.59
36	BA	904	U	P-O5'	-9.41	1.50	1.59
2	A8	492	A	N7-C5	-9.41	1.33	1.39
36	BA	816	A	N7-C5	-9.40	1.33	1.39
2	A8	854	C	C2'-C1'	-9.38	1.43	1.53
2	A8	1020	A	N7-C5	-9.37	1.33	1.39
2	A8	1470	A	N7-C5	-9.33	1.33	1.39
2	A8	2868	A	N7-C5	-9.33	1.33	1.39
2	A8	712	G	N7-C5	-9.32	1.33	1.39
2	A8	1918	A	N7-C5	-9.32	1.33	1.39
36	BA	907	A	N7-C5	-9.31	1.33	1.39
2	A8	2637	U	P-O5'	-9.29	1.50	1.59
1	A7	16	G	N7-C5	-9.28	1.33	1.39
2	A8	221	A	N7-C5	-9.28	1.33	1.39
2	A8	675	A	N7-C5	-9.26	1.33	1.39
2	A8	1373	A	N7-C5	-9.26	1.33	1.39
2	A8	1001	A	N7-C5	-9.25	1.33	1.39
36	BA	860	A	N7-C5	-9.24	1.33	1.39
36	BA	1005	A	N7-C5	-9.24	1.33	1.39
36	BA	276	G	P-O5'	-9.23	1.50	1.59
2	A8	562	U	C2'-C1'	-9.22	1.43	1.53
36	BA	1439	G	N7-C5	-9.22	1.33	1.39
2	A8	1700	A	N7-C5	-9.22	1.33	1.39
2	A8	2674	G	P-O5'	-9.21	1.50	1.59
36	BA	1339	A	N7-C5	-9.20	1.33	1.39
2	A8	1213	A	N7-C5	-9.18	1.33	1.39
2	A8	794	A	N7-C5	-9.17	1.33	1.39
2	A8	1577	C	C2'-C1'	-9.17	1.43	1.53
36	BA	1457	G	N7-C5	-9.16	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	64	A	N7-C5	-9.16	1.33	1.39
2	A8	195	A	P-O5'	-9.15	1.50	1.59
2	A8	2234	G	N7-C5	-9.13	1.33	1.39
2	A8	142	A	C2'-C1'	-9.13	1.43	1.53
2	A8	2715	C	P-O5'	-9.13	1.50	1.59
36	BA	162	A	N7-C5	-9.13	1.33	1.39
2	A8	869	G	P-O5'	-9.12	1.50	1.59
2	A8	1526	C	P-O5'	-9.11	1.50	1.59
2	A8	1366	A	N7-C5	-9.11	1.33	1.39
2	A8	1980	G	N9-C4	9.11	1.45	1.38
2	A8	1372	U	C2'-C1'	-9.11	1.43	1.53
2	A8	709	U	P-O5'	-9.10	1.50	1.59
2	A8	968	C	C2'-C1'	-9.08	1.43	1.53
2	A8	2281	A	C2'-C1'	-9.07	1.43	1.53
36	BA	450	G	P-O5'	-9.06	1.50	1.59
2	A8	2443	C	C2'-C1'	-9.06	1.43	1.53
36	BA	267	C	P-O5'	-9.05	1.50	1.59
2	A8	1982	U	P-O5'	-9.03	1.50	1.59
36	BA	1483	A	N7-C5	-9.03	1.33	1.39
2	A8	402	A	N7-C5	-9.02	1.33	1.39
2	A8	2468	A	C2'-C1'	-9.02	1.43	1.53
36	BA	782	A	N7-C5	-9.01	1.33	1.39
2	A8	705	A	N7-C5	-9.01	1.33	1.39
1	A7	83	G	P-O5'	-9.00	1.50	1.59
1	A7	24	G	N7-C5	-8.99	1.33	1.39
2	A8	1771	C	C2'-C1'	-8.99	1.43	1.53
2	A8	2507	C	C2'-C1'	-8.99	1.43	1.53
36	BA	1434	A	C2'-C1'	-8.97	1.43	1.53
2	A8	1445	G	N7-C5	-8.97	1.33	1.39
2	A8	73	A	C2'-C1'	-8.97	1.43	1.53
2	A8	1819	A	C2'-C1'	-8.96	1.43	1.53
2	A8	1261	C	C2'-C1'	-8.94	1.43	1.53
2	A8	2492	U	C2'-C1'	-8.93	1.43	1.53
2	A8	1970	A	N7-C5	-8.93	1.33	1.39
36	BA	190	A	N7-C5	-8.93	1.33	1.39
2	A8	2003	A	C2'-C1'	-8.92	1.43	1.53
36	BA	802	A	N7-C5	-8.92	1.33	1.39
36	BA	329	A	N7-C5	-8.91	1.33	1.39
2	A8	2537	U	P-O5'	-8.91	1.50	1.59
1	A7	70	C	C4'-O4'	-8.89	1.33	1.45
36	BA	263	A	N9-C4	-8.89	1.32	1.37
2	A8	2335	A	N7-C5	-8.88	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2619	C	O3'-P	-8.89	1.50	1.61
2	A8	528	A	N9-C4	-8.88	1.32	1.37
2	A8	1091	G	N7-C5	-8.88	1.33	1.39
2	A8	2727	A	P-O5'	-8.88	1.50	1.59
2	A8	1349	C	P-O5'	-8.85	1.50	1.59
36	BA	909	A	N7-C5	-8.83	1.33	1.39
2	A8	2592	G	N7-C5	-8.82	1.33	1.39
36	BA	347	G	C2'-C1'	-8.82	1.43	1.53
2	A8	274	C	C2'-C1'	-8.82	1.43	1.53
2	A8	1721	G	P-O5'	-8.82	1.50	1.59
36	BA	647	C	P-O5'	-8.80	1.50	1.59
36	BA	596	A	N7-C5	-8.80	1.33	1.39
36	BA	265	G	N7-C5	-8.79	1.33	1.39
1	A7	70	C	P-O5'	-8.78	1.50	1.59
2	A8	2352	A	N7-C5	-8.78	1.33	1.39
36	BA	255	G	P-O5'	-8.78	1.50	1.59
2	A8	1777	U	C2'-C1'	-8.78	1.43	1.53
2	A8	503	A	O3'-P	-8.76	1.50	1.61
2	A8	1036	G	N7-C5	-8.76	1.33	1.39
2	A8	1510	G	N7-C5	-8.76	1.33	1.39
2	A8	2089	C	P-O5'	-8.75	1.50	1.59
2	A8	2682	A	C2'-C1'	-8.73	1.43	1.53
2	A8	814	C	C2'-C1'	-8.73	1.43	1.53
2	A8	2219	U	P-O5'	-8.72	1.51	1.59
2	A8	1793	C	C2'-C1'	-8.72	1.43	1.53
36	BA	633	G	N7-C5	-8.71	1.34	1.39
36	BA	263	A	N7-C5	-8.70	1.34	1.39
1	A7	86	G	N7-C5	-8.70	1.34	1.39
2	A8	1469	A	N7-C5	-8.67	1.34	1.39
2	A8	10	A	N7-C5	-8.67	1.34	1.39
2	A8	310	A	N7-C5	-8.66	1.34	1.39
2	A8	1378	A	N9-C4	-8.65	1.32	1.37
36	BA	331	G	N7-C5	-8.65	1.34	1.39
2	A8	2411	A	N7-C5	-8.65	1.34	1.39
2	A8	2322	A	N7-C5	-8.65	1.34	1.39
2	A8	2443	C	P-O5'	-8.64	1.51	1.59
36	BA	117	G	N7-C5	-8.64	1.34	1.39
2	A8	1595	C	C2'-C1'	-8.64	1.43	1.53
2	A8	279	A	N7-C5	-8.64	1.34	1.39
2	A8	1803	A	N7-C5	-8.64	1.34	1.39
2	A8	2617	U	P-O5'	-8.63	1.51	1.59
2	A8	739	A	N9-C4	-8.62	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1354	A	N7-C5	-8.62	1.34	1.39
2	A8	2459	A	N7-C5	-8.62	1.34	1.39
2	A8	2750	A	C2'-C1'	-8.61	1.43	1.53
36	BA	324	G	N7-C5	-8.60	1.34	1.39
2	A8	84	A	N7-C5	-8.60	1.34	1.39
2	A8	1806	C	P-O5'	-8.59	1.51	1.59
2	A8	1274	A	C2'-C1'	-8.58	1.44	1.53
2	A8	2773	C	P-O5'	-8.58	1.51	1.59
2	A8	1745	A	P-O5'	-8.57	1.51	1.59
36	BA	299	G	C2'-C1'	-8.57	1.44	1.53
36	BA	1161	C	P-O5'	-8.57	1.51	1.59
36	BA	323	U	P-O5'	-8.56	1.51	1.59
36	BA	937	A	N7-C5	-8.56	1.34	1.39
2	A8	482	A	N7-C5	-8.55	1.34	1.39
2	A8	2615	U	P-O5'	-8.54	1.51	1.59
36	BA	270	A	N7-C5	-8.54	1.34	1.39
2	A8	459	U	P-O5'	-8.54	1.51	1.59
2	A8	2604	U	P-O5'	-8.52	1.51	1.59
36	BA	371	A	C2'-C1'	-8.52	1.44	1.53
2	A8	645	C	P-O5'	-8.51	1.51	1.59
36	BA	669	G	P-O5'	-8.51	1.51	1.59
2	A8	820	A	N7-C5	-8.51	1.34	1.39
2	A8	1138	G	N7-C5	-8.51	1.34	1.39
2	A8	1980	G	C2-N3	8.51	1.39	1.32
2	A8	2606	C	C2'-C1'	-8.50	1.44	1.53
36	BA	865	A	N7-C5	-8.49	1.34	1.39
36	BA	1288	A	N7-C5	-8.49	1.34	1.39
2	A8	2587	A	N7-C5	-8.49	1.34	1.39
2	A8	35	G	P-O5'	-8.48	1.51	1.59
2	A8	1744	A	N7-C5	-8.47	1.34	1.39
1	A7	73	A	N7-C5	-8.47	1.34	1.39
2	A8	1966	A	C2'-C1'	-8.46	1.44	1.53
2	A8	1226	A	N7-C5	-8.46	1.34	1.39
2	A8	2662	A	N7-C5	-8.46	1.34	1.39
2	A8	1579	A	N7-C5	-8.45	1.34	1.39
2	A8	2471	A	P-O5'	-8.45	1.51	1.59
2	A8	1545	A	N9-C4	-8.44	1.32	1.37
2	A8	1477	A	N7-C5	-8.44	1.34	1.39
2	A8	1508	A	C2'-C1'	-8.44	1.44	1.53
2	A8	2716	C	C2'-C1'	-8.44	1.44	1.53
2	A8	1287	A	N7-C5	-8.43	1.34	1.39
2	A8	1561	C	P-O5'	-8.43	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	909	A	N7-C5	-8.43	1.34	1.39
2	A8	1206	G	N7-C5	-8.43	1.34	1.39
2	A8	813	U	C2'-C1'	-8.42	1.44	1.53
2	A8	609	A	N7-C5	-8.41	1.34	1.39
2	A8	1090	A	P-O5'	-8.41	1.51	1.59
2	A8	1028	A	N7-C5	-8.39	1.34	1.39
2	A8	758	C	C2'-C1'	-8.39	1.44	1.53
2	A8	1031	G	P-O5'	-8.39	1.51	1.59
2	A8	879	G	N7-C5	-8.38	1.34	1.39
2	A8	2425	A	C2'-C1'	-8.38	1.44	1.53
36	BA	1516	G	P-O5'	-8.38	1.51	1.59
2	A8	2530	A	N7-C5	-8.38	1.34	1.39
36	BA	1333	A	N7-C5	-8.37	1.34	1.39
2	A8	2274	A	N7-C5	-8.37	1.34	1.39
36	BA	872	A	C2'-C1'	-8.37	1.44	1.53
2	A8	2057	G	P-O5'	-8.36	1.51	1.59
2	A8	2007	U	C2'-C1'	-8.36	1.44	1.53
2	A8	772	C	P-O5'	-8.35	1.51	1.59
2	A8	1782	U	C2'-C1'	-8.34	1.44	1.53
36	BA	533	A	N7-C5	-8.34	1.34	1.39
36	BA	1519	A	C4'-C3'	-8.34	1.44	1.53
36	BA	900	A	N7-C5	-8.34	1.34	1.39
2	A8	586	A	N7-C5	-8.33	1.34	1.39
36	BA	806	C	P-O5'	-8.33	1.51	1.59
2	A8	878	A	N7-C5	-8.32	1.34	1.39
2	A8	1288	G	N7-C5	-8.32	1.34	1.39
36	BA	788	U	P-O5'	-8.32	1.51	1.59
36	BA	173	U	P-O5'	-8.31	1.51	1.59
2	A8	1140	C	P-O5'	-8.30	1.51	1.59
36	BA	865	A	C2'-C1'	-8.30	1.44	1.53
2	A8	608	A	N7-C5	-8.30	1.34	1.39
2	A8	2083	G	P-O5'	-8.30	1.51	1.59
36	BA	337	G	C2'-C1'	-8.30	1.44	1.53
2	A8	1690	A	N7-C5	-8.29	1.34	1.39
2	A8	2411	A	C2'-C1'	-8.29	1.44	1.53
2	A8	1567	G	N9-C4	-8.28	1.31	1.38
2	A8	2271	G	C2'-C1'	-8.27	1.44	1.53
2	A8	1088	A	N7-C5	-8.27	1.34	1.39
2	A8	857	G	C2'-C1'	-8.26	1.44	1.53
2	A8	2659	G	N9-C4	-8.26	1.31	1.38
2	A8	1114	C	C2'-C1'	-8.26	1.44	1.53
2	A8	1770	G	N7-C5	-8.26	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	479	A	C1'-N9	-8.26	1.35	1.46
2	A8	1155	A	N7-C5	-8.26	1.34	1.39
2	A8	2572	A	N7-C5	-8.26	1.34	1.39
36	BA	1014	A	N7-C5	-8.26	1.34	1.39
2	A8	706	A	N7-C5	-8.25	1.34	1.39
1	A7	99	A	N7-C5	-8.25	1.34	1.39
2	A8	2592	G	C2'-C1'	-8.25	1.44	1.53
36	BA	791	G	N7-C5	-8.24	1.34	1.39
36	BA	1170	A	N7-C5	-8.23	1.34	1.39
2	A8	191	A	N7-C5	-8.23	1.34	1.39
2	A8	1099	G	N7-C5	-8.22	1.34	1.39
36	BA	614	C	C2'-C1'	-8.21	1.44	1.53
2	A8	1518	C	P-O5'	-8.21	1.51	1.59
36	BA	327	A	N7-C5	-8.21	1.34	1.39
2	A8	2499	C	P-O5'	-8.20	1.51	1.59
36	BA	37	U	C2'-C1'	-8.20	1.44	1.53
2	A8	578	G	N7-C5	-8.20	1.34	1.39
36	BA	171	A	N7-C5	-8.19	1.34	1.39
36	BA	873	A	N7-C5	-8.19	1.34	1.39
2	A8	2225	A	N7-C5	-8.19	1.34	1.39
36	BA	885	G	C2'-C1'	-8.19	1.44	1.53
2	A8	1821	A	C2'-C1'	-8.19	1.44	1.53
2	A8	1048	A	N7-C5	-8.18	1.34	1.39
36	BA	894	G	N7-C5	-8.17	1.34	1.39
2	A8	2478	A	N7-C5	-8.17	1.34	1.39
2	A8	424	G	C2'-C1'	-8.17	1.44	1.53
36	BA	1518	A	C2'-C1'	-8.16	1.44	1.53
36	BA	892	A	N9-C4	-8.15	1.32	1.37
2	A8	64	A	P-O5'	-8.14	1.51	1.59
36	BA	394	G	C2'-C1'	-8.14	1.44	1.53
2	A8	138	U	C2-N3	8.14	1.43	1.37
36	BA	1327	C	P-O5'	-8.13	1.51	1.59
2	A8	2483	C	P-O5'	-8.13	1.51	1.59
2	A8	2198	A	N7-C5	-8.11	1.34	1.39
2	A8	2462	C	P-O5'	-8.11	1.51	1.59
2	A8	2222	C	P-O5'	-8.10	1.51	1.59
2	A8	98	G	N7-C5	-8.10	1.34	1.39
2	A8	1608	A	N7-C5	-8.10	1.34	1.39
36	BA	373	A	N7-C5	-8.10	1.34	1.39
36	BA	1502	A	N7-C5	-8.10	1.34	1.39
2	A8	1713	A	C2'-C1'	-8.10	1.44	1.53
2	A8	2383	G	C2'-C1'	-8.09	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	191	A	C2'-C1'	-8.09	1.44	1.53
2	A8	1447	C	P-O5'	-8.09	1.51	1.59
36	BA	1072	G	N7-C5	-8.09	1.34	1.39
36	BA	1179	A	C2'-C1'	-8.07	1.44	1.53
1	A7	16	G	C2'-C1'	-8.07	1.44	1.53
2	A8	1455	G	N7-C5	-8.07	1.34	1.39
2	A8	1514	G	N9-C4	-8.07	1.31	1.38
36	BA	768	A	N7-C5	-8.07	1.34	1.39
2	A8	56	A	P-O5'	-8.07	1.51	1.59
36	BA	1463	U	C3'-C2'	-8.07	1.43	1.52
2	A8	633	A	C8-N7	-8.06	1.25	1.31
2	A8	1514	G	C3'-C2'	-8.06	1.43	1.52
2	A8	2566	A	N7-C5	-8.06	1.34	1.39
36	BA	778	G	C2'-C1'	-8.06	1.44	1.53
2	A8	2749	A	N7-C5	-8.05	1.34	1.39
2	A8	1754	A	N7-C5	-8.05	1.34	1.39
2	A8	1572	A	C8-N7	-8.05	1.25	1.31
2	A8	2820	A	O3'-P	-8.05	1.51	1.61
2	A8	454	A	N9-C4	8.05	1.42	1.37
2	A8	2382	G	P-O5'	-8.03	1.51	1.59
2	A8	1445	G	P-O5'	-8.03	1.51	1.59
2	A8	2503	A	N7-C5	-8.03	1.34	1.39
2	A8	2867	G	N7-C5	-8.03	1.34	1.39
36	BA	321	A	C2'-C1'	-8.03	1.44	1.53
2	A8	1681	G	N7-C5	-8.03	1.34	1.39
2	A8	911	A	N7-C5	-8.02	1.34	1.39
2	A8	1558	C	C2'-C1'	-8.02	1.44	1.53
2	A8	1957	C	P-O5'	-8.01	1.51	1.59
36	BA	1160	G	N7-C5	-8.01	1.34	1.39
2	A8	1973	G	C2'-C1'	-8.01	1.44	1.53
2	A8	933	A	N7-C5	-8.01	1.34	1.39
2	A8	2333	A	N7-C5	-8.01	1.34	1.39
36	BA	1408	A	P-O5'	-8.01	1.51	1.59
36	BA	1500	A	P-O5'	-8.00	1.51	1.59
2	A8	2198	A	N9-C4	-8.00	1.33	1.37
2	A8	2637	U	C2'-C1'	-8.00	1.44	1.53
2	A8	881	G	N7-C5	-8.00	1.34	1.39
36	BA	439	U	C2-N3	8.00	1.43	1.37
2	A8	871	U	C2'-C1'	-7.98	1.44	1.53
2	A8	794	A	P-O5'	-7.98	1.51	1.59
2	A8	2289	G	C2'-C1'	-7.98	1.44	1.53
36	BA	919	A	N7-C5	-7.98	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1456	A	N7-C5	-7.97	1.34	1.39
2	A8	2420	C	P-O5'	-7.97	1.51	1.59
36	BA	862	C	P-O5'	-7.97	1.51	1.59
2	A8	570	G	N7-C5	-7.96	1.34	1.39
36	BA	798	U	C2'-C1'	-7.96	1.44	1.53
2	A8	2878	U	P-O5'	-7.95	1.51	1.59
2	A8	1154	G	N7-C5	-7.95	1.34	1.39
2	A8	1237	A	N7-C5	-7.93	1.34	1.39
2	A8	2660	A	P-O5'	-7.93	1.51	1.59
2	A8	1698	A	C2'-C1'	-7.93	1.44	1.53
36	BA	326	G	N7-C5	-7.93	1.34	1.39
36	BA	282	A	N3-C4	-7.93	1.30	1.34
2	A8	1745	A	C2'-C1'	-7.93	1.44	1.53
2	A8	963	U	P-O5'	-7.92	1.51	1.59
2	A8	1916	A	N7-C5	-7.92	1.34	1.39
2	A8	2088	A	N7-C5	-7.92	1.34	1.39
2	A8	2264	C	C2'-C1'	-7.92	1.44	1.53
2	A8	2673	G	C2'-C1'	-7.92	1.44	1.53
36	BA	271	C	P-O5'	-7.92	1.51	1.59
36	BA	1399	C	P-O5'	-7.92	1.51	1.59
36	BA	468	A	N7-C5	-7.92	1.34	1.39
2	A8	1889	A	N7-C5	-7.92	1.34	1.39
2	A8	470	A	N7-C5	-7.91	1.34	1.39
36	BA	800	G	C2'-C1'	-7.91	1.44	1.53
2	A8	2543	G	N7-C5	-7.91	1.34	1.39
2	A8	2811	G	C2'-C1'	-7.91	1.44	1.53
2	A8	507	A	N7-C5	-7.90	1.34	1.39
2	A8	1000	A	N7-C5	-7.90	1.34	1.39
2	A8	1027	A	N7-C5	-7.90	1.34	1.39
2	A8	2547	A	C2'-C1'	-7.90	1.44	1.53
2	A8	2851	A	N7-C5	-7.90	1.34	1.39
36	BA	1392	G	C2'-C1'	-7.89	1.44	1.53
2	A8	1492	G	P-O5'	-7.89	1.51	1.59
2	A8	2255	G	P-O5'	-7.89	1.51	1.59
36	BA	914	A	N7-C5	-7.89	1.34	1.39
36	BA	792	A	N7-C5	-7.88	1.34	1.39
2	A8	1623	G	C2'-C1'	-7.88	1.44	1.53
2	A8	1948	G	C2'-C1'	-7.88	1.44	1.53
36	BA	370	C	C2'-C1'	-7.88	1.44	1.53
2	A8	658	U	C2'-C1'	-7.88	1.44	1.53
36	BA	1313	U	C2'-C1'	-7.87	1.44	1.53
2	A8	1531	C	O3'-P	-7.86	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	118	A	N7-C5	-7.86	1.34	1.39
2	A8	622	G	C2'-C1'	-7.86	1.44	1.53
2	A8	2469	A	C8-N7	-7.85	1.26	1.31
2	A8	210	C	C2'-C1'	-7.85	1.44	1.53
2	A8	2014	A	N7-C5	-7.85	1.34	1.39
2	A8	2558	C	P-O5'	-7.85	1.51	1.59
36	BA	269	C	C2'-C1'	-7.85	1.44	1.53
36	BA	687	A	N7-C5	-7.85	1.34	1.39
2	A8	2479	U	P-O5'	-7.85	1.51	1.59
36	BA	222	C	C3'-C2'	-7.85	1.44	1.52
36	BA	242	G	C2'-C1'	-7.85	1.44	1.53
36	BA	1439	G	P-O5'	-7.85	1.51	1.59
2	A8	2764	A	N7-C5	-7.84	1.34	1.39
2	A8	2675	A	N7-C5	-7.84	1.34	1.39
36	BA	1527	U	P-O5'	-7.83	1.51	1.59
2	A8	131	A	C2'-C1'	-7.83	1.44	1.53
2	A8	975	A	N7-C5	-7.83	1.34	1.39
36	BA	786	G	C2'-C1'	-7.83	1.44	1.53
36	BA	282	A	N7-C5	-7.82	1.34	1.39
36	BA	150	U	C2'-C1'	-7.82	1.44	1.53
36	BA	637	C	C2'-C1'	-7.82	1.44	1.53
2	A8	479	A	N7-C5	-7.82	1.34	1.39
2	A8	1342	A	N7-C5	-7.82	1.34	1.39
36	BA	1169	A	N7-C5	-7.82	1.34	1.39
2	A8	2327	A	C2'-C1'	-7.81	1.44	1.53
2	A8	2450	A	N7-C5	-7.81	1.34	1.39
36	BA	859	G	N7-C5	-7.81	1.34	1.39
36	BA	908	A	N7-C5	-7.81	1.34	1.39
2	A8	775	G	N9-C4	-7.81	1.31	1.38
2	A8	1698	A	N9-C4	-7.81	1.33	1.37
2	A8	1791	A	N7-C5	-7.80	1.34	1.39
36	BA	740	U	C2'-C1'	-7.79	1.44	1.53
2	A8	254	G	N7-C5	-7.79	1.34	1.39
1	A7	29	A	N7-C5	-7.79	1.34	1.39
2	A8	1560	G	N7-C5	-7.79	1.34	1.39
2	A8	1670	C	P-O5'	-7.79	1.51	1.59
2	A8	2795	C	C2'-C1'	-7.79	1.44	1.53
36	BA	1102	A	C2'-C1'	-7.79	1.44	1.53
2	A8	1186	G	C2'-C1'	-7.79	1.44	1.53
2	A8	1310	G	N7-C5	-7.79	1.34	1.39
1	A7	79	G	N7-C5	-7.79	1.34	1.39
2	A8	1367	A	N7-C5	-7.78	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	187	G	N7-C5	-7.78	1.34	1.39
2	A8	340	A	N7-C5	-7.78	1.34	1.39
2	A8	1858	A	N9-C4	-7.78	1.33	1.37
36	BA	1339	A	P-O5'	-7.78	1.51	1.59
2	A8	1896	G	C2'-C1'	-7.77	1.44	1.53
2	A8	616	A	N7-C5	-7.77	1.34	1.39
2	A8	1430	G	N7-C5	-7.77	1.34	1.39
2	A8	1945	G	P-O5'	-7.77	1.51	1.59
36	BA	1102	A	N7-C5	-7.76	1.34	1.39
2	A8	2488	G	C2'-C1'	-7.76	1.44	1.53
2	A8	1927	A	N9-C4	-7.76	1.33	1.37
2	A8	2248	C	P-O5'	-7.76	1.51	1.59
36	BA	706	A	C2'-C1'	-7.76	1.44	1.53
2	A8	170	U	P-O5'	-7.75	1.51	1.59
2	A8	1659	G	C2'-C1'	-7.75	1.44	1.53
2	A8	359	G	N7-C5	-7.75	1.34	1.39
2	A8	1567	G	N9-C8	-7.75	1.32	1.37
36	BA	1415	G	C2'-C1'	-7.75	1.44	1.53
2	A8	255	A	N7-C5	-7.75	1.34	1.39
2	A8	265	A	N7-C5	-7.75	1.34	1.39
2	A8	1709	U	C2'-C1'	-7.75	1.44	1.53
2	A8	64	A	C2'-C1'	-7.74	1.44	1.53
2	A8	688	U	P-O5'	-7.74	1.52	1.59
2	A8	1541	C	C2'-C1'	-7.74	1.44	1.53
36	BA	278	G	C3'-C2'	-7.74	1.44	1.52
2	A8	1139	G	P-O5'	-7.73	1.52	1.59
2	A8	1196	C	C2'-C1'	-7.73	1.44	1.53
2	A8	1645	G	N7-C5	-7.73	1.34	1.39
2	A8	2273	A	C2'-C1'	-7.73	1.44	1.53
36	BA	303	A	P-O5'	-7.73	1.52	1.59
2	A8	2468	A	P-O5'	-7.73	1.52	1.59
2	A8	503	A	C1'-N9	-7.72	1.36	1.46
2	A8	2218	G	N7-C5	-7.72	1.34	1.39
2	A8	196	A	N7-C5	-7.72	1.34	1.39
2	A8	2236	U	P-O5'	-7.72	1.52	1.59
2	A8	1500	G	P-O5'	-7.71	1.52	1.59
36	BA	689	C	P-O5'	-7.71	1.52	1.59
36	BA	1375	A	N7-C5	-7.71	1.34	1.39
36	BA	1482	G	C2'-C1'	-7.71	1.44	1.53
36	BA	583	A	N7-C5	-7.71	1.34	1.39
2	A8	509	C	C2'-C1'	-7.71	1.44	1.53
36	BA	779	C	C3'-C2'	-7.71	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	771	G	C2'-C1'	-7.70	1.44	1.53
2	A8	2570	G	P-O5'	-7.70	1.52	1.59
2	A8	686	U	P-O5'	-7.70	1.52	1.59
2	A8	1986	C	C2'-C1'	-7.70	1.44	1.53
2	A8	2430	A	C2'-C1'	-7.69	1.44	1.53
2	A8	1180	U	C2'-C1'	-7.69	1.44	1.53
2	A8	2889	C	P-O5'	-7.69	1.52	1.59
36	BA	1464	U	C2'-C1'	-7.69	1.44	1.53
36	BA	1522	U	C2'-C1'	-7.69	1.44	1.53
2	A8	256	A	N7-C5	-7.69	1.34	1.39
2	A8	1532	A	P-O5'	-7.68	1.52	1.59
36	BA	512	U	C2'-C1'	-7.68	1.45	1.53
36	BA	757	U	C3'-C2'	-7.68	1.44	1.52
36	BA	928	G	C2'-C1'	-7.68	1.45	1.53
2	A8	37	C	C2'-C1'	-7.68	1.45	1.53
36	BA	1416	G	P-O5'	-7.68	1.52	1.59
2	A8	859	G	N9-C4	-7.68	1.31	1.38
2	A8	2672	U	P-O5'	-7.68	1.52	1.59
2	A8	942	G	C2'-C1'	-7.67	1.45	1.53
36	BA	320	A	C2'-C1'	-7.67	1.45	1.53
2	A8	842	U	P-O5'	-7.67	1.52	1.59
36	BA	697	U	P-O5'	-7.67	1.52	1.59
36	BA	109	A	N7-C5	-7.67	1.34	1.39
2	A8	457	A	N7-C5	-7.66	1.34	1.39
2	A8	979	A	N7-C5	-7.66	1.34	1.39
2	A8	1302	A	N7-C5	-7.66	1.34	1.39
36	BA	522	C	P-O5'	-7.66	1.52	1.59
2	A8	877	A	N7-C5	-7.66	1.34	1.39
1	A7	79	G	P-O5'	-7.66	1.52	1.59
2	A8	1567	G	C2'-C1'	-7.66	1.45	1.53
2	A8	2850	A	N7-C5	-7.66	1.34	1.39
2	A8	2042	A	N7-C5	-7.65	1.34	1.39
2	A8	282	A	N7-C5	-7.65	1.34	1.39
2	A8	65	U	C2'-C1'	-7.65	1.45	1.53
2	A8	1258	U	P-O5'	-7.64	1.52	1.59
2	A8	1545	A	N7-C5	-7.64	1.34	1.39
2	A8	1837	C	C2'-C1'	-7.64	1.45	1.53
2	A8	2721	A	N9-C4	-7.64	1.33	1.37
2	A8	257	C	P-O5'	-7.64	1.52	1.59
2	A8	1103	A	N7-C5	-7.64	1.34	1.39
2	A8	1658	C	C2'-C1'	-7.64	1.45	1.53
2	A8	457	A	N9-C4	-7.64	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	91	C	C2'-C1'	-7.63	1.45	1.53
2	A8	1528	A	C2'-C1'	-7.63	1.45	1.53
2	A8	1267	U	P-O5'	-7.63	1.52	1.59
2	A8	1482	G	C2'-C1'	-7.63	1.45	1.53
2	A8	2416	C	C2'-C1'	-7.63	1.45	1.53
2	A8	168	G	N7-C5	-7.63	1.34	1.39
2	A8	506	G	O3'-P	-7.63	1.51	1.61
2	A8	1885	A	N7-C5	-7.62	1.34	1.39
36	BA	655	A	N7-C5	-7.62	1.34	1.39
2	A8	1354	A	N9-C4	-7.62	1.33	1.37
1	A7	43	C	C2'-C1'	-7.62	1.45	1.53
2	A8	818	G	N7-C5	-7.61	1.34	1.39
2	A8	1419	A	N7-C5	-7.61	1.34	1.39
2	A8	2472	G	N9-C4	-7.61	1.31	1.38
2	A8	1012	U	O3'-P	-7.61	1.52	1.61
2	A8	1904	G	P-O5'	-7.61	1.52	1.59
2	A8	314	C	P-O5'	-7.61	1.52	1.59
36	BA	778	G	N7-C5	-7.61	1.34	1.39
2	A8	861	A	N3-C4	-7.61	1.30	1.34
2	A8	2840	C	P-O5'	-7.60	1.52	1.59
2	A8	2218	G	P-O5'	-7.60	1.52	1.59
36	BA	678	U	P-O5'	-7.60	1.52	1.59
36	BA	608	A	N7-C5	-7.59	1.34	1.39
1	A7	62	C	P-O5'	-7.59	1.52	1.59
2	A8	1316	U	P-O5'	-7.59	1.52	1.59
2	A8	1877	A	C2'-C1'	-7.59	1.45	1.53
2	A8	1873	G	N7-C5	-7.59	1.34	1.39
36	BA	882	C	C2'-C1'	-7.59	1.45	1.53
36	BA	684	U	C3'-C2'	-7.59	1.44	1.52
2	A8	2426	A	O3'-P	-7.58	1.52	1.61
2	A8	2457	U	P-O5'	-7.58	1.52	1.59
2	A8	692	C	C2'-C1'	-7.58	1.45	1.53
2	A8	1309	G	N7-C5	-7.58	1.34	1.39
2	A8	2008	C	C2'-C1'	-7.58	1.45	1.53
1	A7	23	G	N7-C5	-7.58	1.34	1.39
2	A8	1794	A	C2'-C1'	-7.58	1.45	1.53
2	A8	2077	A	N7-C5	-7.58	1.34	1.39
36	BA	1198	G	P-O5'	-7.58	1.52	1.59
2	A8	725	G	O3'-P	-7.57	1.52	1.61
2	A8	743	A	P-O5'	-7.57	1.52	1.59
36	BA	262	A	C2'-C1'	-7.57	1.45	1.53
36	BA	1504	G	N7-C5	-7.57	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	862	G	P-O5'	-7.57	1.52	1.59
2	A8	293	U	P-O5'	-7.56	1.52	1.59
36	BA	199	A	C2'-C1'	-7.56	1.45	1.53
2	A8	1149	G	P-O5'	-7.55	1.52	1.59
2	A8	1229	C	C2'-C1'	-7.55	1.45	1.53
2	A8	2184	A	N9-C4	7.55	1.42	1.37
2	A8	2409	G	N7-C5	-7.55	1.34	1.39
2	A8	1230	A	P-O5'	-7.54	1.52	1.59
2	A8	1098	A	N7-C5	-7.54	1.34	1.39
36	BA	761	G	N7-C5	-7.54	1.34	1.39
2	A8	1266	G	N1-C2	7.54	1.43	1.37
2	A8	2714	G	C2'-C1'	-7.54	1.45	1.53
2	A8	1430	G	P-O5'	-7.54	1.52	1.59
2	A8	1987	A	C2'-C1'	-7.54	1.45	1.53
2	A8	2699	C	C2'-C1'	-7.53	1.45	1.53
36	BA	122	G	N7-C5	-7.53	1.34	1.39
36	BA	856	C	P-O5'	-7.53	1.52	1.59
2	A8	2362	C	P-O5'	-7.53	1.52	1.59
36	BA	686	U	C2'-C1'	-7.53	1.45	1.53
36	BA	759	A	N7-C5	-7.53	1.34	1.39
2	A8	2860	A	C8-N7	-7.53	1.26	1.31
2	A8	57	C	P-O5'	-7.53	1.52	1.59
2	A8	2208	C	C2'-C1'	-7.53	1.45	1.53
2	A8	504	A	N7-C5	-7.52	1.34	1.39
2	A8	197	A	N7-C5	-7.52	1.34	1.39
2	A8	792	A	N7-C5	-7.52	1.34	1.39
2	A8	620	G	N7-C5	-7.51	1.34	1.39
2	A8	374	A	P-O5'	-7.51	1.52	1.59
2	A8	1268	A	P-O5'	-7.51	1.52	1.59
36	BA	416	G	N7-C5	-7.51	1.34	1.39
2	A8	634	C	C2'-C1'	-7.51	1.45	1.53
2	A8	2224	G	N9-C4	-7.51	1.31	1.38
2	A8	2097	A	P-O5'	-7.50	1.52	1.59
2	A8	570	G	C2'-C1'	-7.50	1.45	1.53
2	A8	984	A	P-O5'	-7.50	1.52	1.59
36	BA	1436	U	P-O5'	-7.50	1.52	1.59
2	A8	663	G	N7-C5	-7.50	1.34	1.39
2	A8	2467	C	C2'-C1'	-7.50	1.45	1.53
2	A8	1432	G	P-O5'	-7.49	1.52	1.59
36	BA	1468	A	C2'-C1'	-7.49	1.45	1.53
2	A8	1120	G	N7-C5	-7.49	1.34	1.39
2	A8	130	C	C2'-C1'	-7.48	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	862	G	C2'-C1'	-7.48	1.45	1.53
2	A8	1969	A	N7-C5	-7.48	1.34	1.39
36	BA	751	U	C2'-C1'	-7.47	1.45	1.53
2	A8	2779	U	C2'-C1'	-7.47	1.45	1.53
36	BA	775	G	C2'-C1'	-7.46	1.45	1.53
36	BA	1420	U	P-O5'	-7.46	1.52	1.59
2	A8	687	C	P-O5'	-7.46	1.52	1.59
2	A8	1288	G	P-O5'	-7.46	1.52	1.59
2	A8	1904	G	N7-C5	-7.46	1.34	1.39
2	A8	475	C	P-O5'	-7.46	1.52	1.59
2	A8	2717	C	C2'-C1'	-7.46	1.45	1.53
36	BA	586	C	P-O5'	-7.46	1.52	1.59
2	A8	1737	G	O3'-P	-7.46	1.52	1.61
2	A8	2505	G	C5'-C4'	7.46	1.60	1.51
2	A8	1673	G	N7-C5	-7.45	1.34	1.39
2	A8	873	C	P-O5'	-7.45	1.52	1.59
2	A8	910	A	N7-C5	-7.45	1.34	1.39
36	BA	71	A	N7-C5	-7.45	1.34	1.39
2	A8	1842	G	N7-C5	-7.44	1.34	1.39
36	BA	1499	A	N7-C5	-7.44	1.34	1.39
36	BA	1431	A	N9-C4	-7.44	1.33	1.37
2	A8	2664	G	C2'-C1'	-7.44	1.45	1.53
2	A8	858	G	C1'-N9	-7.43	1.36	1.46
2	A8	1173	U	P-O5'	-7.43	1.52	1.59
2	A8	278	A	N7-C5	-7.43	1.34	1.39
2	A8	1367	A	P-O5'	-7.43	1.52	1.59
2	A8	151	C	P-O5'	-7.43	1.52	1.59
2	A8	2556	C	C2'-C1'	-7.43	1.45	1.53
2	A8	1311	G	P-O5'	-7.42	1.52	1.59
2	A8	2656	U	P-O5'	-7.42	1.52	1.59
36	BA	901	A	P-O5'	-7.42	1.52	1.59
2	A8	2516	A	C2'-C1'	-7.41	1.45	1.53
2	A8	291	G	C2'-C1'	-7.41	1.45	1.53
36	BA	869	G	N9-C4	-7.41	1.32	1.38
36	BA	673	A	N7-C5	-7.41	1.34	1.39
2	A8	1587	G	N7-C5	-7.41	1.34	1.39
2	A8	28	A	N7-C5	-7.40	1.34	1.39
36	BA	1414	U	C2'-C1'	-7.40	1.45	1.53
2	A8	190	A	N7-C5	-7.40	1.34	1.39
2	A8	900	A	N7-C5	-7.40	1.34	1.39
36	BA	613	C	C2'-C1'	-7.40	1.45	1.53
2	A8	2770	G	C3'-C2'	-7.40	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1051	G	P-O5'	-7.39	1.52	1.59
2	A8	977	G	P-O5'	-7.39	1.52	1.59
36	BA	779	C	C2'-C1'	-7.39	1.45	1.53
2	A8	515	A	N9-C4	-7.39	1.33	1.37
2	A8	1126	A	N7-C5	-7.39	1.34	1.39
2	A8	2177	C	C2'-C1'	-7.39	1.45	1.53
2	A8	2683	C	C2'-C1'	-7.39	1.45	1.53
36	BA	460	A	P-O5'	-7.39	1.52	1.59
2	A8	2649	C	C2'-C1'	-7.38	1.45	1.53
2	A8	70	G	C2'-C1'	-7.38	1.45	1.53
2	A8	2086	U	P-O5'	-7.38	1.52	1.59
2	A8	607	U	C2'-C1'	-7.38	1.45	1.53
1	A7	27	C	P-O5'	-7.37	1.52	1.59
2	A8	1361	G	N7-C5	-7.37	1.34	1.39
2	A8	1642	G	N7-C5	-7.37	1.34	1.39
2	A8	1848	A	N7-C5	-7.37	1.34	1.39
2	A8	483	A	N7-C5	-7.37	1.34	1.39
2	A8	2873	A	N7-C5	-7.37	1.34	1.39
2	A8	1898	U	P-O5'	-7.37	1.52	1.59
36	BA	935	A	P-O5'	-7.37	1.52	1.59
2	A8	1515	A	N7-C5	-7.36	1.34	1.39
2	A8	2235	G	P-O5'	-7.36	1.52	1.59
2	A8	1166	G	P-O5'	-7.36	1.52	1.59
36	BA	923	A	N7-C5	-7.36	1.34	1.39
2	A8	2596	U	C2'-C1'	-7.36	1.45	1.53
2	A8	472	A	N7-C5	-7.36	1.34	1.39
2	A8	2083	G	N7-C5	-7.36	1.34	1.39
2	A8	389	G	N7-C5	-7.36	1.34	1.39
2	A8	812	C	C2'-C1'	-7.36	1.45	1.53
36	BA	520	A	N7-C5	-7.36	1.34	1.39
2	A8	1640	A	P-O5'	-7.35	1.52	1.59
2	A8	2759	G	N7-C5	-7.35	1.34	1.39
36	BA	1110	A	N7-C5	-7.35	1.34	1.39
36	BA	517	G	N7-C5	-7.35	1.34	1.39
2	A8	2405	G	N7-C5	-7.35	1.34	1.39
2	A8	35	G	N7-C5	-7.35	1.34	1.39
2	A8	453	A	N7-C5	-7.35	1.34	1.39
2	A8	1846	G	C2'-C1'	-7.34	1.45	1.53
36	BA	237	G	C2'-C1'	-7.34	1.45	1.53
2	A8	670	A	N7-C5	-7.34	1.34	1.39
36	BA	597	G	P-O5'	-7.34	1.52	1.59
2	A8	2471	A	C2'-C1'	-7.33	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1513	A	C2'-C1'	-7.33	1.45	1.53
2	A8	1551	A	C2'-C1'	-7.33	1.45	1.53
36	BA	920	U	C2'-C1'	-7.33	1.45	1.53
2	A8	2427	C	P-O5'	-7.33	1.52	1.59
36	BA	720	C	P-O5'	-7.33	1.52	1.59
2	A8	305	C	C2'-C1'	-7.32	1.45	1.53
2	A8	348	A	P-O5'	-7.32	1.52	1.59
2	A8	725	G	C2'-C1'	-7.32	1.45	1.53
2	A8	903	C	C2'-C1'	-7.32	1.45	1.53
2	A8	2210	U	C2-N3	7.32	1.42	1.37
36	BA	651	C	C2'-C1'	-7.32	1.45	1.53
2	A8	2051	A	N9-C4	-7.32	1.33	1.37
2	A8	462	C	P-O5'	-7.31	1.52	1.59
2	A8	1332	G	C2'-C1'	-7.31	1.45	1.53
2	A8	1524	G	N7-C5	-7.31	1.34	1.39
36	BA	1448	C	P-O5'	-7.31	1.52	1.59
2	A8	2026	U	C2'-C1'	-7.31	1.45	1.53
2	A8	2559	C	C2'-C1'	-7.31	1.45	1.53
36	BA	1238	A	N7-C5	-7.31	1.34	1.39
36	BA	340	U	P-O5'	-7.31	1.52	1.59
1	A7	13	G	C2'-C1'	-7.31	1.45	1.53
2	A8	2675	A	P-O5'	-7.31	1.52	1.59
2	A8	415	A	C2'-C1'	-7.31	1.45	1.53
2	A8	775	G	N7-C5	-7.31	1.34	1.39
2	A8	783	A	P-O5'	-7.30	1.52	1.59
36	BA	714	G	C2'-C1'	-7.30	1.45	1.53
2	A8	199	A	N7-C5	-7.30	1.34	1.39
2	A8	1029	A	C8-N7	-7.30	1.26	1.31
2	A8	1819	A	N7-C5	-7.30	1.34	1.39
36	BA	1438	G	N7-C5	-7.30	1.34	1.39
2	A8	864	G	N7-C5	-7.30	1.34	1.39
2	A8	973	A	N7-C5	-7.29	1.34	1.39
2	A8	1853	A	C2'-C1'	-7.29	1.45	1.53
36	BA	889	A	O3'-P	-7.29	1.52	1.61
2	A8	167	A	C8-N7	-7.29	1.26	1.31
2	A8	460	A	N7-C5	-7.29	1.34	1.39
2	A8	1770	G	N9-C4	-7.29	1.32	1.38
2	A8	2489	U	P-O5'	-7.29	1.52	1.59
36	BA	252	U	C2'-C1'	-7.29	1.45	1.53
36	BA	1013	G	P-O5'	-7.28	1.52	1.59
2	A8	716	A	N7-C5	-7.28	1.34	1.39
2	A8	2461	A	N7-C5	-7.28	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	954	G	C2'-C1'	-7.27	1.45	1.53
36	BA	753	A	N7-C5	-7.27	1.34	1.39
36	BA	1306	A	C2'-C1'	-7.27	1.45	1.53
2	A8	203	A	O3'-P	-7.27	1.52	1.61
2	A8	520	G	C2'-C1'	-7.27	1.45	1.53
2	A8	1567	G	N7-C5	-7.27	1.34	1.39
2	A8	2043	C	P-O5'	-7.27	1.52	1.59
2	A8	2451	A	N9-C4	-7.26	1.33	1.37
2	A8	1351	C	C2'-C1'	-7.26	1.45	1.53
2	A8	1919	A	N7-C5	-7.26	1.34	1.39
36	BA	39	G	C2'-C1'	-7.26	1.45	1.53
36	BA	246	A	O3'-P	-7.26	1.52	1.61
36	BA	725	G	N7-C5	-7.26	1.34	1.39
2	A8	169	G	P-O5'	-7.25	1.52	1.59
36	BA	119	A	N7-C5	-7.25	1.34	1.39
36	BA	1494	G	C2'-C1'	-7.25	1.45	1.53
36	BA	896	C	P-O5'	-7.25	1.52	1.59
2	A8	104	A	C2'-C1'	-7.25	1.45	1.53
2	A8	950	G	C2'-C1'	-7.25	1.45	1.53
36	BA	22	G	C2'-C1'	-7.25	1.45	1.53
36	BA	486	U	P-O5'	-7.25	1.52	1.59
2	A8	2366	A	N7-C5	-7.25	1.34	1.39
1	A7	20	G	C2'-C1'	-7.25	1.45	1.53
2	A8	435	C	P-O5'	-7.24	1.52	1.59
2	A8	2064	C	C3'-C2'	-7.24	1.44	1.52
36	BA	629	A	N7-C5	-7.24	1.34	1.39
2	A8	263	G	C2'-C1'	-7.24	1.45	1.53
2	A8	2186	G	N7-C5	-7.24	1.34	1.39
2	A8	528	A	C2'-C1'	-7.24	1.45	1.53
1	A7	15	A	C2'-C1'	-7.24	1.45	1.53
2	A8	1901	A	N7-C5	-7.24	1.34	1.39
2	A8	479	A	C2'-C1'	-7.24	1.45	1.53
2	A8	1522	A	C8-N7	-7.23	1.26	1.31
2	A8	608	A	C2'-C1'	-7.23	1.45	1.53
2	A8	1354	A	P-O5'	-7.23	1.52	1.59
36	BA	713	G	C2'-C1'	-7.23	1.45	1.53
2	A8	2598	A	N7-C5	-7.23	1.34	1.39
2	A8	1961	C	P-O5'	-7.22	1.52	1.59
2	A8	243	U	P-O5'	-7.22	1.52	1.59
36	BA	684	U	C2'-C1'	-7.22	1.45	1.53
2	A8	1136	G	C2-N3	7.22	1.38	1.32
2	A8	2893	A	N7-C5	-7.22	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	76	G	N7-C5	-7.21	1.34	1.39
2	A8	266	G	C8-N7	-7.21	1.26	1.30
2	A8	1392	A	N7-C5	-7.21	1.34	1.39
36	BA	152	A	C2'-C1'	-7.21	1.45	1.53
2	A8	371	A	N7-C5	-7.21	1.34	1.39
2	A8	466	A	N7-C5	-7.21	1.34	1.39
2	A8	1303	G	P-O5'	-7.21	1.52	1.59
2	A8	2511	U	P-O5'	-7.21	1.52	1.59
2	A8	683	U	C2'-C1'	-7.20	1.45	1.53
2	A8	951	C	P-O5'	-7.20	1.52	1.59
2	A8	1923	U	C2'-C1'	-7.20	1.45	1.53
2	A8	1960	A	C2'-C1'	-7.20	1.45	1.53
2	A8	2453	A	C2'-C1'	-7.20	1.45	1.53
2	A8	926	G	C2'-C1'	-7.19	1.45	1.53
2	A8	1697	G	C2'-C1'	-7.19	1.45	1.53
2	A8	1861	G	P-O5'	-7.19	1.52	1.59
2	A8	775	G	C4'-O4'	-7.19	1.36	1.45
2	A8	2171	A	O3'-P	-7.18	1.52	1.61
2	A8	1143	A	N7-C5	-7.18	1.34	1.39
2	A8	505	A	C2'-C1'	-7.18	1.45	1.53
2	A8	2757	A	N7-C5	-7.18	1.34	1.39
2	A8	2463	C	C2'-C1'	-7.18	1.45	1.53
2	A8	956	G	N9-C4	-7.18	1.32	1.38
2	A8	2042	A	C8-N7	-7.18	1.26	1.31
2	A8	2233	U	C2'-C1'	-7.17	1.45	1.53
36	BA	677	U	C2'-C1'	-7.17	1.45	1.53
2	A8	1733	G	C2'-C1'	-7.17	1.45	1.53
2	A8	2684	U	C2'-C1'	-7.17	1.45	1.53
36	BA	1425	U	C2'-C1'	-7.17	1.45	1.53
2	A8	1139	G	C2'-C1'	-7.16	1.45	1.53
36	BA	246	A	N7-C5	-7.16	1.34	1.39
36	BA	1305	G	N9-C4	-7.16	1.32	1.38
2	A8	1327	A	N7-C5	-7.16	1.34	1.39
2	A8	2407	A	P-O5'	-7.16	1.52	1.59
2	A8	2550	G	P-O5'	-7.16	1.52	1.59
2	A8	987	C	C2'-C1'	-7.16	1.45	1.53
36	BA	284	C	C3'-C2'	-7.16	1.44	1.52
2	A8	1409	U	C2'-C1'	-7.15	1.45	1.53
2	A8	1874	C	P-O5'	-7.15	1.52	1.59
2	A8	765	C	C2'-C1'	-7.15	1.45	1.53
36	BA	1466	C	P-O5'	-7.15	1.52	1.59
36	BA	1510	C	P-O5'	-7.15	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1864	U	P-O5'	-7.15	1.52	1.59
36	BA	238	A	P-O5'	-7.15	1.52	1.59
36	BA	116	A	N7-C5	-7.14	1.34	1.39
2	A8	917	A	N7-C5	-7.14	1.34	1.39
36	BA	1463	U	C2'-C1'	-7.14	1.45	1.53
2	A8	1152	C	P-O5'	-7.13	1.52	1.59
2	A8	475	C	C2'-C1'	-7.13	1.45	1.53
2	A8	1182	G	N7-C5	-7.13	1.34	1.39
2	A8	2389	G	C2'-C1'	-7.13	1.45	1.53
36	BA	361	G	C2'-C1'	-7.13	1.45	1.53
2	A8	1226	A	C2'-C1'	-7.13	1.45	1.53
2	A8	2025	C	P-O5'	-7.13	1.52	1.59
2	A8	56	A	C3'-C2'	-7.13	1.45	1.52
2	A8	1818	U	O3'-P	-7.13	1.52	1.61
2	A8	2332	C	P-O5'	-7.13	1.52	1.59
2	A8	2569	G	N7-C5	-7.12	1.34	1.39
2	A8	1034	G	P-O5'	-7.12	1.52	1.59
2	A8	19	A	N7-C5	-7.12	1.34	1.39
2	A8	1988	G	P-O5'	-7.12	1.52	1.59
2	A8	797	G	C2'-C1'	-7.11	1.45	1.53
36	BA	925	G	C2'-C1'	-7.11	1.45	1.53
2	A8	1124	G	C2'-C1'	-7.11	1.45	1.53
2	A8	2237	G	C3'-C2'	-7.11	1.45	1.52
36	BA	1484	C	P-O5'	-7.11	1.52	1.59
2	A8	633	A	P-O5'	-7.11	1.52	1.59
2	A8	1698	A	N7-C5	-7.11	1.34	1.39
36	BA	1061	G	N7-C5	-7.11	1.34	1.39
2	A8	178	G	P-O5'	-7.11	1.52	1.59
2	A8	1815	A	N7-C5	-7.11	1.34	1.39
2	A8	1418	G	C3'-C2'	-7.10	1.45	1.52
36	BA	1261	A	N7-C5	-7.10	1.34	1.39
2	A8	1228	G	C2'-C1'	-7.10	1.45	1.53
2	A8	617	G	C2'-C1'	-7.10	1.45	1.53
2	A8	1650	A	N9-C4	-7.09	1.33	1.37
2	A8	1598	A	N9-C4	7.09	1.42	1.37
2	A8	2059	A	N9-C4	-7.09	1.33	1.37
36	BA	712	A	C2'-C1'	-7.09	1.45	1.53
2	A8	2408	U	P-O5'	-7.09	1.52	1.59
36	BA	338	A	C2'-C1'	-7.09	1.45	1.53
36	BA	814	A	N7-C5	-7.09	1.34	1.39
2	A8	1573	G	P-O5'	-7.09	1.52	1.59
2	A8	1675	C	P-O5'	-7.09	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2234	G	C2'-C1'	-7.09	1.45	1.53
2	A8	1848	A	P-O5'	-7.08	1.52	1.59
36	BA	881	G	N7-C5	-7.08	1.34	1.39
2	A8	2520	C	C2'-C1'	-7.08	1.45	1.53
36	BA	202	G	C2'-C1'	-7.08	1.45	1.53
2	A8	2077	A	C2'-C1'	-7.08	1.45	1.53
2	A8	382	A	C2'-C1'	-7.08	1.45	1.53
2	A8	866	A	P-O5'	-7.08	1.52	1.59
36	BA	110	C	P-O5'	-7.08	1.52	1.59
2	A8	1895	C	C2'-C1'	-7.08	1.45	1.53
2	A8	1440	U	C2'-C1'	-7.07	1.45	1.53
2	A8	1871	A	N7-C5	-7.07	1.35	1.39
2	A8	2750	A	N9-C4	-7.07	1.33	1.37
2	A8	2244	U	P-O5'	-7.07	1.52	1.59
2	A8	2250	G	C2-N3	7.07	1.38	1.32
2	A8	2478	A	O3'-P	-7.07	1.52	1.61
36	BA	260	G	C2'-C1'	-7.07	1.45	1.53
2	A8	1606	C	C2'-C1'	-7.06	1.45	1.53
36	BA	130	A	N9-C4	-7.06	1.33	1.37
2	A8	679	C	C2'-C1'	-7.06	1.45	1.53
2	A8	1018	U	P-O5'	-7.06	1.52	1.59
36	BA	1412	C	P-O5'	-7.06	1.52	1.59
36	BA	1016	A	N7-C5	-7.06	1.35	1.39
2	A8	2706	A	P-O5'	-7.05	1.52	1.59
2	A8	638	G	C2'-C1'	-7.05	1.45	1.53
2	A8	733	G	N7-C5	-7.05	1.35	1.39
2	A8	939	G	P-O5'	-7.05	1.52	1.59
2	A8	1935	G	P-O5'	-7.05	1.52	1.59
2	A8	1243	C	P-O5'	-7.05	1.52	1.59
2	A8	1645	G	C2'-C1'	-7.05	1.45	1.53
2	A8	2659	G	P-O5'	-7.05	1.52	1.59
36	BA	1057	G	N7-C5	-7.05	1.35	1.39
2	A8	2747	G	N7-C5	-7.04	1.35	1.39
1	A7	113	C	C2'-C1'	-7.04	1.45	1.53
2	A8	513	A	N7-C5	-7.04	1.35	1.39
2	A8	751	A	P-O5'	-7.04	1.52	1.59
36	BA	944	G	N7-C5	-7.04	1.35	1.39
2	A8	34	U	P-O5'	-7.04	1.52	1.59
36	BA	104	G	C2'-C1'	-7.04	1.45	1.53
2	A8	1857	G	C2'-C1'	-7.04	1.45	1.53
2	A8	1177	G	C2'-C1'	-7.04	1.45	1.53
2	A8	238	C	C2'-C1'	-7.04	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1143	A	O3'-P	-7.03	1.52	1.61
2	A8	2059	A	N7-C5	-7.03	1.35	1.39
2	A8	2268	A	N9-C4	-7.03	1.33	1.37
36	BA	772	U	C2'-C1'	-7.03	1.45	1.53
36	BA	496	A	N7-C5	-7.03	1.35	1.39
36	BA	1169	A	P-O5'	-7.03	1.52	1.59
2	A8	519	U	P-O5'	-7.03	1.52	1.59
2	A8	1927	A	N7-C5	-7.03	1.35	1.39
2	A8	1525	A	N7-C5	-7.03	1.35	1.39
2	A8	2868	A	C2'-C1'	-7.03	1.45	1.53
2	A8	577	G	N7-C5	-7.03	1.35	1.39
2	A8	2368	C	P-O5'	-7.03	1.52	1.59
36	BA	861	G	N7-C5	-7.03	1.35	1.39
36	BA	900	A	N9-C4	-7.03	1.33	1.37
2	A8	767	U	P-O5'	-7.02	1.52	1.59
2	A8	1061	U	O3'-P	-7.02	1.52	1.61
2	A8	315	G	C2'-C1'	-7.02	1.45	1.53
36	BA	654	G	N7-C5	-7.02	1.35	1.39
36	BA	1316	G	N7-C5	-7.02	1.35	1.39
2	A8	632	A	C2'-C1'	-7.02	1.45	1.53
36	BA	320	A	C3'-C2'	-7.02	1.45	1.52
2	A8	345	A	N3-C4	-7.02	1.30	1.34
36	BA	1177	G	N7-C5	-7.02	1.35	1.39
2	A8	1927	A	C2'-C1'	-7.01	1.45	1.53
2	A8	1381	G	C3'-C2'	-7.01	1.45	1.52
2	A8	215	G	N7-C5	-7.01	1.35	1.39
36	BA	668	G	P-O5'	-7.01	1.52	1.59
36	BA	1163	A	P-O5'	-7.01	1.52	1.59
2	A8	644	A	N7-C5	-7.00	1.35	1.39
2	A8	2475	C	P-O5'	-7.00	1.52	1.59
2	A8	2810	A	P-O5'	-7.00	1.52	1.59
2	A8	2866	U	C2'-C1'	-7.00	1.45	1.53
36	BA	71	A	C2'-C1'	-7.00	1.45	1.53
2	A8	1927	A	N3-C4	-7.00	1.30	1.34
2	A8	1701	A	C2'-C1'	-7.00	1.45	1.53
2	A8	717	C	P-O5'	-7.00	1.52	1.59
2	A8	2759	G	N9-C4	-7.00	1.32	1.38
36	BA	1512	U	C2'-C1'	-7.00	1.45	1.53
2	A8	457	A	O3'-P	-6.99	1.52	1.61
2	A8	514	A	N7-C5	-6.99	1.35	1.39
2	A8	1225	G	C2'-C1'	-6.99	1.45	1.53
2	A8	697	G	P-O5'	-6.99	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1560	G	P-O5'	-6.99	1.52	1.59
2	A8	1301	A	O3'-P	-6.99	1.52	1.61
2	A8	28	A	C2'-C1'	-6.99	1.45	1.53
2	A8	974	G	C2'-C1'	-6.99	1.45	1.53
2	A8	1527	G	N7-C5	-6.99	1.35	1.39
2	A8	1751	U	P-O5'	-6.99	1.52	1.59
36	BA	517	G	C2'-C1'	-6.99	1.45	1.53
2	A8	1802	A	C2'-C1'	-6.98	1.45	1.53
2	A8	2452	C	P-O5'	-6.98	1.52	1.59
2	A8	2514	U	P-O5'	-6.98	1.52	1.59
36	BA	284	C	P-O5'	-6.98	1.52	1.59
2	A8	742	A	P-O5'	-6.98	1.52	1.59
2	A8	626	A	N7-C5	-6.98	1.35	1.39
36	BA	482	A	N7-C5	-6.98	1.35	1.39
2	A8	73	A	N7-C5	-6.98	1.35	1.39
36	BA	802	A	P-O5'	-6.98	1.52	1.59
2	A8	1344	U	P-O5'	-6.97	1.52	1.59
2	A8	1690	A	P-O5'	-6.97	1.52	1.59
2	A8	739	A	N3-C4	-6.97	1.30	1.34
2	A8	124	G	P-O5'	-6.97	1.52	1.59
2	A8	2593	U	C2'-C1'	-6.97	1.45	1.53
2	A8	2814	A	N7-C5	-6.97	1.35	1.39
36	BA	338	A	N7-C5	-6.97	1.35	1.39
2	A8	2663	G	P-O5'	-6.97	1.52	1.59
2	A8	835	C	P-O5'	-6.96	1.52	1.59
2	A8	1735	A	N7-C5	-6.96	1.35	1.39
36	BA	495	A	N7-C5	-6.96	1.35	1.39
36	BA	1004	A	N7-C5	-6.96	1.35	1.39
2	A8	1411	U	C2'-C1'	-6.96	1.45	1.53
36	BA	761	G	C2'-C1'	-6.96	1.45	1.53
2	A8	704	G	O4'-C1'	-6.96	1.32	1.41
2	A8	2407	A	N7-C5	-6.96	1.35	1.39
2	A8	2009	A	N9-C4	-6.96	1.33	1.37
36	BA	823	C	P-O5'	-6.96	1.52	1.59
2	A8	362	A	N7-C5	-6.95	1.35	1.39
2	A8	499	U	C2'-C1'	-6.95	1.45	1.53
2	A8	1838	C	O3'-P	-6.95	1.52	1.61
36	BA	1447	A	C2'-C1'	-6.95	1.45	1.53
2	A8	2199	A	N7-C5	-6.95	1.35	1.39
2	A8	2335	A	C2'-C1'	-6.95	1.45	1.53
2	A8	1189	A	N7-C5	-6.95	1.35	1.39
2	A8	1310	G	C2'-C1'	-6.95	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2588	G	C2'-C1'	-6.95	1.45	1.53
1	A7	69	G	N7-C5	-6.95	1.35	1.39
36	BA	55	A	N7-C5	-6.95	1.35	1.39
36	BA	1093	A	N7-C5	-6.95	1.35	1.39
2	A8	1979	U	C2'-C1'	-6.94	1.45	1.53
2	A8	2664	G	N7-C5	-6.94	1.35	1.39
2	A8	2171	A	C2'-C1'	-6.94	1.45	1.53
2	A8	981	A	N7-C5	-6.94	1.35	1.39
2	A8	2869	G	P-O5'	-6.94	1.52	1.59
2	A8	2902	C	C2'-C1'	-6.94	1.45	1.53
2	A8	2770	G	N1-C2	6.94	1.43	1.37
36	BA	684	U	P-O5'	-6.93	1.52	1.59
2	A8	752	A	C2'-C1'	-6.93	1.45	1.53
2	A8	2599	G	N7-C5	-6.93	1.35	1.39
2	A8	2889	C	C2'-C1'	-6.93	1.45	1.53
2	A8	38	A	N7-C5	-6.93	1.35	1.39
2	A8	2626	C	C2'-C1'	-6.93	1.45	1.53
2	A8	2075	U	C2'-C1'	-6.93	1.45	1.53
2	A8	2704	C	P-O5'	-6.93	1.52	1.59
2	A8	775	G	C1'-N9	-6.93	1.37	1.46
2	A8	2523	G	C2'-C1'	-6.93	1.45	1.53
2	A8	1689	A	C2'-C1'	-6.93	1.45	1.53
2	A8	1905	C	C2'-C1'	-6.92	1.45	1.53
36	BA	411	A	N7-C5	-6.92	1.35	1.39
2	A8	952	G	P-O5'	-6.92	1.52	1.59
2	A8	2288	A	N7-C5	-6.92	1.35	1.39
36	BA	270	A	C2'-C1'	-6.92	1.45	1.53
2	A8	743	A	N9-C4	-6.92	1.33	1.37
36	BA	903	G	N7-C5	-6.92	1.35	1.39
2	A8	1642	G	P-O5'	-6.92	1.52	1.59
2	A8	204	A	N7-C5	-6.91	1.35	1.39
2	A8	1821	A	P-O5'	-6.91	1.52	1.59
2	A8	2844	G	P-O5'	-6.91	1.52	1.59
36	BA	566	G	C2'-C1'	-6.91	1.45	1.53
2	A8	529	A	N7-C5	-6.91	1.35	1.39
2	A8	123	G	N7-C5	-6.91	1.35	1.39
1	A7	59	A	N7-C5	-6.90	1.35	1.39
2	A8	1742	U	C2'-C1'	-6.90	1.45	1.53
2	A8	2009	A	N7-C5	-6.90	1.35	1.39
36	BA	704	A	N7-C5	-6.90	1.35	1.39
2	A8	820	A	C2'-C1'	-6.90	1.45	1.53
36	BA	1527	U	C2'-C1'	-6.90	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	815	A	C2'-C1'	-6.89	1.45	1.53
2	A8	127	A	C4'-C3'	-6.89	1.45	1.53
2	A8	1433	A	C2'-C1'	-6.89	1.45	1.53
36	BA	542	G	C2'-C1'	-6.89	1.45	1.53
2	A8	676	A	O3'-P	-6.88	1.52	1.61
36	BA	850	U	C2'-C1'	-6.88	1.45	1.53
36	BA	431	A	N7-C5	-6.88	1.35	1.39
2	A8	1842	G	P-O5'	-6.88	1.52	1.59
2	A8	2284	A	C2'-C1'	-6.87	1.45	1.53
2	A8	2336	A	N7-C5	-6.87	1.35	1.39
36	BA	715	A	C2'-C1'	-6.87	1.45	1.53
36	BA	736	C	P-O5'	-6.87	1.52	1.59
2	A8	1431	A	N7-C5	-6.87	1.35	1.39
36	BA	283	U	C2'-C1'	-6.87	1.45	1.53
2	A8	1025	G	C2'-C1'	-6.86	1.45	1.53
2	A8	260	G	P-O5'	-6.86	1.52	1.59
2	A8	1050	A	N7-C5	-6.86	1.35	1.39
2	A8	2041	U	P-O5'	-6.86	1.52	1.59
2	A8	2814	A	P-O5'	-6.86	1.52	1.59
36	BA	74	A	P-O5'	-6.86	1.52	1.59
36	BA	364	A	N7-C5	-6.86	1.35	1.39
2	A8	998	C	P-O5'	-6.86	1.52	1.59
2	A8	1910	G	N9-C4	-6.86	1.32	1.38
2	A8	2369	A	C2'-C1'	-6.86	1.45	1.53
36	BA	393	A	C2'-C1'	-6.86	1.45	1.53
2	A8	663	G	P-O5'	-6.85	1.52	1.59
2	A8	2257	U	P-O5'	-6.85	1.52	1.59
2	A8	2072	C	P-O5'	-6.85	1.52	1.59
2	A8	2842	G	N7-C5	-6.85	1.35	1.39
36	BA	460	A	O3'-P	-6.85	1.52	1.61
2	A8	742	A	C2'-C1'	-6.85	1.45	1.53
2	A8	2014	A	C2'-C1'	-6.85	1.45	1.53
2	A8	2064	C	P-O5'	-6.85	1.52	1.59
2	A8	2259	U	P-O5'	-6.85	1.52	1.59
36	BA	151	A	N3-C4	-6.85	1.30	1.34
2	A8	640	C	C2'-C1'	-6.85	1.45	1.53
2	A8	2810	A	C8-N7	-6.85	1.26	1.31
36	BA	1171	A	P-O5'	-6.85	1.52	1.59
36	BA	1283	U	C2'-C1'	-6.85	1.45	1.53
2	A8	556	A	N7-C5	-6.85	1.35	1.39
2	A8	851	C	C2'-C1'	-6.85	1.45	1.53
2	A8	1358	G	N7-C5	-6.85	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2447	G	N7-C5	-6.85	1.35	1.39
2	A8	650	C	C2'-C1'	-6.84	1.45	1.53
36	BA	1518	A	O3'-P	-6.84	1.52	1.61
2	A8	723	C	P-O5'	-6.84	1.52	1.59
36	BA	927	G	C2'-C1'	-6.84	1.45	1.53
2	A8	2669	G	P-O5'	-6.84	1.52	1.59
2	A8	1139	G	N7-C5	-6.84	1.35	1.39
2	A8	2583	G	C2'-C1'	-6.84	1.45	1.53
36	BA	258	G	N7-C5	-6.84	1.35	1.39
36	BA	1076	U	P-O5'	-6.84	1.52	1.59
2	A8	2567	G	C2'-C1'	-6.83	1.45	1.53
2	A8	798	G	C2'-C1'	-6.83	1.45	1.53
2	A8	1580	A	N7-C5	-6.83	1.35	1.39
2	A8	2810	A	N9-C4	-6.83	1.33	1.37
36	BA	284	C	C2'-C1'	-6.83	1.45	1.53
2	A8	6	A	N7-C5	-6.83	1.35	1.39
36	BA	389	A	N7-C5	-6.83	1.35	1.39
36	BA	1179	A	N7-C5	-6.83	1.35	1.39
2	A8	1916	A	C2'-C1'	-6.83	1.45	1.53
2	A8	2815	C	C2'-C1'	-6.83	1.45	1.53
36	BA	786	G	C3'-C2'	-6.83	1.45	1.52
2	A8	1185	G	N7-C5	-6.83	1.35	1.39
36	BA	563	A	P-O5'	-6.83	1.52	1.59
2	A8	2060	A	N9-C4	6.83	1.42	1.37
2	A8	1168	G	P-O5'	-6.82	1.52	1.59
2	A8	2643	G	P-O5'	-6.82	1.52	1.59
2	A8	2108	A	N7-C5	-6.82	1.35	1.39
36	BA	584	G	P-O5'	-6.82	1.52	1.59
36	BA	757	U	P-O5'	-6.82	1.52	1.59
2	A8	1024	G	N7-C5	-6.82	1.35	1.39
2	A8	1661	G	C2'-C1'	-6.82	1.45	1.53
2	A8	2749	A	N9-C4	-6.82	1.33	1.37
36	BA	16	A	C2'-C1'	-6.81	1.45	1.53
2	A8	920	A	C2'-C1'	-6.81	1.45	1.53
2	A8	1653	G	N7-C5	-6.81	1.35	1.39
36	BA	263	A	P-O5'	-6.81	1.52	1.59
2	A8	103	A	C2'-C1'	-6.81	1.45	1.53
2	A8	429	A	N7-C5	-6.81	1.35	1.39
2	A8	2020	A	P-O5'	-6.81	1.52	1.59
2	A8	1815	A	N9-C4	-6.81	1.33	1.37
2	A8	280	U	C2'-C1'	-6.81	1.45	1.53
2	A8	1010	A	N7-C5	-6.81	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1693	U	C2-N3	6.81	1.42	1.37
2	A8	228	C	P-O5'	-6.81	1.52	1.59
2	A8	392	U	P-O5'	-6.80	1.52	1.59
2	A8	670	A	P-O5'	-6.80	1.52	1.59
2	A8	1008	A	N9-C4	-6.80	1.33	1.37
2	A8	2042	A	O3'-P	-6.80	1.52	1.61
2	A8	2232	C	C2'-C1'	-6.80	1.45	1.53
2	A8	2758	A	N7-C5	-6.80	1.35	1.39
2	A8	726	G	C2'-C1'	-6.80	1.45	1.53
2	A8	1715	G	C2'-C1'	-6.80	1.45	1.53
2	A8	2045	C	C2'-C1'	-6.80	1.45	1.53
36	BA	1515	G	C2'-C1'	-6.80	1.45	1.53
36	BA	537	G	P-O5'	-6.80	1.52	1.59
2	A8	1833	C	C2'-C1'	-6.80	1.45	1.53
36	BA	595	A	C2'-C1'	-6.80	1.45	1.53
2	A8	918	A	N3-C4	-6.80	1.30	1.34
2	A8	2413	G	N7-C5	-6.80	1.35	1.39
2	A8	676	A	N7-C5	-6.79	1.35	1.39
2	A8	814	C	P-O5'	-6.79	1.52	1.59
2	A8	2117	A	N7-C5	-6.79	1.35	1.39
2	A8	2361	G	N7-C5	-6.79	1.35	1.39
1	A7	100	G	N7-C5	-6.79	1.35	1.39
2	A8	796	C	C2'-C1'	-6.79	1.45	1.53
2	A8	1199	U	P-O5'	-6.79	1.52	1.59
2	A8	1562	U	P-O5'	-6.79	1.52	1.59
2	A8	1784	A	P-O5'	-6.79	1.52	1.59
2	A8	2470	G	N7-C5	-6.79	1.35	1.39
36	BA	1299	A	N9-C4	6.79	1.42	1.37
2	A8	910	A	N3-C4	-6.79	1.30	1.34
36	BA	915	A	N7-C5	-6.79	1.35	1.39
2	A8	2632	A	C2'-C1'	-6.79	1.45	1.53
2	A8	2413	G	P-O5'	-6.79	1.52	1.59
2	A8	931	U	C2-N3	6.78	1.42	1.37
2	A8	1384	A	C2'-C1'	-6.78	1.45	1.53
2	A8	2788	C	C2'-C1'	-6.78	1.45	1.53
36	BA	890	G	N1-C2	6.78	1.43	1.37
36	BA	49	U	O3'-P	-6.78	1.53	1.61
2	A8	1955	U	P-O5'	-6.78	1.52	1.59
36	BA	1361	G	P-O5'	-6.78	1.52	1.59
36	BA	615	G	C2'-C1'	-6.78	1.45	1.53
2	A8	603	A	N9-C4	-6.78	1.33	1.37
36	BA	778	G	P-O5'	-6.78	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1746	A	C2'-C1'	-6.78	1.45	1.53
2	A8	2054	A	N7-C5	-6.78	1.35	1.39
36	BA	468	A	C8-N7	-6.78	1.26	1.31
36	BA	840	C	P-O5'	-6.78	1.52	1.59
2	A8	1668	A	O3'-P	-6.77	1.53	1.61
36	BA	635	A	N7-C5	-6.77	1.35	1.39
2	A8	2722	G	C2'-C1'	-6.77	1.45	1.53
36	BA	837	U	C2'-C1'	-6.77	1.46	1.53
2	A8	1522	A	N7-C5	-6.77	1.35	1.39
36	BA	858	G	N7-C5	-6.77	1.35	1.39
36	BA	1193	G	C2'-C1'	-6.77	1.46	1.53
2	A8	880	G	P-O5'	-6.77	1.52	1.59
2	A8	1191	G	P-O5'	-6.77	1.52	1.59
2	A8	578	G	P-O5'	-6.77	1.52	1.59
36	BA	32	A	N9-C4	6.77	1.42	1.37
36	BA	246	A	C1'-N9	-6.77	1.37	1.46
2	A8	197	A	P-O5'	-6.76	1.52	1.59
2	A8	2664	G	N9-C4	-6.76	1.32	1.38
36	BA	833	G	P-O5'	-6.76	1.52	1.59
2	A8	2156	G	C2'-C1'	-6.76	1.46	1.53
36	BA	994	A	N7-C5	-6.76	1.35	1.39
2	A8	1514	G	C2'-C1'	-6.76	1.46	1.53
2	A8	185	G	P-O5'	-6.76	1.52	1.59
2	A8	2472	G	N7-C5	-6.76	1.35	1.39
2	A8	2722	G	N7-C5	-6.76	1.35	1.39
36	BA	282	A	N9-C4	-6.76	1.33	1.37
2	A8	701	G	P-O5'	-6.75	1.52	1.59
2	A8	1246	A	C2'-C1'	-6.75	1.46	1.53
2	A8	746	U	P-O5'	-6.75	1.52	1.59
2	A8	227	A	N9-C4	-6.75	1.33	1.37
36	BA	322	C	P-O5'	-6.75	1.53	1.59
2	A8	1854	A	N7-C5	-6.75	1.35	1.39
36	BA	1360	A	N7-C5	-6.75	1.35	1.39
2	A8	226	A	N7-C5	-6.75	1.35	1.39
36	BA	670	G	P-O5'	-6.75	1.53	1.59
36	BA	864	A	N7-C5	-6.75	1.35	1.39
2	A8	271	G	C2'-C1'	-6.74	1.46	1.53
2	A8	721	A	C2'-C1'	-6.74	1.46	1.53
2	A8	1164	C	C2'-C1'	-6.74	1.46	1.53
2	A8	2024	G	N7-C5	-6.74	1.35	1.39
2	A8	2672	U	C2'-C1'	-6.74	1.46	1.53
36	BA	810	C	P-O5'	-6.74	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	935	A	N7-C5	-6.74	1.35	1.39
36	BA	1419	G	C2'-C1'	-6.74	1.46	1.53
36	BA	1408	A	N9-C4	-6.74	1.33	1.37
2	A8	1629	U	C2'-C1'	-6.74	1.46	1.53
2	A8	2710	C	C2'-C1'	-6.74	1.46	1.53
2	A8	296	U	C2'-C1'	-6.73	1.46	1.53
2	A8	2566	A	C1'-N9	-6.73	1.37	1.46
2	A8	973	A	N9-C4	-6.73	1.33	1.37
36	BA	424	G	C2'-C1'	-6.73	1.46	1.53
2	A8	1641	A	C8-N7	-6.73	1.26	1.31
2	A8	1906	G	C2'-C1'	-6.73	1.46	1.53
2	A8	2227	A	N7-C5	-6.73	1.35	1.39
36	BA	288	A	N7-C5	-6.72	1.35	1.39
36	BA	1067	A	N7-C5	-6.72	1.35	1.39
36	BA	564	C	P-O5'	-6.71	1.53	1.59
2	A8	21	A	C2'-C1'	-6.71	1.46	1.53
2	A8	747	U	C2-N3	6.71	1.42	1.37
2	A8	2424	C	O3'-P	-6.71	1.53	1.61
2	A8	572	A	P-O5'	-6.71	1.53	1.59
2	A8	1522	A	O3'-P	-6.71	1.53	1.61
2	A8	1664	A	N7-C5	-6.71	1.35	1.39
2	A8	53	A	P-O5'	-6.71	1.53	1.59
2	A8	1782	U	P-O5'	-6.71	1.53	1.59
2	A8	2098	U	C2'-C1'	-6.71	1.46	1.53
36	BA	426	U	P-O5'	-6.71	1.53	1.59
36	BA	1459	G	P-O5'	-6.71	1.53	1.59
2	A8	2308	G	C2'-C1'	-6.70	1.46	1.53
2	A8	819	A	C2'-C1'	-6.70	1.46	1.53
2	A8	2381	A	N7-C5	-6.70	1.35	1.39
2	A8	1295	C	C3'-C2'	-6.70	1.45	1.52
2	A8	2636	C	C2'-C1'	-6.70	1.46	1.53
36	BA	775	G	C3'-C2'	-6.70	1.45	1.52
2	A8	733	G	N9-C4	-6.70	1.32	1.38
36	BA	460	A	C2'-C1'	-6.70	1.46	1.53
36	BA	1413	A	N7-C5	-6.70	1.35	1.39
2	A8	1644	C	P-O5'	-6.69	1.53	1.59
36	BA	823	C	C2'-C1'	-6.69	1.46	1.53
2	A8	2655	G	N1-C2	6.69	1.43	1.37
36	BA	487	A	C8-N7	-6.69	1.26	1.31
2	A8	1404	C	C2'-C1'	-6.69	1.46	1.53
2	A8	1527	G	N3-C4	-6.69	1.30	1.35
36	BA	988	G	P-O5'	-6.69	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2388	A	N9-C4	-6.68	1.33	1.37
2	A8	2431	U	P-O5'	-6.68	1.53	1.59
36	BA	131	A	C2'-C1'	-6.68	1.46	1.53
2	A8	1260	A	C2'-C1'	-6.68	1.46	1.53
2	A8	1522	A	N9-C4	-6.68	1.33	1.37
2	A8	2094	A	P-O5'	-6.68	1.53	1.59
2	A8	1429	G	C2'-C1'	-6.68	1.46	1.53
2	A8	147	C	C2'-C1'	-6.67	1.46	1.53
2	A8	515	A	P-O5'	-6.67	1.53	1.59
2	A8	1767	G	C2'-C1'	-6.67	1.46	1.53
2	A8	1839	G	N7-C5	-6.67	1.35	1.39
2	A8	24	G	N7-C5	-6.67	1.35	1.39
2	A8	1328	A	N7-C5	-6.67	1.35	1.39
2	A8	2097	A	N7-C5	-6.67	1.35	1.39
36	BA	283	U	P-O5'	-6.67	1.53	1.59
36	BA	411	A	C2'-C1'	-6.67	1.46	1.53
36	BA	714	G	N7-C5	-6.67	1.35	1.39
2	A8	479	A	P-O5'	-6.67	1.53	1.59
2	A8	969	G	C2'-C1'	-6.67	1.46	1.53
2	A8	974	G	O3'-P	-6.67	1.53	1.61
2	A8	1174	U	C4'-C3'	-6.67	1.45	1.53
36	BA	1072	G	P-O5'	-6.67	1.53	1.59
36	BA	953	G	P-O5'	-6.67	1.53	1.59
2	A8	1480	C	P-O5'	-6.66	1.53	1.59
2	A8	1700	A	C8-N7	-6.66	1.26	1.31
36	BA	478	A	N7-C5	-6.66	1.35	1.39
2	A8	1145	C	P-O5'	-6.66	1.53	1.59
36	BA	1127	G	P-O5'	-6.66	1.53	1.59
2	A8	912	C	C2'-C1'	-6.66	1.46	1.53
36	BA	894	G	C2'-C1'	-6.66	1.46	1.53
36	BA	1417	G	C3'-C2'	-6.65	1.45	1.52
2	A8	49	A	N7-C5	-6.65	1.35	1.39
2	A8	1234	U	P-O5'	-6.65	1.53	1.59
2	A8	2540	C	C2'-C1'	-6.65	1.46	1.53
2	A8	2869	G	C2'-C1'	-6.65	1.46	1.53
36	BA	1496	C	P-O5'	-6.65	1.53	1.59
2	A8	198	C	P-O5'	-6.65	1.53	1.59
2	A8	1655	A	N7-C5	-6.65	1.35	1.39
36	BA	709	U	P-O5'	-6.65	1.53	1.59
2	A8	196	A	C2'-C1'	-6.64	1.46	1.53
2	A8	592	A	C2'-C1'	-6.64	1.46	1.53
2	A8	1357	C	P-O5'	-6.64	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	293	G	N7-C5	-6.64	1.35	1.39
1	A7	8	C	P-O5'	-6.64	1.53	1.59
2	A8	453	A	P-O5'	-6.64	1.53	1.59
2	A8	1608	A	N9-C4	-6.64	1.33	1.37
2	A8	2197	U	O3'-P	-6.64	1.53	1.61
2	A8	250	G	P-O5'	-6.64	1.53	1.59
2	A8	713	G	N7-C5	-6.64	1.35	1.39
2	A8	1395	A	N7-C5	-6.64	1.35	1.39
36	BA	199	A	N9-C4	-6.64	1.33	1.37
36	BA	242	G	C3'-C2'	-6.64	1.45	1.52
36	BA	1417	G	C2'-C1'	-6.64	1.46	1.53
2	A8	2225	A	O3'-P	-6.64	1.53	1.61
2	A8	2714	G	P-O5'	-6.64	1.53	1.59
2	A8	2733	A	N7-C5	-6.64	1.35	1.39
2	A8	2620	C	P-O5'	-6.63	1.53	1.59
36	BA	502	A	C2'-C1'	-6.63	1.46	1.53
36	BA	1393	U	C2'-C1'	-6.63	1.46	1.53
2	A8	358	U	P-O5'	-6.63	1.53	1.59
2	A8	479	A	O3'-P	-6.63	1.53	1.61
2	A8	1583	A	C2'-C1'	-6.63	1.46	1.53
2	A8	1641	A	C2'-C1'	-6.63	1.46	1.53
2	A8	1943	U	C2'-C1'	-6.63	1.46	1.53
36	BA	349	A	C2'-C1'	-6.63	1.46	1.53
2	A8	1666	G	P-O5'	-6.63	1.53	1.59
2	A8	2834	G	P-O5'	-6.63	1.53	1.59
36	BA	536	C	C4'-O4'	-6.63	1.36	1.45
36	BA	1215	G	C2'-C1'	-6.63	1.46	1.53
2	A8	1073	A	N7-C5	-6.63	1.35	1.39
2	A8	1651	G	C3'-C2'	-6.63	1.45	1.52
2	A8	1628	G	P-O5'	-6.62	1.53	1.59
2	A8	2724	U	C2'-C1'	-6.62	1.46	1.53
2	A8	1513	U	C3'-C2'	-6.62	1.45	1.52
36	BA	935	A	N9-C4	6.62	1.41	1.37
2	A8	2102	G	P-O5'	-6.62	1.53	1.59
36	BA	892	A	C2'-C1'	-6.62	1.46	1.53
36	BA	852	G	P-O5'	-6.62	1.53	1.59
36	BA	1234	C	P-O5'	-6.62	1.53	1.59
2	A8	828	U	C4'-C3'	-6.62	1.45	1.53
2	A8	1534	U	C3'-C2'	-6.62	1.45	1.52
2	A8	2040	G	C2'-C1'	-6.62	1.46	1.53
2	A8	2605	U	P-O5'	-6.62	1.53	1.59
2	A8	2660	A	N7-C5	-6.62	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	518	C	C2'-C1'	-6.62	1.46	1.53
2	A8	1405	U	O3'-P	-6.62	1.53	1.61
2	A8	2511	U	C2'-C1'	-6.61	1.46	1.53
36	BA	595	A	N9-C4	-6.61	1.33	1.37
2	A8	2763	G	N7-C5	-6.61	1.35	1.39
2	A8	985	C	C5'-C4'	6.61	1.59	1.51
2	A8	1363	C	C3'-C2'	-6.61	1.45	1.52
2	A8	1426	G	O3'-P	-6.61	1.53	1.61
2	A8	1724	G	N7-C5	-6.61	1.35	1.39
2	A8	1924	C	P-O5'	-6.61	1.53	1.59
2	A8	2564	A	P-O5'	-6.61	1.53	1.59
36	BA	1478	U	C2'-C1'	-6.61	1.46	1.53
2	A8	2194	U	P-O5'	-6.61	1.53	1.59
2	A8	2267	A	N9-C4	6.61	1.41	1.37
2	A8	2694	G	C3'-C2'	-6.61	1.45	1.52
2	A8	215	G	O3'-P	-6.61	1.53	1.61
2	A8	918	A	C2'-C1'	-6.61	1.46	1.53
2	A8	636	G	N7-C5	-6.61	1.35	1.39
2	A8	2608	G	C2'-C1'	-6.61	1.46	1.53
2	A8	283	G	N7-C5	-6.60	1.35	1.39
2	A8	959	A	C2'-C1'	-6.60	1.46	1.53
2	A8	976	G	N7-C5	-6.60	1.35	1.39
36	BA	1163	A	N7-C5	-6.60	1.35	1.39
2	A8	1630	A	N9-C4	-6.60	1.33	1.37
36	BA	1465	A	N7-C5	-6.60	1.35	1.39
2	A8	333	G	N9-C4	6.60	1.43	1.38
2	A8	1264	A	N7-C5	-6.60	1.35	1.39
2	A8	1279	G	C2'-C1'	-6.60	1.46	1.53
2	A8	1809	A	C2'-C1'	-6.60	1.46	1.53
36	BA	1515	G	P-O5'	-6.60	1.53	1.59
2	A8	987	C	P-O5'	-6.60	1.53	1.59
2	A8	855	G	C3'-C2'	-6.60	1.45	1.52
2	A8	1171	G	P-O5'	-6.59	1.53	1.59
2	A8	2277	G	C2'-C1'	-6.59	1.46	1.53
2	A8	699	A	C2'-C1'	-6.59	1.46	1.53
2	A8	1304	A	P-O5'	-6.59	1.53	1.59
2	A8	1777	U	C3'-C2'	-6.59	1.45	1.52
2	A8	2753	A	N7-C5	-6.59	1.35	1.39
36	BA	265	G	P-O5'	-6.59	1.53	1.59
2	A8	63	A	N7-C5	-6.59	1.35	1.39
2	A8	1756	G	C2'-C1'	-6.59	1.46	1.53
2	A8	2412	A	C8-N7	-6.59	1.26	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1285	A	N7-C5	-6.59	1.35	1.39
36	BA	498	A	N7-C5	-6.58	1.35	1.39
2	A8	619	G	C3'-C2'	-6.58	1.45	1.52
2	A8	1230	A	N7-C5	-6.58	1.35	1.39
2	A8	1910	G	C2'-C1'	-6.58	1.46	1.53
2	A8	1924	C	C2'-C1'	-6.58	1.46	1.53
36	BA	628	G	N7-C5	-6.58	1.35	1.39
36	BA	1015	G	C2'-C1'	-6.58	1.46	1.53
2	A8	1745	A	N7-C5	-6.58	1.35	1.39
2	A8	2369	A	N7-C5	-6.58	1.35	1.39
36	BA	184	G	N7-C5	-6.58	1.35	1.39
36	BA	1077	G	N1-C2	6.58	1.43	1.37
2	A8	95	A	P-O5'	-6.58	1.53	1.59
2	A8	319	G	C2'-C1'	-6.58	1.46	1.53
2	A8	2560	A	P-O5'	-6.58	1.53	1.59
2	A8	2738	A	P-O5'	-6.58	1.53	1.59
2	A8	642	U	P-O5'	-6.58	1.53	1.59
2	A8	1496	A	N7-C5	-6.58	1.35	1.39
2	A8	2230	G	P-O5'	-6.58	1.53	1.59
2	A8	2357	G	N9-C4	-6.58	1.32	1.38
2	A8	2557	G	C2'-C1'	-6.58	1.46	1.53
2	A8	967	U	C3'-C2'	-6.58	1.45	1.52
36	BA	1419	G	N7-C5	-6.58	1.35	1.39
2	A8	205	G	N1-C2	6.58	1.43	1.37
2	A8	1714	U	P-O5'	-6.57	1.53	1.59
36	BA	196	A	N7-C5	-6.57	1.35	1.39
36	BA	930	C	C2'-C1'	-6.57	1.46	1.53
2	A8	266	G	C2-N3	6.57	1.38	1.32
36	BA	1391	U	C2'-C1'	-6.57	1.46	1.53
36	BA	987	G	N7-C5	-6.57	1.35	1.39
2	A8	1769	U	C2'-C1'	-6.57	1.46	1.53
36	BA	51	A	N7-C5	-6.57	1.35	1.39
2	A8	1455	G	P-O5'	-6.57	1.53	1.59
2	A8	2556	C	P-O5'	-6.57	1.53	1.59
36	BA	1151	A	P-O5'	-6.57	1.53	1.59
2	A8	973	A	C4'-O4'	-6.56	1.37	1.45
2	A8	2595	G	N9-C4	-6.56	1.32	1.38
2	A8	632	A	N7-C5	-6.56	1.35	1.39
2	A8	294	A	O3'-P	-6.56	1.53	1.61
2	A8	2521	C	C2'-C1'	-6.56	1.46	1.53
36	BA	476	U	C2'-C1'	-6.56	1.46	1.53
36	BA	583	A	P-O5'	-6.56	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	622	A	N7-C5	-6.56	1.35	1.39
2	A8	1418	G	C2'-C1'	-6.56	1.46	1.53
2	A8	195	A	N9-C4	-6.56	1.33	1.37
36	BA	39	G	N7-C5	-6.56	1.35	1.39
36	BA	1453	G	N7-C5	-6.56	1.35	1.39
2	A8	1603	A	N7-C5	-6.55	1.35	1.39
2	A8	1755	A	N7-C5	-6.55	1.35	1.39
2	A8	2625	G	C3'-C2'	-6.55	1.45	1.52
36	BA	56	U	P-O5'	-6.55	1.53	1.59
2	A8	862	G	N7-C5	-6.55	1.35	1.39
36	BA	589	U	P-O5'	-6.55	1.53	1.59
2	A8	1640	A	C2'-C1'	-6.55	1.46	1.53
2	A8	2266	A	N7-C5	-6.55	1.35	1.39
36	BA	471	U	C2'-C1'	-6.55	1.46	1.53
36	BA	745	G	C2'-C1'	-6.55	1.46	1.53
2	A8	1286	A	N7-C5	-6.55	1.35	1.39
2	A8	2714	G	O3'-P	-6.55	1.53	1.61
2	A8	1282	U	P-O5'	-6.55	1.53	1.59
2	A8	1323	C	P-O5'	-6.55	1.53	1.59
2	A8	1815	A	C2'-C1'	-6.55	1.46	1.53
2	A8	2433	A	N7-C5	-6.55	1.35	1.39
36	BA	1519	A	N9-C4	-6.55	1.33	1.37
2	A8	1643	G	P-O5'	-6.54	1.53	1.59
2	A8	1308	A	N7-C5	-6.54	1.35	1.39
2	A8	1360	G	P-O5'	-6.54	1.53	1.59
2	A8	1385	A	C2'-C1'	-6.54	1.46	1.53
2	A8	1695	G	N7-C5	-6.54	1.35	1.39
2	A8	2457	U	O3'-P	-6.54	1.53	1.61
2	A8	2460	U	C2'-C1'	-6.54	1.46	1.53
2	A8	2074	U	C2'-C1'	-6.54	1.46	1.53
2	A8	2082	A	C8-N7	-6.54	1.26	1.31
2	A8	741	U	C2'-C1'	-6.54	1.46	1.53
2	A8	2261	C	C2'-C1'	-6.54	1.46	1.53
2	A8	2885	G	C2'-C1'	-6.54	1.46	1.53
36	BA	213	G	N7-C5	-6.54	1.35	1.39
2	A8	91	A	N7-C5	-6.53	1.35	1.39
36	BA	446	G	N7-C5	-6.53	1.35	1.39
36	BA	454	G	N7-C5	-6.53	1.35	1.39
36	BA	22	G	N7-C5	-6.53	1.35	1.39
36	BA	138	G	C2'-C1'	-6.53	1.46	1.53
36	BA	1276	G	N7-C5	-6.53	1.35	1.39
2	A8	935	C	C2'-C1'	-6.53	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1635	A	N7-C5	-6.53	1.35	1.39
2	A8	1725	U	P-O5'	-6.53	1.53	1.59
2	A8	2279	G	C2'-C1'	-6.53	1.46	1.53
2	A8	1651	G	N9-C4	-6.53	1.32	1.38
2	A8	2484	G	P-O5'	-6.53	1.53	1.59
36	BA	253	A	N7-C5	-6.53	1.35	1.39
36	BA	419	C	P-O5'	-6.53	1.53	1.59
36	BA	704	A	N9-C4	-6.53	1.33	1.37
36	BA	1425	U	P-O5'	-6.52	1.53	1.59
2	A8	266	G	C2'-C1'	-6.52	1.46	1.53
2	A8	664	G	P-O5'	-6.52	1.53	1.59
2	A8	2070	A	C3'-C2'	-6.52	1.45	1.52
2	A8	123	G	P-O5'	-6.51	1.53	1.59
2	A8	2813	A	N7-C5	-6.51	1.35	1.39
36	BA	803	G	N7-C5	-6.51	1.35	1.39
2	A8	536	G	C2'-C1'	-6.51	1.46	1.53
36	BA	28	A	N7-C5	-6.51	1.35	1.39
36	BA	1463	U	P-O5'	-6.51	1.53	1.59
2	A8	469	G	N7-C5	-6.51	1.35	1.39
2	A8	630	G	C2'-C1'	-6.51	1.46	1.53
2	A8	1996	C	C2'-C1'	-6.51	1.46	1.53
36	BA	1088	G	C2'-C1'	-6.51	1.46	1.53
2	A8	2346	A	N7-C5	-6.51	1.35	1.39
2	A8	2543	G	C2'-C1'	-6.51	1.46	1.53
36	BA	730	G	N7-C5	-6.51	1.35	1.39
36	BA	1084	G	P-O5'	-6.50	1.53	1.59
2	A8	2071	A	N7-C5	-6.50	1.35	1.39
2	A8	1197	G	C2'-C1'	-6.50	1.46	1.53
2	A8	1900	A	N7-C5	-6.50	1.35	1.39
2	A8	2691	C	P-O5'	-6.50	1.53	1.59
36	BA	624	C	P-O5'	-6.50	1.53	1.59
2	A8	2212	A	C2'-C1'	-6.50	1.46	1.53
2	A8	2900	A	P-O5'	-6.50	1.53	1.59
36	BA	336	A	C2'-C1'	-6.50	1.46	1.53
36	BA	903	G	P-O5'	-6.50	1.53	1.59
2	A8	1825	U	P-O5'	-6.50	1.53	1.59
2	A8	1949	G	P-O5'	-6.50	1.53	1.59
2	A8	2659	G	N3-C4	-6.49	1.30	1.35
2	A8	2734	A	N7-C5	-6.49	1.35	1.39
2	A8	961	C	P-O5'	-6.49	1.53	1.59
1	A7	82	U	P-O5'	-6.49	1.53	1.59
2	A8	1879	C	C2'-C1'	-6.49	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2434	A	N7-C5	-6.49	1.35	1.39
36	BA	453	G	N7-C5	-6.49	1.35	1.39
2	A8	2383	G	N7-C5	-6.49	1.35	1.39
36	BA	151	A	N7-C5	-6.49	1.35	1.39
36	BA	838	G	C2'-C1'	-6.49	1.46	1.53
1	A7	104	A	N7-C5	-6.49	1.35	1.39
2	A8	1791	A	P-O5'	-6.49	1.53	1.59
2	A8	2839	G	N7-C5	-6.49	1.35	1.39
2	A8	346	A	C2'-C1'	-6.49	1.46	1.53
36	BA	1482	G	C3'-C2'	-6.49	1.45	1.52
2	A8	971	G	N7-C5	-6.48	1.35	1.39
2	A8	1093	G	P-O5'	-6.48	1.53	1.59
2	A8	1431	A	C2'-C1'	-6.48	1.46	1.53
36	BA	1418	A	C8-N7	-6.48	1.27	1.31
2	A8	247	G	N9-C4	-6.48	1.32	1.38
2	A8	1075	C	P-O5'	-6.48	1.53	1.59
2	A8	1427	A	P-O5'	-6.48	1.53	1.59
2	A8	1777	U	P-O5'	-6.48	1.53	1.59
36	BA	216	U	P-O5'	-6.48	1.53	1.59
36	BA	754	C	O3'-P	-6.48	1.53	1.61
36	BA	1102	A	C1'-N9	-6.48	1.37	1.46
2	A8	1845	G	N9-C4	-6.48	1.32	1.38
2	A8	1872	A	C8-N7	-6.48	1.27	1.31
36	BA	120	A	N7-C5	-6.48	1.35	1.39
2	A8	1059	G	N7-C5	-6.47	1.35	1.39
36	BA	839	C	C2'-C1'	-6.47	1.46	1.53
2	A8	1580	A	P-O5'	-6.47	1.53	1.59
36	BA	317	U	C2'-C1'	-6.47	1.46	1.53
36	BA	1055	A	N7-C5	-6.47	1.35	1.39
1	A7	117	G	C2'-C1'	-6.47	1.46	1.53
2	A8	355	U	C2'-C1'	-6.47	1.46	1.53
2	A8	1930	G	C2'-C1'	-6.47	1.46	1.53
36	BA	667	G	C2'-C1'	-6.47	1.46	1.53
2	A8	1062	G	N7-C5	-6.47	1.35	1.39
2	A8	2899	A	N7-C5	-6.47	1.35	1.39
2	A8	519	U	C2'-C1'	-6.46	1.46	1.53
2	A8	2057	G	C2'-C1'	-6.46	1.46	1.53
2	A8	1534	U	P-O5'	-6.46	1.53	1.59
2	A8	2748	A	N7-C5	-6.46	1.35	1.39
36	BA	656	G	P-O5'	-6.46	1.53	1.59
2	A8	1441	G	P-O5'	-6.46	1.53	1.59
2	A8	1605	C	C2'-C1'	-6.46	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2570	G	N7-C5	-6.46	1.35	1.39
36	BA	50	A	C2'-C1'	-6.46	1.46	1.53
36	BA	1478	U	C3'-C2'	-6.46	1.45	1.52
2	A8	937	C	P-O5'	-6.46	1.53	1.59
36	BA	851	G	C2'-C1'	-6.46	1.46	1.53
36	BA	895	G	P-O5'	-6.46	1.53	1.59
36	BA	1454	G	C2'-C1'	-6.46	1.46	1.53
2	A8	1008	A	C2'-C1'	-6.46	1.46	1.53
2	A8	2686	G	P-O5'	-6.46	1.53	1.59
36	BA	1269	A	C1'-N9	-6.46	1.37	1.46
2	A8	1891	G	C2'-C1'	-6.45	1.46	1.53
2	A8	2618	G	O3'-P	-6.45	1.53	1.61
36	BA	768	A	N3-C4	-6.45	1.30	1.34
2	A8	979	A	N9-C4	-6.45	1.33	1.37
1	A7	74	U	C2-N3	6.45	1.42	1.37
36	BA	906	A	N7-C5	-6.45	1.35	1.39
2	A8	2268	A	P-O5'	-6.45	1.53	1.59
2	A8	2541	A	O3'-P	-6.45	1.53	1.61
2	A8	1281	G	P-O5'	-6.45	1.53	1.59
2	A8	2776	A	N7-C5	-6.45	1.35	1.39
2	A8	44	A	N7-C5	-6.45	1.35	1.39
2	A8	973	A	C2'-C1'	-6.45	1.46	1.53
2	A8	1680	U	C3'-C2'	-6.45	1.45	1.52
36	BA	319	G	C2'-C1'	-6.45	1.46	1.53
2	A8	2072	C	C4'-C3'	-6.44	1.46	1.53
36	BA	872	A	O3'-P	-6.44	1.53	1.61
2	A8	592	A	P-O5'	-6.44	1.53	1.59
2	A8	855	G	C2'-C1'	-6.44	1.46	1.53
2	A8	1313	U	P-O5'	-6.44	1.53	1.59
2	A8	1389	G	N9-C4	-6.44	1.32	1.38
2	A8	2209	G	C2'-C1'	-6.44	1.46	1.53
2	A8	57	C	C2'-C1'	-6.44	1.46	1.53
2	A8	2075	U	P-O5'	-6.44	1.53	1.59
36	BA	351	G	C2-N3	6.44	1.38	1.32
36	BA	929	G	C2'-C1'	-6.44	1.46	1.53
36	BA	1487	G	C2'-C1'	-6.44	1.46	1.53
2	A8	1974	C	P-O5'	-6.44	1.53	1.59
2	A8	1933	G	P-O5'	-6.43	1.53	1.59
2	A8	836	G	C3'-C2'	-6.43	1.45	1.52
2	A8	2625	G	C2'-C1'	-6.43	1.46	1.53
36	BA	414	A	N7-C5	-6.43	1.35	1.39
2	A8	425	G	C2'-C1'	-6.43	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	263	A	N3-C4	-6.43	1.30	1.34
2	A8	2892	G	C2'-C1'	-6.43	1.46	1.53
36	BA	648	A	C2'-C1'	-6.43	1.46	1.53
36	BA	901	A	C6-N1	6.43	1.40	1.35
36	BA	274	A	O3'-P	-6.42	1.53	1.61
2	A8	423	A	N7-C5	-6.42	1.35	1.39
2	A8	1601	G	N7-C5	-6.42	1.35	1.39
36	BA	742	G	N7-C5	-6.42	1.35	1.39
36	BA	964	A	N7-C5	-6.42	1.35	1.39
2	A8	1687	G	C3'-C2'	-6.42	1.45	1.52
2	A8	1068	G	O3'-P	-6.42	1.53	1.61
2	A8	2887	A	N7-C5	-6.42	1.35	1.39
36	BA	454	G	P-O5'	-6.42	1.53	1.59
2	A8	41	C	C2'-C1'	-6.42	1.46	1.53
2	A8	1909	C	C3'-C2'	-6.42	1.45	1.52
36	BA	893	C	C2'-C1'	-6.42	1.46	1.53
36	BA	1465	A	P-O5'	-6.42	1.53	1.59
2	A8	1395	A	P-O5'	-6.41	1.53	1.59
2	A8	1450	G	N9-C4	-6.41	1.32	1.38
2	A8	2500	U	P-O5'	-6.41	1.53	1.59
2	A8	1008	A	N7-C5	-6.41	1.35	1.39
36	BA	784	A	P-O5'	-6.41	1.53	1.59
36	BA	1509	C	C2'-C1'	-6.41	1.46	1.53
2	A8	1036	G	P-O5'	-6.41	1.53	1.59
2	A8	2536	G	N7-C5	-6.41	1.35	1.39
2	A8	2664	G	P-O5'	-6.41	1.53	1.59
2	A8	10	A	N9-C4	-6.41	1.34	1.37
2	A8	1367	A	N9-C4	-6.41	1.34	1.37
2	A8	2274	A	C2'-C1'	-6.41	1.46	1.53
36	BA	704	A	N3-C4	-6.41	1.31	1.34
2	A8	1803	A	P-O5'	-6.40	1.53	1.59
36	BA	579	A	N9-C4	6.40	1.41	1.37
2	A8	1555	G	N7-C5	-6.40	1.35	1.39
2	A8	2622	U	C2'-C1'	-6.40	1.46	1.53
36	BA	77	A	N7-C5	-6.40	1.35	1.39
36	BA	1127	G	N7-C5	-6.40	1.35	1.39
2	A8	94	A	P-O5'	-6.40	1.53	1.59
36	BA	76	G	P-O5'	-6.40	1.53	1.59
2	A8	1328	A	P-O5'	-6.40	1.53	1.59
2	A8	1593	A	C2'-C1'	-6.40	1.46	1.53
36	BA	1018	G	C2'-C1'	-6.40	1.46	1.53
2	A8	1141	U	O3'-P	-6.39	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2766	A	N7-C5	-6.39	1.35	1.39
2	A8	177	G	P-O5'	-6.39	1.53	1.59
2	A8	287	G	P-O5'	-6.39	1.53	1.59
36	BA	152	A	P-O5'	-6.39	1.53	1.59
2	A8	1940	U	C2'-C1'	-6.39	1.46	1.53
2	A8	2804	U	P-O5'	-6.39	1.53	1.59
36	BA	513	C	P-O5'	-6.39	1.53	1.59
36	BA	1415	G	N7-C5	-6.39	1.35	1.39
2	A8	1722	A	C2'-C1'	-6.39	1.46	1.53
2	A8	2322	A	P-O5'	-6.39	1.53	1.59
36	BA	105	G	C2'-C1'	-6.39	1.46	1.53
2	A8	867	C	C2'-C1'	-6.39	1.46	1.53
2	A8	1739	A	P-O5'	-6.39	1.53	1.59
2	A8	1890	A	C8-N7	-6.39	1.27	1.31
2	A8	1990	C	C2'-C1'	-6.39	1.46	1.53
36	BA	195	A	N3-C4	-6.39	1.31	1.34
36	BA	710	G	C2'-C1'	-6.39	1.46	1.53
36	BA	741	G	C2'-C1'	-6.39	1.46	1.53
2	A8	117	G	N7-C5	-6.38	1.35	1.39
2	A8	1608	A	C2'-C1'	-6.38	1.46	1.53
36	BA	899	C	C2'-C1'	-6.38	1.46	1.53
2	A8	2331	G	P-O5'	-6.38	1.53	1.59
2	A8	1715	G	P-O5'	-6.38	1.53	1.59
2	A8	473	G	C2'-C1'	-6.38	1.46	1.53
2	A8	2800	A	N7-C5	-6.38	1.35	1.39
2	A8	2759	G	O3'-P	-6.38	1.53	1.61
36	BA	690	G	P-O5'	-6.38	1.53	1.59
36	BA	1469	C	P-O5'	-6.38	1.53	1.59
2	A8	1128	G	N7-C5	-6.38	1.35	1.39
2	A8	2028	U	C2'-C1'	-6.38	1.46	1.53
2	A8	2342	C	P-O5'	-6.38	1.53	1.59
2	A8	1387	A	N7-C5	-6.37	1.35	1.39
2	A8	2713	U	O3'-P	-6.37	1.53	1.61
36	BA	883	C	C2'-C1'	-6.37	1.46	1.53
36	BA	638	U	C2'-C1'	-6.37	1.46	1.53
2	A8	507	A	P-O5'	-6.37	1.53	1.59
2	A8	1743	G	C3'-C2'	-6.37	1.45	1.52
2	A8	126	A	N7-C5	-6.37	1.35	1.39
2	A8	1527	G	N9-C4	-6.37	1.32	1.38
2	A8	1506	U	C2'-C1'	-6.37	1.46	1.53
2	A8	537	G	C2'-C1'	-6.37	1.46	1.53
36	BA	1058	G	C2'-C1'	-6.37	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1800	C	O4'-C1'	-6.36	1.33	1.41
36	BA	281	G	O3'-P	-6.36	1.53	1.61
2	A8	761	A	N7-C5	-6.36	1.35	1.39
2	A8	2256	G	N7-C5	-6.36	1.35	1.39
2	A8	2270	A	O3'-P	-6.36	1.53	1.61
36	BA	356	A	C2'-C1'	-6.36	1.46	1.53
36	BA	766	A	C2'-C1'	-6.36	1.46	1.53
36	BA	906	A	C3'-C2'	-6.36	1.45	1.52
2	A8	460	A	C2'-C1'	-6.36	1.46	1.53
2	A8	1700	A	C2'-C1'	-6.36	1.46	1.53
2	A8	2415	G	C3'-C2'	-6.36	1.45	1.52
2	A8	2812	G	C2'-C1'	-6.35	1.46	1.53
2	A8	2425	A	C4'-O4'	-6.35	1.37	1.45
2	A8	676	A	C2'-C1'	-6.35	1.46	1.53
36	BA	383	A	N7-C5	-6.35	1.35	1.39
2	A8	489	G	O3'-P	-6.35	1.53	1.61
36	BA	527	G	C2'-C1'	-6.35	1.46	1.53
2	A8	231	A	N7-C5	-6.35	1.35	1.39
2	A8	320	A	N7-C5	-6.35	1.35	1.39
2	A8	1552	A	C2'-C1'	-6.35	1.46	1.53
2	A8	1837	C	C3'-C2'	-6.35	1.45	1.52
2	A8	2639	A	N7-C5	-6.35	1.35	1.39
36	BA	1083	U	O3'-P	-6.35	1.53	1.61
36	BA	1179	A	P-O5'	-6.35	1.53	1.59
2	A8	1092	C	P-O5'	-6.34	1.53	1.59
2	A8	1385	A	C1'-N9	-6.34	1.38	1.46
2	A8	1564	C	P-O5'	-6.34	1.53	1.59
2	A8	959	A	P-O5'	-6.34	1.53	1.59
2	A8	1331	G	N7-C5	-6.34	1.35	1.39
2	A8	816	C	C2'-C1'	-6.34	1.46	1.53
2	A8	1853	A	N7-C5	-6.34	1.35	1.39
2	A8	2515	C	C2'-C1'	-6.34	1.46	1.53
2	A8	2518	A	N7-C5	-6.34	1.35	1.39
36	BA	622	A	N9-C4	-6.34	1.34	1.37
2	A8	241	A	N7-C5	-6.34	1.35	1.39
2	A8	690	G	P-O5'	-6.34	1.53	1.59
2	A8	1628	G	C2'-C1'	-6.34	1.46	1.53
2	A8	1837	C	P-O5'	-6.34	1.53	1.59
2	A8	2734	A	P-O5'	-6.34	1.53	1.59
2	A8	1738	G	C2'-C1'	-6.33	1.46	1.53
2	A8	750	A	N7-C5	-6.33	1.35	1.39
2	A8	2840	C	C2'-C1'	-6.33	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	303	A	C2'-C1'	-6.33	1.46	1.53
36	BA	1513	A	C3'-C2'	-6.33	1.45	1.52
2	A8	74	A	N7-C5	-6.33	1.35	1.39
2	A8	2894	G	P-O5'	-6.33	1.53	1.59
36	BA	988	G	N7-C5	-6.33	1.35	1.39
2	A8	775	G	O4'-C1'	-6.33	1.33	1.41
2	A8	1857	G	O3'-P	-6.33	1.53	1.61
2	A8	2043	C	C4'-C3'	-6.33	1.46	1.53
36	BA	1142	G	N7-C5	-6.33	1.35	1.39
1	A7	17	C	C2'-C1'	-6.33	1.46	1.53
1	A7	32	U	C2'-C1'	-6.33	1.46	1.53
2	A8	360	U	P-O5'	-6.32	1.53	1.59
2	A8	406	G	C2'-C1'	-6.32	1.46	1.53
2	A8	799	G	O3'-P	-6.32	1.53	1.61
36	BA	1493	A	N7-C5	-6.32	1.35	1.39
2	A8	2005	A	N7-C5	-6.32	1.35	1.39
2	A8	852	U	C2'-C1'	-6.32	1.46	1.53
2	A8	1153	C	P-O5'	-6.32	1.53	1.59
2	A8	1411	U	P-O5'	-6.32	1.53	1.59
2	A8	2123	G	N7-C5	-6.32	1.35	1.39
2	A8	319	G	C3'-C2'	-6.32	1.45	1.52
2	A8	2873	A	C2'-C1'	-6.32	1.46	1.53
2	A8	80	G	N7-C5	-6.32	1.35	1.39
1	A7	2	G	P-O5'	-6.31	1.53	1.59
2	A8	188	G	P-O5'	-6.31	1.53	1.59
2	A8	1763	G	C2'-C1'	-6.31	1.46	1.53
36	BA	582	C	C2'-C1'	-6.31	1.46	1.53
2	A8	447	A	N9-C4	6.31	1.41	1.37
2	A8	728	G	N7-C5	-6.31	1.35	1.39
2	A8	1125	G	C2'-C1'	-6.31	1.46	1.53
2	A8	263	G	N7-C5	-6.30	1.35	1.39
2	A8	2079	U	P-O5'	-6.30	1.53	1.59
36	BA	1324	A	N7-C5	-6.30	1.35	1.39
2	A8	262	A	P-O5'	-6.30	1.53	1.59
2	A8	585	G	N7-C5	-6.30	1.35	1.39
2	A8	661	A	N7-C5	-6.30	1.35	1.39
2	A8	1351	C	C3'-C2'	-6.30	1.45	1.52
2	A8	285	G	O3'-P	-6.30	1.53	1.61
2	A8	861	A	N9-C4	-6.30	1.34	1.37
2	A8	875	G	C2'-C1'	-6.30	1.46	1.53
2	A8	1035	U	C2'-C1'	-6.30	1.46	1.53
2	A8	1681	G	P-O5'	-6.30	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1489	G	P-O5'	-6.30	1.53	1.59
2	A8	2382	G	C2'-C1'	-6.30	1.46	1.53
2	A8	2821	A	N7-C5	-6.30	1.35	1.39
36	BA	761	G	P-O5'	-6.30	1.53	1.59
2	A8	2574	G	P-O5'	-6.29	1.53	1.59
2	A8	1456	G	P-O5'	-6.29	1.53	1.59
2	A8	2358	A	P-O5'	-6.29	1.53	1.59
36	BA	366	A	C2'-C1'	-6.29	1.46	1.53
2	A8	247	G	O3'-P	-6.29	1.53	1.61
2	A8	517	C	P-O5'	-6.29	1.53	1.59
2	A8	800	A	N7-C5	-6.29	1.35	1.39
2	A8	1184	U	C2'-C1'	-6.29	1.46	1.53
36	BA	167	A	P-O5'	-6.29	1.53	1.59
36	BA	817	C	O3'-P	-6.29	1.53	1.61
36	BA	1472	U	C2'-C1'	-6.29	1.46	1.53
2	A8	182	A	N7-C5	-6.29	1.35	1.39
2	A8	1622	G	P-O5'	-6.29	1.53	1.59
2	A8	176	A	C2'-C1'	-6.29	1.46	1.53
2	A8	1028	A	C2'-C1'	-6.29	1.46	1.53
2	A8	1956	U	C2'-C1'	-6.29	1.46	1.53
2	A8	1417	C	P-O5'	-6.29	1.53	1.59
36	BA	1074	G	N7-C5	-6.29	1.35	1.39
2	A8	391	A	N7-C5	-6.29	1.35	1.39
2	A8	2042	A	P-O5'	-6.29	1.53	1.59
2	A8	2698	U	C2'-C1'	-6.29	1.46	1.53
36	BA	609	A	N7-C5	-6.29	1.35	1.39
2	A8	501	A	N7-C5	-6.28	1.35	1.39
2	A8	1877	A	P-O5'	-6.28	1.53	1.59
2	A8	2219	U	C2'-C1'	-6.28	1.46	1.53
2	A8	2393	U	C2'-C1'	-6.28	1.46	1.53
2	A8	844	A	N7-C5	-6.28	1.35	1.39
36	BA	174	A	N7-C5	-6.28	1.35	1.39
2	A8	1669	A	N7-C5	-6.28	1.35	1.39
2	A8	312	G	N7-C5	-6.28	1.35	1.39
2	A8	845	A	N7-C5	-6.28	1.35	1.39
2	A8	1592	C	C2'-C1'	-6.28	1.46	1.53
2	A8	2560	A	C2'-C1'	-6.28	1.46	1.53
2	A8	2753	A	C2'-C1'	-6.28	1.46	1.53
36	BA	759	A	P-O5'	-6.28	1.53	1.59
2	A8	664	G	N7-C5	-6.27	1.35	1.39
2	A8	1522	A	C1'-N9	-6.27	1.38	1.46
2	A8	1925	C	C3'-C2'	-6.27	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1936	A	N9-C4	-6.27	1.34	1.37
36	BA	304	U	P-O5'	-6.27	1.53	1.59
2	A8	835	C	C2'-C1'	-6.27	1.46	1.53
2	A8	680	C	C2'-C1'	-6.27	1.46	1.53
2	A8	1362	C	P-O5'	-6.27	1.53	1.59
2	A8	1954	G	C2'-C1'	-6.27	1.46	1.53
2	A8	2536	G	P-O5'	-6.27	1.53	1.59
2	A8	388	G	N7-C5	-6.27	1.35	1.39
2	A8	1216	G	P-O5'	-6.27	1.53	1.59
2	A8	2650	U	P-O5'	-6.27	1.53	1.59
2	A8	1517	G	C2'-C1'	-6.27	1.46	1.53
2	A8	1614	A	N7-C5	-6.27	1.35	1.39
2	A8	2274	A	P-O5'	-6.27	1.53	1.59
2	A8	720	U	P-O5'	-6.26	1.53	1.59
2	A8	1090	A	N7-C5	-6.26	1.35	1.39
2	A8	1842	G	C2'-C1'	-6.26	1.46	1.53
36	BA	530	G	O3'-P	-6.26	1.53	1.61
2	A8	857	G	C3'-C2'	-6.26	1.45	1.52
2	A8	1061	U	C2'-C1'	-6.26	1.46	1.53
2	A8	2859	G	C2'-C1'	-6.26	1.46	1.53
36	BA	978	A	N7-C5	-6.26	1.35	1.39
2	A8	1113	U	C2'-C1'	-6.26	1.46	1.53
2	A8	1735	A	C2'-C1'	-6.26	1.46	1.53
2	A8	2015	A	N7-C5	-6.26	1.35	1.39
2	A8	2565	A	N9-C4	-6.26	1.34	1.37
36	BA	709	U	C2'-C1'	-6.26	1.46	1.53
2	A8	1723	G	C8-N7	-6.26	1.27	1.30
2	A8	1148	U	P-O5'	-6.26	1.53	1.59
2	A8	1154	G	N9-C4	-6.26	1.32	1.38
2	A8	1570	A	N7-C5	-6.26	1.35	1.39
2	A8	1642	G	C2'-C1'	-6.26	1.46	1.53
2	A8	2770	G	P-O5'	-6.26	1.53	1.59
36	BA	172	A	N3-C4	-6.26	1.31	1.34
36	BA	833	G	C2'-C1'	-6.26	1.46	1.53
2	A8	2340	A	C2'-C1'	-6.25	1.46	1.53
36	BA	1193	G	P-O5'	-6.25	1.53	1.59
2	A8	1819	A	N9-C4	-6.25	1.34	1.37
2	A8	1378	A	N7-C5	-6.25	1.35	1.39
2	A8	1717	A	N7-C5	-6.25	1.35	1.39
2	A8	2504	U	C2-N3	6.25	1.42	1.37
36	BA	247	G	C3'-C2'	-6.25	1.45	1.52
36	BA	57	G	N7-C5	-6.25	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	809	G	N7-C5	-6.25	1.35	1.39
36	BA	1156	G	N7-C5	-6.25	1.35	1.39
36	BA	1472	U	P-O5'	-6.24	1.53	1.59
2	A8	14	A	P-O5'	-6.24	1.53	1.59
2	A8	27	G	C4'-C3'	6.24	1.60	1.53
2	A8	1350	C	C2'-C1'	-6.24	1.46	1.53
2	A8	1933	G	C2'-C1'	-6.24	1.46	1.53
2	A8	2430	A	N7-C5	-6.24	1.35	1.39
36	BA	665	A	N9-C4	-6.24	1.34	1.37
36	BA	1083	U	C2'-C1'	-6.24	1.46	1.53
2	A8	1382	G	C2'-C1'	-6.24	1.46	1.53
2	A8	1931	U	C2'-C1'	-6.24	1.46	1.53
2	A8	1533	C	P-O5'	-6.24	1.53	1.59
2	A8	1550	C	C2'-C1'	-6.24	1.46	1.53
36	BA	938	A	N7-C5	-6.24	1.35	1.39
2	A8	501	A	P-O5'	-6.23	1.53	1.59
2	A8	710	U	P-O5'	-6.23	1.53	1.59
2	A8	1739	A	C2'-C1'	-6.23	1.46	1.53
36	BA	629	A	C2'-C1'	-6.23	1.46	1.53
2	A8	346	A	N7-C5	-6.23	1.35	1.39
2	A8	707	G	C2'-C1'	-6.23	1.46	1.53
2	A8	733	G	C2'-C1'	-6.23	1.46	1.53
2	A8	760	G	N7-C5	-6.23	1.35	1.39
2	A8	1840	G	P-O5'	-6.23	1.53	1.59
2	A8	2194	U	C2'-C1'	-6.23	1.46	1.53
2	A8	705	A	P-O5'	-6.23	1.53	1.59
2	A8	1950	G	P-O5'	-6.23	1.53	1.59
2	A8	396	G	N7-C5	-6.23	1.35	1.39
2	A8	2070	A	C2'-C1'	-6.23	1.46	1.53
2	A8	2692	G	C3'-C2'	-6.23	1.46	1.52
2	A8	2816	G	N7-C5	-6.23	1.35	1.39
36	BA	1337	G	P-O5'	-6.23	1.53	1.59
36	BA	433	G	N7-C5	-6.22	1.35	1.39
2	A8	2002	G	C2'-C1'	-6.22	1.46	1.53
36	BA	536	C	O3'-P	-6.22	1.53	1.61
2	A8	1586	A	N7-C5	-6.22	1.35	1.39
2	A8	1989	G	C2'-C1'	-6.22	1.46	1.53
2	A8	633	A	C2'-C1'	-6.22	1.46	1.53
2	A8	754	U	P-O5'	-6.22	1.53	1.59
2	A8	1789	A	C2'-C1'	-6.22	1.46	1.53
2	A8	2508	G	C2'-C1'	-6.22	1.46	1.53
36	BA	798	U	P-O5'	-6.22	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	78	A	N7-C5	-6.21	1.35	1.39
2	A8	1221	C	C2'-C1'	-6.21	1.46	1.53
36	BA	887	G	P-O5'	-6.21	1.53	1.59
36	BA	891	U	P-O5'	-6.21	1.53	1.59
36	BA	1424	U	C2'-C1'	-6.21	1.46	1.53
2	A8	169	G	N7-C5	-6.21	1.35	1.39
2	A8	264	C	O3'-P	-6.21	1.53	1.61
2	A8	2434	A	C2'-C1'	-6.21	1.46	1.53
2	A8	2460	U	P-O5'	-6.21	1.53	1.59
2	A8	203	A	C2'-C1'	-6.21	1.46	1.53
2	A8	290	U	P-O5'	-6.21	1.53	1.59
2	A8	1001	A	C4'-C3'	-6.21	1.46	1.53
2	A8	1183	U	P-O5'	-6.21	1.53	1.59
36	BA	1053	G	N7-C5	-6.21	1.35	1.39
2	A8	864	G	P-O5'	-6.21	1.53	1.59
2	A8	2051	A	N7-C5	-6.21	1.35	1.39
2	A8	2221	G	C2'-C1'	-6.21	1.46	1.53
36	BA	1302	C	N3-C4	6.21	1.38	1.33
2	A8	2834	G	C2'-C1'	-6.20	1.46	1.53
36	BA	889	A	N7-C5	-6.20	1.35	1.39
2	A8	503	A	C3'-C2'	-6.20	1.46	1.52
2	A8	1797	G	N7-C5	-6.20	1.35	1.39
2	A8	2049	G	C2'-C1'	-6.20	1.46	1.53
2	A8	2353	G	C2'-C1'	-6.20	1.46	1.53
36	BA	246	A	C2'-C1'	-6.20	1.46	1.53
36	BA	663	A	N7-C5	-6.20	1.35	1.39
2	A8	780	G	N9-C4	-6.20	1.32	1.38
2	A8	923	G	N7-C5	-6.20	1.35	1.39
2	A8	1694	C	C2'-C1'	-6.20	1.46	1.53
2	A8	820	A	C3'-C2'	-6.20	1.46	1.52
2	A8	1624	U	P-O5'	-6.20	1.53	1.59
2	A8	2050	C	C2'-C1'	-6.20	1.46	1.53
2	A8	2360	G	P-O5'	-6.19	1.53	1.59
2	A8	334	C	C2'-C1'	-6.19	1.46	1.53
2	A8	2033	A	C2'-C1'	-6.19	1.46	1.53
36	BA	1426	G	C2'-C1'	-6.19	1.46	1.53
36	BA	1528	U	C2'-C1'	-6.19	1.46	1.53
2	A8	195	A	N7-C5	-6.19	1.35	1.39
2	A8	2233	U	P-O5'	-6.19	1.53	1.59
2	A8	296	U	P-O5'	-6.19	1.53	1.59
2	A8	2028	U	P-O5'	-6.19	1.53	1.59
2	A8	1790	C	P-O5'	-6.18	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2198	A	C2'-C1'	-6.18	1.46	1.53
36	BA	1483	A	C8-N7	-6.18	1.27	1.31
2	A8	876	C	C2'-C1'	-6.18	1.46	1.53
2	A8	1810	A	C8-N7	-6.18	1.27	1.31
2	A8	2277	G	N7-C5	-6.18	1.35	1.39
36	BA	1488	G	C2'-C1'	-6.18	1.46	1.53
2	A8	2088	A	C2'-C1'	-6.18	1.46	1.53
2	A8	2086	U	C3'-C2'	-6.18	1.46	1.52
36	BA	69	G	P-O5'	-6.18	1.53	1.59
2	A8	2659	G	O3'-P	-6.18	1.53	1.61
36	BA	864	A	C2'-C1'	-6.18	1.46	1.53
36	BA	925	G	P-O5'	-6.18	1.53	1.59
1	A7	79	G	C3'-C2'	-6.18	1.46	1.52
2	A8	1182	G	P-O5'	-6.18	1.53	1.59
36	BA	253	A	C2'-C1'	-6.18	1.46	1.53
2	A8	852	U	P-O5'	-6.17	1.53	1.59
2	A8	1001	A	N9-C4	-6.17	1.34	1.37
2	A8	1685	C	P-O5'	-6.17	1.53	1.59
2	A8	2726	A	O3'-P	-6.17	1.53	1.61
36	BA	398	U	C2'-C1'	-6.17	1.46	1.53
36	BA	428	G	N7-C5	-6.17	1.35	1.39
36	BA	523	A	N7-C5	-6.17	1.35	1.39
36	BA	1384	C	C3'-C2'	-6.17	1.46	1.52
2	A8	90	U	P-O5'	-6.17	1.53	1.59
36	BA	848	C	C2'-C1'	-6.17	1.46	1.53
2	A8	1653	G	P-O5'	-6.17	1.53	1.59
2	A8	1657	U	P-O5'	-6.17	1.53	1.59
2	A8	1121	C	P-O5'	-6.17	1.53	1.59
2	A8	1918	A	N9-C4	-6.17	1.34	1.37
2	A8	2000	C	C2'-C1'	-6.17	1.46	1.53
2	A8	2013	A	C6-N1	6.17	1.39	1.35
2	A8	106	C	P-O5'	-6.17	1.53	1.59
2	A8	1936	A	N7-C5	-6.17	1.35	1.39
2	A8	2217	G	N7-C5	-6.17	1.35	1.39
2	A8	2403	C	P-O5'	-6.17	1.53	1.59
2	A8	2423	U	O3'-P	-6.17	1.53	1.61
36	BA	760	G	P-O5'	-6.17	1.53	1.59
2	A8	217	A	N7-C5	-6.16	1.35	1.39
2	A8	619	G	C2'-C1'	-6.16	1.46	1.53
2	A8	1429	G	N7-C5	-6.16	1.35	1.39
2	A8	1770	G	P-O5'	-6.16	1.53	1.59
2	A8	1844	C	P-O5'	-6.16	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1486	G	C2'-C1'	-6.16	1.46	1.53
2	A8	2735	G	P-O5'	-6.16	1.53	1.59
2	A8	815	C	C2'-C1'	-6.16	1.46	1.53
2	A8	932	U	O3'-P	-6.16	1.53	1.61
36	BA	590	U	P-O5'	-6.16	1.53	1.59
36	BA	767	A	P-O5'	-6.16	1.53	1.59
2	A8	2463	C	C3'-C2'	-6.16	1.46	1.52
2	A8	22	C	P-O5'	-6.16	1.53	1.59
2	A8	197	A	N9-C4	-6.16	1.34	1.37
2	A8	1183	U	C2'-C1'	-6.16	1.46	1.53
36	BA	216	U	C2'-C1'	-6.16	1.46	1.53
2	A8	1567	G	P-O5'	-6.15	1.53	1.59
1	A7	21	G	C2'-C1'	-6.15	1.46	1.53
2	A8	412	A	N7-C5	-6.15	1.35	1.39
2	A8	454	A	N7-C5	-6.15	1.35	1.39
2	A8	2744	G	P-O5'	-6.15	1.53	1.59
36	BA	430	A	N7-C5	-6.15	1.35	1.39
2	A8	1263	U	O3'-P	-6.15	1.53	1.61
2	A8	1293	C	P-O5'	-6.15	1.53	1.59
2	A8	1788	C	P-O5'	-6.15	1.53	1.59
2	A8	2033	A	C1'-N9	-6.15	1.38	1.46
2	A8	2864	G	C2'-C1'	-6.15	1.46	1.53
36	BA	560	A	N7-C5	-6.15	1.35	1.39
2	A8	853	C	C2'-C1'	-6.15	1.46	1.53
2	A8	1702	G	C2'-C1'	-6.15	1.46	1.53
2	A8	2603	G	N7-C5	-6.14	1.35	1.39
36	BA	775	G	P-O5'	-6.14	1.53	1.59
2	A8	649	G	P-O5'	-6.14	1.53	1.59
2	A8	751	A	N7-C5	-6.14	1.35	1.39
2	A8	847	U	P-O5'	-6.14	1.53	1.59
2	A8	1522	A	C3'-C2'	-6.14	1.46	1.52
36	BA	1516	G	N9-C4	-6.14	1.33	1.38
2	A8	928	A	P-O5'	-6.14	1.53	1.59
2	A8	1190	G	C2'-C1'	-6.14	1.46	1.53
2	A8	2815	C	C3'-C2'	-6.14	1.46	1.52
36	BA	275	G	P-O5'	-6.14	1.53	1.59
36	BA	847	G	C2'-C1'	-6.14	1.46	1.53
2	A8	866	A	N7-C5	-6.13	1.35	1.39
2	A8	1680	U	C2'-C1'	-6.13	1.46	1.53
2	A8	165	A	N7-C5	-6.13	1.35	1.39
2	A8	657	U	P-O5'	-6.13	1.53	1.59
2	A8	693	A	C2'-C1'	-6.13	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	174	A	C2'-C1'	-6.13	1.46	1.53
2	A8	187	G	C2'-C1'	-6.13	1.46	1.53
2	A8	1269	A	N7-C5	-6.13	1.35	1.39
2	A8	1740	G	N7-C5	-6.13	1.35	1.39
2	A8	2148	G	C2-N3	6.13	1.37	1.32
2	A8	2186	G	C2-N3	6.13	1.37	1.32
2	A8	2486	C	P-O5'	-6.13	1.53	1.59
2	A8	2674	G	N7-C5	-6.13	1.35	1.39
36	BA	205	A	N7-C5	-6.13	1.35	1.39
2	A8	1662	U	C3'-C2'	-6.13	1.46	1.52
2	A8	1783	A	O3'-P	-6.13	1.53	1.61
2	A8	1495	A	N7-C5	-6.13	1.35	1.39
2	A8	749	A	N7-C5	-6.13	1.35	1.39
2	A8	1452	G	N7-C5	-6.13	1.35	1.39
2	A8	2377	A	N7-C5	-6.13	1.35	1.39
2	A8	1895	C	P-O5'	-6.12	1.53	1.59
2	A8	1808	A	C2'-C1'	-6.12	1.46	1.53
36	BA	122	G	P-O5'	-6.12	1.53	1.59
2	A8	2801	G	C2'-C1'	-6.12	1.46	1.53
2	A8	1814	G	C2'-C1'	-6.12	1.46	1.53
36	BA	297	G	N1-C2	6.12	1.42	1.37
2	A8	74	A	P-O5'	-6.12	1.53	1.59
2	A8	458	G	O3'-P	-6.12	1.53	1.61
2	A8	1630	A	P-O5'	-6.12	1.53	1.59
2	A8	1753	G	N7-C5	-6.12	1.35	1.39
2	A8	411	G	O3'-P	-6.12	1.53	1.61
2	A8	1527	G	N1-C2	6.12	1.42	1.37
2	A8	2418	A	C2'-C1'	-6.12	1.46	1.53
36	BA	232	G	C2-N3	6.12	1.37	1.32
2	A8	1112	G	C2'-C1'	-6.11	1.46	1.53
36	BA	34	C	C2'-C1'	-6.11	1.46	1.53
36	BA	1109	C	P-O5'	-6.11	1.53	1.59
36	BA	1495	U	C2'-C1'	-6.11	1.46	1.53
1	A7	78	A	N9-C4	-6.11	1.34	1.37
36	BA	886	G	C2'-C1'	-6.11	1.46	1.53
2	A8	1891	G	N7-C5	-6.11	1.35	1.39
2	A8	2472	G	C2'-C1'	-6.11	1.46	1.53
2	A8	1141	U	C2'-C1'	-6.11	1.46	1.53
2	A8	1805	A	P-O5'	-6.11	1.53	1.59
2	A8	2682	A	N7-C5	-6.11	1.35	1.39
2	A8	681	G	N9-C4	-6.10	1.33	1.38
2	A8	1683	U	C2'-C1'	-6.10	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1058	G	N7-C5	-6.10	1.35	1.39
36	BA	1515	G	N7-C5	-6.10	1.35	1.39
2	A8	20	C	C2'-C1'	-6.10	1.46	1.53
2	A8	759	G	P-O5'	-6.10	1.53	1.59
2	A8	1169	A	C2'-C1'	-6.10	1.46	1.53
2	A8	1589	U	P-O5'	-6.10	1.53	1.59
2	A8	2658	C	P-O5'	-6.10	1.53	1.59
2	A8	2561	U	P-O5'	-6.10	1.53	1.59
36	BA	301	G	P-O5'	-6.10	1.53	1.59
2	A8	426	C	N3-C4	6.10	1.38	1.33
2	A8	2886	A	N7-C5	-6.10	1.35	1.39
36	BA	478	A	C2'-C1'	-6.10	1.46	1.53
1	A7	45	A	N7-C5	-6.09	1.35	1.39
2	A8	487	C	P-O5'	-6.09	1.53	1.59
36	BA	321	A	N7-C5	-6.09	1.35	1.39
36	BA	951	G	N7-C5	-6.09	1.35	1.39
2	A8	270	A	N7-C5	-6.09	1.35	1.39
2	A8	648	G	C2'-C1'	-6.09	1.46	1.53
2	A8	821	A	C2'-C1'	-6.09	1.46	1.53
2	A8	1496	A	C2'-C1'	-6.09	1.46	1.53
36	BA	1166	G	N7-C5	-6.09	1.35	1.39
36	BA	1255	G	N7-C5	-6.09	1.35	1.39
2	A8	759	G	N7-C5	-6.09	1.35	1.39
2	A8	1476	U	C2'-C1'	-6.09	1.46	1.53
2	A8	2644	G	O3'-P	-6.09	1.53	1.61
2	A8	960	A	C2'-C1'	-6.09	1.46	1.53
2	A8	1543	G	C2'-C1'	-6.09	1.46	1.53
36	BA	1513	A	N7-C5	-6.09	1.35	1.39
2	A8	1572	A	C2'-C1'	-6.09	1.46	1.53
2	A8	1845	G	C2'-C1'	-6.09	1.46	1.53
36	BA	143	A	O3'-P	-6.09	1.53	1.61
36	BA	1384	C	C2'-C1'	-6.09	1.46	1.53
2	A8	1692	U	P-O5'	-6.08	1.53	1.59
2	A8	2778	A	N7-C5	-6.08	1.35	1.39
36	BA	447	G	C3'-C2'	-6.08	1.46	1.52
2	A8	1284	A	N7-C5	-6.08	1.35	1.39
2	A8	2056	G	N7-C5	-6.08	1.35	1.39
2	A8	2852	G	C2'-C1'	-6.08	1.46	1.53
36	BA	356	A	N3-C4	-6.08	1.31	1.34
36	BA	541	G	C2'-C1'	-6.08	1.46	1.53
36	BA	781	A	N7-C5	-6.08	1.35	1.39
2	A8	2290	G	C2'-C1'	-6.08	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	195	A	N7-C5	-6.08	1.35	1.39
36	BA	1172	C	C2'-C1'	-6.08	1.46	1.53
2	A8	632	A	N9-C4	-6.08	1.34	1.37
2	A8	1340	U	O3'-P	-6.08	1.53	1.61
2	A8	1925	C	C2'-C1'	-6.08	1.46	1.53
2	A8	2	G	P-O5'	-6.07	1.53	1.59
2	A8	1308	A	P-O5'	-6.07	1.53	1.59
2	A8	2848	G	C2'-C1'	-6.07	1.46	1.53
36	BA	122	G	C2'-C1'	-6.07	1.46	1.53
2	A8	478	A	N7-C5	-6.07	1.35	1.39
2	A8	2065	C	P-O5'	-6.07	1.53	1.59
2	A8	88	G	N7-C5	-6.07	1.35	1.39
2	A8	1006	C	C2'-C1'	-6.07	1.46	1.53
2	A8	1750	G	N7-C5	-6.07	1.35	1.39
2	A8	2358	A	N9-C4	-6.07	1.34	1.37
36	BA	831	A	C2'-C1'	-6.07	1.46	1.53
2	A8	775	G	O3'-P	-6.07	1.53	1.61
2	A8	1680	U	P-O5'	-6.07	1.53	1.59
36	BA	640	A	P-O5'	-6.07	1.53	1.59
1	A7	44	G	N7-C5	-6.07	1.35	1.39
2	A8	2485	G	C2'-C1'	-6.07	1.46	1.53
36	BA	98	A	N7-C5	-6.07	1.35	1.39
36	BA	363	A	N7-C5	-6.07	1.35	1.39
2	A8	974	G	C8-N7	-6.07	1.27	1.30
2	A8	2691	C	C2'-C1'	-6.07	1.46	1.53
36	BA	476	U	C3'-C2'	-6.07	1.46	1.52
2	A8	1985	C	C2'-C1'	-6.06	1.46	1.53
2	A8	1800	C	P-O5'	-6.06	1.53	1.59
2	A8	2678	C	C2'-C1'	-6.06	1.46	1.53
36	BA	520	A	N9-C4	6.06	1.41	1.37
36	BA	1058	G	P-O5'	-6.06	1.53	1.59
2	A8	2470	G	C2'-C1'	-6.06	1.46	1.53
2	A8	613	A	N7-C5	-6.06	1.35	1.39
36	BA	282	A	P-O5'	-6.06	1.53	1.59
36	BA	459	A	N7-C5	-6.06	1.35	1.39
36	BA	600	A	C2'-C1'	-6.06	1.46	1.53
36	BA	803	G	C2'-C1'	-6.06	1.46	1.53
1	A7	96	G	C2'-C1'	-6.06	1.46	1.53
2	A8	775	G	C2'-C1'	-6.06	1.46	1.53
2	A8	1594	U	C2'-C1'	-6.06	1.46	1.53
2	A8	2191	A	N7-C5	-6.06	1.35	1.39
2	A8	2712	C	P-O5'	-6.06	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1137	G	C2'-C1'	-6.05	1.46	1.53
2	A8	2375	G	P-O5'	-6.05	1.53	1.59
2	A8	2890	G	N7-C5	-6.05	1.35	1.39
36	BA	883	C	C3'-C2'	-6.05	1.46	1.52
36	BA	923	A	C3'-C2'	-6.05	1.46	1.52
2	A8	1939	U	C2'-C1'	-6.05	1.46	1.53
1	A7	81	G	C2'-C1'	-6.05	1.46	1.53
1	A7	108	A	N9-C4	-6.05	1.34	1.37
2	A8	541	A	N7-C5	-6.05	1.35	1.39
2	A8	737	C	P-O5'	-6.05	1.53	1.59
2	A8	1655	A	O3'-P	-6.05	1.53	1.61
1	A7	24	G	O3'-P	-6.05	1.53	1.61
2	A8	167	A	P-O5'	-6.05	1.53	1.59
2	A8	974	G	N7-C5	-6.05	1.35	1.39
2	A8	2214	C	C2'-C1'	-6.05	1.46	1.53
2	A8	2841	C	P-O5'	-6.05	1.53	1.59
36	BA	1480	A	P-O5'	-6.05	1.53	1.59
2	A8	248	G	P-O5'	-6.05	1.53	1.59
2	A8	2170	A	N7-C5	-6.05	1.35	1.39
2	A8	212	G	C2'-C1'	-6.05	1.46	1.53
2	A8	2711	A	N7-C5	-6.04	1.35	1.39
2	A8	384	A	N7-C5	-6.04	1.35	1.39
2	A8	1277	G	C2'-C1'	-6.04	1.46	1.53
2	A8	1593	A	N7-C5	-6.04	1.35	1.39
2	A8	1694	C	P-O5'	-6.04	1.53	1.59
2	A8	1787	A	C2'-C1'	-6.04	1.46	1.53
36	BA	1171	A	C2'-C1'	-6.04	1.46	1.53
2	A8	12	U	C2'-C1'	-6.04	1.46	1.53
36	BA	163	C	C2'-C1'	-6.04	1.46	1.53
2	A8	1296	G	C2'-C1'	-6.04	1.46	1.53
2	A8	2415	G	O3'-P	-6.04	1.53	1.61
2	A8	2764	A	O3'-P	-6.04	1.53	1.61
2	A8	957	C	P-O5'	-6.04	1.53	1.59
2	A8	1424	G	C2'-C1'	-6.04	1.46	1.53
2	A8	882	G	C2'-C1'	-6.04	1.46	1.53
2	A8	2039	U	C2'-C1'	-6.04	1.46	1.53
2	A8	2538	C	P-O5'	-6.04	1.53	1.59
1	A7	54	G	N9-C4	6.03	1.42	1.38
2	A8	502	A	N7-C5	-6.03	1.35	1.39
2	A8	1973	G	C2-N3	6.03	1.37	1.32
2	A8	1495	A	C8-N7	-6.03	1.27	1.31
2	A8	2224	G	C3'-C2'	-6.03	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	782	A	C2'-C1'	-6.03	1.46	1.53
2	A8	1609	A	N7-C5	-6.03	1.35	1.39
2	A8	1843	C	P-O5'	-6.03	1.53	1.59
2	A8	15	G	C2'-C1'	-6.03	1.46	1.53
2	A8	464	U	P-O5'	-6.03	1.53	1.59
2	A8	1544	A	N7-C5	-6.03	1.35	1.39
2	A8	1743	G	P-O5'	-6.03	1.53	1.59
1	A7	111	U	C2'-C1'	-6.03	1.46	1.53
2	A8	204	A	N9-C4	-6.03	1.34	1.37
2	A8	585	G	C2'-C1'	-6.03	1.46	1.53
2	A8	858	G	C3'-C2'	-6.03	1.46	1.52
2	A8	1011	G	C2'-C1'	-6.03	1.46	1.53
2	A8	2642	G	N7-C5	-6.03	1.35	1.39
2	A8	1650	A	C2'-C1'	-6.02	1.46	1.53
2	A8	1678	A	N7-C5	-6.02	1.35	1.39
2	A8	667	U	C2'-C1'	-6.02	1.46	1.53
2	A8	1220	G	C2'-C1'	-6.02	1.46	1.53
2	A8	1425	G	C2'-C1'	-6.02	1.46	1.53
36	BA	245	U	P-O5'	-6.02	1.53	1.59
36	BA	672	U	C2'-C1'	-6.02	1.46	1.53
36	BA	1510	C	C3'-C2'	-6.02	1.46	1.52
2	A8	1822	C	C2'-C1'	-6.02	1.46	1.53
2	A8	1120	G	C2'-C1'	-6.02	1.46	1.53
36	BA	182	A	N7-C5	-6.02	1.35	1.39
2	A8	1242	U	C4-C5	-6.02	1.38	1.43
2	A8	2638	G	O3'-P	-6.02	1.53	1.61
36	BA	645	G	C2'-C1'	-6.02	1.46	1.53
2	A8	1458	U	C2'-C1'	-6.01	1.46	1.53
2	A8	2784	U	P-O5'	-6.01	1.53	1.59
2	A8	1292	G	N7-C5	-6.01	1.35	1.39
2	A8	1551	A	N3-C4	-6.01	1.31	1.34
2	A8	2341	G	P-O5'	-6.01	1.53	1.59
36	BA	222	C	P-O5'	-6.01	1.53	1.59
2	A8	870	U	C2'-C1'	-6.01	1.46	1.53
2	A8	1029	A	P-O5'	-6.01	1.53	1.59
2	A8	2811	G	P-O5'	-6.01	1.53	1.59
36	BA	1510	C	C2'-C1'	-6.01	1.46	1.53
2	A8	372	G	C2'-C1'	-6.01	1.46	1.53
2	A8	590	A	C2'-C1'	-6.01	1.46	1.53
2	A8	905	A	N7-C5	-6.01	1.35	1.39
2	A8	1651	G	O3'-P	-6.01	1.53	1.61
2	A8	1682	G	C2'-C1'	-6.01	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	540	G	P-O5'	-6.01	1.53	1.59
2	A8	838	C	C2'-C1'	-6.00	1.46	1.53
2	A8	716	A	C2'-C1'	-6.00	1.46	1.53
36	BA	53	A	N7-C5	-6.00	1.35	1.39
36	BA	1097	C	C2'-C1'	-6.00	1.46	1.53
2	A8	811	U	C2'-C1'	-6.00	1.46	1.53
2	A8	1422	G	P-O5'	-6.00	1.53	1.59
2	A8	2097	A	C2'-C1'	-6.00	1.46	1.53
36	BA	36	C	P-O5'	-6.00	1.53	1.59
36	BA	743	A	P-O5'	-6.00	1.53	1.59
2	A8	222	A	N7-C5	-6.00	1.35	1.39
2	A8	1787	A	N7-C5	-6.00	1.35	1.39
2	A8	1370	C	C2'-C1'	-6.00	1.46	1.53
2	A8	2588	G	P-O5'	-6.00	1.53	1.59
2	A8	2716	C	C3'-C2'	-6.00	1.46	1.52
2	A8	302	C	C2'-C1'	-6.00	1.46	1.53
2	A8	743	A	N7-C5	-6.00	1.35	1.39
2	A8	40	U	C2'-C1'	-5.99	1.46	1.53
2	A8	2733	A	C2'-C1'	-5.99	1.46	1.53
36	BA	1401	G	P-O5'	-5.99	1.53	1.59
36	BA	691	G	N9-C4	-5.99	1.33	1.38
2	A8	808	G	O3'-P	-5.99	1.53	1.61
2	A8	2727	A	O3'-P	-5.99	1.53	1.61
2	A8	2231	U	P-O5'	-5.99	1.53	1.59
1	A7	109	A	N7-C5	-5.99	1.35	1.39
2	A8	81	G	P-O5'	-5.99	1.53	1.59
2	A8	959	A	N7-C5	-5.99	1.35	1.39
2	A8	1151	A	N7-C5	-5.99	1.35	1.39
2	A8	1216	G	N7-C5	-5.99	1.35	1.39
36	BA	910	C	P-O5'	-5.99	1.53	1.59
2	A8	242	G	O3'-P	-5.98	1.53	1.61
2	A8	2872	A	C5'-C4'	5.98	1.58	1.51
2	A8	1878	G	C2'-C1'	-5.98	1.46	1.53
2	A8	2252	G	N7-C5	-5.98	1.35	1.39
2	A8	203	A	N9-C4	-5.98	1.34	1.37
36	BA	236	A	C2'-C1'	-5.98	1.46	1.53
2	A8	402	A	C2'-C1'	-5.98	1.46	1.53
2	A8	526	A	N7-C5	-5.98	1.35	1.39
2	A8	2824	C	P-O5'	-5.98	1.53	1.59
36	BA	313	A	N7-C5	-5.98	1.35	1.39
2	A8	859	G	N3-C4	-5.97	1.31	1.35
2	A8	955	U	C2'-C1'	-5.97	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1444	G	N7-C5	-5.97	1.35	1.39
36	BA	1275	A	N7-C5	-5.97	1.35	1.39
2	A8	108	G	P-O5'	-5.97	1.53	1.59
2	A8	912	C	P-O5'	-5.97	1.53	1.59
2	A8	2052	A	N7-C5	-5.97	1.35	1.39
36	BA	182	A	N3-C4	-5.97	1.31	1.34
36	BA	902	G	C2'-C1'	-5.97	1.46	1.53
1	A7	67	G	N7-C5	-5.97	1.35	1.39
2	A8	1678	A	P-O5'	-5.97	1.53	1.59
2	A8	1873	G	C2'-C1'	-5.97	1.46	1.53
2	A8	2394	C	C2'-C1'	-5.97	1.46	1.53
36	BA	1090	U	C2'-C1'	-5.97	1.46	1.53
2	A8	1861	G	N7-C5	-5.97	1.35	1.39
2	A8	27	G	C2'-C1'	-5.97	1.46	1.53
2	A8	1555	G	P-O5'	-5.97	1.53	1.59
2	A8	1728	C	C2'-C1'	-5.97	1.46	1.53
2	A8	253	C	C2'-C1'	-5.96	1.46	1.53
36	BA	787	A	P-O5'	-5.96	1.53	1.59
36	BA	905	U	P-O5'	-5.96	1.53	1.59
2	A8	118	A	C2'-C1'	-5.96	1.46	1.53
2	A8	610	C	P-O5'	-5.96	1.53	1.59
2	A8	2597	G	C4'-C3'	-5.96	1.46	1.52
2	A8	693	A	N7-C5	-5.96	1.35	1.39
2	A8	964	C	C2'-C1'	-5.96	1.46	1.53
2	A8	1141	U	C3'-C2'	-5.96	1.46	1.52
2	A8	1316	U	C2'-C1'	-5.96	1.46	1.53
36	BA	190	A	C8-N7	-5.96	1.27	1.31
2	A8	539	G	C2'-C1'	-5.96	1.46	1.53
36	BA	357	G	C3'-C2'	-5.96	1.46	1.52
2	A8	517	C	C2'-C1'	-5.96	1.46	1.53
2	A8	1231	U	P-O5'	-5.96	1.53	1.59
2	A8	1346	G	C2'-C1'	-5.96	1.46	1.53
2	A8	1859	U	C2'-C1'	-5.96	1.46	1.53
36	BA	1175	G	C2'-C1'	-5.96	1.46	1.53
36	BA	1506	U	P-O5'	-5.96	1.53	1.59
36	BA	102	G	C3'-C2'	-5.96	1.46	1.52
36	BA	291	U	C2'-C1'	-5.96	1.46	1.53
2	A8	1893	C	P-O5'	-5.95	1.53	1.59
2	A8	2592	G	P-O5'	-5.95	1.53	1.59
36	BA	760	G	C2'-C1'	-5.95	1.46	1.53
1	A7	114	C	C2'-C1'	-5.95	1.46	1.53
2	A8	1461	C	C2'-C1'	-5.95	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	71	A	N7-C5	-5.95	1.35	1.39
2	A8	214	G	N7-C5	-5.95	1.35	1.39
2	A8	708	G	N7-C5	-5.95	1.35	1.39
2	A8	1251	C	C2'-C1'	-5.95	1.46	1.53
2	A8	1306	C	C2'-C1'	-5.95	1.46	1.53
2	A8	1814	G	N9-C4	-5.95	1.33	1.38
36	BA	742	G	P-O5'	-5.95	1.53	1.59
2	A8	722	A	N7-C5	-5.95	1.35	1.39
2	A8	745	G	O3'-P	-5.95	1.54	1.61
2	A8	906	U	P-O5'	-5.95	1.53	1.59
2	A8	1016	G	N7-C5	-5.95	1.35	1.39
2	A8	189	G	N1-C2	5.95	1.42	1.37
2	A8	746	U	C2'-C1'	-5.95	1.46	1.53
36	BA	286	C	P-O5'	-5.95	1.53	1.59
36	BA	766	A	N7-C5	-5.95	1.35	1.39
36	BA	1288	A	C2'-C1'	-5.95	1.46	1.53
36	BA	1462	C	P-O5'	-5.95	1.53	1.59
36	BA	1526	G	N7-C5	-5.95	1.35	1.39
2	A8	848	C	P-O5'	-5.94	1.53	1.59
2	A8	863	A	N7-C5	-5.94	1.35	1.39
2	A8	1419	A	C2'-C1'	-5.94	1.46	1.53
36	BA	1521	C	C2'-C1'	-5.94	1.46	1.53
2	A8	1688	U	C2'-C1'	-5.94	1.46	1.53
2	A8	2148	G	N9-C4	5.94	1.42	1.38
36	BA	368	U	O3'-P	-5.94	1.54	1.61
36	BA	715	A	N7-C5	-5.94	1.35	1.39
36	BA	1314	C	C2'-C1'	-5.94	1.46	1.53
36	BA	1437	A	N7-C5	-5.94	1.35	1.39
2	A8	747	U	C1'-N1	5.94	1.57	1.48
2	A8	1771	C	C3'-C2'	-5.94	1.46	1.52
2	A8	1929	G	P-O5'	-5.94	1.53	1.59
2	A8	1968	G	N7-C5	-5.94	1.35	1.39
36	BA	499	A	N7-C5	-5.94	1.35	1.39
36	BA	1289	A	N7-C5	-5.94	1.35	1.39
2	A8	2378	A	N7-C5	-5.94	1.35	1.39
2	A8	445	C	C2'-C1'	-5.94	1.46	1.53
2	A8	651	G	P-O5'	-5.94	1.53	1.59
36	BA	832	G	C2'-C1'	-5.94	1.46	1.53
2	A8	357	C	P-O5'	-5.94	1.53	1.59
2	A8	990	A	P-O5'	-5.94	1.53	1.59
2	A8	1198	U	P-O5'	-5.94	1.53	1.59
2	A8	1380	G	N7-C5	-5.94	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2583	G	P-O5'	-5.94	1.53	1.59
1	A7	52	A	N7-C5	-5.93	1.35	1.39
2	A8	1268	A	C3'-C2'	-5.93	1.46	1.52
2	A8	2078	C	P-O5'	-5.93	1.53	1.59
2	A8	628	G	C2'-C1'	-5.93	1.46	1.53
1	A7	90	C	C2'-C1'	-5.93	1.46	1.53
2	A8	1373	A	C8-N7	-5.93	1.27	1.31
2	A8	1650	A	N7-C5	-5.93	1.35	1.39
36	BA	203	G	C2'-C1'	-5.93	1.46	1.53
36	BA	678	U	C2'-C1'	-5.93	1.46	1.53
2	A8	343	C	P-O5'	-5.93	1.53	1.59
2	A8	2078	C	C2'-C1'	-5.93	1.46	1.53
36	BA	1460	C	C2'-C1'	-5.93	1.46	1.53
1	A7	85	G	N7-C5	-5.93	1.35	1.39
2	A8	508	A	N7-C5	-5.93	1.35	1.39
2	A8	2747	G	N9-C4	-5.93	1.33	1.38
1	A7	106	G	P-O5'	-5.92	1.53	1.59
2	A8	1334	G	N7-C5	-5.92	1.35	1.39
36	BA	1111	A	N7-C5	-5.92	1.35	1.39
36	BA	1170	A	C2'-C1'	-5.92	1.46	1.53
1	A7	87	U	C2'-C1'	-5.92	1.46	1.53
2	A8	912	C	C4'-C3'	-5.92	1.46	1.52
2	A8	1531	C	C4'-C3'	-5.92	1.46	1.52
2	A8	1665	A	P-O5'	-5.92	1.53	1.59
2	A8	2235	G	N7-C5	-5.92	1.35	1.39
36	BA	599	C	P-O5'	-5.92	1.53	1.59
2	A8	109	C	C2'-C1'	-5.92	1.46	1.53
2	A8	336	C	P-O5'	-5.92	1.53	1.59
2	A8	502	A	N9-C4	-5.92	1.34	1.37
2	A8	1248	G	C2-N3	5.92	1.37	1.32
36	BA	626	G	C2'-C1'	-5.92	1.46	1.53
36	BA	768	A	N9-C4	-5.92	1.34	1.37
1	A7	3	C	P-O5'	-5.92	1.53	1.59
2	A8	727	A	C2'-C1'	-5.92	1.46	1.53
2	A8	1989	G	P-O5'	-5.92	1.53	1.59
36	BA	1503	A	N7-C5	-5.92	1.35	1.39
2	A8	1470	A	C8-N7	-5.92	1.27	1.31
2	A8	2354	C	C4'-C3'	-5.92	1.46	1.52
36	BA	499	A	N9-C4	-5.92	1.34	1.37
2	A8	241	A	O3'-P	-5.91	1.54	1.61
2	A8	597	G	N7-C5	-5.91	1.35	1.39
2	A8	1315	C	C2'-C1'	-5.91	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1750	G	P-O5'	-5.91	1.53	1.59
2	A8	2224	G	C2'-C1'	-5.91	1.46	1.53
2	A8	244	A	N7-C5	-5.91	1.35	1.39
2	A8	1333	G	N7-C5	-5.91	1.35	1.39
2	A8	2341	G	N7-C5	-5.91	1.35	1.39
36	BA	154	U	C2'-C1'	-5.91	1.46	1.53
2	A8	1763	G	N7-C5	-5.91	1.35	1.39
2	A8	2711	A	O3'-P	-5.91	1.54	1.61
2	A8	2896	C	C2'-C1'	-5.91	1.46	1.53
1	A7	72	G	C2'-C1'	-5.91	1.46	1.53
2	A8	153	U	P-O5'	-5.91	1.53	1.59
2	A8	2532	G	N7-C5	-5.91	1.35	1.39
2	A8	118	A	C1'-N9	-5.91	1.38	1.46
2	A8	1853	A	C3'-C2'	-5.91	1.46	1.52
2	A8	2786	U	C2'-C1'	-5.91	1.46	1.53
2	A8	309	A	N7-C5	-5.90	1.35	1.39
2	A8	1543	G	N9-C4	-5.90	1.33	1.38
36	BA	441	A	N7-C5	-5.90	1.35	1.39
36	BA	1447	A	N7-C5	-5.90	1.35	1.39
2	A8	374	A	N7-C5	-5.90	1.35	1.39
2	A8	458	G	N1-C2	5.90	1.42	1.37
2	A8	662	G	N7-C5	-5.90	1.35	1.39
2	A8	2331	G	C2'-C1'	-5.90	1.46	1.53
1	A7	53	A	N7-C5	-5.90	1.35	1.39
2	A8	2189	U	C2'-C1'	-5.90	1.46	1.53
36	BA	907	A	C2'-C1'	-5.90	1.46	1.53
36	BA	1227	A	O3'-P	-5.90	1.54	1.61
1	A7	34	A	C2'-C1'	-5.90	1.46	1.53
1	A7	95	U	P-O5'	-5.90	1.53	1.59
2	A8	755	U	C2'-C1'	-5.90	1.46	1.53
2	A8	1001	A	N3-C4	-5.90	1.31	1.34
2	A8	1347	A	P-O5'	-5.90	1.53	1.59
2	A8	1946	U	C3'-C2'	-5.90	1.46	1.52
2	A8	2693	G	C2'-C1'	-5.90	1.46	1.53
36	BA	1517	G	O3'-P	-5.90	1.54	1.61
2	A8	2012	G	N7-C5	-5.90	1.35	1.39
2	A8	938	G	C2'-C1'	-5.89	1.46	1.53
2	A8	983	A	C2'-C1'	-5.89	1.46	1.53
2	A8	2023	C	C2'-C1'	-5.89	1.46	1.53
2	A8	2026	U	P-O5'	-5.89	1.53	1.59
2	A8	2752	C	P-O5'	-5.89	1.53	1.59
36	BA	674	G	N7-C5	-5.89	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	13	A	N7-C5	-5.89	1.35	1.39
2	A8	371	A	C2'-C1'	-5.89	1.46	1.53
2	A8	688	U	C2'-C1'	-5.89	1.46	1.53
2	A8	850	U	P-O5'	-5.89	1.53	1.59
2	A8	1177	G	N7-C5	-5.89	1.35	1.39
2	A8	2586	U	C2-N3	5.89	1.41	1.37
36	BA	1432	G	N9-C4	-5.89	1.33	1.38
2	A8	2486	C	C2'-C1'	-5.89	1.46	1.53
36	BA	53	A	P-O5'	-5.89	1.53	1.59
36	BA	288	A	P-O5'	-5.89	1.53	1.59
36	BA	1053	G	O3'-P	-5.89	1.54	1.61
2	A8	1187	G	C2'-C1'	-5.89	1.46	1.53
2	A8	1332	G	N7-C5	-5.89	1.35	1.39
2	A8	1972	G	C3'-C2'	-5.89	1.46	1.52
2	A8	2237	G	C2'-C1'	-5.89	1.46	1.53
2	A8	756	A	C2'-C1'	-5.89	1.46	1.53
2	A8	993	G	C2'-C1'	-5.89	1.46	1.53
36	BA	151	A	C6-N1	5.89	1.39	1.35
2	A8	666	A	C2'-C1'	-5.88	1.46	1.53
2	A8	1434	A	O3'-P	-5.88	1.54	1.61
2	A8	2064	C	C2'-C1'	-5.88	1.46	1.53
36	BA	589	U	C2'-C1'	-5.88	1.46	1.53
2	A8	1509	A	N7-C5	-5.88	1.35	1.39
2	A8	1696	G	C2'-C1'	-5.88	1.46	1.53
2	A8	1413	A	N7-C5	-5.88	1.35	1.39
36	BA	1468	A	P-O5'	-5.88	1.53	1.59
2	A8	951	C	C2'-C1'	-5.88	1.46	1.53
2	A8	1612	C	C2'-C1'	-5.88	1.46	1.53
36	BA	780	A	N7-C5	-5.88	1.35	1.39
2	A8	676	A	P-O5'	-5.88	1.53	1.59
36	BA	969	A	C2'-C1'	-5.88	1.46	1.53
2	A8	1806	C	C2'-C1'	-5.88	1.46	1.53
36	BA	382	A	N7-C5	-5.88	1.35	1.39
36	BA	598	U	P-O5'	-5.88	1.53	1.59
2	A8	1718	G	C2'-C1'	-5.88	1.46	1.53
2	A8	1942	C	P-O5'	-5.88	1.53	1.59
2	A8	114	U	P-O5'	-5.87	1.53	1.59
2	A8	1002	G	N7-C5	-5.87	1.35	1.39
2	A8	1057	A	N7-C5	-5.87	1.35	1.39
2	A8	1359	A	N7-C5	-5.87	1.35	1.39
2	A8	1496	A	N9-C4	-5.87	1.34	1.37
2	A8	1597	A	P-O5'	-5.87	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1723	G	C5-C6	-5.87	1.36	1.42
2	A8	2696	U	C2'-C1'	-5.87	1.46	1.53
2	A8	2612	C	C5'-C4'	5.87	1.58	1.51
2	A8	558	U	P-O5'	-5.87	1.53	1.59
2	A8	2058	A	C2'-C1'	-5.87	1.46	1.53
2	A8	2437	G	P-O5'	-5.87	1.53	1.59
2	A8	2592	G	C8-N7	-5.87	1.27	1.30
2	A8	2882	A	P-O5'	-5.87	1.53	1.59
36	BA	301	G	C2'-C1'	-5.87	1.46	1.53
2	A8	1688	U	C3'-C2'	-5.87	1.46	1.52
2	A8	2410	G	N7-C5	-5.87	1.35	1.39
2	A8	2705	A	N7-C5	-5.87	1.35	1.39
2	A8	2743	U	P-O5'	-5.87	1.53	1.59
36	BA	1434	A	N7-C5	-5.87	1.35	1.39
2	A8	205	G	N9-C4	-5.86	1.33	1.38
2	A8	1210	G	N7-C5	-5.86	1.35	1.39
2	A8	1347	A	N7-C5	-5.86	1.35	1.39
36	BA	508	U	C2'-C1'	-5.86	1.47	1.53
36	BA	857	C	C2'-C1'	-5.86	1.47	1.53
2	A8	2037	A	P-O5'	-5.86	1.53	1.59
2	A8	2718	G	C2'-C1'	-5.86	1.47	1.53
2	A8	362	A	C2'-C1'	-5.86	1.47	1.53
2	A8	844	A	P-O5'	-5.86	1.53	1.59
2	A8	1070	A	N7-C5	-5.86	1.35	1.39
2	A8	493	G	P-O5'	-5.86	1.53	1.59
2	A8	1357	C	C2'-C1'	-5.86	1.47	1.53
2	A8	1489	C	P-O5'	-5.86	1.53	1.59
2	A8	2524	G	C3'-C2'	-5.86	1.46	1.52
36	BA	539	A	C2'-C1'	-5.86	1.47	1.53
2	A8	2001	C	P-O5'	-5.86	1.53	1.59
2	A8	2048	G	P-O5'	-5.86	1.53	1.59
2	A8	916	G	N7-C5	-5.86	1.35	1.39
2	A8	1170	C	P-O5'	-5.86	1.53	1.59
2	A8	2478	A	N9-C4	-5.86	1.34	1.37
36	BA	831	A	N7-C5	-5.86	1.35	1.39
36	BA	917	G	N7-C5	-5.86	1.35	1.39
2	A8	713	G	O3'-P	-5.85	1.54	1.61
2	A8	2328	A	N7-C5	-5.85	1.35	1.39
2	A8	190	A	C2'-C1'	-5.85	1.47	1.53
2	A8	1665	A	N7-C5	-5.85	1.35	1.39
2	A8	2207	C	C2'-C1'	-5.85	1.47	1.53
2	A8	2285	C	C2'-C1'	-5.85	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	97	C	P-O5'	-5.85	1.53	1.59
2	A8	1535	A	N7-C5	-5.85	1.35	1.39
2	A8	594	U	C2'-C1'	-5.85	1.47	1.53
2	A8	1478	G	P-O5'	-5.85	1.53	1.59
2	A8	1989	G	N7-C5	-5.85	1.35	1.39
2	A8	2121	G	N7-C5	-5.85	1.35	1.39
36	BA	404	G	N7-C5	-5.85	1.35	1.39
2	A8	612	G	C3'-C2'	-5.84	1.46	1.52
2	A8	863	A	C2'-C1'	-5.84	1.47	1.53
2	A8	1302	A	N9-C4	-5.84	1.34	1.37
2	A8	1435	G	P-O5'	-5.84	1.53	1.59
2	A8	1681	G	N9-C8	-5.84	1.33	1.37
2	A8	2391	G	N1-C2	5.84	1.42	1.37
36	BA	765	G	N7-C5	-5.84	1.35	1.39
36	BA	900	A	C8-N7	-5.84	1.27	1.31
2	A8	2599	G	C2'-C1'	-5.84	1.47	1.53
36	BA	550	G	C2'-C1'	-5.84	1.47	1.53
36	BA	673	A	O3'-P	-5.84	1.54	1.61
2	A8	623	C	P-O5'	-5.84	1.53	1.59
36	BA	1053	G	C2'-C1'	-5.84	1.47	1.53
36	BA	1155	A	N9-C4	-5.84	1.34	1.37
36	BA	1524	C	P-O5'	-5.84	1.53	1.59
2	A8	1410	G	P-O5'	-5.84	1.53	1.59
2	A8	1521	G	P-O5'	-5.84	1.53	1.59
2	A8	1784	A	C6-N1	5.84	1.39	1.35
2	A8	1945	G	N7-C5	-5.84	1.35	1.39
36	BA	100	G	C2'-C1'	-5.84	1.47	1.53
2	A8	934	U	C2'-C1'	-5.84	1.47	1.53
2	A8	1273	U	C2-N3	5.84	1.41	1.37
36	BA	1455	G	C2'-C1'	-5.84	1.47	1.53
1	A7	33	G	C2'-C1'	-5.84	1.47	1.53
2	A8	176	A	N7-C5	-5.84	1.35	1.39
36	BA	726	C	P-O5'	-5.84	1.53	1.59
36	BA	1325	C	P-O5'	-5.84	1.53	1.59
2	A8	122	G	N7-C5	-5.83	1.35	1.39
2	A8	609	A	C8-N7	-5.83	1.27	1.31
2	A8	1588	G	P-O5'	-5.83	1.53	1.59
36	BA	12	U	C2'-C1'	-5.83	1.47	1.53
36	BA	179	A	N7-C5	-5.83	1.35	1.39
2	A8	828	U	C4'-O4'	-5.83	1.38	1.45
2	A8	1190	G	N7-C5	-5.83	1.35	1.39
2	A8	252	G	C2'-C1'	-5.83	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	258	G	C2'-C1'	-5.83	1.47	1.53
2	A8	844	A	C2'-C1'	-5.83	1.47	1.53
2	A8	1553	A	N7-C5	-5.83	1.35	1.39
2	A8	2239	G	N7-C5	-5.83	1.35	1.39
36	BA	899	C	P-O5'	-5.83	1.53	1.59
36	BA	1486	G	N7-C5	-5.83	1.35	1.39
2	A8	254	G	C2'-C1'	-5.83	1.47	1.53
2	A8	251	A	N7-C5	-5.83	1.35	1.39
2	A8	1354	A	C8-N7	-5.83	1.27	1.31
2	A8	1510	G	C2'-C1'	-5.83	1.47	1.53
2	A8	1845	G	N7-C5	-5.83	1.35	1.39
2	A8	2029	G	N9-C4	-5.83	1.33	1.38
2	A8	2701	U	P-O5'	-5.83	1.53	1.59
36	BA	270	A	P-O5'	-5.83	1.53	1.59
2	A8	2340	A	N7-C5	-5.83	1.35	1.39
2	A8	1866	A	N7-C5	-5.83	1.35	1.39
36	BA	795	C	C2'-C1'	-5.83	1.47	1.53
2	A8	1835	G	N9-C4	5.82	1.42	1.38
2	A8	2763	G	C8-N7	-5.82	1.27	1.30
36	BA	585	G	N7-C5	-5.82	1.35	1.39
36	BA	785	G	C2'-C1'	-5.82	1.47	1.53
36	BA	1350	A	P-O5'	-5.82	1.53	1.59
2	A8	881	G	C2-N3	5.82	1.37	1.32
2	A8	159	G	C3'-C2'	-5.82	1.46	1.52
2	A8	550	C	C2'-C1'	-5.82	1.47	1.53
2	A8	1656	C	C2'-C1'	-5.82	1.47	1.53
2	A8	1672	A	N7-C5	-5.82	1.35	1.39
36	BA	72	A	C2'-C1'	-5.82	1.47	1.53
2	A8	1504	A	P-O5'	-5.82	1.53	1.59
36	BA	331	G	C2'-C1'	-5.82	1.47	1.53
36	BA	636	U	P-O5'	-5.82	1.53	1.59
36	BA	695	A	C2'-C1'	-5.82	1.47	1.53
2	A8	155	A	C2'-C1'	-5.82	1.47	1.53
2	A8	160	A	C2'-C1'	-5.82	1.47	1.53
2	A8	541	A	P-O5'	-5.82	1.53	1.59
2	A8	1765	U	C2'-C1'	-5.82	1.47	1.53
2	A8	2276	G	C2'-C1'	-5.82	1.47	1.53
2	A8	2610	C	C5'-C4'	5.82	1.58	1.51
36	BA	314	C	P-O5'	-5.82	1.53	1.59
2	A8	168	G	P-O5'	-5.82	1.53	1.59
2	A8	693	A	O3'-P	-5.82	1.54	1.61
2	A8	1440	U	P-O5'	-5.82	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1590	A	C2'-C1'	-5.82	1.47	1.53
2	A8	2639	A	P-O5'	-5.82	1.53	1.59
36	BA	530	G	C4'-O4'	-5.82	1.38	1.45
36	BA	584	G	N7-C5	-5.82	1.35	1.39
36	BA	796	C	P-O5'	-5.82	1.53	1.59
2	A8	56	A	C2'-C1'	-5.81	1.47	1.53
2	A8	400	G	C8-N7	-5.81	1.27	1.30
2	A8	983	A	N7-C5	-5.81	1.35	1.39
2	A8	2271	G	N9-C4	-5.81	1.33	1.38
36	BA	23	C	P-O5'	-5.81	1.53	1.59
2	A8	799	G	P-O5'	-5.81	1.53	1.59
2	A8	1438	U	P-O5'	-5.81	1.53	1.59
2	A8	2058	A	N9-C4	-5.81	1.34	1.37
2	A8	2767	C	P-O5'	-5.81	1.53	1.59
36	BA	568	G	C2'-C1'	-5.81	1.47	1.53
2	A8	1566	A	C2'-C1'	-5.81	1.47	1.53
2	A8	1829	A	N7-C5	-5.81	1.35	1.39
2	A8	920	A	N7-C5	-5.81	1.35	1.39
2	A8	1396	U	C2-N3	5.81	1.41	1.37
2	A8	1951	U	P-O5'	-5.81	1.53	1.59
2	A8	277	G	C2-N3	5.81	1.37	1.32
2	A8	466	A	P-O5'	-5.81	1.53	1.59
2	A8	2351	G	C2'-C1'	-5.81	1.47	1.53
36	BA	220	G	N7-C5	-5.81	1.35	1.39
36	BA	303	A	N7-C5	-5.81	1.35	1.39
36	BA	670	G	O3'-P	-5.81	1.54	1.61
36	BA	1424	U	P-O5'	-5.81	1.53	1.59
2	A8	221	A	O3'-P	-5.81	1.54	1.61
2	A8	739	A	N7-C5	-5.80	1.35	1.39
2	A8	1953	A	N9-C4	-5.80	1.34	1.37
36	BA	60	A	O3'-P	-5.80	1.54	1.61
36	BA	361	G	P-O5'	-5.80	1.53	1.59
36	BA	860	A	C2'-C1'	-5.80	1.47	1.53
2	A8	306	U	C2'-C1'	-5.80	1.47	1.53
2	A8	370	G	C2'-C1'	-5.80	1.47	1.53
2	A8	1674	G	N7-C5	-5.80	1.35	1.39
2	A8	2890	G	C3'-C2'	-5.80	1.46	1.52
36	BA	271	C	C2'-C1'	-5.80	1.47	1.53
36	BA	668	G	N7-C5	-5.80	1.35	1.39
36	BA	1102	A	O4'-C1'	-5.80	1.34	1.41
2	A8	56	A	N7-C5	-5.80	1.35	1.39
2	A8	1664	A	C2'-C1'	-5.80	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2196	C	C2'-C1'	-5.80	1.47	1.53
2	A8	2227	A	N9-C4	-5.80	1.34	1.37
36	BA	122	G	C8-N7	-5.80	1.27	1.30
36	BA	1080	A	P-O5'	-5.80	1.53	1.59
36	BA	1301	U	C2'-C1'	-5.80	1.47	1.53
2	A8	483	A	P-O5'	-5.80	1.53	1.59
2	A8	966	G	N7-C5	-5.80	1.35	1.39
2	A8	1505	A	N9-C4	-5.80	1.34	1.37
2	A8	2571	U	P-O5'	-5.80	1.53	1.59
2	A8	2627	G	N7-C5	-5.80	1.35	1.39
2	A8	829	A	N7-C5	-5.80	1.35	1.39
2	A8	1036	G	C2'-C1'	-5.80	1.47	1.53
2	A8	1111	A	N7-C5	-5.80	1.35	1.39
36	BA	768	A	P-O5'	-5.80	1.53	1.59
2	A8	325	G	C2'-C1'	-5.79	1.47	1.53
2	A8	2566	A	O3'-P	-5.79	1.54	1.61
1	A7	69	G	C3'-C2'	-5.79	1.46	1.52
2	A8	1749	A	P-O5'	-5.79	1.53	1.59
2	A8	2217	G	C2'-C1'	-5.79	1.47	1.53
2	A8	2721	A	C2'-C1'	-5.79	1.47	1.53
36	BA	441	A	P-O5'	-5.79	1.53	1.59
2	A8	36	G	O3'-P	-5.79	1.54	1.61
2	A8	1707	G	N7-C5	-5.79	1.35	1.39
2	A8	1181	U	C2'-C1'	-5.79	1.47	1.53
36	BA	162	A	P-O5'	-5.79	1.53	1.59
36	BA	366	A	N9-C4	-5.79	1.34	1.37
36	BA	1213	A	N7-C5	-5.79	1.35	1.39
2	A8	1983	G	P-O5'	-5.79	1.53	1.59
2	A8	2299	U	C2'-C1'	-5.79	1.47	1.53
2	A8	6	A	C2'-C1'	-5.79	1.47	1.53
2	A8	745	G	C3'-C2'	-5.79	1.46	1.52
2	A8	2640	G	N7-C5	-5.79	1.35	1.39
14	AJ	26	GLY	CA-C	-5.79	1.42	1.51
36	BA	594	U	P-O5'	-5.79	1.53	1.59
2	A8	1873	G	C2-N3	-5.78	1.37	1.32
36	BA	517	G	C5-C6	-5.78	1.36	1.42
36	BA	520	A	P-O5'	-5.78	1.53	1.59
36	BA	1431	A	N7-C5	-5.78	1.35	1.39
2	A8	1157	G	N7-C5	-5.78	1.35	1.39
2	A8	1930	G	O3'-P	-5.78	1.54	1.61
2	A8	2005	A	N9-C4	-5.78	1.34	1.37
36	BA	787	A	N3-C4	-5.78	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1038	C	P-O5'	-5.78	1.53	1.59
1	A7	86	G	N9-C4	-5.78	1.33	1.38
2	A8	566	U	P-O5'	-5.78	1.53	1.59
36	BA	1090	U	C3'-C2'	-5.78	1.46	1.52
2	A8	1119	U	C2'-C1'	-5.78	1.47	1.53
2	A8	1839	G	P-O5'	-5.78	1.53	1.59
36	BA	897	C	C2'-C1'	-5.78	1.47	1.53
2	A8	1510	G	C2-N3	5.78	1.37	1.32
2	A8	1606	C	P-O5'	-5.78	1.53	1.59
2	A8	1705	A	N7-C5	-5.78	1.35	1.39
2	A8	2872	A	N7-C5	-5.78	1.35	1.39
36	BA	494	G	N7-C5	-5.78	1.35	1.39
2	A8	354	A	N7-C5	-5.78	1.35	1.39
2	A8	1189	A	C8-N7	-5.78	1.27	1.31
2	A8	1867	G	C2'-C1'	-5.77	1.47	1.53
2	A8	215	G	P-O5'	-5.77	1.53	1.59
2	A8	734	A	N7-C5	-5.77	1.35	1.39
36	BA	367	U	C2'-C1'	-5.77	1.47	1.53
36	BA	722	G	N7-C5	-5.77	1.35	1.39
2	A8	135	U	P-O5'	-5.77	1.53	1.59
1	A7	109	A	C2'-C1'	-5.77	1.47	1.53
2	A8	1358	G	P-O5'	-5.77	1.53	1.59
2	A8	2546	U	C2'-C1'	-5.77	1.47	1.53
2	A8	2619	C	C3'-C2'	-5.77	1.46	1.52
2	A8	2659	G	O4'-C1'	-5.77	1.34	1.41
36	BA	954	G	C2'-C1'	-5.77	1.47	1.53
36	BA	1514	G	C2'-C1'	-5.77	1.47	1.53
2	A8	1174	U	C2'-C1'	-5.77	1.47	1.53
2	A8	1277	G	P-O5'	-5.77	1.53	1.59
2	A8	1988	G	C2'-C1'	-5.77	1.47	1.53
2	A8	2890	G	C2'-C1'	-5.77	1.47	1.53
36	BA	602	A	N7-C5	-5.77	1.35	1.39
2	A8	175	G	C2'-C1'	-5.77	1.47	1.53
36	BA	44	A	C2'-C1'	-5.77	1.47	1.53
36	BA	574	A	N7-C5	-5.77	1.35	1.39
36	BA	893	C	P-O5'	-5.76	1.53	1.59
36	BA	1269	A	C2'-C1'	-5.76	1.47	1.53
2	A8	858	G	N9-C4	-5.76	1.33	1.38
2	A8	1146	C	C2'-C1'	-5.76	1.47	1.53
2	A8	2083	G	C2'-C1'	-5.76	1.47	1.53
2	A8	2235	G	C2'-C1'	-5.76	1.47	1.53
2	A8	2644	G	C3'-C2'	-5.76	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	794	A	C2'-C1'	-5.76	1.47	1.53
36	BA	901	A	N7-C5	-5.76	1.35	1.39
2	A8	630	G	O3'-P	-5.76	1.54	1.61
2	A8	1226	A	N9-C4	-5.76	1.34	1.37
36	BA	111	G	N7-C5	-5.76	1.35	1.39
36	BA	821	G	C2'-C1'	-5.76	1.47	1.53
1	A7	40	U	C4'-O4'	-5.76	1.38	1.45
2	A8	488	G	O3'-P	-5.76	1.54	1.61
2	A8	1562	U	C2'-C1'	-5.76	1.47	1.53
2	A8	106	C	C3'-C2'	-5.76	1.46	1.52
2	A8	162	U	C2'-C1'	-5.76	1.47	1.53
2	A8	250	G	C2'-C1'	-5.76	1.47	1.53
2	A8	1720	U	P-O5'	-5.76	1.53	1.59
2	A8	2579	C	P-O5'	-5.76	1.53	1.59
2	A8	2692	G	N7-C5	-5.76	1.35	1.39
36	BA	313	A	C2'-C1'	-5.76	1.47	1.53
2	A8	2278	A	N7-C5	-5.75	1.35	1.39
2	A8	2902	C	C3'-C2'	-5.75	1.46	1.52
36	BA	42	G	N7-C5	-5.75	1.35	1.39
36	BA	471	U	C5'-C4'	5.75	1.58	1.51
36	BA	621	A	N7-C5	-5.75	1.35	1.39
36	BA	849	G	C3'-C2'	-5.75	1.46	1.52
2	A8	33	C	C2'-C1'	-5.75	1.47	1.53
36	BA	749	A	N7-C5	-5.75	1.35	1.39
36	BA	1507	A	N7-C5	-5.75	1.35	1.39
2	A8	879	G	N1-C2	5.75	1.42	1.37
2	A8	2298	A	P-O5'	-5.75	1.54	1.59
2	A8	2861	U	C2'-C1'	-5.75	1.47	1.53
36	BA	890	G	C2'-C1'	-5.75	1.47	1.53
1	A7	30	C	C3'-C2'	-5.75	1.46	1.52
1	A7	94	A	N7-C5	-5.75	1.35	1.39
2	A8	1091	G	C8-N7	-5.75	1.27	1.30
2	A8	1762	A	N7-C5	-5.75	1.35	1.39
2	A8	1897	G	C2'-C1'	-5.75	1.47	1.53
2	A8	1935	G	N9-C4	-5.75	1.33	1.38
2	A8	2093	G	C4'-C3'	-5.75	1.46	1.52
2	A8	2197	U	C2'-C1'	-5.75	1.47	1.53
36	BA	740	U	P-O5'	-5.74	1.54	1.59
36	BA	1061	G	P-O5'	-5.74	1.54	1.59
2	A8	904	G	N7-C5	-5.74	1.35	1.39
2	A8	1846	G	N7-C5	-5.74	1.35	1.39
2	A8	1514	G	N7-C5	-5.74	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2420	C	C2'-C1'	-5.74	1.47	1.53
2	A8	2695	U	P-O5'	-5.74	1.54	1.59
36	BA	221	C	P-O5'	-5.74	1.54	1.59
2	A8	616	A	P-O5'	-5.74	1.54	1.59
2	A8	743	A	C2'-C1'	-5.74	1.47	1.53
2	A8	1373	A	P-O5'	-5.74	1.54	1.59
2	A8	1511	G	P-O5'	-5.74	1.54	1.59
2	A8	2348	U	C2'-C1'	-5.74	1.47	1.53
2	A8	2688	G	C2'-C1'	-5.74	1.47	1.53
36	BA	924	C	C2'-C1'	-5.74	1.47	1.53
36	BA	950	U	C2'-C1'	-5.74	1.47	1.53
36	BA	123	U	P-O5'	-5.74	1.54	1.59
1	A7	76	G	C2'-C1'	-5.74	1.47	1.53
2	A8	579	G	N7-C5	-5.74	1.35	1.39
2	A8	1401	G	P-O5'	-5.74	1.54	1.59
2	A8	2254	C	C2'-C1'	-5.74	1.47	1.53
2	A8	1187	G	N7-C5	-5.73	1.35	1.39
36	BA	681	A	N7-C5	-5.73	1.35	1.39
1	A7	38	C	P-O5'	-5.73	1.54	1.59
2	A8	204	A	C1'-N9	-5.73	1.38	1.46
2	A8	283	G	P-O5'	-5.73	1.54	1.59
2	A8	2190	G	N7-C5	-5.73	1.35	1.39
2	A8	2562	U	P-O5'	-5.73	1.54	1.59
2	A8	2665	A	C2'-C1'	-5.73	1.47	1.53
36	BA	712	A	P-O5'	-5.73	1.54	1.59
36	BA	1176	A	N7-C5	-5.73	1.35	1.39
36	BA	1390	U	C2'-C1'	-5.73	1.47	1.53
36	BA	128	G	C2'-C1'	-5.73	1.47	1.53
36	BA	1399	C	O3'-P	-5.73	1.54	1.61
2	A8	859	G	N7-C5	-5.73	1.35	1.39
36	BA	175	C	P-O5'	-5.73	1.54	1.59
2	A8	116	C	C2'-C1'	-5.73	1.47	1.53
36	BA	1100	C	C2'-C1'	-5.73	1.47	1.53
2	A8	469	G	C8-N7	-5.72	1.27	1.30
2	A8	486	C	P-O5'	-5.72	1.54	1.59
2	A8	766	U	O3'-P	-5.72	1.54	1.61
2	A8	1794	A	N7-C5	-5.72	1.35	1.39
2	A8	2370	G	P-O5'	-5.72	1.54	1.59
36	BA	811	C	P-O5'	-5.72	1.54	1.59
1	A7	81	G	N7-C5	-5.72	1.35	1.39
2	A8	916	G	C2'-C1'	-5.72	1.47	1.53
2	A8	2388	A	C2'-C1'	-5.72	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2659	G	N1-C2	5.72	1.42	1.37
2	A8	2702	G	C2-N3	5.72	1.37	1.32
36	BA	264	C	P-O5'	-5.72	1.54	1.59
2	A8	493	G	N7-C5	-5.72	1.35	1.39
2	A8	532	A	N7-C5	-5.72	1.35	1.39
2	A8	676	A	N3-C4	-5.72	1.31	1.34
2	A8	780	G	N7-C5	-5.72	1.35	1.39
2	A8	831	G	C2'-C1'	-5.72	1.47	1.53
2	A8	1364	G	N7-C5	-5.72	1.35	1.39
2	A8	1797	G	P-O5'	-5.72	1.54	1.59
36	BA	1365	G	P-O5'	-5.72	1.54	1.59
36	BA	676	A	P-O5'	-5.72	1.54	1.59
36	BA	1453	G	N9-C4	5.72	1.42	1.38
2	A8	1719	G	C2'-C1'	-5.72	1.47	1.53
36	BA	171	A	N3-C4	-5.72	1.31	1.34
36	BA	540	G	N7-C5	-5.72	1.35	1.39
36	BA	552	U	P-O5'	-5.72	1.54	1.59
2	A8	434	U	C2'-C1'	-5.71	1.47	1.53
2	A8	462	C	C3'-C2'	-5.71	1.46	1.52
2	A8	752	A	N7-C5	-5.71	1.35	1.39
2	A8	1507	C	C3'-C2'	-5.71	1.46	1.52
36	BA	1416	G	C2'-C1'	-5.71	1.47	1.53
2	A8	194	G	O3'-P	-5.71	1.54	1.61
2	A8	313	G	P-O5'	-5.71	1.54	1.59
2	A8	711	G	N7-C5	-5.71	1.35	1.39
2	A8	942	G	N7-C5	-5.71	1.35	1.39
36	BA	143	A	C3'-C2'	-5.71	1.46	1.52
1	A7	78	A	C2'-C1'	-5.71	1.47	1.53
2	A8	406	G	P-O5'	-5.71	1.54	1.59
2	A8	1344	U	C2'-C1'	-5.71	1.47	1.53
2	A8	2256	G	P-O5'	-5.71	1.54	1.59
2	A8	1105	U	C3'-C2'	-5.71	1.46	1.52
2	A8	1721	G	C2'-C1'	-5.71	1.47	1.53
2	A8	2337	G	N7-C5	-5.71	1.35	1.39
36	BA	496	A	C2'-C1'	-5.71	1.47	1.53
36	BA	1344	C	P-O5'	-5.71	1.54	1.59
2	A8	676	A	C1'-N9	-5.71	1.38	1.46
2	A8	1040	A	C2'-C1'	-5.71	1.47	1.53
2	A8	1803	A	N9-C4	-5.71	1.34	1.37
2	A8	1977	A	N7-C5	-5.71	1.35	1.39
2	A8	1832	C	C2'-C1'	-5.70	1.47	1.53
2	A8	2124	G	N7-C5	-5.70	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	503	A	C2'-C1'	-5.70	1.47	1.53
2	A8	1730	C	C2'-C1'	-5.70	1.47	1.53
2	A8	68	G	N7-C5	-5.70	1.35	1.39
2	A8	1009	A	N7-C5	-5.70	1.35	1.39
2	A8	1546	G	C2'-C1'	-5.70	1.47	1.53
1	A7	38	C	C2'-C1'	-5.70	1.47	1.53
2	A8	6	A	P-O5'	-5.70	1.54	1.59
2	A8	937	C	C2'-C1'	-5.70	1.47	1.53
2	A8	1799	G	N7-C5	-5.70	1.35	1.39
2	A8	1930	G	O4'-C1'	-5.70	1.34	1.41
2	A8	2645	G	N7-C5	-5.70	1.35	1.39
36	BA	679	C	P-O5'	-5.70	1.54	1.59
2	A8	643	A	N7-C5	-5.70	1.35	1.39
2	A8	651	G	C2'-C1'	-5.70	1.47	1.53
2	A8	2461	A	P-O5'	-5.70	1.54	1.59
36	BA	43	C	C2'-C1'	-5.70	1.47	1.53
2	A8	47	C	P-O5'	-5.69	1.54	1.59
2	A8	1996	C	P-O5'	-5.69	1.54	1.59
2	A8	2090	A	P-O5'	-5.69	1.54	1.59
2	A8	740	C	C2'-C1'	-5.69	1.47	1.53
2	A8	1511	G	N7-C5	-5.69	1.35	1.39
2	A8	1567	G	C1'-N9	-5.69	1.38	1.46
2	A8	1631	G	C2'-C1'	-5.69	1.47	1.53
2	A8	2086	U	C2'-C1'	-5.69	1.47	1.53
2	A8	2482	A	N3-C4	-5.69	1.31	1.34
36	BA	76	G	C2'-C1'	-5.69	1.47	1.53
2	A8	1434	A	C4'-C3'	-5.69	1.46	1.52
2	A8	619	G	N7-C5	-5.69	1.35	1.39
2	A8	1645	G	P-O5'	-5.69	1.54	1.59
2	A8	1965	C	C4'-C3'	-5.69	1.46	1.52
2	A8	2033	A	N7-C5	-5.69	1.35	1.39
2	A8	1434	A	N7-C5	-5.69	1.35	1.39
2	A8	1602	U	O3'-P	-5.69	1.54	1.61
36	BA	721	G	C2'-C1'	-5.69	1.47	1.53
2	A8	1309	G	C2'-C1'	-5.69	1.47	1.53
2	A8	1296	G	N7-C5	-5.68	1.35	1.39
2	A8	2668	G	C2'-C1'	-5.68	1.47	1.53
36	BA	325	A	P-O5'	-5.68	1.54	1.59
36	BA	665	A	N7-C5	-5.68	1.35	1.39
36	BA	728	A	C2'-C1'	-5.68	1.47	1.53
2	A8	686	U	O3'-P	-5.68	1.54	1.61
2	A8	2582	G	N7-C5	-5.68	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	484	G	N7-C5	-5.68	1.35	1.39
36	BA	1235	U	P-O5'	-5.68	1.54	1.59
36	BA	1489	G	N7-C5	-5.68	1.35	1.39
2	A8	220	G	C2'-C1'	-5.68	1.47	1.53
2	A8	317	G	N7-C5	-5.68	1.35	1.39
1	A7	2	G	C2-N3	5.68	1.37	1.32
2	A8	53	A	N7-C5	-5.68	1.35	1.39
2	A8	907	G	C2'-C1'	-5.68	1.47	1.53
2	A8	1242	U	C2-N3	5.68	1.41	1.37
36	BA	36	C	C2'-C1'	-5.68	1.47	1.53
36	BA	612	C	C3'-C2'	-5.68	1.46	1.52
36	BA	1363	A	N9-C4	5.68	1.41	1.37
1	A7	15	A	N7-C5	-5.68	1.35	1.39
2	A8	1013	C	C2'-C1'	-5.68	1.47	1.53
2	A8	1699	G	O3'-P	-5.68	1.54	1.61
2	A8	1700	A	P-O5'	-5.68	1.54	1.59
2	A8	2261	C	P-O5'	-5.68	1.54	1.59
2	A8	1353	A	C2'-C1'	-5.68	1.47	1.53
2	A8	1667	G	C2'-C1'	-5.68	1.47	1.53
2	A8	2809	A	N9-C4	-5.68	1.34	1.37
36	BA	37	U	P-O5'	-5.68	1.54	1.59
36	BA	515	G	C2'-C1'	-5.68	1.47	1.53
36	BA	738	C	P-O5'	-5.68	1.54	1.59
2	A8	2435	A	N7-C5	-5.67	1.35	1.39
2	A8	488	G	N7-C5	-5.67	1.35	1.39
2	A8	506	G	N7-C5	-5.67	1.35	1.39
2	A8	1604	C	C2'-C1'	-5.67	1.47	1.53
36	BA	145	G	N7-C5	-5.67	1.35	1.39
36	BA	1068	G	C2-N3	5.67	1.37	1.32
2	A8	95	A	O3'-P	-5.67	1.54	1.61
2	A8	242	G	N1-C2	5.67	1.42	1.37
1	A7	107	G	O3'-P	-5.67	1.54	1.61
2	A8	584	C	C2'-C1'	-5.67	1.47	1.53
2	A8	1001	A	P-O5'	-5.67	1.54	1.59
2	A8	1792	G	N9-C4	-5.67	1.33	1.38
36	BA	895	G	N7-C5	-5.67	1.35	1.39
36	BA	927	G	P-O5'	-5.67	1.54	1.59
2	A8	1234	U	C2'-C1'	-5.67	1.47	1.53
2	A8	1999	C	C2'-C1'	-5.67	1.47	1.53
36	BA	486	U	C2'-C1'	-5.67	1.47	1.53
36	BA	1080	A	C6-N1	5.67	1.39	1.35
2	A8	879	G	C8-N7	-5.67	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	219	A	N7-C5	-5.66	1.35	1.39
2	A8	2425	A	C1'-N9	-5.66	1.39	1.46
2	A8	2821	A	C2'-C1'	-5.66	1.47	1.53
36	BA	1516	G	C3'-C2'	-5.66	1.46	1.52
2	A8	2594	C	C2'-C1'	-5.66	1.47	1.53
2	A8	135	U	C2'-C1'	-5.66	1.47	1.53
2	A8	1154	G	C2'-C1'	-5.66	1.47	1.53
2	A8	1304	A	N7-C5	-5.66	1.35	1.39
36	BA	275	G	C2'-C1'	-5.66	1.47	1.53
36	BA	732	C	C3'-C2'	-5.66	1.46	1.52
36	BA	1108	G	N9-C4	-5.66	1.33	1.38
36	BA	1518	A	N9-C4	-5.66	1.34	1.37
2	A8	1444	G	C2-N3	5.66	1.37	1.32
2	A8	2360	G	C6-N1	5.66	1.43	1.39
1	A7	49	C	C2'-C1'	-5.66	1.47	1.53
2	A8	497	A	P-O5'	-5.66	1.54	1.59
2	A8	1137	G	N7-C5	-5.66	1.35	1.39
2	A8	2899	A	P-O5'	-5.66	1.54	1.59
36	BA	1392	G	N7-C5	-5.66	1.35	1.39
54	BS	2	ARG	CZ-NH1	5.66	1.40	1.33
2	A8	19	A	P-O5'	-5.65	1.54	1.59
2	A8	1676	A	N7-C5	-5.65	1.35	1.39
2	A8	422	A	N7-C5	-5.65	1.35	1.39
2	A8	1197	G	N7-C5	-5.65	1.35	1.39
2	A8	1917	U	P-O5'	-5.65	1.54	1.59
2	A8	2340	A	N9-C4	-5.65	1.34	1.37
36	BA	338	A	P-O5'	-5.65	1.54	1.59
2	A8	266	G	N1-C2	5.65	1.42	1.37
2	A8	70	G	O3'-P	-5.65	1.54	1.61
2	A8	971	G	P-O5'	-5.65	1.54	1.59
2	A8	1039	A	N7-C5	-5.65	1.35	1.39
36	BA	151	A	C2'-C1'	-5.65	1.47	1.53
2	A8	354	A	P-O5'	-5.65	1.54	1.59
2	A8	1088	A	C2'-C1'	-5.65	1.47	1.53
2	A8	2751	G	C2-N3	5.65	1.37	1.32
2	A8	979	A	C2'-C1'	-5.65	1.47	1.53
2	A8	1496	A	C3'-C2'	-5.64	1.46	1.52
2	A8	1857	G	C3'-C2'	-5.64	1.46	1.52
36	BA	249	U	P-O5'	-5.64	1.54	1.59
2	A8	93	G	N7-C5	-5.64	1.35	1.39
2	A8	928	A	C2'-C1'	-5.64	1.47	1.53
2	A8	1281	G	C2'-C1'	-5.64	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1572	A	P-O5'	-5.64	1.54	1.59
2	A8	1936	A	C2'-C1'	-5.64	1.47	1.53
36	BA	530	G	C4'-C3'	-5.64	1.47	1.52
36	BA	700	G	N9-C4	-5.64	1.33	1.38
2	A8	1713	A	N7-C5	-5.64	1.35	1.39
2	A8	1768	C	P-O5'	-5.64	1.54	1.59
2	A8	1888	G	N7-C5	-5.64	1.35	1.39
2	A8	2365	G	C2'-C1'	-5.64	1.47	1.53
2	A8	2765	A	N7-C5	-5.64	1.35	1.39
36	BA	268	U	C2'-C1'	-5.64	1.47	1.53
1	A7	39	A	O3'-P	-5.64	1.54	1.61
1	A7	92	C	P-O5'	-5.64	1.54	1.59
2	A8	485	C	C2'-C1'	-5.64	1.47	1.53
2	A8	493	G	C2'-C1'	-5.64	1.47	1.53
2	A8	1068	G	N7-C5	-5.64	1.35	1.39
2	A8	2847	U	O3'-P	-5.64	1.54	1.61
36	BA	724	G	C2'-C1'	-5.64	1.47	1.53
36	BA	774	G	N9-C4	-5.64	1.33	1.38
2	A8	231	A	N9-C4	-5.64	1.34	1.37
2	A8	1849	G	P-O5'	-5.64	1.54	1.59
2	A8	1933	G	N7-C5	-5.64	1.35	1.39
2	A8	2264	C	C3'-C2'	-5.64	1.46	1.52
2	A8	2836	U	C2'-C1'	-5.64	1.47	1.53
2	A8	5	A	N7-C5	-5.63	1.35	1.39
2	A8	1567	G	C8-N7	-5.63	1.27	1.30
2	A8	1923	U	P-O5'	-5.63	1.54	1.59
36	BA	435	A	N7-C5	-5.63	1.35	1.39
36	BA	1269	A	O3'-P	-5.63	1.54	1.61
2	A8	2188	U	C2'-C1'	-5.63	1.47	1.53
2	A8	771	G	C2'-C1'	-5.63	1.47	1.53
2	A8	1371	G	N9-C4	-5.63	1.33	1.38
2	A8	2647	U	C2'-C1'	-5.63	1.47	1.53
36	BA	292	G	C2-N3	5.63	1.37	1.32
36	BA	428	G	O3'-P	-5.63	1.54	1.61
2	A8	1692	U	C2'-C1'	-5.63	1.47	1.53
36	BA	1026	G	C2'-C1'	-5.63	1.47	1.53
2	A8	830	G	N1-C2	5.63	1.42	1.37
2	A8	1950	G	N7-C5	-5.63	1.35	1.39
2	A8	2082	A	P-O5'	-5.63	1.54	1.59
36	BA	189	A	N7-C5	-5.63	1.35	1.39
36	BA	630	A	O3'-P	-5.63	1.54	1.61
36	BA	869	G	N7-C5	-5.63	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	714	U	P-O5'	-5.63	1.54	1.59
2	A8	1743	G	N7-C5	-5.63	1.35	1.39
2	A8	2128	G	C2'-C1'	-5.63	1.47	1.53
2	A8	2512	C	P-O5'	-5.63	1.54	1.59
2	A8	2723	C	C2'-C1'	-5.63	1.47	1.53
36	BA	160	A	P-O5'	-5.63	1.54	1.59
36	BA	1123	U	P-O5'	-5.63	1.54	1.59
1	A7	46	A	N7-C5	-5.62	1.35	1.39
2	A8	1355	G	C2'-C1'	-5.62	1.47	1.53
2	A8	1222	U	C2'-C1'	-5.62	1.47	1.53
2	A8	1577	C	C3'-C2'	-5.62	1.46	1.52
2	A8	2354	C	C2'-C1'	-5.62	1.47	1.53
36	BA	1241	G	C2'-C1'	-5.62	1.47	1.53
2	A8	103	A	N9-C4	-5.62	1.34	1.37
2	A8	712	G	C2'-C1'	-5.62	1.47	1.53
2	A8	919	U	C2'-C1'	-5.62	1.47	1.53
2	A8	1835	G	C2'-C1'	-5.62	1.47	1.53
2	A8	2487	G	P-O5'	-5.62	1.54	1.59
2	A8	2782	G	C2'-C1'	-5.62	1.47	1.53
36	BA	777	A	C2'-C1'	-5.62	1.47	1.53
1	A7	86	G	C5-C6	-5.62	1.36	1.42
2	A8	97	C	P-O5'	-5.62	1.54	1.59
2	A8	202	U	C2'-C1'	-5.62	1.47	1.53
2	A8	500	G	P-O5'	-5.62	1.54	1.59
2	A8	880	G	C2'-C1'	-5.62	1.47	1.53
2	A8	1421	G	N7-C5	-5.62	1.35	1.39
2	A8	1469	A	C2'-C1'	-5.62	1.47	1.53
36	BA	650	G	C4'-C3'	-5.62	1.47	1.52
36	BA	807	A	C2'-C1'	-5.62	1.47	1.53
36	BA	860	A	P-O5'	-5.62	1.54	1.59
2	A8	761	A	P-O5'	-5.62	1.54	1.59
2	A8	853	C	P-O5'	-5.62	1.54	1.59
36	BA	269	C	C3'-C2'	-5.62	1.46	1.52
2	A8	741	U	C3'-C2'	-5.62	1.46	1.52
2	A8	1151	A	P-O5'	-5.62	1.54	1.59
36	BA	219	U	C2'-C1'	-5.62	1.47	1.53
36	BA	509	A	N3-C4	-5.62	1.31	1.34
2	A8	1099	G	C2'-C1'	-5.61	1.47	1.53
2	A8	1558	C	C4'-O4'	-5.61	1.38	1.45
36	BA	215	C	P-O5'	-5.61	1.54	1.59
2	A8	1140	C	O3'-P	-5.61	1.54	1.61
2	A8	2274	A	N9-C4	-5.61	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	967	U	C2'-C1'	-5.61	1.47	1.53
2	A8	1009	A	O3'-P	-5.61	1.54	1.61
36	BA	686	U	N3-C4	5.61	1.43	1.38
36	BA	687	A	N9-C4	-5.61	1.34	1.37
36	BA	1326	U	O3'-P	-5.61	1.54	1.61
2	A8	1291	C	C2'-C1'	-5.61	1.47	1.53
36	BA	226	G	C2'-C1'	-5.61	1.47	1.53
2	A8	1186	G	P-O5'	-5.61	1.54	1.59
2	A8	1582	C	P-O5'	-5.61	1.54	1.59
36	BA	652	U	O3'-P	-5.61	1.54	1.61
2	A8	547	A	N7-C5	-5.60	1.35	1.39
2	A8	1226	A	C1'-N9	-5.60	1.39	1.46
36	BA	464	U	C2-N3	5.60	1.41	1.37
36	BA	512	U	P-O5'	-5.60	1.54	1.59
2	A8	468	G	N7-C5	-5.60	1.35	1.39
2	A8	1571	A	C8-N7	-5.60	1.27	1.31
2	A8	2566	A	N3-C4	-5.60	1.31	1.34
36	BA	132	C	C2'-C1'	-5.60	1.47	1.53
2	A8	528	A	N7-C5	-5.60	1.35	1.39
2	A8	2349	G	N7-C5	-5.60	1.35	1.39
2	A8	2676	C	P-O5'	-5.60	1.54	1.59
36	BA	318	G	C2'-C1'	-5.60	1.47	1.53
36	BA	538	G	C2'-C1'	-5.60	1.47	1.53
36	BA	654	G	P-O5'	-5.60	1.54	1.59
2	A8	2781	A	N9-C4	-5.60	1.34	1.37
36	BA	575	G	N9-C4	-5.60	1.33	1.38
36	BA	588	G	N7-C5	-5.60	1.35	1.39
36	BA	967	C	C2'-C1'	-5.60	1.47	1.53
2	A8	1909	C	P-O5'	-5.60	1.54	1.59
2	A8	133	U	P-O5'	-5.59	1.54	1.59
2	A8	450	G	C2'-C1'	-5.59	1.47	1.53
2	A8	535	G	C2'-C1'	-5.59	1.47	1.53
2	A8	2679	A	C2'-C1'	-5.59	1.47	1.53
2	A8	966	G	P-O5'	-5.59	1.54	1.59
2	A8	1476	U	P-O5'	-5.59	1.54	1.59
2	A8	2476	A	N9-C4	-5.59	1.34	1.37
2	A8	2871	U	P-O5'	-5.59	1.54	1.59
2	A8	1389	G	P-O5'	-5.59	1.54	1.59
2	A8	1697	G	C3'-C2'	-5.59	1.46	1.52
2	A8	2589	A	C2'-C1'	-5.59	1.47	1.53
2	A8	1957	C	O3'-P	-5.59	1.54	1.61
36	BA	68	G	N7-C5	-5.59	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	172	A	O3'-P	-5.59	1.54	1.61
36	BA	772	U	C3'-C2'	-5.59	1.46	1.52
36	BA	1431	A	N3-C4	-5.59	1.31	1.34
2	A8	217	A	C2'-C1'	-5.59	1.47	1.53
2	A8	1227	G	C2'-C1'	-5.59	1.47	1.53
2	A8	1358	G	C3'-C2'	-5.59	1.46	1.52
2	A8	1985	C	P-O5'	-5.59	1.54	1.59
2	A8	2370	G	C2'-C1'	-5.59	1.47	1.53
36	BA	335	C	C2'-C1'	-5.59	1.47	1.53
36	BA	515	G	N7-C5	-5.59	1.35	1.39
2	A8	609	A	O3'-P	-5.58	1.54	1.61
2	A8	2134	A	N7-C5	-5.58	1.35	1.39
36	BA	192	A	N7-C5	-5.58	1.35	1.39
36	BA	892	A	C3'-C2'	-5.58	1.46	1.52
2	A8	482	A	O3'-P	-5.58	1.54	1.61
2	A8	1149	G	N7-C5	-5.58	1.35	1.39
2	A8	1960	A	C3'-C2'	-5.58	1.46	1.52
2	A8	165	A	P-O5'	-5.58	1.54	1.59
2	A8	416	U	C2'-C1'	-5.58	1.47	1.53
2	A8	469	G	N1-C2	5.58	1.42	1.37
2	A8	1796	U	P-O5'	-5.58	1.54	1.59
36	BA	312	C	C2'-C1'	-5.58	1.47	1.53
2	A8	793	A	N7-C5	-5.58	1.35	1.39
2	A8	872	U	O3'-P	-5.58	1.54	1.61
36	BA	152	A	C4'-C3'	-5.58	1.47	1.52
1	A7	61	G	P-O5'	-5.58	1.54	1.59
2	A8	1811	G	C2'-C1'	-5.58	1.47	1.53
2	A8	2297	A	N7-C5	-5.58	1.35	1.39
2	A8	2318	G	P-O5'	-5.58	1.54	1.59
2	A8	2597	G	N7-C5	-5.58	1.35	1.39
2	A8	2457	U	C3'-C2'	-5.58	1.46	1.52
2	A8	359	G	C8-N7	-5.58	1.27	1.30
2	A8	481	G	C2'-C1'	-5.58	1.47	1.53
2	A8	662	G	C2'-C1'	-5.58	1.47	1.53
2	A8	952	G	C2'-C1'	-5.58	1.47	1.53
36	BA	636	U	C2'-C1'	-5.58	1.47	1.53
1	A7	75	G	N7-C5	-5.57	1.35	1.39
2	A8	467	G	N7-C5	-5.57	1.35	1.39
2	A8	1910	G	N7-C5	-5.57	1.35	1.39
2	A8	2206	C	C2'-C1'	-5.57	1.47	1.53
2	A8	2679	A	N7-C5	-5.57	1.35	1.39
36	BA	35	G	C2'-C1'	-5.57	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1093	G	N7-C5	-5.57	1.35	1.39
2	A8	1918	A	P-O5'	-5.57	1.54	1.59
2	A8	1939	U	O3'-P	-5.57	1.54	1.61
2	A8	503	A	N7-C5	-5.57	1.35	1.39
2	A8	1571	A	C2'-C1'	-5.57	1.47	1.53
2	A8	1685	C	C2'-C1'	-5.57	1.47	1.53
2	A8	2857	G	N9-C4	-5.57	1.33	1.38
2	A8	458	G	C2'-C1'	-5.57	1.47	1.53
2	A8	463	G	N1-C2	5.57	1.42	1.37
2	A8	489	G	P-O5'	-5.57	1.54	1.59
2	A8	758	C	P-O5'	-5.57	1.54	1.59
2	A8	1361	G	N9-C4	-5.57	1.33	1.38
2	A8	1427	A	C2'-C1'	-5.57	1.47	1.53
2	A8	1872	A	C2'-C1'	-5.57	1.47	1.53
36	BA	193	C	P-O5'	-5.57	1.54	1.59
36	BA	669	G	N7-C5	-5.57	1.35	1.39
1	A7	72	G	C3'-C2'	-5.57	1.46	1.52
2	A8	155	A	N7-C5	-5.57	1.35	1.39
2	A8	251	A	P-O5'	-5.57	1.54	1.59
2	A8	1063	G	P-O5'	-5.57	1.54	1.59
2	A8	1186	G	C3'-C2'	-5.57	1.46	1.52
2	A8	1432	G	N7-C5	-5.57	1.35	1.39
2	A8	2238	G	O3'-P	-5.57	1.54	1.61
2	A8	2852	G	P-O5'	-5.57	1.54	1.59
36	BA	815	A	N7-C5	-5.57	1.35	1.39
36	BA	898	G	N1-C2	5.57	1.42	1.37
2	A8	1521	G	N7-C5	-5.56	1.35	1.39
36	BA	320	A	P-O5'	-5.56	1.54	1.59
1	A7	58	A	P-O5'	-5.56	1.54	1.59
2	A8	184	C	C3'-C2'	-5.56	1.46	1.52
2	A8	1996	C	O3'-P	-5.56	1.54	1.61
2	A8	2076	U	O3'-P	-5.56	1.54	1.61
2	A8	2873	A	C6-N1	5.56	1.39	1.35
36	BA	1307	U	C2'-C1'	-5.56	1.47	1.53
1	A7	24	G	C2-N3	5.56	1.37	1.32
1	A7	66	A	O3'-P	-5.56	1.54	1.61
2	A8	704	G	O3'-P	-5.56	1.54	1.61
2	A8	1094	U	P-O5'	-5.56	1.54	1.59
2	A8	2107	G	N7-C5	-5.56	1.35	1.39
2	A8	2418	A	C3'-C2'	-5.56	1.46	1.52
2	A8	12	U	C4'-C3'	5.56	1.59	1.53
2	A8	1588	G	N7-C5	-5.56	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2360	G	N9-C4	-5.56	1.33	1.38
2	A8	2650	U	C2'-C1'	-5.56	1.47	1.53
2	A8	1957	C	C4'-C3'	-5.56	1.47	1.52
2	A8	2876	G	P-O5'	-5.56	1.54	1.59
36	BA	425	G	N7-C5	-5.56	1.35	1.39
36	BA	565	U	C2'-C1'	-5.56	1.47	1.53
36	BA	1492	A	P-O5'	-5.56	1.54	1.59
36	BA	1407	C	C3'-C2'	-5.56	1.46	1.52
2	A8	1110	G	N1-C2	5.55	1.42	1.37
2	A8	2463	C	P-O5'	-5.55	1.54	1.59
36	BA	71	A	N9-C4	-5.55	1.34	1.37
2	A8	1787	A	P-O5'	-5.55	1.54	1.59
2	A8	2517	C	P-O5'	-5.55	1.54	1.59
36	BA	1432	G	O4'-C1'	-5.55	1.34	1.41
2	A8	760	G	P-O5'	-5.55	1.54	1.59
2	A8	807	U	C2'-C1'	-5.55	1.47	1.53
2	A8	1668	A	N7-C5	-5.55	1.35	1.39
2	A8	1778	U	C2'-C1'	-5.55	1.47	1.53
2	A8	2270	A	N7-C5	-5.55	1.35	1.39
2	A8	2403	C	C3'-C2'	-5.55	1.46	1.52
2	A8	1583	A	C4'-C3'	-5.55	1.47	1.52
2	A8	1720	U	C2'-C1'	-5.55	1.47	1.53
36	BA	610	U	P-O5'	-5.55	1.54	1.59
2	A8	316	C	C2'-C1'	-5.55	1.47	1.53
2	A8	947	A	P-O5'	-5.55	1.54	1.59
2	A8	2513	A	C4'-C3'	-5.55	1.47	1.52
2	A8	858	G	O4'-C1'	-5.54	1.34	1.41
2	A8	1928	A	O3'-P	-5.54	1.54	1.61
2	A8	2026	U	C3'-C2'	-5.54	1.46	1.52
36	BA	1206	G	P-O5'	-5.54	1.54	1.59
2	A8	2763	G	C5-C6	-5.54	1.36	1.42
36	BA	212	G	C2-N3	5.54	1.37	1.32
36	BA	1033	G	C2-N3	5.54	1.37	1.32
36	BA	1073	U	C2'-C1'	-5.54	1.47	1.53
2	A8	96	C	P-O5'	-5.54	1.54	1.59
2	A8	1295	C	C2'-C1'	-5.54	1.47	1.53
36	BA	62	U	P-O5'	-5.54	1.54	1.59
36	BA	198	G	C2'-C1'	-5.54	1.47	1.53
36	BA	928	G	C1'-N9	-5.54	1.39	1.46
36	BA	27	G	C2'-C1'	-5.54	1.47	1.53
36	BA	411	A	O3'-P	-5.54	1.54	1.61
2	A8	354	A	C2'-C1'	-5.54	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1577	C	O3'-P	-5.54	1.54	1.61
2	A8	2845	U	P-O5'	-5.54	1.54	1.59
36	BA	666	G	C2'-C1'	-5.54	1.47	1.53
36	BA	757	U	C2'-C1'	-5.54	1.47	1.53
2	A8	1010	A	N9-C4	-5.54	1.34	1.37
2	A8	1787	A	O3'-P	-5.54	1.54	1.61
2	A8	1796	U	C2'-C1'	-5.54	1.47	1.53
36	BA	508	U	O3'-P	-5.54	1.54	1.61
36	BA	865	A	N3-C4	-5.54	1.31	1.34
2	A8	1627	G	N7-C5	-5.54	1.35	1.39
2	A8	2873	A	N9-C4	-5.54	1.34	1.37
36	BA	1340	A	C2'-C1'	-5.54	1.47	1.53
2	A8	1679	A	C2'-C1'	-5.53	1.47	1.53
36	BA	846	G	C2'-C1'	-5.53	1.47	1.53
36	BA	1326	U	C2'-C1'	-5.53	1.47	1.53
36	BA	10	A	N7-C5	-5.53	1.35	1.39
2	A8	20	C	P-O5'	-5.53	1.54	1.59
2	A8	407	G	C2'-C1'	-5.53	1.47	1.53
2	A8	1664	A	P-O5'	-5.53	1.54	1.59
36	BA	576	C	O3'-P	-5.53	1.54	1.61
2	A8	204	A	P-O5'	-5.53	1.54	1.59
36	BA	669	G	C2'-C1'	-5.53	1.47	1.53
36	BA	1406	U	C2-N3	5.53	1.41	1.37
2	A8	1501	G	P-O5'	-5.53	1.54	1.59
2	A8	1928	A	N9-C4	-5.53	1.34	1.37
2	A8	2574	G	N9-C4	-5.53	1.33	1.38
2	A8	777	G	N7-C5	-5.53	1.35	1.39
2	A8	1049	C	P-O5'	-5.53	1.54	1.59
2	A8	1070	A	C2'-C1'	-5.53	1.47	1.53
36	BA	782	A	O3'-P	-5.53	1.54	1.61
36	BA	1296	C	C2'-C1'	-5.53	1.47	1.53
36	BA	1385	G	N7-C5	-5.53	1.35	1.39
36	BA	1513	A	P-O5'	-5.53	1.54	1.59
2	A8	1586	A	P-O5'	-5.52	1.54	1.59
36	BA	754	C	C4'-C3'	-5.52	1.47	1.52
2	A8	233	A	C3'-C2'	-5.52	1.46	1.52
2	A8	495	G	C2'-C1'	-5.52	1.47	1.53
2	A8	719	C	C2'-C1'	-5.52	1.47	1.53
2	A8	1491	G	P-O5'	-5.52	1.54	1.59
2	A8	2273	A	N7-C5	-5.52	1.35	1.39
36	BA	1089	G	N1-C2	5.52	1.42	1.37
1	A7	62	C	C2'-C1'	-5.52	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	83	G	C2'-C1'	-5.52	1.47	1.53
2	A8	1530	G	C4'-C3'	-5.52	1.47	1.52
2	A8	1817	G	N7-C5	-5.52	1.35	1.39
2	A8	2856	A	N7-C5	-5.52	1.35	1.39
36	BA	711	G	C2'-C1'	-5.52	1.47	1.53
2	A8	419	U	P-O5'	-5.52	1.54	1.59
2	A8	1620	G	C2'-C1'	-5.52	1.47	1.53
2	A8	1668	A	N3-C4	-5.52	1.31	1.34
36	BA	100	G	C6-N1	5.52	1.43	1.39
2	A8	1909	C	C2'-C1'	-5.52	1.47	1.53
2	A8	332	A	N7-C5	-5.51	1.35	1.39
2	A8	756	A	N7-C5	-5.51	1.35	1.39
2	A8	841	G	C2'-C1'	-5.51	1.47	1.53
2	A8	1169	A	N7-C5	-5.51	1.35	1.39
36	BA	576	C	N1-C6	5.51	1.40	1.37
36	BA	881	G	C2'-C1'	-5.51	1.47	1.53
2	A8	1718	G	N7-C5	-5.51	1.35	1.39
2	A8	2242	G	N7-C5	-5.51	1.35	1.39
2	A8	2541	A	C2'-C1'	-5.51	1.47	1.53
36	BA	1426	G	N7-C5	-5.51	1.35	1.39
2	A8	912	C	O3'-P	-5.51	1.54	1.61
2	A8	1723	G	C6-N1	5.51	1.43	1.39
2	A8	31	C	P-O5'	-5.51	1.54	1.59
2	A8	828	U	O3'-P	-5.51	1.54	1.61
2	A8	978	G	N7-C5	-5.51	1.35	1.39
36	BA	537	G	C2'-C1'	-5.51	1.47	1.53
36	BA	577	G	C2'-C1'	-5.51	1.47	1.53
36	BA	1258	G	P-O5'	-5.51	1.54	1.59
36	BA	1495	U	P-O5'	-5.51	1.54	1.59
2	A8	2331	G	N7-C5	-5.51	1.35	1.39
2	A8	1499	C	P-O5'	-5.51	1.54	1.59
2	A8	1905	C	P-O5'	-5.51	1.54	1.59
2	A8	2565	A	C2'-C1'	-5.51	1.47	1.53
2	A8	2738	A	C2'-C1'	-5.51	1.47	1.53
2	A8	2817	U	C2'-C1'	-5.51	1.47	1.53
36	BA	231	U	C2'-C1'	-5.51	1.47	1.53
36	BA	357	G	C2'-C1'	-5.51	1.47	1.53
2	A8	2504	U	N1-C2	5.50	1.43	1.38
2	A8	2777	G	C2'-C1'	-5.50	1.47	1.53
36	BA	961	U	P-O5'	-5.50	1.54	1.59
2	A8	1194	A	N7-C5	-5.50	1.35	1.39
2	A8	1486	U	C2'-C1'	-5.50	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1546	G	P-O5'	-5.50	1.54	1.59
2	A8	1792	G	N7-C5	-5.50	1.35	1.39
2	A8	1921	G	C2'-C1'	-5.50	1.47	1.53
2	A8	2578	G	C2'-C1'	-5.50	1.47	1.53
2	A8	2788	C	P-O5'	-5.50	1.54	1.59
2	A8	112	U	C2'-C1'	-5.50	1.47	1.53
2	A8	1150	C	C2'-C1'	-5.50	1.47	1.53
2	A8	1260	A	N7-C5	-5.50	1.35	1.39
2	A8	1379	U	C4'-O4'	-5.50	1.38	1.45
2	A8	1839	G	N9-C4	-5.50	1.33	1.38
36	BA	875	U	C2'-C1'	-5.50	1.47	1.53
36	BA	1180	A	N7-C5	-5.50	1.35	1.39
2	A8	70	G	N1-C2	5.50	1.42	1.37
2	A8	2216	G	C2'-C1'	-5.50	1.47	1.53
2	A8	2371	G	P-O5'	-5.50	1.54	1.59
2	A8	2877	G	C2'-C1'	-5.50	1.47	1.53
36	BA	112	G	N7-C5	-5.50	1.35	1.39
2	A8	919	U	C2-N3	5.50	1.41	1.37
2	A8	1063	G	C2'-C1'	-5.50	1.47	1.53
2	A8	1115	G	C2'-C1'	-5.50	1.47	1.53
2	A8	1772	A	C2'-C1'	-5.50	1.47	1.53
2	A8	2184	A	N7-C5	-5.50	1.35	1.39
36	BA	768	A	C3'-C2'	-5.50	1.46	1.52
36	BA	849	G	C2'-C1'	-5.50	1.47	1.53
2	A8	173	A	P-O5'	-5.50	1.54	1.59
2	A8	415	A	N9-C4	5.50	1.41	1.37
2	A8	1442	U	C2'-C1'	-5.50	1.47	1.53
2	A8	2002	G	N7-C5	-5.50	1.35	1.39
2	A8	2262	U	C2'-C1'	-5.50	1.47	1.53
2	A8	285	G	C3'-C2'	-5.50	1.46	1.52
2	A8	1459	G	P-O5'	-5.50	1.54	1.59
2	A8	1983	G	C2'-C1'	-5.50	1.47	1.53
1	A7	71	C	P-O5'	-5.49	1.54	1.59
2	A8	152	A	C2'-C1'	-5.49	1.47	1.53
2	A8	463	G	N9-C4	-5.49	1.33	1.38
2	A8	1154	G	C5-C6	-5.49	1.36	1.42
2	A8	1781	U	O3'-P	-5.49	1.54	1.61
2	A8	2233	U	C3'-C2'	-5.49	1.46	1.52
36	BA	362	G	P-O5'	-5.49	1.54	1.59
36	BA	771	G	P-O5'	-5.49	1.54	1.59
2	A8	2336	A	O3'-P	-5.49	1.54	1.61
2	A8	908	C	P-O5'	-5.49	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1776	G	C3'-C2'	-5.49	1.46	1.52
2	A8	2524	G	P-O5'	-5.49	1.54	1.59
36	BA	305	G	N1-C2	5.49	1.42	1.37
36	BA	506	G	C2-N3	5.49	1.37	1.32
36	BA	1165	U	C2'-C1'	-5.49	1.47	1.53
1	A7	75	G	P-O5'	-5.49	1.54	1.59
2	A8	248	G	O3'-P	-5.49	1.54	1.61
2	A8	1360	G	C6-N1	5.49	1.43	1.39
2	A8	2879	A	N7-C5	-5.49	1.35	1.39
36	BA	1398	A	N7-C5	-5.49	1.35	1.39
2	A8	1144	A	C2'-C1'	-5.49	1.47	1.53
2	A8	303	G	C2'-C1'	-5.49	1.47	1.53
2	A8	356	G	N7-C5	-5.49	1.35	1.39
2	A8	2744	G	N7-C5	-5.49	1.35	1.39
36	BA	470	C	C2'-C1'	-5.49	1.47	1.53
36	BA	1385	G	C2'-C1'	-5.49	1.47	1.53
2	A8	2317	A	N7-C5	-5.48	1.35	1.39
36	BA	733	G	N7-C5	-5.48	1.35	1.39
2	A8	2369	A	P-O5'	-5.48	1.54	1.59
2	A8	488	G	N9-C4	-5.48	1.33	1.38
2	A8	1089	A	P-O5'	-5.48	1.54	1.59
2	A8	1449	G	N7-C5	-5.48	1.35	1.39
2	A8	1588	G	N9-C4	-5.48	1.33	1.38
36	BA	250	A	N7-C5	-5.48	1.35	1.39
36	BA	521	G	C4'-C3'	-5.48	1.47	1.52
2	A8	124	G	N7-C5	-5.48	1.35	1.39
36	BA	605	U	C2'-C1'	-5.48	1.47	1.53
36	BA	868	C	C3'-C2'	-5.48	1.46	1.52
36	BA	1494	G	N7-C5	-5.48	1.35	1.39
2	A8	859	G	N1-C2	5.48	1.42	1.37
2	A8	1913	A	N7-C5	-5.48	1.35	1.39
36	BA	769	G	C2-N3	5.48	1.37	1.32
1	A7	92	C	C2'-C1'	-5.47	1.47	1.53
2	A8	205	G	C2'-C1'	-5.47	1.47	1.53
2	A8	231	A	P-O5'	-5.47	1.54	1.59
2	A8	1104	C	C3'-C2'	-5.47	1.46	1.52
2	A8	1430	G	C2'-C1'	-5.47	1.47	1.53
36	BA	553	A	C2'-C1'	-5.47	1.47	1.53
36	BA	1402	C	C2'-C1'	-5.47	1.47	1.53
2	A8	2742	G	P-O5'	-5.47	1.54	1.59
36	BA	651	C	P-O5'	-5.47	1.54	1.59
36	BA	909	A	C8-N7	-5.47	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1189	U	C2-N3	5.47	1.41	1.37
36	BA	1389	C	N3-C4	5.47	1.37	1.33
2	A8	29	U	P-O5'	-5.47	1.54	1.59
2	A8	1213	A	C2'-C1'	-5.47	1.47	1.53
2	A8	1427	A	N9-C4	-5.47	1.34	1.37
2	A8	2685	G	N7-C5	-5.47	1.35	1.39
36	BA	753	A	C2'-C1'	-5.47	1.47	1.53
36	BA	1458	G	O3'-P	-5.47	1.54	1.61
2	A8	146	A	C2'-C1'	-5.47	1.47	1.53
2	A8	950	G	P-O5'	-5.47	1.54	1.59
2	A8	1621	U	P-O5'	-5.47	1.54	1.59
2	A8	2024	G	C2'-C1'	-5.47	1.47	1.53
2	A8	2181	U	P-O5'	-5.47	1.54	1.59
2	A8	2291	U	P-O5'	-5.47	1.54	1.59
36	BA	26	A	N7-C5	-5.47	1.35	1.39
2	A8	1654	A	N7-C5	-5.47	1.35	1.39
2	A8	1677	A	N7-C5	-5.47	1.35	1.39
2	A8	1709	U	P-O5'	-5.47	1.54	1.59
1	A7	68	C	C2'-C1'	-5.47	1.47	1.53
2	A8	367	G	C2'-C1'	-5.47	1.47	1.53
2	A8	637	A	N7-C5	-5.47	1.35	1.39
2	A8	1982	U	C2'-C1'	-5.47	1.47	1.53
2	A8	2456	C	P-O5'	-5.47	1.54	1.59
36	BA	161	A	N7-C5	-5.47	1.35	1.39
2	A8	292	U	C2'-C1'	-5.46	1.47	1.53
2	A8	936	A	C2'-C1'	-5.46	1.47	1.53
2	A8	1494	A	N7-C5	-5.46	1.35	1.39
2	A8	2272	U	P-O5'	-5.46	1.54	1.59
36	BA	955	U	C3'-C2'	-5.46	1.46	1.52
36	BA	1143	G	C2'-C1'	-5.46	1.47	1.53
36	BA	1269	A	N9-C4	-5.46	1.34	1.37
36	BA	1443	C	C2'-C1'	-5.46	1.47	1.53
1	A7	55	U	C2'-C1'	-5.46	1.47	1.53
2	A8	414	C	C2'-C1'	-5.46	1.47	1.53
2	A8	465	G	O3'-P	-5.46	1.54	1.61
2	A8	956	G	N7-C5	-5.46	1.35	1.39
2	A8	1995	U	O3'-P	-5.46	1.54	1.61
2	A8	2552	U	P-O5'	-5.46	1.54	1.59
2	A8	1565	C	C2'-C1'	-5.46	1.47	1.53
2	A8	1807	G	N9-C4	-5.46	1.33	1.38
36	BA	171	A	C2'-C1'	-5.46	1.47	1.53
36	BA	359	G	P-O5'	-5.46	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	601	G	C2'-C1'	-5.46	1.47	1.53
36	BA	1155	A	P-O5'	-5.46	1.54	1.59
2	A8	2639	A	N9-C4	-5.46	1.34	1.37
36	BA	1237	C	P-O5'	-5.46	1.54	1.59
2	A8	255	A	N9-C4	-5.46	1.34	1.37
2	A8	835	C	C3'-C2'	-5.46	1.46	1.52
2	A8	904	G	C2'-C1'	-5.46	1.47	1.53
2	A8	1408	G	N1-C2	5.46	1.42	1.37
2	A8	1423	G	C3'-C2'	-5.46	1.46	1.52
2	A8	1528	A	O3'-P	-5.46	1.54	1.61
2	A8	1704	C	P-O5'	-5.46	1.54	1.59
2	A8	2386	A	C2'-C1'	-5.46	1.47	1.53
2	A8	94	A	C2'-C1'	-5.46	1.47	1.53
2	A8	467	G	C2'-C1'	-5.46	1.47	1.53
2	A8	566	U	O3'-P	-5.46	1.54	1.61
2	A8	839	U	P-O5'	-5.46	1.54	1.59
2	A8	1048	A	P-O5'	-5.46	1.54	1.59
2	A8	1516	G	P-O5'	-5.46	1.54	1.59
2	A8	1529	G	N7-C5	-5.46	1.35	1.39
36	BA	351	G	N7-C5	-5.46	1.35	1.39
36	BA	551	U	C2'-C1'	-5.46	1.47	1.53
36	BA	625	U	C2'-C1'	-5.46	1.47	1.53
2	A8	1308	A	N9-C4	-5.46	1.34	1.37
2	A8	2686	G	C2'-C1'	-5.46	1.47	1.53
36	BA	1416	G	N7-C5	-5.46	1.35	1.39
2	A8	599	A	C2'-C1'	-5.45	1.47	1.53
2	A8	2283	C	C2'-C1'	-5.45	1.47	1.53
2	A8	2330	G	N7-C5	-5.45	1.35	1.39
36	BA	1164	G	P-O5'	-5.45	1.54	1.59
2	A8	1524	G	P-O5'	-5.45	1.54	1.59
2	A8	67	U	C2'-C1'	-5.45	1.47	1.53
2	A8	2377	A	C2'-C1'	-5.45	1.47	1.53
2	A8	2781	A	N7-C5	-5.45	1.35	1.39
36	BA	770	C	C2'-C1'	-5.45	1.47	1.53
36	BA	921	U	P-O5'	-5.45	1.54	1.59
36	BA	1502	A	N9-C4	-5.45	1.34	1.37
2	A8	59	U	C2'-C1'	-5.45	1.47	1.53
2	A8	1591	A	C2'-C1'	-5.45	1.47	1.53
2	A8	1660	G	C3'-C2'	-5.45	1.46	1.52
36	BA	773	G	C2'-C1'	-5.45	1.47	1.53
36	BA	994	A	C2'-C1'	-5.45	1.47	1.53
2	A8	669	G	N9-C4	-5.45	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1931	U	C3'-C2'	-5.45	1.46	1.52
2	A8	547	A	O3'-P	-5.45	1.54	1.61
2	A8	769	U	C2'-C1'	-5.45	1.47	1.53
2	A8	975	A	C2'-C1'	-5.45	1.47	1.53
2	A8	1034	G	N7-C5	-5.45	1.35	1.39
2	A8	1638	C	O3'-P	-5.45	1.54	1.61
2	A8	1889	A	C2'-C1'	-5.45	1.47	1.53
36	BA	355	C	C2'-C1'	-5.45	1.47	1.53
36	BA	567	G	C2'-C1'	-5.45	1.47	1.53
36	BA	574	A	C2'-C1'	-5.45	1.47	1.53
36	BA	1191	A	N7-C5	-5.45	1.35	1.39
36	BA	1512	U	C3'-C2'	-5.45	1.46	1.52
2	A8	928	A	N7-C5	-5.44	1.35	1.39
2	A8	1307	A	N7-C5	-5.44	1.35	1.39
2	A8	250	G	C3'-C2'	-5.44	1.46	1.52
2	A8	485	C	P-O5'	-5.44	1.54	1.59
2	A8	505	A	N7-C5	-5.44	1.35	1.39
2	A8	1557	C	C2'-C1'	-5.44	1.47	1.53
36	BA	571	U	P-O5'	-5.44	1.54	1.59
2	A8	892	A	C2'-C1'	-5.44	1.47	1.53
2	A8	1477	A	C8-N7	-5.44	1.27	1.31
36	BA	1457	G	C2'-C1'	-5.44	1.47	1.53
2	A8	73	A	P-O5'	-5.44	1.54	1.59
2	A8	2012	G	C2'-C1'	-5.44	1.47	1.53
2	A8	490	C	O3'-P	-5.44	1.54	1.61
2	A8	1481	U	P-O5'	-5.44	1.54	1.59
2	A8	2508	G	C3'-C2'	-5.44	1.46	1.52
36	BA	543	U	P-O5'	-5.44	1.54	1.59
2	A8	833	A	N7-C5	-5.43	1.35	1.39
36	BA	754	C	P-O5'	-5.43	1.54	1.59
2	A8	962	G	C2'-C1'	-5.43	1.47	1.53
2	A8	1422	G	C3'-C2'	-5.43	1.46	1.52
2	A8	1681	G	C8-N7	-5.43	1.27	1.30
2	A8	1736	U	P-O5'	-5.43	1.54	1.59
2	A8	1935	G	O3'-P	-5.43	1.54	1.61
2	A8	2467	C	C3'-C2'	-5.43	1.46	1.52
1	A7	93	C	C2'-C1'	-5.43	1.47	1.53
2	A8	256	A	C2'-C1'	-5.43	1.47	1.53
2	A8	2224	G	O3'-P	-5.43	1.54	1.61
2	A8	2677	G	C2'-C1'	-5.43	1.47	1.53
2	A8	2759	G	C8-N7	-5.43	1.27	1.30
36	BA	172	A	P-O5'	-5.43	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	776	G	C2'-C1'	-5.43	1.47	1.53
36	BA	898	G	N9-C4	-5.43	1.33	1.38
2	A8	38	A	C2'-C1'	-5.43	1.47	1.53
2	A8	103	A	N7-C5	-5.43	1.35	1.39
2	A8	418	C	P-O5'	-5.43	1.54	1.59
2	A8	1268	A	N7-C5	-5.43	1.35	1.39
2	A8	2504	U	C4'-C3'	5.43	1.59	1.53
36	BA	234	C	C2'-C1'	-5.43	1.47	1.53
36	BA	447	G	C2'-C1'	-5.43	1.47	1.53
2	A8	1257	C	O3'-P	-5.43	1.54	1.61
2	A8	1746	A	P-O5'	-5.43	1.54	1.59
2	A8	2031	A	N7-C5	-5.43	1.35	1.39
36	BA	362	G	C2'-C1'	-5.43	1.47	1.53
36	BA	1316	G	C4'-O4'	-5.43	1.38	1.45
2	A8	909	A	P-O5'	-5.42	1.54	1.59
2	A8	1472	C	C2'-C1'	-5.42	1.47	1.53
2	A8	1513	U	P-O5'	-5.42	1.54	1.59
2	A8	1724	G	P-O5'	-5.42	1.54	1.59
2	A8	1796	U	C3'-C2'	-5.42	1.46	1.52
2	A8	2464	G	C2'-C1'	-5.42	1.47	1.53
36	BA	177	G	N7-C5	-5.42	1.35	1.39
2	A8	375	G	C2'-C1'	-5.42	1.47	1.53
2	A8	2042	A	C1'-N9	-5.42	1.39	1.46
2	A8	2307	G	C2'-C1'	-5.42	1.47	1.53
2	A8	215	G	C2'-C1'	-5.42	1.47	1.53
2	A8	324	A	N7-C5	-5.42	1.35	1.39
2	A8	1622	G	C2'-C1'	-5.42	1.47	1.53
2	A8	2224	G	N3-C4	-5.42	1.31	1.35
2	A8	2320	U	O3'-P	-5.42	1.54	1.61
2	A8	2568	U	P-O5'	-5.42	1.54	1.59
36	BA	285	C	C2'-C1'	-5.42	1.47	1.53
36	BA	989	U	C2'-C1'	-5.42	1.47	1.53
2	A8	198	C	O3'-P	-5.42	1.54	1.61
36	BA	1108	G	N7-C5	-5.42	1.35	1.39
2	A8	161	A	C8-N7	-5.42	1.27	1.31
2	A8	1107	G	P-O5'	-5.42	1.54	1.59
36	BA	531	U	C2'-C1'	-5.42	1.47	1.53
36	BA	716	A	N7-C5	-5.42	1.35	1.39
36	BA	882	C	C3'-C2'	-5.42	1.46	1.52
36	BA	1438	G	P-O5'	-5.42	1.54	1.59
2	A8	14	A	C6-N1	5.42	1.39	1.35
2	A8	861	A	C2'-C1'	-5.42	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2418	A	C1'-N9	-5.42	1.39	1.46
2	A8	2795	C	P-O5'	-5.42	1.54	1.59
2	A8	514	A	C8-N7	-5.42	1.27	1.31
2	A8	2489	U	C2'-C1'	-5.42	1.47	1.53
2	A8	457	A	C8-N7	-5.41	1.27	1.31
2	A8	1436	G	C2-N3	5.41	1.37	1.32
2	A8	1500	G	N7-C5	-5.41	1.36	1.39
2	A8	1630	A	N7-C5	-5.41	1.36	1.39
2	A8	1845	G	C5-C6	-5.41	1.36	1.42
36	BA	1133	G	C2'-C1'	-5.41	1.47	1.53
2	A8	2697	G	C2'-C1'	-5.41	1.47	1.53
36	BA	41	G	P-O5'	-5.41	1.54	1.59
36	BA	1206	G	N7-C5	-5.41	1.36	1.39
2	A8	1487	U	C2'-C1'	-5.41	1.47	1.53
2	A8	1499	C	C2'-C1'	-5.41	1.47	1.53
2	A8	2003	A	C3'-C2'	-5.41	1.46	1.52
2	A8	2791	G	C2'-C1'	-5.41	1.47	1.53
36	BA	492	C	C2'-C1'	-5.41	1.47	1.53
36	BA	716	A	C2'-C1'	-5.41	1.47	1.53
36	BA	868	C	P-O5'	-5.41	1.54	1.59
36	BA	1441	A	N7-C5	-5.41	1.36	1.39
1	A7	70	C	C4'-C3'	-5.41	1.47	1.52
2	A8	507	A	C2'-C1'	-5.41	1.47	1.53
2	A8	1679	A	N7-C5	-5.41	1.36	1.39
2	A8	2802	G	P-O5'	-5.41	1.54	1.59
2	A8	2902	C	P-O5'	-5.41	1.54	1.59
2	A8	704	G	C6-N1	5.41	1.43	1.39
2	A8	1182	G	C2'-C1'	-5.41	1.47	1.53
2	A8	2224	G	N7-C5	-5.41	1.36	1.39
2	A8	1445	G	C2'-C1'	-5.41	1.47	1.53
2	A8	2657	A	N7-C5	-5.40	1.36	1.39
2	A8	2785	C	C2'-C1'	-5.40	1.47	1.53
36	BA	729	A	C2'-C1'	-5.40	1.47	1.53
2	A8	279	A	C2'-C1'	-5.40	1.47	1.53
2	A8	1301	A	C1'-N9	-5.40	1.39	1.46
2	A8	2524	G	C2'-C1'	-5.40	1.47	1.53
36	BA	190	A	C2'-C1'	-5.40	1.47	1.53
36	BA	243	A	N7-C5	-5.40	1.36	1.39
36	BA	442	G	P-O5'	-5.40	1.54	1.59
2	A8	727	A	O3'-P	-5.40	1.54	1.61
36	BA	278	G	O3'-P	-5.40	1.54	1.61
36	BA	1315	U	C2'-C1'	-5.40	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2455	G	C3'-C2'	-5.40	1.46	1.52
2	A8	2542	A	C2'-C1'	-5.40	1.47	1.53
2	A8	2570	G	N9-C4	-5.40	1.33	1.38
2	A8	2770	G	N7-C5	-5.40	1.36	1.39
36	BA	700	G	P-O5'	-5.40	1.54	1.59
2	A8	861	A	C8-N7	-5.40	1.27	1.31
2	A8	1934	C	P-O5'	-5.40	1.54	1.59
36	BA	327	A	C1'-N9	-5.40	1.39	1.46
36	BA	1459	G	N7-C5	-5.40	1.36	1.39
2	A8	858	G	O3'-P	-5.40	1.54	1.61
2	A8	465	G	P-O5'	-5.39	1.54	1.59
2	A8	960	A	P-O5'	-5.39	1.54	1.59
36	BA	804	U	O3'-P	-5.39	1.54	1.61
36	BA	1334	G	N7-C5	-5.39	1.36	1.39
2	A8	1617	C	C2'-C1'	-5.39	1.47	1.53
2	A8	1620	G	N7-C5	-5.39	1.36	1.39
2	A8	1809	A	N7-C5	-5.39	1.36	1.39
2	A8	1937	A	N7-C5	-5.39	1.36	1.39
2	A8	2659	G	N7-C5	-5.39	1.36	1.39
2	A8	699	A	N7-C5	-5.39	1.36	1.39
2	A8	868	U	C2'-C1'	-5.39	1.47	1.53
2	A8	1168	G	C2'-C1'	-5.39	1.47	1.53
2	A8	609	A	C2'-C1'	-5.39	1.47	1.53
2	A8	832	U	C2'-C1'	-5.39	1.47	1.53
2	A8	1568	G	N7-C5	-5.39	1.36	1.39
2	A8	1854	A	N3-C4	-5.39	1.31	1.34
2	A8	2025	C	C3'-C2'	-5.39	1.46	1.52
2	A8	2411	A	C8-N7	-5.39	1.27	1.31
2	A8	2631	G	C2'-C1'	-5.39	1.47	1.53
2	A8	322	A	N7-C5	-5.39	1.36	1.39
2	A8	621	A	N7-C5	-5.39	1.36	1.39
2	A8	1193	G	C2'-C1'	-5.39	1.47	1.53
2	A8	1860	G	N7-C5	-5.39	1.36	1.39
2	A8	1981	A	N7-C5	-5.39	1.36	1.39
36	BA	309	A	C2'-C1'	-5.39	1.47	1.53
2	A8	49	A	C2'-C1'	-5.39	1.47	1.53
2	A8	766	U	P-O5'	-5.39	1.54	1.59
2	A8	815	C	C3'-C2'	-5.39	1.46	1.52
2	A8	898	C	C2'-C1'	-5.39	1.47	1.53
2	A8	1270	C	P-O5'	-5.39	1.54	1.59
36	BA	1511	G	O3'-P	-5.39	1.54	1.61
2	A8	753	A	C2'-C1'	-5.38	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	898	C	N3-C4	5.38	1.37	1.33
2	A8	907	G	C2-N3	5.38	1.37	1.32
2	A8	1017	G	P-O5'	-5.38	1.54	1.59
2	A8	2742	G	N7-C5	-5.38	1.36	1.39
36	BA	1446	A	C2'-C1'	-5.38	1.47	1.53
2	A8	1069	A	N7-C5	-5.38	1.36	1.39
2	A8	2254	C	P-O5'	-5.38	1.54	1.59
2	A8	2272	U	C2-N3	5.38	1.41	1.37
2	A8	2852	G	N7-C5	-5.38	1.36	1.39
36	BA	25	C	P-O5'	-5.38	1.54	1.59
2	A8	220	G	N7-C5	-5.38	1.36	1.39
2	A8	1297	C	C2'-C1'	-5.38	1.47	1.53
2	A8	1726	C	P-O5'	-5.38	1.54	1.59
1	A7	64	G	N7-C5	-5.38	1.36	1.39
36	BA	1300	G	C2'-C1'	-5.38	1.47	1.53
2	A8	2163	A	N7-C5	-5.38	1.36	1.39
2	A8	2388	A	O3'-P	-5.38	1.54	1.61
2	A8	2574	G	C2'-C1'	-5.38	1.47	1.53
36	BA	742	G	C2'-C1'	-5.38	1.47	1.53
1	A7	34	A	N7-C5	-5.38	1.36	1.39
2	A8	1310	G	C1'-N9	-5.38	1.39	1.46
2	A8	1541	C	P-O5'	-5.38	1.54	1.59
2	A8	1551	A	N7-C5	-5.38	1.36	1.39
2	A8	2443	C	C3'-C2'	-5.38	1.46	1.52
36	BA	1315	U	C3'-C2'	-5.38	1.46	1.52
36	BA	1398	A	C2'-C1'	-5.38	1.47	1.53
2	A8	677	A	O3'-P	-5.38	1.54	1.61
2	A8	613	A	P-O5'	-5.37	1.54	1.59
2	A8	1397	U	O3'-P	-5.37	1.54	1.61
2	A8	1922	G	N7-C5	-5.37	1.36	1.39
2	A8	2516	A	P-O5'	-5.37	1.54	1.59
36	BA	19	A	C3'-C2'	-5.37	1.46	1.52
36	BA	683	G	C2'-C1'	-5.37	1.47	1.53
2	A8	1928	A	P-O5'	-5.37	1.54	1.59
2	A8	2421	G	C4'-C3'	5.37	1.59	1.53
2	A8	2660	A	C8-N7	-5.37	1.27	1.31
2	A8	2719	G	P-O5'	-5.37	1.54	1.59
36	BA	1088	G	N7-C5	-5.37	1.36	1.39
2	A8	1445	G	C2-N3	5.37	1.37	1.32
2	A8	2535	G	P-O5'	-5.37	1.54	1.59
2	A8	886	A	C3'-C2'	-5.37	1.46	1.52
2	A8	1473	G	C2'-C1'	-5.37	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1756	G	O3'-P	-5.37	1.54	1.61
2	A8	1970	A	C8-N7	-5.37	1.27	1.31
2	A8	2361	G	C2'-C1'	-5.37	1.47	1.53
2	A8	2410	G	C8-N7	-5.37	1.27	1.30
2	A8	2632	A	C4'-C3'	-5.37	1.47	1.52
2	A8	1764	C	C2'-C1'	-5.36	1.47	1.53
2	A8	2167	U	P-O5'	-5.36	1.54	1.59
2	A8	2178	C	C2'-C1'	-5.36	1.47	1.53
2	A8	2662	A	C8-N7	-5.36	1.27	1.31
2	A8	2721	A	N7-C5	-5.36	1.36	1.39
2	A8	472	A	P-O5'	-5.36	1.54	1.59
2	A8	1707	G	C2'-C1'	-5.36	1.47	1.53
36	BA	524	G	C2-N3	5.36	1.37	1.32
2	A8	902	C	C2'-C1'	-5.36	1.47	1.53
2	A8	1021	A	C8-N7	-5.36	1.27	1.31
2	A8	855	G	N7-C5	-5.36	1.36	1.39
36	BA	454	G	C2'-C1'	-5.36	1.47	1.53
1	A7	102	G	C2'-C1'	-5.36	1.47	1.53
2	A8	42	A	N7-C5	-5.36	1.36	1.39
2	A8	700	G	N9-C4	-5.36	1.33	1.38
2	A8	801	G	N7-C5	-5.36	1.36	1.39
2	A8	1393	A	N7-C5	-5.36	1.36	1.39
2	A8	1904	G	C3'-C2'	-5.36	1.46	1.52
2	A8	2087	G	N7-C5	-5.36	1.36	1.39
2	A8	2087	G	C3'-C2'	-5.36	1.46	1.52
2	A8	2197	U	P-O5'	-5.36	1.54	1.59
2	A8	2710	C	C3'-C2'	-5.36	1.46	1.52
2	A8	1	G	C2-N3	5.36	1.37	1.32
2	A8	1329	U	P-O5'	-5.36	1.54	1.59
2	A8	2643	G	N7-C5	-5.36	1.36	1.39
36	BA	314	C	C2'-C1'	-5.36	1.47	1.53
36	BA	448	A	C6-N1	5.36	1.39	1.35
2	A8	846	U	P-O5'	-5.35	1.54	1.59
2	A8	875	G	C2-N3	5.35	1.37	1.32
2	A8	892	A	N9-C4	5.35	1.41	1.37
2	A8	1064	C	C2'-C1'	-5.35	1.47	1.53
2	A8	1406	U	C2'-C1'	-5.35	1.47	1.53
2	A8	1715	G	O3'-P	-5.35	1.54	1.61
2	A8	2812	G	N7-C5	-5.35	1.36	1.39
36	BA	261	U	O3'-P	-5.35	1.54	1.61
36	BA	937	A	C3'-C2'	-5.35	1.46	1.52
36	BA	1262	C	C2'-C1'	-5.35	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	46	A	P-O5'	-5.35	1.54	1.59
2	A8	629	G	N7-C5	-5.35	1.36	1.39
2	A8	2193	G	C2'-C1'	-5.35	1.47	1.53
36	BA	874	G	N7-C5	-5.35	1.36	1.39
2	A8	638	G	O3'-P	-5.35	1.54	1.61
2	A8	2775	G	N3-C4	-5.35	1.31	1.35
36	BA	27	G	N7-C5	-5.35	1.36	1.39
36	BA	111	G	C2'-C1'	-5.35	1.47	1.53
36	BA	743	A	N7-C5	-5.35	1.36	1.39
36	BA	1292	G	C2-N3	5.35	1.37	1.32
2	A8	1439	A	N7-C5	-5.35	1.36	1.39
2	A8	1987	A	P-O5'	-5.35	1.54	1.59
2	A8	2511	U	C2-N3	5.35	1.41	1.37
36	BA	361	G	N7-C5	-5.35	1.36	1.39
36	BA	933	G	N1-C2	5.35	1.42	1.37
2	A8	56	A	O3'-P	-5.34	1.54	1.61
2	A8	264	C	N3-C4	5.34	1.37	1.33
2	A8	840	C	C2'-C1'	-5.34	1.47	1.53
2	A8	1038	G	C2'-C1'	-5.34	1.47	1.53
2	A8	1945	G	C2'-C1'	-5.34	1.47	1.53
36	BA	787	A	N7-C5	-5.34	1.36	1.39
2	A8	681	G	N7-C5	-5.34	1.36	1.39
2	A8	819	A	C8-N7	-5.34	1.27	1.31
2	A8	1544	A	C2'-C1'	-5.34	1.47	1.53
2	A8	379	G	C2'-C1'	-5.34	1.47	1.53
2	A8	477	A	N7-C5	-5.34	1.36	1.39
2	A8	749	A	P-O5'	-5.34	1.54	1.59
2	A8	1366	A	C2'-C1'	-5.34	1.47	1.53
2	A8	1557	C	O3'-P	-5.34	1.54	1.61
2	A8	1616	A	N7-C5	-5.34	1.36	1.39
2	A8	2322	A	C4'-C3'	-5.34	1.47	1.52
36	BA	1328	C	C2'-C1'	-5.34	1.47	1.53
1	A7	96	G	P-O5'	-5.34	1.54	1.59
2	A8	15	G	P-O5'	-5.34	1.54	1.59
2	A8	417	C	C2'-C1'	-5.34	1.47	1.53
2	A8	585	G	N9-C4	-5.34	1.33	1.38
2	A8	1126	A	C8-N7	-5.34	1.27	1.31
2	A8	1829	A	C2'-C1'	-5.34	1.47	1.53
2	A8	1854	A	N9-C4	-5.34	1.34	1.37
36	BA	918	A	C2'-C1'	-5.34	1.47	1.53
36	BA	1093	A	N9-C4	-5.34	1.34	1.37
2	A8	848	C	C2'-C1'	-5.34	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2142	A	N7-C5	-5.34	1.36	1.39
2	A8	187	G	P-O5'	-5.34	1.54	1.59
2	A8	538	A	C2'-C1'	-5.34	1.47	1.53
2	A8	2782	G	N7-C5	-5.34	1.36	1.39
36	BA	44	A	N7-C5	-5.34	1.36	1.39
36	BA	574	A	N9-C4	-5.34	1.34	1.37
36	BA	1476	A	N7-C5	-5.34	1.36	1.39
36	BA	1479	C	C3'-C2'	-5.34	1.46	1.52
2	A8	2081	U	O3'-P	-5.33	1.54	1.61
36	BA	1229	A	P-O5'	-5.33	1.54	1.59
2	A8	285	G	N7-C5	-5.33	1.36	1.39
2	A8	648	G	N7-C5	-5.33	1.36	1.39
2	A8	1010	A	C2'-C1'	-5.33	1.47	1.53
2	A8	1117	C	C3'-C2'	-5.33	1.46	1.52
2	A8	1378	A	C2'-C1'	-5.33	1.47	1.53
2	A8	1871	A	C2'-C1'	-5.33	1.47	1.53
36	BA	908	A	C3'-C2'	-5.33	1.46	1.52
2	A8	94	A	N7-C5	-5.33	1.36	1.39
2	A8	545	U	C2'-C1'	-5.33	1.47	1.53
2	A8	698	C	P-O5'	-5.33	1.54	1.59
2	A8	1266	G	N9-C4	-5.33	1.33	1.38
2	A8	2101	A	C2'-C1'	-5.33	1.47	1.53
36	BA	356	A	C3'-C2'	-5.33	1.46	1.52
36	BA	883	C	P-O5'	-5.33	1.54	1.59
36	BA	1435	G	N7-C5	-5.33	1.36	1.39
36	BA	1528	U	O3'-P	-5.33	1.54	1.61
2	A8	483	A	C2'-C1'	-5.33	1.47	1.53
2	A8	916	G	P-O5'	-5.33	1.54	1.59
2	A8	1279	G	N7-C5	-5.33	1.36	1.39
2	A8	1771	C	C1'-N1	-5.33	1.39	1.46
2	A8	408	G	N7-C5	-5.33	1.36	1.39
2	A8	974	G	N9-C4	-5.33	1.33	1.38
2	A8	189	G	C2'-C1'	-5.33	1.47	1.53
2	A8	381	G	C2'-C1'	-5.33	1.47	1.53
2	A8	2401	U	C2'-C1'	-5.33	1.47	1.53
36	BA	129	A	C2'-C1'	-5.33	1.47	1.53
36	BA	300	A	P-O5'	-5.33	1.54	1.59
1	A7	70	C	O3'-P	-5.32	1.54	1.61
2	A8	2318	G	N7-C5	-5.32	1.36	1.39
36	BA	57	G	P-O5'	-5.32	1.54	1.59
36	BA	1305	G	O3'-P	-5.32	1.54	1.61
2	A8	512	G	C2'-C1'	-5.32	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2176	A	C2'-C1'	-5.32	1.47	1.53
2	A8	2378	A	P-O5'	-5.32	1.54	1.59
2	A8	2822	G	P-O5'	-5.32	1.54	1.59
1	A7	100	G	C2'-C1'	-5.32	1.47	1.53
2	A8	127	A	N9-C4	-5.32	1.34	1.37
2	A8	139	U	C2'-C1'	-5.32	1.47	1.53
2	A8	2026	U	O3'-P	-5.32	1.54	1.61
2	A8	2715	C	C2'-C1'	-5.32	1.47	1.53
36	BA	1398	A	C8-N7	-5.32	1.27	1.31
1	A7	14	U	O3'-P	-5.32	1.54	1.61
2	A8	1536	C	O3'-P	-5.32	1.54	1.61
2	A8	1631	G	N9-C4	-5.32	1.33	1.38
2	A8	1657	U	C2'-C1'	-5.32	1.47	1.53
2	A8	2330	G	C2'-C1'	-5.32	1.47	1.53
2	A8	2583	G	N7-C5	-5.32	1.36	1.39
2	A8	2685	G	C2'-C1'	-5.32	1.47	1.53
36	BA	1376	U	C2'-C1'	-5.32	1.47	1.53
2	A8	33	C	C1'-N1	-5.32	1.39	1.46
2	A8	601	C	C2'-C1'	-5.32	1.47	1.53
2	A8	605	G	C2'-C1'	-5.32	1.47	1.53
2	A8	1640	A	C3'-C2'	-5.32	1.47	1.52
2	A8	1807	G	C2'-C1'	-5.32	1.47	1.53
2	A8	1831	G	C2'-C1'	-5.32	1.47	1.53
2	A8	2714	G	C3'-C2'	-5.32	1.47	1.52
2	A8	509	C	P-O5'	-5.31	1.54	1.59
2	A8	1602	U	P-O5'	-5.31	1.54	1.59
36	BA	540	G	C2'-C1'	-5.31	1.47	1.53
36	BA	923	A	C2'-C1'	-5.31	1.47	1.53
2	A8	108	G	C2'-C1'	-5.31	1.47	1.53
2	A8	627	A	N7-C5	-5.31	1.36	1.39
2	A8	1478	G	C4'-C3'	-5.31	1.47	1.52
2	A8	1564	C	C2'-C1'	-5.31	1.47	1.53
2	A8	1694	C	O4'-C1'	-5.31	1.34	1.41
2	A8	2038	G	N7-C5	-5.31	1.36	1.39
2	A8	2738	A	N7-C5	-5.31	1.36	1.39
36	BA	1067	A	C2'-C1'	-5.31	1.47	1.53
2	A8	685	A	C2'-C1'	-5.31	1.47	1.53
2	A8	1578	U	C4'-C3'	-5.31	1.47	1.52
2	A8	1757	A	C6-N6	5.31	1.38	1.33
36	BA	152	A	N7-C5	-5.31	1.36	1.39
36	BA	925	G	O3'-P	-5.31	1.54	1.61
2	A8	925	A	C2'-C1'	-5.31	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1803	A	C8-N7	-5.31	1.27	1.31
2	A8	2105	U	C2'-C1'	-5.31	1.47	1.53
36	BA	477	C	C2'-C1'	-5.31	1.47	1.53
36	BA	801	U	C2'-C1'	-5.31	1.47	1.53
36	BA	892	A	C8-N7	-5.31	1.27	1.31
2	A8	991	C	C2'-C1'	-5.31	1.47	1.53
2	A8	1041	G	C2'-C1'	-5.31	1.47	1.53
2	A8	2087	G	C2'-C1'	-5.31	1.47	1.53
36	BA	450	G	O3'-P	-5.31	1.54	1.61
36	BA	806	C	C2'-C1'	-5.31	1.47	1.53
36	BA	1526	G	C2'-C1'	-5.31	1.47	1.53
2	A8	783	A	N7-C5	-5.31	1.36	1.39
2	A8	893	C	C2'-C1'	-5.31	1.47	1.53
2	A8	1383	A	N7-C5	-5.31	1.36	1.39
2	A8	2664	G	O3'-P	-5.31	1.54	1.61
36	BA	199	A	N7-C5	-5.31	1.36	1.39
36	BA	201	G	C2-N3	5.30	1.36	1.32
36	BA	914	A	C2'-C1'	-5.30	1.47	1.53
2	A8	242	G	C2'-C1'	-5.30	1.47	1.53
2	A8	365	U	P-O5'	-5.30	1.54	1.59
2	A8	1206	G	C2-N3	5.30	1.36	1.32
2	A8	725	G	C3'-C2'	-5.30	1.47	1.52
2	A8	934	U	P-O5'	-5.30	1.54	1.59
2	A8	1030	C	P-O5'	-5.30	1.54	1.59
2	A8	1638	C	C4'-C3'	-5.30	1.47	1.52
2	A8	2010	G	C2'-C1'	-5.30	1.47	1.53
2	A8	2018	G	C2'-C1'	-5.30	1.47	1.53
2	A8	2823	A	N7-C5	-5.30	1.36	1.39
36	BA	278	G	N7-C5	-5.30	1.36	1.39
36	BA	584	G	C2'-C1'	-5.30	1.47	1.53
2	A8	1252	G	C2-N3	5.30	1.36	1.32
2	A8	1926	U	C2'-C1'	-5.30	1.47	1.53
2	A8	2064	C	O3'-P	-5.30	1.54	1.61
2	A8	2400	G	C2'-C1'	-5.30	1.47	1.53
2	A8	2663	G	C8-N7	-5.30	1.27	1.30
36	BA	606	G	N7-C5	-5.30	1.36	1.39
2	A8	1320	C	O3'-P	-5.30	1.54	1.61
2	A8	2725	A	C2'-C1'	-5.30	1.47	1.53
2	A8	1673	G	N9-C4	-5.30	1.33	1.38
2	A8	2205	A	C2'-C1'	-5.30	1.47	1.53
2	A8	2560	A	N7-C5	-5.30	1.36	1.39
36	BA	602	A	P-O5'	-5.30	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1259	G	N7-C5	-5.29	1.36	1.39
36	BA	920	U	P-O5'	-5.29	1.54	1.59
36	BA	1098	C	C2'-C1'	-5.29	1.47	1.53
36	BA	1160	G	C2-N3	5.29	1.36	1.32
2	A8	142	A	N9-C4	5.29	1.41	1.37
2	A8	276	U	P-O5'	-5.29	1.54	1.59
2	A8	348	A	N7-C5	-5.29	1.36	1.39
2	A8	426	C	C2'-C1'	-5.29	1.47	1.53
2	A8	956	G	N1-C2	5.29	1.42	1.37
2	A8	978	G	C2'-C1'	-5.29	1.47	1.53
2	A8	1907	G	N7-C5	-5.29	1.36	1.39
2	A8	2645	G	P-O5'	-5.29	1.54	1.59
2	A8	2862	G	P-O5'	-5.29	1.54	1.59
36	BA	516	U	P-O5'	-5.29	1.54	1.59
36	BA	640	A	N7-C5	-5.29	1.36	1.39
36	BA	1417	G	O3'-P	-5.29	1.54	1.61
1	A7	23	G	C2-N3	5.29	1.36	1.32
2	A8	2041	U	O3'-P	-5.29	1.54	1.61
2	A8	2220	U	C2'-C1'	-5.29	1.47	1.53
2	A8	2566	A	N9-C4	-5.29	1.34	1.37
2	A8	978	G	P-O5'	-5.29	1.54	1.59
2	A8	1924	C	C3'-C2'	-5.29	1.47	1.52
36	BA	1430	A	N7-C5	-5.29	1.36	1.39
2	A8	2020	A	N9-C4	-5.29	1.34	1.37
2	A8	2320	U	P-O5'	-5.29	1.54	1.59
36	BA	854	U	P-O5'	-5.29	1.54	1.59
36	BA	887	G	C2'-C1'	-5.29	1.47	1.53
2	A8	543	G	P-O5'	-5.29	1.54	1.59
2	A8	1654	A	C6-N1	5.29	1.39	1.35
2	A8	2768	U	C2'-C1'	-5.29	1.47	1.53
36	BA	917	G	P-O5'	-5.29	1.54	1.59
36	BA	1007	U	P-O5'	-5.29	1.54	1.59
36	BA	1368	A	N7-C5	-5.29	1.36	1.39
2	A8	341	C	C2'-C1'	-5.29	1.47	1.53
2	A8	522	A	N7-C5	-5.29	1.36	1.39
2	A8	669	G	O3'-P	-5.29	1.54	1.61
2	A8	1233	C	P-O5'	-5.29	1.54	1.59
2	A8	2663	G	C2'-C1'	-5.29	1.47	1.53
2	A8	2888	C	C2'-C1'	-5.29	1.47	1.53
36	BA	22	G	C2-N3	5.29	1.36	1.32
36	BA	460	A	C6-N1	5.29	1.39	1.35
36	BA	890	G	N9-C4	-5.29	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	125	A	N7-C5	-5.28	1.36	1.39
2	A8	467	G	C2-N3	5.28	1.36	1.32
2	A8	592	A	N7-C5	-5.28	1.36	1.39
2	A8	1399	C	C2'-C1'	-5.28	1.47	1.53
2	A8	2331	G	C3'-C2'	-5.28	1.47	1.52
2	A8	2352	A	C2'-C1'	-5.28	1.47	1.53
2	A8	2487	G	C2'-C1'	-5.28	1.47	1.53
2	A8	2747	G	C5-C6	-5.28	1.37	1.42
2	A8	2875	C	C2'-C1'	-5.28	1.47	1.53
36	BA	185	U	P-O5'	-5.28	1.54	1.59
36	BA	1431	A	C2'-C1'	-5.28	1.47	1.53
2	A8	895	U	C2'-C1'	-5.28	1.47	1.53
36	BA	56	U	C2'-C1'	-5.28	1.47	1.53
36	BA	544	G	N7-C5	-5.28	1.36	1.39
36	BA	1170	A	N9-C4	-5.28	1.34	1.37
2	A8	1022	G	N7-C5	-5.28	1.36	1.39
2	A8	1578	U	C2'-C1'	-5.28	1.47	1.53
2	A8	2374	C	P-O5'	-5.28	1.54	1.59
2	A8	2574	G	N7-C5	-5.28	1.36	1.39
36	BA	858	G	N9-C4	-5.28	1.33	1.38
2	A8	2013	A	N7-C5	-5.28	1.36	1.39
2	A8	113	U	O3'-P	-5.28	1.54	1.61
36	BA	1232	U	C2'-C1'	-5.28	1.47	1.53
2	A8	1901	A	N9-C4	5.28	1.41	1.37
2	A8	198	C	C4-C5	-5.27	1.38	1.43
2	A8	1559	U	O3'-P	-5.27	1.54	1.61
2	A8	2473	U	P-O5'	-5.27	1.54	1.59
36	BA	428	G	N9-C4	-5.27	1.33	1.38
36	BA	703	G	N1-C2	5.27	1.42	1.37
36	BA	768	A	C2'-C1'	-5.27	1.47	1.53
2	A8	289	G	N7-C5	-5.27	1.36	1.39
2	A8	465	G	C6-N1	5.27	1.43	1.39
2	A8	927	A	P-O5'	-5.27	1.54	1.59
2	A8	1070	A	O3'-P	-5.27	1.54	1.61
2	A8	1458	U	O3'-P	-5.27	1.54	1.61
36	BA	1300	G	C6-N1	5.27	1.43	1.39
2	A8	1055	G	P-O5'	-5.27	1.54	1.59
2	A8	1689	A	C8-N7	-5.27	1.27	1.31
2	A8	1888	G	C2-N3	5.27	1.36	1.32
2	A8	1913	A	N9-C4	-5.27	1.34	1.37
2	A8	278	A	C2'-C1'	-5.27	1.47	1.53
2	A8	1891	G	P-O5'	-5.27	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2000	C	C3'-C2'	-5.27	1.47	1.52
2	A8	2265	U	C2'-C1'	-5.27	1.47	1.53
36	BA	241	G	C3'-C2'	-5.27	1.47	1.52
36	BA	418	C	P-O5'	-5.27	1.54	1.59
36	BA	566	G	N7-C5	-5.27	1.36	1.39
2	A8	515	A	N7-C5	-5.27	1.36	1.39
2	A8	1024	G	O3'-P	-5.27	1.54	1.61
36	BA	937	A	P-O5'	-5.27	1.54	1.59
2	A8	638	G	C3'-C2'	-5.27	1.47	1.52
2	A8	991	C	P-O5'	-5.27	1.54	1.59
2	A8	1212	G	C2'-C1'	-5.27	1.47	1.53
2	A8	537	G	C3'-C2'	-5.26	1.47	1.52
2	A8	924	G	C2'-C1'	-5.26	1.47	1.53
2	A8	1055	G	C6-N1	5.26	1.43	1.39
2	A8	1747	U	C2'-C1'	-5.26	1.47	1.53
2	A8	1902	C	C2'-C1'	-5.26	1.47	1.53
36	BA	789	U	C2'-C1'	-5.26	1.47	1.53
36	BA	1018	G	N9-C4	-5.26	1.33	1.38
1	A7	66	A	C2'-C1'	-5.26	1.47	1.53
2	A8	492	A	C2'-C1'	-5.26	1.47	1.53
2	A8	1358	G	N9-C4	-5.26	1.33	1.38
2	A8	2542	A	P-O5'	-5.26	1.54	1.59
36	BA	402	G	C2'-C1'	-5.26	1.47	1.53
36	BA	807	A	N7-C5	-5.26	1.36	1.39
2	A8	1265	A	N7-C5	-5.26	1.36	1.39
2	A8	1543	G	N1-C2	5.26	1.42	1.37
36	BA	1094	G	C2'-C1'	-5.26	1.47	1.53
2	A8	219	A	N9-C4	-5.26	1.34	1.37
2	A8	869	G	C3'-C2'	-5.26	1.47	1.52
2	A8	2012	G	N9-C4	-5.26	1.33	1.38
2	A8	2849	U	C5'-C4'	5.26	1.57	1.51
2	A8	121	G	C2'-C1'	-5.26	1.47	1.53
2	A8	817	C	C2'-C1'	-5.26	1.47	1.53
2	A8	1607	C	P-O5'	-5.26	1.54	1.59
2	A8	1858	A	N7-C5	-5.26	1.36	1.39
36	BA	115	G	C2'-C1'	-5.26	1.47	1.53
36	BA	1374	A	N7-C5	-5.26	1.36	1.39
2	A8	126	A	C2'-C1'	-5.25	1.47	1.53
36	BA	634	C	C2'-C1'	-5.25	1.47	1.53
36	BA	1169	A	C2'-C1'	-5.25	1.47	1.53
2	A8	506	G	C3'-C2'	-5.25	1.47	1.52
2	A8	625	G	C2'-C1'	-5.25	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1039	A	P-O5'	-5.25	1.54	1.59
2	A8	1192	G	C2'-C1'	-5.25	1.47	1.53
2	A8	1736	U	C2'-C1'	-5.25	1.47	1.53
2	A8	2400	G	N9-C4	-5.25	1.33	1.38
2	A8	2497	A	P-O5'	-5.25	1.54	1.59
36	BA	820	U	C5'-C4'	5.25	1.57	1.51
2	A8	1770	G	C2'-C1'	-5.25	1.47	1.53
2	A8	2437	G	C2-N3	5.25	1.36	1.32
2	A8	2577	A	P-O5'	-5.25	1.54	1.59
2	A8	2748	A	N9-C4	-5.25	1.34	1.37
36	BA	163	C	P-O5'	-5.25	1.54	1.59
36	BA	274	A	C1'-N9	-5.25	1.39	1.46
36	BA	529	G	C3'-C2'	-5.25	1.47	1.52
36	BA	788	U	C2'-C1'	-5.25	1.47	1.53
2	A8	666	A	N7-C5	-5.25	1.36	1.39
2	A8	681	G	C2'-C1'	-5.25	1.47	1.53
2	A8	923	G	N9-C4	-5.25	1.33	1.38
2	A8	947	A	N7-C5	-5.25	1.36	1.39
2	A8	1165	A	N7-C5	-5.25	1.36	1.39
2	A8	207	A	P-O5'	-5.25	1.54	1.59
2	A8	372	G	N9-C4	-5.25	1.33	1.38
2	A8	445	C	P-O5'	-5.25	1.54	1.59
36	BA	1179	A	C3'-C2'	-5.25	1.47	1.52
36	BA	1205	U	C2'-C1'	-5.25	1.47	1.53
36	BA	1306	A	C8-N7	-5.25	1.27	1.31
2	A8	7	G	C2'-C1'	-5.25	1.47	1.53
2	A8	1701	A	P-O5'	-5.25	1.54	1.59
2	A8	2223	G	C3'-C2'	-5.25	1.47	1.52
2	A8	2364	C	C2'-C1'	-5.25	1.47	1.53
2	A8	1147	A	C2'-C1'	-5.25	1.47	1.53
2	A8	294	A	N7-C5	-5.24	1.36	1.39
36	BA	37	U	C3'-C2'	-5.24	1.47	1.52
36	BA	1526	G	C8-N7	-5.24	1.27	1.30
2	A8	1649	G	C2'-C1'	-5.24	1.47	1.53
2	A8	2020	A	N7-C5	-5.24	1.36	1.39
1	A7	81	G	P-O5'	-5.24	1.54	1.59
2	A8	183	C	C2'-C1'	-5.24	1.47	1.53
2	A8	272	A	C2'-C1'	-5.24	1.47	1.53
2	A8	902	C	N3-C4	5.24	1.37	1.33
2	A8	1098	A	O3'-P	-5.24	1.54	1.61
2	A8	2195	U	C2'-C1'	-5.24	1.47	1.53
2	A8	2763	G	C2'-C1'	-5.24	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	247	G	C2'-C1'	-5.24	1.47	1.53
2	A8	480	A	N7-C5	-5.24	1.36	1.39
2	A8	712	G	C8-N7	-5.24	1.27	1.30
2	A8	948	C	P-O5'	-5.24	1.54	1.59
36	BA	110	C	N3-C4	5.24	1.37	1.33
2	A8	1732	C	P-O5'	-5.24	1.54	1.59
2	A8	2703	C	P-O5'	-5.24	1.54	1.59
36	BA	711	G	P-O5'	-5.24	1.54	1.59
1	A7	78	A	C8-N7	-5.24	1.27	1.31
2	A8	9	G	P-O5'	-5.24	1.54	1.59
2	A8	88	G	N1-C2	5.24	1.42	1.37
2	A8	1905	C	O3'-P	-5.24	1.54	1.61
2	A8	2512	C	C2'-C1'	-5.24	1.47	1.53
36	BA	1380	U	N1-C2	5.24	1.43	1.38
2	A8	368	A	N7-C5	-5.23	1.36	1.39
2	A8	2308	G	N7-C5	-5.23	1.36	1.39
36	BA	238	A	O3'-P	-5.23	1.54	1.61
36	BA	593	U	P-O5'	-5.23	1.54	1.59
36	BA	859	G	C2'-C1'	-5.23	1.47	1.53
36	BA	1500	A	N7-C5	-5.23	1.36	1.39
2	A8	346	A	N3-C4	-5.23	1.31	1.34
2	A8	669	G	N7-C5	-5.23	1.36	1.39
2	A8	721	A	N7-C5	-5.23	1.36	1.39
2	A8	768	G	C2'-C1'	-5.23	1.47	1.53
2	A8	1152	C	C2'-C1'	-5.23	1.47	1.53
2	A8	1405	U	C2'-C1'	-5.23	1.47	1.53
2	A8	1692	U	C3'-C2'	-5.23	1.47	1.52
2	A8	132	G	C2'-C1'	-5.23	1.47	1.53
2	A8	941	A	N3-C4	-5.23	1.31	1.34
1	A7	31	C	C2'-C1'	-5.23	1.47	1.53
2	A8	762	U	O3'-P	-5.23	1.54	1.61
2	A8	1080	A	N7-C5	-5.23	1.36	1.39
2	A8	2127	G	C2-N3	5.23	1.36	1.32
2	A8	2233	U	C4'-C3'	-5.23	1.47	1.52
2	A8	2597	G	C2'-C1'	-5.23	1.47	1.53
36	BA	473	U	P-O5'	-5.23	1.54	1.59
36	BA	995	C	C2'-C1'	-5.23	1.47	1.53
2	A8	880	G	O3'-P	-5.23	1.54	1.61
2	A8	1439	A	C6-N1	5.23	1.39	1.35
2	A8	2853	C	C2'-C1'	-5.23	1.47	1.53
36	BA	767	A	N7-C5	-5.23	1.36	1.39
1	A7	86	G	C8-N7	-5.22	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	48	G	C2'-C1'	-5.22	1.47	1.53
2	A8	250	G	O3'-P	-5.22	1.54	1.61
2	A8	1819	A	C1'-N9	-5.22	1.39	1.46
2	A8	1942	C	C2'-C1'	-5.22	1.47	1.53
2	A8	1978	A	N9-C4	-5.22	1.34	1.37
36	BA	1255	G	C2'-C1'	-5.22	1.47	1.53
1	A7	111	U	C3'-C2'	-5.22	1.47	1.52
2	A8	1608	A	C1'-N9	-5.22	1.39	1.46
2	A8	2267	A	N7-C5	-5.22	1.36	1.39
2	A8	2281	A	O3'-P	-5.22	1.54	1.61
2	A8	2733	A	N3-C4	-5.22	1.31	1.34
36	BA	608	A	P-O5'	-5.22	1.54	1.59
2	A8	1854	A	C2'-C1'	-5.22	1.47	1.53
2	A8	2638	G	C2'-C1'	-5.22	1.47	1.53
2	A8	2712	C	C2'-C1'	-5.22	1.47	1.53
36	BA	425	G	C2'-C1'	-5.22	1.47	1.53
36	BA	1261	A	C2'-C1'	-5.22	1.47	1.53
2	A8	401	A	N7-C5	-5.22	1.36	1.39
2	A8	1028	A	N9-C4	-5.22	1.34	1.37
2	A8	2321	U	C4'-C3'	-5.22	1.47	1.52
2	A8	2465	C	C2'-C1'	-5.22	1.47	1.53
2	A8	2759	G	C5-C6	-5.22	1.37	1.42
36	BA	1157	A	C2'-C1'	-5.22	1.47	1.53
2	A8	789	A	N7-C5	-5.22	1.36	1.39
2	A8	1395	A	C2'-C1'	-5.22	1.47	1.53
2	A8	2741	A	C2'-C1'	-5.22	1.47	1.53
36	BA	426	U	C2'-C1'	-5.22	1.47	1.53
36	BA	507	C	P-O5'	-5.22	1.54	1.59
2	A8	24	G	C2'-C1'	-5.22	1.47	1.53
2	A8	261	G	P-O5'	-5.22	1.54	1.59
2	A8	1809	A	N9-C4	-5.22	1.34	1.37
36	BA	76	G	N7-C5	-5.22	1.36	1.39
36	BA	379	C	P-O5'	-5.22	1.54	1.59
2	A8	234	U	C2'-C1'	-5.21	1.47	1.53
2	A8	873	C	C2'-C1'	-5.21	1.47	1.53
2	A8	1754	A	C2'-C1'	-5.21	1.47	1.53
2	A8	2367	G	C2'-C1'	-5.21	1.47	1.53
36	BA	877	G	C2'-C1'	-5.21	1.47	1.53
2	A8	1142	A	N7-C5	-5.21	1.36	1.39
2	A8	1692	U	O3'-P	-5.21	1.54	1.61
36	BA	696	A	C8-N7	-5.21	1.27	1.31
2	A8	1319	C	C3'-C2'	-5.21	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1698	A	C1'-N9	-5.21	1.39	1.46
2	A8	1980	G	N7-C5	-5.21	1.36	1.39
2	A8	2375	G	N1-C2	5.21	1.42	1.37
2	A8	2644	G	C6-N1	5.21	1.43	1.39
36	BA	969	A	N7-C5	-5.21	1.36	1.39
2	A8	1471	G	P-O5'	-5.21	1.54	1.59
2	A8	667	U	C3'-C2'	-5.21	1.47	1.52
2	A8	1150	C	P-O5'	-5.21	1.54	1.59
2	A8	1266	G	C2'-C1'	-5.21	1.47	1.53
2	A8	1580	A	C8-N7	-5.21	1.27	1.31
2	A8	2620	C	O3'-P	-5.21	1.54	1.61
36	BA	566	G	P-O5'	-5.21	1.54	1.59
36	BA	1401	G	C2-N3	5.21	1.36	1.32
2	A8	484	C	C2'-C1'	-5.21	1.47	1.53
2	A8	1383	A	C2'-C1'	-5.21	1.47	1.53
2	A8	2819	G	C2'-C1'	-5.21	1.47	1.53
36	BA	460	A	C3'-C2'	-5.21	1.47	1.52
36	BA	661	G	C2'-C1'	-5.21	1.47	1.53
36	BA	1195	C	P-O5'	-5.21	1.54	1.59
2	A8	1102	C	P-O5'	-5.21	1.54	1.59
2	A8	1237	A	O4'-C1'	-5.21	1.34	1.41
36	BA	223	A	C2'-C1'	-5.21	1.47	1.53
1	A7	80	U	C2'-C1'	-5.20	1.47	1.53
2	A8	194	G	N7-C5	-5.20	1.36	1.39
2	A8	201	C	C2'-C1'	-5.20	1.47	1.53
2	A8	372	G	N3-C4	-5.20	1.31	1.35
2	A8	533	G	N7-C5	-5.20	1.36	1.39
2	A8	1136	G	C2'-C1'	-5.20	1.47	1.53
36	BA	491	G	N7-C5	-5.20	1.36	1.39
2	A8	207	A	N9-C4	-5.20	1.34	1.37
2	A8	263	G	N1-C2	5.20	1.42	1.37
2	A8	1265	A	O3'-P	-5.20	1.54	1.61
2	A8	2565	A	N7-C5	-5.20	1.36	1.39
36	BA	380	G	O3'-P	-5.20	1.54	1.61
36	BA	1018	G	N7-C5	-5.20	1.36	1.39
2	A8	1344	U	O3'-P	-5.20	1.54	1.61
2	A8	171	U	P-O5'	-5.20	1.54	1.59
2	A8	1717	A	C8-N7	-5.20	1.27	1.31
2	A8	1983	G	C3'-C2'	-5.20	1.47	1.52
2	A8	2895	G	P-O5'	-5.20	1.54	1.59
36	BA	298	A	C2'-C1'	-5.20	1.47	1.53
2	A8	411	G	P-O5'	-5.20	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	670	A	O3'-P	-5.20	1.54	1.61
2	A8	704	G	C2'-C1'	-5.20	1.47	1.53
2	A8	1567	G	N3-C4	-5.20	1.31	1.35
2	A8	2594	C	P-O5'	-5.20	1.54	1.59
36	BA	745	G	P-O5'	-5.20	1.54	1.59
36	BA	1403	C	C2'-C1'	-5.20	1.47	1.53
36	BA	673	A	P-O5'	-5.19	1.54	1.59
36	BA	1072	G	C2'-C1'	-5.19	1.47	1.53
36	BA	1073	U	P-O5'	-5.19	1.54	1.59
2	A8	101	A	N7-C5	-5.19	1.36	1.39
2	A8	569	U	C2'-C1'	-5.19	1.47	1.53
2	A8	1627	G	C5'-C4'	5.19	1.57	1.51
2	A8	2242	G	N9-C4	-5.19	1.33	1.38
2	A8	2527	C	C2'-C1'	-5.19	1.47	1.53
2	A8	385	C	P-O5'	-5.19	1.54	1.59
2	A8	2057	G	N9-C4	-5.19	1.33	1.38
36	BA	814	A	C4'-C3'	-5.19	1.47	1.52
36	BA	1305	G	N3-C4	-5.19	1.31	1.35
2	A8	988	A	C2'-C1'	-5.19	1.47	1.53
2	A8	1984	G	C2'-C1'	-5.19	1.47	1.53
2	A8	2865	U	C2'-C1'	-5.19	1.47	1.53
2	A8	260	G	N1-C2	5.19	1.42	1.37
2	A8	1449	G	P-O5'	-5.19	1.54	1.59
2	A8	1719	G	N7-C5	-5.19	1.36	1.39
2	A8	1970	A	C2'-C1'	-5.19	1.47	1.53
2	A8	1995	U	P-O5'	-5.19	1.54	1.59
2	A8	2733	A	O4'-C1'	5.19	1.48	1.41
36	BA	774	G	C3'-C2'	-5.19	1.47	1.52
2	A8	300	A	N9-C4	-5.19	1.34	1.37
2	A8	1214	A	C2'-C1'	-5.19	1.47	1.53
2	A8	2434	A	P-O5'	-5.19	1.54	1.59
2	A8	347	A	C5'-C4'	5.18	1.57	1.51
2	A8	435	C	C2'-C1'	-5.18	1.47	1.53
2	A8	1103	A	O3'-P	-5.18	1.54	1.61
2	A8	1269	A	O3'-P	-5.18	1.54	1.61
2	A8	2190	G	P-O5'	-5.18	1.54	1.59
36	BA	642	A	N7-C5	-5.18	1.36	1.39
2	A8	447	A	C5-C4	5.18	1.42	1.38
2	A8	1596	A	N7-C5	-5.18	1.36	1.39
2	A8	1953	A	C1'-N9	-5.18	1.39	1.46
2	A8	2098	U	P-O5'	-5.18	1.54	1.59
36	BA	182	A	C2'-C1'	-5.18	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	422	C	P-O5'	-5.18	1.54	1.59
2	A8	1505	A	C2'-C1'	-5.18	1.47	1.53
2	A8	1410	G	C2'-C1'	-5.18	1.47	1.53
2	A8	1722	A	C8-N7	-5.18	1.27	1.31
2	A8	2200	C	P-O5'	-5.18	1.54	1.59
36	BA	517	G	C8-N7	-5.18	1.27	1.30
36	BA	1319	A	N7-C5	-5.18	1.36	1.39
2	A8	726	G	O3'-P	-5.18	1.54	1.61
2	A8	1085	A	C2'-C1'	-5.18	1.47	1.53
2	A8	2221	G	C3'-C2'	-5.18	1.47	1.52
2	A8	1549	A	C2'-C1'	-5.18	1.47	1.53
36	BA	198	G	N7-C5	-5.18	1.36	1.39
36	BA	342	C	C2'-C1'	-5.18	1.47	1.53
36	BA	1173	U	P-O5'	-5.18	1.54	1.59
36	BA	1534	A	N7-C5	-5.18	1.36	1.39
1	A7	5	U	P-O5'	-5.17	1.54	1.59
1	A7	79	G	O3'-P	-5.17	1.54	1.61
2	A8	159	G	N9-C4	-5.17	1.33	1.38
2	A8	543	G	N7-C5	-5.17	1.36	1.39
2	A8	901	C	P-O5'	-5.17	1.54	1.59
2	A8	1163	G	N9-C4	-5.17	1.33	1.38
2	A8	1312	U	C2'-C1'	-5.17	1.47	1.53
2	A8	2735	G	O3'-P	-5.17	1.54	1.61
36	BA	7	A	N7-C5	-5.17	1.36	1.39
2	A8	725	G	P-O5'	-5.17	1.54	1.59
2	A8	763	G	C2'-C1'	-5.17	1.47	1.53
2	A8	965	C	P-O5'	-5.17	1.54	1.59
2	A8	2516	A	N7-C5	-5.17	1.36	1.39
2	A8	2575	C	N3-C4	5.17	1.37	1.33
2	A8	821	A	C3'-C2'	-5.17	1.47	1.52
2	A8	2446	G	N3-C4	-5.17	1.31	1.35
36	BA	153	C	C2'-C1'	-5.17	1.47	1.53
36	BA	245	U	C3'-C2'	-5.17	1.47	1.52
2	A8	244	A	C2'-C1'	-5.17	1.47	1.53
2	A8	874	G	C2-N3	5.17	1.36	1.32
2	A8	1917	U	C2'-C1'	-5.17	1.47	1.53
2	A8	700	G	C3'-C2'	-5.17	1.47	1.52
2	A8	1276	A	C2'-C1'	-5.17	1.47	1.53
2	A8	1321	A	N7-C5	-5.17	1.36	1.39
2	A8	1451	C	C3'-C2'	-5.17	1.47	1.52
2	A8	1762	A	C2'-C1'	-5.17	1.47	1.53
2	A8	2671	G	C2'-C1'	-5.17	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	947	A	C2'-C1'	-5.17	1.47	1.53
2	A8	1552	A	C6-N1	5.17	1.39	1.35
2	A8	2544	G	C2'-C1'	-5.17	1.47	1.53
36	BA	760	G	C3'-C2'	-5.17	1.47	1.52
2	A8	218	A	C2'-C1'	-5.17	1.47	1.53
2	A8	2694	G	C2'-C1'	-5.17	1.47	1.53
1	A7	16	G	N9-C4	-5.16	1.33	1.38
2	A8	136	G	P-O5'	-5.16	1.54	1.59
2	A8	428	A	N7-C5	-5.16	1.36	1.39
2	A8	1144	A	N7-C5	-5.16	1.36	1.39
2	A8	1686	C	P-O5'	-5.16	1.54	1.59
2	A8	2232	C	P-O5'	-5.16	1.54	1.59
36	BA	196	A	N3-C4	-5.16	1.31	1.34
36	BA	324	G	N9-C4	-5.16	1.33	1.38
36	BA	1015	G	N7-C5	-5.16	1.36	1.39
2	A8	671	C	O3'-P	-5.16	1.54	1.61
2	A8	1611	C	C3'-C2'	-5.16	1.47	1.52
2	A8	1932	A	P-O5'	-5.16	1.54	1.59
2	A8	2568	U	C2'-C1'	-5.16	1.47	1.53
2	A8	2841	C	C2'-C1'	-5.16	1.47	1.53
36	BA	1426	G	P-O5'	-5.16	1.54	1.59
1	A7	44	G	C2'-C1'	-5.16	1.47	1.53
1	A7	87	U	P-O5'	-5.16	1.54	1.59
1	A7	96	G	N7-C5	-5.16	1.36	1.39
2	A8	583	G	C2'-C1'	-5.16	1.47	1.53
2	A8	867	C	O3'-P	-5.16	1.54	1.61
2	A8	914	G	N7-C5	-5.16	1.36	1.39
2	A8	953	G	C2'-C1'	-5.16	1.47	1.53
2	A8	1335	C	C3'-C2'	-5.16	1.47	1.52
36	BA	251	G	C2'-C1'	-5.16	1.47	1.53
36	BA	1470	U	P-O5'	-5.16	1.54	1.59
2	A8	1001	A	C8-N7	-5.16	1.27	1.31
2	A8	1143	A	C2'-C1'	-5.16	1.47	1.53
2	A8	1930	G	N1-C2	5.16	1.41	1.37
2	A8	1955	U	C2'-C1'	-5.16	1.47	1.53
36	BA	670	G	N9-C4	-5.16	1.33	1.38
2	A8	85	G	C2'-C1'	-5.16	1.47	1.53
2	A8	1651	G	C2'-C1'	-5.16	1.47	1.53
36	BA	54	C	C2'-C1'	-5.16	1.47	1.53
36	BA	144	G	N7-C5	-5.16	1.36	1.39
36	BA	1026	G	N7-C5	-5.16	1.36	1.39
2	A8	237	C	C2'-C1'	-5.16	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	304	U	C2'-C1'	-5.16	1.47	1.53
2	A8	1619	G	P-O5'	-5.16	1.54	1.59
2	A8	2660	A	C2'-C1'	-5.16	1.47	1.53
36	BA	102	G	P-O5'	-5.16	1.54	1.59
36	BA	259	G	C2'-C1'	-5.16	1.47	1.53
36	BA	874	G	C2'-C1'	-5.16	1.47	1.53
36	BA	1371	G	P-O5'	-5.16	1.54	1.59
1	A7	110	C	C2'-C1'	-5.15	1.47	1.53
2	A8	779	U	C3'-C2'	-5.15	1.47	1.52
2	A8	1822	C	C3'-C2'	-5.15	1.47	1.52
2	A8	2001	C	C3'-C2'	-5.15	1.47	1.52
2	A8	2225	A	C2'-C1'	-5.15	1.47	1.53
36	BA	10	A	C2'-C1'	-5.15	1.47	1.53
36	BA	581	G	C2'-C1'	-5.15	1.47	1.53
36	BA	1396	A	C2'-C1'	-5.15	1.47	1.53
2	A8	117	G	P-O5'	-5.15	1.54	1.59
2	A8	372	G	N7-C5	-5.15	1.36	1.39
2	A8	1127	A	N7-C5	-5.15	1.36	1.39
2	A8	751	A	N9-C4	-5.15	1.34	1.37
36	BA	250	A	C2'-C1'	-5.15	1.47	1.53
2	A8	301	G	O3'-P	-5.15	1.54	1.61
2	A8	441	U	C2'-C1'	-5.15	1.47	1.53
2	A8	1350	C	C3'-C2'	-5.15	1.47	1.52
2	A8	2231	U	C2'-C1'	-5.15	1.47	1.53
2	A8	2661	G	N7-C5	-5.15	1.36	1.39
36	BA	518	C	O3'-P	-5.15	1.54	1.61
36	BA	641	U	O3'-P	-5.15	1.54	1.61
2	A8	81	G	C2'-C1'	-5.15	1.47	1.53
2	A8	366	C	C2'-C1'	-5.15	1.47	1.53
2	A8	1659	G	N7-C5	-5.15	1.36	1.39
2	A8	2466	C	C3'-C2'	-5.15	1.47	1.52
36	BA	6	G	C2-N3	5.15	1.36	1.32
2	A8	199	A	C1'-N9	-5.14	1.39	1.46
2	A8	782	A	N7-C5	-5.14	1.36	1.39
2	A8	852	U	C4'-C3'	-5.14	1.47	1.52
2	A8	2073	C	C3'-C2'	-5.14	1.47	1.52
2	A8	2265	U	P-O5'	-5.14	1.54	1.59
36	BA	634	C	P-O5'	-5.14	1.54	1.59
36	BA	1307	U	P-O5'	-5.14	1.54	1.59
2	A8	288	U	P-O5'	-5.14	1.54	1.59
2	A8	1111	A	O3'-P	-5.14	1.54	1.61
2	A8	1332	G	O3'-P	-5.14	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1434	A	C2'-C1'	-5.14	1.47	1.53
2	A8	1720	U	C3'-C2'	-5.14	1.47	1.52
36	BA	48	C	C2'-C1'	-5.14	1.47	1.53
2	A8	460	A	O3'-P	-5.14	1.54	1.61
2	A8	2212	A	N7-C5	-5.14	1.36	1.39
2	A8	2389	G	C3'-C2'	-5.14	1.47	1.52
36	BA	28	A	P-O5'	-5.14	1.54	1.59
36	BA	1260	G	P-O5'	-5.14	1.54	1.59
2	A8	183	C	P-O5'	-5.14	1.54	1.59
2	A8	216	A	N7-C5	-5.14	1.36	1.39
2	A8	1014	A	N7-C5	-5.14	1.36	1.39
2	A8	1686	C	C3'-C2'	-5.14	1.47	1.52
2	A8	916	G	N9-C4	-5.14	1.33	1.38
2	A8	1570	A	P-O5'	-5.14	1.54	1.59
2	A8	2273	A	N3-C4	-5.14	1.31	1.34
2	A8	2280	G	C1'-N9	-5.14	1.39	1.46
2	A8	2876	G	C2'-C1'	-5.14	1.47	1.53
36	BA	826	C	O3'-P	-5.14	1.54	1.61
2	A8	98	G	C8-N7	-5.14	1.27	1.30
2	A8	361	G	N7-C5	-5.14	1.36	1.39
2	A8	397	U	P-O5'	-5.14	1.54	1.59
2	A8	1077	A	N7-C5	-5.14	1.36	1.39
2	A8	1863	G	N7-C5	-5.14	1.36	1.39
2	A8	2435	A	C2'-C1'	-5.14	1.47	1.53
2	A8	751	A	O3'-P	-5.13	1.54	1.61
2	A8	1687	G	N9-C4	-5.13	1.33	1.38
2	A8	1928	A	C2'-C1'	-5.13	1.47	1.53
2	A8	2005	A	P-O5'	-5.13	1.54	1.59
36	BA	521	G	P-O5'	-5.13	1.54	1.59
2	A8	1749	A	N7-C5	-5.13	1.36	1.39
36	BA	535	A	O3'-P	-5.13	1.54	1.61
2	A8	274	C	C3'-C2'	-5.13	1.47	1.52
2	A8	820	A	P-O5'	-5.13	1.54	1.59
2	A8	1383	A	N3-C4	-5.13	1.31	1.34
36	BA	469	C	C2'-C1'	-5.13	1.47	1.53
36	BA	1332	A	N7-C5	-5.13	1.36	1.39
2	A8	1024	G	P-O5'	-5.13	1.54	1.59
2	A8	2759	G	P-O5'	-5.13	1.54	1.59
36	BA	1403	C	P-O5'	-5.13	1.54	1.59
2	A8	1002	G	P-O5'	-5.13	1.54	1.59
2	A8	1415	U	C2'-C1'	-5.13	1.47	1.53
2	A8	1791	A	C4'-C3'	-5.13	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1864	U	C2'-C1'	-5.13	1.47	1.53
2	A8	1972	G	P-O5'	-5.13	1.54	1.59
2	A8	2873	A	C1'-N9	-5.13	1.39	1.46
36	BA	769	G	C2'-C1'	-5.13	1.47	1.53
36	BA	1420	U	C2'-C1'	-5.13	1.47	1.53
2	A8	1846	G	P-O5'	-5.13	1.54	1.59
2	A8	2438	U	P-O5'	-5.13	1.54	1.59
2	A8	2510	C	C2'-C1'	-5.13	1.47	1.53
36	BA	453	G	P-O5'	-5.13	1.54	1.59
36	BA	708	C	C2'-C1'	-5.13	1.47	1.53
36	BA	974	A	N7-C5	-5.13	1.36	1.39
2	A8	439	A	C2'-C1'	-5.12	1.47	1.53
2	A8	1167	C	C2'-C1'	-5.12	1.47	1.53
2	A8	149	A	C2'-C1'	-5.12	1.47	1.53
2	A8	189	G	N7-C5	-5.12	1.36	1.39
2	A8	233	A	C2'-C1'	-5.12	1.47	1.53
2	A8	818	G	C5-C6	-5.12	1.37	1.42
2	A8	1880	U	C4'-C3'	-5.12	1.47	1.52
2	A8	1937	A	N9-C4	-5.12	1.34	1.37
2	A8	2256	G	C2'-C1'	-5.12	1.47	1.53
2	A8	2307	G	N7-C5	-5.12	1.36	1.39
2	A8	2706	A	C8-N7	-5.12	1.27	1.31
2	A8	2870	C	C2'-C1'	-5.12	1.47	1.53
36	BA	595	A	O3'-P	-5.12	1.55	1.61
36	BA	758	C	N3-C4	5.12	1.37	1.33
36	BA	783	C	C2'-C1'	-5.12	1.47	1.53
2	A8	380	G	C2'-C1'	-5.12	1.47	1.53
2	A8	777	G	C2'-C1'	-5.12	1.47	1.53
2	A8	1136	G	N9-C4	5.12	1.42	1.38
2	A8	1290	C	P-O5'	-5.12	1.54	1.59
2	A8	1627	G	C2'-C1'	-5.12	1.47	1.53
36	BA	153	C	P-O5'	-5.12	1.54	1.59
36	BA	913	A	N7-C5	-5.12	1.36	1.39
36	BA	1251	A	C2'-C1'	-5.12	1.47	1.53
2	A8	540	C	P-O5'	-5.12	1.54	1.59
2	A8	2128	G	N1-C2	5.12	1.41	1.37
2	A8	2173	A	N7-C5	-5.12	1.36	1.39
2	A8	2805	C	P-O5'	-5.12	1.54	1.59
1	A7	43	C	C4'-C3'	-5.12	1.47	1.52
2	A8	1189	A	C2'-C1'	-5.12	1.47	1.53
2	A8	1503	A	C8-N7	-5.12	1.27	1.31
2	A8	1665	A	C6-N1	5.12	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	1181	G	N7-C5	-5.12	1.36	1.39
2	A8	690	G	N7-C5	-5.12	1.36	1.39
2	A8	764	A	C6-N1	5.12	1.39	1.35
36	BA	472	U	C2-N3	5.12	1.41	1.37
2	A8	429	A	N9-C4	-5.12	1.34	1.37
2	A8	1843	C	C2'-C1'	-5.12	1.47	1.53
36	BA	315	A	N3-C4	-5.12	1.31	1.34
36	BA	575	G	N3-C4	-5.12	1.31	1.35
36	BA	734	G	P-O5'	-5.12	1.54	1.59
1	A7	103	U	P-O5'	-5.11	1.54	1.59
2	A8	1025	G	N7-C5	-5.11	1.36	1.39
2	A8	1193	G	N7-C5	-5.11	1.36	1.39
2	A8	1591	A	N7-C5	-5.11	1.36	1.39
2	A8	1633	G	N7-C5	-5.11	1.36	1.39
2	A8	2207	C	P-O5'	-5.11	1.54	1.59
2	A8	2253	G	N7-C5	-5.11	1.36	1.39
2	A8	52	A	C2'-C1'	-5.11	1.47	1.53
2	A8	1496	A	O3'-P	-5.11	1.55	1.61
2	A8	67	U	P-O5'	-5.11	1.54	1.59
2	A8	724	U	C2'-C1'	-5.11	1.47	1.53
2	A8	749	A	N9-C4	-5.11	1.34	1.37
2	A8	856	G	C2'-C1'	-5.11	1.47	1.53
2	A8	1380	G	P-O5'	-5.11	1.54	1.59
36	BA	70	U	C2'-C1'	-5.11	1.47	1.53
36	BA	577	G	O3'-P	-5.11	1.55	1.61
36	BA	742	G	C2-N3	5.11	1.36	1.32
2	A8	513	A	C2'-C1'	-5.11	1.47	1.53
2	A8	1930	G	C4'-O4'	-5.11	1.39	1.45
36	BA	31	G	C2'-C1'	-5.11	1.47	1.53
2	A8	1056	G	C2'-C1'	-5.11	1.47	1.53
2	A8	1431	A	P-O5'	-5.11	1.54	1.59
2	A8	2084	C	C2'-C1'	-5.11	1.47	1.53
2	A8	2301	C	P-O5'	-5.11	1.54	1.59
2	A8	2346	A	C2'-C1'	-5.11	1.47	1.53
2	A8	2831	G	O3'-P	-5.11	1.55	1.61
36	BA	993	G	N7-C5	-5.11	1.36	1.39
36	BA	1499	A	P-O5'	-5.11	1.54	1.59
2	A8	175	G	C2-N3	5.11	1.36	1.32
2	A8	1668	A	C2'-C1'	-5.11	1.47	1.53
36	BA	694	A	N7-C5	-5.11	1.36	1.39
36	BA	1433	A	N7-C5	-5.11	1.36	1.39
36	BA	1517	G	C2-N3	5.11	1.36	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2880	C	P-O5'	-5.10	1.54	1.59
36	BA	852	G	C2'-C1'	-5.10	1.47	1.53
2	A8	446	G	C2'-C1'	-5.10	1.47	1.53
2	A8	639	U	P-O5'	-5.10	1.54	1.59
2	A8	1039	A	C2'-C1'	-5.10	1.47	1.53
2	A8	1147	A	N7-C5	-5.10	1.36	1.39
2	A8	2386	A	N7-C5	-5.10	1.36	1.39
2	A8	2417	C	C2'-C1'	-5.10	1.47	1.53
2	A8	2670	A	C2'-C1'	-5.10	1.47	1.53
36	BA	498	A	O3'-P	-5.10	1.55	1.61
2	A8	837	C	C3'-C2'	-5.10	1.47	1.52
2	A8	2379	G	C2'-C1'	-5.10	1.47	1.53
1	A7	40	U	P-O5'	-5.10	1.54	1.59
1	A7	75	G	C2'-C1'	-5.10	1.47	1.53
2	A8	122	G	P-O5'	-5.10	1.54	1.59
2	A8	543	G	C3'-C2'	-5.10	1.47	1.52
2	A8	2455	G	C2'-C1'	-5.10	1.47	1.53
2	A8	2472	G	C3'-C2'	-5.10	1.47	1.52
36	BA	904	U	C2'-C1'	-5.10	1.47	1.53
2	A8	2065	C	N1-C6	-5.10	1.34	1.37
36	BA	908	A	C2'-C1'	-5.10	1.47	1.53
2	A8	5	A	P-O5'	-5.10	1.54	1.59
2	A8	581	C	P-O5'	-5.10	1.54	1.59
2	A8	1197	G	P-O5'	-5.10	1.54	1.59
2	A8	2171	A	C1'-N9	-5.10	1.39	1.46
2	A8	161	A	C2'-C1'	-5.09	1.47	1.53
2	A8	400	G	C2'-C1'	-5.09	1.47	1.53
2	A8	469	G	N9-C4	-5.09	1.33	1.38
2	A8	522	A	P-O5'	-5.09	1.54	1.59
2	A8	794	A	C2'-C1'	-5.09	1.47	1.53
2	A8	936	A	N7-C5	-5.09	1.36	1.39
2	A8	1241	A	N3-C4	-5.09	1.31	1.34
2	A8	1710	G	N7-C5	-5.09	1.36	1.39
2	A8	2175	C	C4'-O4'	-5.09	1.39	1.45
2	A8	2371	G	C3'-C2'	-5.09	1.47	1.52
2	A8	2425	A	C8-N7	-5.09	1.27	1.31
2	A8	2597	G	O3'-P	-5.09	1.55	1.61
36	BA	474	G	C2'-C1'	-5.09	1.47	1.53
36	BA	1379	G	N7-C5	-5.09	1.36	1.39
2	A8	1162	G	C2'-C1'	-5.09	1.47	1.53
2	A8	457	A	C1'-N9	-5.09	1.39	1.46
2	A8	823	C	C2'-C1'	-5.09	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1187	G	C6-N1	5.09	1.43	1.39
2	A8	1401	G	N7-C5	-5.09	1.36	1.39
2	A8	2595	G	O3'-P	-5.09	1.55	1.61
36	BA	1290	G	C2-N3	5.09	1.36	1.32
36	BA	1361	G	N7-C5	-5.09	1.36	1.39
36	BA	1419	G	C4'-C3'	-5.09	1.47	1.52
2	A8	497	A	N7-C5	-5.09	1.36	1.39
2	A8	735	A	N7-C5	-5.09	1.36	1.39
2	A8	1134	A	N7-C5	-5.09	1.36	1.39
2	A8	1256	G	C2-N3	5.09	1.36	1.32
2	A8	1820	U	P-O5'	-5.09	1.54	1.59
36	BA	731	G	C2'-C1'	-5.09	1.47	1.53
36	BA	760	G	N7-C5	-5.09	1.36	1.39
2	A8	831	G	N9-C4	-5.09	1.33	1.38
1	A7	101	A	N7-C5	-5.09	1.36	1.39
2	A8	449	A	N7-C5	-5.09	1.36	1.39
2	A8	2237	G	O3'-P	-5.09	1.55	1.61
36	BA	1015	G	N9-C4	-5.09	1.33	1.38
2	A8	1235	G	P-O5'	-5.08	1.54	1.59
2	A8	2348	U	C3'-C2'	-5.08	1.47	1.52
36	BA	200	G	N9-C4	-5.08	1.33	1.38
36	BA	996	A	C2'-C1'	-5.08	1.47	1.53
2	A8	209	C	C3'-C2'	-5.08	1.47	1.52
2	A8	2392	A	C8-N7	-5.08	1.27	1.31
2	A8	2482	A	C8-N7	-5.08	1.27	1.31
36	BA	101	A	N7-C5	-5.08	1.36	1.39
1	A7	54	G	C2-N3	5.08	1.36	1.32
2	A8	211	C	C2'-C1'	-5.08	1.47	1.53
2	A8	855	G	P-O5'	-5.08	1.54	1.59
2	A8	1452	G	P-O5'	-5.08	1.54	1.59
2	A8	1478	G	O3'-P	-5.08	1.55	1.61
2	A8	1876	A	N7-C5	-5.08	1.36	1.39
2	A8	2246	G	C2'-C1'	-5.08	1.47	1.53
2	A8	2428	G	C2-N3	5.08	1.36	1.32
36	BA	1201	A	O3'-P	-5.08	1.55	1.61
36	BA	1419	G	O3'-P	-5.08	1.55	1.61
2	A8	1611	C	C4'-O4'	-5.08	1.39	1.45
2	A8	1658	C	P-O5'	-5.08	1.54	1.59
2	A8	516	C	P-O5'	-5.08	1.54	1.59
2	A8	2559	C	P-O5'	-5.08	1.54	1.59
2	A8	2648	G	C2'-C1'	-5.08	1.47	1.53
36	BA	376	G	C2'-C1'	-5.08	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	1322	A	N7-C5	-5.08	1.36	1.39
2	A8	17	G	N7-C5	-5.08	1.36	1.39
2	A8	198	C	C2'-C1'	-5.08	1.47	1.53
2	A8	1011	G	C1'-N9	-5.08	1.39	1.46
2	A8	1099	G	C2-N3	5.08	1.36	1.32
2	A8	1731	G	N7-C5	-5.08	1.36	1.39
36	BA	104	G	P-O5'	-5.08	1.54	1.59
36	BA	563	A	N9-C4	5.08	1.40	1.37
2	A8	36	G	C4'-C3'	-5.07	1.47	1.52
2	A8	281	C	C2'-C1'	-5.07	1.47	1.53
2	A8	427	U	P-O5'	-5.07	1.54	1.59
2	A8	506	G	C2'-C1'	-5.07	1.47	1.53
2	A8	521	U	P-O5'	-5.07	1.54	1.59
2	A8	1145	C	C2'-C1'	-5.07	1.47	1.53
2	A8	1292	G	P-O5'	-5.07	1.54	1.59
36	BA	148	G	C2'-C1'	-5.07	1.47	1.53
36	BA	1130	A	C4'-C3'	-5.07	1.47	1.52
2	A8	921	C	C2'-C1'	-5.07	1.47	1.53
2	A8	2339	C	C2'-C1'	-5.07	1.47	1.53
2	A8	2025	C	C2'-C1'	-5.07	1.47	1.53
36	BA	1094	G	P-O5'	-5.07	1.54	1.59
36	BA	1352	C	C2'-C1'	-5.07	1.47	1.53
2	A8	2673	G	P-O5'	-5.07	1.54	1.59
2	A8	1137	G	P-O5'	-5.07	1.54	1.59
2	A8	2817	U	P-O5'	-5.07	1.54	1.59
2	A8	2858	C	C2'-C1'	-5.07	1.47	1.53
36	BA	274	A	C2'-C1'	-5.07	1.47	1.53
36	BA	669	G	N9-C4	-5.07	1.33	1.38
36	BA	1377	A	N7-C5	-5.07	1.36	1.39
2	A8	742	A	N7-C5	-5.07	1.36	1.39
2	A8	847	U	C4'-C3'	-5.07	1.47	1.52
2	A8	1034	G	C2-N3	5.07	1.36	1.32
2	A8	2381	A	O3'-P	-5.07	1.55	1.61
2	A8	2417	C	P-O5'	-5.07	1.54	1.59
36	BA	1113	C	P-O5'	-5.07	1.54	1.59
36	BA	1241	G	C2-N3	5.07	1.36	1.32
36	BA	1371	G	C3'-C2'	-5.07	1.47	1.52
36	BA	1145	A	N9-C4	-5.06	1.34	1.37
36	BA	1524	C	C2'-C1'	-5.06	1.47	1.53
2	A8	2	G	C2'-C1'	-5.06	1.47	1.53
36	BA	929	G	C2-N3	5.06	1.36	1.32
36	BA	1204	A	N7-C5	-5.06	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A7	68	C	P-O5'	-5.06	1.54	1.59
1	A7	101	A	C2'-C1'	-5.06	1.47	1.53
2	A8	443	A	N7-C5	-5.06	1.36	1.39
2	A8	2044	C	C3'-C2'	-5.06	1.47	1.52
2	A8	2347	C	O3'-P	-5.06	1.55	1.61
2	A8	2412	A	C2'-C1'	-5.06	1.47	1.53
2	A8	2822	G	N7-C5	-5.06	1.36	1.39
36	BA	344	A	C2'-C1'	-5.06	1.47	1.53
36	BA	351	G	N9-C4	5.06	1.42	1.38
36	BA	397	A	N7-C5	-5.06	1.36	1.39
1	A7	80	U	C3'-C2'	-5.06	1.47	1.52
2	A8	228	C	O3'-P	-5.06	1.55	1.61
2	A8	476	G	N9-C4	-5.06	1.33	1.38
36	BA	78	A	N7-C5	-5.06	1.36	1.39
2	A8	913	U	P-O5'	-5.05	1.54	1.59
2	A8	1659	G	C3'-C2'	-5.05	1.47	1.52
2	A8	2600	A	C2'-C1'	-5.05	1.47	1.53
2	A8	2842	G	P-O5'	-5.05	1.54	1.59
36	BA	657	U	P-O5'	-5.05	1.54	1.59
36	BA	1181	G	N1-C2	5.05	1.41	1.37
2	A8	749	A	N3-C4	-5.05	1.31	1.34
36	BA	11	G	N7-C5	-5.05	1.36	1.39
36	BA	656	G	C3'-C2'	-5.05	1.47	1.52
1	A7	58	A	N3-C4	-5.05	1.31	1.34
2	A8	603	A	C2'-C1'	-5.05	1.47	1.53
2	A8	2458	G	O3'-P	-5.05	1.55	1.61
2	A8	2644	G	P-O5'	-5.05	1.54	1.59
36	BA	270	A	C8-N7	-5.05	1.28	1.31
36	BA	458	U	C2'-C1'	-5.05	1.47	1.53
36	BA	505	G	N7-C5	-5.05	1.36	1.39
36	BA	835	U	P-O5'	-5.05	1.54	1.59
1	A7	60	C	P-O5'	-5.05	1.54	1.59
2	A8	613	A	C6-N6	5.05	1.38	1.33
2	A8	625	G	N9-C4	-5.05	1.33	1.38
2	A8	2351	G	O3'-P	-5.05	1.55	1.61
36	BA	827	U	P-O5'	-5.05	1.54	1.59
1	A7	73	A	C8-N7	-5.05	1.28	1.31
2	A8	847	U	C2-N3	5.05	1.41	1.37
2	A8	802	A	C2'-C1'	-5.05	1.47	1.53
2	A8	1727	C	C2'-C1'	-5.05	1.47	1.53
36	BA	951	G	C2'-C1'	-5.05	1.47	1.53
2	A8	575	A	C2'-C1'	-5.04	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	2450	A	C2'-C1'	-5.04	1.47	1.53
1	A7	79	G	N3-C4	-5.04	1.31	1.35
2	A8	735	A	P-O5'	-5.04	1.54	1.59
2	A8	759	G	C2'-C1'	-5.04	1.47	1.53
2	A8	1711	A	C2'-C1'	-5.04	1.47	1.53
36	BA	623	C	C2'-C1'	-5.04	1.47	1.53
36	BA	633	G	P-O5'	-5.04	1.54	1.59
36	BA	821	G	C2-N3	5.04	1.36	1.32
36	BA	1102	A	C4'-O4'	-5.04	1.39	1.45
2	A8	1243	C	C2'-C1'	-5.04	1.47	1.53
2	A8	1966	A	N7-C5	-5.04	1.36	1.39
2	A8	2047	C	C2'-C1'	-5.04	1.47	1.53
2	A8	2141	G	N7-C5	-5.04	1.36	1.39
2	A8	2702	G	P-O5'	-5.04	1.54	1.59
36	BA	541	G	C3'-C2'	-5.04	1.47	1.52
36	BA	705	G	C2'-C1'	-5.04	1.47	1.53
36	BA	1384	C	P-O5'	-5.04	1.54	1.59
2	A8	1681	G	O3'-P	-5.04	1.55	1.61
2	A8	2487	G	N7-C5	-5.04	1.36	1.39
2	A8	2532	G	C2'-C1'	-5.04	1.47	1.53
36	BA	979	C	P-O5'	-5.04	1.54	1.59
1	A7	83	G	N9-C4	-5.04	1.33	1.38
2	A8	894	U	P-O5'	-5.04	1.54	1.59
2	A8	943	A	N7-C5	-5.04	1.36	1.39
2	A8	2103	C	C2'-C1'	-5.04	1.47	1.53
2	A8	2172	U	C2-N3	5.04	1.41	1.37
36	BA	597	G	C3'-C2'	-5.04	1.47	1.52
36	BA	1239	A	N7-C5	-5.04	1.36	1.39
2	A8	12	U	C5'-C4'	5.04	1.57	1.51
2	A8	689	A	N7-C5	-5.04	1.36	1.39
2	A8	780	G	C2'-C1'	-5.04	1.47	1.53
2	A8	857	G	N7-C5	-5.04	1.36	1.39
2	A8	242	G	C4'-C3'	-5.04	1.47	1.52
2	A8	663	G	C2'-C1'	-5.04	1.47	1.53
2	A8	1011	G	C4'-O4'	-5.04	1.39	1.45
2	A8	1687	G	N1-C2	5.04	1.41	1.37
2	A8	1904	G	C2'-C1'	-5.04	1.47	1.53
2	A8	2437	G	C2'-C1'	-5.04	1.47	1.53
36	BA	976	G	C2-N3	5.04	1.36	1.32
36	BA	1227	A	N7-C5	-5.04	1.36	1.39
1	A7	118	C	P-O5'	-5.03	1.54	1.59
2	A8	288	U	C2'-C1'	-5.03	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	599	A	N7-C5	-5.03	1.36	1.39
2	A8	631	A	N7-C5	-5.03	1.36	1.39
2	A8	2567	G	C2-N3	5.03	1.36	1.32
2	A8	2622	U	P-O5'	-5.03	1.54	1.59
2	A8	2729	G	C2-N3	5.03	1.36	1.32
36	BA	517	G	O3'-P	-5.03	1.55	1.61
36	BA	1252	A	N7-C5	-5.03	1.36	1.39
2	A8	733	G	P-O5'	-5.03	1.54	1.59
2	A8	878	A	C2'-C1'	-5.03	1.47	1.53
36	BA	1392	G	C2-N3	5.03	1.36	1.32
2	A8	713	G	C2'-C1'	-5.03	1.47	1.53
2	A8	1723	G	C2'-C1'	-5.03	1.47	1.53
2	A8	1953	A	C2'-C1'	-5.03	1.47	1.53
2	A8	2665	A	C6-N1	5.03	1.39	1.35
2	A8	2772	C	C2'-C1'	-5.03	1.47	1.53
36	BA	1215	G	C2-N3	5.03	1.36	1.32
36	BA	1468	A	C8-N7	-5.03	1.28	1.31
1	A7	82	U	O3'-P	-5.03	1.55	1.61
2	A8	639	U	O3'-P	-5.03	1.55	1.61
2	A8	721	A	P-O5'	-5.03	1.54	1.59
2	A8	1712	U	O3'-P	-5.03	1.55	1.61
2	A8	1903	G	N1-C2	5.03	1.41	1.37
2	A8	2534	A	C2'-C1'	-5.03	1.47	1.53
36	BA	61	G	C4'-C3'	-5.03	1.47	1.52
36	BA	100	G	O3'-P	-5.03	1.55	1.61
36	BA	204	G	C2-N3	5.03	1.36	1.32
1	A7	108	A	N7-C5	-5.03	1.36	1.39
2	A8	204	A	C4'-O4'	-5.03	1.39	1.45
2	A8	678	C	P-O5'	-5.03	1.54	1.59
2	A8	1896	G	C2-N3	5.03	1.36	1.32
2	A8	1908	C	P-O5'	-5.03	1.54	1.59
2	A8	2176	A	N7-C5	-5.03	1.36	1.39
2	A8	2550	G	C2'-C1'	-5.03	1.47	1.53
2	A8	2883	A	O3'-P	-5.03	1.55	1.61
2	A8	2894	G	N7-C5	-5.03	1.36	1.39
36	BA	869	G	O3'-P	-5.03	1.55	1.61
2	A8	227	A	N7-C5	-5.02	1.36	1.39
2	A8	579	G	C2'-C1'	-5.02	1.47	1.53
2	A8	704	G	P-O5'	-5.02	1.54	1.59
2	A8	1252	G	N7-C5	-5.02	1.36	1.39
1	A7	27	C	C2'-C1'	-5.02	1.47	1.53
1	A7	51	G	C2'-C1'	-5.02	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A8	420	C	O3'-P	-5.02	1.55	1.61
2	A8	654	A	N7-C5	-5.02	1.36	1.39
2	A8	707	G	P-O5'	-5.02	1.54	1.59
2	A8	1398	C	P-O5'	-5.02	1.54	1.59
2	A8	1464	G	N7-C5	-5.02	1.36	1.39
2	A8	1697	G	O3'-P	-5.02	1.55	1.61
36	BA	617	G	P-O5'	-5.02	1.54	1.59
36	BA	1151	A	O3'-P	-5.02	1.55	1.61
36	BA	1201	A	C6-N6	5.02	1.38	1.33
36	BA	1238	A	C2'-C1'	-5.02	1.47	1.53
2	A8	695	G	N7-C5	-5.02	1.36	1.39
2	A8	2080	A	N7-C5	-5.02	1.36	1.39
2	A8	9	G	N7-C5	-5.02	1.36	1.39
2	A8	581	C	C2'-C1'	-5.02	1.47	1.53
2	A8	665	U	C2'-C1'	-5.02	1.47	1.53
2	A8	861	A	P-O5'	-5.02	1.54	1.59
2	A8	1403	A	C2'-C1'	-5.02	1.47	1.53
2	A8	2412	A	C6-N6	5.02	1.38	1.33
2	A8	2428	G	N1-C2	5.02	1.41	1.37
36	BA	1110	A	P-O5'	-5.02	1.54	1.59
36	BA	1508	A	C2'-C1'	-5.02	1.47	1.53
2	A8	1232	G	N7-C5	-5.02	1.36	1.39
2	A8	1739	A	C8-N7	-5.02	1.28	1.31
2	A8	2033	A	C5'-C4'	5.02	1.57	1.51
2	A8	2222	C	C3'-C2'	-5.02	1.47	1.52
2	A8	2806	C	C2'-C1'	-5.02	1.47	1.53
36	BA	1201	A	N9-C4	5.02	1.40	1.37
2	A8	818	G	C6-N1	5.02	1.43	1.39
2	A8	1310	G	C8-N7	-5.02	1.27	1.30
2	A8	2297	A	C2'-C1'	-5.02	1.47	1.53
2	A8	2425	A	P-O5'	-5.02	1.54	1.59
2	A8	2481	G	N7-C5	-5.02	1.36	1.39
2	A8	2741	A	C8-N7	-5.02	1.28	1.31
36	BA	935	A	C2'-C1'	-5.02	1.47	1.53
2	A8	127	A	N7-C5	-5.01	1.36	1.39
2	A8	263	G	P-O5'	-5.01	1.54	1.59
2	A8	1174	U	O3'-P	-5.01	1.55	1.61
2	A8	1264	A	C2'-C1'	-5.01	1.47	1.53
2	A8	1476	U	O3'-P	-5.01	1.55	1.61
2	A8	1645	G	C2-N3	5.01	1.36	1.32
2	A8	60	G	C2'-C1'	-5.01	1.47	1.53
2	A8	1311	G	C2-N3	5.01	1.36	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	925	G	C3'-C2'	-5.01	1.47	1.52
2	A8	37	C	P-O5'	-5.01	1.54	1.59
2	A8	2598	A	C8-N7	-5.01	1.28	1.31
2	A8	2686	G	N7-C5	-5.01	1.36	1.39
36	BA	118	U	P-O5'	-5.01	1.54	1.59
36	BA	572	A	O3'-P	-5.01	1.55	1.61
2	A8	1256	G	N9-C4	5.01	1.42	1.38
36	BA	263	A	C8-N7	-5.01	1.28	1.31
36	BA	895	G	C2'-C1'	-5.01	1.47	1.53
36	BA	1111	A	P-O5'	-5.01	1.54	1.59
36	BA	1346	A	O3'-P	-5.01	1.55	1.61
1	A7	8	C	C2'-C1'	-5.01	1.47	1.53
2	A8	1269	A	N9-C4	-5.01	1.34	1.37
2	A8	2708	G	P-O5'	-5.01	1.54	1.59
2	A8	266	G	C5-C6	-5.01	1.37	1.42
2	A8	1269	A	C2'-C1'	-5.01	1.47	1.53
2	A8	1721	G	N9-C4	-5.01	1.33	1.38
2	A8	1776	G	C2'-C1'	-5.01	1.47	1.53
2	A8	1828	G	C2'-C1'	-5.01	1.47	1.53
2	A8	2171	A	N7-C5	-5.01	1.36	1.39
36	BA	181	A	P-O5'	-5.01	1.54	1.59
36	BA	433	G	P-O5'	-5.01	1.54	1.59
2	A8	1427	A	N7-C5	-5.00	1.36	1.39
2	A8	2736	A	P-O5'	-5.00	1.54	1.59
1	A7	98	G	C2'-C1'	-5.00	1.47	1.53
2	A8	125	A	C2'-C1'	-5.00	1.47	1.53
2	A8	631	A	C2'-C1'	-5.00	1.47	1.53
2	A8	751	A	C2'-C1'	-5.00	1.47	1.53
2	A8	834	G	N7-C5	-5.00	1.36	1.39
2	A8	1087	G	C2'-C1'	-5.00	1.47	1.53
2	A8	1163	G	C2'-C1'	-5.00	1.47	1.53
2	A8	1204	A	C4'-O4'	-5.00	1.39	1.45
2	A8	1291	C	P-O5'	-5.00	1.54	1.59
2	A8	1516	G	C2'-C1'	-5.00	1.47	1.53
2	A8	1863	G	C2'-C1'	-5.00	1.47	1.53
2	A8	2221	G	N7-C5	-5.00	1.36	1.39
36	BA	404	G	C2'-C1'	-5.00	1.47	1.53
36	BA	1242	G	N7-C5	-5.00	1.36	1.39
36	BA	1277	C	P-O5'	-5.00	1.54	1.59
2	A8	779	U	C2'-C1'	-5.00	1.47	1.53
36	BA	176	C	C2'-C1'	-5.00	1.47	1.53
36	BA	699	C	P-O5'	-5.00	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BA	752	G	O3'-P	-5.00	1.55	1.61
36	BA	973	G	C2-N3	5.00	1.36	1.32
36	BA	1102	A	C4'-C3'	-5.00	1.47	1.52
36	BA	1488	G	C3'-C2'	-5.00	1.47	1.52

All (16443) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1723	G	C5-C6-O6	-25.05	113.57	128.60
2	A8	2471	A	O4'-C1'-N9	24.02	127.42	108.20
2	A8	1723	G	N1-C6-O6	23.04	133.72	119.90
2	A8	2468	A	O4'-C1'-N9	21.60	125.48	108.20
2	A8	198	C	C6-N1-C2	-21.54	111.68	120.30
2	A8	2810	A	N1-C6-N6	21.37	131.42	118.60
36	BA	49	U	P-O3'-C3'	21.12	145.05	119.70
2	A8	1495	A	N1-C6-N6	20.11	130.67	118.60
36	BA	151	A	N1-C6-N6	20.02	130.62	118.60
2	A8	1275	A	P-O3'-C3'	19.99	143.68	119.70
2	A8	1936	A	N1-C6-N6	19.88	130.53	118.60
36	BA	1398	A	N1-C6-N6	19.66	130.39	118.60
2	A8	2042	A	P-O3'-C3'	19.53	143.13	119.70
2	A8	1580	A	N1-C6-N6	18.93	129.96	118.60
2	A8	1522	A	N1-C6-N6	18.90	129.94	118.60
36	BA	499	A	N1-C6-N6	18.87	129.92	118.60
2	A8	1552	A	N1-C6-N6	18.85	129.91	118.60
2	A8	1535	A	N1-C6-N6	18.79	129.87	118.60
2	A8	2198	A	N1-C6-N6	18.73	129.84	118.60
2	A8	761	A	N1-C6-N6	18.72	129.83	118.60
2	A8	670	A	P-O3'-C3'	18.70	142.14	119.70
2	A8	2042	A	N1-C6-N6	18.56	129.74	118.60
2	A8	1408	G	C5-C6-O6	-18.56	117.46	128.60
2	A8	207	A	N1-C6-N6	18.54	129.72	118.60
1	A7	66	A	N1-C6-N6	18.45	129.67	118.60
2	A8	1572	A	N1-C6-N6	18.45	129.67	118.60
2	A8	1717	A	N1-C6-N6	18.40	129.64	118.60
2	A8	1918	A	N1-C6-N6	18.37	129.62	118.60
2	A8	1614	A	N1-C6-N6	18.28	129.57	118.60
2	A8	13	A	N1-C6-N6	18.11	129.47	118.60
36	BA	517	G	N1-C6-O6	18.07	130.74	119.90
1	A7	78	A	N1-C6-N6	18.04	129.42	118.60
2	A8	1408	G	N1-C6-O6	17.83	130.60	119.90
2	A8	1419	A	N1-C6-N6	17.81	129.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1029	A	N1-C6-N6	17.74	129.25	118.60
2	A8	513	A	N1-C6-N6	17.50	129.10	118.60
2	A8	1477	A	N1-C6-N6	17.49	129.10	118.60
2	A8	1889	A	N1-C6-N6	17.49	129.09	118.60
36	BA	780	A	N1-C6-N6	17.48	129.09	118.60
36	BA	892	A	N1-C6-N6	17.48	129.09	118.60
2	A8	460	A	N1-C6-N6	17.46	129.08	118.60
2	A8	861	A	N1-C6-N6	17.43	129.06	118.60
2	A8	706	A	N1-C6-N6	17.36	129.02	118.60
2	A8	1699	G	O4'-C1'-N9	17.31	122.05	108.20
36	BA	60	A	P-O3'-C3'	17.28	140.44	119.70
2	A8	241	A	N1-C6-N6	17.28	128.97	118.60
2	A8	44	A	N1-C6-N6	17.26	128.95	118.60
2	A8	2082	A	N1-C6-N6	17.24	128.94	118.60
2	A8	1189	A	N1-C6-N6	17.23	128.94	118.60
2	A8	190	A	N1-C6-N6	17.23	128.94	118.60
2	A8	2418	A	N1-C6-N6	17.22	128.93	118.60
2	A8	1373	A	N1-C6-N6	17.16	128.90	118.60
2	A8	2051	A	N1-C6-N6	17.10	128.86	118.60
36	BA	539	A	N1-C6-N6	17.02	128.81	118.60
36	BA	288	A	N1-C6-N6	17.01	128.81	118.60
36	BA	1483	A	N1-C6-N6	16.96	128.78	118.60
2	A8	2609	U	P-O3'-C3'	16.95	140.04	119.70
36	BA	1324	A	N1-C6-N6	16.95	128.77	118.60
2	A8	818	G	N1-C6-O6	16.92	130.05	119.90
2	A8	1701	A	N1-C6-N6	16.90	128.74	118.60
2	A8	728	G	P-O3'-C3'	16.88	139.95	119.70
2	A8	2077	A	N1-C6-N6	16.87	128.72	118.60
2	A8	1866	A	N1-C6-N6	16.85	128.71	118.60
2	A8	2405	G	P-O3'-C3'	16.82	139.88	119.70
36	BA	270	A	N1-C6-N6	16.80	128.68	118.60
2	A8	266	G	C5-C6-O6	-16.77	118.54	128.60
36	BA	889	A	N1-C6-N6	16.70	128.62	118.60
2	A8	1608	A	N1-C6-N6	16.68	128.61	118.60
2	A8	167	A	N1-C6-N6	16.67	128.60	118.60
1	A7	15	A	O4'-C1'-N9	16.66	121.53	108.20
36	BA	612	C	C6-N1-C2	-16.66	113.64	120.30
36	BA	517	G	C5-C6-O6	-16.66	118.61	128.60
2	A8	2873	A	N1-C6-N6	16.59	128.55	118.60
2	A8	1927	A	N1-C6-N6	16.57	128.54	118.60
2	A8	1147	A	N1-C6-N6	16.56	128.53	118.60
2	A8	1103	A	N1-C6-N6	16.53	128.52	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1503	A	N1-C6-N6	16.52	128.51	118.60
2	A8	917	A	N1-C6-N6	16.51	128.51	118.60
2	A8	1665	A	N1-C6-N6	16.48	128.49	118.60
2	A8	1586	A	N1-C6-N6	16.48	128.49	118.60
2	A8	1321	A	N1-C6-N6	16.45	128.47	118.60
2	A8	2662	A	N1-C6-N6	16.45	128.47	118.60
2	A8	505	A	N1-C6-N6	16.42	128.45	118.60
2	A8	1787	A	N1-C6-N6	16.33	128.40	118.60
36	BA	1201	A	P-O3'-C3'	16.33	139.29	119.70
2	A8	266	G	N1-C6-O6	16.32	129.69	119.90
2	A8	2879	A	N1-C6-N6	16.29	128.38	118.60
2	A8	84	A	N1-C6-N6	16.28	128.37	118.60
2	A8	879	G	C5-C6-O6	-16.27	118.84	128.60
2	A8	1700	A	N1-C6-N6	16.24	128.34	118.60
2	A8	1155	A	N1-C6-N6	16.22	128.33	118.60
2	A8	488	G	P-O3'-C3'	16.19	139.12	119.70
2	A8	1359	A	N1-C6-N6	16.18	128.31	118.60
2	A8	1502	A	N1-C6-N6	16.17	128.30	118.60
2	A8	1803	A	N1-C6-N6	16.13	128.28	118.60
2	A8	492	A	N1-C6-N6	16.12	128.27	118.60
2	A8	752	A	O4'-C1'-N9	16.09	121.07	108.20
2	A8	1890	A	N1-C6-N6	16.09	128.25	118.60
36	BA	1418	A	N1-C6-N6	16.06	128.24	118.60
2	A8	1353	A	N1-C6-N6	16.05	128.23	118.60
2	A8	2283	C	P-O5'-C5'	16.05	146.58	120.90
2	A8	195	A	N1-C6-N6	16.02	128.21	118.60
2	A8	1899	A	N1-C6-N6	15.99	128.19	118.60
2	A8	2675	A	N1-C6-N6	15.95	128.17	118.60
2	A8	1626	A	N1-C6-N6	15.94	128.17	118.60
2	A8	626	A	N1-C6-N6	15.94	128.16	118.60
36	BA	171	A	N1-C6-N6	15.94	128.16	118.60
2	A8	255	A	N1-C6-N6	15.93	128.16	118.60
2	A8	526	A	N1-C6-N6	15.92	128.15	118.60
36	BA	814	A	N1-C6-N6	15.91	128.15	118.60
2	A8	1496	A	N1-C6-N6	15.90	128.14	118.60
2	A8	1791	A	N1-C6-N6	15.89	128.13	118.60
2	A8	1378	A	N1-C6-N6	15.87	128.12	118.60
2	A8	1187	G	N1-C6-O6	15.82	129.39	119.90
2	A8	1090	A	N1-C6-N6	15.81	128.09	118.60
2	A8	1858	A	N1-C6-N6	15.81	128.09	118.60
2	A8	2598	A	N1-C6-N6	15.79	128.07	118.60
2	A8	637	A	N1-C6-N6	15.78	128.07	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	984	A	P-O5'-C5'	15.75	146.10	120.90
2	A8	2412	A	N1-C6-N6	15.74	128.05	118.60
2	A8	2434	A	N1-C6-N6	15.74	128.04	118.60
36	BA	1065	U	P-O3'-C3'	15.73	138.57	119.70
2	A8	2178	C	O4'-C1'-N1	15.72	120.78	108.20
2	A8	2469	A	N1-C6-N6	15.72	128.03	118.60
36	BA	190	A	N1-C6-N6	15.70	128.02	118.60
2	A8	332	A	N1-C6-N6	15.66	128.00	118.60
2	A8	503	A	N1-C6-N6	15.66	127.99	118.60
2	A8	1008	A	N1-C6-N6	15.65	127.99	118.60
2	A8	2378	A	N1-C6-N6	15.65	127.99	118.60
36	BA	468	A	N1-C6-N6	15.62	127.97	118.60
2	A8	52	A	N1-C6-N6	15.61	127.97	118.60
2	A8	1810	A	N1-C6-N6	15.61	127.97	118.60
2	A8	514	A	N1-C6-N6	15.60	127.96	118.60
2	A8	515	A	N1-C6-N6	15.60	127.96	118.60
2	A8	2352	A	N1-C6-N6	15.56	127.94	118.60
2	A8	1969	A	N1-C6-N6	15.55	127.93	118.60
2	A8	2054	A	N1-C6-N6	15.55	127.93	118.60
36	BA	1044	A	N1-C6-N6	15.54	127.93	118.60
2	A8	5	A	N1-C6-N6	15.51	127.91	118.60
2	A8	2740	A	N1-C6-N6	15.49	127.89	118.60
36	BA	1434	A	N1-C6-N6	15.48	127.89	118.60
2	A8	2726	A	N1-C6-N6	15.46	127.88	118.60
2	A8	265	A	N1-C6-N6	15.45	127.87	118.60
2	A8	1654	A	N1-C6-N6	15.45	127.87	118.60
2	A8	877	A	N1-C6-N6	15.44	127.86	118.60
2	A8	2135	A	N1-C6-N6	15.44	127.86	118.60
2	A8	879	G	N1-C6-O6	15.41	129.15	119.90
2	A8	1001	A	N1-C6-N6	15.40	127.84	118.60
2	A8	227	A	N1-C6-N6	15.39	127.84	118.60
2	A8	609	A	N1-C6-N6	15.37	127.82	118.60
36	BA	258	G	N1-C6-O6	15.35	129.11	119.90
2	A8	1010	A	N1-C6-N6	15.35	127.81	118.60
2	A8	1677	A	N1-C6-N6	15.34	127.81	118.60
2	A8	914	G	N1-C6-O6	15.33	129.10	119.90
36	BA	1319	A	N1-C6-N6	15.32	127.79	118.60
2	A8	1544	A	N1-C6-N6	15.28	127.77	118.60
2	A8	466	A	N1-C6-N6	15.28	127.77	118.60
36	BA	162	A	N1-C6-N6	15.27	127.76	118.60
2	A8	925	A	N1-C6-N6	15.27	127.76	118.60
36	BA	747	A	N1-C6-N6	15.23	127.74	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	53	A	N1-C6-N6	15.21	127.73	118.60
2	A8	2199	A	N1-C6-N6	15.19	127.71	118.60
1	A7	59	A	N1-C6-N6	15.16	127.69	118.60
2	A8	480	A	N1-C6-N6	15.14	127.69	118.60
2	A8	2448	A	P-O3'-C3'	15.14	137.87	119.70
2	A8	1515	A	N1-C6-N6	15.14	127.68	118.60
2	A8	19	A	N1-C6-N6	15.13	127.68	118.60
36	BA	383	A	N1-C6-N6	15.14	127.68	118.60
2	A8	53	A	N1-C6-N6	15.13	127.68	118.60
2	A8	1549	A	N1-C6-N6	15.12	127.67	118.60
2	A8	1439	A	N1-C6-N6	15.12	127.67	118.60
2	A8	1126	A	N1-C6-N6	15.12	127.67	118.60
2	A8	739	A	N1-C6-N6	15.11	127.66	118.60
2	A8	2738	A	N1-C6-N6	15.10	127.66	118.60
36	BA	681	A	N1-C6-N6	15.10	127.66	118.60
2	A8	21	A	N1-C6-N6	15.08	127.65	118.60
36	BA	1502	A	N1-C6-N6	15.08	127.65	118.60
36	BA	959	A	N1-C6-N6	15.06	127.64	118.60
36	BA	382	A	N1-C6-N6	15.04	127.62	118.60
2	A8	2430	A	N1-C6-N6	15.04	127.62	118.60
2	A8	56	A	N1-C6-N6	15.03	127.62	118.60
2	A8	2478	A	N1-C6-N6	15.03	127.62	118.60
2	A8	2826	A	N1-C6-N6	15.01	127.61	118.60
2	A8	705	A	N1-C6-N6	15.01	127.61	118.60
2	A8	1367	A	N1-C6-N6	15.01	127.61	118.60
2	A8	279	A	N1-C6-N6	14.99	127.60	118.60
36	BA	994	A	N1-C6-N6	14.99	127.59	118.60
2	A8	1144	A	N1-C6-N6	14.98	127.59	118.60
36	BA	1000	A	N1-C6-N6	14.95	127.57	118.60
2	A8	1194	A	N1-C6-N6	14.93	127.56	118.60
2	A8	447	A	C8-N9-C4	-14.93	99.83	105.80
2	A8	1354	A	N1-C6-N6	14.92	127.55	118.60
2	A8	1470	A	N1-C6-N6	14.91	127.55	118.60
2	A8	2013	A	N1-C6-N6	14.90	127.54	118.60
2	A8	1275	A	N1-C6-N6	14.88	127.53	118.60
2	A8	1073	A	N1-C6-N6	14.87	127.52	118.60
36	BA	909	A	N1-C6-N6	14.87	127.52	118.60
2	A8	282	A	N1-C6-N6	14.85	127.51	118.60
2	A8	704	G	O4'-C1'-N9	14.85	120.08	108.20
2	A8	172	A	N1-C6-N6	14.84	127.50	118.60
2	A8	2392	A	N1-C6-N6	14.82	127.49	118.60
2	A8	191	A	N1-C6-N6	14.82	127.49	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	654	A	N1-C6-N6	14.80	127.48	118.60
2	A8	1571	A	N1-C6-N6	14.79	127.47	118.60
2	A8	1872	A	N1-C6-N6	14.79	127.47	118.60
2	A8	733	G	N1-C6-O6	14.78	128.77	119.90
2	A8	361	G	C5-C6-O6	-14.77	119.74	128.60
36	BA	199	A	N1-C6-N6	14.76	127.46	118.60
36	BA	523	A	N1-C6-N6	14.76	127.46	118.60
2	A8	2883	A	N1-C6-N6	14.72	127.43	118.60
2	A8	244	A	N1-C6-N6	14.72	127.43	118.60
2	A8	2076	U	P-O3'-C3'	14.71	137.35	119.70
2	A8	2750	A	N1-C6-N6	14.71	127.42	118.60
36	BA	937	A	N1-C6-N6	14.70	127.42	118.60
2	A8	231	A	N1-C6-N6	14.69	127.42	118.60
2	A8	890	C	P-O3'-C3'	14.69	137.33	119.70
2	A8	1548	A	N1-C6-N6	14.69	127.41	118.60
36	BA	851	G	N1-C6-O6	14.68	128.71	119.90
2	A8	449	A	N1-C6-N6	14.68	127.41	118.60
36	BA	964	A	N1-C6-N6	14.67	127.40	118.60
2	A8	176	A	N1-C6-N6	14.65	127.39	118.60
36	BA	161	A	N1-C6-N6	14.65	127.39	118.60
2	A8	1077	A	N1-C6-N6	14.62	127.38	118.60
2	A8	1689	A	N1-C6-N6	14.62	127.37	118.60
2	A8	2015	A	N1-C6-N6	14.60	127.36	118.60
2	A8	1545	A	N1-C6-N6	14.60	127.36	118.60
2	A8	538	A	N1-C6-N6	14.60	127.36	118.60
2	A8	1213	A	N1-C6-N6	14.58	127.35	118.60
2	A8	2850	A	N1-C6-N6	14.58	127.35	118.60
36	BA	1457	G	C8-N9-C4	-14.58	100.57	106.40
2	A8	632	A	N1-C6-N6	14.57	127.34	118.60
2	A8	655	A	N1-C6-N6	14.57	127.34	118.60
2	A8	2101	A	N1-C6-N6	14.56	127.34	118.60
2	A8	522	A	N1-C6-N6	14.55	127.33	118.60
36	BA	1280	A	N1-C6-N6	14.54	127.33	118.60
2	A8	2032	G	N1-C6-O6	14.53	128.62	119.90
2	A8	556	A	N1-C6-N6	14.52	127.31	118.60
2	A8	742	A	N1-C6-N6	14.52	127.31	118.60
2	A8	2899	A	N1-C6-N6	14.51	127.31	118.60
2	A8	2266	A	N1-C6-N6	14.50	127.30	118.60
2	A8	1579	A	N1-C6-N6	14.50	127.30	118.60
2	A8	627	A	N1-C6-N6	14.47	127.28	118.60
2	A8	49	A	N1-C6-N6	14.47	127.28	118.60
2	A8	1829	A	N1-C6-N6	14.47	127.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	851	G	C5-C6-O6	-14.45	119.93	128.60
1	A7	99	A	N1-C6-N6	14.44	127.26	118.60
2	A8	371	A	N1-C6-N6	14.44	127.26	118.60
2	A8	2639	A	N1-C6-N6	14.44	127.26	118.60
2	A8	1365	A	N1-C6-N6	14.43	127.26	118.60
36	BA	8	A	N1-C6-N6	14.42	127.25	118.60
36	BA	1287	A	N1-C6-N6	14.41	127.24	118.60
2	A8	10	A	N1-C6-N6	14.40	127.24	118.60
2	A8	1609	A	N1-C6-N6	14.40	127.24	118.60
2	A8	1021	A	N1-C6-N6	14.38	127.23	118.60
2	A8	1187	G	C5-C6-O6	-14.38	119.97	128.60
2	A8	1853	A	N1-C6-N6	14.37	127.22	118.60
1	A7	104	A	N1-C6-N6	14.36	127.22	118.60
2	A8	1127	A	N1-C6-N6	14.35	127.21	118.60
2	A8	1504	A	N1-C6-N6	14.35	127.21	118.60
2	A8	1028	A	N1-C6-N6	14.35	127.21	118.60
2	A8	127	A	N1-C6-N6	14.34	127.20	118.60
36	BA	1519	A	N1-C6-N6	14.31	127.18	118.60
2	A8	1237	A	N1-C6-N6	14.29	127.18	118.60
36	BA	695	A	N1-C6-N6	14.28	127.17	118.60
2	A8	1815	A	N1-C6-N6	14.28	127.17	118.60
2	A8	28	A	N1-C6-N6	14.25	127.15	118.60
2	A8	2734	A	N1-C6-N6	14.25	127.15	118.60
2	A8	2763	G	P-O3'-C3'	14.25	136.80	119.70
36	BA	448	A	N1-C6-N6	14.24	127.14	118.60
2	A8	1953	A	N1-C6-N6	14.24	127.14	118.60
36	BA	1080	A	N1-C6-N6	14.23	127.14	118.60
36	BA	923	A	N1-C6-N6	14.22	127.13	118.60
2	A8	1263	U	P-O3'-C3'	14.22	136.76	119.70
2	A8	1253	A	N1-C6-N6	14.21	127.13	118.60
36	BA	728	A	N1-C6-N6	14.20	127.12	118.60
36	BA	1448	C	O4'-C1'-N1	14.20	119.56	108.20
2	A8	1705	A	N1-C6-N6	14.19	127.11	118.60
2	A8	1871	A	N1-C6-N6	14.18	127.11	118.60
2	A8	1151	A	N1-C6-N6	14.17	127.10	118.60
2	A8	1690	A	N1-C6-N6	14.15	127.09	118.60
2	A8	1387	A	N1-C6-N6	14.15	127.09	118.60
2	A8	2665	A	N1-C6-N6	14.15	127.09	118.60
2	A8	502	A	N1-C6-N6	14.14	127.08	118.60
2	A8	2097	A	N1-C6-N6	14.13	127.08	118.60
2	A8	2534	A	N1-C6-N6	14.12	127.07	118.60
2	A8	914	G	C5-C6-O6	-14.11	120.13	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1652	A	O5'-P-OP2	-14.11	93.00	105.70
36	BA	1252	A	N1-C6-N6	14.09	127.06	118.60
36	BA	117	G	N1-C6-O6	14.09	128.35	119.90
2	A8	2565	A	N1-C6-N6	14.08	127.05	118.60
36	BA	1251	A	N1-C6-N6	14.08	127.05	118.60
36	BA	860	A	N1-C6-N6	14.07	127.04	118.60
2	A8	2741	A	N1-C6-N6	14.07	127.04	118.60
2	A8	1715	G	O4'-C1'-N9	14.06	119.45	108.20
36	BA	16	A	N1-C6-N6	14.06	127.03	118.60
2	A8	330	A	N1-C6-N6	14.06	127.03	118.60
36	BA	246	A	P-O3'-C3'	14.05	136.57	119.70
2	A8	2433	A	N1-C6-N6	14.05	127.03	118.60
1	A7	53	A	N1-C6-N6	14.04	127.02	118.60
36	BA	892	A	C5-C6-N6	-14.04	112.47	123.70
2	A8	2736	A	N1-C6-N6	14.03	127.02	118.60
2	A8	2868	A	N1-C6-N6	14.03	127.02	118.60
2	A8	2530	A	N1-C6-N6	14.02	127.01	118.60
2	A8	916	G	N9-C4-C5	-14.02	99.79	105.40
2	A8	716	A	N1-C6-N6	14.01	127.01	118.60
2	A8	2518	A	N1-C6-N6	13.98	126.99	118.60
2	A8	2377	A	N1-C6-N6	13.98	126.99	118.60
2	A8	2632	A	N1-C6-N6	13.97	126.98	118.60
1	A7	57	A	N1-C6-N6	13.96	126.97	118.60
2	A8	152	A	N1-C6-N6	13.96	126.97	118.60
2	A8	322	A	N1-C6-N6	13.96	126.97	118.60
2	A8	616	A	N1-C6-N6	13.95	126.97	118.60
2	A8	1618	A	N1-C6-N6	13.95	126.97	118.60
2	A8	2721	A	N1-C6-N6	13.94	126.97	118.60
2	A8	1635	A	N1-C6-N6	13.93	126.96	118.60
2	A8	1027	A	N1-C6-N6	13.92	126.95	118.60
2	A8	146	A	N1-C6-N6	13.91	126.95	118.60
2	A8	947	A	N1-C6-N6	13.91	126.95	118.60
2	A8	453	A	N1-C6-N6	13.91	126.94	118.60
2	A8	2504	U	P-O3'-C3'	13.90	136.38	119.70
36	BA	983	A	N1-C6-N6	13.90	126.94	118.60
2	A8	1928	A	N1-C6-N6	13.90	126.94	118.60
36	BA	109	A	N1-C6-N6	13.89	126.93	118.60
2	A8	1366	A	N1-C6-N6	13.89	126.93	118.60
2	A8	1603	A	N1-C6-N6	13.88	126.93	118.60
36	BA	151	A	C5-C6-N6	-13.88	112.59	123.70
2	A8	704	G	C4-N9-C1'	-13.88	108.46	126.50
36	BA	155	A	N1-C6-N6	13.88	126.93	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1226	A	N1-C6-N6	13.88	126.93	118.60
36	BA	907	A	N1-C6-N6	13.88	126.93	118.60
36	BA	258	G	C5-C6-O6	-13.87	120.28	128.60
36	BA	189	A	N1-C6-N6	13.87	126.92	118.60
1	A7	86	G	N1-C6-O6	13.87	128.22	119.90
36	BA	300	A	N1-C6-N6	13.87	126.92	118.60
36	BA	1437	A	N1-C6-N6	13.87	126.92	118.60
2	A8	905	A	N1-C6-N6	13.86	126.92	118.60
36	BA	1275	A	N1-C6-N6	13.87	126.92	118.60
36	BA	675	A	N1-C6-N6	13.86	126.91	118.60
36	BA	1349	A	N1-C6-N6	13.86	126.91	118.60
36	BA	1448	C	P-O5'-C5'	13.86	143.07	120.90
2	A8	1142	A	N1-C6-N6	13.85	126.91	118.60
2	A8	1322	A	N1-C6-N6	13.85	126.91	118.60
2	A8	203	A	N1-C6-N6	13.85	126.91	118.60
2	A8	1304	A	N1-C6-N6	13.85	126.91	118.60
36	BA	397	A	N1-C6-N6	13.84	126.90	118.60
36	BA	807	A	N1-C6-N6	13.84	126.90	118.60
36	BA	974	A	N1-C6-N6	13.83	126.90	118.60
2	A8	64	A	N1-C6-N6	13.83	126.90	118.60
2	A8	1522	A	C5-C6-N6	-13.82	112.64	123.70
2	A8	2274	A	N1-C6-N6	13.82	126.89	118.60
36	BA	1431	A	N1-C6-N6	13.81	126.88	118.60
2	A8	1262	A	N1-C6-N6	13.81	126.88	118.60
2	A8	2886	A	N1-C6-N6	13.81	126.88	118.60
36	BA	559	A	N1-C6-N6	13.80	126.88	118.60
36	BA	1022	A	N1-C6-N6	13.79	126.88	118.60
2	A8	472	A	N1-C6-N6	13.79	126.87	118.60
2	A8	2005	A	N1-C6-N6	13.79	126.87	118.60
2	A8	1713	A	N1-C6-N6	13.79	126.87	118.60
2	A8	2660	A	N1-C6-N6	13.78	126.87	118.60
36	BA	1360	A	N1-C6-N6	13.78	126.87	118.60
1	A7	101	A	N1-C6-N6	13.78	126.87	118.60
2	A8	1650	A	N1-C6-N6	13.78	126.87	118.60
2	A8	2009	A	N1-C6-N6	13.78	126.87	118.60
36	BA	781	A	N1-C6-N6	13.78	126.87	118.60
2	A8	1528	A	N1-C6-N6	13.77	126.86	118.60
2	A8	348	A	N1-C6-N6	13.77	126.86	118.60
2	A8	1347	A	N1-C6-N6	13.77	126.86	118.60
36	BA	327	A	N1-C6-N6	13.75	126.85	118.60
2	A8	1809	A	N1-C6-N6	13.75	126.85	118.60
2	A8	2170	A	N1-C6-N6	13.74	126.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	270	A	N1-C6-N6	13.74	126.84	118.60
36	BA	595	A	N1-C6-N6	13.74	126.84	118.60
2	A8	2298	A	N1-C6-N6	13.73	126.84	118.60
2	A8	1773	A	N1-C6-N6	13.72	126.83	118.60
2	A8	752	A	N1-C6-N6	13.71	126.83	118.60
2	A8	863	A	N1-C6-N6	13.71	126.83	118.60
36	BA	792	A	N1-C6-N6	13.71	126.82	118.60
2	A8	470	A	N1-C6-N6	13.70	126.82	118.60
2	A8	818	G	C5-C6-O6	-13.69	120.38	128.60
2	A8	1104	C	C6-N1-C2	-13.69	114.83	120.30
2	A8	1269	A	N1-C6-N6	13.69	126.81	118.60
2	A8	439	A	N1-C6-N6	13.68	126.81	118.60
2	A8	2432	A	N1-C6-N6	13.68	126.81	118.60
36	BA	607	A	N1-C6-N6	13.67	126.80	118.60
2	A8	2242	G	N1-C6-O6	13.66	128.10	119.90
36	BA	906	A	N1-C6-N6	13.66	126.80	118.60
36	BA	915	A	N1-C6-N6	13.66	126.80	118.60
2	A8	2860	A	N1-C6-N6	13.65	126.79	118.60
36	BA	901	A	N1-C6-N6	13.65	126.79	118.60
2	A8	1652	A	N1-C6-N6	13.65	126.79	118.60
36	BA	76	G	N1-C6-O6	13.64	128.09	119.90
2	A8	1641	A	N1-C6-N6	13.63	126.78	118.60
36	BA	344	A	N1-C6-N6	13.63	126.78	118.60
36	BA	1170	A	N1-C6-N6	13.63	126.78	118.60
2	A8	1096	A	N1-C6-N6	13.62	126.77	118.60
36	BA	1377	A	N1-C6-N6	13.62	126.77	118.60
36	BA	238	A	P-O3'-C3'	13.61	136.03	119.70
36	BA	1206	G	N1-C6-O6	13.59	128.06	119.90
2	A8	2682	A	N1-C6-N6	13.59	126.75	118.60
2	A8	226	A	N1-C6-N6	13.59	126.75	118.60
2	A8	361	G	N1-C6-O6	13.58	128.05	119.90
36	BA	1191	A	N1-C6-N6	13.58	126.75	118.60
2	A8	354	A	N1-C6-N6	13.58	126.75	118.60
2	A8	324	A	N1-C6-N6	13.57	126.74	118.60
2	A8	169	G	C5-C6-O6	-13.57	120.46	128.60
2	A8	677	A	N1-C6-N6	13.56	126.74	118.60
2	A8	477	A	N1-C6-N6	13.56	126.73	118.60
36	BA	946	A	N1-C6-N6	13.55	126.73	118.60
2	A8	478	A	N1-C6-N6	13.54	126.73	118.60
2	A8	213	A	N1-C6-N6	13.54	126.72	118.60
2	A8	1469	A	N1-C6-N6	13.54	126.72	118.60
2	A8	918	A	N1-C6-N6	13.54	126.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2088	A	N1-C6-N6	13.53	126.72	118.60
2	A8	2882	A	N1-C6-N6	13.53	126.72	118.60
2	A8	1711	A	N1-C6-N6	13.52	126.71	118.60
2	A8	1912	A	N1-C6-N6	13.52	126.71	118.60
36	BA	1019	A	N1-C6-N6	13.51	126.70	118.60
2	A8	644	A	N1-C6-N6	13.50	126.70	118.60
2	A8	2281	A	N1-C6-N6	13.49	126.70	118.60
2	A8	2297	A	N1-C6-N6	13.49	126.69	118.60
2	A8	2472	G	N1-C6-O6	13.48	127.99	119.90
2	A8	608	A	N1-C6-N6	13.47	126.68	118.60
36	BA	702	A	N1-C6-N6	13.47	126.68	118.60
2	A8	1427	A	N1-C6-N6	13.47	126.68	118.60
2	A8	669	G	N1-C6-O6	13.46	127.97	119.90
36	BA	26	A	N1-C6-N6	13.46	126.67	118.60
36	BA	1306	A	N1-C6-N6	13.46	126.67	118.60
2	A8	960	A	N1-C6-N6	13.46	126.67	118.60
36	BA	1346	A	N1-C6-N6	13.45	126.67	118.60
2	A8	233	A	N1-C6-N6	13.45	126.67	118.60
2	A8	2893	A	N1-C6-N6	13.45	126.67	118.60
2	A8	1014	A	N1-C6-N6	13.44	126.66	118.60
2	A8	1430	G	N1-C6-O6	13.44	127.96	119.90
2	A8	2154	A	N1-C6-N6	13.43	126.66	118.60
36	BA	167	A	N1-C6-N6	13.42	126.66	118.60
36	BA	135	C	C6-N1-C2	-13.42	114.93	120.30
36	BA	263	A	N1-C6-N6	13.42	126.65	118.60
36	BA	1493	A	N1-C6-N6	13.41	126.65	118.60
2	A8	2671	G	C5-C6-O6	-13.41	120.55	128.60
36	BA	919	A	N1-C6-N6	13.41	126.64	118.60
2	A8	2810	A	C5-C6-N6	-13.40	112.98	123.70
2	A8	2014	A	N1-C6-N6	13.39	126.64	118.60
2	A8	169	G	N1-C6-O6	13.39	127.93	119.90
2	A8	1287	A	N1-C6-N6	13.39	126.63	118.60
2	A8	2142	A	N1-C6-N6	13.39	126.63	118.60
2	A8	1553	A	N1-C6-N6	13.38	126.63	118.60
2	A8	1552	A	C5-C6-N6	-13.38	113.00	123.70
36	BA	873	A	N1-C6-N6	13.37	126.62	118.60
2	A8	1757	A	N1-C6-N6	13.37	126.62	118.60
2	A8	2781	A	N1-C6-N6	13.35	126.61	118.60
2	A8	1089	A	P-O3'-C3'	-13.34	103.69	119.70
2	A8	1819	A	N1-C6-N6	13.34	126.60	118.60
36	BA	1276	G	N1-C6-O6	13.34	127.90	119.90
36	BA	878	A	N1-C6-N6	13.34	126.60	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	721	A	N1-C6-N6	13.33	126.60	118.60
2	A8	2287	A	N1-C6-N6	13.33	126.60	118.60
36	BA	1447	A	N1-C6-N6	13.31	126.59	118.60
2	A8	2587	A	N1-C6-N6	13.31	126.58	118.60
2	A8	469	G	N1-C6-O6	13.31	127.88	119.90
2	A8	866	A	N1-C6-N6	13.31	126.58	118.60
36	BA	1152	A	N1-C6-N6	13.30	126.58	118.60
36	BA	900	A	N1-C6-N6	13.29	126.58	118.60
2	A8	834	G	C5-C6-O6	-13.29	120.62	128.60
2	A8	973	A	N1-C6-N6	13.29	126.58	118.60
36	BA	1046	A	N1-C6-N6	13.29	126.57	118.60
2	A8	173	A	N1-C6-N6	13.28	126.57	118.60
2	A8	352	A	N1-C6-N6	13.28	126.56	118.60
1	A7	73	A	N1-C6-N6	13.27	126.56	118.60
36	BA	869	G	N1-C6-O6	13.27	127.86	119.90
2	A8	223	A	N1-C6-N6	13.27	126.56	118.60
2	A8	457	A	N1-C6-N6	13.26	126.56	118.60
2	A8	1845	G	N1-C6-O6	13.26	127.86	119.90
36	BA	600	A	N1-C6-N6	13.26	126.56	118.60
36	BA	338	A	N1-C6-N6	13.26	126.55	118.60
2	A8	14	A	N1-C6-N6	13.25	126.55	118.60
2	A8	428	A	N1-C6-N6	13.25	126.55	118.60
2	A8	1320	C	C6-N1-C2	-13.25	115.00	120.30
36	BA	573	A	N1-C6-N6	13.25	126.55	118.60
2	A8	1069	A	N1-C6-N6	13.25	126.55	118.60
36	BA	1055	A	N1-C6-N6	13.25	126.55	118.60
36	BA	1333	A	N1-C6-N6	13.25	126.55	118.60
2	A8	2171	A	N1-C6-N6	13.24	126.55	118.60
2	A8	1358	G	N1-C6-O6	13.24	127.84	119.90
2	A8	633	A	N1-C6-N6	13.23	126.54	118.60
2	A8	2542	A	N1-C6-N6	13.23	126.54	118.60
2	A8	751	A	N1-C6-N6	13.22	126.53	118.60
36	BA	574	A	N1-C6-N6	13.22	126.53	118.60
36	BA	222	C	C6-N1-C2	-13.21	115.01	120.30
2	A8	804	A	N1-C6-N6	13.21	126.53	118.60
2	A8	1129	A	N1-C6-N6	13.21	126.52	118.60
36	BA	51	A	N1-C6-N6	13.20	126.52	118.60
36	BA	1169	A	P-O5'-C5'	13.20	142.01	120.90
36	BA	411	A	O4'-C1'-N9	13.19	118.75	108.20
2	A8	219	A	N1-C6-N6	13.19	126.51	118.60
36	BA	1492	A	N1-C6-N6	13.19	126.51	118.60
36	BA	1423	G	N1-C6-O6	13.18	127.81	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1384	A	N1-C6-N6	13.18	126.51	118.60
2	A8	182	A	N1-C6-N6	13.18	126.51	118.60
36	BA	1004	A	N1-C6-N6	13.18	126.50	118.60
2	A8	2482	A	N1-C6-N6	13.17	126.50	118.60
36	BA	33	A	N1-C6-N6	13.17	126.50	118.60
1	A7	108	A	N1-C6-N6	13.16	126.50	118.60
36	BA	676	A	N1-C6-N6	13.16	126.50	118.60
2	A8	928	A	N1-C6-N6	13.15	126.49	118.60
36	BA	1180	A	N1-C6-N6	13.15	126.49	118.60
36	BA	1456	A	N1-C6-N6	13.15	126.49	118.60
2	A8	981	A	N1-C6-N6	13.15	126.49	118.60
2	A8	996	A	N1-C6-N6	13.15	126.49	118.60
2	A8	620	G	N1-C6-O6	13.14	127.79	119.90
2	A8	669	G	C5-C6-O6	-13.14	120.71	128.60
2	A8	990	A	N1-C6-N6	13.14	126.49	118.60
36	BA	1151	A	N1-C6-N6	13.14	126.49	118.60
36	BA	1423	G	C5-C6-O6	-13.14	120.72	128.60
36	BA	845	A	N1-C6-N6	13.14	126.48	118.60
2	A8	2032	G	C5-C6-O6	-13.12	120.72	128.60
2	A8	2176	A	N1-C6-N6	13.12	126.47	118.60
36	BA	1035	A	N1-C6-N6	13.11	126.47	118.60
2	A8	1772	A	N1-C6-N6	13.11	126.47	118.60
2	A8	875	G	C5-C6-O6	-13.11	120.74	128.60
2	A8	350	G	N1-C6-O6	13.10	127.76	119.90
2	A8	2134	A	P-O3'-C3'	13.09	135.41	119.70
2	A8	503	A	P-O3'-C3'	13.08	135.40	119.70
36	BA	1289	A	N1-C6-N6	13.08	126.45	118.60
2	A8	504	A	N1-C6-N6	13.08	126.45	118.60
36	BA	1021	A	N1-C6-N6	13.07	126.44	118.60
2	A8	1595	C	O4'-C1'-N1	13.07	118.66	108.20
2	A8	2543	G	N1-C6-O6	13.07	127.74	119.90
36	BA	315	A	O4'-C1'-N9	13.07	118.66	108.20
36	BA	1236	A	N1-C6-N6	13.07	126.44	118.60
36	BA	1534	A	N1-C6-N6	13.07	126.44	118.60
2	A8	2141	G	N1-C6-O6	13.06	127.74	119.90
36	BA	609	A	N1-C6-N6	13.06	126.44	118.60
2	A8	345	A	N1-C6-N6	13.06	126.43	118.60
36	BA	451	A	N1-C6-N6	13.05	126.43	118.60
36	BA	608	A	N1-C6-N6	13.04	126.43	118.60
36	BA	1269	A	N1-C6-N6	13.04	126.42	118.60
2	A8	404	A	N1-C6-N6	13.03	126.42	118.60
2	A8	2095	A	N1-C6-N6	13.03	126.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1392	G	N1-C6-O6	13.03	127.72	119.90
2	A8	2602	A	N1-C6-N6	13.03	126.42	118.60
2	A8	1848	A	N1-C6-N6	13.03	126.42	118.60
36	BA	1250	A	N1-C6-N6	13.03	126.42	118.60
2	A8	2814	A	N1-C6-N6	13.02	126.41	118.60
36	BA	7	A	N1-C6-N6	13.02	126.41	118.60
2	A8	978	G	N1-C6-O6	13.02	127.71	119.90
2	A8	1268	A	N1-C6-N6	13.02	126.41	118.60
2	A8	2346	A	N1-C6-N6	13.02	126.41	118.60
2	A8	423	A	N1-C6-N6	13.01	126.41	118.60
36	BA	652	U	P-O3'-C3'	13.01	135.31	119.70
2	A8	1254	A	N1-C6-N6	13.00	126.40	118.60
36	BA	253	A	N1-C6-N6	13.00	126.40	118.60
2	A8	2813	A	N1-C6-N6	13.00	126.40	118.60
2	A8	819	A	N1-C6-N6	13.00	126.40	118.60
36	BA	1396	A	N1-C6-N6	13.00	126.40	118.60
36	BA	236	A	N1-C6-N6	12.99	126.40	118.60
2	A8	1385	A	N1-C6-N6	12.99	126.39	118.60
2	A8	1529	G	P-O5'-C5'	12.98	141.68	120.90
2	A8	2058	A	N1-C6-N6	12.98	126.39	118.60
36	BA	487	A	N1-C6-N6	12.98	126.39	118.60
2	A8	1395	A	N1-C6-N6	12.97	126.38	118.60
2	A8	1070	A	N1-C6-N6	12.97	126.38	118.60
2	A8	149	A	N1-C6-N6	12.97	126.38	118.60
36	BA	831	A	N1-C6-N6	12.97	126.38	118.60
36	BA	918	A	N1-C6-N6	12.96	126.38	118.60
36	BA	1486	G	N1-C6-O6	12.96	127.68	119.90
2	A8	1885	A	N1-C6-N6	12.96	126.37	118.60
2	A8	2763	G	N1-C6-O6	12.95	127.67	119.90
36	BA	60	A	O4'-C1'-N9	12.95	118.56	108.20
2	A8	2212	A	N1-C6-N6	12.95	126.37	118.60
36	BA	782	A	N1-C6-N6	12.95	126.37	118.60
2	A8	1156	A	N1-C6-N6	12.95	126.37	118.60
36	BA	969	A	N1-C6-N6	12.95	126.37	118.60
36	BA	461	A	N1-C6-N6	12.93	126.36	118.60
2	A8	199	A	N1-C6-N6	12.92	126.35	118.60
36	BA	1042	A	N1-C6-N6	12.92	126.35	118.60
36	BA	1398	A	C5-C6-N6	-12.91	113.37	123.70
36	BA	1503	A	N1-C6-N6	12.91	126.35	118.60
2	A8	1134	A	N1-C6-N6	12.91	126.34	118.60
2	A8	501	A	N1-C6-N6	12.89	126.33	118.60
1	A7	88	C	O4'-C1'-N1	12.89	118.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	430	A	N1-C6-N6	12.88	126.33	118.60
2	A8	2333	A	N1-C6-N6	12.88	126.33	118.60
2	A8	384	A	N1-C6-N6	12.88	126.33	118.60
2	A8	1509	A	N1-C6-N6	12.86	126.32	118.60
36	BA	1340	A	N1-C6-N6	12.85	126.31	118.60
36	BA	938	A	N1-C6-N6	12.85	126.31	118.60
36	BA	649	A	N1-C6-N6	12.85	126.31	118.60
2	A8	1327	A	N1-C6-N6	12.84	126.30	118.60
2	A8	89	A	N1-C6-N6	12.84	126.30	118.60
2	A8	1717	A	C5-C6-N6	-12.83	113.44	123.70
2	A8	733	G	C5-C6-O6	-12.83	120.90	128.60
2	A8	878	A	N1-C6-N6	12.83	126.30	118.60
36	BA	1229	A	N1-C6-N6	12.83	126.30	118.60
36	BA	77	A	N1-C6-N6	12.82	126.29	118.60
36	BA	120	A	N1-C6-N6	12.82	126.29	118.60
36	BA	459	A	N1-C6-N6	12.81	126.29	118.60
2	A8	689	A	N1-C6-N6	12.80	126.28	118.60
2	A8	1793	C	C6-N1-C2	-12.80	115.18	120.30
36	BA	493	A	N1-C6-N6	12.80	126.28	118.60
36	BA	820	U	P-O3'-C3'	12.80	135.06	119.70
2	A8	574	A	N1-C6-N6	12.79	126.28	118.60
2	A8	300	A	N1-C6-N6	12.79	126.27	118.60
2	A8	155	A	N1-C6-N6	12.78	126.27	118.60
2	A8	74	A	N1-C6-N6	12.76	126.26	118.60
1	A7	15	A	C1'-O4'-C4'	-12.75	99.70	109.90
2	A8	829	A	N1-C6-N6	12.75	126.25	118.60
36	BA	864	A	N1-C6-N6	12.75	126.25	118.60
2	A8	1794	A	N1-C6-N6	12.75	126.25	118.60
36	BA	460	A	P-O5'-C5'	12.74	141.29	120.90
36	BA	1110	A	N1-C6-N6	12.74	126.24	118.60
2	A8	217	A	N1-C6-N6	12.74	126.24	118.60
2	A8	1601	G	N1-C6-O6	12.73	127.54	119.90
36	BA	5	U	O4'-C1'-N1	12.73	118.38	108.20
36	BA	1254	A	N1-C6-N6	12.73	126.24	118.60
2	A8	794	A	N1-C6-N6	12.73	126.24	118.60
2	A8	844	A	N1-C6-N6	12.72	126.23	118.60
2	A8	1284	A	N1-C6-N6	12.72	126.23	118.60
36	BA	1081	A	N1-C6-N6	12.72	126.23	118.60
2	A8	1916	A	N1-C6-N6	12.72	126.23	118.60
2	A8	1356	G	N1-C6-O6	12.71	127.53	119.90
36	BA	28	A	N1-C6-N6	12.71	126.23	118.60
2	A8	2021	C	P-O3'-C3'	12.71	134.95	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1356	G	C5-C6-O6	-12.70	120.98	128.60
1	A7	94	A	N1-C6-N6	12.70	126.22	118.60
36	BA	469	C	O4'-C1'-N1	12.70	118.36	108.20
2	A8	94	A	N1-C6-N6	12.67	126.20	118.60
36	BA	1219	A	N1-C6-N6	12.67	126.20	118.60
36	BA	928	G	C5-C6-O6	-12.67	121.00	128.60
36	BA	1278	G	N1-C6-O6	12.66	127.50	119.90
36	BA	1005	A	N1-C6-N6	12.66	126.20	118.60
36	BA	777	A	N1-C6-N6	12.65	126.19	118.60
2	A8	83	A	N1-C6-N6	12.64	126.18	118.60
2	A8	123	G	N1-C6-O6	12.64	127.48	119.90
36	BA	1016	A	N1-C6-N6	12.64	126.18	118.60
2	A8	91	A	N1-C6-N6	12.63	126.18	118.60
36	BA	1518	A	N1-C6-N6	12.63	126.18	118.60
2	A8	886	A	N1-C6-N6	12.63	126.18	118.60
36	BA	1392	G	C5-C6-O6	-12.63	121.02	128.60
2	A8	2711	A	N1-C6-N6	12.63	126.18	118.60
36	BA	768	A	N1-C6-N6	12.63	126.18	118.60
36	BA	914	A	N1-C6-N6	12.63	126.18	118.60
36	BA	366	A	N1-C6-N6	12.62	126.17	118.60
36	BA	432	A	N1-C6-N6	12.62	126.17	118.60
36	BA	1433	A	N1-C6-N6	12.62	126.17	118.60
36	BA	213	G	N1-C6-O6	12.62	127.47	119.90
36	BA	78	A	N1-C6-N6	12.61	126.17	118.60
36	BA	1155	A	N1-C6-N6	12.60	126.16	118.60
2	A8	38	A	N1-C6-N6	12.59	126.16	118.60
36	BA	1026	G	N1-C6-O6	12.59	127.45	119.90
36	BA	81	A	N1-C6-N6	12.59	126.15	118.60
36	BA	642	A	N1-C6-N6	12.59	126.15	118.60
2	A8	1328	A	N1-C6-N6	12.58	126.15	118.60
2	A8	1640	A	N1-C6-N6	12.58	126.15	118.60
2	A8	2447	G	N1-C6-O6	12.58	127.45	119.90
2	A8	362	A	N1-C6-N6	12.57	126.14	118.60
2	A8	959	A	P-O5'-C5'	12.57	141.02	120.90
2	A8	662	G	N1-C6-O6	12.57	127.44	119.90
2	A8	2200	C	O4'-C1'-N1	12.57	118.26	108.20
2	A8	783	A	N1-C6-N6	12.55	126.13	118.60
36	BA	414	A	N1-C6-N6	12.56	126.13	118.60
2	A8	1598	A	N1-C6-N6	12.55	126.13	118.60
2	A8	1664	A	N1-C6-N6	12.55	126.13	118.60
36	BA	1375	A	N1-C6-N6	12.55	126.13	118.60
36	BA	1368	A	N1-C6-N6	12.55	126.13	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1821	A	N1-C6-N6	12.55	126.13	118.60
36	BA	66	A	N1-C6-N6	12.55	126.13	118.60
2	A8	130	C	O4'-C1'-N1	12.53	118.23	108.20
2	A8	2541	A	N1-C6-N6	12.53	126.12	118.60
2	A8	2706	A	N1-C6-N6	12.53	126.12	118.60
2	A8	2611	C	O4'-C1'-N1	12.52	118.22	108.20
2	A8	508	A	N1-C6-N6	12.52	126.11	118.60
2	A8	547	A	N1-C6-N6	12.52	126.11	118.60
2	A8	1204	A	N1-C6-N6	12.52	126.11	118.60
2	A8	251	A	N1-C6-N6	12.52	126.11	118.60
36	BA	482	A	N1-C6-N6	12.52	126.11	118.60
1	A7	66	A	C5-C6-N6	-12.51	113.69	123.70
2	A8	2094	A	N1-C6-N6	12.51	126.10	118.60
36	BA	1486	G	C5-C6-O6	-12.50	121.10	128.60
36	BA	602	A	N1-C6-N6	12.49	126.09	118.60
2	A8	2733	A	O4'-C1'-N9	12.48	118.19	108.20
2	A8	2763	G	C5-C6-O6	-12.48	121.11	128.60
36	BA	621	A	N1-C6-N6	12.48	126.09	118.60
2	A8	1169	A	N1-C6-N6	12.48	126.09	118.60
2	A8	1525	A	N1-C6-N6	12.48	126.09	118.60
2	A8	2335	A	N1-C6-N6	12.47	126.08	118.60
2	A8	1801	A	N1-C6-N6	12.46	126.07	118.60
36	BA	819	A	N1-C6-N6	12.46	126.08	118.60
36	BA	1014	A	N1-C6-N6	12.46	126.07	118.60
2	A8	479	A	N1-C6-N6	12.45	126.07	118.60
36	BA	412	A	N1-C6-N6	12.45	126.07	118.60
2	A8	33	C	O4'-C1'-N1	12.45	118.16	108.20
2	A8	277	G	C5-C6-O6	-12.44	121.14	128.60
2	A8	1244	A	N1-C6-N6	12.44	126.06	118.60
36	BA	560	A	N1-C6-N6	12.44	126.06	118.60
2	A8	6	A	N1-C6-N6	12.44	126.06	118.60
2	A8	743	A	N1-C6-N6	12.44	126.06	118.60
2	A8	2317	A	N1-C6-N6	12.44	126.06	118.60
36	BA	246	A	N1-C6-N6	12.43	126.06	118.60
36	BA	1256	A	N1-C6-N6	12.42	126.05	118.60
36	BA	101	A	N1-C6-N6	12.41	126.05	118.60
36	BA	630	A	N1-C6-N6	12.41	126.05	118.60
2	A8	262	A	N1-C6-N6	12.41	126.05	118.60
36	BA	1363	A	N1-C6-N6	12.41	126.04	118.60
36	BA	262	A	N1-C6-N6	12.40	126.04	118.60
36	BA	1428	A	N1-C6-N6	12.40	126.04	118.60
36	BA	460	A	N1-C6-N6	12.40	126.04	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1197	A	N1-C6-N6	12.39	126.03	118.60
2	A8	207	A	C5-C6-N6	-12.38	113.79	123.70
2	A8	299	A	N1-C6-N6	12.38	126.03	118.60
2	A8	1566	A	N1-C6-N6	12.38	126.03	118.60
36	BA	495	A	N1-C6-N6	12.38	126.03	118.60
36	BA	373	A	N1-C6-N6	12.38	126.03	118.60
2	A8	1214	A	N1-C6-N6	12.37	126.02	118.60
2	A8	2360	G	N1-C6-O6	12.37	127.32	119.90
2	A8	750	A	N1-C6-N6	12.36	126.02	118.60
2	A8	1808	A	N1-C6-N6	12.36	126.02	118.60
36	BA	1465	A	N1-C6-N6	12.36	126.02	118.60
2	A8	256	A	N1-C6-N6	12.36	126.01	118.60
2	A8	422	A	N1-C6-N6	12.35	126.01	118.60
2	A8	943	A	N1-C6-N6	12.34	126.01	118.60
2	A8	2141	G	C5-C6-O6	-12.34	121.19	128.60
2	A8	2820	A	N1-C6-N6	12.34	126.00	118.60
2	A8	899	A	N1-C6-N6	12.34	126.00	118.60
2	A8	1630	A	N1-C6-N6	12.34	126.00	118.60
2	A8	2461	A	N1-C6-N6	12.33	126.00	118.60
2	A8	350	G	C5-C6-O6	-12.33	121.20	128.60
2	A8	1672	A	N1-C6-N6	12.33	126.00	118.60
2	A8	2451	A	N1-C6-N6	12.33	126.00	118.60
2	A8	1596	A	N1-C6-N6	12.32	125.99	118.60
2	A8	2376	A	N1-C6-N6	12.32	125.99	118.60
36	BA	184	G	N1-C6-O6	12.31	127.29	119.90
2	A8	2664	G	N1-C6-O6	12.31	127.29	119.90
2	A8	764	A	N1-C6-N6	12.31	125.99	118.60
2	A8	1590	A	N1-C6-N6	12.31	125.98	118.60
36	BA	1216	A	N1-C6-N6	12.30	125.98	118.60
2	A8	196	A	N1-C6-N6	12.30	125.98	118.60
2	A8	2003	A	N1-C6-N6	12.30	125.98	118.60
36	BA	449	G	N1-C6-O6	12.30	127.28	119.90
2	A8	2459	A	N1-C6-N6	12.29	125.98	118.60
36	BA	452	A	N1-C6-N6	12.29	125.98	118.60
2	A8	980	A	N1-C6-N6	12.29	125.97	118.60
2	A8	2042	A	C5-C6-N6	-12.29	113.87	123.70
2	A8	1175	A	N1-C6-N6	12.29	125.97	118.60
36	BA	944	G	N1-C6-O6	12.29	127.27	119.90
36	BA	1246	A	N1-C6-N6	12.29	125.97	118.60
2	A8	2823	A	N1-C6-N6	12.28	125.97	118.60
36	BA	1350	A	N1-C6-N6	12.28	125.97	118.60
2	A8	570	G	N1-C6-O6	12.28	127.27	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1084	A	N1-C6-N6	12.28	125.97	118.60
2	A8	2059	A	N1-C6-N6	12.28	125.97	118.60
2	A8	2020	A	N1-C6-N6	12.27	125.96	118.60
36	BA	655	A	N1-C6-N6	12.27	125.96	118.60
2	A8	2389	G	O4'-C1'-N9	12.26	118.01	108.20
2	A8	1569	A	N1-C6-N6	12.26	125.95	118.60
2	A8	2177	C	O4'-C1'-N1	12.26	118.00	108.20
36	BA	547	A	N1-C6-N6	12.26	125.95	118.60
1	A7	85	G	N1-C6-O6	12.25	127.25	119.90
1	A7	27	C	O4'-C1'-N1	12.25	118.00	108.20
36	BA	1201	A	N1-C6-N6	12.25	125.95	118.60
2	A8	2596	U	O4'-C1'-N1	12.24	118.00	108.20
2	A8	2369	A	N1-C6-N6	12.23	125.94	118.60
36	BA	1441	A	N1-C6-N6	12.23	125.94	118.60
36	BA	131	A	N1-C6-N6	12.23	125.94	118.60
36	BA	441	A	N1-C6-N6	12.22	125.93	118.60
2	A8	1371	G	N1-C6-O6	12.22	127.23	119.90
2	A8	1845	G	C5-C6-O6	-12.22	121.27	128.60
2	A8	1321	A	O4'-C1'-N9	12.22	117.97	108.20
2	A8	294	A	N1-C6-N6	12.21	125.93	118.60
2	A8	685	A	N1-C6-N6	12.21	125.93	118.60
2	A8	1970	A	N1-C6-N6	12.21	125.93	118.60
2	A8	909	A	C8-N9-C4	-12.21	100.92	105.80
2	A8	1782	U	C6-N1-C2	-12.21	113.67	121.00
2	A8	2388	A	N1-C6-N6	12.21	125.93	118.60
2	A8	1632	A	N1-C6-N6	12.21	125.92	118.60
36	BA	1061	G	N1-C6-O6	12.20	127.22	119.90
36	BA	195	A	N1-C6-N6	12.20	125.92	118.60
2	A8	1085	A	N1-C6-N6	12.20	125.92	118.60
36	BA	976	G	O4'-C1'-N9	12.20	117.96	108.20
2	A8	1508	A	N1-C6-N6	12.19	125.92	118.60
2	A8	2090	A	N1-C6-N6	12.19	125.92	118.60
36	BA	244	U	C5'-C4'-C3'	-12.19	96.50	116.00
2	A8	614	A	N1-C6-N6	12.18	125.91	118.60
2	A8	2749	A	N1-C6-N6	12.18	125.91	118.60
2	A8	497	A	N1-C6-N6	12.18	125.91	118.60
36	BA	787	A	N1-C6-N6	12.17	125.90	118.60
2	A8	1264	A	N1-C6-N6	12.17	125.90	118.60
2	A8	1679	A	N1-C6-N6	12.16	125.90	118.60
2	A8	1847	A	N1-C6-N6	12.16	125.90	118.60
2	A8	1495	A	C5-C6-N6	-12.16	113.97	123.70
2	A8	1502	A	C5-C6-N6	-12.16	113.97	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	614	C	O4'-C1'-N1	12.16	117.93	108.20
2	A8	2705	A	N1-C6-N6	12.16	125.89	118.60
36	BA	1446	A	N1-C6-N6	12.16	125.89	118.60
36	BA	55	A	N1-C6-N6	12.15	125.89	118.60
2	A8	374	A	N1-C6-N6	12.15	125.89	118.60
36	BA	1206	G	C5-C6-O6	-12.15	121.31	128.60
2	A8	590	A	N1-C6-N6	12.15	125.89	118.60
36	BA	535	A	N1-C6-N6	12.15	125.89	118.60
2	A8	1086	A	N1-C6-N6	12.14	125.89	118.60
2	A8	1272	A	N1-C6-N6	12.14	125.88	118.60
2	A8	1095	A	N1-C6-N6	12.14	125.88	118.60
2	A8	2776	A	N1-C6-N6	12.14	125.88	118.60
36	BA	665	A	N1-C6-N6	12.13	125.88	118.60
2	A8	1864	U	O4'-C1'-N1	12.13	117.90	108.20
36	BA	749	A	N1-C6-N6	12.13	125.88	118.60
2	A8	1431	A	N1-C6-N6	12.13	125.88	118.60
2	A8	1057	A	N1-C6-N6	12.12	125.87	118.60
2	A8	2471	A	N1-C6-N6	12.12	125.87	118.60
2	A8	216	A	N1-C6-N6	12.12	125.87	118.60
2	A8	513	A	C5-C6-N6	-12.12	114.00	123.70
2	A8	1111	A	N1-C6-N6	12.12	125.87	118.60
2	A8	876	C	C5'-C4'-C3'	-12.11	96.62	116.00
2	A8	197	A	N1-C6-N6	12.11	125.86	118.60
2	A8	666	A	N1-C6-N6	12.11	125.86	118.60
36	BA	76	G	C5-C6-O6	-12.11	121.34	128.60
2	A8	1541	C	O4'-C1'-N1	12.10	117.88	108.20
36	BA	309	A	N1-C6-N6	12.10	125.86	118.60
36	BA	371	A	N1-C6-N6	12.10	125.86	118.60
36	BA	761	G	N1-C6-O6	12.10	127.16	119.90
2	A8	1593	A	N1-C6-N6	12.09	125.86	118.60
2	A8	2426	A	N1-C6-N6	12.09	125.86	118.60
2	A8	2670	A	N1-C6-N6	12.08	125.85	118.60
36	BA	143	A	N1-C6-N6	12.08	125.85	118.60
2	A8	2760	C	C5'-C4'-C3'	-12.08	96.67	116.00
36	BA	1526	G	N1-C6-O6	12.08	127.15	119.90
2	A8	1749	A	N1-C6-N6	12.08	125.85	118.60
36	BA	746	A	N1-C6-N6	12.08	125.85	118.60
2	A8	1046	A	N1-C6-N6	12.08	125.85	118.60
36	BA	1271	A	N1-C6-N6	12.08	125.85	118.60
2	A8	1135	C	O4'-C1'-N1	12.07	117.86	108.20
2	A8	2448	A	N1-C6-N6	12.07	125.84	118.60
36	BA	1204	A	N1-C6-N6	12.07	125.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1583	A	O4'-C1'-N9	12.07	117.85	108.20
2	A8	126	A	N1-C6-N6	12.06	125.84	118.60
2	A8	194	G	N1-C6-O6	12.06	127.14	119.90
2	A8	2114	A	N1-C6-N6	12.06	125.84	118.60
36	BA	753	A	N1-C6-N6	12.06	125.84	118.60
2	A8	2409	G	N1-C6-O6	12.05	127.13	119.90
2	A8	1092	C	C6-N1-C2	-12.05	115.48	120.30
2	A8	1000	A	N1-C6-N6	12.05	125.83	118.60
2	A8	734	A	N1-C6-N6	12.04	125.83	118.60
2	A8	1505	A	N1-C6-N6	12.04	125.83	118.60
2	A8	1165	A	N1-C6-N6	12.04	125.82	118.60
2	A8	1802	A	N1-C6-N6	12.04	125.82	118.60
2	A8	602	A	N1-C6-N6	12.02	125.81	118.60
2	A8	956	G	N1-C6-O6	12.02	127.11	119.90
36	BA	1332	A	N1-C6-N6	12.02	125.81	118.60
36	BA	960	U	P-O3'-C3'	12.02	134.12	119.70
2	A8	400	G	N1-C6-O6	12.01	127.11	119.90
36	BA	743	A	N1-C6-N6	12.01	125.81	118.60
2	A8	2273	A	N1-C6-N6	12.01	125.81	118.60
36	BA	1102	A	N1-C6-N6	12.01	125.81	118.60
2	A8	465	G	N1-C6-O6	12.01	127.10	119.90
2	A8	218	A	N1-C6-N6	12.00	125.80	118.60
2	A8	1230	A	N1-C6-N6	12.00	125.80	118.60
2	A8	2657	A	N1-C6-N6	12.00	125.80	118.60
36	BA	502	A	N1-C6-N6	12.00	125.80	118.60
36	BA	1196	A	N1-C6-N6	12.00	125.80	118.60
2	A8	278	A	N1-C6-N6	11.99	125.80	118.60
36	BA	975	A	N1-C6-N6	11.99	125.80	118.60
2	A8	715	A	N1-C6-N6	11.99	125.79	118.60
36	BA	1093	A	N1-C6-N6	11.99	125.79	118.60
2	A8	845	A	N1-C6-N6	11.98	125.79	118.60
2	A8	1757	A	P-O3'-C3'	11.98	134.08	119.70
2	A8	2727	A	N1-C6-N6	11.98	125.79	118.60
36	BA	1012	A	N1-C6-N6	11.98	125.79	118.60
36	BA	1432	G	N1-C6-O6	11.97	127.08	119.90
36	BA	353	A	O4'-C1'-N9	11.96	117.77	108.20
36	BA	908	A	N1-C6-N6	11.96	125.78	118.60
36	BA	1394	A	N1-C6-N6	11.96	125.78	118.60
2	A8	1299	G	N1-C6-O6	11.95	127.07	119.90
36	BA	645	G	N1-C6-O6	11.96	127.07	119.90
2	A8	1098	A	N1-C6-N6	11.95	125.77	118.60
36	BA	1101	A	N1-C6-N6	11.95	125.77	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1134	G	N1-C6-O6	11.95	127.07	119.90
2	A8	1745	A	N1-C6-N6	11.94	125.77	118.60
36	BA	116	A	N1-C6-N6	11.94	125.76	118.60
2	A8	1755	A	N1-C6-N6	11.93	125.76	118.60
2	A8	1913	A	N1-C6-N6	11.93	125.76	118.60
2	A8	2888	C	C6-N1-C2	-11.93	115.53	120.30
36	BA	577	G	O4'-C1'-N9	11.93	117.74	108.20
36	BA	1339	A	N1-C6-N6	11.93	125.76	118.60
36	BA	715	A	N1-C6-N6	11.93	125.75	118.60
2	A8	101	A	N1-C6-N6	11.92	125.75	118.60
2	A8	277	G	N1-C6-O6	11.92	127.05	119.90
36	BA	789	U	O4'-C1'-N1	11.92	117.74	108.20
2	A8	254	G	N1-C6-O6	11.92	127.05	119.90
2	A8	1536	C	O4'-C1'-N1	11.92	117.73	108.20
2	A8	230	G	N1-C6-O6	11.91	127.05	119.90
2	A8	2900	A	N1-C6-N6	11.91	125.74	118.60
36	BA	532	A	N1-C6-N6	11.90	125.74	118.60
36	BA	1285	A	N1-C6-N6	11.90	125.74	118.60
2	A8	1371	G	C5-C6-O6	-11.90	121.46	128.60
36	BA	694	A	N1-C6-N6	11.90	125.74	118.60
2	A8	1358	G	C5-C6-O6	-11.89	121.46	128.60
2	A8	2732	G	N1-C6-O6	11.89	127.04	119.90
2	A8	585	G	N1-C6-O6	11.89	127.04	119.90
36	BA	228	A	N1-C6-N6	11.89	125.73	118.60
36	BA	566	G	N1-C6-O6	11.89	127.03	119.90
2	A8	699	A	N1-C6-N6	11.89	125.73	118.60
2	A8	1216	G	N1-C6-O6	11.89	127.03	119.90
36	BA	250	A	N1-C6-N6	11.88	125.73	118.60
2	A8	789	A	N1-C6-N6	11.87	125.72	118.60
2	A8	792	A	N1-C6-N6	11.87	125.72	118.60
36	BA	704	A	N1-C6-N6	11.87	125.72	118.60
2	A8	856	G	N1-C6-O6	11.87	127.02	119.90
36	BA	673	A	N1-C6-N6	11.87	125.72	118.60
36	BA	494	G	N1-C6-O6	11.87	127.02	119.90
2	A8	1210	G	N1-C6-O6	11.86	127.02	119.90
36	BA	640	A	N1-C6-N6	11.86	125.72	118.60
36	BA	1176	A	N1-C6-N6	11.86	125.72	118.60
2	A8	1580	A	C5-C6-N6	-11.85	114.22	123.70
2	A8	1739	A	N1-C6-N6	11.85	125.71	118.60
2	A8	344	A	N1-C6-N6	11.85	125.71	118.60
2	A8	2340	A	N1-C6-N6	11.85	125.71	118.60
2	A8	2407	A	N1-C6-N6	11.85	125.71	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1133	G	N1-C6-O6	11.85	127.01	119.90
2	A8	761	A	C5-C6-N6	-11.84	114.23	123.70
2	A8	936	A	N1-C6-N6	11.84	125.70	118.60
36	BA	336	A	N1-C6-N6	11.84	125.70	118.60
36	BA	298	A	N1-C6-N6	11.84	125.70	118.60
2	A8	1441	G	N1-C6-O6	11.83	127.00	119.90
2	A8	718	A	N1-C6-N6	11.83	125.69	118.60
2	A8	704	G	C8-N9-C1'	11.82	142.37	127.00
36	BA	968	A	N1-C6-N6	11.82	125.69	118.60
36	BA	303	A	N1-C6-N6	11.81	125.69	118.60
36	BA	165	G	N1-C6-O6	11.81	126.98	119.90
2	A8	1164	C	O4'-C1'-N1	11.81	117.64	108.20
36	BA	546	A	N1-C6-N6	11.81	125.68	118.60
2	A8	849	A	N1-C6-N6	11.80	125.68	118.60
2	A8	402	A	N1-C6-N6	11.80	125.68	118.60
2	A8	1020	A	N1-C6-N6	11.80	125.68	118.60
2	A8	2211	A	N1-C6-N6	11.80	125.68	118.60
2	A8	768	G	N1-C6-O6	11.80	126.98	119.90
36	BA	541	G	C5-C6-O6	-11.80	121.52	128.60
2	A8	1952	A	N1-C6-N6	11.80	125.68	118.60
2	A8	2674	G	C5-C6-O6	-11.80	121.52	128.60
2	A8	563	A	N1-C6-N6	11.79	125.67	118.60
2	A8	2227	A	N1-C6-N6	11.79	125.67	118.60
36	BA	802	A	N1-C6-N6	11.79	125.67	118.60
2	A8	2401	U	O4'-C1'-N1	11.78	117.62	108.20
2	A8	2062	A	N1-C6-N6	11.77	125.66	118.60
2	A8	2134	A	N1-C6-N6	11.76	125.66	118.60
36	BA	32	A	N1-C6-N6	11.76	125.66	118.60
2	A8	972	A	N1-C6-N6	11.76	125.66	118.60
2	A8	2328	A	N1-C6-N6	11.76	125.66	118.60
36	BA	1248	A	N1-C6-N6	11.76	125.66	118.60
2	A8	1978	A	N1-C6-N6	11.76	125.65	118.60
36	BA	880	C	O4'-C1'-N1	11.75	117.60	108.20
2	A8	1866	A	C5-C6-N6	-11.75	114.30	123.70
36	BA	696	A	N1-C6-N6	11.75	125.65	118.60
2	A8	1797	G	N1-C6-O6	11.74	126.95	119.90
2	A8	2360	G	C5-C6-O6	-11.74	121.56	128.60
2	A8	2591	C	C6-N1-C2	-11.73	115.61	120.30
2	A8	1430	G	C5-C6-O6	-11.73	121.56	128.60
2	A8	1597	A	N1-C6-N6	11.73	125.64	118.60
2	A8	896	A	N1-C6-N6	11.73	125.64	118.60
36	BA	435	A	N1-C6-N6	11.72	125.63	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2469	A	C4-C5-C6	11.72	122.86	117.00
36	BA	566	G	C5-C6-O6	-11.72	121.57	128.60
2	A8	2413	G	N1-C6-O6	11.72	126.93	119.90
2	A8	613	A	N1-C6-N6	11.72	125.63	118.60
36	BA	319	G	C5-C6-O6	-11.72	121.57	128.60
2	A8	469	G	C5-C6-O6	-11.72	121.57	128.60
2	A8	2503	A	N1-C6-N6	11.71	125.62	118.60
2	A8	103	A	N1-C6-N6	11.70	125.62	118.60
2	A8	1799	G	C5-C6-O6	-11.70	121.58	128.60
2	A8	1433	A	N1-C6-N6	11.70	125.62	118.60
2	A8	1301	A	N1-C6-N6	11.70	125.62	118.60
2	A8	2283	C	O4'-C1'-N1	11.70	117.56	108.20
2	A8	2208	C	O4'-C1'-N1	11.70	117.56	108.20
2	A8	1016	G	C5-C6-O6	-11.69	121.59	128.60
2	A8	1570	A	N1-C6-N6	11.68	125.61	118.60
2	A8	2169	A	N1-C6-N6	11.68	125.61	118.60
36	BA	52	C	C6-N1-C2	-11.68	115.63	120.30
2	A8	904	G	C5-C6-O6	-11.68	121.59	128.60
2	A8	2158	A	N1-C6-N6	11.68	125.61	118.60
36	BA	59	A	N1-C6-N6	11.68	125.61	118.60
2	A8	2108	A	N1-C6-N6	11.67	125.60	118.60
2	A8	619	G	N1-C6-O6	11.67	126.90	119.90
36	BA	563	A	N1-C6-N6	11.67	125.60	118.60
2	A8	389	G	N1-C6-O6	11.67	126.90	119.90
2	A8	2603	G	C5'-C4'-C3'	-11.67	97.33	116.00
2	A8	1434	A	N1-C6-N6	11.66	125.60	118.60
2	A8	1966	A	N1-C6-N6	11.66	125.60	118.60
2	A8	1542	U	O4'-C1'-N1	11.66	117.53	108.20
2	A8	1762	A	N1-C6-N6	11.66	125.59	118.60
36	BA	313	A	N1-C6-N6	11.66	125.59	118.60
36	BA	1432	G	C5-C6-O6	-11.66	121.61	128.60
36	BA	1311	A	N1-C6-N6	11.65	125.59	118.60
2	A8	2366	A	N1-C6-N6	11.64	125.59	118.60
2	A8	1532	A	N1-C6-N6	11.64	125.58	118.60
2	A8	1623	G	C5-C6-O6	-11.64	121.62	128.60
2	A8	1260	A	N1-C6-N6	11.63	125.58	118.60
2	A8	2407	A	C5'-C4'-C3'	-11.63	97.39	116.00
2	A8	1364	G	N1-C6-O6	11.63	126.88	119.90
2	A8	1392	A	N1-C6-N6	11.63	125.58	118.60
36	BA	319	G	N1-C6-O6	11.63	126.88	119.90
2	A8	1784	A	N1-C6-N6	11.62	125.57	118.60
2	A8	482	A	N1-C6-N6	11.62	125.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1050	A	N1-C6-N6	11.62	125.57	118.60
36	BA	165	G	C5-C6-O6	-11.62	121.63	128.60
36	BA	1278	G	C5-C6-O6	-11.62	121.63	128.60
2	A8	156	A	N1-C6-N6	11.62	125.57	118.60
2	A8	1799	G	N1-C6-O6	11.62	126.87	119.90
2	A8	2191	A	N1-C6-N6	11.62	125.57	118.60
2	A8	1637	A	N1-C6-N6	11.61	125.57	118.60
36	BA	1429	A	N1-C6-N6	11.61	125.56	118.60
2	A8	1261	C	O4'-C1'-N1	11.60	117.48	108.20
2	A8	2860	A	C4-C5-C6	11.60	122.80	117.00
36	BA	894	G	N1-C6-O6	11.60	126.86	119.90
1	A7	58	A	N1-C6-N6	11.60	125.56	118.60
2	A8	73	A	N1-C6-N6	11.60	125.56	118.60
2	A8	675	A	N1-C6-N6	11.60	125.56	118.60
36	BA	1041	G	N1-C6-O6	11.59	126.86	119.90
36	BA	153	C	O4'-C1'-N1	11.59	117.47	108.20
36	BA	1067	A	N1-C6-N6	11.59	125.56	118.60
2	A8	342	A	N1-C6-N6	11.58	125.55	118.60
2	A8	988	A	N1-C6-N6	11.57	125.54	118.60
2	A8	1055	G	C8-N9-C1'	11.57	142.04	127.00
2	A8	2394	C	O4'-C1'-N1	11.56	117.44	108.20
2	A8	1302	A	N1-C6-N6	11.55	125.53	118.60
2	A8	663	G	N1-C6-O6	11.55	126.83	119.90
2	A8	2671	G	N1-C6-O6	11.55	126.83	119.90
2	A8	1634	A	N1-C6-N6	11.55	125.53	118.60
2	A8	978	G	C5-C6-O6	-11.54	121.67	128.60
2	A8	2829	A	N1-C6-N6	11.54	125.53	118.60
36	BA	320	A	N1-C6-N6	11.54	125.52	118.60
2	A8	927	A	N1-C6-N6	11.54	125.52	118.60
2	A8	2766	A	N1-C6-N6	11.54	125.52	118.60
36	BA	790	A	N1-C6-N6	11.54	125.52	118.60
2	A8	1413	A	N1-C6-N6	11.53	125.52	118.60
36	BA	1145	A	N1-C6-N6	11.53	125.52	118.60
36	BA	72	A	N1-C6-N6	11.52	125.51	118.60
2	A8	1503	A	C5-C6-N6	-11.52	114.48	123.70
36	BA	278	G	N1-C6-O6	11.52	126.81	119.90
1	A7	62	C	O4'-C1'-N1	11.52	117.41	108.20
2	A8	189	G	N1-C6-O6	11.52	126.81	119.90
36	BA	1413	A	N1-C6-N6	11.52	125.51	118.60
2	A8	693	A	N1-C6-N6	11.51	125.51	118.60
2	A8	1729	U	O4'-C1'-N1	11.51	117.41	108.20
2	A8	724	U	O4'-C1'-N1	11.51	117.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	541	A	N1-C6-N6	11.50	125.50	118.60
2	A8	1925	C	O4'-C1'-N1	11.50	117.40	108.20
36	BA	836	G	N1-C6-O6	11.50	126.80	119.90
2	A8	1822	C	O4'-C1'-N1	11.49	117.40	108.20
2	A8	118	A	N1-C6-N6	11.48	125.49	118.60
2	A8	2600	A	N1-C6-N6	11.48	125.49	118.60
36	BA	1274	A	N1-C6-N6	11.48	125.49	118.60
2	A8	1583	A	N1-C6-N6	11.48	125.49	118.60
1	A7	78	A	C5-C6-N6	-11.48	114.52	123.70
2	A8	643	A	N1-C6-N6	11.48	125.49	118.60
2	A8	768	G	C5-C6-O6	-11.48	121.72	128.60
36	BA	347	G	C8-N9-C1'	11.48	141.92	127.00
2	A8	1910	G	N1-C6-O6	11.47	126.78	119.90
2	A8	1806	C	O4'-C1'-N1	11.47	117.38	108.20
2	A8	984	A	N1-C6-N6	11.47	125.48	118.60
36	BA	192	A	N1-C6-N6	11.46	125.47	118.60
36	BA	372	C	P-O3'-C3'	11.46	133.45	119.70
2	A8	286	U	C5'-C4'-C3'	-11.45	97.68	116.00
36	BA	60	A	N1-C6-N6	11.45	125.47	118.60
2	A8	1039	A	N1-C6-N6	11.45	125.47	118.60
2	A8	2569	G	N1-C6-O6	11.44	126.77	119.90
2	A8	730	A	N1-C6-N6	11.44	125.47	118.60
2	A8	756	A	N1-C6-N6	11.44	125.46	118.60
36	BA	98	A	N1-C6-N6	11.44	125.46	118.60
36	BA	1228	C	C5'-C4'-C3'	-11.44	97.70	116.00
2	A8	1016	G	N1-C6-O6	11.44	126.76	119.90
2	A8	2599	G	C5'-C4'-C3'	-11.44	97.70	116.00
1	A7	45	A	N1-C6-N6	11.43	125.46	118.60
2	A8	283	G	N1-C6-O6	11.43	126.76	119.90
2	A8	1938	A	N1-C6-N6	11.43	125.46	118.60
1	A7	41	G	O4'-C1'-N9	11.43	117.34	108.20
2	A8	265	A	O4'-C1'-N9	11.43	117.34	108.20
36	BA	539	A	C5-C6-N6	-11.42	114.56	123.70
2	A8	603	A	N1-C6-N6	11.42	125.45	118.60
2	A8	1067	A	N1-C6-N6	11.41	125.45	118.60
36	BA	65	A	N1-C6-N6	11.41	125.45	118.60
2	A8	2466	C	O4'-C1'-N1	11.41	117.33	108.20
2	A8	2567	G	C5-C6-O6	-11.41	121.76	128.60
36	BA	970	C	O4'-C1'-N1	11.41	117.33	108.20
1	A7	50	A	N1-C6-N6	11.40	125.44	118.60
2	A8	1032	A	N1-C6-N6	11.40	125.44	118.60
2	A8	1687	G	N1-C6-O6	11.40	126.74	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1698	A	N1-C6-N6	11.40	125.44	118.60
2	A8	781	A	N1-C6-N6	11.39	125.44	118.60
36	BA	100	G	N1-C6-O6	11.39	126.74	119.90
2	A8	2381	A	N1-C6-N6	11.39	125.44	118.60
36	BA	1408	A	N1-C6-N6	11.39	125.44	118.60
36	BA	651	C	O4'-C1'-N1	11.39	117.31	108.20
2	A8	198	C	N3-C4-N4	11.39	125.97	118.00
2	A8	2759	G	N1-C6-O6	11.39	126.73	119.90
2	A8	2856	A	N1-C6-N6	11.39	125.43	118.60
2	A8	735	A	N1-C6-N6	11.38	125.43	118.60
2	A8	1551	A	O4'-C1'-N9	11.38	117.31	108.20
2	A8	93	G	N1-C6-O6	11.38	126.73	119.90
2	A8	2412	A	C5'-C4'-C3'	-11.38	97.80	116.00
2	A8	1274	A	N1-C6-N6	11.37	125.42	118.60
2	A8	1610	A	N1-C6-N6	11.37	125.42	118.60
36	BA	57	G	N1-C6-O6	11.37	126.72	119.90
2	A8	1678	A	N1-C6-N6	11.37	125.42	118.60
2	A8	1965	C	O4'-C1'-N1	11.37	117.30	108.20
2	A8	2742	G	N1-C6-O6	11.37	126.72	119.90
36	BA	129	A	N1-C6-N6	11.37	125.42	118.60
2	A8	2037	A	N1-C6-N6	11.37	125.42	118.60
36	BA	325	A	N1-C6-N6	11.37	125.42	118.60
2	A8	2418	A	C5-C6-N6	-11.36	114.61	123.70
1	A7	100	G	N1-C6-O6	11.36	126.72	119.90
2	A8	2447	G	C5-C6-O6	-11.36	121.78	128.60
2	A8	1266	G	O4'-C1'-N9	11.35	117.28	108.20
36	BA	1163	A	N1-C6-N6	11.35	125.41	118.60
2	A8	382	A	N1-C6-N6	11.35	125.41	118.60
2	A8	472	A	P-O3'-C3'	11.35	133.31	119.70
2	A8	1614	A	C5-C6-N6	-11.35	114.62	123.70
2	A8	2316	G	N1-C6-O6	11.34	126.70	119.90
36	BA	199	A	O4'-C1'-N9	11.34	117.27	108.20
36	BA	364	A	N1-C6-N6	11.34	125.40	118.60
36	BA	926	G	N1-C6-O6	11.34	126.70	119.90
36	BA	347	G	C4-N9-C1'	-11.34	111.76	126.50
2	A8	975	A	N1-C6-N6	11.33	125.40	118.60
2	A8	1752	C	C6-N1-C2	-11.33	115.77	120.30
36	BA	331	G	N1-C6-O6	11.33	126.70	119.90
2	A8	2637	U	O4'-C1'-N1	11.33	117.27	108.20
2	A8	784	G	N1-C6-O6	11.32	126.69	119.90
2	A8	1444	G	C5-C6-O6	-11.32	121.81	128.60
2	A8	1420	A	N1-C6-N6	11.32	125.39	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	722	A	N1-C6-N6	11.31	125.39	118.60
2	A8	1300	G	P-O3'-C3'	11.31	133.28	119.70
36	BA	80	A	N1-C6-N6	11.31	125.39	118.60
2	A8	1089	A	N1-C6-N6	11.31	125.39	118.60
2	A8	712	G	N1-C6-O6	11.31	126.68	119.90
1	A7	39	A	N1-C6-N6	11.29	125.38	118.60
36	BA	553	A	N1-C6-N6	11.29	125.38	118.60
2	A8	2836	U	O4'-C1'-N1	11.29	117.23	108.20
2	A8	253	C	O4'-C1'-N1	11.29	117.23	108.20
2	A8	2733	A	N1-C6-N6	11.28	125.37	118.60
2	A8	1601	G	C5-C6-O6	-11.28	121.83	128.60
36	BA	1134	G	C5-C6-O6	-11.28	121.83	128.60
2	A8	2476	A	N1-C6-N6	11.28	125.37	118.60
36	BA	429	U	P-O3'-C3'	11.28	133.23	119.70
2	A8	2532	G	N1-C6-O6	11.27	126.66	119.90
2	A8	1216	G	C5-C6-O6	-11.27	121.84	128.60
2	A8	2147	A	N1-C6-N6	11.27	125.36	118.60
2	A8	45	G	P-O3'-C3'	11.27	133.22	119.70
2	A8	1228	G	N1-C6-O6	11.27	126.66	119.90
2	A8	2800	A	N1-C6-N6	11.26	125.36	118.60
36	BA	967	C	O4'-C1'-N1	11.26	117.21	108.20
2	A8	2655	G	O4'-C1'-N9	11.26	117.20	108.20
2	A8	2171	A	P-O3'-C3'	11.25	133.21	119.70
2	A8	2282	G	P-O3'-C3'	11.25	133.20	119.70
1	A7	29	A	N1-C6-N6	11.25	125.35	118.60
2	A8	633	A	C4-C5-C6	11.25	122.62	117.00
2	A8	1160	G	C5-C6-O6	-11.24	121.85	128.60
2	A8	2288	A	N1-C6-N6	11.24	125.34	118.60
2	A8	2634	A	N1-C6-N6	11.24	125.35	118.60
36	BA	1111	A	N1-C6-N6	11.24	125.35	118.60
2	A8	2536	G	N1-C6-O6	11.24	126.64	119.90
2	A8	2674	G	N1-C6-O6	11.24	126.64	119.90
2	A8	391	A	N1-C6-N6	11.24	125.34	118.60
2	A8	1320	C	P-O3'-C3'	11.24	133.18	119.70
2	A8	1573	G	N1-C6-O6	11.24	126.64	119.90
36	BA	825	A	N1-C6-N6	11.24	125.34	118.60
2	A8	834	G	N1-C6-O6	11.23	126.64	119.90
36	BA	139	A	N1-C6-N6	11.23	125.34	118.60
2	A8	1247	A	N1-C6-N6	11.23	125.34	118.60
2	A8	1498	C	P-O5'-C5'	11.23	138.87	120.90
2	A8	163	C	O4'-C1'-N1	11.23	117.18	108.20
2	A8	2890	G	N1-C6-O6	11.22	126.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1243	C	O4'-C1'-N1	11.22	117.18	108.20
36	BA	635	A	N1-C6-N6	11.22	125.33	118.60
36	BA	1385	G	N1-C6-O6	11.22	126.63	119.90
2	A8	1393	A	N1-C6-N6	11.21	125.33	118.60
2	A8	1782	U	O4'-C1'-N1	11.21	117.17	108.20
36	BA	779	C	O4'-C1'-N1	11.21	117.17	108.20
2	A8	575	A	N1-C6-N6	11.20	125.32	118.60
36	BA	1476	A	N1-C6-N6	11.19	125.31	118.60
2	A8	1205	A	N1-C6-N6	11.19	125.31	118.60
2	A8	1701	A	C5-C6-N6	-11.18	114.75	123.70
36	BA	1237	C	P-O3'-C3'	11.18	133.12	119.70
2	A8	1265	A	N1-C6-N6	11.17	125.30	118.60
2	A8	2560	A	N1-C6-N6	11.17	125.30	118.60
2	A8	2572	A	N1-C6-N6	11.17	125.30	118.60
2	A8	2635	A	N1-C6-N6	11.17	125.30	118.60
36	BA	1188	A	N1-C6-N6	11.17	125.30	118.60
2	A8	1933	G	N1-C6-O6	11.17	126.60	119.90
2	A8	2480	C	O4'-C1'-N1	11.17	117.13	108.20
2	A8	881	G	C8-N9-C4	-11.16	101.94	106.40
2	A8	1797	G	C5-C6-O6	-11.16	121.90	128.60
36	BA	767	A	N1-C6-N6	11.16	125.30	118.60
2	A8	2505	G	O4'-C1'-N9	11.16	117.13	108.20
2	A8	1633	G	N1-C6-O6	11.15	126.59	119.90
2	A8	401	A	N1-C6-N6	11.15	125.29	118.60
2	A8	1511	G	N1-C6-O6	11.15	126.59	119.90
2	A8	165	A	N1-C6-N6	11.15	125.29	118.60
2	A8	1088	A	N1-C6-N6	11.15	125.29	118.60
2	A8	2481	G	N1-C6-O6	11.14	126.59	119.90
2	A8	2242	G	C5-C6-O6	-11.14	121.92	128.60
2	A8	1432	G	C5'-C4'-C3'	-11.14	98.18	116.00
2	A8	2764	A	N1-C6-N6	11.14	125.28	118.60
36	BA	197	A	N1-C6-N6	11.14	125.28	118.60
2	A8	320	A	N1-C6-N6	11.13	125.28	118.60
2	A8	762	U	P-O3'-C3'	11.13	133.06	119.70
1	A7	83	G	C5-C6-O6	-11.13	121.92	128.60
2	A8	1092	C	C5-C6-N1	11.12	126.56	121.00
2	A8	465	G	C5-C6-O6	-11.12	121.93	128.60
2	A8	687	C	C6-N1-C2	-11.12	115.85	120.30
2	A8	1189	A	C5-C6-N6	-11.12	114.80	123.70
2	A8	1365	A	O4'-C1'-N9	11.12	117.10	108.20
1	A7	29	A	P-O3'-C3'	11.12	133.04	119.70
36	BA	466	A	N1-C6-N6	11.12	125.27	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	730	G	N1-C6-O6	11.12	126.57	119.90
2	A8	577	G	N1-C6-O6	11.12	126.57	119.90
2	A8	698	C	C6-N1-C2	-11.11	115.86	120.30
2	A8	1009	A	N1-C6-N6	11.11	125.27	118.60
2	A8	425	G	N1-C6-O6	11.11	126.56	119.90
2	A8	1877	A	N1-C6-N6	11.10	125.26	118.60
2	A8	875	G	N1-C6-O6	11.10	126.56	119.90
2	A8	1591	A	N1-C6-N6	11.10	125.26	118.60
2	A8	1936	A	C5-C6-N6	-11.10	114.82	123.70
36	BA	1329	A	N1-C6-N6	11.10	125.26	118.60
36	BA	572	A	N1-C6-N6	11.09	125.25	118.60
2	A8	2080	A	N1-C6-N6	11.09	125.25	118.60
2	A8	215	G	N1-C6-O6	11.09	126.55	119.90
36	BA	1324	A	C5-C6-N6	-11.09	114.83	123.70
2	A8	240	C	O4'-C1'-N1	11.09	117.07	108.20
2	A8	1099	G	N1-C6-O6	11.09	126.55	119.90
2	A8	2415	G	N1-C6-O6	11.08	126.55	119.90
2	A8	2470	G	C5'-C4'-C3'	-11.08	98.27	116.00
36	BA	1154	G	N1-C6-O6	11.08	126.55	119.90
36	BA	510	A	N1-C6-N6	11.08	125.25	118.60
36	BA	1531	A	N1-C6-N6	11.07	125.25	118.60
2	A8	757	G	N1-C6-O6	11.07	126.54	119.90
36	BA	259	G	N1-C6-O6	11.07	126.54	119.90
2	A8	13	A	C5-C6-N6	-11.06	114.85	123.70
2	A8	2543	G	C5-C6-O6	-11.06	121.96	128.60
1	A7	23	G	N1-C6-O6	11.06	126.54	119.90
1	A7	109	A	N1-C6-N6	11.06	125.24	118.60
2	A8	2409	G	C5-C6-O6	-11.06	121.96	128.60
2	A8	2894	G	N1-C6-O6	11.06	126.54	119.90
36	BA	119	A	N1-C6-N6	11.06	125.24	118.60
2	A8	1616	A	N1-C6-N6	11.06	125.23	118.60
2	A8	2889	C	O4'-C1'-N1	11.06	117.05	108.20
2	A8	2163	A	N1-C6-N6	11.06	125.23	118.60
2	A8	1361	G	N1-C6-O6	11.05	126.53	119.90
2	A8	2592	G	C5-C6-O6	-11.04	121.97	128.60
36	BA	1508	A	N1-C6-N6	11.04	125.23	118.60
36	BA	815	A	N1-C6-N6	11.04	125.23	118.60
36	BA	198	G	N1-C6-O6	11.04	126.52	119.90
36	BA	996	A	N1-C6-N6	11.04	125.22	118.60
2	A8	131	A	N1-C6-N6	11.04	125.22	118.60
2	A8	670	A	N1-C6-N6	11.03	125.22	118.60
36	BA	393	A	N1-C6-N6	11.03	125.22	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	254	G	C5-C6-O6	-11.03	121.98	128.60
36	BA	1195	C	C6-N1-C2	-11.03	115.89	120.30
36	BA	791	G	N1-C6-O6	11.02	126.51	119.90
2	A8	1165	A	O4'-C1'-N9	11.01	117.01	108.20
2	A8	2412	A	C4-C5-C6	11.01	122.50	117.00
36	BA	652	U	O4'-C1'-N1	11.01	117.01	108.20
36	BA	446	G	N1-C6-O6	11.01	126.50	119.90
1	A7	67	G	N1-C6-O6	11.00	126.50	119.90
2	A8	2410	G	N1-C6-O6	11.00	126.50	119.90
2	A8	1530	G	O4'-C1'-N9	11.00	117.00	108.20
2	A8	1624	U	C5'-C4'-C3'	-11.00	98.40	116.00
36	BA	347	G	C5-C6-O6	-10.99	122.00	128.60
2	A8	1932	A	N1-C6-N6	10.99	125.19	118.60
2	A8	429	A	N1-C6-N6	10.99	125.19	118.60
2	A8	1990	C	O4'-C1'-N1	10.98	116.98	108.20
2	A8	793	A	N1-C6-N6	10.98	125.19	118.60
2	A8	599	A	N1-C6-N6	10.97	125.18	118.60
36	BA	615	G	O4'-C1'-N9	10.97	116.97	108.20
1	A7	83	G	N1-C6-O6	10.97	126.48	119.90
2	A8	177	G	N1-C6-O6	10.96	126.48	119.90
2	A8	880	G	P-O3'-C3'	10.96	132.86	119.70
2	A8	661	A	N1-C6-N6	10.96	125.17	118.60
36	BA	10	A	N1-C6-N6	10.96	125.17	118.60
2	A8	261	G	N1-C6-O6	10.94	126.47	119.90
36	BA	718	A	N1-C6-N6	10.95	125.17	118.60
2	A8	776	G	N1-C6-O6	10.94	126.46	119.90
2	A8	820	A	N1-C6-N6	10.94	125.17	118.60
36	BA	411	A	N1-C6-N6	10.94	125.17	118.60
36	BA	130	A	N1-C6-N6	10.94	125.16	118.60
36	BA	329	A	N1-C6-N6	10.94	125.16	118.60
2	A8	1182	G	N1-C6-O6	10.94	126.46	119.90
2	A8	1998	A	N1-C6-N6	10.94	125.16	118.60
2	A8	1814	G	N1-C6-O6	10.94	126.46	119.90
36	BA	174	A	N1-C6-N6	10.94	125.16	118.60
2	A8	141	G	N1-C6-O6	10.93	126.46	119.90
2	A8	1714	U	P-O3'-C3'	-10.93	106.59	119.70
36	BA	1139	G	N1-C6-O6	10.92	126.45	119.90
2	A8	1093	G	P-O3'-C3'	10.92	132.80	119.70
2	A8	356	G	N1-C6-O6	10.92	126.45	119.90
2	A8	2757	A	N1-C6-N6	10.92	125.15	118.60
2	A8	2314	A	N1-C6-N6	10.91	125.15	118.60
2	A8	1401	G	N1-C6-O6	10.91	126.45	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1445	G	C8-N9-C4	-10.91	102.04	106.40
2	A8	1787	A	C5-C6-N6	-10.91	114.97	123.70
36	BA	963	G	N1-C6-O6	10.91	126.44	119.90
2	A8	1133	A	P-O3'-C3'	10.90	132.78	119.70
2	A8	131	A	O4'-C1'-N9	10.90	116.92	108.20
2	A8	926	G	C5-C6-O6	-10.90	122.06	128.60
2	A8	2788	C	O4'-C1'-N1	10.90	116.92	108.20
36	BA	223	A	N1-C6-N6	10.90	125.14	118.60
2	A8	592	A	N1-C6-N6	10.90	125.14	118.60
2	A8	959	A	N1-C6-N6	10.90	125.14	118.60
2	A8	1441	G	C5-C6-O6	-10.90	122.06	128.60
2	A8	2338	C	O4'-C1'-N1	10.90	116.92	108.20
36	BA	404	G	N1-C6-O6	10.89	126.44	119.90
2	A8	359	G	N1-C6-O6	10.89	126.44	119.90
2	A8	1074	G	N1-C6-O6	10.89	126.43	119.90
2	A8	1288	G	N1-C6-O6	10.89	126.43	119.90
2	A8	2535	G	N1-C6-O6	10.89	126.43	119.90
36	BA	869	G	C5-C6-O6	-10.89	122.07	128.60
36	BA	906	A	O4'-C1'-N9	10.89	116.91	108.20
2	A8	340	A	N1-C6-N6	10.89	125.13	118.60
2	A8	2311	A	N1-C6-N6	10.88	125.13	118.60
36	BA	714	G	N1-C6-O6	10.88	126.43	119.90
36	BA	1430	A	N1-C6-N6	10.88	125.13	118.60
36	BA	1242	G	N1-C6-O6	10.88	126.43	119.90
2	A8	1123	C	O4'-C1'-N1	10.88	116.90	108.20
2	A8	1494	A	N1-C6-N6	10.87	125.12	118.60
2	A8	2031	A	N1-C6-N6	10.88	125.12	118.60
36	BA	645	G	C5-C6-O6	-10.87	122.08	128.60
2	A8	123	G	C5-C6-O6	-10.87	122.08	128.60
2	A8	578	G	N1-C6-O6	10.87	126.42	119.90
2	A8	125	A	N1-C6-N6	10.87	125.12	118.60
2	A8	854	C	O4'-C1'-N1	10.87	116.89	108.20
2	A8	2416	C	P-O5'-C5'	10.87	138.29	120.90
36	BA	470	C	O4'-C1'-N1	10.87	116.90	108.20
36	BA	1043	G	N1-C6-O6	10.87	126.42	119.90
1	A7	115	A	N1-C6-N6	10.87	125.12	118.60
2	A8	2030	A	C4-C5-C6	10.87	122.43	117.00
36	BA	1018	G	N1-C6-O6	10.87	126.42	119.90
36	BA	1082	A	N1-C6-N6	10.86	125.12	118.60
2	A8	2468	A	O4'-C1'-C2'	10.86	117.38	107.60
2	A8	2158	A	P-O3'-C3'	10.86	132.73	119.70
2	A8	309	A	N1-C6-N6	10.85	125.11	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	621	A	N1-C6-N6	10.85	125.11	118.60
36	BA	172	A	C8-N9-C4	-10.85	101.46	105.80
2	A8	620	G	C5-C6-O6	-10.85	122.09	128.60
2	A8	1551	A	N1-C6-N6	10.85	125.11	118.60
2	A8	2822	G	N1-C6-O6	10.85	126.41	119.90
36	BA	491	G	N1-C6-O6	10.85	126.41	119.90
36	BA	484	G	N1-C6-O6	10.84	126.41	119.90
36	BA	332	G	C5-C6-O6	-10.84	122.10	128.60
2	A8	2253	G	N1-C6-O6	10.84	126.40	119.90
2	A8	426	C	N3-C4-N4	10.84	125.59	118.00
2	A8	2415	G	C5'-C4'-O4'	10.84	122.11	109.10
2	A8	1345	C	O4'-C1'-N1	10.83	116.87	108.20
36	BA	145	G	N1-C6-O6	10.83	126.40	119.90
2	A8	623	C	O4'-C1'-N1	10.83	116.86	108.20
36	BA	1105	A	N1-C6-N6	10.83	125.10	118.60
2	A8	1332	G	N1-C6-O6	10.83	126.40	119.90
2	A8	2725	A	N1-C6-N6	10.83	125.10	118.60
2	A8	2325	G	N1-C6-O6	10.82	126.39	119.90
2	A8	104	A	N1-C6-N6	10.82	125.09	118.60
2	A8	945	A	N1-C6-N6	10.82	125.09	118.60
36	BA	1171	A	N1-C6-N6	10.82	125.09	118.60
36	BA	1384	C	C6-N1-C2	-10.82	115.97	120.30
2	A8	847	U	C2-N1-C1'	10.80	130.66	117.70
2	A8	1021	A	C8-N9-C4	-10.80	101.48	105.80
2	A8	1160	G	N1-C6-O6	10.80	126.38	119.90
36	BA	988	G	N1-C6-O6	10.80	126.38	119.90
2	A8	894	U	O4'-C1'-N1	10.79	116.84	108.20
2	A8	1377	G	P-O3'-C3'	10.80	132.66	119.70
2	A8	2183	A	N1-C6-N6	10.79	125.08	118.60
2	A8	2030	A	N1-C6-N6	10.79	125.07	118.60
2	A8	285	G	N1-C6-O6	10.79	126.37	119.90
2	A8	1344	U	P-O3'-C3'	-10.79	106.76	119.70
2	A8	705	A	C5-C6-N6	-10.78	115.07	123.70
36	BA	157	U	O4'-C1'-N1	10.78	116.82	108.20
36	BA	893	C	C6-N1-C2	-10.78	115.99	120.30
36	BA	349	A	N1-C6-N6	10.77	125.06	118.60
2	A8	221	A	N1-C6-N6	10.76	125.06	118.60
2	A8	122	G	N1-C6-O6	10.76	126.36	119.90
2	A8	1196	C	O4'-C1'-N1	10.76	116.81	108.20
2	A8	2152	G	P-O3'-C3'	10.76	132.61	119.70
2	A8	2165	C	N3-C4-N4	10.76	125.53	118.00
2	A8	462	C	O4'-C1'-N1	10.76	116.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	447	A	N1-C6-N6	10.75	125.05	118.60
2	A8	1933	G	C5-C6-O6	-10.75	122.15	128.60
2	A8	2662	A	C5-C6-N6	-10.75	115.10	123.70
36	BA	541	G	N1-C6-O6	10.75	126.35	119.90
2	A8	1080	A	N1-C6-N6	10.75	125.05	118.60
2	A8	1149	G	N1-C6-O6	10.75	126.35	119.90
2	A8	1896	G	C5-C6-O6	-10.75	122.15	128.60
2	A8	2216	G	C5-C6-O6	-10.75	122.15	128.60
36	BA	1041	G	C5-C6-O6	-10.75	122.15	128.60
36	BA	499	A	C5-C6-N6	-10.75	115.10	123.70
2	A8	1286	A	N1-C6-N6	10.75	125.05	118.60
2	A8	42	A	N1-C6-N6	10.74	125.05	118.60
2	A8	209	C	C6-N1-C2	-10.74	116.00	120.30
2	A8	496	G	C5-C6-O6	-10.74	122.16	128.60
2	A8	726	G	C4-N9-C1'	-10.74	112.54	126.50
36	BA	395	C	O4'-C1'-N1	10.74	116.79	108.20
36	BA	784	A	N1-C6-N6	10.73	125.04	118.60
2	A8	1435	G	N1-C6-O6	10.73	126.34	119.90
36	BA	1373	G	N1-C6-O6	10.73	126.34	119.90
2	A8	2430	A	C5'-C4'-C3'	10.73	133.17	116.00
36	BA	267	C	P-O5'-C5'	10.73	138.07	120.90
2	A8	509	C	O4'-C1'-N1	10.72	116.78	108.20
2	A8	676	A	N1-C6-N6	10.72	125.03	118.60
36	BA	1526	G	C5-C6-O6	-10.72	122.17	128.60
36	BA	601	G	C5-C6-O6	-10.72	122.17	128.60
2	A8	1571	A	C4-C5-C6	10.72	122.36	117.00
36	BA	1304	G	N1-C6-O6	10.72	126.33	119.90
2	A8	1147	A	C5-C6-N6	-10.72	115.12	123.70
36	BA	928	G	N1-C6-O6	10.72	126.33	119.90
2	A8	2004	G	N1-C6-O6	10.71	126.33	119.90
2	A8	2772	C	C6-N1-C2	-10.71	116.01	120.30
2	A8	668	A	N1-C6-N6	10.71	125.03	118.60
2	A8	1168	G	N1-C6-O6	10.71	126.33	119.90
2	A8	62	U	O4'-C1'-N1	10.71	116.77	108.20
2	A8	141	G	O4'-C1'-N9	10.71	116.77	108.20
2	A8	2758	A	N1-C6-N6	10.71	125.03	118.60
2	A8	24	G	N1-C6-O6	10.70	126.32	119.90
36	BA	74	A	N1-C6-N6	10.71	125.02	118.60
2	A8	1521	G	N1-C6-O6	10.70	126.32	119.90
2	A8	979	A	N1-C6-N6	10.70	125.02	118.60
2	A8	2795	C	O4'-C1'-N1	10.70	116.76	108.20
36	BA	1168	U	O4'-C1'-N1	10.69	116.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	71	A	N1-C6-N6	10.69	125.01	118.60
36	BA	374	A	N1-C6-N6	10.69	125.01	118.60
2	A8	2309	A	N1-C6-N6	10.69	125.01	118.60
36	BA	179	A	N1-C6-N6	10.68	125.01	118.60
36	BA	581	G	N1-C6-O6	10.68	126.31	119.90
2	A8	1091	G	N1-C6-O6	10.68	126.31	119.90
2	A8	1968	G	N3-C2-N2	10.68	127.38	119.90
36	BA	363	A	N1-C6-N6	10.68	125.01	118.60
36	BA	461	A	C5-C6-N6	-10.68	115.16	123.70
2	A8	471	A	N1-C6-N6	10.67	125.00	118.60
36	BA	460	A	P-O3'-C3'	10.67	132.50	119.70
2	A8	1490	A	N1-C6-N6	10.67	125.00	118.60
2	A8	2507	C	C6-N1-C2	-10.66	116.03	120.30
2	A8	2386	A	N1-C6-N6	10.66	125.00	118.60
36	BA	1500	A	N1-C6-N6	10.65	124.99	118.60
2	A8	585	G	C5-C6-O6	-10.65	122.21	128.60
1	A7	86	G	C5-C6-O6	-10.65	122.21	128.60
2	A8	833	A	N1-C6-N6	10.64	124.99	118.60
2	A8	443	A	N1-C6-N6	10.64	124.98	118.60
36	BA	203	G	O4'-C1'-N9	10.64	116.71	108.20
2	A8	1185	G	N1-C6-O6	10.64	126.28	119.90
2	A8	1927	A	C5-C6-N6	-10.64	115.19	123.70
2	A8	2320	U	O4'-C1'-N1	10.63	116.71	108.20
2	A8	726	G	C8-N9-C1'	10.63	140.82	127.00
2	A8	2029	G	N1-C6-O6	10.63	126.28	119.90
36	BA	27	G	N1-C6-O6	10.63	126.28	119.90
36	BA	954	G	N1-C6-O6	10.63	126.28	119.90
36	BA	1225	A	N1-C6-N6	10.63	124.98	118.60
2	A8	2516	A	N1-C6-N6	10.63	124.98	118.60
2	A8	2732	G	C5-C6-O6	-10.63	122.22	128.60
36	BA	1513	A	N1-C6-N6	10.63	124.98	118.60
2	A8	2056	G	N1-C6-O6	10.63	126.28	119.90
2	A8	631	A	N1-C6-N6	10.62	124.97	118.60
2	A8	904	G	N1-C6-O6	10.62	126.27	119.90
36	BA	351	G	N1-C6-O6	10.62	126.27	119.90
2	A8	95	A	N1-C6-N6	10.61	124.97	118.60
2	A8	447	A	C4-C5-C6	10.61	122.31	117.00
2	A8	2217	G	N1-C6-O6	10.61	126.27	119.90
36	BA	496	A	N1-C6-N6	10.61	124.97	118.60
36	BA	648	A	N1-C6-N6	10.61	124.97	118.60
36	BA	1457	G	C5'-C4'-C3'	10.61	132.97	116.00
2	A8	2566	A	N1-C6-N6	10.60	124.96	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2683	C	O4'-C1'-N1	10.60	116.68	108.20
36	BA	1244	G	N1-C6-O6	10.60	126.26	119.90
2	A8	2809	A	N1-C6-N6	10.60	124.96	118.60
36	BA	1020	G	N1-C6-O6	10.60	126.26	119.90
2	A8	1592	C	O4'-C1'-N1	10.59	116.67	108.20
2	A8	2400	G	N1-C6-O6	10.59	126.25	119.90
36	BA	669	G	N1-C6-O6	10.59	126.25	119.90
2	A8	132	G	N1-C6-O6	10.59	126.25	119.90
2	A8	2216	G	N1-C6-O6	10.59	126.25	119.90
2	A8	2435	A	N1-C6-N6	10.59	124.95	118.60
36	BA	729	A	N1-C6-N6	10.59	124.95	118.60
2	A8	1837	C	O4'-C1'-N1	10.58	116.67	108.20
2	A8	1098	A	P-O3'-C3'	10.58	132.40	119.70
36	BA	1154	G	C5-C6-O6	-10.58	122.25	128.60
2	A8	662	G	C5-C6-O6	-10.58	122.25	128.60
36	BA	1288	A	N1-C6-N6	10.58	124.95	118.60
2	A8	2663	G	N1-C6-O6	10.58	126.25	119.90
2	A8	1271	G	O4'-C1'-N9	10.57	116.66	108.20
2	A8	37	C	O4'-C1'-N1	10.57	116.66	108.20
36	BA	995	C	O4'-C1'-N1	10.57	116.66	108.20
1	A7	108	A	C5-C6-N6	-10.57	115.24	123.70
7	A6	61	TYR	CB-CG-CD1	-10.57	114.66	121.00
36	BA	251	G	N1-C6-O6	10.57	126.24	119.90
36	BA	1200	C	O4'-C1'-N1	10.57	116.66	108.20
2	A8	2267	A	C5'-C4'-C3'	10.57	132.91	116.00
36	BA	1357	A	N1-C6-N6	10.57	124.94	118.60
2	A8	2235	G	N1-C6-O6	10.56	126.24	119.90
2	A8	2472	G	C5-C6-O6	-10.56	122.26	128.60
36	BA	1179	A	N1-C6-N6	10.56	124.94	118.60
36	BA	1214	C	P-O3'-C3'	10.56	132.38	119.70
2	A8	1445	G	N1-C6-O6	10.56	126.24	119.90
2	A8	1687	G	C5-C6-O6	-10.56	122.26	128.60
2	A8	2654	A	N1-C6-N6	10.56	124.94	118.60
36	BA	633	G	N1-C6-O6	10.56	126.24	119.90
2	A8	2644	G	N1-C6-O6	10.56	126.23	119.90
36	BA	278	G	C5-C6-O6	-10.56	122.27	128.60
2	A8	2421	G	P-O3'-C3'	10.56	132.37	119.70
36	BA	1053	G	N1-C6-O6	10.56	126.23	119.90
2	A8	1364	G	C5-C6-O6	-10.55	122.27	128.60
2	A8	1857	G	N1-C6-O6	10.55	126.23	119.90
2	A8	1444	G	N1-C6-O6	10.55	126.23	119.90
2	A8	2492	U	O4'-C1'-N1	10.55	116.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1167	A	N1-C6-N6	10.55	124.93	118.60
2	A8	2225	A	N1-C6-N6	10.55	124.93	118.60
2	A8	2577	A	N1-C6-N6	10.55	124.93	118.60
32	A1	19	PHE	CB-CG-CD2	-10.55	113.41	120.80
36	BA	184	G	C5-C6-O6	-10.55	122.27	128.60
2	A8	2606	C	O4'-C1'-N1	10.55	116.64	108.20
2	A8	2869	G	O4'-C1'-N9	10.55	116.64	108.20
36	BA	1222	G	N1-C6-O6	10.54	126.23	119.90
2	A8	701	G	N1-C6-O6	10.54	126.22	119.90
2	A8	1919	A	N1-C6-N6	10.54	124.93	118.60
2	A8	1905	C	C6-N1-C2	-10.54	116.09	120.30
36	BA	486	U	O4'-C1'-N1	10.53	116.63	108.20
36	BA	1338	G	N1-C6-O6	10.53	126.22	119.90
2	A8	2102	G	N1-C6-O6	10.53	126.22	119.90
2	A8	2119	A	N1-C6-N6	10.53	124.92	118.60
36	BA	213	G	C5-C6-O6	-10.52	122.29	128.60
36	BA	270	A	C8-N9-C4	-10.52	101.59	105.80
36	BA	455	G	N1-C6-O6	10.52	126.21	119.90
2	A8	2879	A	C5-C6-N6	-10.52	115.28	123.70
2	A8	1645	G	C8-N9-C4	-10.52	102.19	106.40
2	A8	134	G	C5'-C4'-C3'	-10.51	99.18	116.00
2	A8	506	G	O4'-C1'-N9	10.51	116.61	108.20
36	BA	1276	G	C5-C6-O6	-10.51	122.29	128.60
2	A8	490	C	C6-N1-C2	-10.51	116.10	120.30
2	A8	1031	G	N1-C6-O6	10.51	126.20	119.90
36	BA	1124	G	N1-C6-O6	10.51	126.20	119.90
36	BA	380	G	P-O3'-C3'	10.50	132.30	119.70
2	A8	488	G	N1-C6-O6	10.50	126.20	119.90
2	A8	856	G	C5-C6-O6	-10.50	122.30	128.60
2	A8	1891	G	N1-C6-O6	10.50	126.20	119.90
1	A7	85	G	C5-C6-O6	-10.49	122.30	128.60
36	BA	643	C	C6-N1-C2	-10.49	116.10	120.30
2	A8	1042	G	N1-C6-O6	10.49	126.19	119.90
2	A8	2112	G	N1-C6-O6	10.49	126.19	119.90
36	BA	241	G	C8-N9-C1'	10.49	140.63	127.00
36	BA	518	C	O4'-C1'-N1	10.48	116.59	108.20
2	A8	2051	A	C5-C6-N6	-10.48	115.31	123.70
2	A8	2320	U	P-O5'-C5'	10.48	137.67	120.90
2	A8	2544	G	N1-C6-O6	10.48	126.19	119.90
2	A8	1119	U	O4'-C1'-N1	10.48	116.58	108.20
2	A8	1572	A	C5-C6-N6	-10.48	115.32	123.70
2	A8	1588	G	N1-C6-O6	10.47	126.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1454	C	C2-N1-C1'	10.47	130.32	118.80
2	A8	2564	A	N1-C6-N6	10.47	124.88	118.60
36	BA	1106	G	N1-C6-O6	10.47	126.18	119.90
36	BA	1322	C	O4'-C1'-N1	10.47	116.57	108.20
36	BA	1172	C	O4'-C1'-N1	10.46	116.57	108.20
2	A8	2048	G	C5-C6-O6	-10.46	122.32	128.60
2	A8	72	U	O4'-C1'-N1	10.46	116.57	108.20
2	A8	1489	C	O4'-C1'-N1	10.46	116.57	108.20
2	A8	507	A	N1-C6-N6	10.45	124.87	118.60
36	BA	75	G	C5-C6-O6	-10.45	122.33	128.60
2	A8	2848	G	O4'-C1'-N9	10.45	116.56	108.20
36	BA	585	G	N1-C6-O6	10.45	126.17	119.90
2	A8	2414	G	P-O3'-C3'	10.45	132.24	119.70
2	A8	2569	G	C5-C6-O6	-10.45	122.33	128.60
2	A8	2019	A	N1-C6-N6	10.44	124.87	118.60
2	A8	788	A	N1-C6-N6	10.44	124.86	118.60
36	BA	554	A	N1-C6-N6	10.44	124.86	118.60
36	BA	1034	G	N1-C6-O6	10.44	126.16	119.90
2	A8	1930	G	P-O3'-C3'	10.43	132.22	119.70
2	A8	1848	A	P-O5'-C5'	10.43	137.59	120.90
2	A8	111	A	N1-C6-N6	10.43	124.86	118.60
2	A8	983	A	O4'-C1'-N9	10.43	116.54	108.20
2	A8	1901	A	N1-C6-N6	10.43	124.86	118.60
36	BA	1006	G	N1-C6-O6	10.42	126.15	119.90
2	A8	63	A	N1-C6-N6	10.42	124.85	118.60
2	A8	1248	G	N1-C6-O6	10.42	126.15	119.90
36	BA	756	C	C6-N1-C2	-10.42	116.13	120.30
2	A8	634	C	O4'-C1'-N1	10.41	116.53	108.20
2	A8	966	G	N1-C6-O6	10.41	126.15	119.90
2	A8	1858	A	C5-C6-N6	-10.41	115.37	123.70
36	BA	533	A	N1-C6-N6	10.41	124.85	118.60
2	A8	577	G	C5-C6-O6	-10.41	122.35	128.60
2	A8	1524	G	N1-C6-O6	10.41	126.15	119.90
36	BA	487	A	C4-C5-C6	10.41	122.21	117.00
2	A8	1728	C	O4'-C1'-N1	10.41	116.53	108.20
36	BA	765	G	N1-C6-O6	10.41	126.14	119.90
2	A8	506	G	N1-C6-O6	10.40	126.14	119.90
2	A8	681	G	N1-C6-O6	10.40	126.14	119.90
2	A8	2358	A	N1-C6-N6	10.40	124.84	118.60
2	A8	2557	G	N1-C6-O6	10.40	126.14	119.90
36	BA	491	G	C5-C6-O6	-10.40	122.36	128.60
36	BA	117	G	C5-C6-O6	-10.39	122.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	457	G	C5-C6-O6	-10.39	122.36	128.60
2	A8	1538	G	N1-C6-O6	10.39	126.13	119.90
2	A8	1377	G	N1-C6-O6	10.39	126.13	119.90
2	A8	859	G	N1-C6-O6	10.39	126.13	119.90
2	A8	337	C	O4'-C1'-N1	10.38	116.51	108.20
2	A8	2547	A	N1-C6-N6	10.38	124.83	118.60
2	A8	2604	U	C5'-C4'-C3'	-10.38	99.39	116.00
36	BA	75	G	N1-C6-O6	10.38	126.13	119.90
36	BA	1057	G	N1-C6-O6	10.38	126.13	119.90
36	BA	284	C	O4'-C1'-N1	10.38	116.50	108.20
2	A8	2805	C	O4'-C1'-N1	10.38	116.50	108.20
2	A8	1065	U	O4'-C1'-N1	10.38	116.50	108.20
36	BA	1422	G	N1-C6-O6	10.37	126.12	119.90
2	A8	436	C	O4'-C1'-N1	10.37	116.50	108.20
36	BA	419	C	O4'-C1'-N1	10.37	116.50	108.20
36	BA	477	C	O4'-C1'-N1	10.37	116.50	108.20
2	A8	1105	U	O4'-C1'-N1	10.37	116.49	108.20
2	A8	1230	A	C5'-C4'-C3'	-10.37	99.41	116.00
36	BA	1495	U	O4'-C1'-N1	10.37	116.49	108.20
2	A8	2727	A	C5'-C4'-C3'	-10.37	99.42	116.00
36	BA	456	A	N1-C6-N6	10.37	124.82	118.60
36	BA	606	G	N1-C6-O6	10.37	126.12	119.90
2	A8	274	C	O4'-C1'-N1	10.36	116.48	108.20
2	A8	1980	G	O4'-C1'-N9	10.36	116.48	108.20
2	A8	2479	U	O4'-C1'-N1	10.36	116.48	108.20
36	BA	629	A	N1-C6-N6	10.36	124.81	118.60
2	A8	1068	G	N1-C6-O6	10.35	126.11	119.90
2	A8	1961	C	O4'-C1'-N1	10.35	116.48	108.20
36	BA	274	A	N1-C6-N6	10.35	124.81	118.60
36	BA	306	A	N1-C6-N6	10.35	124.81	118.60
36	BA	951	G	N1-C6-O6	10.35	126.11	119.90
36	BA	1296	C	O4'-C1'-N1	10.35	116.48	108.20
2	A8	625	G	N1-C6-O6	10.35	126.11	119.90
2	A8	868	U	C5'-C4'-C3'	-10.35	99.45	116.00
36	BA	378	G	N1-C6-O6	10.35	126.11	119.90
2	A8	706	A	C5-C6-N6	-10.34	115.42	123.70
2	A8	1477	A	C5-C6-N6	-10.34	115.43	123.70
2	A8	1055	G	C4-N9-C1'	-10.34	113.06	126.50
2	A8	1865	U	O4'-C1'-N1	10.34	116.47	108.20
36	BA	1491	G	N1-C6-O6	10.34	126.10	119.90
2	A8	1048	A	N1-C6-N6	10.34	124.80	118.60
2	A8	2748	A	N1-C6-N6	10.34	124.80	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1568	G	C5-C6-O6	-10.33	122.40	128.60
36	BA	1307	U	O4'-C1'-N1	10.33	116.47	108.20
2	A8	160	A	N1-C6-N6	10.33	124.80	118.60
2	A8	876	C	O4'-C1'-N1	10.33	116.46	108.20
2	A8	230	G	C5-C6-O6	-10.33	122.40	128.60
2	A8	2341	G	N1-C6-O6	10.33	126.09	119.90
2	A8	582	A	N1-C6-N6	10.32	124.80	118.60
36	BA	415	A	N1-C6-N6	10.32	124.80	118.60
36	BA	646	G	N1-C6-O6	10.32	126.09	119.90
2	A8	1989	G	N1-C6-O6	10.32	126.09	119.90
2	A8	1648	U	O4'-C1'-N1	10.32	116.45	108.20
2	A8	708	G	N1-C6-O6	10.32	126.09	119.90
2	A8	1780	A	N1-C6-N6	10.32	124.79	118.60
36	BA	544	G	N1-C6-O6	10.31	126.09	119.90
2	A8	2002	G	N1-C6-O6	10.31	126.09	119.90
36	BA	1182	G	N1-C6-O6	10.31	126.08	119.90
2	A8	2439	A	N1-C6-N6	10.31	124.78	118.60
36	BA	890	G	O4'-C1'-N9	10.31	116.44	108.20
2	A8	1564	C	C6-N1-C2	-10.30	116.18	120.30
2	A8	2330	G	C5-C6-O6	-10.30	122.42	128.60
2	A8	2648	G	N1-C6-O6	10.30	126.08	119.90
36	BA	712	A	N1-C6-N6	10.30	124.78	118.60
36	BA	370	C	O4'-C1'-N1	10.30	116.44	108.20
2	A8	1890	A	C8-N9-C4	-10.29	101.68	105.80
2	A8	1902	C	C6-N1-C2	-10.29	116.18	120.30
2	A8	2600	A	P-O5'-C5'	10.29	137.37	120.90
36	BA	269	C	O4'-C1'-N1	10.29	116.44	108.20
36	BA	351	G	C5-C6-O6	-10.30	122.42	128.60
2	A8	2648	G	C5-C6-O6	-10.29	122.42	128.60
2	A8	1900	A	N1-C6-N6	10.29	124.77	118.60
36	BA	1166	G	N1-C6-O6	10.29	126.07	119.90
2	A8	974	G	N1-C6-O6	10.28	126.07	119.90
2	A8	1241	A	N1-C6-N6	10.29	124.77	118.60
2	A8	2761	A	N1-C6-N6	10.29	124.77	118.60
2	A8	1371	G	C4-N9-C1'	-10.28	113.14	126.50
2	A8	1789	A	N1-C6-N6	10.28	124.77	118.60
36	BA	203	G	P-O3'-C3'	-10.28	107.37	119.70
36	BA	650	G	N1-C6-O6	10.28	126.07	119.90
36	BA	780	A	C5-C6-N6	-10.28	115.48	123.70
2	A8	1055	G	O4'-C1'-N9	10.27	116.42	108.20
2	A8	782	A	N1-C6-N6	10.27	124.76	118.60
1	A7	93	C	O4'-C1'-N1	10.27	116.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	770	G	O4'-C1'-N9	10.27	116.42	108.20
36	BA	1364	U	O4'-C1'-N1	10.27	116.42	108.20
2	A8	1418	G	N1-C6-O6	10.27	126.06	119.90
2	A8	1839	G	N1-C6-O6	10.27	126.06	119.90
36	BA	100	G	C5-C6-O6	-10.26	122.44	128.60
1	A7	34	A	N1-C6-N6	10.26	124.75	118.60
2	A8	249	C	O4'-C1'-N1	10.26	116.41	108.20
2	A8	1642	G	N1-C6-O6	10.26	126.05	119.90
2	A8	1606	C	O4'-C1'-N1	10.25	116.40	108.20
36	BA	654	G	N1-C6-O6	10.25	126.05	119.90
2	A8	460	A	C5-C6-N6	-10.25	115.50	123.70
2	A8	861	A	C5-C6-N6	-10.25	115.50	123.70
2	A8	2430	A	P-O5'-C5'	10.25	137.30	120.90
36	BA	935	A	P-O5'-C5'	10.25	137.30	120.90
2	A8	932	U	O4'-C1'-N1	10.24	116.40	108.20
2	A8	1220	G	C5-C6-O6	-10.24	122.46	128.60
2	A8	2714	G	N1-C6-O6	10.24	126.04	119.90
2	A8	2778	A	N1-C6-N6	10.24	124.75	118.60
36	BA	200	G	N1-C6-O6	10.24	126.04	119.90
36	BA	601	G	N1-C6-O6	10.24	126.04	119.90
36	BA	1418	A	C4-C5-C6	10.24	122.12	117.00
36	BA	377	G	N1-C6-O6	10.24	126.04	119.90
2	A8	1719	G	N1-C6-O6	10.24	126.04	119.90
2	A8	742	A	C5'-C4'-C3'	-10.23	99.63	116.00
2	A8	954	G	N1-C6-O6	10.23	126.04	119.90
36	BA	993	G	O4'-C1'-N9	10.23	116.39	108.20
1	A7	13	G	N1-C6-O6	10.23	126.04	119.90
2	A8	2330	G	N1-C6-O6	10.23	126.04	119.90
2	A8	2319	G	N1-C6-O6	10.23	126.04	119.90
2	A8	263	G	N1-C6-O6	10.22	126.03	119.90
36	BA	1015	G	N1-C6-O6	10.22	126.03	119.90
2	A8	1185	G	C5-C6-O6	-10.22	122.47	128.60
2	A8	347	A	C8-N9-C4	-10.22	101.71	105.80
2	A8	425	G	C5-C6-O6	-10.22	122.47	128.60
2	A8	2860	A	C8-N9-C4	-10.22	101.71	105.80
2	A8	2126	A	N1-C6-N6	10.21	124.73	118.60
2	A8	2792	A	N1-C6-N6	10.21	124.73	118.60
2	A8	65	U	O4'-C1'-N1	10.21	116.37	108.20
2	A8	1450	G	N1-C6-O6	10.21	126.03	119.90
2	A8	1543	G	C4-N9-C1'	-10.21	113.23	126.50
36	BA	39	G	N1-C6-O6	10.21	126.02	119.90
36	BA	1459	G	N1-C6-O6	10.21	126.03	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1515	G	N1-C6-O6	10.21	126.03	119.90
2	A8	748	G	N1-C6-O6	10.21	126.02	119.90
2	A8	1924	C	O4'-C1'-N1	10.21	116.36	108.20
2	A8	1890	A	C4-C5-C6	10.20	122.10	117.00
1	A7	89	U	O4'-C1'-N1	10.20	116.36	108.20
2	A8	1546	G	O4'-C1'-N9	10.20	116.36	108.20
2	A8	1987	A	N1-C6-N6	10.20	124.72	118.60
2	A8	2213	U	P-O3'-C3'	10.20	131.94	119.70
2	A8	1492	G	O4'-C1'-N9	10.20	116.36	108.20
2	A8	2318	G	N1-C6-O6	10.20	126.02	119.90
2	A8	1411	U	O4'-C1'-N1	10.19	116.35	108.20
2	A8	1514	G	N1-C6-O6	10.19	126.02	119.90
2	A8	700	G	N1-C6-O6	10.19	126.01	119.90
2	A8	2057	G	N1-C6-O6	10.18	126.01	119.90
2	A8	550	C	O4'-C1'-N1	10.18	116.34	108.20
2	A8	985	C	O4'-C1'-N1	10.17	116.34	108.20
2	A8	1206	G	N1-C6-O6	10.17	126.00	119.90
2	A8	1905	C	O4'-C1'-N1	10.17	116.34	108.20
2	A8	1954	G	O4'-C1'-N9	10.17	116.34	108.20
36	BA	508	U	P-O3'-C3'	10.17	131.91	119.70
2	A8	1320	C	N3-C4-C5	-10.17	117.83	121.90
2	A8	1529	G	P-O3'-C3'	-10.17	107.50	119.70
2	A8	455	C	O4'-C1'-N1	10.17	116.33	108.20
2	A8	2481	G	C5-C6-O6	-10.17	122.50	128.60
36	BA	1207	G	N1-C6-O6	10.17	126.00	119.90
36	BA	802	A	C8-N9-C4	-10.16	101.73	105.80
2	A8	272	A	N1-C6-N6	10.16	124.69	118.60
2	A8	1143	A	N1-C6-N6	10.16	124.70	118.60
2	A8	1922	G	N1-C6-O6	10.16	126.00	119.90
36	BA	663	A	N1-C6-N6	10.16	124.69	118.60
36	BA	889	A	C5-C6-N6	-10.16	115.57	123.70
36	BA	1144	G	N1-C6-O6	10.15	125.99	119.90
2	A8	2644	G	C5-C6-O6	-10.15	122.51	128.60
36	BA	1403	C	O4'-C1'-N1	10.15	116.32	108.20
2	A8	220	G	N1-C6-O6	10.15	125.99	119.90
2	A8	971	G	N1-C6-O6	10.15	125.99	119.90
2	A8	2402	U	O4'-C1'-N1	10.14	116.32	108.20
2	A8	742	A	C5-C6-N6	-10.14	115.58	123.70
2	A8	1191	G	N1-C6-O6	10.14	125.99	119.90
2	A8	2128	G	N1-C6-O6	10.14	125.99	119.90
2	A8	177	G	C5-C6-O6	-10.14	122.52	128.60
2	A8	956	G	C5-C6-O6	-10.14	122.52	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2205	A	N1-C6-N6	10.14	124.69	118.60
36	BA	836	G	C5-C6-O6	-10.14	122.52	128.60
2	A8	2643	G	N1-C6-O6	10.13	125.98	119.90
36	BA	163	C	O4'-C1'-N1	10.13	116.31	108.20
2	A8	247	G	N1-C6-O6	10.13	125.98	119.90
2	A8	932	U	C5'-C4'-O4'	10.13	121.26	109.10
36	BA	332	G	N1-C6-O6	10.13	125.98	119.90
2	A8	760	G	N1-C6-O6	10.13	125.98	119.90
2	A8	2425	A	N1-C6-N6	10.13	124.68	118.60
2	A8	1612	C	O4'-C1'-N1	10.13	116.30	108.20
2	A8	887	U	O4'-C1'-N1	10.12	116.30	108.20
2	A8	1130	U	O4'-C1'-N1	10.12	116.30	108.20
2	A8	1668	A	N1-C6-N6	10.12	124.67	118.60
2	A8	2133	G	N1-C6-O6	10.12	125.97	119.90
2	A8	2883	A	C5-C6-N6	-10.12	115.60	123.70
2	A8	2198	A	C5-C6-N6	-10.12	115.61	123.70
2	A8	2296	U	P-O3'-C3'	10.12	131.84	119.70
2	A8	2747	G	N1-C6-O6	10.12	125.97	119.90
2	A8	1102	C	O4'-C1'-N1	10.12	116.29	108.20
2	A8	1126	A	C5-C6-N6	-10.11	115.61	123.70
2	A8	1689	A	C4-C5-C6	10.12	122.06	117.00
2	A8	2501	C	C5-C4-N4	-10.11	113.12	120.20
2	A8	881	G	N1-C6-O6	10.11	125.97	119.90
2	A8	1628	G	N1-C6-O6	10.11	125.97	119.90
2	A8	1645	G	N1-C6-O6	10.11	125.97	119.90
36	BA	1150	A	N1-C6-N6	10.11	124.67	118.60
36	BA	1463	U	O4'-C1'-N1	10.11	116.29	108.20
2	A8	825	A	N1-C6-N6	10.11	124.67	118.60
36	BA	204	G	N1-C6-O6	10.11	125.97	119.90
36	BA	1242	G	C5-C6-O6	-10.11	122.53	128.60
2	A8	1743	G	N1-C6-O6	10.10	125.96	119.90
2	A8	2110	G	N1-C6-O6	10.10	125.96	119.90
36	BA	1507	A	N1-C6-N6	10.10	124.66	118.60
2	A8	2428	G	P-O3'-C3'	10.10	131.82	119.70
36	BA	1294	G	N1-C6-O6	10.10	125.96	119.90
36	BA	1499	A	N1-C6-N6	10.10	124.66	118.60
2	A8	241	A	C5-C6-N6	-10.10	115.62	123.70
2	A8	1184	U	O4'-C1'-N1	10.10	116.28	108.20
2	A8	2232	C	O4'-C1'-N1	10.09	116.27	108.20
36	BA	757	U	O4'-C1'-N1	10.09	116.27	108.20
2	A8	2425	A	C1'-O4'-C4'	-10.09	101.83	109.90
36	BA	725	G	N1-C6-O6	10.09	125.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	954	G	C5-C6-O6	-10.09	122.55	128.60
2	A8	2512	C	O4'-C1'-N1	10.09	116.27	108.20
2	A8	1054	A	N1-C6-N6	10.08	124.65	118.60
2	A8	2285	C	O4'-C1'-N1	10.08	116.27	108.20
36	BA	798	U	O4'-C1'-N1	10.08	116.27	108.20
1	A7	51	G	O4'-C1'-N9	10.08	116.26	108.20
2	A8	287	G	N1-C6-O6	10.08	125.95	119.90
2	A8	1535	A	C5-C6-N6	-10.08	115.64	123.70
2	A8	1750	G	N1-C6-O6	10.08	125.95	119.90
2	A8	98	G	N1-C6-O6	10.07	125.94	119.90
2	A8	941	A	N1-C6-N6	10.07	124.64	118.60
2	A8	1145	C	O4'-C1'-N1	10.06	116.25	108.20
2	A8	1899	A	C5-C6-N6	-10.06	115.65	123.70
2	A8	2284	A	N1-C6-N6	10.06	124.64	118.60
36	BA	1294	G	C5-C6-O6	-10.06	122.56	128.60
2	A8	1389	G	N1-C6-O6	10.06	125.94	119.90
1	A7	23	G	C5-C6-O6	-10.06	122.56	128.60
2	A8	791	C	P-O3'-C3'	10.06	131.77	119.70
2	A8	1149	G	C5-C6-O6	-10.06	122.56	128.60
2	A8	2065	C	O4'-C1'-N1	10.06	116.25	108.20
36	BA	542	G	N1-C6-O6	10.06	125.94	119.90
2	A8	2184	A	N1-C6-N6	10.06	124.63	118.60
36	BA	806	C	O4'-C1'-N1	10.06	116.25	108.20
36	BA	1108	G	N1-C6-O6	10.06	125.94	119.90
2	A8	1681	G	N1-C6-O6	10.06	125.93	119.90
2	A8	122	G	C5-C6-O6	-10.05	122.57	128.60
36	BA	1178	G	N1-C6-O6	10.05	125.93	119.90
2	A8	310	A	N1-C6-N6	10.05	124.63	118.60
36	BA	444	G	N1-C6-O6	10.05	125.93	119.90
2	A8	1029	A	C4-C5-C6	10.05	122.02	117.00
2	A8	1299	G	C5-C6-O6	-10.04	122.57	128.60
2	A8	1435	G	C5-C6-O6	-10.04	122.58	128.60
2	A8	1701	A	O4'-C1'-N9	10.04	116.23	108.20
2	A8	2165	C	O4'-C1'-N1	10.04	116.23	108.20
36	BA	596	A	N1-C6-N6	10.04	124.62	118.60
2	A8	2215	C	O4'-C1'-N1	10.04	116.23	108.20
36	BA	1169	A	N1-C6-N6	10.04	124.62	118.60
2	A8	190	A	C5-C6-N6	-10.03	115.68	123.70
2	A8	2524	G	C5-C6-O6	-10.03	122.58	128.60
36	BA	971	G	N1-C6-O6	10.03	125.92	119.90
36	BA	727	G	N1-C6-O6	10.03	125.92	119.90
2	A8	2902	C	O4'-C1'-N1	10.02	116.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	268	C	C6-N1-C2	-10.02	116.29	120.30
2	A8	1621	U	O4'-C1'-N1	10.02	116.21	108.20
2	A8	1879	C	O4'-C1'-N1	10.02	116.21	108.20
36	BA	637	C	O4'-C1'-N1	10.02	116.22	108.20
36	BA	714	G	C5-C6-O6	-10.02	122.59	128.60
2	A8	242	G	N1-C6-O6	10.02	125.91	119.90
11	AG	93	TYR	CB-CG-CD1	-10.02	114.99	121.00
2	A8	1011	G	N1-C6-O6	10.01	125.91	119.90
2	A8	1531	C	P-O5'-C5'	-10.01	104.88	120.90
2	A8	2244	U	P-O5'-C5'	10.01	136.91	120.90
36	BA	347	G	O4'-C1'-N9	10.01	116.21	108.20
2	A8	2209	G	N1-C6-O6	10.00	125.90	119.90
36	BA	269	C	C6-N1-C2	-10.00	116.30	120.30
2	A8	2048	G	N1-C6-O6	10.00	125.90	119.90
2	A8	2450	A	N1-C6-N6	10.00	124.60	118.60
2	A8	1492	G	C4-N9-C1'	-10.00	113.50	126.50
2	A8	2489	U	O4'-C1'-N1	10.00	116.20	108.20
2	A8	2679	A	N1-C6-N6	10.00	124.60	118.60
2	A8	1129	A	C1'-O4'-C4'	-9.99	101.91	109.90
36	BA	102	G	N1-C6-O6	9.99	125.90	119.90
2	A8	1135	C	P-O3'-C3'	9.99	131.69	119.70
2	A8	2173	A	N1-C6-N6	9.99	124.59	118.60
2	A8	2190	G	O4'-C1'-N9	9.99	116.19	108.20
2	A8	2270	A	N1-C6-N6	9.99	124.59	118.60
2	A8	1735	A	N1-C6-N6	9.98	124.59	118.60
36	BA	1460	C	O4'-C1'-N1	9.98	116.18	108.20
2	A8	1504	A	C5-C6-N6	-9.98	115.72	123.70
2	A8	968	C	C5'-C4'-C3'	-9.97	100.04	116.00
2	A8	1288	G	C5-C6-O6	-9.97	122.61	128.60
2	A8	2156	G	N1-C6-O6	9.97	125.88	119.90
36	BA	706	A	O4'-C1'-N9	9.97	116.18	108.20
2	A8	989	G	C4-N9-C1'	-9.97	113.54	126.50
36	BA	900	A	C5'-C4'-C3'	-9.97	100.05	116.00
2	A8	1665	A	C5-C6-N6	-9.97	115.73	123.70
2	A8	831	G	N1-C6-O6	9.96	125.88	119.90
2	A8	159	G	N1-C6-O6	9.96	125.88	119.90
2	A8	1873	G	C5-C6-O6	-9.96	122.62	128.60
2	A8	1482	G	O4'-C1'-N9	9.96	116.17	108.20
2	A8	1956	U	C5'-C4'-C3'	-9.96	100.07	116.00
36	BA	1297	G	N1-C6-O6	9.96	125.87	119.90
2	A8	2156	G	O4'-C1'-N9	9.95	116.16	108.20
2	A8	2703	C	O4'-C1'-N1	9.95	116.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1367	C	O4'-C1'-N1	9.96	116.16	108.20
2	A8	917	A	C5-C6-N6	-9.95	115.74	123.70
2	A8	1419	A	C5-C6-N6	-9.95	115.74	123.70
36	BA	1157	A	N1-C6-N6	9.95	124.57	118.60
36	BA	498	A	N1-C6-N6	9.95	124.57	118.60
36	BA	1044	A	C5-C6-N6	-9.95	115.74	123.70
2	A8	57	C	O4'-C1'-N1	9.95	116.16	108.20
2	A8	2692	G	N1-C6-O6	9.95	125.87	119.90
36	BA	633	G	C8-N9-C4	-9.95	102.42	106.40
36	BA	888	G	N1-C6-O6	9.94	125.87	119.90
36	BA	977	A	N1-C6-N6	9.94	124.57	118.60
2	A8	543	G	N1-C6-O6	9.94	125.86	119.90
2	A8	1968	G	N1-C6-O6	9.94	125.86	119.90
2	A8	2567	G	N1-C6-O6	9.94	125.86	119.90
2	A8	776	G	C5-C6-O6	-9.94	122.64	128.60
36	BA	468	A	C5-C6-N6	-9.94	115.75	123.70
2	A8	2228	G	N1-C6-O6	9.94	125.86	119.90
2	A8	2799	A	N1-C6-N6	9.94	124.56	118.60
2	A8	780	G	N1-C6-O6	9.93	125.86	119.90
36	BA	716	A	N1-C6-N6	9.93	124.56	118.60
36	BA	1190	G	N1-C6-O6	9.93	125.86	119.90
36	BA	1227	A	N1-C6-N6	9.93	124.56	118.60
2	A8	1307	A	N1-C6-N6	9.93	124.56	118.60
2	A8	1625	C	C6-N1-C2	-9.93	116.33	120.30
2	A8	2536	G	C5-C6-O6	-9.93	122.64	128.60
2	A8	554	U	O4'-C1'-N1	9.92	116.14	108.20
2	A8	726	G	O4'-C1'-N9	9.92	116.14	108.20
2	A8	926	G	N1-C6-O6	9.92	125.85	119.90
2	A8	1622	G	N1-C6-O6	9.92	125.85	119.90
36	BA	104	G	N1-C6-O6	9.92	125.85	119.90
36	BA	1489	G	N1-C6-O6	9.92	125.85	119.90
2	A8	2467	C	O4'-C1'-N1	9.92	116.13	108.20
2	A8	187	G	C8-N9-C4	-9.91	102.43	106.40
2	A8	196	A	O4'-C1'-N9	9.91	116.13	108.20
2	A8	355	U	O4'-C1'-N1	9.91	116.13	108.20
36	BA	894	G	C5-C6-O6	-9.91	122.65	128.60
2	A8	745	G	N1-C6-O6	9.91	125.85	119.90
36	BA	288	A	C5-C6-N6	-9.91	115.77	123.70
2	A8	1163	G	N1-C6-O6	9.91	125.84	119.90
36	BA	1061	G	C5-C6-O6	-9.91	122.66	128.60
2	A8	774	G	N1-C6-O6	9.90	125.84	119.90
2	A8	1401	G	C5-C6-O6	-9.90	122.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1935	G	N1-C6-O6	9.90	125.84	119.90
36	BA	270	A	C5-C6-N6	-9.90	115.78	123.70
36	BA	949	A	N1-C6-N6	9.90	124.54	118.60
2	A8	727	A	C8-N9-C4	-9.90	101.84	105.80
36	BA	1514	G	N1-C6-O6	9.90	125.84	119.90
2	A8	2396	G	N1-C6-O6	9.89	125.84	119.90
36	BA	457	G	N1-C6-O6	9.89	125.84	119.90
2	A8	2252	G	N1-C6-O6	9.89	125.83	119.90
36	BA	276	G	N1-C6-O6	9.89	125.83	119.90
2	A8	1306	C	O4'-C1'-N1	9.89	116.11	108.20
2	A8	2704	C	O4'-C1'-N1	9.89	116.11	108.20
36	BA	1521	C	O4'-C1'-N1	9.88	116.11	108.20
2	A8	2532	G	C5-C6-O6	-9.88	122.67	128.60
2	A8	2434	A	O4'-C1'-N9	9.88	116.10	108.20
2	A8	2706	A	C8-N9-C4	-9.88	101.85	105.80
36	BA	745	G	C5-C6-O6	-9.88	122.67	128.60
36	BA	700	G	N1-C6-O6	9.87	125.82	119.90
2	A8	2303	G	N1-C6-O6	9.87	125.82	119.90
36	BA	840	C	O4'-C1'-N1	9.87	116.10	108.20
36	BA	1234	C	O4'-C1'-N1	9.87	116.10	108.20
2	A8	583	G	N1-C6-O6	9.87	125.82	119.90
2	A8	2315	G	N1-C6-O6	9.87	125.82	119.90
2	A8	12	U	C5'-C4'-C3'	9.87	131.78	116.00
36	BA	556	C	C6-N1-C2	-9.87	116.35	120.30
36	BA	1034	G	C5-C6-O6	-9.86	122.68	128.60
2	A8	2197	U	O4'-C1'-N1	9.86	116.09	108.20
2	A8	2309	A	P-O3'-C3'	9.86	131.53	119.70
36	BA	19	A	N1-C6-N6	9.86	124.52	118.60
36	BA	347	G	N1-C6-O6	9.86	125.81	119.90
36	BA	1013	G	N1-C6-O6	9.86	125.81	119.90
36	BA	1491	G	C5-C6-O6	-9.86	122.69	128.60
2	A8	2469	A	C8-N9-C4	-9.85	101.86	105.80
2	A8	2706	A	C4-C5-C6	9.85	121.93	117.00
36	BA	1244	G	C5-C6-O6	-9.85	122.69	128.60
1	A7	64	G	N1-C6-O6	9.85	125.81	119.90
2	A8	298	G	N1-C6-O6	9.85	125.81	119.90
2	A8	2627	G	N1-C6-O6	9.85	125.81	119.90
36	BA	958	A	N1-C6-N6	9.85	124.51	118.60
36	BA	1043	G	C5-C6-O6	-9.85	122.69	128.60
2	A8	1734	G	C8-N9-C1'	9.85	139.80	127.00
36	BA	973	G	N1-C6-O6	9.85	125.81	119.90
36	BA	1508	A	O4'-C1'-N9	9.85	116.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1093	G	N1-C6-O6	9.84	125.81	119.90
2	A8	1904	G	N1-C6-O6	9.84	125.81	119.90
36	BA	604	G	N1-C6-O6	9.84	125.80	119.90
36	BA	1143	G	N1-C6-O6	9.84	125.80	119.90
2	A8	45	G	N1-C6-O6	9.84	125.80	119.90
36	BA	587	G	N1-C6-O6	9.84	125.80	119.90
2	A8	289	G	N1-C6-O6	9.83	125.80	119.90
36	BA	1119	C	O4'-C1'-N1	9.83	116.07	108.20
2	A8	1531	C	P-O3'-C3'	9.83	131.50	119.70
2	A8	1667	G	N1-C6-O6	9.83	125.80	119.90
2	A8	317	G	N1-C6-O6	9.83	125.80	119.90
2	A8	938	G	N1-C6-O6	9.83	125.80	119.90
36	BA	1257	A	N1-C6-N6	9.83	124.50	118.60
36	BA	1316	G	N1-C6-O6	9.83	125.80	119.90
2	A8	832	U	O4'-C1'-N1	9.82	116.06	108.20
1	A7	24	G	N1-C6-O6	9.82	125.79	119.90
2	A8	2816	G	N1-C6-O6	9.82	125.79	119.90
2	A8	1547	C	N3-C4-N4	9.81	124.87	118.00
2	A8	2070	A	N1-C6-N6	9.81	124.49	118.60
36	BA	1203	C	O4'-C1'-N1	9.81	116.05	108.20
36	BA	460	A	O4'-C1'-N9	9.81	116.05	108.20
2	A8	774	G	C5-C6-O6	-9.81	122.72	128.60
2	A8	2165	C	N3-C4-C5	-9.81	117.98	121.90
2	A8	776	G	O4'-C1'-N9	9.80	116.04	108.20
36	BA	1156	G	N1-C6-O6	9.81	125.78	119.90
36	BA	1233	G	N1-C6-O6	9.80	125.78	119.90
36	BA	1498	U	O4'-C1'-N1	9.80	116.04	108.20
2	A8	1220	G	N1-C6-O6	9.80	125.78	119.90
2	A8	1634	A	C5'-C4'-C3'	-9.80	100.32	116.00
36	BA	17	U	O4'-C1'-N1	9.80	116.04	108.20
36	BA	320	A	O4'-C1'-N9	9.80	116.04	108.20
2	A8	1792	G	N1-C6-O6	9.79	125.78	119.90
36	BA	300	A	C5'-C4'-C3'	-9.80	100.33	116.00
2	A8	445	C	O4'-C1'-N1	9.79	116.03	108.20
36	BA	1478	U	O4'-C1'-N1	9.79	116.03	108.20
2	A8	204	A	N1-C6-N6	9.79	124.47	118.60
36	BA	425	G	N1-C6-O6	9.79	125.78	119.90
36	BA	1374	A	N1-C6-N6	9.79	124.47	118.60
2	A8	1052	C	O4'-C1'-N1	9.79	116.03	108.20
2	A8	2321	U	O4'-C1'-N1	9.79	116.03	108.20
2	A8	1047	G	N1-C6-O6	9.79	125.77	119.90
2	A8	66	C	O4'-C1'-N1	9.78	116.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2123	G	N1-C6-O6	9.78	125.77	119.90
36	BA	265	G	C8-N9-C4	-9.78	102.49	106.40
36	BA	1514	G	C5-C6-O6	-9.78	122.73	128.60
2	A8	1276	A	N1-C6-N6	9.78	124.47	118.60
36	BA	613	C	O4'-C1'-N1	9.78	116.02	108.20
36	BA	650	G	C5-C6-O6	-9.78	122.73	128.60
36	BA	243	A	N1-C6-N6	9.78	124.47	118.60
2	A8	1449	G	N1-C6-O6	9.78	125.77	119.90
2	A8	1285	A	N1-C6-N6	9.77	124.46	118.60
36	BA	321	A	N1-C6-N6	9.77	124.46	118.60
36	BA	1020	G	C5-C6-O6	-9.77	122.74	128.60
2	A8	1279	G	N1-C6-O6	9.77	125.76	119.90
2	A8	1341	G	N1-C6-O6	9.77	125.76	119.90
2	A8	372	G	N1-C6-O6	9.77	125.76	119.90
2	A8	1633	G	C5-C6-O6	-9.76	122.74	128.60
2	A8	2415	G	C8-N9-C4	-9.76	102.49	106.40
2	A8	618	G	N1-C6-O6	9.76	125.76	119.90
2	A8	1843	C	O4'-C1'-N1	9.76	116.01	108.20
2	A8	2813	A	C5'-C4'-C3'	-9.76	100.39	116.00
36	BA	501	C	O4'-C1'-N1	9.76	116.00	108.20
36	BA	1216	A	O4'-C1'-N9	9.76	116.00	108.20
2	A8	2710	C	O4'-C1'-N1	9.75	116.00	108.20
2	A8	1271	G	N1-C6-O6	9.75	125.75	119.90
2	A8	2479	U	P-O5'-C5'	9.75	136.50	120.90
36	BA	408	A	N1-C6-N6	9.75	124.45	118.60
2	A8	2411	A	N1-C6-N6	9.75	124.45	118.60
28	AX	77	TYR	CB-CG-CD1	-9.75	115.15	121.00
36	BA	745	G	N1-C6-O6	9.75	125.75	119.90
2	A8	33	C	P-O3'-C3'	-9.74	108.01	119.70
2	A8	717	C	O4'-C1'-N1	9.74	116.00	108.20
2	A8	2383	G	N1-C6-O6	9.74	125.75	119.90
36	BA	1306	A	C4-C5-C6	9.74	121.87	117.00
2	A8	636	G	N1-C6-O6	9.74	125.74	119.90
2	A8	938	G	C5-C6-O6	-9.74	122.76	128.60
2	A8	1737	G	P-O3'-C3'	9.74	131.38	119.70
2	A8	762	U	O4'-C1'-N1	9.73	115.99	108.20
2	A8	1418	G	O4'-C1'-N9	9.73	115.99	108.20
2	A8	2643	G	C5-C6-O6	-9.73	122.76	128.60
2	A8	1442	U	O4'-C1'-N1	9.73	115.99	108.20
2	A8	612	G	N1-C6-O6	9.73	125.74	119.90
36	BA	686	U	C5-C4-O4	-9.73	120.06	125.90
2	A8	586	A	N1-C6-N6	9.73	124.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2088	A	C8-N9-C4	-9.73	101.91	105.80
36	BA	196	A	N1-C6-N6	9.73	124.44	118.60
36	BA	1480	A	N1-C6-N6	9.73	124.44	118.60
36	BA	857	C	O4'-C1'-N1	9.73	115.98	108.20
36	BA	265	G	N1-C6-O6	9.72	125.73	119.90
2	A8	1234	U	O4'-C1'-N1	9.72	115.98	108.20
2	A8	2556	C	O4'-C1'-N1	9.72	115.98	108.20
36	BA	1467	C	O4'-C1'-N1	9.72	115.98	108.20
36	BA	933	G	P-O3'-C3'	9.72	131.36	119.70
2	A8	1623	G	N1-C6-O6	9.71	125.73	119.90
2	A8	2723	C	O4'-C1'-N1	9.71	115.97	108.20
36	BA	299	G	O4'-C1'-N9	9.71	115.97	108.20
2	A8	2874	C	O4'-C1'-N1	9.71	115.97	108.20
36	BA	725	G	C5-C6-O6	-9.71	122.77	128.60
36	BA	1489	G	C5-C6-O6	-9.71	122.77	128.60
36	BA	713	G	N1-C6-O6	9.71	125.73	119.90
36	BA	835	U	P-O3'-C3'	-9.71	108.05	119.70
2	A8	406	G	O4'-C1'-N9	9.71	115.97	108.20
2	A8	2323	G	N1-C6-O6	9.71	125.72	119.90
36	BA	977	A	O4'-C1'-N9	9.71	115.97	108.20
36	BA	144	G	N1-C6-O6	9.70	125.72	119.90
2	A8	2112	G	C5-C6-O6	-9.70	122.78	128.60
36	BA	1153	G	N1-C6-O6	9.70	125.72	119.90
36	BA	1483	A	C5-C6-N6	-9.70	115.94	123.70
2	A8	44	A	C5-C6-N6	-9.70	115.94	123.70
2	A8	2186	G	N1-C6-O6	9.70	125.72	119.90
1	A7	60	C	C6-N1-C2	-9.70	116.42	120.30
2	A8	1114	C	O4'-C1'-N1	9.70	115.96	108.20
2	A8	1889	A	C5-C6-N6	-9.70	115.94	123.70
2	A8	1992	G	N1-C6-O6	9.70	125.72	119.90
36	BA	788	U	O4'-C1'-N1	9.70	115.96	108.20
36	BA	791	G	C5-C6-O6	-9.70	122.78	128.60
36	BA	1362	A	C5'-C4'-C3'	9.69	131.51	116.00
2	A8	701	G	C5-C6-O6	-9.69	122.78	128.60
2	A8	2497	A	N1-C6-N6	9.69	124.41	118.60
2	A8	2842	G	N1-C6-O6	9.69	125.71	119.90
36	BA	154	U	O4'-C1'-N1	9.69	115.95	108.20
36	BA	926	G	C5-C6-O6	-9.69	122.79	128.60
36	BA	1260	G	N1-C6-O6	9.69	125.71	119.90
36	BA	1107	C	O4'-C1'-N1	9.69	115.95	108.20
2	A8	2544	G	C5-C6-O6	-9.69	122.79	128.60
36	BA	44	A	N1-C6-N6	9.69	124.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1068	G	N1-C6-O6	9.69	125.71	119.90
36	BA	94	G	N1-C6-O6	9.68	125.71	119.90
2	A8	2498	C	C6-N1-C2	-9.68	116.43	120.30
36	BA	1238	A	N1-C6-N6	9.68	124.41	118.60
2	A8	924	G	N1-C6-O6	9.68	125.71	119.90
2	A8	1685	C	O4'-C1'-N1	9.68	115.94	108.20
2	A8	2246	G	O4'-C1'-N9	9.68	115.94	108.20
2	A8	432	A	N1-C6-N6	9.68	124.41	118.60
2	A8	194	G	C5-C6-O6	-9.67	122.80	128.60
2	A8	332	A	P-O3'-C3'	9.67	131.31	119.70
2	A8	1331	G	C8-N9-C4	-9.67	102.53	106.40
2	A8	1873	G	N1-C6-O6	9.67	125.70	119.90
2	A8	2189	U	O4'-C1'-N1	9.67	115.94	108.20
2	A8	605	G	O4'-C1'-N9	9.67	115.94	108.20
2	A8	757	G	C5-C6-O6	-9.67	122.80	128.60
2	A8	1324	G	C8-N9-C1'	9.67	139.57	127.00
2	A8	2587	A	C8-N9-C4	-9.67	101.93	105.80
36	BA	276	G	C5-C6-O6	-9.67	122.80	128.60
1	A7	90	C	P-O3'-C3'	-9.67	108.10	119.70
2	A8	1907	G	N1-C6-O6	9.67	125.70	119.90
2	A8	2686	G	N1-C6-O6	9.67	125.70	119.90
36	BA	371	A	O4'-C1'-N9	9.67	115.93	108.20
2	A8	2853	C	O4'-C1'-N1	9.66	115.93	108.20
36	BA	509	A	O4'-C1'-N9	9.66	115.93	108.20
2	A8	1813	G	N1-C6-O6	9.66	125.70	119.90
2	A8	2594	C	O4'-C1'-N1	9.66	115.93	108.20
36	BA	1084	G	N1-C6-O6	9.66	125.69	119.90
2	A8	1557	C	N3-C4-N4	9.65	124.76	118.00
36	BA	786	G	N1-C6-O6	9.65	125.69	119.90
36	BA	858	G	N1-C6-O6	9.65	125.69	119.90
36	BA	1410	A	N1-C6-N6	9.65	124.39	118.60
2	A8	1138	G	N1-C6-O6	9.65	125.69	119.90
2	A8	2018	G	O4'-C1'-N9	9.65	115.92	108.20
36	BA	520	A	C8-N9-C4	-9.65	101.94	105.80
2	A8	84	A	C5-C6-N6	-9.65	115.98	123.70
2	A8	727	A	N1-C6-N6	9.65	124.39	118.60
36	BA	1432	G	C4-N9-C1'	-9.65	113.96	126.50
36	BA	416	G	N1-C6-O6	9.64	125.69	119.90
2	A8	607	U	O4'-C1'-N1	9.64	115.91	108.20
2	A8	2196	C	O4'-C1'-N1	9.64	115.91	108.20
36	BA	431	A	N1-C6-N6	9.64	124.38	118.60
2	A8	2859	G	N1-C6-O6	9.64	125.68	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	446	G	C5-C6-O6	-9.64	122.82	128.60
2	A8	739	A	P-O5'-C5'	9.63	136.31	120.90
2	A8	1510	G	N1-C6-O6	9.63	125.68	119.90
36	BA	146	G	N1-C6-O6	9.63	125.68	119.90
2	A8	287	G	C5-C6-O6	-9.63	122.82	128.60
2	A8	2250	G	N3-C2-N2	9.63	126.64	119.90
2	A8	2038	G	N1-C6-O6	9.62	125.67	119.90
2	A8	910	A	N1-C6-N6	9.62	124.37	118.60
36	BA	814	A	C5-C6-N6	-9.62	116.00	123.70
2	A8	2331	G	N1-C6-O6	9.62	125.67	119.90
36	BA	686	U	C2-N3-C4	-9.62	121.23	127.00
36	BA	710	G	C5-C6-O6	-9.62	122.83	128.60
1	A7	106	G	O4'-C1'-N9	9.62	115.89	108.20
2	A8	949	G	C5-C6-O6	-9.62	122.83	128.60
2	A8	1753	G	N1-C6-O6	9.62	125.67	119.90
36	BA	449	G	C5-C6-O6	-9.62	122.83	128.60
36	BA	1032	G	N1-C6-O6	9.62	125.67	119.90
2	A8	2756	U	P-O3'-C3'	9.61	131.24	119.70
36	BA	1513	A	C3'-C2'-C1'	-9.62	93.81	101.50
2	A8	444	C	O4'-C1'-N1	9.61	115.89	108.20
2	A8	1259	G	N1-C6-O6	9.61	125.67	119.90
2	A8	1382	G	N1-C6-O6	9.61	125.67	119.90
2	A8	2061	G	N1-C6-O6	9.61	125.67	119.90
2	A8	167	A	C4-C5-C6	9.61	121.80	117.00
2	A8	925	A	C5-C6-N6	-9.60	116.02	123.70
36	BA	372	C	O4'-C1'-N1	9.60	115.88	108.20
2	A8	1746	A	N1-C6-N6	9.60	124.36	118.60
2	A8	2395	C	O4'-C1'-N1	9.60	115.88	108.20
36	BA	391	G	N1-C6-O6	9.60	125.66	119.90
36	BA	606	G	C5-C6-O6	-9.60	122.84	128.60
2	A8	1550	C	O4'-C1'-N1	9.59	115.87	108.20
2	A8	538	A	C5-C6-N6	-9.59	116.03	123.70
2	A8	1872	A	C4-C5-C6	9.59	121.80	117.00
2	A8	1181	U	O4'-C1'-N1	9.59	115.87	108.20
2	A8	679	C	O4'-C1'-N1	9.59	115.87	108.20
2	A8	2168	G	N1-C6-O6	9.59	125.65	119.90
2	A8	2460	U	O4'-C1'-N1	9.59	115.87	108.20
2	A8	167	A	C5-C6-N6	-9.58	116.03	123.70
36	BA	923	A	C5-C6-N6	-9.58	116.03	123.70
2	A8	1246	A	N1-C6-N6	9.58	124.35	118.60
36	BA	324	G	N1-C6-O6	9.58	125.65	119.90
2	A8	142	A	O4'-C1'-N9	9.58	115.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	297	G	N1-C6-O6	9.58	125.65	119.90
2	A8	918	A	C8-N9-C4	-9.58	101.97	105.80
2	A8	1137	G	N1-C6-O6	9.58	125.65	119.90
2	A8	1162	G	N1-C6-O6	9.58	125.65	119.90
36	BA	780	A	O4'-C1'-N9	9.58	115.86	108.20
36	BA	1305	G	N1-C6-O6	9.58	125.65	119.90
36	BA	1318	A	N1-C6-N6	9.58	124.35	118.60
36	BA	761	G	C5-C6-O6	-9.58	122.85	128.60
2	A8	2606	C	C6-N1-C2	-9.57	116.47	120.30
2	A8	285	G	C5-C6-O6	-9.57	122.86	128.60
2	A8	840	C	O4'-C1'-N1	9.57	115.86	108.20
2	A8	2013	A	C5-C6-N6	-9.57	116.05	123.70
36	BA	627	G	N1-C6-O6	9.57	125.64	119.90
1	A7	16	G	N1-C6-O6	9.57	125.64	119.90
2	A8	2131	U	O4'-C1'-N1	9.57	115.85	108.20
36	BA	494	G	C5-C6-O6	-9.57	122.86	128.60
2	A8	2075	U	P-O3'-C3'	-9.56	108.22	119.70
2	A8	21	A	C5-C6-N6	-9.56	116.05	123.70
2	A8	1336	A	N1-C6-N6	9.56	124.34	118.60
2	A8	2263	C	O4'-C1'-N1	9.56	115.85	108.20
2	A8	663	G	C5-C6-O6	-9.56	122.86	128.60
2	A8	1190	G	N1-C6-O6	9.56	125.64	119.90
36	BA	1010	U	O4'-C1'-N1	9.56	115.85	108.20
36	BA	238	A	N1-C6-N6	9.55	124.33	118.60
2	A8	132	G	C5-C6-O6	-9.55	122.87	128.60
2	A8	1668	A	P-O3'-C3'	9.55	131.16	119.70
2	A8	1722	A	N1-C6-N6	9.55	124.33	118.60
2	A8	2272	U	O4'-C1'-N1	9.55	115.84	108.20
36	BA	859	G	N1-C6-O6	9.55	125.63	119.90
36	BA	917	G	N1-C6-O6	9.55	125.63	119.90
2	A8	49	A	C5-C6-N6	-9.55	116.06	123.70
2	A8	2413	G	C5-C6-O6	-9.55	122.87	128.60
2	A8	2610	C	P-O3'-C3'	9.55	131.16	119.70
36	BA	257	G	N1-C6-O6	9.55	125.63	119.90
36	BA	124	C	O4'-C1'-N1	9.54	115.84	108.20
36	BA	1222	G	C5-C6-O6	-9.55	122.87	128.60
2	A8	920	A	N1-C6-N6	9.54	124.33	118.60
2	A8	1394	U	P-O3'-C3'	-9.54	108.25	119.70
2	A8	1759	A	O4'-C1'-N9	9.54	115.83	108.20
36	BA	430	A	N1-C6-N6	9.54	124.33	118.60
2	A8	999	U	P-O3'-C3'	9.54	131.15	119.70
2	A8	1423	G	C8-N9-C1'	9.54	139.40	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	966	G	N1-C6-O6	9.54	125.62	119.90
2	A8	2357	G	N1-C6-O6	9.54	125.62	119.90
2	A8	1641	A	C4-C5-C6	9.53	121.77	117.00
36	BA	758	C	O4'-C1'-N1	9.53	115.83	108.20
7	A6	61	TYR	CB-CG-CD2	9.53	126.72	121.00
1	A7	72	G	N1-C6-O6	9.53	125.62	119.90
2	A8	161	A	N1-C6-N6	9.53	124.32	118.60
2	A8	450	G	N1-C6-O6	9.53	125.62	119.90
2	A8	1448	G	N1-C6-O6	9.53	125.62	119.90
1	A7	52	A	N1-C6-N6	9.52	124.31	118.60
36	BA	13	U	O4'-C1'-N1	9.52	115.82	108.20
2	A8	20	C	O4'-C1'-N1	9.52	115.82	108.20
2	A8	648	G	N1-C6-O6	9.52	125.61	119.90
2	A8	1499	C	C6-N1-C2	-9.52	116.49	120.30
2	A8	1953	A	O4'-C1'-N9	9.52	115.81	108.20
2	A8	2698	U	P-O5'-C5'	9.52	136.12	120.90
36	BA	840	C	P-O5'-C5'	9.52	136.13	120.90
36	BA	93	U	O4'-C1'-N1	9.51	115.81	108.20
2	A8	2841	C	O4'-C1'-N1	9.51	115.81	108.20
36	BA	242	G	C8-N9-C1'	9.51	139.36	127.00
36	BA	668	G	N1-C6-O6	9.51	125.61	119.90
36	BA	1117	A	N1-C6-N6	9.51	124.30	118.60
1	A7	44	G	N1-C6-O6	9.51	125.60	119.90
2	A8	56	A	C5-C6-N6	-9.50	116.10	123.70
2	A8	2717	C	O4'-C1'-N1	9.50	115.80	108.20
2	A8	2884	U	O4'-C1'-N1	9.50	115.80	108.20
36	BA	314	C	O4'-C1'-N1	9.50	115.80	108.20
36	BA	724	G	N1-C6-O6	9.50	125.60	119.90
2	A8	540	C	O4'-C1'-N1	9.50	115.80	108.20
2	A8	2316	G	C5-C6-O6	-9.50	122.90	128.60
2	A8	1166	G	N1-C6-O6	9.50	125.60	119.90
2	A8	2157	G	N1-C6-O6	9.49	125.60	119.90
1	A7	113	C	O4'-C1'-N1	9.49	115.79	108.20
2	A8	512	G	N1-C6-O6	9.49	125.60	119.90
2	A8	2336	A	N1-C6-N6	9.49	124.30	118.60
2	A8	729	G	N1-C6-O6	9.49	125.59	119.90
2	A8	977	G	C8-N9-C1'	9.49	139.34	127.00
36	BA	426	U	O4'-C1'-N1	9.49	115.79	108.20
2	A8	1031	G	C5-C6-O6	-9.48	122.91	128.60
2	A8	2217	G	C5-C6-O6	-9.48	122.91	128.60
36	BA	669	G	C5-C6-O6	-9.48	122.91	128.60
2	A8	1022	G	O4'-C1'-N9	9.48	115.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2104	C	P-O3'-C3'	9.48	131.08	119.70
2	A8	2278	A	N1-C6-N6	9.48	124.29	118.60
36	BA	318	G	N1-C6-O6	9.48	125.59	119.90
2	A8	2453	A	N1-C6-N6	9.48	124.29	118.60
36	BA	159	G	N1-C6-O6	9.48	125.59	119.90
2	A8	802	A	N1-C6-N6	9.48	124.29	118.60
2	A8	2115	G	N1-C6-O6	9.48	125.59	119.90
2	A8	2724	U	O4'-C1'-N1	9.47	115.78	108.20
36	BA	1127	G	N1-C6-O6	9.47	125.58	119.90
2	A8	1596	A	O4'-C1'-N9	9.47	115.78	108.20
2	A8	2501	C	N3-C4-N4	9.47	124.63	118.00
2	A8	1581	G	N1-C6-O6	9.47	125.58	119.90
2	A8	2082	A	C5-C6-N6	-9.47	116.13	123.70
2	A8	2420	C	O4'-C1'-N1	9.46	115.77	108.20
36	BA	299	G	N1-C6-O6	9.47	125.58	119.90
36	BA	778	G	N1-C6-O6	9.47	125.58	119.90
2	A8	1914	C	C6-N1-C2	-9.46	116.52	120.30
2	A8	2082	A	C4-C5-C6	9.46	121.73	117.00
36	BA	795	C	O4'-C1'-N1	9.46	115.77	108.20
2	A8	2535	G	C5-C6-O6	-9.46	122.92	128.60
2	A8	306	U	O4'-C1'-N1	9.46	115.77	108.20
2	A8	1371	G	C8-N9-C1'	9.46	139.29	127.00
2	A8	2502	G	O4'-C1'-N9	9.45	115.76	108.20
1	A7	31	C	O4'-C1'-N1	9.45	115.76	108.20
2	A8	1011	G	C5-C6-O6	-9.45	122.93	128.60
36	BA	1272	G	C5-C6-O6	-9.45	122.93	128.60
1	A7	67	G	C5-C6-O6	-9.45	122.93	128.60
2	A8	2057	G	C5-C6-O6	-9.45	122.93	128.60
36	BA	428	G	N1-C6-O6	9.45	125.57	119.90
2	A8	1426	G	P-O3'-C3'	9.44	131.03	119.70
2	A8	2038	G	C8-N9-C1'	9.45	139.28	127.00
36	BA	1106	G	C5-C6-O6	-9.44	122.93	128.60
2	A8	367	G	N1-C6-O6	9.44	125.56	119.90
2	A8	1663	G	N1-C6-O6	9.44	125.56	119.90
2	A8	2010	G	N1-C6-O6	9.44	125.56	119.90
2	A8	2782	G	N1-C6-O6	9.44	125.56	119.90
36	BA	289	G	N1-C6-O6	9.44	125.56	119.90
2	A8	372	G	O4'-C1'-N9	9.43	115.75	108.20
2	A8	1186	G	N1-C6-O6	9.43	125.56	119.90
2	A8	1814	G	C5-C6-O6	-9.43	122.94	128.60
36	BA	879	C	O4'-C1'-N1	9.43	115.74	108.20
2	A8	1613	G	O4'-C1'-N9	9.43	115.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	898	G	N1-C6-O6	9.43	125.56	119.90
36	BA	930	C	O4'-C1'-N1	9.43	115.74	108.20
2	A8	124	G	N1-C6-O6	9.42	125.55	119.90
2	A8	1423	G	C4-N9-C1'	-9.42	114.25	126.50
36	BA	617	G	N1-C6-O6	9.42	125.55	119.90
36	BA	1334	G	N1-C6-O6	9.42	125.55	119.90
2	A8	2524	G	N1-C6-O6	9.42	125.55	119.90
2	A8	198	C	C5-C4-N4	-9.42	113.61	120.20
2	A8	1453	A	N1-C6-N6	9.42	124.25	118.60
2	A8	1587	G	N1-C6-O6	9.42	125.55	119.90
2	A8	93	G	C5-C6-O6	-9.42	122.95	128.60
2	A8	821	A	N1-C6-N6	9.42	124.25	118.60
36	BA	297	G	N1-C6-O6	9.41	125.55	119.90
36	BA	1309	G	N1-C6-O6	9.41	125.55	119.90
36	BA	518	C	C1'-O4'-C4'	-9.41	102.37	109.90
1	A7	75	G	N1-C6-O6	9.41	125.55	119.90
1	A7	107	G	N1-C6-O6	9.41	125.55	119.90
2	A8	977	G	N1-C6-O6	9.41	125.55	119.90
2	A8	2698	U	O4'-C1'-N1	9.41	115.73	108.20
2	A8	2769	U	C5'-C4'-C3'	-9.41	100.94	116.00
36	BA	89	U	O4'-C1'-N1	9.41	115.73	108.20
2	A8	2120	G	N1-C6-O6	9.41	125.54	119.90
36	BA	987	G	N1-C6-O6	9.41	125.55	119.90
36	BA	724	G	P-O5'-C5'	9.41	135.95	120.90
36	BA	1439	G	N1-C6-O6	9.41	125.54	119.90
2	A8	493	G	N1-C6-O6	9.40	125.54	119.90
2	A8	514	A	C5-C6-N6	-9.40	116.18	123.70
2	A8	1228	G	C5-C6-O6	-9.40	122.96	128.60
2	A8	1910	G	C5-C6-O6	-9.40	122.96	128.60
2	A8	121	G	C5-C6-O6	-9.40	122.96	128.60
36	BA	292	G	C5-C6-O6	-9.40	122.96	128.60
36	BA	579	A	N1-C6-N6	9.40	124.24	118.60
2	A8	2218	G	N1-C6-O6	9.40	125.54	119.90
36	BA	378	G	C5-C6-O6	-9.40	122.96	128.60
36	BA	9	G	N1-C6-O6	9.40	125.54	119.90
2	A8	1013	C	O4'-C1'-N1	9.39	115.72	108.20
2	A8	70	G	P-O3'-C3'	-9.39	108.43	119.70
2	A8	168	G	N1-C6-O6	9.39	125.53	119.90
36	BA	1026	G	C5-C6-O6	-9.39	122.97	128.60
36	BA	445	G	N1-C6-O6	9.39	125.53	119.90
2	A8	2505	G	N1-C6-O6	9.38	125.53	119.90
2	A8	2574	G	N1-C6-O6	9.38	125.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2752	C	O4'-C1'-N1	9.38	115.71	108.20
2	A8	746	U	O4'-C1'-N1	9.38	115.70	108.20
36	BA	1273	C	O4'-C1'-N1	9.38	115.71	108.20
36	BA	1468	A	C8-N9-C4	-9.38	102.05	105.80
2	A8	17	G	N1-C6-O6	9.38	125.53	119.90
2	A8	2004	G	C5-C6-O6	-9.38	122.97	128.60
2	A8	2103	C	C6-N1-C2	-9.38	116.55	120.30
2	A8	2253	G	C5-C6-O6	-9.38	122.97	128.60
2	A8	2691	C	O4'-C1'-N1	9.38	115.70	108.20
2	A8	2692	G	C5-C6-O6	-9.38	122.97	128.60
36	BA	821	G	C5-C6-O6	-9.38	122.97	128.60
2	A8	1722	A	C4-C5-C6	9.38	121.69	117.00
2	A8	2666	C	O4'-C1'-N1	9.38	115.70	108.20
2	A8	1353	A	C5-C6-N6	-9.37	116.20	123.70
2	A8	1795	C	O4'-C1'-N1	9.37	115.70	108.20
2	A8	2045	C	O4'-C1'-N1	9.37	115.70	108.20
2	A8	2301	C	O4'-C1'-N1	9.37	115.70	108.20
2	A8	205	G	O4'-C1'-N9	9.37	115.69	108.20
2	A8	1765	U	O4'-C1'-N1	9.37	115.69	108.20
36	BA	509	A	N1-C6-N6	9.37	124.22	118.60
2	A8	974	G	C5-C6-O6	-9.36	122.98	128.60
2	A8	1527	G	N1-C6-O6	9.36	125.52	119.90
2	A8	2246	G	N1-C6-O6	9.36	125.52	119.90
36	BA	691	G	N1-C6-O6	9.36	125.52	119.90
36	BA	758	C	N3-C4-N4	9.36	124.56	118.00
36	BA	963	G	C5-C6-O6	-9.36	122.98	128.60
2	A8	144	A	N1-C6-N6	9.36	124.22	118.60
2	A8	619	G	C5-C6-O6	-9.36	122.98	128.60
2	A8	1763	G	N1-C6-O6	9.36	125.52	119.90
2	A8	1061	U	O4'-C1'-N1	9.36	115.69	108.20
2	A8	2172	U	O4'-C1'-N1	9.36	115.69	108.20
2	A8	749	A	N1-C6-N6	9.35	124.21	118.60
2	A8	974	G	O4'-C1'-N9	9.35	115.68	108.20
2	A8	1791	A	C5-C6-N6	-9.35	116.22	123.70
2	A8	892	A	N1-C6-N6	9.35	124.21	118.60
36	BA	928	G	O4'-C1'-N9	9.35	115.68	108.20
2	A8	2226	C	C6-N1-C2	-9.34	116.56	120.30
36	BA	703	G	N1-C6-O6	9.34	125.51	119.90
36	BA	134	G	N1-C6-O6	9.34	125.50	119.90
2	A8	2753	A	N1-C6-N6	9.34	124.20	118.60
2	A8	1511	G	C5-C6-O6	-9.34	123.00	128.60
2	A8	2247	A	N1-C6-N6	9.34	124.20	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2851	A	N1-C6-N6	9.34	124.20	118.60
2	A8	961	C	C2-N1-C1'	9.34	129.07	118.80
2	A8	2461	A	O4'-C1'-N9	9.34	115.67	108.20
36	BA	973	G	C5-C6-O6	-9.33	123.00	128.60
2	A8	2126	A	O4'-C1'-N9	9.33	115.66	108.20
2	A8	2220	U	O4'-C1'-N1	9.33	115.66	108.20
36	BA	953	G	N1-C6-O6	9.33	125.50	119.90
2	A8	1421	G	N1-C6-O6	9.33	125.50	119.90
2	A8	1994	C	O4'-C1'-N1	9.33	115.66	108.20
2	A8	2322	A	N1-C6-N6	9.33	124.20	118.60
2	A8	651	G	N1-C6-O6	9.33	125.50	119.90
1	A7	80	U	O4'-C1'-N1	9.32	115.66	108.20
2	A8	1321	A	C5-C6-N6	-9.32	116.24	123.70
36	BA	944	G	C5-C6-O6	-9.32	123.01	128.60
2	A8	1549	A	C5-C6-N6	-9.32	116.25	123.70
36	BA	478	A	N1-C6-N6	9.32	124.19	118.60
36	BA	809	G	C5-C6-O6	-9.32	123.01	128.60
2	A8	172	A	C5-C6-N6	-9.32	116.25	123.70
2	A8	2023	C	O4'-C1'-N1	9.32	115.65	108.20
2	A8	2517	C	O4'-C1'-N1	9.32	115.65	108.20
2	A8	2591	C	N3-C4-N4	9.32	124.52	118.00
36	BA	1161	C	C6-N1-C2	-9.32	116.57	120.30
2	A8	725	G	N1-C6-O6	9.31	125.49	119.90
2	A8	2116	G	N1-C6-O6	9.31	125.49	119.90
2	A8	1954	G	N1-C6-O6	9.31	125.49	119.90
2	A8	2053	G	N1-C6-O6	9.31	125.49	119.90
2	A8	2412	A	C5-C6-N1	-9.31	113.04	117.70
36	BA	216	U	O4'-C1'-N1	9.31	115.65	108.20
36	BA	646	G	C5-C6-O6	-9.31	123.01	128.60
36	BA	1417	G	N1-C6-O6	9.31	125.49	119.90
2	A8	625	G	C5-C6-O6	-9.31	123.02	128.60
2	A8	1740	G	N1-C6-O6	9.31	125.48	119.90
36	BA	37	U	O4'-C1'-N1	9.31	115.64	108.20
36	BA	433	G	C5'-C4'-C3'	-9.31	101.11	116.00
2	A8	261	G	C5-C6-O6	-9.30	123.02	128.60
2	A8	1115	G	C5'-C4'-C3'	-9.30	101.11	116.00
36	BA	622	A	N1-C6-N6	9.30	124.18	118.60
2	A8	2615	U	O4'-C1'-N1	9.30	115.64	108.20
2	A8	544	C	O4'-C1'-N1	9.30	115.64	108.20
36	BA	1300	G	N1-C6-O6	9.30	125.48	119.90
2	A8	862	G	N1-C6-O6	9.30	125.48	119.90
2	A8	2396	G	C5-C6-O6	-9.30	123.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	960	A	P-O5'-C5'	9.29	135.77	120.90
2	A8	2102	G	C5-C6-O6	-9.29	123.02	128.60
2	A8	2420	C	P-O5'-C5'	9.30	135.77	120.90
36	BA	1299	A	P-O3'-C3'	9.29	130.85	119.70
2	A8	1545	A	C5-C6-N6	-9.29	116.27	123.70
2	A8	2890	G	C5-C6-O6	-9.29	123.03	128.60
36	BA	358	U	O4'-C1'-N1	9.29	115.63	108.20
2	A8	635	C	O4'-C1'-N1	9.29	115.63	108.20
2	A8	2184	A	C8-N9-C4	-9.29	102.09	105.80
2	A8	2782	G	C5-C6-O6	-9.29	123.03	128.60
2	A8	2843	G	N1-C6-O6	9.29	125.47	119.90
2	A8	2810	A	P-O5'-C5'	9.28	135.75	120.90
2	A8	601	C	O4'-C1'-N1	9.28	115.63	108.20
2	A8	289	G	C5-C6-O6	-9.28	123.03	128.60
2	A8	400	G	C5-C6-O6	-9.28	123.03	128.60
2	A8	2625	G	N1-C6-O6	9.28	125.47	119.90
36	BA	954	G	C5-C6-O6	-9.28	123.03	128.60
36	BA	1187	G	N1-C6-O6	9.28	125.47	119.90
2	A8	2797	U	O4'-C1'-N1	9.28	115.62	108.20
36	BA	1302	C	N3-C4-N4	9.28	124.50	118.00
2	A8	1742	U	O4'-C1'-N1	9.28	115.62	108.20
2	A8	2593	U	O4'-C1'-N1	9.28	115.62	108.20
36	BA	444	G	C5-C6-O6	-9.28	123.03	128.60
36	BA	690	G	N1-C6-O6	9.28	125.47	119.90
2	A8	1380	G	N1-C6-O6	9.28	125.47	119.90
2	A8	1206	G	C5-C6-O6	-9.28	123.03	128.60
2	A8	1235	G	N1-C6-O6	9.28	125.47	119.90
2	A8	2780	G	N1-C6-O6	9.28	125.47	119.90
36	BA	1184	G	N1-C6-O6	9.28	125.47	119.90
1	A7	58	A	C8-N9-C4	-9.27	102.09	105.80
2	A8	142	A	N1-C6-N6	9.27	124.16	118.60
36	BA	1142	G	N1-C6-O6	9.27	125.46	119.90
2	A8	496	G	N1-C6-O6	9.27	125.46	119.90
2	A8	2664	G	C5-C6-O6	-9.27	123.04	128.60
36	BA	1235	U	O4'-C1'-N1	9.27	115.62	108.20
2	A8	447	A	P-O3'-C3'	9.27	130.82	119.70
2	A8	898	C	N3-C4-N4	9.27	124.49	118.00
2	A8	214	G	C8-N9-C4	-9.26	102.69	106.40
2	A8	713	G	N1-C6-O6	9.26	125.46	119.90
2	A8	1210	G	C5-C6-O6	-9.26	123.04	128.60
2	A8	2515	C	O4'-C1'-N1	9.26	115.61	108.20
36	BA	1187	G	C5-C6-O6	-9.26	123.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	784	G	C5-C6-O6	-9.26	123.04	128.60
2	A8	1026	G	N1-C6-O6	9.26	125.46	119.90
2	A8	1399	C	O4'-C1'-N1	9.26	115.61	108.20
2	A8	2078	C	N3-C4-N4	9.26	124.48	118.00
2	A8	2353	G	N1-C6-O6	9.26	125.46	119.90
36	BA	337	G	O4'-C1'-N9	9.26	115.61	108.20
36	BA	1409	C	O4'-C1'-N1	9.26	115.61	108.20
36	BA	690	G	C5-C6-O6	-9.26	123.05	128.60
2	A8	358	U	O4'-C1'-N1	9.26	115.61	108.20
2	A8	865	C	O4'-C1'-N1	9.26	115.61	108.20
2	A8	2241	A	N1-C6-N6	9.26	124.15	118.60
2	A8	1543	G	C8-N9-C1'	9.26	139.03	127.00
2	A8	1869	G	N1-C6-O6	9.26	125.45	119.90
2	A8	5	A	C5-C6-N6	-9.25	116.30	123.70
2	A8	1373	A	C5-C6-N6	-9.25	116.30	123.70
36	BA	336	A	O4'-C1'-N9	9.25	115.60	108.20
2	A8	375	G	N1-C6-O6	9.25	125.45	119.90
2	A8	2857	G	N1-C6-O6	9.25	125.45	119.90
2	A8	1427	A	C5-C6-N6	-9.25	116.30	123.70
2	A8	2640	G	N1-C6-O6	9.25	125.45	119.90
2	A8	807	U	O4'-C1'-N1	9.25	115.60	108.20
2	A8	1125	G	N1-C6-O6	9.25	125.45	119.90
2	A8	1309	G	N1-C6-O6	9.24	125.45	119.90
2	A8	1526	C	O4'-C1'-N1	9.24	115.59	108.20
2	A8	1651	G	N1-C6-O6	9.24	125.45	119.90
2	A8	438	G	C5-C6-O6	-9.24	123.06	128.60
2	A8	1447	C	C6-N1-C2	-9.24	116.61	120.30
2	A8	1977	A	N1-C6-N6	9.24	124.14	118.60
2	A8	2455	G	N1-C6-O6	9.24	125.44	119.90
2	A8	1766	G	O4'-C1'-N9	9.23	115.59	108.20
36	BA	485	U	P-O3'-C3'	-9.23	108.62	119.70
2	A8	1813	G	C8-N9-C1'	9.23	139.00	127.00
36	BA	1183	U	O4'-C1'-N1	9.23	115.59	108.20
1	A7	21	G	C5'-C4'-C3'	-9.23	101.23	116.00
2	A8	991	C	O4'-C1'-N1	9.23	115.58	108.20
2	A8	1573	G	C5-C6-O6	-9.23	123.06	128.60
2	A8	2305	U	O4'-C1'-N1	9.23	115.58	108.20
2	A8	1418	G	C5-C6-O6	-9.23	123.06	128.60
2	A8	1832	C	O4'-C1'-N1	9.23	115.58	108.20
2	A8	2	G	N1-C6-O6	9.22	125.44	119.90
2	A8	871	U	O4'-C1'-N1	9.22	115.58	108.20
2	A8	1426	G	N1-C6-O6	9.22	125.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	375	U	O4'-C1'-N1	9.22	115.58	108.20
2	A8	864	G	N1-C6-O6	9.22	125.43	119.90
2	A8	1631	G	N1-C6-O6	9.22	125.43	119.90
2	A8	1855	U	O4'-C1'-N1	9.21	115.57	108.20
2	A8	2747	G	C5-C6-O6	-9.21	123.07	128.60
36	BA	215	C	O4'-C1'-N1	9.21	115.57	108.20
36	BA	1255	G	N1-C6-O6	9.21	125.43	119.90
2	A8	708	G	C5-C6-O6	-9.21	123.07	128.60
2	A8	2067	G	N1-C6-O6	9.21	125.43	119.90
2	A8	1337	G	N1-C6-O6	9.21	125.43	119.90
2	A8	2031	A	O4'-C1'-N9	9.21	115.57	108.20
2	A8	2121	G	N1-C6-O6	9.21	125.43	119.90
2	A8	341	C	O4'-C1'-N1	9.21	115.57	108.20
2	A8	1741	C	O4'-C1'-N1	9.21	115.57	108.20
2	A8	2071	A	N1-C6-N6	9.21	124.12	118.60
2	A8	622	G	O4'-C1'-N9	9.21	115.56	108.20
36	BA	1031	C	O4'-C1'-N1	9.21	115.56	108.20
2	A8	188	G	C5'-C4'-C3'	-9.20	101.28	116.00
36	BA	748	G	C5-C6-O6	-9.20	123.08	128.60
2	A8	1586	A	C5-C6-N6	-9.20	116.34	123.70
36	BA	449	G	C8-N9-C4	-9.20	102.72	106.40
2	A8	500	G	N1-C6-O6	9.19	125.42	119.90
2	A8	1568	G	N1-C6-O6	9.20	125.42	119.90
2	A8	1761	C	O4'-C1'-N1	9.19	115.56	108.20
2	A8	1878	G	O4'-C1'-N9	9.19	115.56	108.20
36	BA	921	U	O4'-C1'-N1	9.20	115.56	108.20
2	A8	2892	G	N1-C6-O6	9.19	125.42	119.90
36	BA	304	U	O4'-C1'-N1	9.19	115.55	108.20
36	BA	1226	C	P-O3'-C3'	9.19	130.73	119.70
2	A8	1248	G	C5-C6-O6	-9.19	123.09	128.60
2	A8	1456	G	N1-C6-O6	9.19	125.41	119.90
2	A8	1972	G	N1-C6-O6	9.19	125.41	119.90
1	A7	32	U	O4'-C1'-N1	9.19	115.55	108.20
2	A8	279	A	C8-N9-C4	-9.19	102.12	105.80
2	A8	2231	U	O4'-C1'-N1	9.19	115.55	108.20
2	A8	2733	A	C5'-C4'-O4'	9.19	120.12	109.10
2	A8	2858	C	O4'-C1'-N1	9.19	115.55	108.20
36	BA	138	G	N1-C6-O6	9.19	125.41	119.90
2	A8	2625	G	C5-C6-O6	-9.18	123.09	128.60
2	A8	2012	G	N1-C6-O6	9.18	125.41	119.90
36	BA	362	G	N1-C6-O6	9.18	125.41	119.90
2	A8	2860	A	C5-C6-N1	-9.18	113.11	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	244	A	C5-C6-N6	-9.18	116.36	123.70
2	A8	390	U	O4'-C1'-N1	9.18	115.54	108.20
2	A8	728	G	N1-C6-O6	9.18	125.41	119.90
2	A8	2486	C	O4'-C1'-N1	9.18	115.54	108.20
36	BA	901	A	C8-N9-C4	-9.18	102.13	105.80
1	A7	49	C	O4'-C1'-N1	9.17	115.54	108.20
2	A8	578	G	C5-C6-O6	-9.17	123.10	128.60
2	A8	109	C	O4'-C1'-N1	9.17	115.54	108.20
2	A8	1654	A	C5-C6-N6	-9.17	116.36	123.70
2	A8	1699	G	C4-N9-C1'	9.17	138.43	126.50
36	BA	706	A	N1-C6-N6	9.17	124.11	118.60
36	BA	589	U	O4'-C1'-N1	9.17	115.54	108.20
36	BA	505	G	N1-C6-O6	9.17	125.40	119.90
2	A8	1359	A	C5-C6-N6	-9.17	116.36	123.70
2	A8	801	G	P-O3'-C3'	9.16	130.70	119.70
2	A8	1103	A	C5-C6-N6	-9.16	116.37	123.70
2	A8	2806	C	O4'-C1'-N1	9.16	115.53	108.20
2	A8	205	G	N1-C6-O6	9.16	125.40	119.90
2	A8	288	U	O4'-C1'-N1	9.16	115.53	108.20
1	A7	8	C	O4'-C1'-N1	9.16	115.53	108.20
2	A8	1187	G	O4'-C1'-N9	9.16	115.53	108.20
2	A8	1274	A	P-O3'-C3'	-9.16	108.71	119.70
2	A8	1750	G	C5-C6-O6	-9.16	123.10	128.60
2	A8	2725	A	C8-N9-C4	-9.16	102.14	105.80
36	BA	450	G	P-O5'-C5'	9.16	135.56	120.90
36	BA	945	G	N1-C6-O6	9.16	125.40	119.90
2	A8	1625	C	O4'-C1'-N1	9.16	115.53	108.20
2	A8	2426	A	P-O3'-C3'	9.16	130.69	119.70
2	A8	2812	G	N1-C6-O6	9.16	125.39	119.90
2	A8	311	A	N1-C6-N6	9.16	124.09	118.60
2	A8	2148	G	P-O3'-C3'	9.16	130.69	119.70
36	BA	1394	A	P-O3'-C3'	-9.16	108.71	119.70
2	A8	463	G	N1-C6-O6	9.15	125.39	119.90
36	BA	389	A	N1-C6-N6	9.15	124.09	118.60
2	A8	1368	G	O4'-C1'-N9	9.15	115.52	108.20
2	A8	296	U	O4'-C1'-N1	9.15	115.52	108.20
2	A8	2482	A	C8-N9-C4	-9.15	102.14	105.80
2	A8	2835	A	O4'-C1'-N9	9.15	115.52	108.20
2	A8	161	A	C8-N9-C4	-9.15	102.14	105.80
36	BA	465	A	N1-C6-N6	9.15	124.09	118.60
36	BA	1084	G	C5-C6-O6	-9.15	123.11	128.60
2	A8	271	G	O4'-C1'-N9	9.15	115.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1528	A	C8-N9-C4	-9.15	102.14	105.80
2	A8	1890	A	C5-C6-N6	-9.15	116.38	123.70
2	A8	2064	C	C5'-C4'-C3'	-9.15	101.37	116.00
2	A8	2312	U	O4'-C1'-N1	9.15	115.52	108.20
2	A8	2504	U	O4'-C1'-N1	9.15	115.52	108.20
36	BA	604	G	C5-C6-O6	-9.15	123.11	128.60
36	BA	681	A	C5-C6-N6	-9.15	116.38	123.70
36	BA	266	G	N1-C6-O6	9.14	125.39	119.90
36	BA	1445	U	O4'-C1'-N1	9.14	115.52	108.20
2	A8	1507	C	C6-N1-C2	-9.14	116.64	120.30
2	A8	1690	A	C5-C6-N6	-9.14	116.39	123.70
2	A8	2859	G	C5-C6-O6	-9.14	123.11	128.60
36	BA	590	U	C5'-C4'-C3'	-9.14	101.38	116.00
2	A8	759	G	N1-C6-O6	9.14	125.38	119.90
2	A8	1072	C	P-O3'-C3'	-9.14	108.74	119.70
2	A8	1885	A	C8-N9-C4	-9.14	102.14	105.80
36	BA	766	A	N1-C6-N6	9.14	124.08	118.60
2	A8	124	G	P-O5'-C5'	9.14	135.52	120.90
2	A8	143	C	O4'-C1'-N1	9.14	115.51	108.20
36	BA	254	G	N1-C6-O6	9.13	125.38	119.90
1	A7	97	C	O4'-C1'-N1	9.13	115.51	108.20
2	A8	878	A	C8-N9-C4	-9.13	102.15	105.80
2	A8	2036	C	C5'-C4'-C3'	-9.13	101.39	116.00
2	A8	1324	G	C4-N9-C1'	-9.13	114.63	126.50
2	A8	2614	A	N1-C6-N6	9.13	124.08	118.60
36	BA	1003	G	N1-C6-O6	9.13	125.38	119.90
2	A8	1498	C	C6-N1-C2	-9.13	116.65	120.30
2	A8	1895	C	O4'-C1'-N1	9.13	115.50	108.20
36	BA	42	G	N1-C6-O6	9.13	125.38	119.90
2	A8	2733	A	O4'-C4'-C3'	-9.13	94.87	104.00
36	BA	190	A	C5-C6-N6	-9.13	116.40	123.70
36	BA	310	G	N1-C6-O6	9.13	125.38	119.90
36	BA	1050	G	C5-C6-O6	-9.13	123.12	128.60
36	BA	326	G	N1-C6-O6	9.13	125.38	119.90
36	BA	877	G	O4'-C1'-N9	9.12	115.50	108.20
36	BA	902	G	C5-C6-O6	-9.12	123.13	128.60
2	A8	1821	A	O4'-C1'-N9	9.12	115.50	108.20
2	A8	2105	U	C6-N1-C2	-9.12	115.53	121.00
2	A8	2742	G	C5-C6-O6	-9.12	123.13	128.60
2	A8	955	U	O4'-C1'-N1	9.12	115.50	108.20
2	A8	1268	A	C5'-C4'-C3'	-9.12	101.41	116.00
36	BA	1469	C	O4'-C1'-N1	9.12	115.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	570	G	C5-C6-O6	-9.12	123.13	128.60
36	BA	752	G	N1-C6-O6	9.12	125.37	119.90
2	A8	16	C	O4'-C1'-N1	9.12	115.49	108.20
2	A8	202	U	O4'-C1'-N1	9.12	115.49	108.20
2	A8	1846	G	C5-C6-O6	-9.12	123.13	128.60
2	A8	2641	G	N1-C6-O6	9.11	125.37	119.90
2	A8	2811	G	C5'-C4'-C3'	-9.11	101.42	116.00
36	BA	241	G	C4-N9-C1'	-9.12	114.65	126.50
36	BA	898	G	C5-C6-O6	-9.12	123.13	128.60
2	A8	446	G	C4-N9-C1'	-9.11	114.65	126.50
2	A8	1223	G	N1-C6-O6	9.11	125.37	119.90
36	BA	1310	G	N1-C6-O6	9.11	125.37	119.90
2	A8	1040	A	N1-C6-N6	9.11	124.07	118.60
36	BA	1024	G	N1-C6-O6	9.11	125.37	119.90
1	A7	54	G	C8-N9-C4	-9.11	102.76	106.40
2	A8	2010	G	C5-C6-O6	-9.11	123.14	128.60
2	A8	2307	G	N1-C6-O6	9.11	125.36	119.90
2	A8	2413	G	C5'-C4'-C3'	-9.11	101.43	116.00
36	BA	168	G	N1-C6-O6	9.11	125.36	119.90
36	BA	696	A	C4-C5-C6	9.11	121.55	117.00
2	A8	461	C	C5'-C4'-C3'	-9.11	101.43	116.00
2	A8	1120	G	N1-C6-O6	9.11	125.36	119.90
2	A8	1922	G	C5-C6-O6	-9.11	123.14	128.60
36	BA	912	C	O4'-C1'-N1	9.11	115.48	108.20
36	BA	990	C	O4'-C1'-N1	9.11	115.48	108.20
36	BA	1092	A	N1-C6-N6	9.11	124.06	118.60
2	A8	1215	G	N1-C6-O6	9.10	125.36	119.90
2	A8	1239	G	N1-C6-O6	9.10	125.36	119.90
2	A8	1283	G	N1-C6-O6	9.10	125.36	119.90
2	A8	2052	A	N1-C6-N6	9.10	124.06	118.60
2	A8	2512	C	C5'-C4'-C3'	-9.10	101.43	116.00
2	A8	1457	U	C2-N1-C1'	-9.10	106.78	117.70
2	A8	839	U	O4'-C1'-N1	9.10	115.48	108.20
2	A8	777	G	N1-C6-O6	9.10	125.36	119.90
2	A8	1918	A	C5-C6-N1	-9.10	113.15	117.70
2	A8	2876	G	C5-C6-O6	-9.10	123.14	128.60
36	BA	185	U	O4'-C1'-N1	9.10	115.48	108.20
36	BA	847	G	O4'-C1'-N9	9.10	115.48	108.20
36	BA	1510	C	O4'-C1'-N1	9.10	115.48	108.20
2	A8	1225	G	N1-C6-O6	9.10	125.36	119.90
36	BA	1071	C	C6-N1-C2	-9.10	116.66	120.30
2	A8	1142	A	C5-C6-N6	-9.09	116.42	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1164	G	N1-C6-O6	9.09	125.36	119.90
36	BA	1434	A	C5-C6-N6	-9.09	116.43	123.70
36	BA	1104	G	N1-C6-O6	9.09	125.35	119.90
2	A8	1061	U	O4'-C1'-C2'	-9.09	96.71	105.80
2	A8	583	G	C5-C6-O6	-9.09	123.15	128.60
2	A8	2446	G	C8-N9-C4	-9.09	102.77	106.40
36	BA	204	G	C5-C6-O6	-9.08	123.15	128.60
2	A8	2452	C	O4'-C1'-N1	9.08	115.47	108.20
2	A8	2099	U	O4'-C1'-N1	9.08	115.46	108.20
2	A8	2364	C	O4'-C1'-N1	9.08	115.46	108.20
2	A8	2558	C	O4'-C1'-N1	9.08	115.47	108.20
2	A8	2894	G	O4'-C1'-N9	9.08	115.47	108.20
32	A1	19	PHE	CB-CG-CD1	9.08	127.16	120.80
36	BA	281	G	N1-C6-O6	9.08	125.35	119.90
36	BA	1033	G	N1-C6-O6	9.08	125.35	119.90
36	BA	1261	A	N1-C6-N6	9.08	124.05	118.60
2	A8	106	C	O4'-C1'-N1	9.08	115.46	108.20
2	A8	189	G	C5-C6-O6	-9.08	123.15	128.60
2	A8	208	C	O4'-C1'-N1	9.08	115.46	108.20
2	A8	853	C	O4'-C1'-N1	9.08	115.46	108.20
36	BA	776	G	N1-C6-O6	9.08	125.34	119.90
2	A8	1661	G	C5-C6-O6	-9.07	123.16	128.60
2	A8	347	A	N1-C6-N6	9.07	124.04	118.60
2	A8	1501	G	N1-C6-O6	9.07	125.34	119.90
2	A8	2845	U	O4'-C1'-N1	9.07	115.46	108.20
2	A8	32	C	O4'-C1'-N1	9.07	115.45	108.20
2	A8	2383	G	O4'-C1'-N9	9.07	115.45	108.20
36	BA	212	G	N1-C6-O6	9.07	125.34	119.90
36	BA	1361	G	N1-C6-O6	9.07	125.34	119.90
36	BA	1371	G	N1-C6-O6	9.07	125.34	119.90
36	BA	821	G	N1-C6-O6	9.06	125.34	119.90
2	A8	916	G	N1-C6-O6	9.06	125.34	119.90
2	A8	2060	A	N1-C6-N6	9.06	124.04	118.60
2	A8	2345	G	N1-C6-O6	9.06	125.34	119.90
36	BA	142	G	N1-C6-O6	9.06	125.34	119.90
36	BA	668	G	C5-C6-O6	-9.06	123.16	128.60
36	BA	1050	G	N1-C6-O6	9.06	125.33	119.90
2	A8	930	G	C5-C6-O6	-9.06	123.17	128.60
2	A8	1377	G	C5-C6-O6	-9.06	123.17	128.60
2	A8	338	G	N1-C6-O6	9.06	125.33	119.90
2	A8	2705	A	P-O5'-C5'	-9.05	106.41	120.90
2	A8	2779	U	P-O3'-C3'	-9.05	108.84	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	AX	77	TYR	CB-CG-CD2	9.05	126.43	121.00
36	BA	187	G	N1-C6-O6	9.05	125.33	119.90
36	BA	823	C	O4'-C1'-N1	9.05	115.44	108.20
2	A8	683	U	O4'-C1'-N1	9.05	115.44	108.20
36	BA	809	G	N1-C6-O6	9.05	125.33	119.90
2	A8	151	C	O4'-C1'-N1	9.05	115.44	108.20
2	A8	2267	A	C8-N9-C4	-9.05	102.18	105.80
36	BA	23	C	C6-N1-C2	-9.05	116.68	120.30
36	BA	31	G	N1-C6-O6	9.05	125.33	119.90
36	BA	250	A	O4'-C1'-N9	9.05	115.44	108.20
36	BA	254	G	C5'-C4'-C3'	-9.05	101.52	116.00
36	BA	1468	A	C4-C5-C6	9.05	121.53	117.00
2	A8	1459	G	N1-C6-O6	9.05	125.33	119.90
2	A8	954	G	O4'-C1'-N9	9.05	115.44	108.20
2	A8	1721	G	N1-C6-O6	9.04	125.33	119.90
2	A8	2503	A	O4'-C1'-N9	9.04	115.44	108.20
1	A7	13	G	C5-C6-O6	-9.04	123.17	128.60
2	A8	874	G	C5-C6-O6	-9.04	123.17	128.60
2	A8	937	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	1221	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	745	G	C5-C6-O6	-9.04	123.17	128.60
2	A8	2520	C	C6-N1-C2	-9.04	116.68	120.30
36	BA	888	G	C5-C6-O6	-9.04	123.17	128.60
36	BA	1525	G	N1-C6-O6	9.04	125.32	119.90
2	A8	2609	U	O3'-P-O5'	9.04	121.17	104.00
36	BA	321	A	O4'-C1'-N9	9.04	115.43	108.20
36	BA	453	G	N1-C6-O6	9.04	125.32	119.90
1	A7	43	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	505	A	O4'-C1'-N9	9.04	115.43	108.20
2	A8	801	G	N1-C6-O6	9.04	125.32	119.90
2	A8	1153	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	2852	G	P-O5'-C5'	9.04	135.36	120.90
36	BA	899	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	935	C	O4'-C1'-N1	9.04	115.43	108.20
2	A8	2368	C	O4'-C1'-N1	9.04	115.43	108.20
36	BA	331	G	C5-C6-O6	-9.04	123.18	128.60
2	A8	27	G	C5'-C4'-C3'	9.03	130.45	116.00
2	A8	121	G	N1-C6-O6	9.03	125.32	119.90
2	A8	1661	G	N1-C6-O6	9.03	125.32	119.90
2	A8	2136	G	N1-C6-O6	9.03	125.32	119.90
36	BA	156	C	C5'-C4'-C3'	-9.03	101.55	116.00
2	A8	2308	G	N1-C6-O6	9.03	125.32	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1907	G	C5-C6-O6	-9.03	123.18	128.60
2	A8	265	A	C5-C6-N6	-9.03	116.48	123.70
36	BA	317	U	O4'-C1'-N1	9.03	115.42	108.20
2	A8	1370	C	O4'-C1'-N1	9.03	115.42	108.20
2	A8	2105	U	O4'-C1'-N1	9.03	115.42	108.20
2	A8	2642	G	N1-C6-O6	9.03	125.31	119.90
2	A8	2835	A	N1-C6-N6	9.03	124.02	118.60
2	A8	1697	G	C5-C6-O6	-9.02	123.19	128.60
2	A8	1097	U	C5'-C4'-C3'	-9.02	101.56	116.00
2	A8	1281	G	N1-C6-O6	9.02	125.31	119.90
36	BA	322	C	C5'-C4'-C3'	-9.02	101.56	116.00
2	A8	2483	C	C6-N1-C2	-9.02	116.69	120.30
36	BA	494	G	P-O5'-C5'	9.02	135.34	120.90
2	A8	559	G	N1-C6-O6	9.02	125.31	119.90
2	A8	732	C	O4'-C1'-N1	9.02	115.41	108.20
2	A8	940	G	N1-C6-O6	9.02	125.31	119.90
2	A8	1182	G	C5-C6-O6	-9.02	123.19	128.60
36	BA	150	U	O4'-C1'-N1	9.02	115.42	108.20
36	BA	245	U	O4'-C1'-N1	9.02	115.42	108.20
36	BA	1300	G	P-O3'-C3'	9.02	130.52	119.70
36	BA	268	U	C5'-C4'-C3'	-9.02	101.57	116.00
36	BA	1472	U	O4'-C1'-N1	9.02	115.42	108.20
2	A8	664	G	N1-C6-O6	9.02	125.31	119.90
36	BA	402	G	N1-C6-O6	9.02	125.31	119.90
2	A8	1560	G	N1-C6-O6	9.02	125.31	119.90
2	A8	1810	A	C4-C5-C6	9.02	121.51	117.00
2	A8	2811	G	O4'-C1'-N9	9.02	115.41	108.20
36	BA	306	A	P-O5'-C5'	9.02	135.32	120.90
2	A8	902	C	N3-C4-N4	9.01	124.31	118.00
2	A8	924	G	C5-C6-O6	-9.01	123.19	128.60
36	BA	318	G	C5-C6-O6	-9.01	123.19	128.60
36	BA	595	A	O4'-C1'-N9	9.01	115.41	108.20
36	BA	1000	A	C5-C6-N6	-9.01	116.49	123.70
2	A8	998	C	O4'-C1'-N1	9.01	115.41	108.20
36	BA	1389	C	N3-C4-N4	9.01	124.31	118.00
2	A8	308	G	N1-C6-O6	9.01	125.30	119.90
2	A8	1195	G	C5'-C4'-C3'	-9.01	101.59	116.00
36	BA	399	G	N1-C6-O6	9.01	125.31	119.90
36	BA	1435	G	N1-C6-O6	9.01	125.31	119.90
2	A8	1168	G	C5-C6-O6	-9.01	123.20	128.60
2	A8	1530	G	O3'-P-O5'	-9.01	86.89	104.00
2	A8	2373	G	N1-C6-O6	9.01	125.30	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	385	C	O4'-C1'-N1	9.01	115.40	108.20
2	A8	2061	G	O4'-C1'-C2'	-9.00	96.80	105.80
2	A8	2434	A	P-O3'-C3'	-9.00	108.90	119.70
2	A8	2442	C	C6-N1-C2	-9.00	116.70	120.30
2	A8	918	A	C4-C5-C6	9.00	121.50	117.00
2	A8	930	G	N1-C6-O6	9.00	125.30	119.90
2	A8	2284	A	O4'-C1'-N9	9.00	115.40	108.20
2	A8	1313	U	C2-N1-C1'	9.00	128.50	117.70
2	A8	1699	G	C1'-O4'-C4'	-9.00	102.70	109.90
36	BA	1058	G	N1-C6-O6	9.00	125.30	119.90
36	BA	1094	G	N1-C6-O6	9.00	125.30	119.90
1	A7	84	G	N1-C6-O6	8.99	125.30	119.90
2	A8	963	U	O4'-C1'-N1	8.99	115.39	108.20
2	A8	1472	C	O4'-C1'-N1	8.99	115.39	108.20
2	A8	1937	A	N1-C6-N6	8.99	124.00	118.60
36	BA	1385	G	C5-C6-O6	-8.99	123.20	128.60
2	A8	27	G	C4-N9-C1'	-8.99	114.81	126.50
2	A8	1151	A	C5-C6-N6	-8.99	116.50	123.70
36	BA	6	G	N1-C6-O6	8.99	125.30	119.90
36	BA	453	G	C5-C6-O6	-8.99	123.20	128.60
36	BA	1356	G	N1-C6-O6	8.99	125.30	119.90
2	A8	1144	A	C5-C6-N6	-8.99	116.51	123.70
2	A8	2736	A	C5-C6-N6	-8.99	116.51	123.70
36	BA	499	A	P-O3'-C3'	8.99	130.49	119.70
2	A8	1785	A	N1-C6-N6	8.99	123.99	118.60
2	A8	2876	G	N1-C6-O6	8.99	125.29	119.90
36	BA	887	G	O4'-C1'-N9	8.99	115.39	108.20
36	BA	933	G	N1-C6-O6	8.99	125.29	119.90
2	A8	1293	C	C6-N1-C2	-8.98	116.71	120.30
2	A8	893	C	O4'-C1'-N1	8.98	115.39	108.20
2	A8	1018	U	O4'-C1'-N1	8.98	115.39	108.20
2	A8	1250	G	N1-C6-O6	8.98	125.29	119.90
2	A8	1857	G	C5-C6-O6	-8.98	123.21	128.60
2	A8	2610	C	O4'-C1'-N1	8.98	115.39	108.20
2	A8	2834	G	N1-C6-O6	8.98	125.29	119.90
2	A8	808	G	N1-C6-O6	8.98	125.29	119.90
2	A8	1538	G	C5-C6-O6	-8.98	123.21	128.60
2	A8	2699	C	O4'-C1'-N1	8.98	115.39	108.20
36	BA	670	G	N1-C6-O6	8.98	125.29	119.90
2	A8	123	G	C5'-C4'-C3'	-8.98	101.64	116.00
2	A8	201	C	O4'-C1'-N1	8.98	115.38	108.20
2	A8	2264	C	O4'-C1'-N1	8.98	115.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1005	A	C4-C5-C6	8.98	121.49	117.00
2	A8	517	C	O4'-C1'-N1	8.97	115.38	108.20
2	A8	879	G	C8-N9-C4	-8.97	102.81	106.40
2	A8	1036	G	N1-C6-O6	8.97	125.28	119.90
2	A8	2458	G	N1-C6-O6	8.97	125.28	119.90
2	A8	2557	G	C5-C6-O6	-8.97	123.22	128.60
2	A8	841	G	N1-C6-O6	8.97	125.28	119.90
2	A8	2559	C	O4'-C1'-N1	8.97	115.38	108.20
36	BA	398	U	O4'-C1'-N1	8.97	115.38	108.20
36	BA	1158	C	C6-N1-C2	-8.97	116.71	120.30
2	A8	438	G	N1-C6-O6	8.97	125.28	119.90
2	A8	1645	G	C5-C6-O6	-8.97	123.22	128.60
36	BA	1426	G	N1-C6-O6	8.97	125.28	119.90
2	A8	650	C	C6-N1-C2	-8.96	116.71	120.30
2	A8	1055	G	N1-C6-O6	8.96	125.28	119.90
2	A8	2157	G	O4'-C1'-N9	8.96	115.37	108.20
36	BA	350	G	N1-C6-O6	8.96	125.28	119.90
36	BA	710	G	N1-C6-O6	8.96	125.28	119.90
36	BA	1316	G	N3-C2-N2	8.96	126.17	119.90
2	A8	473	G	N1-C6-O6	8.96	125.28	119.90
2	A8	2144	G	N1-C6-O6	8.96	125.28	119.90
36	BA	362	G	C8-N9-C1'	8.96	138.65	127.00
2	A8	2525	G	C5'-C4'-C3'	-8.96	101.66	116.00
36	BA	740	U	O4'-C1'-N1	8.96	115.37	108.20
2	A8	903	C	O4'-C1'-N1	8.96	115.36	108.20
2	A8	2815	C	O4'-C1'-N1	8.96	115.37	108.20
36	BA	54	C	O4'-C1'-N1	8.96	115.37	108.20
2	A8	1403	A	N1-C6-N6	8.96	123.97	118.60
2	A8	805	G	N1-C6-O6	8.95	125.27	119.90
2	A8	1181	U	C5'-C4'-C3'	-8.95	101.68	116.00
36	BA	778	G	P-O5'-C5'	8.95	135.22	120.90
36	BA	1193	G	N1-C6-O6	8.95	125.27	119.90
2	A8	1194	A	C5-C6-N6	-8.95	116.54	123.70
2	A8	2511	U	O4'-C1'-N1	8.95	115.36	108.20
36	BA	685	G	N1-C6-O6	8.95	125.27	119.90
36	BA	1213	A	N1-C6-N6	8.95	123.97	118.60
2	A8	923	G	N1-C6-O6	8.95	125.27	119.90
2	A8	1324	G	C5'-C4'-C3'	-8.95	101.69	116.00
2	A8	2008	C	O4'-C1'-N1	8.95	115.36	108.20
36	BA	46	G	N1-C6-O6	8.94	125.27	119.90
2	A8	1333	G	C5-C6-O6	-8.94	123.23	128.60
2	A8	2128	G	C5-C6-O6	-8.94	123.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2773	C	O4'-C1'-N1	8.94	115.35	108.20
36	BA	1369	C	O4'-C1'-N1	8.94	115.35	108.20
2	A8	2186	G	C5-C6-O6	-8.94	123.24	128.60
36	BA	242	G	C4-N9-C1'	-8.94	114.88	126.50
36	BA	865	A	N1-C6-N6	8.94	123.96	118.60
1	A7	10	G	N1-C6-O6	8.94	125.26	119.90
2	A8	202	U	C5'-C4'-C3'	-8.94	101.70	116.00
2	A8	260	G	N1-C6-O6	8.94	125.26	119.90
2	A8	2867	G	N1-C6-O6	8.94	125.26	119.90
36	BA	25	C	O4'-C1'-N1	8.94	115.35	108.20
2	A8	214	G	N1-C6-O6	8.93	125.26	119.90
2	A8	851	C	O4'-C1'-N1	8.93	115.35	108.20
2	A8	1657	U	O4'-C1'-N1	8.93	115.35	108.20
36	BA	1077	G	N1-C6-O6	8.93	125.26	119.90
36	BA	1177	G	N1-C6-O6	8.93	125.26	119.90
1	A7	5	U	O4'-C1'-N1	8.93	115.34	108.20
36	BA	1241	G	N1-C6-O6	8.93	125.26	119.90
2	A8	1194	A	C5'-C4'-C3'	-8.93	101.71	116.00
2	A8	1259	G	C5-C6-O6	-8.93	123.24	128.60
2	A8	1697	G	N1-C6-O6	8.93	125.26	119.90
2	A8	1989	G	C5-C6-O6	-8.93	123.24	128.60
2	A8	2315	G	C5-C6-O6	-8.93	123.24	128.60
36	BA	522	C	O4'-C1'-N1	8.93	115.34	108.20
36	BA	883	C	O4'-C1'-N1	8.93	115.34	108.20
36	BA	455	G	C5-C6-O6	-8.92	123.25	128.60
2	A8	612	G	C5-C6-O6	-8.92	123.25	128.60
2	A8	1037	G	N1-C6-O6	8.92	125.25	119.90
2	A8	1335	C	O4'-C1'-N1	8.92	115.33	108.20
36	BA	158	G	N1-C6-O6	8.92	125.25	119.90
36	BA	1263	C	O4'-C1'-N1	8.92	115.33	108.20
2	A8	627	A	C5-C6-N6	-8.91	116.57	123.70
36	BA	1120	C	O4'-C1'-N1	8.91	115.33	108.20
2	A8	53	A	C5-C6-N6	-8.91	116.57	123.70
2	A8	797	G	N1-C6-O6	8.91	125.25	119.90
2	A8	2075	U	O4'-C1'-N1	8.91	115.33	108.20
36	BA	41	G	N1-C6-O6	8.91	125.25	119.90
2	A8	2371	G	C4-N9-C1'	-8.91	114.92	126.50
2	A8	332	A	C5-C6-N6	-8.91	116.57	123.70
2	A8	1029	A	C5-C6-N6	-8.91	116.58	123.70
2	A8	1875	G	N1-C6-O6	8.91	125.24	119.90
2	A8	1930	G	N1-C6-O6	8.91	125.25	119.90
2	A8	2101	A	C5-C6-N6	-8.91	116.57	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1279	G	C5-C6-O6	-8.90	123.26	128.60
2	A8	2235	G	C5-C6-O6	-8.90	123.26	128.60
1	A7	100	G	C5-C6-O6	-8.90	123.26	128.60
2	A8	1061	U	P-O3'-C3'	8.90	130.38	119.70
2	A8	1682	G	N1-C6-O6	8.90	125.24	119.90
2	A8	2734	A	C5-C6-N6	-8.90	116.58	123.70
36	BA	839	C	O4'-C1'-N1	8.90	115.32	108.20
2	A8	25	U	O4'-C1'-N1	8.90	115.32	108.20
36	BA	1272	G	N1-C6-O6	8.90	125.24	119.90
2	A8	274	C	C3'-C2'-C1'	-8.90	94.38	101.50
2	A8	1458	U	O4'-C1'-N1	8.90	115.32	108.20
2	A8	2298	A	C8-N9-C4	-8.90	102.24	105.80
2	A8	2894	G	C5-C6-O6	-8.90	123.26	128.60
2	A8	2271	G	N1-C6-O6	8.89	125.24	119.90
36	BA	111	G	N1-C6-O6	8.89	125.24	119.90
2	A8	1207	C	O4'-C1'-N1	8.89	115.31	108.20
36	BA	918	A	C5-C6-N6	-8.89	116.59	123.70
36	BA	923	A	C8-N9-C4	-8.89	102.24	105.80
36	BA	1027	C	N3-C4-N4	8.89	124.23	118.00
2	A8	232	G	N1-C6-O6	8.89	125.23	119.90
2	A8	1275	A	C5-C6-N6	-8.89	116.59	123.70
36	BA	776	G	C5-C6-O6	-8.89	123.27	128.60
2	A8	1947	C	C5'-C4'-C3'	-8.89	101.78	116.00
36	BA	269	C	C3'-C2'-C1'	-8.89	94.39	101.50
36	BA	1131	G	N1-C6-O6	8.89	125.23	119.90
2	A8	641	U	P-O3'-C3'	8.89	130.37	119.70
2	A8	1343	G	N1-C6-O6	8.89	125.23	119.90
2	A8	1658	C	O4'-C1'-N1	8.89	115.31	108.20
36	BA	1030	U	P-O3'-C3'	8.89	130.37	119.70
2	A8	412	A	N1-C6-N6	8.89	123.93	118.60
2	A8	2098	U	O4'-C1'-N1	8.89	115.31	108.20
2	A8	2133	G	C5-C6-O6	-8.89	123.27	128.60
36	BA	924	C	N3-C4-N4	8.89	124.22	118.00
2	A8	1072	C	O4'-C1'-N1	8.89	115.31	108.20
2	A8	1980	G	N3-C2-N2	8.88	126.12	119.90
2	A8	1988	G	N1-C6-O6	8.88	125.23	119.90
36	BA	401	C	O4'-C1'-N1	8.88	115.31	108.20
36	BA	629	A	C8-N9-C4	-8.88	102.25	105.80
36	BA	856	C	O4'-C1'-N1	8.88	115.31	108.20
36	BA	1138	G	N1-C6-O6	8.88	125.23	119.90
1	A7	20	G	N1-C6-O6	8.88	125.23	119.90
36	BA	344	A	P-O3'-C3'	8.88	130.36	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	520	A	N1-C6-N6	8.88	123.93	118.60
36	BA	517	G	C6-C5-N7	-8.88	125.07	130.40
36	BA	733	G	N1-C6-O6	8.88	125.23	119.90
2	A8	700	G	C5-C6-O6	-8.88	123.27	128.60
2	A8	473	G	C5-C6-O6	-8.88	123.27	128.60
2	A8	1722	A	C8-N9-C4	-8.87	102.25	105.80
2	A8	1873	G	C5'-C4'-C3'	-8.88	101.80	116.00
2	A8	2575	C	P-O3'-C3'	8.87	130.35	119.70
36	BA	613	C	P-O5'-C5'	8.88	135.10	120.90
36	BA	691	G	C4-N9-C1'	-8.87	114.96	126.50
2	A8	2872	A	N1-C6-N6	8.87	123.92	118.60
36	BA	893	C	O4'-C1'-N1	8.87	115.30	108.20
36	BA	934	C	O4'-C1'-N1	8.87	115.30	108.20
2	A8	1521	G	C5-C6-O6	-8.87	123.28	128.60
2	A8	2688	G	O4'-C1'-N9	8.87	115.30	108.20
2	A8	1462	C	O4'-C1'-N1	8.87	115.29	108.20
36	BA	135	C	O4'-C1'-N1	8.87	115.29	108.20
36	BA	1422	G	C5-C6-O6	-8.87	123.28	128.60
2	A8	515	A	C5-C6-N6	-8.86	116.61	123.70
2	A8	1454	C	C6-N1-C1'	-8.86	110.17	120.80
36	BA	198	G	C5-C6-O6	-8.86	123.28	128.60
36	BA	885	G	N1-C6-O6	8.86	125.22	119.90
2	A8	1651	G	C5-C6-O6	-8.86	123.28	128.60
2	A8	1846	G	C5'-C4'-C3'	-8.86	101.82	116.00
2	A8	2382	G	N1-C6-O6	8.86	125.22	119.90
36	BA	18	C	O4'-C1'-N1	8.86	115.29	108.20
36	BA	267	C	N3-C4-N4	8.86	124.20	118.00
36	BA	449	G	P-O5'-C5'	8.86	135.08	120.90
2	A8	1764	C	O4'-C1'-N1	8.86	115.28	108.20
2	A8	1931	U	P-O5'-C5'	-8.86	106.73	120.90
2	A8	2375	G	N1-C6-O6	8.86	125.21	119.90
2	A8	211	C	O4'-C1'-N1	8.85	115.28	108.20
2	A8	725	G	C5-C6-O6	-8.85	123.29	128.60
2	A8	1540	G	C5'-C4'-C3'	-8.85	101.83	116.00
36	BA	305	G	N1-C6-O6	8.85	125.21	119.90
36	BA	472	U	C5'-C4'-C3'	-8.85	101.84	116.00
2	A8	681	G	C5-C6-O6	-8.85	123.29	128.60
2	A8	755	U	O4'-C1'-N1	8.85	115.28	108.20
2	A8	2011	U	O4'-C1'-N1	8.85	115.28	108.20
36	BA	1253	G	N1-C6-O6	8.85	125.21	119.90
2	A8	2313	C	O4'-C1'-N1	8.85	115.28	108.20
36	BA	1169	A	O4'-C1'-N9	8.85	115.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2223	G	N1-C6-O6	8.85	125.21	119.90
2	A8	2765	A	N1-C6-N6	8.85	123.91	118.60
2	A8	2534	A	C5-C6-N6	-8.85	116.62	123.70
36	BA	343	U	O4'-C1'-N1	8.84	115.27	108.20
36	BA	403	C	O4'-C1'-N1	8.84	115.28	108.20
36	BA	866	C	O4'-C1'-N1	8.84	115.27	108.20
36	BA	1432	G	C8-N9-C1'	8.84	138.49	127.00
2	A8	152	A	C5-C6-N6	-8.84	116.63	123.70
36	BA	1036	A	N1-C6-N6	8.84	123.90	118.60
2	A8	2627	G	C5-C6-O6	-8.84	123.30	128.60
36	BA	484	G	C5-C6-O6	-8.84	123.30	128.60
2	A8	572	A	N1-C6-N6	8.83	123.90	118.60
36	BA	254	G	C5-C6-O6	-8.83	123.30	128.60
36	BA	394	G	N1-C6-O6	8.83	125.20	119.90
2	A8	185	G	O4'-C1'-N9	8.83	115.27	108.20
2	A8	1896	G	N1-C6-O6	8.83	125.20	119.90
2	A8	2639	A	C5-C6-N6	-8.83	116.63	123.70
36	BA	481	G	N1-C6-O6	8.83	125.20	119.90
36	BA	1355	G	N1-C6-O6	8.83	125.20	119.90
2	A8	949	G	N1-C6-O6	8.83	125.20	119.90
2	A8	1659	G	C3'-C2'-C1'	-8.83	94.44	101.50
2	A8	2839	G	N1-C6-O6	8.83	125.20	119.90
36	BA	1436	U	O4'-C1'-N1	8.83	115.26	108.20
2	A8	271	G	C5'-C4'-C3'	-8.83	101.88	116.00
2	A8	522	A	C5-C6-N6	-8.83	116.64	123.70
2	A8	2076	U	O4'-C1'-N1	8.83	115.26	108.20
36	BA	1352	C	O4'-C1'-N1	8.83	115.26	108.20
36	BA	1390	U	O4'-C1'-N1	8.83	115.26	108.20
2	A8	1844	C	P-O3'-C3'	-8.82	109.11	119.70
36	BA	474	G	N1-C6-O6	8.82	125.19	119.90
1	A7	60	C	N3-C4-N4	8.82	124.17	118.00
2	A8	1543	G	N1-C6-O6	8.82	125.19	119.90
36	BA	244	U	O4'-C1'-N1	8.82	115.26	108.20
2	A8	2162	G	N1-C6-O6	8.82	125.19	119.90
11	AG	93	TYR	CB-CG-CD2	8.82	126.29	121.00
2	A8	926	G	O4'-C1'-N9	8.82	115.25	108.20
2	A8	2054	A	C5-C6-N6	-8.82	116.65	123.70
36	BA	268	U	O4'-C1'-N1	8.82	115.25	108.20
36	BA	1339	A	C4-C5-C6	8.81	121.41	117.00
2	A8	556	A	C5-C6-N6	-8.81	116.65	123.70
36	BA	432	A	C4-C5-C6	8.81	121.41	117.00
36	BA	1443	C	O4'-C1'-N1	8.81	115.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	24	G	C5-C6-O6	-8.81	123.31	128.60
2	A8	136	G	N1-C6-O6	8.81	125.19	119.90
2	A8	2002	G	C5-C6-O6	-8.81	123.31	128.60
36	BA	186	C	O4'-C1'-N1	8.81	115.25	108.20
36	BA	362	G	C4-N9-C1'	-8.81	115.05	126.50
2	A8	225	C	C5'-C4'-C3'	-8.81	101.91	116.00
2	A8	2789	C	N3-C4-N4	8.81	124.17	118.00
36	BA	171	A	C5-C6-N6	-8.81	116.65	123.70
36	BA	929	G	C5-C6-O6	-8.81	123.31	128.60
36	BA	1141	C	O4'-C1'-N1	8.81	115.25	108.20
36	BA	99	C	O4'-C1'-N1	8.80	115.24	108.20
2	A8	947	A	C5-C6-N6	-8.80	116.66	123.70
2	A8	1110	G	C4-N9-C1'	-8.80	115.06	126.50
2	A8	1349	C	O4'-C1'-N1	8.80	115.24	108.20
2	A8	2503	A	C4-C5-C6	8.80	121.40	117.00
36	BA	515	G	N1-C6-O6	8.80	125.18	119.90
36	BA	1416	G	N1-C6-O6	8.80	125.18	119.90
2	A8	1212	G	N1-C6-O6	8.80	125.18	119.90
2	A8	514	A	C6-C5-N7	-8.80	126.14	132.30
2	A8	2458	G	C5-C6-O6	-8.80	123.32	128.60
36	BA	169	C	P-O5'-C5'	-8.80	106.82	120.90
36	BA	587	G	C5-C6-O6	-8.80	123.32	128.60
2	A8	130	C	P-O3'-C3'	-8.80	109.14	119.70
2	A8	159	G	C5-C6-O6	-8.80	123.32	128.60
2	A8	2026	U	O4'-C1'-N1	8.80	115.24	108.20
36	BA	674	G	N1-C6-O6	8.80	125.18	119.90
2	A8	622	G	N1-C6-O6	8.79	125.18	119.90
2	A8	2873	A	C5-C6-N6	-8.80	116.66	123.70
2	A8	456	C	O4'-C1'-N1	8.79	115.23	108.20
2	A8	1525	A	C8-N9-C4	-8.79	102.28	105.80
2	A8	1110	G	N1-C6-O6	8.79	125.17	119.90
2	A8	2303	G	C5-C6-O6	-8.79	123.33	128.60
2	A8	2471	A	C5-C6-N6	-8.79	116.67	123.70
36	BA	656	G	C8-N9-C1'	8.79	138.43	127.00
36	BA	691	G	C8-N9-C1'	8.79	138.43	127.00
36	BA	1039	G	N1-C6-O6	8.79	125.17	119.90
36	BA	1094	G	O4'-C1'-N9	8.79	115.23	108.20
2	A8	777	G	C5-C6-O6	-8.78	123.33	128.60
2	A8	2168	G	C5-C6-O6	-8.78	123.33	128.60
36	BA	1161	C	O4'-C1'-N1	8.78	115.22	108.20
2	A8	80	G	N1-C6-O6	8.78	125.17	119.90
2	A8	524	G	N1-C6-O6	8.78	125.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	830	G	N1-C6-O6	8.78	125.17	119.90
2	A8	674	G	N1-C6-O6	8.78	125.17	119.90
36	BA	1376	U	O4'-C1'-N1	8.78	115.22	108.20
2	A8	562	U	C5'-C4'-C3'	8.78	130.04	116.00
36	BA	424	G	N1-C6-O6	8.78	125.17	119.90
2	A8	1577	C	O4'-C1'-N1	8.78	115.22	108.20
2	A8	1950	G	N1-C6-O6	8.78	125.17	119.90
2	A8	2431	U	P-O5'-C5'	8.78	134.94	120.90
36	BA	1207	G	C5-C6-O6	-8.78	123.33	128.60
2	A8	35	G	N1-C6-O6	8.77	125.16	119.90
2	A8	1446	C	C6-N1-C2	-8.77	116.79	120.30
2	A8	1470	A	C4-C5-C6	8.77	121.39	117.00
36	BA	643	C	C5-C6-N1	8.77	125.39	121.00
36	BA	1473	G	C8-N9-C1'	8.77	138.41	127.00
2	A8	497	A	C5'-C4'-C3'	-8.77	101.97	116.00
2	A8	2140	G	N1-C6-O6	8.77	125.16	119.90
2	A8	2374	C	C6-N1-C2	-8.77	116.79	120.30
36	BA	258	G	C5'-C4'-C3'	-8.77	101.97	116.00
2	A8	427	U	O4'-C1'-N1	8.77	115.22	108.20
36	BA	544	G	C5-C6-O6	-8.77	123.34	128.60
36	BA	140	U	O4'-C1'-N1	8.77	115.22	108.20
2	A8	1302	A	C5-C6-N1	-8.76	113.32	117.70
1	A7	18	G	N1-C6-O6	8.76	125.16	119.90
2	A8	1388	G	N1-C6-O6	8.76	125.16	119.90
2	A8	535	G	O4'-C1'-N9	8.76	115.21	108.20
2	A8	1149	G	C5'-C4'-C3'	-8.76	101.98	116.00
2	A8	2527	C	O4'-C1'-N1	8.76	115.21	108.20
2	A8	2573	C	C6-N1-C1'	-8.76	110.29	120.80
36	BA	1269	A	O4'-C1'-N9	8.76	115.21	108.20
2	A8	633	A	C5-C6-N1	-8.76	113.32	117.70
2	A8	2725	A	C4-C5-C6	8.76	121.38	117.00
36	BA	275	G	N3-C2-N2	8.76	126.03	119.90
2	A8	2750	A	O3'-P-O5'	-8.75	87.37	104.00
2	A8	961	C	O4'-C1'-N1	8.75	115.20	108.20
2	A8	1157	G	N1-C6-O6	8.75	125.15	119.90
2	A8	2188	U	O4'-C1'-N1	8.75	115.20	108.20
36	BA	338	A	O4'-C1'-N9	8.75	115.20	108.20
36	BA	1452	C	O4'-C1'-N1	8.75	115.20	108.20
2	A8	141	G	C5-C6-O6	-8.75	123.35	128.60
2	A8	2446	G	N1-C6-O6	8.75	125.15	119.90
2	A8	2740	A	C5-C6-N6	-8.75	116.70	123.70
36	BA	1170	A	O4'-C1'-N9	8.75	115.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	139	U	O4'-C1'-N1	8.75	115.20	108.20
2	A8	2659	G	N1-C6-O6	8.75	125.15	119.90
2	A8	759	G	C5-C6-O6	-8.74	123.35	128.60
2	A8	2463	C	O4'-C1'-N1	8.74	115.19	108.20
36	BA	1424	U	C5'-C4'-C3'	-8.74	102.01	116.00
2	A8	273	G	N1-C6-O6	8.74	125.14	119.90
2	A8	9	G	N1-C6-O6	8.74	125.14	119.90
2	A8	642	U	C6-N1-C2	-8.74	115.76	121.00
2	A8	809	G	N1-C6-O6	8.74	125.14	119.90
36	BA	176	C	O4'-C1'-N1	8.74	115.19	108.20
2	A8	2207	C	O4'-C1'-N1	8.73	115.19	108.20
2	A8	2597	G	N1-C6-O6	8.73	125.14	119.90
36	BA	240	G	N1-C6-O6	8.73	125.14	119.90
36	BA	1405	G	N1-C6-O6	8.73	125.14	119.90
2	A8	1813	G	C5-C6-O6	-8.73	123.36	128.60
2	A8	2686	G	C5-C6-O6	-8.73	123.36	128.60
2	A8	493	G	P-O3'-C3'	-8.73	109.22	119.70
36	BA	971	G	C5-C6-O6	-8.73	123.36	128.60
36	BA	1241	G	C5-C6-O6	-8.73	123.36	128.60
2	A8	455	C	P-O3'-C3'	8.72	130.17	119.70
2	A8	880	G	N1-C6-O6	8.72	125.13	119.90
2	A8	2029	G	P-O3'-C3'	8.72	130.17	119.70
36	BA	36	C	O4'-C1'-N1	8.72	115.18	108.20
2	A8	2129	C	O4'-C1'-N1	8.72	115.18	108.20
36	BA	105	G	O4'-C1'-N9	8.72	115.18	108.20
36	BA	1251	A	C5-C6-N6	-8.72	116.72	123.70
2	A8	857	G	O4'-C1'-N9	8.72	115.18	108.20
36	BA	56	U	O4'-C1'-N1	8.72	115.18	108.20
2	A8	1500	G	N1-C6-O6	8.72	125.13	119.90
2	A8	2785	C	O4'-C1'-N1	8.72	115.18	108.20
36	BA	687	A	N1-C6-N6	8.72	123.83	118.60
2	A8	780	G	C5-C6-O6	-8.72	123.37	128.60
2	A8	1467	U	C5'-C4'-C3'	8.72	129.95	116.00
2	A8	1810	A	C5-C6-N1	-8.72	113.34	117.70
2	A8	2499	C	P-O5'-C5'	8.72	134.85	120.90
2	A8	2800	A	O4'-C1'-N9	8.72	115.17	108.20
36	BA	636	U	O4'-C1'-N1	8.72	115.17	108.20
36	BA	328	C	P-O3'-C3'	8.72	130.16	119.70
36	BA	1301	U	O4'-C1'-N1	8.72	115.17	108.20
2	A8	2750	A	C5-C6-N6	-8.72	116.73	123.70
2	A8	31	C	C6-N1-C2	-8.71	116.81	120.30
2	A8	966	G	C5-C6-O6	-8.71	123.37	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	297	G	C5-C6-O6	-8.71	123.37	128.60
36	BA	1349	A	C5-C6-N6	-8.71	116.73	123.70
36	BA	1353	G	N1-C6-O6	8.71	125.13	119.90
2	A8	259	G	N1-C6-O6	8.71	125.13	119.90
2	A8	2397	G	N1-C6-O6	8.71	125.13	119.90
36	BA	90	C	O4'-C1'-N1	8.71	115.17	108.20
36	BA	872	A	N1-C6-N6	8.71	123.83	118.60
2	A8	2417	C	O4'-C1'-N1	8.71	115.17	108.20
2	A8	2890	G	O4'-C1'-N9	8.71	115.17	108.20
36	BA	1163	A	C5'-C4'-C3'	-8.71	102.06	116.00
2	A8	1519	G	C5-C6-O6	-8.71	123.38	128.60
36	BA	451	A	C5-C6-N6	-8.71	116.73	123.70
2	A8	1643	G	N1-C6-O6	8.71	125.12	119.90
36	BA	1006	G	C5-C6-O6	-8.71	123.38	128.60
36	BA	1309	G	C5-C6-O6	-8.71	123.38	128.60
2	A8	1191	G	C5-C6-O6	-8.71	123.38	128.60
2	A8	1733	G	O4'-C1'-N9	8.71	115.17	108.20
2	A8	2388	A	C5-C6-N1	-8.71	113.35	117.70
2	A8	2843	G	C5-C6-O6	-8.71	123.38	128.60
2	A8	2863	C	O4'-C1'-N1	8.71	115.16	108.20
36	BA	227	G	N1-C6-O6	8.71	125.12	119.90
36	BA	315	A	N1-C6-N6	8.70	123.82	118.60
1	A7	64	G	C5-C6-O6	-8.70	123.38	128.60
2	A8	1316	U	P-O5'-C5'	8.70	134.82	120.90
36	BA	381	C	O4'-C1'-N1	8.70	115.16	108.20
36	BA	1153	G	C5-C6-O6	-8.70	123.38	128.60
36	BA	1215	G	O4'-C1'-N9	8.70	115.16	108.20
36	BA	1338	G	C5-C6-O6	-8.70	123.38	128.60
36	BA	1516	G	C4-N9-C1'	-8.70	115.19	126.50
2	A8	1404	C	O4'-C1'-N1	8.70	115.16	108.20
2	A8	1774	C	P-O3'-C3'	-8.70	109.26	119.70
2	A8	1332	G	C5-C6-O6	-8.70	123.38	128.60
2	A8	1546	G	C4-N9-C1'	-8.70	115.19	126.50
2	A8	2630	G	N1-C6-O6	8.70	125.12	119.90
2	A8	941	A	O4'-C1'-N9	8.70	115.16	108.20
2	A8	1163	G	C5-C6-O6	-8.70	123.38	128.60
36	BA	1100	C	O4'-C1'-N1	8.69	115.16	108.20
2	A8	2870	C	O4'-C1'-N1	8.69	115.16	108.20
2	A8	1417	C	O4'-C1'-N1	8.69	115.15	108.20
2	A8	1530	G	O4'-C4'-C3'	-8.69	95.31	104.00
36	BA	786	G	C5-C6-O6	-8.69	123.39	128.60
2	A8	1452	G	N1-C6-O6	8.69	125.11	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1528	U	O4'-C1'-N1	8.69	115.15	108.20
2	A8	1386	C	O4'-C1'-N1	8.69	115.15	108.20
2	A8	1891	G	C5-C6-O6	-8.69	123.39	128.60
36	BA	1080	A	C5-C6-N6	-8.69	116.75	123.70
36	BA	1292	G	N1-C6-O6	8.69	125.11	119.90
2	A8	1959	G	N1-C6-O6	8.69	125.11	119.90
2	A8	1987	A	O4'-C1'-N9	8.69	115.15	108.20
2	A8	117	G	N1-C6-O6	8.68	125.11	119.90
36	BA	1088	G	N1-C6-O6	8.68	125.11	119.90
2	A8	799	G	N1-C6-O6	8.68	125.11	119.90
2	A8	921	C	O4'-C1'-N1	8.68	115.14	108.20
2	A8	1955	U	O5'-C5'-C4'	-8.68	95.21	111.70
2	A8	2235	G	C8-N9-C1'	8.68	138.28	127.00
36	BA	1283	U	O4'-C1'-N1	8.68	115.14	108.20
36	BA	1210	C	O4'-C1'-N1	8.68	115.14	108.20
2	A8	1673	G	N1-C6-O6	8.68	125.11	119.90
2	A8	252	G	O4'-C1'-N9	8.68	115.14	108.20
2	A8	922	C	O4'-C1'-N1	8.68	115.14	108.20
2	A8	1001	A	C5-C6-N6	-8.68	116.76	123.70
2	A8	1180	U	O4'-C1'-N1	8.68	115.14	108.20
2	A8	1217	U	P-O3'-C3'	8.68	130.11	119.70
2	A8	650	C	N3-C4-C5	-8.67	118.43	121.90
2	A8	1823	G	N1-C6-O6	8.67	125.10	119.90
2	A8	247	G	C5-C6-O6	-8.67	123.40	128.60
36	BA	1342	C	O4'-C1'-N1	8.67	115.14	108.20
2	A8	1660	G	N1-C6-O6	8.67	125.10	119.90
36	BA	621	A	C5'-C4'-C3'	-8.67	102.13	116.00
1	A7	25	U	O4'-C1'-N1	8.67	115.13	108.20
2	A8	31	C	P-O3'-C3'	-8.67	109.30	119.70
2	A8	2430	A	C5-C6-N6	-8.67	116.77	123.70
2	A8	1186	G	C5-C6-O6	-8.66	123.40	128.60
2	A8	255	A	C5-C6-N6	-8.66	116.77	123.70
2	A8	366	C	O4'-C1'-N1	8.66	115.13	108.20
2	A8	1266	G	N1-C6-O6	8.66	125.10	119.90
2	A8	2588	G	O4'-C1'-N9	8.66	115.13	108.20
2	A8	2570	G	N1-C6-O6	8.66	125.09	119.90
36	BA	993	G	N1-C6-O6	8.66	125.10	119.90
2	A8	213	A	C5-C6-N6	-8.66	116.78	123.70
2	A8	816	C	O4'-C1'-N1	8.66	115.13	108.20
36	BA	976	G	C1'-O4'-C4'	-8.66	102.97	109.90
36	BA	771	G	O4'-C1'-N9	8.66	115.12	108.20
36	BA	1097	C	O4'-C1'-N1	8.66	115.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1158	C	N3-C2-O2	-8.66	115.84	121.90
2	A8	2645	G	N1-C6-O6	8.65	125.09	119.90
36	BA	942	G	N1-C6-O6	8.65	125.09	119.90
2	A8	1358	G	O4'-C1'-N9	8.65	115.12	108.20
2	A8	1398	C	O4'-C1'-N1	8.65	115.12	108.20
2	A8	2472	G	C8-N9-C1'	8.65	138.25	127.00
36	BA	272	C	O4'-C1'-N1	8.65	115.12	108.20
2	A8	2595	G	N1-C6-O6	8.65	125.09	119.90
2	A8	2804	U	O4'-C1'-N1	8.65	115.12	108.20
36	BA	112	G	N1-C6-O6	8.65	125.09	119.90
36	BA	1515	G	C5-C6-O6	-8.65	123.41	128.60
36	BA	132	C	O4'-C1'-N1	8.65	115.12	108.20
36	BA	1069	C	O4'-C1'-N1	8.65	115.12	108.20
2	A8	1199	U	O4'-C1'-N1	8.65	115.12	108.20
2	A8	2592	G	N1-C6-O6	8.65	125.09	119.90
2	A8	2607	G	N1-C6-O6	8.65	125.09	119.90
3	AA	362	PHE	CB-CG-CD1	8.65	126.85	120.80
36	BA	1533	C	O4'-C1'-N1	8.65	115.12	108.20
36	BA	462	G	C5'-C4'-O4'	8.65	119.48	109.10
2	A8	2323	G	C5-C6-O6	-8.64	123.41	128.60
2	A8	2608	G	O4'-C1'-N9	8.64	115.11	108.20
36	BA	506	G	C5-C6-O6	-8.64	123.41	128.60
36	BA	765	G	P-O3'-C3'	-8.64	109.33	119.70
1	A7	67	G	P-O3'-C3'	-8.64	109.33	119.70
2	A8	841	G	C5-C6-O6	-8.64	123.42	128.60
36	BA	337	G	N1-C6-O6	8.64	125.08	119.90
36	BA	500	G	N1-C6-O6	8.64	125.08	119.90
36	BA	1160	G	C8-N9-C4	-8.64	102.94	106.40
2	A8	874	G	N1-C6-O6	8.64	125.08	119.90
2	A8	1888	G	N1-C6-O6	8.64	125.08	119.90
1	A7	83	G	P-O3'-C3'	-8.64	109.34	119.70
2	A8	424	G	N1-C6-O6	8.64	125.08	119.90
2	A8	916	G	C6-C5-N7	-8.64	125.22	130.40
2	A8	985	C	C5'-C4'-C3'	8.64	129.82	116.00
2	A8	1122	G	N1-C6-O6	8.64	125.08	119.90
2	A8	2254	C	C6-N1-C2	-8.64	116.84	120.30
2	A8	739	A	C5-C6-N6	-8.63	116.79	123.70
2	A8	2612	C	O4'-C1'-N1	8.63	115.11	108.20
2	A8	1636	U	C5'-C4'-C3'	-8.63	102.19	116.00
2	A8	1499	C	O4'-C1'-N1	8.63	115.10	108.20
2	A8	1981	A	N1-C6-N6	8.63	123.78	118.60
2	A8	1090	A	C5-C6-N6	-8.63	116.80	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2416	C	O4'-C1'-N1	8.63	115.10	108.20
2	A8	1389	G	C5-C6-O6	-8.63	123.42	128.60
36	BA	594	U	O4'-C1'-N1	8.62	115.10	108.20
2	A8	127	A	C5-C6-N6	-8.62	116.80	123.70
2	A8	1500	G	C5-C6-O6	-8.62	123.43	128.60
2	A8	1525	A	C4-C5-C6	8.62	121.31	117.00
2	A8	1759	A	N1-C6-N6	8.62	123.77	118.60
2	A8	1736	U	O4'-C1'-N1	8.62	115.10	108.20
36	BA	1083	U	O4'-C1'-N1	8.62	115.10	108.20
1	A7	116	G	N1-C6-O6	8.62	125.07	119.90
2	A8	36	G	N1-C6-O6	8.62	125.07	119.90
2	A8	246	C	O4'-C1'-N1	8.62	115.10	108.20
2	A8	2089	C	C6-N1-C2	-8.62	116.85	120.30
2	A8	2641	G	C5-C6-O6	-8.62	123.43	128.60
2	A8	655	A	O4'-C1'-N9	8.62	115.09	108.20
36	BA	439	U	O4'-C1'-N1	8.62	115.09	108.20
36	BA	1262	C	O4'-C1'-N1	8.62	115.10	108.20
36	BA	1516	G	N1-C6-O6	8.62	125.07	119.90
2	A8	1172	C	O4'-C1'-N1	8.62	115.09	108.20
2	A8	1252	G	N1-C6-O6	8.62	125.07	119.90
2	A8	71	A	N1-C6-N6	8.62	123.77	118.60
2	A8	1771	C	O4'-C1'-N1	8.62	115.09	108.20
2	A8	737	C	P-O3'-C3'	-8.61	109.36	119.70
2	A8	830	G	C5-C6-O6	-8.61	123.43	128.60
2	A8	1195	G	N1-C6-O6	8.62	125.07	119.90
2	A8	1501	G	C5-C6-O6	-8.62	123.43	128.60
2	A8	1731	G	C5'-C4'-C3'	-8.62	102.22	116.00
2	A8	1544	A	C5-C6-N6	-8.61	116.81	123.70
2	A8	2598	A	C5-C6-N6	-8.61	116.81	123.70
2	A8	2892	G	C5-C6-O6	-8.61	123.43	128.60
2	A8	126	A	O4'-C1'-N9	8.61	115.09	108.20
2	A8	877	A	C5-C6-N6	-8.61	116.81	123.70
2	A8	2587	A	C5'-C4'-C3'	8.61	129.78	116.00
36	BA	599	C	O4'-C1'-N1	8.61	115.09	108.20
2	A8	220	G	C5-C6-O6	-8.61	123.44	128.60
2	A8	2899	A	C5-C6-N6	-8.61	116.81	123.70
36	BA	173	U	O4'-C1'-N1	8.61	115.09	108.20
36	BA	377	G	C5-C6-O6	-8.61	123.44	128.60
36	BA	506	G	N1-C6-O6	8.61	125.06	119.90
2	A8	64	A	C4-C5-C6	8.61	121.30	117.00
2	A8	233	A	C5-C6-N6	-8.61	116.82	123.70
2	A8	2181	U	O4'-C1'-N1	8.61	115.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1328	C	O4'-C1'-N1	8.61	115.08	108.20
1	A7	30	C	C6-N1-C2	-8.60	116.86	120.30
2	A8	1343	G	C5-C6-O6	-8.60	123.44	128.60
2	A8	2053	G	C5-C6-O6	-8.60	123.44	128.60
2	A8	2667	C	O4'-C1'-N1	8.60	115.08	108.20
36	BA	286	C	C6-N1-C2	-8.60	116.86	120.30
36	BA	1337	G	N1-C6-O6	8.60	125.06	119.90
36	BA	1098	C	O4'-C1'-N1	8.60	115.08	108.20
2	A8	2067	G	C5-C6-O6	-8.60	123.44	128.60
36	BA	1102	A	C8-N9-C4	-8.60	102.36	105.80
2	A8	1333	G	N1-C6-O6	8.60	125.06	119.90
36	BA	360	G	N1-C6-O6	8.60	125.06	119.90
2	A8	637	A	C5-C6-N6	-8.59	116.83	123.70
2	A8	1071	G	N1-C6-O6	8.59	125.06	119.90
36	BA	412	A	P-O3'-C3'	8.59	130.01	119.70
36	BA	748	G	N1-C6-O6	8.59	125.06	119.90
36	BA	1494	G	N1-C6-O6	8.59	125.06	119.90
2	A8	15	G	N1-C6-O6	8.59	125.06	119.90
2	A8	1514	G	O4'-C1'-N9	8.59	115.07	108.20
2	A8	2860	A	C6-C5-N7	-8.59	126.29	132.30
2	A8	2135	A	C5-C6-N6	-8.59	116.83	123.70
2	A8	2538	C	O4'-C1'-N1	8.59	115.07	108.20
36	BA	581	G	C5-C6-O6	-8.59	123.45	128.60
2	A8	27	G	C8-N9-C1'	8.59	138.16	127.00
2	A8	1917	U	O4'-C1'-N1	8.59	115.07	108.20
2	A8	1935	G	C5-C6-O6	-8.59	123.45	128.60
36	BA	677	U	O4'-C1'-N1	8.59	115.07	108.20
36	BA	1292	G	C5-C6-O6	-8.59	123.45	128.60
2	A8	1357	C	O4'-C1'-N1	8.58	115.07	108.20
36	BA	962	C	O4'-C1'-N1	8.58	115.07	108.20
2	A8	2110	G	O4'-C1'-N9	8.58	115.06	108.20
36	BA	747	A	C5-C6-N6	-8.58	116.83	123.70
36	BA	730	G	C5-C6-O6	-8.58	123.45	128.60
36	BA	818	G	N1-C6-O6	8.58	125.05	119.90
36	BA	1381	U	O4'-C1'-N1	8.58	115.06	108.20
2	A8	2035	G	N1-C6-O6	8.57	125.05	119.90
2	A8	1560	G	C5'-C4'-C3'	-8.57	102.28	116.00
36	BA	292	G	N1-C6-O6	8.57	125.04	119.90
2	A8	11	C	O4'-C1'-N1	8.57	115.06	108.20
2	A8	2102	G	O4'-C1'-N9	8.57	115.06	108.20
36	BA	951	G	C5-C6-O6	-8.57	123.46	128.60
36	BA	507	C	O4'-C1'-N1	8.57	115.06	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	386	G	P-O3'-C3'	8.57	129.98	119.70
2	A8	648	G	O4'-C1'-N9	8.57	115.05	108.20
2	A8	2614	A	C5'-C4'-C3'	-8.57	102.29	116.00
2	A8	257	C	O4'-C1'-N1	8.57	115.05	108.20
2	A8	779	U	O4'-C1'-N1	8.57	115.05	108.20
2	A8	1574	C	O4'-C1'-N1	8.56	115.05	108.20
2	A8	2673	G	C5-C6-O6	-8.56	123.46	128.60
2	A8	1450	G	C5-C6-O6	-8.56	123.46	128.60
2	A8	2046	G	N1-C6-O6	8.56	125.04	119.90
2	A8	2498	C	O4'-C1'-N1	8.56	115.05	108.20
2	A8	2812	G	C8-N9-C1'	8.56	138.13	127.00
36	BA	349	A	O4'-C1'-N9	8.56	115.05	108.20
2	A8	1146	C	O4'-C1'-N1	8.56	115.05	108.20
2	A8	1170	C	C5'-C4'-C3'	-8.56	102.30	116.00
2	A8	2668	G	N1-C6-O6	8.56	125.04	119.90
36	BA	610	U	C2-N1-C1'	8.56	127.97	117.70
1	A7	92	C	O4'-C1'-N1	8.56	115.05	108.20
2	A8	165	A	C8-N9-C4	-8.56	102.38	105.80
2	A8	808	G	C5-C6-O6	-8.56	123.47	128.60
2	A8	2901	C	O4'-C1'-N1	8.56	115.05	108.20
36	BA	361	G	N1-C6-O6	8.56	125.03	119.90
36	BA	1268	G	N1-C6-O6	8.56	125.03	119.90
2	A8	543	G	C5-C6-O6	-8.55	123.47	128.60
36	BA	1174	G	N1-C6-O6	8.55	125.03	119.90
2	A8	2488	G	N1-C6-O6	8.55	125.03	119.90
36	BA	804	U	O4'-C1'-N1	8.55	115.04	108.20
1	A7	87	U	P-O3'-C3'	-8.55	109.44	119.70
2	A8	39	G	N1-C6-O6	8.55	125.03	119.90
2	A8	176	A	C5-C6-N6	-8.55	116.86	123.70
2	A8	1155	A	C5-C6-N6	-8.55	116.86	123.70
2	A8	2228	G	C5-C6-O6	-8.55	123.47	128.60
2	A8	2254	C	C5'-C4'-O4'	8.55	119.36	109.10
2	A8	1076	C	O4'-C1'-N1	8.55	115.04	108.20
2	A8	2237	G	C4-N9-C1'	-8.55	115.39	126.50
36	BA	86	G	N1-C6-O6	8.55	125.03	119.90
2	A8	1125	G	C5-C6-O6	-8.55	123.47	128.60
1	A7	81	G	N1-C6-O6	8.54	125.03	119.90
2	A8	1456	G	C5-C6-O6	-8.54	123.47	128.60
36	BA	449	G	C6-C5-N7	-8.54	125.27	130.40
36	BA	712	A	O4'-C1'-N9	8.54	115.03	108.20
36	BA	1053	G	C5-C6-O6	-8.54	123.47	128.60
36	BA	1299	A	C8-N9-C4	-8.54	102.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2583	G	C5'-C4'-C3'	-8.54	102.34	116.00
36	BA	200	G	C5'-C4'-C3'	-8.54	102.34	116.00
36	BA	807	A	C5-C6-N6	-8.54	116.87	123.70
36	BA	868	C	O4'-C1'-N1	8.54	115.03	108.20
36	BA	1454	G	O4'-C1'-N9	8.54	115.03	108.20
2	A8	1451	C	O4'-C1'-N1	8.54	115.03	108.20
36	BA	548	G	N1-C6-O6	8.54	125.02	119.90
36	BA	696	A	C5-C6-N1	-8.53	113.43	117.70
2	A8	313	G	N1-C6-O6	8.53	125.02	119.90
2	A8	1504	A	C5'-C4'-C3'	-8.53	102.35	116.00
2	A8	1854	A	O4'-C1'-N9	8.53	115.02	108.20
36	BA	861	G	C8-N9-C4	-8.53	102.99	106.40
2	A8	2406	A	O4'-C1'-N9	8.53	115.02	108.20
36	BA	1108	G	P-O5'-C5'	-8.53	107.26	120.90
36	BA	1251	A	O4'-C1'-N9	8.53	115.02	108.20
2	A8	7	G	N1-C6-O6	8.53	125.02	119.90
2	A8	796	C	O4'-C1'-N1	8.53	115.02	108.20
2	A8	1341	G	C5-C6-O6	-8.53	123.48	128.60
2	A8	1648	U	C4'-C3'-C2'	8.53	111.12	102.60
2	A8	2563	U	N1-C2-N3	-8.53	109.78	114.90
36	BA	941	G	N1-C6-O6	8.53	125.02	119.90
2	A8	1968	G	C5-C6-O6	-8.52	123.49	128.60
36	BA	1270	G	C5-C6-O6	-8.52	123.49	128.60
36	BA	34	C	O4'-C1'-N1	8.52	115.02	108.20
36	BA	79	G	N1-C6-O6	8.52	125.01	119.90
36	BA	513	C	P-O5'-C5'	8.52	134.53	120.90
1	A7	9	G	N1-C6-O6	8.52	125.01	119.90
2	A8	87	U	O4'-C1'-N1	8.52	115.01	108.20
2	A8	995	C	O4'-C1'-N1	8.52	115.02	108.20
2	A8	1239	G	C5-C6-O6	-8.52	123.49	128.60
2	A8	1280	G	N1-C6-O6	8.52	125.01	119.90
2	A8	2066	C	O4'-C1'-N1	8.52	115.02	108.20
36	BA	410	G	N3-C2-N2	8.52	125.86	119.90
36	BA	558	G	N1-C6-O6	8.52	125.01	119.90
1	A7	110	C	O4'-C1'-N1	8.52	115.01	108.20
2	A8	185	G	C5'-C4'-C3'	-8.52	102.38	116.00
2	A8	385	C	O4'-C1'-N1	8.52	115.01	108.20
2	A8	1382	G	O4'-C1'-N9	8.52	115.01	108.20
2	A8	2324	U	P-O3'-C3'	8.52	129.92	119.70
1	A7	15	A	C5'-C4'-O4'	8.51	119.32	109.10
2	A8	221	A	P-O3'-C3'	8.51	129.92	119.70
2	A8	2485	G	N1-C6-O6	8.51	125.01	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1072	G	N1-C6-O6	8.51	125.01	119.90
2	A8	2557	G	C5'-C4'-C3'	-8.51	102.38	116.00
2	A8	2852	G	O4'-C1'-N9	8.51	115.01	108.20
36	BA	15	G	O4'-C1'-N9	8.51	115.01	108.20
36	BA	107	G	N1-C6-O6	8.51	125.01	119.90
36	BA	1045	C	O4'-C1'-N1	8.51	115.01	108.20
2	A8	276	U	O4'-C1'-N1	8.51	115.01	108.20
2	A8	901	C	P-O5'-C5'	8.51	134.51	120.90
2	A8	1571	A	C8-N9-C4	-8.51	102.40	105.80
2	A8	2514	U	O4'-C1'-N1	8.51	115.01	108.20
1	A7	118	C	O4'-C1'-N1	8.51	115.00	108.20
2	A8	1571	A	C5-C6-N1	-8.51	113.45	117.70
2	A8	2029	G	C5-C6-O6	-8.51	123.50	128.60
2	A8	2384	U	C5'-C4'-C3'	-8.51	102.39	116.00
2	A8	1166	G	O4'-C1'-N9	8.50	115.00	108.20
2	A8	1572	A	C4-C5-C6	8.50	121.25	117.00
2	A8	1613	G	N1-C6-O6	8.50	125.00	119.90
2	A8	1546	G	C8-N9-C1'	8.50	138.05	127.00
2	A8	2544	G	O4'-C1'-N9	8.50	115.00	108.20
36	BA	193	C	O4'-C1'-N1	8.50	115.00	108.20
2	A8	526	A	C5-C6-N6	-8.50	116.90	123.70
2	A8	1705	A	C5-C6-N6	-8.50	116.90	123.70
2	A8	2843	G	C5'-C4'-C3'	-8.50	102.41	116.00
2	A8	1746	A	O4'-C1'-N9	8.49	115.00	108.20
2	A8	2669	G	N1-C6-O6	8.49	125.00	119.90
36	BA	271	C	O4'-C1'-N1	8.49	115.00	108.20
36	BA	762	U	O4'-C1'-N1	8.49	115.00	108.20
2	A8	1150	C	O4'-C1'-N1	8.49	114.99	108.20
2	A8	2649	C	N3-C4-N4	8.49	123.94	118.00
21	AQ	44	TYR	CB-CG-CD1	-8.49	115.91	121.00
36	BA	724	G	C5-C6-O6	-8.49	123.51	128.60
2	A8	476	G	N1-C6-O6	8.49	124.99	119.90
2	A8	1846	G	N1-C6-O6	8.49	124.99	119.90
2	A8	1939	U	C4'-C3'-C2'	-8.49	94.11	102.60
36	BA	1144	G	C5-C6-O6	-8.49	123.51	128.60
36	BA	1405	G	C5-C6-O6	-8.49	123.51	128.60
2	A8	126	A	P-O3'-C3'	-8.48	109.52	119.70
2	A8	181	A	N1-C6-N6	8.48	123.69	118.60
2	A8	2078	C	O4'-C1'-N1	8.48	114.99	108.20
36	BA	1002	G	N1-C6-O6	8.48	124.99	119.90
36	BA	1420	U	O4'-C1'-N1	8.48	114.99	108.20
2	A8	2603	G	C5-C6-O6	-8.48	123.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	194	C	O4'-C1'-N1	8.48	114.99	108.20
36	BA	1455	G	N1-C6-O6	8.48	124.99	119.90
2	A8	307	G	N1-C6-O6	8.48	124.99	119.90
2	A8	671	C	C5'-C4'-C3'	-8.48	102.43	116.00
2	A8	503	A	C5-C6-N6	-8.48	116.92	123.70
2	A8	901	C	N3-C4-N4	8.48	123.93	118.00
2	A8	1177	G	P-O5'-C5'	8.48	134.46	120.90
2	A8	1828	G	N1-C6-O6	8.48	124.99	119.90
2	A8	2455	G	C5-C6-O6	-8.48	123.51	128.60
2	A8	2620	C	O4'-C1'-N1	8.48	114.98	108.20
36	BA	700	G	C5-C6-O6	-8.48	123.51	128.60
2	A8	2700	A	N1-C6-N6	8.48	123.69	118.60
2	A8	2722	G	N1-C6-O6	8.47	124.98	119.90
1	A7	104	A	C5-C6-N6	-8.47	116.92	123.70
2	A8	1772	A	C5-C6-N6	-8.47	116.92	123.70
2	A8	1488	C	O4'-C1'-N1	8.47	114.98	108.20
2	A8	2677	G	C5-C6-O6	-8.47	123.52	128.60
36	BA	557	G	O4'-C1'-N9	8.47	114.98	108.20
36	BA	913	A	N1-C6-N6	8.47	123.68	118.60
2	A8	759	G	O4'-C1'-N9	8.47	114.98	108.20
36	BA	542	G	C5-C6-O6	-8.47	123.52	128.60
36	BA	929	G	N1-C6-O6	8.47	124.98	119.90
2	A8	19	A	C5-C6-N6	-8.47	116.93	123.70
2	A8	2484	G	N1-C6-O6	8.47	124.98	119.90
2	A8	548	G	N1-C6-O6	8.47	124.98	119.90
2	A8	737	C	O4'-C1'-N1	8.47	114.97	108.20
2	A8	1461	C	O4'-C1'-N1	8.47	114.97	108.20
2	A8	1909	C	C3'-C2'-C1'	-8.47	94.73	101.50
2	A8	2677	G	N1-C6-O6	8.47	124.98	119.90
2	A8	798	G	N1-C6-O6	8.47	124.98	119.90
2	A8	1666	G	C4-N9-C1'	-8.46	115.50	126.50
36	BA	341	C	O4'-C1'-N1	8.47	114.97	108.20
2	A8	1724	G	N1-C6-O6	8.46	124.98	119.90
2	A8	2289	G	N1-C6-O6	8.46	124.98	119.90
36	BA	95	C	N3-C4-N4	8.46	123.92	118.00
36	BA	269	C	C1'-O4'-C4'	-8.46	103.13	109.90
36	BA	1270	G	N1-C6-O6	8.46	124.98	119.90
1	A7	72	G	C5-C6-O6	-8.46	123.52	128.60
2	A8	817	C	O4'-C1'-N1	8.46	114.97	108.20
36	BA	26	A	C5-C6-N6	-8.46	116.93	123.70
2	A8	730	A	P-O5'-C5'	8.46	134.44	120.90
36	BA	667	G	N1-C6-O6	8.46	124.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2322	A	C4-C5-C6	8.46	121.23	117.00
2	A8	630	G	N1-C6-O6	8.46	124.97	119.90
2	A8	1940	U	O4'-C1'-N1	8.46	114.97	108.20
2	A8	2556	C	N3-C4-N4	8.46	123.92	118.00
36	BA	322	C	O4'-C1'-N1	8.46	114.97	108.20
1	A7	48	U	O4'-C1'-N1	8.46	114.96	108.20
2	A8	279	A	C4-C5-C6	8.46	121.23	117.00
2	A8	1373	A	C8-N9-C4	-8.46	102.42	105.80
2	A8	2880	C	N3-C4-C5	-8.45	118.52	121.90
2	A8	1106	G	N1-C6-O6	8.45	124.97	119.90
2	A8	188	G	N1-C6-O6	8.45	124.97	119.90
2	A8	996	A	C5-C6-N6	-8.45	116.94	123.70
2	A8	771	G	N1-C6-O6	8.45	124.97	119.90
2	A8	1622	G	C5-C6-O6	-8.45	123.53	128.60
2	A8	2478	A	C5-C6-N6	-8.45	116.94	123.70
36	BA	529	G	N1-C6-O6	8.45	124.97	119.90
2	A8	533	G	N1-C6-O6	8.45	124.97	119.90
2	A8	1853	A	C5-C6-N6	-8.45	116.94	123.70
36	BA	275	G	C5'-C4'-C3'	-8.45	102.49	116.00
2	A8	1916	A	C8-N9-C4	-8.45	102.42	105.80
36	BA	1059	C	O4'-C1'-N1	8.45	114.96	108.20
2	A8	1075	C	O4'-C1'-N1	8.44	114.95	108.20
2	A8	2430	A	O4'-C1'-N9	8.44	114.95	108.20
2	A8	2696	U	O4'-C1'-N1	8.44	114.95	108.20
2	A8	753	A	N1-C6-N6	8.44	123.66	118.60
2	A8	1831	G	N1-C6-O6	8.44	124.96	119.90
2	A8	1941	C	N3-C4-C5	-8.44	118.52	121.90
2	A8	2495	G	C8-N9-C1'	8.44	137.97	127.00
36	BA	281	G	C5-C6-O6	-8.44	123.54	128.60
36	BA	442	G	N1-C6-O6	8.44	124.96	119.90
36	BA	784	A	O4'-C1'-N9	8.44	114.95	108.20
2	A8	2882	A	C5-C6-N6	-8.44	116.95	123.70
2	A8	1648	U	C5'-C4'-C3'	-8.43	102.51	116.00
36	BA	1280	A	C5-C6-N6	-8.43	116.95	123.70
2	A8	984	A	C1'-O4'-C4'	-8.43	103.15	109.90
2	A8	2462	C	O4'-C1'-N1	8.43	114.95	108.20
36	BA	380	G	N1-C6-O6	8.43	124.96	119.90
2	A8	640	C	O4'-C1'-N1	8.43	114.94	108.20
2	A8	1137	G	C5-C6-O6	-8.43	123.54	128.60
2	A8	1932	A	C4-C5-C6	8.43	121.22	117.00
2	A8	771	G	C5-C6-O6	-8.43	123.54	128.60
2	A8	1669	A	C4-C5-C6	8.43	121.21	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2489	U	C5'-C4'-C3'	-8.43	102.51	116.00
2	A8	2672	U	C5'-C4'-C3'	-8.43	102.51	116.00
36	BA	359	G	O4'-C1'-N9	8.43	114.94	108.20
36	BA	1300	G	C4-N9-C1'	-8.43	115.54	126.50
36	BA	1497	G	N1-C6-O6	8.43	124.96	119.90
1	A7	28	C	O4'-C1'-N1	8.43	114.94	108.20
2	A8	1074	G	C5-C6-O6	-8.43	123.54	128.60
2	A8	712	G	C5-C6-O6	-8.43	123.55	128.60
2	A8	1535	A	C4-C5-C6	8.43	121.21	117.00
36	BA	15	G	N1-C6-O6	8.42	124.95	119.90
36	BA	1451	U	O4'-C1'-N1	8.42	114.94	108.20
2	A8	944	C	O4'-C1'-N1	8.42	114.94	108.20
2	A8	989	G	C8-N9-C1'	8.42	137.94	127.00
2	A8	1291	C	O4'-C1'-N1	8.42	114.94	108.20
36	BA	741	G	N1-C6-O6	8.42	124.95	119.90
36	BA	752	G	C5-C6-O6	-8.42	123.55	128.60
2	A8	1057	A	C5'-C4'-C3'	8.42	129.47	116.00
2	A8	1631	G	C5-C6-O6	-8.42	123.55	128.60
36	BA	452	A	C4-C5-C6	8.42	121.21	117.00
1	A7	59	A	C5-C6-N6	-8.41	116.97	123.70
2	A8	494	G	N1-C6-O6	8.41	124.95	119.90
2	A8	611	C	O4'-C1'-N1	8.41	114.93	108.20
2	A8	805	G	C5-C6-O6	-8.41	123.55	128.60
36	BA	270	A	C4-C5-C6	8.41	121.20	117.00
36	BA	803	G	C5'-C4'-C3'	-8.41	102.55	116.00
36	BA	860	A	C8-N9-C4	-8.41	102.44	105.80
2	A8	814	C	O4'-C1'-N1	8.41	114.92	108.20
36	BA	237	G	O4'-C1'-N9	8.41	114.92	108.20
2	A8	697	G	N1-C6-O6	8.40	124.94	119.90
2	A8	1376	C	O4'-C1'-N1	8.40	114.92	108.20
2	A8	1844	C	O4'-C1'-N1	8.40	114.92	108.20
2	A8	2261	C	N3-C4-N4	8.40	123.88	118.00
2	A8	2770	G	N1-C6-O6	8.40	124.94	119.90
36	BA	1315	U	O4'-C1'-N1	8.40	114.92	108.20
2	A8	2549	G	C5-C6-O6	-8.40	123.56	128.60
2	A8	1959	G	C5-C6-O6	-8.40	123.56	128.60
2	A8	245	G	N1-C6-O6	8.40	124.94	119.90
36	BA	1071	C	N3-C4-C5	-8.40	118.54	121.90
36	BA	1072	G	C8-N9-C4	-8.40	103.04	106.40
36	BA	1513	A	O4'-C1'-N9	8.40	114.92	108.20
2	A8	827	U	O4'-C1'-N1	8.40	114.92	108.20
2	A8	2209	G	C5-C6-O6	-8.40	123.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2608	G	N1-C6-O6	8.40	124.94	119.90
2	A8	1965	C	P-O5'-C5'	8.40	134.33	120.90
36	BA	905	U	O4'-C1'-N1	8.40	114.92	108.20
2	A8	588	U	O4'-C1'-N1	8.39	114.92	108.20
2	A8	2216	G	O4'-C1'-N9	8.39	114.92	108.20
36	BA	693	G	N1-C6-O6	8.39	124.94	119.90
2	A8	1168	G	O4'-C1'-N9	8.39	114.91	108.20
2	A8	975	A	C8-N9-C4	-8.39	102.44	105.80
2	A8	1548	A	C5-C6-N6	-8.39	116.99	123.70
2	A8	2369	A	O4'-C1'-N9	8.39	114.91	108.20
2	A8	2434	A	C5-C6-N6	-8.39	116.99	123.70
2	A8	2743	U	O4'-C1'-N1	8.39	114.91	108.20
2	A8	388	G	N1-C6-O6	8.39	124.93	119.90
36	BA	1523	G	N1-C6-O6	8.39	124.93	119.90
2	A8	740	C	O4'-C1'-N1	8.38	114.91	108.20
2	A8	2430	A	O4'-C4'-C3'	-8.38	95.61	104.00
2	A8	2493	U	O4'-C1'-N1	8.39	114.91	108.20
36	BA	1529	G	N1-C6-O6	8.38	124.93	119.90
1	A7	6	G	N1-C6-O6	8.38	124.93	119.90
2	A8	673	C	O4'-C1'-N1	8.38	114.91	108.20
2	A8	1124	G	O4'-C1'-N9	8.38	114.91	108.20
2	A8	1235	G	C5-C6-O6	-8.38	123.57	128.60
2	A8	1674	G	N1-C6-O6	8.38	124.93	119.90
2	A8	2251	G	N1-C6-O6	8.38	124.93	119.90
36	BA	162	A	C4-C5-C6	8.38	121.19	117.00
36	BA	181	A	N1-C6-N6	8.38	123.63	118.60
36	BA	260	G	N1-C6-O6	8.38	124.93	119.90
2	A8	680	C	O4'-C1'-N1	8.38	114.90	108.20
2	A8	2072	C	C6-N1-C2	-8.38	116.95	120.30
2	A8	767	U	O4'-C1'-N1	8.38	114.90	108.20
2	A8	1297	C	O4'-C1'-N1	8.38	114.90	108.20
2	A8	2848	G	N1-C6-O6	8.38	124.93	119.90
2	A8	2885	G	N1-C6-O6	8.38	124.93	119.90
36	BA	803	G	N1-C6-O6	8.38	124.93	119.90
36	BA	1057	G	C5-C6-O6	-8.38	123.57	128.60
36	BA	1266	G	N1-C6-O6	8.38	124.93	119.90
2	A8	1488	C	C5'-C4'-C3'	-8.38	102.60	116.00
2	A8	2152	G	N1-C6-O6	8.38	124.93	119.90
36	BA	808	C	O4'-C1'-N1	8.38	114.90	108.20
36	BA	894	G	C8-N9-C4	-8.38	103.05	106.40
2	A8	898	C	O4'-C1'-N1	8.37	114.90	108.20
36	BA	835	U	O4'-C1'-N1	8.37	114.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2214	C	O4'-C1'-N1	8.37	114.90	108.20
2	A8	2572	A	C4-C5-C6	8.37	121.19	117.00
2	A8	2891	U	C1'-O4'-C4'	-8.37	103.20	109.90
36	BA	27	G	C5-C6-O6	-8.37	123.58	128.60
2	A8	1469	A	C4-C5-C6	8.37	121.18	117.00
2	A8	1755	A	C5-C6-N6	-8.37	117.00	123.70
2	A8	1794	A	C5-C6-N6	-8.37	117.00	123.70
36	BA	15	G	N3-C2-N2	8.37	125.76	119.90
36	BA	1479	C	C1'-O4'-C4'	-8.37	103.20	109.90
2	A8	2842	G	C8-N9-C1'	8.37	137.88	127.00
36	BA	76	G	O4'-C1'-N9	8.37	114.89	108.20
36	BA	1325	C	O4'-C1'-N1	8.37	114.89	108.20
2	A8	1532	A	C1'-O4'-C4'	-8.37	103.21	109.90
2	A8	2071	A	C8-N9-C4	-8.37	102.45	105.80
2	A8	2124	G	N1-C6-O6	8.37	124.92	119.90
2	A8	2630	G	O4'-C1'-N9	8.37	114.89	108.20
1	A7	24	G	C5-C6-O6	-8.36	123.58	128.60
2	A8	1686	C	O4'-C1'-N1	8.36	114.89	108.20
2	A8	1813	G	C4-N9-C1'	-8.36	115.63	126.50
2	A8	2110	G	C5-C6-O6	-8.36	123.58	128.60
2	A8	305	C	O4'-C1'-N1	8.36	114.89	108.20
2	A8	2632	A	C5-C6-N6	-8.36	117.01	123.70
2	A8	2763	G	N3-C2-N2	8.36	125.75	119.90
2	A8	2844	G	N1-C6-O6	8.36	124.92	119.90
36	BA	1232	U	O4'-C1'-N1	8.36	114.89	108.20
2	A8	2234	G	N3-C2-N2	8.36	125.75	119.90
36	BA	445	G	C5-C6-O6	-8.36	123.59	128.60
2	A8	458	G	N1-C6-O6	8.36	124.91	119.90
2	A8	537	G	N1-C6-O6	8.36	124.91	119.90
2	A8	809	G	C5-C6-O6	-8.36	123.59	128.60
2	A8	267	C	C5'-C4'-C3'	-8.35	102.64	116.00
2	A8	1317	G	N1-C6-O6	8.35	124.91	119.90
2	A8	1357	C	C6-N1-C2	-8.35	116.96	120.30
2	A8	1628	G	C5-C6-O6	-8.35	123.59	128.60
2	A8	2404	U	O4'-C1'-N1	8.35	114.88	108.20
36	BA	468	A	C5'-C4'-C3'	-8.35	102.64	116.00
36	BA	503	C	O4'-C1'-N1	8.35	114.88	108.20
2	A8	163	C	C6-N1-C1'	-8.35	110.78	120.80
2	A8	2672	U	O4'-C1'-N1	8.35	114.88	108.20
36	BA	588	G	N1-C6-O6	8.35	124.91	119.90
36	BA	600	A	C5-C6-N6	-8.35	117.02	123.70
36	BA	904	U	O4'-C1'-N1	8.35	114.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	910	C	O4'-C1'-N1	8.35	114.88	108.20
36	BA	9	G	C5-C6-O6	-8.35	123.59	128.60
2	A8	490	C	O4'-C1'-N1	8.35	114.88	108.20
2	A8	492	A	C5-C6-N6	-8.35	117.02	123.70
2	A8	2308	G	C5-C6-O6	-8.35	123.59	128.60
2	A8	1459	G	C5-C6-O6	-8.34	123.59	128.60
36	BA	1275	A	C5-C6-N6	-8.34	117.03	123.70
36	BA	1414	U	O4'-C1'-N1	8.34	114.88	108.20
1	A7	47	C	O4'-C1'-N1	8.34	114.87	108.20
2	A8	885	C	O4'-C1'-N1	8.34	114.87	108.20
2	A8	1868	C	O4'-C1'-N1	8.34	114.87	108.20
2	A8	2252	G	C5-C6-O6	-8.34	123.60	128.60
2	A8	1953	A	C5-C6-N6	-8.34	117.03	123.70
36	BA	366	A	O4'-C1'-N9	8.34	114.87	108.20
36	BA	1139	G	C5-C6-O6	-8.34	123.60	128.60
2	A8	242	G	C5-C6-O6	-8.33	123.60	128.60
2	A8	1323	C	O4'-C1'-N1	8.33	114.87	108.20
2	A8	2325	G	C5-C6-O6	-8.33	123.60	128.60
36	BA	413	G	N1-C6-O6	8.33	124.90	119.90
36	BA	695	A	C5-C6-N6	-8.33	117.03	123.70
2	A8	2172	U	P-O3'-C3'	-8.33	109.70	119.70
2	A8	1929	G	C5'-C4'-C3'	-8.33	102.67	116.00
2	A8	2718	G	N1-C6-O6	8.33	124.90	119.90
36	BA	684	U	O4'-C1'-N1	8.33	114.86	108.20
36	BA	1077	G	C5-C6-O6	-8.33	123.60	128.60
36	BA	1453	G	C4-N9-C1'	8.33	137.33	126.50
2	A8	15	G	O4'-C1'-N9	8.33	114.86	108.20
36	BA	933	G	C5-C6-O6	-8.33	123.60	128.60
2	A8	831	G	O4'-C1'-N9	8.32	114.86	108.20
2	A8	2507	C	O4'-C1'-N1	8.32	114.86	108.20
36	BA	896	C	O4'-C1'-N1	8.32	114.86	108.20
2	A8	1083	U	O4'-C1'-N1	8.32	114.86	108.20
2	A8	359	G	C5-C6-O6	-8.32	123.61	128.60
2	A8	719	C	O4'-C1'-N1	8.32	114.86	108.20
2	A8	883	G	N1-C6-O6	8.32	124.89	119.90
36	BA	810	C	P-O3'-C3'	8.32	129.69	119.70
2	A8	2072	C	O4'-C1'-N1	8.32	114.86	108.20
2	A8	2174	C	O4'-C1'-N1	8.32	114.86	108.20
2	A8	2349	G	O4'-C1'-N9	8.32	114.86	108.20
36	BA	39	G	C5-C6-O6	-8.32	123.61	128.60
36	BA	570	G	N1-C6-O6	8.32	124.89	119.90
36	BA	578	C	O4'-C1'-N1	8.32	114.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1496	A	C5-C6-N6	-8.32	117.05	123.70
2	A8	2389	G	C4'-C3'-C2'	8.32	110.92	102.60
1	A7	54	G	C5-C6-O6	-8.32	123.61	128.60
1	A7	71	C	O4'-C1'-N1	8.32	114.85	108.20
2	A8	426	C	C5-C4-N4	-8.32	114.38	120.20
2	A8	471	A	C4-C5-C6	8.32	121.16	117.00
2	A8	953	G	N1-C6-O6	8.32	124.89	119.90
2	A8	1439	A	C5-C6-N6	-8.32	117.05	123.70
2	A8	1635	A	C5-C6-N6	-8.32	117.05	123.70
2	A8	1916	A	C4-C5-C6	8.32	121.16	117.00
2	A8	2246	G	C5-C6-O6	-8.32	123.61	128.60
2	A8	178	G	O4'-C1'-N9	8.31	114.85	108.20
2	A8	212	G	N1-C6-O6	8.31	124.89	119.90
2	A8	1107	G	O4'-C1'-N9	8.31	114.85	108.20
2	A8	2636	C	O4'-C1'-N1	8.31	114.85	108.20
2	A8	2821	A	N1-C6-N6	8.31	123.59	118.60
36	BA	404	G	C5-C6-O6	-8.31	123.61	128.60
36	BA	878	A	C5-C6-N6	-8.31	117.05	123.70
2	A8	1131	G	C5-C6-O6	-8.31	123.61	128.60
36	BA	52	C	N3-C4-N4	8.31	123.82	118.00
36	BA	1245	C	O4'-C1'-N1	8.31	114.85	108.20
2	A8	1236	G	N1-C6-O6	8.31	124.89	119.90
2	A8	2589	A	N1-C6-N6	8.31	123.58	118.60
2	A8	1101	U	O4'-C1'-N1	8.31	114.84	108.20
2	A8	2650	U	O4'-C1'-N1	8.31	114.85	108.20
36	BA	987	G	C5-C6-O6	-8.31	123.62	128.60
2	A8	2159	G	N1-C6-O6	8.31	124.88	119.90
36	BA	1532	U	O4'-C1'-N1	8.31	114.84	108.20
2	A8	2345	G	C5-C6-O6	-8.30	123.62	128.60
36	BA	1389	C	O4'-C1'-N1	8.30	114.84	108.20
2	A8	1049	C	O4'-C1'-N1	8.30	114.84	108.20
36	BA	433	G	N1-C6-O6	8.30	124.88	119.90
36	BA	1373	G	C5-C6-O6	-8.30	123.62	128.60
2	A8	64	A	P-O3'-C3'	-8.30	109.74	119.70
2	A8	1241	A	O4'-C1'-N9	8.30	114.84	108.20
36	BA	1468	A	C5'-C4'-C3'	-8.30	102.72	116.00
2	A8	2327	A	N1-C6-N6	8.30	123.58	118.60
36	BA	201	G	O4'-C1'-N9	8.30	114.84	108.20
36	BA	311	C	O4'-C1'-N1	8.30	114.84	108.20
2	A8	396	G	N1-C6-O6	8.29	124.88	119.90
2	A8	1750	G	C5'-C4'-C3'	-8.30	102.73	116.00
2	A8	1790	C	N3-C4-N4	8.29	123.81	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2421	G	C5'-C4'-C3'	8.29	129.27	116.00
36	BA	1510	C	C3'-C2'-C1'	-8.29	94.86	101.50
2	A8	797	G	O4'-C1'-N9	8.29	114.83	108.20
2	A8	1524	G	C5-C6-O6	-8.29	123.62	128.60
36	BA	212	G	C5-C6-O6	-8.29	123.62	128.60
36	BA	448	A	C5-C6-N6	-8.29	117.07	123.70
2	A8	723	C	O4'-C1'-N1	8.29	114.83	108.20
2	A8	1893	C	O4'-C1'-N1	8.29	114.83	108.20
2	A8	2150	C	N3-C4-N4	8.29	123.80	118.00
2	A8	2808	G	N1-C6-O6	8.29	124.87	119.90
2	A8	1718	G	N1-C6-O6	8.29	124.87	119.90
2	A8	1802	A	C5-C6-N1	-8.29	113.56	117.70
2	A8	1467	U	P-O3'-C3'	8.28	129.64	119.70
36	BA	1300	G	C8-N9-C1'	8.29	137.77	127.00
2	A8	498	G	N1-C6-O6	8.28	124.87	119.90
2	A8	744	U	O4'-C1'-N1	8.28	114.83	108.20
2	A8	1154	G	N3-C2-N2	8.28	125.70	119.90
2	A8	1795	C	C6-N1-C2	-8.28	116.99	120.30
2	A8	1850	G	N1-C6-O6	8.28	124.87	119.90
2	A8	2459	A	C4-C5-C6	8.28	121.14	117.00
36	BA	1313	U	O4'-C1'-N1	8.28	114.83	108.20
2	A8	259	G	C5'-C4'-C3'	-8.28	102.75	116.00
2	A8	1047	G	C5-C6-O6	-8.28	123.63	128.60
2	A8	454	A	C4-C5-C6	8.28	121.14	117.00
36	BA	87	C	C6-N1-C2	-8.28	116.99	120.30
36	BA	613	C	N3-C4-N4	8.28	123.80	118.00
36	BA	796	C	O4'-C1'-N1	8.28	114.82	108.20
36	BA	859	G	P-O5'-C5'	-8.28	107.65	120.90
36	BA	940	C	O4'-C1'-N1	8.28	114.82	108.20
36	BA	999	C	O4'-C1'-N1	8.28	114.82	108.20
1	A7	4	C	C6-N1-C2	-8.28	116.99	120.30
2	A8	212	G	C5-C6-O6	-8.28	123.64	128.60
2	A8	326	G	N1-C6-O6	8.28	124.87	119.90
2	A8	1092	C	N3-C4-N4	8.28	123.79	118.00
2	A8	1737	G	C4'-C3'-C2'	8.28	110.88	102.60
2	A8	2276	G	O4'-C1'-N9	8.28	114.82	108.20
36	BA	279	A	P-O3'-C3'	8.27	129.63	119.70
2	A8	81	G	N1-C6-O6	8.27	124.86	119.90
2	A8	188	G	C5-C6-O6	-8.27	123.64	128.60
36	BA	764	C	C6-N1-C2	-8.27	116.99	120.30
36	BA	1089	G	N1-C6-O6	8.27	124.86	119.90
2	A8	1815	A	C5-C6-N6	-8.27	117.08	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	112	U	O4'-C1'-N1	8.27	114.81	108.20
2	A8	1934	C	O4'-C1'-N1	8.27	114.81	108.20
2	A8	1937	A	C5-C6-N1	-8.27	113.56	117.70
2	A8	2007	U	O4'-C1'-N1	8.27	114.81	108.20
36	BA	1258	G	N1-C6-O6	8.27	124.86	119.90
2	A8	2573	C	C2-N1-C1'	8.27	127.89	118.80
36	BA	713	G	C5-C6-O6	-8.27	123.64	128.60
36	BA	1515	G	P-O3'-C3'	-8.27	109.78	119.70
2	A8	729	G	O4'-C1'-N9	8.26	114.81	108.20
2	A8	754	U	O4'-C1'-N1	8.26	114.81	108.20
2	A8	902	C	C5-C4-N4	-8.26	114.42	120.20
2	A8	2100	G	N1-C6-O6	8.26	124.86	119.90
2	A8	2798	U	O4'-C1'-N1	8.26	114.81	108.20
36	BA	1384	C	O4'-C1'-N1	8.26	114.81	108.20
2	A8	1198	U	O3'-P-O5'	-8.26	88.31	104.00
2	A8	2015	A	C5-C6-N6	-8.26	117.09	123.70
36	BA	903	G	C5-C6-O6	-8.26	123.64	128.60
2	A8	233	A	O4'-C1'-N9	8.26	114.81	108.20
2	A8	251	A	C5'-C4'-C3'	-8.26	102.79	116.00
2	A8	1448	G	C5-C6-O6	-8.26	123.64	128.60
2	A8	28	A	C8-N9-C4	-8.26	102.50	105.80
2	A8	1021	A	P-O3'-C3'	-8.26	109.79	119.70
2	A8	989	G	N1-C6-O6	8.26	124.85	119.90
2	A8	1562	U	O4'-C1'-N1	8.26	114.80	108.20
2	A8	2561	U	C5'-C4'-C3'	-8.26	102.79	116.00
2	A8	2741	A	C5'-C4'-C3'	-8.26	102.79	116.00
2	A8	488	G	C5-C6-O6	-8.25	123.65	128.60
2	A8	1666	G	C8-N9-C1'	8.25	137.73	127.00
2	A8	188	G	O4'-C1'-N9	8.25	114.80	108.20
2	A8	330	A	C5-C6-N6	-8.25	117.10	123.70
2	A8	510	C	O4'-C1'-N1	8.25	114.80	108.20
2	A8	838	C	O4'-C1'-N1	8.25	114.80	108.20
2	A8	957	C	P-O3'-C3'	-8.25	109.80	119.70
2	A8	2277	G	N3-C2-N2	8.25	125.67	119.90
36	BA	673	A	C8-N9-C4	-8.25	102.50	105.80
36	BA	884	U	O4'-C1'-N1	8.25	114.80	108.20
36	BA	1502	A	C5-C6-N1	-8.25	113.58	117.70
2	A8	1382	G	C5-C6-O6	-8.25	123.65	128.60
36	BA	1324	A	C4-C5-C6	8.25	121.12	117.00
2	A8	398	C	O4'-C1'-N1	8.24	114.80	108.20
2	A8	847	U	C6-N1-C1'	-8.24	109.66	121.20
2	A8	987	C	O4'-C1'-N1	8.24	114.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1195	G	C5-C6-O6	-8.24	123.65	128.60
36	BA	60	A	C5'-C4'-C3'	-8.24	102.81	116.00
2	A8	1958	C	O4'-C1'-N1	8.24	114.79	108.20
2	A8	2039	U	O4'-C1'-N1	8.24	114.79	108.20
36	BA	76	G	P-O5'-C5'	8.24	134.09	120.90
36	BA	742	G	C5'-C4'-C3'	-8.24	102.81	116.00
2	A8	2401	U	C2-N1-C1'	-8.24	107.81	117.70
2	A8	52	A	C4-C5-C6	8.24	121.12	117.00
2	A8	988	A	O4'-C1'-N9	8.24	114.79	108.20
2	A8	1026	G	O4'-C1'-N9	8.24	114.79	108.20
2	A8	2234	G	C8-N9-C4	-8.24	103.10	106.40
36	BA	108	G	N1-C6-O6	8.24	124.84	119.90
2	A8	798	G	C5-C6-O6	-8.24	123.66	128.60
2	A8	1948	G	N1-C6-O6	8.24	124.84	119.90
2	A8	2522	U	O4'-C1'-N1	8.24	114.79	108.20
2	A8	2319	G	C5-C6-O6	-8.24	123.66	128.60
2	A8	650	C	O4'-C1'-N1	8.23	114.79	108.20
2	A8	1066	U	O4'-C1'-N1	8.23	114.79	108.20
2	A8	2300	C	O4'-C1'-N1	8.23	114.79	108.20
36	BA	667	G	C5-C6-O6	-8.23	123.66	128.60
36	BA	1133	G	C5-C6-O6	-8.23	123.66	128.60
36	BA	1279	G	O4'-C1'-N9	8.23	114.79	108.20
2	A8	301	G	C4-N9-C1'	-8.23	115.80	126.50
2	A8	653	U	O4'-C1'-N1	8.23	114.78	108.20
2	A8	972	A	O4'-C1'-N9	8.23	114.78	108.20
2	A8	1048	A	C8-N9-C4	-8.23	102.51	105.80
2	A8	1734	G	C4-N9-C1'	-8.23	115.80	126.50
2	A8	2182	U	O4'-C1'-N1	8.23	114.78	108.20
36	BA	335	C	O4'-C1'-N1	8.23	114.78	108.20
2	A8	2697	G	N1-C6-O6	8.23	124.84	119.90
36	BA	38	G	N1-C6-O6	8.23	124.84	119.90
2	A8	2574	G	C5-C6-O6	-8.23	123.66	128.60
36	BA	220	G	N1-C6-O6	8.23	124.84	119.90
1	A7	7	G	N1-C6-O6	8.22	124.83	119.90
2	A8	697	G	C5-C6-O6	-8.22	123.67	128.60
2	A8	1503	A	C5'-C4'-C3'	-8.22	102.84	116.00
2	A8	2353	G	C5-C6-O6	-8.22	123.67	128.60
2	A8	2692	G	O4'-C1'-N9	8.22	114.78	108.20
36	BA	1272	G	O4'-C1'-N9	8.22	114.78	108.20
2	A8	415	A	N1-C6-N6	8.22	123.53	118.60
2	A8	564	C	N3-C4-N4	8.22	123.76	118.00
2	A8	1962	C	C2-N1-C1'	8.22	127.84	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1091	G	C4-N9-C1'	8.22	137.19	126.50
36	BA	23	C	C5-C6-N1	8.22	125.11	121.00
36	BA	266	G	P-O3'-C3'	-8.22	109.84	119.70
2	A8	1805	A	N1-C6-N6	8.22	123.53	118.60
2	A8	2545	G	N1-C6-O6	8.22	124.83	119.90
2	A8	2693	G	N1-C6-O6	8.22	124.83	119.90
2	A8	2695	U	C2-N1-C1'	-8.22	107.84	117.70
36	BA	141	G	N1-C6-O6	8.22	124.83	119.90
2	A8	2219	U	O4'-C1'-N1	8.22	114.77	108.20
36	BA	774	G	N1-C6-O6	8.22	124.83	119.90
36	BA	972	C	O4'-C1'-N1	8.22	114.77	108.20
2	A8	1225	G	C5-C6-O6	-8.22	123.67	128.60
2	A8	2351	G	N1-C6-O6	8.22	124.83	119.90
36	BA	540	G	C8-N9-C1'	8.22	137.68	127.00
1	A7	117	G	N1-C6-O6	8.21	124.83	119.90
2	A8	447	A	C5-C6-N1	-8.21	113.59	117.70
2	A8	897	C	O4'-C1'-N1	8.21	114.77	108.20
2	A8	1817	G	N1-C6-O6	8.21	124.83	119.90
2	A8	2137	U	O4'-C1'-N1	8.21	114.77	108.20
2	A8	2408	U	O4'-C1'-N1	8.21	114.77	108.20
2	A8	1792	G	C5-C6-O6	-8.21	123.67	128.60
36	BA	925	G	N1-C6-O6	8.21	124.83	119.90
36	BA	1166	G	C5-C6-O6	-8.21	123.67	128.60
36	BA	1418	A	C5-C6-N6	-8.21	117.13	123.70
2	A8	198	C	C2-N3-C4	-8.21	115.80	119.90
2	A8	1898	U	O4'-C1'-N1	8.21	114.77	108.20
36	BA	1131	G	O4'-C1'-N9	8.21	114.77	108.20
36	BA	1426	G	C8-N9-C1'	8.21	137.67	127.00
2	A8	2234	G	N1-C6-O6	8.21	124.83	119.90
2	A8	1270	C	O4'-C1'-N1	8.21	114.77	108.20
2	A8	1338	G	C5-C6-O6	-8.21	123.67	128.60
36	BA	1347	G	N1-C6-O6	8.21	124.83	119.90
2	A8	1449	G	C5-C6-O6	-8.21	123.68	128.60
36	BA	441	A	C5'-C4'-C3'	-8.21	102.87	116.00
36	BA	1182	G	C5-C6-O6	-8.21	123.68	128.60
1	A7	47	C	N3-C4-N4	8.21	123.74	118.00
2	A8	1700	A	C5-C6-N6	-8.21	117.14	123.70
2	A8	971	G	C5-C6-O6	-8.20	123.68	128.60
2	A8	307	G	O4'-C1'-N9	8.20	114.76	108.20
2	A8	1138	G	C5-C6-O6	-8.20	123.68	128.60
2	A8	2101	A	O4'-C1'-N9	8.20	114.76	108.20
2	A8	2617	U	O4'-C1'-N1	8.20	114.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	175	C	O4'-C1'-N1	8.20	114.76	108.20
36	BA	750	C	O4'-C1'-N1	8.20	114.76	108.20
2	A8	312	G	N1-C6-O6	8.20	124.82	119.90
36	BA	155	A	C5-C6-N6	-8.20	117.14	123.70
53	BR	50	TYR	CB-CG-CD2	-8.20	116.08	121.00
2	A8	1999	C	O4'-C1'-N1	8.20	114.76	108.20
2	A8	994	C	O4'-C1'-N1	8.20	114.76	108.20
2	A8	2421	G	C5-C6-O6	-8.20	123.68	128.60
2	A8	2729	G	C5-C6-O6	-8.20	123.68	128.60
36	BA	289	G	C5-C6-O6	-8.20	123.68	128.60
36	BA	454	G	N1-C6-O6	8.20	124.82	119.90
36	BA	520	A	C4-C5-C6	8.20	121.10	117.00
2	A8	409	G	N1-C6-O6	8.19	124.81	119.90
2	A8	711	G	N1-C6-O6	8.19	124.81	119.90
2	A8	1162	G	C5-C6-O6	-8.19	123.69	128.60
2	A8	1920	C	O4'-C1'-N1	8.19	114.75	108.20
36	BA	928	G	C5'-C4'-C3'	8.19	129.11	116.00
2	A8	2236	U	O4'-C1'-N1	8.19	114.75	108.20
36	BA	1479	C	O4'-C1'-N1	8.19	114.75	108.20
2	A8	916	G	C5-C6-O6	-8.19	123.69	128.60
36	BA	41	G	C5-C6-O6	-8.19	123.69	128.60
36	BA	848	C	O4'-C1'-N1	8.19	114.75	108.20
2	A8	377	G	N1-C6-O6	8.19	124.81	119.90
2	A8	569	U	O4'-C1'-N1	8.19	114.75	108.20
2	A8	993	G	N1-C6-O6	8.19	124.81	119.90
2	A8	2221	G	N1-C6-O6	8.19	124.81	119.90
36	BA	6	G	C4-N9-C1'	8.19	137.14	126.50
36	BA	200	G	C5-C6-O6	-8.19	123.69	128.60
36	BA	1397	C	O4'-C1'-N1	8.19	114.75	108.20
2	A8	420	C	O4'-C1'-N1	8.18	114.75	108.20
2	A8	2697	G	C5'-C4'-C3'	8.18	129.09	116.00
36	BA	134	G	C5-C6-O6	-8.18	123.69	128.60
2	A8	36	G	C5'-C4'-C3'	-8.18	102.91	116.00
2	A8	192	C	O4'-C1'-N1	8.18	114.74	108.20
2	A8	911	A	N1-C6-N6	8.18	123.51	118.60
2	A8	1482	G	C8-N9-C1'	8.18	137.63	127.00
2	A8	1091	G	C5-C6-O6	-8.18	123.69	128.60
2	A8	1167	C	O4'-C1'-N1	8.18	114.74	108.20
36	BA	728	A	C5-C6-N6	-8.18	117.16	123.70
2	A8	1440	U	O4'-C1'-N1	8.18	114.74	108.20
2	A8	1763	G	P-O5'-C5'	-8.18	107.82	120.90
2	A8	2765	A	C5'-C4'-C3'	-8.18	102.92	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	191	G	N1-C6-O6	8.18	124.81	119.90
36	BA	353	A	P-O3'-C3'	8.18	129.51	119.70
2	A8	658	U	O4'-C1'-N1	8.17	114.74	108.20
2	A8	1627	G	N1-C6-O6	8.17	124.80	119.90
2	A8	1906	G	O4'-C1'-N9	8.17	114.74	108.20
2	A8	2414	G	C8-N9-C1'	8.17	137.62	127.00
36	BA	345	C	O4'-C1'-N1	8.17	114.74	108.20
36	BA	898	G	C4-N9-C1'	-8.17	115.88	126.50
2	A8	259	G	C5-C6-O6	-8.17	123.70	128.60
2	A8	386	G	N1-C6-O6	8.17	124.80	119.90
2	A8	993	G	C5-C6-O6	-8.17	123.70	128.60
2	A8	1139	G	N1-C6-O6	8.17	124.80	119.90
2	A8	2560	A	O4'-C1'-N9	8.17	114.74	108.20
36	BA	458	U	O4'-C1'-N1	8.17	114.73	108.20
36	BA	1098	C	C6-N1-C2	-8.17	117.03	120.30
36	BA	1425	U	O4'-C1'-N1	8.17	114.73	108.20
2	A8	1191	G	P-O3'-C3'	-8.17	109.90	119.70
2	A8	1354	A	C5-C6-N6	-8.17	117.17	123.70
36	BA	1308	U	O4'-C1'-N1	8.17	114.73	108.20
2	A8	327	G	N1-C6-O6	8.17	124.80	119.90
2	A8	1111	A	P-O5'-C5'	8.17	133.97	120.90
2	A8	1510	G	C5-C6-O6	-8.17	123.70	128.60
2	A8	108	G	N1-C6-O6	8.16	124.80	119.90
2	A8	2590	A	N1-C6-N6	8.16	123.50	118.60
2	A8	2811	G	C8-N9-C1'	8.16	137.61	127.00
36	BA	715	A	O4'-C1'-N9	8.16	114.73	108.20
36	BA	887	G	C4-N9-C1'	-8.16	115.89	126.50
1	A7	20	G	O4'-C1'-N9	8.16	114.73	108.20
2	A8	776	G	C1'-O4'-C4'	-8.16	103.37	109.90
2	A8	1719	G	C5-C6-O6	-8.16	123.70	128.60
36	BA	623	C	O4'-C1'-N1	8.16	114.73	108.20
2	A8	319	G	N1-C6-O6	8.16	124.79	119.90
2	A8	1667	G	C4-N9-C1'	-8.16	115.89	126.50
2	A8	2344	U	P-O3'-C3'	8.16	129.49	119.70
2	A8	919	U	O4'-C1'-N1	8.16	114.72	108.20
2	A8	1510	G	C8-N9-C4	-8.16	103.14	106.40
2	A8	2727	A	C4-C5-C6	8.16	121.08	117.00
36	BA	726	C	O4'-C1'-N1	8.16	114.73	108.20
2	A8	1721	G	C5-C6-O6	-8.16	123.71	128.60
2	A8	2573	C	N3-C4-N4	8.16	123.71	118.00
2	A8	2603	G	N1-C6-O6	8.16	124.79	119.90
36	BA	1260	G	C5-C6-O6	-8.16	123.71	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	39	G	C5'-C4'-C3'	-8.15	102.95	116.00
2	A8	862	G	C5-C6-O6	-8.15	123.71	128.60
2	A8	951	C	O4'-C1'-N1	8.15	114.72	108.20
2	A8	1960	A	N1-C6-N6	8.15	123.49	118.60
2	A8	2754	U	O4'-C1'-N1	8.15	114.72	108.20
36	BA	785	G	N1-C6-O6	8.15	124.79	119.90
2	A8	2084	C	O4'-C1'-N1	8.15	114.72	108.20
2	A8	2530	A	C5-C6-N6	-8.15	117.18	123.70
2	A8	2633	G	O4'-C1'-N9	8.15	114.72	108.20
36	BA	1064	G	N1-C6-O6	8.15	124.79	119.90
2	A8	2819	G	N1-C6-O6	8.15	124.79	119.90
36	BA	45	G	N1-C6-O6	8.15	124.79	119.90
36	BA	235	C	O4'-C1'-N1	8.15	114.72	108.20
36	BA	259	G	C5-C6-O6	-8.15	123.71	128.60
36	BA	1448	C	C6-N1-C2	-8.15	117.04	120.30
2	A8	361	G	C4-N9-C1'	-8.15	115.91	126.50
2	A8	644	A	O4'-C1'-N9	8.15	114.72	108.20
2	A8	252	G	N1-C6-O6	8.15	124.79	119.90
2	A8	376	G	N1-C6-O6	8.15	124.79	119.90
2	A8	729	G	C5-C6-O6	-8.15	123.71	128.60
2	A8	1272	A	O4'-C1'-N9	8.15	114.72	108.20
36	BA	1305	G	P-O3'-C3'	8.15	129.48	119.70
2	A8	1407	G	C5-C6-O6	-8.14	123.71	128.60
36	BA	1377	A	C5-C6-N6	-8.14	117.18	123.70
2	A8	128	C	O4'-C1'-N1	8.14	114.71	108.20
2	A8	1911	U	P-O3'-C3'	8.14	129.47	119.70
2	A8	2254	C	C5'-C4'-C3'	-8.14	102.97	116.00
36	BA	1230	C	O4'-C1'-N1	8.14	114.71	108.20
2	A8	2436	G	C8-N9-C1'	8.14	137.58	127.00
2	A8	505	A	C5-C6-N6	-8.14	117.19	123.70
2	A8	636	G	C5-C6-O6	-8.14	123.72	128.60
2	A8	1042	G	C5-C6-O6	-8.14	123.72	128.60
36	BA	909	A	C4-C5-C6	8.14	121.07	117.00
2	A8	2714	G	C8-N9-C4	-8.14	103.15	106.40
10	AF	127	TYR	CB-CG-CD2	-8.14	116.12	121.00
36	BA	1421	G	C8-N9-C1'	8.13	137.57	127.00
2	A8	1884	G	N1-C6-O6	8.13	124.78	119.90
2	A8	2425	A	C5-C6-N1	-8.13	113.63	117.70
36	BA	1375	A	C4-C5-C6	8.13	121.07	117.00
2	A8	222	A	N1-C6-N6	8.13	123.48	118.60
2	A8	747	U	O4'-C1'-N1	8.13	114.70	108.20
2	A8	979	A	O4'-C1'-N9	8.13	114.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	46	G	P-O3'-C3'	-8.13	109.94	119.70
36	BA	923	A	C4-C5-C6	8.13	121.06	117.00
2	A8	457	A	C5-C6-N6	-8.13	117.20	123.70
2	A8	799	G	C5-C6-O6	-8.13	123.72	128.60
2	A8	1099	G	C5-C6-O6	-8.13	123.72	128.60
2	A8	2707	U	C5'-C4'-C3'	-8.13	103.00	116.00
2	A8	625	G	P-O5'-C5'	-8.13	107.90	120.90
2	A8	2375	G	C5-C6-O6	-8.13	123.72	128.60
36	BA	1068	G	C5-C6-O6	-8.12	123.72	128.60
36	BA	1252	A	O4'-C1'-N9	8.12	114.70	108.20
2	A8	293	U	O4'-C1'-N1	8.12	114.70	108.20
2	A8	266	G	C6-C5-N7	-8.12	125.53	130.40
36	BA	447	G	C1'-O4'-C4'	-8.12	103.40	109.90
2	A8	916	G	C4-C5-C6	-8.12	113.93	118.80
2	A8	1242	U	C5-C4-O4	-8.12	121.03	125.90
2	A8	1774	C	C6-N1-C2	-8.12	117.05	120.30
36	BA	869	G	N9-C4-C5	-8.12	102.15	105.40
36	BA	888	G	C5'-C4'-C3'	-8.12	103.01	116.00
36	BA	1054	C	C2-N1-C1'	8.12	127.73	118.80
36	BA	984	C	O4'-C1'-N1	8.12	114.69	108.20
2	A8	493	G	C5-C6-O6	-8.12	123.73	128.60
36	BA	485	U	O4'-C1'-N1	8.12	114.69	108.20
36	BA	1140	C	O4'-C1'-N1	8.12	114.69	108.20
2	A8	2780	G	C5-C6-O6	-8.11	123.73	128.60
36	BA	1158	C	P-O3'-C3'	-8.11	109.96	119.70
2	A8	1528	A	C4-C5-C6	8.11	121.06	117.00
2	A8	2606	C	P-O3'-C3'	-8.11	109.97	119.70
2	A8	2716	C	C1'-O4'-C4'	-8.11	103.41	109.90
36	BA	580	C	O4'-C1'-N1	8.11	114.69	108.20
36	BA	1525	G	C5-C6-O6	-8.11	123.73	128.60
2	A8	413	C	O4'-C1'-N1	8.11	114.69	108.20
2	A8	819	A	C4-C5-C6	8.11	121.05	117.00
2	A8	1315	C	C6-N1-C2	-8.11	117.06	120.30
36	BA	633	G	C5-C6-O6	-8.11	123.73	128.60
36	BA	1241	G	O4'-C1'-N9	8.11	114.69	108.20
2	A8	1365	A	C5-C6-N6	-8.11	117.22	123.70
2	A8	1948	G	C5-C6-O6	-8.11	123.74	128.60
2	A8	2285	C	P-O3'-C3'	-8.11	109.97	119.70
2	A8	2789	C	O4'-C1'-N1	8.11	114.68	108.20
2	A8	2832	U	O4'-C1'-N1	8.11	114.69	108.20
36	BA	488	C	O4'-C1'-N1	8.11	114.68	108.20
36	BA	897	C	O4'-C1'-N1	8.11	114.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1079	G	N1-C6-O6	8.11	124.76	119.90
36	BA	1518	A	O4'-C1'-N9	8.11	114.68	108.20
2	A8	463	G	C5-C6-O6	-8.10	123.74	128.60
2	A8	1208	C	O4'-C1'-N1	8.10	114.68	108.20
2	A8	446	G	O4'-C1'-N9	8.10	114.68	108.20
2	A8	1387	A	C5-C6-N6	-8.10	117.22	123.70
2	A8	1532	A	C5'-C4'-C3'	-8.10	103.04	116.00
2	A8	1636	U	O4'-C1'-N1	8.10	114.68	108.20
2	A8	1904	G	N3-C2-N2	8.10	125.57	119.90
2	A8	2378	A	C5-C6-N6	-8.10	117.22	123.70
36	BA	304	U	C5'-C4'-C3'	-8.10	103.04	116.00
2	A8	1869	G	C5'-C4'-C3'	-8.10	103.04	116.00
2	A8	2582	G	N1-C6-O6	8.10	124.76	119.90
36	BA	342	C	O4'-C1'-N1	8.10	114.68	108.20
36	BA	464	U	O4'-C1'-N1	8.10	114.68	108.20
2	A8	248	G	O4'-C1'-N9	8.10	114.68	108.20
2	A8	250	G	N1-C6-O6	8.10	124.76	119.90
2	A8	414	C	C6-N1-C2	-8.10	117.06	120.30
2	A8	1939	U	P-O3'-C3'	8.10	129.42	119.70
2	A8	2298	A	C4-C5-C6	8.10	121.05	117.00
2	A8	2763	G	C1'-O4'-C4'	-8.10	103.42	109.90
36	BA	214	C	C6-N1-C2	-8.10	117.06	120.30
36	BA	102	G	O4'-C1'-N9	8.10	114.68	108.20
36	BA	913	A	P-O3'-C3'	8.10	129.41	119.70
2	A8	546	U	O4'-C1'-N1	8.09	114.67	108.20
2	A8	1122	G	C5-C6-O6	-8.09	123.74	128.60
2	A8	1918	A	C5-C6-N6	-8.09	117.22	123.70
2	A8	196	A	C4-C5-C6	8.09	121.05	117.00
2	A8	1243	C	N3-C4-N4	8.09	123.67	118.00
2	A8	2077	A	C5-C6-N6	-8.09	117.23	123.70
36	BA	761	G	C5'-C4'-C3'	-8.09	103.05	116.00
2	A8	942	G	N1-C6-O6	8.09	124.75	119.90
2	A8	1241	A	C5'-C4'-C3'	8.09	128.94	116.00
2	A8	1652	A	C5-C6-N6	-8.09	117.23	123.70
2	A8	1975	G	N1-C6-O6	8.09	124.75	119.90
1	A7	38	C	O4'-C1'-N1	8.09	114.67	108.20
2	A8	1598	A	C4-C5-C6	8.09	121.04	117.00
2	A8	1660	G	C5-C6-O6	-8.09	123.75	128.60
2	A8	2502	G	N1-C6-O6	8.09	124.75	119.90
2	A8	316	C	O4'-C1'-N1	8.09	114.67	108.20
2	A8	561	G	N1-C6-O6	8.09	124.75	119.90
2	A8	489	G	N1-C6-O6	8.08	124.75	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2147	A	O4'-C1'-N9	8.08	114.67	108.20
2	A8	1754	A	N1-C6-N6	8.08	123.45	118.60
36	BA	35	G	N1-C6-O6	8.08	124.75	119.90
36	BA	785	G	C5-C6-O6	-8.08	123.75	128.60
2	A8	1131	G	N1-C6-O6	8.08	124.75	119.90
2	A8	1173	U	C5'-C4'-C3'	-8.08	103.07	116.00
36	BA	203	G	N1-C6-O6	8.08	124.75	119.90
1	A7	106	G	P-O3'-C3'	8.08	129.39	119.70
2	A8	709	U	O4'-C1'-N1	8.08	114.66	108.20
2	A8	803	U	O4'-C1'-N1	8.08	114.66	108.20
2	A8	1693	U	O4'-C1'-N1	8.07	114.66	108.20
2	A8	2495	G	C4-N9-C1'	-8.07	116.00	126.50
36	BA	365	U	O4'-C1'-N1	8.07	114.66	108.20
36	BA	1466	C	O4'-C1'-N1	8.07	114.66	108.20
2	A8	775	G	N1-C6-O6	8.07	124.74	119.90
2	A8	1026	G	C5-C6-O6	-8.07	123.76	128.60
2	A8	1655	A	N1-C6-N6	8.07	123.44	118.60
2	A8	1722	A	C5-C6-N1	-8.07	113.66	117.70
2	A8	2290	G	N1-C6-O6	8.07	124.74	119.90
2	A8	2371	G	N1-C6-O6	8.07	124.74	119.90
2	A8	389	G	C5-C6-O6	-8.07	123.76	128.60
2	A8	758	C	O4'-C1'-N1	8.07	114.66	108.20
2	A8	2274	A	C5-C6-N1	-8.07	113.67	117.70
36	BA	115	G	N1-C6-O6	8.07	124.74	119.90
2	A8	555	G	N1-C6-O6	8.07	124.74	119.90
2	A8	2056	G	C5-C6-O6	-8.07	123.76	128.60
2	A8	313	G	C5'-C4'-C3'	-8.06	103.10	116.00
2	A8	485	C	O4'-C1'-N1	8.06	114.65	108.20
2	A8	536	G	N1-C6-O6	8.06	124.74	119.90
2	A8	549	G	N1-C6-O6	8.06	124.74	119.90
2	A8	2082	A	C5'-C4'-C3'	-8.06	103.10	116.00
2	A8	361	G	O4'-C1'-N9	8.06	114.65	108.20
2	A8	730	A	O4'-C1'-N9	8.06	114.65	108.20
2	A8	1755	A	P-O3'-C3'	8.06	129.37	119.70
2	A8	1699	G	N1-C6-O6	8.06	124.74	119.90
2	A8	2827	C	O4'-C1'-N1	8.06	114.65	108.20
36	BA	628	G	C8-N9-C4	-8.06	103.18	106.40
2	A8	291	G	O4'-C1'-N9	8.06	114.65	108.20
2	A8	2646	C	O4'-C1'-N1	8.06	114.65	108.20
36	BA	902	G	N1-C6-O6	8.06	124.73	119.90
2	A8	389	G	O4'-C1'-N9	8.06	114.65	108.20
2	A8	1227	G	O4'-C1'-N9	8.06	114.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1689	A	P-O3'-C3'	-8.06	110.03	119.70
2	A8	297	G	C5-C6-O6	-8.06	123.77	128.60
2	A8	473	G	O4'-C1'-N9	8.06	114.64	108.20
2	A8	1642	G	C5-C6-O6	-8.06	123.77	128.60
36	BA	638	U	O4'-C1'-N1	8.06	114.64	108.20
36	BA	1032	G	C5-C6-O6	-8.06	123.77	128.60
1	A7	98	G	O4'-C1'-N9	8.05	114.64	108.20
2	A8	146	A	C5-C6-N6	-8.05	117.26	123.70
2	A8	1641	A	C5-C6-N1	-8.05	113.67	117.70
2	A8	639	U	O4'-C1'-N1	8.05	114.64	108.20
2	A8	562	U	O4'-C1'-N1	8.05	114.64	108.20
2	A8	749	A	C5-C6-N1	-8.05	113.67	117.70
2	A8	1008	A	C5-C6-N6	-8.05	117.26	123.70
2	A8	1287	A	C4-C5-C6	8.05	121.03	117.00
2	A8	2088	A	C4-C5-C6	8.05	121.03	117.00
2	A8	2546	U	O4'-C1'-N1	8.05	114.64	108.20
36	BA	1038	C	O4'-C1'-N1	8.05	114.64	108.20
2	A8	2662	A	C8-N9-C4	-8.05	102.58	105.80
2	A8	1323	C	P-O3'-C3'	8.05	129.36	119.70
2	A8	1414	C	O4'-C1'-N1	8.05	114.64	108.20
36	BA	142	G	C5-C6-O6	-8.05	123.77	128.60
36	BA	817	C	O4'-C1'-N1	8.05	114.64	108.20
54	BS	5	LYS	N-CA-CB	8.05	125.09	110.60
2	A8	619	G	O4'-C1'-N9	8.05	114.64	108.20
2	A8	1422	G	N3-C2-N2	8.05	125.53	119.90
2	A8	1497	U	O4'-C1'-N1	8.04	114.64	108.20
36	BA	802	A	C4-C5-C6	8.05	121.02	117.00
36	BA	1509	C	O4'-C1'-N1	8.05	114.64	108.20
2	A8	2621	G	N1-C6-O6	8.04	124.73	119.90
2	A8	2719	G	N1-C6-O6	8.04	124.73	119.90
36	BA	300	A	C5-C6-N6	-8.04	117.26	123.70
36	BA	1341	U	O4'-C1'-N1	8.04	114.64	108.20
36	BA	679	C	O4'-C1'-N1	8.04	114.63	108.20
2	A8	2021	C	P-O5'-C5'	-8.04	108.03	120.90
1	A7	27	C	P-O5'-C5'	8.04	133.76	120.90
2	A8	12	U	O4'-C1'-N1	8.04	114.63	108.20
2	A8	186	G	N1-C6-O6	8.04	124.72	119.90
2	A8	1024	G	C8-N9-C1'	8.04	137.45	127.00
2	A8	1988	G	O4'-C1'-N9	8.04	114.63	108.20
36	BA	1482	G	N1-C6-O6	8.04	124.72	119.90
2	A8	180	G	N1-C6-O6	8.04	124.72	119.90
2	A8	1051	G	N1-C6-O6	8.03	124.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1727	C	O4'-C1'-N1	8.04	114.63	108.20
2	A8	1984	G	N1-C6-O6	8.04	124.72	119.90
2	A8	2224	G	N1-C6-O6	8.04	124.72	119.90
36	BA	524	G	N1-C6-O6	8.04	124.72	119.90
2	A8	2293	G	N1-C6-O6	8.03	124.72	119.90
2	A8	1945	G	P-O5'-C5'	8.03	133.75	120.90
2	A8	1233	C	C6-N1-C2	-8.03	117.09	120.30
2	A8	1664	A	C4-C5-C6	8.03	121.02	117.00
36	BA	805	C	C5'-C4'-C3'	-8.03	103.15	116.00
2	A8	1073	A	C4-C5-C6	8.03	121.02	117.00
2	A8	1677	A	C5-C6-N6	-8.03	117.28	123.70
2	A8	1190	G	C5-C6-O6	-8.03	123.78	128.60
36	BA	305	G	C8-N9-C1'	8.03	137.44	127.00
36	BA	136	C	O4'-C1'-N1	8.03	114.62	108.20
36	BA	800	G	N1-C6-O6	8.03	124.72	119.90
36	BA	1333	A	C4-C5-C6	8.03	121.01	117.00
36	BA	237	G	N1-C6-O6	8.03	124.72	119.90
2	A8	280	U	O4'-C1'-N1	8.02	114.62	108.20
2	A8	953	G	C5-C6-O6	-8.02	123.79	128.60
2	A8	1373	A	C4-C5-C6	8.02	121.01	117.00
2	A8	2064	C	O4'-C1'-N1	8.02	114.62	108.20
36	BA	1029	U	O4'-C1'-N1	8.02	114.62	108.20
36	BA	936	C	O4'-C1'-N1	8.02	114.62	108.20
36	BA	989	U	O4'-C1'-N1	8.02	114.62	108.20
36	BA	1013	G	O4'-C1'-N9	8.02	114.62	108.20
36	BA	362	G	O4'-C1'-N9	8.02	114.62	108.20
36	BA	1386	G	N1-C6-O6	8.02	124.71	119.90
36	BA	275	G	N1-C6-O6	8.02	124.71	119.90
2	A8	163	C	C2-N1-C1'	8.02	127.62	118.80
2	A8	1561	C	O4'-C1'-N1	8.02	114.61	108.20
2	A8	2194	U	O4'-C1'-N1	8.02	114.61	108.20
36	BA	92	U	O4'-C1'-N1	8.02	114.61	108.20
36	BA	654	G	C8-N9-C4	-8.02	103.19	106.40
36	BA	751	U	O4'-C1'-N1	8.02	114.61	108.20
2	A8	2197	U	P-O3'-C3'	8.01	129.32	119.70
36	BA	1018	G	C5-C6-O6	-8.01	123.79	128.60
2	A8	1617	C	O4'-C1'-N1	8.01	114.61	108.20
2	A8	2294	G	N1-C6-O6	8.01	124.71	119.90
1	A7	54	G	N1-C6-O6	8.01	124.71	119.90
36	BA	202	G	N1-C6-O6	8.01	124.70	119.90
2	A8	2665	A	C5-C6-N6	-8.01	117.29	123.70
2	A8	1988	G	C5-C6-O6	-8.01	123.80	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2759	G	C5-C6-O6	-8.01	123.80	128.60
36	BA	1468	A	N1-C6-N6	8.01	123.40	118.60
1	A7	29	A	C4-C5-C6	8.00	121.00	117.00
2	A8	2256	G	N1-C6-O6	8.00	124.70	119.90
2	A8	2583	G	N1-C6-O6	8.00	124.70	119.90
2	A8	1071	G	C5-C6-O6	-8.00	123.80	128.60
2	A8	1225	G	N3-C2-N2	8.00	125.50	119.90
2	A8	2468	A	N1-C6-N6	8.00	123.40	118.60
36	BA	447	G	N3-C2-N2	8.00	125.50	119.90
36	BA	516	U	O4'-C1'-N1	8.00	114.60	108.20
36	BA	862	C	O4'-C1'-N1	8.00	114.60	108.20
36	BA	868	C	C6-N1-C2	-8.00	117.10	120.30
36	BA	1473	G	C4-N9-C1'	-8.00	116.09	126.50
36	BA	886	G	N1-C6-O6	8.00	124.70	119.90
36	BA	905	U	C6-N1-C1'	8.00	132.40	121.20
2	A8	622	G	C5-C6-O6	-8.00	123.80	128.60
36	BA	736	C	O4'-C1'-N1	8.00	114.60	108.20
36	BA	1175	G	C5-C6-O6	-8.00	123.80	128.60
2	A8	1579	A	C5-C6-N6	-8.00	117.30	123.70
2	A8	2271	G	O4'-C1'-N9	8.00	114.60	108.20
1	A7	3	C	O4'-C1'-N1	8.00	114.60	108.20
2	A8	2868	A	C5-C6-N6	-8.00	117.30	123.70
36	BA	1389	C	C5-C4-N4	-8.00	114.60	120.20
2	A8	64	A	P-O5'-C5'	8.00	133.69	120.90
36	BA	178	C	O4'-C1'-N1	8.00	114.60	108.20
36	BA	1516	G	O4'-C1'-N9	8.00	114.60	108.20
36	BA	162	A	C5'-C4'-C3'	-7.99	103.21	116.00
36	BA	1418	A	C8-N9-C4	-7.99	102.60	105.80
2	A8	173	A	C5-C6-N6	-7.99	117.31	123.70
2	A8	417	C	O4'-C1'-N1	7.99	114.59	108.20
2	A8	1492	G	C8-N9-C1'	7.99	137.39	127.00
2	A8	2887	A	N1-C6-N6	7.99	123.39	118.60
36	BA	639	G	N1-C6-O6	7.99	124.69	119.90
36	BA	1051	C	O4'-C1'-N1	7.99	114.59	108.20
36	BA	1320	C	O4'-C1'-N1	7.99	114.59	108.20
36	BA	1360	A	C5-C6-N1	-7.99	113.70	117.70
36	BA	290	C	O4'-C1'-N1	7.99	114.59	108.20
36	BA	540	G	N1-C6-O6	7.99	124.69	119.90
2	A8	92	U	P-O3'-C3'	7.99	129.28	119.70
2	A8	529	A	N1-C6-N6	7.99	123.39	118.60
2	A8	2352	A	C5-C6-N6	-7.99	117.31	123.70
2	A8	254	G	O4'-C1'-N9	7.98	114.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	843	G	N1-C6-O6	7.98	124.69	119.90
36	BA	244	U	P-O3'-C3'	-7.98	110.12	119.70
2	A8	329	G	N1-C6-O6	7.98	124.69	119.90
2	A8	1139	G	O4'-C1'-N9	7.98	114.59	108.20
2	A8	2513	A	N1-C6-N6	7.98	123.39	118.60
2	A8	977	G	C5-C6-O6	-7.98	123.81	128.60
2	A8	2673	G	N1-C6-O6	7.98	124.69	119.90
36	BA	253	A	O4'-C1'-N9	7.98	114.58	108.20
36	BA	952	U	O4'-C1'-N1	7.98	114.58	108.20
2	A8	336	C	O4'-C1'-N1	7.98	114.58	108.20
2	A8	371	A	C5-C6-N6	-7.98	117.32	123.70
2	A8	2553	G	N1-C6-O6	7.98	124.69	119.90
2	A8	570	G	O4'-C1'-N9	7.98	114.58	108.20
2	A8	593	U	O4'-C1'-N1	7.98	114.58	108.20
2	A8	1638	C	O4'-C1'-N1	7.98	114.58	108.20
2	A8	1711	A	C5-C6-N6	-7.98	117.32	123.70
2	A8	990	A	C5-C6-N6	-7.98	117.32	123.70
2	A8	1653	G	O4'-C1'-N9	7.98	114.58	108.20
1	A7	90	C	O4'-C1'-N1	7.97	114.58	108.20
2	A8	466	A	C5-C6-N6	-7.97	117.32	123.70
2	A8	2649	C	C5-C4-N4	-7.97	114.62	120.20
2	A8	1693	U	C6-N1-C2	-7.97	116.22	121.00
2	A8	1699	G	C8-N9-C1'	-7.97	116.64	127.00
2	A8	2083	G	N1-C6-O6	7.97	124.68	119.90
2	A8	2862	G	N1-C6-O6	7.97	124.68	119.90
36	BA	916	U	C5'-C4'-C3'	-7.97	103.25	116.00
2	A8	169	G	C8-N9-C4	-7.97	103.21	106.40
36	BA	794	A	N1-C6-N6	7.97	123.38	118.60
2	A8	1407	G	N1-C6-O6	7.97	124.68	119.90
2	A8	2430	A	C4'-C3'-C2'	7.97	110.57	102.60
36	BA	1071	C	N3-C4-N4	7.97	123.58	118.00
36	BA	1497	G	C5-C6-O6	-7.97	123.82	128.60
2	A8	449	A	C5-C6-N6	-7.97	117.33	123.70
2	A8	1064	C	O4'-C1'-N1	7.97	114.57	108.20
2	A8	1928	A	C4-C5-C6	7.97	120.98	117.00
2	A8	2349	G	N1-C6-O6	7.97	124.68	119.90
36	BA	640	A	O4'-C1'-N9	7.97	114.57	108.20
36	BA	1439	G	C8-N9-C4	-7.97	103.21	106.40
2	A8	237	C	O4'-C1'-N1	7.96	114.57	108.20
2	A8	1171	G	C5'-C4'-C3'	-7.96	103.26	116.00
2	A8	2116	G	O4'-C1'-N9	7.96	114.57	108.20
2	A8	2199	A	C5-C6-N6	-7.96	117.33	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	145	G	C5-C6-O6	-7.96	123.82	128.60
36	BA	1184	G	C5-C6-O6	-7.96	123.82	128.60
36	BA	1198	G	O4'-C1'-N9	7.96	114.57	108.20
2	A8	873	C	O4'-C1'-N1	7.96	114.57	108.20
2	A8	1807	G	N1-C6-O6	7.96	124.68	119.90
36	BA	538	G	N1-C6-O6	7.96	124.68	119.90
2	A8	1277	G	O4'-C1'-N9	7.96	114.57	108.20
36	BA	859	G	C5-C6-O6	-7.96	123.82	128.60
2	A8	1537	G	C5-C6-O6	-7.96	123.83	128.60
2	A8	2811	G	C4-N9-C1'	-7.96	116.15	126.50
2	A8	48	G	N1-C6-O6	7.96	124.67	119.90
36	BA	255	G	N1-C6-O6	7.96	124.67	119.90
36	BA	523	A	C5-C6-N6	-7.96	117.33	123.70
2	A8	752	A	C3'-C2'-C1'	-7.96	95.14	101.50
2	A8	2030	A	C5-N7-C8	7.96	107.88	103.90
2	A8	2531	A	N1-C6-N6	7.95	123.37	118.60
2	A8	446	G	N1-C6-O6	7.95	124.67	119.90
36	BA	1339	A	O4'-C1'-N9	7.95	114.56	108.20
2	A8	264	C	C5'-C4'-O4'	7.95	118.64	109.10
2	A8	1770	G	N1-C6-O6	7.95	124.67	119.90
36	BA	1233	G	C5'-C4'-C3'	-7.95	103.28	116.00
36	BA	1442	G	N1-C6-O6	7.95	124.67	119.90
2	A8	195	A	C5-C6-N6	-7.95	117.34	123.70
36	BA	584	G	N1-C6-O6	7.95	124.67	119.90
36	BA	745	G	O4'-C1'-N9	7.95	114.56	108.20
2	A8	2415	G	C5-C6-O6	-7.95	123.83	128.60
36	BA	47	C	O4'-C1'-N1	7.95	114.56	108.20
2	A8	1917	U	C5-C6-N1	7.95	126.67	122.70
2	A8	2035	G	C5-C6-O6	-7.95	123.83	128.60
2	A8	2132	U	P-O3'-C3'	7.95	129.24	119.70
36	BA	138	G	C5-C6-O6	-7.95	123.83	128.60
36	BA	187	G	C5-C6-O6	-7.94	123.83	128.60
2	A8	1349	C	P-O5'-C5'	7.94	133.61	120.90
36	BA	46	G	C5-C6-O6	-7.94	123.83	128.60
36	BA	159	G	C5-C6-O6	-7.94	123.83	128.60
36	BA	551	U	O4'-C1'-N1	7.94	114.56	108.20
36	BA	1035	A	O4'-C1'-N9	7.94	114.56	108.20
36	BA	1113	C	N3-C4-N4	7.94	123.56	118.00
36	BA	1427	C	O4'-C1'-N1	7.94	114.55	108.20
2	A8	718	A	O4'-C1'-N9	7.94	114.55	108.20
2	A8	1802	A	C4-C5-C6	7.94	120.97	117.00
36	BA	794	A	O4'-C1'-N9	7.94	114.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	886	G	C5'-C4'-C3'	-7.94	103.30	116.00
36	BA	1033	G	C5-C6-O6	-7.94	123.84	128.60
1	A7	19	C	O4'-C1'-N1	7.94	114.55	108.20
2	A8	335	C	O4'-C1'-N1	7.94	114.55	108.20
2	A8	939	G	N1-C6-O6	7.94	124.66	119.90
36	BA	988	G	C5-C6-O6	-7.94	123.84	128.60
2	A8	2106	U	O4'-C1'-N1	7.94	114.55	108.20
2	A8	2837	A	N1-C6-N6	7.94	123.36	118.60
36	BA	260	G	C5-C6-O6	-7.94	123.84	128.60
36	BA	627	G	C5-C6-O6	-7.94	123.84	128.60
36	BA	691	G	C5-C6-O6	-7.94	123.84	128.60
36	BA	1171	A	C5'-C4'-C3'	-7.94	103.30	116.00
36	BA	1190	G	C5-C6-O6	-7.94	123.84	128.60
2	A8	1902	C	P-O3'-C3'	-7.94	110.18	119.70
1	A7	84	G	C5-C6-O6	-7.93	123.84	128.60
2	A8	1331	G	N1-C6-O6	7.93	124.66	119.90
2	A8	2638	G	N1-C6-O6	7.93	124.66	119.90
36	BA	1113	C	O4'-C1'-N1	7.93	114.55	108.20
2	A8	30	G	N1-C6-O6	7.93	124.66	119.90
2	A8	187	G	N1-C6-O6	7.93	124.66	119.90
2	A8	363	G	C5-C6-O6	-7.93	123.84	128.60
2	A8	688	U	O4'-C1'-N1	7.93	114.55	108.20
2	A8	812	C	O4'-C1'-N1	7.93	114.55	108.20
2	A8	1683	U	O4'-C1'-N1	7.93	114.55	108.20
2	A8	2097	A	C5-C6-N6	-7.93	117.35	123.70
2	A8	2833	U	O4'-C1'-N1	7.93	114.55	108.20
36	BA	484	G	P-O3'-C3'	7.93	129.22	119.70
2	A8	2547	A	O4'-C1'-N9	7.93	114.54	108.20
2	A8	1300	G	N1-C6-O6	7.93	124.66	119.90
2	A8	1972	G	C5-C6-O6	-7.93	123.84	128.60
36	BA	1018	G	O4'-C1'-N9	7.93	114.54	108.20
2	A8	89	A	C5-C6-N6	-7.93	117.36	123.70
2	A8	506	G	P-O3'-C3'	7.93	129.21	119.70
2	A8	1068	G	C5-C6-O6	-7.93	123.84	128.60
36	BA	1419	G	C5'-C4'-C3'	-7.93	103.31	116.00
2	A8	1597	A	O4'-C1'-N9	7.93	114.54	108.20
2	A8	2286	G	N1-C6-O6	7.93	124.66	119.90
36	BA	167	A	C5-C6-N6	-7.93	117.36	123.70
36	BA	373	A	C4-C5-C6	7.93	120.96	117.00
2	A8	2176	A	C5-C6-N6	-7.92	117.36	123.70
36	BA	283	U	P-O3'-C3'	-7.92	110.19	119.70
2	A8	787	C	O4'-C1'-N1	7.92	114.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	425	G	O4'-C1'-N9	7.92	114.54	108.20
2	A8	41	C	O4'-C1'-N1	7.92	114.54	108.20
2	A8	483	A	N1-C6-N6	7.92	123.35	118.60
2	A8	2131	U	P-O3'-C3'	7.92	129.21	119.70
2	A8	2195	U	O4'-C1'-N1	7.92	114.54	108.20
2	A8	2669	G	C5-C6-O6	-7.92	123.85	128.60
36	BA	257	G	C5-C6-O6	-7.92	123.85	128.60
2	A8	2542	A	C5-C6-N6	-7.92	117.36	123.70
36	BA	887	G	C8-N9-C1'	7.92	137.30	127.00
36	BA	1013	G	C5-C6-O6	-7.92	123.85	128.60
1	A7	17	C	O4'-C1'-N1	7.92	114.53	108.20
2	A8	1643	G	C5-C6-O6	-7.92	123.85	128.60
2	A8	2136	G	C5-C6-O6	-7.92	123.85	128.60
2	A8	2339	C	O4'-C1'-N1	7.92	114.53	108.20
36	BA	475	C	O4'-C1'-N1	7.92	114.53	108.20
36	BA	1142	G	C5-C6-O6	-7.92	123.85	128.60
2	A8	1108	U	O4'-C1'-N1	7.92	114.53	108.20
2	A8	609	A	C5-C6-N6	-7.92	117.37	123.70
2	A8	2530	A	P-O3'-C3'	-7.92	110.20	119.70
36	BA	730	G	O4'-C1'-N9	7.92	114.53	108.20
2	A8	199	A	C5-C6-N6	-7.91	117.37	123.70
2	A8	1959	G	C4-N9-C1'	-7.91	116.21	126.50
2	A8	2125	G	C5-C6-O6	-7.91	123.85	128.60
2	A8	2651	C	O4'-C1'-N1	7.91	114.53	108.20
36	BA	128	G	N1-C6-O6	7.91	124.65	119.90
36	BA	422	C	O4'-C1'-N1	7.91	114.53	108.20
36	BA	1388	C	O4'-C1'-N1	7.91	114.53	108.20
36	BA	382	A	C5-C6-N6	-7.91	117.37	123.70
36	BA	904	U	C5'-C4'-C3'	-7.91	103.34	116.00
2	A8	623	C	C5'-C4'-C3'	-7.91	103.34	116.00
2	A8	823	C	N3-C4-N4	7.91	123.54	118.00
2	A8	829	A	O4'-C1'-N9	7.91	114.53	108.20
36	BA	1297	G	C5-C6-O6	-7.91	123.86	128.60
2	A8	49	A	O4'-C1'-N9	7.91	114.53	108.20
21	AQ	23	TYR	CB-CG-CD1	-7.91	116.26	121.00
36	BA	998	C	O4'-C1'-N1	7.91	114.52	108.20
2	A8	1983	G	O4'-C1'-N9	7.90	114.52	108.20
2	A8	2687	U	O4'-C1'-N1	7.90	114.52	108.20
2	A8	22	C	O4'-C1'-N1	7.90	114.52	108.20
2	A8	161	A	C4-C5-C6	7.90	120.95	117.00
2	A8	889	C	O4'-C1'-N1	7.90	114.52	108.20
2	A8	1229	C	O4'-C1'-N1	7.90	114.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1578	U	O4'-C1'-N1	7.90	114.52	108.20
2	A8	1956	U	C6-N1-C2	-7.90	116.26	121.00
2	A8	2684	U	O4'-C1'-N1	7.90	114.52	108.20
36	BA	222	C	O4'-C1'-N1	7.90	114.52	108.20
36	BA	1014	A	C4-C5-C6	7.90	120.95	117.00
36	BA	1438	G	C8-N9-C4	-7.90	103.24	106.40
2	A8	618	G	C5-C6-O6	-7.90	123.86	128.60
36	BA	293	G	N1-C6-O6	7.90	124.64	119.90
36	BA	1469	C	C6-N1-C2	-7.90	117.14	120.30
1	A7	60	C	O4'-C1'-N1	7.90	114.52	108.20
2	A8	1262	A	C5-C6-N6	-7.90	117.38	123.70
2	A8	2578	G	N1-C6-O6	7.90	124.64	119.90
36	BA	661	G	C5-C6-O6	-7.90	123.86	128.60
2	A8	1713	A	C5-C6-N6	-7.90	117.38	123.70
2	A8	537	G	O4'-C1'-N9	7.89	114.52	108.20
2	A8	2663	G	C5-C6-O6	-7.89	123.86	128.60
2	A8	2703	C	P-O3'-C3'	-7.89	110.23	119.70
36	BA	400	C	O4'-C1'-N1	7.89	114.52	108.20
2	A8	975	A	C4-C5-C6	7.89	120.95	117.00
2	A8	1557	C	C5-C4-N4	-7.89	114.68	120.20
2	A8	2027	G	N1-C6-O6	7.89	124.64	119.90
2	A8	2799	A	P-O3'-C3'	7.89	129.17	119.70
2	A8	626	A	C5-C6-N6	-7.89	117.39	123.70
2	A8	1885	A	C4-C5-C6	7.89	120.95	117.00
2	A8	478	A	C5-C6-N6	-7.89	117.39	123.70
36	BA	1181	G	N1-C6-O6	7.89	124.63	119.90
2	A8	748	G	C5-C6-O6	-7.89	123.87	128.60
36	BA	615	G	N9-C1'-C2'	-7.89	103.32	112.00
36	BA	1238	A	C8-N9-C4	-7.89	102.64	105.80
36	BA	900	A	C5-C6-N6	-7.89	117.39	123.70
2	A8	105	C	O4'-C1'-N1	7.88	114.51	108.20
2	A8	1738	G	P-O3'-C3'	-7.88	110.24	119.70
2	A8	1983	G	N1-C6-O6	7.88	124.63	119.90
2	A8	2037	A	O4'-C1'-N9	7.88	114.51	108.20
2	A8	2250	G	P-O3'-C3'	7.88	129.16	119.70
36	BA	316	C	O4'-C1'-N1	7.88	114.51	108.20
36	BA	394	G	O4'-C1'-N9	7.88	114.51	108.20
2	A8	1445	G	C5-C6-O6	-7.88	123.87	128.60
2	A8	2436	G	C4-N9-C1'	-7.88	116.25	126.50
36	BA	417	G	N1-C6-O6	7.88	124.63	119.90
2	A8	1873	G	C8-N9-C4	-7.88	103.25	106.40
2	A8	2149	U	O4'-C1'-N1	7.88	114.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2190	G	C5-C6-O6	-7.88	123.87	128.60
2	A8	2848	G	C5-C6-O6	-7.88	123.87	128.60
1	A7	87	U	O4'-C1'-N1	7.88	114.50	108.20
2	A8	2722	G	O4'-C1'-N9	7.88	114.50	108.20
2	A8	1932	A	C5'-C4'-C3'	-7.88	103.39	116.00
36	BA	77	A	O4'-C1'-N9	7.88	114.50	108.20
36	BA	995	C	N3-C4-C5	-7.88	118.75	121.90
27	AW	40	ARG	NE-CZ-NH2	-7.88	116.36	120.30
36	BA	1417	G	O4'-C1'-N9	7.88	114.50	108.20
1	A7	77	U	O4'-C1'-N1	7.88	114.50	108.20
2	A8	1978	A	O4'-C1'-N9	7.88	114.50	108.20
2	A8	2091	C	O4'-C1'-N1	7.88	114.50	108.20
36	BA	768	A	C5'-C4'-C3'	-7.88	103.40	116.00
1	A7	103	U	O4'-C1'-N1	7.87	114.50	108.20
2	A8	116	C	O4'-C1'-N1	7.87	114.50	108.20
2	A8	624	C	O4'-C1'-N1	7.87	114.50	108.20
2	A8	482	A	C4-C5-C6	7.87	120.94	117.00
2	A8	617	G	O4'-C1'-N9	7.87	114.50	108.20
2	A8	2161	C	O4'-C1'-N1	7.87	114.50	108.20
36	BA	277	C	O4'-C1'-N1	7.87	114.50	108.20
2	A8	1010	A	C5-C6-N6	-7.87	117.41	123.70
2	A8	1928	A	C5-C6-N1	-7.87	113.77	117.70
2	A8	2779	U	O4'-C1'-N1	7.87	114.50	108.20
36	BA	530	G	N1-C6-O6	7.87	124.62	119.90
36	BA	905	U	C2-N1-C1'	-7.87	108.26	117.70
2	A8	1148	U	C5'-C4'-C3'	-7.87	103.41	116.00
2	A8	1875	G	C5-C6-O6	-7.87	123.88	128.60
36	BA	300	A	O4'-C1'-N9	7.87	114.49	108.20
2	A8	410	G	C8-N9-C4	-7.86	103.25	106.40
2	A8	439	A	C5-C6-N6	-7.86	117.41	123.70
2	A8	1048	A	C4-C5-C6	7.86	120.93	117.00
2	A8	1110	G	C8-N9-C1'	7.86	137.22	127.00
2	A8	1646	C	P-O5'-C5'	7.86	133.48	120.90
2	A8	1981	A	C5-C6-N1	-7.86	113.77	117.70
2	A8	2005	A	C5-C6-N6	-7.86	117.41	123.70
2	A8	2861	U	O4'-C1'-N1	7.86	114.49	108.20
36	BA	146	G	C5-C6-O6	-7.86	123.88	128.60
36	BA	1088	G	C8-N9-C1'	7.86	137.22	127.00
36	BA	1500	A	P-O5'-C5'	7.86	133.48	120.90
2	A8	1034	G	N1-C6-O6	7.86	124.62	119.90
2	A8	347	A	C5'-C4'-O4'	7.86	118.53	109.10
2	A8	2428	G	C5-C6-O6	-7.86	123.88	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	397	A	O4'-C1'-N9	7.86	114.49	108.20
1	A7	79	G	C5'-C4'-C3'	-7.86	103.42	116.00
36	BA	803	G	C8-N9-C4	-7.86	103.26	106.40
36	BA	898	G	C8-N9-C1'	7.86	137.22	127.00
36	BA	1530	G	N1-C6-O6	7.86	124.61	119.90
2	A8	692	C	O4'-C1'-N1	7.86	114.49	108.20
2	A8	1021	A	C5-C6-N6	-7.86	117.41	123.70
2	A8	1465	G	N1-C6-O6	7.86	124.61	119.90
2	A8	2701	U	O4'-C1'-N1	7.86	114.48	108.20
2	A8	2896	C	O4'-C1'-N1	7.86	114.49	108.20
36	BA	74	A	P-O5'-C5'	7.86	133.47	120.90
2	A8	85	G	O4'-C1'-N9	7.86	114.48	108.20
2	A8	1622	G	P-O3'-C3'	-7.86	110.27	119.70
2	A8	2487	G	N1-C6-O6	7.86	124.61	119.90
2	A8	2738	A	C5-C6-N6	-7.86	117.42	123.70
36	BA	255	G	O4'-C1'-N9	7.86	114.48	108.20
2	A8	1381	G	C8-N9-C1'	7.85	137.21	127.00
2	A8	1338	G	N1-C6-O6	7.85	124.61	119.90
2	A8	2117	A	C8-N9-C4	-7.85	102.66	105.80
2	A8	2693	G	C5-C6-O6	-7.85	123.89	128.60
2	A8	2726	A	C5-C6-N6	-7.85	117.42	123.70
10	AF	127	TYR	CB-CG-CD1	7.85	125.71	121.00
2	A8	331	C	P-O3'-C3'	7.85	129.12	119.70
2	A8	467	G	O4'-C1'-N9	7.85	114.48	108.20
2	A8	1362	C	C6-N1-C2	-7.85	117.16	120.30
2	A8	1608	A	C5-C6-N6	-7.85	117.42	123.70
36	BA	449	G	N7-C8-N9	7.85	117.02	113.10
36	BA	471	U	P-O5'-C5'	7.85	133.46	120.90
36	BA	582	C	O4'-C1'-N1	7.85	114.48	108.20
2	A8	1582	C	O4'-C1'-N1	7.85	114.48	108.20
36	BA	492	C	O4'-C1'-N1	7.85	114.48	108.20
2	A8	2148	G	P-O5'-C5'	7.84	133.45	120.90
2	A8	2367	G	N1-C6-O6	7.84	124.61	119.90
2	A8	2736	A	C5'-C4'-C3'	-7.84	103.45	116.00
2	A8	291	G	N1-C6-O6	7.84	124.61	119.90
2	A8	347	A	C4-C5-C6	7.84	120.92	117.00
2	A8	2138	G	N1-C6-O6	7.84	124.61	119.90
36	BA	1264	U	O4'-C1'-N1	7.84	114.47	108.20
1	A7	76	G	N1-C6-O6	7.84	124.60	119.90
36	BA	1047	G	N1-C6-O6	7.84	124.60	119.90
2	A8	1292	G	N1-C6-O6	7.84	124.60	119.90
2	A8	2828	G	N1-C6-O6	7.84	124.60	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	727	G	C5-C6-O6	-7.84	123.90	128.60
2	A8	502	A	C5-C6-N6	-7.84	117.43	123.70
2	A8	1093	G	C2'-C3'-O3'	7.84	126.74	109.50
2	A8	1518	C	O4'-C1'-N1	7.84	114.47	108.20
2	A8	2675	A	C5-C6-N6	-7.84	117.43	123.70
2	A8	2753	A	C8-N9-C4	-7.84	102.67	105.80
36	BA	270	A	C5'-C4'-C3'	-7.84	103.46	116.00
2	A8	2184	A	C4-C5-C6	7.83	120.92	117.00
36	BA	1461	G	O4'-C1'-N9	7.83	114.47	108.20
2	A8	1888	G	O4'-C1'-N9	7.83	114.47	108.20
2	A8	2721	A	C5-C6-N6	-7.83	117.43	123.70
36	BA	666	G	O4'-C1'-N9	7.83	114.47	108.20
2	A8	69	C	O4'-C1'-N1	7.83	114.47	108.20
2	A8	977	G	C4-N9-C1'	-7.83	116.32	126.50
2	A8	1901	A	O4'-C1'-N9	7.83	114.47	108.20
36	BA	1524	C	O4'-C1'-N1	7.83	114.47	108.20
2	A8	2745	C	O4'-C1'-N1	7.83	114.46	108.20
2	A8	153	U	O4'-C1'-N1	7.83	114.46	108.20
2	A8	976	G	N1-C6-O6	7.83	124.60	119.90
2	A8	2399	G	O4'-C1'-N9	7.83	114.46	108.20
2	A8	135	U	O4'-C1'-N1	7.83	114.46	108.20
2	A8	1216	G	C5'-C4'-C3'	-7.83	103.48	116.00
2	A8	1281	G	C5-C6-O6	-7.83	123.90	128.60
2	A8	1788	C	O4'-C1'-N1	7.83	114.46	108.20
2	A8	778	G	N1-C6-O6	7.82	124.59	119.90
2	A8	1546	G	N1-C6-O6	7.82	124.59	119.90
2	A8	1591	A	O4'-C1'-N9	7.82	114.46	108.20
36	BA	1363	A	C5-C6-N6	-7.82	117.44	123.70
2	A8	279	A	C5-C6-N6	-7.82	117.44	123.70
2	A8	864	G	C5-C6-O6	-7.82	123.91	128.60
36	BA	558	G	C5-C6-O6	-7.82	123.91	128.60
2	A8	28	A	C5-C6-N6	-7.82	117.44	123.70
2	A8	760	G	C5-C6-O6	-7.82	123.91	128.60
2	A8	2125	G	N1-C6-O6	7.82	124.59	119.90
2	A8	2607	G	C5-C6-O6	-7.82	123.91	128.60
2	A8	2811	G	P-O3'-C3'	-7.82	110.31	119.70
36	BA	585	G	C5-C6-O6	-7.82	123.91	128.60
36	BA	793	U	O4'-C1'-N1	7.82	114.46	108.20
36	BA	1504	G	N1-C6-O6	7.82	124.59	119.90
2	A8	1519	G	N1-C6-O6	7.82	124.59	119.90
2	A8	2812	G	C4-N9-C1'	-7.82	116.33	126.50
36	BA	895	G	N1-C6-O6	7.82	124.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1290	G	N1-C6-O6	7.82	124.59	119.90
36	BA	202	G	O4'-C1'-N9	7.82	114.45	108.20
2	A8	1383	A	O4'-C1'-N9	7.82	114.45	108.20
2	A8	1904	G	C5-C6-O6	-7.82	123.91	128.60
36	BA	234	C	O4'-C1'-N1	7.82	114.45	108.20
36	BA	402	G	C5-C6-O6	-7.82	123.91	128.60
36	BA	1487	G	N1-C6-O6	7.82	124.59	119.90
2	A8	134	G	N1-C6-O6	7.81	124.59	119.90
36	BA	1457	G	N1-C6-O6	7.81	124.59	119.90
2	A8	352	A	C5-C6-N6	-7.81	117.45	123.70
2	A8	694	U	O4'-C1'-N1	7.81	114.45	108.20
2	A8	846	U	P-O3'-C3'	-7.81	110.33	119.70
36	BA	299	G	C5-C6-O6	-7.81	123.91	128.60
36	BA	952	U	P-O3'-C3'	-7.81	110.32	119.70
36	BA	1249	C	C6-N1-C2	-7.81	117.17	120.30
2	A8	1467	U	C6-N1-C2	-7.81	116.31	121.00
36	BA	872	A	C3'-C2'-C1'	-7.81	95.25	101.50
2	A8	702	U	O4'-C1'-N1	7.81	114.45	108.20
2	A8	1432	G	O4'-C1'-N9	7.81	114.45	108.20
36	BA	853	C	O4'-C1'-N1	7.81	114.45	108.20
2	A8	2	G	C5-C6-O6	-7.81	123.92	128.60
2	A8	361	G	P-O5'-C5'	7.81	133.39	120.90
2	A8	2024	G	N1-C6-O6	7.81	124.58	119.90
2	A8	2190	G	N1-C6-O6	7.81	124.58	119.90
1	A7	99	A	C4-C5-C6	7.81	120.90	117.00
2	A8	882	G	N1-C6-O6	7.81	124.58	119.90
2	A8	1030	C	O4'-C1'-N1	7.81	114.44	108.20
2	A8	2691	C	C5'-C4'-C3'	-7.81	103.51	116.00
2	A8	76	C	O4'-C1'-N1	7.80	114.44	108.20
2	A8	324	A	C5-C6-N6	-7.80	117.46	123.70
2	A8	446	G	C8-N9-C1'	7.80	137.15	127.00
2	A8	450	G	C5-C6-O6	-7.80	123.92	128.60
2	A8	2370	G	C8-N9-C1'	7.80	137.15	127.00
36	BA	312	C	O4'-C1'-N1	7.80	114.44	108.20
36	BA	849	G	N1-C6-O6	7.80	124.58	119.90
2	A8	2427	C	N3-C4-C5	-7.80	118.78	121.90
2	A8	227	A	C5-C6-N6	-7.80	117.46	123.70
2	A8	411	G	N1-C6-O6	7.80	124.58	119.90
2	A8	1410	G	O4'-C1'-N9	7.80	114.44	108.20
2	A8	1637	A	O4'-C1'-N9	7.80	114.44	108.20
36	BA	729	A	O4'-C1'-N9	7.80	114.44	108.20
1	A7	107	G	C5-C6-O6	-7.80	123.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1170	C	N3-C4-N4	7.80	123.46	118.00
2	A8	1738	G	C4-N9-C1'	-7.80	116.36	126.50
36	BA	406	G	N1-C6-O6	7.80	124.58	119.90
36	BA	410	G	N1-C6-O6	7.80	124.58	119.90
2	A8	909	A	N1-C6-N6	7.80	123.28	118.60
2	A8	1609	A	C5-C6-N6	-7.80	117.46	123.70
36	BA	1421	G	C4-N9-C1'	-7.80	116.36	126.50
2	A8	310	A	C4-C5-C6	7.80	120.90	117.00
2	A8	2012	G	C5-C6-O6	-7.80	123.92	128.60
36	BA	676	A	C5-C6-N6	-7.80	117.46	123.70
36	BA	891	U	O4'-C1'-N1	7.80	114.44	108.20
36	BA	1454	G	N1-C6-O6	7.80	124.58	119.90
36	BA	91	U	O4'-C1'-N1	7.79	114.44	108.20
36	BA	682	G	N1-C6-O6	7.79	124.58	119.90
36	BA	764	C	O4'-C1'-N1	7.79	114.44	108.20
36	BA	1258	G	O4'-C1'-N9	7.79	114.44	108.20
2	A8	674	G	C5-C6-O6	-7.79	123.92	128.60
2	A8	1228	G	O4'-C1'-N9	7.79	114.44	108.20
2	A8	2775	G	N1-C6-O6	7.79	124.58	119.90
36	BA	577	G	C4-N9-C1'	-7.79	116.37	126.50
36	BA	1253	G	C5-C6-O6	-7.79	123.92	128.60
2	A8	60	G	C8-N9-C1'	7.79	137.13	127.00
2	A8	75	G	N1-C6-O6	7.79	124.58	119.90
2	A8	797	G	C5-C6-O6	-7.79	123.92	128.60
36	BA	168	G	C5-C6-O6	-7.79	123.93	128.60
2	A8	214	G	P-O5'-C5'	7.79	133.36	120.90
2	A8	1957	C	O4'-C1'-N1	7.79	114.43	108.20
36	BA	1158	C	O4'-C1'-N1	7.79	114.43	108.20
2	A8	86	G	N1-C6-O6	7.79	124.57	119.90
2	A8	520	G	C1'-O4'-C4'	-7.79	103.67	109.90
2	A8	1464	G	N1-C6-O6	7.79	124.57	119.90
2	A8	2000	C	C3'-C2'-C1'	-7.79	95.27	101.50
2	A8	2347	C	N3-C4-C5	-7.79	118.79	121.90
2	A8	2536	G	C8-N9-C4	-7.79	103.28	106.40
3	AA	306	TYR	CB-CG-CD1	-7.79	116.33	121.00
36	BA	182	A	N1-C6-N6	7.79	123.27	118.60
36	BA	1019	A	O4'-C1'-N9	7.79	114.43	108.20
2	A8	35	G	C5-C6-O6	-7.78	123.93	128.60
2	A8	896	A	P-O3'-C3'	-7.78	110.36	119.70
2	A8	2371	G	C8-N9-C1'	7.78	137.12	127.00
36	BA	557	G	N1-C6-O6	7.78	124.57	119.90
2	A8	361	G	C6-C5-N7	-7.78	125.73	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2291	U	O4'-C1'-N1	7.78	114.43	108.20
36	BA	927	G	N1-C6-O6	7.78	124.57	119.90
36	BA	948	C	O4'-C1'-N1	7.78	114.43	108.20
36	BA	1086	U	O4'-C1'-N1	7.78	114.43	108.20
2	A8	1721	G	O4'-C1'-N9	7.78	114.42	108.20
2	A8	2292	U	P-O3'-C3'	-7.78	110.36	119.70
36	BA	947	G	N1-C6-O6	7.78	124.57	119.90
2	A8	1829	A	C5-C6-N6	-7.78	117.48	123.70
2	A8	2414	G	C5-C6-O6	-7.78	123.93	128.60
2	A8	2716	C	O4'-C1'-N1	7.78	114.42	108.20
36	BA	860	A	C4-C5-C6	7.78	120.89	117.00
36	BA	1343	G	N1-C6-O6	7.78	124.57	119.90
2	A8	45	G	C5-C6-O6	-7.78	123.93	128.60
2	A8	1604	C	O4'-C1'-N1	7.78	114.42	108.20
36	BA	206	C	C6-N1-C2	-7.78	117.19	120.30
36	BA	355	C	O4'-C1'-N1	7.78	114.42	108.20
36	BA	618	C	C6-N1-C2	-7.78	117.19	120.30
36	BA	648	A	O4'-C1'-N9	7.78	114.42	108.20
2	A8	1928	A	O4'-C1'-N9	7.77	114.42	108.20
2	A8	2618	G	N1-C6-O6	7.77	124.56	119.90
2	A8	1358	G	C8-N9-C1'	7.77	137.10	127.00
2	A8	1641	A	C8-N9-C4	-7.77	102.69	105.80
2	A8	1768	C	O4'-C1'-N1	7.77	114.42	108.20
36	BA	800	G	N3-C2-N2	7.77	125.34	119.90
2	A8	317	G	C1'-O4'-C4'	-7.77	103.68	109.90
2	A8	1506	U	O4'-C1'-N1	7.77	114.42	108.20
1	A7	52	A	O4'-C1'-N9	7.77	114.42	108.20
2	A8	424	G	O4'-C1'-N9	7.77	114.42	108.20
2	A8	575	A	C5-C6-N1	-7.77	113.81	117.70
2	A8	745	G	C5'-C4'-C3'	-7.77	103.57	116.00
2	A8	1367	A	C5-C6-N6	-7.77	117.48	123.70
2	A8	2649	C	O4'-C1'-N1	7.77	114.42	108.20
2	A8	2803	G	C8-N9-C1'	7.77	137.10	127.00
36	BA	1511	G	N1-C6-O6	7.77	124.56	119.90
36	BA	937	A	C8-N9-C4	-7.77	102.69	105.80
36	BA	1186	G	N1-C6-O6	7.77	124.56	119.90
2	A8	2801	G	O4'-C1'-N9	7.77	114.41	108.20
2	A8	835	C	C3'-C2'-C1'	-7.76	95.29	101.50
2	A8	863	A	C5-C6-N6	-7.76	117.49	123.70
2	A8	1828	G	O4'-C1'-N9	7.76	114.41	108.20
36	BA	496	A	C4-C5-C6	7.76	120.88	117.00
36	BA	903	G	N1-C6-O6	7.76	124.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	917	G	C5-C6-O6	-7.76	123.94	128.60
36	BA	1365	G	N1-C6-O6	7.76	124.56	119.90
2	A8	504	A	C4-C5-C6	7.76	120.88	117.00
36	BA	193	C	N3-C4-N4	7.76	123.43	118.00
36	BA	756	C	N3-C4-N4	7.76	123.43	118.00
2	A8	484	C	N3-C4-N4	7.76	123.43	118.00
2	A8	530	G	N1-C6-O6	7.76	124.56	119.90
2	A8	908	C	O4'-C1'-N1	7.76	114.41	108.20
2	A8	1280	G	C5-C6-O6	-7.76	123.94	128.60
2	A8	142	A	O4'-C4'-C3'	-7.76	96.24	104.00
2	A8	642	U	O4'-C1'-N1	7.76	114.41	108.20
2	A8	77	G	N1-C6-O6	7.76	124.55	119.90
2	A8	1618	A	C5-C6-N6	-7.76	117.50	123.70
2	A8	2413	G	C8-N9-C4	-7.76	103.30	106.40
36	BA	1081	A	C5-C6-N6	-7.76	117.50	123.70
36	BA	1027	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	1245	G	N1-C6-O6	7.75	124.55	119.90
2	A8	1585	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	1842	G	N1-C6-O6	7.75	124.55	119.90
36	BA	768	A	O4'-C1'-N9	7.75	114.40	108.20
36	BA	802	A	O4'-C1'-N9	7.75	114.40	108.20
36	BA	1265	C	O4'-C1'-N1	7.75	114.40	108.20
36	BA	1287	A	C5-C6-N6	-7.75	117.50	123.70
1	A7	114	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	1021	A	C4-C5-C6	7.75	120.88	117.00
2	A8	2030	A	C8-N9-C4	-7.75	102.70	105.80
2	A8	2516	A	O4'-C1'-N9	7.75	114.40	108.20
2	A8	1112	G	N1-C6-O6	7.75	124.55	119.90
36	BA	1233	G	C5-C6-O6	-7.75	123.95	128.60
2	A8	7	G	C5-C6-O6	-7.75	123.95	128.60
2	A8	530	G	O4'-C1'-N9	7.75	114.40	108.20
2	A8	613	A	C4-C5-C6	7.75	120.87	117.00
2	A8	974	G	C8-N9-C1'	-7.75	116.93	127.00
2	A8	1457	U	O4'-C1'-N1	7.75	114.40	108.20
2	A8	2237	G	P-O5'-C5'	-7.75	108.50	120.90
2	A8	2662	A	C4-C5-C6	7.75	120.87	117.00
36	BA	1073	U	O4'-C1'-N1	7.75	114.40	108.20
36	BA	1346	A	C5-C6-N6	-7.75	117.50	123.70
2	A8	559	G	C5-C6-O6	-7.75	123.95	128.60
2	A8	1233	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	1743	G	O4'-C1'-N9	7.75	114.40	108.20
2	A8	2171	A	C5-C6-N6	-7.75	117.50	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2685	G	N1-C6-O6	7.75	124.55	119.90
36	BA	1136	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	2136	G	O4'-C1'-N9	7.75	114.40	108.20
2	A8	2206	C	O4'-C1'-N1	7.75	114.40	108.20
2	A8	2235	G	C4-N9-C1'	-7.75	116.43	126.50
1	A7	2	G	N1-C6-O6	7.74	124.55	119.90
2	A8	1050	A	C4-C5-C6	7.74	120.87	117.00
2	A8	1059	G	N1-C6-O6	7.74	124.55	119.90
2	A8	2499	C	N3-C4-N4	7.74	123.42	118.00
2	A8	2864	G	N1-C6-O6	7.74	124.55	119.90
36	BA	85	U	O4'-C1'-N1	7.74	114.39	108.20
36	BA	129	A	O4'-C1'-N9	7.74	114.39	108.20
36	BA	340	U	O4'-C1'-N1	7.74	114.39	108.20
36	BA	465	A	C5-N7-C8	7.74	107.77	103.90
36	BA	1516	G	C5-C6-O6	-7.74	123.95	128.60
2	A8	617	G	N1-C6-O6	7.74	124.55	119.90
2	A8	1950	G	C5-C6-O6	-7.74	123.95	128.60
36	BA	633	G	N7-C8-N9	7.74	116.97	113.10
2	A8	523	C	O4'-C1'-N1	7.74	114.39	108.20
2	A8	1678	A	O4'-C1'-N9	7.74	114.39	108.20
2	A8	2044	C	O4'-C1'-N1	7.74	114.39	108.20
2	A8	346	A	O4'-C1'-N9	7.74	114.39	108.20
2	A8	2469	A	C5'-C4'-C3'	-7.74	103.62	116.00
2	A8	2052	A	C4-C5-C6	7.74	120.87	117.00
36	BA	113	G	N1-C6-O6	7.74	124.54	119.90
1	A7	20	G	C5-C6-O6	-7.74	123.96	128.60
2	A8	800	A	N1-C6-N6	7.74	123.24	118.60
2	A8	1486	U	O4'-C1'-N1	7.74	114.39	108.20
2	A8	2854	G	N1-C6-O6	7.74	124.54	119.90
36	BA	658	C	O4'-C1'-N1	7.74	114.39	108.20
36	BA	976	G	C5'-C4'-O4'	7.74	118.38	109.10
2	A8	609	A	C4-C5-C6	7.73	120.87	117.00
2	A8	482	A	C5-C6-N1	-7.73	113.83	117.70
2	A8	1749	A	C5-C6-N6	-7.73	117.51	123.70
2	A8	1763	G	C5-C6-O6	-7.73	123.96	128.60
36	BA	291	U	O4'-C1'-N1	7.73	114.39	108.20
36	BA	1181	G	C5-C6-O6	-7.73	123.96	128.60
36	BA	1149	C	O4'-C1'-N1	7.73	114.38	108.20
36	BA	1417	G	C5-C6-O6	-7.73	123.96	128.60
2	A8	325	G	O4'-C1'-N9	7.72	114.38	108.20
2	A8	368	A	N1-C6-N6	7.72	123.23	118.60
2	A8	1035	U	O4'-C1'-N1	7.72	114.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	161	A	C5-C6-N6	-7.72	117.52	123.70
36	BA	329	A	C4-C5-C6	7.72	120.86	117.00
36	BA	380	G	C5-C6-O6	-7.72	123.97	128.60
36	BA	1361	G	C5'-C4'-C3'	-7.72	103.64	116.00
2	A8	363	G	N1-C6-O6	7.72	124.53	119.90
2	A8	1154	G	N1-C6-O6	7.72	124.53	119.90
2	A8	2613	U	O4'-C1'-N1	7.72	114.38	108.20
2	A8	2763	G	C6-C5-N7	-7.72	125.77	130.40
2	A8	2822	G	C5-C6-O6	-7.72	123.97	128.60
36	BA	255	G	C5'-C4'-C3'	-7.72	103.64	116.00
36	BA	937	A	C4-C5-C6	7.72	120.86	117.00
2	A8	565	C	C6-N1-C2	-7.72	117.21	120.30
2	A8	2392	A	C4-C5-C6	7.72	120.86	117.00
18	AN	112	TYR	CB-CG-CD2	-7.72	116.37	121.00
36	BA	1304	G	C5-C6-O6	-7.72	123.97	128.60
2	A8	868	U	C1'-O4'-C4'	-7.72	103.72	109.90
2	A8	1715	G	N1-C6-O6	7.72	124.53	119.90
2	A8	2488	G	C5-C6-O6	-7.72	123.97	128.60
36	BA	1039	G	C5-C6-O6	-7.72	123.97	128.60
36	BA	1445	U	C2-N1-C1'	-7.72	108.44	117.70
2	A8	1019	U	O4'-C1'-N1	7.72	114.37	108.20
2	A8	2155	U	O4'-C1'-N1	7.72	114.37	108.20
2	A8	2269	G	O4'-C1'-N9	7.72	114.37	108.20
2	A8	2310	C	O4'-C1'-N1	7.72	114.37	108.20
36	BA	203	G	C5-C6-O6	-7.72	123.97	128.60
36	BA	702	A	C5-C6-N6	-7.72	117.53	123.70
36	BA	1387	G	N1-C6-O6	7.72	124.53	119.90
2	A8	704	G	N1-C6-O6	7.71	124.53	119.90
2	A8	2261	C	O4'-C1'-N1	7.71	114.37	108.20
36	BA	160	A	N1-C6-N6	7.71	123.23	118.60
36	BA	655	A	C4-C5-C6	7.71	120.86	117.00
36	BA	689	C	O4'-C1'-N1	7.71	114.37	108.20
36	BA	1021	A	O4'-C1'-N9	7.71	114.37	108.20
36	BA	104	G	C5-C6-O6	-7.71	123.97	128.60
36	BA	1288	A	C4-C5-C6	7.71	120.86	117.00
2	A8	406	G	C5'-C4'-C3'	-7.71	103.66	116.00
2	A8	677	A	C5-C6-N6	-7.71	117.53	123.70
2	A8	1781	U	O4'-C1'-N1	7.71	114.37	108.20
2	A8	2549	G	N1-C6-O6	7.71	124.53	119.90
36	BA	348	G	C5'-C4'-C3'	-7.71	103.66	116.00
36	BA	873	A	C5-C6-N1	-7.71	113.84	117.70
36	BA	1057	G	C8-N9-C4	-7.71	103.32	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	461	A	P-O3'-C3'	-7.71	110.45	119.70
36	BA	656	G	N1-C6-O6	7.71	124.53	119.90
2	A8	1859	U	O4'-C1'-N1	7.71	114.37	108.20
36	BA	824	G	N1-C6-O6	7.71	124.53	119.90
2	A8	98	G	C5-C6-O6	-7.71	123.98	128.60
2	A8	157	C	N3-C4-N4	7.71	123.39	118.00
36	BA	405	U	O4'-C1'-N1	7.71	114.36	108.20
36	BA	310	G	C5-C6-O6	-7.71	123.98	128.60
2	A8	1121	C	C6-N1-C2	-7.70	117.22	120.30
2	A8	1152	C	C6-N1-C2	-7.70	117.22	120.30
2	A8	1729	U	C2-N1-C1'	7.70	126.94	117.70
2	A8	2520	C	N3-C4-C5	-7.70	118.82	121.90
2	A8	2597	G	C5'-C4'-O4'	7.70	118.34	109.10
2	A8	575	A	C4-C5-C6	7.70	120.85	117.00
36	BA	629	A	C4-C5-C6	7.70	120.85	117.00
2	A8	138	U	C5'-C4'-C3'	-7.70	103.68	116.00
2	A8	649	G	O4'-C1'-N9	7.70	114.36	108.20
2	A8	1885	A	C5-C6-N6	-7.70	117.54	123.70
2	A8	408	G	N1-C6-O6	7.70	124.52	119.90
2	A8	1034	G	C8-N9-C4	-7.70	103.32	106.40
2	A8	1445	G	N7-C8-N9	7.70	116.95	113.10
36	BA	731	G	N1-C6-O6	7.70	124.52	119.90
1	A7	42	C	O4'-C1'-N1	7.70	114.36	108.20
2	A8	1028	A	C5-C6-N6	-7.70	117.54	123.70
2	A8	1471	G	O4'-C1'-N9	7.70	114.36	108.20
2	A8	2028	U	O4'-C1'-N1	7.70	114.36	108.20
2	A8	2597	G	C5-C6-O6	-7.70	123.98	128.60
36	BA	266	G	C5-C6-O6	-7.70	123.98	128.60
2	A8	372	G	C5-C6-O6	-7.69	123.98	128.60
2	A8	408	G	N3-C2-N2	7.69	125.29	119.90
2	A8	608	A	C4-C5-C6	7.69	120.85	117.00
2	A8	1177	G	N1-C6-O6	7.69	124.52	119.90
36	BA	1371	G	C3'-C2'-C1'	-7.69	95.34	101.50
2	A8	356	G	C5-C6-O6	-7.69	123.98	128.60
2	A8	1040	A	O4'-C1'-N9	7.69	114.35	108.20
2	A8	1171	G	N1-C6-O6	7.69	124.52	119.90
2	A8	1537	G	N1-C6-O6	7.69	124.52	119.90
2	A8	2038	G	C4-N9-C1'	-7.69	116.50	126.50
36	BA	301	G	O4'-C1'-N9	7.69	114.35	108.20
36	BA	1009	U	O4'-C1'-N1	7.69	114.36	108.20
36	BA	1130	A	C5'-C4'-O4'	7.69	118.33	109.10
36	BA	1519	A	C5-C6-N6	-7.69	117.55	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1175	A	O4'-C1'-N9	7.69	114.35	108.20
2	A8	1573	G	C5'-C4'-C3'	-7.69	103.69	116.00
2	A8	1895	C	N3-C4-N4	7.69	123.38	118.00
36	BA	105	G	N1-C6-O6	7.69	124.51	119.90
36	BA	440	C	C6-N1-C2	-7.69	117.22	120.30
36	BA	709	U	O4'-C1'-N1	7.69	114.35	108.20
2	A8	1412	U	O4'-C1'-N1	7.69	114.35	108.20
2	A8	1659	G	C8-N9-C1'	7.69	137.00	127.00
2	A8	2185	U	O4'-C1'-N1	7.69	114.35	108.20
36	BA	624	C	O4'-C1'-N1	7.69	114.35	108.20
2	A8	1479	G	N1-C6-O6	7.68	124.51	119.90
36	BA	861	G	C5'-C4'-C3'	-7.68	103.70	116.00
2	A8	111	A	O4'-C1'-N9	7.68	114.35	108.20
2	A8	165	A	C4-C5-C6	7.68	120.84	117.00
2	A8	905	A	C5-C6-N6	-7.68	117.56	123.70
2	A8	1773	A	C5-C6-N6	-7.68	117.56	123.70
36	BA	818	G	C5-C6-O6	-7.68	123.99	128.60
36	BA	843	U	O4'-C1'-N1	7.68	114.35	108.20
2	A8	586	A	C8-N9-C4	-7.68	102.73	105.80
2	A8	2718	G	C5-C6-O6	-7.68	123.99	128.60
36	BA	253	A	C5-C6-N6	-7.68	117.56	123.70
36	BA	953	G	C5-C6-O6	-7.68	123.99	128.60
2	A8	1051	G	O4'-C1'-N9	7.68	114.34	108.20
2	A8	1551	A	P-O5'-C5'	7.68	133.19	120.90
2	A8	1803	A	C5-C6-N6	-7.68	117.56	123.70
2	A8	1897	G	N1-C6-O6	7.68	124.51	119.90
36	BA	51	A	C5-C6-N1	-7.68	113.86	117.70
36	BA	907	A	C4-C5-C6	7.68	120.84	117.00
36	BA	935	A	C4-C5-C6	7.68	120.84	117.00
36	BA	649	A	C5-C6-N6	-7.68	117.56	123.70
36	BA	703	G	C5-C6-O6	-7.68	123.99	128.60
36	BA	966	G	C5-C6-O6	-7.68	123.99	128.60
2	A8	215	G	C5-C6-O6	-7.68	123.99	128.60
2	A8	1406	U	O4'-C1'-N1	7.68	114.34	108.20
2	A8	2872	A	C8-N9-C4	-7.68	102.73	105.80
1	A7	21	G	O4'-C1'-N9	7.67	114.34	108.20
2	A8	166	U	C5'-C4'-C3'	-7.67	103.72	116.00
2	A8	1074	G	C5'-C4'-C3'	-7.67	103.72	116.00
2	A8	2454	G	P-O3'-C3'	-7.67	110.49	119.70
36	BA	1193	G	C5-C6-O6	-7.67	124.00	128.60
1	A7	15	A	N1-C6-N6	7.67	123.20	118.60
2	A8	633	A	C8-N9-C4	-7.67	102.73	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2642	G	C5-C6-O6	-7.67	124.00	128.60
36	BA	583	A	C5'-C4'-C3'	-7.67	103.72	116.00
2	A8	245	G	C5-C6-O6	-7.67	124.00	128.60
2	A8	630	G	N3-C2-N2	7.67	125.27	119.90
2	A8	2048	G	C4-N9-C1'	-7.67	116.53	126.50
36	BA	662	U	P-O3'-C3'	7.67	128.90	119.70
36	BA	979	C	N3-C4-N4	7.67	123.37	118.00
2	A8	179	C	O4'-C1'-N1	7.67	114.33	108.20
2	A8	890	C	O4'-C1'-N1	7.67	114.33	108.20
36	BA	144	G	C5-C6-O6	-7.67	124.00	128.60
2	A8	1426	G	C5-C6-O6	-7.67	124.00	128.60
2	A8	2089	C	O4'-C1'-N1	7.67	114.33	108.20
2	A8	2365	G	N1-C6-O6	7.67	124.50	119.90
2	A8	2745	C	N3-C4-N4	7.67	123.37	118.00
2	A8	671	C	O4'-C1'-N1	7.66	114.33	108.20
2	A8	1069	A	C5'-C4'-O4'	7.66	118.30	109.10
2	A8	2717	C	C3'-C2'-C1'	-7.66	95.37	101.50
36	BA	452	A	C8-N9-C4	-7.66	102.73	105.80
36	BA	1124	G	C5-C6-O6	-7.66	124.00	128.60
36	BA	1135	U	O4'-C1'-N1	7.66	114.33	108.20
2	A8	1115	G	N1-C6-O6	7.66	124.50	119.90
2	A8	2436	G	C5-C6-O6	-7.66	124.00	128.60
36	BA	425	G	C5-C6-O6	-7.66	124.00	128.60
36	BA	556	C	P-O3'-C3'	-7.66	110.51	119.70
2	A8	250	G	C5-C6-O6	-7.66	124.00	128.60
2	A8	1433	A	P-O3'-C3'	-7.66	110.51	119.70
2	A8	1680	U	C1'-O4'-C4'	-7.66	103.77	109.90
2	A8	2550	G	N1-C6-O6	7.66	124.50	119.90
36	BA	552	U	O4'-C1'-N1	7.66	114.33	108.20
36	BA	993	G	P-O3'-C3'	-7.66	110.51	119.70
2	A8	426	C	O4'-C1'-N1	7.66	114.33	108.20
36	BA	162	A	C8-N9-C4	-7.66	102.74	105.80
36	BA	755	G	N1-C6-O6	7.66	124.49	119.90
36	BA	1453	G	C8-N9-C1'	-7.66	117.05	127.00
2	A8	22	C	C5'-C4'-C3'	-7.66	103.75	116.00
2	A8	898	C	C5-C4-N4	-7.66	114.84	120.20
2	A8	1553	A	P-O5'-C5'	-7.66	108.65	120.90
2	A8	2706	A	C5'-C4'-C3'	-7.66	103.75	116.00
36	BA	536	C	C5'-C4'-C3'	-7.66	103.75	116.00
36	BA	924	C	O4'-C1'-N1	7.66	114.33	108.20
36	BA	1383	C	C2-N3-C4	7.66	123.73	119.90
2	A8	367	G	C5-C6-O6	-7.65	124.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1533	C	P-O5'-C5'	7.65	133.15	120.90
2	A8	2471	A	P-O5'-C5'	7.65	133.15	120.90
1	A7	23	G	C8-N9-C4	-7.65	103.34	106.40
2	A8	175	G	N1-C6-O6	7.65	124.49	119.90
2	A8	226	A	C5'-C4'-C3'	-7.65	103.75	116.00
2	A8	537	G	C5-C6-O6	-7.65	124.01	128.60
2	A8	701	G	O4'-C1'-N9	7.65	114.32	108.20
36	BA	900	A	C5'-C4'-O4'	7.65	118.28	109.10
2	A8	494	G	O4'-C1'-N9	7.65	114.32	108.20
36	BA	126	G	O4'-C1'-N9	7.65	114.32	108.20
36	BA	443	C	O4'-C1'-N1	7.65	114.32	108.20
2	A8	231	A	C5-C6-N1	-7.65	113.88	117.70
2	A8	561	G	C5-C6-O6	-7.65	124.01	128.60
2	A8	1850	G	C5-C6-O6	-7.65	124.01	128.60
36	BA	205	A	N1-C6-N6	7.65	123.19	118.60
36	BA	1310	G	C5-C6-O6	-7.65	124.01	128.60
2	A8	2095	A	C5-C6-N6	-7.65	117.58	123.70
36	BA	526	C	O4'-C1'-N1	7.65	114.32	108.20
36	BA	898	G	C5'-C4'-C3'	-7.65	103.77	116.00
2	A8	359	G	C6-C5-N7	-7.64	125.81	130.40
2	A8	2690	U	O4'-C1'-N1	7.64	114.31	108.20
2	A8	375	G	C5-C6-O6	-7.64	124.02	128.60
2	A8	678	C	O4'-C1'-N1	7.64	114.31	108.20
2	A8	1091	G	C6-C5-N7	-7.64	125.81	130.40
2	A8	1092	C	O4'-C1'-N1	7.64	114.31	108.20
2	A8	1558	C	P-O3'-C3'	-7.64	110.53	119.70
2	A8	2428	G	N1-C6-O6	7.64	124.48	119.90
2	A8	850	U	O4'-C1'-N1	7.64	114.31	108.20
2	A8	2256	G	C8-N9-C4	-7.64	103.34	106.40
36	BA	1459	G	C5-C6-O6	-7.64	124.02	128.60
2	A8	815	C	O4'-C1'-N1	7.64	114.31	108.20
2	A8	1581	G	C5-C6-O6	-7.64	124.02	128.60
2	A8	1667	G	C5-C6-O6	-7.64	124.02	128.60
2	A8	2255	G	O4'-C1'-N9	7.64	114.31	108.20
36	BA	308	C	O4'-C1'-N1	7.64	114.31	108.20
36	BA	1112	C	N3-C4-N4	7.64	123.35	118.00
2	A8	2824	C	O4'-C1'-N1	7.64	114.31	108.20
2	A8	1282	U	O4'-C1'-N1	7.64	114.31	108.20
2	A8	2674	G	O4'-C1'-N9	7.64	114.31	108.20
36	BA	11	G	N1-C6-O6	7.64	124.48	119.90
36	BA	302	G	N1-C6-O6	7.64	124.48	119.90
36	BA	391	G	C5-C6-O6	-7.64	124.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1711	A	O4'-C1'-N9	7.63	114.31	108.20
2	A8	2272	U	C6-N1-C2	-7.63	116.42	121.00
14	AJ	27	ARG	NE-CZ-NH2	-7.63	116.48	120.30
36	BA	1503	A	C5-C6-N6	-7.63	117.59	123.70
36	BA	397	A	C5-C6-N6	-7.63	117.59	123.70
36	BA	1479	C	C6-N1-C2	-7.63	117.25	120.30
2	A8	820	A	C3'-C2'-C1'	-7.63	95.39	101.50
2	A8	883	G	C5'-C4'-C3'	-7.63	103.79	116.00
2	A8	1559	U	O4'-C1'-N1	7.63	114.31	108.20
36	BA	53	A	C5-C6-N6	-7.63	117.59	123.70
36	BA	656	G	C5-C6-O6	-7.63	124.02	128.60
36	BA	1102	A	C4-C5-C6	7.63	120.82	117.00
2	A8	402	A	C4-C5-C6	7.63	120.81	117.00
2	A8	535	G	N1-C6-O6	7.63	124.48	119.90
36	BA	251	G	O4'-C1'-N9	7.63	114.30	108.20
2	A8	1186	G	O4'-C1'-N9	7.63	114.30	108.20
2	A8	1402	U	O4'-C1'-N1	7.63	114.30	108.20
2	A8	1415	U	O4'-C1'-N1	7.63	114.30	108.20
36	BA	865	A	O4'-C1'-N9	7.63	114.30	108.20
2	A8	489	G	P-O3'-C3'	7.63	128.85	119.70
36	BA	467	U	O4'-C1'-N1	7.63	114.30	108.20
2	A8	454	A	N1-C6-N6	7.62	123.17	118.60
2	A8	948	C	O4'-C1'-N1	7.62	114.30	108.20
2	A8	2329	U	O4'-C1'-N1	7.62	114.30	108.20
2	A8	53	A	O4'-C1'-N9	7.62	114.30	108.20
2	A8	137	U	O4'-C1'-N1	7.62	114.30	108.20
2	A8	881	G	C5-C6-O6	-7.62	124.03	128.60
2	A8	2831	G	N1-C6-O6	7.62	124.47	119.90
36	BA	424	G	C5-C6-O6	-7.62	124.03	128.60
36	BA	541	G	O4'-C1'-N9	7.62	114.30	108.20
36	BA	1453	G	O4'-C1'-N9	7.62	114.30	108.20
2	A8	1681	G	C5-C6-O6	-7.62	124.03	128.60
36	BA	626	G	O4'-C1'-N9	7.62	114.30	108.20
36	BA	909	A	C5-C6-N6	-7.62	117.60	123.70
2	A8	266	G	C4-C5-C6	7.62	123.37	118.80
2	A8	731	C	O4'-C1'-N1	7.62	114.30	108.20
2	A8	765	C	O4'-C1'-N1	7.62	114.30	108.20
36	BA	1198	G	P-O5'-C5'	7.62	133.09	120.90
2	A8	962	G	N1-C6-O6	7.62	124.47	119.90
2	A8	1376	C	C5'-C4'-C3'	-7.62	103.81	116.00
2	A8	2400	G	C5-C6-O6	-7.62	124.03	128.60
2	A8	2591	C	C3'-C2'-C1'	-7.62	95.41	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1048	G	N1-C6-O6	7.62	124.47	119.90
36	BA	1099	G	N1-C6-O6	7.62	124.47	119.90
2	A8	819	A	C8-N9-C4	-7.61	102.75	105.80
2	A8	1100	C	O4'-C1'-N1	7.61	114.29	108.20
2	A8	1936	A	C4'-C3'-C2'	7.61	110.21	102.60
36	BA	1322	C	N3-C4-N4	7.61	123.33	118.00
1	A7	33	G	N1-C6-O6	7.61	124.47	119.90
2	A8	1470	A	C5-C6-N6	-7.61	117.61	123.70
2	A8	2118	U	O4'-C1'-N1	7.61	114.29	108.20
36	BA	172	A	P-O3'-C3'	7.61	128.84	119.70
2	A8	868	U	P-O5'-C5'	7.61	133.08	120.90
2	A8	1193	G	N1-C6-O6	7.61	124.47	119.90
2	A8	1739	A	C4-C5-C6	7.61	120.81	117.00
2	A8	2465	C	O4'-C1'-N1	7.61	114.29	108.20
36	BA	495	A	C4-C5-C6	7.61	120.81	117.00
36	BA	1268	G	C5-C6-O6	-7.61	124.03	128.60
36	BA	800	G	C5'-C4'-C3'	-7.61	103.83	116.00
1	A7	22	U	O4'-C1'-N1	7.61	114.29	108.20
2	A8	687	C	N3-C4-N4	7.61	123.33	118.00
2	A8	1014	A	C5-C6-N6	-7.61	117.61	123.70
2	A8	2668	G	C5-C6-O6	-7.61	124.04	128.60
36	BA	102	G	C5-C6-O6	-7.61	124.03	128.60
36	BA	127	G	N1-C6-O6	7.61	124.46	119.90
2	A8	875	G	C5'-C4'-C3'	-7.61	103.83	116.00
2	A8	928	A	C5-C6-N6	-7.61	117.61	123.70
2	A8	1455	G	N1-C6-O6	7.61	124.46	119.90
2	A8	2483	C	C5-C6-N1	7.61	124.80	121.00
36	BA	581	G	O4'-C1'-N9	7.61	114.28	108.20
2	A8	2362	C	O4'-C1'-N1	7.60	114.28	108.20
36	BA	337	G	C5-C6-O6	-7.60	124.04	128.60
36	BA	489	C	O4'-C1'-N1	7.60	114.28	108.20
2	A8	651	G	C5-C6-O6	-7.60	124.04	128.60
2	A8	741	U	C3'-C2'-C1'	-7.60	95.42	101.50
2	A8	2587	A	C4-C5-C6	7.60	120.80	117.00
2	A8	880	G	C5-C6-O6	-7.60	124.04	128.60
2	A8	772	C	O4'-C1'-N1	7.60	114.28	108.20
2	A8	1360	G	N1-C6-O6	7.60	124.46	119.90
2	A8	2721	A	O4'-C1'-N9	7.60	114.28	108.20
2	A8	2802	G	N1-C6-O6	7.60	124.46	119.90
36	BA	1094	G	C5-C6-O6	-7.60	124.04	128.60
2	A8	1388	G	C5-C6-O6	-7.60	124.04	128.60
2	A8	1416	G	O4'-C1'-N9	7.60	114.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2281	A	C5-C6-N6	-7.60	117.62	123.70
2	A8	2510	C	O4'-C1'-N1	7.60	114.28	108.20
2	A8	136	G	C5-C6-O6	-7.60	124.04	128.60
2	A8	858	G	C5'-C4'-O4'	7.60	118.22	109.10
2	A8	178	G	N1-C6-O6	7.59	124.46	119.90
2	A8	778	G	C5-C6-O6	-7.59	124.04	128.60
55	BT	73	ARG	NE-CZ-NH1	7.59	124.10	120.30
36	BA	369	G	N1-C6-O6	7.59	124.46	119.90
36	BA	771	G	C1'-O4'-C4'	-7.59	103.83	109.90
2	A8	2060	A	O4'-C1'-N9	7.59	114.27	108.20
36	BA	782	A	C4-C5-C6	7.59	120.80	117.00
36	BA	945	G	C5-C6-O6	-7.59	124.05	128.60
2	A8	2123	G	C5-C6-O6	-7.59	124.05	128.60
2	A8	2752	C	C6-N1-C2	-7.59	117.26	120.30
36	BA	16	A	C5-C6-N6	-7.59	117.63	123.70
36	BA	148	G	N1-C6-O6	7.59	124.45	119.90
2	A8	1055	G	C5-C6-O6	-7.59	124.05	128.60
2	A8	1861	G	C8-N9-C1'	7.59	136.86	127.00
2	A8	2462	C	C6-N1-C2	-7.59	117.27	120.30
2	A8	2579	C	O4'-C1'-N1	7.59	114.27	108.20
2	A8	961	C	C6-N1-C1'	-7.59	111.70	120.80
2	A8	1237	A	C5-C6-N6	-7.59	117.63	123.70
2	A8	1517	G	N1-C6-O6	7.59	124.45	119.90
36	BA	371	A	O4'-C4'-C3'	-7.59	96.41	104.00
2	A8	2842	G	C5-C6-O6	-7.58	124.05	128.60
36	BA	1455	G	O4'-C1'-N9	7.58	114.27	108.20
2	A8	429	A	C5-C6-N1	-7.58	113.91	117.70
2	A8	902	C	O4'-C1'-N1	7.58	114.27	108.20
2	A8	1911	U	O4'-C1'-N1	7.58	114.27	108.20
2	A8	1292	G	C8-N9-C1'	7.58	136.85	127.00
2	A8	2089	C	P-O5'-C5'	7.58	133.03	120.90
2	A8	2238	G	N1-C6-O6	7.58	124.45	119.90
2	A8	2294	G	C5-C6-O6	-7.58	124.05	128.60
2	A8	1533	C	O4'-C1'-N1	7.58	114.26	108.20
2	A8	2483	C	O4'-C1'-N1	7.58	114.26	108.20
2	A8	304	U	O4'-C1'-N1	7.58	114.26	108.20
2	A8	1608	A	C5-C6-N1	-7.58	113.91	117.70
2	A8	2737	G	C5-C6-O6	-7.58	124.05	128.60
36	BA	1370	G	N1-C6-O6	7.58	124.45	119.90
2	A8	1560	G	C5-C6-O6	-7.58	124.05	128.60
36	BA	787	A	C5'-C4'-C3'	-7.58	103.88	116.00
36	BA	1447	A	C5'-C4'-C3'	-7.58	103.88	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	506	G	C5-C6-O6	-7.58	124.06	128.60
2	A8	1169	A	O4'-C1'-N9	7.58	114.26	108.20
36	BA	1163	A	C8-N9-C4	-7.58	102.77	105.80
36	BA	1435	G	C5-C6-O6	-7.58	124.05	128.60
2	A8	19	A	C4-C5-C6	7.57	120.79	117.00
2	A8	494	G	C5-C6-O6	-7.57	124.06	128.60
2	A8	687	C	C5'-C4'-C3'	-7.57	103.88	116.00
2	A8	878	A	C5-C6-N1	-7.57	113.91	117.70
2	A8	1431	A	O4'-C1'-N9	7.57	114.26	108.20
2	A8	1860	G	N1-C6-O6	7.57	124.44	119.90
2	A8	472	A	C5-C6-N6	-7.57	117.64	123.70
2	A8	657	U	O4'-C1'-N1	7.57	114.26	108.20
2	A8	1096	A	C5-C6-N6	-7.57	117.64	123.70
2	A8	1622	G	O4'-C1'-N9	7.57	114.26	108.20
2	A8	1654	A	C4-C5-C6	7.57	120.79	117.00
2	A8	558	U	O4'-C1'-N1	7.57	114.26	108.20
2	A8	867	C	C6-N1-C2	-7.57	117.27	120.30
2	A8	1271	G	C5-C6-O6	-7.57	124.06	128.60
2	A8	1424	G	O4'-C1'-N9	7.57	114.26	108.20
2	A8	2484	G	C5-C6-O6	-7.57	124.06	128.60
36	BA	1130	A	N1-C6-N6	7.57	123.14	118.60
2	A8	2812	G	C5-C6-O6	-7.57	124.06	128.60
2	A8	1826	G	N1-C6-O6	7.57	124.44	119.90
2	A8	1980	G	C8-N9-C4	-7.57	103.37	106.40
2	A8	2373	G	C5-C6-O6	-7.57	124.06	128.60
36	BA	494	G	C5'-C4'-C3'	7.57	128.11	116.00
36	BA	556	C	O4'-C1'-N1	7.57	114.25	108.20
2	A8	325	G	N1-C6-O6	7.57	124.44	119.90
2	A8	2523	G	N1-C6-O6	7.57	124.44	119.90
2	A8	1732	C	C6-N1-C2	-7.56	117.27	120.30
2	A8	2467	C	C3'-C2'-C1'	-7.56	95.45	101.50
36	BA	670	G	C5-C6-O6	-7.56	124.06	128.60
2	A8	682	G	N1-C6-O6	7.56	124.44	119.90
2	A8	1183	U	O4'-C1'-N1	7.56	114.25	108.20
2	A8	1992	G	C5-C6-O6	-7.56	124.06	128.60
2	A8	1479	G	C5-C6-O6	-7.56	124.06	128.60
36	BA	1176	A	O4'-C1'-N9	7.56	114.25	108.20
1	A7	79	G	N1-C6-O6	7.56	124.44	119.90
36	BA	82	G	N1-C6-O6	7.56	124.44	119.90
36	BA	352	C	P-O3'-C3'	-7.56	110.63	119.70
2	A8	1122	G	C5'-C4'-C3'	-7.56	103.91	116.00
2	A8	1346	G	N1-C6-O6	7.56	124.43	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1898	U	C2-N1-C1'	-7.56	108.63	117.70
36	BA	302	G	O4'-C1'-N9	7.56	114.25	108.20
2	A8	2443	C	O4'-C1'-N1	7.56	114.25	108.20
1	A7	2	G	C5-C6-O6	-7.55	124.07	128.60
2	A8	207	A	C5'-C4'-C3'	-7.55	103.91	116.00
2	A8	2412	A	C6-C5-N7	-7.55	127.01	132.30
2	A8	2591	C	N3-C4-C5	-7.55	118.88	121.90
36	BA	490	C	O4'-C1'-N1	7.55	114.24	108.20
36	BA	590	U	O4'-C1'-N1	7.55	114.24	108.20
36	BA	1192	C	O4'-C1'-N1	7.55	114.24	108.20
2	A8	1231	U	O4'-C1'-N1	7.55	114.24	108.20
36	BA	206	C	N3-C4-N4	7.55	123.29	118.00
2	A8	191	A	C4-C5-C6	7.55	120.78	117.00
2	A8	228	C	N3-C4-C5	-7.55	118.88	121.90
2	A8	301	G	C8-N9-C1'	7.55	136.82	127.00
2	A8	1351	C	O4'-C1'-N1	7.55	114.24	108.20
2	A8	1738	G	C8-N9-C1'	7.55	136.82	127.00
2	A8	2471	A	O4'-C1'-C2'	7.55	114.40	107.60
2	A8	2850	A	C5-C6-N6	-7.55	117.66	123.70
36	BA	339	C	N3-C4-N4	7.55	123.29	118.00
36	BA	686	U	O4'-C1'-N1	7.55	114.24	108.20
36	BA	739	C	O4'-C1'-N1	7.55	114.24	108.20
36	BA	1507	A	C4-C5-C6	7.55	120.78	117.00
2	A8	704	G	C5-C6-O6	-7.55	124.07	128.60
2	A8	1882	U	O4'-C1'-N1	7.55	114.24	108.20
2	A8	2128	G	O4'-C1'-N9	7.55	114.24	108.20
2	A8	2521	C	O4'-C1'-N1	7.55	114.24	108.20
36	BA	166	U	C5'-C4'-C3'	-7.55	103.92	116.00
2	A8	476	G	C5-C6-O6	-7.55	124.07	128.60
36	BA	746	A	C5-C6-N6	-7.55	117.66	123.70
1	A7	109	A	C4-C5-C6	7.55	120.77	117.00
2	A8	88	G	O4'-C1'-N9	7.55	114.24	108.20
2	A8	512	G	C5-C6-O6	-7.55	124.07	128.60
2	A8	884	U	O4'-C1'-N1	7.55	114.24	108.20
36	BA	383	A	C5-C6-N6	-7.55	117.66	123.70
36	BA	660	C	O4'-C1'-N1	7.55	114.24	108.20
2	A8	376	G	C5-C6-O6	-7.54	124.07	128.60
2	A8	1225	G	O4'-C1'-N9	7.54	114.24	108.20
2	A8	2802	G	O4'-C1'-N9	7.54	114.24	108.20
2	A8	1090	A	P-O3'-C3'	-7.54	110.65	119.70
2	A8	1490	A	C5-C6-N6	-7.54	117.67	123.70
2	A8	1969	A	C4-C5-C6	7.54	120.77	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	566	G	O4'-C1'-N9	7.54	114.23	108.20
36	BA	828	U	O4'-C1'-N1	7.54	114.23	108.20
2	A8	39	G	C5-C6-O6	-7.54	124.08	128.60
2	A8	317	G	C5-C6-O6	-7.54	124.08	128.60
2	A8	1744	A	N1-C6-N6	7.54	123.12	118.60
2	A8	2472	G	C4-N9-C1'	-7.54	116.70	126.50
36	BA	1434	A	O4'-C1'-N9	7.54	114.23	108.20
2	A8	1830	C	O4'-C1'-N1	7.54	114.23	108.20
2	A8	2408	U	C2-N3-C4	-7.54	122.48	127.00
36	BA	726	C	C6-N1-C2	-7.54	117.28	120.30
36	BA	1444	U	O4'-C1'-N1	7.54	114.23	108.20
2	A8	2663	G	N3-C2-N2	7.54	125.18	119.90
2	A8	603	A	C5-C6-N1	-7.54	113.93	117.70
2	A8	2186	G	C8-N9-C4	-7.54	103.39	106.40
36	BA	231	U	O4'-C1'-N1	7.54	114.23	108.20
36	BA	431	A	C4-C5-C6	7.54	120.77	117.00
36	BA	950	U	O4'-C1'-N1	7.54	114.23	108.20
36	BA	964	A	C5-C6-N1	-7.54	113.93	117.70
2	A8	170	U	C5'-C4'-C3'	-7.53	103.95	116.00
2	A8	2367	G	C5-C6-O6	-7.53	124.08	128.60
36	BA	453	G	P-O5'-C5'	7.53	132.95	120.90
2	A8	1128	G	N1-C6-O6	7.53	124.42	119.90
2	A8	1425	G	O4'-C1'-N9	7.53	114.23	108.20
2	A8	2269	G	N9-C1'-C2'	-7.53	103.72	112.00
2	A8	2277	G	O4'-C1'-N9	7.53	114.23	108.20
36	BA	227	G	C5-C6-O6	-7.53	124.08	128.60
36	BA	1346	A	P-O3'-C3'	7.53	128.74	119.70
2	A8	301	G	N1-C6-O6	7.53	124.42	119.90
2	A8	1463	C	O4'-C1'-N1	7.53	114.22	108.20
2	A8	2280	G	N1-C6-O6	7.53	124.42	119.90
36	BA	22	G	N1-C6-O6	7.53	124.42	119.90
36	BA	118	U	C2-N1-C1'	7.53	126.74	117.70
36	BA	1047	G	C5-C6-O6	-7.53	124.08	128.60
36	BA	1175	G	N1-C6-O6	7.53	124.42	119.90
1	A7	107	G	P-O3'-C3'	7.53	128.74	119.70
2	A8	107	G	C8-N9-C1'	7.53	136.79	127.00
2	A8	2886	A	O4'-C1'-N9	7.53	114.22	108.20
36	BA	1174	G	C5-C6-O6	-7.53	124.08	128.60
2	A8	1366	A	C4-C5-C6	7.53	120.76	117.00
2	A8	1526	C	N3-C4-C5	-7.53	118.89	121.90
2	A8	1651	G	C3'-C2'-C1'	-7.53	95.48	101.50
2	A8	1869	G	C5-C6-O6	-7.53	124.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2239	G	N3-C2-N2	7.53	125.17	119.90
2	A8	1598	A	C5-C6-N6	-7.53	117.68	123.70
2	A8	1695	G	N1-C6-O6	7.53	124.42	119.90
36	BA	1383	C	N3-C4-N4	7.53	123.27	118.00
36	BA	167	A	C5'-C4'-C3'	-7.52	103.96	116.00
2	A8	319	G	C5-C6-O6	-7.52	124.09	128.60
2	A8	545	U	O4'-C1'-N1	7.52	114.22	108.20
2	A8	1410	G	N1-C6-O6	7.52	124.41	119.90
2	A8	2310	C	P-O3'-C3'	7.52	128.73	119.70
2	A8	2591	C	O5'-P-OP2	-7.52	98.93	105.70
36	BA	116	A	C5-C6-N6	-7.52	117.68	123.70
36	BA	705	G	N1-C6-O6	7.52	124.41	119.90
2	A8	786	C	O4'-C1'-N1	7.52	114.22	108.20
2	A8	1383	A	N1-C6-N6	7.52	123.11	118.60
2	A8	2622	U	O4'-C1'-N1	7.52	114.22	108.20
2	A8	2737	G	N1-C6-O6	7.52	124.41	119.90
36	BA	168	G	O4'-C1'-N9	7.52	114.22	108.20
2	A8	257	C	P-O5'-C5'	7.52	132.93	120.90
2	A8	984	A	C4'-C3'-C2'	-7.52	95.08	102.60
2	A8	2482	A	C5'-C4'-O4'	7.52	118.12	109.10
36	BA	827	U	O4'-C1'-N1	7.52	114.21	108.20
36	BA	1087	G	N1-C6-O6	7.52	124.41	119.90
36	BA	1510	C	P-O5'-C5'	7.52	132.93	120.90
2	A8	644	A	C5-C6-N6	-7.51	117.69	123.70
2	A8	1026	G	C5'-C4'-C3'	7.51	128.02	116.00
2	A8	1854	A	P-O3'-C3'	-7.51	110.68	119.70
2	A8	2298	A	C5-C6-N6	-7.51	117.69	123.70
2	A8	2857	G	C5-C6-O6	-7.51	124.09	128.60
2	A8	2897	U	O4'-C1'-N1	7.51	114.21	108.20
36	BA	1266	G	C4-N9-C1'	-7.51	116.73	126.50
2	A8	203	A	C5-C6-N6	-7.51	117.69	123.70
2	A8	1292	G	C5-C6-O6	-7.51	124.09	128.60
25	AU	2	ALA	N-CA-CB	7.51	120.62	110.10
2	A8	869	G	N1-C6-O6	7.51	124.41	119.90
2	A8	1238	G	N1-C6-O6	7.51	124.41	119.90
36	BA	115	G	C5-C6-O6	-7.51	124.09	128.60
36	BA	232	G	N1-C6-O6	7.51	124.41	119.90
2	A8	913	U	P-O3'-C3'	-7.51	110.69	119.70
2	A8	1167	C	O3'-P-O5'	-7.51	89.73	104.00
2	A8	1898	U	P-O3'-C3'	7.51	128.71	119.70
2	A8	2826	A	C5-C6-N6	-7.51	117.69	123.70
36	BA	87	C	O4'-C1'-N1	7.51	114.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1021	A	C5-C6-N6	-7.51	117.69	123.70
2	A8	976	G	C8-N9-C4	-7.51	103.40	106.40
36	BA	455	G	O4'-C1'-N9	7.51	114.21	108.20
36	BA	1049	U	O4'-C1'-N1	7.51	114.21	108.20
2	A8	106	C	C6-N1-C2	-7.51	117.30	120.30
2	A8	338	G	C5-C6-O6	-7.51	124.10	128.60
2	A8	1758	U	O4'-C1'-N1	7.51	114.20	108.20
36	BA	487	A	C6-C5-N7	-7.51	127.05	132.30
2	A8	528	A	N1-C6-N6	7.50	123.10	118.60
36	BA	301	G	N1-C6-O6	7.50	124.40	119.90
36	BA	865	A	C4-C5-C6	7.50	120.75	117.00
1	A7	84	G	C4-N9-C1'	-7.50	116.75	126.50
2	A8	1555	G	C5'-C4'-C3'	-7.50	104.00	116.00
2	A8	2156	G	C5-C6-O6	-7.50	124.10	128.60
2	A8	2741	A	C4-C5-C6	7.50	120.75	117.00
36	BA	941	G	C5-C6-O6	-7.50	124.10	128.60
36	BA	1012	A	O4'-C1'-N9	7.50	114.20	108.20
36	BA	226	G	N1-C6-O6	7.50	124.40	119.90
36	BA	1493	A	C4-C5-C6	7.50	120.75	117.00
2	A8	803	U	P-O5'-C5'	-7.50	108.90	120.90
36	BA	1431	A	C5-C6-N6	-7.50	117.70	123.70
2	A8	329	G	P-O3'-C3'	7.50	128.70	119.70
2	A8	1620	G	N1-C6-O6	7.50	124.40	119.90
2	A8	2485	G	C5-C6-O6	-7.50	124.10	128.60
36	BA	106	C	O4'-C1'-N1	7.50	114.20	108.20
36	BA	339	C	C5'-C4'-C3'	-7.50	104.00	116.00
36	BA	889	A	P-O5'-C5'	-7.50	108.90	120.90
2	A8	115	C	C5'-C4'-C3'	-7.50	104.00	116.00
2	A8	940	G	C5-C6-O6	-7.50	124.10	128.60
2	A8	1897	G	C5-C6-O6	-7.50	124.10	128.60
2	A8	2778	A	P-O5'-C5'	-7.50	108.91	120.90
36	BA	43	C	O4'-C1'-N1	7.50	114.20	108.20
2	A8	2052	A	C8-N9-C4	-7.50	102.80	105.80
36	BA	88	U	O4'-C1'-N1	7.50	114.20	108.20
36	BA	97	G	N1-C6-O6	7.50	124.40	119.90
36	BA	953	G	O4'-C1'-N9	7.50	114.20	108.20
2	A8	1253	A	C5-C6-N6	-7.49	117.70	123.70
2	A8	1515	A	C5-C6-N6	-7.49	117.70	123.70
36	BA	468	A	O4'-C1'-N9	7.49	114.20	108.20
36	BA	1048	G	C5-C6-O6	-7.49	124.10	128.60
2	A8	191	A	O4'-C1'-N9	7.49	114.19	108.20
2	A8	1593	A	O4'-C1'-N9	7.49	114.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2363	G	C5-C6-O6	-7.49	124.11	128.60
2	A8	2368	C	C6-N1-C2	-7.49	117.30	120.30
2	A8	55	G	N1-C6-O6	7.49	124.39	119.90
2	A8	1005	C	O4'-C1'-N1	7.49	114.19	108.20
2	A8	1626	A	C5-C6-N6	-7.49	117.71	123.70
36	BA	698	G	C5'-C4'-C3'	-7.49	104.02	116.00
2	A8	46	G	N1-C6-O6	7.49	124.39	119.90
2	A8	2714	G	C5-C6-O6	-7.49	124.11	128.60
36	BA	861	G	N1-C6-O6	7.49	124.39	119.90
2	A8	1973	G	C8-N9-C4	-7.49	103.41	106.40
2	A8	2178	C	C5'-C4'-O4'	7.49	118.08	109.10
36	BA	1138	G	C5-C6-O6	-7.49	124.11	128.60
2	A8	452	G	N1-C6-O6	7.48	124.39	119.90
2	A8	2127	G	N1-C6-O6	7.48	124.39	119.90
2	A8	2694	G	C5-C6-O6	-7.48	124.11	128.60
36	BA	516	U	C5'-C4'-C3'	-7.48	104.03	116.00
2	A8	480	A	C5-C6-N6	-7.48	117.72	123.70
2	A8	898	C	P-O3'-C3'	-7.48	110.72	119.70
36	BA	120	A	O4'-C1'-N9	7.48	114.18	108.20
2	A8	1487	U	O4'-C1'-N1	7.48	114.18	108.20
2	A8	27	G	N1-C6-O6	7.48	124.39	119.90
2	A8	64	A	C5-C6-N6	-7.48	117.72	123.70
2	A8	1212	G	C5-C6-O6	-7.48	124.11	128.60
2	A8	2160	C	P-O3'-C3'	7.48	128.67	119.70
2	A8	2542	A	O4'-C1'-N9	7.48	114.18	108.20
36	BA	1009	U	C5'-C4'-C3'	-7.48	104.04	116.00
36	BA	1040	U	O4'-C1'-N1	7.48	114.18	108.20
1	A7	58	A	C4-C5-C6	7.48	120.74	117.00
36	BA	816	A	N1-C6-N6	7.48	123.09	118.60
2	A8	1597	A	C5-C6-N6	-7.47	117.72	123.70
1	A7	92	C	C5'-C4'-C3'	-7.47	104.05	116.00
2	A8	108	G	C4-N9-C1'	-7.47	116.78	126.50
2	A8	1025	G	N1-C6-O6	7.47	124.38	119.90
2	A8	1252	G	C5-C6-O6	-7.47	124.12	128.60
2	A8	2087	G	N1-C6-O6	7.47	124.38	119.90
2	A8	2661	G	N1-C6-O6	7.47	124.38	119.90
36	BA	668	G	C5'-C4'-C3'	-7.47	104.05	116.00
36	BA	1143	G	C5-C6-O6	-7.47	124.12	128.60
36	BA	465	A	C4-C5-C6	7.47	120.73	117.00
36	BA	1022	A	C5-C6-N6	-7.47	117.72	123.70
2	A8	896	A	O4'-C1'-N9	7.47	114.17	108.20
2	A8	1675	C	O4'-C1'-N1	7.47	114.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	350	G	C5-C6-O6	-7.47	124.12	128.60
36	BA	360	G	C5-C6-O6	-7.47	124.12	128.60
1	A7	73	A	C4-C5-C6	7.47	120.73	117.00
2	A8	1002	G	O4'-C1'-N9	7.47	114.17	108.20
2	A8	1029	A	C5-C6-N1	-7.47	113.97	117.70
2	A8	1423	G	O4'-C1'-N9	7.47	114.17	108.20
36	BA	169	C	O4'-C1'-N1	7.47	114.17	108.20
36	BA	362	G	C5-C6-O6	-7.47	124.12	128.60
36	BA	805	C	N3-C4-C5	-7.47	118.91	121.90
2	A8	589	U	O4'-C1'-N1	7.46	114.17	108.20
2	A8	1384	A	C5-C6-N6	-7.46	117.73	123.70
2	A8	1564	C	O4'-C1'-N1	7.46	114.17	108.20
2	A8	1751	U	O4'-C1'-N1	7.46	114.17	108.20
2	A8	1766	G	C5-C6-O6	-7.46	124.12	128.60
2	A8	2786	U	O4'-C1'-N1	7.46	114.17	108.20
2	A8	2867	G	O4'-C1'-N9	7.46	114.17	108.20
2	A8	487	C	O4'-C1'-N1	7.46	114.17	108.20
2	A8	1874	C	O4'-C1'-N1	7.46	114.17	108.20
2	A8	2418	A	P-O5'-C5'	-7.46	108.96	120.90
2	A8	2671	G	C5'-C4'-C3'	-7.46	104.06	116.00
36	BA	690	G	C5'-C4'-C3'	-7.46	104.06	116.00
36	BA	758	C	C6-N1-C2	-7.46	117.31	120.30
2	A8	193	U	O4'-C1'-N1	7.46	114.17	108.20
2	A8	617	G	C5-C6-O6	-7.46	124.12	128.60
2	A8	1277	G	C8-N9-C1'	7.46	136.70	127.00
41	BF	90	MET	CG-SD-CE	-7.46	88.27	100.20
1	A7	96	G	N1-C6-O6	7.46	124.38	119.90
2	A8	1202	G	N1-C6-O6	7.46	124.38	119.90
2	A8	1171	G	C5-C6-O6	-7.46	124.13	128.60
36	BA	533	A	C4-C5-C6	7.46	120.73	117.00
36	BA	597	G	N1-C6-O6	7.46	124.37	119.90
36	BA	1024	G	C5-C6-O6	-7.46	124.13	128.60
1	A7	94	A	C5-C6-N6	-7.45	117.74	123.70
2	A8	1669	A	N1-C6-N6	7.45	123.07	118.60
2	A8	2655	G	O4'-C1'-C2'	-7.45	98.35	105.80
36	BA	882	C	O4'-C1'-N1	7.45	114.16	108.20
2	A8	477	A	C5-C6-N6	-7.45	117.74	123.70
2	A8	1707	G	C8-N9-C4	-7.45	103.42	106.40
36	BA	432	A	C5'-C4'-C3'	-7.45	104.08	116.00
2	A8	1429	G	N1-C6-O6	7.45	124.37	119.90
2	A8	1565	C	P-O3'-C3'	7.45	128.64	119.70
2	A8	1983	G	C3'-C2'-C1'	-7.45	95.54	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2306	C	P-O3'-C3'	7.45	128.64	119.70
2	A8	2715	C	O4'-C1'-N1	7.45	114.16	108.20
2	A8	2753	A	O4'-C1'-N9	7.45	114.16	108.20
2	A8	43	G	N1-C6-O6	7.45	124.37	119.90
2	A8	2469	A	C5-C6-N6	-7.45	117.74	123.70
2	A8	1959	G	C8-N9-C1'	7.45	136.68	127.00
2	A8	2499	C	C6-N1-C2	-7.45	117.32	120.30
17	AM	103	TYR	CB-CG-CD2	-7.45	116.53	121.00
36	BA	777	A	O4'-C1'-N9	7.45	114.16	108.20
36	BA	1426	G	C4-N9-C1'	-7.45	116.82	126.50
2	A8	51	G	N3-C2-N2	7.44	125.11	119.90
2	A8	879	G	C6-C5-N7	-7.44	125.93	130.40
2	A8	1017	G	N1-C6-O6	7.44	124.36	119.90
2	A8	1809	A	C5-C6-N6	-7.44	117.75	123.70
2	A8	2079	U	O4'-C1'-N1	7.44	114.15	108.20
36	BA	592	G	C5'-C4'-C3'	-7.44	104.09	116.00
36	BA	876	C	O4'-C1'-N1	7.44	114.15	108.20
2	A8	314	C	O4'-C1'-N1	7.44	114.15	108.20
2	A8	1902	C	N3-C4-N4	7.44	123.21	118.00
2	A8	1337	G	C5-C6-O6	-7.44	124.14	128.60
2	A8	1575	C	P-O5'-C5'	-7.44	109.00	120.90
36	BA	1355	G	O4'-C1'-N9	7.44	114.15	108.20
2	A8	586	A	C4-C5-C6	7.44	120.72	117.00
2	A8	809	G	P-O5'-C5'	-7.44	109.00	120.90
36	BA	1366	C	O4'-C1'-N1	7.44	114.15	108.20
2	A8	969	G	O4'-C1'-N9	7.44	114.15	108.20
36	BA	335	C	P-O3'-C3'	-7.44	110.78	119.70
36	BA	617	G	C5-C6-O6	-7.44	124.14	128.60
36	BA	1004	A	C4-C5-C6	7.44	120.72	117.00
2	A8	1413	A	C4-C5-C6	7.43	120.72	117.00
2	A8	1676	A	O4'-C1'-N9	7.43	114.15	108.20
2	A8	1800	C	N3-C4-C5	-7.43	118.93	121.90
2	A8	2566	A	P-O3'-C3'	7.43	128.62	119.70
36	BA	1164	G	O4'-C1'-N9	7.43	114.15	108.20
36	BA	1255	G	C5-C6-O6	-7.43	124.14	128.60
1	A7	84	G	O4'-C1'-N9	7.43	114.15	108.20
2	A8	383	C	O4'-C1'-N1	7.43	114.15	108.20
36	BA	1049	U	P-O3'-C3'	7.43	128.62	119.70
1	A7	58	A	C5-C6-N1	-7.43	113.98	117.70
2	A8	68	G	O4'-C1'-N9	7.43	114.14	108.20
2	A8	1552	A	O4'-C1'-N9	7.43	114.14	108.20
2	A8	2737	G	C5'-C4'-C3'	-7.43	104.11	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	725	G	C8-N9-C4	-7.43	103.43	106.40
36	BA	1175	G	O4'-C1'-N9	7.43	114.14	108.20
2	A8	1077	A	C5-C6-N6	-7.43	117.76	123.70
2	A8	498	G	C8-N9-C4	-7.43	103.43	106.40
2	A8	600	G	N1-C6-O6	7.43	124.36	119.90
2	A8	974	G	C4-N9-C1'	7.43	136.16	126.50
2	A8	2900	A	O4'-C1'-N9	7.43	114.14	108.20
2	A8	422	A	C5-C6-N6	-7.42	117.76	123.70
2	A8	2033	A	C8-N9-C4	-7.42	102.83	105.80
2	A8	2294	G	C8-N9-C1'	7.42	136.65	127.00
2	A8	2688	G	N1-C6-O6	7.42	124.35	119.90
36	BA	1074	G	N1-C6-O6	7.42	124.35	119.90
2	A8	2275	C	O4'-C1'-N1	7.42	114.14	108.20
2	A8	950	G	C5'-C4'-C3'	-7.42	104.12	116.00
2	A8	1037	G	C5-C6-O6	-7.42	124.15	128.60
36	BA	885	G	C5-C6-O6	-7.42	124.15	128.60
36	BA	1507	A	P-O5'-C5'	-7.42	109.03	120.90
2	A8	1268	A	C5-C6-N6	-7.42	117.77	123.70
2	A8	1573	G	O4'-C1'-N9	7.42	114.14	108.20
2	A8	1695	G	C4-N9-C1'	7.42	136.14	126.50
2	A8	2379	G	O4'-C1'-N9	7.42	114.14	108.20
36	BA	5	U	C5'-C4'-O4'	7.42	118.00	109.10
2	A8	1467	U	O4'-C1'-N1	7.42	114.13	108.20
2	A8	1588	G	C5-C6-O6	-7.42	124.15	128.60
2	A8	2352	A	C4-C5-C6	7.42	120.71	117.00
2	A8	2464	G	N1-C6-O6	7.42	124.35	119.90
36	BA	1015	G	C5-C6-O6	-7.42	124.15	128.60
36	BA	1271	A	C5-C6-N6	-7.42	117.77	123.70
36	BA	1499	A	C4-C5-C6	7.42	120.71	117.00
2	A8	1645	G	N3-C2-N2	7.42	125.09	119.90
1	A7	60	C	C5-C6-N1	7.41	124.71	121.00
2	A8	1324	G	N1-C6-O6	7.41	124.35	119.90
2	A8	1659	G	C4-N9-C1'	-7.41	116.86	126.50
2	A8	2003	A	C3'-C2'-C1'	-7.41	95.57	101.50
36	BA	177	G	N1-C6-O6	7.41	124.35	119.90
36	BA	1220	G	N1-C6-O6	7.41	124.35	119.90
36	BA	1371	G	C5-C6-O6	-7.41	124.15	128.60
2	A8	91	A	C4-C5-C6	7.41	120.71	117.00
2	A8	629	G	N1-C6-O6	7.41	124.35	119.90
2	A8	2382	G	C5-C6-O6	-7.41	124.15	128.60
2	A8	2670	A	C5-C6-N6	-7.41	117.77	123.70
2	A8	2728	U	O4'-C1'-N1	7.41	114.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	217	C	O4'-C1'-N1	7.41	114.13	108.20
36	BA	1415	G	N1-C6-O6	7.41	124.35	119.90
1	A7	10	G	C5-C6-O6	-7.41	124.15	128.60
1	A7	33	G	C5-C6-O6	-7.41	124.16	128.60
2	A8	610	C	O4'-C1'-N1	7.41	114.13	108.20
2	A8	819	A	C5-C6-N1	-7.41	114.00	117.70
2	A8	2248	C	O4'-C1'-N1	7.41	114.13	108.20
2	A8	2331	G	C5-C6-O6	-7.41	124.16	128.60
2	A8	2365	G	O4'-C1'-N9	7.41	114.13	108.20
2	A8	2608	G	C5-C6-O6	-7.41	124.16	128.60
36	BA	1001	C	O4'-C1'-N1	7.41	114.13	108.20
36	BA	1266	G	C5-C6-O6	-7.41	124.16	128.60
2	A8	90	U	O4'-C1'-N1	7.41	114.12	108.20
2	A8	672	C	O4'-C1'-N1	7.41	114.12	108.20
36	BA	1424	U	O4'-C1'-N1	7.41	114.13	108.20
2	A8	29	U	O4'-C1'-N1	7.41	114.12	108.20
2	A8	913	U	O4'-C1'-N1	7.41	114.12	108.20
2	A8	2148	G	C8-N9-C4	-7.41	103.44	106.40
2	A8	2597	G	N3-C2-N2	7.41	125.08	119.90
2	A8	2803	G	N1-C6-O6	7.41	124.34	119.90
36	BA	232	G	C5'-C4'-C3'	-7.41	104.15	116.00
36	BA	1514	G	O4'-C1'-N9	7.41	114.12	108.20
2	A8	1594	U	O4'-C1'-N1	7.40	114.12	108.20
36	BA	738	C	O4'-C1'-N1	7.40	114.12	108.20
36	BA	776	G	O4'-C1'-N9	7.40	114.12	108.20
1	A7	96	G	O4'-C1'-N9	7.40	114.12	108.20
2	A8	275	C	O4'-C1'-N1	7.40	114.12	108.20
2	A8	1710	G	N1-C6-O6	7.40	124.34	119.90
2	A8	2356	U	O4'-C1'-N1	7.40	114.12	108.20
2	A8	2839	G	N3-C2-N2	7.40	125.08	119.90
36	BA	620	C	O4'-C1'-N1	7.40	114.12	108.20
1	A7	91	C	O4'-C1'-N1	7.40	114.12	108.20
2	A8	447	A	N7-C8-N9	7.40	117.50	113.80
2	A8	520	G	C5-C6-O6	-7.40	124.16	128.60
2	A8	696	G	N1-C6-O6	7.40	124.34	119.90
2	A8	764	A	C5-C6-N6	-7.40	117.78	123.70
2	A8	974	G	C3'-C2'-C1'	-7.40	95.58	101.50
36	BA	530	G	C5-C6-O6	-7.40	124.16	128.60
36	BA	915	A	C5-C6-N6	-7.40	117.78	123.70
2	A8	2623	G	N1-C6-O6	7.40	124.34	119.90
2	A8	814	C	C6-N1-C2	-7.40	117.34	120.30
2	A8	1006	C	O4'-C1'-N1	7.40	114.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1283	G	C5-C6-O6	-7.40	124.16	128.60
2	A8	1380	G	C5-C6-O6	-7.40	124.16	128.60
2	A8	1754	A	C4-C5-C6	7.40	120.70	117.00
2	A8	2237	G	C8-N9-C1'	7.40	136.62	127.00
2	A8	2382	G	O4'-C1'-N9	7.40	114.12	108.20
2	A8	2410	G	C5-C6-O6	-7.40	124.16	128.60
36	BA	476	U	C1'-O4'-C4'	-7.40	103.98	109.90
36	BA	1019	A	C5-C6-N6	-7.40	117.78	123.70
36	BA	1505	G	N1-C6-O6	7.40	124.34	119.90
2	A8	196	A	P-O3'-C3'	-7.40	110.83	119.70
2	A8	1032	A	O4'-C1'-N9	7.40	114.12	108.20
2	A8	1222	U	O4'-C1'-N1	7.40	114.12	108.20
36	BA	95	C	C6-N1-C2	-7.40	117.34	120.30
36	BA	634	C	O4'-C1'-N1	7.40	114.12	108.20
36	BA	866	C	N3-C4-C5	-7.40	118.94	121.90
2	A8	188	G	C8-N9-C1'	7.39	136.61	127.00
2	A8	734	A	C5'-C4'-C3'	-7.39	104.17	116.00
2	A8	2877	G	N1-C6-O6	7.39	124.34	119.90
36	BA	32	A	C4-C5-C6	7.39	120.70	117.00
2	A8	413	C	N3-C4-C5	-7.39	118.94	121.90
2	A8	2162	G	C5-C6-O6	-7.39	124.17	128.60
36	BA	148	G	O4'-C1'-N9	7.39	114.11	108.20
36	BA	262	A	O4'-C1'-N9	7.39	114.11	108.20
36	BA	425	G	C8-N9-C1'	7.39	136.61	127.00
2	A8	638	G	C8-N9-C1'	7.39	136.61	127.00
36	BA	295	C	C6-N1-C2	-7.39	117.34	120.30
1	A7	57	A	C5-C6-N6	-7.39	117.79	123.70
2	A8	354	A	O4'-C1'-N9	7.39	114.11	108.20
2	A8	685	A	C5-C6-N6	-7.39	117.79	123.70
2	A8	2576	G	N1-C6-O6	7.39	124.33	119.90
36	BA	56	U	C5'-C4'-C3'	-7.39	104.18	116.00
2	A8	882	G	C5'-C4'-C3'	-7.39	104.18	116.00
2	A8	1482	G	C4-N9-C1'	-7.39	116.90	126.50
2	A8	655	A	C5-C6-N6	-7.39	117.79	123.70
2	A8	2738	A	O4'-C1'-N9	7.39	114.11	108.20
36	BA	57	G	C5-C6-O6	-7.39	124.17	128.60
36	BA	476	U	C3'-C2'-C1'	-7.39	95.59	101.50
2	A8	1330	C	O4'-C1'-N1	7.38	114.11	108.20
2	A8	1358	G	C4-N9-C1'	-7.38	116.90	126.50
2	A8	2578	G	O4'-C1'-N9	7.38	114.11	108.20
36	BA	500	G	C5-C6-O6	-7.38	124.17	128.60
36	BA	1231	G	N1-C6-O6	7.38	124.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	169	G	C5'-C4'-C3'	-7.38	104.19	116.00
2	A8	292	U	O4'-C1'-N1	7.38	114.11	108.20
2	A8	1041	G	N1-C6-O6	7.38	124.33	119.90
2	A8	1378	A	C5-C6-N1	-7.38	114.01	117.70
2	A8	1756	G	N1-C6-O6	7.38	124.33	119.90
2	A8	2459	A	C8-N9-C4	-7.38	102.85	105.80
36	BA	574	A	C5-C6-N1	-7.38	114.01	117.70
36	BA	847	G	P-O3'-C3'	-7.38	110.85	119.70
2	A8	1630	A	O4'-C1'-N9	7.38	114.10	108.20
2	A8	2479	U	P-O3'-C3'	-7.38	110.85	119.70
2	A8	2509	G	N1-C6-O6	7.38	124.33	119.90
2	A8	2540	C	O4'-C1'-N1	7.38	114.10	108.20
36	BA	61	G	N1-C6-O6	7.38	124.33	119.90
36	BA	1456	A	C4-C5-C6	7.38	120.69	117.00
2	A8	470	A	C5-C6-N6	-7.38	117.80	123.70
2	A8	783	A	O4'-C1'-N9	7.37	114.10	108.20
2	A8	1211	C	N3-C4-N4	7.37	123.16	118.00
2	A8	1214	A	O4'-C1'-N9	7.37	114.10	108.20
2	A8	1667	G	C8-N9-C1'	7.37	136.59	127.00
2	A8	1863	G	N1-C6-O6	7.37	124.33	119.90
2	A8	2087	G	C8-N9-C4	-7.37	103.45	106.40
2	A8	2169	A	O4'-C1'-N9	7.37	114.10	108.20
2	A8	2759	G	C5'-C4'-C3'	-7.37	104.20	116.00
36	BA	149	A	N1-C6-N6	7.37	123.02	118.60
36	BA	460	A	C4-N9-C1'	-7.37	113.03	126.30
2	A8	992	C	O4'-C1'-N1	7.37	114.10	108.20
2	A8	1492	G	N1-C6-O6	7.37	124.32	119.90
2	A8	1554	U	O4'-C1'-N1	7.37	114.10	108.20
2	A8	1587	G	C5-C6-O6	-7.37	124.18	128.60
36	BA	57	G	C8-N9-C1'	7.37	136.58	127.00
41	BF	25	TYR	CB-CG-CD1	-7.37	116.58	121.00
2	A8	864	G	C5'-C4'-C3'	-7.37	104.21	116.00
2	A8	2370	G	N1-C6-O6	7.37	124.32	119.90
2	A8	31	C	O4'-C1'-N1	7.37	114.10	108.20
2	A8	675	A	C4-C5-C6	7.37	120.68	117.00
2	A8	2114	A	O4'-C1'-N9	7.37	114.09	108.20
2	A8	2389	G	C5-C6-O6	-7.37	124.18	128.60
36	BA	459	A	C5'-C4'-C3'	-7.37	104.21	116.00
36	BA	987	G	C8-N9-C4	-7.37	103.45	106.40
36	BA	1423	G	C5'-C4'-C3'	7.37	127.79	116.00
2	A8	707	G	O4'-C1'-N9	7.37	114.09	108.20
2	A8	2518	A	C5-C6-N6	-7.37	117.81	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	577	G	C8-N9-C1'	7.37	136.58	127.00
36	BA	631	C	O4'-C1'-N1	7.37	114.09	108.20
2	A8	660	C	O4'-C1'-N1	7.37	114.09	108.20
2	A8	1347	A	C5-C6-N6	-7.37	117.81	123.70
2	A8	2363	G	N1-C6-O6	7.37	124.32	119.90
36	BA	318	G	P-O3'-C3'	-7.37	110.86	119.70
2	A8	1930	G	C5-C6-O6	-7.36	124.18	128.60
2	A8	2341	G	C5-C6-O6	-7.36	124.18	128.60
36	BA	540	G	C4-N9-C1'	-7.36	116.93	126.50
2	A8	505	A	P-O3'-C3'	-7.36	110.87	119.70
2	A8	1704	C	O4'-C1'-N1	7.36	114.09	108.20
36	BA	1398	A	P-O5'-C5'	7.36	132.68	120.90
2	A8	1673	G	O4'-C1'-N9	7.36	114.09	108.20
2	A8	1800	C	C2-N3-C4	7.36	123.58	119.90
2	A8	1988	G	C8-N9-C1'	7.36	136.57	127.00
36	BA	882	C	C6-N1-C2	-7.36	117.36	120.30
36	BA	1505	G	C5-C6-O6	-7.36	124.18	128.60
2	A8	919	U	C5'-C4'-C3'	-7.36	104.23	116.00
2	A8	912	C	O4'-C1'-N1	7.36	114.08	108.20
2	A8	1767	G	N1-C6-O6	7.36	124.31	119.90
2	A8	1812	U	O4'-C1'-N1	7.36	114.09	108.20
2	A8	2077	A	C5-C6-N1	-7.36	114.02	117.70
2	A8	2094	A	C5-C6-N6	-7.36	117.81	123.70
2	A8	333	G	N3-C2-N2	7.36	125.05	119.90
2	A8	1295	C	O4'-C1'-N1	7.36	114.08	108.20
2	A8	1301	A	C5'-C4'-C3'	7.36	127.77	116.00
2	A8	1305	C	N3-C4-N4	7.36	123.15	118.00
2	A8	2481	G	C4-N9-C1'	-7.36	116.94	126.50
2	A8	2794	C	O4'-C1'-N1	7.36	114.08	108.20
2	A8	2878	U	O4'-C1'-N1	7.36	114.08	108.20
36	BA	156	C	N3-C4-N4	7.36	123.15	118.00
2	A8	283	G	C5-C6-O6	-7.35	124.19	128.60
2	A8	346	A	N1-C6-N6	7.35	123.01	118.60
36	BA	497	G	N1-C6-O6	7.35	124.31	119.90
36	BA	833	G	O4'-C1'-N9	7.35	114.08	108.20
2	A8	1611	C	C5'-C4'-C3'	-7.35	104.24	116.00
2	A8	2269	G	N1-C6-O6	7.35	124.31	119.90
36	BA	192	A	C8-N9-C4	-7.35	102.86	105.80
36	BA	932	C	C5'-C4'-C3'	-7.35	104.24	116.00
2	A8	645	C	O4'-C1'-N1	7.35	114.08	108.20
2	A8	1093	G	C5'-C4'-C3'	-7.35	104.24	116.00
2	A8	2222	C	O4'-C1'-N1	7.35	114.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1110	A	C4-C5-C6	7.35	120.67	117.00
36	BA	1165	U	O4'-C1'-N1	7.35	114.08	108.20
2	A8	60	G	C4-N9-C1'	-7.35	116.95	126.50
2	A8	269	C	N3-C4-C5	-7.35	118.96	121.90
2	A8	2453	A	P-O3'-C3'	-7.35	110.88	119.70
36	BA	974	A	C5-C6-N1	-7.35	114.03	117.70
36	BA	1052	U	O4'-C1'-N1	7.35	114.08	108.20
2	A8	27	G	O4'-C1'-N9	7.35	114.08	108.20
2	A8	370	G	N1-C6-O6	7.35	124.31	119.90
2	A8	1139	G	P-O5'-C5'	7.35	132.65	120.90
36	BA	1487	G	C8-N9-C1'	7.35	136.55	127.00
36	BA	1509	C	N3-C4-N4	7.35	123.14	118.00
2	A8	1385	A	C5-C6-N6	-7.34	117.83	123.70
2	A8	1831	G	C5-C6-O6	-7.34	124.19	128.60
2	A8	2648	G	O4'-C1'-N9	7.34	114.08	108.20
2	A8	2751	G	C5'-C4'-O4'	7.34	117.91	109.10
36	BA	472	U	O4'-C1'-N1	7.34	114.08	108.20
2	A8	2092	U	C5'-C4'-C3'	-7.34	104.25	116.00
2	A8	2299	U	O4'-C1'-N1	7.34	114.07	108.20
2	A8	168	G	C8-N9-C4	-7.34	103.46	106.40
2	A8	1073	A	C5-C6-N6	-7.34	117.83	123.70
2	A8	1154	G	C4-N9-C1'	-7.34	116.96	126.50
2	A8	1960	A	C1'-O4'-C4'	-7.34	104.03	109.90
36	BA	939	G	N1-C6-O6	7.34	124.31	119.90
2	A8	716	A	C5-C6-N6	-7.34	117.83	123.70
2	A8	2665	A	O4'-C1'-N9	7.34	114.07	108.20
36	BA	284	C	C6-N1-C1'	7.34	129.61	120.80
36	BA	959	A	C5-C6-N6	-7.34	117.83	123.70
36	BA	1449	C	N3-C4-C5	-7.34	118.96	121.90
2	A8	1969	A	C5-C6-N6	-7.34	117.83	123.70
2	A8	2154	A	C5-C6-N6	-7.34	117.83	123.70
36	BA	675	A	C5-C6-N6	-7.34	117.83	123.70
2	A8	565	C	N3-C4-N4	7.34	123.14	118.00
36	BA	161	A	O4'-C1'-N9	7.34	114.07	108.20
36	BA	394	G	C5-C6-O6	-7.34	124.20	128.60
1	A7	61	G	N1-C6-O6	7.33	124.30	119.90
2	A8	260	G	C5-C6-O6	-7.33	124.20	128.60
2	A8	303	G	N1-C6-O6	7.33	124.30	119.90
2	A8	1069	A	C5'-C4'-C3'	-7.33	104.27	116.00
2	A8	1551	A	C3'-C2'-C1'	-7.33	95.63	101.50
36	BA	219	U	O4'-C1'-N1	7.33	114.07	108.20
36	BA	267	C	N3-C4-C5	-7.33	118.97	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	824	G	O4'-C1'-N9	7.33	114.07	108.20
36	BA	1501	C	P-O5'-C5'	-7.33	109.17	120.90
2	A8	2235	G	O4'-C1'-N9	7.33	114.07	108.20
36	BA	173	U	O5'-C5'-C4'	-7.33	97.77	111.70
36	BA	1198	G	N1-C6-O6	7.33	124.30	119.90
2	A8	362	A	C4-C5-C6	7.33	120.67	117.00
2	A8	758	C	O3'-P-O5'	-7.33	90.07	104.00
2	A8	1293	C	C5-C6-N1	7.33	124.67	121.00
36	BA	478	A	O4'-C1'-N9	7.33	114.06	108.20
36	BA	1243	C	N3-C4-N4	7.33	123.13	118.00
2	A8	949	G	O4'-C1'-N9	7.33	114.06	108.20
2	A8	2335	A	C4-C5-C6	7.33	120.66	117.00
2	A8	1834	U	C4'-C3'-C2'	7.33	109.93	102.60
2	A8	2669	G	C8-N9-C1'	7.33	136.53	127.00
2	A8	2822	G	O4'-C1'-N9	7.33	114.06	108.20
36	BA	14	U	O4'-C1'-N1	7.33	114.06	108.20
2	A8	1326	U	P-O3'-C3'	-7.33	110.91	119.70
2	A8	1012	U	O4'-C1'-N1	7.32	114.06	108.20
2	A8	2568	U	O4'-C1'-N1	7.32	114.06	108.20
2	A8	2735	G	C5'-C4'-C3'	-7.32	104.28	116.00
36	BA	158	G	O4'-C1'-N9	7.32	114.06	108.20
36	BA	901	A	C5-C6-N6	-7.32	117.84	123.70
2	A8	2711	A	C5-C6-N6	-7.32	117.84	123.70
2	A8	402	A	C5-C6-N1	-7.32	114.04	117.70
2	A8	895	U	C2-N1-C1'	-7.32	108.92	117.70
2	A8	1192	G	C5-C6-O6	-7.32	124.21	128.60
2	A8	1862	G	N1-C6-O6	7.32	124.29	119.90
2	A8	2483	C	N3-C4-C5	-7.32	118.97	121.90
36	BA	1306	A	C5-C6-N1	-7.32	114.04	117.70
2	A8	2482	A	C5'-C4'-C3'	-7.32	104.29	116.00
36	BA	435	A	C5'-C4'-C3'	-7.32	104.29	116.00
2	A8	196	A	C5'-C4'-C3'	-7.32	104.29	116.00
2	A8	308	G	C5-C6-O6	-7.32	124.21	128.60
2	A8	654	A	C5-C6-N6	-7.32	117.85	123.70
36	BA	487	A	C8-N9-C4	-7.32	102.87	105.80
36	BA	1084	G	C4-N9-C1'	-7.32	116.99	126.50
2	A8	2143	C	O4'-C1'-N1	7.32	114.05	108.20
2	A8	2163	A	C4-C5-C6	7.32	120.66	117.00
2	A8	2592	G	C8-N9-C4	-7.32	103.47	106.40
2	A8	2751	G	N1-C6-O6	7.32	124.29	119.90
36	BA	666	G	N1-C6-O6	7.32	124.29	119.90
2	A8	1554	U	P-O3'-C3'	-7.31	110.92	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	568	G	N3-C2-N2	7.31	125.02	119.90
36	BA	1046	A	C5-C6-N6	-7.31	117.85	123.70
1	A7	99	A	C5-C6-N6	-7.31	117.85	123.70
2	A8	115	C	C1'-O4'-C4'	-7.31	104.05	109.90
2	A8	1446	C	C5'-C4'-C3'	-7.31	104.30	116.00
2	A8	1461	C	C5'-C4'-C3'	7.31	127.70	116.00
2	A8	2108	A	C8-N9-C4	-7.31	102.88	105.80
36	BA	334	C	N3-C4-N4	7.31	123.12	118.00
2	A8	310	A	C5-C6-N1	-7.31	114.05	117.70
2	A8	1775	U	O4'-C1'-N1	7.31	114.05	108.20
36	BA	754	C	N3-C4-C5	-7.31	118.98	121.90
2	A8	1794	A	C5'-C4'-C3'	-7.31	104.31	116.00
2	A8	2067	G	P-O3'-C3'	7.31	128.47	119.70
2	A8	2073	C	O4'-C1'-N1	7.31	114.05	108.20
2	A8	2115	G	C5-C6-O6	-7.31	124.22	128.60
2	A8	2482	A	C4-C5-C6	7.31	120.65	117.00
36	BA	1384	C	C3'-C2'-C1'	-7.31	95.65	101.50
36	BA	1442	G	C5-C6-O6	-7.31	124.22	128.60
2	A8	175	G	C5-C6-O6	-7.30	124.22	128.60
2	A8	597	G	N1-C6-O6	7.30	124.28	119.90
2	A8	1744	A	P-O5'-C5'	-7.30	109.21	120.90
2	A8	1842	G	C8-N9-C1'	7.30	136.50	127.00
2	A8	1898	U	C6-N1-C1'	7.30	131.43	121.20
2	A8	2292	U	O4'-C1'-N1	7.30	114.04	108.20
36	BA	610	U	O4'-C1'-N1	7.30	114.04	108.20
2	A8	1102	C	C4'-C3'-C2'	-7.30	95.30	102.60
2	A8	1550	C	N3-C4-N4	7.30	123.11	118.00
2	A8	1740	G	C5-C6-O6	-7.30	124.22	128.60
2	A8	1892	C	O4'-C1'-N1	7.30	114.04	108.20
2	A8	2086	U	O4'-C1'-N1	7.30	114.04	108.20
2	A8	2333	A	C4-C5-C6	7.30	120.65	117.00
2	A8	2403	C	C6-N1-C2	-7.30	117.38	120.30
36	BA	23	C	O4'-C1'-N1	7.30	114.04	108.20
36	BA	550	G	N1-C6-O6	7.30	124.28	119.90
36	BA	1385	G	O4'-C1'-N9	7.30	114.04	108.20
2	A8	2095	A	C5'-C4'-C3'	-7.30	104.32	116.00
2	A8	2383	G	C5-C6-O6	-7.30	124.22	128.60
36	BA	384	G	N1-C6-O6	7.30	124.28	119.90
36	BA	1252	A	C5-C6-N6	-7.30	117.86	123.70
2	A8	36	G	C5-C6-O6	-7.30	124.22	128.60
2	A8	859	G	C5'-C4'-C3'	-7.30	104.32	116.00
2	A8	1361	G	C5-C6-O6	-7.30	124.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1431	A	C4-C5-C6	7.30	120.65	117.00
2	A8	1214	A	C5-C6-N6	-7.30	117.86	123.70
2	A8	1373	A	P-O5'-C5'	7.30	132.57	120.90
2	A8	1454	C	N3-C4-N4	7.30	123.11	118.00
2	A8	2157	G	C5-C6-O6	-7.30	124.22	128.60
36	BA	164	G	N1-C6-O6	7.30	124.28	119.90
36	BA	755	G	C5-C6-O6	-7.30	124.22	128.60
36	BA	1485	U	O4'-C1'-N1	7.30	114.04	108.20
1	A7	68	C	O4'-C1'-N1	7.29	114.03	108.20
2	A8	52	A	C5-C6-N1	-7.29	114.05	117.70
2	A8	582	A	O4'-C1'-N9	7.29	114.03	108.20
2	A8	1902	C	O4'-C1'-N1	7.29	114.03	108.20
2	A8	2003	A	C5-C6-N6	-7.29	117.86	123.70
2	A8	2286	G	C5-C6-O6	-7.29	124.22	128.60
36	BA	414	A	P-O3'-C3'	7.29	128.45	119.70
2	A8	89	A	P-O5'-C5'	-7.29	109.23	120.90
2	A8	1378	A	C5-C6-N6	-7.29	117.87	123.70
2	A8	2108	A	C4-C5-C6	7.29	120.64	117.00
2	A8	2820	A	O4'-C1'-N9	7.29	114.03	108.20
36	BA	1502	A	C5'-C4'-C3'	-7.29	104.33	116.00
2	A8	1531	C	O4'-C1'-N1	7.29	114.03	108.20
36	BA	1421	G	N1-C6-O6	7.29	124.27	119.90
36	BA	1473	G	N1-C6-O6	7.29	124.27	119.90
2	A8	393	C	O4'-C1'-N1	7.29	114.03	108.20
2	A8	579	G	N3-C2-N2	7.29	125.00	119.90
2	A8	859	G	C5-C6-O6	-7.29	124.23	128.60
2	A8	2436	G	C5'-C4'-C3'	-7.29	104.34	116.00
2	A8	2481	G	C8-N9-C1'	7.29	136.48	127.00
36	BA	452	A	C5'-C4'-C3'	-7.29	104.34	116.00
36	BA	792	A	C4-C5-C6	7.29	120.64	117.00
2	A8	974	G	C5'-C4'-C3'	-7.29	104.34	116.00
2	A8	1692	U	O4'-C1'-N1	7.29	114.03	108.20
2	A8	2063	C	O4'-C1'-N1	7.29	114.03	108.20
2	A8	973	A	O4'-C1'-C2'	-7.29	98.52	105.80
2	A8	2646	C	C6-N1-C2	-7.29	117.39	120.30
36	BA	33	A	C5-C6-N6	-7.29	117.87	123.70
36	BA	765	G	C5-C6-O6	-7.29	124.23	128.60
36	BA	1364	U	C5'-C4'-C3'	-7.29	104.34	116.00
2	A8	160	A	C4-C5-C6	7.28	120.64	117.00
2	A8	1872	A	C5-C6-N6	-7.28	117.87	123.70
2	A8	1974	C	O4'-C1'-N1	7.28	114.03	108.20
2	A8	2565	A	C5-C6-N6	-7.28	117.87	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	310	G	O4'-C1'-N9	7.28	114.03	108.20
36	BA	674	G	C5-C6-O6	-7.28	124.23	128.60
2	A8	133	U	C5'-C4'-C3'	-7.28	104.35	116.00
36	BA	495	A	C5-C6-N1	-7.28	114.06	117.70
36	BA	733	G	C5-C6-O6	-7.28	124.23	128.60
2	A8	453	A	C5-C6-N6	-7.28	117.88	123.70
2	A8	1178	C	O4'-C1'-N1	7.28	114.02	108.20
2	A8	1038	G	N1-C6-O6	7.28	124.27	119.90
2	A8	1673	G	C5-C6-O6	-7.28	124.23	128.60
2	A8	1918	A	C4-C5-C6	7.28	120.64	117.00
36	BA	664	G	N1-C6-O6	7.28	124.27	119.90
36	BA	978	A	N1-C6-N6	7.28	122.97	118.60
2	A8	1925	C	C6-N1-C1'	7.28	129.53	120.80
2	A8	2090	A	C5-C6-N6	-7.28	117.88	123.70
36	BA	463	U	C5'-C4'-C3'	-7.28	104.36	116.00
36	BA	1319	A	C5-C6-N6	-7.28	117.88	123.70
2	A8	2453	A	O4'-C1'-N9	7.27	114.02	108.20
2	A8	2714	G	N7-C8-N9	7.27	116.74	113.10
36	BA	713	G	O4'-C1'-N9	7.27	114.02	108.20
1	A7	112	G	N1-C6-O6	7.27	124.26	119.90
2	A8	1039	A	O4'-C1'-N9	7.27	114.02	108.20
2	A8	1642	G	P-O5'-C5'	7.27	132.53	120.90
2	A8	2800	A	C4-C5-C6	7.27	120.64	117.00
2	A8	2867	G	C5-C6-O6	-7.27	124.24	128.60
36	BA	331	G	C8-N9-C4	-7.27	103.49	106.40
2	A8	239	C	O4'-C1'-N1	7.27	114.02	108.20
36	BA	1067	A	C4-C5-C6	7.27	120.64	117.00
2	A8	1024	G	C5-C6-O6	-7.27	124.24	128.60
2	A8	1997	C	N3-C4-C5	-7.27	118.99	121.90
2	A8	2481	G	P-O3'-C3'	7.27	128.42	119.70
36	BA	525	C	N3-C4-N4	7.27	123.09	118.00
36	BA	1284	C	O4'-C1'-N1	7.27	114.02	108.20
2	A8	1268	A	O4'-C1'-N9	7.27	114.01	108.20
2	A8	1826	G	C5-C6-O6	-7.26	124.24	128.60
2	A8	413	C	N3-C4-N4	7.26	123.08	118.00
1	A7	111	U	O4'-C1'-N1	7.26	114.01	108.20
2	A8	353	C	C5'-C4'-C3'	-7.26	104.38	116.00
2	A8	762	U	C5'-C4'-C3'	7.26	127.62	116.00
2	A8	1233	C	N3-C4-N4	7.26	123.08	118.00
2	A8	1547	C	O4'-C1'-N1	7.26	114.01	108.20
2	A8	1626	A	C4-C5-C6	7.26	120.63	117.00
36	BA	135	C	N3-C4-C5	-7.26	119.00	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	182	A	O4'-C1'-N9	7.26	114.01	108.20
2	A8	1996	C	N3-C4-N4	7.26	123.08	118.00
2	A8	997	G	N1-C6-O6	7.26	124.25	119.90
36	BA	776	G	N3-C2-N2	7.26	124.98	119.90
2	A8	357	C	N3-C4-C5	-7.26	119.00	121.90
2	A8	616	A	C4-C5-C6	7.26	120.63	117.00
2	A8	907	G	O4'-C1'-N9	7.26	114.01	108.20
2	A8	1884	G	C5-C6-O6	-7.26	124.25	128.60
36	BA	21	G	N1-C6-O6	7.26	124.25	119.90
36	BA	956	U	O4'-C1'-N1	7.26	114.01	108.20
36	BA	993	G	C5-C6-O6	-7.26	124.25	128.60
2	A8	8	C	O4'-C1'-N1	7.25	114.00	108.20
2	A8	14	A	C5'-C4'-C3'	-7.25	104.39	116.00
2	A8	26	G	N1-C6-O6	7.25	124.25	119.90
2	A8	328	U	O4'-C1'-N1	7.25	114.00	108.20
36	BA	663	A	C8-N9-C4	-7.25	102.90	105.80
36	BA	1456	A	C8-N9-C4	-7.25	102.90	105.80
2	A8	316	C	C6-N1-C2	-7.25	117.40	120.30
2	A8	1080	A	O4'-C1'-N9	7.25	114.00	108.20
2	A8	1241	A	P-O3'-C3'	7.25	128.40	119.70
2	A8	1328	A	C5'-C4'-C3'	-7.25	104.40	116.00
2	A8	2039	U	P-O3'-C3'	-7.25	111.00	119.70
2	A8	2088	A	C5-C6-N6	-7.25	117.90	123.70
2	A8	2468	A	C4-N9-C1'	-7.25	113.25	126.30
36	BA	663	A	C4-C5-C6	7.25	120.62	117.00
36	BA	696	A	C5'-C4'-C3'	-7.25	104.40	116.00
36	BA	1334	G	P-O3'-C3'	-7.25	111.00	119.70
2	A8	1947	C	C1'-O4'-C4'	-7.25	104.10	109.90
2	A8	2287	A	C5-C6-N6	-7.25	117.90	123.70
36	BA	811	C	P-O3'-C3'	7.25	128.40	119.70
36	BA	1461	G	C8-N9-C1'	7.25	136.43	127.00
2	A8	315	G	P-O5'-C5'	-7.25	109.30	120.90
2	A8	374	A	C5'-C4'-C3'	-7.25	104.40	116.00
2	A8	745	G	P-O3'-C3'	7.25	128.40	119.70
2	A8	1673	G	N9-C1'-C2'	-7.25	104.03	112.00
2	A8	2217	G	O4'-C1'-N9	7.25	114.00	108.20
2	A8	2612	C	C4'-C3'-C2'	7.25	109.85	102.60
36	BA	1116	U	O4'-C1'-N1	7.25	114.00	108.20
2	A8	604	G	C8-N9-C1'	7.25	136.42	127.00
2	A8	899	A	P-O3'-C3'	-7.25	111.00	119.70
36	BA	279	A	N1-C6-N6	7.25	122.95	118.60
36	BA	1496	C	O4'-C1'-N1	7.25	114.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1002	G	N1-C6-O6	7.25	124.25	119.90
36	BA	594	U	C5'-C4'-C3'	-7.25	104.41	116.00
2	A8	71	A	C4-C5-C6	7.24	120.62	117.00
2	A8	492	A	C4-C5-C6	7.24	120.62	117.00
2	A8	569	U	P-O3'-C3'	-7.24	111.01	119.70
2	A8	857	G	N1-C6-O6	7.24	124.25	119.90
2	A8	1154	G	C8-N9-C1'	7.24	136.42	127.00
2	A8	1368	G	C5'-C4'-C3'	-7.24	104.41	116.00
2	A8	1700	A	C4-C5-C6	7.24	120.62	117.00
2	A8	2295	C	O4'-C1'-N1	7.24	113.99	108.20
2	A8	206	U	O4'-C1'-N1	7.24	113.99	108.20
2	A8	2432	A	C5-C6-N6	-7.24	117.91	123.70
36	BA	1078	U	O4'-C1'-N1	7.24	113.99	108.20
36	BA	1259	C	N3-C4-N4	7.24	123.07	118.00
2	A8	633	A	C6-C5-N7	-7.24	127.23	132.30
2	A8	1977	A	C8-N9-C4	-7.24	102.90	105.80
2	A8	2359	C	O4'-C1'-N1	7.24	113.99	108.20
36	BA	809	G	C8-N9-C1'	7.24	136.41	127.00
2	A8	687	C	N3-C4-C5	-7.24	119.00	121.90
2	A8	2518	A	C4-C5-C6	7.24	120.62	117.00
2	A8	2632	A	P-O3'-C3'	-7.24	111.01	119.70
36	BA	1173	U	O4'-C1'-N1	7.24	113.99	108.20
2	A8	392	U	O4'-C1'-N1	7.24	113.99	108.20
2	A8	520	G	N1-C6-O6	7.24	124.24	119.90
2	A8	553	G	N1-C6-O6	7.24	124.24	119.90
2	A8	1423	G	N1-C6-O6	7.24	124.24	119.90
2	A8	1682	G	C5-C6-O6	-7.24	124.26	128.60
2	A8	1909	C	C1'-O4'-C4'	-7.24	104.11	109.90
36	BA	230	G	N1-C6-O6	7.24	124.24	119.90
2	A8	855	G	C5-C6-O6	-7.24	124.26	128.60
2	A8	942	G	C5-C6-O6	-7.24	124.26	128.60
2	A8	997	G	O4'-C1'-N9	7.24	113.99	108.20
36	BA	890	G	N1-C6-O6	7.24	124.24	119.90
36	BA	1089	G	C5-C6-O6	-7.24	124.26	128.60
2	A8	849	A	C5-C6-N6	-7.23	117.91	123.70
2	A8	581	C	O4'-C1'-N1	7.23	113.99	108.20
2	A8	1835	G	C5-C6-O6	-7.23	124.26	128.60
2	A8	2631	G	N1-C6-O6	7.23	124.24	119.90
36	BA	591	U	O4'-C1'-N1	7.23	113.98	108.20
36	BA	596	A	C4-C5-C6	7.23	120.62	117.00
36	BA	939	G	C5-C6-O6	-7.23	124.26	128.60
36	BA	625	U	O4'-C1'-N1	7.23	113.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1298	U	O4'-C1'-N1	7.23	113.98	108.20
2	A8	2409	G	C8-N9-C1'	7.23	136.40	127.00
2	A8	810	U	O4'-C1'-N1	7.23	113.98	108.20
2	A8	1438	U	O4'-C1'-N1	7.23	113.98	108.20
2	A8	1935	G	C5'-C4'-C3'	-7.23	104.44	116.00
2	A8	2357	G	C5-C6-O6	-7.23	124.26	128.60
2	A8	2893	A	C1'-O4'-C4'	-7.23	104.12	109.90
36	BA	379	C	O4'-C1'-N1	7.23	113.98	108.20
36	BA	861	G	N7-C8-N9	7.23	116.71	113.10
36	BA	1202	U	O4'-C1'-N1	7.23	113.98	108.20
2	A8	1107	G	N1-C6-O6	7.23	124.24	119.90
2	A8	1469	A	P-O5'-C5'	7.23	132.46	120.90
2	A8	2211	A	C5-C6-N6	-7.23	117.92	123.70
2	A8	2429	G	N1-C6-O6	7.23	124.23	119.90
2	A8	2708	G	N1-C6-O6	7.23	124.24	119.90
36	BA	107	G	C5-C6-O6	-7.23	124.26	128.60
36	BA	361	G	C5-C6-O6	-7.23	124.27	128.60
1	A7	27	C	N3-C4-C5	-7.22	119.01	121.90
2	A8	923	G	C5-C6-O6	-7.22	124.27	128.60
2	A8	2899	A	C5'-C4'-C3'	-7.22	104.44	116.00
36	BA	1483	A	C4-C5-C6	7.22	120.61	117.00
2	A8	404	A	P-O3'-C3'	-7.22	111.03	119.70
2	A8	1232	G	N1-C6-O6	7.22	124.23	119.90
36	BA	111	G	O4'-C1'-N9	7.22	113.98	108.20
2	A8	555	G	C5-C6-O6	-7.22	124.27	128.60
2	A8	2752	C	C5'-C4'-C3'	-7.22	104.45	116.00
16	AL	66	PHE	CB-CG-CD1	7.22	125.86	120.80
2	A8	659	G	N3-C2-N2	7.22	124.95	119.90
2	A8	2087	G	C5-C6-O6	-7.22	124.27	128.60
2	A8	2469	A	C6-C5-N7	-7.22	127.25	132.30
2	A8	2889	C	C5'-C4'-C3'	-7.22	104.45	116.00
36	BA	474	G	C5-C6-O6	-7.22	124.27	128.60
2	A8	1	G	N1-C6-O6	7.22	124.23	119.90
2	A8	212	G	O4'-C1'-N9	7.22	113.97	108.20
2	A8	1104	C	O4'-C1'-N1	7.22	113.97	108.20
2	A8	1823	G	C5-C6-O6	-7.22	124.27	128.60
2	A8	2852	G	N1-C6-O6	7.22	124.23	119.90
36	BA	55	A	C4-C5-C6	7.22	120.61	117.00
36	BA	95	C	C5'-C4'-C3'	-7.22	104.45	116.00
36	BA	1330	U	P-O3'-C3'	7.22	128.36	119.70
1	A7	73	A	C5-C6-N6	-7.21	117.93	123.70
2	A8	2729	G	N1-C6-O6	7.21	124.23	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	682	G	C5-C6-O6	-7.21	124.27	128.60
36	BA	1401	G	N1-C6-O6	7.21	124.23	119.90
2	A8	490	C	N3-C4-C5	-7.21	119.02	121.90
36	BA	999	C	N3-C4-N4	7.21	123.05	118.00
2	A8	697	G	P-O3'-C3'	7.21	128.35	119.70
2	A8	707	G	N1-C6-O6	7.21	124.23	119.90
2	A8	1481	U	C2-N1-C1'	-7.21	109.05	117.70
2	A8	1966	A	O4'-C1'-N9	7.21	113.97	108.20
2	A8	2541	A	C5-C6-N6	-7.21	117.93	123.70
2	A8	2556	C	N3-C4-C5	-7.21	119.02	121.90
2	A8	2719	G	O4'-C1'-N9	7.21	113.97	108.20
36	BA	597	G	C8-N9-C1'	7.21	136.37	127.00
36	BA	933	G	C8-N9-C1'	7.21	136.37	127.00
2	A8	1175	A	C5'-C4'-C3'	7.21	127.53	116.00
36	BA	493	A	C5-C6-N6	-7.21	117.93	123.70
2	A8	643	A	O4'-C1'-N9	7.21	113.97	108.20
2	A8	1079	C	N3-C4-C5	-7.21	119.02	121.90
36	BA	5	U	C1'-O4'-C4'	-7.21	104.13	109.90
36	BA	934	C	C6-N1-C2	-7.21	117.42	120.30
2	A8	1703	G	N1-C6-O6	7.21	124.22	119.90
36	BA	505	G	C5-C6-O6	-7.21	124.28	128.60
2	A8	2766	A	C4-C5-C6	7.21	120.60	117.00
36	BA	609	A	C5-C6-N1	-7.21	114.10	117.70
36	BA	1351	U	O4'-C1'-N1	7.21	113.96	108.20
2	A8	511	U	O4'-C1'-N1	7.20	113.96	108.20
2	A8	1626	A	C5-C6-N1	-7.20	114.10	117.70
2	A8	1766	G	N1-C6-O6	7.20	124.22	119.90
2	A8	1802	A	O4'-C1'-N9	7.20	113.96	108.20
2	A8	2393	U	P-O3'-C3'	7.20	128.34	119.70
2	A8	1869	G	N3-C2-N2	7.20	124.94	119.90
2	A8	2078	C	C5-C4-N4	-7.20	115.16	120.20
2	A8	2486	C	P-O3'-C3'	-7.20	111.06	119.70
24	AT	70	HIS	N-CA-CB	7.20	123.56	110.60
36	BA	702	A	C4-C5-C6	7.20	120.60	117.00
2	A8	1446	C	N3-C4-N4	7.20	123.04	118.00
2	A8	1794	A	C3'-C2'-C1'	-7.20	95.74	101.50
2	A8	2595	G	C5-C6-O6	-7.20	124.28	128.60
2	A8	2694	G	N1-C6-O6	7.20	124.22	119.90
2	A8	191	A	C5-C6-N1	-7.20	114.10	117.70
2	A8	2266	A	C5-C6-N1	-7.20	114.10	117.70
2	A8	2526	G	N1-C6-O6	7.20	124.22	119.90
36	BA	436	C	O4'-C1'-N1	7.20	113.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1330	U	O4'-C1'-N1	7.20	113.96	108.20
1	A7	109	A	C5'-C4'-C3'	-7.20	104.49	116.00
2	A8	407	G	N1-C6-O6	7.20	124.22	119.90
2	A8	1231	U	C2-N1-C1'	-7.20	109.07	117.70
2	A8	2630	G	C5-C6-O6	-7.20	124.28	128.60
2	A8	2888	C	N3-C4-C5	-7.20	119.02	121.90
36	BA	224	U	O4'-C1'-N1	7.20	113.96	108.20
36	BA	1487	G	O4'-C1'-N9	7.20	113.96	108.20
2	A8	546	U	C2-N1-C1'	7.19	126.33	117.70
2	A8	1322	A	C5-C6-N6	-7.19	117.95	123.70
2	A8	1714	U	O4'-C1'-N1	7.19	113.95	108.20
2	A8	2145	C	O4'-C1'-N1	7.19	113.95	108.20
2	A8	2800	A	C8-N9-C4	-7.19	102.92	105.80
36	BA	630	A	C5-C6-N6	-7.19	117.95	123.70
36	BA	721	G	N1-C6-O6	7.19	124.22	119.90
2	A8	38	A	C5-C6-N6	-7.19	117.95	123.70
2	A8	52	A	C5-C6-N6	-7.19	117.95	123.70
2	A8	345	A	C5-C6-N6	-7.19	117.95	123.70
2	A8	1093	G	C5-C6-O6	-7.19	124.29	128.60
2	A8	1874	C	P-O5'-C5'	7.19	132.40	120.90
2	A8	2048	G	C8-N9-C1'	7.19	136.35	127.00
36	BA	296	U	O4'-C1'-N1	7.19	113.95	108.20
36	BA	1354	U	O4'-C1'-N1	7.19	113.95	108.20
1	A7	102	G	N1-C6-O6	7.19	124.21	119.90
2	A8	1037	G	O4'-C1'-N9	7.19	113.95	108.20
36	BA	563	A	C5-C6-N6	-7.19	117.95	123.70
36	BA	992	U	O4'-C1'-N1	7.19	113.95	108.20
36	BA	1300	G	C5-C6-O6	-7.19	124.29	128.60
1	A7	88	C	P-O3'-C3'	-7.19	111.08	119.70
2	A8	1913	A	O4'-C1'-N9	7.19	113.95	108.20
2	A8	2862	G	C5-C6-O6	-7.19	124.29	128.60
36	BA	1062	U	O4'-C1'-N1	7.19	113.95	108.20
36	BA	1302	C	C5-C4-N4	-7.19	115.17	120.20
2	A8	896	A	C4-C5-C6	7.19	120.59	117.00
2	A8	42	A	C5'-C4'-C3'	-7.18	104.51	116.00
36	BA	1178	G	C5-C6-O6	-7.18	124.29	128.60
1	A7	16	G	P-O5'-C5'	7.18	132.39	120.90
2	A8	442	G	N1-C6-O6	7.18	124.21	119.90
2	A8	710	U	O4'-C1'-N1	7.18	113.95	108.20
2	A8	855	G	N1-C6-O6	7.18	124.21	119.90
2	A8	968	C	C5'-C4'-O4'	7.18	117.72	109.10
2	A8	2380	C	O4'-C1'-N1	7.18	113.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2432	A	P-O5'-C5'	-7.18	109.41	120.90
36	BA	162	A	C5-C6-N1	-7.18	114.11	117.70
36	BA	1182	G	O4'-C1'-N9	7.18	113.95	108.20
2	A8	2017	U	O4'-C1'-N1	7.18	113.94	108.20
36	BA	33	A	P-O3'-C3'	-7.18	111.08	119.70
2	A8	155	A	C5-C6-N6	-7.18	117.96	123.70
2	A8	910	A	P-O3'-C3'	7.18	128.32	119.70
36	BA	8	A	C5-C6-N6	-7.18	117.96	123.70
36	BA	1007	U	O4'-C1'-N1	7.18	113.94	108.20
2	A8	1078	U	O4'-C1'-N1	7.18	113.94	108.20
2	A8	1576	U	O4'-C1'-N1	7.18	113.94	108.20
2	A8	2280	G	C5-C6-O6	-7.18	124.29	128.60
2	A8	822	G	O4'-C1'-N9	7.18	113.94	108.20
2	A8	1193	G	N3-C2-N2	7.18	124.92	119.90
2	A8	1193	G	P-O5'-C5'	-7.18	109.42	120.90
2	A8	2361	G	N1-C6-O6	7.18	124.21	119.90
36	BA	239	U	O4'-C1'-N1	7.18	113.94	108.20
36	BA	415	A	C4-C5-C6	7.18	120.59	117.00
2	A8	340	A	C4-C5-C6	7.17	120.59	117.00
2	A8	552	U	O4'-C1'-N1	7.17	113.94	108.20
2	A8	695	G	N1-C6-O6	7.17	124.20	119.90
2	A8	1421	G	C5-C6-O6	-7.17	124.30	128.60
2	A8	2472	G	O4'-C1'-N9	7.17	113.94	108.20
2	A8	2855	C	O4'-C1'-N1	7.17	113.94	108.20
36	BA	50	A	P-O5'-C5'	-7.17	109.42	120.90
36	BA	128	G	O4'-C1'-N9	7.17	113.94	108.20
36	BA	137	U	O4'-C1'-N1	7.17	113.94	108.20
36	BA	309	A	O4'-C1'-N9	7.17	113.94	108.20
36	BA	573	A	C5-C6-N6	-7.17	117.96	123.70
36	BA	1207	G	O4'-C1'-N9	7.17	113.94	108.20
2	A8	2598	A	C5'-C4'-C3'	-7.17	104.52	116.00
2	A8	2844	G	O4'-C1'-N9	7.17	113.94	108.20
2	A8	171	U	O4'-C1'-N1	7.17	113.94	108.20
2	A8	2076	U	C2-N1-C1'	7.17	126.31	117.70
2	A8	1061	U	C4'-C3'-C2'	-7.17	95.43	102.60
2	A8	2014	A	C5-C6-N1	-7.17	114.11	117.70
2	A8	2728	U	C2-N1-C1'	-7.17	109.10	117.70
36	BA	172	A	C6-C5-N7	-7.17	127.28	132.30
36	BA	389	A	O4'-C1'-N9	7.17	113.94	108.20
2	A8	298	G	N3-C2-N2	7.17	124.92	119.90
2	A8	1144	A	C5'-C4'-C3'	-7.17	104.53	116.00
2	A8	1772	A	O4'-C1'-N9	7.17	113.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1282	C	O4'-C1'-N1	7.17	113.93	108.20
2	A8	1724	G	C8-N9-C4	-7.17	103.53	106.40
2	A8	2189	U	C2-N1-C1'	-7.17	109.10	117.70
36	BA	974	A	P-O5'-C5'	7.17	132.37	120.90
36	BA	1201	A	C4-C5-C6	7.17	120.58	117.00
36	BA	1487	G	C5-C6-O6	-7.17	124.30	128.60
2	A8	1954	G	C5-C6-O6	-7.17	124.30	128.60
36	BA	275	G	O4'-C1'-N9	7.17	113.93	108.20
36	BA	353	A	N1-C6-N6	7.17	122.90	118.60
2	A8	444	C	P-O3'-C3'	-7.16	111.10	119.70
2	A8	915	C	O4'-C1'-N1	7.16	113.93	108.20
2	A8	1776	G	N1-C6-O6	7.16	124.20	119.90
36	BA	1386	G	C5-C6-O6	-7.16	124.30	128.60
2	A8	1902	C	C5'-C4'-C3'	-7.16	104.54	116.00
2	A8	1113	U	O4'-C1'-N1	7.16	113.93	108.20
2	A8	2370	G	C4-N9-C1'	-7.16	117.19	126.50
36	BA	12	U	O4'-C1'-N1	7.16	113.93	108.20
36	BA	893	C	C5-C6-N1	7.16	124.58	121.00
36	BA	1339	A	C8-N9-C4	-7.16	102.94	105.80
2	A8	334	C	O4'-C1'-N1	7.16	113.93	108.20
2	A8	446	G	C5-C6-O6	-7.16	124.31	128.60
2	A8	1887	C	O4'-C1'-N1	7.16	113.93	108.20
2	A8	416	U	O4'-C1'-N1	7.16	113.92	108.20
2	A8	663	G	C8-N9-C4	-7.16	103.54	106.40
2	A8	1579	A	C5'-C4'-O4'	7.16	117.69	109.10
2	A8	1606	C	N3-C4-C5	-7.16	119.04	121.90
2	A8	1695	G	C8-N9-C4	-7.16	103.54	106.40
2	A8	1915	U	O4'-C1'-N1	7.16	113.92	108.20
2	A8	2256	G	C5-C6-O6	-7.16	124.31	128.60
2	A8	2152	G	O4'-C1'-N9	7.15	113.92	108.20
2	A8	2415	G	C5'-C4'-C3'	-7.15	104.55	116.00
36	BA	810	C	C6-N1-C2	-7.15	117.44	120.30
2	A8	169	G	C8-N9-C1'	7.15	136.30	127.00
2	A8	1430	G	O4'-C1'-N9	7.15	113.92	108.20
2	A8	1603	A	C4-C5-C6	7.15	120.58	117.00
2	A8	2659	G	C5-C6-O6	-7.15	124.31	128.60
36	BA	1219	A	C5-C6-N6	-7.15	117.98	123.70
2	A8	725	G	P-O3'-C3'	7.15	128.28	119.70
2	A8	2109	U	C5'-C4'-C3'	-7.15	104.56	116.00
2	A8	2791	G	C8-N9-C1'	7.15	136.29	127.00
36	BA	672	U	O4'-C1'-N1	7.15	113.92	108.20
36	BA	1167	A	O4'-C1'-N9	7.15	113.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1181	G	O4'-C1'-N9	7.15	113.92	108.20
2	A8	2813	A	C5-C6-N6	-7.15	117.98	123.70
2	A8	1057	A	C4-C5-C6	7.15	120.57	117.00
36	BA	1194	U	O4'-C1'-N1	7.15	113.92	108.20
36	BA	1214	C	C6-N1-C2	-7.15	117.44	120.30
2	A8	2302	U	O4'-C1'-N1	7.15	113.92	108.20
36	BA	1088	G	O4'-C1'-N9	7.15	113.92	108.20
2	A8	194	G	C5'-C4'-C3'	-7.14	104.57	116.00
2	A8	858	G	C4-N9-C1'	-7.14	117.21	126.50
2	A8	1147	A	C5'-C4'-C3'	-7.14	104.57	116.00
2	A8	1807	G	P-O3'-C3'	-7.14	111.13	119.70
2	A8	2020	A	C1'-O4'-C4'	-7.14	104.18	109.90
36	BA	158	G	C5-C6-O6	-7.14	124.31	128.60
36	BA	189	A	C5-C6-N6	-7.14	117.98	123.70
36	BA	538	G	C5-C6-O6	-7.14	124.31	128.60
36	BA	854	U	O4'-C1'-N1	7.14	113.92	108.20
36	BA	994	A	C4-C5-C6	7.14	120.57	117.00
2	A8	984	A	O4'-C1'-N9	7.14	113.91	108.20
2	A8	1269	A	C5-C6-N6	-7.14	117.99	123.70
2	A8	1422	G	C4-N9-C1'	-7.14	117.22	126.50
2	A8	204	A	P-O3'-C3'	7.14	128.27	119.70
2	A8	424	G	C5-C6-O6	-7.14	124.32	128.60
2	A8	2285	C	N3-C4-N4	7.14	123.00	118.00
36	BA	538	G	O4'-C1'-N9	7.14	113.91	108.20
36	BA	505	G	P-O5'-C5'	-7.14	109.48	120.90
2	A8	939	G	O4'-C1'-N9	7.14	113.91	108.20
2	A8	1670	C	O4'-C1'-N1	7.14	113.91	108.20
2	A8	2872	A	C4-C5-C6	7.14	120.57	117.00
2	A8	403	U	O4'-C1'-N1	7.13	113.91	108.20
2	A8	1370	C	N3-C4-C5	-7.13	119.05	121.90
2	A8	1757	A	C4-C5-C6	7.13	120.57	117.00
36	BA	785	G	N3-C2-N2	7.13	124.89	119.90
36	BA	994	A	C5-C6-N1	-7.13	114.13	117.70
36	BA	1479	C	N3-C4-N4	7.13	122.99	118.00
2	A8	1425	G	N1-C6-O6	7.13	124.18	119.90
2	A8	1660	G	P-O5'-C5'	-7.13	109.49	120.90
36	BA	643	C	N3-C4-N4	7.13	122.99	118.00
2	A8	2190	G	C3'-C2'-C1'	-7.13	95.80	101.50
2	A8	1613	G	C4-N9-C1'	-7.13	117.23	126.50
2	A8	1710	G	C5-C6-O6	-7.13	124.32	128.60
53	BR	50	TYR	CB-CG-CD1	7.13	125.28	121.00
2	A8	186	G	C5-C6-O6	-7.13	124.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1466	U	C2-N1-C1'	-7.13	109.15	117.70
2	A8	1878	G	N1-C6-O6	7.13	124.18	119.90
2	A8	2318	G	C5-C6-O6	-7.13	124.32	128.60
2	A8	2534	A	O4'-C1'-N9	7.13	113.90	108.20
36	BA	1447	A	C3'-C2'-C1'	-7.13	95.80	101.50
1	A7	41	G	N1-C6-O6	7.12	124.17	119.90
2	A8	298	G	C5-C6-O6	-7.12	124.33	128.60
2	A8	993	G	O4'-C1'-N9	7.12	113.90	108.20
2	A8	1198	U	O4'-C1'-N1	7.12	113.90	108.20
2	A8	1796	U	O4'-C1'-N1	7.12	113.90	108.20
2	A8	2519	U	O4'-C1'-N1	7.12	113.90	108.20
2	A8	2524	G	C6-C5-N7	-7.12	126.13	130.40
2	A8	2608	G	C4-N9-C1'	-7.12	117.24	126.50
36	BA	38	G	C5-C6-O6	-7.12	124.33	128.60
36	BA	783	C	O4'-C1'-N1	7.12	113.90	108.20
36	BA	872	A	O4'-C1'-C2'	-7.12	98.68	105.80
2	A8	1124	G	C5'-C4'-C3'	7.12	127.39	116.00
2	A8	1853	A	P-O5'-C5'	-7.12	109.51	120.90
2	A8	498	G	C5-C6-O6	-7.12	124.33	128.60
2	A8	1088	A	O4'-C1'-N9	7.12	113.90	108.20
2	A8	1522	A	P-O5'-C5'	-7.12	109.51	120.90
2	A8	1783	A	N1-C6-N6	7.12	122.87	118.60
2	A8	1901	A	C8-N9-C4	-7.12	102.95	105.80
36	BA	607	A	P-O3'-C3'	-7.12	111.16	119.70
36	BA	688	G	N1-C6-O6	7.12	124.17	119.90
2	A8	210	C	O4'-C1'-N1	7.12	113.89	108.20
2	A8	2895	G	N1-C6-O6	7.12	124.17	119.90
36	BA	323	U	O4'-C1'-N1	7.12	113.89	108.20
36	BA	1186	G	C5-C6-O6	-7.12	124.33	128.60
2	A8	507	A	C5'-C4'-C3'	-7.12	104.61	116.00
2	A8	532	A	N1-C6-N6	7.12	122.87	118.60
2	A8	667	U	O4'-C1'-N1	7.12	113.89	108.20
2	A8	1106	G	C5-C6-O6	-7.12	124.33	128.60
2	A8	1986	C	O4'-C1'-N1	7.12	113.89	108.20
36	BA	515	G	C5-C6-O6	-7.12	124.33	128.60
1	A7	24	G	C5'-C4'-O4'	7.11	117.64	109.10
2	A8	806	C	O4'-C1'-N1	7.11	113.89	108.20
2	A8	1258	U	O4'-C1'-N1	7.11	113.89	108.20
2	A8	2093	G	P-O3'-C3'	-7.11	111.16	119.70
2	A8	2097	A	O4'-C1'-N9	7.11	113.89	108.20
2	A8	2254	C	N3-C4-N4	7.11	122.98	118.00
2	A8	2440	C	C5'-C4'-C3'	-7.11	104.62	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1522	U	O4'-C1'-N1	7.11	113.89	108.20
2	A8	164	C	N3-C4-N4	7.11	122.98	118.00
2	A8	829	A	C5-C6-N6	-7.11	118.01	123.70
2	A8	1676	A	N1-C6-N6	7.11	122.87	118.60
2	A8	2564	A	C5'-C4'-C3'	-7.11	104.62	116.00
36	BA	1310	G	O4'-C1'-N9	7.11	113.89	108.20
2	A8	573	U	O4'-C1'-N1	7.11	113.89	108.20
2	A8	785	G	O4'-C1'-N9	7.11	113.89	108.20
2	A8	1170	C	O4'-C1'-N1	7.11	113.89	108.20
36	BA	9	G	O4'-C1'-N9	7.11	113.89	108.20
36	BA	803	G	O4'-C1'-N9	7.11	113.89	108.20
2	A8	911	A	C4-C5-C6	7.11	120.55	117.00
2	A8	1126	A	C6-C5-N7	-7.11	127.32	132.30
2	A8	1422	G	N1-C6-O6	7.11	124.16	119.90
2	A8	1757	A	O4'-C1'-N9	7.11	113.89	108.20
2	A8	1970	A	C4-C5-C6	7.11	120.55	117.00
2	A8	1980	G	N3-C4-C5	-7.11	125.05	128.60
2	A8	2660	A	C5-C6-N6	-7.11	118.02	123.70
36	BA	797	C	O4'-C1'-N1	7.11	113.89	108.20
36	BA	1465	A	C4-C5-C6	7.11	120.55	117.00
2	A8	10	A	C5-C6-N6	-7.11	118.02	123.70
2	A8	276	U	C5'-C4'-C3'	-7.11	104.63	116.00
2	A8	891	G	N1-C6-O6	7.11	124.16	119.90
2	A8	1129	A	C5-C6-N6	-7.11	118.02	123.70
36	BA	190	A	C4-C5-C6	7.11	120.55	117.00
36	BA	442	G	O4'-C1'-N9	7.10	113.88	108.20
36	BA	737	C	O4'-C1'-N1	7.10	113.88	108.20
36	BA	1506	U	O3'-P-O5'	7.10	117.50	104.00
2	A8	33	C	O4'-C1'-C2'	7.10	113.99	107.60
2	A8	666	A	C1'-O4'-C4'	-7.10	104.22	109.90
2	A8	706	A	C4-C5-C6	7.10	120.55	117.00
2	A8	783	A	C5-C6-N6	-7.10	118.02	123.70
2	A8	2255	G	N1-C6-O6	7.10	124.16	119.90
2	A8	2324	U	O4'-C1'-N1	7.10	113.88	108.20
2	A8	1888	G	N3-C2-N2	7.10	124.87	119.90
2	A8	2578	G	C5-C6-O6	-7.10	124.34	128.60
36	BA	980	C	O4'-C1'-N1	7.10	113.88	108.20
2	A8	794	A	C5-C6-N1	-7.10	114.15	117.70
2	A8	1444	G	C5'-C4'-C3'	-7.10	104.64	116.00
2	A8	1647	U	P-O3'-C3'	-7.10	111.18	119.70
2	A8	1752	C	O4'-C1'-N1	7.10	113.88	108.20
2	A8	2060	A	C4-C5-C6	7.10	120.55	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2496	C	C5'-C4'-C3'	-7.10	104.64	116.00
36	BA	123	U	O4'-C1'-N1	7.10	113.88	108.20
36	BA	661	G	N1-C6-O6	7.10	124.16	119.90
36	BA	1163	A	C4-C5-C6	7.10	120.55	117.00
2	A8	147	C	O4'-C1'-N1	7.10	113.88	108.20
2	A8	770	G	C5-C6-O6	-7.10	124.34	128.60
2	A8	1050	A	C8-N9-C4	-7.10	102.96	105.80
2	A8	1140	C	O4'-C1'-N1	7.10	113.88	108.20
2	A8	1155	A	P-O5'-C5'	-7.10	109.54	120.90
2	A8	1409	U	O4'-C1'-N1	7.10	113.88	108.20
2	A8	1816	C	O4'-C1'-N1	7.10	113.88	108.20
2	A8	1935	G	O4'-C1'-N9	7.10	113.88	108.20
36	BA	442	G	C5-C6-O6	-7.10	124.34	128.60
36	BA	719	C	O4'-C1'-N1	7.10	113.88	108.20
36	BA	1088	G	C4-N9-C1'	-7.10	117.27	126.50
2	A8	1589	U	O4'-C1'-N1	7.10	113.88	108.20
36	BA	662	U	O4'-C1'-N1	7.10	113.88	108.20
2	A8	263	G	C5-C6-O6	-7.09	124.34	128.60
2	A8	406	G	N1-C6-O6	7.09	124.16	119.90
2	A8	1553	A	C5-C6-N6	-7.09	118.03	123.70
2	A8	2658	C	N3-C4-C5	-7.09	119.06	121.90
36	BA	1020	G	C5'-C4'-C3'	-7.09	104.65	116.00
36	BA	731	G	C5-C6-O6	-7.09	124.34	128.60
36	BA	1185	G	N1-C6-O6	7.09	124.16	119.90
2	A8	73	A	O4'-C1'-N9	7.09	113.87	108.20
2	A8	126	A	C8-N9-C4	-7.09	102.96	105.80
2	A8	968	C	O4'-C1'-N1	7.09	113.87	108.20
2	A8	1250	G	C5-C6-O6	-7.09	124.34	128.60
2	A8	2666	C	C2-N1-C1'	7.09	126.60	118.80
36	BA	799	G	N1-C6-O6	7.09	124.16	119.90
36	BA	986	U	O4'-C1'-N1	7.09	113.87	108.20
36	BA	1020	G	P-O5'-C5'	-7.09	109.56	120.90
36	BA	1416	G	C5'-C4'-C3'	-7.09	104.66	116.00
2	A8	354	A	C5-C6-N6	-7.09	118.03	123.70
2	A8	652	U	P-O5'-C5'	-7.09	109.56	120.90
2	A8	756	A	C5-C6-N6	-7.09	118.03	123.70
2	A8	1743	G	C5-C6-O6	-7.09	124.35	128.60
36	BA	527	G	N1-C6-O6	7.09	124.15	119.90
2	A8	2881	U	O4'-C1'-N1	7.08	113.87	108.20
36	BA	1449	C	P-O5'-C5'	-7.08	109.56	120.90
36	BA	1492	A	C5-C6-N6	-7.08	118.03	123.70
2	A8	73	A	C5-C6-N1	-7.08	114.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	463	G	C4-N9-C1'	-7.08	117.29	126.50
2	A8	699	A	C5-C6-N6	-7.08	118.03	123.70
2	A8	894	U	C5'-C4'-C3'	-7.08	104.67	116.00
2	A8	1803	A	C5-C6-N1	-7.08	114.16	117.70
2	A8	2332	C	O4'-C1'-N1	7.08	113.87	108.20
36	BA	101	A	C5-C6-N1	-7.08	114.16	117.70
36	BA	895	G	C5'-C4'-C3'	-7.08	104.67	116.00
36	BA	1083	U	C2-N1-C1'	-7.08	109.20	117.70
2	A8	644	A	C4'-C3'-C2'	-7.08	95.52	102.60
2	A8	2178	C	O4'-C4'-C3'	-7.08	96.92	104.00
2	A8	867	C	O4'-C1'-N1	7.08	113.86	108.20
2	A8	1153	C	C5'-C4'-C3'	-7.08	104.67	116.00
2	A8	2058	A	C5-C6-N6	-7.08	118.04	123.70
2	A8	989	G	P-O3'-C3'	-7.08	111.20	119.70
2	A8	1545	A	N1-C2-N3	7.08	132.84	129.30
2	A8	2145	C	N3-C4-N4	7.08	122.95	118.00
2	A8	2675	A	O4'-C1'-N9	7.08	113.86	108.20
11	AG	108	PHE	CB-CG-CD1	-7.08	115.84	120.80
36	BA	98	A	C4-C5-C6	7.08	120.54	117.00
36	BA	914	A	C4-C5-C6	7.08	120.54	117.00
36	BA	1071	C	O4'-C1'-N1	7.08	113.86	108.20
36	BA	1337	G	C5-C6-O6	-7.08	124.35	128.60
2	A8	60	G	N1-C6-O6	7.08	124.15	119.90
2	A8	1038	G	C5-C6-O6	-7.08	124.35	128.60
2	A8	721	A	C5-C6-N6	-7.08	118.04	123.70
2	A8	1418	G	P-O3'-C3'	-7.08	111.21	119.70
2	A8	2830	C	O4'-C1'-N1	7.08	113.86	108.20
36	BA	722	G	N1-C6-O6	7.08	124.14	119.90
36	BA	1217	C	O4'-C1'-N1	7.08	113.86	108.20
36	BA	1239	A	N1-C6-N6	7.08	122.85	118.60
1	A7	62	C	C6-N1-C2	-7.07	117.47	120.30
2	A8	539	G	O4'-C1'-N9	7.07	113.86	108.20
2	A8	1514	G	C5-C6-O6	-7.07	124.36	128.60
2	A8	1939	U	O4'-C1'-C2'	-7.07	98.73	105.80
36	BA	655	A	C8-N9-C4	-7.07	102.97	105.80
2	A8	1862	G	C5-C6-O6	-7.07	124.36	128.60
2	A8	1919	A	C4-C5-C6	7.07	120.54	117.00
2	A8	1698	A	C5-C6-N6	-7.07	118.04	123.70
2	A8	1810	A	C5'-C4'-C3'	-7.07	104.69	116.00
2	A8	2468	A	C1'-O4'-C4'	-7.07	104.24	109.90
36	BA	115	G	N3-C2-N2	7.07	124.85	119.90
36	BA	1127	G	C5-C6-O6	-7.07	124.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2791	G	N1-C6-O6	7.07	124.14	119.90
36	BA	46	G	O4'-C1'-N9	7.07	113.86	108.20
1	A7	116	G	C5-C6-O6	-7.07	124.36	128.60
2	A8	1213	A	C4-C5-C6	7.07	120.53	117.00
2	A8	2152	G	C5-C6-O6	-7.07	124.36	128.60
2	A8	2414	G	N1-C6-O6	7.07	124.14	119.90
2	A8	2471	A	C5'-C4'-C3'	-7.07	104.69	116.00
2	A8	2640	G	C5-C6-O6	-7.07	124.36	128.60
36	BA	31	G	C5-C6-O6	-7.07	124.36	128.60
36	BA	1127	G	O4'-C1'-N9	7.07	113.85	108.20
2	A8	868	U	C3'-C2'-C1'	-7.07	95.85	101.50
2	A8	2676	C	P-O5'-C5'	7.07	132.21	120.90
36	BA	549	C	O4'-C1'-N1	7.07	113.85	108.20
36	BA	1192	C	P-O5'-C5'	7.07	132.21	120.90
36	BA	1437	A	C5-C6-N6	-7.07	118.05	123.70
36	BA	1456	A	O4'-C1'-N9	7.07	113.85	108.20
2	A8	719	C	N3-C4-N4	7.06	122.94	118.00
36	BA	816	A	C4-C5-C6	7.06	120.53	117.00
2	A8	295	G	N1-C6-O6	7.06	124.14	119.90
2	A8	1603	A	C5-C6-N1	-7.06	114.17	117.70
2	A8	2168	G	C4-N9-C1'	-7.06	117.32	126.50
36	BA	318	G	O4'-C1'-N9	7.06	113.85	108.20
36	BA	867	G	N1-C6-O6	7.06	124.14	119.90
36	BA	1326	U	O4'-C1'-N1	7.06	113.85	108.20
36	BA	1383	C	N3-C4-C5	-7.06	119.08	121.90
2	A8	2417	C	C3'-C2'-C1'	-7.06	95.85	101.50
36	BA	1261	A	C4-C5-C6	7.06	120.53	117.00
2	A8	1371	G	O4'-C1'-N9	7.06	113.85	108.20
2	A8	1811	G	P-O3'-C3'	-7.06	111.23	119.70
2	A8	1950	G	C8-N9-C1'	7.06	136.18	127.00
36	BA	215	C	C5'-C4'-C3'	-7.06	104.70	116.00
36	BA	460	A	C5-C6-N6	-7.06	118.05	123.70
36	BA	799	G	O4'-C1'-N9	7.06	113.85	108.20
2	A8	110	G	N1-C6-O6	7.06	124.13	119.90
2	A8	1206	G	C8-N9-C4	-7.06	103.58	106.40
2	A8	1274	A	O4'-C1'-N9	7.06	113.85	108.20
2	A8	1661	G	C4-N9-C1'	-7.06	117.33	126.50
2	A8	2893	A	C5-C6-N6	-7.06	118.05	123.70
36	BA	1103	C	O4'-C1'-N1	7.06	113.85	108.20
2	A8	325	G	C5-C6-O6	-7.06	124.37	128.60
2	A8	2170	A	C5-C6-N6	-7.06	118.06	123.70
36	BA	1513	A	C1'-O4'-C4'	-7.06	104.25	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	209	C	O4'-C1'-N1	7.05	113.84	108.20
2	A8	1661	G	O4'-C1'-N9	7.05	113.84	108.20
36	BA	901	A	C4-C5-C6	7.05	120.53	117.00
36	BA	1076	U	O4'-C1'-N1	7.05	113.84	108.20
36	BA	1499	A	C5-C6-N1	-7.05	114.17	117.70
2	A8	2330	G	P-O3'-C3'	-7.05	111.24	119.70
36	BA	274	A	O4'-C1'-N9	7.05	113.84	108.20
2	A8	78	U	O4'-C1'-N1	7.05	113.84	108.20
2	A8	160	A	C5-C6-N1	-7.05	114.17	117.70
2	A8	852	U	P-O3'-C3'	-7.05	111.24	119.70
2	A8	1547	C	C5-C4-N4	-7.05	115.26	120.20
2	A8	1807	G	C5-C6-O6	-7.05	124.37	128.60
2	A8	2809	A	O4'-C1'-N9	7.05	113.84	108.20
36	BA	215	C	N3-C4-C5	-7.05	119.08	121.90
36	BA	263	A	P-O3'-C3'	-7.05	111.24	119.70
36	BA	397	A	C4-C5-C6	7.05	120.53	117.00
36	BA	809	G	C4-N9-C1'	-7.05	117.33	126.50
2	A8	71	A	C5-C6-N1	-7.05	114.18	117.70
2	A8	475	C	O4'-C1'-N1	7.05	113.84	108.20
2	A8	769	U	P-O3'-C3'	-7.05	111.24	119.70
2	A8	858	G	C6-C5-N7	-7.05	126.17	130.40
2	A8	1381	G	N1-C6-O6	7.05	124.13	119.90
2	A8	2851	A	O4'-C1'-N9	7.05	113.84	108.20
2	A8	2886	A	C5-C6-N6	-7.05	118.06	123.70
36	BA	285	C	C1'-O4'-C4'	-7.05	104.26	109.90
2	A8	104	A	O4'-C1'-N9	7.05	113.84	108.20
2	A8	362	A	C5'-C4'-C3'	-7.05	104.72	116.00
2	A8	1259	G	C8-N9-C1'	7.05	136.16	127.00
2	A8	2057	G	P-O3'-C3'	-7.05	111.24	119.70
2	A8	2069	G	N1-C6-O6	7.05	124.13	119.90
36	BA	172	A	N1-C6-N6	7.05	122.83	118.60
36	BA	330	C	O4'-C1'-N1	7.05	113.84	108.20
2	A8	191	A	C5-C6-N6	-7.05	118.06	123.70
2	A8	2812	G	O4'-C1'-N9	7.05	113.84	108.20
36	BA	611	C	O4'-C1'-N1	7.05	113.84	108.20
36	BA	629	A	C3'-C2'-C1'	-7.05	95.86	101.50
1	A7	29	A	C5'-C4'-C3'	-7.04	104.73	116.00
2	A8	185	G	C5-C6-O6	-7.04	124.37	128.60
2	A8	705	A	C8-N9-C4	-7.04	102.98	105.80
2	A8	1807	G	C4-N9-C1'	-7.04	117.34	126.50
2	A8	2226	C	O4'-C1'-N1	7.04	113.83	108.20
2	A8	2251	G	C5-C6-O6	-7.04	124.37	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2864	G	O4'-C1'-N9	7.04	113.83	108.20
36	BA	733	G	P-O3'-C3'	7.04	128.15	119.70
1	A7	65	U	O4'-C1'-N1	7.04	113.83	108.20
2	A8	58	G	N1-C6-O6	7.04	124.12	119.90
36	BA	763	G	N1-C6-O6	7.04	124.12	119.90
36	BA	925	G	N3-C2-N2	7.04	124.83	119.90
36	BA	931	C	O4'-C1'-N1	7.04	113.83	108.20
36	BA	943	U	O4'-C1'-N1	7.04	113.83	108.20
2	A8	2691	C	P-O3'-C3'	-7.04	111.25	119.70
36	BA	53	A	O4'-C1'-N9	7.04	113.83	108.20
36	BA	1096	C	O4'-C1'-N1	7.04	113.83	108.20
2	A8	282	A	C5-C6-N1	-7.04	114.18	117.70
2	A8	1296	G	C5-C6-O6	-7.04	124.38	128.60
2	A8	1854	A	N1-C6-N6	7.04	122.82	118.60
1	A7	79	G	C5'-C4'-O4'	7.04	117.54	109.10
2	A8	270	A	C5-C6-N6	-7.04	118.07	123.70
2	A8	1179	G	N1-C6-O6	7.04	124.12	119.90
36	BA	28	A	O4'-C1'-N9	7.04	113.83	108.20
36	BA	1137	C	O4'-C1'-N1	7.04	113.83	108.20
2	A8	401	A	O4'-C1'-N9	7.04	113.83	108.20
2	A8	728	G	C8-N9-C4	-7.04	103.59	106.40
2	A8	1243	C	C5-C6-N1	7.04	124.52	121.00
2	A8	1509	A	C4-C5-C6	7.04	120.52	117.00
2	A8	2847	U	O4'-C1'-N1	7.04	113.83	108.20
36	BA	60	A	C4-C5-C6	7.04	120.52	117.00
2	A8	176	A	C5'-C4'-C3'	-7.03	104.75	116.00
2	A8	1193	G	C5-C6-O6	-7.03	124.38	128.60
36	BA	58	C	O4'-C1'-N1	7.03	113.83	108.20
36	BA	524	G	C5-C6-O6	-7.03	124.38	128.60
2	A8	823	C	O4'-C1'-N1	7.03	113.83	108.20
2	A8	2038	G	C5-C6-O6	-7.03	124.38	128.60
2	A8	15	G	C5-C6-O6	-7.03	124.38	128.60
2	A8	426	C	C6-N1-C2	-7.03	117.49	120.30
2	A8	858	G	N9-C4-C5	-7.03	102.59	105.40
2	A8	1313	U	C6-N1-C1'	-7.03	111.36	121.20
2	A8	1572	A	P-O3'-C3'	-7.03	111.26	119.70
2	A8	2424	C	O4'-C1'-N1	7.03	113.83	108.20
2	A8	2611	C	P-O5'-C5'	7.03	132.15	120.90
36	BA	271	C	N3-C4-N4	7.03	122.92	118.00
36	BA	623	C	N3-C4-C5	-7.03	119.09	121.90
2	A8	1881	C	O4'-C1'-N1	7.03	113.82	108.20
2	A8	2120	G	C5-C6-O6	-7.03	124.38	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2816	G	C5-C6-O6	-7.03	124.38	128.60
36	BA	882	C	P-O3'-C3'	-7.03	111.27	119.70
2	A8	47	C	O4'-C1'-N1	7.03	113.82	108.20
2	A8	89	A	C5'-C4'-C3'	-7.03	104.76	116.00
2	A8	144	A	C5'-C4'-C3'	-7.03	104.76	116.00
2	A8	394	C	O4'-C1'-N1	7.03	113.82	108.20
2	A8	855	G	O4'-C1'-N9	7.03	113.82	108.20
2	A8	1320	C	C2-N1-C1'	7.03	126.53	118.80
2	A8	1681	G	P-O5'-C5'	7.03	132.14	120.90
2	A8	1769	U	O4'-C1'-N1	7.03	113.82	108.20
36	BA	1484	C	O4'-C1'-N1	7.03	113.82	108.20
2	A8	2624	G	N1-C6-O6	7.02	124.11	119.90
2	A8	244	A	C5'-C4'-C3'	-7.02	104.77	116.00
2	A8	508	A	C4-C5-C6	7.02	120.51	117.00
2	A8	524	G	C5-C6-O6	-7.02	124.39	128.60
2	A8	1209	U	O4'-C1'-N1	7.02	113.82	108.20
2	A8	2354	C	O4'-C1'-N1	7.02	113.82	108.20
36	BA	284	C	C2-N1-C1'	-7.02	111.08	118.80
43	BH	64	TYR	CB-CG-CD2	-7.02	116.79	121.00
2	A8	1197	G	N1-C6-O6	7.02	124.11	119.90
36	BA	537	G	O4'-C1'-N9	7.02	113.82	108.20
36	BA	576	C	P-O3'-C3'	7.02	128.13	119.70
36	BA	1322	C	C6-N1-C2	-7.02	117.49	120.30
2	A8	113	U	O4'-C1'-N1	7.02	113.82	108.20
2	A8	185	G	P-O3'-C3'	-7.02	111.28	119.70
2	A8	933	A	C4-C5-C6	7.02	120.51	117.00
2	A8	1310	G	C5'-C4'-C3'	-7.02	104.77	116.00
2	A8	1890	A	P-O5'-C5'	7.02	132.13	120.90
2	A8	2033	A	N1-C6-N6	7.02	122.81	118.60
2	A8	2830	C	N3-C4-N4	7.02	122.91	118.00
36	BA	850	U	O4'-C1'-N1	7.02	113.81	108.20
2	A8	142	A	C4-C5-C6	7.02	120.51	117.00
2	A8	446	G	P-O3'-C3'	-7.02	111.28	119.70
36	BA	42	G	C5-C6-O6	-7.02	124.39	128.60
36	BA	238	A	O4'-C1'-N9	7.02	113.81	108.20
36	BA	506	G	C5'-C4'-C3'	-7.02	104.77	116.00
36	BA	847	G	N1-C6-O6	7.02	124.11	119.90
36	BA	1156	G	C5-C6-O6	-7.02	124.39	128.60
2	A8	161	A	C5-C6-N1	-7.02	114.19	117.70
2	A8	1965	C	N3-C4-N4	7.02	122.91	118.00
36	BA	191	G	C5-C6-O6	-7.02	124.39	128.60
36	BA	1208	C	O4'-C1'-N1	7.02	113.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	51	G	N1-C6-O6	7.01	124.11	119.90
2	A8	1136	G	C5-C6-O6	-7.01	124.39	128.60
2	A8	1180	U	C5'-C4'-C3'	-7.01	104.78	116.00
2	A8	1965	C	C5'-C4'-O4'	7.01	117.52	109.10
2	A8	2572	A	C5-C6-N1	-7.01	114.19	117.70
2	A8	2608	G	C8-N9-C1'	7.01	136.12	127.00
36	BA	183	C	C2-N1-C1'	7.01	126.52	118.80
36	BA	367	U	O4'-C1'-N1	7.01	113.81	108.20
2	A8	1745	A	O4'-C1'-N9	7.01	113.81	108.20
2	A8	2140	G	C5-C6-O6	-7.01	124.39	128.60
2	A8	2340	A	C5-C6-N1	-7.01	114.19	117.70
36	BA	428	G	C5'-C4'-C3'	7.01	127.22	116.00
36	BA	1466	C	P-O3'-C3'	-7.01	111.28	119.70
2	A8	147	C	N3-C4-N4	7.01	122.91	118.00
2	A8	151	C	P-O5'-C5'	7.01	132.12	120.90
2	A8	302	C	O4'-C1'-N1	7.01	113.81	108.20
2	A8	743	A	C5-C6-N6	-7.01	118.09	123.70
2	A8	2179	C	O4'-C1'-N1	7.01	113.81	108.20
2	A8	972	A	C5'-C4'-C3'	-7.01	104.78	116.00
2	A8	997	G	C5-C6-O6	-7.01	124.39	128.60
2	A8	1204	A	C5-C6-N6	-7.01	118.09	123.70
2	A8	1968	G	C6-C5-N7	-7.01	126.19	130.40
2	A8	2122	U	O4'-C1'-N1	7.01	113.81	108.20
2	A8	2731	G	N1-C6-O6	7.01	124.11	119.90
36	BA	344	A	C5-C6-N6	-7.01	118.09	123.70
2	A8	138	U	C5'-C4'-O4'	7.01	117.51	109.10
2	A8	303	G	C5-C6-O6	-7.01	124.39	128.60
36	BA	1507	A	O4'-C1'-N9	7.01	113.81	108.20
2	A8	70	G	O4'-C1'-N9	7.01	113.80	108.20
2	A8	960	A	C5-C6-N6	-7.01	118.09	123.70
2	A8	1048	A	C5-C6-N1	-7.01	114.20	117.70
2	A8	1669	A	C5-C6-N1	-7.01	114.20	117.70
2	A8	2826	A	C5'-C4'-C3'	-7.01	104.79	116.00
36	BA	81	A	C5-C6-N6	-7.01	118.09	123.70
36	BA	162	A	C5-C6-N6	-7.01	118.09	123.70
36	BA	388	G	N1-C6-O6	7.01	124.10	119.90
36	BA	1488	G	C3'-C2'-C1'	-7.01	95.89	101.50
2	A8	2764	A	C5-C6-N1	-7.00	114.20	117.70
17	AM	116	ALA	N-CA-CB	7.00	119.91	110.10
36	BA	427	U	O4'-C1'-N1	7.00	113.80	108.20
1	A7	75	G	C5-C6-O6	-7.00	124.40	128.60
2	A8	67	U	O4'-C1'-N1	7.00	113.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AL	66	PHE	CB-CG-CD2	-7.00	115.90	120.80
36	BA	647	C	O4'-C1'-N1	7.00	113.80	108.20
2	A8	751	A	C5-C6-N6	-7.00	118.10	123.70
2	A8	907	G	N3-C2-N2	7.00	124.80	119.90
2	A8	1290	C	O4'-C1'-N1	7.00	113.80	108.20
2	A8	1422	G	O4'-C1'-N9	7.00	113.80	108.20
2	A8	1431	A	C8-N9-C4	-7.00	103.00	105.80
2	A8	1663	G	C5-C6-O6	-7.00	124.40	128.60
36	BA	120	A	C4-C5-C6	7.00	120.50	117.00
36	BA	475	C	N3-C4-N4	7.00	122.90	118.00
36	BA	579	A	C4-C5-C6	7.00	120.50	117.00
36	BA	1119	C	N3-C4-N4	7.00	122.90	118.00
36	BA	1171	A	O4'-C1'-N9	7.00	113.80	108.20
2	A8	1979	U	O4'-C1'-N1	7.00	113.80	108.20
2	A8	2647	U	O4'-C1'-N1	7.00	113.80	108.20
2	A8	2893	A	O4'-C1'-N9	7.00	113.80	108.20
36	BA	476	U	O4'-C1'-N1	7.00	113.80	108.20
36	BA	1429	A	C5-C6-N6	-7.00	118.10	123.70
2	A8	643	A	P-O3'-C3'	-7.00	111.30	119.70
2	A8	1003	G	N3-C2-N2	7.00	124.80	119.90
2	A8	1524	G	C8-N9-C4	-7.00	103.60	106.40
2	A8	1952	A	C5-C6-N6	-7.00	118.10	123.70
2	A8	1988	G	C4-N9-C1'	-7.00	117.40	126.50
2	A8	2678	C	O4'-C1'-N1	7.00	113.80	108.20
11	AG	95	ALA	N-CA-CB	7.00	119.90	110.10
36	BA	333	U	O4'-C1'-N1	7.00	113.80	108.20
36	BA	656	G	C4-N9-C1'	-7.00	117.40	126.50
1	A7	38	C	N3-C4-N4	7.00	122.90	118.00
2	A8	131	A	P-O5'-C5'	-7.00	109.71	120.90
2	A8	1158	C	O4'-C1'-N1	7.00	113.80	108.20
2	A8	2398	U	C5'-C4'-C3'	-7.00	104.81	116.00
2	A8	2759	G	C6-C5-N7	-7.00	126.20	130.40
36	BA	232	G	C5-C6-O6	-7.00	124.40	128.60
36	BA	614	C	P-O3'-C3'	-7.00	111.30	119.70
36	BA	654	G	C5-C6-O6	-7.00	124.40	128.60
36	BA	778	G	C5-C6-O6	-7.00	124.40	128.60
2	A8	1319	C	N3-C4-N4	7.00	122.90	118.00
2	A8	2461	A	C4-C5-C6	7.00	120.50	117.00
36	BA	139	A	O4'-C1'-N9	7.00	113.80	108.20
2	A8	1224	U	O4'-C1'-N1	6.99	113.79	108.20
2	A8	1407	G	O4'-C1'-N9	6.99	113.80	108.20
2	A8	2393	U	O4'-C1'-N1	6.99	113.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2528	U	O4'-C1'-N1	6.99	113.80	108.20
2	A8	2599	G	N1-C6-O6	6.99	124.10	119.90
36	BA	71	A	O4'-C1'-N9	6.99	113.80	108.20
2	A8	858	G	C8-N9-C4	6.99	109.20	106.40
2	A8	161	A	N7-C8-N9	6.99	117.30	113.80
2	A8	195	A	P-O5'-C5'	6.99	132.08	120.90
2	A8	601	C	P-O3'-C3'	-6.99	111.31	119.70
2	A8	1512	C	C5'-C4'-C3'	-6.99	104.81	116.00
2	A8	2436	G	N1-C6-O6	6.99	124.09	119.90
11	AG	156	TYR	CB-CG-CD1	-6.99	116.81	121.00
36	BA	531	U	P-O3'-C3'	-6.99	111.31	119.70
36	BA	1237	C	O4'-C1'-N1	6.99	113.79	108.20
2	A8	1168	G	C5'-C4'-C3'	-6.99	104.82	116.00
2	A8	1362	C	O4'-C1'-N1	6.99	113.79	108.20
2	A8	138	U	C2-N1-C1'	6.99	126.08	117.70
36	BA	746	A	O4'-C1'-N9	6.99	113.79	108.20
2	A8	136	G	C5'-C4'-O4'	6.99	117.48	109.10
2	A8	412	A	C4-C5-C6	6.99	120.49	117.00
2	A8	2193	G	N1-C6-O6	6.99	124.09	119.90
36	BA	141	G	C8-N9-C1'	6.99	136.08	127.00
36	BA	711	G	N1-C6-O6	6.99	124.09	119.90
36	BA	1416	G	O4'-C1'-N9	6.99	113.79	108.20
2	A8	1053	C	C6-N1-C2	-6.98	117.51	120.30
2	A8	2109	U	P-O5'-C5'	-6.98	109.72	120.90
36	BA	1054	C	C6-N1-C1'	-6.98	112.42	120.80
1	A7	53	A	C5-C6-N6	-6.98	118.11	123.70
2	A8	769	U	O4'-C1'-N1	6.98	113.79	108.20
36	BA	285	C	C3'-C2'-C1'	-6.98	95.91	101.50
36	BA	774	G	C5'-C4'-C3'	-6.98	104.83	116.00
36	BA	1479	C	N3-C4-C5	-6.98	119.11	121.90
2	A8	988	A	C4-N9-C1'	-6.98	113.73	126.30
2	A8	1787	A	C4-C5-C6	6.98	120.49	117.00
2	A8	2057	G	O4'-C1'-N9	6.98	113.78	108.20
2	A8	2854	G	C5'-C4'-C3'	-6.98	104.83	116.00
2	A8	2864	G	C5-C6-O6	-6.98	124.41	128.60
36	BA	257	G	C8-N9-C4	-6.98	103.61	106.40
36	BA	556	C	N3-C4-C5	-6.98	119.11	121.90
36	BA	952	U	C5'-C4'-C3'	-6.98	104.83	116.00
36	BA	975	A	O4'-C1'-N9	6.98	113.78	108.20
36	BA	1016	A	C4-C5-C6	6.98	120.49	117.00
36	BA	1277	C	N3-C4-C5	-6.98	119.11	121.90
2	A8	357	C	N3-C4-N4	6.98	122.89	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	623	C	P-O3'-C3'	-6.98	111.33	119.70
2	A8	1137	G	O4'-C1'-N9	6.98	113.78	108.20
2	A8	1230	A	C5-C6-N6	-6.98	118.12	123.70
13	AI	6	ALA	N-CA-CB	6.98	119.87	110.10
2	A8	2105	U	C2-N3-C4	-6.98	122.81	127.00
2	A8	2851	A	C8-N9-C4	-6.98	103.01	105.80
36	BA	834	U	O4'-C1'-N1	6.98	113.78	108.20
2	A8	843	G	C5-C6-O6	-6.97	124.42	128.60
2	A8	1726	C	C6-N1-C2	-6.97	117.51	120.30
2	A8	2	G	O4'-C1'-N9	6.97	113.78	108.20
2	A8	28	A	C4-C5-C6	6.97	120.49	117.00
2	A8	878	A	C4-C5-C6	6.97	120.49	117.00
2	A8	1918	A	O4'-C1'-N9	6.97	113.78	108.20
2	A8	2127	G	N3-C2-N2	6.97	124.78	119.90
2	A8	2450	A	P-O5'-C5'	6.97	132.06	120.90
2	A8	2469	A	C5-C6-N1	-6.97	114.21	117.70
2	A8	2244	U	O4'-C1'-N1	6.97	113.78	108.20
2	A8	2871	U	O4'-C1'-N1	6.97	113.78	108.20
2	A8	2865	U	O4'-C1'-N1	6.97	113.78	108.20
36	BA	359	G	N9-C1'-C2'	-6.97	104.33	112.00
36	BA	906	A	C4-N9-C1'	-6.97	113.75	126.30
36	BA	1288	A	C5-C6-N1	-6.97	114.22	117.70
2	A8	602	A	C5-C6-N6	-6.97	118.13	123.70
2	A8	632	A	C5-C6-N6	-6.97	118.13	123.70
36	BA	1238	A	C4-C5-C6	6.97	120.48	117.00
2	A8	455	C	N3-C4-N4	6.97	122.88	118.00
2	A8	1381	G	C3'-C2'-C1'	-6.97	95.93	101.50
2	A8	2304	G	N1-C6-O6	6.97	124.08	119.90
2	A8	2552	U	P-O5'-C5'	6.97	132.04	120.90
36	BA	113	G	C5-C6-O6	-6.97	124.42	128.60
36	BA	494	G	C8-N9-C4	-6.97	103.61	106.40
36	BA	626	G	N1-C6-O6	6.97	124.08	119.90
2	A8	282	A	C4-C5-C6	6.96	120.48	117.00
2	A8	1726	C	C5'-C4'-C3'	-6.96	104.86	116.00
2	A8	2288	A	C4-C5-C6	6.96	120.48	117.00
2	A8	2612	C	C5'-C4'-C3'	6.96	127.14	116.00
36	BA	70	U	O4'-C1'-N1	6.96	113.77	108.20
36	BA	305	G	C5-C6-O6	-6.96	124.42	128.60
36	BA	830	G	O4'-C1'-N9	6.96	113.77	108.20
36	BA	655	A	C5-C6-N6	-6.96	118.13	123.70
36	BA	665	A	C5-C6-N6	-6.96	118.13	123.70
2	A8	2164	C	O4'-C1'-N1	6.96	113.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	538	G	C8-N9-C1'	6.96	136.05	127.00
2	A8	1217	U	C2-N1-C1'	-6.96	109.35	117.70
2	A8	1355	G	P-O3'-C3'	-6.96	111.35	119.70
36	BA	438	U	O4'-C1'-N1	6.96	113.77	108.20
36	BA	1063	C	O4'-C1'-N1	6.96	113.77	108.20
2	A8	456	C	N3-C4-C5	-6.96	119.12	121.90
2	A8	605	G	N1-C6-O6	6.96	124.07	119.90
2	A8	734	A	C5-C6-N1	-6.96	114.22	117.70
2	A8	895	U	C6-N1-C1'	6.96	130.94	121.20
2	A8	1124	G	N1-C6-O6	6.96	124.07	119.90
2	A8	1360	G	C5-C6-O6	-6.96	124.43	128.60
2	A8	2880	C	N3-C4-N4	6.96	122.87	118.00
36	BA	354	G	N1-C6-O6	6.96	124.07	119.90
1	A7	90	C	N3-C4-N4	6.96	122.87	118.00
2	A8	761	A	O4'-C1'-N9	6.96	113.76	108.20
36	BA	102	G	C4-N9-C1'	-6.96	117.46	126.50
36	BA	717	U	O4'-C1'-N1	6.96	113.76	108.20
36	BA	1406	U	O4'-C1'-N1	6.96	113.76	108.20
2	A8	2846	G	C8-N9-C1'	6.95	136.04	127.00
36	BA	340	U	P-O3'-C3'	-6.95	111.36	119.70
2	A8	2594	C	C6-N1-C1'	6.95	129.14	120.80
14	AJ	118	MET	CG-SD-CE	-6.95	89.08	100.20
36	BA	1037	C	O4'-C1'-N1	6.95	113.76	108.20
2	A8	855	G	C3'-C2'-C1'	-6.95	95.94	101.50
2	A8	1166	G	C5-C6-O6	-6.95	124.43	128.60
36	BA	1047	G	C8-N9-C1'	6.95	136.03	127.00
1	A7	38	C	N3-C4-C5	-6.95	119.12	121.90
2	A8	594	U	O4'-C1'-N1	6.95	113.76	108.20
2	A8	1203	U	O4'-C1'-N1	6.95	113.76	108.20
2	A8	1387	A	C4-C5-C6	6.95	120.47	117.00
2	A8	1948	G	O4'-C1'-N9	6.95	113.76	108.20
2	A8	1962	C	O4'-C1'-N1	6.95	113.76	108.20
36	BA	673	A	C4-C5-C6	6.95	120.47	117.00
36	BA	1331	G	N1-C6-O6	6.95	124.07	119.90
2	A8	894	U	C2-N1-C1'	-6.95	109.37	117.70
2	A8	1017	G	C5-C6-O6	-6.95	124.43	128.60
2	A8	1183	U	C5'-C4'-C3'	-6.95	104.89	116.00
2	A8	1193	G	C5'-C4'-C3'	-6.95	104.89	116.00
2	A8	2449	U	O4'-C1'-N1	6.95	113.76	108.20
36	BA	1131	G	C5-C6-O6	-6.95	124.43	128.60
36	BA	1275	A	C4-C5-C6	6.95	120.47	117.00
2	A8	97	C	O4'-C1'-N1	6.94	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	498	A	C4-C5-C6	6.94	120.47	117.00
2	A8	282	A	C5'-C4'-C3'	-6.94	104.89	116.00
2	A8	981	A	C4-C5-C6	6.94	120.47	117.00
36	BA	35	G	C5-C6-O6	-6.94	124.43	128.60
36	BA	534	U	O4'-C1'-N1	6.94	113.75	108.20
2	A8	322	A	C5-C6-N6	-6.94	118.15	123.70
2	A8	1455	G	C8-N9-C4	-6.94	103.62	106.40
2	A8	2151	U	O4'-C1'-N1	6.94	113.75	108.20
2	A8	2623	G	C5-C6-O6	-6.94	124.44	128.60
2	A8	2762	C	O4'-C1'-N1	6.94	113.75	108.20
11	AG	156	TYR	CB-CG-CD2	6.94	125.16	121.00
36	BA	282	A	C5-C6-N1	-6.94	114.23	117.70
36	BA	383	A	C4-C5-C6	6.94	120.47	117.00
36	BA	502	A	O4'-C1'-N9	6.94	113.75	108.20
36	BA	841	C	O4'-C1'-N1	6.94	113.75	108.20
36	BA	1317	C	O4'-C1'-N1	6.94	113.75	108.20
2	A8	35	G	C8-N9-C4	-6.94	103.62	106.40
2	A8	119	A	C5'-C4'-C3'	-6.94	104.90	116.00
2	A8	1103	A	C4-C5-C6	6.94	120.47	117.00
2	A8	1445	G	C6-C5-N7	-6.94	126.24	130.40
2	A8	2353	G	C5'-C4'-C3'	-6.94	104.90	116.00
2	A8	2527	C	P-O3'-C3'	-6.94	111.38	119.70
36	BA	648	A	C5-C6-N6	-6.94	118.15	123.70
2	A8	175	G	O4'-C1'-N9	6.94	113.75	108.20
2	A8	736	C	O4'-C1'-N1	6.94	113.75	108.20
2	A8	792	A	C4-C5-C6	6.93	120.47	117.00
2	A8	1020	A	C4-C5-C6	6.93	120.47	117.00
2	A8	1046	A	O4'-C1'-N9	6.93	113.75	108.20
2	A8	1099	G	C8-N9-C4	-6.93	103.63	106.40
2	A8	1471	G	N1-C6-O6	6.93	124.06	119.90
2	A8	2089	C	C5-C6-N1	6.93	124.47	121.00
2	A8	391	A	C4-C5-C6	6.93	120.47	117.00
2	A8	468	G	O4'-C1'-N9	6.93	113.75	108.20
2	A8	2201	G	P-O5'-C5'	-6.93	109.81	120.90
36	BA	276	G	C8-N9-C1'	6.93	136.01	127.00
36	BA	396	C	O4'-C1'-N1	6.93	113.75	108.20
36	BA	587	G	O4'-C1'-N9	6.93	113.75	108.20
2	A8	329	G	N3-C2-N2	6.93	124.75	119.90
2	A8	1629	U	O4'-C1'-N1	6.93	113.75	108.20
2	A8	1889	A	C4-C5-C6	6.93	120.47	117.00
2	A8	1930	G	O4'-C1'-N9	6.93	113.74	108.20
2	A8	2378	A	C4-C5-C6	6.93	120.47	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	303	A	O4'-C1'-N9	6.93	113.75	108.20
2	A8	968	C	C1'-O4'-C4'	-6.93	104.36	109.90
2	A8	1213	A	C5-C6-N1	-6.93	114.23	117.70
2	A8	1921	G	O4'-C1'-N9	6.93	113.74	108.20
2	A8	2642	G	C8-N9-C1'	6.93	136.01	127.00
36	BA	540	G	O4'-C1'-N9	6.93	113.74	108.20
36	BA	642	A	C5-C6-N6	-6.93	118.16	123.70
36	BA	1462	C	O4'-C1'-N1	6.93	113.74	108.20
2	A8	1955	U	P-O5'-C5'	6.93	131.99	120.90
2	A8	1969	A	C5-C6-N1	-6.93	114.24	117.70
36	BA	630	A	C5'-C4'-C3'	-6.93	104.92	116.00
2	A8	587	C	N3-C4-N4	6.93	122.85	118.00
2	A8	948	C	C6-N1-C2	-6.93	117.53	120.30
2	A8	2215	C	N3-C4-N4	6.93	122.85	118.00
2	A8	2553	G	C5-C6-O6	-6.93	124.44	128.60
36	BA	172	A	N7-C8-N9	6.93	117.26	113.80
2	A8	258	G	N1-C6-O6	6.92	124.06	119.90
2	A8	995	C	C1'-O4'-C4'	-6.92	104.36	109.90
2	A8	2411	A	C5-C6-N1	-6.92	114.24	117.70
2	A8	2741	A	C5-C6-N1	-6.92	114.24	117.70
9	AE	158	PHE	CB-CG-CD1	6.92	125.65	120.80
36	BA	615	G	N3-C2-N2	6.92	124.75	119.90
36	BA	886	G	O4'-C1'-N9	6.92	113.74	108.20
2	A8	14	A	C5-C6-N6	-6.92	118.16	123.70
2	A8	1054	A	C4-C5-C6	6.92	120.46	117.00
2	A8	2523	G	C5-C6-O6	-6.92	124.45	128.60
36	BA	773	G	C5-C6-O6	-6.92	124.45	128.60
36	BA	775	G	C5-C6-O6	-6.92	124.45	128.60
36	BA	199	A	C5-C6-N6	-6.92	118.16	123.70
36	BA	327	A	C5-C6-N1	-6.92	114.24	117.70
36	BA	698	G	N1-C6-O6	6.92	124.05	119.90
36	BA	946	A	C5-C6-N6	-6.92	118.16	123.70
2	A8	1751	U	C5'-C4'-C3'	-6.92	104.93	116.00
2	A8	138	U	C5-C6-N1	6.92	126.16	122.70
2	A8	604	G	C4-N9-C1'	-6.92	117.51	126.50
2	A8	753	A	O4'-C1'-N9	6.92	113.73	108.20
2	A8	1543	G	O4'-C1'-N9	6.92	113.73	108.20
2	A8	1818	U	O4'-C1'-N1	6.92	113.74	108.20
2	A8	1872	A	C8-N9-C4	-6.92	103.03	105.80
2	A8	2365	G	C5-C6-O6	-6.92	124.45	128.60
36	BA	225	C	O4'-C1'-N1	6.92	113.73	108.20
36	BA	842	U	O4'-C1'-N1	6.92	113.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1609	A	C4-C5-C6	6.92	120.46	117.00
2	A8	2133	G	P-O3'-C3'	6.92	128.00	119.70
2	A8	2266	A	C4-C5-C6	6.92	120.46	117.00
3	AA	306	TYR	CB-CG-CD2	6.92	125.15	121.00
36	BA	1481	U	C2-N1-C1'	-6.92	109.40	117.70
2	A8	119	A	N1-C6-N6	6.92	122.75	118.60
2	A8	454	A	C8-N9-C4	-6.92	103.03	105.80
2	A8	2092	U	C2-N1-C1'	6.92	126.00	117.70
2	A8	2637	U	C5'-C4'-C3'	-6.92	104.94	116.00
36	BA	996	A	O4'-C1'-N9	6.92	113.73	108.20
1	A7	106	G	N1-C6-O6	6.91	124.05	119.90
2	A8	12	U	C4'-C3'-C2'	-6.91	95.69	102.60
2	A8	1623	G	P-O5'-C5'	-6.91	109.84	120.90
36	BA	190	A	C8-N9-C4	-6.91	103.03	105.80
2	A8	212	G	P-O3'-C3'	-6.91	111.41	119.70
2	A8	287	G	C5'-C4'-C3'	-6.91	104.94	116.00
2	A8	972	A	C5-C6-N6	-6.91	118.17	123.70
2	A8	1627	G	C5-C6-O6	-6.91	124.45	128.60
2	A8	2031	A	P-O3'-C3'	6.91	128.00	119.70
2	A8	2083	G	C8-N9-C4	-6.91	103.64	106.40
2	A8	2537	U	C5'-C4'-C3'	-6.91	104.94	116.00
36	BA	232	G	N3-C2-N2	6.91	124.74	119.90
36	BA	447	G	N1-C6-O6	6.91	124.05	119.90
2	A8	424	G	C3'-C2'-C1'	-6.91	95.97	101.50
2	A8	842	U	P-O5'-C5'	6.91	131.95	120.90
36	BA	83	C	O4'-C1'-N1	6.91	113.73	108.20
36	BA	192	A	C4-C5-C6	6.91	120.45	117.00
36	BA	281	G	C4-N9-C1'	-6.91	117.52	126.50
36	BA	792	A	C5-C6-N6	-6.91	118.17	123.70
36	BA	1356	G	C5-C6-O6	-6.91	124.45	128.60
2	A8	168	G	N7-C8-N9	6.91	116.55	113.10
2	A8	1680	U	C5'-C4'-C3'	-6.91	104.95	116.00
2	A8	2192	U	C5'-C4'-C3'	-6.91	104.95	116.00
2	A8	2583	G	P-O3'-C3'	-6.91	111.41	119.70
2	A8	2744	G	N1-C6-O6	6.91	124.04	119.90
36	BA	138	G	O4'-C1'-N9	6.91	113.72	108.20
36	BA	459	A	C5-C6-N6	-6.91	118.18	123.70
36	BA	773	G	N1-C6-O6	6.91	124.04	119.90
2	A8	1777	U	O4'-C1'-N1	6.90	113.72	108.20
36	BA	452	A	C5-C6-N1	-6.90	114.25	117.70
36	BA	688	G	C5-C6-O6	-6.90	124.46	128.60
39	BD	71	PHE	CB-CG-CD1	-6.90	115.97	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2462	C	N3-C4-N4	6.90	122.83	118.00
36	BA	860	A	C5-C6-N6	-6.90	118.18	123.70
1	A7	84	G	C8-N9-C1'	6.90	135.97	127.00
2	A8	490	C	N3-C4-N4	6.90	122.83	118.00
2	A8	2275	C	P-O3'-C3'	-6.90	111.42	119.70
36	BA	320	A	C5-C6-N6	-6.90	118.18	123.70
36	BA	768	A	P-O3'-C3'	-6.90	111.42	119.70
36	BA	1248	A	O4'-C1'-N9	6.90	113.72	108.20
2	A8	1058	U	O4'-C1'-N1	6.90	113.72	108.20
2	A8	1733	G	N1-C6-O6	6.90	124.04	119.90
36	BA	614	C	O4'-C4'-C3'	-6.90	97.10	104.00
36	BA	1050	G	C5'-C4'-C3'	-6.90	104.96	116.00
2	A8	1121	C	O4'-C1'-N1	6.90	113.72	108.20
2	A8	1446	C	C5-C6-N1	6.90	124.45	121.00
36	BA	616	G	N1-C6-O6	6.90	124.04	119.90
36	BA	795	C	C5'-C4'-C3'	-6.90	104.97	116.00
36	BA	1026	G	O4'-C1'-N9	6.90	113.72	108.20
2	A8	348	A	C5-C6-N6	-6.90	118.18	123.70
2	A8	882	G	C5-C6-O6	-6.90	124.46	128.60
2	A8	2318	G	C8-N9-C1'	6.90	135.96	127.00
36	BA	270	A	N7-C8-N9	6.90	117.25	113.80
2	A8	844	A	C5-C6-N1	-6.89	114.25	117.70
2	A8	858	G	C5'-C4'-C3'	-6.89	104.97	116.00
2	A8	2093	G	C5'-C4'-C3'	-6.89	104.97	116.00
36	BA	127	G	C5-C6-O6	-6.89	124.46	128.60
36	BA	615	G	O4'-C4'-C3'	-6.89	97.11	104.00
36	BA	1394	A	C4-C5-C6	6.89	120.45	117.00
2	A8	746	U	P-O3'-C3'	-6.89	111.43	119.70
2	A8	1192	G	N1-C6-O6	6.89	124.03	119.90
36	BA	47	C	P-O3'-C3'	6.89	127.97	119.70
36	BA	595	A	C5-C6-N6	-6.89	118.19	123.70
36	BA	1176	A	C4-C5-C6	6.89	120.45	117.00
36	BA	1238	A	P-O3'-C3'	6.89	127.97	119.70
2	A8	1154	G	O4'-C1'-N9	6.89	113.71	108.20
2	A8	1871	A	C5-C6-N6	-6.89	118.19	123.70
1	A7	31	C	P-O3'-C3'	-6.89	111.43	119.70
2	A8	40	U	O4'-C1'-N1	6.89	113.71	108.20
2	A8	835	C	O4'-C1'-N1	6.89	113.71	108.20
36	BA	699	C	C6-N1-C1'	6.89	129.07	120.80
36	BA	1123	U	O4'-C1'-N1	6.89	113.71	108.20
2	A8	690	G	C5-C6-O6	-6.89	124.47	128.60
36	BA	352	C	O4'-C1'-N1	6.89	113.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1425	G	C5-C6-O6	-6.89	124.47	128.60
2	A8	2415	G	C6-C5-N7	-6.89	126.27	130.40
2	A8	2482	A	C5-C6-N6	-6.89	118.19	123.70
36	BA	342	C	N3-C4-N4	6.89	122.82	118.00
36	BA	995	C	C6-N1-C2	-6.89	117.55	120.30
2	A8	327	G	C8-N9-C1'	6.88	135.95	127.00
2	A8	1737	G	N1-C6-O6	6.88	124.03	119.90
2	A8	2027	G	C5-C6-O6	-6.88	124.47	128.60
2	A8	2166	U	O4'-C1'-N1	6.88	113.71	108.20
36	BA	811	C	O4'-C1'-N1	6.88	113.71	108.20
2	A8	108	G	C8-N9-C1'	6.88	135.95	127.00
2	A8	1315	C	N3-C4-N4	6.88	122.82	118.00
2	A8	1977	A	C4-C5-C6	6.88	120.44	117.00
2	A8	2181	U	P-O5'-C5'	6.88	131.91	120.90
2	A8	2508	G	C3'-C2'-C1'	-6.88	95.99	101.50
36	BA	86	G	C5-C6-O6	-6.88	124.47	128.60
2	A8	1473	G	P-O5'-C5'	-6.88	109.89	120.90
2	A8	2030	A	O4'-C1'-C2'	-6.88	98.92	105.80
2	A8	2256	G	C8-N9-C1'	6.88	135.95	127.00
36	BA	50	A	N1-C6-N6	6.88	122.73	118.60
36	BA	1214	C	N3-C4-C5	-6.88	119.15	121.90
2	A8	548	G	C5-C6-O6	-6.88	124.47	128.60
1	A7	18	G	C5-C6-O6	-6.88	124.47	128.60
2	A8	18	U	C5-C6-N1	6.88	126.14	122.70
2	A8	287	G	O4'-C1'-N9	6.88	113.70	108.20
2	A8	794	A	C4-C5-C6	6.88	120.44	117.00
2	A8	1381	G	C5-C6-O6	-6.88	124.47	128.60
2	A8	2033	A	C3'-C2'-C1'	-6.88	96.00	101.50
36	BA	399	G	C5-C6-O6	-6.88	124.47	128.60
1	A7	113	C	C5'-C4'-C3'	6.88	127.00	116.00
2	A8	2048	G	O4'-C1'-N9	6.88	113.70	108.20
36	BA	519	C	O4'-C1'-N1	6.88	113.70	108.20
2	A8	318	C	O4'-C1'-N1	6.88	113.70	108.20
36	BA	478	A	C5-C6-N1	-6.88	114.26	117.70
36	BA	775	G	N1-C6-O6	6.88	124.03	119.90
36	BA	852	G	O4'-C1'-N9	6.88	113.70	108.20
36	BA	856	C	P-O3'-C3'	-6.88	111.45	119.70
2	A8	45	G	C5'-C4'-C3'	-6.87	105.00	116.00
2	A8	470	A	C4-C5-C6	6.87	120.44	117.00
2	A8	1537	G	C2-N3-C4	6.87	115.34	111.90
2	A8	1833	C	O4'-C1'-N1	6.87	113.70	108.20
2	A8	2144	G	C5-C6-O6	-6.87	124.48	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2235	G	C5'-C4'-C3'	-6.87	105.00	116.00
2	A8	2450	A	C4-C5-C6	6.87	120.44	117.00
36	BA	808	C	P-O3'-C3'	-6.87	111.45	119.70
2	A8	753	A	C4-C5-C6	6.87	120.44	117.00
2	A8	1452	G	C4-N9-C1'	6.87	135.43	126.50
2	A8	2020	A	C5'-C4'-C3'	-6.87	105.00	116.00
2	A8	2069	G	C5-C6-O6	-6.87	124.48	128.60
2	A8	2273	A	O4'-C1'-N9	6.87	113.70	108.20
2	A8	2494	G	C5-C6-O6	-6.87	124.48	128.60
36	BA	202	G	C5'-C4'-C3'	6.87	127.00	116.00
36	BA	1035	A	C5-C6-N1	-6.87	114.26	117.70
2	A8	415	A	C4-C5-C6	6.87	120.44	117.00
2	A8	1848	A	C4-C5-C6	6.87	120.44	117.00
2	A8	2037	A	C5-C6-N6	-6.87	118.20	123.70
2	A8	2346	A	C5-C6-N6	-6.87	118.20	123.70
2	A8	1485	U	O4'-C1'-N1	6.87	113.69	108.20
2	A8	2071	A	O4'-C1'-N9	6.87	113.69	108.20
2	A8	2282	G	N1-C6-O6	6.87	124.02	119.90
2	A8	2392	A	C5-C6-N6	-6.87	118.20	123.70
2	A8	2842	G	C4-N9-C1'	-6.87	117.57	126.50
2	A8	2899	A	C4-C5-C6	6.87	120.43	117.00
2	A8	1346	G	C5-C6-O6	-6.87	124.48	128.60
2	A8	1631	G	O4'-C1'-N9	6.87	113.69	108.20
2	A8	1664	A	C5-C6-N6	-6.87	118.21	123.70
2	A8	1876	A	N1-C6-N6	6.87	122.72	118.60
2	A8	2531	A	P-O3'-C3'	-6.87	111.46	119.70
2	A8	2560	A	C5-C6-N6	-6.87	118.21	123.70
36	BA	1499	A	P-O5'-C5'	6.87	131.89	120.90
2	A8	2839	G	C5-C6-O6	-6.87	124.48	128.60
36	BA	1494	G	C5-C6-O6	-6.87	124.48	128.60
2	A8	789	A	C5-C6-N6	-6.86	118.21	123.70
2	A8	1872	A	C6-C5-N7	-6.86	127.50	132.30
36	BA	1023	U	O4'-C1'-N1	6.86	113.69	108.20
36	BA	1457	G	O4'-C1'-N9	6.86	113.69	108.20
2	A8	136	G	C8-N9-C1'	6.86	135.92	127.00
2	A8	590	A	C5-C6-N6	-6.86	118.21	123.70
2	A8	1273	U	O4'-C1'-N1	6.86	113.69	108.20
2	A8	1900	A	O4'-C1'-N9	6.86	113.69	108.20
2	A8	2201	G	N1-C6-O6	6.86	124.02	119.90
2	A8	2280	G	N9-C1'-C2'	-6.86	104.45	112.00
36	BA	537	G	N1-C6-O6	6.86	124.02	119.90
2	A8	430	A	C5-C6-N6	-6.86	118.21	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1656	C	O4'-C1'-N1	6.86	113.69	108.20
2	A8	2219	U	P-O5'-C5'	6.86	131.88	120.90
2	A8	2618	G	C5-C6-O6	-6.86	124.48	128.60
36	BA	937	A	C5-C6-N6	-6.86	118.21	123.70
36	BA	1331	G	O4'-C1'-N9	6.86	113.69	108.20
2	A8	91	A	C5-C6-N1	-6.86	114.27	117.70
2	A8	363	G	O4'-C1'-N9	6.86	113.69	108.20
2	A8	1027	A	C4-C5-C6	6.86	120.43	117.00
2	A8	1341	G	O4'-C1'-N9	6.86	113.69	108.20
2	A8	1696	G	N1-C6-O6	6.86	124.02	119.90
2	A8	2887	A	P-O3'-C3'	6.86	127.93	119.70
36	BA	1393	U	O4'-C1'-N1	6.86	113.69	108.20
36	BA	1433	A	C4-C5-C6	6.86	120.43	117.00
2	A8	1095	A	P-O5'-C5'	-6.86	109.93	120.90
2	A8	1480	C	O4'-C1'-N1	6.86	113.68	108.20
2	A8	2245	U	P-O3'-C3'	6.86	127.93	119.70
2	A8	433	C	O4'-C1'-N1	6.85	113.68	108.20
2	A8	1356	G	O4'-C1'-N9	6.85	113.68	108.20
2	A8	1455	G	C5'-C4'-C3'	-6.85	105.03	116.00
2	A8	2342	C	O4'-C1'-N1	6.85	113.68	108.20
36	BA	318	G	C3'-C2'-C1'	-6.85	96.02	101.50
1	A7	106	G	C8-N9-C1'	6.85	135.91	127.00
2	A8	1369	G	C5'-C4'-C3'	6.85	126.96	116.00
2	A8	1510	G	C6-C5-N7	-6.85	126.29	130.40
2	A8	1552	A	N9-C1'-C2'	-6.85	104.46	112.00
2	A8	2823	A	O4'-C1'-N9	6.85	113.68	108.20
36	BA	1259	C	O4'-C1'-N1	6.85	113.68	108.20
2	A8	918	A	C5-C6-N1	-6.85	114.27	117.70
2	A8	2892	G	P-O3'-C3'	-6.85	111.48	119.70
2	A8	103	A	C5-C6-N6	-6.85	118.22	123.70
2	A8	264	C	O4'-C1'-N1	6.85	113.68	108.20
2	A8	584	C	O4'-C1'-N1	6.85	113.68	108.20
2	A8	1939	U	C3'-C2'-C1'	-6.85	96.02	101.50
36	BA	229	U	O4'-C1'-N1	6.85	113.68	108.20
36	BA	326	G	C5-C6-O6	-6.85	124.49	128.60
36	BA	873	A	C4-C5-C6	6.85	120.42	117.00
2	A8	514	A	C4-C5-C6	6.85	120.42	117.00
2	A8	706	A	C8-N9-C4	-6.85	103.06	105.80
2	A8	1901	A	C4-C5-C6	6.85	120.42	117.00
36	BA	1083	U	P-O3'-C3'	6.85	127.92	119.70
36	BA	1240	U	P-O5'-C5'	-6.85	109.94	120.90
36	BA	1319	A	C5-C6-N1	-6.85	114.28	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	300	A	C5-C6-N6	-6.85	118.22	123.70
2	A8	701	G	C5'-C4'-C3'	-6.85	105.05	116.00
36	BA	110	C	O4'-C1'-N1	6.85	113.68	108.20
36	BA	613	C	P-O3'-C3'	-6.85	111.48	119.70
36	BA	993	G	C5'-C4'-C3'	-6.85	105.05	116.00
2	A8	2669	G	C4-N9-C1'	-6.84	117.60	126.50
2	A8	2218	G	C8-N9-C4	-6.84	103.66	106.40
2	A8	2901	C	N3-C4-N4	6.84	122.79	118.00
36	BA	1164	G	C5-C6-O6	-6.84	124.49	128.60
2	A8	1027	A	C5-C6-N1	-6.84	114.28	117.70
2	A8	1838	C	P-O3'-C3'	6.84	127.91	119.70
2	A8	2415	G	C4-C5-C6	6.84	122.91	118.80
2	A8	2712	C	N3-C4-N4	6.84	122.79	118.00
28	AX	56	ARG	NE-CZ-NH1	-6.84	116.88	120.30
36	BA	1231	G	O4'-C1'-N9	6.84	113.67	108.20
36	BA	1529	G	C5-C6-O6	-6.84	124.50	128.60
2	A8	21	A	C5'-C4'-C3'	-6.84	105.06	116.00
2	A8	1640	A	O5'-C5'-C4'	-6.84	98.70	111.70
2	A8	1748	C	C5'-C4'-C3'	-6.84	105.06	116.00
2	A8	2800	A	N1-C2-N3	6.84	132.72	129.30
2	A8	2898	U	O4'-C1'-N1	6.84	113.67	108.20
36	BA	336	A	C5-C6-N6	-6.84	118.23	123.70
36	BA	1266	G	C8-N9-C1'	6.84	135.89	127.00
36	BA	1378	C	O4'-C1'-N1	6.84	113.67	108.20
36	BA	521	G	N1-C6-O6	6.84	124.00	119.90
36	BA	1426	G	O4'-C1'-N9	6.84	113.67	108.20
2	A8	567	U	O4'-C1'-N1	6.84	113.67	108.20
2	A8	1650	A	C5-C6-N6	-6.84	118.23	123.70
2	A8	1894	C	C6-N1-C2	-6.84	117.57	120.30
36	BA	833	G	N1-C6-O6	6.84	124.00	119.90
36	BA	1236	A	C5-C6-N6	-6.84	118.23	123.70
36	BA	1449	C	O4'-C1'-N1	6.84	113.67	108.20
2	A8	1861	G	C5'-C4'-C3'	-6.83	105.06	116.00
36	BA	838	G	N1-C6-O6	6.83	124.00	119.90
1	A7	109	A	O4'-C1'-N9	6.83	113.67	108.20
2	A8	238	C	O4'-C1'-N1	6.83	113.67	108.20
2	A8	1130	U	C1'-O4'-C4'	-6.83	104.43	109.90
2	A8	2365	G	N3-C2-N2	6.83	124.68	119.90
2	A8	2371	G	C5-C6-O6	-6.83	124.50	128.60
2	A8	2819	G	C5-C6-O6	-6.83	124.50	128.60
36	BA	621	A	C5'-C4'-O4'	6.83	117.30	109.10
36	BA	875	U	O4'-C1'-N1	6.83	113.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	977	A	C5'-C4'-O4'	6.83	117.30	109.10
2	A8	101	A	C4-C5-C6	6.83	120.42	117.00
2	A8	267	C	N3-C4-N4	6.83	122.78	118.00
2	A8	1327	A	C5-C6-N1	-6.83	114.28	117.70
2	A8	2392	A	C5-C6-N1	-6.83	114.28	117.70
36	BA	393	A	C5-C6-N6	-6.83	118.23	123.70
36	BA	903	G	C8-N9-C4	-6.83	103.67	106.40
2	A8	1366	A	C5-C6-N6	-6.83	118.24	123.70
2	A8	1634	A	O4'-C1'-N9	6.83	113.66	108.20
2	A8	1669	A	C8-N9-C4	-6.83	103.07	105.80
36	BA	158	G	C4-N9-C1'	-6.83	117.62	126.50
36	BA	201	G	N1-C6-O6	6.83	124.00	119.90
36	BA	742	G	N3-C2-N2	6.83	124.68	119.90
36	BA	1124	G	O4'-C1'-N9	6.83	113.66	108.20
2	A8	624	C	P-O3'-C3'	-6.83	111.51	119.70
2	A8	642	U	N1-C2-O2	-6.83	118.02	122.80
2	A8	1734	G	O4'-C1'-N9	6.83	113.66	108.20
2	A8	1748	C	P-O3'-C3'	-6.83	111.51	119.70
2	A8	1926	U	O4'-C1'-N1	6.83	113.66	108.20
2	A8	2445	G	C5-C6-O6	-6.83	124.50	128.60
2	A8	2767	C	O4'-C1'-N1	6.83	113.66	108.20
36	BA	220	G	N3-C2-N2	6.83	124.68	119.90
2	A8	85	G	N1-C6-O6	6.83	124.00	119.90
2	A8	185	G	N1-C6-O6	6.83	124.00	119.90
2	A8	643	A	C4-C5-C6	6.83	120.41	117.00
36	BA	577	G	N1-C6-O6	6.83	124.00	119.90
36	BA	1015	G	C5'-C4'-C3'	6.83	126.92	116.00
36	BA	1533	C	N3-C4-N4	6.83	122.78	118.00
2	A8	6	A	O4'-C1'-N9	6.83	113.66	108.20
36	BA	454	G	P-O3'-C3'	-6.83	111.51	119.70
36	BA	1072	G	C5'-C4'-C3'	-6.83	105.08	116.00
43	BH	64	TYR	CB-CG-CD1	6.83	125.09	121.00
2	A8	726	G	C5-C6-O6	-6.82	124.51	128.60
2	A8	727	A	C4-C5-C6	6.82	120.41	117.00
2	A8	1554	U	O4'-C1'-C2'	-6.82	98.98	105.80
2	A8	1689	A	C5-C6-N1	-6.82	114.29	117.70
2	A8	1784	A	C5-C6-N6	-6.82	118.24	123.70
36	BA	557	G	C5-C6-O6	-6.82	124.51	128.60
36	BA	813	U	O4'-C1'-N1	6.82	113.66	108.20
2	A8	214	G	C5-C6-O6	-6.82	124.51	128.60
2	A8	471	A	C5-C6-N1	-6.82	114.29	117.70
1	A7	117	G	C5-C6-O6	-6.82	124.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	447	A	C4-N9-C1'	6.82	138.58	126.30
2	A8	813	U	O4'-C1'-N1	6.82	113.66	108.20
2	A8	1640	A	C5-C6-N6	-6.82	118.24	123.70
2	A8	1807	G	P-O5'-C5'	-6.82	109.99	120.90
36	BA	658	C	N3-C4-N4	6.82	122.77	118.00
36	BA	903	G	C5'-C4'-C3'	-6.82	105.09	116.00
2	A8	1374	G	N1-C6-O6	6.82	123.99	119.90
36	BA	81	A	C4-C5-C6	6.82	120.41	117.00
36	BA	556	C	C5-C6-N1	6.82	124.41	121.00
36	BA	756	C	N3-C4-C5	-6.82	119.17	121.90
36	BA	1348	U	O4'-C1'-N1	6.82	113.65	108.20
1	A7	76	G	O4'-C1'-N9	6.82	113.65	108.20
2	A8	1116	G	N1-C6-O6	6.82	123.99	119.90
2	A8	1720	U	C5'-C4'-C3'	-6.82	105.10	116.00
2	A8	2802	G	C8-N9-C1'	6.82	135.86	127.00
36	BA	439	U	C2-N1-C1'	6.82	125.88	117.70
36	BA	1516	G	C8-N9-C1'	6.82	135.86	127.00
2	A8	68	G	N1-C6-O6	6.81	123.99	119.90
2	A8	266	G	C4-N9-C1'	6.81	135.36	126.50
36	BA	612	C	C1'-O4'-C4'	-6.81	104.45	109.90
2	A8	1051	G	C5'-C4'-C3'	-6.81	105.10	116.00
2	A8	2426	A	C5-C6-N1	-6.81	114.29	117.70
2	A8	2468	A	C8-N9-C4	6.81	108.53	105.80
2	A8	2477	U	C5'-C4'-O4'	-6.81	100.92	109.10
36	BA	555	U	O4'-C1'-N1	6.81	113.65	108.20
36	BA	1482	G	C5'-C4'-C3'	6.81	126.90	116.00
2	A8	192	C	P-O3'-C3'	-6.81	111.53	119.70
2	A8	523	C	N3-C4-C5	-6.81	119.17	121.90
2	A8	1689	A	C5-C6-N6	-6.81	118.25	123.70
36	BA	669	G	C5'-C4'-C3'	-6.81	105.10	116.00
36	BA	1068	G	C5'-C4'-C3'	-6.81	105.10	116.00
1	A7	18	G	O4'-C1'-N9	6.81	113.65	108.20
2	A8	262	A	C5-C6-N6	-6.81	118.25	123.70
2	A8	666	A	C5-C6-N6	-6.81	118.25	123.70
2	A8	1192	G	P-O3'-C3'	-6.81	111.53	119.70
2	A8	1293	C	O4'-C1'-N1	6.81	113.65	108.20
2	A8	1465	G	C8-N9-C1'	6.81	135.85	127.00
2	A8	1888	G	C5-C6-O6	-6.81	124.51	128.60
36	BA	888	G	O4'-C1'-N9	6.81	113.65	108.20
36	BA	1197	A	C4-C5-C6	6.81	120.41	117.00
36	BA	1453	G	C5-C6-O6	-6.81	124.51	128.60
2	A8	457	A	C5'-C4'-O4'	6.81	117.27	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	600	G	O4'-C1'-N9	6.81	113.65	108.20
2	A8	1223	G	C5-C6-O6	-6.81	124.52	128.60
2	A8	2643	G	C5'-C4'-C3'	-6.81	105.11	116.00
2	A8	2868	A	C4-C5-C6	6.81	120.40	117.00
36	BA	697	U	O4'-C1'-N1	6.81	113.65	108.20
36	BA	1418	A	C6-C5-N7	-6.81	127.53	132.30
2	A8	2695	U	O4'-C1'-N1	6.81	113.64	108.20
36	BA	823	C	P-O3'-C3'	-6.81	111.53	119.70
36	BA	961	U	O4'-C1'-N1	6.81	113.64	108.20
2	A8	1032	A	C5-C6-N6	-6.80	118.26	123.70
2	A8	2289	G	C5-C6-O6	-6.80	124.52	128.60
23	AS	92	ARG	NE-CZ-NH2	-6.80	116.90	120.30
36	BA	128	G	C5-C6-O6	-6.80	124.52	128.60
36	BA	376	G	O4'-C1'-N9	6.80	113.64	108.20
36	BA	1453	G	N1-C6-O6	6.80	123.98	119.90
2	A8	820	A	C5-C6-N1	-6.80	114.30	117.70
2	A8	929	U	O4'-C1'-N1	6.80	113.64	108.20
2	A8	1345	C	P-O3'-C3'	-6.80	111.54	119.70
2	A8	1982	U	P-O3'-C3'	-6.80	111.54	119.70
2	A8	1991	U	O4'-C1'-N1	6.80	113.64	108.20
2	A8	2129	C	C2-N1-C1'	6.80	126.28	118.80
2	A8	2700	A	O4'-C1'-N9	6.80	113.64	108.20
36	BA	479	U	O4'-C1'-N1	6.80	113.64	108.20
2	A8	271	G	N1-C6-O6	6.80	123.98	119.90
2	A8	1280	G	C5'-C4'-C3'	-6.80	105.12	116.00
2	A8	1535	A	O4'-C1'-N9	6.80	113.64	108.20
2	A8	2526	G	N3-C2-N2	6.80	124.66	119.90
2	A8	472	A	C4-C5-C6	6.80	120.40	117.00
2	A8	1735	A	C8-N9-C4	-6.80	103.08	105.80
2	A8	2041	U	C5'-C4'-C3'	-6.80	105.12	116.00
2	A8	2397	G	C5-C6-O6	-6.80	124.52	128.60
2	A8	2427	C	N3-C4-N4	6.80	122.76	118.00
2	A8	2628	C	O4'-C1'-N1	6.80	113.64	108.20
36	BA	33	A	O4'-C1'-N9	6.80	113.64	108.20
36	BA	327	A	C4-C5-C6	6.80	120.40	117.00
36	BA	639	G	C5-C6-O6	-6.80	124.52	128.60
36	BA	838	G	N3-C2-N2	6.80	124.66	119.90
36	BA	994	A	C5-C6-N6	-6.80	118.26	123.70
2	A8	374	A	C5-C6-N6	-6.80	118.26	123.70
2	A8	2168	G	C8-N9-C1'	6.80	135.84	127.00
2	A8	2618	G	C8-N9-C1'	6.80	135.84	127.00
36	BA	241	G	O4'-C1'-N9	6.80	113.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	478	A	C4-C5-C6	6.80	120.40	117.00
2	A8	893	C	C5'-C4'-C3'	-6.80	105.12	116.00
2	A8	2870	C	C6-N1-C1'	6.80	128.96	120.80
36	BA	236	A	C5-C6-N6	-6.80	118.26	123.70
36	BA	1191	A	C5-C6-N6	-6.80	118.26	123.70
2	A8	1177	G	C8-N9-C4	-6.79	103.68	106.40
36	BA	203	G	C3'-C2'-C1'	-6.79	96.06	101.50
36	BA	925	G	C5-C6-O6	-6.79	124.52	128.60
36	BA	1090	U	O4'-C1'-N1	6.79	113.64	108.20
36	BA	634	C	N3-C4-N4	6.79	122.76	118.00
36	BA	1199	U	O4'-C1'-N1	6.79	113.64	108.20
2	A8	1483	G	N1-C6-O6	6.79	123.97	119.90
2	A8	1804	C	O4'-C1'-N1	6.79	113.63	108.20
2	A8	2375	G	P-O3'-C3'	-6.79	111.55	119.70
2	A8	1015	U	O4'-C1'-N1	6.79	113.63	108.20
36	BA	647	C	C5'-C4'-C3'	-6.79	105.14	116.00
36	BA	1441	A	C5-C6-N6	-6.79	118.27	123.70
1	A7	95	U	O4'-C1'-N1	6.79	113.63	108.20
2	A8	584	C	C1'-O4'-C4'	-6.79	104.47	109.90
2	A8	1358	G	N1-C2-N3	-6.79	119.83	123.90
2	A8	1995	U	O4'-C1'-N1	6.79	113.63	108.20
2	A8	2509	G	C5-C6-O6	-6.79	124.53	128.60
36	BA	15	G	C5-C6-O6	-6.79	124.53	128.60
36	BA	593	U	O4'-C1'-N1	6.79	113.63	108.20
36	BA	608	A	C4-C5-C6	6.79	120.39	117.00
36	BA	1382	C	O4'-C1'-N1	6.79	113.63	108.20
36	BA	1527	U	O4'-C1'-N1	6.79	113.63	108.20
2	A8	801	G	C5-C6-O6	-6.79	124.53	128.60
2	A8	879	G	C5'-C4'-C3'	-6.79	105.14	116.00
2	A8	1237	A	C4-C5-C6	6.79	120.39	117.00
2	A8	1361	G	C5'-C4'-C3'	-6.79	105.14	116.00
2	A8	1795	C	N3-C4-N4	6.79	122.75	118.00
2	A8	2278	A	O4'-C1'-N9	6.79	113.63	108.20
2	A8	2600	A	P-O3'-C3'	-6.79	111.56	119.70
2	A8	2753	A	C4-C5-C6	6.79	120.39	117.00
36	BA	236	A	O4'-C1'-N9	6.79	113.63	108.20
36	BA	241	G	N1-C6-O6	6.79	123.97	119.90
2	A8	424	G	P-O3'-C3'	-6.78	111.56	119.70
2	A8	1045	C	O4'-C1'-N1	6.78	113.63	108.20
2	A8	1100	C	N3-C4-N4	6.78	122.75	118.00
2	A8	1548	A	O4'-C1'-N9	6.78	113.63	108.20
36	BA	131	A	C5-C6-N6	-6.78	118.27	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1449	C	C6-N1-C2	-6.78	117.59	120.30
2	A8	820	A	C4-C5-C6	6.78	120.39	117.00
2	A8	969	G	C5-C6-O6	-6.78	124.53	128.60
2	A8	1069	A	C5-C6-N6	-6.78	118.28	123.70
2	A8	2230	G	C8-N9-C1'	6.78	135.82	127.00
36	BA	525	C	O4'-C1'-N1	6.78	113.63	108.20
36	BA	1234	C	P-O3'-C3'	-6.78	111.56	119.70
2	A8	479	A	C5-C6-N6	-6.78	118.28	123.70
2	A8	628	G	C5-C6-O6	-6.78	124.53	128.60
2	A8	1070	A	C5-C6-N6	-6.78	118.28	123.70
2	A8	2525	G	C5-C6-O6	-6.78	124.53	128.60
36	BA	6	G	C8-N9-C1'	-6.78	118.19	127.00
36	BA	171	A	C4-C5-C6	6.78	120.39	117.00
36	BA	374	A	O4'-C1'-N9	6.78	113.62	108.20
1	A7	45	A	C5-C6-N6	-6.78	118.28	123.70
1	A7	79	G	C8-N9-C4	-6.78	103.69	106.40
2	A8	1321	A	C4-C5-C6	6.78	120.39	117.00
2	A8	180	G	O4'-C1'-N9	6.78	113.62	108.20
2	A8	654	A	C4-C5-C6	6.78	120.39	117.00
2	A8	852	U	O4'-C1'-N1	6.78	113.62	108.20
2	A8	1890	A	C6-C5-N7	-6.78	127.56	132.30
2	A8	2336	A	P-O3'-C3'	6.78	127.83	119.70
2	A8	2800	A	C5-C6-N6	-6.78	118.28	123.70
36	BA	305	G	O4'-C1'-N9	6.78	113.62	108.20
36	BA	643	C	O4'-C1'-N1	6.78	113.62	108.20
1	A7	78	A	C5'-C4'-C3'	-6.78	105.16	116.00
2	A8	873	C	P-O3'-C3'	-6.78	111.57	119.70
36	BA	387	U	O4'-C1'-N1	6.78	113.62	108.20
2	A8	1793	C	O4'-C1'-N1	6.77	113.62	108.20
1	A7	27	C	N3-C4-N4	6.77	122.74	118.00
2	A8	1303	G	C8-N9-C1'	6.77	135.80	127.00
2	A8	1395	A	O4'-C1'-N9	6.77	113.62	108.20
2	A8	1783	A	O4'-C1'-N9	6.77	113.62	108.20
2	A8	1873	G	C5'-C4'-O4'	6.77	117.23	109.10
2	A8	2343	U	P-O3'-C3'	6.77	127.83	119.70
36	BA	693	G	C5-C6-O6	-6.77	124.54	128.60
2	A8	1104	C	N3-C4-C5	-6.77	119.19	121.90
36	BA	411	A	C4-C5-C6	6.77	120.39	117.00
2	A8	79	C	N3-C4-C5	-6.77	119.19	121.90
2	A8	481	G	C8-N9-C1'	6.77	135.80	127.00
2	A8	662	G	O4'-C1'-N9	6.77	113.62	108.20
2	A8	962	G	N3-C2-N2	6.77	124.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1288	G	C4-N9-C1'	6.77	135.30	126.50
2	A8	1925	C	C2-N1-C1'	-6.77	111.35	118.80
2	A8	2170	A	C4-C5-C6	6.77	120.39	117.00
2	A8	2212	A	C5-C6-N6	-6.77	118.28	123.70
2	A8	2648	G	P-O3'-C3'	-6.77	111.58	119.70
36	BA	1465	A	C5'-C4'-C3'	-6.77	105.17	116.00
2	A8	1263	U	O4'-C1'-N1	6.77	113.61	108.20
2	A8	1605	C	O4'-C1'-N1	6.77	113.61	108.20
2	A8	2633	G	N1-C6-O6	6.77	123.96	119.90
2	A8	2716	C	P-O5'-C5'	-6.77	110.07	120.90
36	BA	807	A	C4-C5-C6	6.77	120.38	117.00
36	BA	1525	G	C3'-C2'-C1'	-6.77	96.09	101.50
2	A8	831	G	C5-C6-O6	-6.77	124.54	128.60
2	A8	1157	G	C5-C6-O6	-6.77	124.54	128.60
36	BA	393	A	C3'-C2'-C1'	-6.77	96.09	101.50
36	BA	1267	C	N3-C4-N4	6.77	122.74	118.00
2	A8	155	A	C4-C5-C6	6.76	120.38	117.00
2	A8	291	G	C5-C6-O6	-6.76	124.54	128.60
2	A8	2583	G	C5-C6-O6	-6.76	124.54	128.60
36	BA	262	A	C5-C6-N6	-6.76	118.29	123.70
36	BA	361	G	O4'-C1'-N9	6.76	113.61	108.20
36	BA	1401	G	C5-C6-O6	-6.76	124.54	128.60
2	A8	836	G	P-O5'-C5'	-6.76	110.08	120.90
2	A8	1671	U	C5'-C4'-C3'	-6.76	105.18	116.00
2	A8	2454	G	N1-C6-O6	6.76	123.96	119.90
2	A8	726	G	N1-C6-O6	6.76	123.96	119.90
2	A8	936	A	C5-C6-N6	-6.76	118.29	123.70
2	A8	1254	A	C5-C6-N6	-6.76	118.29	123.70
2	A8	2394	C	P-O3'-C3'	-6.76	111.59	119.70
36	BA	172	A	C4-C5-C6	6.76	120.38	117.00
36	BA	778	G	O4'-C1'-N9	6.76	113.61	108.20
36	BA	1218	C	O4'-C1'-N1	6.76	113.61	108.20
36	BA	1447	A	C5-C6-N6	-6.76	118.29	123.70
2	A8	2655	G	N1-C6-O6	6.76	123.96	119.90
2	A8	2682	A	C4-C5-C6	6.76	120.38	117.00
2	A8	1339	G	N1-C6-O6	6.76	123.95	119.90
2	A8	2825	G	N1-C6-O6	6.76	123.95	119.90
2	A8	758	C	C3'-C2'-C1'	-6.76	96.09	101.50
2	A8	2827	C	C5'-C4'-C3'	-6.76	105.19	116.00
36	BA	260	G	P-O3'-C3'	-6.76	111.59	119.70
36	BA	403	C	C6-N1-C2	-6.76	117.60	120.30
36	BA	1362	A	N1-C6-N6	6.76	122.65	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1377	G	C4'-C3'-C2'	6.75	109.36	102.60
2	A8	1642	G	P-O3'-C3'	-6.75	111.59	119.70
2	A8	2116	G	C5-C6-O6	-6.75	124.55	128.60
2	A8	1350	C	C3'-C2'-C1'	-6.75	96.10	101.50
2	A8	1513	U	O4'-C1'-N1	6.75	113.60	108.20
36	BA	359	G	P-O3'-C3'	-6.75	111.59	119.70
36	BA	775	G	O4'-C1'-N9	6.75	113.60	108.20
36	BA	832	G	C5'-C4'-C3'	-6.75	105.19	116.00
1	A7	33	G	O4'-C1'-N9	6.75	113.60	108.20
2	A8	630	G	C5-C6-O6	-6.75	124.55	128.60
2	A8	846	U	O4'-C1'-N1	6.75	113.60	108.20
2	A8	1813	G	O4'-C1'-N9	6.75	113.60	108.20
3	AA	362	PHE	CB-CG-CD2	-6.75	116.07	120.80
2	A8	901	C	N3-C4-C5	-6.75	119.20	121.90
2	A8	1596	A	C5-C6-N6	-6.75	118.30	123.70
2	A8	2657	A	C5'-C4'-C3'	-6.75	105.20	116.00
36	BA	667	G	C3'-C2'-C1'	-6.75	96.10	101.50
36	BA	907	A	C8-N9-C4	-6.75	103.10	105.80
2	A8	1247	A	C5-C6-N6	-6.75	118.30	123.70
36	BA	460	A	C3'-C2'-C1'	-6.75	96.10	101.50
36	BA	929	G	O4'-C1'-N9	6.75	113.60	108.20
36	BA	1504	G	C5-N7-C8	6.75	107.67	104.30
2	A8	290	U	O4'-C1'-N1	6.75	113.60	108.20
2	A8	334	C	P-O3'-C3'	-6.75	111.61	119.70
2	A8	1410	G	C5'-C4'-C3'	-6.75	105.20	116.00
2	A8	2138	G	O4'-C1'-N9	6.75	113.60	108.20
36	BA	122	G	O4'-C1'-N9	6.75	113.60	108.20
36	BA	1016	A	C8-N9-C4	-6.75	103.10	105.80
2	A8	485	C	C5'-C4'-C3'	-6.74	105.21	116.00
2	A8	1090	A	C4-C5-C6	6.74	120.37	117.00
2	A8	1757	A	C5-C6-N1	-6.74	114.33	117.70
2	A8	2851	A	C4-C5-C6	6.74	120.37	117.00
36	BA	825	A	O4'-C1'-N9	6.74	113.59	108.20
36	BA	929	G	P-O3'-C3'	-6.74	111.61	119.70
36	BA	1339	A	C5-C6-N1	-6.74	114.33	117.70
2	A8	833	A	O4'-C1'-N9	6.74	113.59	108.20
2	A8	1136	G	O4'-C1'-N9	6.74	113.59	108.20
2	A8	1687	G	O4'-C1'-N9	6.74	113.59	108.20
2	A8	2718	G	C8-N9-C1'	6.74	135.76	127.00
36	BA	32	A	C5-C6-N6	-6.74	118.31	123.70
36	BA	628	G	C8-N9-C1'	6.74	135.76	127.00
36	BA	1374	A	C4-C5-C6	6.74	120.37	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	258	G	O4'-C1'-N9	6.74	113.59	108.20
2	A8	1822	C	N3-C4-N4	6.74	122.72	118.00
36	BA	810	C	C2-N1-C1'	-6.74	111.39	118.80
36	BA	1419	G	N3-C2-N2	6.74	124.62	119.90
2	A8	89	A	O4'-C1'-N9	6.74	113.59	108.20
2	A8	1708	C	O4'-C1'-N1	6.74	113.59	108.20
2	A8	2791	G	C4-N9-C1'	-6.74	117.74	126.50
36	BA	685	G	C5-C6-O6	-6.74	124.56	128.60
38	BC	112	ALA	N-CA-CB	6.74	119.53	110.10
1	A7	41	G	C4-N9-C1'	6.74	135.26	126.50
2	A8	282	A	C5-C6-N6	-6.74	118.31	123.70
2	A8	409	G	C5-C6-O6	-6.74	124.56	128.60
36	BA	1002	G	C5-C6-O6	-6.74	124.56	128.60
36	BA	1453	G	C5'-C4'-C3'	-6.74	105.22	116.00
2	A8	35	G	O5'-C5'-C4'	-6.74	98.90	111.70
2	A8	154	U	O4'-C1'-N1	6.74	113.59	108.20
2	A8	751	A	P-O5'-C5'	6.74	131.68	120.90
2	A8	1623	G	N9-C1'-C2'	-6.74	104.59	112.00
2	A8	1857	G	C4'-C3'-C2'	6.74	109.33	102.60
2	A8	2014	A	C4-C5-C6	6.74	120.37	117.00
2	A8	2262	U	O4'-C1'-N1	6.74	113.59	108.20
2	A8	2439	A	C4-C5-C6	6.74	120.37	117.00
36	BA	77	A	C4-C5-C6	6.74	120.37	117.00
36	BA	233	C	O4'-C1'-N1	6.74	113.59	108.20
36	BA	463	U	O4'-C1'-N1	6.74	113.59	108.20
36	BA	781	A	C5-C6-N6	-6.74	118.31	123.70
36	BA	907	A	O5'-C5'-C4'	6.74	124.50	111.70
36	BA	937	A	C5-C6-N1	-6.74	114.33	117.70
2	A8	361	G	C8-N9-C1'	6.73	135.75	127.00
2	A8	1304	A	C5-C6-N6	-6.73	118.31	123.70
2	A8	2089	C	N3-C4-N4	6.73	122.71	118.00
2	A8	2659	G	C8-N9-C1'	6.73	135.75	127.00
36	BA	121	U	O4'-C1'-N1	6.73	113.59	108.20
36	BA	240	G	C5-C6-O6	-6.73	124.56	128.60
1	A7	34	A	C4-C5-C6	6.73	120.37	117.00
1	A7	44	G	C5-C6-O6	-6.73	124.56	128.60
2	A8	346	A	C5-C6-N1	-6.73	114.33	117.70
36	BA	856	C	C5'-C4'-C3'	-6.73	105.23	116.00
36	BA	1336	C	O4'-C1'-N1	6.73	113.59	108.20
2	A8	43	G	C5-C6-O6	-6.73	124.56	128.60
2	A8	213	A	O4'-C1'-N9	6.73	113.58	108.20
2	A8	406	G	C5-C6-O6	-6.73	124.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	928	A	O4'-C1'-N9	6.73	113.58	108.20
2	A8	2030	A	C5-C6-N1	-6.73	114.33	117.70
2	A8	2223	G	C5-C6-O6	-6.73	124.56	128.60
2	A8	2703	C	C5'-C4'-C3'	-6.73	105.23	116.00
36	BA	1001	C	N3-C4-N4	6.73	122.71	118.00
2	A8	579	G	N1-C6-O6	6.73	123.94	119.90
2	A8	1038	G	O4'-C1'-N9	6.73	113.58	108.20
2	A8	2267	A	C4-C5-C6	6.73	120.36	117.00
2	A8	2526	G	C4-N9-C1'	-6.73	117.75	126.50
36	BA	67	C	O4'-C1'-N1	6.73	113.58	108.20
36	BA	1458	G	N1-C6-O6	6.73	123.94	119.90
1	A7	42	C	N3-C4-N4	6.73	122.71	118.00
2	A8	114	U	O4'-C1'-N1	6.73	113.58	108.20
2	A8	486	C	O4'-C1'-N1	6.73	113.58	108.20
2	A8	1835	G	N1-C6-O6	6.73	123.94	119.90
2	A8	2389	G	O4'-C1'-C2'	6.73	113.66	107.60
36	BA	208	U	P-O5'-C5'	6.73	131.67	120.90
36	BA	309	A	C5-C6-N6	-6.73	118.32	123.70
36	BA	369	G	C5-C6-O6	-6.73	124.56	128.60
36	BA	742	G	N1-C6-O6	6.73	123.94	119.90
36	BA	1007	U	P-O5'-C5'	6.73	131.67	120.90
2	A8	46	G	C5-C6-O6	-6.73	124.56	128.60
2	A8	414	C	P-O3'-C3'	-6.73	111.63	119.70
2	A8	1296	G	N1-C6-O6	6.73	123.94	119.90
2	A8	1835	G	C8-N9-C4	-6.73	103.71	106.40
2	A8	2339	C	P-O3'-C3'	-6.73	111.63	119.70
2	A8	2594	C	C2-N1-C1'	-6.73	111.40	118.80
2	A8	1940	U	C3'-C2'-C1'	-6.72	96.12	101.50
36	BA	627	G	O4'-C1'-N9	6.72	113.58	108.20
36	BA	1494	G	N3-C2-N2	6.72	124.61	119.90
2	A8	613	A	C5-C6-N1	-6.72	114.34	117.70
2	A8	1660	G	C5'-C4'-C3'	-6.72	105.24	116.00
36	BA	1481	U	O4'-C1'-N1	6.72	113.58	108.20
2	A8	1117	C	C3'-C2'-C1'	-6.72	96.12	101.50
2	A8	2783	U	O4'-C1'-N1	6.72	113.58	108.20
36	BA	1244	G	C5'-C4'-C3'	-6.72	105.25	116.00
2	A8	81	G	C5-C6-O6	-6.72	124.57	128.60
2	A8	698	C	C5-C6-N1	6.72	124.36	121.00
2	A8	2743	U	P-O3'-C3'	-6.72	111.64	119.70
36	BA	1058	G	C5-C6-O6	-6.72	124.57	128.60
2	A8	1127	A	C5-C6-N6	-6.72	118.33	123.70
2	A8	2694	G	C3'-C2'-C1'	-6.72	96.13	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1416	G	C5-C6-O6	-6.72	124.57	128.60
2	A8	701	G	P-O3'-C3'	-6.72	111.64	119.70
2	A8	1175	A	C4-C5-C6	6.72	120.36	117.00
2	A8	2009	A	C5-C6-N1	-6.72	114.34	117.70
36	BA	10	A	C4-C5-C6	6.72	120.36	117.00
36	BA	179	A	C4-C5-C6	6.72	120.36	117.00
36	BA	204	G	O4'-C1'-N9	6.72	113.57	108.20
36	BA	384	G	C5-C6-O6	-6.72	124.57	128.60
36	BA	892	A	C5'-C4'-C3'	-6.72	105.25	116.00
36	BA	1316	G	C5-C6-O6	-6.72	124.57	128.60
1	A7	70	C	P-O3'-C3'	-6.71	111.64	119.70
2	A8	940	G	O4'-C1'-N9	6.71	113.57	108.20
2	A8	2467	C	P-O3'-C3'	-6.71	111.64	119.70
36	BA	221	C	C6-N1-C2	-6.71	117.61	120.30
36	BA	282	A	N1-C6-N6	6.71	122.63	118.60
36	BA	744	C	O4'-C1'-N1	6.71	113.57	108.20
36	BA	907	A	C5-C6-N1	-6.71	114.34	117.70
2	A8	1298	C	N3-C4-C5	-6.71	119.22	121.90
36	BA	980	C	P-O5'-C5'	-6.71	110.16	120.90
2	A8	1029	A	C6-C5-N7	-6.71	127.60	132.30
2	A8	1732	C	C5'-C4'-C3'	-6.71	105.26	116.00
2	A8	1921	G	C8-N9-C1'	6.71	135.73	127.00
36	BA	57	G	O4'-C1'-N9	6.71	113.57	108.20
36	BA	529	G	C5-C6-O6	-6.71	124.57	128.60
2	A8	1662	U	C3'-C2'-C1'	-6.71	96.13	101.50
36	BA	592	G	N1-C6-O6	6.71	123.93	119.90
36	BA	759	A	C8-N9-C4	-6.71	103.12	105.80
2	A8	1434	A	C5-C6-N6	-6.71	118.33	123.70
2	A8	1927	A	O4'-C1'-N9	6.71	113.57	108.20
2	A8	2385	C	O4'-C1'-N1	6.71	113.57	108.20
2	A8	2757	A	C4-C5-C6	6.71	120.35	117.00
2	A8	2803	G	C4-N9-C1'	-6.71	117.78	126.50
2	A8	261	G	C1'-O4'-C4'	-6.71	104.53	109.90
2	A8	1118	C	O4'-C1'-N1	6.71	113.56	108.20
2	A8	1424	G	N1-C6-O6	6.71	123.92	119.90
36	BA	99	C	N3-C4-C5	-6.71	119.22	121.90
36	BA	694	A	C5'-C4'-C3'	-6.71	105.27	116.00
36	BA	757	U	C5'-C4'-C3'	-6.71	105.27	116.00
2	A8	1441	G	O4'-C1'-N9	6.71	113.56	108.20
2	A8	2025	C	O4'-C1'-N1	6.71	113.56	108.20
2	A8	362	A	C5-C6-N6	-6.70	118.34	123.70
2	A8	649	G	N3-C2-N2	6.70	124.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1317	G	C5-C6-O6	-6.70	124.58	128.60
2	A8	1854	A	C4'-C3'-C2'	6.70	109.30	102.60
36	BA	1334	G	C5-C6-O6	-6.70	124.58	128.60
2	A8	2113	U	O4'-C1'-N1	6.70	113.56	108.20
36	BA	1426	G	C5-C6-O6	-6.70	124.58	128.60
2	A8	241	A	C5'-C4'-O4'	6.70	117.14	109.10
2	A8	447	A	C6-C5-N7	-6.70	127.61	132.30
2	A8	691	C	O4'-C1'-N1	6.70	113.56	108.20
2	A8	760	G	O4'-C1'-N9	6.70	113.56	108.20
36	BA	881	G	P-O3'-C3'	-6.70	111.66	119.70
36	BA	1204	A	P-O5'-C5'	-6.70	110.18	120.90
1	A7	70	C	C6-N1-C2	-6.70	117.62	120.30
2	A8	1062	G	C8-N9-C4	-6.70	103.72	106.40
2	A8	1236	G	C5-C6-O6	-6.70	124.58	128.60
36	BA	169	C	N3-C4-C5	-6.70	119.22	121.90
2	A8	117	G	O4'-C1'-N9	6.70	113.56	108.20
2	A8	223	A	C5-C6-N6	-6.70	118.34	123.70
36	BA	991	U	O4'-C1'-N1	6.70	113.56	108.20
2	A8	1473	G	O4'-C1'-N9	6.69	113.56	108.20
2	A8	1912	A	C5-C6-N6	-6.69	118.34	123.70
2	A8	2276	G	N3-C2-N2	6.69	124.59	119.90
36	BA	40	C	C5'-C4'-C3'	-6.69	105.29	116.00
36	BA	912	C	N3-C4-N4	6.69	122.69	118.00
36	BA	1279	G	N1-C6-O6	6.69	123.92	119.90
2	A8	912	C	N3-C4-C5	-6.69	119.22	121.90
2	A8	1303	G	O4'-C1'-N9	6.69	113.56	108.20
2	A8	2560	A	C3'-C2'-C1'	-6.69	96.15	101.50
2	A8	628	G	N1-C6-O6	6.69	123.91	119.90
2	A8	1776	G	C5-C6-O6	-6.69	124.59	128.60
36	BA	537	G	C5-C6-O6	-6.69	124.59	128.60
36	BA	586	C	O4'-C1'-N1	6.69	113.55	108.20
1	A7	116	G	C8-N9-C1'	6.69	135.70	127.00
2	A8	217	A	C4-C5-C6	6.69	120.34	117.00
2	A8	1476	U	O4'-C1'-N1	6.69	113.55	108.20
2	A8	1494	A	C5-C6-N1	-6.69	114.36	117.70
2	A8	891	G	O4'-C1'-N9	6.69	113.55	108.20
2	A8	1295	C	C5'-C4'-C3'	6.69	126.70	116.00
36	BA	1005	A	C5-C6-N1	-6.69	114.36	117.70
36	BA	1418	A	C5-C6-N1	-6.69	114.36	117.70
2	A8	1849	G	O4'-C1'-N9	6.69	113.55	108.20
1	A7	46	A	O4'-C1'-N9	6.68	113.55	108.20
2	A8	382	A	O4'-C1'-N9	6.68	113.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	640	C	N3-C4-C5	-6.68	119.23	121.90
2	A8	1277	G	C4-N9-C1'	-6.68	117.81	126.50
36	BA	801	U	O4'-C1'-N1	6.68	113.55	108.20
2	A8	505	A	C5-C6-N1	-6.68	114.36	117.70
2	A8	1918	A	C8-N9-C4	-6.68	103.13	105.80
2	A8	2134	A	C5-C6-N1	-6.68	114.36	117.70
2	A8	2433	A	C5-C6-N6	-6.68	118.35	123.70
36	BA	1344	C	O4'-C1'-N1	6.68	113.54	108.20
2	A8	1206	G	N9-C1'-C2'	-6.68	104.65	112.00
2	A8	1334	G	N1-C6-O6	6.68	123.91	119.90
2	A8	1491	G	P-O5'-C5'	6.68	131.59	120.90
2	A8	2047	C	N3-C4-N4	6.68	122.68	118.00
2	A8	2470	G	C5-C6-O6	-6.68	124.59	128.60
2	A8	1022	G	P-O5'-C5'	-6.68	110.22	120.90
2	A8	2280	G	N3-C2-N2	6.68	124.58	119.90
36	BA	51	A	O4'-C1'-N9	6.68	113.54	108.20
2	A8	795	C	O4'-C1'-N1	6.68	113.54	108.20
2	A8	1310	G	P-O3'-C3'	-6.68	111.69	119.70
7	A6	170	TYR	CB-CG-CD2	-6.68	116.99	121.00
11	AG	120	ILE	N-CA-C	-6.68	92.98	111.00
36	BA	711	G	C5-C6-O6	-6.68	124.59	128.60
36	BA	766	A	O4'-C1'-N9	6.68	113.54	108.20
1	A7	101	A	C5-C6-N6	-6.67	118.36	123.70
2	A8	1182	G	C8-N9-C1'	6.67	135.68	127.00
2	A8	1530	G	N1-C6-O6	6.67	123.90	119.90
2	A8	2399	G	C5-C6-O6	-6.67	124.59	128.60
2	A8	2407	A	C4-C5-C6	6.67	120.34	117.00
36	BA	613	C	C5'-C4'-C3'	-6.67	105.32	116.00
2	A8	286	U	P-O3'-C3'	-6.67	111.69	119.70
2	A8	1372	U	P-O5'-C5'	-6.67	110.22	120.90
2	A8	2599	G	C5'-C4'-O4'	6.67	117.11	109.10
2	A8	236	C	O4'-C1'-N1	6.67	113.54	108.20
2	A8	1962	C	C6-N1-C1'	-6.67	112.80	120.80
36	BA	1410	A	C4-C5-C6	6.67	120.34	117.00
2	A8	1518	C	P-O3'-C3'	-6.67	111.70	119.70
2	A8	1643	G	C5'-C4'-C3'	-6.67	105.33	116.00
2	A8	1705	A	C4-C5-C6	6.67	120.33	117.00
2	A8	1936	A	C5'-C4'-C3'	6.67	126.67	116.00
2	A8	2000	C	O4'-C1'-N1	6.67	113.53	108.20
2	A8	2259	U	O4'-C1'-N1	6.67	113.53	108.20
2	A8	2632	A	O4'-C1'-N9	6.67	113.53	108.20
36	BA	1066	C	N3-C4-N4	6.67	122.67	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1179	A	C5-C6-N1	-6.67	114.37	117.70
36	BA	1434	A	C4-C5-C6	6.67	120.33	117.00
2	A8	1528	A	C5-C6-N6	-6.67	118.37	123.70
2	A8	1529	G	N1-C6-O6	6.67	123.90	119.90
2	A8	1849	G	N1-C6-O6	6.67	123.90	119.90
32	A1	19	PHE	CB-CA-C	-6.67	97.07	110.40
2	A8	95	A	C5'-C4'-O4'	6.67	117.10	109.10
2	A8	273	G	C5-C6-O6	-6.67	124.60	128.60
2	A8	1159	U	O4'-C1'-N1	6.67	113.53	108.20
2	A8	1316	U	O4'-C1'-N1	6.67	113.53	108.20
36	BA	691	G	O4'-C1'-N9	6.67	113.53	108.20
36	BA	770	C	C6-N1-C2	-6.67	117.63	120.30
2	A8	942	G	C8-N9-C1'	6.66	135.66	127.00
2	A8	1201	U	O4'-C1'-N1	6.66	113.53	108.20
2	A8	2377	A	C5-C6-N6	-6.66	118.37	123.70
36	BA	51	A	C4'-C3'-C2'	6.66	109.26	102.60
36	BA	865	A	C8-N9-C4	-6.66	103.14	105.80
2	A8	1	G	C5-C6-O6	-6.66	124.60	128.60
2	A8	130	C	C4'-C3'-C2'	-6.66	95.94	102.60
2	A8	312	G	C5-C6-O6	-6.66	124.60	128.60
36	BA	1276	G	C6-C5-N7	-6.66	126.40	130.40
36	BA	1277	C	O4'-C1'-N1	6.66	113.53	108.20
1	A7	115	A	O4'-C1'-N9	6.66	113.53	108.20
2	A8	30	G	C5-C6-O6	-6.66	124.60	128.60
2	A8	82	U	O4'-C1'-N1	6.66	113.53	108.20
2	A8	916	G	N1-C2-N3	-6.66	119.90	123.90
2	A8	1756	G	P-O3'-C3'	6.66	127.69	119.70
2	A8	1842	G	C8-N9-C4	-6.66	103.74	106.40
36	BA	188	C	C3'-C2'-C1'	-6.66	96.17	101.50
36	BA	700	G	C5'-C4'-C3'	-6.66	105.34	116.00
2	A8	772	C	P-O5'-C5'	6.66	131.55	120.90
2	A8	1213	A	C5-C6-N6	-6.66	118.37	123.70
2	A8	1226	A	C4-C5-C6	6.66	120.33	117.00
2	A8	2150	C	O4'-C1'-N1	6.66	113.53	108.20
2	A8	2345	G	N3-C2-N2	6.66	124.56	119.90
36	BA	512	U	O4'-C1'-N1	6.66	113.53	108.20
36	BA	666	G	N3-C2-N2	6.66	124.56	119.90
2	A8	703	U	P-O3'-C3'	6.66	127.69	119.70
2	A8	1211	C	C2-N1-C1'	6.66	126.12	118.80
36	BA	845	A	C3'-C2'-C1'	-6.66	96.17	101.50
36	BA	1316	G	N1-C2-N2	-6.66	110.21	116.20
2	A8	1109	C	N3-C4-N4	6.66	122.66	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1152	C	O4'-C1'-N1	6.66	113.52	108.20
2	A8	1697	G	O4'-C1'-N9	6.66	113.52	108.20
2	A8	1819	A	C5-C6-N6	-6.66	118.38	123.70
2	A8	1942	C	O4'-C1'-N1	6.66	113.53	108.20
2	A8	2539	C	O4'-C1'-N1	6.66	113.53	108.20
36	BA	726	C	N3-C4-N4	6.66	122.66	118.00
2	A8	1309	G	C5-C6-O6	-6.65	124.61	128.60
2	A8	2903	U	O4'-C1'-N1	6.65	113.52	108.20
36	BA	6	G	C5-C6-O6	-6.65	124.61	128.60
36	BA	79	G	C5-C6-O6	-6.65	124.61	128.60
2	A8	1000	A	C5-C6-N6	-6.65	118.38	123.70
2	A8	1124	G	N3-C2-N2	6.65	124.56	119.90
2	A8	1226	A	C5-C6-N6	-6.65	118.38	123.70
2	A8	1702	G	O4'-C1'-N9	6.65	113.52	108.20
2	A8	2254	C	N3-C4-C5	-6.65	119.24	121.90
36	BA	174	A	P-O3'-C3'	-6.65	111.72	119.70
36	BA	533	A	C5-C6-N6	-6.65	118.38	123.70
2	A8	453	A	C4-C5-C6	6.65	120.33	117.00
2	A8	1741	C	C6-N1-C2	-6.65	117.64	120.30
36	BA	276	G	O4'-C1'-N9	6.65	113.52	108.20
36	BA	720	C	O4'-C1'-N1	6.65	113.52	108.20
1	A7	55	U	O4'-C1'-N1	6.65	113.52	108.20
2	A8	1844	C	C6-N1-C2	-6.65	117.64	120.30
2	A8	1874	C	C6-N1-C2	-6.65	117.64	120.30
2	A8	2348	U	P-O5'-C5'	-6.65	110.26	120.90
36	BA	607	A	C5-C6-N6	-6.65	118.38	123.70
2	A8	616	A	C5'-C4'-C3'	-6.65	105.36	116.00
2	A8	636	G	N3-C2-N2	6.65	124.55	119.90
2	A8	752	A	C5-C6-N1	-6.65	114.38	117.70
2	A8	1424	G	C5-C6-O6	-6.65	124.61	128.60
36	BA	907	A	C5-C6-N6	-6.65	118.38	123.70
36	BA	426	U	P-O5'-C5'	6.65	131.53	120.90
2	A8	93	G	C5'-C4'-C3'	-6.64	105.37	116.00
2	A8	1355	G	O4'-C1'-N9	6.64	113.52	108.20
2	A8	1975	G	C5-C6-O6	-6.64	124.61	128.60
2	A8	2092	U	C6-N1-C1'	-6.64	111.90	121.20
36	BA	251	G	C3'-C2'-C1'	-6.64	96.18	101.50
36	BA	1065	U	O4'-C1'-N1	6.64	113.52	108.20
2	A8	519	U	O4'-C1'-N1	6.64	113.51	108.20
2	A8	614	A	C5-C6-N6	-6.64	118.39	123.70
2	A8	1170	C	O3'-P-O5'	-6.64	91.38	104.00
2	A8	1508	A	C5-C6-N6	-6.64	118.39	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2234	G	C6-C5-N7	-6.64	126.41	130.40
2	A8	2409	G	C4-N9-C1'	-6.64	117.86	126.50
2	A8	2708	G	O4'-C1'-N9	6.64	113.51	108.20
2	A8	2902	C	C3'-C2'-C1'	-6.64	96.19	101.50
36	BA	282	A	P-O3'-C3'	-6.64	111.73	119.70
36	BA	579	A	C8-N9-C4	-6.64	103.14	105.80
36	BA	1013	G	P-O5'-C5'	6.64	131.53	120.90
36	BA	1114	C	O4'-C1'-N1	6.64	113.51	108.20
2	A8	974	G	C1'-O4'-C4'	-6.64	104.59	109.90
2	A8	1227	G	N1-C6-O6	6.64	123.89	119.90
2	A8	1803	A	C4-C5-C6	6.64	120.32	117.00
2	A8	2098	U	C5-C6-N1	6.64	126.02	122.70
17	AM	103	TYR	CB-CG-CD1	6.64	124.98	121.00
36	BA	199	A	C5-C6-N1	-6.64	114.38	117.70
36	BA	430	A	C5'-C4'-C3'	-6.64	105.38	116.00
36	BA	1017	U	O4'-C1'-N1	6.64	113.51	108.20
2	A8	923	G	C5'-C4'-C3'	-6.64	105.38	116.00
2	A8	946	C	C5'-C4'-C3'	-6.64	105.38	116.00
2	A8	1314	C	O4'-C1'-N1	6.64	113.51	108.20
2	A8	2494	G	N1-C6-O6	6.64	123.88	119.90
1	A7	68	C	C5'-C4'-C3'	-6.64	105.38	116.00
2	A8	1272	A	C4-C5-C6	6.64	120.32	117.00
2	A8	1740	G	C8-N9-C4	-6.64	103.75	106.40
2	A8	1752	C	N3-C4-N4	6.64	122.64	118.00
2	A8	2452	C	C2-N1-C1'	-6.64	111.50	118.80
36	BA	55	A	C5-C6-N6	-6.64	118.39	123.70
36	BA	285	C	C6-N1-C2	-6.64	117.64	120.30
36	BA	572	A	C5-C6-N1	-6.64	114.38	117.70
36	BA	992	U	O5'-C5'-C4'	-6.64	99.09	111.70
36	BA	1534	A	C5-C6-N6	-6.64	118.39	123.70
2	A8	1694	C	N3-C4-C5	-6.63	119.25	121.90
2	A8	1868	C	N3-C4-N4	6.63	122.64	118.00
2	A8	2333	A	C5-C6-N1	-6.63	114.38	117.70
36	BA	28	A	C8-N9-C1'	6.63	139.64	127.70
36	BA	170	U	C5'-C4'-C3'	-6.63	105.38	116.00
36	BA	288	A	O4'-C1'-N9	6.63	113.51	108.20
36	BA	1412	C	O4'-C1'-N1	6.63	113.51	108.20
2	A8	126	A	C5-C6-N6	-6.63	118.39	123.70
2	A8	148	U	O4'-C1'-N1	6.63	113.51	108.20
36	BA	1522	U	C1'-O4'-C4'	-6.63	104.59	109.90
2	A8	125	A	O4'-C1'-N9	6.63	113.50	108.20
2	A8	785	G	P-O3'-C3'	-6.63	111.74	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1707	G	N1-C6-O6	6.63	123.88	119.90
2	A8	2529	G	C5'-C4'-C3'	-6.63	105.39	116.00
2	A8	2733	A	C5-C6-N6	-6.63	118.39	123.70
36	BA	521	G	N3-C2-N2	6.63	124.54	119.90
2	A8	956	G	P-O3'-C3'	6.63	127.66	119.70
2	A8	2077	A	C4-C5-C6	6.63	120.31	117.00
2	A8	2840	C	O4'-C1'-N1	6.63	113.50	108.20
11	AG	151	ARG	N-CA-C	-6.63	93.10	111.00
2	A8	297	G	C4-N9-C1'	-6.63	117.88	126.50
2	A8	1067	A	O4'-C1'-N9	6.63	113.50	108.20
2	A8	2731	G	C5-C6-O6	-6.63	124.62	128.60
36	BA	649	A	C5'-C4'-C3'	-6.63	105.39	116.00
36	BA	687	A	C4-C5-C6	6.63	120.31	117.00
36	BA	1343	G	C5-C6-O6	-6.63	124.62	128.60
2	A8	656	G	N1-C6-O6	6.63	123.88	119.90
2	A8	2867	G	P-O3'-C3'	-6.63	111.75	119.70
36	BA	190	A	O4'-C1'-N9	6.63	113.50	108.20
36	BA	689	C	C6-N1-C1'	6.63	128.75	120.80
36	BA	1106	G	O4'-C1'-N9	6.63	113.50	108.20
1	A7	23	G	C6-C5-N7	-6.62	126.42	130.40
2	A8	69	C	C6-N1-C2	-6.62	117.65	120.30
2	A8	2427	C	P-O5'-C5'	6.62	131.50	120.90
2	A8	2461	A	C8-N9-C4	-6.62	103.15	105.80
2	A8	2764	A	C4-C5-C6	6.62	120.31	117.00
36	BA	880	C	N3-C4-C5	-6.62	119.25	121.90
2	A8	1331	G	C5'-C4'-O4'	6.62	117.05	109.10
2	A8	1523	U	C6-N1-C2	-6.62	117.03	121.00
2	A8	1639	C	P-O5'-C5'	-6.62	110.31	120.90
2	A8	1899	A	C4-N9-C1'	-6.62	114.38	126.30
36	BA	209	U	C2-N1-C1'	6.62	125.65	117.70
36	BA	470	C	C6-N1-C2	-6.62	117.65	120.30
36	BA	482	A	C5-C6-N1	-6.62	114.39	117.70
36	BA	810	C	O4'-C1'-N1	6.62	113.50	108.20
2	A8	2240	U	O4'-C1'-N1	6.62	113.50	108.20
2	A8	2408	U	C2-N1-C1'	-6.62	109.76	117.70
36	BA	110	C	N3-C4-N4	6.62	122.63	118.00
2	A8	2254	C	O4'-C1'-N1	6.62	113.50	108.20
2	A8	2524	G	C4-N9-C1'	-6.62	117.90	126.50
2	A8	2620	C	C4'-C3'-C2'	6.62	109.22	102.60
36	BA	1108	G	C5-C6-O6	-6.62	124.63	128.60
36	BA	1353	G	C5-C6-O6	-6.62	124.63	128.60
36	BA	690	G	O4'-C1'-N9	6.62	113.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1188	A	O4'-C1'-N9	6.62	113.49	108.20
36	BA	608	A	C5-C6-N6	-6.62	118.41	123.70
2	A8	1776	G	N3-C2-N2	6.61	124.53	119.90
2	A8	2774	C	O4'-C1'-N1	6.61	113.49	108.20
2	A8	2775	G	C5-C6-O6	-6.61	124.63	128.60
2	A8	2886	A	C4-C5-C6	6.61	120.31	117.00
36	BA	237	G	C5-C6-O6	-6.61	124.63	128.60
2	A8	80	G	C5-C6-O6	-6.61	124.63	128.60
2	A8	1381	G	C4-N9-C1'	-6.61	117.91	126.50
2	A8	1851	U	O4'-C1'-N1	6.61	113.49	108.20
36	BA	755	G	P-O3'-C3'	6.61	127.63	119.70
2	A8	217	A	C5-C6-N6	-6.61	118.41	123.70
2	A8	1053	C	N3-C4-N4	6.61	122.63	118.00
2	A8	1275	A	C4'-C3'-C2'	-6.61	95.99	102.60
2	A8	1659	G	C1'-O4'-C4'	-6.61	104.61	109.90
2	A8	1837	C	C6-N1-C2	-6.61	117.66	120.30
2	A8	2307	G	C5-C6-O6	-6.61	124.63	128.60
2	A8	2349	G	C8-N9-C1'	6.61	135.59	127.00
2	A8	2437	G	C5-C6-O6	-6.61	124.63	128.60
2	A8	2040	G	N1-C6-O6	6.61	123.86	119.90
1	A7	98	G	N1-C6-O6	6.61	123.86	119.90
2	A8	557	C	O4'-C1'-N1	6.61	113.48	108.20
2	A8	844	A	C3'-C2'-C1'	-6.61	96.21	101.50
2	A8	1217	U	O4'-C1'-N1	6.61	113.49	108.20
2	A8	1420	A	C4-C5-C6	6.61	120.30	117.00
2	A8	1637	A	C5-C6-N6	-6.61	118.41	123.70
2	A8	1674	G	C5-C6-O6	-6.61	124.64	128.60
2	A8	1811	G	O4'-C1'-N9	6.61	113.48	108.20
2	A8	2275	C	C6-N1-C2	-6.61	117.66	120.30
36	BA	927	G	O4'-C1'-N9	6.61	113.49	108.20
2	A8	357	C	O4'-C1'-N1	6.61	113.48	108.20
2	A8	2675	A	C5-C6-N1	-6.61	114.40	117.70
36	BA	144	G	O4'-C1'-N9	6.61	113.48	108.20
36	BA	874	G	N1-C6-O6	6.61	123.86	119.90
36	BA	1079	G	C5-C6-O6	-6.61	124.64	128.60
1	A7	76	G	C5'-C4'-C3'	-6.60	105.43	116.00
2	A8	630	G	C4-N9-C1'	-6.60	117.92	126.50
2	A8	644	A	N9-C1'-C2'	-6.60	104.73	112.00
2	A8	2664	G	P-O5'-C5'	6.60	131.47	120.90
36	BA	1208	C	N3-C4-N4	6.60	122.62	118.00
2	A8	38	A	O4'-C1'-N9	6.60	113.48	108.20
2	A8	352	A	C4-C5-C6	6.60	120.30	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1247	A	O4'-C1'-N9	6.60	113.48	108.20
2	A8	1902	C	N3-C4-C5	-6.60	119.26	121.90
36	BA	282	A	C5'-C4'-C3'	-6.60	105.44	116.00
36	BA	324	G	C8-N9-C4	-6.60	103.76	106.40
36	BA	938	A	C4-C5-C6	6.60	120.30	117.00
36	BA	278	G	C8-N9-C1'	6.60	135.58	127.00
2	A8	63	A	C8-N9-C4	-6.60	103.16	105.80
2	A8	574	A	C5-C6-N6	-6.60	118.42	123.70
2	A8	790	U	C6-N1-C1'	-6.60	111.96	121.20
2	A8	1330	C	N3-C4-C5	-6.60	119.26	121.90
36	BA	821	G	O4'-C1'-N9	6.60	113.48	108.20
36	BA	846	G	O4'-C1'-N9	6.60	113.48	108.20
36	BA	890	G	C3'-C2'-C1'	-6.60	96.22	101.50
2	A8	21	A	C1'-O4'-C4'	-6.60	104.62	109.90
2	A8	261	G	C5'-C4'-C3'	-6.60	105.44	116.00
2	A8	522	A	C4-C5-C6	6.60	120.30	117.00
2	A8	531	C	O4'-C1'-N1	6.60	113.48	108.20
2	A8	645	C	N3-C4-N4	6.60	122.62	118.00
2	A8	1030	C	C5'-C4'-C3'	-6.60	105.44	116.00
2	A8	1289	C	O4'-C1'-N1	6.60	113.48	108.20
2	A8	1753	G	C5-C6-O6	-6.60	124.64	128.60
2	A8	2065	C	N3-C4-N4	6.60	122.62	118.00
2	A8	2142	A	C5-C6-N6	-6.60	118.42	123.70
36	BA	947	G	O4'-C1'-N9	6.60	113.48	108.20
36	BA	1168	U	P-O3'-C3'	-6.60	111.78	119.70
36	BA	1169	A	C5-C6-N1	-6.60	114.40	117.70
2	A8	281	C	O4'-C1'-N1	6.60	113.48	108.20
36	BA	1461	G	N1-C6-O6	6.60	123.86	119.90
1	A7	63	C	O4'-C1'-N1	6.59	113.47	108.20
2	A8	107	G	C4-N9-C1'	-6.59	117.93	126.50
2	A8	305	C	N3-C4-N4	6.59	122.62	118.00
2	A8	424	G	N9-C1'-C2'	-6.59	104.75	112.00
2	A8	534	U	O4'-C1'-N1	6.59	113.47	108.20
2	A8	1902	C	C2-N1-C1'	6.59	126.05	118.80
36	BA	21	G	C5-C6-O6	-6.59	124.64	128.60
36	BA	66	A	C4-C5-C6	6.59	120.30	117.00
36	BA	635	A	C4-C5-C6	6.59	120.30	117.00
2	A8	2112	G	O4'-C1'-N9	6.59	113.47	108.20
36	BA	8	A	C4-C5-C6	6.59	120.30	117.00
36	BA	585	G	C8-N9-C1'	6.59	135.57	127.00
2	A8	857	G	C5-C6-O6	-6.59	124.64	128.60
2	A8	1742	U	C5'-C4'-C3'	-6.59	105.45	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2293	G	C5-C6-O6	-6.59	124.64	128.60
36	BA	651	C	N3-C4-C5	-6.59	119.26	121.90
36	BA	837	U	C3'-C2'-C1'	-6.59	96.23	101.50
2	A8	713	G	C5-C6-O6	-6.59	124.65	128.60
2	A8	897	C	N3-C4-C5	-6.59	119.26	121.90
2	A8	950	G	N3-C2-N2	6.59	124.51	119.90
2	A8	952	G	N1-C6-O6	6.59	123.85	119.90
2	A8	1535	A	C5-C6-N1	-6.59	114.41	117.70
2	A8	2604	U	O4'-C1'-N1	6.59	113.47	108.20
2	A8	2663	G	C8-N9-C4	-6.59	103.76	106.40
36	BA	435	A	C4-C5-C6	6.59	120.29	117.00
36	BA	741	G	C5-C6-O6	-6.59	124.65	128.60
36	BA	864	A	C5-C6-N6	-6.59	118.43	123.70
2	A8	158	U	O4'-C1'-N1	6.59	113.47	108.20
2	A8	2719	G	C4-N9-C1'	-6.59	117.94	126.50
1	A7	21	G	N1-C6-O6	6.59	123.85	119.90
2	A8	613	A	O4'-C1'-N9	6.59	113.47	108.20
2	A8	616	A	C5-C6-N6	-6.59	118.43	123.70
2	A8	1084	A	C5-C6-N6	-6.59	118.43	123.70
2	A8	1937	A	P-O3'-C3'	6.59	127.60	119.70
2	A8	2676	C	C5'-C4'-C3'	-6.59	105.46	116.00
36	BA	682	G	O4'-C1'-N9	6.59	113.47	108.20
36	BA	1402	C	O4'-C1'-N1	6.59	113.47	108.20
36	BA	1517	G	N1-C6-O6	6.59	123.85	119.90
36	BA	147	G	N1-C6-O6	6.58	123.85	119.90
1	A7	6	G	O4'-C1'-N9	6.58	113.47	108.20
2	A8	2209	G	O4'-C1'-N9	6.58	113.47	108.20
2	A8	2274	A	C4-C5-C6	6.58	120.29	117.00
36	BA	418	C	C6-N1-C2	-6.58	117.67	120.30
36	BA	740	U	C2-N1-C1'	-6.58	109.80	117.70
36	BA	1011	C	O4'-C1'-N1	6.58	113.47	108.20
36	BA	1169	A	C4-C5-C6	6.58	120.29	117.00
2	A8	260	G	C3'-C2'-C1'	-6.58	96.23	101.50
2	A8	489	G	C5-C6-O6	-6.58	124.65	128.60
2	A8	2351	G	C5-C6-O6	-6.58	124.65	128.60
36	BA	611	C	P-O3'-C3'	6.58	127.60	119.70
36	BA	1081	A	C5'-C4'-C3'	-6.58	105.47	116.00
36	BA	1170	A	C4-C5-C6	6.58	120.29	117.00
36	BA	1299	A	N1-C6-N6	6.58	122.55	118.60
2	A8	1244	A	C5-C6-N6	-6.58	118.44	123.70
36	BA	934	C	N3-C4-C5	-6.58	119.27	121.90
36	BA	1490	U	C5'-C4'-C3'	-6.58	105.47	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	107	G	N3-C2-N2	6.58	124.50	119.90
2	A8	1436	G	N1-C6-O6	6.58	123.85	119.90
2	A8	1851	U	C5'-C4'-C3'	-6.58	105.47	116.00
36	BA	811	C	N3-C4-N4	6.58	122.61	118.00
36	BA	1265	C	N3-C4-N4	6.58	122.61	118.00
2	A8	2092	U	O4'-C1'-N1	6.58	113.46	108.20
2	A8	2147	A	C4-C5-C6	6.58	120.29	117.00
36	BA	704	A	C5-C6-N6	-6.58	118.44	123.70
36	BA	1305	G	C5-C6-O6	-6.58	124.65	128.60
2	A8	1300	G	C5-C6-O6	-6.58	124.65	128.60
2	A8	1513	U	C3'-C2'-C1'	-6.58	96.24	101.50
2	A8	1615	C	N3-C4-N4	6.58	122.60	118.00
2	A8	1679	A	O4'-C1'-N9	6.58	113.46	108.20
2	A8	1690	A	O4'-C1'-N9	6.58	113.46	108.20
8	AD	145	SER	N-CA-CB	6.58	120.36	110.50
36	BA	259	G	O4'-C1'-N9	6.58	113.46	108.20
36	BA	443	C	C5'-C4'-C3'	-6.58	105.48	116.00
36	BA	453	G	O4'-C1'-N9	6.58	113.46	108.20
36	BA	1250	A	C5-C6-N6	-6.58	118.44	123.70
2	A8	188	G	C4-N9-C1'	-6.57	117.95	126.50
2	A8	1532	A	C5'-C4'-O4'	6.57	116.99	109.10
2	A8	1735	A	C4-C5-C6	6.57	120.29	117.00
2	A8	2027	G	O4'-C1'-N9	6.57	113.46	108.20
23	AS	5	ALA	N-CA-CB	6.57	119.30	110.10
36	BA	276	G	C4-N9-C1'	-6.57	117.95	126.50
36	BA	702	A	C5'-C4'-O4'	6.57	116.99	109.10
36	BA	768	A	C5'-C4'-O4'	6.57	116.99	109.10
36	BA	983	A	C5-C6-N6	-6.57	118.44	123.70
36	BA	1122	U	O4'-C1'-N1	6.57	113.46	108.20
2	A8	1987	A	C5'-C4'-C3'	-6.57	105.48	116.00
36	BA	1103	C	N3-C4-C5	-6.57	119.27	121.90
36	BA	1255	G	C4-N9-C1'	-6.57	117.96	126.50
36	BA	1435	G	O4'-C1'-N9	6.57	113.46	108.20
2	A8	110	G	O4'-C1'-N9	6.57	113.46	108.20
2	A8	2496	C	O4'-C1'-N1	6.57	113.46	108.20
2	A8	2730	C	O4'-C1'-N1	6.57	113.46	108.20
36	BA	1058	G	O4'-C1'-N9	6.57	113.46	108.20
2	A8	220	G	N3-C2-N2	6.57	124.50	119.90
2	A8	414	C	N3-C4-C5	-6.57	119.27	121.90
2	A8	1491	G	N1-C6-O6	6.57	123.84	119.90
2	A8	2314	A	O4'-C1'-N9	6.57	113.45	108.20
36	BA	22	G	C5-C6-O6	-6.57	124.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	869	G	C5-C6-O6	-6.57	124.66	128.60
36	BA	273	U	O4'-C1'-N1	6.57	113.45	108.20
36	BA	913	A	C4-C5-C6	6.57	120.28	117.00
36	BA	1176	A	C8-N9-C4	-6.57	103.17	105.80
2	A8	1976	U	O4'-C1'-N1	6.57	113.45	108.20
2	A8	2457	U	C2-N1-C1'	-6.57	109.82	117.70
36	BA	1415	G	O4'-C1'-N9	6.57	113.45	108.20
44	BI	18	VAL	N-CA-C	-6.57	93.27	111.00
1	A7	6	G	C5-C6-O6	-6.56	124.66	128.60
2	A8	967	U	O4'-C1'-N1	6.56	113.45	108.20
2	A8	1680	U	O4'-C1'-N1	6.56	113.45	108.20
36	BA	245	U	P-O5'-C5'	6.56	131.40	120.90
36	BA	666	G	P-O3'-C3'	-6.56	111.82	119.70
36	BA	753	A	C4-C5-C6	6.56	120.28	117.00
36	BA	1225	A	O4'-C1'-N9	6.56	113.45	108.20
2	A8	690	G	N1-C6-O6	6.56	123.84	119.90
2	A8	1200	C	O4'-C1'-N1	6.56	113.45	108.20
2	A8	1390	U	O4'-C1'-N1	6.56	113.45	108.20
2	A8	2296	U	O4'-C1'-N1	6.56	113.45	108.20
2	A8	1572	A	C6-C5-N7	-6.56	127.71	132.30
36	BA	1314	C	O4'-C1'-N1	6.56	113.45	108.20
2	A8	207	A	O4'-C1'-N9	6.56	113.45	108.20
2	A8	428	A	C5-C6-N1	-6.56	114.42	117.70
2	A8	689	A	C5-C6-N6	-6.56	118.45	123.70
2	A8	1360	G	O4'-C1'-N9	6.56	113.45	108.20
2	A8	1487	U	C5-C4-O4	-6.56	121.96	125.90
2	A8	1779	U	O4'-C1'-N1	6.56	113.45	108.20
2	A8	2097	A	C4-C5-C6	6.56	120.28	117.00
2	A8	2251	G	O4'-C1'-N9	6.56	113.45	108.20
36	BA	69	G	N1-C6-O6	6.56	123.84	119.90
51	BP	1	MET	CG-SD-CE	-6.56	89.71	100.20
1	A7	64	G	P-O5'-C5'	-6.56	110.41	120.90
2	A8	1063	G	O4'-C1'-N9	6.56	113.45	108.20
2	A8	2070	A	C1'-O4'-C4'	-6.56	104.66	109.90
2	A8	2562	U	O4'-C1'-N1	6.56	113.45	108.20
2	A8	2638	G	C5-C6-O6	-6.56	124.67	128.60
36	BA	210	C	N3-C4-N4	6.56	122.59	118.00
2	A8	1756	G	C5-C6-O6	-6.56	124.67	128.60
36	BA	671	G	N1-C6-O6	6.56	123.83	119.90
36	BA	979	C	O4'-C1'-N1	6.56	113.44	108.20
36	BA	1271	A	O4'-C1'-N9	6.56	113.44	108.20
2	A8	183	C	O4'-C1'-N1	6.55	113.44	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	920	A	C4-C5-C6	6.55	120.28	117.00
2	A8	2132	U	O4'-C1'-N1	6.55	113.44	108.20
2	A8	2490	G	C8-N9-C1'	6.55	135.52	127.00
36	BA	832	G	N1-C6-O6	6.55	123.83	119.90
2	A8	165	A	C5'-C4'-C3'	-6.55	105.52	116.00
2	A8	177	G	N3-C2-N2	6.55	124.49	119.90
2	A8	804	A	C5-C6-N6	-6.55	118.46	123.70
2	A8	1091	G	C8-N9-C4	-6.55	103.78	106.40
2	A8	1571	A	O4'-C1'-N9	6.55	113.44	108.20
2	A8	1932	A	C5-C6-N1	-6.55	114.42	117.70
36	BA	45	G	C5-C6-O6	-6.55	124.67	128.60
36	BA	345	C	N3-C4-C5	-6.55	119.28	121.90
36	BA	357	G	N1-C6-O6	6.55	123.83	119.90
36	BA	454	G	O4'-C1'-N9	6.55	113.44	108.20
36	BA	683	G	N1-C6-O6	6.55	123.83	119.90
1	A7	16	G	C5-C6-O6	-6.55	124.67	128.60
1	A7	85	G	C4'-C3'-C2'	-6.55	96.05	102.60
2	A8	36	G	C5'-C4'-O4'	6.55	116.96	109.10
2	A8	374	A	P-O3'-C3'	-6.55	111.84	119.70
2	A8	1748	C	O4'-C1'-N1	6.55	113.44	108.20
2	A8	1980	G	C4-N9-C1'	6.55	135.02	126.50
2	A8	2297	A	C5-C6-N6	-6.55	118.46	123.70
36	BA	171	A	O4'-C1'-N9	6.55	113.44	108.20
36	BA	1155	A	C5-C6-N1	-6.55	114.42	117.70
36	BA	1250	A	O4'-C1'-N9	6.55	113.44	108.20
36	BA	1446	A	C5-C6-N6	-6.55	118.46	123.70
2	A8	628	G	O4'-C1'-N9	6.55	113.44	108.20
2	A8	2117	A	C4-C5-C6	6.55	120.28	117.00
2	A8	2731	G	C8-N9-C1'	6.55	135.51	127.00
36	BA	935	A	C8-N9-C4	-6.55	103.18	105.80
36	BA	1066	C	P-O3'-C3'	6.55	127.56	119.70
2	A8	663	G	O4'-C1'-N9	6.55	113.44	108.20
2	A8	922	C	C3'-C2'-C1'	-6.55	96.26	101.50
2	A8	1721	G	C4-N9-C1'	-6.55	117.99	126.50
2	A8	203	A	O4'-C1'-N9	6.55	113.44	108.20
2	A8	689	A	C4-C5-C6	6.55	120.27	117.00
2	A8	1569	A	C5-C6-N6	-6.55	118.46	123.70
2	A8	1734	G	N1-C6-O6	6.55	123.83	119.90
2	A8	1890	A	N7-C8-N9	6.55	117.07	113.80
2	A8	2094	A	C4-C5-C6	6.55	120.27	117.00
2	A8	2669	G	O4'-C1'-N9	6.55	113.44	108.20
36	BA	894	G	C6-C5-N7	-6.55	126.47	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1493	C	C2-N1-C1'	6.54	126.00	118.80
2	A8	1726	C	C3'-C2'-C1'	-6.54	96.26	101.50
2	A8	1888	G	C4-N9-C1'	6.54	135.01	126.50
2	A8	2490	G	N1-C6-O6	6.54	123.83	119.90
36	BA	496	A	O4'-C1'-N9	6.54	113.44	108.20
36	BA	527	G	C5-C6-O6	-6.54	124.67	128.60
36	BA	734	G	N3-C2-N2	6.54	124.48	119.90
2	A8	136	G	C4-N9-C1'	-6.54	117.99	126.50
2	A8	745	G	C5'-C4'-O4'	6.54	116.95	109.10
2	A8	851	C	N3-C4-N4	6.54	122.58	118.00
2	A8	885	C	C1'-O4'-C4'	-6.54	104.67	109.90
2	A8	1033	U	O4'-C1'-N1	6.54	113.43	108.20
2	A8	2390	U	O4'-C1'-N1	6.54	113.43	108.20
2	A8	2445	G	N1-C6-O6	6.54	123.83	119.90
36	BA	233	C	N3-C4-N4	6.54	122.58	118.00
36	BA	838	G	C5-C6-O6	-6.54	124.67	128.60
2	A8	586	A	C5-C6-N1	-6.54	114.43	117.70
2	A8	1185	G	C8-N9-C4	-6.54	103.78	106.40
2	A8	1328	A	C5-C6-N1	-6.54	114.43	117.70
2	A8	1492	G	C5-C6-O6	-6.54	124.67	128.60
2	A8	1643	G	O4'-C1'-N9	6.54	113.43	108.20
2	A8	2732	G	O4'-C1'-N9	6.54	113.43	108.20
36	BA	22	G	C8-N9-C4	-6.54	103.78	106.40
36	BA	483	C	O4'-C1'-N1	6.54	113.43	108.20
36	BA	830	G	P-O3'-C3'	-6.54	111.85	119.70
36	BA	860	A	O4'-C1'-N9	6.54	113.43	108.20
36	BA	919	A	C4-C5-C6	6.54	120.27	117.00
36	BA	936	C	C4'-C3'-C2'	-6.54	96.06	102.60
2	A8	59	U	O4'-C1'-N1	6.54	113.43	108.20
2	A8	730	A	C5-C6-N6	-6.54	118.47	123.70
2	A8	1271	G	O4'-C4'-C3'	-6.54	97.46	104.00
36	BA	170	U	O4'-C1'-N1	6.54	113.43	108.20
36	BA	560	A	C4-C5-C6	6.54	120.27	117.00
36	BA	887	G	N1-C6-O6	6.54	123.82	119.90
1	A7	106	G	C5-C6-O6	-6.54	124.68	128.60
2	A8	224	U	O4'-C1'-N1	6.54	113.43	108.20
2	A8	1121	C	C5-C6-N1	6.54	124.27	121.00
2	A8	2412	A	C5'-C4'-O4'	6.54	116.94	109.10
36	BA	211	G	N1-C6-O6	6.54	123.82	119.90
2	A8	1066	U	C2-N1-C1'	-6.54	109.86	117.70
2	A8	1115	G	C5-C6-O6	-6.54	124.68	128.60
2	A8	1429	G	C5-C6-O6	-6.54	124.68	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1682	G	P-O3'-C3'	-6.54	111.86	119.70
2	A8	2105	U	C6-N1-C1'	6.54	130.35	121.20
36	BA	1170	A	C5-C6-N1	-6.54	114.43	117.70
2	A8	845	A	C5-C6-N1	-6.53	114.43	117.70
2	A8	1835	G	C3'-C2'-C1'	-6.53	96.27	101.50
36	BA	265	G	C5-C6-O6	-6.53	124.68	128.60
36	BA	305	G	C4-N9-C1'	-6.53	118.01	126.50
36	BA	845	A	C4-C5-C6	6.53	120.27	117.00
36	BA	1280	A	P-O5'-C5'	-6.53	110.45	120.90
2	A8	329	G	C5-C6-O6	-6.53	124.68	128.60
36	BA	155	A	O4'-C1'-N9	6.53	113.43	108.20
36	BA	1209	C	O4'-C1'-N1	6.53	113.43	108.20
2	A8	268	C	N3-C4-C5	-6.53	119.29	121.90
2	A8	1134	A	C5-C6-N6	-6.53	118.48	123.70
2	A8	1419	A	C4-C5-C6	6.53	120.27	117.00
2	A8	1536	C	C5'-C4'-O4'	6.53	116.94	109.10
2	A8	2093	G	N3-C2-N2	6.53	124.47	119.90
36	BA	99	C	C6-N1-C2	-6.53	117.69	120.30
36	BA	814	A	C4'-C3'-C2'	-6.53	96.07	102.60
36	BA	958	A	C4-C5-C6	6.53	120.27	117.00
2	A8	195	A	C5-C6-N1	-6.53	114.44	117.70
36	BA	1222	G	N3-C2-N2	6.53	124.47	119.90
2	A8	1840	G	N1-C6-O6	6.53	123.82	119.90
2	A8	1985	C	P-O3'-C3'	-6.53	111.87	119.70
2	A8	2504	U	C5'-C4'-C3'	6.53	126.44	116.00
36	BA	481	G	C5-C6-O6	-6.53	124.68	128.60
36	BA	513	C	C3'-C2'-C1'	-6.53	96.28	101.50
2	A8	962	G	C5-C6-O6	-6.53	124.69	128.60
2	A8	1220	G	O4'-C1'-N9	6.53	113.42	108.20
2	A8	1320	C	C6-N1-C1'	-6.53	112.97	120.80
2	A8	1432	G	N1-C6-O6	6.53	123.82	119.90
2	A8	1533	C	N3-C4-N4	6.53	122.57	118.00
2	A8	2550	G	C5-C6-O6	-6.53	124.69	128.60
8	AD	46	ARG	N-CA-C	-6.53	93.38	111.00
36	BA	899	C	N3-C4-C5	-6.53	119.29	121.90
36	BA	1468	A	C5-C6-N1	-6.53	114.44	117.70
36	BA	482	A	C4-C5-C6	6.52	120.26	117.00
36	BA	767	A	O4'-C1'-N9	6.52	113.42	108.20
2	A8	1069	A	C4-C5-C6	6.52	120.26	117.00
2	A8	1264	A	C4-C5-C6	6.52	120.26	117.00
2	A8	1348	C	C5'-C4'-C3'	-6.52	105.56	116.00
2	A8	1583	A	C5-C6-N6	-6.52	118.48	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1861	G	N1-C6-O6	6.52	123.81	119.90
36	BA	32	A	O4'-C1'-N9	6.52	113.42	108.20
36	BA	141	G	C5-C6-O6	-6.52	124.69	128.60
2	A8	2564	A	C4-C5-C6	6.52	120.26	117.00
36	BA	63	C	O4'-C1'-N1	6.52	113.42	108.20
2	A8	374	A	C4'-C3'-C2'	-6.52	96.08	102.60
2	A8	441	U	O4'-C1'-N1	6.52	113.42	108.20
2	A8	1088	A	C5-C6-N6	-6.52	118.48	123.70
2	A8	1243	C	P-O5'-C5'	6.52	131.33	120.90
2	A8	1286	A	C5-C6-N1	-6.52	114.44	117.70
2	A8	1903	G	C4-N9-C1'	-6.52	118.03	126.50
2	A8	1299	G	C8-N9-C1'	6.52	135.47	127.00
2	A8	2204	G	N3-C2-N2	6.52	124.46	119.90
2	A8	2811	G	N1-C6-O6	6.52	123.81	119.90
36	BA	285	C	C5'-C4'-C3'	-6.52	105.57	116.00
36	BA	366	A	C5-C6-N6	-6.52	118.49	123.70
2	A8	2361	G	C5'-C4'-C3'	-6.52	105.57	116.00
2	A8	2531	A	C4-C5-C6	6.52	120.26	117.00
1	A7	16	G	O4'-C1'-N9	6.51	113.41	108.20
2	A8	1294	U	C1'-O4'-C4'	-6.51	104.69	109.90
2	A8	2534	A	C5'-C4'-O4'	6.51	116.92	109.10
36	BA	1027	C	C6-N1-C2	-6.51	117.69	120.30
36	BA	1256	A	P-O3'-C3'	-6.51	111.89	119.70
2	A8	200	U	O4'-C1'-N1	6.51	113.41	108.20
2	A8	626	A	C5-C6-N1	-6.51	114.44	117.70
2	A8	1527	G	C8-N9-C1'	6.51	135.46	127.00
2	A8	1540	G	N1-C6-O6	6.51	123.81	119.90
36	BA	66	A	C5-C6-N6	-6.51	118.49	123.70
36	BA	104	G	O4'-C1'-N9	6.51	113.41	108.20
36	BA	418	C	N3-C4-C5	-6.51	119.30	121.90
36	BA	977	A	C5'-C4'-C3'	-6.51	105.58	116.00
36	BA	1514	G	C3'-C2'-C1'	-6.51	96.29	101.50
2	A8	951	C	C5'-C4'-C3'	-6.51	105.58	116.00
2	A8	973	A	C5-C6-N6	-6.51	118.49	123.70
2	A8	1127	A	C5-C6-N1	-6.51	114.45	117.70
2	A8	1560	G	C8-N9-C4	-6.51	103.80	106.40
2	A8	2018	G	N1-C6-O6	6.51	123.81	119.90
2	A8	2143	C	N3-C4-N4	6.51	122.56	118.00
2	A8	2770	G	C5-C6-O6	-6.51	124.69	128.60
2	A8	2823	A	C4-C5-C6	6.51	120.25	117.00
36	BA	847	G	N9-C1'-C2'	-6.51	104.84	112.00
2	A8	196	A	C5-C6-N1	-6.51	114.45	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	323	C	O4'-C1'-N1	6.51	113.41	108.20
36	BA	295	C	O4'-C1'-N1	6.51	113.41	108.20
2	A8	140	C	N3-C4-C5	-6.51	119.30	121.90
2	A8	420	C	C6-N1-C2	-6.51	117.70	120.30
2	A8	830	G	P-O3'-C3'	-6.51	111.89	119.70
2	A8	1006	C	P-O3'-C3'	-6.51	111.89	119.70
2	A8	1081	U	O4'-C1'-N1	6.51	113.41	108.20
2	A8	2872	A	C5-C6-N1	-6.51	114.45	117.70
36	BA	263	A	C5-C6-N6	-6.51	118.50	123.70
41	BF	78	PHE	CB-CG-CD2	6.51	125.35	120.80
1	A7	72	G	P-O5'-C5'	-6.50	110.49	120.90
2	A8	563	A	O4'-C1'-N9	6.50	113.40	108.20
2	A8	2038	G	O4'-C1'-N9	6.50	113.40	108.20
36	BA	58	C	C5'-C4'-C3'	-6.50	105.59	116.00
2	A8	6	A	C5-C6-N1	-6.50	114.45	117.70
2	A8	182	A	C4-C5-C6	6.50	120.25	117.00
2	A8	1165	A	C5-C6-N6	-6.50	118.50	123.70
2	A8	1805	A	C5'-C4'-C3'	-6.50	105.59	116.00
2	A8	2115	G	P-O5'-C5'	-6.50	110.50	120.90
2	A8	2469	A	C5'-C4'-O4'	6.50	116.90	109.10
36	BA	809	G	P-O5'-C5'	-6.50	110.50	120.90
1	A7	93	C	O3'-P-O5'	-6.50	91.65	104.00
2	A8	54	G	O4'-C1'-N9	6.50	113.40	108.20
2	A8	1136	G	N1-C6-O6	6.50	123.80	119.90
2	A8	2511	U	C2-N3-C4	-6.50	123.10	127.00
2	A8	2660	A	C4-C5-C6	6.50	120.25	117.00
36	BA	1109	C	C6-N1-C2	-6.50	117.70	120.30
36	BA	1273	C	N3-C4-N4	6.50	122.55	118.00
2	A8	465	G	C4-N9-C1'	-6.50	118.05	126.50
2	A8	1527	G	O4'-C1'-N9	6.50	113.40	108.20
2	A8	518	G	C5-C6-O6	-6.50	124.70	128.60
2	A8	1732	C	O4'-C1'-C2'	6.50	113.45	107.60
36	BA	666	G	C5-C6-O6	-6.50	124.70	128.60
36	BA	1517	G	N3-C2-N2	6.50	124.45	119.90
1	A7	89	U	C2-N1-C1'	6.50	125.50	117.70
2	A8	770	G	C4-N9-C1'	-6.50	118.06	126.50
2	A8	1257	C	O4'-C1'-N1	6.50	113.40	108.20
2	A8	1483	G	C3'-C2'-C1'	-6.50	96.30	101.50
2	A8	2825	G	N3-C2-N2	6.50	124.45	119.90
36	BA	421	U	O4'-C1'-N1	6.50	113.40	108.20
36	BA	533	A	C8-N9-C4	-6.50	103.20	105.80
2	A8	229	C	N3-C4-N4	6.50	122.55	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1605	C	N3-C4-C5	-6.50	119.30	121.90
2	A8	2218	G	C5-C6-O6	-6.50	124.70	128.60
36	BA	1242	G	O4'-C1'-N9	6.50	113.40	108.20
2	A8	54	G	N1-C6-O6	6.49	123.80	119.90
2	A8	389	G	C4'-C3'-C2'	-6.49	96.11	102.60
2	A8	880	G	C3'-C2'-C1'	-6.49	96.31	101.50
2	A8	1065	U	P-O5'-C5'	6.49	131.29	120.90
2	A8	1156	A	C5-C6-N6	-6.49	118.50	123.70
2	A8	1500	G	C5'-C4'-C3'	-6.49	105.61	116.00
2	A8	1605	C	C3'-C2'-C1'	-6.49	96.31	101.50
2	A8	2335	A	C8-N9-C4	-6.49	103.20	105.80
2	A8	2877	G	C5-C6-O6	-6.49	124.70	128.60
36	BA	77	A	C8-N9-C4	-6.49	103.20	105.80
36	BA	440	C	O4'-C1'-N1	6.49	113.39	108.20
36	BA	550	G	C5-C6-O6	-6.49	124.70	128.60
36	BA	805	C	O4'-C1'-N1	6.49	113.39	108.20
36	BA	1340	A	C5-C6-N6	-6.49	118.50	123.70
36	BA	1404	C	O4'-C1'-N1	6.49	113.39	108.20
1	A7	7	G	C5-C6-O6	-6.49	124.70	128.60
2	A8	1246	A	O4'-C1'-N9	6.49	113.39	108.20
2	A8	1790	C	O4'-C1'-N1	6.49	113.39	108.20
2	A8	27	G	P-O3'-C3'	6.49	127.49	119.70
2	A8	377	G	C8-N9-C1'	6.49	135.44	127.00
2	A8	400	G	C6-C5-N7	-6.49	126.50	130.40
2	A8	989	G	C5-C6-O6	-6.49	124.71	128.60
2	A8	1847	A	C5-C6-N6	-6.49	118.51	123.70
2	A8	1971	U	P-O3'-C3'	6.49	127.49	119.70
2	A8	2459	A	C5-C6-N6	-6.49	118.51	123.70
36	BA	242	G	C3'-C2'-C1'	-6.49	96.31	101.50
36	BA	909	A	C8-N9-C4	-6.49	103.20	105.80
55	BT	77	ASN	CB-CA-C	-6.49	97.42	110.40
2	A8	197	A	C5-C6-N6	-6.49	118.51	123.70
2	A8	1089	A	C4-C5-C6	6.49	120.24	117.00
2	A8	1666	G	O4'-C1'-N9	6.49	113.39	108.20
2	A8	1754	A	C8-N9-C4	-6.49	103.20	105.80
2	A8	2414	G	C4-N9-C1'	-6.49	118.06	126.50
2	A8	2872	A	C5'-C4'-C3'	6.49	126.38	116.00
36	BA	955	U	O4'-C1'-N1	6.49	113.39	108.20
36	BA	1280	A	C4-C5-C6	6.49	120.24	117.00
2	A8	307	G	C5-C6-O6	-6.49	124.71	128.60
2	A8	1897	G	C5'-C4'-C3'	-6.49	105.62	116.00
2	A8	1187	G	C8-N9-C1'	6.49	135.43	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1478	G	N1-C6-O6	6.49	123.79	119.90
2	A8	1867	G	N1-C6-O6	6.49	123.79	119.90
2	A8	2411	A	C4-C5-C6	6.49	120.24	117.00
2	A8	2483	C	N3-C4-N4	6.49	122.54	118.00
2	A8	2570	G	C5'-C4'-C3'	-6.49	105.62	116.00
2	A8	2745	C	N3-C4-C5	-6.49	119.31	121.90
36	BA	82	G	C5-C6-O6	-6.49	124.71	128.60
36	BA	109	A	C5-C6-N1	-6.49	114.46	117.70
36	BA	406	G	C5-C6-O6	-6.49	124.71	128.60
36	BA	414	A	C4-C5-C6	6.49	120.24	117.00
36	BA	471	U	O4'-C1'-N1	6.49	113.39	108.20
36	BA	869	G	C8-N9-C1'	6.49	135.43	127.00
2	A8	216	A	O4'-C1'-N9	6.48	113.39	108.20
2	A8	2082	A	C6-C5-N7	-6.48	127.76	132.30
2	A8	2444	G	N1-C6-O6	6.48	123.79	119.90
2	A8	2789	C	N3-C4-C5	-6.48	119.31	121.90
36	BA	195	A	C5-C6-N6	-6.48	118.51	123.70
36	BA	1161	C	N3-C4-N4	6.48	122.54	118.00
36	BA	1425	U	C5'-C4'-C3'	-6.48	105.62	116.00
2	A8	251	A	C5-C6-N6	-6.48	118.51	123.70
2	A8	523	C	N3-C4-N4	6.48	122.54	118.00
2	A8	1154	G	N1-C2-N3	-6.48	120.01	123.90
2	A8	1984	G	C5-C6-O6	-6.48	124.71	128.60
2	A8	2520	C	N3-C4-N4	6.48	122.54	118.00
36	BA	283	U	C4'-C3'-C2'	-6.48	96.12	102.60
36	BA	824	G	C5-C6-O6	-6.48	124.71	128.60
1	A7	112	G	O4'-C1'-N9	6.48	113.38	108.20
2	A8	249	C	P-O5'-C5'	-6.48	110.53	120.90
2	A8	891	G	C1'-O4'-C4'	-6.48	104.72	109.90
17	AM	105	MET	CG-SD-CE	-6.48	89.83	100.20
36	BA	559	A	C5-C6-N6	-6.48	118.52	123.70
36	BA	1276	G	N3-C2-N2	6.48	124.44	119.90
2	A8	2129	C	C6-N1-C1'	-6.48	113.03	120.80
36	BA	446	G	C5'-C4'-C3'	-6.48	105.63	116.00
36	BA	803	G	N7-C8-N9	6.48	116.34	113.10
36	BA	1361	G	C5-C6-O6	-6.48	124.71	128.60
2	A8	2462	C	C5-C6-N1	6.48	124.24	121.00
2	A8	2846	G	N1-C6-O6	6.48	123.79	119.90
36	BA	601	G	O4'-C1'-N9	6.48	113.38	108.20
36	BA	685	G	C4-N9-C1'	-6.48	118.08	126.50
36	BA	1067	A	C5'-C4'-O4'	6.48	116.87	109.10
2	A8	760	G	C8-N9-C1'	6.48	135.42	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1690	A	C8-N9-C4	-6.48	103.21	105.80
36	BA	1435	G	C8-N9-C4	-6.48	103.81	106.40
1	A7	28	C	N3-C4-N4	6.47	122.53	118.00
2	A8	500	G	C5-C6-O6	-6.47	124.72	128.60
2	A8	1436	G	C5-C6-O6	-6.47	124.72	128.60
2	A8	1700	A	C5-C6-N1	-6.47	114.46	117.70
2	A8	2524	G	C8-N9-C1'	6.47	135.42	127.00
2	A8	2543	G	C5'-C4'-C3'	-6.47	105.64	116.00
2	A8	2900	A	C5-C6-N6	-6.47	118.52	123.70
36	BA	85	U	C2-N1-C1'	6.47	125.47	117.70
36	BA	180	U	O4'-C1'-N1	6.47	113.38	108.20
36	BA	577	G	P-O5'-C5'	6.47	131.26	120.90
36	BA	1215	G	N3-C2-N2	6.47	124.43	119.90
1	A7	105	G	N1-C6-O6	6.47	123.78	119.90
2	A8	504	A	C5-C6-N1	-6.47	114.46	117.70
2	A8	861	A	C8-N9-C4	-6.47	103.21	105.80
2	A8	1351	C	P-O3'-C3'	-6.47	111.93	119.70
36	BA	399	G	O4'-C1'-N9	6.47	113.38	108.20
36	BA	452	A	C4'-C3'-C2'	-6.47	96.13	102.60
2	A8	2394	C	N3-C4-C5	-6.47	119.31	121.90
2	A8	2706	A	C5-C6-N6	-6.47	118.52	123.70
36	BA	898	G	C1'-O4'-C4'	-6.47	104.72	109.90
36	BA	990	C	N3-C4-N4	6.47	122.53	118.00
36	BA	1099	G	C5-C6-O6	-6.47	124.72	128.60
1	A7	72	G	N3-C2-N2	6.47	124.43	119.90
2	A8	530	G	P-O3'-C3'	-6.47	111.94	119.70
2	A8	961	C	N3-C4-N4	6.47	122.53	118.00
2	A8	1706	C	N3-C4-C5	-6.47	119.31	121.90
2	A8	1971	U	O4'-C1'-N1	6.47	113.38	108.20
2	A8	2328	A	O4'-C1'-N9	6.47	113.38	108.20
2	A8	2873	A	C5'-C4'-C3'	-6.47	105.65	116.00
36	BA	799	G	C5-C6-O6	-6.47	124.72	128.60
2	A8	1024	G	C4-N9-C1'	-6.47	118.09	126.50
36	BA	589	U	P-O3'-C3'	-6.47	111.94	119.70
36	BA	849	G	C5-C6-O6	-6.47	124.72	128.60
2	A8	70	G	N1-C6-O6	6.47	123.78	119.90
2	A8	1750	G	C8-N9-C1'	6.47	135.41	127.00
2	A8	2237	G	P-O3'-C3'	6.47	127.46	119.70
2	A8	2451	A	C5-C6-N6	-6.47	118.53	123.70
2	A8	2814	A	C5-C6-N6	-6.47	118.53	123.70
36	BA	222	C	C1'-O4'-C4'	-6.47	104.73	109.90
36	BA	386	C	O4'-C1'-N1	6.47	113.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	502	A	C5-C6-N6	-6.47	118.53	123.70
36	BA	707	U	O4'-C1'-N1	6.47	113.37	108.20
36	BA	773	G	C8-N9-C1'	6.47	135.41	127.00
2	A8	952	G	O4'-C1'-N9	6.46	113.37	108.20
2	A8	1278	C	O4'-C1'-N1	6.46	113.37	108.20
2	A8	1771	C	C2-N1-C1'	-6.46	111.69	118.80
2	A8	2016	U	P-O5'-C5'	6.46	131.24	120.90
2	A8	2245	U	O4'-C1'-N1	6.46	113.37	108.20
2	A8	2857	G	C4-N9-C1'	-6.46	118.10	126.50
36	BA	67	C	C6-N1-C2	-6.46	117.71	120.30
36	BA	313	A	C5-C6-N6	-6.46	118.53	123.70
36	BA	1157	A	C5-C6-N1	-6.46	114.47	117.70
2	A8	2015	A	C8-N9-C4	-6.46	103.22	105.80
2	A8	2601	C	O4'-C1'-N1	6.46	113.37	108.20
2	A8	264	C	N3-C4-N4	6.46	122.52	118.00
2	A8	950	G	C1'-O4'-C4'	-6.46	104.73	109.90
2	A8	1188	U	P-O5'-C5'	-6.46	110.56	120.90
2	A8	2227	A	C5-C6-N1	-6.46	114.47	117.70
36	BA	868	C	N3-C4-C5	-6.46	119.31	121.90
36	BA	1000	A	O4'-C1'-N9	6.46	113.37	108.20
36	BA	1106	G	N9-C1'-C2'	-6.46	104.89	112.00
36	BA	1439	G	N7-C8-N9	6.46	116.33	113.10
36	BA	1464	U	C3'-C2'-C1'	-6.46	96.33	101.50
2	A8	1112	G	C5-C6-O6	-6.46	124.72	128.60
36	BA	1362	A	C5-N7-C8	6.46	107.13	103.90
2	A8	130	C	C5'-C4'-C3'	-6.46	105.67	116.00
2	A8	226	A	C5-C6-N1	-6.46	114.47	117.70
2	A8	1914	C	N3-C4-N4	6.46	122.52	118.00
2	A8	1966	A	C5-C6-N6	-6.46	118.53	123.70
2	A8	2153	C	N3-C4-C5	-6.46	119.32	121.90
2	A8	117	G	C5-C6-O6	-6.46	124.73	128.60
2	A8	303	G	C8-N9-C1'	6.46	135.39	127.00
2	A8	1340	U	P-O3'-C3'	6.46	127.45	119.70
2	A8	2499	C	C5-C6-N1	6.46	124.23	121.00
36	BA	207	C	N3-C4-N4	6.46	122.52	118.00
36	BA	705	G	O4'-C1'-N9	6.46	113.36	108.20
36	BA	770	C	C3'-C2'-C1'	-6.46	96.33	101.50
36	BA	1396	A	C5-C6-N6	-6.46	118.53	123.70
2	A8	1985	C	O4'-C1'-N1	6.46	113.36	108.20
36	BA	1115	U	O4'-C1'-N1	6.46	113.36	108.20
36	BA	1380	U	C6-N1-C2	-6.46	117.13	121.00
2	A8	455	C	N3-C4-C5	-6.45	119.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	484	C	C5-C4-N4	-6.45	115.68	120.20
2	A8	1001	A	P-O3'-C3'	-6.45	111.95	119.70
2	A8	1148	U	C5'-C4'-O4'	6.45	116.84	109.10
2	A8	1195	G	C1'-O4'-C4'	-6.45	104.74	109.90
2	A8	1245	G	C5-C6-O6	-6.45	124.73	128.60
2	A8	1514	G	C3'-C2'-C1'	-6.45	96.34	101.50
2	A8	1801	A	C5-C6-N6	-6.45	118.54	123.70
2	A8	1904	G	O4'-C1'-N9	6.45	113.36	108.20
36	BA	1101	A	C5-C6-N6	-6.45	118.54	123.70
1	A7	102	G	C5-C6-O6	-6.45	124.73	128.60
2	A8	943	A	O4'-C1'-N9	6.45	113.36	108.20
2	A8	2573	C	O4'-C1'-N1	6.45	113.36	108.20
36	BA	193	C	C5-C4-N4	-6.45	115.68	120.20
1	A7	111	U	C6-N1-C2	-6.45	117.13	121.00
2	A8	23	G	N1-C6-O6	6.45	123.77	119.90
2	A8	1324	G	O4'-C1'-N9	6.45	113.36	108.20
2	A8	1564	C	N3-C4-N4	6.45	122.52	118.00
2	A8	2321	U	C6-N1-C1'	-6.45	112.17	121.20
2	A8	2369	A	C5-C6-N1	-6.45	114.47	117.70
36	BA	182	A	C5-C6-N1	-6.45	114.47	117.70
36	BA	997	U	O4'-C1'-N1	6.45	113.36	108.20
36	BA	1258	G	C5-C6-O6	-6.45	124.73	128.60
2	A8	344	A	C5-C6-N6	-6.45	118.54	123.70
2	A8	1449	G	O4'-C1'-N9	6.45	113.36	108.20
2	A8	1518	C	C5'-C4'-C3'	-6.45	105.68	116.00
2	A8	1571	A	C6-C5-N7	-6.45	127.79	132.30
2	A8	1808	A	C5-C6-N1	-6.45	114.47	117.70
2	A8	2145	C	C5'-C4'-C3'	-6.45	105.68	116.00
36	BA	73	C	N3-C4-C5	-6.45	119.32	121.90
36	BA	969	A	C4-C5-C6	6.45	120.22	117.00
2	A8	425	G	O4'-C1'-N9	6.45	113.36	108.20
2	A8	653	U	C2-N1-C1'	6.45	125.44	117.70
2	A8	1356	G	C8-N9-C1'	6.45	135.38	127.00
2	A8	1718	G	O4'-C1'-N9	6.45	113.36	108.20
2	A8	1998	A	O4'-C1'-N9	6.45	113.36	108.20
36	BA	1455	G	C5-C6-O6	-6.45	124.73	128.60
2	A8	1185	G	C6-C5-N7	-6.45	126.53	130.40
2	A8	2167	U	O4'-C1'-N1	6.45	113.36	108.20
2	A8	2719	G	C8-N9-C1'	6.45	135.38	127.00
36	BA	181	A	P-O5'-C5'	6.45	131.21	120.90
36	BA	696	A	C6-C5-N7	-6.45	127.79	132.30
36	BA	1368	A	C5-C6-N1	-6.45	114.48	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	145	C	O4'-C1'-N1	6.44	113.36	108.20
2	A8	592	A	O4'-C1'-N9	6.44	113.36	108.20
2	A8	915	C	C6-N1-C2	-6.44	117.72	120.30
36	BA	51	A	P-O3'-C3'	6.44	127.43	119.70
36	BA	252	U	O4'-C1'-N1	6.44	113.36	108.20
1	A7	76	G	C8-N9-C4	-6.44	103.82	106.40
2	A8	368	A	P-O5'-C5'	-6.44	110.59	120.90
2	A8	547	A	P-O3'-C3'	6.44	127.43	119.70
2	A8	1167	C	C5'-C4'-C3'	-6.44	105.69	116.00
2	A8	1607	C	N3-C4-C5	-6.44	119.32	121.90
2	A8	1688	U	O4'-C1'-N1	6.44	113.36	108.20
2	A8	2159	G	C5-C6-O6	-6.44	124.73	128.60
36	BA	473	U	O4'-C1'-N1	6.44	113.35	108.20
36	BA	713	G	C4-N9-C1'	-6.44	118.12	126.50
36	BA	1355	G	C5-C6-O6	-6.44	124.73	128.60
36	BA	1399	C	O4'-C1'-N1	6.44	113.35	108.20
2	A8	120	U	P-O3'-C3'	6.44	127.43	119.70
2	A8	533	G	C5-C6-O6	-6.44	124.74	128.60
2	A8	730	A	C4-C5-C6	6.44	120.22	117.00
2	A8	1658	C	C5'-C4'-C3'	-6.44	105.69	116.00
2	A8	1858	A	C5'-C4'-C3'	-6.44	105.69	116.00
3	AA	295	GLU	N-CA-CB	6.44	122.19	110.60
36	BA	278	G	C4-N9-C1'	-6.44	118.13	126.50
36	BA	959	A	C5-C6-N1	-6.44	114.48	117.70
36	BA	1333	A	C5-C6-N6	-6.44	118.55	123.70
2	A8	1700	A	C5'-C4'-C3'	-6.44	105.70	116.00
2	A8	2848	G	N3-C2-N2	6.44	124.41	119.90
36	BA	966	G	O4'-C1'-N9	6.44	113.35	108.20
36	BA	1418	A	C4-N9-C1'	6.44	137.89	126.30
2	A8	331	C	N3-C4-C5	-6.44	119.33	121.90
2	A8	1299	G	C4-N9-C1'	-6.44	118.13	126.50
2	A8	2464	G	C5-C6-O6	-6.44	124.74	128.60
2	A8	174	U	C5'-C4'-C3'	-6.44	105.70	116.00
2	A8	536	G	O4'-C1'-N9	6.44	113.35	108.20
2	A8	1033	U	P-O5'-C5'	6.44	131.20	120.90
36	BA	919	A	C5-C6-N1	-6.44	114.48	117.70
36	BA	1502	A	C4-C5-C6	6.44	120.22	117.00
2	A8	645	C	N3-C4-C5	-6.43	119.33	121.90
36	BA	754	C	N3-C4-N4	6.43	122.50	118.00
36	BA	872	A	C5'-C4'-C3'	6.43	126.29	116.00
36	BA	1488	G	N3-C2-N2	6.43	124.40	119.90
2	A8	144	A	C4-C5-C6	6.43	120.22	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1556	C	O4'-C1'-N1	6.43	113.35	108.20
36	BA	667	G	P-O5'-C5'	-6.43	110.61	120.90
36	BA	1254	A	C5-C6-N6	-6.43	118.56	123.70
2	A8	1821	A	C5-C6-N6	-6.43	118.56	123.70
2	A8	2452	C	C6-N1-C1'	6.43	128.52	120.80
36	BA	459	A	C4-C5-C6	6.43	120.22	117.00
1	A7	62	C	C6-N1-C1'	6.43	128.52	120.80
2	A8	232	G	C5-C6-O6	-6.43	124.74	128.60
2	A8	2230	G	N1-C6-O6	6.43	123.76	119.90
2	A8	2413	G	C4'-C3'-C2'	-6.43	96.17	102.60
2	A8	2742	G	P-O3'-C3'	-6.43	111.98	119.70
2	A8	2869	G	N3-C2-N2	6.43	124.40	119.90
36	BA	1074	G	N3-C2-N2	6.43	124.40	119.90
2	A8	442	G	C5-C6-O6	-6.43	124.74	128.60
2	A8	921	C	N3-C4-N4	6.43	122.50	118.00
2	A8	2597	G	O3'-P-O5'	-6.43	91.79	104.00
36	BA	351	G	C8-N9-C4	-6.43	103.83	106.40
2	A8	70	G	C4'-C3'-C2'	6.43	109.03	102.60
2	A8	195	A	C4'-C3'-C2'	-6.43	96.17	102.60
2	A8	452	G	C5-C6-O6	-6.43	124.74	128.60
2	A8	626	A	C4-C5-C6	6.43	120.21	117.00
2	A8	1230	A	C1'-O4'-C4'	-6.43	104.76	109.90
2	A8	1733	G	C8-N9-C1'	6.43	135.35	127.00
2	A8	2733	A	C3'-C2'-C1'	-6.43	96.36	101.50
36	BA	808	C	C5'-C4'-C3'	-6.43	105.72	116.00
36	BA	1004	A	C5-C6-N1	-6.43	114.49	117.70
36	BA	1489	G	C5'-C4'-C3'	-6.43	105.72	116.00
36	BA	1524	C	C3'-C2'-C1'	-6.43	96.36	101.50
2	A8	1095	A	C5-C6-N6	-6.42	118.56	123.70
2	A8	2105	U	C2-N1-C1'	-6.42	109.99	117.70
36	BA	1518	A	C5-C6-N6	-6.42	118.56	123.70
1	A7	104	A	C4-C5-C6	6.42	120.21	117.00
2	A8	297	G	C8-N9-C1'	6.42	135.35	127.00
2	A8	983	A	N1-C6-N6	6.42	122.45	118.60
2	A8	1436	G	C5'-C4'-C3'	-6.42	105.73	116.00
2	A8	2636	C	N3-C4-N4	6.42	122.50	118.00
36	BA	508	U	O4'-C1'-N1	6.42	113.34	108.20
36	BA	732	C	O4'-C1'-N1	6.42	113.34	108.20
2	A8	1356	G	C4-N9-C1'	-6.42	118.15	126.50
2	A8	2557	G	C5'-C4'-O4'	6.42	116.80	109.10
2	A8	2741	A	O4'-C1'-N9	6.42	113.34	108.20
2	A8	53	A	P-O3'-C3'	-6.42	112.00	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	404	A	C5-C6-N6	-6.42	118.56	123.70
2	A8	461	C	C5'-C4'-O4'	6.42	116.80	109.10
2	A8	886	A	P-O3'-C3'	6.42	127.40	119.70
2	A8	2595	G	C4-N9-C1'	-6.42	118.16	126.50
2	A8	2844	G	C5-C6-O6	-6.42	124.75	128.60
36	BA	592	G	N3-C2-N2	6.42	124.39	119.90
36	BA	600	A	C4-C5-C6	6.42	120.21	117.00
36	BA	1413	A	C4-C5-C6	6.42	120.21	117.00
2	A8	234	U	C5'-C4'-C3'	6.42	126.27	116.00
2	A8	326	G	C8-N9-C1'	6.42	135.34	127.00
2	A8	397	U	O4'-C1'-N1	6.42	113.33	108.20
2	A8	475	C	N3-C4-N4	6.42	122.49	118.00
2	A8	766	U	O4'-C1'-N1	6.42	113.33	108.20
2	A8	1416	G	N1-C6-O6	6.42	123.75	119.90
2	A8	1480	C	C5'-C4'-C3'	-6.42	105.73	116.00
2	A8	2415	G	C1'-O4'-C4'	-6.42	104.77	109.90
2	A8	2726	A	P-O3'-C3'	6.42	127.40	119.70
2	A8	2876	G	C5'-C4'-C3'	-6.42	105.73	116.00
28	AX	56	ARG	NE-CZ-NH2	6.42	123.51	120.30
36	BA	486	U	C5'-C4'-C3'	-6.42	105.73	116.00
36	BA	1293	C	O4'-C1'-N1	6.42	113.33	108.20
2	A8	2266	A	C5-C6-N6	-6.42	118.57	123.70
36	BA	1033	G	O4'-C1'-N9	6.42	113.33	108.20
36	BA	1255	G	C8-N9-C1'	6.42	135.34	127.00
2	A8	147	C	C6-N1-C2	-6.41	117.73	120.30
2	A8	520	G	C3'-C2'-C1'	-6.41	96.37	101.50
2	A8	1635	A	C4-C5-C6	6.41	120.21	117.00
2	A8	1738	G	N1-C6-O6	6.41	123.75	119.90
2	A8	1899	A	C8-N9-C1'	6.41	139.24	127.70
2	A8	1945	G	N1-C6-O6	6.41	123.75	119.90
2	A8	2317	A	C5-C6-N6	-6.41	118.57	123.70
2	A8	2350	C	P-O3'-C3'	-6.41	112.00	119.70
2	A8	2414	G	C5'-C4'-C3'	6.41	126.26	116.00
2	A8	2628	C	N3-C4-N4	6.41	122.49	118.00
36	BA	1301	U	O4'-C1'-C2'	-6.41	99.39	105.80
2	A8	327	G	C4-N9-C1'	-6.41	118.16	126.50
2	A8	751	A	C5'-C4'-C3'	-6.41	105.74	116.00
2	A8	1218	G	N1-C6-O6	6.41	123.75	119.90
2	A8	1935	G	C4-N9-C1'	-6.41	118.17	126.50
2	A8	178	G	C5-C6-O6	-6.41	124.75	128.60
2	A8	518	G	N1-C6-O6	6.41	123.75	119.90
2	A8	648	G	C5-C6-O6	-6.41	124.75	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	308	C	N3-C4-N4	6.41	122.49	118.00
2	A8	708	G	C8-N9-C4	-6.41	103.84	106.40
2	A8	1260	A	C5-C6-N6	-6.41	118.57	123.70
36	BA	942	G	C5-C6-O6	-6.41	124.75	128.60
36	BA	1256	A	C5-C6-N6	-6.41	118.57	123.70
36	BA	1435	G	C4'-C3'-C2'	6.41	109.01	102.60
2	A8	411	G	C5-C6-O6	-6.41	124.76	128.60
2	A8	608	A	C5-C6-N1	-6.41	114.50	117.70
36	BA	5	U	O4'-C1'-C2'	-6.41	99.39	105.80
36	BA	1331	G	C4'-C3'-C2'	-6.41	96.19	102.60
2	A8	316	C	N3-C4-C5	-6.41	119.34	121.90
2	A8	527	C	O4'-C1'-N1	6.41	113.32	108.20
2	A8	1439	A	C4-C5-C6	6.41	120.20	117.00
2	A8	1516	G	N1-C6-O6	6.41	123.74	119.90
2	A8	1992	G	C5'-C4'-C3'	-6.41	105.75	116.00
2	A8	2587	A	C5-C6-N6	-6.41	118.58	123.70
36	BA	416	G	C5-C6-O6	-6.41	124.76	128.60
36	BA	450	G	N1-C6-O6	6.41	123.74	119.90
36	BA	1109	C	N3-C4-C5	-6.41	119.34	121.90
2	A8	73	A	P-O5'-C5'	6.40	131.15	120.90
36	BA	1055	A	C5-C6-N6	-6.40	118.58	123.70
36	BA	1244	G	P-O3'-C3'	-6.40	112.02	119.70
2	A8	266	G	C8-N9-C1'	-6.40	118.68	127.00
2	A8	1151	A	C5'-C4'-C3'	-6.40	105.76	116.00
2	A8	1424	G	C4-N9-C1'	-6.40	118.18	126.50
2	A8	1871	A	C4-C5-C6	6.40	120.20	117.00
2	A8	2083	G	O4'-C1'-N9	6.40	113.32	108.20
2	A8	2241	A	C4-C5-C6	6.40	120.20	117.00
2	A8	2351	G	O4'-C1'-N9	6.40	113.32	108.20
2	A8	2682	A	C5-C6-N1	-6.40	114.50	117.70
36	BA	158	G	C8-N9-C1'	6.40	135.32	127.00
36	BA	359	G	C4'-C3'-C2'	-6.40	96.20	102.60
36	BA	716	A	O4'-C1'-N9	6.40	113.32	108.20
36	BA	816	A	C5-C6-N1	-6.40	114.50	117.70
36	BA	901	A	N9-C4-C5	6.40	108.36	105.80
36	BA	1239	A	C5'-C4'-C3'	-6.40	105.76	116.00
36	BA	1370	G	C5-C6-O6	-6.40	124.76	128.60
2	A8	21	A	C3'-C2'-C1'	-6.40	96.38	101.50
2	A8	1223	G	O4'-C1'-N9	6.40	113.32	108.20
12	AH	30	LEU	N-CA-C	-6.40	93.72	111.00
36	BA	220	G	C5-C6-O6	-6.40	124.76	128.60
36	BA	1458	G	C5'-C4'-C3'	-6.40	105.76	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	590	A	O4'-C1'-N9	6.40	113.32	108.20
2	A8	646	U	P-O3'-C3'	6.40	127.38	119.70
2	A8	2294	G	C4-N9-C1'	-6.40	118.18	126.50
36	BA	633	G	C6-C5-N7	-6.40	126.56	130.40
1	A7	81	G	C5-C6-O6	-6.40	124.76	128.60
2	A8	364	C	N3-C4-C5	-6.40	119.34	121.90
2	A8	577	G	C8-N9-C4	-6.40	103.84	106.40
2	A8	925	A	O4'-C1'-N9	6.40	113.32	108.20
2	A8	2517	C	N3-C4-N4	6.40	122.48	118.00
36	BA	440	C	N3-C4-C5	-6.40	119.34	121.90
36	BA	644	U	O4'-C1'-N1	6.40	113.32	108.20
2	A8	286	U	O4'-C1'-N1	6.40	113.32	108.20
2	A8	792	A	C5-C6-N1	-6.40	114.50	117.70
2	A8	2437	G	C8-N9-C4	-6.40	103.84	106.40
36	BA	1008	U	O4'-C1'-N1	6.40	113.32	108.20
36	BA	142	G	N3-C2-N2	6.39	124.38	119.90
36	BA	329	A	C8-N9-C4	-6.39	103.24	105.80
36	BA	563	A	C4-C5-C6	6.39	120.20	117.00
36	BA	1143	G	O4'-C1'-N9	6.39	113.32	108.20
2	A8	99	U	O4'-C1'-N1	6.39	113.31	108.20
2	A8	408	G	O4'-C1'-N9	6.39	113.31	108.20
2	A8	957	C	N3-C4-C5	-6.39	119.34	121.90
2	A8	1302	A	C4-C5-C6	6.39	120.20	117.00
2	A8	1534	U	P-O5'-C5'	6.39	131.13	120.90
2	A8	1652	A	C5'-C4'-C3'	-6.39	105.77	116.00
2	A8	1777	U	C3'-C2'-C1'	-6.39	96.39	101.50
2	A8	1998	A	C4-C5-C6	6.39	120.20	117.00
36	BA	752	G	C4-N9-C1'	-6.39	118.19	126.50
2	A8	996	A	C4-C5-C6	6.39	120.19	117.00
2	A8	1836	C	C6-N1-C2	-6.39	117.74	120.30
2	A8	2247	A	O4'-C1'-N9	6.39	113.31	108.20
36	BA	673	A	C5-C6-N6	-6.39	118.59	123.70
36	BA	989	U	C3'-C2'-C1'	-6.39	96.39	101.50
2	A8	218	A	C5-C6-N6	-6.39	118.59	123.70
2	A8	418	C	C6-N1-C2	-6.39	117.75	120.30
2	A8	1974	C	N3-C4-N4	6.39	122.47	118.00
36	BA	181	A	C3'-C2'-C1'	-6.39	96.39	101.50
2	A8	8	C	N3-C4-N4	6.39	122.47	118.00
2	A8	1839	G	C5-C6-O6	-6.39	124.77	128.60
2	A8	2350	C	O4'-C1'-N1	6.39	113.31	108.20
2	A8	2517	C	C5'-C4'-C3'	-6.39	105.78	116.00
36	BA	743	A	C5-C6-N6	-6.39	118.59	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1438	G	N1-C6-O6	6.39	123.73	119.90
2	A8	10	A	P-O3'-C3'	-6.38	112.04	119.70
2	A8	1252	G	N3-C2-N2	6.38	124.37	119.90
2	A8	2180	U	O4'-C1'-N1	6.38	113.31	108.20
36	BA	1104	G	C5-C6-O6	-6.38	124.77	128.60
36	BA	1249	C	N3-C4-N4	6.38	122.47	118.00
36	BA	1332	A	O4'-C1'-N9	6.38	113.31	108.20
2	A8	1112	G	O4'-C1'-N9	6.38	113.31	108.20
2	A8	2820	A	C5-C6-N6	-6.38	118.59	123.70
36	BA	627	G	P-O5'-C5'	-6.38	110.69	120.90
36	BA	1153	G	O4'-C1'-N9	6.38	113.31	108.20
36	BA	1162	C	C5'-C4'-C3'	-6.38	105.79	116.00
36	BA	1383	C	O4'-C1'-N1	6.38	113.31	108.20
2	A8	386	G	C5-C6-O6	-6.38	124.77	128.60
2	A8	1314	C	N3-C4-N4	6.38	122.47	118.00
2	A8	1590	A	O4'-C1'-N9	6.38	113.31	108.20
2	A8	1613	G	C8-N9-C1'	6.38	135.30	127.00
36	BA	380	G	O4'-C1'-N9	6.38	113.31	108.20
2	A8	726	G	P-O3'-C3'	6.38	127.36	119.70
2	A8	969	G	N3-C2-N2	6.38	124.37	119.90
36	BA	1473	G	O4'-C1'-N9	6.38	113.30	108.20
1	A7	61	G	N3-C2-N2	6.38	124.36	119.90
1	A7	105	G	C5-C6-O6	-6.38	124.77	128.60
2	A8	66	C	N3-C4-C5	-6.38	119.35	121.90
2	A8	981	A	C5-C6-N6	-6.38	118.60	123.70
2	A8	1938	A	O4'-C1'-N9	6.38	113.30	108.20
2	A8	2757	A	C8-N9-C4	-6.38	103.25	105.80
2	A8	2852	G	P-O3'-C3'	-6.38	112.05	119.70
36	BA	771	G	N1-C6-O6	6.38	123.73	119.90
36	BA	932	C	N3-C4-N4	6.38	122.46	118.00
2	A8	587	C	N3-C4-C5	-6.38	119.35	121.90
2	A8	1534	U	C5'-C4'-O4'	6.38	116.75	109.10
2	A8	1760	C	N3-C4-N4	6.38	122.46	118.00
3	AA	404	PHE	CB-CG-CD1	-6.38	116.34	120.80
36	BA	283	U	O4'-C1'-N1	6.38	113.30	108.20
36	BA	373	A	C5-C6-N1	-6.38	114.51	117.70
36	BA	655	A	C5'-C4'-C3'	-6.38	105.80	116.00
36	BA	980	C	P-O3'-C3'	6.38	127.35	119.70
36	BA	1387	G	C5-C6-O6	-6.38	124.77	128.60
2	A8	41	C	C3'-C2'-C1'	-6.38	96.40	101.50
2	A8	495	G	N1-C6-O6	6.38	123.72	119.90
2	A8	2554	U	O4'-C1'-N1	6.38	113.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	935	A	C5-N7-C8	6.38	107.09	103.90
2	A8	140	C	O4'-C1'-N1	6.37	113.30	108.20
2	A8	197	A	C2'-C3'-O3'	6.37	123.90	113.70
2	A8	763	G	N1-C6-O6	6.37	123.72	119.90
2	A8	770	G	N1-C6-O6	6.37	123.72	119.90
2	A8	1155	A	C4-C5-C6	6.37	120.19	117.00
36	BA	454	G	P-O5'-C5'	6.37	131.10	120.90
36	BA	678	U	O4'-C1'-N1	6.37	113.30	108.20
36	BA	1421	G	O4'-C1'-N9	6.37	113.30	108.20
2	A8	1430	G	C8-N9-C1'	6.37	135.28	127.00
2	A8	2174	C	N3-C4-C5	-6.37	119.35	121.90
2	A8	2220	U	C3'-C2'-C1'	-6.37	96.40	101.50
2	A8	2548	U	O4'-C1'-N1	6.37	113.30	108.20
36	BA	497	G	O4'-C1'-N9	6.37	113.30	108.20
36	BA	615	G	P-O5'-C5'	-6.37	110.71	120.90
36	BA	1131	G	P-O3'-C3'	-6.37	112.06	119.70
36	BA	1151	A	C5-C6-N6	-6.37	118.60	123.70
2	A8	1726	C	O4'-C1'-N1	6.37	113.30	108.20
36	BA	819	A	C5-C6-N6	-6.37	118.60	123.70
36	BA	874	G	C8-N9-C4	-6.37	103.85	106.40
2	A8	521	U	O4'-C1'-N1	6.37	113.30	108.20
2	A8	634	C	C5'-C4'-C3'	-6.37	105.81	116.00
2	A8	833	A	C4-C5-C6	6.37	120.19	117.00
2	A8	2854	G	C5-C6-O6	-6.37	124.78	128.60
36	BA	117	G	C6-C5-N7	-6.37	126.58	130.40
36	BA	497	G	C5-C6-O6	-6.37	124.78	128.60
36	BA	539	A	C4-C5-C6	6.37	120.18	117.00
36	BA	560	A	C5-C6-N1	-6.37	114.52	117.70
36	BA	906	A	C5-C6-N6	-6.37	118.61	123.70
2	A8	1260	A	C4-C5-C6	6.37	120.18	117.00
36	BA	109	A	C5-C6-N6	-6.37	118.61	123.70
36	BA	1195	C	N3-C4-N4	6.37	122.46	118.00
1	A7	50	A	C5-C6-N6	-6.37	118.61	123.70
2	A8	313	G	C5-C6-O6	-6.37	124.78	128.60
2	A8	1147	A	C4-C5-C6	6.37	120.18	117.00
36	BA	845	A	C5-C6-N6	-6.37	118.61	123.70
36	BA	1122	U	C5'-C4'-C3'	-6.37	105.82	116.00
36	BA	1140	C	N3-C4-N4	6.37	122.46	118.00
36	BA	1375	A	C5-C6-N1	-6.37	114.52	117.70
2	A8	156	A	C4-C5-C6	6.36	120.18	117.00
2	A8	156	A	O4'-C1'-N9	6.36	113.29	108.20
2	A8	460	A	C5'-C4'-C3'	-6.36	105.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	479	A	C4'-C3'-C2'	-6.36	96.24	102.60
2	A8	1827	U	O4'-C1'-N1	6.36	113.29	108.20
2	A8	1943	U	P-O5'-C5'	-6.36	110.72	120.90
2	A8	2134	A	C4-C5-C6	6.36	120.18	117.00
36	BA	356	A	N1-C6-N6	6.36	122.42	118.60
36	BA	1245	C	N3-C4-N4	6.36	122.45	118.00
2	A8	149	A	C5-C6-N6	-6.36	118.61	123.70
2	A8	371	A	C4-C5-C6	6.36	120.18	117.00
2	A8	659	G	N1-C6-O6	6.36	123.72	119.90
2	A8	1578	U	C5'-C4'-C3'	-6.36	105.82	116.00
2	A8	1793	C	P-O5'-C5'	-6.36	110.72	120.90
2	A8	2751	G	C5-C6-O6	-6.36	124.78	128.60
1	A7	20	G	P-O3'-C3'	-6.36	112.07	119.70
1	A7	87	U	P-O5'-C5'	6.36	131.08	120.90
2	A8	717	C	N3-C4-N4	6.36	122.45	118.00
2	A8	1037	G	C8-N9-C1'	6.36	135.27	127.00
2	A8	1914	C	N3-C4-C5	-6.36	119.36	121.90
2	A8	2237	G	O4'-C1'-N9	6.36	113.29	108.20
2	A8	2505	G	C5-C6-O6	-6.36	124.78	128.60
2	A8	2641	G	C8-N9-C1'	6.36	135.27	127.00
36	BA	242	G	C5-C6-O6	-6.36	124.78	128.60
36	BA	574	A	C4'-C3'-C2'	6.36	108.96	102.60
2	A8	293	U	P-O5'-C5'	6.36	131.07	120.90
2	A8	351	C	O4'-C1'-N1	6.36	113.29	108.20
36	BA	777	A	C5-C6-N6	-6.36	118.61	123.70
2	A8	1699	G	C3'-C2'-C1'	-6.36	96.41	101.50
2	A8	1792	G	C6-C5-N7	-6.36	126.58	130.40
2	A8	2599	G	N3-C2-N2	6.36	124.35	119.90
2	A8	2862	G	O4'-C1'-N9	6.36	113.29	108.20
36	BA	275	G	C5-C6-O6	-6.36	124.78	128.60
2	A8	465	G	C8-N9-C1'	6.36	135.26	127.00
2	A8	1172	C	C6-N1-C2	-6.36	117.76	120.30
2	A8	2893	A	C3'-C2'-C1'	-6.36	96.42	101.50
36	BA	186	C	C6-N1-C2	-6.36	117.76	120.30
36	BA	714	G	O4'-C1'-N9	6.36	113.28	108.20
36	BA	814	A	C4-C5-C6	6.36	120.18	117.00
2	A8	665	U	O4'-C1'-N1	6.35	113.28	108.20
2	A8	954	G	P-O3'-C3'	-6.35	112.08	119.70
2	A8	2530	A	O4'-C1'-N9	6.35	113.28	108.20
36	BA	7	A	C4-C5-C6	6.35	120.18	117.00
36	BA	107	G	O4'-C1'-N9	6.35	113.28	108.20
36	BA	949	A	C4-C5-C6	6.35	120.18	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1215	G	N1-C6-O6	6.35	123.71	119.90
36	BA	1299	A	N3-C4-C5	-6.35	122.35	126.80
2	A8	892	A	C4-C5-C6	6.35	120.18	117.00
2	A8	1627	G	N3-C2-N2	6.35	124.35	119.90
2	A8	1682	G	O4'-C1'-N9	6.35	113.28	108.20
2	A8	2600	A	C5'-C4'-C3'	-6.35	105.84	116.00
36	BA	1128	C	N3-C4-N4	6.35	122.45	118.00
2	A8	1447	C	N3-C4-C5	-6.35	119.36	121.90
2	A8	2187	U	O4'-C1'-N1	6.35	113.28	108.20
36	BA	222	C	N3-C4-N4	6.35	122.45	118.00
36	BA	230	G	O4'-C1'-N9	6.35	113.28	108.20
36	BA	608	A	C8-N9-C4	-6.35	103.26	105.80
2	A8	257	C	C5-C6-N1	6.35	124.17	121.00
2	A8	536	G	C5-C6-O6	-6.35	124.79	128.60
2	A8	970	U	O4'-C1'-N1	6.35	113.28	108.20
2	A8	1287	A	C5-C6-N6	-6.35	118.62	123.70
2	A8	2282	G	C2'-C3'-O3'	6.35	123.86	113.70
2	A8	2399	G	N1-C6-O6	6.35	123.71	119.90
36	BA	408	A	C4-C5-C6	6.35	120.17	117.00
36	BA	906	A	C5-C6-N1	-6.35	114.53	117.70
36	BA	969	A	C5-C6-N6	-6.35	118.62	123.70
36	BA	1162	C	C6-N1-C2	-6.35	117.76	120.30
36	BA	1488	G	C1'-O4'-C4'	-6.35	104.82	109.90
36	BA	1493	A	C5-C6-N6	-6.35	118.62	123.70
2	A8	756	A	C5'-C4'-C3'	-6.35	105.84	116.00
2	A8	899	A	C5-C6-N6	-6.35	118.62	123.70
2	A8	1022	G	N1-C6-O6	6.35	123.71	119.90
2	A8	1206	G	O4'-C1'-N9	6.35	113.28	108.20
2	A8	1510	G	C4-C5-C6	6.35	122.61	118.80
36	BA	1050	G	O4'-C1'-N9	6.35	113.28	108.20
36	BA	1306	A	C8-N9-C4	-6.35	103.26	105.80
2	A8	699	A	O4'-C1'-N9	6.35	113.28	108.20
36	BA	285	C	N3-C4-C5	-6.35	119.36	121.90
2	A8	299	A	C5-C6-N6	-6.34	118.62	123.70
2	A8	742	A	C1'-O4'-C4'	-6.34	104.83	109.90
30	AZ	44	ARG	N-CA-CB	6.34	122.02	110.60
36	BA	628	G	N1-C6-O6	6.34	123.71	119.90
2	A8	2458	G	C6-C5-N7	-6.34	126.59	130.40
36	BA	725	G	C8-N9-C1'	6.34	135.25	127.00
36	BA	1289	A	C5-C6-N1	-6.34	114.53	117.70
2	A8	410	G	N1-C6-O6	6.34	123.70	119.90
2	A8	632	A	C5-C6-N1	-6.34	114.53	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	995	C	N3-C4-C5	-6.34	119.36	121.90
2	A8	2397	G	O4'-C1'-N9	6.34	113.27	108.20
2	A8	2715	C	N3-C4-N4	6.34	122.44	118.00
36	BA	23	C	N3-C4-N4	6.34	122.44	118.00
36	BA	122	G	C5'-C4'-C3'	-6.34	105.85	116.00
36	BA	824	G	C4-N9-C1'	-6.34	118.26	126.50
36	BA	975	A	C4-C5-C6	6.34	120.17	117.00
2	A8	79	C	C2-N3-C4	6.34	123.07	119.90
2	A8	2366	A	C4-C5-C6	6.34	120.17	117.00
2	A8	2611	C	N3-C4-N4	6.34	122.44	118.00
36	BA	23	C	N3-C4-C5	-6.34	119.36	121.90
36	BA	152	A	O4'-C1'-N9	6.34	113.27	108.20
36	BA	351	G	C6-C5-N7	-6.34	126.60	130.40
2	A8	1036	G	O4'-C1'-N9	6.34	113.27	108.20
2	A8	2387	U	O4'-C1'-N1	6.34	113.27	108.20
36	BA	758	C	C5-C6-N1	6.34	124.17	121.00
36	BA	829	G	N1-C6-O6	6.34	123.70	119.90
2	A8	825	A	O4'-C1'-N9	6.33	113.27	108.20
2	A8	878	A	O4'-C1'-N9	6.33	113.27	108.20
2	A8	1036	G	C5'-C4'-C3'	-6.33	105.86	116.00
2	A8	1351	C	O4'-C1'-C2'	6.33	113.30	107.60
2	A8	1970	A	C5-C6-N1	-6.33	114.53	117.70
36	BA	21	G	O4'-C1'-N9	6.33	113.27	108.20
2	A8	898	C	C6-N1-C2	-6.33	117.77	120.30
2	A8	968	C	C3'-C2'-C1'	-6.33	96.43	101.50
2	A8	969	G	N1-C6-O6	6.33	123.70	119.90
2	A8	1046	A	P-O3'-C3'	6.33	127.30	119.70
36	BA	382	A	C4-C5-C6	6.33	120.17	117.00
2	A8	396	G	C5-C6-O6	-6.33	124.80	128.60
2	A8	618	G	C8-N9-C1'	6.33	135.23	127.00
2	A8	1111	A	C5-C6-N6	-6.33	118.64	123.70
2	A8	1920	C	N3-C4-N4	6.33	122.43	118.00
2	A8	2198	A	C5-C6-N1	-6.33	114.53	117.70
36	BA	111	G	C5-C6-O6	-6.33	124.80	128.60
2	A8	1424	G	C8-N9-C1'	6.33	135.23	127.00
2	A8	1720	U	O4'-C1'-N1	6.33	113.26	108.20
2	A8	1999	C	P-O3'-C3'	-6.33	112.10	119.70
2	A8	2526	G	C5'-C4'-C3'	6.33	126.13	116.00
2	A8	2825	G	P-O3'-C3'	-6.33	112.11	119.70
36	BA	394	G	C3'-C2'-C1'	-6.33	96.44	101.50
36	BA	690	G	C4-N9-C1'	-6.33	118.27	126.50
36	BA	1191	A	C4-C5-C6	6.33	120.17	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	24	G	P-O3'-C3'	6.33	127.29	119.70
2	A8	388	G	C5-C6-O6	-6.33	124.80	128.60
2	A8	842	U	O4'-C1'-N1	6.33	113.26	108.20
2	A8	1454	C	N3-C4-C5	-6.33	119.37	121.90
2	A8	1782	U	C2-N3-C4	-6.33	123.20	127.00
2	A8	2438	U	O4'-C1'-N1	6.33	113.26	108.20
2	A8	2831	G	C5-C6-O6	-6.33	124.80	128.60
36	BA	553	A	C5-C6-N6	-6.33	118.64	123.70
36	BA	877	G	N1-C6-O6	6.33	123.70	119.90
36	BA	985	C	N3-C4-C5	-6.33	119.37	121.90
2	A8	536	G	C4-N9-C1'	-6.33	118.27	126.50
2	A8	2020	A	P-O3'-C3'	-6.33	112.11	119.70
2	A8	191	A	N9-C1'-C2'	-6.33	105.04	112.00
2	A8	1292	G	C8-N9-C4	-6.33	103.87	106.40
2	A8	1587	G	C5'-C4'-C3'	-6.33	105.88	116.00
2	A8	2025	C	C5-C6-N1	6.33	124.16	121.00
2	A8	2547	A	P-O3'-C3'	-6.33	112.11	119.70
36	BA	774	G	C5-C6-O6	-6.33	124.80	128.60
36	BA	1088	G	C5-C6-O6	-6.33	124.81	128.60
2	A8	257	C	C6-N1-C2	-6.32	117.77	120.30
2	A8	1790	C	N3-C4-C5	-6.32	119.37	121.90
18	AN	21	PHE	CB-CG-CD2	-6.32	116.37	120.80
36	BA	302	G	C5'-C4'-C3'	-6.32	105.88	116.00
36	BA	472	U	P-O3'-C3'	-6.32	112.11	119.70
36	BA	964	A	C5-C6-N6	-6.32	118.64	123.70
2	A8	459	U	O4'-C1'-N1	6.32	113.26	108.20
2	A8	647	G	N1-C6-O6	6.32	123.69	119.90
2	A8	669	G	C6-C5-N7	-6.32	126.61	130.40
2	A8	1616	A	C4-C5-C6	6.32	120.16	117.00
36	BA	95	C	O4'-C1'-N1	6.32	113.26	108.20
36	BA	1107	C	P-O5'-C5'	-6.32	110.78	120.90
2	A8	74	A	C4-C5-C6	6.32	120.16	117.00
2	A8	1040	A	C8-N9-C1'	6.32	139.08	127.70
2	A8	1488	C	P-O3'-C3'	-6.32	112.11	119.70
2	A8	2373	G	C8-N9-C1'	6.32	135.22	127.00
2	A8	2810	A	C4-C5-C6	6.32	120.16	117.00
2	A8	742	A	C4'-C3'-C2'	-6.32	96.28	102.60
2	A8	1475	G	N1-C6-O6	6.32	123.69	119.90
36	BA	226	G	C5-C6-O6	-6.32	124.81	128.60
36	BA	698	G	C5-C6-O6	-6.32	124.81	128.60
36	BA	869	G	C4-N9-C1'	-6.32	118.28	126.50
36	BA	1309	G	O4'-C1'-N9	6.32	113.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1487	G	C4-N9-C1'	-6.32	118.29	126.50
2	A8	1469	A	C5-C6-N1	-6.32	114.54	117.70
2	A8	2430	A	C4-C5-C6	6.32	120.16	117.00
25	AU	84	PHE	CB-CG-CD1	6.32	125.22	120.80
36	BA	507	C	N3-C4-N4	6.32	122.42	118.00
36	BA	1012	A	C5-C6-N6	-6.32	118.65	123.70
36	BA	1482	G	C3'-C2'-C1'	-6.32	96.45	101.50
2	A8	564	C	C5-C4-N4	-6.32	115.78	120.20
2	A8	1436	G	C8-N9-C4	-6.32	103.87	106.40
2	A8	2822	G	P-O3'-C3'	6.32	127.28	119.70
36	BA	222	C	C3'-C2'-C1'	-6.32	96.45	101.50
36	BA	488	C	N3-C4-N4	6.32	122.42	118.00
36	BA	493	A	O4'-C1'-N9	6.32	113.25	108.20
36	BA	696	A	O4'-C1'-N9	6.32	113.25	108.20
36	BA	863	U	P-O3'-C3'	6.32	127.28	119.70
2	A8	2704	C	C6-N1-C2	-6.31	117.78	120.30
36	BA	264	C	O4'-C1'-N1	6.31	113.25	108.20
2	A8	353	C	N3-C4-N4	6.31	122.42	118.00
2	A8	952	G	C8-N9-C1'	6.31	135.21	127.00
2	A8	2237	G	C1'-O4'-C4'	-6.31	104.85	109.90
36	BA	649	A	O4'-C1'-N9	6.31	113.25	108.20
36	BA	1042	A	C5-C6-N6	-6.31	118.65	123.70
2	A8	351	C	N3-C4-N4	6.31	122.42	118.00
2	A8	1536	C	C1'-O4'-C4'	-6.31	104.85	109.90
2	A8	1124	G	C5-C6-O6	-6.31	124.81	128.60
2	A8	1906	G	N1-C6-O6	6.31	123.69	119.90
2	A8	2828	G	C5-C6-O6	-6.31	124.81	128.60
12	AH	106	ALA	N-CA-CB	6.31	118.93	110.10
36	BA	77	A	C5'-C4'-C3'	-6.31	105.91	116.00
36	BA	281	G	N3-C2-N2	6.31	124.32	119.90
36	BA	411	A	P-O5'-C5'	6.31	130.99	120.90
36	BA	1454	G	C5-C6-O6	-6.31	124.81	128.60
2	A8	263	G	O4'-C1'-N9	6.31	113.25	108.20
2	A8	782	A	C5-C6-N1	-6.31	114.55	117.70
2	A8	1902	C	C5-C6-N1	6.31	124.15	121.00
36	BA	61	G	O4'-C1'-N9	6.31	113.25	108.20
36	BA	428	G	C5-C6-O6	-6.31	124.81	128.60
36	BA	866	C	N3-C4-N4	6.31	122.42	118.00
36	BA	947	G	C5-C6-O6	-6.31	124.81	128.60
36	BA	1399	C	N3-C4-C5	-6.31	119.38	121.90
2	A8	35	G	P-O5'-C5'	6.31	130.99	120.90
3	AA	383	TYR	CB-CG-CD1	-6.31	117.22	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	94	G	C5-C6-O6	-6.31	124.82	128.60
36	BA	680	C	O4'-C1'-N1	6.31	113.25	108.20
1	A7	51	G	C5-C6-O6	-6.30	124.82	128.60
2	A8	618	G	O4'-C1'-N9	6.30	113.24	108.20
2	A8	2659	G	C4-N9-C1'	-6.30	118.30	126.50
2	A8	2834	G	C5-C6-O6	-6.30	124.82	128.60
36	BA	57	G	C4-N9-C1'	-6.30	118.31	126.50
36	BA	954	G	C8-N9-C1'	6.30	135.20	127.00
46	BK	66	ALA	CB-CA-C	-6.30	100.64	110.10
2	A8	340	A	O4'-C1'-N9	6.30	113.24	108.20
2	A8	2646	C	N3-C4-N4	6.30	122.41	118.00
2	A8	529	A	P-O3'-C3'	6.30	127.26	119.70
2	A8	659	G	C5'-C4'-C3'	-6.30	105.92	116.00
2	A8	858	G	N1-C6-O6	6.30	123.68	119.90
2	A8	1464	G	C8-N9-C1'	6.30	135.19	127.00
2	A8	1516	G	P-O5'-C5'	6.30	130.98	120.90
2	A8	1807	G	C3'-C2'-C1'	-6.30	96.46	101.50
2	A8	2522	U	P-O3'-C3'	-6.30	112.14	119.70
36	BA	167	A	O4'-C1'-N9	6.30	113.24	108.20
1	A7	50	A	O4'-C1'-N9	6.30	113.24	108.20
2	A8	196	A	C5'-C4'-O4'	6.30	116.66	109.10
2	A8	402	A	C8-N9-C4	-6.30	103.28	105.80
2	A8	743	A	O4'-C1'-N9	6.30	113.24	108.20
2	A8	942	G	C8-N9-C4	-6.30	103.88	106.40
2	A8	1366	A	C8-N9-C4	-6.30	103.28	105.80
2	A8	1452	G	C6-C5-N7	-6.30	126.62	130.40
2	A8	1674	G	C5'-C4'-C3'	-6.30	105.92	116.00
2	A8	2530	A	C4-C5-C6	6.30	120.15	117.00
2	A8	2602	A	C5-C6-N1	-6.30	114.55	117.70
36	BA	38	G	O4'-C1'-N9	6.30	113.24	108.20
36	BA	790	A	O4'-C1'-N9	6.30	113.24	108.20
36	BA	1037	C	N3-C4-C5	-6.30	119.38	121.90
36	BA	1197	A	C5-C6-N6	-6.30	118.66	123.70
2	A8	866	A	C5-C6-N6	-6.30	118.66	123.70
2	A8	947	A	C4-C5-C6	6.30	120.15	117.00
2	A8	1163	G	O4'-C1'-N9	6.30	113.24	108.20
2	A8	1980	G	N3-C4-N9	6.30	129.78	126.00
2	A8	2061	G	C5-C6-O6	-6.30	124.82	128.60
36	BA	139	A	P-O3'-C3'	-6.30	112.14	119.70
2	A8	1625	C	N3-C4-N4	6.30	122.41	118.00
2	A8	2199	A	C4-C5-C6	6.30	120.15	117.00
2	A8	2416	C	P-O3'-C3'	-6.30	112.14	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2518	A	P-O3'-C3'	6.30	127.26	119.70
2	A8	2605	U	C5'-C4'-C3'	-6.30	105.92	116.00
2	A8	2807	U	O4'-C1'-N1	6.30	113.24	108.20
22	AR	62	GLU	N-CA-CB	6.30	121.93	110.60
36	BA	126	G	N1-C6-O6	6.30	123.68	119.90
36	BA	1077	G	C4-N9-C1'	-6.30	118.31	126.50
36	BA	1411	C	N3-C4-N4	6.30	122.41	118.00
36	BA	325	A	C4-C5-C6	6.29	120.15	117.00
36	BA	441	A	C4-C5-C6	6.29	120.15	117.00
36	BA	448	A	O4'-C1'-N9	6.29	113.24	108.20
36	BA	1459	G	O4'-C1'-N9	6.29	113.24	108.20
1	A7	84	G	P-O3'-C3'	-6.29	112.15	119.70
1	A7	105	G	O4'-C1'-N9	6.29	113.24	108.20
2	A8	1037	G	C4-N9-C1'	-6.29	118.32	126.50
2	A8	2820	A	P-O3'-C3'	6.29	127.25	119.70
36	BA	976	G	N1-C6-O6	6.29	123.68	119.90
36	BA	1038	C	P-O5'-C5'	6.29	130.97	120.90
2	A8	564	C	O4'-C1'-N1	6.29	113.23	108.20
2	A8	715	A	C5-C6-N6	-6.29	118.67	123.70
2	A8	1331	G	N7-C8-N9	6.29	116.25	113.10
2	A8	2013	A	P-O3'-C3'	-6.29	112.15	119.70
36	BA	172	A	C5-C6-N1	-6.29	114.55	117.70
2	A8	761	A	C5'-C4'-C3'	-6.29	105.94	116.00
2	A8	1861	G	O4'-C1'-N9	6.29	113.23	108.20
2	A8	1982	U	O4'-C1'-N1	6.29	113.23	108.20
36	BA	116	A	C4-C5-C6	6.29	120.14	117.00
36	BA	125	U	O4'-C1'-N1	6.29	113.23	108.20
36	BA	1465	A	C8-N9-C4	-6.29	103.28	105.80
2	A8	17	G	C5-C6-O6	-6.29	124.83	128.60
2	A8	1127	A	O4'-C1'-N9	6.29	113.23	108.20
2	A8	1822	C	C3'-C2'-C1'	-6.29	96.47	101.50
36	BA	462	G	C5-C6-O6	-6.29	124.83	128.60
36	BA	1068	G	C4-C5-C6	6.29	122.57	118.80
36	BA	1024	G	O4'-C1'-N9	6.29	113.23	108.20
36	BA	1432	G	C6-C5-N7	-6.29	126.63	130.40
2	A8	479	A	C5'-C4'-O4'	6.29	116.64	109.10
2	A8	892	A	O4'-C1'-N9	6.29	113.23	108.20
2	A8	2421	G	O3'-P-O5'	6.29	115.94	104.00
28	AX	28	PHE	N-CA-CB	6.29	121.92	110.60
36	BA	873	A	C3'-C2'-C1'	6.29	106.53	101.50
36	BA	1167	A	C5-C6-N1	-6.29	114.56	117.70
36	BA	1428	A	C5-C6-N6	-6.29	118.67	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BF	25	TYR	CB-CG-CD2	6.29	124.77	121.00
1	A7	94	A	O4'-C1'-N9	6.28	113.23	108.20
2	A8	480	A	C5-C6-N1	-6.28	114.56	117.70
2	A8	739	A	C5'-C4'-O4'	6.28	116.64	109.10
2	A8	1355	G	N1-C6-O6	6.28	123.67	119.90
2	A8	1498	C	O4'-C1'-N1	6.28	113.23	108.20
2	A8	2781	A	C5-C6-N6	-6.28	118.67	123.70
36	BA	214	C	N3-C4-C5	-6.28	119.39	121.90
36	BA	1262	C	N3-C4-N4	6.28	122.40	118.00
36	BA	1391	U	O4'-C1'-N1	6.28	113.23	108.20
2	A8	595	C	N3-C4-N4	6.28	122.40	118.00
2	A8	1192	G	C5'-C4'-C3'	-6.28	105.95	116.00
2	A8	2103	C	O4'-C1'-N1	6.28	113.23	108.20
2	A8	2709	G	N1-C6-O6	6.28	123.67	119.90
36	BA	286	C	N3-C4-C5	-6.28	119.39	121.90
2	A8	58	G	C5'-C4'-C3'	-6.28	105.95	116.00
2	A8	602	A	O4'-C1'-N9	6.28	113.22	108.20
2	A8	1264	A	C5-C6-N6	-6.28	118.68	123.70
2	A8	1447	C	O4'-C1'-N1	6.28	113.22	108.20
2	A8	2860	A	N7-C8-N9	6.28	116.94	113.80
2	A8	2880	C	O4'-C1'-N1	6.28	113.22	108.20
36	BA	120	A	C5-C6-N1	-6.28	114.56	117.70
36	BA	145	G	C8-N9-C1'	6.28	135.16	127.00
2	A8	1481	U	O4'-C1'-N1	6.28	113.22	108.20
36	BA	664	G	O4'-C1'-N9	6.28	113.22	108.20
36	BA	711	G	C5'-C4'-C3'	-6.28	105.95	116.00
1	A7	53	A	C4-C5-C6	6.28	120.14	117.00
2	A8	1216	G	C8-N9-C4	-6.28	103.89	106.40
2	A8	1867	G	O4'-C1'-N9	6.28	113.22	108.20
2	A8	2221	G	C5-C6-O6	-6.28	124.83	128.60
36	BA	439	U	C6-N1-C2	-6.28	117.23	121.00
36	BA	1267	C	O4'-C1'-N1	6.28	113.22	108.20
2	A8	494	G	C5'-C4'-O4'	6.28	116.63	109.10
2	A8	1048	A	P-O5'-C5'	6.28	130.94	120.90
2	A8	1609	A	C5'-C4'-C3'	-6.28	105.96	116.00
2	A8	2117	A	N1-C6-N6	6.28	122.36	118.60
2	A8	2408	U	C6-N1-C1'	6.28	129.99	121.20
2	A8	2676	C	O4'-C1'-N1	6.28	113.22	108.20
36	BA	282	A	C8-N9-C4	-6.28	103.29	105.80
36	BA	286	C	O4'-C1'-N1	6.28	113.22	108.20
36	BA	346	G	O4'-C1'-N9	6.28	113.22	108.20
36	BA	374	A	C4-C5-C6	6.28	120.14	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	649	A	C4'-C3'-C2'	-6.28	96.32	102.60
36	BA	1125	U	O4'-C1'-N1	6.28	113.22	108.20
2	A8	1689	A	C6-C5-N7	-6.27	127.91	132.30
36	BA	1244	G	O4'-C1'-N9	6.27	113.22	108.20
2	A8	354	A	C4-C5-C6	6.27	120.14	117.00
2	A8	1521	G	O4'-C1'-N9	6.27	113.22	108.20
2	A8	2076	U	C6-N1-C1'	-6.27	112.42	121.20
2	A8	2255	G	C5-C6-O6	-6.27	124.84	128.60
2	A8	2791	G	O4'-C1'-N9	6.27	113.22	108.20
36	BA	1160	G	O4'-C1'-N9	6.27	113.22	108.20
36	BA	1340	A	O4'-C1'-N9	6.27	113.22	108.20
2	A8	1355	G	C8-N9-C1'	6.27	135.15	127.00
36	BA	285	C	N3-C4-N4	6.27	122.39	118.00
36	BA	621	A	C5-C6-N6	-6.27	118.68	123.70
2	A8	429	A	P-O5'-C5'	6.27	130.93	120.90
2	A8	561	G	N3-C2-N2	6.27	124.29	119.90
2	A8	2725	A	C5-C6-N1	-6.27	114.56	117.70
36	BA	47	C	N3-C4-C5	-6.27	119.39	121.90
36	BA	146	G	C5'-C4'-C3'	-6.27	105.97	116.00
36	BA	1516	G	N9-C1'-C2'	-6.27	105.11	112.00
2	A8	473	G	P-O5'-C5'	6.27	130.93	120.90
2	A8	766	U	C5'-C4'-C3'	-6.27	105.97	116.00
2	A8	846	U	C3'-C2'-C1'	-6.27	96.49	101.50
2	A8	1122	G	C5'-C4'-O4'	6.27	116.62	109.10
2	A8	1147	A	C1'-O4'-C4'	-6.27	104.89	109.90
2	A8	1922	G	C5'-C4'-C3'	-6.27	105.97	116.00
2	A8	2103	C	N3-C4-N4	6.27	122.39	118.00
36	BA	831	A	O4'-C1'-N9	6.27	113.21	108.20
36	BA	1291	U	O4'-C1'-N1	6.27	113.21	108.20
2	A8	19	A	C8-N9-C4	-6.27	103.29	105.80
2	A8	551	G	N1-C6-O6	6.27	123.66	119.90
2	A8	1830	C	C5'-C4'-C3'	-6.27	105.97	116.00
2	A8	2366	A	C5-C6-N6	-6.27	118.69	123.70
2	A8	131	A	C5-C6-N6	-6.26	118.69	123.70
2	A8	675	A	C5-C6-N1	-6.26	114.57	117.70
2	A8	698	C	O4'-C1'-N1	6.26	113.21	108.20
2	A8	1634	A	P-O5'-C5'	-6.26	110.88	120.90
2	A8	1745	A	C4-C5-C6	6.26	120.13	117.00
2	A8	2018	G	C5-C6-O6	-6.26	124.84	128.60
2	A8	2366	A	O4'-C1'-N9	6.26	113.21	108.20
2	A8	2469	A	C4-N9-C1'	6.26	137.58	126.30
2	A8	2679	A	C5-C6-N6	-6.26	118.69	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2860	A	C4-N9-C1'	6.26	137.58	126.30
36	BA	365	U	C6-N1-C1'	-6.26	112.43	121.20
36	BA	1084	G	O4'-C1'-N9	6.26	113.21	108.20
53	BR	69	TYR	CB-CG-CD2	-6.26	117.24	121.00
2	A8	255	A	C4-C5-C6	6.26	120.13	117.00
36	BA	117	G	N7-C8-N9	6.26	116.23	113.10
2	A8	166	U	O4'-C1'-N1	6.26	113.21	108.20
2	A8	440	C	O4'-C1'-N1	6.26	113.21	108.20
2	A8	581	C	N3-C4-N4	6.26	122.38	118.00
2	A8	942	G	O4'-C1'-N9	6.26	113.21	108.20
2	A8	1132	U	O4'-C1'-N1	6.26	113.21	108.20
2	A8	1810	A	C5-C6-N6	-6.26	118.69	123.70
2	A8	2340	A	O4'-C1'-N9	6.26	113.21	108.20
2	A8	2422	C	N3-C4-N4	6.26	122.38	118.00
2	A8	582	A	C5-C6-N6	-6.26	118.69	123.70
2	A8	1053	C	O4'-C1'-N1	6.26	113.21	108.20
2	A8	1422	G	C8-N9-C1'	6.26	135.14	127.00
2	A8	2537	U	C5-C6-N1	6.26	125.83	122.70
36	BA	41	G	O4'-C1'-N9	6.26	113.21	108.20
36	BA	626	G	C5-C6-O6	-6.26	124.84	128.60
36	BA	936	C	C6-N1-C2	-6.26	117.80	120.30
2	A8	1262	A	O4'-C1'-N9	6.26	113.21	108.20
36	BA	597	G	C5-C6-O6	-6.26	124.84	128.60
2	A8	9	G	C5-C6-O6	-6.26	124.85	128.60
2	A8	158	U	C5'-C4'-C3'	-6.26	105.99	116.00
2	A8	591	U	O4'-C1'-N1	6.26	113.20	108.20
2	A8	1494	A	O4'-C1'-N9	6.26	113.21	108.20
2	A8	2736	A	C1'-O4'-C4'	-6.26	104.89	109.90
2	A8	2887	A	C4-C5-C6	6.26	120.13	117.00
27	AW	19	ARG	NE-CZ-NH1	-6.26	117.17	120.30
36	BA	279	A	O4'-C1'-N9	6.26	113.20	108.20
36	BA	958	A	C5-C6-N1	-6.26	114.57	117.70
2	A8	231	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	792	A	C8-N9-C4	-6.25	103.30	105.80
36	BA	188	C	N3-C4-N4	6.25	122.38	118.00
36	BA	1411	C	C5'-C4'-C3'	-6.25	105.99	116.00
2	A8	129	C	O4'-C1'-N1	6.25	113.20	108.20
2	A8	282	A	O4'-C1'-N9	6.25	113.20	108.20
2	A8	950	G	C3'-C2'-C1'	-6.25	96.50	101.50
2	A8	983	A	C5-C6-N1	-6.25	114.57	117.70
2	A8	1086	A	C5-C6-N1	-6.25	114.57	117.70
2	A8	2583	G	C3'-C2'-C1'	-6.25	96.50	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	487	A	C5-C6-N1	-6.25	114.57	117.70
36	BA	1216	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	654	A	O4'-C1'-N9	6.25	113.20	108.20
2	A8	1313	U	O4'-C1'-N1	6.25	113.20	108.20
2	A8	1888	G	C8-N9-C1'	-6.25	118.87	127.00
2	A8	2433	A	C4-C5-C6	6.25	120.13	117.00
36	BA	1246	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	918	A	O4'-C1'-N9	6.25	113.20	108.20
2	A8	1762	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	2104	C	C5'-C4'-O4'	6.25	116.60	109.10
2	A8	2606	C	N1-C1'-C2'	-6.25	105.12	112.00
2	A8	2766	A	O3'-P-O5'	-6.25	92.12	104.00
2	A8	451	U	O4'-C1'-N1	6.25	113.20	108.20
2	A8	573	U	C5'-C4'-C3'	-6.25	106.00	116.00
2	A8	1320	C	N3-C4-N4	6.25	122.37	118.00
2	A8	2064	C	C3'-C2'-C1'	-6.25	96.50	101.50
2	A8	2123	G	C6-C5-N7	-6.25	126.65	130.40
2	A8	2402	U	C1'-O4'-C4'	-6.25	104.90	109.90
2	A8	2661	G	P-O3'-C3'	6.25	127.20	119.70
2	A8	2757	A	C5-C6-N1	-6.25	114.58	117.70
36	BA	251	G	C5-C6-O6	-6.25	124.85	128.60
36	BA	768	A	C4-C5-C6	6.25	120.12	117.00
2	A8	164	C	O4'-C1'-N1	6.25	113.20	108.20
2	A8	474	G	N1-C6-O6	6.25	123.65	119.90
2	A8	557	C	N3-C4-C5	-6.25	119.40	121.90
2	A8	909	A	C4-C5-C6	6.25	120.12	117.00
2	A8	994	C	N3-C4-N4	6.25	122.37	118.00
2	A8	1046	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	1294	U	C5'-C4'-C3'	-6.25	106.01	116.00
2	A8	1526	C	C6-N1-C2	-6.25	117.80	120.30
36	BA	1060	U	O4'-C1'-N1	6.25	113.20	108.20
1	A7	83	G	C5'-C4'-C3'	-6.25	106.01	116.00
2	A8	1191	G	O4'-C1'-N9	6.25	113.20	108.20
2	A8	1205	A	C4-C5-C6	6.25	120.12	117.00
2	A8	1848	A	C5-C6-N6	-6.25	118.70	123.70
2	A8	1896	G	N9-C1'-C2'	-6.25	105.13	112.00
2	A8	2059	A	C5-C6-N1	-6.25	114.58	117.70
36	BA	99	C	P-O3'-C3'	6.25	127.19	119.70
36	BA	329	A	C5-C6-N1	-6.25	114.58	117.70
36	BA	338	A	C5-C6-N6	-6.25	118.70	123.70
36	BA	689	C	C5'-C4'-C3'	-6.25	106.01	116.00
36	BA	1523	G	C5-C6-O6	-6.25	124.85	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	481	G	C4-N9-C1'	-6.24	118.38	126.50
2	A8	1293	C	N3-C4-N4	6.24	122.37	118.00
2	A8	1356	G	P-O5'-C5'	-6.24	110.91	120.90
2	A8	1844	C	N3-C4-N4	6.24	122.37	118.00
2	A8	2708	G	C5-C6-O6	-6.24	124.85	128.60
36	BA	872	A	O4'-C4'-C3'	-6.24	97.76	104.00
36	BA	1022	A	C4-C5-C6	6.24	120.12	117.00
36	BA	1074	G	C8-N9-C4	-6.24	103.90	106.40
36	BA	1220	G	C5-C6-O6	-6.24	124.85	128.60
36	BA	1322	C	C1'-O4'-C4'	-6.24	104.91	109.90
36	BA	1359	C	N3-C4-C5	-6.24	119.40	121.90
2	A8	126	A	C4-C5-C6	6.24	120.12	117.00
2	A8	417	C	N3-C4-N4	6.24	122.37	118.00
2	A8	879	G	C5'-C4'-O4'	6.24	116.59	109.10
2	A8	2811	G	C5-C6-O6	-6.24	124.86	128.60
36	BA	151	A	C4-C5-C6	6.24	120.12	117.00
2	A8	858	G	N1-C2-N3	-6.24	120.16	123.90
2	A8	928	A	C4-C5-C6	6.24	120.12	117.00
2	A8	988	A	C8-N9-C1'	6.24	138.93	127.70
2	A8	1331	G	C5'-C4'-C3'	-6.24	106.02	116.00
2	A8	1362	C	N3-C4-N4	6.24	122.37	118.00
2	A8	1855	U	C5'-C4'-C3'	-6.24	106.02	116.00
2	A8	2494	G	C8-N9-C1'	6.24	135.11	127.00
2	A8	2714	G	C6-C5-N7	-6.24	126.66	130.40
36	BA	976	G	N3-C2-N2	6.24	124.27	119.90
2	A8	950	G	C5-C6-O6	-6.24	124.86	128.60
2	A8	1261	C	C4'-C3'-C2'	-6.24	96.36	102.60
36	BA	1398	A	P-O3'-C3'	-6.24	112.22	119.70
36	BA	1438	G	O4'-C1'-N9	6.24	113.19	108.20
1	A7	75	G	O4'-C1'-N9	6.24	113.19	108.20
2	A8	176	A	O4'-C1'-N9	6.24	113.19	108.20
2	A8	644	A	C4-C5-C6	6.24	120.12	117.00
2	A8	692	C	C6-N1-C2	-6.24	117.81	120.30
2	A8	915	C	P-O3'-C3'	6.24	127.18	119.70
2	A8	1438	U	C6-N1-C2	-6.24	117.26	121.00
2	A8	2176	A	C4-C5-C6	6.24	120.12	117.00
36	BA	1502	A	C5-C6-N6	-6.24	118.71	123.70
2	A8	51	G	C5-C6-O6	-6.23	124.86	128.60
2	A8	1334	G	N3-C2-N2	6.23	124.26	119.90
36	BA	246	A	C5-C6-N1	-6.23	114.58	117.70
36	BA	1360	A	C4-C5-C6	6.23	120.12	117.00
2	A8	48	G	P-O3'-C3'	-6.23	112.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	170	U	O4'-C1'-N1	6.23	113.19	108.20
2	A8	360	U	O4'-C1'-N1	6.23	113.19	108.20
2	A8	435	C	O4'-C1'-N1	6.23	113.19	108.20
2	A8	503	A	C3'-C2'-C1'	-6.23	96.51	101.50
2	A8	881	G	C5'-C4'-O4'	6.23	116.58	109.10
2	A8	1242	U	O4'-C1'-N1	6.23	113.19	108.20
2	A8	1686	C	C6-N1-C2	-6.23	117.81	120.30
36	BA	126	G	C5-C6-O6	-6.23	124.86	128.60
36	BA	1401	G	O4'-C1'-N9	6.23	113.19	108.20
2	A8	247	G	C1'-O4'-C4'	-6.23	104.92	109.90
2	A8	1001	A	C4-C5-C6	6.23	120.11	117.00
2	A8	1515	A	C5-C6-N1	-6.23	114.58	117.70
2	A8	1863	G	O4'-C1'-N9	6.23	113.18	108.20
2	A8	2015	A	C4-C5-C6	6.23	120.12	117.00
2	A8	2160	C	O4'-C1'-N1	6.23	113.18	108.20
2	A8	2200	C	N3-C4-C5	-6.23	119.41	121.90
2	A8	2631	G	O4'-C1'-N9	6.23	113.18	108.20
2	A8	2741	A	C5-C6-N6	-6.23	118.72	123.70
2	A8	2784	U	O4'-C1'-N1	6.23	113.18	108.20
36	BA	208	U	O4'-C1'-N1	6.23	113.19	108.20
36	BA	983	A	C5-C6-N1	-6.23	114.58	117.70
2	A8	492	A	C8-N9-C4	-6.23	103.31	105.80
2	A8	502	A	P-O3'-C3'	6.23	127.17	119.70
2	A8	939	G	C5-C6-O6	-6.23	124.86	128.60
2	A8	1328	A	C4-C5-C6	6.23	120.11	117.00
36	BA	1152	A	C5-C6-N6	-6.23	118.72	123.70
2	A8	1097	U	O4'-C1'-N1	6.23	113.18	108.20
2	A8	1385	A	C1'-O4'-C4'	-6.23	104.92	109.90
2	A8	1962	C	N3-C4-N4	6.23	122.36	118.00
36	BA	1183	U	C2-N1-C1'	6.23	125.17	117.70
2	A8	964	C	N3-C4-N4	6.23	122.36	118.00
2	A8	533	G	N3-C2-N2	6.22	124.26	119.90
2	A8	1447	C	C5'-C4'-C3'	-6.22	106.04	116.00
2	A8	1642	G	O4'-C1'-N9	6.22	113.18	108.20
2	A8	1842	G	C5-C6-O6	-6.22	124.86	128.60
2	A8	2043	C	O4'-C1'-N1	6.22	113.18	108.20
2	A8	2598	A	O4'-C1'-N9	6.22	113.18	108.20
2	A8	2735	G	C3'-C2'-C1'	-6.22	96.52	101.50
15	AK	30	ARG	NE-CZ-NH1	6.22	123.41	120.30
36	BA	27	G	O4'-C1'-N9	6.22	113.18	108.20
36	BA	320	A	N9-C1'-C2'	-6.22	105.15	112.00
36	BA	1350	A	C4-C5-C6	6.22	120.11	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	179	A	O4'-C1'-N9	6.22	113.18	108.20
36	BA	368	U	P-O3'-C3'	6.22	127.17	119.70
36	BA	734	G	N1-C6-O6	6.22	123.63	119.90
2	A8	982	C	N3-C4-C5	-6.22	119.41	121.90
2	A8	2431	U	O4'-C1'-N1	6.22	113.18	108.20
2	A8	2895	G	C5-C6-O6	-6.22	124.87	128.60
36	BA	112	G	C5-C6-O6	-6.22	124.87	128.60
36	BA	293	G	C8-N9-C4	-6.22	103.91	106.40
36	BA	1511	G	C5-C6-O6	-6.22	124.87	128.60
2	A8	157	C	O4'-C1'-N1	6.22	113.17	108.20
2	A8	1305	C	O4'-C1'-N1	6.22	113.17	108.20
2	A8	1447	C	N3-C4-N4	6.22	122.35	118.00
2	A8	1469	A	C5-C6-N6	-6.22	118.72	123.70
2	A8	1586	A	C4-C5-C6	6.22	120.11	117.00
2	A8	1950	G	C4-N9-C1'	-6.22	118.42	126.50
2	A8	2490	G	C4-N9-C1'	-6.22	118.42	126.50
36	BA	1379	G	N1-C6-O6	6.22	123.63	119.90
36	BA	1467	C	N3-C4-N4	6.22	122.35	118.00
2	A8	1034	G	C5-C6-O6	-6.22	124.87	128.60
2	A8	1689	A	C8-N9-C4	-6.22	103.31	105.80
2	A8	618	G	C5'-C4'-C3'	-6.22	106.06	116.00
2	A8	798	G	O4'-C1'-N9	6.22	113.17	108.20
2	A8	1317	G	O4'-C1'-N9	6.22	113.17	108.20
36	BA	106	C	N3-C4-C5	-6.22	119.41	121.90
36	BA	1098	C	N3-C4-C5	-6.22	119.41	121.90
36	BA	1229	A	C5-C6-N6	-6.22	118.73	123.70
36	BA	1247	U	O4'-C1'-N1	6.22	113.17	108.20
2	A8	377	G	C4-N9-C1'	-6.21	118.42	126.50
2	A8	1003	G	N1-C6-O6	6.21	123.63	119.90
2	A8	1072	C	N3-C4-N4	6.21	122.35	118.00
2	A8	1269	A	C5'-C4'-O4'	6.21	116.56	109.10
2	A8	1455	G	C5-C6-O6	-6.21	124.87	128.60
2	A8	2210	U	C2-N3-C4	-6.21	123.27	127.00
2	A8	2765	A	P-O5'-C5'	-6.21	110.95	120.90
17	AM	117	PHE	N-CA-CB	6.21	121.78	110.60
23	AS	108	SER	N-CA-CB	6.21	119.82	110.50
36	BA	206	C	O4'-C1'-N1	6.21	113.17	108.20
36	BA	629	A	O4'-C1'-N9	6.21	113.17	108.20
2	A8	42	A	C3'-C2'-C1'	-6.21	96.53	101.50
2	A8	1652	A	O4'-C1'-N9	6.21	113.17	108.20
2	A8	301	G	C5-C6-O6	-6.21	124.87	128.60
2	A8	423	A	C5-C6-N6	-6.21	118.73	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	616	A	C5-C6-N1	-6.21	114.59	117.70
2	A8	1980	G	N1-C2-N2	-6.21	110.61	116.20
2	A8	2526	G	C8-N9-C1'	6.21	135.08	127.00
36	BA	253	A	C4-C5-C6	6.21	120.11	117.00
36	BA	468	A	C4-C5-C6	6.21	120.11	117.00
2	A8	1678	A	P-O5'-C5'	6.21	130.84	120.90
2	A8	2063	C	O3'-P-O5'	-6.21	92.20	104.00
2	A8	229	C	O4'-C1'-N1	6.21	113.17	108.20
2	A8	845	A	P-O3'-C3'	-6.21	112.25	119.70
2	A8	1150	C	N3-C4-N4	6.21	122.35	118.00
2	A8	1509	A	C5-C6-N1	-6.21	114.60	117.70
2	A8	1605	C	C6-N1-C2	-6.21	117.82	120.30
2	A8	2682	A	C5-C6-N6	-6.21	118.73	123.70
9	AE	158	PHE	CB-CG-CD2	-6.21	116.45	120.80
36	BA	924	C	C6-N1-C2	-6.21	117.82	120.30
36	BA	944	G	N3-C2-N2	6.21	124.25	119.90
36	BA	1196	A	C5-C6-N6	-6.21	118.73	123.70
36	BA	1520	C	C6-N1-C2	-6.21	117.82	120.30
2	A8	757	G	C5'-C4'-C3'	-6.21	106.07	116.00
2	A8	1298	C	C6-N1-C2	-6.21	117.82	120.30
2	A8	1959	G	N9-C1'-C2'	-6.21	105.17	112.00
2	A8	2286	G	P-O5'-C5'	-6.21	110.97	120.90
11	AG	108	PHE	CB-CG-CD2	6.21	125.14	120.80
36	BA	174	A	C4-C5-C6	6.21	120.10	117.00
36	BA	376	G	N1-C6-O6	6.21	123.62	119.90
2	A8	10	A	C4-C5-C6	6.21	120.10	117.00
2	A8	1085	A	C5-C6-N6	-6.21	118.74	123.70
2	A8	2600	A	C5-C6-N6	-6.21	118.74	123.70
36	BA	891	U	C5-C4-O4	-6.21	122.18	125.90
2	A8	124	G	C5-C6-O6	-6.20	124.88	128.60
2	A8	268	C	N3-C4-N4	6.20	122.34	118.00
2	A8	326	G	O4'-C1'-N9	6.20	113.16	108.20
2	A8	452	G	N3-C2-N2	6.20	124.24	119.90
2	A8	1103	A	C5'-C4'-O4'	6.20	116.54	109.10
2	A8	1133	A	N1-C6-N6	6.20	122.32	118.60
2	A8	1227	G	N3-C2-N2	6.20	124.24	119.90
2	A8	1511	G	C5'-C4'-C3'	-6.20	106.08	116.00
2	A8	2626	C	O4'-C1'-N1	6.20	113.16	108.20
2	A8	2859	G	O4'-C1'-N9	6.20	113.16	108.20
36	BA	78	A	C5-C6-N6	-6.20	118.74	123.70
36	BA	203	G	N3-C2-N2	6.20	124.24	119.90
36	BA	575	G	N1-C6-O6	6.20	123.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	603	U	O4'-C1'-N1	6.20	113.16	108.20
36	BA	1137	C	N3-C4-N4	6.20	122.34	118.00
36	BA	1162	C	N3-C4-N4	6.20	122.34	118.00
2	A8	214	G	C8-N9-C1'	6.20	135.06	127.00
2	A8	858	G	N9-C1'-C2'	-6.20	105.18	112.00
2	A8	1091	G	C8-N9-C1'	-6.20	118.94	127.00
2	A8	2359	C	N3-C4-N4	6.20	122.34	118.00
36	BA	149	A	C8-N9-C4	-6.20	103.32	105.80
36	BA	1041	G	C5'-C4'-C3'	-6.20	106.08	116.00
1	A7	40	U	C1'-O4'-C4'	6.20	114.86	109.90
36	BA	269	C	N3-C4-C5	-6.20	119.42	121.90
36	BA	441	A	C5-C6-N6	-6.20	118.74	123.70
2	A8	980	A	C5-C6-N6	-6.20	118.74	123.70
2	A8	2250	G	N1-C6-O6	6.20	123.62	119.90
2	A8	2697	G	C5-C6-O6	-6.20	124.88	128.60
36	BA	1369	C	N3-C4-C5	-6.20	119.42	121.90
1	A7	43	C	N3-C4-N4	6.20	122.34	118.00
1	A7	86	G	O3'-P-O5'	-6.20	92.23	104.00
2	A8	866	A	O4'-C1'-N9	6.20	113.16	108.20
2	A8	1056	G	N1-C6-O6	6.20	123.62	119.90
2	A8	2403	C	N3-C4-C5	-6.20	119.42	121.90
2	A8	2645	G	C5-C6-O6	-6.20	124.88	128.60
36	BA	758	C	C5-C4-N4	-6.20	115.86	120.20
2	A8	1238	G	C5-C6-O6	-6.19	124.88	128.60
2	A8	2857	G	C8-N9-C1'	6.19	135.05	127.00
2	A8	599	A	C4-C5-C6	6.19	120.10	117.00
2	A8	2267	A	P-O3'-C3'	6.19	127.13	119.70
2	A8	2682	A	O4'-C1'-N9	6.19	113.15	108.20
2	A8	2873	A	C5'-C4'-O4'	6.19	116.53	109.10
36	BA	1311	A	C5-C6-N6	-6.19	118.75	123.70
36	BA	1456	A	C5-C6-N1	-6.19	114.60	117.70
2	A8	63	A	C4-C5-C6	6.19	120.09	117.00
2	A8	575	A	C5'-C4'-C3'	-6.19	106.09	116.00
2	A8	752	A	C5-C6-N6	-6.19	118.75	123.70
2	A8	1167	C	N3-C4-N4	6.19	122.33	118.00
2	A8	1346	G	O4'-C1'-N9	6.19	113.15	108.20
2	A8	2321	U	C2-N1-C1'	6.19	125.13	117.70
2	A8	2421	G	N1-C6-O6	6.19	123.61	119.90
2	A8	2503	A	C8-N9-C4	-6.19	103.32	105.80
2	A8	2851	A	C5-C6-N1	-6.19	114.61	117.70
36	BA	559	A	C5-C6-N1	-6.19	114.61	117.70
36	BA	710	G	C3'-C2'-C1'	-6.19	96.55	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1150	A	C4-C5-C6	6.19	120.09	117.00
36	BA	1180	A	C5-C6-N1	-6.19	114.60	117.70
2	A8	1098	A	C8-N9-C4	-6.19	103.32	105.80
2	A8	1155	A	C5-C6-N1	-6.19	114.61	117.70
36	BA	195	A	C8-N9-C4	-6.19	103.32	105.80
36	BA	295	C	N3-C4-N4	6.19	122.33	118.00
36	BA	757	U	P-O5'-C5'	6.19	130.80	120.90
2	A8	563	A	C4-C5-C6	6.19	120.09	117.00
2	A8	849	A	O4'-C1'-N9	6.19	113.15	108.20
2	A8	1423	G	C5-C6-O6	-6.19	124.89	128.60
2	A8	1529	G	O4'-C1'-N9	6.19	113.15	108.20
2	A8	1780	A	C4-C5-C6	6.19	120.09	117.00
2	A8	2772	C	N3-C4-N4	6.19	122.33	118.00
36	BA	521	G	C5-C6-O6	-6.19	124.89	128.60
36	BA	597	G	C4-N9-C1'	-6.19	118.45	126.50
36	BA	1070	U	C1'-O4'-C4'	-6.19	104.95	109.90
2	A8	1057	A	C5-C6-N6	-6.19	118.75	123.70
2	A8	1450	G	C4-N9-C1'	-6.19	118.46	126.50
2	A8	2071	A	C4-C5-C6	6.19	120.09	117.00
36	BA	548	G	C5-C6-O6	-6.19	124.89	128.60
36	BA	580	C	C5'-C4'-C3'	6.19	125.90	116.00
36	BA	668	G	C1'-O4'-C4'	-6.19	104.95	109.90
2	A8	327	G	C5-C6-O6	-6.18	124.89	128.60
2	A8	400	G	N3-C2-N2	6.18	124.23	119.90
2	A8	1303	G	N1-C6-O6	6.18	123.61	119.90
2	A8	1447	C	C5-C6-N1	6.18	124.09	121.00
36	BA	133	U	O4'-C1'-N1	6.18	113.15	108.20
36	BA	938	A	C8-N9-C4	-6.18	103.33	105.80
2	A8	619	G	N3-C2-N2	6.18	124.23	119.90
2	A8	994	C	P-O3'-C3'	6.18	127.12	119.70
2	A8	1125	G	N3-C2-N2	6.18	124.23	119.90
2	A8	1477	A	C4-C5-C6	6.18	120.09	117.00
2	A8	1847	A	O4'-C1'-N9	6.18	113.15	108.20
2	A8	1903	G	O4'-C1'-N9	6.18	113.14	108.20
36	BA	7	A	C5-C6-N6	-6.18	118.75	123.70
36	BA	197	A	C5-C6-N6	-6.18	118.75	123.70
36	BA	228	A	C5-C6-N6	-6.18	118.75	123.70
36	BA	1471	U	O4'-C1'-N1	6.18	113.15	108.20
53	BR	31	TYR	CB-CG-CD1	6.18	124.71	121.00
2	A8	1695	G	C5-C6-O6	-6.18	124.89	128.60
1	A7	93	C	P-O5'-C5'	-6.18	111.01	120.90
2	A8	149	A	C4-C5-C6	6.18	120.09	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	179	C	C6-N1-C1'	6.18	128.21	120.80
2	A8	463	G	C8-N9-C1'	6.18	135.03	127.00
2	A8	646	U	O4'-C1'-N1	6.18	113.14	108.20
2	A8	872	U	C4'-C3'-C2'	6.18	108.78	102.60
2	A8	1858	A	C1'-O4'-C4'	-6.18	104.96	109.90
2	A8	2303	G	O4'-C1'-N9	6.18	113.14	108.20
36	BA	104	G	P-O3'-C3'	-6.18	112.28	119.70
36	BA	546	A	O4'-C1'-N9	6.18	113.14	108.20
36	BA	588	G	N3-C2-N2	6.18	124.22	119.90
36	BA	781	A	C5'-C4'-C3'	6.18	125.89	116.00
36	BA	1061	G	C8-N9-C1'	6.18	135.03	127.00
36	BA	1096	C	N3-C4-C5	-6.18	119.43	121.90
36	BA	1333	A	C8-N9-C4	-6.18	103.33	105.80
36	BA	1522	U	C3'-C2'-C1'	-6.18	96.56	101.50
2	A8	790	U	O4'-C1'-N1	6.18	113.14	108.20
2	A8	1464	G	C5-C6-O6	-6.18	124.89	128.60
2	A8	1895	C	P-O3'-C3'	-6.18	112.29	119.70
2	A8	2269	G	C5-C6-O6	-6.18	124.89	128.60
36	BA	360	G	C5'-C4'-O4'	6.18	116.51	109.10
36	BA	685	G	C8-N9-C1'	6.18	135.03	127.00
2	A8	252	G	C5-C6-O6	-6.18	124.89	128.60
2	A8	883	G	C5-C6-O6	-6.18	124.89	128.60
2	A8	973	A	C3'-C2'-C1'	-6.18	96.56	101.50
2	A8	1701	A	C3'-C2'-C1'	-6.18	96.56	101.50
2	A8	2075	U	C5'-C4'-C3'	-6.18	106.12	116.00
2	A8	2773	C	C6-N1-C2	-6.18	117.83	120.30
36	BA	915	A	C4-C5-C6	6.18	120.09	117.00
1	A7	12	C	N3-C4-N4	6.17	122.32	118.00
2	A8	47	C	C6-N1-C1'	6.17	128.21	120.80
2	A8	357	C	C2-N3-C4	6.17	122.99	119.90
2	A8	971	G	C8-N9-C4	-6.17	103.93	106.40
2	A8	1068	G	O4'-C1'-N9	6.17	113.14	108.20
2	A8	1230	A	C4-C5-C6	6.17	120.09	117.00
2	A8	1540	G	C5-C6-O6	-6.17	124.89	128.60
2	A8	1747	U	O4'-C1'-N1	6.17	113.14	108.20
2	A8	1832	C	N3-C4-N4	6.17	122.32	118.00
2	A8	2549	G	N3-C2-N2	6.17	124.22	119.90
2	A8	2641	G	C3'-C2'-C1'	-6.17	96.56	101.50
36	BA	1024	G	C8-N9-C1'	6.17	135.03	127.00
36	BA	1121	U	O4'-C1'-N1	6.17	113.14	108.20
36	BA	1148	U	O4'-C1'-N1	6.17	113.14	108.20
36	BA	1387	G	O4'-C1'-N9	6.17	113.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1661	G	C8-N9-C1'	6.17	135.03	127.00
2	A8	2098	U	C6-N1-C2	-6.17	117.30	121.00
2	A8	34	U	C2'-C3'-O3'	6.17	123.57	113.70
2	A8	607	U	N1-C1'-C2'	-6.17	105.21	112.00
2	A8	775	G	C5'-C4'-C3'	6.17	125.88	116.00
2	A8	1638	C	N3-C4-N4	6.17	122.32	118.00
2	A8	2513	A	C4-C5-C6	6.17	120.08	117.00
2	A8	2789	C	C6-N1-C2	-6.17	117.83	120.30
36	BA	667	G	C8-N9-C1'	6.17	135.02	127.00
36	BA	1180	A	O4'-C1'-N9	6.17	113.14	108.20
2	A8	1328	A	P-O5'-C5'	6.17	130.77	120.90
36	BA	1149	C	N3-C4-C5	-6.17	119.43	121.90
1	A7	49	C	C2-N1-C1'	-6.17	112.01	118.80
2	A8	42	A	C4-C5-C6	6.17	120.08	117.00
2	A8	1449	G	C5'-C4'-C3'	-6.17	106.13	116.00
2	A8	2294	G	O4'-C1'-N9	6.17	113.13	108.20
36	BA	670	G	C5'-C4'-C3'	-6.17	106.13	116.00
36	BA	768	A	C5-C6-N6	-6.17	118.77	123.70
2	A8	583	G	O4'-C1'-N9	6.17	113.13	108.20
2	A8	664	G	C5-C6-O6	-6.17	124.90	128.60
2	A8	1027	A	C5-C6-N6	-6.17	118.77	123.70
2	A8	1336	A	C4-C5-C6	6.17	120.08	117.00
2	A8	2356	U	C2-N1-C1'	-6.17	110.30	117.70
2	A8	2631	G	C5-C6-O6	-6.17	124.90	128.60
36	BA	129	A	C5-C6-N6	-6.17	118.77	123.70
36	BA	504	C	O4'-C1'-N1	6.17	113.13	108.20
36	BA	831	A	C5-C6-N6	-6.17	118.77	123.70
47	BL	53	ARG	NE-CZ-NH2	-6.17	117.22	120.30
2	A8	1110	G	C5-C6-O6	-6.17	124.90	128.60
2	A8	2433	A	C5-C6-N1	-6.17	114.62	117.70
2	A8	2543	G	C6-C5-N7	-6.17	126.70	130.40
2	A8	2803	G	O4'-C1'-N9	6.17	113.13	108.20
36	BA	203	G	O4'-C4'-C3'	-6.17	97.83	104.00
2	A8	472	A	C8-N9-C4	-6.16	103.33	105.80
2	A8	879	G	P-O3'-C3'	-6.16	112.30	119.70
2	A8	884	U	C3'-C2'-C1'	-6.16	96.57	101.50
2	A8	926	G	P-O3'-C3'	-6.16	112.30	119.70
2	A8	1852	U	O4'-C1'-N1	6.16	113.13	108.20
2	A8	1922	G	C3'-C2'-C1'	-6.16	96.57	101.50
2	A8	2083	G	N7-C8-N9	6.16	116.18	113.10
2	A8	2147	A	C5-C6-N1	-6.16	114.62	117.70
2	A8	2453	A	C4-C5-C6	6.16	120.08	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	927	G	N3-C2-N2	6.16	124.22	119.90
36	BA	1170	A	C5-C6-N6	-6.16	118.77	123.70
2	A8	1513	U	C1'-O4'-C4'	-6.16	104.97	109.90
2	A8	2370	G	C5-C6-O6	-6.16	124.90	128.60
1	A7	89	U	N1-C1'-C2'	-6.16	105.22	112.00
2	A8	226	A	C5-C6-N6	-6.16	118.77	123.70
2	A8	608	A	O4'-C1'-N9	6.16	113.13	108.20
2	A8	1983	G	C4-N9-C1'	-6.16	118.49	126.50
2	A8	2561	U	O4'-C1'-N1	6.16	113.13	108.20
2	A8	2577	A	C4-C5-C6	6.16	120.08	117.00
36	BA	302	G	C5-C6-O6	-6.16	124.90	128.60
36	BA	927	G	P-O5'-C5'	6.16	130.76	120.90
36	BA	1465	A	C5-C6-N6	-6.16	118.77	123.70
2	A8	82	U	C5'-C4'-C3'	-6.16	106.15	116.00
2	A8	1241	A	C8-N9-C4	-6.16	103.34	105.80
2	A8	1543	G	C5-C6-O6	-6.16	124.90	128.60
2	A8	1740	G	O4'-C1'-N9	6.16	113.13	108.20
2	A8	2719	G	C5'-C4'-C3'	-6.16	106.15	116.00
36	BA	80	A	C4-C5-C6	6.16	120.08	117.00
36	BA	605	U	O4'-C1'-N1	6.16	113.13	108.20
36	BA	621	A	C4-C5-C6	6.16	120.08	117.00
36	BA	1452	C	N3-C4-C5	-6.16	119.44	121.90
2	A8	172	A	C4-C5-C6	6.16	120.08	117.00
2	A8	1346	G	P-O5'-C5'	-6.16	111.05	120.90
2	A8	8	C	C6-N1-C2	-6.16	117.84	120.30
2	A8	209	C	C3'-C2'-C1'	-6.16	96.58	101.50
2	A8	752	A	C4-C5-C6	6.16	120.08	117.00
2	A8	968	C	N3-C4-N4	6.16	122.31	118.00
2	A8	2309	A	C4-C5-C6	6.16	120.08	117.00
2	A8	2616	C	O4'-C1'-N1	6.16	113.12	108.20
2	A8	2772	C	N3-C4-C5	-6.16	119.44	121.90
2	A8	2902	C	C1'-O4'-C4'	-6.16	104.98	109.90
36	BA	364	A	C5-C6-N1	-6.16	114.62	117.70
48	BM	25	GLY	N-CA-C	-6.16	97.71	113.10
2	A8	1445	G	C4-C5-C6	6.15	122.49	118.80
36	BA	510	A	C5-C6-N6	-6.15	118.78	123.70
2	A8	309	A	C5-C6-N1	-6.15	114.62	117.70
2	A8	1121	C	C6-N1-C1'	6.15	128.18	120.80
2	A8	1430	G	C8-N9-C4	-6.15	103.94	106.40
2	A8	2621	G	C5-C6-O6	-6.15	124.91	128.60
8	AD	156	PHE	CB-CG-CD1	6.15	125.11	120.80
36	BA	64	G	N1-C6-O6	6.15	123.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	67	C	N3-C4-C5	-6.15	119.44	121.90
36	BA	228	A	C4-C5-C6	6.15	120.08	117.00
39	BD	79	ALA	N-CA-C	6.15	127.61	111.00
2	A8	151	C	N3-C4-N4	6.15	122.31	118.00
2	A8	219	A	C5-C6-N1	-6.15	114.62	117.70
2	A8	249	C	N3-C4-N4	6.15	122.31	118.00
2	A8	1359	A	C4-C5-C6	6.15	120.08	117.00
2	A8	1514	G	C1'-O4'-C4'	-6.15	104.98	109.90
2	A8	1792	G	C5'-C4'-C3'	-6.15	106.16	116.00
2	A8	2328	A	C4-C5-C6	6.15	120.08	117.00
2	A8	2379	G	N1-C6-O6	6.15	123.59	119.90
36	BA	974	A	C5-C6-N6	-6.15	118.78	123.70
36	BA	1303	C	O4'-C1'-N1	6.15	113.12	108.20
2	A8	1369	G	N1-C6-O6	6.15	123.59	119.90
2	A8	2529	G	N1-C6-O6	6.15	123.59	119.90
36	BA	501	C	C5'-C4'-C3'	-6.15	106.16	116.00
2	A8	48	G	N3-C2-N2	6.15	124.20	119.90
2	A8	406	G	C4-N9-C1'	-6.15	118.51	126.50
2	A8	1691	C	O4'-C1'-N1	6.15	113.12	108.20
2	A8	2693	G	C3'-C2'-C1'	-6.15	96.58	101.50
36	BA	687	A	C5-C6-N1	-6.15	114.63	117.70
36	BA	802	A	C5-C6-N1	-6.15	114.63	117.70
36	BA	862	C	P-O5'-C5'	6.15	130.74	120.90
36	BA	1274	A	O4'-C1'-N9	6.15	113.12	108.20
1	A7	94	A	C4-C5-C6	6.15	120.07	117.00
2	A8	535	G	C5-C6-O6	-6.15	124.91	128.60
2	A8	578	G	C6-C5-N7	-6.15	126.71	130.40
2	A8	2196	C	N3-C4-C5	-6.15	119.44	121.90
2	A8	2526	G	O4'-C1'-N9	6.15	113.12	108.20
36	BA	1453	G	C2-N3-C4	6.15	114.97	111.90
1	A7	89	U	C6-N1-C1'	-6.14	112.60	121.20
2	A8	47	C	C3'-C2'-C1'	-6.14	96.58	101.50
2	A8	454	A	C5-N7-C8	6.14	106.97	103.90
2	A8	1211	C	C6-N1-C1'	-6.14	113.43	120.80
2	A8	1736	U	C5'-C4'-C3'	-6.14	106.17	116.00
2	A8	2363	G	P-O5'-C5'	-6.14	111.07	120.90
36	BA	47	C	N3-C4-N4	6.14	122.30	118.00
36	BA	331	G	C6-C5-N7	-6.14	126.71	130.40
36	BA	1475	G	C5'-C4'-C3'	-6.14	106.17	116.00
49	BN	72	PHE	CB-CG-CD1	6.14	125.10	120.80
2	A8	458	G	C5-C6-O6	-6.14	124.92	128.60
2	A8	1923	U	O4'-C1'-N1	6.14	113.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	281	G	C8-N9-C1'	6.14	134.99	127.00
36	BA	588	G	C5-C6-O6	-6.14	124.91	128.60
36	BA	1427	C	C6-N1-C2	-6.14	117.84	120.30
36	BA	1516	G	N1-C2-N3	-6.14	120.22	123.90
36	BA	765	G	C6-C5-N7	-6.14	126.72	130.40
2	A8	132	G	O4'-C1'-N9	6.14	113.11	108.20
2	A8	326	G	C4-N9-C1'	-6.14	118.52	126.50
2	A8	507	A	C4-C5-C6	6.14	120.07	117.00
2	A8	2009	A	C5-C6-N6	-6.14	118.79	123.70
2	A8	2895	G	O4'-C1'-N9	6.14	113.11	108.20
36	BA	855	U	C3'-C2'-C1'	-6.14	96.59	101.50
36	BA	855	U	C5'-C4'-C3'	-6.14	106.18	116.00
36	BA	1462	C	N3-C4-C5	-6.14	119.44	121.90
2	A8	739	A	C5'-C4'-C3'	-6.14	106.18	116.00
2	A8	1467	U	O4'-C4'-C3'	-6.14	97.86	104.00
2	A8	1834	U	O4'-C1'-N1	6.14	113.11	108.20
2	A8	2715	C	P-O3'-C3'	-6.14	112.33	119.70
36	BA	51	A	C4-C5-C6	6.14	120.07	117.00
36	BA	870	U	O4'-C1'-N1	6.14	113.11	108.20
2	A8	89	A	P-O3'-C3'	-6.14	112.34	119.70
2	A8	487	C	C6-N1-C2	-6.14	117.85	120.30
2	A8	522	A	C8-N9-C4	-6.14	103.34	105.80
2	A8	638	G	C4-N9-C1'	-6.14	118.52	126.50
2	A8	881	G	C6-C5-N7	-6.14	126.72	130.40
2	A8	1118	C	C5'-C4'-C3'	-6.14	106.18	116.00
2	A8	1215	G	C5-C6-O6	-6.14	124.92	128.60
2	A8	1684	G	O4'-C1'-N9	6.14	113.11	108.20
2	A8	2090	A	O4'-C1'-N9	6.14	113.11	108.20
2	A8	2610	C	N3-C4-C5	-6.14	119.44	121.90
36	BA	1312	G	O4'-C1'-N9	6.14	113.11	108.20
36	BA	1367	C	N3-C4-C5	-6.14	119.44	121.90
2	A8	110	G	C5-C6-O6	-6.13	124.92	128.60
2	A8	256	A	C5-C6-N6	-6.13	118.79	123.70
2	A8	341	C	N3-C4-C5	-6.13	119.45	121.90
2	A8	2487	G	C5-C6-O6	-6.13	124.92	128.60
36	BA	72	A	C5-C6-N1	-6.13	114.63	117.70
36	BA	410	G	C5-C6-O6	-6.13	124.92	128.60
36	BA	1403	C	N3-C4-N4	6.13	122.29	118.00
2	A8	694	U	P-O3'-C3'	-6.13	112.34	119.70
2	A8	2046	G	C5-C6-O6	-6.13	124.92	128.60
36	BA	526	C	N3-C4-C5	-6.13	119.45	121.90
36	BA	750	C	C6-N1-C1'	6.13	128.16	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	268	C	C5'-C4'-C3'	-6.13	106.19	116.00
2	A8	1169	A	C5-C6-N6	-6.13	118.80	123.70
2	A8	1292	G	O4'-C1'-N9	6.13	113.11	108.20
2	A8	2461	A	C5-C6-N6	-6.13	118.79	123.70
2	A8	2814	A	C4-C5-C6	6.13	120.07	117.00
24	AT	69	ARG	C-N-CA	6.13	137.03	121.70
36	BA	600	A	P-O5'-C5'	-6.13	111.09	120.90
36	BA	772	U	O4'-C1'-N1	6.13	113.11	108.20
36	BA	908	A	C8-N9-C4	-6.13	103.35	105.80
36	BA	1068	G	C8-N9-C4	-6.13	103.95	106.40
36	BA	350	G	C8-N9-C1'	6.13	134.97	127.00
36	BA	359	G	N1-C6-O6	6.13	123.58	119.90
36	BA	1193	G	O4'-C1'-N9	6.13	113.10	108.20
36	BA	1229	A	O4'-C1'-N9	6.13	113.10	108.20
2	A8	301	G	O4'-C1'-N9	6.13	113.10	108.20
2	A8	547	A	C4-C5-C6	6.13	120.06	117.00
2	A8	608	A	C5-C6-N6	-6.13	118.80	123.70
2	A8	1266	G	C5-C6-O6	-6.13	124.92	128.60
36	BA	979	C	C6-N1-C2	-6.13	117.85	120.30
36	BA	995	C	N3-C4-N4	6.13	122.29	118.00
36	BA	1321	U	O4'-C1'-N1	6.13	113.10	108.20
2	A8	858	G	C5-C6-O6	-6.13	124.92	128.60
2	A8	915	C	N3-C4-N4	6.13	122.29	118.00
2	A8	1861	G	C4-N9-C1'	-6.13	118.53	126.50
2	A8	1872	A	C5-C6-N1	-6.13	114.64	117.70
36	BA	75	G	O3'-P-O5'	-6.13	92.36	104.00
36	BA	454	G	C8-N9-C4	-6.13	103.95	106.40
2	A8	863	A	C4-C5-C6	6.12	120.06	117.00
2	A8	1329	U	C5'-C4'-C3'	-6.12	106.20	116.00
2	A8	2003	A	O4'-C1'-N9	6.12	113.10	108.20
36	BA	640	A	C8-N9-C1'	6.12	138.72	127.70
36	BA	759	A	C4-C5-C6	6.12	120.06	117.00
36	BA	1218	C	C6-N1-C2	-6.12	117.85	120.30
2	A8	109	C	C5'-C4'-C3'	-6.12	106.20	116.00
2	A8	1323	C	C6-N1-C1'	6.12	128.15	120.80
2	A8	2204	G	N1-C6-O6	6.12	123.58	119.90
2	A8	2293	G	O4'-C1'-N9	6.12	113.10	108.20
2	A8	2318	G	C4-N9-C1'	-6.12	118.54	126.50
2	A8	2650	U	C5'-C4'-C3'	-6.12	106.20	116.00
2	A8	2744	G	O5'-C5'-C4'	-6.12	100.07	111.70
36	BA	135	C	N3-C4-N4	6.12	122.29	118.00
36	BA	328	C	C1'-O4'-C4'	-6.12	105.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	7	G	O4'-C1'-N9	6.12	113.10	108.20
2	A8	34	U	C6-N1-C2	-6.12	117.33	121.00
2	A8	1146	C	N3-C4-N4	6.12	122.28	118.00
2	A8	1526	C	P-O5'-C5'	6.12	130.69	120.90
2	A8	1613	G	C5-C6-O6	-6.12	124.93	128.60
2	A8	1691	C	C5-C6-N1	6.12	124.06	121.00
2	A8	2257	U	O4'-C1'-N1	6.12	113.10	108.20
2	A8	2335	A	C5-C6-N6	-6.12	118.80	123.70
36	BA	919	A	C5-C6-N6	-6.12	118.80	123.70
36	BA	1461	G	C5-C6-O6	-6.12	124.93	128.60
2	A8	278	A	C5-C6-N1	-6.12	114.64	117.70
2	A8	720	U	C3'-C2'-C1'	-6.12	96.60	101.50
2	A8	2679	A	O4'-C1'-N9	6.12	113.10	108.20
36	BA	1243	C	C5'-C4'-C3'	-6.12	106.21	116.00
2	A8	427	U	C6-N1-C2	-6.12	117.33	121.00
2	A8	460	A	C4-C5-C6	6.12	120.06	117.00
2	A8	616	A	O4'-C1'-N9	6.12	113.10	108.20
2	A8	736	C	C5'-C4'-C3'	-6.12	106.21	116.00
2	A8	826	U	O4'-C1'-N1	6.12	113.09	108.20
2	A8	1226	A	C5-C6-N1	-6.12	114.64	117.70
2	A8	1395	A	C5-C6-N6	-6.12	118.81	123.70
2	A8	1646	C	C2-N3-C4	6.12	122.96	119.90
2	A8	2377	A	C5-C6-N1	-6.12	114.64	117.70
2	A8	2511	U	P-O3'-C3'	-6.12	112.36	119.70
36	BA	550	G	O4'-C1'-N9	6.12	113.09	108.20
2	A8	861	A	C4-C5-C6	6.12	120.06	117.00
2	A8	1443	U	O4'-C1'-N1	6.12	113.09	108.20
2	A8	1774	C	C5'-C4'-C3'	-6.12	106.21	116.00
36	BA	383	A	C5-C6-N1	-6.12	114.64	117.70
36	BA	560	A	O4'-C1'-N9	6.12	113.09	108.20
36	BA	991	U	C3'-C2'-C1'	6.12	106.39	101.50
2	A8	107	G	N1-C6-O6	6.12	123.57	119.90
2	A8	182	A	C5-C6-N1	-6.12	114.64	117.70
2	A8	283	G	O4'-C1'-N9	6.12	113.09	108.20
2	A8	1355	G	C4-N9-C1'	-6.12	118.55	126.50
2	A8	1388	G	C5'-C4'-C3'	-6.12	106.22	116.00
2	A8	1579	A	O3'-P-O5'	-6.12	92.38	104.00
2	A8	1665	A	C3'-C2'-C1'	-6.12	96.61	101.50
2	A8	1936	A	C5-C6-N1	-6.12	114.64	117.70
36	BA	601	G	C8-N9-C1'	6.12	134.95	127.00
36	BA	1161	C	P-O5'-C5'	6.12	130.69	120.90
36	BA	1453	G	N3-C4-C5	-6.12	125.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BC	186	SER	N-CA-CB	6.12	119.67	110.50
2	A8	722	A	C4-C5-C6	6.11	120.06	117.00
2	A8	1048	A	N1-C2-N3	6.11	132.36	129.30
2	A8	1521	G	N3-C2-N2	6.11	124.18	119.90
2	A8	1900	A	C5-C6-N1	-6.11	114.64	117.70
36	BA	363	A	C4-C5-C6	6.11	120.06	117.00
36	BA	606	G	P-O5'-C5'	6.11	130.68	120.90
36	BA	1015	G	O4'-C1'-N9	6.11	113.09	108.20
36	BA	1415	G	C5-C6-O6	-6.11	124.93	128.60
36	BA	1421	G	N1-C2-N3	-6.11	120.23	123.90
2	A8	645	C	C6-N1-C2	-6.11	117.86	120.30
2	A8	968	C	P-O3'-C3'	-6.11	112.36	119.70
2	A8	1441	G	C5'-C4'-C3'	-6.11	106.22	116.00
36	BA	1420	U	C5'-C4'-C3'	-6.11	106.22	116.00
1	A7	91	C	N3-C4-N4	6.11	122.28	118.00
2	A8	917	A	C4-C5-C6	6.11	120.06	117.00
2	A8	1429	G	N3-C2-N2	6.11	124.18	119.90
2	A8	1823	G	N3-C2-N2	6.11	124.18	119.90
2	A8	1858	A	C5'-C4'-O4'	6.11	116.43	109.10
2	A8	2062	A	C4-C5-C6	6.11	120.06	117.00
36	BA	431	A	C8-N9-C4	-6.11	103.36	105.80
2	A8	201	C	C2-N1-C1'	-6.11	112.08	118.80
2	A8	366	C	C6-N1-C1'	6.11	128.13	120.80
2	A8	974	G	C5'-C4'-O4'	6.11	116.43	109.10
2	A8	2465	C	N3-C4-N4	6.11	122.28	118.00
36	BA	771	G	C5-C6-O6	-6.11	124.94	128.60
36	BA	837	U	O4'-C1'-N1	6.11	113.09	108.20
36	BA	1430	A	C4-C5-C6	6.11	120.05	117.00
1	A7	87	U	C3'-C2'-C1'	-6.11	96.61	101.50
2	A8	682	G	C5-C6-O6	-6.11	124.94	128.60
2	A8	1947	C	C3'-C2'-C1'	-6.11	96.61	101.50
2	A8	1193	G	N9-C1'-C2'	-6.11	105.28	112.00
2	A8	1242	U	C5'-C4'-C3'	-6.11	106.23	116.00
2	A8	1561	C	N3-C4-N4	6.11	122.27	118.00
2	A8	1729	U	O4'-C4'-C3'	-6.11	97.89	104.00
36	BA	348	G	N1-C6-O6	6.11	123.56	119.90
36	BA	689	C	C2-N1-C1'	-6.11	112.08	118.80
1	A7	100	G	C8-N9-C4	-6.10	103.96	106.40
2	A8	73	A	C4-C5-C6	6.10	120.05	117.00
2	A8	1433	A	C5-C6-N6	-6.10	118.82	123.70
2	A8	2081	U	O3'-P-O5'	-6.10	92.40	104.00
22	AR	61	ALA	CB-CA-C	-6.10	100.94	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	529	G	C4-N9-C1'	-6.10	118.56	126.50
36	BA	849	G	C3'-C2'-C1'	-6.10	96.62	101.50
36	BA	1099	G	O4'-C1'-N9	6.10	113.08	108.20
1	A7	111	U	C5'-C4'-C3'	-6.10	106.24	116.00
2	A8	5	A	C4-C5-C6	6.10	120.05	117.00
2	A8	1044	C	O4'-C1'-N1	6.10	113.08	108.20
2	A8	1461	C	N3-C4-C5	-6.10	119.46	121.90
2	A8	1737	G	C5-C6-O6	-6.10	124.94	128.60
2	A8	1896	G	C3'-C2'-C1'	-6.10	96.62	101.50
2	A8	2260	C	C6-N1-C2	-6.10	117.86	120.30
2	A8	2735	G	N1-C6-O6	6.10	123.56	119.90
2	A8	2833	U	C2-N1-C1'	6.10	125.02	117.70
20	AP	20	ARG	N-CA-C	-6.10	94.53	111.00
36	BA	503	C	N3-C4-N4	6.10	122.27	118.00
2	A8	1034	G	P-O5'-C5'	6.10	130.66	120.90
2	A8	2838	G	N1-C6-O6	6.10	123.56	119.90
36	BA	583	A	N1-C6-N6	6.10	122.26	118.60
36	BA	754	C	C5'-C4'-C3'	-6.10	106.24	116.00
2	A8	547	A	C5-C6-N6	-6.10	118.82	123.70
2	A8	1073	A	C5-C6-N1	-6.10	114.65	117.70
2	A8	1909	C	O4'-C1'-N1	6.10	113.08	108.20
36	BA	130	A	C5-C6-N6	-6.10	118.82	123.70
36	BA	598	U	C6-N1-C2	-6.10	117.34	121.00
36	BA	1166	G	C5'-C4'-O4'	6.10	116.42	109.10
36	BA	1340	A	C4-C5-C6	6.10	120.05	117.00
36	BA	1507	A	C5'-C4'-C3'	-6.10	106.24	116.00
52	BQ	76	ARG	N-CA-CB	6.10	121.58	110.60
2	A8	153	U	C5'-C4'-C3'	-6.10	106.25	116.00
2	A8	1677	A	C5-C6-N1	-6.10	114.65	117.70
2	A8	2389	G	N1-C6-O6	6.10	123.56	119.90
2	A8	2476	A	C2'-C3'-O3'	6.10	123.45	113.70
2	A8	2716	C	C3'-C2'-C1'	-6.10	96.62	101.50
2	A8	2888	C	N3-C4-N4	6.10	122.27	118.00
11	AG	118	ALA	CB-CA-C	-6.10	100.95	110.10
36	BA	1213	A	C4-C5-C6	6.10	120.05	117.00
1	A7	21	G	C5-C6-O6	-6.10	124.94	128.60
2	A8	1603	A	O4'-C1'-N9	6.10	113.08	108.20
2	A8	2097	A	C1'-O4'-C4'	-6.10	105.02	109.90
36	BA	370	C	N3-C4-N4	6.10	122.27	118.00
36	BA	1098	C	P-O3'-C3'	-6.10	112.39	119.70
36	BA	1362	A	P-O5'-C5'	-6.10	111.15	120.90
1	A7	20	G	C3'-C2'-C1'	-6.09	96.62	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	152	A	O4'-C1'-N9	6.09	113.08	108.20
2	A8	1231	U	C6-N1-C1'	6.09	129.73	121.20
2	A8	1413	A	C8-N9-C4	-6.09	103.36	105.80
2	A8	2744	G	P-O5'-C5'	6.09	130.65	120.90
36	BA	1110	A	C5-C6-N1	-6.09	114.65	117.70
36	BA	1176	A	C5-C6-N6	-6.09	118.82	123.70
2	A8	156	A	C5-C6-N6	-6.09	118.83	123.70
2	A8	716	A	C4-C5-C6	6.09	120.05	117.00
2	A8	1509	A	O4'-C1'-N9	6.09	113.07	108.20
36	BA	1284	C	P-O3'-C3'	6.09	127.01	119.70
2	A8	62	U	C2-N1-C1'	6.09	125.01	117.70
2	A8	190	A	C4-C5-C6	6.09	120.05	117.00
2	A8	938	G	O4'-C1'-N9	6.09	113.07	108.20
2	A8	1452	G	C5-C6-O6	-6.09	124.94	128.60
2	A8	2082	A	C8-N9-C4	-6.09	103.36	105.80
2	A8	2778	A	C4-C5-C6	6.09	120.05	117.00
36	BA	445	G	O4'-C1'-N9	6.09	113.07	108.20
36	BA	696	A	P-O3'-C3'	-6.09	112.39	119.70
36	BA	782	A	C5-C6-N1	-6.09	114.65	117.70
36	BA	962	C	N3-C4-N4	6.09	122.27	118.00
36	BA	1439	G	C5-C6-O6	-6.09	124.94	128.60
1	A7	33	G	P-O5'-C5'	-6.09	111.16	120.90
2	A8	96	C	O5'-C5'-C4'	-6.09	100.13	111.70
2	A8	855	G	C1'-O4'-C4'	-6.09	105.03	109.90
2	A8	1867	G	C5-C6-O6	-6.09	124.95	128.60
2	A8	2043	C	O3'-P-O5'	-6.09	92.43	104.00
2	A8	2347	C	C4-C5-C6	6.09	120.44	117.40
2	A8	2719	G	C5-C6-O6	-6.09	124.95	128.60
36	BA	109	A	C4-C5-C6	6.09	120.05	117.00
36	BA	213	G	C6-C5-N7	-6.09	126.75	130.40
36	BA	1103	C	N3-C4-N4	6.09	122.26	118.00
2	A8	506	G	C3'-C2'-C1'	-6.09	96.63	101.50
2	A8	1543	G	P-O3'-C3'	6.09	127.01	119.70
2	A8	1887	C	N3-C4-N4	6.09	122.26	118.00
36	BA	1494	G	O4'-C4'-C3'	-6.09	97.91	104.00
36	BA	1510	C	C1'-O4'-C4'	-6.09	105.03	109.90
2	A8	1527	G	C5-C6-O6	-6.09	124.95	128.60
2	A8	1965	C	N3-C4-C5	-6.09	119.47	121.90
2	A8	2047	C	O4'-C1'-N1	6.09	113.07	108.20
36	BA	546	A	C5-C6-N6	-6.09	118.83	123.70
36	BA	881	G	N3-C2-N2	6.09	124.16	119.90
36	BA	1027	C	C5-C4-N4	-6.09	115.94	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1401	G	C8-N9-C4	-6.09	103.97	106.40
2	A8	251	A	C8-N9-C1'	6.08	138.65	127.70
2	A8	669	G	N9-C4-C5	-6.08	102.97	105.40
36	BA	523	A	C4-C5-C6	6.08	120.04	117.00
36	BA	545	C	C5'-C4'-C3'	-6.08	106.26	116.00
36	BA	754	C	C2-N1-C1'	6.08	125.49	118.80
2	A8	512	G	O4'-C1'-N9	6.08	113.07	108.20
2	A8	654	A	C5-C6-N1	-6.08	114.66	117.70
2	A8	1020	A	C5-C6-N1	-6.08	114.66	117.70
2	A8	1135	C	C4'-C3'-C2'	-6.08	96.52	102.60
2	A8	1386	C	N3-C4-N4	6.08	122.26	118.00
2	A8	1590	A	C5-C6-N6	-6.08	118.83	123.70
2	A8	1616	A	C5-C6-N1	-6.08	114.66	117.70
2	A8	1819	A	C5-C6-N1	-6.08	114.66	117.70
36	BA	688	G	O5'-C5'-C4'	-6.08	100.14	111.70
36	BA	711	G	O4'-C1'-N9	6.08	113.07	108.20
36	BA	763	G	O4'-C1'-N9	6.08	113.07	108.20
36	BA	1269	A	C5-C6-N1	-6.08	114.66	117.70
2	A8	13	A	C4-C5-C6	6.08	120.04	117.00
2	A8	283	G	N7-C8-N9	6.08	116.14	113.10
2	A8	1530	G	P-O5'-C5'	-6.08	111.17	120.90
2	A8	1724	G	N7-C8-N9	6.08	116.14	113.10
2	A8	1949	G	O4'-C1'-N9	6.08	113.06	108.20
2	A8	2405	G	N1-C6-O6	6.08	123.55	119.90
36	BA	635	A	C8-N9-C4	-6.08	103.37	105.80
36	BA	656	G	O4'-C1'-N9	6.08	113.06	108.20
36	BA	732	C	N3-C4-N4	6.08	122.26	118.00
36	BA	932	C	P-O5'-C5'	-6.08	111.17	120.90
36	BA	933	G	O4'-C1'-N9	6.08	113.07	108.20
2	A8	395	U	O4'-C1'-N1	6.08	113.06	108.20
2	A8	1114	C	P-O3'-C3'	-6.08	112.40	119.70
7	A6	170	TYR	CB-CG-CD1	6.08	124.65	121.00
36	BA	367	U	C5'-C4'-C3'	-6.08	106.27	116.00
2	A8	35	G	C8-N9-C1'	6.08	134.90	127.00
2	A8	664	G	C3'-C2'-C1'	-6.08	96.64	101.50
2	A8	961	C	N3-C4-C5	-6.08	119.47	121.90
2	A8	2599	G	C5-C6-O6	-6.08	124.95	128.60
2	A8	2752	C	C5-C6-N1	6.08	124.04	121.00
36	BA	87	C	N3-C4-N4	6.08	122.25	118.00
36	BA	221	C	O4'-C1'-N1	6.08	113.06	108.20
36	BA	895	G	C5-C6-O6	-6.08	124.95	128.60
2	A8	178	G	C8-N9-C1'	6.08	134.90	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1782	U	P-O3'-C3'	-6.08	112.41	119.70
2	A8	2575	C	O4'-C1'-N1	6.08	113.06	108.20
36	BA	550	G	C5'-C4'-C3'	6.08	125.72	116.00
2	A8	99	U	C5'-C4'-O4'	6.08	116.39	109.10
2	A8	242	G	P-O3'-C3'	6.08	126.99	119.70
2	A8	270	A	C4-C5-C6	6.08	120.04	117.00
2	A8	1148	U	O4'-C1'-N1	6.08	113.06	108.20
2	A8	1530	G	C5-C6-O6	-6.08	124.95	128.60
2	A8	1547	C	P-O5'-C5'	6.08	130.62	120.90
2	A8	1837	C	P-O3'-C3'	6.08	126.99	119.70
2	A8	2274	A	O4'-C1'-N9	6.08	113.06	108.20
36	BA	1362	A	C4-C5-C6	6.08	120.04	117.00
2	A8	58	G	C5-C6-O6	-6.07	124.95	128.60
2	A8	217	A	C8-N9-C4	-6.07	103.37	105.80
2	A8	424	G	C8-N9-C1'	6.07	134.90	127.00
2	A8	435	C	N3-C4-C5	-6.07	119.47	121.90
2	A8	761	A	C8-N9-C4	-6.07	103.37	105.80
2	A8	1507	C	C3'-C2'-C1'	-6.07	96.64	101.50
2	A8	1973	G	O4'-C4'-C3'	-6.07	97.93	104.00
2	A8	2225	A	C4-C5-C6	6.07	120.04	117.00
2	A8	2377	A	C4-C5-C6	6.07	120.04	117.00
36	BA	359	G	C5-C6-O6	-6.07	124.96	128.60
36	BA	1003	G	C5-C6-O6	-6.07	124.95	128.60
2	A8	484	C	O4'-C1'-N1	6.07	113.06	108.20
2	A8	1194	A	C1'-O4'-C4'	-6.07	105.04	109.90
2	A8	1395	A	C4-C5-C6	6.07	120.04	117.00
2	A8	2705	A	C5-C6-N6	-6.07	118.84	123.70
36	BA	450	G	O4'-C1'-N9	6.07	113.06	108.20
36	BA	1433	A	C5-C6-N6	-6.07	118.84	123.70
2	A8	81	G	C8-N9-C1'	6.07	134.89	127.00
2	A8	186	G	P-O5'-C5'	-6.07	111.19	120.90
2	A8	572	A	C5'-C4'-C3'	-6.07	106.29	116.00
2	A8	1003	G	C5-C6-O6	-6.07	124.96	128.60
2	A8	2159	G	N3-C2-N2	6.07	124.15	119.90
2	A8	2579	C	N3-C4-N4	6.07	122.25	118.00
2	A8	2603	G	C3'-C2'-C1'	-6.07	96.64	101.50
15	AK	30	ARG	NE-CZ-NH2	-6.07	117.27	120.30
36	BA	248	C	O4'-C1'-N1	6.07	113.06	108.20
36	BA	1236	A	C4-C5-C6	6.07	120.03	117.00
2	A8	824	U	O4'-C1'-N1	6.07	113.06	108.20
2	A8	695	G	C3'-C2'-C1'	-6.07	96.64	101.50
2	A8	788	A	P-O5'-C5'	6.07	130.61	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	967	U	C2-N1-C1'	-6.07	110.42	117.70
2	A8	1087	G	N1-C6-O6	6.07	123.54	119.90
2	A8	1131	G	O4'-C1'-N9	6.07	113.06	108.20
2	A8	1949	G	C5'-C4'-C3'	-6.07	106.29	116.00
2	A8	1969	A	O4'-C1'-N9	6.07	113.06	108.20
2	A8	2641	G	C4-N9-C1'	-6.07	118.61	126.50
36	BA	1393	U	C3'-C2'-C1'	-6.07	96.65	101.50
36	BA	1413	A	C5-C6-N6	-6.07	118.85	123.70
2	A8	114	U	P-O3'-C3'	-6.07	112.42	119.70
2	A8	1414	C	N3-C4-N4	6.07	122.25	118.00
2	A8	1970	A	P-O5'-C5'	-6.07	111.20	120.90
2	A8	2342	C	N3-C4-N4	6.07	122.25	118.00
2	A8	2498	C	N3-C4-N4	6.07	122.25	118.00
2	A8	2667	C	N3-C4-N4	6.07	122.25	118.00
36	BA	1132	C	C5'-C4'-C3'	-6.07	106.30	116.00
36	BA	1356	G	O4'-C1'-N9	6.07	113.05	108.20
1	A7	46	A	N1-C6-N6	6.06	122.24	118.60
2	A8	41	C	C1'-O4'-C4'	-6.06	105.05	109.90
2	A8	182	A	C5-C6-N6	-6.06	118.85	123.70
2	A8	891	G	C5-C6-O6	-6.06	124.96	128.60
2	A8	1664	A	C8-N9-C4	-6.06	103.37	105.80
2	A8	2233	U	O4'-C1'-N1	6.06	113.05	108.20
36	BA	536	C	C6-N1-C2	-6.06	117.87	120.30
36	BA	683	G	C5'-C4'-C3'	-6.06	106.30	116.00
2	A8	155	A	O4'-C1'-N9	6.06	113.05	108.20
2	A8	232	G	O4'-C1'-N9	6.06	113.05	108.20
2	A8	234	U	O4'-C1'-N1	6.06	113.05	108.20
2	A8	650	C	C6-N1-C1'	6.06	128.07	120.80
2	A8	959	A	C5-C6-N6	-6.06	118.85	123.70
2	A8	1256	G	C5-C6-O6	-6.06	124.96	128.60
2	A8	1552	A	P-O5'-C5'	6.06	130.60	120.90
2	A8	1745	A	C5-C6-N6	-6.06	118.85	123.70
2	A8	2146	C	N3-C4-C5	-6.06	119.47	121.90
2	A8	2606	C	C3'-C2'-C1'	-6.06	96.65	101.50
2	A8	2612	C	N3-C4-N4	6.06	122.24	118.00
36	BA	719	C	N3-C4-N4	6.06	122.24	118.00
36	BA	968	A	C4-C5-C6	6.06	120.03	117.00
36	BA	1036	A	O4'-C1'-N9	6.06	113.05	108.20
36	BA	1263	C	N3-C4-N4	6.06	122.24	118.00
36	BA	1403	C	C5'-C4'-O4'	6.06	116.38	109.10
2	A8	165	A	P-O5'-C5'	6.06	130.60	120.90
2	A8	1315	C	O4'-C1'-N1	6.06	113.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1672	A	C5-C6-N6	-6.06	118.85	123.70
2	A8	1967	C	C5'-C4'-C3'	6.06	125.70	116.00
2	A8	2854	G	C8-N9-C1'	6.06	134.88	127.00
36	BA	369	G	C1'-O4'-C4'	-6.06	105.05	109.90
36	BA	430	A	C4'-C3'-C2'	-6.06	96.54	102.60
2	A8	1091	G	P-O5'-C5'	-6.06	111.20	120.90
2	A8	1904	G	C6-C5-N7	-6.06	126.77	130.40
36	BA	1456	A	C5-C6-N6	-6.06	118.85	123.70
2	A8	93	G	O4'-C1'-N9	6.06	113.05	108.20
2	A8	221	A	C4-C5-C6	6.06	120.03	117.00
2	A8	773	U	C2-N1-C1'	-6.06	110.43	117.70
2	A8	1755	A	C4-C5-C6	6.06	120.03	117.00
36	BA	81	A	C5'-C4'-O4'	6.06	116.37	109.10
36	BA	304	U	C2-N1-C1'	-6.06	110.43	117.70
2	A8	661	A	O4'-C1'-N9	6.06	113.05	108.20
2	A8	727	A	C5-C6-N6	-6.06	118.86	123.70
2	A8	1417	C	N3-C4-C5	-6.06	119.48	121.90
2	A8	1820	U	O4'-C1'-N1	6.06	113.05	108.20
2	A8	1978	A	C5-C6-N6	-6.06	118.86	123.70
2	A8	2873	A	C4-C5-C6	6.06	120.03	117.00
36	BA	1201	A	C5-C6-N6	-6.06	118.86	123.70
2	A8	219	A	C5-C6-N6	-6.05	118.86	123.70
2	A8	414	C	N3-C4-N4	6.05	122.24	118.00
2	A8	421	C	O4'-C1'-N1	6.05	113.04	108.20
2	A8	501	A	C5-C6-N6	-6.05	118.86	123.70
2	A8	619	G	C1'-O4'-C4'	-6.05	105.06	109.90
2	A8	1277	G	C3'-C2'-C1'	-6.05	96.66	101.50
2	A8	1486	U	C5-C4-O4	-6.05	122.27	125.90
2	A8	1496	A	O4'-C1'-N9	6.05	113.04	108.20
36	BA	348	G	P-O5'-C5'	-6.05	111.21	120.90
36	BA	938	A	C5-C6-N6	-6.05	118.86	123.70
36	BA	1014	A	C5-C6-N1	-6.05	114.67	117.70
36	BA	1128	C	O4'-C1'-N1	6.05	113.04	108.20
36	BA	1476	A	C5-C6-N1	-6.05	114.67	117.70
36	BA	114	U	O4'-C1'-N1	6.05	113.04	108.20
36	BA	1359	C	O4'-C1'-N1	6.05	113.04	108.20
2	A8	501	A	C4-C5-C6	6.05	120.03	117.00
2	A8	793	A	C4-C5-C6	6.05	120.03	117.00
2	A8	1192	G	N9-C1'-C2'	-6.05	105.34	112.00
2	A8	1433	A	C3'-C2'-C1'	-6.05	96.66	101.50
2	A8	1620	G	C8-N9-C1'	6.05	134.87	127.00
2	A8	2841	C	N3-C4-N4	6.05	122.23	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2893	A	C4-C5-C6	6.05	120.03	117.00
36	BA	77	A	C5-C6-N6	-6.05	118.86	123.70
36	BA	106	C	N3-C4-N4	6.05	122.24	118.00
36	BA	416	G	C8-N9-C4	-6.05	103.98	106.40
2	A8	186	G	O4'-C1'-N9	6.05	113.04	108.20
2	A8	407	G	C5-C6-O6	-6.05	124.97	128.60
2	A8	836	G	N1-C6-O6	6.05	123.53	119.90
2	A8	1580	A	C4-C5-C6	6.05	120.03	117.00
2	A8	1811	G	C5'-C4'-C3'	-6.05	106.32	116.00
2	A8	2165	C	C5'-C4'-O4'	6.05	116.36	109.10
2	A8	2458	G	O4'-C1'-N9	6.05	113.04	108.20
2	A8	2824	C	N3-C4-N4	6.05	122.23	118.00
36	BA	153	C	P-O3'-C3'	-6.05	112.44	119.70
36	BA	254	G	O4'-C1'-N9	6.05	113.04	108.20
2	A8	491	G	O4'-C1'-N9	6.05	113.04	108.20
2	A8	854	C	C3'-C2'-C1'	-6.05	96.66	101.50
2	A8	979	A	C5-C6-N1	-6.05	114.68	117.70
2	A8	1733	G	C5-C6-O6	-6.05	124.97	128.60
2	A8	2454	G	C5-C6-O6	-6.05	124.97	128.60
36	BA	53	A	C5-C6-N1	-6.05	114.68	117.70
36	BA	584	G	O4'-C1'-N9	6.05	113.04	108.20
36	BA	688	G	N9-C1'-C2'	-6.05	105.35	112.00
36	BA	816	A	C8-N9-C4	-6.05	103.38	105.80
36	BA	1024	G	C4-N9-C1'	-6.05	118.64	126.50
2	A8	101	A	C5-C6-N6	-6.05	118.86	123.70
2	A8	159	G	O4'-C1'-N9	6.05	113.04	108.20
2	A8	1517	G	C5-C6-O6	-6.05	124.97	128.60
2	A8	1630	A	C5-C6-N6	-6.05	118.86	123.70
2	A8	2198	A	C4-C5-C6	6.05	120.02	117.00
36	BA	271	C	P-O5'-C5'	6.05	130.57	120.90
36	BA	304	U	C6-N1-C1'	6.05	129.67	121.20
36	BA	694	A	C5-C6-N6	-6.05	118.86	123.70
36	BA	772	U	C3'-C2'-C1'	-6.05	96.66	101.50
2	A8	1703	G	C5-C6-O6	-6.04	124.97	128.60
2	A8	2413	G	N7-C8-N9	6.04	116.12	113.10
2	A8	74	A	C5'-C4'-C3'	-6.04	106.33	116.00
2	A8	384	A	C5-C6-N6	-6.04	118.86	123.70
2	A8	404	A	O4'-C1'-N9	6.04	113.03	108.20
2	A8	612	G	C4'-C3'-C2'	6.04	108.64	102.60
2	A8	1043	C	O4'-C1'-N1	6.04	113.03	108.20
2	A8	2218	G	O4'-C1'-N9	6.04	113.04	108.20
2	A8	2259	U	C5-C6-N1	6.04	125.72	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2760	C	P-O3'-C3'	-6.04	112.45	119.70
2	A8	1557	C	O4'-C1'-N1	6.04	113.03	108.20
2	A8	2215	C	N3-C4-C5	-6.04	119.48	121.90
2	A8	2385	C	N3-C4-N4	6.04	122.23	118.00
21	AQ	46	TYR	CB-CG-CD2	-6.04	117.38	121.00
36	BA	527	G	O4'-C1'-N9	6.04	113.03	108.20
36	BA	748	G	C5'-C4'-C3'	-6.04	106.33	116.00
36	BA	898	G	C3'-C2'-C1'	-6.04	96.67	101.50
36	BA	1248	A	C5-C6-N1	-6.04	114.68	117.70
36	BA	1374	A	O4'-C1'-N9	6.04	113.03	108.20
36	BA	1394	A	C5-C6-N1	-6.04	114.68	117.70
36	BA	1528	U	C5'-C4'-O4'	6.04	116.35	109.10
2	A8	1603	A	C5-C6-N6	-6.04	118.87	123.70
2	A8	1780	A	C5-C6-N1	-6.04	114.68	117.70
2	A8	2067	G	N3-C2-N2	6.04	124.13	119.90
2	A8	2276	G	P-O5'-C5'	6.04	130.56	120.90
36	BA	22	G	C6-C5-N7	-6.04	126.78	130.40
36	BA	1152	A	C4-C5-C6	6.04	120.02	117.00
2	A8	199	A	C4-C5-C6	6.04	120.02	117.00
2	A8	493	G	C5'-C4'-C3'	-6.04	106.34	116.00
2	A8	505	A	C1'-O4'-C4'	-6.04	105.07	109.90
2	A8	903	C	C1'-O4'-C4'	-6.04	105.07	109.90
2	A8	2598	A	P-O5'-C5'	-6.04	111.24	120.90
36	BA	214	C	O4'-C1'-N1	6.04	113.03	108.20
36	BA	1092	A	O4'-C1'-N9	6.04	113.03	108.20
2	A8	56	A	C4-C5-C6	6.04	120.02	117.00
2	A8	536	G	C8-N9-C1'	6.04	134.85	127.00
2	A8	2608	G	P-O3'-C3'	-6.04	112.46	119.70
2	A8	2663	G	P-O3'-C3'	-6.04	112.45	119.70
36	BA	120	A	C5-C6-N6	-6.04	118.87	123.70
36	BA	449	G	C5'-C4'-O4'	6.04	116.34	109.10
36	BA	803	G	C5-C6-O6	-6.04	124.98	128.60
36	BA	1204	A	C5-C6-N6	-6.04	118.87	123.70
36	BA	1290	G	C5-C6-O6	-6.04	124.98	128.60
1	A7	9	G	C5'-C4'-O4'	6.04	116.34	109.10
2	A8	44	A	C4-C5-C6	6.04	120.02	117.00
2	A8	407	G	O4'-C1'-N9	6.04	113.03	108.20
2	A8	785	G	N3-C2-N2	6.04	124.12	119.90
2	A8	807	U	C1'-O4'-C4'	-6.04	105.07	109.90
2	A8	1733	G	C3'-C2'-C1'	-6.04	96.67	101.50
2	A8	1739	A	C8-N9-C4	-6.04	103.39	105.80
2	A8	1854	A	C5-C6-N1	-6.04	114.68	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2444	G	C5-C6-O6	-6.04	124.98	128.60
36	BA	106	C	C6-N1-C2	-6.04	117.89	120.30
36	BA	254	G	C4'-C3'-C2'	-6.04	96.56	102.60
36	BA	992	U	C4'-C3'-O3'	-6.04	96.73	109.40
36	BA	1230	C	N3-C4-N4	6.04	122.22	118.00
2	A8	1416	G	O3'-P-O5'	-6.03	92.54	104.00
2	A8	2584	U	O4'-C1'-N1	6.03	113.03	108.20
2	A8	2852	G	C8-N9-C4	-6.03	103.99	106.40
3	AA	404	PHE	CB-CG-CD2	6.03	125.02	120.80
36	BA	368	U	C5'-C4'-C3'	-6.03	106.35	116.00
36	BA	384	G	C5'-C4'-C3'	-6.03	106.35	116.00
36	BA	1411	C	O4'-C1'-N1	6.03	113.03	108.20
2	A8	563	A	C5-C6-N6	-6.03	118.87	123.70
2	A8	2702	G	P-O3'-C3'	-6.03	112.46	119.70
2	A8	2870	C	C2-N1-C1'	-6.03	112.17	118.80
8	AD	156	PHE	CB-CG-CD2	-6.03	116.58	120.80
2	A8	278	A	C4-C5-C6	6.03	120.02	117.00
2	A8	731	C	N3-C4-N4	6.03	122.22	118.00
2	A8	976	G	C5'-C4'-C3'	-6.03	106.35	116.00
2	A8	1014	A	O4'-C1'-N9	6.03	113.03	108.20
2	A8	1091	G	C4'-C3'-C2'	-6.03	96.57	102.60
2	A8	1392	A	C4-C5-C6	6.03	120.02	117.00
2	A8	2409	G	C3'-C2'-C1'	-6.03	96.68	101.50
36	BA	466	A	O4'-C1'-N9	6.03	113.02	108.20
2	A8	10	A	C5-C6-N1	-6.03	114.69	117.70
2	A8	1189	A	C4-C5-C6	6.03	120.01	117.00
2	A8	1792	G	O4'-C1'-N9	6.03	113.02	108.20
2	A8	2692	G	C3'-C2'-C1'	-6.03	96.68	101.50
36	BA	1180	A	C5-C6-N6	-6.03	118.88	123.70
36	BA	1427	C	N3-C4-C5	-6.03	119.49	121.90
2	A8	571	U	O4'-C1'-N1	6.03	113.02	108.20
2	A8	1183	U	C4'-C3'-C2'	-6.03	96.57	102.60
2	A8	1790	C	C6-N1-C2	-6.03	117.89	120.30
2	A8	2434	A	C4-C5-C6	6.03	120.01	117.00
2	A8	2801	G	N1-C6-O6	6.03	123.52	119.90
36	BA	512	U	N3-C4-O4	6.03	123.62	119.40
36	BA	567	G	O4'-C1'-N9	6.03	113.02	108.20
36	BA	725	G	C6-C5-N7	-6.03	126.78	130.40
36	BA	1512	U	O4'-C1'-N1	6.03	113.02	108.20
2	A8	175	G	N3-C2-N2	6.03	124.12	119.90
2	A8	697	G	O4'-C1'-N9	6.03	113.02	108.20
2	A8	1533	C	C5'-C4'-C3'	-6.03	106.36	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1585	C	C6-N1-C2	-6.03	117.89	120.30
2	A8	2381	A	C4-C5-C6	6.03	120.01	117.00
2	A8	2470	G	N1-C6-O6	6.03	123.52	119.90
36	BA	196	A	C5-C6-N1	-6.03	114.69	117.70
36	BA	277	C	C3'-C2'-C1'	-6.03	96.68	101.50
2	A8	427	U	C5-C6-N1	6.02	125.71	122.70
2	A8	1303	G	C4-N9-C1'	-6.02	118.67	126.50
2	A8	2722	G	C8-N9-C4	-6.02	103.99	106.40
2	A8	2781	A	C5-C6-N1	-6.02	114.69	117.70
36	BA	538	G	C4-N9-C1'	-6.02	118.67	126.50
36	BA	930	C	C3'-C2'-C1'	-6.02	96.68	101.50
36	BA	1228	C	O4'-C1'-N1	6.02	113.02	108.20
36	BA	1437	A	C4-C5-C6	6.02	120.01	117.00
36	BA	1525	G	C8-N9-C1'	6.02	134.83	127.00
2	A8	409	G	O4'-C1'-N9	6.02	113.02	108.20
2	A8	820	A	O4'-C1'-N9	6.02	113.02	108.20
2	A8	867	C	C5-C6-N1	6.02	124.01	121.00
2	A8	1226	A	P-O3'-C3'	-6.02	112.47	119.70
2	A8	2049	G	O4'-C1'-N9	6.02	113.02	108.20
2	A8	2497	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	2755	C	O4'-C1'-N1	6.02	113.02	108.20
36	BA	340	U	C3'-C2'-C1'	-6.02	96.68	101.50
36	BA	1160	G	C5'-C4'-C3'	-6.02	106.36	116.00
2	A8	33	C	C1'-O4'-C4'	-6.02	105.08	109.90
2	A8	401	A	C4-C5-C6	6.02	120.01	117.00
2	A8	453	A	C3'-C2'-C1'	-6.02	96.68	101.50
2	A8	901	C	C6-N1-C2	-6.02	117.89	120.30
2	A8	1288	G	C8-N9-C1'	-6.02	119.17	127.00
2	A8	2705	A	C4-C5-C6	6.02	120.01	117.00
36	BA	336	A	C4'-C3'-C2'	-6.02	96.58	102.60
1	A7	59	A	C4-C5-C6	6.02	120.01	117.00
2	A8	266	G	N3-C4-N9	6.02	129.61	126.00
2	A8	492	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	727	A	P-O3'-C3'	6.02	126.92	119.70
2	A8	866	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	919	U	P-O3'-C3'	-6.02	112.48	119.70
2	A8	1009	A	C5-C6-N6	-6.02	118.89	123.70
2	A8	1176	U	C5'-C4'-C3'	-6.02	106.37	116.00
2	A8	1855	U	C1'-O4'-C4'	-6.02	105.08	109.90
2	A8	2381	A	C8-N9-C4	-6.02	103.39	105.80
2	A8	2726	A	C5-C6-N1	-6.02	114.69	117.70
3	AA	305	TYR	N-CA-CB	6.02	121.44	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AQ	44	TYR	CB-CA-C	-6.02	98.36	110.40
36	BA	1102	A	C5-C6-N1	-6.02	114.69	117.70
36	BA	1181	G	C8-N9-C1'	6.02	134.82	127.00
36	BA	1413	A	C8-N9-C4	-6.02	103.39	105.80
2	A8	183	C	N3-C4-N4	6.02	122.21	118.00
2	A8	750	A	C4-C5-C6	6.02	120.01	117.00
2	A8	1098	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	1195	G	N3-C2-N2	6.02	124.11	119.90
2	A8	1315	C	N3-C4-C5	-6.02	119.49	121.90
2	A8	1725	U	O4'-C1'-N1	6.02	113.01	108.20
2	A8	1817	G	C5-C6-O6	-6.02	124.99	128.60
34	A3	6	VAL	C-N-CA	6.02	136.75	121.70
36	BA	68	G	N3-C2-N2	6.02	124.11	119.90
36	BA	612	C	N3-C4-C5	-6.02	119.49	121.90
2	A8	604	G	N9-C1'-C2'	-6.02	105.38	112.00
2	A8	741	U	O4'-C1'-N1	6.02	113.01	108.20
2	A8	1528	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	2080	A	C4-C5-C6	6.02	120.01	117.00
2	A8	2793	C	N3-C4-C5	-6.02	119.49	121.90
36	BA	771	G	C3'-C2'-C1'	-6.02	96.69	101.50
36	BA	913	A	C5-C6-N1	-6.02	114.69	117.70
2	A8	216	A	C5-C6-N6	-6.01	118.89	123.70
2	A8	428	A	C4-C5-C6	6.01	120.01	117.00
2	A8	655	A	C3'-C2'-C1'	-6.01	96.69	101.50
2	A8	715	A	O4'-C1'-N9	6.01	113.01	108.20
2	A8	930	G	N3-C2-N2	6.01	124.11	119.90
2	A8	1343	G	N3-C2-N2	6.01	124.11	119.90
2	A8	2317	A	C5'-C4'-C3'	-6.01	106.38	116.00
2	A8	2718	G	C1'-O4'-C4'	-6.01	105.09	109.90
36	BA	73	C	N3-C4-N4	6.01	122.21	118.00
36	BA	243	A	O3'-P-O5'	6.01	115.43	104.00
36	BA	432	A	C5-C6-N6	-6.01	118.89	123.70
36	BA	608	A	P-O3'-C3'	-6.01	112.48	119.70
36	BA	1018	G	N9-C1'-C2'	-6.01	105.39	112.00
36	BA	1278	G	P-O3'-C3'	6.01	126.92	119.70
2	A8	1444	G	O4'-C1'-N9	6.01	113.01	108.20
2	A8	1465	G	C5-C6-O6	-6.01	124.99	128.60
2	A8	1529	G	C5'-C4'-C3'	-6.01	106.38	116.00
2	A8	1935	G	C8-N9-C1'	6.01	134.82	127.00
2	A8	2406	A	C5-C6-N1	-6.01	114.69	117.70
36	BA	882	C	N3-C4-C5	-6.01	119.50	121.90
2	A8	497	A	C5-C6-N6	-6.01	118.89	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	823	C	C5-C4-N4	-6.01	115.99	120.20
2	A8	1206	G	C6-C5-N7	-6.01	126.79	130.40
2	A8	1706	C	N3-C4-N4	6.01	122.21	118.00
2	A8	1766	G	C5'-C4'-C3'	6.01	125.62	116.00
36	BA	452	A	O4'-C1'-N9	6.01	113.01	108.20
36	BA	579	A	O4'-C1'-N9	6.01	113.01	108.20
36	BA	889	A	C5'-C4'-C3'	6.01	125.62	116.00
36	BA	1129	C	N3-C4-C5	-6.01	119.50	121.90
36	BA	1234	C	C5'-C4'-C3'	-6.01	106.38	116.00
36	BA	1488	G	N1-C6-O6	6.01	123.51	119.90
2	A8	141	G	C8-N9-C1'	-6.01	119.19	127.00
2	A8	434	U	O4'-C1'-N1	6.01	113.01	108.20
2	A8	737	C	C5'-C4'-C3'	-6.01	106.38	116.00
2	A8	1221	C	N3-C4-N4	6.01	122.21	118.00
2	A8	1631	G	N3-C2-N2	6.01	124.11	119.90
2	A8	1678	A	C4-C5-C6	6.01	120.00	117.00
2	A8	2589	A	O4'-C1'-N9	6.01	113.01	108.20
2	A8	2644	G	P-O5'-C5'	-6.01	111.28	120.90
36	BA	803	G	C5'-C4'-O4'	6.01	116.31	109.10
36	BA	899	C	N3-C4-N4	6.01	122.21	118.00
36	BA	1338	G	O4'-C1'-N9	6.01	113.01	108.20
36	BA	1379	G	C5-C6-O6	-6.01	124.99	128.60
2	A8	409	G	C8-N9-C1'	6.01	134.81	127.00
2	A8	2570	G	O4'-C1'-N9	6.01	113.01	108.20
2	A8	57	C	P-O3'-C3'	-6.01	112.49	119.70
2	A8	1175	A	P-O5'-C5'	6.01	130.51	120.90
2	A8	1585	C	N3-C4-N4	6.01	122.20	118.00
2	A8	1847	A	C4-C5-C6	6.01	120.00	117.00
2	A8	2193	G	C5-C6-O6	-6.01	125.00	128.60
2	A8	2826	A	C5-C6-N1	-6.01	114.70	117.70
36	BA	16	A	P-O5'-C5'	-6.01	111.29	120.90
36	BA	40	C	N3-C4-N4	6.01	122.20	118.00
36	BA	292	G	C8-N9-C4	-6.01	104.00	106.40
36	BA	769	G	C5-C6-O6	-6.01	125.00	128.60
36	BA	1179	A	P-O3'-C3'	-6.01	112.49	119.70
36	BA	1408	A	C5-C6-N6	-6.01	118.90	123.70
2	A8	1930	G	C4-N9-C1'	-6.00	118.69	126.50
2	A8	347	A	N7-C8-N9	6.00	116.80	113.80
2	A8	1783	A	P-O3'-C3'	6.00	126.90	119.70
2	A8	1965	C	P-O3'-C3'	-6.00	112.50	119.70
2	A8	2303	G	C5'-C4'-C3'	-6.00	106.39	116.00
2	A8	2538	C	C6-N1-C1'	6.00	128.00	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2652	C	O4'-C1'-N1	6.00	113.00	108.20
36	BA	283	U	C5'-C4'-C3'	-6.00	106.40	116.00
36	BA	1070	U	C5'-C4'-O4'	6.00	116.31	109.10
2	A8	237	C	C3'-C2'-C1'	-6.00	96.70	101.50
2	A8	952	G	C4-N9-C1'	-6.00	118.70	126.50
2	A8	2349	G	C5-C6-O6	-6.00	125.00	128.60
2	A8	2352	A	C5-C6-N1	-6.00	114.70	117.70
2	A8	2791	G	C5-C6-O6	-6.00	125.00	128.60
36	BA	350	G	O4'-C1'-N9	6.00	113.00	108.20
36	BA	414	A	C5'-C4'-C3'	-6.00	106.40	116.00
36	BA	542	G	C5'-C4'-C3'	-6.00	106.40	116.00
36	BA	1152	A	C5-C6-N1	-6.00	114.70	117.70
36	BA	1289	A	C4-C5-C6	6.00	120.00	117.00
36	BA	1517	G	O4'-C1'-N9	6.00	113.00	108.20
2	A8	406	G	N9-C1'-C2'	-6.00	105.40	112.00
2	A8	2025	C	N3-C4-N4	6.00	122.20	118.00
2	A8	38	A	C8-N9-C1'	6.00	138.50	127.70
2	A8	83	A	C5-C6-N6	-6.00	118.90	123.70
2	A8	666	A	C4-C5-C6	6.00	120.00	117.00
2	A8	814	C	C3'-C2'-C1'	-6.00	96.70	101.50
2	A8	1146	C	C3'-C2'-C1'	-6.00	96.70	101.50
2	A8	1450	G	C8-N9-C1'	6.00	134.80	127.00
2	A8	1623	G	O4'-C1'-N9	6.00	113.00	108.20
2	A8	2002	G	C3'-C2'-C1'	-6.00	96.70	101.50
2	A8	2085	U	O4'-C1'-N1	6.00	113.00	108.20
2	A8	2254	C	C3'-C2'-C1'	-6.00	96.70	101.50
36	BA	663	A	O4'-C1'-N9	6.00	113.00	108.20
36	BA	1117	A	O4'-C1'-N9	6.00	113.00	108.20
36	BA	1261	A	C5-C6-N1	-6.00	114.70	117.70
36	BA	1422	G	O4'-C1'-N9	6.00	113.00	108.20
36	BA	1473	G	C5-C6-O6	-6.00	125.00	128.60
2	A8	303	G	C4-N9-C1'	-6.00	118.70	126.50
2	A8	843	G	C5'-C4'-C3'	-6.00	106.41	116.00
2	A8	1278	C	C6-N1-C2	-6.00	117.90	120.30
36	BA	402	G	O4'-C1'-N9	6.00	113.00	108.20
36	BA	967	C	N3-C4-N4	6.00	122.20	118.00
2	A8	161	A	C5'-C4'-C3'	6.00	125.59	116.00
1	A7	20	G	C8-N9-C1'	5.99	134.79	127.00
2	A8	48	G	C1'-O4'-C4'	-5.99	105.11	109.90
2	A8	115	C	O4'-C1'-N1	5.99	113.00	108.20
2	A8	964	C	C6-N1-C2	-5.99	117.90	120.30
2	A8	1098	A	P-O5'-C5'	5.99	130.49	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2456	C	N3-C4-N4	5.99	122.19	118.00
2	A8	2619	C	C5'-C4'-C3'	-5.99	106.41	116.00
36	BA	395	C	C5'-C4'-C3'	-5.99	106.41	116.00
36	BA	592	G	C5-C6-O6	-5.99	125.00	128.60
36	BA	773	G	C5'-C4'-C3'	-5.99	106.41	116.00
36	BA	1345	U	O4'-C1'-N1	5.99	112.99	108.20
36	BA	1424	U	P-O3'-C3'	-5.99	112.51	119.70
2	A8	94	A	C5-C6-N6	-5.99	118.91	123.70
2	A8	133	U	C5-C6-N1	5.99	125.70	122.70
2	A8	466	A	C4-C5-C6	5.99	120.00	117.00
2	A8	950	G	N1-C6-O6	5.99	123.50	119.90
2	A8	980	A	C4-C5-C6	5.99	120.00	117.00
2	A8	1036	G	P-O3'-C3'	-5.99	112.51	119.70
2	A8	1141	U	C3'-C2'-C1'	-5.99	96.71	101.50
2	A8	1495	A	C4-C5-C6	5.99	120.00	117.00
35	A4	27	CYS	N-CA-C	-5.99	94.82	111.00
36	BA	934	C	N3-C4-N4	5.99	122.19	118.00
36	BA	1236	A	C5'-C4'-C3'	-5.99	106.41	116.00
2	A8	307	G	C8-N9-C1'	5.99	134.79	127.00
2	A8	868	U	C5'-C4'-O4'	5.99	116.29	109.10
2	A8	1457	U	C6-N1-C1'	5.99	129.59	121.20
2	A8	2297	A	C5-C6-N1	-5.99	114.70	117.70
2	A8	2767	C	N3-C4-N4	5.99	122.19	118.00
36	BA	239	U	C2-N1-C1'	-5.99	110.51	117.70
36	BA	307	C	N3-C4-N4	5.99	122.19	118.00
36	BA	545	C	O4'-C1'-N1	5.99	112.99	108.20
2	A8	227	A	C5-C6-N1	-5.99	114.71	117.70
2	A8	946	C	O4'-C1'-N1	5.99	112.99	108.20
2	A8	976	G	C5-C6-O6	-5.99	125.01	128.60
2	A8	1169	A	C4-C5-C6	5.99	119.99	117.00
2	A8	1312	U	O4'-C1'-N1	5.99	112.99	108.20
2	A8	1444	G	C4'-C3'-C2'	-5.99	96.61	102.60
2	A8	1900	A	C4-C5-C6	5.99	120.00	117.00
2	A8	2412	A	C5-C6-N6	-5.99	118.91	123.70
36	BA	221	C	N3-C4-N4	5.99	122.19	118.00
36	BA	327	A	C5-C6-N6	-5.99	118.91	123.70
36	BA	460	A	C8-N9-C1'	5.99	138.48	127.70
36	BA	659	U	O4'-C1'-N1	5.99	112.99	108.20
2	A8	946	C	P-O5'-C5'	-5.99	111.32	120.90
2	A8	1099	G	C6-C5-N7	-5.99	126.81	130.40
2	A8	1871	A	C5-C6-N1	-5.99	114.71	117.70
2	A8	1947	C	C5'-C4'-O4'	5.99	116.28	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2471	A	C5'-C4'-O4'	-5.99	101.92	109.10
2	A8	2657	A	C5-C6-N6	-5.99	118.91	123.70
2	A8	1679	A	C5-C6-N6	-5.99	118.91	123.70
2	A8	2600	A	O4'-C1'-N9	5.99	112.99	108.20
36	BA	488	C	N3-C4-C5	-5.99	119.51	121.90
36	BA	737	C	N3-C4-N4	5.99	122.19	118.00
36	BA	1206	G	P-O5'-C5'	5.99	130.48	120.90
36	BA	1269	A	C5-C6-N6	-5.99	118.91	123.70
36	BA	1430	A	C5-C6-N6	-5.99	118.91	123.70
2	A8	1906	G	N9-C1'-C2'	-5.98	105.42	112.00
2	A8	2830	C	N3-C4-C5	-5.98	119.51	121.90
2	A8	97	C	C6-N1-C2	-5.98	117.91	120.30
2	A8	143	C	N3-C4-C5	-5.98	119.51	121.90
2	A8	548	G	P-O3'-C3'	5.98	126.88	119.70
2	A8	711	G	C5-C6-O6	-5.98	125.01	128.60
2	A8	1085	A	C1'-O4'-C4'	-5.98	105.11	109.90
2	A8	1791	A	C8-N9-C4	-5.98	103.41	105.80
2	A8	2019	A	C4-C5-C6	5.98	119.99	117.00
2	A8	2523	G	C5'-C4'-C3'	-5.98	106.43	116.00
2	A8	2723	C	N3-C4-N4	5.98	122.19	118.00
2	A8	2802	G	C4-N9-C1'	-5.98	118.72	126.50
27	AW	40	ARG	NE-CZ-NH1	5.98	123.29	120.30
36	BA	399	G	C8-N9-C1'	5.98	134.78	127.00
40	BE	21	SER	N-CA-CB	5.98	119.47	110.50
2	A8	866	A	C4-C5-C6	5.98	119.99	117.00
2	A8	975	A	C5-C6-N1	-5.98	114.71	117.70
2	A8	1672	A	C4-C5-C6	5.98	119.99	117.00
2	A8	1922	G	C1'-O4'-C4'	-5.98	105.12	109.90
2	A8	1960	A	C4-C5-C6	5.98	119.99	117.00
2	A8	2100	G	C5'-C4'-C3'	-5.98	106.43	116.00
2	A8	2362	C	C6-N1-C1'	5.98	127.98	120.80
2	A8	2367	G	O4'-C1'-N9	5.98	112.98	108.20
2	A8	2448	A	C4-C5-C6	5.98	119.99	117.00
2	A8	2571	U	O4'-C1'-N1	5.98	112.98	108.20
2	A8	2895	G	C8-N9-C4	-5.98	104.01	106.40
2	A8	2896	C	N3-C4-N4	5.98	122.19	118.00
36	BA	782	A	O4'-C1'-N9	5.98	112.98	108.20
2	A8	201	C	N3-C4-N4	5.98	122.19	118.00
2	A8	637	A	C4-C5-C6	5.98	119.99	117.00
2	A8	644	A	P-O3'-C3'	-5.98	112.53	119.70
2	A8	1354	A	C4-C5-C6	5.98	119.99	117.00
2	A8	1482	G	C3'-C2'-C1'	-5.98	96.72	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1828	G	C5-C6-O6	-5.98	125.01	128.60
36	BA	1047	G	C4-N9-C1'	-5.98	118.73	126.50
2	A8	951	C	C1'-O4'-C4'	-5.98	105.12	109.90
2	A8	1355	G	C3'-C2'-C1'	-5.98	96.72	101.50
2	A8	2256	G	O4'-C1'-N9	5.98	112.98	108.20
2	A8	2275	C	N3-C4-C5	-5.98	119.51	121.90
36	BA	65	A	C4-C5-C6	5.98	119.99	117.00
36	BA	511	C	N3-C4-C5	-5.98	119.51	121.90
36	BA	1087	G	C5-C6-O6	-5.98	125.01	128.60
36	BA	1195	C	P-O3'-C3'	5.98	126.87	119.70
36	BA	1496	C	N3-C4-N4	5.98	122.19	118.00
41	BF	78	PHE	CB-CG-CD1	-5.98	116.62	120.80
2	A8	1355	G	C5-C6-O6	-5.98	125.01	128.60
2	A8	1444	G	C6-C5-N7	-5.98	126.81	130.40
2	A8	2162	G	O4'-C1'-N9	5.98	112.98	108.20
2	A8	2237	G	N1-C6-O6	5.98	123.48	119.90
36	BA	456	A	C4-C5-C6	5.98	119.99	117.00
1	A7	65	U	P-O3'-C3'	5.97	126.87	119.70
2	A8	353	C	O4'-C1'-N1	5.97	112.98	108.20
2	A8	853	C	N3-C4-N4	5.97	122.18	118.00
2	A8	1561	C	N3-C4-C5	-5.97	119.51	121.90
2	A8	1810	A	C6-C5-N7	-5.97	128.12	132.30
2	A8	2525	G	N1-C6-O6	5.97	123.48	119.90
36	BA	73	C	O4'-C1'-N1	5.97	112.98	108.20
36	BA	462	G	N1-C6-O6	5.97	123.48	119.90
36	BA	583	A	C8-N9-C4	-5.97	103.41	105.80
2	A8	121	G	O4'-C1'-N9	5.97	112.98	108.20
2	A8	462	C	C2-N1-C1'	-5.97	112.23	118.80
2	A8	718	A	C5-C6-N6	-5.97	118.92	123.70
2	A8	1158	C	P-O3'-C3'	-5.97	112.53	119.70
2	A8	2158	A	C5-C6-N6	-5.97	118.92	123.70
2	A8	2883	A	O3'-P-O5'	-5.97	92.65	104.00
36	BA	244	U	P-O5'-C5'	-5.97	111.34	120.90
36	BA	727	G	O4'-C1'-N9	5.97	112.98	108.20
36	BA	1130	A	O4'-C1'-N9	5.97	112.98	108.20
36	BA	1368	A	P-O5'-C5'	-5.97	111.34	120.90
2	A8	816	C	N3-C4-N4	5.97	122.18	118.00
2	A8	1246	A	C4-C5-C6	5.97	119.98	117.00
2	A8	2563	U	C3'-C2'-C1'	-5.97	96.72	101.50
2	A8	2877	G	P-O5'-C5'	-5.97	111.35	120.90
36	BA	28	A	C5-C6-N6	-5.97	118.92	123.70
36	BA	417	G	C8-N9-C4	-5.97	104.01	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	434	U	C5'-C4'-C3'	-5.97	106.45	116.00
36	BA	763	G	C5-C6-O6	-5.97	125.02	128.60
36	BA	974	A	O4'-C1'-N9	5.97	112.98	108.20
36	BA	1077	G	C5'-C4'-C3'	-5.97	106.45	116.00
36	BA	1333	A	C5'-C4'-C3'	-5.97	106.45	116.00
36	BA	1374	A	C5-C6-N1	-5.97	114.72	117.70
36	BA	1464	U	O4'-C1'-N1	5.97	112.98	108.20
2	A8	1212	G	O4'-C1'-N9	5.97	112.98	108.20
2	A8	1585	C	N3-C4-C5	-5.97	119.51	121.90
2	A8	1929	G	C2-N3-C4	5.97	114.88	111.90
2	A8	2349	G	P-O5'-C5'	5.97	130.45	120.90
21	AQ	23	TYR	CB-CG-CD2	5.97	124.58	121.00
36	BA	260	G	O4'-C1'-N9	5.97	112.97	108.20
36	BA	508	U	P-O5'-C5'	5.97	130.45	120.90
36	BA	713	G	C8-N9-C1'	5.97	134.76	127.00
36	BA	1234	C	N3-C4-N4	5.97	122.18	118.00
2	A8	295	G	C5-C6-O6	-5.97	125.02	128.60
2	A8	849	A	C4-C5-C6	5.97	119.98	117.00
36	BA	348	G	C5-C6-O6	-5.97	125.02	128.60
36	BA	683	G	N3-C2-N2	5.97	124.08	119.90
47	BL	40	THR	N-CA-C	-5.97	94.89	111.00
2	A8	493	G	P-O5'-C5'	5.97	130.44	120.90
2	A8	782	A	C4-C5-C6	5.97	119.98	117.00
2	A8	836	G	C3'-C2'-C1'	-5.97	96.73	101.50
2	A8	1175	A	C4'-C3'-C2'	-5.97	96.63	102.60
2	A8	1914	C	O4'-C1'-N1	5.97	112.97	108.20
2	A8	2344	U	O4'-C1'-N1	5.97	112.97	108.20
2	A8	2702	G	C8-N9-C4	-5.97	104.01	106.40
2	A8	2735	G	C8-N9-C1'	5.97	134.76	127.00
36	BA	1016	A	P-O5'-C5'	5.97	130.45	120.90
36	BA	1293	C	N3-C4-N4	5.97	122.18	118.00
36	BA	1301	U	P-O3'-C3'	-5.97	112.54	119.70
2	A8	516	C	O4'-C1'-N1	5.96	112.97	108.20
2	A8	650	C	C4'-C3'-C2'	-5.96	96.64	102.60
2	A8	1229	C	N3-C4-N4	5.96	122.17	118.00
2	A8	1260	A	O4'-C1'-N9	5.96	112.97	108.20
2	A8	1512	C	N3-C4-N4	5.96	122.17	118.00
2	A8	2538	C	C2-N1-C1'	-5.96	112.24	118.80
36	BA	584	G	C5-C6-O6	-5.96	125.02	128.60
36	BA	1288	A	O4'-C1'-N9	5.96	112.97	108.20
36	BA	1368	A	C4-C5-C6	5.96	119.98	117.00
2	A8	262	A	O4'-C1'-N9	5.96	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	885	C	C3'-C2'-C1'	-5.96	96.73	101.50
2	A8	1041	G	C5-C6-O6	-5.96	125.02	128.60
2	A8	1524	G	O4'-C1'-N9	5.96	112.97	108.20
36	BA	74	A	C4-C5-C6	5.96	119.98	117.00
36	BA	577	G	O5'-C5'-C4'	-5.96	100.37	111.70
36	BA	798	U	C4'-C3'-C2'	5.96	108.56	102.60
2	A8	266	G	C5'-C4'-C3'	5.96	125.54	116.00
2	A8	330	A	C4-C5-C6	5.96	119.98	117.00
2	A8	1106	G	O4'-C1'-N9	5.96	112.97	108.20
2	A8	1455	G	P-O3'-C3'	-5.96	112.55	119.70
2	A8	1498	C	C3'-C2'-C1'	-5.96	96.73	101.50
2	A8	1564	C	P-O5'-C5'	5.96	130.44	120.90
2	A8	1611	C	O4'-C1'-N1	5.96	112.97	108.20
2	A8	2508	G	N3-C2-N2	5.96	124.07	119.90
36	BA	60	A	C5-C6-N1	-5.96	114.72	117.70
36	BA	487	A	C5-C6-N6	-5.96	118.93	123.70
36	BA	715	A	C5-C6-N6	-5.96	118.93	123.70
36	BA	801	U	P-O5'-C5'	-5.96	111.36	120.90
36	BA	1437	A	O4'-C1'-N9	5.96	112.97	108.20
36	BA	1482	G	C4-N9-C1'	-5.96	118.75	126.50
2	A8	964	C	C5'-C4'-O4'	5.96	116.25	109.10
2	A8	1149	G	N3-C2-N2	5.96	124.07	119.90
36	BA	222	C	N3-C4-C5	-5.96	119.52	121.90
36	BA	234	C	C3'-C2'-C1'	-5.96	96.73	101.50
36	BA	266	G	O4'-C1'-N9	5.96	112.97	108.20
36	BA	302	G	C8-N9-C1'	5.96	134.75	127.00
36	BA	1470	U	C5'-C4'-C3'	-5.96	106.46	116.00
1	A7	79	G	N7-C8-N9	5.96	116.08	113.10
2	A8	2864	G	C8-N9-C1'	5.96	134.75	127.00
36	BA	369	G	C3'-C2'-C1'	-5.96	96.73	101.50
36	BA	444	G	O4'-C1'-N9	5.96	112.97	108.20
36	BA	710	G	O4'-C1'-N9	5.96	112.97	108.20
2	A8	590	A	C4-C5-C6	5.96	119.98	117.00
2	A8	618	G	C4-N9-C1'	-5.96	118.76	126.50
2	A8	1056	G	C6-C5-N7	-5.96	126.83	130.40
2	A8	1437	C	O4'-C1'-N1	5.96	112.97	108.20
36	BA	861	G	C5-C6-O6	-5.96	125.03	128.60
36	BA	1502	A	O4'-C1'-N9	5.96	112.97	108.20
2	A8	1445	G	N3-C2-N2	5.96	124.07	119.90
2	A8	2278	A	C4-C5-C6	5.96	119.98	117.00
36	BA	119	A	C4-C5-C6	5.96	119.98	117.00
36	BA	1493	A	C5-C6-N1	-5.96	114.72	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	712	G	C6-C5-N7	-5.95	126.83	130.40
2	A8	1269	A	C5'-C4'-C3'	-5.95	106.47	116.00
2	A8	1780	A	O4'-C1'-N9	5.95	112.96	108.20
2	A8	2021	C	N3-C4-N4	5.95	122.17	118.00
2	A8	2248	C	C6-N1-C1'	5.95	127.94	120.80
2	A8	2718	G	C3'-C2'-C1'	-5.95	96.74	101.50
2	A8	2885	G	O4'-C1'-N9	5.95	112.96	108.20
36	BA	99	C	N3-C4-N4	5.95	122.17	118.00
36	BA	120	A	C8-N9-C4	-5.95	103.42	105.80
2	A8	125	A	C4-C5-C6	5.95	119.98	117.00
2	A8	1070	A	C3'-C2'-C1'	-5.95	96.74	101.50
2	A8	1394	U	O4'-C1'-N1	5.95	112.96	108.20
2	A8	2572	A	C5-N7-C8	5.95	106.88	103.90
2	A8	294	A	C5-C6-N1	-5.95	114.72	117.70
2	A8	334	C	N3-C4-N4	5.95	122.17	118.00
2	A8	745	G	C1'-O4'-C4'	-5.95	105.14	109.90
2	A8	1473	G	C5'-C4'-C3'	-5.95	106.48	116.00
2	A8	1662	U	C2-N1-C1'	-5.95	110.56	117.70
2	A8	2758	A	O4'-C1'-N9	5.95	112.96	108.20
36	BA	371	A	P-O3'-C3'	-5.95	112.56	119.70
36	BA	1285	A	C5-C6-N6	-5.95	118.94	123.70
36	BA	1400	C	N3-C4-C5	-5.95	119.52	121.90
1	A7	30	C	O4'-C1'-N1	5.95	112.96	108.20
2	A8	1177	G	O4'-C1'-N9	5.95	112.96	108.20
2	A8	1784	A	C5'-C4'-C3'	-5.95	106.48	116.00
2	A8	1894	C	N3-C4-N4	5.95	122.16	118.00
2	A8	1916	A	C5-C6-N1	-5.95	114.73	117.70
17	AM	75	GLU	N-CA-CB	5.95	121.31	110.60
36	BA	431	A	C5-C6-N1	-5.95	114.73	117.70
36	BA	1366	C	N3-C4-C5	-5.95	119.52	121.90
2	A8	74	A	C5-C6-N1	-5.95	114.73	117.70
2	A8	235	U	O4'-C1'-N1	5.95	112.96	108.20
2	A8	661	A	C5-C6-N1	-5.95	114.73	117.70
2	A8	2854	G	O4'-C1'-N9	5.95	112.96	108.20
2	A8	1081	U	P-O3'-C3'	5.95	126.84	119.70
2	A8	1699	G	C5'-C4'-O4'	5.95	116.23	109.10
2	A8	2190	G	C8-N9-C4	-5.95	104.02	106.40
2	A8	2834	G	O4'-C1'-N9	5.95	112.96	108.20
36	BA	412	A	C5-C6-N6	-5.95	118.94	123.70
36	BA	884	U	P-O3'-C3'	5.95	126.83	119.70
36	BA	1470	U	O4'-C1'-N1	5.95	112.96	108.20
36	BA	1482	G	C5-C6-O6	-5.95	125.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1509	A	C5-C6-N6	-5.94	118.94	123.70
2	A8	2087	G	O4'-C1'-N9	5.94	112.95	108.20
2	A8	2271	G	C5-C6-O6	-5.94	125.03	128.60
2	A8	118	A	C5-C6-N1	-5.94	114.73	117.70
2	A8	833	A	C5-C6-N1	-5.94	114.73	117.70
2	A8	1466	U	C6-N1-C1'	5.94	129.52	121.20
2	A8	1849	G	C5-C6-O6	-5.94	125.03	128.60
2	A8	2331	G	C1'-O4'-C4'	-5.94	105.15	109.90
2	A8	2350	C	P-O5'-C5'	-5.94	111.39	120.90
2	A8	2612	C	N3-C4-C5	-5.94	119.52	121.90
23	AS	8	ARG	CB-CA-C	-5.94	98.52	110.40
36	BA	602	A	C5-C6-N6	-5.94	118.95	123.70
36	BA	1082	A	C5-C6-N6	-5.94	118.95	123.70
2	A8	386	G	O4'-C1'-N9	5.94	112.95	108.20
2	A8	390	U	C3'-C2'-C1'	-5.94	96.75	101.50
2	A8	501	A	C5-C6-N1	-5.94	114.73	117.70
2	A8	848	C	O4'-C1'-N1	5.94	112.95	108.20
2	A8	856	G	C5'-C4'-C3'	-5.94	106.50	116.00
2	A8	1182	G	O4'-C1'-N9	5.94	112.95	108.20
2	A8	2371	G	O4'-C1'-N9	5.94	112.95	108.20
36	BA	1370	G	O4'-C1'-N9	5.94	112.95	108.20
2	A8	1661	G	C3'-C2'-C1'	-5.94	96.75	101.50
2	A8	2148	G	N1-C6-O6	5.94	123.46	119.90
2	A8	247	G	P-O5'-C5'	-5.94	111.40	120.90
2	A8	258	G	C5-C6-O6	-5.94	125.04	128.60
2	A8	886	A	C5-C6-N6	-5.94	118.95	123.70
2	A8	1010	A	C5-C6-N1	-5.94	114.73	117.70
2	A8	2810	A	C8-N9-C4	-5.94	103.42	105.80
36	BA	96	U	O4'-C1'-N1	5.94	112.95	108.20
36	BA	160	A	O4'-C1'-N9	5.94	112.95	108.20
36	BA	364	A	C4-C5-C6	5.94	119.97	117.00
36	BA	404	G	N3-C2-N2	5.94	124.06	119.90
36	BA	768	A	C8-N9-C4	-5.94	103.42	105.80
36	BA	1334	G	C5'-C4'-C3'	-5.94	106.50	116.00
2	A8	342	A	C5-C6-N6	-5.94	118.95	123.70
2	A8	350	G	C3'-C2'-C1'	-5.94	96.75	101.50
2	A8	1658	C	C1'-O4'-C4'	-5.94	105.15	109.90
2	A8	2272	U	C5-C6-N1	5.94	125.67	122.70
36	BA	1422	G	C8-N9-C1'	5.94	134.72	127.00
2	A8	95	A	C5-C6-N6	-5.93	118.95	123.70
2	A8	1111	A	P-O3'-C3'	5.93	126.82	119.70
2	A8	1129	A	C5'-C4'-O4'	5.93	116.22	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1140	C	C6-N1-C1'	5.93	127.92	120.80
2	A8	1331	G	C5-C6-O6	-5.93	125.04	128.60
2	A8	2360	G	P-O3'-C3'	-5.93	112.58	119.70
2	A8	2456	C	C6-N1-C2	-5.93	117.93	120.30
2	A8	2490	G	O4'-C1'-N9	5.93	112.95	108.20
36	BA	314	C	C5'-C4'-C3'	-5.93	106.50	116.00
2	A8	624	C	P-O5'-C5'	-5.93	111.41	120.90
2	A8	918	A	C5-C6-N6	-5.93	118.95	123.70
2	A8	1098	A	C5-C6-N6	-5.93	118.95	123.70
2	A8	1405	U	O4'-C1'-N1	5.93	112.95	108.20
2	A8	1723	G	C6-C5-N7	-5.93	126.84	130.40
36	BA	372	C	N3-C4-C5	-5.93	119.53	121.90
36	BA	908	A	C5-C6-N6	-5.93	118.95	123.70
36	BA	1066	C	N3-C4-C5	-5.93	119.53	121.90
2	A8	305	C	C6-N1-C2	-5.93	117.93	120.30
2	A8	1175	A	C5-C6-N6	-5.93	118.95	123.70
2	A8	1358	G	P-O3'-C3'	5.93	126.82	119.70
2	A8	1464	G	C8-N9-C4	-5.93	104.03	106.40
2	A8	1562	U	C5-C6-N1	5.93	125.67	122.70
2	A8	2591	C	O4'-C1'-N1	5.93	112.94	108.20
36	BA	718	A	C4-C5-C6	5.93	119.97	117.00
2	A8	92	U	C1'-O4'-C4'	-5.93	105.16	109.90
2	A8	246	C	N3-C4-C5	-5.93	119.53	121.90
2	A8	714	U	C5'-C4'-C3'	-5.93	106.51	116.00
2	A8	834	G	C6-C5-N7	-5.93	126.84	130.40
2	A8	1272	A	C5-C6-N1	-5.93	114.73	117.70
2	A8	1587	G	C8-N9-C4	-5.93	104.03	106.40
2	A8	2429	G	C5-C6-O6	-5.93	125.04	128.60
36	BA	11	G	C5-C6-O6	-5.93	125.04	128.60
36	BA	338	A	C5-C6-N1	-5.93	114.73	117.70
36	BA	732	C	C4'-C3'-C2'	5.93	108.53	102.60
36	BA	1016	A	C5-C6-N1	-5.93	114.73	117.70
36	BA	1219	A	O4'-C1'-N9	5.93	112.94	108.20
36	BA	1523	G	N3-C2-N2	5.93	124.05	119.90
2	A8	179	C	C2-N1-C1'	-5.93	112.28	118.80
2	A8	398	C	N3-C4-C5	-5.93	119.53	121.90
2	A8	594	U	C5'-C4'-C3'	5.93	125.48	116.00
2	A8	2230	G	C5-C6-O6	-5.93	125.04	128.60
2	A8	2685	G	C5-C6-O6	-5.93	125.04	128.60
36	BA	409	U	O4'-C1'-N1	5.93	112.94	108.20
36	BA	1027	C	C5-C6-N1	5.93	123.96	121.00
36	BA	1286	U	O4'-C1'-N1	5.93	112.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BE	34	ALA	CB-CA-C	-5.93	101.21	110.10
2	A8	77	G	O4'-C1'-N9	5.93	112.94	108.20
2	A8	1524	G	C6-C5-N7	-5.93	126.84	130.40
2	A8	1645	G	C6-C5-N7	-5.93	126.84	130.40
2	A8	1823	G	C5'-C4'-C3'	-5.93	106.52	116.00
2	A8	2409	G	P-O5'-C5'	-5.93	111.42	120.90
36	BA	210	C	N3-C4-C5	-5.93	119.53	121.90
36	BA	284	C	N3-C2-O2	-5.93	117.75	121.90
36	BA	422	C	N3-C4-C5	-5.93	119.53	121.90
36	BA	729	A	C5-C6-N1	-5.93	114.74	117.70
36	BA	772	U	C1'-O4'-C4'	-5.93	105.16	109.90
36	BA	858	G	C5-C6-O6	-5.93	125.05	128.60
36	BA	1136	C	N3-C4-N4	5.93	122.15	118.00
54	BS	9	PHE	N-CA-C	-5.93	95.00	111.00
2	A8	605	G	N3-C2-N2	5.92	124.05	119.90
2	A8	1583	A	C1'-O4'-C4'	-5.92	105.16	109.90
2	A8	1980	G	C4-C5-C6	5.92	122.36	118.80
2	A8	2873	A	C5-C6-N1	-5.92	114.74	117.70
36	BA	955	U	C5-C6-N1	5.92	125.66	122.70
36	BA	975	A	C5-C6-N6	-5.92	118.96	123.70
47	BL	49	ARG	NE-CZ-NH2	-5.92	117.34	120.30
2	A8	1011	G	C4-N9-C1'	-5.92	118.80	126.50
2	A8	1220	G	C4-N9-C1'	-5.92	118.80	126.50
2	A8	2432	A	C4-C5-C6	5.92	119.96	117.00
36	BA	565	U	O4'-C1'-N1	5.92	112.94	108.20
36	BA	581	G	C4-N9-C1'	-5.92	118.80	126.50
36	BA	810	C	C1'-O4'-C4'	-5.92	105.16	109.90
2	A8	725	G	O4'-C1'-N9	5.92	112.94	108.20
2	A8	834	G	C5'-C4'-O4'	5.92	116.20	109.10
2	A8	1287	A	C5-C6-N1	-5.92	114.74	117.70
2	A8	1846	G	C1'-O4'-C4'	-5.92	105.16	109.90
2	A8	2592	G	C6-C5-N7	-5.92	126.85	130.40
36	BA	177	G	C5-C6-O6	-5.92	125.05	128.60
36	BA	581	G	C8-N9-C1'	5.92	134.70	127.00
36	BA	1157	A	C4-C5-C6	5.92	119.96	117.00
2	A8	88	G	C8-N9-C4	-5.92	104.03	106.40
2	A8	94	A	O4'-C1'-N9	5.92	112.94	108.20
2	A8	1092	C	C5-C4-N4	-5.92	116.06	120.20
2	A8	1493	C	O4'-C1'-N1	5.92	112.94	108.20
2	A8	2006	C	O4'-C1'-N1	5.92	112.94	108.20
17	AM	44	ARG	CB-CA-C	-5.92	98.56	110.40
36	BA	298	A	C5-C6-N6	-5.92	118.96	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	334	C	O4'-C1'-N1	5.92	112.94	108.20
36	BA	547	A	C5-C6-N1	-5.92	114.74	117.70
36	BA	903	G	O3'-P-O5'	-5.92	92.75	104.00
36	BA	944	G	C6-C5-N7	-5.92	126.85	130.40
36	BA	1120	C	N3-C4-N4	5.92	122.14	118.00
2	A8	1369	G	C8-N9-C1'	5.92	134.69	127.00
2	A8	2099	U	C3'-C2'-C1'	-5.92	96.77	101.50
36	BA	167	A	P-O3'-C3'	-5.92	112.60	119.70
36	BA	782	A	C5-C6-N6	-5.92	118.97	123.70
36	BA	798	U	P-O3'-C3'	-5.92	112.60	119.70
36	BA	1468	A	C5'-C4'-O4'	5.92	116.20	109.10
2	A8	368	A	C4-C5-C6	5.92	119.96	117.00
2	A8	576	U	C2-N1-C1'	-5.92	110.60	117.70
2	A8	781	A	C5-C6-N1	-5.92	114.74	117.70
2	A8	810	U	P-O5'-C5'	5.92	130.37	120.90
2	A8	1014	A	C4'-C3'-C2'	-5.92	96.68	102.60
2	A8	1285	A	C4-C5-C6	5.92	119.96	117.00
2	A8	2376	A	C5-C6-N6	-5.92	118.97	123.70
36	BA	250	A	C5-C6-N1	-5.92	114.74	117.70
36	BA	353	A	C1'-O4'-C4'	-5.92	105.17	109.90
36	BA	360	G	O4'-C1'-N9	5.92	112.93	108.20
36	BA	596	A	C5'-C4'-C3'	-5.92	106.53	116.00
2	A8	379	G	N1-C6-O6	5.92	123.45	119.90
2	A8	1009	A	C4-C5-C6	5.92	119.96	117.00
2	A8	1129	A	O4'-C1'-N9	5.92	112.93	108.20
2	A8	42	A	C1'-O4'-C4'	-5.91	105.17	109.90
2	A8	271	G	C5-C6-O6	-5.91	125.05	128.60
2	A8	1008	A	C5-C6-N1	-5.91	114.74	117.70
2	A8	1039	A	C5'-C4'-C3'	-5.91	106.54	116.00
2	A8	1220	G	C8-N9-C1'	5.91	134.69	127.00
2	A8	2103	C	N3-C4-C5	-5.91	119.53	121.90
2	A8	2744	G	C5'-C4'-C3'	-5.91	106.54	116.00
2	A8	2806	C	P-O5'-C5'	-5.91	111.44	120.90
2	A8	2875	C	N3-C4-C5	-5.91	119.53	121.90
10	AF	16	MET	CG-SD-CE	-5.91	90.74	100.20
36	BA	911	U	O4'-C1'-N1	5.91	112.93	108.20
36	BA	985	C	C6-N1-C2	-5.91	117.93	120.30
36	BA	1466	C	C6-N1-C2	-5.91	117.94	120.30
2	A8	663	G	C6-C5-N7	-5.91	126.85	130.40
2	A8	1179	G	O4'-C1'-N9	5.91	112.93	108.20
36	BA	548	G	O4'-C1'-N9	5.91	112.93	108.20
36	BA	1038	C	N3-C4-N4	5.91	122.14	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	111	U	C3'-C2'-C1'	-5.91	96.77	101.50
2	A8	272	A	O4'-C1'-N9	5.91	112.93	108.20
2	A8	690	G	C5'-C4'-C3'	-5.91	106.54	116.00
2	A8	1053	C	C5-C6-N1	5.91	123.96	121.00
2	A8	1139	G	C5-C6-O6	-5.91	125.05	128.60
2	A8	2101	A	O3'-P-O5'	-5.91	92.77	104.00
2	A8	2153	C	C6-N1-C2	-5.91	117.94	120.30
2	A8	2478	A	C4-C5-C6	5.91	119.95	117.00
36	BA	95	C	C5-C4-N4	-5.91	116.06	120.20
36	BA	1004	A	C5-C6-N6	-5.91	118.97	123.70
36	BA	1219	A	C4-C5-C6	5.91	119.95	117.00
2	A8	167	A	C5'-C4'-C3'	-5.91	106.55	116.00
2	A8	519	U	C1'-O4'-C4'	-5.91	105.17	109.90
2	A8	549	G	C5-C6-O6	-5.91	125.06	128.60
2	A8	814	C	C6-N1-C1'	5.91	127.89	120.80
2	A8	953	G	N3-C2-N2	5.91	124.04	119.90
2	A8	984	A	C5'-C4'-C3'	-5.91	106.55	116.00
2	A8	1149	G	C4'-C3'-C2'	-5.91	96.69	102.60
2	A8	1401	G	N3-C2-N2	5.91	124.04	119.90
2	A8	1441	G	C6-C5-N7	-5.91	126.86	130.40
2	A8	1470	A	C5-C6-N1	-5.91	114.75	117.70
2	A8	2082	A	C5-C6-N1	-5.91	114.75	117.70
36	BA	901	A	C5'-C4'-C3'	-5.91	106.55	116.00
1	A7	101	A	C5-C6-N1	-5.91	114.75	117.70
2	A8	163	C	N3-C4-N4	5.91	122.14	118.00
2	A8	652	U	O4'-C1'-N1	5.91	112.93	108.20
2	A8	2138	G	C5-C6-O6	-5.91	125.06	128.60
2	A8	2221	G	C3'-C2'-C1'	-5.91	96.78	101.50
36	BA	265	G	C6-C5-N7	-5.91	126.86	130.40
36	BA	979	C	N3-C4-C5	-5.91	119.54	121.90
36	BA	1435	G	C5'-C4'-O4'	5.91	116.19	109.10
2	A8	104	A	C5-C6-N6	-5.91	118.98	123.70
2	A8	127	A	C5'-C4'-O4'	5.91	116.19	109.10
2	A8	181	A	C5-C6-N1	-5.91	114.75	117.70
2	A8	220	G	P-O3'-C3'	5.91	126.79	119.70
2	A8	630	G	C8-N9-C1'	5.91	134.68	127.00
2	A8	1121	C	N3-C4-N4	5.91	122.13	118.00
2	A8	1154	G	C6-N1-C2	5.91	128.64	125.10
2	A8	1353	A	C3'-C2'-C1'	-5.91	96.78	101.50
2	A8	1579	A	C3'-C2'-C1'	-5.91	96.78	101.50
36	BA	269	C	C6-N1-C1'	5.91	127.89	120.80
36	BA	1329	A	C4-C5-C6	5.91	119.95	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	978	G	C5'-C4'-C3'	-5.90	106.55	116.00
2	A8	1301	A	C5-C6-N6	-5.90	118.98	123.70
36	BA	213	G	C8-N9-C4	-5.90	104.04	106.40
36	BA	230	G	C5-C6-O6	-5.90	125.06	128.60
36	BA	1055	A	C4-C5-C6	5.90	119.95	117.00
2	A8	3	U	O4'-C1'-N1	5.90	112.92	108.20
2	A8	52	A	C8-N9-C4	-5.90	103.44	105.80
2	A8	836	G	C1'-O4'-C4'	-5.90	105.18	109.90
2	A8	1284	A	C5-C6-N6	-5.90	118.98	123.70
2	A8	1374	G	C5-C6-O6	-5.90	125.06	128.60
2	A8	1511	G	N3-C2-N2	5.90	124.03	119.90
2	A8	1593	A	C5-C6-N1	-5.90	114.75	117.70
2	A8	2265	U	O4'-C1'-N1	5.90	112.92	108.20
2	A8	2869	G	C8-N9-C1'	5.90	134.67	127.00
36	BA	838	G	O4'-C1'-N9	5.90	112.92	108.20
36	BA	955	U	C6-N1-C2	-5.90	117.46	121.00
2	A8	265	A	C4-C5-C6	5.90	119.95	117.00
2	A8	680	C	N3-C4-N4	5.90	122.13	118.00
2	A8	1168	G	N3-C2-N2	5.90	124.03	119.90
2	A8	2524	G	C1'-O4'-C4'	-5.90	105.18	109.90
2	A8	2541	A	C5'-C4'-O4'	5.90	116.18	109.10
2	A8	2575	C	N3-C4-N4	5.90	122.13	118.00
36	BA	149	A	C4-C5-C6	5.90	119.95	117.00
36	BA	852	G	N1-C6-O6	5.90	123.44	119.90
36	BA	914	A	C5-C6-N6	-5.90	118.98	123.70
36	BA	1093	A	C4-C5-C6	5.90	119.95	117.00
2	A8	259	G	O4'-C1'-N9	5.90	112.92	108.20
2	A8	1045	C	N3-C4-N4	5.90	122.13	118.00
2	A8	1395	A	C5-C6-N1	-5.90	114.75	117.70
2	A8	1579	A	C4-C5-C6	5.90	119.95	117.00
36	BA	1357	A	C4-C5-C6	5.90	119.95	117.00
2	A8	62	U	C6-N1-C1'	-5.90	112.94	121.20
2	A8	336	C	P-O3'-C3'	-5.90	112.62	119.70
2	A8	943	A	P-O3'-C3'	-5.90	112.62	119.70
2	A8	1315	C	C1'-O4'-C4'	-5.90	105.18	109.90
2	A8	1981	A	C4-C5-C6	5.90	119.95	117.00
2	A8	2605	U	O4'-C1'-N1	5.90	112.92	108.20
36	BA	374	A	P-O5'-C5'	5.90	130.34	120.90
36	BA	932	C	C2-N3-C4	5.90	122.85	119.90
36	BA	1099	G	C5'-C4'-C3'	-5.90	106.56	116.00
2	A8	198	C	C5'-C4'-C3'	-5.90	106.57	116.00
2	A8	310	A	C5'-C4'-C3'	-5.90	106.57	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	612	G	C5'-C4'-O4'	5.90	116.17	109.10
2	A8	1517	G	N3-C2-N2	5.90	124.03	119.90
2	A8	2759	G	N3-C2-N2	5.90	124.03	119.90
36	BA	441	A	O4'-C1'-N9	5.90	112.92	108.20
36	BA	618	C	O4'-C1'-N1	5.90	112.92	108.20
36	BA	699	C	C2-N1-C1'	-5.90	112.31	118.80
36	BA	753	A	C5-C6-N1	-5.90	114.75	117.70
1	A7	70	C	N3-C4-C5	-5.89	119.54	121.90
2	A8	1437	C	N3-C4-C5	-5.89	119.54	121.90
2	A8	1453	A	O4'-C1'-N9	5.89	112.92	108.20
2	A8	1456	G	C4-N9-C1'	-5.89	118.84	126.50
2	A8	2731	G	C4-N9-C1'	-5.89	118.84	126.50
2	A8	2882	A	O4'-C1'-N9	5.89	112.92	108.20
36	BA	423	G	O4'-C1'-N9	5.89	112.92	108.20
36	BA	1173	U	C5'-C4'-C3'	-5.89	106.57	116.00
2	A8	269	C	N3-C4-N4	5.89	122.12	118.00
2	A8	294	A	C5-C6-N6	-5.89	118.99	123.70
2	A8	628	G	C8-N9-C1'	5.89	134.66	127.00
2	A8	728	G	C5-C6-O6	-5.89	125.06	128.60
2	A8	1256	G	N1-C6-O6	5.89	123.44	119.90
2	A8	1401	G	O4'-C1'-N9	5.89	112.91	108.20
2	A8	1494	A	C4-C5-C6	5.89	119.95	117.00
2	A8	1751	U	C2-N1-C1'	-5.89	110.63	117.70
2	A8	2060	A	C8-N9-C4	-5.89	103.44	105.80
2	A8	2282	G	O3'-P-O5'	5.89	115.19	104.00
2	A8	2880	C	P-O5'-C5'	5.89	130.33	120.90
36	BA	147	G	C5-C6-O6	-5.89	125.06	128.60
36	BA	889	A	P-O3'-C3'	5.89	126.77	119.70
36	BA	1454	G	P-O5'-C5'	5.89	130.33	120.90
2	A8	429	A	C4-C5-C6	5.89	119.95	117.00
2	A8	675	A	C6-C5-N7	-5.89	128.18	132.30
2	A8	1049	C	N3-C4-N4	5.89	122.12	118.00
1	A7	47	C	C5-C4-N4	-5.89	116.08	120.20
2	A8	338	G	C5'-C4'-O4'	5.89	116.17	109.10
2	A8	443	A	C4-C5-C6	5.89	119.94	117.00
2	A8	1797	G	P-O3'-C3'	-5.89	112.63	119.70
2	A8	1911	U	C6-N1-C2	-5.89	117.47	121.00
2	A8	2153	C	N3-C4-N4	5.89	122.12	118.00
2	A8	365	U	O4'-C1'-N1	5.89	112.91	108.20
2	A8	855	G	C5'-C4'-C3'	-5.89	106.58	116.00
36	BA	1132	C	N3-C4-N4	5.89	122.12	118.00
36	BA	1499	A	C5'-C4'-C3'	5.89	125.42	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	22	U	C6-N1-C1'	5.89	129.44	121.20
2	A8	62	U	P-O3'-C3'	5.89	126.76	119.70
2	A8	1173	U	O4'-C1'-N1	5.89	112.91	108.20
2	A8	1284	A	C5-C6-N1	-5.89	114.76	117.70
2	A8	1308	A	N1-C6-N6	5.89	122.13	118.60
2	A8	1321	A	C4-N9-C1'	5.89	136.90	126.30
2	A8	1465	G	C5'-C4'-C3'	5.89	125.42	116.00
2	A8	1588	G	O4'-C1'-N9	5.89	112.91	108.20
2	A8	2016	U	O4'-C1'-N1	5.89	112.91	108.20
2	A8	2469	A	P-O5'-C5'	-5.89	111.48	120.90
2	A8	2585	U	O4'-C1'-N1	5.89	112.91	108.20
2	A8	2620	C	O4'-C1'-C2'	5.89	112.90	107.60
2	A8	2869	G	N1-C6-O6	5.89	123.43	119.90
36	BA	336	A	C4-C5-C6	5.89	119.94	117.00
36	BA	1457	G	C4-C5-C6	5.89	122.33	118.80
1	A7	106	G	C8-N9-C4	-5.88	104.05	106.40
2	A8	870	U	O4'-C1'-N1	5.88	112.91	108.20
2	A8	1098	A	C5'-C4'-C3'	5.88	125.41	116.00
2	A8	1312	U	P-O5'-C5'	5.88	130.31	120.90
2	A8	1792	G	N3-C2-N2	5.88	124.02	119.90
2	A8	2196	C	C5'-C4'-C3'	-5.88	106.58	116.00
2	A8	2764	A	C5'-C4'-C3'	-5.88	106.58	116.00
36	BA	111	G	C8-N9-C1'	5.88	134.65	127.00
36	BA	148	G	C5-C6-O6	-5.88	125.07	128.60
36	BA	246	A	C4-C5-C6	5.88	119.94	117.00
36	BA	1054	C	N3-C4-C5	-5.88	119.55	121.90
36	BA	1111	A	C5-C6-N1	-5.88	114.76	117.70
36	BA	1404	C	C5'-C4'-C3'	-5.88	106.58	116.00
2	A8	728	G	C6-C5-N7	-5.88	126.87	130.40
2	A8	2186	G	C5'-C4'-O4'	5.88	116.16	109.10
36	BA	61	G	C8-N9-C1'	5.88	134.65	127.00
36	BA	299	G	N3-C2-N2	5.88	124.02	119.90
36	BA	830	G	C8-N9-C1'	5.88	134.65	127.00
36	BA	906	A	C5'-C4'-O4'	-5.88	102.04	109.10
1	A7	102	G	O4'-C1'-N9	5.88	112.90	108.20
2	A8	1632	A	C5-C6-N6	-5.88	118.99	123.70
2	A8	1961	C	C5'-C4'-C3'	-5.88	106.59	116.00
2	A8	2712	C	N3-C4-C5	-5.88	119.55	121.90
36	BA	78	A	C4-C5-C6	5.88	119.94	117.00
36	BA	152	A	O5'-C5'-C4'	-5.88	100.53	111.70
36	BA	998	C	N3-C4-N4	5.88	122.12	118.00
36	BA	1400	C	O4'-C1'-N1	5.88	112.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	943	A	C5-C6-N6	-5.88	119.00	123.70
2	A8	1068	G	P-O3'-C3'	5.88	126.76	119.70
2	A8	86	G	C5-C6-O6	-5.88	125.07	128.60
2	A8	172	A	C5'-C4'-C3'	-5.88	106.59	116.00
2	A8	624	C	C3'-C2'-C1'	-5.88	96.80	101.50
2	A8	1541	C	O4'-C4'-C3'	-5.88	98.12	104.00
2	A8	1903	G	C8-N9-C1'	5.88	134.64	127.00
36	BA	728	A	C5'-C4'-O4'	5.88	116.15	109.10
36	BA	1217	C	N3-C4-N4	5.88	122.11	118.00
36	BA	1458	G	O4'-C1'-N9	5.88	112.90	108.20
2	A8	874	G	N3-C2-N2	5.88	124.01	119.90
2	A8	1066	U	C6-N1-C1'	5.88	129.43	121.20
2	A8	1285	A	O4'-C1'-N9	5.88	112.90	108.20
2	A8	1366	A	C5-C6-N1	-5.88	114.76	117.70
2	A8	1798	U	O4'-C1'-N1	5.88	112.90	108.20
2	A8	1850	G	C5'-C4'-C3'	-5.88	106.60	116.00
2	A8	1916	A	C5-C6-N6	-5.88	119.00	123.70
36	BA	588	G	C6-C5-N7	-5.88	126.87	130.40
36	BA	620	C	N3-C4-C5	-5.88	119.55	121.90
36	BA	1110	A	C5-C6-N6	-5.88	119.00	123.70
36	BA	1323	G	N1-C6-O6	5.88	123.43	119.90
2	A8	2095	A	C4-C5-C6	5.88	119.94	117.00
6	A5	180	PHE	CB-CG-CD1	-5.88	116.69	120.80
36	BA	440	C	N3-C4-N4	5.88	122.11	118.00
36	BA	924	C	C5-C4-N4	-5.88	116.09	120.20
1	A7	13	G	P-O3'-C3'	-5.87	112.65	119.70
1	A7	15	A	C5-C6-N1	-5.87	114.76	117.70
2	A8	418	C	O4'-C1'-N1	5.87	112.90	108.20
2	A8	492	A	O4'-C1'-N9	5.87	112.90	108.20
2	A8	1563	U	O4'-C1'-N1	5.87	112.90	108.20
2	A8	1634	A	C5-C6-N6	-5.87	119.00	123.70
2	A8	1653	G	C5'-C4'-C3'	-5.87	106.60	116.00
2	A8	2498	C	P-O3'-C3'	-5.87	112.65	119.70
2	A8	2515	C	N3-C4-N4	5.87	122.11	118.00
2	A8	2877	G	O4'-C1'-N9	5.87	112.90	108.20
23	AS	65	ASP	N-CA-CB	5.87	121.17	110.60
36	BA	414	A	C5-C6-N6	-5.87	119.00	123.70
36	BA	1304	G	O4'-C1'-N9	5.87	112.90	108.20
36	BA	1327	C	N3-C4-N4	5.87	122.11	118.00
1	A7	72	G	O4'-C1'-N9	5.87	112.90	108.20
1	A7	88	C	C5'-C4'-O4'	5.87	116.15	109.10
2	A8	108	G	C5-C6-O6	-5.87	125.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	415	A	C3'-C2'-C1'	-5.87	96.80	101.50
2	A8	1470	A	C6-C5-N7	-5.87	128.19	132.30
2	A8	1472	C	N3-C4-N4	5.87	122.11	118.00
36	BA	339	C	C6-N1-C2	-5.87	117.95	120.30
36	BA	389	A	C4-C5-C6	5.87	119.94	117.00
36	BA	511	C	O3'-P-O5'	-5.87	92.84	104.00
36	BA	1092	A	C5-C6-N1	-5.87	114.77	117.70
36	BA	1402	C	N3-C4-N4	5.87	122.11	118.00
36	BA	1531	A	C4-C5-C6	5.87	119.94	117.00
2	A8	2062	A	O4'-C1'-N9	5.87	112.90	108.20
2	A8	2423	U	P-O5'-C5'	-5.87	111.51	120.90
2	A8	2562	U	O5'-C5'-C4'	-5.87	100.55	111.70
2	A8	2663	G	C5'-C4'-C3'	-5.87	106.61	116.00
36	BA	939	G	O4'-C1'-N9	5.87	112.90	108.20
1	A7	24	G	C6-C5-N7	-5.87	126.88	130.40
2	A8	520	G	C5'-C4'-C3'	-5.87	106.61	116.00
2	A8	634	C	N3-C4-N4	5.87	122.11	118.00
2	A8	916	G	C8-N9-C1'	5.87	134.63	127.00
2	A8	1029	A	C8-N9-C4	-5.87	103.45	105.80
2	A8	1309	G	C8-N9-C1'	5.87	134.63	127.00
2	A8	1319	C	C5-C4-N4	-5.87	116.09	120.20
2	A8	1685	C	N3-C4-N4	5.87	122.11	118.00
2	A8	711	G	N3-C2-N2	5.87	124.01	119.90
2	A8	1430	G	C6-C5-N7	-5.87	126.88	130.40
2	A8	1930	G	O4'-C1'-C2'	5.87	112.88	107.60
2	A8	1941	C	O4'-C1'-N1	5.87	112.89	108.20
2	A8	342	A	C4-C5-C6	5.87	119.93	117.00
2	A8	364	C	N3-C4-N4	5.87	122.11	118.00
2	A8	962	G	O4'-C1'-N9	5.87	112.89	108.20
36	BA	107	G	P-O3'-C3'	5.87	126.74	119.70
2	A8	349	U	P-O3'-C3'	5.86	126.74	119.70
2	A8	1295	C	C3'-C2'-C1'	-5.86	96.81	101.50
2	A8	2483	C	C5'-C4'-C3'	-5.86	106.62	116.00
2	A8	2776	A	C5-C6-N1	-5.86	114.77	117.70
2	A8	2828	G	P-O5'-C5'	-5.86	111.52	120.90
36	BA	143	A	C5-C6-N6	-5.86	119.01	123.70
36	BA	242	G	O4'-C1'-N9	5.86	112.89	108.20
36	BA	547	A	C5-C6-N6	-5.86	119.01	123.70
36	BA	1016	A	C5-C6-N6	-5.86	119.01	123.70
2	A8	719	C	N3-C4-C5	-5.86	119.56	121.90
2	A8	1615	C	O4'-C1'-N1	5.86	112.89	108.20
2	A8	2791	G	P-O5'-C5'	-5.86	111.52	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2826	A	P-O3'-C3'	-5.86	112.67	119.70
36	BA	1044	A	C4-C5-C6	5.86	119.93	117.00
2	A8	156	A	C3'-C2'-C1'	-5.86	96.81	101.50
2	A8	168	G	C5-C6-O6	-5.86	125.08	128.60
2	A8	324	A	O4'-C1'-N9	5.86	112.89	108.20
2	A8	1612	C	C6-N1-C1'	5.86	127.83	120.80
2	A8	1921	G	C3'-C2'-C1'	-5.86	96.81	101.50
2	A8	1949	G	C8-N9-C1'	5.86	134.62	127.00
36	BA	511	C	N3-C4-N4	5.86	122.10	118.00
36	BA	860	A	C5-C6-N1	-5.86	114.77	117.70
36	BA	906	A	C8-N9-C1'	5.86	138.25	127.70
36	BA	1158	C	N1-C2-N3	5.86	123.30	119.20
36	BA	1461	G	C4-N9-C1'	-5.86	118.88	126.50
36	BA	1469	C	C5'-C4'-C3'	-5.86	106.62	116.00
2	A8	523	C	C2-N3-C4	5.86	122.83	119.90
2	A8	1934	C	C5'-C4'-C3'	-5.86	106.63	116.00
2	A8	2722	G	C5-C6-O6	-5.86	125.08	128.60
36	BA	425	G	C8-N9-C4	-5.86	104.06	106.40
36	BA	881	G	N1-C6-O6	5.86	123.42	119.90
2	A8	260	G	C8-N9-C1'	5.86	134.62	127.00
2	A8	331	C	O4'-C1'-N1	5.86	112.89	108.20
2	A8	1500	G	C8-N9-C1'	5.86	134.62	127.00
2	A8	1841	U	O4'-C1'-N1	5.86	112.89	108.20
2	A8	2602	A	C5-C6-N6	-5.86	119.01	123.70
2	A8	2862	G	C8-N9-C1'	5.86	134.61	127.00
36	BA	877	G	N1-C2-N3	-5.86	120.39	123.90
36	BA	1220	G	N1-C2-N3	-5.86	120.39	123.90
2	A8	74	A	C5-C6-N6	-5.86	119.02	123.70
2	A8	131	A	N9-C1'-C2'	-5.86	105.56	112.00
2	A8	150	U	O4'-C1'-N1	5.86	112.89	108.20
2	A8	735	A	C5-C6-N6	-5.86	119.02	123.70
2	A8	867	C	N3-C4-N4	5.86	122.10	118.00
2	A8	1643	G	C4-N9-C1'	-5.86	118.89	126.50
2	A8	1816	C	C2-N1-C1'	5.86	125.24	118.80
2	A8	1920	C	N3-C4-C5	-5.86	119.56	121.90
2	A8	1955	U	O4'-C1'-N1	5.86	112.88	108.20
2	A8	2342	C	N3-C4-C5	-5.86	119.56	121.90
2	A8	2644	G	C8-N9-C1'	5.86	134.61	127.00
2	A8	2800	A	P-O3'-C3'	-5.86	112.67	119.70
2	A8	2816	G	N1-C2-N3	-5.86	120.39	123.90
36	BA	182	A	C5'-C4'-C3'	-5.86	106.63	116.00
36	BA	829	G	O4'-C1'-N9	5.86	112.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1256	A	C4-C5-C6	5.86	119.93	117.00
36	BA	1448	C	P-O3'-C3'	-5.86	112.67	119.70
41	BF	34	GLY	N-CA-C	-5.86	98.46	113.10
2	A8	42	A	N9-C1'-C2'	-5.85	105.56	112.00
2	A8	2310	C	N3-C4-N4	5.85	122.10	118.00
2	A8	2811	G	N9-C1'-C2'	-5.85	105.56	112.00
2	A8	2813	A	C5'-C4'-O4'	5.85	116.12	109.10
36	BA	787	A	C5-C6-N1	-5.85	114.77	117.70
2	A8	1552	A	O4'-C4'-C3'	-5.85	98.15	104.00
2	A8	1757	A	C5-C6-N6	-5.85	119.02	123.70
36	BA	996	A	C5-C6-N6	-5.85	119.02	123.70
2	A8	2375	G	C4-N9-C1'	-5.85	118.89	126.50
36	BA	73	C	C6-N1-C2	-5.85	117.96	120.30
36	BA	445	G	C8-N9-C1'	5.85	134.61	127.00
36	BA	543	U	O4'-C1'-N1	5.85	112.88	108.20
36	BA	1243	C	O4'-C1'-N1	5.85	112.88	108.20
36	BA	1289	A	C5-C6-N6	-5.85	119.02	123.70
2	A8	463	G	P-O3'-C3'	-5.85	112.68	119.70
2	A8	582	A	C8-N9-C4	-5.85	103.46	105.80
2	A8	670	A	C4-C5-C6	5.85	119.92	117.00
2	A8	1739	A	C5-C6-N1	-5.85	114.78	117.70
2	A8	2208	C	N3-C4-N4	5.85	122.09	118.00
2	A8	2440	C	C4'-C3'-C2'	-5.85	96.75	102.60
2	A8	2723	C	C6-N1-C2	-5.85	117.96	120.30
2	A8	2750	A	O4'-C1'-N9	5.85	112.88	108.20
3	AA	375	TYR	CB-CG-CD2	5.85	124.51	121.00
36	BA	570	G	C5-C6-O6	-5.85	125.09	128.60
36	BA	784	A	C5-C6-N6	-5.85	119.02	123.70
36	BA	1217	C	N3-C4-C5	-5.85	119.56	121.90
1	A7	29	A	C5-C6-N1	-5.85	114.78	117.70
2	A8	54	G	C8-N9-C1'	5.85	134.60	127.00
2	A8	535	G	O4'-C4'-C3'	-5.85	98.15	104.00
2	A8	543	G	C1'-O4'-C4'	-5.85	105.22	109.90
2	A8	1044	C	N3-C4-N4	5.85	122.09	118.00
2	A8	1125	G	O4'-C1'-N9	5.85	112.88	108.20
2	A8	1406	U	P-O3'-C3'	-5.85	112.68	119.70
2	A8	1591	A	C4-C5-C6	5.85	119.92	117.00
2	A8	1627	G	C6-C5-N7	-5.85	126.89	130.40
2	A8	2222	C	C6-N1-C2	-5.85	117.96	120.30
36	BA	28	A	C4-N9-C1'	-5.85	115.77	126.30
36	BA	324	G	C5-C6-N1	-5.85	108.58	111.50
36	BA	778	G	C8-N9-C4	-5.85	104.06	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1054	C	C5'-C4'-C3'	-5.85	106.64	116.00
2	A8	1891	G	C8-N9-C4	-5.85	104.06	106.40
36	BA	361	G	C8-N9-C1'	5.85	134.60	127.00
36	BA	411	A	C5-C6-N1	-5.85	114.78	117.70
36	BA	1331	G	P-O3'-C3'	-5.85	112.69	119.70
36	BA	1453	G	C8-N9-C4	-5.85	104.06	106.40
2	A8	259	G	C3'-C2'-C1'	-5.84	96.83	101.50
2	A8	1162	G	N3-C2-N2	5.84	123.99	119.90
2	A8	1230	A	O4'-C1'-N9	5.84	112.88	108.20
2	A8	1304	A	C5-C6-N1	-5.84	114.78	117.70
2	A8	1866	A	C5'-C4'-C3'	-5.84	106.65	116.00
36	BA	58	C	C2-N1-C1'	-5.84	112.37	118.80
36	BA	1323	G	C5-C6-O6	-5.84	125.09	128.60
2	A8	1383	A	C4-C5-C6	5.84	119.92	117.00
2	A8	2298	A	C6-C5-N7	-5.84	128.21	132.30
36	BA	1077	G	C8-N9-C1'	5.84	134.59	127.00
36	BA	1377	A	O4'-C1'-N9	5.84	112.87	108.20
1	A7	51	G	N1-C6-O6	5.84	123.41	119.90
2	A8	883	G	C5'-C4'-O4'	5.84	116.11	109.10
2	A8	1310	G	N3-C2-N2	5.84	123.99	119.90
2	A8	1372	U	O4'-C1'-N1	5.84	112.87	108.20
2	A8	1614	A	C4-C5-C6	5.84	119.92	117.00
2	A8	2049	G	C5-C6-O6	-5.84	125.10	128.60
2	A8	2246	G	P-O5'-C5'	5.84	130.25	120.90
2	A8	2285	C	N3-C4-C5	-5.84	119.56	121.90
17	AM	114	ARG	NE-CZ-NH2	5.84	123.22	120.30
36	BA	141	G	C4-N9-C1'	-5.84	118.91	126.50
36	BA	419	C	C6-N1-C2	-5.84	117.96	120.30
36	BA	1534	A	C4-C5-C6	5.84	119.92	117.00
2	A8	428	A	C5-C6-N6	-5.84	119.03	123.70
2	A8	954	G	O4'-C4'-C3'	-5.84	98.16	104.00
2	A8	1350	C	P-O3'-C3'	-5.84	112.69	119.70
2	A8	1436	G	N3-C2-N2	5.84	123.99	119.90
2	A8	1608	A	C4-C5-C6	5.84	119.92	117.00
2	A8	2064	C	N3-C4-C5	-5.84	119.56	121.90
2	A8	2603	G	C1'-O4'-C4'	-5.84	105.23	109.90
2	A8	2836	U	C2-N1-C1'	-5.84	110.69	117.70
36	BA	562	U	O4'-C1'-N1	5.84	112.87	108.20
36	BA	1306	A	C6-C5-N7	-5.84	128.21	132.30
1	A7	69	G	C8-N9-C4	-5.84	104.06	106.40
2	A8	784	G	O4'-C1'-N9	5.84	112.87	108.20
2	A8	1229	C	C5'-C4'-C3'	-5.84	106.66	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1311	G	N3-C2-N2	5.84	123.99	119.90
2	A8	2470	G	C5'-C4'-O4'	5.84	116.11	109.10
36	BA	303	A	C5-C6-N6	-5.84	119.03	123.70
2	A8	584	C	C3'-C2'-C1'	-5.84	96.83	101.50
2	A8	604	G	P-O3'-C3'	-5.84	112.70	119.70
2	A8	1399	C	N3-C4-C5	-5.84	119.57	121.90
2	A8	1770	G	O4'-C1'-N9	5.84	112.87	108.20
2	A8	2157	G	C1'-O4'-C4'	-5.84	105.23	109.90
2	A8	2176	A	C8-N9-C4	-5.84	103.47	105.80
2	A8	2670	A	O4'-C1'-N9	5.84	112.87	108.20
36	BA	78	A	C5'-C4'-C3'	-5.84	106.66	116.00
36	BA	286	C	C5'-C4'-C3'	-5.84	106.66	116.00
36	BA	430	A	C8-N9-C4	-5.84	103.47	105.80
1	A7	29	A	C8-N9-C4	-5.83	103.47	105.80
2	A8	272	A	C4-C5-C6	5.83	119.92	117.00
2	A8	2277	G	C5-C6-O6	-5.83	125.10	128.60
2	A8	2498	C	N3-C4-C5	-5.83	119.57	121.90
36	BA	326	G	P-O3'-C3'	5.83	126.70	119.70
36	BA	984	C	N3-C4-N4	5.83	122.08	118.00
2	A8	897	C	P-O3'-C3'	-5.83	112.70	119.70
2	A8	1651	G	C4'-C3'-C2'	5.83	108.43	102.60
2	A8	2352	A	O4'-C1'-N9	5.83	112.87	108.20
2	A8	2466	C	C3'-C2'-C1'	-5.83	96.83	101.50
2	A8	2478	A	C5'-C4'-O4'	5.83	116.10	109.10
19	AO	9	ARG	NE-CZ-NH1	5.83	123.22	120.30
24	AT	61	LEU	N-CA-CB	5.83	122.07	110.40
36	BA	245	U	C2-N1-C1'	-5.83	110.70	117.70
36	BA	954	G	P-O5'-C5'	-5.83	111.57	120.90
36	BA	987	G	C8-N9-C1'	5.83	134.58	127.00
2	A8	437	U	C5'-C4'-C3'	-5.83	106.67	116.00
2	A8	508	A	C5-C6-N6	-5.83	119.03	123.70
2	A8	1028	A	C6-C5-N7	-5.83	128.22	132.30
2	A8	1525	A	C5-C6-N6	-5.83	119.03	123.70
2	A8	1760	C	O4'-C1'-N1	5.83	112.86	108.20
2	A8	2272	U	P-O5'-C5'	5.83	130.23	120.90
2	A8	2369	A	C4-C5-C6	5.83	119.92	117.00
2	A8	2587	A	C5-C6-N1	-5.83	114.78	117.70
36	BA	858	G	C6-C5-N7	-5.83	126.90	130.40
2	A8	1870	C	C6-N1-C2	-5.83	117.97	120.30
2	A8	2724	U	C5'-C4'-O4'	5.83	116.10	109.10
36	BA	946	A	C4-C5-C6	5.83	119.92	117.00
2	A8	31	C	N3-C4-C5	-5.83	119.57	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	605	G	C5-C6-O6	-5.83	125.10	128.60
2	A8	861	A	C5'-C4'-C3'	-5.83	106.67	116.00
2	A8	2260	C	O4'-C1'-N1	5.83	112.86	108.20
36	BA	1045	C	N3-C4-N4	5.83	122.08	118.00
36	BA	1068	G	C6-C5-N7	-5.83	126.90	130.40
36	BA	1162	C	O4'-C1'-N1	5.83	112.86	108.20
36	BA	90	C	N3-C4-C5	-5.83	119.57	121.90
36	BA	384	G	O4'-C1'-N9	5.83	112.86	108.20
36	BA	640	A	C4-C5-C6	5.83	119.91	117.00
2	A8	1807	G	C8-N9-C1'	5.83	134.57	127.00
2	A8	2096	C	N3-C4-N4	5.83	122.08	118.00
36	BA	195	A	C4-C5-C6	5.83	119.91	117.00
36	BA	319	G	O4'-C1'-N9	5.83	112.86	108.20
36	BA	490	C	N3-C4-N4	5.83	122.08	118.00
36	BA	1173	U	C3'-C2'-C1'	-5.83	96.84	101.50
1	A7	12	C	N3-C4-C5	-5.82	119.57	121.90
2	A8	290	U	P-O5'-C5'	5.82	130.22	120.90
2	A8	1109	C	O4'-C1'-N1	5.82	112.86	108.20
2	A8	1501	G	C2-N3-C4	5.82	114.81	111.90
2	A8	1762	A	O4'-C1'-N9	5.82	112.86	108.20
2	A8	2023	C	N1-C1'-C2'	-5.82	105.59	112.00
2	A8	2100	G	C5-C6-O6	-5.82	125.11	128.60
2	A8	2154	A	C4-C5-C6	5.82	119.91	117.00
2	A8	2485	G	N3-C2-N2	5.82	123.98	119.90
36	BA	163	C	N3-C4-C5	-5.82	119.57	121.90
36	BA	189	A	C4-C5-C6	5.82	119.91	117.00
36	BA	932	C	N3-C4-C5	-5.82	119.57	121.90
36	BA	1039	G	O4'-C1'-N9	5.82	112.86	108.20
36	BA	1286	U	C5'-C4'-O4'	5.82	116.09	109.10
2	A8	382	A	C5-C6-N6	-5.82	119.04	123.70
2	A8	586	A	C6-C5-N7	-5.82	128.22	132.30
2	A8	1613	G	C5'-C4'-C3'	-5.82	106.69	116.00
2	A8	2020	A	C5-C6-N6	-5.82	119.04	123.70
2	A8	919	U	C2-N3-C4	-5.82	123.51	127.00
2	A8	983	A	C4-C5-C6	5.82	119.91	117.00
2	A8	1870	C	C5'-C4'-C3'	-5.82	106.69	116.00
2	A8	1948	G	C3'-C2'-C1'	-5.82	96.84	101.50
2	A8	2008	C	C1'-O4'-C4'	-5.82	105.24	109.90
36	BA	471	U	C3'-C2'-C1'	-5.82	96.84	101.50
36	BA	1249	C	C5'-C4'-O4'	5.82	116.08	109.10
36	BA	1479	C	C2-N3-C4	5.82	122.81	119.90
36	BA	1508	A	C5-C6-N6	-5.82	119.04	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1164	C	N3-C4-N4	5.82	122.07	118.00
2	A8	2288	A	C5-C6-N1	-5.82	114.79	117.70
36	BA	534	U	O4'-C4'-C3'	-5.82	98.18	104.00
1	A7	13	G	N1-C2-N3	-5.82	120.41	123.90
1	A7	19	C	C3'-C2'-C1'	-5.82	96.85	101.50
2	A8	423	A	C5-C6-N1	-5.82	114.79	117.70
2	A8	481	G	C5-C6-O6	-5.82	125.11	128.60
2	A8	1570	A	C5-C6-N6	-5.82	119.05	123.70
2	A8	2146	C	N3-C4-N4	5.82	122.07	118.00
2	A8	2378	A	C5-C6-N1	-5.82	114.79	117.70
2	A8	2488	G	C5'-C4'-C3'	5.82	125.31	116.00
36	BA	324	G	C6-C5-N7	-5.82	126.91	130.40
36	BA	1036	A	C4-C5-C6	5.82	119.91	117.00
2	A8	279	A	C6-C5-N7	-5.82	128.23	132.30
2	A8	649	G	N1-C6-O6	5.82	123.39	119.90
2	A8	927	A	C5-C6-N6	-5.82	119.05	123.70
2	A8	1041	G	C8-N9-C1'	5.82	134.56	127.00
2	A8	1211	C	O4'-C1'-N1	5.82	112.85	108.20
2	A8	2205	A	O4'-C1'-N9	5.82	112.85	108.20
2	A8	2214	C	N3-C4-N4	5.82	122.07	118.00
36	BA	8	A	C5-C6-N1	-5.82	114.79	117.70
36	BA	759	A	O5'-P-OP2	-5.82	100.47	105.70
36	BA	942	G	N3-C2-N2	5.82	123.97	119.90
2	A8	432	A	C4-C5-C6	5.81	119.91	117.00
2	A8	1035	U	C3'-C2'-C1'	-5.81	96.85	101.50
2	A8	1625	C	C5-C6-N1	5.81	123.91	121.00
2	A8	1667	G	O4'-C1'-N9	5.81	112.85	108.20
36	BA	877	G	C5-C6-O6	-5.81	125.11	128.60
36	BA	1175	G	C8-N9-C1'	5.81	134.56	127.00
2	A8	38	A	C4-C5-C6	5.81	119.91	117.00
2	A8	374	A	C4-C5-C6	5.81	119.91	117.00
2	A8	504	A	C5-C6-N6	-5.81	119.05	123.70
2	A8	708	G	C5'-C4'-C3'	-5.81	106.70	116.00
2	A8	1028	A	C4-C5-C6	5.81	119.91	117.00
2	A8	1400	U	O4'-C1'-N1	5.81	112.85	108.20
2	A8	1821	A	P-O3'-C3'	-5.81	112.73	119.70
2	A8	2063	C	C5'-C4'-C3'	5.81	125.30	116.00
2	A8	2150	C	C5'-C4'-O4'	5.81	116.08	109.10
2	A8	2747	G	C1'-O4'-C4'	-5.81	105.25	109.90
18	AN	112	TYR	CB-CG-CD1	5.81	124.49	121.00
36	BA	16	A	O4'-C1'-N9	5.81	112.85	108.20
36	BA	483	C	N3-C4-C5	-5.81	119.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	728	A	C4-C5-C6	5.81	119.91	117.00
36	BA	968	A	C5-C6-N6	-5.81	119.05	123.70
36	BA	1048	G	O4'-C1'-N9	5.81	112.85	108.20
1	A7	52	A	C4-C5-C6	5.81	119.91	117.00
2	A8	365	U	C5'-C4'-C3'	-5.81	106.70	116.00
2	A8	1641	A	C6-C5-N7	-5.81	128.23	132.30
2	A8	1695	G	N3-C4-C5	-5.81	125.69	128.60
36	BA	609	A	C4-C5-C6	5.81	119.91	117.00
2	A8	205	G	C5-C6-O6	-5.81	125.11	128.60
2	A8	587	C	C2-N1-C1'	5.81	125.19	118.80
2	A8	914	G	C6-C5-N7	-5.81	126.92	130.40
2	A8	1456	G	O4'-C1'-N9	5.81	112.85	108.20
2	A8	1556	C	C6-N1-C1'	5.81	127.77	120.80
36	BA	964	A	C4-C5-C6	5.81	119.91	117.00
36	BA	1009	U	P-O5'-C5'	-5.81	111.60	120.90
36	BA	1012	A	P-O3'-C3'	-5.81	112.73	119.70
36	BA	1147	C	C6-N1-C2	-5.81	117.98	120.30
2	A8	174	U	C5'-C4'-O4'	5.81	116.07	109.10
2	A8	469	G	C6-C5-N7	-5.81	126.92	130.40
2	A8	1904	G	C1'-O4'-C4'	-5.81	105.25	109.90
2	A8	2040	G	C3'-C2'-C1'	-5.81	96.85	101.50
8	AD	134	HIS	N-CA-CB	5.81	121.06	110.60
36	BA	513	C	C5'-C4'-C3'	-5.81	106.71	116.00
36	BA	724	G	O4'-C1'-N9	5.81	112.85	108.20
36	BA	908	A	C4-C5-C6	5.81	119.90	117.00
36	BA	920	U	O4'-C1'-N1	5.81	112.85	108.20
36	BA	1198	G	C5-C6-O6	-5.81	125.12	128.60
36	BA	1204	A	C4-C5-C6	5.81	119.90	117.00
36	BA	1287	A	O4'-C1'-N9	5.81	112.85	108.20
36	BA	1515	G	C8-N9-C1'	5.81	134.55	127.00
2	A8	496	G	C5'-C4'-C3'	-5.81	106.71	116.00
2	A8	882	G	O4'-C1'-N9	5.81	112.84	108.20
2	A8	1913	A	C5-C6-N1	-5.81	114.80	117.70
36	BA	389	A	C8-N9-C4	-5.81	103.48	105.80
36	BA	872	A	P-O5'-C5'	5.81	130.19	120.90
36	BA	1299	A	N9-C4-C5	5.81	108.12	105.80
2	A8	92	U	O4'-C1'-N1	5.80	112.84	108.20
2	A8	457	A	P-O3'-C3'	5.80	126.67	119.70
2	A8	495	G	C5-C6-O6	-5.80	125.12	128.60
2	A8	530	G	C5-C6-O6	-5.80	125.12	128.60
2	A8	1127	A	C4-C5-C6	5.80	119.90	117.00
2	A8	1243	C	C6-N1-C2	-5.80	117.98	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1826	G	N3-C2-N2	5.80	123.96	119.90
2	A8	1906	G	C5-C6-O6	-5.80	125.12	128.60
2	A8	1938	A	C5-C6-N6	-5.80	119.06	123.70
2	A8	2040	G	O4'-C1'-N9	5.80	112.84	108.20
2	A8	2200	C	C2-N1-C1'	-5.80	112.41	118.80
36	BA	319	G	P-O3'-C3'	-5.80	112.73	119.70
36	BA	1045	C	N3-C4-C5	-5.80	119.58	121.90
36	BA	1469	C	C3'-C2'-C1'	-5.80	96.86	101.50
2	A8	5	A	O4'-C1'-N9	5.80	112.84	108.20
2	A8	2453	A	C5-C6-N6	-5.80	119.06	123.70
2	A8	2749	A	C5-C6-N1	-5.80	114.80	117.70
36	BA	465	A	C5-C6-N1	-5.80	114.80	117.70
36	BA	665	A	P-O5'-C5'	-5.80	111.61	120.90
1	A7	76	G	C5'-C4'-O4'	5.80	116.06	109.10
2	A8	1810	A	C5'-C4'-O4'	5.80	116.06	109.10
2	A8	1853	A	O4'-C1'-N9	5.80	112.84	108.20
2	A8	2089	C	C5'-C4'-C3'	-5.80	106.72	116.00
2	A8	2131	U	O4'-C4'-C3'	-5.80	98.20	104.00
2	A8	2339	C	N3-C4-C5	-5.80	119.58	121.90
2	A8	2841	C	C6-N1-C2	-5.80	117.98	120.30
2	A8	2879	A	C4-C5-C6	5.80	119.90	117.00
36	BA	383	A	O4'-C1'-N9	5.80	112.84	108.20
36	BA	895	G	C8-N9-C1'	5.80	134.54	127.00
2	A8	756	A	C4-C5-C6	5.80	119.90	117.00
2	A8	1373	A	C5-C6-N1	-5.80	114.80	117.70
2	A8	1570	A	O4'-C1'-N9	5.80	112.84	108.20
2	A8	1646	C	N3-C4-C5	-5.80	119.58	121.90
2	A8	2261	C	P-O3'-C3'	-5.80	112.74	119.70
2	A8	2264	C	P-O5'-C5'	-5.80	111.62	120.90
2	A8	2503	A	C5-C6-N1	-5.80	114.80	117.70
36	BA	268	U	C1'-O4'-C4'	-5.80	105.26	109.90
36	BA	513	C	O4'-C1'-N1	5.80	112.84	108.20
36	BA	1334	G	C5'-C4'-O4'	5.80	116.06	109.10
2	A8	134	G	C5-C6-O6	-5.80	125.12	128.60
2	A8	733	G	O4'-C1'-N9	5.80	112.84	108.20
2	A8	2031	A	C4-C5-C6	5.80	119.90	117.00
2	A8	2326	C	O4'-C1'-N1	5.80	112.84	108.20
36	BA	365	U	P-O3'-C3'	-5.80	112.74	119.70
36	BA	1137	C	C2-N1-C1'	5.80	125.18	118.80
1	A7	65	U	C5-C6-N1	5.80	125.60	122.70
2	A8	107	G	O4'-C1'-N9	5.80	112.84	108.20
2	A8	992	C	N3-C4-C5	-5.80	119.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1485	U	C5'-C4'-C3'	-5.80	106.72	116.00
2	A8	2427	C	O4'-C1'-N1	5.80	112.84	108.20
2	A8	2864	G	C4-N9-C1'	-5.80	118.96	126.50
36	BA	222	C	C5-C6-N1	5.80	123.90	121.00
36	BA	281	G	O4'-C1'-N9	5.80	112.84	108.20
36	BA	464	U	N3-C4-O4	5.80	123.46	119.40
36	BA	623	C	C6-N1-C2	-5.80	117.98	120.30
36	BA	758	C	N3-C4-C5	-5.80	119.58	121.90
36	BA	759	A	N1-C6-N6	5.80	122.08	118.60
36	BA	769	G	N1-C6-O6	5.80	123.38	119.90
36	BA	824	G	C8-N9-C1'	5.80	134.53	127.00
36	BA	1477	U	O4'-C1'-N1	5.80	112.84	108.20
2	A8	2541	A	O4'-C1'-N9	5.79	112.84	108.20
36	BA	126	G	C4-N9-C1'	-5.79	118.97	126.50
36	BA	381	C	N3-C4-C5	-5.79	119.58	121.90
36	BA	1263	C	C5'-C4'-C3'	-5.79	106.73	116.00
1	A7	60	C	C5-C4-N4	-5.79	116.14	120.20
2	A8	630	G	C5'-C4'-C3'	5.79	125.27	116.00
2	A8	1076	C	N3-C4-C5	-5.79	119.58	121.90
2	A8	1241	A	O4'-C4'-C3'	-5.79	98.21	104.00
2	A8	1317	G	C8-N9-C1'	5.79	134.53	127.00
2	A8	2211	A	C4-C5-C6	5.79	119.90	117.00
2	A8	2313	C	N3-C4-C5	-5.79	119.58	121.90
2	A8	2510	C	P-O5'-C5'	-5.79	111.63	120.90
10	AF	41	GLU	N-CA-CB	5.79	121.03	110.60
36	BA	633	G	C4-C5-C6	5.79	122.28	118.80
36	BA	724	G	N3-C2-N2	5.79	123.95	119.90
2	A8	286	U	C1'-O4'-C4'	-5.79	105.27	109.90
2	A8	525	U	O4'-C1'-N1	5.79	112.83	108.20
2	A8	612	G	P-O5'-C5'	-5.79	111.63	120.90
2	A8	632	A	C4-C5-C6	5.79	119.90	117.00
2	A8	651	G	N3-C2-N2	5.79	123.95	119.90
2	A8	655	A	C5-C6-N1	-5.79	114.81	117.70
2	A8	1834	U	C5'-C4'-C3'	5.79	125.27	116.00
2	A8	2748	A	P-O3'-C3'	-5.79	112.75	119.70
2	A8	2856	A	O4'-C1'-N9	5.79	112.83	108.20
36	BA	634	C	C3'-C2'-C1'	-5.79	96.87	101.50
36	BA	928	G	C4-N9-C1'	-5.79	118.97	126.50
36	BA	833	G	C5-C6-O6	-5.79	125.13	128.60
36	BA	851	G	C3'-C2'-C1'	-5.79	96.87	101.50
1	A7	81	G	N3-C2-N2	5.79	123.95	119.90
2	A8	750	A	C5-C6-N1	-5.79	114.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1549	A	C4-C5-C6	5.79	119.89	117.00
2	A8	1792	G	N1-C2-N3	-5.79	120.43	123.90
2	A8	1921	G	C5-C6-O6	-5.79	125.13	128.60
36	BA	371	A	C5-C6-N6	-5.79	119.07	123.70
36	BA	564	C	P-O3'-C3'	-5.79	112.75	119.70
36	BA	864	A	C4-C5-C6	5.79	119.89	117.00
36	BA	1347	G	C4'-C3'-C2'	-5.79	96.81	102.60
36	BA	1454	G	C8-N9-C1'	5.79	134.52	127.00
36	BA	1513	A	P-O3'-C3'	-5.79	112.75	119.70
2	A8	543	G	O4'-C1'-N9	5.79	112.83	108.20
2	A8	562	U	O4'-C4'-C3'	-5.79	98.21	104.00
2	A8	1561	C	C5-C6-N1	5.79	123.89	121.00
2	A8	2290	G	C5-C6-O6	-5.79	125.13	128.60
36	BA	168	G	N9-C1'-C2'	-5.79	105.63	112.00
36	BA	970	C	N3-C4-N4	5.79	122.05	118.00
52	BQ	16	MET	CG-SD-CE	-5.79	90.94	100.20
2	A8	68	G	C8-N9-C1'	5.79	134.52	127.00
2	A8	532	A	C4-C5-C6	5.79	119.89	117.00
2	A8	546	U	C6-N1-C1'	-5.79	113.10	121.20
2	A8	692	C	N3-C4-N4	5.79	122.05	118.00
2	A8	1039	A	C5-C6-N1	-5.79	114.81	117.70
2	A8	1501	G	N1-C2-N3	-5.79	120.43	123.90
2	A8	1836	C	O4'-C1'-N1	5.79	112.83	108.20
2	A8	1973	G	C3'-C2'-C1'	-5.79	96.87	101.50
2	A8	2733	A	C4-C5-C6	5.79	119.89	117.00
2	A8	529	A	C4-C5-C6	5.78	119.89	117.00
2	A8	742	A	P-O3'-C3'	-5.78	112.76	119.70
2	A8	768	G	O4'-C1'-N9	5.78	112.83	108.20
2	A8	910	A	C4-C5-C6	5.78	119.89	117.00
2	A8	1385	A	C5'-C4'-C3'	-5.78	106.75	116.00
2	A8	1496	A	C5-C6-N1	-5.78	114.81	117.70
2	A8	1843	C	C6-N1-C2	-5.78	117.99	120.30
2	A8	2468	A	P-O3'-C3'	-5.78	112.76	119.70
36	BA	212	G	C6-C5-N7	-5.78	126.93	130.40
36	BA	532	A	C4-C5-C6	5.78	119.89	117.00
36	BA	694	A	C4-C5-C6	5.78	119.89	117.00
36	BA	857	C	C2-N1-C1'	-5.78	112.44	118.80
36	BA	1186	G	O4'-C1'-N9	5.78	112.83	108.20
2	A8	384	A	C5-C6-N1	-5.78	114.81	117.70
2	A8	791	C	N3-C4-C5	-5.78	119.59	121.90
2	A8	2679	A	C4-C5-C6	5.78	119.89	117.00
2	A8	2694	G	O4'-C1'-N9	5.78	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1492	A	P-O5'-C5'	5.78	130.15	120.90
2	A8	274	C	O4'-C4'-C3'	-5.78	98.22	104.00
2	A8	495	G	O4'-C1'-N9	5.78	112.82	108.20
2	A8	1105	U	P-O3'-C3'	5.78	126.64	119.70
2	A8	1146	C	C1'-O4'-C4'	-5.78	105.28	109.90
2	A8	1261	C	O4'-C4'-C3'	-5.78	98.22	104.00
2	A8	1430	G	N3-C2-N2	5.78	123.95	119.90
2	A8	2107	G	N3-C2-N2	5.78	123.95	119.90
2	A8	2725	A	C6-C5-N7	-5.78	128.25	132.30
2	A8	2823	A	C5-C6-N6	-5.78	119.08	123.70
36	BA	762	U	C5'-C4'-C3'	-5.78	106.75	116.00
36	BA	832	G	O4'-C1'-N9	5.78	112.82	108.20
36	BA	892	A	C3'-C2'-C1'	-5.78	96.88	101.50
36	BA	1179	A	C4-C5-C6	5.78	119.89	117.00
36	BA	1454	G	C4-N9-C1'	-5.78	118.98	126.50
36	BA	1494	G	O4'-C1'-N9	5.78	112.83	108.20
2	A8	406	G	C8-N9-C1'	5.78	134.51	127.00
2	A8	2543	G	C8-N9-C4	-5.78	104.09	106.40
36	BA	738	C	C5'-C4'-C3'	-5.78	106.75	116.00
2	A8	609	A	C5-C6-N1	-5.78	114.81	117.70
2	A8	770	G	C8-N9-C1'	5.78	134.51	127.00
2	A8	1571	A	C5-C6-N6	-5.78	119.08	123.70
2	A8	1916	A	O4'-C1'-N9	5.78	112.82	108.20
2	A8	2284	A	C3'-C2'-C1'	-5.78	96.88	101.50
2	A8	2319	G	P-O3'-C3'	-5.78	112.77	119.70
36	BA	1365	G	O4'-C1'-N9	5.78	112.82	108.20
36	BA	1528	U	P-O3'-C3'	-5.78	112.77	119.70
1	A7	6	G	C5'-C4'-C3'	5.78	125.24	116.00
1	A7	46	A	C4-C5-C6	5.78	119.89	117.00
2	A8	161	A	C6-C5-N7	-5.78	128.26	132.30
2	A8	173	A	O4'-C1'-N9	5.78	112.82	108.20
2	A8	513	A	C4-C5-C6	5.78	119.89	117.00
2	A8	1167	C	N3-C4-C5	-5.78	119.59	121.90
2	A8	1612	C	C2-N1-C1'	-5.78	112.45	118.80
2	A8	1644	C	C6-N1-C2	-5.78	117.99	120.30
2	A8	1732	C	N3-C4-C5	-5.78	119.59	121.90
36	BA	258	G	C6-C5-N7	-5.78	126.94	130.40
36	BA	297	G	O4'-C1'-N9	5.78	112.82	108.20
36	BA	383	A	C5'-C4'-O4'	5.78	116.03	109.10
36	BA	959	A	C4-C5-C6	5.78	119.89	117.00
2	A8	366	C	C2-N1-C1'	-5.77	112.45	118.80
2	A8	1418	G	C3'-C2'-C1'	-5.77	96.88	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	129	A	C4-C5-C6	5.77	119.89	117.00
36	BA	331	G	N7-C8-N9	5.77	115.99	113.10
36	BA	499	A	C5-C6-N1	-5.77	114.81	117.70
2	A8	431	U	O4'-C1'-N1	5.77	112.82	108.20
2	A8	503	A	C5'-C4'-C3'	5.77	125.23	116.00
2	A8	1767	G	N3-C2-N2	5.77	123.94	119.90
2	A8	1908	C	O4'-C1'-N1	5.77	112.82	108.20
36	BA	749	A	C5-C6-N1	-5.77	114.81	117.70
2	A8	256	A	C4-C5-C6	5.77	119.89	117.00
2	A8	1067	A	C4-C5-C6	5.77	119.89	117.00
2	A8	1185	G	C5'-C4'-C3'	-5.77	106.77	116.00
2	A8	1778	U	O4'-C1'-N1	5.77	112.82	108.20
2	A8	2678	C	C1'-O4'-C4'	-5.77	105.28	109.90
22	AR	83	TYR	CB-CG-CD1	-5.77	117.54	121.00
2	A8	411	G	N3-C2-N2	5.77	123.94	119.90
2	A8	738	G	N1-C6-O6	5.77	123.36	119.90
2	A8	1232	G	C5-C6-O6	-5.77	125.14	128.60
2	A8	1575	C	O4'-C1'-N1	5.77	112.82	108.20
2	A8	1638	C	C5'-C4'-C3'	-5.77	106.77	116.00
2	A8	1640	A	O3'-P-O5'	-5.77	93.04	104.00
36	BA	465	A	P-O3'-C3'	5.77	126.62	119.70
36	BA	575	G	C8-N9-C1'	5.77	134.50	127.00
36	BA	781	A	C5-C6-N1	-5.77	114.81	117.70
36	BA	816	A	P-O3'-C3'	5.77	126.62	119.70
36	BA	914	A	C5-C6-N1	-5.77	114.81	117.70
2	A8	967	U	O4'-C1'-C2'	5.77	112.79	107.60
2	A8	2102	G	N9-C1'-C2'	-5.77	105.66	112.00
2	A8	2718	G	C4-N9-C1'	-5.77	119.00	126.50
36	BA	183	C	C6-N1-C1'	-5.77	113.88	120.80
36	BA	290	C	N3-C4-C5	-5.77	119.59	121.90
36	BA	616	G	C5-C6-O6	-5.77	125.14	128.60
36	BA	1132	C	O4'-C1'-N1	5.77	112.81	108.20
2	A8	241	A	P-O3'-C3'	5.77	126.62	119.70
2	A8	736	C	N3-C4-C5	-5.77	119.59	121.90
2	A8	883	G	O4'-C1'-N9	5.77	112.81	108.20
2	A8	909	A	C6-C5-N7	-5.77	128.26	132.30
2	A8	1197	G	N3-C2-N2	5.77	123.94	119.90
2	A8	1514	G	C4-N9-C1'	-5.77	119.00	126.50
2	A8	1814	G	O4'-C1'-N9	5.77	112.81	108.20
2	A8	1854	A	N9-C1'-C2'	-5.77	105.66	112.00
2	A8	1997	C	O4'-C1'-N1	5.77	112.81	108.20
2	A8	2326	C	O3'-P-O5'	5.77	114.95	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	532	A	C5-C6-N6	-5.77	119.09	123.70
1	A7	39	A	C5'-C4'-C3'	-5.76	106.78	116.00
2	A8	503	A	C4-C5-C6	5.76	119.88	117.00
2	A8	802	A	C4-C5-C6	5.76	119.88	117.00
2	A8	908	C	N3-C4-C5	-5.76	119.59	121.90
2	A8	1923	U	C5'-C4'-C3'	-5.76	106.78	116.00
2	A8	2080	A	C5-C6-N6	-5.76	119.09	123.70
2	A8	2527	C	N3-C4-N4	5.76	122.03	118.00
2	A8	2614	A	O4'-C1'-N9	5.76	112.81	108.20
36	BA	775	G	C3'-C2'-C1'	-5.76	96.89	101.50
36	BA	844	G	O4'-C1'-N9	5.76	112.81	108.20
36	BA	1000	A	C4-C5-C6	5.76	119.88	117.00
2	A8	274	C	C6-N1-C1'	5.76	127.72	120.80
2	A8	423	A	C4-C5-C6	5.76	119.88	117.00
2	A8	787	C	N3-C4-N4	5.76	122.03	118.00
2	A8	1670	C	N3-C4-N4	5.76	122.03	118.00
2	A8	1990	C	C4'-C3'-C2'	-5.76	96.84	102.60
2	A8	2883	A	P-O3'-C3'	-5.76	112.78	119.70
36	BA	540	G	C5-C6-O6	-5.76	125.14	128.60
36	BA	607	A	C5-C6-N1	-5.76	114.82	117.70
2	A8	343	C	C5'-C4'-O4'	5.76	116.02	109.10
2	A8	673	C	P-O3'-C3'	-5.76	112.79	119.70
2	A8	696	G	C5'-C4'-C3'	-5.76	106.78	116.00
2	A8	1036	G	C8-N9-C4	-5.76	104.09	106.40
2	A8	1123	C	P-O5'-C5'	5.76	130.12	120.90
2	A8	2006	C	N3-C4-N4	5.76	122.03	118.00
36	BA	1412	C	C3'-C2'-C1'	-5.76	96.89	101.50
36	BA	1422	G	C4-N9-C1'	-5.76	119.01	126.50
36	BA	1462	C	C2-N3-C4	5.76	122.78	119.90
36	BA	1480	A	P-O5'-C5'	5.76	130.12	120.90
1	A7	111	U	C1'-O4'-C4'	-5.76	105.29	109.90
2	A8	858	G	N3-C2-N2	5.76	123.93	119.90
2	A8	896	A	C5-C6-N1	-5.76	114.82	117.70
2	A8	1982	U	O3'-P-O5'	-5.76	93.06	104.00
2	A8	2025	C	N3-C4-C5	-5.76	119.60	121.90
2	A8	2054	A	C4-C5-C6	5.76	119.88	117.00
2	A8	2083	G	P-O5'-C5'	5.76	130.12	120.90
2	A8	2715	C	P-O5'-C5'	5.76	130.12	120.90
36	BA	303	A	C4-C5-C6	5.76	119.88	117.00
36	BA	918	A	O4'-C1'-N9	5.76	112.81	108.20
36	BA	1011	C	N3-C4-N4	5.76	122.03	118.00
36	BA	1399	C	C3'-C2'-C1'	-5.76	96.89	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1468	A	O4'-C1'-N9	5.76	112.81	108.20
2	A8	171	U	C3'-C2'-C1'	-5.76	96.89	101.50
2	A8	491	G	N1-C6-O6	5.76	123.36	119.90
2	A8	690	G	C8-N9-C1'	5.76	134.49	127.00
36	BA	742	G	C8-N9-C4	-5.76	104.10	106.40
1	A7	61	G	C5-C6-O6	-5.76	125.15	128.60
2	A8	157	C	C5-C4-N4	-5.76	116.17	120.20
2	A8	357	C	P-O5'-C5'	5.76	130.11	120.90
2	A8	1286	A	C4-C5-C6	5.76	119.88	117.00
2	A8	1410	G	C5-C6-O6	-5.76	125.15	128.60
2	A8	1794	A	O4'-C1'-N9	5.76	112.81	108.20
2	A8	1938	A	C4-C5-C6	5.76	119.88	117.00
2	A8	2314	A	C5-C6-N6	-5.76	119.09	123.70
36	BA	120	A	P-O3'-C3'	-5.76	112.79	119.70
36	BA	360	G	N3-C2-N2	5.76	123.93	119.90
36	BA	720	C	N3-C4-N4	5.76	122.03	118.00
36	BA	780	A	C4-C5-C6	5.76	119.88	117.00
36	BA	877	G	C2-N3-C4	5.76	114.78	111.90
36	BA	1195	C	N3-C4-C5	-5.76	119.60	121.90
2	A8	295	G	C5'-C4'-C3'	-5.75	106.79	116.00
2	A8	645	C	C3'-C2'-C1'	5.75	106.10	101.50
2	A8	1566	A	C5-C6-N1	-5.75	114.82	117.70
2	A8	2093	G	P-O5'-C5'	-5.75	111.69	120.90
2	A8	326	G	C5-C6-O6	-5.75	125.15	128.60
2	A8	412	A	O4'-C1'-N9	5.75	112.80	108.20
2	A8	487	C	N3-C4-C5	-5.75	119.60	121.90
2	A8	687	C	C5-C6-N1	5.75	123.88	121.00
2	A8	877	A	C8-N9-C4	-5.75	103.50	105.80
2	A8	1076	C	C6-N1-C2	-5.75	118.00	120.30
2	A8	2303	G	P-O3'-C3'	-5.75	112.80	119.70
2	A8	2589	A	C4-N9-C1'	-5.75	115.94	126.30
2	A8	2846	G	C8-N9-C4	-5.75	104.10	106.40
1	A7	96	G	N3-C2-N2	5.75	123.93	119.90
2	A8	1028	A	P-O3'-C3'	-5.75	112.80	119.70
2	A8	1040	A	C4-N9-C1'	-5.75	115.95	126.30
2	A8	1295	C	C2-N1-C1'	-5.75	112.47	118.80
2	A8	1506	U	C5'-C4'-C3'	-5.75	106.80	116.00
2	A8	1846	G	C8-N9-C4	-5.75	104.10	106.40
36	BA	637	C	N3-C4-N4	5.75	122.03	118.00
36	BA	699	C	C1'-O4'-C4'	-5.75	105.30	109.90
36	BA	941	G	O4'-C1'-N9	5.75	112.80	108.20
36	BA	1439	G	C8-N9-C1'	5.75	134.48	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1501	G	C5'-C4'-C3'	-5.75	106.80	116.00
2	A8	1532	A	C5-C6-N1	-5.75	114.83	117.70
2	A8	1811	G	N1-C6-O6	5.75	123.35	119.90
36	BA	631	C	N3-C4-N4	5.75	122.03	118.00
36	BA	1292	G	O4'-C1'-N9	5.75	112.80	108.20
2	A8	1527	G	P-O3'-C3'	5.75	126.60	119.70
2	A8	2501	C	P-O5'-C5'	-5.75	111.70	120.90
2	A8	2847	U	P-O5'-C5'	-5.75	111.70	120.90
2	A8	2876	G	O4'-C1'-N9	5.75	112.80	108.20
8	AD	125	TRP	CB-CG-CD2	-5.75	119.13	126.60
36	BA	816	A	N1-C2-N3	5.75	132.18	129.30
36	BA	1399	C	P-O5'-C5'	5.75	130.10	120.90
36	BA	1480	A	O4'-C1'-N9	5.75	112.80	108.20
36	BA	1504	G	C5-C6-O6	-5.75	125.15	128.60
2	A8	23	G	C5-C6-O6	-5.75	125.15	128.60
2	A8	363	G	C5'-C4'-C3'	-5.75	106.80	116.00
2	A8	496	G	C6-C5-N7	-5.75	126.95	130.40
2	A8	859	G	C4'-C3'-C2'	-5.75	96.85	102.60
2	A8	1187	G	C4-N9-C1'	-5.75	119.03	126.50
2	A8	1566	A	C5-C6-N6	-5.75	119.10	123.70
2	A8	2471	A	C3'-C2'-C1'	5.75	106.10	101.50
2	A8	2702	G	O4'-C1'-N9	5.75	112.80	108.20
36	BA	167	A	C1'-O4'-C4'	-5.75	105.30	109.90
36	BA	388	G	O4'-C1'-N9	5.75	112.80	108.20
36	BA	1395	C	C5'-C4'-C3'	-5.75	106.81	116.00
2	A8	1014	A	C5'-C4'-C3'	-5.75	106.81	116.00
2	A8	1030	C	N3-C4-N4	5.75	122.02	118.00
2	A8	1250	G	N3-C2-N2	5.75	123.92	119.90
2	A8	1680	U	C3'-C2'-C1'	-5.75	96.90	101.50
1	A7	32	U	P-O5'-C5'	-5.74	111.71	120.90
2	A8	11	C	N3-C4-C5	-5.74	119.60	121.90
2	A8	430	A	C4-C5-C6	5.74	119.87	117.00
2	A8	580	U	O4'-C1'-N1	5.74	112.80	108.20
2	A8	880	G	C5'-C4'-O4'	5.74	115.99	109.10
2	A8	1299	G	O4'-C1'-N9	5.74	112.80	108.20
2	A8	1339	G	C5'-C4'-C3'	5.74	125.19	116.00
2	A8	1444	G	C8-N9-C4	-5.74	104.10	106.40
2	A8	1599	U	O4'-C1'-N1	5.74	112.80	108.20
2	A8	1710	G	O4'-C1'-N9	5.74	112.80	108.20
2	A8	1953	A	P-O3'-C3'	-5.74	112.81	119.70
2	A8	2279	G	C5-C6-O6	-5.74	125.15	128.60
36	BA	464	U	C5-C6-N1	5.74	125.57	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	169	G	O4'-C1'-N9	5.74	112.79	108.20
2	A8	291	G	C1'-O4'-C4'	-5.74	105.31	109.90
2	A8	1117	C	O4'-C1'-N1	5.74	112.79	108.20
2	A8	1639	C	O4'-C1'-N1	5.74	112.79	108.20
2	A8	2771	C	C6-N1-C2	-5.74	118.00	120.30
36	BA	445	G	N9-C1'-C2'	-5.74	105.68	112.00
36	BA	1018	G	P-O3'-C3'	-5.74	112.81	119.70
36	BA	1024	G	N3-C2-N2	5.74	123.92	119.90
2	A8	742	A	C4-C5-C6	5.74	119.87	117.00
2	A8	1120	G	C8-N9-C4	-5.74	104.10	106.40
2	A8	1649	G	O4'-C1'-N9	5.74	112.79	108.20
2	A8	2239	G	N1-C6-O6	5.74	123.34	119.90
2	A8	2352	A	C1'-O4'-C4'	-5.74	105.31	109.90
2	A8	2591	C	C1'-O4'-C4'	-5.74	105.31	109.90
36	BA	433	G	C5'-C4'-O4'	5.74	115.99	109.10
36	BA	498	A	C8-N9-C4	-5.74	103.50	105.80
36	BA	550	G	N3-C2-N2	5.74	123.92	119.90
36	BA	614	C	N1-C1'-C2'	-5.74	105.69	112.00
36	BA	1274	A	C5-C6-N6	-5.74	119.11	123.70
36	BA	1400	C	N3-C4-N4	5.74	122.02	118.00
36	BA	1459	G	P-O3'-C3'	-5.74	112.81	119.70
1	A7	47	C	C5-C6-N1	5.74	123.87	121.00
2	A8	847	U	O5'-C5'-C4'	-5.74	100.80	111.70
2	A8	1929	G	C5'-C4'-O4'	5.74	115.99	109.10
2	A8	2200	C	N3-C4-N4	5.74	122.02	118.00
2	A8	2374	C	C5-C6-N1	5.74	123.87	121.00
36	BA	322	C	N3-C4-N4	5.74	122.02	118.00
36	BA	650	G	O3'-P-O5'	-5.74	93.10	104.00
36	BA	832	G	C5'-C4'-O4'	5.74	115.99	109.10
36	BA	1380	U	O4'-C1'-N1	5.74	112.79	108.20
2	A8	2403	C	O4'-C1'-N1	5.74	112.79	108.20
36	BA	7	A	C5-C6-N1	-5.74	114.83	117.70
36	BA	938	A	C5-C6-N1	-5.74	114.83	117.70
2	A8	176	A	C4-C5-C6	5.74	119.87	117.00
2	A8	520	G	O4'-C1'-N9	5.74	112.79	108.20
2	A8	1677	A	C4-C5-C6	5.74	119.87	117.00
2	A8	2019	A	C5-C6-N6	-5.74	119.11	123.70
2	A8	2676	C	C6-N1-C2	-5.74	118.01	120.30
2	A8	2856	A	C4-C5-C6	5.74	119.87	117.00
36	BA	432	A	C8-N9-C4	-5.74	103.51	105.80
36	BA	681	A	C4-C5-C6	5.74	119.87	117.00
36	BA	986	U	P-O3'-C3'	-5.74	112.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1054	C	N3-C4-N4	5.74	122.01	118.00
36	BA	1098	C	C5-C6-N1	5.74	123.87	121.00
36	BA	1481	U	C6-N1-C1'	5.74	129.23	121.20
2	A8	133	U	C5'-C4'-O4'	5.73	115.98	109.10
2	A8	2456	C	C3'-C2'-C1'	-5.73	96.91	101.50
2	A8	2738	A	C3'-C2'-C1'	-5.73	96.91	101.50
13	AI	4	VAL	N-CA-CB	5.73	124.12	111.50
23	AS	89	ALA	N-CA-CB	5.73	118.13	110.10
36	BA	407	U	O4'-C1'-N1	5.73	112.79	108.20
36	BA	1071	C	C5'-C4'-C3'	-5.73	106.83	116.00
2	A8	211	C	P-O3'-C3'	-5.73	112.82	119.70
2	A8	527	C	N3-C4-N4	5.73	122.01	118.00
2	A8	1348	C	N3-C4-N4	5.73	122.01	118.00
2	A8	1385	A	O5'-C5'-C4'	-5.73	100.81	111.70
2	A8	2027	G	C8-N9-C1'	5.73	134.45	127.00
2	A8	2099	U	C2-N3-C4	-5.73	123.56	127.00
2	A8	2201	G	C5-C6-O6	-5.73	125.16	128.60
36	BA	58	C	C6-N1-C1'	5.73	127.68	120.80
36	BA	431	A	P-O5'-C5'	-5.73	111.73	120.90
36	BA	1163	A	C5-C6-N6	-5.73	119.11	123.70
36	BA	1500	A	C4-C5-C6	5.73	119.87	117.00
2	A8	248	G	O4'-C4'-C3'	-5.73	98.27	104.00
2	A8	307	G	C4-N9-C1'	-5.73	119.05	126.50
2	A8	664	G	O4'-C1'-N9	5.73	112.78	108.20
2	A8	742	A	C5'-C4'-O4'	5.73	115.98	109.10
2	A8	1580	A	C8-N9-C4	-5.73	103.51	105.80
2	A8	2448	A	C5-C6-N6	-5.73	119.12	123.70
2	A8	2709	G	O4'-C1'-N9	5.73	112.78	108.20
36	BA	741	G	O4'-C1'-N9	5.73	112.78	108.20
36	BA	985	C	O4'-C1'-N1	5.73	112.78	108.20
36	BA	1205	U	O4'-C1'-N1	5.73	112.78	108.20
1	A7	26	C	N3-C4-N4	5.73	122.01	118.00
2	A8	320	A	C4-C5-C6	5.73	119.86	117.00
2	A8	748	G	P-O5'-C5'	-5.73	111.73	120.90
2	A8	1549	A	O4'-C1'-N9	5.73	112.78	108.20
2	A8	2440	C	O4'-C1'-N1	5.73	112.78	108.20
2	A8	2850	A	C4-C5-C6	5.73	119.86	117.00
36	BA	207	C	N3-C4-C5	-5.73	119.61	121.90
2	A8	196	A	O3'-P-O5'	-5.73	93.12	104.00
2	A8	640	C	C2-N3-C4	5.73	122.76	119.90
2	A8	704	G	N1-C2-N3	-5.73	120.46	123.90
2	A8	1566	A	O4'-C1'-N9	5.73	112.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1704	C	P-O3'-C3'	-5.73	112.83	119.70
2	A8	2083	G	C5-C6-O6	-5.73	125.16	128.60
2	A8	2355	G	N1-C6-O6	5.73	123.34	119.90
2	A8	2865	U	C5'-C4'-C3'	-5.73	106.84	116.00
36	BA	28	A	C5-C6-N1	-5.73	114.84	117.70
36	BA	985	C	N3-C4-N4	5.73	122.01	118.00
36	BA	1270	G	O4'-C1'-N9	5.73	112.78	108.20
36	BA	1288	A	C8-N9-C4	-5.73	103.51	105.80
2	A8	475	C	N3-C4-C5	-5.73	119.61	121.90
2	A8	1038	G	C8-N9-C1'	5.73	134.44	127.00
2	A8	1091	G	O4'-C1'-N9	5.73	112.78	108.20
2	A8	2644	G	C4-N9-C1'	-5.73	119.06	126.50
36	BA	1285	A	C4-C5-C6	5.73	119.86	117.00
55	BT	23	ARG	CB-CA-C	-5.73	98.95	110.40
2	A8	418	C	C5-C6-N1	5.72	123.86	121.00
2	A8	1043	C	N3-C4-N4	5.72	122.01	118.00
2	A8	1570	A	C4-C5-C6	5.72	119.86	117.00
2	A8	1693	U	P-O5'-C5'	-5.72	111.74	120.90
34	A3	29	ARG	NE-CZ-NH2	5.72	123.16	120.30
36	BA	263	A	C5-C6-N1	-5.72	114.84	117.70
36	BA	1141	C	N3-C4-N4	5.72	122.01	118.00
2	A8	772	C	C6-N1-C1'	5.72	127.67	120.80
2	A8	1298	C	N3-C4-N4	5.72	122.00	118.00
2	A8	1320	C	C5'-C4'-C3'	-5.72	106.84	116.00
2	A8	1321	A	C1'-O4'-C4'	-5.72	105.32	109.90
2	A8	1368	G	P-O5'-C5'	-5.72	111.75	120.90
2	A8	2801	G	O4'-C4'-C3'	-5.72	98.28	104.00
36	BA	228	A	C8-N9-C4	-5.72	103.51	105.80
36	BA	836	G	P-O3'-C3'	-5.72	112.83	119.70
36	BA	1219	A	C8-N9-C4	-5.72	103.51	105.80
36	BA	1479	C	C3'-C2'-C1'	-5.72	96.92	101.50
2	A8	89	A	C4'-C3'-C2'	-5.72	96.88	102.60
2	A8	582	A	C4-C5-C6	5.72	119.86	117.00
2	A8	817	C	N3-C4-N4	5.72	122.00	118.00
2	A8	1729	U	C6-N1-C1'	-5.72	113.19	121.20
2	A8	1767	G	C5-C6-O6	-5.72	125.17	128.60
2	A8	2215	C	P-O5'-C5'	5.72	130.05	120.90
2	A8	2658	C	C6-N1-C2	-5.72	118.01	120.30
15	AK	70	ARG	CB-CA-C	5.72	121.84	110.40
36	BA	347	G	C3'-C2'-C1'	-5.72	96.92	101.50
36	BA	535	A	C5-C6-N1	-5.72	114.84	117.70
36	BA	537	G	C4'-C3'-C2'	-5.72	96.88	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	129	C	N3-C4-N4	5.72	122.00	118.00
2	A8	263	G	C6-C5-N7	-5.72	126.97	130.40
2	A8	837	C	N3-C4-N4	5.72	122.00	118.00
2	A8	1036	G	C6-C5-N7	-5.72	126.97	130.40
2	A8	1089	A	C5'-C4'-C3'	-5.72	106.85	116.00
2	A8	1417	C	N3-C4-N4	5.72	122.00	118.00
2	A8	1758	U	C1'-O4'-C4'	-5.72	105.33	109.90
2	A8	2096	C	N3-C4-C5	-5.72	119.61	121.90
36	BA	1098	C	N3-C4-N4	5.72	122.00	118.00
36	BA	1145	A	C5-C6-N6	-5.72	119.12	123.70
2	A8	796	C	N3-C4-N4	5.72	122.00	118.00
2	A8	1554	U	C5'-C4'-O4'	5.72	115.96	109.10
2	A8	2067	G	O3'-P-O5'	5.72	114.86	104.00
2	A8	2633	G	C5-C6-O6	-5.72	125.17	128.60
36	BA	1114	C	N3-C4-C5	-5.72	119.61	121.90
43	BH	96	ALA	N-CA-CB	5.72	118.11	110.10
1	A7	39	A	C5-C6-N6	-5.72	119.13	123.70
2	A8	281	C	N3-C4-N4	5.72	122.00	118.00
2	A8	380	G	N1-C6-O6	5.72	123.33	119.90
2	A8	725	G	C4-N9-C1'	-5.72	119.07	126.50
2	A8	847	U	P-O5'-C5'	-5.72	111.75	120.90
2	A8	890	C	N3-C4-C5	-5.72	119.61	121.90
2	A8	1121	C	N3-C4-C5	-5.72	119.61	121.90
2	A8	1921	G	C5'-C4'-C3'	-5.72	106.85	116.00
2	A8	2167	U	P-O5'-C5'	5.72	130.05	120.90
2	A8	2734	A	C5'-C4'-C3'	-5.72	106.85	116.00
36	BA	419	C	N3-C4-N4	5.72	122.00	118.00
36	BA	781	A	C4-C5-C6	5.72	119.86	117.00
36	BA	1350	A	C5-C6-N6	-5.72	119.13	123.70
1	A7	53	A	C5-C6-N1	-5.71	114.84	117.70
2	A8	72	U	O4'-C1'-C2'	-5.71	100.09	105.80
2	A8	385	C	N3-C4-C5	-5.71	119.61	121.90
2	A8	1309	G	O4'-C1'-N9	5.71	112.77	108.20
2	A8	1389	G	P-O3'-C3'	-5.71	112.84	119.70
2	A8	1451	C	N3-C4-C5	-5.71	119.61	121.90
36	BA	314	C	N3-C4-N4	5.71	122.00	118.00
36	BA	656	G	C8-N9-C4	-5.71	104.11	106.40
36	BA	1415	G	C3'-C2'-C1'	-5.71	96.93	101.50
36	BA	1422	G	N3-C2-N2	5.71	123.90	119.90
1	A7	26	C	O4'-C1'-N1	5.71	112.77	108.20
2	A8	1080	A	C5-C6-N1	-5.71	114.84	117.70
2	A8	1182	G	C4-N9-C1'	-5.71	119.07	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1620	G	O4'-C1'-N9	5.71	112.77	108.20
2	A8	1702	G	C8-N9-C1'	5.71	134.43	127.00
2	A8	1990	C	P-O5'-C5'	-5.71	111.76	120.90
36	BA	1151	A	C5-C6-N1	-5.71	114.84	117.70
1	A7	99	A	C5-C6-N1	-5.71	114.84	117.70
2	A8	699	A	P-O3'-C3'	-5.71	112.84	119.70
2	A8	769	U	C5'-C4'-C3'	-5.71	106.86	116.00
2	A8	982	C	C2-N1-C1'	5.71	125.08	118.80
2	A8	1022	G	N3-C2-N2	5.71	123.90	119.90
2	A8	1367	A	C5-C6-N1	-5.71	114.84	117.70
2	A8	1537	G	O4'-C1'-N9	5.71	112.77	108.20
2	A8	2114	A	C5-C6-N1	-5.71	114.84	117.70
2	A8	2733	A	N9-C1'-C2'	-5.71	105.72	112.00
36	BA	358	U	O4'-C4'-C3'	-5.71	98.29	104.00
36	BA	889	A	C4-C5-C6	5.71	119.86	117.00
1	A7	20	G	C5'-C4'-C3'	-5.71	106.86	116.00
2	A8	834	G	C5'-C4'-C3'	-5.71	106.86	116.00
2	A8	1706	C	O3'-P-O5'	5.71	114.85	104.00
2	A8	2010	G	O4'-C1'-N9	5.71	112.77	108.20
15	AK	69	ARG	N-CA-CB	5.71	120.88	110.60
18	AN	73	ASN	CB-CA-C	-5.71	98.98	110.40
36	BA	6	G	O4'-C1'-N9	5.71	112.77	108.20
36	BA	1021	A	C4-C5-C6	5.71	119.86	117.00
36	BA	1363	A	C4-C5-C6	5.71	119.86	117.00
2	A8	651	G	C5'-C4'-C3'	-5.71	106.87	116.00
2	A8	1276	A	C4-C5-C6	5.71	119.85	117.00
2	A8	1616	A	P-O3'-C3'	-5.71	112.85	119.70
2	A8	2136	G	N3-C2-N2	5.71	123.89	119.90
36	BA	105	G	C5-C6-O6	-5.71	125.17	128.60
36	BA	1453	G	P-O3'-C3'	-5.71	112.85	119.70
2	A8	167	A	C6-C5-N7	-5.71	128.31	132.30
2	A8	241	A	C4-C5-C6	5.71	119.85	117.00
2	A8	531	C	C5'-C4'-C3'	-5.71	106.87	116.00
2	A8	733	G	C5'-C4'-C3'	-5.71	106.87	116.00
2	A8	1253	A	P-O3'-C3'	5.71	126.55	119.70
2	A8	1726	C	C1'-O4'-C4'	-5.71	105.33	109.90
2	A8	1815	A	P-O3'-C3'	-5.71	112.85	119.70
2	A8	2001	C	O4'-C1'-N1	5.71	112.77	108.20
9	AE	199	MET	CB-CA-C	-5.71	98.99	110.40
36	BA	188	C	N3-C4-C5	-5.71	119.62	121.90
36	BA	207	C	O4'-C1'-N1	5.71	112.77	108.20
36	BA	449	G	C4-C5-C6	5.71	122.22	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	849	G	N3-C2-N2	5.71	123.89	119.90
36	BA	935	A	P-O3'-C3'	-5.71	112.85	119.70
36	BA	1183	U	C6-N1-C1'	-5.71	113.21	121.20
2	A8	477	A	C4-C5-C6	5.71	119.85	117.00
2	A8	1870	C	N3-C4-N4	5.71	121.99	118.00
2	A8	2308	G	O4'-C1'-N9	5.71	112.76	108.20
36	BA	77	A	C5-C6-N1	-5.71	114.85	117.70
36	BA	183	C	O4'-C1'-N1	5.71	112.76	108.20
1	A7	21	G	P-O5'-C5'	-5.70	111.77	120.90
1	A7	41	G	C5'-C4'-O4'	5.70	115.94	109.10
2	A8	324	A	C4-C5-C6	5.70	119.85	117.00
2	A8	550	C	P-O3'-C3'	-5.70	112.86	119.70
2	A8	986	C	C6-N1-C2	-5.70	118.02	120.30
2	A8	1206	G	C4-C5-C6	5.70	122.22	118.80
36	BA	1238	A	C5-C6-N1	-5.70	114.85	117.70
36	BA	1514	G	N3-C2-N2	5.70	123.89	119.90
2	A8	1244	A	O4'-C1'-N9	5.70	112.76	108.20
2	A8	1516	G	C8-N9-C1'	5.70	134.41	127.00
2	A8	2221	G	P-O5'-C5'	-5.70	111.78	120.90
36	BA	413	G	C5-C6-O6	-5.70	125.18	128.60
1	A7	91	C	C2-N3-C4	5.70	122.75	119.90
2	A8	541	A	C5-C6-N1	-5.70	114.85	117.70
2	A8	889	C	N3-C4-C5	-5.70	119.62	121.90
2	A8	895	U	O4'-C1'-N1	5.70	112.76	108.20
2	A8	1219	U	O4'-C1'-N1	5.70	112.76	108.20
2	A8	1322	A	O4'-C1'-N9	5.70	112.76	108.20
2	A8	1986	C	N3-C4-N4	5.70	121.99	118.00
2	A8	2394	C	N3-C4-N4	5.70	121.99	118.00
2	A8	2461	A	C5-C6-N1	-5.70	114.85	117.70
2	A8	2677	G	C1'-O4'-C4'	-5.70	105.34	109.90
36	BA	63	C	N3-C4-C5	-5.70	119.62	121.90
36	BA	708	C	P-O5'-C5'	-5.70	111.78	120.90
2	A8	216	A	C4-C5-C6	5.70	119.85	117.00
2	A8	1104	C	C3'-C2'-C1'	-5.70	96.94	101.50
2	A8	1164	C	O4'-C4'-C3'	-5.70	98.30	104.00
2	A8	1431	A	C5-C6-N6	-5.70	119.14	123.70
2	A8	1695	G	C2-N3-C4	5.70	114.75	111.90
2	A8	1808	A	C4-C5-C6	5.70	119.85	117.00
2	A8	1882	U	C2-N1-C1'	-5.70	110.86	117.70
2	A8	2466	C	C1'-O4'-C4'	-5.70	105.34	109.90
2	A8	2560	A	C8-N9-C1'	5.70	137.96	127.70
2	A8	2589	A	C8-N9-C1'	5.70	137.96	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	48	C	O4'-C1'-N1	5.70	112.76	108.20
36	BA	174	A	C5-C6-N1	-5.70	114.85	117.70
36	BA	268	U	C5'-C4'-O4'	5.70	115.94	109.10
36	BA	554	A	C5-C6-N6	-5.70	119.14	123.70
36	BA	607	A	C5'-C4'-C3'	-5.70	106.88	116.00
36	BA	690	G	C8-N9-C1'	5.70	134.41	127.00
36	BA	861	G	C5'-C4'-O4'	5.70	115.94	109.10
36	BA	1055	A	C5-C6-N1	-5.70	114.85	117.70
36	BA	1227	A	C5-C6-N6	-5.70	119.14	123.70
36	BA	1488	G	C5-C6-O6	-5.70	125.18	128.60
2	A8	23	G	N3-C2-N2	5.70	123.89	119.90
2	A8	1774	C	O4'-C1'-N1	5.70	112.76	108.20
2	A8	2123	G	C8-N9-C4	-5.70	104.12	106.40
36	BA	470	C	N3-C4-C5	-5.70	119.62	121.90
36	BA	831	A	C5-C6-N1	-5.70	114.85	117.70
2	A8	135	U	C6-N1-C1'	5.70	129.17	121.20
2	A8	244	A	P-O5'-C5'	-5.70	111.79	120.90
2	A8	286	U	C5'-C4'-O4'	5.70	115.94	109.10
2	A8	1077	A	C5-C6-N1	-5.70	114.85	117.70
2	A8	1242	U	C6-N1-C2	-5.70	117.58	121.00
2	A8	1393	A	C4-C5-C6	5.70	119.85	117.00
2	A8	1413	A	C5-C6-N6	-5.70	119.14	123.70
2	A8	1970	A	P-O3'-C3'	-5.70	112.87	119.70
2	A8	2128	G	C4'-C3'-C2'	-5.70	96.91	102.60
36	BA	159	G	C8-N9-C1'	5.70	134.40	127.00
2	A8	84	A	C4-C5-C6	5.69	119.85	117.00
2	A8	184	C	O4'-C1'-N1	5.69	112.75	108.20
2	A8	1364	G	P-O3'-C3'	5.69	126.53	119.70
2	A8	1622	G	N9-C1'-C2'	-5.69	105.74	112.00
2	A8	2285	C	O4'-C4'-C3'	-5.69	98.31	104.00
2	A8	2315	G	O4'-C1'-N9	5.69	112.76	108.20
2	A8	2367	G	C8-N9-C4	-5.69	104.12	106.40
2	A8	2828	G	N3-C2-N2	5.69	123.89	119.90
2	A8	738	G	O3'-P-O5'	-5.69	93.19	104.00
2	A8	1104	C	C5'-C4'-C3'	-5.69	106.89	116.00
2	A8	1480	C	N3-C4-N4	5.69	121.98	118.00
2	A8	1610	A	C5-C6-N6	-5.69	119.15	123.70
2	A8	1918	A	N7-C8-N9	5.69	116.65	113.80
7	A6	95	TYR	CA-CB-CG	-5.69	102.58	113.40
36	BA	82	G	O4'-C1'-N9	5.69	112.75	108.20
36	BA	606	G	C6-C5-N7	-5.69	126.98	130.40
36	BA	752	G	C8-N9-C1'	5.69	134.40	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	765	G	N3-C2-N2	5.69	123.89	119.90
36	BA	1043	G	P-O3'-C3'	5.69	126.53	119.70
36	BA	1525	G	C4-N9-C1'	-5.69	119.10	126.50
2	A8	508	A	C5-C6-N1	-5.69	114.86	117.70
2	A8	741	U	C1'-O4'-C4'	-5.69	105.35	109.90
2	A8	964	C	C5-C6-N1	5.69	123.84	121.00
2	A8	1031	G	O4'-C1'-N9	5.69	112.75	108.20
2	A8	2557	G	O4'-C1'-N9	5.69	112.75	108.20
2	A8	2576	G	P-O3'-C3'	-5.69	112.87	119.70
2	A8	2685	G	N3-C2-N2	5.69	123.88	119.90
2	A8	2834	G	P-O3'-C3'	-5.69	112.87	119.70
16	AL	115	GLU	N-CA-CB	5.69	120.84	110.60
22	AR	28	ALA	N-CA-CB	5.69	118.07	110.10
36	BA	19	A	C4-C5-C6	5.69	119.85	117.00
36	BA	294	U	O4'-C1'-N1	5.69	112.75	108.20
36	BA	414	A	C5-C6-N1	-5.69	114.86	117.70
36	BA	925	G	C8-N9-C1'	5.69	134.40	127.00
2	A8	1308	A	C5'-C4'-C3'	-5.69	106.90	116.00
2	A8	1414	C	N3-C4-C5	-5.69	119.62	121.90
2	A8	1659	G	N1-C6-O6	5.69	123.31	119.90
2	A8	2537	U	P-O5'-C5'	5.69	130.00	120.90
2	A8	2755	C	N3-C4-C5	-5.69	119.62	121.90
36	BA	883	C	C3'-C2'-C1'	-5.69	96.95	101.50
36	BA	1044	A	C5'-C4'-C3'	-5.69	106.90	116.00
2	A8	222	A	C4-C5-C6	5.69	119.84	117.00
2	A8	1062	G	N1-C6-O6	5.69	123.31	119.90
2	A8	1505	A	C5-C6-N6	-5.69	119.15	123.70
2	A8	1697	G	N3-C2-N2	5.69	123.88	119.90
2	A8	2495	G	N1-C6-O6	5.69	123.31	119.90
2	A8	2665	A	C4-C5-C6	5.69	119.84	117.00
36	BA	87	C	N3-C4-C5	-5.69	119.62	121.90
36	BA	613	C	C5-C4-N4	-5.69	116.22	120.20
36	BA	680	C	N3-C4-N4	5.69	121.98	118.00
36	BA	1320	C	N3-C4-C5	-5.69	119.62	121.90
36	BA	1345	U	C2-N1-C1'	-5.69	110.88	117.70
36	BA	1413	A	C5'-C4'-C3'	-5.69	106.90	116.00
2	A8	94	A	C5-C6-N1	-5.69	114.86	117.70
2	A8	94	A	C5'-C4'-C3'	-5.69	106.90	116.00
2	A8	2045	C	N3-C4-C5	-5.69	119.63	121.90
2	A8	2381	A	C5-C6-N6	-5.69	119.15	123.70
2	A8	2878	U	C5'-C4'-C3'	-5.69	106.90	116.00
36	BA	12	U	C2-N1-C1'	-5.69	110.88	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	322	A	C5-C6-N1	-5.68	114.86	117.70
2	A8	479	A	O5'-C5'-C4'	-5.68	100.90	111.70
2	A8	733	G	P-O5'-C5'	5.68	130.00	120.90
2	A8	741	U	C2-N3-C4	-5.68	123.59	127.00
2	A8	863	A	C5'-C4'-C3'	-5.68	106.91	116.00
2	A8	1046	A	C4-C5-C6	5.68	119.84	117.00
2	A8	1091	G	O3'-P-O5'	-5.68	93.20	104.00
2	A8	1489	C	P-O3'-C3'	-5.68	112.88	119.70
2	A8	1883	U	O4'-C1'-N1	5.68	112.75	108.20
2	A8	1924	C	C6-N1-C1'	5.68	127.62	120.80
2	A8	2163	A	C5-C6-N1	-5.68	114.86	117.70
2	A8	2169	A	C5-C6-N6	-5.68	119.15	123.70
2	A8	2762	C	N3-C4-N4	5.68	121.98	118.00
36	BA	443	C	N3-C4-N4	5.68	121.98	118.00
36	BA	673	A	O4'-C1'-N9	5.68	112.75	108.20
36	BA	848	C	N1-C1'-C2'	-5.68	105.75	112.00
36	BA	1186	G	C8-N9-C1'	5.68	134.39	127.00
2	A8	952	G	C5-C6-O6	-5.68	125.19	128.60
2	A8	1089	A	C5-C6-N1	-5.68	114.86	117.70
2	A8	1367	A	C5'-C4'-C3'	-5.68	106.91	116.00
2	A8	2374	C	N3-C4-C5	-5.68	119.63	121.90
36	BA	59	A	C4-C5-C6	5.68	119.84	117.00
36	BA	1042	A	C4-C5-C6	5.68	119.84	117.00
36	BA	1191	A	O3'-P-O5'	-5.68	93.20	104.00
2	A8	835	C	N3-C4-C5	-5.68	119.63	121.90
2	A8	2047	C	C2-N3-C4	5.68	122.74	119.90
36	BA	613	C	C5-C6-N1	5.68	123.84	121.00
36	BA	751	U	C2-N1-C1'	-5.68	110.88	117.70
2	A8	419	U	C6-N1-C2	-5.68	117.59	121.00
2	A8	1363	C	C3'-C2'-C1'	-5.68	96.96	101.50
2	A8	1525	A	C5-C6-N1	-5.68	114.86	117.70
36	BA	174	A	O4'-C1'-N9	5.68	112.74	108.20
36	BA	319	G	N9-C1'-C2'	-5.68	105.75	112.00
36	BA	431	A	O4'-C1'-N9	5.68	112.74	108.20
36	BA	903	G	C6-C5-N7	-5.68	126.99	130.40
36	BA	1067	A	C5-C6-N1	-5.68	114.86	117.70
1	A7	24	G	C4-C5-C6	5.68	122.21	118.80
2	A8	1650	A	C5-C6-N1	-5.68	114.86	117.70
2	A8	2781	A	C5'-C4'-C3'	-5.68	106.92	116.00
1	A7	4	C	O4'-C1'-N1	5.68	112.74	108.20
2	A8	426	C	C5-C6-N1	5.68	123.84	121.00
2	A8	886	A	C5-C6-N1	-5.68	114.86	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	936	A	O4'-C1'-N9	5.68	112.74	108.20
2	A8	2491	U	O4'-C1'-N1	5.68	112.74	108.20
36	BA	496	A	C8-N9-C4	-5.68	103.53	105.80
36	BA	1069	C	N3-C4-N4	5.68	121.97	118.00
36	BA	1360	A	C5'-C4'-O4'	5.68	115.91	109.10
49	BN	36	SER	N-CA-C	5.68	126.33	111.00
2	A8	788	A	C5-C6-N6	-5.67	119.16	123.70
2	A8	1229	C	C3'-C2'-C1'	-5.67	96.96	101.50
2	A8	1387	A	C8-N9-C4	-5.67	103.53	105.80
2	A8	1399	C	C2-N3-C4	5.67	122.74	119.90
36	BA	1072	G	P-O5'-C5'	5.67	129.98	120.90
2	A8	1731	G	O4'-C1'-N9	5.67	112.74	108.20
2	A8	2074	U	O4'-C1'-N1	5.67	112.74	108.20
36	BA	1071	C	C1'-O4'-C4'	-5.67	105.36	109.90
36	BA	1193	G	O5'-C5'-C4'	-5.67	100.92	111.70
2	A8	101	A	O4'-C1'-N9	5.67	112.74	108.20
2	A8	793	A	C5-C6-N1	-5.67	114.86	117.70
2	A8	1426	G	N3-C2-N2	5.67	123.87	119.90
2	A8	1727	C	O3'-P-O5'	-5.67	93.22	104.00
2	A8	2070	A	C5-C6-N6	-5.67	119.16	123.70
9	AE	88	ARG	NE-CZ-NH1	-5.67	117.46	120.30
33	A2	22	MET	CB-CA-C	-5.67	99.06	110.40
36	BA	722	G	C8-N9-C4	-5.67	104.13	106.40
36	BA	857	C	C6-N1-C1'	5.67	127.61	120.80
2	A8	750	A	C5-C6-N6	-5.67	119.16	123.70
36	BA	949	A	O4'-C1'-N9	5.67	112.74	108.20
2	A8	687	C	C2-N1-C1'	5.67	125.04	118.80
2	A8	985	C	O3'-P-O5'	5.67	114.77	104.00
2	A8	1534	U	O4'-C1'-N1	5.67	112.73	108.20
36	BA	814	A	P-O5'-C5'	-5.67	111.83	120.90
36	BA	1295	U	C5'-C4'-O4'	5.67	115.90	109.10
36	BA	1329	A	C5-C6-N6	-5.67	119.17	123.70
36	BA	1514	G	C1'-O4'-C4'	-5.67	105.36	109.90
2	A8	212	G	C1'-O4'-C4'	-5.67	105.37	109.90
2	A8	2008	C	C3'-C2'-C1'	-5.67	96.97	101.50
2	A8	2087	G	N3-C2-N2	5.67	123.87	119.90
2	A8	2254	C	C5-C6-N1	5.67	123.83	121.00
2	A8	2681	C	N3-C4-N4	5.67	121.97	118.00
36	BA	268	U	P-O3'-C3'	-5.67	112.90	119.70
36	BA	564	C	N3-C4-C5	-5.67	119.63	121.90
36	BA	1333	A	C5-C6-N1	-5.67	114.87	117.70
56	BU	18	PHE	N-CA-CB	-5.67	100.40	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	982	C	N3-C4-N4	5.67	121.97	118.00
2	A8	2139	U	O4'-C1'-N1	5.67	112.73	108.20
2	A8	2503	A	C4-N9-C1'	5.67	136.50	126.30
36	BA	722	G	C5-C6-O6	-5.67	125.20	128.60
2	A8	718	A	C4-C5-C6	5.66	119.83	117.00
2	A8	950	G	N9-C1'-C2'	-5.66	105.77	112.00
2	A8	1552	A	C4'-C3'-C2'	-5.66	96.94	102.60
2	A8	1595	C	N3-C4-N4	5.66	121.97	118.00
2	A8	1731	G	N1-C6-O6	5.66	123.30	119.90
2	A8	2119	A	C5-C6-N1	-5.66	114.87	117.70
2	A8	2380	C	N3-C4-N4	5.66	121.97	118.00
2	A8	2394	C	C3'-C2'-C1'	5.66	106.03	101.50
2	A8	2526	G	N1-C2-N3	-5.66	120.50	123.90
2	A8	2758	A	C5-C6-N1	-5.66	114.87	117.70
36	BA	59	A	O4'-C1'-N9	5.66	112.73	108.20
36	BA	218	U	O4'-C1'-N1	5.66	112.73	108.20
36	BA	449	G	C5'-C4'-C3'	-5.66	106.94	116.00
36	BA	597	G	C8-N9-C4	-5.66	104.14	106.40
36	BA	879	C	N3-C4-N4	5.66	121.96	118.00
2	A8	2089	C	C6-N1-C1'	5.66	127.59	120.80
36	BA	6	G	N3-C2-N2	5.66	123.86	119.90
36	BA	192	A	C5-C6-N6	-5.66	119.17	123.70
36	BA	830	G	N1-C6-O6	5.66	123.30	119.90
36	BA	933	G	C8-N9-C4	-5.66	104.14	106.40
36	BA	1012	A	C4-C5-C6	5.66	119.83	117.00
1	A7	56	G	N3-C2-N2	5.66	123.86	119.90
2	A8	621	A	C5-C6-N1	-5.66	114.87	117.70
2	A8	1036	G	N3-C2-N2	5.66	123.86	119.90
2	A8	1243	C	P-O3'-C3'	-5.66	112.91	119.70
2	A8	1625	C	N3-C4-C5	-5.66	119.64	121.90
2	A8	1722	A	C6-C5-N7	-5.66	128.34	132.30
2	A8	1935	G	P-O3'-C3'	5.66	126.49	119.70
2	A8	1996	C	O4'-C1'-N1	5.66	112.73	108.20
2	A8	2050	C	O4'-C1'-N1	5.66	112.73	108.20
2	A8	2543	G	O4'-C1'-N9	5.66	112.73	108.20
2	A8	2724	U	C2-N1-C1'	-5.66	110.91	117.70
2	A8	2899	A	C8-N9-C4	-5.66	103.54	105.80
36	BA	277	C	C6-N1-C1'	5.66	127.59	120.80
36	BA	909	A	C5-C6-N1	-5.66	114.87	117.70
36	BA	1332	A	C5'-C4'-C3'	5.66	125.06	116.00
47	BL	53	ARG	NE-CZ-NH1	5.66	123.13	120.30
2	A8	722	A	C8-N9-C4	-5.66	103.54	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1950	G	O4'-C1'-N9	5.66	112.73	108.20
2	A8	2068	U	O4'-C1'-N1	5.66	112.73	108.20
36	BA	576	C	N3-C4-N4	5.66	121.96	118.00
36	BA	773	G	O4'-C1'-N9	5.66	112.73	108.20
36	BA	1167	A	C4-C5-C6	5.66	119.83	117.00
36	BA	1209	C	N3-C4-N4	5.66	121.96	118.00
36	BA	1515	G	C1'-O4'-C4'	-5.66	105.37	109.90
36	BA	1520	C	C5'-C4'-C3'	-5.66	106.95	116.00
39	BD	71	PHE	CB-CG-CD2	5.66	124.76	120.80
1	A7	64	G	C8-N9-C1'	5.66	134.35	127.00
2	A8	1067	A	P-O5'-C5'	-5.66	111.85	120.90
2	A8	1455	G	C6-C5-N7	-5.66	127.01	130.40
2	A8	2332	C	C6-N1-C1'	5.66	127.59	120.80
36	BA	5	U	C3'-C2'-C1'	-5.66	96.97	101.50
36	BA	381	C	C1'-O4'-C4'	-5.66	105.37	109.90
36	BA	536	C	N3-C4-N4	5.66	121.96	118.00
36	BA	1132	C	N3-C4-C5	-5.66	119.64	121.90
1	A7	95	U	C3'-C2'-C1'	-5.66	96.97	101.50
2	A8	1327	A	C5-C6-N6	-5.66	119.18	123.70
2	A8	1946	U	C6-N1-C1'	5.66	129.12	121.20
2	A8	1987	A	C5-C6-N6	-5.66	119.17	123.70
36	BA	357	G	C5-C6-O6	-5.66	125.21	128.60
36	BA	669	G	C8-N9-C1'	5.66	134.35	127.00
36	BA	686	U	C3'-C2'-C1'	-5.66	96.98	101.50
36	BA	829	G	C8-N9-C4	-5.66	104.14	106.40
2	A8	318	C	C6-N1-C2	-5.65	118.04	120.30
2	A8	348	A	C4-C5-C6	5.65	119.83	117.00
2	A8	596	U	O4'-C1'-N1	5.65	112.72	108.20
2	A8	1210	G	P-O3'-C3'	5.65	126.48	119.70
2	A8	1694	C	N3-C4-N4	5.65	121.96	118.00
2	A8	1848	A	C5-C6-N1	-5.65	114.87	117.70
2	A8	2002	G	C1'-O4'-C4'	-5.65	105.38	109.90
36	BA	257	G	C1'-O4'-C4'	-5.65	105.38	109.90
36	BA	1140	C	N3-C4-C5	-5.65	119.64	121.90
1	A7	3	C	N3-C4-N4	5.65	121.96	118.00
1	A7	68	C	N3-C4-C5	-5.65	119.64	121.90
2	A8	1532	A	O5'-C5'-C4'	-5.65	100.96	111.70
2	A8	2652	C	N3-C4-N4	5.65	121.96	118.00
36	BA	280	C	N3-C4-N4	5.65	121.96	118.00
36	BA	574	A	C4-C5-C6	5.65	119.83	117.00
36	BA	810	C	C3'-C2'-C1'	-5.65	96.98	101.50
36	BA	1157	A	P-O3'-C3'	5.65	126.48	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	643	A	O3'-P-O5'	-5.65	93.27	104.00
2	A8	821	A	C5-C6-N6	-5.65	119.18	123.70
2	A8	1987	A	N9-C1'-C2'	-5.65	105.78	112.00
2	A8	2261	C	C6-N1-C2	-5.65	118.04	120.30
2	A8	2307	G	O4'-C1'-N9	5.65	112.72	108.20
36	BA	438	U	C2-N1-C1'	-5.65	110.92	117.70
36	BA	1066	C	O4'-C1'-N1	5.65	112.72	108.20
2	A8	646	U	C5'-C4'-C3'	-5.65	106.96	116.00
2	A8	667	U	C1'-O4'-C4'	-5.65	105.38	109.90
2	A8	1465	G	C4-N9-C1'	-5.65	119.16	126.50
2	A8	1842	G	N3-C2-N2	5.65	123.85	119.90
1	A7	41	G	C1'-O4'-C4'	-5.65	105.38	109.90
2	A8	411	G	P-O3'-C3'	5.65	126.48	119.70
2	A8	693	A	C4-C5-C6	5.65	119.82	117.00
2	A8	931	U	O4'-C1'-N1	5.65	112.72	108.20
2	A8	959	A	C8-N9-C4	-5.65	103.54	105.80
2	A8	1720	U	P-O3'-C3'	-5.65	112.92	119.70
2	A8	1856	U	C2-N1-C1'	-5.65	110.92	117.70
2	A8	1990	C	N3-C4-C5	-5.65	119.64	121.90
2	A8	2306	C	N3-C4-C5	-5.65	119.64	121.90
2	A8	2829	A	C4-C5-C6	5.65	119.82	117.00
36	BA	850	U	C5'-C4'-C3'	-5.65	106.97	116.00
36	BA	1090	U	O4'-C1'-C2'	5.65	112.68	107.60
36	BA	1443	C	N3-C4-N4	5.65	121.95	118.00
1	A7	34	A	C8-N9-C4	-5.65	103.54	105.80
2	A8	309	A	C4-C5-C6	5.65	119.82	117.00
2	A8	1357	C	N3-C4-C5	-5.65	119.64	121.90
2	A8	1890	A	C4-N9-C1'	5.65	136.46	126.30
2	A8	2753	A	C5-C6-N1	-5.65	114.88	117.70
36	BA	632	U	C2-N1-C1'	5.65	124.47	117.70
36	BA	888	G	P-O5'-C5'	-5.65	111.87	120.90
36	BA	1216	A	C4-C5-C6	5.65	119.82	117.00
36	BA	1225	A	C4-C5-C6	5.65	119.82	117.00
2	A8	946	C	N3-C4-N4	5.64	121.95	118.00
2	A8	1166	G	N9-C1'-C2'	-5.64	105.79	112.00
2	A8	1801	A	C4-C5-C6	5.64	119.82	117.00
2	A8	1953	A	C5'-C4'-O4'	5.64	115.87	109.10
2	A8	2014	A	C8-N9-C4	-5.64	103.54	105.80
2	A8	2170	A	O4'-C1'-N9	5.64	112.72	108.20
2	A8	2590	A	O4'-C1'-N9	5.64	112.72	108.20
2	A8	2666	C	N3-C4-C5	-5.64	119.64	121.90
36	BA	251	G	O5'-C5'-C4'	-5.64	100.98	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	718	A	O4'-C1'-N9	5.64	112.72	108.20
36	BA	736	C	N3-C4-C5	-5.64	119.64	121.90
36	BA	857	C	P-O5'-C5'	-5.64	111.87	120.90
1	A7	56	G	O4'-C1'-N9	5.64	112.71	108.20
2	A8	670	A	C5-C6-N6	-5.64	119.19	123.70
2	A8	801	G	O4'-C1'-N9	5.64	112.71	108.20
2	A8	996	A	O4'-C1'-N9	5.64	112.71	108.20
2	A8	1138	G	C8-N9-C4	-5.64	104.14	106.40
2	A8	1878	G	C5-C6-O6	-5.64	125.22	128.60
2	A8	1983	G	C8-N9-C1'	5.64	134.33	127.00
2	A8	2171	A	O4'-C1'-N9	5.64	112.71	108.20
2	A8	2237	G	C5-C6-O6	-5.64	125.22	128.60
2	A8	2613	U	P-O5'-C5'	-5.64	111.87	120.90
36	BA	925	G	C4-N9-C1'	-5.64	119.16	126.50
2	A8	2740	A	C4-C5-C6	5.64	119.82	117.00
36	BA	28	A	C4-C5-C6	5.64	119.82	117.00
36	BA	509	A	C4-C5-C6	5.64	119.82	117.00
2	A8	6	A	C4-C5-C6	5.64	119.82	117.00
2	A8	184	C	N1-C1'-C2'	-5.64	105.80	112.00
2	A8	1241	A	N9-C4-C5	5.64	108.06	105.80
2	A8	1294	U	C3'-C2'-C1'	-5.64	96.99	101.50
2	A8	1790	C	C5-C6-N1	5.64	123.82	121.00
2	A8	2059	A	O4'-C1'-N9	5.64	112.71	108.20
2	A8	2147	A	P-O3'-C3'	5.64	126.47	119.70
2	A8	2220	U	C2-N1-C1'	-5.64	110.93	117.70
2	A8	2326	C	P-O3'-C3'	5.64	126.47	119.70
36	BA	546	A	P-O3'-C3'	5.64	126.47	119.70
36	BA	1268	G	N1-C2-N3	-5.64	120.52	123.90
41	BF	83	ALA	N-CA-CB	5.64	118.00	110.10
1	A7	70	C	N3-C4-N4	5.64	121.95	118.00
1	A7	98	G	C5-C6-O6	-5.64	125.22	128.60
2	A8	334	C	N3-C4-C5	-5.64	119.64	121.90
2	A8	661	A	C4-C5-C6	5.64	119.82	117.00
2	A8	973	A	C5'-C4'-C3'	5.64	125.02	116.00
2	A8	1128	G	P-O3'-C3'	-5.64	112.93	119.70
2	A8	1651	G	C1'-O4'-C4'	-5.64	105.39	109.90
36	BA	1001	C	N3-C4-C5	-5.64	119.64	121.90
1	A7	106	G	C2-N3-C4	5.64	114.72	111.90
2	A8	1973	G	N1-C6-O6	5.64	123.28	119.90
2	A8	2190	G	C1'-O4'-C4'	-5.64	105.39	109.90
2	A8	2304	G	C5-C6-O6	-5.64	125.22	128.60
2	A8	2410	G	C5'-C4'-O4'	5.64	115.86	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2624	G	C5-C6-O6	-5.64	125.22	128.60
2	A8	2726	A	C4-C5-C6	5.64	119.82	117.00
36	BA	240	G	C5'-C4'-C3'	5.64	125.02	116.00
36	BA	325	A	C5-C6-N1	-5.64	114.88	117.70
36	BA	607	A	C4-C5-C6	5.64	119.82	117.00
36	BA	1058	G	N3-C2-N2	5.64	123.85	119.90
36	BA	1468	A	C6-C5-N7	-5.64	128.35	132.30
36	BA	1531	A	C5-C6-N1	-5.64	114.88	117.70
51	BP	38	PHE	CB-CG-CD1	-5.64	116.85	120.80
2	A8	724	U	C2-N1-C1'	-5.63	110.94	117.70
2	A8	863	A	C8-N9-C4	-5.63	103.55	105.80
2	A8	1921	G	C4-N9-C1'	-5.63	119.17	126.50
36	BA	542	G	O4'-C1'-N9	5.63	112.71	108.20
36	BA	792	A	C5-C6-N1	-5.63	114.88	117.70
36	BA	1081	A	N9-C1'-C2'	-5.63	105.80	112.00
36	BA	1168	U	C5'-C4'-O4'	5.63	115.86	109.10
1	A7	20	G	C1'-O4'-C4'	-5.63	105.39	109.90
2	A8	83	A	C5-C6-N1	-5.63	114.88	117.70
2	A8	1115	G	O4'-C1'-N9	5.63	112.71	108.20
2	A8	2525	G	P-O5'-C5'	-5.63	111.89	120.90
2	A8	2537	U	O4'-C1'-N1	5.63	112.71	108.20
2	A8	115	C	C3'-C2'-C1'	-5.63	97.00	101.50
2	A8	879	G	N7-C8-N9	5.63	115.92	113.10
2	A8	1292	G	C4-N9-C1'	-5.63	119.18	126.50
2	A8	1520	U	C5'-C4'-C3'	-5.63	106.99	116.00
2	A8	1528	A	N1-C2-N3	5.63	132.12	129.30
2	A8	1776	G	C5'-C4'-C3'	-5.63	106.99	116.00
36	BA	512	U	C5-C4-O4	-5.63	122.52	125.90
36	BA	649	A	P-O3'-C3'	-5.63	112.94	119.70
36	BA	1111	A	C4-C5-C6	5.63	119.81	117.00
36	BA	1311	A	C4-C5-C6	5.63	119.82	117.00
2	A8	75	G	C5-C6-O6	-5.63	125.22	128.60
2	A8	454	A	C3'-C2'-C1'	-5.63	97.00	101.50
2	A8	1057	A	C8-N9-C4	-5.63	103.55	105.80
2	A8	1622	G	C5'-C4'-O4'	5.63	115.86	109.10
36	BA	244	U	C2-N3-C4	-5.63	123.62	127.00
36	BA	853	C	N3-C4-C5	-5.63	119.65	121.90
36	BA	1173	U	C6-N1-C1'	5.63	129.08	121.20
36	BA	1246	A	O4'-C1'-N9	5.63	112.70	108.20
1	A7	99	A	C6-C5-N7	-5.63	128.36	132.30
2	A8	49	A	P-O5'-C5'	-5.63	111.89	120.90
2	A8	285	G	C6-C5-N7	-5.63	127.02	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2128	G	C5'-C4'-C3'	5.63	125.00	116.00
2	A8	2173	A	C4-C5-C6	5.63	119.81	117.00
17	AM	113	ALA	N-CA-CB	5.63	117.98	110.10
36	BA	1093	A	C5-C6-N1	-5.63	114.89	117.70
48	BM	29	SER	N-CA-CB	5.63	118.94	110.50
2	A8	696	G	N3-C2-N2	5.63	123.84	119.90
2	A8	1067	A	C5-C6-N6	-5.63	119.20	123.70
2	A8	1080	A	C4-C5-C6	5.63	119.81	117.00
2	A8	1590	A	C4-C5-C6	5.63	119.81	117.00
2	A8	2749	A	C5-C6-N6	-5.63	119.20	123.70
36	BA	59	A	C5-C6-N6	-5.63	119.20	123.70
36	BA	253	A	C5'-C4'-C3'	-5.63	107.00	116.00
36	BA	351	G	P-O3'-C3'	5.63	126.45	119.70
36	BA	532	A	C5'-C4'-C3'	-5.63	107.00	116.00
2	A8	248	G	N1-C6-O6	5.62	123.28	119.90
2	A8	391	A	C5-C6-N6	-5.62	119.20	123.70
2	A8	1321	A	C8-N9-C1'	-5.62	117.58	127.70
2	A8	2179	C	N3-C4-N4	5.62	121.94	118.00
2	A8	2612	C	P-O3'-C3'	-5.62	112.95	119.70
36	BA	773	G	C4-N9-C1'	-5.62	119.19	126.50
36	BA	921	U	C2-N1-C1'	-5.62	110.95	117.70
36	BA	924	C	C5-C6-N1	5.62	123.81	121.00
36	BA	1322	C	C2-N1-C1'	5.62	124.99	118.80
2	A8	95	A	C4-C5-C6	5.62	119.81	117.00
2	A8	795	C	N3-C4-N4	5.62	121.94	118.00
2	A8	876	C	C5'-C4'-O4'	5.62	115.85	109.10
2	A8	1178	C	N3-C4-N4	5.62	121.94	118.00
2	A8	1285	A	P-O3'-C3'	5.62	126.45	119.70
2	A8	1551	A	C5-C6-N6	-5.62	119.20	123.70
2	A8	1912	A	C5-C6-N1	-5.62	114.89	117.70
2	A8	2049	G	N1-C6-O6	5.62	123.27	119.90
16	AL	12	SER	N-CA-CB	5.62	118.94	110.50
36	BA	403	C	C6-N1-C1'	5.62	127.55	120.80
36	BA	545	C	N3-C4-N4	5.62	121.94	118.00
2	A8	315	G	O4'-C1'-N9	5.62	112.70	108.20
2	A8	731	C	P-O5'-C5'	-5.62	111.91	120.90
2	A8	1091	G	C4-C5-C6	5.62	122.17	118.80
2	A8	1193	G	O4'-C1'-N9	5.62	112.70	108.20
2	A8	1554	U	C5'-C4'-C3'	-5.62	107.00	116.00
2	A8	1795	C	C5-C6-N1	5.62	123.81	121.00
2	A8	2014	A	P-O3'-C3'	5.62	126.44	119.70
2	A8	2398	U	O4'-C1'-N1	5.62	112.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2416	C	N3-C4-N4	5.62	121.94	118.00
2	A8	2668	G	P-O3'-C3'	-5.62	112.95	119.70
2	A8	2674	G	C5'-C4'-C3'	-5.62	107.00	116.00
36	BA	313	A	C4-C5-C6	5.62	119.81	117.00
36	BA	493	A	C4-C5-C6	5.62	119.81	117.00
36	BA	895	G	O4'-C1'-N9	5.62	112.70	108.20
2	A8	1235	G	C5'-C4'-C3'	-5.62	107.01	116.00
2	A8	2565	A	P-O5'-C5'	-5.62	111.91	120.90
36	BA	336	A	P-O3'-C3'	-5.62	112.96	119.70
36	BA	862	C	N3-C4-N4	5.62	121.93	118.00
36	BA	1113	C	P-O5'-C5'	5.62	129.89	120.90
36	BA	1462	C	C6-N1-C1'	5.62	127.54	120.80
2	A8	149	A	C5-C6-N1	-5.62	114.89	117.70
2	A8	208	C	N3-C4-N4	5.62	121.93	118.00
2	A8	893	C	C5'-C4'-O4'	5.62	115.84	109.10
2	A8	1021	A	C6-C5-N7	-5.62	128.37	132.30
2	A8	1034	G	N3-C2-N2	5.62	123.83	119.90
2	A8	1229	C	C1'-O4'-C4'	-5.62	105.41	109.90
2	A8	1498	C	N3-C4-C5	-5.62	119.65	121.90
2	A8	2171	A	C4-C5-C6	5.62	119.81	117.00
2	A8	2692	G	N3-C2-N2	5.62	123.83	119.90
2	A8	2771	C	N3-C4-N4	5.62	121.93	118.00
18	AN	21	PHE	CB-CG-CD1	5.62	124.73	120.80
36	BA	18	C	N3-C4-C5	-5.62	119.65	121.90
36	BA	184	G	C6-C5-N7	-5.62	127.03	130.40
36	BA	590	U	C4'-C3'-C2'	-5.62	96.98	102.60
36	BA	597	G	C3'-C2'-C1'	-5.62	97.01	101.50
36	BA	1031	C	N3-C4-C5	-5.62	119.65	121.90
36	BA	1267	C	N3-C4-C5	-5.62	119.65	121.90
1	A7	29	A	C6-C5-N7	-5.62	128.37	132.30
2	A8	2414	G	C6-C5-N7	-5.62	127.03	130.40
36	BA	1206	G	C6-C5-N7	-5.62	127.03	130.40
1	A7	11	C	N3-C4-N4	5.62	121.93	118.00
2	A8	109	C	P-O3'-C3'	-5.62	112.96	119.70
2	A8	397	U	P-O5'-C5'	5.62	129.88	120.90
2	A8	949	G	C3'-C2'-C1'	-5.62	97.01	101.50
2	A8	1556	C	C2-N1-C1'	-5.62	112.62	118.80
2	A8	1744	A	C5'-C4'-C3'	-5.62	107.02	116.00
2	A8	1759	A	C5-C6-N1	-5.62	114.89	117.70
2	A8	2097	A	C8-N9-C4	-5.62	103.55	105.80
2	A8	2738	A	C5-C6-N1	-5.62	114.89	117.70
36	BA	268	U	C5-C4-O4	5.62	129.27	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	763	G	C8-N9-C1'	5.62	134.30	127.00
36	BA	775	G	N3-C2-N2	5.62	123.83	119.90
36	BA	1224	U	C5'-C4'-O4'	5.62	115.84	109.10
1	A7	50	A	C4-C5-C6	5.61	119.81	117.00
2	A8	187	G	N7-C8-N9	5.61	115.91	113.10
2	A8	879	G	C4-C5-C6	5.61	122.17	118.80
2	A8	1077	A	C4-C5-C6	5.61	119.81	117.00
2	A8	1149	G	O4'-C1'-N9	5.61	112.69	108.20
2	A8	1241	A	C4-C5-C6	5.61	119.81	117.00
2	A8	1364	G	C6-C5-N7	-5.61	127.03	130.40
2	A8	1638	C	P-O3'-C3'	-5.61	112.96	119.70
2	A8	1750	G	C4-N9-C1'	-5.61	119.20	126.50
2	A8	1791	A	C5'-C4'-C3'	-5.61	107.02	116.00
2	A8	2648	G	N3-C2-N2	5.61	123.83	119.90
18	AN	106	ASP	N-CA-C	-5.61	95.84	111.00
36	BA	1515	G	O4'-C1'-N9	5.61	112.69	108.20
2	A8	1502	A	N9-C1'-C2'	-5.61	105.83	112.00
2	A8	2062	A	C5-C6-N1	-5.61	114.89	117.70
36	BA	77	A	C5'-C4'-O4'	5.61	115.83	109.10
36	BA	279	A	C5-C6-N1	-5.61	114.89	117.70
36	BA	606	G	N3-C2-N2	5.61	123.83	119.90
36	BA	682	G	C8-N9-C1'	5.61	134.29	127.00
36	BA	1332	A	C5-C6-N6	-5.61	119.21	123.70
1	A7	27	C	C5-C6-N1	5.61	123.81	121.00
2	A8	7	G	N3-C2-N2	5.61	123.83	119.90
2	A8	24	G	O4'-C1'-N9	5.61	112.69	108.20
2	A8	684	G	C8-N9-C1'	5.61	134.29	127.00
2	A8	804	A	C4-C5-C6	5.61	119.81	117.00
2	A8	1699	G	O4'-C1'-C2'	-5.61	100.19	105.80
2	A8	1874	C	C5'-C4'-C3'	-5.61	107.02	116.00
2	A8	1953	A	C1'-O4'-C4'	-5.61	105.41	109.90
2	A8	2451	A	O4'-C1'-N9	5.61	112.69	108.20
2	A8	2673	G	C3'-C2'-C1'	-5.61	97.01	101.50
2	A8	2859	G	N1-C2-N3	-5.61	120.53	123.90
36	BA	760	G	C5'-C4'-C3'	-5.61	107.02	116.00
36	BA	826	C	C5'-C4'-O4'	5.61	115.83	109.10
36	BA	1035	A	C5-C6-N6	-5.61	119.21	123.70
36	BA	1069	C	N3-C4-C5	-5.61	119.66	121.90
36	BA	1146	A	C4-C5-C6	5.61	119.81	117.00
48	BM	104	ASN	N-CA-CB	5.61	120.70	110.60
2	A8	973	A	C5-C6-N1	-5.61	114.89	117.70
2	A8	1051	G	C5-C6-O6	-5.61	125.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2218	G	C8-N9-C1'	5.61	134.29	127.00
2	A8	2545	G	C5-C6-O6	-5.61	125.23	128.60
1	A7	2	G	C5'-C4'-C3'	-5.61	107.03	116.00
2	A8	182	A	O4'-C1'-N9	5.61	112.69	108.20
2	A8	910	A	C5-C6-N1	-5.61	114.90	117.70
2	A8	988	A	C5-C6-N6	-5.61	119.21	123.70
2	A8	1420	A	O4'-C1'-N9	5.61	112.69	108.20
2	A8	1954	G	C1'-O4'-C4'	-5.61	105.41	109.90
2	A8	2523	G	N3-C2-N2	5.61	123.83	119.90
2	A8	2673	G	O4'-C1'-N9	5.61	112.69	108.20
2	A8	347	A	N3-C4-C5	-5.61	122.88	126.80
2	A8	466	A	C5-C6-N1	-5.61	114.90	117.70
2	A8	556	A	C4-C5-C6	5.61	119.80	117.00
2	A8	595	C	O4'-C1'-N1	5.61	112.68	108.20
2	A8	2097	A	C4'-C3'-C2'	-5.61	96.99	102.60
36	BA	536	C	N3-C4-C5	-5.61	119.66	121.90
36	BA	1038	C	N3-C4-C5	-5.61	119.66	121.90
36	BA	1318	A	C4-C5-C6	5.61	119.80	117.00
36	BA	1377	A	C4-C5-C6	5.61	119.80	117.00
2	A8	55	G	C5-C6-O6	-5.60	125.24	128.60
2	A8	2727	A	C5-C6-N1	-5.60	114.90	117.70
36	BA	61	G	C5'-C4'-C3'	-5.60	107.03	116.00
2	A8	903	C	C3'-C2'-C1'	-5.60	97.02	101.50
2	A8	910	A	C8-N9-C4	-5.60	103.56	105.80
2	A8	1446	C	C3'-C2'-C1'	-5.60	97.02	101.50
2	A8	1508	A	O4'-C1'-N9	5.60	112.68	108.20
2	A8	2327	A	C4'-C3'-C2'	5.60	108.20	102.60
2	A8	2777	G	C8-N9-C1'	5.60	134.28	127.00
36	BA	337	G	C4-N9-C1'	-5.60	119.22	126.50
36	BA	435	A	C5-C6-N1	-5.60	114.90	117.70
36	BA	669	G	C4-N9-C1'	-5.60	119.22	126.50
36	BA	865	A	C5-N7-C8	5.60	106.70	103.90
36	BA	1343	G	O4'-C1'-N9	5.60	112.68	108.20
36	BA	1350	A	C5-C6-N1	-5.60	114.90	117.70
50	BO	44	GLU	N-CA-CB	5.60	120.69	110.60
1	A7	37	C	N3-C4-C5	-5.60	119.66	121.90
2	A8	831	G	P-O3'-C3'	-5.60	112.98	119.70
2	A8	912	C	P-O5'-C5'	5.60	129.86	120.90
2	A8	1502	A	P-O5'-C5'	-5.60	111.94	120.90
2	A8	2104	C	N3-C4-C5	-5.60	119.66	121.90
36	BA	280	C	N3-C4-C5	-5.60	119.66	121.90
36	BA	1188	A	C4-C5-C6	5.60	119.80	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1244	G	C4'-C3'-C2'	-5.60	97.00	102.60
36	BA	1395	C	N3-C4-C5	-5.60	119.66	121.90
1	A7	88	C	O4'-C4'-C3'	-5.60	98.40	104.00
2	A8	1151	A	C4'-C3'-C2'	-5.60	97.00	102.60
2	A8	1451	C	O4'-C1'-C2'	5.60	112.64	107.60
2	A8	1766	G	C8-N9-C1'	5.60	134.28	127.00
2	A8	2183	A	C4-C5-C6	5.60	119.80	117.00
2	A8	2193	G	C3'-C2'-C1'	-5.60	97.02	101.50
2	A8	2361	G	C5'-C4'-O4'	5.60	115.82	109.10
36	BA	11	G	P-O5'-C5'	5.60	129.86	120.90
36	BA	22	G	C5'-C4'-C3'	5.60	124.96	116.00
36	BA	143	A	C4-C5-C6	5.60	119.80	117.00
36	BA	1226	C	N3-C4-C5	-5.60	119.66	121.90
36	BA	1402	C	N3-C4-C5	-5.60	119.66	121.90
36	BA	1475	G	N1-C6-O6	5.60	123.26	119.90
2	A8	508	A	P-O3'-C3'	5.60	126.42	119.70
2	A8	1215	G	N3-C2-N2	5.60	123.82	119.90
2	A8	1420	A	C5-C6-N6	-5.60	119.22	123.70
2	A8	1741	C	N3-C4-C5	-5.60	119.66	121.90
2	A8	1762	A	C4-C5-C6	5.60	119.80	117.00
2	A8	2796	U	O4'-C1'-N1	5.60	112.68	108.20
36	BA	899	C	C5'-C4'-C3'	-5.60	107.04	116.00
36	BA	1386	G	O4'-C1'-N9	5.60	112.68	108.20
2	A8	315	G	C3'-C2'-C1'	-5.60	97.02	101.50
2	A8	2407	A	C5-C6-N6	-5.60	119.22	123.70
2	A8	2711	A	C4-C5-C6	5.60	119.80	117.00
1	A7	78	A	C3'-C2'-C1'	-5.59	97.03	101.50
1	A7	82	U	O4'-C1'-N1	5.59	112.68	108.20
1	A7	86	G	C6-C5-N7	-5.59	127.04	130.40
2	A8	444	C	N3-C4-C5	-5.59	119.66	121.90
2	A8	825	A	C4-C5-C6	5.59	119.80	117.00
2	A8	1324	G	C1'-O4'-C4'	-5.59	105.42	109.90
2	A8	1867	G	C8-N9-C1'	5.59	134.27	127.00
2	A8	2234	G	O4'-C1'-N9	5.59	112.68	108.20
2	A8	2293	G	C4-N9-C1'	-5.59	119.23	126.50
2	A8	2495	G	O4'-C1'-N9	5.59	112.67	108.20
2	A8	2810	A	C6-C5-N7	-5.59	128.38	132.30
36	BA	131	A	O4'-C1'-N9	5.59	112.67	108.20
36	BA	1268	G	O4'-C1'-N9	5.59	112.67	108.20
36	BA	1511	G	N3-C2-N2	5.59	123.82	119.90
2	A8	1795	C	C5'-C4'-C3'	-5.59	107.05	116.00
2	A8	2517	C	P-O3'-C3'	-5.59	112.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	23	C	P-O5'-C5'	5.59	129.85	120.90
36	BA	1486	G	O4'-C1'-N9	5.59	112.67	108.20
2	A8	529	A	C5-C6-N1	-5.59	114.90	117.70
2	A8	532	A	C5-C6-N1	-5.59	114.90	117.70
2	A8	1040	A	C3'-C2'-C1'	-5.59	97.03	101.50
2	A8	1897	G	O4'-C1'-N9	5.59	112.67	108.20
2	A8	2287	A	C4-C5-C6	5.59	119.80	117.00
36	BA	81	A	C5'-C4'-C3'	-5.59	107.06	116.00
36	BA	699	C	C3'-C2'-C1'	-5.59	97.03	101.50
36	BA	845	A	C5-C6-N1	-5.59	114.90	117.70
36	BA	931	C	C3'-C2'-C1'	-5.59	97.03	101.50
2	A8	1604	C	C2-N1-C1'	-5.59	112.65	118.80
2	A8	1957	C	C5'-C4'-C3'	-5.59	107.06	116.00
2	A8	2092	U	N3-C4-O4	5.59	123.31	119.40
2	A8	2525	G	C2-N3-C4	5.59	114.69	111.90
2	A8	2546	U	C5'-C4'-C3'	-5.59	107.06	116.00
2	A8	2560	A	C5'-C4'-C3'	-5.59	107.06	116.00
2	A8	2570	G	C5-C6-O6	-5.59	125.25	128.60
2	A8	2710	C	N3-C4-N4	5.59	121.91	118.00
2	A8	2867	G	C5'-C4'-O4'	5.59	115.81	109.10
12	AH	25	TYR	CB-CG-CD1	-5.59	117.65	121.00
36	BA	567	G	N3-C2-N2	5.59	123.81	119.90
36	BA	853	C	N3-C4-N4	5.59	121.91	118.00
36	BA	1148	U	C4'-C3'-C2'	-5.59	97.01	102.60
36	BA	1332	A	C5-C6-N1	-5.59	114.91	117.70
2	A8	983	A	O4'-C4'-C3'	-5.59	98.41	104.00
2	A8	1559	U	P-O3'-C3'	5.59	126.41	119.70
2	A8	1829	A	C4-C5-C6	5.59	119.79	117.00
36	BA	667	G	C4-N9-C1'	-5.59	119.23	126.50
36	BA	1112	C	N3-C4-C5	-5.59	119.67	121.90
2	A8	974	G	O4'-C1'-C2'	-5.59	100.21	105.80
2	A8	1302	A	C2-N3-C4	-5.59	107.81	110.60
2	A8	1314	C	C6-N1-C2	-5.59	118.06	120.30
2	A8	2626	C	P-O3'-C3'	-5.59	113.00	119.70
36	BA	1142	G	C5'-C4'-C3'	-5.59	107.06	116.00
36	BA	1271	A	C4-C5-C6	5.59	119.79	117.00
36	BA	1415	G	N3-C2-N2	5.59	123.81	119.90
36	BA	1533	C	N3-C4-C5	-5.59	119.67	121.90
2	A8	516	C	N3-C4-C5	-5.58	119.67	121.90
2	A8	1259	G	C4-N9-C1'	-5.58	119.24	126.50
2	A8	1788	C	N3-C4-N4	5.58	121.91	118.00
2	A8	2686	G	O4'-C1'-N9	5.58	112.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	978	A	C5-C6-N1	-5.58	114.91	117.70
36	BA	1014	A	C5-C6-N6	-5.58	119.23	123.70
2	A8	377	G	N3-C2-N2	5.58	123.81	119.90
2	A8	924	G	C4-N9-C1'	-5.58	119.24	126.50
2	A8	1632	A	O4'-C1'-N9	5.58	112.67	108.20
2	A8	1970	A	C5'-C4'-O4'	5.58	115.80	109.10
2	A8	1984	G	P-O5'-C5'	-5.58	111.97	120.90
2	A8	2142	A	C5-C6-N1	-5.58	114.91	117.70
2	A8	2345	G	C5'-C4'-O4'	5.58	115.80	109.10
2	A8	2388	A	P-O3'-C3'	5.58	126.40	119.70
2	A8	2787	C	O4'-C1'-N1	5.58	112.67	108.20
36	BA	205	A	C4-C5-C6	5.58	119.79	117.00
36	BA	350	G	C4-N9-C1'	-5.58	119.24	126.50
2	A8	281	C	P-O3'-C3'	5.58	126.40	119.70
2	A8	320	A	C5-C6-N6	-5.58	119.23	123.70
2	A8	404	A	C4-C5-C6	5.58	119.79	117.00
2	A8	1045	C	P-O5'-C5'	-5.58	111.97	120.90
2	A8	1282	U	C5'-C4'-C3'	-5.58	107.07	116.00
2	A8	1814	G	N3-C2-N2	5.58	123.81	119.90
2	A8	1877	A	O4'-C1'-N9	5.58	112.67	108.20
2	A8	2211	A	O4'-C1'-N9	5.58	112.67	108.20
36	BA	183	C	N3-C4-C5	-5.58	119.67	121.90
36	BA	270	A	C1'-O4'-C4'	-5.58	105.44	109.90
36	BA	306	A	C4-C5-C6	5.58	119.79	117.00
36	BA	354	G	C5-C6-O6	-5.58	125.25	128.60
36	BA	462	G	C8-N9-C4	-5.58	104.17	106.40
36	BA	559	A	C4-C5-C6	5.58	119.79	117.00
36	BA	695	A	C4-C5-C6	5.58	119.79	117.00
1	A7	22	U	C2-N1-C1'	-5.58	111.00	117.70
2	A8	2024	G	N3-C2-N2	5.58	123.81	119.90
2	A8	2028	U	C3'-C2'-C1'	-5.58	97.04	101.50
2	A8	2040	G	C5-C6-O6	-5.58	125.25	128.60
36	BA	1375	A	C5-C6-N6	-5.58	119.24	123.70
1	A7	83	G	O4'-C1'-N9	5.58	112.66	108.20
2	A8	37	C	C3'-C2'-C1'	-5.58	97.04	101.50
2	A8	483	A	C4-C5-C6	5.58	119.79	117.00
2	A8	595	C	N3-C4-C5	-5.58	119.67	121.90
2	A8	684	G	N3-C2-N2	5.58	123.81	119.90
2	A8	1619	G	N1-C6-O6	5.58	123.25	119.90
2	A8	1734	G	C5-C6-O6	-5.58	125.25	128.60
2	A8	2255	G	C5'-C4'-C3'	-5.58	107.07	116.00
2	A8	2336	A	C4-C5-C6	5.58	119.79	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	122	G	N9-C1'-C2'	-5.58	105.86	112.00
36	BA	602	A	C5'-C4'-C3'	-5.58	107.07	116.00
36	BA	632	U	O4'-C1'-N1	5.58	112.66	108.20
36	BA	1221	G	C5-C6-O6	-5.58	125.25	128.60
2	A8	357	C	C5'-C4'-C3'	-5.58	107.08	116.00
2	A8	981	A	C5-C6-N1	-5.58	114.91	117.70
2	A8	1000	A	C1'-O4'-C4'	-5.58	105.44	109.90
2	A8	1156	A	C4-C5-C6	5.58	119.79	117.00
2	A8	1882	U	C6-N1-C1'	5.58	129.01	121.20
2	A8	2061	G	C4'-C3'-C2'	-5.58	97.02	102.60
1	A7	24	G	C5'-C4'-C3'	-5.58	107.08	116.00
2	A8	450	G	O4'-C1'-N9	5.58	112.66	108.20
2	A8	1186	G	N9-C1'-C2'	-5.58	105.87	112.00
2	A8	2161	C	N3-C4-C5	-5.58	119.67	121.90
2	A8	2273	A	C5-C6-N1	-5.58	114.91	117.70
36	BA	10	A	C5-C6-N1	-5.58	114.91	117.70
36	BA	496	A	C5-C6-N6	-5.58	119.24	123.70
36	BA	1002	G	O4'-C1'-N9	5.58	112.66	108.20
36	BA	1250	A	C4-C5-C6	5.58	119.79	117.00
2	A8	424	G	C4-N9-C1'	-5.57	119.25	126.50
2	A8	486	C	N3-C4-N4	5.57	121.90	118.00
2	A8	973	A	C4-C5-C6	5.57	119.79	117.00
2	A8	996	A	P-O3'-C3'	-5.57	113.01	119.70
2	A8	1515	A	C4'-C3'-C2'	-5.57	97.03	102.60
2	A8	1552	A	P-O3'-C3'	-5.57	113.01	119.70
2	A8	1658	C	C3'-C2'-C1'	-5.57	97.04	101.50
2	A8	2476	A	O4'-C1'-N9	5.57	112.66	108.20
2	A8	2732	G	C4'-C3'-C2'	5.57	108.17	102.60
36	BA	52	C	N3-C4-C5	-5.57	119.67	121.90
36	BA	99	C	C6-N1-C1'	5.57	127.49	120.80
36	BA	1465	A	O4'-C1'-N9	5.57	112.66	108.20
37	BB	75	ALA	N-CA-CB	5.57	117.90	110.10
2	A8	550	C	N3-C4-C5	-5.57	119.67	121.90
2	A8	1695	G	O4'-C1'-N9	5.57	112.66	108.20
2	A8	1736	U	C2-N1-C1'	-5.57	111.01	117.70
2	A8	2185	U	O3'-P-O5'	5.57	114.59	104.00
2	A8	2228	G	O4'-C1'-N9	5.57	112.66	108.20
36	BA	783	C	N3-C4-N4	5.57	121.90	118.00
2	A8	144	A	C8-N9-C4	-5.57	103.57	105.80
2	A8	379	G	N3-C2-N2	5.57	123.80	119.90
2	A8	497	A	C3'-C2'-C1'	-5.57	97.04	101.50
2	A8	523	C	O3'-P-O5'	5.57	114.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	758	C	O4'-C4'-C3'	-5.57	98.43	104.00
2	A8	1059	G	C6-C5-N7	-5.57	127.06	130.40
2	A8	1140	C	C2-N1-C1'	-5.57	112.67	118.80
2	A8	1373	A	C6-C5-N7	-5.57	128.40	132.30
2	A8	1638	C	C4'-C3'-C2'	-5.57	97.03	102.60
2	A8	1694	C	P-O5'-C5'	-5.57	111.99	120.90
2	A8	1906	G	C8-N9-C1'	5.57	134.24	127.00
2	A8	2014	A	C5-C6-N6	-5.57	119.24	123.70
2	A8	2322	A	C5-N7-C8	5.57	106.69	103.90
2	A8	2728	U	C6-N1-C1'	5.57	129.00	121.20
2	A8	2792	A	C4-C5-C6	5.57	119.79	117.00
36	BA	17	U	C2-N3-C4	-5.57	123.66	127.00
36	BA	385	C	N3-C4-N4	5.57	121.90	118.00
36	BA	957	U	O4'-C1'-N1	5.57	112.66	108.20
2	A8	919	U	C6-N1-C2	-5.57	117.66	121.00
2	A8	1243	C	N3-C4-C5	-5.57	119.67	121.90
2	A8	1675	C	N3-C4-N4	5.57	121.90	118.00
2	A8	2342	C	C5-C6-N1	5.57	123.78	121.00
2	A8	2508	G	O4'-C1'-N9	5.57	112.66	108.20
1	A7	9	G	C5-C6-O6	-5.57	125.26	128.60
2	A8	130	C	N3-C4-N4	5.57	121.90	118.00
2	A8	336	C	N3-C4-C5	-5.57	119.67	121.90
2	A8	1577	C	P-O5'-C5'	-5.57	111.99	120.90
2	A8	2278	A	C5'-C4'-C3'	-5.57	107.09	116.00
2	A8	2333	A	C5-C6-N6	-5.57	119.25	123.70
2	A8	2879	A	N9-C1'-C2'	-5.57	105.88	112.00
36	BA	86	G	P-O3'-C3'	5.57	126.38	119.70
36	BA	127	G	C3'-C2'-C1'	-5.57	97.05	101.50
1	A7	69	G	C1'-O4'-C4'	-5.57	105.45	109.90
2	A8	102	U	O4'-C1'-N1	5.57	112.65	108.20
2	A8	1501	G	C3'-C2'-C1'	-5.57	97.05	101.50
2	A8	1822	C	P-O3'-C3'	-5.57	113.02	119.70
2	A8	1964	G	N1-C6-O6	5.57	123.24	119.90
36	BA	630	A	C5'-C4'-O4'	5.57	115.78	109.10
36	BA	1082	A	C4-C5-C6	5.57	119.78	117.00
36	BA	1142	G	O4'-C1'-N9	5.57	112.65	108.20
2	A8	837	C	O4'-C1'-N1	5.56	112.65	108.20
2	A8	911	A	C5-C6-N1	-5.56	114.92	117.70
2	A8	977	G	C3'-C2'-C1'	-5.56	97.05	101.50
2	A8	1145	C	P-O3'-C3'	-5.56	113.02	119.70
2	A8	1170	C	N3-C4-C5	-5.56	119.67	121.90
36	BA	53	A	C4-C5-C6	5.56	119.78	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	728	A	O4'-C1'-N9	5.56	112.65	108.20
36	BA	1268	G	N3-C2-N2	5.56	123.80	119.90
36	BA	1284	C	N3-C4-N4	5.56	121.89	118.00
1	A7	110	C	N3-C4-C5	-5.56	119.67	121.90
2	A8	279	A	C5-C6-N1	-5.56	114.92	117.70
2	A8	493	G	O4'-C1'-N9	5.56	112.65	108.20
2	A8	1455	G	P-O5'-C5'	5.56	129.80	120.90
2	A8	2858	C	N3-C4-C5	-5.56	119.67	121.90
36	BA	445	G	C4-N9-C1'	-5.56	119.27	126.50
36	BA	515	G	N3-C2-N2	5.56	123.79	119.90
36	BA	602	A	C4-C5-C6	5.56	119.78	117.00
36	BA	1520	C	O4'-C1'-N1	5.56	112.65	108.20
1	A7	38	C	P-O3'-C3'	-5.56	113.03	119.70
1	A7	76	G	N3-C2-N2	5.56	123.79	119.90
2	A8	722	A	C5-C6-N6	-5.56	119.25	123.70
2	A8	862	G	C8-N9-C4	-5.56	104.18	106.40
2	A8	1699	G	C5-C6-O6	-5.56	125.26	128.60
36	BA	242	G	N1-C6-O6	5.56	123.24	119.90
36	BA	255	G	C5-C6-O6	-5.56	125.26	128.60
2	A8	643	A	C5-C6-N1	-5.56	114.92	117.70
2	A8	924	G	C8-N9-C1'	5.56	134.23	127.00
2	A8	1281	G	C1'-O4'-C4'	-5.56	105.45	109.90
2	A8	1886	U	O4'-C1'-N1	5.56	112.65	108.20
2	A8	2142	A	C5'-C4'-C3'	-5.56	107.10	116.00
2	A8	2586	U	O4'-C1'-N1	5.56	112.65	108.20
36	BA	285	C	C5-C6-N1	5.56	123.78	121.00
36	BA	597	G	O4'-C1'-N9	5.56	112.65	108.20
36	BA	739	C	N3-C4-N4	5.56	121.89	118.00
2	A8	203	A	P-O3'-C3'	5.56	126.37	119.70
2	A8	276	U	C5'-C4'-O4'	5.56	115.77	109.10
2	A8	489	G	O3'-P-O5'	-5.56	93.44	104.00
2	A8	790	U	C1'-O4'-C4'	-5.56	105.45	109.90
2	A8	888	C	O4'-C1'-N1	5.56	112.64	108.20
2	A8	1259	G	N3-C2-N2	5.56	123.79	119.90
2	A8	1347	A	O4'-C1'-N9	5.56	112.65	108.20
2	A8	1942	C	N3-C4-C5	-5.56	119.68	121.90
2	A8	2164	C	C5-C4-N4	-5.56	116.31	120.20
2	A8	2591	C	C5-C4-N4	-5.56	116.31	120.20
2	A8	2635	A	O4'-C1'-N9	5.56	112.64	108.20
2	A8	2661	G	C5-C6-O6	-5.56	125.27	128.60
36	BA	109	A	C5'-C4'-C3'	-5.56	107.11	116.00
36	BA	265	G	C4-C5-C6	5.56	122.14	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	319	G	C3'-C2'-C1'	-5.56	97.06	101.50
36	BA	787	A	C5-C6-N6	-5.56	119.25	123.70
36	BA	905	U	C5-C6-N1	5.56	125.48	122.70
2	A8	4	U	O4'-C1'-N1	5.56	112.64	108.20
2	A8	874	G	C5'-C4'-C3'	-5.56	107.11	116.00
2	A8	1103	A	C5'-C4'-C3'	-5.56	107.11	116.00
2	A8	1327	A	C4-C5-C6	5.56	119.78	117.00
2	A8	2764	A	C5'-C4'-O4'	5.56	115.77	109.10
36	BA	242	G	O4'-C1'-C2'	5.56	112.60	107.60
36	BA	887	G	C5-C6-O6	-5.56	125.27	128.60
36	BA	1180	A	C4-C5-C6	5.56	119.78	117.00
2	A8	302	C	C3'-C2'-C1'	-5.55	97.06	101.50
2	A8	1130	U	C5'-C4'-O4'	5.55	115.77	109.10
2	A8	1505	A	C1'-O4'-C4'	-5.55	105.46	109.90
2	A8	1956	U	C1'-O4'-C4'	-5.55	105.46	109.90
2	A8	2242	G	N1-C2-N3	-5.55	120.57	123.90
2	A8	2416	C	C3'-C2'-C1'	-5.55	97.06	101.50
2	A8	2418	A	O4'-C1'-N9	5.55	112.64	108.20
2	A8	2469	A	C5-N7-C8	5.55	106.68	103.90
2	A8	2704	C	O3'-P-O5'	-5.55	93.45	104.00
36	BA	99	C	C5-C6-N1	5.55	123.78	121.00
36	BA	124	C	N3-C4-C5	-5.55	119.68	121.90
36	BA	586	C	N3-C4-N4	5.55	121.89	118.00
36	BA	845	A	O4'-C1'-N9	5.55	112.64	108.20
36	BA	1181	G	C8-N9-C4	-5.55	104.18	106.40
2	A8	35	G	P-O3'-C3'	-5.55	113.04	119.70
2	A8	615	U	P-O3'-C3'	5.55	126.36	119.70
2	A8	1944	U	O4'-C1'-N1	5.55	112.64	108.20
2	A8	28	A	O4'-C1'-N9	5.55	112.64	108.20
2	A8	118	A	C4-C5-C6	5.55	119.78	117.00
2	A8	189	G	O4'-C1'-N9	5.55	112.64	108.20
2	A8	226	A	C4-C5-C6	5.55	119.78	117.00
2	A8	315	G	C1'-O4'-C4'	-5.55	105.46	109.90
2	A8	424	G	O5'-C5'-C4'	-5.55	101.15	111.70
2	A8	425	G	N9-C1'-C2'	-5.55	105.89	112.00
2	A8	1034	G	C5'-C4'-C3'	-5.55	107.12	116.00
2	A8	1134	A	C4-C5-C6	5.55	119.78	117.00
2	A8	2416	C	N3-C4-C5	-5.55	119.68	121.90
2	A8	2765	A	C4-C5-C6	5.55	119.78	117.00
36	BA	136	C	N3-C4-N4	5.55	121.89	118.00
36	BA	921	U	P-O3'-C3'	-5.55	113.04	119.70
36	BA	924	C	N3-C4-C5	-5.55	119.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	967	C	N3-C4-C5	-5.55	119.68	121.90
2	A8	33	C	C6-N1-C2	5.55	122.52	120.30
2	A8	187	G	C5-C6-O6	-5.55	125.27	128.60
2	A8	2744	G	N3-C2-N2	5.55	123.78	119.90
2	A8	2824	C	C5-C6-N1	5.55	123.77	121.00
25	AU	84	PHE	CB-CG-CD2	-5.55	116.92	120.80
36	BA	640	A	C5-C6-N1	-5.55	114.92	117.70
36	BA	1253	G	C5'-C4'-C3'	-5.55	107.12	116.00
36	BA	1371	G	O4'-C1'-N9	5.55	112.64	108.20
36	BA	1397	C	N3-C4-N4	5.55	121.88	118.00
1	A7	60	C	N3-C4-C5	-5.55	119.68	121.90
2	A8	380	G	C5-C6-O6	-5.55	125.27	128.60
2	A8	847	U	C4'-C3'-C2'	-5.55	97.05	102.60
2	A8	1051	G	P-O3'-C3'	-5.55	113.04	119.70
2	A8	1357	C	N3-C4-N4	5.55	121.88	118.00
2	A8	1691	C	N3-C4-N4	5.55	121.88	118.00
2	A8	1987	A	C1'-O4'-C4'	-5.55	105.46	109.90
36	BA	513	C	C1'-O4'-C4'	-5.55	105.46	109.90
54	BS	72	GLU	CB-CA-C	-5.55	99.31	110.40
2	A8	575	A	C5-N7-C8	5.55	106.67	103.90
2	A8	599	A	P-O3'-C3'	-5.55	113.04	119.70
2	A8	1496	A	C4-C5-C6	5.55	119.77	117.00
2	A8	1933	G	C8-N9-C4	-5.55	104.18	106.40
17	AM	10	ARG	NE-CZ-NH1	-5.55	117.53	120.30
30	AZ	55	LYS	N-CA-C	-5.55	96.02	111.00
36	BA	363	A	O4'-C1'-N9	5.55	112.64	108.20
36	BA	931	C	C5'-C4'-C3'	-5.55	107.12	116.00
36	BA	422	C	N3-C4-N4	5.54	121.88	118.00
36	BA	810	C	N3-C4-N4	5.54	121.88	118.00
36	BA	1172	C	C5'-C4'-C3'	-5.54	107.13	116.00
2	A8	438	G	C8-N9-C1'	5.54	134.21	127.00
2	A8	1560	G	C6-C5-N7	-5.54	127.07	130.40
2	A8	2003	A	O4'-C4'-C3'	-5.54	98.46	104.00
2	A8	2107	G	N1-C6-O6	5.54	123.23	119.90
2	A8	2309	A	O4'-C1'-N9	5.54	112.63	108.20
2	A8	2563	U	N3-C2-O2	5.54	126.08	122.20
36	BA	72	A	C4-C5-C6	5.54	119.77	117.00
36	BA	149	A	C5-C6-N6	-5.54	119.27	123.70
36	BA	354	G	P-O5'-C5'	-5.54	112.03	120.90
2	A8	85	G	O4'-C4'-C3'	-5.54	98.46	104.00
2	A8	248	G	C5-C6-O6	-5.54	125.28	128.60
2	A8	274	C	C2-N1-C1'	-5.54	112.70	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	526	A	C5-C6-N1	-5.54	114.93	117.70
2	A8	819	A	C6-C5-N7	-5.54	128.42	132.30
2	A8	829	A	C4-C5-C6	5.54	119.77	117.00
2	A8	1002	G	C8-N9-C1'	5.54	134.21	127.00
2	A8	1600	C	N3-C4-C5	-5.54	119.68	121.90
2	A8	1840	G	C8-N9-C1'	5.54	134.20	127.00
2	A8	2813	A	C4-C5-C6	5.54	119.77	117.00
2	A8	2850	A	C5-C6-N1	-5.54	114.93	117.70
36	BA	159	G	C4-N9-C1'	-5.54	119.30	126.50
36	BA	696	A	C8-N9-C4	-5.54	103.58	105.80
36	BA	760	G	C3'-C2'-C1'	-5.54	97.07	101.50
36	BA	1244	G	N9-C1'-C2'	-5.54	105.91	112.00
36	BA	1287	A	C4-C5-C6	5.54	119.77	117.00
36	BA	1437	A	P-O5'-C5'	-5.54	112.03	120.90
2	A8	136	G	C1'-O4'-C4'	-5.54	105.47	109.90
2	A8	551	G	O4'-C1'-N9	5.54	112.63	108.20
2	A8	2760	C	N3-C4-N4	5.54	121.88	118.00
1	A7	18	G	N3-C2-N2	5.54	123.78	119.90
1	A7	22	U	P-O3'-C3'	5.54	126.34	119.70
2	A8	338	G	C5'-C4'-C3'	-5.54	107.14	116.00
2	A8	348	A	C5-C6-N1	-5.54	114.93	117.70
2	A8	1546	G	C5-C6-O6	-5.54	125.28	128.60
2	A8	1698	A	C5'-C4'-C3'	5.54	124.86	116.00
2	A8	1709	U	O4'-C1'-N1	5.54	112.63	108.20
2	A8	2267	A	N1-C6-N6	5.54	121.92	118.60
2	A8	2524	G	O4'-C1'-N9	5.54	112.63	108.20
2	A8	2634	A	C5-C6-N6	-5.54	119.27	123.70
2	A8	2650	U	C1'-O4'-C4'	-5.54	105.47	109.90
2	A8	2807	U	C5'-C4'-C3'	-5.54	107.14	116.00
2	A8	2884	U	C6-N1-C1'	-5.54	113.44	121.20
36	BA	376	G	N3-C2-N2	5.54	123.78	119.90
36	BA	640	A	C4-N9-C1'	-5.54	116.33	126.30
36	BA	1118	U	C2-N1-C1'	5.54	124.35	117.70
36	BA	1502	A	C6-C5-N7	-5.54	128.42	132.30
2	A8	1984	G	C8-N9-C1'	5.54	134.20	127.00
2	A8	2346	A	P-O5'-C5'	-5.54	112.04	120.90
36	BA	382	A	C5-C6-N1	-5.54	114.93	117.70
36	BA	790	A	C5-C6-N6	-5.54	119.27	123.70
36	BA	1306	A	C5-C6-N6	-5.54	119.27	123.70
36	BA	1366	C	C5'-C4'-C3'	-5.54	107.14	116.00
2	A8	131	A	C4'-C3'-C2'	-5.54	97.06	102.60
2	A8	1626	A	C3'-C2'-C1'	5.54	105.93	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1983	G	C5-C6-O6	-5.54	125.28	128.60
2	A8	2877	G	N3-C2-N2	5.54	123.78	119.90
36	BA	535	A	C5-C6-N6	-5.54	119.27	123.70
36	BA	643	C	N3-C4-C5	-5.54	119.69	121.90
36	BA	1386	G	C8-N9-C1'	5.54	134.20	127.00
36	BA	1418	A	C5'-C4'-C3'	-5.54	107.14	116.00
36	BA	1464	U	C5-C6-N1	5.54	125.47	122.70
2	A8	68	G	N3-C2-N2	5.53	123.77	119.90
2	A8	732	C	N3-C4-N4	5.53	121.87	118.00
2	A8	1649	G	P-O3'-C3'	-5.53	113.06	119.70
2	A8	1773	A	P-O3'-C3'	-5.53	113.06	119.70
2	A8	2425	A	C4-C5-C6	5.53	119.77	117.00
2	A8	2606	C	N3-C4-N4	5.53	121.87	118.00
2	A8	2651	C	N3-C4-N4	5.53	121.87	118.00
36	BA	263	A	C4-C5-C6	5.53	119.77	117.00
36	BA	432	A	C5-C6-N1	-5.53	114.93	117.70
36	BA	937	A	C6-C5-N7	-5.53	128.43	132.30
36	BA	1407	C	O3'-P-O5'	-5.53	93.49	104.00
2	A8	149	A	O4'-C4'-C3'	-5.53	98.47	104.00
2	A8	279	A	N7-C8-N9	5.53	116.57	113.80
2	A8	499	U	O4'-C1'-N1	5.53	112.62	108.20
2	A8	2119	A	C4-C5-C6	5.53	119.77	117.00
1	A7	7	G	C8-N9-C4	-5.53	104.19	106.40
2	A8	220	G	C6-C5-N7	-5.53	127.08	130.40
2	A8	628	G	C4-N9-C1'	-5.53	119.31	126.50
2	A8	772	C	C2-N1-C1'	-5.53	112.72	118.80
2	A8	1298	C	C5-C6-N1	5.53	123.77	121.00
2	A8	1551	A	O4'-C4'-C3'	-5.53	98.47	104.00
2	A8	1785	A	O4'-C1'-N9	5.53	112.62	108.20
2	A8	1920	C	N1-C1'-C2'	-5.53	105.92	112.00
2	A8	2013	A	C4-C5-C6	5.53	119.77	117.00
2	A8	2547	A	C5-C6-N6	-5.53	119.28	123.70
36	BA	188	C	O4'-C1'-N1	5.53	112.62	108.20
36	BA	1288	A	C6-C5-N7	-5.53	128.43	132.30
2	A8	336	C	C5'-C4'-C3'	-5.53	107.15	116.00
2	A8	2169	A	C4-C5-C6	5.53	119.77	117.00
2	A8	2273	A	C5-C6-N6	-5.53	119.28	123.70
2	A8	2723	C	C5-C6-N1	5.53	123.77	121.00
36	BA	910	C	N3-C4-C5	-5.53	119.69	121.90
2	A8	800	A	C5-C6-N1	-5.53	114.94	117.70
2	A8	1118	C	N3-C4-N4	5.53	121.87	118.00
2	A8	1197	G	C5-C6-O6	-5.53	125.28	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1197	G	C4'-C3'-C2'	-5.53	97.07	102.60
2	A8	1367	A	C8-N9-C4	-5.53	103.59	105.80
2	A8	1697	G	P-O3'-C3'	-5.53	113.07	119.70
2	A8	1766	G	C4-N9-C1'	-5.53	119.31	126.50
2	A8	2186	G	C6-C5-N7	-5.53	127.08	130.40
2	A8	2205	A	C5-C6-N1	-5.53	114.94	117.70
2	A8	2434	A	C5-C6-N1	-5.53	114.94	117.70
2	A8	2536	G	C6-C5-N7	-5.53	127.08	130.40
36	BA	364	A	O4'-C1'-N9	5.53	112.62	108.20
36	BA	540	G	N9-C1'-C2'	-5.53	105.92	112.00
36	BA	726	C	C5-C6-N1	5.53	123.76	121.00
36	BA	826	C	N3-C4-N4	5.53	121.87	118.00
2	A8	258	G	P-O3'-C3'	-5.53	113.07	119.70
2	A8	752	A	C1'-O4'-C4'	-5.53	105.48	109.90
2	A8	884	U	C2-N1-C1'	-5.53	111.07	117.70
2	A8	1264	A	O4'-C1'-N9	5.53	112.62	108.20
2	A8	2158	A	O4'-C1'-N9	5.53	112.62	108.20
2	A8	2664	G	C6-C5-N7	-5.53	127.08	130.40
36	BA	131	A	C4-C5-C6	5.53	119.76	117.00
36	BA	498	A	C5-C6-N1	-5.53	114.94	117.70
36	BA	819	A	C4-C5-C6	5.53	119.76	117.00
36	BA	857	C	C3'-C2'-C1'	-5.53	97.08	101.50
36	BA	1005	A	C8-N9-C4	-5.53	103.59	105.80
36	BA	1106	G	C5'-C4'-C3'	-5.53	107.16	116.00
36	BA	1417	G	C8-N9-C1'	5.53	134.18	127.00
2	A8	48	G	N1-C2-N3	-5.52	120.59	123.90
2	A8	186	G	C8-N9-C1'	5.52	134.18	127.00
2	A8	1467	U	C5'-C4'-O4'	-5.52	102.47	109.10
2	A8	2129	C	N3-C4-C5	-5.52	119.69	121.90
2	A8	2191	A	C4-C5-C6	5.52	119.76	117.00
36	BA	155	A	C4-C5-C6	5.52	119.76	117.00
36	BA	951	G	N1-C2-N3	-5.52	120.59	123.90
2	A8	165	A	C5-C6-N6	-5.52	119.28	123.70
2	A8	410	G	O4'-C1'-N9	5.52	112.62	108.20
2	A8	664	G	C5'-C4'-C3'	-5.52	107.16	116.00
2	A8	1560	G	N3-C2-N2	5.52	123.77	119.90
2	A8	1607	C	C5'-C4'-C3'	-5.52	107.16	116.00
2	A8	2085	U	C5-C6-N1	5.52	125.46	122.70
2	A8	2426	A	C4-C5-C6	5.52	119.76	117.00
2	A8	2658	C	N3-C4-N4	5.52	121.87	118.00
36	BA	412	A	C4-C5-C6	5.52	119.76	117.00
36	BA	1436	U	P-O3'-C3'	-5.52	113.07	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1307	A	O4'-C1'-N9	5.52	112.62	108.20
2	A8	1929	G	N1-C2-N3	-5.52	120.59	123.90
2	A8	2502	G	C1'-O4'-C4'	-5.52	105.48	109.90
36	BA	386	C	N3-C4-C5	-5.52	119.69	121.90
36	BA	515	G	C1'-O4'-C4'	-5.52	105.48	109.90
2	A8	1046	A	C5'-C4'-C3'	5.52	124.83	116.00
2	A8	2001	C	C6-N1-C2	-5.52	118.09	120.30
2	A8	2656	U	C5-C4-O4	-5.52	122.59	125.90
2	A8	2780	G	O4'-C1'-N9	5.52	112.61	108.20
36	BA	142	G	C8-N9-C4	-5.52	104.19	106.40
36	BA	386	C	N3-C4-N4	5.52	121.86	118.00
36	BA	629	A	P-O3'-C3'	-5.52	113.08	119.70
36	BA	668	G	C4'-C3'-C2'	-5.52	97.08	102.60
2	A8	382	A	C4-C5-C6	5.52	119.76	117.00
2	A8	418	C	N3-C4-C5	-5.52	119.69	121.90
2	A8	547	A	C5-C6-N1	-5.52	114.94	117.70
2	A8	677	A	P-O5'-C5'	-5.52	112.07	120.90
2	A8	684	G	N1-C2-N3	-5.52	120.59	123.90
2	A8	720	U	C5'-C4'-C3'	-5.52	107.17	116.00
2	A8	1123	C	P-O3'-C3'	-5.52	113.08	119.70
2	A8	1446	C	N3-C4-C5	-5.52	119.69	121.90
2	A8	1954	G	C3'-C2'-C1'	-5.52	97.09	101.50
2	A8	1956	U	C5'-C4'-O4'	5.52	115.72	109.10
2	A8	2199	A	C5-C6-N1	-5.52	114.94	117.70
36	BA	45	G	O4'-C1'-N9	5.52	112.61	108.20
36	BA	461	A	O4'-C1'-N9	5.52	112.61	108.20
36	BA	1432	G	C2'-C3'-O3'	5.52	122.53	113.70
2	A8	197	A	C4'-C3'-C2'	-5.52	97.08	102.60
2	A8	1737	G	O4'-C1'-N9	5.52	112.61	108.20
2	A8	1890	A	P-O3'-C3'	-5.52	113.08	119.70
36	BA	353	A	C4-C5-C6	5.52	119.76	117.00
36	BA	492	C	C3'-C2'-C1'	-5.52	97.09	101.50
36	BA	678	U	C5'-C4'-C3'	-5.52	107.17	116.00
36	BA	1457	G	C6-C5-N7	-5.52	127.09	130.40
2	A8	836	G	C5-C6-O6	-5.51	125.29	128.60
2	A8	1016	G	C6-C5-N7	-5.51	127.09	130.40
2	A8	1186	G	P-O3'-C3'	-5.51	113.08	119.70
2	A8	1194	A	C3'-C2'-C1'	-5.51	97.09	101.50
2	A8	1619	G	O4'-C1'-N9	5.51	112.61	108.20
2	A8	1623	G	C3'-C2'-C1'	-5.51	97.09	101.50
2	A8	1793	C	C1'-O4'-C4'	-5.51	105.49	109.90
2	A8	1811	G	C8-N9-C1'	5.51	134.17	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1959	G	O4'-C1'-N9	5.51	112.61	108.20
2	A8	2551	C	N3-C4-N4	5.51	121.86	118.00
2	A8	2823	A	C5-C6-N1	-5.51	114.94	117.70
36	BA	301	G	C5-C6-O6	-5.51	125.29	128.60
36	BA	393	A	C1'-O4'-C4'	-5.51	105.49	109.90
36	BA	1028	C	N3-C4-N4	5.51	121.86	118.00
36	BA	1288	A	P-O3'-C3'	-5.51	113.08	119.70
2	A8	195	A	C4-C5-C6	5.51	119.76	117.00
2	A8	1246	A	C5-C6-N6	-5.51	119.29	123.70
2	A8	1797	G	O4'-C1'-N9	5.51	112.61	108.20
2	A8	1928	A	C5-C6-N6	-5.51	119.29	123.70
2	A8	2261	C	C5-C4-N4	-5.51	116.34	120.20
2	A8	2717	C	C6-N1-C2	-5.51	118.09	120.30
36	BA	425	G	C4-N9-C1'	-5.51	119.33	126.50
36	BA	719	C	N3-C4-C5	-5.51	119.69	121.90
2	A8	1173	U	C3'-C2'-C1'	5.51	105.91	101.50
2	A8	1529	G	N3-C2-N2	5.51	123.76	119.90
2	A8	2335	A	C5'-C4'-C3'	-5.51	107.18	116.00
2	A8	2766	A	C5-C6-N6	-5.51	119.29	123.70
36	BA	130	A	O4'-C1'-N9	5.51	112.61	108.20
36	BA	417	G	C5'-C4'-O4'	5.51	115.71	109.10
36	BA	713	G	N1-C2-N3	-5.51	120.59	123.90
36	BA	858	G	N3-C2-N2	5.51	123.76	119.90
52	BQ	50	ASN	N-CA-CB	5.51	120.52	110.60
2	A8	603	A	O4'-C1'-N9	5.51	112.61	108.20
2	A8	1154	G	C6-C5-N7	-5.51	127.09	130.40
2	A8	1412	U	C6-N1-C1'	5.51	128.91	121.20
2	A8	1805	A	C4-C5-C6	5.51	119.75	117.00
2	A8	2730	C	N3-C4-N4	5.51	121.86	118.00
2	A8	2887	A	O4'-C1'-N9	5.51	112.61	108.20
36	BA	163	C	P-O3'-C3'	-5.51	113.09	119.70
36	BA	380	G	O4'-C1'-C2'	5.51	112.56	107.60
36	BA	575	G	C4-N9-C1'	-5.51	119.34	126.50
36	BA	607	A	O4'-C1'-N9	5.51	112.61	108.20
36	BA	1221	G	N1-C6-O6	5.51	123.20	119.90
36	BA	1508	A	C4-C5-C6	5.51	119.75	117.00
36	BA	1515	G	C3'-C2'-C1'	-5.51	97.09	101.50
46	BK	125	LYS	C-N-CA	5.51	135.47	121.70
1	A7	68	C	C1'-O4'-C4'	-5.51	105.49	109.90
2	A8	109	C	N3-C4-C5	-5.51	119.70	121.90
2	A8	1291	C	N3-C4-N4	5.51	121.86	118.00
2	A8	1620	G	C5-C6-O6	-5.51	125.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	241	G	C5-C6-O6	-5.51	125.30	128.60
2	A8	1334	G	O5'-C5'-C4'	-5.51	101.24	111.70
2	A8	2304	G	N3-C2-N2	5.51	123.75	119.90
2	A8	2673	G	C5'-C4'-C3'	-5.51	107.19	116.00
2	A8	2700	A	C4-C5-C6	5.51	119.75	117.00
36	BA	472	U	C2-N3-C4	-5.51	123.70	127.00
36	BA	1093	A	C5-C6-N6	-5.51	119.29	123.70
36	BA	1335	U	P-O3'-C3'	5.51	126.31	119.70
1	A7	33	G	C1'-O4'-C4'	-5.50	105.50	109.90
2	A8	683	U	P-O5'-C5'	5.50	129.71	120.90
2	A8	1059	G	N3-C2-N2	5.50	123.75	119.90
2	A8	1369	G	C8-N9-C4	-5.50	104.20	106.40
2	A8	2108	A	C5-C6-N6	-5.50	119.30	123.70
36	BA	359	G	C4-N9-C1'	-5.50	119.34	126.50
1	A7	78	A	C1'-O4'-C4'	-5.50	105.50	109.90
2	A8	151	C	C5'-C4'-C3'	-5.50	107.20	116.00
2	A8	251	A	P-O3'-C3'	-5.50	113.09	119.70
2	A8	390	U	C5'-C4'-O4'	5.50	115.70	109.10
2	A8	1456	G	C8-N9-C1'	5.50	134.16	127.00
2	A8	1484	U	O4'-C1'-N1	5.50	112.60	108.20
2	A8	2020	A	C5-C6-N1	-5.50	114.95	117.70
2	A8	2114	A	C5-C6-N6	-5.50	119.30	123.70
2	A8	2121	G	O4'-C1'-N9	5.50	112.60	108.20
2	A8	2842	G	C3'-C2'-C1'	-5.50	97.10	101.50
36	BA	710	G	C1'-O4'-C4'	-5.50	105.50	109.90
36	BA	1053	G	O4'-C1'-N9	5.50	112.60	108.20
2	A8	60	G	C5-C6-O6	-5.50	125.30	128.60
2	A8	700	G	C5'-C4'-C3'	-5.50	107.20	116.00
2	A8	1002	G	C5-C6-O6	-5.50	125.30	128.60
2	A8	1205	A	C5-C6-N6	-5.50	119.30	123.70
2	A8	1352	U	O4'-C1'-N1	5.50	112.60	108.20
2	A8	2227	A	P-O3'-C3'	-5.50	113.10	119.70
2	A8	2801	G	P-O5'-C5'	5.50	129.70	120.90
36	BA	79	G	C8-N9-C4	-5.50	104.20	106.40
36	BA	119	A	C5-C6-N1	-5.50	114.95	117.70
36	BA	286	C	N3-C4-N4	5.50	121.85	118.00
36	BA	403	C	N3-C4-N4	5.50	121.85	118.00
36	BA	490	C	N3-C4-C5	-5.50	119.70	121.90
36	BA	595	A	C5-C6-N1	-5.50	114.95	117.70
36	BA	647	C	N3-C4-N4	5.50	121.85	118.00
36	BA	1162	C	N3-C4-C5	-5.50	119.70	121.90
2	A8	85	G	C3'-C2'-C1'	-5.50	97.10	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1107	G	C5-C6-O6	-5.50	125.30	128.60
2	A8	1284	A	C4-C5-C6	5.50	119.75	117.00
2	A8	2182	U	C2-N1-C1'	-5.50	111.10	117.70
2	A8	2444	G	O4'-C1'-N9	5.50	112.60	108.20
36	BA	8	A	O4'-C1'-N9	5.50	112.60	108.20
36	BA	171	A	C5-C6-N1	-5.50	114.95	117.70
36	BA	602	A	C5-C6-N1	-5.50	114.95	117.70
2	A8	132	G	C8-N9-C1'	5.50	134.15	127.00
2	A8	281	C	O3'-P-O5'	-5.50	93.55	104.00
2	A8	377	G	C5-C6-O6	-5.50	125.30	128.60
2	A8	1889	A	C5-C6-N1	-5.50	114.95	117.70
2	A8	2328	A	C5-C6-N1	-5.50	114.95	117.70
2	A8	2405	G	C2'-C3'-O3'	5.50	122.50	113.70
2	A8	2504	U	O3'-P-O5'	5.50	114.45	104.00
3	AA	141	PHE	CB-CG-CD1	5.50	124.65	120.80
36	BA	649	A	N9-C1'-C2'	-5.50	105.95	112.00
36	BA	1136	C	N3-C4-C5	-5.50	119.70	121.90
36	BA	1206	G	C5'-C4'-C3'	-5.50	107.20	116.00
2	A8	612	G	C2'-C3'-O3'	5.50	122.49	113.70
2	A8	1092	C	C2-N1-C1'	5.50	124.85	118.80
2	A8	1365	A	C4-C5-C6	5.50	119.75	117.00
2	A8	1393	A	O4'-C1'-N9	5.50	112.60	108.20
2	A8	1660	G	C3'-C2'-C1'	-5.50	97.10	101.50
2	A8	1854	A	P-O5'-C5'	5.50	129.69	120.90
2	A8	1990	C	C1'-O4'-C4'	-5.50	105.50	109.90
2	A8	2088	A	C5'-C4'-C3'	-5.50	107.21	116.00
2	A8	2272	U	C3'-C2'-C1'	-5.50	97.10	101.50
2	A8	2370	G	C3'-C2'-C1'	-5.50	97.10	101.50
2	A8	2520	C	C5-C6-N1	5.50	123.75	121.00
2	A8	2763	G	N9-C4-C5	-5.50	103.20	105.40
2	A8	2821	A	C4-C5-C6	5.50	119.75	117.00
36	BA	74	A	C5'-C4'-C3'	-5.50	107.21	116.00
36	BA	260	G	P-O5'-C5'	-5.50	112.11	120.90
36	BA	334	C	C5-C4-N4	-5.50	116.35	120.20
36	BA	348	G	C3'-C2'-C1'	-5.50	97.10	101.50
36	BA	763	G	C4-N9-C1'	-5.50	119.35	126.50
36	BA	1324	A	C6-C5-N7	-5.50	128.45	132.30
2	A8	1242	U	N3-C4-O4	5.50	123.25	119.40
2	A8	1916	A	C6-C5-N7	-5.50	128.45	132.30
2	A8	2529	G	N3-C2-N2	5.50	123.75	119.90
36	BA	450	G	C8-N9-C1'	5.50	134.14	127.00
36	BA	909	A	N7-C8-N9	5.50	116.55	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	36	C	N3-C4-N4	5.49	121.84	118.00
2	A8	149	A	O4'-C1'-N9	5.49	112.59	108.20
2	A8	610	C	N3-C4-C5	-5.49	119.70	121.90
2	A8	783	A	C4'-C3'-C2'	-5.49	97.11	102.60
2	A8	1707	G	O4'-C1'-N9	5.49	112.59	108.20
2	A8	2031	A	C5'-C4'-C3'	5.49	124.79	116.00
2	A8	2268	A	O4'-C1'-N9	5.49	112.59	108.20
2	A8	2435	A	C5-C6-N6	-5.49	119.31	123.70
2	A8	2476	A	C5-C6-N6	-5.49	119.31	123.70
2	A8	2760	C	P-O5'-C5'	-5.49	112.11	120.90
2	A8	2778	A	C5-C6-N1	-5.49	114.95	117.70
36	BA	470	C	N3-C4-N4	5.49	121.85	118.00
36	BA	524	G	C5'-C4'-C3'	-5.49	107.21	116.00
36	BA	556	C	N3-C4-N4	5.49	121.84	118.00
36	BA	645	G	O4'-C1'-N9	5.49	112.59	108.20
36	BA	797	C	C6-N1-C2	-5.49	118.10	120.30
36	BA	895	G	N3-C2-N2	5.49	123.75	119.90
36	BA	1031	C	N3-C4-N4	5.49	121.84	118.00
36	BA	1084	G	C8-N9-C1'	5.49	134.14	127.00
36	BA	1152	A	O4'-C1'-N9	5.49	112.59	108.20
36	BA	1177	G	C5-C6-O6	-5.49	125.30	128.60
2	A8	818	G	N1-C2-N3	-5.49	120.61	123.90
2	A8	2270	A	C4-C5-C6	5.49	119.75	117.00
2	A8	2353	G	O4'-C1'-N9	5.49	112.59	108.20
2	A8	294	A	C4-C5-C6	5.49	119.75	117.00
2	A8	1274	A	C5-C6-N6	-5.49	119.31	123.70
2	A8	1277	G	N1-C6-O6	5.49	123.19	119.90
2	A8	1392	A	C5-C6-N1	-5.49	114.95	117.70
2	A8	1610	A	P-O3'-C3'	-5.49	113.11	119.70
2	A8	1656	C	N3-C4-C5	-5.49	119.70	121.90
2	A8	1771	C	C6-N1-C1'	5.49	127.39	120.80
2	A8	2050	C	N3-C4-C5	-5.49	119.70	121.90
2	A8	2117	A	O4'-C1'-N9	5.49	112.59	108.20
2	A8	2713	U	O4'-C1'-N1	5.49	112.59	108.20
36	BA	26	A	O4'-C1'-N9	5.49	112.59	108.20
36	BA	182	A	N9-C4-C5	5.49	108.00	105.80
36	BA	569	C	C6-N1-C1'	5.49	127.39	120.80
36	BA	1074	G	C6-C5-N7	-5.49	127.11	130.40
36	BA	1233	G	O4'-C1'-N9	5.49	112.59	108.20
2	A8	151	C	P-O3'-C3'	-5.49	113.11	119.70
2	A8	152	A	C4-C5-C6	5.49	119.75	117.00
2	A8	267	C	O4'-C1'-N1	5.49	112.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	599	A	C5-C6-N6	-5.49	119.31	123.70
2	A8	1437	C	C5'-C4'-C3'	-5.49	107.22	116.00
2	A8	2681	C	N3-C4-C5	-5.49	119.70	121.90
2	A8	2738	A	C4-C5-C6	5.49	119.74	117.00
2	A8	2789	C	C5-C6-N1	5.49	123.74	121.00
36	BA	558	G	O4'-C1'-N9	5.49	112.59	108.20
36	BA	749	A	C5-C6-N6	-5.49	119.31	123.70
36	BA	752	G	C3'-C2'-C1'	-5.49	97.11	101.50
36	BA	1078	U	P-O5'-C5'	-5.49	112.12	120.90
2	A8	2668	G	C5'-C4'-C3'	-5.49	107.22	116.00
36	BA	846	G	N1-C6-O6	5.49	123.19	119.90
2	A8	555	G	C5'-C4'-C3'	5.49	124.78	116.00
2	A8	649	G	C4'-C3'-C2'	-5.49	97.11	102.60
2	A8	1051	G	P-O5'-C5'	5.49	129.68	120.90
2	A8	1098	A	C4-C5-C6	5.49	119.74	117.00
2	A8	1200	C	C2-N1-C1'	-5.49	112.77	118.80
2	A8	1312	U	P-O3'-C3'	5.49	126.28	119.70
2	A8	1992	G	O4'-C1'-N9	5.49	112.59	108.20
2	A8	2228	G	C4-N9-C1'	-5.49	119.37	126.50
2	A8	2727	A	C5-C6-N6	-5.49	119.31	123.70
36	BA	104	G	C3'-C2'-C1'	-5.49	97.11	101.50
36	BA	817	C	C5'-C4'-O4'	5.49	115.68	109.10
36	BA	1105	A	C5-C6-N1	-5.49	114.96	117.70
1	A7	86	G	C8-N9-C4	-5.48	104.21	106.40
2	A8	747	U	C2-N1-C1'	5.48	124.28	117.70
2	A8	2458	G	C3'-C2'-C1'	-5.48	97.11	101.50
36	BA	1035	A	C4-C5-C6	5.48	119.74	117.00
36	BA	1048	G	C4-N9-C1'	-5.48	119.37	126.50
56	BU	14	ALA	N-CA-CB	5.48	117.78	110.10
2	A8	61	C	N3-C4-N4	5.48	121.84	118.00
2	A8	454	A	N3-C4-C5	-5.48	122.96	126.80
2	A8	681	G	O4'-C1'-N9	5.48	112.58	108.20
2	A8	1263	U	P-O5'-C5'	-5.48	112.13	120.90
2	A8	1337	G	N3-C2-N2	5.48	123.74	119.90
2	A8	2774	C	N3-C4-C5	-5.48	119.71	121.90
36	BA	156	C	C5-C4-N4	-5.48	116.36	120.20
36	BA	202	G	C5-C6-O6	-5.48	125.31	128.60
36	BA	615	G	N1-C6-O6	5.48	123.19	119.90
36	BA	1105	A	C4-C5-C6	5.48	119.74	117.00
36	BA	1248	A	C4-C5-C6	5.48	119.74	117.00
1	A7	79	G	C5-C6-O6	-5.48	125.31	128.60
2	A8	1220	G	C1'-O4'-C4'	-5.48	105.52	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1447	C	P-O3'-C3'	-5.48	113.12	119.70
2	A8	1622	G	C6-C5-N7	-5.48	127.11	130.40
2	A8	1627	G	C8-N9-C4	-5.48	104.21	106.40
2	A8	1910	G	C1'-O4'-C4'	-5.48	105.52	109.90
2	A8	2258	C	P-O3'-C3'	5.48	126.28	119.70
2	A8	2279	G	N1-C6-O6	5.48	123.19	119.90
2	A8	2777	G	N1-C6-O6	5.48	123.19	119.90
36	BA	617	G	O4'-C1'-N9	5.48	112.58	108.20
36	BA	1450	U	O4'-C1'-N1	5.48	112.58	108.20
1	A7	61	G	C8-N9-C1'	5.48	134.12	127.00
2	A8	61	C	O4'-C1'-N1	5.48	112.58	108.20
2	A8	721	A	O4'-C1'-N9	5.48	112.58	108.20
2	A8	1522	A	C3'-C2'-C1'	-5.48	97.12	101.50
2	A8	2553	G	P-O5'-C5'	-5.48	112.13	120.90
36	BA	914	A	N1-C2-N3	5.48	132.04	129.30
36	BA	1435	G	P-O5'-C5'	5.48	129.67	120.90
2	A8	705	A	C4-C5-C6	5.48	119.74	117.00
2	A8	2118	U	O4'-C4'-C3'	-5.48	98.52	104.00
2	A8	2751	G	P-O3'-C3'	5.48	126.27	119.70
2	A8	2900	A	C4-C5-C6	5.48	119.74	117.00
18	AN	30	ARG	NE-CZ-NH2	-5.48	117.56	120.30
36	BA	408	A	C5'-C4'-C3'	-5.48	107.24	116.00
2	A8	1023	U	N3-C4-O4	5.48	123.23	119.40
2	A8	1696	G	C5-C6-O6	-5.48	125.31	128.60
2	A8	1931	U	C3'-C2'-C1'	-5.48	97.12	101.50
2	A8	2346	A	C4-C5-C6	5.48	119.74	117.00
14	AJ	108	MET	CG-SD-CE	5.48	108.96	100.20
36	BA	243	A	C4-C5-C6	5.48	119.74	117.00
36	BA	640	A	C5-C6-N6	-5.48	119.32	123.70
36	BA	885	G	O4'-C1'-N9	5.48	112.58	108.20
2	A8	128	C	N3-C4-N4	5.47	121.83	118.00
2	A8	186	G	C4-N9-C1'	-5.47	119.38	126.50
2	A8	290	U	C5'-C4'-C3'	-5.47	107.24	116.00
2	A8	497	A	C4-C5-C6	5.47	119.74	117.00
2	A8	684	G	C4-N9-C1'	-5.47	119.38	126.50
2	A8	805	G	O4'-C1'-N9	5.47	112.58	108.20
2	A8	984	A	C5-C6-N6	-5.47	119.32	123.70
2	A8	1192	G	O4'-C1'-N9	5.47	112.58	108.20
2	A8	1502	A	C4-C5-C6	5.47	119.74	117.00
2	A8	1946	U	C2-N1-C1'	-5.47	111.13	117.70
2	A8	2042	A	P-O5'-C5'	-5.47	112.14	120.90
2	A8	2569	G	C6-C5-N7	-5.47	127.12	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	611	C	C6-N1-C2	-5.47	118.11	120.30
48	BM	100	ARG	NE-CZ-NH1	5.47	123.04	120.30
2	A8	888	C	N3-C4-C5	-5.47	119.71	121.90
2	A8	1332	G	O4'-C1'-N9	5.47	112.58	108.20
2	A8	1479	G	P-O5'-C5'	-5.47	112.14	120.90
2	A8	1519	G	N3-C2-N2	5.47	123.73	119.90
2	A8	1643	G	C8-N9-C1'	5.47	134.11	127.00
2	A8	2650	U	C3'-C2'-C1'	-5.47	97.12	101.50
9	AE	52	VAL	N-CA-C	-5.47	96.23	111.00
36	BA	244	U	C5'-C4'-O4'	5.47	115.67	109.10
36	BA	277	C	P-O5'-C5'	-5.47	112.14	120.90
36	BA	610	U	C6-N1-C1'	-5.47	113.54	121.20
36	BA	1167	A	C5'-C4'-C3'	-5.47	107.25	116.00
36	BA	1237	C	N3-C4-C5	-5.47	119.71	121.90
36	BA	1497	G	C5'-C4'-O4'	5.47	115.67	109.10
2	A8	146	A	C1'-O4'-C4'	-5.47	105.52	109.90
2	A8	775	G	C4'-C3'-C2'	-5.47	97.13	102.60
2	A8	864	G	O4'-C1'-N9	5.47	112.58	108.20
2	A8	1251	C	N3-C4-N4	5.47	121.83	118.00
2	A8	1990	C	C3'-C2'-C1'	-5.47	97.12	101.50
2	A8	2278	A	C5-C6-N6	-5.47	119.32	123.70
2	A8	2313	C	N3-C4-N4	5.47	121.83	118.00
36	BA	374	A	C5-C6-N1	-5.47	114.97	117.70
36	BA	1281	C	N3-C4-N4	5.47	121.83	118.00
36	BA	1417	G	C4-N9-C1'	-5.47	119.39	126.50
1	A7	90	C	C2-N3-C4	5.47	122.64	119.90
2	A8	360	U	P-O5'-C5'	5.47	129.65	120.90
2	A8	1168	G	P-O3'-C3'	-5.47	113.14	119.70
2	A8	1357	C	C5'-C4'-C3'	-5.47	107.25	116.00
2	A8	1961	C	P-O3'-C3'	-5.47	113.14	119.70
36	BA	277	C	C2-N1-C1'	-5.47	112.78	118.80
36	BA	300	A	C4'-C3'-C2'	-5.47	97.13	102.60
36	BA	847	G	C5-C6-O6	-5.47	125.32	128.60
36	BA	1162	C	C3'-C2'-C1'	-5.47	97.12	101.50
2	A8	333	G	N1-C6-O6	5.47	123.18	119.90
2	A8	1994	C	C6-N1-C2	-5.47	118.11	120.30
2	A8	2680	U	O4'-C1'-N1	5.47	112.58	108.20
36	BA	63	C	N3-C4-N4	5.47	121.83	118.00
2	A8	1144	A	P-O5'-C5'	-5.47	112.15	120.90
2	A8	1825	U	O4'-C1'-N1	5.47	112.57	108.20
2	A8	2081	U	O4'-C1'-N1	5.47	112.57	108.20
2	A8	2102	G	P-O5'-C5'	5.47	129.65	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2470	G	C8-N9-C4	-5.47	104.21	106.40
36	BA	1222	G	C5'-C4'-C3'	-5.47	107.25	116.00
2	A8	115	C	N3-C4-C5	-5.46	119.71	121.90
2	A8	924	G	P-O5'-C5'	-5.46	112.16	120.90
2	A8	1275	A	C4-C5-C6	5.46	119.73	117.00
2	A8	1791	A	C4-C5-C6	5.46	119.73	117.00
2	A8	1936	A	C1'-O4'-C4'	5.46	114.27	109.90
2	A8	2530	A	C5'-C4'-C3'	-5.46	107.26	116.00
36	BA	170	U	C2-N3-C4	5.46	130.28	127.00
36	BA	510	A	C4-N9-C1'	-5.46	116.47	126.30
36	BA	642	A	C4-C5-C6	5.46	119.73	117.00
36	BA	1360	A	C5-C6-N6	-5.46	119.33	123.70
36	BA	1484	C	N3-C4-C5	-5.46	119.72	121.90
1	A7	3	C	C6-N1-C2	-5.46	118.11	120.30
2	A8	57	C	N3-C4-N4	5.46	121.82	118.00
2	A8	1419	A	P-O5'-C5'	5.46	129.64	120.90
2	A8	1473	G	C1'-O4'-C4'	-5.46	105.53	109.90
2	A8	2089	C	C3'-C2'-C1'	-5.46	97.13	101.50
36	BA	564	C	O4'-C1'-N1	5.46	112.57	108.20
2	A8	1143	A	C4-C5-C6	5.46	119.73	117.00
2	A8	2145	C	C2-N1-C1'	5.46	124.81	118.80
2	A8	2458	G	C5'-C4'-C3'	-5.46	107.26	116.00
2	A8	2829	A	C5-C6-N6	-5.46	119.33	123.70
36	BA	259	G	P-O3'-C3'	-5.46	113.15	119.70
36	BA	749	A	C4-C5-C6	5.46	119.73	117.00
2	A8	253	C	P-O5'-C5'	-5.46	112.17	120.90
2	A8	449	A	C4-C5-C6	5.46	119.73	117.00
2	A8	624	C	C2-N1-C1'	-5.46	112.79	118.80
2	A8	624	C	C6-N1-C1'	5.46	127.35	120.80
2	A8	673	C	N3-C4-C5	-5.46	119.72	121.90
2	A8	1533	C	N3-C4-C5	-5.46	119.72	121.90
2	A8	2899	A	O4'-C1'-N9	5.46	112.57	108.20
36	BA	373	A	C5-C6-N6	-5.46	119.33	123.70
2	A8	35	G	C4-N9-C1'	-5.46	119.40	126.50
2	A8	58	G	C5'-C4'-O4'	5.46	115.65	109.10
2	A8	247	G	C4-N9-C1'	-5.46	119.41	126.50
2	A8	1045	C	N3-C4-C5	-5.46	119.72	121.90
2	A8	2019	A	O4'-C1'-N9	5.46	112.57	108.20
2	A8	2788	C	P-O3'-C3'	-5.46	113.15	119.70
36	BA	244	U	C3'-C2'-C1'	5.46	105.87	101.50
1	A7	36	C	C5-C4-N4	-5.46	116.38	120.20
1	A7	57	A	C4-C5-C6	5.46	119.73	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	34	U	C2-N1-C1'	5.46	124.25	117.70
2	A8	100	U	O4'-C1'-N1	5.46	112.56	108.20
2	A8	971	G	C8-N9-C1'	5.46	134.09	127.00
2	A8	1288	G	C6-C5-N7	-5.46	127.13	130.40
2	A8	1471	G	C5-C6-O6	-5.46	125.33	128.60
2	A8	1628	G	O4'-C1'-N9	5.46	112.57	108.20
2	A8	1870	C	O4'-C1'-N1	5.46	112.56	108.20
2	A8	2205	A	C4-C5-C6	5.46	119.73	117.00
2	A8	2595	G	C8-N9-C1'	5.46	134.09	127.00
20	AP	51	ASN	N-CA-CB	5.46	120.42	110.60
27	AW	17	ALA	N-CA-CB	5.46	117.74	110.10
36	BA	35	G	C1'-O4'-C4'	-5.46	105.53	109.90
36	BA	225	C	N3-C4-N4	5.46	121.82	118.00
36	BA	664	G	N3-C2-N2	5.46	123.72	119.90
36	BA	1234	C	C4'-C3'-C2'	-5.46	97.14	102.60
2	A8	617	G	C8-N9-C1'	5.46	134.09	127.00
2	A8	1525	A	C2'-C3'-O3'	5.46	122.43	113.70
2	A8	2038	G	C8-N9-C4	-5.46	104.22	106.40
36	BA	1252	A	C4-C5-C6	5.46	119.73	117.00
1	A7	70	C	C5'-C4'-C3'	-5.45	107.28	116.00
2	A8	12	U	O4'-C4'-C3'	-5.45	98.55	104.00
2	A8	635	C	N3-C4-N4	5.45	121.82	118.00
2	A8	746	U	C4'-C3'-C2'	5.45	108.05	102.60
2	A8	1088	A	C4-C5-C6	5.45	119.73	117.00
2	A8	1275	A	P-O5'-C5'	-5.45	112.17	120.90
2	A8	2271	G	C4-N9-C1'	-5.45	119.41	126.50
2	A8	2496	C	N3-C4-N4	5.45	121.82	118.00
2	A8	2714	G	C4-C5-C6	5.45	122.07	118.80
36	BA	450	G	C5-C6-O6	-5.45	125.33	128.60
36	BA	476	U	C6-N1-C2	-5.45	117.73	121.00
36	BA	610	U	C5'-C4'-O4'	5.45	115.64	109.10
36	BA	984	C	N3-C4-C5	-5.45	119.72	121.90
2	A8	167	A	C5-N7-C8	5.45	106.63	103.90
2	A8	197	A	C3'-C2'-C1'	-5.45	97.14	101.50
2	A8	259	G	C4'-C3'-C2'	-5.45	97.15	102.60
2	A8	981	A	P-O5'-C5'	-5.45	112.18	120.90
2	A8	1039	A	C4-C5-C6	5.45	119.73	117.00
2	A8	1269	A	C4-C5-C6	5.45	119.73	117.00
2	A8	1311	G	P-O5'-C5'	5.45	129.62	120.90
2	A8	2009	A	C4-C5-C6	5.45	119.73	117.00
36	BA	164	G	C5-C6-O6	-5.45	125.33	128.60
36	BA	675	A	C4-C5-C6	5.45	119.73	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	867	G	C5-C6-O6	-5.45	125.33	128.60
2	A8	9	G	O4'-C1'-N9	5.45	112.56	108.20
2	A8	656	G	O4'-C1'-N9	5.45	112.56	108.20
2	A8	728	G	N3-C2-N2	5.45	123.72	119.90
2	A8	1153	C	N3-C4-C5	-5.45	119.72	121.90
2	A8	1317	G	C4-N9-C1'	-5.45	119.42	126.50
2	A8	1419	A	C5-C6-N1	-5.45	114.97	117.70
2	A8	1459	G	C5'-C4'-O4'	5.45	115.64	109.10
2	A8	2813	A	P-O5'-C5'	-5.45	112.18	120.90
36	BA	170	U	C5-C6-N1	5.45	125.43	122.70
36	BA	412	A	C5-C6-N1	-5.45	114.97	117.70
36	BA	454	G	C5-C6-O6	-5.45	125.33	128.60
36	BA	602	A	O4'-C1'-N9	5.45	112.56	108.20
36	BA	625	U	O3'-P-O5'	-5.45	93.65	104.00
36	BA	797	C	N3-C4-N4	5.45	121.82	118.00
36	BA	1229	A	C5-C6-N1	-5.45	114.97	117.70
36	BA	1259	C	N3-C4-C5	-5.45	119.72	121.90
36	BA	1310	G	P-O3'-C3'	-5.45	113.16	119.70
37	BB	23	ASN	N-CA-C	-5.45	96.29	111.00
1	A7	17	C	P-O3'-C3'	-5.45	113.16	119.70
2	A8	629	G	C5-C6-O6	-5.45	125.33	128.60
2	A8	667	U	C3'-C2'-C1'	-5.45	97.14	101.50
2	A8	693	A	C5-C6-N6	-5.45	119.34	123.70
2	A8	1305	C	C5-C4-N4	-5.45	116.39	120.20
2	A8	1874	C	N3-C4-N4	5.45	121.81	118.00
2	A8	1973	G	C5-C6-O6	-5.45	125.33	128.60
2	A8	2810	A	P-O3'-C3'	-5.45	113.16	119.70
2	A8	2814	A	O4'-C1'-N9	5.45	112.56	108.20
2	A8	2856	A	C5-C6-N6	-5.45	119.34	123.70
3	AA	229	MET	CG-SD-CE	-5.45	91.48	100.20
2	A8	2	G	C1'-O4'-C4'	-5.45	105.54	109.90
2	A8	1136	G	N3-C2-N2	5.45	123.71	119.90
2	A8	1324	G	N1-C2-N3	-5.45	120.63	123.90
2	A8	1558	C	N3-C4-C5	-5.45	119.72	121.90
36	BA	514	C	O4'-C1'-N1	5.45	112.56	108.20
36	BA	771	G	N3-C2-N2	5.45	123.71	119.90
2	A8	24	G	C3'-C2'-C1'	-5.45	97.14	101.50
2	A8	32	C	P-O3'-C3'	-5.45	113.16	119.70
2	A8	226	A	O4'-C1'-N9	5.45	112.56	108.20
2	A8	539	G	N1-C6-O6	5.45	123.17	119.90
2	A8	1024	G	C3'-C2'-C1'	-5.45	97.14	101.50
2	A8	1072	C	N3-C4-C5	-5.45	119.72	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1144	A	C4-C5-C6	5.45	119.72	117.00
2	A8	1319	C	C3'-C2'-C1'	-5.45	97.14	101.50
2	A8	1593	A	C5-C6-N6	-5.45	119.34	123.70
2	A8	1744	A	C4-C5-C6	5.45	119.72	117.00
36	BA	1059	C	N3-C4-C5	-5.45	119.72	121.90
36	BA	1282	C	N3-C4-N4	5.45	121.81	118.00
2	A8	2024	G	C5-C6-O6	-5.44	125.33	128.60
36	BA	108	G	C5-C6-O6	-5.44	125.33	128.60
36	BA	240	G	C8-N9-C1'	5.44	134.08	127.00
1	A7	15	A	P-O5'-C5'	5.44	129.61	120.90
1	A7	101	A	P-O3'-C3'	-5.44	113.17	119.70
2	A8	421	C	P-O3'-C3'	-5.44	113.17	119.70
2	A8	1527	G	N1-C2-N2	5.44	121.10	116.20
2	A8	1746	A	C3'-C2'-C1'	-5.44	97.15	101.50
2	A8	1906	G	C4-N9-C1'	-5.44	119.42	126.50
2	A8	1972	G	C3'-C2'-C1'	-5.44	97.15	101.50
2	A8	2776	A	C5-C6-N6	-5.44	119.35	123.70
36	BA	817	C	N3-C4-C5	-5.44	119.72	121.90
36	BA	1191	A	C5-C6-N1	-5.44	114.98	117.70
2	A8	161	A	C4'-C3'-C2'	5.44	108.04	102.60
2	A8	231	A	C4-C5-C6	5.44	119.72	117.00
2	A8	584	C	N3-C4-N4	5.44	121.81	118.00
2	A8	601	C	N3-C4-N4	5.44	121.81	118.00
2	A8	1367	A	P-O5'-C5'	5.44	129.60	120.90
2	A8	2618	G	C4-N9-C1'	-5.44	119.43	126.50
36	BA	271	C	C5-C6-N1	5.44	123.72	121.00
36	BA	341	C	P-O5'-C5'	-5.44	112.19	120.90
36	BA	512	U	O5'-C5'-C4'	-5.44	101.36	111.70
36	BA	710	G	C8-N9-C1'	5.44	134.07	127.00
36	BA	1103	C	C6-N1-C2	-5.44	118.12	120.30
36	BA	1151	A	C4-C5-C6	5.44	119.72	117.00
2	A8	1366	A	P-O5'-C5'	-5.44	112.20	120.90
2	A8	1789	A	C4-C5-C6	5.44	119.72	117.00
2	A8	1919	A	C5-C6-N6	-5.44	119.35	123.70
2	A8	2531	A	C5'-C4'-C3'	-5.44	107.30	116.00
36	BA	461	A	C5'-C4'-C3'	5.44	124.70	116.00
36	BA	750	C	C2-N1-C1'	-5.44	112.82	118.80
36	BA	888	G	N3-C2-N2	5.44	123.71	119.90
36	BA	1457	G	C5-C6-N1	-5.44	108.78	111.50
2	A8	251	A	C4-C5-C6	5.44	119.72	117.00
2	A8	560	C	N3-C4-N4	5.44	121.81	118.00
2	A8	1050	A	C5-C6-N6	-5.44	119.35	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1303	G	C5-C6-O6	-5.44	125.34	128.60
2	A8	1408	G	O4'-C1'-N9	5.44	112.55	108.20
2	A8	2355	G	C5'-C4'-C3'	-5.44	107.30	116.00
2	A8	2594	C	N3-C4-C5	-5.44	119.72	121.90
8	AD	45	TYR	CB-CG-CD2	-5.44	117.74	121.00
36	BA	293	G	C5-C6-O6	-5.44	125.34	128.60
36	BA	605	U	C1'-O4'-C4'	-5.44	105.55	109.90
36	BA	606	G	N1-C2-N3	-5.44	120.64	123.90
36	BA	764	C	N3-C4-C5	-5.44	119.72	121.90
36	BA	825	A	C5-C6-N6	-5.44	119.35	123.70
36	BA	830	G	C5-C6-O6	-5.44	125.34	128.60
36	BA	1024	G	N1-C2-N3	-5.44	120.64	123.90
36	BA	1200	C	N3-C4-C5	-5.44	119.72	121.90
36	BA	1315	U	C5'-C4'-C3'	-5.44	107.30	116.00
2	A8	377	G	C3'-C2'-C1'	-5.44	97.15	101.50
2	A8	2021	C	O5'-P-OP2	-5.44	100.81	105.70
2	A8	2025	C	C6-N1-C2	-5.44	118.13	120.30
36	BA	1483	A	C5'-C4'-O4'	5.44	115.62	109.10
2	A8	269	C	C2-N3-C4	5.43	122.62	119.90
2	A8	317	G	C5'-C4'-O4'	5.43	115.62	109.10
2	A8	446	G	N3-C2-N2	5.43	123.70	119.90
2	A8	565	C	C5-C6-N1	5.43	123.72	121.00
2	A8	945	A	C5-C6-N6	-5.43	119.35	123.70
2	A8	947	A	O4'-C1'-N9	5.43	112.55	108.20
2	A8	1170	C	C5-C6-N1	5.43	123.72	121.00
2	A8	1431	A	C5-C6-N1	-5.43	114.98	117.70
2	A8	2090	A	C1'-O4'-C4'	-5.43	105.55	109.90
2	A8	2150	C	C5-C4-N4	-5.43	116.39	120.20
2	A8	2502	G	P-O3'-C3'	5.43	126.22	119.70
36	BA	612	C	N3-C4-N4	5.43	121.80	118.00
36	BA	676	A	C4-C5-C6	5.43	119.72	117.00
36	BA	1237	C	N3-C4-N4	5.43	121.80	118.00
36	BA	1486	G	N9-C1'-C2'	-5.43	106.02	112.00
2	A8	54	G	C5-C6-O6	-5.43	125.34	128.60
2	A8	108	G	O4'-C1'-N9	5.43	112.55	108.20
2	A8	686	U	O4'-C1'-N1	5.43	112.55	108.20
2	A8	1197	G	O4'-C1'-N9	5.43	112.55	108.20
2	A8	1228	G	P-O5'-C5'	-5.43	112.21	120.90
2	A8	1347	A	C4-C5-C6	5.43	119.72	117.00
2	A8	2504	U	C2-N1-C1'	-5.43	111.18	117.70
2	A8	2520	C	O4'-C1'-N1	5.43	112.55	108.20
36	BA	215	C	N3-C4-N4	5.43	121.80	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	837	U	C1'-O4'-C4'	-5.43	105.55	109.90
36	BA	933	G	C4-N9-C1'	-5.43	119.44	126.50
36	BA	954	G	C3'-C2'-C1'	-5.43	97.15	101.50
2	A8	2406	A	P-O3'-C3'	-5.43	113.18	119.70
2	A8	2573	C	C5-C4-N4	-5.43	116.40	120.20
36	BA	223	A	C5-C6-N6	-5.43	119.36	123.70
36	BA	289	G	O4'-C1'-N9	5.43	112.55	108.20
36	BA	523	A	C5-C6-N1	-5.43	114.98	117.70
36	BA	601	G	C4-N9-C1'	-5.43	119.44	126.50
36	BA	1433	A	C5-C6-N1	-5.43	114.98	117.70
2	A8	131	A	O4'-C4'-C3'	-5.43	98.57	104.00
2	A8	1840	G	C4-N9-C1'	-5.43	119.44	126.50
2	A8	2295	C	N3-C4-C5	-5.43	119.73	121.90
2	A8	2311	A	C5-C6-N1	-5.43	114.98	117.70
2	A8	2429	G	N3-C2-N2	5.43	123.70	119.90
2	A8	2675	A	C4-C5-C6	5.43	119.72	117.00
2	A8	2683	C	N3-C4-C5	-5.43	119.73	121.90
2	A8	2759	G	C5'-C4'-O4'	5.43	115.61	109.10
23	AS	5	ALA	N-CA-C	-5.43	96.34	111.00
36	BA	80	A	C5-C6-N6	-5.43	119.36	123.70
36	BA	288	A	C5-C6-N1	-5.43	114.99	117.70
2	A8	219	A	C4-C5-C6	5.43	119.71	117.00
2	A8	927	A	O3'-P-O5'	-5.43	93.69	104.00
2	A8	1272	A	C5-C6-N6	-5.43	119.36	123.70
2	A8	1662	U	O4'-C1'-N1	5.43	112.54	108.20
2	A8	1708	C	C5'-C4'-C3'	-5.43	107.32	116.00
2	A8	1746	A	C5-C6-N6	-5.43	119.36	123.70
2	A8	1895	C	C3'-C2'-C1'	-5.43	97.16	101.50
2	A8	1989	G	O4'-C1'-N9	5.43	112.54	108.20
2	A8	2191	A	C5-C6-N6	-5.43	119.36	123.70
2	A8	2702	G	N3-C2-N2	5.43	123.70	119.90
36	BA	197	A	C4-C5-C6	5.43	119.71	117.00
2	A8	145	C	N3-C4-C5	-5.43	119.73	121.90
2	A8	404	A	C5-C6-N1	-5.43	114.99	117.70
2	A8	909	A	N7-C8-N9	5.43	116.51	113.80
2	A8	1138	G	C5'-C4'-C3'	-5.43	107.32	116.00
2	A8	1783	A	P-O5'-C5'	-5.43	112.22	120.90
2	A8	2588	G	N1-C6-O6	5.43	123.16	119.90
36	BA	65	A	C5-C6-N6	-5.43	119.36	123.70
36	BA	790	A	C4-C5-C6	5.43	119.71	117.00
36	BA	1163	A	O4'-C1'-N9	5.43	112.54	108.20
36	BA	1510	C	C5'-C4'-C3'	-5.43	107.32	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	16	G	C6-C5-N7	-5.42	127.14	130.40
2	A8	48	G	C5-C6-O6	-5.42	125.35	128.60
2	A8	1320	C	O4'-C1'-N1	5.42	112.54	108.20
2	A8	1510	G	C5'-C4'-C3'	-5.42	107.32	116.00
2	A8	2072	C	N3-C4-N4	5.42	121.80	118.00
2	A8	2184	A	C5-C6-N6	-5.42	119.36	123.70
2	A8	2188	U	C5'-C4'-O4'	5.42	115.61	109.10
2	A8	2206	C	N3-C4-N4	5.42	121.80	118.00
36	BA	246	A	C5-C6-N6	-5.42	119.36	123.70
36	BA	742	G	O4'-C1'-N9	5.42	112.54	108.20
36	BA	1384	C	N3-C4-C5	-5.42	119.73	121.90
2	A8	844	A	O4'-C1'-N9	5.42	112.54	108.20
2	A8	1488	C	N3-C4-N4	5.42	121.80	118.00
36	BA	712	A	C5-C6-N6	-5.42	119.36	123.70
1	A7	105	G	C5'-C4'-C3'	-5.42	107.33	116.00
1	A7	116	G	C4-N9-C1'	-5.42	119.45	126.50
2	A8	453	A	C5-C6-N1	-5.42	114.99	117.70
2	A8	775	G	P-O3'-C3'	5.42	126.20	119.70
2	A8	1141	U	P-O5'-C5'	-5.42	112.23	120.90
2	A8	1192	G	C4-N9-C1'	-5.42	119.45	126.50
2	A8	1667	G	C3'-C2'-C1'	-5.42	97.16	101.50
2	A8	2039	U	C3'-C2'-C1'	-5.42	97.16	101.50
2	A8	2494	G	C4-N9-C1'	-5.42	119.45	126.50
2	A8	2545	G	C3'-C2'-C1'	-5.42	97.16	101.50
2	A8	2825	G	C5-C6-O6	-5.42	125.35	128.60
36	BA	633	G	N3-C2-N2	5.42	123.69	119.90
36	BA	766	A	O4'-C4'-C3'	-5.42	98.58	104.00
36	BA	815	A	C4-C5-C6	5.42	119.71	117.00
36	BA	901	A	C4'-C3'-C2'	-5.42	97.18	102.60
36	BA	1457	G	N7-C8-N9	5.42	115.81	113.10
2	A8	642	U	C6-N1-C1'	5.42	128.79	121.20
2	A8	960	A	C5-C6-N1	-5.42	114.99	117.70
2	A8	1226	A	O4'-C1'-N9	5.42	112.54	108.20
2	A8	2468	A	N7-C8-N9	-5.42	111.09	113.80
2	A8	2749	A	C4-C5-C6	5.42	119.71	117.00
36	BA	346	G	N1-C6-O6	5.42	123.15	119.90
1	A7	114	C	N3-C4-C5	-5.42	119.73	121.90
2	A8	63	A	C5-C6-N1	-5.42	114.99	117.70
2	A8	629	G	C8-N9-C1'	5.42	134.04	127.00
2	A8	982	C	C6-N1-C1'	-5.42	114.30	120.80
2	A8	1216	G	P-O3'-C3'	-5.42	113.20	119.70
2	A8	1256	G	C8-N9-C4	-5.42	104.23	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2258	C	C5'-C4'-C3'	5.42	124.67	116.00
2	A8	2348	U	O4'-C1'-N1	5.42	112.53	108.20
19	AO	14	ALA	N-CA-CB	5.42	117.69	110.10
36	BA	27	G	N3-C2-N2	5.42	123.69	119.90
36	BA	696	A	C5'-C4'-O4'	5.42	115.60	109.10
36	BA	1319	A	C4-C5-C6	5.42	119.71	117.00
1	A7	9	G	N3-C2-N2	5.42	123.69	119.90
1	A7	41	G	P-O5'-C5'	5.42	129.56	120.90
1	A7	91	C	N3-C4-C5	-5.42	119.73	121.90
2	A8	139	U	C6-N1-C1'	-5.42	113.62	121.20
2	A8	401	A	C4'-C3'-C2'	-5.42	97.18	102.60
2	A8	1493	C	N3-C4-C5	-5.42	119.73	121.90
2	A8	1510	G	N3-C2-N2	5.42	123.69	119.90
2	A8	1572	A	C5-C6-N1	-5.42	114.99	117.70
2	A8	2589	A	P-O3'-C3'	-5.42	113.20	119.70
36	BA	268	U	C4'-C3'-C2'	-5.42	97.18	102.60
36	BA	1058	G	P-O5'-C5'	5.42	129.57	120.90
2	A8	778	G	O4'-C1'-N9	5.42	112.53	108.20
2	A8	1192	G	C5'-C4'-O4'	5.42	115.60	109.10
2	A8	2744	G	C5-C6-O6	-5.42	125.35	128.60
36	BA	157	U	C3'-C2'-C1'	-5.42	97.17	101.50
36	BA	847	G	O4'-C4'-C3'	-5.42	98.58	104.00
36	BA	1395	C	O4'-C1'-N1	5.42	112.53	108.20
2	A8	1230	A	C3'-C2'-C1'	-5.41	97.17	101.50
2	A8	1481	U	C6-N1-C1'	5.41	128.78	121.20
2	A8	1500	G	C8-N9-C4	-5.41	104.23	106.40
2	A8	2437	G	O4'-C1'-N9	5.41	112.53	108.20
2	A8	2524	G	C3'-C2'-C1'	-5.41	97.17	101.50
2	A8	2693	G	C1'-O4'-C4'	-5.41	105.57	109.90
36	BA	215	C	C5'-C4'-O4'	5.41	115.59	109.10
36	BA	288	A	C4-C5-C6	5.41	119.71	117.00
36	BA	449	G	C4-N9-C1'	5.41	133.54	126.50
36	BA	572	A	C4-C5-C6	5.41	119.71	117.00
36	BA	1042	A	C5-C6-N1	-5.41	114.99	117.70
36	BA	1358	U	O4'-C1'-C2'	5.41	112.47	107.60
2	A8	362	A	C8-N9-C4	-5.41	103.64	105.80
2	A8	378	C	O4'-C1'-N1	5.41	112.53	108.20
2	A8	583	G	C3'-C2'-C1'	-5.41	97.17	101.50
2	A8	912	C	O5'-C5'-C4'	-5.41	101.42	111.70
2	A8	1220	G	N3-C2-N2	5.41	123.69	119.90
2	A8	2632	A	C4-C5-C6	5.41	119.71	117.00
2	A8	866	A	P-O3'-C3'	-5.41	113.21	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	888	C	N3-C4-N4	5.41	121.79	118.00
2	A8	1037	G	C3'-C2'-C1'	-5.41	97.17	101.50
2	A8	1103	A	C5-C6-N1	-5.41	115.00	117.70
2	A8	1439	A	P-O5'-C5'	-5.41	112.24	120.90
2	A8	1612	C	C3'-C2'-C1'	-5.41	97.17	101.50
2	A8	2693	G	O4'-C1'-N9	5.41	112.53	108.20
2	A8	2799	A	C4-C5-C6	5.41	119.70	117.00
2	A8	2859	G	N3-C2-N2	5.41	123.69	119.90
36	BA	202	G	N3-C2-N2	5.41	123.69	119.90
36	BA	764	C	C5-C6-N1	5.41	123.70	121.00
36	BA	948	C	N3-C4-C5	-5.41	119.74	121.90
36	BA	1057	G	C6-C5-N7	-5.41	127.15	130.40
36	BA	1137	C	C6-N1-C1'	-5.41	114.31	120.80
36	BA	1166	G	C6-C5-N7	-5.41	127.15	130.40
49	BN	59	GLN	N-CA-C	-5.41	96.39	111.00
2	A8	703	U	O4'-C1'-N1	5.41	112.53	108.20
2	A8	781	A	C4-C5-C6	5.41	119.70	117.00
2	A8	1418	G	O4'-C4'-C3'	-5.41	98.59	104.00
2	A8	1876	A	P-O5'-C5'	-5.41	112.25	120.90
2	A8	2088	A	C5'-C4'-O4'	5.41	115.59	109.10
2	A8	2440	C	P-O5'-C5'	-5.41	112.25	120.90
36	BA	206	C	C5-C6-N1	5.41	123.70	121.00
36	BA	317	U	P-O3'-C3'	-5.41	113.21	119.70
36	BA	1011	C	N3-C4-C5	-5.41	119.74	121.90
36	BA	1482	G	N3-C2-N2	5.41	123.69	119.90
2	A8	695	G	C5-C6-O6	-5.41	125.36	128.60
2	A8	1248	G	N3-C2-N2	5.41	123.69	119.90
2	A8	2114	A	C4-C5-C6	5.41	119.70	117.00
2	A8	2551	C	P-O5'-C5'	-5.41	112.25	120.90
36	BA	175	C	N3-C4-N4	5.41	121.78	118.00
36	BA	605	U	C2-N1-C1'	-5.41	111.21	117.70
2	A8	35	G	O4'-C1'-N9	5.41	112.53	108.20
2	A8	880	G	O4'-C1'-N9	5.41	112.53	108.20
2	A8	943	A	C5-C6-N1	-5.41	115.00	117.70
2	A8	954	G	C4'-C3'-C2'	-5.41	97.19	102.60
2	A8	1024	G	N1-C6-O6	5.41	123.14	119.90
2	A8	1642	G	C5'-C4'-C3'	-5.41	107.35	116.00
2	A8	2024	G	O4'-C1'-N9	5.41	112.53	108.20
2	A8	2629	U	O4'-C1'-N1	5.41	112.52	108.20
2	A8	2715	C	C5-C4-N4	-5.41	116.42	120.20
2	A8	2872	A	P-O5'-C5'	5.41	129.55	120.90
36	BA	397	A	P-O3'-C3'	-5.41	113.21	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1092	A	C4-C5-C6	5.41	119.70	117.00
37	BB	91	VAL	N-CA-C	-5.41	96.41	111.00
2	A8	656	G	C5'-C4'-O4'	5.40	115.58	109.10
2	A8	1693	U	C2-N1-C1'	5.40	124.18	117.70
2	A8	2684	U	C3'-C2'-C1'	-5.40	97.18	101.50
36	BA	1053	G	O5'-C5'-C4'	-5.40	101.43	111.70
36	BA	1283	U	P-O3'-C3'	-5.40	113.22	119.70
1	A7	53	A	O4'-C1'-N9	5.40	112.52	108.20
2	A8	592	A	C5-C6-N6	-5.40	119.38	123.70
2	A8	636	G	C6-C5-N7	-5.40	127.16	130.40
2	A8	917	A	P-O3'-C3'	-5.40	113.22	119.70
2	A8	1270	C	N3-C4-N4	5.40	121.78	118.00
2	A8	2576	G	C5-C6-O6	-5.40	125.36	128.60
2	A8	2779	U	C5'-C4'-C3'	-5.40	107.36	116.00
36	BA	455	G	N1-C2-N3	-5.40	120.66	123.90
36	BA	481	G	N3-C2-N2	5.40	123.68	119.90
36	BA	699	C	P-O5'-C5'	-5.40	112.25	120.90
36	BA	1113	C	C5-C4-N4	-5.40	116.42	120.20
2	A8	384	A	C4-C5-C6	5.40	119.70	117.00
2	A8	903	C	N3-C4-N4	5.40	121.78	118.00
2	A8	1552	A	C3'-C2'-C1'	-5.40	97.18	101.50
2	A8	1829	A	O4'-C1'-N9	5.40	112.52	108.20
2	A8	2023	C	N3-C4-C5	-5.40	119.74	121.90
2	A8	2642	G	C8-N9-C4	-5.40	104.24	106.40
2	A8	2793	C	C3'-C2'-C1'	-5.40	97.18	101.50
2	A8	2839	G	C6-C5-N7	-5.40	127.16	130.40
36	BA	160	A	C4-C5-C6	5.40	119.70	117.00
36	BA	1165	U	P-O5'-C5'	-5.40	112.26	120.90
38	BC	166	TRP	CA-CB-CG	5.40	123.96	113.70
2	A8	717	C	N3-C4-C5	-5.40	119.74	121.90
2	A8	1596	A	C3'-C2'-C1'	-5.40	97.18	101.50
2	A8	1785	A	C4-C5-C6	5.40	119.70	117.00
2	A8	2762	C	N3-C4-C5	-5.40	119.74	121.90
2	A8	653	U	C6-N1-C1'	-5.40	113.64	121.20
2	A8	1824	G	N1-C6-O6	5.40	123.14	119.90
2	A8	1845	G	O4'-C1'-N9	5.40	112.52	108.20
2	A8	1974	C	P-O3'-C3'	-5.40	113.22	119.70
2	A8	2720	U	O4'-C1'-N1	5.40	112.52	108.20
36	BA	932	C	O4'-C1'-N1	5.40	112.52	108.20
44	BI	105	ARG	C-N-CA	5.40	135.19	121.70
2	A8	91	A	C5-C6-N6	-5.40	119.38	123.70
2	A8	920	A	C5-C6-N1	-5.40	115.00	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1437	C	N3-C4-N4	5.40	121.78	118.00
2	A8	2095	A	P-O3'-C3'	-5.40	113.22	119.70
2	A8	2304	G	C5'-C4'-O4'	5.40	115.58	109.10
36	BA	265	G	C4-N9-C1'	5.40	133.51	126.50
1	A7	74	U	O4'-C1'-N1	5.39	112.52	108.20
2	A8	1377	G	O4'-C1'-C2'	5.39	112.45	107.60
2	A8	2740	A	P-O5'-C5'	-5.39	112.27	120.90
36	BA	226	G	C3'-C2'-C1'	-5.39	97.18	101.50
36	BA	444	G	P-O3'-C3'	-5.39	113.23	119.70
36	BA	1242	G	C6-C5-N7	-5.39	127.16	130.40
2	A8	30	G	O4'-C1'-N9	5.39	112.51	108.20
2	A8	1202	G	O4'-C1'-N9	5.39	112.51	108.20
2	A8	1644	C	O5'-C5'-C4'	-5.39	101.46	111.70
2	A8	2163	A	O4'-C1'-N9	5.39	112.52	108.20
2	A8	2347	C	C6-N1-C2	-5.39	118.14	120.30
36	BA	340	U	P-O5'-C5'	5.39	129.53	120.90
36	BA	778	G	C6-C5-N7	-5.39	127.17	130.40
36	BA	1197	A	C8-N9-C4	-5.39	103.64	105.80
36	BA	1307	U	C5'-C4'-C3'	-5.39	107.37	116.00
36	BA	1375	A	C8-N9-C4	-5.39	103.64	105.80
2	A8	218	A	P-O5'-C5'	-5.39	112.27	120.90
2	A8	606	U	P-O3'-C3'	5.39	126.17	119.70
2	A8	610	C	N3-C4-N4	5.39	121.77	118.00
2	A8	1526	C	C5'-C4'-C3'	-5.39	107.37	116.00
2	A8	2821	A	O4'-C1'-N9	5.39	112.51	108.20
36	BA	188	C	P-O3'-C3'	-5.39	113.23	119.70
36	BA	342	C	C5-C4-N4	-5.39	116.43	120.20
36	BA	1441	A	C4-C5-C6	5.39	119.70	117.00
2	A8	414	C	O4'-C1'-N1	5.39	112.51	108.20
2	A8	1369	G	C5-C6-O6	-5.39	125.37	128.60
2	A8	2269	G	C4'-C3'-C2'	-5.39	97.21	102.60
36	BA	217	C	N3-C4-C5	-5.39	119.74	121.90
36	BA	245	U	P-O3'-C3'	5.39	126.17	119.70
36	BA	326	G	O4'-C1'-N9	5.39	112.51	108.20
36	BA	331	G	C4-C5-C6	5.39	122.03	118.80
36	BA	1196	A	C4-C5-C6	5.39	119.69	117.00
36	BA	1530	G	C4-N9-C1'	-5.39	119.49	126.50
42	BG	98	LEU	CB-CA-C	5.39	120.44	110.20
1	A7	72	G	C3'-C2'-C1'	-5.39	97.19	101.50
2	A8	108	G	N9-C1'-C2'	-5.39	106.07	112.00
2	A8	1071	G	C4'-C3'-C2'	5.39	107.99	102.60
2	A8	1075	C	N3-C4-C5	-5.39	119.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1582	C	N3-C4-N4	5.39	121.77	118.00
2	A8	2312	U	C5'-C4'-C3'	5.39	124.62	116.00
2	A8	2771	C	O4'-C1'-N1	5.39	112.51	108.20
36	BA	1524	C	P-O3'-C3'	-5.39	113.23	119.70
2	A8	95	A	C8-N9-C1'	5.39	137.40	127.70
2	A8	239	C	C5'-C4'-C3'	-5.39	107.38	116.00
2	A8	647	G	N3-C2-N2	5.39	123.67	119.90
2	A8	848	C	N3-C4-N4	5.39	121.77	118.00
2	A8	960	A	O4'-C1'-N9	5.39	112.51	108.20
2	A8	1041	G	C3'-C2'-C1'	-5.39	97.19	101.50
2	A8	1434	A	O4'-C1'-N9	5.39	112.51	108.20
2	A8	1747	U	P-O3'-C3'	-5.39	113.24	119.70
2	A8	2247	A	C4-C5-C6	5.39	119.69	117.00
2	A8	2371	G	N1-C2-N3	-5.39	120.67	123.90
2	A8	2606	C	N3-C4-C5	-5.39	119.75	121.90
2	A8	2789	C	P-O3'-C3'	-5.39	113.24	119.70
36	BA	560	A	C5-C6-N6	-5.39	119.39	123.70
36	BA	676	A	O4'-C1'-N9	5.39	112.51	108.20
1	A7	28	C	C5-C6-N1	5.38	123.69	121.00
1	A7	114	C	P-O3'-C3'	-5.38	113.24	119.70
2	A8	71	A	O4'-C1'-N9	5.38	112.51	108.20
2	A8	141	G	C4-N9-C1'	5.38	133.50	126.50
2	A8	1354	A	C3'-C2'-C1'	-5.38	97.19	101.50
2	A8	1691	C	C6-N1-C2	-5.38	118.15	120.30
2	A8	2222	C	C6-N1-C1'	5.38	127.26	120.80
2	A8	2748	A	C5'-C4'-C3'	-5.38	107.38	116.00
6	A5	180	PHE	CB-CG-CD2	5.38	124.57	120.80
36	BA	29	U	O4'-C1'-N1	5.38	112.51	108.20
36	BA	221	C	C3'-C2'-C1'	-5.38	97.19	101.50
36	BA	281	G	O3'-P-O5'	-5.38	93.77	104.00
36	BA	344	A	C4-C5-C6	5.38	119.69	117.00
36	BA	358	U	P-O3'-C3'	-5.38	113.24	119.70
36	BA	881	G	C8-N9-C4	-5.38	104.25	106.40
36	BA	1425	U	C3'-C2'-C1'	-5.38	97.19	101.50
36	BA	1503	A	C4-C5-C6	5.38	119.69	117.00
2	A8	1493	C	N3-C4-N4	5.38	121.77	118.00
2	A8	1505	A	C5-C6-N1	-5.38	115.01	117.70
2	A8	1678	A	C5-C6-N6	-5.38	119.39	123.70
2	A8	1684	G	C8-N9-C1'	5.38	134.00	127.00
2	A8	2328	A	C5-C6-N6	-5.38	119.39	123.70
36	BA	599	C	N3-C4-C5	-5.38	119.75	121.90
36	BA	1368	A	C5-C6-N6	-5.38	119.39	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	77	U	C3'-C2'-C1'	-5.38	97.19	101.50
1	A7	115	A	C4-C5-C6	5.38	119.69	117.00
2	A8	1860	G	N3-C2-N2	5.38	123.67	119.90
2	A8	2168	G	N3-C2-N2	5.38	123.67	119.90
2	A8	2587	A	C6-C5-N7	-5.38	128.53	132.30
36	BA	97	G	C5-C6-O6	-5.38	125.37	128.60
36	BA	98	A	O4'-C1'-N9	5.38	112.51	108.20
36	BA	447	G	C3'-C2'-C1'	-5.38	97.20	101.50
36	BA	969	A	C5-C6-N1	-5.38	115.01	117.70
36	BA	1035	A	P-O3'-C3'	-5.38	113.24	119.70
36	BA	1129	C	O4'-C1'-N1	5.38	112.51	108.20
36	BA	1163	A	C8-N9-C1'	5.38	137.39	127.70
36	BA	1358	U	C2-N1-C1'	-5.38	111.24	117.70
39	BD	153	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	A7	59	A	C8-N9-C4	-5.38	103.65	105.80
2	A8	1606	C	C2-N3-C4	5.38	122.59	119.90
2	A8	1913	A	C5-C6-N6	-5.38	119.40	123.70
36	BA	388	G	C5-C6-O6	-5.38	125.37	128.60
36	BA	418	C	N3-C4-N4	5.38	121.77	118.00
36	BA	895	G	C3'-C2'-C1'	-5.38	97.20	101.50
1	A7	21	G	C4'-C3'-C2'	-5.38	97.22	102.60
2	A8	750	A	C5'-C4'-C3'	-5.38	107.39	116.00
2	A8	804	A	C5-C6-N1	-5.38	115.01	117.70
2	A8	1827	U	P-O5'-C5'	5.38	129.51	120.90
2	A8	2159	G	O4'-C1'-N9	5.38	112.50	108.20
2	A8	2398	U	C5'-C4'-O4'	5.38	115.55	109.10
24	AT	82	LYS	N-CA-C	-5.38	96.47	111.00
36	BA	67	C	N3-C4-N4	5.38	121.77	118.00
36	BA	735	C	N3-C4-N4	5.38	121.77	118.00
2	A8	351	C	C3'-C2'-C1'	-5.38	97.20	101.50
2	A8	844	A	C1'-O4'-C4'	-5.38	105.60	109.90
2	A8	1159	U	P-O3'-C3'	-5.38	113.25	119.70
2	A8	1807	G	O4'-C1'-N9	5.38	112.50	108.20
2	A8	1850	G	C8-N9-C4	-5.38	104.25	106.40
2	A8	2059	A	C5-C6-N6	-5.38	119.40	123.70
2	A8	2368	C	N3-C4-C5	-5.38	119.75	121.90
36	BA	390	U	O4'-C1'-N1	5.38	112.50	108.20
36	BA	1117	A	C4-C5-C6	5.38	119.69	117.00
2	A8	261	G	C2'-C3'-O3'	5.38	122.30	113.70
2	A8	350	G	C5'-C4'-C3'	-5.38	107.40	116.00
2	A8	461	C	N3-C4-C5	-5.37	119.75	121.90
2	A8	1172	C	N3-C4-C5	-5.37	119.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1777	U	C1'-O4'-C4'	-5.37	105.60	109.90
2	A8	2225	A	C5-C6-N6	-5.37	119.40	123.70
2	A8	2566	A	C5-C6-N6	-5.37	119.40	123.70
36	BA	606	G	O4'-C1'-N9	5.37	112.50	108.20
36	BA	796	C	C4'-C3'-C2'	-5.37	97.23	102.60
36	BA	1045	C	C6-N1-C2	-5.37	118.15	120.30
2	A8	513	A	O3'-P-O5'	5.37	114.21	104.00
2	A8	762	U	C1'-O4'-C4'	-5.37	105.60	109.90
2	A8	862	G	P-O3'-C3'	-5.37	113.25	119.70
2	A8	1523	U	O4'-C1'-N1	5.37	112.50	108.20
2	A8	2260	C	C5-C6-N1	5.37	123.69	121.00
2	A8	2695	U	C6-N1-C1'	5.37	128.72	121.20
2	A8	2888	C	O4'-C1'-N1	5.37	112.50	108.20
36	BA	282	A	C5'-C4'-O4'	5.37	115.55	109.10
36	BA	393	A	O4'-C1'-N9	5.37	112.50	108.20
36	BA	430	A	C5-C6-N6	-5.37	119.40	123.70
1	A7	24	G	C4-N9-C1'	5.37	133.48	126.50
2	A8	97	C	N3-C4-C5	-5.37	119.75	121.90
2	A8	899	A	C3'-C2'-C1'	-5.37	97.20	101.50
2	A8	1087	G	C5-C6-O6	-5.37	125.38	128.60
2	A8	1873	G	N7-C8-N9	5.37	115.78	113.10
2	A8	1980	G	C6-C5-N7	-5.37	127.18	130.40
2	A8	2300	C	N3-C4-C5	-5.37	119.75	121.90
2	A8	2516	A	C5-C6-N6	-5.37	119.40	123.70
2	A8	2729	G	P-O5'-C5'	-5.37	112.31	120.90
36	BA	346	G	N1-C2-N3	-5.37	120.68	123.90
36	BA	528	C	P-O5'-C5'	-5.37	112.31	120.90
2	A8	876	C	C2-N1-C1'	-5.37	112.89	118.80
2	A8	917	A	C5'-C4'-C3'	-5.37	107.41	116.00
2	A8	1142	A	C5'-C4'-O4'	5.37	115.54	109.10
2	A8	1527	G	C4-N9-C1'	-5.37	119.52	126.50
2	A8	1556	C	N3-C4-N4	5.37	121.76	118.00
2	A8	2894	G	C6-C5-N7	-5.37	127.18	130.40
36	BA	255	G	C4'-C3'-C2'	-5.37	97.23	102.60
36	BA	445	G	C3'-C2'-C1'	-5.37	97.20	101.50
36	BA	664	G	C5-C6-O6	-5.37	125.38	128.60
36	BA	1388	C	N3-C4-N4	5.37	121.76	118.00
2	A8	1328	A	C5-C6-N6	-5.37	119.41	123.70
2	A8	1723	G	C5'-C4'-O4'	5.37	115.54	109.10
2	A8	2386	A	C5-C6-N6	-5.37	119.41	123.70
2	A8	2547	A	O4'-C4'-C3'	-5.37	98.63	104.00
36	BA	814	A	O4'-C1'-N9	5.37	112.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1437	A	C5-C6-N1	-5.37	115.02	117.70
1	A7	96	G	C5-C6-O6	-5.37	125.38	128.60
2	A8	663	G	C8-N9-C1'	5.37	133.98	127.00
2	A8	1473	G	C4-N9-C1'	-5.37	119.52	126.50
2	A8	1516	G	C8-N9-C4	-5.37	104.25	106.40
2	A8	1806	C	C6-N1-C1'	5.37	127.24	120.80
2	A8	1890	A	C5'-C4'-O4'	5.37	115.54	109.10
2	A8	2700	A	C5-C6-N6	-5.37	119.41	123.70
2	A8	2875	C	O4'-C1'-N1	5.37	112.49	108.20
36	BA	416	G	C4-C5-C6	5.37	122.02	118.80
36	BA	753	A	C5-C6-N6	-5.37	119.41	123.70
1	A7	33	G	C4-N9-C1'	-5.36	119.53	126.50
2	A8	42	A	C5-C6-N6	-5.36	119.41	123.70
2	A8	391	A	C8-N9-C4	-5.36	103.66	105.80
2	A8	443	A	C5-C6-N1	-5.36	115.02	117.70
2	A8	609	A	C6-C5-N7	-5.36	128.54	132.30
2	A8	684	G	N1-C6-O6	5.36	123.12	119.90
2	A8	759	G	C6-C5-N7	-5.36	127.18	130.40
2	A8	1808	A	C5-C6-N6	-5.36	119.41	123.70
2	A8	2164	C	N3-C4-N4	5.36	121.75	118.00
2	A8	2894	G	C4'-C3'-C2'	5.36	107.96	102.60
36	BA	182	A	C5'-C4'-O4'	5.36	115.54	109.10
36	BA	243	A	C4'-C3'-C2'	5.36	107.96	102.60
36	BA	338	A	C4-C5-C6	5.36	119.68	117.00
36	BA	1072	G	C5-C6-O6	-5.36	125.38	128.60
36	BA	1201	A	C8-N9-C4	-5.36	103.66	105.80
2	A8	1163	G	N9-C1'-C2'	-5.36	106.10	112.00
36	BA	62	U	O4'-C1'-N1	5.36	112.49	108.20
36	BA	1061	G	C8-N9-C4	-5.36	104.25	106.40
1	A7	20	G	C4-N9-C1'	-5.36	119.53	126.50
2	A8	16	C	N3-C4-C5	-5.36	119.76	121.90
2	A8	33	C	P-O5'-C5'	-5.36	112.32	120.90
2	A8	198	C	C4-C5-C6	-5.36	114.72	117.40
2	A8	419	U	P-O3'-C3'	-5.36	113.27	119.70
2	A8	1270	C	C6-N1-C2	-5.36	118.16	120.30
2	A8	1583	A	C3'-C2'-C1'	5.36	105.79	101.50
2	A8	1870	C	C2-N1-C1'	5.36	124.70	118.80
2	A8	2018	G	O4'-C4'-C3'	-5.36	98.64	104.00
2	A8	2526	G	C6-N1-C2	5.36	128.32	125.10
36	BA	246	A	C5'-C4'-O4'	5.36	115.53	109.10
36	BA	456	A	C3'-C2'-C1'	-5.36	97.21	101.50
1	A7	101	A	O4'-C1'-N9	5.36	112.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	562	U	C2-N1-C1'	-5.36	111.27	117.70
2	A8	1662	U	C1'-O4'-C4'	-5.36	105.61	109.90
2	A8	1772	A	C4-C5-C6	5.36	119.68	117.00
2	A8	1847	A	C5'-C4'-C3'	-5.36	107.42	116.00
2	A8	2779	U	P-O5'-C5'	-5.36	112.33	120.90
36	BA	188	C	O4'-C4'-C3'	-5.36	98.64	104.00
36	BA	577	G	C5-C6-O6	-5.36	125.38	128.60
36	BA	886	G	C5-C6-O6	-5.36	125.38	128.60
36	BA	987	G	C6-C5-N7	-5.36	127.19	130.40
36	BA	1161	C	C5'-C4'-C3'	-5.36	107.42	116.00
2	A8	936	A	C4-C5-C6	5.36	119.68	117.00
2	A8	1042	G	C8-N9-C1'	5.36	133.97	127.00
2	A8	1290	C	C5'-C4'-C3'	-5.36	107.43	116.00
2	A8	1707	G	C5-C6-O6	-5.36	125.39	128.60
2	A8	2141	G	O4'-C1'-N9	5.36	112.49	108.20
2	A8	2234	G	C5-C6-O6	-5.36	125.39	128.60
2	A8	2270	A	C5-C6-N1	-5.36	115.02	117.70
2	A8	2761	A	C5-C6-N6	-5.36	119.41	123.70
30	AZ	22	THR	C-N-CA	5.36	135.09	121.70
36	BA	411	A	C1'-O4'-C4'	-5.36	105.61	109.90
36	BA	874	G	N3-C2-N2	5.36	123.65	119.90
36	BA	1132	C	C6-N1-C2	-5.36	118.16	120.30
36	BA	1155	A	C5-C6-N6	-5.36	119.41	123.70
36	BA	1172	C	N3-C4-C5	-5.36	119.76	121.90
36	BA	1185	G	C5-C6-O6	-5.36	125.39	128.60
36	BA	1528	U	C5'-C4'-C3'	-5.36	107.43	116.00
2	A8	52	A	C6-C5-N7	-5.36	128.55	132.30
2	A8	1789	A	O4'-C1'-N9	5.36	112.48	108.20
2	A8	2177	C	N3-C4-C5	-5.36	119.76	121.90
36	BA	142	G	C1'-O4'-C4'	-5.36	105.61	109.90
36	BA	167	A	C5'-C4'-O4'	5.36	115.53	109.10
36	BA	200	G	C3'-C2'-C1'	-5.36	97.22	101.50
36	BA	274	A	P-O3'-C3'	5.36	126.13	119.70
36	BA	1218	C	N3-C4-N4	5.36	121.75	118.00
1	A7	21	G	C8-N9-C1'	5.35	133.96	127.00
2	A8	378	C	C3'-C2'-C1'	-5.35	97.22	101.50
2	A8	595	C	C5'-C4'-C3'	-5.35	107.43	116.00
2	A8	1217	U	C6-N1-C1'	5.35	128.70	121.20
2	A8	1392	A	C5-C6-N6	-5.35	119.42	123.70
32	A1	48	TYR	CA-CB-CG	-5.35	103.23	113.40
36	BA	257	G	C5'-C4'-O4'	5.35	115.53	109.10
36	BA	336	A	C1'-O4'-C4'	-5.35	105.62	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	482	A	C5-C6-N6	-5.35	119.42	123.70
36	BA	663	A	C5-C6-N1	-5.35	115.02	117.70
47	BL	112	ALA	N-CA-CB	5.35	117.60	110.10
1	A7	83	G	C4-N9-C1'	-5.35	119.54	126.50
2	A8	16	C	N3-C4-N4	5.35	121.75	118.00
2	A8	47	C	C2-N1-C1'	-5.35	112.91	118.80
2	A8	204	A	C4-C5-C6	5.35	119.68	117.00
2	A8	281	C	N3-C4-C5	-5.35	119.76	121.90
2	A8	370	G	C8-N9-C1'	5.35	133.96	127.00
2	A8	662	G	C8-N9-C1'	5.35	133.96	127.00
2	A8	1113	U	C2-N1-C1'	-5.35	111.28	117.70
2	A8	1337	G	C5'-C4'-O4'	5.35	115.52	109.10
2	A8	1582	C	C4'-C3'-C2'	-5.35	97.25	102.60
2	A8	2062	A	C5-C6-N6	-5.35	119.42	123.70
2	A8	2167	U	P-O3'-C3'	5.35	126.12	119.70
2	A8	2876	G	C3'-C2'-C1'	-5.35	97.22	101.50
36	BA	604	G	C5'-C4'-C3'	-5.35	107.44	116.00
36	BA	1453	G	N3-C4-N9	5.35	129.21	126.00
1	A7	4	C	N3-C4-C5	-5.35	119.76	121.90
2	A8	931	U	C5'-C4'-C3'	-5.35	107.44	116.00
2	A8	950	G	O4'-C1'-N9	5.35	112.48	108.20
2	A8	2226	C	N1-C2-O2	-5.35	115.69	118.90
2	A8	2413	G	N3-C2-N2	5.35	123.65	119.90
2	A8	2591	C	C2-N3-C4	-5.35	117.22	119.90
36	BA	534	U	C3'-C2'-C1'	-5.35	97.22	101.50
36	BA	745	G	N3-C2-N2	5.35	123.65	119.90
1	A7	23	G	C4-C5-C6	5.35	122.01	118.80
1	A7	56	G	N1-C6-O6	5.35	123.11	119.90
2	A8	347	A	C5-C6-N6	-5.35	119.42	123.70
2	A8	1069	A	C5-C6-N1	-5.35	115.03	117.70
2	A8	1649	G	N1-C6-O6	5.35	123.11	119.90
2	A8	1721	G	P-O5'-C5'	5.35	129.46	120.90
2	A8	2355	G	C5-C6-O6	-5.35	125.39	128.60
2	A8	2677	G	C4-N9-C1'	-5.35	119.54	126.50
36	BA	196	A	C4-C5-C6	5.35	119.67	117.00
36	BA	483	C	N3-C4-N4	5.35	121.74	118.00
36	BA	674	G	N3-C2-N2	5.35	123.64	119.90
36	BA	1097	C	N3-C4-C5	-5.35	119.76	121.90
36	BA	1328	C	N3-C4-N4	5.35	121.74	118.00
2	A8	64	A	C8-N9-C4	-5.35	103.66	105.80
2	A8	692	C	C3'-C2'-C1'	-5.35	97.22	101.50
2	A8	971	G	P-O3'-C3'	-5.35	113.28	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1054	A	C5-C6-N6	-5.35	119.42	123.70
2	A8	1525	A	C5'-C4'-C3'	-5.35	107.44	116.00
2	A8	1617	C	N3-C4-N4	5.35	121.74	118.00
2	A8	2018	G	P-O3'-C3'	-5.35	113.28	119.70
36	BA	787	A	C4'-C3'-C2'	-5.35	97.25	102.60
36	BA	954	G	O4'-C1'-N9	5.35	112.48	108.20
36	BA	954	G	C4-N9-C1'	-5.35	119.55	126.50
1	A7	16	G	P-O3'-C3'	-5.35	113.28	119.70
2	A8	51	G	C4-N9-C1'	-5.35	119.55	126.50
2	A8	1096	A	C4-C5-C6	5.35	119.67	117.00
36	BA	607	A	C4'-C3'-C2'	-5.35	97.25	102.60
36	BA	839	C	N3-C4-N4	5.35	121.74	118.00
2	A8	138	U	O4'-C1'-N1	5.34	112.47	108.20
2	A8	381	G	N1-C6-O6	5.34	123.11	119.90
2	A8	1194	A	C5'-C4'-O4'	5.34	115.52	109.10
2	A8	1951	U	O4'-C1'-N1	5.34	112.48	108.20
2	A8	2000	C	C1'-O4'-C4'	-5.34	105.62	109.90
2	A8	2030	A	N3-C4-C5	-5.34	123.06	126.80
2	A8	2447	G	C6-C5-N7	-5.34	127.19	130.40
2	A8	2886	A	C5-C6-N1	-5.34	115.03	117.70
36	BA	36	C	N3-C4-N4	5.34	121.74	118.00
36	BA	146	G	C1'-O4'-C4'	-5.34	105.62	109.90
36	BA	852	G	N3-C2-N2	5.34	123.64	119.90
2	A8	1706	C	C5'-C4'-C3'	-5.34	107.45	116.00
2	A8	2892	G	C5'-C4'-C3'	5.34	124.55	116.00
26	AV	31	TYR	N-CA-C	-5.34	96.58	111.00
36	BA	1322	C	C5-C6-N1	5.34	123.67	121.00
36	BA	1492	A	O4'-C1'-N9	5.34	112.47	108.20
2	A8	26	G	O4'-C1'-N9	5.34	112.47	108.20
2	A8	945	A	C4-C5-C6	5.34	119.67	117.00
2	A8	2488	G	C8-N9-C4	-5.34	104.26	106.40
2	A8	2723	C	N3-C4-C5	-5.34	119.76	121.90
36	BA	533	A	C6-C5-N7	-5.34	128.56	132.30
36	BA	580	C	N3-C4-C5	-5.34	119.76	121.90
36	BA	703	G	C5'-C4'-O4'	5.34	115.51	109.10
36	BA	1188	A	C5-C6-N1	-5.34	115.03	117.70
36	BA	1278	G	N3-C2-N2	5.34	123.64	119.90
36	BA	1366	C	N3-C4-N4	5.34	121.74	118.00
2	A8	291	G	N3-C2-N2	5.34	123.64	119.90
2	A8	478	A	C4-C5-C6	5.34	119.67	117.00
2	A8	727	A	P-O5'-C5'	-5.34	112.36	120.90
2	A8	749	A	C4-C5-C6	5.34	119.67	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	964	C	O4'-C1'-N1	5.34	112.47	108.20
2	A8	1020	A	O4'-C1'-N9	5.34	112.47	108.20
2	A8	1218	G	N3-C2-N2	5.34	123.64	119.90
2	A8	1455	G	C4-C5-C6	5.34	122.00	118.80
2	A8	2446	G	C6-C5-N7	-5.34	127.20	130.40
36	BA	35	G	N3-C2-N2	5.34	123.64	119.90
36	BA	528	C	N3-C4-N4	5.34	121.74	118.00
36	BA	767	A	C5-C6-N6	-5.34	119.43	123.70
36	BA	1027	C	N3-C4-C5	-5.34	119.76	121.90
36	BA	1332	A	C4-C5-C6	5.34	119.67	117.00
1	A7	63	C	N3-C4-C5	-5.34	119.77	121.90
2	A8	1172	C	N3-C4-N4	5.34	121.74	118.00
2	A8	2843	G	C1'-O4'-C4'	-5.34	105.63	109.90
36	BA	466	A	C5-C6-N6	-5.34	119.43	123.70
36	BA	1114	C	C6-N1-C2	-5.34	118.17	120.30
2	A8	171	U	P-O3'-C3'	-5.34	113.30	119.70
2	A8	276	U	C2-N1-C1'	-5.34	111.30	117.70
2	A8	884	U	C1'-O4'-C4'	-5.34	105.63	109.90
2	A8	1175	A	C5-C6-N1	-5.34	115.03	117.70
2	A8	1262	A	P-O5'-C5'	-5.34	112.36	120.90
2	A8	1485	U	C5-C4-O4	-5.34	122.70	125.90
2	A8	1895	C	C5-C4-N4	-5.34	116.47	120.20
2	A8	2357	G	C5'-C4'-O4'	5.34	115.50	109.10
2	A8	2443	C	O5'-C5'-C4'	-5.34	101.56	111.70
2	A8	2802	G	C5-C6-O6	-5.34	125.40	128.60
2	A8	2860	A	P-O3'-C3'	-5.34	113.30	119.70
12	AH	107	GLY	N-CA-C	-5.34	99.76	113.10
36	BA	900	A	O4'-C1'-N9	5.34	112.47	108.20
36	BA	1149	C	N3-C4-N4	5.34	121.73	118.00
2	A8	168	G	O3'-P-O5'	-5.33	93.86	104.00
2	A8	541	A	C4-C5-C6	5.33	119.67	117.00
2	A8	1444	G	N3-C2-N2	5.33	123.64	119.90
2	A8	2090	A	C4-C5-C6	5.33	119.67	117.00
36	BA	897	C	N3-C4-N4	5.33	121.73	118.00
2	A8	299	A	O4'-C1'-N9	5.33	112.47	108.20
2	A8	1830	C	N3-C4-N4	5.33	121.73	118.00
2	A8	2018	G	N3-C2-N2	5.33	123.63	119.90
26	AV	65	VAL	N-CA-C	-5.33	96.60	111.00
36	BA	1109	C	N3-C4-N4	5.33	121.73	118.00
36	BA	1225	A	C5-C6-N6	-5.33	119.43	123.70
2	A8	445	C	P-O3'-C3'	-5.33	113.30	119.70
2	A8	712	G	N3-C2-N2	5.33	123.63	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1202	G	C5-C6-O6	-5.33	125.40	128.60
2	A8	2410	G	C6-C5-N7	-5.33	127.20	130.40
36	BA	410	G	O4'-C1'-N9	5.33	112.47	108.20
36	BA	789	U	P-O5'-C5'	-5.33	112.37	120.90
36	BA	983	A	C5'-C4'-C3'	-5.33	107.47	116.00
36	BA	1156	G	C8-N9-C1'	5.33	133.93	127.00
36	BA	1205	U	C5-C6-N1	5.33	125.37	122.70
36	BA	1392	G	C6-C5-N7	-5.33	127.20	130.40
36	BA	1491	G	N3-C2-N2	5.33	123.63	119.90
2	A8	1050	A	C5-C6-N1	-5.33	115.03	117.70
2	A8	1091	G	N3-C2-N2	5.33	123.63	119.90
2	A8	1687	G	C3'-C2'-C1'	-5.33	97.24	101.50
2	A8	1970	A	C5-C6-N6	-5.33	119.44	123.70
10	AF	89	THR	N-CA-C	-5.33	96.61	111.00
36	BA	351	G	C4-C5-C6	5.33	122.00	118.80
51	BP	48	GLU	N-CA-CB	5.33	120.19	110.60
1	A7	37	C	O4'-C1'-N1	5.33	112.46	108.20
2	A8	666	A	C3'-C2'-C1'	-5.33	97.24	101.50
2	A8	937	C	N3-C4-N4	5.33	121.73	118.00
2	A8	1025	G	C5-C6-O6	-5.33	125.40	128.60
2	A8	1321	A	P-O3'-C3'	-5.33	113.31	119.70
2	A8	1349	C	N3-C4-C5	-5.33	119.77	121.90
2	A8	1696	G	O4'-C1'-N9	5.33	112.46	108.20
2	A8	1739	A	C5-C6-N6	-5.33	119.44	123.70
2	A8	2892	G	O4'-C1'-N9	5.33	112.46	108.20
36	BA	301	G	N3-C2-N2	5.33	123.63	119.90
36	BA	403	C	N3-C4-C5	-5.33	119.77	121.90
36	BA	800	G	O4'-C1'-N9	5.33	112.46	108.20
36	BA	894	G	C4-C5-C6	5.33	122.00	118.80
36	BA	1005	A	C5-C6-N6	-5.33	119.44	123.70
36	BA	1014	A	C8-N9-C4	-5.33	103.67	105.80
51	BP	32	PHE	CB-CG-CD2	5.33	124.53	120.80
2	A8	256	A	C8-N9-C4	-5.33	103.67	105.80
2	A8	1711	A	C4-C5-C6	5.33	119.66	117.00
2	A8	1831	G	O4'-C1'-N9	5.33	112.46	108.20
36	BA	732	C	N1-C1'-C2'	-5.33	106.14	112.00
2	A8	367	G	N3-C2-N2	5.33	123.63	119.90
2	A8	574	A	C4-C5-C6	5.33	119.66	117.00
2	A8	1654	A	C5-N7-C8	5.33	106.56	103.90
2	A8	1945	G	C5-C6-O6	-5.33	125.40	128.60
2	A8	2163	A	C5-N7-C8	5.33	106.56	103.90
2	A8	2219	U	P-O3'-C3'	-5.33	113.31	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1226	C	N3-C4-N4	5.33	121.73	118.00
36	BA	1369	C	N3-C4-N4	5.33	121.73	118.00
1	A7	58	A	C6-C5-N7	-5.32	128.57	132.30
2	A8	140	C	N3-C4-N4	5.32	121.73	118.00
2	A8	242	G	C4-N9-C1'	-5.32	119.58	126.50
2	A8	602	A	C5'-C4'-O4'	5.32	115.49	109.10
2	A8	633	A	C5'-C4'-C3'	-5.32	107.48	116.00
2	A8	1089	A	C5'-C4'-O4'	5.32	115.49	109.10
2	A8	2274	A	C5-C6-N6	-5.32	119.44	123.70
36	BA	609	A	C5-C6-N6	-5.32	119.44	123.70
36	BA	853	C	P-O3'-C3'	-5.32	113.31	119.70
36	BA	1402	C	C5'-C4'-C3'	-5.32	107.48	116.00
2	A8	1322	A	P-O3'-C3'	-5.32	113.31	119.70
2	A8	1424	G	C5'-C4'-C3'	-5.32	107.48	116.00
2	A8	1456	G	P-O3'-C3'	-5.32	113.31	119.70
2	A8	2446	G	O3'-P-O5'	5.32	114.11	104.00
36	BA	98	A	C5-C6-N6	-5.32	119.44	123.70
36	BA	268	U	C2-N1-C1'	-5.32	111.31	117.70
2	A8	228	C	O5'-C5'-C4'	-5.32	101.59	111.70
2	A8	578	G	N3-C2-N2	5.32	123.62	119.90
2	A8	884	U	C6-N1-C1'	5.32	128.65	121.20
2	A8	1071	G	C2'-C3'-O3'	5.32	122.21	113.70
2	A8	1151	A	C4-C5-C6	5.32	119.66	117.00
2	A8	1489	C	O4'-C1'-C2'	5.32	112.39	107.60
2	A8	1641	A	C5-C6-N6	-5.32	119.44	123.70
2	A8	2676	C	N3-C4-N4	5.32	121.72	118.00
12	AH	68	ARG	NE-CZ-NH1	5.32	122.96	120.30
18	AN	71	ARG	NE-CZ-NH2	5.32	122.96	120.30
36	BA	318	G	C1'-O4'-C4'	-5.32	105.64	109.90
36	BA	1465	A	C8-N9-C1'	5.32	137.28	127.70
1	A7	90	C	N3-C4-C5	-5.32	119.77	121.90
2	A8	577	G	C6-C5-N7	-5.32	127.21	130.40
2	A8	1393	A	C5-C6-N6	-5.32	119.44	123.70
2	A8	2102	G	C4-N9-C1'	-5.32	119.59	126.50
2	A8	2436	G	C3'-C2'-C1'	-5.32	97.25	101.50
2	A8	2448	A	C5-C6-N1	-5.32	115.04	117.70
2	A8	2717	C	C1'-O4'-C4'	-5.32	105.64	109.90
1	A7	84	G	N9-C1'-C2'	-5.32	106.15	112.00
2	A8	650	C	N3-C4-N4	5.32	121.72	118.00
2	A8	720	U	O4'-C1'-N1	5.32	112.45	108.20
2	A8	760	G	C3'-C2'-C1'	-5.32	97.25	101.50
2	A8	838	C	N3-C4-N4	5.32	121.72	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1248	G	C6-C5-N7	-5.32	127.21	130.40
2	A8	1452	G	C8-N9-C1'	-5.32	120.09	127.00
2	A8	1703	G	O4'-C1'-N9	5.32	112.45	108.20
2	A8	2009	A	P-O3'-C3'	-5.32	113.32	119.70
2	A8	2602	A	C4-C5-C6	5.32	119.66	117.00
2	A8	2641	G	C1'-O4'-C4'	-5.32	105.65	109.90
2	A8	2673	G	O3'-P-O5'	-5.32	93.90	104.00
36	BA	285	C	P-O5'-C5'	-5.32	112.39	120.90
36	BA	438	U	N1-C1'-C2'	-5.32	106.15	112.00
36	BA	546	A	C4-C5-C6	5.32	119.66	117.00
36	BA	1137	C	N3-C4-C5	-5.32	119.77	121.90
2	A8	625	G	C4'-C3'-C2'	-5.32	97.28	102.60
2	A8	894	U	C6-N1-C1'	5.32	128.64	121.20
2	A8	1203	U	P-O3'-C3'	5.32	126.08	119.70
2	A8	1530	G	C4-N9-C1'	-5.32	119.59	126.50
2	A8	1752	C	N3-C4-C5	-5.32	119.77	121.90
2	A8	1802	A	C6-C5-N7	-5.32	128.58	132.30
2	A8	2335	A	C6-C5-N7	-5.32	128.58	132.30
2	A8	2376	A	C5-C6-N1	-5.32	115.04	117.70
2	A8	2386	A	C4-C5-C6	5.32	119.66	117.00
2	A8	2394	C	C1'-O4'-C4'	5.32	114.15	109.90
11	AG	120	ILE	N-CA-CB	5.32	123.03	110.80
36	BA	635	A	C5-C6-N6	-5.32	119.45	123.70
36	BA	657	U	C5-C6-N1	5.32	125.36	122.70
36	BA	1051	C	N3-C4-N4	5.32	121.72	118.00
36	BA	1418	A	C5-N7-C8	5.32	106.56	103.90
2	A8	161	A	P-O5'-C5'	5.31	129.40	120.90
2	A8	366	C	C1'-O4'-C4'	-5.31	105.65	109.90
2	A8	1309	G	P-O3'-C3'	-5.31	113.32	119.70
2	A8	2075	U	C4'-C3'-C2'	-5.31	97.29	102.60
2	A8	2713	U	P-O3'-C3'	5.31	126.08	119.70
36	BA	206	C	N3-C4-C5	-5.31	119.77	121.90
2	A8	129	C	P-O3'-C3'	-5.31	113.33	119.70
2	A8	130	C	N1-C1'-C2'	-5.31	106.16	112.00
2	A8	1048	A	C6-C5-N7	-5.31	128.58	132.30
2	A8	1611	C	N3-C4-C5	-5.31	119.78	121.90
2	A8	1637	A	C4-C5-C6	5.31	119.66	117.00
2	A8	2100	G	N3-C2-N2	5.31	123.62	119.90
2	A8	2186	G	C1'-O4'-C4'	-5.31	105.65	109.90
2	A8	2261	C	N3-C4-C5	-5.31	119.78	121.90
2	A8	2752	C	N3-C4-N4	5.31	121.72	118.00
2	A8	2813	A	O4'-C1'-N9	5.31	112.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2842	G	O4'-C1'-N9	5.31	112.45	108.20
36	BA	223	A	C4-C5-C6	5.31	119.66	117.00
36	BA	1401	G	N3-C2-N2	5.31	123.62	119.90
36	BA	1500	A	C5-C6-N6	-5.31	119.45	123.70
2	A8	2342	C	C5'-C4'-C3'	-5.31	107.50	116.00
2	A8	2384	U	C5'-C4'-O4'	5.31	115.47	109.10
2	A8	2677	G	N3-C2-N2	5.31	123.62	119.90
36	BA	467	U	C5'-C4'-O4'	5.31	115.47	109.10
2	A8	36	G	N1-C2-N3	-5.31	120.71	123.90
2	A8	1186	G	C4'-C3'-C2'	5.31	107.91	102.60
2	A8	1398	C	N3-C4-C5	-5.31	119.78	121.90
2	A8	1715	G	O5'-C5'-C4'	5.31	121.79	111.70
2	A8	2165	C	C5-C4-N4	-5.31	116.48	120.20
36	BA	201	G	N3-C2-N2	5.31	123.62	119.90
36	BA	214	C	C5-C6-N1	5.31	123.66	121.00
36	BA	461	A	C4'-C3'-C2'	-5.31	97.29	102.60
36	BA	574	A	C5-C6-N6	-5.31	119.45	123.70
36	BA	819	A	P-O3'-C3'	5.31	126.07	119.70
36	BA	832	G	C5-C6-O6	-5.31	125.42	128.60
36	BA	1166	G	C8-N9-C4	-5.31	104.28	106.40
2	A8	442	G	O4'-C1'-N9	5.31	112.45	108.20
2	A8	639	U	P-O5'-C5'	5.31	129.39	120.90
2	A8	899	A	C4'-C3'-C2'	-5.31	97.29	102.60
2	A8	1119	U	C2-N1-C1'	-5.31	111.33	117.70
2	A8	1265	A	C5-C6-N1	-5.31	115.05	117.70
36	BA	201	G	C5-C6-O6	-5.31	125.42	128.60
36	BA	220	G	P-O5'-C5'	-5.31	112.41	120.90
36	BA	660	C	N3-C4-N4	5.31	121.72	118.00
36	BA	730	G	C4-N9-C1'	-5.31	119.60	126.50
38	BC	41	TYR	CB-CG-CD1	-5.31	117.81	121.00
42	BG	117	LEU	CB-CA-C	-5.31	100.12	110.20
2	A8	106	C	C6-N1-C1'	5.31	127.17	120.80
2	A8	2499	C	N3-C4-C5	-5.31	119.78	121.90
2	A8	2814	A	C5-C6-N1	-5.31	115.05	117.70
36	BA	210	C	O4'-C1'-N1	5.31	112.44	108.20
36	BA	671	G	C5'-C4'-C3'	-5.31	107.51	116.00
36	BA	1160	G	C4-C5-C6	5.31	121.98	118.80
36	BA	1231	G	N3-C2-N2	5.31	123.61	119.90
2	A8	303	G	C1'-O4'-C4'	-5.30	105.66	109.90
2	A8	468	G	C8-N9-C1'	5.30	133.90	127.00
2	A8	855	G	C8-N9-C4	-5.30	104.28	106.40
2	A8	1062	G	N3-C2-N2	5.30	123.61	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1120	G	C6-C5-N7	-5.30	127.22	130.40
2	A8	1271	G	N3-C2-N2	5.30	123.61	119.90
2	A8	1429	G	P-O5'-C5'	-5.30	112.41	120.90
2	A8	2604	U	C5'-C4'-O4'	5.30	115.47	109.10
2	A8	2733	A	P-O3'-C3'	-5.30	113.33	119.70
20	AP	12	MET	CG-SD-CE	-5.30	91.71	100.20
36	BA	320	A	C4-C5-C6	5.30	119.65	117.00
36	BA	1030	U	O4'-C1'-N1	5.30	112.44	108.20
36	BA	1166	G	O3'-P-O5'	-5.30	93.92	104.00
36	BA	1347	G	C5-C6-O6	-5.30	125.42	128.60
36	BA	1530	G	C8-N9-C1'	5.30	133.90	127.00
1	A7	37	C	N3-C4-N4	5.30	121.71	118.00
2	A8	302	C	C1'-O4'-C4'	-5.30	105.66	109.90
2	A8	522	A	O4'-C1'-N9	5.30	112.44	108.20
2	A8	941	A	C5-C6-N6	-5.30	119.46	123.70
2	A8	2525	G	C3'-C2'-C1'	-5.30	97.26	101.50
2	A8	2901	C	P-O3'-C3'	-5.30	113.34	119.70
36	BA	1054	C	O4'-C1'-N1	5.30	112.44	108.20
1	A7	69	G	C3'-C2'-C1'	-5.30	97.26	101.50
2	A8	255	A	C5-C6-N1	-5.30	115.05	117.70
2	A8	582	A	C5'-C4'-C3'	-5.30	107.52	116.00
2	A8	897	C	C6-N1-C2	-5.30	118.18	120.30
2	A8	1690	A	C4-C5-C6	5.30	119.65	117.00
2	A8	1773	A	C4'-C3'-C2'	-5.30	97.30	102.60
2	A8	2225	A	C5'-C4'-O4'	5.30	115.46	109.10
2	A8	2236	U	C2-N1-C1'	-5.30	111.34	117.70
2	A8	2854	G	C4-N9-C1'	-5.30	119.61	126.50
36	BA	91	U	C5'-C4'-C3'	-5.30	107.52	116.00
36	BA	242	G	C2-N3-C4	5.30	114.55	111.90
36	BA	897	C	P-O5'-C5'	-5.30	112.42	120.90
36	BA	1285	A	P-O3'-C3'	-5.30	113.34	119.70
36	BA	1489	G	N3-C2-N2	5.30	123.61	119.90
2	A8	293	U	C6-N1-C1'	5.30	128.62	121.20
2	A8	401	A	C5-C6-N6	-5.30	119.46	123.70
2	A8	637	A	C5-C6-N1	-5.30	115.05	117.70
2	A8	845	A	C4-C5-C6	5.30	119.65	117.00
2	A8	1244	A	P-O5'-C5'	-5.30	112.42	120.90
2	A8	1421	G	O4'-C1'-N9	5.30	112.44	108.20
2	A8	1647	U	O4'-C1'-N1	5.30	112.44	108.20
2	A8	1793	C	C3'-C2'-C1'	-5.30	97.26	101.50
2	A8	2538	C	C6-N1-C2	-5.30	118.18	120.30
36	BA	85	U	C6-N1-C1'	-5.30	113.78	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	271	C	N3-C4-C5	-5.30	119.78	121.90
36	BA	434	U	O3'-P-O5'	-5.30	93.93	104.00
36	BA	435	A	C5-C6-N6	-5.30	119.46	123.70
36	BA	969	A	O4'-C1'-N9	5.30	112.44	108.20
36	BA	1486	G	C6-C5-N7	-5.30	127.22	130.40
2	A8	197	A	O5'-C5'-C4'	-5.30	101.63	111.70
2	A8	1367	A	O4'-C1'-N9	5.30	112.44	108.20
2	A8	1620	G	C4-N9-C1'	-5.30	119.61	126.50
2	A8	2010	G	C4-N9-C1'	-5.30	119.61	126.50
2	A8	2772	C	O4'-C1'-N1	5.30	112.44	108.20
2	A8	177	G	C8-N9-C1'	-5.30	120.12	127.00
2	A8	287	G	C4'-C3'-C2'	-5.30	97.30	102.60
2	A8	460	A	C8-N9-C4	-5.30	103.68	105.80
2	A8	503	A	C5-C6-N1	-5.30	115.05	117.70
2	A8	1259	G	O4'-C1'-N9	5.30	112.44	108.20
2	A8	1275	A	OP2-P-O3'	5.30	116.85	105.20
2	A8	1690	A	P-O3'-C3'	-5.30	113.34	119.70
2	A8	2301	C	N3-C4-N4	5.30	121.71	118.00
2	A8	2446	G	N7-C8-N9	5.30	115.75	113.10
36	BA	433	G	C5-C6-O6	-5.30	125.42	128.60
36	BA	768	A	C5-C6-N1	-5.30	115.05	117.70
36	BA	974	A	C4-C5-C6	5.30	119.65	117.00
36	BA	983	A	C4-C5-C6	5.30	119.65	117.00
36	BA	1017	U	O5'-C5'-C4'	-5.30	101.64	111.70
36	BA	1530	G	C5-C6-O6	-5.30	125.42	128.60
41	BF	69	GLU	CB-CA-C	-5.30	99.81	110.40
2	A8	1381	G	O4'-C1'-N9	5.29	112.44	108.20
36	BA	139	A	C5-C6-N6	-5.29	119.46	123.70
36	BA	989	U	P-O3'-C3'	-5.29	113.35	119.70
2	A8	223	A	O4'-C1'-N9	5.29	112.43	108.20
2	A8	681	G	C3'-C2'-C1'	-5.29	97.27	101.50
2	A8	844	A	C4-C5-C6	5.29	119.65	117.00
2	A8	1042	G	C3'-C2'-C1'	-5.29	97.27	101.50
2	A8	1099	G	P-O5'-C5'	-5.29	112.43	120.90
2	A8	1736	U	C6-N1-C1'	5.29	128.61	121.20
2	A8	1749	A	P-O5'-C5'	-5.29	112.43	120.90
2	A8	2145	C	N3-C4-C5	-5.29	119.78	121.90
2	A8	2495	G	C5-C6-O6	-5.29	125.42	128.60
36	BA	329	A	P-O5'-C5'	-5.29	112.43	120.90
36	BA	360	G	C4'-C3'-C2'	-5.29	97.31	102.60
36	BA	441	A	C5'-C4'-O4'	5.29	115.45	109.10
36	BA	766	A	C4-C5-C6	5.29	119.65	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1186	G	C4-N9-C1'	-5.29	119.62	126.50
36	BA	1272	G	P-O5'-C5'	-5.29	112.43	120.90
2	A8	878	A	C3'-C2'-C1'	-5.29	97.27	101.50
2	A8	1439	A	C8-N9-C4	-5.29	103.68	105.80
2	A8	1732	C	C5'-C4'-O4'	5.29	115.45	109.10
2	A8	2227	A	C8-N9-C4	-5.29	103.68	105.80
2	A8	2428	G	P-O5'-C5'	-5.29	112.43	120.90
36	BA	9	G	N3-C2-N2	5.29	123.60	119.90
2	A8	1849	G	C8-N9-C4	-5.29	104.28	106.40
2	A8	2369	A	P-O3'-C3'	-5.29	113.35	119.70
2	A8	2756	U	C6-N1-C2	-5.29	117.83	121.00
2	A8	2846	G	O4'-C1'-N9	5.29	112.43	108.20
36	BA	587	G	C4-N9-C1'	-5.29	119.62	126.50
36	BA	705	G	C5-C6-O6	-5.29	125.43	128.60
2	A8	228	C	O4'-C1'-N1	5.29	112.43	108.20
2	A8	751	A	C4-C5-C6	5.29	119.64	117.00
2	A8	1006	C	N3-C4-N4	5.29	121.70	118.00
2	A8	1586	A	C5-C6-N1	-5.29	115.06	117.70
2	A8	1632	A	C5-C6-N1	-5.29	115.06	117.70
2	A8	2376	A	O4'-C1'-N9	5.29	112.43	108.20
3	AA	375	TYR	N-CA-CB	5.29	120.12	110.60
36	BA	512	U	P-O5'-C5'	5.29	129.36	120.90
36	BA	1026	G	C6-C5-N7	-5.29	127.23	130.40
2	A8	986	C	N3-C4-C5	-5.29	119.78	121.90
2	A8	1717	A	C4-C5-C6	5.29	119.64	117.00
2	A8	1959	G	P-O3'-C3'	-5.29	113.36	119.70
2	A8	2476	A	C5'-C4'-C3'	-5.29	107.54	116.00
36	BA	1396	A	C5-C6-N1	-5.29	115.06	117.70
44	BI	84	ARG	NE-CZ-NH2	-5.29	117.66	120.30
2	A8	439	A	O4'-C1'-N9	5.29	112.43	108.20
2	A8	712	G	C4-C5-C6	5.29	121.97	118.80
2	A8	2200	C	C6-N1-C1'	5.29	127.14	120.80
2	A8	2230	G	C4-N9-C1'	-5.29	119.63	126.50
2	A8	2626	C	C6-N1-C2	-5.29	118.19	120.30
2	A8	2703	C	C4'-C3'-C2'	-5.29	97.31	102.60
10	AF	76	PHE	CB-CG-CD2	-5.29	117.10	120.80
36	BA	17	U	C5-C4-O4	-5.29	122.73	125.90
36	BA	161	A	C5-C6-N1	-5.29	115.06	117.70
36	BA	742	G	C5-C6-O6	-5.29	125.43	128.60
36	BA	815	A	C5-C6-N6	-5.29	119.47	123.70
36	BA	1210	C	N3-C4-N4	5.29	121.70	118.00
36	BA	1466	C	N3-C4-N4	5.29	121.70	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A7	111	U	C2-N3-C4	-5.28	123.83	127.00
2	A8	578	G	P-O5'-C5'	5.28	129.35	120.90
2	A8	891	G	C5'-C4'-O4'	5.28	115.44	109.10
2	A8	1289	C	P-O3'-C3'	-5.28	113.36	119.70
2	A8	1598	A	C8-N9-C4	-5.28	103.69	105.80
2	A8	1917	U	C6-N1-C2	-5.28	117.83	121.00
2	A8	1998	A	C5-C6-N6	-5.28	119.47	123.70
2	A8	2688	G	C5-C6-O6	-5.28	125.43	128.60
36	BA	82	G	P-O3'-C3'	5.28	126.04	119.70
36	BA	339	C	C5-C4-N4	-5.28	116.50	120.20
36	BA	1255	G	C6-C5-N7	-5.28	127.23	130.40
36	BA	1447	A	C5-C6-N1	-5.28	115.06	117.70
2	A8	273	G	C3'-C2'-C1'	-5.28	97.28	101.50
2	A8	656	G	C5-C6-O6	-5.28	125.43	128.60
2	A8	1794	A	C4-C5-C6	5.28	119.64	117.00
2	A8	2310	C	N3-C4-C5	-5.28	119.79	121.90
2	A8	2735	G	C4-N9-C1'	-5.28	119.63	126.50
2	A8	2857	G	C3'-C2'-C1'	-5.28	97.27	101.50
9	AE	43	THR	CA-CB-CG2	-5.28	105.01	112.40
36	BA	377	G	O4'-C1'-N9	5.28	112.43	108.20
36	BA	774	G	P-O5'-C5'	-5.28	112.45	120.90
36	BA	1457	G	C8-N9-C1'	5.28	133.87	127.00
2	A8	48	G	C4-N9-C1'	-5.28	119.64	126.50
2	A8	681	G	C1'-O4'-C4'	-5.28	105.67	109.90
2	A8	802	A	C5-C6-N1	-5.28	115.06	117.70
2	A8	1095	A	C4-C5-C6	5.28	119.64	117.00
2	A8	1574	C	N3-C4-N4	5.28	121.70	118.00
2	A8	1733	G	C4-N9-C1'	-5.28	119.64	126.50
18	AN	23	ASN	CB-CA-C	-5.28	99.84	110.40
36	BA	52	C	C5-C4-N4	-5.28	116.50	120.20
2	A8	34	U	C5'-C4'-O4'	5.28	115.44	109.10
2	A8	147	C	C3'-C2'-C1'	-5.28	97.28	101.50
2	A8	597	G	C5-C6-O6	-5.28	125.43	128.60
2	A8	1774	C	N3-C4-C5	-5.28	119.79	121.90
2	A8	2606	C	O4'-C4'-C3'	-5.28	98.72	104.00
2	A8	2734	A	O4'-C1'-N9	5.28	112.42	108.20
36	BA	1296	C	N3-C4-N4	5.28	121.69	118.00
1	A7	39	A	P-O3'-C3'	5.28	126.03	119.70
1	A7	112	G	C5-C6-O6	-5.28	125.43	128.60
2	A8	640	C	O4'-C4'-C3'	-5.28	98.72	104.00
2	A8	1041	G	O4'-C1'-N9	5.28	112.42	108.20
2	A8	1373	A	N7-C8-N9	5.28	116.44	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1638	C	N3-C4-C5	-5.28	119.79	121.90
2	A8	1934	C	N3-C4-N4	5.28	121.69	118.00
2	A8	2407	A	C5-C6-N1	-5.28	115.06	117.70
36	BA	685	G	O4'-C1'-N9	5.28	112.42	108.20
1	A7	41	G	C8-N9-C4	-5.28	104.29	106.40
2	A8	532	A	O4'-C1'-N9	5.28	112.42	108.20
2	A8	539	G	P-O3'-C3'	-5.28	113.37	119.70
2	A8	668	A	C5-C6-N6	-5.28	119.48	123.70
2	A8	946	C	C1'-O4'-C4'	-5.28	105.68	109.90
2	A8	1473	G	N3-C2-N2	5.28	123.59	119.90
2	A8	2322	A	P-O5'-C5'	5.28	129.34	120.90
2	A8	2352	A	P-O3'-C3'	-5.28	113.37	119.70
2	A8	2667	C	N3-C4-C5	-5.28	119.79	121.90
36	BA	362	G	C3'-C2'-C1'	-5.28	97.28	101.50
36	BA	406	G	C8-N9-C4	-5.28	104.29	106.40
36	BA	718	A	C5-C6-N1	-5.28	115.06	117.70
36	BA	922	G	N1-C6-O6	5.28	123.06	119.90
36	BA	1427	C	C6-N1-C1'	5.28	127.13	120.80
2	A8	180	G	C5-C6-O6	-5.27	125.44	128.60
2	A8	999	U	OP2-P-O3'	5.27	116.80	105.20
2	A8	1177	G	C5-C6-O6	-5.27	125.44	128.60
2	A8	1671	U	C5'-C4'-O4'	5.27	115.43	109.10
36	BA	1252	A	C5-C6-N1	-5.27	115.06	117.70
36	BA	1475	G	N3-C2-N2	5.27	123.59	119.90
2	A8	519	U	C3'-C2'-C1'	-5.27	97.28	101.50
2	A8	791	C	O4'-C1'-N1	5.27	112.42	108.20
2	A8	1367	A	C4-C5-C6	5.27	119.64	117.00
2	A8	2820	A	C4-C5-C6	5.27	119.64	117.00
36	BA	122	G	C4-C5-C6	5.27	121.96	118.80
36	BA	238	A	C4-C5-C6	5.27	119.64	117.00
36	BA	371	A	C5-C6-N1	-5.27	115.06	117.70
36	BA	509	A	N9-C4-C5	5.27	107.91	105.80
36	BA	982	U	O4'-C1'-N1	5.27	112.42	108.20
53	BR	31	TYR	CB-CG-CD2	-5.27	117.84	121.00
2	A8	54	G	C4-N9-C1'	-5.27	119.65	126.50
2	A8	1048	A	N7-C8-N9	5.27	116.44	113.80
2	A8	1423	G	N9-C1'-C2'	-5.27	106.20	112.00
2	A8	2692	G	P-O3'-C3'	-5.27	113.38	119.70
36	BA	233	C	C4'-C3'-C2'	-5.27	97.33	102.60
36	BA	592	G	O4'-C1'-N9	5.27	112.42	108.20
36	BA	814	A	C1'-O4'-C4'	-5.27	105.68	109.90
2	A8	111	A	C4-C5-C6	5.27	119.64	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	696	G	C8-N9-C1'	5.27	133.85	127.00
2	A8	1534	U	C2'-C3'-O3'	5.27	122.13	113.70
2	A8	1893	C	C1'-O4'-C4'	-5.27	105.68	109.90
2	A8	2124	G	C5-C6-O6	-5.27	125.44	128.60
2	A8	2374	C	N3-C4-N4	5.27	121.69	118.00
2	A8	2423	U	O4'-C1'-N1	5.27	112.42	108.20
2	A8	2442	C	C1'-O4'-C4'	-5.27	105.69	109.90
2	A8	2512	C	N3-C4-N4	5.27	121.69	118.00
2	A8	2553	G	N3-C2-N2	5.27	123.59	119.90
36	BA	286	C	C3'-C2'-C1'	-5.27	97.28	101.50
36	BA	826	C	N3-C4-C5	-5.27	119.79	121.90
36	BA	1088	G	C1'-O4'-C4'	-5.27	105.69	109.90
52	BQ	47	ASP	CA-CB-CG	-5.27	101.81	113.40
2	A8	333	G	C5-C6-O6	-5.27	125.44	128.60
2	A8	505	A	C4'-C3'-C2'	-5.27	97.33	102.60
2	A8	702	U	P-O5'-C5'	-5.27	112.47	120.90
2	A8	972	A	P-O3'-C3'	-5.27	113.38	119.70
2	A8	1192	G	C1'-O4'-C4'	-5.27	105.69	109.90
2	A8	1206	G	O4'-C4'-C3'	-5.27	98.73	104.00
2	A8	1547	C	N3-C4-C5	-5.27	119.79	121.90
2	A8	1776	G	C3'-C2'-C1'	-5.27	97.29	101.50
2	A8	1923	U	C1'-O4'-C4'	-5.27	105.69	109.90
2	A8	1982	U	C3'-C2'-C1'	-5.27	97.29	101.50
2	A8	2182	U	C5'-C4'-C3'	-5.27	107.57	116.00
2	A8	2408	U	C3'-C2'-C1'	-5.27	97.29	101.50
36	BA	809	G	C1'-O4'-C4'	-5.27	105.69	109.90
36	BA	865	A	C5-C6-N1	-5.27	115.07	117.70
36	BA	881	G	O4'-C1'-N9	5.27	112.41	108.20
1	A7	89	U	P-O3'-C3'	-5.27	113.38	119.70
2	A8	1179	G	C5-C6-O6	-5.27	125.44	128.60
2	A8	1913	A	C4-C5-C6	5.27	119.63	117.00
2	A8	2565	A	C5-C6-N1	-5.27	115.07	117.70
36	BA	399	G	C4-N9-C1'	-5.27	119.65	126.50
36	BA	654	G	C6-C5-N7	-5.27	127.24	130.40
2	A8	6	A	C5-C6-N6	-5.26	119.49	123.70
2	A8	175	G	N9-C1'-C2'	-5.26	106.21	112.00
2	A8	225	C	O4'-C1'-N1	5.26	112.41	108.20
2	A8	804	A	O4'-C1'-N9	5.26	112.41	108.20
2	A8	1198	U	C5-C6-N1	5.26	125.33	122.70
2	A8	1579	A	C5'-C4'-C3'	-5.26	107.58	116.00
2	A8	2284	A	C4-C5-C6	5.26	119.63	117.00
2	A8	2347	C	P-O3'-C3'	5.26	126.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	267	C	O4'-C1'-N1	5.26	112.41	108.20
36	BA	1509	C	C5-C4-N4	-5.26	116.52	120.20
2	A8	1914	C	C2-N1-C1'	5.26	124.59	118.80
2	A8	2670	A	C4-C5-C6	5.26	119.63	117.00
36	BA	336	A	C5'-C4'-C3'	-5.26	107.58	116.00
2	A8	468	G	N3-C2-N2	5.26	123.58	119.90
2	A8	1041	G	C4-N9-C1'	-5.26	119.66	126.50
2	A8	1063	G	N3-C2-N2	5.26	123.58	119.90
2	A8	1090	A	O4'-C1'-N9	5.26	112.41	108.20
2	A8	1251	C	O4'-C1'-N1	5.26	112.41	108.20
2	A8	1304	A	C4-C5-C6	5.26	119.63	117.00
2	A8	1947	C	N3-C4-N4	5.26	121.68	118.00
2	A8	2056	G	N3-C2-N2	5.26	123.58	119.90
2	A8	2357	G	N1-C2-N3	-5.26	120.74	123.90
2	A8	2601	C	C3'-C2'-C1'	-5.26	97.29	101.50
2	A8	2769	U	C1'-O4'-C4'	-5.26	105.69	109.90
36	BA	48	C	N3-C4-N4	5.26	121.68	118.00
36	BA	620	C	P-O5'-C5'	-5.26	112.48	120.90
36	BA	715	A	C4-C5-C6	5.26	119.63	117.00
36	BA	767	A	C4-C5-C6	5.26	119.63	117.00
36	BA	1101	A	C4-C5-C6	5.26	119.63	117.00
1	A7	109	A	C5-C6-N6	-5.26	119.49	123.70
2	A8	132	G	N3-C2-N2	5.26	123.58	119.90
2	A8	598	U	O4'-C1'-N1	5.26	112.41	108.20
2	A8	862	G	N7-C8-N9	5.26	115.73	113.10
2	A8	991	C	N3-C4-N4	5.26	121.68	118.00
2	A8	1014	A	C3'-C2'-C1'	-5.26	97.29	101.50
2	A8	1228	G	C4-N9-C1'	-5.26	119.66	126.50
2	A8	1498	C	O3'-P-O5'	-5.26	94.00	104.00
2	A8	1932	A	O4'-C1'-N9	5.26	112.41	108.20
2	A8	2018	G	N9-C1'-C2'	-5.26	106.21	112.00
2	A8	2191	A	C5-C6-N1	-5.26	115.07	117.70
2	A8	2207	C	N3-C4-N4	5.26	121.68	118.00
2	A8	2252	G	O4'-C1'-N9	5.26	112.41	108.20
20	AP	42	PHE	CB-CG-CD1	5.26	124.48	120.80
36	BA	225	C	N3-C4-C5	-5.26	119.80	121.90
36	BA	413	G	N3-C2-N2	5.26	123.58	119.90
36	BA	882	C	C5'-C4'-O4'	5.26	115.41	109.10
36	BA	1072	G	C6-C5-N7	-5.26	127.24	130.40
36	BA	1228	C	N3-C4-N4	5.26	121.68	118.00
36	BA	1487	G	C3'-C2'-C1'	-5.26	97.29	101.50
36	BA	785	G	C3'-C2'-C1'	-5.26	97.29	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	965	U	C4'-C3'-C2'	5.26	107.86	102.60
36	BA	965	U	O4'-C1'-N1	5.26	112.41	108.20
1	A7	56	G	C4-N9-C1'	-5.26	119.67	126.50
2	A8	322	A	C4-C5-C6	5.26	119.63	117.00
2	A8	604	G	N1-C6-O6	5.26	123.05	119.90
2	A8	1181	U	C5'-C4'-O4'	5.26	115.41	109.10
2	A8	1237	A	C5-C6-N1	-5.26	115.07	117.70
2	A8	1582	C	C6-N1-C1'	5.26	127.11	120.80
2	A8	1880	U	C5'-C4'-C3'	-5.26	107.59	116.00
2	A8	1916	A	N7-C8-N9	5.26	116.43	113.80
2	A8	2359	C	P-O5'-C5'	-5.26	112.49	120.90
2	A8	2597	G	C5'-C4'-C3'	-5.26	107.59	116.00
2	A8	2626	C	C3'-C2'-C1'	-5.26	97.30	101.50
36	BA	78	A	C8-N9-C4	-5.26	103.70	105.80
36	BA	155	A	N9-C1'-C2'	-5.26	106.22	112.00
36	BA	335	C	N3-C4-N4	5.26	121.68	118.00
36	BA	496	A	P-O3'-C3'	-5.26	113.39	119.70
36	BA	1144	G	O4'-C1'-N9	5.26	112.41	108.20
36	BA	1231	G	C5-C6-O6	-5.26	125.45	128.60
36	BA	1525	G	C1'-O4'-C4'	-5.26	105.69	109.90
2	A8	699	A	C4-C5-C6	5.25	119.63	117.00
2	A8	2250	G	N1-C2-N2	-5.25	111.47	116.20
36	BA	1349	A	O4'-C1'-N9	5.25	112.40	108.20
2	A8	56	A	C5'-C4'-C3'	-5.25	107.59	116.00
2	A8	473	G	O4'-C4'-C3'	-5.25	98.75	104.00
2	A8	612	G	O4'-C1'-N9	5.25	112.40	108.20
2	A8	925	A	C4-C5-C6	5.25	119.63	117.00
2	A8	1451	C	C5'-C4'-C3'	-5.25	107.59	116.00
2	A8	1873	G	C6-C5-N7	-5.25	127.25	130.40
36	BA	319	G	C4-N9-C1'	-5.25	119.67	126.50
36	BA	1486	G	P-O3'-C3'	-5.25	113.39	119.70
2	A8	119	A	P-O5'-C5'	-5.25	112.50	120.90
2	A8	130	C	C5'-C4'-O4'	5.25	115.40	109.10
2	A8	438	G	C1'-O4'-C4'	-5.25	105.70	109.90
2	A8	1750	G	C3'-C2'-C1'	-5.25	97.30	101.50
2	A8	1760	C	N3-C4-C5	-5.25	119.80	121.90
2	A8	2217	G	C8-N9-C4	-5.25	104.30	106.40
2	A8	2742	G	O4'-C1'-N9	5.25	112.40	108.20
36	BA	111	G	C8-N9-C4	-5.25	104.30	106.40
36	BA	472	U	C5'-C4'-O4'	5.25	115.40	109.10
54	BS	54	ARG	N-CA-CB	-5.25	101.15	110.60
2	A8	416	U	C5'-C4'-C3'	-5.25	107.60	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1433	A	O4'-C1'-N9	5.25	112.40	108.20
2	A8	1528	A	C6-C5-N7	-5.25	128.62	132.30
2	A8	177	G	C4-N9-C1'	5.25	133.32	126.50
2	A8	362	A	C5'-C4'-O4'	5.25	115.40	109.10
2	A8	900	A	N1-C6-N6	5.25	121.75	118.60
2	A8	927	A	C4-C5-C6	5.25	119.62	117.00
2	A8	1252	G	C6-C5-N7	-5.25	127.25	130.40
2	A8	1354	A	P-O5'-C5'	5.25	129.30	120.90
2	A8	1842	G	C4-N9-C1'	-5.25	119.68	126.50
2	A8	1984	G	C4-N9-C1'	-5.25	119.68	126.50
2	A8	2594	C	C3'-C2'-C1'	-5.25	97.30	101.50
21	AQ	27	ARG	NE-CZ-NH1	5.25	122.92	120.30
36	BA	68	G	N1-C6-O6	5.25	123.05	119.90
36	BA	270	A	C6-C5-N7	-5.25	128.63	132.30
36	BA	780	A	C5-C6-N1	-5.25	115.08	117.70
36	BA	1081	A	C4-C5-C6	5.25	119.62	117.00
2	A8	2	G	C8-N9-C1'	5.25	133.82	127.00
2	A8	178	G	C4-N9-C1'	-5.25	119.68	126.50
2	A8	347	A	C5'-C4'-C3'	-5.25	107.61	116.00
2	A8	348	A	P-O3'-C3'	-5.25	113.40	119.70
2	A8	597	G	N3-C2-N2	5.25	123.57	119.90
2	A8	736	C	N3-C4-N4	5.25	121.67	118.00
2	A8	998	C	N3-C4-N4	5.25	121.67	118.00
2	A8	1144	A	C4'-C3'-C2'	-5.25	97.35	102.60
2	A8	2007	U	C3'-C2'-C1'	-5.25	97.30	101.50
2	A8	2406	A	O3'-P-O5'	-5.25	94.03	104.00
11	AG	165	ASP	N-CA-CB	5.25	120.04	110.60
12	AH	134	VAL	N-CA-C	-5.25	96.83	111.00
36	BA	71	A	C5-C6-N1	-5.25	115.08	117.70
36	BA	430	A	P-O5'-C5'	-5.25	112.50	120.90
36	BA	792	A	O4'-C1'-C2'	-5.25	100.55	105.80
36	BA	1102	A	C5-C6-N6	-5.25	119.50	123.70
36	BA	1222	G	C5'-C4'-O4'	5.25	115.40	109.10
2	A8	854	C	N3-C4-C5	-5.25	119.80	121.90
2	A8	1463	C	N3-C4-C5	-5.25	119.80	121.90
2	A8	1624	U	O4'-C1'-N1	5.25	112.40	108.20
2	A8	2378	A	C8-N9-C4	-5.25	103.70	105.80
2	A8	2414	G	C8-N9-C4	-5.25	104.30	106.40
2	A8	2710	C	N3-C4-C5	-5.25	119.80	121.90
2	A8	2789	C	C5-C4-N4	-5.25	116.53	120.20
2	A8	44	A	C1'-O4'-C4'	-5.24	105.71	109.90
2	A8	844	A	C5-C6-N6	-5.24	119.51	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1224	U	N1-C2-N3	-5.24	111.75	114.90
2	A8	1241	A	C5'-C4'-O4'	-5.24	102.81	109.10
2	A8	1389	G	C4-N9-C1'	-5.24	119.68	126.50
2	A8	1520	U	O4'-C1'-N1	5.24	112.39	108.20
2	A8	1591	A	C5-C6-N6	-5.24	119.50	123.70
2	A8	1639	C	N1-C1'-C2'	-5.24	106.23	112.00
2	A8	1811	G	C5-C6-O6	-5.24	125.45	128.60
2	A8	1960	A	C3'-C2'-C1'	-5.24	97.31	101.50
2	A8	2150	C	N3-C4-C5	-5.24	119.80	121.90
2	A8	2242	G	C5'-C4'-C3'	5.24	124.39	116.00
16	AL	95	LEU	N-CA-C	-5.24	96.84	111.00
36	BA	707	U	C2-N1-C1'	-5.24	111.41	117.70
36	BA	1306	A	O4'-C1'-N9	5.24	112.39	108.20
2	A8	210	C	P-O3'-C3'	-5.24	113.41	119.70
2	A8	1909	C	C5'-C4'-C3'	-5.24	107.61	116.00
2	A8	2625	G	N3-C2-N2	5.24	123.57	119.90
36	BA	1400	C	C2-N1-C1'	5.24	124.57	118.80
2	A8	274	C	C1'-O4'-C4'	-5.24	105.71	109.90
2	A8	380	G	C4-N9-C1'	-5.24	119.69	126.50
2	A8	482	A	C8-N9-C4	-5.24	103.70	105.80
2	A8	672	C	N3-C4-N4	5.24	121.67	118.00
2	A8	1148	U	O3'-P-O5'	-5.24	94.04	104.00
2	A8	1400	U	C5-C6-N1	5.24	125.32	122.70
2	A8	1869	G	C5'-C4'-O4'	5.24	115.39	109.10
2	A8	2101	A	N9-C1'-C2'	-5.24	106.23	112.00
2	A8	2189	U	C6-N1-C1'	5.24	128.54	121.20
2	A8	2349	G	C4-N9-C1'	-5.24	119.69	126.50
2	A8	2407	A	P-O3'-C3'	-5.24	113.41	119.70
36	BA	151	A	C6-N1-C2	-5.24	115.45	118.60
36	BA	997	U	C5-C4-O4	-5.24	122.75	125.90
36	BA	1037	C	N3-C4-N4	5.24	121.67	118.00
36	BA	1404	C	N3-C4-N4	5.24	121.67	118.00
54	BS	79	TYR	CB-CG-CD1	-5.24	117.86	121.00
1	A7	66	A	C2'-C3'-O3'	5.24	122.08	113.70
2	A8	325	G	P-O3'-C3'	-5.24	113.41	119.70
2	A8	565	C	P-O3'-C3'	-5.24	113.41	119.70
2	A8	822	G	N3-C2-N2	5.24	123.57	119.90
2	A8	1510	G	C5'-C4'-O4'	5.24	115.39	109.10
2	A8	1577	C	N3-C4-N4	5.24	121.67	118.00
2	A8	1632	A	C4-C5-C6	5.24	119.62	117.00
2	A8	1754	A	C5'-C4'-C3'	-5.24	107.62	116.00
2	A8	1853	A	C4-C5-C6	5.24	119.62	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1939	U	O4'-C1'-N1	5.24	112.39	108.20
2	A8	2202	U	O4'-C1'-N1	5.24	112.39	108.20
2	A8	2566	A	C5-C6-N1	-5.24	115.08	117.70
12	AH	82	SER	N-CA-C	-5.24	96.86	111.00
36	BA	707	U	P-O3'-C3'	-5.24	113.41	119.70
36	BA	742	G	C5'-C4'-O4'	5.24	115.39	109.10
36	BA	800	G	C5-C6-O6	-5.24	125.46	128.60
36	BA	831	A	C4-C5-C6	5.24	119.62	117.00
36	BA	1407	C	O4'-C1'-N1	5.24	112.39	108.20
36	BA	1515	G	C5'-C4'-C3'	-5.24	107.62	116.00
2	A8	553	G	C5-C6-O6	-5.24	125.46	128.60
2	A8	840	C	N3-C4-N4	5.24	121.67	118.00
2	A8	896	A	C5-C6-N6	-5.24	119.51	123.70
2	A8	1574	C	C6-N1-C2	-5.24	118.20	120.30
36	BA	809	G	C3'-C2'-C1'	-5.24	97.31	101.50
2	A8	120	U	O4'-C1'-N1	5.24	112.39	108.20
2	A8	412	A	C8-N9-C4	-5.24	103.71	105.80
2	A8	527	C	C2-N1-C1'	5.24	124.56	118.80
2	A8	595	C	C2-N3-C4	5.24	122.52	119.90
2	A8	1639	C	C2-N1-C1'	-5.24	113.04	118.80
2	A8	1908	C	C3'-C2'-C1'	-5.24	97.31	101.50
2	A8	2397	G	N3-C2-N2	5.24	123.56	119.90
2	A8	2619	C	O4'-C1'-N1	5.24	112.39	108.20
2	A8	2652	C	N3-C4-C5	-5.24	119.81	121.90
2	A8	2809	A	C5-C6-N6	-5.24	119.51	123.70
2	A8	2879	A	O4'-C1'-N9	5.24	112.39	108.20
36	BA	731	G	N3-C2-N2	5.24	123.56	119.90
36	BA	1171	A	C4-C5-C6	5.24	119.62	117.00
2	A8	1298	C	O4'-C1'-N1	5.23	112.39	108.20
2	A8	1310	G	P-O5'-C5'	-5.23	112.53	120.90
2	A8	1587	G	C6-C5-N7	-5.23	127.26	130.40
20	AP	26	GLU	N-CA-CB	5.23	120.02	110.60
36	BA	612	C	C3'-C2'-C1'	-5.23	97.31	101.50
2	A8	81	G	C4-N9-C1'	-5.23	119.70	126.50
2	A8	410	G	N3-C2-N2	5.23	123.56	119.90
2	A8	551	G	C5-C6-O6	-5.23	125.46	128.60
2	A8	676	A	C5-C6-N1	-5.23	115.08	117.70
2	A8	1469	A	O4'-C1'-N9	5.23	112.39	108.20
2	A8	1574	C	N3-C4-C5	-5.23	119.81	121.90
2	A8	1665	A	C4-C5-C6	5.23	119.62	117.00
2	A8	2010	G	C8-N9-C1'	5.23	133.80	127.00
2	A8	2518	A	C5-C6-N1	-5.23	115.08	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2675	A	C8-N9-C4	-5.23	103.71	105.80
2	A8	2739	U	C2-N3-C4	-5.23	123.86	127.00
32	A1	51	ALA	N-CA-CB	5.23	117.43	110.10
36	BA	21	G	N3-C2-N2	5.23	123.56	119.90
36	BA	315	A	C5-C6-N1	-5.23	115.08	117.70
36	BA	444	G	N9-C1'-C2'	-5.23	106.24	112.00
36	BA	515	G	O4'-C1'-N9	5.23	112.39	108.20
36	BA	583	A	C4-C5-C6	5.23	119.62	117.00
36	BA	1052	U	O3'-P-O5'	-5.23	94.06	104.00
36	BA	1258	G	C2-N3-C4	5.23	114.52	111.90
36	BA	1418	A	O4'-C1'-N9	5.23	112.39	108.20
2	A8	228	C	N3-C4-N4	5.23	121.66	118.00
2	A8	1090	A	C5-C6-N1	-5.23	115.08	117.70
2	A8	1201	U	P-O3'-C3'	-5.23	113.42	119.70
2	A8	1459	G	C5'-C4'-C3'	-5.23	107.63	116.00
2	A8	1651	G	C5'-C4'-C3'	-5.23	107.63	116.00
2	A8	1967	C	O4'-C1'-N1	5.23	112.39	108.20
2	A8	2316	G	O4'-C1'-N9	5.23	112.38	108.20
2	A8	2391	G	C5-C6-N1	-5.23	108.89	111.50
36	BA	509	A	C8-N9-C4	-5.23	103.71	105.80
36	BA	1124	G	N3-C2-N2	5.23	123.56	119.90
36	BA	1131	G	N3-C2-N2	5.23	123.56	119.90
2	A8	120	U	C2-N3-C4	-5.23	123.86	127.00
2	A8	244	A	C4-C5-C6	5.23	119.61	117.00
2	A8	270	A	C5-C6-N1	-5.23	115.08	117.70
2	A8	380	G	C8-N9-C1'	5.23	133.80	127.00
2	A8	1332	G	C1'-O4'-C4'	-5.23	105.72	109.90
2	A8	1454	C	O4'-C1'-N1	5.23	112.38	108.20
2	A8	1541	C	P-O3'-C3'	-5.23	113.42	119.70
2	A8	1946	U	C3'-C2'-C1'	-5.23	97.32	101.50
2	A8	2279	G	N3-C2-N2	5.23	123.56	119.90
36	BA	6	G	C6-C5-N7	-5.23	127.26	130.40
36	BA	705	G	C8-N9-C1'	5.23	133.80	127.00
36	BA	987	G	O4'-C1'-N9	5.23	112.38	108.20
38	BC	128	MET	CG-SD-CE	-5.23	91.83	100.20
2	A8	85	G	C5-C6-O6	-5.23	125.46	128.60
2	A8	236	C	N3-C4-N4	5.23	121.66	118.00
2	A8	284	U	O4'-C1'-N1	5.23	112.38	108.20
2	A8	1228	G	N9-C1'-C2'	-5.23	106.25	112.00
2	A8	1234	U	C5-C6-N1	5.23	125.31	122.70
2	A8	1253	A	C5-C6-N1	-5.23	115.09	117.70
2	A8	1881	C	C3'-C2'-C1'	-5.23	97.32	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1911	U	C5-C6-N1	5.23	125.31	122.70
2	A8	2004	G	N1-C2-N3	-5.23	120.76	123.90
2	A8	2072	C	C6-N1-C1'	5.23	127.07	120.80
2	A8	2356	U	C6-N1-C1'	5.23	128.52	121.20
2	A8	2507	C	N3-C4-C5	-5.23	119.81	121.90
2	A8	2774	C	N3-C4-N4	5.23	121.66	118.00
21	AQ	116	LEU	N-CA-CB	5.23	120.86	110.40
36	BA	250	A	C5-C6-N6	-5.23	119.52	123.70
36	BA	345	C	C5'-C4'-O4'	5.23	115.37	109.10
36	BA	569	C	C2-N1-C1'	-5.23	113.05	118.80
36	BA	1394	A	C5-C6-N6	-5.23	119.52	123.70
36	BA	1447	A	C4-C5-C6	5.23	119.61	117.00
1	A7	64	G	C4'-C3'-C2'	-5.23	97.37	102.60
2	A8	1646	C	N3-C4-N4	5.23	121.66	118.00
2	A8	2187	U	O3'-P-O5'	-5.23	94.07	104.00
2	A8	2264	C	N3-C4-N4	5.23	121.66	118.00
2	A8	2638	G	C5'-C4'-C3'	-5.23	107.64	116.00
2	A8	2677	G	C8-N9-C1'	5.23	133.79	127.00
6	A5	41	SER	N-CA-CB	5.23	118.34	110.50
36	BA	400	C	N3-C4-N4	5.23	121.66	118.00
36	BA	988	G	P-O5'-C5'	5.23	129.26	120.90
36	BA	1153	G	C5'-C4'-C3'	-5.23	107.64	116.00
2	A8	282	A	C8-N9-C4	-5.22	103.71	105.80
2	A8	575	A	P-O3'-C3'	-5.22	113.43	119.70
2	A8	835	C	C6-N1-C2	-5.22	118.21	120.30
2	A8	1505	A	C3'-C2'-C1'	-5.22	97.32	101.50
2	A8	1515	A	O4'-C4'-C3'	-5.22	98.78	104.00
7	A6	189	ALA	N-CA-CB	5.22	117.42	110.10
36	BA	172	A	N1-C2-N3	5.22	131.91	129.30
36	BA	415	A	C5-C6-N1	-5.22	115.09	117.70
36	BA	530	G	C6-C5-N7	-5.22	127.27	130.40
36	BA	771	G	C8-N9-C1'	5.22	133.79	127.00
36	BA	796	C	N3-C4-N4	5.22	121.66	118.00
36	BA	946	A	C5-C6-N1	-5.22	115.09	117.70
36	BA	1441	A	C8-N9-C4	-5.22	103.71	105.80
2	A8	259	G	C1'-O4'-C4'	-5.22	105.72	109.90
2	A8	639	U	P-O3'-C3'	-5.22	113.43	119.70
2	A8	1103	A	C6-C5-N7	-5.22	128.64	132.30
2	A8	1510	G	O4'-C1'-N9	5.22	112.38	108.20
2	A8	2268	A	N9-C1'-C2'	-5.22	106.25	112.00
2	A8	2515	C	P-O3'-C3'	-5.22	113.43	119.70
2	A8	2550	G	N3-C2-N2	5.22	123.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2668	G	O4'-C1'-N9	5.22	112.38	108.20
2	A8	2837	A	C4-C5-C6	5.22	119.61	117.00
2	A8	2840	C	N3-C4-N4	5.22	121.66	118.00
36	BA	295	C	N3-C4-C5	-5.22	119.81	121.90
36	BA	868	C	C3'-C2'-C1'	-5.22	97.32	101.50
36	BA	1094	G	P-O5'-C5'	5.22	129.25	120.90
36	BA	1361	G	P-O5'-C5'	5.22	129.26	120.90
36	BA	1475	G	O4'-C1'-N9	5.22	112.38	108.20
2	A8	759	G	N3-C2-N2	5.22	123.56	119.90
2	A8	1994	C	N3-C4-C5	-5.22	119.81	121.90
2	A8	2285	C	C3'-C2'-C1'	-5.22	97.32	101.50
2	A8	2604	U	C1'-O4'-C4'	-5.22	105.72	109.90
36	BA	189	A	C5-C6-N1	-5.22	115.09	117.70
36	BA	791	G	O4'-C1'-N9	5.22	112.38	108.20
1	A7	61	G	O4'-C1'-N9	5.22	112.38	108.20
2	A8	1672	A	C5-C6-N1	-5.22	115.09	117.70
2	A8	1974	C	C5-C6-N1	5.22	123.61	121.00
2	A8	2060	A	P-O3'-C3'	5.22	125.96	119.70
2	A8	2488	G	C3'-C2'-C1'	-5.22	97.32	101.50
36	BA	59	A	C5-C6-N1	-5.22	115.09	117.70
36	BA	74	A	C5-C6-N6	-5.22	119.52	123.70
36	BA	454	G	C5'-C4'-C3'	-5.22	107.65	116.00
36	BA	605	U	P-O3'-C3'	-5.22	113.44	119.70
36	BA	628	G	O4'-C1'-N9	5.22	112.38	108.20
36	BA	851	G	C6-C5-N7	-5.22	127.27	130.40
36	BA	1504	G	C4-C5-C6	5.22	121.93	118.80
2	A8	7	G	C8-N9-C1'	5.22	133.78	127.00
2	A8	617	G	C4-N9-C1'	-5.22	119.72	126.50
2	A8	1040	A	P-O3'-C3'	-5.22	113.44	119.70
2	A8	1606	C	N3-C4-N4	5.22	121.65	118.00
2	A8	2559	C	C3'-C2'-C1'	-5.22	97.33	101.50
36	BA	515	G	C8-N9-C1'	5.22	133.78	127.00
36	BA	944	G	O4'-C1'-N9	5.22	112.37	108.20
2	A8	42	A	O4'-C1'-N9	5.22	112.37	108.20
2	A8	77	G	C5-C6-O6	-5.22	125.47	128.60
2	A8	250	G	C5'-C4'-C3'	-5.22	107.65	116.00
2	A8	341	C	N3-C4-N4	5.22	121.65	118.00
2	A8	480	A	C4-C5-C6	5.22	119.61	117.00
2	A8	621	A	C4-C5-C6	5.22	119.61	117.00
2	A8	867	C	C3'-C2'-C1'	-5.22	97.33	101.50
2	A8	1593	A	C4-C5-C6	5.22	119.61	117.00
2	A8	2043	C	N3-C4-N4	5.22	121.65	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2704	C	N3-C4-N4	5.22	121.65	118.00
2	A8	2801	G	C5-C6-O6	-5.22	125.47	128.60
2	A8	2820	A	C3'-C2'-C1'	-5.22	97.33	101.50
36	BA	282	A	N9-C4-C5	5.22	107.89	105.80
36	BA	319	G	C8-N9-C1'	5.22	133.78	127.00
36	BA	1147	C	O4'-C1'-N1	5.22	112.37	108.20
2	A8	760	G	C8-N9-C4	-5.21	104.31	106.40
2	A8	944	C	N3-C4-C5	-5.21	119.81	121.90
2	A8	1345	C	N3-C4-C5	-5.21	119.81	121.90
36	BA	61	G	C4-N9-C1'	-5.21	119.72	126.50
36	BA	904	U	C5-C6-N1	5.21	125.31	122.70
36	BA	960	U	O4'-C1'-N1	5.21	112.37	108.20
36	BA	1396	A	P-O5'-C5'	-5.21	112.56	120.90
41	BF	95	ALA	N-CA-CB	5.21	117.40	110.10
2	A8	44	A	C5-C6-N1	-5.21	115.09	117.70
2	A8	2284	A	C4-N9-C1'	-5.21	116.92	126.30
2	A8	2512	C	N3-C4-C5	-5.21	119.81	121.90
2	A8	2598	A	C5-C6-N1	-5.21	115.09	117.70
36	BA	169	C	P-O3'-C3'	5.21	125.96	119.70
36	BA	488	C	P-O5'-C5'	5.21	129.24	120.90
36	BA	873	A	C5-C6-N6	-5.21	119.53	123.70
36	BA	1306	A	C5'-C4'-C3'	-5.21	107.66	116.00
2	A8	49	A	C4-C5-C6	5.21	119.61	117.00
2	A8	223	A	C5-C6-N1	-5.21	115.09	117.70
2	A8	402	A	O4'-C1'-N9	5.21	112.37	108.20
2	A8	506	G	C6-C5-N7	-5.21	127.27	130.40
2	A8	924	G	O4'-C1'-N9	5.21	112.37	108.20
2	A8	977	G	C8-N9-C4	-5.21	104.31	106.40
2	A8	1192	G	C3'-C2'-C1'	-5.21	97.33	101.50
2	A8	1207	C	N3-C4-N4	5.21	121.65	118.00
2	A8	1385	A	C3'-C2'-C1'	-5.21	97.33	101.50
2	A8	1592	C	N3-C4-N4	5.21	121.65	118.00
2	A8	1877	A	C5-C6-N6	-5.21	119.53	123.70
2	A8	2400	G	N1-C2-N3	-5.21	120.77	123.90
2	A8	2428	G	O4'-C1'-N9	5.21	112.37	108.20
2	A8	2560	A	C4-C5-C6	5.21	119.61	117.00
2	A8	2697	G	P-O5'-C5'	-5.21	112.56	120.90
23	AS	72	THR	CA-CB-CG2	-5.21	105.10	112.40
31	A0	29	VAL	N-CA-C	-5.21	96.93	111.00
36	BA	78	A	C5-C6-N1	-5.21	115.09	117.70
36	BA	98	A	C5-C6-N1	-5.21	115.09	117.70
36	BA	514	C	N3-C4-N4	5.21	121.65	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1422	G	N9-C1'-C2'	-5.21	106.27	112.00
1	A7	39	A	O4'-C1'-N9	5.21	112.37	108.20
2	A8	225	C	C5'-C4'-O4'	5.21	115.35	109.10
2	A8	300	A	P-O5'-C5'	-5.21	112.56	120.90
2	A8	581	C	N3-C4-C5	-5.21	119.82	121.90
2	A8	696	G	P-O5'-C5'	-5.21	112.56	120.90
2	A8	763	G	C5-C6-O6	-5.21	125.47	128.60
2	A8	1180	U	P-O3'-C3'	-5.21	113.45	119.70
2	A8	2822	G	C8-N9-C1'	5.21	133.77	127.00
2	A8	2846	G	C4-N9-C1'	-5.21	119.73	126.50
36	BA	560	A	C5'-C4'-C3'	-5.21	107.66	116.00
36	BA	1067	A	C5-N7-C8	5.21	106.50	103.90
36	BA	1243	C	C5'-C4'-O4'	5.21	115.35	109.10
2	A8	560	C	C5'-C4'-O4'	5.21	115.35	109.10
2	A8	1667	G	N1-C2-N3	-5.21	120.77	123.90
2	A8	1697	G	C3'-C2'-C1'	-5.21	97.33	101.50
2	A8	1954	G	N1-C2-N3	-5.21	120.77	123.90
2	A8	2041	U	O4'-C1'-N1	5.21	112.37	108.20
2	A8	2241	A	O4'-C1'-N9	5.21	112.37	108.20
2	A8	2337	G	N3-C2-N2	5.21	123.55	119.90
2	A8	2893	A	P-O3'-C3'	-5.21	113.45	119.70
36	BA	40	C	O4'-C1'-N1	5.21	112.37	108.20
36	BA	337	G	C8-N9-C1'	5.21	133.77	127.00
48	BM	108	ARG	CB-CA-C	-5.21	99.98	110.40
2	A8	61	C	N3-C4-C5	-5.21	119.82	121.90
2	A8	513	A	C1'-O4'-C4'	-5.21	105.73	109.90
2	A8	926	G	N9-C1'-C2'	-5.21	106.27	112.00
2	A8	1262	A	C4-C5-C6	5.21	119.60	117.00
2	A8	1503	A	C5'-C4'-O4'	5.21	115.35	109.10
2	A8	1669	A	N1-C2-N3	5.21	131.90	129.30
2	A8	2175	C	N3-C4-C5	-5.21	119.82	121.90
2	A8	2484	G	O5'-C5'-C4'	-5.21	101.81	111.70
2	A8	2642	G	N3-C2-N2	5.21	123.55	119.90
2	A8	2684	U	C1'-O4'-C4'	-5.21	105.73	109.90
36	BA	420	U	O4'-C1'-N1	5.21	112.36	108.20
36	BA	613	C	N3-C4-C5	-5.21	119.82	121.90
36	BA	733	G	C6-C5-N7	-5.21	127.28	130.40
36	BA	896	C	N3-C4-N4	5.21	121.64	118.00
2	A8	944	C	N3-C4-N4	5.21	121.64	118.00
2	A8	1555	G	N3-C2-N2	5.21	123.54	119.90
2	A8	2160	C	N3-C4-N4	5.21	121.64	118.00
2	A8	2220	U	C6-N1-C1'	5.21	128.49	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2551	C	O4'-C1'-N1	5.21	112.36	108.20
36	BA	1124	G	C3'-C2'-C1'	5.21	105.66	101.50
2	A8	368	A	C5-C6-N1	-5.20	115.10	117.70
2	A8	505	A	C4-C5-C6	5.20	119.60	117.00
2	A8	1458	U	O4'-C1'-C2'	-5.20	100.60	105.80
2	A8	1577	C	N3-C4-C5	-5.20	119.82	121.90
2	A8	1728	C	P-O3'-C3'	-5.20	113.45	119.70
2	A8	2273	A	C4-C5-C6	5.20	119.60	117.00
2	A8	2549	G	C5'-C4'-C3'	-5.20	107.67	116.00
36	BA	491	G	C6-C5-N7	-5.20	127.28	130.40
36	BA	575	G	N3-C4-N9	-5.20	122.88	126.00
36	BA	735	C	N3-C4-C5	-5.20	119.82	121.90
2	A8	1114	C	N3-C4-C5	-5.20	119.82	121.90
2	A8	2161	C	N3-C4-N4	5.20	121.64	118.00
2	A8	2170	A	C5-C6-N1	-5.20	115.10	117.70
4	AB	3	LYS	N-CA-CB	5.20	119.96	110.60
36	BA	582	C	C3'-C2'-C1'	-5.20	97.34	101.50
36	BA	714	G	C8-N9-C4	-5.20	104.32	106.40
36	BA	1471	U	C5-C6-N1	5.20	125.30	122.70
2	A8	364	C	C6-N1-C2	-5.20	118.22	120.30
2	A8	485	C	N3-C4-N4	5.20	121.64	118.00
2	A8	789	A	O4'-C1'-N9	5.20	112.36	108.20
2	A8	1085	A	O4'-C1'-N9	5.20	112.36	108.20
2	A8	1086	A	C5-C6-N6	-5.20	119.54	123.70
2	A8	1237	A	C4'-C3'-C2'	-5.20	97.40	102.60
2	A8	1599	U	C5'-C4'-C3'	-5.20	107.68	116.00
2	A8	1659	G	P-O3'-C3'	-5.20	113.46	119.70
2	A8	1743	G	C8-N9-C4	-5.20	104.32	106.40
2	A8	2108	A	C5-C6-N1	-5.20	115.10	117.70
2	A8	2442	C	O4'-C1'-N1	5.20	112.36	108.20
2	A8	2715	C	C3'-C2'-C1'	-5.20	97.34	101.50
2	A8	2814	A	C8-N9-C4	-5.20	103.72	105.80
36	BA	166	U	C5'-C4'-O4'	5.20	115.34	109.10
36	BA	177	G	C4-N9-C1'	5.20	133.26	126.50
36	BA	1118	U	P-O3'-C3'	5.20	125.94	119.70
2	A8	370	G	C4-N9-C1'	-5.20	119.74	126.50
2	A8	857	G	C8-N9-C1'	5.20	133.76	127.00
2	A8	1490	A	P-O3'-C3'	-5.20	113.46	119.70
2	A8	1836	C	N3-C4-N4	5.20	121.64	118.00
2	A8	1973	G	O4'-C1'-N9	5.20	112.36	108.20
2	A8	2260	C	N3-C4-N4	5.20	121.64	118.00
2	A8	2769	U	C5'-C4'-O4'	5.20	115.34	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	AX	28	PHE	CB-CA-C	-5.20	100.00	110.40
36	BA	325	A	O4'-C1'-N9	5.20	112.36	108.20
36	BA	477	C	C5'-C4'-C3'	-5.20	107.68	116.00
36	BA	757	U	C5'-C4'-O4'	5.20	115.34	109.10
36	BA	992	U	C4'-C3'-C2'	5.20	107.80	102.60
36	BA	1145	A	C5-C6-N1	-5.20	115.10	117.70
2	A8	1000	A	OP1-P-OP2	-5.20	111.80	119.60
36	BA	161	A	C4-C5-C6	5.20	119.60	117.00
40	BE	138	ALA	CB-CA-C	-5.20	102.30	110.10
2	A8	26	G	C5-C6-O6	-5.20	125.48	128.60
2	A8	495	G	C8-N9-C1'	5.20	133.75	127.00
2	A8	1006	C	N3-C4-C5	-5.20	119.82	121.90
2	A8	1242	U	C2-N3-C4	-5.20	123.88	127.00
2	A8	2378	A	O4'-C1'-N9	5.20	112.36	108.20
2	A8	2391	G	N1-C6-O6	5.20	123.02	119.90
2	A8	2577	A	C5-C6-N1	-5.20	115.10	117.70
2	A8	2612	C	C2-N3-C4	5.20	122.50	119.90
2	A8	2642	G	C4-N9-C1'	-5.20	119.75	126.50
2	A8	2741	A	P-O3'-C3'	-5.20	113.47	119.70
2	A8	2869	G	N1-C2-N3	-5.20	120.78	123.90
36	BA	628	G	N3-C2-N2	5.20	123.54	119.90
2	A8	1079	C	P-O5'-C5'	-5.19	112.59	120.90
2	A8	2028	U	C6-N1-C1'	5.19	128.47	121.20
36	BA	7	A	O4'-C1'-N9	5.19	112.36	108.20
36	BA	201	G	C4'-C3'-C2'	-5.19	97.41	102.60
36	BA	1234	C	N3-C4-C5	-5.19	119.82	121.90
2	A8	1211	C	N3-C4-C5	-5.19	119.82	121.90
2	A8	1227	G	P-O3'-C3'	-5.19	113.47	119.70
2	A8	1322	A	C4-C5-C6	5.19	119.60	117.00
2	A8	1728	C	C6-N1-C1'	5.19	127.03	120.80
2	A8	1893	C	C3'-C2'-C1'	-5.19	97.35	101.50
2	A8	2335	A	C5-C6-N1	-5.19	115.10	117.70
2	A8	2481	G	N3-C2-N2	5.19	123.53	119.90
36	BA	699	C	C6-N1-C2	-5.19	118.22	120.30
36	BA	885	G	C3'-C2'-C1'	-5.19	97.35	101.50
36	BA	934	C	P-O5'-C5'	-5.19	112.59	120.90
36	BA	1226	C	O4'-C1'-C2'	5.19	112.27	107.60
2	A8	278	A	C5-C6-N6	-5.19	119.55	123.70
2	A8	366	C	N3-C4-N4	5.19	121.63	118.00
2	A8	377	G	N1-C2-N3	-5.19	120.78	123.90
2	A8	776	G	C6-C5-N7	-5.19	127.29	130.40
2	A8	815	C	N3-C4-N4	5.19	121.63	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1832	C	C5-C4-N4	-5.19	116.57	120.20
2	A8	1975	G	P-O5'-C5'	-5.19	112.59	120.90
2	A8	2503	A	C5-C6-N6	-5.19	119.55	123.70
2	A8	2780	G	C4'-C3'-C2'	5.19	107.79	102.60
36	BA	251	G	C5-C6-N1	-5.19	108.91	111.50
36	BA	417	G	C5-C6-O6	-5.19	125.49	128.60
36	BA	890	G	C5-C6-O6	-5.19	125.48	128.60
36	BA	1100	C	N3-C4-N4	5.19	121.63	118.00
2	A8	1664	A	C6-C5-N7	-5.19	128.67	132.30
2	A8	1985	C	N3-C4-C5	-5.19	119.82	121.90
2	A8	2141	G	C6-C5-N7	-5.19	127.29	130.40
2	A8	2175	C	N3-C4-N4	5.19	121.63	118.00
2	A8	2413	G	O4'-C1'-N9	5.19	112.35	108.20
2	A8	2620	C	N3-C4-N4	5.19	121.63	118.00
2	A8	2664	G	C5'-C4'-O4'	5.19	115.33	109.10
23	AS	76	VAL	N-CA-C	-5.19	96.99	111.00
36	BA	105	G	N3-C2-N2	5.19	123.53	119.90
36	BA	1382	C	N3-C4-N4	5.19	121.63	118.00
36	BA	1395	C	C4'-C3'-C2'	-5.19	97.41	102.60
2	A8	315	G	C5-C6-O6	-5.19	125.49	128.60
2	A8	854	C	C1'-O4'-C4'	-5.19	105.75	109.90
2	A8	862	G	C5'-C4'-C3'	-5.19	107.70	116.00
2	A8	1522	A	O4'-C4'-C3'	-5.19	98.81	104.00
2	A8	2078	C	C5'-C4'-C3'	-5.19	107.70	116.00
2	A8	2362	C	C2-N1-C1'	-5.19	113.09	118.80
36	BA	25	C	N3-C4-N4	5.19	121.63	118.00
36	BA	153	C	N3-C4-N4	5.19	121.63	118.00
36	BA	243	A	C2'-C3'-O3'	5.19	122.00	113.70
36	BA	272	C	N3-C4-N4	5.19	121.63	118.00
36	BA	319	G	C1'-O4'-C4'	-5.19	105.75	109.90
36	BA	453	G	C5'-C4'-C3'	-5.19	107.70	116.00
2	A8	2350	C	N3-C4-N4	5.19	121.63	118.00
2	A8	2621	G	N1-C2-N3	-5.19	120.79	123.90
36	BA	596	A	C5-N7-C8	5.19	106.49	103.90
36	BA	657	U	O4'-C1'-N1	5.19	112.35	108.20
36	BA	867	G	C4'-C3'-C2'	-5.19	97.41	102.60
2	A8	76	C	N3-C4-C5	-5.18	119.83	121.90
2	A8	153	U	P-O3'-C3'	-5.18	113.48	119.70
2	A8	531	C	N3-C4-N4	5.18	121.63	118.00
2	A8	1092	C	C5'-C4'-C3'	-5.18	107.70	116.00
2	A8	1561	C	C6-N1-C2	-5.18	118.23	120.30
2	A8	1786	A	N1-C6-N6	5.18	121.71	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1867	G	P-O3'-C3'	-5.18	113.48	119.70
2	A8	2663	G	C8-N9-C1'	5.18	133.74	127.00
24	AT	70	HIS	N-CA-C	-5.18	97.00	111.00
36	BA	19	A	C5-C6-N6	-5.18	119.55	123.70
36	BA	1107	C	N3-C4-N4	5.18	121.63	118.00
1	A7	76	G	C6-C5-N7	-5.18	127.29	130.40
2	A8	322	A	O4'-C1'-C2'	-5.18	100.62	105.80
2	A8	461	C	P-O5'-C5'	-5.18	112.61	120.90
2	A8	666	A	O4'-C1'-N9	5.18	112.35	108.20
2	A8	1049	C	C3'-C2'-C1'	-5.18	97.36	101.50
2	A8	1346	G	N3-C2-N2	5.18	123.53	119.90
2	A8	2029	G	C4-N9-C1'	-5.18	119.76	126.50
2	A8	2180	U	C5-C6-N1	5.18	125.29	122.70
2	A8	2470	G	C6-C5-N7	-5.18	127.29	130.40
2	A8	2635	A	C5-C6-N6	-5.18	119.55	123.70
36	BA	239	U	C6-N1-C1'	5.18	128.45	121.20
36	BA	306	A	O4'-C1'-N9	5.18	112.35	108.20
36	BA	584	G	C8-N9-C1'	5.18	133.74	127.00
36	BA	1117	A	P-O3'-C3'	-5.18	113.48	119.70
36	BA	1147	C	C5-C6-N1	5.18	123.59	121.00
2	A8	496	G	N9-C1'-C2'	-5.18	106.30	112.00
2	A8	2032	G	N1-C2-N3	-5.18	120.79	123.90
2	A8	2396	G	O4'-C1'-N9	5.18	112.34	108.20
36	BA	143	A	C5-C6-N1	-5.18	115.11	117.70
36	BA	850	U	C3'-C2'-C1'	-5.18	97.36	101.50
36	BA	886	G	C8-N9-C1'	5.18	133.74	127.00
51	BP	16	PHE	N-CA-C	-5.18	97.01	111.00
2	A8	20	C	N3-C4-N4	5.18	121.62	118.00
2	A8	117	G	N1-C2-N3	-5.18	120.79	123.90
2	A8	249	C	O3'-P-O5'	-5.18	94.16	104.00
2	A8	400	G	O4'-C1'-N9	5.18	112.34	108.20
2	A8	560	C	N3-C4-C5	-5.18	119.83	121.90
2	A8	643	A	C5-C6-N6	-5.18	119.56	123.70
2	A8	1186	G	C5'-C4'-C3'	-5.18	107.71	116.00
2	A8	1232	G	C8-N9-C4	-5.18	104.33	106.40
2	A8	1347	A	C5'-C4'-C3'	-5.18	107.71	116.00
2	A8	2382	G	N3-C2-N2	5.18	123.53	119.90
16	AL	59	ARG	NE-CZ-NH1	5.18	122.89	120.30
36	BA	102	G	C8-N9-C1'	5.18	133.73	127.00
36	BA	552	U	P-O5'-C5'	5.18	129.19	120.90
36	BA	851	G	N3-C2-N2	5.18	123.53	119.90
1	A7	24	G	C8-N9-C4	-5.18	104.33	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	489	G	O4'-C1'-N9	5.18	112.34	108.20
2	A8	525	U	C5'-C4'-C3'	5.18	124.28	116.00
2	A8	1661	G	N1-C2-N3	-5.18	120.79	123.90
2	A8	2735	G	O4'-C1'-N9	5.18	112.34	108.20
36	BA	841	C	N3-C4-N4	5.18	121.62	118.00
36	BA	873	A	C4'-C3'-C2'	-5.18	97.42	102.60
36	BA	1011	C	C2-N3-C4	5.18	122.49	119.90
36	BA	1248	A	C3'-C2'-C1'	-5.18	97.36	101.50
1	A7	100	G	C6-C5-N7	-5.18	127.29	130.40
2	A8	376	G	C5'-C4'-C3'	-5.18	107.72	116.00
2	A8	881	G	C4-C5-C6	5.18	121.91	118.80
2	A8	1154	G	P-O3'-C3'	5.18	125.91	119.70
2	A8	1216	G	O4'-C1'-N9	5.18	112.34	108.20
2	A8	1229	C	P-O5'-C5'	-5.18	112.62	120.90
2	A8	1309	G	P-O5'-C5'	5.18	129.18	120.90
2	A8	2178	C	P-O5'-C5'	5.18	129.18	120.90
2	A8	2216	G	P-O3'-C3'	-5.18	113.49	119.70
36	BA	100	G	O4'-C1'-N9	5.18	112.34	108.20
36	BA	887	G	C5'-C4'-C3'	-5.18	107.72	116.00
2	A8	53	A	C5'-C4'-C3'	-5.17	107.72	116.00
2	A8	98	G	P-O5'-C5'	-5.17	112.62	120.90
2	A8	196	A	C5-C6-N6	-5.17	119.56	123.70
2	A8	519	U	C5'-C4'-C3'	-5.17	107.72	116.00
2	A8	796	C	N3-C4-C5	-5.17	119.83	121.90
2	A8	1156	A	C5-C6-N1	-5.17	115.11	117.70
2	A8	2121	G	C5-C6-O6	-5.17	125.50	128.60
36	BA	106	C	C5'-C4'-C3'	-5.17	107.72	116.00
36	BA	596	A	C5-C6-N6	-5.17	119.56	123.70
36	BA	771	G	C4-N9-C1'	-5.17	119.77	126.50
36	BA	1172	C	N3-C4-N4	5.17	121.62	118.00
36	BA	1215	G	C5-C6-O6	-5.17	125.50	128.60
36	BA	1403	C	C5'-C4'-C3'	-5.17	107.72	116.00
36	BA	1512	U	P-O3'-C3'	-5.17	113.49	119.70
2	A8	493	G	N3-C2-N2	5.17	123.52	119.90
2	A8	2234	G	C5'-C4'-C3'	5.17	124.28	116.00
2	A8	2277	G	C5'-C4'-C3'	-5.17	107.72	116.00
2	A8	2326	C	O4'-C1'-C2'	5.17	112.25	107.60
2	A8	2758	A	C4-C5-C6	5.17	119.59	117.00
36	BA	1171	A	C5'-C4'-O4'	5.17	115.31	109.10
36	BA	1372	U	O4'-C1'-N1	5.17	112.34	108.20
2	A8	445	C	C2-N1-C1'	-5.17	113.11	118.80
2	A8	580	U	C5'-C4'-C3'	5.17	124.27	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	794	A	C5-C6-N6	-5.17	119.56	123.70
2	A8	1433	A	C1'-O4'-C4'	-5.17	105.76	109.90
2	A8	2009	A	O4'-C1'-N9	5.17	112.34	108.20
2	A8	2127	G	C5-C6-O6	-5.17	125.50	128.60
2	A8	2164	C	C5'-C4'-O4'	5.17	115.31	109.10
2	A8	2750	A	C4'-C3'-C2'	5.17	107.77	102.60
2	A8	2773	C	C6-N1-C1'	5.17	127.01	120.80
36	BA	90	C	O3'-P-O5'	-5.17	94.17	104.00
36	BA	328	C	C2-N1-C1'	5.17	124.49	118.80
2	A8	1160	G	C5'-C4'-C3'	-5.17	107.73	116.00
2	A8	1519	G	O4'-C1'-N9	5.17	112.34	108.20
2	A8	1771	C	P-O3'-C3'	-5.17	113.50	119.70
2	A8	2174	C	N3-C4-N4	5.17	121.62	118.00
2	A8	2518	A	O4'-C1'-N9	5.17	112.34	108.20
21	AQ	2	ARG	NE-CZ-NH1	-5.17	117.72	120.30
36	BA	370	C	N3-C4-C5	-5.17	119.83	121.90
36	BA	1277	C	N3-C4-N4	5.17	121.62	118.00
36	BA	1482	G	P-O3'-C3'	5.17	125.91	119.70
36	BA	1513	A	C4-C5-C6	5.17	119.58	117.00
1	A7	18	G	C3'-C2'-C1'	-5.17	97.36	101.50
1	A7	30	C	C6-N1-C1'	5.17	127.00	120.80
2	A8	479	A	P-O3'-C3'	5.17	125.90	119.70
2	A8	530	G	O4'-C4'-C3'	-5.17	98.83	104.00
2	A8	1093	G	O4'-C1'-N9	5.17	112.33	108.20
2	A8	1129	A	C5-C6-N1	-5.17	115.12	117.70
2	A8	1194	A	C4-C5-C6	5.17	119.58	117.00
2	A8	1356	G	N9-C1'-C2'	-5.17	106.31	112.00
2	A8	1684	G	C5-C6-O6	-5.17	125.50	128.60
2	A8	2280	G	C4'-C3'-C2'	5.17	107.77	102.60
2	A8	2291	U	C6-N1-C1'	5.17	128.44	121.20
2	A8	2461	A	N1-C2-N3	5.17	131.88	129.30
36	BA	502	A	C4-C5-C6	5.17	119.58	117.00
36	BA	613	C	C1'-O4'-C4'	-5.17	105.77	109.90
36	BA	1419	G	N1-C6-O6	5.17	123.00	119.90
1	A7	19	C	N3-C4-C5	-5.17	119.83	121.90
2	A8	696	G	C3'-C2'-C1'	-5.17	97.37	101.50
2	A8	985	C	N3-C4-C5	-5.17	119.83	121.90
2	A8	1154	G	C3'-C2'-C1'	-5.17	97.37	101.50
2	A8	1265	A	C4-C5-C6	5.17	119.58	117.00
2	A8	1662	U	C6-N1-C1'	5.17	128.43	121.20
2	A8	2351	G	O3'-P-O5'	-5.17	94.18	104.00
2	A8	2448	A	O4'-C1'-N9	5.17	112.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2660	A	C5-C6-N1	-5.17	115.12	117.70
36	BA	783	C	C5'-C4'-C3'	-5.17	107.73	116.00
36	BA	1331	G	C5-C6-O6	-5.17	125.50	128.60
36	BA	1468	A	P-O5'-C5'	5.17	129.17	120.90
1	A7	87	U	O4'-C4'-C3'	-5.17	98.83	104.00
2	A8	1724	G	O4'-C1'-N9	5.17	112.33	108.20
2	A8	2765	A	C5-C6-N1	-5.17	115.12	117.70
36	BA	497	G	C8-N9-C1'	5.17	133.72	127.00
36	BA	909	A	C6-C5-N7	-5.17	128.68	132.30
36	BA	1321	U	P-O3'-C3'	-5.17	113.50	119.70
2	A8	379	G	C8-N9-C1'	5.16	133.71	127.00
2	A8	873	C	N3-C4-N4	5.16	121.61	118.00
2	A8	968	C	C6-N1-C2	-5.16	118.23	120.30
2	A8	1169	A	C5-C6-N1	-5.16	115.12	117.70
2	A8	1404	C	C5'-C4'-C3'	-5.16	107.74	116.00
2	A8	1473	G	C8-N9-C1'	5.16	133.71	127.00
2	A8	1682	G	N3-C2-N2	5.16	123.51	119.90
2	A8	1692	U	C5-C6-N1	5.16	125.28	122.70
2	A8	2023	C	C3'-C2'-C1'	-5.16	97.37	101.50
2	A8	2248	C	C2-N1-C1'	-5.16	113.12	118.80
2	A8	2694	G	C8-N9-C1'	5.16	133.71	127.00
36	BA	211	G	O4'-C1'-N9	5.16	112.33	108.20
2	A8	1247	A	C4-C5-C6	5.16	119.58	117.00
2	A8	1723	G	N3-C2-N2	5.16	123.51	119.90
2	A8	1775	U	C4'-C3'-C2'	-5.16	97.44	102.60
36	BA	1114	C	N3-C4-N4	5.16	121.61	118.00
36	BA	1479	C	C5-C6-N1	5.16	123.58	121.00
2	A8	139	U	C5'-C4'-O4'	5.16	115.29	109.10
2	A8	425	G	C5'-C4'-C3'	5.16	124.26	116.00
2	A8	716	A	C5-C6-N1	-5.16	115.12	117.70
2	A8	1922	G	N3-C2-N2	5.16	123.51	119.90
2	A8	2635	A	C5-C6-N1	-5.16	115.12	117.70
36	BA	1064	G	C5-C6-O6	-5.16	125.50	128.60
36	BA	1146	A	C8-N9-C4	-5.16	103.73	105.80
36	BA	1285	A	C5'-C4'-C3'	-5.16	107.74	116.00
36	BA	1485	U	C2-N1-C1'	-5.16	111.51	117.70
39	BD	118	SER	N-CA-CB	5.16	118.24	110.50
2	A8	237	C	N3-C4-C5	-5.16	119.84	121.90
2	A8	695	G	C5'-C4'-C3'	-5.16	107.75	116.00
2	A8	867	C	P-O3'-C3'	5.16	125.89	119.70
2	A8	891	G	C8-N9-C1'	5.16	133.71	127.00
2	A8	933	A	C5-C6-N1	-5.16	115.12	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1120	G	C5-C6-N1	-5.16	108.92	111.50
2	A8	1548	A	C4-C5-C6	5.16	119.58	117.00
2	A8	1785	A	C5-C6-N1	-5.16	115.12	117.70
2	A8	2268	A	C8-N9-C4	-5.16	103.74	105.80
2	A8	2392	A	C6-C5-N7	-5.16	128.69	132.30
2	A8	2563	U	O4'-C1'-N1	5.16	112.33	108.20
2	A8	2889	C	C6-N1-C2	-5.16	118.24	120.30
36	BA	179	A	C5-C6-N1	-5.16	115.12	117.70
36	BA	504	C	N3-C4-N4	5.16	121.61	118.00
36	BA	567	G	C4-N9-C1'	-5.16	119.79	126.50
36	BA	1271	A	P-O3'-C3'	-5.16	113.51	119.70
1	A7	24	G	C8-N9-C1'	-5.16	120.30	127.00
2	A8	709	U	C5-C6-N1	5.16	125.28	122.70
2	A8	840	C	P-O3'-C3'	-5.16	113.51	119.70
2	A8	1349	C	O5'-C5'-C4'	-5.16	101.90	111.70
2	A8	1840	G	O4'-C1'-N9	5.16	112.33	108.20
2	A8	1860	G	C5-C6-O6	-5.16	125.51	128.60
2	A8	2842	G	C6-C5-N7	-5.16	127.31	130.40
2	A8	2849	U	C2-N3-C4	-5.16	123.91	127.00
36	BA	1067	A	C5-C6-N6	-5.16	119.58	123.70
48	BM	86	ARG	C-N-CA	5.16	133.13	122.30
2	A8	909	A	P-O3'-C3'	5.16	125.89	119.70
2	A8	1382	G	C5'-C4'-C3'	5.16	124.25	116.00
2	A8	1452	G	O4'-C1'-N9	5.16	112.32	108.20
2	A8	1789	A	C5-C6-N6	-5.16	119.58	123.70
2	A8	2246	G	O4'-C4'-C3'	-5.16	98.84	104.00
2	A8	2303	G	C4-N9-C1'	-5.16	119.80	126.50
2	A8	2363	G	O4'-C1'-N9	5.16	112.32	108.20
36	BA	1217	C	P-O5'-C5'	-5.16	112.65	120.90
36	BA	1250	A	C5-C6-N1	-5.16	115.12	117.70
43	BH	88	LYS	N-CA-CB	-5.16	101.32	110.60
1	A7	39	A	C4-C5-C6	5.15	119.58	117.00
2	A8	772	C	O5'-C5'-C4'	-5.15	101.91	111.70
2	A8	1695	G	C8-N9-C1'	-5.15	120.30	127.00
2	A8	2541	A	C3'-C2'-C1'	-5.15	97.38	101.50
36	BA	162	A	C6-C5-N7	-5.15	128.69	132.30
36	BA	514	C	C6-N1-C2	-5.15	118.24	120.30
36	BA	849	G	P-O5'-C5'	-5.15	112.65	120.90
2	A8	251	A	C4-N9-C1'	-5.15	117.03	126.30
2	A8	487	C	N3-C4-N4	5.15	121.61	118.00
2	A8	575	A	O4'-C1'-N9	5.15	112.32	108.20
2	A8	1097	U	C4'-C3'-C2'	-5.15	97.45	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1233	C	C5-C4-N4	-5.15	116.59	120.20
2	A8	1254	A	C4-C5-C6	5.15	119.58	117.00
2	A8	1544	A	C4-C5-C6	5.15	119.58	117.00
2	A8	1735	A	C5-C6-N1	-5.15	115.12	117.70
2	A8	2134	A	O4'-C1'-N9	5.15	112.32	108.20
2	A8	2201	G	C8-N9-C1'	5.15	133.70	127.00
2	A8	2226	C	C5-C6-N1	5.15	123.58	121.00
2	A8	2246	G	N9-C1'-C2'	-5.15	106.33	112.00
2	A8	2317	A	C4-C5-C6	5.15	119.58	117.00
2	A8	2374	C	O4'-C1'-N1	5.15	112.32	108.20
2	A8	2472	G	N1-C2-N3	-5.15	120.81	123.90
36	BA	290	C	N3-C4-N4	5.15	121.61	118.00
36	BA	471	U	C6-N1-C2	-5.15	117.91	121.00
36	BA	840	C	N3-C4-C5	-5.15	119.84	121.90
2	A8	186	G	N9-C1'-C2'	-5.15	106.33	112.00
2	A8	930	G	P-O5'-C5'	-5.15	112.66	120.90
2	A8	1040	A	C5-C6-N6	-5.15	119.58	123.70
2	A8	1388	G	P-O5'-C5'	-5.15	112.66	120.90
2	A8	1530	G	C8-N9-C1'	5.15	133.69	127.00
2	A8	2369	A	C3'-C2'-C1'	-5.15	97.38	101.50
2	A8	2824	C	C6-N1-C2	-5.15	118.24	120.30
36	BA	202	G	N1-C2-N2	-5.15	111.56	116.20
36	BA	232	G	C5'-C4'-O4'	5.15	115.28	109.10
36	BA	344	A	C5-C6-N1	-5.15	115.12	117.70
36	BA	446	G	C5'-C4'-O4'	5.15	115.28	109.10
36	BA	661	G	C5'-C4'-C3'	-5.15	107.76	116.00
36	BA	1057	G	N7-C8-N9	5.15	115.67	113.10
36	BA	1072	G	C4-C5-C6	5.15	121.89	118.80
36	BA	1170	A	N1-C2-N3	5.15	131.88	129.30
2	A8	648	G	O3'-P-O5'	-5.15	94.22	104.00
2	A8	1070	A	C5-C6-N1	-5.15	115.12	117.70
2	A8	1105	U	C5'-C4'-C3'	-5.15	107.76	116.00
2	A8	2582	G	C5-C6-O6	-5.15	125.51	128.60
36	BA	553	A	O4'-C1'-N9	5.15	112.32	108.20
36	BA	1034	G	O4'-C1'-N9	5.15	112.32	108.20
36	BA	1160	G	C6-C5-N7	-5.15	127.31	130.40
2	A8	257	C	N3-C4-C5	-5.15	119.84	121.90
2	A8	261	G	C5'-C4'-O4'	5.15	115.28	109.10
2	A8	316	C	N3-C4-N4	5.15	121.60	118.00
2	A8	918	A	N9-C4-C5	5.15	107.86	105.80
2	A8	935	C	C3'-C2'-C1'	-5.15	97.38	101.50
2	A8	1371	G	N1-C2-N2	5.15	120.83	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2092	U	C5-C4-O4	-5.15	122.81	125.90
2	A8	2442	C	N3-C4-N4	5.15	121.60	118.00
26	AV	30	ILE	N-CA-C	-5.15	97.10	111.00
36	BA	614	C	C3'-C2'-C1'	-5.15	97.38	101.50
2	A8	254	G	C5'-C4'-C3'	-5.15	107.77	116.00
2	A8	1048	A	C5'-C4'-C3'	-5.15	107.77	116.00
36	BA	35	G	O4'-C1'-N9	5.15	112.32	108.20
36	BA	221	C	C5-C6-N1	5.15	123.57	121.00
2	A8	46	G	O4'-C1'-N9	5.14	112.31	108.20
2	A8	87	U	C2-N1-C1'	-5.14	111.53	117.70
2	A8	686	U	C2-N1-C1'	5.14	123.87	117.70
2	A8	756	A	C3'-C2'-C1'	-5.14	97.39	101.50
2	A8	1331	G	C6-C5-N7	-5.14	127.31	130.40
2	A8	2224	G	C5-C6-N1	-5.14	108.93	111.50
2	A8	2369	A	C5-C6-N6	-5.14	119.58	123.70
2	A8	2390	U	P-O3'-C3'	5.14	125.87	119.70
2	A8	2540	C	P-O5'-C5'	-5.14	112.67	120.90
2	A8	2614	A	C5-C6-N6	-5.14	119.58	123.70
2	A8	2706	A	C6-C5-N7	-5.14	128.70	132.30
2	A8	2750	A	O4'-C1'-C2'	5.14	112.23	107.60
36	BA	323	U	C6-N1-C2	-5.14	117.91	121.00
36	BA	423	G	C4-N9-C1'	5.14	133.19	126.50
36	BA	1255	G	N3-C2-N2	5.14	123.50	119.90
39	BD	153	ARG	NE-CZ-NH2	-5.14	117.73	120.30
2	A8	1307	A	C4-C5-C6	5.14	119.57	117.00
2	A8	1358	G	N3-C2-N2	5.14	123.50	119.90
2	A8	1532	A	C5-C6-N6	-5.14	119.59	123.70
2	A8	1573	G	P-O5'-C5'	5.14	129.13	120.90
2	A8	1724	G	C5-C6-O6	-5.14	125.52	128.60
2	A8	1823	G	O4'-C1'-N9	5.14	112.31	108.20
2	A8	1844	C	C5-C4-N4	-5.14	116.60	120.20
2	A8	1920	C	P-O3'-C3'	-5.14	113.53	119.70
2	A8	2690	U	O3'-P-O5'	-5.14	94.23	104.00
8	AD	11	MET	N-CA-C	-5.14	97.12	111.00
2	A8	999	U	O4'-C1'-N1	5.14	112.31	108.20
2	A8	1004	U	C6-N1-C2	-5.14	117.92	121.00
2	A8	1182	G	C8-N9-C4	-5.14	104.34	106.40
2	A8	1316	U	C5'-C4'-C3'	-5.14	107.77	116.00
2	A8	1587	G	N3-C2-N2	5.14	123.50	119.90
2	A8	1668	A	C5-C6-N1	-5.14	115.13	117.70
2	A8	2307	G	N1-C2-N3	-5.14	120.82	123.90
36	BA	384	G	N3-C2-N2	5.14	123.50	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1338	G	N3-C2-N2	5.14	123.50	119.90
1	A7	31	C	N3-C4-N4	5.14	121.60	118.00
1	A7	106	G	C4-N9-C1'	-5.14	119.82	126.50
2	A8	597	G	C8-N9-C4	-5.14	104.34	106.40
2	A8	760	G	C5'-C4'-C3'	-5.14	107.78	116.00
2	A8	1027	A	C4'-C3'-C2'	5.14	107.74	102.60
2	A8	1075	C	N3-C4-N4	5.14	121.60	118.00
2	A8	1246	A	C5'-C4'-C3'	-5.14	107.78	116.00
2	A8	2446	G	C5-C6-O6	-5.14	125.52	128.60
36	BA	238	A	C8-N9-C1'	5.14	136.95	127.70
36	BA	505	G	N3-C2-N2	5.14	123.50	119.90
36	BA	904	U	C4'-C3'-C2'	-5.14	97.46	102.60
2	A8	737	C	N3-C4-N4	5.14	121.60	118.00
2	A8	837	C	N3-C4-C5	-5.14	119.84	121.90
2	A8	1922	G	C8-N9-C1'	5.14	133.68	127.00
2	A8	2507	C	N3-C4-N4	5.14	121.60	118.00
36	BA	166	U	C3'-C2'-C1'	-5.14	97.39	101.50
36	BA	273	U	P-O3'-C3'	-5.14	113.53	119.70
2	A8	516	C	N3-C4-N4	5.14	121.59	118.00
2	A8	904	G	C3'-C2'-C1'	-5.14	97.39	101.50
2	A8	1215	G	O4'-C1'-N9	5.14	112.31	108.20
2	A8	1635	A	O4'-C1'-N9	5.14	112.31	108.20
2	A8	1683	U	N1-C1'-C2'	-5.14	106.35	112.00
2	A8	2090	A	C8-N9-C1'	5.14	136.95	127.70
2	A8	2284	A	C8-N9-C1'	5.14	136.95	127.70
2	A8	2393	U	C5'-C4'-C3'	5.14	124.22	116.00
36	BA	35	G	P-O5'-C5'	-5.14	112.68	120.90
36	BA	795	C	P-O5'-C5'	-5.14	112.68	120.90
36	BA	1096	C	N3-C4-N4	5.14	121.60	118.00
36	BA	1289	A	O4'-C1'-N9	5.14	112.31	108.20
36	BA	1301	U	C3'-C2'-C1'	-5.14	97.39	101.50
2	A8	129	C	P-O5'-C5'	-5.13	112.68	120.90
2	A8	234	U	C2-N1-C1'	-5.13	111.54	117.70
2	A8	333	G	N3-C4-C5	-5.13	126.03	128.60
2	A8	894	U	C3'-C2'-C1'	-5.13	97.39	101.50
2	A8	1583	A	C4-C5-C6	5.13	119.57	117.00
2	A8	1630	A	C5-C6-N1	-5.13	115.13	117.70
2	A8	1702	G	C4-N9-C1'	-5.13	119.83	126.50
2	A8	1974	C	N3-C4-C5	-5.13	119.85	121.90
2	A8	1986	C	P-O3'-C3'	-5.13	113.54	119.70
2	A8	2081	U	C3'-C2'-C1'	-5.13	97.39	101.50
2	A8	2373	G	C4-N9-C1'	-5.13	119.83	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2431	U	C2-N1-C1'	-5.13	111.54	117.70
36	BA	439	U	C5-C6-N1	5.13	125.27	122.70
36	BA	649	A	C4-C5-C6	5.13	119.57	117.00
36	BA	902	G	O5'-C5'-C4'	-5.13	101.94	111.70
36	BA	1088	G	C3'-C2'-C1'	-5.13	97.39	101.50
36	BA	1398	A	C4-C5-C6	5.13	119.57	117.00
2	A8	742	A	N9-C1'-C2'	-5.13	106.35	112.00
2	A8	1403	A	C4-C5-C6	5.13	119.57	117.00
2	A8	2227	A	C5'-C4'-C3'	-5.13	107.79	116.00
2	A8	2692	G	P-O5'-C5'	-5.13	112.69	120.90
2	A8	2717	C	O4'-C4'-C3'	-5.13	98.87	104.00
36	BA	529	G	P-O3'-C3'	-5.13	113.54	119.70
36	BA	598	U	C5'-C4'-C3'	-5.13	107.79	116.00
36	BA	1018	G	P-O5'-C5'	5.13	129.11	120.90
36	BA	1508	A	P-O3'-C3'	-5.13	113.54	119.70
1	A7	8	C	N3-C4-N4	5.13	121.59	118.00
1	A7	62	C	C2-N1-C1'	-5.13	113.16	118.80
1	A7	75	G	N3-C2-N2	5.13	123.49	119.90
2	A8	910	A	O4'-C1'-N9	5.13	112.31	108.20
2	A8	940	G	P-O3'-C3'	-5.13	113.54	119.70
2	A8	1172	C	C5'-C4'-C3'	-5.13	107.79	116.00
2	A8	1276	A	C5-C6-N6	-5.13	119.59	123.70
2	A8	1376	C	P-O5'-C5'	-5.13	112.69	120.90
2	A8	2743	U	C4'-C3'-C2'	-5.13	97.47	102.60
13	AI	4	VAL	CA-CB-CG1	5.13	118.60	110.90
36	BA	629	A	C5-C6-N6	-5.13	119.59	123.70
36	BA	1279	G	C5-C6-O6	-5.13	125.52	128.60
1	A7	115	A	C5-C6-N6	-5.13	119.60	123.70
2	A8	245	G	O4'-C1'-N9	5.13	112.30	108.20
2	A8	417	C	N3-C4-C5	-5.13	119.85	121.90
2	A8	418	C	N3-C4-N4	5.13	121.59	118.00
2	A8	782	A	O4'-C1'-N9	5.13	112.30	108.20
2	A8	1501	G	O4'-C1'-N9	5.13	112.30	108.20
2	A8	1863	G	C5-C6-O6	-5.13	125.52	128.60
2	A8	2589	A	C5-C6-N6	-5.13	119.60	123.70
36	BA	119	A	P-O5'-C5'	5.13	129.11	120.90
2	A8	289	G	C6-C5-N7	-5.13	127.32	130.40
2	A8	299	A	C4-C5-C6	5.13	119.56	117.00
2	A8	1437	C	C4'-C3'-C2'	-5.13	97.47	102.60
2	A8	1469	A	C6-C5-N7	-5.13	128.71	132.30
2	A8	1748	C	N3-C4-N4	5.13	121.59	118.00
2	A8	1948	G	C8-N9-C1'	5.13	133.67	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2563	U	C1'-O4'-C4'	-5.13	105.80	109.90
2	A8	2654	A	C4-C5-C6	5.13	119.56	117.00
2	A8	2789	C	C2-N1-C1'	5.13	124.44	118.80
36	BA	235	C	P-O3'-C3'	-5.13	113.55	119.70
36	BA	236	A	C4-C5-C6	5.13	119.56	117.00
36	BA	618	C	N3-C4-C5	-5.13	119.85	121.90
36	BA	705	G	N1-C2-N3	-5.13	120.82	123.90
36	BA	1171	A	C4'-C3'-C2'	-5.13	97.47	102.60
36	BA	1322	C	C5'-C4'-O4'	5.13	115.25	109.10
36	BA	1484	C	O5'-C5'-C4'	-5.13	101.96	111.70
44	BI	17	ARG	N-CA-CB	5.13	119.83	110.60
1	A7	62	C	N3-C4-N4	5.13	121.59	118.00
2	A8	209	C	N3-C4-C5	-5.13	119.85	121.90
2	A8	630	G	C3'-C2'-C1'	-5.13	97.40	101.50
2	A8	664	G	C8-N9-C1'	5.13	133.66	127.00
2	A8	732	C	N3-C4-C5	-5.13	119.85	121.90
2	A8	819	A	C5-C6-N6	-5.13	119.60	123.70
2	A8	1076	C	C6-N1-C1'	5.13	126.95	120.80
2	A8	1477	A	C5-C6-N1	-5.13	115.14	117.70
2	A8	1686	C	C3'-C2'-C1'	-5.13	97.40	101.50
2	A8	1702	G	N1-C6-O6	5.13	122.98	119.90
2	A8	2694	G	C1'-O4'-C4'	-5.13	105.80	109.90
2	A8	2743	U	C5'-C4'-C3'	-5.13	107.80	116.00
36	BA	238	A	C5-C6-N6	-5.13	119.60	123.70
36	BA	888	G	C5'-C4'-O4'	5.13	115.25	109.10
36	BA	1419	G	C3'-C2'-C1'	-5.13	97.40	101.50
36	BA	1534	A	C5-C6-N1	-5.13	115.14	117.70
2	A8	133	U	O4'-C1'-N1	5.12	112.30	108.20
2	A8	342	A	O4'-C1'-N9	5.12	112.30	108.20
2	A8	668	A	P-O5'-C5'	5.12	129.10	120.90
2	A8	1156	A	P-O3'-C3'	-5.12	113.55	119.70
2	A8	1804	C	N3-C4-C5	-5.12	119.85	121.90
2	A8	2242	G	C6-C5-N7	-5.12	127.33	130.40
36	BA	26	A	C4-C5-C6	5.12	119.56	117.00
36	BA	167	A	C4-C5-C6	5.12	119.56	117.00
36	BA	357	G	N3-C2-N2	5.12	123.49	119.90
36	BA	811	C	C4'-C3'-C2'	5.12	107.72	102.60
36	BA	1039	G	N3-C2-N2	5.12	123.49	119.90
2	A8	41	C	N3-C4-N4	5.12	121.59	118.00
2	A8	58	G	N3-C2-N2	5.12	123.49	119.90
2	A8	1053	C	N3-C4-C5	-5.12	119.85	121.90
2	A8	1106	G	C8-N9-C4	-5.12	104.35	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1116	G	C8-N9-C1'	5.12	133.66	127.00
2	A8	1472	C	N1-C1'-C2'	-5.12	106.36	112.00
2	A8	1565	C	N3-C4-N4	5.12	121.59	118.00
2	A8	1996	C	N3-C4-C5	-5.12	119.85	121.90
2	A8	2031	A	C5-C6-N6	-5.12	119.60	123.70
2	A8	2560	A	C4-N9-C1'	-5.12	117.08	126.30
2	A8	2607	G	P-O3'-C3'	-5.12	113.55	119.70
8	AD	192	ALA	N-CA-CB	5.12	117.27	110.10
36	BA	61	G	C5-C6-O6	-5.12	125.53	128.60
36	BA	253	A	N9-C1'-C2'	-5.12	106.36	112.00
36	BA	297	G	C4-N9-C1'	-5.12	119.84	126.50
36	BA	377	G	C6-C5-N7	-5.12	127.33	130.40
36	BA	441	A	P-O3'-C3'	-5.12	113.55	119.70
36	BA	474	G	O4'-C1'-N9	5.12	112.30	108.20
36	BA	585	G	C4-N9-C1'	-5.12	119.84	126.50
36	BA	1204	A	O4'-C1'-N9	5.12	112.30	108.20
36	BA	1418	A	C8-N9-C1'	-5.12	118.48	127.70
2	A8	497	A	C5-C6-N1	-5.12	115.14	117.70
2	A8	883	G	C8-N9-C1'	5.12	133.66	127.00
2	A8	1564	C	N3-C4-C5	-5.12	119.85	121.90
2	A8	1566	A	C4-C5-C6	5.12	119.56	117.00
2	A8	2556	C	C2-N3-C4	5.12	122.46	119.90
2	A8	2855	C	N3-C4-N4	5.12	121.58	118.00
22	AR	12	HIS	CB-CA-C	-5.12	100.16	110.40
36	BA	52	C	P-O5'-C5'	5.12	129.09	120.90
36	BA	269	C	P-O5'-C5'	-5.12	112.71	120.90
36	BA	510	A	C8-N9-C1'	5.12	136.92	127.70
36	BA	886	G	C3'-C2'-C1'	-5.12	97.40	101.50
36	BA	1220	G	O4'-C1'-N9	5.12	112.30	108.20
50	BO	23	SER	N-CA-CB	5.12	118.18	110.50
2	A8	1230	A	C4'-C3'-C2'	-5.12	97.48	102.60
2	A8	1294	U	C5-C6-N1	5.12	125.26	122.70
2	A8	1475	G	C4-N9-C1'	-5.12	119.84	126.50
2	A8	1543	G	N1-C2-N2	5.12	120.81	116.20
2	A8	1750	G	C4'-C3'-C2'	-5.12	97.48	102.60
2	A8	2437	G	N1-C6-O6	5.12	122.97	119.90
2	A8	2592	G	N3-C2-N2	5.12	123.48	119.90
2	A8	110	G	C8-N9-C1'	5.12	133.65	127.00
2	A8	213	A	C4-C5-C6	5.12	119.56	117.00
2	A8	462	C	C6-N1-C1'	5.12	126.94	120.80
2	A8	466	A	C5'-C4'-C3'	-5.12	107.81	116.00
2	A8	491	G	C5-C6-O6	-5.12	125.53	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1142	A	O4'-C1'-N9	5.12	112.30	108.20
2	A8	1447	C	C3'-C2'-C1'	-5.12	97.41	101.50
2	A8	1471	G	C8-N9-C1'	5.12	133.65	127.00
2	A8	2192	U	O4'-C1'-N1	5.12	112.29	108.20
2	A8	2258	C	P-O5'-C5'	-5.12	112.71	120.90
2	A8	2607	G	O4'-C1'-N9	5.12	112.29	108.20
2	A8	2766	A	C5-C6-N1	-5.12	115.14	117.70
2	A8	2829	A	C5-C6-N1	-5.12	115.14	117.70
36	BA	135	C	C5-C6-N1	5.12	123.56	121.00
36	BA	823	C	C3'-C2'-C1'	-5.12	97.40	101.50
36	BA	904	U	C1'-O4'-C4'	-5.12	105.81	109.90
36	BA	1179	A	C8-N9-C4	-5.12	103.75	105.80
2	A8	881	G	N7-C8-N9	5.12	115.66	113.10
2	A8	1093	G	P-O5'-C5'	5.12	129.09	120.90
2	A8	1561	C	C5'-C4'-C3'	-5.12	107.81	116.00
2	A8	1749	A	O4'-C1'-N9	5.12	112.29	108.20
2	A8	1862	G	P-O5'-C5'	-5.12	112.71	120.90
2	A8	1990	C	C6-N1-C2	-5.12	118.25	120.30
2	A8	2749	A	C8-N9-C4	-5.12	103.75	105.80
25	AU	100	GLU	N-CA-C	-5.12	97.18	111.00
36	BA	51	A	C5-C6-N6	-5.12	119.61	123.70
36	BA	260	G	C8-N9-C1'	5.12	133.65	127.00
2	A8	307	G	N3-C2-N2	5.12	123.48	119.90
2	A8	336	C	C2-N1-C1'	-5.12	113.17	118.80
2	A8	633	A	P-O3'-C3'	-5.12	113.56	119.70
2	A8	947	A	C8-N9-C4	-5.12	103.75	105.80
2	A8	1554	U	P-O5'-C5'	-5.12	112.72	120.90
2	A8	2410	G	N3-C2-N2	5.12	123.48	119.90
36	BA	292	G	N3-C2-N2	5.12	123.48	119.90
36	BA	1068	G	P-O3'-C3'	-5.12	113.56	119.70
36	BA	1217	C	C4'-C3'-C2'	-5.12	97.48	102.60
1	A7	57	A	C5-C6-N1	-5.11	115.14	117.70
2	A8	31	C	N3-C4-N4	5.11	121.58	118.00
2	A8	221	A	C5'-C4'-O4'	5.11	115.24	109.10
2	A8	271	G	C3'-C2'-C1'	-5.11	97.41	101.50
2	A8	822	G	C8-N9-C1'	5.11	133.65	127.00
2	A8	882	G	C5'-C4'-O4'	5.11	115.24	109.10
2	A8	1166	G	N3-C2-N2	5.11	123.48	119.90
2	A8	1483	G	C1'-O4'-C4'	-5.11	105.81	109.90
2	A8	1750	G	C1'-O4'-C4'	-5.11	105.81	109.90
2	A8	2001	C	C3'-C2'-C1'	-5.11	97.41	101.50
2	A8	2314	A	C5'-C4'-C3'	-5.11	107.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2378	A	C5'-C4'-C3'	-5.11	107.82	116.00
36	BA	101	A	C4-C5-C6	5.11	119.56	117.00
36	BA	759	A	P-O3'-C3'	-5.11	113.56	119.70
1	A7	66	A	P-O5'-C5'	5.11	129.08	120.90
2	A8	1102	C	N3-C4-C5	-5.11	119.86	121.90
2	A8	1134	A	C5-C6-N1	-5.11	115.14	117.70
2	A8	1322	A	C5-C6-N1	-5.11	115.14	117.70
2	A8	1872	A	O4'-C1'-N9	5.11	112.29	108.20
2	A8	2189	U	C2-N3-C4	-5.11	123.93	127.00
36	BA	76	G	C6-C5-N7	-5.11	127.33	130.40
36	BA	864	A	C5-C6-N1	-5.11	115.14	117.70
39	BD	204	SER	N-CA-C	5.11	124.80	111.00
40	BE	17	VAL	N-CA-CB	5.11	122.75	111.50
2	A8	260	G	C4-N9-C1'	-5.11	119.86	126.50
2	A8	543	G	C8-N9-C1'	5.11	133.64	127.00
2	A8	726	G	N1-C2-N3	-5.11	120.83	123.90
2	A8	918	A	C5-N7-C8	5.11	106.45	103.90
2	A8	1000	A	O5'-P-OP2	5.11	116.83	110.70
2	A8	1552	A	C4-C5-C6	5.11	119.56	117.00
2	A8	1636	U	C5'-C4'-O4'	5.11	115.23	109.10
2	A8	1888	G	C6-C5-N7	-5.11	127.33	130.40
2	A8	2246	G	N3-C2-N2	5.11	123.48	119.90
2	A8	2506	U	O4'-C1'-N1	5.11	112.29	108.20
2	A8	2674	G	C6-C5-N7	-5.11	127.33	130.40
3	AA	164	TYR	CB-CG-CD2	-5.11	117.93	121.00
36	BA	39	G	C4-C5-C6	5.11	121.87	118.80
36	BA	865	A	N9-C4-C5	5.11	107.84	105.80
36	BA	1327	C	O4'-C1'-N1	5.11	112.29	108.20
36	BA	1428	A	C4-C5-C6	5.11	119.56	117.00
36	BA	1451	U	C2-N1-C1'	5.11	123.83	117.70
50	BO	77	TYR	CB-CG-CD2	-5.11	117.93	121.00
2	A8	542	C	O4'-C1'-N1	5.11	112.29	108.20
2	A8	1649	G	N3-C2-N2	5.11	123.48	119.90
2	A8	2186	G	N3-C2-N2	5.11	123.48	119.90
36	BA	436	C	C6-N1-C1'	5.11	126.93	120.80
36	BA	688	G	C4-N9-C1'	-5.11	119.86	126.50
36	BA	747	A	C4-C5-C6	5.11	119.56	117.00
36	BA	1369	C	C2-N3-C4	5.11	122.45	119.90
2	A8	236	C	N3-C4-C5	-5.11	119.86	121.90
2	A8	427	U	P-O5'-C5'	5.11	129.07	120.90
2	A8	878	A	C2'-C3'-O3'	5.11	121.87	113.70
2	A8	995	C	N3-C4-N4	5.11	121.58	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1421	G	N1-C2-N3	-5.11	120.84	123.90
2	A8	1583	A	C5'-C4'-O4'	5.11	115.23	109.10
2	A8	1921	G	N1-C6-O6	5.11	122.96	119.90
2	A8	2675	A	C8-N9-C1'	5.11	136.90	127.70
2	A8	2724	U	C6-N1-C1'	5.11	128.35	121.20
2	A8	2806	C	N3-C4-N4	5.11	121.58	118.00
36	BA	1432	G	N1-C2-N3	-5.11	120.84	123.90
36	BA	1534	A	O4'-C1'-N9	5.11	112.28	108.20
2	A8	90	U	C5-C4-O4	-5.11	122.84	125.90
2	A8	228	C	C2-N3-C4	5.11	122.45	119.90
2	A8	693	A	C5-C6-N1	-5.11	115.15	117.70
2	A8	1088	A	O3'-P-O5'	-5.11	94.30	104.00
2	A8	1344	U	C5'-C4'-O4'	5.11	115.23	109.10
2	A8	1435	G	N1-C2-N3	-5.11	120.84	123.90
2	A8	1453	A	P-O3'-C3'	5.11	125.83	119.70
2	A8	1753	G	C6-C5-N7	-5.11	127.34	130.40
2	A8	2063	C	C3'-C2'-C1'	-5.11	97.42	101.50
2	A8	2320	U	C2-N1-C1'	5.11	123.83	117.70
36	BA	40	C	N3-C4-C5	-5.11	119.86	121.90
36	BA	469	C	N1-C1'-C2'	-5.11	106.38	112.00
36	BA	772	U	C2-N1-C1'	-5.11	111.57	117.70
2	A8	217	A	C5-C6-N1	-5.10	115.15	117.70
2	A8	253	C	N3-C4-N4	5.10	121.57	118.00
2	A8	2249	U	P-O3'-C3'	5.10	125.83	119.70
2	A8	2411	A	O4'-C1'-N9	5.10	112.28	108.20
36	BA	340	U	C5'-C4'-C3'	-5.10	107.83	116.00
2	A8	899	A	C4-C5-C6	5.10	119.55	117.00
2	A8	1493	C	C6-N1-C1'	-5.10	114.68	120.80
2	A8	1975	G	N3-C2-N2	5.10	123.47	119.90
2	A8	2089	C	P-O3'-C3'	-5.10	113.58	119.70
2	A8	2221	G	C8-N9-C1'	5.10	133.63	127.00
2	A8	2394	C	C4'-C3'-C2'	5.10	107.70	102.60
36	BA	276	G	C3'-C2'-C1'	-5.10	97.42	101.50
36	BA	443	C	C1'-O4'-C4'	-5.10	105.82	109.90
36	BA	702	A	O4'-C1'-N9	5.10	112.28	108.20
36	BA	1003	G	P-O3'-C3'	-5.10	113.58	119.70
36	BA	1263	C	P-O3'-C3'	-5.10	113.58	119.70
2	A8	783	A	C4-C5-C6	5.10	119.55	117.00
2	A8	1176	U	C5'-C4'-O4'	5.10	115.22	109.10
2	A8	1326	U	O4'-C1'-N1	5.10	112.28	108.20
2	A8	1684	G	N3-C2-N2	5.10	123.47	119.90
2	A8	1759	A	C4-C5-C6	5.10	119.55	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2071	A	C5-C6-N6	-5.10	119.62	123.70
36	BA	302	G	O3'-P-O5'	-5.10	94.31	104.00
36	BA	1028	C	O4'-C1'-N1	5.10	112.28	108.20
40	BE	67	ARG	NE-CZ-NH1	5.10	122.85	120.30
1	A7	66	A	C4-N9-C1'	-5.10	117.12	126.30
2	A8	1	G	O4'-C1'-N9	5.10	112.28	108.20
2	A8	18	U	C6-N1-C2	-5.10	117.94	121.00
2	A8	620	G	C6-C5-N7	-5.10	127.34	130.40
2	A8	1422	G	N1-C2-N3	-5.10	120.84	123.90
2	A8	1423	G	P-O3'-C3'	-5.10	113.58	119.70
2	A8	1609	A	C5-C6-N1	-5.10	115.15	117.70
2	A8	1656	C	C2-N3-C4	5.10	122.45	119.90
2	A8	1706	C	C3'-C2'-C1'	5.10	105.58	101.50
2	A8	2178	C	N3-C4-C5	-5.10	119.86	121.90
2	A8	2188	U	P-O3'-C3'	-5.10	113.58	119.70
2	A8	2656	U	C4'-C3'-C2'	-5.10	97.50	102.60
36	BA	183	C	N3-C4-N4	5.10	121.57	118.00
36	BA	1322	C	C5-C4-N4	-5.10	116.63	120.20
51	BP	32	PHE	CB-CG-CD1	-5.10	117.23	120.80
1	A7	41	G	C8-N9-C1'	-5.10	120.37	127.00
2	A8	256	A	C5-C6-N1	-5.10	115.15	117.70
2	A8	716	A	O4'-C1'-N9	5.10	112.28	108.20
2	A8	1474	U	O4'-C1'-N1	5.10	112.28	108.20
2	A8	1763	G	N3-C2-N2	5.10	123.47	119.90
2	A8	2234	G	N7-C8-N9	5.10	115.65	113.10
2	A8	2258	C	O3'-P-O5'	5.10	113.69	104.00
2	A8	2539	C	P-O5'-C5'	-5.10	112.74	120.90
36	BA	243	A	C8-N9-C4	-5.10	103.76	105.80
36	BA	742	G	C6-C5-N7	-5.10	127.34	130.40
36	BA	1032	G	N1-C2-N3	-5.10	120.84	123.90
36	BA	1155	A	O4'-C1'-N9	5.10	112.28	108.20
2	A8	146	A	C4-C5-C6	5.10	119.55	117.00
2	A8	359	G	N3-C2-N2	5.10	123.47	119.90
2	A8	438	G	N3-C2-N2	5.10	123.47	119.90
2	A8	757	G	C3'-C2'-C1'	-5.10	97.42	101.50
2	A8	2336	A	C5-C6-N1	-5.10	115.15	117.70
36	BA	101	A	C5'-C4'-C3'	-5.10	107.85	116.00
45	BJ	68	ARG	N-CA-CB	5.10	119.77	110.60
2	A8	629	G	P-O5'-C5'	-5.09	112.75	120.90
2	A8	856	G	P-O5'-C5'	-5.09	112.75	120.90
2	A8	900	A	C4'-C3'-C2'	-5.09	97.51	102.60
2	A8	966	G	C5'-C4'-C3'	-5.09	107.85	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1319	C	O4'-C1'-N1	5.09	112.28	108.20
2	A8	1407	G	C8-N9-C1'	5.09	133.62	127.00
2	A8	2284	A	C5-C6-N6	-5.09	119.62	123.70
2	A8	2440	C	N3-C4-N4	5.09	121.57	118.00
2	A8	2830	C	C2-N3-C4	5.09	122.45	119.90
36	BA	448	A	C4-C5-C6	5.09	119.55	117.00
36	BA	537	G	C8-N9-C1'	5.09	133.62	127.00
36	BA	766	A	C5-C6-N6	-5.09	119.62	123.70
36	BA	935	A	O4'-C1'-N9	5.09	112.28	108.20
36	BA	1133	G	O4'-C1'-N9	5.09	112.28	108.20
36	BA	1251	A	C4-C5-C6	5.09	119.55	117.00
36	BA	1514	G	C8-N9-C1'	5.09	133.62	127.00
1	A7	21	G	C4-N9-C1'	-5.09	119.88	126.50
2	A8	115	C	C5'-C4'-O4'	5.09	115.21	109.10
2	A8	1179	G	C8-N9-C4	-5.09	104.36	106.40
2	A8	1244	A	C4-C5-C6	5.09	119.55	117.00
2	A8	1257	C	C5'-C4'-C3'	-5.09	107.85	116.00
2	A8	2021	C	O4'-C1'-N1	5.09	112.27	108.20
2	A8	2564	A	C5-C6-N1	-5.09	115.15	117.70
2	A8	2788	C	N3-C4-N4	5.09	121.56	118.00
36	BA	286	C	C1'-O4'-C4'	-5.09	105.83	109.90
36	BA	513	C	N3-C4-N4	5.09	121.56	118.00
36	BA	1421	G	C3'-C2'-C1'	-5.09	97.43	101.50
2	A8	34	U	O5'-C5'-C4'	-5.09	102.03	111.70
2	A8	272	A	C5-C6-N6	-5.09	119.63	123.70
2	A8	315	G	N1-C6-O6	5.09	122.95	119.90
2	A8	415	A	C8-N9-C4	-5.09	103.76	105.80
2	A8	631	A	C5-C6-N1	-5.09	115.15	117.70
2	A8	1619	G	C5-C6-O6	-5.09	125.55	128.60
2	A8	1908	C	C5'-C4'-C3'	-5.09	107.85	116.00
2	A8	2524	G	N9-C4-C5	-5.09	103.36	105.40
36	BA	737	C	N3-C4-C5	-5.09	119.86	121.90
36	BA	883	C	O4'-C1'-C2'	5.09	112.18	107.60
36	BA	1171	A	C5-C6-N1	-5.09	115.15	117.70
36	BA	1492	A	C4-C5-C6	5.09	119.55	117.00
46	BK	125	LYS	N-CA-CB	5.09	119.77	110.60
2	A8	79	C	O4'-C1'-N1	5.09	112.27	108.20
2	A8	217	A	O4'-C1'-N9	5.09	112.27	108.20
2	A8	389	G	C6-C5-N7	-5.09	127.35	130.40
2	A8	456	C	C6-N1-C2	-5.09	118.26	120.30
2	A8	526	A	C4-C5-C6	5.09	119.55	117.00
2	A8	684	G	C5-C6-O6	-5.09	125.55	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	944	C	P-O5'-C5'	-5.09	112.76	120.90
2	A8	1178	C	C5'-C4'-C3'	-5.09	107.86	116.00
2	A8	1822	C	C1'-O4'-C4'	-5.09	105.83	109.90
2	A8	1935	G	C2'-C3'-O3'	5.09	121.84	113.70
36	BA	186	C	N3-C4-N4	5.09	121.56	118.00
36	BA	1218	C	N3-C4-C5	-5.09	119.86	121.90
36	BA	1323	G	C8-N9-C1'	5.09	133.62	127.00
36	BA	1334	G	C6-C5-N7	-5.09	127.35	130.40
2	A8	714	U	O4'-C1'-N1	5.09	112.27	108.20
2	A8	872	U	C2'-C3'-O3'	5.09	121.84	113.70
2	A8	1002	G	C4-N9-C1'	-5.09	119.89	126.50
2	A8	1007	C	N3-C4-N4	5.09	121.56	118.00
2	A8	1583	A	P-O3'-C3'	-5.09	113.59	119.70
2	A8	1686	C	C6-N1-C1'	5.09	126.91	120.80
2	A8	1803	A	C8-N9-C4	-5.09	103.77	105.80
36	BA	725	G	N3-C2-N2	5.09	123.46	119.90
36	BA	918	A	C4-C5-C6	5.09	119.54	117.00
2	A8	194	G	N3-C2-N2	5.09	123.46	119.90
2	A8	757	G	C1'-O4'-C4'	-5.09	105.83	109.90
2	A8	896	A	C8-N9-C4	-5.09	103.77	105.80
2	A8	1161	C	O4'-C1'-N1	5.09	112.27	108.20
2	A8	1203	U	C2-N1-C1'	-5.09	111.60	117.70
2	A8	1624	U	C3'-C2'-C1'	-5.09	97.43	101.50
2	A8	2233	U	P-O3'-C3'	-5.09	113.60	119.70
2	A8	2282	G	N3-C2-N2	5.09	123.46	119.90
2	A8	2439	A	C5-C6-N1	-5.09	115.16	117.70
2	A8	2776	A	C4-C5-C6	5.09	119.54	117.00
16	AL	59	ARG	NE-CZ-NH2	-5.09	117.76	120.30
36	BA	44	A	C4-C5-C6	5.09	119.54	117.00
36	BA	83	C	N3-C4-N4	5.09	121.56	118.00
36	BA	302	G	C8-N9-C4	-5.09	104.37	106.40
36	BA	466	A	C4-C5-C6	5.09	119.54	117.00
36	BA	594	U	C1'-O4'-C4'	-5.09	105.83	109.90
36	BA	668	G	N3-C2-N2	5.09	123.46	119.90
36	BA	682	G	C3'-C2'-C1'	-5.09	97.43	101.50
36	BA	906	A	O3'-P-O5'	5.09	113.66	104.00
36	BA	912	C	C5-C4-N4	-5.09	116.64	120.20
36	BA	1253	G	N3-C2-N2	5.09	123.46	119.90
2	A8	811	U	C5'-C4'-C3'	5.08	124.14	116.00
2	A8	817	C	N3-C4-C5	-5.08	119.87	121.90
36	BA	1494	G	O3'-P-O5'	-5.08	94.34	104.00
2	A8	70	G	C5-C6-O6	-5.08	125.55	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	177	G	O4'-C1'-N9	5.08	112.27	108.20
2	A8	193	U	P-O3'-C3'	5.08	125.80	119.70
2	A8	1455	G	C5'-C4'-O4'	5.08	115.20	109.10
2	A8	1700	A	C1'-O4'-C4'	-5.08	105.83	109.90
2	A8	1943	U	C2-N1-C1'	5.08	123.80	117.70
2	A8	2186	G	C5'-C4'-C3'	-5.08	107.87	116.00
36	BA	716	A	C4-C5-C6	5.08	119.54	117.00
36	BA	802	A	C6-C5-N7	-5.08	128.74	132.30
2	A8	37	C	C1'-O4'-C4'	-5.08	105.83	109.90
2	A8	740	C	C5'-C4'-C3'	-5.08	107.87	116.00
2	A8	986	C	N3-C4-N4	5.08	121.56	118.00
2	A8	1001	A	C5-C6-N1	-5.08	115.16	117.70
2	A8	1301	A	C3'-C2'-C1'	-5.08	97.44	101.50
2	A8	1719	G	P-O5'-C5'	-5.08	112.77	120.90
2	A8	1819	A	C4-C5-C6	5.08	119.54	117.00
2	A8	1866	A	C4-C5-C6	5.08	119.54	117.00
2	A8	2137	U	P-O3'-C3'	-5.08	113.60	119.70
2	A8	2227	A	O4'-C1'-N9	5.08	112.27	108.20
2	A8	2418	A	C4-C5-C6	5.08	119.54	117.00
2	A8	2638	G	O4'-C1'-N9	5.08	112.26	108.20
36	BA	537	G	C4-N9-C1'	-5.08	119.89	126.50
36	BA	608	A	C5-C6-N1	-5.08	115.16	117.70
36	BA	1191	A	C8-N9-C4	-5.08	103.77	105.80
1	A7	11	C	O4'-C1'-N1	5.08	112.26	108.20
2	A8	21	A	C4-C5-C6	5.08	119.54	117.00
2	A8	375	G	P-O3'-C3'	-5.08	113.60	119.70
2	A8	1535	A	C6-C5-N7	-5.08	128.74	132.30
2	A8	2523	G	O4'-C1'-N9	5.08	112.26	108.20
36	BA	949	A	C5-C6-N6	-5.08	119.64	123.70
36	BA	1216	A	P-O3'-C3'	-5.08	113.60	119.70
54	BS	2	ARG	NE-CZ-NH2	5.08	122.84	120.30
2	A8	190	A	C3'-C2'-C1'	-5.08	97.44	101.50
2	A8	312	G	C3'-C2'-C1'	-5.08	97.44	101.50
2	A8	403	U	P-O5'-C5'	5.08	129.03	120.90
2	A8	443	A	N1-C2-N3	5.08	131.84	129.30
2	A8	690	G	C1'-O4'-C4'	-5.08	105.84	109.90
2	A8	766	U	C5-C6-N1	5.08	125.24	122.70
2	A8	861	A	P-O3'-C3'	-5.08	113.61	119.70
2	A8	1152	C	C5'-C4'-C3'	-5.08	107.87	116.00
2	A8	1191	G	N1-C2-N3	-5.08	120.85	123.90
2	A8	1269	A	C5-C6-N1	-5.08	115.16	117.70
2	A8	1725	U	C3'-C2'-C1'	-5.08	97.44	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1789	A	C5'-C4'-C3'	-5.08	107.87	116.00
2	A8	1797	G	C5'-C4'-C3'	-5.08	107.87	116.00
2	A8	1970	A	C6-C5-N7	-5.08	128.75	132.30
2	A8	2005	A	C4-C5-C6	5.08	119.54	117.00
2	A8	2228	G	C8-N9-C1'	5.08	133.60	127.00
2	A8	2340	A	C4-C5-C6	5.08	119.54	117.00
2	A8	2793	C	C1'-O4'-C4'	-5.08	105.84	109.90
36	BA	1241	G	C4'-C3'-C2'	-5.08	97.52	102.60
36	BA	1350	A	P-O5'-C5'	5.08	129.03	120.90
36	BA	1358	U	P-O5'-C5'	-5.08	112.78	120.90
2	A8	2864	G	P-O5'-C5'	-5.08	112.78	120.90
2	A8	2875	C	N3-C4-N4	5.08	121.55	118.00
36	BA	497	G	C4-N9-C1'	-5.08	119.90	126.50
36	BA	691	G	P-O5'-C5'	-5.08	112.78	120.90
36	BA	698	G	P-O5'-C5'	-5.08	112.78	120.90
36	BA	1162	C	C1'-O4'-C4'	-5.08	105.84	109.90
1	A7	36	C	O4'-C1'-N1	5.08	112.26	108.20
2	A8	33	C	N1-C2-N3	-5.08	115.65	119.20
2	A8	72	U	C4'-C3'-C2'	-5.08	97.52	102.60
2	A8	334	C	C3'-C2'-C1'	-5.08	97.44	101.50
2	A8	615	U	O4'-C1'-N1	5.08	112.26	108.20
2	A8	1160	G	C1'-O4'-C4'	-5.08	105.84	109.90
2	A8	1200	C	C6-N1-C1'	5.08	126.89	120.80
2	A8	1212	G	C5'-C4'-C3'	5.08	124.12	116.00
2	A8	1542	U	P-O5'-C5'	-5.08	112.78	120.90
2	A8	2417	C	C1'-O4'-C4'	-5.08	105.84	109.90
2	A8	2856	A	C8-N9-C1'	5.08	136.84	127.70
2	A8	2901	C	C5-C6-N1	5.08	123.54	121.00
36	BA	10	A	C8-N9-C4	-5.08	103.77	105.80
36	BA	745	G	P-O3'-C3'	-5.08	113.61	119.70
36	BA	746	A	C4-C5-C6	5.08	119.54	117.00
36	BA	777	A	C5-C6-N1	-5.08	115.16	117.70
36	BA	1423	G	C8-N9-C1'	5.08	133.60	127.00
2	A8	42	A	C5'-C4'-O4'	5.07	115.19	109.10
2	A8	125	A	C5-C6-N6	-5.07	119.64	123.70
2	A8	267	C	N3-C4-C5	-5.07	119.87	121.90
2	A8	311	A	C5-C6-N6	-5.07	119.64	123.70
2	A8	438	G	P-O3'-C3'	-5.07	113.61	119.70
2	A8	479	A	C4-C5-C6	5.07	119.54	117.00
2	A8	579	G	C5-C6-O6	-5.07	125.56	128.60
2	A8	1147	A	C5'-C4'-O4'	5.07	115.19	109.10
2	A8	1678	A	C5-C6-N1	-5.07	115.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1933	G	C6-C5-N7	-5.07	127.36	130.40
2	A8	2178	C	N1-C1'-C2'	-5.07	106.42	112.00
2	A8	2588	G	N3-C2-N2	5.07	123.45	119.90
2	A8	2681	C	O4'-C1'-N1	5.07	112.26	108.20
36	BA	53	A	C4'-C3'-C2'	-5.07	97.53	102.60
36	BA	340	U	C1'-O4'-C4'	-5.07	105.84	109.90
36	BA	349	A	C5-C6-N1	-5.07	115.16	117.70
36	BA	429	U	O5'-C5'-C4'	-5.07	102.06	111.70
36	BA	1333	A	C6-C5-N7	-5.07	128.75	132.30
2	A8	1161	C	C6-N1-C2	-5.07	118.27	120.30
2	A8	1722	A	C5'-C4'-C3'	-5.07	107.89	116.00
2	A8	2232	C	N3-C4-N4	5.07	121.55	118.00
36	BA	722	G	C4-C5-C6	5.07	121.84	118.80
36	BA	1294	G	N3-C2-N2	5.07	123.45	119.90
36	BA	1458	G	N3-C2-N2	5.07	123.45	119.90
2	A8	6	A	C3'-C2'-C1'	-5.07	97.44	101.50
2	A8	155	A	C5'-C4'-C3'	-5.07	107.89	116.00
2	A8	159	G	C3'-C2'-C1'	-5.07	97.44	101.50
2	A8	289	G	C5'-C4'-O4'	5.07	115.18	109.10
2	A8	348	A	P-O5'-C5'	5.07	129.01	120.90
2	A8	432	A	C5-C6-N1	-5.07	115.17	117.70
2	A8	518	G	N3-C2-N2	5.07	123.45	119.90
2	A8	768	G	C8-N9-C1'	5.07	133.59	127.00
2	A8	1038	G	C4-N9-C1'	-5.07	119.91	126.50
2	A8	1265	A	C5-C6-N6	-5.07	119.64	123.70
2	A8	1301	A	C4-C5-C6	5.07	119.54	117.00
2	A8	1655	A	C4-C5-C6	5.07	119.53	117.00
2	A8	1656	C	P-O3'-C3'	-5.07	113.61	119.70
2	A8	2280	G	C4-N9-C1'	-5.07	119.91	126.50
2	A8	2332	C	C2-N1-C1'	-5.07	113.22	118.80
2	A8	2740	A	C5'-C4'-O4'	5.07	115.18	109.10
7	A6	193	GLU	CB-CA-C	-5.07	100.26	110.40
36	BA	247	G	P-O3'-C3'	-5.07	113.62	119.70
36	BA	301	G	N1-C2-N3	-5.07	120.86	123.90
36	BA	623	C	N3-C4-N4	5.07	121.55	118.00
36	BA	1182	G	C8-N9-C4	-5.07	104.37	106.40
36	BA	1290	G	C5'-C4'-C3'	-5.07	107.89	116.00
1	A7	113	C	N3-C4-N4	5.07	121.55	118.00
2	A8	366	C	C6-N1-C2	-5.07	118.27	120.30
2	A8	1151	A	O4'-C1'-N9	5.07	112.25	108.20
2	A8	2852	G	C5-C6-O6	-5.07	125.56	128.60
36	BA	250	A	C4-C5-C6	5.07	119.53	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BG	43	TYR	CB-CG-CD2	-5.07	117.96	121.00
1	A7	104	A	C4'-C3'-C2'	-5.07	97.53	102.60
2	A8	432	A	O4'-C1'-N9	5.07	112.25	108.20
2	A8	927	A	C5'-C4'-C3'	-5.07	107.89	116.00
2	A8	1536	C	N3-C4-N4	5.07	121.55	118.00
2	A8	1675	C	C6-N1-C2	-5.07	118.27	120.30
2	A8	2419	U	O4'-C1'-N1	5.07	112.25	108.20
36	BA	851	G	N9-C1'-C2'	-5.07	106.43	112.00
36	BA	1361	G	N3-C2-N2	5.07	123.45	119.90
36	BA	1427	C	N3-C4-N4	5.07	121.55	118.00
36	BA	1523	G	N1-C2-N3	-5.07	120.86	123.90
2	A8	301	G	C3'-C2'-C1'	-5.07	97.45	101.50
2	A8	541	A	C5-C6-N6	-5.07	119.65	123.70
2	A8	1593	A	C3'-C2'-C1'	-5.07	97.45	101.50
2	A8	2218	G	N3-C2-N2	5.07	123.45	119.90
2	A8	2541	A	C5'-C4'-C3'	-5.07	107.89	116.00
2	A8	2862	G	C4-N9-C1'	-5.07	119.91	126.50
36	BA	731	G	O4'-C1'-N9	5.07	112.25	108.20
2	A8	318	C	C5'-C4'-C3'	-5.06	107.90	116.00
2	A8	634	C	N3-C4-C5	-5.06	119.88	121.90
2	A8	914	G	N3-C2-N2	5.06	123.44	119.90
2	A8	1471	G	C4-N9-C1'	-5.06	119.92	126.50
2	A8	1931	U	O4'-C1'-N1	5.06	112.25	108.20
2	A8	2679	A	C1'-O4'-C4'	-5.06	105.85	109.90
2	A8	2880	C	C2-N3-C4	5.06	122.43	119.90
36	BA	263	A	C3'-C2'-C1'	-5.06	97.45	101.50
36	BA	1082	A	O4'-C1'-N9	5.06	112.25	108.20
2	A8	257	C	N3-C4-N4	5.06	121.54	118.00
2	A8	535	G	N3-C2-N2	5.06	123.44	119.90
2	A8	644	A	P-O5'-C5'	-5.06	112.80	120.90
2	A8	1036	G	C6-N1-C2	5.06	128.14	125.10
2	A8	1151	A	C1'-O4'-C4'	-5.06	105.85	109.90
2	A8	1984	G	O4'-C1'-N9	5.06	112.25	108.20
2	A8	2127	G	P-O3'-C3'	-5.06	113.62	119.70
2	A8	2156	G	C6-C5-N7	-5.06	127.36	130.40
2	A8	2674	G	C8-N9-C4	-5.06	104.38	106.40
2	A8	2754	U	C5'-C4'-C3'	-5.06	107.90	116.00
36	BA	83	C	C1'-O4'-C4'	-5.06	105.85	109.90
36	BA	191	G	C5'-C4'-C3'	-5.06	107.90	116.00
36	BA	532	A	C5-C6-N1	-5.06	115.17	117.70
36	BA	1190	G	P-O3'-C3'	5.06	125.78	119.70
36	BA	1204	A	C5-C6-N1	-5.06	115.17	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1403	C	O3'-P-O5'	-5.06	94.38	104.00
1	A7	117	G	N3-C2-N2	5.06	123.44	119.90
2	A8	2611	C	C6-N1-C2	-5.06	118.28	120.30
36	BA	293	G	C4-C5-C6	5.06	121.84	118.80
36	BA	553	A	C4-C5-C6	5.06	119.53	117.00
36	BA	1200	C	O4'-C1'-C2'	5.06	112.15	107.60
36	BA	1275	A	C8-N9-C4	-5.06	103.78	105.80
2	A8	303	G	O4'-C1'-N9	5.06	112.25	108.20
2	A8	325	G	C5'-C4'-C3'	-5.06	107.90	116.00
2	A8	447	A	N3-C4-C5	-5.06	123.26	126.80
2	A8	467	G	C8-N9-C4	-5.06	104.38	106.40
2	A8	890	C	C6-N1-C2	-5.06	118.28	120.30
2	A8	1094	U	C5-C6-N1	5.06	125.23	122.70
2	A8	1306	C	N3-C4-N4	5.06	121.54	118.00
2	A8	1365	A	O4'-C4'-C3'	-5.06	98.94	104.00
2	A8	1524	G	C4-C5-C6	5.06	121.84	118.80
2	A8	1526	C	C5-C6-N1	5.06	123.53	121.00
2	A8	2291	U	P-O5'-C5'	5.06	129.00	120.90
2	A8	2456	C	C5'-C4'-C3'	-5.06	107.91	116.00
36	BA	829	G	C5-C6-O6	-5.06	125.56	128.60
36	BA	1080	A	P-O3'-C3'	-5.06	113.63	119.70
36	BA	1357	A	C5-C6-N1	-5.06	115.17	117.70
2	A8	247	G	C5'-C4'-O4'	5.06	115.17	109.10
2	A8	446	G	N1-C2-N3	-5.06	120.87	123.90
2	A8	474	G	O4'-C1'-N9	5.06	112.25	108.20
2	A8	698	C	N3-C4-N4	5.06	121.54	118.00
2	A8	799	G	C4-N9-C1'	-5.06	119.92	126.50
2	A8	875	G	C6-C5-N7	-5.06	127.36	130.40
2	A8	1163	G	C5'-C4'-C3'	-5.06	107.91	116.00
2	A8	1446	C	O4'-C1'-N1	5.06	112.25	108.20
2	A8	1489	C	C5'-C4'-C3'	-5.06	107.91	116.00
2	A8	1590	A	C5-C6-N1	-5.06	115.17	117.70
2	A8	1632	A	C3'-C2'-C1'	-5.06	97.45	101.50
2	A8	1671	U	N3-C2-O2	5.06	125.74	122.20
2	A8	1671	U	O4'-C1'-N1	5.06	112.25	108.20
2	A8	1722	A	C5'-C4'-O4'	5.06	115.17	109.10
2	A8	1842	G	O4'-C1'-N9	5.06	112.25	108.20
2	A8	2091	C	C3'-C2'-C1'	-5.06	97.45	101.50
2	A8	2191	A	C5'-C4'-C3'	-5.06	107.91	116.00
2	A8	2212	A	O4'-C1'-N9	5.06	112.25	108.20
2	A8	2475	C	O4'-C1'-N1	5.06	112.25	108.20
2	A8	2523	G	P-O3'-C3'	-5.06	113.63	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	2654	A	C5-C6-N6	-5.06	119.65	123.70
2	A8	2672	U	N1-C1'-C2'	-5.06	106.44	112.00
8	AD	51	THR	N-CA-C	-5.06	97.34	111.00
36	BA	182	A	C4-C5-C6	5.06	119.53	117.00
36	BA	198	G	C5'-C4'-C3'	5.06	124.09	116.00
36	BA	598	U	C5'-C4'-O4'	5.06	115.17	109.10
36	BA	630	A	C4-C5-C6	5.06	119.53	117.00
36	BA	670	G	O4'-C1'-N9	5.06	112.25	108.20
36	BA	724	G	C4'-C3'-C2'	-5.06	97.54	102.60
2	A8	8	C	C6-N1-C1'	5.06	126.87	120.80
2	A8	122	G	C3'-C2'-C1'	-5.06	97.45	101.50
2	A8	1243	C	C5-C4-N4	-5.06	116.66	120.20
2	A8	1285	A	C5-C6-N1	-5.06	115.17	117.70
2	A8	1627	G	C4-C5-C6	5.06	121.83	118.80
2	A8	2256	G	P-O3'-C3'	-5.06	113.63	119.70
2	A8	2333	A	P-O5'-C5'	-5.06	112.81	120.90
2	A8	2597	G	P-O3'-C3'	-5.06	113.63	119.70
36	BA	237	G	N3-C2-N2	5.06	123.44	119.90
36	BA	791	G	P-O5'-C5'	-5.06	112.81	120.90
2	A8	139	U	C2-N1-C1'	5.05	123.77	117.70
2	A8	308	G	O4'-C1'-N9	5.05	112.24	108.20
2	A8	340	A	C5-C6-N6	-5.05	119.66	123.70
2	A8	949	G	P-O3'-C3'	-5.05	113.64	119.70
2	A8	1398	C	O3'-P-O5'	-5.05	94.40	104.00
2	A8	1437	C	C6-N1-C2	-5.05	118.28	120.30
2	A8	1628	G	N3-C2-N2	5.05	123.44	119.90
2	A8	2295	C	N3-C4-N4	5.05	121.54	118.00
2	A8	2603	G	P-O5'-C5'	-5.05	112.81	120.90
36	BA	116	A	O4'-C1'-N9	5.05	112.24	108.20
36	BA	256	U	C5-C6-N1	5.05	125.23	122.70
36	BA	280	C	O4'-C1'-N1	5.05	112.24	108.20
36	BA	515	G	P-O5'-C5'	-5.05	112.81	120.90
36	BA	826	C	C6-N1-C2	-5.05	118.28	120.30
36	BA	899	C	P-O3'-C3'	-5.05	113.64	119.70
36	BA	1141	C	N3-C4-C5	-5.05	119.88	121.90
36	BA	1244	G	N3-C2-N2	5.05	123.44	119.90
36	BA	1439	G	C6-C5-N7	-5.05	127.37	130.40
37	BB	143	LEU	N-CA-C	-5.05	97.35	111.00
1	A7	68	C	N1-C1'-C2'	-5.05	106.44	112.00
2	A8	1274	A	C3'-C2'-C1'	-5.05	97.46	101.50
36	BA	699	C	C5'-C4'-C3'	-5.05	107.92	116.00
36	BA	939	G	N1-C2-N3	-5.05	120.87	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1461	G	C8-N9-C4	-5.05	104.38	106.40
2	A8	368	A	O4'-C1'-N9	5.05	112.24	108.20
2	A8	731	C	N3-C4-C5	-5.05	119.88	121.90
2	A8	1162	G	C3'-C2'-C1'	-5.05	97.46	101.50
2	A8	1373	A	C5'-C4'-C3'	-5.05	107.92	116.00
2	A8	1502	A	O4'-C1'-N9	5.05	112.24	108.20
2	A8	1603	A	C6-C5-N7	-5.05	128.76	132.30
2	A8	1983	G	P-O3'-C3'	-5.05	113.64	119.70
2	A8	2123	G	C4-C5-C6	5.05	121.83	118.80
2	A8	2230	G	C8-N9-C4	-5.05	104.38	106.40
2	A8	2376	A	C4-C5-C6	5.05	119.53	117.00
2	A8	2582	G	C8-N9-C4	-5.05	104.38	106.40
2	A8	2843	G	C3'-C2'-C1'	-5.05	97.46	101.50
36	BA	313	A	C3'-C2'-C1'	-5.05	97.46	101.50
36	BA	733	G	P-O5'-C5'	-5.05	112.82	120.90
36	BA	988	G	C8-N9-C4	-5.05	104.38	106.40
2	A8	271	G	C1'-O4'-C4'	-5.05	105.86	109.90
2	A8	910	A	N9-C4-C5	5.05	107.82	105.80
2	A8	1020	A	C5-C6-N6	-5.05	119.66	123.70
2	A8	1166	G	C4-N9-C1'	-5.05	119.93	126.50
2	A8	1192	G	C8-N9-C1'	5.05	133.56	127.00
2	A8	1718	G	C5-C6-O6	-5.05	125.57	128.60
2	A8	2331	G	N3-C2-N2	5.05	123.44	119.90
9	AE	146	VAL	N-CA-C	-5.05	97.37	111.00
36	BA	328	C	C5'-C4'-O4'	5.05	115.16	109.10
36	BA	432	A	O4'-C1'-N9	5.05	112.24	108.20
36	BA	443	C	N3-C4-C5	-5.05	119.88	121.90
36	BA	1043	G	C5'-C4'-O4'	5.05	115.16	109.10
2	A8	753	A	C5-C6-N6	-5.05	119.66	123.70
2	A8	1684	G	P-O5'-C5'	-5.05	112.82	120.90
2	A8	1808	A	O4'-C1'-N9	5.05	112.24	108.20
2	A8	1968	G	N1-C2-N2	-5.05	111.66	116.20
2	A8	2045	C	P-O3'-C3'	-5.05	113.64	119.70
36	BA	145	G	C4-N9-C1'	-5.05	119.94	126.50
36	BA	713	G	N3-C2-N2	5.05	123.43	119.90
36	BA	777	A	C4-C5-C6	5.05	119.52	117.00
36	BA	826	C	C5-C6-N1	5.05	123.52	121.00
2	A8	1193	G	C6-C5-N7	-5.05	127.37	130.40
2	A8	1923	U	C3'-C2'-C1'	-5.05	97.46	101.50
2	A8	2323	G	O4'-C1'-N9	5.05	112.24	108.20
2	A8	2805	C	C6-N1-C1'	5.05	126.86	120.80
36	BA	363	A	C5-C6-N6	-5.05	119.66	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1005	A	O4'-C1'-N9	5.05	112.24	108.20
54	BS	9	PHE	CB-CG-CD2	-5.05	117.27	120.80
1	A7	33	G	C8-N9-C1'	5.04	133.56	127.00
2	A8	155	A	C1'-O4'-C4'	-5.04	105.86	109.90
2	A8	266	G	C5-N7-C8	5.04	106.82	104.30
2	A8	380	G	O4'-C1'-N9	5.04	112.24	108.20
2	A8	592	A	C8-N9-C1'	5.04	136.78	127.70
2	A8	817	C	C3'-C2'-C1'	-5.04	97.46	101.50
2	A8	1074	G	N1-C2-N3	-5.04	120.87	123.90
2	A8	2401	U	O4'-C1'-C2'	5.04	112.14	107.60
2	A8	2666	C	C6-N1-C1'	-5.04	114.75	120.80
26	AV	19	ARG	N-CA-CB	-5.04	101.52	110.60
1	A7	114	C	N3-C4-N4	5.04	121.53	118.00
2	A8	105	C	N3-C4-N4	5.04	121.53	118.00
2	A8	256	A	O4'-C1'-N9	5.04	112.23	108.20
2	A8	318	C	N3-C4-N4	5.04	121.53	118.00
2	A8	387	U	O4'-C1'-N1	5.04	112.23	108.20
2	A8	592	A	C3'-C2'-C1'	-5.04	97.47	101.50
2	A8	885	C	N3-C4-N4	5.04	121.53	118.00
2	A8	1031	G	C5'-C4'-C3'	-5.04	107.93	116.00
2	A8	1904	G	N9-C1'-C2'	-5.04	106.45	112.00
36	BA	753	A	O4'-C1'-N9	5.04	112.23	108.20
36	BA	894	G	N7-C8-N9	5.04	115.62	113.10
36	BA	1188	A	C5-C6-N6	-5.04	119.67	123.70
36	BA	1248	A	C5-C6-N6	-5.04	119.67	123.70
36	BA	1402	C	C5'-C4'-O4'	5.04	115.15	109.10
1	A7	42	C	N3-C4-C5	-5.04	119.88	121.90
2	A8	412	A	C5-C6-N1	-5.04	115.18	117.70
2	A8	835	C	N3-C4-N4	5.04	121.53	118.00
2	A8	923	G	C1'-O4'-C4'	-5.04	105.87	109.90
2	A8	933	A	N1-C6-N6	5.04	121.62	118.60
2	A8	1679	A	C5-C6-N1	-5.04	115.18	117.70
2	A8	2357	G	C4-N9-C1'	-5.04	119.95	126.50
2	A8	2488	G	O4'-C1'-N9	5.04	112.23	108.20
2	A8	2692	G	C4'-C3'-C2'	-5.04	97.56	102.60
2	A8	2729	G	N3-C2-N2	5.04	123.43	119.90
36	BA	265	G	C1'-O4'-C4'	5.04	113.93	109.90
36	BA	680	C	C3'-C2'-C1'	-5.04	97.47	101.50
36	BA	761	G	C6-C5-N7	-5.04	127.38	130.40
36	BA	1325	C	C5'-C4'-C3'	-5.04	107.93	116.00
2	A8	517	C	N3-C4-N4	5.04	121.53	118.00
2	A8	644	A	O4'-C1'-C2'	-5.04	100.76	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1507	C	C5-C6-N1	5.04	123.52	121.00
2	A8	1766	G	N3-C2-N2	5.04	123.43	119.90
2	A8	2027	G	C4-N9-C1'	-5.04	119.95	126.50
2	A8	2434	A	O4'-C1'-C2'	5.04	112.14	107.60
36	BA	997	U	N3-C4-O4	5.04	122.93	119.40
1	A7	88	C	N1-C1'-C2'	-5.04	106.46	112.00
2	A8	381	G	C3'-C2'-C1'	-5.04	97.47	101.50
2	A8	544	C	C1'-O4'-C4'	-5.04	105.87	109.90
2	A8	835	C	C1'-O4'-C4'	-5.04	105.87	109.90
2	A8	1419	A	O3'-P-O5'	-5.04	94.43	104.00
2	A8	1555	G	N1-C6-O6	5.04	122.92	119.90
2	A8	2349	G	N3-C2-N2	5.04	123.43	119.90
2	A8	2725	A	O4'-C1'-N9	5.04	112.23	108.20
36	BA	293	G	C6-C5-N7	-5.04	127.38	130.40
36	BA	567	G	C8-N9-C1'	5.04	133.55	127.00
36	BA	1340	A	C5-C6-N1	-5.04	115.18	117.70
2	A8	788	A	C4-C5-C6	5.04	119.52	117.00
2	A8	985	C	N3-C4-N4	5.04	121.53	118.00
2	A8	1036	G	C5-C6-N1	-5.04	108.98	111.50
2	A8	1241	A	C5-C6-N6	-5.04	119.67	123.70
2	A8	1329	U	P-O3'-C3'	-5.04	113.66	119.70
2	A8	1716	U	C3'-C2'-C1'	-5.04	97.47	101.50
2	A8	2262	U	P-O3'-C3'	-5.04	113.66	119.70
36	BA	199	A	P-O5'-C5'	5.04	128.96	120.90
36	BA	563	A	N3-C4-C5	-5.04	123.27	126.80
2	A8	394	C	N3-C4-N4	5.04	121.53	118.00
2	A8	918	A	N3-C4-C5	-5.04	123.28	126.80
2	A8	999	U	C2-N1-C1'	-5.04	111.66	117.70
2	A8	2277	G	P-O3'-C3'	-5.04	113.66	119.70
2	A8	2286	G	N3-C2-N2	5.04	123.42	119.90
2	A8	2699	C	N3-C4-C5	-5.04	119.89	121.90
2	A8	2797	U	C6-N1-C2	-5.04	117.98	121.00
36	BA	220	G	C6-C5-N7	-5.04	127.38	130.40
36	BA	460	A	O4'-C1'-C2'	5.04	112.13	107.60
36	BA	496	A	C4-N9-C1'	5.04	135.37	126.30
36	BA	507	C	N3-C4-C5	-5.04	119.89	121.90
36	BA	765	G	C3'-C2'-C1'	-5.04	97.47	101.50
36	BA	1175	G	C4-N9-C1'	-5.04	119.95	126.50
36	BA	1386	G	C4-N9-C1'	-5.04	119.95	126.50
1	A7	101	A	C4-C5-C6	5.03	119.52	117.00
2	A8	260	G	O4'-C1'-N9	5.03	112.23	108.20
2	A8	649	G	C5'-C4'-C3'	-5.03	107.95	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1079	C	C6-N1-C2	-5.03	118.29	120.30
2	A8	1385	A	C4-C5-C6	5.03	119.52	117.00
2	A8	1503	A	O3'-P-O5'	-5.03	94.44	104.00
2	A8	1818	U	P-O3'-C3'	5.03	125.74	119.70
2	A8	2094	A	C5'-C4'-C3'	-5.03	107.95	116.00
19	AO	36	TYR	N-CA-CB	5.03	119.66	110.60
25	AU	53	GLN	N-CA-CB	5.03	119.66	110.60
36	BA	176	C	N3-C4-N4	5.03	121.52	118.00
36	BA	286	C	C5-C6-N1	5.03	123.52	121.00
36	BA	808	C	C3'-C2'-C1'	-5.03	97.47	101.50
36	BA	891	U	C2-N3-C4	-5.03	123.98	127.00
36	BA	1174	G	C5'-C4'-C3'	-5.03	107.95	116.00
43	BH	127	TYR	CB-CG-CD1	-5.03	117.98	121.00
2	A8	713	G	O3'-P-O5'	-5.03	94.44	104.00
2	A8	1242	U	C5-C6-N1	5.03	125.22	122.70
2	A8	1642	G	N3-C2-N2	5.03	123.42	119.90
2	A8	2218	G	C6-C5-N7	-5.03	127.38	130.40
2	A8	2628	C	C4'-C3'-C2'	5.03	107.63	102.60
36	BA	1257	A	C5-C6-N6	-5.03	119.67	123.70
1	A7	34	A	C5-C6-N6	-5.03	119.68	123.70
1	A7	74	U	C5'-C4'-C3'	-5.03	107.95	116.00
2	A8	359	G	C4-C5-C6	5.03	121.82	118.80
2	A8	460	A	C3'-C2'-C1'	-5.03	97.48	101.50
2	A8	900	A	C1'-O4'-C4'	-5.03	105.88	109.90
2	A8	1543	G	C1'-O4'-C4'	-5.03	105.88	109.90
2	A8	1587	G	C4-C5-C6	5.03	121.82	118.80
2	A8	1977	A	C5-C6-N1	-5.03	115.19	117.70
2	A8	2004	G	P-O3'-C3'	5.03	125.74	119.70
2	A8	2658	C	C2-N3-C4	5.03	122.42	119.90
2	A8	2692	G	C6-C5-N7	-5.03	127.38	130.40
2	A8	2740	A	O3'-P-O5'	-5.03	94.44	104.00
2	A8	2778	A	C3'-C2'-C1'	5.03	105.53	101.50
36	BA	1033	G	C8-N9-C4	-5.03	104.39	106.40
36	BA	1243	C	C5-C4-N4	-5.03	116.68	120.20
36	BA	1418	A	N3-C4-N9	5.03	131.43	127.40
36	BA	1462	C	C2-N1-C1'	-5.03	113.27	118.80
2	A8	706	A	P-O3'-C3'	-5.03	113.67	119.70
2	A8	1332	G	P-O5'-C5'	-5.03	112.85	120.90
2	A8	2316	G	C5'-C4'-C3'	-5.03	107.95	116.00
2	A8	2717	C	C5'-C4'-C3'	-5.03	107.95	116.00
17	AM	106	ASP	N-CA-C	-5.03	97.42	111.00
36	BA	756	C	O4'-C1'-N1	5.03	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	33	C	N3-C4-N4	5.03	121.52	118.00
2	A8	122	G	O4'-C1'-N9	5.03	112.22	108.20
2	A8	367	G	O4'-C1'-N9	5.03	112.22	108.20
2	A8	669	G	P-O5'-C5'	-5.03	112.86	120.90
2	A8	1055	G	N1-C2-N3	-5.03	120.88	123.90
2	A8	1155	A	C5'-C4'-O4'	5.03	115.13	109.10
2	A8	1168	G	C4-N9-C1'	-5.03	119.97	126.50
2	A8	2586	U	C6-N1-C2	-5.03	117.98	121.00
2	A8	2632	A	O4'-C4'-C3'	-5.03	98.97	104.00
2	A8	2885	G	C5-C6-O6	-5.03	125.58	128.60
36	BA	44	A	O4'-C1'-N9	5.03	112.22	108.20
36	BA	1034	G	P-O3'-C3'	-5.03	113.67	119.70
36	BA	1278	G	O4'-C1'-N9	5.03	112.22	108.20
36	BA	1524	C	C5'-C4'-C3'	-5.03	107.96	116.00
49	BN	40	ARG	CB-CA-C	5.03	120.46	110.40
49	BN	100	TRP	CA-CB-CG	5.03	123.25	113.70
2	A8	315	G	C8-N9-C1'	5.03	133.53	127.00
2	A8	1336	A	C5-C6-N6	-5.03	119.68	123.70
2	A8	1428	C	N3-C4-C5	-5.03	119.89	121.90
2	A8	1436	G	P-O3'-C3'	-5.03	113.67	119.70
2	A8	2083	G	N3-C2-N2	5.03	123.42	119.90
2	A8	2790	U	C5'-C4'-C3'	-5.03	107.96	116.00
36	BA	65	A	C5-C6-N1	-5.03	115.19	117.70
36	BA	525	C	C5-C4-N4	-5.03	116.68	120.20
36	BA	1334	G	P-O5'-C5'	5.03	128.94	120.90
1	A7	28	C	C5-C4-N4	-5.02	116.68	120.20
1	A7	29	A	C5-C6-N6	-5.02	119.68	123.70
2	A8	163	C	C5'-C4'-O4'	5.02	115.13	109.10
2	A8	333	G	O4'-C1'-N9	5.02	112.22	108.20
2	A8	607	U	C3'-C2'-C1'	-5.02	97.48	101.50
2	A8	1551	A	N9-C4-C5	5.02	107.81	105.80
2	A8	1728	C	C2-N1-C1'	-5.02	113.27	118.80
2	A8	1877	A	C4-C5-C6	5.02	119.51	117.00
2	A8	2279	G	O4'-C1'-N9	5.02	112.22	108.20
2	A8	2573	C	N3-C4-C5	-5.02	119.89	121.90
2	A8	2606	C	C5-C6-N1	5.02	123.51	121.00
36	BA	55	A	C8-N9-C4	-5.02	103.79	105.80
36	BA	198	G	C6-C5-N7	-5.02	127.39	130.40
36	BA	321	A	C4-C5-C6	5.02	119.51	117.00
36	BA	492	C	N3-C4-N4	5.02	121.52	118.00
36	BA	624	C	N3-C4-N4	5.02	121.52	118.00
36	BA	946	A	O4'-C1'-N9	5.02	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	1290	G	C6-C5-N7	-5.02	127.39	130.40
1	A7	91	C	C3'-C2'-C1'	-5.02	97.48	101.50
1	A7	118	C	N3-C4-N4	5.02	121.52	118.00
2	A8	221	A	C5-C6-N6	-5.02	119.68	123.70
2	A8	379	G	C1'-O4'-C4'	-5.02	105.88	109.90
2	A8	754	U	C5'-C4'-C3'	-5.02	107.96	116.00
2	A8	1152	C	C3'-C2'-C1'	-5.02	97.48	101.50
2	A8	1625	C	C4'-C3'-C2'	-5.02	97.58	102.60
2	A8	1706	C	O4'-C1'-N1	5.02	112.22	108.20
2	A8	1909	C	C2-N1-C1'	-5.02	113.28	118.80
2	A8	2281	A	O4'-C1'-N9	5.02	112.22	108.20
2	A8	2750	A	P-O5'-C5'	-5.02	112.86	120.90
2	A8	2860	A	N1-C2-N3	5.02	131.81	129.30
31	A0	40	HIS	N-CA-CB	5.02	119.64	110.60
36	BA	142	G	C3'-C2'-C1'	-5.02	97.48	101.50
36	BA	477	C	N3-C4-N4	5.02	121.52	118.00
36	BA	796	C	N3-C4-C5	-5.02	119.89	121.90
36	BA	812	G	P-O3'-C3'	-5.02	113.67	119.70
36	BA	1173	U	C2-N1-C1'	-5.02	111.67	117.70
36	BA	1517	G	C5-C6-O6	-5.02	125.59	128.60
2	A8	721	A	C4-C5-C6	5.02	119.51	117.00
2	A8	1949	G	C4-N9-C1'	-5.02	119.97	126.50
2	A8	2341	G	O4'-C1'-N9	5.02	112.22	108.20
36	BA	199	A	C8-N9-C1'	5.02	136.74	127.70
36	BA	843	U	P-O3'-C3'	-5.02	113.67	119.70
36	BA	1177	G	N3-C2-N2	5.02	123.42	119.90
45	BJ	7	ARG	NE-CZ-NH1	5.02	122.81	120.30
2	A8	786	C	N3-C4-N4	5.02	121.51	118.00
2	A8	1018	U	P-O5'-C5'	5.02	128.93	120.90
2	A8	1327	A	C3'-C2'-C1'	-5.02	97.48	101.50
2	A8	1755	A	P-O5'-C5'	-5.02	112.87	120.90
2	A8	1773	A	O4'-C1'-N9	5.02	112.22	108.20
2	A8	1993	U	C6-N1-C2	-5.02	117.99	121.00
36	BA	571	U	O4'-C1'-N1	5.02	112.22	108.20
36	BA	639	G	C5'-C4'-C3'	-5.02	107.97	116.00
36	BA	1333	A	O4'-C1'-N9	5.02	112.22	108.20
36	BA	1350	A	O4'-C1'-N9	5.02	112.22	108.20
36	BA	1438	G	C6-C5-N7	-5.02	127.39	130.40
2	A8	190	A	C6-C5-N7	-5.02	128.79	132.30
2	A8	332	A	C4-C5-C6	5.02	119.51	117.00
2	A8	461	C	O4'-C1'-N1	5.02	112.21	108.20
2	A8	565	C	C5-C4-N4	-5.02	116.69	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1321	A	C4'-C3'-C2'	-5.02	97.58	102.60
2	A8	1325	U	O4'-C1'-N1	5.02	112.21	108.20
2	A8	1345	C	O4'-C4'-C3'	-5.02	98.98	104.00
2	A8	1735	A	C3'-C2'-C1'	-5.02	97.49	101.50
2	A8	1738	G	C5-C6-O6	-5.02	125.59	128.60
2	A8	2085	U	C5'-C4'-C3'	-5.02	107.97	116.00
2	A8	2215	C	C6-N1-C2	-5.02	118.29	120.30
2	A8	2288	A	C8-N9-C4	-5.02	103.79	105.80
2	A8	2658	C	C5'-C4'-C3'	-5.02	107.97	116.00
36	BA	177	G	C5'-C4'-O4'	5.02	115.12	109.10
36	BA	205	A	C5-C6-N6	-5.02	119.69	123.70
36	BA	1228	C	N3-C4-C5	-5.02	119.89	121.90
36	BA	1465	A	C5-C6-N1	-5.02	115.19	117.70
36	BA	1513	A	C5-C6-N1	-5.02	115.19	117.70
2	A8	1885	A	C6-C5-N7	-5.02	128.79	132.30
2	A8	2007	U	C1'-O4'-C4'	-5.02	105.89	109.90
36	BA	305	G	P-O3'-C3'	5.02	125.72	119.70
36	BA	513	C	P-O3'-C3'	-5.02	113.68	119.70
36	BA	676	A	C3'-C2'-C1'	-5.02	97.49	101.50
36	BA	769	G	C8-N9-C4	-5.02	104.39	106.40
2	A8	164	C	N3-C4-C5	-5.01	119.89	121.90
2	A8	1309	G	C8-N9-C4	-5.01	104.39	106.40
2	A8	1356	G	C4'-C3'-C2'	-5.01	97.58	102.60
2	A8	1358	G	C1'-O4'-C4'	-5.01	105.89	109.90
2	A8	2183	A	C5-C6-N1	-5.01	115.19	117.70
2	A8	2194	U	C5'-C4'-C3'	-5.01	107.98	116.00
2	A8	2332	C	N3-C4-N4	5.01	121.51	118.00
2	A8	2859	G	C5'-C4'-O4'	5.01	115.12	109.10
7	A6	264	LYS	CB-CA-C	-5.01	100.37	110.40
36	BA	106	C	C6-N1-C1'	5.01	126.82	120.80
36	BA	691	G	C3'-C2'-C1'	-5.01	97.49	101.50
36	BA	818	G	O4'-C1'-N9	5.01	112.21	108.20
36	BA	1228	C	C5'-C4'-O4'	5.01	115.12	109.10
1	A7	42	C	C5-C6-N1	5.01	123.51	121.00
2	A8	147	C	N3-C4-C5	-5.01	119.89	121.90
2	A8	316	C	C5-C6-N1	5.01	123.51	121.00
2	A8	984	A	C5-C6-N1	-5.01	115.19	117.70
2	A8	996	A	C5'-C4'-O4'	5.01	115.11	109.10
2	A8	1763	G	O4'-C1'-N9	5.01	112.21	108.20
2	A8	2176	A	O4'-C1'-N9	5.01	112.21	108.20
36	BA	557	G	P-O5'-C5'	5.01	128.92	120.90
2	A8	15	G	N3-C2-N2	5.01	123.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	308	G	P-O5'-C5'	-5.01	112.88	120.90
2	A8	570	G	C6-C5-N7	-5.01	127.39	130.40
2	A8	783	A	O4'-C4'-C3'	-5.01	98.99	104.00
2	A8	1401	G	C6-C5-N7	-5.01	127.39	130.40
2	A8	1412	U	C3'-C2'-C1'	-5.01	97.49	101.50
2	A8	1445	G	O4'-C1'-N9	5.01	112.21	108.20
2	A8	2709	G	C5-C6-O6	-5.01	125.59	128.60
2	A8	2748	A	C5-C6-N6	-5.01	119.69	123.70
3	AA	441	ALA	N-CA-CB	5.01	117.12	110.10
36	BA	22	G	C4-C5-C6	5.01	121.81	118.80
36	BA	57	G	C5-C6-N1	-5.01	109.00	111.50
36	BA	442	G	C3'-C2'-C1'	-5.01	97.49	101.50
36	BA	761	G	N7-C8-N9	5.01	115.61	113.10
36	BA	802	A	N7-C8-N9	5.01	116.31	113.80
36	BA	852	G	C3'-C2'-C1'	-5.01	97.49	101.50
36	BA	1273	C	C5'-C4'-C3'	-5.01	107.98	116.00
36	BA	1453	G	C4-C5-C6	5.01	121.81	118.80
2	A8	622	G	O4'-C4'-C3'	-5.01	98.99	104.00
2	A8	727	A	N7-C8-N9	5.01	116.30	113.80
2	A8	1017	G	C5'-C4'-C3'	-5.01	107.98	116.00
2	A8	1896	G	N3-C2-N2	5.01	123.41	119.90
2	A8	2137	U	N1-C1'-C2'	-5.01	106.49	112.00
2	A8	2309	A	C5-C6-N1	-5.01	115.19	117.70
2	A8	2394	C	C6-N1-C2	-5.01	118.30	120.30
2	A8	2664	G	N1-C2-N3	-5.01	120.89	123.90
36	BA	251	G	N1-C2-N3	-5.01	120.89	123.90
36	BA	353	A	C4'-C3'-C2'	-5.01	97.59	102.60
36	BA	401	C	N3-C4-N4	5.01	121.51	118.00
36	BA	1483	A	C5-C6-N1	-5.01	115.19	117.70
2	A8	407	G	C8-N9-C1'	5.01	133.51	127.00
2	A8	458	G	O4'-C1'-N9	5.01	112.21	108.20
2	A8	512	G	C4'-C3'-C2'	-5.01	97.59	102.60
2	A8	777	G	C6-C5-N7	-5.01	127.39	130.40
2	A8	1393	A	C5-C6-N1	-5.01	115.20	117.70
2	A8	2036	C	O4'-C1'-N1	5.01	112.21	108.20
2	A8	2044	C	C3'-C2'-C1'	-5.01	97.49	101.50
2	A8	2087	G	C5'-C4'-C3'	5.01	124.01	116.00
36	BA	963	G	O4'-C1'-N9	5.01	112.21	108.20
36	BA	1384	C	C1'-O4'-C4'	-5.01	105.89	109.90
1	A7	4	C	N3-C4-N4	5.01	121.50	118.00
2	A8	134	G	C5'-C4'-O4'	5.01	115.11	109.10
2	A8	1165	A	O3'-P-O5'	-5.01	94.49	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A8	1452	G	N3-C2-N2	5.01	123.40	119.90
2	A8	1504	A	C1'-O4'-C4'	-5.01	105.89	109.90
2	A8	2223	G	P-O5'-C5'	-5.01	112.89	120.90
2	A8	2227	A	C4-C5-C6	5.01	119.50	117.00
2	A8	2331	G	C3'-C2'-C1'	-5.01	97.50	101.50
2	A8	2416	C	O5'-C5'-C4'	-5.01	102.19	111.70
2	A8	2545	G	C8-N9-C1'	5.01	133.51	127.00
36	BA	139	A	C5-C6-N1	-5.01	115.20	117.70
36	BA	274	A	C5-C6-N6	-5.01	119.69	123.70
36	BA	325	A	C5-C6-N6	-5.01	119.69	123.70
36	BA	436	C	N3-C4-N4	5.01	121.50	118.00
36	BA	604	G	N3-C2-N2	5.01	123.41	119.90
36	BA	661	G	N3-C2-N2	5.01	123.40	119.90
36	BA	754	C	C2-N3-C4	5.01	122.40	119.90
36	BA	1201	A	C5-C6-N1	-5.01	115.20	117.70
36	BA	1313	U	C4'-C3'-C2'	-5.01	97.59	102.60
36	BA	1450	U	C5'-C4'-C3'	-5.01	107.99	116.00
2	A8	15	G	N9-C1'-C2'	-5.00	106.50	112.00
2	A8	55	G	C1'-O4'-C4'	-5.00	105.90	109.90
2	A8	296	U	O4'-C4'-C3'	-5.00	99.00	104.00
2	A8	618	G	P-O3'-C3'	-5.00	113.69	119.70
2	A8	1362	C	C5-C6-N1	5.00	123.50	121.00
2	A8	1403	A	C5'-C4'-C3'	-5.00	107.99	116.00
17	AM	23	GLY	N-CA-C	-5.00	100.59	113.10
36	BA	1053	G	N3-C2-N2	5.00	123.40	119.90
36	BA	1225	A	C5'-C4'-C3'	-5.00	107.99	116.00
36	BA	1264	U	C5'-C4'-C3'	-5.00	107.99	116.00
2	A8	274	C	N3-C4-N4	5.00	121.50	118.00
2	A8	442	G	N3-C2-N2	5.00	123.40	119.90
2	A8	453	A	O4'-C1'-N9	5.00	112.20	108.20
2	A8	1323	C	C2-N1-C1'	-5.00	113.30	118.80
2	A8	1334	G	C5'-C4'-C3'	-5.00	107.99	116.00
2	A8	1378	A	C4'-C3'-C2'	-5.00	97.60	102.60
2	A8	1724	G	C4-C5-C6	5.00	121.80	118.80
2	A8	1791	A	P-O3'-C3'	-5.00	113.70	119.70
2	A8	1914	C	C5-C6-N1	5.00	123.50	121.00
2	A8	2340	A	P-O3'-C3'	-5.00	113.70	119.70
2	A8	2607	G	N3-C2-N2	5.00	123.40	119.90
2	A8	2676	C	N3-C4-C5	-5.00	119.90	121.90
36	BA	416	G	C6-C5-N7	-5.00	127.40	130.40
36	BA	501	C	N3-C4-N4	5.00	121.50	118.00
36	BA	707	U	P-O5'-C5'	-5.00	112.89	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BA	744	C	N3-C4-N4	5.00	121.50	118.00
36	BA	1181	G	O4'-C1'-C2'	5.00	112.10	107.60
36	BA	1453	G	C5-N7-C8	5.00	106.80	104.30
1	A7	64	G	C1'-O4'-C4'	-5.00	105.90	109.90
2	A8	746	U	C5'-C4'-C3'	-5.00	108.00	116.00
2	A8	849	A	C8-N9-C4	-5.00	103.80	105.80
2	A8	1111	A	O5'-C5'-C4'	-5.00	102.20	111.70
2	A8	1391	U	O4'-C1'-N1	5.00	112.20	108.20
2	A8	1418	G	C5'-C4'-C3'	5.00	124.00	116.00
2	A8	1622	G	N3-C2-N2	5.00	123.40	119.90
2	A8	1769	U	P-O3'-C3'	-5.00	113.70	119.70
2	A8	1816	C	N3-C4-C5	-5.00	119.90	121.90
2	A8	2615	U	C4'-C3'-C2'	-5.00	97.60	102.60
2	A8	2727	A	C8-N9-C4	-5.00	103.80	105.80
2	A8	2824	C	N3-C4-C5	-5.00	119.90	121.90
2	A8	2849	U	P-O5'-C5'	-5.00	112.90	120.90
2	A8	2868	A	O4'-C1'-N9	5.00	112.20	108.20
36	BA	53	A	N9-C1'-C2'	-5.00	106.50	112.00
36	BA	404	G	C6-C5-N7	-5.00	127.40	130.40
36	BA	443	C	P-O3'-C3'	-5.00	113.70	119.70
36	BA	660	C	C5'-C4'-C3'	-5.00	108.00	116.00
36	BA	716	A	C3'-C2'-C1'	-5.00	97.50	101.50
36	BA	802	A	C5-C6-N6	-5.00	119.70	123.70
36	BA	1151	A	O4'-C1'-N9	5.00	112.20	108.20
36	BA	1193	G	C3'-C2'-C1'	-5.00	97.50	101.50
36	BA	1255	G	O4'-C1'-N9	5.00	112.20	108.20
36	BA	1400	C	C6-N1-C1'	-5.00	114.80	120.80
36	BA	1457	G	N3-C2-N2	5.00	123.40	119.90
36	BA	1466	C	C5-C6-N1	5.00	123.50	121.00

There are no chirality outliers.

All (2335) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
31	A0	47	TYR	Sidechain
31	A0	48	TYR	Sidechain
31	A0	6	LYS	Peptide
32	A1	17	GLY	Peptide
32	A1	27	ARG	Sidechain
32	A1	48	TYR	Sidechain
33	A2	3	ARG	Peptide
34	A3	29	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
34	A3	44	ARG	Sidechain
34	A3	63	TYR	Sidechain
34	A3	7	ARG	Sidechain
35	A4	4	ARG	Sidechain
6	A5	163	TYR	Sidechain
6	A5	21	TYR	Sidechain
6	A5	7	ARG	Sidechain
7	A6	113	ASP	Peptide
7	A6	12	ARG	Peptide
7	A6	145	MET	Peptide
7	A6	160	TYR	Sidechain
7	A6	184	GLU	Peptide
7	A6	187	CYS	Peptide
7	A6	188	ARG	Sidechain
7	A6	202	ARG	Sidechain
7	A6	213	ARG	Sidechain
7	A6	215	VAL	Peptide
7	A6	22	GLU	Peptide
7	A6	229	HIS	Peptide
7	A6	257	ARG	Sidechain
7	A6	29	PHE	Sidechain
7	A6	61	TYR	Sidechain
7	A6	66	PHE	Peptide
7	A6	86	ARG	Sidechain
7	A6	95	TYR	Sidechain
1	A7	10	G	Sidechain
1	A7	102	G	Sidechain
1	A7	103	U	Sidechain
1	A7	105	G	Sidechain
1	A7	106	G	Sidechain
1	A7	108	A	Sidechain
1	A7	110	C	Sidechain
1	A7	111	U	Sidechain
1	A7	112	G	Sidechain
1	A7	114	C	Sidechain
1	A7	116	G	Sidechain
1	A7	117	G	Sidechain
1	A7	13	G	Sidechain
1	A7	14	U	Sidechain
1	A7	15	A	Sidechain
1	A7	16	G	Sidechain
1	A7	17	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A7	19	C	Sidechain
1	A7	22	U	Sidechain
1	A7	23	G	Sidechain
1	A7	28	C	Sidechain
1	A7	30	C	Sidechain
1	A7	31	C	Sidechain
1	A7	38	C	Sidechain
1	A7	4	C	Sidechain
1	A7	40	U	Sidechain
1	A7	43	C	Sidechain
1	A7	44	G	Sidechain
1	A7	45	A	Sidechain
1	A7	49	C	Sidechain
1	A7	5	U	Sidechain
1	A7	50	A	Sidechain
1	A7	56	G	Sidechain
1	A7	57	A	Sidechain
1	A7	58	A	Sidechain
1	A7	59	A	Sidechain
1	A7	62	C	Sidechain
1	A7	66	A	Sidechain
1	A7	7	G	Sidechain
1	A7	70	C	Sidechain
1	A7	72	G	Sidechain
1	A7	74	U	Sidechain
1	A7	75	G	Sidechain
1	A7	77	U	Sidechain
1	A7	78	A	Sidechain
1	A7	83	G	Sidechain
1	A7	85	G	Sidechain
1	A7	86	G	Sidechain
1	A7	88	C	Sidechain
1	A7	89	U	Sidechain
1	A7	9	G	Sidechain
1	A7	90	C	Sidechain
1	A7	92	C	Sidechain
1	A7	95	U	Sidechain
1	A7	97	C	Sidechain
1	A7	98	G	Sidechain
2	A8	1	G	Sidechain
2	A8	10	A	Sidechain
2	A8	100	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1000	A	Sidechain
2	A8	1002	G	Sidechain
2	A8	1003	G	Sidechain
2	A8	1004	U	Sidechain
2	A8	1005	C	Sidechain
2	A8	1006	C	Sidechain
2	A8	1008	A	Sidechain
2	A8	1010	A	Sidechain
2	A8	1014	A	Sidechain
2	A8	1015	U	Sidechain
2	A8	1016	G	Sidechain
2	A8	1021	A	Sidechain
2	A8	1023	U	Sidechain
2	A8	1025	G	Sidechain
2	A8	1026	G	Sidechain
2	A8	1027	A	Sidechain
2	A8	1028	A	Sidechain
2	A8	1029	A	Sidechain
2	A8	103	A	Sidechain
2	A8	1032	A	Sidechain
2	A8	1033	U	Sidechain
2	A8	1035	U	Sidechain
2	A8	1037	G	Sidechain
2	A8	1042	G	Sidechain
2	A8	1044	C	Sidechain
2	A8	1055	G	Sidechain
2	A8	1056	G	Sidechain
2	A8	1057	A	Sidechain
2	A8	1059	G	Sidechain
2	A8	1060	U	Sidechain
2	A8	1061	U	Sidechain
2	A8	1068	G	Sidechain
2	A8	1069	A	Sidechain
2	A8	1070	A	Sidechain
2	A8	1072	C	Sidechain
2	A8	1074	G	Sidechain
2	A8	1078	U	Sidechain
2	A8	108	G	Sidechain
2	A8	1083	U	Sidechain
2	A8	1087	G	Sidechain
2	A8	1090	A	Sidechain
2	A8	1091	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1092	C	Sidechain
2	A8	1093	G	Sidechain
2	A8	1094	U	Sidechain
2	A8	1098	A	Sidechain
2	A8	1099	G	Sidechain
2	A8	11	C	Sidechain
2	A8	1102	C	Sidechain
2	A8	1103	A	Sidechain
2	A8	1104	C	Sidechain
2	A8	1105	U	Sidechain
2	A8	1107	G	Sidechain
2	A8	1109	C	Sidechain
2	A8	1110	G	Sidechain
2	A8	1112	G	Sidechain
2	A8	112	U	Sidechain
2	A8	1125	G	Sidechain
2	A8	1126	A	Sidechain
2	A8	1128	G	Sidechain
2	A8	1129	A	Sidechain
2	A8	1133	A	Sidechain
2	A8	1135	C	Sidechain
2	A8	1137	G	Sidechain
2	A8	114	U	Sidechain
2	A8	1142	A	Sidechain
2	A8	1144	A	Sidechain
2	A8	1146	C	Sidechain
2	A8	1148	U	Sidechain
2	A8	1151	A	Sidechain
2	A8	1152	C	Sidechain
2	A8	1153	C	Sidechain
2	A8	1154	G	Sidechain
2	A8	1155	A	Sidechain
2	A8	1157	G	Sidechain
2	A8	1159	U	Sidechain
2	A8	1160	G	Sidechain
2	A8	1161	C	Sidechain
2	A8	1162	G	Sidechain
2	A8	1163	G	Sidechain
2	A8	1165	A	Sidechain
2	A8	1166	G	Sidechain
2	A8	1167	C	Sidechain
2	A8	1173	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1174	U	Sidechain
2	A8	1176	U	Sidechain
2	A8	1177	G	Sidechain
2	A8	1179	G	Sidechain
2	A8	118	A	Sidechain
2	A8	1181	U	Sidechain
2	A8	1182	G	Sidechain
2	A8	1183	U	Sidechain
2	A8	1184	U	Sidechain
2	A8	1187	G	Sidechain
2	A8	1188	U	Sidechain
2	A8	119	A	Sidechain
2	A8	1191	G	Sidechain
2	A8	1192	G	Sidechain
2	A8	1193	G	Sidechain
2	A8	1195	G	Sidechain
2	A8	12	U	Sidechain
2	A8	120	U	Sidechain
2	A8	1203	U	Sidechain
2	A8	1204	A	Sidechain
2	A8	1210	G	Sidechain
2	A8	1211	C	Sidechain
2	A8	1212	G	Sidechain
2	A8	1213	A	Sidechain
2	A8	1216	G	Sidechain
2	A8	1217	U	Sidechain
2	A8	1220	G	Sidechain
2	A8	1222	U	Sidechain
2	A8	1224	U	Sidechain
2	A8	1225	G	Sidechain
2	A8	1226	A	Sidechain
2	A8	1228	G	Sidechain
2	A8	1231	U	Sidechain
2	A8	1232	G	Sidechain
2	A8	1235	G	Sidechain
2	A8	1236	G	Sidechain
2	A8	1237	A	Sidechain
2	A8	1238	G	Sidechain
2	A8	124	G	Sidechain
2	A8	1242	U	Sidechain
2	A8	1248	G	Sidechain
2	A8	1249	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1250	G	Sidechain
2	A8	1251	C	Sidechain
2	A8	1252	G	Sidechain
2	A8	1253	A	Sidechain
2	A8	1256	G	Sidechain
2	A8	126	A	Sidechain
2	A8	1262	A	Sidechain
2	A8	1266	G	Sidechain
2	A8	1267	U	Sidechain
2	A8	127	A	Sidechain
2	A8	1274	A	Sidechain
2	A8	1275	A	Sidechain
2	A8	1277	G	Sidechain
2	A8	1278	C	Sidechain
2	A8	1281	G	Sidechain
2	A8	1283	G	Sidechain
2	A8	1284	A	Sidechain
2	A8	1287	A	Sidechain
2	A8	1288	G	Sidechain
2	A8	1296	G	Sidechain
2	A8	1297	C	Sidechain
2	A8	13	A	Sidechain
2	A8	1300	G	Sidechain
2	A8	1302	A	Sidechain
2	A8	1303	G	Sidechain
2	A8	1305	C	Sidechain
2	A8	1308	A	Sidechain
2	A8	131	A	Sidechain
2	A8	1310	G	Sidechain
2	A8	1311	G	Sidechain
2	A8	1312	U	Sidechain
2	A8	1313	U	Sidechain
2	A8	1315	C	Sidechain
2	A8	1318	U	Sidechain
2	A8	132	G	Sidechain
2	A8	1320	C	Sidechain
2	A8	1325	U	Sidechain
2	A8	1326	U	Sidechain
2	A8	1327	A	Sidechain
2	A8	1333	G	Sidechain
2	A8	1334	G	Sidechain
2	A8	1336	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1337	G	Sidechain
2	A8	134	G	Sidechain
2	A8	1340	U	Sidechain
2	A8	1341	G	Sidechain
2	A8	1342	A	Sidechain
2	A8	1343	G	Sidechain
2	A8	1346	G	Sidechain
2	A8	1348	C	Sidechain
2	A8	1349	C	Sidechain
2	A8	135	U	Sidechain
2	A8	1355	G	Sidechain
2	A8	1356	G	Sidechain
2	A8	1357	C	Sidechain
2	A8	1358	G	Sidechain
2	A8	136	G	Sidechain
2	A8	1360	G	Sidechain
2	A8	1361	G	Sidechain
2	A8	1363	C	Sidechain
2	A8	1365	A	Sidechain
2	A8	1366	A	Sidechain
2	A8	1367	A	Sidechain
2	A8	1368	G	Sidechain
2	A8	1371	G	Sidechain
2	A8	1372	U	Sidechain
2	A8	1373	A	Sidechain
2	A8	1376	C	Sidechain
2	A8	1377	G	Sidechain
2	A8	1378	A	Sidechain
2	A8	1379	U	Sidechain
2	A8	1380	G	Sidechain
2	A8	1382	G	Sidechain
2	A8	1383	A	Sidechain
2	A8	1384	A	Sidechain
2	A8	139	U	Sidechain
2	A8	1391	U	Sidechain
2	A8	1392	A	Sidechain
2	A8	1393	A	Sidechain
2	A8	1397	U	Sidechain
2	A8	1398	C	Sidechain
2	A8	14	A	Sidechain
2	A8	1405	U	Sidechain
2	A8	1406	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1407	G	Sidechain
2	A8	1408	G	Sidechain
2	A8	1414	C	Sidechain
2	A8	1416	G	Sidechain
2	A8	1418	G	Sidechain
2	A8	1419	A	Sidechain
2	A8	1420	A	Sidechain
2	A8	1421	G	Sidechain
2	A8	1422	G	Sidechain
2	A8	1425	G	Sidechain
2	A8	1426	G	Sidechain
2	A8	1427	A	Sidechain
2	A8	1429	G	Sidechain
2	A8	1432	G	Sidechain
2	A8	1433	A	Sidechain
2	A8	1434	A	Sidechain
2	A8	1435	G	Sidechain
2	A8	1437	C	Sidechain
2	A8	1438	U	Sidechain
2	A8	1440	U	Sidechain
2	A8	1441	G	Sidechain
2	A8	1442	U	Sidechain
2	A8	1443	U	Sidechain
2	A8	1444	G	Sidechain
2	A8	145	C	Sidechain
2	A8	1450	G	Sidechain
2	A8	1453	A	Sidechain
2	A8	1454	C	Sidechain
2	A8	1457	U	Sidechain
2	A8	1458	U	Sidechain
2	A8	1459	G	Sidechain
2	A8	1460	U	Sidechain
2	A8	1461	C	Sidechain
2	A8	1465	G	Sidechain
2	A8	1467	U	Sidechain
2	A8	1468	U	Sidechain
2	A8	147	C	Sidechain
2	A8	1472	C	Sidechain
2	A8	1474	U	Sidechain
2	A8	1475	G	Sidechain
2	A8	1476	U	Sidechain
2	A8	1477	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1478	G	Sidechain
2	A8	1479	G	Sidechain
2	A8	1483	G	Sidechain
2	A8	1485	U	Sidechain
2	A8	1487	U	Sidechain
2	A8	1488	C	Sidechain
2	A8	1489	C	Sidechain
2	A8	149	A	Sidechain
2	A8	1490	A	Sidechain
2	A8	1491	G	Sidechain
2	A8	1492	G	Sidechain
2	A8	1494	A	Sidechain
2	A8	1496	A	Sidechain
2	A8	1498	C	Sidechain
2	A8	1499	C	Sidechain
2	A8	15	G	Sidechain
2	A8	1502	A	Sidechain
2	A8	1507	C	Sidechain
2	A8	1508	A	Sidechain
2	A8	1509	A	Sidechain
2	A8	1511	G	Sidechain
2	A8	1512	C	Sidechain
2	A8	1513	U	Sidechain
2	A8	1514	G	Sidechain
2	A8	1515	A	Sidechain
2	A8	1516	G	Sidechain
2	A8	152	A	Sidechain
2	A8	1520	U	Sidechain
2	A8	1522	A	Sidechain
2	A8	1523	U	Sidechain
2	A8	1528	A	Sidechain
2	A8	1529	G	Sidechain
2	A8	153	U	Sidechain
2	A8	1530	G	Sidechain
2	A8	1535	A	Sidechain
2	A8	1539	U	Sidechain
2	A8	154	U	Sidechain
2	A8	1540	G	Sidechain
2	A8	1543	G	Sidechain
2	A8	1544	A	Sidechain
2	A8	1545	A	Sidechain
2	A8	1546	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1547	C	Sidechain
2	A8	1552	A	Sidechain
2	A8	1555	G	Sidechain
2	A8	1558	C	Sidechain
2	A8	1559	U	Sidechain
2	A8	156	A	Sidechain
2	A8	1563	U	Sidechain
2	A8	1564	C	Sidechain
2	A8	1566	A	Sidechain
2	A8	1568	G	Sidechain
2	A8	1569	A	Sidechain
2	A8	1570	A	Sidechain
2	A8	1573	G	Sidechain
2	A8	1574	C	Sidechain
2	A8	1576	U	Sidechain
2	A8	1577	C	Sidechain
2	A8	1578	U	Sidechain
2	A8	158	U	Sidechain
2	A8	1580	A	Sidechain
2	A8	1583	A	Sidechain
2	A8	1584	U	Sidechain
2	A8	1586	A	Sidechain
2	A8	1587	G	Sidechain
2	A8	159	G	Sidechain
2	A8	1596	A	Sidechain
2	A8	160	A	Sidechain
2	A8	1600	C	Sidechain
2	A8	1603	A	Sidechain
2	A8	1605	C	Sidechain
2	A8	1606	C	Sidechain
2	A8	1607	C	Sidechain
2	A8	1608	A	Sidechain
2	A8	1611	C	Sidechain
2	A8	1613	G	Sidechain
2	A8	1615	C	Sidechain
2	A8	162	U	Sidechain
2	A8	1620	G	Sidechain
2	A8	1622	G	Sidechain
2	A8	1623	G	Sidechain
2	A8	1625	C	Sidechain
2	A8	1626	A	Sidechain
2	A8	1628	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1631	G	Sidechain
2	A8	1634	A	Sidechain
2	A8	1639	C	Sidechain
2	A8	1643	G	Sidechain
2	A8	1644	C	Sidechain
2	A8	1645	G	Sidechain
2	A8	1647	U	Sidechain
2	A8	1649	G	Sidechain
2	A8	165	A	Sidechain
2	A8	1653	G	Sidechain
2	A8	1654	A	Sidechain
2	A8	1656	C	Sidechain
2	A8	1657	U	Sidechain
2	A8	1659	G	Sidechain
2	A8	1662	U	Sidechain
2	A8	1666	G	Sidechain
2	A8	1667	G	Sidechain
2	A8	1668	A	Sidechain
2	A8	1669	A	Sidechain
2	A8	1671	U	Sidechain
2	A8	1672	A	Sidechain
2	A8	1673	G	Sidechain
2	A8	1674	G	Sidechain
2	A8	1676	A	Sidechain
2	A8	1678	A	Sidechain
2	A8	1679	A	Sidechain
2	A8	168	G	Sidechain
2	A8	1680	U	Sidechain
2	A8	1681	G	Sidechain
2	A8	1682	G	Sidechain
2	A8	1688	U	Sidechain
2	A8	169	G	Sidechain
2	A8	1693	U	Sidechain
2	A8	1695	G	Sidechain
2	A8	1696	G	Sidechain
2	A8	1698	A	Sidechain
2	A8	1699	G	Sidechain
2	A8	170	U	Sidechain
2	A8	1700	A	Sidechain
2	A8	1706	C	Sidechain
2	A8	1709	U	Sidechain
2	A8	171	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1712	U	Sidechain
2	A8	1713	A	Sidechain
2	A8	1714	U	Sidechain
2	A8	1715	G	Sidechain
2	A8	1719	G	Sidechain
2	A8	1720	U	Sidechain
2	A8	1721	G	Sidechain
2	A8	1722	A	Sidechain
2	A8	1723	G	Sidechain
2	A8	1727	C	Sidechain
2	A8	1729	U	Sidechain
2	A8	1731	G	Sidechain
2	A8	1732	C	Sidechain
2	A8	1734	G	Sidechain
2	A8	1736	U	Sidechain
2	A8	1737	G	Sidechain
2	A8	1738	G	Sidechain
2	A8	1739	A	Sidechain
2	A8	1743	G	Sidechain
2	A8	1744	A	Sidechain
2	A8	1749	A	Sidechain
2	A8	175	G	Sidechain
2	A8	1750	G	Sidechain
2	A8	1752	C	Sidechain
2	A8	1754	A	Sidechain
2	A8	1755	A	Sidechain
2	A8	1756	G	Sidechain
2	A8	1757	A	Sidechain
2	A8	1758	U	Sidechain
2	A8	1759	A	Sidechain
2	A8	1760	C	Sidechain
2	A8	1764	C	Sidechain
2	A8	1767	G	Sidechain
2	A8	177	G	Sidechain
2	A8	1770	G	Sidechain
2	A8	1772	A	Sidechain
2	A8	1774	C	Sidechain
2	A8	1775	U	Sidechain
2	A8	1777	U	Sidechain
2	A8	1778	U	Sidechain
2	A8	1782	U	Sidechain
2	A8	1783	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1784	A	Sidechain
2	A8	1785	A	Sidechain
2	A8	1789	A	Sidechain
2	A8	1790	C	Sidechain
2	A8	1791	A	Sidechain
2	A8	1792	G	Sidechain
2	A8	1793	C	Sidechain
2	A8	1795	C	Sidechain
2	A8	1796	U	Sidechain
2	A8	1797	G	Sidechain
2	A8	1799	G	Sidechain
2	A8	1802	A	Sidechain
2	A8	1808	A	Sidechain
2	A8	1809	A	Sidechain
2	A8	181	A	Sidechain
2	A8	1810	A	Sidechain
2	A8	1813	G	Sidechain
2	A8	1815	A	Sidechain
2	A8	1817	G	Sidechain
2	A8	1819	A	Sidechain
2	A8	182	A	Sidechain
2	A8	1822	C	Sidechain
2	A8	1828	G	Sidechain
2	A8	183	C	Sidechain
2	A8	1830	C	Sidechain
2	A8	1831	G	Sidechain
2	A8	1837	C	Sidechain
2	A8	1838	C	Sidechain
2	A8	184	C	Sidechain
2	A8	1840	G	Sidechain
2	A8	1841	U	Sidechain
2	A8	1842	G	Sidechain
2	A8	1844	C	Sidechain
2	A8	1845	G	Sidechain
2	A8	1850	G	Sidechain
2	A8	1852	U	Sidechain
2	A8	1853	A	Sidechain
2	A8	1854	A	Sidechain
2	A8	1855	U	Sidechain
2	A8	1856	U	Sidechain
2	A8	1857	G	Sidechain
2	A8	1858	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1859	U	Sidechain
2	A8	1860	G	Sidechain
2	A8	1863	G	Sidechain
2	A8	1866	A	Sidechain
2	A8	1869	G	Sidechain
2	A8	187	G	Sidechain
2	A8	1871	A	Sidechain
2	A8	1872	A	Sidechain
2	A8	1873	G	Sidechain
2	A8	1876	A	Sidechain
2	A8	1877	A	Sidechain
2	A8	1880	U	Sidechain
2	A8	1881	C	Sidechain
2	A8	1883	U	Sidechain
2	A8	1884	G	Sidechain
2	A8	1885	A	Sidechain
2	A8	1888	G	Sidechain
2	A8	189	G	Sidechain
2	A8	1894	C	Sidechain
2	A8	1895	C	Sidechain
2	A8	190	A	Sidechain
2	A8	1900	A	Sidechain
2	A8	1902	C	Sidechain
2	A8	1903	G	Sidechain
2	A8	1904	G	Sidechain
2	A8	1905	C	Sidechain
2	A8	1906	G	Sidechain
2	A8	191	A	Sidechain
2	A8	1910	G	Sidechain
2	A8	1911	U	Sidechain
2	A8	1914	C	Sidechain
2	A8	1918	A	Sidechain
2	A8	1919	A	Sidechain
2	A8	1920	C	Sidechain
2	A8	1921	G	Sidechain
2	A8	1924	C	Sidechain
2	A8	1926	U	Sidechain
2	A8	1927	A	Sidechain
2	A8	1928	A	Sidechain
2	A8	1929	G	Sidechain
2	A8	1930	G	Sidechain
2	A8	1931	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	1932	A	Sidechain
2	A8	1936	A	Sidechain
2	A8	1939	U	Sidechain
2	A8	194	G	Sidechain
2	A8	1940	U	Sidechain
2	A8	1941	C	Sidechain
2	A8	1943	U	Sidechain
2	A8	1945	G	Sidechain
2	A8	1946	U	Sidechain
2	A8	1949	G	Sidechain
2	A8	195	A	Sidechain
2	A8	1952	A	Sidechain
2	A8	1953	A	Sidechain
2	A8	1954	G	Sidechain
2	A8	1956	U	Sidechain
2	A8	1957	C	Sidechain
2	A8	1959	G	Sidechain
2	A8	1966	A	Sidechain
2	A8	1967	C	Sidechain
2	A8	1968	G	Sidechain
2	A8	197	A	Sidechain
2	A8	1970	A	Sidechain
2	A8	1972	G	Sidechain
2	A8	1975	G	Sidechain
2	A8	1976	U	Sidechain
2	A8	1979	U	Sidechain
2	A8	198	C	Sidechain
2	A8	1980	G	Sidechain
2	A8	1982	U	Sidechain
2	A8	1983	G	Sidechain
2	A8	1984	G	Sidechain
2	A8	1989	G	Sidechain
2	A8	1990	C	Sidechain
2	A8	1991	U	Sidechain
2	A8	2	G	Sidechain
2	A8	2002	G	Sidechain
2	A8	2003	A	Sidechain
2	A8	2010	G	Sidechain
2	A8	2015	A	Sidechain
2	A8	2016	U	Sidechain
2	A8	2017	U	Sidechain
2	A8	202	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2020	A	Sidechain
2	A8	2021	C	Sidechain
2	A8	2022	U	Sidechain
2	A8	2024	G	Sidechain
2	A8	2026	U	Sidechain
2	A8	2027	G	Sidechain
2	A8	2029	G	Sidechain
2	A8	2031	A	Sidechain
2	A8	2032	G	Sidechain
2	A8	2033	A	Sidechain
2	A8	2034	U	Sidechain
2	A8	2035	G	Sidechain
2	A8	2037	A	Sidechain
2	A8	2038	G	Sidechain
2	A8	2041	U	Sidechain
2	A8	2042	A	Sidechain
2	A8	2045	C	Sidechain
2	A8	2049	G	Sidechain
2	A8	2050	C	Sidechain
2	A8	2051	A	Sidechain
2	A8	2052	A	Sidechain
2	A8	2053	G	Sidechain
2	A8	2054	A	Sidechain
2	A8	2056	G	Sidechain
2	A8	2057	G	Sidechain
2	A8	2058	A	Sidechain
2	A8	2059	A	Sidechain
2	A8	2067	G	Sidechain
2	A8	2069	G	Sidechain
2	A8	207	A	Sidechain
2	A8	2070	A	Sidechain
2	A8	2073	C	Sidechain
2	A8	2074	U	Sidechain
2	A8	2075	U	Sidechain
2	A8	2081	U	Sidechain
2	A8	2085	U	Sidechain
2	A8	2087	G	Sidechain
2	A8	209	C	Sidechain
2	A8	2090	A	Sidechain
2	A8	2093	G	Sidechain
2	A8	2095	A	Sidechain
2	A8	2098	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2099	U	Sidechain
2	A8	210	C	Sidechain
2	A8	2100	G	Sidechain
2	A8	2102	G	Sidechain
2	A8	2103	C	Sidechain
2	A8	2105	U	Sidechain
2	A8	2106	U	Sidechain
2	A8	2107	G	Sidechain
2	A8	2110	G	Sidechain
2	A8	2111	U	Sidechain
2	A8	2114	A	Sidechain
2	A8	2115	G	Sidechain
2	A8	2116	G	Sidechain
2	A8	2117	A	Sidechain
2	A8	2118	U	Sidechain
2	A8	2123	G	Sidechain
2	A8	2124	G	Sidechain
2	A8	2125	G	Sidechain
2	A8	2127	G	Sidechain
2	A8	2129	C	Sidechain
2	A8	2132	U	Sidechain
2	A8	2133	G	Sidechain
2	A8	2135	A	Sidechain
2	A8	2137	U	Sidechain
2	A8	2139	U	Sidechain
2	A8	214	G	Sidechain
2	A8	2141	G	Sidechain
2	A8	2143	C	Sidechain
2	A8	2144	G	Sidechain
2	A8	2147	A	Sidechain
2	A8	215	G	Sidechain
2	A8	2151	U	Sidechain
2	A8	2152	G	Sidechain
2	A8	2153	C	Sidechain
2	A8	2156	G	Sidechain
2	A8	2161	C	Sidechain
2	A8	2165	C	Sidechain
2	A8	2166	U	Sidechain
2	A8	2168	G	Sidechain
2	A8	217	A	Sidechain
2	A8	2174	C	Sidechain
2	A8	2175	C	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2176	A	Sidechain
2	A8	2178	C	Sidechain
2	A8	2180	U	Sidechain
2	A8	2181	U	Sidechain
2	A8	2183	A	Sidechain
2	A8	2184	A	Sidechain
2	A8	2186	G	Sidechain
2	A8	2187	U	Sidechain
2	A8	2188	U	Sidechain
2	A8	2189	U	Sidechain
2	A8	2190	G	Sidechain
2	A8	2191	A	Sidechain
2	A8	2192	U	Sidechain
2	A8	2194	U	Sidechain
2	A8	2197	U	Sidechain
2	A8	220	G	Sidechain
2	A8	2205	A	Sidechain
2	A8	2209	G	Sidechain
2	A8	2210	U	Sidechain
2	A8	2211	A	Sidechain
2	A8	2212	A	Sidechain
2	A8	2214	C	Sidechain
2	A8	2215	C	Sidechain
2	A8	2218	G	Sidechain
2	A8	2219	U	Sidechain
2	A8	222	A	Sidechain
2	A8	2223	G	Sidechain
2	A8	2232	C	Sidechain
2	A8	2234	G	Sidechain
2	A8	2237	G	Sidechain
2	A8	2239	G	Sidechain
2	A8	224	U	Sidechain
2	A8	2242	G	Sidechain
2	A8	2253	G	Sidechain
2	A8	2255	G	Sidechain
2	A8	226	A	Sidechain
2	A8	2261	C	Sidechain
2	A8	2265	U	Sidechain
2	A8	2267	A	Sidechain
2	A8	2268	A	Sidechain
2	A8	2269	G	Sidechain
2	A8	227	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2271	G	Sidechain
2	A8	2272	U	Sidechain
2	A8	2273	A	Sidechain
2	A8	2276	G	Sidechain
2	A8	2279	G	Sidechain
2	A8	2280	G	Sidechain
2	A8	2281	A	Sidechain
2	A8	2282	G	Sidechain
2	A8	2286	G	Sidechain
2	A8	2289	G	Sidechain
2	A8	2290	G	Sidechain
2	A8	2292	U	Sidechain
2	A8	2293	G	Sidechain
2	A8	2296	U	Sidechain
2	A8	2297	A	Sidechain
2	A8	230	G	Sidechain
2	A8	2304	G	Sidechain
2	A8	2305	U	Sidechain
2	A8	2307	G	Sidechain
2	A8	2308	G	Sidechain
2	A8	231	A	Sidechain
2	A8	2311	A	Sidechain
2	A8	2312	U	Sidechain
2	A8	2313	C	Sidechain
2	A8	2315	G	Sidechain
2	A8	2316	G	Sidechain
2	A8	2318	G	Sidechain
2	A8	2319	G	Sidechain
2	A8	2320	U	Sidechain
2	A8	2321	U	Sidechain
2	A8	2323	G	Sidechain
2	A8	2326	C	Sidechain
2	A8	2327	A	Sidechain
2	A8	2329	U	Sidechain
2	A8	2333	A	Sidechain
2	A8	2335	A	Sidechain
2	A8	2336	A	Sidechain
2	A8	2337	G	Sidechain
2	A8	234	U	Sidechain
2	A8	2341	G	Sidechain
2	A8	2344	U	Sidechain
2	A8	2345	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2346	A	Sidechain
2	A8	2349	G	Sidechain
2	A8	2350	C	Sidechain
2	A8	2352	A	Sidechain
2	A8	2354	C	Sidechain
2	A8	2357	G	Sidechain
2	A8	2359	C	Sidechain
2	A8	236	C	Sidechain
2	A8	2361	G	Sidechain
2	A8	2362	C	Sidechain
2	A8	2365	G	Sidechain
2	A8	2367	G	Sidechain
2	A8	2369	A	Sidechain
2	A8	2370	G	Sidechain
2	A8	2373	G	Sidechain
2	A8	2375	G	Sidechain
2	A8	2376	A	Sidechain
2	A8	2377	A	Sidechain
2	A8	2382	G	Sidechain
2	A8	2385	C	Sidechain
2	A8	2386	A	Sidechain
2	A8	2389	G	Sidechain
2	A8	2391	G	Sidechain
2	A8	2392	A	Sidechain
2	A8	2393	U	Sidechain
2	A8	2397	G	Sidechain
2	A8	2398	U	Sidechain
2	A8	2400	G	Sidechain
2	A8	2401	U	Sidechain
2	A8	2402	U	Sidechain
2	A8	2403	C	Sidechain
2	A8	2405	G	Sidechain
2	A8	2406	A	Sidechain
2	A8	2407	A	Sidechain
2	A8	2408	U	Sidechain
2	A8	2409	G	Sidechain
2	A8	241	A	Sidechain
2	A8	2411	A	Sidechain
2	A8	2412	A	Sidechain
2	A8	2414	G	Sidechain
2	A8	2415	G	Sidechain
2	A8	2419	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2420	C	Sidechain
2	A8	2422	C	Sidechain
2	A8	2423	U	Sidechain
2	A8	2426	A	Sidechain
2	A8	2427	C	Sidechain
2	A8	2428	G	Sidechain
2	A8	2429	G	Sidechain
2	A8	2432	A	Sidechain
2	A8	2433	A	Sidechain
2	A8	2434	A	Sidechain
2	A8	2435	A	Sidechain
2	A8	2436	G	Sidechain
2	A8	2437	G	Sidechain
2	A8	2440	C	Sidechain
2	A8	2441	U	Sidechain
2	A8	2442	C	Sidechain
2	A8	2445	G	Sidechain
2	A8	2446	G	Sidechain
2	A8	2447	G	Sidechain
2	A8	2449	U	Sidechain
2	A8	245	G	Sidechain
2	A8	2452	C	Sidechain
2	A8	2454	G	Sidechain
2	A8	2455	G	Sidechain
2	A8	2457	U	Sidechain
2	A8	2458	G	Sidechain
2	A8	2460	U	Sidechain
2	A8	2461	A	Sidechain
2	A8	2463	C	Sidechain
2	A8	2468	A	Sidechain
2	A8	247	G	Sidechain
2	A8	2470	G	Sidechain
2	A8	2471	A	Sidechain
2	A8	2472	G	Sidechain
2	A8	2474	U	Sidechain
2	A8	2475	C	Sidechain
2	A8	2476	A	Sidechain
2	A8	2477	U	Sidechain
2	A8	2479	U	Sidechain
2	A8	2481	G	Sidechain
2	A8	2484	G	Sidechain
2	A8	2489	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	249	C	Sidechain
2	A8	2490	G	Sidechain
2	A8	2491	U	Sidechain
2	A8	2492	U	Sidechain
2	A8	2493	U	Sidechain
2	A8	2495	G	Sidechain
2	A8	2496	C	Sidechain
2	A8	2497	A	Sidechain
2	A8	25	U	Sidechain
2	A8	250	G	Sidechain
2	A8	2500	U	Sidechain
2	A8	2502	G	Sidechain
2	A8	2503	A	Sidechain
2	A8	2504	U	Sidechain
2	A8	2505	G	Sidechain
2	A8	2506	U	Sidechain
2	A8	2507	C	Sidechain
2	A8	2509	G	Sidechain
2	A8	251	A	Sidechain
2	A8	2511	U	Sidechain
2	A8	2512	C	Sidechain
2	A8	2513	A	Sidechain
2	A8	2515	C	Sidechain
2	A8	2516	A	Sidechain
2	A8	2517	C	Sidechain
2	A8	2519	U	Sidechain
2	A8	252	G	Sidechain
2	A8	2524	G	Sidechain
2	A8	2525	G	Sidechain
2	A8	2533	U	Sidechain
2	A8	2534	A	Sidechain
2	A8	2535	G	Sidechain
2	A8	2536	G	Sidechain
2	A8	2537	U	Sidechain
2	A8	2541	A	Sidechain
2	A8	2542	A	Sidechain
2	A8	2545	G	Sidechain
2	A8	2547	A	Sidechain
2	A8	255	A	Sidechain
2	A8	2550	G	Sidechain
2	A8	2551	C	Sidechain
2	A8	2552	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2553	G	Sidechain
2	A8	2556	C	Sidechain
2	A8	2557	G	Sidechain
2	A8	2562	U	Sidechain
2	A8	2563	U	Sidechain
2	A8	2566	A	Sidechain
2	A8	2569	G	Sidechain
2	A8	2574	G	Sidechain
2	A8	2581	G	Sidechain
2	A8	2582	G	Sidechain
2	A8	2583	G	Sidechain
2	A8	2584	U	Sidechain
2	A8	2586	U	Sidechain
2	A8	2587	A	Sidechain
2	A8	2588	G	Sidechain
2	A8	259	G	Sidechain
2	A8	2590	A	Sidechain
2	A8	2591	C	Sidechain
2	A8	2593	U	Sidechain
2	A8	2595	G	Sidechain
2	A8	2596	U	Sidechain
2	A8	2597	G	Sidechain
2	A8	2598	A	Sidechain
2	A8	26	G	Sidechain
2	A8	2600	A	Sidechain
2	A8	2601	C	Sidechain
2	A8	2602	A	Sidechain
2	A8	2603	G	Sidechain
2	A8	2605	U	Sidechain
2	A8	2606	C	Sidechain
2	A8	2608	G	Sidechain
2	A8	261	G	Sidechain
2	A8	2613	U	Sidechain
2	A8	2614	A	Sidechain
2	A8	262	A	Sidechain
2	A8	2621	G	Sidechain
2	A8	2622	U	Sidechain
2	A8	2623	G	Sidechain
2	A8	2625	G	Sidechain
2	A8	2627	G	Sidechain
2	A8	2628	C	Sidechain
2	A8	2629	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2630	G	Sidechain
2	A8	2631	G	Sidechain
2	A8	2632	A	Sidechain
2	A8	2633	G	Sidechain
2	A8	2634	A	Sidechain
2	A8	2637	U	Sidechain
2	A8	2638	G	Sidechain
2	A8	2640	G	Sidechain
2	A8	2641	G	Sidechain
2	A8	2644	G	Sidechain
2	A8	2645	G	Sidechain
2	A8	2646	C	Sidechain
2	A8	265	A	Sidechain
2	A8	2656	U	Sidechain
2	A8	2658	C	Sidechain
2	A8	2659	G	Sidechain
2	A8	266	G	Sidechain
2	A8	2660	A	Sidechain
2	A8	2661	G	Sidechain
2	A8	2662	A	Sidechain
2	A8	2663	G	Sidechain
2	A8	2664	G	Sidechain
2	A8	2669	G	Sidechain
2	A8	267	C	Sidechain
2	A8	2670	A	Sidechain
2	A8	2671	G	Sidechain
2	A8	2674	G	Sidechain
2	A8	2675	A	Sidechain
2	A8	2676	C	Sidechain
2	A8	268	C	Sidechain
2	A8	2680	U	Sidechain
2	A8	2681	C	Sidechain
2	A8	2688	G	Sidechain
2	A8	2690	U	Sidechain
2	A8	2693	G	Sidechain
2	A8	2695	U	Sidechain
2	A8	2699	C	Sidechain
2	A8	27	G	Sidechain
2	A8	2704	C	Sidechain
2	A8	2705	A	Sidechain
2	A8	2706	A	Sidechain
2	A8	2707	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	271	G	Sidechain
2	A8	2710	C	Sidechain
2	A8	2717	C	Sidechain
2	A8	2719	G	Sidechain
2	A8	2721	A	Sidechain
2	A8	2722	G	Sidechain
2	A8	2726	A	Sidechain
2	A8	2727	A	Sidechain
2	A8	2728	U	Sidechain
2	A8	2729	G	Sidechain
2	A8	273	G	Sidechain
2	A8	2731	G	Sidechain
2	A8	2732	G	Sidechain
2	A8	2733	A	Sidechain
2	A8	2734	A	Sidechain
2	A8	2735	G	Sidechain
2	A8	2736	A	Sidechain
2	A8	2738	A	Sidechain
2	A8	2739	U	Sidechain
2	A8	2741	A	Sidechain
2	A8	2744	G	Sidechain
2	A8	2746	U	Sidechain
2	A8	2747	G	Sidechain
2	A8	2749	A	Sidechain
2	A8	2750	A	Sidechain
2	A8	2751	G	Sidechain
2	A8	2754	U	Sidechain
2	A8	2756	U	Sidechain
2	A8	2757	A	Sidechain
2	A8	2758	A	Sidechain
2	A8	2759	G	Sidechain
2	A8	276	U	Sidechain
2	A8	2763	G	Sidechain
2	A8	2764	A	Sidechain
2	A8	2765	A	Sidechain
2	A8	277	G	Sidechain
2	A8	2770	G	Sidechain
2	A8	2771	C	Sidechain
2	A8	2772	C	Sidechain
2	A8	2776	A	Sidechain
2	A8	278	A	Sidechain
2	A8	2780	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2781	A	Sidechain
2	A8	2782	G	Sidechain
2	A8	2783	U	Sidechain
2	A8	2784	U	Sidechain
2	A8	2786	U	Sidechain
2	A8	2787	C	Sidechain
2	A8	2789	C	Sidechain
2	A8	2790	U	Sidechain
2	A8	2792	A	Sidechain
2	A8	2797	U	Sidechain
2	A8	2798	U	Sidechain
2	A8	28	A	Sidechain
2	A8	2801	G	Sidechain
2	A8	2802	G	Sidechain
2	A8	2803	G	Sidechain
2	A8	2804	U	Sidechain
2	A8	2808	G	Sidechain
2	A8	2809	A	Sidechain
2	A8	2810	A	Sidechain
2	A8	2812	G	Sidechain
2	A8	2813	A	Sidechain
2	A8	2814	A	Sidechain
2	A8	2816	G	Sidechain
2	A8	2818	U	Sidechain
2	A8	282	A	Sidechain
2	A8	2821	A	Sidechain
2	A8	2824	C	Sidechain
2	A8	2825	G	Sidechain
2	A8	283	G	Sidechain
2	A8	2830	C	Sidechain
2	A8	2831	G	Sidechain
2	A8	2832	U	Sidechain
2	A8	2833	U	Sidechain
2	A8	2834	G	Sidechain
2	A8	2836	U	Sidechain
2	A8	2838	G	Sidechain
2	A8	2842	G	Sidechain
2	A8	2844	G	Sidechain
2	A8	2846	G	Sidechain
2	A8	2847	U	Sidechain
2	A8	2849	U	Sidechain
2	A8	285	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	2850	A	Sidechain
2	A8	2851	A	Sidechain
2	A8	2852	G	Sidechain
2	A8	2858	C	Sidechain
2	A8	2859	G	Sidechain
2	A8	2860	A	Sidechain
2	A8	2863	C	Sidechain
2	A8	2865	U	Sidechain
2	A8	2866	U	Sidechain
2	A8	2867	G	Sidechain
2	A8	2868	A	Sidechain
2	A8	2872	A	Sidechain
2	A8	2875	C	Sidechain
2	A8	288	U	Sidechain
2	A8	2880	C	Sidechain
2	A8	2881	U	Sidechain
2	A8	2883	A	Sidechain
2	A8	2884	U	Sidechain
2	A8	2885	G	Sidechain
2	A8	2886	A	Sidechain
2	A8	2887	A	Sidechain
2	A8	2888	C	Sidechain
2	A8	2891	U	Sidechain
2	A8	2893	A	Sidechain
2	A8	2894	G	Sidechain
2	A8	2897	U	Sidechain
2	A8	294	A	Sidechain
2	A8	296	U	Sidechain
2	A8	299	A	Sidechain
2	A8	304	U	Sidechain
2	A8	305	C	Sidechain
2	A8	309	A	Sidechain
2	A8	31	C	Sidechain
2	A8	311	A	Sidechain
2	A8	312	G	Sidechain
2	A8	313	G	Sidechain
2	A8	32	C	Sidechain
2	A8	321	U	Sidechain
2	A8	322	A	Sidechain
2	A8	326	G	Sidechain
2	A8	33	C	Sidechain
2	A8	332	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	338	G	Sidechain
2	A8	339	U	Sidechain
2	A8	34	U	Sidechain
2	A8	343	C	Sidechain
2	A8	345	A	Sidechain
2	A8	346	A	Sidechain
2	A8	347	A	Sidechain
2	A8	349	U	Sidechain
2	A8	35	G	Sidechain
2	A8	353	C	Sidechain
2	A8	356	G	Sidechain
2	A8	358	U	Sidechain
2	A8	359	G	Sidechain
2	A8	36	G	Sidechain
2	A8	361	G	Sidechain
2	A8	363	G	Sidechain
2	A8	364	C	Sidechain
2	A8	367	G	Sidechain
2	A8	368	A	Sidechain
2	A8	374	A	Sidechain
2	A8	376	G	Sidechain
2	A8	377	G	Sidechain
2	A8	380	G	Sidechain
2	A8	381	G	Sidechain
2	A8	382	A	Sidechain
2	A8	384	A	Sidechain
2	A8	387	U	Sidechain
2	A8	389	G	Sidechain
2	A8	39	G	Sidechain
2	A8	392	U	Sidechain
2	A8	394	C	Sidechain
2	A8	395	U	Sidechain
2	A8	396	G	Sidechain
2	A8	397	U	Sidechain
2	A8	40	U	Sidechain
2	A8	400	G	Sidechain
2	A8	407	G	Sidechain
2	A8	410	G	Sidechain
2	A8	411	G	Sidechain
2	A8	413	C	Sidechain
2	A8	414	C	Sidechain
2	A8	419	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	420	C	Sidechain
2	A8	424	G	Sidechain
2	A8	427	U	Sidechain
2	A8	428	A	Sidechain
2	A8	429	A	Sidechain
2	A8	436	C	Sidechain
2	A8	438	G	Sidechain
2	A8	439	A	Sidechain
2	A8	441	U	Sidechain
2	A8	442	G	Sidechain
2	A8	443	A	Sidechain
2	A8	444	C	Sidechain
2	A8	445	C	Sidechain
2	A8	446	G	Sidechain
2	A8	447	A	Sidechain
2	A8	448	U	Sidechain
2	A8	45	G	Sidechain
2	A8	450	G	Sidechain
2	A8	451	U	Sidechain
2	A8	453	A	Sidechain
2	A8	454	A	Sidechain
2	A8	455	C	Sidechain
2	A8	457	A	Sidechain
2	A8	458	G	Sidechain
2	A8	459	U	Sidechain
2	A8	464	U	Sidechain
2	A8	465	G	Sidechain
2	A8	467	G	Sidechain
2	A8	469	G	Sidechain
2	A8	472	A	Sidechain
2	A8	476	G	Sidechain
2	A8	478	A	Sidechain
2	A8	479	A	Sidechain
2	A8	481	G	Sidechain
2	A8	487	C	Sidechain
2	A8	488	G	Sidechain
2	A8	489	G	Sidechain
2	A8	490	C	Sidechain
2	A8	491	G	Sidechain
2	A8	492	A	Sidechain
2	A8	496	G	Sidechain
2	A8	499	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	501	A	Sidechain
2	A8	502	A	Sidechain
2	A8	505	A	Sidechain
2	A8	506	G	Sidechain
2	A8	509	C	Sidechain
2	A8	51	G	Sidechain
2	A8	513	A	Sidechain
2	A8	514	A	Sidechain
2	A8	515	A	Sidechain
2	A8	519	U	Sidechain
2	A8	52	A	Sidechain
2	A8	521	U	Sidechain
2	A8	526	A	Sidechain
2	A8	527	C	Sidechain
2	A8	528	A	Sidechain
2	A8	530	G	Sidechain
2	A8	536	G	Sidechain
2	A8	543	G	Sidechain
2	A8	548	G	Sidechain
2	A8	55	G	Sidechain
2	A8	551	G	Sidechain
2	A8	555	G	Sidechain
2	A8	557	C	Sidechain
2	A8	558	U	Sidechain
2	A8	566	U	Sidechain
2	A8	569	U	Sidechain
2	A8	573	U	Sidechain
2	A8	574	A	Sidechain
2	A8	577	G	Sidechain
2	A8	582	A	Sidechain
2	A8	584	C	Sidechain
2	A8	585	G	Sidechain
2	A8	588	U	Sidechain
2	A8	59	U	Sidechain
2	A8	590	A	Sidechain
2	A8	60	G	Sidechain
2	A8	602	A	Sidechain
2	A8	604	G	Sidechain
2	A8	605	G	Sidechain
2	A8	606	U	Sidechain
2	A8	607	U	Sidechain
2	A8	614	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	619	G	Sidechain
2	A8	620	G	Sidechain
2	A8	621	A	Sidechain
2	A8	624	C	Sidechain
2	A8	626	A	Sidechain
2	A8	628	G	Sidechain
2	A8	629	G	Sidechain
2	A8	63	A	Sidechain
2	A8	630	G	Sidechain
2	A8	631	A	Sidechain
2	A8	632	A	Sidechain
2	A8	633	A	Sidechain
2	A8	64	A	Sidechain
2	A8	642	U	Sidechain
2	A8	643	A	Sidechain
2	A8	644	A	Sidechain
2	A8	646	U	Sidechain
2	A8	647	G	Sidechain
2	A8	648	G	Sidechain
2	A8	649	G	Sidechain
2	A8	65	U	Sidechain
2	A8	650	C	Sidechain
2	A8	651	G	Sidechain
2	A8	655	A	Sidechain
2	A8	656	G	Sidechain
2	A8	663	G	Sidechain
2	A8	664	G	Sidechain
2	A8	667	U	Sidechain
2	A8	669	G	Sidechain
2	A8	671	C	Sidechain
2	A8	674	G	Sidechain
2	A8	675	A	Sidechain
2	A8	676	A	Sidechain
2	A8	677	A	Sidechain
2	A8	678	C	Sidechain
2	A8	68	G	Sidechain
2	A8	682	G	Sidechain
2	A8	684	G	Sidechain
2	A8	685	A	Sidechain
2	A8	687	C	Sidechain
2	A8	690	G	Sidechain
2	A8	692	C	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	699	A	Sidechain
2	A8	7	G	Sidechain
2	A8	70	G	Sidechain
2	A8	703	U	Sidechain
2	A8	704	G	Sidechain
2	A8	705	A	Sidechain
2	A8	708	G	Sidechain
2	A8	709	U	Sidechain
2	A8	711	G	Sidechain
2	A8	712	G	Sidechain
2	A8	713	G	Sidechain
2	A8	715	A	Sidechain
2	A8	718	A	Sidechain
2	A8	72	U	Sidechain
2	A8	725	G	Sidechain
2	A8	726	G	Sidechain
2	A8	727	A	Sidechain
2	A8	728	G	Sidechain
2	A8	73	A	Sidechain
2	A8	733	G	Sidechain
2	A8	736	C	Sidechain
2	A8	737	C	Sidechain
2	A8	74	A	Sidechain
2	A8	741	U	Sidechain
2	A8	744	U	Sidechain
2	A8	749	A	Sidechain
2	A8	754	U	Sidechain
2	A8	755	U	Sidechain
2	A8	757	G	Sidechain
2	A8	758	C	Sidechain
2	A8	759	G	Sidechain
2	A8	760	G	Sidechain
2	A8	761	A	Sidechain
2	A8	770	G	Sidechain
2	A8	773	U	Sidechain
2	A8	776	G	Sidechain
2	A8	777	G	Sidechain
2	A8	780	G	Sidechain
2	A8	782	A	Sidechain
2	A8	783	A	Sidechain
2	A8	784	G	Sidechain
2	A8	785	G	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	788	A	Sidechain
2	A8	789	A	Sidechain
2	A8	792	A	Sidechain
2	A8	793	A	Sidechain
2	A8	794	A	Sidechain
2	A8	799	G	Sidechain
2	A8	800	A	Sidechain
2	A8	801	G	Sidechain
2	A8	81	G	Sidechain
2	A8	811	U	Sidechain
2	A8	818	G	Sidechain
2	A8	822	G	Sidechain
2	A8	826	U	Sidechain
2	A8	827	U	Sidechain
2	A8	829	A	Sidechain
2	A8	831	G	Sidechain
2	A8	834	G	Sidechain
2	A8	836	G	Sidechain
2	A8	837	C	Sidechain
2	A8	839	U	Sidechain
2	A8	84	A	Sidechain
2	A8	840	C	Sidechain
2	A8	843	G	Sidechain
2	A8	844	A	Sidechain
2	A8	846	U	Sidechain
2	A8	847	U	Sidechain
2	A8	85	G	Sidechain
2	A8	852	U	Sidechain
2	A8	854	C	Sidechain
2	A8	857	G	Sidechain
2	A8	858	G	Sidechain
2	A8	859	G	Sidechain
2	A8	86	G	Sidechain
2	A8	860	U	Sidechain
2	A8	862	G	Sidechain
2	A8	863	A	Sidechain
2	A8	865	C	Sidechain
2	A8	866	A	Sidechain
2	A8	868	U	Sidechain
2	A8	870	U	Sidechain
2	A8	871	U	Sidechain
2	A8	872	U	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	873	C	Sidechain
2	A8	877	A	Sidechain
2	A8	878	A	Sidechain
2	A8	88	G	Sidechain
2	A8	880	G	Sidechain
2	A8	881	G	Sidechain
2	A8	882	G	Sidechain
2	A8	883	G	Sidechain
2	A8	889	C	Sidechain
2	A8	890	C	Sidechain
2	A8	891	G	Sidechain
2	A8	892	A	Sidechain
2	A8	895	U	Sidechain
2	A8	897	C	Sidechain
2	A8	899	A	Sidechain
2	A8	900	A	Sidechain
2	A8	901	C	Sidechain
2	A8	903	C	Sidechain
2	A8	906	U	Sidechain
2	A8	907	G	Sidechain
2	A8	909	A	Sidechain
2	A8	91	A	Sidechain
2	A8	910	A	Sidechain
2	A8	912	C	Sidechain
2	A8	913	U	Sidechain
2	A8	914	G	Sidechain
2	A8	915	C	Sidechain
2	A8	916	G	Sidechain
2	A8	917	A	Sidechain
2	A8	918	A	Sidechain
2	A8	919	U	Sidechain
2	A8	92	U	Sidechain
2	A8	920	A	Sidechain
2	A8	923	G	Sidechain
2	A8	926	G	Sidechain
2	A8	931	U	Sidechain
2	A8	932	U	Sidechain
2	A8	933	A	Sidechain
2	A8	937	C	Sidechain
2	A8	94	A	Sidechain
2	A8	940	G	Sidechain
2	A8	941	A	Sidechain

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Mol	Chain	Res	Type	Group
2	A8	942	G	Sidechain
2	A8	943	A	Sidechain
2	A8	945	A	Sidechain
2	A8	946	C	Sidechain
2	A8	948	C	Sidechain
2	A8	949	G	Sidechain
2	A8	950	G	Sidechain
2	A8	951	C	Sidechain
2	A8	954	G	Sidechain
2	A8	955	U	Sidechain
2	A8	957	C	Sidechain
2	A8	959	A	Sidechain
2	A8	960	A	Sidechain
2	A8	966	G	Sidechain
2	A8	968	C	Sidechain
2	A8	970	U	Sidechain
2	A8	973	A	Sidechain
2	A8	974	G	Sidechain
2	A8	976	G	Sidechain
2	A8	977	G	Sidechain
2	A8	978	G	Sidechain
2	A8	979	A	Sidechain
2	A8	982	C	Sidechain
2	A8	983	A	Sidechain
2	A8	984	A	Sidechain
2	A8	985	C	Sidechain
2	A8	989	G	Sidechain
2	A8	99	U	Sidechain
2	A8	990	A	Sidechain
2	A8	992	C	Sidechain
2	A8	993	G	Sidechain
2	A8	996	A	Sidechain
2	A8	999	U	Sidechain
3	AA	237	TYR	Sidechain
3	AA	238	ALA	Peptide
3	AA	245	ARG	Sidechain
3	AA	251	SER	Peptide
3	AA	260	TYR	Sidechain
3	AA	305	TYR	Sidechain
3	AA	367	ARG	Sidechain
3	AA	379	ARG	Sidechain
3	AA	383	TYR	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
3	AA	385	PRO	Peptide
3	AA	437	HIS	Peptide
3	AA	439	ALA	Peptide
4	AB	27	LYS	Peptide
4	AB	33	TYR	Sidechain
8	AD	125	TRP	Peptide
8	AD	128	ARG	Sidechain
8	AD	137	SER	Peptide
8	AD	155	VAL	Peptide
8	AD	169	ARG	Sidechain
8	AD	46	ARG	Peptide
8	AD	67	HIS	Sidechain
8	AD	73	VAL	Peptide
8	AD	83	ARG	Sidechain
9	AE	115	GLN	Peptide
9	AE	163	ASN	Peptide
9	AE	43	THR	Peptide
9	AE	51	GLU	Peptide
9	AE	57	LYS	Peptide
9	AE	85	PHE	Sidechain
10	AF	124	ARG	Sidechain
10	AF	142	TYR	Sidechain
10	AF	6	TYR	Sidechain
10	AF	82	TYR	Peptide
10	AF	84	ILE	Peptide
11	AG	119	GLY	Peptide
11	AG	150	TYR	Sidechain
11	AG	152	ARG	Sidechain
11	AG	163	TYR	Sidechain
11	AG	57	TYR	Sidechain
11	AG	94	ARG	Sidechain
12	AH	133	GLN	Peptide
12	AH	65	ALA	Peptide
13	AI	138	VAL	Peptide
13	AI	2	LYS	Peptide
13	AI	7	TYR	Sidechain
14	AJ	100	VAL	Peptide
14	AJ	119	PHE	Sidechain
14	AJ	27	ARG	Sidechain
14	AJ	63	ALA	Peptide
14	AJ	75	TYR	Sidechain
14	AJ	95	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
15	AK	29	ARG	Sidechain,Peptide
15	AK	31	TYR	Sidechain
15	AK	70	ARG	Peptide
16	AL	12	SER	Peptide
16	AL	123	ARG	Sidechain
16	AL	58	TYR	Sidechain
16	AL	78	ARG	Sidechain
17	AM	103	TYR	Sidechain
17	AM	2	LEU	Peptide
17	AM	41	LEU	Peptide
17	AM	59	ARG	Sidechain
17	AM	6	ARG	Sidechain,Peptide
17	AM	68	PHE	Peptide
17	AM	7	THR	Peptide
17	AM	70	ASP	Peptide
17	AM	74	THR	Peptide
17	AM	79	ALA	Peptide
17	AM	9	PHE	Sidechain
17	AM	91	TYR	Sidechain
18	AN	2	ARG	Sidechain
18	AN	30	ARG	Sidechain
18	AN	31	HIS	Sidechain
18	AN	94	TYR	Sidechain
19	AO	111	ARG	Sidechain
19	AO	16	ARG	Sidechain
19	AO	64	TYR	Sidechain
20	AP	15	ASP	Peptide
20	AP	20	ARG	Sidechain
20	AP	38	ARG	Sidechain
20	AP	51	ASN	Peptide
20	AP	71	ARG	Sidechain
21	AQ	14	LYS	Peptide
21	AQ	2	ARG	Sidechain
21	AQ	23	TYR	Peptide
21	AQ	44	TYR	Sidechain
21	AQ	46	TYR	Sidechain
21	AQ	49	ARG	Sidechain
21	AQ	54	ARG	Sidechain
22	AR	28	ALA	Peptide
22	AR	79	ARG	Sidechain
22	AR	80	ARG	Peptide
22	AR	93	PHE	Sidechain

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Mol	Chain	Res	Type	Group
23	AS	12	SER	Peptide
23	AS	23	LEU	Peptide
24	AT	73	ARG	Sidechain
24	AT	79	ASP	Peptide
24	AT	84	TYR	Sidechain
25	AU	5	ARG	Sidechain
25	AU	84	PHE	Sidechain
25	AU	85	ARG	Sidechain
25	AU	99	SER	Peptide
26	AV	31	TYR	Sidechain
27	AW	40	ARG	Sidechain
28	AX	17	ARG	Sidechain
28	AX	29	LEU	Peptide
29	AY	2	LYS	Peptide
29	AY	31	GLN	Peptide
30	AZ	15	ARG	Sidechain
30	AZ	6	ILE	Peptide
36	BA	1000	A	Sidechain
36	BA	1001	C	Sidechain
36	BA	1003	G	Sidechain
36	BA	1006	G	Sidechain
36	BA	1008	U	Sidechain
36	BA	101	A	Sidechain
36	BA	1015	G	Sidechain
36	BA	1016	A	Sidechain
36	BA	1017	U	Sidechain
36	BA	1019	A	Sidechain
36	BA	102	G	Sidechain
36	BA	1024	G	Sidechain
36	BA	1027	C	Sidechain
36	BA	1034	G	Sidechain
36	BA	1040	U	Sidechain
36	BA	1045	C	Sidechain
36	BA	1046	A	Sidechain
36	BA	1048	G	Sidechain
36	BA	105	G	Sidechain
36	BA	1054	C	Sidechain
36	BA	1056	U	Sidechain
36	BA	1067	A	Sidechain
36	BA	1070	U	Sidechain
36	BA	1071	C	Sidechain
36	BA	1074	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1076	U	Sidechain
36	BA	1078	U	Sidechain
36	BA	1079	G	Sidechain
36	BA	108	G	Sidechain
36	BA	1080	A	Sidechain
36	BA	1081	A	Sidechain
36	BA	1083	U	Sidechain
36	BA	1084	G	Sidechain
36	BA	1088	G	Sidechain
36	BA	1094	G	Sidechain
36	BA	1095	U	Sidechain
36	BA	1096	C	Sidechain
36	BA	1098	C	Sidechain
36	BA	1099	G	Sidechain
36	BA	110	C	Sidechain
36	BA	1101	A	Sidechain
36	BA	1103	C	Sidechain
36	BA	1106	G	Sidechain
36	BA	1109	C	Sidechain
36	BA	111	G	Sidechain
36	BA	1110	A	Sidechain
36	BA	1111	A	Sidechain
36	BA	1112	C	Sidechain
36	BA	1116	U	Sidechain
36	BA	1118	U	Sidechain
36	BA	112	G	Sidechain
36	BA	1121	U	Sidechain
36	BA	1124	G	Sidechain
36	BA	1125	U	Sidechain
36	BA	1126	U	Sidechain
36	BA	1127	G	Sidechain
36	BA	1129	C	Sidechain
36	BA	113	G	Sidechain
36	BA	1131	G	Sidechain
36	BA	1132	C	Sidechain
36	BA	1134	G	Sidechain
36	BA	114	U	Sidechain
36	BA	1144	G	Sidechain
36	BA	1145	A	Sidechain
36	BA	1151	A	Sidechain
36	BA	1156	G	Sidechain
36	BA	1161	C	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1164	G	Sidechain
36	BA	1166	G	Sidechain
36	BA	1167	A	Sidechain
36	BA	1168	U	Sidechain
36	BA	1174	G	Sidechain
36	BA	1178	G	Sidechain
36	BA	1179	A	Sidechain
36	BA	118	U	Sidechain
36	BA	1181	G	Sidechain
36	BA	1183	U	Sidechain
36	BA	1185	G	Sidechain
36	BA	1186	G	Sidechain
36	BA	1187	G	Sidechain
36	BA	119	A	Sidechain
36	BA	1191	A	Sidechain
36	BA	1193	G	Sidechain
36	BA	1195	C	Sidechain
36	BA	1198	G	Sidechain
36	BA	120	A	Sidechain
36	BA	1201	A	Sidechain
36	BA	1204	A	Sidechain
36	BA	1205	U	Sidechain
36	BA	1210	C	Sidechain
36	BA	1212	U	Sidechain
36	BA	1213	A	Sidechain
36	BA	1215	G	Sidechain
36	BA	1216	A	Sidechain
36	BA	1219	A	Sidechain
36	BA	122	G	Sidechain
36	BA	1221	G	Sidechain
36	BA	1224	U	Sidechain
36	BA	1226	C	Sidechain
36	BA	1228	C	Sidechain
36	BA	1229	A	Sidechain
36	BA	123	U	Sidechain
36	BA	1233	G	Sidechain
36	BA	1235	U	Sidechain
36	BA	1237	C	Sidechain
36	BA	1239	A	Sidechain
36	BA	1242	G	Sidechain
36	BA	1243	C	Sidechain
36	BA	1246	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1249	C	Sidechain
36	BA	1252	A	Sidechain
36	BA	1255	G	Sidechain
36	BA	1257	A	Sidechain
36	BA	1258	G	Sidechain
36	BA	1259	C	Sidechain
36	BA	1260	G	Sidechain
36	BA	1262	C	Sidechain
36	BA	1264	U	Sidechain
36	BA	1265	C	Sidechain
36	BA	1266	G	Sidechain
36	BA	1268	G	Sidechain
36	BA	1269	A	Sidechain
36	BA	127	G	Sidechain
36	BA	1270	G	Sidechain
36	BA	1271	A	Sidechain
36	BA	1272	G	Sidechain
36	BA	1274	A	Sidechain
36	BA	1278	G	Sidechain
36	BA	1279	G	Sidechain
36	BA	1281	C	Sidechain
36	BA	1283	U	Sidechain
36	BA	1285	A	Sidechain
36	BA	1288	A	Sidechain
36	BA	1289	A	Sidechain
36	BA	1293	C	Sidechain
36	BA	1294	G	Sidechain
36	BA	1297	G	Sidechain
36	BA	1299	A	Sidechain
36	BA	13	U	Sidechain
36	BA	130	A	Sidechain
36	BA	1300	G	Sidechain
36	BA	1302	C	Sidechain
36	BA	1304	G	Sidechain
36	BA	1305	G	Sidechain
36	BA	1309	G	Sidechain
36	BA	1315	U	Sidechain
36	BA	1316	G	Sidechain
36	BA	1319	A	Sidechain
36	BA	1323	G	Sidechain
36	BA	1324	A	Sidechain
36	BA	1327	C	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1330	U	Sidechain
36	BA	1331	G	Sidechain
36	BA	1334	G	Sidechain
36	BA	1338	G	Sidechain
36	BA	134	G	Sidechain
36	BA	1341	U	Sidechain
36	BA	1343	G	Sidechain
36	BA	1345	U	Sidechain
36	BA	1346	A	Sidechain
36	BA	1349	A	Sidechain
36	BA	135	C	Sidechain
36	BA	1353	G	Sidechain
36	BA	1354	U	Sidechain
36	BA	1356	G	Sidechain
36	BA	1358	U	Sidechain
36	BA	1359	C	Sidechain
36	BA	1360	A	Sidechain
36	BA	1361	G	Sidechain
36	BA	1362	A	Sidechain
36	BA	1363	A	Sidechain
36	BA	1365	G	Sidechain
36	BA	1374	A	Sidechain
36	BA	1379	G	Sidechain
36	BA	138	G	Sidechain
36	BA	1380	U	Sidechain
36	BA	1381	U	Sidechain
36	BA	1384	C	Sidechain
36	BA	1386	G	Sidechain
36	BA	1387	G	Sidechain
36	BA	1390	U	Sidechain
36	BA	1391	U	Sidechain
36	BA	1392	G	Sidechain
36	BA	1396	A	Sidechain
36	BA	1398	A	Sidechain
36	BA	1399	C	Sidechain
36	BA	14	U	Sidechain
36	BA	140	U	Sidechain
36	BA	1405	G	Sidechain
36	BA	1406	U	Sidechain
36	BA	141	G	Sidechain
36	BA	1412	C	Sidechain
36	BA	1414	U	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1417	G	Sidechain
36	BA	1418	A	Sidechain
36	BA	1419	G	Sidechain
36	BA	1421	G	Sidechain
36	BA	1425	U	Sidechain
36	BA	1429	A	Sidechain
36	BA	143	A	Sidechain
36	BA	1432	G	Sidechain
36	BA	1437	A	Sidechain
36	BA	1438	G	Sidechain
36	BA	1439	G	Sidechain
36	BA	1440	U	Sidechain
36	BA	1441	A	Sidechain
36	BA	1445	U	Sidechain
36	BA	1446	A	Sidechain
36	BA	1447	A	Sidechain
36	BA	1448	C	Sidechain
36	BA	1449	C	Sidechain
36	BA	145	G	Sidechain
36	BA	1451	U	Sidechain
36	BA	1453	G	Sidechain
36	BA	1454	G	Sidechain
36	BA	1455	G	Sidechain
36	BA	1456	A	Sidechain
36	BA	1457	G	Sidechain
36	BA	1458	G	Sidechain
36	BA	1459	G	Sidechain
36	BA	146	G	Sidechain
36	BA	1464	U	Sidechain
36	BA	1465	A	Sidechain
36	BA	1467	C	Sidechain
36	BA	1470	U	Sidechain
36	BA	1471	U	Sidechain
36	BA	1474	U	Sidechain
36	BA	1475	G	Sidechain
36	BA	1476	A	Sidechain
36	BA	1477	U	Sidechain
36	BA	1478	U	Sidechain
36	BA	1479	C	Sidechain
36	BA	1480	A	Sidechain
36	BA	1481	U	Sidechain
36	BA	1483	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1487	G	Sidechain
36	BA	1488	G	Sidechain
36	BA	149	A	Sidechain
36	BA	1494	G	Sidechain
36	BA	1497	G	Sidechain
36	BA	150	U	Sidechain
36	BA	1500	A	Sidechain
36	BA	1502	A	Sidechain
36	BA	1503	A	Sidechain
36	BA	1505	G	Sidechain
36	BA	1507	A	Sidechain
36	BA	1512	U	Sidechain
36	BA	1514	G	Sidechain
36	BA	1515	G	Sidechain
36	BA	1516	G	Sidechain
36	BA	1517	G	Sidechain
36	BA	1518	A	Sidechain
36	BA	1519	A	Sidechain
36	BA	1520	C	Sidechain
36	BA	1523	G	Sidechain
36	BA	1524	C	Sidechain
36	BA	1525	G	Sidechain
36	BA	1527	U	Sidechain
36	BA	1529	G	Sidechain
36	BA	153	C	Sidechain
36	BA	1530	G	Sidechain
36	BA	154	U	Sidechain
36	BA	155	A	Sidechain
36	BA	165	G	Sidechain
36	BA	166	U	Sidechain
36	BA	168	G	Sidechain
36	BA	169	C	Sidechain
36	BA	171	A	Sidechain
36	BA	172	A	Sidechain
36	BA	174	A	Sidechain
36	BA	175	C	Sidechain
36	BA	178	C	Sidechain
36	BA	181	A	Sidechain
36	BA	183	C	Sidechain
36	BA	184	G	Sidechain
36	BA	195	A	Sidechain
36	BA	196	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	20	U	Sidechain
36	BA	200	G	Sidechain
36	BA	201	G	Sidechain
36	BA	203	G	Sidechain
36	BA	204	G	Sidechain
36	BA	205	A	Sidechain
36	BA	208	U	Sidechain
36	BA	210	C	Sidechain
36	BA	212	G	Sidechain
36	BA	213	G	Sidechain
36	BA	216	U	Sidechain
36	BA	219	U	Sidechain
36	BA	222	C	Sidechain
36	BA	230	G	Sidechain
36	BA	233	C	Sidechain
36	BA	235	C	Sidechain
36	BA	236	A	Sidechain
36	BA	237	G	Sidechain
36	BA	239	U	Sidechain
36	BA	24	U	Sidechain
36	BA	241	G	Sidechain
36	BA	242	G	Sidechain
36	BA	243	A	Sidechain
36	BA	244	U	Sidechain
36	BA	245	U	Sidechain
36	BA	246	A	Sidechain
36	BA	250	A	Sidechain
36	BA	251	G	Sidechain
36	BA	253	A	Sidechain
36	BA	254	G	Sidechain
36	BA	260	G	Sidechain
36	BA	261	U	Sidechain
36	BA	262	A	Sidechain
36	BA	263	A	Sidechain
36	BA	264	C	Sidechain
36	BA	266	G	Sidechain
36	BA	267	C	Sidechain
36	BA	269	C	Sidechain
36	BA	273	U	Sidechain
36	BA	274	A	Sidechain
36	BA	275	G	Sidechain
36	BA	285	C	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	286	C	Sidechain
36	BA	288	A	Sidechain
36	BA	289	G	Sidechain
36	BA	291	U	Sidechain
36	BA	292	G	Sidechain
36	BA	293	G	Sidechain
36	BA	295	C	Sidechain
36	BA	297	G	Sidechain
36	BA	298	A	Sidechain
36	BA	300	A	Sidechain
36	BA	301	G	Sidechain
36	BA	305	G	Sidechain
36	BA	307	C	Sidechain
36	BA	308	C	Sidechain
36	BA	31	G	Sidechain
36	BA	315	A	Sidechain
36	BA	319	G	Sidechain
36	BA	320	A	Sidechain
36	BA	321	A	Sidechain
36	BA	323	U	Sidechain
36	BA	329	A	Sidechain
36	BA	337	G	Sidechain
36	BA	339	C	Sidechain
36	BA	340	U	Sidechain
36	BA	343	U	Sidechain
36	BA	345	C	Sidechain
36	BA	346	G	Sidechain
36	BA	35	G	Sidechain
36	BA	350	G	Sidechain
36	BA	359	G	Sidechain
36	BA	360	G	Sidechain
36	BA	361	G	Sidechain
36	BA	362	G	Sidechain
36	BA	365	U	Sidechain
36	BA	366	A	Sidechain
36	BA	367	U	Sidechain
36	BA	368	U	Sidechain
36	BA	37	U	Sidechain
36	BA	370	C	Sidechain
36	BA	373	A	Sidechain
36	BA	374	A	Sidechain
36	BA	376	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	377	G	Sidechain
36	BA	38	G	Sidechain
36	BA	380	G	Sidechain
36	BA	382	A	Sidechain
36	BA	384	G	Sidechain
36	BA	386	C	Sidechain
36	BA	388	G	Sidechain
36	BA	390	U	Sidechain
36	BA	391	G	Sidechain
36	BA	394	G	Sidechain
36	BA	395	C	Sidechain
36	BA	396	C	Sidechain
36	BA	399	G	Sidechain
36	BA	403	C	Sidechain
36	BA	405	U	Sidechain
36	BA	409	U	Sidechain
36	BA	411	A	Sidechain
36	BA	412	A	Sidechain
36	BA	416	G	Sidechain
36	BA	417	G	Sidechain
36	BA	419	C	Sidechain
36	BA	42	G	Sidechain
36	BA	420	U	Sidechain
36	BA	422	C	Sidechain
36	BA	423	G	Sidechain
36	BA	428	G	Sidechain
36	BA	429	U	Sidechain
36	BA	430	A	Sidechain
36	BA	432	A	Sidechain
36	BA	433	G	Sidechain
36	BA	438	U	Sidechain
36	BA	439	U	Sidechain
36	BA	440	C	Sidechain
36	BA	442	G	Sidechain
36	BA	443	C	Sidechain
36	BA	446	G	Sidechain
36	BA	447	G	Sidechain
36	BA	449	G	Sidechain
36	BA	450	G	Sidechain
36	BA	451	A	Sidechain
36	BA	452	A	Sidechain
36	BA	454	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	455	G	Sidechain
36	BA	457	G	Sidechain
36	BA	458	U	Sidechain
36	BA	46	G	Sidechain
36	BA	460	A	Sidechain
36	BA	461	A	Sidechain
36	BA	462	G	Sidechain
36	BA	463	U	Sidechain
36	BA	466	A	Sidechain
36	BA	467	U	Sidechain
36	BA	47	C	Sidechain
36	BA	472	U	Sidechain
36	BA	473	U	Sidechain
36	BA	476	U	Sidechain
36	BA	478	A	Sidechain
36	BA	480	U	Sidechain
36	BA	482	A	Sidechain
36	BA	483	C	Sidechain
36	BA	486	U	Sidechain
36	BA	487	A	Sidechain
36	BA	49	U	Sidechain
36	BA	494	G	Sidechain
36	BA	496	A	Sidechain
36	BA	499	A	Sidechain
36	BA	50	A	Sidechain
36	BA	500	G	Sidechain
36	BA	503	C	Sidechain
36	BA	508	U	Sidechain
36	BA	509	A	Sidechain
36	BA	51	A	Sidechain
36	BA	512	U	Sidechain
36	BA	513	C	Sidechain
36	BA	514	C	Sidechain
36	BA	517	G	Sidechain
36	BA	519	C	Sidechain
36	BA	52	C	Sidechain
36	BA	520	A	Sidechain
36	BA	521	G	Sidechain
36	BA	522	C	Sidechain
36	BA	523	A	Sidechain
36	BA	526	C	Sidechain
36	BA	529	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	53	A	Sidechain
36	BA	530	G	Sidechain
36	BA	531	U	Sidechain
36	BA	533	A	Sidechain
36	BA	534	U	Sidechain
36	BA	535	A	Sidechain
36	BA	540	G	Sidechain
36	BA	542	G	Sidechain
36	BA	545	C	Sidechain
36	BA	554	A	Sidechain
36	BA	556	C	Sidechain
36	BA	557	G	Sidechain
36	BA	56	U	Sidechain
36	BA	560	A	Sidechain
36	BA	564	C	Sidechain
36	BA	565	U	Sidechain
36	BA	566	G	Sidechain
36	BA	57	G	Sidechain
36	BA	571	U	Sidechain
36	BA	574	A	Sidechain
36	BA	581	G	Sidechain
36	BA	584	G	Sidechain
36	BA	585	G	Sidechain
36	BA	587	G	Sidechain
36	BA	588	G	Sidechain
36	BA	590	U	Sidechain
36	BA	592	G	Sidechain
36	BA	594	U	Sidechain
36	BA	595	A	Sidechain
36	BA	596	A	Sidechain
36	BA	598	U	Sidechain
36	BA	601	G	Sidechain
36	BA	604	G	Sidechain
36	BA	606	G	Sidechain
36	BA	607	A	Sidechain
36	BA	612	C	Sidechain
36	BA	613	C	Sidechain
36	BA	615	G	Sidechain
36	BA	616	G	Sidechain
36	BA	618	C	Sidechain
36	BA	619	U	Sidechain
36	BA	622	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	623	C	Sidechain
36	BA	624	C	Sidechain
36	BA	625	U	Sidechain
36	BA	627	G	Sidechain
36	BA	628	G	Sidechain
36	BA	632	U	Sidechain
36	BA	636	U	Sidechain
36	BA	638	U	Sidechain
36	BA	639	G	Sidechain
36	BA	644	U	Sidechain
36	BA	646	G	Sidechain
36	BA	649	A	Sidechain
36	BA	651	C	Sidechain
36	BA	652	U	Sidechain
36	BA	653	U	Sidechain
36	BA	655	A	Sidechain
36	BA	656	G	Sidechain
36	BA	659	U	Sidechain
36	BA	66	A	Sidechain
36	BA	661	G	Sidechain
36	BA	662	U	Sidechain
36	BA	663	A	Sidechain
36	BA	664	G	Sidechain
36	BA	665	A	Sidechain
36	BA	668	G	Sidechain
36	BA	669	G	Sidechain
36	BA	670	G	Sidechain
36	BA	672	U	Sidechain
36	BA	673	A	Sidechain
36	BA	674	G	Sidechain
36	BA	678	U	Sidechain
36	BA	68	G	Sidechain
36	BA	682	G	Sidechain
36	BA	684	U	Sidechain
36	BA	685	G	Sidechain
36	BA	687	A	Sidechain
36	BA	688	G	Sidechain
36	BA	692	U	Sidechain
36	BA	693	G	Sidechain
36	BA	695	A	Sidechain
36	BA	697	U	Sidechain
36	BA	698	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	699	C	Sidechain
36	BA	70	U	Sidechain
36	BA	700	G	Sidechain
36	BA	702	A	Sidechain
36	BA	703	G	Sidechain
36	BA	704	A	Sidechain
36	BA	705	G	Sidechain
36	BA	707	U	Sidechain
36	BA	708	C	Sidechain
36	BA	709	U	Sidechain
36	BA	713	G	Sidechain
36	BA	714	G	Sidechain
36	BA	715	A	Sidechain
36	BA	716	A	Sidechain
36	BA	717	U	Sidechain
36	BA	72	A	Sidechain
36	BA	721	G	Sidechain
36	BA	722	G	Sidechain
36	BA	723	U	Sidechain
36	BA	725	G	Sidechain
36	BA	727	G	Sidechain
36	BA	728	A	Sidechain
36	BA	729	A	Sidechain
36	BA	73	C	Sidechain
36	BA	732	C	Sidechain
36	BA	733	G	Sidechain
36	BA	737	C	Sidechain
36	BA	738	C	Sidechain
36	BA	739	C	Sidechain
36	BA	74	A	Sidechain
36	BA	740	U	Sidechain
36	BA	743	A	Sidechain
36	BA	745	G	Sidechain
36	BA	746	A	Sidechain
36	BA	750	C	Sidechain
36	BA	751	U	Sidechain
36	BA	752	G	Sidechain
36	BA	754	C	Sidechain
36	BA	755	G	Sidechain
36	BA	756	C	Sidechain
36	BA	757	U	Sidechain
36	BA	759	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	76	G	Sidechain
36	BA	760	G	Sidechain
36	BA	765	G	Sidechain
36	BA	769	G	Sidechain
36	BA	772	U	Sidechain
36	BA	776	G	Sidechain
36	BA	779	C	Sidechain
36	BA	78	A	Sidechain
36	BA	780	A	Sidechain
36	BA	79	G	Sidechain
36	BA	790	A	Sidechain
36	BA	793	U	Sidechain
36	BA	796	C	Sidechain
36	BA	798	U	Sidechain
36	BA	800	G	Sidechain
36	BA	803	G	Sidechain
36	BA	804	U	Sidechain
36	BA	805	C	Sidechain
36	BA	808	C	Sidechain
36	BA	809	G	Sidechain
36	BA	810	C	Sidechain
36	BA	812	G	Sidechain
36	BA	813	U	Sidechain
36	BA	814	A	Sidechain
36	BA	815	A	Sidechain
36	BA	817	C	Sidechain
36	BA	818	G	Sidechain
36	BA	820	U	Sidechain
36	BA	821	G	Sidechain
36	BA	822	U	Sidechain
36	BA	824	G	Sidechain
36	BA	833	G	Sidechain
36	BA	835	U	Sidechain
36	BA	837	U	Sidechain
36	BA	840	C	Sidechain
36	BA	843	U	Sidechain
36	BA	844	G	Sidechain
36	BA	846	G	Sidechain
36	BA	847	G	Sidechain
36	BA	852	G	Sidechain
36	BA	855	U	Sidechain
36	BA	858	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	86	G	Sidechain
36	BA	861	G	Sidechain
36	BA	863	U	Sidechain
36	BA	864	A	Sidechain
36	BA	869	G	Sidechain
36	BA	87	C	Sidechain
36	BA	870	U	Sidechain
36	BA	871	U	Sidechain
36	BA	872	A	Sidechain
36	BA	874	G	Sidechain
36	BA	879	C	Sidechain
36	BA	88	U	Sidechain
36	BA	881	G	Sidechain
36	BA	883	C	Sidechain
36	BA	884	U	Sidechain
36	BA	886	G	Sidechain
36	BA	887	G	Sidechain
36	BA	888	G	Sidechain
36	BA	889	A	Sidechain
36	BA	890	G	Sidechain
36	BA	891	U	Sidechain
36	BA	892	A	Sidechain
36	BA	898	G	Sidechain
36	BA	900	A	Sidechain
36	BA	902	G	Sidechain
36	BA	903	G	Sidechain
36	BA	906	A	Sidechain
36	BA	907	A	Sidechain
36	BA	911	U	Sidechain
36	BA	912	C	Sidechain
36	BA	915	A	Sidechain
36	BA	916	U	Sidechain
36	BA	919	A	Sidechain
36	BA	920	U	Sidechain
36	BA	922	G	Sidechain
36	BA	924	C	Sidechain
36	BA	925	G	Sidechain
36	BA	927	G	Sidechain
36	BA	928	G	Sidechain
36	BA	933	G	Sidechain
36	BA	936	C	Sidechain
36	BA	937	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	939	G	Sidechain
36	BA	94	G	Sidechain
36	BA	940	C	Sidechain
36	BA	946	A	Sidechain
36	BA	951	G	Sidechain
36	BA	954	G	Sidechain
36	BA	958	A	Sidechain
36	BA	964	A	Sidechain
36	BA	967	C	Sidechain
36	BA	97	G	Sidechain
36	BA	974	A	Sidechain
36	BA	976	G	Sidechain
36	BA	978	A	Sidechain
36	BA	979	C	Sidechain
36	BA	980	C	Sidechain
36	BA	985	C	Sidechain
36	BA	986	U	Sidechain
36	BA	987	G	Sidechain
36	BA	989	U	Sidechain
36	BA	99	C	Sidechain
36	BA	991	U	Sidechain
36	BA	996	A	Sidechain
36	BA	998	C	Sidechain
37	BB	169	HIS	Peptide
37	BB	21	TYR	Sidechain
37	BB	212	TYR	Sidechain
37	BB	221	ARG	Sidechain
37	BB	90	PHE	Peptide
38	BC	163	ARG	Sidechain
38	BC	58	ARG	Sidechain
39	BD	110	ARG	Sidechain
39	BD	127	ARG	Sidechain
39	BD	167	PRO	Peptide
39	BD	183	ARG	Sidechain
39	BD	184	LYS	Peptide
39	BD	25	ARG	Sidechain
39	BD	44	LYS	Peptide
39	BD	55	ARG	Sidechain
39	BD	64	TYR	Sidechain
39	BD	74	TYR	Sidechain
39	BD	75	TYR	Sidechain
39	BD	80	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
40	BE	26	GLY	Peptide
41	BF	25	TYR	Sidechain
41	BF	4	TYR	Sidechain
41	BF	86	ARG	Peptide
42	BG	101	ARG	Sidechain
42	BG	137	ARG	Sidechain
42	BG	77	ARG	Sidechain
43	BH	116	ARG	Sidechain
43	BH	127	TYR	Sidechain
43	BH	85	TYR	Sidechain
43	BH	88	LYS	Peptide
44	BI	17	ARG	Sidechain
45	BJ	96	VAL	Peptide
46	BK	105	ARG	Sidechain
46	BK	115	ILE	Peptide
46	BK	117	HIS	Peptide
46	BK	52	ARG	Sidechain
46	BK	76	TYR	Sidechain
47	BL	101	LEU	Peptide
47	BL	103	CYS	Peptide
47	BL	109	ARG	Sidechain
47	BL	111	GLN	Peptide
47	BL	23	LEU	Peptide
47	BL	46	SER	Peptide
47	BL	49	ARG	Sidechain
47	BL	93	ARG	Sidechain,Peptide
48	BM	103	THR	Peptide
48	BM	110	GLY	Peptide
48	BM	20	SER	Peptide
48	BM	22	TYR	Sidechain
48	BM	28	ARG	Sidechain
48	BM	97	ARG	Sidechain
48	BM	99	GLN	Peptide
49	BN	35	ALA	Peptide
49	BN	39	ASP	Peptide
49	BN	40	ARG	Sidechain
49	BN	60	ARG	Sidechain
50	BO	16	ARG	Sidechain
50	BO	57	ARG	Sidechain
50	BO	77	TYR	Sidechain
50	BO	83	ARG	Sidechain
50	BO	88	ARG	Sidechain

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Mol	Chain	Res	Type	Group
51	BP	14	ARG	Sidechain
51	BP	16	PHE	Sidechain
51	BP	35	ARG	Sidechain
52	BQ	64	ARG	Peptide
53	BR	19	GLU	Peptide
53	BR	22	TYR	Sidechain
53	BR	52	ARG	Sidechain
53	BR	62	ARG	Sidechain
54	BS	60	PHE	Peptide
54	BS	73	PHE	Peptide
55	BT	49	ALA	Peptide
56	BU	11	PHE	Peptide
56	BU	32	ARG	Sidechain
56	BU	8	ASN	Peptide

## 5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of 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	A7	2507	0	1270	171	0
2	A8	62321	0	31344	3726	0
3	AA	3408	0	3619	13	0
4	AB	505	0	557	1	0
5	AC	257	0	272	1	0
6	A5	1733	0	1824	24	0
7	A6	2082	0	2157	50	0
8	AD	1565	0	1616	37	0
9	AE	1552	0	1619	31	0
10	AF	1420	0	1460	20	0
11	AG	1323	0	1374	22	0
12	AH	1111	0	1148	17	0
13	AI	1032	0	1088	26	0
14	AJ	1129	0	1162	29	0
15	AK	930	0	1003	20	0
16	AL	1045	0	1117	15	0
17	AM	1074	0	1157	24	0
18	AN	960	0	1000	32	0
19	AO	892	0	923	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	AP	917	0	965	10	0
21	AQ	947	0	1022	15	0
22	AR	816	0	839	17	0
23	AS	857	0	922	22	0
24	AT	738	0	807	14	0
25	AU	779	0	834	16	0
26	AV	753	0	780	23	0
27	AW	596	0	610	29	0
28	AX	625	0	655	19	0
29	AY	509	0	543	5	0
30	AZ	449	0	491	11	0
31	A0	444	0	461	9	0
32	A1	409	0	440	14	0
33	A2	377	0	418	7	0
34	A3	504	0	574	12	0
35	A4	302	0	343	10	0
36	BA	32831	0	16521	1593	0
37	BB	1704	0	1732	17	0
38	BC	1624	0	1699	19	0
39	BD	1643	0	1710	21	0
40	BE	1105	0	1148	22	0
41	BF	817	0	808	21	0
42	BG	1174	0	1230	12	0
43	BH	979	0	1034	17	0
44	BI	1022	0	1070	17	0
45	BJ	786	0	828	13	0
46	BK	877	0	887	18	0
47	BL	955	0	1019	23	0
48	BM	876	0	937	7	0
49	BN	805	0	847	3	0
50	BO	716	0	742	10	0
51	BP	638	0	656	11	0
52	BQ	648	0	691	10	0
53	BR	455	0	478	6	0
54	BS	637	0	665	25	0
55	BT	665	0	714	7	0
56	BU	425	0	449	4	0
All	All	148250	0	102279	6042	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 24.

All (6042) 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)
2:A8:1902:C:H1'	7:A6:242:HIS:CE1	2.14	0.83
36:BA:113:G:H1'	36:BA:354:G:H4'	1.61	0.83
2:A8:2121:G:H1	2:A8:2176:A:H61	1.27	0.82
36:BA:68:G:H1'	36:BA:151:A:H61	1.47	0.79
28:AX:18:SER:H	28:AX:22:ASN:H	1.30	0.79
2:A8:71:A:C2	2:A8:73:A:C2	2.72	0.78
2:A8:1383:A:C2	2:A8:1384:A:C2	2.72	0.78
2:A8:670:A:H61	9:AE:88:ARG:HH12	1.30	0.77
36:BA:858:G:H1	36:BA:869:G:H3'	1.51	0.75
2:A8:808:G:H4'	2:A8:2502:G:H1	1.51	0.75
2:A8:1842:G:H1'	7:A6:242:HIS:CE1	2.22	0.75
2:A8:2345:G:C5	2:A8:2347:C:C5	2.76	0.74
2:A8:1522:A:H5''	2:A8:1523:U:H3	1.53	0.73
2:A8:2233:U:H2'	2:A8:2234:G:C8	2.23	0.73
2:A8:1344:U:H4'	2:A8:1384:A:C4	2.23	0.73
2:A8:974:G:C8	2:A8:1186:G:H1'	2.23	0.73
2:A8:1650:A:C2	2:A8:2008:C:C2	2.76	0.73
36:BA:182:A:H2'	36:BA:184:G:C8	2.24	0.73
35:A4:7:VAL:HG22	35:A4:35:GLN:HE22	1.53	0.72
2:A8:1131:G:C4	14:AJ:77:HIS:CE1	2.76	0.72
2:A8:2115:G:H2'	2:A8:2117:A:H62	1.55	0.72
1:A7:29:A:H3'	1:A7:30:C:C6	2.25	0.72
2:A8:1274:A:C2	2:A8:1302:A:C2	2.78	0.72
2:A8:2884:U:H3	31:A0:40:HIS:HA	1.56	0.71
2:A8:2298:A:C5	2:A8:2321:U:C5	2.79	0.71
2:A8:251:A:C5	2:A8:252:G:H1'	2.26	0.71
2:A8:1358:G:C2	2:A8:1372:U:C5	2.79	0.71
2:A8:1474:U:C5	2:A8:1475:G:C6	2.78	0.71
2:A8:1473:G:C6	2:A8:1474:U:C4	2.79	0.71
2:A8:312:G:H21	2:A8:1211:C:H42	1.39	0.71
2:A8:294:A:C2	2:A8:346:A:C2	2.79	0.70
36:BA:413:G:H4'	36:BA:428:G:H21	1.56	0.70
36:BA:327:A:H1'	36:BA:329:A:C8	2.27	0.70
36:BA:994:A:C4	36:BA:1216:A:H4'	2.26	0.70
36:BA:1305:G:H21	36:BA:1332:A:H8	1.39	0.70
36:BA:1299:A:H2	36:BA:1335:U:H3	1.38	0.70
2:A8:1473:G:C5	2:A8:1474:U:C5	2.80	0.70
47:BL:20:VAL:HG13	47:BL:85:ARG:HH22	1.56	0.70
18:AN:30:ARG:HE	18:AN:31:HIS:CE1	2.10	0.70
36:BA:199:A:H61	36:BA:218:U:H3	1.37	0.70
36:BA:872:A:C5	36:BA:874:G:C8	2.80	0.69
36:BA:892:A:H1'	36:BA:907:A:C6	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:742:A:C4	2:A8:756:A:C2	2.80	0.69
2:A8:878:A:C2	2:A8:879:G:C5	2.80	0.69
2:A8:1473:G:C6	2:A8:1519:G:C6	2.81	0.69
2:A8:2711:A:C6	2:A8:2714:G:C8	2.80	0.69
2:A8:529:A:H5'	2:A8:2042:A:H61	1.56	0.69
36:BA:687:A:C2	36:BA:704:A:C4	2.80	0.69
2:A8:197:A:C4	2:A8:198:C:C6	2.81	0.69
36:BA:518:C:H5''	36:BA:519:C:C6	2.27	0.69
1:A7:50:A:C2	1:A7:51:G:H1'	2.27	0.69
18:AN:30:ARG:HE	18:AN:31:HIS:HE1	1.39	0.69
46:BK:45:THR:H	46:BK:68:ARG:HH21	1.41	0.68
40:BE:38:VAL:H	40:BE:46:GLY:H	1.41	0.68
2:A8:248:G:H5'	2:A8:250:G:C5	2.28	0.68
2:A8:1360:G:C6	2:A8:1372:U:C2	2.82	0.68
1:A7:75:G:H21	26:AV:88:HIS:CD2	2.12	0.68
2:A8:870:U:H2'	2:A8:871:U:H5''	1.76	0.68
2:A8:1726:C:C2	2:A8:1735:A:C2	2.82	0.68
2:A8:877:A:C2	2:A8:901:C:C2	2.81	0.68
36:BA:1446:A:H3'	36:BA:1447:A:H5''	1.74	0.68
2:A8:2547:A:C8	2:A8:2566:A:C8	2.82	0.68
36:BA:181:A:H62	36:BA:194:C:H2'	1.58	0.67
36:BA:1399:C:C4	36:BA:1502:A:C2	2.82	0.67
2:A8:2197:U:H1'	2:A8:2198:A:C8	2.29	0.67
2:A8:1426:G:H5''	2:A8:1427:A:H2'	1.75	0.67
2:A8:480:A:H3'	2:A8:481:G:H5''	1.74	0.67
1:A7:100:G:H5'	2:A8:916:G:H4'	1.77	0.67
2:A8:1140:C:H4'	14:AJ:27:ARG:HE	1.59	0.67
36:BA:1108:G:C5	36:BA:1109:C:C5	2.82	0.67
2:A8:1722:A:C2	2:A8:1723:G:C4	2.83	0.67
2:A8:1797:G:C6	2:A8:1823:G:C6	2.82	0.67
27:AW:35:ILE:H	27:AW:36:ILE:HD12	1.60	0.67
36:BA:836:G:C6	36:BA:851:G:C5	2.83	0.67
2:A8:1022:G:H21	2:A8:1142:A:H2	1.42	0.67
2:A8:247:G:H4'	2:A8:386:G:C5	2.30	0.67
2:A8:2797:U:C5	2:A8:2800:A:C2	2.83	0.67
36:BA:1486:G:C6	36:BA:1487:G:C5	2.83	0.66
2:A8:1724:G:H1	2:A8:1737:G:H1'	1.60	0.66
44:BI:14:SER:HB2	44:BI:77:ALA:HB2	1.77	0.66
53:BR:69:TYR:CD1	53:BR:73:HIS:CD2	2.82	0.66
36:BA:602:A:C2	36:BA:637:C:C2	2.84	0.66
2:A8:1845:G:C2	2:A8:1846:G:C8	2.84	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1422:G:C2	36:BA:1479:C:C2	2.83	0.66
2:A8:2135:A:H61	2:A8:2156:G:H1'	1.60	0.66
36:BA:71:A:C2	36:BA:72:A:C4	2.84	0.66
2:A8:1790:C:H3'	2:A8:1828:G:H22	1.61	0.66
36:BA:242:G:C2	36:BA:285:C:C2	2.84	0.66
36:BA:98:A:C2	36:BA:99:C:C2	2.83	0.66
2:A8:528:A:H2'	2:A8:2042:A:C6	2.30	0.66
36:BA:568:G:C2	36:BA:883:C:C2	2.84	0.66
2:A8:1296:G:C2	2:A8:1645:G:C4	2.84	0.66
13:AI:4:VAL:HG12	13:AI:5:GLN:H	1.61	0.66
2:A8:1213:A:C8	2:A8:1237:A:C6	2.84	0.66
2:A8:1473:G:C6	2:A8:1519:G:C5	2.83	0.65
2:A8:1613:G:H22	2:A8:1617:C:H2'	1.60	0.65
36:BA:109:A:C6	36:BA:326:G:C6	2.84	0.65
2:A8:1770:G:C2	2:A8:1771:C:C2	2.84	0.65
2:A8:1940:U:H4'	2:A8:1965:C:C5	2.31	0.65
36:BA:600:A:C2	36:BA:601:G:C4	2.84	0.65
1:A7:66:A:C6	1:A7:107:G:H2'	2.31	0.65
2:A8:1707:G:C8	2:A8:1756:G:C4	2.84	0.65
2:A8:1024:G:H3'	2:A8:1025:G:H5''	1.78	0.65
2:A8:487:C:C4	2:A8:488:G:C6	2.83	0.65
2:A8:1127:A:H2'	2:A8:2518:A:C2	2.32	0.65
36:BA:1439:G:N2	36:BA:1463:U:H1'	2.12	0.65
36:BA:577:G:H1'	36:BA:816:A:C4	2.31	0.65
36:BA:1415:G:C2	36:BA:1486:G:C5	2.85	0.65
2:A8:1661:G:C2	2:A8:2000:C:C2	2.85	0.65
36:BA:1188:A:C2	38:BC:177:LEU:HD11	2.32	0.65
36:BA:115:G:H21	36:BA:117:G:H1	1.44	0.65
2:A8:2113:U:H3	2:A8:2168:G:H4'	1.62	0.65
23:AS:70:LYS:HB2	23:AS:110:ARG:HA	1.79	0.65
2:A8:2648:G:C6	2:A8:2673:G:C4	2.85	0.65
16:AL:107:PHE:HB3	16:AL:126:ARG:HE	1.62	0.65
2:A8:199:A:C2	2:A8:2434:A:C2	2.84	0.64
36:BA:1513:A:C2	36:BA:1523:G:C5	2.84	0.64
2:A8:2288:A:C2	2:A8:2325:G:C4	2.85	0.64
2:A8:1055:G:C5	2:A8:1056:G:H1'	2.32	0.64
2:A8:1652:A:OP2	2:A8:1653:G:C5	2.49	0.64
2:A8:415:A:C2	2:A8:2409:G:C4	2.86	0.64
2:A8:1054:A:C2	2:A8:1055:G:C4	2.86	0.64
2:A8:2724:U:H2'	2:A8:2725:A:C8	2.31	0.64
2:A8:1717:A:C2	2:A8:1718:G:H1'	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:890:C:H3'	2:A8:891:G:H4'	1.78	0.64
36:BA:113:G:C1'	36:BA:354:G:H4'	2.28	0.64
2:A8:1024:G:C6	2:A8:1025:G:C5	2.85	0.64
2:A8:1088:A:H61	13:AI:131:THR:HA	1.63	0.64
2:A8:371:A:H61	2:A8:401:A:H3'	1.63	0.64
36:BA:282:A:C6	36:BA:283:U:C2	2.86	0.64
2:A8:278:A:C2	2:A8:362:A:C8	2.86	0.64
2:A8:2445:G:C6	2:A8:2446:G:C6	2.86	0.64
2:A8:2071:A:C2	2:A8:2072:C:C2	2.85	0.64
2:A8:2100:G:C2	2:A8:2190:G:H1'	2.33	0.64
52:BQ:15:LYS:H	52:BQ:50:ASN:HD22	1.46	0.64
36:BA:589:U:H1'	36:BA:653:U:H3	1.63	0.64
1:A7:86:G:C2	1:A7:91:C:C2	2.86	0.64
36:BA:615:G:H21	51:BP:47:GLU:HB3	1.61	0.64
2:A8:2081:U:H2'	2:A8:2237:G:H22	1.63	0.64
36:BA:851:G:C6	36:BA:852:G:C5	2.86	0.64
1:A7:14:U:H3'	1:A7:15:A:H5'	1.80	0.64
36:BA:120:A:H2'	36:BA:122:G:C5	2.33	0.64
2:A8:1486:U:C2	2:A8:1504:A:C2	2.87	0.63
36:BA:453:G:H3'	36:BA:454:G:C8	2.34	0.63
36:BA:414:A:H8	36:BA:428:G:H22	1.43	0.63
36:BA:516:U:H3'	36:BA:517:G:C8	2.33	0.63
36:BA:836:G:C6	36:BA:851:G:C6	2.86	0.63
2:A8:2261:C:C5	27:AW:13:ARG:HG3	2.33	0.63
2:A8:2744:G:H5'	2:A8:2755:C:C5	2.33	0.63
2:A8:138:U:H2'	2:A8:140:C:C4	2.34	0.63
2:A8:161:A:C5	2:A8:162:U:C5	2.87	0.63
2:A8:2506:U:H3	2:A8:2584:U:H1'	1.63	0.63
2:A8:475:C:H1'	2:A8:509:C:C2	2.34	0.63
2:A8:621:A:C5	2:A8:622:G:H1'	2.33	0.63
2:A8:1168:G:C6	2:A8:1182:G:C6	2.86	0.63
2:A8:1153:C:C4	2:A8:1154:G:C6	2.87	0.63
2:A8:875:G:C2	2:A8:903:C:C2	2.86	0.63
2:A8:77:G:H1'	29:AY:55:THR:HG21	1.80	0.63
2:A8:2792:A:H3'	2:A8:2793:C:H5''	1.79	0.63
36:BA:369:G:H21	36:BA:393:A:H1'	1.64	0.63
2:A8:1138:G:C5	2:A8:1139:G:H1'	2.34	0.63
2:A8:250:G:C5	2:A8:251:A:C5	2.87	0.63
2:A8:1316:U:H4'	2:A8:1392:A:C5	2.34	0.63
36:BA:858:G:H1	36:BA:869:G:C3'	2.11	0.62
2:A8:2259:U:C6	2:A8:2427:C:C4	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AG:96:ALA:H	11:AG:103:ASN:HD22	1.47	0.62
2:A8:1334:G:H21	3:AA:367:ARG:HE	1.46	0.62
2:A8:643:A:C8	2:A8:644:A:C8	2.87	0.62
2:A8:975:A:C4	2:A8:976:G:C8	2.87	0.62
2:A8:2354:C:O4'	27:AW:30:VAL:HG11	1.99	0.62
2:A8:1181:U:H2'	2:A8:1182:G:C8	2.35	0.62
16:AL:94:THR:H	16:AL:97:ALA:HB3	1.64	0.62
2:A8:775:G:C4	2:A8:794:A:C8	2.88	0.62
2:A8:1731:G:C2	2:A8:1733:G:C4	2.87	0.62
2:A8:1722:A:C6	2:A8:1739:A:C8	2.87	0.62
2:A8:1845:G:C2	2:A8:1896:G:C4	2.88	0.62
2:A8:1537:G:C5	2:A8:1538:G:H1'	2.34	0.62
2:A8:41:C:C2	2:A8:439:A:C2	2.87	0.62
36:BA:1343:G:H21	44:BI:122:ARG:HH12	1.47	0.62
2:A8:1033:U:H3'	2:A8:1034:G:C5'	2.30	0.62
2:A8:801:G:H21	9:AE:49:ARG:HG3	1.64	0.62
36:BA:1421:G:C2	36:BA:1480:A:C2	2.87	0.62
2:A8:1658:C:C2	2:A8:2003:A:C2	2.87	0.62
2:A8:783:A:C5	2:A8:785:G:H1'	2.34	0.62
8:AD:104:VAL:HG12	8:AD:107:VAL:H	1.65	0.62
36:BA:990:C:C2	36:BA:1216:A:C2	2.87	0.62
2:A8:877:A:C6	2:A8:901:C:C4	2.87	0.62
2:A8:161:A:C6	2:A8:162:U:C4	2.88	0.62
2:A8:1165:A:C2	2:A8:1185:G:C6	2.88	0.62
25:AU:39:ASN:HB3	25:AU:62:ALA:H	1.64	0.62
2:A8:1866:A:C2	2:A8:1876:A:C4	2.87	0.62
2:A8:2582:G:C2	2:A8:2583:G:C8	2.88	0.62
36:BA:1315:U:C4	36:BA:1316:G:C6	2.88	0.62
36:BA:376:G:C2	36:BA:389:A:C2	2.87	0.62
26:AV:30:ILE:HA	26:AV:91:PHE:HB2	1.81	0.62
2:A8:1949:G:C6	2:A8:1950:G:C6	2.88	0.62
36:BA:612:C:C2	36:BA:629:A:C2	2.88	0.62
2:A8:2625:G:C2	2:A8:2626:C:C2	2.88	0.61
36:BA:242:G:C2	36:BA:245:U:C5	2.88	0.61
2:A8:1956:U:H2'	2:A8:1957:C:H5'	1.82	0.61
2:A8:669:G:H22	9:AE:84:THR:HG22	1.65	0.61
36:BA:907:A:C5	36:BA:908:A:C8	2.88	0.61
36:BA:1068:G:C6	36:BA:1069:C:C5	2.88	0.61
2:A8:486:C:H2'	2:A8:487:C:C6	2.35	0.61
2:A8:1168:G:C6	2:A8:1169:A:C5	2.88	0.61
36:BA:771:G:C6	36:BA:809:G:C6	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1862:G:C2	2:A8:1881:C:C2	2.89	0.61
2:A8:1473:G:C5	2:A8:1474:U:C4	2.88	0.61
36:BA:193:C:H2'	36:BA:194:C:C6	2.35	0.61
36:BA:452:A:C8	36:BA:453:G:C8	2.88	0.61
2:A8:42:A:C2	2:A8:43:G:H1'	2.34	0.61
2:A8:514:A:C2	2:A8:515:A:C2	2.88	0.61
2:A8:2091:C:H3'	2:A8:2092:U:H5''	1.81	0.61
2:A8:640:C:C4	2:A8:641:U:C4	2.89	0.61
36:BA:782:A:C6	36:BA:801:U:C2	2.88	0.61
2:A8:2516:A:C2	2:A8:2517:C:C2	2.88	0.61
2:A8:1485:U:C2	2:A8:1505:A:C2	2.88	0.61
36:BA:437:U:H1'	39:BD:119:HIS:CD2	2.36	0.61
2:A8:705:A:C2	2:A8:706:A:C5	2.88	0.61
14:AJ:77:HIS:CE1	14:AJ:83:GLY:O	2.53	0.61
2:A8:247:G:C5	2:A8:249:C:H1'	2.35	0.61
2:A8:1266:G:H1	2:A8:2012:G:H3'	1.66	0.61
2:A8:2648:G:C4	2:A8:2673:G:C2	2.89	0.61
2:A8:1321:A:H61	2:A8:1334:G:H4'	1.65	0.61
2:A8:528:A:H2'	2:A8:2042:A:C5	2.36	0.61
2:A8:1722:A:C6	2:A8:1723:G:C6	2.88	0.61
26:AV:79:ARG:HE	26:AV:84:PRO:HA	1.66	0.61
2:A8:750:A:C5	2:A8:753:A:H1'	2.35	0.61
2:A8:1055:G:C6	2:A8:1056:G:H1'	2.35	0.61
36:BA:629:A:C2	36:BA:630:A:H1'	2.36	0.61
2:A8:2478:A:C8	2:A8:2529:G:C5	2.88	0.61
36:BA:1129:C:H4'	44:BI:19:PHE:CZ	2.36	0.61
2:A8:1532:A:C2	2:A8:1540:G:C4	2.89	0.61
2:A8:89:A:C6	2:A8:90:U:C4	2.88	0.61
36:BA:582:C:C2	36:BA:583:A:C8	2.89	0.61
36:BA:151:A:C2	36:BA:152:A:H1'	2.36	0.61
2:A8:1797:G:C6	2:A8:1798:U:C4	2.89	0.61
2:A8:2744:G:H21	11:AG:142:GLN:HG2	1.66	0.61
2:A8:993:G:C6	2:A8:1162:G:C6	2.89	0.61
2:A8:21:A:C4	2:A8:520:G:C2	2.89	0.61
36:BA:526:C:C4	36:BA:527:G:H1'	2.36	0.61
36:BA:57:G:C2	36:BA:356:A:C2	2.90	0.60
2:A8:2069:G:C2	2:A8:2443:C:C2	2.89	0.60
2:A8:957:C:C4	2:A8:2459:A:C8	2.89	0.60
36:BA:541:G:C2	36:BA:542:G:H1'	2.36	0.60
2:A8:1473:G:C5	2:A8:1519:G:C6	2.89	0.60
7:A6:143:VAL:HA	7:A6:189:ALA:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:301:G:C2	2:A8:302:C:C2	2.88	0.60
2:A8:2583:G:C5	2:A8:2584:U:C6	2.89	0.60
36:BA:341:C:C2	36:BA:349:A:C2	2.89	0.60
36:BA:1453:G:C5	36:BA:1454:G:H1'	2.36	0.60
7:A6:162:GLN:HE21	7:A6:164:VAL:HA	1.66	0.60
2:A8:2162:G:H3'	2:A8:2164:C:H41	1.65	0.60
2:A8:1839:G:C8	2:A8:1927:A:C4	2.89	0.60
36:BA:890:G:H1	36:BA:906:A:H3'	1.67	0.60
36:BA:1514:G:C2	36:BA:1522:U:C2	2.90	0.60
2:A8:2474:U:C5	2:A8:2475:C:C2	2.90	0.60
36:BA:1144:G:N2	36:BA:1146:A:H62	2.00	0.60
2:A8:2595:G:C2	2:A8:2599:G:C5	2.89	0.60
2:A8:2836:U:C2	2:A8:2883:A:C2	2.89	0.60
36:BA:1446:A:C3'	36:BA:1447:A:H5''	2.32	0.60
2:A8:65:U:C4	2:A8:66:C:C5	2.89	0.60
2:A8:721:A:C2	2:A8:722:A:C4	2.90	0.60
36:BA:257:G:C2	36:BA:258:G:C8	2.89	0.60
2:A8:2152:G:H3'	2:A8:2153:C:C5	2.37	0.60
2:A8:874:G:C6	2:A8:904:G:C6	2.90	0.60
2:A8:2282:G:H5'	2:A8:2389:G:H1'	1.84	0.60
8:AD:32:ASN:H	8:AD:95:SER:HA	1.65	0.60
17:AM:34:LYS:HG2	17:AM:35:ALA:H	1.67	0.60
2:A8:901:C:C2	2:A8:902:C:C6	2.89	0.60
36:BA:1415:G:C4	36:BA:1486:G:C6	2.90	0.60
2:A8:1899:A:C2	2:A8:1903:G:C2	2.90	0.60
2:A8:1759:A:C5	2:A8:2697:G:H1'	2.36	0.60
2:A8:1943:U:C4	2:A8:1945:G:C8	2.90	0.60
36:BA:521:G:H4'	47:BL:69:GLU:HA	1.84	0.59
7:A6:3:VAL:H	7:A6:17:LYS:H	1.50	0.59
2:A8:1567:G:C8	7:A6:82:TYR:CE1	2.90	0.59
2:A8:2134:A:H2	2:A8:2159:G:H21	1.51	0.59
2:A8:1909:C:C2	2:A8:1922:G:C2	2.90	0.59
2:A8:999:U:H3'	2:A8:1154:G:C6	2.37	0.59
2:A8:2469:A:C6	2:A8:2482:A:C8	2.90	0.59
36:BA:1480:A:C2	36:BA:1481:U:C2	2.91	0.59
2:A8:1935:G:H1'	2:A8:1964:G:C2	2.37	0.59
2:A8:265:A:C8	2:A8:266:G:H1'	2.36	0.59
36:BA:50:A:H2'	36:BA:360:G:C2	2.37	0.59
2:A8:2525:G:H4'	2:A8:2741:A:C2	2.37	0.59
8:AD:67:HIS:HA	8:AD:70:LYS:HZ2	1.67	0.59
41:BF:37:HIS:CE1	41:BF:65:GLU:HB2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1773:A:C5	2:A8:1829:A:H1'	2.38	0.59
2:A8:2277:G:C6	2:A8:2278:A:C8	2.90	0.59
36:BA:564:C:C5	36:BA:565:U:C5	2.91	0.59
2:A8:1866:A:H61	2:A8:1875:G:H2'	1.68	0.59
2:A8:1351:C:C2	2:A8:1381:G:C2	2.90	0.59
2:A8:2185:U:H2'	2:A8:2186:G:C8	2.38	0.59
2:A8:382:A:C2	2:A8:393:C:C2	2.90	0.59
2:A8:2507:C:H5''	2:A8:2573:C:H42	1.68	0.59
2:A8:528:A:C8	2:A8:2042:A:N7	2.71	0.59
36:BA:533:A:C8	36:BA:533:A:OP1	2.56	0.59
2:A8:1948:G:C6	2:A8:1959:G:C6	2.90	0.59
36:BA:59:A:C5	36:BA:354:G:C6	2.91	0.59
36:BA:519:C:C4	36:BA:520:A:C6	2.91	0.59
36:BA:613:C:C2	36:BA:628:G:N2	2.71	0.59
2:A8:160:A:C6	2:A8:161:A:C6	2.91	0.59
38:BC:155:ARG:HH11	38:BC:194:VAL:HG23	1.68	0.59
2:A8:1693:U:C6	2:A8:1977:A:H1'	2.38	0.59
2:A8:1907:G:C6	2:A8:1908:C:C4	2.91	0.59
2:A8:1003:G:C2	2:A8:1153:C:C2	2.91	0.59
2:A8:592:A:C2	2:A8:666:A:C5	2.90	0.59
27:AW:19:ARG:O	27:AW:20:LEU:HD13	2.03	0.59
2:A8:2044:C:C2	2:A8:2625:G:C2	2.90	0.59
2:A8:1727:C:C2	2:A8:1734:G:C2	2.91	0.59
2:A8:1024:G:C5	2:A8:1025:G:C5	2.91	0.59
2:A8:1858:A:C2	2:A8:1859:U:H1'	2.38	0.59
2:A8:1220:G:C6	2:A8:1230:A:C6	2.91	0.59
36:BA:777:A:C2	36:BA:778:G:H1'	2.37	0.59
36:BA:892:A:H1'	36:BA:907:A:C5	2.37	0.58
36:BA:892:A:C2	36:BA:893:C:C2	2.91	0.58
2:A8:861:A:C2	2:A8:917:A:C4	2.91	0.58
46:BK:23:HIS:H	46:BK:30:ILE:HB	1.67	0.58
2:A8:2789:C:C5	2:A8:2893:A:C6	2.90	0.58
2:A8:1241:A:H3'	2:A8:1242:U:C5	2.38	0.58
2:A8:950:G:C2	2:A8:968:C:C2	2.90	0.58
36:BA:356:A:C2	36:BA:357:G:H1'	2.38	0.58
2:A8:2330:G:N2	27:AW:40:ARG:HH12	2.01	0.58
2:A8:1371:G:N2	2:A8:1372:U:C5	2.71	0.58
2:A8:861:A:C2	2:A8:862:G:H1'	2.38	0.58
36:BA:836:G:C6	36:BA:837:U:C2	2.90	0.58
2:A8:278:A:C2	2:A8:361:G:C2	2.91	0.58
2:A8:2205:A:C2	2:A8:2220:U:H1'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:809:G:C6	36:BA:810:C:C5	2.91	0.58
2:A8:1036:G:C6	2:A8:1120:G:C6	2.91	0.58
2:A8:248:G:H5'	2:A8:250:G:C6	2.37	0.58
2:A8:738:G:H2'	2:A8:739:A:C8	2.38	0.58
2:A8:2693:G:C2	2:A8:2717:C:C2	2.90	0.58
36:BA:1458:G:H5'	55:BT:26:MET:HA	1.84	0.58
2:A8:2002:G:C2	2:A8:2003:A:C8	2.91	0.58
2:A8:1451:C:C5	2:A8:1458:U:C2	2.91	0.58
11:AG:26:LYS:HA	11:AG:32:LEU:H	1.69	0.58
36:BA:994:A:H61	36:BA:1047:G:H1'	1.69	0.58
2:A8:527:C:C4	2:A8:2779:U:H2'	2.38	0.58
2:A8:1931:U:C2	2:A8:1932:A:C8	2.92	0.58
2:A8:1000:A:H2'	2:A8:1001:A:C8	2.38	0.58
2:A8:181:A:H2'	2:A8:182:A:C8	2.38	0.58
2:A8:1651:G:C8	2:A8:1651:G:H5''	2.38	0.58
2:A8:1615:C:C6	2:A8:1617:C:C5	2.91	0.58
36:BA:131:A:C2	36:BA:232:G:C4	2.91	0.58
36:BA:265:G:C8	36:BA:267:C:C5	2.91	0.58
2:A8:18:U:H2'	2:A8:19:A:C8	2.38	0.58
2:A8:50:U:H5''	2:A8:51:G:C8	2.38	0.58
52:BQ:46:HIS:H	52:BQ:73:THR:HA	1.68	0.58
36:BA:664:G:H22	36:BA:741:G:H1	1.51	0.58
2:A8:1438:U:H3'	2:A8:1552:A:H61	1.69	0.58
2:A8:545:U:C6	2:A8:550:C:C2	2.92	0.58
54:BS:13:HIS:CE1	54:BS:34:SER:HB2	2.38	0.58
2:A8:1360:G:C8	2:A8:1361:G:C8	2.91	0.58
2:A8:1796:U:H2'	2:A8:1797:G:C8	2.38	0.58
36:BA:691:G:H22	36:BA:695:A:H3'	1.68	0.58
2:A8:2788:C:H2'	2:A8:2789:C:C6	2.39	0.58
26:AV:29:ILE:HD12	26:AV:31:TYR:CD2	2.39	0.58
2:A8:1103:A:C4	2:A8:1104:C:C6	2.92	0.58
2:A8:66:C:C4	2:A8:67:U:C4	2.92	0.58
36:BA:540:G:H21	39:BD:40:HIS:CG	2.22	0.58
2:A8:1440:U:H2'	2:A8:1441:G:C8	2.39	0.58
2:A8:2851:A:H1'	18:AN:61:ALA:HB2	1.85	0.58
2:A8:1478:G:C5	2:A8:1514:G:C2	2.91	0.58
2:A8:2317:A:H3'	2:A8:2318:G:C8	2.38	0.58
2:A8:1835:G:C2	2:A8:1931:U:C6	2.92	0.58
2:A8:2513:A:C5	2:A8:2574:G:C6	2.92	0.58
2:A8:1392:A:C8	2:A8:1393:A:C2	2.91	0.58
2:A8:1866:A:C2	2:A8:1867:G:H1'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:358:U:H2'	2:A8:359:G:C8	2.39	0.58
2:A8:494:G:H21	23:AS:57:ASN:HD21	1.50	0.58
36:BA:933:G:H3'	36:BA:935:A:H62	1.69	0.58
2:A8:2808:G:H1'	2:A8:2891:U:C2	2.39	0.58
2:A8:1842:G:C1'	7:A6:242:HIS:CE1	2.87	0.58
2:A8:901:C:OP2	2:A8:901:C:C5	2.57	0.58
2:A8:1532:A:C4	2:A8:1540:G:C2	2.92	0.58
36:BA:582:C:H41	36:BA:758:C:H2'	1.67	0.58
2:A8:244:A:C2	2:A8:245:G:H1'	2.39	0.58
2:A8:2549:G:C6	2:A8:2560:A:C6	2.92	0.58
36:BA:838:G:C2	36:BA:849:G:H1'	2.39	0.58
24:AT:69:ARG:HH22	24:AT:78:SER:H	1.52	0.58
36:BA:103:U:H1'	36:BA:151:A:C2	2.39	0.57
36:BA:1239:A:H62	36:BA:1299:A:H62	1.50	0.57
36:BA:905:U:H3'	36:BA:906:A:C8	2.39	0.57
36:BA:1102:A:C2	36:BA:1103:C:C2	2.92	0.57
2:A8:617:G:C6	2:A8:618:G:C5	2.92	0.57
2:A8:1194:A:C8	2:A8:1194:A:H5''	2.38	0.57
45:BJ:53:ILE:HG22	45:BJ:61:ALA:HB1	1.86	0.57
2:A8:1467:U:C5	2:A8:1546:G:H2'	2.39	0.57
36:BA:795:C:C5	36:BA:796:C:C5	2.92	0.57
36:BA:38:G:H4'	36:BA:547:A:C6	2.39	0.57
28:AX:17:ARG:CZ	28:AX:23:ALA:HB2	2.34	0.57
36:BA:181:A:C8	36:BA:194:C:C5	2.92	0.57
36:BA:907:A:C6	36:BA:908:A:C4	2.92	0.57
2:A8:1021:A:H62	2:A8:1141:U:H3	1.51	0.57
2:A8:1142:A:H4'	14:AJ:27:ARG:HH22	1.70	0.57
2:A8:1021:A:H61	2:A8:1142:A:N6	2.01	0.57
36:BA:1176:A:H2'	36:BA:1177:G:C8	2.38	0.57
2:A8:836:G:O6	2:A8:943:A:C2	2.57	0.57
2:A8:303:G:C2	2:A8:315:G:C4	2.92	0.57
36:BA:291:U:H3'	36:BA:305:G:H22	1.70	0.57
36:BA:284:C:H2'	36:BA:285:C:H6	1.69	0.57
2:A8:2450:A:C2	2:A8:2451:A:C8	2.92	0.57
1:A7:13:G:C6	1:A7:70:C:H5'	2.40	0.57
2:A8:1153:C:H5'	21:AQ:75:TYR:CE2	2.39	0.57
2:A8:668:A:C2	2:A8:670:A:C6	2.92	0.57
2:A8:1890:A:H1'	2:A8:2234:G:H21	1.70	0.57
36:BA:908:A:H2'	36:BA:909:A:C8	2.39	0.57
36:BA:1510:C:C2	36:BA:1526:G:C2	2.92	0.57
2:A8:2425:A:H5'	2:A8:2427:C:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:76:VAL:H	7:A6:93:VAL:HG23	1.69	0.57
36:BA:105:G:C6	36:BA:106:C:C4	2.92	0.57
47:BL:35:ARG:HB3	47:BL:53:ARG:HH22	1.69	0.57
2:A8:1910:G:C4	2:A8:1921:G:C2	2.92	0.57
2:A8:2086:U:H2'	2:A8:2087:G:C8	2.39	0.57
2:A8:870:U:C2'	2:A8:871:U:H5''	2.35	0.57
2:A8:2283:C:H5''	2:A8:2389:G:O2'	2.04	0.57
2:A8:1268:A:C2	2:A8:1269:A:H1'	2.40	0.57
2:A8:1441:G:C6	2:A8:1551:A:C2	2.93	0.57
36:BA:423:G:C5	36:BA:424:G:H1'	2.39	0.57
36:BA:71:A:C4	36:BA:100:G:H1'	2.40	0.57
2:A8:2347:C:C5	2:A8:2382:G:C5	2.92	0.57
1:A7:24:G:C8	1:A7:56:G:C5	2.93	0.57
2:A8:1936:A:H4'	2:A8:1937:A:C8	2.40	0.57
2:A8:2677:G:C6	2:A8:2731:G:C6	2.93	0.57
2:A8:2354:C:H1'	27:AW:30:VAL:HG21	1.87	0.57
36:BA:541:G:H1'	39:BD:40:HIS:CD2	2.39	0.57
2:A8:181:A:H1'	2:A8:435:C:C6	2.39	0.57
36:BA:292:G:C5	36:BA:293:G:H1'	2.39	0.57
2:A8:1428:C:C5	2:A8:1569:A:H5''	2.39	0.57
2:A8:1900:A:C2	2:A8:1970:A:C4	2.93	0.57
2:A8:1831:G:C6	2:A8:1975:G:C6	2.92	0.57
36:BA:642:A:C5	43:BH:106:SER:HA	2.40	0.57
17:AM:24:THR:H	17:AM:66:ARG:HH12	1.52	0.57
2:A8:1699:G:C6	2:A8:1763:G:C4	2.92	0.57
2:A8:507:A:H5''	2:A8:508:A:H3'	1.86	0.57
14:AJ:92:MET:HA	14:AJ:99:ARG:HE	1.69	0.57
36:BA:866:C:C4	36:BA:867:G:H1'	2.39	0.57
2:A8:56:A:C2	2:A8:115:C:C2	2.92	0.57
2:A8:1186:G:C2	2:A8:1187:G:H1'	2.39	0.57
2:A8:1093:G:H1'	13:AI:4:VAL:CG2	2.35	0.57
2:A8:330:A:C8	2:A8:1210:G:H2'	2.40	0.57
2:A8:1689:A:C4	2:A8:1690:A:C8	2.92	0.57
2:A8:1837:C:H2'	2:A8:1838:C:H5'	1.87	0.57
2:A8:2373:G:H2'	2:A8:2374:C:C6	2.40	0.57
36:BA:704:A:C5	36:BA:705:G:C8	2.92	0.57
2:A8:2677:G:C4	2:A8:2731:G:C2	2.93	0.57
2:A8:1082:U:N3	2:A8:1086:A:C2	2.73	0.57
1:A7:83:G:C6	1:A7:84:G:C5	2.93	0.57
2:A8:1439:A:C5	2:A8:1553:A:C6	2.93	0.57
36:BA:642:A:C5	36:BA:643:C:C4	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2359:C:H5''	34:A3:50:SER:HB2	1.87	0.57
2:A8:2218:G:C6	2:A8:2219:U:C4	2.93	0.57
2:A8:1204:A:H4'	2:A8:1205:A:H3'	1.86	0.57
2:A8:1444:G:C2	2:A8:1548:A:C2	2.93	0.57
2:A8:2776:A:C6	2:A8:2778:A:C6	2.93	0.57
2:A8:1606:C:H4'	2:A8:1608:A:C4	2.39	0.57
2:A8:1360:G:C6	2:A8:1361:G:H1'	2.40	0.57
2:A8:529:A:C5	2:A8:2023:C:C2	2.92	0.57
36:BA:1528:U:H4'	36:BA:1529:G:H21	1.69	0.57
36:BA:814:A:H3'	36:BA:816:A:C8	2.39	0.57
2:A8:641:U:C4	2:A8:645:C:C5	2.93	0.57
41:BF:3:HIS:CE1	41:BF:37:HIS:HE1	2.23	0.57
36:BA:663:A:C2	36:BA:743:A:C2	2.92	0.57
1:A7:10:G:C2	1:A7:111:U:H1'	2.40	0.57
2:A8:2543:G:C8	2:A8:2766:A:H4'	2.40	0.57
36:BA:444:G:C6	36:BA:491:G:C6	2.93	0.57
2:A8:880:G:C2	2:A8:881:G:C6	2.93	0.56
2:A8:1025:G:C5	2:A8:1135:C:H1'	2.41	0.56
36:BA:836:G:C5	36:BA:851:G:C6	2.93	0.56
44:BI:9:GLY:O	44:BI:77:ALA:HB1	2.05	0.56
2:A8:1086:A:H1'	2:A8:1103:A:H61	1.70	0.56
2:A8:2097:A:C4	2:A8:2193:G:N2	2.73	0.56
2:A8:2809:A:C6	2:A8:2891:U:H4'	2.40	0.56
2:A8:255:A:C2	2:A8:256:A:H1'	2.40	0.56
40:BE:45:VAL:HG22	40:BE:71:ILE:HA	1.86	0.56
2:A8:448:U:H3	2:A8:583:G:H21	1.53	0.56
2:A8:2533:U:C4	2:A8:2534:A:C4	2.93	0.56
2:A8:960:A:H5'	2:A8:2457:U:H4'	1.86	0.56
36:BA:1060:U:H2'	36:BA:1061:G:C8	2.40	0.56
2:A8:2588:G:C6	2:A8:2589:A:C5	2.93	0.56
2:A8:2372:U:H2'	2:A8:2373:G:C8	2.39	0.56
2:A8:1474:U:C4	2:A8:1475:G:C2	2.94	0.56
36:BA:687:A:C2	36:BA:704:A:C5	2.92	0.56
2:A8:1723:G:C5	2:A8:1724:G:C5	2.93	0.56
2:A8:1028:A:H1'	2:A8:2487:G:H4'	1.86	0.56
2:A8:2721:A:C2	2:A8:2873:A:C5	2.94	0.56
1:A7:85:G:C2	1:A7:92:C:C2	2.93	0.56
2:A8:647:G:C6	2:A8:648:G:C6	2.94	0.56
2:A8:233:A:C2	2:A8:234:U:H1'	2.40	0.56
2:A8:2270:A:C5	2:A8:2271:G:H1'	2.40	0.56
2:A8:2809:A:H2'	2:A8:2810:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1794:A:H1'	2:A8:1900:A:C2	2.41	0.56
36:BA:718:A:C2	36:BA:719:C:H1'	2.40	0.56
2:A8:1987:A:C2	2:A8:1988:G:C4	2.94	0.56
36:BA:655:A:C2	36:BA:656:G:C4	2.93	0.56
2:A8:751:A:H2'	2:A8:789:A:C2	2.40	0.56
2:A8:1668:A:H5'	2:A8:1669:A:C5	2.40	0.56
36:BA:215:C:C4	36:BA:216:U:C4	2.93	0.56
2:A8:693:A:C2	2:A8:694:U:C2	2.94	0.56
7:A6:163:ILE:HG21	7:A6:166:ARG:HG2	1.86	0.56
2:A8:1293:C:H2'	2:A8:1294:U:C6	2.40	0.56
36:BA:1426:G:C4	36:BA:1475:G:C2	2.94	0.56
6:A5:107:GLY:HA2	6:A5:131:LEU:HD12	1.87	0.56
2:A8:1668:A:C2	2:A8:1993:U:H1'	2.41	0.56
2:A8:1496:A:H2'	2:A8:1498:C:C5	2.40	0.56
2:A8:300:A:H1'	2:A8:319:G:H1'	1.87	0.56
36:BA:954:G:C2	36:BA:955:U:H1'	2.41	0.56
2:A8:2370:G:C6	2:A8:2371:G:C5	2.93	0.56
1:A7:29:A:C2	1:A7:56:G:C2	2.93	0.56
2:A8:197:A:C5	2:A8:198:C:C6	2.94	0.56
2:A8:1427:A:H61	2:A8:1570:A:H3'	1.71	0.56
36:BA:278:G:H21	36:BA:279:A:H62	1.53	0.56
2:A8:226:A:C6	2:A8:227:A:C6	2.94	0.56
36:BA:628:G:N2	36:BA:629:A:H1'	2.21	0.56
2:A8:669:G:H21	9:AE:49:ARG:HE	1.53	0.56
2:A8:1877:A:C2	2:A8:1878:G:C4	2.94	0.56
2:A8:2660:A:C5	2:A8:2661:G:C6	2.93	0.56
2:A8:1988:G:C2	2:A8:1989:G:H1'	2.41	0.56
2:A8:285:G:C2	2:A8:286:U:C2	2.94	0.56
36:BA:683:G:C2	36:BA:708:C:C2	2.93	0.56
2:A8:847:U:H6	2:A8:934:U:H1'	1.69	0.56
2:A8:1059:G:H4'	13:AI:115:ASP:HB3	1.87	0.56
36:BA:82:G:H3'	36:BA:83:C:H4'	1.88	0.56
36:BA:1069:C:C5	36:BA:1094:G:C6	2.94	0.56
36:BA:1071:C:C2	36:BA:1105:A:C2	2.94	0.56
36:BA:568:G:C6	36:BA:569:C:C4	2.94	0.56
11:AG:102:ILE:HG22	11:AG:103:ASN:H	1.70	0.56
36:BA:771:G:C4	36:BA:809:G:C2	2.94	0.56
2:A8:2526:G:C6	2:A8:2527:C:C4	2.94	0.56
2:A8:1312:U:C2	2:A8:1603:A:C2	2.94	0.56
2:A8:2524:G:C2	2:A8:2540:C:C2	2.94	0.56
36:BA:985:C:H2'	36:BA:986:U:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:844:A:C2	2:A8:935:C:C2	2.94	0.56
30:AZ:15:ARG:HE	30:AZ:19:HIS:CD2	2.24	0.56
2:A8:2383:G:C6	2:A8:2384:U:C4	2.94	0.56
2:A8:2199:A:C8	2:A8:2225:A:C6	2.94	0.56
2:A8:1797:G:C5	2:A8:1798:U:C5	2.93	0.56
2:A8:2135:A:C6	2:A8:2136:G:C6	2.93	0.56
2:A8:1966:A:H1'	2:A8:2593:U:H5'	1.86	0.56
2:A8:360:U:C4	2:A8:361:G:C2	2.94	0.56
2:A8:820:A:H4'	2:A8:836:G:H1	1.71	0.56
36:BA:469:C:C4	36:BA:470:C:C2	2.94	0.56
2:A8:2841:C:H2'	2:A8:2842:G:C8	2.41	0.56
2:A8:460:A:C2	2:A8:461:C:H1'	2.41	0.56
36:BA:10:A:C2	36:BA:25:C:C2	2.94	0.56
2:A8:1473:G:C4	2:A8:1519:G:C2	2.94	0.56
36:BA:413:G:H4'	36:BA:428:G:N2	2.21	0.56
36:BA:688:G:C6	36:BA:700:G:C5	2.94	0.56
2:A8:1085:A:H2'	2:A8:1086:A:C2	2.41	0.56
2:A8:1168:G:C2	2:A8:1182:G:C2	2.94	0.56
2:A8:2776:A:C5	2:A8:2778:A:C5	2.94	0.56
2:A8:1311:G:H5''	2:A8:1312:U:H5'	1.88	0.56
36:BA:953:G:C6	36:BA:954:G:C5	2.93	0.56
30:AZ:15:ARG:HH21	30:AZ:19:HIS:CE1	2.23	0.56
2:A8:2651:C:C2	2:A8:2670:A:C2	2.92	0.56
36:BA:158:G:C6	36:BA:164:G:C5	2.93	0.56
2:A8:1634:A:H3'	2:A8:1635:A:C5'	2.35	0.56
36:BA:672:U:H2'	36:BA:673:A:C8	2.41	0.56
36:BA:450:G:C6	36:BA:481:G:C8	2.94	0.56
2:A8:2729:G:H1'	8:AD:192:ALA:HB3	1.87	0.56
2:A8:880:G:H2'	2:A8:881:G:C8	2.41	0.56
36:BA:278:G:N2	36:BA:279:A:H62	2.04	0.56
2:A8:487:C:H3'	2:A8:488:G:C8	2.41	0.56
2:A8:2513:A:C5	2:A8:2514:U:C4	2.93	0.56
36:BA:628:G:H21	36:BA:629:A:H1'	1.71	0.56
2:A8:987:C:C4'	2:A8:1001:A:H4'	2.36	0.56
36:BA:760:G:C5	36:BA:761:G:C8	2.94	0.56
36:BA:1244:G:C6	36:BA:1294:G:C6	2.94	0.56
2:A8:30:G:H2'	2:A8:31:C:C6	2.41	0.56
2:A8:1287:A:C8	18:AN:105:GLY:HA3	2.41	0.56
55:BT:14:GLU:HA	55:BT:17:ARG:HE	1.71	0.56
36:BA:227:G:H21	51:BP:64:GLY:HA3	1.69	0.56
36:BA:923:A:C2	36:BA:924:C:C2	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:505:G:C6	36:BA:535:A:C2	2.93	0.56
2:A8:2041:U:H2'	2:A8:2042:A:C8	2.40	0.56
36:BA:687:A:H1'	36:BA:700:G:H21	1.71	0.56
2:A8:1896:G:C6	2:A8:1897:G:C5	2.93	0.56
2:A8:1097:U:C5	2:A8:1098:A:C4	2.94	0.56
2:A8:626:A:C8	16:AL:78:ARG:HD2	2.41	0.56
2:A8:794:A:C2	2:A8:795:C:C2	2.94	0.56
2:A8:1827:U:C5'	2:A8:1971:U:H4'	2.36	0.56
2:A8:1668:A:C6	2:A8:1993:U:C6	2.94	0.56
2:A8:1365:A:H3'	2:A8:1366:A:C8	2.41	0.56
43:BH:60:LEU:H	43:BH:60:LEU:HD23	1.71	0.56
2:A8:1767:G:C2	2:A8:1986:C:C2	2.94	0.56
7:A6:140:VAL:H	7:A6:159:THR:HG21	1.71	0.56
36:BA:496:A:H2'	36:BA:497:G:C8	2.41	0.56
36:BA:905:U:H3'	36:BA:906:A:H8	1.71	0.55
2:A8:528:A:C8	2:A8:2042:A:C8	2.94	0.55
2:A8:529:A:C8	2:A8:2042:A:N6	2.74	0.55
2:A8:868:U:H1'	2:A8:912:C:H4'	1.88	0.55
2:A8:1128:G:C5	2:A8:2518:A:C2	2.95	0.55
2:A8:2407:A:C2	2:A8:2408:U:C2	2.94	0.55
1:A7:16:G:N2	1:A7:69:G:H1'	2.21	0.55
2:A8:2746:U:O4	2:A8:2755:C:H4'	2.06	0.55
36:BA:366:A:H2'	36:BA:394:G:H22	1.71	0.55
36:BA:387:U:H2'	36:BA:389:A:C8	2.42	0.55
36:BA:712:A:C2	36:BA:713:G:C4	2.94	0.55
2:A8:2599:G:C8	2:A8:2599:G:H5''	2.40	0.55
2:A8:321:U:C6	2:A8:321:U:H3'	2.41	0.55
2:A8:2104:C:H2'	2:A8:2105:U:C6	2.41	0.55
2:A8:2466:C:C2	2:A8:2485:G:C2	2.93	0.55
2:A8:594:U:H2'	2:A8:595:C:C6	2.42	0.55
36:BA:66:A:C2	36:BA:104:G:H1'	2.41	0.55
2:A8:2709:G:C2	2:A8:2710:C:C2	2.95	0.55
2:A8:1068:G:H21	2:A8:1069:A:H62	1.54	0.55
2:A8:604:G:C6	2:A8:625:G:C6	2.94	0.55
2:A8:618:G:C6	2:A8:619:G:C4	2.95	0.55
2:A8:221:A:C6	2:A8:233:A:C2	2.94	0.55
2:A8:455:C:H1'	2:A8:472:A:H2'	1.87	0.55
2:A8:1094:U:H6	2:A8:1094:U:O5'	1.89	0.55
25:AU:94:PHE:HA	25:AU:101:THR:HA	1.87	0.55
2:A8:701:G:C6	2:A8:702:U:C5	2.95	0.55
2:A8:1038:G:C2	2:A8:1118:C:C2	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1218:C:H2'	36:BA:1219:A:C8	2.41	0.55
2:A8:1469:A:H2'	2:A8:1470:A:C8	2.42	0.55
35:A4:16:ILE:HG12	35:A4:25:VAL:HG23	1.89	0.55
2:A8:2694:G:C6	2:A8:2695:U:C4	2.93	0.55
36:BA:1084:G:H2'	36:BA:1085:U:C5	2.41	0.55
36:BA:1475:G:C2	36:BA:1476:A:C4	2.94	0.55
2:A8:1098:A:C6	13:AI:4:VAL:HA	2.41	0.55
2:A8:1099:G:C5	2:A8:1100:C:C5	2.94	0.55
1:A7:16:G:C2	1:A7:69:G:N3	2.74	0.55
2:A8:783:A:C6	2:A8:785:G:H1'	2.41	0.55
2:A8:1866:A:H61	2:A8:1875:G:C2'	2.19	0.55
36:BA:800:G:H2'	36:BA:801:U:C6	2.41	0.55
2:A8:187:G:C2	2:A8:210:C:C2	2.93	0.55
1:A7:20:G:C6	1:A7:64:G:C6	2.94	0.55
36:BA:317:U:C2	36:BA:337:G:C2	2.95	0.55
36:BA:1167:A:C2	36:BA:1168:U:C4	2.95	0.55
2:A8:1363:C:C2	2:A8:1369:G:C2	2.95	0.55
2:A8:2867:G:H2'	2:A8:2868:A:C8	2.42	0.55
2:A8:121:G:C4	2:A8:131:A:C2	2.95	0.55
2:A8:1585:C:C5	2:A8:1586:A:C5	2.95	0.55
2:A8:499:U:C4	2:A8:500:G:C6	2.95	0.55
36:BA:1438:G:C2	36:BA:1464:U:C2	2.94	0.55
2:A8:424:G:H3'	2:A8:424:G:C8	2.42	0.55
36:BA:453:G:C6	36:BA:480:U:C2	2.95	0.55
11:AG:97:VAL:H	11:AG:102:ILE:HG23	1.71	0.55
2:A8:545:U:C5	2:A8:550:C:C4	2.94	0.55
36:BA:796:C:H5''	46:BK:127:ARG:H	1.71	0.55
2:A8:1690:A:C6	2:A8:1691:C:C2	2.94	0.55
36:BA:465:A:N7	36:BA:468:A:C5	2.75	0.55
2:A8:1336:A:H1'	3:AA:368:PRO:HA	1.88	0.55
12:AH:114:GLU:HB3	12:AH:133:GLN:H	1.71	0.55
2:A8:697:G:H2'	2:A8:698:C:C6	2.41	0.55
44:BI:71:ILE:HD12	44:BI:72:SER:H	1.72	0.55
2:A8:1873:G:C6	2:A8:1874:C:C4	2.93	0.55
2:A8:1907:G:C5	2:A8:1908:C:C5	2.94	0.55
2:A8:1907:G:N1	2:A8:1924:C:C2	2.74	0.55
2:A8:2347:C:C5	2:A8:2382:G:C4	2.94	0.55
1:A7:57:A:C4	1:A7:58:A:C8	2.95	0.55
2:A8:1021:A:H61	2:A8:1142:A:H61	1.52	0.55
2:A8:1949:G:C5	2:A8:1950:G:C5	2.94	0.55
36:BA:60:A:H5'	36:BA:387:U:H4'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:63:A:H2'	2:A8:64:A:C8	2.41	0.55
36:BA:304:U:H2'	36:BA:305:G:C8	2.42	0.55
2:A8:1655:A:C6	2:A8:1656:C:C2	2.94	0.55
14:AJ:22:GLY:H	14:AJ:62:VAL:HA	1.72	0.55
2:A8:599:A:H5''	9:AE:24:ASN:HD22	1.71	0.55
2:A8:196:A:OP1	2:A8:198:C:C4	2.60	0.55
2:A8:2461:A:C2	2:A8:2491:U:O4	2.59	0.55
2:A8:1652:A:OP2	2:A8:1653:G:C6	2.59	0.55
2:A8:2721:A:H1'	2:A8:2873:A:C8	2.42	0.55
2:A8:1171:G:C6	2:A8:1172:C:C4	2.95	0.55
2:A8:2662:A:H3'	2:A8:2663:G:H8	1.72	0.55
2:A8:1553:A:C6	2:A8:1555:G:H1'	2.42	0.55
2:A8:1342:A:C6	2:A8:1345:C:C2	2.95	0.55
54:BS:15:LEU:HA	54:BS:18:VAL:HB	1.87	0.55
2:A8:1642:G:C6	2:A8:1643:G:C5	2.94	0.55
2:A8:2273:A:C2	2:A8:2274:A:C4	2.95	0.55
36:BA:1439:G:N2	36:BA:1440:U:H1'	2.21	0.55
2:A8:2410:G:C6	2:A8:2411:A:C5	2.95	0.55
2:A8:1483:G:C6	2:A8:1484:U:C4	2.95	0.55
2:A8:1858:A:H61	2:A8:1884:G:H1'	1.72	0.55
2:A8:1451:C:H1'	2:A8:1452:G:C5	2.42	0.55
2:A8:463:G:C2	2:A8:467:G:C5	2.94	0.55
36:BA:1053:G:C2	36:BA:1056:U:C4	2.94	0.55
2:A8:527:C:H6	14:AJ:116:ARG:HH22	1.55	0.55
36:BA:666:G:C2	36:BA:741:G:C4	2.94	0.55
36:BA:864:A:H2'	36:BA:865:A:C1'	2.37	0.55
36:BA:656:G:H2'	36:BA:657:U:C6	2.41	0.55
36:BA:1259:C:C5	36:BA:1260:G:C8	2.95	0.55
36:BA:42:G:H21	36:BA:622:A:H1'	1.72	0.55
36:BA:665:A:C5	36:BA:733:G:C5	2.95	0.55
36:BA:960:U:H6	36:BA:1222:G:HO2'	1.54	0.55
2:A8:1684:G:C6	2:A8:1685:C:C4	2.94	0.55
2:A8:2659:G:N2	2:A8:2661:G:H3'	2.22	0.55
2:A8:1831:G:C6	2:A8:1832:C:C4	2.94	0.55
36:BA:461:A:C6	36:BA:473:U:H1'	2.42	0.55
2:A8:768:G:C6	2:A8:769:U:C4	2.95	0.55
40:BE:93:VAL:HB	40:BE:138:ALA:HB2	1.89	0.55
36:BA:1377:A:H61	42:BG:9:ARG:CZ	2.20	0.55
2:A8:2051:A:OP2	2:A8:2051:A:C8	2.60	0.55
2:A8:2378:A:C5	2:A8:2379:G:H1'	2.42	0.55
2:A8:877:A:C2	2:A8:878:A:H1'	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1024:G:C6	2:A8:1025:G:C6	2.95	0.55
2:A8:1720:U:C4	2:A8:1721:G:C5	2.95	0.55
2:A8:89:A:C5	2:A8:90:U:C5	2.94	0.55
2:A8:695:G:C5	2:A8:768:G:C6	2.95	0.55
2:A8:2307:G:H1	10:AF:40:GLY:HA2	1.72	0.55
2:A8:852:U:C5'	30:AZ:45:GLY:HA3	2.37	0.55
2:A8:851:C:H4'	30:AZ:46:MET:HA	1.89	0.55
42:BG:98:LEU:HD23	42:BG:101:ARG:HH11	1.71	0.55
36:BA:904:U:H2'	36:BA:905:U:C6	2.43	0.54
2:A8:2779:U:C6	2:A8:2781:A:C2	2.95	0.54
36:BA:852:G:C6	36:BA:853:C:C4	2.94	0.54
2:A8:2097:A:C2	2:A8:2098:U:C2	2.94	0.54
2:A8:2744:G:C6	2:A8:2745:C:C5	2.95	0.54
2:A8:638:G:H1'	2:A8:652:U:C5'	2.37	0.54
36:BA:713:G:H2'	36:BA:714:G:C8	2.42	0.54
2:A8:1676:A:C6	2:A8:1677:A:C6	2.95	0.54
2:A8:1417:C:H1'	2:A8:1586:A:H61	1.72	0.54
12:AH:114:GLU:CB	12:AH:133:GLN:H	2.21	0.54
36:BA:408:A:H3'	36:BA:409:U:C6	2.42	0.54
2:A8:756:A:C2	2:A8:757:G:H1'	2.42	0.54
2:A8:757:G:C6	2:A8:758:C:C6	2.95	0.54
2:A8:898:C:C4	2:A8:899:A:C8	2.95	0.54
36:BA:568:G:H21	36:BA:574:A:H1'	1.72	0.54
2:A8:2410:G:C4	2:A8:2411:A:C8	2.95	0.54
2:A8:2692:G:C6	2:A8:2718:G:C6	2.95	0.54
2:A8:1717:A:C6	2:A8:1718:G:C4	2.95	0.54
1:A7:67:G:C6	1:A7:68:C:C4	2.95	0.54
2:A8:1787:A:C5	2:A8:1788:C:C5	2.96	0.54
36:BA:697:U:C5	36:BA:698:G:C8	2.95	0.54
2:A8:822:G:C6	2:A8:836:G:C5	2.95	0.54
36:BA:105:G:C5	36:BA:106:C:C5	2.94	0.54
36:BA:446:G:C2	36:BA:489:C:C2	2.95	0.54
2:A8:1678:A:H2'	2:A8:1679:A:C8	2.42	0.54
36:BA:1118:U:H1'	36:BA:1179:A:C8	2.41	0.54
36:BA:898:G:C2	36:BA:902:G:C5	2.95	0.54
2:A8:2247:A:C5	2:A8:2248:C:C5	2.94	0.54
36:BA:892:A:H61	36:BA:906:A:H2'	1.72	0.54
36:BA:688:G:H1'	36:BA:704:A:C2	2.43	0.54
36:BA:518:C:C5	36:BA:529:G:C8	2.95	0.54
36:BA:1415:G:C4	36:BA:1416:G:C8	2.96	0.54
2:A8:1845:G:C6	2:A8:1896:G:C6	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1769:U:H2'	2:A8:1770:G:C8	2.42	0.54
2:A8:1786:A:H62	2:A8:1983:G:H1'	1.72	0.54
2:A8:612:G:C2	2:A8:617:G:C6	2.95	0.54
2:A8:1269:A:H2'	2:A8:1270:C:C6	2.42	0.54
2:A8:2816:G:C6	2:A8:2817:U:C4	2.95	0.54
36:BA:258:G:C6	36:BA:269:C:C2	2.95	0.54
2:A8:2789:C:C4	2:A8:2893:A:C5	2.95	0.54
2:A8:950:G:C6	2:A8:951:C:C5	2.95	0.54
2:A8:493:G:C6	2:A8:494:G:C5	2.94	0.54
2:A8:812:C:H1'	2:A8:1250:G:C2	2.41	0.54
2:A8:1492:G:H1	2:A8:1498:C:H42	1.54	0.54
36:BA:986:U:H2'	36:BA:987:G:C8	2.43	0.54
2:A8:471:A:C5	2:A8:472:A:C5	2.95	0.54
2:A8:910:A:C6	17:AM:13:HIS:CE1	2.96	0.54
36:BA:318:G:C4	36:BA:336:A:C2	2.96	0.54
2:A8:692:C:C2	2:A8:771:G:C2	2.95	0.54
2:A8:2618:G:H21	8:AD:155:VAL:HG11	1.72	0.54
2:A8:990:A:C5	2:A8:1186:G:H4'	2.42	0.54
2:A8:346:A:H3'	2:A8:347:A:C8	2.43	0.54
2:A8:1742:U:C2	2:A8:1743:G:C8	2.96	0.54
2:A8:1182:G:C6	2:A8:1183:U:C4	2.95	0.54
2:A8:1309:G:H21	2:A8:1611:C:H5'	1.72	0.54
2:A8:2543:G:C6	2:A8:2544:G:C5	2.96	0.54
15:AK:23:VAL:HG21	15:AK:32:ALA:HA	1.90	0.54
21:AQ:49:ARG:HH12	22:AR:74:ILE:HA	1.72	0.54
2:A8:1902:C:C5	2:A8:1903:G:C8	2.95	0.54
36:BA:516:U:C4	36:BA:517:G:C6	2.95	0.54
36:BA:852:G:C5	36:BA:853:C:C5	2.95	0.54
2:A8:2463:C:C2	2:A8:2488:G:C2	2.95	0.54
2:A8:270:A:H1'	2:A8:370:G:N2	2.22	0.54
2:A8:1483:G:C2	2:A8:1507:C:O2	2.60	0.54
2:A8:476:G:H22	2:A8:478:A:H3'	1.73	0.54
2:A8:1000:A:C8	2:A8:1154:G:N2	2.75	0.54
2:A8:1860:G:C2	2:A8:1883:U:H1'	2.42	0.54
2:A8:629:G:C6	2:A8:630:G:C5	2.95	0.54
2:A8:301:G:C4	2:A8:317:G:C2	2.95	0.54
2:A8:2639:A:H1'	2:A8:2778:A:C2	2.42	0.54
2:A8:1310:G:H2'	2:A8:1311:G:H5'	1.87	0.54
2:A8:1671:U:H1'	8:AD:134:HIS:CE1	2.43	0.54
2:A8:2248:C:C5	2:A8:2249:U:C4	2.96	0.54
36:BA:790:A:C6	36:BA:791:G:C6	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AE:144:GLU:H	9:AE:185:LYS:HD2	1.72	0.54
2:A8:86:G:C2	2:A8:97:C:C2	2.95	0.54
2:A8:1854:A:H4'	2:A8:2233:U:H4'	1.90	0.54
36:BA:1239:A:H62	36:BA:1299:A:N6	2.06	0.54
36:BA:522:C:H1'	36:BA:536:C:C5'	2.37	0.54
36:BA:1413:A:C2	36:BA:1488:G:N3	2.76	0.54
36:BA:1439:G:C5	36:BA:1440:U:C4	2.96	0.54
2:A8:238:C:C4'	2:A8:609:A:H4'	2.38	0.54
2:A8:642:U:O2	2:A8:644:A:H3'	2.07	0.54
2:A8:684:G:C2	2:A8:794:A:C2	2.96	0.54
2:A8:2269:G:N2	27:AW:20:LEU:HD12	2.23	0.54
2:A8:1440:U:O2	2:A8:1552:A:C8	2.61	0.54
2:A8:1688:U:C2	2:A8:1698:A:C2	2.95	0.54
2:A8:1422:G:C2	2:A8:1577:C:C2	2.95	0.54
19:AO:30:ARG:HH11	19:AO:102:ARG:HB2	1.73	0.54
2:A8:1331:G:H1'	2:A8:1609:A:H61	1.71	0.54
9:AE:48:THR:HA	9:AE:83:VAL:HB	1.90	0.54
33:A2:24:THR:HG23	33:A2:27:GLY:HA3	1.90	0.54
6:A5:63:THR:HB	6:A5:195:ALA:HB2	1.88	0.54
40:BE:16:ALA:HB3	40:BE:34:ALA:HA	1.90	0.54
2:A8:2121:G:H21	6:A5:166:ASP:CG	2.11	0.54
2:A8:1252:G:C2	2:A8:1253:A:C2	2.96	0.54
2:A8:2347:C:H5'	2:A8:2382:G:O4'	2.08	0.54
2:A8:2796:U:C2	2:A8:2798:U:C2	2.96	0.54
2:A8:1791:A:C8	2:A8:1792:G:C8	2.96	0.54
2:A8:275:C:C5	2:A8:276:U:C5	2.96	0.54
2:A8:2097:A:C5	2:A8:2193:G:C2	2.96	0.54
26:AV:79:ARG:HA	26:AV:86:LEU:HD23	1.90	0.54
2:A8:35:G:C6	2:A8:446:G:N2	2.76	0.54
14:AJ:71:ASP:CB	14:AJ:89:PHE:HB3	2.38	0.54
2:A8:2341:G:C6	2:A8:2342:C:C4	2.96	0.54
2:A8:1906:G:H5''	2:A8:1929:G:C8	2.43	0.54
36:BA:71:A:C2	36:BA:100:G:O4'	2.61	0.54
2:A8:71:A:C2	2:A8:114:U:H1'	2.43	0.54
36:BA:895:G:C5	36:BA:896:C:C5	2.95	0.54
2:A8:483:A:C8	25:AU:44:HIS:ND1	2.76	0.54
36:BA:836:G:C2	36:BA:837:U:H1'	2.43	0.54
2:A8:2721:A:C2	2:A8:2722:G:H1'	2.43	0.54
2:A8:1717:A:H61	2:A8:1743:G:C2'	2.20	0.54
2:A8:2207:C:C2	2:A8:2218:G:C2	2.96	0.54
36:BA:258:G:C8	36:BA:258:G:H5'	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2813:A:C2	2:A8:2888:C:C2	2.95	0.54
2:A8:1689:A:C8	2:A8:1700:A:C5	2.96	0.54
2:A8:1496:A:H3'	2:A8:1498:C:H41	1.73	0.54
2:A8:662:G:H2'	2:A8:663:G:C8	2.43	0.54
2:A8:964:C:O2	2:A8:2273:A:C2	2.61	0.54
36:BA:71:A:H61	36:BA:99:C:H1'	1.73	0.54
2:A8:2298:A:C6	2:A8:2299:U:C2	2.95	0.54
2:A8:2714:G:C5	2:A8:2715:C:C5	2.96	0.54
2:A8:529:A:C5'	2:A8:2042:A:H61	2.20	0.54
36:BA:768:A:C5	36:BA:769:G:C8	2.96	0.54
2:A8:498:G:N3	25:AU:44:HIS:CE1	2.76	0.54
36:BA:1479:C:C2	36:BA:1480:A:C8	2.95	0.54
2:A8:1776:G:C2	2:A8:1777:U:C6	2.96	0.54
2:A8:1082:U:C4	2:A8:1086:A:C2	2.95	0.54
2:A8:370:G:C8	2:A8:423:A:OP2	2.61	0.54
36:BA:697:U:C4	36:BA:698:G:C8	2.95	0.54
2:A8:2658:C:C4	2:A8:2659:G:C5	2.96	0.54
2:A8:2832:U:C5	2:A8:2883:A:C8	2.95	0.54
41:BF:3:HIS:H	41:BF:92:THR:HG23	1.72	0.54
2:A8:2790:U:C6	2:A8:2790:U:H3'	2.43	0.54
36:BA:838:G:C6	36:BA:839:C:C4	2.96	0.54
2:A8:2340:A:C2	2:A8:2341:G:C5	2.96	0.54
2:A8:752:A:C2	2:A8:1781:U:H1'	2.43	0.54
2:A8:1292:G:H22	18:AN:30:ARG:HH22	1.56	0.54
2:A8:107:G:H21	2:A8:346:A:H62	1.55	0.54
2:A8:80:G:H21	2:A8:294:A:H1'	1.73	0.54
2:A8:1723:G:H3'	2:A8:1724:G:H8	1.72	0.54
36:BA:12:U:H4'	36:BA:526:C:C4'	2.38	0.54
2:A8:17:G:H2'	2:A8:18:U:C6	2.42	0.54
2:A8:1766:G:C6	2:A8:1987:A:C6	2.95	0.54
2:A8:925:A:C6	2:A8:926:G:C5	2.96	0.54
2:A8:816:C:C2	2:A8:1192:G:C2	2.96	0.54
47:BL:108:ASP:H	47:BL:118:VAL:HB	1.71	0.54
14:AJ:57:LEU:HA	14:AJ:125:TYR:HB2	1.90	0.54
2:A8:2536:G:C5	2:A8:2537:U:C4	2.96	0.54
36:BA:113:G:H2'	36:BA:114:U:C6	2.43	0.53
36:BA:700:G:C8	36:BA:700:G:H5'	2.44	0.53
36:BA:1392:G:C2	36:BA:1393:U:C2	2.96	0.53
2:A8:2093:G:HO2'	2:A8:2198:A:H2	1.55	0.53
1:A7:81:G:C5	1:A7:96:G:C2	2.96	0.53
2:A8:627:A:C4	2:A8:637:A:C2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1033:U:H3'	2:A8:1034:G:H5''	1.90	0.53
2:A8:1184:U:H2'	2:A8:1185:G:C8	2.44	0.53
2:A8:2263:C:H41	27:AW:12:GLY:HA3	1.72	0.53
2:A8:457:A:H61	2:A8:470:A:H5''	1.73	0.53
2:A8:1386:C:H2'	2:A8:1387:A:C8	2.42	0.53
2:A8:687:C:C5	2:A8:788:A:C4	2.96	0.53
2:A8:1344:U:H4'	2:A8:1384:A:C5	2.43	0.53
1:A7:30:C:C6	1:A7:31:C:C6	2.96	0.53
2:A8:1138:G:C4	2:A8:1139:G:H1'	2.43	0.53
2:A8:1062:G:C6	2:A8:1077:A:C6	2.96	0.53
1:A7:69:G:C2	1:A7:70:C:C1'	2.91	0.53
2:A8:1419:A:C8	2:A8:1579:A:C6	2.96	0.53
2:A8:1059:G:H21	13:AI:127:SER:HA	1.73	0.53
8:AD:138:LEU:HA	8:AD:140:HIS:CE1	2.43	0.53
7:A6:1:ALA:H2	7:A6:201:LEU:HB2	1.73	0.53
22:AR:61:ALA:HB1	22:AR:98:ILE:H	1.73	0.53
36:BA:509:A:C2	36:BA:510:A:C2	2.95	0.53
2:A8:2710:C:H2'	2:A8:2711:A:O4'	2.08	0.53
2:A8:2192:U:H5''	2:A8:2192:U:C6	2.43	0.53
36:BA:120:A:H4'	36:BA:121:U:C4	2.43	0.53
2:A8:649:G:C8	2:A8:650:C:C5	2.96	0.53
2:A8:2468:A:H2'	2:A8:2476:A:N1	2.22	0.53
2:A8:2811:G:C6	2:A8:2812:G:C5	2.97	0.53
2:A8:1224:U:H4'	22:AR:88:GLY:H	1.74	0.53
2:A8:1620:G:C5	2:A8:1621:U:C5	2.96	0.53
36:BA:673:A:H2'	36:BA:674:G:C8	2.43	0.53
2:A8:954:G:C5	2:A8:955:U:C6	2.96	0.53
56:BU:44:ARG:H	56:BU:44:ARG:HD2	1.73	0.53
2:A8:350:G:C5	2:A8:351:C:C5	2.96	0.53
14:AJ:3:THR:HG21	14:AJ:44:TYR:CZ	2.43	0.53
2:A8:2854:G:C6	2:A8:2864:G:C6	2.96	0.53
36:BA:1016:A:C5	36:BA:1017:U:H1'	2.43	0.53
2:A8:1590:A:C2	2:A8:1591:A:C4	2.96	0.53
11:AG:89:VAL:HB	11:AG:160:GLY:H	1.73	0.53
24:AT:12:ARG:HH22	24:AT:81:LYS:H	1.57	0.53
36:BA:861:G:C5	36:BA:862:C:C4	2.96	0.53
2:A8:2373:G:C2	2:A8:2381:A:C2	2.96	0.53
2:A8:974:G:H5''	2:A8:1186:G:H21	1.73	0.53
2:A8:742:A:C6	2:A8:743:A:C5	2.96	0.53
36:BA:814:A:H5'	36:BA:1511:G:H4'	1.90	0.53
36:BA:1072:G:C6	36:BA:1073:U:C4	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1478:U:H2'	36:BA:1479:C:C6	2.43	0.53
2:A8:1717:A:C2	2:A8:1744:A:C4	2.96	0.53
2:A8:2071:A:C2	2:A8:2441:U:N3	2.77	0.53
2:A8:2097:A:C6	2:A8:2193:G:C2	2.97	0.53
2:A8:413:C:H2'	2:A8:414:C:C6	2.44	0.53
36:BA:771:G:C2	36:BA:809:G:C4	2.96	0.53
2:A8:2533:U:C5	2:A8:2534:A:C8	2.96	0.53
2:A8:2186:G:C2	2:A8:2187:U:H1'	2.44	0.53
2:A8:1445:G:C5	2:A8:1446:C:C5	2.96	0.53
2:A8:303:G:C4	2:A8:315:G:C2	2.96	0.53
12:AH:1:MET:HG2	12:AH:3:VAL:H	1.73	0.53
2:A8:2281:A:H4'	2:A8:2388:A:C6	2.44	0.53
37:BB:205:ALA:HB3	37:BB:208:ALA:HB3	1.90	0.53
36:BA:68:G:C2	36:BA:69:G:H1'	2.44	0.53
2:A8:809:G:H2'	2:A8:810:U:C6	2.44	0.53
36:BA:518:C:H2'	36:BA:530:G:C4	2.44	0.53
36:BA:1108:G:C6	36:BA:1109:C:C4	2.97	0.53
36:BA:248:C:H4'	36:BA:283:U:H4'	1.89	0.53
2:A8:2675:A:H61	2:A8:2732:G:H1	1.57	0.53
2:A8:2718:G:C2	2:A8:2719:G:H1'	2.43	0.53
36:BA:453:G:H3'	36:BA:454:G:H8	1.74	0.53
2:A8:2531:A:C4	2:A8:2532:G:C8	2.95	0.53
36:BA:582:C:C2	36:BA:760:G:C6	2.96	0.53
2:A8:2809:A:H62	2:A8:2890:G:H2'	1.73	0.53
2:A8:1310:G:N7	2:A8:1311:G:C4	2.76	0.53
2:A8:1873:G:C5	2:A8:1874:C:C5	2.97	0.53
2:A8:1654:A:C8	2:A8:2005:A:C2	2.97	0.53
36:BA:790:A:H2'	36:BA:791:G:C8	2.43	0.53
2:A8:13:A:C2	2:A8:526:A:C8	2.96	0.53
2:A8:2394:C:C5	2:A8:2395:C:C4	2.97	0.53
2:A8:2330:G:C6	2:A8:2331:G:C4	2.97	0.53
2:A8:1947:C:C2	2:A8:1960:A:C2	2.96	0.53
2:A8:1772:A:C4	2:A8:1980:G:C2	2.97	0.53
2:A8:2674:G:C5	2:A8:2675:A:C5	2.97	0.53
2:A8:416:U:C2	2:A8:417:C:C6	2.97	0.53
2:A8:2468:A:C2	2:A8:2482:A:OP2	2.62	0.53
2:A8:2264:C:C2	2:A8:2277:G:C2	2.96	0.53
2:A8:1220:G:C2	2:A8:1230:A:C4	2.96	0.53
36:BA:666:G:C5	36:BA:741:G:C6	2.96	0.53
2:A8:1697:G:C6	2:A8:1698:A:C5	2.97	0.53
2:A8:1987:A:C6	2:A8:1988:G:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:462:G:H2'	36:BA:463:U:C6	2.44	0.53
2:A8:962:G:H21	2:A8:2250:G:H1	1.55	0.53
2:A8:291:G:C5	2:A8:350:G:C6	2.97	0.53
2:A8:156:A:C2	2:A8:171:U:C2	2.96	0.53
13:AI:109:ALA:HB2	13:AI:125:THR:HA	1.90	0.53
36:BA:8:A:C2	40:BE:106:ALA:HA	2.43	0.53
54:BS:62:THR:HG23	54:BS:64:GLU:H	1.74	0.53
2:A8:2037:A:C2	2:A8:2038:G:C4	2.97	0.53
2:A8:1758:U:C6	2:A8:2695:U:H4'	2.44	0.53
2:A8:2800:A:C5	2:A8:2801:G:H1'	2.44	0.53
36:BA:369:G:C4	36:BA:393:A:C2	2.96	0.53
2:A8:1537:G:C6	2:A8:1538:G:H1'	2.43	0.53
2:A8:579:G:C6	2:A8:580:U:C4	2.97	0.53
2:A8:2597:G:C6	2:A8:2598:A:C6	2.97	0.53
2:A8:2887:A:H62	31:A0:39:ARG:HD3	1.73	0.53
2:A8:244:A:C6	2:A8:255:A:C8	2.97	0.53
2:A8:1499:C:C2	2:A8:1500:G:C8	2.96	0.53
36:BA:707:U:H5''	46:BK:21:HIS:CB	2.39	0.53
2:A8:189:G:C2'	2:A8:207:A:H61	2.21	0.53
2:A8:852:U:C4	2:A8:853:C:C4	2.96	0.53
36:BA:1518:A:H2'	36:BA:1519:A:C8	2.43	0.53
2:A8:1807:G:C2	2:A8:1811:G:C5	2.97	0.53
51:BP:9:HIS:CD2	51:BP:16:PHE:CD1	2.97	0.53
2:A8:1938:A:C5	2:A8:2590:A:H1'	2.44	0.53
18:AN:38:LEU:HA	18:AN:111:ALA:HB2	1.91	0.53
2:A8:1901:A:H2'	2:A8:1902:C:C5	2.43	0.53
2:A8:1383:A:C5	2:A8:1406:U:H1'	2.44	0.53
2:A8:1407:G:C2	2:A8:1596:A:C2	2.97	0.53
2:A8:2317:A:H3'	2:A8:2318:G:H8	1.73	0.53
1:A7:75:G:H1'	26:AV:29:ILE:HD13	1.90	0.53
36:BA:453:G:C5	36:BA:454:G:C5	2.96	0.53
2:A8:2216:G:C2	2:A8:2217:G:C4	2.96	0.53
2:A8:475:C:C4	2:A8:476:G:C5	2.97	0.53
2:A8:1003:G:C2	2:A8:1004:U:C6	2.97	0.53
36:BA:785:G:C2	36:BA:798:U:C2	2.97	0.53
2:A8:2659:G:C2	2:A8:2663:G:C6	2.96	0.53
2:A8:1450:G:C2	2:A8:1451:C:C5	2.96	0.53
2:A8:632:A:C5	2:A8:633:A:C5	2.97	0.53
39:BD:129:VAL:HG12	39:BD:130:ASN:H	1.74	0.53
48:BM:92:ARG:HB3	48:BM:94:LEU:HD12	1.90	0.53
21:AQ:60:TRP:CE2	21:AQ:93:ILE:HB	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BD:87:GLU:HA	39:BD:187:ARG:HH11	1.74	0.53
40:BE:22:LYS:H	40:BE:29:ILE:HB	1.74	0.53
2:A8:250:G:C6	2:A8:251:A:C6	2.96	0.53
2:A8:310:A:C2	2:A8:312:G:H1'	2.44	0.53
36:BA:852:G:C5	36:BA:853:C:C4	2.96	0.53
2:A8:2437:G:C2	2:A8:2438:U:C2	2.96	0.53
2:A8:2437:G:C6	2:A8:2438:U:C4	2.97	0.53
36:BA:695:A:C2	36:BA:696:A:C4	2.97	0.53
2:A8:768:G:C5	2:A8:769:U:C5	2.97	0.53
2:A8:285:G:C2	2:A8:356:G:C4	2.97	0.53
2:A8:932:U:H4'	2:A8:933:A:C4	2.44	0.53
43:BH:48:PHE:HA	43:BH:60:LEU:HA	1.91	0.53
2:A8:155:A:C2	2:A8:172:A:C4	2.97	0.53
38:BC:111:ASP:HB3	38:BC:114:LEU:H	1.74	0.53
2:A8:1913:A:C5	36:BA:1494:G:C8	2.97	0.53
2:A8:1842:G:C5	2:A8:1843:C:C4	2.97	0.53
2:A8:1890:A:H4'	2:A8:2086:U:H4'	1.91	0.53
2:A8:2627:G:C5	2:A8:2628:C:C4	2.97	0.53
1:A7:76:G:H5''	26:AV:13:GLY:H	1.73	0.53
2:A8:1210:G:H22	2:A8:1237:A:H5''	1.74	0.53
2:A8:373:U:H2'	2:A8:374:A:C8	2.43	0.53
2:A8:422:A:H3'	2:A8:423:A:H8	1.74	0.53
2:A8:278:A:H1'	2:A8:362:A:C4	2.44	0.53
36:BA:614:C:C6	36:BA:614:C:H3'	2.44	0.53
36:BA:809:G:C5	36:BA:810:C:C5	2.97	0.53
2:A8:301:G:C2	2:A8:317:G:C4	2.97	0.53
38:BC:155:ARG:H	38:BC:162:ALA:HA	1.74	0.53
2:A8:48:G:C2	2:A8:178:G:C5	2.97	0.53
2:A8:1608:A:C4	2:A8:1611:C:C5	2.97	0.53
2:A8:122:G:C4	2:A8:123:G:C8	2.97	0.53
2:A8:2004:G:H3'	2:A8:2005:A:C8	2.44	0.53
2:A8:2183:A:H2'	2:A8:2184:A:C8	2.44	0.53
23:AS:86:MET:O	23:AS:93:ALA:HA	2.09	0.53
2:A8:1901:A:H2'	2:A8:1902:C:C6	2.44	0.52
2:A8:1910:G:C2	2:A8:1911:U:C2	2.97	0.52
35:A4:7:VAL:HG21	35:A4:23:ILE:CG2	2.39	0.52
2:A8:2697:G:C6	2:A8:2711:A:C2	2.97	0.52
2:A8:649:G:N7	2:A8:650:C:C5	2.77	0.52
36:BA:741:G:C6	36:BA:742:G:C5	2.97	0.52
2:A8:2543:G:C6	2:A8:2544:G:C6	2.97	0.52
2:A8:1578:U:C2	2:A8:1579:A:C8	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BK:18:GLY:HA2	46:BK:36:ARG:H	1.74	0.52
2:A8:2787:C:H5'	8:AD:66:GLY:HA3	1.92	0.52
36:BA:1430:A:C2	36:BA:1471:U:C2	2.97	0.52
37:BB:72:LYS:HG2	37:BB:163:ILE:HG21	1.92	0.52
2:A8:1916:A:C5	2:A8:1917:U:C4	2.98	0.52
2:A8:2268:A:C8	2:A8:2268:A:H3'	2.44	0.52
2:A8:917:A:C6	2:A8:918:A:C4	2.97	0.52
36:BA:1088:G:C2	36:BA:1098:C:C2	2.97	0.52
36:BA:297:G:H4'	36:BA:557:G:H4'	1.91	0.52
2:A8:1054:A:C2	2:A8:1106:G:C6	2.98	0.52
2:A8:416:U:C4	2:A8:417:C:C4	2.98	0.52
2:A8:2718:G:C5	2:A8:2719:G:C8	2.97	0.52
2:A8:2262:U:C2	2:A8:2279:G:C2	2.98	0.52
2:A8:993:G:C6	2:A8:994:C:C4	2.97	0.52
2:A8:1196:C:H4'	2:A8:1226:A:C6	2.44	0.52
36:BA:655:A:C2	36:BA:754:C:C4	2.97	0.52
36:BA:1375:A:C2	36:BA:1376:U:C2	2.98	0.52
25:AU:87:GLU:H	25:AU:87:GLU:CD	2.12	0.52
36:BA:918:A:H2'	36:BA:919:A:C8	2.43	0.52
15:AK:67:GLY:HA3	15:AK:77:ARG:HA	1.91	0.52
2:A8:680:C:C2	2:A8:798:G:C2	2.97	0.52
2:A8:1921:G:C2	2:A8:1922:G:C8	2.97	0.52
36:BA:112:G:C2	36:BA:330:C:C5	2.97	0.52
2:A8:1521:G:C5	2:A8:1522:A:C6	2.98	0.52
2:A8:2714:G:H8	2:A8:2714:G:O5'	1.92	0.52
2:A8:2489:U:C4	2:A8:2490:G:C6	2.97	0.52
36:BA:51:A:C2	36:BA:116:A:C4	2.97	0.52
2:A8:2674:G:C6	2:A8:2675:A:C6	2.97	0.52
2:A8:2091:C:H3'	2:A8:2092:U:C5'	2.40	0.52
36:BA:131:A:C2	36:BA:132:C:C2	2.96	0.52
2:A8:1525:A:H3'	2:A8:1526:C:C6	2.44	0.52
2:A8:693:A:H2'	2:A8:694:U:C6	2.45	0.52
40:BE:18:ASN:O	40:BE:32:PHE:HA	2.09	0.52
2:A8:2256:G:C6	2:A8:2257:U:C4	2.97	0.52
2:A8:2177:C:H4'	6:A5:172:HIS:CE1	2.45	0.52
2:A8:2335:A:C5	2:A8:2337:G:C8	2.97	0.52
36:BA:729:A:C2	36:BA:765:G:H4'	2.45	0.52
2:A8:860:U:C2	2:A8:2268:A:C8	2.97	0.52
36:BA:1488:G:C2	36:BA:1489:G:C8	2.97	0.52
2:A8:1210:G:C6	2:A8:1237:A:C2	2.97	0.52
36:BA:1439:G:C2	36:BA:1440:U:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:420:C:H2'	2:A8:421:C:C6	2.44	0.52
36:BA:980:C:H3'	36:BA:981:U:C6	2.44	0.52
2:A8:705:A:H2'	2:A8:706:A:C8	2.44	0.52
2:A8:1429:G:H2'	2:A8:1430:G:C8	2.44	0.52
2:A8:946:C:H2'	2:A8:947:A:C8	2.43	0.52
2:A8:52:A:C4	2:A8:118:A:C2	2.98	0.52
2:A8:836:G:C6	2:A8:837:C:C2	2.97	0.52
2:A8:1831:G:C2	2:A8:1832:C:C2	2.98	0.52
2:A8:1620:G:C6	2:A8:1621:U:C5	2.97	0.52
2:A8:1385:A:C4	2:A8:1403:A:C2	2.97	0.52
36:BA:1169:A:H2'	36:BA:1170:A:O4'	2.09	0.52
36:BA:1179:A:H4'	44:BI:104:THR:HA	1.91	0.52
36:BA:1470:U:H2'	36:BA:1471:U:C6	2.45	0.52
36:BA:607:A:H2'	36:BA:608:A:C8	2.45	0.52
2:A8:1926:U:O2	2:A8:1928:A:C8	2.62	0.52
2:A8:1852:U:H1'	2:A8:1890:A:H61	1.75	0.52
2:A8:2884:U:H2'	2:A8:2885:G:C8	2.45	0.52
2:A8:2797:U:C5	2:A8:2800:A:H2	2.27	0.52
36:BA:246:A:C4	36:BA:282:A:C6	2.98	0.52
2:A8:1707:G:C4	2:A8:1756:G:C2	2.97	0.52
2:A8:2516:A:C6	2:A8:2569:G:C6	2.97	0.52
36:BA:117:G:C4	36:BA:118:U:H6	2.27	0.52
1:A7:14:U:C3'	1:A7:15:A:H5'	2.39	0.52
36:BA:455:G:C2	36:BA:478:A:C2	2.98	0.52
2:A8:690:G:H1'	2:A8:779:U:H4'	1.92	0.52
2:A8:2655:G:C5	2:A8:2664:G:C5	2.97	0.52
2:A8:1764:C:C4	2:A8:1765:U:C5	2.98	0.52
2:A8:597:G:H21	16:AL:12:SER:HA	1.74	0.52
2:A8:2846:G:H5''	20:AP:52:ARG:CZ	2.39	0.52
2:A8:853:C:C4	2:A8:854:C:C5	2.98	0.52
36:BA:52:C:C4	36:BA:53:A:C6	2.97	0.52
36:BA:507:C:C4	36:BA:508:U:C4	2.96	0.52
2:A8:56:A:C2	2:A8:57:C:C2	2.97	0.52
2:A8:2346:A:H3'	2:A8:2347:C:H5''	1.91	0.52
36:BA:181:A:HO2'	36:BA:194:C:H5	1.53	0.52
36:BA:182:A:H2	36:BA:194:C:H42	1.55	0.52
2:A8:1276:A:OP2	2:A8:1645:G:C4	2.62	0.52
36:BA:892:A:N6	36:BA:906:A:H2'	2.24	0.52
2:A8:874:G:C2	2:A8:875:G:H1'	2.44	0.52
2:A8:194:G:H3'	2:A8:195:A:C8	2.45	0.52
2:A8:2094:A:H1'	2:A8:2198:A:H61	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2677:G:C6	2:A8:2731:G:C5	2.98	0.52
2:A8:2469:A:C8	2:A8:2482:A:C6	2.98	0.52
2:A8:519:U:H4'	23:AS:25:ARG:HH22	1.74	0.52
2:A8:1242:U:C4	2:A8:1243:C:C4	2.98	0.52
2:A8:1444:G:C6	2:A8:1445:G:C5	2.97	0.52
2:A8:1223:G:C6	2:A8:1227:G:C6	2.97	0.52
2:A8:187:G:H21	2:A8:1365:A:H61	1.56	0.52
36:BA:789:U:H1'	36:BA:792:A:C8	2.45	0.52
2:A8:291:G:C4	2:A8:350:G:C6	2.98	0.52
47:BL:75:GLU:HB2	47:BL:76:HIS:CE1	2.45	0.52
2:A8:1814:G:C6	2:A8:1815:A:C6	2.98	0.52
37:BB:82:ALA:HA	37:BB:213:LEU:HD22	1.91	0.52
2:A8:1115:G:C2	2:A8:1116:G:C4	2.98	0.52
36:BA:1499:A:C1'	36:BA:1520:C:H5'	2.40	0.52
36:BA:592:G:C6	36:BA:593:U:C4	2.98	0.52
2:A8:2124:G:H21	6:A5:217:THR:HA	1.74	0.52
36:BA:414:A:H5'	36:BA:428:G:N2	2.25	0.52
2:A8:198:C:O5'	2:A8:198:C:C6	2.63	0.52
36:BA:1109:C:C5	36:BA:1110:A:C5	2.98	0.52
36:BA:853:C:C4	36:BA:854:U:C4	2.97	0.52
2:A8:2461:A:H1'	2:A8:2492:U:C2	2.45	0.52
36:BA:801:U:H2'	36:BA:802:A:C8	2.45	0.52
2:A8:2531:A:C2	2:A8:2532:G:H1'	2.45	0.52
2:A8:2662:A:H3'	2:A8:2663:G:C8	2.45	0.52
2:A8:2637:U:H2'	2:A8:2638:G:H5'	1.91	0.52
36:BA:444:G:C6	36:BA:445:G:C5	2.98	0.52
36:BA:718:A:C6	36:BA:719:C:C2	2.98	0.52
36:BA:441:A:C2	36:BA:497:G:C5	2.97	0.52
2:A8:734:A:C2	2:A8:735:A:H1'	2.45	0.52
14:AJ:71:ASP:HB2	14:AJ:89:PHE:HB3	1.91	0.52
2:A8:1116:G:C5	2:A8:1117:C:C5	2.98	0.52
22:AR:24:LYS:HB2	22:AR:92:TRP:HB3	1.92	0.52
2:A8:2838:G:H21	18:AN:45:ARG:HH22	1.57	0.52
36:BA:835:U:H5''	53:BR:52:ARG:HH12	1.75	0.52
7:A6:90:ILE:HG22	7:A6:91:ALA:H	1.74	0.52
35:A4:7:VAL:HG21	35:A4:23:ILE:HG22	1.92	0.52
2:A8:1296:G:C4	2:A8:1645:G:C2	2.98	0.52
2:A8:1750:G:C5	2:A8:1751:U:C5	2.98	0.52
36:BA:1068:G:C6	36:BA:1069:C:C4	2.97	0.52
36:BA:1095:U:H5'	36:BA:1109:C:O2	2.08	0.52
36:BA:565:U:C4	36:BA:566:G:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1000:A:C2	2:A8:1001:A:C4	2.97	0.52
2:A8:1659:G:N2	2:A8:1660:G:H1'	2.24	0.52
2:A8:1787:A:C4	2:A8:1788:C:C6	2.98	0.52
39:BD:115:GLN:HG3	39:BD:119:HIS:CD2	2.45	0.52
2:A8:2661:G:C6	2:A8:2662:A:C6	2.98	0.52
2:A8:66:C:C2	2:A8:89:A:C6	2.97	0.52
41:BF:92:THR:O	41:BF:96:VAL:HG23	2.10	0.52
2:A8:1241:A:H3'	2:A8:1242:U:C6	2.44	0.52
7:A6:93:VAL:HG21	7:A6:95:TYR:CZ	2.45	0.52
2:A8:35:G:C6	2:A8:36:G:C5	2.97	0.52
2:A8:687:C:C6	2:A8:687:C:O5'	2.63	0.52
2:A8:633:A:C5	2:A8:634:C:H1'	2.45	0.52
36:BA:1238:A:H5'	36:BA:1336:C:H41	1.75	0.52
36:BA:1054:C:C5	36:BA:1196:A:C5	2.98	0.52
36:BA:1162:C:C2	36:BA:1175:G:C2	2.98	0.52
2:A8:184:C:C2	2:A8:213:A:C6	2.98	0.52
36:BA:675:A:H1'	46:BK:117:HIS:CG	2.45	0.52
2:A8:1344:U:H5'	2:A8:1384:A:C2	2.44	0.52
2:A8:2369:A:C2	2:A8:2370:G:C4	2.97	0.52
2:A8:2298:A:C6	2:A8:2321:U:C5	2.97	0.52
2:A8:1749:A:C2	2:A8:1750:G:C4	2.98	0.52
2:A8:1136:G:C6	2:A8:1137:G:C5	2.98	0.52
36:BA:851:G:C4	36:BA:852:G:C8	2.98	0.52
2:A8:489:G:H4'	2:A8:490:C:C5	2.45	0.52
2:A8:2461:A:H2'	2:A8:2462:C:C6	2.45	0.52
2:A8:226:A:H1'	2:A8:230:G:C2	2.45	0.52
2:A8:602:A:H1'	2:A8:656:G:C2	2.45	0.52
2:A8:108:G:C6	2:A8:109:C:C4	2.98	0.52
2:A8:1535:A:H5''	2:A8:1536:C:C6	2.45	0.52
2:A8:24:G:H1'	23:AS:77:ASP:HB3	1.92	0.52
2:A8:1620:G:C6	2:A8:1621:U:C4	2.98	0.52
36:BA:469:C:C5	36:BA:470:C:C4	2.97	0.52
2:A8:1366:A:H3'	2:A8:1367:A:C8	2.45	0.52
36:BA:337:G:C2	36:BA:338:A:C4	2.98	0.52
54:BS:12:LEU:HD12	54:BS:15:LEU:HD23	1.91	0.52
36:BA:1318:A:H62	49:BN:57:SER:HB2	1.74	0.52
2:A8:2572:A:N7	8:AD:150:GLN:HB3	2.25	0.52
2:A8:2496:C:C5	2:A8:2497:A:C6	2.98	0.52
44:BI:44:ARG:HE	44:BI:48:ARG:HH21	1.57	0.52
2:A8:1488:C:C2	2:A8:1502:A:C2	2.98	0.52
2:A8:2898:U:H2'	2:A8:2899:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:858:G:N1	36:BA:869:G:H3'	2.24	0.52
2:A8:569:U:C4	2:A8:570:G:C5	2.97	0.52
2:A8:2243:U:O2	2:A8:2434:A:C2	2.62	0.52
2:A8:312:G:N2	2:A8:1211:C:H42	2.07	0.52
36:BA:329:A:C8	36:BA:332:G:C6	2.98	0.52
36:BA:1423:G:C5	36:BA:1424:U:C5	2.98	0.52
36:BA:565:U:H3'	36:BA:566:G:H2'	1.92	0.52
2:A8:485:C:C2	2:A8:496:G:C2	2.98	0.52
36:BA:117:G:H3'	36:BA:118:U:C5	2.45	0.52
36:BA:614:C:H2'	36:BA:615:G:H5'	1.92	0.52
27:AW:30:VAL:HB	27:AW:59:PHE:CE2	2.44	0.52
36:BA:390:U:H2'	36:BA:391:G:C8	2.44	0.52
2:A8:640:C:C5	2:A8:641:U:C4	2.98	0.52
36:BA:250:A:H1'	36:BA:252:U:N1	2.25	0.52
36:BA:257:G:N2	36:BA:270:A:C4	2.78	0.52
2:A8:1120:G:C2	2:A8:1121:C:C2	2.98	0.52
2:A8:2809:A:N6	2:A8:2891:U:H4'	2.24	0.52
36:BA:617:G:C2	36:BA:618:C:C6	2.98	0.52
2:A8:1042:G:C6	2:A8:1043:C:C4	2.98	0.52
20:AP:32:VAL:HG12	20:AP:34:GLY:H	1.75	0.52
36:BA:342:C:C2	36:BA:348:G:C2	2.97	0.52
2:A8:1910:G:C2	2:A8:1921:G:C4	2.98	0.51
2:A8:80:G:H1'	2:A8:346:A:C5	2.45	0.51
2:A8:2694:G:C5	2:A8:2695:U:C5	2.99	0.51
1:A7:51:G:H2'	1:A7:52:A:H5''	1.92	0.51
2:A8:860:U:C4	2:A8:2268:A:C4	2.98	0.51
2:A8:620:G:H1'	2:A8:622:G:C6	2.45	0.51
2:A8:1176:U:C5	2:A8:1177:G:C4	2.98	0.51
2:A8:303:G:C6	2:A8:315:G:C6	2.97	0.51
2:A8:1039:A:C6	2:A8:1040:A:C5	2.98	0.51
36:BA:1237:C:H2'	36:BA:1336:C:C5	2.44	0.51
2:A8:2495:G:C5	2:A8:2496:C:C5	2.99	0.51
36:BA:1058:G:C5	36:BA:1059:C:C5	2.98	0.51
11:AG:101:VAL:HA	11:AG:115:GLN:HA	1.92	0.51
36:BA:1320:C:C4	54:BS:35:ARG:HB2	2.45	0.51
2:A8:144:A:C2	2:A8:145:C:C2	2.98	0.51
36:BA:80:A:C2	36:BA:90:C:C2	2.98	0.51
36:BA:171:A:C2	36:BA:172:A:C2	2.98	0.51
36:BA:859:G:C2	36:BA:860:A:C4	2.98	0.51
2:A8:2239:G:C5	2:A8:2240:U:C5	2.98	0.51
2:A8:2115:G:H3'	2:A8:2116:G:C5'	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1292:G:C6	2:A8:1293:C:C4	2.98	0.51
2:A8:197:A:C5	2:A8:198:C:C5	2.98	0.51
2:A8:1024:G:C3'	2:A8:1025:G:H5''	2.40	0.51
2:A8:2796:U:H3'	2:A8:2798:U:H3	1.75	0.51
36:BA:1489:G:C2	36:BA:1490:U:C2	2.98	0.51
2:A8:2259:U:O5'	2:A8:2259:U:H6	1.93	0.51
2:A8:1312:U:C6	24:AT:65:GLY:HA2	2.46	0.51
2:A8:2543:G:C6	2:A8:2765:A:C5	2.99	0.51
2:A8:2842:G:N2	2:A8:2876:G:C4	2.78	0.51
2:A8:188:G:C5	2:A8:189:G:C5	2.99	0.51
2:A8:2004:G:H3'	2:A8:2005:A:H8	1.73	0.51
2:A8:2839:G:C5	2:A8:2840:C:C5	2.98	0.51
20:AP:51:ASN:H	20:AP:57:ALA:H	1.56	0.51
2:A8:2756:U:H1'	2:A8:2757:A:H5''	1.92	0.51
36:BA:681:A:C4	36:BA:710:G:C2	2.98	0.51
2:A8:95:A:C2	2:A8:96:C:C2	2.97	0.51
2:A8:1837:C:C2	2:A8:1904:G:C2	2.98	0.51
2:A8:55:G:C2	2:A8:56:A:C8	2.99	0.51
2:A8:1889:A:C4	2:A8:1890:A:C8	2.98	0.51
2:A8:2432:A:H3'	2:A8:2433:A:C8	2.44	0.51
2:A8:975:A:C8	2:A8:990:A:N6	2.79	0.51
2:A8:527:C:C6	2:A8:528:A:C2	2.98	0.51
2:A8:2446:G:C6	2:A8:2501:C:H2'	2.46	0.51
1:A7:69:G:C2	1:A7:70:C:H1'	2.46	0.51
2:A8:1503:A:C6	2:A8:1504:A:C5	2.98	0.51
2:A8:1174:U:H5'	2:A8:1175:A:C2	2.45	0.51
2:A8:1164:C:H2'	2:A8:1165:A:O4'	2.11	0.51
2:A8:515:A:C8	2:A8:516:C:C5	2.98	0.51
2:A8:2473:U:C5	2:A8:2474:U:N3	2.78	0.51
2:A8:2812:G:C2	2:A8:2889:C:C2	2.98	0.51
2:A8:244:A:C2	2:A8:255:A:C4	2.99	0.51
2:A8:811:U:H2'	16:AL:21:ARG:HA	1.92	0.51
2:A8:1827:U:H5'	2:A8:1971:U:H4'	1.92	0.51
2:A8:1988:G:C6	2:A8:1989:G:C4	2.98	0.51
2:A8:1818:U:H4'	2:A8:1821:A:H1'	1.92	0.51
2:A8:1355:G:C6	2:A8:1377:G:C2	2.98	0.51
2:A8:468:G:C6	2:A8:469:G:C4	2.99	0.51
2:A8:895:U:H2'	2:A8:897:C:C5	2.46	0.51
2:A8:7:G:C6	2:A8:8:C:C4	2.98	0.51
2:A8:577:G:H2'	2:A8:578:G:C8	2.45	0.51
36:BA:775:G:C2	36:BA:776:G:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:860:A:H3'	36:BA:861:G:C8	2.46	0.51
2:A8:2082:A:C5	2:A8:2239:G:C2	2.98	0.51
1:A7:29:A:C2	1:A7:30:C:C2	2.99	0.51
36:BA:1426:G:C5	36:BA:1427:C:C5	2.98	0.51
2:A8:2461:A:C5	2:A8:2462:C:C4	2.98	0.51
2:A8:231:A:C5	2:A8:232:G:C5	2.98	0.51
2:A8:2097:A:C5	2:A8:2098:U:C5	2.99	0.51
1:A7:16:G:C2	1:A7:69:G:C4	2.98	0.51
2:A8:815:C:C2	2:A8:1193:G:C2	2.98	0.51
2:A8:1808:A:H3'	2:A8:1809:A:C8	2.46	0.51
40:BE:47:PHE:H	40:BE:66:ALA:HA	1.75	0.51
2:A8:2046:G:C4	2:A8:2623:G:N2	2.78	0.51
36:BA:356:A:H1'	36:BA:388:G:N2	2.26	0.51
2:A8:2122:U:H2'	2:A8:2123:G:C8	2.45	0.51
2:A8:1406:U:H2'	2:A8:1407:G:C8	2.46	0.51
2:A8:1596:A:C2	2:A8:1597:A:C4	2.99	0.51
36:BA:874:G:C6	36:BA:875:U:C4	2.99	0.51
2:A8:2082:A:C8	2:A8:2239:G:N2	2.79	0.51
35:A4:25:VAL:H	35:A4:35:GLN:HB3	1.75	0.51
2:A8:312:G:C2	2:A8:313:G:C8	2.98	0.51
36:BA:1332:A:H2'	36:BA:1333:A:C8	2.46	0.51
2:A8:881:G:C6	2:A8:882:G:C4	2.98	0.51
2:A8:2626:C:C2	2:A8:2627:G:C8	2.99	0.51
36:BA:519:C:N4	36:BA:533:A:H61	2.08	0.51
36:BA:1507:A:C2	36:BA:1508:A:C4	2.99	0.51
2:A8:9:G:H21	2:A8:10:A:H61	1.56	0.51
2:A8:1770:G:C6	2:A8:1771:C:C4	2.98	0.51
2:A8:1950:G:C8	2:A8:1951:U:C5	2.99	0.51
2:A8:2692:G:C2	2:A8:2718:G:C2	2.98	0.51
2:A8:279:A:C6	2:A8:280:U:C2	2.98	0.51
2:A8:1321:A:H61	2:A8:1334:G:C4'	2.22	0.51
2:A8:628:G:C6	2:A8:636:G:C2	2.98	0.51
2:A8:647:G:C6	2:A8:648:G:C5	2.98	0.51
36:BA:696:A:C5	36:BA:697:U:C5	2.99	0.51
2:A8:1429:G:C2	2:A8:1430:G:C4	2.99	0.51
2:A8:1445:G:C4	2:A8:1446:C:C6	2.99	0.51
2:A8:545:U:H3	2:A8:549:G:C1'	2.24	0.51
2:A8:1544:A:C6	2:A8:1545:A:C6	2.99	0.51
2:A8:695:G:C2	2:A8:768:G:C4	2.98	0.51
2:A8:132:G:C2	2:A8:148:U:C2	2.98	0.51
36:BA:665:A:C8	36:BA:725:G:C2	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:727:G:C6	36:BA:731:G:C6	2.99	0.51
2:A8:855:G:C4	2:A8:923:G:C2	2.99	0.51
28:AX:64:ASP:HA	28:AX:67:LEU:HB2	1.93	0.51
2:A8:532:A:H4'	2:A8:533:G:C8	2.45	0.51
36:BA:49:U:H3	36:BA:362:G:H1'	1.76	0.51
36:BA:1278:G:C4	36:BA:1278:G:H5'	2.46	0.51
2:A8:1388:G:C2	2:A8:1389:G:C4	2.99	0.51
2:A8:2735:G:C2	2:A8:2770:G:H1'	2.46	0.51
36:BA:98:A:H2'	36:BA:99:C:C6	2.46	0.51
2:A8:2345:G:C6	2:A8:2381:A:C6	2.98	0.51
2:A8:1571:A:H2'	2:A8:1572:A:C8	2.45	0.51
36:BA:1477:U:H2'	36:BA:1478:U:C6	2.46	0.51
2:A8:1770:G:C5	2:A8:1771:C:C4	2.99	0.51
36:BA:116:A:C4	36:BA:117:G:C8	2.99	0.51
2:A8:2673:G:C2	2:A8:2674:G:C4	2.99	0.51
2:A8:278:A:H2	2:A8:361:G:H2'	1.74	0.51
2:A8:2745:C:H3'	2:A8:2746:U:C6	2.45	0.51
2:A8:780:G:H1'	2:A8:785:G:C2	2.46	0.51
2:A8:2660:A:H2'	2:A8:2661:G:C8	2.46	0.51
36:BA:233:C:O4'	36:BA:263:A:C2	2.64	0.51
36:BA:266:G:OP2	36:BA:267:C:C5	2.64	0.51
2:A8:492:A:C2	23:AS:7:HIS:HE1	2.29	0.51
2:A8:244:A:C6	2:A8:245:G:C4	2.99	0.51
2:A8:291:G:C2	2:A8:350:G:C4	2.99	0.51
30:AZ:41:PRO:HA	30:AZ:44:ARG:HB2	1.93	0.51
1:A7:49:C:H5''	19:AO:101:GLY:HA3	1.93	0.51
23:AS:60:HIS:CE1	23:AS:61:ASN:OD1	2.64	0.51
27:AW:43:LYS:HZ1	27:AW:77:LYS:HB3	1.76	0.51
2:A8:1651:G:C2	2:A8:2007:U:C2	2.99	0.51
36:BA:325:A:C5	36:BA:326:G:C6	2.99	0.51
36:BA:1513:A:C2	36:BA:1514:G:C8	2.99	0.51
36:BA:1106:G:C6	36:BA:1107:C:C5	2.98	0.51
2:A8:2065:C:H1'	2:A8:2449:U:H3	1.75	0.51
2:A8:2097:A:C6	2:A8:2098:U:C4	2.99	0.51
2:A8:2218:G:C5	2:A8:2219:U:C5	2.99	0.51
2:A8:638:G:H1'	2:A8:652:U:H5'	1.93	0.51
2:A8:2661:G:C5	2:A8:2662:A:C5	2.99	0.51
2:A8:2588:G:C6	2:A8:2607:G:C5	2.99	0.51
2:A8:930:G:C2	2:A8:933:A:C5	2.98	0.51
2:A8:189:G:H2'	2:A8:207:A:H61	1.75	0.51
2:A8:1640:A:C6	2:A8:1641:A:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:71:THR:HA	37:BB:163:ILE:HG22	1.93	0.51
36:BA:361:G:H2'	36:BA:362:G:O4'	2.11	0.51
36:BA:951:G:H1'	36:BA:971:G:H5'	1.93	0.51
36:BA:145:G:N2	36:BA:178:C:C2	2.79	0.51
36:BA:1431:A:C5	36:BA:1432:G:C5	2.99	0.51
51:BP:54:LEU:HA	51:BP:57:ILE:HG22	1.91	0.51
2:A8:2399:G:C2	2:A8:2418:A:C4	2.99	0.51
8:AD:72:GLY:H	8:AD:92:VAL:HA	1.75	0.51
36:BA:755:G:C2	36:BA:756:C:C5	2.98	0.51
21:AQ:13:HIS:CD2	21:AQ:31:TYR:CG	2.99	0.51
2:A8:1924:C:C2	2:A8:1925:C:C6	2.99	0.51
2:A8:2345:G:C8	2:A8:2381:A:C2	2.99	0.51
2:A8:2242:G:C6	2:A8:2243:U:C4	2.98	0.51
36:BA:1307:U:C4	36:BA:1308:U:C4	2.99	0.51
2:A8:905:A:C6	2:A8:906:U:C4	2.99	0.51
36:BA:515:G:C5	36:BA:516:U:C5	2.98	0.51
36:BA:1415:G:C2	36:BA:1486:G:C4	2.98	0.51
36:BA:242:G:N1	36:BA:245:U:C4	2.79	0.51
2:A8:2674:G:C6	2:A8:2675:A:C5	2.99	0.51
2:A8:1266:G:H22	2:A8:2012:G:H2'	1.74	0.51
36:BA:761:G:O5'	36:BA:761:G:C8	2.64	0.51
2:A8:2263:C:H41	27:AW:12:GLY:CA	2.23	0.51
36:BA:202:G:O2'	36:BA:468:A:H8	1.93	0.51
2:A8:204:A:O3'	2:A8:205:G:H4'	2.11	0.51
36:BA:345:C:H1'	36:BA:346:G:C2	2.46	0.51
36:BA:774:G:N2	36:BA:775:G:H1'	2.26	0.51
36:BA:1357:A:C5	36:BA:1358:U:C4	2.98	0.51
42:BG:137:ARG:HG3	42:BG:141:HIS:CE1	2.46	0.51
14:AJ:131:ASN:OD1	14:AJ:132:HIS:CE1	2.64	0.51
2:A8:1926:U:H1'	2:A8:1929:G:C6	2.45	0.51
2:A8:1383:A:C4	2:A8:1406:U:H1'	2.46	0.51
36:BA:700:G:C8	36:BA:700:G:C5'	2.94	0.51
36:BA:517:G:H21	36:BA:529:G:H4'	1.76	0.51
2:A8:917:A:C2	2:A8:918:A:H1'	2.46	0.51
2:A8:1139:G:C5	2:A8:1140:C:C5	2.99	0.51
36:BA:284:C:H2'	36:BA:285:C:C6	2.46	0.51
2:A8:2648:G:C6	2:A8:2649:C:C4	2.99	0.51
2:A8:2402:U:C4	2:A8:2405:G:N7	2.79	0.51
2:A8:407:G:C2	2:A8:421:C:C2	2.99	0.51
2:A8:705:A:C2	2:A8:727:A:O4'	2.63	0.51
2:A8:2663:G:C6	2:A8:2664:G:C4	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:270:A:C2	36:BA:271:C:C2	2.98	0.51
38:BC:155:ARG:HE	38:BC:160:GLU:HA	1.75	0.51
2:A8:559:G:C6	2:A8:560:C:C4	2.98	0.51
2:A8:185:G:C6	2:A8:212:G:C6	2.99	0.51
2:A8:2839:G:C6	2:A8:2840:C:C4	2.99	0.51
36:BA:833:G:C2	36:BA:834:U:C2	2.99	0.51
2:A8:2736:A:C2	2:A8:2769:U:H1'	2.46	0.51
11:AG:106:LEU:HD23	11:AG:161:VAL:HG23	1.92	0.51
36:BA:162:A:C5	36:BA:163:C:H1'	2.46	0.51
2:A8:1271:G:C8	2:A8:1325:U:C4	2.99	0.51
7:A6:64:VAL:HG12	7:A6:65:ASP:H	1.76	0.51
2:A8:563:A:H2'	2:A8:564:C:C6	2.46	0.51
14:AJ:50:THR:H	14:AJ:118:MET:HE1	1.75	0.51
6:A5:46:VAL:HG13	6:A5:212:VAL:HG22	1.91	0.51
2:A8:1908:C:C4	2:A8:1909:C:C5	2.99	0.51
2:A8:1519:G:C6	2:A8:1520:U:C4	2.99	0.51
36:BA:1108:G:C4	36:BA:1109:C:C6	2.99	0.51
36:BA:564:C:C5	36:BA:565:U:C4	2.99	0.51
36:BA:560:A:C2	36:BA:566:G:H5'	2.46	0.51
2:A8:167:A:C2	2:A8:168:G:H1'	2.46	0.51
2:A8:611:C:C4	2:A8:612:G:C5	2.99	0.51
2:A8:613:A:OP2	2:A8:614:A:C5	2.64	0.51
36:BA:696:A:C6	36:BA:697:U:C4	2.99	0.51
2:A8:959:A:C5	2:A8:960:A:C5	2.99	0.51
36:BA:251:G:H4'	36:BA:252:U:H5'	1.92	0.51
36:BA:258:G:C5	36:BA:259:G:C8	2.99	0.51
2:A8:493:G:H2'	2:A8:494:G:O4'	2.11	0.51
2:A8:814:C:C2	2:A8:1194:A:C2	2.98	0.51
2:A8:1973:G:C6	2:A8:1974:C:C4	2.98	0.51
2:A8:1342:A:C6	2:A8:1397:U:C5	2.99	0.51
2:A8:1766:G:C2	2:A8:1987:A:C4	2.99	0.51
36:BA:213:G:C2	36:BA:214:C:H1'	2.46	0.51
37:BB:71:THR:HB	37:BB:92:ASN:HA	1.92	0.51
9:AE:1:MET:SD	9:AE:114:ARG:HA	2.51	0.51
36:BA:155:A:C2	36:BA:167:A:C4	2.99	0.51
24:AT:23:ALA:HA	24:AT:26:LYS:HG3	1.93	0.51
36:BA:825:A:C2	36:BA:876:C:C2	2.99	0.51
2:A8:45:G:H2'	2:A8:215:G:C6	2.46	0.51
2:A8:2553:G:C4	2:A8:2554:U:H1'	2.46	0.51
2:A8:2229:U:O2	28:AX:33:HIS:CE1	2.63	0.51
2:A8:1926:U:H1'	2:A8:1929:G:C5	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:346:A:C2	2:A8:347:A:C6	2.99	0.50
1:A7:100:G:C5'	2:A8:916:G:H4'	2.40	0.50
36:BA:1090:U:H2'	36:BA:1091:U:C6	2.46	0.50
36:BA:1426:G:C6	36:BA:1475:G:C6	2.98	0.50
2:A8:1072:C:H42	2:A8:1092:C:N4	2.09	0.50
2:A8:2402:U:H1'	2:A8:2404:U:H5	1.74	0.50
2:A8:228:C:C5	2:A8:2408:U:H5'	2.46	0.50
2:A8:2279:G:C5	2:A8:2280:G:C8	2.99	0.50
2:A8:1000:A:C6	2:A8:1001:A:C6	2.99	0.50
36:BA:760:G:H3'	36:BA:761:G:H8	1.76	0.50
2:A8:221:A:C2	2:A8:233:A:C5	2.99	0.50
2:A8:2267:A:C8	2:A8:2267:A:H3'	2.46	0.50
36:BA:936:C:H2'	36:BA:937:A:H8	1.77	0.50
2:A8:1223:G:C5	2:A8:1227:G:C6	2.98	0.50
2:A8:1466:U:H5'	2:A8:1545:A:C2	2.46	0.50
2:A8:1690:A:H3'	2:A8:1691:C:H6	1.76	0.50
2:A8:2637:U:C2'	2:A8:2638:G:H5'	2.41	0.50
2:A8:187:G:C6	2:A8:188:G:C5	2.98	0.50
1:A7:23:G:C2	1:A7:61:G:C2	2.99	0.50
2:A8:1870:C:H3'	2:A8:1871:A:C8	2.46	0.50
2:A8:85:G:H21	2:A8:103:A:H1'	1.77	0.50
2:A8:2293:G:C2	2:A8:2340:A:C2	2.99	0.50
2:A8:1820:U:H5''	2:A8:1821:A:C8	2.47	0.50
36:BA:967:C:C6	36:BA:968:A:H2'	2.46	0.50
36:BA:160:A:H1'	36:BA:344:A:C4	2.46	0.50
2:A8:1189:A:C2	2:A8:1190:G:H1'	2.46	0.50
36:BA:324:G:C2	36:BA:326:G:H3'	2.46	0.50
36:BA:903:G:C6	36:BA:904:U:C4	2.99	0.50
2:A8:1709:U:C2	2:A8:1750:G:C2	2.99	0.50
36:BA:515:G:C6	36:BA:516:U:C4	2.98	0.50
36:BA:1501:C:H3'	36:BA:1504:G:N7	2.27	0.50
53:BR:69:TYR:HB2	53:BR:73:HIS:CE1	2.45	0.50
36:BA:759:A:H4'	36:BA:881:G:H5''	1.93	0.50
36:BA:615:G:C5	36:BA:626:G:C6	2.99	0.50
2:A8:931:U:C4	2:A8:1182:G:N2	2.79	0.50
2:A8:1334:G:C5	2:A8:1335:C:C5	2.99	0.50
2:A8:780:G:C2	2:A8:785:G:C6	3.00	0.50
2:A8:580:U:H2'	2:A8:581:C:C6	2.46	0.50
36:BA:539:A:C2	36:BA:540:G:C4	3.00	0.50
2:A8:666:A:H4'	16:AL:48:ARG:CZ	2.42	0.50
2:A8:1548:A:C2	2:A8:1549:A:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:814:C:H4'	2:A8:1224:U:H3	1.77	0.50
2:A8:1423:G:H4'	2:A8:1492:G:H21	1.77	0.50
36:BA:706:A:H2'	36:BA:707:U:C6	2.46	0.50
2:A8:2679:A:C2	2:A8:2729:G:C5	2.98	0.50
36:BA:917:G:C2	36:BA:918:A:C5	3.00	0.50
2:A8:1115:G:C6	2:A8:1116:G:C5	2.99	0.50
2:A8:1995:U:H3'	2:A8:1996:C:H2'	1.93	0.50
36:BA:1134:G:C6	36:BA:1141:C:C4	2.99	0.50
38:BC:31:ASN:HB3	38:BC:58:ARG:HH22	1.76	0.50
2:A8:1694:C:H4'	2:A8:1695:G:C5'	2.41	0.50
36:BA:71:A:N1	36:BA:72:A:C5	2.80	0.50
2:A8:2037:A:H2'	2:A8:2038:G:C8	2.46	0.50
36:BA:322:C:H2'	36:BA:323:U:C6	2.46	0.50
2:A8:2710:C:C4	2:A8:2711:A:C5	2.99	0.50
36:BA:537:G:C2	36:BA:538:G:C4	2.99	0.50
36:BA:769:G:H4'	36:BA:1513:A:C5'	2.41	0.50
1:A7:78:A:C4	1:A7:99:A:C5	2.99	0.50
36:BA:1421:G:H1	36:BA:1479:C:H42	1.58	0.50
2:A8:2648:G:C5	2:A8:2649:C:C5	2.99	0.50
2:A8:2415:G:C8	2:A8:2415:G:O5'	2.64	0.50
2:A8:2690:U:H3	2:A8:2873:A:H5''	1.77	0.50
2:A8:2071:A:C5	2:A8:2072:C:C4	2.99	0.50
2:A8:167:A:H3'	2:A8:168:G:H8	1.76	0.50
2:A8:604:G:C6	2:A8:605:G:C5	2.99	0.50
2:A8:79:C:C2	2:A8:108:G:C2	2.99	0.50
2:A8:63:A:C2	2:A8:91:A:C8	2.99	0.50
36:BA:1451:U:C6	36:BA:1453:G:N7	2.79	0.50
2:A8:710:U:H2'	2:A8:711:G:C8	2.46	0.50
2:A8:493:G:H1'	23:AS:7:HIS:CE1	2.45	0.50
2:A8:936:A:C2	2:A8:937:C:C2	2.99	0.50
36:BA:1219:A:C6	36:BA:1220:G:C6	3.00	0.50
2:A8:1336:A:C2	2:A8:1337:G:C4	2.99	0.50
2:A8:1685:C:H2'	2:A8:1686:C:O4'	2.11	0.50
2:A8:35:G:C6	2:A8:36:G:C4	2.99	0.50
40:BE:96:GLN:HE21	40:BE:96:GLN:HA	1.76	0.50
1:A7:42:C:C2	1:A7:43:C:H1'	2.46	0.50
26:AV:16:ALA:HA	26:AV:19:ARG:HE	1.77	0.50
2:A8:1016:G:C2	2:A8:1147:A:C4	3.00	0.50
39:BD:97:LEU:O	39:BD:101:VAL:HG23	2.11	0.50
37:BB:14:HIS:CE1	37:BB:42:LEU:HG	2.47	0.50
54:BS:31:ARG:HG3	54:BS:56:HIS:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BL:37:TYR:CE1	47:BL:51:VAL:HG13	2.46	0.50
2:A8:2177:C:H4'	6:A5:172:HIS:HE1	1.75	0.50
2:A8:2331:G:H1'	27:AW:40:ARG:HH22	1.76	0.50
36:BA:1306:A:C2	36:BA:1332:A:H1'	2.46	0.50
2:A8:2709:G:C5	2:A8:2710:C:C4	3.00	0.50
2:A8:2627:G:C6	2:A8:2777:G:C6	3.00	0.50
2:A8:1731:G:C4	2:A8:1733:G:C8	2.99	0.50
36:BA:730:G:H2'	36:BA:766:A:H5'	1.93	0.50
36:BA:1102:A:H2'	36:BA:1103:C:C6	2.45	0.50
36:BA:836:G:C4	36:BA:851:G:C2	2.98	0.50
2:A8:1099:G:C5	13:AI:4:VAL:HG23	2.46	0.50
2:A8:1950:G:N2	2:A8:1957:C:C2	2.80	0.50
2:A8:161:A:H1'	2:A8:2208:C:H1'	1.93	0.50
2:A8:1227:G:C6	2:A8:1228:G:C5	2.99	0.50
7:A6:76:VAL:CG2	7:A6:94:LEU:H	2.25	0.50
2:A8:1310:G:N2	2:A8:1610:A:C8	2.79	0.50
2:A8:188:G:C6	2:A8:189:G:C5	3.00	0.50
2:A8:1581:G:C2	2:A8:1582:C:C2	3.00	0.50
2:A8:2255:G:C6	2:A8:2256:G:C6	3.00	0.50
36:BA:1499:A:H1'	36:BA:1520:C:H5'	1.93	0.50
36:BA:834:U:H2'	36:BA:835:U:C6	2.47	0.50
2:A8:1388:G:C6	2:A8:1389:G:C6	2.99	0.50
2:A8:2735:G:N1	2:A8:2770:G:H1'	2.27	0.50
37:BB:184:ALA:H	37:BB:198:VAL:HG11	1.75	0.50
10:AF:56:LEU:HD21	10:AF:88:VAL:HG21	1.94	0.50
36:BA:100:G:C5	36:BA:101:A:C5	2.99	0.50
2:A8:1383:A:H2	2:A8:1405:U:O2	1.94	0.50
2:A8:1276:A:C2	2:A8:1277:G:C4	3.00	0.50
2:A8:879:G:H1'	2:A8:900:A:C5	2.46	0.50
2:A8:1710:G:C2	2:A8:1749:A:C2	3.00	0.50
2:A8:2693:G:C2	2:A8:2694:G:C8	2.99	0.50
2:A8:2625:G:H3'	2:A8:2626:C:C6	2.47	0.50
2:A8:1724:G:C5	2:A8:1725:U:C5	3.00	0.50
12:AH:27:ARG:HE	28:AX:35:HIS:CE1	2.29	0.50
2:A8:1023:U:C5	2:A8:1024:G:C5	3.00	0.50
2:A8:1932:A:C2	2:A8:1933:G:H1'	2.47	0.50
2:A8:1940:U:H4'	2:A8:1965:C:H5	1.75	0.50
36:BA:652:U:H1'	36:BA:653:U:C6	2.46	0.50
2:A8:2205:A:C2	2:A8:2206:C:C2	2.99	0.50
2:A8:1171:G:C2	2:A8:1179:G:C2	3.00	0.50
2:A8:775:G:C5	2:A8:794:A:C8	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:980:C:C5	36:BA:981:U:C2	3.00	0.50
36:BA:1450:U:H2'	36:BA:1452:C:C4	2.46	0.50
2:A8:2599:G:C6	2:A8:2600:A:C5	3.00	0.50
2:A8:2834:G:N1	2:A8:2879:A:H2'	2.27	0.50
36:BA:795:C:C5	36:BA:796:C:C6	3.00	0.50
2:A8:315:G:C2	2:A8:316:C:C2	2.99	0.50
2:A8:2357:G:C2	2:A8:2361:G:C5	3.00	0.50
36:BA:675:A:H1'	46:BK:117:HIS:CD2	2.46	0.50
2:A8:1011:G:C6	2:A8:1151:A:C6	3.00	0.50
2:A8:377:G:C2	2:A8:398:C:C2	3.00	0.50
36:BA:114:U:H1'	36:BA:353:A:H1'	1.94	0.50
2:A8:2237:G:H2'	2:A8:2239:G:C6	2.47	0.50
1:A7:30:C:C5	1:A7:31:C:C5	3.00	0.50
1:A7:58:A:C2	1:A7:59:A:H1'	2.46	0.50
36:BA:1301:U:C2	36:BA:1303:C:C6	3.00	0.50
2:A8:2697:G:C5	2:A8:2698:U:C4	3.00	0.50
36:BA:926:G:H2'	36:BA:1505:G:H1'	1.94	0.50
2:A8:2592:G:H2'	2:A8:2593:U:H5'	1.94	0.50
2:A8:268:C:C2	2:A8:425:G:C2	2.99	0.50
2:A8:410:G:H2'	2:A8:2407:A:C8	2.46	0.50
2:A8:2191:A:H3'	2:A8:2192:U:H6	1.76	0.50
2:A8:2260:C:H2'	2:A8:2261:C:H6	1.77	0.50
2:A8:2219:U:C4	2:A8:2220:U:C4	3.00	0.50
36:BA:394:G:C5	36:BA:395:C:C5	3.00	0.50
2:A8:1563:U:H2'	2:A8:1564:C:C6	2.47	0.50
2:A8:2278:A:H5''	27:AW:8:SER:HA	1.91	0.50
2:A8:966:G:H5'	2:A8:2272:U:H1'	1.93	0.50
2:A8:2250:G:H2'	17:AM:82:MET:H	1.76	0.50
36:BA:793:U:C4	36:BA:1517:G:H5'	2.46	0.50
2:A8:2256:G:C5	2:A8:2257:U:C5	3.00	0.50
47:BL:49:ARG:HB3	47:BL:65:TYR:CE2	2.46	0.50
43:BH:27:PRO:HA	43:BH:57:GLU:HA	1.94	0.50
36:BA:887:G:C2	36:BA:911:U:C2	2.99	0.50
36:BA:110:C:H3'	36:BA:111:G:C8	2.47	0.50
2:A8:1596:A:C6	2:A8:1597:A:C5	3.00	0.50
2:A8:1889:A:C6	2:A8:1890:A:C4	2.99	0.50
2:A8:1752:C:H2'	2:A8:1753:G:C8	2.46	0.50
2:A8:2041:U:O5'	2:A8:2041:U:H6	1.95	0.50
36:BA:1105:A:C2	36:BA:1106:G:C8	3.00	0.50
2:A8:2409:G:C2	2:A8:2410:G:C4	3.00	0.50
1:A7:16:G:N2	1:A7:17:C:C2	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A7:69:G:C8	1:A7:69:G:H5''	2.47	0.50
2:A8:776:G:H5''	2:A8:777:G:H8	1.76	0.50
2:A8:1866:A:C6	2:A8:1867:G:C4	2.99	0.50
2:A8:651:G:H5''	2:A8:651:G:C8	2.46	0.50
2:A8:1532:A:H2'	2:A8:1533:C:C6	2.46	0.50
2:A8:2594:C:C2	2:A8:2600:A:C2	2.99	0.50
41:BF:3:HIS:CD2	41:BF:95:ALA:HA	2.47	0.50
2:A8:1242:U:C6	2:A8:1242:U:O5'	2.65	0.50
2:A8:282:A:C2	2:A8:359:G:C2	2.99	0.50
2:A8:814:C:O2	2:A8:1194:A:C2	2.64	0.50
2:A8:1973:G:C5	2:A8:1974:C:C4	2.99	0.50
36:BA:707:U:H2'	36:BA:708:C:C6	2.47	0.50
2:A8:131:A:C2	2:A8:132:G:C4	3.00	0.50
2:A8:1685:C:C4	2:A8:1686:C:C5	2.99	0.50
2:A8:1684:G:C6	2:A8:1705:A:C6	3.00	0.50
2:A8:925:A:C2	2:A8:926:G:C4	2.99	0.50
2:A8:1016:G:C6	2:A8:1147:A:C6	3.00	0.50
2:A8:1016:G:C5	2:A8:1147:A:C6	3.00	0.50
2:A8:387:U:H5'	2:A8:387:U:H6	1.77	0.50
4:AB:57:PRO:HA	4:AB:60:TYR:HB2	1.93	0.50
19:AO:7:ARG:HE	19:AO:11:ALA:CB	2.25	0.50
36:BA:373:A:C2	36:BA:482:A:C2	2.99	0.50
2:A8:1805:A:C2	2:A8:1806:C:C2	3.00	0.50
2:A8:1917:U:C4	2:A8:1918:A:C5	2.99	0.50
2:A8:1917:U:O5'	2:A8:1917:U:H6	1.95	0.50
2:A8:294:A:C2	2:A8:346:A:N1	2.80	0.50
2:A8:740:C:C2	2:A8:1981:A:C2	3.00	0.50
2:A8:529:A:C8	2:A8:2023:C:C4	3.00	0.50
2:A8:194:G:H3'	2:A8:195:A:H8	1.76	0.50
2:A8:2430:A:H3'	2:A8:2431:U:C6	2.47	0.50
1:A7:79:G:H4'	2:A8:862:G:C4'	2.41	0.50
36:BA:27:G:C6	36:BA:557:G:C5	3.00	0.50
36:BA:882:C:N3	36:BA:883:C:C5	2.79	0.50
2:A8:675:A:C6	2:A8:676:A:C2	2.99	0.50
2:A8:1182:G:H2'	2:A8:1183:U:O4'	2.11	0.50
2:A8:2354:C:C1'	27:AW:30:VAL:HG11	2.41	0.50
2:A8:1880:U:H2'	2:A8:1881:C:C6	2.46	0.50
36:BA:270:A:C5	36:BA:271:C:C4	3.00	0.50
2:A8:1120:G:C6	2:A8:1121:C:C4	3.00	0.50
2:A8:536:G:C6	2:A8:537:G:C4	2.99	0.50
2:A8:1436:G:C2	2:A8:1557:C:C2	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1766:G:C4	2:A8:1987:A:C2	2.99	0.50
2:A8:1287:A:C5	2:A8:1288:G:C6	3.00	0.50
36:BA:142:G:C2	36:BA:143:A:C8	2.99	0.50
36:BA:1363:A:C5	36:BA:1365:G:C2	3.00	0.50
23:AS:72:THR:HG21	23:AS:108:SER:HB2	1.94	0.50
37:BB:75:ALA:HB3	37:BB:78:ALA:HB2	1.92	0.50
2:A8:2177:C:H4'	6:A5:170:ILE:HG12	1.94	0.50
2:A8:1570:A:H2'	2:A8:1571:A:C8	2.47	0.50
2:A8:917:A:C6	2:A8:918:A:C5	3.00	0.50
36:BA:283:U:C5	36:BA:284:C:C5	3.00	0.50
36:BA:1444:U:H1'	36:BA:1459:G:N2	2.26	0.50
2:A8:1653:G:C6	18:AN:9:GLN:HB2	2.47	0.50
1:A7:16:G:C2	1:A7:17:C:C2	3.00	0.50
2:A8:238:C:C2	2:A8:260:G:C2	2.99	0.50
2:A8:23:G:C2	2:A8:24:G:C4	3.00	0.50
36:BA:349:A:C2	36:BA:350:G:C4	2.99	0.50
36:BA:257:G:C2	36:BA:270:A:C4	3.00	0.50
2:A8:1528:A:C5	2:A8:1544:A:C5	3.00	0.50
36:BA:214:C:C4	36:BA:215:C:C4	3.00	0.50
36:BA:449:G:C6	36:BA:450:G:C6	2.99	0.50
3:AA:62:ILE:H	3:AA:62:ILE:HD12	1.77	0.50
2:A8:872:U:C6	2:A8:872:U:H5''	2.47	0.50
2:A8:2567:G:C6	2:A8:2568:U:C4	3.00	0.50
40:BE:20:VAL:HG22	40:BE:31:SER:H	1.76	0.50
40:BE:23:THR:HA	40:BE:27:GLY:H	1.77	0.50
36:BA:356:A:H1'	36:BA:388:G:H22	1.76	0.49
36:BA:1084:G:H5'	36:BA:1102:A:OP2	2.12	0.49
36:BA:1439:G:H21	36:BA:1440:U:H1'	1.75	0.49
2:A8:278:A:C2	2:A8:361:G:H2'	2.46	0.49
2:A8:2449:U:C2'	2:A8:2501:C:H42	2.25	0.49
1:A7:16:G:C4	1:A7:69:G:C2	2.99	0.49
2:A8:1659:G:C2	2:A8:2002:G:C4	3.00	0.49
36:BA:502:A:C2	36:BA:544:G:C2	3.00	0.49
2:A8:2741:A:C6	2:A8:2742:G:H1'	2.47	0.49
2:A8:1381:G:C6	2:A8:1382:G:C2	3.00	0.49
2:A8:1220:G:C4	2:A8:1230:A:C2	3.00	0.49
2:A8:1419:A:C6	2:A8:1421:G:H1'	2.47	0.49
1:A7:20:G:C6	1:A7:21:G:C8	3.00	0.49
54:BS:18:VAL:HG13	54:BS:46:LEU:HD12	1.93	0.49
2:A8:98:G:C2	2:A8:100:U:N3	2.79	0.49
36:BA:1499:A:C2	36:BA:1500:A:C4	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1914:C:C2	36:BA:1409:C:H4'	2.47	0.49
2:A8:2179:C:H2'	2:A8:2180:U:C6	2.47	0.49
36:BA:11:G:C2	36:BA:24:U:C2	3.00	0.49
22:AR:39:LEU:O	22:AR:49:ILE:HD11	2.12	0.49
42:BG:99:ALA:HA	42:BG:102:TRP:CZ3	2.47	0.49
2:A8:2683:C:C5	2:A8:2684:U:C5	3.00	0.49
2:A8:1297:C:H2'	2:A8:1298:C:C6	2.47	0.49
38:BC:171:ARG:HH21	38:BC:173:PRO:HG3	1.77	0.49
2:A8:375:G:C6	2:A8:376:G:C5	3.00	0.49
36:BA:677:U:C4	36:BA:678:U:C4	3.00	0.49
2:A8:1842:G:C2	2:A8:1843:C:C2	2.99	0.49
2:A8:199:A:C5	2:A8:2434:A:C6	2.99	0.49
2:A8:199:A:C6	2:A8:2434:A:C5	3.00	0.49
2:A8:249:C:H5''	2:A8:249:C:H6	1.76	0.49
36:BA:332:G:C6	36:BA:333:U:C4	3.01	0.49
2:A8:904:G:C2	2:A8:905:A:C4	2.99	0.49
1:A7:99:A:C6	1:A7:100:G:C4	3.00	0.49
1:A7:80:U:H1'	2:A8:918:A:H1'	1.94	0.49
2:A8:1213:A:C2	2:A8:1214:A:C4	3.00	0.49
2:A8:1064:C:C5	2:A8:1065:U:C4	3.01	0.49
36:BA:612:C:O2	36:BA:629:A:C2	2.65	0.49
36:BA:640:A:C5	36:BA:641:U:C4	3.00	0.49
2:A8:2361:G:C6	2:A8:2362:C:C4	3.00	0.49
2:A8:1308:A:H3'	2:A8:1309:G:C8	2.48	0.49
2:A8:1630:A:C6	2:A8:1631:G:C4	2.99	0.49
36:BA:448:A:H3'	36:BA:449:G:C8	2.46	0.49
36:BA:337:G:C6	36:BA:338:A:C6	3.00	0.49
2:A8:2327:A:C2	2:A8:2388:A:C2	3.00	0.49
2:A8:1815:A:C5	2:A8:1817:G:C6	3.00	0.49
36:BA:160:A:H2'	36:BA:161:A:O4'	2.12	0.49
2:A8:1015:U:H3	2:A8:1147:A:H61	1.60	0.49
6:A5:77:VAL:HB	6:A5:95:VAL:HG13	1.93	0.49
2:A8:1782:U:C5	2:A8:2609:U:C4	3.01	0.49
2:A8:152:A:C4	2:A8:175:G:C2	2.99	0.49
2:A8:2314:A:O2'	10:AF:154:THR:HG21	2.12	0.49
44:BI:20:ILE:HA	44:BI:60:LEU:HD11	1.93	0.49
54:BS:59:VAL:HB	54:BS:70:LEU:HD23	1.94	0.49
36:BA:929:G:C2	36:BA:1389:C:C2	3.00	0.49
2:A8:1841:U:H2'	2:A8:1842:G:C8	2.47	0.49
2:A8:2082:A:O5'	2:A8:2082:A:H8	1.95	0.49
2:A8:2239:G:C6	2:A8:2240:U:C4	2.99	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1373:A:H4'	2:A8:2212:A:C4	2.47	0.49
36:BA:414:A:H5'	36:BA:428:G:H22	1.77	0.49
2:A8:742:A:C5	2:A8:756:A:C2	3.01	0.49
36:BA:533:A:C2	36:BA:536:C:C6	3.00	0.49
2:A8:1724:G:C6	2:A8:1725:U:C4	3.00	0.49
1:A7:80:U:H4'	2:A8:918:A:C2	2.47	0.49
2:A8:2794:C:C2	2:A8:2803:G:N2	2.80	0.49
2:A8:1097:U:H3'	2:A8:1098:A:C8	2.47	0.49
2:A8:1213:A:C6	2:A8:1237:A:H1'	2.47	0.49
2:A8:2516:A:C6	2:A8:2517:C:C4	3.01	0.49
2:A8:2570:G:C5	2:A8:2571:U:C4	3.01	0.49
2:A8:2513:A:C6	2:A8:2574:G:C6	3.00	0.49
6:A5:131:LEU:HD12	6:A5:132:GLY:H	1.77	0.49
2:A8:232:G:H22	2:A8:420:C:H5''	1.77	0.49
2:A8:360:U:H2'	2:A8:361:G:H1'	1.94	0.49
1:A7:16:G:C6	1:A7:69:G:C6	3.00	0.49
2:A8:1482:G:C2	2:A8:1508:A:H1'	2.47	0.49
2:A8:1575:C:H2'	2:A8:1576:U:C6	2.47	0.49
2:A8:1627:G:C2	2:A8:1628:G:C8	3.00	0.49
2:A8:1324:G:H3'	2:A8:1325:U:H4'	1.95	0.49
2:A8:1955:U:C5	2:A8:2552:U:H1'	2.47	0.49
2:A8:2553:G:C5	2:A8:2554:U:H1'	2.47	0.49
36:BA:166:U:H5''	36:BA:166:U:C6	2.47	0.49
36:BA:1303:C:C4	36:BA:1304:G:C5	3.00	0.49
2:A8:1754:A:H62	2:A8:2694:G:H1'	1.77	0.49
2:A8:866:A:C5	2:A8:914:G:C5	3.00	0.49
2:A8:862:G:C5	2:A8:863:A:C8	3.00	0.49
36:BA:836:G:C5	36:BA:837:U:C6	3.00	0.49
36:BA:300:A:C2	36:BA:566:G:O6	2.65	0.49
36:BA:568:G:C5	36:BA:569:C:C5	3.01	0.49
2:A8:2097:A:C2	2:A8:2193:G:N3	2.81	0.49
2:A8:238:C:H4'	2:A8:609:A:H4'	1.94	0.49
2:A8:644:A:C2	2:A8:646:U:C6	3.00	0.49
36:BA:692:U:H5'	36:BA:797:C:H4'	1.94	0.49
2:A8:2597:G:C5	2:A8:2598:A:C5	3.00	0.49
2:A8:178:G:C6	2:A8:179:C:C4	3.00	0.49
2:A8:1436:G:C5	2:A8:1437:C:C5	3.00	0.49
36:BA:864:A:C5	36:BA:865:A:C6	3.01	0.49
2:A8:1308:A:H61	2:A8:1606:C:H1'	1.77	0.49
2:A8:2848:G:C6	2:A8:2867:G:C6	3.00	0.49
36:BA:1058:G:C6	36:BA:1059:C:C4	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2769:U:C2	2:A8:2770:G:C8	3.00	0.49
19:AO:79:ALA:HB3	19:AO:113:ALA:HB3	1.93	0.49
36:BA:1285:A:H4'	36:BA:1286:U:C2	2.47	0.49
15:AK:69:ARG:HE	15:AK:73:GLY:HA2	1.76	0.49
36:BA:76:G:H2'	36:BA:77:A:O4'	2.12	0.49
36:BA:124:C:C2	36:BA:238:A:C2	3.01	0.49
2:A8:670:A:N6	9:AE:88:ARG:HH12	2.04	0.49
36:BA:860:A:H3'	36:BA:861:G:H8	1.76	0.49
2:A8:809:G:C5	2:A8:810:U:C4	3.01	0.49
2:A8:2331:G:H21	2:A8:2336:A:H8	1.60	0.49
36:BA:199:A:C2	36:BA:219:U:O2	2.66	0.49
1:A7:78:A:C4	1:A7:79:G:C8	3.01	0.49
36:BA:1091:U:C2	36:BA:1095:U:C2	3.00	0.49
36:BA:1413:A:C2	36:BA:1488:G:C2	3.01	0.49
2:A8:1099:G:C6	13:AI:4:VAL:HG23	2.47	0.49
2:A8:279:A:C2	2:A8:280:U:H1'	2.47	0.49
2:A8:2747:G:O6	2:A8:2754:U:H3'	2.12	0.49
2:A8:623:C:C4	2:A8:624:C:C5	3.00	0.49
2:A8:1174:U:H4'	2:A8:1175:A:C2	2.47	0.49
36:BA:369:G:N2	36:BA:393:A:H1'	2.28	0.49
2:A8:2527:C:C4	2:A8:2528:U:C4	3.00	0.49
2:A8:90:U:H5	2:A8:91:A:HO2'	1.57	0.49
36:BA:258:G:C6	36:BA:259:G:C4	3.01	0.49
36:BA:259:G:C2	36:BA:268:U:C2	3.00	0.49
2:A8:221:A:C2	2:A8:266:G:OP2	2.66	0.49
2:A8:1544:A:C6	2:A8:1545:A:C5	3.00	0.49
2:A8:1831:G:C4	2:A8:1975:G:C2	3.01	0.49
2:A8:1412:U:H2'	2:A8:1413:A:C8	2.48	0.49
36:BA:1516:G:H2'	36:BA:1518:A:OP2	2.12	0.49
2:A8:7:G:C2	2:A8:2897:U:C2	3.00	0.49
11:AG:106:LEU:HD22	11:AG:151:ARG:HB3	1.93	0.49
36:BA:142:G:C2	36:BA:222:C:C2	3.01	0.49
36:BA:1433:A:C5	36:BA:1434:A:C5	3.00	0.49
38:BC:154:GLY:HA2	38:BC:163:ARG:H	1.78	0.49
36:BA:604:G:N1	36:BA:605:U:C2	2.81	0.49
26:AV:9:ARG:HG2	26:AV:11:GLU:H	1.78	0.49
36:BA:646:G:C5	36:BA:647:C:C5	3.01	0.49
3:AA:100:ILE:HG13	3:AA:103:ASN:H	1.77	0.49
54:BS:50:VAL:HG23	54:BS:74:ALA:HB2	1.95	0.49
2:A8:2615:U:C4	2:A8:2616:C:C5	3.01	0.49
2:A8:1904:G:H1'	2:A8:1927:A:N1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2027:G:C4	2:A8:2037:A:C2	3.00	0.49
2:A8:1274:A:C2	2:A8:1645:G:O4'	2.65	0.49
2:A8:1361:G:H2'	2:A8:1362:C:C6	2.48	0.49
2:A8:1733:G:C6	2:A8:1734:G:C5	3.00	0.49
2:A8:2199:A:C5	2:A8:2225:A:C5	3.01	0.49
2:A8:917:A:N6	2:A8:918:A:C6	2.80	0.49
2:A8:1142:A:C4'	14:AJ:27:ARG:HH22	2.24	0.49
36:BA:1413:A:C2	36:BA:1414:U:N1	2.81	0.49
36:BA:557:G:C6	36:BA:558:G:C2	3.00	0.49
36:BA:1438:G:C2	36:BA:1439:G:C4	3.01	0.49
36:BA:119:A:C5	36:BA:240:G:C4	3.00	0.49
2:A8:1653:G:C5	18:AN:9:GLN:HB2	2.47	0.49
2:A8:401:A:H2'	2:A8:402:A:C8	2.47	0.49
1:A7:89:U:OP2	1:A7:90:C:C2	2.66	0.49
2:A8:21:A:C6	2:A8:520:G:C5	3.01	0.49
36:BA:19:A:C6	36:BA:20:U:C4	3.00	0.49
2:A8:2893:A:H4'	2:A8:2894:G:H5'	1.93	0.49
36:BA:742:G:C4	36:BA:743:A:C8	3.00	0.49
2:A8:2359:C:H2'	2:A8:2360:G:C8	2.47	0.49
2:A8:1308:A:C5	2:A8:1309:G:C5	3.01	0.49
2:A8:1670:C:H3'	2:A8:1671:U:C6	2.48	0.49
36:BA:213:G:C4	36:BA:214:C:C6	2.99	0.49
2:A8:734:A:C4	2:A8:735:A:C8	3.00	0.49
2:A8:1040:A:C2	2:A8:1041:G:C8	3.00	0.49
2:A8:1389:G:C6	2:A8:1390:U:C4	3.01	0.49
15:AK:34:VAL:HA	15:AK:61:VAL:HG13	1.94	0.49
36:BA:63:C:H1'	36:BA:380:G:H4'	1.95	0.49
2:A8:71:A:C4	2:A8:114:U:H1'	2.48	0.49
2:A8:2884:U:H3	31:A0:40:HIS:CA	2.25	0.49
2:A8:106:C:H2'	2:A8:107:G:C8	2.47	0.49
2:A8:2694:G:C2	2:A8:2716:C:C2	3.00	0.49
2:A8:2563:U:H1'	2:A8:2566:A:C5	2.47	0.49
36:BA:815:A:OP2	36:BA:816:A:C8	2.65	0.49
36:BA:881:G:C4	36:BA:882:C:C6	3.00	0.49
2:A8:1098:A:C2	13:AI:5:GLN:N	2.81	0.49
2:A8:2748:A:H5''	2:A8:2753:A:H62	1.78	0.49
2:A8:978:G:C2	2:A8:986:C:C2	3.01	0.49
2:A8:108:G:C5	2:A8:109:C:C5	3.00	0.49
2:A8:650:C:H5	2:A8:651:G:H21	1.58	0.49
2:A8:535:G:C5	2:A8:559:G:C6	3.01	0.49
2:A8:176:A:C2'	2:A8:177:G:H5'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1060:U:H3'	38:BC:2:GLN:HE22	1.76	0.49
2:A8:2870:C:C4	2:A8:2871:U:C4	3.01	0.49
2:A8:2293:G:C6	2:A8:2294:G:C5	3.01	0.49
2:A8:2632:A:C6	2:A8:2633:G:C5	3.01	0.49
2:A8:2839:G:H5'	18:AN:46:ARG:HA	1.95	0.49
36:BA:681:A:C2	36:BA:710:G:C4	3.01	0.49
38:BC:32:LEU:HA	38:BC:58:ARG:HH12	1.77	0.49
2:A8:1782:U:C4	2:A8:2609:U:C5	3.01	0.49
36:BA:236:A:C6	36:BA:237:G:C5	3.01	0.49
2:A8:1079:C:O2	13:AI:130:GLY:HA3	2.12	0.49
2:A8:1300:G:N3	2:A8:1626:A:C2	2.81	0.49
10:AF:69:ALA:HB3	10:AF:81:GLY:H	1.77	0.49
36:BA:606:G:H21	36:BA:631:C:H3'	1.78	0.49
36:BA:35:G:H21	47:BL:114:SER:HB3	1.77	0.49
36:BA:172:A:C8	36:BA:174:A:C8	3.00	0.49
36:BA:193:C:H2'	36:BA:194:C:C5	2.48	0.49
2:A8:1359:A:C8	2:A8:1360:G:C8	3.01	0.49
2:A8:741:U:C2	2:A8:757:G:C2	3.00	0.49
2:A8:740:C:H42	2:A8:757:G:H1	1.61	0.49
2:A8:2714:G:C6	2:A8:2715:C:C4	3.01	0.49
36:BA:1395:C:H5''	36:BA:1402:C:H4'	1.94	0.49
36:BA:1401:G:C2	36:BA:1402:C:H1'	2.48	0.49
2:A8:1139:G:O3'	14:AJ:26:GLY:HA3	2.12	0.49
36:BA:1486:G:H2'	36:BA:1487:G:O4'	2.13	0.49
36:BA:600:A:C6	36:BA:601:G:C5	3.01	0.49
2:A8:487:C:C5	2:A8:488:G:C6	3.01	0.49
2:A8:273:G:C2	2:A8:365:U:C2	3.01	0.49
36:BA:627:G:C6	36:BA:628:G:C5	3.00	0.49
2:A8:991:C:H5''	2:A8:1185:G:H3'	1.93	0.49
2:A8:21:A:C2	2:A8:520:G:C4	3.00	0.49
36:BA:715:A:H2'	36:BA:716:A:C8	2.47	0.49
2:A8:2600:A:C2	2:A8:2601:C:C4	3.01	0.49
2:A8:2831:G:O4'	2:A8:2883:A:C2	2.66	0.49
2:A8:722:A:C5	2:A8:723:C:C4	3.01	0.49
36:BA:267:C:C2	36:BA:268:U:C6	3.00	0.49
2:A8:947:A:H2'	2:A8:948:C:C6	2.48	0.49
2:A8:1477:A:C5	2:A8:1478:G:H1'	2.47	0.49
2:A8:811:U:C2	2:A8:1251:C:C5	3.00	0.49
2:A8:1975:G:C5	2:A8:1976:U:C4	3.01	0.49
36:BA:468:A:C4	36:BA:469:C:C6	3.01	0.49
2:A8:766:U:H2'	2:A8:767:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:607:A:C5	36:BA:608:A:C5	3.01	0.49
2:A8:1116:G:C6	2:A8:1117:C:C5	3.01	0.49
2:A8:96:C:H4'	29:AY:41:HIS:CD2	2.48	0.49
11:AG:108:PHE:HB3	11:AG:110:HIS:CD2	2.46	0.49
50:BO:49:HIS:CE1	50:BO:52:ARG:HH11	2.30	0.49
2:A8:1455:G:C6	2:A8:1456:G:C5	3.01	0.49
2:A8:2579:C:C4	2:A8:2580:U:C4	3.00	0.49
2:A8:1680:U:C4	2:A8:1681:G:C6	3.01	0.49
36:BA:831:A:C2	36:BA:856:C:C2	2.99	0.49
36:BA:596:A:C4	36:BA:597:G:C8	3.00	0.49
2:A8:1837:C:H1'	2:A8:1904:G:N2	2.28	0.49
2:A8:2698:U:H2'	2:A8:2699:C:C6	2.47	0.49
2:A8:2675:A:C8	2:A8:2676:C:C5	3.01	0.49
2:A8:2405:G:H22	2:A8:2411:A:H3'	1.76	0.49
2:A8:279:A:C8	2:A8:362:A:H1'	2.48	0.49
1:A7:86:G:N2	1:A7:91:C:H1'	2.28	0.49
2:A8:26:G:H2'	2:A8:514:A:H61	1.78	0.49
2:A8:221:A:C2	2:A8:233:A:C4	3.01	0.49
36:BA:666:G:C6	36:BA:741:G:C5	3.01	0.49
2:A8:1794:A:C6	2:A8:1826:G:C6	3.00	0.49
2:A8:1419:A:C8	2:A8:1579:A:C5	3.01	0.49
2:A8:187:G:H21	2:A8:1365:A:N6	2.11	0.49
1:A7:21:G:C2	1:A7:63:C:C2	3.01	0.49
2:A8:1695:G:N3	2:A8:1695:G:H3'	2.28	0.49
2:A8:574:A:C6	2:A8:2054:A:H5'	2.48	0.49
36:BA:1327:C:H2'	36:BA:1328:C:C6	2.47	0.49
50:BO:16:ARG:H	50:BO:23:SER:CB	2.26	0.49
36:BA:356:A:C6	36:BA:357:G:C4	3.01	0.49
2:A8:1650:A:C2	2:A8:1651:G:H1'	2.47	0.49
2:A8:2298:A:N3	2:A8:2321:U:H2'	2.28	0.49
2:A8:1358:G:C2	2:A8:1372:U:C6	3.00	0.49
2:A8:1359:A:H61	2:A8:2212:A:N6	2.10	0.49
2:A8:1372:U:H2'	2:A8:1373:A:C8	2.47	0.49
1:A7:32:U:C2	1:A7:51:G:C2	3.00	0.49
36:BA:925:G:O4'	36:BA:1502:A:C2	2.66	0.49
2:A8:2799:A:C2	2:A8:2800:A:N6	2.81	0.49
36:BA:300:A:C5	36:BA:301:G:H1'	2.48	0.49
36:BA:881:G:C5	36:BA:882:C:C5	3.00	0.49
36:BA:393:A:C2	36:BA:394:G:C8	3.01	0.49
2:A8:750:A:C4	2:A8:753:A:H1'	2.48	0.49
2:A8:2659:G:N2	2:A8:2663:G:C6	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:760:G:H3'	36:BA:761:G:C8	2.48	0.49
2:A8:221:A:H2'	2:A8:266:G:N7	2.27	0.49
2:A8:762:U:H1'	2:A8:763:G:C4	2.47	0.49
36:BA:898:G:C4	36:BA:902:G:C6	3.01	0.49
2:A8:1410:G:C2	2:A8:1593:A:N3	2.80	0.49
8:AD:33:ARG:HH11	8:AD:72:GLY:HA3	1.77	0.49
36:BA:1269:A:H1'	36:BA:1326:U:H1'	1.95	0.49
48:BM:79:LEU:HD22	48:BM:86:ARG:CZ	2.43	0.49
2:A8:2436:G:H5''	2:A8:2436:G:C8	2.48	0.49
2:A8:2371:G:H4'	32:A1:43:ARG:O	2.13	0.48
2:A8:2298:A:H61	2:A8:2318:G:H1'	1.79	0.48
36:BA:1300:G:C4	36:BA:1334:G:C6	3.01	0.48
36:BA:553:A:H5''	47:BL:20:VAL:HG11	1.95	0.48
2:A8:905:A:C5	2:A8:906:U:C5	3.01	0.48
36:BA:1068:G:C5	36:BA:1069:C:C5	3.01	0.48
36:BA:836:G:N1	36:BA:851:G:C4	2.81	0.48
36:BA:1426:G:C6	36:BA:1427:C:C4	3.01	0.48
2:A8:1790:C:H3'	2:A8:1828:G:N2	2.27	0.48
36:BA:243:A:C5	36:BA:245:U:C4	3.01	0.48
2:A8:1127:A:C5	2:A8:2518:A:C6	3.01	0.48
2:A8:1101:U:C4	2:A8:1102:C:C5	3.01	0.48
2:A8:2721:A:H2'	2:A8:2722:G:C8	2.48	0.48
2:A8:1169:A:C6	2:A8:1170:C:C4	3.01	0.48
2:A8:979:A:C2	2:A8:982:C:H2'	2.47	0.48
36:BA:1128:C:H2'	36:BA:1129:C:C6	2.48	0.48
36:BA:778:G:C5	36:BA:779:C:C6	3.01	0.48
23:AS:8:ARG:HE	23:AS:102:HIS:CD2	2.31	0.48
36:BA:933:G:C2	36:BA:1385:G:C2	3.01	0.48
2:A8:1544:A:C5	2:A8:1545:A:C5	3.01	0.48
2:A8:1698:A:C8	2:A8:1700:A:O4'	2.66	0.48
2:A8:1677:A:H2'	2:A8:1678:A:C8	2.48	0.48
2:A8:1656:C:C2	2:A8:1657:U:C6	3.01	0.48
36:BA:901:A:C4	36:BA:902:G:H1'	2.48	0.48
21:AQ:57:ARG:HA	21:AQ:60:TRP:CE3	2.48	0.48
2:A8:547:A:H2'	2:A8:548:G:H5'	1.94	0.48
1:A7:5:U:C2	1:A7:116:G:C2	3.00	0.48
11:AG:87:GLN:H	11:AG:164:ALA:HA	1.77	0.48
2:A8:2029:G:C6	2:A8:2033:A:C8	3.01	0.48
36:BA:432:A:H3'	36:BA:433:G:H8	1.79	0.48
2:A8:1722:A:C2	2:A8:1739:A:O4'	2.66	0.48
2:A8:1723:G:H3'	2:A8:1724:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1734:G:C2	2:A8:1735:A:C8	3.01	0.48
36:BA:767:A:H2'	36:BA:768:A:O4'	2.14	0.48
2:A8:2197:U:C2'	2:A8:2224:G:H1	2.26	0.48
36:BA:568:G:C2	36:BA:569:C:C2	3.01	0.48
2:A8:2691:C:H5'	2:A8:2872:A:H5''	1.94	0.48
1:A7:92:C:C4	1:A7:93:C:C5	3.01	0.48
2:A8:581:C:C2	2:A8:1260:A:C2	3.00	0.48
2:A8:638:G:C6	2:A8:639:U:C4	3.01	0.48
2:A8:2659:G:C4	2:A8:2661:G:OP2	2.66	0.48
2:A8:2596:U:H2'	2:A8:2597:G:C8	2.47	0.48
2:A8:1606:C:H5''	2:A8:1607:C:H5''	1.95	0.48
2:A8:2521:C:C2	2:A8:2545:G:C2	3.01	0.48
36:BA:656:G:H2'	36:BA:657:U:H6	1.78	0.48
2:A8:693:A:H4'	2:A8:1354:A:H4'	1.95	0.48
2:A8:2869:G:C6	2:A8:2870:C:C4	3.01	0.48
2:A8:1783:A:C5	2:A8:2587:A:N1	2.81	0.48
50:BO:76:ARG:HA	50:BO:79:ARG:HH11	1.77	0.48
2:A8:1216:G:C6	2:A8:1217:U:C2	3.01	0.48
2:A8:2066:C:H2'	2:A8:2067:G:C8	2.49	0.48
22:AR:67:GLY:HA3	22:AR:93:PHE:CZ	2.49	0.48
2:A8:565:C:H4'	2:A8:1253:A:C6	2.48	0.48
2:A8:738:G:C2	2:A8:739:A:C4	3.01	0.48
1:A7:35:C:H41	1:A7:50:A:H1'	1.79	0.48
36:BA:765:G:C6	36:BA:812:G:C5	3.01	0.48
2:A8:860:U:H2'	2:A8:861:A:H8	1.78	0.48
2:A8:2674:G:H2'	2:A8:2675:A:C8	2.48	0.48
2:A8:1056:G:C6	2:A8:1102:C:OP2	2.66	0.48
2:A8:268:C:C2	2:A8:269:C:C5	3.01	0.48
2:A8:43:G:H3'	2:A8:44:A:C8	2.48	0.48
2:A8:1876:A:N6	2:A8:1877:A:C2	2.81	0.48
2:A8:515:A:H1'	2:A8:581:C:H1'	1.96	0.48
36:BA:885:G:C2	36:BA:913:A:N1	2.81	0.48
36:BA:253:A:C6	36:BA:254:G:C5	3.01	0.48
36:BA:253:A:C2	36:BA:275:G:H1'	2.49	0.48
2:A8:1478:G:C6	2:A8:1514:G:C2	3.02	0.48
2:A8:255:A:C5	2:A8:256:A:C8	3.01	0.48
2:A8:2637:U:H1'	2:A8:2782:G:H22	1.78	0.48
36:BA:339:C:C4	36:BA:340:U:C4	3.01	0.48
2:A8:121:G:C6	2:A8:131:A:C5	3.02	0.48
36:BA:1118:U:H1'	36:BA:1179:A:N9	2.29	0.48
36:BA:833:G:C5	36:BA:834:U:C4	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1057:G:C6	36:BA:1204:A:C6	3.02	0.48
2:A8:458:G:C2	2:A8:469:G:C6	3.02	0.48
50:BO:69:LEU:HA	50:BO:76:ARG:HH21	1.79	0.48
26:AV:34:LYS:HE3	26:AV:34:LYS:H	1.79	0.48
7:A6:42:ARG:HA	7:A6:48:ILE:HA	1.94	0.48
2:A8:1199:U:H2'	2:A8:1200:C:C6	2.48	0.48
2:A8:289:G:C6	2:A8:352:A:C6	3.01	0.48
36:BA:846:G:C2	36:BA:847:G:C8	3.01	0.48
25:AU:84:PHE:HA	25:AU:93:ARG:HA	1.94	0.48
15:AK:111:PHE:HB2	15:AK:114:ILE:HG22	1.94	0.48
36:BA:995:C:H2'	36:BA:996:A:H5'	1.96	0.48
36:BA:907:A:C2	36:BA:908:A:H1'	2.49	0.48
2:A8:879:G:H1'	2:A8:900:A:C4	2.48	0.48
2:A8:197:A:C4	2:A8:198:C:H6	2.30	0.48
2:A8:2196:C:C4	2:A8:2197:U:C4	3.01	0.48
2:A8:2223:G:C2	2:A8:2224:G:H1'	2.47	0.48
2:A8:2801:G:C2	2:A8:2802:G:C4	3.02	0.48
36:BA:881:G:C6	36:BA:882:C:C4	3.01	0.48
13:AI:4:VAL:CG1	13:AI:5:GLN:H	2.25	0.48
2:A8:425:G:C2	2:A8:426:C:C6	3.01	0.48
2:A8:2445:G:H2'	2:A8:2446:G:C8	2.49	0.48
2:A8:617:G:H5''	9:AE:102:ARG:HH21	1.79	0.48
2:A8:2470:G:C6	2:A8:2481:G:N3	2.81	0.48
36:BA:761:G:C5	36:BA:762:U:C5	3.01	0.48
36:BA:1449:C:C4	36:BA:1450:U:C4	3.01	0.48
36:BA:258:G:C6	36:BA:259:G:C5	3.01	0.48
2:A8:2788:C:C2	2:A8:2789:C:C5	3.02	0.48
2:A8:2605:U:H2'	2:A8:2606:C:C6	2.49	0.48
2:A8:1988:G:C5	2:A8:1989:G:C8	3.01	0.48
36:BA:901:A:C5	36:BA:902:G:H1'	2.48	0.48
2:A8:2619:C:H5''	2:A8:2619:C:C6	2.47	0.48
2:A8:2537:U:H2'	2:A8:2538:C:C6	2.48	0.48
37:BB:15:PHE:CD1	37:BB:205:ALA:HB1	2.48	0.48
36:BA:1470:U:H2'	36:BA:1471:U:H6	1.78	0.48
2:A8:387:U:H3	2:A8:390:U:H3'	1.78	0.48
36:BA:173:U:H1'	36:BA:197:A:C6	2.48	0.48
13:AI:60:VAL:HG13	13:AI:64:ARG:HH21	1.77	0.48
14:AJ:58:ASN:HD21	14:AJ:61:LYS:HG3	1.77	0.48
46:BK:116:PRO:HB2	46:BK:118:ASN:H	1.79	0.48
36:BA:1124:G:C8	36:BA:1145:A:O2'	2.65	0.48
36:BA:861:G:H21	36:BA:874:G:H5'	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1521:G:C6	2:A8:1522:A:C6	3.01	0.48
2:A8:199:A:C8	2:A8:2433:A:C6	3.02	0.48
36:BA:907:A:C4	36:BA:908:A:C8	3.02	0.48
2:A8:866:A:C5	2:A8:867:C:C5	3.02	0.48
2:A8:481:G:H4'	2:A8:506:G:H22	1.78	0.48
1:A7:78:A:C2	1:A7:99:A:C4	3.01	0.48
41:BF:51:ILE:HB	53:BR:73:HIS:CD2	2.49	0.48
36:BA:243:A:C2	36:BA:245:U:H2'	2.49	0.48
36:BA:248:C:H2'	36:BA:249:U:C6	2.48	0.48
2:A8:1088:A:N6	13:AI:131:THR:HA	2.26	0.48
18:AN:13:ASN:HB2	18:AN:16:HIS:H	1.78	0.48
2:A8:2477:U:H4'	2:A8:2479:U:C5	2.48	0.48
2:A8:2528:U:C2	2:A8:2530:A:C8	3.01	0.48
36:BA:1130:A:H4'	44:BI:19:PHE:HB3	1.95	0.48
36:BA:761:G:C6	36:BA:762:U:C4	3.01	0.48
2:A8:317:G:H5''	2:A8:317:G:C8	2.49	0.48
2:A8:535:G:C6	2:A8:536:G:C4	3.01	0.48
2:A8:907:G:H1'	17:AM:66:ARG:HB3	1.94	0.48
2:A8:186:G:C2	2:A8:211:C:C2	3.02	0.48
2:A8:963:U:H2'	2:A8:964:C:C6	2.49	0.48
36:BA:725:G:C6	36:BA:726:C:C4	3.02	0.48
2:A8:922:C:H1'	27:AW:21:GLY:HA3	1.95	0.48
2:A8:157:C:C4	2:A8:158:U:C4	3.02	0.48
2:A8:895:U:H5'	2:A8:896:A:C6	2.49	0.48
2:A8:39:G:C2	2:A8:441:U:C2	3.01	0.48
2:A8:1383:A:C2	2:A8:1405:U:O2	2.66	0.48
36:BA:858:G:H2'	36:BA:869:G:H1	1.78	0.48
2:A8:1296:G:C6	2:A8:1645:G:C6	3.02	0.48
2:A8:246:C:H41	34:A3:7:ARG:HD3	1.78	0.48
1:A7:73:A:C8	1:A7:104:A:C6	3.02	0.48
2:A8:269:C:C2	2:A8:270:A:C8	3.01	0.48
1:A7:69:G:C6	1:A7:70:C:C2	3.01	0.48
2:A8:2282:G:H4'	2:A8:2389:G:O2'	2.13	0.48
36:BA:367:U:C6	36:BA:394:G:N2	2.82	0.48
36:BA:502:A:C2	36:BA:503:C:C2	3.01	0.48
7:A6:162:GLN:HE22	36:BA:713:G:H5''	1.78	0.48
2:A8:712:G:N2	2:A8:720:U:H1'	2.29	0.48
36:BA:207:C:C2	36:BA:213:G:C2	3.02	0.48
2:A8:185:G:C2	2:A8:212:G:C4	3.02	0.48
36:BA:318:G:C2	36:BA:336:A:C4	3.02	0.48
36:BA:789:U:H2'	36:BA:791:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:789:U:H3'	36:BA:791:G:OP2	2.13	0.48
2:A8:2053:G:H5'	8:AD:150:GLN:HA	1.96	0.48
11:AG:106:LEU:HD22	11:AG:151:ARG:CB	2.44	0.48
2:A8:388:G:C8	2:A8:390:U:OP2	2.66	0.48
36:BA:946:A:H2'	36:BA:947:G:C8	2.48	0.48
2:A8:1910:G:C6	2:A8:1921:G:C6	3.02	0.48
36:BA:59:A:C6	36:BA:354:G:C5	3.02	0.48
2:A8:55:G:C2	2:A8:116:C:C2	3.02	0.48
36:BA:869:G:H4'	36:BA:872:A:O4'	2.13	0.48
2:A8:1854:A:H2	2:A8:2087:G:H2'	1.78	0.48
2:A8:877:A:C6	2:A8:878:A:C4	3.02	0.48
2:A8:904:G:C6	2:A8:905:A:C5	3.01	0.48
2:A8:909:A:H2'	2:A8:912:C:C5	2.48	0.48
2:A8:1770:G:C5	2:A8:1771:C:C5	3.02	0.48
2:A8:2288:A:C2	2:A8:2325:G:C5	3.00	0.48
2:A8:2409:G:C6	2:A8:2410:G:C5	3.02	0.48
2:A8:2446:G:C5	2:A8:2501:C:H2'	2.49	0.48
2:A8:1258:U:H2'	2:A8:1259:G:C8	2.48	0.48
2:A8:2814:A:C2	2:A8:2815:C:H1'	2.49	0.48
2:A8:1241:A:H5'	2:A8:1241:A:N3	2.29	0.48
2:A8:966:G:C6	2:A8:967:U:C4	3.01	0.48
2:A8:1975:G:C6	2:A8:1976:U:C4	3.01	0.48
36:BA:212:G:C4	36:BA:213:G:C8	3.02	0.48
2:A8:2846:G:C5	2:A8:2847:U:C4	3.02	0.48
2:A8:2006:C:H5'	2:A8:2049:G:OP1	2.13	0.48
2:A8:1410:G:C4	2:A8:1593:A:C2	3.02	0.48
2:A8:1042:G:C5	2:A8:1043:C:C5	3.01	0.48
2:A8:749:A:H4'	2:A8:1271:G:H21	1.78	0.48
36:BA:679:C:H2'	36:BA:680:C:C6	2.49	0.48
2:A8:1623:G:C6	2:A8:1624:U:C5	3.02	0.48
36:BA:1142:G:C6	36:BA:1143:G:H1'	2.48	0.48
2:A8:1517:G:C6	2:A8:1518:C:C4	3.02	0.48
34:A3:38:LYS:O	34:A3:42:HIS:CG	2.67	0.48
20:AP:28:LYS:HB3	20:AP:39:LEU:HB3	1.95	0.48
2:A8:1218:G:C6	2:A8:1232:G:C5	3.02	0.48
2:A8:2175:C:H4'	6:A5:219:GLY:O	2.13	0.48
2:A8:817:C:C2	2:A8:818:G:C8	3.02	0.48
36:BA:537:G:C6	36:BA:538:G:C5	3.02	0.48
36:BA:285:C:N3	36:BA:286:C:C5	2.82	0.48
2:A8:1069:A:C8	2:A8:1073:A:N7	2.82	0.48
36:BA:1463:U:H2'	36:BA:1464:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2690:U:H2'	2:A8:2872:A:C2	2.49	0.48
2:A8:2064:C:H1'	2:A8:2450:A:C6	2.49	0.48
1:A7:86:G:C4	1:A7:87:U:C6	3.02	0.48
2:A8:513:A:N6	2:A8:514:A:C6	2.82	0.48
2:A8:639:U:N3	2:A8:640:C:C4	2.82	0.48
2:A8:63:A:C8	2:A8:64:A:N7	2.82	0.48
2:A8:2596:U:C4	2:A8:2597:G:C6	3.01	0.48
2:A8:1560:G:O5'	2:A8:1560:G:C8	2.66	0.48
36:BA:778:G:C2	36:BA:779:C:H1'	2.48	0.48
2:A8:36:G:H4'	2:A8:451:U:C4	2.49	0.48
1:A7:115:A:C2	1:A7:116:G:C5	3.02	0.48
36:BA:310:G:C6	36:BA:311:C:C4	3.01	0.48
2:A8:1664:A:C4	2:A8:1665:A:C8	3.02	0.48
2:A8:2230:G:C6	2:A8:2231:U:C4	3.02	0.48
2:A8:1614:A:H61	23:AS:89:ALA:HA	1.79	0.48
2:A8:1343:G:C5	2:A8:1597:A:C6	3.01	0.48
2:A8:2244:U:H1'	2:A8:2434:A:C4	2.49	0.48
35:A4:30:GLU:HB2	35:A4:33:HIS:HB2	1.94	0.48
2:A8:1291:C:H2'	2:A8:1292:G:C8	2.49	0.48
2:A8:2333:A:C8	2:A8:2335:A:C5	3.02	0.48
2:A8:869:G:H21	17:AM:8:LYS:NZ	2.11	0.48
36:BA:1068:G:C8	36:BA:1094:G:C8	3.01	0.48
36:BA:1097:C:H2'	36:BA:1098:C:C6	2.48	0.48
36:BA:853:C:C2	36:BA:854:U:C6	3.02	0.48
2:A8:1615:C:C5	2:A8:1617:C:C4	3.02	0.48
2:A8:2721:A:C2	2:A8:2873:A:C6	3.01	0.48
2:A8:269:C:C2	2:A8:424:G:C2	3.02	0.48
1:A7:13:G:H1'	1:A7:16:G:H1'	1.96	0.48
2:A8:645:C:C5'	2:A8:647:G:C6	2.96	0.48
36:BA:691:G:N2	36:BA:695:A:C8	2.82	0.48
2:A8:959:A:H5''	2:A8:959:A:H8	1.79	0.48
2:A8:1350:C:C2	2:A8:1382:G:N7	2.82	0.48
2:A8:592:A:C2	2:A8:666:A:C4	3.02	0.48
2:A8:1478:G:C2	2:A8:1514:G:H1'	2.49	0.48
2:A8:1794:A:C5	2:A8:1795:C:C5	3.02	0.48
2:A8:1339:G:N2	2:A8:1603:A:H1'	2.29	0.48
2:A8:457:A:H61	2:A8:470:A:H3'	1.78	0.48
2:A8:1655:A:H3'	2:A8:1656:C:C6	2.49	0.48
2:A8:1410:G:C2	2:A8:1411:U:C2	3.02	0.48
2:A8:578:G:H5'	2:A8:1255:U:H4'	1.95	0.48
36:BA:361:G:C6	36:BA:362:G:C2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:64:VAL:HG12	7:A6:65:ASP:N	2.29	0.48
36:BA:1186:G:C2	36:BA:1187:G:C8	3.02	0.48
2:A8:1081:U:H4'	13:AI:123:ALA:HB1	1.96	0.48
26:AV:72:VAL:HA	26:AV:94:ALA:H	1.78	0.48
2:A8:1017:G:C2	2:A8:1146:C:C2	3.02	0.48
2:A8:1904:G:N2	2:A8:1905:C:H1'	2.29	0.48
2:A8:2346:A:C2	2:A8:2383:G:C6	3.02	0.48
2:A8:2697:G:C2	2:A8:2698:U:C2	3.02	0.48
2:A8:2625:G:C5	2:A8:2626:C:C4	3.02	0.48
2:A8:1739:A:H2'	2:A8:1740:G:O4'	2.14	0.48
2:A8:503:A:C5	2:A8:506:G:C5	3.01	0.48
36:BA:1108:G:C4	36:BA:1109:C:C5	3.02	0.48
2:A8:2800:A:N6	2:A8:2801:G:C5	2.82	0.48
2:A8:1028:A:H2'	2:A8:1029:A:C8	2.49	0.48
2:A8:2260:C:C2	2:A8:2261:C:C5	3.02	0.48
2:A8:1004:U:H1'	2:A8:1010:A:H2'	1.96	0.48
2:A8:2792:A:C2	2:A8:2805:C:C2	3.02	0.48
2:A8:43:G:C2	2:A8:44:A:C4	3.02	0.48
2:A8:2478:A:C8	2:A8:2529:G:C6	3.02	0.48
2:A8:2526:G:C5	2:A8:2527:C:C5	3.01	0.48
36:BA:258:G:H5'	36:BA:258:G:H8	1.78	0.48
2:A8:1220:G:C6	2:A8:1221:C:C5	3.02	0.48
2:A8:435:C:H2'	2:A8:436:C:H5'	1.95	0.48
2:A8:1690:A:H3'	2:A8:1691:C:C6	2.49	0.48
2:A8:1765:U:C2	2:A8:1988:G:C2	3.02	0.48
36:BA:954:G:C4	36:BA:955:U:C6	3.01	0.48
2:A8:1387:A:H5'	2:A8:1469:A:H1'	1.95	0.48
2:A8:955:U:OP2	17:AM:14:LYS:HB2	2.14	0.48
2:A8:961:C:H3'	2:A8:962:G:C5'	2.44	0.48
2:A8:84:A:C8	2:A8:100:U:H1'	2.49	0.48
2:A8:445:C:C4	2:A8:446:G:C5	3.02	0.48
2:A8:2341:G:C5	2:A8:2342:C:C5	3.02	0.48
2:A8:397:U:C2	2:A8:398:C:C5	3.02	0.48
36:BA:1365:G:C5	36:BA:1366:C:C5	3.02	0.48
7:A6:255:LYS:HB3	7:A6:269:ARG:HH12	1.78	0.48
2:A8:556:A:C2	2:A8:557:C:H1'	2.49	0.48
36:BA:1077:G:C2	36:BA:1081:A:C5	3.02	0.48
48:BM:84:CYS:HB2	48:BM:87:GLY:H	1.78	0.48
36:BA:1361:G:N2	36:BA:1362:A:H62	2.11	0.48
20:AP:19:PHE:CE1	20:AP:25:VAL:HG12	2.49	0.48
2:A8:2126:A:C2	2:A8:2173:A:H1'	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1050:A:H1'	2:A8:2751:G:C2	2.48	0.48
36:BA:112:G:H21	36:BA:354:G:C4'	2.27	0.47
2:A8:2123:G:H22	2:A8:2176:A:H1'	1.79	0.47
2:A8:2124:G:C2	2:A8:2175:C:C2	3.02	0.47
36:BA:827:U:C2	36:BA:874:G:C2	3.02	0.47
2:A8:2335:A:H2'	2:A8:2336:A:H2'	1.96	0.47
1:A7:33:G:C4	1:A7:50:A:C2	3.02	0.47
1:A7:50:A:C6	1:A7:51:G:C8	3.02	0.47
2:A8:2563:U:H1'	2:A8:2566:A:C6	2.48	0.47
36:BA:1417:G:H2'	36:BA:1482:G:N2	2.29	0.47
36:BA:1478:U:H2'	36:BA:1479:C:H6	1.79	0.47
36:BA:567:G:C6	36:BA:568:G:C8	3.02	0.47
2:A8:1942:C:C6	2:A8:1943:U:C2	3.01	0.47
2:A8:2603:G:C6	2:A8:2604:U:C4	3.02	0.47
2:A8:415:A:C6	2:A8:416:U:C4	3.02	0.47
2:A8:2100:G:C5	2:A8:2190:G:C2	3.02	0.47
2:A8:137:U:C6	2:A8:137:U:OP2	2.67	0.47
2:A8:2216:G:C6	2:A8:2217:G:C5	3.02	0.47
2:A8:622:G:C6	2:A8:623:C:C5	3.02	0.47
2:A8:1182:G:C5	2:A8:1183:U:C4	3.02	0.47
2:A8:67:U:O5'	2:A8:67:U:H6	1.97	0.47
36:BA:760:G:N1	36:BA:761:G:H1'	2.28	0.47
2:A8:2162:G:C8	2:A8:2164:C:N4	2.82	0.47
2:A8:2834:G:H2'	2:A8:2879:A:H61	1.79	0.47
36:BA:131:A:C2	36:BA:232:G:C5	3.02	0.47
36:BA:213:G:C5	36:BA:214:C:C6	3.02	0.47
36:BA:337:G:C6	36:BA:338:A:C5	3.02	0.47
36:BA:338:A:C2	36:BA:339:C:C2	3.01	0.47
36:BA:338:A:H2'	36:BA:339:C:C6	2.49	0.47
2:A8:1873:G:C4	2:A8:1874:C:C6	3.02	0.47
2:A8:2416:C:C2	2:A8:2417:C:C6	3.02	0.47
2:A8:1802:A:C6	2:A8:1817:G:N2	2.82	0.47
2:A8:1040:A:C2	2:A8:1116:G:N1	2.82	0.47
36:BA:681:A:C2	36:BA:682:G:C4	3.02	0.47
36:BA:1357:A:C5	36:BA:1358:U:C5	3.02	0.47
28:AX:5:GLN:HA	28:AX:77:TYR:CZ	2.49	0.47
37:BB:108:GLN:CD	37:BB:108:GLN:H	2.17	0.47
36:BA:426:U:H2'	36:BA:427:U:C6	2.49	0.47
30:AZ:54:VAL:HG22	30:AZ:55:LYS:H	1.79	0.47
2:A8:2455:G:C6	2:A8:2456:C:C4	3.02	0.47
33:A2:30:VAL:HA	33:A2:33:ARG:HE	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:117:G:H5'	2:A8:126:A:H8	1.78	0.47
2:A8:2:G:C2	2:A8:2902:C:C2	3.01	0.47
36:BA:1215:G:C5	36:BA:1216:A:C8	3.02	0.47
36:BA:1399:C:N3	36:BA:1401:G:C2	2.82	0.47
2:A8:503:A:C6	2:A8:505:A:C6	3.02	0.47
25:AU:44:HIS:CD2	25:AU:57:ILE:HG12	2.48	0.47
36:BA:881:G:C2	36:BA:882:C:C2	3.03	0.47
2:A8:227:A:C6	2:A8:2407:A:H1'	2.49	0.47
2:A8:2251:G:C6	2:A8:2252:G:C5	3.02	0.47
1:A7:16:G:C6	1:A7:17:C:C4	3.02	0.47
2:A8:1171:G:C2	2:A8:1172:C:C2	3.02	0.47
2:A8:727:A:C5	2:A8:728:G:C6	3.02	0.47
2:A8:2661:G:C6	2:A8:2662:A:C5	3.02	0.47
2:A8:959:A:H5''	2:A8:959:A:C8	2.49	0.47
2:A8:1444:G:C4	2:A8:1445:G:C8	3.02	0.47
2:A8:1526:C:C4	2:A8:1527:G:C5	3.02	0.47
2:A8:770:G:H1'	2:A8:1379:U:C4	2.50	0.47
2:A8:1423:G:N2	2:A8:1424:G:H1'	2.29	0.47
47:BL:113:ARG:HA	47:BL:118:VAL:HG23	1.95	0.47
36:BA:177:G:C8	36:BA:178:C:C6	3.02	0.47
36:BA:311:C:C4	36:BA:312:C:C5	3.02	0.47
2:A8:1053:C:C2	2:A8:1107:G:C2	3.02	0.47
36:BA:1191:A:C5	36:BA:1192:C:C4	3.01	0.47
20:AP:26:GLU:HA	20:AP:43:GLU:HA	1.96	0.47
2:A8:1904:G:C2	2:A8:1905:C:H1'	2.49	0.47
2:A8:2082:A:H3'	2:A8:2083:G:H8	1.79	0.47
36:BA:182:A:H62	36:BA:224:U:H5'	1.79	0.47
2:A8:2319:G:H4'	2:A8:2321:U:C6	2.49	0.47
2:A8:2330:G:C2	2:A8:2331:G:H1'	2.50	0.47
2:A8:1360:G:H3'	2:A8:1361:G:H8	1.79	0.47
2:A8:878:A:C2	2:A8:899:A:C2	3.02	0.47
2:A8:828:U:H4'	2:A8:831:G:N1	2.29	0.47
2:A8:1723:G:C6	2:A8:1724:G:C5	3.03	0.47
2:A8:1730:C:C5	2:A8:1731:G:C6	3.02	0.47
36:BA:299:G:H2'	36:BA:300:A:C8	2.50	0.47
2:A8:1966:A:C5	2:A8:2593:U:H4'	2.49	0.47
2:A8:1103:A:C4	2:A8:1104:C:C5	3.02	0.47
2:A8:2415:G:H1'	16:AL:66:PHE:CE2	2.49	0.47
2:A8:223:A:C6	2:A8:422:A:C5	3.03	0.47
36:BA:628:G:C2	36:BA:629:A:C4	3.02	0.47
2:A8:2217:G:C4	2:A8:2218:G:C8	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1174:U:C5'	2:A8:1175:A:C2	2.96	0.47
2:A8:669:G:C4	2:A8:801:G:C6	3.02	0.47
2:A8:1659:G:C2	2:A8:2002:G:C2	3.03	0.47
2:A8:1165:A:C2	2:A8:1166:G:C8	3.03	0.47
2:A8:1867:G:C6	2:A8:1868:C:C4	3.03	0.47
36:BA:810:C:H2'	36:BA:811:C:C6	2.49	0.47
2:A8:1858:A:C4	2:A8:1885:A:C8	3.02	0.47
2:A8:24:G:C5	2:A8:25:U:C5	3.03	0.47
2:A8:748:G:C4	2:A8:750:A:C5	3.02	0.47
2:A8:554:U:C4	2:A8:555:G:C6	3.02	0.47
23:AS:8:ARG:CZ	23:AS:9:HIS:CE1	2.97	0.47
2:A8:2812:G:N2	2:A8:2889:C:C2	2.82	0.47
2:A8:814:C:H41	16:AL:25:SER:HB3	1.80	0.47
36:BA:657:U:H2'	36:BA:658:C:C6	2.49	0.47
2:A8:455:C:C5	2:A8:472:A:C5	3.02	0.47
2:A8:471:A:H3'	2:A8:472:A:C8	2.49	0.47
36:BA:723:U:H3'	36:BA:723:U:C6	2.49	0.47
36:BA:592:G:C2	36:BA:648:A:C4	3.03	0.47
2:A8:1190:G:H2'	2:A8:1191:G:C8	2.49	0.47
2:A8:372:G:H1'	2:A8:400:G:C6	2.48	0.47
2:A8:2054:A:H3'	2:A8:2056:G:H4'	1.96	0.47
3:AA:253:HIS:CD2	3:AA:253:HIS:H	2.32	0.47
2:A8:1031:G:C6	2:A8:1124:G:C6	3.02	0.47
7:A6:2:VAL:HA	7:A6:16:VAL:HG13	1.96	0.47
2:A8:1854:A:C2	2:A8:2088:A:O4'	2.67	0.47
36:BA:182:A:C2	36:BA:184:G:C5	3.03	0.47
2:A8:878:A:C2	2:A8:879:G:C4	3.02	0.47
2:A8:880:G:N2	2:A8:898:C:C2	2.83	0.47
36:BA:518:C:H5''	36:BA:519:C:H6	1.78	0.47
36:BA:766:A:C8	36:BA:814:A:C6	3.02	0.47
2:A8:1797:G:C6	2:A8:1823:G:C5	3.02	0.47
2:A8:1097:U:H3'	2:A8:1098:A:H8	1.78	0.47
2:A8:415:A:C4	2:A8:2409:G:C2	3.02	0.47
2:A8:2583:G:C6	2:A8:2584:U:C6	3.03	0.47
2:A8:644:A:C2	2:A8:646:U:C5	3.02	0.47
2:A8:780:G:C2	2:A8:785:G:C5	3.03	0.47
44:BI:17:ARG:HD2	44:BI:19:PHE:CE1	2.49	0.47
2:A8:2809:A:H62	2:A8:2890:G:C2'	2.27	0.47
2:A8:1953:A:H1'	2:A8:2560:A:H1'	1.95	0.47
36:BA:731:G:C6	36:BA:732:C:C5	3.02	0.47
2:A8:1488:C:C4	2:A8:1489:C:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1379:G:C4	36:BA:1380:U:C5	3.02	0.47
2:A8:2555:U:C6	2:A8:2556:C:C6	3.01	0.47
36:BA:110:C:H4'	51:BP:25:ARG:HE	1.80	0.47
36:BA:224:U:H2'	36:BA:225:C:C6	2.50	0.47
1:A7:30:C:O2	1:A7:30:C:H2'	2.13	0.47
1:A7:58:A:C2	1:A7:59:A:C1'	2.98	0.47
2:A8:246:C:H41	34:A3:7:ARG:CD	2.26	0.47
2:A8:1361:G:O5'	2:A8:1361:G:C8	2.67	0.47
2:A8:1371:G:C2	2:A8:1372:U:C5	3.02	0.47
36:BA:329:A:N7	36:BA:332:G:C6	2.83	0.47
36:BA:244:U:C4	36:BA:894:G:C2	3.03	0.47
2:A8:742:A:C4	2:A8:743:A:C8	3.02	0.47
36:BA:925:G:C6	36:BA:927:G:C5	3.02	0.47
2:A8:1142:A:C4	2:A8:1144:A:C8	3.03	0.47
14:AJ:26:GLY:H	14:AJ:28:LEU:H	1.62	0.47
2:A8:1213:A:C6	2:A8:1214:A:C5	3.02	0.47
2:A8:1933:G:C5	2:A8:1934:C:C6	3.03	0.47
2:A8:1984:G:C5	2:A8:1985:C:C5	3.02	0.47
2:A8:224:U:C4	2:A8:225:C:C5	3.02	0.47
36:BA:478:A:C2	36:BA:479:U:C2	3.02	0.47
2:A8:2205:A:C6	2:A8:2206:C:C4	3.02	0.47
2:A8:642:U:O5'	2:A8:642:U:C6	2.68	0.47
36:BA:232:G:C5	36:BA:233:C:C5	3.02	0.47
36:BA:270:A:C4	36:BA:271:C:C6	3.03	0.47
17:AM:34:LYS:HB2	17:AM:131:VAL:HG11	1.96	0.47
2:A8:1826:G:H2'	2:A8:1827:U:C6	2.49	0.47
2:A8:1690:A:C8	2:A8:1691:C:C5	3.02	0.47
36:BA:1244:G:C6	36:BA:1245:C:C5	3.02	0.47
2:A8:204:A:C8	2:A8:206:U:C2	3.02	0.47
2:A8:207:A:C2	2:A8:208:C:H1'	2.49	0.47
2:A8:634:C:C4	2:A8:635:C:C5	3.03	0.47
1:A7:42:C:C4	1:A7:43:C:C2	3.03	0.47
2:A8:388:G:C8	2:A8:389:G:C8	3.03	0.47
22:AR:49:ILE:HD13	22:AR:53:PHE:C	2.35	0.47
2:A8:1218:G:C5	2:A8:1232:G:C6	3.02	0.47
36:BA:944:G:H2'	36:BA:1338:G:H1	1.79	0.47
12:AH:47:PHE:HA	12:AH:50:ARG:HE	1.79	0.47
2:A8:2323:G:C6	2:A8:2324:U:C4	3.03	0.47
2:A8:1454:C:H42	2:A8:2703:C:H41	1.62	0.47
36:BA:1114:C:C4	36:BA:1115:U:C4	3.03	0.47
17:AM:112:LEU:HA	17:AM:116:ALA:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BK:66:ALA:HB2	46:BK:95:THR:HA	1.95	0.47
2:A8:1408:G:H22	2:A8:1595:C:H1'	1.80	0.47
2:A8:1279:G:C4'	18:AN:31:HIS:CE1	2.98	0.47
36:BA:892:A:C5	36:BA:907:A:C8	3.03	0.47
36:BA:687:A:H1'	36:BA:700:G:N2	2.29	0.47
2:A8:869:G:C6	2:A8:870:U:C4	3.02	0.47
2:A8:2224:G:H4'	2:A8:2226:C:C2	2.49	0.47
36:BA:1074:G:C5	36:BA:1075:U:C4	3.03	0.47
36:BA:246:A:C5	36:BA:282:A:C5	3.03	0.47
36:BA:246:A:C8	36:BA:279:A:C2	3.03	0.47
2:A8:1965:C:H3'	2:A8:1966:A:H2'	1.97	0.47
2:A8:2571:U:C4	2:A8:2574:G:C8	3.02	0.47
2:A8:2574:G:C6	2:A8:2575:C:C4	3.02	0.47
2:A8:374:A:C2	2:A8:401:A:C4	3.03	0.47
2:A8:2218:G:N2	2:A8:2219:U:H1'	2.29	0.47
2:A8:1319:C:C2	2:A8:1334:G:C2	3.02	0.47
2:A8:439:A:C5	2:A8:440:C:C5	3.03	0.47
2:A8:1268:A:C6	2:A8:2013:A:C8	3.02	0.47
2:A8:1434:A:H62	2:A8:1558:C:H42	1.61	0.47
2:A8:494:G:H5'	23:AS:8:ARG:H	1.79	0.47
2:A8:813:U:C2	2:A8:1195:G:C2	3.02	0.47
36:BA:424:G:C2	36:BA:425:G:C4	3.02	0.47
36:BA:468:A:C6	36:BA:469:C:C4	3.02	0.47
2:A8:188:G:C6	2:A8:189:G:C4	3.02	0.47
2:A8:190:A:N6	2:A8:191:A:C6	2.83	0.47
36:BA:724:G:C2	36:BA:725:G:C4	3.03	0.47
15:AK:23:VAL:HA	15:AK:38:ILE:HG22	1.96	0.47
2:A8:2393:U:H2'	2:A8:2394:C:C6	2.49	0.47
2:A8:2787:C:H5''	8:AD:62:LYS:HZ1	1.80	0.47
36:BA:1160:G:C6	36:BA:1161:C:C4	3.02	0.47
36:BA:239:U:H6	36:BA:239:U:H5''	1.79	0.47
11:AG:22:VAL:HG13	11:AG:36:LEU:HB3	1.97	0.47
12:AH:97:ARG:HH12	12:AH:111:ALA:HB1	1.80	0.47
38:BC:186:SER:HB2	38:BC:197:VAL:HG12	1.95	0.47
36:BA:483:C:C4	36:BA:484:G:C5	3.03	0.47
20:AP:23:ASP:HA	20:AP:88:ARG:HA	1.96	0.47
2:A8:327:G:C2	2:A8:336:C:C2	3.03	0.47
2:A8:1838:C:C5	2:A8:1899:A:C6	3.03	0.47
36:BA:54:C:C2	36:BA:352:C:N4	2.83	0.47
36:BA:94:G:C2	36:BA:98:A:C2	3.02	0.47
36:BA:71:A:C8	36:BA:100:G:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:71:A:N3	2:A8:114:U:H1'	2.29	0.47
2:A8:2241:A:H2'	2:A8:2242:G:C8	2.49	0.47
2:A8:2081:U:C2	2:A8:2237:G:N2	2.83	0.47
2:A8:1276:A:C4	2:A8:1295:C:C2	3.03	0.47
2:A8:2711:A:C5	2:A8:2714:G:C8	3.02	0.47
2:A8:1750:G:H21	2:A8:2860:A:H1'	1.80	0.47
2:A8:1022:G:H1'	2:A8:1024:G:C6	2.50	0.47
2:A8:861:A:C6	2:A8:862:G:C4	3.03	0.47
2:A8:9:G:H1'	2:A8:2895:G:C2	2.50	0.47
2:A8:1941:C:C4	2:A8:1942:C:N3	2.82	0.47
2:A8:1129:A:H1'	2:A8:2516:A:H1'	1.96	0.47
2:A8:2677:G:C6	2:A8:2678:C:C4	3.03	0.47
2:A8:2284:A:H1'	2:A8:2325:G:N1	2.30	0.47
2:A8:415:A:H4'	2:A8:1865:U:H4'	1.96	0.47
2:A8:2723:C:H2'	2:A8:2724:U:O4'	2.14	0.47
2:A8:2064:C:H1'	2:A8:2450:A:C2	2.50	0.47
2:A8:278:A:H1'	2:A8:362:A:C2	2.50	0.47
36:BA:122:G:C6	36:BA:123:U:C4	3.02	0.47
2:A8:2427:C:H5'	2:A8:2429:G:H5'	1.96	0.47
2:A8:1858:A:C5	2:A8:1885:A:C8	3.02	0.47
36:BA:781:A:C6	36:BA:782:A:H1'	2.50	0.47
2:A8:581:C:H2'	2:A8:582:A:C8	2.50	0.47
2:A8:705:A:C2	2:A8:706:A:C4	3.02	0.47
36:BA:525:C:C4	36:BA:526:C:C4	3.01	0.47
36:BA:539:A:C6	36:BA:540:G:C5	3.02	0.47
2:A8:2596:U:C5	2:A8:2597:G:C6	3.02	0.47
36:BA:263:A:H3'	36:BA:263:A:C8	2.49	0.47
2:A8:429:A:C2	2:A8:430:A:N1	2.83	0.47
41:BF:3:HIS:CB	41:BF:96:VAL:H	2.27	0.47
36:BA:778:G:C4	36:BA:779:C:C6	3.03	0.47
2:A8:967:U:H2'	2:A8:968:C:H6	1.80	0.47
2:A8:535:G:C2	2:A8:536:G:H1'	2.49	0.47
2:A8:244:A:H1'	2:A8:255:A:C6	2.49	0.47
2:A8:1196:C:H2'	2:A8:1197:G:O4'	2.13	0.47
2:A8:1831:G:C5	2:A8:1832:C:C4	3.02	0.47
2:A8:1692:U:C6	2:A8:1692:U:O5'	2.67	0.47
2:A8:1608:A:C5	2:A8:1611:C:C6	3.03	0.47
2:A8:769:U:O2	2:A8:1379:U:H1'	2.15	0.47
2:A8:320:A:H62	9:AE:132:LYS:HG2	1.79	0.47
36:BA:708:C:H2'	36:BA:709:U:C6	2.49	0.47
2:A8:765:C:C4	2:A8:766:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:729:G:H21	7:A6:10:PRO:HB2	1.79	0.47
2:A8:1873:G:O5'	2:A8:1873:G:C8	2.68	0.47
2:A8:599:A:C2	2:A8:659:G:C5	3.02	0.47
36:BA:1258:G:C4	36:BA:1259:C:C5	3.03	0.47
2:A8:99:U:H4'	2:A8:100:U:C2	2.50	0.47
2:A8:291:G:C2	2:A8:350:G:C5	3.02	0.47
36:BA:1226:C:H5'	48:BM:94:LEU:HD11	1.96	0.47
2:A8:1995:U:H2'	2:A8:1996:C:C6	2.50	0.47
1:A7:42:C:C5	1:A7:43:C:C6	3.03	0.47
2:A8:2519:U:H4'	2:A8:2567:G:C2	2.49	0.47
27:AW:46:ALA:H	27:AW:79:ILE:HG12	1.79	0.47
2:A8:1326:U:C2	2:A8:1327:A:C8	3.02	0.47
19:AO:40:ILE:HG22	19:AO:44:GLY:HA2	1.96	0.47
39:BD:112:GLU:HG3	39:BD:153:ARG:HH11	1.79	0.47
2:A8:2740:A:C6	2:A8:2764:A:C8	3.03	0.47
36:BA:1005:A:C6	36:BA:1006:G:H1'	2.49	0.47
32:A1:47:ILE:HD12	32:A1:49:LYS:HD3	1.97	0.47
48:BM:47:LEU:HG	48:BM:48:SER:H	1.79	0.47
2:A8:1927:A:H2'	2:A8:1928:A:C8	2.50	0.47
2:A8:808:G:H4'	2:A8:2502:G:N1	2.26	0.47
1:A7:24:G:C8	1:A7:56:G:C4	3.02	0.47
2:A8:2335:A:C4	2:A8:2337:G:C8	3.03	0.47
47:BL:82:ARG:HH21	47:BL:85:ARG:H	1.62	0.47
2:A8:759:G:C6	2:A8:760:G:C5	3.03	0.47
2:A8:2709:G:C6	2:A8:2710:C:C4	3.03	0.47
36:BA:704:A:N6	36:BA:705:G:C5	2.82	0.47
2:A8:197:A:C2	2:A8:198:C:H1'	2.49	0.47
36:BA:1447:A:H5'	36:BA:1448:C:C6	2.50	0.47
36:BA:925:G:C2	36:BA:1392:G:C2	3.03	0.47
36:BA:766:A:C6	36:BA:767:A:C4	3.03	0.47
2:A8:861:A:H3'	2:A8:862:G:H8	1.80	0.47
36:BA:1426:G:C4	36:BA:1427:C:C6	3.03	0.47
2:A8:1770:G:C2	2:A8:1983:G:C4	3.03	0.47
36:BA:1438:G:H2'	36:BA:1439:G:C8	2.50	0.47
36:BA:1458:G:C6	36:BA:1459:G:C6	3.03	0.47
2:A8:2098:U:C4	2:A8:2099:U:C4	3.02	0.47
2:A8:2261:C:C2	2:A8:2280:G:C2	3.03	0.47
2:A8:26:G:C2'	2:A8:514:A:H61	2.28	0.47
2:A8:1648:U:C2	2:A8:2010:G:C2	3.03	0.47
2:A8:2482:A:H3'	2:A8:2483:C:C6	2.50	0.47
2:A8:2482:A:C8	2:A8:2482:A:O5'	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:301:G:C6	2:A8:317:G:C6	3.02	0.47
2:A8:704:G:C6	2:A8:726:G:C4	3.02	0.47
2:A8:1441:G:C2	2:A8:1551:A:N3	2.82	0.47
2:A8:2850:A:C6	2:A8:2851:A:C6	3.02	0.47
2:A8:1197:G:C6	2:A8:1198:U:C4	3.02	0.47
2:A8:1223:G:C4	2:A8:1227:G:C2	3.02	0.47
36:BA:441:A:C5	36:BA:442:G:C8	3.03	0.47
1:A7:22:U:H2'	1:A7:23:G:C8	2.49	0.47
1:A7:20:G:C2	1:A7:64:G:C4	3.03	0.47
2:A8:1871:A:C5	2:A8:1872:A:C6	3.03	0.47
54:BS:15:LEU:HD12	54:BS:18:VAL:HB	1.96	0.47
2:A8:1802:A:H2'	2:A8:1803:A:C8	2.50	0.47
2:A8:2734:A:H2'	2:A8:2735:G:H5'	1.96	0.47
2:A8:2057:G:C6	2:A8:2058:A:C5	3.03	0.47
36:BA:676:A:H1'	46:BK:116:PRO:HB3	1.97	0.47
19:AO:41:ALA:HB3	19:AO:44:GLY:H	1.80	0.47
27:AW:76:ARG:HD2	27:AW:78:PHE:CZ	2.50	0.47
2:A8:261:G:C8	2:A8:261:G:H5''	2.49	0.47
10:AF:68:LYS:HB3	10:AF:70:ARG:HH11	1.80	0.47
10:AF:71:LYS:HB2	10:AF:78:ILE:HG21	1.96	0.47
2:A8:1480:C:H2'	2:A8:1481:U:C6	2.49	0.47
2:A8:1838:C:C6	2:A8:1899:A:C6	3.03	0.47
2:A8:590:A:C5	2:A8:668:A:C2	3.03	0.47
2:A8:668:A:H2'	2:A8:670:A:H62	1.79	0.47
2:A8:565:C:H5''	22:AR:82:HIS:CE1	2.50	0.47
2:A8:808:G:H2'	2:A8:809:G:C8	2.50	0.47
2:A8:2291:U:H5'	2:A8:2381:A:H1'	1.96	0.47
2:A8:1523:U:H3'	2:A8:1524:G:H8	1.80	0.47
2:A8:878:A:O5'	2:A8:878:A:C8	2.68	0.47
1:A7:104:A:H4'	26:AV:92:VAL:HG21	1.97	0.47
36:BA:814:A:C8	36:BA:816:A:C8	3.03	0.47
2:A8:2199:A:C8	2:A8:2200:C:C5	3.03	0.47
2:A8:1023:U:C4	2:A8:1024:G:C4	3.03	0.47
36:BA:299:G:C5	36:BA:300:A:C5	3.03	0.47
36:BA:567:G:C2	36:BA:568:G:H1'	2.50	0.47
2:A8:781:A:C5	2:A8:1777:U:H4'	2.50	0.47
2:A8:781:A:C6	2:A8:1777:U:H5'	2.49	0.47
36:BA:1443:C:C4	36:BA:1444:U:C4	3.03	0.47
2:A8:277:G:C8	2:A8:361:G:O6	2.68	0.47
2:A8:137:U:C4	2:A8:138:U:C4	3.02	0.47
2:A8:2002:G:H4'	18:AN:13:ASN:HD22	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:579:G:C5	2:A8:580:U:C5	3.03	0.47
36:BA:697:U:O2	36:BA:798:U:H1'	2.15	0.47
2:A8:2472:G:H1'	2:A8:2478:A:H61	1.80	0.47
36:BA:232:G:C6	36:BA:233:C:C4	3.03	0.47
2:A8:1437:C:O4'	2:A8:1515:A:C2	2.68	0.47
2:A8:493:G:H21	23:AS:50:VAL:HG12	1.79	0.47
2:A8:244:A:C4	2:A8:255:A:C5	3.02	0.47
2:A8:1605:C:C5	2:A8:1606:C:C4	3.03	0.47
30:AZ:15:ARG:NE	30:AZ:19:HIS:CD2	2.83	0.47
2:A8:1385:A:C2	2:A8:1386:C:C2	3.03	0.47
1:A7:62:C:N3	1:A7:63:C:C5	2.83	0.47
2:A8:155:A:C2	2:A8:156:A:C4	3.03	0.47
36:BA:1312:G:C2	36:BA:1326:U:C2	3.03	0.47
36:BA:946:A:C2	36:BA:1236:A:C2	3.03	0.47
2:A8:2:G:C6	2:A8:3:U:C4	3.03	0.47
36:BA:1158:C:H3'	36:BA:1158:C:O2	2.15	0.47
17:AM:33:LEU:HD22	17:AM:118:LYS:HZ1	1.80	0.47
2:A8:1916:A:H2'	2:A8:1917:U:C6	2.50	0.47
2:A8:1927:A:C6	2:A8:1928:A:C6	3.03	0.47
36:BA:315:A:H4'	36:BA:353:A:C6	2.50	0.47
2:A8:742:A:C2	2:A8:756:A:C4	3.02	0.47
2:A8:757:G:C2	2:A8:758:C:O4'	2.68	0.47
36:BA:686:U:O2	36:BA:687:A:C5	2.69	0.47
2:A8:2198:A:C5	12:AH:29:PHE:CD2	3.03	0.47
2:A8:2200:C:OP1	28:AX:35:HIS:CG	2.68	0.47
2:A8:1570:A:C6	2:A8:1571:A:C6	3.03	0.47
2:A8:1936:A:C2	2:A8:1943:U:O4	2.68	0.47
36:BA:118:U:O2	36:BA:288:A:C4	2.67	0.47
2:A8:2677:G:C2	2:A8:2731:G:C4	3.03	0.47
2:A8:1715:G:C2	2:A8:1743:G:C5	3.02	0.47
36:BA:588:G:C2	36:BA:589:U:C2	3.03	0.47
36:BA:629:A:C5	36:BA:630:A:C8	3.03	0.47
2:A8:140:C:H1'	2:A8:141:G:C2	2.49	0.47
2:A8:2791:G:C2	2:A8:2792:A:C4	3.03	0.47
2:A8:42:A:C2	2:A8:438:G:C5	3.03	0.47
2:A8:2470:G:C6	2:A8:2471:A:C5	3.03	0.47
2:A8:592:A:H1'	2:A8:666:A:C2	2.50	0.47
2:A8:1222:U:H1'	2:A8:1228:G:N2	2.30	0.47
43:BH:106:SER:H	43:BH:120:LEU:HB3	1.80	0.47
36:BA:706:A:C5	36:BA:707:U:C4	3.03	0.47
2:A8:32:C:C4	2:A8:33:C:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:186:G:N1	2:A8:187:G:C5	2.83	0.47
2:A8:663:G:C6	2:A8:664:G:C5	3.03	0.47
36:BA:1376:U:H2'	36:BA:1377:A:C8	2.50	0.47
2:A8:1913:A:C2	36:BA:1492:A:H2'	2.50	0.47
2:A8:136:G:N3	2:A8:144:A:C2	2.83	0.47
2:A8:2304:G:HO2'	10:AF:152:ASP:HB3	1.80	0.47
15:AK:12:ASN:HA	15:AK:99:PHE:CE2	2.49	0.47
36:BA:735:C:H2'	36:BA:736:C:C6	2.51	0.47
43:BH:46:GLU:HB3	43:BH:61:THR:HB	1.97	0.47
2:A8:1049:C:H1'	2:A8:1113:U:H4'	1.97	0.47
30:AZ:10:ARG:HD3	30:AZ:53:MET:HA	1.96	0.47
36:BA:57:G:C6	36:BA:58:C:C4	3.03	0.46
2:A8:2123:G:C2	2:A8:2176:A:N3	2.83	0.46
2:A8:571:U:C4	2:A8:2030:A:C6	3.03	0.46
2:A8:1133:A:C8	2:A8:2026:U:H4'	2.50	0.46
2:A8:2331:G:C5	2:A8:2332:C:C5	3.04	0.46
36:BA:894:G:C2	36:BA:895:G:C4	3.02	0.46
36:BA:895:G:C6	36:BA:896:C:C4	3.03	0.46
36:BA:1523:G:C6	36:BA:1524:C:C4	3.03	0.46
2:A8:859:G:C2	2:A8:2268:A:C2	3.03	0.46
2:A8:1021:A:C3'	2:A8:1021:A:C8	2.98	0.46
36:BA:1069:C:H5	36:BA:1094:G:C6	2.32	0.46
36:BA:1422:G:N2	36:BA:1479:C:C2	2.83	0.46
2:A8:2488:G:C6	2:A8:2489:U:C4	3.02	0.46
2:A8:1719:G:N2	2:A8:1742:U:H1'	2.30	0.46
1:A7:14:U:H3'	1:A7:15:A:C5'	2.43	0.46
2:A8:141:G:C5	2:A8:142:A:H1'	2.50	0.46
2:A8:627:A:C8	16:AL:111:ILE:HD12	2.50	0.46
2:A8:1009:A:H2'	2:A8:1010:A:C4	2.50	0.46
36:BA:1315:U:H2'	36:BA:1316:G:C8	2.50	0.46
2:A8:89:A:H2'	2:A8:90:U:C6	2.50	0.46
2:A8:317:G:C2	2:A8:318:C:C6	3.03	0.46
36:BA:267:C:C4	36:BA:268:U:C5	3.03	0.46
2:A8:2790:U:H5'	2:A8:2893:A:C8	2.49	0.46
2:A8:2808:G:N2	2:A8:2890:G:H3'	2.30	0.46
36:BA:865:A:C6	36:BA:866:C:C4	3.04	0.46
36:BA:867:G:C6	36:BA:868:C:C4	3.03	0.46
1:A7:10:G:C6	1:A7:11:C:C4	3.03	0.46
1:A7:9:G:C2	1:A7:10:G:C8	3.03	0.46
36:BA:654:G:C4	36:BA:655:A:C8	3.03	0.46
2:A8:121:G:C2	2:A8:122:G:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1055:A:C2	36:BA:1056:U:H1'	2.50	0.46
2:A8:1684:G:C5	2:A8:1685:C:C5	3.04	0.46
2:A8:2536:G:H3'	2:A8:2537:U:C6	2.50	0.46
2:A8:1412:U:O2	2:A8:1591:A:C2	2.68	0.46
36:BA:773:G:C6	36:BA:774:G:C5	3.03	0.46
2:A8:2418:A:H1'	32:A1:18:HIS:HA	1.95	0.46
2:A8:2555:U:H6	2:A8:2556:C:C6	2.33	0.46
46:BK:63:GLN:HG3	46:BK:94:SER:HB3	1.97	0.46
36:BA:321:A:H62	36:BA:328:C:H1'	1.80	0.46
2:A8:2650:U:C2	2:A8:2671:G:N1	2.83	0.46
32:A1:12:SER:HA	32:A1:48:TYR:CE1	2.50	0.46
2:A8:2737:G:C2	2:A8:2768:U:C2	3.03	0.46
36:BA:1224:U:C5	36:BA:1322:C:O2	2.68	0.46
8:AD:55:LYS:HB3	8:AD:57:ALA:H	1.79	0.46
2:A8:2082:A:H3'	2:A8:2083:G:C8	2.51	0.46
35:A4:25:VAL:HG12	35:A4:35:GLN:OE1	2.15	0.46
36:BA:327:A:C6	36:BA:329:A:C6	3.03	0.46
2:A8:743:A:C2	2:A8:744:U:C2	3.03	0.46
2:A8:1638:C:H5''	2:A8:2711:A:O4'	2.15	0.46
2:A8:1722:A:C8	2:A8:1739:A:C6	3.04	0.46
2:A8:1022:G:N2	2:A8:1142:A:C2	2.79	0.46
36:BA:1422:G:C2	36:BA:1423:G:C4	3.04	0.46
36:BA:1476:A:C6	36:BA:1477:U:C4	3.03	0.46
36:BA:27:G:C6	36:BA:28:A:C5	3.03	0.46
2:A8:2718:G:C6	2:A8:2719:G:C4	3.03	0.46
2:A8:273:G:C6	2:A8:274:C:C4	3.04	0.46
2:A8:2423:U:C2	2:A8:2425:A:C6	3.03	0.46
2:A8:28:A:H61	2:A8:512:G:H1'	1.80	0.46
36:BA:757:U:H2'	36:BA:758:C:C6	2.49	0.46
36:BA:582:C:C2	36:BA:760:G:N1	2.83	0.46
36:BA:256:U:H3	36:BA:270:A:H61	1.63	0.46
2:A8:48:G:H1	2:A8:177:G:P	2.39	0.46
2:A8:693:A:C4'	2:A8:1354:A:H4'	2.45	0.46
2:A8:700:G:C6	2:A8:701:G:C5	3.03	0.46
36:BA:617:G:C2	36:BA:618:C:C5	3.03	0.46
36:BA:731:G:C6	36:BA:732:C:C4	3.03	0.46
36:BA:1179:A:C6	36:BA:1180:A:C6	3.03	0.46
2:A8:2854:G:C4	2:A8:2864:G:C2	3.03	0.46
2:A8:2256:G:C5	2:A8:2257:U:C4	3.03	0.46
2:A8:1815:A:O4'	2:A8:1817:G:C8	2.69	0.46
36:BA:774:G:N2	36:BA:806:C:C2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2303:G:C4	2:A8:2314:A:C2	3.03	0.46
2:A8:1624:U:O5'	2:A8:1624:U:C6	2.68	0.46
8:AD:116:LYS:HA	18:AN:3:HIS:CE1	2.51	0.46
3:AA:264:ILE:H	3:AA:264:ILE:HD12	1.78	0.46
12:AH:121:VAL:HA	12:AH:128:HIS:CG	2.51	0.46
2:A8:2120:G:N1	2:A8:2178:C:H1'	2.31	0.46
2:A8:2029:G:N1	2:A8:2033:A:C8	2.83	0.46
2:A8:1275:A:H61	18:AN:22:ARG:HH12	1.62	0.46
2:A8:733:G:H3'	2:A8:761:A:H61	1.79	0.46
36:BA:1513:A:H1'	36:BA:1523:G:C2	2.50	0.46
36:BA:766:A:C6	36:BA:814:A:C4	3.03	0.46
2:A8:2198:A:C4	2:A8:2225:A:N6	2.84	0.46
36:BA:1072:G:C5	36:BA:1073:U:C5	3.04	0.46
13:AI:4:VAL:HG12	13:AI:5:GLN:N	2.29	0.46
2:A8:1213:A:H1'	2:A8:1237:A:C2	2.51	0.46
2:A8:2569:G:C6	2:A8:2570:G:C5	3.03	0.46
2:A8:223:A:C6	2:A8:422:A:C6	3.04	0.46
2:A8:2095:A:N1	2:A8:2195:U:C2	2.84	0.46
2:A8:2745:C:H3'	2:A8:2746:U:C5	2.50	0.46
2:A8:42:A:C2	2:A8:438:G:C4	3.03	0.46
2:A8:629:G:P	34:A3:17:GLY:H	2.39	0.46
2:A8:2472:G:C6	2:A8:2475:C:C6	3.03	0.46
36:BA:21:G:H2'	36:BA:22:G:C8	2.50	0.46
36:BA:544:G:C6	36:BA:545:C:C4	3.04	0.46
6:A5:106:LYS:HZ1	6:A5:108:GLU:CG	2.28	0.46
2:A8:2597:G:H2'	2:A8:2598:A:C8	2.50	0.46
2:A8:1561:C:C4	2:A8:1562:U:C4	3.03	0.46
2:A8:1451:C:C5	2:A8:1458:U:N1	2.84	0.46
2:A8:50:U:C5'	2:A8:51:G:C8	2.98	0.46
36:BA:1385:G:C2	36:BA:1386:G:C4	3.03	0.46
36:BA:1176:A:C6	36:BA:1177:G:C6	3.03	0.46
2:A8:1688:U:H2'	2:A8:1698:A:C6	2.50	0.46
2:A8:2776:A:N1	2:A8:2782:G:H1'	2.30	0.46
36:BA:722:G:C5	36:BA:724:G:C4	3.02	0.46
36:BA:665:A:N3	36:BA:732:C:H2'	2.30	0.46
2:A8:854:C:C2	2:A8:924:G:C2	3.02	0.46
14:AJ:57:LEU:HD12	14:AJ:125:TYR:HB2	1.98	0.46
2:A8:633:A:H1'	2:A8:2403:C:H4'	1.97	0.46
2:A8:2399:G:C2	2:A8:2400:G:C4	3.03	0.46
2:A8:1623:G:C2	2:A8:1624:U:C6	3.03	0.46
25:AU:2:ALA:HB3	25:AU:84:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:156:C:H5''	36:BA:156:C:C6	2.51	0.46
36:BA:570:G:C6	36:BA:873:A:C2	3.03	0.46
7:A6:231:HIS:CD2	7:A6:239:PHE:CE2	3.04	0.46
7:A6:167:ASP:H	7:A6:171:VAL:HG12	1.80	0.46
2:A8:1910:G:C6	2:A8:1911:U:C4	3.03	0.46
2:A8:1407:G:N2	2:A8:1408:G:C4	2.83	0.46
2:A8:2235:G:H2'	2:A8:2236:U:C6	2.50	0.46
36:BA:193:C:C2	36:BA:194:C:C5	3.03	0.46
2:A8:1275:A:N3	2:A8:1275:A:H2'	2.30	0.46
2:A8:1358:G:N2	2:A8:1372:U:C6	2.84	0.46
36:BA:327:A:C1'	36:BA:329:A:C8	2.97	0.46
2:A8:738:G:C6	2:A8:739:A:C6	3.03	0.46
2:A8:498:G:C2	2:A8:499:U:C6	3.03	0.46
36:BA:1109:C:C4	36:BA:1110:A:C5	3.04	0.46
2:A8:2592:G:C5	2:A8:2593:U:C6	3.04	0.46
2:A8:2516:A:C2	2:A8:2569:G:C2	3.03	0.46
2:A8:2073:C:C2	2:A8:2437:G:C2	3.03	0.46
2:A8:790:U:C5	2:A8:795:C:H5'	2.51	0.46
2:A8:1659:G:C4	2:A8:2002:G:C2	3.03	0.46
2:A8:412:A:C6	2:A8:413:C:C2	3.03	0.46
2:A8:414:C:H4'	2:A8:1879:C:O2	2.16	0.46
2:A8:65:U:C6	2:A8:65:U:H3'	2.51	0.46
2:A8:2162:G:H3'	2:A8:2164:C:N4	2.31	0.46
2:A8:2597:G:C5	2:A8:2598:A:C6	3.03	0.46
2:A8:711:G:C6	2:A8:721:A:C6	3.04	0.46
2:A8:2270:A:C6	2:A8:2271:G:H1'	2.50	0.46
36:BA:666:G:C6	36:BA:741:G:C6	3.03	0.46
36:BA:838:G:N2	36:BA:849:G:H1'	2.31	0.46
2:A8:1342:A:C6	2:A8:1397:U:C4	3.03	0.46
36:BA:463:U:H3'	36:BA:464:U:C6	2.51	0.46
36:BA:954:G:C5	36:BA:955:U:C6	3.02	0.46
2:A8:1365:A:H3'	2:A8:1366:A:H8	1.80	0.46
36:BA:338:A:C6	36:BA:339:C:C4	3.04	0.46
2:A8:1627:G:C5	2:A8:1640:A:C5	3.03	0.46
2:A8:1702:G:H4'	36:BA:1474:U:H5'	1.98	0.46
36:BA:1499:A:H2'	36:BA:1500:A:C8	2.50	0.46
2:A8:2733:A:H61	2:A8:2770:G:H2'	1.80	0.46
2:A8:1694:C:H4'	2:A8:1695:G:H5''	1.97	0.46
1:A7:37:C:C4	1:A7:38:C:C4	3.03	0.46
36:BA:1043:G:H2'	36:BA:1044:A:C8	2.51	0.46
1:A7:47:C:C5	1:A7:48:U:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1374:G:C6	2:A8:1375:U:C4	3.03	0.46
36:BA:44:A:C4	36:BA:399:G:C2	3.03	0.46
36:BA:71:A:C2	36:BA:72:A:N9	2.83	0.46
2:A8:565:C:C4'	2:A8:1253:A:C6	2.99	0.46
36:BA:327:A:HO2'	36:BA:329:A:H8	1.63	0.46
2:A8:1734:G:N2	2:A8:1735:A:H1'	2.31	0.46
36:BA:1526:G:C6	36:BA:1527:U:C4	3.03	0.46
2:A8:499:U:H6	2:A8:499:U:O5'	1.98	0.46
36:BA:1086:U:H3	36:BA:1099:G:H22	1.63	0.46
36:BA:242:G:N2	36:BA:245:U:C6	2.83	0.46
36:BA:296:U:H2'	36:BA:297:G:C8	2.50	0.46
2:A8:1957:C:H4'	2:A8:1985:C:O4'	2.15	0.46
2:A8:1980:G:N2	2:A8:1982:U:H1'	2.30	0.46
2:A8:2603:G:C5	2:A8:2604:U:C5	3.03	0.46
2:A8:2171:A:H1'	2:A8:2172:U:C6	2.51	0.46
2:A8:2675:A:N7	2:A8:2676:C:C5	2.84	0.46
2:A8:1721:G:C2	2:A8:1738:G:C2	3.04	0.46
2:A8:424:G:C5	2:A8:425:G:C8	3.04	0.46
2:A8:618:G:C5	2:A8:619:G:C8	3.03	0.46
2:A8:23:G:C2	2:A8:518:G:C4	3.04	0.46
39:BD:119:HIS:CE1	39:BD:121:ALA:HB2	2.50	0.46
2:A8:2660:A:N7	2:A8:2661:G:C6	2.83	0.46
2:A8:2597:G:C4	2:A8:2598:A:C5	3.03	0.46
2:A8:221:A:C4	2:A8:266:G:C8	3.04	0.46
2:A8:2637:U:C4	2:A8:2638:G:C5	3.04	0.46
2:A8:185:G:C6	2:A8:186:G:C5	3.04	0.46
2:A8:2847:U:C4	2:A8:2848:G:C5	3.04	0.46
2:A8:762:U:C2	2:A8:763:G:C6	3.04	0.46
2:A8:2274:A:N1	2:A8:2276:G:H1'	2.30	0.46
36:BA:1258:G:H2'	36:BA:1259:C:C6	2.50	0.46
2:A8:852:U:C2	2:A8:853:C:C6	3.03	0.46
22:AR:32:THR:HA	22:AR:61:ALA:O	2.15	0.46
2:A8:2107:G:C5	2:A8:2183:A:C2	3.03	0.46
1:A7:40:U:C2	1:A7:43:C:H3'	2.51	0.46
36:BA:1284:C:H3'	36:BA:1285:A:H5''	1.98	0.46
2:A8:1341:G:H5''	2:A8:1602:U:C4	2.51	0.46
2:A8:1459:G:C8	2:A8:1461:C:C5	3.03	0.46
36:BA:195:A:C2	36:BA:223:A:O4'	2.68	0.46
44:BI:80:HIS:CE1	44:BI:102:PHE:HA	2.50	0.46
36:BA:97:G:C6	36:BA:98:A:H1'	2.50	0.46
2:A8:2347:C:H5	2:A8:2382:G:C8	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2371:G:H1'	32:A1:38:PHE:CE1	2.50	0.46
2:A8:1473:G:C5	2:A8:1519:G:N1	2.84	0.46
2:A8:976:G:O5'	2:A8:976:G:C8	2.68	0.46
1:A7:24:G:C5	1:A7:56:G:C2	3.04	0.46
2:A8:247:G:N2	2:A8:250:G:H5''	2.31	0.46
2:A8:248:G:C8	2:A8:250:G:H1'	2.50	0.46
2:A8:877:A:C6	2:A8:901:C:N3	2.83	0.46
2:A8:879:G:H1	2:A8:899:A:H1'	1.81	0.46
2:A8:1735:A:C2	2:A8:1736:U:H1'	2.51	0.46
1:A7:100:G:C6	1:A7:101:A:C4	3.04	0.46
36:BA:1413:A:C2	36:BA:1414:U:C6	3.03	0.46
2:A8:1931:U:C5	2:A8:1968:G:C2	3.02	0.46
2:A8:1087:G:C4	2:A8:1103:A:C2	3.04	0.46
1:A7:92:C:N3	1:A7:93:C:C5	2.84	0.46
1:A7:109:A:C2	1:A7:110:C:C2	3.03	0.46
2:A8:618:G:C6	2:A8:619:G:C5	3.03	0.46
2:A8:978:G:C4	2:A8:979:A:C8	3.04	0.46
2:A8:2596:U:H2'	2:A8:2597:G:O4'	2.15	0.46
2:A8:267:C:C6	2:A8:267:C:H5''	2.51	0.46
2:A8:1230:A:N1	2:A8:1231:U:C2	2.83	0.46
2:A8:967:U:H2'	2:A8:968:C:C6	2.50	0.46
2:A8:282:A:C2	2:A8:283:G:C4	3.04	0.46
2:A8:2810:A:C8	2:A8:2811:G:C8	3.04	0.46
2:A8:1492:G:N2	2:A8:1499:C:C2	2.84	0.46
2:A8:455:C:C5	2:A8:472:A:N7	2.84	0.46
36:BA:1014:A:C2	36:BA:1219:A:H1'	2.51	0.46
2:A8:2869:G:C5	2:A8:2870:C:C5	3.04	0.46
2:A8:856:G:C2	2:A8:922:C:C2	3.03	0.46
2:A8:855:G:H1'	2:A8:923:G:N2	2.31	0.46
36:BA:1133:G:N1	36:BA:1142:G:C6	2.83	0.46
36:BA:1436:U:H2'	36:BA:1437:A:C8	2.51	0.46
2:A8:433:C:H2'	2:A8:434:U:C6	2.50	0.46
36:BA:16:A:H5''	40:BE:19:ARG:HH12	1.80	0.46
6:A5:27:ILE:HG21	6:A5:185:LEU:HB2	1.98	0.46
2:A8:1906:G:H5'	2:A8:1929:G:O2'	2.16	0.46
36:BA:152:A:OP2	36:BA:153:C:C5	2.69	0.46
36:BA:600:A:C2	36:BA:639:G:N3	2.84	0.46
2:A8:1896:G:C5	2:A8:1897:G:C8	3.04	0.46
36:BA:1425:U:C2	36:BA:1476:A:C2	3.03	0.46
36:BA:302:G:H2'	36:BA:303:A:O4'	2.15	0.46
2:A8:1770:G:C4	2:A8:1983:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2410:G:H5''	2:A8:2410:G:C8	2.50	0.46
2:A8:2194:U:C2	2:A8:2195:U:C6	3.03	0.46
1:A7:13:G:C8	1:A7:70:C:H4'	2.50	0.46
2:A8:644:A:C8	2:A8:644:A:H3'	2.51	0.46
2:A8:776:G:H5''	2:A8:777:G:C8	2.50	0.46
36:BA:771:G:C5	36:BA:809:G:C6	3.04	0.46
36:BA:809:G:C6	36:BA:810:C:C4	3.03	0.46
2:A8:1858:A:C4	2:A8:1859:U:C6	3.04	0.46
36:BA:1127:G:C5	36:BA:1128:C:C5	3.04	0.46
2:A8:1558:C:C1'	2:A8:1560:G:C8	2.98	0.46
2:A8:1429:G:N2	2:A8:1566:A:C2	2.82	0.46
2:A8:49:A:C5	2:A8:177:G:C5	3.04	0.46
36:BA:935:A:H1'	36:BA:1384:C:C2	2.50	0.46
2:A8:190:A:C6	2:A8:207:A:H1'	2.51	0.46
36:BA:1258:G:C2	36:BA:1259:C:C4	3.04	0.46
2:A8:2341:G:C5	2:A8:2342:C:C4	3.04	0.46
54:BS:62:THR:H	54:BS:65:MET:HB2	1.81	0.46
2:A8:2839:G:C4	2:A8:2840:C:C6	3.04	0.46
36:BA:756:C:C6	36:BA:756:C:O5'	2.69	0.46
36:BA:195:A:C2	36:BA:196:A:C2	3.04	0.46
2:A8:839:U:H2'	2:A8:840:C:C6	2.50	0.46
26:AV:1:MET:HG2	26:AV:61:LEU:HA	1.98	0.46
2:A8:1907:G:C6	2:A8:1908:C:C5	3.03	0.46
36:BA:352:C:H42	36:BA:357:G:H22	1.63	0.46
2:A8:2345:G:H1'	2:A8:2382:G:H5'	1.97	0.46
2:A8:818:G:H3'	2:A8:1187:G:H22	1.79	0.46
35:A4:27:CYS:H	35:A4:33:HIS:HB3	1.81	0.46
1:A7:30:C:C6	1:A7:31:C:C5	3.04	0.46
2:A8:2298:A:C2	2:A8:2299:U:H1'	2.50	0.46
36:BA:1215:G:H2'	36:BA:1216:A:H5'	1.98	0.46
36:BA:1304:G:C5	36:BA:1305:G:C6	3.04	0.46
2:A8:906:U:H4'	17:AM:27:SER:HB2	1.97	0.46
2:A8:858:G:N1	2:A8:2268:A:C2	2.84	0.46
36:BA:1415:G:C4	36:BA:1486:G:N1	2.84	0.46
36:BA:600:A:C5	36:BA:639:G:C2	3.03	0.46
2:A8:1770:G:C6	2:A8:1983:G:C6	3.04	0.46
2:A8:1129:A:H4'	2:A8:2516:A:H4'	1.97	0.46
36:BA:1459:G:C5	36:BA:1460:C:C5	3.03	0.46
2:A8:2723:C:C4	2:A8:2724:U:C4	3.04	0.46
2:A8:2099:U:O2	2:A8:2191:A:C2	2.69	0.46
2:A8:621:A:C6	2:A8:622:G:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:369:G:C2	36:BA:393:A:C4	3.04	0.46
2:A8:2472:G:C5	2:A8:2475:C:C5	3.02	0.46
36:BA:543:U:H2'	36:BA:544:G:C8	2.51	0.46
2:A8:2507:C:C5'	2:A8:2573:C:H42	2.29	0.46
2:A8:19:A:H1'	2:A8:554:U:H5'	1.98	0.46
36:BA:796:C:H5'	46:BK:128:VAL:H	1.81	0.46
36:BA:572:A:C2	36:BA:864:A:C2	3.04	0.46
2:A8:1579:A:C6	2:A8:1580:A:C5	3.04	0.46
2:A8:299:A:H1'	2:A8:322:A:C6	2.49	0.46
2:A8:1872:A:C2	2:A8:1873:G:H1'	2.51	0.46
36:BA:788:U:C4	36:BA:789:U:C4	3.03	0.46
36:BA:1017:U:H2'	36:BA:1018:G:C8	2.51	0.46
2:A8:1807:G:C2	2:A8:1811:G:C6	3.04	0.46
36:BA:774:G:C6	36:BA:775:G:C5	3.04	0.46
2:A8:532:A:C8	2:A8:2021:C:C2	3.03	0.46
36:BA:604:G:C2	36:BA:635:A:N3	2.84	0.46
2:A8:538:A:C2	2:A8:539:G:H1'	2.51	0.46
2:A8:1107:G:C5	2:A8:1108:U:C5	3.04	0.46
11:AG:22:VAL:HA	11:AG:36:LEU:HB3	1.98	0.46
17:AM:114:ARG:HH21	17:AM:114:ARG:HG2	1.81	0.46
18:AN:102:PHE:N	18:AN:110:MET:H	2.12	0.46
2:A8:2821:A:H61	18:AN:2:ARG:HH22	1.63	0.46
36:BA:72:A:C4	36:BA:73:C:C6	3.04	0.46
36:BA:828:U:C5	36:BA:859:G:C5	3.04	0.46
2:A8:305:C:C2	2:A8:313:G:C2	3.03	0.46
36:BA:908:A:C8	36:BA:908:A:O5'	2.69	0.46
36:BA:1526:G:OP1	56:BU:37:TYR:CD1	2.69	0.46
36:BA:285:C:C6	36:BA:285:C:O5'	2.69	0.46
36:BA:563:A:H2'	36:BA:563:A:N3	2.30	0.46
2:A8:1980:G:C2	2:A8:1982:U:C2	3.04	0.46
2:A8:487:C:H3'	2:A8:488:G:H8	1.79	0.46
36:BA:287:U:H2'	36:BA:288:A:C8	2.51	0.46
2:A8:1063:G:C6	2:A8:1064:C:C4	3.04	0.46
2:A8:160:A:C5	2:A8:167:A:C2	3.04	0.46
2:A8:1182:G:C6	2:A8:1183:U:N3	2.83	0.46
2:A8:1004:U:C6	2:A8:1004:U:O5'	2.69	0.46
2:A8:1009:A:C2	2:A8:1010:A:C2	3.04	0.46
26:AV:30:ILE:O	26:AV:37:PRO:HA	2.16	0.46
2:A8:579:G:H4'	2:A8:2017:U:H2'	1.97	0.46
36:BA:801:U:C2	36:BA:802:A:C8	3.04	0.46
2:A8:21:A:C5	2:A8:22:C:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1431:A:C2	2:A8:1563:U:C2	3.04	0.46
2:A8:1446:C:H2'	2:A8:1447:C:H6	1.80	0.46
2:A8:282:A:C6	2:A8:283:G:C6	3.03	0.46
36:BA:838:G:N2	36:BA:839:C:H1'	2.31	0.46
36:BA:212:G:C6	36:BA:213:G:C5	3.04	0.46
2:A8:299:A:H2'	2:A8:300:A:C8	2.51	0.46
36:BA:1056:U:O4	36:BA:1200:C:C2	2.68	0.46
36:BA:623:C:C2	36:BA:624:C:C6	3.04	0.46
2:A8:2051:A:N6	2:A8:2614:A:H2'	2.31	0.46
36:BA:1124:G:H2'	36:BA:1145:A:C5	2.50	0.46
2:A8:598:U:H4'	16:AL:11:GLY:H	1.81	0.46
36:BA:228:A:H4'	51:BP:63:GLN:HE21	1.81	0.46
36:BA:1465:A:H2'	36:BA:1466:C:C6	2.51	0.46
18:AN:14:SER:HA	18:AN:17:ARG:CZ	2.46	0.46
34:A3:13:PHE:CD1	34:A3:21:PHE:HB3	2.51	0.46
20:AP:21:PRO:HA	20:AP:46:VAL:HB	1.98	0.46
2:A8:570:G:C5	2:A8:2030:A:C6	3.04	0.46
2:A8:2885:G:C5	2:A8:2886:A:C2	3.04	0.46
36:BA:413:G:O3'	36:BA:428:G:C2	2.69	0.46
36:BA:324:G:N3	36:BA:326:G:C8	2.84	0.46
36:BA:890:G:C6	36:BA:906:A:C8	3.03	0.46
2:A8:2045:C:C2	2:A8:2624:G:C2	3.03	0.46
2:A8:869:G:C2	2:A8:909:A:N1	2.84	0.46
1:A7:100:G:C6	1:A7:101:A:C5	3.04	0.46
2:A8:1798:U:H5	7:A6:270:ARG:HH22	1.64	0.46
36:BA:851:G:C5	36:BA:852:G:C8	3.04	0.46
2:A8:2800:A:C4	2:A8:2801:G:H1'	2.51	0.46
36:BA:1419:G:C4	36:BA:1482:G:C2	3.04	0.46
2:A8:1653:G:C8	18:AN:8:ARG:HA	2.51	0.46
2:A8:2405:G:N2	2:A8:2411:A:H3'	2.31	0.46
2:A8:419:U:H2'	2:A8:420:C:C6	2.50	0.46
36:BA:615:G:H21	51:BP:47:GLU:CB	2.29	0.46
1:A7:13:G:C5	1:A7:70:C:H4'	2.51	0.46
2:A8:611:C:C2	2:A8:618:G:C2	3.03	0.46
2:A8:649:G:C5	2:A8:650:C:C4	3.04	0.46
2:A8:2011:U:C2	2:A8:2012:G:C8	3.04	0.46
2:A8:1266:G:C6	23:AS:99:ARG:CZ	2.99	0.46
2:A8:2477:U:H5''	2:A8:2479:U:O4	2.16	0.46
36:BA:1127:G:H1'	36:BA:1280:A:C5	2.51	0.46
2:A8:89:A:C5	2:A8:90:U:C4	3.04	0.46
36:BA:885:G:C2	36:BA:886:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1451:U:H2'	36:BA:1453:G:C5	2.51	0.46
2:A8:713:G:C5	2:A8:714:U:C4	3.04	0.46
2:A8:1550:C:C4	2:A8:1551:A:C5	3.04	0.46
23:AS:9:HIS:HA	23:AS:102:HIS:CE1	2.51	0.46
2:A8:1308:A:C5	2:A8:1309:G:C4	3.03	0.46
1:A7:10:G:C5	1:A7:11:C:C5	3.03	0.46
2:A8:2543:G:H8	2:A8:2543:G:H5'	1.80	0.46
2:A8:1675:C:C5	8:AD:134:HIS:CE1	3.04	0.46
2:A8:762:U:H4'	2:A8:763:G:O4'	2.16	0.46
36:BA:52:C:C4	36:BA:53:A:C5	3.04	0.46
2:A8:1041:G:C2	2:A8:1115:G:N1	2.84	0.46
36:BA:949:A:C2	36:BA:950:U:C2	3.03	0.46
2:A8:1782:U:H3'	2:A8:1782:U:C6	2.51	0.46
36:BA:598:U:H4'	43:BH:85:TYR:CZ	2.51	0.46
41:BF:5:GLU:HG3	41:BF:63:ASN:H	1.80	0.46
40:BE:43:GLY:HA2	40:BE:117:ALA:HA	1.97	0.46
45:BJ:10:LEU:HD13	45:BJ:21:ALA:HB3	1.98	0.46
36:BA:842:U:H3'	36:BA:843:U:H4'	1.97	0.46
36:BA:153:C:C4	36:BA:154:U:C5	3.04	0.45
2:A8:1186:G:H2'	2:A8:1187:G:C8	2.51	0.45
2:A8:2713:U:C4	2:A8:2715:C:OP1	2.69	0.45
2:A8:2628:C:H1'	2:A8:2781:A:C5	2.50	0.45
2:A8:2564:A:H2'	2:A8:2565:A:C5	2.51	0.45
36:BA:1084:G:H2'	36:BA:1085:U:C6	2.51	0.45
36:BA:883:C:N4	47:BL:1:ALA:HB2	2.32	0.45
36:BA:1112:C:C5	36:BA:1113:C:C5	3.04	0.45
2:A8:2119:A:C6	2:A8:2171:A:C5	3.04	0.45
36:BA:122:G:C5	36:BA:123:U:C5	3.04	0.45
2:A8:2217:G:C6	2:A8:2218:G:C5	3.04	0.45
2:A8:2207:C:H1'	2:A8:2218:G:N2	2.31	0.45
2:A8:629:G:H5'	2:A8:651:G:C5'	2.46	0.45
2:A8:650:C:C5	2:A8:651:G:N2	2.84	0.45
2:A8:1266:G:N2	2:A8:2012:G:H2'	2.31	0.45
36:BA:757:U:H5'	36:BA:823:C:H1'	1.98	0.45
2:A8:960:A:H4'	2:A8:2457:U:H5'	1.98	0.45
2:A8:711:G:C6	2:A8:712:G:C5	3.03	0.45
2:A8:2525:G:C4'	2:A8:2741:A:C2	2.98	0.45
2:A8:1242:U:H3'	2:A8:1243:C:C6	2.51	0.45
2:A8:1308:A:H3'	2:A8:1309:G:H8	1.81	0.45
1:A7:9:G:C6	1:A7:112:G:C6	3.02	0.45
2:A8:1989:G:C2	2:A8:1990:C:H1'	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:319:G:C6	2:A8:333:G:C2	3.05	0.45
2:A8:452:G:C6	2:A8:453:A:C6	3.04	0.45
2:A8:188:G:C2	2:A8:209:C:C2	3.04	0.45
2:A8:661:A:C2	2:A8:662:G:C4	3.04	0.45
2:A8:121:G:C2	2:A8:131:A:C4	3.04	0.45
2:A8:169:G:C5	2:A8:170:U:C5	3.05	0.45
2:A8:1517:G:C2	2:A8:1732:C:C2	3.04	0.45
36:BA:1380:U:H1'	36:BA:1381:U:C5	2.51	0.45
43:BH:29:SER:H	43:BH:32:LYS:HD2	1.81	0.45
14:AJ:20:ALA:HB3	14:AJ:59:ALA:HA	1.98	0.45
50:BO:55:LEU:O	50:BO:59:VAL:HG23	2.16	0.45
2:A8:2578:G:OP2	2:A8:2578:G:H4'	2.16	0.45
8:AD:146:ILE:HG13	8:AD:147:GLY:H	1.80	0.45
36:BA:138:G:C6	36:BA:139:A:C5	3.04	0.45
36:BA:1125:U:C5	45:BJ:40:ILE:HG21	2.51	0.45
2:A8:562:U:C4	2:A8:2036:C:H1'	2.51	0.45
18:AN:30:ARG:HB3	18:AN:31:HIS:CE1	2.51	0.45
2:A8:307:G:C2	2:A8:310:A:C8	3.04	0.45
2:A8:877:A:N1	2:A8:901:C:C2	2.84	0.45
2:A8:528:A:C2	2:A8:2043:C:O5'	2.69	0.45
2:A8:805:G:H21	2:A8:831:G:H1'	1.81	0.45
2:A8:1021:A:C8	2:A8:1021:A:H3'	2.50	0.45
2:A8:1823:G:C6	2:A8:1824:G:C5	3.04	0.45
2:A8:2156:G:H2'	2:A8:2157:G:H5''	1.98	0.45
2:A8:1770:G:C4	2:A8:1771:C:C6	3.04	0.45
2:A8:2284:A:C6	2:A8:2285:C:C5	3.04	0.45
2:A8:415:A:C2	2:A8:416:U:N1	2.85	0.45
36:BA:629:A:C4	36:BA:630:A:C8	3.05	0.45
2:A8:1482:G:N2	2:A8:1483:G:C4	2.85	0.45
2:A8:2218:G:C5	2:A8:2219:U:C4	3.04	0.45
2:A8:475:C:C1'	2:A8:509:C:C2	2.98	0.45
2:A8:690:G:H4'	2:A8:780:G:H5''	1.98	0.45
2:A8:785:G:C5	2:A8:786:C:C5	3.04	0.45
2:A8:582:A:C2	2:A8:583:G:C4	3.04	0.45
36:BA:802:A:H3'	36:BA:803:G:H8	1.81	0.45
36:BA:418:C:H2'	36:BA:419:C:C6	2.51	0.45
36:BA:714:G:H2'	36:BA:715:A:C8	2.51	0.45
36:BA:276:G:C6	36:BA:277:C:C5	3.04	0.45
2:A8:1204:A:C5	2:A8:1206:G:C6	3.04	0.45
2:A8:1243:C:C2	2:A8:1244:A:C8	3.05	0.45
2:A8:1603:A:C6	2:A8:1604:C:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:319:G:C6	2:A8:320:A:C5	3.03	0.45
2:A8:204:A:OP1	2:A8:206:U:H1'	2.17	0.45
2:A8:1655:A:H61	2:A8:2005:A:H1'	1.82	0.45
2:A8:1303:G:C6	2:A8:1304:A:C6	3.04	0.45
2:A8:1684:G:C2	2:A8:1705:A:C2	3.04	0.45
2:A8:852:U:H5''	30:AZ:45:GLY:HA3	1.98	0.45
2:A8:2327:A:C4	2:A8:2388:A:C2	3.04	0.45
36:BA:929:G:C2	36:BA:930:C:H1'	2.52	0.45
36:BA:1192:C:C4	36:BA:1193:G:H1'	2.52	0.45
2:A8:332:A:C6	2:A8:335:C:C2	3.03	0.45
52:BQ:4:ILE:HD12	52:BQ:4:ILE:H	1.81	0.45
40:BE:15:ILE:HD12	40:BE:35:LEU:HG	1.99	0.45
2:A8:1682:G:C6	2:A8:1683:U:C4	3.04	0.45
17:AM:4:PRO:HD2	17:AM:92:TRP:CD2	2.52	0.45
36:BA:1404:C:H2'	36:BA:1405:G:C8	2.51	0.45
36:BA:858:G:H1	36:BA:869:G:C2'	2.29	0.45
2:A8:738:G:C6	2:A8:759:G:C6	3.03	0.45
2:A8:2696:U:H2'	2:A8:2697:G:C8	2.52	0.45
2:A8:2628:C:H1'	2:A8:2781:A:C4	2.51	0.45
36:BA:517:G:O6	36:BA:532:A:H5''	2.17	0.45
1:A7:81:G:C6	1:A7:82:U:C4	3.04	0.45
2:A8:2895:G:C2	2:A8:2896:C:C2	3.05	0.45
36:BA:1415:G:N2	36:BA:1416:G:H1'	2.31	0.45
36:BA:246:A:C5	36:BA:282:A:C6	3.04	0.45
36:BA:282:A:C4	36:BA:283:U:C6	3.04	0.45
36:BA:565:U:C5	36:BA:566:G:C4	3.04	0.45
2:A8:1707:G:C5	2:A8:1708:C:C5	3.04	0.45
2:A8:486:C:C2	2:A8:487:C:C5	3.04	0.45
36:BA:1463:U:H2'	36:BA:1464:U:H6	1.81	0.45
2:A8:1103:A:C5	2:A8:1104:C:C5	3.04	0.45
2:A8:2410:G:H3'	2:A8:2411:A:H8	1.81	0.45
2:A8:2072:C:N3	2:A8:2073:C:C5	2.85	0.45
2:A8:2217:G:C2	2:A8:2218:G:C4	3.04	0.45
2:A8:627:A:H8	16:AL:78:ARG:HH12	1.60	0.45
2:A8:1001:A:C8	2:A8:1002:G:C8	3.04	0.45
2:A8:1002:G:C6	2:A8:1154:G:N2	2.84	0.45
2:A8:628:G:C6	2:A8:629:G:C6	3.04	0.45
2:A8:1270:C:H2'	2:A8:1648:U:C6	2.52	0.45
2:A8:748:G:C5	2:A8:750:A:C4	3.04	0.45
2:A8:2482:A:H3'	2:A8:2483:C:H6	1.81	0.45
2:A8:711:G:C2	2:A8:721:A:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:265:A:C2	2:A8:428:A:C4	3.05	0.45
2:A8:1974:C:C4	2:A8:1975:G:N7	2.84	0.45
36:BA:595:A:C2	36:BA:643:C:N4	2.84	0.45
2:A8:2776:A:C8	2:A8:2782:G:C6	3.03	0.45
2:A8:1395:A:O3'	2:A8:1397:U:C5	2.69	0.45
2:A8:1339:G:H21	2:A8:1603:A:H1'	1.81	0.45
2:A8:843:G:C2	2:A8:844:A:C4	3.04	0.45
2:A8:953:G:C6	2:A8:954:G:N7	2.85	0.45
2:A8:955:U:C4	2:A8:956:G:C5	3.04	0.45
36:BA:1055:A:C6	36:BA:1206:G:C5	3.04	0.45
36:BA:617:G:C2	36:BA:624:C:C2	3.03	0.45
2:A8:2247:A:C6	2:A8:2248:C:C4	3.04	0.45
36:BA:318:G:C6	36:BA:336:A:C6	3.04	0.45
2:A8:2400:G:C2	2:A8:2401:U:C2	3.03	0.45
36:BA:1433:A:C6	36:BA:1468:A:C4	3.05	0.45
36:BA:831:A:C2	36:BA:856:C:O2	2.69	0.45
2:A8:2057:G:C2	2:A8:2612:C:C2	3.04	0.45
36:BA:847:G:C5	36:BA:848:C:C5	3.05	0.45
36:BA:1115:U:H2'	36:BA:1116:U:C6	2.51	0.45
2:A8:2671:G:C6	2:A8:2672:U:C4	3.05	0.45
2:A8:2819:G:C2	2:A8:2828:G:C4	3.04	0.45
2:A8:2652:C:C2	2:A8:2669:G:C2	3.04	0.45
2:A8:1014:A:C6	2:A8:1149:G:C6	3.04	0.45
36:BA:1298:U:C5	42:BG:113:LYS:HD2	2.51	0.45
10:AF:42:ALA:HB3	10:AF:84:ILE:HA	1.98	0.45
47:BL:18:SER:H	47:BL:23:LEU:CD2	2.30	0.45
45:BJ:57:VAL:HG22	45:BJ:58:ASN:H	1.80	0.45
34:A3:29:ARG:HH12	34:A3:30:HIS:CG	2.34	0.45
36:BA:59:A:H4'	36:BA:388:G:H2'	1.98	0.45
2:A8:2346:A:H4'	2:A8:2382:G:H4'	1.97	0.45
2:A8:1889:A:H2'	2:A8:2086:U:O2'	2.16	0.45
36:BA:1306:A:C2	36:BA:1307:U:H1'	2.52	0.45
2:A8:1753:G:C8	2:A8:1755:A:OP2	2.69	0.45
36:BA:521:G:H5'	47:BL:71:HIS:CE1	2.52	0.45
36:BA:1068:G:C6	36:BA:1108:G:C2	3.05	0.45
2:A8:2800:A:C6	2:A8:2801:G:C4	3.04	0.45
2:A8:1946:U:H2'	2:A8:1947:C:H6	1.81	0.45
2:A8:1964:G:H4'	2:A8:1965:C:OP2	2.17	0.45
2:A8:1982:U:C2	2:A8:1983:G:C8	3.04	0.45
2:A8:1103:A:H3'	2:A8:1104:C:C6	2.52	0.45
2:A8:2411:A:C2	2:A8:2412:A:N7	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A7:16:G:C6	1:A7:69:G:N1	2.85	0.45
2:A8:1536:C:H4'	2:A8:1537:G:N3	2.32	0.45
36:BA:977:A:H2'	36:BA:978:A:H5''	1.98	0.45
36:BA:784:A:C2	36:BA:785:G:C4	3.05	0.45
2:A8:68:G:C5	2:A8:69:C:C5	3.04	0.45
36:BA:20:U:C4	36:BA:21:G:C5	3.04	0.45
7:A6:143:VAL:O	7:A6:151:GLY:HA3	2.17	0.45
2:A8:2832:U:C4	2:A8:2883:A:H8	2.34	0.45
2:A8:1430:G:C6	2:A8:1431:A:C5	3.04	0.45
2:A8:18:U:H6	2:A8:18:U:O5'	2.00	0.45
2:A8:19:A:C2	2:A8:522:A:C2	3.05	0.45
2:A8:554:U:H2'	2:A8:555:G:C1'	2.47	0.45
36:BA:666:G:C2	36:BA:667:G:C4	3.04	0.45
2:A8:1439:A:C5	2:A8:1553:A:C5	3.05	0.45
2:A8:1552:A:H2'	2:A8:1553:A:H5'	1.99	0.45
2:A8:1834:U:H1'	2:A8:1972:G:N2	2.31	0.45
2:A8:1692:U:H6	2:A8:1692:U:O5'	2.00	0.45
2:A8:734:A:C5	2:A8:735:A:C8	3.04	0.45
2:A8:962:G:C6	2:A8:963:U:C4	3.05	0.45
36:BA:1256:A:H4'	36:BA:1258:G:C6	2.52	0.45
2:A8:1410:G:C6	2:A8:1411:U:C4	3.04	0.45
2:A8:2416:C:C4	2:A8:2417:C:C5	3.04	0.45
36:BA:592:G:C6	36:BA:648:A:C5	3.04	0.45
2:A8:1809:A:C5	2:A8:1810:A:C5	3.04	0.45
21:AQ:13:HIS:CD2	21:AQ:31:TYR:CD2	3.04	0.45
36:BA:238:A:C2	36:BA:239:U:C2	3.04	0.45
36:BA:943:U:C4	36:BA:944:G:C6	3.04	0.45
1:A7:46:A:C5	1:A7:47:C:C4	3.05	0.45
2:A8:2759:G:C6	2:A8:2760:C:C4	3.04	0.45
36:BA:633:G:C5	36:BA:634:C:C5	3.05	0.45
43:BH:105:THR:HG22	43:BH:121:GLY:HA2	1.98	0.45
2:A8:134:G:C6	2:A8:135:U:C4	3.05	0.45
2:A8:1839:G:C5	2:A8:1840:G:C8	3.05	0.45
2:A8:1905:C:H2'	2:A8:1930:G:H5''	1.98	0.45
2:A8:590:A:C4	2:A8:668:A:C2	3.05	0.45
36:BA:323:U:C4	36:BA:324:G:C6	3.05	0.45
2:A8:1749:A:C6	2:A8:1750:G:C5	3.04	0.45
36:BA:686:U:O4	36:BA:703:G:H1'	2.16	0.45
36:BA:927:G:C2	36:BA:1391:U:C2	3.05	0.45
2:A8:2199:A:N7	2:A8:2200:C:C5	2.85	0.45
2:A8:482:A:H4'	25:AU:44:HIS:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:27:G:C6	36:BA:28:A:C6	3.03	0.45
36:BA:563:A:C5	36:BA:567:G:H1'	2.52	0.45
2:A8:1213:A:N1	2:A8:1237:A:H1'	2.31	0.45
2:A8:891:G:N2	2:A8:892:A:C5	2.85	0.45
2:A8:1483:G:C5	2:A8:1484:U:C5	3.05	0.45
2:A8:475:C:H4'	2:A8:510:C:H5'	1.99	0.45
2:A8:1659:G:C6	2:A8:1660:G:C5	3.05	0.45
2:A8:1866:A:C4	2:A8:1876:A:C6	3.04	0.45
2:A8:1885:A:C8	2:A8:1885:A:O5'	2.70	0.45
36:BA:690:G:C6	36:BA:691:G:C6	3.04	0.45
2:A8:90:U:H2'	2:A8:91:A:C2	2.51	0.45
2:A8:2816:G:C2	2:A8:2831:G:C4	3.05	0.45
2:A8:1568:G:H5'	7:A6:59:GLN:HA	1.98	0.45
2:A8:2851:A:C5	2:A8:2852:G:C4	3.05	0.45
2:A8:2811:G:N2	2:A8:2812:G:H1'	2.32	0.45
36:BA:204:G:C5	36:BA:465:A:H2	2.34	0.45
36:BA:204:G:C5	36:BA:465:A:C2	3.04	0.45
2:A8:190:A:C6	2:A8:191:A:C4	3.04	0.45
2:A8:1767:G:C6	2:A8:1768:C:C4	3.05	0.45
2:A8:1767:G:C5	2:A8:1768:C:C5	3.05	0.45
54:BS:10:ILE:O	54:BS:15:LEU:HB2	2.15	0.45
36:BA:1206:G:H2'	36:BA:1207:G:O4'	2.16	0.45
36:BA:788:U:H2'	36:BA:789:U:O4'	2.17	0.45
2:A8:2496:C:C4	2:A8:2497:A:C2	3.05	0.45
2:A8:1818:U:C5	7:A6:155:ARG:NH1	2.85	0.45
36:BA:144:G:H2'	36:BA:145:G:C8	2.51	0.45
2:A8:1456:G:C6	2:A8:1457:U:C4	3.04	0.45
2:A8:2455:G:C5	2:A8:2456:C:C5	3.04	0.45
36:BA:1380:U:C5	42:BG:2:ARG:HD3	2.52	0.45
34:A3:15:LYS:HA	34:A3:21:PHE:HA	1.99	0.45
2:A8:1649:G:C6	2:A8:2009:A:C6	3.05	0.45
2:A8:272:A:C2	2:A8:366:C:C2	3.04	0.45
2:A8:1282:U:C4	2:A8:1283:G:C6	3.05	0.45
1:A7:7:G:C6	1:A7:8:C:C4	3.04	0.45
21:AQ:66:ALA:HA	21:AQ:69:ARG:HB2	1.99	0.45
36:BA:751:U:C4	36:BA:752:G:C6	3.05	0.45
44:BI:50:PRO:HB3	44:BI:79:ARG:HE	1.81	0.45
9:AE:37:ALA:HB1	9:AE:92:HIS:CD2	2.51	0.45
36:BA:859:G:H3'	36:BA:869:G:H22	1.81	0.45
1:A7:30:C:C5	1:A7:31:C:C4	3.05	0.45
1:A7:31:C:H4'	10:AF:25:MET:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:324:G:N2	36:BA:327:A:C8	2.85	0.45
36:BA:995:C:H2'	36:BA:996:A:C5'	2.46	0.45
2:A8:2430:A:H3'	2:A8:2431:U:H6	1.81	0.45
2:A8:869:G:C5	2:A8:870:U:C5	3.04	0.45
2:A8:1426:G:H22	2:A8:1571:A:H3'	1.82	0.45
2:A8:1572:A:C6	2:A8:1573:G:C5	3.04	0.45
1:A7:78:A:C2	2:A8:861:A:H2	2.35	0.45
36:BA:1486:G:N1	36:BA:1487:G:C4	2.85	0.45
2:A8:1845:G:N3	2:A8:1896:G:C2	2.84	0.45
36:BA:282:A:C2	36:BA:283:U:H1'	2.52	0.45
2:A8:1091:G:H2'	2:A8:1092:C:C6	2.52	0.45
2:A8:1092:C:H42	2:A8:1100:C:H42	1.64	0.45
36:BA:1457:G:C4	36:BA:1458:G:C8	3.05	0.45
2:A8:2451:A:C8	2:A8:2452:C:C5	3.03	0.45
2:A8:2070:A:C2	2:A8:2071:A:C4	3.05	0.45
2:A8:2437:G:C5	2:A8:2438:U:C4	3.04	0.45
2:A8:1506:U:H2'	2:A8:1507:C:C6	2.52	0.45
2:A8:2261:C:C6	27:AW:13:ARG:HG3	2.51	0.45
2:A8:2282:G:C5'	2:A8:2389:G:H1'	2.47	0.45
2:A8:1319:C:C2	2:A8:1320:C:C5	3.05	0.45
36:BA:1315:U:C2	36:BA:1323:G:C2	3.05	0.45
2:A8:649:G:C5	2:A8:650:C:C5	3.05	0.45
36:BA:781:A:C5	36:BA:802:A:C2	3.05	0.45
2:A8:1266:G:C6	2:A8:2012:G:C5	3.04	0.45
2:A8:2473:U:C6	2:A8:2474:U:C2	3.04	0.45
2:A8:2817:U:C4	2:A8:2818:U:C5	3.05	0.45
2:A8:2152:G:H3'	2:A8:2153:C:C6	2.51	0.45
2:A8:1430:G:H2'	2:A8:1431:A:O4'	2.17	0.45
2:A8:1550:C:H2'	2:A8:1551:A:O4'	2.17	0.45
2:A8:941:A:H2'	2:A8:942:G:C8	2.51	0.45
2:A8:1689:A:N9	2:A8:1700:A:C6	2.85	0.45
2:A8:1423:G:N2	2:A8:1576:U:H1'	2.31	0.45
2:A8:340:A:C6	2:A8:341:C:C2	3.05	0.45
2:A8:460:A:C6	2:A8:461:C:C2	3.05	0.45
36:BA:158:G:C6	36:BA:159:G:C5	3.04	0.45
2:A8:594:U:C2	2:A8:664:G:C2	3.05	0.45
15:AK:24:LEU:H	15:AK:38:ILE:HA	1.82	0.45
36:BA:790:A:C5	36:BA:791:G:C5	3.05	0.45
2:A8:85:G:C6	2:A8:98:G:C6	3.05	0.45
2:A8:350:G:C5	2:A8:351:C:C6	3.05	0.45
2:A8:2856:A:C6	2:A8:2857:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:377:G:C6	2:A8:378:C:C4	3.04	0.45
36:BA:373:A:H1'	36:BA:482:A:C8	2.52	0.45
36:BA:551:U:C4	36:BA:552:U:C4	3.05	0.45
1:A7:48:U:H4'	19:AO:100:HIS:CG	2.51	0.45
36:BA:44:A:N3	36:BA:399:G:C2	2.84	0.45
36:BA:668:G:C6	36:BA:669:G:C5	3.05	0.45
7:A6:107:LYS:HG2	7:A6:195:GLY:HA2	1.98	0.45
2:A8:263:G:H2'	2:A8:264:C:O4'	2.16	0.45
36:BA:975:A:C5	49:BN:71:GLY:HA2	2.52	0.45
36:BA:1455:G:H2'	36:BA:1456:A:C8	2.51	0.45
36:BA:1205:U:H4'	38:BC:189:HIS:CG	2.52	0.45
18:AN:47:VAL:HG23	18:AN:48:VAL:HG23	1.99	0.45
2:A8:1922:G:C2	2:A8:1923:U:C6	3.04	0.45
2:A8:1343:G:C6	2:A8:1344:U:C4	3.05	0.45
1:A7:29:A:C2	1:A7:30:C:O2	2.70	0.45
2:A8:197:A:C2	2:A8:2430:A:C6	3.05	0.45
28:AX:35:HIS:HB3	28:AX:37:PHE:CZ	2.52	0.45
2:A8:1141:U:H4'	2:A8:1142:A:O4'	2.17	0.45
36:BA:1109:C:C4	36:BA:1110:A:C4	3.05	0.45
36:BA:282:A:C2	36:BA:283:U:C1'	3.00	0.45
2:A8:2464:G:C4	2:A8:2487:G:N2	2.85	0.45
2:A8:2097:A:C5	2:A8:2193:G:N2	2.85	0.45
2:A8:166:U:C2	2:A8:167:A:C8	3.05	0.45
2:A8:1884:G:OP2	2:A8:1884:G:C8	2.70	0.45
2:A8:25:U:OP2	2:A8:26:G:C6	2.69	0.45
2:A8:2010:G:C6	2:A8:2011:U:C4	3.05	0.45
2:A8:2533:U:H4'	2:A8:2664:G:H4'	1.98	0.45
2:A8:1429:G:C4	2:A8:1568:G:C6	3.05	0.45
2:A8:1036:G:C6	2:A8:1037:G:C5	3.05	0.45
28:AX:15:ASN:HB3	28:AX:23:ALA:HB1	1.99	0.45
36:BA:595:A:H2'	36:BA:641:U:C4	2.52	0.45
2:A8:1689:A:C5	2:A8:1690:A:N7	2.84	0.45
2:A8:1419:A:C5	2:A8:1421:G:C4	3.05	0.45
36:BA:955:U:C6	36:BA:955:U:O5'	2.70	0.45
2:A8:31:C:C4	2:A8:32:C:C5	3.04	0.45
2:A8:2466:C:C2	2:A8:2467:C:C6	3.05	0.45
2:A8:1705:A:C5	2:A8:1706:C:C4	3.04	0.45
2:A8:855:G:C2	2:A8:923:G:C4	3.05	0.45
2:A8:2632:A:C2	2:A8:2787:C:C2	3.05	0.45
2:A8:1813:G:C6	2:A8:1814:G:C5	3.04	0.45
2:A8:1040:A:C2	2:A8:1116:G:C2	3.03	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1057:G:C6	36:BA:1058:G:C4	3.04	0.45
2:A8:1995:U:H2'	2:A8:1996:C:C5	2.51	0.45
1:A7:42:C:H42	10:AF:89:THR:HB	1.82	0.45
36:BA:635:A:C2	36:BA:636:U:C2	3.05	0.45
36:BA:856:C:H5'	56:BU:46:ARG:HH12	1.81	0.45
2:A8:2435:A:C2	2:A8:2436:G:C4	3.05	0.45
12:AH:124:THR:HG23	12:AH:128:HIS:CE1	2.52	0.45
24:AT:72:GLN:HE21	24:AT:72:GLN:HA	1.81	0.45
45:BJ:8:ILE:HD13	45:BJ:25:ILE:HD12	1.99	0.45
7:A6:70:LYS:HG3	7:A6:71:ASP:H	1.81	0.45
36:BA:1371:G:C6	36:BA:1372:U:C4	3.05	0.45
16:AL:34:GLY:C	16:AL:35:HIS:CG	2.90	0.45
2:A8:1132:U:C6	14:AJ:84:ILE:CD1	2.99	0.45
2:A8:2355:G:C2	2:A8:2363:G:C4	3.05	0.45
51:BP:8:ARG:HH21	51:BP:14:ARG:H	1.63	0.45
36:BA:354:G:N2	36:BA:355:C:C2	2.85	0.45
36:BA:101:A:C6	36:BA:102:G:C5	3.05	0.45
2:A8:571:U:C2	2:A8:575:A:C8	3.05	0.45
2:A8:1853:A:C6	2:A8:1889:A:C4	3.05	0.45
2:A8:199:A:H61	2:A8:2433:A:H3'	1.81	0.45
36:BA:184:G:H4'	36:BA:224:U:O3'	2.17	0.45
2:A8:1276:A:C2	2:A8:1295:C:H1'	2.51	0.45
2:A8:2297:A:H2'	2:A8:2319:G:H21	1.82	0.45
2:A8:1372:U:N3	2:A8:1373:A:C5	2.85	0.45
2:A8:876:C:H2'	2:A8:877:A:H8	1.81	0.45
2:A8:482:A:H4'	25:AU:44:HIS:CB	2.47	0.45
1:A7:78:A:H2	2:A8:861:A:C2	2.35	0.45
2:A8:1959:G:C2	2:A8:1960:A:H1'	2.51	0.45
2:A8:1661:G:C2	2:A8:1662:U:C2	3.04	0.45
1:A7:16:G:C2	1:A7:69:G:C2	3.05	0.45
2:A8:625:G:C2	2:A8:626:A:C2	3.05	0.45
2:A8:782:A:H4'	2:A8:783:A:O5'	2.17	0.45
2:A8:629:G:H5'	2:A8:651:G:H4'	1.98	0.45
2:A8:1562:U:H2'	2:A8:1563:U:C6	2.52	0.45
2:A8:1977:A:C6	2:A8:1978:A:C5	3.04	0.45
2:A8:2789:C:C5	2:A8:2893:A:C5	3.05	0.45
2:A8:1549:A:C2	2:A8:1550:C:C2	3.04	0.45
2:A8:1477:A:C4	2:A8:1515:A:C6	3.04	0.45
36:BA:935:A:H2'	36:BA:936:C:O4'	2.16	0.45
2:A8:1395:A:H4'	2:A8:1397:U:C4	2.51	0.45
2:A8:1765:U:C2	2:A8:1988:G:N2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:654:G:C6	36:BA:655:A:C5	3.05	0.45
2:A8:1668:A:C2	2:A8:1674:G:C8	3.05	0.45
36:BA:487:A:C6	36:BA:488:C:H1'	2.52	0.45
2:A8:190:A:N6	2:A8:207:A:H1'	2.32	0.45
2:A8:122:G:C6	2:A8:123:G:C5	3.05	0.45
2:A8:35:G:C6	2:A8:446:G:C2	3.04	0.45
36:BA:1518:A:C6	36:BA:1519:A:C6	3.04	0.45
2:A8:2255:G:H1	2:A8:2275:C:H42	1.65	0.45
36:BA:608:A:C5	36:BA:609:A:C8	3.05	0.45
22:AR:41:ILE:HG12	22:AR:54:VAL:HG11	1.97	0.45
2:A8:1664:A:C6	2:A8:1665:A:C5	3.05	0.45
43:BH:127:TYR:CD2	43:BH:127:TYR:N	2.84	0.45
3:AA:353:ALA:HB1	3:AA:376:ILE:HG23	1.98	0.45
24:AT:55:VAL:H	24:AT:88:LYS:HG2	1.82	0.45
36:BA:128:G:N3	36:BA:234:C:C2	2.84	0.45
2:A8:972:A:C8	2:A8:973:A:H2'	2.52	0.45
2:A8:2083:G:H2'	2:A8:2084:C:C6	2.52	0.45
2:A8:2088:A:C8	2:A8:2088:A:O5'	2.70	0.45
2:A8:1650:A:C2	2:A8:1651:G:N9	2.84	0.45
2:A8:1131:G:C5	2:A8:2025:C:H4'	2.52	0.45
2:A8:2116:G:H3'	2:A8:2117:A:C8	2.52	0.45
2:A8:2330:G:C5	2:A8:2331:G:C8	3.05	0.45
2:A8:347:A:C6	2:A8:348:A:C6	3.04	0.45
2:A8:81:G:C2	2:A8:106:C:C2	3.05	0.45
36:BA:1332:A:C2	36:BA:1333:A:C4	3.05	0.45
2:A8:1755:A:H61	2:A8:2694:G:H2'	1.82	0.45
2:A8:2710:C:C4	2:A8:2711:A:C6	3.05	0.45
2:A8:2041:U:C2	2:A8:2042:A:N7	2.85	0.45
36:BA:1504:G:H4'	36:BA:1505:G:C4	2.51	0.45
36:BA:765:G:C4	36:BA:812:G:C2	3.05	0.45
2:A8:1797:G:C2	2:A8:1823:G:C4	3.05	0.45
36:BA:852:G:C2	36:BA:853:C:C2	3.05	0.45
36:BA:1414:U:C2	36:BA:1415:G:C8	3.05	0.45
2:A8:2592:G:C2	2:A8:2603:G:C2	3.05	0.45
2:A8:488:G:C8	2:A8:490:C:OP2	2.70	0.45
2:A8:1128:G:H4'	2:A8:2517:C:H4'	1.99	0.45
2:A8:2648:G:C5	2:A8:2673:G:C2	3.04	0.45
2:A8:1718:G:N1	2:A8:1743:G:H1'	2.31	0.45
2:A8:1742:U:C4	2:A8:1743:G:C5	3.05	0.45
2:A8:274:C:N3	2:A8:275:C:C5	2.85	0.45
2:A8:2100:G:C6	2:A8:2101:A:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1010:A:H1'	2:A8:1153:C:H1'	1.99	0.45
2:A8:43:G:H3'	2:A8:44:A:H8	1.81	0.45
2:A8:1659:G:C2	2:A8:1660:G:N9	2.85	0.45
36:BA:781:A:H2'	36:BA:782:A:H5'	1.99	0.45
36:BA:785:G:C6	36:BA:786:G:C5	3.05	0.45
2:A8:993:G:C4	2:A8:1162:G:C2	3.05	0.45
36:BA:254:G:C2	36:BA:273:U:C2	3.05	0.45
2:A8:949:G:C2	2:A8:950:G:C8	3.05	0.45
2:A8:2852:G:C2	2:A8:2853:C:C2	3.05	0.45
2:A8:1545:A:C6	2:A8:1546:G:C4	3.05	0.45
36:BA:863:U:C4	36:BA:866:C:H5	2.34	0.45
36:BA:707:U:H5''	46:BK:21:HIS:HB3	1.98	0.45
2:A8:1059:G:H21	13:AI:127:SER:CA	2.30	0.45
36:BA:673:A:C2	36:BA:734:G:C2	3.05	0.45
36:BA:1220:G:N3	54:BS:53:GLY:HA2	2.31	0.45
36:BA:665:A:C4	36:BA:733:G:C5	3.05	0.45
36:BA:833:G:C6	36:BA:834:U:C4	3.04	0.45
36:BA:775:G:C4	36:BA:776:G:C8	3.05	0.45
2:A8:1680:U:H3'	2:A8:1681:G:C8	2.51	0.45
1:A7:6:G:C2	1:A7:115:A:C2	3.05	0.45
2:A8:332:A:C5	2:A8:335:C:C4	3.05	0.45
2:A8:2265:U:H6	2:A8:2265:U:O5'	2.00	0.45
2:A8:1364:G:C2	2:A8:1368:G:C6	3.04	0.45
2:A8:1801:A:N1	2:A8:2203:U:C5	2.85	0.45
36:BA:466:A:H4'	36:BA:467:U:C4	2.52	0.45
36:BA:1378:C:H1'	42:BG:94:ARG:HH22	1.82	0.45
52:BQ:10:ARG:HH12	52:BQ:25:GLU:H	1.63	0.45
2:A8:324:A:C6	2:A8:339:U:H4'	2.52	0.45
2:A8:1906:G:C2	2:A8:1907:G:C4	3.05	0.45
2:A8:1383:A:C2	2:A8:1384:A:N3	2.85	0.45
2:A8:1596:A:C6	2:A8:1597:A:C6	3.05	0.45
2:A8:1279:G:C2	2:A8:1292:G:C2	3.05	0.45
2:A8:1292:G:C5	2:A8:1293:C:C5	3.05	0.45
2:A8:1279:G:C6	2:A8:1292:G:C6	3.05	0.45
2:A8:2884:U:C2	31:A0:48:TYR:CZ	3.05	0.45
36:BA:109:A:C6	36:BA:327:A:C6	3.05	0.45
36:BA:892:A:C4	36:BA:907:A:C8	3.05	0.45
36:BA:1515:G:C2	36:BA:1521:C:C2	3.05	0.45
2:A8:500:G:N2	2:A8:503:A:C8	2.85	0.45
2:A8:857:G:C6	2:A8:858:G:C5	3.05	0.45
2:A8:1024:G:C8	2:A8:1025:G:H2'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1139:G:C6	2:A8:1140:C:C5	3.05	0.45
36:BA:246:A:C6	36:BA:282:A:C5	3.05	0.45
2:A8:1936:A:C6	2:A8:1945:G:C2	3.04	0.45
2:A8:1984:G:C6	2:A8:1985:C:C4	3.05	0.45
2:A8:2170:A:H5''	6:A5:132:GLY:CA	2.47	0.45
2:A8:2170:A:H5''	6:A5:132:GLY:HA2	1.99	0.45
2:A8:1173:U:H1'	2:A8:1177:G:H1	1.82	0.45
2:A8:1173:U:H2'	2:A8:1174:U:C1'	2.47	0.45
2:A8:1334:G:C6	2:A8:1335:C:C4	3.05	0.45
2:A8:785:G:C6	2:A8:786:C:C4	3.05	0.45
8:AD:104:VAL:HG11	8:AD:206:ALA:H	1.82	0.45
36:BA:540:G:H21	39:BD:40:HIS:CE1	2.35	0.45
36:BA:544:G:C5	36:BA:545:C:C5	3.05	0.45
2:A8:2830:C:H3'	8:AD:59:ARG:HH11	1.81	0.45
2:A8:1434:A:C6	2:A8:1435:G:C5	3.05	0.45
41:BF:3:HIS:CG	41:BF:96:VAL:H	2.34	0.45
36:BA:666:G:C4	36:BA:741:G:C2	3.05	0.45
2:A8:1527:G:H21	2:A8:1545:A:H62	1.64	0.45
2:A8:1969:A:H1'	2:A8:1973:G:O4'	2.17	0.45
36:BA:748:G:C6	36:BA:749:A:C5	3.05	0.45
2:A8:1706:C:H2'	2:A8:1757:A:H5''	1.99	0.45
2:A8:2393:U:H2'	2:A8:2394:C:O4'	2.17	0.45
36:BA:1517:G:H2'	36:BA:1518:A:O4'	2.17	0.45
2:A8:631:A:H3'	2:A8:632:A:C8	2.51	0.45
2:A8:2255:G:C5	2:A8:2256:G:C5	3.05	0.45
7:A6:157:ALA:CB	7:A6:196:ASN:HB2	2.47	0.45
2:A8:2734:A:N6	2:A8:2735:G:C4	2.85	0.45
36:BA:1357:A:C4	36:BA:1358:U:C5	3.05	0.45
36:BA:63:C:C1'	36:BA:380:G:H4'	2.46	0.45
2:A8:2454:G:C6	2:A8:2455:G:C5	3.05	0.45
36:BA:398:U:C2	36:BA:399:G:C8	3.05	0.45
2:A8:134:G:C2	2:A8:135:U:C2	3.05	0.45
2:A8:1281:G:C6	2:A8:1282:U:C4	3.05	0.45
2:A8:1529:G:C5	2:A8:1530:G:C8	3.05	0.45
2:A8:2366:A:C6	2:A8:2367:G:C4	3.05	0.45
36:BA:1342:C:H4'	44:BI:126:PHE:HB2	1.99	0.45
41:BF:38:ARG:HH12	41:BF:100:SER:H	1.65	0.45
2:A8:1893:C:C2	2:A8:1894:C:C6	3.05	0.45
2:A8:2682:A:C8	8:AD:11:MET:HG3	2.52	0.45
2:A8:125:A:C1'	33:A2:13:ASN:HB2	2.47	0.45
9:AE:150:THR:HG22	9:AE:153:LEU:H	1.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:555:U:H2'	36:BA:556:C:C6	2.52	0.45
2:A8:764:A:H5''	7:A6:208:GLY:HA2	1.98	0.45
2:A8:2391:G:H1'	2:A8:2424:C:N4	2.32	0.45
36:BA:85:U:H4'	36:BA:87:C:C2	2.52	0.45
2:A8:2380:C:H2'	2:A8:2381:A:C8	2.53	0.44
36:BA:185:U:H2'	36:BA:186:C:C6	2.52	0.44
2:A8:1279:G:C2	2:A8:1280:G:C4	3.05	0.44
2:A8:1279:G:H4'	18:AN:31:HIS:CD2	2.52	0.44
36:BA:1333:A:H3'	36:BA:1334:G:H8	1.82	0.44
2:A8:2694:G:N2	2:A8:2716:C:H1'	2.32	0.44
2:A8:1727:C:C2	2:A8:1734:G:N2	2.85	0.44
2:A8:1739:A:C5	2:A8:1740:G:C5	3.05	0.44
36:BA:1514:G:N2	36:BA:1515:G:H1'	2.32	0.44
1:A7:81:G:O4'	2:A8:919:U:H5'	2.17	0.44
2:A8:2795:C:C2	2:A8:2802:G:C2	3.04	0.44
2:A8:2801:G:C6	2:A8:2802:G:C6	3.06	0.44
36:BA:1487:G:C6	36:BA:1488:G:C8	3.05	0.44
2:A8:1792:G:C6	2:A8:1828:G:C4	3.05	0.44
2:A8:1942:C:C4	2:A8:1943:U:C4	3.05	0.44
2:A8:1653:G:C6	18:AN:9:GLN:CB	3.00	0.44
2:A8:415:A:C2	2:A8:416:U:C2	3.05	0.44
2:A8:223:A:H1'	2:A8:421:C:H1'	1.99	0.44
2:A8:1177:G:H2'	2:A8:1178:C:O4'	2.17	0.44
2:A8:2881:U:H2'	2:A8:2882:A:C8	2.52	0.44
2:A8:1560:G:C6	2:A8:1561:C:C4	3.05	0.44
41:BF:3:HIS:CG	41:BF:95:ALA:HA	2.52	0.44
2:A8:1381:G:H2'	2:A8:1382:G:H5'	1.99	0.44
2:A8:1120:G:C5	2:A8:1121:C:C4	3.06	0.44
2:A8:2852:G:C6	2:A8:2853:C:C4	3.05	0.44
2:A8:1477:A:C4	2:A8:1478:G:H1'	2.52	0.44
2:A8:815:C:H1'	2:A8:1193:G:N2	2.32	0.44
36:BA:796:C:C5'	46:BK:128:VAL:H	2.30	0.44
2:A8:1699:G:C5	2:A8:1763:G:C2	3.05	0.44
2:A8:1309:G:N1	2:A8:1310:G:C5	2.85	0.44
2:A8:771:G:C6	2:A8:772:C:C4	3.05	0.44
2:A8:86:G:C6	2:A8:87:U:C4	3.05	0.44
2:A8:1115:G:N1	2:A8:1116:G:C5	2.86	0.44
2:A8:2838:G:C6	2:A8:2839:G:C5	3.05	0.44
2:A8:2839:G:H1'	18:AN:93:GLY:H	1.82	0.44
36:BA:155:A:C6	36:BA:167:A:C6	3.04	0.44
36:BA:237:G:C6	36:BA:238:A:C5	3.04	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:547:A:C6	2:A8:548:G:H1'	2.52	0.44
2:A8:117:G:H5'	2:A8:126:A:C8	2.52	0.44
12:AH:48:GLU:CD	12:AH:48:GLU:H	2.20	0.44
2:A8:1891:G:C5	2:A8:1892:C:C5	3.05	0.44
36:BA:48:C:C4	36:BA:365:U:H5	2.35	0.44
40:BE:91:SER:HA	40:BE:129:SER:H	1.82	0.44
34:A3:23:HIS:O	34:A3:46:LYS:HA	2.17	0.44
34:A3:31:ILE:HG12	34:A3:33:THR:HG22	1.98	0.44
10:AF:110:ILE:HD11	10:AF:176:PHE:HE1	1.82	0.44
15:AK:68:VAL:HG22	15:AK:78:PHE:CE1	2.52	0.44
36:BA:585:G:C5	36:BA:586:C:C5	3.05	0.44
8:AD:106:LYS:HE2	8:AD:173:GLN:HE22	1.82	0.44
12:AH:33:GLN:HA	28:AX:38:TRP:CZ2	2.52	0.44
29:AY:25:GLN:HA	29:AY:29:ARG:HB2	1.99	0.44
36:BA:113:G:C2	36:BA:315:A:C2	3.05	0.44
2:A8:2123:G:C6	2:A8:2124:G:C5	3.04	0.44
2:A8:2335:A:C6	2:A8:2337:G:H1'	2.52	0.44
36:BA:411:A:C2	36:BA:428:G:N2	2.85	0.44
2:A8:760:G:C6	2:A8:761:A:C4	3.05	0.44
2:A8:2710:C:N3	2:A8:2711:A:C5	2.85	0.44
2:A8:1846:G:C6	2:A8:1847:A:C5	3.06	0.44
2:A8:1791:A:H8	2:A8:1792:G:C8	2.35	0.44
36:BA:246:A:C5	36:BA:279:A:C5	3.05	0.44
2:A8:2516:A:N1	2:A8:2569:G:C5	2.85	0.44
36:BA:1439:G:C2	36:BA:1463:U:O2	2.70	0.44
2:A8:419:U:H6	2:A8:419:U:O5'	1.99	0.44
2:A8:2095:A:C6	2:A8:2096:C:C4	3.05	0.44
1:A7:94:A:C6	1:A7:95:U:C2	3.05	0.44
2:A8:1508:A:H5''	2:A8:1509:A:H2'	2.00	0.44
2:A8:1861:G:N2	2:A8:1882:U:H1'	2.31	0.44
2:A8:583:G:C5	2:A8:584:C:C5	3.05	0.44
2:A8:628:G:H2'	2:A8:629:G:C8	2.52	0.44
2:A8:705:A:C8	2:A8:705:A:O5'	2.70	0.44
36:BA:22:G:H2'	36:BA:23:C:C6	2.52	0.44
2:A8:2829:A:H2'	2:A8:2830:C:C6	2.53	0.44
2:A8:666:A:N1	2:A8:667:U:C2	2.85	0.44
2:A8:537:G:H22	2:A8:555:G:H2'	1.82	0.44
2:A8:49:A:C6	2:A8:118:A:C8	3.05	0.44
36:BA:1176:A:C5	36:BA:1177:G:C6	3.05	0.44
2:A8:1697:G:C4	2:A8:1698:A:C8	3.06	0.44
36:BA:654:G:C8	36:BA:753:A:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:322:A:C2	2:A8:340:A:C6	3.04	0.44
1:A7:61:G:C6	1:A7:62:C:C4	3.05	0.44
2:A8:155:A:C6	2:A8:172:A:C6	3.05	0.44
36:BA:681:A:C6	36:BA:710:G:C6	3.06	0.44
2:A8:1782:U:C4	2:A8:2609:U:C4	3.05	0.44
2:A8:2056:G:H5'	2:A8:2056:G:C8	2.52	0.44
2:A8:2391:G:C4	2:A8:2424:C:C5	3.06	0.44
47:BL:101:LEU:HD12	47:BL:101:LEU:H	1.82	0.44
9:AE:9:GLN:CD	9:AE:9:GLN:H	2.20	0.44
17:AM:81:ARG:HE	17:AM:84:LYS:HZ1	1.64	0.44
9:AE:60:TRP:CZ3	9:AE:71:GLY:HA2	2.52	0.44
52:BQ:27:PHE:HA	52:BQ:37:ILE:O	2.17	0.44
2:A8:1713:A:H3'	2:A8:1714:U:H5''	1.99	0.44
2:A8:1746:A:C2	2:A8:1747:U:C2	3.06	0.44
36:BA:459:A:C2	36:BA:460:A:C8	3.05	0.44
2:A8:2062:A:C5	2:A8:2503:A:N7	2.86	0.44
36:BA:382:A:H2'	36:BA:383:A:O4'	2.17	0.44
53:BR:62:ARG:HA	53:BR:67:LEU:HB3	1.99	0.44
37:BB:103:TRP:HA	37:BB:106:VAL:HB	2.00	0.44
2:A8:112:U:H2'	2:A8:113:U:H5'	2.00	0.44
2:A8:1889:A:C5	2:A8:1890:A:C5	3.06	0.44
1:A7:51:G:H21	1:A7:52:A:H8	1.63	0.44
2:A8:1733:G:C4	2:A8:1734:G:C8	3.05	0.44
2:A8:500:G:C4	2:A8:502:A:OP2	2.71	0.44
2:A8:863:A:O5'	2:A8:863:A:C8	2.70	0.44
36:BA:1413:A:C6	36:BA:1414:U:C5	3.05	0.44
2:A8:1845:G:N1	2:A8:1896:G:C5	2.85	0.44
36:BA:241:G:N2	36:BA:286:C:C2	2.85	0.44
36:BA:243:A:O4'	36:BA:245:U:C6	2.70	0.44
2:A8:1769:U:H1'	2:A8:1984:G:N2	2.33	0.44
2:A8:1770:G:H2'	2:A8:1771:C:O4'	2.17	0.44
2:A8:1983:G:N1	2:A8:1984:G:C5	2.86	0.44
2:A8:415:A:C6	2:A8:2409:G:C6	3.05	0.44
2:A8:2412:A:C6	2:A8:2413:G:C4	3.06	0.44
2:A8:2193:G:N2	2:A8:2194:U:C2	2.85	0.44
1:A7:85:G:H2'	1:A7:86:G:H8	1.83	0.44
2:A8:604:G:N2	2:A8:657:U:H4'	2.32	0.44
2:A8:1180:U:H2'	2:A8:1181:U:O4'	2.17	0.44
2:A8:439:A:C2	2:A8:440:C:H1'	2.52	0.44
2:A8:1269:A:C2	2:A8:2012:G:H1'	2.52	0.44
36:BA:541:G:N2	36:BA:542:G:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2830:C:H1'	2:A8:2836:U:O4'	2.17	0.44
2:A8:723:C:C4	2:A8:724:U:C4	3.05	0.44
36:BA:269:C:H2'	36:BA:270:A:H8	1.82	0.44
2:A8:1195:G:C8	2:A8:1195:G:H5''	2.53	0.44
36:BA:1244:G:C5	36:BA:1294:G:C6	3.06	0.44
2:A8:595:C:C2	2:A8:663:G:C2	3.05	0.44
36:BA:1256:A:H4'	36:BA:1258:G:C4	2.52	0.44
36:BA:622:A:C8	36:BA:623:C:C6	3.05	0.44
2:A8:851:C:H2'	2:A8:852:U:C6	2.53	0.44
2:A8:633:A:OP2	2:A8:634:C:C5	2.70	0.44
36:BA:343:U:H2'	36:BA:345:C:C4	2.53	0.44
2:A8:2046:G:H22	2:A8:2623:G:H1'	1.82	0.44
36:BA:1365:G:C6	36:BA:1366:C:C4	3.05	0.44
2:A8:289:G:C2	2:A8:352:A:C4	3.06	0.44
2:A8:2702:G:C6	2:A8:2703:C:C4	3.05	0.44
2:A8:237:C:C2	2:A8:261:G:C2	3.05	0.44
36:BA:1465:A:C5	36:BA:1466:C:C4	3.05	0.44
3:AA:160:ILE:HD11	5:AC:33:VAL:HG23	1.99	0.44
50:BO:45:HIS:CE1	50:BO:48:ASP:OD2	2.71	0.44
36:BA:1428:A:C2	36:BA:1429:A:C4	3.05	0.44
2:A8:326:G:C2	2:A8:337:C:C2	3.05	0.44
2:A8:1356:G:N2	2:A8:1376:C:H1'	2.33	0.44
37:BB:8:MET:HG3	37:BB:11:ALA:H	1.81	0.44
2:A8:2169:A:H4'	6:A5:129:GLN:HA	1.99	0.44
1:A7:113:C:H2'	1:A7:114:C:C6	2.52	0.44
2:A8:119:A:H4'	2:A8:120:U:C6	2.53	0.44
2:A8:1907:G:N1	2:A8:1908:C:C2	2.86	0.44
2:A8:670:A:H61	9:AE:88:ARG:NH1	2.08	0.44
2:A8:1519:G:C5	2:A8:1520:U:C5	3.06	0.44
36:BA:1300:G:C5	36:BA:1334:G:C5	3.06	0.44
2:A8:740:C:N4	2:A8:757:G:H1	2.16	0.44
36:BA:1106:G:C6	36:BA:1107:C:C4	3.06	0.44
2:A8:1945:G:C6	2:A8:1946:U:C4	3.05	0.44
2:A8:1756:G:OP2	2:A8:1756:G:C4	2.70	0.44
2:A8:2492:U:C2	2:A8:2493:U:C6	3.05	0.44
2:A8:1128:G:C4'	2:A8:2517:C:H4'	2.47	0.44
2:A8:275:C:C5	2:A8:276:U:C6	3.06	0.44
2:A8:2070:A:N3	2:A8:2442:C:C2	2.86	0.44
2:A8:1505:A:N1	2:A8:1506:U:C2	2.86	0.44
36:BA:1319:A:C4	36:BA:1323:G:C8	3.06	0.44
2:A8:1432:G:H21	2:A8:1562:U:H1'	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:221:A:C1'	2:A8:233:A:H1'	2.47	0.44
2:A8:1528:A:C8	2:A8:1544:A:N6	2.85	0.44
36:BA:424:G:H2'	36:BA:425:G:C8	2.53	0.44
2:A8:1696:G:N1	2:A8:1697:G:H1'	2.32	0.44
2:A8:2588:G:C6	2:A8:2607:G:C4	3.06	0.44
36:BA:204:G:C2	36:BA:465:A:H5''	2.52	0.44
2:A8:1577:C:H2'	2:A8:1578:U:O4'	2.18	0.44
36:BA:939:G:H1'	36:BA:1376:U:H1'	1.98	0.44
2:A8:923:G:C2	2:A8:924:G:C8	3.05	0.44
15:AK:23:VAL:HG21	15:AK:32:ALA:CA	2.47	0.44
2:A8:35:G:H2'	2:A8:36:G:O4'	2.17	0.44
2:A8:2536:G:H3'	2:A8:2537:U:C5	2.52	0.44
2:A8:1802:A:H3'	2:A8:1802:A:C8	2.53	0.44
36:BA:342:C:C4	36:BA:343:U:C4	3.05	0.44
2:A8:1809:A:C6	2:A8:1810:A:C6	3.06	0.44
22:AR:49:ILE:HD12	22:AR:51:VAL:O	2.18	0.44
36:BA:597:G:C4	36:BA:598:U:C6	3.06	0.44
36:BA:310:G:C5	36:BA:311:C:C5	3.05	0.44
2:A8:2126:A:H5'	6:A5:38:PHE:CE2	2.52	0.44
38:BC:116:ALA:O	38:BC:197:VAL:HG11	2.18	0.44
8:AD:116:LYS:HD2	18:AN:3:HIS:CG	2.53	0.44
36:BA:230:G:C6	36:BA:231:U:C4	3.05	0.44
2:A8:541:A:C2	2:A8:542:C:C2	3.05	0.44
40:BE:82:HIS:CD2	43:BH:95:MET:SD	3.11	0.44
22:AR:5:PHE:CZ	22:AR:12:HIS:HB2	2.52	0.44
38:BC:49:ALA:HB1	38:BC:71:ARG:H	1.82	0.44
2:A8:1906:G:N1	2:A8:1907:G:C5	2.85	0.44
2:A8:1922:G:C6	2:A8:1923:U:C4	3.06	0.44
2:A8:2234:G:C4	2:A8:2235:G:C8	3.05	0.44
2:A8:818:G:O5'	2:A8:818:G:C8	2.70	0.44
2:A8:1292:G:C2	2:A8:1293:C:C2	3.05	0.44
2:A8:2320:U:H1'	2:A8:2322:A:H62	1.82	0.44
36:BA:410:G:H1'	36:BA:433:G:C2	2.53	0.44
36:BA:892:A:H61	36:BA:906:A:C2'	2.30	0.44
2:A8:2713:U:H2'	2:A8:2715:C:OP2	2.16	0.44
36:BA:766:A:C5	36:BA:814:A:C4	3.05	0.44
2:A8:480:A:H3'	2:A8:481:G:C5'	2.46	0.44
36:BA:1412:C:C2	36:BA:1489:G:C2	3.06	0.44
2:A8:2168:G:N2	2:A8:2171:A:C8	2.85	0.44
2:A8:416:U:C4	2:A8:417:C:C5	3.06	0.44
2:A8:1719:G:N2	2:A8:1720:U:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2425:A:H5'	2:A8:2427:C:O4'	2.18	0.44
2:A8:1171:G:C5	2:A8:1172:C:C5	3.05	0.44
2:A8:1000:A:C2	2:A8:1155:A:C4	3.05	0.44
2:A8:1876:A:C5	2:A8:1877:A:C4	3.06	0.44
36:BA:697:U:H3	36:BA:798:U:C4'	2.30	0.44
36:BA:798:U:H2'	36:BA:799:G:O4'	2.18	0.44
36:BA:800:G:H2'	36:BA:801:U:C5	2.53	0.44
2:A8:2818:U:H4'	2:A8:2837:A:O4'	2.18	0.44
2:A8:2810:A:H61	2:A8:2890:G:C2'	2.30	0.44
2:A8:1688:U:O4'	2:A8:1701:A:C6	2.71	0.44
2:A8:2637:U:H1'	2:A8:2782:G:N2	2.32	0.44
2:A8:2588:G:C5	2:A8:2607:G:C2	3.05	0.44
36:BA:202:G:C2	36:BA:203:G:C4	3.06	0.44
2:A8:322:A:C4'	2:A8:340:A:H1'	2.47	0.44
2:A8:122:G:C5	2:A8:123:G:N7	2.86	0.44
2:A8:854:C:O2	2:A8:924:G:C2	2.70	0.44
2:A8:100:U:H4'	2:A8:101:A:H3'	1.98	0.44
2:A8:2854:G:C6	2:A8:2855:C:C4	3.05	0.44
2:A8:633:A:C6	2:A8:634:C:H1'	2.52	0.44
2:A8:2126:A:C6	2:A8:2173:A:C8	3.05	0.44
36:BA:156:C:H3'	36:BA:157:U:H6	1.82	0.44
2:A8:2578:G:C6	8:AD:145:SER:HB2	2.51	0.44
2:A8:1149:G:H2'	2:A8:1150:C:C6	2.52	0.44
2:A8:2759:G:H2'	2:A8:2760:C:H6	1.82	0.44
36:BA:633:G:C6	36:BA:634:C:C4	3.06	0.44
36:BA:127:G:N2	36:BA:235:C:C2	2.86	0.44
2:A8:1364:G:C2	2:A8:1368:G:C5	3.05	0.44
2:A8:1801:A:C6	2:A8:2203:U:C6	3.05	0.44
2:A8:1713:A:C3'	2:A8:1714:U:H5''	2.47	0.44
36:BA:458:U:H2'	36:BA:459:A:C8	2.53	0.44
36:BA:620:C:C2	39:BD:131:ILE:HG21	2.53	0.44
12:AH:88:GLY:HA3	12:AH:126:GLY:H	1.83	0.44
42:BG:90:VAL:HG23	42:BG:95:ARG:HE	1.82	0.44
2:A8:1277:G:C2	2:A8:1294:U:C2	3.06	0.44
36:BA:199:A:C2	36:BA:200:G:H1'	2.52	0.44
2:A8:742:A:C5	2:A8:743:A:C8	3.06	0.44
2:A8:196:A:C6	2:A8:805:G:C2	3.06	0.44
2:A8:1724:G:C4	2:A8:1725:U:C6	3.06	0.44
2:A8:479:A:N3	2:A8:481:G:H5''	2.33	0.44
2:A8:503:A:C4	2:A8:506:G:C8	3.06	0.44
2:A8:2795:C:C2	2:A8:2802:G:N2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1771:C:C2	2:A8:1772:A:C8	3.06	0.44
2:A8:1776:G:N2	2:A8:1789:A:H1'	2.33	0.44
2:A8:1744:A:C6	2:A8:1745:A:H1'	2.52	0.44
36:BA:452:A:H2'	36:BA:453:G:C5'	2.48	0.44
36:BA:454:G:C5	36:BA:455:G:C8	3.05	0.44
16:AL:78:ARG:HH11	16:AL:113:ALA:HB2	1.82	0.44
2:A8:1009:A:C5	2:A8:1010:A:C6	3.05	0.44
2:A8:28:A:H1'	2:A8:513:A:C2	2.53	0.44
2:A8:628:G:C6	2:A8:629:G:C5	3.05	0.44
2:A8:1532:A:C6	2:A8:1540:G:C6	3.06	0.44
2:A8:1540:G:C6	2:A8:1541:C:C5	3.06	0.44
36:BA:513:C:O2	36:BA:539:A:C2	2.70	0.44
36:BA:540:G:C6	36:BA:541:G:C5	3.05	0.44
2:A8:2600:A:N1	2:A8:2601:C:C4	2.86	0.44
2:A8:2814:A:H2'	31:A0:39:ARG:HD2	1.99	0.44
2:A8:726:G:P	2:A8:1433:A:H4'	2.58	0.44
2:A8:1466:U:C4'	2:A8:1545:A:C2	3.01	0.44
2:A8:1525:A:C5	2:A8:1526:C:C4	3.05	0.44
2:A8:1395:A:OP1	2:A8:1603:A:H5''	2.17	0.44
2:A8:457:A:N6	2:A8:470:A:H5''	2.32	0.44
2:A8:1403:A:C2	2:A8:1404:C:C6	3.05	0.44
1:A7:61:G:C2	1:A7:62:C:C2	3.06	0.44
2:A8:2005:A:C8	2:A8:2006:C:C5	3.05	0.44
2:A8:924:G:H5''	27:AW:24:ARG:HH11	1.83	0.44
2:A8:1820:U:H1'	7:A6:199:HIS:HB2	2.00	0.44
2:A8:1809:A:H2'	2:A8:1810:A:C8	2.53	0.44
33:A2:30:VAL:CG2	33:A2:33:ARG:HH11	2.31	0.44
2:A8:1112:G:C2	2:A8:1113:U:H1'	2.53	0.44
1:A7:7:G:C2	1:A7:8:C:C2	3.06	0.44
2:A8:1801:A:C6	2:A8:2203:U:C5	3.06	0.44
2:A8:995:C:C4	14:AJ:2:LYS:HA	2.52	0.44
36:BA:78:A:C2	36:BA:92:U:C2	3.06	0.44
37:BB:41:ASN:HB3	37:BB:43:GLU:HG2	1.99	0.44
9:AE:188:MET:SD	9:AE:192:ALA:HB3	2.57	0.44
36:BA:1034:G:C6	36:BA:1035:A:C6	3.05	0.44
36:BA:590:U:H2'	36:BA:591:U:C6	2.53	0.44
2:A8:71:A:H5''	2:A8:73:A:C4	2.52	0.44
2:A8:1407:G:N2	2:A8:1596:A:H1'	2.33	0.44
2:A8:2033:A:C6	2:A8:2036:C:C4	3.05	0.44
2:A8:1523:U:H3'	2:A8:1524:G:C8	2.53	0.44
2:A8:2088:A:C6	2:A8:2089:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1293:C:H2'	2:A8:1294:U:H6	1.83	0.44
2:A8:2320:U:H3'	2:A8:2321:U:H5'	1.98	0.44
36:BA:413:G:H5''	36:BA:414:A:H5''	1.99	0.44
36:BA:909:A:C6	36:BA:910:C:C2	3.05	0.44
2:A8:2699:C:C2	2:A8:2709:G:C2	3.05	0.44
2:A8:869:G:C2	2:A8:909:A:C2	3.05	0.44
25:AU:45:GLN:HB2	25:AU:58:VAL:HG22	1.99	0.44
2:A8:1022:G:C5	2:A8:1140:C:C4	3.05	0.44
36:BA:836:G:C5	36:BA:837:U:C5	3.05	0.44
2:A8:2796:U:H3'	2:A8:2798:U:N3	2.33	0.44
36:BA:243:A:N3	36:BA:245:U:H3'	2.32	0.44
36:BA:286:C:O5'	36:BA:286:C:C6	2.70	0.44
2:A8:2409:G:C4	2:A8:2410:G:C8	3.05	0.44
21:AQ:61:ILE:HG23	21:AQ:75:TYR:CE1	2.53	0.44
2:A8:1316:U:H4'	2:A8:1392:A:C6	2.52	0.44
2:A8:2011:U:C4	2:A8:2012:G:C5	3.06	0.44
2:A8:722:A:C6	2:A8:723:C:C4	3.06	0.44
41:BF:3:HIS:CE1	41:BF:37:HIS:CE1	3.05	0.44
2:A8:553:G:C5	2:A8:554:U:C4	3.06	0.44
2:A8:1445:G:C6	2:A8:1446:C:C4	3.06	0.44
2:A8:256:A:H2'	2:A8:257:C:C6	2.52	0.44
2:A8:303:G:C2	2:A8:304:U:H1'	2.53	0.44
2:A8:2543:G:N1	2:A8:2765:A:C8	2.86	0.44
36:BA:747:A:C6	36:BA:748:G:C5	3.06	0.44
2:A8:694:U:H4'	2:A8:1378:A:N1	2.32	0.44
1:A7:20:G:C4	1:A7:64:G:C2	3.06	0.44
2:A8:1582:C:C4	2:A8:1583:A:C8	3.06	0.44
2:A8:1627:G:H1'	2:A8:1640:A:C2	2.52	0.44
40:BE:32:PHE:CD2	40:BE:55:VAL:HG22	2.53	0.44
2:A8:1041:G:C2	2:A8:1042:G:C8	3.06	0.44
36:BA:834:U:N3	36:BA:835:U:C4	2.86	0.44
2:A8:375:G:C2	2:A8:400:G:H1'	2.53	0.44
36:BA:35:G:C4	36:BA:550:G:C2	3.06	0.44
2:A8:2323:G:C5	2:A8:2324:U:C5	3.05	0.44
2:A8:1281:G:C2	2:A8:1290:C:C2	3.06	0.44
2:A8:192:C:H1'	2:A8:800:A:H62	1.82	0.44
2:A8:150:U:H2'	2:A8:151:C:C6	2.53	0.44
2:A8:1898:U:H6	2:A8:1898:U:O5'	2.01	0.44
36:BA:174:A:C5	36:BA:175:C:C6	3.05	0.44
2:A8:57:C:H2'	2:A8:58:G:O4'	2.17	0.44
2:A8:1887:C:H3'	2:A8:1888:G:H21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A7:58:A:C2	1:A7:59:A:N9	2.86	0.44
2:A8:1360:G:N7	2:A8:1361:G:C8	2.85	0.44
36:BA:323:U:H2'	36:BA:324:G:O4'	2.18	0.44
36:BA:1239:A:H5'	42:BG:118:ARG:HH12	1.82	0.44
2:A8:2713:U:C2	2:A8:2715:C:OP2	2.71	0.44
36:BA:1421:G:N3	36:BA:1480:A:C2	2.86	0.44
2:A8:2602:A:C8	2:A8:2602:A:H3'	2.53	0.44
2:A8:2516:A:C2	2:A8:2569:G:C4	3.05	0.44
2:A8:2119:A:C6	2:A8:2170:A:C5	3.06	0.44
2:A8:2167:U:C4	2:A8:2168:G:C6	3.06	0.44
2:A8:2691:C:H2'	2:A8:2692:G:C8	2.53	0.44
2:A8:1719:G:C2	2:A8:1742:U:O2	2.71	0.44
2:A8:1503:A:N1	2:A8:1504:A:C4	2.86	0.44
36:BA:454:G:C4	36:BA:455:G:C8	3.06	0.44
2:A8:2279:G:N1	2:A8:2280:G:C4	2.86	0.44
2:A8:1168:G:N1	2:A8:1169:A:C4	2.86	0.44
2:A8:1172:C:C4	2:A8:1173:U:C2	3.06	0.44
2:A8:1858:A:N1	2:A8:1859:U:C2	2.86	0.44
2:A8:2531:A:H5'	11:AG:173:ALA:N	2.33	0.44
2:A8:993:G:C2	2:A8:1162:G:C4	3.06	0.44
36:BA:416:G:H2'	36:BA:417:G:O4'	2.17	0.44
2:A8:711:G:C2	2:A8:721:A:N3	2.86	0.44
2:A8:1558:C:O4'	2:A8:1560:G:C8	2.71	0.44
2:A8:1560:G:C5	2:A8:1561:C:C5	3.06	0.44
2:A8:382:A:C2	2:A8:383:C:H1'	2.52	0.44
2:A8:666:A:H1'	34:A3:3:ILE:HD11	1.99	0.44
2:A8:1230:A:C6	2:A8:1231:U:C2	3.05	0.44
2:A8:2850:A:H2'	2:A8:2851:A:C8	2.52	0.44
2:A8:1794:A:C6	2:A8:1795:C:C4	3.06	0.44
36:BA:867:G:C5	36:BA:868:C:C5	3.06	0.44
2:A8:693:A:C2	2:A8:770:G:C2	3.06	0.44
36:BA:621:A:C5	36:BA:622:A:C5	3.05	0.44
36:BA:789:U:H1'	36:BA:792:A:N7	2.33	0.44
2:A8:1332:G:N7	2:A8:1609:A:H2'	2.32	0.44
2:A8:2787:C:O4'	8:AD:63:PRO:HA	2.16	0.44
2:A8:95:A:H4'	29:AY:38:GLN:C	2.37	0.44
2:A8:2399:G:H1'	32:A1:19:PHE:CE1	2.52	0.44
2:A8:1681:G:H1'	2:A8:1762:A:H2'	2.00	0.44
2:A8:2032:G:C6	2:A8:2454:G:O4'	2.71	0.44
47:BL:43:LYS:HZ1	47:BL:90:PRO:HD3	1.82	0.44
2:A8:551:G:C6	2:A8:552:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BK:13:LYS:HE2	46:BK:76:TYR:CE2	2.53	0.44
6:A5:33:LEU:HB3	6:A5:220:ALA:H	1.82	0.44
45:BJ:45:ARG:H	45:BJ:71:LEU:HD12	1.83	0.44
2:A8:2369:A:C6	2:A8:2370:G:C6	3.06	0.44
36:BA:183:C:C4	36:BA:224:U:H1'	2.53	0.44
2:A8:2332:C:H4'	2:A8:2336:A:N6	2.33	0.44
36:BA:1301:U:C4	36:BA:1303:C:C2	3.06	0.44
2:A8:743:A:C6	2:A8:744:U:C4	3.05	0.44
2:A8:874:G:H5'	2:A8:875:G:OP2	2.18	0.44
2:A8:877:A:N6	2:A8:901:C:C4	2.86	0.44
2:A8:1710:G:C6	2:A8:1749:A:C6	3.05	0.44
36:BA:688:G:C6	36:BA:689:C:C5	3.05	0.44
36:BA:763:G:C6	36:BA:764:C:C4	3.06	0.44
36:BA:600:A:C4	36:BA:639:G:C2	3.06	0.44
2:A8:1128:G:C4	2:A8:2518:A:C2	3.06	0.44
2:A8:2001:C:C2	2:A8:2002:G:C8	3.06	0.44
2:A8:783:A:H2'	2:A8:784:G:H4'	1.99	0.44
2:A8:648:G:C5	2:A8:649:G:N7	2.85	0.44
2:A8:2478:A:H1'	2:A8:2529:G:H2'	1.99	0.44
2:A8:957:C:C5	2:A8:959:A:C6	3.06	0.44
2:A8:712:G:C2	2:A8:720:U:C2	3.06	0.44
36:BA:255:G:C2	36:BA:256:U:C2	3.06	0.44
36:BA:251:G:H1'	36:BA:266:G:C8	2.53	0.44
2:A8:948:C:H2'	2:A8:949:G:C8	2.53	0.44
2:A8:1036:G:C2	2:A8:1120:G:C4	3.05	0.44
2:A8:1688:U:H1'	2:A8:1701:A:C5	2.53	0.44
2:A8:2637:U:C5	2:A8:2638:G:C5	3.06	0.44
2:A8:2639:A:C4	2:A8:2778:A:C5	3.06	0.44
36:BA:1167:A:H2'	36:BA:1169:A:H62	1.82	0.44
2:A8:121:G:N1	2:A8:122:G:C5	2.86	0.44
36:BA:42:G:HO2'	36:BA:622:A:H2	1.64	0.44
36:BA:727:G:C4	36:BA:731:G:C2	3.06	0.44
2:A8:6:A:C2	2:A8:7:G:C5	3.05	0.44
2:A8:1151:A:C5	2:A8:1152:C:C5	3.06	0.44
36:BA:1468:A:C5	36:BA:1469:C:C5	3.06	0.44
2:A8:1031:G:C2	2:A8:1032:A:C4	3.06	0.44
2:A8:1454:C:N4	2:A8:2703:C:H41	2.16	0.44
36:BA:1033:G:C6	36:BA:1034:G:C5	3.06	0.44
12:AH:116:ARG:H	12:AH:131:SER:HB2	1.83	0.44
36:BA:1004:A:H1'	36:BA:1026:G:C5	2.53	0.44
36:BA:331:G:H21	55:BT:2:ASN:N	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:72:A:C5	36:BA:73:C:C5	3.06	0.43
36:BA:869:G:C5'	36:BA:872:A:O4'	2.66	0.43
2:A8:2346:A:C4	2:A8:2383:G:C5	3.05	0.43
2:A8:1294:U:C6	2:A8:1294:U:H5''	2.53	0.43
2:A8:2335:A:H5''	2:A8:2337:G:O6	2.17	0.43
2:A8:740:C:C6	2:A8:1981:A:C6	3.06	0.43
2:A8:869:G:C2	2:A8:870:U:C2	3.05	0.43
2:A8:2796:U:C2	2:A8:2801:G:N2	2.86	0.43
36:BA:1486:G:C2	36:BA:1487:G:C4	3.06	0.43
36:BA:1486:G:C6	36:BA:1487:G:C6	3.06	0.43
2:A8:1091:G:C6	2:A8:1092:C:C4	3.06	0.43
2:A8:1943:U:C5	2:A8:1945:G:C8	3.06	0.43
2:A8:1129:A:C2	2:A8:2516:A:N3	2.86	0.43
1:A7:92:C:C2	1:A7:93:C:C6	3.06	0.43
36:BA:626:G:C2	36:BA:627:G:C4	3.06	0.43
36:BA:627:G:H2'	36:BA:628:G:C8	2.54	0.43
2:A8:656:G:C5	2:A8:657:U:C4	3.06	0.43
2:A8:1034:G:C2	2:A8:1035:U:H1'	2.53	0.43
2:A8:1881:C:C2	2:A8:1882:U:C6	3.06	0.43
2:A8:647:G:H2'	2:A8:648:G:O4'	2.18	0.43
36:BA:786:G:C6	36:BA:787:A:C5	3.06	0.43
2:A8:2469:A:C3'	2:A8:2469:A:C8	3.01	0.43
2:A8:64:A:H2'	2:A8:65:U:O4'	2.18	0.43
36:BA:541:G:C5	36:BA:542:G:C8	3.06	0.43
2:A8:2815:C:H2'	2:A8:2816:G:C8	2.53	0.43
2:A8:2816:G:C5	2:A8:2817:U:C4	3.06	0.43
36:BA:261:U:C5	36:BA:264:C:OP2	2.70	0.43
2:A8:1120:G:C5	2:A8:1121:C:C5	3.06	0.43
2:A8:1528:A:C4	2:A8:1544:A:C5	3.06	0.43
2:A8:1545:A:N6	2:A8:1546:G:C2	2.86	0.43
2:A8:1973:G:C2	2:A8:1974:C:C2	3.05	0.43
2:A8:2766:A:C5	2:A8:2767:C:C5	3.05	0.43
2:A8:695:G:C2	2:A8:696:G:C8	3.06	0.43
2:A8:355:U:H2'	2:A8:356:G:H8	1.83	0.43
2:A8:1365:A:C2	2:A8:1366:A:H1'	2.53	0.43
2:A8:700:G:C4	2:A8:701:G:C8	3.06	0.43
2:A8:1404:C:H5'	2:A8:1471:G:H4'	2.01	0.43
2:A8:1416:G:C5	2:A8:1583:A:C2	3.06	0.43
36:BA:1256:A:H4'	36:BA:1258:G:C5	2.52	0.43
2:A8:451:U:C5	2:A8:454:A:OP2	2.71	0.43
2:A8:2342:C:C4	2:A8:2343:U:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2855:C:H2'	2:A8:2856:A:C8	2.53	0.43
2:A8:632:A:H2'	2:A8:633:A:C8	2.53	0.43
2:A8:577:G:C5	2:A8:578:G:C6	3.06	0.43
2:A8:387:U:H5'	2:A8:387:U:C6	2.53	0.43
36:BA:75:G:C2	36:BA:76:G:C4	3.06	0.43
36:BA:239:U:H4'	36:BA:239:U:OP1	2.17	0.43
2:A8:311:A:O4'	2:A8:332:A:C5	2.71	0.43
36:BA:364:A:C2	36:BA:365:U:C4	3.06	0.43
24:AT:33:LYS:HZ2	24:AT:33:LYS:H	1.66	0.43
52:BQ:21:VAL:HG22	52:BQ:44:HIS:CE1	2.53	0.43
10:AF:111:ARG:HH11	48:BM:66:GLY:HA3	1.83	0.43
28:AX:66:VAL:HG12	28:AX:70:LEU:HD12	2.00	0.43
2:A8:2396:G:C6	2:A8:2421:G:C6	3.05	0.43
13:AI:11:GLN:NE2	13:AI:74:PRO:HG3	2.32	0.43
33:A2:42:LEU:H	33:A2:44:VAL:H	1.64	0.43
2:A8:1926:U:C2	2:A8:1929:G:C2	3.06	0.43
2:A8:2038:G:C2	2:A8:2039:U:C2	3.06	0.43
2:A8:565:C:C4	2:A8:566:U:C4	3.05	0.43
2:A8:810:U:C6	16:AL:29:LYS:HE2	2.53	0.43
2:A8:2024:G:C2	2:A8:2025:C:C2	3.06	0.43
1:A7:75:G:H2'	1:A7:76:G:O4'	2.18	0.43
36:BA:1399:C:C2	36:BA:1401:G:C4	3.07	0.43
36:BA:1527:U:H2'	36:BA:1528:U:O4'	2.18	0.43
36:BA:1528:U:C4	36:BA:1530:G:N2	2.86	0.43
2:A8:1213:A:C8	2:A8:1237:A:C5	3.07	0.43
2:A8:2592:G:C6	2:A8:2603:G:C6	3.06	0.43
2:A8:2674:G:C5	2:A8:2675:A:N7	2.86	0.43
1:A7:88:C:C4	1:A7:89:U:C2	3.07	0.43
1:A7:13:G:C5	1:A7:70:C:C5'	3.01	0.43
2:A8:1482:G:N1	2:A8:1483:G:C5	2.87	0.43
36:BA:455:G:N3	36:BA:478:A:C2	2.86	0.43
2:A8:2261:C:C2	2:A8:2262:U:C5	3.06	0.43
2:A8:2584:U:C6	2:A8:2584:U:O5'	2.71	0.43
2:A8:1785:A:C4	2:A8:1787:A:C8	3.07	0.43
36:BA:1319:A:C5	36:BA:1323:G:C8	3.06	0.43
2:A8:638:G:H1'	2:A8:652:U:H5''	2.00	0.43
2:A8:2479:U:C4	2:A8:2480:C:C5	3.06	0.43
2:A8:1162:G:N1	2:A8:1163:G:C4	2.87	0.43
2:A8:2163:A:H5''	6:A5:106:LYS:HZ2	1.82	0.43
2:A8:2834:G:H1'	2:A8:2883:A:N6	2.33	0.43
7:A6:59:GLN:CD	7:A6:84:PRO:HB2	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1565:C:C2	2:A8:1567:G:C5	3.05	0.43
2:A8:667:U:H1'	34:A3:1:PRO:H2	1.83	0.43
36:BA:838:G:C6	36:BA:849:G:C5	3.06	0.43
2:A8:315:G:C6	2:A8:316:C:C4	3.05	0.43
2:A8:1834:U:H4'	2:A8:1969:A:C6	2.53	0.43
2:A8:1342:A:N1	2:A8:1397:U:C5	2.87	0.43
36:BA:462:G:C6	36:BA:471:U:O2	2.70	0.43
36:BA:158:G:C6	36:BA:159:G:C6	3.06	0.43
14:AJ:22:GLY:N	14:AJ:62:VAL:HA	2.33	0.43
2:A8:2051:A:H2'	2:A8:2614:A:N6	2.32	0.43
2:A8:924:G:N1	2:A8:925:A:C5	2.86	0.43
36:BA:1178:G:C4	36:BA:1180:A:OP2	2.70	0.43
2:A8:1413:A:C6	2:A8:1414:C:C4	3.06	0.43
2:A8:158:U:H1'	2:A8:169:G:N2	2.32	0.43
2:A8:631:A:C4	2:A8:2416:C:H4'	2.53	0.43
36:BA:1057:G:H3'	36:BA:1058:G:C8	2.53	0.43
2:A8:7:G:C5	2:A8:8:C:C5	3.05	0.43
2:A8:2736:A:H5''	2:A8:2736:A:C8	2.53	0.43
2:A8:1011:G:H21	21:AQ:77:LYS:HE3	1.83	0.43
36:BA:678:U:H2'	36:BA:679:C:C6	2.53	0.43
36:BA:597:G:C5	36:BA:598:U:C4	3.06	0.43
2:A8:2058:A:C2	2:A8:2611:C:N4	2.87	0.43
2:A8:1517:G:C5	2:A8:1518:C:C5	3.06	0.43
2:A8:1218:G:C6	2:A8:1219:U:C4	3.07	0.43
36:BA:133:U:H1'	36:BA:230:G:C2	2.53	0.43
2:A8:819:A:C8	2:A8:819:A:C5'	3.01	0.43
28:AX:75:GLU:CD	28:AX:75:GLU:H	2.22	0.43
38:BC:66:THR:HG22	38:BC:68:HIS:CE1	2.53	0.43
37:BB:147:LEU:O	37:BB:150:ILE:HG22	2.18	0.43
24:AT:21:SER:HA	24:AT:25:GLU:CD	2.38	0.43
2:A8:1007:C:H3'	2:A8:1008:A:H8	1.83	0.43
39:BD:28:ASP:HA	39:BD:33:ILE:HG23	2.00	0.43
54:BS:39:ILE:CD1	54:BS:61:VAL:HG12	2.48	0.43
2:A8:2646:C:C4	2:A8:2647:U:C4	3.06	0.43
2:A8:1315:C:C2	2:A8:1338:G:C2	3.07	0.43
19:AO:33:ARG:HA	19:AO:64:TYR:CE2	2.53	0.43
46:BK:85:VAL:HG23	46:BK:111:ASP:HA	2.00	0.43
36:BA:354:G:N1	36:BA:355:C:C4	2.85	0.43
36:BA:56:U:C2	36:BA:57:G:C8	3.06	0.43
36:BA:171:A:H2'	36:BA:172:A:C8	2.52	0.43
2:A8:2025:C:C4	2:A8:2026:U:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:332:G:C6	36:BA:333:U:C5	3.06	0.43
2:A8:828:U:H5''	2:A8:831:G:C2	2.53	0.43
2:A8:912:C:C5	2:A8:913:U:C5	3.05	0.43
2:A8:276:U:HO2'	2:A8:278:A:H8	1.63	0.43
2:A8:362:A:C4	2:A8:363:G:C8	3.07	0.43
2:A8:2069:G:H2'	2:A8:2069:G:N3	2.32	0.43
2:A8:639:U:N3	2:A8:640:C:C5	2.87	0.43
36:BA:785:G:N2	36:BA:798:U:C2	2.86	0.43
2:A8:2532:G:C6	2:A8:2533:U:C2	3.07	0.43
36:BA:22:G:O4'	36:BA:885:G:H1'	2.18	0.43
36:BA:417:G:C5	36:BA:418:C:C4	3.06	0.43
2:A8:722:A:C2	2:A8:723:C:C2	3.06	0.43
2:A8:1351:C:H1'	2:A8:1381:G:N2	2.34	0.43
2:A8:1953:A:C2	2:A8:2549:G:N3	2.87	0.43
36:BA:291:U:H2'	36:BA:292:G:C8	2.52	0.43
2:A8:1969:A:H1'	2:A8:1973:G:C1'	2.48	0.43
2:A8:1692:U:H1'	2:A8:1696:G:C2	2.53	0.43
2:A8:1698:A:OP1	2:A8:1700:A:H1'	2.18	0.43
2:A8:452:G:H2'	2:A8:453:A:C8	2.53	0.43
2:A8:1363:C:H1'	2:A8:1369:G:N2	2.33	0.43
2:A8:2846:G:H2'	2:A8:2847:U:C6	2.54	0.43
36:BA:665:A:C2	36:BA:732:C:H2'	2.53	0.43
2:A8:84:A:N1	2:A8:103:A:C4	2.86	0.43
2:A8:1814:G:C5	2:A8:1815:A:C5	3.06	0.43
2:A8:563:A:C2	2:A8:564:C:C2	3.06	0.43
36:BA:392:C:O4'	36:BA:482:A:C2	2.72	0.43
36:BA:221:C:H2'	36:BA:222:C:H6	1.82	0.43
36:BA:74:A:C6	36:BA:75:G:C5	3.07	0.43
36:BA:1312:G:O6	54:BS:2:ARG:HA	2.19	0.43
2:A8:1666:G:C5	2:A8:1667:G:C5	3.06	0.43
2:A8:2173:A:OP2	2:A8:2174:C:C5	2.71	0.43
1:A7:47:C:C4	1:A7:48:U:C4	3.06	0.43
3:AA:293:HIS:N	3:AA:293:HIS:CD2	2.86	0.43
2:A8:2844:G:H2'	2:A8:2845:U:C6	2.53	0.43
1:A7:12:C:H3'	27:AW:74:LYS:H	1.83	0.43
31:A0:22:THR:HG22	31:A0:23:ALA:H	1.84	0.43
36:BA:1411:C:C6	36:BA:1411:C:H5''	2.53	0.43
2:A8:308:G:H3'	2:A8:309:A:C8	2.53	0.43
2:A8:82:U:H2'	2:A8:83:A:C8	2.54	0.43
36:BA:402:G:C6	36:BA:403:C:C4	3.07	0.43
2:A8:2330:G:H22	27:AW:40:ARG:HH12	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2333:A:N7	2:A8:2335:A:C6	2.87	0.43
36:BA:411:A:C4	36:BA:429:U:C4	3.07	0.43
2:A8:825:A:C6	2:A8:826:U:C4	3.07	0.43
1:A7:52:A:C2	1:A7:53:A:H1'	2.54	0.43
2:A8:869:G:H21	17:AM:8:LYS:HZ2	1.66	0.43
2:A8:1723:G:C6	2:A8:1724:G:C4	3.06	0.43
36:BA:1515:G:C8	36:BA:1515:G:O5'	2.71	0.43
36:BA:577:G:O2'	36:BA:578:C:H5'	2.17	0.43
2:A8:2197:U:H2'	2:A8:2224:G:H1	1.83	0.43
2:A8:1069:A:C4	2:A8:1097:U:OP1	2.71	0.43
2:A8:1948:G:C2	2:A8:1959:G:C4	3.06	0.43
36:BA:1460:C:H2'	36:BA:1461:G:O4'	2.19	0.43
2:A8:1744:A:H3'	2:A8:1745:A:H8	1.83	0.43
2:A8:362:A:C5	2:A8:363:G:C8	3.06	0.43
2:A8:2279:G:C6	2:A8:2280:G:C5	3.06	0.43
2:A8:1000:A:C2	2:A8:1155:A:C2	3.07	0.43
2:A8:1334:G:C2	2:A8:1335:C:C2	3.06	0.43
2:A8:794:A:C5	2:A8:795:C:C5	3.07	0.43
36:BA:977:A:C8	36:BA:1223:C:C6	3.06	0.43
2:A8:2468:A:C2	2:A8:2481:G:C2	3.06	0.43
2:A8:2659:G:C2	2:A8:2663:G:O6	2.71	0.43
2:A8:957:C:H41	2:A8:2494:G:H22	1.66	0.43
2:A8:221:A:C8	2:A8:266:G:N7	2.86	0.43
2:A8:2788:C:H2'	2:A8:2789:C:H6	1.82	0.43
2:A8:1203:U:C4	2:A8:1204:A:C6	3.06	0.43
2:A8:1450:G:C2	2:A8:1451:C:C4	3.06	0.43
2:A8:1340:U:H5'	2:A8:1394:U:H4'	2.01	0.43
2:A8:1677:A:C5	2:A8:1678:A:C5	3.06	0.43
36:BA:465:A:N7	36:BA:468:A:C6	2.87	0.43
2:A8:698:C:C2	2:A8:762:U:C4	3.06	0.43
2:A8:1655:A:H4'	8:AD:118:PHE:CG	2.54	0.43
2:A8:98:G:C8	2:A8:99:U:C2	3.07	0.43
2:A8:2327:A:C5	2:A8:2328:A:C5	3.07	0.43
2:A8:1803:A:C8	2:A8:1804:C:C6	3.06	0.43
2:A8:1812:U:H2'	2:A8:1813:G:C8	2.53	0.43
2:A8:1039:A:N1	2:A8:1040:A:C4	2.86	0.43
36:BA:347:G:C6	36:BA:348:G:C8	3.06	0.43
2:A8:144:A:C6	2:A8:145:C:C4	3.06	0.43
2:A8:459:U:C5	2:A8:469:G:N2	2.86	0.43
36:BA:124:C:N3	36:BA:238:A:C2	2.87	0.43
36:BA:856:C:C4	36:BA:857:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1311:A:C2	36:BA:1327:C:C2	3.06	0.43
2:A8:272:A:C2	2:A8:366:C:O2	2.71	0.43
38:BC:122:GLN:HG3	38:BC:125:ARG:HH21	1.82	0.43
2:A8:2738:A:C2	2:A8:2739:U:C6	3.07	0.43
2:A8:849:A:C2	2:A8:850:U:C2	3.06	0.43
55:BT:34:VAL:HG22	55:BT:49:ALA:HB3	2.01	0.43
26:AV:26:PHE:CE2	26:AV:42:LEU:HB2	2.54	0.43
2:A8:1904:G:O5'	2:A8:1904:G:C8	2.72	0.43
36:BA:54:C:O2	36:BA:358:U:C2	2.72	0.43
2:A8:2080:A:C2	2:A8:2081:U:C2	3.06	0.43
36:BA:181:A:C8	36:BA:194:C:C6	3.06	0.43
2:A8:1275:A:H61	18:AN:22:ARG:NH1	2.17	0.43
36:BA:1307:U:H2'	36:BA:1308:U:O4'	2.17	0.43
2:A8:879:G:C6	2:A8:880:G:H1'	2.53	0.43
36:BA:517:G:O2'	36:BA:530:G:H4'	2.19	0.43
36:BA:520:A:N1	36:BA:536:C:H1'	2.33	0.43
2:A8:1739:A:O5'	2:A8:1739:A:H8	2.01	0.43
36:BA:1514:G:C6	36:BA:1515:G:C5	3.07	0.43
25:AU:43:LYS:HG3	25:AU:45:GLN:HA	1.98	0.43
36:BA:1102:A:C6	36:BA:1103:C:C4	3.06	0.43
36:BA:1415:G:C5	36:BA:1486:G:C6	3.07	0.43
36:BA:1489:G:C6	36:BA:1490:U:C4	3.07	0.43
36:BA:650:G:C5	36:BA:651:C:C5	3.07	0.43
2:A8:1482:G:C2	2:A8:1483:G:C4	3.06	0.43
2:A8:2261:C:N3	2:A8:2262:U:C5	2.85	0.43
2:A8:2791:G:C2	2:A8:2806:C:C2	3.07	0.43
2:A8:775:G:C2	2:A8:777:G:C6	3.07	0.43
2:A8:1878:G:H2'	2:A8:1879:C:O4'	2.18	0.43
36:BA:810:C:C6	36:BA:810:C:O5'	2.72	0.43
2:A8:1267:U:C5	2:A8:2012:G:N2	2.87	0.43
36:BA:1144:G:H21	36:BA:1146:A:H62	1.67	0.43
2:A8:1540:G:C2	2:A8:1541:C:N1	2.86	0.43
36:BA:512:U:C2	36:BA:513:C:C6	3.06	0.43
36:BA:513:C:C2	36:BA:539:A:N1	2.86	0.43
36:BA:712:A:C6	36:BA:713:G:C6	3.06	0.43
36:BA:258:G:C6	36:BA:269:C:O2	2.71	0.43
41:BF:3:HIS:HA	41:BF:65:GLU:HA	2.00	0.43
2:A8:949:G:N1	2:A8:969:G:C4	2.85	0.43
2:A8:949:G:N2	2:A8:969:G:H1'	2.33	0.43
2:A8:1036:G:C4	2:A8:1120:G:C2	3.07	0.43
2:A8:2560:A:C6	2:A8:2561:U:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2776:A:C6	2:A8:2782:G:C4	3.06	0.43
2:A8:2543:G:H2'	2:A8:2544:G:O4'	2.19	0.43
2:A8:1627:G:N2	2:A8:1640:A:H1'	2.34	0.43
36:BA:1206:G:H4'	38:BC:190:THR:O	2.18	0.43
36:BA:723:U:H3'	36:BA:724:G:C5'	2.48	0.43
36:BA:1358:U:C5	36:BA:1359:C:N3	2.87	0.43
42:BG:102:TRP:CE3	42:BG:136:LYS:HA	2.52	0.43
8:AD:55:LYS:CB	8:AD:57:ALA:H	2.31	0.43
36:BA:842:U:H3'	36:BA:843:U:C5'	2.49	0.43
36:BA:1125:U:C6	45:BJ:40:ILE:HG21	2.53	0.43
33:A2:12:ARG:HE	33:A2:13:ASN:N	2.16	0.43
2:A8:541:A:C6	2:A8:542:C:C4	3.07	0.43
40:BE:82:HIS:CG	43:BH:95:MET:SD	3.11	0.43
28:AX:36:ARG:HA	28:AX:47:THR:HB	2.00	0.43
36:BA:1266:G:C2	36:BA:1270:G:C5	3.07	0.43
2:A8:1903:G:C2	2:A8:1904:G:C8	3.06	0.43
36:BA:100:G:H3'	36:BA:101:A:C8	2.54	0.43
36:BA:100:G:H3'	36:BA:101:A:H8	1.84	0.43
2:A8:2290:G:C6	2:A8:2291:U:C4	3.06	0.43
2:A8:2378:A:C6	2:A8:2379:G:H1'	2.54	0.43
2:A8:1274:A:C4	2:A8:1302:A:N1	2.87	0.43
2:A8:2330:G:C6	2:A8:2331:G:C5	3.06	0.43
2:A8:248:G:OP2	2:A8:249:C:C6	2.72	0.43
36:BA:428:G:H4'	36:BA:429:U:OP1	2.18	0.43
36:BA:1048:G:H1'	36:BA:1215:G:H5''	2.01	0.43
2:A8:2714:G:C4	2:A8:2715:C:C6	3.07	0.43
36:BA:704:A:C6	36:BA:705:G:C4	3.06	0.43
36:BA:247:G:C6	36:BA:278:G:C2	3.06	0.43
36:BA:298:A:C5	36:BA:299:G:C5	3.06	0.43
36:BA:568:G:N2	36:BA:574:A:H1'	2.34	0.43
2:A8:1933:G:C2	2:A8:1934:C:H1'	2.54	0.43
2:A8:2462:C:H2'	2:A8:2463:C:H6	1.84	0.43
2:A8:1128:G:H4'	2:A8:2517:C:C5'	2.49	0.43
36:BA:1457:G:H5'	55:BT:30:PHE:CE2	2.53	0.43
36:BA:116:A:C5	36:BA:117:G:C5	3.06	0.43
2:A8:2731:G:C2	2:A8:2732:G:C2	3.06	0.43
1:A7:15:A:C6	1:A7:109:A:C2	3.07	0.43
1:A7:16:G:C2	1:A7:17:C:N1	2.87	0.43
2:A8:1482:G:N1	2:A8:1508:A:H1'	2.33	0.43
2:A8:160:A:C5	2:A8:161:A:C5	3.07	0.43
2:A8:579:G:C4'	2:A8:2017:U:H2'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:23:G:C6	2:A8:518:G:C6	3.05	0.43
2:A8:2527:C:C4	2:A8:2528:U:C5	3.07	0.43
36:BA:1130:A:C2	36:BA:1146:A:C4	3.06	0.43
2:A8:1540:G:C6	2:A8:1541:C:C4	3.07	0.43
36:BA:252:U:H2'	36:BA:253:A:C8	2.53	0.43
2:A8:592:A:C2	2:A8:666:A:C6	3.07	0.43
2:A8:950:G:C6	2:A8:968:C:C4	3.06	0.43
2:A8:1120:G:C4	2:A8:1121:C:C6	3.07	0.43
2:A8:281:C:H2'	2:A8:282:A:C8	2.54	0.43
36:BA:838:G:C5	36:BA:839:C:C5	3.06	0.43
36:BA:865:A:C5	36:BA:866:C:C4	3.07	0.43
36:BA:470:C:C4	36:BA:471:U:C4	3.06	0.43
1:A7:21:G:C5	1:A7:22:U:C5	3.07	0.43
2:A8:954:G:C2	2:A8:964:C:C2	3.07	0.43
2:A8:2327:A:H2'	2:A8:2328:A:C8	2.54	0.43
2:A8:2786:U:C2	2:A8:2787:C:C6	3.07	0.43
36:BA:606:G:H2'	36:BA:631:C:H2'	2.00	0.43
36:BA:830:G:C2	36:BA:831:A:C4	3.07	0.43
2:A8:1664:A:O5'	2:A8:1664:A:C8	2.71	0.43
2:A8:1665:A:C5	2:A8:1666:G:N7	2.86	0.43
36:BA:44:A:C2	36:BA:45:G:C4	3.07	0.43
36:BA:584:G:H2'	36:BA:585:G:C8	2.54	0.43
2:A8:192:C:C5'	2:A8:678:C:H1'	2.49	0.43
2:A8:164:C:H2'	2:A8:165:A:H5'	2.01	0.43
41:BF:78:PHE:CD1	41:BF:84:VAL:HG11	2.53	0.43
2:A8:60:G:C2	2:A8:62:U:C5	3.06	0.43
36:BA:152:A:H2'	36:BA:153:C:H5'	2.00	0.43
2:A8:2345:G:C5	2:A8:2381:A:C2	3.07	0.43
2:A8:2886:A:C8	31:A0:29:VAL:HB	2.53	0.43
2:A8:310:A:C5	2:A8:312:G:C4	3.07	0.43
36:BA:109:A:C4	36:BA:327:A:C2	3.07	0.43
36:BA:1299:A:C6	36:BA:1301:U:C2	3.07	0.43
36:BA:198:G:C6	36:BA:199:A:C5	3.07	0.43
1:A7:104:A:C6	1:A7:105:G:H1'	2.53	0.43
1:A7:73:A:C5	1:A7:104:A:C4	3.06	0.43
36:BA:926:G:C6	36:BA:1505:G:C5	3.07	0.43
2:A8:1022:G:C6	2:A8:1140:C:C5	3.07	0.43
2:A8:1796:U:H2'	2:A8:1797:G:H8	1.82	0.43
2:A8:488:G:C6	2:A8:491:G:OP1	2.72	0.43
2:A8:222:A:C5	2:A8:224:U:C2	3.07	0.43
2:A8:2063:C:C2	2:A8:2064:C:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:793:A:OP2	2:A8:2072:C:H5'	2.18	0.43
1:A7:13:G:C4	1:A7:70:C:H4'	2.54	0.43
2:A8:1182:G:C2	2:A8:1183:U:C2	3.07	0.43
2:A8:1534:U:H4'	2:A8:1535:A:C6	2.54	0.43
9:AE:84:THR:HB	9:AE:85:PHE:H	1.66	0.43
2:A8:782:A:OP2	2:A8:1788:C:H1'	2.19	0.43
2:A8:1866:A:N6	2:A8:1875:G:H2'	2.31	0.43
2:A8:649:G:H2'	2:A8:650:C:O4'	2.18	0.43
2:A8:2472:G:H2'	2:A8:2529:G:N2	2.34	0.43
2:A8:2595:G:C4	2:A8:2597:G:OP2	2.71	0.43
36:BA:262:A:H2'	36:BA:263:A:O4'	2.18	0.43
2:A8:492:A:C2	23:AS:7:HIS:CE1	3.06	0.43
2:A8:2549:G:N1	2:A8:2550:G:C5	2.87	0.43
2:A8:1196:C:H2'	2:A8:1197:G:C8	2.54	0.43
2:A8:813:U:H1'	2:A8:1226:A:H1'	2.01	0.43
2:A8:1525:A:H3'	2:A8:1526:C:H6	1.84	0.43
36:BA:642:A:H2'	36:BA:643:C:C6	2.54	0.43
2:A8:1604:C:H2'	2:A8:1605:C:H6	1.83	0.43
36:BA:446:G:C6	36:BA:447:G:C5	3.07	0.43
2:A8:2606:C:N3	2:A8:2607:G:C8	2.87	0.43
36:BA:461:A:N6	36:BA:473:U:C2	2.86	0.43
2:A8:470:A:C6	2:A8:471:A:C5	3.06	0.43
2:A8:2868:A:C6	2:A8:2869:G:C4	3.07	0.43
2:A8:2273:A:C6	2:A8:2274:A:C6	3.06	0.43
36:BA:1056:U:C4	36:BA:1200:C:C2	3.07	0.43
2:A8:1705:A:C6	2:A8:1706:C:C4	3.07	0.43
2:A8:633:A:C1'	2:A8:2403:C:H4'	2.49	0.43
2:A8:2839:G:C2	2:A8:2880:C:N3	2.87	0.43
2:A8:152:A:C6	2:A8:175:G:C5	3.06	0.43
2:A8:538:A:C4	2:A8:556:A:C5	3.06	0.43
36:BA:45:G:C2	36:BA:398:U:C2	3.06	0.43
36:BA:843:U:H5'	36:BA:844:G:C8	2.53	0.43
2:A8:2759:G:H2'	2:A8:2760:C:C6	2.53	0.43
2:A8:134:G:N3	2:A8:146:A:C2	2.86	0.43
2:A8:1347:A:C2	2:A8:1600:C:O2	2.71	0.43
2:A8:2102:G:N1	2:A8:2188:U:C2	2.87	0.43
2:A8:2439:A:C6	2:A8:2586:U:H5''	2.53	0.43
12:AH:71:LYS:HB3	12:AH:78:VAL:HG22	2.01	0.43
36:BA:874:G:C5	36:BA:875:U:C5	3.06	0.43
2:A8:570:G:C8	2:A8:570:G:H3'	2.53	0.43
2:A8:1473:G:C4	2:A8:1474:U:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2024:G:C6	2:A8:2040:G:C5	3.06	0.43
2:A8:80:G:H1'	2:A8:346:A:C4	2.54	0.43
36:BA:322:C:N4	36:BA:327:A:C8	2.87	0.43
36:BA:993:G:C8	36:BA:1213:A:N6	2.87	0.43
2:A8:2715:C:C4	2:A8:2716:C:C5	3.07	0.43
36:BA:518:C:H5'	36:BA:530:G:H5'	2.00	0.43
2:A8:1722:A:C4	2:A8:1739:A:C4	3.07	0.43
2:A8:1723:G:C4	2:A8:1724:G:C8	3.07	0.43
2:A8:1733:G:N1	2:A8:1734:G:C4	2.86	0.43
36:BA:927:G:N2	36:BA:1391:U:H1'	2.34	0.43
36:BA:1530:G:N2	56:BU:39:LYS:HG3	2.33	0.43
36:BA:577:G:C2	36:BA:578:C:C2	3.07	0.43
1:A7:101:A:C6	1:A7:102:G:C5	3.07	0.43
1:A7:81:G:C4	1:A7:96:G:C2	3.06	0.43
36:BA:1087:G:N2	36:BA:1099:G:H1'	2.34	0.43
36:BA:246:A:C4	36:BA:279:A:C6	3.07	0.43
2:A8:1835:G:C6	2:A8:1931:U:C5	3.07	0.43
36:BA:116:A:C6	36:BA:117:G:C4	3.07	0.43
36:BA:51:A:N1	36:BA:116:A:C4	2.87	0.43
2:A8:2678:C:H5''	8:AD:124:ARG:HH22	1.83	0.43
2:A8:1082:U:H3'	2:A8:1083:U:C6	2.54	0.43
2:A8:1169:A:C2	2:A8:1181:U:O2	2.72	0.43
2:A8:78:U:H2'	2:A8:79:C:C6	2.54	0.43
36:BA:367:U:O2	36:BA:394:G:H1'	2.19	0.43
2:A8:1165:A:C2	2:A8:1185:G:C5	3.07	0.43
2:A8:2529:G:OP2	2:A8:2530:A:C8	2.72	0.43
2:A8:2528:U:C5	2:A8:2530:A:C5	3.07	0.43
36:BA:823:C:C2	36:BA:878:A:N1	2.87	0.43
2:A8:993:G:C5	2:A8:994:C:C5	3.07	0.43
36:BA:259:G:N2	36:BA:268:U:C2	2.87	0.43
36:BA:257:G:N3	36:BA:270:A:C2	2.87	0.43
2:A8:52:A:C2	2:A8:53:A:C4	3.06	0.43
2:A8:2850:A:C5	2:A8:2851:A:C5	3.06	0.43
2:A8:1194:A:C2	2:A8:1195:G:N9	2.87	0.43
2:A8:942:G:C4	2:A8:943:A:C8	3.07	0.43
2:A8:303:G:N2	2:A8:304:U:H1'	2.34	0.43
36:BA:105:G:C5	36:BA:106:C:C4	3.07	0.43
2:A8:1345:C:H4'	2:A8:1396:U:C4	2.54	0.43
2:A8:1668:A:H5'	2:A8:1669:A:C6	2.54	0.43
36:BA:204:G:C6	36:BA:465:A:C2	3.07	0.43
2:A8:769:U:HO2'	2:A8:1379:U:H6	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:930:G:C2	2:A8:933:A:C4	3.06	0.43
36:BA:449:G:H2'	36:BA:450:G:C8	2.54	0.43
2:A8:2729:G:C6	2:A8:2730:C:C4	3.07	0.43
2:A8:189:G:H3'	2:A8:205:G:H1	1.82	0.43
36:BA:1014:A:C2	54:BS:33:TRP:CD2	3.07	0.43
2:A8:1303:G:H2'	2:A8:1304:A:C8	2.53	0.43
2:A8:468:G:C2	2:A8:469:G:H1'	2.54	0.43
19:AO:109:ALA:O	19:AO:113:ALA:HB2	2.19	0.43
23:AS:88:ARG:HG2	23:AS:89:ALA:H	1.84	0.43
32:A1:13:SER:N	32:A1:49:LYS:HZ1	2.17	0.43
1:A7:47:C:C5	1:A7:48:U:C4	3.07	0.43
2:A8:1682:G:C2	2:A8:1683:U:C2	3.07	0.43
36:BA:128:G:C2	36:BA:129:A:C5	3.07	0.43
54:BS:39:ILE:HD13	54:BS:61:VAL:HG12	2.01	0.43
2:A8:2311:A:OP2	2:A8:2311:A:C8	2.72	0.43
7:A6:40:GLY:H	7:A6:53:ILE:HD13	1.82	0.43
7:A6:75:ALA:CB	7:A6:115:ILE:H	2.32	0.43
54:BS:40:PHE:O	54:BS:44:ILE:HG23	2.18	0.43
13:AI:113:ALA:HA	13:AI:124:MET:SD	2.58	0.43
41:BF:11:HIS:HB2	41:BF:14:GLN:H	1.82	0.43
2:A8:113:U:H5''	2:A8:114:U:H5'	2.00	0.43
2:A8:1275:A:H3'	2:A8:1645:G:H21	1.83	0.43
2:A8:2333:A:C8	2:A8:2335:A:C4	3.07	0.43
36:BA:218:U:H2'	36:BA:219:U:C6	2.54	0.43
2:A8:2624:G:N2	2:A8:2625:G:H1'	2.34	0.43
1:A7:53:A:C4	1:A7:54:G:C8	3.06	0.43
36:BA:1088:G:C2	36:BA:1089:G:C4	3.07	0.43
36:BA:1088:G:C6	36:BA:1089:G:C5	3.06	0.43
36:BA:851:G:N1	36:BA:852:G:C4	2.87	0.43
36:BA:1426:G:C2	36:BA:1475:G:N3	2.87	0.43
36:BA:242:G:N1	36:BA:285:C:C4	2.87	0.43
2:A8:1835:G:C4	2:A8:1931:U:C2	3.07	0.43
2:A8:1769:U:H4'	2:A8:1958:C:O3'	2.18	0.43
36:BA:1112:C:C6	36:BA:1113:C:C5	3.07	0.43
2:A8:1086:A:H4'	2:A8:1104:C:H1'	1.99	0.43
2:A8:1105:U:H2'	2:A8:1106:G:C8	2.54	0.43
2:A8:370:G:N2	2:A8:424:G:C4	2.87	0.43
2:A8:677:A:H4'	2:A8:2071:A:H5'	2.00	0.43
2:A8:1504:A:C6	2:A8:1505:A:C5	3.07	0.43
2:A8:1003:G:C6	2:A8:1004:U:C4	3.07	0.43
2:A8:438:G:C6	2:A8:439:A:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:650:C:C5	2:A8:651:G:N3	2.86	0.43
36:BA:785:G:N2	36:BA:786:G:H1'	2.34	0.43
36:BA:786:G:C2	36:BA:797:C:C2	3.07	0.43
2:A8:2476:A:H3'	2:A8:2477:U:C5	2.54	0.43
36:BA:131:A:C5	36:BA:232:G:C6	3.06	0.43
36:BA:232:G:H2'	36:BA:263:A:H2	1.83	0.43
36:BA:263:A:H2'	36:BA:264:C:C5	2.53	0.43
2:A8:1566:A:C2'	2:A8:1567:G:C8	3.01	0.43
36:BA:719:C:H2'	36:BA:720:C:H5'	2.01	0.43
2:A8:1668:A:C4	2:A8:1993:U:C2	3.07	0.43
36:BA:205:A:H61	36:BA:215:C:H1'	1.83	0.43
2:A8:1299:G:H1	2:A8:1640:A:H5'	1.84	0.43
2:A8:852:U:H2'	2:A8:853:C:O4'	2.19	0.43
2:A8:852:U:C4	2:A8:853:C:C5	3.07	0.43
2:A8:1413:A:C2	2:A8:1590:A:C2	3.06	0.43
36:BA:47:C:C2	36:BA:49:U:C5	3.07	0.43
36:BA:373:A:C2	36:BA:374:A:C4	3.07	0.43
2:A8:1234:U:C2	2:A8:1235:G:C8	3.07	0.43
36:BA:570:G:H1'	36:BA:820:U:C4	2.54	0.43
1:A7:37:C:H3'	1:A7:38:C:C6	2.54	0.43
2:A8:271:G:C5	2:A8:367:G:C2	3.07	0.43
36:BA:48:C:C4	36:BA:365:U:C5	3.06	0.43
2:A8:1713:A:N6	2:A8:1746:A:C2	2.87	0.43
36:BA:1349:A:H3'	36:BA:1350:A:H8	1.82	0.43
36:BA:1254:A:H2'	36:BA:1255:G:C8	2.54	0.43
36:BA:169:C:H2'	36:BA:170:U:C6	2.54	0.43
36:BA:914:A:C6	36:BA:915:A:C5	3.06	0.43
50:BO:17:ASP:H	50:BO:20:ASP:HB2	1.83	0.43
2:A8:2120:G:N1	2:A8:2121:G:C2	2.87	0.43
2:A8:866:A:C6	2:A8:867:C:C4	3.07	0.43
36:BA:765:G:H3'	36:BA:765:G:C8	2.54	0.43
2:A8:860:U:H2'	2:A8:861:A:C8	2.54	0.43
36:BA:1087:G:C2	36:BA:1088:G:C8	3.07	0.43
36:BA:1489:G:C5	36:BA:1490:U:C4	3.07	0.43
36:BA:283:U:C4	36:BA:284:C:C6	3.06	0.43
2:A8:1835:G:H1'	2:A8:1931:U:O2	2.19	0.43
2:A8:1937:A:C5	2:A8:1939:U:C4	3.07	0.43
1:A7:106:G:H2'	1:A7:107:G:O4'	2.19	0.43
2:A8:1707:G:C6	2:A8:1708:C:C4	3.07	0.43
2:A8:222:A:C6	2:A8:224:U:C2	3.07	0.43
2:A8:370:G:C2	2:A8:424:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1177:G:C4	2:A8:1178:C:C6	3.07	0.43
2:A8:41:C:C2	2:A8:42:A:C8	3.07	0.43
2:A8:648:G:C6	2:A8:649:G:N7	2.87	0.43
2:A8:2161:C:H2'	2:A8:2162:G:C8	2.54	0.43
2:A8:1432:G:N2	2:A8:1562:U:H1'	2.33	0.43
2:A8:1450:G:C4	2:A8:1451:C:C5	3.07	0.43
2:A8:53:A:C6	2:A8:54:G:C4	3.07	0.43
2:A8:1446:C:O5'	2:A8:1446:C:C6	2.72	0.43
2:A8:2549:G:C2	2:A8:2560:A:C4	3.07	0.43
36:BA:571:U:H3'	36:BA:572:A:C5'	2.49	0.43
2:A8:845:A:C6	2:A8:932:U:C4	3.06	0.43
2:A8:123:G:C5	2:A8:124:G:C5	3.06	0.43
2:A8:1582:C:H2'	2:A8:1583:A:H4'	2.00	0.43
2:A8:1872:A:C6	2:A8:1873:G:C4	3.07	0.43
2:A8:599:A:C2	2:A8:659:G:C4	3.06	0.43
2:A8:169:G:C6	2:A8:170:U:C4	3.06	0.43
2:A8:1041:G:C2	2:A8:1042:G:C5	3.07	0.43
2:A8:2756:U:C1'	2:A8:2757:A:H5''	2.49	0.43
2:A8:1015:U:H3	2:A8:1147:A:N6	2.17	0.43
36:BA:236:A:C2	36:BA:237:G:C4	3.07	0.43
10:AF:69:ALA:CB	10:AF:82:TYR:CE2	3.02	0.43
2:A8:1666:G:H1	2:A8:1994:C:H42	1.67	0.43
36:BA:44:A:C2	36:BA:45:G:C8	3.07	0.43
2:A8:2819:G:C6	2:A8:2821:A:C2	3.07	0.43
2:A8:2061:G:H4'	2:A8:2503:A:C4	2.54	0.43
2:A8:120:U:C5	2:A8:149:A:C2	3.07	0.43
2:A8:192:C:C5	2:A8:193:U:C6	3.06	0.43
9:AE:19:PHE:CE1	9:AE:113:VAL:HG21	2.54	0.43
14:AJ:35:ARG:HH12	14:AJ:52:ASP:CG	2.22	0.43
2:A8:2214:C:H2'	2:A8:2215:C:H5'	2.00	0.43
22:AR:77:PHE:CE1	22:AR:79:ARG:HA	2.54	0.43
2:A8:1400:U:H2'	2:A8:1401:G:C8	2.53	0.43
14:AJ:73:VAL:HG22	14:AJ:88:THR:HG22	2.01	0.43
36:BA:1152:A:OP2	45:BJ:70:HIS:CE1	2.71	0.43
2:A8:1907:G:C6	2:A8:1924:C:N3	2.87	0.42
36:BA:111:G:H1	36:BA:330:C:H41	1.67	0.42
2:A8:2175:C:H2'	2:A8:2176:A:C8	2.54	0.42
2:A8:2377:A:C5	2:A8:2378:A:C5	3.07	0.42
2:A8:1853:A:C5	2:A8:1889:A:C5	3.07	0.42
2:A8:2024:G:C6	2:A8:2025:C:C4	3.07	0.42
2:A8:1750:G:C6	2:A8:1751:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2041:U:O5'	2:A8:2041:U:C6	2.71	0.42
2:A8:825:A:C2	2:A8:826:U:C2	3.07	0.42
2:A8:869:G:C4	2:A8:870:U:C6	3.08	0.42
2:A8:2565:A:N7	2:A8:2566:A:C2	2.87	0.42
36:BA:1402:C:H2'	36:BA:1403:C:O4'	2.18	0.42
36:BA:577:G:C6	36:BA:578:C:C4	3.07	0.42
36:BA:769:G:C2	36:BA:770:C:C6	3.06	0.42
36:BA:1072:G:C4	36:BA:1104:G:N2	2.87	0.42
36:BA:852:G:H2'	36:BA:853:C:O4'	2.18	0.42
36:BA:301:G:C6	36:BA:302:G:C5	3.07	0.42
36:BA:295:C:N3	36:BA:303:A:C2	2.87	0.42
2:A8:1613:G:H22	2:A8:1617:C:C2'	2.29	0.42
2:A8:1940:U:H4'	2:A8:1965:C:C6	2.54	0.42
2:A8:2574:G:C5	2:A8:2575:C:C5	3.07	0.42
2:A8:415:A:N3	2:A8:2409:G:C2	2.87	0.42
2:A8:2720:U:C2	2:A8:2721:A:C8	3.07	0.42
2:A8:1717:A:H61	2:A8:1743:G:H1'	1.84	0.42
2:A8:360:U:H2'	2:A8:361:G:C1'	2.49	0.42
1:A7:90:C:C4	1:A7:91:C:C5	3.06	0.42
36:BA:452:A:H3'	36:BA:453:G:H8	1.84	0.42
2:A8:1659:G:N2	2:A8:2002:G:C4	2.87	0.42
36:BA:803:G:H2'	36:BA:804:U:O4'	2.19	0.42
2:A8:2469:A:C8	2:A8:2469:A:H3'	2.54	0.42
2:A8:2658:C:H4'	11:AG:157:LYS:HG2	2.01	0.42
2:A8:64:A:N7	2:A8:65:U:C5	2.87	0.42
36:BA:1452:C:H1'	36:BA:1453:G:C2	2.54	0.42
2:A8:1439:A:C4	2:A8:1553:A:C6	3.07	0.42
2:A8:545:U:H3	2:A8:549:G:H1'	1.83	0.42
36:BA:445:G:C6	36:BA:446:G:N7	2.87	0.42
36:BA:658:C:N3	36:BA:749:A:C2	2.87	0.42
36:BA:202:G:N2	36:BA:216:U:C2	2.87	0.42
36:BA:468:A:C4	36:BA:469:C:C5	3.07	0.42
36:BA:706:A:C2	36:BA:707:U:C2	3.07	0.42
2:A8:663:G:C4	2:A8:664:G:C8	3.07	0.42
36:BA:506:G:C5	36:BA:507:C:C4	3.07	0.42
36:BA:775:G:C6	36:BA:776:G:C6	3.06	0.42
2:A8:563:A:C6	2:A8:2018:G:C5	3.07	0.42
2:A8:563:A:C6	2:A8:564:C:C4	3.07	0.42
2:A8:1189:A:C6	2:A8:1190:G:C4	3.07	0.42
2:A8:1011:G:C2	2:A8:1013:C:C2	3.07	0.42
36:BA:373:A:OP2	36:BA:373:A:C8	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1312:G:C6	36:BA:1326:U:C4	3.07	0.42
2:A8:119:A:O5'	2:A8:120:U:C5	2.72	0.42
2:A8:1348:C:C6	2:A8:1348:C:H5''	2.54	0.42
2:A8:297:G:C6	2:A8:342:A:C6	3.06	0.42
52:BQ:26:ARG:HH11	52:BQ:39:ARG:HG3	1.84	0.42
2:A8:46:G:C5	2:A8:47:C:C5	3.07	0.42
40:BE:11:GLN:H	40:BE:44:ARG:NH2	2.17	0.42
36:BA:61:G:C5	36:BA:62:U:C4	3.07	0.42
37:BB:67:LEU:HD12	37:BB:89:PHE:HB2	2.01	0.42
2:A8:708:G:C5	2:A8:709:U:C4	3.07	0.42
2:A8:1899:A:H1'	2:A8:1903:G:C6	2.54	0.42
2:A8:1917:U:C4	2:A8:1918:A:C6	3.07	0.42
36:BA:331:G:H2'	55:BT:3:ILE:HA	2.00	0.42
36:BA:859:G:N7	36:BA:869:G:C2	2.87	0.42
2:A8:1854:A:C4'	2:A8:2233:U:H4'	2.49	0.42
2:A8:2244:U:C4	2:A8:2245:U:C4	3.06	0.42
2:A8:2319:G:O4'	2:A8:2321:U:C5	2.72	0.42
2:A8:345:A:H1'	2:A8:346:A:H2	1.84	0.42
36:BA:1333:A:H3'	36:BA:1334:G:C8	2.53	0.42
2:A8:874:G:C5	2:A8:875:G:C8	3.06	0.42
2:A8:878:A:N3	2:A8:879:G:C8	2.87	0.42
36:BA:522:C:H1'	36:BA:536:C:H4'	2.00	0.42
36:BA:515:G:C6	36:BA:537:G:C6	3.06	0.42
36:BA:1501:C:OP1	36:BA:1508:A:H5'	2.19	0.42
36:BA:765:G:C2	36:BA:812:G:C6	3.07	0.42
2:A8:1426:G:H3'	2:A8:1427:A:C8	2.55	0.42
36:BA:1083:U:C5	36:BA:1084:G:C5	3.07	0.42
36:BA:1107:C:C4	36:BA:1108:G:N7	2.87	0.42
36:BA:1416:G:C6	36:BA:1417:G:C5	3.07	0.42
36:BA:1425:U:C2	36:BA:1476:A:N1	2.87	0.42
36:BA:297:G:C2	36:BA:301:G:C6	3.06	0.42
2:A8:2513:A:C6	2:A8:2574:G:C5	3.08	0.42
36:BA:1459:G:C6	36:BA:1460:C:C4	3.07	0.42
2:A8:2692:G:C2	2:A8:2718:G:N3	2.87	0.42
2:A8:275:C:C2	2:A8:363:G:C2	3.07	0.42
2:A8:2443:C:C2	2:A8:2444:G:C8	3.07	0.42
36:BA:613:C:C4	36:BA:614:C:C5	3.06	0.42
36:BA:376:G:C2	36:BA:377:G:C4	3.08	0.42
2:A8:1881:C:C4	2:A8:1882:U:C4	3.07	0.42
36:BA:786:G:H2'	36:BA:787:A:O4'	2.19	0.42
2:A8:705:A:N1	2:A8:706:A:C6	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:17:ARG:HD2	44:BI:19:PHE:CZ	2.54	0.42
36:BA:417:G:H3'	36:BA:418:C:C6	2.53	0.42
2:A8:723:C:H2'	2:A8:724:U:O4'	2.19	0.42
2:A8:428:A:C6	2:A8:429:A:C6	3.07	0.42
2:A8:429:A:C2	2:A8:430:A:C2	3.07	0.42
2:A8:182:A:C2	2:A8:183:C:C2	3.07	0.42
2:A8:241:A:H61	2:A8:255:A:H3'	1.83	0.42
2:A8:1826:G:C6	2:A8:1827:U:C4	3.07	0.42
2:A8:2776:A:C5	2:A8:2782:G:C4	3.07	0.42
2:A8:1395:A:C4	2:A8:1398:C:C6	3.07	0.42
36:BA:746:A:H2'	36:BA:747:A:C8	2.54	0.42
2:A8:1670:C:H3'	2:A8:1671:U:H6	1.84	0.42
2:A8:460:A:C6	2:A8:470:A:C8	3.07	0.42
2:A8:188:G:C4	2:A8:189:G:C8	3.07	0.42
2:A8:206:U:C4	2:A8:207:A:N7	2.87	0.42
2:A8:771:G:C5	2:A8:772:C:C5	3.06	0.42
15:AK:2:GLN:HG3	15:AK:23:VAL:HG23	2.00	0.42
36:BA:604:G:C6	36:BA:635:A:C2	3.07	0.42
36:BA:550:G:C6	36:BA:551:U:C4	3.06	0.42
36:BA:596:A:C2	36:BA:597:G:H1'	2.53	0.42
9:AE:90:GLN:HB3	9:AE:92:HIS:CE1	2.53	0.42
2:A8:764:A:H5''	7:A6:208:GLY:CA	2.49	0.42
2:A8:551:G:C2	2:A8:552:U:C2	3.06	0.42
36:BA:313:A:C2	36:BA:314:C:C2	3.07	0.42
54:BS:4:LEU:HD23	54:BS:4:LEU:H	1.83	0.42
26:AV:28:ALA:HA	26:AV:89:ILE:H	1.84	0.42
2:A8:465:G:H2'	2:A8:466:A:C8	2.54	0.42
2:A8:1012:U:H3	2:A8:1143:A:H8	1.62	0.42
22:AR:73:LYS:HA	22:AR:87:GLN:O	2.18	0.42
36:BA:945:G:H1'	36:BA:1337:G:C2'	2.49	0.42
28:AX:39:VAL:HG23	28:AX:42:GLU:H	1.85	0.42
2:A8:1595:C:C2	2:A8:1596:A:C8	3.08	0.42
36:BA:859:G:C6	36:BA:860:A:C5	3.07	0.42
2:A8:2027:G:C6	2:A8:2028:U:C4	3.07	0.42
2:A8:2028:U:H6	2:A8:2028:U:O5'	2.02	0.42
2:A8:2292:U:H5''	2:A8:2378:A:H61	1.85	0.42
2:A8:1889:A:H3'	2:A8:1890:A:C8	2.54	0.42
2:A8:2241:A:C6	2:A8:2242:G:C6	3.07	0.42
2:A8:1650:A:C6	2:A8:1651:G:C5	3.08	0.42
36:BA:991:U:HO2'	36:BA:993:G:H8	1.67	0.42
2:A8:876:C:H2'	2:A8:877:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:877:A:C5	2:A8:878:A:C8	3.08	0.42
2:A8:2699:C:C2	2:A8:2709:G:N1	2.87	0.42
2:A8:527:C:C6	2:A8:528:A:H2	2.36	0.42
1:A7:72:G:H1'	1:A7:105:G:C2	2.54	0.42
26:AV:31:TYR:O	26:AV:92:VAL:HA	2.19	0.42
2:A8:1733:G:C5	2:A8:1734:G:C8	3.07	0.42
36:BA:814:A:C4'	36:BA:1511:G:H4'	2.49	0.42
2:A8:2093:G:N9	2:A8:2225:A:C2	2.87	0.42
2:A8:483:A:H4'	25:AU:45:GLN:O	2.19	0.42
2:A8:9:G:H3'	2:A8:2629:U:H3	1.85	0.42
2:A8:2800:A:N6	2:A8:2801:G:C4	2.88	0.42
36:BA:1413:A:C4	36:BA:1488:G:N2	2.87	0.42
36:BA:247:G:N3	36:BA:282:A:C2	2.87	0.42
36:BA:294:U:H2'	36:BA:295:C:C6	2.55	0.42
36:BA:575:G:C5'	36:BA:881:G:H21	2.32	0.42
2:A8:1937:A:H62	2:A8:1940:U:H3	1.68	0.42
36:BA:1439:G:C4	36:BA:1440:U:C5	3.07	0.42
2:A8:2404:U:C4	2:A8:2414:G:N1	2.87	0.42
2:A8:422:A:H3'	2:A8:423:A:C8	2.54	0.42
2:A8:424:G:N1	2:A8:425:G:C4	2.87	0.42
36:BA:615:G:C4	36:BA:626:G:C6	3.08	0.42
1:A7:15:A:H3'	1:A7:16:G:H8	1.85	0.42
2:A8:1483:G:N1	2:A8:1507:C:C2	2.87	0.42
2:A8:1319:C:H1'	2:A8:1334:G:N2	2.34	0.42
2:A8:582:A:C6	2:A8:583:G:C5	3.07	0.42
2:A8:649:G:C6	2:A8:650:C:N3	2.87	0.42
36:BA:258:G:C5'	36:BA:258:G:H8	2.32	0.42
2:A8:1432:G:C2	2:A8:1433:A:C5	3.07	0.42
2:A8:2888:C:C2	2:A8:2889:C:C6	3.07	0.42
2:A8:2559:C:C2	2:A8:2560:A:C8	3.08	0.42
2:A8:1307:A:C4	2:A8:1308:A:C8	3.07	0.42
2:A8:1308:A:N6	2:A8:1606:C:H1'	2.33	0.42
2:A8:2523:G:C4	2:A8:2765:A:C6	3.07	0.42
2:A8:1418:G:H1	2:A8:1578:U:H3'	1.83	0.42
2:A8:285:G:C5	2:A8:286:U:C4	3.07	0.42
2:A8:457:A:N1	2:A8:470:A:H5''	2.34	0.42
2:A8:766:U:H6	2:A8:766:U:O5'	2.01	0.42
36:BA:622:A:C8	36:BA:623:C:C5	3.07	0.42
2:A8:1703:G:C2	2:A8:1704:C:C2	3.07	0.42
15:AK:38:ILE:O	15:AK:58:LYS:HA	2.18	0.42
2:A8:2633:G:C2	2:A8:2786:U:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BL:36:VAL:H	47:BL:75:GLU:HG2	1.84	0.42
2:A8:1041:G:C2	2:A8:1115:G:C2	3.07	0.42
2:A8:1782:U:C5	2:A8:1783:A:C8	3.07	0.42
36:BA:238:A:C5	36:BA:239:U:C5	3.07	0.42
2:A8:1665:A:C4	2:A8:1666:G:C8	3.07	0.42
36:BA:483:C:C6	36:BA:484:G:C8	3.07	0.42
36:BA:1044:A:C5	36:BA:1045:C:H1'	2.54	0.42
2:A8:271:G:C2	2:A8:272:A:C4	3.07	0.42
2:A8:2355:G:H5''	27:AW:32:ALA:HB1	2.01	0.42
36:BA:457:G:C6	36:BA:458:U:C4	3.08	0.42
2:A8:46:G:C6	2:A8:47:C:C4	3.07	0.42
21:AQ:63:ARG:O	21:AQ:67:ALA:HB3	2.20	0.42
39:BD:159:GLU:HG3	39:BD:160:LEU:H	1.84	0.42
17:AM:38:ARG:HH21	17:AM:98:PRO:HG2	1.84	0.42
2:A8:219:A:C2	2:A8:220:G:C2	3.07	0.42
43:BH:96:ALA:HB1	43:BH:99:GLY:H	1.84	0.42
15:AK:62:VAL:HB	15:AK:82:ALA:HB3	2.00	0.42
36:BA:59:A:C2	36:BA:331:G:C2	3.07	0.42
36:BA:154:U:C2	36:BA:168:G:C2	3.08	0.42
2:A8:71:A:N3	2:A8:73:A:C2	2.86	0.42
2:A8:572:A:C5	2:A8:573:U:C5	3.08	0.42
35:A4:25:VAL:CG2	35:A4:33:HIS:CE1	3.03	0.42
2:A8:1279:G:C6	2:A8:1280:G:C5	3.07	0.42
2:A8:2298:A:C5	2:A8:2299:U:C6	3.07	0.42
2:A8:246:C:C4	2:A8:247:G:N7	2.87	0.42
2:A8:249:C:C6	2:A8:249:C:H5''	2.54	0.42
36:BA:324:G:N1	36:BA:326:G:H3'	2.34	0.42
36:BA:1239:A:N6	36:BA:1299:A:H62	2.16	0.42
2:A8:881:G:C2	2:A8:882:G:H1'	2.55	0.42
1:A7:34:A:H4'	1:A7:35:C:C2	2.55	0.42
36:BA:1507:A:C2	36:BA:1530:G:O4'	2.72	0.42
2:A8:503:A:C6	2:A8:506:G:C5	3.08	0.42
2:A8:861:A:C5	2:A8:862:G:C4	3.08	0.42
2:A8:918:A:H2'	2:A8:919:U:H5'	2.01	0.42
36:BA:1099:G:C2	36:BA:1100:C:H1'	2.54	0.42
2:A8:1847:A:H1'	2:A8:1848:A:H62	1.84	0.42
2:A8:1093:G:H21	2:A8:1098:A:H62	1.66	0.42
2:A8:1214:A:H4'	2:A8:1239:G:H4'	2.01	0.42
2:A8:1948:G:C2	2:A8:1949:G:C4	3.08	0.42
36:BA:1483:A:H2'	36:BA:1484:C:O4'	2.19	0.42
2:A8:1054:A:C2	2:A8:1055:G:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1320:C:C4	2:A8:1330:C:C5	3.07	0.42
2:A8:67:U:H1'	2:A8:88:G:C2	2.54	0.42
36:BA:760:G:C6	36:BA:761:G:C4	3.07	0.42
36:BA:540:G:C2	36:BA:541:G:C4	3.08	0.42
36:BA:250:A:H1'	36:BA:252:U:C6	2.53	0.42
2:A8:265:A:H2'	2:A8:266:G:O4'	2.18	0.42
9:AE:164:LEU:HD12	9:AE:165:HIS:CE1	2.54	0.42
2:A8:1444:G:C5	2:A8:1445:G:C5	3.08	0.42
2:A8:1197:G:H4'	2:A8:1227:G:O3'	2.19	0.42
2:A8:1527:G:C2	2:A8:1543:G:H2'	2.54	0.42
36:BA:865:A:C5	36:BA:866:C:C5	3.07	0.42
36:BA:202:G:H21	36:BA:465:A:H61	1.66	0.42
2:A8:455:C:H2'	2:A8:472:A:C2	2.54	0.42
2:A8:207:A:C6	2:A8:208:C:C2	3.07	0.42
2:A8:2048:G:C2	2:A8:2049:G:H1'	2.55	0.42
2:A8:2274:A:C6	2:A8:2276:G:H1'	2.54	0.42
2:A8:853:C:C2	2:A8:854:C:C6	3.07	0.42
2:A8:922:C:C2	2:A8:923:G:C8	3.07	0.42
2:A8:1039:A:C2	2:A8:1117:C:O2	2.73	0.42
36:BA:773:G:N2	36:BA:774:G:H1'	2.34	0.42
36:BA:775:G:H2'	36:BA:776:G:O4'	2.18	0.42
36:BA:929:G:C5	36:BA:930:C:C6	3.07	0.42
2:A8:2077:A:C5	2:A8:2435:A:C5	3.07	0.42
2:A8:1665:A:C2	2:A8:1666:G:C5	3.08	0.42
3:AA:350:LYS:O	3:AA:353:ALA:HB3	2.19	0.42
2:A8:1364:G:H1'	2:A8:1368:G:N2	2.34	0.42
2:A8:1850:G:N1	2:A8:1893:C:C2	2.88	0.42
12:AH:88:GLY:CA	12:AH:126:GLY:H	2.32	0.42
2:A8:253:C:H2'	2:A8:254:G:O4'	2.19	0.42
36:BA:39:G:C2	36:BA:404:G:C4	3.08	0.42
2:A8:2824:C:C4	2:A8:2825:G:C5	3.07	0.42
13:AI:92:PRO:HA	13:AI:136:GLY:HA3	2.01	0.42
2:A8:2121:G:H1	2:A8:2176:A:N6	2.05	0.42
36:BA:859:G:OP2	36:BA:869:G:C6	2.71	0.42
2:A8:2027:G:C2	2:A8:2028:U:C2	3.07	0.42
2:A8:565:C:H42	2:A8:576:U:H3	1.67	0.42
32:A1:38:PHE:HA	32:A1:45:HIS:HA	2.01	0.42
36:BA:904:U:C6	36:BA:904:U:O5'	2.72	0.42
2:A8:904:G:C4	2:A8:905:A:C8	3.07	0.42
2:A8:2698:U:C2	2:A8:2699:C:C5	3.08	0.42
2:A8:1725:U:C4	2:A8:1726:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1502:A:H5'	36:BA:1504:G:N7	2.34	0.42
36:BA:577:G:C6	36:BA:812:G:N2	2.85	0.42
36:BA:1072:G:C4	36:BA:1104:G:C2	3.07	0.42
36:BA:1476:A:C4	36:BA:1477:U:C5	3.08	0.42
36:BA:243:A:C8	36:BA:245:U:C5	3.08	0.42
2:A8:1932:A:C8	2:A8:1933:G:C8	3.08	0.42
2:A8:485:C:C2	2:A8:486:C:C6	3.08	0.42
2:A8:2675:A:C5	2:A8:2676:C:C6	3.07	0.42
2:A8:1719:G:C2	2:A8:1742:U:C2	3.08	0.42
2:A8:371:A:N6	2:A8:401:A:C8	2.87	0.42
2:A8:607:U:C2	2:A8:620:G:O4'	2.72	0.42
36:BA:979:C:C5	36:BA:980:C:C5	3.08	0.42
2:A8:638:G:C2	2:A8:639:U:C2	3.07	0.42
36:BA:782:A:H2'	36:BA:783:C:H5'	2.02	0.42
2:A8:1162:G:C6	2:A8:1163:G:C5	3.07	0.42
2:A8:2832:U:H1'	2:A8:2834:G:C2	2.53	0.42
2:A8:592:A:C2	2:A8:593:U:C2	3.07	0.42
2:A8:1220:G:C5	2:A8:1230:A:N1	2.87	0.42
2:A8:255:A:C6	2:A8:256:A:C4	3.07	0.42
2:A8:1226:A:OP2	2:A8:1227:G:C8	2.73	0.42
2:A8:2357:G:C4	2:A8:2361:G:C6	3.07	0.42
2:A8:2357:G:N2	2:A8:2359:C:H3'	2.33	0.42
2:A8:2543:G:C2	2:A8:2544:G:C4	3.07	0.42
2:A8:1668:A:H1'	2:A8:1670:C:C4	2.54	0.42
2:A8:1674:G:H21	2:A8:1677:A:N6	2.16	0.42
2:A8:695:G:C2	2:A8:768:G:C5	3.07	0.42
2:A8:843:G:C2	2:A8:936:A:C4	3.07	0.42
2:A8:470:A:N6	2:A8:471:A:C6	2.88	0.42
2:A8:699:A:C8	2:A8:700:G:C8	3.08	0.42
2:A8:1685:C:C2	2:A8:1686:C:C6	3.08	0.42
2:A8:2618:G:C2	2:A8:2619:C:C2	3.08	0.42
2:A8:2394:C:C5	2:A8:2395:C:C5	3.08	0.42
2:A8:1913:A:C6	36:BA:1494:G:C8	3.07	0.42
36:BA:832:G:N2	36:BA:833:G:H1'	2.35	0.42
2:A8:1955:U:C5	2:A8:2557:G:N2	2.88	0.42
2:A8:1151:A:C4	2:A8:1152:C:C6	3.07	0.42
2:A8:1681:G:C6	2:A8:1762:A:C6	3.07	0.42
39:BD:131:ILE:HG22	39:BD:134:TYR:H	1.84	0.42
2:A8:2656:U:O4	2:A8:2665:A:C8	2.72	0.42
2:A8:544:C:C6	2:A8:546:U:H5'	2.54	0.42
36:BA:1166:G:C2	36:BA:1171:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1286:A:C6	2:A8:1289:C:C2	3.08	0.42
13:AI:52:LEU:HA	13:AI:86:LYS:HZ3	1.84	0.42
7:A6:230:PRO:HG2	7:A6:244:VAL:HG21	2.02	0.42
2:A8:1838:C:N4	2:A8:1898:U:H2'	2.35	0.42
2:A8:1922:G:C6	2:A8:1923:U:C5	3.08	0.42
36:BA:111:G:H22	36:BA:330:C:N4	2.18	0.42
6:A5:34:ALA:HA	6:A5:219:GLY:HA3	2.02	0.42
2:A8:112:U:H3'	2:A8:113:U:C6	2.54	0.42
2:A8:575:A:C6	2:A8:576:U:C5	3.07	0.42
2:A8:2242:G:C5	2:A8:2243:U:C5	3.07	0.42
2:A8:817:C:H3'	2:A8:818:G:H8	1.84	0.42
1:A7:56:G:H21	1:A7:59:A:H2	1.62	0.42
2:A8:1373:A:H5'	2:A8:2212:A:C8	2.55	0.42
36:BA:1215:G:C2'	36:BA:1216:A:H5'	2.49	0.42
2:A8:759:G:H2'	2:A8:760:G:O4'	2.19	0.42
2:A8:861:A:C6	2:A8:917:A:C8	3.07	0.42
36:BA:745:G:H5'	36:BA:851:G:H21	1.85	0.42
36:BA:745:G:C5'	36:BA:851:G:H21	2.33	0.42
36:BA:1423:G:C6	36:BA:1424:U:C4	3.07	0.42
2:A8:1072:C:C4	2:A8:1093:G:C6	3.08	0.42
2:A8:401:A:C2	2:A8:402:A:C4	3.08	0.42
2:A8:422:A:C6	2:A8:423:A:C5	3.07	0.42
36:BA:652:U:H6	36:BA:652:U:O5'	2.03	0.42
1:A7:68:C:C2	1:A7:69:G:C8	3.07	0.42
2:A8:2261:C:C2	2:A8:2280:G:N2	2.88	0.42
2:A8:160:A:H2'	2:A8:161:A:C8	2.55	0.42
2:A8:611:C:C2	2:A8:612:G:C8	3.08	0.42
2:A8:616:A:C2	2:A8:617:G:H1'	2.54	0.42
2:A8:1176:U:H2'	2:A8:1177:G:H5'	2.02	0.42
2:A8:1179:G:C2	2:A8:1180:U:C2	3.07	0.42
11:AG:102:ILE:HG22	11:AG:103:ASN:N	2.33	0.42
2:A8:1265:A:C4	2:A8:1267:U:C4	3.07	0.42
2:A8:2470:G:C8	2:A8:2470:G:H5''	2.54	0.42
2:A8:2471:A:O2'	2:A8:2472:G:C8	2.58	0.42
36:BA:761:G:C4	36:BA:762:U:C6	3.08	0.42
2:A8:21:A:C6	2:A8:22:C:C4	3.07	0.42
2:A8:2594:C:N3	2:A8:2600:A:C2	2.88	0.42
2:A8:2816:G:C2	2:A8:2817:U:C2	3.07	0.42
36:BA:260:G:C2	36:BA:267:C:C2	3.07	0.42
2:A8:2630:G:N2	2:A8:2631:G:C4	2.88	0.42
2:A8:949:G:C6	2:A8:950:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1973:G:C5	2:A8:1974:C:C5	3.07	0.42
36:BA:214:C:C2	36:BA:215:C:C6	3.08	0.42
2:A8:1491:G:N2	7:A6:100:ARG:HH21	2.17	0.42
2:A8:285:G:H1'	2:A8:356:G:C2	2.54	0.42
2:A8:285:G:C2	2:A8:356:G:C5	3.08	0.42
2:A8:2842:G:N3	2:A8:2876:G:C2	2.88	0.42
2:A8:594:U:H1'	2:A8:664:G:N2	2.35	0.42
2:A8:954:G:C6	2:A8:955:U:C6	3.07	0.42
2:A8:854:C:H1'	2:A8:924:G:N2	2.35	0.42
36:BA:47:C:O2	36:BA:49:U:C5	2.72	0.42
36:BA:144:G:C6	36:BA:145:G:C6	3.07	0.42
36:BA:825:A:C6	36:BA:826:C:C4	3.08	0.42
2:A8:396:G:C5	2:A8:397:U:C5	3.07	0.42
2:A8:396:G:C6	2:A8:397:U:C4	3.07	0.42
2:A8:152:A:C2	2:A8:175:G:C4	3.07	0.42
2:A8:2057:G:C5	2:A8:2058:A:C8	3.08	0.42
36:BA:1267:C:N3	36:BA:1327:C:H4'	2.34	0.42
2:A8:524:G:H5'	2:A8:539:G:N2	2.34	0.42
15:AK:12:ASN:HA	15:AK:99:PHE:CZ	2.54	0.42
32:A1:34:GLU:HA	32:A1:48:TYR:O	2.19	0.42
2:A8:2821:A:N6	18:AN:2:ARG:HH22	2.18	0.42
2:A8:2821:A:H2'	2:A8:2822:G:O4'	2.20	0.42
36:BA:127:G:N2	36:BA:128:G:H1'	2.34	0.42
2:A8:1891:G:C6	2:A8:1892:C:C4	3.08	0.42
15:AK:115:ILE:HD13	15:AK:115:ILE:H	1.84	0.42
30:AZ:29:ARG:HB2	30:AZ:33:HIS:CE1	2.54	0.42
10:AF:133:GLU:HA	10:AF:149:ARG:HE	1.85	0.42
36:BA:1181:G:C2	36:BA:1182:G:N2	2.87	0.42
7:A6:182:LYS:HG2	7:A6:267:VAL:HG22	2.01	0.42
2:A8:1916:A:H2'	2:A8:1917:U:O4'	2.19	0.42
2:A8:1925:C:H2'	2:A8:1926:U:C6	2.55	0.42
36:BA:354:G:C2	36:BA:355:C:C6	3.07	0.42
2:A8:114:U:C2	2:A8:115:C:C6	3.08	0.42
2:A8:1343:G:C4	2:A8:1597:A:C2	3.08	0.42
36:BA:858:G:H1	36:BA:869:G:H2'	1.85	0.42
2:A8:2372:U:O2'	32:A1:45:HIS:CD2	2.73	0.42
2:A8:1468:U:H3	2:A8:1522:A:H1'	1.85	0.42
2:A8:1854:A:H62	2:A8:1888:G:H1'	1.84	0.42
2:A8:2080:A:C2	2:A8:2081:U:H1'	2.55	0.42
2:A8:2243:U:H2'	2:A8:2244:U:C6	2.55	0.42
2:A8:345:A:N3	2:A8:346:A:N1	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:990:C:C4	36:BA:991:U:C5	3.08	0.42
2:A8:498:G:H2'	25:AU:44:HIS:CE1	2.55	0.42
36:BA:1089:G:C5	36:BA:1090:U:C5	3.08	0.42
2:A8:1099:G:H1'	13:AI:4:VAL:HB	2.01	0.42
2:A8:2413:G:C2	2:A8:2414:G:H1'	2.55	0.42
2:A8:1719:G:C5	2:A8:1720:U:C5	3.08	0.42
1:A7:16:G:C6	1:A7:17:C:N4	2.88	0.42
2:A8:161:A:C4	2:A8:162:U:C5	3.08	0.42
2:A8:978:G:C8	2:A8:978:G:O5'	2.73	0.42
2:A8:77:G:C2	2:A8:78:U:C2	3.07	0.42
2:A8:1321:A:C6	2:A8:1322:A:C5	3.06	0.42
2:A8:581:C:O2	2:A8:1260:A:C2	2.73	0.42
2:A8:745:G:H1'	2:A8:753:A:C2	2.54	0.42
2:A8:712:G:C4	2:A8:713:G:C8	3.07	0.42
36:BA:268:U:C4	36:BA:269:C:C5	3.07	0.42
36:BA:270:A:C5	36:BA:271:C:C5	3.08	0.42
2:A8:1558:C:C2	2:A8:1560:G:C5	3.07	0.42
2:A8:2278:A:H62	27:AW:10:ARG:HB3	1.84	0.42
2:A8:176:A:H2'	2:A8:177:G:H5'	2.01	0.42
36:BA:838:G:C2	36:BA:839:C:C2	3.08	0.42
47:BL:53:ARG:HH11	47:BL:53:ARG:HG3	1.84	0.42
2:A8:1825:U:H2'	2:A8:1826:G:C8	2.53	0.42
2:A8:1969:A:H1'	2:A8:1973:G:H1'	2.02	0.42
2:A8:1689:A:C2	2:A8:1690:A:C4	3.08	0.42
2:A8:1690:A:H61	2:A8:1697:G:H1'	1.85	0.42
2:A8:1312:U:H1'	2:A8:1314:C:C5	2.55	0.42
2:A8:1419:A:C5	2:A8:1579:A:C4	3.08	0.42
2:A8:204:A:C4	2:A8:206:U:C4	3.07	0.42
2:A8:597:G:C2	2:A8:661:A:C2	3.07	0.42
1:A7:61:G:H2'	1:A7:62:C:O4'	2.19	0.42
2:A8:2004:G:C2	2:A8:2005:A:H1'	2.54	0.42
2:A8:1299:G:C2	2:A8:1642:G:C6	3.07	0.42
36:BA:900:A:H2'	36:BA:901:A:C8	2.54	0.42
2:A8:2246:G:C6	2:A8:2247:A:C5	3.07	0.42
2:A8:103:A:C5	2:A8:104:A:C4	3.07	0.42
2:A8:2854:G:C2	2:A8:2864:G:C4	3.08	0.42
2:A8:1591:A:C2	2:A8:1592:C:C2	3.08	0.42
2:A8:1041:G:N2	2:A8:1042:G:C4	2.88	0.42
36:BA:1276:G:C5	36:BA:1277:C:C4	3.08	0.42
2:A8:1389:G:C5	2:A8:1390:U:C5	3.08	0.42
36:BA:950:U:H2'	36:BA:951:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2399:G:C6	2:A8:2418:A:C6	3.07	0.42
36:BA:604:G:C6	36:BA:635:A:N1	2.88	0.42
2:A8:2819:G:C6	2:A8:2828:G:C6	3.08	0.42
36:BA:1410:A:C2	36:BA:1411:C:C2	3.08	0.42
36:BA:402:G:C5	36:BA:403:C:C5	3.08	0.42
2:A8:1510:G:C2	2:A8:1511:G:C4	3.07	0.42
17:AM:110:GLU:HA	17:AM:113:ALA:H	1.84	0.42
36:BA:147:G:C2	36:BA:148:G:C4	3.08	0.42
13:AI:8:VAL:HG11	13:AI:26:ALA:CB	2.50	0.42
8:AD:2:ILE:HG22	8:AD:82:PHE:HB3	2.00	0.42
36:BA:616:G:N2	36:BA:625:U:H1'	2.34	0.42
2:A8:2305:U:O4'	10:AF:130:GLY:HA3	2.19	0.42
8:AD:125:TRP:CG	8:AD:161:MET:HA	2.55	0.42
2:A8:391:A:C2	2:A8:392:U:H1'	2.54	0.42
36:BA:208:U:H2'	36:BA:210:C:C6	2.55	0.42
2:A8:1904:G:C6	2:A8:1905:C:C5	3.07	0.42
36:BA:352:C:O2	36:BA:352:C:H2'	2.18	0.42
36:BA:859:G:H2'	36:BA:860:A:C8	2.55	0.42
2:A8:2287:A:C6	2:A8:2289:G:C4	3.07	0.42
2:A8:2379:G:C6	2:A8:2380:C:C4	3.08	0.42
36:BA:1048:G:H1'	36:BA:1215:G:C5'	2.50	0.42
36:BA:994:A:C4	36:BA:995:C:C6	3.08	0.42
36:BA:198:G:C2	36:BA:199:A:C4	3.08	0.42
2:A8:1754:A:H2'	2:A8:1755:A:C8	2.54	0.42
36:BA:689:C:H4'	36:BA:705:G:O2'	2.19	0.42
2:A8:196:A:C2	2:A8:828:U:OP1	2.73	0.42
36:BA:519:C:H41	36:BA:533:A:H61	1.67	0.42
26:AV:31:TYR:CE2	26:AV:90:ASP:HB3	2.55	0.42
2:A8:2223:G:C6	2:A8:2224:G:C4	3.08	0.42
2:A8:857:G:H5'	27:AW:68:PHE:CD2	2.55	0.42
2:A8:861:A:C4	2:A8:917:A:C6	3.08	0.42
2:A8:1135:C:H41	2:A8:1137:G:H3'	1.85	0.42
2:A8:1136:G:C5	2:A8:1137:G:C8	3.08	0.42
2:A8:1022:G:C2	2:A8:1141:U:C6	3.08	0.42
36:BA:1107:C:C2	36:BA:1108:G:C8	3.07	0.42
36:BA:851:G:C5	36:BA:852:G:N7	2.87	0.42
36:BA:245:U:C2	36:BA:284:C:O2	2.73	0.42
2:A8:1933:G:C5	2:A8:1934:C:C5	3.07	0.42
2:A8:2463:C:C2	2:A8:2464:G:C8	3.08	0.42
2:A8:2513:A:C2	2:A8:2514:U:C2	3.07	0.42
2:A8:2113:U:N3	2:A8:2168:G:H4'	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1054:A:C2	2:A8:1106:G:C5	3.08	0.42
2:A8:2191:A:H3'	2:A8:2192:U:C6	2.53	0.42
2:A8:1659:G:C4	2:A8:2002:G:N2	2.87	0.42
2:A8:1862:G:N2	2:A8:1863:G:C4	2.88	0.42
36:BA:524:G:C5	36:BA:525:C:C4	3.08	0.42
2:A8:266:G:C2	2:A8:267:C:H1'	2.54	0.42
2:A8:2270:A:C4	2:A8:2271:G:H1'	2.54	0.42
2:A8:966:G:C5	2:A8:967:U:C4	3.08	0.42
2:A8:2852:G:C5	2:A8:2853:C:C5	3.08	0.42
36:BA:38:G:H1'	36:BA:397:A:N6	2.34	0.42
28:AX:17:ARG:HH21	28:AX:21:LEU:C	2.23	0.42
2:A8:1676:A:C5	2:A8:1677:A:C5	3.07	0.42
2:A8:187:G:C4	2:A8:188:G:C8	3.07	0.42
2:A8:699:A:O4'	2:A8:734:A:C2	2.72	0.42
36:BA:338:A:C5	36:BA:339:C:C4	3.08	0.42
2:A8:2868:A:C2	2:A8:2869:G:H1'	2.55	0.42
2:A8:1871:A:C5	2:A8:1872:A:C5	3.08	0.42
2:A8:1686:C:O2	2:A8:1703:G:C2	2.73	0.42
2:A8:36:G:C6	2:A8:37:C:C5	3.08	0.42
36:BA:1226:C:H5'	48:BM:94:LEU:CD1	2.50	0.42
2:A8:379:G:C2	2:A8:396:G:C5	3.08	0.42
36:BA:1434:A:C6	36:BA:1435:G:C4	3.07	0.42
2:A8:289:G:C6	2:A8:290:U:C4	3.07	0.42
2:A8:324:A:C5	2:A8:339:U:H4'	2.54	0.42
2:A8:2739:U:H3'	2:A8:2763:G:H1	1.84	0.42
2:A8:2586:U:H3'	2:A8:2608:G:H22	1.85	0.42
36:BA:208:U:H6	36:BA:208:U:O5'	2.03	0.42
47:BL:86:VAL:HG23	47:BL:88:ASP:H	1.83	0.42
43:BH:103:VAL:H	43:BH:111:THR:HA	1.85	0.42
8:AD:179:ARG:HB3	8:AD:188:LEU:H	1.85	0.42
24:AT:59:ASN:H	24:AT:85:VAL:HG12	1.84	0.42
2:A8:1588:G:C6	2:A8:1589:U:C4	3.07	0.42
2:A8:1842:G:H2'	2:A8:1843:C:C6	2.55	0.42
2:A8:2123:G:N2	2:A8:2176:A:H1'	2.34	0.42
2:A8:2027:G:C2	2:A8:2037:A:C4	3.08	0.42
2:A8:1522:A:C5'	2:A8:1523:U:H3	2.26	0.42
2:A8:1751:U:H2'	2:A8:1752:C:C6	2.55	0.42
2:A8:1753:G:C2	2:A8:1755:A:H3'	2.54	0.42
2:A8:2859:G:C5	2:A8:2860:A:C5	3.08	0.42
2:A8:529:A:C8	2:A8:2042:A:C6	3.07	0.42
2:A8:919:U:H3	2:A8:920:A:N6	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1056:G:HO2'	2:A8:1086:A:H8	1.65	0.42
2:A8:2690:U:H3	2:A8:2873:A:C5'	2.33	0.42
2:A8:2721:A:C2	2:A8:2873:A:C4	3.08	0.42
2:A8:2193:G:C2	2:A8:2194:U:C6	3.07	0.42
1:A7:93:C:H5	26:AV:18:ARG:HH12	1.63	0.42
36:BA:454:G:C6	36:BA:455:G:C5	3.08	0.42
2:A8:608:A:C5	2:A8:609:A:C5	3.08	0.42
2:A8:1179:G:N2	2:A8:1180:U:H1'	2.35	0.42
2:A8:1391:U:H2'	2:A8:1393:A:C2	2.54	0.42
2:A8:1659:G:N3	2:A8:2002:G:C2	2.88	0.42
2:A8:26:G:C6	2:A8:27:G:C6	3.07	0.42
2:A8:583:G:C6	2:A8:584:C:C5	3.08	0.42
2:A8:629:G:C6	2:A8:630:G:C6	3.08	0.42
2:A8:2272:U:O5'	2:A8:2272:U:H6	2.03	0.42
2:A8:1446:C:H2'	2:A8:1447:C:C6	2.54	0.42
2:A8:811:U:O2	2:A8:1250:G:H5''	2.20	0.42
2:A8:303:G:C5	2:A8:304:U:C5	3.08	0.42
2:A8:315:G:C5	2:A8:316:C:C5	3.08	0.42
2:A8:1793:C:H2'	2:A8:1794:A:O4'	2.20	0.42
2:A8:2543:G:H5'	2:A8:2543:G:C8	2.55	0.42
36:BA:213:G:H3'	36:BA:214:C:C6	2.55	0.42
36:BA:461:A:H2'	36:BA:462:G:OP2	2.18	0.42
2:A8:1422:G:H21	2:A8:1496:A:H2	1.67	0.42
36:BA:448:A:C5	36:BA:487:A:C2	3.08	0.42
2:A8:853:C:C6	2:A8:853:C:H3'	2.55	0.42
36:BA:506:G:C6	36:BA:507:C:N3	2.88	0.42
36:BA:675:A:H4'	53:BR:70:THR:HG21	2.00	0.42
2:A8:1324:G:C8	2:A8:1324:G:H5''	2.54	0.42
9:AE:114:ARG:HE	9:AE:115:GLN:HE22	1.68	0.42
36:BA:75:G:C6	36:BA:76:G:C5	3.08	0.42
2:A8:1306:C:C2	2:A8:1623:G:C4	3.08	0.42
2:A8:1626:A:O5'	2:A8:1626:A:C8	2.73	0.42
2:A8:134:G:N2	2:A8:146:A:C4	2.88	0.42
2:A8:2355:G:H1'	2:A8:2363:G:N2	2.35	0.42
51:BP:8:ARG:NH2	51:BP:14:ARG:H	2.17	0.42
2:A8:325:G:C6	2:A8:326:G:C5	3.08	0.42
13:AI:32:VAL:HG21	13:AI:58:ILE:HG21	2.00	0.42
36:BA:1353:G:H2'	36:BA:1354:U:C6	2.55	0.42
2:A8:2773:C:H2'	2:A8:2774:C:H6	1.85	0.42
2:A8:653:U:H3'	2:A8:654:A:C2	2.55	0.42
2:A8:2705:A:H3'	2:A8:2706:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AM:69:PRO:HA	17:AM:94:ALA:HB2	2.02	0.42
2:A8:1840:G:C6	2:A8:1841:U:C4	3.08	0.42
2:A8:809:G:C2	2:A8:810:U:C2	3.08	0.42
2:A8:2289:G:C4'	2:A8:2383:G:H21	2.33	0.42
2:A8:2345:G:H1'	2:A8:2381:A:H2'	2.01	0.42
2:A8:1853:A:H2'	2:A8:1854:A:O4'	2.19	0.42
1:A7:28:C:H3'	1:A7:29:A:H8	1.84	0.42
2:A8:1279:G:H4'	18:AN:31:HIS:CG	2.55	0.42
36:BA:108:G:C5	36:BA:109:A:N1	2.87	0.42
36:BA:1213:A:C4	36:BA:1215:G:H1'	2.55	0.42
36:BA:198:G:C4	36:BA:220:G:C2	3.07	0.42
36:BA:1514:G:N2	36:BA:1522:U:H1'	2.35	0.42
2:A8:857:G:H2'	2:A8:858:G:O4'	2.19	0.42
2:A8:1823:G:C6	2:A8:1824:G:C6	3.07	0.42
2:A8:1091:G:H2'	2:A8:1092:C:H6	1.85	0.42
2:A8:1770:G:H21	2:A8:1786:A:H62	1.66	0.42
2:A8:1980:G:N1	2:A8:1982:U:C2	2.87	0.42
2:A8:2460:U:H2'	2:A8:2461:A:O4'	2.19	0.42
36:BA:1458:G:C2	36:BA:1459:G:C4	3.08	0.42
36:BA:1461:G:H2'	36:BA:1462:C:C6	2.54	0.42
2:A8:2170:A:C5'	6:A5:132:GLY:HA2	2.50	0.42
2:A8:2720:U:H1'	2:A8:2872:A:N7	2.35	0.42
2:A8:1998:A:H4'	2:A8:2725:A:H5'	2.02	0.42
2:A8:225:C:H3'	2:A8:226:A:H8	1.84	0.42
2:A8:418:C:H2'	2:A8:419:U:C6	2.55	0.42
2:A8:2065:C:C5'	2:A8:2251:G:H21	2.32	0.42
36:BA:629:A:C2	36:BA:630:A:C1'	3.02	0.42
2:A8:612:G:C8	2:A8:614:A:C2	3.08	0.42
11:AG:97:VAL:N	11:AG:102:ILE:HG23	2.35	0.42
2:A8:775:G:C5	2:A8:777:G:C2	3.08	0.42
2:A8:2530:A:C3'	2:A8:2531:A:H5''	2.50	0.42
36:BA:264:C:H2'	36:BA:265:G:C8	2.55	0.42
2:A8:1380:G:C2	2:A8:1381:G:C8	3.08	0.42
2:A8:18:U:H1'	2:A8:555:G:OP1	2.20	0.42
2:A8:2560:A:C5	2:A8:2561:U:C5	3.08	0.42
2:A8:1223:G:C8	22:AR:71:LYS:NZ	2.88	0.42
2:A8:2776:A:H4'	2:A8:2778:A:OP1	2.19	0.42
2:A8:2766:A:C4	2:A8:2767:C:C6	3.08	0.42
2:A8:695:G:C4	2:A8:768:G:C6	3.08	0.42
2:A8:1491:G:C6	2:A8:1492:G:C5	3.07	0.42
36:BA:683:G:C6	36:BA:684:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:953:G:C6	2:A8:954:G:C5	3.08	0.42
2:A8:98:G:N7	2:A8:99:U:C4	2.88	0.42
2:A8:2021:C:H4'	2:A8:2022:U:OP2	2.20	0.42
9:AE:114:ARG:HE	9:AE:115:GLN:NE2	2.18	0.42
2:A8:379:G:C6	2:A8:380:G:C5	3.08	0.42
36:BA:840:C:C2	36:BA:847:G:C2	3.08	0.42
2:A8:1233:C:C2	2:A8:1234:U:C6	3.07	0.42
2:A8:1235:G:C5	2:A8:1236:G:C6	3.08	0.42
2:A8:557:C:H2'	2:A8:558:U:C6	2.54	0.42
36:BA:1077:G:C2	36:BA:1081:A:C4	3.08	0.42
1:A7:44:G:C4'	1:A7:46:A:H62	2.33	0.42
36:BA:669:G:C2	36:BA:738:C:C2	3.08	0.42
2:A8:2363:G:N2	2:A8:2364:C:C2	2.88	0.42
36:BA:1410:A:H2'	36:BA:1411:C:C6	2.55	0.42
2:A8:242:G:C2	2:A8:254:G:C4	3.07	0.42
2:A8:242:G:C2	2:A8:254:G:C5	3.07	0.42
2:A8:504:A:C5	2:A8:504:A:OP1	2.73	0.42
2:A8:716:A:C5	2:A8:717:C:C6	3.07	0.42
32:A1:8:ILE:CG1	32:A1:22:THR:HG23	2.50	0.42
41:BF:12:PRO:HB3	41:BF:44:ARG:HH21	1.85	0.42
2:A8:1839:G:C1'	2:A8:1927:A:C8	3.03	0.41
36:BA:111:G:C6	36:BA:112:G:C5	3.08	0.41
36:BA:56:U:O2	36:BA:368:U:C2	2.73	0.41
36:BA:175:C:C4	36:BA:176:C:C5	3.07	0.41
36:BA:68:G:C4'	36:BA:171:A:H1'	2.50	0.41
2:A8:73:A:H3'	2:A8:73:A:C8	2.55	0.41
2:A8:2349:G:N2	2:A8:2369:A:H1'	2.35	0.41
2:A8:1650:A:C2	2:A8:1651:G:C1'	3.03	0.41
2:A8:2320:U:H5	2:A8:2332:C:C2	2.39	0.41
2:A8:2330:G:C2	2:A8:2386:A:C2	3.08	0.41
36:BA:109:A:C6	36:BA:326:G:C5	3.08	0.41
1:A7:51:G:C2'	1:A7:52:A:H5''	2.51	0.41
1:A7:75:G:H2'	1:A7:76:G:C8	2.55	0.41
1:A7:99:A:C4	1:A7:100:G:C8	3.08	0.41
36:BA:836:G:C5	36:BA:851:G:N1	2.88	0.41
2:A8:1948:G:N1	2:A8:1949:G:C5	2.87	0.41
2:A8:1954:G:C2	2:A8:1956:U:N3	2.88	0.41
2:A8:1948:G:C4	2:A8:1959:G:C2	3.07	0.41
2:A8:2464:G:N2	2:A8:2487:G:H1'	2.35	0.41
36:BA:119:A:C5	36:BA:288:A:C2	3.08	0.41
2:A8:1057:A:C2	2:A8:1082:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2722:G:H4'	18:AN:4:ARG:HB2	2.01	0.41
2:A8:1063:G:C2	2:A8:1064:C:C2	3.08	0.41
2:A8:588:U:C2	9:AE:85:PHE:CD1	3.08	0.41
2:A8:2816:G:C6	2:A8:2831:G:C6	3.07	0.41
36:BA:255:G:H2'	36:BA:256:U:C6	2.54	0.41
2:A8:1432:G:N2	2:A8:1433:A:C4	2.88	0.41
2:A8:1433:A:C2	2:A8:1561:C:O2	2.73	0.41
2:A8:282:A:H3'	2:A8:283:G:H8	1.85	0.41
2:A8:1193:G:N2	2:A8:1194:A:H1'	2.35	0.41
36:BA:594:U:C4	36:BA:595:A:C6	3.08	0.41
2:A8:907:G:H21	17:AM:67:VAL:HG12	1.84	0.41
2:A8:1689:A:C5	2:A8:1700:A:C4	3.07	0.41
2:A8:1605:C:C5	2:A8:1606:C:C5	3.08	0.41
7:A6:137:GLY:H	7:A6:163:ILE:HB	1.85	0.41
2:A8:190:A:N9	2:A8:207:A:C2	2.88	0.41
2:A8:1299:G:H5''	2:A8:1301:A:H5''	2.02	0.41
36:BA:1179:A:H2'	36:BA:1180:A:O4'	2.20	0.41
2:A8:1591:A:C6	2:A8:1592:C:C4	3.08	0.41
2:A8:1042:G:N2	2:A8:1114:C:H1'	2.35	0.41
2:A8:1116:G:C6	2:A8:1117:C:C4	3.08	0.41
36:BA:1054:C:C6	36:BA:1196:A:C4	3.08	0.41
36:BA:1277:C:O2'	36:BA:1279:G:C8	2.72	0.41
21:AQ:13:HIS:HA	21:AQ:31:TYR:CE1	2.55	0.41
21:AQ:9:ALA:O	21:AQ:13:HIS:CG	2.73	0.41
7:A6:64:VAL:HG13	7:A6:104:LEU:H	1.85	0.41
36:BA:1134:G:C2	36:BA:1135:U:H1'	2.54	0.41
2:A8:388:G:H2'	2:A8:389:G:C4	2.55	0.41
2:A8:2181:U:C4	2:A8:2182:U:C2	3.08	0.41
2:A8:2077:A:C2	2:A8:2078:C:C6	3.08	0.41
36:BA:1455:G:C6	36:BA:1456:A:C6	3.08	0.41
28:AX:70:LEU:H	28:AX:73:ARG:NE	2.17	0.41
2:A8:819:A:C8	2:A8:819:A:H5'	2.55	0.41
36:BA:1411:C:H6	36:BA:1411:C:H5''	1.85	0.41
36:BA:1346:A:H5''	36:BA:1348:U:H1'	2.02	0.41
36:BA:1152:A:H4'	45:BJ:15:HIS:CD2	2.55	0.41
15:AK:63:ARG:HE	15:AK:82:ALA:HB2	1.85	0.41
36:BA:405:U:H5''	36:BA:495:A:N1	2.35	0.41
2:A8:2019:A:C6	2:A8:2020:A:C5	3.08	0.41
54:BS:17:LYS:H	54:BS:30:LEU:HD22	1.85	0.41
1:A7:4:C:C2	1:A7:117:G:C2	3.08	0.41
10:AF:94:ARG:HD2	10:AF:101:ARG:HH12	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:172:ILE:HA	37:BB:176:ASN:HD22	1.85	0.41
2:A8:1923:U:C2	2:A8:1924:C:C6	3.08	0.41
36:BA:154:U:C6	36:BA:154:U:H3'	2.55	0.41
2:A8:2344:U:H3'	32:A1:45:HIS:HE1	1.85	0.41
36:BA:410:G:H2'	36:BA:429:U:C4	2.56	0.41
36:BA:1303:C:C5	36:BA:1304:G:C5	3.08	0.41
2:A8:903:C:C2	2:A8:904:G:C8	3.08	0.41
2:A8:1638:C:H4'	2:A8:2697:G:N2	2.35	0.41
2:A8:868:U:N3	2:A8:869:G:C5	2.88	0.41
1:A7:99:A:C2	1:A7:100:G:H1'	2.55	0.41
2:A8:1020:A:C5	2:A8:1141:U:O2	2.73	0.41
36:BA:1073:U:C2	36:BA:1074:G:C8	3.07	0.41
36:BA:1085:U:H3'	36:BA:1086:U:C6	2.54	0.41
2:A8:2895:G:C6	2:A8:2896:C:C4	3.08	0.41
2:A8:1848:A:C8	36:BA:702:A:C5	3.08	0.41
36:BA:300:A:C6	36:BA:301:G:H1'	2.56	0.41
2:A8:1775:U:C5	2:A8:1776:G:C8	3.07	0.41
2:A8:2675:A:H5'	15:AK:29:ARG:HB2	2.01	0.41
2:A8:1103:A:H3'	2:A8:1104:C:C5	2.55	0.41
2:A8:1062:G:H2'	2:A8:1063:G:C8	2.55	0.41
2:A8:226:A:C4	2:A8:227:A:C5	3.08	0.41
2:A8:2450:A:C2	2:A8:2451:A:N9	2.88	0.41
2:A8:2190:G:C2	2:A8:2191:A:C4	3.08	0.41
36:BA:651:C:H2'	36:BA:652:U:O4'	2.20	0.41
2:A8:1487:U:C2	2:A8:1503:A:C2	3.08	0.41
2:A8:2219:U:C4	2:A8:2220:U:C5	3.07	0.41
2:A8:510:C:C4	2:A8:511:U:C4	3.08	0.41
2:A8:978:G:C2	2:A8:979:A:C4	3.09	0.41
2:A8:1785:A:C5	2:A8:1787:A:C8	3.08	0.41
2:A8:639:U:C2	2:A8:640:C:C5	3.09	0.41
2:A8:2473:U:OP1	2:A8:2473:U:C4	2.73	0.41
2:A8:2660:A:C8	2:A8:2661:G:C5	3.08	0.41
2:A8:2663:G:C8	2:A8:2664:G:C8	3.08	0.41
36:BA:13:U:C4	36:BA:21:G:C2	3.08	0.41
2:A8:2595:G:C4	2:A8:2599:G:N1	2.87	0.41
36:BA:258:G:C8	36:BA:258:G:C5'	3.03	0.41
36:BA:270:A:O5'	36:BA:270:A:C8	2.73	0.41
36:BA:275:G:H3'	36:BA:276:G:H8	1.85	0.41
2:A8:1564:C:H2'	2:A8:1565:C:C6	2.55	0.41
2:A8:1452:G:H3'	2:A8:1453:A:H5''	2.03	0.41
2:A8:536:G:C5	2:A8:537:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1439:A:H3'	2:A8:1440:U:C5'	2.49	0.41
2:A8:1603:A:C2	2:A8:1604:C:H1'	2.55	0.41
2:A8:1366:A:H3'	2:A8:1367:A:H8	1.86	0.41
1:A7:61:G:C5	1:A7:62:C:C4	3.08	0.41
2:A8:121:G:C5	2:A8:131:A:C6	3.08	0.41
2:A8:2048:G:C6	2:A8:2049:G:C8	3.08	0.41
2:A8:2276:G:H21	17:AM:13:HIS:CE1	2.38	0.41
2:A8:35:G:C4	2:A8:454:A:C2	3.08	0.41
2:A8:291:G:H1'	2:A8:350:G:C2	2.55	0.41
2:A8:577:G:C2	2:A8:578:G:C2	3.07	0.41
36:BA:951:G:C1'	36:BA:971:G:H5'	2.49	0.41
2:A8:2400:G:N1	2:A8:2401:U:C2	2.87	0.41
1:A7:43:C:C2	1:A7:45:A:C5	3.08	0.41
2:A8:380:G:C2	2:A8:381:G:H1'	2.55	0.41
19:AO:11:ALA:HA	19:AO:14:ALA:HB3	2.02	0.41
22:AR:39:LEU:HA	22:AR:54:VAL:H	1.84	0.41
36:BA:1269:A:H4'	36:BA:1325:C:O2'	2.20	0.41
25:AU:3:LYS:HG2	25:AU:84:PHE:HB2	2.01	0.41
36:BA:947:G:H2'	36:BA:948:C:C6	2.55	0.41
2:A8:2304:G:O2'	10:AF:152:ASP:HB3	2.21	0.41
36:BA:668:G:H4'	50:BO:47:LYS:HB2	2.02	0.41
2:A8:2061:G:OP1	2:A8:2503:A:C2	2.74	0.41
2:A8:1415:U:H1'	2:A8:1588:G:N2	2.35	0.41
36:BA:1441:A:C6	36:BA:1442:G:C4	3.08	0.41
9:AE:23:PHE:CD1	9:AE:28:VAL:HG21	2.55	0.41
2:A8:2509:G:C6	2:A8:2510:C:C5	3.08	0.41
2:A8:2253:G:H3'	2:A8:2254:C:C6	2.55	0.41
36:BA:958:A:C6	36:BA:959:A:N1	2.88	0.41
27:AW:55:ASP:O	27:AW:56:HIS:CD2	2.73	0.41
2:A8:1906:G:OP2	2:A8:1930:G:H5'	2.20	0.41
36:BA:828:U:H5	36:BA:858:G:H21	1.68	0.41
2:A8:566:U:H4'	2:A8:809:G:OP1	2.21	0.41
2:A8:2084:C:C6	2:A8:2085:U:C5	3.08	0.41
2:A8:1890:A:H4'	2:A8:2086:U:C4'	2.50	0.41
2:A8:2239:G:C4	2:A8:2240:U:C6	3.09	0.41
36:BA:184:G:C5	36:BA:185:U:C4	3.09	0.41
2:A8:2299:U:H6	2:A8:2299:U:O5'	2.03	0.41
2:A8:875:G:C5	2:A8:876:C:C6	3.08	0.41
36:BA:704:A:C4	36:BA:705:G:C8	3.08	0.41
2:A8:1722:A:C5	2:A8:1739:A:C8	3.08	0.41
36:BA:1525:G:N1	36:BA:1526:G:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:766:A:C5	36:BA:814:A:C5	3.09	0.41
36:BA:815:A:OP2	36:BA:816:A:H8	2.03	0.41
36:BA:1068:G:C6	36:BA:1108:G:C4	3.08	0.41
36:BA:601:G:C6	36:BA:602:A:C5	3.09	0.41
36:BA:246:A:N3	36:BA:247:G:H1'	2.35	0.41
36:BA:283:U:C5	36:BA:284:C:C6	3.08	0.41
2:A8:1964:G:C2	2:A8:1967:C:C5	3.08	0.41
2:A8:1056:G:N1	2:A8:1102:C:C5	2.81	0.41
2:A8:2411:A:C8	2:A8:2411:A:O5'	2.73	0.41
2:A8:2685:G:C2	2:A8:2725:A:C2	3.08	0.41
1:A7:67:G:C6	1:A7:68:C:C5	3.09	0.41
2:A8:2748:A:H2'	2:A8:2749:A:C8	2.54	0.41
36:BA:376:G:C6	36:BA:377:G:C6	3.08	0.41
36:BA:799:G:C6	36:BA:800:G:C4	3.09	0.41
2:A8:2662:A:C8	2:A8:2663:G:C8	3.09	0.41
2:A8:2599:G:N2	2:A8:2600:A:H1'	2.35	0.41
2:A8:1773:A:N7	2:A8:1774:C:C5	2.88	0.41
2:A8:950:G:H3'	2:A8:950:G:C8	2.55	0.41
2:A8:1443:U:O2	2:A8:1549:A:C2	2.73	0.41
2:A8:814:C:C2	2:A8:1194:A:N1	2.88	0.41
2:A8:1988:G:C4	2:A8:1989:G:C8	3.07	0.41
36:BA:469:C:H2'	36:BA:470:C:C6	2.55	0.41
2:A8:189:G:C5	2:A8:205:G:C6	3.08	0.41
2:A8:854:C:C2	2:A8:924:G:N1	2.88	0.41
2:A8:2619:C:H1'	8:AD:155:VAL:HB	2.02	0.41
2:A8:86:G:N2	2:A8:97:C:H1'	2.35	0.41
14:AJ:130:HIS:CE1	14:AJ:137:PRO:HG2	2.55	0.41
2:A8:2769:U:H5''	2:A8:2769:U:C6	2.55	0.41
36:BA:1431:A:C6	36:BA:1432:G:C5	3.08	0.41
2:A8:2551:C:C5	2:A8:2552:U:C4	3.09	0.41
2:A8:388:G:C8	2:A8:389:G:N7	2.88	0.41
36:BA:598:U:H4'	43:BH:85:TYR:CE1	2.55	0.41
2:A8:2056:G:C6	2:A8:2057:G:C5	3.08	0.41
2:A8:524:G:C6	2:A8:525:U:C4	3.08	0.41
20:AP:19:PHE:HE1	20:AP:25:VAL:HG12	1.84	0.41
2:A8:1050:A:C2	2:A8:1051:G:H1'	2.55	0.41
2:A8:1480:C:C4	2:A8:1481:U:C4	3.08	0.41
36:BA:321:A:H4'	36:BA:1436:U:H5'	2.02	0.41
36:BA:320:A:C2	36:BA:321:A:C4	3.08	0.41
2:A8:1459:G:C8	2:A8:1461:C:C4	3.07	0.41
1:A7:7:G:C5	1:A7:8:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AA:353:ALA:CB	3:AA:377:GLU:HA	2.50	0.41
36:BA:475:C:H2'	36:BA:476:U:H6	1.86	0.41
2:A8:531:C:C2	2:A8:2019:A:C2	3.08	0.41
2:A8:75:G:H4'	29:AY:48:ARG:HE	1.85	0.41
41:BF:46:GLN:HG2	41:BF:48:ALA:H	1.85	0.41
43:BH:42:GLU:HB3	43:BH:44:PHE:CZ	2.55	0.41
49:BN:41:TRP:CG	49:BN:42:ASN:N	2.88	0.41
41:BF:90:MET:HB3	41:BF:91:ARG:HE	1.85	0.41
8:AD:122:VAL:CG1	8:AD:141:ARG:HH21	2.33	0.41
2:A8:787:C:C5	2:A8:791:C:C4	3.09	0.41
36:BA:112:G:C4	36:BA:113:G:C8	3.09	0.41
36:BA:151:A:H3'	36:BA:152:A:H8	1.85	0.41
36:BA:96:U:H2'	36:BA:97:G:C8	2.56	0.41
2:A8:2027:G:C5	2:A8:2028:U:C4	3.08	0.41
2:A8:2037:A:C2	2:A8:2038:G:C5	3.08	0.41
2:A8:2348:U:C2	2:A8:2349:G:C8	3.08	0.41
2:A8:2347:C:H5'	2:A8:2382:G:C1'	2.50	0.41
2:A8:2088:A:C2	2:A8:2089:C:C2	3.08	0.41
2:A8:2317:A:N7	2:A8:2318:G:C5	2.88	0.41
36:BA:410:G:H3'	39:BD:25:ARG:HH12	1.86	0.41
36:BA:198:G:C5	36:BA:220:G:C2	3.08	0.41
2:A8:740:C:C5	2:A8:1981:A:N1	2.89	0.41
2:A8:1709:U:H2'	2:A8:1710:G:C8	2.56	0.41
2:A8:2693:G:N2	2:A8:2694:G:H1'	2.35	0.41
2:A8:2858:C:C5	2:A8:2859:G:C5	3.07	0.41
2:A8:2563:U:C6	2:A8:2563:U:O5'	2.74	0.41
2:A8:10:A:H1'	2:A8:2800:A:H5'	2.03	0.41
36:BA:1425:U:O2	36:BA:1476:A:C2	2.74	0.41
2:A8:2135:A:C5	2:A8:2136:G:C5	3.09	0.41
2:A8:2409:G:C6	2:A8:2410:G:C6	3.09	0.41
2:A8:222:A:N6	2:A8:232:G:H1'	2.36	0.41
2:A8:226:A:H61	2:A8:419:U:H1'	1.85	0.41
2:A8:2100:G:C8	2:A8:2190:G:N2	2.88	0.41
36:BA:611:C:H2'	36:BA:612:C:H6	1.84	0.41
36:BA:120:A:C8	36:BA:120:A:H3'	2.55	0.41
2:A8:613:A:H3'	2:A8:614:A:C5'	2.50	0.41
2:A8:605:G:C2	2:A8:624:C:C2	3.08	0.41
2:A8:1169:A:C5	2:A8:1170:C:C5	3.08	0.41
36:BA:978:A:C8	36:BA:979:C:C5	3.09	0.41
2:A8:1859:U:C2	2:A8:1860:G:C8	3.09	0.41
2:A8:1861:G:N2	2:A8:1862:G:H1'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:582:A:C2	2:A8:1259:G:C2	3.07	0.41
2:A8:23:G:C5	2:A8:518:G:C6	3.08	0.41
2:A8:638:G:H2'	2:A8:639:U:O4'	2.21	0.41
2:A8:651:G:C8	2:A8:652:U:C5	3.07	0.41
2:A8:753:A:H2'	2:A8:754:U:C6	2.56	0.41
2:A8:2476:A:C2	2:A8:2477:U:C2	3.07	0.41
2:A8:2478:A:N7	2:A8:2479:U:C5	2.88	0.41
36:BA:12:U:H2'	36:BA:13:U:H5''	2.03	0.41
36:BA:19:A:C5	36:BA:20:U:C5	3.08	0.41
2:A8:2816:G:C5	2:A8:2817:U:C5	3.08	0.41
2:A8:554:U:C4	2:A8:555:G:C5	3.08	0.41
2:A8:1700:A:H5'	2:A8:1700:A:C8	2.56	0.41
36:BA:213:G:C2	36:BA:214:C:C1'	3.03	0.41
2:A8:300:A:H1'	2:A8:319:G:C1'	2.50	0.41
2:A8:1767:G:N2	2:A8:1986:C:H1'	2.35	0.41
7:A6:157:ALA:HB2	7:A6:199:HIS:CE1	2.56	0.41
2:A8:1820:U:H3	7:A6:197:ALA:HA	1.86	0.41
2:A8:45:G:H2'	2:A8:215:G:C5	2.56	0.41
36:BA:967:C:H2'	36:BA:968:A:C2	2.55	0.41
2:A8:2567:G:C5	2:A8:2568:U:C5	3.08	0.41
36:BA:238:A:C6	36:BA:239:U:C4	3.08	0.41
2:A8:1625:C:C4	2:A8:1626:A:C8	3.08	0.41
36:BA:1006:G:C6	36:BA:1024:G:C5	3.08	0.41
36:BA:1005:A:C5	36:BA:1006:G:H1'	2.56	0.41
2:A8:2758:A:C2	2:A8:2759:G:H1'	2.55	0.41
2:A8:2391:G:N1	2:A8:2424:C:H3'	2.36	0.41
2:A8:708:G:C2	2:A8:709:U:C2	3.09	0.41
2:A8:2772:C:H2'	2:A8:2773:C:C6	2.55	0.41
11:AG:9:VAL:HG22	11:AG:48:THR:HG22	2.02	0.41
2:A8:1912:A:C2	2:A8:1919:A:C2	3.08	0.41
2:A8:2862:G:C6	2:A8:2863:C:C4	3.09	0.41
36:BA:922:G:N2	36:BA:1398:A:H1'	2.34	0.41
24:AT:5:GLU:HA	24:AT:8:LEU:HD12	2.02	0.41
2:A8:2511:U:C4	2:A8:2512:C:C5	3.08	0.41
2:A8:2700:A:C2	2:A8:2708:G:C4	3.08	0.41
2:A8:1906:G:N1	2:A8:1925:C:C2	2.88	0.41
36:BA:859:G:C8	36:BA:869:G:N2	2.88	0.41
2:A8:572:A:C2	2:A8:2033:A:C2	3.09	0.41
2:A8:2345:G:C6	2:A8:2347:C:C5	3.08	0.41
2:A8:2349:G:C5	2:A8:2350:C:C5	3.08	0.41
2:A8:1519:G:N1	2:A8:1520:U:C2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:428:G:O4'	36:BA:430:A:C8	2.73	0.41
36:BA:244:U:C2	36:BA:894:G:N3	2.88	0.41
2:A8:739:A:HO2'	2:A8:740:C:H5	1.63	0.41
2:A8:874:G:C2	2:A8:904:G:C2	3.08	0.41
2:A8:1722:A:H2'	2:A8:1723:G:O4'	2.20	0.41
36:BA:1526:G:C5	36:BA:1527:U:C5	3.09	0.41
36:BA:579:A:C4	36:BA:763:G:C2	3.09	0.41
36:BA:926:G:C6	36:BA:1505:G:C6	3.08	0.41
1:A7:79:G:C5	1:A7:80:U:C5	3.09	0.41
2:A8:1024:G:C5	2:A8:1025:G:C4	3.09	0.41
2:A8:2801:G:H2'	2:A8:2802:G:C8	2.56	0.41
36:BA:1419:G:C5	36:BA:1420:U:C5	3.08	0.41
2:A8:1846:G:C2	2:A8:1895:C:C2	3.08	0.41
36:BA:1426:G:C4	36:BA:1475:G:N2	2.88	0.41
2:A8:1613:G:C2	2:A8:1617:C:C5	3.07	0.41
2:A8:1770:G:C2	2:A8:1983:G:N3	2.89	0.41
2:A8:1936:A:N1	2:A8:1963:U:C2	2.89	0.41
2:A8:1935:G:H4'	2:A8:1937:A:C2	2.55	0.41
2:A8:1948:G:H1'	36:BA:1483:A:H1'	2.02	0.41
2:A8:2718:G:C2	2:A8:2719:G:C1'	3.03	0.41
2:A8:1718:G:C4	2:A8:1719:G:C8	3.08	0.41
2:A8:1062:G:C8	2:A8:1088:A:N7	2.88	0.41
2:A8:1062:G:C2	2:A8:1063:G:C4	3.08	0.41
1:A7:83:G:C6	1:A7:94:A:C6	3.09	0.41
2:A8:1482:G:C2	2:A8:1483:G:C8	3.09	0.41
2:A8:2745:C:C4	2:A8:2746:U:C4	3.08	0.41
2:A8:2354:C:H1'	27:AW:30:VAL:HG11	2.01	0.41
36:BA:782:A:N6	36:BA:783:C:C2	2.88	0.41
2:A8:67:U:H2'	2:A8:68:G:C8	2.54	0.41
2:A8:2162:G:C2	2:A8:2163:A:N7	2.88	0.41
2:A8:221:A:H2	2:A8:266:G:OP2	2.02	0.41
2:A8:1352:U:C2	2:A8:1380:G:C2	3.08	0.41
2:A8:2271:G:H2'	2:A8:2272:U:C6	2.55	0.41
2:A8:1696:G:C2	2:A8:1697:G:H1'	2.55	0.41
2:A8:1688:U:O2	2:A8:1700:A:C5'	2.68	0.41
36:BA:214:C:C6	36:BA:214:C:O5'	2.74	0.41
2:A8:845:A:C2	2:A8:934:U:N3	2.89	0.41
2:A8:460:A:C4	2:A8:470:A:C5	3.09	0.41
2:A8:1631:G:H1'	2:A8:1635:A:N6	2.36	0.41
2:A8:2849:U:H4'	2:A8:2868:A:C2	2.54	0.41
2:A8:1301:A:C8	2:A8:1303:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:963:U:H2'	2:A8:964:C:H6	1.85	0.41
36:BA:408:A:C2	36:BA:409:U:C2	3.07	0.41
36:BA:1118:U:H1'	36:BA:1179:A:C1'	2.50	0.41
2:A8:2536:G:O5'	2:A8:2536:G:C8	2.74	0.41
36:BA:774:G:C4	36:BA:775:G:C8	3.09	0.41
2:A8:2228:G:H2'	2:A8:2229:U:C6	2.56	0.41
36:BA:1433:A:C5	36:BA:1468:A:C4	3.08	0.41
2:A8:1614:A:H61	23:AS:89:ALA:CA	2.32	0.41
2:A8:538:A:C6	2:A8:539:G:C4	3.08	0.41
2:A8:1031:G:C2	2:A8:1032:A:C5	3.08	0.41
2:A8:1031:G:H4'	35:A4:6:SER:HA	2.03	0.41
38:BC:120:THR:HG23	38:BC:197:VAL:HB	2.03	0.41
2:A8:134:G:C2	2:A8:146:A:C4	3.08	0.41
54:BS:39:ILE:HG23	54:BS:61:VAL:HB	2.03	0.41
2:A8:60:G:C4	2:A8:74:A:C2	3.09	0.41
36:BA:148:G:H2'	36:BA:149:A:H5''	2.02	0.41
2:A8:201:C:C6	2:A8:201:C:H3'	2.55	0.41
2:A8:834:G:C2	2:A8:835:C:H1'	2.56	0.41
8:AD:12:THR:O	8:AD:23:PRO:HA	2.21	0.41
36:BA:1282:C:H2'	36:BA:1283:U:C6	2.56	0.41
37:BB:26:MET:HA	37:BB:191:ASP:HA	2.03	0.41
2:A8:2291:U:H4'	2:A8:2373:G:N2	2.35	0.41
2:A8:1468:U:H2'	2:A8:1522:A:C6	2.55	0.41
2:A8:1473:G:C2	2:A8:1519:G:C4	3.08	0.41
2:A8:199:A:N6	2:A8:2433:A:H3'	2.36	0.41
2:A8:1186:G:C6	2:A8:1187:G:C4	3.09	0.41
2:A8:2024:G:C5	2:A8:2025:C:C5	3.08	0.41
2:A8:879:G:H8	2:A8:879:G:O5'	2.03	0.41
36:BA:764:C:N4	36:BA:812:G:H1	2.18	0.41
2:A8:862:G:C2	2:A8:863:A:H1'	2.56	0.41
2:A8:1023:U:C5	2:A8:1024:G:C4	3.08	0.41
2:A8:1237:A:N3	2:A8:1237:A:H2'	2.36	0.41
2:A8:1775:U:OP1	2:A8:1980:G:H4'	2.21	0.41
2:A8:2461:A:C6	2:A8:2462:C:C4	3.08	0.41
2:A8:2461:A:C2	2:A8:2490:G:N2	2.88	0.41
36:BA:51:A:C6	36:BA:116:A:C5	3.08	0.41
15:AK:29:ARG:HH12	15:AK:31:TYR:C	2.23	0.41
2:A8:2414:G:H2'	2:A8:2415:G:C8	2.56	0.41
2:A8:1062:G:C2	2:A8:1063:G:C5	3.08	0.41
2:A8:2070:A:C2	2:A8:2442:C:C6	3.09	0.41
1:A7:85:G:C2	1:A7:86:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1000:A:C5	2:A8:1001:A:C5	3.09	0.41
2:A8:977:G:C2	2:A8:978:G:C8	3.08	0.41
2:A8:1660:G:C2	2:A8:2001:C:C2	3.09	0.41
2:A8:1268:A:H3'	2:A8:1269:A:H8	1.86	0.41
2:A8:2010:G:C5	2:A8:2011:U:C5	3.08	0.41
26:AV:79:ARG:HA	26:AV:86:LEU:HA	2.02	0.41
2:A8:2661:G:O6	2:A8:2662:A:C6	2.73	0.41
36:BA:524:G:C6	36:BA:525:C:C4	3.09	0.41
36:BA:416:G:C6	36:BA:417:G:C6	3.08	0.41
36:BA:542:G:H4'	39:BD:41:GLY:CA	2.50	0.41
2:A8:2132:U:H2'	2:A8:2134:A:C2	2.56	0.41
2:A8:2742:G:H1	2:A8:2762:C:H42	1.68	0.41
2:A8:2631:G:C2	2:A8:2788:C:C2	3.09	0.41
2:A8:536:G:H21	14:AJ:47:HIS:CD2	2.38	0.41
2:A8:535:G:C5'	21:AQ:52:ARG:HH21	2.34	0.41
2:A8:176:A:C6	2:A8:177:G:N7	2.89	0.41
2:A8:492:A:C5	2:A8:493:G:C4	3.09	0.41
2:A8:1498:C:H5'	2:A8:1577:C:H5'	2.02	0.41
2:A8:729:G:H4'	2:A8:763:G:H5'	2.02	0.41
2:A8:954:G:N7	2:A8:955:U:C5	2.89	0.41
2:A8:2293:G:C6	2:A8:2340:A:N1	2.89	0.41
2:A8:2340:A:N1	2:A8:2341:G:C5	2.88	0.41
14:AJ:125:TYR:CE2	14:AJ:130:HIS:HB3	2.55	0.41
2:A8:2180:U:H2'	2:A8:2181:U:C6	2.55	0.41
2:A8:1782:U:H3'	2:A8:1782:U:H6	1.86	0.41
2:A8:1624:U:C2	2:A8:1625:C:C6	3.08	0.41
2:A8:1051:G:C5	2:A8:1052:C:C5	3.08	0.41
2:A8:2352:A:H2'	2:A8:2353:G:H5'	2.02	0.41
28:AX:36:ARG:HA	28:AX:47:THR:CB	2.51	0.41
14:AJ:42:ALA:HA	21:AQ:67:ALA:HB1	2.03	0.41
2:A8:1799:G:O4'	2:A8:1800:C:C5	2.74	0.41
22:AR:6:GLN:HA	22:AR:11:GLN:HE22	1.85	0.41
39:BD:166:LYS:HA	39:BD:172:VAL:HG21	2.03	0.41
8:AD:46:ARG:HB3	8:AD:83:ARG:HH11	1.85	0.41
11:AG:25:ILE:H	11:AG:33:THR:H	1.68	0.41
36:BA:55:A:OP2	36:BA:352:C:N4	2.53	0.41
2:A8:2286:G:H1'	2:A8:2287:A:C5	2.56	0.41
2:A8:2375:G:C2	2:A8:2379:G:C6	3.08	0.41
2:A8:1890:A:C8	2:A8:1890:A:O5'	2.73	0.41
2:A8:976:G:H4'	2:A8:1156:A:C6	2.56	0.41
2:A8:1131:G:N9	14:AJ:77:HIS:CE1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:758:C:C2	2:A8:759:G:C8	3.09	0.41
2:A8:197:A:C8	2:A8:2068:U:N3	2.89	0.41
2:A8:480:A:H2'	2:A8:480:A:N3	2.36	0.41
2:A8:1137:G:C6	2:A8:1138:G:C5	3.08	0.41
36:BA:1074:G:C6	36:BA:1075:U:C4	3.09	0.41
2:A8:1797:G:C5	2:A8:1823:G:C6	3.09	0.41
36:BA:600:A:C4	36:BA:639:G:N2	2.89	0.41
36:BA:575:G:C8	36:BA:821:G:OP2	2.73	0.41
36:BA:881:G:N1	36:BA:882:C:C2	2.88	0.41
2:A8:1097:U:C2	2:A8:1098:A:H1'	2.56	0.41
2:A8:1213:A:N1	2:A8:1214:A:C4	2.88	0.41
2:A8:1956:U:C6	2:A8:1956:U:O5'	2.73	0.41
2:A8:2064:C:H1'	2:A8:2450:A:N1	2.36	0.41
2:A8:2446:G:H2'	2:A8:2501:C:C5	2.55	0.41
2:A8:1507:C:C4	2:A8:1508:A:C5	3.09	0.41
2:A8:1176:U:H6	2:A8:1176:U:C5'	2.33	0.41
2:A8:986:C:N3	2:A8:987:C:C5	2.89	0.41
2:A8:780:G:N2	2:A8:782:A:C2	2.89	0.41
36:BA:1316:G:H1'	36:BA:1360:A:C2	2.56	0.41
44:BI:17:ARG:CD	44:BI:19:PHE:CZ	3.04	0.41
36:BA:1280:A:C8	45:BJ:43:PRO:HD2	2.56	0.41
2:A8:63:A:N6	2:A8:89:A:H62	2.19	0.41
2:A8:2816:G:C4	2:A8:2817:U:C5	3.09	0.41
2:A8:2834:G:C5	2:A8:2879:A:C2	3.09	0.41
36:BA:275:G:C6	36:BA:276:G:C5	3.09	0.41
2:A8:592:A:N3	2:A8:666:A:C2	2.89	0.41
36:BA:863:U:C6	36:BA:865:A:C8	3.08	0.41
2:A8:1309:G:C2	2:A8:1310:G:C4	3.09	0.41
2:A8:1311:G:C5'	2:A8:1312:U:H5'	2.51	0.41
2:A8:1340:U:C2	2:A8:1603:A:C8	3.08	0.41
2:A8:1766:G:C2	2:A8:1987:A:N3	2.89	0.41
36:BA:473:U:H2'	36:BA:474:G:C8	2.56	0.41
36:BA:683:G:N1	36:BA:684:U:C2	2.89	0.41
36:BA:164:G:N2	36:BA:165:G:C4	2.89	0.41
36:BA:137:U:H1'	51:BP:64:GLY:HA3	2.03	0.41
2:A8:1386:C:H1'	2:A8:1470:A:H1'	2.02	0.41
2:A8:2866:U:O2	2:A8:2868:A:H1'	2.21	0.41
2:A8:763:G:N3	2:A8:765:C:H1'	2.36	0.41
54:BS:8:PRO:CB	54:BS:10:ILE:HG23	2.50	0.41
36:BA:506:G:N7	36:BA:507:C:C4	2.89	0.41
36:BA:807:A:C5	36:BA:808:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:951:G:H1'	36:BA:1231:G:N2	2.36	0.41
36:BA:162:A:OP2	36:BA:163:C:C5	2.74	0.41
2:A8:214:G:C6	2:A8:215:G:C6	3.09	0.41
44:BI:4:GLN:HB2	44:BI:20:ILE:H	1.84	0.41
36:BA:1326:U:H2'	36:BA:1327:C:C6	2.55	0.41
2:A8:2435:A:C4	2:A8:2436:G:C8	3.09	0.41
2:A8:1649:G:H21	18:AN:107:ASN:HB3	1.86	0.41
36:BA:1026:G:C5	36:BA:1027:C:C5	3.09	0.41
2:A8:60:G:C6	2:A8:74:A:C6	3.08	0.41
36:BA:1348:U:C2	36:BA:1349:A:C8	3.08	0.41
36:BA:39:G:C4	36:BA:404:G:C2	3.08	0.41
2:A8:1799:G:C4	2:A8:1819:A:N7	2.89	0.41
36:BA:1321:U:H6	36:BA:1321:U:O5'	2.04	0.41
2:A8:2201:G:H2'	2:A8:2202:U:C6	2.55	0.41
18:AN:92:GLY:HA2	18:AN:94:TYR:CE2	2.56	0.41
2:A8:2643:G:C4	2:A8:2644:G:C8	3.09	0.41
2:A8:1842:G:C6	2:A8:1843:C:C4	3.08	0.41
2:A8:573:U:C5'	2:A8:575:A:H62	2.34	0.41
2:A8:2234:G:C2	2:A8:2235:G:C4	3.09	0.41
2:A8:2241:A:C2	2:A8:2242:G:C4	3.09	0.41
2:A8:976:G:C6	2:A8:988:A:C2	3.09	0.41
2:A8:1296:G:C2	2:A8:1645:G:N3	2.89	0.41
36:BA:1239:A:H1'	36:BA:1241:G:C4	2.56	0.41
2:A8:1750:G:HO2'	2:A8:2860:A:H2	1.68	0.41
2:A8:909:A:H8	2:A8:909:A:O5'	2.04	0.41
36:BA:1072:G:C2	36:BA:1104:G:N3	2.89	0.41
36:BA:602:A:C6	36:BA:603:U:C4	3.09	0.41
36:BA:1426:G:C5	36:BA:1475:G:N1	2.89	0.41
2:A8:1092:C:H42	2:A8:1100:C:N4	2.19	0.41
2:A8:1932:A:H3'	2:A8:1933:G:H8	1.85	0.41
2:A8:485:C:C4	2:A8:496:G:C6	3.09	0.41
2:A8:2685:G:C6	2:A8:2686:G:C5	3.08	0.41
2:A8:224:U:C5	2:A8:420:C:H4'	2.56	0.41
2:A8:2064:C:H3'	2:A8:2065:C:C6	2.55	0.41
2:A8:2425:A:C8	2:A8:2427:C:C2	3.08	0.41
2:A8:612:G:H2'	2:A8:614:A:O4'	2.21	0.41
2:A8:656:G:C6	2:A8:657:U:C4	3.09	0.41
2:A8:690:G:H2'	2:A8:691:C:C6	2.56	0.41
2:A8:28:A:N6	2:A8:512:G:H1'	2.36	0.41
2:A8:2662:A:N6	2:A8:2663:G:C2	2.89	0.41
36:BA:251:G:C2	36:BA:266:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:1560:G:C4	2:A8:1561:C:C6	3.09	0.41
2:A8:1197:G:C2	2:A8:1250:G:N1	2.89	0.41
36:BA:794:A:C5	36:BA:795:C:C5	3.09	0.41
2:A8:1689:A:N6	2:A8:1697:G:H2'	2.35	0.41
2:A8:1607:C:C2	2:A8:1621:U:C5	3.09	0.41
1:A7:9:G:C4	1:A7:112:G:C2	3.08	0.41
2:A8:751:A:C2	23:AS:91:GLY:HA3	2.56	0.41
2:A8:1495:A:H1'	2:A8:1579:A:H4'	2.03	0.41
36:BA:954:G:C5	36:BA:955:U:C5	3.09	0.41
2:A8:930:G:H2'	2:A8:933:A:C2	2.55	0.41
36:BA:1294:G:C6	36:BA:1295:U:C4	3.09	0.41
2:A8:2867:G:C2'	2:A8:2868:A:C8	3.04	0.41
54:BS:10:ILE:HB	54:BS:15:LEU:HD13	2.02	0.41
36:BA:1258:G:C6	36:BA:1259:C:N4	2.88	0.41
36:BA:408:A:C2	36:BA:435:A:C2	3.09	0.41
2:A8:1590:A:N1	2:A8:1591:A:C5	2.89	0.41
2:A8:1410:G:N2	2:A8:1593:A:H1'	2.36	0.41
21:AQ:60:TRP:CZ2	21:AQ:93:ILE:HB	2.56	0.41
2:A8:1041:G:C2	2:A8:1115:G:C6	3.09	0.41
36:BA:772:U:H3	36:BA:807:A:H61	1.69	0.41
36:BA:775:G:C2	36:BA:805:C:C4	3.08	0.41
2:A8:1805:A:H4'	7:A6:247:TRP:CZ2	2.56	0.41
2:A8:2314:A:C2	2:A8:2315:G:C4	3.09	0.41
36:BA:237:G:C4	36:BA:238:A:C8	3.09	0.41
7:A6:168:GLY:H	7:A6:171:VAL:HG12	1.86	0.41
36:BA:138:G:C2	36:BA:226:G:H1'	2.55	0.41
2:A8:1315:C:C6	2:A8:1315:C:O5'	2.74	0.41
8:AD:125:TRP:CE3	8:AD:125:TRP:HA	2.55	0.41
3:AA:234:VAL:HG13	3:AA:251:SER:O	2.20	0.41
10:AF:103:ILE:H	10:AF:106:ALA:HB2	1.86	0.41
36:BA:319:G:C2	36:BA:335:C:C2	3.09	0.41
31:A0:37:HIS:CG	31:A0:38:LEU:N	2.88	0.41
39:BD:148:ALA:HA	39:BD:151:GLN:HG3	2.01	0.41
46:BK:22:ILE:HG22	46:BK:31:VAL:HA	2.02	0.41
2:A8:1855:U:C5	2:A8:1856:U:C5	3.08	0.41
2:A8:2591:C:C5	7:A6:235:GLU:HG2	2.56	0.41
2:A8:1906:G:H3'	2:A8:1906:G:C8	2.56	0.41
36:BA:111:G:C4	36:BA:112:G:C8	3.08	0.41
2:A8:2123:G:H1'	6:A5:172:HIS:HB2	2.03	0.41
36:BA:151:A:C6	36:BA:171:A:C6	3.09	0.41
2:A8:1408:G:N1	2:A8:1595:C:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2027:G:H1	2:A8:2036:C:H42	1.69	0.41
2:A8:2286:G:H1'	2:A8:2287:A:C6	2.55	0.41
2:A8:2289:G:O2'	2:A8:2383:G:H1'	2.21	0.41
2:A8:2085:U:O2	2:A8:2235:G:C2	2.74	0.41
2:A8:1889:A:C2	2:A8:1890:A:H1'	2.55	0.41
2:A8:2080:A:N3	2:A8:2241:A:C2	2.89	0.41
2:A8:2241:A:C2	2:A8:2242:G:C5	3.09	0.41
1:A7:58:A:H2	1:A7:59:A:H1'	1.85	0.41
2:A8:2298:A:C4	2:A8:2321:U:C6	3.09	0.41
2:A8:1360:G:C5	2:A8:1361:G:C8	3.09	0.41
36:BA:413:G:C8	39:BD:32:LYS:HE3	2.56	0.41
36:BA:1213:A:C5	36:BA:1215:G:C4	3.09	0.41
36:BA:1213:A:C2	36:BA:1215:G:H1'	2.56	0.41
36:BA:1239:A:H1'	36:BA:1241:G:C5	2.55	0.41
36:BA:199:A:C2	36:BA:200:G:C1'	3.04	0.41
36:BA:904:U:H6	36:BA:904:U:O5'	2.03	0.41
2:A8:874:G:C2	2:A8:904:G:C4	3.08	0.41
2:A8:2697:G:H2'	2:A8:2698:U:C6	2.55	0.41
2:A8:197:A:N3	2:A8:2430:A:C6	2.88	0.41
2:A8:1730:C:C2	2:A8:1731:G:C2	3.08	0.41
2:A8:1735:A:C2	2:A8:1736:U:C2	3.09	0.41
36:BA:1513:A:C4	36:BA:1523:G:C6	3.09	0.41
2:A8:2198:A:HO2'	2:A8:2199:A:H8	1.64	0.41
36:BA:1511:G:C4	36:BA:1525:G:C2	3.09	0.41
36:BA:1072:G:C4	36:BA:1073:U:C6	3.08	0.41
36:BA:1089:G:C6	36:BA:1090:U:C4	3.08	0.41
36:BA:1068:G:C6	36:BA:1108:G:N3	2.89	0.41
36:BA:1416:G:C6	36:BA:1417:G:C4	3.09	0.41
36:BA:246:A:C8	36:BA:282:A:N6	2.88	0.41
36:BA:282:A:C5	36:BA:283:U:C6	3.09	0.41
36:BA:881:G:H2'	36:BA:882:C:O4'	2.21	0.41
2:A8:2602:A:H4'	2:A8:2603:G:C5'	2.51	0.41
2:A8:2592:G:N1	2:A8:2603:G:C6	2.89	0.41
2:A8:1128:G:N7	2:A8:2490:G:H5'	2.36	0.41
2:A8:2461:A:H1'	2:A8:2492:U:N3	2.36	0.41
2:A8:1129:A:H4'	2:A8:2516:A:C4'	2.50	0.41
2:A8:2488:G:C2	2:A8:2489:U:C2	3.09	0.41
36:BA:1462:C:C5	36:BA:1463:U:C5	3.09	0.41
2:A8:1661:G:C2	2:A8:1662:U:N1	2.89	0.41
2:A8:2648:G:C6	2:A8:2673:G:C5	3.08	0.41
2:A8:1087:G:C2	2:A8:1103:A:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2722:G:C2	2:A8:2723:C:C2	3.09	0.41
2:A8:889:C:C5	2:A8:890:C:C5	3.09	0.41
2:A8:227:A:C2	2:A8:228:C:C4	3.09	0.41
2:A8:407:G:C2	2:A8:408:G:C8	3.08	0.41
2:A8:227:A:C4	2:A8:2407:A:O2'	2.74	0.41
2:A8:2446:G:H2'	2:A8:2501:C:H5	1.85	0.41
2:A8:676:A:H2	2:A8:2069:G:H2'	1.86	0.41
2:A8:2097:A:N1	2:A8:2098:U:C2	2.89	0.41
1:A7:91:C:N3	1:A7:92:C:C5	2.88	0.41
2:A8:2097:A:C4	2:A8:2098:U:C6	3.09	0.41
1:A7:18:G:H1'	1:A7:67:G:C2	2.56	0.41
1:A7:16:G:N3	1:A7:17:C:C6	2.89	0.41
36:BA:120:A:H2'	36:BA:122:G:N7	2.36	0.41
2:A8:2259:U:O5'	2:A8:2259:U:C6	2.73	0.41
2:A8:607:U:O4	2:A8:619:G:H2'	2.20	0.41
2:A8:607:U:N3	2:A8:608:A:C8	2.89	0.41
2:A8:1182:G:N1	2:A8:1183:U:C2	2.89	0.41
2:A8:794:A:C4	2:A8:795:C:C5	3.09	0.41
2:A8:669:G:H22	9:AE:84:THR:CG2	2.30	0.41
2:A8:2473:U:OP1	2:A8:2473:U:C5	2.74	0.41
24:AT:70:HIS:HB3	24:AT:73:ARG:HB3	2.03	0.41
36:BA:419:C:N4	36:BA:420:U:C4	2.89	0.41
2:A8:2834:G:C4	2:A8:2879:A:C6	3.09	0.41
2:A8:221:A:N1	2:A8:265:A:C8	2.89	0.41
2:A8:2271:G:H2'	2:A8:2272:U:H6	1.86	0.41
2:A8:950:G:C2	2:A8:951:C:C6	3.09	0.41
2:A8:178:G:C5	2:A8:179:C:C5	3.09	0.41
36:BA:741:G:C4	36:BA:742:G:C8	3.08	0.41
2:A8:1439:A:C5	2:A8:1440:U:O4'	2.74	0.41
36:BA:37:U:H2'	36:BA:38:G:O4'	2.21	0.41
2:A8:1831:G:C5	2:A8:1832:C:C5	3.08	0.41
2:A8:1975:G:C5	2:A8:1976:U:C5	3.09	0.41
2:A8:1310:G:H21	2:A8:1610:A:H8	1.62	0.41
2:A8:1395:A:C4	2:A8:1398:C:C5	3.09	0.41
2:A8:2544:G:C6	2:A8:2545:G:C5	3.08	0.41
36:BA:747:A:N1	36:BA:748:G:C4	2.88	0.41
2:A8:693:A:C6	2:A8:770:G:C6	3.09	0.41
2:A8:1422:G:H1'	2:A8:1495:A:N1	2.36	0.41
36:BA:683:G:C2	36:BA:684:U:H1'	2.55	0.41
2:A8:2842:G:N2	2:A8:2843:G:H1'	2.36	0.41
2:A8:452:G:H21	2:A8:457:A:H1'	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:185:G:C4	2:A8:212:G:C2	3.09	0.41
2:A8:599:A:C2	2:A8:600:G:C5	3.08	0.41
2:A8:1655:A:C5	2:A8:1656:C:C2	3.09	0.41
2:A8:962:G:C5	2:A8:963:U:C5	3.09	0.41
2:A8:1686:C:C4	2:A8:1687:G:C5	3.08	0.41
2:A8:1703:G:C6	2:A8:1704:C:C4	3.08	0.41
2:A8:923:G:H1'	27:AW:23:LYS:HE3	2.03	0.41
2:A8:1410:G:C2	2:A8:1593:A:C2	3.08	0.41
2:A8:1411:U:H2'	2:A8:1412:U:O4'	2.21	0.41
12:AH:1:MET:HB3	12:AH:20:ASN:HA	2.02	0.41
2:A8:2257:U:H6	2:A8:2257:U:O5'	2.04	0.41
26:AV:16:ALA:HA	26:AV:19:ARG:HH21	1.84	0.41
2:A8:1016:G:C4	2:A8:1147:A:C2	3.09	0.41
47:BL:37:TYR:CZ	47:BL:51:VAL:HG13	2.56	0.41
2:A8:376:G:N2	2:A8:399:U:H1'	2.36	0.41
15:AK:69:ARG:HA	15:AK:74:SER:O	2.20	0.41
2:A8:1680:U:C6	2:A8:1680:U:O5'	2.74	0.41
36:BA:596:A:C2	36:BA:645:G:N3	2.89	0.41
36:BA:1268:G:C6	36:BA:1269:A:C6	3.09	0.41
2:A8:38:A:C2	2:A8:442:G:C2	3.09	0.41
2:A8:2902:C:C4	2:A8:2903:U:C4	3.09	0.41
2:A8:311:A:N6	2:A8:328:U:H3'	2.36	0.41
2:A8:1048:A:C6	2:A8:1049:C:C4	3.09	0.41
2:A8:2819:G:C5	2:A8:2821:A:C6	3.09	0.41
2:A8:1682:G:C5	2:A8:1683:U:C5	3.09	0.41
43:BH:105:THR:HG21	43:BH:110:MET:SD	2.61	0.41
2:A8:262:A:C6	2:A8:263:G:C2	3.09	0.41
2:A8:2366:A:H4'	27:AW:51:GLY:HA2	2.03	0.41
33:A2:9:VAL:HA	33:A2:12:ARG:HB2	2.02	0.41
2:A8:2366:A:C2	2:A8:2367:G:H1'	2.56	0.41
36:BA:457:G:C2	36:BA:476:U:C2	3.09	0.41
2:A8:337:C:H2'	2:A8:338:G:O4'	2.21	0.41
45:BJ:9:ARG:HE	45:BJ:71:LEU:HB3	1.86	0.41
2:A8:848:C:H2'	2:A8:849:A:C8	2.56	0.41
36:BA:945:G:H1'	36:BA:1337:G:H1'	2.02	0.41
2:A8:2020:A:H5''	2:A8:2020:A:C8	2.56	0.41
2:A8:2253:G:C2	2:A8:2254:C:H1'	2.56	0.41
41:BF:91:ARG:HG2	41:BF:93:LYS:HZ3	1.85	0.41
2:A8:996:A:C6	2:A8:1160:G:C4	3.09	0.41
39:BD:78:ALA:HB1	39:BD:88:ASN:HB2	2.01	0.41
1:A7:65:U:O5'	1:A7:65:U:H6	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BO:33:ALA:O	50:BO:37:HIS:CD2	2.73	0.41
15:AK:35:GLY:CA	15:AK:60:VAL:HG23	2.51	0.41
30:AZ:17:PRO:HA	30:AZ:20:LYS:HB2	2.02	0.41
36:BA:1198:G:C5	36:BA:1199:U:C5	3.09	0.41
28:AX:2:ARG:HH11	28:AX:30:PRO:HB2	1.86	0.41
2:A8:1916:A:C2	2:A8:1917:U:C2	3.09	0.41
36:BA:315:A:N3	36:BA:353:A:H2'	2.36	0.41
36:BA:57:G:H1	36:BA:355:C:H42	1.69	0.41
36:BA:356:A:C2	36:BA:368:U:H1'	2.56	0.41
36:BA:56:U:H2'	36:BA:57:G:C8	2.56	0.41
36:BA:102:G:H1'	36:BA:152:A:O2'	2.21	0.41
2:A8:572:A:C6	2:A8:573:U:C4	3.09	0.41
2:A8:2286:G:C6	2:A8:2346:A:C2	3.09	0.41
2:A8:1274:A:N1	2:A8:1302:A:C2	2.89	0.41
2:A8:2332:C:H1'	2:A8:2336:A:C8	2.56	0.41
36:BA:428:G:C2	36:BA:430:A:N6	2.89	0.41
36:BA:1300:G:HO2'	36:BA:1301:U:H6	1.68	0.41
36:BA:893:C:H2'	36:BA:894:G:C8	2.56	0.41
2:A8:874:G:C6	2:A8:875:G:C8	3.09	0.41
2:A8:2627:G:C2	2:A8:2777:G:C4	3.08	0.41
2:A8:195:A:C8	2:A8:198:C:N4	2.89	0.41
2:A8:868:U:C4	2:A8:869:G:C5	3.09	0.41
36:BA:1395:C:H1'	36:BA:1399:C:C5	2.56	0.41
36:BA:579:A:C6	36:BA:763:G:C6	3.09	0.41
2:A8:1141:U:O2	2:A8:1142:A:C6	2.74	0.41
2:A8:2796:U:C2	2:A8:2801:G:C2	3.09	0.41
2:A8:2797:U:H5	2:A8:2800:A:C2	2.37	0.41
2:A8:2797:U:C6	2:A8:2800:A:H2	2.39	0.41
36:BA:249:U:H6	36:BA:249:U:O5'	2.04	0.41
36:BA:883:C:H41	47:BL:1:ALA:HB2	1.86	0.41
2:A8:1934:C:C2	2:A8:1935:G:C8	3.10	0.41
2:A8:1945:G:C2	2:A8:1946:U:C2	3.09	0.41
2:A8:2460:U:O2	2:A8:2493:U:C2	2.74	0.41
2:A8:1719:G:C6	2:A8:1720:U:C4	3.09	0.41
1:A7:16:G:N1	1:A7:17:C:C4	2.89	0.41
2:A8:437:U:H2'	2:A8:438:G:C8	2.56	0.41
36:BA:1316:G:H5'	36:BA:1317:C:OP2	2.21	0.41
36:BA:389:A:C8	36:BA:390:U:C5	3.09	0.41
36:BA:810:C:H2'	36:BA:811:C:H6	1.86	0.41
2:A8:957:C:C5	2:A8:959:A:C5	3.08	0.41
2:A8:2817:U:C4	2:A8:2818:U:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2834:G:H1'	2:A8:2883:A:H61	1.86	0.41
36:BA:777:A:C6	36:BA:778:G:C4	3.09	0.41
2:A8:1205:A:C5	9:AE:165:HIS:CE1	3.09	0.41
2:A8:1451:C:H2'	2:A8:1458:U:H5'	2.03	0.41
36:BA:666:G:H21	50:BO:50:HIS:HB2	1.84	0.41
2:A8:943:A:C2	2:A8:944:C:C2	3.09	0.41
17:AM:24:THR:H	17:AM:66:ARG:HH22	1.69	0.41
2:A8:1763:G:C8	2:A8:1763:G:H3'	2.56	0.41
2:A8:1765:U:C2	2:A8:1766:G:C8	3.09	0.41
2:A8:1419:A:C8	2:A8:1421:G:C6	3.09	0.41
2:A8:1490:A:H62	2:A8:1500:G:N2	2.19	0.41
2:A8:843:G:C6	2:A8:936:A:C6	3.09	0.41
2:A8:186:G:C2	2:A8:187:G:C8	3.08	0.41
2:A8:204:A:C5	2:A8:206:U:C4	3.09	0.41
54:BS:8:PRO:HB2	54:BS:10:ILE:HG23	2.03	0.41
36:BA:790:A:C5	36:BA:791:G:C6	3.09	0.41
2:A8:104:A:C5	2:A8:105:C:C5	3.09	0.41
2:A8:84:A:N3	2:A8:85:G:H1'	2.36	0.41
2:A8:85:G:C6	2:A8:86:G:C5	3.09	0.41
2:A8:2537:U:H6	2:A8:2537:U:O5'	2.04	0.41
2:A8:1813:G:C6	2:A8:1814:G:C4	3.09	0.41
36:BA:592:G:C6	36:BA:648:A:C6	3.09	0.41
36:BA:1161:C:H2'	36:BA:1162:C:H6	1.86	0.41
36:BA:681:A:C2	36:BA:710:G:N3	2.89	0.41
2:A8:1821:A:C5	2:A8:1822:C:C5	3.09	0.41
2:A8:1389:G:C6	2:A8:1390:U:C5	3.09	0.41
1:A7:42:C:C6	1:A7:43:C:C6	3.09	0.41
2:A8:2435:A:H2'	2:A8:2436:G:O4'	2.21	0.41
36:BA:1123:U:C4	36:BA:1124:G:N7	2.89	0.41
2:A8:2508:G:H4'	2:A8:2555:U:O4'	2.21	0.41
2:A8:1649:G:C4	2:A8:2009:A:C2	3.09	0.41
2:A8:1356:G:N2	2:A8:1357:C:H1'	2.36	0.41
2:A8:2657:A:C2	2:A8:2665:A:C4	3.08	0.41
1:A7:3:C:H2'	1:A7:4:C:H6	1.86	0.41
36:BA:1441:A:C2	36:BA:1442:G:H1'	2.55	0.41
8:AD:47:ALA:HB2	8:AD:83:ARG:HD2	2.03	0.41
2:A8:2644:G:C5	2:A8:2645:G:N1	2.89	0.41
2:A8:1448:G:C6	2:A8:1449:G:C5	3.09	0.41
54:BS:14:LEU:HA	54:BS:32:THR:HG22	2.02	0.41
36:BA:188:C:H5	36:BA:190:A:C6	2.39	0.41
36:BA:1287:A:C6	36:BA:1288:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:A1:50:GLU:HB3	32:A1:51:ALA:H	1.62	0.41
2:A8:1911:U:N3	2:A8:1918:A:C4	2.89	0.40
2:A8:590:A:C2	2:A8:668:A:N3	2.89	0.40
2:A8:565:C:H4'	2:A8:1253:A:C5	2.56	0.40
2:A8:2350:C:C4	2:A8:2351:G:C5	3.10	0.40
2:A8:2086:U:C2	2:A8:2234:G:C2	3.09	0.40
2:A8:1277:G:C2	2:A8:1294:U:O2	2.74	0.40
2:A8:1279:G:H4'	18:AN:31:HIS:CE1	2.57	0.40
31:A0:48:TYR:HB3	31:A0:49:ARG:H	1.67	0.40
2:A8:868:U:O5'	2:A8:868:U:C6	2.74	0.40
28:AX:35:HIS:CD2	28:AX:37:PHE:CE1	3.08	0.40
36:BA:566:G:H4'	36:BA:567:G:H5'	2.03	0.40
2:A8:2460:U:C4	2:A8:2461:A:C5	3.09	0.40
2:A8:2514:U:H2'	2:A8:2515:C:C6	2.56	0.40
36:BA:1438:G:H2'	36:BA:1439:G:H8	1.86	0.40
36:BA:1444:U:O2	36:BA:1459:G:C2	2.74	0.40
2:A8:374:A:H4'	2:A8:422:A:C2	2.55	0.40
2:A8:2071:A:H2'	2:A8:2072:C:C6	2.56	0.40
2:A8:2193:G:N3	2:A8:2194:U:C6	2.89	0.40
2:A8:2282:G:C6	2:A8:2425:A:C6	3.09	0.40
2:A8:602:A:C4	2:A8:656:G:C6	3.09	0.40
2:A8:1392:A:H62	24:AT:19:LYS:HD3	1.87	0.40
2:A8:1877:A:H2'	2:A8:1878:G:O4'	2.21	0.40
36:BA:782:A:N1	36:BA:801:U:H1'	2.36	0.40
2:A8:2527:C:C2	2:A8:2528:U:C6	3.09	0.40
2:A8:21:A:H61	2:A8:519:U:H3	1.68	0.40
36:BA:504:C:N3	36:BA:542:G:C2	2.89	0.40
2:A8:712:G:N2	2:A8:713:G:H1'	2.36	0.40
2:A8:2263:C:C2	2:A8:2278:A:C2	3.09	0.40
2:A8:50:U:H3'	2:A8:51:G:H5'	2.02	0.40
36:BA:1385:G:N1	36:BA:1386:G:C5	2.89	0.40
36:BA:397:A:N6	36:BA:548:G:C4	2.88	0.40
2:A8:1309:G:C4	2:A8:1310:G:C8	3.10	0.40
2:A8:1619:G:C2	2:A8:1620:G:C4	3.09	0.40
2:A8:1987:A:N1	2:A8:1988:G:C4	2.90	0.40
36:BA:748:G:C4	36:BA:749:A:C8	3.10	0.40
2:A8:1492:G:H1	2:A8:1498:C:N4	2.18	0.40
2:A8:2484:G:C2	2:A8:2485:G:C8	3.09	0.40
2:A8:735:A:C8	2:A8:736:C:C5	3.09	0.40
2:A8:910:A:H62	17:AM:12:MET:HA	1.85	0.40
36:BA:1117:A:C8	36:BA:1118:U:H5	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:347:G:C2	36:BA:348:G:H1'	2.56	0.40
36:BA:1057:G:H3'	36:BA:1058:G:H8	1.84	0.40
36:BA:773:G:N2	36:BA:807:A:C4	2.89	0.40
2:A8:381:G:C2	2:A8:394:C:C2	3.08	0.40
2:A8:2303:G:C2	2:A8:2314:A:C4	3.08	0.40
2:A8:2058:A:C6	2:A8:2059:A:N6	2.89	0.40
2:A8:38:A:C6	2:A8:442:G:C6	3.09	0.40
36:BA:484:G:C2	36:BA:486:U:C5	3.09	0.40
27:AW:70:VAL:HG23	27:AW:76:ARG:HB3	2.01	0.40
36:BA:44:A:H1'	36:BA:399:G:N2	2.36	0.40
2:A8:367:G:H21	2:A8:368:A:H62	1.68	0.40
9:AE:37:ALA:HB3	9:AE:93:SER:HA	2.03	0.40
36:BA:235:C:H4'	52:BQ:72:TRP:HE1	1.86	0.40
26:AV:26:PHE:CZ	26:AV:42:LEU:HB2	2.56	0.40
36:BA:945:G:C2	36:BA:1337:G:C2	3.08	0.40
2:A8:2643:G:H2'	2:A8:2644:G:C8	2.56	0.40
10:AF:178:LYS:HA	10:AF:178:LYS:HE2	2.03	0.40
11:AG:52:GLY:HA3	11:AG:61:TRP:CZ2	2.56	0.40
42:BG:43:TYR:HA	42:BG:46:LEU:HD12	2.04	0.40
42:BG:105:GLU:HA	42:BG:108:ARG:HE	1.85	0.40
2:A8:2634:A:C2	2:A8:2785:C:C2	3.08	0.40
36:BA:920:U:H2'	36:BA:921:U:C6	2.56	0.40
46:BK:80:ASN:HA	46:BK:105:ARG:H	1.85	0.40
41:BF:10:VAL:HG21	41:BF:15:SER:HA	2.01	0.40
2:A8:2345:G:N3	2:A8:2381:A:H2'	2.36	0.40
2:A8:2234:G:C6	2:A8:2235:G:C5	3.09	0.40
2:A8:2024:G:N2	2:A8:2040:G:H1'	2.36	0.40
1:A7:29:A:C6	1:A7:30:C:N3	2.90	0.40
2:A8:2714:G:O5'	2:A8:2714:G:C8	2.73	0.40
2:A8:528:A:C4	2:A8:2042:A:H3'	2.56	0.40
2:A8:866:A:H61	2:A8:913:U:H1'	1.87	0.40
36:BA:729:A:N1	36:BA:765:G:H4'	2.35	0.40
2:A8:1019:U:O2'	2:A8:1021:A:C2	2.73	0.40
36:BA:1101:A:OP2	36:BA:1102:A:H4'	2.20	0.40
2:A8:1823:G:C2	2:A8:1824:G:C4	3.10	0.40
2:A8:2795:C:H2'	2:A8:2796:U:O4'	2.21	0.40
36:BA:1413:A:C6	36:BA:1414:U:C4	3.09	0.40
36:BA:1419:G:C2	36:BA:1420:U:C2	3.10	0.40
36:BA:1421:G:C2	36:BA:1422:G:C8	3.09	0.40
36:BA:1423:G:H22	36:BA:1478:U:H1'	1.85	0.40
36:BA:27:G:C2	36:BA:557:G:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:574:A:O5'	36:BA:574:A:C8	2.75	0.40
2:A8:2570:G:C6	2:A8:2571:U:N3	2.89	0.40
2:A8:2285:C:O4'	2:A8:2288:A:C2	2.75	0.40
2:A8:2410:G:C6	2:A8:2411:A:C4	3.09	0.40
2:A8:2692:G:C2	2:A8:2718:G:C4	3.09	0.40
2:A8:1060:U:C1'	2:A8:1062:G:H5'	2.51	0.40
2:A8:424:G:C6	2:A8:425:G:C5	3.08	0.40
2:A8:1507:C:H2'	2:A8:1507:C:O2	2.21	0.40
2:A8:1175:A:H2'	2:A8:1176:U:C4'	2.52	0.40
2:A8:1177:G:C5	2:A8:1178:C:C5	3.09	0.40
2:A8:1179:G:C2	2:A8:1180:U:N1	2.90	0.40
2:A8:977:G:C2	2:A8:987:C:C2	3.09	0.40
2:A8:801:G:N2	9:AE:49:ARG:HG3	2.32	0.40
2:A8:1787:A:C6	2:A8:1788:C:C4	3.09	0.40
36:BA:694:A:C2	36:BA:695:A:H1'	2.57	0.40
2:A8:2469:A:C5	2:A8:2482:A:C5	3.08	0.40
36:BA:262:A:C6	36:BA:263:A:C2	3.08	0.40
2:A8:726:G:H5''	2:A8:1433:A:H5'	2.03	0.40
2:A8:1350:C:N3	2:A8:1351:C:C5	2.90	0.40
2:A8:2267:A:H62	2:A8:2271:G:H1	1.67	0.40
2:A8:49:A:C8	2:A8:51:G:C2	3.10	0.40
2:A8:2888:C:C6	2:A8:2888:C:O5'	2.74	0.40
2:A8:1969:A:H2'	2:A8:1972:G:H21	1.86	0.40
2:A8:1311:G:H4'	2:A8:1313:U:C5	2.56	0.40
2:A8:2521:C:H2'	2:A8:2522:U:C6	2.56	0.40
2:A8:769:U:H2'	2:A8:770:G:O4'	2.21	0.40
2:A8:1423:G:C2	2:A8:1576:U:C2	3.09	0.40
2:A8:936:A:C6	2:A8:937:C:C4	3.08	0.40
36:BA:1167:A:C4	36:BA:1169:A:C6	3.09	0.40
3:AA:362:PHE:CE1	3:AA:368:PRO:HD2	2.56	0.40
2:A8:2049:G:C2	2:A8:2620:C:C2	3.09	0.40
2:A8:599:A:H1'	2:A8:659:G:N2	2.36	0.40
2:A8:1687:G:H1'	2:A8:1702:G:C2	2.56	0.40
2:A8:854:C:C2	2:A8:855:G:C8	3.08	0.40
2:A8:924:G:C2	2:A8:925:A:C4	3.09	0.40
2:A8:36:G:N2	2:A8:445:C:C2	2.89	0.40
36:BA:1494:G:C6	36:BA:1495:U:C4	3.09	0.40
36:BA:1277:C:C4	36:BA:1278:G:O6	2.74	0.40
2:A8:45:G:C2	2:A8:215:G:C2	3.09	0.40
2:A8:379:G:N1	2:A8:380:G:C4	2.89	0.40
36:BA:646:G:C6	36:BA:647:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1324:A:C2	36:BA:1325:C:H1'	2.56	0.40
2:A8:2074:U:C2	2:A8:2436:G:C2	3.09	0.40
36:BA:1185:G:C6	36:BA:1186:G:C6	3.10	0.40
2:A8:1052:C:H2'	2:A8:1053:C:H6	1.86	0.40
2:A8:2821:A:H2'	2:A8:2822:G:C8	2.56	0.40
2:A8:1014:A:C2	2:A8:1149:G:C2	3.09	0.40
2:A8:2352:A:C4	2:A8:2366:A:C2	3.09	0.40
12:AH:78:VAL:HG23	12:AH:144:VAL:CG1	2.51	0.40
36:BA:1171:A:C2	36:BA:1172:C:C2	3.09	0.40
2:A8:391:A:C5	2:A8:392:U:C6	3.10	0.40
32:A1:8:ILE:HG13	32:A1:22:THR:HG23	2.02	0.40
51:BP:59:HIS:CD2	51:BP:59:HIS:N	2.87	0.40
40:BE:77:ASN:HB2	40:BE:79:THR:H	1.86	0.40
9:AE:148:ILE:HB	9:AE:169:VAL:HA	2.04	0.40
7:A6:141:HIS:CE1	7:A6:191:LEU:O	2.74	0.40
2:A8:1911:U:O5'	2:A8:1911:U:H6	2.05	0.40
2:A8:1405:U:H2'	2:A8:1406:U:C6	2.57	0.40
36:BA:862:C:H1'	36:BA:874:G:C5'	2.51	0.40
2:A8:569:U:O4	2:A8:570:G:C6	2.74	0.40
2:A8:576:U:H4'	2:A8:2502:G:H2'	2.03	0.40
2:A8:1277:G:N2	2:A8:1294:U:H1'	2.36	0.40
2:A8:2337:G:C6	2:A8:2338:C:C5	3.10	0.40
36:BA:1307:U:H2'	36:BA:1308:U:C6	2.56	0.40
36:BA:888:G:C2	36:BA:908:A:C5	3.09	0.40
2:A8:739:A:C2	2:A8:758:C:N3	2.89	0.40
2:A8:826:U:H2'	2:A8:828:U:O4'	2.20	0.40
36:BA:520:A:H2'	47:BL:69:GLU:HG3	2.04	0.40
36:BA:521:G:N7	47:BL:47:ALA:HB1	2.36	0.40
1:A7:33:G:C4	1:A7:50:A:N1	2.89	0.40
1:A7:33:G:N3	1:A7:50:A:C2	2.89	0.40
26:AV:29:ILE:HD12	26:AV:31:TYR:CE2	2.56	0.40
2:A8:1733:G:C2	2:A8:1734:G:C4	3.09	0.40
36:BA:1074:G:N3	36:BA:1102:A:C2	2.89	0.40
2:A8:2799:A:C2	2:A8:2800:A:C6	3.09	0.40
2:A8:2802:G:C2	2:A8:2803:G:C4	3.09	0.40
36:BA:1412:C:H2'	36:BA:1413:A:C8	2.56	0.40
36:BA:560:A:N7	36:BA:566:G:C6	2.89	0.40
36:BA:565:U:C6	36:BA:566:G:C8	3.09	0.40
2:A8:2677:G:C6	2:A8:2678:C:C5	3.10	0.40
2:A8:1063:G:C5	2:A8:1064:C:C5	3.09	0.40
1:A7:87:U:C6	1:A7:87:U:H3'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2423:U:C2	2:A8:2425:A:C5	3.10	0.40
2:A8:2425:A:H5''	2:A8:2426:A:H3'	2.02	0.40
2:A8:2747:G:N2	2:A8:2748:A:H62	2.20	0.40
2:A8:141:G:C4	2:A8:142:A:H1'	2.56	0.40
2:A8:2209:G:C2	2:A8:2216:G:C2	3.09	0.40
2:A8:108:G:N1	2:A8:109:C:C2	2.89	0.40
36:BA:394:G:C6	36:BA:395:C:C4	3.09	0.40
36:BA:809:G:N2	36:BA:810:C:H1'	2.36	0.40
2:A8:24:G:H21	23:AS:78:GLU:CB	2.34	0.40
2:A8:2832:U:C4	2:A8:2883:A:C8	3.09	0.40
2:A8:2851:A:N7	2:A8:2852:G:C5	2.90	0.40
2:A8:494:G:N2	23:AS:57:ASN:HD21	2.18	0.40
2:A8:1310:G:H1'	2:A8:1611:C:H5'	2.03	0.40
36:BA:205:A:H2'	36:BA:206:C:C6	2.56	0.40
2:A8:321:U:H5	2:A8:322:A:C8	2.39	0.40
2:A8:847:U:C4	2:A8:932:U:O2	2.74	0.40
36:BA:1518:A:C5	36:BA:1519:A:C5	3.09	0.40
36:BA:1160:G:C5	36:BA:1161:C:C4	3.09	0.40
36:BA:773:G:N3	36:BA:807:A:C2	2.90	0.40
2:A8:2046:G:C2	2:A8:2623:G:N3	2.89	0.40
2:A8:2552:U:H3'	2:A8:2554:U:OP2	2.22	0.40
36:BA:847:G:C6	36:BA:848:C:C4	3.09	0.40
2:A8:38:A:C6	2:A8:39:G:C5	3.09	0.40
2:A8:1232:G:C5	2:A8:1233:C:C5	3.10	0.40
36:BA:1185:G:C2	36:BA:1186:G:C4	3.09	0.40
2:A8:556:A:C6	2:A8:557:C:C2	3.10	0.40
2:A8:367:G:N2	2:A8:368:A:H62	2.20	0.40
9:AE:60:TRP:H	9:AE:61:ARG:CZ	2.34	0.40
2:A8:543:G:C2	2:A8:551:G:C4	3.10	0.40
2:A8:2188:U:H2'	2:A8:2189:U:O4'	2.22	0.40
8:AD:125:TRP:HB3	8:AD:127:PHE:CE1	2.56	0.40
7:A6:141:HIS:CE1	7:A6:190:THR:HB	2.56	0.40
41:BF:16:GLU:CD	41:BF:16:GLU:H	2.24	0.40
36:BA:511:C:H2'	36:BA:534:U:C2	2.57	0.40
36:BA:1531:A:H2'	36:BA:1532:U:C4	2.56	0.40
52:BQ:61:ARG:HE	52:BQ:75:VAL:HG21	1.85	0.40
55:BT:37:ALA:HB3	55:BT:46:ALA:HB2	2.04	0.40
17:AM:1:MET:HA	17:AM:43:ALA:HB3	2.02	0.40
40:BE:17:VAL:HA	40:BE:33:THR:O	2.22	0.40
2:A8:1907:G:H22	2:A8:1924:C:H1'	1.85	0.40
2:A8:2349:G:C2	2:A8:2369:A:N3	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2376:A:H3'	2:A8:2377:A:C8	2.57	0.40
2:A8:306:U:H2'	2:A8:307:G:O4'	2.22	0.40
36:BA:889:A:H61	36:BA:907:A:H5''	1.86	0.40
36:BA:888:G:H22	36:BA:908:A:H3'	1.85	0.40
2:A8:2709:G:H2'	2:A8:2710:C:C6	2.56	0.40
2:A8:2859:G:H2'	2:A8:2860:A:C8	2.56	0.40
2:A8:2023:C:H3'	2:A8:2023:C:C6	2.57	0.40
36:BA:1399:C:O4'	36:BA:1401:G:C8	2.74	0.40
36:BA:1399:C:C5	36:BA:1502:A:C2	3.09	0.40
36:BA:813:U:C2	36:BA:814:A:C8	3.09	0.40
1:A7:78:A:H2	2:A8:861:A:H2	1.69	0.40
36:BA:1424:U:C2	36:BA:1425:U:C6	3.09	0.40
36:BA:297:G:N3	36:BA:301:G:C6	2.89	0.40
36:BA:575:G:C2	36:BA:881:G:C4	3.10	0.40
2:A8:1949:G:C6	2:A8:1950:G:C5	3.09	0.40
36:BA:1112:C:C5	38:BC:177:LEU:HB2	2.57	0.40
2:A8:2688:G:H1'	2:A8:2721:A:H61	1.85	0.40
2:A8:1718:G:H2'	2:A8:1719:G:O4'	2.22	0.40
2:A8:231:A:C6	2:A8:232:G:C6	3.10	0.40
2:A8:274:C:C2	2:A8:275:C:C5	3.10	0.40
2:A8:2444:G:N1	2:A8:2445:G:C5	2.90	0.40
1:A7:86:G:O5'	1:A7:86:G:C8	2.75	0.40
36:BA:455:G:C2	36:BA:478:A:N1	2.90	0.40
2:A8:2259:U:C2	2:A8:2260:C:C6	3.09	0.40
2:A8:2423:U:O3'	2:A8:2425:A:H2'	2.22	0.40
2:A8:162:U:C5	2:A8:2218:G:H4'	2.56	0.40
2:A8:1860:G:C2	2:A8:1861:G:C4	3.09	0.40
2:A8:2010:G:N1	2:A8:2011:U:C2	2.90	0.40
2:A8:64:A:H1'	24:AT:70:HIS:CG	2.56	0.40
36:BA:541:G:C1'	39:BD:40:HIS:CD2	3.04	0.40
36:BA:266:G:H4'	36:BA:268:U:C5	2.57	0.40
2:A8:1432:G:N2	2:A8:1562:U:C2	2.89	0.40
2:A8:1562:U:C2	2:A8:1563:U:C5	3.09	0.40
2:A8:182:A:C6	2:A8:183:C:C4	3.09	0.40
2:A8:1443:U:H2'	2:A8:1444:G:C8	2.55	0.40
2:A8:2851:A:H3'	2:A8:2852:G:C8	2.57	0.40
36:BA:1061:G:H5'	45:BJ:61:ALA:HB2	2.04	0.40
2:A8:2588:G:C6	2:A8:2589:A:C4	3.10	0.40
2:A8:300:A:C8	25:AU:81:ARG:HD3	2.56	0.40
36:BA:954:G:C2	36:BA:955:U:C1'	3.04	0.40
36:BA:683:G:C5	36:BA:684:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:684:U:H2'	36:BA:685:G:O4'	2.21	0.40
2:A8:187:G:N2	2:A8:210:C:H1'	2.36	0.40
2:A8:594:U:H2'	2:A8:595:C:H6	1.86	0.40
2:A8:662:G:C2	2:A8:663:G:C5	3.10	0.40
2:A8:1387:A:C4'	2:A8:1469:A:H1'	2.51	0.40
2:A8:156:A:C6	2:A8:157:C:C4	3.10	0.40
2:A8:1913:A:C2	36:BA:1493:A:H3'	2.57	0.40
2:A8:1039:A:H2'	2:A8:1040:A:O4'	2.22	0.40
36:BA:832:G:C2	36:BA:855:U:C2	3.09	0.40
2:A8:94:A:H2'	2:A8:95:A:O4'	2.22	0.40
2:A8:95:A:H2'	2:A8:96:C:O4'	2.22	0.40
36:BA:968:A:C2	36:BA:1062:U:H4'	2.57	0.40
2:A8:289:G:C4	2:A8:352:A:C2	3.10	0.40
2:A8:2902:C:C4	2:A8:2903:U:C5	3.10	0.40
2:A8:1124:G:H2'	2:A8:1125:G:H5'	2.04	0.40
36:BA:1338:G:H2'	36:BA:1339:A:C8	2.57	0.40
2:A8:327:G:N2	2:A8:328:U:C2	2.90	0.40
2:A8:2312:U:H4'	10:AF:84:ILE:HG23	2.04	0.40
36:BA:1455:G:H2'	36:BA:1456:A:O4'	2.22	0.40
2:A8:1061:U:H2'	13:AI:11:GLN:CD	2.41	0.40
2:A8:819:A:H8	2:A8:819:A:C5'	2.34	0.40
2:A8:1633:G:C8	2:A8:1633:G:OP2	2.74	0.40
36:BA:1250:A:C6	36:BA:1251:A:C6	3.09	0.40
24:AT:29:THR:HA	24:AT:86:THR:HA	2.04	0.40
2:A8:2125:G:N7	6:A5:110:ASN:HA	2.36	0.40
36:BA:33:A:C2	36:BA:34:C:C2	3.09	0.40
2:A8:1663:G:H1	2:A8:1997:C:H42	1.68	0.40
2:A8:1512:C:H3'	2:A8:1513:U:H6	1.85	0.40
2:A8:2038:G:C6	2:A8:2039:U:C4	3.09	0.40
2:A8:1520:U:C4	2:A8:1521:G:C6	3.09	0.40
36:BA:185:U:C4	36:BA:186:C:C4	3.09	0.40
1:A7:29:A:H3'	1:A7:30:C:H6	1.81	0.40
2:A8:2710:C:H2'	2:A8:2711:A:C8	2.56	0.40
36:BA:763:G:H2'	36:BA:764:C:H6	1.87	0.40
2:A8:1139:G:C6	2:A8:1140:C:C4	3.09	0.40
36:BA:1069:C:C4	36:BA:1070:U:C5	3.10	0.40
36:BA:1419:G:C6	36:BA:1420:U:C4	3.09	0.40
2:A8:1072:C:H41	13:AI:3:LYS:HG3	1.86	0.40
2:A8:2674:G:C4	2:A8:2675:A:C8	3.09	0.40
2:A8:2405:G:H5'	16:AL:69:ARG:HE	1.87	0.40
2:A8:2685:G:N3	2:A8:2725:A:C2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:422:A:C2	2:A8:423:A:H1'	2.57	0.40
2:A8:2193:G:H21	2:A8:2194:U:H1'	1.86	0.40
1:A7:84:G:C2	1:A7:85:G:C4	3.10	0.40
1:A7:83:G:C2	1:A7:84:G:C4	3.09	0.40
36:BA:628:G:N2	36:BA:629:A:C4	2.89	0.40
2:A8:2746:U:C4	2:A8:2747:G:C5	3.10	0.40
2:A8:160:A:C2	2:A8:161:A:C4	3.09	0.40
2:A8:627:A:P	2:A8:637:A:H61	2.44	0.40
2:A8:1659:G:C5	2:A8:1660:G:C8	3.10	0.40
2:A8:2528:U:C4	2:A8:2530:A:C4	3.10	0.40
2:A8:2663:G:C5	2:A8:2664:G:C8	3.09	0.40
2:A8:64:A:H61	2:A8:90:U:H3	1.69	0.40
2:A8:957:C:H41	2:A8:2494:G:N2	2.19	0.40
36:BA:418:C:H4'	36:BA:540:G:H4'	2.02	0.40
36:BA:503:C:N3	36:BA:504:C:C5	2.90	0.40
2:A8:2163:A:OP2	2:A8:2165:C:C5	2.75	0.40
2:A8:2834:G:H21	2:A8:2882:A:N6	2.19	0.40
2:A8:2835:A:C4	2:A8:2879:A:C6	3.09	0.40
2:A8:233:A:C2	2:A8:234:U:C1'	3.05	0.40
2:A8:947:A:H2'	2:A8:948:C:O4'	2.21	0.40
2:A8:1827:U:C5	7:A6:220:ARG:CD	3.04	0.40
2:A8:2523:G:C4	2:A8:2524:G:C8	3.10	0.40
36:BA:445:G:C2	36:BA:490:C:C2	3.10	0.40
2:A8:1668:A:C6	2:A8:1674:G:C4	3.09	0.40
2:A8:1674:G:H21	2:A8:1677:A:H61	1.70	0.40
36:BA:461:A:N6	36:BA:473:U:H1'	2.36	0.40
36:BA:462:G:OP1	36:BA:462:G:C8	2.75	0.40
36:BA:1244:G:C2	36:BA:1294:G:C4	3.09	0.40
2:A8:735:A:H3'	2:A8:736:C:C6	2.57	0.40
2:A8:2848:G:H1'	2:A8:2868:A:N6	2.37	0.40
2:A8:1416:G:N2	2:A8:1585:C:H41	2.20	0.40
2:A8:1643:G:C2	2:A8:1644:C:H1'	2.57	0.40
36:BA:42:G:N2	36:BA:622:A:H1'	2.36	0.40
7:A6:1:ALA:H2	7:A6:201:LEU:CB	2.33	0.40
36:BA:1517:G:C5	36:BA:1518:A:C5	3.09	0.40
36:BA:1162:C:H2'	36:BA:1163:A:C8	2.57	0.40
2:A8:2046:G:C6	2:A8:2047:C:C4	3.10	0.40
2:A8:1388:G:C6	2:A8:1389:G:C5	3.10	0.40
36:BA:1357:A:C6	36:BA:1358:U:C4	3.09	0.40
36:BA:930:C:C4	36:BA:931:C:C5	3.09	0.40
2:A8:2667:C:H1'	11:AG:108:PHE:CD2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A8:2436:G:H2'	2:A8:2436:G:N3	2.36	0.40
2:A8:432:A:C6	2:A8:433:C:C4	3.09	0.40
36:BA:585:G:C6	36:BA:586:C:C4	3.09	0.40
36:BA:1348:U:H4'	44:BI:121:ARG:HB3	2.04	0.40
1:A7:65:U:H2'	1:A7:108:A:N6	2.36	0.40
40:BE:79:THR:HG21	40:BE:121:ASN:H	1.86	0.40
20:AP:30:TRP:CE2	20:AP:37:LYS:HD2	2.56	0.40
45:BJ:14:ASP:HB2	45:BJ:17:LEU:HB2	2.02	0.40
2:A8:2301:C:C2	2:A8:2316:G:C2	3.10	0.40
52:BQ:9:GLY:O	52:BQ:57:VAL:HA	2.22	0.40
36:BA:1092:A:C2	36:BA:1183:U:C4	3.10	0.40
36:BA:1007:U:H2'	36:BA:1008:U:C6	2.57	0.40
6:A5:15:VAL:HG12	6:A5:16:ASP:H	1.87	0.40
17:AM:63:ILE:HB	17:AM:103:TYR:CE1	2.56	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	
3	AA	440/442 (100%)	383 (87%)	41 (9%)	16 (4%)	4	38
4	AB	63/65 (97%)	55 (87%)	3 (5%)	5 (8%)	1	19
5	AC	30/53 (57%)	29 (97%)	1 (3%)	0	100	100
6	A5	232/234 (99%)	199 (86%)	18 (8%)	15 (6%)	1	25
7	A6	269/273 (98%)	192 (71%)	55 (20%)	22 (8%)	1	18
8	AD	207/209 (99%)	144 (70%)	40 (19%)	23 (11%)	0	11
9	AE	199/201 (99%)	155 (78%)	29 (15%)	15 (8%)	1	21
10	AF	176/179 (98%)	120 (68%)	34 (19%)	22 (12%)	0	8
11	AG	174/177 (98%)	129 (74%)	24 (14%)	21 (12%)	0	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	AH	147/149 (99%)	102 (69%)	32 (22%)	13 (9%)	1	17
13	AI	139/142 (98%)	122 (88%)	11 (8%)	6 (4%)	3	34
14	AJ	140/142 (99%)	109 (78%)	22 (16%)	9 (6%)	2	25
15	AK	119/123 (97%)	87 (73%)	26 (22%)	6 (5%)	3	31
16	AL	141/144 (98%)	107 (76%)	18 (13%)	16 (11%)	0	10
17	AM	134/136 (98%)	91 (68%)	31 (23%)	12 (9%)	1	17
18	AN	118/127 (93%)	89 (75%)	21 (18%)	8 (7%)	1	23
19	AO	114/117 (97%)	94 (82%)	17 (15%)	3 (3%)	7	45
20	AP	112/115 (97%)	82 (73%)	20 (18%)	10 (9%)	1	17
21	AQ	115/118 (98%)	87 (76%)	20 (17%)	8 (7%)	1	22
22	AR	101/103 (98%)	84 (83%)	11 (11%)	6 (6%)	2	27
23	AS	108/110 (98%)	85 (79%)	17 (16%)	6 (6%)	2	28
24	AT	91/100 (91%)	60 (66%)	23 (25%)	8 (9%)	1	17
25	AU	100/104 (96%)	67 (67%)	17 (17%)	16 (16%)	0	5
26	AV	92/94 (98%)	73 (79%)	17 (18%)	2 (2%)	8	49
27	AW	77/85 (91%)	48 (62%)	13 (17%)	16 (21%)	0	3
28	AX	75/78 (96%)	49 (65%)	19 (25%)	7 (9%)	1	16
29	AY	61/63 (97%)	41 (67%)	19 (31%)	1 (2%)	12	56
30	AZ	56/59 (95%)	49 (88%)	6 (11%)	1 (2%)	11	53
31	A0	54/57 (95%)	41 (76%)	8 (15%)	5 (9%)	1	16
32	A1	48/55 (87%)	37 (77%)	6 (12%)	5 (10%)	1	12
33	A2	44/46 (96%)	33 (75%)	7 (16%)	4 (9%)	1	17
34	A3	62/65 (95%)	48 (77%)	10 (16%)	4 (6%)	1	25
35	A4	36/38 (95%)	27 (75%)	6 (17%)	3 (8%)	1	18
37	BB	216/241 (90%)	165 (76%)	40 (18%)	11 (5%)	2	30
38	BC	204/233 (88%)	158 (78%)	30 (15%)	16 (8%)	1	20
39	BD	203/206 (98%)	163 (80%)	28 (14%)	12 (6%)	2	27
40	BE	148/167 (89%)	106 (72%)	32 (22%)	10 (7%)	1	23
41	BF	98/135 (73%)	71 (72%)	16 (16%)	11 (11%)	0	11
42	BG	148/179 (83%)	110 (74%)	26 (18%)	12 (8%)	1	19
43	BH	127/130 (98%)	87 (68%)	32 (25%)	8 (6%)	2	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	BI	125/130 (96%)	99 (79%)	16 (13%)	10 (8%)	1	19
45	BJ	96/103 (93%)	79 (82%)	9 (9%)	8 (8%)	1	18
46	BK	115/129 (89%)	87 (76%)	15 (13%)	13 (11%)	0	10
47	BL	121/124 (98%)	104 (86%)	13 (11%)	4 (3%)	5	40
48	BM	111/118 (94%)	83 (75%)	18 (16%)	10 (9%)	1	17
49	BN	98/101 (97%)	68 (69%)	21 (21%)	9 (9%)	1	17
50	BO	86/89 (97%)	76 (88%)	7 (8%)	3 (4%)	4	39
51	BP	78/82 (95%)	63 (81%)	9 (12%)	6 (8%)	1	20
52	BQ	78/84 (93%)	58 (74%)	12 (15%)	8 (10%)	1	12
53	BR	53/75 (71%)	44 (83%)	7 (13%)	2 (4%)	4	37
54	BS	77/92 (84%)	57 (74%)	16 (21%)	4 (5%)	2	30
55	BT	83/87 (95%)	71 (86%)	8 (10%)	4 (5%)	3	32
56	BU	49/71 (69%)	33 (67%)	11 (22%)	5 (10%)	1	13
All	All	6388/6779 (94%)	4900 (77%)	1008 (16%)	480 (8%)	3	21

All (480) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AA	239	LYS
3	AA	349	PRO
6	A5	55	SER
6	A5	59	VAL
7	A6	78	GLU
7	A6	124	LYS
7	A6	175	LEU
7	A6	254	LYS
8	AD	31	ALA
8	AD	107	VAL
8	AD	174	SER
9	AE	10	SER
9	AE	179	SER
10	AF	41	GLU
10	AF	84	ILE
10	AF	87	LYS
10	AF	88	VAL
10	AF	118	ALA
10	AF	159	ALA

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Mol	Chain	Res	Type
11	AG	2	ARG
11	AG	47	ASN
11	AG	95	ALA
11	AG	151	ARG
13	AI	6	ALA
14	AJ	47	HIS
14	AJ	110	PRO
14	AJ	140	LEU
15	AK	70	ARG
15	AK	112	MET
16	AL	36	LYS
17	AM	20	LEU
17	AM	79	ALA
17	AM	116	ALA
18	AN	81	ASN
18	AN	102	PHE
18	AN	106	ASP
20	AP	20	ARG
20	AP	25	VAL
20	AP	26	GLU
21	AQ	5	ARG
21	AQ	87	VAL
21	AQ	95	ALA
21	AQ	105	PHE
23	AS	76	VAL
24	AT	18	GLU
24	AT	23	ALA
24	AT	70	HIS
25	AU	2	ALA
25	AU	12	VAL
25	AU	65	GLN
25	AU	87	GLU
25	AU	92	VAL
27	AW	17	ALA
27	AW	23	LYS
27	AW	52	CYS
27	AW	56	HIS
27	AW	65	LYS
32	A1	4	ILE
32	A1	51	ALA
34	A3	2	LYS
34	A3	31	ILE

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Mol	Chain	Res	Type
34	A3	62	PRO
35	A4	3	VAL
38	BC	205	GLU
39	BD	7	LYS
39	BD	43	ARG
40	BE	17	VAL
40	BE	45	VAL
41	BF	83	ALA
42	BG	110	ARG
44	BI	8	THR
44	BI	27	ILE
45	BJ	57	VAL
45	BJ	67	ILE
46	BK	17	ASP
46	BK	58	THR
46	BK	118	ASN
46	BK	125	LYS
46	BK	126	ARG
47	BL	47	ALA
48	BM	3	ILE
48	BM	103	THR
49	BN	35	ALA
49	BN	40	ARG
49	BN	80	ARG
51	BP	48	GLU
52	BQ	31	PRO
54	BS	5	LYS
55	BT	68	LYS
56	BU	32	ARG
3	AA	256	LEU
3	AA	368	PRO
3	AA	375	TYR
3	AA	376	ILE
3	AA	441	ALA
4	AB	28	PRO
6	A5	92	ALA
6	A5	201	PRO
7	A6	35	LYS
7	A6	104	LEU
7	A6	136	VAL
7	A6	169	ALA
7	A6	171	VAL

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Mol	Chain	Res	Type
7	A6	239	PHE
8	AD	109	VAL
8	AD	134	HIS
8	AD	167	ASN
8	AD	196	ALA
8	AD	197	THR
9	AE	71	GLY
9	AE	83	VAL
9	AE	96	VAL
10	AF	12	VAL
10	AF	32	LYS
10	AF	78	ILE
10	AF	145	VAL
11	AG	8	VAL
11	AG	12	ALA
11	AG	97	VAL
11	AG	118	ALA
11	AG	164	ALA
11	AG	172	GLU
12	AH	15	LEU
12	AH	33	GLN
12	AH	105	ALA
13	AI	23	VAL
14	AJ	43	GLU
16	AL	41	ARG
16	AL	46	VAL
16	AL	68	SER
16	AL	111	ILE
16	AL	115	GLU
17	AM	16	ARG
17	AM	67	VAL
17	AM	73	ILE
18	AN	12	ARG
19	AO	108	ASP
20	AP	13	LYS
20	AP	15	ASP
21	AQ	90	ASP
21	AQ	116	LEU
22	AR	27	ILE
22	AR	43	ASN
22	AR	98	ILE
22	AR	101	ILE

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Mol	Chain	Res	Type
23	AS	66	ILE
25	AU	42	LYS
25	AU	50	ALA
27	AW	19	ARG
27	AW	24	ARG
27	AW	35	ILE
27	AW	75	ASN
27	AW	77	LYS
28	AX	44	ARG
30	AZ	15	ARG
31	A0	37	HIS
31	A0	38	LEU
32	A1	13	SER
33	A2	36	ALA
37	BB	195	VAL
37	BB	216	VAL
38	BC	21	TRP
38	BC	76	ILE
38	BC	101	ASN
38	BC	116	ALA
38	BC	129	PHE
39	BD	31	CYS
39	BD	130	ASN
40	BE	85	LYS
40	BE	88	HIS
41	BF	4	TYR
41	BF	53	LYS
41	BF	85	ILE
41	BF	87	SER
42	BG	10	LYS
42	BG	40	SER
42	BG	78	ARG
42	BG	116	ALA
43	BH	66	GLN
43	BH	116	ARG
44	BI	12	LYS
44	BI	57	VAL
44	BI	60	LEU
44	BI	107	ALA
44	BI	112	ARG
45	BJ	74	VAL
45	BJ	81	GLU

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Mol	Chain	Res	Type
46	BK	52	ARG
47	BL	23	LEU
48	BM	87	GLY
48	BM	104	ASN
49	BN	63	CYS
52	BQ	12	VAL
52	BQ	15	LYS
54	BS	31	ARG
3	AA	247	TYR
3	AA	249	ALA
3	AA	295	GLU
4	AB	26	ARG
6	A5	18	THR
6	A5	127	LEU
6	A5	147	PRO
7	A6	12	ARG
7	A6	52	HIS
7	A6	106	PRO
7	A6	205	GLY
8	AD	94	GLN
8	AD	135	GLY
8	AD	161	MET
8	AD	185	ASN
8	AD	203	VAL
9	AE	45	ALA
9	AE	54	GLY
9	AE	56	GLY
9	AE	123	LYS
9	AE	124	PHE
9	AE	129	PRO
9	AE	138	LEU
10	AF	64	PRO
10	AF	136	ILE
10	AF	144	LYS
11	AG	9	VAL
11	AG	62	ALA
12	AH	35	LYS
13	AI	94	LYS
14	AJ	26	GLY
14	AJ	59	ALA
14	AJ	128	ASN
16	AL	58	TYR

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Mol	Chain	Res	Type
16	AL	69	ARG
16	AL	86	GLU
16	AL	113	ALA
16	AL	138	ALA
16	AL	143	GLU
18	AN	59	SER
18	AN	100	CYS
19	AO	52	SER
20	AP	35	SER
20	AP	107	ALA
22	AR	65	ALA
24	AT	39	THR
24	AT	69	ARG
24	AT	91	GLN
25	AU	43	LYS
25	AU	47	PRO
25	AU	85	ARG
25	AU	97	SER
25	AU	100	GLU
26	AV	59	GLU
27	AW	41	GLY
27	AW	60	ALA
27	AW	71	LYS
28	AX	12	VAL
31	A0	34	GLY
31	A0	55	ALA
33	A2	20	ALA
34	A3	51	LYS
37	BB	36	LYS
37	BB	43	GLU
38	BC	23	ALA
38	BC	47	ALA
38	BC	111	ASP
38	BC	190	THR
39	BD	146	GLU
39	BD	147	LYS
39	BD	174	ALA
39	BD	175	GLY
39	BD	178	GLU
39	BD	191	SER
40	BE	47	PHE
40	BE	124	ALA

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Mol	Chain	Res	Type
40	BE	151	MET
41	BF	48	ALA
41	BF	99	ALA
42	BG	18	GLY
42	BG	118	ARG
43	BH	3	GLN
43	BH	94	VAL
43	BH	96	ALA
44	BI	58	GLU
45	BJ	17	LEU
45	BJ	41	PRO
45	BJ	85	ASP
46	BK	93	GLU
47	BL	72	ASN
48	BM	22	TYR
48	BM	29	SER
49	BN	50	LEU
50	BO	45	HIS
50	BO	87	ARG
51	BP	47	GLU
52	BQ	49	ASN
52	BQ	71	SER
53	BR	22	TYR
54	BS	61	VAL
55	BT	6	ALA
56	BU	39	LYS
3	AA	311	TYR
3	AA	387	LEU
6	A5	35	THR
6	A5	73	VAL
6	A5	80	GLN
6	A5	159	GLY
7	A6	120	ASP
7	A6	132	ARG
7	A6	133	ASN
7	A6	257	ARG
8	AD	45	TYR
8	AD	106	LYS
8	AD	143	PRO
8	AD	168	GLU
8	AD	183	GLU
9	AE	15	SER

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Mol	Chain	Res	Type
9	AE	95	LYS
9	AE	103	GLY
10	AF	44	ALA
10	AF	103	ILE
10	AF	175	PRO
11	AG	21	GLN
11	AG	28	LYS
11	AG	63	GLN
11	AG	110	HIS
12	AH	30	LEU
12	AH	82	SER
12	AH	117	LEU
13	AI	3	LYS
14	AJ	99	ARG
15	AK	87	ASN
15	AK	116	SER
17	AM	27	SER
17	AM	28	PHE
17	AM	43	ALA
17	AM	72	PRO
18	AN	15	SER
20	AP	6	GLN
23	AS	65	ASP
23	AS	72	THR
23	AS	88	ARG
25	AU	63	ALA
26	AV	45	ASP
32	A1	24	LYS
33	A2	11	LYS
35	A4	7	VAL
35	A4	16	ILE
37	BB	14	HIS
37	BB	99	MET
37	BB	205	ALA
38	BC	3	LYS
39	BD	68	GLU
40	BE	110	MET
41	BF	80	PHE
42	BG	138	GLU
46	BK	79	LYS
47	BL	100	ALA
3	AA	229	MET

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Mol	Chain	Res	Type
3	AA	259	VAL
4	AB	24	PRO
6	A5	112	ASP
8	AD	98	VAL
10	AF	79	ARG
10	AF	120	SER
10	AF	127	TYR
10	AF	142	TYR
10	AF	176	PHE
11	AG	7	PRO
11	AG	117	PRO
11	AG	141	GLY
12	AH	14	SER
12	AH	39	ALA
15	AK	5	THR
16	AL	64	PHE
16	AL	81	ASP
16	AL	133	ALA
19	AO	69	ASP
20	AP	5	LYS
20	AP	81	ASP
21	AQ	86	SER
23	AS	60	HIS
24	AT	55	VAL
25	AU	62	ALA
25	AU	68	ASN
27	AW	68	PHE
28	AX	18	SER
28	AX	30	PRO
28	AX	40	GLU
28	AX	53	LYS
33	A2	16	HIS
37	BB	47	PRO
37	BB	131	LYS
38	BC	6	PRO
39	BD	67	LEU
40	BE	60	GLN
40	BE	137	ARG
41	BF	33	GLU
41	BF	79	ARG
41	BF	95	ALA
43	BH	74	ILE

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Mol	Chain	Res	Type
44	BI	26	LYS
46	BK	116	PRO
46	BK	123	PRO
48	BM	11	HIS
48	BM	65	GLU
49	BN	19	TYR
49	BN	61	ASN
50	BO	7	THR
51	BP	29	ASN
51	BP	56	ARG
53	BR	35	SER
56	BU	14	ALA
4	AB	29	THR
6	A5	220	ALA
6	A5	227	ALA
7	A6	48	ILE
8	AD	46	ARG
8	AD	175	LEU
11	AG	32	LEU
12	AH	55	GLU
12	AH	91	PHE
12	AH	118	PRO
12	AH	142	VAL
13	AI	7	TYR
14	AJ	14	ASP
22	AR	53	PHE
27	AW	8	SER
28	AX	17	ARG
29	AY	19	LEU
32	A1	36	LYS
37	BB	132	GLU
38	BC	16	PRO
38	BC	26	LYS
42	BG	70	PRO
42	BG	130	LYS
42	BG	146	ALA
43	BH	90	GLU
44	BI	121	ARG
45	BJ	43	PRO
46	BK	37	GLN
46	BK	96	ILE
46	BK	114	PRO

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Mol	Chain	Res	Type
48	BM	109	LYS
49	BN	42	ASN
49	BN	70	HIS
51	BP	11	ALA
52	BQ	11	VAL
52	BQ	50	ASN
52	BQ	51	GLU
54	BS	28	LYS
56	BU	34	ARG
3	AA	320	PRO
4	AB	57	PRO
7	A6	158	GLY
7	A6	195	GLY
8	AD	152	PRO
17	AM	93	VAL
25	AU	66	VAL
43	BH	55	LYS
56	BU	52	VAL
3	AA	255	PRO
10	AF	59	ILE
16	AL	119	PRO
18	AN	97	ILE
24	AT	90	GLY
48	BM	6	ILE
55	BT	3	ILE
8	AD	180	VAL
11	AG	112	VAL
15	AK	62	VAL
31	A0	54	ILE
37	BB	79	VAL
38	BC	108	PRO
55	BT	56	ILE
6	A5	128	GLY
7	A6	21	PRO
17	AM	109	PRO
21	AQ	33	VAL
27	AW	73	PRO
38	BC	15	LYS
42	BG	15	PRO
51	BP	33	ILE
13	AI	18	ASN

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	
3	AA	362/362 (100%)	341 (94%)	21 (6%)	25	61
4	AB	52/52 (100%)	46 (88%)	6 (12%)	7	32
5	AC	28/45 (62%)	28 (100%)	0	100	100
6	A5	181/181 (100%)	171 (94%)	10 (6%)	27	63
7	A6	216/218 (99%)	200 (93%)	16 (7%)	17	54
8	AD	164/164 (100%)	144 (88%)	20 (12%)	6	31
9	AE	165/165 (100%)	161 (98%)	4 (2%)	57	82
10	AF	149/150 (99%)	135 (91%)	14 (9%)	11	42
11	AG	137/138 (99%)	127 (93%)	10 (7%)	17	54
12	AH	114/114 (100%)	110 (96%)	4 (4%)	43	74
13	AI	109/110 (99%)	100 (92%)	9 (8%)	14	49
14	AJ	116/116 (100%)	106 (91%)	10 (9%)	13	47
15	AK	102/104 (98%)	95 (93%)	7 (7%)	19	56
16	AL	102/103 (99%)	94 (92%)	8 (8%)	16	51
17	AM	109/109 (100%)	97 (89%)	12 (11%)	8	34
18	AN	100/103 (97%)	91 (91%)	9 (9%)	12	44
19	AO	86/87 (99%)	83 (96%)	3 (4%)	43	74
20	AP	99/100 (99%)	94 (95%)	5 (5%)	29	66
21	AQ	89/90 (99%)	81 (91%)	8 (9%)	12	44
22	AR	84/84 (100%)	76 (90%)	8 (10%)	11	41
23	AS	93/93 (100%)	82 (88%)	11 (12%)	6	32
24	AT	80/84 (95%)	72 (90%)	8 (10%)	9	38
25	AU	83/85 (98%)	78 (94%)	5 (6%)	24	60
26	AV	78/78 (100%)	72 (92%)	6 (8%)	16	52
27	AW	59/63 (94%)	51 (86%)	8 (14%)	5	27
28	AX	67/68 (98%)	63 (94%)	4 (6%)	24	60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	AY	55/55 (100%)	55 (100%)	0	100	100
30	AZ	48/49 (98%)	46 (96%)	2 (4%)	36	70
31	A0	47/48 (98%)	42 (89%)	5 (11%)	8	36
32	A1	45/49 (92%)	44 (98%)	1 (2%)	60	83
33	A2	38/38 (100%)	34 (90%)	4 (10%)	8	36
34	A3	51/52 (98%)	45 (88%)	6 (12%)	6	32
35	A4	34/34 (100%)	33 (97%)	1 (3%)	50	78
37	BB	180/199 (90%)	173 (96%)	7 (4%)	39	72
38	BC	170/190 (90%)	162 (95%)	8 (5%)	32	68
39	BD	172/173 (99%)	166 (96%)	6 (4%)	43	74
40	BE	113/126 (90%)	103 (91%)	10 (9%)	12	45
41	BF	87/116 (75%)	79 (91%)	8 (9%)	11	43
42	BG	123/147 (84%)	121 (98%)	2 (2%)	70	88
43	BH	104/105 (99%)	96 (92%)	8 (8%)	16	52
44	BI	105/107 (98%)	98 (93%)	7 (7%)	20	57
45	BJ	86/90 (96%)	83 (96%)	3 (4%)	43	74
46	BK	90/99 (91%)	81 (90%)	9 (10%)	9	38
47	BL	103/104 (99%)	93 (90%)	10 (10%)	10	40
48	BM	91/96 (95%)	88 (97%)	3 (3%)	45	76
49	BN	83/84 (99%)	79 (95%)	4 (5%)	31	67
50	BO	76/77 (99%)	73 (96%)	3 (4%)	39	72
51	BP	65/65 (100%)	61 (94%)	4 (6%)	23	60
52	BQ	74/78 (95%)	68 (92%)	6 (8%)	15	50
53	BR	48/65 (74%)	43 (90%)	5 (10%)	9	36
54	BS	70/79 (89%)	67 (96%)	3 (4%)	35	70
55	BT	65/66 (98%)	58 (89%)	7 (11%)	8	35
56	BU	44/61 (72%)	40 (91%)	4 (9%)	12	43
All	All	5291/5518 (96%)	4929 (93%)	362 (7%)	24	57

All (362) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AA	8	LEU

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Mol	Chain	Res	Type
3	AA	16	LEU
3	AA	57	GLU
3	AA	66	ARG
3	AA	126	PHE
3	AA	180	GLN
3	AA	183	PHE
3	AA	204	VAL
3	AA	225	TYR
3	AA	253	HIS
3	AA	256	LEU
3	AA	261	VAL
3	AA	306	TYR
3	AA	311	TYR
3	AA	367	ARG
3	AA	368	PRO
3	AA	382	ARG
3	AA	387	LEU
3	AA	389	VAL
3	AA	397	PHE
3	AA	437	HIS
4	AB	12	ARG
4	AB	23	TRP
4	AB	26	ARG
4	AB	33	TYR
4	AB	56	VAL
4	AB	60	TYR
6	A5	13	GLU
6	A5	53	ARG
6	A5	78	PHE
6	A5	106	LYS
6	A5	151	GLU
6	A5	166	ASP
6	A5	174	THR
6	A5	186	LYS
6	A5	222	VAL
6	A5	234	ASN
7	A6	12	ARG
7	A6	38	LYS
7	A6	61	TYR
7	A6	70	LYS
7	A6	76	VAL
7	A6	100	ARG

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Mol	Chain	Res	Type
7	A6	120	ASP
7	A6	128	THR
7	A6	136	VAL
7	A6	155	ARG
7	A6	170	TYR
7	A6	182	LYS
7	A6	199	HIS
7	A6	202	ARG
7	A6	238	ASN
7	A6	266	ILE
8	AD	12	THR
8	AD	15	PHE
8	AD	39	ASP
8	AD	56	LYS
8	AD	63	PRO
8	AD	94	GLN
8	AD	108	ASP
8	AD	128	ARG
8	AD	129	THR
8	AD	148	GLN
8	AD	150	GLN
8	AD	155	VAL
8	AD	156	PHE
8	AD	167	ASN
8	AD	168	GLU
8	AD	173	GLN
8	AD	175	LEU
8	AD	176	ASP
8	AD	183	GLU
8	AD	201	LEU
9	AE	61	ARG
9	AE	132	LYS
9	AE	146	VAL
9	AE	150	THR
10	AF	25	MET
10	AF	64	PRO
10	AF	67	THR
10	AF	73	VAL
10	AF	79	ARG
10	AF	91	ARG
10	AF	95	MET
10	AF	98	PHE

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Mol	Chain	Res	Type
10	AF	124	ARG
10	AF	127	TYR
10	AF	129	MET
10	AF	133	GLU
10	AF	147	ARG
10	AF	158	THR
11	AG	26	LYS
11	AG	28	LYS
11	AG	47	ASN
11	AG	59	ASP
11	AG	68	ARG
11	AG	112	VAL
11	AG	129	GLU
11	AG	136	ASP
11	AG	162	ARG
11	AG	166	GLU
12	AH	47	PHE
12	AH	66	ASN
12	AH	135	HIS
12	AH	137	GLU
13	AI	8	VAL
13	AI	16	MET
13	AI	25	PRO
13	AI	64	ARG
13	AI	92	PRO
13	AI	96	LYS
13	AI	102	ARG
13	AI	117	THR
13	AI	131	THR
14	AJ	1	MET
14	AJ	2	LYS
14	AJ	17	VAL
14	AJ	39	LYS
14	AJ	44	TYR
14	AJ	52	ASP
14	AJ	84	ILE
14	AJ	98	GLU
14	AJ	130	HIS
14	AJ	138	GLN
15	AK	30	ARG
15	AK	50	LYS
15	AK	51	VAL

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Mol	Chain	Res	Type
15	AK	64	THR
15	AK	104	ARG
15	AK	112	MET
15	AK	115	ILE
16	AL	6	LEU
16	AL	21	ARG
16	AL	23	ILE
16	AL	35	HIS
16	AL	64	PHE
16	AL	66	PHE
16	AL	69	ARG
16	AL	135	ILE
17	AM	10	ARG
17	AM	25	ASP
17	AM	26	VAL
17	AM	33	LEU
17	AM	59	ARG
17	AM	71	LYS
17	AM	95	LEU
17	AM	96	ILE
17	AM	103	TYR
17	AM	110	GLU
17	AM	112	LEU
17	AM	117	PHE
18	AN	8	ARG
18	AN	10	LEU
18	AN	20	MET
18	AN	60	VAL
18	AN	90	ARG
18	AN	99	LYS
18	AN	106	ASP
18	AN	112	TYR
18	AN	120	GLU
19	AO	7	ARG
19	AO	31	THR
19	AO	78	VAL
20	AP	24	THR
20	AP	71	ARG
20	AP	88	ARG
20	AP	99	LEU
20	AP	101	GLU
21	AQ	13	HIS

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Mol	Chain	Res	Type
21	AQ	17	LEU
21	AQ	18	LYS
21	AQ	32	ARG
21	AQ	58	GLN
21	AQ	63	ARG
21	AQ	93	ILE
21	AQ	97	ILE
22	AR	22	LEU
22	AR	39	LEU
22	AR	46	GLU
22	AR	60	LYS
22	AR	73	LYS
22	AR	78	ARG
22	AR	91	GLN
22	AR	95	ASP
23	AS	2	GLU
23	AS	3	THR
23	AS	6	LYS
23	AS	11	ARG
23	AS	22	ASP
23	AS	52	GLU
23	AS	68	ASP
23	AS	75	PHE
23	AS	76	VAL
23	AS	98	LYS
23	AS	102	HIS
24	AT	2	ILE
24	AT	3	ARG
24	AT	32	LEU
24	AT	33	LYS
24	AT	54	GLU
24	AT	64	LYS
24	AT	72	GLN
24	AT	84	TYR
25	AU	6	ARG
25	AU	43	LYS
25	AU	76	THR
25	AU	81	ARG
25	AU	86	PHE
26	AV	2	PHE
26	AV	10	LYS
26	AV	27	PRO

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Mol	Chain	Res	Type
26	AV	31	TYR
26	AV	34	LYS
26	AV	46	LYS
27	AW	14	ASP
27	AW	19	ARG
27	AW	20	LEU
27	AW	23	LYS
27	AW	55	ASP
27	AW	63	ASP
27	AW	65	LYS
27	AW	69	GLU
28	AX	26	ARG
28	AX	32	LEU
28	AX	60	LYS
28	AX	77	TYR
30	AZ	7	THR
30	AZ	43	ILE
31	A0	9	ARG
31	A0	14	MET
31	A0	21	LEU
31	A0	24	VAL
31	A0	30	ASP
32	A1	34	GLU
33	A2	1	MET
33	A2	12	ARG
33	A2	13	ASN
33	A2	24	THR
34	A3	1	PRO
34	A3	5	THR
34	A3	7	ARG
34	A3	29	ARG
34	A3	30	HIS
34	A3	63	TYR
35	A4	4	ARG
37	BB	14	HIS
37	BB	17	HIS
37	BB	34	ARG
37	BB	69	VAL
37	BB	87	ASP
37	BB	147	LEU
37	BB	195	VAL
38	BC	3	LYS

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Mol	Chain	Res	Type
38	BC	11	LEU
38	BC	55	VAL
38	BC	71	ARG
38	BC	115	VAL
38	BC	141	MET
38	BC	166	TRP
38	BC	187	GLU
39	BD	31	CYS
39	BD	33	ILE
39	BD	45	PRO
39	BD	68	GLU
39	BD	99	ASN
39	BD	142	VAL
40	BE	13	LYS
40	BE	19	ARG
40	BE	49	TYR
40	BE	53	ARG
40	BE	55	VAL
40	BE	75	LEU
40	BE	96	GLN
40	BE	127	TYR
40	BE	146	MET
40	BE	151	MET
41	BF	23	GLU
41	BF	41	ASP
41	BF	58	HIS
41	BF	60	VAL
41	BF	68	GLN
41	BF	77	THR
41	BF	91	ARG
41	BF	98	GLU
42	BG	110	ARG
42	BG	142	ARG
43	BH	26	MET
43	BH	27	PRO
43	BH	46	GLU
43	BH	53	ASP
43	BH	59	GLU
43	BH	66	GLN
43	BH	79	ARG
43	BH	117	GLN
44	BI	26	LYS

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Mol	Chain	Res	Type
44	BI	31	GLN
44	BI	62	LEU
44	BI	71	ILE
44	BI	91	GLU
44	BI	98	ARG
44	BI	105	ARG
45	BJ	16	ARG
45	BJ	96	VAL
45	BJ	99	GLN
46	BK	13	LYS
46	BK	14	GLN
46	BK	17	ASP
46	BK	19	VAL
46	BK	25	SER
46	BK	27	ASN
46	BK	37	GLN
46	BK	79	LYS
46	BK	107	THR
47	BL	20	VAL
47	BL	26	CYS
47	BL	29	LYS
47	BL	48	LEU
47	BL	79	ILE
47	BL	85	ARG
47	BL	96	THR
47	BL	109	ARG
47	BL	113	ARG
47	BL	120	ARG
48	BM	22	TYR
48	BM	100	ARG
48	BM	101	THR
49	BN	36	SER
49	BN	45	LEU
49	BN	84	ARG
49	BN	100	TRP
50	BO	5	GLU
50	BO	86	LEU
50	BO	88	ARG
51	BP	9	HIS
51	BP	18	GLN
51	BP	28	ARG
51	BP	29	ASN

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Mol	Chain	Res	Type
52	BQ	10	ARG
52	BQ	16	MET
52	BQ	26	ARG
52	BQ	44	HIS
52	BQ	62	GLU
52	BQ	79	GLU
53	BR	21	ASP
53	BR	22	TYR
53	BR	31	TYR
53	BR	34	GLU
53	BR	52	ARG
54	BS	4	LEU
54	BS	13	HIS
54	BS	62	THR
55	BT	7	LYS
55	BT	9	ARG
55	BT	14	GLU
55	BT	18	LYS
55	BT	20	ASN
55	BT	26	MET
55	BT	27	MET
56	BU	17	ARG
56	BU	44	ARG
56	BU	46	ARG
56	BU	53	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (88) such sidechains are listed below:

Mol	Chain	Res	Type
3	AA	242	GLN
3	AA	250	GLN
3	AA	293	HIS
4	AB	55	HIS
6	A5	47	ASN
6	A5	168	ASN
6	A5	172	HIS
6	A5	234	ASN
7	A6	14	HIS
7	A6	52	HIS
7	A6	85	ASN
7	A6	114	GLN
7	A6	141	HIS

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Mol	Chain	Res	Type
7	A6	162	GLN
7	A6	225	ASN
7	A6	229	HIS
7	A6	231	HIS
8	AD	148	GLN
9	AE	24	ASN
9	AE	62	GLN
9	AE	92	HIS
9	AE	115	GLN
9	AE	163	ASN
11	AG	37	ASN
11	AG	47	ASN
11	AG	100	ASN
11	AG	103	ASN
11	AG	110	HIS
12	AH	2	GLN
13	AI	11	GLN
14	AJ	77	HIS
14	AJ	80	HIS
14	AJ	130	HIS
14	AJ	136	GLN
15	AK	4	GLN
16	AL	35	HIS
18	AN	3	HIS
18	AN	23	ASN
18	AN	31	HIS
19	AO	19	GLN
19	AO	100	HIS
21	AQ	58	GLN
22	AR	82	HIS
22	AR	87	GLN
23	AS	7	HIS
23	AS	9	HIS
23	AS	57	ASN
24	AT	70	HIS
24	AT	72	GLN
26	AV	24	ASN
26	AV	88	HIS
27	AW	49	ASN
28	AX	33	HIS
28	AX	35	HIS
29	AY	25	GLN

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Mol	Chain	Res	Type
29	AY	36	GLN
31	A0	18	HIS
31	A0	41	HIS
32	A1	45	HIS
33	A2	16	HIS
37	BB	14	HIS
37	BB	92	ASN
37	BB	102	ASN
37	BB	176	ASN
38	BC	2	GLN
38	BC	18	ASN
39	BD	84	ASN
39	BD	119	HIS
40	BE	11	GLN
40	BE	69	ASN
41	BF	37	HIS
41	BF	58	HIS
42	BG	141	HIS
42	BG	147	ASN
44	BI	74	GLN
45	BJ	15	HIS
45	BJ	99	GLN
47	BL	76	HIS
47	BL	95	HIS
50	BO	37	HIS
50	BO	41	HIS
50	BO	49	HIS
51	BP	18	GLN
51	BP	26	ASN
51	BP	29	ASN
53	BR	51	GLN
54	BS	13	HIS
55	BT	20	ASN

### 5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A7	116/120 (96%)	24 (20%)	4 (3%)
2	A8	2902/2904 (99%)	537 (18%)	109 (3%)
36	BA	1530/1542 (99%)	296 (19%)	51 (3%)
All	All	4548/4566 (99%)	857 (18%)	164 (3%)

All (857) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A7	9	G
1	A7	12	C
1	A7	13	G
1	A7	14	U
1	A7	15	A
1	A7	16	G
1	A7	25	U
1	A7	26	C
1	A7	29	A
1	A7	30	C
1	A7	41	G
1	A7	42	C
1	A7	43	C
1	A7	45	A
1	A7	52	A
1	A7	53	A
1	A7	66	A
1	A7	67	G
1	A7	87	U
1	A7	88	C
1	A7	90	C
1	A7	91	C
1	A7	99	A
1	A7	109	A
2	A8	10	A
2	A8	11	C
2	A8	25	U
2	A8	26	G
2	A8	35	G
2	A8	46	G
2	A8	51	G
2	A8	62	U
2	A8	71	A
2	A8	74	A
2	A8	75	G
2	A8	91	A
2	A8	95	A
2	A8	99	U
2	A8	100	U
2	A8	101	A
2	A8	103	A
2	A8	118	A

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Mol	Chain	Res	Type
2	A8	120	U
2	A8	125	A
2	A8	127	A
2	A8	136	G
2	A8	137	U
2	A8	139	U
2	A8	140	C
2	A8	141	G
2	A8	143	C
2	A8	144	A
2	A8	160	A
2	A8	162	U
2	A8	163	C
2	A8	164	C
2	A8	181	A
2	A8	196	A
2	A8	199	A
2	A8	216	A
2	A8	218	A
2	A8	221	A
2	A8	222	A
2	A8	233	A
2	A8	241	A
2	A8	248	G
2	A8	249	C
2	A8	255	A
2	A8	265	A
2	A8	266	G
2	A8	268	C
2	A8	271	G
2	A8	273	G
2	A8	276	U
2	A8	277	G
2	A8	278	A
2	A8	281	C
2	A8	283	G
2	A8	285	G
2	A8	286	U
2	A8	299	A
2	A8	311	A
2	A8	329	G
2	A8	330	A

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Mol	Chain	Res	Type
2	A8	331	C
2	A8	333	G
2	A8	346	A
2	A8	352	A
2	A8	353	C
2	A8	362	A
2	A8	363	G
2	A8	364	C
2	A8	369	U
2	A8	371	A
2	A8	372	G
2	A8	386	G
2	A8	387	U
2	A8	389	G
2	A8	404	A
2	A8	405	U
2	A8	406	G
2	A8	411	G
2	A8	412	A
2	A8	424	G
2	A8	451	U
2	A8	452	G
2	A8	456	C
2	A8	457	A
2	A8	479	A
2	A8	481	G
2	A8	489	G
2	A8	490	C
2	A8	504	A
2	A8	505	A
2	A8	508	A
2	A8	509	C
2	A8	512	G
2	A8	528	A
2	A8	530	G
2	A8	531	C
2	A8	532	A
2	A8	533	G
2	A8	544	C
2	A8	546	U
2	A8	547	A
2	A8	548	G

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Mol	Chain	Res	Type
2	A8	549	G
2	A8	550	C
2	A8	555	G
2	A8	563	A
2	A8	568	U
2	A8	573	U
2	A8	574	A
2	A8	575	A
2	A8	586	A
2	A8	588	U
2	A8	603	A
2	A8	613	A
2	A8	614	A
2	A8	615	U
2	A8	616	A
2	A8	620	G
2	A8	627	A
2	A8	637	A
2	A8	642	U
2	A8	645	C
2	A8	646	U
2	A8	647	G
2	A8	651	G
2	A8	652	U
2	A8	653	U
2	A8	655	A
2	A8	656	G
2	A8	671	C
2	A8	686	U
2	A8	687	C
2	A8	730	A
2	A8	747	U
2	A8	757	G
2	A8	762	U
2	A8	763	G
2	A8	764	A
2	A8	775	G
2	A8	776	G
2	A8	781	A
2	A8	782	A
2	A8	784	G
2	A8	789	A

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Mol	Chain	Res	Type
2	A8	790	U
2	A8	793	A
2	A8	794	A
2	A8	801	G
2	A8	802	A
2	A8	805	G
2	A8	812	C
2	A8	819	A
2	A8	827	U
2	A8	828	U
2	A8	829	A
2	A8	845	A
2	A8	847	U
2	A8	859	G
2	A8	869	G
2	A8	871	U
2	A8	875	G
2	A8	876	C
2	A8	881	G
2	A8	887	U
2	A8	888	C
2	A8	891	G
2	A8	896	A
2	A8	897	C
2	A8	900	A
2	A8	901	C
2	A8	910	A
2	A8	911	A
2	A8	912	C
2	A8	919	U
2	A8	931	U
2	A8	932	U
2	A8	933	A
2	A8	941	A
2	A8	945	A
2	A8	946	C
2	A8	957	C
2	A8	959	A
2	A8	961	C
2	A8	973	A
2	A8	974	G
2	A8	980	A

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Mol	Chain	Res	Type
2	A8	982	C
2	A8	983	A
2	A8	985	C
2	A8	991	C
2	A8	995	C
2	A8	996	A
2	A8	1012	U
2	A8	1013	C
2	A8	1022	G
2	A8	1025	G
2	A8	1026	G
2	A8	1027	A
2	A8	1033	U
2	A8	1034	G
2	A8	1045	C
2	A8	1046	A
2	A8	1047	G
2	A8	1054	A
2	A8	1056	G
2	A8	1057	A
2	A8	1061	U
2	A8	1062	G
2	A8	1069	A
2	A8	1070	A
2	A8	1071	G
2	A8	1078	U
2	A8	1083	U
2	A8	1088	A
2	A8	1103	A
2	A8	1104	C
2	A8	1112	G
2	A8	1116	G
2	A8	1130	U
2	A8	1132	U
2	A8	1133	A
2	A8	1134	A
2	A8	1135	C
2	A8	1136	G
2	A8	1139	G
2	A8	1142	A
2	A8	1174	U
2	A8	1175	A

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Mol	Chain	Res	Type
2	A8	1176	U
2	A8	1195	G
2	A8	1205	A
2	A8	1206	G
2	A8	1211	C
2	A8	1238	G
2	A8	1241	A
2	A8	1242	U
2	A8	1248	G
2	A8	1250	G
2	A8	1253	A
2	A8	1255	U
2	A8	1256	G
2	A8	1266	G
2	A8	1271	G
2	A8	1272	A
2	A8	1273	U
2	A8	1275	A
2	A8	1276	A
2	A8	1300	G
2	A8	1301	A
2	A8	1312	U
2	A8	1321	A
2	A8	1325	U
2	A8	1326	U
2	A8	1332	G
2	A8	1333	G
2	A8	1337	G
2	A8	1352	U
2	A8	1365	A
2	A8	1368	G
2	A8	1374	G
2	A8	1379	U
2	A8	1383	A
2	A8	1384	A
2	A8	1392	A
2	A8	1396	U
2	A8	1416	G
2	A8	1419	A
2	A8	1420	A
2	A8	1421	G
2	A8	1427	A

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Mol	Chain	Res	Type
2	A8	1428	C
2	A8	1439	A
2	A8	1451	C
2	A8	1453	A
2	A8	1454	C
2	A8	1458	U
2	A8	1459	G
2	A8	1460	U
2	A8	1461	C
2	A8	1469	A
2	A8	1470	A
2	A8	1476	U
2	A8	1477	A
2	A8	1478	G
2	A8	1482	G
2	A8	1490	A
2	A8	1493	C
2	A8	1494	A
2	A8	1497	U
2	A8	1498	C
2	A8	1504	A
2	A8	1505	A
2	A8	1507	C
2	A8	1508	A
2	A8	1509	A
2	A8	1523	U
2	A8	1524	G
2	A8	1532	A
2	A8	1535	A
2	A8	1536	C
2	A8	1538	G
2	A8	1552	A
2	A8	1560	G
2	A8	1566	A
2	A8	1567	G
2	A8	1569	A
2	A8	1578	U
2	A8	1583	A
2	A8	1584	U
2	A8	1585	C
2	A8	1608	A
2	A8	1614	A

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Mol	Chain	Res	Type
2	A8	1618	A
2	A8	1634	A
2	A8	1635	A
2	A8	1640	A
2	A8	1647	U
2	A8	1648	U
2	A8	1653	G
2	A8	1654	A
2	A8	1674	G
2	A8	1678	A
2	A8	1694	C
2	A8	1695	G
2	A8	1699	G
2	A8	1700	A
2	A8	1715	G
2	A8	1730	C
2	A8	1731	G
2	A8	1733	G
2	A8	1738	G
2	A8	1756	G
2	A8	1758	U
2	A8	1759	A
2	A8	1761	C
2	A8	1764	C
2	A8	1773	A
2	A8	1776	G
2	A8	1781	U
2	A8	1782	U
2	A8	1784	A
2	A8	1786	A
2	A8	1787	A
2	A8	1800	C
2	A8	1801	A
2	A8	1808	A
2	A8	1809	A
2	A8	1816	C
2	A8	1829	A
2	A8	1870	C
2	A8	1871	A
2	A8	1884	G
2	A8	1896	G
2	A8	1906	G

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Mol	Chain	Res	Type
2	A8	1913	A
2	A8	1914	C
2	A8	1929	G
2	A8	1930	G
2	A8	1931	U
2	A8	1937	A
2	A8	1938	A
2	A8	1939	U
2	A8	1940	U
2	A8	1952	A
2	A8	1954	G
2	A8	1955	U
2	A8	1963	U
2	A8	1965	C
2	A8	1967	C
2	A8	1970	A
2	A8	1971	U
2	A8	1972	G
2	A8	1991	U
2	A8	1993	U
2	A8	1997	C
2	A8	2020	A
2	A8	2022	U
2	A8	2023	C
2	A8	2030	A
2	A8	2031	A
2	A8	2032	G
2	A8	2033	A
2	A8	2043	C
2	A8	2055	C
2	A8	2056	G
2	A8	2060	A
2	A8	2061	G
2	A8	2062	A
2	A8	2065	C
2	A8	2069	G
2	A8	2076	U
2	A8	2077	A
2	A8	2096	C
2	A8	2102	G
2	A8	2103	C
2	A8	2104	C

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Mol	Chain	Res	Type
2	A8	2112	G
2	A8	2116	G
2	A8	2117	A
2	A8	2118	U
2	A8	2119	A
2	A8	2128	G
2	A8	2129	C
2	A8	2130	U
2	A8	2131	U
2	A8	2132	U
2	A8	2133	G
2	A8	2134	A
2	A8	2135	A
2	A8	2136	G
2	A8	2137	U
2	A8	2148	G
2	A8	2149	U
2	A8	2152	G
2	A8	2153	C
2	A8	2155	U
2	A8	2158	A
2	A8	2159	G
2	A8	2160	C
2	A8	2164	C
2	A8	2167	U
2	A8	2176	A
2	A8	2178	C
2	A8	2179	C
2	A8	2181	U
2	A8	2183	A
2	A8	2187	U
2	A8	2192	U
2	A8	2198	A
2	A8	2203	U
2	A8	2204	G
2	A8	2212	A
2	A8	2213	U
2	A8	2214	C
2	A8	2225	A
2	A8	2238	G
2	A8	2239	G
2	A8	2250	G

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Mol	Chain	Res	Type
2	A8	2251	G
2	A8	2266	A
2	A8	2269	G
2	A8	2278	A
2	A8	2279	G
2	A8	2283	C
2	A8	2287	A
2	A8	2288	A
2	A8	2297	A
2	A8	2298	A
2	A8	2305	U
2	A8	2307	G
2	A8	2308	G
2	A8	2310	C
2	A8	2311	A
2	A8	2320	U
2	A8	2321	U
2	A8	2322	A
2	A8	2324	U
2	A8	2325	G
2	A8	2333	A
2	A8	2334	U
2	A8	2335	A
2	A8	2336	A
2	A8	2337	G
2	A8	2347	C
2	A8	2379	G
2	A8	2383	G
2	A8	2385	C
2	A8	2394	C
2	A8	2396	G
2	A8	2402	U
2	A8	2406	A
2	A8	2407	A
2	A8	2423	U
2	A8	2425	A
2	A8	2426	A
2	A8	2427	C
2	A8	2429	G
2	A8	2430	A
2	A8	2434	A
2	A8	2441	U

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Mol	Chain	Res	Type
2	A8	2449	U
2	A8	2472	G
2	A8	2476	A
2	A8	2478	A
2	A8	2491	U
2	A8	2502	G
2	A8	2503	A
2	A8	2505	G
2	A8	2506	U
2	A8	2518	A
2	A8	2519	U
2	A8	2529	G
2	A8	2533	U
2	A8	2554	U
2	A8	2566	A
2	A8	2567	G
2	A8	2572	A
2	A8	2573	C
2	A8	2582	G
2	A8	2585	U
2	A8	2586	U
2	A8	2602	A
2	A8	2609	U
2	A8	2613	U
2	A8	2628	C
2	A8	2629	U
2	A8	2661	G
2	A8	2682	A
2	A8	2689	U
2	A8	2690	U
2	A8	2714	G
2	A8	2733	A
2	A8	2734	A
2	A8	2744	G
2	A8	2748	A
2	A8	2755	C
2	A8	2757	A
2	A8	2765	A
2	A8	2778	A
2	A8	2791	G
2	A8	2793	C
2	A8	2798	U

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Mol	Chain	Res	Type
2	A8	2799	A
2	A8	2800	A
2	A8	2808	G
2	A8	2809	A
2	A8	2821	A
2	A8	2832	U
2	A8	2833	U
2	A8	2836	U
2	A8	2849	U
2	A8	2850	A
2	A8	2867	G
2	A8	2872	A
2	A8	2873	A
2	A8	2883	A
2	A8	2884	U
36	BA	6	G
36	BA	7	A
36	BA	9	G
36	BA	14	U
36	BA	15	G
36	BA	31	G
36	BA	32	A
36	BA	39	G
36	BA	47	C
36	BA	48	C
36	BA	49	U
36	BA	50	A
36	BA	51	A
36	BA	52	C
36	BA	55	A
36	BA	61	G
36	BA	65	A
36	BA	67	C
36	BA	70	U
36	BA	71	A
36	BA	75	G
36	BA	79	G
36	BA	80	A
36	BA	83	C
36	BA	84	U
36	BA	85	U
36	BA	86	G

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Mol	Chain	Res	Type
36	BA	88	U
36	BA	91	U
36	BA	101	A
36	BA	108	G
36	BA	119	A
36	BA	121	U
36	BA	122	G
36	BA	130	A
36	BA	131	A
36	BA	144	G
36	BA	149	A
36	BA	155	A
36	BA	182	A
36	BA	183	C
36	BA	184	G
36	BA	188	C
36	BA	196	A
36	BA	197	A
36	BA	198	G
36	BA	205	A
36	BA	209	U
36	BA	210	C
36	BA	211	G
36	BA	239	U
36	BA	240	G
36	BA	243	A
36	BA	244	U
36	BA	245	U
36	BA	247	G
36	BA	250	A
36	BA	251	G
36	BA	257	G
36	BA	258	G
36	BA	262	A
36	BA	266	G
36	BA	267	C
36	BA	280	C
36	BA	289	G
36	BA	306	A
36	BA	308	C
36	BA	328	C
36	BA	329	A

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Mol	Chain	Res	Type
36	BA	330	C
36	BA	332	G
36	BA	345	C
36	BA	352	C
36	BA	353	A
36	BA	354	G
36	BA	367	U
36	BA	373	A
36	BA	374	A
36	BA	382	A
36	BA	397	A
36	BA	398	U
36	BA	406	G
36	BA	408	A
36	BA	409	U
36	BA	411	A
36	BA	412	A
36	BA	413	G
36	BA	414	A
36	BA	416	G
36	BA	421	U
36	BA	424	G
36	BA	429	U
36	BA	430	A
36	BA	435	A
36	BA	451	A
36	BA	452	A
36	BA	456	A
36	BA	459	A
36	BA	461	A
36	BA	462	G
36	BA	463	U
36	BA	465	A
36	BA	466	A
36	BA	467	U
36	BA	468	A
36	BA	481	G
36	BA	482	A
36	BA	484	G
36	BA	485	U
36	BA	486	U
36	BA	493	A

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Mol	Chain	Res	Type
36	BA	499	A
36	BA	508	U
36	BA	511	C
36	BA	512	U
36	BA	518	C
36	BA	527	G
36	BA	532	A
36	BA	533	A
36	BA	534	U
36	BA	535	A
36	BA	546	A
36	BA	547	A
36	BA	562	U
36	BA	572	A
36	BA	573	A
36	BA	574	A
36	BA	575	G
36	BA	576	C
36	BA	577	G
36	BA	596	A
36	BA	631	C
36	BA	633	G
36	BA	665	A
36	BA	666	G
36	BA	700	G
36	BA	701	U
36	BA	721	G
36	BA	724	G
36	BA	731	G
36	BA	747	A
36	BA	748	G
36	BA	752	G
36	BA	755	G
36	BA	777	A
36	BA	781	A
36	BA	782	A
36	BA	790	A
36	BA	792	A
36	BA	793	U
36	BA	794	A
36	BA	812	G
36	BA	815	A

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Mol	Chain	Res	Type
36	BA	817	C
36	BA	818	G
36	BA	819	A
36	BA	821	G
36	BA	828	U
36	BA	841	C
36	BA	842	U
36	BA	843	U
36	BA	844	G
36	BA	845	A
36	BA	846	G
36	BA	847	G
36	BA	849	G
36	BA	864	A
36	BA	873	A
36	BA	913	A
36	BA	914	A
36	BA	926	G
36	BA	927	G
36	BA	934	C
36	BA	935	A
36	BA	945	G
36	BA	960	U
36	BA	961	U
36	BA	968	A
36	BA	969	A
36	BA	971	G
36	BA	974	A
36	BA	975	A
36	BA	976	G
36	BA	977	A
36	BA	981	U
36	BA	991	U
36	BA	992	U
36	BA	993	G
36	BA	994	A
36	BA	996	A
36	BA	1004	A
36	BA	1018	G
36	BA	1020	G
36	BA	1028	C
36	BA	1030	U

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Mol	Chain	Res	Type
36	BA	1031	C
36	BA	1032	G
36	BA	1034	G
36	BA	1035	A
36	BA	1036	A
36	BA	1043	G
36	BA	1050	G
36	BA	1053	G
36	BA	1054	C
36	BA	1064	G
36	BA	1065	U
36	BA	1066	C
36	BA	1067	A
36	BA	1085	U
36	BA	1086	U
36	BA	1092	A
36	BA	1094	G
36	BA	1095	U
36	BA	1101	A
36	BA	1118	U
36	BA	1119	C
36	BA	1124	G
36	BA	1125	U
36	BA	1130	A
36	BA	1133	G
36	BA	1134	G
36	BA	1135	U
36	BA	1136	C
36	BA	1137	C
36	BA	1138	G
36	BA	1139	G
36	BA	1140	C
36	BA	1145	A
36	BA	1159	U
36	BA	1160	G
36	BA	1181	G
36	BA	1184	G
36	BA	1190	G
36	BA	1192	C
36	BA	1196	A
36	BA	1197	A
36	BA	1202	U

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Mol	Chain	Res	Type
36	BA	1212	U
36	BA	1213	A
36	BA	1214	C
36	BA	1215	G
36	BA	1225	A
36	BA	1226	C
36	BA	1227	A
36	BA	1238	A
36	BA	1249	C
36	BA	1258	G
36	BA	1261	A
36	BA	1270	G
36	BA	1278	G
36	BA	1279	G
36	BA	1280	A
36	BA	1285	A
36	BA	1286	U
36	BA	1287	A
36	BA	1297	G
36	BA	1298	U
36	BA	1300	G
36	BA	1301	U
36	BA	1303	C
36	BA	1305	G
36	BA	1316	G
36	BA	1318	A
36	BA	1319	A
36	BA	1320	C
36	BA	1322	C
36	BA	1323	G
36	BA	1331	G
36	BA	1336	C
36	BA	1346	A
36	BA	1353	G
36	BA	1363	A
36	BA	1364	U
36	BA	1380	U
36	BA	1381	U
36	BA	1397	C
36	BA	1398	A
36	BA	1399	C
36	BA	1419	G

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Mol	Chain	Res	Type
36	BA	1432	G
36	BA	1446	A
36	BA	1447	A
36	BA	1448	C
36	BA	1454	G
36	BA	1493	A
36	BA	1494	G
36	BA	1497	G
36	BA	1499	A
36	BA	1503	A
36	BA	1505	G
36	BA	1506	U
36	BA	1517	G
36	BA	1520	C
36	BA	1529	G
36	BA	1532	U
36	BA	1533	C

All (164) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A7	15	A
1	A7	41	G
1	A7	66	A
1	A7	88	C
2	A8	25	U
2	A8	34	U
2	A8	50	U
2	A8	92	U
2	A8	99	U
2	A8	100	U
2	A8	127	A
2	A8	139	U
2	A8	162	U
2	A8	163	C
2	A8	241	A
2	A8	329	G
2	A8	386	G
2	A8	489	G
2	A8	548	G
2	A8	549	G
2	A8	614	A

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Mol	Chain	Res	Type
2	A8	615	U
2	A8	620	G
2	A8	651	G
2	A8	670	A
2	A8	686	U
2	A8	752	A
2	A8	762	U
2	A8	776	G
2	A8	789	A
2	A8	793	A
2	A8	801	G
2	A8	827	U
2	A8	828	U
2	A8	880	G
2	A8	890	C
2	A8	932	U
2	A8	943	A
2	A8	957	C
2	A8	961	C
2	A8	973	A
2	A8	982	C
2	A8	995	C
2	A8	1027	A
2	A8	1033	U
2	A8	1129	A
2	A8	1130	U
2	A8	1133	A
2	A8	1175	A
2	A8	1205	A
2	A8	1210	G
2	A8	1211	C
2	A8	1248	G
2	A8	1300	G
2	A8	1332	G
2	A8	1384	A
2	A8	1494	A
2	A8	1497	U
2	A8	1536	C
2	A8	1559	U
2	A8	1579	A
2	A8	1608	A
2	A8	1609	A

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Mol	Chain	Res	Type
2	A8	1618	A
2	A8	1626	A
2	A8	1694	C
2	A8	1699	G
2	A8	1729	U
2	A8	1757	A
2	A8	1781	U
2	A8	1808	A
2	A8	1870	C
2	A8	1900	A
2	A8	1930	G
2	A8	1938	A
2	A8	1953	A
2	A8	2021	C
2	A8	2060	A
2	A8	2076	U
2	A8	2129	C
2	A8	2131	U
2	A8	2132	U
2	A8	2133	G
2	A8	2134	A
2	A8	2147	A
2	A8	2152	G
2	A8	2158	A
2	A8	2172	U
2	A8	2178	C
2	A8	2203	U
2	A8	2282	G
2	A8	2309	A
2	A8	2336	A
2	A8	2394	C
2	A8	2405	G
2	A8	2425	A
2	A8	2448	A
2	A8	2471	A
2	A8	2503	A
2	A8	2518	A
2	A8	2530	A
2	A8	2534	A
2	A8	2581	G
2	A8	2602	A
2	A8	2628	C

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Mol	Chain	Res	Type
2	A8	2733	A
2	A8	2756	U
2	A8	2798	U
2	A8	2799	A
2	A8	2808	G
2	A8	2832	U
2	A8	2867	G
2	A8	2894	G
36	BA	5	U
36	BA	51	A
36	BA	60	A
36	BA	130	A
36	BA	197	A
36	BA	239	U
36	BA	243	A
36	BA	279	A
36	BA	328	C
36	BA	344	A
36	BA	353	A
36	BA	366	A
36	BA	372	C
36	BA	381	C
36	BA	412	A
36	BA	413	G
36	BA	428	G
36	BA	429	U
36	BA	451	A
36	BA	467	U
36	BA	481	G
36	BA	484	G
36	BA	518	C
36	BA	574	A
36	BA	700	G
36	BA	701	U
36	BA	819	A
36	BA	871	U
36	BA	960	U
36	BA	968	A
36	BA	991	U
36	BA	1030	U
36	BA	1049	U
36	BA	1065	U

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Mol	Chain	Res	Type
36	BA	1101	A
36	BA	1136	C
36	BA	1137	C
36	BA	1159	U
36	BA	1168	U
36	BA	1190	G
36	BA	1201	A
36	BA	1214	C
36	BA	1226	C
36	BA	1278	G
36	BA	1286	U
36	BA	1297	G
36	BA	1300	G
36	BA	1322	C
36	BA	1335	U
36	BA	1398	A
36	BA	1493	A

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

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

#### 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

#### 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

#### 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.