



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 03:25 PM BST

PDB ID : 4V7E
EMDB ID: : EMD-1780
Title : Model of the small subunit RNA based on a 5.5 Å cryo-EM map of *Triticum aestivum* translating 80S ribosome
Authors : Barrio-Garcia, C.; Armache, J.-P.; Jarasch, A.; Anger, A.M.; Villa, E.; Becker, T.; Bhushan, S.; Jossinet, F.; Habeck, M.; Dindar, G.; Franckenberg, S.; Marquez, V.; Mielke, T.; Thomm, M.; Berninghausen, O.; Beatrix, B.; Soeding, J.; Westhof, E.; Wilson, D.N.; Beckmann, R.
Deposited on : 2013-11-22
Resolution : 5.50 Å(reported)

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

A user guide is available at

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

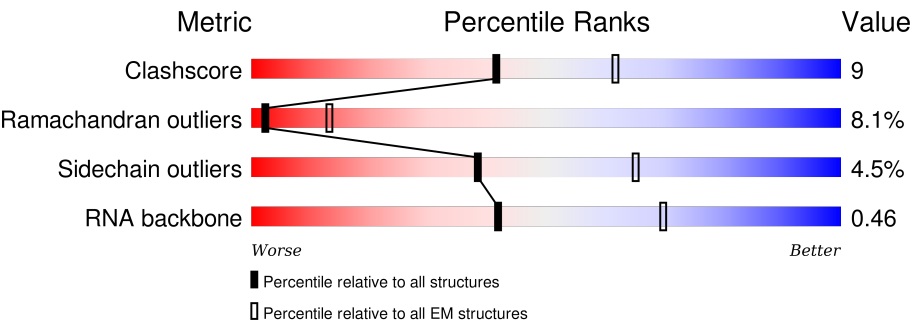
MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 5.50 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.



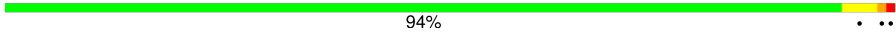









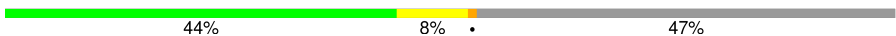






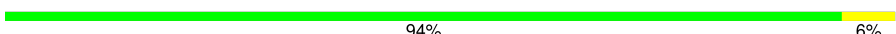







Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

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 ≥ 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	Ad	1810	<div><div></div><div>69%</div><div>24%</div><div></div></div>
2	Ae	75	<div><div></div><div>71%</div><div>25%</div><div></div></div>
3	Af	11	<div><div>9%</div><div>73%</div><div>18%</div><div></div></div>
4	BY	138	<div><div></div><div>88%</div><div>10%</div><div></div></div>
5	BI	220	<div><div>28%</div><div></div><div>70%</div><div></div></div>
6	BK	183	<div><div>44%</div><div>5%</div><div></div><div>48%</div></div>
7	BM	171	<div><div>60%</div><div>11%</div><div></div><div>28%</div></div>
8	Bf	155	<div><div>35%</div><div>11%</div><div></div><div>54%</div></div>






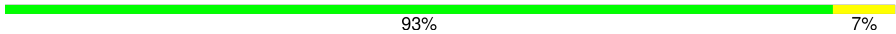



















Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
9	BX	142	94% 
10	Bg	380	92% 
11	BD	208	73% 
12	BE	265	70% 
13	BF	191	92% 
14	BQ	149	66% 
15	BU	128	85% 
16	BO	151	66% 
17	BS	152	76% 
18	BN	151	64% 
19	BL	160	44% 
20	BT	146	88% 
21	BP	154	49% 
22	BZ	108	74% 
23	Bc	65	66% 
24	BW	130	83% 
25	Bd	56	63% 
26	Bb	86	94% 
27	Be	62	89% 
28	BA	260	69% 
29	BR	141	73% 
30	BB	262	68% 
31	BV	82	84% 
32	Ba	133	59% 
33	BJ	195	90% 










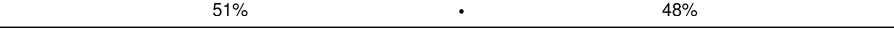
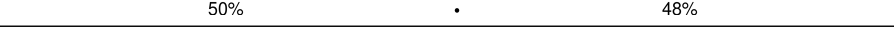
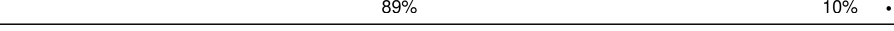





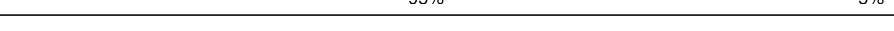

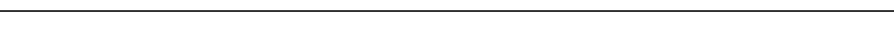

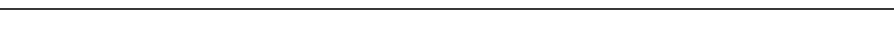
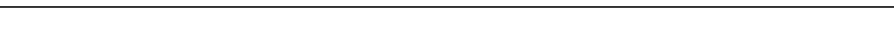


Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
34	BC	263	
35	BG	245	
36	BH	189	
37	CG	257	
38	CT	164	
39	CZ	136	
40	Cz	216	
41	CA	261	
42	CJ	180	
43	CH	190	
44	CV	140	
45	CN	200	
46	Ca	144	
47	CQ	188	
48	CD	304	
49	CR	209	
50	CP	171	
51	CX	152	
52	CW	162	
53	CY	150	
54	Cr	147	
55	Cc	112	
56	Cd	123	
57	Ce	133	
58	Cj	94	

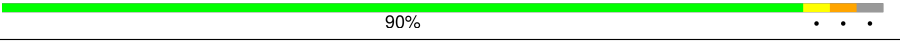

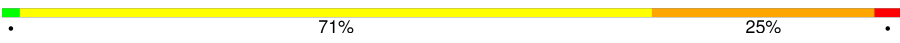
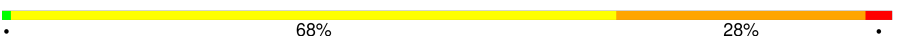

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
59	Cl	51	
60	Co	105	
61	CM	134	
62	CS	178	
63	CU	130	
64	Ci	112	
65	CK	166	
66	Cu	110	
66	Cv	110	
67	Cs	113	
67	Ct	113	
68	Ch	124	
69	CF	244	
70	Cq	319	
71	CB	389	
72	CC	405	
73	CO	206	
74	Cp	92	
75	CI	224	
76	Cn	25	
77	Cm	53	
78	CL	208	
79	CE	219	
80	Cf	111	
81	Ck	69	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
82	Cb	60	 90%
83	Cg	119	 82%10%8%
84	Aa	3391	 71%25%
85	Ac	160	 68%28%
86	Ab	120	 67%32%

2 Entry composition

There are 86 unique types of molecules in this entry. The entry contains 212263 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 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ad	1762	Total	C	N	O	P	0	0
			37584	16788	6708	12327	1761		

- Molecule 2 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Ae	75	Total	C	N	O	P	0	0
			1595	712	280	529	74		

- Molecule 3 is a RNA chain called 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	Af	11	Total	C	N	O	P	0	0
			232	106	45	71	10		

- Molecule 4 is a protein called 40S ribosomal protein S24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	BY	138	Total	C	N	O	S	0	0
			1108	703	212	189	4		

- Molecule 5 is a protein called 40S ribosomal protein S8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	BI	66	Total	C	N	O	S	0	0
			533	330	105	95	3		

- Molecule 6 is a protein called 40S ribosomal protein S10E.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	BK	96	Total	C	N	O	S	0	0
			818	535	137	143	3		

- Molecule 7 is a protein called 40S ribosomal protein S12E.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BM	123	Total	C	N	O	S	0	0
			924	577	159	179	9		

- Molecule 8 is a protein called 40S ribosomal protein S31e.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Bf	71	Total	C	N	O	S	0	0
			577	367	107	98	5		

- Molecule 9 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	BX	142	Total	C	N	O	S	0	0
			1103	698	214	187	4		

- Molecule 10 is a protein called RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Bg	380	Total	C	N	O	S	0	0
			2929	1813	530	567	19		

- Molecule 11 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	BD	208	Total	C	N	O	S	0	0
			1629	1029	294	297	9		

- Molecule 12 is a protein called 40S ribosomal protein S4E.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	BE	200	Total	C	N	O	S	0	0
			1607	1030	290	283	4		

- Molecule 13 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	BF	191	Total	C	N	O	S	0	0
			1489	928	281	273	7		

- Molecule 14 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	BQ	126	Total	C	N	O	S	0	0
			1017	648	195	170	4		

- Molecule 15 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	BU	128	Total	C	N	O	S	0	0
			982	613	176	187	6		

- Molecule 16 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	BO	119	Total	C	N	O	S	0	0
			899	550	178	167	4		

- Molecule 17 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	BS	152	Total	C	N	O	S	0	0
			1240	772	248	213	7		

- Molecule 18 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	BN	121	Total	C	N	O	S	0	0
			977	627	180	167	3		

- Molecule 19 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	BL	85	Total	C	N	O	S	0	0
			688	435	134	115	4		

- Molecule 20 is a protein called 40S ribosomal protein S19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	BT	146	Total	C	N	O	S	0	0
			1155	726	218	207	4		

- Molecule 21 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	BP	91	Total	C	N	O	S	0	0
			711	457	130	120	4		

- Molecule 22 is a protein called 40S ribosomal protein S25E.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	BZ	100	Total	C	N	O	S	0	0
			779	489	146	144			

- Molecule 23 is a protein called 40S ribosomal protein S28E.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Bc	58	Total	C	N	O	S	0	0
			454	281	86	84	3		

- Molecule 24 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	BW	130	Total	C	N	O	S	0	0
			1042	667	189	181	5		

- Molecule 25 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Bd	48	Total	C	N	O	S	0	0
			379	233	77	63	6		

- Molecule 26 is a protein called 40S ribosomal protein S27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Bb	86	Total	C	N	O	S	0	0
			663	414	119	122	8		

- Molecule 27 is a protein called 40S ribosomal protein S30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Be	60	Total	C	N	O	S	0	0
			469	289	104	75	1		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BA	197	Total	C	N	O	S	0	0
			1537	969	280	278	10		

- Molecule 29 is a protein called 40S ribosomal protein S17E.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BR	116	Total	C	N	O	S	0	0
			945	589	178	171	7		

- Molecule 30 is a protein called 40S ribosomal protein S1E.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BB	211	Total	C	N	O	S	0	0
			1707	1089	308	302	8		

- Molecule 31 is a protein called 40S ribosomal protein S21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BV	76	Total	C	N	O	S	0	0
			601	371	112	115	3		

- Molecule 32 is a protein called 40S ribosomal protein S26E.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Ba	93	Total	C	N	O	S	0	0
			753	461	163	122	7		

- Molecule 33 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BJ	187	Total	C	N	O	S	0	0
			1525	959	305	256	5		

- Molecule 34 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BC	214	Total	C	N	O	S	0	0
			1665	1074	297	287	7		

- Molecule 35 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BG	231	Total	C	N	O	S	0	0
			1867	1164	367	328	8		

- Molecule 36 is a protein called 40S ribosomal protein S7E.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BH	184	Total	C	N	O	S	0	0
			1508	962	278	266	2		

- Molecule 37 is a protein called 60S ribosomal protein L8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	CG	237	Total	C	N	O	S	0	0
			1906	1226	351	322	7		

- Molecule 38 is a protein called 60S ribosomal protein L21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	CT	160	Total	C	N	O	S	0	0
			1288	814	251	219	4		

- Molecule 39 is a protein called 60S ribosomal protein L27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	CZ	136	Total	C	N	O	S	0	0
			1090	704	205	176	5		

- Molecule 40 is a protein called 60S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Cz	216	Total	C	N	O	S	0	0
			1718	1092	309	304	13		

- Molecule 41 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CA	255	Total	C	N	O	S	0	0
			1946	1210	399	328	9		

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CJ	170	Total	C	N	O	S	0	0
			1380	869	256	246	9		

- Molecule 43 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	CH	190	Total	C	N	O	S	0	0
			1500	947	270	277	6		

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CV	140	Total	C	N	O	S	0	0
			1048	658	199	181	10		

- Molecule 45 is a protein called 60S ribosomal protein L15E.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	CN	194	Total	C	N	O	S	0	0
			1630	1027	342	257	4		

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Ca	144	Total	C	N	O	S	0	0
			1114	710	223	175	6		

- Molecule 47 is a protein called 60S ribosomal protein L18E.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	CQ	163	Total	C	N	O	S	0	0
			1284	810	248	219	7		

- Molecule 48 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	304	Total	C	N	O	S	0	0
			2444	1531	440	466	7		

- Molecule 49 is a protein called 60S ribosomal protein L19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	CR	189	Total	C	N	O	S	0	0
			1569	972	330	257	10		

- Molecule 50 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CP	171	Total	C	N	O	S	0	0
			1372	852	271	244	5		

- Molecule 51 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CX	122	Total	C	N	O	S	0	0
			987	634	178	173	2		

- Molecule 52 is a protein called 60S ribosomal protein L24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CW	75	Total	C	N	O	S	0	0
			635	408	126	97	4		

- Molecule 53 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CY	130	Total	C	N	O	S	0	0
			1048	647	220	178	3		

- Molecule 54 is a protein called 60S ribosomal protein L28E.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Cr	73	Total	C	N	O	S	0	0
			576	364	107	103	2		

- Molecule 55 is a protein called 60S ribosomal protein L30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Cc	112	Total	C	N	O	S	0	0
			857	540	149	161	7		

- Molecule 56 is a protein called 60S ribosomal protein L31E.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Cd	120	Total	C	N	O	S	0	0
			960	598	186	173	3		

- Molecule 57 is a protein called 60S ribosomal protein L32E.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ce	133	Total	C	N	O	S	0	0
			1103	696	216	185	6		

- Molecule 58 is a protein called 60S ribosomal protein L37E.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Cj	94	Total	C	N	O	S	0	0
			755	459	166	123	7		

- Molecule 59 is a protein called 60S ribosomal protein L39E.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Cl	51	Total	C	N	O	S	0	0
			460	291	100	67	2		

- Molecule 60 is a protein called 60S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Co	105	Total	C	N	O	S	0	0
			851	535	166	144	6		

- Molecule 61 is a protein called 60S ribosomal protein L14E.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	CM	134	Total	C	N	O	S	0	0
			1081	690	201	185	5		

- Molecule 62 is a protein called 60S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	CS	167	Total	C	N	O	S	0	0
			1419	916	263	233	7		

- Molecule 63 is a protein called 60S ribosomal protein L22E.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CU	108	Total	C	N	O	S	0	0
			864	551	155	156	2		

- Molecule 64 is a protein called 60S ribosomal protein L36E.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Ci	77	Total	C	N	O	S	0	0
			613	383	128	100	2		

- Molecule 65 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	CK	128	Total	C	N	O	S	0	0
			960	602	177	177	4		

- Molecule 66 is a protein called 60S ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cu	58	Total	C	N	O	S	0	0
			432	283	69	79	1		
66	Cv	58	Total	C	N	O	S	0	0
			432	283	69	79	1		

- Molecule 67 is a protein called Acidic ribosomal protein P2.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Cs	59	Total	C	N	O	S	0	0
			441	278	69	90	4		
67	Ct	59	Total	C	N	O	S	0	0
			441	278	69	90	4		

- Molecule 68 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Ch	124	Total	C	N	O	S	0	0
			1012	636	202	173	1		

- Molecule 69 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	CF	244	Total	C	N	O	S	0	0
			1984	1271	368	339	6		

- Molecule 70 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Cq	262	Total	C	N	O	S	0	0
			1993	1278	330	377	8		

- Molecule 71 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	CB	389	Total	C	N	O	S	0	0
			3139	1997	584	540	18		

- Molecule 72 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	CC	372	Total	C	N	O	S	0	0
			2898	1823	556	510	9		

- Molecule 73 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	CO	206	Total	C	N	O	S	0	0
			1650	1045	320	274	11		

- Molecule 74 is a protein called 60S ribosomal protein L43E.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Cp	92	Total	C	N	O	S	0	0
			715	447	137	124	7		

- Molecule 75 is a protein called 60S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	CI	184	Total	C	N	O	S	0	0
			1490	941	290	247	12		

- Molecule 76 is a protein called 60S ribosomal protein L41E.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Cn	25	Total	C	N	O	S	0	0
			238	145	62	28	3		

- Molecule 77 is a protein called 60S ribosomal protein L40E.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cm	52	Total	C	N	O	S	0	0
			428	267	90	66	5		

- Molecule 78 is a protein called 60S ribosomal protein L13E.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CL	208	Total	C	N	O	S	0	0
			1691	1061	338	286	6		

- Molecule 79 is a protein called 60S ribosomal protein L6E.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CE	219	Total	C	N	O	S	0	0
			1731	1106	314	307	4		

- Molecule 80 is a protein called 60S ribosomal protein L33E.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Cf	111	Total	C	N	O	S	0	0
			891	561	170	156	4		

- Molecule 81 is a protein called 60S ribosomal protein L38E.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Ck	69	Total	C	N	O	S	0	0
			564	360	104	97	3		

- Molecule 82 is a protein called 60S ribosomal protein L29E.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Cb	58	Total	C	N	O	S	0	0
			477	288	103	85	1		

- Molecule 83 is a protein called 60S ribosomal protein L34E.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cg	110	Total	C	N	O	S	0	0
			897	567	182	146	2		

- Molecule 84 is a RNA chain called 60S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	Aa	3391	Total	C	N	O	P	0	0
			72601	32373	13241	23598	3389		

- Molecule 85 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	Ac	160	Total	C	N	O	P	0	0
			3408	1522	614	1113	159		

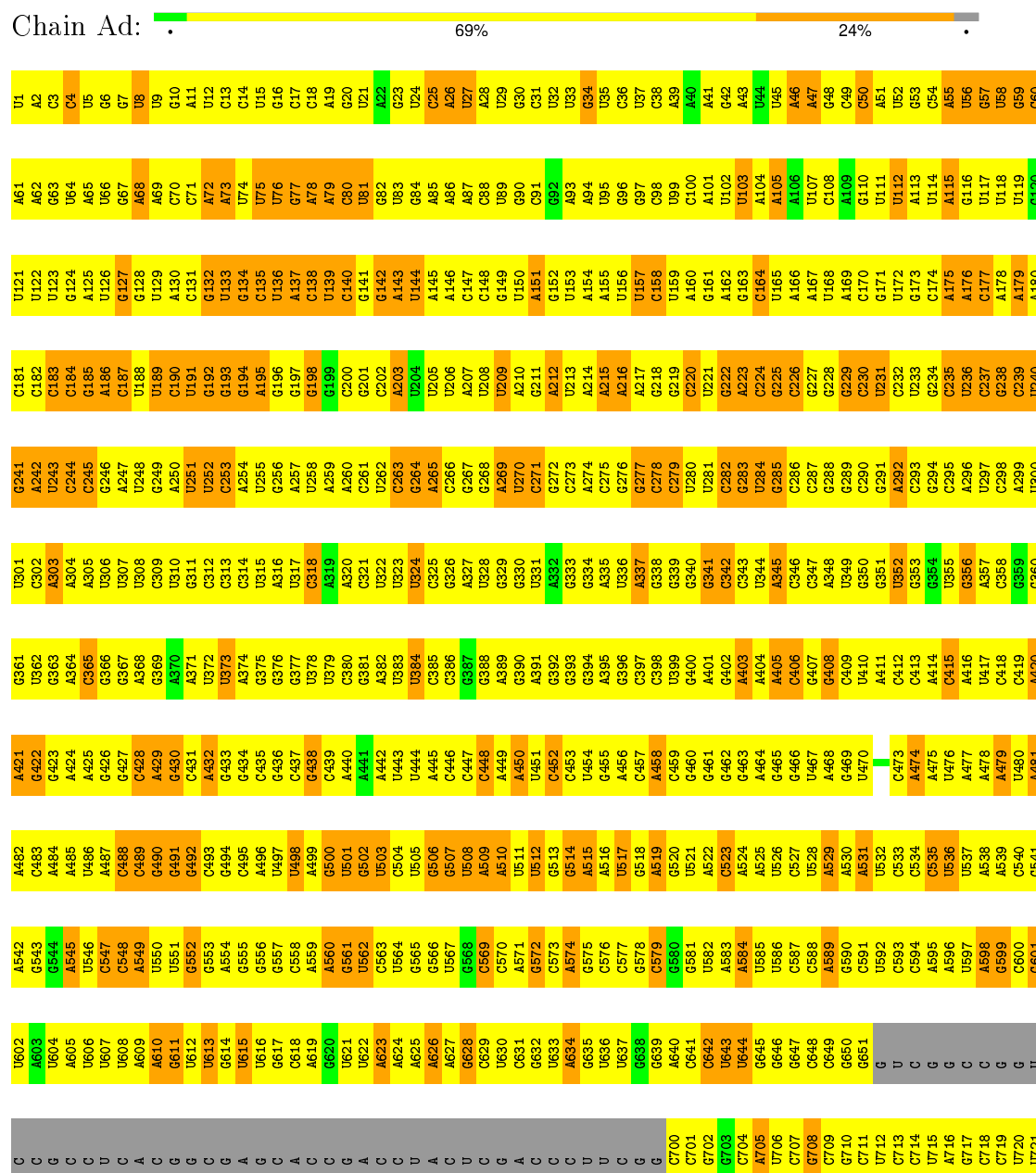
- Molecule 86 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	Ab	120	Total	C	N	O	P	0	0
			2561	1144	461	837	119		

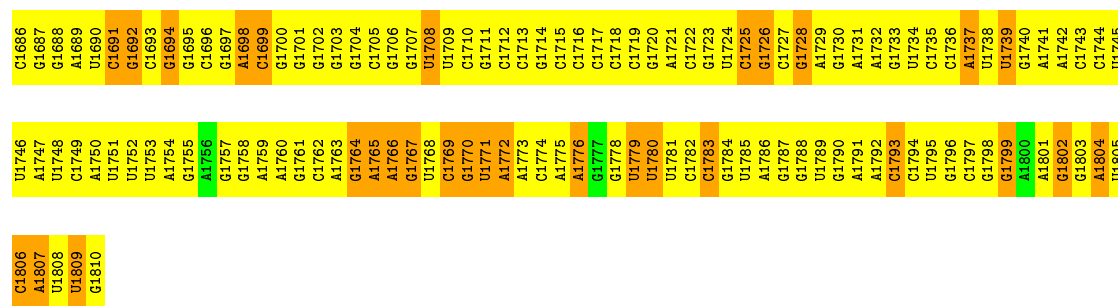
3 Residue-property plots

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.

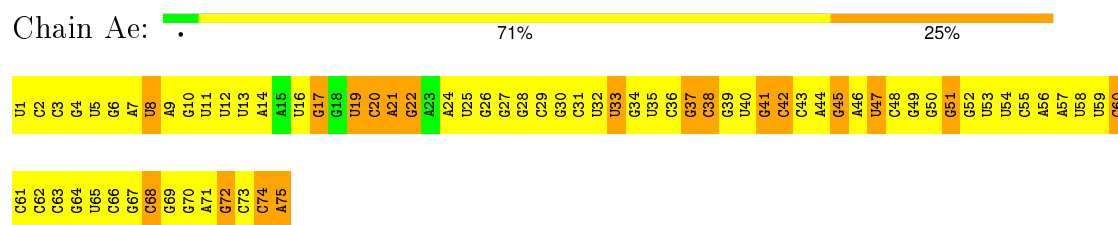
- Molecule 1: 18S ribosomal RNA



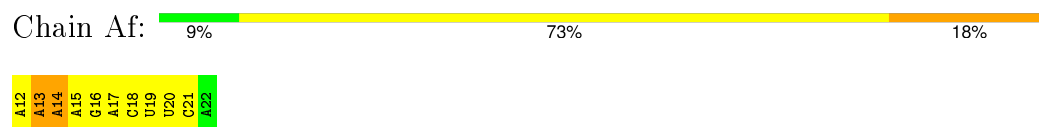
C1626	G1566	U1443	G1382	G1322	U1262	G1202	A1142	C1082	U1022	G962	C902	G842	G782	A722
C1627	G1567	G1444	U1383	U1323	C1263	G1203	A1143	C1083	C1023	U963	A903	G843	C783	A723
C1628	U1568	C1445	U1384	U1324	C1264	G1204	A1144	U1084	A1024	U964	A904	C844	C784	A724
U1629	U1569	C1446	C1385	A1325	U1265	G1205	G1145	U1085	A1025	U965	A905	C845	A785	U725
G1630	G1570	C1447	U1386	A1326	U1266	A1206	G1146	A1086	C1026	U966	G906	U846	U786	G726
C1631	G1571	U1387	C1327	C1327	G1267	A1207	A1147	U1087	C1027	C967	G907	U847	C787	G727
C1632	U1572	A1388	G1328	G1328	G1268	A1208	A1148	G1088	A1028	U968	U908	C848	G788	C728
C1633	C1573	G1389	A1329	A1329	G1269	C1209	U1149	A1089	U1029	U969	G909	C849	C789	C729
U1634	U1574	A1390	A1330	A1330	U1270	G1210	U1150	G1090	A1030	U970	A910	G850	U790	G730
U1635	U1575	C1391	C1331	C1331	G1271	U1211	G1151	A1091	A1031	A971	A911	G851	C791	G731
U1636	C1576	G1392	G1332	G1332	C1272	A1212	A1152	A1092	A1032	A972	A912	A852	U792	G732
G1637	A1577	G1393	A1333	A1333	U1273	C1213	G1153	A1093	C1033	U973	U913	U853	G793	U733
C1638	U1578	A1394	G1334	G1334	G1274	C1214	G1154	U1094	G1034	C974	U914	C854	G794	C734
A1639	C1579	C1395	A1335	A1335	G1275	A1215	G1155	C1095	A1035	A975	C915	G855	A795	G735
C1640	G1580	U1396	C1336	C1336	U1276	G1216	A1156	A1096	U1036	A976	U916	G856	U796	U736
A1641	U1581	C1397	C1337	C1337	G1277	G1217	A1157	A1097	G1037	G977	U917	A857	A797	G737
C1642	G1582	G1459	U1398	U1338	C1278	U1218	G1158	A1098	C1038	A978	G918	G858	C798	U738
A1643	G1583	G1460	C1399	C1339	A1279	C1219	G1159	G1099	A1039	A979	G919	U859	A799	U739
C1644	A1584	G1461	A1400	A1340	U1280	C1220	G1160	U1100	G1040	C980	A920	A860	U800	U740
C1645	A1585	C1462	C1401	G1341	G1281	A1221	C1161	C1101	A1041	G981	U921	A861	U801	C741
C1646	U1586	C1463	G1402	C1342	G1282	A1222	A1162	U1102	A1042	A982	U922	A862	A802	C742
C1647	G1587	G1464	G1403	C1343	C1283	A1223	C1163	U1103	C1043	A983	U923	G863	G803	G743
C1648	C1588	C1465	U1404	U1344	C1284	C1224	C1164	U1104	A1044	A984	A924	A864	C804	G744
C1649	A1589	A1466	U1405	G1345	G1285	A1225	A1165	G1105	G1045	G985	U925	U865	A805	C745
G1650	U1590	C1467	U1406	C1346	U1286	A1226	C1166	G1106	G1046	U986	G926	U866	U806	A746
U1651	A1591	G1468	A1407	U1347	U1287	A1227	C1167	G1107	G1047	U987	A927	A867	C807	U747
C1652	G1592	C1469	G1408	A1348	C1288	G1228	A1168	U1108	A1048	G988	A928	A868	G808	C748
G1653	U1593	G1470	G1409	A1349	C1289	U1229	G1169	U1109	U1049	U989	A929	U869	G809	G749
C1654	A1594	C1471	C1410	C1350	U1290	A1230	G1170	C1110	C1050	G990	A930	A870	A810	U750
U1655	A1595	G1472	U1411	U1351	A1291	A1231	C1171	C1111	G1051	G991	A931	A871	U811	U751
G1656	G1596	C1473	A1412	A1352	U1292	G1232	G1172	G1112	G1052	G992	C932	G872	A812	A752
C1657	U1597	U1474	C1413	C1353	U1293	G1233	U1173	G1113	C1053	C993	G933	G873	A813	C753
U1658	C1598	A1475	G1414	C1354	U1294	A1234	G1174	G1114	G1054	U994	A934	A874	C814	U754
C1659	A1599	C1476	U1355	U1355	G1295	C1235	G1175	G1115	G1055	C995	A935	C875	A815	U755
G1660	G1600	A1477	A1356	A1356	U1296	U1236	A1176	G1116	A1056	G996	C936	A876	U816	U756
C1661	A1601	C1478	A1417	U1357	U1297	G1237	G1177	G1117	U1057	A997	A937	C877	C817	G757
G1662	G1602	U1479	G1418	G1358	G1298	A1238	C1178	A1118	G1058	A998	A938	U878	A818	A758
A1663	U1603	G1480	U1419	C1359	G1299	C1239	C1179	G1119	U1059	G999	C939	C879	U819	A759
U1664	C1604	A1481	U1420	G1360	A1300	A1240	U1180	U1120	U1060	A1000	U940	G880	A820	G760
U1665	A1605	U1482	A1428	G1361	G1301	G1241	G1181	A1121	G1061	C1001	G941	G881	G821	A761
U1666	U1606	G1483	A1429	A1362	C1302	A1242	C1182	U1122	C1062	G1002	C942	G882	G822	A762
A1667	C1607	U1484	G1430	G1363	G1303	C1243	G1183	G1123	U1063	A1003	G943	G883	A823	A763
A1668	A1608	G1425	A1431	C1364	A1304	U1244	C1184	G1124	U1064	U1004	A944	G884	U824	U764
U1669	G1609	C1426	G1426	C1365	U1305	G1245	U1185	U1125	A1065	C1005	A945	C885	U825	U765
G1670	C1610	U1487	A1427	A1366	U1306	A1246	U1186	C1126	U1066	A1006	A946	A886	C826	A766
U1671	U1611	C1488	A1428	U1367	U1307	G1247	A1187	G1127	A1067	G1007	G947	U887	C827	G767
C1672	C1612	A1489	U1429	C1368	G1308	A1248	A1188	C1128	G1068	U888	C948	U888	G828	A768
C1673	G1613	U1490	A1430	C1369	U1309	G1249	U1189	A1129	G1069	C889	A949	C889	G829	G769
C1674	A1552	C1491	A1431	C1370	C1310	C1250	U1190	A1130	A1070	U950	U950	G890	U830	U770
G1675	G1554	G1492	C1432	U1371	U1311	U1251	U1191	G1131	C1071	C1011	U951	U891	C831	G771
C1676	A1555	A1493	A1433	C1372	G1312	C1252	G1192	G1132	U1072	C1012	U952	A892	C832	C772
U1677	U1616	G1494	G1434	C1373	G1313	U1253	A1193	U893	C1073	G1013	G953	U893	C833	U773
G1678	G1618	U1495	G1435	G1374	U1314	U1254	C1194	U1134	C1074	U1014	C954	U894	A834	C774
A1679	A1619	A1496	U1436	C1375	U1315	U1255	U1195	G1135	G1075	C1015	C955	U895	U835	A775
C1680	G1620	U1497	C1437	G1376	A1316	C1256	C1196	A1136	C1076	U1016	A956	C896	U836	A776
G1681	U1621	A1498	U1438	G1377	A1317	U1257	A1197	A1137	C1077	U1017	A957	A897	G837	A777
C1682	A1622	U1499	C1439	C1378	U1318	U1258	A1198	A1138	G1078	A1018	G958	U898	U838	G778
G1683	C1623	A1500	U1440	U1379	C1319	G1259	C1199	C1139	G1079	G1019	G959	U899	G839	C779
U1684	G1624	C1441	A1380	C1320	A1260	C1260	A1200	U1140	C1080	U1020	A960	G900	U840	A780
U1685	U1625	C1502	G1381	G1381	C1321	U1261	C1201	U1141	A1081	C1021	U961	U901	U841	A781



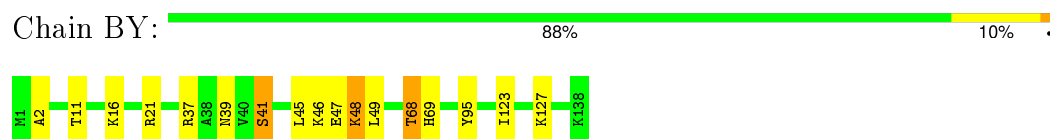
• Molecule 2: P-site tRNA



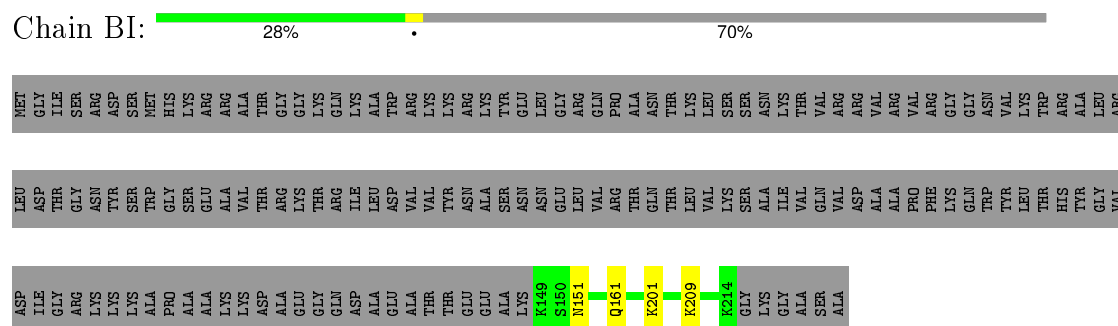
• Molecule 3: 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'



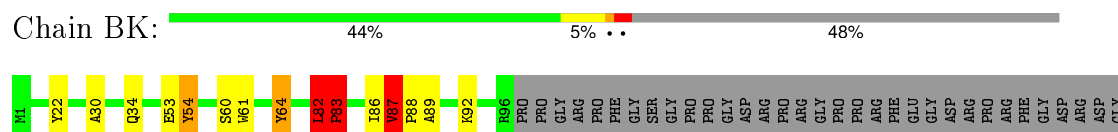
• Molecule 4: 40S ribosomal protein S24E



• Molecule 5: 40S ribosomal protein S8E



• Molecule 6: 40S ribosomal protein S10E



TYR ARG GLY GLY PRO ARG GLY ALA PRO GLY ASP PHE GLY GLY GLU LYS GLY GLY ALA PRO ARG PHE GLN SER PHE ARG SER SER SER GLY GLY ARG PRO GLY GLY GLY GLY PHE GLY ALA PRO GLY VAL PRO THR SER SER MET GLU


- Molecule 7: 40S ribosomal protein S12E

Chain BM:  60% 11% 28%

LEU THR LEU LEU ALA LYS THR LEU THR PRO PRO PRO LEU PHE THR THR ARG SER PHE ARG ARG SER ARG CYS SER GLY LEU LEU SER SER ALA GLU MET MET GLU GLU THR PRO VAL GLU THR PRO ALA ALA PRO VAL LEU G9 E10 G30 K44 H72 V77 T78 V79

PRO S81 A89 G90 L91 C92 R93 D95 S96 V103 C106 S107 D113 Y114 G115 E116 E117 H131

- Molecule 8: 40S ribosomal protein S31e

Chain Bf:  35% 11% 54%

MET GLN ILE PHE VAL LYS THR LEU THR THR GLY LYS THR ILE THR LEU VAL SER SER ASP THR ILE ASP ASN VAL LYS ALA ILE ILE GLN ASP LYS GLY ILE ILE PRO PRO ASP GLN ARG ILE PHE ALA GLY LYS GLN LEU GLU ASP GLY ARG THR ALA ASN

ILE GLN LYS SER THR LEU HIS LEU VAL LEU LEU ARG LEU ARG GLY GLY ALA LYS LYS ARG LYS LYS THR ILE K7 K11 P12 K13 K14 K15 K16 H19 K20 K21 V26 Y30 D34 R43 G52 F56 N59 Y65 T72 Q77 LYS ALA

- Molecule 9: 40S ribosomal protein S12

Chain BX:  94% . .


H1 A9 F40 L60 P61 A64 I86 S128 R141 S142

- Molecule 10: RACK1

Chain Bg:  92% 7% .

H1 A2 T15 N52 L62 K78 S98 H107 V111 M112 G127 L128 R143 V149 S150 R151 V166 Q180 S202 G203 L216 V230 I237 H246 V255 R263 G271 V301 Q340 R341 S342 R343 K366 V380

- Molecule 11: 40S ribosomal protein S3

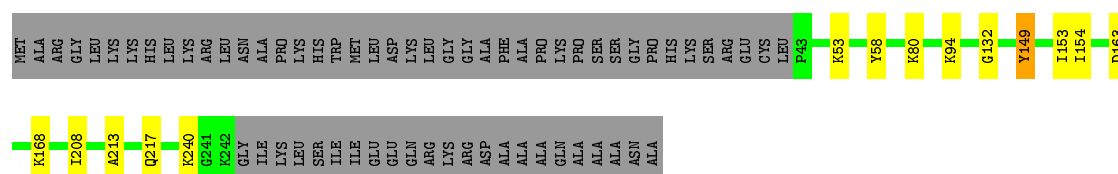
Chain BD:  73% 24% .

V12 A30 E31 D32 G36 R40 I48 E61 K62 G63 R64 I66 S71 N78 F79 L80 E81 V84 K90 V91 V92 N93 R94 G95 L96 C97 A98 I99 Y107 G111 G112 L113 Y120 R124 F125 V126 A131 G140 F152 Y156 Q162

V172 R173 G183 I184 P194 K195 G196 K197 P200 T201 T202 P203 D206 L207 V208 T209 H210 F211 P212 P213 R214 E215 E216 N217 E218 L219

- Molecule 12: 40S ribosomal protein S4E

Chain BE:  70% 5% 25%



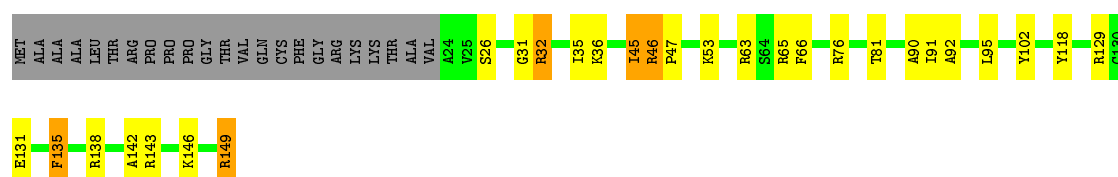
- Molecule 13: 40S ribosomal protein S7

Chain BF: 92% 7%



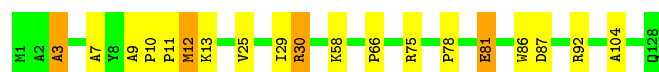
- Molecule 14: 40S ribosomal protein S9

Chain BQ: 66% 15% 15%



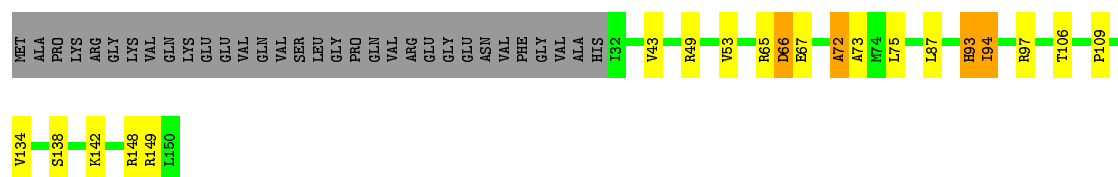
- Molecule 15: 40S ribosomal protein S10

Chain BU: 85% 12%



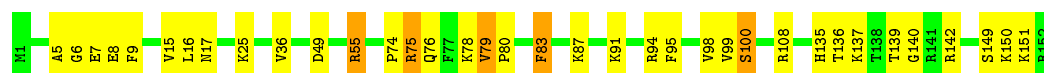
- Molecule 16: 40S ribosomal protein S11

Chain BO: 66% 11% 21%



- Molecule 17: 40S ribosomal protein S13

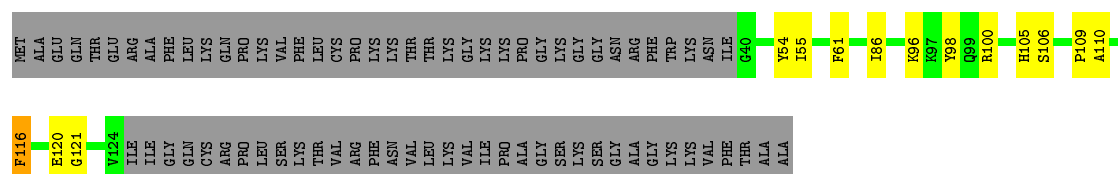
Chain BS: 76% 20%



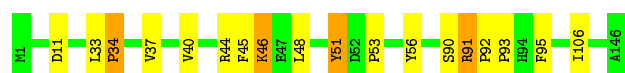
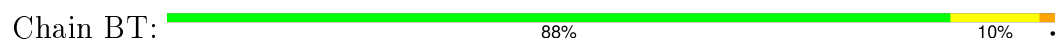
- Molecule 18: 40S ribosomal protein S15

Chain BN: 64% 15% 20%

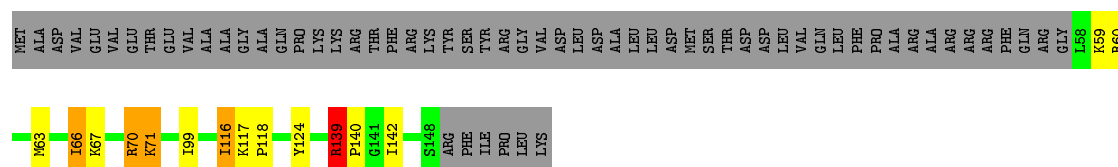
- Molecule 19: 40S ribosomal protein S17



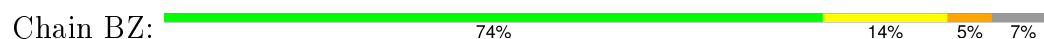
- Molecule 20: 40S ribosomal protein S19E



- Molecule 21: 40S ribosomal protein S19



- Molecule 22: 40S ribosomal protein S25E




- Molecule 23: 40S ribosomal protein S28E



- Molecule 24: 40S ribosomal protein S8

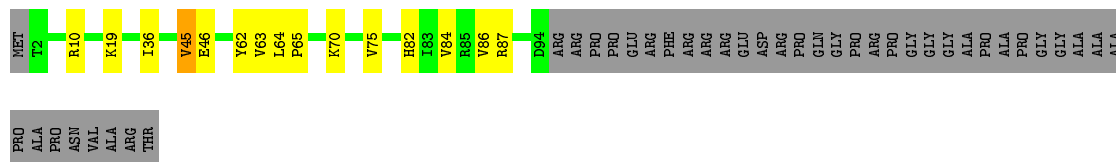


Chain BV:  84% 9% 7%



- Molecule 32: 40S ribosomal protein S26E

Chain Ba:  59% 11% 30%




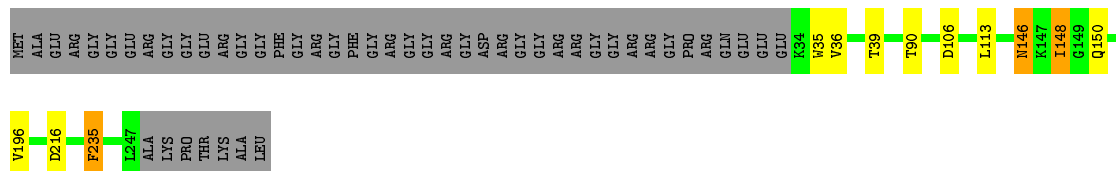
- Molecule 33: 40S ribosomal protein S4

Chain BJ:  90% . . .




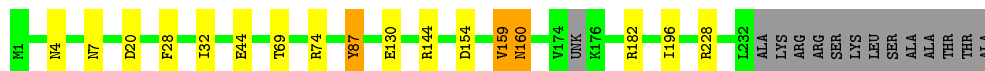
- Molecule 34: 40S ribosomal protein S5

Chain BC:  77% . . 19%




- Molecule 35: 40S ribosomal protein S6

Chain BG:  87% 6% 6%




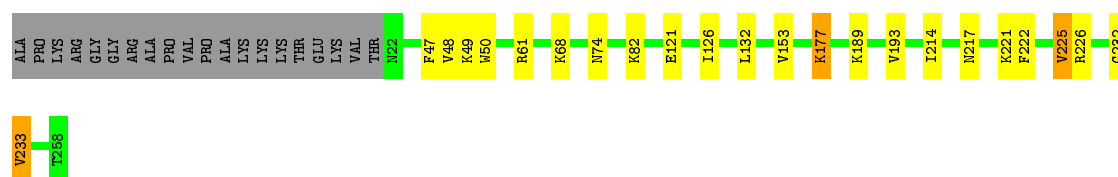
- Molecule 36: 40S ribosomal protein S7E

Chain BH:  81% 13% . . .



- Molecule 37: 60S ribosomal protein L8E

Chain CG:  83% 8% 8%



- Molecule 38: 60S ribosomal protein L21E

Chain CT: 84% 13% ..



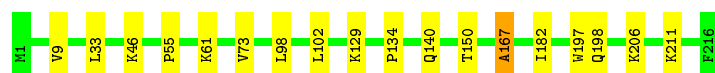
- Molecule 39: 60S ribosomal protein L27E

Chain CZ: 93% 7%



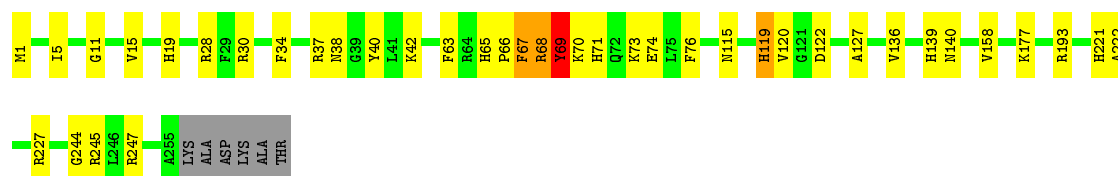
- Molecule 40: 60S ribosomal protein L1

Chain Cz: 92% 8%



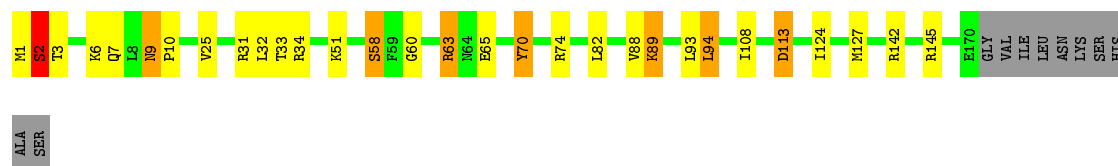
- Molecule 41: 60S ribosomal protein L2

Chain CA: 82% 14% ..



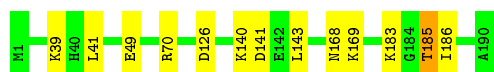
- Molecule 42: 60S ribosomal protein L5

Chain CJ: 78% 12% 6%



- Molecule 43: 60S ribosomal protein L6

Chain CH: 93% 6%



- Molecule 44: 60S ribosomal protein L14

Chain CV: 93% 7%



- Molecule 45: 60S ribosomal protein L15E

Chain CN: 88% 9% ..



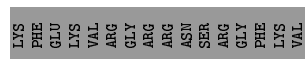
- Molecule 46: 60S ribosomal protein L15

Chain Ca: 77% 22% ..



- Molecule 47: 60S ribosomal protein L18E

Chain CQ: 72% 13% .. 13%



- Molecule 48: 60S ribosomal protein L18

Chain CD: 75% 18% 6% ..

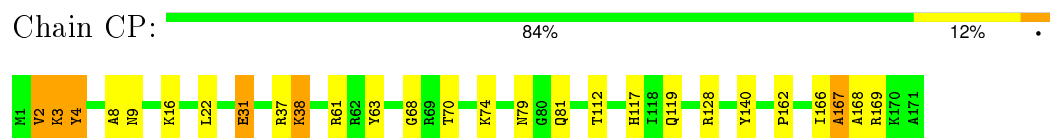


- Molecule 49: 60S ribosomal protein L19E

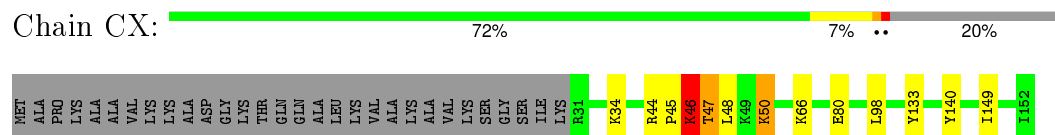
Chain CR: 80% 6% 5% 10%



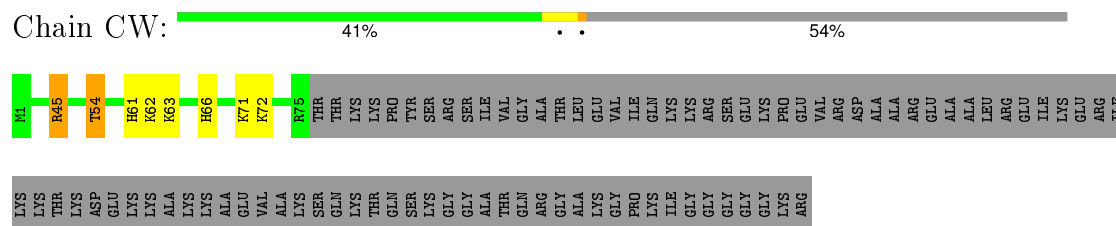
- Molecule 50: 60S ribosomal protein L22



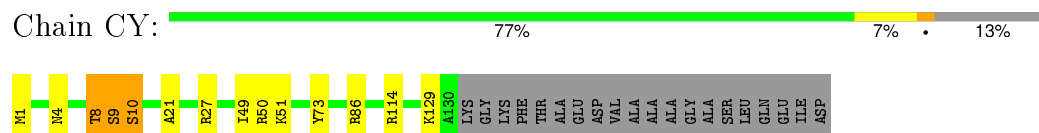
- Molecule 51: 60S ribosomal protein L23



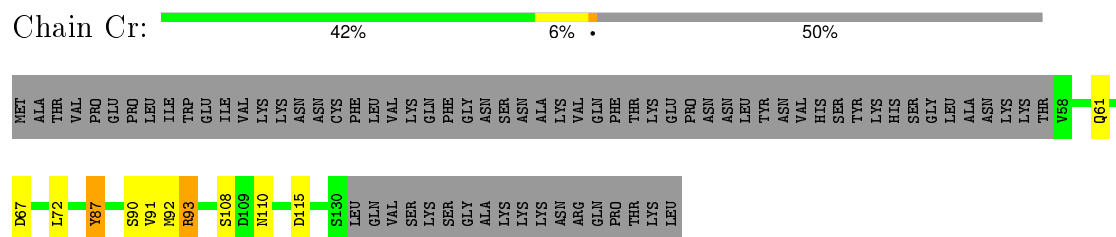
- Molecule 52: 60S ribosomal protein L24E



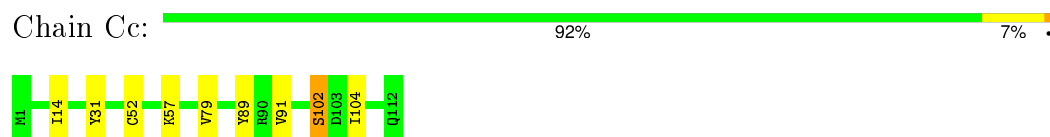
- Molecule 53: 60S ribosomal protein L24



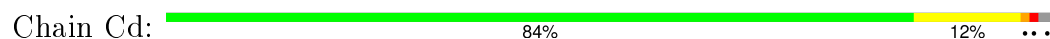
- Molecule 54: 60S ribosomal protein L28E



- Molecule 55: 60S ribosomal protein L30E



- Molecule 56: 60S ribosomal protein L31E





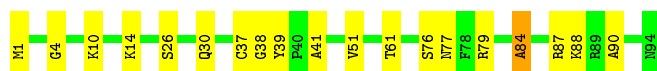
- Molecule 57: 60S ribosomal protein L32E

Chain Ce: 89% 8%



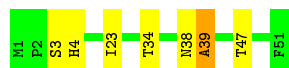
- Molecule 58: 60S ribosomal protein L37E

Chain Cj: 80% 19%



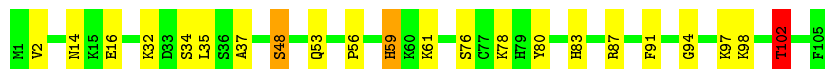
- Molecule 59: 60S ribosomal protein L39E

Chain Cl: 86% 12%



- Molecule 60: 60S ribosomal protein L44E

Chain Co: 79% 18%



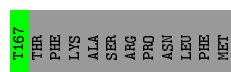
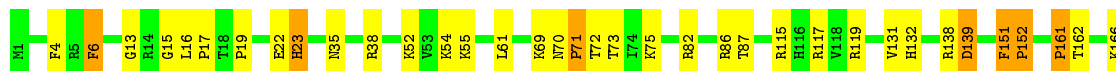
- Molecule 61: 60S ribosomal protein L14E

Chain CM: 82% 15%



- Molecule 62: 60S ribosomal protein L20

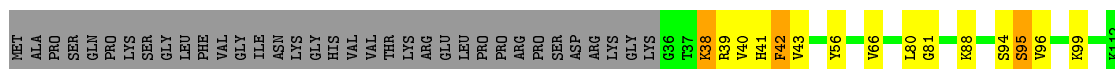
Chain CS: 74% 16% 6%



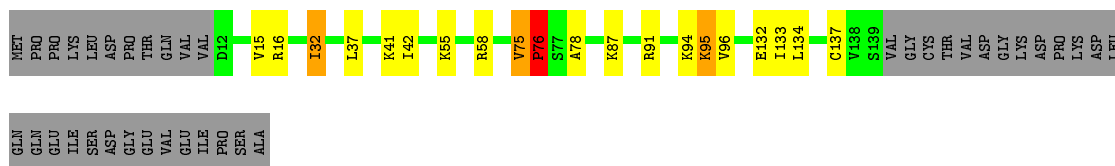
- Molecule 63: 60S ribosomal protein L22E

Chain CU: 61% 14% 6% 17%

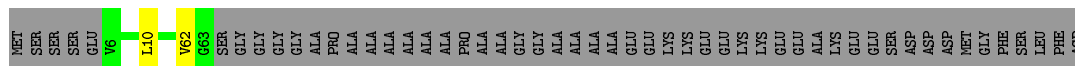
- Molecule 64: 60S ribosomal protein L36E



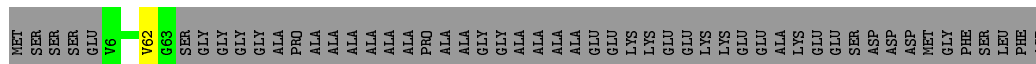
- Molecule 65: 60S ribosomal protein L11



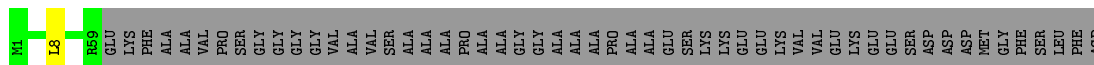
- Molecule 66: 60S ribosomal protein P1



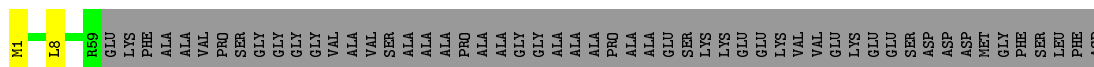
- Molecule 66: 60S ribosomal protein P1




- Molecule 67: Acidic ribosomal protein P2



- Molecule 67: Acidic ribosomal protein P2



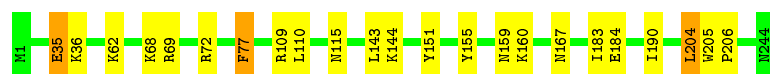
- Molecule 68: 60S ribosomal protein L29

Chain Ch:  89% 10%




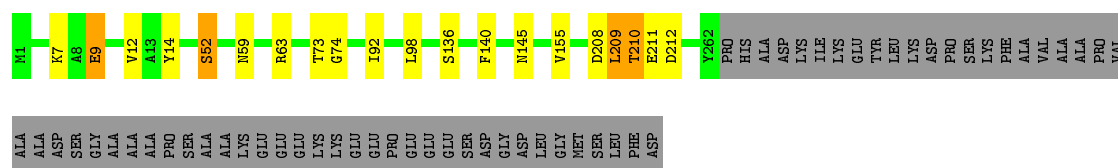
- Molecule 69: 60S ribosomal protein L30

Chain CF:  91% 8%




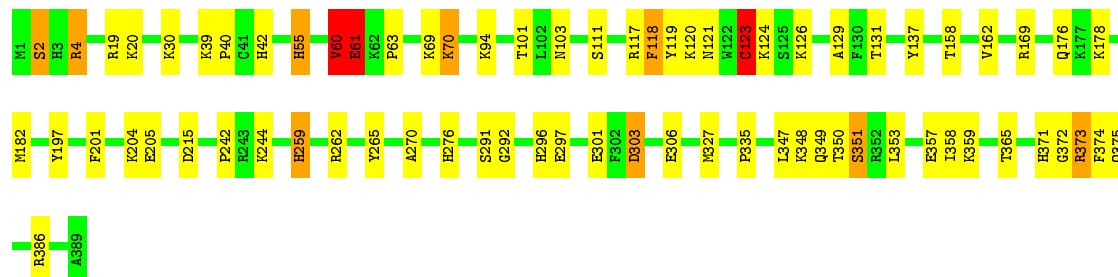
- Molecule 70: 60S acidic ribosomal protein P0

Chain Cq:  76% 5% 18%




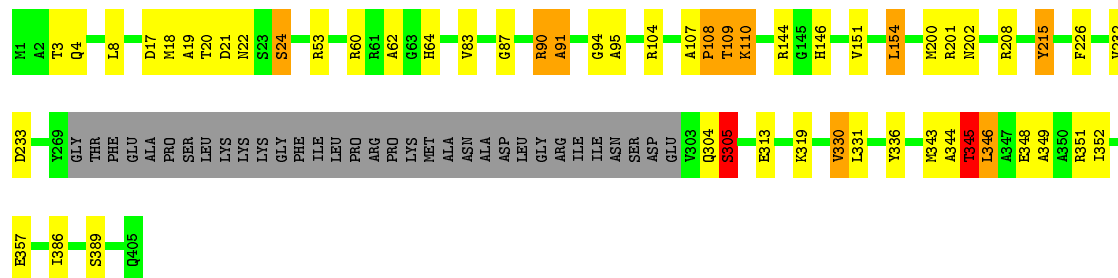
- Molecule 71: 60S ribosomal protein L3

Chain CB:  81% 15%




- Molecule 72: 60S ribosomal protein L4

Chain CC:  78% 11% 8%



- Molecule 73: 60S ribosomal protein L13

Chain CO:  87% 9%



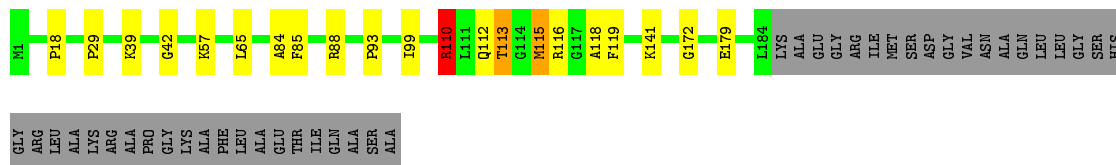
- Molecule 74: 60S ribosomal protein L43E

Chain Cp: 95% 5%



- Molecule 75: 60S ribosomal protein L16

Chain CI: 73% 8% 18%



- Molecule 76: 60S ribosomal protein L41E

Chain Cn: 92% 8%



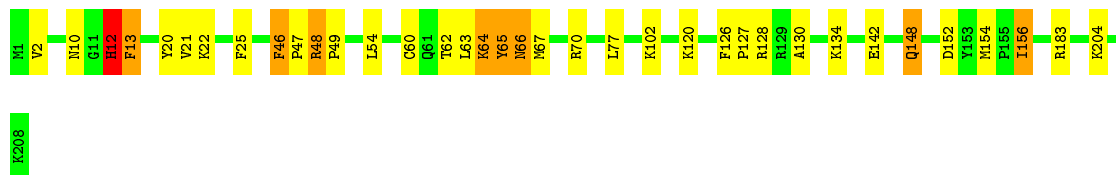
- Molecule 77: 60S ribosomal protein L40E

Chain Cm: 94%



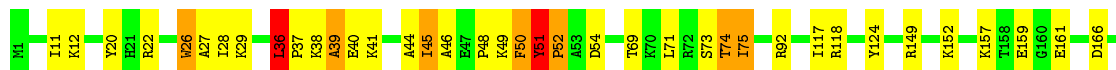
- Molecule 78: 60S ribosomal protein L13E

Chain CL: 83% 13%



- Molecule 79: 60S ribosomal protein L6E

Chain CE: 80% 15%





- Molecule 80: 60S ribosomal protein L33E

Chain Cf: 94% 5% •



- Molecule 81: 60S ribosomal protein L38E

Chain Ck: 90% 10%



- Molecule 82: 60S ribosomal protein L29E

Chain Cb: 90% • • •



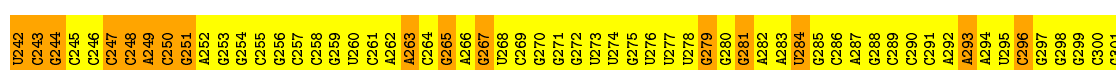
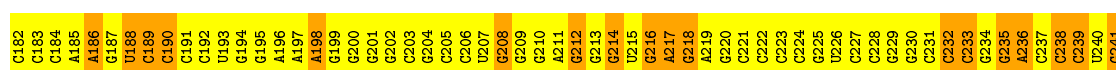
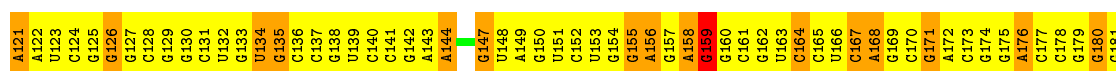
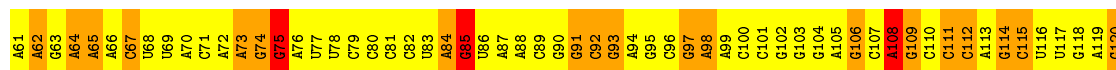
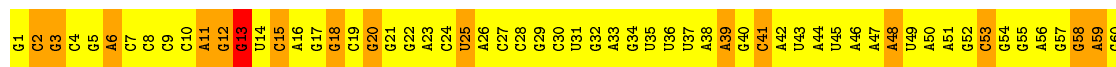
- Molecule 83: 60S ribosomal protein L34E

Chain Cg: 82% 10% 8%



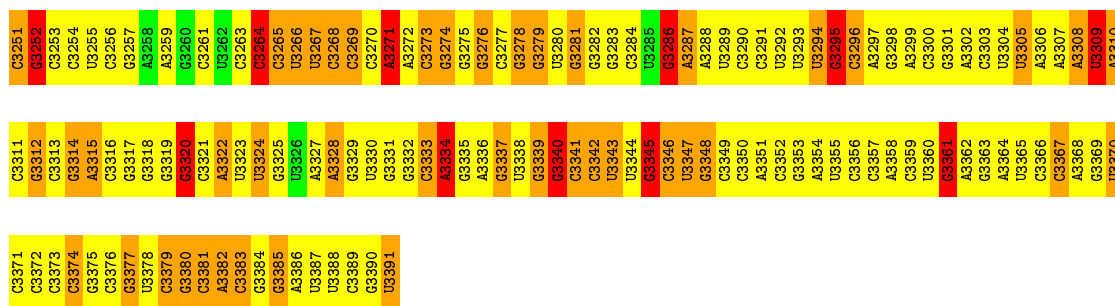
- Molecule 84: 60S ribosomal RNA

Chain Aa: 71% 25% •



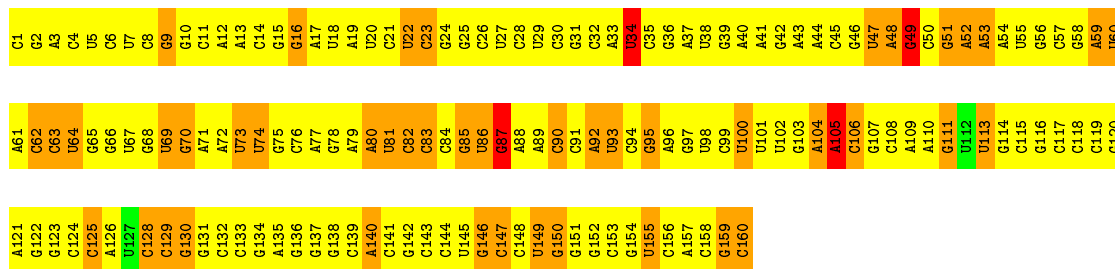
G1265	G1266	G1267	G1268	G1269	G1270	G1271	G1272	G1273	G1274	G1275	G1276	G1277	G1278	G1279	G1280	G1281	G1282	G1283	G1284	G1285	G1286	G1287	G1288	G1289	G1290	G1291	G1292	G1293	G1294	G1295	G1296	G1297	G1298	G1299	G1300	G1301	G1302	G1303	G1304	G1305	G1306	G1307	G1308	G1309	G1310	G1311	G1312	G1313	G1314	G1315	G1316	G1317	G1318	G1319	G1320	G1321	G1322	G1323	G1324	
G1145	G1146	G1147	G1148	G1149	G1150	G1151	G1152	G1153	G1154	G1155	G1156	G1157	G1158	G1159	G1160	G1161	G1162	G1163	G1164	G1165	G1166	G1167	G1168	G1169	G1170	G1171	G1172	G1173	G1174	G1175	G1176	G1177	G1178	G1179	G1180	G1181	G1182	G1183	G1184	G1185	G1186	G1187	G1188	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	
G1085	G1086	G1087	G1088	G1089	G1090	G1091	G1092	G1093	G1094	G1095	G1096	G1097	G1098	G1099	G1100	G1101	G1102	G1103	G1104	G1105	G1106	G1107	G1108	G1109	G1110	G1111	G1112	G1113	G1114	G1115	G1116	G1117	G1118	G1119	G1120	G1121	G1122	G1123	G1124	G1125	G1126	G1127	G1128	G1129	G1130	G1131	G1132	G1133	G1134	G1135	G1136	G1137	G1138	G1139	G1140	G1141	G1142	G1143		
G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053	G1054	G1055	G1056	G1057	G1058	G1059	G1060	G1061	G1062	G1063	G1064	G1065	G1066	G1067	G1068	G1069	G1070	G1071	G1072	G1073	G1074	G1075	G1076	G1077	G1078	G1079	G1080	G1081	G1082	G1083	G1084	
A965	A966	A967	A968	A969	A970	A971	A972	A973	A974	A975	A976	A977	A978	A979	A980	A981	A982	A983	A984	A985	A986	A987	A988	A989	A990	A991	A992	A993	A994	A995	A996	A997	A998	A999	A1000	A1001	A1002	A1003	A1004	A1005	A1006	A1007	A1008	A1009	A1010	A1011	A1012	A1013	A1014	A1015	A1016	A1017	A1018	A1019	A1020	A1021	A1022	A1023	A1024	
G905	G906	G907	G908	G909	G910	G911	G912	G913	G914	G915	G916	G917	G918	G919	G920	G921	G922	G923	G924	G925	G926	G927	G928	G929	G930	G931	G932	G933	G934	G935	G936	G937	G938	G939	G940	G941	G942	G943	G944	G945	G946	G947	G948	G949	G950	G951	G952	G953	G954	G955	G956	G957	G958	G959	G960	G961	G962	G963	G964	
G845	G846	G847	G848	G849	G850	G851	G852	G853	G854	G855	G856	G857	G858	G859	G860	G861	G862	G863	G864	G865	G866	G867	G868	G869	G870	G871	G872	G873	G874	G875	G876	G877	G878	G879	G880	G881	G882	G883	G884	G885	G886	G887	G888	G889	G890	G891	G892	G893	G894	G895	G896	G897	G898	G899	G900	G901	G902	G903	G904	
U785	U786	U787	U788	U789	U790	U791	U792	U793	U794	U795	U796	U797	U798	U799	G800	G801	G802	G803	G804	G805	G806	G807	G808	G809	G810	G811	G812	G813	G814	G815	G816	G817	G818	G819	G820	G821	G822	G823	G824	G825	G826	G827	G828	G829	G830	G831	G832	G833	G834	G835	G836	G837	G838	G839	G840	G841	G842	G843	G844	
G725	G726	G727	G728	G729	G730	G731	G732	G733	G734	G735	U736	U737	U738	U739	G740	G741	G742	G743	G744	G745	U746	U747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	U762	U763	U764	U765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	U779	U780	G781	G782	G783	G784	
G665	G666	U667	U668	G669	G670	G671	G672	G673	G674	G675	G676	G677	G678	G679	G680	G681	G682	G683	G684	G685	U686	G687	G688	G689	G690	G691	G692	G693	G694	G695	G696	G697	G698	G699	G700	G701	G702	G703	G704	G705	G706	G707	G708	G709	G710	G711	G712	G713	G714	G715	G716	G717	G718	G719	G720	G721	G722	G723	G724	
C604	C605	C606	C607	C608	C609	C610	C611	C612	C613	C614	C615	C616	C617	C618	C619	C620	C621	C622	C623	C624	U625	U626	C627	C628	C629	C630	C631	C632	C633	C634	U635	U636	C637	C638	C639	C640	C641	C642	C643	C644	C645	C646	C647	C648	C649	C650	C651	C652	C653	C654	C655	C656	C657	C658	C659	C660	C661	C662	C663	C664
C544	C545	C546	C547	C548	C549	C550	A551	C552	C553	C554	C555	C556	C557	C558	C559	C560	C561	C562	C563	C564	C565	C566	C567	C568	C569	C570	C571	C572	C573	C574	C575	C576	U577	C578	C579	C580	C581	C582	C583	C584	C585	C586	C587	C588	C589	C590	U591	C592	C593	C594	C595	C596	C597	C598	C599	C600	C601	C602	C603	
G422	G423	G424	G425	G426	U427	G428	G429	G430	G431	G432	C433	C434	C435	G436	G437	G438	A439	U440	C441	C442	C443	C444	C445	C446	C447	C448	C449	C450	C451	C452	C453	C454	C455	C456	C457	C458	C459	C460	C461	C462	C463	C464	C465	C466	C467	U468	C469	C470	C471	C472	C473	C474	C475	C476	C477	C478	C479	C480	C481	C482
G362	G363	G364	G365	G366	G367	U368	G369	G370	A371	A372	C373	C374	C375	A376	C377	U378	U379	U380	G381	G382	G383	G384	G385	G386	A387	G388	G389	G390	G391	C392	C393	C394	C395	C396	C397	C398	C399	G400	C401	U402	U403	C404	C405	C406	C407	U408	U409	G410	C411	C412	C413	C414	C415	C416	C417	C418	C419	C420	C421	
G302	U303	A304	G305	A306	C307	U308	G309	C310	A371	A372	C313	C314	C315	A316	C377	U378	C319	U320	A321	A322	G383	G384	G385	G386	A327	G328	G329	G330	G331	A332	A333	A334	G335	G336	A337	C338	C339	A340	C401	U402	A342	G343	C344	C345	A346	A347	C348	C349	A350	C351	U352	A353	C354	C355	C356	C357	A358	A359	G360	C361

A2227	A2228	A2229	G2230	G2231	G2232	G2233	G2234	G2235	G2236	G2237	G2238	G2239	G2240	G2241	G2242	G2243	G2244	G2245	G2246	A2247	G2248	G2249	A2250	A2251	C2252	A2253	G2254	G2255	G2256	A2257	G2258	G2259	G2260	G2261	G2262	G2263	G2264	A2265	G2266	G2267	G2268	G2269	A2270	G2271	G2272	G2273	A2274	A2275	A2276	A2277	G2278	G2279	G2280	G2281	G2282	G2283	G2284	G2285	A2286	
C2167	C2168	U2169	G2170	A2171	C2172	G2173	C2174	G2175	A2176	G2177	G2178	U2179	G2180	U2181	C2182	A2183	G2184	U2185	U2186	A2187	U2188	G2189	C2190	C2191	C2192	A2193	G2194	U2195	G2196	C2197	U2198	G2199	U2200	G2201	A2202	A2203	U2204	G2205	G2206	C2207	A2208	A2209	A2210	G2211	U2212	G2213	A2214	A2215	G2216	A2217	A2218	A2219	U2220	U2221	C2222	A2223	A2224	C2225	C2226	
C1987	A2047	C2048	G2049	G2050	G2051	G2052	A2053	A2054	U2055	C2056	G2057	C2058	A2059	C2060	U2061	C2062	U2063	G2064	G2065	G2066	C2067	G2068	G2069	G2070	U2071	U2072	U2073	C2074	C2075	C2076	C2077	G2078	A2079	G2080	A2081	A2082	U2083	U2084	A2085	A2086	A2087	C2088	A2089	G2090	U2091	C2092	G2093	A2094	C2095	U2096	C2097	G2098	A2099	A2100	A2101	C2102	U2103	G2104	U2105	U2106
A1867	C1868	A1869	G1870	U1871	C1872	C1873	A1874	U1875	A1876	U1877	A1878	A1879	A1880	A1881	A1882	A1883	U1884	G1885	U1886	A1887	C1888	G1889	G1890	A1891	C1892	A1893	U1894	G1895	G1896	A1897	U1898	A1899	C1900	G1901	C1902	G1903	A1904	A1905	A1906	A1907	C1908	G1909	C1910	A1911	U1912	C1913	G1914	G1915	U1916	A1917	G1918	G1919	U1920	A1921	C1922	G1923	G1924	U1925	A1926	
U1807	G1808	A1809	G1810	U1811	U1812	C1813	C1814	U1815	U1816	U1817	C1818	A1819	C1820	G1821	C1822	C1823	C1824	G1825	G1826	U1827	C1828	G1829	A1830	U1831	C1832	U1833	C1834	U1835	U1836	A1837	U1838	C1839	C1840	G1841	C1842	U1843	U1844	C1845	A1846	G1847	U1848	U1849	C1850	U1851	C1852	C1853	A1854	A1855	G1856	U1857	U1858	G1859	A1860	A1861	C1862	A1863	U1864	C1865	C1866	
A1747	A1748	G1749	G1750	U1751	C1752	A1753	C1754	A1755	G1756	G1757	U1758	C1759	G1760	C1761	G1762	C1763	A1764	A1765	U1766	G1767	U1768	C1769	U1770	G1771	C1772	U1773	A1774	C1775	C1776	U1777	C1778	C1779	G1780	C1781	G1782	G1783	C1784	G1785	G1786	C1787	C1788	C1789	U1790	U1791	G1792	A1793	U1794	A1795	U1796	U1797	C1798	C1799	U1799	G1800	A1801	G1802	G1803	U1804	C1806	
G1627	G1628	A1629	C1630	G1631	G1632	C1633	G1634	A1635	U1636	G1637	U1638	U1639	A1640	G1641	C1642	A1643	A1644	G1645	U1646	G1647	C1648	G1649	G1650	A1651	U1652	G1653	A1654	G1655	C1656	G1657	U1658	A1659	C1660	G1661	A1662	U1663	G1664	U1665	C1666	G1667	U1668	C1669	G1670	U1671	G1672	A1673	A1674	G1675	A1676	G1677	U1678	U1679	A1680	U1681	C1682	U1683	U1684	U1685	U1686	
U1506	A1507	U1508	G1509	A1510	C1511	A1512	C1513	U1514	U1515	U1516	G1517	U1518	C1519	A1520	U1521	G1522	A1523	G1524	U1525	U1526	A1527	G1528	G1529	C1530	U1531	U1532	U1533	C1534	C1535	U1536	U1537	A1538	U1539	G1540	A1541	U1542	A1543	G1544	G1545	A1546	G1547	U1548	A1549	A1550	C1551	C1552	C1553	C1554	G1555	U1556	U1559	A1560	U1561	A1562	G1563	C1564	G1565	C1566		
A1567	A1568	U1569	C1570	A1571	C1572	G1573	C1574	U1575	G1576	A1577	U1578	C1579	U1580	C1581	C1582	G1583	A1584	A1585	U1586	G1587	U1588	G1589	A1590	A1591	U1592	C1593	U1594	G1595	C1596	U1597	U1598	A1599	G1600	G1601	A1602	U1603	U1604	U1605	C1606	C1607	C1608	G1609	U1610	G1611	C1612	C1613	G1614	C1615	G1616	A1617	U1618	U1619	U1620	G1621	C1622	C1623	U1624	U1625	U1626	
U1445	G1446	U1447	U1448	A1449	G1450	U1451	A1452	G1453	C1454	A1455	A1456	U1457	U1458	A1459	U1460	C1461	C1462	A1463	A1464	A1465	U1466	G1467	A1468	G1469	A1470	A1471	C1472	U1473	U1474	U1475	G1476	A1477	U1478	G1479	G1480	C1481	C1482	G1483	A1484	A1485	G1486	A1487	U1488	G1489	A1490	U1491	A1492	U1493	A1494	G1495	U1496	U1497	U1498	U1499	U1500	A1501	U1502	G1503	U1504	G1505
G1325	C1326	G1327	C1328	C1329	G1330	C1331	C1332	C1333	A1334	A1335	A1336	A1337	C1338	C1339	G1340	C1341	C1342	G1343	A1344	U1345	C1346	U1347	G1348	G1349	G1350	C1351	C1352	A1353	G1354	U1355	U1356	G1357	C1358	U1359	U1360	G1361	C1362	C1363	C1364	C1365	C1366	U1367	U1368	G1369	U1370	G1371	U1372	A1373	G1374	G1375	A1376	G1377	C1378	U1379	C1380	G1381	C1382	G1383	G1384	



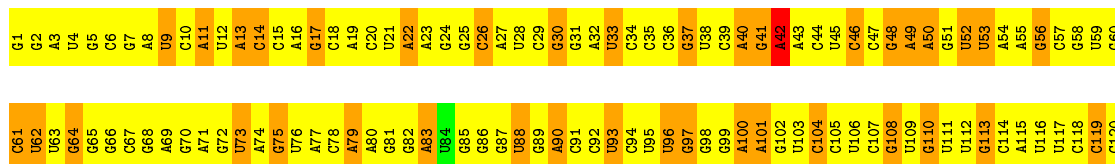
• Molecule 85: 5.8S ribosomal RNA

Chain Ac: . 68% 28% .



• Molecule 86: 5S ribosomal RNA

Chain Ab: . 67% 32% .



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	2108230	Depositor
Resolution determination method	FSC 0.5	Depositor
CTF correction method	Wiener Filter on 3D volumes (SPIDER)	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	39000	Depositor
Image detector	Kodak SO-163 film	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	Ad	2.49	2030/42036 (4.8%)	2.11	2382/65520 (3.6%)
10	Bg	0.97	0/2988	1.06	3/4049 (0.1%)
11	BD	1.01	0/1652	1.20	4/2222 (0.2%)
12	BE	0.99	0/1637	1.07	0/2202
13	BF	0.98	0/1509	1.00	3/2034 (0.1%)
14	BQ	1.11	0/1034	1.19	6/1379 (0.4%)
15	BU	0.93	0/995	1.14	3/1338 (0.2%)
16	BO	1.05	0/909	1.11	2/1217 (0.2%)
17	BS	1.04	0/1258	1.15	5/1674 (0.3%)
18	BN	0.96	0/994	1.13	5/1332 (0.4%)
19	BL	1.04	0/704	1.15	3/944 (0.3%)
2	Ae	2.62	95/1781 (5.3%)	2.13	105/2775 (3.8%)
20	BT	1.01	0/1179	1.08	3/1586 (0.2%)
21	BP	0.91	0/727	1.11	2/975 (0.2%)
22	BZ	0.94	0/791	1.18	7/1057 (0.7%)
23	Bc	1.04	0/455	1.26	2/609 (0.3%)
24	BW	1.02	0/1060	1.16	6/1419 (0.4%)
25	Bd	1.11	0/386	1.25	4/510 (0.8%)
26	Bb	0.92	0/674	1.04	0/905
27	Be	1.07	0/476	1.01	0/627
28	BA	0.96	0/1567	1.06	4/2121 (0.2%)
29	BR	1.03	0/955	1.03	1/1273 (0.1%)
3	Af	2.45	12/260 (4.6%)	2.06	16/403 (4.0%)
30	BB	0.96	0/1736	1.12	4/2329 (0.2%)
31	BV	1.00	0/610	1.07	0/820
32	Ba	1.07	0/766	1.13	0/1023
33	BJ	1.09	0/1553	1.05	4/2079 (0.2%)
34	BC	0.93	0/1701	1.05	3/2298 (0.1%)
35	BG	1.06	0/1888	1.05	4/2507 (0.2%)
36	BH	3.40	1/1535 (0.1%)	1.14	4/2065 (0.2%)
37	CG	0.94	0/1939	1.01	5/2598 (0.2%)
38	CT	0.99	0/1316	1.11	2/1772 (0.1%)
39	CZ	1.00	0/1110	1.02	2/1480 (0.1%)
4	BY	0.99	0/1123	1.10	1/1487 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
40	Cz	0.89	0/1741	1.00	1/2323 (0.0%)
41	CA	1.05	0/1992	1.15	10/2681 (0.4%)
42	CJ	1.06	0/1401	1.14	7/1869 (0.4%)
43	CH	0.96	0/1519	1.03	0/2042
44	CV	0.99	0/1064	1.07	0/1425
45	CN	1.12	0/1669	1.07	6/2235 (0.3%)
46	Ca	0.98	0/1143	1.17	4/1527 (0.3%)
47	CQ	1.04	0/1303	1.11	5/1748 (0.3%)
48	CD	1.00	0/2489	1.23	22/3342 (0.7%)
49	CR	1.09	0/1590	1.06	4/2100 (0.2%)
5	BI	1.05	0/539	0.95	0/712
50	CP	1.03	0/1397	1.14	6/1871 (0.3%)
51	CX	0.90	0/1002	1.03	3/1340 (0.2%)
52	CW	1.04	0/649	1.07	1/861 (0.1%)
53	CY	1.10	0/1061	1.08	4/1418 (0.3%)
54	Cr	0.98	0/585	1.16	1/786 (0.1%)
55	Cc	0.86	0/869	0.98	1/1169 (0.1%)
56	Cd	1.01	0/970	1.10	4/1295 (0.3%)
57	Ce	1.01	0/1122	1.06	4/1497 (0.3%)
58	Cj	1.17	0/769	1.16	1/1019 (0.1%)
59	Cl	1.14	0/472	1.12	1/627 (0.2%)
6	BK	0.93	0/840	1.21	6/1135 (0.5%)
60	Co	0.93	0/867	1.12	3/1144 (0.3%)
61	CM	0.99	0/1094	1.10	4/1461 (0.3%)
62	CS	1.01	0/1457	1.16	3/1957 (0.2%)
63	CU	0.98	0/876	1.27	12/1170 (1.0%)
64	Ci	1.07	0/618	1.16	5/809 (0.6%)
65	CK	0.92	0/968	1.11	1/1299 (0.1%)
66	Cu	0.78	0/438	0.91	0/596
66	Cv	0.79	0/438	0.90	0/596
67	Cs	0.83	0/444	0.82	0/596
67	Ct	0.84	0/444	0.81	0/596
68	Ch	1.02	0/1023	1.05	2/1359 (0.1%)
69	CF	0.98	0/2020	1.00	4/2708 (0.1%)
7	BM	0.82	0/936	1.11	2/1260 (0.2%)
70	Cq	0.87	0/2023	0.96	5/2739 (0.2%)
71	CB	0.97	0/3207	1.14	16/4289 (0.4%)
72	CC	1.01	0/2951	1.11	8/3972 (0.2%)
73	CO	1.03	0/1678	1.07	6/2246 (0.3%)
74	Cp	1.00	0/724	1.02	1/958 (0.1%)
75	CI	1.01	0/1523	1.00	1/2036 (0.0%)
76	Cn	1.34	0/239	1.04	0/302
77	Cm	1.01	0/434	0.95	0/574

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
78	CL	1.03	0/1721	1.13	6/2299 (0.3%)
79	CE	0.95	0/1766	1.16	8/2374 (0.3%)
8	Bf	0.93	0/590	1.17	1/788 (0.1%)
80	Cf	1.05	0/908	1.13	3/1215 (0.2%)
81	Ck	0.98	0/572	1.09	0/763
82	Cb	0.98	0/486	1.06	2/641 (0.3%)
83	Cg	1.07	0/913	1.02	0/1223
84	Aa	1.61	170/81235 (0.2%)	2.52	9121/126706 (7.2%)
85	Ac	1.61	7/3809 (0.2%)	2.48	426/5936 (7.2%)
86	Ab	2.31	125/2864 (4.4%)	2.91	380/4464 (8.5%)
9	BX	0.96	0/1122	1.05	4/1492 (0.3%)
All	All	1.65	2440/227878 (1.1%)	2.00	12710/334219 (3.8%)

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
10	Bg	0	1
11	BD	0	3
12	BE	0	2
13	BF	0	2
14	BQ	0	1
15	BU	0	2
17	BS	0	1
19	BL	0	1
20	BT	0	4
23	Bc	0	1
24	BW	0	1
25	Bd	0	1
26	Bb	0	2
29	BR	0	1
30	BB	0	1
32	Ba	0	1
35	BG	0	1
36	BH	0	4
37	CG	0	2
4	BY	0	1
41	CA	0	4
42	CJ	0	2
43	CH	0	3

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
45	CN	0	1
46	Ca	0	7
47	CQ	0	6
48	CD	0	13
49	CR	0	3
50	CP	0	1
51	CX	0	1
55	Cc	0	1
57	Ce	0	1
58	Cj	0	1
59	Cl	0	1
6	BK	0	4
60	Co	0	2
61	CM	0	4
62	CS	0	3
63	CU	0	2
65	CK	0	2
68	Ch	0	1
69	CF	0	3
7	BM	0	1
70	Cq	0	2
71	CB	0	9
72	CC	0	4
73	CO	0	4
74	Cp	0	1
75	CI	0	4
78	CL	0	5
79	CE	0	7
8	Bf	0	1
80	Cf	0	2
83	Cg	0	1
84	Aa	0	309
85	Ac	0	18
86	Ab	0	19
All	All	0	486

All (2440) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BH	117	ARG	CZ-NH2	127.06	2.98	1.33
1	Ad	1203	G	C2'-C1'	23.55	1.79	1.53
2	Ae	28	G	C2'-C1'	-23.31	1.27	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	218	G	C2'-C1'	-23.01	1.28	1.53
1	Ad	999	G	C2'-C1'	-22.88	1.28	1.53
1	Ad	707	C	C2'-C1'	22.87	1.78	1.53
1	Ad	67	G	C2'-C1'	-22.47	1.28	1.53
1	Ad	1580	G	C2'-C1'	21.80	1.77	1.53
1	Ad	843	G	O4'-C1'	21.60	1.69	1.41
1	Ad	821	G	C2'-C1'	-21.45	1.29	1.53
1	Ad	1810	G	O4'-C1'	21.00	1.69	1.41
1	Ad	1796	G	C2'-C1'	-20.71	1.30	1.53
1	Ad	1080	C	O4'-C1'	20.56	1.68	1.41
1	Ad	1434	G	C2'-C1'	-20.34	1.30	1.53
1	Ad	260	A	C2'-C1'	-20.17	1.31	1.53
1	Ad	141	G	C2'-C1'	-20.08	1.31	1.53
1	Ad	457	C	C2'-C1'	-20.07	1.31	1.53
1	Ad	339	G	C2'-C1'	-19.92	1.31	1.53
1	Ad	1206	A	C2'-C1'	-19.53	1.31	1.53
1	Ad	1259	G	O4'-C1'	-19.39	1.16	1.41
2	Ae	19	U	O4'-C1'	19.14	1.66	1.41
1	Ad	179	A	O4'-C1'	18.97	1.66	1.41
1	Ad	836	U	O4'-C1'	18.92	1.66	1.41
1	Ad	67	G	O4'-C1'	18.85	1.66	1.41
1	Ad	617	G	C2'-C1'	-18.83	1.32	1.53
1	Ad	220	C	O4'-C1'	18.76	1.66	1.41
1	Ad	1206	A	O4'-C1'	18.70	1.66	1.41
1	Ad	1700	G	C2'-C1'	-18.54	1.32	1.53
1	Ad	782	G	C2'-C1'	-18.37	1.33	1.53
1	Ad	96	G	C2'-C1'	-18.25	1.33	1.53
1	Ad	648	C	O4'-C1'	18.05	1.65	1.41
1	Ad	1155	G	C2'-C1'	-17.96	1.33	1.53
1	Ad	176	A	C2'-C1'	17.93	1.73	1.53
1	Ad	87	A	C2'-C1'	17.86	1.73	1.53
2	Ae	69	G	C2'-C1'	-17.84	1.33	1.53
1	Ad	1260	A	C2'-C1'	-17.82	1.33	1.53
1	Ad	1466	A	C2'-C1'	-17.65	1.33	1.53
1	Ad	212	A	O4'-C1'	17.64	1.64	1.41
1	Ad	257	A	C2'-C1'	-17.60	1.33	1.53
1	Ad	1303	G	C2'-C1'	-17.57	1.34	1.53
1	Ad	238	G	O4'-C1'	17.52	1.64	1.41
1	Ad	238	G	C2'-C1'	-17.51	1.34	1.53
1	Ad	1002	G	C2'-C1'	-17.51	1.34	1.53
1	Ad	1464	G	C2'-C1'	-17.47	1.34	1.53
1	Ad	34	G	C2'-C1'	-17.43	1.34	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	617	G	O4'-C1'	17.41	1.64	1.41
2	Ae	30	G	C2'-C1'	-17.37	1.34	1.53
1	Ad	1444	G	C2'-C1'	-17.29	1.34	1.53
1	Ad	846	U	O4'-C1'	17.23	1.64	1.41
1	Ad	728	C	O4'-C1'	17.11	1.63	1.41
1	Ad	1580	G	O4'-C1'	-17.10	1.19	1.41
1	Ad	1445	C	O4'-C1'	17.10	1.63	1.41
1	Ad	140	C	O4'-C1'	17.02	1.63	1.41
1	Ad	524	A	C2'-C1'	-16.98	1.34	1.53
1	Ad	1311	U	C2'-C1'	16.95	1.72	1.53
1	Ad	1162	A	C2'-C1'	16.93	1.72	1.53
1	Ad	1375	C	O4'-C1'	16.91	1.63	1.41
1	Ad	174	C	C2'-C1'	16.86	1.71	1.53
1	Ad	613	U	O4'-C1'	16.82	1.63	1.41
1	Ad	254	A	C2'-C1'	-16.78	1.34	1.53
1	Ad	1161	C	O4'-C1'	16.71	1.63	1.41
1	Ad	1358	G	C2'-C1'	-16.67	1.35	1.53
1	Ad	1065	A	C2'-C1'	-16.66	1.35	1.53
1	Ad	1637	G	C2'-C1'	-16.66	1.35	1.53
1	Ad	1006	A	O4'-C1'	16.64	1.63	1.41
1	Ad	341	G	C2'-C1'	-16.53	1.35	1.53
1	Ad	570	C	C2'-C1'	-16.45	1.35	1.53
1	Ad	936	C	O4'-C1'	16.39	1.62	1.41
1	Ad	1447	C	C2'-C1'	-16.37	1.35	1.53
2	Ae	45	G	C2'-C1'	-16.31	1.35	1.53
1	Ad	385	C	O4'-C1'	16.30	1.62	1.41
1	Ad	998	A	C2'-C1'	-16.23	1.35	1.53
1	Ad	507	G	C2'-C1'	-16.18	1.35	1.53
1	Ad	14	C	C2'-C1'	-16.17	1.35	1.53
1	Ad	612	U	C2'-C1'	-16.14	1.35	1.53
1	Ad	861	A	C2'-C1'	16.03	1.71	1.53
1	Ad	1080	C	C2'-C1'	-15.99	1.35	1.53
1	Ad	280	U	O3'-P	-15.98	1.42	1.61
1	Ad	114	U	O4'-C1'	15.96	1.62	1.41
1	Ad	437	C	C2'-C1'	-15.93	1.35	1.53
1	Ad	1321	C	C2'-C1'	-15.88	1.35	1.53
1	Ad	1650	G	C2'-C1'	-15.80	1.35	1.53
1	Ad	281	U	O3'-P	-15.79	1.42	1.61
1	Ad	1687	G	C2'-C1'	-15.75	1.36	1.53
1	Ad	80	C	O4'-C1'	15.74	1.62	1.41
1	Ad	535	C	C2'-C1'	-15.71	1.36	1.53
1	Ad	504	C	O4'-C1'	15.69	1.62	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	839	G	C2'-C1'	-15.62	1.36	1.53
1	Ad	225	G	C2'-C1'	-15.62	1.36	1.53
1	Ad	1327	C	O4'-C1'	15.62	1.61	1.41
1	Ad	632	G	C2'-C1'	-15.61	1.36	1.53
1	Ad	1397	A	C2'-C1'	-15.57	1.36	1.53
1	Ad	135	C	O4'-C1'	15.56	1.61	1.41
1	Ad	1263	C	O4'-C1'	15.55	1.61	1.41
1	Ad	1391	G	C2'-C1'	-15.45	1.36	1.53
1	Ad	631	C	C2'-C1'	-15.44	1.36	1.53
1	Ad	282	C	C2'-C1'	15.42	1.70	1.53
1	Ad	1589	C	O4'-C1'	15.41	1.61	1.41
1	Ad	321	C	O4'-C1'	15.41	1.61	1.41
1	Ad	713	C	O4'-C1'	15.41	1.61	1.41
1	Ad	1354	C	C2'-C1'	-15.39	1.36	1.53
1	Ad	193	G	C2'-C1'	-15.36	1.36	1.53
1	Ad	1027	C	O4'-C1'	15.31	1.61	1.41
1	Ad	1184	C	O4'-C1'	15.30	1.61	1.41
1	Ad	861	A	O4'-C1'	15.28	1.61	1.41
1	Ad	1372	C	C2'-C1'	-15.15	1.36	1.53
1	Ad	287	C	O4'-C1'	15.14	1.61	1.41
1	Ad	1395	C	C2'-C1'	-15.14	1.36	1.53
1	Ad	158	C	C2'-C1'	-15.12	1.36	1.53
1	Ad	1730	G	O4'-C1'	15.05	1.61	1.41
1	Ad	25	C	O4'-C1'	15.04	1.61	1.41
1	Ad	457	C	O4'-C1'	15.04	1.61	1.41
1	Ad	1705	C	C2'-C1'	-15.03	1.36	1.53
1	Ad	1172	G	C2'-C1'	-15.01	1.36	1.53
1	Ad	223	A	C2'-C1'	-15.00	1.36	1.53
1	Ad	1154	G	C2'-C1'	-14.99	1.36	1.53
1	Ad	1023	C	O4'-C1'	14.98	1.61	1.41
1	Ad	753	C	C2'-C1'	-14.97	1.36	1.53
1	Ad	181	C	O4'-C1'	14.91	1.61	1.41
1	Ad	212	A	C2'-C1'	-14.86	1.37	1.53
1	Ad	1626	C	O4'-C1'	14.86	1.60	1.41
1	Ad	1778	G	C2'-C1'	-14.85	1.37	1.53
1	Ad	4	C	C2'-C1'	-14.77	1.37	1.53
1	Ad	381	G	C2'-C1'	-14.74	1.37	1.53
1	Ad	498	U	C2'-C1'	14.74	1.69	1.53
3	Af	17	A	C2'-C1'	-14.69	1.37	1.53
2	Ae	36	C	C2'-C1'	-14.68	1.37	1.53
1	Ad	1735	C	O4'-C1'	14.68	1.60	1.41
3	Af	17	A	O4'-C1'	14.64	1.60	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1358	G	O4'-C1'	14.63	1.60	1.41
1	Ad	290	C	O4'-C1'	14.62	1.60	1.41
1	Ad	480	U	C2'-C1'	-14.58	1.37	1.53
1	Ad	1783	C	C2'-C1'	-14.58	1.37	1.53
1	Ad	945	A	C2'-C1'	14.57	1.69	1.53
1	Ad	506	G	C2'-C1'	-14.56	1.37	1.53
1	Ad	509	A	O4'-C1'	14.55	1.60	1.41
1	Ad	1016	C	O4'-C1'	14.55	1.60	1.41
1	Ad	346	C	C2'-C1'	-14.53	1.37	1.53
1	Ad	183	C	O4'-C1'	14.49	1.60	1.41
1	Ad	1614	C	O4'-C1'	14.47	1.60	1.41
1	Ad	1346	C	O4'-C1'	14.44	1.60	1.41
1	Ad	1806	C	O4'-C1'	14.42	1.60	1.41
1	Ad	245	C	C2'-C1'	-14.39	1.37	1.53
1	Ad	774	C	O4'-C1'	14.36	1.60	1.41
1	Ad	1392	G	C2'-C1'	-14.35	1.37	1.53
1	Ad	1310	C	O4'-C1'	14.34	1.60	1.41
1	Ad	413	C	O4'-C1'	14.30	1.60	1.41
1	Ad	1263	C	C2'-C1'	-14.28	1.37	1.53
1	Ad	524	A	O4'-C1'	14.25	1.60	1.41
1	Ad	1461	G	C2'-C1'	-14.24	1.37	1.53
1	Ad	758	A	C2'-C1'	-14.22	1.37	1.53
1	Ad	257	A	O4'-C1'	14.21	1.60	1.41
1	Ad	1110	C	O4'-C1'	14.19	1.60	1.41
1	Ad	1444	G	O4'-C1'	14.14	1.60	1.41
1	Ad	938	A	C2'-C1'	-14.13	1.37	1.53
1	Ad	966	U	C2'-C1'	-14.12	1.37	1.53
1	Ad	1611	U	C2'-C1'	-14.10	1.37	1.53
1	Ad	201	G	C2'-C1'	-14.10	1.37	1.53
1	Ad	1620	C	C2'-C1'	-14.09	1.37	1.53
1	Ad	791	C	C2'-C1'	-14.07	1.37	1.53
1	Ad	1372	C	O4'-C1'	14.07	1.59	1.41
1	Ad	439	C	C2'-C1'	-14.06	1.37	1.53
1	Ad	187	C	O4'-C1'	14.04	1.59	1.41
1	Ad	1471	C	C2'-C1'	-14.02	1.38	1.53
1	Ad	1336	C	O4'-C1'	14.02	1.59	1.41
1	Ad	25	C	C2'-C1'	-13.99	1.38	1.53
1	Ad	1397	A	O4'-C1'	13.96	1.59	1.41
1	Ad	1416	A	C2'-C1'	-13.89	1.38	1.53
1	Ad	409	C	C2'-C1'	-13.89	1.38	1.53
1	Ad	1345	G	C2'-C1'	-13.88	1.38	1.53
1	Ad	1640	C	C2'-C1'	-13.86	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	205	U	C2'-C1'	13.84	1.68	1.53
1	Ad	914	U	C2'-C1'	-13.84	1.38	1.53
1	Ad	20	G	C2'-C1'	-13.83	1.38	1.53
1	Ad	719	C	O4'-C1'	13.78	1.59	1.41
1	Ad	1472	G	C2'-C1'	-13.77	1.38	1.53
1	Ad	849	G	C2'-C1'	-13.77	1.38	1.53
1	Ad	745	C	C2'-C1'	13.76	1.68	1.53
2	Ae	73	C	O4'-C1'	13.76	1.59	1.41
1	Ad	36	C	O4'-C1'	13.73	1.59	1.41
1	Ad	245	C	O4'-C1'	13.73	1.59	1.41
1	Ad	164	C	O4'-C1'	13.71	1.59	1.41
1	Ad	848	C	O4'-C1'	13.70	1.59	1.41
1	Ad	1069	G	C2'-C1'	-13.68	1.38	1.53
1	Ad	650	G	C2'-C1'	-13.64	1.38	1.53
1	Ad	839	G	O4'-C1'	13.63	1.59	1.41
1	Ad	1281	G	C2'-C1'	-13.63	1.38	1.53
1	Ad	1042	C	O4'-C1'	13.62	1.59	1.41
1	Ad	1705	C	O4'-C1'	13.59	1.59	1.41
1	Ad	533	C	C2'-C1'	-13.58	1.38	1.53
1	Ad	1296	G	C2'-C1'	-13.57	1.38	1.53
2	Ae	19	U	C2'-C1'	-13.57	1.38	1.53
1	Ad	644	U	C2'-C1'	-13.55	1.38	1.53
1	Ad	1329	A	O4'-C1'	13.54	1.59	1.41
1	Ad	237	C	C2'-C1'	-13.51	1.38	1.53
1	Ad	1654	C	O4'-C1'	13.51	1.59	1.41
1	Ad	220	C	C2'-C1'	-13.49	1.38	1.53
1	Ad	73	A	C2'-C1'	13.48	1.68	1.53
1	Ad	734	C	O4'-C1'	13.44	1.59	1.41
1	Ad	846	U	C2'-C1'	-13.43	1.38	1.53
1	Ad	1462	C	O4'-C1'	-13.42	1.24	1.41
1	Ad	1310	C	C2'-C1'	-13.41	1.38	1.53
1	Ad	793	G	C2'-C1'	-13.38	1.38	1.53
1	Ad	954	C	O4'-C1'	13.37	1.59	1.41
1	Ad	1038	C	O4'-C1'	13.34	1.58	1.41
1	Ad	877	G	C2'-C1'	-13.34	1.38	1.53
1	Ad	1033	C	O4'-C1'	13.34	1.58	1.41
1	Ad	1091	A	C2'-C1'	-13.31	1.38	1.53
1	Ad	286	C	O4'-C1'	13.31	1.58	1.41
1	Ad	944	A	O4'-C1'	13.30	1.58	1.41
1	Ad	94	A	C2'-C1'	-13.29	1.38	1.53
1	Ad	1231	A	C2'-C1'	-13.28	1.38	1.53
1	Ad	301	U	C2'-C1'	-13.27	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	256	G	O4'-C1'	13.26	1.58	1.41
2	Ae	55	C	O4'-C1'	13.26	1.58	1.41
1	Ad	1548	G	C2'-C1'	-13.25	1.38	1.53
1	Ad	1511	A	O4'-C1'	-13.25	1.24	1.41
1	Ad	704	C	O4'-C1'	13.23	1.58	1.41
1	Ad	1105	G	C2'-C1'	-13.21	1.38	1.53
1	Ad	954	C	C2'-C1'	-13.17	1.38	1.53
1	Ad	1302	C	O4'-C1'	13.16	1.58	1.41
1	Ad	1045	G	C2'-C1'	-13.14	1.38	1.53
2	Ae	60	C	C2'-C1'	-13.14	1.38	1.53
1	Ad	249	G	C2'-C1'	-13.14	1.38	1.53
1	Ad	1463	C	O4'-C1'	13.13	1.58	1.41
1	Ad	262	U	C2'-C1'	13.13	1.67	1.53
1	Ad	358	C	O4'-C1'	13.12	1.58	1.41
1	Ad	1801	A	C2'-C1'	13.12	1.67	1.53
1	Ad	202	C	O4'-C1'	13.11	1.58	1.41
1	Ad	1082	C	C2'-C1'	-13.11	1.39	1.53
1	Ad	1301	G	C2'-C1'	13.09	1.67	1.53
1	Ad	902	C	O4'-C1'	13.09	1.58	1.41
1	Ad	180	A	C2'-C1'	13.05	1.67	1.53
1	Ad	1704	G	C2'-C1'	-13.05	1.39	1.53
1	Ad	177	C	O4'-C1'	13.04	1.58	1.41
1	Ad	235	C	C2'-C1'	13.04	1.67	1.53
1	Ad	558	C	O4'-C1'	13.03	1.58	1.41
1	Ad	1727	C	O4'-C1'	13.02	1.58	1.41
1	Ad	536	U	C2'-C1'	-13.02	1.39	1.53
1	Ad	147	C	O4'-C1'	12.94	1.58	1.41
1	Ad	1599	C	O4'-C1'	12.94	1.58	1.41
1	Ad	1029	U	C2'-C1'	12.92	1.67	1.53
1	Ad	1409	G	C2'-C1'	-12.92	1.39	1.53
1	Ad	1184	C	C2'-C1'	-12.91	1.39	1.53
1	Ad	31	C	O4'-C1'	12.90	1.58	1.41
2	Ae	6	G	C2'-C1'	-12.90	1.39	1.53
1	Ad	757	G	C2'-C1'	-12.89	1.39	1.53
1	Ad	108	C	C2'-C1'	-12.88	1.39	1.53
2	Ae	45	G	O4'-C1'	12.84	1.58	1.41
1	Ad	1161	C	C2'-C1'	-12.84	1.39	1.53
1	Ad	1442	A	C2'-C1'	-12.84	1.39	1.53
1	Ad	1007	G	C2'-C1'	-12.84	1.39	1.53
1	Ad	1609	G	C2'-C1'	-12.82	1.39	1.53
1	Ad	1071	C	C2'-C1'	-12.78	1.39	1.53
1	Ad	971	A	O4'-C1'	12.77	1.58	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1615	G	C2'-C1'	-12.77	1.39	1.53
1	Ad	849	G	O4'-C1'	12.76	1.58	1.41
1	Ad	1572	U	O4'-C1'	12.76	1.58	1.41
1	Ad	1794	C	O4'-C1'	12.72	1.58	1.41
1	Ad	1758	G	C2'-C1'	-12.70	1.39	1.53
1	Ad	260	A	O4'-C1'	12.70	1.58	1.41
1	Ad	814	C	C2'-C1'	-12.70	1.39	1.53
1	Ad	1346	C	C2'-C1'	-12.68	1.39	1.53
1	Ad	296	A	C2'-C1'	-12.68	1.39	1.53
1	Ad	261	C	C2'-C1'	-12.66	1.39	1.53
1	Ad	1618	G	C2'-C1'	-12.62	1.39	1.53
1	Ad	881	G	C2'-C1'	-12.60	1.39	1.53
1	Ad	1715	C	O4'-C1'	12.60	1.58	1.41
1	Ad	1220	C	O4'-C1'	12.58	1.58	1.41
1	Ad	1082	C	O4'-C1'	12.57	1.57	1.41
1	Ad	1350	C	O4'-C1'	-12.57	1.25	1.41
1	Ad	1386	U	C2'-C1'	-12.57	1.39	1.53
1	Ad	253	C	O4'-C1'	12.57	1.57	1.41
1	Ad	1803	G	O4'-C1'	12.57	1.57	1.41
1	Ad	1020	U	C2'-C1'	-12.56	1.39	1.53
1	Ad	431	C	O4'-C1'	12.55	1.57	1.41
1	Ad	1593	U	C2'-C1'	-12.55	1.39	1.53
1	Ad	1232	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1631	C	O4'-C1'	12.53	1.57	1.41
1	Ad	388	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1047	G	C2'-C1'	-12.53	1.39	1.53
1	Ad	1656	C	O4'-C1'	12.52	1.57	1.41
1	Ad	570	C	O4'-C1'	12.52	1.57	1.41
1	Ad	845	C	C2'-C1'	12.52	1.67	1.53
1	Ad	834	A	C2'-C1'	12.52	1.67	1.53
1	Ad	1643	A	C2'-C1'	12.52	1.67	1.53
1	Ad	1773	A	O4'-C1'	12.52	1.57	1.41
1	Ad	1722	C	O4'-C1'	12.51	1.57	1.41
1	Ad	41	A	C2'-C1'	12.49	1.67	1.53
1	Ad	592	U	C2'-C1'	-12.48	1.39	1.53
1	Ad	342	C	O4'-C1'	12.48	1.57	1.41
1	Ad	1471	C	O4'-C1'	12.48	1.57	1.41
1	Ad	746	A	C2'-C1'	12.47	1.67	1.53
1	Ad	856	G	C2'-C1'	-12.47	1.39	1.53
1	Ad	259	A	O4'-C1'	12.47	1.57	1.41
1	Ad	762	A	O4'-C1'	12.46	1.57	1.41
1	Ad	12	U	C2'-C1'	-12.46	1.39	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	750	U	C2'-C1'	-12.46	1.39	1.53
1	Ad	1171	C	O4'-C1'	12.46	1.57	1.41
1	Ad	1336	C	C2'-C1'	-12.45	1.39	1.53
1	Ad	826	C	C2'-C1'	12.45	1.67	1.53
1	Ad	170	C	O4'-C1'	12.43	1.57	1.41
1	Ad	298	C	O4'-C1'	12.43	1.57	1.41
1	Ad	58	U	C2'-C1'	-12.43	1.39	1.53
1	Ad	369	G	C2'-C1'	12.43	1.67	1.53
1	Ad	1074	C	O4'-C1'	12.43	1.57	1.41
1	Ad	1500	A	C2'-C1'	12.42	1.67	1.53
1	Ad	297	U	O4'-C1'	12.40	1.57	1.41
1	Ad	1549	G	C2'-C1'	-12.39	1.39	1.53
1	Ad	547	C	O4'-C1'	-12.39	1.25	1.41
1	Ad	1582	G	O4'-C1'	12.36	1.57	1.41
1	Ad	1733	G	C2'-C1'	-12.36	1.39	1.53
1	Ad	1196	C	O4'-C1'	12.35	1.57	1.41
1	Ad	12	U	O4'-C1'	12.35	1.57	1.41
1	Ad	30	G	C2'-C1'	-12.35	1.39	1.53
1	Ad	753	C	O4'-C1'	12.34	1.57	1.41
1	Ad	1432	C	C2'-C1'	12.34	1.67	1.53
1	Ad	791	C	O4'-C1'	12.31	1.57	1.41
1	Ad	899	A	C2'-C1'	-12.29	1.39	1.53
1	Ad	1517	C	C2'-C1'	-12.25	1.39	1.53
1	Ad	351	G	C2'-C1'	-12.25	1.39	1.53
1	Ad	1213	C	O4'-C1'	12.23	1.57	1.41
1	Ad	1229	C	O4'-C1'	12.22	1.57	1.41
1	Ad	523	C	O4'-C1'	12.22	1.57	1.41
1	Ad	1644	C	C2'-C1'	-12.22	1.40	1.53
1	Ad	1240	A	O4'-C1'	12.19	1.57	1.41
1	Ad	356	G	O4'-C1'	12.19	1.57	1.41
1	Ad	1588	C	O4'-C1'	12.19	1.57	1.41
1	Ad	438	G	C2'-C1'	12.17	1.66	1.53
1	Ad	1156	A	C2'-C1'	-12.16	1.40	1.53
1	Ad	363	G	O4'-C1'	-12.16	1.25	1.41
1	Ad	439	C	O4'-C1'	12.15	1.57	1.41
1	Ad	1273	U	C2'-C1'	-12.13	1.40	1.53
1	Ad	1563	A	C2'-C1'	-12.13	1.40	1.53
1	Ad	336	U	C2'-C1'	12.12	1.66	1.53
1	Ad	237	C	O4'-C1'	12.12	1.57	1.41
1	Ad	1373	C	O4'-C1'	12.12	1.57	1.41
1	Ad	1253	U	C2'-C1'	-12.12	1.40	1.53
1	Ad	45	U	O4'-C1'	12.12	1.57	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	784	C	O4'-C1'	-12.10	1.25	1.41
1	Ad	1494	G	C2'-C1'	-12.09	1.40	1.53
1	Ad	361	G	C2'-C1'	-12.08	1.40	1.53
1	Ad	343	C	C2'-C1'	-12.08	1.40	1.53
1	Ad	394	G	C2'-C1'	12.05	1.66	1.53
1	Ad	922	U	C2'-C1'	-12.04	1.40	1.53
1	Ad	196	G	C2'-C1'	-12.04	1.40	1.53
3	Af	18	C	O4'-C1'	12.03	1.57	1.41
2	Ae	74	C	C2'-C1'	12.02	1.66	1.53
1	Ad	1021	C	O4'-C1'	12.01	1.57	1.41
1	Ad	1518	C	O4'-C1'	12.00	1.57	1.41
1	Ad	1252	C	C2'-C1'	-12.00	1.40	1.53
1	Ad	415	C	O4'-C1'	11.98	1.57	1.41
1	Ad	397	C	O4'-C1'	11.97	1.57	1.41
1	Ad	967	C	O4'-C1'	11.96	1.57	1.41
1	Ad	1652	C	O4'-C1'	11.96	1.57	1.41
1	Ad	1046	G	C2'-C1'	-11.96	1.40	1.53
1	Ad	1608	A	C2'-C1'	-11.94	1.40	1.53
1	Ad	334	G	C2'-C1'	-11.93	1.40	1.53
1	Ad	1488	C	O4'-C1'	11.92	1.57	1.41
1	Ad	1238	A	O4'-C1'	11.89	1.57	1.41
1	Ad	1342	C	C2'-C1'	-11.89	1.40	1.53
1	Ad	900	G	C2'-C1'	-11.86	1.40	1.53
1	Ad	588	C	O4'-C1'	11.85	1.57	1.41
1	Ad	1332	G	O4'-C1'	11.84	1.57	1.41
1	Ad	1610	C	O4'-C1'	11.83	1.57	1.41
1	Ad	535	C	O4'-C1'	11.83	1.57	1.41
1	Ad	644	U	O4'-C1'	11.81	1.57	1.41
1	Ad	259	A	C2'-C1'	-11.81	1.40	1.53
1	Ad	850	G	C2'-C1'	-11.79	1.40	1.53
1	Ad	870	A	C2'-C1'	11.79	1.66	1.53
1	Ad	700	C	O4'-C1'	11.75	1.56	1.41
1	Ad	1327	C	C2'-C1'	-11.74	1.40	1.53
1	Ad	117	U	C2'-C1'	-11.74	1.40	1.53
1	Ad	948	C	O4'-C1'	11.74	1.56	1.41
1	Ad	869	U	C2'-C1'	11.73	1.66	1.53
1	Ad	964	U	C2'-C1'	-11.73	1.40	1.53
2	Ae	29	C	O4'-C1'	11.71	1.56	1.41
1	Ad	915	C	O4'-C1'	11.70	1.56	1.41
1	Ad	955	C	O4'-C1'	11.70	1.56	1.41
1	Ad	1316	A	C2'-C1'	-11.70	1.40	1.53
1	Ad	1258	U	C2'-C1'	-11.69	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	202	C	C2'-C1'	-11.69	1.40	1.53
3	Af	20	U	C2'-C1'	-11.68	1.40	1.53
1	Ad	219	G	C2'-C1'	11.68	1.66	1.53
1	Ad	1557	C	O4'-C1'	11.65	1.56	1.41
1	Ad	832	C	C2'-C1'	-11.64	1.40	1.53
1	Ad	1686	C	C2'-C1'	-11.63	1.40	1.53
1	Ad	1589	C	C2'-C1'	-11.62	1.40	1.53
1	Ad	1710	C	O4'-C1'	11.62	1.56	1.41
2	Ae	43	C	C2'-C1'	-11.62	1.40	1.53
1	Ad	1648	C	O4'-C1'	11.61	1.56	1.41
1	Ad	1162	A	O4'-C1'	-11.61	1.26	1.41
1	Ad	346	C	O4'-C1'	11.59	1.56	1.41
1	Ad	1122	U	C2'-C1'	-11.59	1.40	1.53
1	Ad	1627	C	O4'-C1'	11.57	1.56	1.41
1	Ad	99	U	C2'-C1'	-11.57	1.40	1.53
1	Ad	1568	U	C2'-C1'	11.56	1.66	1.53
1	Ad	973	U	C2'-C1'	-11.55	1.40	1.53
1	Ad	488	C	O4'-C1'	11.55	1.56	1.41
1	Ad	1457	C	O4'-C1'	11.55	1.56	1.41
1	Ad	1110	C	C2'-C1'	-11.54	1.40	1.53
1	Ad	1407	A	C2'-C1'	11.54	1.66	1.53
1	Ad	1281	G	O4'-C1'	11.53	1.56	1.41
1	Ad	832	C	O4'-C1'	11.53	1.56	1.41
1	Ad	1731	A	O4'-C1'	11.52	1.56	1.41
1	Ad	146	A	C2'-C1'	11.50	1.66	1.53
1	Ad	801	U	C2'-C1'	11.50	1.66	1.53
1	Ad	1073	C	O4'-C1'	11.50	1.56	1.41
1	Ad	1032	A	C2'-C1'	11.48	1.66	1.53
1	Ad	968	A	C2'-C1'	11.48	1.66	1.53
1	Ad	1794	C	C2'-C1'	-11.47	1.40	1.53
1	Ad	1079	G	C2'-C1'	-11.47	1.40	1.53
1	Ad	1716	C	C2'-C1'	-11.46	1.40	1.53
1	Ad	1117	G	C2'-C1'	-11.46	1.40	1.53
1	Ad	1736	C	O4'-C1'	11.44	1.56	1.41
1	Ad	1451	G	O4'-C1'	11.42	1.56	1.41
2	Ae	4	G	C2'-C1'	-11.41	1.40	1.53
1	Ad	483	C	O4'-C1'	11.40	1.56	1.41
1	Ad	858	G	O4'-C1'	11.39	1.56	1.41
1	Ad	969	U	C2'-C1'	-11.38	1.40	1.53
1	Ad	1027	C	C2'-C1'	-11.36	1.40	1.53
1	Ad	288	G	C2'-C1'	-11.35	1.40	1.53
1	Ad	385	C	C2'-C1'	-11.35	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1058	G	C2'-C1'	-11.34	1.40	1.53
1	Ad	1447	C	O4'-C1'	11.34	1.56	1.41
1	Ad	1613	G	C2'-C1'	-11.34	1.40	1.53
1	Ad	1762	C	O4'-C1'	11.33	1.56	1.41
2	Ae	50	G	C2'-C1'	11.32	1.65	1.53
1	Ad	1426	C	O4'-C1'	11.30	1.56	1.41
1	Ad	239	C	O4'-C1'	11.30	1.56	1.41
2	Ae	22	G	C2'-C1'	-11.29	1.41	1.53
1	Ad	1715	C	C2'-C1'	-11.29	1.41	1.53
1	Ad	792	U	C2'-C1'	11.29	1.65	1.53
1	Ad	1064	U	C2'-C1'	11.28	1.65	1.53
1	Ad	133	U	O4'-C1'	11.28	1.56	1.41
1	Ad	711	C	C2'-C1'	-11.28	1.41	1.53
1	Ad	437	C	O4'-C1'	11.27	1.56	1.41
1	Ad	297	U	C2'-C1'	-11.26	1.41	1.53
1	Ad	1685	U	C2'-C1'	-11.26	1.41	1.53
1	Ad	1749	C	C2'-C1'	-11.26	1.41	1.53
2	Ae	60	C	O4'-C1'	11.25	1.56	1.41
1	Ad	949	A	O4'-C1'	11.22	1.56	1.41
1	Ad	1492	G	C2'-C1'	11.22	1.65	1.53
1	Ad	591	C	C2'-C1'	-11.21	1.41	1.53
1	Ad	885	C	O4'-C1'	11.21	1.56	1.41
1	Ad	651	G	C2'-C1'	-11.20	1.41	1.53
1	Ad	556	G	C2'-C1'	-11.20	1.41	1.53
1	Ad	1224	C	C2'-C1'	-11.18	1.41	1.53
1	Ad	81	U	O4'-C1'	11.18	1.56	1.41
1	Ad	995	C	C2'-C1'	-11.17	1.41	1.53
1	Ad	1545	A	C2'-C1'	11.17	1.65	1.53
1	Ad	1013	G	C2'-C1'	-11.17	1.41	1.53
1	Ad	1128	C	O4'-C1'	11.16	1.56	1.41
1	Ad	1239	C	O4'-C1'	11.16	1.56	1.41
1	Ad	804	C	O4'-C1'	11.15	1.56	1.41
1	Ad	182	C	O4'-C1'	11.15	1.56	1.41
1	Ad	1572	U	C2'-C1'	-11.15	1.41	1.53
1	Ad	175	A	O4'-C1'	11.15	1.56	1.41
1	Ad	45	U	C2'-C1'	-11.14	1.41	1.53
1	Ad	1414	G	C2'-C1'	-11.13	1.41	1.53
1	Ad	79	A	C2'-C1'	11.13	1.65	1.53
1	Ad	68	A	C2'-C1'	-11.12	1.41	1.53
1	Ad	1375	C	C2'-C1'	-11.12	1.41	1.53
1	Ad	1596	G	O4'-C1'	11.12	1.56	1.41
1	Ad	1476	C	C2'-C1'	-11.12	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	713	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	879	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	17	C	C2'-C1'	-11.11	1.41	1.53
1	Ad	169	A	O4'-C1'	11.11	1.56	1.41
1	Ad	587	C	C2'-C1'	-11.10	1.41	1.53
1	Ad	345	A	C2'-C1'	-11.10	1.41	1.53
1	Ad	1174	G	C2'-C1'	-11.10	1.41	1.53
1	Ad	1735	C	C2'-C1'	-11.08	1.41	1.53
1	Ad	1670	G	C2'-C1'	-11.07	1.41	1.53
1	Ad	428	C	C2'-C1'	-11.06	1.41	1.53
1	Ad	1037	G	C2'-C1'	-11.04	1.41	1.53
1	Ad	49	C	O4'-C1'	11.04	1.55	1.41
1	Ad	814	C	O4'-C1'	11.01	1.55	1.41
1	Ad	412	C	O4'-C1'	11.00	1.55	1.41
1	Ad	53	G	C2'-C1'	-10.98	1.41	1.53
1	Ad	121	U	O4'-C1'	10.98	1.55	1.41
1	Ad	1673	C	O4'-C1'	10.97	1.55	1.41
1	Ad	1516	C	C2'-C1'	-10.97	1.41	1.53
1	Ad	591	C	O4'-C1'	10.96	1.55	1.41
1	Ad	1507	G	C2'-C1'	-10.96	1.41	1.53
1	Ad	1319	U	C2'-C1'	-10.96	1.41	1.53
1	Ad	391	A	C2'-C1'	10.95	1.65	1.53
1	Ad	309	C	O4'-C1'	10.95	1.55	1.41
1	Ad	1443	U	C2'-C1'	-10.95	1.41	1.53
1	Ad	1502	C	O4'-C1'	10.94	1.55	1.41
1	Ad	384	U	O4'-C1'	-10.94	1.27	1.41
2	Ae	26	G	C2'-C1'	-10.92	1.41	1.53
2	Ae	56	A	O4'-C1'	10.91	1.55	1.41
1	Ad	1208	A	O4'-C1'	10.91	1.55	1.41
1	Ad	1765	A	C2'-C1'	10.91	1.65	1.53
2	Ae	58	U	C2'-C1'	10.91	1.65	1.53
1	Ad	1716	C	O4'-C1'	10.90	1.55	1.41
1	Ad	950	U	O4'-C1'	10.88	1.55	1.41
1	Ad	1515	G	C2'-C1'	-10.88	1.41	1.53
1	Ad	1699	C	O4'-C1'	10.87	1.55	1.41
1	Ad	649	C	C2'-C1'	-10.86	1.41	1.53
1	Ad	216	A	C2'-C1'	-10.85	1.41	1.53
1	Ad	1210	U	C2'-C1'	10.85	1.65	1.53
1	Ad	198	G	C2'-C1'	-10.83	1.41	1.53
1	Ad	158	C	O4'-C1'	10.83	1.55	1.41
1	Ad	1531	G	C2'-C1'	10.83	1.65	1.53
1	Ad	1644	C	O4'-C1'	10.82	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	135	C	C2'-C1'	-10.82	1.41	1.53
1	Ad	1517	C	O4'-C1'	10.81	1.55	1.41
1	Ad	1775	A	O4'-C1'	-10.80	1.27	1.41
1	Ad	1163	C	O4'-C1'	10.80	1.55	1.41
1	Ad	1119	G	C2'-C1'	10.80	1.65	1.53
1	Ad	1673	C	C2'-C1'	-10.80	1.41	1.53
1	Ad	198	G	O4'-C1'	10.79	1.55	1.41
1	Ad	448	C	O4'-C1'	10.79	1.55	1.41
1	Ad	1151	G	C2'-C1'	-10.78	1.41	1.53
1	Ad	249	G	O4'-C1'	10.77	1.55	1.41
1	Ad	1378	C	O4'-C1'	10.76	1.55	1.41
1	Ad	1174	G	O4'-C1'	10.75	1.55	1.41
1	Ad	484	A	O4'-C1'	10.74	1.55	1.41
1	Ad	593	C	O4'-C1'	10.74	1.55	1.41
1	Ad	179	A	C2'-C1'	-10.74	1.41	1.53
1	Ad	993	C	C2'-C1'	-10.72	1.41	1.53
1	Ad	121	U	C2'-C1'	-10.72	1.41	1.53
2	Ae	43	C	O4'-C1'	10.71	1.55	1.41
1	Ad	1567	G	O4'-C1'	-10.71	1.27	1.41
1	Ad	71	C	O4'-C1'	10.70	1.55	1.41
1	Ad	122	U	O4'-C1'	10.69	1.55	1.41
1	Ad	1603	U	O4'-C1'	-10.69	1.27	1.41
1	Ad	1585	A	O4'-C1'	10.67	1.55	1.41
1	Ad	796	U	C2'-C1'	-10.66	1.41	1.53
1	Ad	1219	C	O4'-C1'	10.66	1.55	1.41
1	Ad	380	C	O4'-C1'	10.64	1.55	1.41
1	Ad	539	A	C2'-C1'	-10.64	1.41	1.53
1	Ad	1760	A	C2'-C1'	-10.63	1.41	1.53
1	Ad	1077	C	O4'-C1'	10.63	1.55	1.41
1	Ad	18	C	O4'-C1'	10.61	1.55	1.41
1	Ad	36	C	C2'-C1'	-10.61	1.41	1.53
1	Ad	1193	A	C2'-C1'	10.61	1.65	1.53
1	Ad	17	C	O4'-C1'	10.60	1.55	1.41
1	Ad	1225	A	C2'-C1'	-10.60	1.41	1.53
1	Ad	1718	C	O4'-C1'	10.60	1.55	1.41
1	Ad	465	G	O4'-C1'	10.60	1.55	1.41
1	Ad	1410	C	O4'-C1'	10.60	1.55	1.41
1	Ad	1743	C	O4'-C1'	10.60	1.55	1.41
1	Ad	741	C	O4'-C1'	10.59	1.55	1.41
2	Ae	73	C	C2'-C1'	-10.58	1.41	1.53
1	Ad	296	A	O4'-C1'	10.57	1.55	1.41
1	Ad	1549	G	O4'-C1'	10.56	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1056	A	C2'-C1'	10.56	1.65	1.53
1	Ad	1096	A	C2'-C1'	-10.56	1.41	1.53
1	Ad	1702	G	C2'-C1'	-10.55	1.41	1.53
2	Ae	38	C	O4'-C1'	10.55	1.55	1.41
1	Ad	879	C	O4'-C1'	10.54	1.55	1.41
1	Ad	86	A	C2'-C1'	-10.53	1.41	1.53
1	Ad	999	G	O4'-C1'	10.53	1.55	1.41
1	Ad	342	C	C2'-C1'	-10.53	1.41	1.53
1	Ad	483	C	C2'-C1'	-10.52	1.41	1.53
1	Ad	1194	C	O4'-C1'	10.52	1.55	1.41
1	Ad	1012	C	O4'-C1'	10.52	1.55	1.41
1	Ad	136	U	C2'-C1'	-10.50	1.41	1.53
1	Ad	600	C	O4'-C1'	10.50	1.55	1.41
1	Ad	1232	G	O4'-C1'	10.50	1.55	1.41
1	Ad	321	C	C2'-C1'	-10.49	1.41	1.53
1	Ad	188	U	C2'-C1'	-10.49	1.41	1.53
1	Ad	183	C	C2'-C1'	-10.49	1.41	1.53
1	Ad	1001	C	O4'-C1'	10.49	1.55	1.41
1	Ad	473	C	O4'-C1'	10.48	1.55	1.41
1	Ad	889	C	C2'-C1'	-10.48	1.41	1.53
1	Ad	1122	U	O4'-C1'	10.48	1.55	1.41
1	Ad	141	G	O4'-C1'	10.48	1.55	1.41
1	Ad	504	C	C2'-C1'	-10.47	1.41	1.53
1	Ad	1751	U	C2'-C1'	-10.47	1.41	1.53
1	Ad	993	C	O4'-C1'	10.47	1.55	1.41
1	Ad	903	A	C2'-C1'	10.44	1.64	1.53
1	Ad	1574	U	C2'-C1'	10.43	1.64	1.53
1	Ad	1104	U	C2'-C1'	10.43	1.64	1.53
1	Ad	1610	C	C2'-C1'	-10.42	1.41	1.53
1	Ad	1304	A	C2'-C1'	10.42	1.64	1.53
1	Ad	148	C	C2'-C1'	-10.42	1.41	1.53
1	Ad	155	A	C2'-C1'	10.40	1.64	1.53
2	Ae	31	C	O4'-C1'	10.40	1.55	1.41
1	Ad	1051	G	C2'-C1'	-10.39	1.42	1.53
1	Ad	326	G	C2'-C1'	-10.39	1.42	1.53
1	Ad	316	A	C2'-C1'	10.37	1.64	1.53
1	Ad	1754	A	O4'-C1'	10.37	1.55	1.41
1	Ad	1708	U	O4'-C1'	10.36	1.55	1.41
1	Ad	533	C	O4'-C1'	10.36	1.55	1.41
1	Ad	1680	A	C2'-C1'	-10.36	1.42	1.53
1	Ad	1755	G	C2'-C1'	-10.36	1.42	1.53
1	Ad	642	C	C2'-C1'	-10.35	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ae	36	C	O4'-C1'	10.35	1.55	1.41
1	Ad	453	C	O4'-C1'	10.32	1.55	1.41
1	Ad	1388	A	C2'-C1'	10.32	1.64	1.53
1	Ad	1467	C	C2'-C1'	-10.32	1.42	1.53
1	Ad	301	U	O4'-C1'	10.31	1.55	1.41
1	Ad	415	C	C2'-C1'	-10.31	1.42	1.53
1	Ad	1382	C	O4'-C1'	10.31	1.55	1.41
1	Ad	889	C	O4'-C1'	10.31	1.55	1.41
1	Ad	1355	U	O4'-C1'	10.31	1.55	1.41
1	Ad	1503	C	O4'-C1'	10.30	1.55	1.41
1	Ad	1778	G	O4'-C1'	10.28	1.55	1.41
1	Ad	1007	G	O4'-C1'	10.27	1.55	1.41
1	Ad	1038	C	C2'-C1'	-10.26	1.42	1.53
1	Ad	1562	C	O4'-C1'	10.26	1.54	1.41
1	Ad	1124	G	C2'-C1'	-10.25	1.42	1.53
1	Ad	1678	G	C2'-C1'	-10.23	1.42	1.53
1	Ad	1571	G	C2'-C1'	-10.23	1.42	1.53
1	Ad	4	C	O4'-C1'	10.23	1.54	1.41
1	Ad	1612	C	O4'-C1'	10.22	1.54	1.41
1	Ad	1213	C	C2'-C1'	-10.22	1.42	1.53
1	Ad	798	C	O4'-C1'	10.21	1.54	1.41
1	Ad	936	C	C2'-C1'	-10.20	1.42	1.53
1	Ad	1187	A	C2'-C1'	-10.19	1.42	1.53
1	Ad	1255	U	C2'-C1'	10.19	1.64	1.53
1	Ad	1676	G	C2'-C1'	-10.19	1.42	1.53
1	Ad	376	G	C2'-C1'	-10.18	1.42	1.53
1	Ad	649	C	O4'-C1'	10.17	1.54	1.41
1	Ad	596	A	O4'-C1'	10.16	1.54	1.41
1	Ad	182	C	C2'-C1'	-10.16	1.42	1.53
1	Ad	1369	C	C2'-C1'	-10.16	1.42	1.53
1	Ad	1274	G	C2'-C1'	-10.14	1.42	1.53
1	Ad	735	G	C2'-C1'	-10.13	1.42	1.53
1	Ad	1725	C	C2'-C1'	10.14	1.64	1.53
1	Ad	1615	G	O4'-C1'	10.13	1.54	1.41
1	Ad	430	G	C2'-C1'	-10.12	1.42	1.53
1	Ad	1322	G	C2'-C1'	-10.11	1.42	1.53
1	Ad	714	C	O4'-C1'	10.11	1.54	1.41
1	Ad	810	A	O4'-C1'	10.10	1.54	1.41
1	Ad	1298	G	C2'-C1'	-10.08	1.42	1.53
1	Ad	604	U	C2'-C1'	-10.08	1.42	1.53
1	Ad	469	G	C2'-C1'	-10.07	1.42	1.53
1	Ad	393	G	C2'-C1'	-10.06	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	919	G	C2'-C1'	10.06	1.64	1.53
1	Ad	1385	C	O4'-C1'	10.05	1.54	1.41
1	Ad	1695	G	O4'-C1'	10.03	1.54	1.41
1	Ad	391	A	O4'-C1'	-10.03	1.28	1.41
1	Ad	404	A	O4'-C1'	-10.03	1.28	1.41
1	Ad	299	A	C2'-C1'	-10.02	1.42	1.53
1	Ad	408	G	C2'-C1'	-10.02	1.42	1.53
84	Aa	1747	A	O3'-P	-10.02	1.49	1.61
1	Ad	1083	C	O4'-C1'	10.02	1.54	1.41
1	Ad	1674	C	O4'-C1'	10.01	1.54	1.41
1	Ad	1282	G	C2'-C1'	-10.01	1.42	1.53
1	Ad	1625	U	C2'-C1'	-10.01	1.42	1.53
1	Ad	760	G	C2'-C1'	-10.00	1.42	1.53
1	Ad	1570	G	C2'-C1'	-10.00	1.42	1.53
1	Ad	313	C	C2'-C1'	-9.97	1.42	1.53
1	Ad	114	U	C2'-C1'	-9.95	1.42	1.53
1	Ad	538	A	O4'-C1'	9.94	1.54	1.41
1	Ad	1168	A	O4'-C1'	9.94	1.54	1.41
1	Ad	394	G	O4'-C1'	-9.94	1.28	1.41
1	Ad	1237	G	C2'-C1'	-9.94	1.42	1.53
1	Ad	435	C	O4'-C1'	9.93	1.54	1.41
1	Ad	526	U	C2'-C1'	-9.93	1.42	1.53
1	Ad	1139	C	O4'-C1'	9.92	1.54	1.41
1	Ad	527	C	O4'-C1'	9.91	1.54	1.41
1	Ad	93	A	C2'-C1'	9.91	1.64	1.53
2	Ae	21	A	O4'-C1'	9.91	1.54	1.41
1	Ad	462	G	C2'-C1'	-9.90	1.42	1.53
1	Ad	576	C	O4'-C1'	9.90	1.54	1.41
2	Ae	17	G	O4'-C1'	9.90	1.54	1.41
1	Ad	453	C	C2'-C1'	-9.89	1.42	1.53
1	Ad	1766	A	O4'-C1'	-9.89	1.28	1.41
1	Ad	914	U	O4'-C1'	9.88	1.54	1.41
1	Ad	630	U	C2'-C1'	-9.88	1.42	1.53
1	Ad	1599	C	C2'-C1'	-9.88	1.42	1.53
1	Ad	371	A	C2'-C1'	-9.88	1.42	1.53
1	Ad	1199	C	C2'-C1'	-9.88	1.42	1.53
1	Ad	1238	A	C2'-C1'	-9.86	1.42	1.53
1	Ad	588	C	C2'-C1'	-9.86	1.42	1.53
1	Ad	318	C	O4'-C1'	9.85	1.54	1.41
1	Ad	1766	A	C2'-C1'	9.85	1.64	1.53
1	Ad	1579	C	C2'-C1'	-9.83	1.42	1.53
86	Ab	46	C	N1-C6	9.83	1.43	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1349	A	C2'-C1'	-9.82	1.42	1.53
1	Ad	1687	G	O4'-C1'	9.81	1.54	1.41
1	Ad	980	C	O4'-C1'	9.81	1.54	1.41
1	Ad	1312	G	C2'-C1'	-9.81	1.42	1.53
1	Ad	1779	U	O4'-C1'	9.80	1.54	1.41
1	Ad	1765	A	O4'-C1'	-9.79	1.28	1.41
2	Ae	50	G	O4'-C1'	-9.79	1.28	1.41
1	Ad	289	G	C2'-C1'	-9.79	1.42	1.53
1	Ad	561	G	C2'-C1'	-9.79	1.42	1.53
2	Ae	75	A	C2'-C1'	9.78	1.64	1.53
1	Ad	229	G	C2'-C1'	-9.77	1.42	1.53
1	Ad	1462	C	C2'-C1'	9.77	1.64	1.53
1	Ad	1187	A	O4'-C1'	9.77	1.54	1.41
1	Ad	1199	C	O4'-C1'	9.77	1.54	1.41
1	Ad	1802	G	O4'-C1'	-9.77	1.28	1.41
1	Ad	550	U	O4'-C1'	9.76	1.54	1.41
1	Ad	1717	C	C2'-C1'	-9.76	1.42	1.53
1	Ad	1410	C	C2'-C1'	-9.76	1.42	1.53
2	Ae	9	A	O4'-C1'	9.75	1.54	1.41
1	Ad	966	U	O4'-C1'	9.75	1.54	1.41
1	Ad	1421	U	C2'-C1'	-9.75	1.42	1.53
1	Ad	165	U	O4'-C1'	9.74	1.54	1.41
1	Ad	187	C	C2'-C1'	-9.74	1.42	1.53
1	Ad	48	G	C2'-C1'	-9.74	1.42	1.53
1	Ad	548	C	C2'-C1'	-9.73	1.42	1.53
1	Ad	152	G	C2'-C1'	-9.73	1.42	1.53
2	Ae	61	C	O4'-C1'	9.73	1.54	1.41
1	Ad	881	G	O4'-C1'	9.73	1.54	1.41
1	Ad	569	C	O4'-C1'	9.72	1.54	1.41
1	Ad	641	C	O4'-C1'	9.72	1.54	1.41
1	Ad	1696	C	C2'-C1'	-9.71	1.42	1.53
1	Ad	1607	C	O4'-C1'	9.71	1.54	1.41
1	Ad	969	U	O4'-C1'	9.70	1.54	1.41
1	Ad	1123	G	C2'-C1'	-9.69	1.42	1.53
1	Ad	34	G	O4'-C1'	9.68	1.54	1.41
1	Ad	1538	C	O4'-C1'	9.68	1.54	1.41
1	Ad	1557	C	C2'-C1'	-9.67	1.42	1.53
1	Ad	1597	C	O4'-C1'	9.67	1.54	1.41
1	Ad	485	A	O4'-C1'	9.66	1.54	1.41
1	Ad	1043	C	O4'-C1'	9.66	1.54	1.41
1	Ad	632	G	O4'-C1'	9.65	1.54	1.41
1	Ad	820	A	C2'-C1'	-9.64	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1005	C	O4'-C1'	-9.64	1.29	1.41
1	Ad	1624	G	C2'-C1'	-9.64	1.42	1.53
1	Ad	458	A	C2'-C1'	9.63	1.64	1.53
1	Ad	942	C	C2'-C1'	-9.63	1.42	1.53
1	Ad	934	A	C2'-C1'	-9.61	1.42	1.53
1	Ad	537	U	O4'-C1'	9.60	1.54	1.41
1	Ad	1646	G	C2'-C1'	-9.60	1.42	1.53
1	Ad	406	C	C2'-C1'	-9.59	1.42	1.53
1	Ad	190	C	O4'-C1'	9.56	1.54	1.41
1	Ad	1645	C	O4'-C1'	9.55	1.54	1.41
1	Ad	1142	A	O4'-C1'	9.55	1.54	1.41
1	Ad	747	U	O4'-C1'	9.54	1.54	1.41
1	Ad	780	A	O4'-C1'	-9.54	1.29	1.41
1	Ad	235	C	O4'-C1'	9.54	1.54	1.41
1	Ad	1401	C	O4'-C1'	9.53	1.54	1.41
1	Ad	1095	C	O4'-C1'	9.53	1.54	1.41
1	Ad	1579	C	O4'-C1'	9.52	1.54	1.41
1	Ad	1109	U	C2'-C1'	-9.51	1.42	1.53
1	Ad	1354	C	O4'-C1'	9.51	1.54	1.41
1	Ad	97	G	O4'-C1'	9.49	1.53	1.41
1	Ad	1321	C	O4'-C1'	9.49	1.53	1.41
1	Ad	1686	C	O4'-C1'	9.48	1.53	1.41
1	Ad	1578	A	C2'-C1'	-9.48	1.43	1.53
1	Ad	540	C	C2'-C1'	-9.47	1.43	1.53
1	Ad	188	U	O4'-C1'	9.46	1.53	1.41
1	Ad	54	C	C2'-C1'	9.45	1.63	1.53
1	Ad	1305	U	O4'-C1'	9.45	1.53	1.41
86	Ab	24	G	N7-C5	-9.44	1.33	1.39
2	Ae	3	C	O4'-C1'	9.44	1.53	1.41
1	Ad	162	A	C2'-C1'	-9.43	1.43	1.53
1	Ad	317	U	O4'-C1'	9.43	1.53	1.41
1	Ad	1468	G	O4'-C1'	9.42	1.53	1.41
1	Ad	759	A	C2'-C1'	-9.42	1.43	1.53
1	Ad	896	C	O4'-C1'	9.42	1.53	1.41
1	Ad	772	C	C2'-C1'	-9.40	1.43	1.53
1	Ad	1649	C	O4'-C1'	9.40	1.53	1.41
1	Ad	98	C	O4'-C1'	9.40	1.53	1.41
1	Ad	286	C	C2'-C1'	-9.38	1.43	1.53
1	Ad	317	U	C2'-C1'	-9.38	1.43	1.53
1	Ad	1808	U	O4'-C1'	9.37	1.53	1.41
1	Ad	1379	U	O4'-C1'	9.37	1.53	1.41
1	Ad	1531	G	O4'-C1'	-9.36	1.29	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	804	C	C2'-C1'	-9.35	1.43	1.53
1	Ad	1451	G	C2'-C1'	-9.35	1.43	1.53
1	Ad	562	U	C2'-C1'	-9.34	1.43	1.53
1	Ad	821	G	O4'-C1'	9.34	1.53	1.41
1	Ad	277	G	C2'-C1'	-9.34	1.43	1.53
1	Ad	327	A	O4'-C1'	9.34	1.53	1.41
1	Ad	1015	C	O4'-C1'	9.34	1.53	1.41
1	Ad	1469	C	O4'-C1'	9.33	1.53	1.41
1	Ad	419	C	O4'-C1'	9.33	1.53	1.41
1	Ad	309	C	C2'-C1'	-9.33	1.43	1.53
1	Ad	953	G	C2'-C1'	-9.33	1.43	1.53
1	Ad	998	A	O4'-C1'	9.33	1.53	1.41
1	Ad	1520	G	C2'-C1'	-9.33	1.43	1.53
1	Ad	1252	C	O4'-C1'	9.32	1.53	1.41
1	Ad	711	C	O4'-C1'	9.32	1.53	1.41
1	Ad	31	C	C2'-C1'	-9.32	1.43	1.53
1	Ad	1337	C	O4'-C1'	9.32	1.53	1.41
1	Ad	116	G	C2'-C1'	-9.31	1.43	1.53
1	Ad	1418	G	O4'-C1'	9.31	1.53	1.41
1	Ad	1491	C	O4'-C1'	9.31	1.53	1.41
1	Ad	1754	A	C2'-C1'	-9.30	1.43	1.53
1	Ad	427	G	C2'-C1'	-9.30	1.43	1.53
1	Ad	573	C	O4'-C1'	9.29	1.53	1.41
1	Ad	860	A	C2'-C1'	9.29	1.63	1.53
1	Ad	1285	G	C2'-C1'	-9.29	1.43	1.53
1	Ad	116	G	O4'-C1'	9.29	1.53	1.41
1	Ad	278	C	C2'-C1'	-9.29	1.43	1.53
1	Ad	228	G	O4'-C1'	9.28	1.53	1.41
1	Ad	1783	C	O4'-C1'	9.27	1.53	1.41
2	Ae	72	G	O4'-C1'	-9.27	1.29	1.41
1	Ad	69	A	C2'-C1'	-9.27	1.43	1.53
1	Ad	421	A	O4'-C1'	9.26	1.53	1.41
1	Ad	795	A	O4'-C1'	9.26	1.53	1.41
1	Ad	460	G	C2'-C1'	-9.25	1.43	1.53
1	Ad	82	G	C2'-C1'	-9.23	1.43	1.53
86	Ab	40	A	N7-C5	-9.23	1.33	1.39
2	Ae	10	G	O4'-C1'	9.22	1.53	1.41
1	Ad	1059	U	C2'-C1'	-9.22	1.43	1.53
2	Ae	48	C	O4'-C1'	9.21	1.53	1.41
1	Ad	823	A	C2'-C1'	-9.20	1.43	1.53
1	Ad	1075	G	C2'-C1'	-9.20	1.43	1.53
1	Ad	416	A	C2'-C1'	9.18	1.63	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1269	G	C2'-C1'	-9.17	1.43	1.53
1	Ad	1680	A	O4'-C1'	9.17	1.53	1.41
1	Ad	918	G	C2'-C1'	-9.17	1.43	1.53
1	Ad	748	C	O4'-C1'	9.17	1.53	1.41
1	Ad	434	G	C2'-C1'	-9.16	1.43	1.53
1	Ad	254	A	O4'-C1'	9.16	1.53	1.41
1	Ad	278	C	O4'-C1'	9.14	1.53	1.41
1	Ad	1590	U	O4'-C1'	-9.14	1.29	1.41
2	Ae	71	A	C2'-C1'	-9.14	1.43	1.53
1	Ad	1125	U	C2'-C1'	9.13	1.63	1.53
1	Ad	1067	A	O4'-C1'	-9.13	1.29	1.41
1	Ad	1467	C	O4'-C1'	9.12	1.53	1.41
1	Ad	178	A	O4'-C1'	9.12	1.53	1.41
1	Ad	709	C	O4'-C1'	9.12	1.53	1.41
1	Ad	1179	C	O4'-C1'	9.12	1.53	1.41
1	Ad	426	G	C2'-C1'	-9.11	1.43	1.53
1	Ad	225	G	O4'-C1'	9.09	1.53	1.41
1	Ad	1491	C	C2'-C1'	-9.09	1.43	1.53
1	Ad	788	G	O4'-C1'	9.09	1.53	1.41
1	Ad	72	A	O4'-C1'	9.08	1.53	1.41
1	Ad	398	C	O4'-C1'	9.08	1.53	1.41
1	Ad	975	A	C2'-C1'	9.08	1.63	1.53
1	Ad	295	C	O4'-C1'	9.07	1.53	1.41
1	Ad	1562	C	C2'-C1'	-9.07	1.43	1.53
1	Ad	490	G	C2'-C1'	-9.05	1.43	1.53
1	Ad	261	C	O4'-C1'	9.05	1.53	1.41
1	Ad	702	G	C2'-C1'	-9.05	1.43	1.53
1	Ad	631	C	O4'-C1'	9.03	1.53	1.41
1	Ad	728	C	C2'-C1'	-9.03	1.43	1.53
1	Ad	150	U	C2'-C1'	9.03	1.63	1.53
1	Ad	1240	A	C2'-C1'	-9.03	1.43	1.53
1	Ad	406	C	O4'-C1'	9.02	1.53	1.41
1	Ad	1703	G	C2'-C1'	-9.02	1.43	1.53
1	Ad	1202	G	C2'-C1'	-9.00	1.43	1.53
1	Ad	149	G	C2'-C1'	-9.00	1.43	1.53
1	Ad	85	A	O4'-C1'	8.99	1.53	1.41
2	Ae	35	U	O4'-C1'	8.99	1.53	1.41
86	Ab	20	C	N3-C4	8.99	1.40	1.33
1	Ad	1712	C	O4'-C1'	8.98	1.53	1.41
1	Ad	1020	U	O4'-C1'	8.98	1.53	1.41
1	Ad	1614	C	C2'-C1'	-8.98	1.43	1.53
1	Ad	1398	U	O4'-C1'	8.97	1.53	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	965	U	O4'-C1'	8.97	1.53	1.41
2	Ae	72	G	C2'-C1'	8.97	1.63	1.53
1	Ad	474	A	O4'-C1'	8.96	1.53	1.41
1	Ad	727	G	O4'-C1'	8.96	1.53	1.41
1	Ad	558	C	C2'-C1'	-8.96	1.43	1.53
1	Ad	311	G	C2'-C1'	-8.95	1.43	1.53
1	Ad	506	G	O4'-C1'	8.94	1.53	1.41
1	Ad	1083	C	C2'-C1'	-8.94	1.43	1.53
1	Ad	126	U	O4'-C1'	8.92	1.53	1.41
1	Ad	43	A	C2'-C1'	8.91	1.63	1.53
1	Ad	903	A	O4'-C1'	-8.91	1.30	1.41
2	Ae	62	C	C2'-C1'	-8.91	1.43	1.53
1	Ad	1207	A	C2'-C1'	-8.89	1.43	1.53
1	Ad	1646	G	O4'-C1'	8.88	1.53	1.41
1	Ad	1355	U	C2'-C1'	-8.87	1.43	1.53
1	Ad	1166	C	C2'-C1'	-8.86	1.43	1.53
1	Ad	854	C	O4'-C1'	8.86	1.53	1.41
1	Ad	1060	U	C2'-C1'	-8.85	1.43	1.53
1	Ad	1552	U	O4'-C1'	8.85	1.53	1.41
1	Ad	932	C	O4'-C1'	8.84	1.53	1.41
1	Ad	376	G	O4'-C1'	8.84	1.53	1.41
1	Ad	979	A	O4'-C1'	8.84	1.53	1.41
1	Ad	24	U	O4'-C1'	8.84	1.53	1.41
1	Ad	860	A	O4'-C1'	-8.83	1.30	1.41
1	Ad	1442	A	O4'-C1'	8.83	1.53	1.41
1	Ad	1620	C	O4'-C1'	8.83	1.53	1.41
1	Ad	822	G	O4'-C1'	8.82	1.53	1.41
1	Ad	1475	A	O4'-C1'	8.82	1.53	1.41
1	Ad	345	A	O4'-C1'	8.81	1.53	1.41
1	Ad	1331	C	O4'-C1'	8.81	1.53	1.41
1	Ad	1523	A	O4'-C1'	8.81	1.53	1.41
2	Ae	7	A	C2'-C1'	-8.81	1.43	1.53
2	Ae	62	C	O4'-C1'	8.80	1.53	1.41
1	Ad	1113	G	C2'-C1'	-8.79	1.43	1.53
1	Ad	964	U	O4'-C1'	8.78	1.53	1.41
1	Ad	1137	A	O4'-C1'	8.78	1.53	1.41
1	Ad	623	A	C2'-C1'	-8.78	1.43	1.53
1	Ad	759	A	O4'-C1'	8.77	1.53	1.41
1	Ad	540	C	O4'-C1'	8.77	1.53	1.41
1	Ad	992	G	O4'-C1'	8.77	1.53	1.41
86	Ab	31	G	C6-N1	8.75	1.45	1.39
1	Ad	1399	G	C2'-C1'	-8.75	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1630	G	O4'-C1'	8.73	1.53	1.41
1	Ad	1685	U	O4'-C1'	8.71	1.52	1.41
1	Ad	1737	A	O4'-C1'	8.70	1.52	1.41
1	Ad	447	C	C2'-C1'	-8.70	1.43	1.53
1	Ad	1598	G	O4'-C1'	8.67	1.52	1.41
3	Af	16	G	O4'-C1'	8.66	1.52	1.41
1	Ad	1790	G	C2'-C1'	-8.66	1.43	1.53
1	Ad	344	U	C2'-C1'	8.64	1.62	1.53
1	Ad	1710	C	C2'-C1'	-8.64	1.43	1.53
1	Ad	847	U	C2'-C1'	-8.62	1.43	1.53
1	Ad	1395	C	O4'-C1'	8.61	1.52	1.41
1	Ad	1115	G	C2'-C1'	-8.61	1.43	1.53
1	Ad	23	G	C2'-C1'	-8.61	1.43	1.53
1	Ad	1026	C	O4'-C1'	8.60	1.52	1.41
1	Ad	1076	C	O4'-C1'	8.60	1.52	1.41
1	Ad	1749	C	O4'-C1'	8.60	1.52	1.41
1	Ad	932	C	C2'-C1'	-8.59	1.43	1.53
1	Ad	1033	C	C2'-C1'	-8.59	1.44	1.53
1	Ad	1700	G	O4'-C1'	8.59	1.52	1.41
1	Ad	1578	A	O4'-C1'	8.58	1.52	1.41
1	Ad	1600	G	C2'-C1'	-8.58	1.44	1.53
1	Ad	933	G	C2'-C1'	-8.58	1.44	1.53
1	Ad	1146	G	C2'-C1'	-8.57	1.44	1.53
1	Ad	1280	U	C2'-C1'	8.56	1.62	1.53
1	Ad	232	C	O4'-C1'	8.56	1.52	1.41
1	Ad	783	C	O4'-C1'	8.54	1.52	1.41
1	Ad	1744	C	O4'-C1'	8.54	1.52	1.41
1	Ad	195	A	O4'-C1'	8.53	1.52	1.41
1	Ad	589	A	C2'-C1'	-8.53	1.44	1.53
1	Ad	1633	C	O4'-C1'	8.53	1.52	1.41
1	Ad	1809	U	C2'-C1'	8.53	1.62	1.53
1	Ad	1111	C	O4'-C1'	8.53	1.52	1.41
2	Ae	27	G	C2'-C1'	-8.52	1.44	1.53
1	Ad	218	G	O4'-C1'	8.52	1.52	1.41
1	Ad	215	A	C2'-C1'	8.51	1.62	1.53
1	Ad	224	C	C2'-C1'	8.51	1.62	1.53
1	Ad	1696	C	O4'-C1'	8.51	1.52	1.41
1	Ad	1772	A	C2'-C1'	8.51	1.62	1.53
1	Ad	322	U	O4'-C1'	8.51	1.52	1.41
1	Ad	733	U	O4'-C1'	8.50	1.52	1.41
1	Ad	1797	C	O4'-C1'	8.50	1.52	1.41
1	Ad	1288	C	O4'-C1'	8.50	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1028	A	O4'-C1'	-8.50	1.30	1.41
2	Ae	35	U	C2'-C1'	-8.49	1.44	1.53
1	Ad	534	C	O4'-C1'	8.49	1.52	1.41
1	Ad	108	C	O4'-C1'	8.49	1.52	1.41
1	Ad	54	C	O4'-C1'	8.49	1.52	1.41
1	Ad	459	C	O4'-C1'	8.49	1.52	1.41
1	Ad	787	C	O4'-C1'	-8.48	1.30	1.41
1	Ad	561	G	O4'-C1'	8.48	1.52	1.41
1	Ad	973	U	O4'-C1'	8.48	1.52	1.41
1	Ad	1457	C	C2'-C1'	-8.48	1.44	1.53
1	Ad	1584	A	O4'-C1'	8.47	1.52	1.41
1	Ad	990	G	C2'-C1'	-8.47	1.44	1.53
1	Ad	1097	A	C2'-C1'	-8.47	1.44	1.53
1	Ad	110	G	C2'-C1'	-8.46	1.44	1.53
1	Ad	186	A	O4'-C1'	8.46	1.52	1.41
1	Ad	1587	G	C2'-C1'	-8.46	1.44	1.53
1	Ad	519	A	O4'-C1'	8.45	1.52	1.41
1	Ad	1672	U	C2'-C1'	-8.45	1.44	1.53
1	Ad	548	C	O4'-C1'	8.45	1.52	1.41
1	Ad	776	A	C2'-C1'	8.44	1.62	1.53
1	Ad	1205	G	C2'-C1'	8.43	1.62	1.53
1	Ad	350	G	O4'-C1'	8.43	1.52	1.41
1	Ad	1026	C	C2'-C1'	-8.42	1.44	1.53
1	Ad	1751	U	O4'-C1'	8.42	1.52	1.41
1	Ad	555	G	C2'-C1'	-8.41	1.44	1.53
1	Ad	68	A	O4'-C1'	8.41	1.52	1.41
1	Ad	57	G	C2'-C1'	-8.38	1.44	1.53
1	Ad	1059	U	O4'-C1'	8.38	1.52	1.41
1	Ad	1370	C	O4'-C1'	8.37	1.52	1.41
1	Ad	66	U	C2'-C1'	8.36	1.62	1.53
1	Ad	1506	G	C2'-C1'	-8.36	1.44	1.53
1	Ad	911	A	C2'-C1'	-8.36	1.44	1.53
1	Ad	646	G	C2'-C1'	-8.35	1.44	1.53
1	Ad	234	G	C2'-C1'	-8.35	1.44	1.53
1	Ad	1308	G	C2'-C1'	-8.34	1.44	1.53
1	Ad	1	U	O4'-C1'	8.34	1.52	1.41
1	Ad	285	G	C2'-C1'	-8.34	1.44	1.53
86	Ab	97	G	N7-C5	-8.33	1.34	1.39
1	Ad	835	U	O4'-C1'	-8.32	1.30	1.41
1	Ad	1543	U	O4'-C1'	8.31	1.52	1.41
1	Ad	1028	A	C2'-C1'	8.31	1.62	1.53
1	Ad	838	U	O4'-C1'	8.31	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	55	A	C2'-C1'	-8.30	1.44	1.53
1	Ad	1338	U	O4'-C1'	8.30	1.52	1.41
1	Ad	91	C	O4'-C1'	8.30	1.52	1.41
2	Ae	47	U	C2'-C1'	8.30	1.62	1.53
1	Ad	298	C	C2'-C1'	-8.28	1.44	1.53
1	Ad	727	G	C2'-C1'	-8.27	1.44	1.53
1	Ad	1223	A	O4'-C1'	8.27	1.52	1.41
86	Ab	81	G	N7-C5	-8.27	1.34	1.39
1	Ad	1628	C	O4'-C1'	8.26	1.52	1.41
86	Ab	99	G	C6-N1	8.26	1.45	1.39
1	Ad	66	U	O4'-C1'	-8.26	1.30	1.41
1	Ad	1378	C	C2'-C1'	-8.26	1.44	1.53
1	Ad	1094	U	O4'-C1'	8.25	1.52	1.41
1	Ad	1159	G	C2'-C1'	-8.25	1.44	1.53
1	Ad	1601	A	C2'-C1'	-8.25	1.44	1.53
1	Ad	1717	C	O4'-C1'	8.25	1.52	1.41
1	Ad	1727	C	C2'-C1'	-8.24	1.44	1.53
84	Aa	723	G	C2'-C1'	-8.24	1.44	1.53
1	Ad	1405	U	C2'-C1'	-8.24	1.44	1.53
1	Ad	628	G	C2'-C1'	-8.24	1.44	1.53
1	Ad	1164	C	O4'-C1'	8.24	1.52	1.41
2	Ae	1	U	O4'-C1'	8.23	1.52	1.41
1	Ad	1805	U	O4'-C1'	8.23	1.52	1.41
1	Ad	88	C	O4'-C1'	8.22	1.52	1.41
1	Ad	140	C	C2'-C1'	-8.22	1.44	1.53
1	Ad	1734	U	C2'-C1'	-8.22	1.44	1.53
1	Ad	1044	A	C2'-C1'	8.22	1.62	1.53
1	Ad	1524	A	O4'-C1'	-8.21	1.30	1.41
1	Ad	785	A	O4'-C1'	8.21	1.52	1.41
1	Ad	1262	U	C2'-C1'	8.20	1.62	1.53
1	Ad	810	A	C2'-C1'	-8.20	1.44	1.53
1	Ad	1630	G	C2'-C1'	-8.20	1.44	1.53
1	Ad	1401	C	C2'-C1'	-8.19	1.44	1.53
1	Ad	838	U	C2'-C1'	-8.18	1.44	1.53
1	Ad	161	G	O4'-C1'	-8.18	1.31	1.41
1	Ad	1439	G	C2'-C1'	-8.18	1.44	1.53
1	Ad	1594	A	C2'-C1'	8.17	1.62	1.53
1	Ad	343	C	O4'-C1'	8.17	1.52	1.41
1	Ad	530	A	O4'-C1'	8.16	1.52	1.41
1	Ad	1665	U	C2'-C1'	8.16	1.62	1.53
2	Ae	63	C	O4'-C1'	8.16	1.52	1.41
1	Ad	347	C	O4'-C1'	8.16	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1606	U	C2'-C1'	-8.16	1.44	1.53
2	Ae	51	G	C2'-C1'	-8.16	1.44	1.53
1	Ad	979	A	C2'-C1'	-8.16	1.44	1.53
1	Ad	790	U	C2'-C1'	-8.16	1.44	1.53
1	Ad	572	G	C2'-C1'	-8.15	1.44	1.53
1	Ad	466	G	C2'-C1'	-8.14	1.44	1.53
1	Ad	1368	C	O4'-C1'	-8.14	1.31	1.41
1	Ad	139	U	C2'-C1'	-8.14	1.44	1.53
1	Ad	1774	C	O4'-C1'	8.14	1.52	1.41
2	Ae	37	G	C2'-C1'	-8.14	1.44	1.53
1	Ad	96	G	O4'-C1'	8.13	1.52	1.41
1	Ad	248	U	O4'-C1'	8.13	1.52	1.41
1	Ad	537	U	C2'-C1'	-8.13	1.44	1.53
1	Ad	1062	C	C2'-C1'	8.13	1.62	1.53
1	Ad	1661	C	C2'-C1'	-8.12	1.44	1.53
1	Ad	1804	A	C2'-C1'	8.12	1.62	1.53
1	Ad	339	G	O4'-C1'	8.12	1.52	1.41
1	Ad	56	U	C4'-C3'	8.11	1.62	1.53
84	Aa	1827	U	P-O5'	-8.11	1.51	1.59
1	Ad	1203	G	O4'-C1'	-8.11	1.31	1.41
1	Ad	933	G	O3'-P	-8.11	1.51	1.61
1	Ad	312	C	O4'-C1'	8.11	1.52	1.41
1	Ad	511	U	C2'-C1'	8.10	1.62	1.53
1	Ad	779	C	O4'-C1'	8.10	1.52	1.41
1	Ad	619	A	C2'-C1'	8.10	1.62	1.53
1	Ad	1512	C	O4'-C1'	8.10	1.52	1.41
1	Ad	1720	G	C2'-C1'	-8.10	1.44	1.53
1	Ad	841	U	C2'-C1'	8.09	1.62	1.53
1	Ad	1430	A	C2'-C1'	-8.09	1.44	1.53
1	Ad	577	C	O4'-C1'	8.09	1.52	1.41
1	Ad	515	A	O4'-C1'	8.09	1.52	1.41
1	Ad	1102	U	C2'-C1'	-8.09	1.44	1.53
1	Ad	363	G	C2'-C1'	8.08	1.62	1.53
2	Ae	66	C	O4'-C1'	8.08	1.52	1.41
1	Ad	382	A	O4'-C1'	8.08	1.52	1.41
1	Ad	1402	C	O4'-C1'	8.08	1.52	1.41
1	Ad	1419	U	O4'-C1'	8.08	1.52	1.41
1	Ad	417	U	O4'-C1'	8.07	1.52	1.41
1	Ad	1071	C	O4'-C1'	8.07	1.52	1.41
1	Ad	629	C	C2'-C1'	-8.06	1.44	1.53
1	Ad	24	U	C2'-C1'	-8.06	1.44	1.53
1	Ad	1201	C	O4'-C1'	8.06	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	868	A	O4'-C1'	8.06	1.52	1.41
1	Ad	863	G	C2'-C1'	-8.05	1.44	1.53
1	Ad	1112	G	C2'-C1'	-8.06	1.44	1.53
1	Ad	1369	C	O4'-C1'	8.05	1.52	1.41
1	Ad	1750	A	C2'-C1'	-8.06	1.44	1.53
1	Ad	1669	U	C2'-C1'	-8.05	1.44	1.53
1	Ad	920	A	O4'-C1'	8.04	1.52	1.41
1	Ad	1433	A	C2'-C1'	8.04	1.62	1.53
1	Ad	1769	C	O4'-C1'	8.04	1.52	1.41
1	Ad	1092	A	C2'-C1'	-8.03	1.44	1.53
1	Ad	1170	G	C2'-C1'	-8.03	1.44	1.53
84	Aa	2354	G	N7-C5	-8.02	1.34	1.39
1	Ad	606	U	O4'-C1'	8.02	1.52	1.41
1	Ad	389	A	O4'-C1'	8.01	1.52	1.41
1	Ad	1050	C	C2'-C1'	-8.01	1.44	1.53
1	Ad	1595	A	O4'-C1'	8.01	1.52	1.41
86	Ab	18	C	N1-C6	8.01	1.42	1.37
1	Ad	147	C	C2'-C1'	-8.01	1.44	1.53
1	Ad	1649	C	C2'-C1'	-8.00	1.44	1.53
1	Ad	554	A	C2'-C1'	-8.00	1.44	1.53
1	Ad	1726	G	C5'-C4'	8.00	1.60	1.51
1	Ad	885	C	C2'-C1'	-8.00	1.44	1.53
1	Ad	1552	U	C2'-C1'	-7.99	1.44	1.53
1	Ad	1652	C	C2'-C1'	-7.99	1.44	1.53
1	Ad	341	G	O4'-C1'	7.99	1.52	1.41
1	Ad	304	A	C2'-C1'	-7.99	1.44	1.53
1	Ad	5	U	C2'-C1'	-7.98	1.44	1.53
1	Ad	990	G	O4'-C1'	7.98	1.52	1.41
1	Ad	1070	A	O4'-C1'	7.97	1.52	1.41
1	Ad	1512	C	C2'-C1'	-7.97	1.44	1.53
1	Ad	277	G	O4'-C1'	7.97	1.52	1.41
1	Ad	1165	A	C2'-C1'	-7.97	1.44	1.53
1	Ad	134	G	O4'-C1'	7.96	1.52	1.41
1	Ad	626	A	O4'-C1'	7.96	1.52	1.41
1	Ad	1413	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	98	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	1111	C	C2'-C1'	-7.96	1.44	1.53
1	Ad	285	G	O4'-C1'	7.96	1.51	1.41
1	Ad	447	C	O4'-C1'	7.96	1.51	1.41
1	Ad	807	G	C2'-C1'	-7.96	1.44	1.53
3	Af	21	C	O4'-C1'	7.95	1.51	1.41
1	Ad	566	G	C2'-C1'	-7.95	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	23	A	C6-N6	7.94	1.40	1.33
1	Ad	464	A	C2'-C1'	-7.94	1.44	1.53
1	Ad	967	C	C2'-C1'	-7.94	1.44	1.53
1	Ad	1126	C	O4'-C1'	7.93	1.51	1.41
1	Ad	714	C	C2'-C1'	-7.93	1.44	1.53
1	Ad	1171	C	C2'-C1'	-7.93	1.44	1.53
1	Ad	747	U	C2'-C1'	-7.93	1.44	1.53
1	Ad	717	G	C2'-C1'	-7.92	1.44	1.53
1	Ad	1214	C	C2'-C1'	-7.92	1.44	1.53
1	Ad	1664	U	C2'-C1'	7.92	1.62	1.53
1	Ad	1226	U	C2'-C1'	7.92	1.62	1.53
1	Ad	38	C	O4'-C1'	7.92	1.51	1.41
1	Ad	867	A	C2'-C1'	7.91	1.62	1.53
1	Ad	767	G	O4'-C1'	7.91	1.51	1.41
1	Ad	480	U	O4'-C1'	7.91	1.51	1.41
1	Ad	497	U	O4'-C1'	7.91	1.51	1.41
1	Ad	1636	U	C2'-C1'	-7.91	1.44	1.53
1	Ad	401	A	C2'-C1'	-7.90	1.44	1.53
86	Ab	27	A	N7-C5	-7.90	1.34	1.39
1	Ad	1269	G	O4'-C1'	7.89	1.51	1.41
1	Ad	81	U	C2'-C1'	-7.88	1.44	1.53
86	Ab	40	A	C6-N6	7.88	1.40	1.33
1	Ad	1191	U	O4'-C1'	7.88	1.51	1.41
1	Ad	1225	A	O4'-C1'	7.88	1.51	1.41
1	Ad	583	A	C2'-C1'	-7.87	1.44	1.53
1	Ad	1530	G	O4'-C1'	7.87	1.51	1.41
84	Aa	2084	G	O3'-P	-7.87	1.51	1.61
1	Ad	1294	U	O4'-C1'	7.87	1.51	1.41
1	Ad	1303	G	O4'-C1'	7.86	1.51	1.41
1	Ad	1747	A	C5'-C4'	7.84	1.60	1.51
1	Ad	1260	A	O4'-C1'	7.84	1.51	1.41
1	Ad	947	G	C5'-C4'	7.83	1.60	1.51
1	Ad	612	U	O4'-C1'	7.83	1.51	1.41
1	Ad	1207	A	O4'-C1'	7.83	1.51	1.41
1	Ad	937	A	C2'-C1'	7.83	1.61	1.53
1	Ad	1236	U	O4'-C1'	7.82	1.51	1.41
1	Ad	423	G	C2'-C1'	-7.80	1.44	1.53
1	Ad	915	C	C2'-C1'	-7.80	1.44	1.53
1	Ad	14	C	O4'-C1'	7.79	1.51	1.41
1	Ad	421	A	C2'-C1'	7.78	1.61	1.53
86	Ab	87	G	C2-N3	7.77	1.39	1.32
1	Ad	122	U	C2'-C1'	-7.77	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	629	C	O4'-C1'	7.77	1.51	1.41
1	Ad	450	A	O4'-C1'	7.76	1.51	1.41
1	Ad	1736	C	C2'-C1'	-7.76	1.44	1.53
1	Ad	1359	C	O4'-C1'	7.76	1.51	1.41
1	Ad	1554	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	942	C	O4'-C1'	7.75	1.51	1.41
1	Ad	1492	G	O4'-C1'	-7.75	1.31	1.41
1	Ad	1728	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	436	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	189	U	C2'-C1'	7.75	1.61	1.53
1	Ad	1068	G	C2'-C1'	-7.75	1.44	1.53
1	Ad	1456	U	O4'-C1'	7.75	1.51	1.41
1	Ad	592	U	O4'-C1'	7.74	1.51	1.41
1	Ad	918	G	O4'-C1'	7.74	1.51	1.41
1	Ad	1542	G	O4'-C1'	-7.73	1.31	1.41
1	Ad	1000	A	C2'-C1'	-7.73	1.44	1.53
1	Ad	1789	U	O4'-C1'	7.72	1.51	1.41
1	Ad	1035	A	O3'-P	-7.72	1.51	1.61
1	Ad	1435	G	C2'-C1'	-7.72	1.44	1.53
1	Ad	374	A	C2'-C1'	-7.72	1.44	1.53
1	Ad	323	U	C2'-C1'	-7.70	1.44	1.53
1	Ad	1421	U	O4'-C1'	7.70	1.51	1.41
1	Ad	1640	C	O4'-C1'	7.69	1.51	1.41
1	Ad	1655	U	C2'-C1'	7.69	1.61	1.53
1	Ad	1086	A	O4'-C1'	7.69	1.51	1.41
1	Ad	875	C	O4'-C1'	7.69	1.51	1.41
1	Ad	1553	A	C2'-C1'	-7.68	1.44	1.53
2	Ae	29	C	C2'-C1'	-7.68	1.44	1.53
1	Ad	151	A	C2'-C1'	7.68	1.61	1.53
1	Ad	227	G	C2'-C1'	-7.67	1.45	1.53
1	Ad	292	A	O4'-C1'	7.67	1.51	1.41
1	Ad	923	U	O4'-C1'	7.67	1.51	1.41
1	Ad	1666	G	C2'-C1'	-7.67	1.45	1.53
1	Ad	148	C	O4'-C1'	7.67	1.51	1.41
1	Ad	771	G	C2'-C1'	7.65	1.61	1.53
86	Ab	37	G	C2-N3	7.65	1.38	1.32
1	Ad	1338	U	C2'-C1'	-7.65	1.45	1.53
1	Ad	1008	A	O4'-C1'	-7.64	1.31	1.41
1	Ad	1693	C	O4'-C1'	7.64	1.51	1.41
1	Ad	1339	C	O4'-C1'	7.64	1.51	1.41
1	Ad	210	A	C2'-C1'	-7.63	1.45	1.53
1	Ad	1642	C	O4'-C1'	7.63	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	514	G	C2'-C1'	-7.63	1.45	1.53
1	Ad	164	C	C2'-C1'	-7.62	1.45	1.53
1	Ad	1362	A	C2'-C1'	-7.62	1.45	1.53
86	Ab	5	G	C2-N3	7.61	1.38	1.32
1	Ad	137	A	O4'-C1'	-7.61	1.31	1.41
1	Ad	1496	A	C2'-C1'	7.61	1.61	1.53
1	Ad	456	A	O4'-C1'	-7.59	1.31	1.41
1	Ad	404	A	C2'-C1'	7.59	1.61	1.53
1	Ad	538	A	C2'-C1'	-7.59	1.45	1.53
1	Ad	1141	U	O4'-C1'	7.59	1.51	1.41
86	Ab	25	G	N1-C2	7.58	1.43	1.37
1	Ad	329	G	C2'-C1'	-7.57	1.45	1.53
1	Ad	167	A	C2'-C1'	7.57	1.61	1.53
1	Ad	1311	U	O4'-C1'	-7.57	1.31	1.41
1	Ad	412	C	C2'-C1'	-7.56	1.45	1.53
1	Ad	1278	C	O4'-C1'	-7.56	1.31	1.41
1	Ad	1398	U	C2'-C1'	-7.55	1.45	1.53
1	Ad	452	C	O4'-C1'	7.55	1.51	1.41
1	Ad	1738	U	C2'-C1'	-7.55	1.45	1.53
1	Ad	1682	U	O4'-C1'	7.54	1.51	1.41
1	Ad	495	C	O4'-C1'	7.54	1.51	1.41
86	Ab	99	G	C2-N3	7.54	1.38	1.32
1	Ad	1111	C	P-O5'	-7.53	1.52	1.59
1	Ad	1364	C	O4'-C1'	7.53	1.51	1.41
1	Ad	273	C	O4'-C1'	7.53	1.51	1.41
1	Ad	1647	C	O4'-C1'	7.53	1.51	1.41
1	Ad	797	A	O4'-C1'	7.52	1.51	1.41
1	Ad	3	C	C2'-C1'	7.52	1.61	1.53
1	Ad	1329	A	C2'-C1'	-7.52	1.45	1.53
2	Ae	52	G	C2'-C1'	-7.52	1.45	1.53
1	Ad	516	A	C2'-C1'	7.50	1.61	1.53
1	Ad	253	C	C2'-C1'	-7.49	1.45	1.53
1	Ad	1286	U	C2'-C1'	-7.49	1.45	1.53
1	Ad	1231	A	O4'-C1'	7.49	1.51	1.41
1	Ad	1592	G	O4'-C1'	-7.49	1.31	1.41
1	Ad	1594	A	O4'-C1'	7.49	1.51	1.41
1	Ad	1446	C	O4'-C1'	7.48	1.51	1.41
1	Ad	458	A	O4'-C1'	-7.47	1.31	1.41
1	Ad	817	C	C2'-C1'	7.47	1.61	1.53
1	Ad	1363	G	C2'-C1'	-7.47	1.45	1.53
3	Af	21	C	C2'-C1'	7.47	1.61	1.53
1	Ad	1230	A	O4'-C1'	7.46	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	290	C	P-O5'	-7.46	1.52	1.59
1	Ad	624	A	P-O5'	-7.46	1.52	1.59
1	Ad	712	U	C2'-C1'	7.46	1.61	1.53
1	Ad	1155	G	O4'-C1'	7.46	1.51	1.41
1	Ad	599	G	C2'-C1'	-7.46	1.45	1.53
1	Ad	1521	G	O4'-C1'	-7.45	1.31	1.41
1	Ad	386	C	O4'-C1'	7.45	1.51	1.41
1	Ad	414	A	C2'-C1'	-7.45	1.45	1.53
1	Ad	1136	A	O4'-C1'	7.45	1.51	1.41
1	Ad	33	U	C2'-C1'	7.44	1.61	1.53
1	Ad	1365	C	O4'-C1'	7.44	1.51	1.41
1	Ad	1469	C	C2'-C1'	-7.44	1.45	1.53
1	Ad	378	U	O4'-C1'	7.43	1.51	1.41
1	Ad	704	C	C2'-C1'	-7.43	1.45	1.53
1	Ad	1109	U	O4'-C1'	7.43	1.51	1.41
1	Ad	1555	A	O4'-C1'	7.43	1.51	1.41
1	Ad	1688	G	O4'-C1'	-7.43	1.31	1.41
2	Ae	55	C	C2'-C1'	-7.43	1.45	1.53
86	Ab	94	C	C4-C5	7.43	1.48	1.43
1	Ad	1099	G	C2'-C1'	-7.42	1.45	1.53
1	Ad	1623	C	O4'-C1'	7.42	1.51	1.41
84	Aa	2512	U	O3'-P	-7.42	1.52	1.61
2	Ae	68	C	O4'-C1'	7.42	1.51	1.41
1	Ad	858	G	C2'-C1'	-7.42	1.45	1.53
1	Ad	435	C	C2'-C1'	-7.41	1.45	1.53
1	Ad	380	C	C2'-C1'	-7.41	1.45	1.53
1	Ad	244	C	C2'-C1'	7.39	1.61	1.53
1	Ad	1041	A	C2'-C1'	7.39	1.61	1.53
1	Ad	1117	G	O4'-C1'	7.39	1.51	1.41
1	Ad	407	G	O4'-C1'	-7.39	1.32	1.41
1	Ad	1166	C	O4'-C1'	7.39	1.51	1.41
3	Af	20	U	O4'-C1'	7.39	1.51	1.41
1	Ad	960	A	O4'-C1'	7.38	1.51	1.41
1	Ad	117	U	O4'-C1'	7.38	1.51	1.41
1	Ad	596	A	C2'-C1'	-7.37	1.45	1.53
1	Ad	823	A	O3'-P	-7.37	1.52	1.61
86	Ab	10	C	N3-C4	7.37	1.39	1.33
1	Ad	1661	C	O4'-C1'	7.36	1.51	1.41
1	Ad	1362	A	O4'-C1'	7.36	1.51	1.41
1	Ad	308	U	O4'-C1'	7.34	1.51	1.41
1	Ad	1255	U	O4'-C1'	-7.33	1.32	1.41
1	Ad	651	G	O4'-C1'	7.33	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1244	U	O4'-C1'	7.33	1.51	1.41
1	Ad	1070	A	C2'-C1'	-7.33	1.45	1.53
1	Ad	217	A	C2'-C1'	-7.32	1.45	1.53
1	Ad	735	G	O4'-C1'	7.32	1.51	1.41
1	Ad	1779	U	C2'-C1'	-7.32	1.45	1.53
1	Ad	913	U	O4'-C1'	7.31	1.51	1.41
1	Ad	55	A	O4'-C1'	7.31	1.51	1.41
1	Ad	193	G	O4'-C1'	7.30	1.51	1.41
1	Ad	1364	C	C2'-C1'	-7.30	1.45	1.53
1	Ad	372	U	C2'-C1'	7.30	1.61	1.53
1	Ad	1316	A	O4'-C1'	7.30	1.51	1.41
1	Ad	1477	A	C2'-C1'	7.29	1.61	1.53
1	Ad	828	G	C2'-C1'	-7.29	1.45	1.53
1	Ad	388	G	O4'-C1'	7.29	1.51	1.41
1	Ad	1192	G	C2'-C1'	-7.29	1.45	1.53
1	Ad	368	A	C2'-C1'	7.29	1.61	1.53
1	Ad	1229	C	C2'-C1'	-7.28	1.45	1.53
1	Ad	1035	A	O4'-C1'	7.28	1.51	1.41
1	Ad	336	U	O4'-C1'	-7.27	1.32	1.41
1	Ad	755	U	O4'-C1'	7.27	1.51	1.41
1	Ad	1094	U	C2'-C1'	-7.27	1.45	1.53
1	Ad	1381	G	C2'-C1'	-7.27	1.45	1.53
1	Ad	772	C	O4'-C1'	7.27	1.51	1.41
1	Ad	49	C	C2'-C1'	-7.26	1.45	1.53
2	Ae	20	C	C5'-C4'	7.26	1.60	1.51
2	Ae	64	G	C2'-C1'	-7.26	1.45	1.53
1	Ad	269	A	O4'-C1'	-7.26	1.32	1.41
1	Ad	985	G	C2'-C1'	-7.25	1.45	1.53
1	Ad	1133	C	O4'-C1'	7.25	1.51	1.41
1	Ad	587	C	O4'-C1'	7.25	1.51	1.41
1	Ad	1499	U	C2'-C1'	-7.25	1.45	1.53
84	Aa	87	A	N7-C5	-7.25	1.34	1.39
1	Ad	590	G	O4'-C1'	7.24	1.51	1.41
1	Ad	1760	A	O4'-C1'	7.24	1.51	1.41
1	Ad	409	C	O4'-C1'	7.24	1.51	1.41
1	Ad	708	G	O4'-C1'	7.24	1.51	1.41
1	Ad	448	C	C5'-C4'	7.24	1.60	1.51
1	Ad	1526	C	O4'-C1'	7.24	1.51	1.41
2	Ae	17	G	C2'-C1'	-7.24	1.45	1.53
1	Ad	1453	U	O4'-C1'	7.23	1.51	1.41
2	Ae	59	U	O4'-C1'	7.23	1.51	1.41
1	Ad	706	U	O4'-C1'	7.22	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1152	A	C2'-C1'	-7.22	1.45	1.53
1	Ad	1660	C	O4'-C1'	7.22	1.51	1.41
1	Ad	517	U	O4'-C1'	7.22	1.51	1.41
86	Ab	107	C	N1-C6	7.22	1.41	1.37
3	Af	12	A	O4'-C1'	-7.22	1.32	1.41
1	Ad	20	G	O4'-C1'	7.22	1.51	1.41
1	Ad	1268	G	O4'-C1'	7.21	1.51	1.41
2	Ae	57	A	C2'-C1'	7.21	1.61	1.53
1	Ad	1040	G	C2'-C1'	-7.21	1.45	1.53
1	Ad	927	A	C2'-C1'	-7.21	1.45	1.53
1	Ad	1194	C	C2'-C1'	7.20	1.61	1.53
1	Ad	1576	C	C3'-C2'	7.20	1.60	1.52
1	Ad	1367	U	C2'-C1'	7.20	1.61	1.53
1	Ad	1605	A	C2'-C1'	-7.20	1.45	1.53
1	Ad	761	A	C2'-C1'	-7.20	1.45	1.53
1	Ad	1152	A	O4'-C1'	7.20	1.51	1.41
1	Ad	1054	G	O4'-C1'	7.19	1.51	1.41
1	Ad	1015	C	C2'-C1'	-7.18	1.45	1.53
2	Ae	66	C	C2'-C1'	-7.18	1.45	1.53
1	Ad	762	A	C2'-C1'	-7.18	1.45	1.53
1	Ad	1157	A	C2'-C1'	-7.18	1.45	1.53
1	Ad	840	U	O4'-C1'	7.16	1.50	1.41
1	Ad	835	U	C2'-C1'	7.16	1.61	1.53
1	Ad	1043	C	C2'-C1'	-7.16	1.45	1.53
1	Ad	333	G	C2'-C1'	-7.16	1.45	1.53
2	Ae	21	A	C2'-C1'	-7.16	1.45	1.53
1	Ad	607	U	C2'-C1'	-7.15	1.45	1.53
1	Ad	1307	U	C2'-C1'	-7.15	1.45	1.53
1	Ad	1524	A	C2'-C1'	7.15	1.61	1.53
1	Ad	239	C	C2'-C1'	-7.14	1.45	1.53
1	Ad	970	U	C2'-C1'	-7.14	1.45	1.53
1	Ad	1177	G	C2'-C1'	-7.14	1.45	1.53
1	Ad	313	C	O4'-C1'	7.14	1.50	1.41
1	Ad	1289	U	O4'-C1'	7.13	1.50	1.41
1	Ad	959	G	O4'-C1'	7.12	1.50	1.41
1	Ad	487	A	C2'-C1'	-7.12	1.45	1.53
1	Ad	1656	C	C2'-C1'	-7.12	1.45	1.53
3	Af	13	A	C2'-C1'	7.12	1.61	1.53
1	Ad	989	G	C2'-C1'	-7.11	1.45	1.53
85	Ac	59	A	N7-C5	-7.11	1.34	1.39
1	Ad	105	A	O4'-C1'	7.11	1.50	1.41
1	Ad	455	G	C2'-C1'	-7.11	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1045	G	C5'-C4'	7.11	1.59	1.51
1	Ad	1411	C	C2'-C1'	-7.11	1.45	1.53
1	Ad	997	A	C2'-C1'	-7.10	1.45	1.53
1	Ad	491	G	C2'-C1'	7.10	1.61	1.53
2	Ae	68	C	C2'-C1'	-7.10	1.45	1.53
1	Ad	223	A	O4'-C1'	7.09	1.50	1.41
1	Ad	1439	G	O4'-C1'	7.09	1.50	1.41
1	Ad	1296	G	O4'-C1'	7.08	1.50	1.41
1	Ad	1567	G	C2'-C1'	7.08	1.61	1.53
1	Ad	1678	G	O4'-C1'	7.08	1.50	1.41
1	Ad	347	C	C2'-C1'	-7.07	1.45	1.53
86	Ab	60	G	C2-N3	7.07	1.38	1.32
1	Ad	1004	U	O4'-C1'	7.07	1.50	1.41
86	Ab	90	A	C6-N1	7.07	1.40	1.35
1	Ad	1793	C	O4'-C1'	7.07	1.50	1.41
1	Ad	1476	C	O4'-C1'	7.06	1.50	1.41
1	Ad	1004	U	C2'-C1'	-7.06	1.45	1.53
1	Ad	465	G	C2'-C1'	-7.06	1.45	1.53
1	Ad	1139	C	C2'-C1'	-7.06	1.45	1.53
1	Ad	1413	C	O4'-C1'	7.05	1.50	1.41
1	Ad	1483	G	C2'-C1'	-7.05	1.45	1.53
1	Ad	1343	C	O4'-C1'	7.05	1.50	1.41
1	Ad	1436	U	O4'-C1'	7.05	1.50	1.41
84	Aa	2415	U	P-O5'	-7.04	1.52	1.59
2	Ae	3	C	C2'-C1'	-7.04	1.45	1.53
1	Ad	1224	C	O4'-C1'	7.04	1.50	1.41
2	Ae	7	A	O4'-C1'	7.03	1.50	1.41
1	Ad	1167	C	C2'-C1'	-7.01	1.45	1.53
1	Ad	978	A	O4'-C1'	7.00	1.50	1.41
1	Ad	207	A	C2'-C1'	-7.00	1.45	1.53
1	Ad	115	A	C2'-C1'	-7.00	1.45	1.53
1	Ad	948	C	C2'-C1'	-7.00	1.45	1.53
1	Ad	1158	G	C2'-C1'	-6.99	1.45	1.53
1	Ad	1720	G	O4'-C1'	6.99	1.50	1.41
1	Ad	230	C	O4'-C1'	6.99	1.50	1.41
1	Ad	305	A	O4'-C1'	6.98	1.50	1.41
1	Ad	1412	A	C2'-C1'	-6.98	1.45	1.53
1	Ad	958	G	C2'-C1'	-6.97	1.45	1.53
1	Ad	1654	C	C2'-C1'	-6.97	1.45	1.53
1	Ad	850	G	O4'-C1'	6.97	1.50	1.41
1	Ad	169	A	C2'-C1'	-6.96	1.45	1.53
1	Ad	327	A	C2'-C1'	-6.96	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	528	U	O4'-C1'	6.96	1.50	1.41
1	Ad	975	A	O4'-C1'	6.96	1.50	1.41
1	Ad	18	C	C2'-C1'	-6.96	1.45	1.53
1	Ad	525	A	C2'-C1'	-6.95	1.45	1.53
1	Ad	1236	U	C2'-C1'	-6.95	1.45	1.53
1	Ad	488	C	C2'-C1'	-6.94	1.45	1.53
84	Aa	2345	C	P-O5'	-6.94	1.52	1.59
1	Ad	546	U	O3'-P	-6.92	1.52	1.61
1	Ad	1677	U	O4'-C1'	6.92	1.50	1.41
1	Ad	1769	C	C5'-C4'	6.92	1.59	1.51
86	Ab	23	A	C6-N1	6.92	1.40	1.35
1	Ad	328	U	C2'-C1'	6.91	1.60	1.53
1	Ad	1767	G	C2'-C1'	-6.90	1.45	1.53
1	Ad	125	A	C2'-C1'	-6.90	1.45	1.53
1	Ad	888	U	C2'-C1'	-6.90	1.45	1.53
1	Ad	1146	G	O4'-C1'	6.89	1.50	1.41
1	Ad	1178	C	O4'-C1'	6.89	1.50	1.41
1	Ad	1741	A	C2'-C1'	-6.89	1.45	1.53
1	Ad	1436	U	C2'-C1'	-6.88	1.45	1.53
1	Ad	154	A	C2'-C1'	-6.88	1.45	1.53
1	Ad	47	A	C2'-C1'	-6.88	1.45	1.53
2	Ae	53	U	O4'-C1'	6.88	1.50	1.41
1	Ad	1384	U	C2'-C1'	6.87	1.60	1.53
1	Ad	1473	C	O4'-C1'	6.87	1.50	1.41
86	Ab	94	C	N3-C4	6.87	1.38	1.33
1	Ad	424	A	O4'-C1'	6.87	1.50	1.41
1	Ad	1556	U	C2'-C1'	6.86	1.60	1.53
1	Ad	127	G	O4'-C1'	6.85	1.50	1.41
1	Ad	1089	A	O4'-C1'	6.85	1.50	1.41
1	Ad	1684	U	O4'-C1'	6.84	1.50	1.41
1	Ad	1133	C	C2'-C1'	-6.84	1.45	1.53
1	Ad	1431	A	C5'-C4'	6.84	1.59	1.51
1	Ad	610	A	C2'-C1'	-6.83	1.45	1.53
1	Ad	1465	C	O4'-C1'	6.83	1.50	1.41
1	Ad	931	A	O4'-C1'	6.83	1.50	1.41
86	Ab	5	G	C2'-C1'	-6.82	1.45	1.53
1	Ad	1452	A	C5'-C4'	6.82	1.59	1.51
1	Ad	477	A	O4'-C1'	6.82	1.50	1.41
1	Ad	1563	A	O4'-C1'	6.81	1.50	1.41
1	Ad	282	C	C3'-C2'	6.81	1.60	1.52
1	Ad	293	C	O4'-C1'	6.81	1.50	1.41
1	Ad	200	C	O4'-C1'	6.81	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	66	G	N1-C2	6.81	1.43	1.37
1	Ad	1443	U	O4'-C1'	6.80	1.50	1.41
1	Ad	1002	G	O4'-C1'	6.80	1.50	1.41
1	Ad	1498	A	O4'-C1'	-6.79	1.32	1.41
1	Ad	976	A	C2'-C1'	-6.78	1.45	1.53
2	Ae	22	G	O4'-C1'	6.78	1.50	1.41
1	Ad	131	C	C2'-C1'	6.78	1.60	1.53
2	Ae	11	U	C2'-C1'	-6.78	1.45	1.53
86	Ab	58	G	C2'-C1'	-6.78	1.45	1.53
1	Ad	1085	U	C2'-C1'	6.77	1.60	1.53
86	Ab	83	A	C6-N6	6.77	1.39	1.33
1	Ad	479	A	O4'-C1'	6.77	1.50	1.41
1	Ad	165	U	C2'-C1'	-6.75	1.46	1.53
1	Ad	650	G	O4'-C1'	6.75	1.50	1.41
1	Ad	1639	A	O4'-C1'	6.75	1.50	1.41
86	Ab	6	C	N3-C4	6.75	1.38	1.33
1	Ad	266	C	O4'-C1'	6.75	1.50	1.41
86	Ab	85	G	C6-N1	6.74	1.44	1.39
84	Aa	1747	A	P-O5'	-6.74	1.53	1.59
1	Ad	418	C	C2'-C1'	-6.73	1.46	1.53
1	Ad	857	A	C2'-C1'	-6.71	1.46	1.53
1	Ad	1450	A	O4'-C1'	6.71	1.50	1.41
1	Ad	247	A	C2'-C1'	6.70	1.60	1.53
1	Ad	473	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	1023	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	166	A	O4'-C1'	6.70	1.50	1.41
1	Ad	984	A	C5'-C4'	6.70	1.59	1.51
1	Ad	531	A	O4'-C1'	6.70	1.50	1.41
2	Ae	48	C	C2'-C1'	-6.70	1.46	1.53
1	Ad	847	U	O4'-C1'	6.70	1.50	1.41
1	Ad	1350	C	C4'-C3'	6.69	1.60	1.53
1	Ad	226	C	O4'-C1'	6.69	1.50	1.41
1	Ad	470	U	C2'-C1'	-6.69	1.46	1.53
1	Ad	459	C	C2'-C1'	6.68	1.60	1.53
1	Ad	102	U	O4'-C1'	6.68	1.50	1.41
1	Ad	1441	C	O4'-C1'	6.68	1.50	1.41
1	Ad	1513	A	C2'-C1'	6.68	1.60	1.53
1	Ad	963	U	O4'-C1'	6.67	1.50	1.41
1	Ad	1386	U	O4'-C1'	6.67	1.50	1.41
1	Ad	83	U	C2'-C1'	6.66	1.60	1.53
1	Ad	639	G	C2'-C1'	-6.66	1.46	1.53
1	Ad	902	C	C2'-C1'	6.66	1.60	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1136	A	C2'-C1'	-6.66	1.46	1.53
1	Ad	1018	A	C5'-C4'	6.65	1.59	1.51
1	Ad	1338	U	C5'-C4'	6.65	1.59	1.51
1	Ad	1370	C	C2'-C1'	-6.65	1.46	1.53
1	Ad	365	C	O4'-C1'	6.64	1.50	1.41
1	Ad	625	A	P-O5'	-6.64	1.53	1.59
2	Ae	19	U	C5'-C4'	6.64	1.59	1.51
1	Ad	1424	G	C2'-C1'	-6.63	1.46	1.53
84	Aa	2092	C	C2'-C1'	-6.63	1.46	1.53
1	Ad	13	C	O4'-C1'	6.63	1.50	1.41
2	Ae	20	C	O4'-C1'	6.63	1.50	1.41
2	Ae	71	A	O4'-C1'	6.63	1.50	1.41
1	Ad	836	U	C5'-C4'	6.63	1.59	1.51
1	Ad	1741	A	O4'-C1'	6.63	1.50	1.41
1	Ad	1472	G	O4'-C1'	6.62	1.50	1.41
1	Ad	1049	U	O4'-C1'	6.61	1.50	1.41
86	Ab	29	C	C2-N3	6.61	1.41	1.35
1	Ad	307	U	O4'-C1'	6.61	1.50	1.41
1	Ad	959	G	C2'-C1'	-6.61	1.46	1.53
1	Ad	107	U	C2'-C1'	6.60	1.60	1.53
1	Ad	423	G	O4'-C1'	6.60	1.50	1.41
1	Ad	454	U	O4'-C1'	6.60	1.50	1.41
1	Ad	396	G	O4'-C1'	-6.60	1.33	1.41
86	Ab	101	A	C6-N6	6.60	1.39	1.33
1	Ad	1671	G	O3'-P	-6.60	1.53	1.61
1	Ad	732	G	O4'-C1'	-6.59	1.33	1.41
1	Ad	1535	U	O4'-C1'	6.59	1.50	1.41
1	Ad	748	C	C2'-C1'	-6.59	1.46	1.53
1	Ad	926	G	C2'-C1'	-6.58	1.46	1.53
1	Ad	1508	C	O4'-C1'	6.58	1.50	1.41
1	Ad	531	A	C5'-C4'	6.58	1.59	1.51
1	Ad	1077	C	C2'-C1'	-6.57	1.46	1.53
1	Ad	574	A	C2'-C1'	6.57	1.60	1.53
1	Ad	1185	U	O4'-C1'	6.57	1.50	1.41
1	Ad	761	A	C3'-C2'	6.57	1.60	1.52
86	Ab	71	A	C6-N1	6.56	1.40	1.35
1	Ad	163	G	C2'-C1'	-6.56	1.46	1.53
1	Ad	523	C	C2'-C1'	-6.56	1.46	1.53
1	Ad	614	G	C2'-C1'	-6.56	1.46	1.53
1	Ad	1672	U	O4'-C1'	6.56	1.50	1.41
1	Ad	337	A	O4'-C1'	6.55	1.50	1.41
1	Ad	927	A	O4'-C1'	6.55	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	768	A	O4'-C1'	6.55	1.50	1.41
1	Ad	793	G	C5'-C4'	6.55	1.59	1.51
1	Ad	899	A	O4'-C1'	6.55	1.50	1.41
1	Ad	468	A	O4'-C1'	-6.55	1.33	1.41
1	Ad	1537	U	C2'-C1'	6.54	1.60	1.53
1	Ad	1054	G	C2'-C1'	-6.54	1.46	1.53
86	Ab	76	U	N3-C4	6.53	1.44	1.38
1	Ad	1762	C	C2'-C1'	-6.53	1.46	1.53
1	Ad	1509	C	O4'-C1'	6.53	1.50	1.41
1	Ad	1271	G	O4'-C1'	-6.53	1.33	1.41
1	Ad	825	U	C2'-C1'	-6.52	1.46	1.53
2	Ae	11	U	O4'-C1'	6.52	1.50	1.41
1	Ad	1277	G	C2'-C1'	-6.52	1.46	1.53
1	Ad	741	C	C5'-C4'	6.52	1.59	1.51
1	Ad	1590	U	C2'-C1'	6.52	1.60	1.53
1	Ad	581	G	O3'-P	-6.51	1.53	1.61
1	Ad	113	A	C5'-C4'	6.51	1.59	1.51
1	Ad	133	U	C2'-C1'	-6.51	1.46	1.53
2	Ae	25	U	C2'-C1'	-6.51	1.46	1.53
1	Ad	366	G	O3'-P	-6.50	1.53	1.61
1	Ad	565	G	C2'-C1'	-6.50	1.46	1.53
84	Aa	1747	A	C2'-C1'	-6.50	1.46	1.53
1	Ad	801	U	O4'-C1'	-6.50	1.33	1.41
1	Ad	1167	C	O4'-C1'	6.50	1.50	1.41
1	Ad	586	U	C2'-C1'	-6.50	1.46	1.53
2	Ae	38	C	C2'-C1'	-6.50	1.46	1.53
86	Ab	74	A	C6-N6	6.50	1.39	1.33
1	Ad	1553	A	O4'-C1'	6.50	1.50	1.41
1	Ad	1062	C	O4'-C1'	6.49	1.50	1.41
1	Ad	937	A	P-O5'	-6.49	1.53	1.59
1	Ad	1420	U	C2'-C1'	-6.49	1.46	1.53
1	Ad	1663	A	C2'-C1'	6.49	1.60	1.53
1	Ad	1233	G	O4'-C1'	6.49	1.50	1.41
84	Aa	2374	G	N7-C5	-6.48	1.35	1.39
1	Ad	920	A	C2'-C1'	-6.47	1.46	1.53
1	Ad	1341	G	C2'-C1'	-6.47	1.46	1.53
1	Ad	974	C	O4'-C1'	6.47	1.50	1.41
1	Ad	1019	G	O4'-C1'	-6.47	1.33	1.41
1	Ad	1258	U	O4'-C1'	6.47	1.50	1.41
1	Ad	1358	G	O3'-P	-6.47	1.53	1.61
1	Ad	426	G	C5'-C4'	6.46	1.59	1.51
86	Ab	103	U	N3-C4	6.46	1.44	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2527	G	N7-C5	-6.46	1.35	1.39
1	Ad	1253	U	O4'-C1'	6.46	1.50	1.41
1	Ad	1415	G	O4'-C1'	6.46	1.50	1.41
86	Ab	11	A	C6-N6	6.45	1.39	1.33
1	Ad	11	A	O4'-C1'	6.45	1.50	1.41
1	Ad	1118	A	C4'-C3'	6.45	1.60	1.53
1	Ad	27	U	O4'-C1'	6.45	1.50	1.41
1	Ad	622	U	C2'-C1'	-6.45	1.46	1.53
1	Ad	1448	U	C2'-C1'	-6.45	1.46	1.53
1	Ad	274	A	O4'-C1'	6.44	1.50	1.41
1	Ad	1703	G	O4'-C1'	6.44	1.50	1.41
86	Ab	74	A	C6-N1	6.44	1.40	1.35
1	Ad	529	A	O4'-C1'	6.44	1.50	1.41
84	Aa	1450	G	N7-C5	-6.44	1.35	1.39
1	Ad	411	A	O4'-C1'	6.44	1.50	1.41
1	Ad	15	U	O4'-C1'	6.43	1.50	1.41
1	Ad	1385	C	C2'-C1'	-6.43	1.46	1.53
1	Ad	357	A	O4'-C1'	6.42	1.50	1.41
1	Ad	402	G	O4'-C1'	6.42	1.50	1.41
84	Aa	1612	C	P-O5'	-6.42	1.53	1.59
1	Ad	1734	U	O4'-C1'	6.42	1.50	1.41
1	Ad	1651	U	C2'-C1'	-6.42	1.46	1.53
84	Aa	2093	G	C6-N1	6.42	1.44	1.39
1	Ad	263	C	C2'-C1'	6.42	1.60	1.53
1	Ad	584	A	C5'-C4'	6.41	1.59	1.51
1	Ad	598	A	O4'-C1'	6.41	1.50	1.41
1	Ad	723	A	C2'-C1'	6.41	1.60	1.53
1	Ad	1186	U	C2'-C1'	6.41	1.60	1.53
1	Ad	873	G	C2'-C1'	6.39	1.60	1.53
1	Ad	490	G	O4'-C1'	6.39	1.50	1.41
1	Ad	1658	U	O4'-C1'	6.39	1.50	1.41
1	Ad	331	U	C2'-C1'	6.39	1.60	1.53
1	Ad	1641	A	O3'-P	-6.39	1.53	1.61
84	Aa	423	C	N3-C4	6.38	1.38	1.33
1	Ad	501	U	C5'-C4'	6.38	1.59	1.51
1	Ad	852	A	O4'-C1'	6.38	1.50	1.41
1	Ad	1651	U	O4'-C1'	6.38	1.50	1.41
1	Ad	306	U	O4'-C1'	6.38	1.50	1.41
1	Ad	1550	G	O4'-C1'	-6.38	1.33	1.41
1	Ad	1723	G	C2'-C1'	-6.38	1.46	1.53
1	Ad	982	A	O4'-C1'	6.37	1.50	1.41
1	Ad	1613	G	O4'-C1'	6.37	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	252	U	C2'-C1'	6.36	1.60	1.53
84	Aa	3042	U	P-O5'	-6.36	1.53	1.59
1	Ad	1188	A	C2'-C1'	6.36	1.60	1.53
1	Ad	1128	C	C2'-C1'	-6.36	1.46	1.53
1	Ad	378	U	C5'-C4'	6.36	1.58	1.51
1	Ad	1054	G	P-O5'	-6.36	1.53	1.59
1	Ad	1246	A	O4'-C1'	6.35	1.50	1.41
1	Ad	1573	C	O4'-C1'	6.35	1.50	1.41
84	Aa	97	G	N7-C5	-6.35	1.35	1.39
1	Ad	482	A	O4'-C1'	6.35	1.50	1.41
1	Ad	1738	U	O4'-C1'	6.34	1.49	1.41
1	Ad	1713	C	O4'-C1'	6.34	1.49	1.41
1	Ad	54	C	P-O5'	-6.34	1.53	1.59
1	Ad	222	G	C2'-C1'	-6.33	1.46	1.53
1	Ad	1459	G	C2'-C1'	6.33	1.60	1.53
1	Ad	1278	C	C2'-C1'	-6.33	1.46	1.53
1	Ad	844	C	O4'-C1'	6.33	1.49	1.41
84	Aa	978	C	P-O5'	-6.32	1.53	1.59
86	Ab	42	A	C6-N6	6.32	1.39	1.33
1	Ad	802	A	O4'-C1'	6.32	1.49	1.41
1	Ad	1674	C	C2'-C1'	-6.32	1.46	1.53
1	Ad	200	C	C2'-C1'	-6.32	1.46	1.53
1	Ad	767	G	C2'-C1'	-6.32	1.46	1.53
86	Ab	75	G	N9-C8	6.32	1.42	1.37
1	Ad	1037	G	O4'-C1'	6.31	1.49	1.41
86	Ab	17	G	C6-N1	6.31	1.44	1.39
1	Ad	335	A	C5'-C4'	6.31	1.58	1.51
1	Ad	1259	G	C2'-C1'	6.31	1.60	1.53
1	Ad	1265	A	C2'-C1'	-6.31	1.46	1.53
86	Ab	8	A	C6-N6	6.31	1.39	1.33
1	Ad	1340	A	C2'-C1'	-6.30	1.46	1.53
1	Ad	1091	A	O4'-C1'	6.30	1.49	1.41
1	Ad	1106	G	C2'-C1'	-6.30	1.46	1.53
1	Ad	1419	U	C4'-C3'	6.30	1.60	1.53
1	Ad	1578	A	C5'-C4'	6.29	1.58	1.51
1	Ad	428	C	O4'-C1'	6.29	1.49	1.41
86	Ab	115	A	N7-C5	-6.29	1.35	1.39
1	Ad	1368	C	C2'-C1'	6.28	1.60	1.53
1	Ad	1540	U	P-O5'	-6.28	1.53	1.59
1	Ad	797	A	C2'-C1'	-6.28	1.46	1.53
1	Ad	6	G	C2'-C1'	-6.27	1.46	1.53
1	Ad	236	U	C2'-C1'	-6.27	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2162	C	O3'-P	-6.26	1.53	1.61
1	Ad	1347	U	C2'-C1'	-6.26	1.46	1.53
1	Ad	1135	G	O4'-C1'	6.26	1.49	1.41
1	Ad	1334	G	C2'-C1'	6.25	1.60	1.53
86	Ab	109	U	N1-C6	6.25	1.43	1.38
3	Af	18	C	C2'-C1'	-6.25	1.46	1.53
1	Ad	269	A	C5'-C4'	6.25	1.58	1.51
1	Ad	1719	C	O4'-C1'	6.25	1.49	1.41
1	Ad	1004	U	C4'-C3'	6.24	1.60	1.53
1	Ad	1025	A	C2'-C1'	-6.24	1.46	1.53
1	Ad	1190	U	C2'-C1'	6.24	1.60	1.53
1	Ad	1430	A	C5'-C4'	6.24	1.58	1.51
1	Ad	1685	U	P-O5'	-6.24	1.53	1.59
1	Ad	1631	C	C2'-C1'	-6.23	1.46	1.53
86	Ab	60	G	O3'-P	-6.23	1.53	1.61
1	Ad	645	G	C2'-C1'	-6.22	1.46	1.53
1	Ad	844	C	C2'-C1'	6.22	1.60	1.53
1	Ad	1560	U	C2'-C1'	-6.22	1.46	1.53
1	Ad	1342	C	O4'-C1'	6.22	1.49	1.41
1	Ad	1660	C	C2'-C1'	-6.22	1.46	1.53
1	Ad	564	U	C2'-C1'	-6.21	1.46	1.53
1	Ad	1737	A	C5'-C4'	6.21	1.58	1.51
84	Aa	587	A	N7-C5	-6.21	1.35	1.39
84	Aa	1693	A	N7-C5	-6.21	1.35	1.39
86	Ab	56	G	N1-C2	6.20	1.42	1.37
1	Ad	563	C	C2'-C1'	-6.20	1.46	1.53
1	Ad	422	G	C5'-C4'	6.20	1.58	1.51
1	Ad	266	C	O3'-P	-6.19	1.53	1.61
1	Ad	90	G	C2'-C1'	-6.18	1.46	1.53
1	Ad	224	C	O4'-C1'	6.17	1.49	1.41
1	Ad	233	U	O4'-C1'	6.17	1.49	1.41
1	Ad	744	G	C2'-C1'	6.17	1.60	1.53
1	Ad	876	A	O4'-C1'	6.17	1.49	1.41
1	Ad	1131	G	C2'-C1'	6.17	1.60	1.53
1	Ad	72	A	C2'-C1'	-6.17	1.46	1.53
1	Ad	144	U	O4'-C1'	6.16	1.49	1.41
1	Ad	1785	U	C2'-C1'	-6.16	1.46	1.53
84	Aa	2177	U	O3'-P	-6.16	1.53	1.61
1	Ad	1796	G	O4'-C1'	6.16	1.49	1.41
86	Ab	28	U	C2'-C1'	-6.16	1.46	1.53
1	Ad	1221	A	C2'-C1'	6.16	1.60	1.53
1	Ad	1142	A	O3'-P	-6.15	1.53	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	834	A	P-O5'	-6.15	1.53	1.59
1	Ad	887	U	C2'-C1'	6.15	1.60	1.53
1	Ad	264	G	C5'-C4'	6.14	1.58	1.51
1	Ad	293	C	C2'-C1'	-6.14	1.46	1.53
1	Ad	1752	U	C2'-C1'	-6.14	1.46	1.53
86	Ab	50	A	C6-N1	6.14	1.39	1.35
1	Ad	1179	C	C2'-C1'	-6.13	1.46	1.53
86	Ab	109	U	P-O5'	-6.13	1.53	1.59
1	Ad	1571	G	O4'-C1'	6.13	1.49	1.41
86	Ab	93	U	O3'-P	-6.13	1.53	1.61
86	Ab	64	G	C2-N3	6.13	1.37	1.32
1	Ad	444	U	C2'-C1'	6.13	1.60	1.53
1	Ad	221	U	O4'-C1'	6.12	1.49	1.41
1	Ad	547	C	C2'-C1'	6.12	1.60	1.53
1	Ad	853	U	O4'-C1'	6.12	1.49	1.41
1	Ad	104	A	C2'-C1'	6.12	1.60	1.53
1	Ad	851	G	O4'-C1'	-6.12	1.33	1.41
1	Ad	1129	A	C2'-C1'	-6.12	1.46	1.53
1	Ad	1414	G	O4'-C1'	6.12	1.49	1.41
1	Ad	1698	A	C2'-C1'	-6.12	1.46	1.53
1	Ad	857	A	C5'-C4'	6.11	1.58	1.51
1	Ad	1438	U	C2'-C1'	-6.11	1.46	1.53
84	Aa	3234	G	N7-C5	-6.11	1.35	1.39
86	Ab	106	U	C2-N3	6.11	1.42	1.37
1	Ad	1250	C	O4'-C1'	-6.11	1.33	1.41
1	Ad	1536	U	O4'-C1'	6.10	1.49	1.41
1	Ad	1564	A	C2'-C1'	6.10	1.60	1.53
1	Ad	1044	A	O4'-C1'	-6.10	1.33	1.41
1	Ad	152	G	O3'-P	-6.09	1.53	1.61
84	Aa	279	G	C2-N3	6.09	1.37	1.32
1	Ad	730	G	O4'-C1'	-6.09	1.33	1.41
1	Ad	637	U	O4'-C1'	6.09	1.49	1.41
1	Ad	702	G	O4'-C1'	6.09	1.49	1.41
86	Ab	56	G	N7-C5	-6.08	1.35	1.39
1	Ad	1785	U	O4'-C1'	6.08	1.49	1.41
1	Ad	1170	G	C3'-C2'	-6.08	1.46	1.52
84	Aa	1079	G	C2-N3	6.08	1.37	1.32
1	Ad	555	G	O4'-C1'	6.07	1.49	1.41
1	Ad	326	G	O4'-C1'	6.07	1.49	1.41
1	Ad	625	A	C2'-C1'	6.07	1.60	1.53
1	Ad	1115	G	O4'-C1'	6.07	1.49	1.41
84	Aa	1526	A	N7-C5	-6.06	1.35	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1319	U	O4'-C1'	6.06	1.49	1.41
1	Ad	1071	C	C5'-C4'	6.06	1.58	1.51
1	Ad	1245	G	O4'-C1'	-6.06	1.33	1.41
1	Ad	783	C	C2'-C1'	-6.05	1.46	1.53
1	Ad	830	U	C2'-C1'	-6.05	1.46	1.53
1	Ad	957	A	O4'-C1'	6.04	1.49	1.41
1	Ad	843	G	C5'-C4'	6.04	1.58	1.51
1	Ad	494	G	C2'-C1'	6.03	1.59	1.53
1	Ad	1575	U	O3'-P	-6.03	1.53	1.61
84	Aa	3067	G	O3'-P	-6.03	1.53	1.61
1	Ad	1582	G	C2'-C1'	-6.03	1.46	1.53
86	Ab	71	A	C5-C4	6.02	1.43	1.38
86	Ab	26	C	N1-C6	6.02	1.40	1.37
1	Ad	113	A	O4'-C1'	6.01	1.49	1.41
1	Ad	1352	A	C2'-C1'	6.01	1.59	1.53
1	Ad	1408	G	O3'-P	-6.01	1.53	1.61
1	Ad	1768	U	C2'-C1'	-6.01	1.46	1.53
1	Ad	1249	G	C2'-C1'	-6.01	1.46	1.53
84	Aa	289	C	P-O5'	-6.01	1.53	1.59
1	Ad	1222	G	O4'-C1'	6.00	1.49	1.41
1	Ad	700	C	C2'-C1'	-6.00	1.46	1.53
1	Ad	1204	G	P-O5'	-6.00	1.53	1.59
86	Ab	44	C	C4-C5	6.00	1.47	1.43
86	Ab	69	A	N7-C5	-6.00	1.35	1.39
3	Af	15	A	C2'-C1'	-6.00	1.46	1.53
86	Ab	1	G	C6-N1	6.00	1.43	1.39
1	Ad	621	U	O4'-C1'	6.00	1.49	1.41
86	Ab	86	G	C5-C4	6.00	1.42	1.38
1	Ad	1203	G	C5'-C4'	6.00	1.58	1.51
1	Ad	46	A	C2'-C1'	-6.00	1.46	1.53
1	Ad	1679	A	O4'-C1'	5.99	1.49	1.41
84	Aa	1673	A	N7-C5	-5.99	1.35	1.39
1	Ad	1400	G	C2'-C1'	-5.99	1.46	1.53
86	Ab	93	U	C3'-C2'	-5.99	1.46	1.52
1	Ad	1718	C	C2'-C1'	-5.98	1.46	1.53
1	Ad	578	G	O4'-C1'	-5.98	1.33	1.41
1	Ad	1632	C	O3'-P	-5.98	1.53	1.61
86	Ab	57	C	C4-N4	5.98	1.39	1.33
86	Ab	69	A	N3-C4	-5.98	1.31	1.34
1	Ad	594	C	C2'-C1'	-5.98	1.46	1.53
1	Ad	189	U	O4'-C1'	-5.97	1.33	1.41
1	Ad	984	A	C2'-C1'	-5.97	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1569	U	C2'-C1'	5.97	1.59	1.53
86	Ab	58	G	C2-N3	5.97	1.37	1.32
1	Ad	1158	G	O4'-C1'	5.97	1.49	1.41
1	Ad	743	G	O4'-C1'	5.96	1.49	1.41
86	Ab	75	G	C5-C4	5.95	1.42	1.38
1	Ad	1194	C	C5'-C4'	5.95	1.58	1.51
1	Ad	243	U	O4'-C1'	-5.95	1.33	1.41
1	Ad	356	G	C5'-C4'	5.95	1.58	1.51
1	Ad	636	U	O4'-C1'	5.94	1.49	1.41
1	Ad	949	A	C2'-C1'	-5.94	1.46	1.53
1	Ad	1682	U	P-O5'	-5.94	1.53	1.59
2	Ae	65	U	C2'-C1'	-5.94	1.46	1.53
84	Aa	2132	A	N7-C5	-5.94	1.35	1.39
1	Ad	58	U	O4'-C1'	5.94	1.49	1.41
86	Ab	83	A	C6-N1	5.94	1.39	1.35
86	Ab	21	U	N3-C4	5.93	1.43	1.38
1	Ad	1320	C	P-O5'	-5.93	1.53	1.59
1	Ad	29	U	C2'-C1'	5.93	1.59	1.53
1	Ad	304	A	O4'-C1'	5.93	1.49	1.41
1	Ad	1577	A	C2'-C1'	-5.93	1.46	1.53
1	Ad	706	U	C2'-C1'	-5.92	1.46	1.53
84	Aa	860	G	N7-C5	-5.92	1.35	1.39
1	Ad	1791	A	O4'-C1'	5.92	1.49	1.41
1	Ad	1445	C	C2'-C1'	-5.91	1.46	1.53
1	Ad	112	U	C2'-C1'	-5.90	1.46	1.53
1	Ad	400	G	C2'-C1'	5.90	1.59	1.53
1	Ad	325	C	O4'-C1'	-5.90	1.33	1.41
86	Ab	119	C	C4-N4	5.90	1.39	1.33
1	Ad	112	U	O4'-C1'	5.89	1.49	1.41
1	Ad	374	A	O4'-C1'	5.89	1.49	1.41
1	Ad	563	C	O4'-C1'	5.89	1.49	1.41
1	Ad	1505	U	O4'-C1'	5.89	1.49	1.41
1	Ad	145	A	C2'-C1'	5.89	1.59	1.53
84	Aa	512	G	C2-N3	5.89	1.37	1.32
1	Ad	800	U	O3'-P	-5.88	1.54	1.61
86	Ab	71	A	N3-C4	5.88	1.38	1.34
1	Ad	90	G	O4'-C1'	5.88	1.49	1.41
1	Ad	382	A	C2'-C1'	-5.88	1.46	1.53
86	Ab	11	A	N9-C4	5.88	1.41	1.37
1	Ad	1086	A	O3'-P	-5.88	1.54	1.61
1	Ad	1156	A	O4'-C1'	5.87	1.49	1.41
1	Ad	1308	G	O4'-C1'	5.87	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	265	A	C2'-C1'	-5.87	1.46	1.53
1	Ad	1108	U	O3'-P	-5.87	1.54	1.61
1	Ad	981	G	C2'-C1'	-5.87	1.46	1.53
1	Ad	1638	U	C5'-C4'	5.87	1.58	1.51
2	Ae	69	G	O4'-C1'	5.87	1.49	1.41
1	Ad	1220	C	O3'-P	-5.86	1.54	1.61
1	Ad	1149	U	C2'-C1'	-5.86	1.47	1.53
1	Ad	103	U	O4'-C1'	5.86	1.49	1.41
1	Ad	604	U	O4'-C1'	5.86	1.49	1.41
84	Aa	494	C	C4'-C3'	5.86	1.59	1.53
1	Ad	1205	G	O4'-C1'	-5.86	1.34	1.41
84	Aa	97	G	C2-N3	5.85	1.37	1.32
86	Ab	83	A	C2'-C1'	-5.85	1.47	1.53
2	Ae	2	C	O4'-C1'	5.85	1.49	1.41
1	Ad	574	A	O4'-C1'	5.85	1.49	1.41
2	Ae	28	G	P-O5'	-5.84	1.53	1.59
1	Ad	621	U	C2'-C1'	-5.84	1.47	1.53
1	Ad	1276	U	O4'-C1'	5.84	1.49	1.41
2	Ae	33	U	O4'-C1'	5.84	1.49	1.41
1	Ad	1371	U	C2'-C1'	-5.83	1.47	1.53
1	Ad	1494	G	C5'-C4'	5.83	1.58	1.51
1	Ad	1709	U	O4'-C1'	5.83	1.49	1.41
1	Ad	1536	U	O3'-P	-5.83	1.54	1.61
84	Aa	1188	C	P-O5'	-5.83	1.53	1.59
1	Ad	618	C	O4'-C1'	5.83	1.49	1.41
1	Ad	928	A	C2'-C1'	-5.83	1.47	1.53
1	Ad	1588	C	C2'-C1'	-5.83	1.47	1.53
86	Ab	90	A	N7-C5	-5.83	1.35	1.39
1	Ad	137	A	C5'-C4'	5.82	1.58	1.51
84	Aa	2683	A	N7-C5	-5.82	1.35	1.39
1	Ad	1668	A	O4'-C1'	5.81	1.49	1.41
1	Ad	445	A	P-O5'	-5.80	1.53	1.59
1	Ad	1773	A	C2'-C1'	-5.80	1.47	1.53
1	Ad	1781	U	O4'-C1'	5.80	1.49	1.41
1	Ad	451	U	C2'-C1'	-5.80	1.47	1.53
84	Aa	2183	A	N7-C5	-5.80	1.35	1.39
1	Ad	227	G	O4'-C1'	5.80	1.49	1.41
1	Ad	1075	G	C5'-C4'	5.80	1.58	1.51
1	Ad	1175	G	C2'-C1'	-5.79	1.47	1.53
1	Ad	832	C	C5'-C4'	5.79	1.58	1.51
86	Ab	8	A	N7-C5	-5.79	1.35	1.39
1	Ad	816	U	O4'-C1'	5.79	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	890	G	O4'-C1'	5.79	1.49	1.41
86	Ab	50	A	N3-C4	-5.78	1.31	1.34
1	Ad	930	G	C2'-C1'	5.78	1.59	1.53
1	Ad	925	U	C2'-C1'	-5.78	1.47	1.53
1	Ad	1079	G	O4'-C1'	5.77	1.49	1.41
86	Ab	15	C	C5'-C4'	5.77	1.58	1.51
1	Ad	782	G	O4'-C1'	5.77	1.49	1.41
84	Aa	2569	G	P-O5'	-5.77	1.53	1.59
1	Ad	19	A	C2'-C1'	5.77	1.59	1.53
1	Ad	1643	A	O4'-C1'	-5.76	1.34	1.41
1	Ad	253	C	C4'-C3'	5.76	1.59	1.53
1	Ad	167	A	O4'-C1'	-5.76	1.34	1.41
1	Ad	870	A	O4'-C1'	-5.76	1.34	1.41
84	Aa	641	C	C4'-C3'	5.76	1.59	1.53
1	Ad	126	U	P-O5'	-5.76	1.53	1.59
1	Ad	1603	U	C2'-C1'	5.76	1.59	1.53
2	Ae	28	G	O4'-C1'	5.76	1.49	1.41
84	Aa	2527	G	C2-N3	5.75	1.37	1.32
1	Ad	98	C	O3'-P	-5.75	1.54	1.61
86	Ab	9	U	N3-C4	5.75	1.43	1.38
1	Ad	602	U	O4'-C1'	5.75	1.49	1.41
1	Ad	1714	G	C2'-C1'	-5.75	1.47	1.53
1	Ad	32	U	C2'-C1'	5.75	1.59	1.53
1	Ad	1009	U	C2'-C1'	5.74	1.59	1.53
1	Ad	401	A	O4'-C1'	5.74	1.49	1.41
84	Aa	721	A	P-O5'	-5.74	1.54	1.59
1	Ad	594	C	O4'-C1'	5.74	1.49	1.41
1	Ad	991	G	C2'-C1'	-5.74	1.47	1.53
1	Ad	6	G	C4'-C3'	5.73	1.59	1.53
1	Ad	104	A	O4'-C1'	-5.73	1.34	1.41
86	Ab	72	G	N7-C5	-5.73	1.35	1.39
84	Aa	2376	G	N1-C2	5.73	1.42	1.37
1	Ad	749	G	C2'-C1'	-5.72	1.47	1.53
2	Ae	72	G	C5'-C4'	5.72	1.58	1.51
84	Aa	1928	A	N7-C5	-5.72	1.35	1.39
1	Ad	377	G	O4'-C1'	5.72	1.49	1.41
1	Ad	1007	G	O3'-P	-5.72	1.54	1.61
1	Ad	1505	U	C2'-C1'	-5.72	1.47	1.53
1	Ad	1407	A	P-O5'	-5.72	1.54	1.59
84	Aa	2162	C	C2'-C1'	-5.72	1.47	1.53
84	Aa	2905	A	N7-C5	-5.71	1.35	1.39
1	Ad	911	A	O4'-C1'	5.71	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	271	C	O3'-P	-5.71	1.54	1.61
1	Ad	235	C	O3'-P	-5.71	1.54	1.61
1	Ad	745	C	O4'-C1'	5.71	1.49	1.41
86	Ab	99	G	C8-N7	-5.70	1.27	1.30
1	Ad	1484	U	O4'-C1'	5.70	1.49	1.41
1	Ad	1660	C	C5'-C4'	5.70	1.58	1.51
1	Ad	789	C	O4'-C1'	5.70	1.49	1.41
84	Aa	53	C	C2'-C1'	-5.70	1.47	1.53
1	Ad	914	U	P-O5'	-5.70	1.54	1.59
1	Ad	1456	U	C5'-C4'	5.70	1.58	1.51
1	Ad	335	A	O4'-C1'	5.69	1.49	1.41
1	Ad	837	G	C2'-C1'	-5.69	1.47	1.53
1	Ad	1489	A	O4'-C1'	5.69	1.49	1.41
1	Ad	1701	G	C2'-C1'	-5.69	1.47	1.53
1	Ad	1786	A	C3'-C2'	-5.69	1.46	1.52
86	Ab	36	C	N1-C6	5.69	1.40	1.37
1	Ad	83	U	O4'-C1'	5.68	1.49	1.41
1	Ad	566	G	O4'-C1'	5.68	1.49	1.41
1	Ad	780	A	C5'-C4'	5.68	1.58	1.51
85	Ac	5	U	P-O5'	-5.68	1.54	1.59
1	Ad	375	G	C2'-C1'	-5.68	1.47	1.53
1	Ad	1745	U	O4'-C1'	5.68	1.49	1.41
84	Aa	3335	G	C2-N3	5.68	1.37	1.32
1	Ad	750	U	O4'-C1'	5.68	1.49	1.41
1	Ad	928	A	O4'-C1'	5.68	1.49	1.41
1	Ad	1568	U	O4'-C1'	-5.68	1.34	1.41
1	Ad	1382	C	C2'-C1'	-5.67	1.47	1.53
1	Ad	51	A	C2'-C1'	-5.67	1.47	1.53
1	Ad	126	U	C5'-C4'	5.67	1.58	1.51
1	Ad	1000	A	O4'-C1'	5.67	1.49	1.41
1	Ad	1264	U	O4'-C1'	5.67	1.49	1.41
84	Aa	279	G	P-O5'	-5.67	1.54	1.59
1	Ad	101	A	O4'-C1'	5.66	1.49	1.41
1	Ad	1044	A	O3'-P	-5.66	1.54	1.61
1	Ad	987	U	C5'-C4'	5.65	1.58	1.51
1	Ad	1515	G	O4'-C1'	5.65	1.49	1.41
1	Ad	815	A	O4'-C1'	5.65	1.49	1.41
1	Ad	990	G	C4'-C3'	5.65	1.59	1.53
1	Ad	1544	G	O4'-C1'	5.65	1.49	1.41
84	Aa	716	A	N7-C5	-5.65	1.35	1.39
1	Ad	549	A	P-O5'	-5.65	1.54	1.59
1	Ad	1516	C	O4'-C1'	5.65	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	240	U	O4'-C1'	5.64	1.49	1.41
1	Ad	337	A	C5'-C4'	5.64	1.58	1.51
1	Ad	1604	C	O4'-C1'	-5.64	1.34	1.41
84	Aa	2095	C	O3'-P	-5.64	1.54	1.61
1	Ad	800	U	O4'-C1'	-5.63	1.34	1.41
1	Ad	1101	C	C2'-C1'	-5.63	1.47	1.53
84	Aa	694	U	P-O5'	-5.63	1.54	1.59
1	Ad	1302	C	C2'-C1'	-5.63	1.47	1.53
84	Aa	2196	G	C2-N3	5.63	1.37	1.32
1	Ad	116	G	C5'-C4'	5.63	1.58	1.51
1	Ad	1494	G	O3'-P	-5.63	1.54	1.61
1	Ad	59	G	C2'-C1'	-5.62	1.47	1.53
1	Ad	438	G	O3'-P	-5.62	1.54	1.61
1	Ad	981	G	O4'-C1'	5.61	1.49	1.41
1	Ad	1005	C	C2'-C1'	5.61	1.59	1.53
1	Ad	1209	C	O3'-P	-5.61	1.54	1.61
86	Ab	120	C	N1-C6	5.61	1.40	1.37
1	Ad	251	U	C2'-C1'	5.61	1.59	1.53
1	Ad	463	G	O4'-C1'	5.61	1.49	1.41
1	Ad	731	G	C2'-C1'	5.60	1.59	1.53
84	Aa	198	A	P-O5'	-5.60	1.54	1.59
86	Ab	99	G	C5'-C4'	5.60	1.58	1.51
1	Ad	1668	A	C2'-C1'	-5.60	1.47	1.53
86	Ab	100	A	N9-C4	-5.60	1.34	1.37
1	Ad	1264	U	C2'-C1'	-5.60	1.47	1.53
1	Ad	35	U	P-O5'	-5.60	1.54	1.59
1	Ad	76	U	O4'-C1'	5.60	1.49	1.41
1	Ad	377	G	C2'-C1'	-5.59	1.47	1.53
84	Aa	2354	G	C2-N3	5.59	1.37	1.32
1	Ad	719	C	C2'-C1'	-5.59	1.47	1.53
1	Ad	1153	C	C2'-C1'	-5.58	1.47	1.53
1	Ad	1634	U	O4'-C1'	5.58	1.49	1.41
1	Ad	828	G	O4'-C1'	-5.58	1.34	1.41
1	Ad	1016	C	C2'-C1'	-5.57	1.47	1.53
1	Ad	466	G	C5'-C4'	5.57	1.58	1.51
1	Ad	1705	C	C5'-C4'	5.57	1.58	1.51
1	Ad	184	C	C2'-C1'	-5.57	1.47	1.53
1	Ad	579	C	O4'-C1'	5.57	1.48	1.41
1	Ad	1575	U	C2'-C1'	5.57	1.59	1.53
1	Ad	446	C	O4'-C1'	5.57	1.48	1.41
2	Ae	14	A	C2'-C1'	-5.57	1.47	1.53
1	Ad	449	A	O4'-C1'	5.56	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1132	G	C4'-C3'	5.55	1.59	1.53
1	Ad	1632	C	O4'-C1'	5.55	1.48	1.41
1	Ad	1206	A	C4'-C3'	5.55	1.59	1.53
1	Ad	1498	A	C4'-O4'	-5.55	1.38	1.45
84	Aa	2266	A	N7-C5	-5.55	1.35	1.39
1	Ad	291	G	O4'-C1'	-5.54	1.34	1.41
86	Ab	107	C	C4-N4	5.54	1.39	1.33
1	Ad	852	A	C2'-C1'	-5.54	1.47	1.53
1	Ad	1056	A	O4'-C1'	-5.54	1.34	1.41
84	Aa	2163	G	C2-N3	5.54	1.37	1.32
1	Ad	1276	U	C2'-C1'	-5.54	1.47	1.53
1	Ad	1634	U	C2'-C1'	-5.54	1.47	1.53
1	Ad	508	U	O4'-C1'	5.53	1.48	1.41
1	Ad	708	G	C2'-C1'	-5.53	1.47	1.53
1	Ad	1724	U	O4'-C1'	5.53	1.48	1.41
85	Ac	70	G	O3'-P	-5.53	1.54	1.61
1	Ad	282	C	O5'-C5'	-5.53	1.33	1.42
84	Aa	1	G	N7-C5	-5.53	1.35	1.39
86	Ab	48	G	N7-C5	-5.53	1.35	1.39
84	Aa	773	G	P-O5'	-5.53	1.54	1.59
84	Aa	2513	U	C5'-C4'	-5.53	1.44	1.51
1	Ad	567	U	O4'-C1'	5.53	1.48	1.41
1	Ad	484	A	C2'-C1'	-5.52	1.47	1.53
1	Ad	1808	U	C5'-C4'	5.52	1.57	1.51
84	Aa	2634	U	P-O5'	-5.52	1.54	1.59
1	Ad	62	A	C5'-C4'	5.52	1.57	1.51
1	Ad	931	A	C5'-C4'	5.52	1.57	1.51
1	Ad	1286	U	O4'-C1'	5.52	1.48	1.41
1	Ad	1136	A	C3'-C2'	-5.52	1.46	1.52
1	Ad	1431	A	O4'-C1'	5.52	1.48	1.41
1	Ad	724	U	C2'-C1'	5.52	1.59	1.53
84	Aa	76	A	C6-N6	5.52	1.38	1.33
84	Aa	1356	G	C2-N3	5.51	1.37	1.32
1	Ad	1645	C	C2'-C1'	5.51	1.59	1.53
1	Ad	1383	U	C2'-C1'	5.51	1.59	1.53
84	Aa	935	U	C2-N3	5.51	1.41	1.37
86	Ab	90	A	C6-N6	5.51	1.38	1.33
1	Ad	200	C	C5'-C4'	5.50	1.57	1.51
1	Ad	905	A	O3'-P	-5.50	1.54	1.61
1	Ad	1235	U	O4'-C1'	5.50	1.48	1.41
84	Aa	2356	A	N7-C5	-5.50	1.35	1.39
84	Aa	2513	U	O5'-C5'	-5.50	1.34	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	Ab	72	G	O3'-P	-5.50	1.54	1.61
1	Ad	1018	A	O4'-C1'	5.49	1.48	1.41
1	Ad	1242	A	O4'-C1'	5.49	1.48	1.41
2	Ae	44	A	C2'-C1'	5.49	1.59	1.53
84	Aa	2167	G	C4'-O4'	-5.49	1.38	1.45
1	Ad	1479	U	O3'-P	-5.49	1.54	1.61
1	Ad	1570	G	O3'-P	-5.48	1.54	1.61
1	Ad	325	C	C5'-C4'	5.48	1.57	1.51
2	Ae	42	C	C4'-C3'	5.48	1.59	1.53
1	Ad	1121	A	C2'-C1'	-5.48	1.47	1.53
1	Ad	201	G	O4'-C1'	5.47	1.48	1.41
2	Ae	28	G	C5'-C4'	5.47	1.57	1.51
86	Ab	54	A	C2'-C1'	-5.47	1.47	1.53
1	Ad	283	G	P-O5'	-5.47	1.54	1.59
1	Ad	756	U	C2'-C1'	-5.47	1.47	1.53
1	Ad	53	G	O4'-C1'	5.47	1.48	1.41
1	Ad	868	A	C2'-C1'	5.47	1.59	1.53
84	Aa	1177	G	N3-C4	-5.47	1.31	1.35
1	Ad	758	A	O4'-C1'	5.47	1.48	1.41
1	Ad	1362	A	O3'-P	-5.47	1.54	1.61
1	Ad	550	U	C2'-C1'	-5.46	1.47	1.53
1	Ad	830	U	O4'-C1'	5.46	1.48	1.41
1	Ad	1766	A	O3'-P	-5.46	1.54	1.61
1	Ad	571	A	C3'-C2'	-5.46	1.46	1.52
1	Ad	1585	A	C2'-C1'	-5.46	1.47	1.53
1	Ad	1623	C	C2'-C1'	5.46	1.59	1.53
1	Ad	1479	U	O4'-C1'	-5.45	1.34	1.41
84	Aa	475	U	O3'-P	-5.45	1.54	1.61
1	Ad	303	A	C2'-C1'	5.45	1.59	1.53
1	Ad	802	A	C2'-C1'	-5.45	1.47	1.53
1	Ad	79	A	C5'-C4'	5.45	1.57	1.51
1	Ad	766	A	C2'-C1'	-5.45	1.47	1.53
1	Ad	1312	G	O4'-C1'	5.44	1.48	1.41
1	Ad	236	U	O3'-P	-5.44	1.54	1.61
84	Aa	1356	G	N7-C5	-5.44	1.35	1.39
84	Aa	836	G	N7-C5	-5.44	1.35	1.39
84	Aa	307	C	P-O5'	-5.44	1.54	1.59
1	Ad	1180	U	O4'-C1'	5.44	1.48	1.41
84	Aa	2806	A	N7-C5	-5.43	1.35	1.39
1	Ad	756	U	O4'-C1'	5.43	1.48	1.41
1	Ad	954	C	C3'-C2'	-5.43	1.46	1.52
1	Ad	1792	A	O4'-C1'	5.43	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	1319	U	P-O5'	-5.43	1.54	1.59
86	Ab	3	A	N9-C4	-5.43	1.34	1.37
1	Ad	429	A	O4'-C1'	5.42	1.48	1.41
1	Ad	970	U	O4'-C1'	5.42	1.48	1.41
1	Ad	1183	G	C4'-C3'	5.42	1.59	1.53
1	Ad	811	U	O4'-C1'	5.42	1.48	1.41
84	Aa	2566	C	O3'-P	-5.42	1.54	1.61
84	Aa	2756	G	C2-N3	5.42	1.37	1.32
86	Ab	42	A	N7-C5	-5.42	1.35	1.39
84	Aa	527	G	C2-N3	5.42	1.37	1.32
1	Ad	189	U	O3'-P	-5.41	1.54	1.61
1	Ad	485	A	C2'-C1'	-5.41	1.47	1.53
1	Ad	705	A	O3'-P	-5.41	1.54	1.61
1	Ad	1334	G	O4'-C1'	5.41	1.48	1.41
84	Aa	334	A	C6-N6	5.41	1.38	1.33
86	Ab	22	A	N9-C4	-5.41	1.34	1.37
1	Ad	1377	G	C5'-C4'	5.41	1.57	1.51
1	Ad	1247	G	O4'-C1'	-5.41	1.34	1.41
1	Ad	952	U	O4'-C1'	5.41	1.48	1.41
1	Ad	491	G	O4'-C1'	-5.40	1.34	1.41
86	Ab	3	A	C6-N6	5.40	1.38	1.33
1	Ad	60	C	O4'-C1'	5.40	1.48	1.41
84	Aa	2969	A	N7-C5	-5.40	1.36	1.39
85	Ac	15	G	P-O5'	-5.40	1.54	1.59
1	Ad	624	A	C2'-C1'	5.39	1.59	1.53
1	Ad	1629	U	O4'-C1'	5.39	1.48	1.41
1	Ad	1687	G	C4'-C3'	-5.39	1.47	1.52
1	Ad	405	A	O4'-C1'	5.39	1.48	1.41
1	Ad	739	U	O4'-C1'	5.39	1.48	1.41
1	Ad	1277	G	O4'-C1'	-5.39	1.34	1.41
86	Ab	56	G	C2-N3	5.39	1.37	1.32
84	Aa	2801	A	C6-N6	5.39	1.38	1.33
84	Aa	2502	U	O3'-P	-5.39	1.54	1.61
2	Ae	70	G	C5'-C4'	5.38	1.57	1.51
84	Aa	5	G	C2-N3	5.38	1.37	1.32
84	Aa	2513	U	O3'-P	-5.38	1.54	1.61
84	Aa	3177	A	C6-N6	5.38	1.38	1.33
1	Ad	1418	G	C5'-C4'	5.38	1.57	1.51
1	Ad	1176	A	O4'-C1'	5.38	1.48	1.41
1	Ad	100	C	O4'-C1'	5.38	1.48	1.41
1	Ad	206	U	O3'-P	-5.38	1.54	1.61
1	Ad	794	G	C2'-C1'	-5.37	1.47	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1669	U	O4'-C1'	5.37	1.48	1.41
1	Ad	519	A	C4'-C3'	5.37	1.59	1.53
84	Aa	1600	A	P-O5'	-5.37	1.54	1.59
1	Ad	543	G	O4'-C1'	5.37	1.48	1.41
1	Ad	545	A	C2'-C1'	-5.37	1.47	1.53
84	Aa	1317	G	C2'-C1'	-5.37	1.47	1.53
1	Ad	64	U	C2'-C1'	5.37	1.59	1.53
1	Ad	1807	A	C2'-C1'	5.37	1.59	1.53
84	Aa	2552	U	O3'-P	-5.37	1.54	1.61
1	Ad	323	U	O4'-C1'	5.37	1.48	1.41
1	Ad	778	G	O4'-C1'	-5.37	1.34	1.41
84	Aa	1309	U	O3'-P	-5.37	1.54	1.61
84	Aa	2610	G	O3'-P	-5.36	1.54	1.61
1	Ad	1143	A	O4'-C1'	5.36	1.48	1.41
1	Ad	99	U	O4'-C1'	5.36	1.48	1.41
1	Ad	901	U	C2'-C1'	-5.36	1.47	1.53
1	Ad	139	U	P-O5'	-5.36	1.54	1.59
1	Ad	405	A	C2'-C1'	-5.36	1.47	1.53
1	Ad	529	A	C2'-C1'	-5.35	1.47	1.53
1	Ad	1182	C	P-O5'	-5.35	1.54	1.59
1	Ad	1389	G	C2'-C1'	-5.34	1.47	1.53
1	Ad	1442	A	O3'-P	-5.34	1.54	1.61
1	Ad	1642	C	C2'-C1'	-5.34	1.47	1.53
84	Aa	2290	A	N7-C5	-5.34	1.36	1.39
1	Ad	1091	A	C4'-C3'	5.34	1.59	1.53
1	Ad	1309	U	O4'-C1'	-5.34	1.34	1.41
84	Aa	567	G	N7-C5	-5.34	1.36	1.39
84	Aa	87	A	C6-N6	5.33	1.38	1.33
1	Ad	1805	U	C5'-C4'	5.33	1.57	1.51
86	Ab	15	C	N3-C4	5.33	1.37	1.33
84	Aa	747	A	N7-C5	-5.33	1.36	1.39
1	Ad	418	C	O4'-C1'	5.32	1.48	1.41
1	Ad	479	A	C2'-C1'	-5.32	1.47	1.53
1	Ad	824	U	P-O5'	-5.32	1.54	1.59
1	Ad	1546	U	O4'-C1'	5.32	1.48	1.41
1	Ad	1132	G	P-O5'	-5.32	1.54	1.59
1	Ad	1525	U	C4'-C3'	5.32	1.59	1.53
84	Aa	73	A	N7-C5	-5.32	1.36	1.39
84	Aa	2216	G	C6-N1	5.32	1.43	1.39
1	Ad	630	U	O4'-C1'	5.32	1.48	1.41
1	Ad	790	U	O4'-C1'	5.32	1.48	1.41
84	Aa	144	A	N7-C5	-5.32	1.36	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	500	G	O3'-P	-5.31	1.54	1.61
2	Ae	4	G	P-O5'	-5.31	1.54	1.59
2	Ae	8	U	C2'-C1'	5.31	1.59	1.53
86	Ab	108	G	C2-N3	5.31	1.36	1.32
1	Ad	1805	U	C2'-C1'	-5.31	1.47	1.53
84	Aa	2178	G	O3'-P	-5.31	1.54	1.61
1	Ad	1576	C	C2'-C1'	5.31	1.59	1.53
86	Ab	27	A	N9-C8	5.31	1.42	1.37
1	Ad	338	G	O4'-C1'	-5.31	1.34	1.41
84	Aa	3135	A	N7-C5	-5.31	1.36	1.39
84	Aa	935	U	O3'-P	-5.30	1.54	1.61
84	Aa	2178	G	C3'-O3'	-5.30	1.34	1.42
1	Ad	318	C	O3'-P	-5.29	1.54	1.61
1	Ad	1478	C	O4'-C1'	5.29	1.48	1.41
1	Ad	493	C	O4'-C1'	5.29	1.48	1.41
84	Aa	267	G	N7-C5	-5.29	1.36	1.39
1	Ad	1738	U	P-O5'	-5.29	1.54	1.59
86	Ab	119	C	C3'-C2'	-5.29	1.47	1.52
84	Aa	1747	A	N7-C5	-5.29	1.36	1.39
86	Ab	93	U	N1-C2	5.29	1.43	1.38
1	Ad	1437	C	C4'-C3'	5.29	1.58	1.53
84	Aa	3177	A	N7-C5	-5.29	1.36	1.39
86	Ab	52	U	C2'-C1'	-5.28	1.47	1.53
1	Ad	752	A	O4'-C1'	5.28	1.48	1.41
1	Ad	527	C	C2'-C1'	-5.28	1.47	1.53
1	Ad	1295	G	C2'-C1'	-5.28	1.47	1.53
1	Ad	642	C	C3'-C2'	5.28	1.58	1.52
84	Aa	1310	G	N7-C5	-5.28	1.36	1.39
86	Ab	26	C	P-O5'	-5.28	1.54	1.59
1	Ad	1711	G	C2'-C1'	-5.27	1.47	1.53
84	Aa	2163	G	C2'-C1'	-5.27	1.47	1.53
1	Ad	160	A	C2'-C1'	-5.27	1.47	1.53
1	Ad	327	A	O3'-P	-5.27	1.54	1.61
86	Ab	111	U	C2-N3	5.27	1.41	1.37
1	Ad	1265	A	O4'-C1'	5.27	1.48	1.41
84	Aa	1250	G	C2'-C1'	-5.27	1.47	1.53
1	Ad	23	G	O3'-P	-5.27	1.54	1.61
1	Ad	168	U	C5'-C4'	5.26	1.57	1.51
1	Ad	775	A	O4'-C1'	5.26	1.48	1.41
86	Ab	12	U	C2-N3	5.26	1.41	1.37
1	Ad	1608	A	O4'-C1'	5.26	1.48	1.41
1	Ad	1786	A	O4'-C1'	5.26	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1251	U	O4'-C1'	5.26	1.48	1.41
1	Ad	1347	U	O4'-C1'	5.26	1.48	1.41
84	Aa	1241	G	O3'-P	-5.26	1.54	1.61
86	Ab	30	G	C6-N1	5.26	1.43	1.39
1	Ad	867	A	P-O5'	-5.25	1.54	1.59
1	Ad	240	U	C5'-C4'	5.25	1.57	1.51
1	Ad	266	C	C5'-C4'	5.25	1.57	1.51
1	Ad	827	C	O4'-C1'	5.25	1.48	1.41
1	Ad	9	U	O4'-C1'	5.25	1.48	1.41
1	Ad	1411	C	O4'-C1'	5.25	1.48	1.41
84	Aa	553	C	O3'-P	-5.25	1.54	1.61
1	Ad	926	G	O4'-C1'	5.25	1.48	1.41
1	Ad	1522	U	O4'-C1'	-5.25	1.34	1.41
84	Aa	294	A	N7-C5	-5.25	1.36	1.39
84	Aa	252	A	N7-C5	-5.24	1.36	1.39
1	Ad	8	U	C2'-C1'	5.24	1.59	1.53
1	Ad	951	U	O4'-C1'	5.24	1.48	1.41
1	Ad	539	A	O4'-C1'	5.24	1.48	1.41
1	Ad	545	A	O4'-C1'	-5.24	1.34	1.41
84	Aa	2239	A	N7-C5	-5.24	1.36	1.39
86	Ab	108	G	C5-C6	-5.24	1.37	1.42
1	Ad	1036	U	O4'-C1'	5.24	1.48	1.41
1	Ad	1799	G	C2'-C1'	-5.24	1.47	1.53
84	Aa	372	A	O3'-P	-5.23	1.54	1.61
84	Aa	2943	A	N7-C5	-5.23	1.36	1.39
1	Ad	1584	A	P-O5'	-5.23	1.54	1.59
1	Ad	1771	U	C2'-C1'	-5.23	1.47	1.53
86	Ab	64	G	C5-C4	5.23	1.42	1.38
1	Ad	131	C	O3'-P	-5.23	1.54	1.61
1	Ad	764	U	O4'-C1'	5.23	1.48	1.41
86	Ab	26	C	N3-C4	5.23	1.37	1.33
1	Ad	1114	G	O4'-C1'	5.23	1.48	1.41
1	Ad	1029	U	O4'-C1'	5.23	1.48	1.41
84	Aa	99	A	N7-C5	-5.23	1.36	1.39
84	Aa	2502	U	C2'-C1'	-5.23	1.47	1.53
1	Ad	215	A	O3'-P	-5.22	1.54	1.61
1	Ad	864	A	C5'-C4'	5.22	1.57	1.51
84	Aa	1062	G	P-O5'	-5.22	1.54	1.59
85	Ac	85	G	C2-N3	5.22	1.36	1.32
1	Ad	205	U	P-O5'	-5.22	1.54	1.59
84	Aa	1676	A	N7-C5	-5.22	1.36	1.39
1	Ad	1446	C	O3'-P	-5.22	1.54	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1795	U	O4'-C1'	5.22	1.48	1.41
1	Ad	129	U	C2'-C1'	5.21	1.59	1.53
1	Ad	1078	G	C2'-C1'	-5.21	1.47	1.53
1	Ad	597	U	O4'-C1'	5.21	1.48	1.41
1	Ad	1217	G	O4'-C1'	-5.21	1.34	1.41
1	Ad	1729	A	C5'-C4'	5.21	1.57	1.51
84	Aa	819	A	O3'-P	-5.21	1.54	1.61
1	Ad	894	U	O3'-P	-5.21	1.54	1.61
2	Ae	2	C	C2'-C1'	-5.21	1.47	1.53
86	Ab	1	G	N7-C5	-5.21	1.36	1.39
1	Ad	1021	C	C2'-C1'	-5.21	1.47	1.53
1	Ad	1202	G	C5'-C4'	5.21	1.57	1.51
84	Aa	610	G	N7-C5	-5.21	1.36	1.39
1	Ad	597	U	C2'-C1'	-5.20	1.47	1.53
84	Aa	265	G	C2-N3	5.20	1.36	1.32
1	Ad	1314	U	O4'-C1'	5.20	1.48	1.41
1	Ad	811	U	C2'-C1'	-5.20	1.47	1.53
1	Ad	1337	C	C2'-C1'	-5.20	1.47	1.53
1	Ad	611	G	P-O5'	-5.19	1.54	1.59
84	Aa	1486	G	C2-N3	5.19	1.36	1.32
1	Ad	150	U	O3'-P	-5.19	1.54	1.61
1	Ad	793	G	O4'-C1'	5.19	1.48	1.41
84	Aa	1649	G	C2-N3	5.19	1.36	1.32
1	Ad	262	U	O3'-P	-5.19	1.54	1.61
1	Ad	909	G	C2'-C1'	-5.19	1.47	1.53
85	Ac	150	G	C2'-C1'	-5.18	1.47	1.53
1	Ad	1025	A	O4'-C1'	5.18	1.48	1.41
1	Ad	1296	G	O3'-P	-5.18	1.54	1.61
1	Ad	1098	A	P-O5'	5.18	1.65	1.59
1	Ad	1262	U	O4'-C1'	-5.18	1.34	1.41
1	Ad	845	C	O3'-P	-5.18	1.54	1.61
1	Ad	1360	G	C2'-C1'	5.18	1.59	1.53
1	Ad	1528	U	C2'-C1'	5.18	1.59	1.53
1	Ad	542	A	C4'-C3'	5.18	1.58	1.53
1	Ad	874	A	O4'-C1'	5.17	1.48	1.41
1	Ad	1116	G	O4'-C1'	-5.17	1.34	1.41
84	Aa	2968	G	O3'-P	-5.17	1.54	1.61
86	Ab	19	A	N3-C4	-5.17	1.31	1.34
1	Ad	211	G	O4'-C1'	5.17	1.48	1.41
1	Ad	517	U	C5'-C4'	5.17	1.57	1.51
1	Ad	945	A	C5'-C4'	5.17	1.57	1.51
1	Ad	1307	U	O4'-C1'	5.17	1.48	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	318	C	C2'-C1'	-5.17	1.47	1.53
1	Ad	1064	U	O3'-P	-5.17	1.54	1.61
1	Ad	898	U	O4'-C1'	5.16	1.48	1.41
1	Ad	1527	U	C2'-C1'	5.16	1.59	1.53
1	Ad	1658	U	C2'-C1'	-5.16	1.47	1.53
1	Ad	728	C	O3'-P	-5.16	1.54	1.61
1	Ad	1198	A	O4'-C1'	5.16	1.48	1.41
1	Ad	123	U	P-O5'	-5.16	1.54	1.59
1	Ad	446	C	C2'-C1'	-5.16	1.47	1.53
84	Aa	2093	G	C2-N3	5.16	1.36	1.32
86	Ab	51	G	C3'-C2'	5.16	1.58	1.52
1	Ad	838	U	C5'-C4'	5.16	1.57	1.51
1	Ad	1309	U	C2'-C1'	5.16	1.59	1.53
1	Ad	20	G	C5'-C4'	5.16	1.57	1.51
1	Ad	379	U	C2'-C1'	5.16	1.59	1.53
1	Ad	1155	G	C5'-C4'	5.16	1.57	1.51
1	Ad	1546	U	C2'-C1'	5.15	1.59	1.53
84	Aa	2494	A	N7-C5	-5.15	1.36	1.39
84	Aa	2523	G	O3'-P	-5.15	1.54	1.61
1	Ad	143	A	O3'-P	-5.15	1.54	1.61
1	Ad	732	G	C2'-C1'	5.15	1.59	1.53
84	Aa	3364	A	P-O5'	-5.15	1.54	1.59
1	Ad	231	U	O4'-C1'	5.15	1.48	1.41
84	Aa	1958	G	O3'-P	-5.15	1.54	1.61
86	Ab	114	C	N1-C6	5.15	1.40	1.37
1	Ad	726	G	C2'-C1'	-5.14	1.47	1.53
1	Ad	564	U	O4'-C1'	5.14	1.48	1.41
84	Aa	723	G	C4'-C3'	5.14	1.58	1.53
84	Aa	16	A	P-O5'	-5.14	1.54	1.59
84	Aa	641	C	C5'-C4'	5.14	1.57	1.51
1	Ad	133	U	O3'-P	-5.14	1.54	1.61
1	Ad	469	G	O4'-C1'	5.13	1.48	1.41
1	Ad	586	U	O4'-C1'	5.13	1.48	1.41
1	Ad	1320	C	O4'-C1'	5.13	1.48	1.41
1	Ad	161	G	C2'-C1'	5.13	1.58	1.53
84	Aa	1677	G	C2-N3	5.13	1.36	1.32
84	Aa	2374	G	N1-C2	5.13	1.41	1.37
1	Ad	536	U	O3'-P	-5.13	1.54	1.61
1	Ad	1440	U	C5'-C4'	5.13	1.57	1.51
84	Aa	579	G	C2-N3	5.12	1.36	1.32
86	Ab	71	A	N7-C5	-5.12	1.36	1.39
86	Ab	82	G	N9-C4	-5.12	1.33	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	522	A	C2'-C1'	-5.12	1.47	1.53
1	Ad	1011	C	O4'-C1'	5.12	1.48	1.41
1	Ad	1605	A	O4'-C1'	5.12	1.48	1.41
84	Aa	752	U	P-O5'	-5.12	1.54	1.59
1	Ad	440	A	C2'-C1'	5.12	1.58	1.53
86	Ab	47	C	N3-C4	5.12	1.37	1.33
1	Ad	1067	A	C2'-C1'	5.12	1.58	1.53
1	Ad	1356	A	C2'-C1'	-5.12	1.47	1.53
84	Aa	1945	A	O3'-P	-5.12	1.55	1.61
1	Ad	1493	A	C4'-C3'	5.11	1.58	1.53
1	Ad	1527	U	O4'-C1'	5.11	1.48	1.41
1	Ad	1544	G	C2'-C1'	-5.11	1.47	1.53
1	Ad	1770	G	C2'-C1'	-5.11	1.47	1.53
84	Aa	1274	A	N7-C5	-5.11	1.36	1.39
1	Ad	518	G	O3'-P	-5.11	1.55	1.61
84	Aa	2393	G	C2'-C1'	-5.11	1.47	1.53
1	Ad	1022	U	C2'-C1'	-5.11	1.47	1.53
86	Ab	38	U	C2'-C1'	-5.11	1.47	1.53
1	Ad	1132	G	C2'-C1'	5.11	1.58	1.53
1	Ad	235	C	C5'-C4'	5.10	1.57	1.51
1	Ad	1153	C	O4'-C1'	5.10	1.48	1.41
84	Aa	1674	A	C6-N6	5.10	1.38	1.33
1	Ad	1118	A	C2'-C1'	-5.10	1.47	1.53
1	Ad	279	C	C2'-C1'	5.10	1.58	1.53
1	Ad	532	U	O4'-C1'	5.10	1.48	1.41
1	Ad	833	U	C2'-C1'	-5.10	1.47	1.53
1	Ad	1481	A	O4'-C1'	5.10	1.48	1.41
1	Ad	1068	G	C5'-C4'	5.10	1.57	1.51
1	Ad	1228	G	O4'-C1'	5.10	1.48	1.41
1	Ad	1464	G	O4'-C1'	5.10	1.48	1.41
86	Ab	87	G	C6-N1	5.09	1.43	1.39
1	Ad	348	A	O4'-C1'	5.09	1.48	1.41
1	Ad	995	C	O3'-P	-5.09	1.55	1.61
1	Ad	1708	U	C2'-C1'	-5.09	1.47	1.53
84	Aa	1796	A	N7-C5	-5.09	1.36	1.39
1	Ad	925	U	O4'-C1'	5.09	1.48	1.41
1	Ad	298	C	O3'-P	-5.09	1.55	1.61
2	Ae	5	U	P-O5'	-5.09	1.54	1.59
84	Aa	2770	U	P-O5'	-5.09	1.54	1.59
86	Ab	6	C	O3'-P	-5.09	1.55	1.61
1	Ad	414	A	O4'-C1'	5.09	1.48	1.41
84	Aa	1676	A	C6-N6	5.09	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2291	A	N7-C5	-5.09	1.36	1.39
84	Aa	2503	A	C6-N6	5.09	1.38	1.33
1	Ad	1017	U	O3'-P	-5.08	1.55	1.61
1	Ad	1350	C	P-O5'	5.08	1.64	1.59
84	Aa	1600	A	N7-C5	-5.08	1.36	1.39
84	Aa	2307	A	N7-C5	-5.08	1.36	1.39
86	Ab	86	G	C6-N1	5.08	1.43	1.39
1	Ad	414	A	C3'-C2'	-5.08	1.47	1.52
1	Ad	648	C	O3'-P	-5.08	1.55	1.61
2	Ae	13	U	O4'-C1'	5.08	1.48	1.41
1	Ad	532	U	C4'-C3'	5.08	1.58	1.53
84	Aa	936	A	N7-C5	-5.08	1.36	1.39
84	Aa	122	A	N7-C5	-5.08	1.36	1.39
84	Aa	2174	C	C2'-C1'	-5.08	1.47	1.53
84	Aa	2751	A	N7-C5	-5.08	1.36	1.39
1	Ad	10	G	O4'-C1'	5.08	1.48	1.41
2	Ae	57	A	C5'-C4'	5.08	1.57	1.51
84	Aa	293	A	N7-C5	-5.08	1.36	1.39
2	Ae	5	U	C2'-C1'	5.07	1.58	1.53
86	Ab	24	G	P-O5'	-5.07	1.54	1.59
1	Ad	1182	C	O4'-C1'	5.07	1.48	1.41
84	Aa	1486	G	N7-C5	-5.07	1.36	1.39
86	Ab	98	G	N1-C2	5.07	1.41	1.37
1	Ad	941	G	C2'-C1'	-5.07	1.47	1.53
1	Ad	1194	C	O3'-P	-5.07	1.55	1.61
84	Aa	1310	G	C2-N3	5.07	1.36	1.32
86	Ab	48	G	N1-C2	5.07	1.41	1.37
1	Ad	487	A	P-O5'	-5.07	1.54	1.59
1	Ad	1218	U	C2'-C1'	5.06	1.58	1.53
1	Ad	815	A	P-O5'	-5.06	1.54	1.59
1	Ad	489	C	O4'-C1'	5.06	1.48	1.41
1	Ad	89	U	O4'-C1'	5.06	1.48	1.41
1	Ad	897	A	C2'-C1'	5.06	1.58	1.53
1	Ad	917	U	O4'-C1'	5.06	1.48	1.41
86	Ab	26	C	C4-N4	5.06	1.38	1.33
1	Ad	618	C	C2'-C1'	-5.05	1.47	1.53
84	Aa	2515	C	O3'-P	-5.05	1.55	1.61
1	Ad	809	G	C5'-C4'	5.05	1.57	1.51
1	Ad	349	U	C3'-C2'	-5.05	1.47	1.52
86	Ab	32	A	C6-N1	5.05	1.39	1.35
1	Ad	358	C	C2'-C1'	-5.05	1.47	1.53
84	Aa	2622	G	C2-N3	5.05	1.36	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	247	A	O4'-C1'	-5.04	1.35	1.41
1	Ad	722	A	O3'-P	-5.04	1.55	1.61
86	Ab	91	C	N1-C6	5.04	1.40	1.37
1	Ad	729	C	O4'-C1'	5.04	1.48	1.41
1	Ad	1340	A	C4'-C3'	-5.04	1.47	1.52
86	Ab	79	A	N3-C4	-5.04	1.31	1.34
1	Ad	281	U	C3'-O3'	-5.04	1.35	1.42
1	Ad	1690	U	C4'-O4'	5.04	1.52	1.45
1	Ad	1305	U	C2'-C1'	5.04	1.58	1.53
84	Aa	478	G	C2-N3	5.04	1.36	1.32
84	Aa	3234	G	C2-N3	5.04	1.36	1.32
1	Ad	1526	C	C4'-C3'	5.04	1.58	1.53
84	Aa	75	G	C2-N3	5.03	1.36	1.32
86	Ab	1	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	1439	G	O3'-P	-5.03	1.55	1.61
1	Ad	1791	A	C4'-C3'	5.03	1.58	1.53
84	Aa	423	C	O3'-P	-5.03	1.55	1.61
1	Ad	1651	U	C5'-C4'	5.03	1.57	1.51
1	Ad	256	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	415	C	P-O5'	-5.03	1.54	1.59
1	Ad	581	G	C2'-C1'	-5.03	1.47	1.53
1	Ad	821	G	C5'-C4'	5.03	1.57	1.51
1	Ad	1229	C	C5'-C4'	5.03	1.57	1.51
1	Ad	371	A	O4'-C1'	5.02	1.48	1.41
84	Aa	2109	G	C2-N3	5.02	1.36	1.32
1	Ad	1806	C	C5'-C4'	5.02	1.57	1.51
85	Ac	88	A	N7-C5	-5.02	1.36	1.39
1	Ad	763	A	O3'-P	-5.02	1.55	1.61
1	Ad	866	U	C2'-C1'	-5.01	1.47	1.53
1	Ad	943	G	O3'-P	-5.01	1.55	1.61
1	Ad	1204	G	C4'-C3'	5.01	1.58	1.53
86	Ab	66	G	C6-N1	5.01	1.43	1.39
84	Aa	2604	A	N7-C5	-5.01	1.36	1.39
86	Ab	39	C	C2-O2	5.01	1.28	1.24
1	Ad	1711	G	O4'-C1'	5.01	1.48	1.41
2	Ae	57	A	C4'-C3'	5.01	1.58	1.53
84	Aa	3109	G	C2-N3	5.01	1.36	1.32
84	Aa	1644	A	N7-C5	-5.01	1.36	1.39
84	Aa	3070	G	C2-N3	5.00	1.36	1.32
84	Aa	543	C	P-O5'	-5.00	1.54	1.59
84	Aa	1892	A	N7-C5	-5.00	1.36	1.39
1	Ad	1619	A	C2'-C1'	-5.00	1.47	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Aa	2460	A	N7-C5	-5.00	1.36	1.39

All (12710) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1005	C	O4'-C1'-N1	31.46	133.37	108.20
1	Ad	1462	C	O4'-C1'-N1	29.23	131.58	108.20
1	Ad	547	C	O4'-C1'-N1	28.96	131.37	108.20
1	Ad	1765	A	O4'-C1'-N9	28.77	131.22	108.20
84	Aa	2162	C	P-O3'-C3'	27.64	152.86	119.70
1	Ad	784	C	O4'-C1'-N1	27.46	130.17	108.20
1	Ad	511	U	O4'-C1'-N1	27.31	130.05	108.20
1	Ad	1580	G	O4'-C1'-N9	27.17	129.94	108.20
1	Ad	1604	C	O4'-C1'-N1	26.94	129.75	108.20
1	Ad	1064	U	O4'-C1'-N1	26.80	129.64	108.20
1	Ad	1368	C	O4'-C1'-N1	25.86	128.88	108.20
1	Ad	787	C	O4'-C1'-N1	25.30	128.44	108.20
1	Ad	67	G	N9-C1'-C2'	25.28	146.87	114.00
1	Ad	384	U	O4'-C1'-N1	24.94	128.15	108.20
1	Ad	1262	U	O4'-C1'-N1	24.71	127.97	108.20
1	Ad	1404	U	O4'-C1'-N1	24.63	127.90	108.20
1	Ad	835	U	O4'-C1'-N1	24.55	127.84	108.20
1	Ad	546	U	O4'-C1'-N1	24.37	127.69	108.20
1	Ad	1408	G	P-O3'-C3'	23.90	148.38	119.70
1	Ad	1622	A	O4'-C1'-N9	23.88	127.30	108.20
1	Ad	282	C	O4'-C1'-N1	23.75	127.20	108.20
1	Ad	1311	U	O4'-C1'-N1	23.61	127.09	108.20
1	Ad	1479	U	O4'-C1'-N1	23.55	127.04	108.20
1	Ad	1066	U	O4'-C1'-N1	23.14	126.71	108.20
2	Ae	73	C	P-O3'-C3'	22.96	147.25	119.70
1	Ad	1511	A	O4'-C1'-N9	22.82	126.45	108.20
1	Ad	869	U	O4'-C1'-N1	22.67	126.34	108.20
1	Ad	801	U	O4'-C1'-N1	22.63	126.31	108.20
1	Ad	1250	C	O4'-C1'-N1	22.52	126.21	108.20
1	Ad	1067	A	O4'-C1'-N9	22.18	125.94	108.20
1	Ad	823	A	P-O3'-C3'	21.59	145.61	119.70
1	Ad	1568	U	O4'-C1'-N1	21.57	125.46	108.20
1	Ad	1522	U	O4'-C1'-N1	21.30	125.24	108.20
1	Ad	325	C	O4'-C1'-N1	21.26	125.20	108.20
2	Ae	72	G	O4'-C1'-N9	21.26	125.20	108.20
1	Ad	1259	G	O4'-C1'-N9	21.24	125.19	108.20
1	Ad	1590	U	O4'-C1'-N1	21.23	125.19	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2502	U	P-O3'-C3'	21.14	145.07	119.70
1	Ad	189	U	O4'-C1'-N1	20.90	124.92	108.20
84	Aa	1957	G	C4'-C3'-O3'	20.90	154.79	113.00
1	Ad	1766	A	O4'-C1'-N9	20.80	124.84	108.20
84	Aa	1559	G	P-O3'-C3'	-20.79	94.76	119.70
84	Aa	2084	G	C4'-C3'-O3'	20.67	154.34	113.00
1	Ad	161	G	O4'-C1'-N9	20.64	124.71	108.20
1	Ad	1350	C	O4'-C1'-N1	20.53	124.63	108.20
84	Aa	641	C	P-O5'-C5'	20.30	153.39	120.90
1	Ad	1162	A	O4'-C1'-N9	20.18	124.34	108.20
1	Ad	1542	G	O4'-C1'-N9	20.15	124.32	108.20
1	Ad	1775	A	O4'-C1'-N9	20.10	124.28	108.20
1	Ad	363	G	O4'-C1'-N9	19.94	124.15	108.20
1	Ad	643	U	O4'-C1'-N1	19.78	124.03	108.20
1	Ad	773	U	O4'-C1'-N1	19.71	123.97	108.20
1	Ad	1531	G	O4'-C1'-N9	19.27	123.61	108.20
1	Ad	780	A	O4'-C1'-N9	19.18	123.55	108.20
1	Ad	456	A	O4'-C1'-N9	19.14	123.52	108.20
84	Aa	570	G	P-O3'-C3'	19.09	142.61	119.70
1	Ad	800	U	O4'-C1'-N1	19.07	123.46	108.20
1	Ad	457	C	N1-C1'-C2'	19.00	138.69	114.00
84	Aa	3182	A	P-O3'-C3'	18.92	142.41	119.70
1	Ad	861	A	O4'-C1'-C2'	-18.79	87.01	105.80
1	Ad	202	C	P-O3'-C3'	18.75	142.20	119.70
1	Ad	137	A	O4'-C1'-N9	18.72	123.17	108.20
84	Aa	1747	A	N1-C6-N6	18.69	129.82	118.60
1	Ad	76	U	P-O3'-C3'	18.55	141.96	119.70
1	Ad	1248	A	O4'-C1'-N9	18.43	122.94	108.20
1	Ad	1501	G	O4'-C1'-N9	18.23	122.78	108.20
1	Ad	1420	U	O4'-C1'-N1	18.12	122.69	108.20
1	Ad	1771	U	O4'-C1'-N1	18.08	122.67	108.20
1	Ad	585	U	O4'-C1'-N1	18.06	122.64	108.20
1	Ad	179	A	O4'-C1'-N9	-18.04	93.77	108.20
84	Aa	1576	C	P-O3'-C3'	17.78	141.03	119.70
1	Ad	1057	U	O4'-C1'-N1	17.68	122.34	108.20
84	Aa	2384	G	P-O3'-C3'	17.67	140.90	119.70
84	Aa	2216	G	N1-C6-O6	17.51	130.41	119.90
84	Aa	434	C	P-O3'-C3'	17.46	140.65	119.70
1	Ad	1802	G	O4'-C1'-N9	17.42	122.14	108.20
1	Ad	391	A	O4'-C1'-N9	17.35	122.08	108.20
1	Ad	939	C	O4'-C1'-N1	17.34	122.07	108.20
1	Ad	828	G	O4'-C1'-N9	17.19	121.95	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1567	G	O4'-C1'-N9	17.19	121.95	108.20
1	Ad	1496	A	O4'-C1'-N9	17.17	121.93	108.20
1	Ad	133	U	P-O3'-C3'	17.14	140.27	119.70
1	Ad	1309	U	O4'-C1'-N1	17.03	121.83	108.20
84	Aa	1950	G	P-O3'-C3'	16.98	140.07	119.70
1	Ad	821	G	N9-C1'-C2'	16.94	136.03	114.00
84	Aa	1263	A	N1-C6-N6	16.88	128.73	118.60
84	Aa	2086	A	O5'-P-OP1	16.79	130.85	110.70
84	Aa	506	U	P-O3'-C3'	16.76	139.82	119.70
84	Aa	2216	G	C5-C6-O6	-16.73	118.56	128.60
1	Ad	1086	A	P-O3'-C3'	16.73	139.77	119.70
1	Ad	1497	U	O4'-C1'-N1	16.69	121.56	108.20
84	Aa	423	C	P-O3'-C3'	16.66	139.69	119.70
1	Ad	394	G	O4'-C1'-N9	16.59	121.47	108.20
1	Ad	1203	G	O4'-C1'-N9	16.49	121.39	108.20
1	Ad	280	U	P-O3'-C3'	-16.48	99.92	119.70
84	Aa	158	A	P-O3'-C3'	16.41	139.39	119.70
1	Ad	396	G	O4'-C1'-N9	16.38	121.31	108.20
86	Ab	16	A	N1-C6-N6	16.37	128.42	118.60
1	Ad	1592	G	O4'-C1'-N9	16.36	121.28	108.20
1	Ad	1203	G	C1'-O4'-C4'	16.35	122.98	109.90
1	Ad	1353	G	P-O3'-C3'	16.33	139.30	119.70
1	Ad	906	G	O4'-C1'-N9	16.33	121.26	108.20
1	Ad	1619	A	O4'-C1'-N9	16.32	121.26	108.20
1	Ad	732	G	O4'-C1'-N9	16.26	121.21	108.20
1	Ad	1498	A	O4'-C1'-N9	16.20	121.16	108.20
1	Ad	1623	C	P-O3'-C3'	16.16	139.09	119.70
1	Ad	1405	U	O4'-C1'-N1	16.08	121.06	108.20
1	Ad	730	G	O4'-C1'-N9	16.00	121.00	108.20
86	Ab	115	A	N1-C6-N6	15.98	128.19	118.60
86	Ab	80	A	N1-C6-N6	15.96	128.18	118.60
84	Aa	144	A	N1-C6-N6	15.89	128.14	118.60
84	Aa	1019	A	N1-C6-N6	15.88	128.13	118.60
86	Ab	19	A	N1-C6-N6	15.84	128.11	118.60
86	Ab	31	G	N1-C6-O6	15.83	129.40	119.90
84	Aa	1726	G	P-O3'-C3'	15.73	138.58	119.70
1	Ad	83	U	O4'-C1'-N1	15.62	120.70	108.20
1	Ad	139	U	O4'-C1'-N1	15.62	120.69	108.20
1	Ad	1149	U	O4'-C1'-N1	15.59	120.67	108.20
1	Ad	1245	G	O4'-C1'-N9	15.52	120.62	108.20
1	Ad	800	U	P-O3'-C3'	15.47	138.27	119.70
1	Ad	458	A	O4'-C1'-N9	15.46	120.57	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1487	A	P-O3'-C3'	15.45	138.25	119.70
84	Aa	3153	U	P-O3'-C3'	15.41	138.19	119.70
1	Ad	444	U	O4'-C1'-N1	15.39	120.52	108.20
1	Ad	1205	G	O4'-C1'-N9	15.39	120.51	108.20
1	Ad	1220	C	P-O3'-C3'	15.35	138.12	119.70
1	Ad	792	U	O4'-C1'-N1	15.35	120.48	108.20
86	Ab	55	A	N1-C6-N6	15.35	127.81	118.60
84	Aa	2152	A	P-O3'-C3'	15.34	138.11	119.70
3	Af	12	A	O4'-C1'-N9	15.21	120.36	108.20
84	Aa	2167	G	C5-C6-O6	-15.19	119.48	128.60
84	Aa	571	G	P-O3'-C3'	15.18	137.91	119.70
84	Aa	2178	G	C4'-C3'-O3'	-15.15	77.58	109.40
84	Aa	3182	A	O4'-C1'-N9	15.14	120.31	108.20
1	Ad	707	C	O4'-C1'-N1	15.12	120.30	108.20
1	Ad	860	A	O4'-C1'-N9	15.12	120.30	108.20
1	Ad	344	U	O4'-C1'-N1	15.09	120.27	108.20
84	Aa	939	A	N1-C6-N6	15.05	127.63	118.60
84	Aa	2085	A	P-O5'-C5'	15.02	144.94	120.90
2	Ae	58	U	O4'-C1'-N1	15.01	120.21	108.20
1	Ad	1102	U	O4'-C1'-N1	15.00	120.20	108.20
86	Ab	79	A	C5-C6-N1	-14.95	110.22	117.70
1	Ad	845	C	P-O3'-C3'	14.92	137.61	119.70
84	Aa	1308	A	N1-C6-N6	14.92	127.55	118.60
84	Aa	1811	U	P-O3'-C3'	14.90	137.58	119.70
84	Aa	2086	A	O5'-P-OP2	-14.89	92.30	105.70
1	Ad	208	U	P-O3'-C3'	14.89	137.56	119.70
1	Ad	559	A	P-O3'-C3'	14.88	137.56	119.70
1	Ad	156	U	O4'-C1'-N1	14.87	120.10	108.20
84	Aa	1322	A	N1-C6-N6	14.87	127.52	118.60
86	Ab	43	A	N1-C6-N6	14.87	127.52	118.60
1	Ad	1344	U	O4'-C1'-N1	14.84	120.07	108.20
84	Aa	2100	A	P-O3'-C3'	14.78	137.43	119.70
1	Ad	1019	G	O4'-C1'-N9	14.77	120.02	108.20
1	Ad	80	C	P-O3'-C3'	14.77	137.42	119.70
2	Ae	12	U	O4'-C1'-N1	14.77	120.01	108.20
1	Ad	1226	U	O4'-C1'-N1	14.77	120.01	108.20
84	Aa	2086	A	C2'-C3'-O3'	14.70	141.84	109.50
1	Ad	1377	G	O4'-C1'-N9	14.69	119.95	108.20
1	Ad	1044	A	O4'-C1'-N9	14.66	119.93	108.20
84	Aa	2708	A	N1-C6-N6	14.65	127.39	118.60
1	Ad	261	C	N1-C1'-C2'	14.64	133.03	114.00
84	Aa	1057	A	N1-C6-N6	14.62	127.37	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1796	A	N1-C6-N6	14.60	127.36	118.60
85	Ac	71	A	N1-C6-N6	14.56	127.34	118.60
84	Aa	1526	A	N1-C6-N6	14.56	127.33	118.60
1	Ad	516	A	P-O3'-C3'	14.55	137.16	119.70
84	Aa	563	C	P-O3'-C3'	14.54	137.14	119.70
1	Ad	372	U	O4'-C1'-N1	14.53	119.83	108.20
84	Aa	3221	A	P-O3'-C3'	14.51	137.11	119.70
1	Ad	215	A	P-O3'-C3'	14.49	137.09	119.70
84	Aa	64	A	N1-C6-N6	14.48	127.29	118.60
84	Aa	51	A	N1-C6-N6	14.45	127.27	118.60
1	Ad	828	G	P-O3'-C3'	14.43	137.02	119.70
1	Ad	1675	G	O4'-C1'-N9	14.41	119.73	108.20
1	Ad	1492	G	O4'-C1'-N9	14.40	119.72	108.20
1	Ad	1169	G	O4'-C1'-N9	14.37	119.70	108.20
86	Ab	79	A	N1-C6-N6	14.37	127.22	118.60
84	Aa	2072	U	P-O3'-C3'	14.36	136.93	119.70
84	Aa	349	A	N1-C6-N6	14.35	127.21	118.60
1	Ad	1206	A	N9-C1'-C2'	14.34	132.64	114.00
1	Ad	843	G	C3'-C2'-C1'	14.32	112.96	101.50
1	Ad	131	C	P-O3'-C3'	14.30	136.86	119.70
84	Aa	3308	A	P-O3'-C3'	14.28	136.84	119.70
86	Ab	42	A	N1-C6-N6	14.27	127.16	118.60
1	Ad	707	C	C1'-O4'-C4'	14.27	121.31	109.90
84	Aa	2286	A	N1-C6-N6	14.27	127.16	118.60
1	Ad	1504	U	O4'-C1'-N1	14.26	119.61	108.20
1	Ad	1694	G	O4'-C1'-N9	14.25	119.60	108.20
84	Aa	3001	G	O4'-C1'-N9	14.24	119.59	108.20
84	Aa	2461	A	P-O3'-C3'	14.20	136.74	119.70
86	Ab	50	A	N1-C6-N6	14.19	127.11	118.60
1	Ad	851	G	O4'-C1'-N9	14.19	119.55	108.20
84	Aa	587	A	N1-C6-N6	14.19	127.11	118.60
84	Aa	2494	A	N1-C6-N6	14.18	127.11	118.60
84	Aa	2932	A	N1-C6-N6	14.14	127.08	118.60
84	Aa	1146	A	N1-C6-N6	14.10	127.06	118.60
1	Ad	1371	U	O4'-C1'-N1	14.09	119.47	108.20
84	Aa	716	A	N1-C6-N6	14.07	127.04	118.60
84	Aa	2053	A	P-O3'-C3'	14.06	136.57	119.70
84	Aa	849	A	N1-C6-N6	14.05	127.03	118.60
1	Ad	215	A	O4'-C1'-N9	14.05	119.44	108.20
1	Ad	150	U	O4'-C1'-N1	14.04	119.43	108.20
86	Ab	47	C	P-O3'-C3'	14.04	136.54	119.70
1	Ad	1421	U	O4'-C1'-N1	14.03	119.43	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	87	A	C1'-O4'-C4'	14.03	121.12	109.90
1	Ad	786	U	O4'-C1'-N1	14.03	119.42	108.20
84	Aa	3175	C	P-O3'-C3'	14.03	136.54	119.70
1	Ad	501	U	P-O3'-C3'	14.02	136.53	119.70
84	Aa	168	A	N1-C6-N6	14.02	127.01	118.60
1	Ad	349	U	O4'-C1'-N1	14.01	119.41	108.20
1	Ad	1621	U	O4'-C1'-N1	14.00	119.40	108.20
1	Ad	63	G	O4'-C1'-N9	14.00	119.40	108.20
1	Ad	1440	U	O4'-C1'-N1	14.00	119.40	108.20
1	Ad	502	G	P-O3'-C3'	13.98	136.47	119.70
84	Aa	2167	G	N1-C6-O6	13.97	128.28	119.90
84	Aa	3025	A	N1-C6-N6	13.93	126.96	118.60
84	Aa	1088	A	N1-C6-N6	13.93	126.96	118.60
84	Aa	488	U	P-O3'-C3'	13.92	136.40	119.70
1	Ad	1643	A	O4'-C1'-N9	13.91	119.33	108.20
84	Aa	2528	U	P-O3'-C3'	13.90	136.38	119.70
1	Ad	1464	G	N9-C1'-C2'	13.89	132.06	114.00
84	Aa	1812	A	P-O3'-C3'	13.88	136.36	119.70
1	Ad	884	G	O4'-C1'-N9	13.87	119.30	108.20
84	Aa	2143	A	N1-C6-N6	13.86	126.92	118.60
84	Aa	2311	A	N1-C6-N6	13.84	126.90	118.60
84	Aa	159	G	N1-C6-O6	13.80	128.18	119.90
1	Ad	1807	A	O4'-C1'-N9	13.80	119.24	108.20
84	Aa	1136	A	N1-C6-N6	13.79	126.88	118.60
1	Ad	1550	G	O4'-C1'-N9	13.78	119.22	108.20
84	Aa	2646	A	N1-C6-N6	13.78	126.87	118.60
84	Aa	686	A	N1-C6-N6	13.77	126.86	118.60
1	Ad	562	U	O4'-C1'-N1	13.77	119.21	108.20
1	Ad	744	G	O4'-C1'-N9	13.72	119.18	108.20
84	Aa	1694	A	N1-C6-N6	13.71	126.83	118.60
1	Ad	1101	C	O4'-C1'-N1	13.70	119.16	108.20
1	Ad	1387	U	O4'-C1'-N1	13.67	119.13	108.20
1	Ad	1810	G	C3'-C2'-C1'	13.67	112.43	101.50
1	Ad	79	A	O4'-C1'-N9	13.66	119.13	108.20
84	Aa	525	A	N1-C6-N6	13.66	126.79	118.60
84	Aa	1538	A	N1-C6-N6	13.66	126.79	118.60
86	Ab	11	A	N1-C6-N6	13.65	126.79	118.60
1	Ad	722	A	P-O3'-C3'	13.64	136.07	119.70
84	Aa	657	A	N1-C6-N6	13.64	126.78	118.60
1	Ad	1583	G	O4'-C1'-N9	13.64	119.11	108.20
1	Ad	1763	A	O4'-C1'-N9	13.61	119.09	108.20
86	Ab	3	A	N1-C6-N6	13.60	126.76	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2237	A	N1-C6-N6	13.59	126.75	118.60
84	Aa	2165	A	N1-C6-N6	13.58	126.75	118.60
84	Aa	304	A	N1-C6-N6	13.57	126.74	118.60
84	Aa	2142	A	N1-C6-N6	13.57	126.74	118.60
84	Aa	1463	A	N1-C6-N6	13.55	126.73	118.60
36	BH	117	ARG	NE-CZ-NH1	-13.55	113.53	120.30
1	Ad	139	U	P-O3'-C3'	13.55	135.96	119.70
84	Aa	2177	U	C4'-C3'-O3'	-13.52	81.01	109.40
85	Ac	85	G	P-O3'-C3'	13.52	135.92	119.70
1	Ad	1655	U	O4'-C1'-N1	13.51	119.00	108.20
84	Aa	119	A	N1-C6-N6	13.51	126.70	118.60
84	Aa	1644	A	N1-C6-N6	13.49	126.69	118.60
1	Ad	815	A	P-O3'-C3'	13.49	135.88	119.70
1	Ad	918	G	P-O3'-C3'	13.48	135.88	119.70
1	Ad	1343	C	P-O3'-C3'	13.48	135.88	119.70
1	Ad	29	U	O4'-C1'-N1	13.47	118.98	108.20
84	Aa	3057	A	N1-C6-N6	13.47	126.69	118.60
84	Aa	3211	C	P-O3'-C3'	13.46	135.86	119.70
84	Aa	3143	A	N1-C6-N6	13.46	126.68	118.60
1	Ad	185	G	P-O3'-C3'	13.46	135.85	119.70
1	Ad	336	U	O4'-C1'-N1	13.44	118.95	108.20
1	Ad	999	G	C1'-O4'-C4'	-13.43	99.15	109.90
84	Aa	3220	A	N1-C6-N6	13.43	126.66	118.60
84	Aa	1344	A	N1-C6-N6	13.42	126.65	118.60
1	Ad	461	G	O4'-C1'-N9	13.41	118.93	108.20
84	Aa	50	A	N1-C6-N6	13.41	126.65	118.60
84	Aa	540	G	N1-C6-O6	13.40	127.94	119.90
84	Aa	2751	A	N1-C6-N6	13.37	126.62	118.60
1	Ad	276	G	O4'-C1'-N9	13.37	118.89	108.20
84	Aa	920	A	N1-C6-N6	13.36	126.61	118.60
1	Ad	1162	A	P-O3'-C3'	13.35	135.72	119.70
86	Ab	68	G	N1-C6-O6	13.35	127.91	119.90
84	Aa	2313	U	P-O3'-C3'	13.34	135.71	119.70
84	Aa	2905	A	N1-C6-N6	13.33	126.60	118.60
84	Aa	1456	A	N1-C6-N6	13.31	126.58	118.60
84	Aa	1855	A	N1-C6-N6	13.30	126.58	118.60
84	Aa	73	A	N1-C6-N6	13.29	126.57	118.60
2	Ae	73	C	N1-C1'-C2'	13.28	131.27	114.00
1	Ad	145	A	O4'-C1'-N9	13.28	118.82	108.20
84	Aa	353	A	N1-C6-N6	13.28	126.57	118.60
1	Ad	1183	G	O4'-C1'-N9	13.27	118.82	108.20
84	Aa	747	A	N1-C6-N6	13.27	126.56	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2948	A	N1-C6-N6	13.27	126.56	118.60
84	Aa	3315	A	N1-C6-N6	13.26	126.55	118.60
84	Aa	1490	A	N1-C6-N6	13.25	126.55	118.60
84	Aa	454	A	N1-C6-N6	13.25	126.55	118.60
1	Ad	1367	U	O4'-C1'-N1	13.24	118.79	108.20
84	Aa	3351	A	N1-C6-N6	13.23	126.54	118.60
1	Ad	930	G	O4'-C1'-N9	13.22	118.78	108.20
84	Aa	2503	A	P-O3'-C3'	13.21	135.55	119.70
84	Aa	217	A	N1-C6-N6	13.21	126.53	118.60
84	Aa	2504	A	P-O3'-C3'	13.21	135.55	119.70
84	Aa	3012	A	N1-C6-N6	13.21	126.52	118.60
84	Aa	2483	A	N1-C6-N6	13.21	126.52	118.60
84	Aa	2125	A	N1-C6-N6	13.20	126.52	118.60
1	Ad	167	A	O4'-C1'-N9	13.19	118.75	108.20
84	Aa	2996	A	N1-C6-N6	13.19	126.51	118.60
1	Ad	1581	A	P-O3'-C3'	13.19	135.52	119.70
1	Ad	32	U	O4'-C1'-N1	13.18	118.75	108.20
84	Aa	1501	A	N1-C6-N6	13.18	126.51	118.60
84	Aa	2513	U	C5'-C4'-C3'	-13.18	94.92	116.00
84	Aa	2849	A	N1-C6-N6	13.17	126.50	118.60
1	Ad	723	A	O4'-C1'-N9	13.16	118.73	108.20
84	Aa	1704	A	N1-C6-N6	13.15	126.49	118.60
84	Aa	332	A	N1-C6-N6	13.15	126.49	118.60
1	Ad	634	A	O4'-C1'-N9	13.13	118.70	108.20
84	Aa	2898	A	N1-C6-N6	13.13	126.48	118.60
84	Aa	830	A	N1-C6-N6	13.12	126.47	118.60
1	Ad	2	A	O4'-C1'-N9	13.11	118.69	108.20
84	Aa	774	A	N1-C6-N6	13.10	126.46	118.60
85	Ac	52	A	N1-C6-N6	13.09	126.46	118.60
1	Ad	1134	U	O4'-C1'-N1	13.09	118.67	108.20
1	Ad	235	C	O4'-C1'-C2'	-13.09	92.72	105.80
84	Aa	1334	A	N1-C6-N6	13.07	126.44	118.60
84	Aa	1224	A	N1-C6-N6	13.03	126.42	118.60
84	Aa	3113	G	N1-C6-O6	13.03	127.72	119.90
85	Ac	12	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	2989	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	2331	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	3136	A	N1-C6-N6	13.00	126.40	118.60
84	Aa	1838	A	N1-C6-N6	12.99	126.39	118.60
84	Aa	2351	A	N1-C6-N6	12.98	126.39	118.60
84	Aa	1123	A	N1-C6-N6	12.98	126.39	118.60
1	Ad	1254	U	P-O3'-C3'	12.96	135.25	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1195	C	P-O3'-C3'	12.96	135.25	119.70
84	Aa	2788	A	N1-C6-N6	12.96	126.37	118.60
84	Aa	1061	A	N1-C6-N6	12.95	126.37	118.60
84	Aa	2538	G	P-O3'-C3'	12.95	135.23	119.70
1	Ad	1376	A	O4'-C1'-N9	12.94	118.56	108.20
2	Ae	47	U	O4'-C1'-N1	12.94	118.55	108.20
84	Aa	723	G	O4'-C1'-N9	12.94	118.55	108.20
84	Aa	156	A	N1-C6-N6	12.93	126.36	118.60
84	Aa	2984	A	N1-C6-N6	12.93	126.36	118.60
84	Aa	2098	A	N1-C6-N6	12.92	126.35	118.60
1	Ad	486	U	O4'-C1'-N1	12.91	118.53	108.20
84	Aa	1367	A	N1-C6-N6	12.91	126.35	118.60
84	Aa	573	A	N1-C6-N6	12.91	126.35	118.60
84	Aa	1274	A	N1-C6-N6	12.91	126.34	118.60
84	Aa	3382	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	2810	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	2943	A	N1-C6-N6	12.90	126.34	118.60
84	Aa	697	A	N1-C6-N6	12.89	126.34	118.60
84	Aa	3336	A	N1-C6-N6	12.89	126.33	118.60
84	Aa	672	A	N1-C6-N6	12.87	126.32	118.60
2	Ae	55	C	N1-C1'-C2'	12.87	130.74	114.00
1	Ad	788	G	P-O3'-C3'	12.87	135.15	119.70
1	Ad	379	U	O4'-C1'-N1	12.87	118.49	108.20
84	Aa	2171	A	N1-C6-N6	12.86	126.31	118.60
84	Aa	294	A	N1-C6-N6	12.85	126.31	118.60
84	Aa	2679	A	N1-C6-N6	12.85	126.31	118.60
1	Ad	404	A	O4'-C1'-N9	12.83	118.46	108.20
84	Aa	2561	A	N1-C6-N6	12.81	126.29	118.60
84	Aa	2372	A	N1-C6-N6	12.81	126.28	118.60
1	Ad	1241	G	O4'-C1'-N9	12.80	118.44	108.20
84	Aa	1819	A	N1-C6-N6	12.80	126.28	118.60
84	Aa	2640	A	N1-C6-N6	12.80	126.28	118.60
1	Ad	1406	U	O4'-C1'-N1	12.80	118.44	108.20
1	Ad	557	G	O4'-C1'-N9	12.80	118.44	108.20
84	Aa	499	A	P-O3'-C3'	12.80	135.06	119.70
84	Aa	1727	A	P-O3'-C3'	12.79	135.05	119.70
84	Aa	1843	A	N1-C6-N6	12.79	126.28	118.60
84	Aa	1904	A	N1-C6-N6	12.79	126.27	118.60
84	Aa	2787	A	N1-C6-N6	12.79	126.27	118.60
1	Ad	1460	G	O4'-C1'-N9	12.78	118.42	108.20
1	Ad	1248	A	P-O3'-C3'	12.78	135.03	119.70
84	Aa	1225	A	N1-C6-N6	12.77	126.26	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2139	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	3271	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	56	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	262	A	N1-C6-N6	12.77	126.26	118.60
84	Aa	1349	G	N1-C6-O6	12.76	127.56	119.90
84	Aa	385	A	N1-C6-N6	12.76	126.25	118.60
1	Ad	219	G	O4'-C1'-N9	12.75	118.40	108.20
84	Aa	121	A	N1-C6-N6	12.74	126.25	118.60
84	Aa	3041	A	N1-C6-N6	12.74	126.24	118.60
86	Ab	77	A	N1-C6-N6	12.74	126.24	118.60
1	Ad	1203	G	N9-C1'-C2'	-12.73	97.44	114.00
84	Aa	982	U	P-O3'-C3'	12.73	134.98	119.70
1	Ad	1689	A	O4'-C1'-N9	12.73	118.38	108.20
84	Aa	1114	A	N1-C6-N6	12.73	126.24	118.60
84	Aa	426	A	N1-C6-N6	12.73	126.24	118.60
1	Ad	1659	A	O4'-C1'-N9	12.72	118.38	108.20
84	Aa	39	A	N1-C6-N6	12.72	126.23	118.60
84	Aa	1918	A	N1-C6-N6	12.71	126.23	118.60
1	Ad	1688	G	O4'-C1'-N9	12.71	118.37	108.20
84	Aa	1221	A	N1-C6-N6	12.71	126.22	118.60
1	Ad	761	A	P-O3'-C3'	12.71	134.95	119.70
84	Aa	3045	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	2396	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	3358	A	N1-C6-N6	12.70	126.22	118.60
84	Aa	2562	A	N1-C6-N6	12.69	126.21	118.60
84	Aa	2385	A	N1-C6-N6	12.68	126.21	118.60
1	Ad	176	A	O4'-C1'-N9	12.68	118.34	108.20
85	Ac	157	A	N1-C6-N6	12.68	126.20	118.60
84	Aa	792	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	886	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	3113	G	C5-C6-O6	-12.67	121.00	128.60
85	Ac	126	A	N1-C6-N6	12.67	126.20	118.60
84	Aa	929	A	N1-C6-N6	12.66	126.20	118.60
84	Aa	2074	C	P-O3'-C3'	12.66	134.90	119.70
84	Aa	2512	U	C2'-C3'-O3'	12.66	137.35	109.50
2	Ae	28	G	C1'-O4'-C4'	-12.64	99.78	109.90
85	Ac	41	A	N1-C6-N6	12.64	126.19	118.60
84	Aa	3177	A	N1-C6-N6	12.63	126.18	118.60
1	Ad	878	U	O4'-C1'-N1	12.63	118.30	108.20
86	Ab	99	G	N1-C6-O6	12.62	127.47	119.90
84	Aa	395	A	N1-C6-N6	12.62	126.17	118.60
84	Aa	2491	A	N1-C6-N6	12.62	126.17	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2969	A	N1-C6-N6	12.61	126.17	118.60
84	Aa	3049	A	N1-C6-N6	12.61	126.17	118.60
1	Ad	1753	U	O4'-C1'-N1	12.61	118.29	108.20
84	Aa	1282	A	N1-C6-N6	12.61	126.16	118.60
84	Aa	322	A	N1-C6-N6	12.60	126.16	118.60
85	Ac	33	A	N1-C6-N6	12.60	126.16	118.60
84	Aa	2357	A	N1-C6-N6	12.59	126.16	118.60
1	Ad	635	G	O4'-C1'-N9	12.59	118.27	108.20
84	Aa	2439	A	N1-C6-N6	12.59	126.16	118.60
84	Aa	1024	G	N1-C6-O6	12.58	127.45	119.90
1	Ad	300	U	O4'-C1'-N1	12.58	118.26	108.20
84	Aa	2993	A	N1-C6-N6	12.58	126.14	118.60
84	Aa	2805	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	2294	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	3306	A	N1-C6-N6	12.57	126.14	118.60
84	Aa	481	G	P-O3'-C3'	12.56	134.78	119.70
84	Aa	1153	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	1753	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	1359	A	N1-C6-N6	12.56	126.14	118.60
84	Aa	586	A	N1-C6-N6	12.55	126.13	118.60
1	Ad	1041	A	O4'-C1'-N9	12.55	118.24	108.20
84	Aa	2645	A	N1-C6-N6	12.54	126.12	118.60
84	Aa	499	A	N1-C6-N6	12.53	126.11	118.60
84	Aa	1000	A	N1-C6-N6	12.53	126.12	118.60
84	Aa	1438	A	N1-C6-N6	12.53	126.12	118.60
84	Aa	1336	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	2904	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	1927	A	N1-C6-N6	12.52	126.11	118.60
84	Aa	1590	A	N1-C6-N6	12.51	126.11	118.60
84	Aa	65	A	N1-C6-N6	12.50	126.10	118.60
1	Ad	1014	U	O4'-C1'-N1	12.49	118.19	108.20
84	Aa	811	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	1013	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	2638	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	3114	A	N1-C6-N6	12.49	126.09	118.60
84	Aa	99	A	N1-C6-N6	12.48	126.09	118.60
84	Aa	1640	A	N1-C6-N6	12.48	126.09	118.60
84	Aa	1398	A	N1-C6-N6	12.48	126.09	118.60
2	Ae	74	C	C1'-O4'-C4'	12.47	119.88	109.90
84	Aa	2356	A	N1-C6-N6	12.47	126.08	118.60
85	Ac	40	A	N1-C6-N6	12.47	126.08	118.60
84	Aa	887	A	N1-C6-N6	12.47	126.08	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	159	G	C5-C6-O6	-12.47	121.12	128.60
84	Aa	33	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	721	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	2630	A	N1-C6-N6	12.46	126.08	118.60
84	Aa	1002	A	N1-C6-N6	12.46	126.07	118.60
84	Aa	526	A	P-O5'-C5'	12.45	140.82	120.90
84	Aa	3092	A	N1-C6-N6	12.45	126.07	118.60
84	Aa	2958	A	N1-C6-N6	12.45	126.07	118.60
84	Aa	1929	A	N1-C6-N6	12.44	126.06	118.60
1	Ad	891	U	O4'-C1'-N1	12.44	118.15	108.20
1	Ad	45	U	C3'-C2'-C1'	12.44	111.45	101.50
1	Ad	845	C	C1'-O4'-C4'	12.44	119.85	109.90
84	Aa	2014	A	N1-C6-N6	12.44	126.06	118.60
84	Aa	2482	A	N1-C6-N6	12.43	126.06	118.60
84	Aa	746	C	O4'-C1'-N1	12.43	118.14	108.20
84	Aa	1831	A	N1-C6-N6	12.42	126.05	118.60
1	Ad	583	A	O4'-C1'-N9	12.42	118.14	108.20
84	Aa	3148	A	N1-C6-N6	12.42	126.05	118.60
84	Aa	2214	A	N1-C6-N6	12.41	126.05	118.60
84	Aa	3221	A	N1-C6-N6	12.41	126.05	118.60
1	Ad	190	C	P-O3'-C3'	12.41	134.59	119.70
84	Aa	879	A	N1-C6-N6	12.41	126.05	118.60
84	Aa	1932	A	N1-C6-N6	12.41	126.05	118.60
1	Ad	197	G	O4'-C1'-N9	12.40	118.12	108.20
84	Aa	985	C	P-O3'-C3'	12.40	134.58	119.70
86	Ab	112	U	O4'-C1'-N1	12.40	118.12	108.20
84	Aa	705	A	N1-C6-N6	12.40	126.04	118.60
1	Ad	986	U	O4'-C1'-N1	12.39	118.11	108.20
84	Aa	1040	A	N1-C6-N6	12.39	126.04	118.60
84	Aa	2912	A	N1-C6-N6	12.39	126.04	118.60
84	Aa	1157	A	N1-C6-N6	12.39	126.03	118.60
84	Aa	3201	A	N1-C6-N6	12.39	126.03	118.60
84	Aa	2695	A	N1-C6-N6	12.38	126.03	118.60
84	Aa	61	A	N1-C6-N6	12.38	126.03	118.60
84	Aa	3104	A	N1-C6-N6	12.38	126.03	118.60
1	Ad	1100	U	O4'-C1'-N1	12.38	118.10	108.20
84	Aa	1232	A	N1-C6-N6	12.37	126.02	118.60
84	Aa	1494	A	N1-C6-N6	12.37	126.02	118.60
84	Aa	2935	A	N1-C6-N6	12.36	126.02	118.60
1	Ad	1690	U	O4'-C1'-N1	12.36	118.09	108.20
84	Aa	2276	A	N1-C6-N6	12.36	126.02	118.60
84	Aa	487	C	P-O3'-C3'	12.35	134.53	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	49	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	2344	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	2397	A	N1-C6-N6	12.35	126.01	118.60
84	Aa	1731	A	N1-C6-N6	12.35	126.01	118.60
86	Ab	110	G	N1-C6-O6	12.35	127.31	119.90
85	Ac	54	A	N1-C6-N6	12.34	126.00	118.60
85	Ac	110	A	N1-C6-N6	12.34	126.00	118.60
84	Aa	2101	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	639	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	2889	A	N1-C6-N6	12.33	126.00	118.60
84	Aa	216	G	C5-C6-O6	-12.32	121.21	128.60
84	Aa	846	A	N1-C6-N6	12.32	125.99	118.60
2	Ae	37	G	P-O3'-C3'	12.32	134.48	119.70
1	Ad	315	U	O4'-C1'-N1	12.31	118.05	108.20
84	Aa	373	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	2400	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	393	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	1512	A	N1-C6-N6	12.31	125.99	118.60
84	Aa	1097	A	N1-C6-N6	12.31	125.98	118.60
84	Aa	2670	A	N1-C6-N6	12.31	125.98	118.60
2	Ae	36	C	N1-C1'-C2'	12.30	130.00	114.00
84	Aa	2503	A	N1-C6-N6	12.30	125.98	118.60
1	Ad	383	U	O4'-C1'-N1	12.30	118.04	108.20
84	Aa	2389	A	N1-C6-N6	12.30	125.98	118.60
84	Aa	282	A	N1-C6-N6	12.30	125.98	118.60
84	Aa	2730	A	N1-C6-N6	12.29	125.98	118.60
2	Ae	50	G	O4'-C1'-N9	12.29	118.03	108.20
84	Aa	2223	A	N1-C6-N6	12.29	125.98	118.60
84	Aa	1651	A	N1-C6-N6	12.28	125.97	118.60
86	Ab	81	G	N1-C6-O6	12.28	127.27	119.90
84	Aa	2217	A	N1-C6-N6	12.27	125.96	118.60
1	Ad	331	U	O4'-C1'-N1	12.27	118.02	108.20
1	Ad	1537	U	O4'-C1'-N1	12.27	118.02	108.20
84	Aa	6	A	N1-C6-N6	12.27	125.96	118.60
84	Aa	661	A	N1-C6-N6	12.27	125.96	118.60
84	Aa	118	G	N1-C6-O6	12.27	127.26	119.90
84	Aa	1106	G	P-O3'-C3'	12.27	134.42	119.70
84	Aa	196	A	N1-C6-N6	12.26	125.96	118.60
1	Ad	842	G	O4'-C1'-N9	12.26	118.00	108.20
84	Aa	1370	A	N1-C6-N6	12.26	125.95	118.60
84	Aa	2210	A	N1-C6-N6	12.25	125.95	118.60
84	Aa	2724	A	N1-C6-N6	12.25	125.95	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	778	G	O4'-C1'-N9	12.24	118.00	108.20
84	Aa	2138	A	N1-C6-N6	12.24	125.95	118.60
84	Aa	1928	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	2152	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	2239	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	3034	A	N1-C6-N6	12.23	125.94	118.60
84	Aa	64	A	P-O3'-C3'	12.23	134.38	119.70
1	Ad	1278	C	O4'-C1'-N1	12.23	117.98	108.20
84	Aa	3110	A	N1-C6-N6	12.22	125.93	118.60
1	Ad	606	U	O4'-C1'-N1	12.22	117.97	108.20
84	Aa	266	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	2266	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	3272	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	3017	A	N1-C6-N6	12.21	125.93	118.60
84	Aa	2082	A	N1-C6-N6	12.20	125.92	118.60
84	Aa	2290	A	N1-C6-N6	12.20	125.92	118.60
1	Ad	507	G	P-O3'-C3'	12.20	134.34	119.70
84	Aa	2804	A	N1-C6-N6	12.19	125.91	118.60
84	Aa	917	A	N1-C6-N6	12.19	125.91	118.60
84	Aa	2089	A	N1-C6-N6	12.18	125.91	118.60
84	Aa	2487	A	N1-C6-N6	12.18	125.91	118.60
84	Aa	1882	A	N1-C6-N6	12.17	125.91	118.60
84	Aa	1373	A	N1-C6-N6	12.17	125.90	118.60
84	Aa	3087	A	N1-C6-N6	12.17	125.90	118.60
84	Aa	364	A	N1-C6-N6	12.16	125.90	118.60
84	Aa	3078	A	N1-C6-N6	12.16	125.90	118.60
1	Ad	1780	U	O4'-C1'-N1	12.16	117.93	108.20
84	Aa	383	A	N1-C6-N6	12.16	125.90	118.60
84	Aa	2100	A	N1-C6-N6	12.16	125.89	118.60
1	Ad	294	G	O4'-C1'-N9	12.15	117.92	108.20
84	Aa	955	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	2227	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	3018	A	N1-C6-N6	12.15	125.89	118.60
84	Aa	3107	A	N1-C6-N6	12.15	125.89	118.60
85	Ac	13	A	N1-C6-N6	12.15	125.89	118.60
1	Ad	1810	G	O4'-C1'-N9	-12.14	98.49	108.20
84	Aa	968	A	N1-C6-N6	12.14	125.89	118.60
84	Aa	1172	A	N1-C6-N6	12.14	125.89	118.60
84	Aa	1835	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	3299	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	2114	A	N1-C6-N6	12.13	125.88	118.60
84	Aa	2371	A	N1-C6-N6	12.13	125.88	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1506	A	N1-C6-N6	12.12	125.87	118.60
1	Ad	263	C	O4'-C1'-N1	12.12	117.90	108.20
84	Aa	2677	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	158	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	1249	A	N1-C6-N6	12.10	125.86	118.60
86	Ab	74	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	440	U	P-O3'-C3'	12.10	134.22	119.70
84	Aa	1599	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	2706	A	N1-C6-N6	12.10	125.86	118.60
84	Aa	2674	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	3213	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	2662	A	N1-C6-N6	12.09	125.86	118.60
84	Aa	154	G	N1-C6-O6	12.09	127.15	119.90
84	Aa	2545	C	P-O3'-C3'	12.09	134.21	119.70
84	Aa	3310	A	N1-C6-N6	12.09	125.85	118.60
1	Ad	492	G	O4'-C1'-N9	12.08	117.87	108.20
1	Ad	1580	G	C1'-O4'-C4'	12.08	119.56	109.90
84	Aa	143	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	1755	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2971	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2228	A	N1-C6-N6	12.08	125.85	118.60
84	Aa	2853	A	N1-C6-N6	12.07	125.84	118.60
84	Aa	197	A	N1-C6-N6	12.07	125.84	118.60
2	Ae	13	U	O4'-C1'-N1	12.07	117.86	108.20
1	Ad	1574	U	O4'-C1'-N1	12.07	117.85	108.20
84	Aa	540	G	C5-C6-O6	-12.06	121.36	128.60
84	Aa	1291	A	N1-C6-N6	12.06	125.84	118.60
84	Aa	87	A	N1-C6-N6	12.06	125.84	118.60
84	Aa	46	A	N1-C6-N6	12.06	125.83	118.60
84	Aa	292	A	N1-C6-N6	12.06	125.83	118.60
84	Aa	738	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	186	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	2694	A	N1-C6-N6	12.05	125.83	118.60
84	Aa	924	A	N1-C6-N6	12.04	125.83	118.60
84	Aa	2386	A	N1-C6-N6	12.04	125.82	118.60
84	Aa	2458	A	N1-C6-N6	12.04	125.83	118.60
84	Aa	1492	A	N1-C6-N6	12.04	125.82	118.60
84	Aa	1410	A	N1-C6-N6	12.03	125.82	118.60
84	Aa	1653	A	N1-C6-N6	12.03	125.82	118.60
1	Ad	1804	A	O4'-C1'-N9	12.03	117.82	108.20
84	Aa	1305	A	N1-C6-N6	12.03	125.82	118.60
84	Aa	2978	A	N1-C6-N6	12.03	125.82	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1485	A	N1-C6-N6	12.03	125.81	118.60
84	Aa	94	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	1307	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	219	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	2733	A	N1-C6-N6	12.02	125.81	118.60
84	Aa	2429	A	N1-C6-N6	12.02	125.81	118.60
86	Ab	27	A	N1-C6-N6	12.02	125.81	118.60
1	Ad	279	C	O4'-C1'-N1	12.01	117.81	108.20
84	Aa	820	A	N1-C6-N6	12.01	125.81	118.60
84	Aa	1200	A	N1-C6-N6	12.01	125.81	118.60
84	Aa	1610	A	N1-C6-N6	12.00	125.80	118.60
84	Aa	3073	A	N1-C6-N6	12.00	125.80	118.60
84	Aa	2088	C	O4'-C1'-N1	11.99	117.80	108.20
84	Aa	2107	A	N1-C6-N6	11.99	125.80	118.60
84	Aa	1353	A	N1-C6-N6	11.99	125.79	118.60
84	Aa	1139	A	N1-C6-N6	11.98	125.79	118.60
84	Aa	2016	A	N1-C6-N6	11.98	125.79	118.60
84	Aa	660	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	1138	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	1306	A	N1-C6-N6	11.97	125.78	118.60
84	Aa	420	A	N1-C6-N6	11.96	125.78	118.60
84	Aa	1192	A	N1-C6-N6	11.96	125.77	118.60
84	Aa	1256	A	N1-C6-N6	11.95	125.77	118.60
1	Ad	1028	A	O4'-C1'-N9	11.95	117.76	108.20
84	Aa	62	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	873	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	1311	G	P-O3'-C3'	11.95	134.04	119.70
84	Aa	1790	A	N1-C6-N6	11.95	125.77	118.60
84	Aa	3173	A	N1-C6-N6	11.94	125.77	118.60
84	Aa	766	C	P-O3'-C3'	11.94	134.03	119.70
84	Aa	1395	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	2718	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	839	A	N1-C6-N6	11.94	125.76	118.60
84	Aa	2449	A	N1-C6-N6	11.94	125.76	118.60
1	Ad	1664	U	O4'-C1'-N1	11.93	117.75	108.20
84	Aa	730	A	N1-C6-N6	11.93	125.75	118.60
84	Aa	2244	G	P-O3'-C3'	11.92	134.01	119.70
84	Aa	1206	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	1520	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	3074	A	N1-C6-N6	11.92	125.75	118.60
84	Aa	1254	A	N1-C6-N6	11.91	125.75	118.60
84	Aa	1543	A	N1-C6-N6	11.91	125.75	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1846	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	2574	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	3022	A	N1-C6-N6	11.91	125.74	118.60
84	Aa	113	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	2247	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1568	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1676	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	1906	A	N1-C6-N6	11.90	125.74	118.60
84	Aa	2533	A	N1-C6-N6	11.88	125.73	118.60
85	Ac	104	A	N1-C6-N6	11.88	125.73	118.60
85	Ac	44	A	N1-C6-N6	11.88	125.73	118.60
84	Aa	1802	A	N1-C6-N6	11.88	125.73	118.60
84	Aa	1030	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	2086	A	P-O5'-C5'	11.88	139.90	120.90
84	Aa	2761	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	3123	A	N1-C6-N6	11.87	125.72	118.60
1	Ad	271	C	P-O3'-C3'	11.87	133.94	119.70
85	Ac	92	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	98	A	N1-C6-N6	11.87	125.72	118.60
84	Aa	2681	A	N1-C6-N6	11.86	125.72	118.60
84	Aa	813	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1295	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1917	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	1227	A	N1-C6-N6	11.85	125.71	118.60
84	Aa	2665	A	N1-C6-N6	11.84	125.71	118.60
84	Aa	3071	A	N1-C6-N6	11.84	125.71	118.60
84	Aa	376	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	3312	G	N1-C6-O6	11.84	127.00	119.90
84	Aa	382	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	1875	A	N1-C6-N6	11.84	125.70	118.60
84	Aa	2794	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	1905	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	2815	A	N1-C6-N6	11.83	125.70	118.60
84	Aa	439	A	N1-C6-N6	11.82	125.69	118.60
84	Aa	2774	A	N1-C6-N6	11.82	125.69	118.60
84	Aa	2203	A	N1-C6-N6	11.81	125.69	118.60
1	Ad	1788	G	O4'-C1'-N9	11.81	117.65	108.20
84	Aa	1255	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	1970	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	2839	A	N1-C6-N6	11.81	125.69	118.60
84	Aa	3135	A	N1-C6-N6	11.81	125.69	118.60
85	Ac	109	A	N1-C6-N6	11.81	125.69	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2092	C	O4'-C1'-N1	11.81	117.65	108.20
84	Aa	3088	A	N1-C6-N6	11.81	125.69	118.60
1	Ad	749	G	O4'-C1'-N9	11.81	117.65	108.20
84	Aa	1713	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1793	A	N1-C6-N6	11.80	125.68	118.60
86	Ab	22	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1809	A	N1-C6-N6	11.80	125.68	118.60
1	Ad	333	G	O4'-C1'-N9	11.80	117.64	108.20
84	Aa	928	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	1455	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	394	A	N1-C6-N6	11.80	125.68	118.60
84	Aa	2518	A	N1-C6-N6	11.79	125.68	118.60
84	Aa	3342	C	P-O3'-C3'	11.79	133.85	119.70
85	Ac	105	A	N1-C6-N6	11.79	125.67	118.60
84	Aa	1207	A	N1-C6-N6	11.79	125.67	118.60
84	Aa	1727	A	N1-C6-N6	11.79	125.67	118.60
1	Ad	1162	A	C1'-O4'-C4'	11.78	119.33	109.90
84	Aa	1812	A	N1-C6-N6	11.78	125.67	118.60
1	Ad	252	U	O4'-C1'-N1	11.78	117.62	108.20
84	Aa	844	A	N1-C6-N6	11.78	125.67	118.60
84	Aa	3028	A	N1-C6-N6	11.78	125.67	118.60
84	Aa	1560	A	P-O5'-C5'	11.78	139.75	120.90
1	Ad	505	U	O4'-C1'-N1	11.78	117.62	108.20
84	Aa	23	A	N1-C6-N6	11.78	125.67	118.60
1	Ad	1293	U	O4'-C1'-N1	11.77	117.62	108.20
84	Aa	216	G	N1-C6-O6	11.77	126.96	119.90
84	Aa	1330	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	1376	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	363	A	N1-C6-N6	11.77	125.66	118.60
84	Aa	698	A	N1-C6-N6	11.77	125.66	118.60
1	Ad	1524	A	O4'-C1'-N9	11.76	117.61	108.20
84	Aa	783	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	1863	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	2781	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	2113	A	N1-C6-N6	11.76	125.66	118.60
84	Aa	416	A	N1-C6-N6	11.76	125.66	118.60
1	Ad	1190	U	O4'-C1'-N1	11.76	117.61	108.20
84	Aa	711	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	2596	A	P-O3'-C3'	11.75	133.81	119.70
84	Aa	327	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	1162	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	2193	A	N1-C6-N6	11.75	125.65	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	564	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	1674	A	N1-C6-N6	11.75	125.65	118.60
84	Aa	365	A	N1-C6-N6	11.74	125.64	118.60
84	Aa	287	A	N1-C6-N6	11.74	125.64	118.60
1	Ad	1782	C	P-O3'-C3'	11.73	133.78	119.70
84	Aa	149	A	N1-C6-N6	11.73	125.64	118.60
84	Aa	3362	A	N1-C6-N6	11.72	125.64	118.60
1	Ad	284	U	P-O3'-C3'	11.72	133.77	119.70
84	Aa	2298	A	N1-C6-N6	11.72	125.63	118.60
85	Ac	121	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	2141	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1468	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1643	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	3115	A	N1-C6-N6	11.72	125.63	118.60
84	Aa	1602	A	N1-C6-N6	11.71	125.63	118.60
1	Ad	1617	U	O4'-C1'-N1	11.71	117.57	108.20
84	Aa	1193	A	N1-C6-N6	11.71	125.63	118.60
84	Aa	3327	A	N1-C6-N6	11.71	125.62	118.60
84	Aa	2749	A	N1-C6-N6	11.71	125.62	118.60
84	Aa	3235	A	N1-C6-N6	11.70	125.62	118.60
1	Ad	608	U	O4'-C1'-N1	11.70	117.56	108.20
84	Aa	1312	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1837	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1065	A	N1-C6-N6	11.70	125.62	118.60
84	Aa	1883	A	N1-C6-N6	11.70	125.62	118.60
1	Ad	95	U	O4'-C1'-N1	11.69	117.56	108.20
84	Aa	3072	A	N1-C6-N6	11.69	125.62	118.60
1	Ad	282	C	C1'-O4'-C4'	11.69	119.25	109.90
84	Aa	3386	A	N1-C6-N6	11.69	125.61	118.60
1	Ad	612	U	N1-C1'-C2'	11.68	129.18	114.00
84	Aa	850	A	N1-C6-N6	11.68	125.61	118.60
84	Aa	2111	A	N1-C6-N6	11.68	125.61	118.60
1	Ad	903	A	O4'-C1'-N9	11.67	117.54	108.20
84	Aa	1204	A	N1-C6-N6	11.67	125.60	118.60
84	Aa	2006	A	N1-C6-N6	11.67	125.60	118.60
86	Ab	66	G	N1-C6-O6	11.67	126.90	119.90
1	Ad	57	G	O4'-C1'-N9	11.66	117.53	108.20
84	Aa	572	U	P-O3'-C3'	11.66	133.69	119.70
84	Aa	2218	A	N1-C6-N6	11.66	125.59	118.60
84	Aa	1861	A	N1-C6-N6	11.65	125.59	118.60
84	Aa	325	A	N1-C6-N6	11.65	125.59	118.60
84	Aa	1591	A	N1-C6-N6	11.63	125.58	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1056	A	P-O3'-C3'	11.63	133.66	119.70
84	Aa	2251	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	2960	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	2765	A	N1-C6-N6	11.63	125.58	118.60
84	Aa	681	A	N1-C6-N6	11.63	125.58	118.60
1	Ad	282	C	P-O3'-C3'	11.62	133.65	119.70
84	Aa	1397	A	N1-C6-N6	11.62	125.57	118.60
84	Aa	1880	A	N1-C6-N6	11.62	125.57	118.60
84	Aa	2366	A	N1-C6-N6	11.61	125.57	118.60
84	Aa	249	A	N1-C6-N6	11.61	125.57	118.60
84	Aa	1926	A	N1-C6-N6	11.61	125.57	118.60
1	Ad	1267	G	O4'-C1'-N9	11.61	117.49	108.20
84	Aa	1738	A	N1-C6-N6	11.61	125.57	118.60
1	Ad	1582	G	C3'-C2'-C1'	11.61	110.78	101.50
84	Aa	981	A	N1-C6-N6	11.61	125.56	118.60
86	Ab	83	A	N1-C6-N6	11.61	125.56	118.60
84	Aa	1220	G	N1-C6-O6	11.60	126.86	119.90
85	Ac	89	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	2736	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	1278	A	N1-C6-N6	11.60	125.56	118.60
84	Aa	2840	A	N1-C6-N6	11.60	125.56	118.60
1	Ad	54	C	O4'-C1'-C2'	-11.59	94.21	105.80
84	Aa	2772	A	N1-C6-N6	11.59	125.55	118.60
84	Aa	2921	A	N1-C6-N6	11.59	125.55	118.60
1	Ad	1323	U	O4'-C1'-N1	11.58	117.47	108.20
84	Aa	1101	A	N1-C6-N6	11.58	125.55	118.60
2	Ae	65	U	O4'-C1'-N1	11.58	117.46	108.20
2	Ae	59	U	O4'-C1'-N1	11.57	117.46	108.20
1	Ad	817	C	P-O3'-C3'	11.57	133.59	119.70
84	Aa	2120	A	N1-C6-N6	11.57	125.54	118.60
84	Aa	1507	A	N1-C6-N6	11.57	125.54	118.60
1	Ad	1276	U	O4'-C1'-N1	11.56	117.45	108.20
1	Ad	743	G	O4'-C1'-N9	11.56	117.45	108.20
84	Aa	775	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	2532	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	53	C	O4'-C1'-N1	11.56	117.45	108.20
84	Aa	1571	A	N1-C6-N6	11.56	125.54	118.60
84	Aa	2835	A	N1-C6-N6	11.56	125.53	118.60
1	Ad	112	U	O4'-C1'-N1	11.55	117.44	108.20
84	Aa	932	A	N1-C6-N6	11.55	125.53	118.60
84	Aa	2474	A	N1-C6-N6	11.55	125.53	118.60
1	Ad	553	G	O4'-C1'-N9	11.55	117.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	355	U	O4'-C1'-N1	11.55	117.44	108.20
1	Ad	74	U	O4'-C1'-N1	11.54	117.44	108.20
2	Ae	42	C	O4'-C1'-N1	11.54	117.43	108.20
84	Aa	2054	A	N1-C6-N6	11.54	125.52	118.60
1	Ad	1576	C	P-O3'-C3'	11.54	133.54	119.70
84	Aa	2514	A	P-O3'-C3'	11.54	133.54	119.70
84	Aa	2412	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	2202	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	452	G	C4'-C3'-O3'	-11.53	85.20	109.40
84	Aa	3033	A	N1-C6-N6	11.53	125.52	118.60
84	Aa	1795	A	N1-C6-N6	11.52	125.51	118.60
86	Ab	20	C	N3-C4-C5	-11.52	117.29	121.90
84	Aa	2641	A	N1-C6-N6	11.51	125.50	118.60
85	Ac	53	A	N1-C6-N6	11.51	125.50	118.60
84	Aa	47	A	N1-C6-N6	11.50	125.50	118.60
1	Ad	1395	C	N1-C1'-C2'	11.50	128.95	114.00
1	Ad	509	A	C3'-C2'-C1'	11.50	110.70	101.50
84	Aa	1748	A	N1-C6-N6	11.50	125.50	118.60
1	Ad	156	U	P-O3'-C3'	11.50	133.50	119.70
84	Aa	122	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	72	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	1518	A	N1-C6-N6	11.50	125.50	118.60
84	Aa	885	A	N1-C6-N6	11.49	125.50	118.60
1	Ad	360	G	O4'-C1'-N9	11.49	117.39	108.20
84	Aa	550	C	P-O3'-C3'	11.49	133.49	119.70
84	Aa	1459	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	2137	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	670	A	N1-C6-N6	11.49	125.49	118.60
84	Aa	2813	A	N1-C6-N6	11.49	125.49	118.60
1	Ad	176	A	C1'-O4'-C4'	11.48	119.09	109.90
84	Aa	1163	A	N1-C6-N6	11.48	125.49	118.60
1	Ad	1556	U	O4'-C1'-N1	11.48	117.39	108.20
84	Aa	1860	A	N1-C6-N6	11.48	125.49	118.60
84	Aa	1107	G	N1-C6-O6	11.48	126.79	119.90
84	Aa	2250	A	N1-C6-N6	11.47	125.48	118.60
84	Aa	696	A	N1-C6-N6	11.46	125.48	118.60
84	Aa	2304	A	N1-C6-N6	11.46	125.48	118.60
1	Ad	744	G	N9-C1'-C2'	-11.46	99.10	114.00
85	Ac	135	A	N1-C6-N6	11.46	125.48	118.60
1	Ad	80	C	N1-C1'-C2'	11.45	128.89	114.00
1	Ad	262	U	O4'-C1'-N1	11.45	117.36	108.20
84	Aa	2527	G	N1-C6-O6	11.45	126.77	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1691	C	O4'-C1'-C2'	-11.45	94.35	105.80
84	Aa	210	G	N1-C6-O6	11.45	126.77	119.90
84	Aa	1391	A	N1-C6-N6	11.44	125.47	118.60
84	Aa	861	A	N1-C6-N6	11.44	125.46	118.60
84	Aa	2081	C	P-O3'-C3'	11.43	133.42	119.70
84	Aa	1550	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	2215	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	2750	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	1464	A	N1-C6-N6	11.43	125.45	118.60
84	Aa	2275	A	N1-C6-N6	11.43	125.46	118.60
84	Aa	3309	U	P-O3'-C3'	11.42	133.41	119.70
85	Ac	48	A	N1-C6-N6	11.42	125.45	118.60
1	Ad	845	C	O4'-C1'-C2'	-11.42	94.38	105.80
1	Ad	1580	G	N9-C1'-C2'	-11.42	99.16	114.00
1	Ad	1388	A	O4'-C1'-N9	11.41	117.33	108.20
86	Ab	89	G	O4'-C1'-N9	11.41	117.33	108.20
1	Ad	1361	G	O4'-C1'-N9	11.41	117.33	108.20
84	Aa	66	A	N1-C6-N6	11.41	125.44	118.60
84	Aa	2162	C	O4'-C1'-N1	11.41	117.33	108.20
84	Aa	1805	A	N1-C6-N6	11.40	125.44	118.60
86	Ab	90	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	875	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	1584	A	N1-C6-N6	11.40	125.44	118.60
84	Aa	1629	A	N1-C6-N6	11.39	125.44	118.60
84	Aa	758	A	N1-C6-N6	11.39	125.44	118.60
84	Aa	2502	U	O4'-C1'-N1	11.39	117.31	108.20
1	Ad	846	U	N1-C1'-C2'	11.39	128.80	114.00
84	Aa	970	A	N1-C6-N6	11.39	125.43	118.60
84	Aa	2312	A	N1-C6-N6	11.39	125.43	118.60
84	Aa	976	A	N1-C6-N6	11.39	125.43	118.60
1	Ad	860	A	N9-C1'-C2'	-11.38	99.20	114.00
84	Aa	48	A	N1-C6-N6	11.38	125.43	118.60
1	Ad	1259	G	O4'-C1'-C2'	11.37	117.84	107.60
84	Aa	869	A	N1-C6-N6	11.37	125.42	118.60
86	Ab	72	G	P-O3'-C3'	11.37	133.34	119.70
86	Ab	97	G	C5-C6-O6	-11.37	121.78	128.60
84	Aa	2699	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	1199	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	2631	A	N1-C6-N6	11.37	125.42	118.60
84	Aa	405	A	N1-C6-N6	11.36	125.42	118.60
84	Aa	2367	A	N1-C6-N6	11.36	125.42	118.60
84	Aa	2819	A	N1-C6-N6	11.36	125.42	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	211	A	N1-C6-N6	11.35	125.41	118.60
84	Aa	585	A	N1-C6-N6	11.35	125.41	118.60
84	Aa	2596	A	N1-C6-N6	11.35	125.41	118.60
1	Ad	54	C	O4'-C1'-N1	11.34	117.27	108.20
84	Aa	2175	A	N1-C6-N6	11.34	125.41	118.60
84	Aa	1874	A	N1-C6-N6	11.34	125.40	118.60
84	Aa	2709	G	N1-C6-O6	11.34	126.70	119.90
84	Aa	1527	A	N1-C6-N6	11.34	125.40	118.60
84	Aa	2362	A	N1-C6-N6	11.33	125.40	118.60
84	Aa	2074	C	O4'-C1'-N1	11.33	117.26	108.20
1	Ad	155	A	O4'-C1'-N9	11.32	117.26	108.20
84	Aa	1024	G	C5-C6-O6	-11.32	121.81	128.60
84	Aa	2316	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	2047	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	2208	A	N1-C6-N6	11.32	125.39	118.60
84	Aa	918	A	N1-C6-N6	11.31	125.39	118.60
84	Aa	1229	A	N1-C6-N6	11.31	125.39	118.60
84	Aa	3345	G	P-O3'-C3'	11.31	133.28	119.70
1	Ad	1238	A	P-O3'-C3'	11.31	133.27	119.70
1	Ad	132	G	O4'-C1'-N9	11.31	117.25	108.20
84	Aa	3128	A	N1-C6-N6	11.31	125.39	118.60
86	Ab	51	G	P-O3'-C3'	11.31	133.27	119.70
84	Aa	916	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	1600	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	3236	A	N1-C6-N6	11.30	125.38	118.60
1	Ad	1810	G	O4'-C1'-C2'	-11.30	94.50	105.80
84	Aa	2053	A	N1-C6-N6	11.30	125.38	118.60
84	Aa	2542	U	P-O3'-C3'	11.30	133.26	119.70
1	Ad	964	U	N1-C1'-C2'	11.29	128.68	114.00
84	Aa	1990	A	N1-C6-N6	11.29	125.37	118.60
1	Ad	1009	U	O4'-C1'-N1	11.29	117.23	108.20
84	Aa	1264	A	N1-C6-N6	11.29	125.37	118.60
84	Aa	2973	A	N1-C6-N6	11.29	125.37	118.60
84	Aa	1457	A	N1-C6-N6	11.28	125.37	118.60
84	Aa	651	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	1182	A	N1-C6-N6	11.27	125.36	118.60
1	Ad	1466	A	O4'-C1'-C2'	11.27	117.74	107.60
84	Aa	1971	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	3009	A	N1-C6-N6	11.27	125.36	118.60
84	Aa	1747	A	C5-C6-N6	-11.26	114.69	123.70
1	Ad	491	G	O4'-C1'-N9	11.26	117.21	108.20
84	Aa	1044	A	N1-C6-N6	11.26	125.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2822	A	N1-C6-N6	11.26	125.35	118.60
84	Aa	704	G	N1-C6-O6	11.25	126.65	119.90
1	Ad	1589	C	C3'-C2'-C1'	11.25	110.50	101.50
84	Aa	789	A	N1-C6-N6	11.25	125.35	118.60
1	Ad	52	U	O4'-C1'-N1	11.25	117.20	108.20
84	Aa	567	G	N1-C6-O6	11.25	126.65	119.90
84	Aa	1937	C	P-O3'-C3'	11.25	133.19	119.70
84	Aa	1059	A	N1-C6-N6	11.24	125.35	118.60
84	Aa	1703	C	O4'-C1'-N1	11.24	117.19	108.20
1	Ad	1029	U	O4'-C1'-N1	11.24	117.19	108.20
1	Ad	71	C	P-O3'-C3'	11.23	133.18	119.70
84	Aa	1275	A	N1-C6-N6	11.23	125.34	118.60
84	Aa	2489	A	N1-C6-N6	11.23	125.34	118.60
1	Ad	907	G	O4'-C1'-N9	11.22	117.18	108.20
84	Aa	2612	A	N1-C6-N6	11.22	125.33	118.60
84	Aa	3007	A	N1-C6-N6	11.22	125.33	118.60
1	Ad	64	U	O4'-C1'-N1	11.22	117.17	108.20
84	Aa	70	A	N1-C6-N6	11.22	125.33	118.60
1	Ad	1681	G	O4'-C1'-N9	11.22	117.17	108.20
84	Aa	1689	G	N1-C6-O6	11.21	126.63	119.90
84	Aa	527	G	P-O5'-C5'	11.20	138.83	120.90
1	Ad	613	U	O4'-C1'-C2'	-11.20	94.60	105.80
84	Aa	731	G	N1-C6-O6	11.20	126.62	119.90
84	Aa	954	A	N1-C6-N6	11.20	125.32	118.60
84	Aa	3297	A	N1-C6-N6	11.20	125.32	118.60
1	Ad	1409	G	P-O5'-C5'	11.18	138.79	120.90
1	Ad	1389	G	O4'-C1'-N9	11.18	117.14	108.20
85	Ac	61	A	N1-C6-N6	11.18	125.31	118.60
1	Ad	578	G	O4'-C1'-N9	11.18	117.14	108.20
84	Aa	1026	A	N1-C6-N6	11.17	125.30	118.60
84	Aa	167	C	P-O3'-C3'	11.16	133.10	119.70
86	Ab	31	G	C5-C6-O6	-11.16	121.90	128.60
84	Aa	2149	G	P-O3'-C3'	11.16	133.09	119.70
84	Aa	616	A	N1-C6-N6	11.16	125.30	118.60
84	Aa	2509	A	N1-C6-N6	11.15	125.29	118.60
1	Ad	525	A	O4'-C1'-N9	11.15	117.12	108.20
84	Aa	767	U	P-O3'-C3'	11.15	133.08	119.70
84	Aa	1716	G	N1-C6-O6	11.15	126.59	119.90
84	Aa	868	A	N1-C6-N6	11.14	125.29	118.60
84	Aa	1052	A	N1-C6-N6	11.14	125.29	118.60
84	Aa	76	A	N1-C6-N6	11.14	125.28	118.60
84	Aa	2764	G	N1-C6-O6	11.14	126.58	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Af	19	U	O4'-C1'-N1	11.14	117.11	108.20
84	Aa	2737	A	N1-C6-N6	11.13	125.28	118.60
84	Aa	1235	A	N1-C6-N6	11.13	125.28	118.60
1	Ad	888	U	O4'-C1'-N1	11.13	117.10	108.20
84	Aa	293	A	N1-C6-N6	11.13	125.28	118.60
1	Ad	284	U	O4'-C1'-N1	11.12	117.10	108.20
86	Ab	100	A	N1-C6-N6	11.12	125.28	118.60
84	Aa	3287	A	N1-C6-N6	11.12	125.27	118.60
84	Aa	3308	A	N1-C6-N6	11.11	125.27	118.60
84	Aa	1321	A	N1-C6-N6	11.11	125.27	118.60
84	Aa	2132	A	N1-C6-N6	11.10	125.26	118.60
84	Aa	3167	G	P-O3'-C3'	11.10	133.02	119.70
84	Aa	198	A	N1-C6-N6	11.10	125.26	118.60
84	Aa	2792	A	N1-C6-N6	11.09	125.26	118.60
84	Aa	3140	A	N1-C6-N6	11.09	125.26	118.60
1	Ad	67	G	P-O3'-C3'	11.09	133.00	119.70
84	Aa	387	A	N1-C6-N6	11.09	125.25	118.60
1	Ad	241	G	P-O3'-C3'	11.09	133.00	119.70
84	Aa	2705	A	N1-C6-N6	11.08	125.25	118.60
84	Aa	2928	A	N1-C6-N6	11.08	125.25	118.60
86	Ab	45	U	O4'-C1'-N1	11.08	117.06	108.20
1	Ad	1081	A	O4'-C1'-N9	11.08	117.06	108.20
84	Aa	2881	C	O4'-C1'-N1	11.08	117.06	108.20
1	Ad	1247	G	O4'-C1'-N9	11.07	117.06	108.20
84	Aa	653	A	N1-C6-N6	11.06	125.24	118.60
85	Ac	82	C	P-O3'-C3'	11.06	132.97	119.70
84	Aa	650	A	N1-C6-N6	11.06	125.23	118.60
1	Ad	316	A	O4'-C1'-N9	11.05	117.04	108.20
85	Ac	88	A	N1-C6-N6	11.05	125.23	118.60
84	Aa	2938	A	N1-C6-N6	11.04	125.22	118.60
1	Ad	1186	U	O4'-C1'-N1	11.04	117.03	108.20
1	Ad	1195	U	O4'-C1'-N1	11.04	117.03	108.20
84	Aa	2796	G	N1-C6-O6	11.04	126.52	119.90
84	Aa	1577	A	N1-C6-N6	11.03	125.22	118.60
84	Aa	2568	G	N1-C6-O6	11.03	126.52	119.90
1	Ad	985	G	O4'-C1'-N9	11.03	117.03	108.20
1	Ad	724	U	O4'-C1'-N1	11.03	117.02	108.20
1	Ad	1085	U	O4'-C1'-N1	11.02	117.02	108.20
86	Ab	110	G	C5-C6-O6	-11.02	121.99	128.60
1	Ad	1125	U	O4'-C1'-N1	11.02	117.01	108.20
84	Aa	2660	A	N1-C6-N6	11.01	125.21	118.60
1	Ad	1357	U	O4'-C1'-N1	11.01	117.01	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	350	A	N1-C6-N6	11.01	125.20	118.60
84	Aa	1115	A	N1-C6-N6	10.99	125.20	118.60
1	Ad	262	U	C1'-O4'-C4'	10.99	118.69	109.90
1	Ad	1658	U	O4'-C1'-N1	10.99	116.99	108.20
1	Ad	621	U	O4'-C1'-N1	10.98	116.99	108.20
86	Ab	79	A	C4-C5-C6	10.98	122.49	117.00
84	Aa	2325	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	340	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	984	A	N1-C6-N6	10.98	125.19	118.60
84	Aa	2079	A	N1-C6-N6	10.97	125.18	118.60
84	Aa	2094	A	C4'-C3'-O3'	-10.97	86.36	109.40
84	Aa	1635	A	N1-C6-N6	10.96	125.18	118.60
86	Ab	60	G	N1-C6-O6	10.96	126.47	119.90
1	Ad	940	U	O4'-C1'-N1	10.96	116.97	108.20
84	Aa	1051	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	306	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	288	G	N1-C6-O6	10.95	126.47	119.90
85	Ac	140	A	N1-C6-N6	10.95	125.17	118.60
84	Aa	615	A	N1-C6-N6	10.94	125.16	118.60
84	Aa	819	A	N1-C6-N6	10.93	125.16	118.60
85	Ac	79	A	N1-C6-N6	10.93	125.16	118.60
1	Ad	968	A	O4'-C1'-N9	10.92	116.94	108.20
85	Ac	77	A	N1-C6-N6	10.91	125.15	118.60
84	Aa	16	A	N1-C6-N6	10.91	125.15	118.60
84	Aa	3124	A	N1-C6-N6	10.91	125.14	118.60
84	Aa	1015	A	N1-C6-N6	10.91	125.14	118.60
85	Ac	129	C	P-O3'-C3'	10.90	132.78	119.70
1	Ad	107	U	O4'-C1'-N1	10.90	116.92	108.20
84	Aa	2661	G	N1-C6-O6	10.90	126.44	119.90
1	Ad	1625	U	O4'-C1'-N1	10.89	116.91	108.20
84	Aa	397	A	N1-C6-N6	10.89	125.14	118.60
84	Aa	1798	C	P-O3'-C3'	10.89	132.77	119.70
84	Aa	2936	A	N1-C6-N6	10.89	125.13	118.60
85	Ac	80	A	N1-C6-N6	10.89	125.13	118.60
1	Ad	212	A	C3'-C2'-C1'	10.89	110.21	101.50
84	Aa	2398	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2514	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2707	A	N1-C6-N6	10.88	125.13	118.60
1	Ad	870	A	O4'-C1'-N9	10.88	116.90	108.20
84	Aa	2254	A	N1-C6-N6	10.88	125.13	118.60
84	Aa	2307	A	N1-C6-N6	10.87	125.12	118.60
1	Ad	334	G	O4'-C1'-N9	10.86	116.89	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	72	A	P-O3'-C3'	10.86	132.73	119.70
86	Ab	65	G	N1-C6-O6	10.86	126.42	119.90
1	Ad	1635	U	O4'-C1'-N1	10.86	116.89	108.20
84	Aa	3368	A	N1-C6-N6	10.86	125.11	118.60
1	Ad	476	U	O4'-C1'-N1	10.85	116.88	108.20
86	Ab	103	U	O4'-C1'-N1	10.85	116.88	108.20
84	Aa	1537	A	N1-C6-N6	10.85	125.11	118.60
86	Ab	32	A	N1-C6-N6	10.85	125.11	118.60
84	Aa	1415	G	N1-C6-O6	10.84	126.40	119.90
2	Ae	40	U	O4'-C1'-N1	10.84	116.87	108.20
1	Ad	1808	U	P-O3'-C3'	10.83	132.70	119.70
1	Ad	77	G	O4'-C1'-N9	10.83	116.86	108.20
84	Aa	1712	A	N1-C6-N6	10.83	125.10	118.60
84	Aa	1470	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	1714	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	2246	G	N1-C6-O6	10.82	126.39	119.90
85	Ac	85	G	N1-C6-O6	10.82	126.39	119.90
84	Aa	1181	A	N1-C6-N6	10.82	125.09	118.60
84	Aa	1361	G	N1-C6-O6	10.82	126.39	119.90
1	Ad	1386	U	N1-C1'-C2'	10.81	128.06	114.00
84	Aa	3188	G	N1-C6-O6	10.81	126.39	119.90
84	Aa	1478	A	N1-C6-N6	10.80	125.08	118.60
85	Ac	151	G	N1-C6-O6	10.80	126.38	119.90
1	Ad	498	U	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	1720	C	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	2270	A	N1-C6-N6	10.80	125.08	118.60
1	Ad	824	U	P-O5'-C5'	10.80	138.18	120.90
1	Ad	1603	U	O4'-C1'-N1	10.80	116.84	108.20
84	Aa	2224	A	N1-C6-N6	10.80	125.08	118.60
1	Ad	241	G	O4'-C1'-N9	10.79	116.83	108.20
1	Ad	1535	U	O4'-C1'-N1	10.79	116.83	108.20
84	Aa	1705	A	N1-C6-N6	10.78	125.07	118.60
84	Aa	1197	A	N1-C6-N6	10.78	125.07	118.60
84	Aa	1569	U	P-O3'-C3'	10.78	132.63	119.70
84	Aa	118	G	C5-C6-O6	-10.77	122.14	128.60
85	Ac	17	A	N1-C6-N6	10.76	125.06	118.60
1	Ad	1745	U	O4'-C1'-N1	10.76	116.81	108.20
84	Aa	3282	G	N1-C6-O6	10.76	126.36	119.90
84	Aa	171	G	N1-C6-O6	10.76	126.36	119.90
1	Ad	39	A	O4'-C1'-N9	10.75	116.80	108.20
1	Ad	1637	G	O4'-C1'-C2'	10.75	117.28	107.60
84	Aa	1741	G	N1-C6-O6	10.75	126.35	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	336	A	N1-C6-N6	10.74	125.05	118.60
1	Ad	1065	A	O4'-C1'-N9	10.74	116.79	108.20
84	Aa	2588	G	N1-C6-O6	10.74	126.34	119.90
1	Ad	987	U	O4'-C1'-N1	10.73	116.79	108.20
1	Ad	421	A	P-O3'-C3'	10.73	132.57	119.70
84	Aa	88	A	N1-C6-N6	10.73	125.04	118.60
1	Ad	421	A	O4'-C1'-C2'	-10.72	95.08	105.80
84	Aa	1294	A	N1-C6-N6	10.72	125.03	118.60
85	Ac	122	G	N1-C6-O6	10.71	126.33	119.90
84	Aa	2119	A	N1-C6-N6	10.71	125.03	118.60
84	Aa	2423	A	N1-C6-N6	10.71	125.03	118.60
84	Aa	323	A	N1-C6-N6	10.70	125.02	118.60
84	Aa	899	A	N1-C6-N6	10.70	125.02	118.60
1	Ad	1290	U	O4'-C1'-N1	10.70	116.76	108.20
2	Ae	32	U	O4'-C1'-N1	10.70	116.76	108.20
84	Aa	2020	G	P-O3'-C3'	10.69	132.53	119.70
1	Ad	772	C	N1-C1'-C2'	10.68	127.89	114.00
84	Aa	372	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	1477	A	N1-C6-N6	10.68	125.01	118.60
1	Ad	739	U	O4'-C1'-N1	10.68	116.74	108.20
84	Aa	1007	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	2291	A	N1-C6-N6	10.68	125.01	118.60
84	Aa	2671	A	N1-C6-N6	10.68	125.01	118.60
86	Ab	37	G	N1-C6-O6	10.67	126.30	119.90
1	Ad	129	U	O4'-C1'-N1	10.66	116.73	108.20
1	Ad	633	U	P-O3'-C3'	10.66	132.50	119.70
84	Aa	384	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	1593	C	O4'-C1'-N1	10.66	116.73	108.20
84	Aa	3131	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	2892	A	N1-C6-N6	10.66	125.00	118.60
84	Aa	3200	A	N1-C6-N6	10.66	124.99	118.60
86	Ab	8	A	N1-C6-N6	10.64	124.99	118.60
84	Aa	1544	G	P-O3'-C3'	10.64	132.47	119.70
84	Aa	154	G	C5-C6-O6	-10.64	122.22	128.60
84	Aa	172	A	N1-C6-N6	10.64	124.98	118.60
86	Ab	92	C	N3-C4-C5	-10.63	117.65	121.90
84	Aa	967	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	1320	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	362	G	N1-C6-O6	10.62	126.27	119.90
84	Aa	718	C	O4'-C1'-N1	10.62	116.69	108.20
84	Aa	1911	A	N1-C6-N6	10.62	124.97	118.60
84	Aa	2623	G	N1-C6-O6	10.62	126.27	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1435	G	O4'-C1'-N9	10.61	116.69	108.20
84	Aa	105	A	N1-C6-N6	10.61	124.97	118.60
84	Aa	1887	A	N1-C6-N6	10.61	124.97	118.60
84	Aa	1237	G	N1-C6-O6	10.61	126.26	119.90
84	Aa	2593	A	N1-C6-N6	10.60	124.96	118.60
84	Aa	1248	A	N1-C6-N6	10.59	124.96	118.60
84	Aa	1943	G	C4'-C3'-O3'	10.59	134.18	113.00
84	Aa	1286	G	N1-C6-O6	10.58	126.25	119.90
84	Aa	1680	A	N1-C6-N6	10.58	124.95	118.60
84	Aa	2743	A	N1-C6-N6	10.58	124.95	118.60
1	Ad	1202	G	O4'-C1'-C2'	10.57	117.12	107.60
84	Aa	2354	G	N1-C6-O6	10.57	126.24	119.90
84	Aa	2360	A	N1-C6-N6	10.57	124.94	118.60
1	Ad	33	U	O4'-C1'-N1	10.57	116.65	108.20
84	Aa	1471	A	N1-C6-N6	10.57	124.94	118.60
84	Aa	3261	C	C4'-C3'-O3'	10.57	134.13	113.00
86	Ab	43	A	C5-C6-N6	-10.57	115.25	123.70
1	Ad	1255	U	O4'-C1'-N1	10.56	116.64	108.20
84	Aa	237	C	P-O3'-C3'	10.56	132.37	119.70
86	Ab	41	G	N1-C6-O6	10.55	126.23	119.90
84	Aa	1891	A	N1-C6-N6	10.55	124.93	118.60
1	Ad	1231	A	N9-C1'-C2'	10.54	127.70	114.00
84	Aa	138	G	N1-C6-O6	10.54	126.22	119.90
84	Aa	876	C	P-O3'-C3'	10.54	132.35	119.70
1	Ad	1336	C	N1-C1'-C2'	10.54	127.70	114.00
84	Aa	84	A	N1-C6-N6	10.54	124.92	118.60
1	Ad	715	U	O4'-C1'-N1	10.54	116.63	108.20
1	Ad	866	U	O4'-C1'-N1	10.53	116.63	108.20
84	Aa	2942	A	N1-C6-N6	10.54	124.92	118.60
86	Ab	19	A	C5-C6-N1	-10.54	112.43	117.70
84	Aa	1856	G	N1-C6-O6	10.53	126.22	119.90
84	Aa	1092	G	N1-C6-O6	10.53	126.22	119.90
84	Aa	1586	A	N1-C6-N6	10.53	124.92	118.60
1	Ad	764	U	O4'-C1'-N1	10.52	116.62	108.20
1	Ad	1105	G	N9-C1'-C2'	10.52	127.68	114.00
84	Aa	1585	A	N1-C6-N6	10.52	124.91	118.60
84	Aa	1047	C	O4'-C1'-N1	10.52	116.62	108.20
84	Aa	2605	G	N1-C6-O6	10.52	126.21	119.90
84	Aa	2801	A	N1-C6-N6	10.51	124.91	118.60
84	Aa	3047	A	N1-C6-N6	10.51	124.91	118.60
1	Ad	1321	C	C1'-O4'-C4'	-10.51	101.50	109.90
84	Aa	1322	A	C5-C6-N6	-10.50	115.30	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2265	A	N1-C6-N6	10.50	124.90	118.60
84	Aa	2919	G	N1-C6-O6	10.50	126.20	119.90
84	Aa	1217	G	N1-C6-O6	10.50	126.20	119.90
84	Aa	2222	C	P-O3'-C3'	10.49	132.29	119.70
84	Aa	2739	A	N1-C6-N6	10.49	124.89	118.60
1	Ad	831	C	O4'-C1'-N1	10.49	116.59	108.20
84	Aa	2319	A	N1-C6-N6	10.49	124.89	118.60
1	Ad	130	A	O4'-C1'-N9	10.48	116.59	108.20
84	Aa	346	A	N1-C6-N6	10.48	124.89	118.60
84	Aa	2136	A	N1-C6-N6	10.48	124.89	118.60
1	Ad	1162	A	N9-C1'-C2'	-10.48	100.38	114.00
84	Aa	1998	A	N1-C6-N6	10.48	124.89	118.60
84	Aa	723	G	C5'-C4'-O4'	-10.47	96.54	109.10
84	Aa	1019	A	C5-C6-N6	-10.47	115.32	123.70
1	Ad	872	G	O4'-C1'-N9	10.46	116.56	108.20
84	Aa	2697	A	N1-C6-N6	10.46	124.87	118.60
1	Ad	110	G	O4'-C1'-N9	10.45	116.56	108.20
1	Ad	1328	G	O4'-C1'-N9	10.45	116.56	108.20
84	Aa	359	A	N1-C6-N6	10.45	124.87	118.60
84	Aa	2374	G	N1-C6-O6	10.44	126.17	119.90
84	Aa	3225	G	N1-C6-O6	10.43	126.16	119.90
1	Ad	970	U	N1-C1'-C2'	10.43	127.56	114.00
1	Ad	1220	C	O4'-C1'-C2'	-10.43	95.37	105.80
84	Aa	2174	C	O4'-C1'-N1	10.43	116.54	108.20
1	Ad	1487	U	P-O3'-C3'	10.43	132.21	119.70
84	Aa	2513	U	C2'-C3'-O3'	10.43	132.44	109.50
86	Ab	86	G	N1-C6-O6	10.42	126.15	119.90
1	Ad	1161	C	N1-C1'-C2'	10.42	127.54	114.00
1	Ad	846	U	C1'-O4'-C4'	-10.41	101.57	109.90
1	Ad	731	G	O4'-C1'-N9	10.41	116.53	108.20
84	Aa	3179	G	N1-C6-O6	10.41	126.15	119.90
84	Aa	2257	A	N1-C6-N6	10.41	124.85	118.60
84	Aa	553	C	C4'-C3'-O3'	10.40	133.81	113.00
84	Aa	1523	G	N1-C6-O6	10.40	126.14	119.90
84	Aa	2150	C	O4'-C1'-N1	10.40	116.52	108.20
84	Aa	641	C	O4'-C1'-N1	10.40	116.52	108.20
84	Aa	436	G	N1-C6-O6	10.40	126.14	119.90
1	Ad	330	G	O4'-C1'-N9	10.40	116.52	108.20
84	Aa	1493	A	N1-C6-N6	10.39	124.84	118.60
84	Aa	26	A	N1-C6-N6	10.39	124.83	118.60
84	Aa	808	G	N1-C6-O6	10.39	126.13	119.90
1	Ad	1806	C	C3'-C2'-C1'	10.38	109.81	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2006	A	P-O3'-C3'	10.38	132.16	119.70
84	Aa	2132	A	O4'-C1'-N9	10.38	116.50	108.20
86	Ab	107	C	O4'-C1'-N1	10.38	116.50	108.20
1	Ad	707	C	N1-C1'-C2'	-10.38	100.51	114.00
1	Ad	1120	U	O4'-C1'-N1	10.37	116.50	108.20
84	Aa	1617	A	N1-C6-N6	10.37	124.82	118.60
84	Aa	2166	U	P-O3'-C3'	10.37	132.14	119.70
84	Aa	3334	A	N1-C6-N6	10.37	124.82	118.60
1	Ad	144	U	O4'-C1'-N1	10.37	116.49	108.20
1	Ad	712	U	O4'-C1'-N1	10.37	116.49	108.20
84	Aa	2306	G	N1-C6-O6	10.37	126.12	119.90
84	Aa	3307	A	N1-C6-N6	10.37	124.82	118.60
86	Ab	13	A	O4'-C1'-N9	10.36	116.49	108.20
1	Ad	1303	G	C1'-O4'-C4'	-10.36	101.61	109.90
84	Aa	843	C	O4'-C1'-N1	10.36	116.49	108.20
1	Ad	1297	U	O4'-C1'-N1	10.35	116.48	108.20
1	Ad	1358	G	N9-C1'-C2'	10.34	127.44	114.00
84	Aa	1879	A	N1-C6-N6	10.34	124.80	118.60
84	Aa	721	A	O4'-C1'-N9	10.34	116.47	108.20
84	Aa	1902	G	N1-C6-O6	10.34	126.10	119.90
1	Ad	1640	C	N1-C1'-C2'	10.33	127.43	114.00
85	Ac	59	A	N1-C6-N6	10.33	124.80	118.60
85	Ac	43	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	316	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	2850	G	N1-C6-O6	10.33	126.10	119.90
84	Aa	3013	A	N1-C6-N6	10.33	124.80	118.60
84	Aa	3333	C	O4'-C1'-N1	10.31	116.45	108.20
84	Aa	1349	G	C5-C6-O6	-10.30	122.42	128.60
1	Ad	172	U	O4'-C1'-N1	10.30	116.44	108.20
84	Aa	3248	G	N1-C6-O6	10.30	126.08	119.90
1	Ad	1520	G	O4'-C1'-N9	10.29	116.44	108.20
1	Ad	1757	G	O4'-C1'-N9	10.29	116.44	108.20
84	Aa	1316	C	O4'-C1'-N1	10.29	116.44	108.20
84	Aa	1870	G	N1-C6-O6	10.29	126.08	119.90
84	Aa	389	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	1542	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	1813	C	O4'-C1'-N1	10.29	116.43	108.20
84	Aa	2238	A	N1-C6-N6	10.29	124.77	118.60
84	Aa	3244	G	N1-C6-O6	10.29	126.07	119.90
84	Aa	2058	C	O4'-C1'-N1	10.29	116.43	108.20
84	Aa	2558	U	O4'-C1'-N1	10.28	116.43	108.20
86	Ab	37	G	C5-C6-O6	-10.28	122.43	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	754	U	O4'-C1'-N1	10.28	116.42	108.20
84	Aa	2583	A	N1-C6-N6	10.28	124.77	118.60
84	Aa	1031	A	N1-C6-N6	10.27	124.76	118.60
1	Ad	496	A	O4'-C1'-N9	10.27	116.41	108.20
84	Aa	1105	G	N1-C6-O6	10.27	126.06	119.90
1	Ad	870	A	N9-C1'-C2'	-10.26	100.66	114.00
1	Ad	1261	U	O4'-C1'-N1	10.26	116.41	108.20
84	Aa	1744	C	O4'-C1'-N1	10.26	116.41	108.20
84	Aa	339	G	N1-C6-O6	10.26	126.06	119.90
84	Aa	3030	A	N1-C6-N6	10.26	124.76	118.60
84	Aa	3175	C	O4'-C1'-N1	10.25	116.40	108.20
84	Aa	965	A	N1-C6-N6	10.25	124.75	118.60
86	Ab	19	A	C4-C5-C6	10.25	122.12	117.00
84	Aa	473	G	C4'-C3'-O3'	10.25	133.49	113.00
1	Ad	1004	U	O4'-C1'-N1	10.24	116.39	108.20
84	Aa	3288	A	N1-C6-N6	10.24	124.74	118.60
84	Aa	2909	A	N1-C6-N6	10.24	124.74	118.60
84	Aa	3253	C	O4'-C1'-N1	10.24	116.39	108.20
85	Ac	65	G	N1-C6-O6	10.24	126.04	119.90
1	Ad	281	U	P-O3'-C3'	10.23	131.98	119.70
1	Ad	73	A	N9-C1'-C2'	-10.23	100.70	114.00
84	Aa	1006	A	N1-C6-N6	10.23	124.74	118.60
84	Aa	2682	A	N1-C6-N6	10.22	124.73	118.60
86	Ab	8	A	C5-C6-N1	-10.22	112.59	117.70
84	Aa	1486	G	O4'-C1'-N9	10.22	116.37	108.20
84	Aa	2376	G	N1-C6-O6	10.22	126.03	119.90
1	Ad	7	G	O4'-C1'-N9	10.21	116.37	108.20
2	Ae	69	G	C1'-O4'-C4'	-10.21	101.73	109.90
84	Aa	2698	A	N1-C6-N6	10.21	124.73	118.60
1	Ad	1683	G	O4'-C1'-N9	10.20	116.36	108.20
84	Aa	634	A	N1-C6-N6	10.20	124.72	118.60
84	Aa	2442	A	N1-C6-N6	10.19	124.72	118.60
84	Aa	804	A	N1-C6-N6	10.19	124.72	118.60
84	Aa	1677	G	N1-C6-O6	10.19	126.01	119.90
1	Ad	457	C	C1'-O4'-C4'	-10.18	101.75	109.90
84	Aa	2515	C	P-O3'-C3'	10.18	131.92	119.70
84	Aa	1663	G	N1-C6-O6	10.18	126.01	119.90
84	Aa	275	G	N1-C6-O6	10.18	126.01	119.90
84	Aa	1017	G	N1-C6-O6	10.17	126.00	119.90
84	Aa	1832	C	O4'-C1'-N1	10.17	116.33	108.20
84	Aa	1389	C	O4'-C1'-N1	10.16	116.33	108.20
84	Aa	810	A	N1-C6-N6	10.16	124.70	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	925	U	O4'-C1'-N1	10.16	116.33	108.20
1	Ad	1582	G	O4'-C1'-N9	-10.15	100.08	108.20
1	Ad	707	C	O4'-C1'-C2'	-10.14	95.66	105.80
1	Ad	235	C	P-O3'-C3'	10.14	131.87	119.70
85	Ac	37	A	N1-C6-N6	10.14	124.68	118.60
84	Aa	2501	U	P-O3'-C3'	10.14	131.86	119.70
84	Aa	157	G	N1-C6-O6	10.13	125.98	119.90
84	Aa	297	G	N1-C6-O6	10.13	125.98	119.90
86	Ab	44	C	N3-C4-C5	-10.13	117.85	121.90
1	Ad	1414	G	C1'-O4'-C4'	-10.13	101.80	109.90
1	Ad	430	G	O4'-C1'-N9	10.12	116.30	108.20
84	Aa	2447	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	3086	G	N1-C6-O6	10.12	125.97	119.90
84	Aa	3185	G	N1-C6-O6	10.12	125.97	119.90
84	Aa	315	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	2998	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	2133	A	N1-C6-N6	10.12	124.67	118.60
84	Aa	1897	A	N1-C6-N6	10.10	124.66	118.60
84	Aa	919	G	P-O3'-C3'	10.10	131.82	119.70
84	Aa	2516	U	P-O3'-C3'	10.10	131.82	119.70
84	Aa	59	A	N1-C6-N6	10.10	124.66	118.60
1	Ad	247	A	O4'-C1'-N9	10.10	116.28	108.20
1	Ad	1210	U	O4'-C1'-N1	10.10	116.28	108.20
1	Ad	1801	A	N9-C1'-C2'	-10.10	100.88	114.00
84	Aa	637	C	O4'-C1'-N1	10.10	116.28	108.20
1	Ad	616	U	O4'-C1'-N1	10.09	116.27	108.20
84	Aa	909	A	N1-C6-N6	10.09	124.65	118.60
84	Aa	2693	G	N1-C6-O6	10.09	125.95	119.90
84	Aa	494	C	C5'-C4'-C3'	10.08	132.13	116.00
1	Ad	1759	A	O4'-C1'-N9	10.08	116.27	108.20
84	Aa	2231	G	N1-C6-O6	10.08	125.95	119.90
1	Ad	1505	U	O4'-C1'-N1	10.07	116.26	108.20
3	Af	16	G	C3'-C2'-C1'	10.07	109.56	101.50
84	Aa	3130	A	N1-C6-N6	10.07	124.64	118.60
86	Ab	67	C	N3-C4-N4	10.07	125.05	118.00
1	Ad	1203	G	O4'-C1'-C2'	-10.07	95.73	105.80
84	Aa	1559	G	O3'-P-O5'	10.07	123.13	104.00
84	Aa	1717	G	N1-C6-O6	10.07	125.94	119.90
84	Aa	1721	A	O4'-C1'-N9	10.06	116.25	108.20
1	Ad	1315	U	O4'-C1'-N1	10.05	116.24	108.20
1	Ad	1565	U	O4'-C1'-N1	10.05	116.24	108.20
84	Aa	2659	A	N1-C6-N6	10.05	124.63	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3194	G	N1-C6-O6	10.05	125.93	119.90
1	Ad	504	C	C3'-C2'-C1'	10.04	109.53	101.50
84	Aa	108	A	N1-C6-N6	10.04	124.63	118.60
84	Aa	2177	U	P-O3'-C3'	10.04	131.75	119.70
84	Aa	3190	U	O4'-C1'-N1	10.04	116.23	108.20
1	Ad	1254	U	O4'-C1'-N1	10.03	116.23	108.20
84	Aa	1532	A	N1-C6-N6	10.03	124.62	118.60
1	Ad	235	C	C1'-O4'-C4'	10.03	117.92	109.90
84	Aa	1333	C	P-O3'-C3'	10.03	131.74	119.70
84	Aa	3318	G	N1-C6-O6	10.03	125.92	119.90
84	Aa	30	C	O4'-C1'-N1	10.03	116.22	108.20
84	Aa	2349	C	O4'-C1'-N1	10.03	116.22	108.20
84	Aa	2347	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	3380	G	P-O3'-C3'	10.02	131.73	119.70
84	Aa	2242	G	N1-C6-O6	10.02	125.91	119.90
84	Aa	2504	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	3385	G	O4'-C1'-N9	10.02	116.22	108.20
85	Ac	72	A	N1-C6-N6	10.02	124.61	118.60
84	Aa	2587	G	N1-C6-O6	10.02	125.91	119.90
84	Aa	1892	A	N1-C6-N6	10.01	124.61	118.60
1	Ad	66	U	O4'-C1'-N1	10.01	116.21	108.20
1	Ad	843	G	O4'-C1'-C2'	-10.01	95.79	105.80
84	Aa	840	A	N1-C6-N6	10.01	124.61	118.60
84	Aa	2970	G	N1-C6-O6	10.01	125.90	119.90
1	Ad	944	A	C3'-C2'-C1'	10.00	109.50	101.50
84	Aa	1412	C	O4'-C1'-N1	10.00	116.20	108.20
85	Ac	134	G	N1-C6-O6	10.00	125.90	119.90
84	Aa	878	G	N1-C6-O6	10.00	125.90	119.90
1	Ad	220	C	C3'-C2'-C1'	10.00	109.50	101.50
1	Ad	224	C	O4'-C1'-C2'	-9.99	95.81	105.80
84	Aa	1449	A	N1-C6-N6	9.99	124.59	118.60
84	Aa	2194	G	N1-C6-O6	9.99	125.89	119.90
1	Ad	1005	C	C3'-C2'-C1'	-9.98	93.51	101.50
84	Aa	2873	G	N1-C6-O6	9.98	125.89	119.90
84	Aa	2992	G	N1-C6-O6	9.98	125.89	119.90
86	Ab	41	G	C5-C6-O6	-9.98	122.61	128.60
1	Ad	1216	G	O4'-C1'-N9	9.97	116.18	108.20
84	Aa	3317	G	N1-C6-O6	9.97	125.89	119.90
1	Ad	1119	G	O4'-C1'-N9	9.97	116.18	108.20
84	Aa	431	G	N1-C6-O6	9.96	125.88	119.90
1	Ad	717	G	O4'-C1'-N9	-9.96	100.23	108.20
1	Ad	91	C	O4'-C1'-N1	9.95	116.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2639	A	N1-C6-N6	9.95	124.57	118.60
85	Ac	143	C	O4'-C1'-N1	9.95	116.16	108.20
1	Ad	1495	U	O4'-C1'-N1	9.94	116.15	108.20
84	Aa	11	A	N1-C6-N6	9.94	124.56	118.60
84	Aa	1421	A	N1-C6-N6	9.94	124.56	118.60
84	Aa	2084	G	C2'-C3'-O3'	-9.93	87.65	109.50
86	Ab	24	G	N1-C6-O6	9.93	125.86	119.90
84	Aa	1436	A	N1-C6-N6	9.92	124.56	118.60
84	Aa	2538	G	N1-C6-O6	9.92	125.85	119.90
85	Ac	131	G	N1-C6-O6	9.92	125.85	119.90
84	Aa	1383	G	N1-C6-O6	9.92	125.85	119.90
84	Aa	2523	G	N1-C6-O6	9.92	125.85	119.90
1	Ad	1575	U	O4'-C1'-N1	9.91	116.13	108.20
84	Aa	1396	A	N1-C6-N6	9.91	124.55	118.60
1	Ad	1797	C	O4'-C1'-N1	9.91	116.13	108.20
84	Aa	263	A	N1-C6-N6	9.91	124.55	118.60
84	Aa	1889	G	N1-C6-O6	9.91	125.85	119.90
84	Aa	3032	G	N1-C6-O6	9.91	125.85	119.90
84	Aa	993	A	N1-C6-N6	9.91	124.54	118.60
84	Aa	2650	A	N1-C6-N6	9.91	124.54	118.60
84	Aa	1211	G	N1-C6-O6	9.90	125.84	119.90
84	Aa	1298	A	N1-C6-N6	9.90	124.54	118.60
84	Aa	2619	C	O4'-C1'-N1	9.90	116.12	108.20
1	Ad	209	U	O4'-C1'-N1	9.90	116.12	108.20
1	Ad	468	A	O4'-C1'-N9	9.90	116.12	108.20
84	Aa	649	A	N1-C6-N6	9.89	124.54	118.60
1	Ad	243	U	O4'-C1'-N1	9.89	116.11	108.20
1	Ad	310	U	O4'-C1'-N1	9.89	116.11	108.20
84	Aa	425	G	N1-C6-O6	9.89	125.83	119.90
1	Ad	587	C	N1-C1'-C2'	9.89	126.85	114.00
84	Aa	974	G	N1-C6-O6	9.89	125.83	119.90
84	Aa	3375	G	N1-C6-O6	9.89	125.83	119.90
84	Aa	1723	C	P-O3'-C3'	9.88	131.55	119.70
84	Aa	398	G	N1-C6-O6	9.87	125.83	119.90
84	Aa	2443	C	O4'-C1'-N1	9.87	116.10	108.20
84	Aa	1487	A	N1-C6-N6	9.87	124.52	118.60
84	Aa	1901	G	N1-C6-O6	9.87	125.82	119.90
1	Ad	1498	A	P-O3'-C3'	9.87	131.54	119.70
84	Aa	253	G	O4'-C1'-N9	9.87	116.09	108.20
84	Aa	521	G	N1-C6-O6	9.87	125.82	119.90
84	Aa	1486	G	N1-C6-O6	9.87	125.82	119.90
1	Ad	1060	U	O4'-C1'-N1	9.86	116.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1455	U	O4'-C1'-N1	9.86	116.09	108.20
84	Aa	3067	G	N1-C6-O6	9.86	125.82	119.90
84	Aa	542	G	N1-C6-O6	9.86	125.82	119.90
1	Ad	536	U	N1-C1'-C2'	9.86	126.81	114.00
84	Aa	1452	A	N1-C6-N6	9.85	124.51	118.60
84	Aa	845	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	911	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	1958	G	O4'-C4'-C3'	-9.85	94.15	104.00
84	Aa	549	G	N1-C6-O6	9.85	125.81	119.90
84	Aa	579	G	N1-C6-O6	9.85	125.81	119.90
1	Ad	208	U	O4'-C1'-N1	9.84	116.07	108.20
84	Aa	283	A	N1-C6-N6	9.84	124.50	118.60
1	Ad	516	A	O4'-C1'-N9	9.84	116.07	108.20
84	Aa	1649	G	N1-C6-O6	9.84	125.80	119.90
84	Aa	1094	G	N1-C6-O6	9.83	125.80	119.90
84	Aa	1673	A	N1-C6-N6	9.83	124.50	118.60
1	Ad	219	G	N9-C1'-C2'	-9.82	101.19	112.00
84	Aa	2610	G	N1-C6-O6	9.81	125.78	119.90
1	Ad	820	A	O4'-C1'-N9	9.81	116.05	108.20
1	Ad	851	G	C3'-C2'-C1'	-9.80	93.66	101.50
1	Ad	924	A	O4'-C1'-N9	9.80	116.04	108.20
84	Aa	936	A	N1-C6-N6	9.80	124.48	118.60
84	Aa	2384	G	N1-C6-O6	9.81	125.78	119.90
84	Aa	2073	U	O4'-C1'-N1	9.80	116.04	108.20
84	Aa	2363	G	N1-C6-O6	9.80	125.78	119.90
84	Aa	1786	G	N1-C6-O6	9.79	125.78	119.90
1	Ad	916	U	O4'-C1'-N1	9.79	116.03	108.20
84	Aa	1746	G	N1-C6-O6	9.79	125.78	119.90
86	Ab	26	C	O4'-C1'-N1	9.79	116.03	108.20
84	Aa	1317	G	N1-C6-O6	9.79	125.78	119.90
86	Ab	60	G	O4'-C1'-N9	9.79	116.03	108.20
1	Ad	579	C	O4'-C1'-N1	9.79	116.03	108.20
1	Ad	1375	C	C3'-C2'-C1'	9.79	109.33	101.50
84	Aa	3099	G	N1-C6-O6	9.79	125.77	119.90
1	Ad	1462	C	C3'-C2'-C1'	-9.79	93.67	101.50
84	Aa	1359	A	P-O3'-C3'	9.79	131.44	119.70
84	Aa	2163	G	N1-C6-O6	9.78	125.77	119.90
84	Aa	1721	A	N1-C6-N6	9.78	124.47	118.60
1	Ad	1671	G	O4'-C1'-N9	9.78	116.02	108.20
84	Aa	388	G	N1-C6-O6	9.78	125.77	119.90
84	Aa	3345	G	N1-C6-O6	9.78	125.77	119.90
1	Ad	1771	U	P-O3'-C3'	9.77	131.43	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	526	A	N1-C6-N6	9.77	124.46	118.60
2	Ae	73	C	C1'-O4'-C4'	-9.77	102.08	109.90
84	Aa	3377	G	N1-C6-O6	9.77	125.76	119.90
84	Aa	3181	U	P-O3'-C3'	9.77	131.42	119.70
1	Ad	512	U	O4'-C1'-N1	9.77	116.01	108.20
1	Ad	1022	U	O4'-C1'-N1	9.77	116.01	108.20
84	Aa	2181	U	O4'-C1'-N1	9.77	116.01	108.20
84	Aa	2830	G	N1-C6-O6	9.77	125.76	119.90
86	Ab	24	G	C5-C6-O6	-9.76	122.74	128.60
84	Aa	618	G	N1-C6-O6	9.76	125.76	119.90
84	Aa	2172	C	O4'-C1'-N1	9.76	116.01	108.20
84	Aa	1352	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	1446	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	2234	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	3278	G	N1-C6-O6	9.76	125.75	119.90
84	Aa	3354	A	N1-C6-N6	9.75	124.45	118.60
1	Ad	780	A	C3'-C2'-C1'	-9.75	93.70	101.50
1	Ad	1008	A	O4'-C1'-N9	9.75	116.00	108.20
84	Aa	2604	A	N1-C6-N6	9.75	124.45	118.60
86	Ab	108	G	N1-C6-O6	9.75	125.75	119.90
1	Ad	87	A	N9-C1'-C2'	-9.74	101.28	112.00
1	Ad	1322	G	O4'-C1'-N9	9.74	115.99	108.20
1	Ad	1200	A	O4'-C1'-N9	9.74	115.99	108.20
1	Ad	158	C	N1-C1'-C2'	9.74	126.66	114.00
84	Aa	2090	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	334	A	N1-C6-N6	9.73	124.44	118.60
84	Aa	2302	G	N1-C6-O6	9.73	125.74	119.90
1	Ad	1657	C	O4'-C1'-N1	9.73	115.98	108.20
84	Aa	2692	G	N1-C6-O6	9.73	125.74	119.90
1	Ad	1382	C	O4'-C1'-N1	9.73	115.98	108.20
84	Aa	1923	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	2613	G	N1-C6-O6	9.73	125.74	119.90
84	Aa	2069	G	N1-C6-O6	9.72	125.73	119.90
1	Ad	437	C	N1-C1'-C2'	9.72	126.64	114.00
84	Aa	3153	U	O4'-C1'-N1	9.72	115.98	108.20
85	Ac	130	G	N1-C6-O6	9.72	125.73	119.90
1	Ad	351	G	C1'-O4'-C4'	-9.72	102.13	109.90
84	Aa	2902	A	N1-C6-N6	9.72	124.43	118.60
84	Aa	1428	G	N1-C6-O6	9.71	125.73	119.90
1	Ad	503	U	O4'-C1'-N1	9.71	115.96	108.20
84	Aa	1756	C	O4'-C1'-N1	9.71	115.96	108.20
85	Ac	11	C	O4'-C1'-N1	9.71	115.96	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	251	U	O4'-C1'-N1	9.70	115.96	108.20
84	Aa	1801	G	N1-C6-O6	9.70	125.72	119.90
84	Aa	648	G	N1-C6-O6	9.69	125.72	119.90
84	Aa	907	A	N1-C6-N6	9.69	124.42	118.60
84	Aa	125	G	N1-C6-O6	9.69	125.72	119.90
84	Aa	423	C	N3-C4-N4	9.69	124.78	118.00
1	Ad	1684	U	O4'-C1'-N1	9.69	115.95	108.20
84	Aa	502	G	N1-C6-O6	9.69	125.71	119.90
84	Aa	2803	A	N1-C6-N6	9.69	124.41	118.60
84	Aa	133	G	N1-C6-O6	9.69	125.71	119.90
84	Aa	560	C	O4'-C1'-N1	9.68	115.95	108.20
84	Aa	2741	G	N1-C6-O6	9.68	125.71	119.90
1	Ad	841	U	O4'-C1'-N1	9.68	115.94	108.20
84	Aa	2945	G	N1-C6-O6	9.68	125.71	119.90
1	Ad	342	C	N1-C1'-C2'	9.67	126.58	114.00
1	Ad	505	U	P-O3'-C3'	9.67	131.30	119.70
84	Aa	1594	G	N1-C6-O6	9.67	125.70	119.90
84	Aa	474	G	O4'-C1'-N9	9.67	115.93	108.20
1	Ad	1806	C	O4'-C1'-C2'	-9.67	96.13	105.80
1	Ad	362	U	O4'-C1'-N1	9.66	115.93	108.20
86	Ab	70	G	N1-C6-O6	9.66	125.70	119.90
1	Ad	1257	U	O4'-C1'-N1	9.66	115.93	108.20
2	Ae	39	G	O4'-C1'-N9	9.66	115.93	108.20
84	Aa	753	G	N1-C6-O6	9.66	125.70	119.90
1	Ad	1500	A	O4'-C1'-N9	9.66	115.93	108.20
1	Ad	1084	U	O4'-C1'-N1	9.65	115.92	108.20
84	Aa	1650	G	N1-C6-O6	9.65	125.69	119.90
1	Ad	1176	A	O4'-C1'-N9	9.65	115.92	108.20
85	Ac	95	G	N1-C6-O6	9.64	125.69	119.90
1	Ad	854	C	O4'-C1'-C2'	-9.64	96.16	105.80
84	Aa	2146	A	N1-C6-N6	9.64	124.38	118.60
84	Aa	2174	C	P-O5'-C5'	9.64	136.32	120.90
84	Aa	764	A	N1-C6-N6	9.63	124.38	118.60
84	Aa	1772	G	N1-C6-O6	9.63	125.68	119.90
85	Ac	97	G	N1-C6-O6	9.63	125.68	119.90
1	Ad	887	U	O4'-C1'-N1	9.62	115.90	108.20
1	Ad	1560	U	O4'-C1'-N1	9.62	115.90	108.20
1	Ad	233	U	O4'-C1'-N1	9.62	115.90	108.20
84	Aa	1450	G	N1-C6-O6	9.62	125.67	119.90
84	Aa	1290	A	N1-C6-N6	9.62	124.37	118.60
1	Ad	1311	U	C1'-O4'-C4'	9.62	117.59	109.90
84	Aa	841	G	N1-C6-O6	9.61	125.67	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ae	74	C	O4'-C1'-N1	9.61	115.88	108.20
84	Aa	1309	U	P-O3'-C3'	9.61	131.23	119.70
84	Aa	3364	A	N1-C6-N6	9.61	124.36	118.60
84	Aa	3206	C	O4'-C1'-N1	9.61	115.88	108.20
84	Aa	2244	G	N1-C6-O6	9.60	125.66	119.90
84	Aa	3243	C	O4'-C1'-N1	9.60	115.88	108.20
84	Aa	1250	G	O4'-C1'-N9	9.60	115.88	108.20
1	Ad	1096	A	O4'-C1'-C2'	9.60	116.24	107.60
84	Aa	2361	C	O4'-C1'-N1	9.60	115.88	108.20
1	Ad	1031	A	O4'-C1'-N9	9.60	115.88	108.20
1	Ad	1448	U	O4'-C1'-N1	9.60	115.88	108.20
84	Aa	1092	G	C5-C6-O6	-9.60	122.84	128.60
84	Aa	851	A	N1-C6-N6	9.60	124.36	118.60
84	Aa	202	G	N1-C6-O6	9.59	125.65	119.90
84	Aa	1132	A	N1-C6-N6	9.59	124.35	118.60
2	Ae	49	G	O4'-C1'-N9	9.59	115.87	108.20
84	Aa	949	C	O4'-C1'-N1	9.59	115.87	108.20
84	Aa	1774	G	N1-C6-O6	9.59	125.65	119.90
86	Ab	42	A	C5-C6-N6	-9.59	116.03	123.70
86	Ab	116	U	O4'-C1'-N1	9.59	115.87	108.20
84	Aa	2087	A	N9-C1'-C2'	9.58	126.46	114.00
84	Aa	2525	G	P-O3'-C3'	9.58	131.20	119.70
1	Ad	1407	A	O4'-C1'-N9	9.58	115.86	108.20
84	Aa	1025	G	N1-C6-O6	9.58	125.65	119.90
84	Aa	1479	G	N1-C6-O6	9.58	125.65	119.90
84	Aa	2323	A	N1-C6-N6	9.58	124.35	118.60
1	Ad	35	U	O4'-C1'-N1	9.57	115.86	108.20
84	Aa	2473	C	O4'-C1'-N1	9.57	115.86	108.20
1	Ad	238	G	P-O3'-C3'	9.57	131.18	119.70
84	Aa	2093	G	N1-C6-O6	9.57	125.64	119.90
1	Ad	745	C	C1'-O4'-C4'	9.57	117.55	109.90
84	Aa	816	G	N1-C6-O6	9.57	125.64	119.90
84	Aa	953	G	N1-C6-O6	9.57	125.64	119.90
84	Aa	664	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	1272	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	2403	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	3328	A	N1-C6-N6	9.56	124.34	118.60
86	Ab	76	U	O4'-C1'-N1	9.56	115.85	108.20
86	Ab	101	A	N1-C6-N6	9.56	124.34	118.60
84	Aa	662	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	857	G	N1-C6-O6	9.56	125.64	119.90
84	Aa	423	C	C5-C4-N4	-9.55	113.51	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2011	G	P-O3'-C3'	9.55	131.16	119.70
84	Aa	740	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1384	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1480	G	N1-C6-O6	9.55	125.63	119.90
84	Aa	1562	A	P-O3'-C3'	9.55	131.16	119.70
1	Ad	582	U	O4'-C1'-N1	9.54	115.84	108.20
1	Ad	1067	A	C3'-C2'-C1'	-9.54	93.87	101.50
1	Ad	1765	A	N9-C1'-C2'	-9.54	101.51	112.00
85	Ac	107	G	N1-C6-O6	9.54	125.62	119.90
2	Ae	11	U	O4'-C1'-N1	9.53	115.83	108.20
84	Aa	2078	G	N1-C6-O6	9.53	125.62	119.90
1	Ad	238	G	N9-C1'-C2'	9.53	126.39	114.00
84	Aa	1244	A	N1-C6-N6	9.53	124.32	118.60
84	Aa	1946	C	O4'-C1'-N1	9.53	115.82	108.20
84	Aa	1244	A	P-O3'-C3'	9.52	131.13	119.70
1	Ad	87	A	O4'-C1'-C2'	-9.52	96.28	105.80
1	Ad	952	U	O4'-C1'-N1	9.52	115.81	108.20
84	Aa	3302	A	N1-C6-N6	9.52	124.31	118.60
86	Ab	54	A	N1-C6-N6	9.52	124.31	118.60
84	Aa	328	G	N1-C6-O6	9.52	125.61	119.90
84	Aa	1423	C	O4'-C1'-N1	9.52	115.81	108.20
1	Ad	868	A	P-O3'-C3'	9.51	131.12	119.70
84	Aa	1390	G	N1-C6-O6	9.50	125.60	119.90
84	Aa	2308	A	N1-C6-N6	9.50	124.30	118.60
84	Aa	430	G	N1-C6-O6	9.50	125.60	119.90
84	Aa	1431	G	N1-C6-O6	9.50	125.60	119.90
1	Ad	1637	G	C1'-O4'-C4'	-9.49	102.30	109.90
84	Aa	1750	A	N1-C6-N6	9.49	124.30	118.60
1	Ad	1691	C	O4'-C1'-N1	9.49	115.79	108.20
1	Ad	1765	A	C3'-C2'-C1'	-9.49	93.91	101.50
1	Ad	1475	A	C3'-C2'-C1'	9.49	109.09	101.50
84	Aa	235	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	1955	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	2462	G	O4'-C1'-N9	9.49	115.79	108.20
84	Aa	3254	C	O4'-C1'-N1	9.49	115.79	108.20
1	Ad	1730	G	O4'-C1'-C2'	-9.49	96.31	105.80
84	Aa	695	G	N1-C6-O6	9.49	125.59	119.90
84	Aa	456	G	N1-C6-O6	9.48	125.59	119.90
84	Aa	2690	G	N1-C6-O6	9.48	125.59	119.90
1	Ad	205	U	C1'-O4'-C4'	9.48	117.48	109.90
1	Ad	1656	C	C3'-C2'-C1'	9.48	109.08	101.50
84	Aa	590	C	C4'-C3'-O3'	9.48	131.96	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	862	G	N1-C6-O6	9.48	125.59	119.90
84	Aa	367	A	N1-C6-N6	9.47	124.28	118.60
84	Aa	627	G	N1-C6-O6	9.47	125.58	119.90
1	Ad	1310	C	C3'-C2'-C1'	9.47	109.08	101.50
84	Aa	514	G	N1-C6-O6	9.47	125.58	119.90
84	Aa	2764	G	C5-C6-O6	-9.47	122.92	128.60
1	Ad	1739	U	O4'-C1'-N1	9.47	115.78	108.20
2	Ae	67	G	O4'-C1'-N9	9.47	115.77	108.20
84	Aa	1641	G	N1-C6-O6	9.47	125.58	119.90
1	Ad	1608	A	O4'-C1'-N9	9.46	115.77	108.20
84	Aa	171	G	C5-C6-O6	-9.46	122.92	128.60
84	Aa	1247	G	N1-C6-O6	9.46	125.58	119.90
84	Aa	1652	G	N1-C6-O6	9.46	125.58	119.90
84	Aa	678	G	N1-C6-O6	9.46	125.58	119.90
1	Ad	1096	A	O4'-C1'-N9	9.46	115.77	108.20
84	Aa	449	G	N1-C6-O6	9.46	125.57	119.90
84	Aa	1677	G	C5-C6-O6	-9.46	122.93	128.60
1	Ad	1200	A	P-O3'-C3'	9.45	131.04	119.70
84	Aa	1539	G	N1-C6-O6	9.46	125.57	119.90
84	Aa	517	G	N1-C6-O6	9.45	125.57	119.90
84	Aa	1907	A	N1-C6-N6	9.45	124.27	118.60
84	Aa	1847	G	N1-C6-O6	9.45	125.57	119.90
1	Ad	1304	A	O4'-C1'-N9	9.45	115.76	108.20
84	Aa	1664	G	N1-C6-O6	9.45	125.57	119.90
1	Ad	921	U	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	731	G	C5-C6-O6	-9.45	122.93	128.60
84	Aa	1130	G	N1-C6-O6	9.44	125.57	119.90
84	Aa	178	C	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	3149	C	O4'-C1'-N1	9.44	115.75	108.20
86	Ab	51	G	N1-C6-O6	9.44	125.56	119.90
84	Aa	42	A	N1-C6-N6	9.44	124.26	118.60
84	Aa	1140	C	O4'-C1'-N1	9.44	115.75	108.20
84	Aa	1958	G	O4'-C1'-N9	9.44	115.75	108.20
84	Aa	318	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	2295	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	3371	C	O4'-C1'-N1	9.43	115.75	108.20
84	Aa	2661	G	C5-C6-O6	-9.43	122.94	128.60
84	Aa	3102	G	N1-C6-O6	9.43	125.56	119.90
86	Ab	105	C	O4'-C1'-N1	9.43	115.74	108.20
84	Aa	1089	G	N1-C6-O6	9.43	125.56	119.90
84	Aa	3157	C	O4'-C1'-N1	9.43	115.74	108.20
85	Ac	136	G	N1-C6-O6	9.43	125.56	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3390	G	N1-C6-O6	9.42	125.55	119.90
84	Aa	1243	C	O4'-C1'-N1	9.42	115.73	108.20
1	Ad	1397	A	N9-C1'-C2'	9.41	126.24	114.00
84	Aa	809	A	N1-C6-N6	9.41	124.25	118.60
1	Ad	588	C	N1-C1'-C2'	9.41	126.23	114.00
84	Aa	2183	A	N1-C6-N6	9.41	124.25	118.60
1	Ad	548	C	N1-C1'-C2'	9.41	126.23	114.00
1	Ad	947	G	O4'-C1'-N9	9.40	115.72	108.20
1	Ad	1039	C	O4'-C1'-N1	9.40	115.72	108.20
1	Ad	1271	G	O4'-C1'-N9	9.40	115.72	108.20
84	Aa	285	G	N1-C6-O6	9.40	125.54	119.90
84	Aa	38	A	N1-C6-N6	9.40	124.24	118.60
1	Ad	994	U	O4'-C1'-N1	9.39	115.72	108.20
84	Aa	21	G	N1-C6-O6	9.39	125.54	119.90
84	Aa	3312	G	C5-C6-O6	-9.39	122.96	128.60
1	Ad	104	A	O4'-C1'-N9	9.39	115.71	108.20
84	Aa	566	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	432	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	1066	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	1145	G	N1-C6-O6	9.39	125.53	119.90
84	Aa	2087	A	O4'-C1'-N9	9.39	115.71	108.20
86	Ab	92	C	N3-C4-N4	9.39	124.57	118.00
1	Ad	785	A	C3'-C2'-C1'	9.39	109.01	101.50
84	Aa	1236	C	O4'-C1'-N1	9.38	115.71	108.20
84	Aa	2879	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	3190	U	P-O3'-C3'	9.38	130.96	119.70
84	Aa	2392	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	581	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	1769	C	O4'-C1'-N1	9.38	115.70	108.20
1	Ad	1692	G	O4'-C1'-N9	9.38	115.70	108.20
1	Ad	1803	G	O4'-C1'-C2'	-9.38	96.42	105.80
84	Aa	836	G	N1-C6-O6	9.38	125.53	119.90
86	Ab	20	C	O4'-C1'-N1	9.38	115.70	108.20
84	Aa	3298	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	213	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	798	G	N1-C6-O6	9.38	125.53	119.90
84	Aa	1263	A	C5-C6-N6	-9.37	116.20	123.70
84	Aa	1675	G	N1-C6-O6	9.37	125.52	119.90
84	Aa	1780	C	O4'-C1'-N1	9.37	115.70	108.20
84	Aa	2525	G	N1-C6-O6	9.37	125.52	119.90
84	Aa	2278	G	N1-C6-O6	9.37	125.52	119.90
1	Ad	119	U	O4'-C1'-N1	9.37	115.69	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	937	A	O4'-C1'-N9	9.37	115.69	108.20
1	Ad	1570	G	O4'-C1'-N9	9.36	115.69	108.20
85	Ac	3	A	O4'-C1'-N9	9.36	115.69	108.20
84	Aa	548	G	N1-C6-O6	9.36	125.51	119.90
84	Aa	794	G	N1-C6-O6	9.35	125.51	119.90
84	Aa	2219	A	N1-C6-N6	9.35	124.21	118.60
84	Aa	1524	G	N1-C6-O6	9.35	125.51	119.90
3	Af	16	G	O4'-C1'-C2'	-9.35	96.45	105.80
1	Ad	459	C	O4'-C1'-C2'	-9.34	96.46	105.80
1	Ad	1334	G	O4'-C1'-C2'	-9.34	96.46	105.80
84	Aa	302	G	N1-C6-O6	9.34	125.50	119.90
86	Ab	87	G	N1-C6-O6	9.34	125.50	119.90
84	Aa	623	G	N1-C6-O6	9.33	125.50	119.90
84	Aa	2550	C	O4'-C1'-N1	9.33	115.67	108.20
84	Aa	1356	G	P-O3'-C3'	9.33	130.90	119.70
1	Ad	1301	G	O4'-C1'-N9	9.33	115.66	108.20
1	Ad	1129	A	O4'-C1'-N9	9.33	115.66	108.20
84	Aa	1575	G	N1-C6-O6	9.33	125.50	119.90
86	Ab	90	A	C8-N9-C4	-9.33	102.07	105.80
84	Aa	1220	G	C5-C6-O6	-9.32	123.01	128.60
84	Aa	2577	G	N1-C6-O6	9.32	125.49	119.90
1	Ad	1384	U	O4'-C1'-N1	9.32	115.66	108.20
84	Aa	1188	C	O4'-C1'-N1	9.32	115.66	108.20
84	Aa	509	G	N1-C6-O6	9.32	125.49	119.90
84	Aa	1106	G	N1-C6-O6	9.32	125.49	119.90
84	Aa	2701	G	N1-C6-O6	9.32	125.49	119.90
85	Ac	111	G	N1-C6-O6	9.31	125.49	119.90
84	Aa	2320	A	N1-C6-N6	9.31	124.19	118.60
1	Ad	50	C	O4'-C1'-N1	9.30	115.64	108.20
1	Ad	111	U	O4'-C1'-N1	9.30	115.64	108.20
84	Aa	2149	G	O4'-C1'-N9	9.30	115.64	108.20
2	Ae	5	U	O4'-C1'-N1	9.30	115.64	108.20
84	Aa	1208	A	N1-C6-N6	9.30	124.18	118.60
84	Aa	866	C	O4'-C1'-N1	9.29	115.63	108.20
84	Aa	2382	C	O4'-C1'-N1	9.29	115.63	108.20
86	Ab	97	G	N1-C6-O6	9.29	125.47	119.90
1	Ad	180	A	O4'-C1'-N9	9.29	115.63	108.20
1	Ad	894	U	O4'-C1'-N1	9.29	115.63	108.20
84	Aa	1107	G	C5-C6-O6	-9.29	123.03	128.60
86	Ab	108	G	C5-C6-O6	-9.29	123.03	128.60
1	Ad	192	G	C1'-O4'-C4'	-9.28	102.47	109.90
84	Aa	241	G	N1-C6-O6	9.28	125.47	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2453	G	N1-C6-O6	9.28	125.47	119.90
84	Aa	1375	G	N1-C6-O6	9.28	125.47	119.90
1	Ad	239	C	C3'-C2'-C1'	9.28	108.92	101.50
1	Ad	1509	C	O4'-C1'-N1	9.28	115.62	108.20
84	Aa	966	G	N1-C6-O6	9.28	125.47	119.90
1	Ad	1758	G	O4'-C1'-C2'	9.28	115.95	107.60
84	Aa	137	C	O4'-C1'-N1	9.28	115.62	108.20
84	Aa	682	G	N1-C6-O6	9.28	125.47	119.90
84	Aa	1277	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	1814	C	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	2151	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	2652	G	N1-C6-O6	9.27	125.46	119.90
1	Ad	740	U	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	2273	C	O4'-C1'-N1	9.27	115.62	108.20
86	Ab	109	U	O4'-C1'-N1	9.27	115.62	108.20
84	Aa	421	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	2418	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	3178	C	O4'-C1'-N1	9.27	115.61	108.20
84	Aa	724	A	N1-C6-N6	9.27	124.16	118.60
84	Aa	1374	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	1595	G	N1-C6-O6	9.27	125.46	119.90
84	Aa	2796	G	C5-C6-O6	-9.26	123.04	128.60
1	Ad	745	C	O4'-C1'-C2'	-9.26	96.54	105.80
84	Aa	32	G	N1-C6-O6	9.26	125.46	119.90
84	Aa	823	A	N1-C6-N6	9.26	124.15	118.60
84	Aa	996	A	N1-C6-N6	9.26	124.15	118.60
85	Ac	70	G	N1-C6-O6	9.26	125.45	119.90
84	Aa	89	C	O4'-C1'-N1	9.25	115.60	108.20
84	Aa	1545	G	N1-C6-O6	9.25	125.45	119.90
84	Aa	2685	C	O4'-C1'-N1	9.25	115.60	108.20
1	Ad	121	U	N1-C1'-C2'	9.25	126.03	114.00
84	Aa	447	C	O4'-C1'-N1	9.25	115.60	108.20
84	Aa	1416	G	N1-C6-O6	9.25	125.45	119.90
1	Ad	1612	C	C3'-C2'-C1'	9.25	108.90	101.50
84	Aa	1545	G	P-O3'-C3'	9.25	130.79	119.70
84	Aa	2461	A	N1-C6-N6	9.25	124.15	118.60
1	Ad	647	G	O4'-C1'-N9	9.24	115.59	108.20
84	Aa	1253	G	N1-C6-O6	9.24	125.45	119.90
84	Aa	1286	G	C5-C6-O6	-9.24	123.05	128.60
1	Ad	1375	C	P-O3'-C3'	9.24	130.79	119.70
84	Aa	1469	G	N1-C6-O6	9.24	125.45	119.90
84	Aa	1993	G	N1-C6-O6	9.24	125.44	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3204	G	N1-C6-O6	9.24	125.44	119.90
1	Ad	1113	G	O4'-C1'-N9	9.23	115.59	108.20
84	Aa	2529	C	O4'-C1'-N1	9.23	115.59	108.20
85	Ac	150	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	370	A	N1-C6-N6	9.23	124.14	118.60
84	Aa	593	G	N1-C6-O6	9.23	125.44	119.90
86	Ab	2	G	C5-C6-O6	-9.23	123.06	128.60
84	Aa	180	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	288	G	C5-C6-O6	-9.23	123.06	128.60
84	Aa	281	G	N1-C6-O6	9.23	125.44	119.90
84	Aa	2345	C	O4'-C1'-N1	9.23	115.58	108.20
1	Ad	642	C	O4'-C1'-N1	9.23	115.58	108.20
84	Aa	3117	G	N1-C6-O6	9.23	125.44	119.90
1	Ad	893	U	O4'-C1'-N1	9.23	115.58	108.20
1	Ad	1029	U	C1'-O4'-C4'	9.23	117.28	109.90
1	Ad	102	U	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	107	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	530	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	1260	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	2353	C	O4'-C1'-N1	9.22	115.58	108.20
85	Ac	85	G	C5-C6-O6	-9.22	123.06	128.60
84	Aa	1116	G	N1-C6-O6	9.22	125.43	119.90
86	Ab	14	C	O4'-C1'-N1	9.22	115.58	108.20
84	Aa	2104	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	3050	A	N1-C6-N6	9.22	124.13	118.60
86	Ab	28	U	O4'-C1'-N1	9.22	115.57	108.20
84	Aa	104	G	N1-C6-O6	9.22	125.43	119.90
84	Aa	3094	C	O4'-C1'-N1	9.22	115.57	108.20
84	Aa	979	C	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	1169	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	1386	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	2036	C	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	1377	G	N1-C6-O6	9.21	125.43	119.90
84	Aa	1622	G	N1-C6-O6	9.21	125.43	119.90
1	Ad	1056	A	N9-C1'-C2'	-9.21	101.87	112.00
84	Aa	1867	U	O4'-C1'-N1	9.21	115.57	108.20
84	Aa	512	G	N1-C6-O6	9.21	125.42	119.90
84	Aa	1799	C	O4'-C1'-N1	9.20	115.56	108.20
84	Aa	3127	C	O4'-C1'-N1	9.20	115.56	108.20
84	Aa	1662	G	N1-C6-O6	9.20	125.42	119.90
84	Aa	2950	C	O4'-C1'-N1	9.20	115.56	108.20
85	Ac	63	C	O4'-C1'-N1	9.20	115.56	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3010	G	N1-C6-O6	9.20	125.42	119.90
84	Aa	129	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	1829	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	601	G	N1-C6-O6	9.19	125.42	119.90
84	Aa	2334	G	N1-C6-O6	9.19	125.42	119.90
86	Ab	57	C	O4'-C1'-N1	9.19	115.55	108.20
84	Aa	375	G	N1-C6-O6	9.19	125.41	119.90
84	Aa	1658	G	N1-C6-O6	9.19	125.41	119.90
1	Ad	1456	U	O4'-C1'-N1	9.19	115.55	108.20
84	Aa	1770	C	O4'-C1'-N1	9.19	115.55	108.20
86	Ab	115	A	C5-C6-N6	-9.19	116.35	123.70
1	Ad	495	C	O4'-C1'-N1	9.18	115.55	108.20
84	Aa	1958	G	C4'-C3'-O3'	-9.18	90.11	109.40
1	Ad	138	C	O4'-C1'-C2'	-9.18	96.62	105.80
84	Aa	1661	G	N1-C6-O6	9.18	125.41	119.90
2	Ae	16	U	O4'-C1'-N1	9.18	115.54	108.20
1	Ad	871	G	O4'-C1'-N9	9.18	115.54	108.20
1	Ad	1172	G	N9-C1'-C2'	9.18	125.93	114.00
86	Ab	15	C	O4'-C1'-N1	9.18	115.54	108.20
84	Aa	904	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	1774	G	P-O3'-C3'	9.17	130.71	119.70
84	Aa	317	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	1133	A	N1-C6-N6	9.17	124.10	118.60
84	Aa	1820	C	O4'-C1'-N1	9.17	115.54	108.20
84	Aa	1931	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	2182	G	N1-C6-O6	9.17	125.40	119.90
84	Aa	2314	G	O4'-C1'-N9	9.17	115.53	108.20
84	Aa	424	G	N1-C6-O6	9.16	125.40	119.90
86	Ab	49	A	C5-C6-N6	-9.16	116.37	123.70
1	Ad	1045	G	C1'-O4'-C4'	-9.16	102.57	109.90
84	Aa	2538	G	O4'-C1'-N9	9.16	115.53	108.20
84	Aa	1698	C	O4'-C1'-N1	9.16	115.53	108.20
84	Aa	1637	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2352	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2527	G	C5-C6-O6	-9.15	123.11	128.60
84	Aa	2700	A	N1-C6-N6	9.15	124.09	118.60
85	Ac	15	G	N1-C6-O6	9.15	125.39	119.90
85	Ac	56	G	N1-C6-O6	9.15	125.39	119.90
84	Aa	2092	C	O3'-P-O5'	-9.15	86.61	104.00
84	Aa	1708	C	O4'-C1'-N1	9.15	115.52	108.20
84	Aa	1556	G	N1-C6-O6	9.14	125.39	119.90
84	Aa	2752	G	N1-C6-O6	9.14	125.39	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	65	G	C5-C6-O6	-9.14	123.11	128.60
1	Ad	535	C	N1-C1'-C2'	9.14	125.88	114.00
1	Ad	1058	G	O4'-C1'-N9	9.14	115.51	108.20
84	Aa	2196	G	N1-C6-O6	9.14	125.38	119.90
84	Aa	210	G	C5-C6-O6	-9.14	123.12	128.60
84	Aa	3379	C	O4'-C1'-N1	9.14	115.51	108.20
86	Ab	69	A	N1-C6-N6	9.14	124.08	118.60
1	Ad	1500	A	N9-C1'-C2'	-9.13	101.95	112.00
84	Aa	2746	G	N1-C6-O6	9.14	125.38	119.90
84	Aa	1818	C	O4'-C1'-N1	9.13	115.51	108.20
84	Aa	3286	G	N1-C6-O6	9.13	125.38	119.90
1	Ad	611	G	O4'-C1'-N9	9.13	115.50	108.20
2	Ae	50	G	N9-C1'-C2'	-9.13	101.96	112.00
84	Aa	2800	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	2818	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	390	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	1935	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	2122	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	2834	C	O4'-C1'-N1	9.13	115.50	108.20
84	Aa	265	G	N1-C6-O6	9.12	125.38	119.90
84	Aa	1710	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	3040	G	N1-C6-O6	9.13	125.38	119.90
84	Aa	1356	G	N1-C6-O6	9.12	125.37	119.90
84	Aa	2086	A	C4-N9-C1'	9.12	142.72	126.30
84	Aa	3147	G	N1-C6-O6	9.12	125.37	119.90
1	Ad	824	U	O4'-C1'-N1	9.12	115.50	108.20
1	Ad	1484	U	O4'-C1'-N1	9.12	115.50	108.20
84	Aa	2789	G	N1-C6-O6	9.12	125.37	119.90
84	Aa	583	C	O4'-C1'-N1	9.12	115.49	108.20
84	Aa	2401	A	N1-C6-N6	9.12	124.07	118.60
1	Ad	914	U	C1'-O4'-C4'	-9.11	102.61	109.90
84	Aa	1693	A	N1-C6-N6	9.11	124.07	118.60
85	Ac	96	A	N1-C6-N6	9.11	124.07	118.60
84	Aa	90	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	1076	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	2390	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	3264	C	O4'-C1'-N1	9.11	115.49	108.20
84	Aa	1167	G	N1-C6-O6	9.11	125.36	119.90
84	Aa	943	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	2370	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	3281	G	N1-C6-O6	9.10	125.36	119.90
84	Aa	1810	G	N1-C6-O6	9.10	125.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3156	G	N1-C6-O6	9.10	125.36	119.90
1	Ad	1280	U	O4'-C1'-N1	9.10	115.48	108.20
84	Aa	2073	U	P-O3'-C3'	-9.10	108.78	119.70
84	Aa	2076	C	O4'-C1'-N1	9.10	115.48	108.20
84	Aa	1058	A	N1-C6-N6	9.10	124.06	118.60
84	Aa	270	G	N1-C6-O6	9.09	125.36	119.90
1	Ad	1372	C	P-O3'-C3'	9.09	130.61	119.70
84	Aa	771	G	N1-C6-O6	9.09	125.35	119.90
84	Aa	3129	G	N1-C6-O6	9.09	125.35	119.90
84	Aa	2537	G	O4'-C1'-N9	9.09	115.47	108.20
1	Ad	41	A	O4'-C1'-C2'	-9.09	96.71	105.80
1	Ad	96	G	C1'-O4'-C4'	-9.09	102.63	109.90
1	Ad	843	G	O4'-C1'-N9	-9.09	100.93	108.20
84	Aa	3177	A	O4'-C1'-N9	9.09	115.47	108.20
1	Ad	1116	G	O4'-C1'-N9	9.09	115.47	108.20
84	Aa	1465	A	N1-C6-N6	9.09	124.05	118.60
84	Aa	760	C	O4'-C1'-N1	9.08	115.46	108.20
84	Aa	1233	G	N1-C6-O6	9.08	125.35	119.90
84	Aa	1729	G	N1-C6-O6	9.08	125.35	119.90
2	Ae	74	C	O4'-C1'-C2'	-9.08	96.72	105.80
84	Aa	1413	C	O4'-C1'-N1	9.08	115.46	108.20
84	Aa	2245	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	638	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1561	U	O3'-P-O5'	9.07	121.23	104.00
84	Aa	3279	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1776	G	N1-C6-O6	9.07	125.34	119.90
1	Ad	1530	G	P-O3'-C3'	9.07	130.58	119.70
84	Aa	310	C	O4'-C1'-N1	9.07	115.45	108.20
84	Aa	1189	G	N1-C6-O6	9.07	125.34	119.90
84	Aa	1144	C	O4'-C1'-N1	9.06	115.45	108.20
84	Aa	1645	G	N1-C6-O6	9.06	125.34	119.90
1	Ad	633	U	O4'-C1'-N1	9.06	115.45	108.20
84	Aa	3001	G	N1-C6-O6	9.06	125.34	119.90
84	Aa	508	G	N1-C6-O6	9.06	125.33	119.90
84	Aa	1553	C	O4'-C1'-N1	9.06	115.44	108.20
84	Aa	1379	G	N1-C6-O6	9.05	125.33	119.90
84	Aa	1625	G	N1-C6-O6	9.05	125.33	119.90
84	Aa	2903	G	N1-C6-O6	9.05	125.33	119.90
1	Ad	817	C	O4'-C1'-N1	9.05	115.44	108.20
1	Ad	255	U	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	96	C	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	2023	C	O4'-C1'-N1	9.05	115.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	231	C	O4'-C1'-N1	9.05	115.44	108.20
84	Aa	1794	A	N1-C6-N6	9.05	124.03	118.60
1	Ad	1390	A	O4'-C1'-N9	9.04	115.44	108.20
1	Ad	845	C	C5'-C4'-C3'	9.04	130.47	116.00
1	Ad	1447	C	N1-C1'-C2'	9.04	125.76	114.00
1	Ad	1449	U	O4'-C1'-N1	9.04	115.43	108.20
84	Aa	3322	A	N1-C6-N6	9.04	124.03	118.60
84	Aa	2594	A	N1-C6-N6	9.04	124.03	118.60
85	Ac	36	G	N1-C6-O6	9.04	125.33	119.90
84	Aa	342	A	N1-C6-N6	9.04	124.02	118.60
84	Aa	971	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	1168	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	2589	G	N1-C6-O6	9.04	125.32	119.90
1	Ad	737	G	C4'-C3'-O3'	9.04	131.07	113.00
84	Aa	19	C	O4'-C1'-N1	9.04	115.43	108.20
84	Aa	485	G	N1-C6-O6	9.04	125.32	119.90
84	Aa	1985	G	N1-C6-O6	9.03	125.32	119.90
84	Aa	763	G	N1-C6-O6	9.03	125.32	119.90
84	Aa	2522	C	O4'-C1'-N1	9.03	115.42	108.20
1	Ad	1740	G	O4'-C1'-N9	9.03	115.42	108.20
84	Aa	1467	G	N1-C6-O6	9.03	125.32	119.90
1	Ad	1591	A	O4'-C1'-N9	9.03	115.42	108.20
84	Aa	725	G	N1-C6-O6	9.03	125.31	119.90
84	Aa	1447	G	N1-C6-O6	9.03	125.31	119.90
84	Aa	2383	G	N1-C6-O6	9.03	125.31	119.90
1	Ad	862	U	O4'-C1'-N1	9.02	115.42	108.20
1	Ad	1047	G	C1'-O4'-C4'	-9.02	102.68	109.90
84	Aa	700	C	O4'-C1'-N1	9.02	115.42	108.20
1	Ad	1748	U	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	1226	G	N1-C6-O6	9.02	125.31	119.90
1	Ad	1782	C	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	1443	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	1798	C	O4'-C1'-N1	9.02	115.42	108.20
84	Aa	2170	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	2676	A	N1-C6-N6	9.02	124.01	118.60
1	Ad	41	A	O4'-C1'-N9	9.02	115.41	108.20
1	Ad	270	U	O4'-C1'-N1	9.02	115.41	108.20
84	Aa	742	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	497	G	N1-C6-O6	9.02	125.31	119.90
84	Aa	3357	C	O4'-C1'-N1	9.02	115.41	108.20
1	Ad	1206	A	O4'-C1'-N9	-9.01	100.99	108.20
84	Aa	1276	C	O4'-C1'-N1	9.01	115.41	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1303	C	O4'-C1'-N1	9.01	115.41	108.20
84	Aa	1631	G	N1-C6-O6	9.01	125.31	119.90
84	Aa	956	G	N1-C6-O6	9.01	125.31	119.90
86	Ab	33	U	O4'-C1'-N1	9.01	115.41	108.20
84	Aa	1893	G	N1-C6-O6	9.01	125.30	119.90
84	Aa	2527	G	O4'-C1'-N9	9.01	115.41	108.20
84	Aa	3325	G	N1-C6-O6	9.01	125.30	119.90
84	Aa	12	G	P-O3'-C3'	9.00	130.50	119.70
84	Aa	1547	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	1725	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	2855	G	N1-C6-O6	9.00	125.30	119.90
86	Ab	11	A	N1-C2-N3	9.00	133.80	129.30
84	Aa	998	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	1909	G	N1-C6-O6	9.00	125.30	119.90
84	Aa	2085	A	P-O3'-C3'	-9.00	108.90	119.70
84	Aa	2656	C	O4'-C1'-N1	9.00	115.40	108.20
84	Aa	1583	G	N1-C6-O6	8.99	125.30	119.90
84	Aa	1950	G	O4'-C1'-N9	8.99	115.39	108.20
85	Ac	82	C	O4'-C1'-N1	8.99	115.39	108.20
86	Ab	58	G	C5-C6-O6	-8.99	123.20	128.60
84	Aa	890	G	N1-C6-O6	8.99	125.29	119.90
84	Aa	2825	G	N1-C6-O6	8.99	125.30	119.90
84	Aa	1	G	N1-C6-O6	8.99	125.29	119.90
1	Ad	824	U	P-O3'-C3'	8.98	130.48	119.70
1	Ad	1306	U	O4'-C1'-N1	8.98	115.39	108.20
1	Ad	1546	U	O4'-C1'-N1	8.98	115.39	108.20
84	Aa	17	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	2236	U	O4'-C1'-N1	8.98	115.39	108.20
84	Aa	3331	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	491	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	2963	G	N1-C6-O6	8.98	125.29	119.90
84	Aa	927	G	N1-C6-O6	8.98	125.29	119.90
85	Ac	46	G	N1-C6-O6	8.98	125.29	119.90
1	Ad	1006	A	O4'-C1'-C2'	-8.98	96.82	105.80
1	Ad	1065	A	C1'-O4'-C4'	-8.98	102.72	109.90
84	Aa	3075	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	1476	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	1967	C	O4'-C1'-N1	8.97	115.38	108.20
84	Aa	803	G	N1-C6-O6	8.97	125.28	119.90
84	Aa	2213	G	N1-C6-O6	8.97	125.28	119.90
1	Ad	306	U	O4'-C1'-N1	8.96	115.37	108.20
84	Aa	1697	G	N1-C6-O6	8.96	125.28	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2204	U	P-O3'-C3'	8.96	130.46	119.70
84	Aa	522	C	O4'-C1'-N1	8.96	115.37	108.20
84	Aa	1619	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	386	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	2283	G	N1-C6-O6	8.96	125.28	119.90
85	Ac	120	G	N1-C6-O6	8.96	125.28	119.90
84	Aa	1978	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	3029	G	N1-C6-O6	8.96	125.27	119.90
1	Ad	271	C	O4'-C1'-N1	8.96	115.36	108.20
84	Aa	584	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	1001	A	N1-C6-N6	8.96	123.97	118.60
84	Aa	1764	G	N1-C6-O6	8.96	125.27	119.90
84	Aa	2428	G	N1-C6-O6	8.96	125.27	119.90
1	Ad	636	U	O4'-C1'-N1	8.95	115.36	108.20
84	Aa	1381	G	N1-C6-O6	8.95	125.27	119.90
84	Aa	1803	G	N1-C6-O6	8.95	125.27	119.90
84	Aa	2723	G	N1-C6-O6	8.95	125.27	119.90
1	Ad	1348	A	P-O3'-C3'	8.95	130.44	119.70
84	Aa	1601	G	N1-C6-O6	8.94	125.27	119.90
84	Aa	2086	A	C8-N9-C1'	-8.94	111.60	127.70
84	Aa	3367	C	O4'-C1'-N1	8.94	115.36	108.20
84	Aa	1143	G	N1-C6-O6	8.94	125.27	119.90
1	Ad	221	U	O4'-C1'-N1	8.94	115.35	108.20
84	Aa	2024	G	N1-C6-O6	8.94	125.26	119.90
84	Aa	176	A	N1-C6-N6	8.94	123.96	118.60
84	Aa	1716	G	C5-C6-O6	-8.94	123.24	128.60
84	Aa	3141	G	N1-C6-O6	8.94	125.26	119.90
84	Aa	3106	U	O4'-C1'-N1	8.94	115.35	108.20
1	Ad	174	C	O4'-C1'-N1	8.93	115.35	108.20
84	Aa	1621	G	N1-C6-O6	8.93	125.26	119.90
1	Ad	393	G	O4'-C1'-N9	8.93	115.35	108.20
1	Ad	1796	G	C1'-O4'-C4'	-8.93	102.75	109.90
84	Aa	1979	G	N1-C6-O6	8.93	125.26	119.90
85	Ac	114	G	N1-C6-O6	8.93	125.26	119.90
1	Ad	880	G	O4'-C1'-N9	8.93	115.34	108.20
1	Ad	1805	U	O4'-C1'-N1	8.93	115.34	108.20
84	Aa	97	G	N1-C6-O6	8.93	125.26	119.90
84	Aa	1411	G	N1-C6-O6	8.93	125.26	119.90
84	Aa	2657	C	O4'-C1'-N1	8.93	115.34	108.20
1	Ad	836	U	C3'-C2'-C1'	8.93	108.64	101.50
84	Aa	1898	G	N1-C6-O6	8.93	125.25	119.90
84	Aa	1915	G	N1-C6-O6	8.93	125.25	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	16	A	C5-C6-N1	-8.93	113.24	117.70
84	Aa	194	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	3079	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	986	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	1348	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	2189	G	N1-C6-O6	8.92	125.25	119.90
84	Aa	3188	G	C5-C6-O6	-8.92	123.25	128.60
84	Aa	3222	G	N1-C6-O6	8.92	125.25	119.90
1	Ad	518	G	P-O3'-C3'	8.92	130.40	119.70
84	Aa	542	G	P-O3'-C3'	8.92	130.40	119.70
84	Aa	2105	G	N1-C6-O6	8.92	125.25	119.90
1	Ad	500	G	O4'-C1'-N9	8.91	115.33	108.20
1	Ad	944	A	O4'-C1'-C2'	-8.91	96.89	105.80
1	Ad	1513	A	C1'-O4'-C4'	8.91	117.03	109.90
84	Aa	450	C	O4'-C1'-N1	8.91	115.33	108.20
84	Aa	867	G	N1-C6-O6	8.91	125.25	119.90
85	Ac	75	G	N1-C6-O6	8.91	125.25	119.90
85	Ac	149	U	O4'-C1'-N1	8.91	115.33	108.20
84	Aa	2874	A	N1-C6-N6	8.91	123.95	118.60
1	Ad	989	G	O4'-C1'-N9	8.91	115.33	108.20
84	Aa	1589	G	P-O3'-C3'	8.91	130.39	119.70
85	Ac	148	C	O4'-C1'-N1	8.91	115.33	108.20
86	Ab	23	A	N1-C6-N6	8.91	123.94	118.60
2	Ae	74	C	C3'-C2'-C1'	8.91	108.62	101.50
84	Aa	486	G	N1-C6-O6	8.91	125.24	119.90
84	Aa	1567	G	N1-C6-O6	8.91	125.24	119.90
84	Aa	2897	G	N1-C6-O6	8.91	125.24	119.90
1	Ad	1766	A	P-O3'-C3'	8.90	130.38	119.70
84	Aa	2731	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	3282	G	C5-C6-O6	-8.90	123.26	128.60
1	Ad	517	U	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	1823	C	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	2487	A	O4'-C1'-N9	8.90	115.32	108.20
84	Aa	3264	C	P-O3'-C3'	8.90	130.38	119.70
84	Aa	1822	C	O4'-C1'-N1	8.90	115.32	108.20
84	Aa	894	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	1990	A	P-O3'-C3'	8.90	130.38	119.70
84	Aa	2376	G	O4'-C1'-N9	8.90	115.32	108.20
84	Aa	3242	G	N1-C6-O6	8.90	125.24	119.90
84	Aa	434	C	O4'-C1'-N1	8.89	115.32	108.20
84	Aa	2601	G	N1-C6-O6	8.89	125.24	119.90
84	Aa	2651	G	N1-C6-O6	8.89	125.24	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2712	C	O4'-C1'-N1	8.89	115.31	108.20
86	Ab	119	C	O4'-C1'-N1	8.89	115.31	108.20
1	Ad	1343	C	O4'-C1'-N1	8.89	115.31	108.20
84	Aa	870	G	N1-C6-O6	8.89	125.23	119.90
84	Aa	2086	A	N9-C1'-C2'	8.89	125.56	114.00
84	Aa	590	C	P-O3'-C3'	-8.88	109.04	119.70
84	Aa	1329	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	495	G	O5'-P-OP2	-8.88	97.71	105.70
84	Aa	1405	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2068	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	3183	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	1403	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	1419	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2416	U	O4'-C1'-N1	8.88	115.31	108.20
1	Ad	38	C	O4'-C1'-N1	8.88	115.30	108.20
84	Aa	2300	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	362	G	C5-C6-O6	-8.88	123.27	128.60
84	Aa	381	G	N1-C6-O6	8.88	125.23	119.90
84	Aa	2966	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	3037	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	3372	C	O4'-C1'-N1	8.87	115.30	108.20
1	Ad	1202	G	O4'-C1'-N9	8.87	115.30	108.20
84	Aa	3164	C	O4'-C1'-N1	8.87	115.30	108.20
85	Ac	25	G	N1-C6-O6	8.87	125.22	119.90
1	Ad	770	U	O4'-C1'-N1	8.87	115.30	108.20
84	Aa	1142	G	N1-C6-O6	8.87	125.22	119.90
85	Ac	31	G	N1-C6-O6	8.87	125.22	119.90
1	Ad	488	C	N1-C1'-C2'	8.87	125.53	114.00
84	Aa	1808	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	2465	G	N1-C6-O6	8.87	125.22	119.90
84	Aa	2475	C	C4'-C3'-O3'	8.87	130.74	113.00
84	Aa	8	C	O4'-C1'-N1	8.87	115.29	108.20
1	Ad	1375	C	O4'-C1'-C2'	-8.86	96.94	105.80
1	Ad	281	U	O4'-C1'-C2'	-8.86	96.94	105.80
1	Ad	637	U	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	796	C	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	859	G	N1-C6-O6	8.86	125.22	119.90
84	Aa	1161	G	N1-C6-O6	8.86	125.21	119.90
84	Aa	2404	C	O4'-C1'-N1	8.86	115.29	108.20
84	Aa	937	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	2466	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	3066	G	N1-C6-O6	8.85	125.21	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3206	C	C2-N1-C1'	8.85	128.54	118.80
86	Ab	38	U	O4'-C1'-N1	8.85	115.28	108.20
1	Ad	422	G	O4'-C1'-N9	8.85	115.28	108.20
1	Ad	1651	U	P-O3'-C3'	8.85	130.32	119.70
84	Aa	1304	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1696	G	N1-C6-O6	8.85	125.21	119.90
1	Ad	1101	C	N1-C1'-C2'	8.85	125.50	114.00
1	Ad	1586	U	O4'-C1'-N1	8.85	115.28	108.20
84	Aa	787	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1785	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	1587	G	N1-C6-O6	8.85	125.21	119.90
84	Aa	277	U	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	1079	G	N1-C6-O6	8.84	125.21	119.90
84	Aa	1231	C	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	2995	G	N1-C6-O6	8.84	125.21	119.90
85	Ac	76	C	O4'-C1'-N1	8.84	115.28	108.20
84	Aa	2802	G	N1-C6-O6	8.84	125.20	119.90
84	Aa	2886	C	O4'-C1'-N1	8.84	115.27	108.20
84	Aa	3210	G	N1-C6-O6	8.84	125.20	119.90
1	Ad	836	U	O4'-C1'-C2'	-8.84	96.96	105.80
1	Ad	1094	U	N1-C1'-C2'	8.84	125.49	114.00
84	Aa	714	G	N1-C6-O6	8.84	125.20	119.90
84	Aa	1289	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	1960	C	O4'-C1'-N1	8.83	115.27	108.20
1	Ad	903	A	C3'-C2'-C1'	-8.83	94.44	101.50
84	Aa	2057	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	44	A	N1-C6-N6	8.83	123.90	118.60
84	Aa	915	G	N1-C6-O6	8.83	125.20	119.90
84	Aa	1300	C	O4'-C1'-N1	8.83	115.26	108.20
84	Aa	1540	G	N1-C6-O6	8.83	125.20	119.90
86	Ab	62	U	O4'-C1'-N1	8.83	115.26	108.20
84	Aa	784	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	2648	G	N1-C6-O6	8.82	125.19	119.90
1	Ad	196	G	N9-C1'-C2'	8.82	125.47	114.00
84	Aa	1936	G	N1-C6-O6	8.82	125.19	119.90
1	Ad	1	U	O4'-C1'-C2'	-8.82	96.98	105.80
84	Aa	206	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	392	C	O4'-C1'-N1	8.82	115.26	108.20
84	Aa	2368	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	3356	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	602	G	N1-C6-O6	8.82	125.19	119.90
84	Aa	2664	G	N1-C6-O6	8.82	125.19	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2812	C	O4'-C1'-N1	8.82	115.25	108.20
84	Aa	1999	G	N1-C6-O6	8.81	125.19	119.90
84	Aa	2748	G	N1-C6-O6	8.81	125.19	119.90
1	Ad	1626	C	C3'-C2'-C1'	8.81	108.55	101.50
84	Aa	1402	G	N1-C6-O6	8.81	125.19	119.90
1	Ad	143	A	O4'-C1'-N9	8.81	115.25	108.20
84	Aa	1175	G	N1-C6-O6	8.81	125.19	119.90
84	Aa	22	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	665	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	2337	C	O4'-C1'-N1	8.81	115.25	108.20
84	Aa	2582	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	431	G	C5-C6-O6	-8.80	123.32	128.60
84	Aa	1496	G	N1-C6-O6	8.81	125.18	119.90
84	Aa	2627	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	2959	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3298	G	O4'-C1'-N9	8.80	115.24	108.20
1	Ad	806	U	O4'-C1'-N1	8.80	115.24	108.20
84	Aa	1417	G	N1-C6-O6	8.80	125.18	119.90
86	Ab	60	G	C5-C6-O6	-8.80	123.32	128.60
1	Ad	32	U	N1-C1'-C2'	-8.80	102.32	112.00
84	Aa	1800	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	2462	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3314	G	N1-C6-O6	8.80	125.18	119.90
1	Ad	222	G	O4'-C1'-N9	8.79	115.24	108.20
84	Aa	413	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	445	C	O4'-C1'-N1	8.79	115.24	108.20
84	Aa	663	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	2205	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	3230	G	N1-C6-O6	8.80	125.18	119.90
84	Aa	60	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	881	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	1474	U	O4'-C1'-N1	8.79	115.23	108.20
84	Aa	2235	G	N1-C6-O6	8.79	125.18	119.90
84	Aa	3369	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	429	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	729	G	N1-C6-O6	8.79	125.17	119.90
84	Aa	2274	A	N1-C6-N6	8.79	123.87	118.60
84	Aa	3171	C	O4'-C1'-N1	8.79	115.23	108.20
84	Aa	640	C	P-O3'-C3'	-8.79	109.16	119.70
1	Ad	1016	C	N1-C1'-C2'	8.78	125.42	114.00
84	Aa	3027	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	272	G	N1-C6-O6	8.78	125.17	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1432	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1588	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	3237	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1354	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1925	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2878	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3172	G	O4'-C1'-N9	8.78	115.22	108.20
1	Ad	79	A	N9-C1'-C2'	-8.78	102.34	112.00
84	Aa	703	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	1258	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	1483	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2256	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2413	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	2740	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3150	G	N1-C6-O6	8.78	125.17	119.90
84	Aa	3224	C	O4'-C1'-N1	8.78	115.22	108.20
84	Aa	3186	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	3335	G	N1-C6-O6	8.77	125.16	119.90
1	Ad	201	G	N9-C1'-C2'	8.77	125.40	114.00
1	Ad	1432	C	O4'-C1'-N1	8.77	115.22	108.20
1	Ad	1778	G	N9-C1'-C2'	8.77	125.40	114.00
84	Aa	245	C	O4'-C1'-N1	8.77	115.22	108.20
84	Aa	1271	U	O4'-C1'-N1	8.77	115.21	108.20
84	Aa	1988	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	3332	G	N1-C6-O6	8.77	125.16	119.90
85	Ac	159	G	P-O3'-C3'	8.77	130.22	119.70
84	Aa	534	G	N1-C6-O6	8.77	125.16	119.90
84	Aa	2258	C	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	3384	G	N1-C6-O6	8.76	125.16	119.90
85	Ac	28	C	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	438	G	N1-C6-O6	8.76	125.16	119.90
84	Aa	2115	G	N1-C6-O6	8.76	125.16	119.90
84	Aa	2578	G	N1-C6-O6	8.76	125.16	119.90
1	Ad	999	G	O4'-C1'-C2'	8.76	115.48	107.60
1	Ad	1191	U	O4'-C1'-N1	8.76	115.21	108.20
84	Aa	1134	G	N1-C6-O6	8.76	125.15	119.90
84	Aa	1283	C	O4'-C1'-N1	8.76	115.20	108.20
84	Aa	1699	C	O4'-C1'-N1	8.76	115.20	108.20
84	Aa	2012	C	P-O3'-C3'	8.76	130.21	119.70
84	Aa	2617	G	N1-C6-O6	8.76	125.15	119.90
84	Aa	3311	C	O4'-C1'-N1	8.76	115.20	108.20
85	Ac	158	C	O4'-C1'-N1	8.76	115.20	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1407	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	1500	C	O4'-C1'-N1	8.75	115.20	108.20
84	Aa	2541	A	N1-C6-N6	8.75	123.85	118.60
84	Aa	3062	G	N1-C6-O6	8.75	125.15	119.90
1	Ad	281	U	O3'-P-O5'	-8.75	87.38	104.00
84	Aa	754	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	773	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2375	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2979	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	3084	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	3337	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	1100	G	N1-C6-O6	8.75	125.15	119.90
84	Aa	2780	G	N1-C6-O6	8.75	125.15	119.90
1	Ad	898	U	O4'-C1'-N1	8.74	115.20	108.20
84	Aa	114	G	N1-C6-O6	8.74	125.15	119.90
84	Aa	1728	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	2838	C	O4'-C1'-N1	8.74	115.19	108.20
86	Ab	5	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	756	U	O4'-C1'-N1	8.74	115.19	108.20
1	Ad	796	U	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	199	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	669	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	2667	C	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	944	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	1170	G	O4'-C1'-N9	8.74	115.19	108.20
84	Aa	136	C	O4'-C1'-N1	8.74	115.19	108.20
84	Aa	2598	A	N1-C6-N6	8.74	123.84	118.60
84	Aa	126	G	N1-C6-O6	8.74	125.14	119.90
84	Aa	1299	G	N1-C6-O6	8.74	125.14	119.90
1	Ad	1325	A	C1'-O4'-C4'	-8.73	102.91	109.90
84	Aa	57	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2075	C	O4'-C1'-N1	8.73	115.19	108.20
84	Aa	2021	G	N1-C6-O6	8.73	125.14	119.90
85	Ac	24	G	N1-C6-O6	8.73	125.14	119.90
1	Ad	1061	G	O4'-C1'-N9	8.73	115.19	108.20
1	Ad	1474	U	O4'-C1'-N1	8.73	115.19	108.20
84	Aa	82	C	O4'-C1'-N1	8.73	115.18	108.20
84	Aa	531	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	1982	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2540	C	O4'-C1'-N1	8.73	115.18	108.20
84	Aa	2448	G	N1-C6-O6	8.73	125.14	119.90
84	Aa	2128	G	N1-C6-O6	8.72	125.14	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1986	G	N1-C6-O6	8.72	125.13	119.90
1	Ad	67	G	O4'-C1'-N9	-8.72	101.22	108.20
84	Aa	208	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	212	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	357	C	O4'-C1'-N1	8.72	115.18	108.20
84	Aa	1767	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	2067	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	2112	C	O4'-C1'-N1	8.72	115.18	108.20
84	Aa	2231	G	C5-C6-O6	-8.72	123.37	128.60
84	Aa	2968	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	358	G	N1-C6-O6	8.72	125.13	119.90
84	Aa	431	G	P-O3'-C3'	8.72	130.16	119.70
84	Aa	87	A	C4-C5-C6	8.71	121.36	117.00
84	Aa	790	G	N1-C6-O6	8.71	125.13	119.90
1	Ad	392	G	O4'-C1'-N9	8.71	115.17	108.20
1	Ad	870	A	C1'-O4'-C4'	8.71	116.87	109.90
84	Aa	100	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	1701	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3295	G	N1-C6-O6	8.71	125.13	119.90
85	Ac	159	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	2034	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3103	G	N1-C6-O6	8.71	125.13	119.90
84	Aa	3274	G	N1-C6-O6	8.71	125.13	119.90
1	Ad	1776	A	O4'-C1'-N9	8.71	115.17	108.20
84	Aa	545	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	1779	C	O4'-C1'-N1	8.71	115.17	108.20
84	Aa	2763	C	O4'-C1'-N1	8.71	115.17	108.20
86	Ab	118	C	O4'-C1'-N1	8.71	115.17	108.20
1	Ad	1593	U	N1-C1'-C2'	8.71	125.32	114.00
84	Aa	1085	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1119	G	N1-C6-O6	8.71	125.12	119.90
84	Aa	1572	C	O4'-C1'-N1	8.71	115.16	108.20
84	Aa	2493	C	O4'-C1'-N1	8.71	115.17	108.20
1	Ad	4	C	C1'-O4'-C4'	-8.70	102.94	109.90
84	Aa	493	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2728	C	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	2860	U	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	757	G	N1-C6-O6	8.70	125.12	119.90
85	Ac	39	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	441	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1825	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2450	G	P-O3'-C3'	8.70	130.14	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	454	U	O4'-C1'-N1	8.70	115.16	108.20
1	Ad	811	U	O4'-C1'-N1	8.70	115.16	108.20
84	Aa	741	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	2271	G	N1-C6-O6	8.70	125.12	119.90
84	Aa	1213	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3083	C	O4'-C1'-N1	8.69	115.15	108.20
84	Aa	3343	U	P-O3'-C3'	8.69	130.13	119.70
84	Aa	713	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	782	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	838	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1670	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	2589	G	P-O3'-C3'	8.69	130.12	119.70
84	Aa	2735	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1268	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3023	G	N1-C6-O6	8.69	125.11	119.90
1	Ad	753	C	N1-C1'-C2'	8.69	125.29	114.00
84	Aa	1949	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	1954	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3301	G	N1-C6-O6	8.69	125.11	119.90
84	Aa	3329	G	N1-C6-O6	8.69	125.11	119.90
1	Ad	787	C	C3'-C2'-C1'	-8.68	94.55	101.50
1	Ad	956	A	N9-C1'-C2'	-8.68	102.45	112.00
84	Aa	1404	G	N1-C6-O6	8.68	125.11	119.90
1	Ad	206	U	O4'-C1'-N1	8.68	115.15	108.20
84	Aa	1100	G	P-O3'-C3'	8.68	130.12	119.70
84	Aa	1941	G	N1-C6-O6	8.68	125.11	119.90
1	Ad	1363	G	C3'-C2'-C1'	-8.68	94.56	101.50
84	Aa	356	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	720	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	667	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	988	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	1723	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	1804	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	2048	C	O4'-C1'-N1	8.68	115.14	108.20
84	Aa	2865	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	3172	G	N1-C6-O6	8.68	125.11	119.90
84	Aa	527	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	745	G	N1-C6-O6	8.67	125.10	119.90
1	Ad	28	A	O4'-C1'-N9	8.67	115.14	108.20
84	Aa	200	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	732	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	802	G	N1-C6-O6	8.67	125.10	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1238	G	O5'-P-OP1	-8.67	97.90	105.70
84	Aa	1877	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	2858	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	2488	A	N1-C6-N6	8.67	123.80	118.60
1	Ad	136	U	O4'-C1'-N1	8.67	115.13	108.20
84	Aa	3245	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	112	C	O4'-C1'-N1	8.67	115.13	108.20
84	Aa	3361	G	N1-C6-O6	8.67	125.10	119.90
84	Aa	535	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	150	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1555	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1807	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	2051	G	N1-C6-O6	8.66	125.10	119.90
1	Ad	165	U	N1-C1'-C2'	8.66	125.26	114.00
1	Ad	617	G	O4'-C1'-N9	-8.66	101.27	108.20
84	Aa	404	G	O4'-C1'-N9	8.66	115.13	108.20
84	Aa	1689	G	C5-C6-O6	-8.66	123.40	128.60
84	Aa	1759	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	1826	G	N1-C6-O6	8.66	125.10	119.90
84	Aa	1980	C	O4'-C1'-N1	8.66	115.13	108.20
84	Aa	2031	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	124	C	O4'-C1'-N1	8.66	115.12	108.20
84	Aa	142	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	1340	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	2703	G	N1-C6-O6	8.66	125.09	119.90
84	Aa	1974	C	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	3167	G	O4'-C1'-N9	8.65	115.12	108.20
1	Ad	1029	U	O4'-C1'-C2'	-8.65	97.15	105.80
84	Aa	490	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	1129	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	2355	A	N1-C6-N6	8.65	123.79	118.60
1	Ad	1473	C	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	613	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	691	U	O4'-C1'-N1	8.65	115.12	108.20
84	Aa	1245	U	P-O5'-C5'	8.65	134.74	120.90
84	Aa	2050	G	N1-C6-O6	8.65	125.09	119.90
84	Aa	253	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	254	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	834	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2017	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2673	G	N1-C6-O6	8.64	125.09	119.90
84	Aa	2732	U	O4'-C1'-N1	8.64	115.11	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3077	C	O4'-C1'-N1	8.64	115.11	108.20
84	Aa	521	G	P-O3'-C3'	8.64	130.07	119.70
84	Aa	477	C	O4'-C1'-N1	8.64	115.11	108.20
84	Aa	2399	G	N1-C6-O6	8.64	125.08	119.90
84	Aa	2539	G	N1-C6-O6	8.64	125.08	119.90
1	Ad	438	G	O4'-C1'-N9	8.63	115.11	108.20
84	Aa	863	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2002	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	3231	G	N1-C6-O6	8.63	125.08	119.90
86	Ab	57	C	N3-C4-N4	8.64	124.05	118.00
1	Ad	969	U	N1-C1'-C2'	8.63	125.22	114.00
84	Aa	567	G	C5-C6-O6	-8.63	123.42	128.60
84	Aa	1914	C	O4'-C1'-N1	8.63	115.11	108.20
84	Aa	2027	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2536	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	748	C	O4'-C1'-N1	8.63	115.10	108.20
84	Aa	1544	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2411	G	N1-C6-O6	8.63	125.08	119.90
84	Aa	2924	G	N1-C6-O6	8.63	125.08	119.90
1	Ad	351	G	O4'-C1'-N9	8.63	115.10	108.20
84	Aa	1859	G	N1-C6-O6	8.62	125.08	119.90
84	Aa	2505	C	O4'-C1'-N1	8.62	115.10	108.20
1	Ad	1636	U	O4'-C1'-N1	8.62	115.10	108.20
2	Ae	8	U	O4'-C1'-N1	8.62	115.10	108.20
84	Aa	837	C	O4'-C1'-N1	8.62	115.10	108.20
84	Aa	1655	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	2624	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	512	G	O4'-C1'-N9	8.62	115.10	108.20
84	Aa	1263	A	O4'-C1'-N9	8.62	115.10	108.20
1	Ad	124	G	O4'-C1'-N9	8.62	115.09	108.20
1	Ad	748	C	P-O3'-C3'	8.62	130.04	119.70
84	Aa	2795	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	3160	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	3353	G	N1-C6-O6	8.62	125.07	119.90
85	Ac	156	C	O4'-C1'-N1	8.62	115.09	108.20
84	Aa	2441	G	N1-C6-O6	8.62	125.07	119.90
1	Ad	399	U	O4'-C1'-N1	8.62	115.09	108.20
84	Aa	351	G	N1-C6-O6	8.62	125.07	119.90
84	Aa	464	G	O4'-C1'-N9	8.62	115.09	108.20
84	Aa	685	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	422	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	469	U	O4'-C1'-N1	8.61	115.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	546	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	3026	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	914	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	3349	C	O4'-C1'-N1	8.61	115.09	108.20
84	Aa	860	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	3275	G	N1-C6-O6	8.61	125.07	119.90
84	Aa	625	G	C4'-C3'-O3'	8.61	130.22	113.00
84	Aa	2011	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	2709	G	C5-C6-O6	-8.61	123.44	128.60
84	Aa	2811	C	O4'-C1'-N1	8.61	115.09	108.20
1	Ad	769	G	O4'-C1'-N9	8.61	115.08	108.20
1	Ad	1232	G	N9-C1'-C2'	8.61	125.19	114.00
68	Ch	74	TYR	CB-CG-CD1	-8.61	115.84	121.00
84	Aa	135	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	680	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	1361	G	C5-C6-O6	-8.61	123.44	128.60
84	Aa	1760	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	1975	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	2457	G	N1-C6-O6	8.61	125.06	119.90
84	Aa	3240	C	O4'-C1'-N1	8.61	115.08	108.20
84	Aa	1425	G	N1-C6-O6	8.60	125.06	119.90
84	Aa	1762	G	N1-C6-O6	8.60	125.06	119.90
86	Ab	5	G	O4'-C1'-N9	8.60	115.08	108.20
84	Aa	2459	U	P-O3'-C3'	8.60	130.02	119.70
84	Aa	2381	G	N1-C6-O6	8.60	125.06	119.90
84	Aa	2080	G	N1-C6-O6	8.60	125.06	119.90
1	Ad	1080	C	C1'-O4'-C4'	-8.60	103.02	109.90
84	Aa	1885	G	N1-C6-O6	8.60	125.06	119.90
85	Ac	115	C	O4'-C1'-N1	8.60	115.08	108.20
1	Ad	1545	A	C1'-O4'-C4'	8.59	116.78	109.90
84	Aa	1523	G	C5-C6-O6	-8.59	123.44	128.60
84	Aa	2543	G	N1-C6-O6	8.59	125.06	119.90
1	Ad	725	U	O4'-C1'-N1	8.59	115.07	108.20
3	Af	14	A	O4'-C1'-N9	8.59	115.07	108.20
84	Aa	543	C	C5'-C4'-O4'	8.59	119.41	109.10
84	Aa	831	G	N1-C6-O6	8.59	125.05	119.90
1	Ad	1163	C	O4'-C1'-C2'	-8.59	97.21	105.80
2	Ae	54	U	O4'-C1'-N1	8.59	115.07	108.20
84	Aa	975	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	1371	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	1696	G	O4'-C1'-N9	8.59	115.07	108.20
84	Aa	1717	G	C5-C6-O6	-8.59	123.45	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	366	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	919	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	2039	G	N1-C6-O6	8.59	125.05	119.90
84	Aa	2742	A	N1-C6-N6	8.59	123.75	118.60
84	Aa	600	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1510	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	2118	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	2985	C	O4'-C1'-N1	8.58	115.07	108.20
84	Aa	2066	G	N1-C6-O6	8.58	125.05	119.90
86	Ab	108	G	N3-C2-N2	8.58	125.91	119.90
84	Aa	3284	C	O4'-C1'-N1	8.58	115.06	108.20
1	Ad	1107	G	O4'-C1'-N9	8.58	115.06	108.20
84	Aa	396	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	498	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1301	C	O4'-C1'-N1	8.58	115.06	108.20
84	Aa	2248	G	N1-C6-O6	8.58	125.05	119.90
84	Aa	1230	G	N1-C6-O6	8.57	125.05	119.90
1	Ad	434	G	O4'-C1'-N9	8.57	115.06	108.20
1	Ad	629	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	1095	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	2405	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	1084	G	N1-C6-O6	8.57	125.04	119.90
85	Ac	142	G	N1-C6-O6	8.57	125.04	119.90
1	Ad	184	C	O4'-C1'-N1	8.57	115.06	108.20
84	Aa	2595	G	N1-C6-O6	8.57	125.04	119.90
84	Aa	3208	G	N1-C6-O6	8.57	125.04	119.90
1	Ad	966	U	N1-C1'-C2'	8.56	125.13	114.00
84	Aa	1736	C	O4'-C1'-N1	8.56	115.05	108.20
84	Aa	374	G	N1-C6-O6	8.56	125.04	119.90
84	Aa	1482	C	O4'-C1'-N1	8.56	115.05	108.20
84	Aa	1783	G	N1-C6-O6	8.56	125.04	119.90
84	Aa	2477	G	C4'-C3'-O3'	8.56	130.12	113.00
84	Aa	2914	G	N1-C6-O6	8.56	125.04	119.90
1	Ad	1466	A	N9-C1'-C2'	8.56	125.13	114.00
1	Ad	162	A	C1'-O4'-C4'	-8.56	103.05	109.90
84	Aa	85	G	N1-C6-O6	8.56	125.03	119.90
86	Ab	66	G	C5-C6-O6	-8.56	123.47	128.60
84	Aa	833	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	1888	G	N1-C6-O6	8.56	125.03	119.90
84	Aa	2666	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	5	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2608	G	N1-C6-O6	8.55	125.03	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	75	G	O4'-C1'-N9	8.55	115.04	108.20
84	Aa	2717	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	3380	G	N3-C2-N2	8.55	125.89	119.90
84	Aa	2744	C	O4'-C1'-N1	8.55	115.04	108.20
84	Aa	1857	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2013	G	N1-C6-O6	8.55	125.03	119.90
84	Aa	2093	G	C5-C6-O6	-8.55	123.47	128.60
84	Aa	2109	G	N1-C6-O6	8.55	125.03	119.90
85	Ac	6	C	O4'-C1'-N1	8.55	115.04	108.20
1	Ad	290	C	C3'-C2'-C1'	8.55	108.34	101.50
1	Ad	1395	C	C1'-O4'-C4'	-8.55	103.06	109.90
84	Aa	880	C	O4'-C1'-N1	8.54	115.04	108.20
84	Aa	3277	C	O4'-C1'-N1	8.54	115.04	108.20
1	Ad	118	U	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	3195	C	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	1919	C	O4'-C1'-N1	8.54	115.03	108.20
1	Ad	218	G	C1'-O4'-C4'	-8.54	103.07	109.90
84	Aa	2315	G	N1-C6-O6	8.54	125.02	119.90
84	Aa	2920	G	N1-C6-O6	8.54	125.02	119.90
86	Ab	104	C	O4'-C1'-N1	8.54	115.03	108.20
84	Aa	1711	G	N1-C6-O6	8.54	125.02	119.90
84	Aa	2045	G	N1-C6-O6	8.54	125.02	119.90
85	Ac	133	C	O4'-C1'-N1	8.54	115.03	108.20
86	Ab	99	G	C5-C6-O6	-8.54	123.48	128.60
1	Ad	220	C	N1-C1'-C2'	8.54	125.10	114.00
1	Ad	1128	C	C3'-C2'-C1'	8.53	108.33	101.50
84	Aa	1420	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1425	G	O4'-C1'-N9	8.53	115.03	108.20
84	Aa	1067	G	N1-C6-O6	8.53	125.02	119.90
84	Aa	1726	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1065	A	O4'-C1'-C2'	8.53	115.28	107.60
85	Ac	3	A	N1-C6-N6	8.53	123.72	118.60
84	Aa	1335	C	O4'-C1'-N1	8.53	115.02	108.20
84	Aa	1966	C	O4'-C1'-N1	8.53	115.02	108.20
84	Aa	2229	G	N1-C6-O6	8.53	125.02	119.90
1	Ad	1706	G	O4'-C1'-N9	8.53	115.02	108.20
86	Ab	55	A	C4-C5-C6	8.53	121.26	117.00
1	Ad	266	C	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	1751	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2417	G	N1-C6-O6	8.52	125.02	119.90
86	Ab	93	U	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	160	G	N1-C6-O6	8.52	125.01	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1118	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2916	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	2556	G	N1-C6-O6	8.52	125.01	119.90
1	Ad	1363	G	O4'-C1'-N9	8.52	115.01	108.20
84	Aa	179	G	N1-C6-O6	8.52	125.01	119.90
84	Aa	1771	G	N1-C6-O6	8.52	125.01	119.90
85	Ac	124	C	O4'-C1'-N1	8.52	115.02	108.20
84	Aa	557	C	O4'-C1'-N1	8.52	115.01	108.20
86	Ab	13	A	N1-C6-N6	8.52	123.71	118.60
1	Ad	386	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	187	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	876	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	1968	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2029	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	2038	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	2102	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2207	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	3252	G	N1-C6-O6	8.51	125.01	119.90
84	Aa	905	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	345	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	400	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1241	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1996	C	O4'-C1'-N1	8.51	115.01	108.20
84	Aa	2099	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	756	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	848	G	N1-C6-O6	8.51	125.00	119.90
84	Aa	1077	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	1242	U	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	1973	C	O4'-C1'-N1	8.51	115.00	108.20
84	Aa	3006	G	N1-C6-O6	8.51	125.00	119.90
1	Ad	1665	U	O4'-C1'-C2'	-8.50	97.30	105.80
84	Aa	1113	C	O4'-C1'-N1	8.50	115.00	108.20
84	Aa	1165	C	O4'-C1'-N1	8.50	115.00	108.20
84	Aa	1614	G	N1-C6-O6	8.50	125.00	119.90
85	Ac	47	U	O4'-C1'-N1	8.50	115.00	108.20
1	Ad	1131	G	O4'-C1'-N9	8.50	115.00	108.20
1	Ad	1729	A	O4'-C1'-N9	8.50	115.00	108.20
84	Aa	3089	G	N1-C6-O6	8.50	125.00	119.90
84	Aa	1491	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	2402	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	2563	G	N1-C6-O6	8.49	125.00	119.90
1	Ad	41	A	C1'-O4'-C4'	8.49	116.69	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	55	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	805	C	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2689	U	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2754	G	N1-C6-O6	8.49	125.00	119.90
84	Aa	1608	C	O4'-C1'-N1	8.49	114.99	108.20
84	Aa	2526	G	N1-C6-O6	8.49	124.99	119.90
84	Aa	778	G	N1-C6-O6	8.49	124.99	119.90
84	Aa	109	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	689	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2306	G	C5-C6-O6	-8.48	123.51	128.60
86	Ab	1	G	O4'-C1'-N9	8.48	114.99	108.20
1	Ad	599	G	O4'-C1'-N9	8.48	114.99	108.20
84	Aa	940	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2364	C	O4'-C1'-N1	8.48	114.99	108.20
84	Aa	1022	G	O4'-C1'-N9	8.48	114.98	108.20
84	Aa	2322	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2654	G	N1-C6-O6	8.48	124.99	119.90
1	Ad	968	A	C1'-O4'-C4'	8.48	116.68	109.90
84	Aa	619	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	1666	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	1895	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	1210	G	N1-C6-O6	8.48	124.99	119.90
84	Aa	2714	U	O4'-C1'-N1	8.48	114.98	108.20
85	Ac	141	C	O4'-C1'-N1	8.48	114.98	108.20
84	Aa	446	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	2025	C	O4'-C1'-N1	8.47	114.98	108.20
86	Ab	101	A	C4-C5-C6	8.47	121.24	117.00
1	Ad	782	G	C1'-O4'-C4'	-8.47	103.12	109.90
84	Aa	1186	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	3234	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	611	C	O4'-C1'-N1	8.47	114.98	108.20
84	Aa	2841	G	N1-C6-O6	8.47	124.98	119.90
85	Ac	16	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	1977	C	O4'-C1'-N1	8.47	114.97	108.20
84	Aa	2486	G	N1-C6-O6	8.47	124.98	119.90
1	Ad	902	C	O4'-C1'-C2'	-8.47	97.33	105.80
84	Aa	230	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	1997	G	N1-C6-O6	8.47	124.98	119.90
84	Aa	3109	G	N1-C6-O6	8.47	124.98	119.90
1	Ad	1380	A	O4'-C1'-N9	8.46	114.97	108.20
84	Aa	544	C	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	829	G	N1-C6-O6	8.46	124.98	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1519	C	O4'-C1'-N1	8.47	114.97	108.20
1	Ad	1724	U	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	256	G	N1-C6-O6	8.46	124.98	119.90
84	Aa	579	G	C5-C6-O6	-8.46	123.52	128.60
84	Aa	3090	C	O4'-C1'-N1	8.46	114.97	108.20
1	Ad	15	U	O4'-C1'-N1	8.46	114.97	108.20
84	Aa	195	G	N1-C6-O6	8.46	124.97	119.90
84	Aa	1665	G	N1-C6-O6	8.46	124.97	119.90
1	Ad	1646	G	C1'-O4'-C4'	-8.46	103.14	109.90
84	Aa	2642	G	N1-C6-O6	8.46	124.97	119.90
84	Aa	1318	C	O4'-C1'-N1	8.45	114.96	108.20
85	Ac	150	G	O4'-C1'-N9	8.46	114.96	108.20
1	Ad	839	G	P-O5'-C5'	8.45	134.42	120.90
1	Ad	1717	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	1408	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	20	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	1686	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2622	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	3100	C	P-O3'-C3'	8.45	129.84	119.70
84	Aa	1606	C	O4'-C1'-N1	8.45	114.96	108.20
1	Ad	328	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	144	A	C5-C6-N6	-8.45	116.94	123.70
84	Aa	221	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	707	G	N1-C6-O6	8.45	124.97	119.90
84	Aa	749	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	882	U	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2108	C	O4'-C1'-N1	8.45	114.96	108.20
84	Aa	2173	G	O4'-C1'-N9	8.45	114.96	108.20
1	Ad	1155	G	C1'-O4'-C4'	-8.44	103.14	109.90
84	Aa	3198	C	O4'-C1'-N1	8.44	114.95	108.20
84	Aa	2033	C	O4'-C1'-N1	8.44	114.95	108.20
84	Aa	2086	A	C4'-C3'-O3'	-8.44	91.68	109.40
84	Aa	612	U	P-O3'-C3'	8.44	129.82	119.70
84	Aa	1281	C	O4'-C1'-N1	8.44	114.95	108.20
1	Ad	1492	G	N9-C1'-C2'	-8.44	102.72	112.00
84	Aa	2821	U	O4'-C1'-N1	8.43	114.95	108.20
84	Aa	471	C	O4'-C1'-N1	8.43	114.94	108.20
84	Aa	275	G	C5-C6-O6	-8.43	123.54	128.60
84	Aa	2535	C	O4'-C1'-N1	8.43	114.94	108.20
84	Aa	639	A	P-O3'-C3'	8.43	129.81	119.70
84	Aa	2555	G	N1-C6-O6	8.43	124.96	119.90
84	Aa	3053	G	N1-C6-O6	8.42	124.95	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1634	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	2144	G	N1-C6-O6	8.42	124.95	119.90
85	Ac	144	C	O4'-C1'-N1	8.42	114.94	108.20
84	Aa	2940	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	102	G	N1-C6-O6	8.42	124.95	119.90
84	Aa	1444	G	N1-C6-O6	8.42	124.95	119.90
1	Ad	296	A	N9-C1'-C2'	8.41	124.93	114.00
1	Ad	513	G	O4'-C1'-N9	8.41	114.93	108.20
1	Ad	733	U	O4'-C1'-N1	8.41	114.93	108.20
84	Aa	24	C	O4'-C1'-N1	8.41	114.93	108.20
1	Ad	1744	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	88	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	919	G	N9-C1'-C2'	-8.40	102.76	112.00
1	Ad	1103	U	O4'-C1'-N1	8.40	114.92	108.20
84	Aa	244	G	O4'-C1'-N9	8.40	114.92	108.20
84	Aa	1984	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	1604	C	C3'-C2'-C1'	-8.40	94.78	101.50
84	Aa	52	G	N1-C6-O6	8.40	124.94	119.90
84	Aa	103	G	N1-C6-O6	8.40	124.94	119.90
84	Aa	1872	C	O4'-C1'-N1	8.40	114.92	108.20
84	Aa	1913	C	O4'-C1'-N1	8.40	114.92	108.20
1	Ad	407	G	O4'-C1'-N9	8.40	114.92	108.20
85	Ac	152	G	N1-C6-O6	8.40	124.94	119.90
1	Ad	224	C	O4'-C1'-N1	8.39	114.92	108.20
1	Ad	1593	U	C1'-O4'-C4'	-8.39	103.18	109.90
84	Aa	1150	G	N1-C6-O6	8.39	124.94	119.90
84	Aa	2299	C	O4'-C1'-N1	8.39	114.92	108.20
84	Aa	3350	C	O4'-C1'-N1	8.39	114.91	108.20
84	Aa	290	C	O4'-C1'-N1	8.39	114.91	108.20
1	Ad	1665	U	C1'-O4'-C4'	8.39	116.61	109.90
84	Aa	3203	G	N1-C6-O6	8.39	124.94	119.90
84	Aa	1415	G	C5-C6-O6	-8.39	123.57	128.60
84	Aa	1596	G	N1-C6-O6	8.39	124.93	119.90
1	Ad	164	C	N1-C1'-C2'	8.38	124.90	114.00
84	Aa	1562	A	C5'-C4'-C3'	8.38	129.42	116.00
84	Aa	2464	G	N1-C6-O6	8.38	124.93	119.90
1	Ad	1725	C	O4'-C1'-C2'	-8.38	97.42	105.80
84	Aa	1685	U	O4'-C1'-N1	8.38	114.91	108.20
84	Aa	3182	A	N1-C6-N6	8.38	123.63	118.60
84	Aa	1782	G	N1-C6-O6	8.38	124.93	119.90
84	Aa	3134	C	O4'-C1'-N1	8.38	114.90	108.20
1	Ad	571	A	O4'-C1'-N9	8.38	114.90	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2592	G	N1-C6-O6	8.38	124.93	119.90
1	Ad	1752	U	O4'-C1'-N1	8.38	114.90	108.20
84	Aa	1841	G	N1-C6-O6	8.38	124.93	119.90
86	Ab	23	A	C4-C5-C6	8.38	121.19	117.00
1	Ad	1466	A	C1'-O4'-C4'	-8.38	103.20	109.90
84	Aa	361	G	N1-C6-O6	8.38	124.93	119.90
84	Aa	305	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	437	C	O4'-C1'-N1	8.37	114.90	108.20
86	Ab	51	G	C5-C6-O6	-8.38	123.58	128.60
1	Ad	5	U	O4'-C1'-N1	8.37	114.90	108.20
84	Aa	1422	G	N1-C6-O6	8.37	124.92	119.90
1	Ad	409	C	N1-C1'-C2'	8.37	124.88	114.00
84	Aa	3167	G	N1-C6-O6	8.37	124.92	119.90
86	Ab	118	C	N3-C4-N4	8.37	123.86	118.00
1	Ad	291	G	O4'-C1'-N9	8.37	114.89	108.20
84	Aa	80	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	307	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2032	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2040	G	N1-C6-O6	8.37	124.92	119.90
1	Ad	67	G	C1'-O4'-C4'	-8.37	103.21	109.90
1	Ad	212	A	N9-C1'-C2'	8.37	124.87	114.00
1	Ad	1235	U	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	162	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	1042	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	1573	G	N1-C6-O6	8.37	124.92	119.90
84	Aa	2246	G	C5-C6-O6	-8.37	123.58	128.60
84	Aa	2911	C	O4'-C1'-N1	8.37	114.89	108.20
84	Aa	2154	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	3199	C	O4'-C1'-N1	8.37	114.89	108.20
1	Ad	249	G	N9-C1'-C2'	8.36	124.87	114.00
1	Ad	1622	A	C3'-C2'-C1'	-8.36	94.81	101.50
84	Aa	3054	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	3063	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	487	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	575	C	C4'-C3'-O3'	-8.36	91.85	109.40
84	Aa	2628	C	O4'-C1'-N1	8.36	114.89	108.20
84	Aa	1323	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	1632	G	N1-C6-O6	8.36	124.92	119.90
84	Aa	209	G	N1-C6-O6	8.36	124.91	119.90
84	Aa	433	C	O4'-C1'-N1	8.36	114.88	108.20
84	Aa	898	G	N1-C6-O6	8.35	124.91	119.90
1	Ad	570	C	N1-C1'-C2'	8.35	124.86	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	343	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	3046	C	O4'-C1'-N1	8.35	114.88	108.20
84	Aa	1241	G	O4'-C1'-N9	8.35	114.88	108.20
84	Aa	2000	C	O4'-C1'-N1	8.35	114.88	108.20
84	Aa	470	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	3317	G	C5-C6-O6	-8.35	123.59	128.60
84	Aa	3323	U	O4'-C1'-N1	8.35	114.88	108.20
1	Ad	1394	A	P-O3'-C3'	8.35	129.72	119.70
84	Aa	1628	G	N1-C6-O6	8.35	124.91	119.90
84	Aa	2597	C	O4'-C1'-N1	8.34	114.88	108.20
84	Aa	64	A	C5-C6-N6	-8.34	117.03	123.70
84	Aa	95	G	N1-C6-O6	8.34	124.91	119.90
84	Aa	2953	G	N1-C6-O6	8.34	124.91	119.90
84	Aa	516	C	O4'-C1'-N1	8.34	114.87	108.20
84	Aa	3068	U	O4'-C1'-N1	8.34	114.87	108.20
84	Aa	690	G	N1-C6-O6	8.34	124.90	119.90
84	Aa	3163	G	N1-C6-O6	8.34	124.90	119.90
1	Ad	1510	G	O4'-C1'-N9	8.34	114.87	108.20
2	Ae	31	C	C3'-C2'-C1'	8.34	108.17	101.50
84	Aa	835	G	N1-C6-O6	8.34	124.90	119.90
84	Aa	2511	U	C4'-C3'-O3'	-8.34	91.90	109.40
1	Ad	1321	C	N1-C1'-C2'	8.33	124.83	114.00
84	Aa	225	G	N1-C6-O6	8.33	124.90	119.90
84	Aa	2065	G	N1-C6-O6	8.33	124.90	119.90
85	Ac	118	C	O4'-C1'-N1	8.33	114.87	108.20
86	Ab	67	C	O4'-C1'-N1	8.33	114.87	108.20
84	Aa	1424	G	N1-C6-O6	8.33	124.90	119.90
84	Aa	165	C	O4'-C1'-N1	8.33	114.86	108.20
1	Ad	988	G	O4'-C1'-N9	8.33	114.86	108.20
84	Aa	902	U	O4'-C1'-N1	8.33	114.86	108.20
84	Aa	2163	G	O4'-C1'-N9	8.33	114.86	108.20
86	Ab	34	C	O4'-C1'-N1	8.33	114.86	108.20
84	Aa	704	G	C5-C6-O6	-8.32	123.61	128.60
84	Aa	872	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	2097	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	2786	G	N1-C6-O6	8.32	124.89	119.90
85	Ac	154	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	3205	C	O4'-C1'-N1	8.32	114.86	108.20
1	Ad	1784	G	O4'-C1'-N9	8.32	114.86	108.20
84	Aa	3226	G	P-O3'-C3'	8.32	129.69	119.70
1	Ad	358	C	C3'-C2'-C1'	8.32	108.16	101.50
1	Ad	834	A	C1'-O4'-C4'	8.32	116.56	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	443	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	448	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	1029	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	1571	A	O4'-C1'-N9	8.32	114.86	108.20
84	Aa	2621	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	3211	C	O4'-C1'-N1	8.32	114.86	108.20
1	Ad	597	U	O4'-C1'-N1	8.32	114.85	108.20
84	Aa	1014	G	N1-C6-O6	8.32	124.89	119.90
84	Aa	1418	C	O4'-C1'-N1	8.32	114.86	108.20
84	Aa	3179	G	C5-C6-O6	-8.32	123.61	128.60
84	Aa	2426	C	O4'-C1'-N1	8.32	114.85	108.20
84	Aa	3060	G	N1-C6-O6	8.32	124.89	119.90
85	Ac	124	C	P-O3'-C3'	8.32	129.68	119.70
84	Aa	1016	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	1741	G	C5-C6-O6	-8.31	123.61	128.60
84	Aa	2990	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3339	G	N1-C6-O6	8.31	124.89	119.90
86	Ab	31	G	C6-C5-N7	-8.31	125.41	130.40
1	Ad	962	G	O4'-C1'-N9	8.31	114.85	108.20
1	Ad	1599	C	C3'-C2'-C1'	8.31	108.15	101.50
84	Aa	1151	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	2297	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	827	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3126	U	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	733	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	1053	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	2124	G	N1-C6-O6	8.31	124.89	119.90
84	Aa	478	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	1989	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	2460	A	N1-C6-N6	8.31	123.58	118.60
84	Aa	2511	U	C2'-C3'-O3'	8.31	127.78	109.50
84	Aa	3176	C	O4'-C1'-N1	8.31	114.85	108.20
84	Aa	3276	G	N1-C6-O6	8.31	124.88	119.90
84	Aa	761	C	O4'-C1'-N1	8.31	114.84	108.20
85	Ac	151	G	C5-C6-O6	-8.31	123.62	128.60
1	Ad	1608	A	N9-C1'-C2'	8.30	124.80	114.00
84	Aa	10	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	832	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	1742	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	1864	G	N1-C6-O6	8.30	124.88	119.90
1	Ad	1045	G	O4'-C1'-N9	8.30	114.84	108.20
84	Aa	2049	C	O4'-C1'-N1	8.30	114.84	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2268	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	2623	G	C5-C6-O6	-8.30	123.62	128.60
84	Aa	2378	U	O4'-C1'-N1	8.30	114.84	108.20
85	Ac	30	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	40	G	N1-C6-O6	8.30	124.88	119.90
84	Aa	2328	C	O4'-C1'-N1	8.30	114.84	108.20
84	Aa	2940	G	O4'-C1'-N9	8.30	114.84	108.20
84	Aa	562	G	N1-C6-O6	8.29	124.88	119.90
84	Aa	585	A	O4'-C1'-N9	8.29	114.84	108.20
84	Aa	1612	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1824	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	2474	A	O4'-C1'-N9	8.29	114.83	108.20
84	Aa	2588	G	C5-C6-O6	-8.29	123.63	128.60
1	Ad	152	G	O4'-C1'-N9	8.29	114.83	108.20
84	Aa	369	G	N1-C6-O6	8.29	124.87	119.90
84	Aa	751	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1994	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	2546	C	O4'-C1'-N1	8.29	114.83	108.20
85	Ac	71	A	C5-C6-N6	-8.29	117.07	123.70
85	Ac	91	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	14	U	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	1552	C	O4'-C1'-N1	8.28	114.83	108.20
84	Aa	2864	U	O4'-C1'-N1	8.29	114.83	108.20
86	Ab	94	C	O4'-C1'-N1	8.29	114.83	108.20
84	Aa	3303	C	O4'-C1'-N1	8.28	114.83	108.20
85	Ac	138	G	N1-C6-O6	8.28	124.87	119.90
1	Ad	817	C	O4'-C1'-C2'	-8.28	97.52	105.80
1	Ad	1544	G	O4'-C1'-N9	8.28	114.83	108.20
84	Aa	2847	A	N1-C6-N6	8.28	123.57	118.60
84	Aa	3061	C	O4'-C1'-N1	8.28	114.83	108.20
84	Aa	3342	C	O4'-C1'-N1	8.28	114.83	108.20
85	Ac	126	A	O4'-C1'-N9	8.28	114.83	108.20
1	Ad	37	U	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	633	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2196	G	C5-C6-O6	-8.28	123.63	128.60
85	Ac	153	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	515	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	1081	U	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2076	C	P-O3'-C3'	8.28	129.63	119.70
84	Aa	2927	C	O4'-C1'-N1	8.28	114.82	108.20
84	Aa	2985	C	C2-N1-C1'	8.28	127.90	118.80
1	Ad	1445	C	C3'-C2'-C1'	8.27	108.12	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1757	G	N1-C6-O6	8.27	124.86	119.90
84	Aa	993	A	O4'-C1'-N9	8.27	114.82	108.20
84	Aa	1759	C	C2-N1-C1'	8.27	127.90	118.80
1	Ad	1758	G	C1'-O4'-C4'	-8.27	103.29	109.90
84	Aa	2059	C	O4'-C1'-N1	8.27	114.81	108.20
84	Aa	2501	U	O4'-C1'-N1	8.27	114.82	108.20
85	Ac	134	G	C5-C6-O6	-8.27	123.64	128.60
84	Aa	1331	C	O4'-C1'-N1	8.27	114.81	108.20
84	Aa	1732	G	N1-C6-O6	8.27	124.86	119.90
85	Ac	50	C	O4'-C1'-N1	8.27	114.81	108.20
1	Ad	450	A	O4'-C1'-C2'	-8.26	97.54	105.80
84	Aa	331	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	727	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	2046	G	N1-C6-O6	8.26	124.86	119.90
1	Ad	1032	A	N9-C1'-C2'	-8.26	102.91	112.00
84	Aa	1434	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	1495	G	N1-C6-O6	8.26	124.86	119.90
84	Aa	1706	C	O4'-C1'-N1	8.26	114.81	108.20
84	Aa	800	C	O4'-C1'-N1	8.26	114.81	108.20
84	Aa	3044	C	O4'-C1'-N1	8.26	114.81	108.20
1	Ad	509	A	O4'-C1'-C2'	-8.26	97.55	105.80
84	Aa	3187	C	O4'-C1'-N1	8.26	114.80	108.20
84	Aa	259	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1102	A	N1-C6-N6	8.25	123.55	118.60
84	Aa	592	U	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1245	U	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	2010	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	155	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	354	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1350	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	2814	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	101	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	147	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1449	A	O4'-C1'-N9	8.25	114.80	108.20
1	Ad	25	C	C3'-C2'-C1'	8.25	108.10	101.50
84	Aa	1656	C	O4'-C1'-N1	8.25	114.80	108.20
84	Aa	1930	G	N1-C6-O6	8.25	124.85	119.90
85	Ac	51	G	N1-C6-O6	8.25	124.85	119.90
84	Aa	1185	G	N1-C6-O6	8.24	124.85	119.90
84	Aa	1667	C	O4'-C1'-N1	8.24	114.79	108.20
84	Aa	3249	G	N1-C6-O6	8.24	124.84	119.90
1	Ad	615	U	O4'-C1'-N1	8.24	114.79	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1141	U	O4'-C1'-N1	8.24	114.79	108.20
1	Ad	1345	G	C1'-O4'-C4'	-8.24	103.31	109.90
84	Aa	1642	G	N1-C6-O6	8.24	124.84	119.90
84	Aa	1609	G	O4'-C1'-N9	8.23	114.79	108.20
84	Aa	1854	A	N1-C6-N6	8.23	123.54	118.60
84	Aa	9	C	O4'-C1'-N1	8.23	114.78	108.20
84	Aa	2028	C	O4'-C1'-N1	8.23	114.78	108.20
84	Aa	2393	G	N1-C6-O6	8.23	124.84	119.90
1	Ad	748	C	C3'-C2'-C1'	8.23	108.08	101.50
85	Ac	2	G	N1-C6-O6	8.23	124.84	119.90
84	Aa	1947	U	O4'-C1'-N1	8.22	114.78	108.20
85	Ac	103	G	N1-C6-O6	8.22	124.83	119.90
85	Ac	49	G	N1-C6-O6	8.22	124.83	119.90
85	Ac	58	G	N1-C6-O6	8.22	124.83	119.90
1	Ad	416	A	O4'-C1'-N9	8.22	114.78	108.20
84	Aa	2568	G	C5-C6-O6	-8.22	123.67	128.60
84	Aa	737	C	O4'-C1'-N1	8.22	114.77	108.20
84	Aa	1856	G	C5-C6-O6	-8.22	123.67	128.60
84	Aa	2093	G	O4'-C1'-N9	8.22	114.77	108.20
1	Ad	1664	U	P-O3'-C3'	8.22	129.56	119.70
84	Aa	505	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	960	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1414	C	O4'-C1'-N1	8.21	114.77	108.20
1	Ad	6	G	O4'-C1'-N9	8.21	114.77	108.20
1	Ad	84	G	O4'-C1'-N9	8.21	114.77	108.20
1	Ad	277	G	C3'-C2'-C1'	8.21	108.07	101.50
1	Ad	1301	G	N9-C1'-C2'	-8.21	102.97	112.00
1	Ad	1774	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	201	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	398	G	C5-C6-O6	-8.21	123.67	128.60
84	Aa	655	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	1636	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1659	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	2103	U	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	3210	G	O4'-C1'-N9	8.21	114.77	108.20
84	Aa	3319	G	N1-C6-O6	8.21	124.83	119.90
84	Aa	558	G	N1-C6-O6	8.21	124.83	119.90
85	Ac	45	C	O4'-C1'-N1	8.21	114.77	108.20
1	Ad	373	U	O4'-C1'-N1	8.21	114.76	108.20
1	Ad	1069	G	O4'-C1'-N9	8.21	114.76	108.20
84	Aa	549	G	C5-C6-O6	-8.21	123.68	128.60
84	Aa	569	C	O4'-C1'-N1	8.21	114.77	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2908	C	O4'-C1'-N1	8.21	114.77	108.20
84	Aa	1112	C	O4'-C1'-N1	8.20	114.76	108.20
86	Ab	104	C	N3-C4-N4	8.20	123.74	118.00
18	BN	128	TYR	CB-CG-CD1	-8.20	116.08	121.00
84	Aa	1784	C	O4'-C1'-N1	8.20	114.76	108.20
3	Af	13	A	O4'-C1'-N9	8.20	114.76	108.20
84	Aa	218	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	1075	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	1660	C	O4'-C1'-N1	8.20	114.76	108.20
84	Aa	1963	G	N1-C6-O6	8.20	124.82	119.90
1	Ad	244	C	O4'-C1'-N1	8.20	114.76	108.20
1	Ad	492	G	P-O5'-C5'	8.20	134.01	120.90
84	Aa	91	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	2041	G	N1-C6-O6	8.20	124.82	119.90
84	Aa	2450	G	N1-C6-O6	8.19	124.82	119.90
85	Ac	65	G	C5-C6-O6	-8.19	123.68	128.60
1	Ad	366	G	O4'-C1'-N9	8.19	114.75	108.20
84	Aa	164	C	O4'-C1'-N1	8.19	114.75	108.20
84	Aa	532	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	1369	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	3387	U	O4'-C1'-N1	8.19	114.75	108.20
86	Ab	2	G	N1-C6-O6	8.19	124.82	119.90
86	Ab	7	G	N1-C6-O6	8.19	124.82	119.90
84	Aa	1378	G	N1-C6-O6	8.19	124.81	119.90
1	Ad	1731	A	C3'-C2'-C1'	8.19	108.05	101.50
84	Aa	267	G	N1-C6-O6	8.19	124.81	119.90
84	Aa	2857	U	O4'-C1'-N1	8.19	114.75	108.20
2	Ae	57	A	O4'-C1'-N9	8.19	114.75	108.20
84	Aa	523	C	O4'-C1'-N1	8.19	114.75	108.20
84	Aa	2342	C	O4'-C1'-N1	8.18	114.75	108.20
84	Aa	3324	U	O4'-C1'-N1	8.18	114.75	108.20
1	Ad	324	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	536	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	641	C	C5'-C4'-C3'	8.18	129.09	116.00
84	Aa	744	C	O4'-C1'-N1	8.18	114.75	108.20
84	Aa	2816	G	N1-C6-O6	8.18	124.81	119.90
86	Ab	8	A	C4-C5-C6	8.18	121.09	117.00
86	Ab	75	G	N1-C6-O6	8.18	124.81	119.90
84	Aa	1735	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	1972	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	3207	C	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	3239	G	N1-C6-O6	8.18	124.81	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	75	U	O4'-C1'-N1	8.18	114.74	108.20
84	Aa	1346	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	1566	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	2019	G	N1-C6-O6	8.17	124.80	119.90
84	Aa	2388	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	3118	C	O4'-C1'-N1	8.17	114.74	108.20
84	Aa	2183	A	C5-C6-N1	-8.17	113.61	117.70
84	Aa	2187	C	O4'-C1'-N1	8.17	114.74	108.20
1	Ad	1127	G	N9-C1'-C2'	-8.17	103.01	112.00
84	Aa	1889	G	C5-C6-O6	-8.17	123.70	128.60
1	Ad	532	U	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	2891	C	O4'-C1'-N1	8.17	114.73	108.20
2	Ae	3	C	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	946	U	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	1965	C	O4'-C1'-N1	8.17	114.73	108.20
84	Aa	2222	C	O4'-C1'-N1	8.17	114.73	108.20
86	Ab	67	C	C5-C4-N4	-8.17	114.48	120.20
84	Aa	1284	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	2332	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	98	A	O4'-C1'-N9	8.16	114.73	108.20
84	Aa	140	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	684	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	1038	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	642	C	C5'-C4'-C3'	8.16	129.05	116.00
84	Aa	1156	A	N1-C6-N6	8.16	123.50	118.60
84	Aa	2003	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	588	G	N1-C6-O6	8.16	124.79	119.90
84	Aa	1690	C	O4'-C1'-N1	8.16	114.73	108.20
84	Aa	2869	C	O4'-C1'-N1	8.16	114.72	108.20
84	Aa	3263	C	P-O5'-C5'	8.16	133.95	120.90
1	Ad	73	A	O4'-C1'-N9	8.15	114.72	108.20
84	Aa	1096	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1259	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	2148	U	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	2672	C	O4'-C1'-N1	8.15	114.72	108.20
1	Ad	1072	U	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	582	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1959	U	P-O5'-C5'	-8.15	107.86	120.90
84	Aa	2569	G	N1-C6-O6	8.15	124.79	119.90
1	Ad	617	G	N9-C1'-C2'	8.15	124.59	114.00
84	Aa	1174	G	N1-C6-O6	8.15	124.79	119.90
84	Aa	1848	G	N1-C6-O6	8.15	124.79	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	131	C	O4'-C1'-N1	8.15	114.72	108.20
84	Aa	1695	C	N3-C4-C5	-8.15	118.64	121.90
84	Aa	3192	G	N1-C6-O6	8.14	124.79	119.90
86	Ab	11	A	C5-C6-N6	-8.14	117.18	123.70
1	Ad	481	A	O4'-C1'-N9	8.14	114.71	108.20
84	Aa	3004	G	N1-C6-O6	8.14	124.78	119.90
1	Ad	1047	G	O4'-C1'-N9	8.14	114.71	108.20
84	Aa	913	G	N1-C6-O6	8.14	124.78	119.90
84	Aa	1962	C	O4'-C1'-N1	8.14	114.71	108.20
1	Ad	189	U	P-O3'-C3'	8.14	129.46	119.70
1	Ad	836	U	N1-C1'-C2'	8.13	124.58	114.00
84	Aa	3216	G	N1-C6-O6	8.14	124.78	119.90
85	Ac	94	C	O4'-C1'-N1	8.13	114.71	108.20
84	Aa	520	G	N1-C6-O6	8.13	124.78	119.90
84	Aa	2241	G	N1-C6-O6	8.13	124.78	119.90
84	Aa	2402	G	P-O3'-C3'	8.13	129.46	119.70
84	Aa	2588	G	O4'-C1'-N9	8.13	114.70	108.20
84	Aa	2807	G	N1-C6-O6	8.13	124.78	119.90
1	Ad	903	A	N9-C1'-C2'	-8.13	103.06	112.00
86	Ab	69	A	C5-C6-N1	-8.13	113.64	117.70
84	Aa	777	G	N1-C6-O6	8.12	124.77	119.90
84	Aa	3184	G	N1-C6-O6	8.12	124.77	119.90
86	Ab	100	A	C5-C6-N1	-8.12	113.64	117.70
1	Ad	1711	G	O4'-C1'-N9	8.12	114.70	108.20
84	Aa	631	C	O4'-C1'-N1	8.12	114.70	108.20
84	Aa	1448	U	O4'-C1'-N1	8.12	114.70	108.20
84	Aa	3316	C	O4'-C1'-N1	8.12	114.70	108.20
86	Ab	72	G	O4'-C1'-N9	8.12	114.70	108.20
1	Ad	913	U	O4'-C1'-N1	8.12	114.69	108.20
84	Aa	1522	G	N1-C6-O6	8.12	124.77	119.90
85	Ac	1	C	O4'-C1'-N1	8.12	114.70	108.20
1	Ad	1139	C	C3'-C2'-C1'	8.12	107.99	101.50
84	Aa	621	C	O4'-C1'-N1	8.12	114.69	108.20
84	Aa	710	C	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	570	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	1615	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	278	U	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	1672	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	2484	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	3082	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	3365	U	O4'-C1'-N1	8.11	114.69	108.20
1	Ad	193	G	C1'-O4'-C4'	-8.11	103.41	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2880	G	N1-C6-O6	8.11	124.77	119.90
84	Aa	2161	G	N1-C6-O6	8.11	124.76	119.90
84	Aa	2380	G	N1-C6-O6	8.11	124.76	119.90
84	Aa	2734	C	O4'-C1'-N1	8.11	114.69	108.20
84	Aa	2838	C	C2-N1-C1'	8.11	127.72	118.80
84	Aa	1969	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	204	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	3138	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	1240	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	1453	G	N1-C6-O6	8.10	124.76	119.90
84	Aa	2615	U	O4'-C1'-N1	8.10	114.68	108.20
1	Ad	158	C	C1'-O4'-C4'	-8.10	103.42	109.90
1	Ad	1062	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	404	G	N1-C6-O6	8.10	124.76	119.90
86	Ab	82	G	C4-C5-C6	8.10	123.66	118.80
1	Ad	254	A	N9-C1'-C2'	8.10	124.53	114.00
84	Aa	3278	G	C5-C6-O6	-8.10	123.74	128.60
1	Ad	452	C	O4'-C1'-N1	8.10	114.68	108.20
84	Aa	2688	G	N1-C6-O6	8.10	124.76	119.90
1	Ad	617	G	C1'-O4'-C4'	-8.09	103.42	109.90
1	Ad	1513	A	O4'-C1'-N9	8.09	114.67	108.20
84	Aa	781	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2753	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	3375	G	C5-C6-O6	-8.09	123.74	128.60
84	Aa	415	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	596	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	643	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	1609	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	2026	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2585	C	O4'-C1'-N1	8.09	114.67	108.20
1	Ad	393	G	C1'-O4'-C4'	-8.09	103.43	109.90
84	Aa	251	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	511	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	1827	U	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2826	G	N1-C6-O6	8.09	124.75	119.90
84	Aa	2687	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2837	C	O4'-C1'-N1	8.09	114.67	108.20
84	Aa	2913	A	N1-C6-N6	8.09	123.45	118.60
85	Ac	9	G	N1-C6-O6	8.09	124.75	119.90
1	Ad	765	U	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	260	U	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	1261	C	N3-C4-N4	8.08	123.66	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	746	C	C5'-C4'-O4'	8.08	118.80	109.10
84	Aa	977	G	N1-C6-O6	8.08	124.75	119.90
1	Ad	8	U	O4'-C1'-N1	8.08	114.66	108.20
1	Ad	1080	C	N1-C1'-C2'	8.08	124.50	114.00
84	Aa	442	C	O4'-C1'-N1	8.08	114.66	108.20
84	Aa	645	C	O4'-C1'-N1	8.08	114.67	108.20
84	Aa	2324	G	N1-C6-O6	8.08	124.75	119.90
84	Aa	3269	C	O4'-C1'-N1	8.08	114.66	108.20
86	Ab	66	G	C4-C5-C6	8.08	123.65	118.80
84	Aa	2408	G	N1-C6-O6	8.08	124.75	119.90
1	Ad	231	U	O4'-C1'-N1	8.07	114.66	108.20
1	Ad	1721	A	O4'-C1'-N9	8.07	114.66	108.20
84	Aa	233	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	1173	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	2123	C	O4'-C1'-N1	8.07	114.66	108.20
1	Ad	1588	C	N1-C1'-C2'	8.07	124.49	114.00
1	Ad	1685	U	C1'-O4'-C4'	-8.07	103.44	109.90
84	Aa	504	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	565	C	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	621	C	C2-N1-C1'	8.07	127.68	118.80
84	Aa	701	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	1603	U	O4'-C1'-N1	8.07	114.66	108.20
84	Aa	717	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	1878	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	2117	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	31	U	O4'-C1'-N1	8.07	114.65	108.20
84	Aa	1734	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	2987	C	O4'-C1'-N1	8.07	114.66	108.20
85	Ac	123	G	N1-C6-O6	8.07	124.74	119.90
84	Aa	335	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	461	A	C4'-C3'-O3'	8.06	129.13	113.00
84	Aa	597	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	788	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	1209	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	337	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	911	G	C5-C6-O6	-8.06	123.76	128.60
84	Aa	3189	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	298	G	N1-C6-O6	8.06	124.74	119.90
84	Aa	436	G	C5-C6-O6	-8.06	123.76	128.60
84	Aa	419	G	N1-C6-O6	8.06	124.73	119.90
84	Aa	3158	C	O4'-C1'-N1	8.06	114.65	108.20
1	Ad	840	U	O4'-C1'-N1	8.06	114.64	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	735	C	O4'-C1'-N1	8.06	114.65	108.20
84	Aa	2713	G	N1-C6-O6	8.06	124.73	119.90
84	Aa	495	G	N1-C6-O6	8.05	124.73	119.90
84	Aa	2614	U	O4'-C1'-N1	8.05	114.64	108.20
84	Aa	571	G	N1-C6-O6	8.05	124.73	119.90
84	Aa	2191	C	O4'-C1'-N1	8.05	114.64	108.20
1	Ad	1049	U	O4'-C1'-N1	8.05	114.64	108.20
1	Ad	1496	A	P-O3'-C3'	8.05	129.36	119.70
1	Ad	1521	G	O4'-C1'-N9	8.05	114.64	108.20
84	Aa	1714	A	P-O3'-C3'	8.05	129.36	119.70
1	Ad	238	G	C3'-C2'-C1'	8.05	107.94	101.50
84	Aa	3183	G	P-O5'-C5'	8.05	133.77	120.90
1	Ad	1482	U	O4'-C1'-N1	8.04	114.64	108.20
84	Aa	400	G	C5-C6-O6	-8.04	123.77	128.60
84	Aa	519	C	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	3086	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	3145	G	N1-C6-O6	8.04	124.72	119.90
1	Ad	288	G	C1'-O4'-C4'	-8.04	103.47	109.90
84	Aa	138	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	961	C	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	1311	G	O4'-C1'-N9	8.04	114.63	108.20
84	Aa	1345	U	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	2551	U	O4'-C1'-N1	8.04	114.63	108.20
84	Aa	1068	A	P-O3'-C3'	8.03	129.34	119.70
84	Aa	1087	G	N1-C6-O6	8.04	124.72	119.90
84	Aa	2278	G	C5-C6-O6	-8.04	123.78	128.60
84	Aa	3154	G	N1-C6-O6	8.04	124.72	119.90
85	Ac	57	C	O4'-C1'-N1	8.03	114.63	108.20
1	Ad	468	A	N9-C1'-C2'	-8.03	103.16	112.00
84	Aa	1725	G	O4'-C1'-N9	8.03	114.63	108.20
84	Aa	2711	U	O4'-C1'-N1	8.03	114.63	108.20
84	Aa	2941	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	1733	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	2329	C	O4'-C1'-N1	8.03	114.62	108.20
85	Ac	154	G	O4'-C1'-N9	8.03	114.62	108.20
84	Aa	1579	C	O4'-C1'-N1	8.03	114.62	108.20
84	Aa	1646	U	O4'-C1'-N1	8.03	114.62	108.20
1	Ad	619	A	O4'-C1'-N9	8.03	114.62	108.20
1	Ad	1260	A	N9-C1'-C2'	8.03	124.44	114.00
1	Ad	1499	U	O4'-C1'-N1	8.03	114.62	108.20
84	Aa	1217	G	C5-C6-O6	-8.03	123.78	128.60
84	Aa	2363	G	C5-C6-O6	-8.03	123.78	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2919	G	C5-C6-O6	-8.03	123.78	128.60
85	Ac	66	G	N1-C6-O6	8.03	124.72	119.90
84	Aa	1961	C	O4'-C1'-N1	8.02	114.62	108.20
1	Ad	1571	G	O4'-C1'-N9	8.02	114.62	108.20
84	Aa	174	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	281	G	C5-C6-O6	-8.02	123.79	128.60
84	Aa	1071	G	N1-C6-O6	8.02	124.71	119.90
1	Ad	1434	G	C1'-O4'-C4'	-8.02	103.48	109.90
84	Aa	2233	G	N1-C6-O6	8.02	124.71	119.90
1	Ad	9	U	O4'-C1'-N1	8.02	114.61	108.20
1	Ad	928	A	O4'-C1'-N9	8.02	114.61	108.20
84	Aa	492	G	C5'-C4'-O4'	8.02	118.72	109.10
84	Aa	533	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	2848	U	O4'-C1'-N1	8.02	114.61	108.20
85	Ac	132	C	O4'-C1'-N1	8.02	114.61	108.20
1	Ad	808	G	O4'-C1'-N9	8.02	114.61	108.20
84	Aa	795	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	2243	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	2579	G	N1-C6-O6	8.02	124.71	119.90
84	Aa	3256	C	O4'-C1'-N1	8.02	114.61	108.20
84	Aa	1775	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1908	C	O4'-C1'-N1	8.01	114.61	108.20
1	Ad	98	C	N1-C1'-C2'	8.01	124.42	114.00
84	Aa	2513	U	C5'-C4'-O4'	-8.01	99.49	109.10
84	Aa	2843	G	N1-C6-O6	8.01	124.71	119.90
84	Aa	412	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1327	G	N1-C6-O6	8.01	124.71	119.90
84	Aa	250	C	O4'-C1'-N1	8.01	114.61	108.20
84	Aa	1383	G	O4'-C1'-N9	8.01	114.61	108.20
84	Aa	1649	G	C5-C6-O6	-8.01	123.80	128.60
84	Aa	2359	C	O4'-C1'-N1	8.01	114.61	108.20
1	Ad	1472	G	C1'-O4'-C4'	-8.01	103.50	109.90
84	Aa	2850	G	C5-C6-O6	-8.01	123.80	128.60
84	Aa	127	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	49	U	O4'-C1'-N1	8.00	114.60	108.20
1	Ad	954	C	C1'-O4'-C4'	-8.00	103.50	109.90
84	Aa	63	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	1821	G	N1-C6-O6	8.00	124.70	119.90
84	Aa	2549	C	O4'-C1'-N1	8.00	114.60	108.20
86	Ab	119	C	N3-C4-C5	-8.00	118.70	121.90
1	Ad	19	A	O4'-C1'-N9	8.00	114.60	108.20
84	Aa	1035	C	O4'-C1'-N1	8.00	114.60	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1923	G	C5-C6-O6	-8.00	123.80	128.60
86	Ab	19	A	O4'-C1'-N9	7.99	114.59	108.20
1	Ad	945	A	O4'-C1'-N9	7.99	114.59	108.20
84	Aa	1110	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	1338	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	1787	C	O4'-C1'-N1	7.99	114.59	108.20
84	Aa	2086	A	O4'-C1'-N9	7.99	114.59	108.20
84	Aa	801	G	N1-C6-O6	7.99	124.69	119.90
1	Ad	89	U	O4'-C1'-N1	7.99	114.59	108.20
1	Ad	1576	C	C1'-O4'-C4'	7.99	116.29	109.90
1	Ad	1263	C	N1-C1'-C2'	7.98	124.38	114.00
84	Aa	694	U	O4'-C1'-N1	7.98	114.59	108.20
84	Aa	852	C	O4'-C1'-N1	7.98	114.59	108.20
84	Aa	161	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	750	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	1647	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	2015	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	2873	G	C5-C6-O6	-7.98	123.81	128.60
84	Aa	1033	G	N1-C6-O6	7.98	124.69	119.90
84	Aa	1080	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1194	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1293	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	1362	C	O4'-C1'-N1	7.98	114.58	108.20
84	Aa	712	A	N1-C6-N6	7.98	123.39	118.60
84	Aa	967	G	C5-C6-O6	-7.97	123.81	128.60
84	Aa	1111	U	O4'-C1'-N1	7.97	114.58	108.20
1	Ad	1011	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	1511	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	2625	C	O4'-C1'-N1	7.97	114.58	108.20
84	Aa	3132	U	O4'-C1'-N1	7.97	114.58	108.20
85	Ac	97	G	C5-C6-O6	-7.97	123.82	128.60
1	Ad	14	C	N1-C1'-C2'	7.97	124.36	114.00
84	Aa	2061	C	O4'-C1'-N1	7.97	114.57	108.20
84	Aa	3032	G	C5-C6-O6	-7.97	123.82	128.60
84	Aa	1743	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	1752	C	O4'-C1'-N1	7.96	114.57	108.20
1	Ad	1653	G	O4'-C1'-N9	7.96	114.57	108.20
1	Ad	1766	A	C1'-O4'-C4'	7.96	116.27	109.90
1	Ad	1202	G	C1'-O4'-C4'	-7.96	103.53	109.90
84	Aa	1383	G	C5-C6-O6	-7.96	123.82	128.60
84	Aa	2759	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	1796	A	C5-C6-N6	-7.96	117.33	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	137	G	N1-C6-O6	7.96	124.68	119.90
1	Ad	1731	A	O4'-C1'-C2'	-7.96	97.84	105.80
84	Aa	1486	G	C5-C6-O6	-7.96	123.83	128.60
84	Aa	2499	U	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	604	C	O4'-C1'-N1	7.96	114.57	108.20
84	Aa	3020	C	O4'-C1'-N1	7.96	114.56	108.20
84	Aa	1160	G	N1-C6-O6	7.96	124.67	119.90
84	Aa	1983	U	O4'-C1'-N1	7.96	114.56	108.20
84	Aa	2618	G	N1-C6-O6	7.96	124.67	119.90
84	Aa	952	C	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	3197	C	O4'-C1'-N1	7.95	114.56	108.20
85	Ac	116	G	N1-C6-O6	7.95	124.67	119.90
84	Aa	2419	C	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	2715	U	O4'-C1'-N1	7.95	114.56	108.20
84	Aa	1549	A	N1-C6-N6	7.95	123.37	118.60
84	Aa	878	G	C5-C6-O6	-7.95	123.83	128.60
84	Aa	2272	C	O4'-C1'-N1	7.95	114.56	108.20
80	Cf	107	TYR	CB-CG-CD2	-7.94	116.23	121.00
84	Aa	2581	C	O4'-C1'-N1	7.94	114.56	108.20
84	Aa	3269	C	C2-N1-C1'	7.94	127.54	118.80
84	Aa	1901	G	C5-C6-O6	-7.94	123.83	128.60
84	Aa	2225	C	O4'-C1'-N1	7.94	114.55	108.20
84	Aa	3111	C	O4'-C1'-N1	7.94	114.55	108.20
1	Ad	1194	C	O4'-C1'-C2'	-7.94	97.86	105.80
1	Ad	269	A	O4'-C1'-N9	7.94	114.55	108.20
41	CA	69	TYR	N-CA-CB	7.94	124.89	110.60
84	Aa	3244	G	C5-C6-O6	-7.94	123.84	128.60
84	Aa	603	G	O4'-C1'-N9	7.94	114.55	108.20
84	Aa	1070	G	N1-C6-O6	7.94	124.66	119.90
84	Aa	1390	G	O4'-C1'-N9	7.94	114.55	108.20
84	Aa	3385	G	N1-C6-O6	7.94	124.66	119.90
84	Aa	604	C	N3-C4-C5	-7.93	118.73	121.90
84	Aa	2260	C	O4'-C1'-N1	7.93	114.55	108.20
84	Aa	3031	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	2952	G	N1-C6-O6	7.93	124.66	119.90
1	Ad	937	A	C1'-O4'-C4'	7.93	116.24	109.90
84	Aa	822	U	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	1352	G	C5-C6-O6	-7.93	123.84	128.60
84	Aa	1648	C	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	3214	U	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	2833	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	347	A	N1-C6-N6	7.93	123.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	676	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	1853	C	O4'-C1'-N1	7.93	114.54	108.20
84	Aa	2092	C	O4'-C4'-C3'	-7.93	96.07	104.00
84	Aa	2975	G	N1-C6-O6	7.93	124.66	119.90
84	Aa	3019	C	O4'-C1'-N1	7.93	114.54	108.20
86	Ab	48	G	N1-C6-O6	7.93	124.66	119.90
1	Ad	1113	G	O4'-C1'-C2'	7.92	114.73	107.60
84	Aa	580	C	P-O3'-C3'	7.92	129.21	119.70
84	Aa	1306	A	O4'-C1'-N9	7.92	114.54	108.20
84	Aa	1700	U	O4'-C1'-N1	7.92	114.54	108.20
84	Aa	2064	C	O4'-C1'-N1	7.92	114.54	108.20
84	Aa	2491	A	P-O3'-C3'	7.92	129.21	119.70
84	Aa	2523	G	C5-C6-O6	-7.92	123.85	128.60
84	Aa	3143	A	C5-C6-N6	-7.92	117.36	123.70
84	Aa	2177	U	N1-C1'-C2'	7.92	124.30	114.00
84	Aa	2531	G	N1-C6-O6	7.92	124.65	119.90
84	Aa	3223	C	O4'-C1'-N1	7.92	114.54	108.20
86	Ab	14	C	C5-C6-N1	7.92	124.96	121.00
86	Ab	44	C	C2-N3-C4	7.92	123.86	119.90
1	Ad	1056	A	O4'-C1'-N9	7.92	114.53	108.20
84	Aa	32	G	C5-C6-O6	-7.92	123.85	128.60
1	Ad	281	U	C3'-C2'-C1'	-7.92	95.17	101.50
84	Aa	311	G	N1-C6-O6	7.92	124.65	119.90
85	Ac	93	U	O4'-C1'-N1	7.92	114.53	108.20
1	Ad	821	G	C3'-C2'-C1'	7.91	107.83	101.50
84	Aa	75	G	N1-C6-O6	7.91	124.65	119.90
84	Aa	3119	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	4	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	489	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2463	U	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2992	G	C5-C6-O6	-7.91	123.85	128.60
1	Ad	1568	U	C1'-O4'-C4'	7.91	116.23	109.90
84	Aa	182	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2008	G	N1-C6-O6	7.91	124.64	119.90
84	Aa	2321	C	O4'-C1'-N1	7.91	114.53	108.20
84	Aa	2866	A	N1-C6-N6	7.91	123.34	118.60
84	Aa	205	C	O4'-C1'-N1	7.91	114.53	108.20
1	Ad	183	C	N1-C1'-C2'	7.90	124.27	114.00
1	Ad	1128	C	P-O5'-C5'	7.90	133.54	120.90
84	Aa	3	G	N1-C6-O6	7.90	124.64	119.90
84	Aa	1707	C	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	2167	G	C5'-C4'-C3'	7.90	128.65	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	339	G	C1'-O4'-C4'	-7.90	103.58	109.90
84	Aa	1108	U	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	1320	G	C5-C6-O6	-7.90	123.86	128.60
1	Ad	96	G	N9-C1'-C2'	7.90	124.27	114.00
1	Ad	1218	U	C1'-O4'-C4'	7.90	116.22	109.90
84	Aa	1580	C	O4'-C1'-N1	7.90	114.52	108.20
84	Aa	2851	C	O4'-C1'-N1	7.90	114.52	108.20
1	Ad	321	C	C3'-C2'-C1'	7.90	107.82	101.50
1	Ad	369	G	O4'-C1'-C2'	-7.90	97.90	105.80
84	Aa	3232	C	O4'-C1'-N1	7.90	114.52	108.20
1	Ad	834	A	O4'-C1'-C2'	-7.89	97.91	105.80
84	Aa	54	G	N1-C6-O6	7.89	124.64	119.90
1	Ad	565	G	O4'-C1'-N9	7.89	114.51	108.20
1	Ad	1594	A	O4'-C1'-C2'	-7.89	97.91	105.80
84	Aa	191	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	521	G	C5-C6-O6	-7.89	123.86	128.60
84	Aa	1131	U	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	1197	A	O4'-C1'-N9	7.89	114.51	108.20
84	Aa	1613	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	2494	A	C5-C6-N6	-7.89	117.39	123.70
84	Aa	3373	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	285	G	C5-C6-O6	-7.89	123.86	128.60
84	Aa	1287	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	500	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	1328	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	3289	U	O4'-C1'-N1	7.89	114.51	108.20
1	Ad	825	U	O4'-C1'-N1	7.89	114.51	108.20
1	Ad	1205	G	N9-C1'-C2'	-7.89	103.33	112.00
1	Ad	1755	G	O4'-C1'-N9	7.89	114.51	108.20
84	Aa	2037	C	O4'-C1'-N1	7.89	114.51	108.20
84	Aa	3283	G	N1-C6-O6	7.89	124.63	119.90
1	Ad	535	C	C3'-C2'-C1'	7.88	107.81	101.50
84	Aa	543	C	C2'-C3'-O3'	7.88	126.85	109.50
84	Aa	587	A	C4-C5-C6	7.88	120.94	117.00
1	Ad	176	A	N9-C1'-C2'	-7.88	103.33	112.00
84	Aa	743	C	O4'-C1'-N1	7.88	114.50	108.20
84	Aa	1722	G	P-O3'-C3'	7.88	129.16	119.70
84	Aa	2534	G	N1-C6-O6	7.88	124.63	119.90
84	Aa	2870	U	O4'-C1'-N1	7.88	114.51	108.20
84	Aa	458	G	N1-C6-O6	7.88	124.63	119.90
1	Ad	743	G	O4'-C1'-C2'	-7.88	97.92	105.80
84	Aa	1246	G	N1-C6-O6	7.88	124.63	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	275	C	O4'-C1'-N1	7.88	114.50	108.20
84	Aa	640	C	C6-N1-C2	-7.88	117.15	120.30
84	Aa	856	G	N1-C6-O6	7.88	124.63	119.90
84	Aa	3246	U	O4'-C1'-N1	7.88	114.50	108.20
1	Ad	1397	A	C1'-O4'-C4'	-7.87	103.60	109.90
84	Aa	2773	G	N1-C6-O6	7.87	124.62	119.90
84	Aa	2997	C	O4'-C1'-N1	7.87	114.50	108.20
84	Aa	1017	G	C5-C6-O6	-7.87	123.88	128.60
84	Aa	1364	C	O4'-C1'-N1	7.87	114.50	108.20
84	Aa	2643	A	N1-C6-N6	7.87	123.32	118.60
84	Aa	3213	A	O4'-C1'-N9	7.87	114.50	108.20
1	Ad	14	C	C1'-O4'-C4'	-7.87	103.60	109.90
1	Ad	1096	A	C1'-O4'-C4'	-7.87	103.60	109.90
84	Aa	244	G	N1-C6-O6	7.87	124.62	119.90
84	Aa	334	A	C5-C6-N1	-7.87	113.77	117.70
84	Aa	1574	C	O4'-C1'-N1	7.87	114.49	108.20
84	Aa	2906	U	O4'-C1'-N1	7.87	114.49	108.20
2	Ae	74	C	P-O3'-C3'	7.87	129.14	119.70
84	Aa	391	U	O4'-C1'-N1	7.87	114.49	108.20
84	Aa	912	G	N1-C6-O6	7.87	124.62	119.90
1	Ad	214	A	C1'-O4'-C4'	7.86	116.19	109.90
1	Ad	1041	A	N9-C1'-C2'	-7.86	103.35	112.00
1	Ad	1645	C	O4'-C1'-C2'	-7.86	97.94	105.80
84	Aa	2859	C	O4'-C1'-N1	7.86	114.49	108.20
85	Ac	19	A	N1-C6-N6	7.86	123.32	118.60
1	Ad	784	C	C3'-C2'-C1'	-7.86	95.21	101.50
84	Aa	227	C	O4'-C1'-N1	7.86	114.49	108.20
84	Aa	584	G	P-O3'-C3'	7.86	129.13	119.70
84	Aa	1162	A	O4'-C1'-N9	7.86	114.49	108.20
84	Aa	1976	U	O4'-C1'-N1	7.86	114.49	108.20
84	Aa	1530	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2145	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2895	G	N1-C6-O6	7.86	124.61	119.90
84	Aa	3341	C	O4'-C1'-N1	7.86	114.48	108.20
84	Aa	2143	A	C5-C6-N6	-7.85	117.42	123.70
84	Aa	1382	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	1939	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2391	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	3200	A	P-O3'-C3'	7.85	129.12	119.70
85	Ac	95	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	985	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2354	G	C5-C6-O6	-7.85	123.89	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	628	G	O4'-C1'-N9	7.85	114.48	108.20
84	Aa	559	U	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	767	U	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	1687	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2018	C	O4'-C1'-N1	7.85	114.48	108.20
84	Aa	2692	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	3390	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	2610	G	C5-C6-O6	-7.85	123.89	128.60
84	Aa	3025	A	C5-C6-N6	-7.85	117.42	123.70
1	Ad	367	G	O4'-C1'-N9	7.84	114.47	108.20
84	Aa	34	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	1105	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	2506	G	O4'-C1'-N9	7.84	114.47	108.20
85	Ac	117	C	O4'-C1'-N1	7.84	114.48	108.20
84	Aa	674	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	2587	G	C5-C6-O6	-7.84	123.89	128.60
1	Ad	833	U	O4'-C1'-N1	7.84	114.47	108.20
1	Ad	1730	G	C3'-C2'-C1'	7.84	107.77	101.50
84	Aa	130	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	280	G	O4'-C1'-N9	7.84	114.47	108.20
84	Aa	1023	G	N1-C6-O6	7.84	124.61	119.90
84	Aa	1641	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	3225	G	C5-C6-O6	-7.84	123.89	128.60
84	Aa	759	C	O4'-C1'-N1	7.84	114.47	108.20
1	Ad	1432	C	N1-C1'-C2'	-7.84	103.38	112.00
84	Aa	1541	G	N1-C6-O6	7.84	124.60	119.90
2	Ae	6	G	N9-C1'-C2'	7.84	124.19	114.00
84	Aa	27	C	O4'-C1'-N1	7.84	114.47	108.20
84	Aa	2056	C	P-O3'-C3'	7.84	129.10	119.70
84	Aa	2626	G	N1-C6-O6	7.84	124.60	119.90
86	Ab	100	A	C4-C5-C6	7.84	120.92	117.00
84	Aa	51	A	C5-C6-N6	-7.83	117.43	123.70
84	Aa	2343	U	O4'-C1'-N1	7.83	114.47	108.20
1	Ad	430	G	C1'-O4'-C4'	-7.83	103.63	109.90
1	Ad	1789	U	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	2831	U	O4'-C1'-N1	7.83	114.47	108.20
1	Ad	1027	C	N1-C1'-C2'	7.83	124.18	114.00
1	Ad	1698	A	O4'-C1'-N9	7.83	114.47	108.20
84	Aa	2005	C	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	3291	C	O4'-C1'-N1	7.83	114.47	108.20
84	Aa	1694	A	C5-C6-N6	-7.83	117.44	123.70
85	Ac	68	G	N1-C6-O6	7.83	124.60	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	44	C	N3-C4-N4	7.83	123.48	118.00
1	Ad	1700	G	C1'-O4'-C4'	-7.83	103.64	109.90
84	Aa	2605	G	C5-C6-O6	-7.83	123.90	128.60
1	Ad	205	U	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	871	C	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	1073	G	N1-C6-O6	7.83	124.59	119.90
84	Aa	1089	G	C5-C6-O6	-7.83	123.90	128.60
84	Aa	2456	G	N1-C6-O6	7.83	124.59	119.90
84	Aa	2567	C	O4'-C1'-N1	7.83	114.46	108.20
84	Aa	1616	G	N1-C6-O6	7.82	124.59	119.90
84	Aa	2384	G	C5-C6-O6	-7.82	123.91	128.60
1	Ad	834	A	P-O3'-C3'	7.82	129.09	119.70
84	Aa	203	C	O4'-C1'-N1	7.82	114.46	108.20
1	Ad	612	U	C1'-O4'-C4'	-7.82	103.64	109.90
84	Aa	373	A	P-O3'-C3'	7.82	129.08	119.70
84	Aa	2525	G	C5-C6-O6	-7.82	123.91	128.60
84	Aa	28	C	O4'-C1'-N1	7.82	114.45	108.20
84	Aa	3257	G	N1-C6-O6	7.82	124.59	119.90
86	Ab	87	G	C5-C6-O6	-7.82	123.91	128.60
1	Ad	563	C	N1-C1'-C2'	7.82	124.16	114.00
1	Ad	1436	U	O4'-C1'-N1	7.82	114.45	108.20
84	Aa	1037	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	3366	C	O4'-C1'-N1	7.81	114.45	108.20
1	Ad	243	U	P-O3'-C3'	7.81	129.08	119.70
84	Aa	2410	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	3217	G	N1-C6-O6	7.81	124.59	119.90
84	Aa	3251	C	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	2440	U	O4'-C1'-N1	7.81	114.45	108.20
86	Ab	21	U	O4'-C1'-N1	7.81	114.45	108.20
84	Aa	335	G	O4'-C1'-N9	7.81	114.45	108.20
85	Ac	122	G	C5-C6-O6	-7.81	123.92	128.60
84	Aa	296	C	O4'-C1'-N1	7.81	114.44	108.20
84	Aa	1575	G	O4'-C1'-N9	7.81	114.44	108.20
1	Ad	895	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1746	U	O4'-C1'-N1	7.80	114.44	108.20
85	Ac	59	A	C4-C5-C6	7.80	120.90	117.00
1	Ad	1185	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1338	U	O4'-C1'-N1	7.80	114.44	108.20
1	Ad	1528	U	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	806	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	3340	G	N1-C6-O6	7.80	124.58	119.90
84	Aa	1953	C	O4'-C1'-N1	7.80	114.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	17	G	C5-C6-O6	-7.80	123.92	128.60
84	Aa	1121	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	1937	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	302	G	O4'-C1'-N9	7.80	114.44	108.20
84	Aa	828	U	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	1237	G	C5-C6-O6	-7.80	123.92	128.60
84	Aa	3196	C	O4'-C1'-N1	7.80	114.44	108.20
84	Aa	3351	A	C5-C6-N6	-7.80	117.46	123.70
84	Aa	479	C	O4'-C1'-N1	7.79	114.44	108.20
84	Aa	2729	C	O4'-C1'-N1	7.79	114.44	108.20
1	Ad	814	C	N1-C1'-C2'	7.79	124.13	114.00
84	Aa	125	G	C5-C6-O6	-7.79	123.92	128.60
84	Aa	268	U	O4'-C1'-N1	7.79	114.44	108.20
84	Aa	1009	G	N1-C6-O6	7.79	124.58	119.90
1	Ad	743	G	P-O3'-C3'	7.79	129.05	119.70
1	Ad	1017	U	O4'-C1'-N1	7.79	114.43	108.20
84	Aa	561	G	N1-C6-O6	7.79	124.57	119.90
84	Aa	1772	G	C5-C6-O6	-7.79	123.93	128.60
84	Aa	2242	G	C5-C6-O6	-7.79	123.93	128.60
84	Aa	2339	U	O4'-C1'-N1	7.79	114.43	108.20
84	Aa	2779	G	N1-C6-O6	7.79	124.57	119.90
1	Ad	1511	A	C3'-C2'-C1'	-7.79	95.27	101.50
84	Aa	2164	G	N1-C6-O6	7.79	124.57	119.90
84	Aa	1754	C	O4'-C1'-N1	7.78	114.43	108.20
84	Aa	234	G	N1-C6-O6	7.78	124.57	119.90
84	Aa	2077	C	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	3112	U	O4'-C1'-N1	7.78	114.43	108.20
84	Aa	2279	C	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	2616	U	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	2766	U	O4'-C1'-N1	7.78	114.42	108.20
84	Aa	1308	A	C5-C6-N6	-7.78	117.48	123.70
1	Ad	401	A	P-O5'-C5'	-7.77	108.47	120.90
1	Ad	1471	C	C1'-O4'-C4'	-7.77	103.68	109.90
84	Aa	355	C	O4'-C1'-N1	7.77	114.42	108.20
84	Aa	2167	G	C5'-C4'-O4'	7.77	118.43	109.10
1	Ad	1761	G	O4'-C1'-N9	7.77	114.41	108.20
84	Aa	874	U	O4'-C1'-N1	7.77	114.41	108.20
84	Aa	1135	C	O4'-C1'-N1	7.77	114.41	108.20
84	Aa	1749	G	N1-C6-O6	7.77	124.56	119.90
84	Aa	1057	A	C5-C6-N6	-7.77	117.49	123.70
84	Aa	1987	C	O4'-C1'-N1	7.76	114.41	108.20
85	Ac	131	G	C5-C6-O6	-7.76	123.94	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	97	G	N3-C2-N2	7.76	125.33	119.90
1	Ad	567	U	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	257	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	734	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	1873	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	3388	U	O4'-C1'-N1	7.76	114.41	108.20
85	Ac	26	C	O4'-C1'-N1	7.76	114.41	108.20
84	Aa	1951	C	O4'-C1'-N1	7.76	114.41	108.20
1	Ad	785	A	C1'-O4'-C4'	7.76	116.11	109.90
84	Aa	93	G	N1-C6-O6	7.76	124.55	119.90
84	Aa	497	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	2830	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	3345	G	C5-C6-O6	-7.76	123.95	128.60
84	Aa	2052	G	N1-C6-O6	7.75	124.55	119.90
1	Ad	435	C	O4'-C1'-N1	7.75	114.40	108.20
1	Ad	1574	U	N1-C1'-C2'	-7.75	103.47	112.00
84	Aa	522	C	C5'-C4'-O4'	7.75	118.40	109.10
84	Aa	594	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	1582	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2696	C	O4'-C1'-N1	7.75	114.40	108.20
1	Ad	900	G	N9-C1'-C2'	7.75	124.08	114.00
1	Ad	1576	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	673	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2962	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	2988	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	1740	U	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	3247	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	192	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	229	G	N1-C6-O6	7.75	124.55	119.90
1	Ad	1450	A	C3'-C2'-C1'	7.75	107.70	101.50
1	Ad	1734	U	O4'-C1'-N1	7.75	114.40	108.20
85	Ac	147	C	O4'-C1'-N1	7.75	114.40	108.20
84	Aa	648	G	C5-C6-O6	-7.74	123.95	128.60
84	Aa	1219	C	O4'-C1'-N1	7.74	114.39	108.20
1	Ad	239	C	P-O3'-C3'	7.74	128.99	119.70
84	Aa	755	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2363	G	O4'-C1'-N9	7.74	114.39	108.20
85	Ac	108	C	O4'-C1'-N1	7.74	114.39	108.20
1	Ad	867	A	O4'-C1'-N9	7.74	114.39	108.20
84	Aa	1159	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2012	C	O4'-C1'-N1	7.74	114.39	108.20
84	Aa	2607	U	O4'-C1'-N1	7.74	114.39	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	803	G	O4'-C1'-N9	7.73	114.39	108.20
84	Aa	1082	U	O4'-C1'-N1	7.73	114.39	108.20
86	Ab	40	A	N1-C6-N6	7.73	123.24	118.60
1	Ad	1193	A	O4'-C1'-N9	7.73	114.38	108.20
84	Aa	654	C	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2406	C	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2425	U	O4'-C1'-N1	7.73	114.39	108.20
2	Ae	52	G	O4'-C1'-N9	7.73	114.38	108.20
84	Aa	1650	G	C5-C6-O6	-7.73	123.96	128.60
84	Aa	2201	G	N1-C6-O6	7.73	124.54	119.90
1	Ad	644	U	C1'-O4'-C4'	-7.73	103.72	109.90
84	Aa	2186	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	3043	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	2020	G	N1-C6-O6	7.73	124.53	119.90
85	Ac	55	U	O4'-C1'-N1	7.73	114.38	108.20
84	Aa	79	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	939	A	C5-C6-N6	-7.72	117.52	123.70
84	Aa	1870	G	C5-C6-O6	-7.72	123.97	128.60
84	Aa	1778	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	2508	U	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	2669	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	3233	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	1388	C	O4'-C1'-N1	7.72	114.38	108.20
84	Aa	1828	C	O4'-C1'-N1	7.72	114.38	108.20
85	Ac	69	U	O4'-C1'-N1	7.72	114.38	108.20
1	Ad	1648	C	C3'-C2'-C1'	7.72	107.68	101.50
84	Aa	2340	G	N1-C6-O6	7.72	124.53	119.90
84	Aa	481	G	N1-C6-O6	7.72	124.53	119.90
84	Aa	1190	C	O4'-C1'-N1	7.72	114.37	108.20
84	Aa	2575	C	O4'-C1'-N1	7.72	114.37	108.20
1	Ad	829	G	O4'-C1'-N9	7.71	114.37	108.20
1	Ad	1046	G	C1'-O4'-C4'	-7.71	103.73	109.90
84	Aa	2394	G	N1-C6-O6	7.71	124.53	119.90
1	Ad	1610	C	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	276	U	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	1427	C	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	1671	G	N1-C6-O6	7.71	124.53	119.90
85	Ac	5	U	O4'-C1'-N1	7.71	114.37	108.20
1	Ad	985	G	C3'-C2'-C1'	-7.71	95.33	101.50
1	Ad	1363	G	C1'-O4'-C4'	-7.71	103.73	109.90
84	Aa	1940	U	O4'-C1'-N1	7.71	114.37	108.20
84	Aa	2887	C	O4'-C1'-N1	7.71	114.37	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1764	G	O4'-C1'-N9	7.71	114.36	108.20
84	Aa	702	G	N1-C6-O6	7.71	124.52	119.90
86	Ab	98	G	O4'-C1'-N9	7.71	114.36	108.20
1	Ad	832	C	N1-C1'-C2'	7.70	124.01	114.00
84	Aa	2999	G	N1-C6-O6	7.70	124.52	119.90
1	Ad	595	A	O4'-C1'-N9	7.70	114.36	108.20
84	Aa	948	C	O4'-C1'-N1	7.70	114.36	108.20
1	Ad	507	G	C1'-O4'-C4'	-7.69	103.75	109.90
1	Ad	1350	C	O4'-C1'-C2'	7.69	114.52	107.60
84	Aa	699	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1466	U	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	2057	G	O4'-C1'-N9	7.69	114.36	108.20
1	Ad	428	C	N1-C1'-C2'	7.69	124.00	114.00
1	Ad	785	A	O4'-C1'-C2'	-7.69	98.11	105.80
1	Ad	888	U	C1'-O4'-C4'	-7.69	103.75	109.90
84	Aa	978	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1400	C	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	2507	U	O4'-C1'-N1	7.69	114.35	108.20
1	Ad	1275	G	O4'-C1'-N9	7.69	114.35	108.20
1	Ad	1781	U	O4'-C1'-N1	7.69	114.35	108.20
84	Aa	1562	A	C2'-C3'-O3'	-7.69	92.59	109.50
84	Aa	2422	U	O4'-C1'-N1	7.69	114.35	108.20
1	Ad	1601	A	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	502	G	C5-C6-O6	-7.68	123.99	128.60
86	Ab	61	C	O4'-C1'-N1	7.68	114.35	108.20
86	Ab	102	G	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	1145	G	O4'-C1'-N9	7.68	114.35	108.20
84	Aa	1611	G	N1-C6-O6	7.68	124.51	119.90
84	Aa	169	G	N1-C6-O6	7.68	124.51	119.90
1	Ad	869	U	C1'-O4'-C4'	7.68	116.04	109.90
84	Aa	169	G	O4'-C1'-N9	7.68	114.34	108.20
84	Aa	1120	G	N1-C6-O6	7.68	124.51	119.90
84	Aa	3085	C	O4'-C1'-N1	7.68	114.34	108.20
84	Aa	25	U	O4'-C1'-N1	7.68	114.34	108.20
1	Ad	511	U	P-O3'-C3'	7.68	128.91	119.70
84	Aa	2899	A	N1-C6-N6	7.68	123.21	118.60
1	Ad	482	A	O4'-C1'-N9	7.67	114.34	108.20
1	Ad	1795	U	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	542	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	1737	C	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	2910	C	O4'-C1'-N1	7.67	114.34	108.20
84	Aa	2985	C	C6-N1-C1'	-7.67	111.59	120.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1317	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2538	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2879	G	C5-C6-O6	-7.67	124.00	128.60
1	Ad	142	G	O4'-C1'-N9	7.67	114.33	108.20
84	Aa	175	G	N1-C6-O6	7.67	124.50	119.90
84	Aa	1663	G	C5-C6-O6	-7.67	124.00	128.60
84	Aa	2557	C	O4'-C1'-N1	7.67	114.33	108.20
84	Aa	1607	C	O4'-C1'-N1	7.67	114.33	108.20
84	Aa	1894	G	N1-C6-O6	7.67	124.50	119.90
1	Ad	1082	C	C1'-O4'-C4'	-7.66	103.77	109.90
1	Ad	1310	C	N1-C1'-C2'	7.66	123.96	114.00
84	Aa	291	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	1265	G	O4'-C1'-N9	7.66	114.33	108.20
84	Aa	1840	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2110	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	2445	U	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2544	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	189	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	696	A	O4'-C1'-N9	7.66	114.33	108.20
1	Ad	1112	G	C1'-O4'-C4'	-7.66	103.77	109.90
84	Aa	2702	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	3079	G	O4'-C1'-N9	7.66	114.33	108.20
84	Aa	120	G	N1-C6-O6	7.66	124.50	119.90
84	Aa	1473	U	O4'-C1'-N1	7.66	114.33	108.20
1	Ad	999	G	N9-C1'-C2'	7.66	123.95	114.00
84	Aa	240	U	P-O3'-C3'	7.66	128.89	119.70
84	Aa	309	C	O4'-C1'-N1	7.66	114.32	108.20
84	Aa	2565	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2721	C	O4'-C1'-N1	7.66	114.33	108.20
84	Aa	2158	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	3222	G	O4'-C1'-N9	7.65	114.32	108.20
1	Ad	94	A	O4'-C1'-N9	7.65	114.32	108.20
84	Aa	652	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	1964	G	N1-C6-O6	7.65	124.49	119.90
84	Aa	892	U	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	58	G	N1-C6-O6	7.65	124.49	119.90
84	Aa	1834	C	O4'-C1'-N1	7.65	114.32	108.20
84	Aa	2007	C	O4'-C1'-N1	7.65	114.32	108.20
85	Ac	72	A	O4'-C1'-N9	7.65	114.32	108.20
1	Ad	157	U	O4'-C1'-N1	7.65	114.32	108.20
1	Ad	1650	G	C1'-O4'-C4'	-7.65	103.78	109.90
84	Aa	300	C	O4'-C1'-N1	7.65	114.32	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2586	C	O4'-C1'-N1	7.65	114.32	108.20
1	Ad	950	U	O4'-C1'-N1	7.64	114.32	108.20
1	Ad	1219	C	C5'-C4'-O4'	7.64	118.27	109.10
2	Ae	30	G	N9-C1'-C2'	7.64	123.94	114.00
84	Aa	190	C	O4'-C1'-N1	7.64	114.32	108.20
84	Aa	352	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1351	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1715	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	3321	C	O4'-C1'-N1	7.64	114.31	108.20
86	Ab	91	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	167	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	679	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1399	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1678	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1900	C	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	2001	U	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	302	C	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	1629	U	O4'-C1'-N1	7.64	114.31	108.20
84	Aa	1768	U	O4'-C1'-N1	7.64	114.31	108.20
1	Ad	1654	C	C3'-C2'-C1'	7.63	107.61	101.50
84	Aa	2547	C	O4'-C1'-N1	7.63	114.31	108.20
84	Aa	2675	G	N1-C6-O6	7.63	124.48	119.90
84	Aa	3206	C	C6-N1-C1'	-7.63	111.64	120.80
1	Ad	494	G	O4'-C1'-N9	7.63	114.31	108.20
84	Aa	1902	G	C5-C6-O6	-7.63	124.02	128.60
84	Aa	1674	A	C5-C6-N1	-7.63	113.89	117.70
84	Aa	457	C	O4'-C1'-N1	7.63	114.30	108.20
84	Aa	492	G	N1-C6-O6	7.62	124.47	119.90
1	Ad	1027	C	C3'-C2'-C1'	7.62	107.60	101.50
84	Aa	264	C	O4'-C1'-N1	7.62	114.30	108.20
84	Aa	237	C	O4'-C1'-N1	7.62	114.30	108.20
86	Ab	16	A	C4-C5-C6	7.62	120.81	117.00
1	Ad	3	C	O4'-C1'-N1	7.62	114.30	108.20
1	Ad	80	C	C3'-C2'-C1'	7.62	107.59	101.50
84	Aa	1536	U	O4'-C1'-N1	7.62	114.29	108.20
84	Aa	2611	G	N1-C6-O6	7.62	124.47	119.90
1	Ad	1454	G	O4'-C1'-N9	7.62	114.29	108.20
84	Aa	308	U	O4'-C1'-N1	7.62	114.29	108.20
84	Aa	2125	A	C5-C6-N1	-7.62	113.89	117.70
1	Ad	338	G	O4'-C1'-N9	7.61	114.29	108.20
1	Ad	1645	C	C1'-O4'-C4'	7.61	115.99	109.90
84	Aa	2074	C	C5'-C4'-C3'	7.61	128.18	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	825	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	847	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	482	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	630	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	1214	U	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	2092	C	C5'-C4'-C3'	7.61	128.18	116.00
84	Aa	2252	C	O4'-C1'-N1	7.61	114.29	108.20
84	Aa	1325	G	N1-C6-O6	7.61	124.47	119.90
84	Aa	3230	G	O4'-C1'-N9	7.61	114.29	108.20
1	Ad	155	A	C1'-O4'-C4'	7.61	115.99	109.90
1	Ad	395	A	O4'-C1'-N9	7.61	114.29	108.20
84	Aa	841	G	C5-C6-O6	-7.61	124.03	128.60
84	Aa	3105	U	O4'-C1'-N1	7.61	114.29	108.20
1	Ad	1286	U	O4'-C1'-N1	7.61	114.28	108.20
84	Aa	1426	C	O4'-C1'-N1	7.61	114.28	108.20
84	Aa	1533	U	O4'-C1'-N1	7.61	114.28	108.20
85	Ac	100	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1127	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1341	G	N1-C6-O6	7.60	124.46	119.90
84	Aa	1682	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	3154	G	P-O3'-C3'	7.60	128.82	119.70
84	Aa	3163	G	O4'-C1'-N9	7.60	114.28	108.20
86	Ab	111	U	C5-C6-N1	7.60	126.50	122.70
1	Ad	1124	G	C1'-O4'-C4'	-7.60	103.82	109.90
1	Ad	1153	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	261	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	1806	C	O4'-C1'-N1	7.60	114.28	108.20
1	Ad	917	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	263	A	O4'-C1'-N9	7.60	114.28	108.20
84	Aa	652	C	N3-C4-C5	-7.60	118.86	121.90
84	Aa	2767	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	2827	C	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	3183	G	O4'-C1'-N9	7.60	114.28	108.20
84	Aa	1746	G	C5-C6-O6	-7.60	124.04	128.60
84	Aa	2603	C	O4'-C1'-N1	7.60	114.28	108.20
85	Ac	27	U	O4'-C1'-N1	7.60	114.28	108.20
84	Aa	185	A	N1-C6-N6	7.59	123.16	118.60
84	Aa	495	G	O4'-C1'-N9	7.59	114.28	108.20
84	Aa	1992	U	O4'-C1'-N1	7.59	114.28	108.20
84	Aa	2259	U	O4'-C1'-N1	7.59	114.28	108.20
84	Aa	1068	A	N1-C6-N6	7.59	123.16	118.60
84	Aa	1118	G	C5-C6-O6	-7.59	124.05	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1594	G	C5-C6-O6	-7.59	124.05	128.60
86	Ab	68	G	C5-C6-N1	-7.59	107.70	111.50
1	Ad	1554	G	O4'-C1'-N9	7.59	114.27	108.20
84	Aa	3219	U	O4'-C1'-N1	7.59	114.27	108.20
84	Aa	512	G	C5-C6-O6	-7.59	124.05	128.60
84	Aa	2713	G	O4'-C1'-N9	7.58	114.27	108.20
84	Aa	3070	G	N1-C6-O6	7.58	124.45	119.90
84	Aa	3271	A	C5-C6-N6	-7.58	117.63	123.70
84	Aa	444	C	O4'-C1'-N1	7.58	114.27	108.20
84	Aa	2087	A	C5'-C4'-O4'	7.58	118.20	109.10
84	Aa	2609	G	N1-C6-O6	7.58	124.45	119.90
84	Aa	889	C	O4'-C1'-N1	7.58	114.26	108.20
1	Ad	73	A	C1'-O4'-C4'	7.58	115.96	109.90
1	Ad	1445	C	N1-C1'-C2'	7.58	123.85	114.00
2	Ae	30	G	C1'-O4'-C4'	-7.58	103.84	109.90
84	Aa	2701	G	O4'-C1'-N9	7.58	114.26	108.20
84	Aa	2269	U	O4'-C1'-N1	7.58	114.26	108.20
84	Aa	492	G	C2'-C3'-O3'	7.58	126.17	109.50
84	Aa	1461	U	O4'-C1'-N1	7.58	114.26	108.20
84	Aa	2806	A	N1-C6-N6	7.58	123.14	118.60
1	Ad	27	U	O4'-C1'-N1	7.57	114.26	108.20
1	Ad	1308	G	C1'-O4'-C4'	-7.57	103.84	109.90
68	Ch	74	TYR	CB-CG-CD2	7.57	125.54	121.00
84	Aa	1005	C	O4'-C1'-N1	7.57	114.26	108.20
84	Aa	2832	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	1314	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	1247	G	C5-C6-O6	-7.57	124.06	128.60
86	Ab	22	A	C4-C5-C6	7.57	120.78	117.00
84	Aa	1366	G	N1-C6-O6	7.57	124.44	119.90
84	Aa	3194	G	C5-C6-O6	-7.57	124.06	128.60
1	Ad	1178	C	C3'-C2'-C1'	7.57	107.55	101.50
84	Aa	1109	G	N1-C6-O6	7.57	124.44	119.90
1	Ad	860	A	C1'-O4'-C4'	7.57	115.95	109.90
1	Ad	873	G	O4'-C1'-N9	7.57	114.25	108.20
1	Ad	935	A	O4'-C1'-N9	7.57	114.25	108.20
84	Aa	717	G	O4'-C1'-N9	7.56	114.25	108.20
84	Aa	1122	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	2576	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	388	G	C5-C6-O6	-7.56	124.06	128.60
84	Aa	2974	G	N1-C6-O6	7.56	124.44	119.90
84	Aa	3263	C	C4'-C3'-O3'	7.56	128.12	113.00
1	Ad	290	C	O4'-C1'-C2'	-7.56	98.24	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	448	C	O4'-C1'-C2'	-7.56	98.24	105.80
84	Aa	2286	A	C5-C6-N6	-7.56	117.65	123.70
84	Aa	2823	C	O4'-C1'-N1	7.56	114.25	108.20
1	Ad	1051	G	O4'-C1'-N9	7.56	114.25	108.20
84	Aa	338	C	O4'-C1'-N1	7.56	114.25	108.20
84	Aa	1347	U	O4'-C1'-N1	7.56	114.25	108.20
1	Ad	1140	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	215	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	314	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	595	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1141	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	128	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	726	C	O4'-C1'-N1	7.55	114.24	108.20
1	Ad	12	U	C1'-O4'-C4'	-7.55	103.86	109.90
84	Aa	2330	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	3091	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	983	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1581	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	2421	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1039	G	N1-C6-O6	7.55	124.43	119.90
1	Ad	983	A	C1'-O4'-C4'	7.55	115.94	109.90
1	Ad	1453	U	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1440	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	3300	C	O4'-C1'-N1	7.55	114.24	108.20
84	Aa	1995	U	P-O3'-C3'	7.54	128.75	119.70
84	Aa	3346	C	O4'-C1'-N1	7.54	114.24	108.20
80	Cf	107	TYR	CB-CG-CD1	7.54	125.53	121.00
84	Aa	2580	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	2828	U	O4'-C1'-N1	7.54	114.23	108.20
85	Ac	99	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	414	G	N1-C6-O6	7.54	124.42	119.90
84	Aa	1551	C	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	2844	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	1294	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	1471	C	N1-C1'-C2'	7.54	123.80	114.00
2	Ae	25	U	O4'-C1'-N1	7.54	114.23	108.20
1	Ad	487	A	O4'-C1'-N9	7.54	114.23	108.20
84	Aa	215	U	P-O3'-C3'	7.54	128.74	119.70
84	Aa	824	U	O4'-C1'-N1	7.54	114.23	108.20
84	Aa	285	G	O4'-C1'-N9	7.53	114.23	108.20
84	Aa	618	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	716	A	C4-C5-C6	7.53	120.77	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1094	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	2498	C	O4'-C1'-N1	7.53	114.23	108.20
84	Aa	1145	G	C5-C6-O6	-7.53	124.08	128.60
84	Aa	2327	U	O4'-C1'-N1	7.53	114.23	108.20
1	Ad	1634	U	O4'-C1'-N1	7.53	114.22	108.20
84	Aa	753	G	C5-C6-O6	-7.53	124.08	128.60
1	Ad	552	G	O4'-C1'-N9	7.53	114.22	108.20
1	Ad	860	A	P-O3'-C3'	-7.53	110.67	119.70
84	Aa	2009	C	O4'-C1'-N1	7.53	114.22	108.20
84	Aa	2556	G	O4'-C1'-N9	7.53	114.22	108.20
84	Aa	632	C	O4'-C1'-N1	7.53	114.22	108.20
1	Ad	130	A	O4'-C1'-C2'	-7.52	98.28	105.80
1	Ad	1670	G	O4'-C1'-C2'	7.52	114.37	107.60
84	Aa	1928	A	C4-C5-C6	7.52	120.76	117.00
84	Aa	2782	G	N1-C6-O6	7.52	124.41	119.90
1	Ad	757	G	C1'-O4'-C4'	-7.52	103.89	109.90
1	Ad	953	G	O4'-C1'-N9	7.52	114.22	108.20
1	Ad	1801	A	C1'-O4'-C4'	7.52	115.92	109.90
84	Aa	1028	G	N1-C6-O6	7.52	124.41	119.90
84	Aa	1546	G	N1-C6-O6	7.52	124.41	119.90
85	Ac	10	G	N1-C6-O6	7.52	124.41	119.90
1	Ad	501	U	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	938	U	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	1363	C	O4'-C1'-N1	7.52	114.21	108.20
85	Ac	8	C	O4'-C1'-N1	7.52	114.21	108.20
84	Aa	372	A	O4'-C1'-N9	7.51	114.21	108.20
84	Aa	2577	G	C5-C6-O6	-7.51	124.09	128.60
84	Aa	3153	U	C2-N1-C1'	7.51	126.72	117.70
84	Aa	8	C	C2-N1-C1'	7.51	127.06	118.80
84	Aa	1146	A	C5-C6-N6	-7.51	117.69	123.70
84	Aa	2716	U	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	3024	U	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	2503	A	C4-C5-C6	7.51	120.75	117.00
84	Aa	3121	C	O4'-C1'-N1	7.51	114.21	108.20
84	Aa	2957	U	O4'-C1'-N1	7.51	114.21	108.20
1	Ad	394	G	C1'-O4'-C4'	7.51	115.91	109.90
1	Ad	990	G	O4'-C1'-N9	7.51	114.20	108.20
1	Ad	1145	G	O4'-C1'-N9	7.51	114.20	108.20
84	Aa	1326	C	O4'-C1'-N1	7.51	114.21	108.20
1	Ad	1512	C	N1-C1'-C2'	7.50	123.76	114.00
84	Aa	658	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	896	C	O4'-C1'-N1	7.50	114.20	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2584	U	O4'-C1'-N1	7.50	114.20	108.20
1	Ad	1231	A	P-O3'-C3'	7.50	128.70	119.70
1	Ad	1500	A	C1'-O4'-C4'	7.50	115.90	109.90
84	Aa	617	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	1409	G	N1-C6-O6	7.50	124.40	119.90
84	Aa	2178	G	C5'-C4'-O4'	7.50	118.10	109.10
84	Aa	2262	C	O4'-C1'-N1	7.50	114.20	108.20
84	Aa	1288	C	O4'-C1'-N1	7.50	114.20	108.20
1	Ad	114	U	C3'-C2'-C1'	7.50	107.50	101.50
1	Ad	755	U	N1-C1'-C2'	7.50	123.75	114.00
84	Aa	430	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	1130	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	2295	G	C5-C6-O6	-7.50	124.10	128.60
84	Aa	808	G	C5-C6-O6	-7.49	124.10	128.60
1	Ad	329	G	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	449	G	C5-C6-O6	-7.49	124.11	128.60
84	Aa	1535	C	O4'-C1'-N1	7.49	114.19	108.20
1	Ad	23	G	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	1865	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	3290	C	O4'-C1'-N1	7.49	114.19	108.20
2	Ae	47	U	N1-C1'-C2'	-7.49	103.76	112.00
84	Aa	1850	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	2157	C	O4'-C1'-N1	7.49	114.19	108.20
1	Ad	369	G	C1'-O4'-C4'	7.49	115.89	109.90
1	Ad	373	U	C5'-C4'-O4'	7.49	118.08	109.10
1	Ad	499	A	O4'-C1'-N9	7.49	114.19	108.20
84	Aa	375	G	C5-C6-O6	-7.49	124.11	128.60
84	Aa	464	G	N1-C6-O6	7.49	124.39	119.90
84	Aa	739	C	O4'-C1'-N1	7.49	114.19	108.20
84	Aa	2155	G	N1-C6-O6	7.49	124.39	119.90
84	Aa	339	G	C5-C6-O6	-7.48	124.11	128.60
84	Aa	1406	C	O4'-C1'-N1	7.48	114.19	108.20
84	Aa	2954	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	1981	U	O4'-C1'-N1	7.48	114.19	108.20
1	Ad	648	C	O4'-C1'-C2'	-7.48	98.32	105.80
84	Aa	1428	G	C5-C6-O6	-7.48	124.11	128.60
84	Aa	3137	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	815	G	N1-C6-O6	7.48	124.39	119.90
84	Aa	1503	G	N1-C6-O6	7.48	124.39	119.90
1	Ad	1063	U	O4'-C1'-N1	7.48	114.18	108.20
84	Aa	168	A	C5-C6-N6	-7.48	117.72	123.70
84	Aa	1344	A	O4'-C1'-N9	7.48	114.18	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1560	A	N9-C1'-C2'	7.48	123.72	114.00
84	Aa	2147	U	O4'-C1'-N1	7.48	114.18	108.20
84	Aa	1589	G	O4'-C1'-N9	7.48	114.18	108.20
1	Ad	1409	G	O4'-C1'-C2'	7.47	114.33	107.60
84	Aa	659	C	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	1178	C	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	2637	U	O4'-C1'-N1	7.47	114.18	108.20
84	Aa	3159	C	O4'-C1'-N1	7.47	114.18	108.20
86	Ab	56	G	N1-C6-O6	7.47	124.38	119.90
86	Ab	80	A	C4-C5-C6	7.47	120.74	117.00
84	Aa	1750	A	O4'-C1'-N9	7.47	114.18	108.20
84	Aa	895	U	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	1211	G	C5-C6-O6	-7.47	124.12	128.60
84	Aa	3241	C	O4'-C1'-N1	7.47	114.17	108.20
1	Ad	146	A	C1'-O4'-C4'	7.47	115.88	109.90
84	Aa	2710	C	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	425	G	C5-C6-O6	-7.47	124.12	128.60
84	Aa	628	C	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	1125	U	O4'-C1'-N1	7.47	114.17	108.20
84	Aa	3218	C	O4'-C1'-N1	7.47	114.17	108.20
1	Ad	1192	G	O4'-C1'-N9	7.46	114.17	108.20
84	Aa	537	U	P-O3'-C3'	7.46	128.66	119.70
84	Aa	1695	C	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	2557	C	C2-N1-C1'	7.46	127.01	118.80
1	Ad	1194	C	O4'-C1'-N1	7.46	114.17	108.20
1	Ad	67	G	C3'-C2'-C1'	7.46	107.47	101.50
1	Ad	1441	C	C3'-C2'-C1'	7.46	107.47	101.50
84	Aa	1249	A	O4'-C1'-N9	7.46	114.17	108.20
1	Ad	390	G	O4'-C1'-N9	7.46	114.17	108.20
1	Ad	1266	U	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	1045	U	O4'-C1'-N1	7.46	114.17	108.20
84	Aa	3348	G	O4'-C1'-N9	7.46	114.17	108.20
84	Aa	2234	G	C5-C6-O6	-7.46	124.13	128.60
1	Ad	1082	C	N1-C1'-C2'	7.46	123.69	114.00
84	Aa	1489	G	N1-C6-O6	7.46	124.37	119.90
84	Aa	2195	U	O4'-C1'-N1	7.46	114.16	108.20
84	Aa	2519	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	547	C	O4'-C1'-N1	7.45	114.16	108.20
1	Ad	93	A	C1'-O4'-C4'	7.45	115.86	109.90
84	Aa	1056	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2358	C	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2	C	O4'-C1'-N1	7.45	114.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	166	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	344	C	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2167	G	C1'-O4'-C4'	-7.45	103.94	109.90
84	Aa	2717	G	O4'-C1'-N9	7.45	114.16	108.20
84	Aa	1164	G	N1-C6-O6	7.45	124.37	119.90
84	Aa	2521	C	O4'-C1'-N1	7.45	114.16	108.20
1	Ad	804	C	N1-C1'-C2'	7.45	123.68	114.00
1	Ad	819	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2063	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2072	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	2600	U	O4'-C1'-N1	7.45	114.16	108.20
84	Aa	236	A	N1-C6-N6	7.44	123.07	118.60
1	Ad	1467	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	893	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	1781	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	1218	U	O4'-C1'-N1	7.44	114.15	108.20
4	BY	41	SER	N-CA-CB	7.44	121.66	110.50
84	Aa	724	A	O4'-C1'-N9	7.44	114.15	108.20
1	Ad	163	G	O4'-C1'-N9	7.44	114.15	108.20
1	Ad	701	C	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	518	G	N1-C6-O6	7.44	124.36	119.90
84	Aa	556	U	O4'-C1'-N1	7.44	114.15	108.20
84	Aa	2476	G	C4'-C3'-O3'	-7.44	93.78	109.40
1	Ad	1723	G	C1'-O4'-C4'	-7.43	103.95	109.90
84	Aa	1252	C	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	2069	G	C5-C6-O6	-7.43	124.14	128.60
84	Aa	2824	U	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	2965	C	O4'-C1'-N1	7.43	114.15	108.20
84	Aa	1063	G	N1-C6-O6	7.43	124.36	119.90
84	Aa	1657	C	O4'-C1'-N1	7.43	114.15	108.20
1	Ad	1234	A	O4'-C1'-N9	7.43	114.14	108.20
3	Af	18	C	C3'-C2'-C1'	7.43	107.44	101.50
84	Aa	1957	G	C2'-C3'-O3'	-7.43	93.15	109.50
84	Aa	2244	G	C5-C6-O6	-7.43	124.14	128.60
1	Ad	1334	G	C1'-O4'-C4'	7.43	115.84	109.90
84	Aa	297	G	C5-C6-O6	-7.43	124.14	128.60
84	Aa	641	C	N3-C4-C5	-7.43	118.93	121.90
84	Aa	930	C	O4'-C1'-N1	7.43	114.14	108.20
84	Aa	2237	A	C5-C6-N6	-7.43	117.76	123.70
84	Aa	1724	C	O4'-C1'-N1	7.43	114.14	108.20
1	Ad	1665	U	C3'-C2'-C1'	7.42	107.44	101.50
84	Aa	318	G	O4'-C1'-N9	7.42	114.14	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1481	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2236	U	P-O3'-C3'	7.42	128.61	119.70
86	Ab	57	C	C5-C4-N4	-7.42	115.00	120.20
86	Ab	80	A	C5-C6-N6	-7.42	117.76	123.70
84	Aa	900	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2454	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2842	C	O4'-C1'-N1	7.42	114.14	108.20
1	Ad	410	U	O4'-C1'-N1	7.42	114.14	108.20
1	Ad	1128	C	C5'-C4'-O4'	7.42	118.01	109.10
84	Aa	774	A	C5-C6-N6	-7.42	117.76	123.70
84	Aa	799	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1274	A	C4-C5-C6	7.42	120.71	117.00
84	Aa	2560	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	2686	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1008	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1027	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1316	C	C6-N1-C2	-7.42	117.33	120.30
1	Ad	1168	A	C3'-C2'-C1'	7.42	107.44	101.50
84	Aa	133	G	C5-C6-O6	-7.42	124.15	128.60
84	Aa	506	U	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	1311	G	N1-C6-O6	7.42	124.35	119.90
84	Aa	2768	C	O4'-C1'-N1	7.42	114.14	108.20
84	Aa	541	C	O4'-C1'-N1	7.42	114.13	108.20
84	Aa	3352	C	O4'-C1'-N1	7.42	114.13	108.20
84	Aa	328	G	C5-C6-O6	-7.42	124.15	128.60
84	Aa	353	A	C5-C6-N6	-7.41	117.77	123.70
84	Aa	408	U	O4'-C1'-N1	7.41	114.13	108.20
84	Aa	2261	U	O4'-C1'-N1	7.41	114.13	108.20
84	Aa	3161	C	O4'-C1'-N1	7.41	114.13	108.20
85	Ac	150	G	C5-C6-O6	-7.41	124.15	128.60
84	Aa	289	C	O4'-C1'-N1	7.41	114.13	108.20
86	Ab	71	A	N1-C6-N6	7.41	123.05	118.60
84	Aa	1633	C	O4'-C1'-N1	7.41	114.13	108.20
85	Ac	42	G	N1-C6-O6	7.41	124.35	119.90
1	Ad	215	A	N9-C1'-C2'	-7.41	103.85	112.00
84	Aa	3248	G	C5-C6-O6	-7.41	124.16	128.60
84	Aa	3202	G	N1-C6-O6	7.41	124.34	119.90
84	Aa	777	G	O4'-C1'-N9	7.41	114.12	108.20
84	Aa	2729	C	C2-N1-C1'	7.41	126.94	118.80
85	Ac	4	C	O4'-C1'-N1	7.41	114.12	108.20
84	Aa	1272	G	C5-C6-O6	-7.40	124.16	128.60
84	Aa	2071	U	O4'-C1'-N1	7.40	114.12	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2951	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	3294	U	P-O3'-C3'	7.40	128.59	119.70
1	Ad	413	C	C3'-C2'-C1'	7.40	107.42	101.50
84	Aa	1201	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	3138	C	N3-C4-C5	-7.40	118.94	121.90
84	Aa	1442	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2106	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2431	U	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	92	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	2211	G	N1-C6-O6	7.40	124.34	119.90
1	Ad	1196	C	C3'-C2'-C1'	7.40	107.42	101.50
84	Aa	3191	U	O4'-C1'-N1	7.40	114.12	108.20
1	Ad	1209	C	O4'-C1'-N1	7.40	114.12	108.20
84	Aa	1262	U	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1575	G	C5-C6-O6	-7.39	124.16	128.60
1	Ad	391	A	N9-C1'-C2'	-7.39	103.87	112.00
84	Aa	246	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1324	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	1384	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	1760	G	O4'-C1'-N9	7.39	114.11	108.20
84	Aa	1935	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	2035	G	N1-C6-O6	7.39	124.34	119.90
86	Ab	3	A	C5-C6-N1	-7.39	114.00	117.70
1	Ad	1104	U	O4'-C1'-N1	7.39	114.11	108.20
1	Ad	1189	U	N1-C1'-C2'	7.39	123.61	114.00
84	Aa	1049	C	O4'-C1'-N1	7.39	114.11	108.20
84	Aa	867	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	2209	A	N1-C6-N6	7.39	123.03	118.60
1	Ad	105	A	O4'-C1'-C2'	-7.39	98.41	105.80
84	Aa	2194	G	C5-C6-O6	-7.39	124.17	128.60
84	Aa	3359	C	O4'-C1'-N1	7.39	114.11	108.20
1	Ad	1734	U	N1-C1'-C2'	7.38	123.60	114.00
2	Ae	10	G	C3'-C2'-C1'	7.38	107.41	101.50
84	Aa	2030	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2226	C	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2285	C	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	2939	G	N1-C6-O6	7.38	124.33	119.90
1	Ad	900	G	C1'-O4'-C4'	-7.38	103.99	109.90
84	Aa	845	G	C5-C6-O6	-7.38	124.17	128.60
84	Aa	1620	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	3177	A	C4-C5-C6	7.38	120.69	117.00
84	Aa	3228	C	O4'-C1'-N1	7.38	114.11	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1103	U	O4'-C1'-N1	7.38	114.11	108.20
84	Aa	1556	G	O4'-C1'-N9	7.38	114.11	108.20
84	Aa	1623	C	O4'-C1'-N1	7.38	114.11	108.20
1	Ad	1108	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	318	G	C5-C6-O6	-7.38	124.17	128.60
1	Ad	148	C	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	1952	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	3133	C	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	2785	U	O4'-C1'-N1	7.38	114.10	108.20
84	Aa	2845	U	O4'-C1'-N1	7.37	114.10	108.20
84	Aa	2970	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	3099	G	C5-C6-O6	-7.37	124.18	128.60
1	Ad	1193	A	C1'-O4'-C4'	7.37	115.80	109.90
84	Aa	2752	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	525	A	C5-C6-N6	-7.37	117.80	123.70
84	Aa	857	G	C5-C6-O6	-7.37	124.18	128.60
84	Aa	2175	A	O4'-C1'-N9	7.37	114.09	108.20
85	Ac	68	G	O4'-C1'-N9	7.37	114.09	108.20
1	Ad	271	C	O4'-C1'-C2'	-7.37	98.43	105.80
1	Ad	1669	U	O4'-C1'-N1	7.37	114.09	108.20
84	Aa	329	G	N1-C6-O6	7.37	124.32	119.90
84	Aa	465	C	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	867	G	O4'-C1'-N9	7.36	114.09	108.20
84	Aa	1193	A	C4-C5-C6	7.36	120.68	117.00
84	Aa	2090	G	C5-C6-O6	-7.36	124.18	128.60
84	Aa	1062	G	N1-C6-O6	7.36	124.32	119.90
84	Aa	3185	G	C5-C6-O6	-7.36	124.18	128.60
84	Aa	1597	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	1798	C	O3'-P-O5'	-7.36	90.02	104.00
84	Aa	1626	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	2062	U	O4'-C1'-N1	7.36	114.09	108.20
84	Aa	110	C	O4'-C1'-N1	7.36	114.08	108.20
84	Aa	682	G	C5-C6-O6	-7.36	124.19	128.60
84	Aa	2221	U	O4'-C1'-N1	7.36	114.08	108.20
84	Aa	2636	U	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	1604	U	P-O3'-C3'	7.35	128.52	119.70
84	Aa	1534	C	O4'-C1'-N1	7.35	114.08	108.20
1	Ad	834	A	C2'-C3'-O3'	7.35	125.67	109.50
84	Aa	514	G	C5-C6-O6	-7.35	124.19	128.60
84	Aa	991	C	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	2771	U	O4'-C1'-N1	7.35	114.08	108.20
84	Aa	3267	U	O4'-C1'-N1	7.35	114.08	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	213	G	C5-C6-O6	-7.35	124.19	128.60
84	Aa	1462	C	O4'-C1'-N1	7.35	114.08	108.20
2	Ae	61	C	N1-C1'-C2'	7.35	123.55	114.00
1	Ad	348	A	O4'-C1'-N9	7.34	114.08	108.20
84	Aa	940	G	C5-C6-O6	-7.34	124.19	128.60
84	Aa	2571	C	O4'-C1'-N1	7.34	114.08	108.20
84	Aa	1137	G	N1-C6-O6	7.34	124.31	119.90
1	Ad	1409	G	N9-C1'-C2'	7.34	123.54	114.00
1	Ad	1735	C	C3'-C2'-C1'	7.34	107.37	101.50
84	Aa	302	G	C5-C6-O6	-7.34	124.20	128.60
84	Aa	1624	G	N1-C6-O6	7.34	124.30	119.90
84	Aa	1866	C	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	2690	G	C5-C6-O6	-7.34	124.20	128.60
85	Ac	87	G	N1-C6-O6	7.34	124.30	119.90
86	Ab	58	G	N1-C6-O6	7.34	124.30	119.90
1	Ad	356	G	O4'-C1'-C2'	-7.34	98.46	105.80
1	Ad	1574	U	O4'-C1'-C2'	-7.34	98.46	105.80
84	Aa	647	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1505	G	N1-C6-O6	7.34	124.30	119.90
84	Aa	1774	G	C5-C6-O6	-7.34	124.20	128.60
1	Ad	1616	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1124	U	O4'-C1'-N1	7.34	114.07	108.20
84	Aa	1446	G	C5-C6-O6	-7.34	124.20	128.60
84	Aa	2303	C	O4'-C1'-N1	7.34	114.07	108.20
1	Ad	1685	U	N1-C1'-C2'	7.33	123.53	114.00
84	Aa	974	G	C5-C6-O6	-7.33	124.20	128.60
84	Aa	1093	U	O4'-C1'-N1	7.33	114.07	108.20
84	Aa	1216	G	O4'-C1'-N9	7.33	114.07	108.20
84	Aa	1270	G	N1-C6-O6	7.33	124.30	119.90
1	Ad	1514	G	O4'-C1'-N9	7.33	114.06	108.20
84	Aa	2652	G	C5-C6-O6	-7.33	124.20	128.60
84	Aa	2854	C	N3-C4-N4	7.33	123.13	118.00
84	Aa	766	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	2168	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	3035	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	1337	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	1890	C	O4'-C1'-N1	7.33	114.06	108.20
84	Aa	2326	U	O4'-C1'-N1	7.33	114.06	108.20
1	Ad	1255	U	O4'-C1'-C2'	-7.32	98.48	105.80
84	Aa	2060	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	3036	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	360	G	N1-C6-O6	7.32	124.29	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	695	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	2280	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	636	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	2682	A	O4'-C1'-N9	7.32	114.06	108.20
85	Ac	130	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	1390	G	C5-C6-O6	-7.32	124.21	128.60
84	Aa	2202	A	O4'-C1'-N9	7.32	114.06	108.20
1	Ad	1458	U	O4'-C1'-N1	7.32	114.05	108.20
84	Aa	177	C	O4'-C1'-N1	7.32	114.06	108.20
84	Aa	1205	C	O4'-C1'-N1	7.32	114.06	108.20
86	Ab	81	G	C5-C6-N1	-7.32	107.84	111.50
84	Aa	141	C	O4'-C1'-N1	7.32	114.05	108.20
84	Aa	716	A	O4'-C1'-N9	7.32	114.05	108.20
86	Ab	110	G	O4'-C1'-N9	7.32	114.05	108.20
84	Aa	773	G	C5-C6-O6	-7.31	124.21	128.60
84	Aa	2633	C	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	2717	G	C5-C6-O6	-7.31	124.21	128.60
84	Aa	623	G	O4'-C1'-N9	7.31	114.05	108.20
84	Aa	3082	G	O4'-C1'-N9	7.31	114.05	108.20
1	Ad	349	U	N1-C1'-C2'	-7.31	103.96	112.00
84	Aa	1180	C	C2-N1-C1'	7.31	126.84	118.80
85	Ac	20	U	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	87	A	C5-C6-N1	-7.31	114.05	117.70
84	Aa	106	G	N1-C6-O6	7.31	124.28	119.90
84	Aa	2809	U	O4'-C1'-N1	7.31	114.05	108.20
84	Aa	922	U	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	1371	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	2925	U	O4'-C1'-N1	7.30	114.04	108.20
1	Ad	398	C	N1-C1'-C2'	7.30	123.49	114.00
1	Ad	1801	A	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	568	C	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	662	G	C5-C6-O6	-7.30	124.22	128.60
1	Ad	1470	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	3100	C	O4'-C1'-N1	7.30	114.04	108.20
86	Ab	80	A	C5-C6-N1	-7.30	114.05	117.70
84	Aa	826	C	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	2106	U	P-O3'-C3'	7.30	128.46	119.70
84	Aa	2230	C	O4'-C1'-N1	7.30	114.04	108.20
85	Ac	4	C	N3-C4-N4	7.30	123.11	118.00
85	Ac	43	A	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	468	U	O4'-C1'-N1	7.30	114.04	108.20
84	Aa	980	C	O4'-C1'-N1	7.30	114.04	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2934	C	O4'-C1'-N1	7.30	114.04	108.20
86	Ab	48	G	O4'-C1'-N9	7.30	114.04	108.20
84	Aa	139	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	271	G	N1-C6-O6	7.29	124.28	119.90
84	Aa	1072	C	O4'-C1'-N1	7.29	114.03	108.20
1	Ad	1623	C	O4'-C1'-C2'	-7.29	98.51	105.80
1	Ad	1709	U	C3'-C2'-C1'	7.29	107.33	101.50
84	Aa	526	A	P-O3'-C3'	7.29	128.45	119.70
84	Aa	770	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	3097	G	O4'-C1'-N9	7.29	114.03	108.20
86	Ab	55	A	C5-C6-N6	-7.29	117.87	123.70
84	Aa	36	U	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	525	A	O4'-C1'-N9	7.29	114.03	108.20
84	Aa	1339	C	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	517	G	C5-C6-O6	-7.29	124.23	128.60
84	Aa	1763	C	O4'-C1'-N1	7.29	114.03	108.20
84	Aa	2929	C	O4'-C1'-N1	7.29	114.03	108.20
1	Ad	996	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	254	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	2121	U	O4'-C1'-N1	7.28	114.03	108.20
84	Aa	267	G	O4'-C1'-N9	7.28	114.03	108.20
84	Aa	1701	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	2392	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	35	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	2784	U	O4'-C1'-N1	7.28	114.03	108.20
84	Aa	3377	G	C5-C6-O6	-7.28	124.23	128.60
84	Aa	651	A	P-O3'-C3'	7.28	128.44	119.70
84	Aa	2035	G	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	1504	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	1565	G	P-O5'-C5'	7.28	132.54	120.90
84	Aa	1938	U	O4'-C1'-N1	7.28	114.02	108.20
84	Aa	2941	G	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	72	A	O4'-C1'-N9	7.28	114.02	108.20
84	Aa	1722	G	N1-C6-O6	7.28	124.27	119.90
84	Aa	2267	G	N1-C6-O6	7.28	124.27	119.90
84	Aa	326	C	O4'-C1'-N1	7.27	114.02	108.20
84	Aa	773	G	O4'-C1'-N9	7.27	114.02	108.20
84	Aa	2316	A	O4'-C1'-N9	7.27	114.02	108.20
84	Aa	3318	G	C5-C6-O6	-7.27	124.24	128.60
84	Aa	2530	G	N1-C6-O6	7.27	124.26	119.90
1	Ad	137	A	P-O3'-C3'	7.27	128.42	119.70
84	Aa	3202	G	O4'-C1'-N9	7.27	114.02	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1149	C	O4'-C1'-N1	7.27	114.01	108.20
84	Aa	1327	G	O4'-C1'-N9	7.27	114.01	108.20
84	Aa	1431	G	C5-C6-O6	-7.27	124.24	128.60
84	Aa	1614	G	O4'-C1'-N9	7.27	114.01	108.20
86	Ab	31	G	O4'-C1'-N9	7.27	114.01	108.20
1	Ad	508	U	O4'-C1'-N1	7.26	114.01	108.20
1	Ad	1062	C	O4'-C1'-C2'	-7.26	98.53	105.80
84	Aa	1665	G	O4'-C1'-N9	7.26	114.01	108.20
86	Ab	66	G	C6-C5-N7	-7.26	126.04	130.40
1	Ad	826	C	O4'-C1'-C2'	-7.26	98.54	105.80
84	Aa	1827	U	C5'-C4'-C3'	-7.26	104.38	116.00
71	CB	265	TYR	CB-CG-CD2	-7.26	116.64	121.00
84	Aa	2966	G	C5-C6-O6	-7.26	124.24	128.60
1	Ad	1472	G	N9-C1'-C2'	7.26	123.44	114.00
84	Aa	1995	U	O4'-C1'-N1	7.26	114.01	108.20
84	Aa	2926	U	O4'-C1'-N1	7.26	114.01	108.20
85	Ac	29	U	O4'-C1'-N1	7.26	114.01	108.20
84	Aa	202	G	C5-C6-O6	-7.26	124.25	128.60
1	Ad	945	A	N9-C1'-C2'	-7.26	104.02	112.00
84	Aa	18	G	N1-C6-O6	7.26	124.25	119.90
84	Aa	463	G	N1-C6-O6	7.26	124.25	119.90
84	Aa	1385	C	O4'-C1'-N1	7.26	114.00	108.20
84	Aa	2481	C	O4'-C1'-N1	7.26	114.00	108.20
84	Aa	3059	C	C2-N1-C1'	7.26	126.78	118.80
1	Ad	1372	C	C3'-C2'-C1'	7.25	107.30	101.50
84	Aa	173	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	807	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	2394	G	O4'-C1'-N9	7.25	114.00	108.20
84	Aa	2116	G	N1-C6-O6	7.25	124.25	119.90
84	Aa	2379	U	O4'-C1'-N1	7.25	114.00	108.20
1	Ad	1464	G	C1'-O4'-C4'	-7.25	104.10	109.90
85	Ac	111	G	C5-C6-O6	-7.25	124.25	128.60
1	Ad	1250	C	C3'-C2'-C1'	-7.25	95.70	101.50
84	Aa	44	A	O4'-C1'-N9	7.25	114.00	108.20
84	Aa	614	C	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	1171	U	O4'-C1'-N1	7.25	114.00	108.20
84	Aa	2356	A	C4-C5-C6	7.25	120.62	117.00
84	Aa	2727	U	O4'-C1'-N1	7.25	114.00	108.20
86	Ab	18	C	N3-C4-N4	7.25	123.07	118.00
84	Aa	794	G	C5-C6-O6	-7.25	124.25	128.60
84	Aa	865	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	26	A	O4'-C1'-N9	7.24	113.99	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	744	G	O4'-C4'-C3'	-7.24	96.76	104.00
1	Ad	1523	A	O4'-C1'-C2'	-7.24	98.56	105.80
84	Aa	2335	U	O4'-C1'-N1	7.24	113.99	108.20
84	Aa	2775	C	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	352	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1105	G	O4'-C1'-C2'	7.24	114.11	107.60
18	BN	128	TYR	CB-CG-CD2	7.24	125.34	121.00
84	Aa	1085	G	O4'-C1'-N9	7.24	113.99	108.20
84	Aa	2515	C	O4'-C1'-N1	7.24	113.99	108.20
84	Aa	2770	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1429	U	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1235	U	C3'-C2'-C1'	7.24	107.29	101.50
1	Ad	1339	C	O4'-C1'-N1	7.24	113.99	108.20
1	Ad	1647	C	C3'-C2'-C1'	7.24	107.29	101.50
84	Aa	747	A	C5-C6-N6	-7.24	117.91	123.70
84	Aa	1425	G	O4'-C1'-N9	7.24	113.99	108.20
84	Aa	403	U	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	1090	C	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	1187	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	1198	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	2492	C	O4'-C1'-N1	7.23	113.99	108.20
84	Aa	2959	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	90	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	816	G	C5-C6-O6	-7.23	124.26	128.60
84	Aa	1924	G	O4'-C1'-N9	7.23	113.98	108.20
84	Aa	2446	G	N1-C6-O6	7.23	124.24	119.90
84	Aa	2604	A	C5-C6-N1	-7.23	114.08	117.70
1	Ad	54	C	N1-C1'-C2'	-7.23	104.05	112.00
1	Ad	1391	G	C1'-O4'-C4'	-7.23	104.12	109.90
84	Aa	2708	A	C5-C6-N6	-7.23	117.92	123.70
84	Aa	3016	C	O4'-C1'-N1	7.23	113.98	108.20
1	Ad	1444	G	C3'-C2'-C1'	7.23	107.28	101.50
84	Aa	2293	U	O4'-C1'-N1	7.23	113.98	108.20
1	Ad	1121	A	O4'-C1'-N9	7.22	113.98	108.20
84	Aa	1652	G	C5-C6-O6	-7.22	124.27	128.60
84	Aa	2407	U	O4'-C1'-N1	7.22	113.98	108.20
42	CJ	70	TYR	CB-CG-CD2	7.22	125.33	121.00
84	Aa	45	U	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	220	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	333	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	675	C	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	2180	G	O4'-C1'-N9	7.22	113.98	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	CB	197	TYR	CB-CG-CD1	-7.22	116.67	121.00
1	Ad	412	C	C3'-C2'-C1'	7.22	107.28	101.50
84	Aa	379	U	O4'-C1'-N1	7.22	113.98	108.20
84	Aa	526	A	C5'-C4'-C3'	-7.22	104.45	116.00
84	Aa	270	G	O4'-C1'-N9	7.22	113.97	108.20
84	Aa	708	C	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	1055	U	O4'-C1'-N1	7.22	113.97	108.20
1	Ad	123	U	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	467	C	O4'-C1'-N1	7.22	113.97	108.20
84	Aa	603	G	N1-C6-O6	7.22	124.23	119.90
84	Aa	1510	G	O4'-C1'-N9	7.22	113.97	108.20
84	Aa	2376	G	C5-C6-O6	-7.22	124.27	128.60
84	Aa	2646	A	C5-C6-N6	-7.22	117.93	123.70
84	Aa	1469	G	C5-C6-O6	-7.21	124.27	128.60
86	Ab	7	G	O4'-C1'-N9	7.21	113.97	108.20
84	Aa	834	G	O4'-C1'-N9	7.21	113.97	108.20
84	Aa	2566	C	N3-C4-N4	7.21	123.05	118.00
1	Ad	334	G	O4'-C1'-C2'	7.21	114.09	107.60
84	Aa	836	G	C5'-C4'-C3'	-7.21	104.46	116.00
84	Aa	2289	U	O4'-C1'-N1	7.21	113.97	108.20
85	Ac	15	G	C5-C6-O6	-7.21	124.27	128.60
1	Ad	919	G	O4'-C1'-N9	7.21	113.97	108.20
1	Ad	1303	G	O4'-C1'-C2'	7.21	114.09	107.60
84	Aa	86	U	O4'-C1'-N1	7.21	113.97	108.20
84	Aa	2589	G	C5-C6-O6	-7.21	124.28	128.60
84	Aa	2779	G	P-O3'-C3'	7.21	128.35	119.70
84	Aa	1401	C	O4'-C1'-N1	7.21	113.97	108.20
84	Aa	1764	G	C5-C6-O6	-7.21	124.28	128.60
1	Ad	1218	U	O4'-C1'-N1	7.21	113.96	108.20
84	Aa	50	A	C5-C6-N6	-7.21	117.94	123.70
84	Aa	1060	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	2483	A	C5-C6-N6	-7.20	117.94	123.70
84	Aa	2997	C	C2-N1-C1'	7.20	126.72	118.80
84	Aa	3255	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	390	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	771	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	862	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	3389	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	70	G	C5-C6-O6	-7.20	124.28	128.60
1	Ad	645	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	989	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	1018	C	O4'-C1'-N1	7.20	113.96	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	163	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	971	G	C5-C6-O6	-7.20	124.28	128.60
84	Aa	3250	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	14	C	N3-C4-C5	-7.20	119.02	121.90
84	Aa	514	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	1484	A	N1-C6-N6	7.20	122.92	118.60
84	Aa	1718	U	O4'-C1'-N1	7.20	113.96	108.20
84	Aa	2557	C	N3-C4-C5	-7.20	119.02	121.90
84	Aa	3000	U	O4'-C1'-N1	7.20	113.96	108.20
85	Ac	32	C	O4'-C1'-N1	7.20	113.96	108.20
86	Ab	113	G	O4'-C1'-N9	7.20	113.96	108.20
84	Aa	3354	A	O4'-C1'-N9	7.19	113.96	108.20
84	Aa	496	U	O4'-C1'-N1	7.19	113.95	108.20
1	Ad	1672	U	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	97	G	C5-C6-O6	-7.19	124.28	128.60
84	Aa	1241	G	C5-C6-O6	-7.19	124.29	128.60
84	Aa	1265	G	N1-C6-O6	7.19	124.21	119.90
84	Aa	1380	C	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	2453	G	C5-C6-O6	-7.19	124.28	128.60
84	Aa	3067	G	C5-C6-O6	-7.19	124.29	128.60
84	Aa	566	G	C5-C6-O6	-7.19	124.29	128.60
1	Ad	865	U	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	1074	C	O4'-C1'-N1	7.19	113.95	108.20
1	Ad	1330	A	O4'-C1'-N9	7.19	113.95	108.20
84	Aa	313	C	O4'-C1'-N1	7.19	113.95	108.20
84	Aa	1329	G	O4'-C1'-N9	7.19	113.95	108.20
84	Aa	994	U	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2955	U	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2427	C	O4'-C1'-N1	7.18	113.95	108.20
84	Aa	2972	C	O4'-C1'-N1	7.18	113.95	108.20
86	Ab	55	A	O4'-C1'-N9	7.18	113.95	108.20
84	Aa	1250	G	N1-C6-O6	7.18	124.21	119.90
84	Aa	1402	G	O4'-C1'-N9	7.18	113.94	108.20
84	Aa	2613	G	C5-C6-O6	-7.18	124.29	128.60
86	Ab	72	G	C8-N9-C4	-7.18	103.53	106.40
84	Aa	2725	U	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	2915	U	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	713	G	O4'-C1'-N9	7.18	113.94	108.20
84	Aa	934	C	O4'-C1'-N1	7.18	113.94	108.20
84	Aa	1935	G	O4'-C1'-N9	7.18	113.94	108.20
1	Ad	1316	A	N9-C1'-C2'	7.17	123.33	114.00
84	Aa	1142	G	O4'-C1'-N9	7.17	113.94	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2994	U	O4'-C1'-N1	7.17	113.94	108.20
1	Ad	426	G	O4'-C1'-N9	7.17	113.94	108.20
57	Ce	67	TYR	CB-CG-CD2	-7.17	116.70	121.00
84	Aa	432	G	C5-C6-O6	-7.17	124.30	128.60
84	Aa	1041	C	O4'-C1'-N1	7.17	113.94	108.20
84	Aa	1521	U	O4'-C1'-N1	7.17	113.94	108.20
1	Ad	406	C	C3'-C2'-C1'	7.17	107.24	101.50
1	Ad	1569	U	O4'-C1'-N1	7.17	113.93	108.20
1	Ad	1720	G	P-O3'-C3'	7.17	128.30	119.70
84	Aa	1697	G	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	1705	A	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	1975	G	O4'-C1'-N9	7.17	113.93	108.20
1	Ad	1554	G	O4'-C1'-C2'	7.17	114.05	107.60
84	Aa	410	G	O4'-C1'-N9	7.17	113.93	108.20
84	Aa	2004	U	O4'-C1'-N1	7.17	113.93	108.20
1	Ad	1796	G	N9-C1'-C2'	7.16	123.31	114.00
84	Aa	1034	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	2245	G	C5-C6-O6	-7.16	124.30	128.60
84	Aa	3042	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	41	C	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	752	U	O4'-C1'-N1	7.16	113.93	108.20
86	Ab	44	C	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	117	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	149	G	O4'-C1'-N9	7.16	113.93	108.20
84	Aa	671	C	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	891	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	2253	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	1663	A	O4'-C1'-C2'	-7.16	98.64	105.80
84	Aa	311	G	O4'-C1'-N9	7.16	113.93	108.20
84	Aa	1232	A	C5-C6-N1	-7.16	114.12	117.70
84	Aa	1433	U	O4'-C1'-N1	7.16	113.93	108.20
84	Aa	1959	U	O4'-C1'-N1	7.16	113.93	108.20
1	Ad	708	G	O4'-C1'-N9	-7.16	102.47	108.20
84	Aa	2395	G	N1-C6-O6	7.16	124.19	119.90
84	Aa	1676	A	C5-C6-N1	-7.16	114.12	117.70
84	Aa	2333	U	O4'-C1'-N1	7.16	113.92	108.20
1	Ad	475	A	P-O3'-C3'	7.15	128.28	119.70
84	Aa	581	G	C5-C6-O6	-7.15	124.31	128.60
84	Aa	1064	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1531	G	N1-C6-O6	7.15	124.19	119.90
84	Aa	2302	G	C5-C6-O6	-7.15	124.31	128.60
1	Ad	710	G	O4'-C1'-N9	7.15	113.92	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3108	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1302	C	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1315	G	N1-C6-O6	7.15	124.19	119.90
84	Aa	2070	C	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	3304	U	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	242	A	O4'-C1'-N9	7.15	113.92	108.20
84	Aa	2220	U	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	800	U	C3'-C2'-C1'	-7.15	95.78	101.50
84	Aa	706	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	1786	G	C5-C6-O6	-7.15	124.31	128.60
84	Aa	2945	G	C5-C6-O6	-7.15	124.31	128.60
1	Ad	164	C	O4'-C1'-N1	7.15	113.92	108.20
1	Ad	1260	A	C3'-C2'-C1'	7.15	107.22	101.50
84	Aa	2092	C	N3-C4-C5	-7.15	119.04	121.90
86	Ab	4	U	O4'-C1'-N1	7.15	113.92	108.20
84	Aa	2346	U	O4'-C1'-N1	7.14	113.92	108.20
84	Aa	2383	G	C5-C6-O6	-7.14	124.31	128.60
1	Ad	1194	C	P-O3'-C3'	7.14	128.27	119.70
84	Aa	720	G	C5-C6-O6	-7.14	124.31	128.60
1	Ad	31	C	C3'-C2'-C1'	7.14	107.21	101.50
1	Ad	339	G	N9-C1'-C2'	7.14	123.28	114.00
84	Aa	554	C	C4'-C3'-O3'	7.14	127.28	113.00
84	Aa	2868	C	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	3225	G	O4'-C1'-N9	7.14	113.91	108.20
1	Ad	258	U	O4'-C1'-N1	7.14	113.91	108.20
1	Ad	593	C	O4'-C1'-N1	7.14	113.91	108.20
1	Ad	1042	C	N1-C1'-C2'	7.14	123.28	114.00
84	Aa	1265	G	C5-C6-O6	-7.14	124.32	128.60
1	Ad	308	U	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	157	G	C5-C6-O6	-7.14	124.32	128.60
84	Aa	330	C	O4'-C1'-N1	7.14	113.91	108.20
84	Aa	2451	G	O4'-C1'-N9	7.14	113.91	108.20
84	Aa	1494	A	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	2307	A	C5-C6-N1	-7.13	114.13	117.70
84	Aa	3301	G	C5-C6-O6	-7.13	124.32	128.60
1	Ad	1587	G	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	1948	G	O4'-C1'-N9	7.13	113.91	108.20
84	Aa	570	G	O4'-C1'-N9	7.13	113.90	108.20
84	Aa	2077	C	P-O3'-C3'	7.13	128.25	119.70
84	Aa	2310	G	N1-C6-O6	7.13	124.18	119.90
84	Aa	2081	C	C2'-C3'-O3'	7.13	125.18	109.50
85	Ac	21	C	O4'-C1'-N1	7.13	113.90	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1248	A	C3'-C2'-C1'	-7.13	95.80	101.50
1	Ad	1725	C	O4'-C1'-N1	7.13	113.90	108.20
84	Aa	2905	A	C4-C5-C6	7.13	120.56	117.00
1	Ad	1528	U	C1'-O4'-C4'	7.12	115.60	109.90
84	Aa	2093	G	C4-N9-C1'	-7.12	117.24	126.50
84	Aa	2341	U	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	3170	C	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	223	C	O4'-C1'-N1	7.12	113.90	108.20
84	Aa	2836	G	N1-C6-O6	7.12	124.17	119.90
1	Ad	530	A	P-O3'-C3'	7.12	128.25	119.70
84	Aa	2856	U	O4'-C1'-N1	7.12	113.90	108.20
1	Ad	1647	C	O4'-C1'-C2'	-7.12	98.68	105.80
84	Aa	321	A	N1-C6-N6	7.12	122.87	118.60
84	Aa	931	C	O4'-C1'-N1	7.12	113.89	108.20
85	Ac	52	A	C5-C6-N6	-7.12	118.01	123.70
84	Aa	1948	G	N1-C6-O6	7.12	124.17	119.90
84	Aa	1439	U	O4'-C1'-N1	7.12	113.89	108.20
84	Aa	2242	G	O4'-C1'-N9	7.12	113.89	108.20
84	Aa	2528	U	O4'-C1'-N1	7.12	113.89	108.20
84	Aa	3029	G	O4'-C1'-N9	7.12	113.89	108.20
84	Aa	3333	C	C5'-C4'-O4'	7.12	117.64	109.10
84	Aa	1556	G	C5-C6-O6	-7.11	124.33	128.60
84	Aa	2801	A	C5-C6-N1	-7.11	114.14	117.70
84	Aa	3286	G	C5-C6-O6	-7.11	124.33	128.60
84	Aa	2434	G	N1-C6-O6	7.11	124.17	119.90
84	Aa	745	G	O4'-C1'-N9	7.11	113.89	108.20
84	Aa	1538	A	C5-C6-N6	-7.11	118.01	123.70
84	Aa	2385	A	C4-C5-C6	7.11	120.56	117.00
84	Aa	2611	G	O4'-C1'-N9	7.11	113.89	108.20
84	Aa	2701	G	C5-C6-O6	-7.11	124.33	128.60
1	Ad	99	U	N1-C1'-C2'	7.11	123.24	114.00
1	Ad	414	A	C1'-O4'-C4'	-7.11	104.21	109.90
1	Ad	716	A	C4'-C3'-O3'	-7.11	94.47	109.40
1	Ad	323	U	P-O3'-C3'	7.11	128.23	119.70
1	Ad	1184	C	C3'-C2'-C1'	7.11	107.19	101.50
3	Af	21	C	O4'-C1'-C2'	-7.11	98.69	105.80
84	Aa	456	G	C5-C6-O6	-7.11	124.34	128.60
84	Aa	1280	U	O4'-C1'-N1	7.11	113.89	108.20
1	Ad	391	A	C1'-O4'-C4'	7.10	115.58	109.90
84	Aa	765	U	O4'-C1'-N1	7.10	113.88	108.20
86	Ab	82	G	N3-C2-N2	7.10	124.87	119.90
84	Aa	513	C	C5'-C4'-O4'	7.10	117.62	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1372	U	O4'-C1'-N1	7.10	113.88	108.20
84	Aa	1650	G	O4'-C1'-N9	7.10	113.88	108.20
84	Aa	1662	G	C5-C6-O6	-7.10	124.34	128.60
1	Ad	480	U	N1-C1'-C2'	7.10	123.23	114.00
84	Aa	1350	G	O4'-C1'-N9	7.10	113.88	108.20
84	Aa	637	C	P-O3'-C3'	-7.10	111.19	119.70
1	Ad	1313	G	O4'-C1'-N9	7.09	113.88	108.20
84	Aa	1358	C	O4'-C1'-N1	7.09	113.88	108.20
84	Aa	2838	C	C6-N1-C1'	-7.09	112.29	120.80
84	Aa	3179	G	O4'-C1'-N9	7.09	113.88	108.20
86	Ab	73	U	C5'-C4'-O4'	7.09	117.61	109.10
84	Aa	455	U	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	476	C	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	1683	U	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	2430	C	O4'-C1'-N1	7.09	113.87	108.20
84	Aa	2746	G	O4'-C1'-N9	7.09	113.87	108.20
1	Ad	151	A	O4'-C1'-N9	7.09	113.87	108.20
1	Ad	1154	G	O4'-C1'-C2'	7.09	113.98	107.60
84	Aa	293	A	O4'-C1'-N9	7.09	113.87	108.20
84	Aa	1088	A	C5-C6-N6	-7.09	118.03	123.70
84	Aa	1526	A	C4-C5-C6	7.09	120.54	117.00
84	Aa	3200	A	O4'-C1'-N9	7.09	113.87	108.20
86	Ab	71	A	C5-N7-C8	7.09	107.44	103.90
84	Aa	1924	G	N1-C6-O6	7.08	124.15	119.90
1	Ad	1172	G	C1'-O4'-C4'	-7.08	104.23	109.90
1	Ad	1376	A	C1'-O4'-C4'	7.08	115.57	109.90
84	Aa	1304	G	C5-C6-O6	-7.08	124.35	128.60
85	Ac	119	C	O4'-C1'-N1	7.08	113.87	108.20
84	Aa	440	U	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	1526	A	C5-C6-N1	-7.08	114.16	117.70
84	Aa	3165	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	76	U	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	161	G	C3'-C2'-C1'	-7.08	95.84	101.50
84	Aa	510	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	223	A	C1'-O4'-C4'	-7.08	104.24	109.90
84	Aa	644	U	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	2078	G	C5-C6-O6	-7.08	124.35	128.60
84	Aa	3369	G	C5-C6-O6	-7.08	124.35	128.60
1	Ad	742	C	O4'-C1'-N1	7.08	113.86	108.20
1	Ad	1667	A	O4'-C1'-N9	7.08	113.86	108.20
1	Ad	792	U	N1-C1'-C2'	-7.08	104.22	112.00
84	Aa	921	C	O4'-C1'-N1	7.08	113.86	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1036	C	O4'-C1'-N1	7.08	113.86	108.20
84	Aa	1539	G	C5-C6-O6	-7.08	124.36	128.60
84	Aa	1649	G	O4'-C1'-N9	7.08	113.86	108.20
1	Ad	526	U	O4'-C1'-N1	7.07	113.86	108.20
84	Aa	666	U	O4'-C1'-N1	7.07	113.86	108.20
84	Aa	687	C	N3-C4-N4	7.07	122.95	118.00
84	Aa	2099	G	O4'-C1'-N9	7.07	113.86	108.20
84	Aa	377	C	O4'-C1'-N1	7.07	113.86	108.20
1	Ad	213	U	O4'-C1'-N1	7.07	113.86	108.20
1	Ad	535	C	C1'-O4'-C4'	-7.07	104.24	109.90
84	Aa	1025	G	C5-C6-O6	-7.07	124.36	128.60
84	Aa	1645	G	C5-C6-O6	-7.07	124.36	128.60
84	Aa	1729	G	C5-C6-O6	-7.07	124.36	128.60
1	Ad	1392	G	O4'-C1'-C2'	7.07	113.96	107.60
84	Aa	564	A	O4'-C1'-N9	7.07	113.85	108.20
84	Aa	574	C	O4'-C1'-N1	7.07	113.85	108.20
84	Aa	2903	G	C5-C6-O6	-7.07	124.36	128.60
1	Ad	1033	C	N1-C1'-C2'	7.06	123.18	114.00
86	Ab	78	C	C6-N1-C2	-7.06	117.47	120.30
86	Ab	86	G	O4'-C1'-N9	7.06	113.85	108.20
84	Aa	2340	G	O4'-C1'-N9	7.06	113.85	108.20
1	Ad	758	A	N9-C1'-C2'	7.06	123.18	114.00
58	Cj	84	ALA	N-CA-CB	7.06	119.98	110.10
84	Aa	247	C	O4'-C1'-N1	7.06	113.85	108.20
84	Aa	1909	G	C5-C6-O6	-7.06	124.36	128.60
84	Aa	2756	G	N3-C2-N2	7.06	124.84	119.90
84	Aa	2949	G	O4'-C1'-N9	7.06	113.85	108.20
1	Ad	430	G	O4'-C1'-C2'	7.06	113.95	107.60
1	Ad	1019	G	O4'-C1'-C2'	7.06	113.95	107.60
1	Ad	1235	U	O4'-C1'-C2'	-7.06	98.74	105.80
1	Ad	1255	U	N1-C1'-C2'	-7.06	104.24	112.00
84	Aa	299	G	N1-C6-O6	7.06	124.14	119.90
84	Aa	621	C	C6-N1-C1'	-7.06	112.33	120.80
84	Aa	1318	C	N3-C4-C5	-7.06	119.08	121.90
84	Aa	2444	U	O4'-C1'-N1	7.06	113.85	108.20
84	Aa	623	G	C5-C6-O6	-7.06	124.37	128.60
84	Aa	686	A	C5-C6-N6	-7.05	118.06	123.70
84	Aa	791	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	3264	C	C2-N1-C1'	7.05	126.56	118.80
84	Aa	2336	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	3237	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	818	G	N1-C6-O6	7.05	124.13	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1228	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1422	G	O4'-C1'-N9	7.05	113.84	108.20
84	Aa	2552	U	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	870	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	1202	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1601	G	C5-C6-O6	-7.05	124.37	128.60
84	Aa	616	A	O4'-C1'-N9	7.05	113.84	108.20
1	Ad	1725	C	C1'-O4'-C4'	7.05	115.54	109.90
84	Aa	884	C	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	1126	U	O4'-C1'-N1	7.05	113.84	108.20
84	Aa	2793	G	N1-C6-O6	7.04	124.13	119.90
1	Ad	176	A	O4'-C1'-C2'	-7.04	98.76	105.80
84	Aa	1513	C	O4'-C1'-N1	7.04	113.83	108.20
84	Aa	2163	G	C5'-C4'-O4'	-7.04	100.65	109.10
84	Aa	2635	G	N1-C6-O6	7.04	124.12	119.90
84	Aa	2932	A	C5-C6-N6	-7.04	118.07	123.70
84	Aa	1664	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	567	U	N1-C1'-C2'	7.04	123.15	114.00
84	Aa	1325	G	O4'-C1'-N9	7.04	113.83	108.20
84	Aa	1509	G	N1-C6-O6	7.04	124.12	119.90
84	Aa	1868	C	N3-C4-C5	-7.04	119.08	121.90
86	Ab	68	G	C5-C6-O6	-7.04	124.38	128.60
84	Aa	193	U	O4'-C1'-N1	7.04	113.83	108.20
84	Aa	1898	G	C5-C6-O6	-7.04	124.38	128.60
84	Aa	3075	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	1584	A	C3'-C2'-C1'	7.04	107.13	101.50
84	Aa	1282	A	O4'-C1'-N9	7.04	113.83	108.20
84	Aa	2536	G	C5-C6-O6	-7.04	124.38	128.60
1	Ad	478	A	O4'-C1'-N9	7.03	113.83	108.20
84	Aa	2602	U	O4'-C1'-N1	7.03	113.83	108.20
84	Aa	1563	G	P-O3'-C3'	7.03	128.14	119.70
84	Aa	2208	A	O4'-C1'-N9	7.03	113.83	108.20
84	Aa	3079	G	C5-C6-O6	-7.03	124.38	128.60
84	Aa	740	G	C5-C6-O6	-7.03	124.38	128.60
84	Aa	1851	U	O4'-C1'-N1	7.03	113.82	108.20
86	Ab	90	A	C4-C5-C6	7.03	120.52	117.00
84	Aa	992	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	1258	C	N3-C4-C5	-7.03	119.09	121.90
84	Aa	1869	U	O4'-C1'-N1	7.03	113.82	108.20
86	Ab	17	G	N1-C6-O6	7.03	124.12	119.90
48	CD	183	PHE	CB-CG-CD1	-7.03	115.88	120.80
84	Aa	512	G	N3-C2-N2	7.03	124.82	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1989	G	O4'-C1'-N9	7.03	113.82	108.20
84	Aa	2524	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	2570	U	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	2573	U	O4'-C1'-N1	7.03	113.82	108.20
85	Ac	90	C	O4'-C1'-N1	7.03	113.82	108.20
84	Aa	956	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	2188	U	O4'-C1'-N1	7.02	113.82	108.20
1	Ad	351	G	C3'-C2'-C1'	-7.02	95.88	101.50
84	Aa	1669	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	2088	C	N3-C4-C5	-7.02	119.09	121.90
84	Aa	2190	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	3146	C	O4'-C1'-N1	7.02	113.82	108.20
1	Ad	1088	G	O4'-C1'-N9	7.02	113.82	108.20
84	Aa	951	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	1079	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	1106	G	C5-C6-O6	-7.02	124.39	128.60
1	Ad	1	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	239	C	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	972	C	O4'-C1'-N1	7.02	113.82	108.20
84	Aa	1993	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	74	G	N1-C6-O6	7.02	124.11	119.90
84	Aa	1170	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	1187	G	O4'-C1'-N9	7.02	113.81	108.20
84	Aa	1548	U	O4'-C1'-N1	7.02	113.81	108.20
84	Aa	1625	G	C5-C6-O6	-7.02	124.39	128.60
84	Aa	2080	G	O4'-C1'-N9	7.02	113.81	108.20
84	Aa	3274	G	O4'-C1'-N9	7.02	113.81	108.20
85	Ac	35	C	O4'-C1'-N1	7.02	113.81	108.20
85	Ac	78	G	N1-C6-O6	7.02	124.11	119.90
1	Ad	372	U	N1-C1'-C2'	-7.01	104.28	112.00
1	Ad	904	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	539	C	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	1528	G	N1-C6-O6	7.01	124.11	119.90
84	Aa	2964	U	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	3279	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	181	G	N1-C6-O6	7.01	124.11	119.90
84	Aa	331	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	507	C	N3-C4-N4	7.01	122.91	118.00
85	Ac	56	G	C5-C6-O6	-7.01	124.39	128.60
86	Ab	118	C	C2-N3-C4	7.01	123.41	119.90
1	Ad	1124	G	O4'-C1'-C2'	7.01	113.91	107.60
1	Ad	1489	A	O4'-C1'-N9	7.01	113.81	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1567	G	C3'-C2'-C1'	-7.01	95.89	101.50
84	Aa	678	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	815	G	O4'-C1'-N9	7.01	113.81	108.20
84	Aa	1991	U	O4'-C1'-N1	7.01	113.81	108.20
84	Aa	2151	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	2466	G	C5-C6-O6	-7.01	124.39	128.60
84	Aa	1730	U	O4'-C1'-N1	7.01	113.81	108.20
57	Ce	26	TYR	CB-CG-CD2	-7.01	116.80	121.00
84	Aa	835	G	C5-C6-O6	-7.01	124.40	128.60
84	Aa	2789	G	C5-C6-O6	-7.01	124.40	128.60
85	Ac	24	G	O4'-C1'-N9	7.01	113.81	108.20
86	Ab	36	C	O4'-C1'-N1	7.01	113.81	108.20
1	Ad	1164	C	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	2726	U	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	2956	U	O4'-C1'-N1	7.00	113.80	108.20
1	Ad	975	A	C3'-C2'-C1'	7.00	107.10	101.50
1	Ad	1080	C	C3'-C2'-C1'	7.00	107.10	101.50
84	Aa	152	C	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	275	G	N3-C2-N2	7.00	124.80	119.90
85	Ac	7	U	O4'-C1'-N1	7.00	113.80	108.20
84	Aa	106	G	O4'-C1'-N9	7.00	113.80	108.20
84	Aa	3384	G	C5-C6-O6	-7.00	124.40	128.60
85	Ac	107	G	C5-C6-O6	-7.00	124.40	128.60
84	Aa	720	G	P-O3'-C3'	-7.00	111.30	119.70
1	Ad	179	A	C3'-C2'-C1'	7.00	107.10	101.50
84	Aa	2163	G	C5-C6-O6	-6.99	124.40	128.60
84	Aa	2206	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	1722	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	2947	G	N1-C6-O6	6.99	124.09	119.90
84	Aa	1445	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	1853	C	N3-C4-C5	-6.99	119.10	121.90
1	Ad	1405	U	C5'-C4'-C3'	-6.99	104.82	116.00
84	Aa	627	G	C5-C6-O6	-6.99	124.41	128.60
84	Aa	2914	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	1829	G	C5-C6-O6	-6.99	124.41	128.60
1	Ad	873	G	N9-C1'-C2'	-6.99	104.32	112.00
84	Aa	709	G	N1-C6-O6	6.99	124.09	119.90
84	Aa	787	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	1076	G	O4'-C1'-N9	6.99	113.79	108.20
84	Aa	3180	U	O4'-C1'-N1	6.99	113.79	108.20
84	Aa	3014	U	O4'-C1'-N1	6.98	113.79	108.20
84	Aa	2398	A	O4'-C1'-N9	6.98	113.78	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	317	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	814	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	2871	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	3150	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	1119	G	C5-C6-O6	-6.98	124.41	128.60
86	Ab	82	G	N1-C2-N3	-6.98	119.71	123.90
1	Ad	1432	C	C1'-O4'-C4'	6.98	115.48	109.90
42	CJ	70	TYR	CB-CG-CD1	-6.98	116.81	121.00
84	Aa	51	A	C4-C5-C6	6.98	120.49	117.00
84	Aa	104	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	241	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	1387	G	N1-C6-O6	6.98	124.09	119.90
84	Aa	2439	A	O4'-C1'-N9	6.98	113.78	108.20
84	Aa	2510	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	3378	U	O4'-C1'-N1	6.98	113.78	108.20
1	Ad	64	U	O4'-C1'-C2'	-6.98	98.82	105.80
84	Aa	728	G	N1-C6-O6	6.98	124.09	119.90
84	Aa	1368	U	O4'-C1'-N1	6.98	113.78	108.20
84	Aa	1622	G	C5-C6-O6	-6.98	124.41	128.60
84	Aa	2846	C	O4'-C1'-N1	6.98	113.78	108.20
1	Ad	1549	G	C3'-C2'-C1'	6.97	107.08	101.50
2	Ae	29	C	C3'-C2'-C1'	6.97	107.08	101.50
84	Aa	1091	C	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	1673	A	C5-C6-N1	-6.97	114.21	117.70
84	Aa	1605	U	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	3298	G	C5-C6-O6	-6.97	124.42	128.60
84	Aa	625	G	P-O3'-C3'	6.97	128.07	119.70
1	Ad	627	A	O4'-C1'-N9	6.97	113.78	108.20
1	Ad	746	A	C1'-O4'-C4'	6.97	115.47	109.90
1	Ad	1683	G	C3'-C2'-C1'	-6.97	95.92	101.50
84	Aa	279	G	N1-C6-O6	6.97	124.08	119.90
86	Ab	90	A	C5-C6-N1	-6.97	114.22	117.70
1	Ad	711	C	O4'-C1'-N1	6.97	113.78	108.20
84	Aa	350	A	O4'-C1'-N9	6.97	113.77	108.20
84	Aa	1563	G	C2'-C3'-O3'	6.97	124.85	113.70
84	Aa	3217	G	O4'-C1'-N9	6.97	113.77	108.20
86	Ab	10	C	N3-C4-N4	6.97	122.88	118.00
1	Ad	385	C	C3'-C2'-C1'	6.96	107.07	101.50
1	Ad	726	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	1169	G	C5-C6-O6	-6.96	124.42	128.60
84	Aa	1630	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	2169	U	O4'-C1'-N1	6.96	113.77	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3370	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	3376	C	O4'-C1'-N1	6.96	113.77	108.20
1	Ad	751	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	2255	U	O4'-C1'-N1	6.96	113.77	108.20
1	Ad	1735	C	N1-C1'-C2'	6.96	123.05	114.00
84	Aa	1085	G	C5-C6-O6	-6.96	124.42	128.60
84	Aa	1264	A	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	2566	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	1726	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	2485	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	3178	C	C2-N1-C1'	6.96	126.46	118.80
1	Ad	1787	G	C4'-C3'-C2'	-6.96	95.64	102.60
84	Aa	1577	A	O4'-C1'-N9	6.96	113.77	108.20
1	Ad	1512	C	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	380	U	O4'-C1'-N1	6.96	113.77	108.20
84	Aa	750	G	O4'-C1'-N9	6.96	113.77	108.20
84	Aa	1288	C	N3-C4-C5	-6.96	119.12	121.90
84	Aa	2693	G	C5-C6-O6	-6.96	124.43	128.60
1	Ad	246	G	O4'-C1'-N9	6.96	113.76	108.20
84	Aa	425	G	O4'-C1'-N9	6.96	113.76	108.20
84	Aa	1884	U	O4'-C1'-N1	6.96	113.76	108.20
84	Aa	3334	A	C5-C6-N1	-6.96	114.22	117.70
86	Ab	82	G	C6-C5-N7	-6.96	126.23	130.40
84	Aa	1010	A	N1-C6-N6	6.95	122.77	118.60
84	Aa	1259	C	N3-C4-C5	-6.95	119.12	121.90
84	Aa	3177	A	C5-C6-N1	-6.95	114.22	117.70
84	Aa	3300	C	N3-C4-N4	6.95	122.87	118.00
84	Aa	2598	A	O4'-C1'-N9	6.95	113.76	108.20
1	Ad	54	C	C1'-O4'-C4'	6.95	115.46	109.90
1	Ad	173	G	O4'-C1'-N9	6.95	113.76	108.20
1	Ad	856	G	O4'-C1'-C2'	6.95	113.86	107.60
84	Aa	607	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1419	G	C5-C6-O6	-6.95	124.43	128.60
1	Ad	1538	C	C3'-C2'-C1'	6.95	107.06	101.50
84	Aa	1773	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1803	G	C5-C6-O6	-6.95	124.43	128.60
86	Ab	23	A	C5-C6-N1	-6.95	114.23	117.70
1	Ad	1202	G	C3'-C2'-C1'	-6.95	95.94	101.50
84	Aa	1104	C	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	1719	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	2599	U	O4'-C1'-N1	6.95	113.76	108.20
84	Aa	3281	G	C5-C6-O6	-6.95	124.43	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	47	C	N3-C4-N4	6.95	122.86	118.00
84	Aa	1234	G	N1-C6-O6	6.94	124.07	119.90
84	Aa	1618	U	O4'-C1'-N1	6.94	113.75	108.20
1	Ad	1448	U	C4'-C3'-C2'	-6.94	95.66	102.60
6	BK	87	VAL	CA-C-N	6.94	136.54	117.10
84	Aa	1261	C	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	2695	A	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	2808	U	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	3142	C	O4'-C1'-N1	6.94	113.75	108.20
1	Ad	631	C	C1'-O4'-C4'	-6.94	104.35	109.90
84	Aa	252	A	N1-C6-N6	6.94	122.77	118.60
84	Aa	301	G	N1-C6-O6	6.94	124.06	119.90
84	Aa	428	G	N1-C6-O6	6.94	124.06	119.90
84	Aa	1847	G	C5-C6-O6	-6.94	124.44	128.60
84	Aa	1876	U	O4'-C1'-N1	6.94	113.75	108.20
84	Aa	2457	G	P-O3'-C3'	6.94	128.03	119.70
84	Aa	2659	A	C5-C6-N1	-6.94	114.23	117.70
84	Aa	2876	G	N1-C6-O6	6.94	124.06	119.90
1	Ad	1237	G	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	150	G	C5-C6-O6	-6.94	124.44	128.60
84	Aa	1033	G	O4'-C1'-N9	6.94	113.75	108.20
84	Aa	3325	G	O4'-C1'-N9	6.94	113.75	108.20
85	Ac	136	G	C5-C6-O6	-6.94	124.44	128.60
1	Ad	1150	U	O4'-C1'-N1	6.94	113.75	108.20
52	CW	54	THR	N-CA-CB	6.94	123.48	110.30
1	Ad	914	U	N1-C1'-C2'	6.94	123.02	114.00
1	Ad	1062	C	C1'-O4'-C4'	6.93	115.45	109.90
1	Ad	1273	U	O4'-C1'-N1	6.93	113.75	108.20
1	Ad	1519	G	O4'-C1'-N9	6.93	113.75	108.20
85	Ac	70	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	1728	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	1348	G	O4'-C1'-N9	6.93	113.75	108.20
84	Aa	2022	U	O4'-C1'-N1	6.93	113.75	108.20
84	Aa	2142	A	C5-C6-N6	-6.93	118.16	123.70
84	Aa	745	G	C5-C6-O6	-6.93	124.44	128.60
84	Aa	2338	C	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2377	C	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2415	U	O4'-C1'-N1	6.93	113.74	108.20
84	Aa	2683	A	C4-C5-C6	6.93	120.46	117.00
1	Ad	229	G	O4'-C1'-N9	6.93	113.74	108.20
84	Aa	699	C	N3-C4-C5	-6.93	119.13	121.90
84	Aa	797	U	O4'-C1'-N1	6.93	113.74	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	977	G	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	78	U	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	2760	U	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	653	A	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	984	A	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	3125	G	N1-C6-O6	6.92	124.05	119.90
1	Ad	1154	G	C1'-O4'-C4'	-6.92	104.36	109.90
84	Aa	1336	A	C4-C5-C6	6.92	120.46	117.00
84	Aa	1341	G	O4'-C1'-N9	6.92	113.74	108.20
84	Aa	3048	C	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	289	C	N3-C4-C5	-6.92	119.13	121.90
84	Aa	1226	G	C5-C6-O6	-6.92	124.45	128.60
86	Ab	6	C	O4'-C1'-N1	6.92	113.74	108.20
84	Aa	622	U	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	1801	G	C5-C6-O6	-6.92	124.45	128.60
84	Aa	15	C	N3-C4-N4	6.92	122.84	118.00
84	Aa	2961	C	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	494	C	O4'-C1'-N1	6.92	113.73	108.20
84	Aa	1137	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	1158	C	N3-C4-C5	-6.91	119.13	121.90
84	Aa	1430	C	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	2568	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	554	C	C2'-C3'-O3'	-6.91	94.29	109.50
84	Aa	1279	C	O4'-C1'-N1	6.91	113.73	108.20
1	Ad	1486	U	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	381	G	C5-C6-O6	-6.91	124.45	128.60
84	Aa	2958	A	C5-C6-N6	-6.91	118.17	123.70
84	Aa	2997	C	C6-N1-C1'	-6.91	112.51	120.80
84	Aa	3215	U	O4'-C1'-N1	6.91	113.73	108.20
84	Aa	18	G	O4'-C1'-N9	6.91	113.73	108.20
84	Aa	638	G	C5-C6-O6	-6.91	124.45	128.60
84	Aa	2490	U	O4'-C1'-N1	6.91	113.73	108.20
86	Ab	55	A	C5-C6-N1	-6.91	114.25	117.70
84	Aa	487	C	N3-C4-N4	6.91	122.83	118.00
84	Aa	2818	G	C5-C6-O6	-6.91	124.46	128.60
1	Ad	179	A	C1'-O4'-C4'	-6.91	104.38	109.90
1	Ad	212	A	O4'-C1'-N9	-6.91	102.68	108.20
1	Ad	273	C	N1-C1'-C2'	6.91	122.98	114.00
84	Aa	1562	A	C5'-C4'-O4'	6.91	117.39	109.10
84	Aa	400	G	O4'-C1'-N9	6.90	113.72	108.20
84	Aa	3059	C	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	1092	A	N9-C1'-C2'	6.90	122.97	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1658	G	C5-C6-O6	-6.90	124.46	128.60
1	Ad	729	C	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	738	U	O4'-C1'-N1	6.90	113.72	108.20
1	Ad	1434	G	N9-C1'-C2'	6.90	122.97	114.00
84	Aa	3286	G	O4'-C1'-N9	6.90	113.72	108.20
85	Ac	120	G	C5-C6-O6	-6.90	124.46	128.60
1	Ad	473	C	N1-C1'-C2'	6.90	122.97	114.00
1	Ad	1327	C	C3'-C2'-C1'	6.90	107.02	101.50
84	Aa	640	C	O3'-P-O5'	6.90	117.11	104.00
84	Aa	1612	C	N3-C4-C5	-6.90	119.14	121.90
85	Ac	66	G	O4'-C1'-N9	6.90	113.72	108.20
1	Ad	295	C	C3'-C2'-C1'	6.90	107.02	101.50
84	Aa	22	G	C5-C6-O6	-6.90	124.46	128.60
84	Aa	1621	G	O4'-C1'-N9	6.90	113.72	108.20
84	Aa	3315	A	C5-C6-N6	-6.90	118.18	123.70
85	Ac	42	G	O4'-C1'-N9	6.90	113.72	108.20
86	Ab	77	A	C5-C6-N6	-6.90	118.18	123.70
1	Ad	1309	U	C1'-O4'-C4'	6.89	115.42	109.90
84	Aa	926	C	O4'-C1'-N1	6.89	113.72	108.20
1	Ad	883	G	O4'-C1'-N9	6.89	113.72	108.20
84	Aa	1677	G	O4'-C1'-N9	6.89	113.71	108.20
84	Aa	2564	G	N1-C6-O6	6.89	124.03	119.90
1	Ad	433	G	O4'-C1'-N9	6.89	113.71	108.20
84	Aa	284	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	552	G	C4'-C3'-O3'	-6.89	94.93	109.40
84	Aa	1066	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	2202	A	C4-C5-C6	6.89	120.44	117.00
84	Aa	3243	C	N3-C4-N4	6.89	122.82	118.00
84	Aa	3361	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	151	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	295	U	O4'-C1'-N1	6.89	113.71	108.20
84	Aa	883	G	N1-C6-O6	6.89	124.03	119.90
1	Ad	1445	C	O4'-C1'-C2'	-6.89	98.91	105.80
2	Ae	47	U	C1'-O4'-C4'	6.89	115.41	109.90
84	Aa	60	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	663	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	859	G	C5-C6-O6	-6.89	124.47	128.60
84	Aa	1644	A	C4-C5-C6	6.89	120.44	117.00
86	Ab	73	U	C1'-O4'-C4'	-6.88	104.39	109.90
1	Ad	1464	G	C3'-C2'-C1'	-6.88	96.00	101.50
84	Aa	563	C	O4'-C1'-N1	6.88	113.70	108.20
84	Aa	1189	G	C5-C6-O6	-6.88	124.47	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1904	A	C5-C6-N6	-6.88	118.19	123.70
1	Ad	881	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	1432	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	3138	C	N3-C4-N4	6.88	122.82	118.00
84	Aa	787	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	3008	U	O4'-C1'-N1	6.88	113.70	108.20
84	Aa	3054	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	3076	C	N3-C4-N4	6.88	122.81	118.00
84	Aa	531	G	O4'-C1'-N9	6.88	113.70	108.20
84	Aa	927	G	C5-C6-O6	-6.88	124.47	128.60
84	Aa	2170	G	C5-C6-O6	-6.88	124.47	128.60
1	Ad	1212	A	O4'-C1'-N9	6.88	113.70	108.20
1	Ad	1618	G	C1'-O4'-C4'	-6.88	104.40	109.90
73	CO	117	TYR	CB-CG-CD2	-6.88	116.88	121.00
1	Ad	273	C	O4'-C1'-N1	6.87	113.70	108.20
84	Aa	121	A	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	1925	G	C5-C6-O6	-6.87	124.48	128.60
1	Ad	1152	A	C3'-C2'-C1'	6.87	107.00	101.50
84	Aa	485	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	533	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	2417	G	O4'-C1'-N9	6.87	113.70	108.20
84	Aa	3320	G	O4'-C1'-N9	6.87	113.70	108.20
85	Ac	159	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	763	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	1878	G	O4'-C1'-N9	6.87	113.69	108.20
84	Aa	2313	U	O4'-C1'-N1	6.87	113.70	108.20
84	Aa	2455	A	N1-C6-N6	6.87	122.72	118.60
84	Aa	2854	C	O4'-C1'-N1	6.87	113.69	108.20
84	Aa	1292	U	O4'-C1'-N1	6.87	113.69	108.20
84	Aa	3042	U	P-O5'-C5'	6.87	131.89	120.90
84	Aa	3027	G	C5-C6-O6	-6.87	124.48	128.60
84	Aa	3046	C	N3-C4-C5	-6.87	119.15	121.90
84	Aa	3236	A	O4'-C1'-N9	6.87	113.69	108.20
86	Ab	98	G	N1-C2-N3	-6.87	119.78	123.90
1	Ad	1613	G	C1'-O4'-C4'	-6.86	104.41	109.90
84	Aa	1537	A	O4'-C1'-N9	6.86	113.69	108.20
84	Aa	1912	U	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	2089	A	O4'-C1'-N9	6.86	113.69	108.20
84	Aa	2149	G	N1-C6-O6	6.86	124.02	119.90
84	Aa	2438	A	O4'-C1'-N9	6.86	113.69	108.20
86	Ab	69	A	C4-C5-C6	6.86	120.43	117.00
84	Aa	692	U	O4'-C1'-N1	6.86	113.69	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	580	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	962	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	1116	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	2802	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	2986	C	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	3208	G	C5-C6-O6	-6.86	124.48	128.60
84	Aa	3363	G	O4'-C1'-N9	6.86	113.69	108.20
1	Ad	1172	G	O4'-C1'-C2'	6.86	113.77	107.60
85	Ac	41	A	C5-C6-N6	-6.86	118.21	123.70
1	Ad	1677	U	O4'-C1'-N1	6.86	113.69	108.20
84	Aa	1810	G	C5-C6-O6	-6.86	124.48	128.60
1	Ad	848	C	O4'-C1'-C2'	-6.86	98.94	105.80
84	Aa	527	G	C5-C6-O6	-6.86	124.49	128.60
1	Ad	1190	U	N1-C1'-C2'	-6.85	104.46	112.00
1	Ad	1213	C	N1-C1'-C2'	6.85	122.91	114.00
2	Ae	9	A	O4'-C1'-C2'	-6.85	98.95	105.80
84	Aa	119	A	C5-C6-N6	-6.85	118.22	123.70
84	Aa	1134	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	1822	C	N3-C4-C5	-6.85	119.16	121.90
84	Aa	2115	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	2996	A	P-O3'-C3'	6.85	127.92	119.70
1	Ad	356	G	C3'-C2'-C1'	6.85	106.98	101.50
84	Aa	2292	U	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	294	A	C4-C5-C6	6.85	120.42	117.00
84	Aa	964	C	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	1411	G	O4'-C1'-N9	6.85	113.68	108.20
84	Aa	1524	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	2212	U	O4'-C1'-N1	6.85	113.68	108.20
86	Ab	47	C	O4'-C1'-N1	6.85	113.68	108.20
84	Aa	265	G	C5-C6-O6	-6.85	124.49	128.60
84	Aa	1545	G	O4'-C1'-N9	6.85	113.68	108.20
1	Ad	60	C	N1-C1'-C2'	6.85	122.90	114.00
84	Aa	2791	U	O4'-C1'-N1	6.85	113.68	108.20
1	Ad	719	C	C3'-C2'-C1'	6.84	106.97	101.50
1	Ad	1221	A	C1'-O4'-C4'	6.84	115.38	109.90
1	Ad	1582	G	O4'-C1'-C2'	-6.84	98.95	105.80
84	Aa	798	G	C5-C6-O6	-6.84	124.49	128.60
1	Ad	1112	G	O4'-C1'-C2'	6.84	113.76	107.60
1	Ad	25	C	P-O3'-C3'	6.84	127.91	119.70
84	Aa	3005	C	O4'-C1'-N1	6.84	113.67	108.20
1	Ad	706	U	C5'-C4'-C3'	-6.84	105.06	116.00
84	Aa	881	G	C5-C6-O6	-6.84	124.50	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1825	G	O4'-C1'-N9	6.84	113.67	108.20
84	Aa	2078	G	O4'-C1'-N9	6.84	113.67	108.20
1	Ad	1251	U	O4'-C1'-N1	6.84	113.67	108.20
84	Aa	2995	G	C5-C6-O6	-6.84	124.50	128.60
1	Ad	339	G	C3'-C2'-C1'	-6.84	96.03	101.50
1	Ad	1680	A	C3'-C2'-C1'	6.84	106.97	101.50
84	Aa	2348	U	O4'-C1'-N1	6.84	113.67	108.20
84	Aa	2652	G	O4'-C1'-N9	6.84	113.67	108.20
84	Aa	2949	G	N1-C6-O6	6.84	124.00	119.90
1	Ad	351	G	O4'-C1'-C2'	6.83	113.75	107.60
1	Ad	1324	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	37	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	1760	G	C5-C6-O6	-6.83	124.50	128.60
84	Aa	3144	U	O4'-C1'-N1	6.83	113.67	108.20
84	Aa	3245	G	C5-C6-O6	-6.83	124.50	128.60
1	Ad	728	C	N1-C1'-C2'	6.83	122.88	114.00
84	Aa	1871	G	N1-C6-O6	6.83	124.00	119.90
84	Aa	2832	G	O4'-C1'-N9	6.83	113.67	108.20
84	Aa	2898	A	C5-C6-N1	-6.83	114.28	117.70
84	Aa	3102	G	O4'-C1'-N9	6.83	113.67	108.20
1	Ad	262	U	N1-C1'-C2'	-6.83	104.49	112.00
1	Ad	929	A	O4'-C1'-N9	6.83	113.66	108.20
84	Aa	2171	A	C5-C6-N6	-6.83	118.24	123.70
86	Ab	74	A	C4-C5-C6	6.83	120.41	117.00
84	Aa	848	G	C5-C6-O6	-6.83	124.50	128.60
84	Aa	2246	G	O4'-C1'-N9	6.83	113.66	108.20
1	Ad	971	A	O4'-C1'-C2'	-6.83	98.97	105.80
84	Aa	355	C	N3-C4-C5	-6.83	119.17	121.90
84	Aa	1759	C	C6-N1-C1'	-6.83	112.61	120.80
84	Aa	1958	G	C5'-C4'-C3'	-6.83	105.08	116.00
84	Aa	2305	U	O4'-C1'-N1	6.83	113.66	108.20
84	Aa	2506	G	N1-C6-O6	6.83	124.00	119.90
1	Ad	416	A	C1'-O4'-C4'	6.82	115.36	109.90
1	Ad	1143	A	O4'-C1'-N9	6.82	113.66	108.20
84	Aa	241	G	O4'-C1'-N9	6.82	113.66	108.20
84	Aa	1161	G	C5-C6-O6	-6.82	124.51	128.60
84	Aa	2182	G	C5-C6-O6	-6.82	124.50	128.60
84	Aa	2640	A	C4-C5-C6	6.82	120.41	117.00
86	Ab	27	A	C5-N7-C8	6.82	107.31	103.90
86	Ab	75	G	C5-C6-O6	-6.82	124.51	128.60
1	Ad	1590	U	C1'-O4'-C4'	6.82	115.36	109.90
84	Aa	849	A	C5-C6-N6	-6.82	118.24	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1502	U	O4'-C1'-N1	6.82	113.66	108.20
84	Aa	2657	C	N3-C4-C5	-6.82	119.17	121.90
1	Ad	419	C	O4'-C1'-C2'	-6.82	98.98	105.80
1	Ad	1212	A	O4'-C1'-C2'	6.82	113.74	107.60
84	Aa	1100	G	C5-C6-O6	-6.82	124.51	128.60
84	Aa	1357	C	N3-C4-C5	-6.82	119.17	121.90
84	Aa	2735	G	C5-C6-O6	-6.82	124.51	128.60
85	Ac	83	C	O4'-C1'-N1	6.82	113.66	108.20
84	Aa	3348	G	N1-C6-O6	6.82	123.99	119.90
84	Aa	263	A	P-O3'-C3'	6.82	127.88	119.70
84	Aa	1260	G	C5-C6-O6	-6.82	124.51	128.60
86	Ab	50	A	C5-C6-N6	-6.82	118.25	123.70
1	Ad	804	C	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	936	C	C3'-C2'-C1'	6.81	106.95	101.50
1	Ad	1593	U	O4'-C1'-C2'	6.81	113.73	107.60
48	CD	2	SER	N-CA-CB	6.81	120.72	110.50
84	Aa	1269	U	O4'-C1'-N1	6.81	113.65	108.20
86	Ab	58	G	N3-C2-N2	6.81	124.67	119.90
1	Ad	498	U	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	683	U	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	79	A	O4'-C4'-C3'	-6.81	97.19	104.00
84	Aa	123	U	O4'-C1'-N1	6.81	113.65	108.20
84	Aa	2867	U	O4'-C1'-N1	6.81	113.65	108.20
1	Ad	1193	A	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	2582	G	C5-C6-O6	-6.81	124.52	128.60
84	Aa	3263	C	C5'-C4'-O4'	6.81	117.27	109.10
1	Ad	171	G	O4'-C1'-N9	6.81	113.64	108.20
1	Ad	762	A	O4'-C1'-C2'	-6.81	98.99	105.80
84	Aa	12	G	O4'-C1'-N9	6.81	113.64	108.20
84	Aa	1407	G	C5-C6-O6	-6.81	124.52	128.60
84	Aa	1547	G	C5-C6-O6	-6.81	124.52	128.60
1	Ad	59	G	O4'-C1'-N9	6.80	113.64	108.20
1	Ad	1434	G	O4'-C1'-C2'	6.80	113.72	107.60
84	Aa	800	C	N3-C4-C5	-6.80	119.18	121.90
84	Aa	998	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	1016	G	O4'-C1'-N9	6.80	113.64	108.20
85	Ac	72	A	C4-C5-C6	6.80	120.40	117.00
84	Aa	3103	G	O4'-C1'-N9	6.80	113.64	108.20
85	Ac	139	C	O4'-C1'-N1	6.80	113.64	108.20
84	Aa	76	A	C5-C6-N1	-6.80	114.30	117.70
84	Aa	808	G	P-O3'-C3'	6.80	127.86	119.70
84	Aa	1158	C	O4'-C1'-N1	6.80	113.64	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2745	C	O4'-C1'-N1	6.80	113.64	108.20
61	CM	6	PHE	CB-CG-CD2	6.80	125.56	120.80
84	Aa	170	C	N3-C4-N4	6.80	122.76	118.00
84	Aa	413	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	1561	U	P-O3'-C3'	6.80	127.86	119.70
84	Aa	1600	A	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	2146	A	C5-C6-N1	-6.80	114.30	117.70
84	Aa	3184	G	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	1762	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	2520	U	O4'-C1'-N1	6.80	113.64	108.20
1	Ad	351	G	N9-C1'-C2'	6.80	122.83	114.00
2	Ae	24	A	O4'-C1'-N9	6.80	113.64	108.20
84	Aa	1931	G	C5-C6-O6	-6.80	124.52	128.60
84	Aa	2948	A	C5-C6-N6	-6.80	118.26	123.70
1	Ad	214	A	P-O3'-C3'	6.79	127.85	119.70
1	Ad	442	A	O4'-C1'-N9	6.79	113.64	108.20
84	Aa	1525	U	O4'-C1'-N1	6.79	113.64	108.20
84	Aa	3001	G	C5-C6-O6	-6.79	124.52	128.60
1	Ad	1046	G	O4'-C1'-N9	6.79	113.63	108.20
84	Aa	3336	A	C5-C6-N6	-6.79	118.27	123.70
86	Ab	36	C	C6-N1-C2	-6.79	117.58	120.30
86	Ab	73	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	1136	A	C5-C6-N6	-6.79	118.27	123.70
84	Aa	1216	G	N1-C6-O6	6.79	123.97	119.90
85	Ac	28	C	N3-C4-C5	-6.79	119.18	121.90
1	Ad	963	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	3355	U	O4'-C1'-N1	6.79	113.63	108.20
86	Ab	11	A	C4-C5-C6	6.79	120.39	117.00
1	Ad	1184	C	N1-C1'-C2'	6.79	122.83	114.00
1	Ad	1698	A	P-O3'-C3'	6.79	127.85	119.70
84	Aa	429	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	1054	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2301	C	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	3129	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	152	C	N3-C4-N4	6.79	122.75	118.00
84	Aa	2849	A	C5-C6-N6	-6.79	118.27	123.70
84	Aa	208	G	C5-C6-O6	-6.79	124.53	128.60
84	Aa	629	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	1676	A	C4-C5-C6	6.79	120.39	117.00
84	Aa	2309	U	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2678	C	O4'-C1'-N1	6.79	113.63	108.20
84	Aa	2989	A	C5-C6-N6	-6.79	118.27	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3382	A	C4-C5-C6	6.79	120.39	117.00
86	Ab	81	G	O4'-C1'-N9	6.79	113.63	108.20
84	Aa	2663	U	O4'-C1'-N1	6.78	113.63	108.20
84	Aa	2935	A	C4-C5-C6	6.78	120.39	117.00
84	Aa	3183	G	C5-C6-O6	-6.78	124.53	128.60
1	Ad	1125	U	C1'-O4'-C4'	6.78	115.33	109.90
84	Aa	73	A	C5-C6-N1	-6.78	114.31	117.70
84	Aa	435	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	776	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	833	G	C5-C6-O6	-6.78	124.53	128.60
84	Aa	1508	C	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	3353	G	C5-C6-O6	-6.78	124.53	128.60
1	Ad	1363	G	O4'-C1'-C2'	6.78	113.70	107.60
84	Aa	3273	C	O4'-C1'-N1	6.78	113.62	108.20
1	Ad	81	U	O4'-C1'-N1	6.78	113.62	108.20
1	Ad	1660	C	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	207	U	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	1480	G	C5-C6-O6	-6.78	124.53	128.60
84	Aa	1547	G	O4'-C1'-N9	6.78	113.62	108.20
84	Aa	2170	G	O4'-C1'-N9	6.78	113.62	108.20
86	Ab	7	G	C5-C6-N1	-6.78	108.11	111.50
84	Aa	324	U	O4'-C1'-N1	6.78	113.62	108.20
84	Aa	2331	A	C5-C6-N6	-6.78	118.28	123.70
84	Aa	2748	G	C5-C6-O6	-6.78	124.53	128.60
2	Ae	1	U	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	480	C	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	1299	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	1352	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	1675	G	O4'-C1'-N9	6.77	113.62	108.20
84	Aa	2140	C	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	2375	G	C5-C6-O6	-6.77	124.54	128.60
1	Ad	1013	G	C1'-O4'-C4'	-6.77	104.48	109.90
71	CB	197	TYR	CB-CG-CD2	6.77	125.06	121.00
84	Aa	105	A	O4'-C1'-N9	6.77	113.62	108.20
1	Ad	524	A	C1'-O4'-C4'	-6.77	104.48	109.90
71	CB	118	PHE	CB-CG-CD1	6.77	125.54	120.80
84	Aa	17	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	85	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	156	A	C5-C6-N6	-6.77	118.28	123.70
84	Aa	368	U	O4'-C1'-N1	6.77	113.62	108.20
84	Aa	386	G	C5-C6-O6	-6.77	124.54	128.60
84	Aa	1374	G	C5-C6-O6	-6.77	124.54	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1573	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2393	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2943	A	C4-C5-C6	6.77	120.38	117.00
84	Aa	271	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2031	G	O4'-C1'-N9	6.77	113.61	108.20
84	Aa	2991	U	O4'-C1'-N1	6.77	113.61	108.20
1	Ad	1192	G	O4'-C1'-C2'	6.76	113.69	107.60
84	Aa	1918	A	C5-C6-N6	-6.76	118.29	123.70
84	Aa	2537	G	N1-C6-O6	6.76	123.96	119.90
84	Aa	3178	C	C6-N1-C1'	-6.76	112.68	120.80
84	Aa	1283	C	N3-C4-C5	-6.76	119.19	121.90
84	Aa	3015	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	2574	A	O4'-C1'-N9	6.76	113.61	108.20
84	Aa	3076	C	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	3210	G	C5-C6-O6	-6.76	124.54	128.60
1	Ad	922	U	N1-C1'-C2'	6.76	122.79	114.00
84	Aa	1180	C	C6-N1-C1'	-6.76	112.69	120.80
84	Aa	1588	G	C5-C6-O6	-6.76	124.54	128.60
84	Aa	2465	G	O4'-C1'-N9	6.76	113.61	108.20
84	Aa	2893	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	719	U	O4'-C1'-N1	6.76	113.61	108.20
84	Aa	2563	G	C5-C6-O6	-6.76	124.55	128.60
1	Ad	1728	G	P-O5'-C5'	6.76	131.71	120.90
84	Aa	1688	U	O4'-C1'-N1	6.76	113.61	108.20
86	Ab	37	G	N3-C2-N2	6.76	124.63	119.90
1	Ad	264	G	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	1013	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	180	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	43	U	O4'-C1'-N1	6.75	113.60	108.20
84	Aa	594	C	N3-C4-C5	-6.75	119.20	121.90
84	Aa	600	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	986	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	1004	C	N3-C4-C5	-6.75	119.20	121.90
84	Aa	1949	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2370	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2608	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	3315	A	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	1596	G	O4'-C1'-C2'	-6.75	99.05	105.80
84	Aa	919	G	C5-C6-O6	-6.75	124.55	128.60
86	Ab	85	G	O4'-C1'-N9	6.75	113.60	108.20
1	Ad	789	C	P-O3'-C3'	6.75	127.80	119.70
84	Aa	1808	G	C5-C6-O6	-6.75	124.55	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3160	G	C5-C6-O6	-6.75	124.55	128.60
1	Ad	189	U	C1'-O4'-C4'	6.75	115.30	109.90
84	Aa	715	A	N1-C6-N6	6.75	122.65	118.60
84	Aa	2787	A	C5-C6-N6	-6.75	118.30	123.70
63	CU	92	TYR	CB-CG-CD2	-6.75	116.95	121.00
84	Aa	627	G	O4'-C1'-N9	6.75	113.60	108.20
84	Aa	1076	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	3182	A	O5'-C5'-C4'	6.75	124.52	111.70
84	Aa	736	U	O4'-C1'-N1	6.75	113.60	108.20
84	Aa	838	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2731	G	C5-C6-O6	-6.75	124.55	128.60
84	Aa	2968	G	C5-C6-O6	-6.75	124.55	128.60
1	Ad	1547	G	O4'-C1'-N9	6.74	113.59	108.20
1	Ad	1687	G	N9-C1'-C2'	6.74	122.77	114.00
84	Aa	2420	U	O4'-C1'-N1	6.74	113.59	108.20
85	Ac	36	G	C5-C6-O6	-6.74	124.55	128.60
84	Aa	2555	G	C5-C6-O6	-6.74	124.56	128.60
1	Ad	79	A	O4'-C1'-C2'	-6.74	99.06	105.80
84	Aa	226	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1659	G	O4'-C1'-N9	6.74	113.59	108.20
84	Aa	2021	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	2266	A	C4-C5-C6	6.74	120.37	117.00
84	Aa	3064	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	3102	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	610	G	C8-N9-C4	-6.74	103.70	106.40
84	Aa	901	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1604	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	1933	U	O4'-C1'-N1	6.74	113.59	108.20
84	Aa	2526	G	O4'-C1'-N9	6.74	113.59	108.20
1	Ad	295	C	O4'-C1'-N1	6.74	113.59	108.20
1	Ad	789	C	O4'-C1'-C2'	-6.74	99.06	105.80
84	Aa	441	G	C5-C6-O6	-6.74	124.56	128.60
84	Aa	587	A	C5-C6-N6	-6.74	118.31	123.70
84	Aa	1375	G	C5-C6-O6	-6.74	124.56	128.60
86	Ab	16	A	C5-C6-N6	-6.74	118.31	123.70
84	Aa	1212	U	O4'-C1'-N1	6.73	113.59	108.20
84	Aa	2126	C	O4'-C1'-N1	6.73	113.59	108.20
84	Aa	2434	G	O4'-C1'-N9	6.73	113.59	108.20
84	Aa	57	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	214	G	N1-C6-O6	6.73	123.94	119.90
84	Aa	581	G	O4'-C1'-N9	6.73	113.59	108.20
84	Aa	2014	A	C4-C5-C6	6.73	120.37	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2217	A	C4-C5-C6	6.73	120.37	117.00
84	Aa	3204	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	508	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	703	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1529	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	1583	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2465	G	C5-C6-O6	-6.73	124.56	128.60
1	Ad	1809	U	O4'-C1'-N1	6.73	113.58	108.20
84	Aa	81	C	O4'-C1'-N1	6.73	113.58	108.20
84	Aa	949	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	2013	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2758	C	N3-C4-C5	-6.73	119.21	121.90
84	Aa	3066	G	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	404	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1102	A	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	1555	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	1567	G	O4'-C1'-N9	6.73	113.58	108.20
84	Aa	2624	G	C5-C6-O6	-6.73	124.56	128.60
84	Aa	2901	C	C2-N1-C1'	6.73	126.20	118.80
84	Aa	100	C	C2-N1-C1'	6.72	126.20	118.80
84	Aa	890	G	C5-C6-O6	-6.72	124.56	128.60
84	Aa	1550	A	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	445	A	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	956	A	O4'-C1'-C2'	-6.72	99.08	105.80
84	Aa	265	G	P-O3'-C3'	6.72	127.77	119.70
84	Aa	333	G	O4'-C1'-N9	6.72	113.58	108.20
84	Aa	349	A	C5-C6-N6	-6.72	118.32	123.70
84	Aa	2345	C	P-O5'-C5'	6.72	131.66	120.90
84	Aa	2621	G	O4'-C1'-N9	6.72	113.58	108.20
1	Ad	1589	C	N1-C1'-C2'	6.72	122.74	114.00
84	Aa	2653	U	O4'-C1'-N1	6.72	113.58	108.20
84	Aa	3325	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	1510	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	1681	U	O4'-C1'-N1	6.72	113.58	108.20
84	Aa	2741	G	C5-C6-O6	-6.72	124.57	128.60
86	Ab	10	C	N3-C4-C5	-6.72	119.21	121.90
84	Aa	1671	G	O4'-C1'-N9	6.72	113.58	108.20
84	Aa	2648	G	C5-C6-O6	-6.72	124.57	128.60
84	Aa	612	U	O4'-C1'-N1	6.72	113.57	108.20
84	Aa	1116	G	O4'-C1'-N9	6.72	113.57	108.20
84	Aa	1668	U	O4'-C1'-N1	6.72	113.57	108.20
84	Aa	2052	G	O4'-C1'-N9	6.72	113.57	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3021	U	O4'-C1'-N1	6.72	113.57	108.20
1	Ad	717	G	N9-C1'-C2'	6.71	122.73	114.00
1	Ad	868	A	O4'-C1'-C2'	-6.71	99.09	105.80
84	Aa	1544	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	2399	G	C5-C6-O6	-6.71	124.57	128.60
1	Ad	562	U	C1'-O4'-C4'	-6.71	104.53	109.90
84	Aa	1065	A	C5-C6-N1	-6.71	114.34	117.70
84	Aa	2413	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	2924	G	C5-C6-O6	-6.71	124.57	128.60
84	Aa	172	A	C5-C6-N1	-6.71	114.34	117.70
84	Aa	1844	U	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	3320	G	N1-C6-O6	6.71	123.93	119.90
86	Ab	39	C	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	601	G	C5-C6-O6	-6.71	124.57	128.60
1	Ad	955	C	C3'-C2'-C1'	6.71	106.87	101.50
1	Ad	1114	G	O4'-C1'-N9	6.71	113.57	108.20
84	Aa	2073	U	C2-N1-C1'	6.71	125.75	117.70
84	Aa	2539	G	C5-C6-O6	-6.71	124.58	128.60
84	Aa	2827	C	N3-C4-N4	6.71	122.69	118.00
84	Aa	3363	G	N1-C6-O6	6.71	123.92	119.90
1	Ad	1538	C	O4'-C1'-N1	6.71	113.56	108.20
84	Aa	68	U	O4'-C1'-N1	6.71	113.57	108.20
84	Aa	593	G	O4'-C1'-N9	6.71	113.56	108.20
84	Aa	1176	U	O4'-C1'-N1	6.71	113.56	108.20
84	Aa	3065	U	O4'-C1'-N1	6.71	113.56	108.20
1	Ad	225	G	N9-C1'-C2'	6.70	122.72	114.00
1	Ad	613	U	C3'-C2'-C1'	6.70	106.86	101.50
84	Aa	1084	G	C5-C6-O6	-6.70	124.58	128.60
84	Aa	2738	U	O4'-C1'-N1	6.70	113.56	108.20
84	Aa	3242	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	1801	G	O4'-C1'-N9	6.70	113.56	108.20
2	Ae	35	U	N1-C1'-C2'	6.70	122.71	114.00
84	Aa	1177	G	N1-C6-O6	6.70	123.92	119.90
84	Aa	1765	G	N1-C6-O6	6.70	123.92	119.90
84	Aa	1893	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	2482	A	O4'-C1'-N9	6.70	113.56	108.20
1	Ad	363	G	N9-C1'-C2'	-6.70	104.63	112.00
1	Ad	1472	G	C3'-C2'-C1'	-6.70	96.14	101.50
84	Aa	117	U	O4'-C1'-N1	6.70	113.56	108.20
84	Aa	304	A	C5-C6-N6	-6.70	118.34	123.70
84	Aa	2447	A	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	2865	G	C5-C6-O6	-6.70	124.58	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3023	G	C5-C6-O6	-6.70	124.58	128.60
1	Ad	327	A	C3'-C2'-C1'	6.70	106.86	101.50
84	Aa	1545	G	C5-C6-O6	-6.70	124.58	128.60
84	Aa	1897	A	C4-C5-C6	6.70	120.35	117.00
86	Ab	7	G	N1-C2-N3	-6.70	119.88	123.90
1	Ad	968	A	N9-C1'-C2'	-6.70	104.64	112.00
84	Aa	601	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	1344	A	C5-C6-N6	-6.70	118.34	123.70
84	Aa	2182	G	O4'-C1'-N9	6.70	113.56	108.20
84	Aa	995	C	O4'-C1'-N1	6.69	113.56	108.20
1	Ad	209	U	P-O3'-C3'	-6.69	111.67	119.70
84	Aa	548	G	C5-C6-O6	-6.69	124.58	128.60
84	Aa	1843	A	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	1852	C	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	2130	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	3026	C	N3-C4-C5	-6.69	119.22	121.90
1	Ad	990	G	C1'-O4'-C4'	-6.69	104.55	109.90
1	Ad	1045	G	O4'-C1'-C2'	6.69	113.62	107.60
84	Aa	269	C	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	1834	C	N3-C4-N4	6.69	122.68	118.00
84	Aa	1895	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	2034	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	965	A	C5-C6-N1	-6.69	114.36	117.70
84	Aa	1881	C	O4'-C1'-N1	6.69	113.55	108.20
1	Ad	551	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	273	U	O4'-C1'-N1	6.69	113.55	108.20
84	Aa	1693	A	C4-C5-C6	6.69	120.34	117.00
84	Aa	179	G	O4'-C1'-N9	6.69	113.55	108.20
84	Aa	2459	U	O4'-C1'-N1	6.68	113.55	108.20
84	Aa	3117	G	C5-C6-O6	-6.68	124.59	128.60
86	Ab	10	C	O4'-C1'-N1	6.68	113.55	108.20
1	Ad	1618	G	O4'-C1'-C2'	6.68	113.61	107.60
84	Aa	1354	G	C5-C6-O6	-6.68	124.59	128.60
84	Aa	2039	G	O4'-C1'-N9	6.68	113.55	108.20
84	Aa	2091	U	O4'-C1'-N1	6.68	113.55	108.20
84	Aa	2530	G	O4'-C1'-N9	6.68	113.55	108.20
84	Aa	775	A	C5-C6-N6	-6.68	118.36	123.70
84	Aa	1724	C	N3-C4-C5	-6.68	119.23	121.90
84	Aa	3361	G	O4'-C1'-N9	6.68	113.54	108.20
84	Aa	1589	G	N1-C6-O6	6.68	123.91	119.90
84	Aa	1910	G	N1-C6-O6	6.68	123.91	119.90
1	Ad	287	C	N1-C1'-C2'	6.68	122.68	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1221	A	O4'-C1'-N9	6.68	113.54	108.20
84	Aa	929	A	C4-C5-C6	6.68	120.34	117.00
84	Aa	945	U	O4'-C1'-N1	6.68	113.54	108.20
84	Aa	1044	A	C5-C6-N1	-6.68	114.36	117.70
84	Aa	1148	G	N1-C6-O6	6.68	123.91	119.90
84	Aa	1411	G	C5-C6-O6	-6.68	124.59	128.60
84	Aa	2024	G	O4'-C1'-N9	6.68	113.54	108.20
33	BJ	8	TYR	N-CA-CB	6.67	122.61	110.60
84	Aa	780	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1624	G	P-O3'-C3'	6.67	127.71	119.70
84	Aa	3168	C	O4'-C1'-N1	6.67	113.54	108.20
1	Ad	721	U	C4'-C3'-O3'	6.67	126.35	113.00
1	Ad	1069	G	O4'-C1'-C2'	6.67	113.61	107.60
1	Ad	1199	C	N1-C1'-C2'	6.67	122.67	114.00
84	Aa	243	C	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1223	U	O4'-C1'-N1	6.67	113.54	108.20
86	Ab	2	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	252	A	C5-C6-N1	-6.67	114.36	117.70
84	Aa	537	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1386	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1670	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1747	A	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	1897	A	C5-C6-N1	-6.67	114.36	117.70
84	Aa	1920	U	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	2896	C	O4'-C1'-N1	6.67	113.54	108.20
84	Aa	1268	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2904	A	P-O3'-C3'	6.67	127.70	119.70
85	Ac	107	G	O4'-C1'-N9	6.67	113.54	108.20
84	Aa	942	U	O4'-C1'-N1	6.67	113.53	108.20
84	Aa	2245	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	3242	G	C5-C6-O6	-6.67	124.60	128.60
1	Ad	1198	A	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	279	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	714	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	803	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2406	C	N3-C4-C5	-6.67	119.23	121.90
84	Aa	3252	G	O4'-C1'-N9	6.67	113.53	108.20
84	Aa	144	A	C4-C5-C6	6.67	120.33	117.00
84	Aa	2543	G	C5-C6-O6	-6.67	124.60	128.60
84	Aa	2666	G	O4'-C1'-N9	6.67	113.53	108.20
1	Ad	1450	A	O4'-C1'-C2'	-6.66	99.14	105.80
84	Aa	1387	G	O4'-C1'-N9	6.66	113.53	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1710	G	C5-C6-O6	-6.66	124.60	128.60
84	Aa	2617	G	C5-C6-O6	-6.66	124.60	128.60
1	Ad	794	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	509	G	C5-C6-O6	-6.66	124.60	128.60
79	CE	74	THR	N-CA-CB	6.66	122.96	110.30
84	Aa	1043	U	O4'-C1'-N1	6.66	113.53	108.20
84	Aa	3029	G	C5-C6-O6	-6.66	124.60	128.60
85	Ac	16	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	1207	A	C5-C6-N6	-6.66	118.37	123.70
84	Aa	1615	G	O4'-C1'-N9	6.66	113.53	108.20
84	Aa	1621	G	C5-C6-O6	-6.66	124.60	128.60
84	Aa	1826	G	C5-C6-O6	-6.66	124.60	128.60
1	Ad	1406	U	N1-C1'-C2'	6.66	122.65	114.00
84	Aa	395	A	C5-C6-N6	-6.66	118.38	123.70
84	Aa	2931	C	O4'-C1'-N1	6.66	113.53	108.20
84	Aa	3010	G	C5-C6-O6	-6.66	124.61	128.60
1	Ad	744	G	C1'-O4'-C4'	6.66	115.22	109.90
84	Aa	56	A	C5-C6-N6	-6.66	118.38	123.70
84	Aa	2556	G	C5-C6-O6	-6.66	124.61	128.60
1	Ad	260	A	C1'-O4'-C4'	-6.65	104.58	109.90
72	CC	305	SER	N-CA-CB	6.65	120.48	110.50
84	Aa	256	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	426	A	C5-C6-N1	-6.65	114.37	117.70
84	Aa	776	G	N1-C6-O6	6.65	123.89	119.90
84	Aa	1071	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1330	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	3299	A	C4-C5-C6	6.65	120.33	117.00
86	Ab	86	G	C5-C6-O6	-6.65	124.61	128.60
1	Ad	604	U	O4'-C1'-N1	6.65	113.52	108.20
1	Ad	773	U	C3'-C2'-C1'	-6.65	96.18	101.50
84	Aa	6	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	730	A	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1476	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	2529	C	N3-C4-C5	-6.65	119.24	121.90
84	Aa	2706	A	C4-C5-C6	6.65	120.33	117.00
86	Ab	17	G	N1-C2-N3	-6.65	119.91	123.90
84	Aa	2630	A	C4-C5-C6	6.65	120.33	117.00
2	Ae	10	G	O4'-C1'-C2'	-6.65	99.15	105.80
84	Aa	501	U	O4'-C1'-N1	6.65	113.52	108.20
84	Aa	1435	C	O4'-C1'-N1	6.65	113.52	108.20
84	Aa	2943	A	C5-C6-N6	-6.65	118.38	123.70
84	Aa	3040	G	C5-C6-O6	-6.65	124.61	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3109	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	1697	G	C5-C6-O6	-6.65	124.61	128.60
84	Aa	2833	G	O4'-C1'-N9	6.65	113.52	108.20
84	Aa	2979	G	C5-C6-O6	-6.65	124.61	128.60
1	Ad	1411	C	N1-C1'-C2'	6.64	122.64	114.00
84	Aa	402	U	O4'-C1'-N1	6.64	113.52	108.20
84	Aa	617	C	N3-C4-N4	6.64	122.65	118.00
84	Aa	898	G	C5-C6-O6	-6.64	124.61	128.60
84	Aa	2457	G	C5-C6-O6	-6.64	124.61	128.60
84	Aa	1046	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3173	A	O4'-C1'-N9	6.64	113.51	108.20
84	Aa	3383	C	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	364	A	C4-C5-C6	6.64	120.32	117.00
84	Aa	580	C	N3-C4-C5	-6.64	119.25	121.90
84	Aa	1355	U	C2-N1-C1'	6.64	125.67	117.70
84	Aa	1496	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	3037	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	3076	C	P-O3'-C3'	6.64	127.67	119.70
84	Aa	906	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3174	C	O4'-C1'-N1	6.64	113.51	108.20
1	Ad	125	A	N9-C1'-C2'	6.64	122.63	114.00
84	Aa	438	G	C5-C6-O6	-6.64	124.62	128.60
84	Aa	1011	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	1833	U	O4'-C1'-N1	6.64	113.51	108.20
84	Aa	3081	G	N1-C6-O6	6.64	123.88	119.90
84	Aa	224	C	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	793	C	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	1154	U	O4'-C1'-N1	6.63	113.51	108.20
84	Aa	1289	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	3294	U	O4'-C1'-N1	6.63	113.51	108.20
1	Ad	838	U	C5'-C4'-O4'	6.63	117.06	109.10
84	Aa	2491	A	C5-C6-N6	-6.63	118.39	123.70
1	Ad	127	G	O4'-C1'-C2'	-6.63	99.17	105.80
1	Ad	205	U	O4'-C1'-C2'	-6.63	99.17	105.80
1	Ad	1159	G	O4'-C1'-N9	6.63	113.50	108.20
1	Ad	1179	C	N1-C1'-C2'	6.63	122.62	114.00
84	Aa	414	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	491	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	788	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	915	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	1739	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	1747	A	C3'-C2'-C1'	-6.63	96.19	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3092	A	C4-C5-C6	6.63	120.31	117.00
1	Ad	1443	U	O4'-C1'-N1	6.63	113.50	108.20
1	Ad	1395	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	127	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	620	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	839	A	C4-C5-C6	6.63	120.31	117.00
84	Aa	1503	G	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	1887	A	C5-C6-N1	-6.63	114.39	117.70
84	Aa	1897	A	O4'-C1'-N9	6.63	113.50	108.20
1	Ad	1747	A	O4'-C1'-N9	6.63	113.50	108.20
84	Aa	409	U	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	925	U	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	1839	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	1955	G	C5-C6-O6	-6.63	124.62	128.60
84	Aa	2758	C	O4'-C1'-N1	6.63	113.50	108.20
84	Aa	3226	G	N1-C6-O6	6.63	123.88	119.90
84	Aa	2264	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	2390	G	C5-C6-O6	-6.62	124.62	128.60
84	Aa	3120	U	O4'-C1'-N1	6.62	113.50	108.20
1	Ad	438	G	N9-C1'-C2'	-6.62	104.71	112.00
84	Aa	195	G	C5-C6-O6	-6.62	124.62	128.60
84	Aa	286	C	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	643	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	973	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	1528	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	2595	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	3141	G	C5-C6-O6	-6.62	124.63	128.60
63	CU	84	TYR	CB-CG-CD2	-6.62	117.03	121.00
84	Aa	235	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	307	C	N3-C4-C5	-6.62	119.25	121.90
84	Aa	1112	C	N3-C4-C5	-6.62	119.25	121.90
84	Aa	1751	G	O4'-C1'-N9	6.62	113.50	108.20
84	Aa	2104	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	2486	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	2776	U	O4'-C1'-N1	6.62	113.50	108.20
84	Aa	345	G	C5-C6-O6	-6.62	124.63	128.60
84	Aa	1402	G	C5-C6-O6	-6.62	124.63	128.60
1	Ad	1273	U	N1-C1'-C2'	6.62	122.61	114.00
1	Ad	187	C	N1-C1'-C2'	6.62	122.60	114.00
1	Ad	474	A	O4'-C1'-C2'	-6.62	99.18	105.80
84	Aa	463	G	O4'-C1'-N9	6.62	113.49	108.20
1	Ad	856	G	C1'-O4'-C4'	-6.62	104.61	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	BL	116	PHE	CB-CG-CD1	6.62	125.43	120.80
84	Aa	1243	C	C5'-C4'-O4'	6.62	117.04	109.10
84	Aa	2017	G	O4'-C1'-N9	6.62	113.49	108.20
84	Aa	3018	A	C4-C5-C6	6.62	120.31	117.00
84	Aa	3264	C	C6-N1-C1'	-6.62	112.86	120.80
1	Ad	1110	C	N1-C1'-C2'	6.61	122.60	114.00
84	Aa	10	C	N3-C4-N4	6.61	122.63	118.00
84	Aa	1526	A	C5-C6-N6	-6.61	118.41	123.70
86	Ab	113	G	N1-C2-N3	-6.61	119.93	123.90
84	Aa	2095	C	C2'-C3'-O3'	6.61	124.28	113.70
84	Aa	2369	G	O4'-C1'-N9	6.61	113.49	108.20
1	Ad	59	G	O4'-C1'-C2'	6.61	113.55	107.60
74	Cp	14	TYR	CB-CG-CD2	-6.61	117.03	121.00
84	Aa	76	A	C4-C5-C6	6.61	120.31	117.00
84	Aa	417	G	O4'-C1'-N9	6.61	113.49	108.20
84	Aa	2172	C	P-O3'-C3'	6.61	127.63	119.70
84	Aa	2981	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	3194	G	O4'-C1'-N9	6.61	113.49	108.20
85	Ac	39	G	C5-C6-O6	-6.61	124.63	128.60
84	Aa	503	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	716	A	C5-C6-N6	-6.61	118.41	123.70
84	Aa	785	U	O4'-C1'-N1	6.61	113.49	108.20
84	Aa	3336	A	O4'-C1'-N9	6.61	113.49	108.20
1	Ad	94	A	O4'-C1'-C2'	6.61	113.55	107.60
2	Ae	34	G	N9-C1'-C2'	6.61	122.59	114.00
84	Aa	2307	A	C4-C5-C6	6.61	120.30	117.00
85	Ac	75	G	C5-C6-O6	-6.61	124.64	128.60
1	Ad	87	A	O4'-C1'-N9	6.61	113.48	108.20
1	Ad	1593	U	C3'-C2'-C1'	-6.61	96.22	101.50
84	Aa	650	A	O4'-C1'-N9	6.61	113.48	108.20
1	Ad	110	G	C1'-O4'-C4'	-6.60	104.62	109.90
84	Aa	2372	A	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	2984	A	C5-C6-N6	-6.60	118.42	123.70
1	Ad	41	A	N9-C1'-C2'	-6.60	104.74	112.00
1	Ad	1012	C	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	12	G	N3-C2-N2	6.60	124.52	119.90
84	Aa	974	G	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	1467	G	C5-C6-O6	-6.60	124.64	128.60
84	Aa	3269	C	C6-N1-C1'	-6.60	112.88	120.80
84	Aa	3330	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	13	G	N1-C6-O6	6.60	123.86	119.90
84	Aa	885	A	C4-C5-C6	6.60	120.30	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2642	G	C5-C6-O6	-6.60	124.64	128.60
86	Ab	50	A	C5-C6-N1	-6.60	114.40	117.70
84	Aa	2283	G	C5-C6-O6	-6.60	124.64	128.60
84	Aa	2531	G	O4'-C1'-N9	6.60	113.48	108.20
84	Aa	2777	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	2820	U	O4'-C1'-N1	6.60	113.48	108.20
84	Aa	3070	G	N3-C2-N2	6.60	124.52	119.90
1	Ad	208	U	C4'-C3'-C2'	-6.60	96.00	102.60
1	Ad	449	A	C3'-C2'-C1'	6.60	106.78	101.50
1	Ad	1117	G	N9-C1'-C2'	6.60	122.58	114.00
1	Ad	1189	U	O4'-C1'-N1	6.60	113.48	108.20
86	Ab	26	C	N3-C4-C5	-6.60	119.26	121.90
84	Aa	351	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	1723	C	N3-C4-N4	6.59	122.62	118.00
84	Aa	2360	A	C4-C5-C6	6.59	120.30	117.00
1	Ad	1662	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	122	A	C4-C5-C6	6.59	120.30	117.00
84	Aa	2038	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	2417	G	C5-C6-O6	-6.59	124.64	128.60
1	Ad	1189	U	P-O3'-C3'	6.59	127.61	119.70
84	Aa	1	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	943	G	C5-C6-O6	-6.59	124.64	128.60
84	Aa	1792	G	N1-C6-O6	6.59	123.86	119.90
84	Aa	2020	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	3364	A	O4'-C1'-N9	6.59	113.47	108.20
85	Ac	96	A	C5-C6-N1	-6.59	114.40	117.70
84	Aa	888	U	O4'-C1'-N1	6.59	113.47	108.20
84	Aa	1783	G	C5-C6-O6	-6.59	124.65	128.60
84	Aa	1837	A	O4'-C1'-N9	6.59	113.47	108.20
86	Ab	40	A	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	378	U	O4'-C1'-N1	6.59	113.47	108.20
84	Aa	2117	G	O4'-C1'-N9	6.59	113.47	108.20
84	Aa	2187	C	N3-C4-C5	-6.59	119.27	121.90
84	Aa	2210	A	C4-C5-C6	6.59	120.29	117.00
84	Aa	61	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	2141	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	2697	A	C5-C6-N1	-6.58	114.41	117.70
84	Aa	3012	A	C5-C6-N6	-6.58	118.43	123.70
84	Aa	337	C	N3-C4-C5	-6.58	119.27	121.90
84	Aa	520	G	O4'-C1'-N9	6.58	113.47	108.20
84	Aa	3087	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1153	A	C4-C5-C6	6.58	120.29	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1506	A	O4'-C1'-N9	6.58	113.47	108.20
84	Aa	3362	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1596	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	1985	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2396	A	C5-C6-N6	-6.58	118.44	123.70
1	Ad	753	C	C1'-O4'-C4'	-6.58	104.64	109.90
1	Ad	1274	G	C1'-O4'-C4'	-6.58	104.64	109.90
57	Ce	26	TYR	CB-CG-CD1	6.58	124.95	121.00
84	Aa	1175	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	1540	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	2601	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2944	C	O4'-C1'-N1	6.58	113.46	108.20
84	Aa	3237	G	O4'-C1'-N9	6.58	113.46	108.20
84	Aa	396	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	430	G	O4'-C1'-N9	6.58	113.46	108.20
1	Ad	110	G	C3'-C2'-C1'	-6.58	96.24	101.50
1	Ad	250	A	C1'-O4'-C4'	6.58	115.16	109.90
1	Ad	648	C	C3'-C2'-C1'	6.58	106.76	101.50
84	Aa	94	A	C4-C5-C6	6.58	120.29	117.00
84	Aa	1166	C	O4'-C1'-N1	6.58	113.46	108.20
84	Aa	2229	G	C5-C6-O6	-6.58	124.65	128.60
84	Aa	2769	U	O4'-C1'-N1	6.58	113.46	108.20
1	Ad	256	G	O4'-C1'-C2'	-6.57	99.23	105.80
1	Ad	632	G	N9-C1'-C2'	6.57	122.55	114.00
1	Ad	750	U	O4'-C1'-N1	6.57	113.46	108.20
1	Ad	905	A	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	424	G	C4-N9-C1'	6.57	135.05	126.50
84	Aa	1167	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1224	A	C5-C6-N6	-6.57	118.44	123.70
84	Aa	1691	U	O4'-C1'-N1	6.57	113.46	108.20
84	Aa	1766	U	O4'-C1'-N1	6.57	113.46	108.20
84	Aa	1870	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2618	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2914	G	C5-C6-O6	-6.57	124.66	128.60
86	Ab	59	U	C5-C6-N1	6.57	125.99	122.70
84	Aa	685	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	1163	A	C5-C6-N1	-6.57	114.41	117.70
84	Aa	1777	C	O4'-C1'-N1	6.57	113.46	108.20
85	Ac	88	A	C4-C5-C6	6.57	120.29	117.00
1	Ad	1702	G	C1'-O4'-C4'	-6.57	104.64	109.90
73	CO	117	TYR	CB-CG-CD1	6.57	124.94	121.00
84	Aa	21	G	O4'-C1'-N9	6.57	113.46	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	685	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1266	G	N1-C6-O6	6.57	123.84	119.90
84	Aa	2606	G	O4'-C1'-N9	6.57	113.46	108.20
84	Aa	2700	A	C5-C6-N1	-6.57	114.42	117.70
84	Aa	2778	C	O4'-C1'-N1	6.57	113.46	108.20
35	BG	160	ASN	N-CA-CB	6.57	122.42	110.60
84	Aa	613	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	1371	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2132	A	C5-C6-N1	-6.57	114.42	117.70
84	Aa	2989	A	C4-C5-C6	6.57	120.28	117.00
1	Ad	1615	G	C1'-O4'-C4'	-6.57	104.64	109.90
84	Aa	1091	C	N3-C4-N4	6.57	122.60	118.00
84	Aa	1267	A	O4'-C1'-N9	6.57	113.45	108.20
84	Aa	1454	C	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	1916	U	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	2146	A	O4'-C1'-N9	6.57	113.45	108.20
84	Aa	1600	A	C4-C5-C6	6.57	120.28	117.00
84	Aa	1982	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2621	G	C5-C6-O6	-6.57	124.66	128.60
84	Aa	2894	U	O4'-C1'-N1	6.57	113.45	108.20
84	Aa	3253	C	N3-C4-C5	-6.57	119.27	121.90
84	Aa	729	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	1595	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	3147	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	697	A	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	2381	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	532	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	607	U	C5'-C4'-O4'	6.56	116.97	109.10
84	Aa	1420	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	1540	G	C5-C6-O6	-6.56	124.66	128.60
1	Ad	467	U	O4'-C1'-N1	6.56	113.45	108.20
1	Ad	720	U	P-O3'-C3'	-6.56	111.83	119.70
84	Aa	2066	G	C5-C6-O6	-6.56	124.66	128.60
84	Aa	2074	C	N3-C4-N4	6.56	122.59	118.00
84	Aa	1643	A	O4'-C1'-N9	6.56	113.44	108.20
84	Aa	1839	C	N3-C4-C5	-6.56	119.28	121.90
84	Aa	1979	G	O4'-C1'-N9	6.56	113.45	108.20
84	Aa	2877	U	O4'-C1'-N1	6.56	113.45	108.20
86	Ab	5	G	C5-C6-O6	-6.56	124.67	128.60
84	Aa	2665	A	O4'-C1'-N9	6.56	113.44	108.20
85	Ac	8	C	N3-C4-N4	6.56	122.59	118.00
84	Aa	707	G	C5-C6-O6	-6.55	124.67	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1531	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1725	G	C5-C6-O6	-6.55	124.67	128.60
85	Ac	108	C	N3-C4-C5	-6.55	119.28	121.90
86	Ab	29	C	O4'-C1'-N1	6.55	113.44	108.20
1	Ad	1304	A	C1'-O4'-C4'	6.55	115.14	109.90
1	Ad	1720	G	C1'-O4'-C4'	-6.55	104.66	109.90
84	Aa	1290	A	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1083	C	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	1321	A	C5-C6-N1	-6.55	114.42	117.70
84	Aa	1786	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1845	C	N3-C4-N4	6.55	122.59	118.00
84	Aa	2664	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	3154	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	599	C	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	1143	G	C5-C6-O6	-6.55	124.67	128.60
84	Aa	1679	U	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	2165	A	C5-C6-N1	-6.55	114.42	117.70
84	Aa	2498	C	N3-C4-C5	-6.55	119.28	121.90
84	Aa	2939	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	2723	G	C5-C6-O6	-6.55	124.67	128.60
84	Aa	3183	G	O4'-C4'-C3'	-6.55	97.45	104.00
1	Ad	1211	U	O4'-C1'-N1	6.55	113.44	108.20
84	Aa	234	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	1318	C	N3-C4-N4	6.55	122.58	118.00
84	Aa	1579	C	N3-C4-C5	-6.55	119.28	121.90
84	Aa	1874	A	C4-C5-C6	6.55	120.27	117.00
84	Aa	2290	A	C4-C5-C6	6.55	120.27	117.00
84	Aa	3384	G	O4'-C1'-N9	6.55	113.44	108.20
84	Aa	904	G	C5-C6-O6	-6.54	124.67	128.60
84	Aa	713	G	C5-C6-O6	-6.54	124.67	128.60
84	Aa	1963	G	O4'-C1'-N9	6.54	113.44	108.20
84	Aa	2260	C	N3-C4-C5	-6.54	119.28	121.90
84	Aa	2311	A	C5-C6-N1	-6.54	114.43	117.70
84	Aa	3052	U	O4'-C1'-N1	6.54	113.44	108.20
84	Aa	909	A	C5-C6-N6	-6.54	118.47	123.70
84	Aa	1479	G	C5-C6-O6	-6.54	124.67	128.60
85	Ac	130	G	O4'-C1'-N9	6.54	113.43	108.20
86	Ab	100	A	N9-C4-C5	6.54	108.42	105.80
1	Ad	411	A	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	749	G	O4'-C1'-C2'	6.54	113.49	107.60
2	Ae	36	C	C1'-O4'-C4'	-6.54	104.67	109.90
84	Aa	1452	A	C4-C5-C6	6.54	120.27	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2424	G	N3-C2-N2	6.54	124.48	119.90
84	Aa	3238	U	O4'-C1'-N1	6.54	113.43	108.20
1	Ad	913	U	N1-C1'-C2'	6.54	122.50	114.00
84	Aa	258	C	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	1798	C	C5'-C4'-C3'	6.54	126.46	116.00
84	Aa	2982	U	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	3216	G	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	640	A	O4'-C1'-N9	6.54	113.43	108.20
1	Ad	642	C	N1-C1'-C2'	6.54	122.50	114.00
1	Ad	1594	A	O4'-C1'-N9	6.54	113.43	108.20
84	Aa	228	C	O4'-C1'-N1	6.54	113.43	108.20
84	Aa	1838	A	C5-C6-N6	-6.54	118.47	123.70
86	Ab	56	G	O4'-C1'-N9	6.54	113.43	108.20
86	Ab	92	C	C6-N1-C2	-6.54	117.69	120.30
84	Aa	2423	A	O4'-C1'-N9	6.53	113.43	108.20
84	Aa	2775	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	852	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	2933	C	N3-C4-N4	6.53	122.57	118.00
1	Ad	288	G	O4'-C1'-C2'	6.53	113.48	107.60
84	Aa	555	G	N1-C6-O6	6.53	123.82	119.90
84	Aa	1919	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	3005	C	N3-C4-C5	-6.53	119.29	121.90
84	Aa	3190	U	C2-N1-C1'	6.53	125.54	117.70
84	Aa	3182	A	P-O5'-C5'	-6.53	110.45	120.90
71	CB	123	CYS	N-CA-CB	6.53	122.35	110.60
84	Aa	255	C	O4'-C1'-N1	6.53	113.42	108.20
84	Aa	259	G	C5-C6-O6	-6.53	124.68	128.60
84	Aa	615	A	C5-C6-N1	-6.53	114.44	117.70
84	Aa	2677	A	C5-C6-N6	-6.53	118.48	123.70
84	Aa	2996	A	C4-C5-C6	6.53	120.26	117.00
1	Ad	1003	A	C3'-C2'-C1'	6.53	106.72	101.50
84	Aa	40	G	C5-C6-O6	-6.53	124.68	128.60
84	Aa	1488	G	N3-C2-N2	6.53	124.47	119.90
84	Aa	2409	U	O4'-C1'-N1	6.53	113.42	108.20
84	Aa	1993	G	O4'-C1'-N9	6.52	113.42	108.20
84	Aa	2746	G	C5-C6-O6	-6.52	124.69	128.60
1	Ad	448	C	N1-C1'-C2'	6.52	122.48	114.00
18	BN	81	ALA	N-CA-CB	6.52	119.23	110.10
84	Aa	1067	G	C5-C6-O6	-6.52	124.69	128.60
84	Aa	1261	C	C5-C4-N4	-6.52	115.63	120.20
84	Aa	2165	A	C5'-C4'-C3'	-6.52	105.56	116.00
84	Aa	2736	A	C5-C6-N1	-6.52	114.44	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1243	C	N3-C4-C5	-6.52	119.29	121.90
84	Aa	1941	G	O4'-C1'-N9	6.52	113.42	108.20
84	Aa	385	A	C5-C6-N1	-6.52	114.44	117.70
1	Ad	1809	U	P-O3'-C3'	6.52	127.52	119.70
84	Aa	266	A	C5-C6-N6	-6.52	118.49	123.70
84	Aa	970	A	O4'-C1'-N9	6.52	113.41	108.20
1	Ad	201	G	C1'-O4'-C4'	-6.52	104.69	109.90
1	Ad	546	U	P-O3'-C3'	6.52	127.52	119.70
84	Aa	59	A	O4'-C1'-N9	6.52	113.41	108.20
84	Aa	421	A	O4'-C1'-N9	6.52	113.41	108.20
84	Aa	1726	G	C5-C6-O6	-6.52	124.69	128.60
86	Ab	96	U	O4'-C1'-N1	6.52	113.41	108.20
1	Ad	1382	C	C1'-O4'-C4'	-6.51	104.69	109.90
84	Aa	1340	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	1532	A	C5-C6-N1	-6.51	114.44	117.70
84	Aa	1936	G	C5-C6-O6	-6.51	124.69	128.60
84	Aa	1950	G	N1-C6-O6	6.51	123.81	119.90
86	Ab	18	C	O4'-C1'-N1	6.51	113.41	108.20
1	Ad	240	U	N1-C1'-C2'	6.51	122.47	114.00
84	Aa	1441	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	67	C	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	125	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	263	A	C4-C5-C6	6.51	120.26	117.00
84	Aa	1308	A	C4-C5-C6	6.51	120.26	117.00
84	Aa	2086	A	P-O3'-C3'	6.51	127.51	119.70
84	Aa	2721	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	259	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	1836	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	1922	C	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2263	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2539	G	O4'-C1'-N9	6.51	113.41	108.20
84	Aa	3380	G	O4'-C1'-N9	6.51	113.41	108.20
1	Ad	55	A	N9-C1'-C2'	6.51	122.46	114.00
84	Aa	1855	A	C4-C5-C6	6.51	120.25	117.00
1	Ad	1679	A	C3'-C2'-C1'	6.51	106.70	101.50
84	Aa	972	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	1632	G	C5-C6-O6	-6.51	124.70	128.60
84	Aa	1849	U	O4'-C1'-N1	6.51	113.41	108.20
84	Aa	2029	G	C5-C6-O6	-6.51	124.70	128.60
84	Aa	2669	C	N3-C4-C5	-6.51	119.30	121.90
84	Aa	3143	A	O4'-C1'-N9	6.51	113.41	108.20
1	Ad	1624	G	C5'-C4'-O4'	6.50	116.91	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BZ	108	ALA	N-CA-CB	6.50	119.21	110.10
84	Aa	941	C	O4'-C1'-N1	6.50	113.40	108.20
84	Aa	2173	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	1964	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	2344	A	C5-C6-N1	-6.50	114.45	117.70
84	Aa	2756	G	N1-C6-O6	6.50	123.80	119.90
1	Ad	141	G	C3'-C2'-C1'	6.50	106.70	101.50
1	Ad	1058	G	C1'-O4'-C4'	-6.50	104.70	109.90
84	Aa	670	A	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	988	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2040	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	2080	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2855	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	155	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2353	C	N3-C4-C5	-6.50	119.30	121.90
1	Ad	998	A	C1'-O4'-C4'	-6.50	104.70	109.90
2	Ae	41	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	758	A	C5-C6-N1	-6.50	114.45	117.70
84	Aa	1506	A	C5-C6-N6	-6.50	118.50	123.70
2	Ae	5	U	C3'-C2'-C1'	6.50	106.70	101.50
84	Aa	1	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	290	C	N3-C4-C5	-6.50	119.30	121.90
84	Aa	1063	G	O4'-C1'-N9	6.50	113.40	108.20
84	Aa	1365	C	N3-C4-N4	6.50	122.55	118.00
84	Aa	2790	C	O4'-C1'-N1	6.50	113.40	108.20
1	Ad	1041	A	C1'-O4'-C4'	6.50	115.10	109.90
84	Aa	358	G	C5-C6-O6	-6.50	124.70	128.60
84	Aa	2315	G	C5-C6-O6	-6.50	124.70	128.60
1	Ad	850	G	O4'-C1'-N9	6.49	113.39	108.20
1	Ad	919	G	C1'-O4'-C4'	6.49	115.09	109.90
84	Aa	742	G	C5-C6-O6	-6.49	124.70	128.60
1	Ad	1036	U	O4'-C1'-C2'	-6.49	99.31	105.80
1	Ad	1467	C	C1'-O4'-C4'	-6.49	104.71	109.90
84	Aa	997	G	N1-C6-O6	6.49	123.80	119.90
84	Aa	1625	G	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	2523	G	C5'-C4'-O4'	6.49	116.89	109.10
84	Aa	2724	A	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	99	A	C4-C5-C6	6.49	120.25	117.00
84	Aa	744	C	N3-C4-C5	-6.49	119.31	121.90
84	Aa	1485	A	C4-C5-C6	6.49	120.24	117.00
84	Aa	1997	G	C5-C6-O6	-6.49	124.71	128.60
84	Aa	2368	G	C5-C6-O6	-6.49	124.71	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2426	C	N3-C4-C5	-6.49	119.30	121.90
84	Aa	2797	U	O4'-C1'-N1	6.49	113.39	108.20
84	Aa	3226	G	O4'-C1'-N9	6.49	113.39	108.20
86	Ab	22	A	O4'-C1'-N9	6.49	113.39	108.20
86	Ab	27	A	C5-C6-N6	-6.49	118.51	123.70
84	Aa	918	A	C4-C5-C6	6.49	120.24	117.00
84	Aa	2284	U	O4'-C1'-N1	6.49	113.39	108.20
1	Ad	922	U	C1'-O4'-C4'	-6.49	104.71	109.90
1	Ad	1268	G	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	51	A	C5'-C4'-O4'	6.49	116.88	109.10
84	Aa	958	U	O4'-C1'-N1	6.49	113.39	108.20
84	Aa	1235	A	O4'-C1'-N9	6.49	113.39	108.20
84	Aa	1978	G	C5-C6-O6	-6.49	124.71	128.60
84	Aa	2591	G	N1-C6-O6	6.49	123.79	119.90
84	Aa	3152	C	P-O3'-C3'	6.49	127.48	119.70
84	Aa	184	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	944	G	C5-C6-O6	-6.48	124.71	128.60
1	Ad	11	A	O4'-C1'-C2'	-6.48	99.32	105.80
1	Ad	1679	A	O4'-C1'-C2'	-6.48	99.32	105.80
72	CC	330	VAL	N-CA-C	-6.48	93.50	111.00
84	Aa	2365	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	2977	U	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	3006	G	C5-C6-O6	-6.48	124.71	128.60
1	Ad	714	C	O4'-C1'-N1	6.48	113.39	108.20
84	Aa	791	C	N3-C4-C5	-6.48	119.31	121.90
84	Aa	1377	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1680	A	O4'-C1'-N9	6.48	113.39	108.20
86	Ab	92	C	C2-N3-C4	6.48	123.14	119.90
84	Aa	369	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1308	A	P-O3'-C3'	-6.48	111.92	119.70
1	Ad	255	U	C1'-O4'-C4'	6.48	115.08	109.90
50	CP	167	ALA	N-CA-CB	6.48	119.17	110.10
84	Aa	253	G	C5-C6-O6	-6.48	124.71	128.60
84	Aa	1648	C	N3-C4-C5	-6.48	119.31	121.90
84	Aa	2898	A	O4'-C1'-N9	6.48	113.38	108.20
84	Aa	3193	C	O4'-C1'-N1	6.48	113.38	108.20
1	Ad	1259	G	C3'-C2'-C1'	-6.48	96.32	101.50
84	Aa	3231	G	O4'-C1'-N9	6.48	113.38	108.20
84	Aa	217	A	C5-C6-N6	-6.47	118.52	123.70
84	Aa	1617	A	C5-C6-N1	-6.47	114.46	117.70
84	Aa	1893	G	C5-C6-O6	-6.47	124.72	128.60
1	Ad	1180	U	O4'-C1'-N1	6.47	113.38	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1282	A	P-O3'-C3'	6.47	127.47	119.70
84	Aa	3128	A	O4'-C1'-N9	6.47	113.38	108.20
86	Ab	50	A	C4-C5-C6	6.47	120.24	117.00
1	Ad	245	C	C1'-O4'-C4'	-6.47	104.72	109.90
1	Ad	108	C	N1-C1'-C2'	6.47	122.41	114.00
84	Aa	1233	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	3084	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	3313	C	O4'-C1'-N1	6.47	113.38	108.20
85	Ac	67	U	O4'-C1'-N1	6.47	113.38	108.20
86	Ab	9	U	O4'-C1'-N1	6.47	113.38	108.20
86	Ab	50	A	O4'-C1'-N9	6.47	113.38	108.20
1	Ad	194	G	O4'-C1'-C2'	-6.47	99.33	105.80
84	Aa	1450	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2065	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2119	A	C5-C6-N1	-6.47	114.47	117.70
1	Ad	536	U	O4'-C1'-C2'	6.47	113.42	107.60
84	Aa	5	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	209	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	986	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	1142	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	1334	A	C5-C6-N6	-6.47	118.53	123.70
84	Aa	1841	G	C5-C6-O6	-6.47	124.72	128.60
84	Aa	2173	G	N1-C6-O6	6.47	123.78	119.90
85	Ac	89	A	C5-C6-N1	-6.47	114.47	117.70
85	Ac	102	U	O4'-C1'-N1	6.47	113.37	108.20
1	Ad	521	U	O4'-C1'-N1	6.46	113.37	108.20
84	Aa	923	A	N1-C6-N6	6.46	122.48	118.60
84	Aa	1655	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	2461	A	C4-C5-C6	6.46	120.23	117.00
1	Ad	926	G	C5'-C4'-O4'	6.46	116.86	109.10
1	Ad	1502	C	N1-C1'-C2'	6.46	122.40	114.00
84	Aa	1757	G	C5-C6-O6	-6.46	124.72	128.60
1	Ad	357	A	C3'-C2'-C1'	6.46	106.67	101.50
84	Aa	349	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	682	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	1123	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	1356	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1634	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1895	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	3107	A	C4-C5-C6	6.46	120.23	117.00
85	Ac	2	G	O4'-C1'-N9	6.46	113.37	108.20
86	Ab	83	A	C5-C6-N6	-6.46	118.53	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	778	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	991	C	N3-C4-N4	6.46	122.52	118.00
84	Aa	1353	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	2688	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	3276	G	O4'-C1'-N9	6.46	113.37	108.20
1	Ad	79	A	C1'-O4'-C4'	6.46	115.07	109.90
1	Ad	749	G	C1'-O4'-C4'	-6.46	104.73	109.90
1	Ad	1727	C	N1-C1'-C2'	6.46	122.39	114.00
1	Ad	1792	A	O4'-C1'-N9	6.46	113.37	108.20
2	Ae	7	A	P-O3'-C3'	6.46	127.45	119.70
84	Aa	478	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	1096	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	1883	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	2024	G	C5-C6-O6	-6.46	124.72	128.60
84	Aa	2126	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	3017	A	C4-C5-C6	6.46	120.23	117.00
84	Aa	28	C	N3-C4-C5	-6.46	119.32	121.90
84	Aa	1758	U	O4'-C1'-N1	6.46	113.36	108.20
84	Aa	2050	G	O4'-C1'-N9	6.46	113.37	108.20
84	Aa	2138	A	C5-C6-N6	-6.46	118.53	123.70
84	Aa	2290	A	C5-C6-N1	-6.46	114.47	117.70
84	Aa	3156	G	C5-C6-O6	-6.46	124.73	128.60
85	Ac	140	A	C5-C6-N1	-6.46	114.47	117.70
86	Ab	42	A	N9-C4-C5	6.46	108.38	105.80
86	Ab	101	A	C8-N9-C4	-6.46	103.22	105.80
86	Ab	12	U	O4'-C1'-N1	6.46	113.36	108.20
1	Ad	139	U	N1-C1'-C2'	6.45	122.39	114.00
1	Ad	1806	C	C1'-O4'-C4'	6.45	115.06	109.90
84	Aa	84	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1188	C	P-O5'-C5'	6.45	131.22	120.90
84	Aa	2577	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2967	U	O4'-C1'-N1	6.45	113.36	108.20
1	Ad	398	C	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	674	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2683	A	C5-C6-N1	-6.45	114.47	117.70
84	Aa	2729	C	C6-N1-C1'	-6.45	113.06	120.80
84	Aa	2922	U	O4'-C1'-N1	6.45	113.36	108.20
85	Ac	157	A	C5-C6-N6	-6.45	118.54	123.70
1	Ad	329	G	C1'-O4'-C4'	-6.45	104.74	109.90
73	CO	136	PRO	CB-CA-C	6.45	128.13	112.00
84	Aa	754	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	957	U	O4'-C1'-N1	6.45	113.36	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2105	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	3110	A	C4-C5-C6	6.45	120.23	117.00
84	Aa	3316	C	N3-C4-N4	6.45	122.52	118.00
85	Ac	16	G	C5-C6-O6	-6.45	124.73	128.60
1	Ad	1450	A	C1'-O4'-C4'	6.45	115.06	109.90
1	Ad	1530	G	O4'-C1'-C2'	-6.45	99.35	105.80
84	Aa	363	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	486	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	518	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	937	G	C5-C6-O6	-6.45	124.73	128.60
84	Aa	941	C	N3-C4-C5	-6.45	119.32	121.90
84	Aa	1397	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	1802	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	2461	A	C5-C6-N1	-6.45	114.48	117.70
84	Aa	3130	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	3227	U	O4'-C1'-N1	6.45	113.36	108.20
1	Ad	166	A	C3'-C2'-C1'	6.45	106.66	101.50
1	Ad	1638	U	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	2550	C	N3-C4-C5	-6.45	119.32	121.90
1	Ad	834	A	N9-C1'-C2'	-6.45	104.91	112.00
84	Aa	436	G	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1313	U	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	1344	A	C4-C5-C6	6.45	120.22	117.00
84	Aa	1367	A	O4'-C1'-N9	6.45	113.36	108.20
84	Aa	1472	C	O4'-C1'-N1	6.45	113.36	108.20
84	Aa	2494	A	C4-C5-C6	6.45	120.22	117.00
1	Ad	1589	C	O4'-C1'-C2'	-6.44	99.36	105.80
84	Aa	1366	G	O4'-C1'-N9	6.44	113.36	108.20
84	Aa	2324	G	O4'-C1'-N9	6.44	113.36	108.20
86	Ab	42	A	C8-N9-C4	-6.44	103.22	105.80
84	Aa	1180	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	1296	C	O4'-C1'-N1	6.44	113.36	108.20
84	Aa	1447	G	C5-C6-O6	-6.44	124.73	128.60
84	Aa	2002	G	O4'-C1'-N9	6.44	113.35	108.20
84	Aa	3041	A	C5-C6-N1	-6.44	114.48	117.70
84	Aa	3095	G	N1-C6-O6	6.44	123.77	119.90
1	Ad	1783	C	C1'-O4'-C4'	-6.44	104.75	109.90
72	CC	91	ALA	N-CA-CB	6.44	119.12	110.10
84	Aa	111	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	505	G	C5-C6-O6	-6.44	124.73	128.60
84	Aa	966	G	C5-C6-O6	-6.44	124.74	128.60
84	Aa	1516	G	N1-C6-O6	6.44	123.76	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1006	A	C3'-C2'-C1'	6.44	106.65	101.50
1	Ad	1648	C	O4'-C1'-C2'	-6.44	99.36	105.80
2	Ae	30	G	O4'-C1'-C2'	6.44	113.39	107.60
84	Aa	2875	U	O4'-C1'-N1	6.44	113.35	108.20
1	Ad	21	U	O4'-C1'-N1	6.44	113.35	108.20
1	Ad	1186	U	C1'-O4'-C4'	6.44	115.05	109.90
57	Ce	67	TYR	CB-CG-CD1	6.44	124.86	121.00
84	Aa	1106	G	O4'-C1'-N9	6.44	113.35	108.20
84	Aa	1379	G	C5-C6-O6	-6.44	124.74	128.60
84	Aa	2235	G	C5-C6-O6	-6.44	124.74	128.60
86	Ab	88	U	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	920	A	C5-C6-N6	-6.44	118.55	123.70
84	Aa	2414	C	O4'-C1'-N1	6.44	113.35	108.20
84	Aa	2518	A	C4-C5-C6	6.44	120.22	117.00
84	Aa	894	G	C5-C6-O6	-6.43	124.74	128.60
84	Aa	1181	A	C4-C5-C6	6.43	120.22	117.00
84	Aa	1913	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	2486	G	O4'-C1'-N9	6.43	113.35	108.20
84	Aa	2932	A	O4'-C1'-N9	6.43	113.35	108.20
1	Ad	1508	C	N1-C1'-C2'	6.43	122.36	114.00
84	Aa	908	U	O4'-C1'-N1	6.43	113.35	108.20
84	Aa	1707	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	2496	U	C4'-C3'-O3'	-6.43	95.89	109.40
84	Aa	3222	G	C5-C6-O6	-6.43	124.74	128.60
1	Ad	1305	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	2960	A	C5-C6-N1	-6.43	114.48	117.70
84	Aa	3013	A	C5-C6-N1	-6.43	114.48	117.70
84	Aa	2239	A	C4-C5-C6	6.43	120.22	117.00
84	Aa	3220	A	C5-C6-N6	-6.43	118.56	123.70
1	Ad	1572	U	C1'-O4'-C4'	-6.43	104.76	109.90
84	Aa	65	A	C5-C6-N6	-6.43	118.56	123.70
84	Aa	3172	G	C5-C6-O6	-6.43	124.74	128.60
59	Cl	39	ALA	N-CA-CB	6.43	119.10	110.10
84	Aa	83	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	177	C	N3-C4-C5	-6.43	119.33	121.90
84	Aa	959	U	O4'-C1'-N1	6.43	113.34	108.20
84	Aa	1070	G	O4'-C1'-N9	6.43	113.34	108.20
84	Aa	2723	G	O4'-C1'-N9	6.43	113.34	108.20
3	Af	12	A	O4'-C1'-C2'	6.42	113.38	107.60
84	Aa	232	C	O4'-C1'-N1	6.42	113.34	108.20
84	Aa	429	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	598	U	O4'-C1'-N1	6.42	113.34	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1370	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	1642	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	1982	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	2286	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	2514	A	C5-C6-N1	-6.42	114.49	117.70
86	Ab	111	U	C6-N1-C2	-6.42	117.15	121.00
84	Aa	997	G	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	1333	C	O4'-C1'-N1	6.42	113.34	108.20
84	Aa	1519	C	N3-C4-C5	-6.42	119.33	121.90
84	Aa	2388	C	N3-C4-N4	6.42	122.50	118.00
84	Aa	2930	C	O4'-C1'-N1	6.42	113.34	108.20
1	Ad	237	C	C1'-O4'-C4'	-6.42	104.76	109.90
84	Aa	639	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	1386	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2159	U	O4'-C1'-N1	6.42	113.34	108.20
85	Ac	17	A	O4'-C1'-N9	6.42	113.34	108.20
84	Aa	3322	A	C5-C6-N1	-6.42	114.49	117.70
85	Ac	142	G	C5-C6-O6	-6.42	124.75	128.60
1	Ad	314	C	O4'-C1'-N1	6.42	113.33	108.20
84	Aa	34	G	O4'-C1'-N9	6.42	113.33	108.20
84	Aa	294	A	C5-C6-N6	-6.42	118.57	123.70
84	Aa	746	C	C1'-O4'-C4'	-6.42	104.77	109.90
84	Aa	1443	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2334	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	3332	G	O4'-C1'-N9	6.42	113.33	108.20
1	Ad	363	G	C3'-C2'-C1'	-6.42	96.37	101.50
84	Aa	593	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2256	G	C5-C6-O6	-6.42	124.75	128.60
84	Aa	2679	A	C4-C5-C6	6.42	120.21	117.00
84	Aa	2817	G	O4'-C1'-N9	6.42	113.33	108.20
84	Aa	3044	C	N3-C4-C5	-6.42	119.33	121.90
1	Ad	474	A	C3'-C2'-C1'	6.42	106.63	101.50
1	Ad	196	G	C1'-O4'-C4'	-6.41	104.77	109.90
84	Aa	829	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	1661	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	3230	G	C5-C6-O6	-6.41	124.75	128.60
71	CB	265	TYR	CB-CG-CD1	6.41	124.85	121.00
84	Aa	2463	U	C5'-C4'-O4'	6.41	116.80	109.10
86	Ab	43	A	O4'-C1'-N9	6.41	113.33	108.20
86	Ab	68	G	O4'-C1'-N9	6.41	113.33	108.20
84	Aa	270	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	969	U	O4'-C1'-N1	6.41	113.33	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2057	G	C5-C6-O6	-6.41	124.75	128.60
84	Aa	2698	A	C5-C6-N1	-6.41	114.49	117.70
86	Ab	27	A	C4-C5-C6	6.41	120.20	117.00
84	Aa	1184	U	C5-C4-O4	-6.41	122.06	125.90
84	Aa	1954	G	O4'-C1'-N9	6.41	113.33	108.20
63	CU	92	TYR	CB-CG-CD1	6.41	124.84	121.00
84	Aa	1816	U	O4'-C1'-N1	6.41	113.33	108.20
84	Aa	1886	U	O4'-C1'-N1	6.41	113.33	108.20
85	Ac	126	A	C4-C5-C6	6.41	120.20	117.00
1	Ad	100	C	O4'-C1'-N1	6.41	113.33	108.20
1	Ad	151	A	C1'-O4'-C4'	6.41	115.03	109.90
1	Ad	1020	U	C3'-C2'-C1'	6.41	106.62	101.50
20	BT	51	TYR	CB-CG-CD2	6.41	124.84	121.00
84	Aa	1416	G	C5-C6-O6	-6.41	124.76	128.60
84	Aa	1595	G	O4'-C1'-N9	6.41	113.32	108.20
84	Aa	3057	A	C5-C6-N1	-6.41	114.50	117.70
86	Ab	68	G	C6-C5-N7	-6.41	126.56	130.40
45	CN	81	TYR	CB-CG-CD1	-6.40	117.16	121.00
1	Ad	529	A	P-O3'-C3'	6.40	127.38	119.70
1	Ad	60	C	P-O3'-C3'	-6.40	112.02	119.70
84	Aa	242	U	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	288	G	P-O3'-C3'	6.40	127.38	119.70
84	Aa	733	C	N3-C4-C5	-6.40	119.34	121.90
84	Aa	1809	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	2722	U	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	657	A	C5-C6-N6	-6.40	118.58	123.70
84	Aa	1918	A	O4'-C1'-N9	6.40	113.32	108.20
84	Aa	2743	A	C4-C5-C6	6.40	120.20	117.00
1	Ad	1541	C	C3'-C2'-C1'	6.40	106.62	101.50
79	CE	124	TYR	CB-CG-CD2	-6.40	117.16	121.00
84	Aa	2076	C	N3-C4-C5	-6.40	119.34	121.90
84	Aa	2228	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	2232	C	O4'-C1'-N1	6.40	113.32	108.20
84	Aa	2889	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	3059	C	C6-N1-C1'	-6.40	113.12	120.80
1	Ad	593	C	O4'-C1'-C2'	-6.40	99.40	105.80
1	Ad	1409	G	C1'-O4'-C4'	-6.40	104.78	109.90
84	Aa	405	A	C4-C5-C6	6.40	120.20	117.00
84	Aa	1451	U	O4'-C1'-N1	6.40	113.32	108.20
85	Ac	103	G	C5-C6-O6	-6.40	124.76	128.60
84	Aa	250	C	P-O3'-C3'	6.39	127.37	119.70
84	Aa	729	G	C5-C6-O6	-6.39	124.76	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	947	C	O4'-C1'-N1	6.39	113.32	108.20
84	Aa	1447	G	O4'-C1'-N9	6.39	113.31	108.20
84	Aa	1865	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	1979	G	C5-C6-O6	-6.39	124.76	128.60
84	Aa	2134	U	O4'-C1'-N1	6.39	113.32	108.20
85	Ac	123	G	O4'-C1'-N9	6.39	113.32	108.20
84	Aa	2239	A	O4'-C1'-N9	6.39	113.31	108.20
84	Aa	1219	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	1299	G	C5-C6-O6	-6.39	124.77	128.60
1	Ad	287	C	C3'-C2'-C1'	6.39	106.61	101.50
1	Ad	1073	C	C3'-C2'-C1'	6.39	106.61	101.50
84	Aa	239	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	300	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	571	G	C5-C6-O6	-6.39	124.77	128.60
84	Aa	578	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	844	A	C5-C6-N1	-6.39	114.50	117.70
84	Aa	3284	C	N3-C4-N4	6.39	122.47	118.00
84	Aa	128	C	N3-C4-C5	-6.39	119.34	121.90
84	Aa	1032	C	O4'-C1'-N1	6.39	113.31	108.20
1	Ad	356	G	P-O3'-C3'	6.39	127.36	119.70
84	Aa	2319	A	C4-C5-C6	6.39	120.19	117.00
1	Ad	68	A	C1'-O4'-C4'	-6.38	104.79	109.90
1	Ad	651	G	N9-C1'-C2'	6.38	122.30	114.00
84	Aa	196	A	C4-C5-C6	6.38	120.19	117.00
84	Aa	978	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1138	A	C5-C6-N1	-6.38	114.51	117.70
84	Aa	1757	G	O4'-C1'-N9	6.38	113.31	108.20
84	Aa	2050	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2258	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	3303	C	N3-C4-C5	-6.38	119.35	121.90
1	Ad	483	C	N1-C1'-C2'	6.38	122.30	114.00
2	Ae	50	G	C1'-O4'-C4'	6.38	115.01	109.90
84	Aa	2909	A	C5-C6-N1	-6.38	114.51	117.70
85	Ac	2	G	C5-C6-O6	-6.38	124.77	128.60
1	Ad	350	G	O4'-C1'-N9	6.38	113.31	108.20
1	Ad	382	A	O4'-C1'-N9	6.38	113.31	108.20
18	BN	151	ALA	N-CA-CB	6.38	119.03	110.10
84	Aa	1348	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2450	G	P-O5'-C5'	6.38	131.11	120.90
84	Aa	2472	U	O4'-C1'-N1	6.38	113.31	108.20
84	Aa	129	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	530	C	N3-C4-C5	-6.38	119.35	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1230	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	1901	G	O4'-C1'-N9	6.38	113.30	108.20
1	Ad	1538	C	O4'-C1'-C2'	-6.38	99.42	105.80
84	Aa	354	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	477	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1631	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	2405	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	3121	C	N3-C4-N4	6.38	122.47	118.00
84	Aa	3139	U	O4'-C1'-N1	6.38	113.30	108.20
1	Ad	1314	U	O4'-C1'-N1	6.38	113.30	108.20
84	Aa	422	G	C5-C6-O6	-6.38	124.77	128.60
84	Aa	442	C	N3-C4-C5	-6.38	119.35	121.90
84	Aa	1341	G	N3-C2-N2	6.38	124.36	119.90
84	Aa	310	C	N3-C4-C5	-6.38	119.35	121.90
3	Af	17	A	N9-C1'-C2'	6.37	122.29	114.00
84	Aa	424	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	1281	C	N3-C4-C5	-6.37	119.35	121.90
84	Aa	2747	U	O4'-C1'-N1	6.37	113.30	108.20
1	Ad	227	G	O3'-P-O5'	6.37	116.11	104.00
1	Ad	236	U	O4'-C1'-N1	6.37	113.30	108.20
1	Ad	784	C	N1-C1'-C2'	-6.37	104.99	112.00
79	CE	50	PHE	CB-CG-CD1	6.37	125.26	120.80
84	Aa	254	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	282	A	C5-C6-N6	-6.37	118.60	123.70
84	Aa	868	A	C4-C5-C6	6.37	120.19	117.00
84	Aa	2168	C	P-O3'-C3'	6.37	127.35	119.70
84	Aa	2435	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	2500	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	3167	G	C5-C6-O6	-6.37	124.78	128.60
85	Ac	18	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	322	A	C4-C5-C6	6.37	120.19	117.00
84	Aa	2695	A	C4-C5-C6	6.37	120.19	117.00
1	Ad	82	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	356	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	811	A	C5-C6-N6	-6.37	118.61	123.70
84	Aa	817	U	O4'-C1'-N1	6.37	113.30	108.20
84	Aa	1297	U	O4'-C1'-N1	6.37	113.29	108.20
84	Aa	2139	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	2164	G	O4'-C1'-N9	6.37	113.30	108.20
84	Aa	3084	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	3333	C	C1'-O4'-C4'	-6.37	104.81	109.90
84	Aa	29	G	N3-C2-N2	6.37	124.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	130	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	1855	A	C5-C6-N6	-6.37	118.61	123.70
84	Aa	584	G	C5-C6-O6	-6.37	124.78	128.60
84	Aa	1282	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	1796	A	C4-C5-C6	6.37	120.18	117.00
84	Aa	2211	G	O4'-C1'-N9	6.37	113.29	108.20
84	Aa	2969	A	C5-C6-N1	-6.37	114.52	117.70
84	Aa	3140	A	O4'-C1'-N9	6.37	113.29	108.20
85	Ac	46	G	C5-C6-O6	-6.37	124.78	128.60
85	Ac	133	C	N3-C4-C5	-6.37	119.35	121.90
71	CB	55	HIS	CA-CB-CG	6.36	124.42	113.60
84	Aa	488	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	855	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	2626	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	2719	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	3062	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	3331	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	3335	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	2783	U	O4'-C1'-N1	6.36	113.29	108.20
1	Ad	1452	A	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	1155	G	N1-C6-O6	6.36	123.72	119.90
84	Aa	1330	A	C4-C5-C6	6.36	120.18	117.00
84	Aa	1338	C	N3-C4-C5	-6.36	119.36	121.90
84	Aa	2976	U	O4'-C1'-N1	6.36	113.29	108.20
84	Aa	2984	A	C4-C5-C6	6.36	120.18	117.00
84	Aa	3062	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	3197	C	N3-C4-C5	-6.36	119.36	121.90
84	Aa	3066	G	C5-C6-O6	-6.36	124.78	128.60
84	Aa	21	G	C5-C6-O6	-6.36	124.79	128.60
84	Aa	728	G	O4'-C1'-N9	6.36	113.29	108.20
84	Aa	2685	C	N3-C4-C5	-6.36	119.36	121.90
86	Ab	91	C	C2-N3-C4	6.36	123.08	119.90
1	Ad	381	G	C1'-O4'-C4'	-6.36	104.82	109.90
84	Aa	650	A	C4-C5-C6	6.36	120.18	117.00
1	Ad	235	C	C3'-C2'-C1'	6.35	106.58	101.50
84	Aa	2127	U	O4'-C1'-N1	6.35	113.28	108.20
84	Aa	3100	C	N3-C4-N4	6.35	122.45	118.00
84	Aa	987	A	C4-C5-C6	6.35	120.18	117.00
84	Aa	1824	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	1852	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	1915	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	2487	A	C4-C5-C6	6.35	120.18	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2853	A	C4-C5-C6	6.35	120.18	117.00
1	Ad	61	A	P-O5'-C5'	-6.35	110.74	120.90
84	Aa	665	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	3178	C	N3-C4-N4	6.35	122.44	118.00
1	Ad	1477	A	O4'-C1'-C2'	-6.35	99.45	105.80
33	BJ	85	TYR	CB-CG-CD2	-6.35	117.19	121.00
84	Aa	63	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	97	G	N3-C2-N2	6.35	124.34	119.90
84	Aa	684	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	771	G	C4'-C3'-C2'	6.35	108.95	102.60
84	Aa	784	G	C5-C6-O6	-6.35	124.79	128.60
84	Aa	1454	C	N3-C4-C5	-6.35	119.36	121.90
84	Aa	2247	A	C4-C5-C6	6.35	120.17	117.00
1	Ad	1210	U	O4'-C1'-C2'	-6.35	99.45	105.80
1	Ad	1295	G	O4'-C1'-N9	6.35	113.28	108.20
84	Aa	2885	U	O5'-P-OP1	-6.35	99.99	105.70
84	Aa	3135	A	C5-C6-N1	-6.35	114.53	117.70
85	Ac	40	A	C5-C6-N6	-6.35	118.62	123.70
1	Ad	1507	G	O4'-C1'-N9	6.34	113.28	108.20
84	Aa	319	C	N3-C4-N4	6.34	122.44	118.00
84	Aa	393	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	1168	G	C5-C6-O6	-6.34	124.79	128.60
84	Aa	1501	A	C5-C6-N6	-6.34	118.62	123.70
84	Aa	2954	G	O4'-C1'-N9	6.34	113.28	108.20
85	Ac	137	G	O4'-C1'-N9	6.34	113.28	108.20
84	Aa	1385	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	1490	A	C5-C6-N6	-6.34	118.63	123.70
84	Aa	1518	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	2199	C	N3-C4-C5	-6.34	119.36	121.90
1	Ad	1187	A	N9-C1'-C2'	6.34	122.24	114.00
2	Ae	58	U	C1'-O4'-C4'	6.34	114.97	109.90
84	Aa	2045	G	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	2389	A	C4-C5-C6	6.34	120.17	117.00
85	Ac	154	G	C5-C6-O6	-6.34	124.80	128.60
84	Aa	70	A	C5-C6-N1	-6.34	114.53	117.70
84	Aa	747	A	C4-C5-C6	6.34	120.17	117.00
84	Aa	960	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	1426	C	N3-C4-C5	-6.34	119.36	121.90
84	Aa	2645	A	C4-C5-C6	6.34	120.17	117.00
1	Ad	594	C	O4'-C1'-N1	6.34	113.27	108.20
48	CD	260	GLU	N-CA-CB	6.34	122.01	110.60
84	Aa	2681	A	C4-C5-C6	6.34	120.17	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	412	C	N3-C4-N4	6.34	122.44	118.00
84	Aa	1457	A	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	1647	C	N3-C4-C5	-6.34	119.37	121.90
84	Aa	2051	G	O4'-C1'-N9	6.34	113.27	108.20
84	Aa	2128	G	C5-C6-O6	-6.34	124.80	128.60
84	Aa	426	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	1363	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	2606	G	N1-C6-O6	6.33	123.70	119.90
1	Ad	1693	C	O4'-C1'-N1	6.33	113.27	108.20
84	Aa	8	C	C6-N1-C1'	-6.33	113.20	120.80
84	Aa	131	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	213	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	561	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1741	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1823	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	2613	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	2694	A	O4'-C1'-N9	6.33	113.27	108.20
85	Ac	57	C	N3-C4-C5	-6.33	119.37	121.90
1	Ad	1508	C	O4'-C1'-N1	6.33	113.27	108.20
84	Aa	114	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	190	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	841	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	1696	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	1929	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	2046	G	O4'-C1'-N9	6.33	113.27	108.20
84	Aa	2132	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	2191	C	N3-C4-C5	-6.33	119.37	121.90
85	Ac	106	C	O4'-C1'-N1	6.33	113.26	108.20
84	Aa	292	A	C4-C5-C6	6.33	120.17	117.00
84	Aa	1312	A	C5-C6-N1	-6.33	114.53	117.70
84	Aa	3053	G	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	316	A	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	1129	G	C5-C6-O6	-6.33	124.80	128.60
84	Aa	1653	A	C5-C6-N6	-6.33	118.64	123.70
84	Aa	1713	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1204	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1367	A	C5-C6-N6	-6.33	118.64	123.70
84	Aa	1750	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	2997	C	P-O3'-C3'	6.33	127.29	119.70
1	Ad	602	U	O4'-C1'-N1	6.33	113.26	108.20
84	Aa	1049	C	N3-C4-C5	-6.33	119.37	121.90
84	Aa	1295	A	C5-C6-N1	-6.33	114.54	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2096	U	P-O5'-C5'	-6.33	110.78	120.90
84	Aa	2534	G	O4'-C1'-N9	6.33	113.26	108.20
84	Aa	2849	A	C4-C5-C6	6.33	120.16	117.00
84	Aa	1227	A	C4-C5-C6	6.32	120.16	117.00
84	Aa	2189	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	2412	A	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	2942	A	C4-C5-C6	6.32	120.16	117.00
85	Ac	110	A	C4-C5-C6	6.32	120.16	117.00
1	Ad	531	A	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	297	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	538	C	O4'-C1'-N1	6.32	113.26	108.20
84	Aa	1159	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	1417	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	2021	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	2300	G	C5-C6-O6	-6.32	124.81	128.60
1	Ad	227	G	O4'-C1'-N9	6.32	113.26	108.20
84	Aa	286	C	N3-C4-N4	6.32	122.42	118.00
84	Aa	716	A	C5-C6-N1	-6.32	114.54	117.70
84	Aa	726	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	1298	A	C5-C6-N1	-6.32	114.54	117.70
84	Aa	1776	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	419	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	3168	C	N3-C4-C5	-6.32	119.37	121.90
1	Ad	244	C	C3'-C2'-C1'	6.32	106.56	101.50
1	Ad	1137	A	C3'-C2'-C1'	6.32	106.55	101.50
84	Aa	792	A	C5-C6-N6	-6.32	118.65	123.70
84	Aa	1023	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	1664	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	2077	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	2111	A	C4-C5-C6	6.32	120.16	117.00
84	Aa	2300	G	O4'-C1'-N9	6.32	113.25	108.20
84	Aa	2428	G	C5-C6-O6	-6.32	124.81	128.60
84	Aa	3136	A	C4-C5-C6	6.32	120.16	117.00
1	Ad	558	C	C3'-C2'-C1'	6.32	106.55	101.50
84	Aa	1135	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	2336	C	N3-C4-C5	-6.32	119.37	121.90
84	Aa	3053	G	C5-C6-O6	-6.32	124.81	128.60
1	Ad	728	C	C3'-C2'-C1'	6.31	106.55	101.50
84	Aa	258	C	N3-C4-C5	-6.31	119.37	121.90
84	Aa	1086	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	2297	G	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2534	G	C5-C6-O6	-6.31	124.81	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	BS	83	PHE	CB-CG-CD2	6.31	125.22	120.80
84	Aa	1191	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1463	A	C5-C6-N6	-6.31	118.65	123.70
84	Aa	1553	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	490	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	507	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1013	A	C5-C6-N1	-6.31	114.55	117.70
84	Aa	2651	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	2657	C	P-O3'-C3'	6.31	127.27	119.70
84	Aa	550	C	C4'-C3'-O3'	6.31	125.62	113.00
84	Aa	680	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	1403	G	C5-C6-O6	-6.31	124.81	128.60
84	Aa	1576	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1613	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	2474	A	C4-C5-C6	6.31	120.16	117.00
84	Aa	2585	C	N3-C4-C5	-6.31	119.38	121.90
84	Aa	2668	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	3187	C	N3-C4-N4	6.31	122.42	118.00
1	Ad	344	U	O4'-C1'-C2'	-6.31	99.49	105.80
45	CN	4	TYR	CB-CG-CD1	-6.31	117.22	121.00
84	Aa	141	C	N3-C4-N4	6.31	122.42	118.00
84	Aa	786	U	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	1015	A	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	1310	G	N1-C6-O6	6.31	123.69	119.90
84	Aa	1859	G	C5-C6-O6	-6.31	124.82	128.60
84	Aa	2291	A	C5-C6-N1	-6.31	114.55	117.70
84	Aa	2780	G	C5-C6-O6	-6.31	124.82	128.60
84	Aa	3229	C	O4'-C1'-N1	6.31	113.25	108.20
84	Aa	3319	G	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2973	A	O4'-C1'-N9	6.31	113.25	108.20
84	Aa	2983	U	O4'-C1'-N1	6.31	113.25	108.20
1	Ad	1783	C	N1-C1'-C2'	6.30	122.20	114.00
84	Aa	838	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1188	C	N3-C4-C5	-6.30	119.38	121.90
84	Aa	2509	A	C5-C6-N1	-6.30	114.55	117.70
84	Aa	3136	A	C5-C6-N1	-6.30	114.55	117.70
84	Aa	3281	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2017	G	C5-C6-O6	-6.30	124.82	128.60
84	Aa	2561	A	C5-C6-N6	-6.30	118.66	123.70
1	Ad	614	G	P-O3'-C3'	6.30	127.26	119.70
2	Ae	46	A	O4'-C1'-N9	6.30	113.24	108.20
41	CA	67	PHE	N-CA-CB	6.30	121.94	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	456	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	621	C	N3-C4-N4	6.30	122.41	118.00
84	Aa	1332	C	O4'-C1'-N1	6.30	113.24	108.20
84	Aa	1662	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2027	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2199	C	O4'-C1'-N1	6.30	113.24	108.20
84	Aa	2307	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2311	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	3247	C	N3-C4-C5	-6.30	119.38	121.90
85	Ac	125	C	O4'-C1'-N1	6.30	113.24	108.20
85	Ac	157	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	428	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1675	G	C5-C6-O6	-6.30	124.82	128.60
86	Ab	85	G	N1-C6-O6	6.30	123.68	119.90
84	Aa	1637	G	C5-C6-O6	-6.30	124.82	128.60
84	Aa	2162	C	O4'-C4'-C3'	-6.30	97.70	104.00
1	Ad	353	G	O4'-C1'-N9	6.30	113.24	108.20
48	CD	262	ALA	N-CA-CB	6.30	118.92	110.10
84	Aa	875	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	1936	G	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2257	A	O4'-C1'-N9	6.30	113.24	108.20
84	Aa	2294	A	C4-C5-C6	6.30	120.15	117.00
84	Aa	2345	C	N3-C4-C5	-6.30	119.38	121.90
84	Aa	121	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	1340	G	N3-C2-N2	6.29	124.31	119.90
84	Aa	2730	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2985	C	N3-C4-C5	-6.29	119.38	121.90
1	Ad	1237	G	O4'-C1'-C2'	6.29	113.26	107.60
84	Aa	401	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	415	G	C5-C6-O6	-6.29	124.82	128.60
84	Aa	573	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	886	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2053	A	C4-C5-C6	6.29	120.15	117.00
84	Aa	2144	G	C5-C6-O6	-6.29	124.82	128.60
84	Aa	2798	G	N1-C6-O6	6.29	123.68	119.90
84	Aa	3124	A	C4-C5-C6	6.29	120.15	117.00
1	Ad	1232	G	C1'-O4'-C4'	-6.29	104.87	109.90
84	Aa	8	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	761	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	782	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	2332	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	2907	U	O4'-C1'-N1	6.29	113.23	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3287	A	O4'-C1'-N9	6.29	113.23	108.20
84	Aa	1427	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	2122	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	3263	C	C5'-C4'-C3'	6.29	126.06	116.00
84	Aa	124	C	N3-C4-C5	-6.29	119.38	121.90
84	Aa	535	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	719	U	P-O5'-C5'	6.29	130.96	120.90
84	Aa	1695	C	C2-N3-C4	6.29	123.04	119.90
84	Aa	2114	A	C4-C5-C6	6.29	120.14	117.00
84	Aa	2311	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	3166	C	O4'-C1'-N1	6.29	113.23	108.20
86	Ab	108	G	C4-C5-N7	-6.29	108.28	110.80
1	Ad	901	U	O4'-C1'-N1	6.29	113.23	108.20
84	Aa	1264	A	C4-C5-C6	6.29	120.14	117.00
84	Aa	2357	A	C5-C6-N6	-6.29	118.67	123.70
84	Aa	3089	G	C5-C6-O6	-6.29	124.83	128.60
1	Ad	252	U	O4'-C1'-C2'	-6.29	99.51	105.80
1	Ad	561	G	O4'-C1'-N9	-6.29	103.17	108.20
1	Ad	744	G	P-O5'-C5'	6.29	130.96	120.90
1	Ad	1112	G	N9-C1'-C2'	6.29	122.17	114.00
46	Ca	52	TYR	CB-CG-CD2	-6.29	117.23	121.00
84	Aa	700	C	N3-C4-C5	-6.29	119.39	121.90
84	Aa	830	A	C5-C6-N1	-6.29	114.56	117.70
84	Aa	1729	G	O4'-C1'-N9	6.29	113.23	108.20
84	Aa	1999	G	C5-C6-O6	-6.29	124.83	128.60
84	Aa	2427	C	N3-C4-C5	-6.29	119.39	121.90
84	Aa	2923	U	O4'-C1'-N1	6.29	113.23	108.20
84	Aa	3049	A	C5-C6-N6	-6.29	118.67	123.70
85	Ac	58	G	O4'-C1'-N9	6.29	113.23	108.20
1	Ad	1354	C	O4'-C1'-N1	6.28	113.23	108.20
1	Ad	1524	A	P-O3'-C3'	6.28	127.24	119.70
50	CP	4	TYR	CB-CG-CD2	-6.28	117.23	121.00
84	Aa	138	G	O4'-C1'-N9	6.28	113.23	108.20
84	Aa	359	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	1057	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1436	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1481	C	N3-C4-C5	-6.28	119.39	121.90
84	Aa	2412	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	2548	U	O4'-C1'-N1	6.28	113.23	108.20
84	Aa	2990	C	N3-C4-C5	-6.28	119.39	121.90
85	Ac	152	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	47	A	O4'-C1'-N9	6.28	113.23	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1162	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1206	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1501	A	C4-C5-C6	6.28	120.14	117.00
84	Aa	1986	G	O4'-C1'-N9	6.28	113.23	108.20
1	Ad	318	C	C3'-C2'-C1'	6.28	106.52	101.50
84	Aa	20	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1222	U	O4'-C1'-N1	6.28	113.22	108.20
84	Aa	1267	A	N1-C6-N6	6.28	122.37	118.60
84	Aa	2892	A	O4'-C1'-N9	6.28	113.22	108.20
1	Ad	1292	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	218	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1619	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	3391	U	O4'-C1'-N1	6.28	113.22	108.20
1	Ad	976	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	466	U	O4'-C1'-N1	6.28	113.22	108.20
84	Aa	485	G	C5-C6-O6	-6.28	124.83	128.60
84	Aa	2751	A	C5-C6-N6	-6.28	118.68	123.70
84	Aa	2781	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	3195	C	N3-C4-N4	6.28	122.39	118.00
1	Ad	162	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1139	A	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1477	A	C5-C6-N1	-6.28	114.56	117.70
84	Aa	1495	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	1657	C	N3-C4-C5	-6.28	119.39	121.90
84	Aa	3266	U	O4'-C1'-N1	6.28	113.22	108.20
85	Ac	13	A	C5-C6-N1	-6.28	114.56	117.70
85	Ac	60	U	O4'-C1'-N1	6.28	113.22	108.20
85	Ac	114	G	O4'-C1'-N9	6.28	113.22	108.20
84	Aa	510	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	968	A	C4-C5-C6	6.27	120.14	117.00
84	Aa	1567	G	C5-C6-O6	-6.27	124.84	128.60
84	Aa	2735	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2395	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2562	A	C4-C5-C6	6.27	120.14	117.00
84	Aa	2795	G	C5-C6-O6	-6.27	124.84	128.60
84	Aa	723	G	O3'-P-O5'	6.27	115.92	104.00
84	Aa	3107	A	O4'-C1'-N9	6.27	113.22	108.20
1	Ad	931	A	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	143	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	751	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	835	G	C5'-C4'-C3'	6.27	126.03	116.00
1	Ad	719	C	O4'-C1'-C2'	-6.27	99.53	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	73	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	1278	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2113	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2354	G	O4'-C1'-N9	6.27	113.22	108.20
84	Aa	2687	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	3055	U	O4'-C1'-N1	6.27	113.22	108.20
84	Aa	3133	C	N3-C4-C5	-6.27	119.39	121.90
84	Aa	3299	A	C5-C6-N1	-6.27	114.57	117.70
84	Aa	3337	G	C5-C6-O6	-6.27	124.84	128.60
1	Ad	1421	U	C1'-O4'-C4'	-6.27	104.89	109.90
84	Aa	2254	A	C4-C5-C6	6.27	120.13	117.00
84	Aa	2493	C	N3-C4-C5	-6.27	119.39	121.90
1	Ad	788	G	O4'-C1'-N9	-6.26	103.19	108.20
1	Ad	888	U	C3'-C2'-C1'	-6.26	96.49	101.50
84	Aa	77	U	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	132	U	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	401	C	O4'-C1'-N1	6.26	113.21	108.20
84	Aa	508	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	640	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	949	C	N3-C4-N4	6.26	122.39	118.00
84	Aa	1039	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	1806	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	1985	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	3152	C	O4'-C1'-N1	6.26	113.21	108.20
85	Ac	51	G	C5-C6-O6	-6.26	124.84	128.60
1	Ad	1217	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	489	C	N3-C4-N4	6.26	122.38	118.00
84	Aa	931	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	2034	G	C5-C6-O6	-6.26	124.84	128.60
84	Aa	2316	A	C4-C5-C6	6.26	120.13	117.00
63	CU	84	TYR	CB-CG-CD1	6.26	124.76	121.00
71	CB	118	PHE	CB-CG-CD2	-6.26	116.42	120.80
84	Aa	420	A	C4-C5-C6	6.26	120.13	117.00
84	Aa	795	C	N3-C4-C5	-6.26	119.39	121.90
84	Aa	912	G	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	929	A	C5-C6-N6	-6.26	118.69	123.70
84	Aa	1880	A	O4'-C1'-N9	6.26	113.21	108.20
84	Aa	3314	G	C5-C6-O6	-6.26	124.84	128.60
1	Ad	174	C	O4'-C1'-C2'	-6.26	99.54	105.80
1	Ad	417	U	O4'-C1'-N1	6.26	113.21	108.20
1	Ad	1732	A	O4'-C1'-C2'	-6.26	99.54	105.80
84	Aa	287	A	C5-C6-N1	-6.26	114.57	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	864	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	866	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	1000	A	C4-C5-C6	6.26	120.13	117.00
84	Aa	2157	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	2372	A	C5-C6-N6	-6.26	118.69	123.70
84	Aa	2800	C	N3-C4-C5	-6.26	119.40	121.90
1	Ad	975	A	O4'-C1'-C2'	-6.26	99.54	105.80
1	Ad	1123	G	O4'-C1'-N9	6.26	113.21	108.20
1	Ad	368	A	O4'-C1'-N9	6.26	113.20	108.20
84	Aa	212	G	C5-C6-O6	-6.26	124.85	128.60
84	Aa	962	C	P-O3'-C3'	6.26	127.21	119.70
84	Aa	1405	G	C5-C6-O6	-6.26	124.85	128.60
84	Aa	2358	C	N3-C4-C5	-6.26	119.40	121.90
84	Aa	2804	A	C4-C5-C6	6.26	120.13	117.00
1	Ad	94	A	C1'-O4'-C4'	-6.25	104.90	109.90
1	Ad	957	A	O4'-C1'-N9	6.25	113.20	108.20
1	Ad	1157	A	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	536	C	N3-C4-C5	-6.25	119.40	121.90
84	Aa	733	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	1783	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	1932	A	C5-C6-N1	-6.25	114.57	117.70
84	Aa	2213	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	2325	A	C5-C6-N1	-6.25	114.57	117.70
1	Ad	1722	C	O4'-C1'-N1	6.25	113.20	108.20
16	BO	72	ALA	N-CA-CB	6.25	118.85	110.10
84	Aa	836	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	2008	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	2742	A	C5-C6-N1	-6.25	114.57	117.70
84	Aa	3347	U	O4'-C1'-N1	6.25	113.20	108.20
85	Ac	11	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	614	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	1724	C	N3-C4-N4	6.25	122.38	118.00
84	Aa	2256	G	O4'-C1'-N9	6.25	113.20	108.20
85	Ac	24	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	980	C	N3-C4-C5	-6.25	119.40	121.90
84	Aa	1539	G	O4'-C1'-N9	6.25	113.20	108.20
84	Aa	1799	C	N3-C4-N4	6.25	122.37	118.00
84	Aa	2627	G	C5-C6-O6	-6.25	124.85	128.60
28	BA	43	TYR	CB-CG-CD2	-6.25	117.25	121.00
84	Aa	1804	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	1843	A	C5-C6-N6	-6.25	118.70	123.70
85	Ac	43	A	C5-C6-N1	-6.25	114.58	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	498	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	587	A	C5-C6-N1	-6.25	114.58	117.70
84	Aa	2609	G	C5-C6-O6	-6.25	124.85	128.60
84	Aa	3111	C	N3-C4-C5	-6.25	119.40	121.90
1	Ad	842	G	C3'-C2'-C1'	-6.24	96.51	101.50
1	Ad	1525	U	O4'-C1'-N1	6.24	113.19	108.20
84	Aa	454	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1644	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	2108	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2638	A	C5-C6-N6	-6.24	118.70	123.70
85	Ac	31	G	C5-C6-O6	-6.24	124.85	128.60
15	BU	3	ALA	N-CA-CB	6.24	118.84	110.10
84	Aa	583	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	661	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1101	A	C5-C6-N1	-6.24	114.58	117.70
84	Aa	1989	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2418	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2712	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2898	A	C4-C5-C6	6.24	120.12	117.00
1	Ad	397	C	O4'-C1'-C2'	-6.24	99.56	105.80
84	Aa	50	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	1072	C	N3-C4-N4	6.24	122.37	118.00
84	Aa	1554	C	N3-C4-C5	-6.24	119.40	121.90
84	Aa	2051	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2401	A	C4-C5-C6	6.24	120.12	117.00
85	Ac	59	A	C5-C6-N1	-6.24	114.58	117.70
1	Ad	1074	C	C3'-C2'-C1'	6.24	106.49	101.50
1	Ad	1465	C	O4'-C1'-C2'	-6.24	99.56	105.80
38	CT	19	PHE	CB-CG-CD1	6.24	125.17	120.80
84	Aa	642	C	C2-N1-C1'	6.24	125.66	118.80
84	Aa	1200	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2144	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	2619	C	N3-C4-C5	-6.24	119.40	121.90
85	Ac	92	A	C4-C5-C6	6.24	120.12	117.00
41	CA	76	PHE	CB-CG-CD1	6.24	125.17	120.80
84	Aa	2291	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	2765	A	C4-C5-C6	6.24	120.12	117.00
84	Aa	3382	A	C5-C6-N6	-6.24	118.71	123.70
1	Ad	1787	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	1172	A	C5-C6-N6	-6.24	118.71	123.70
84	Aa	2011	G	C5-C6-O6	-6.24	124.86	128.60
84	Aa	2720	U	O4'-C1'-N1	6.24	113.19	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2882	U	O4'-C1'-N1	6.24	113.19	108.20
84	Aa	2905	A	C5-C6-N6	-6.24	118.71	123.70
84	Aa	3203	G	O4'-C1'-N9	6.24	113.19	108.20
84	Aa	1640	A	C4-C5-C6	6.23	120.12	117.00
84	Aa	2109	G	C5-C6-O6	-6.23	124.86	128.60
1	Ad	1461	G	C1'-O4'-C4'	-6.23	104.92	109.90
84	Aa	1704	A	C5-C6-N6	-6.23	118.71	123.70
84	Aa	2956	U	P-O3'-C3'	6.23	127.18	119.70
84	Aa	3057	A	C5-C6-N6	-6.23	118.71	123.70
86	Ab	7	G	C6-N1-C2	6.23	128.84	125.10
84	Aa	1279	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	1572	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	2129	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	2265	A	O4'-C1'-N9	6.23	113.19	108.20
84	Aa	2996	A	C5-C6-N6	-6.23	118.72	123.70
84	Aa	214	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	1281	C	P-O3'-C3'	6.23	127.17	119.70
84	Aa	1779	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	1860	A	O4'-C1'-N9	6.23	113.18	108.20
1	Ad	429	A	O4'-C1'-N9	6.23	113.18	108.20
1	Ad	510	A	C1'-O4'-C4'	6.23	114.88	109.90
1	Ad	951	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	419	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	486	G	O4'-C1'-N9	6.23	113.18	108.20
84	Aa	718	C	C5'-C4'-O4'	6.23	116.57	109.10
84	Aa	853	U	O4'-C1'-N1	6.23	113.18	108.20
84	Aa	1705	A	C5-C6-N1	-6.23	114.59	117.70
84	Aa	1880	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	2774	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	2918	U	O4'-C1'-N1	6.23	113.18	108.20
86	Ab	1	G	N1-C6-O6	6.23	123.64	119.90
84	Aa	357	C	N3-C4-N4	6.23	122.36	118.00
84	Aa	657	A	C4-C5-C6	6.23	120.11	117.00
84	Aa	985	C	N3-C4-N4	6.23	122.36	118.00
84	Aa	1075	G	C5-C6-O6	-6.23	124.86	128.60
84	Aa	2070	C	N3-C4-C5	-6.23	119.41	121.90
84	Aa	3090	C	N3-C4-C5	-6.23	119.41	121.90
1	Ad	277	G	N9-C1'-C2'	6.22	122.09	114.00
84	Aa	109	G	C5-C6-O6	-6.22	124.86	128.60
84	Aa	1000	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	1714	A	C4-C5-C6	6.22	120.11	117.00
84	Aa	1805	A	O4'-C1'-N9	6.22	113.18	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2098	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	2484	G	C5-C6-O6	-6.22	124.86	128.60
84	Aa	2670	A	C5-C6-N6	-6.22	118.72	123.70
1	Ad	223	A	N9-C1'-C2'	6.22	122.09	114.00
1	Ad	1503	C	N1-C1'-C2'	6.22	122.09	114.00
1	Ad	1581	A	C3'-C2'-C1'	6.22	106.48	101.50
84	Aa	1644	A	C5-C6-N6	-6.22	118.72	123.70
84	Aa	3201	A	C4-C5-C6	6.22	120.11	117.00
1	Ad	1543	U	C3'-C2'-C1'	6.22	106.48	101.50
84	Aa	2483	A	O4'-C1'-N9	6.22	113.18	108.20
1	Ad	1501	G	P-O3'-C3'	6.22	127.16	119.70
1	Ad	1670	G	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1294	A	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1928	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	2542	U	O4'-C1'-N1	6.22	113.17	108.20
84	Aa	2676	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	2859	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	3333	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	568	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	842	C	N3-C4-C5	-6.22	119.41	121.90
84	Aa	1157	A	C5-C6-N1	-6.22	114.59	117.70
84	Aa	1282	A	C5-C6-N6	-6.22	118.73	123.70
1	Ad	1303	G	P-O3'-C3'	6.22	127.16	119.70
84	Aa	640	C	C5'-C4'-O4'	6.22	116.56	109.10
84	Aa	1381	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	1819	A	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	1902	G	O4'-C1'-N9	6.22	113.17	108.20
84	Aa	2205	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	2448	G	C5-C6-O6	-6.22	124.87	128.60
84	Aa	2645	A	C5-C6-N6	-6.22	118.73	123.70
84	Aa	2679	A	C5-C6-N6	-6.22	118.73	123.70
84	Aa	262	A	C4-C5-C6	6.21	120.11	117.00
84	Aa	1089	G	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	1097	A	C4-C5-C6	6.21	120.11	117.00
84	Aa	1754	C	N3-C4-C5	-6.21	119.41	121.90
84	Aa	1927	A	C5-C6-N6	-6.21	118.73	123.70
84	Aa	2087	A	C1'-O4'-C4'	-6.21	104.93	109.90
84	Aa	2899	A	C5-C6-N1	-6.21	114.59	117.70
84	Aa	3003	C	O4'-C1'-N1	6.21	113.17	108.20
85	Ac	58	G	C5-C6-O6	-6.21	124.87	128.60
1	Ad	750	U	N1-C1'-C2'	6.21	122.08	114.00
84	Aa	721	A	C5-C6-N6	-6.21	118.73	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1114	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	1273	U	C2-N1-C1'	6.21	125.16	117.70
1	Ad	1687	G	P-O3'-C3'	6.21	127.16	119.70
84	Aa	1036	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	1713	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	2350	C	O4'-C1'-N1	6.21	113.17	108.20
84	Aa	3295	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	3332	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	433	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	513	C	P-O3'-C3'	6.21	127.15	119.70
84	Aa	1149	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	1978	G	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	48	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	586	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	1814	C	N3-C4-N4	6.21	122.35	118.00
84	Aa	2268	G	C5-C6-O6	-6.21	124.87	128.60
84	Aa	2319	A	O4'-C1'-N9	6.21	113.17	108.20
84	Aa	2402	G	C5-C6-O6	-6.21	124.88	128.60
1	Ad	1163	C	C3'-C2'-C1'	6.21	106.47	101.50
84	Aa	834	G	C5-C6-O6	-6.21	124.88	128.60
84	Aa	887	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	2436	G	C2'-C3'-O3'	-6.21	95.84	109.50
84	Aa	2667	C	N3-C4-C5	-6.21	119.42	121.90
84	Aa	3254	C	N3-C4-C5	-6.21	119.42	121.90
86	Ab	49	A	O4'-C1'-N9	6.21	113.17	108.20
1	Ad	303	A	O4'-C1'-C2'	-6.21	99.59	105.80
1	Ad	402	G	C3'-C2'-C1'	6.21	106.46	101.50
84	Aa	1224	A	C4-C5-C6	6.21	120.10	117.00
84	Aa	1930	G	O4'-C1'-N9	6.21	113.16	108.20
84	Aa	2572	U	O4'-C1'-N1	6.21	113.16	108.20
84	Aa	385	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1117	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1850	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	2411	G	C5-C6-O6	-6.20	124.88	128.60
84	Aa	2810	A	C5-C6-N6	-6.20	118.74	123.70
84	Aa	219	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1403	G	O4'-C1'-N9	6.20	113.16	108.20
1	Ad	24	U	O4'-C1'-N1	6.20	113.16	108.20
1	Ad	1755	G	C3'-C2'-C1'	-6.20	96.54	101.50
10	Bg	342	SER	N-CA-CB	6.20	119.80	110.50
84	Aa	516	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	663	G	O4'-C1'-N9	6.20	113.16	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1113	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	1892	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	3232	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	3244	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	3356	C	N3-C4-C5	-6.20	119.42	121.90
85	Ac	148	C	N3-C4-N4	6.20	122.34	118.00
1	Ad	27	U	C5'-C4'-O4'	6.20	116.54	109.10
1	Ad	357	A	C1'-O4'-C4'	6.20	114.86	109.90
1	Ad	1487	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	186	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	724	A	C5-C6-N1	-6.20	114.60	117.70
84	Aa	951	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	1030	A	C4-C5-C6	6.20	120.10	117.00
84	Aa	1285	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1514	U	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1517	C	C2-N1-C1'	6.20	125.62	118.80
84	Aa	2418	A	C5-C6-N1	-6.20	114.60	117.70
84	Aa	2869	C	N3-C4-C5	-6.20	119.42	121.90
85	Ac	157	A	C4-C5-C6	6.20	120.10	117.00
1	Ad	954	C	N1-C1'-C2'	6.20	122.06	114.00
2	Ae	20	C	O4'-C1'-N1	6.20	113.16	108.20
84	Aa	1246	G	C5-C6-O6	-6.20	124.88	128.60
1	Ad	934	A	P-O3'-C3'	6.20	127.13	119.70
1	Ad	1360	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	32	G	O4'-C1'-N9	6.20	113.16	108.20
84	Aa	289	C	N3-C4-N4	6.20	122.34	118.00
84	Aa	1225	A	C5-C6-N6	-6.20	118.74	123.70
84	Aa	1840	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	2887	C	N3-C4-C5	-6.20	119.42	121.90
84	Aa	3135	A	C4-C5-C6	6.20	120.10	117.00
1	Ad	498	U	N1-C1'-C2'	-6.19	105.19	112.00
84	Aa	2904	A	C5-C6-N6	-6.19	118.74	123.70
84	Aa	850	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	1687	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	2079	A	C5-C6-N1	-6.19	114.60	117.70
84	Aa	2912	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	2978	A	C4-C5-C6	6.19	120.10	117.00
84	Aa	3220	A	C4-C5-C6	6.19	120.10	117.00
1	Ad	899	A	P-O3'-C3'	6.19	127.13	119.70
1	Ad	1663	A	C3'-C2'-C1'	6.19	106.45	101.50
84	Aa	199	G	C5-C6-O6	-6.19	124.89	128.60
84	Aa	645	C	N3-C4-C5	-6.19	119.42	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1405	G	O4'-C1'-N9	6.19	113.15	108.20
84	Aa	1733	G	O4'-C1'-N9	6.19	113.15	108.20
84	Aa	3386	A	C5-C6-N1	-6.19	114.61	117.70
86	Ab	118	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	968	A	C5-C6-N1	-6.19	114.61	117.70
84	Aa	1284	C	N3-C4-C5	-6.19	119.42	121.90
1	Ad	470	U	O4'-C1'-N1	6.19	113.15	108.20
84	Aa	98	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	1095	C	N3-C4-C5	-6.19	119.42	121.90
84	Aa	1868	C	O4'-C1'-N1	6.19	113.15	108.20
84	Aa	3115	A	O4'-C1'-N9	6.19	113.15	108.20
1	Ad	1127	G	O4'-C1'-N9	6.19	113.15	108.20
61	CM	6	PHE	CB-CG-CD1	-6.19	116.47	120.80
84	Aa	1232	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	1863	A	C4-C5-C6	6.19	120.09	117.00
84	Aa	3274	G	C5-C6-O6	-6.19	124.89	128.60
84	Aa	348	C	N3-C4-N4	6.18	122.33	118.00
84	Aa	802	G	O4'-C1'-N9	6.18	113.15	108.20
84	Aa	1068	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1818	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1861	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1892	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	1986	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	2963	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	3386	A	O4'-C1'-N9	6.18	113.15	108.20
1	Ad	943	G	O4'-C1'-N9	6.18	113.15	108.20
84	Aa	88	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	262	A	C5-C6-N6	-6.18	118.75	123.70
84	Aa	304	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1917	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1929	A	C5-C6-N6	-6.18	118.75	123.70
84	Aa	2480	G	P-O5'-C5'	6.18	130.79	120.90
84	Aa	2921	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	849	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	3009	A	C4-C5-C6	6.18	120.09	117.00
1	Ad	201	G	O4'-C1'-C2'	6.18	113.16	107.60
1	Ad	715	U	P-O5'-C5'	6.18	130.79	120.90
84	Aa	122	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	995	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1478	A	C5-C6-N1	-6.18	114.61	117.70
84	Aa	1791	U	O4'-C1'-N1	6.18	113.14	108.20
84	Aa	3384	G	P-O3'-C3'	6.18	127.11	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	81	G	C5-C6-O6	-6.18	124.89	128.60
84	Aa	192	C	N3-C4-C5	-6.18	119.43	121.90
85	Ac	31	G	O4'-C1'-N9	6.18	113.14	108.20
1	Ad	1690	U	N1-C1'-C2'	-6.18	105.20	112.00
84	Aa	137	C	N3-C4-C5	-6.18	119.43	121.90
84	Aa	1031	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1249	A	C4-C5-C6	6.18	120.09	117.00
84	Aa	1523	G	O4'-C1'-N9	6.18	113.14	108.20
84	Aa	2015	G	O4'-C1'-N9	6.18	113.14	108.20
1	Ad	902	C	C3'-C2'-C1'	6.17	106.44	101.50
1	Ad	1206	A	C3'-C2'-C1'	6.17	106.44	101.50
84	Aa	127	G	C5-C6-O6	-6.17	124.89	128.60
84	Aa	634	A	C5-C6-N1	-6.17	114.61	117.70
84	Aa	1107	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	1888	G	C5-C6-O6	-6.17	124.89	128.60
86	Ab	20	C	C2-N3-C4	6.17	122.99	119.90
1	Ad	541	G	O4'-C1'-N9	6.17	113.14	108.20
1	Ad	835	U	C4'-C3'-C2'	-6.17	96.43	102.60
84	Aa	7	C	O4'-C1'-N1	6.17	113.14	108.20
84	Aa	39	A	C5-C6-N6	-6.17	118.76	123.70
84	Aa	1359	A	C5-C6-N6	-6.17	118.76	123.70
84	Aa	1400	C	N3-C4-C5	-6.17	119.43	121.90
1	Ad	225	G	C1'-O4'-C4'	-6.17	104.96	109.90
1	Ad	1346	C	N1-C1'-C2'	6.17	122.02	114.00
1	Ad	1392	G	C1'-O4'-C4'	-6.17	104.96	109.90
84	Aa	160	G	C5-C6-O6	-6.17	124.90	128.60
84	Aa	228	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	448	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	585	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	687	C	O4'-C1'-N1	6.17	113.14	108.20
84	Aa	903	G	N1-C6-O6	6.17	123.60	119.90
84	Aa	3302	A	C4-C5-C6	6.17	120.09	117.00
1	Ad	1461	G	O4'-C1'-C2'	6.17	113.15	107.60
84	Aa	2068	G	C5-C6-O6	-6.17	124.90	128.60
84	Aa	2933	C	O4'-C1'-N1	6.17	113.14	108.20
85	Ac	139	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	424	G	C8-N9-C1'	-6.17	118.98	127.00
84	Aa	1790	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	3089	G	O4'-C1'-N9	6.17	113.14	108.20
84	Aa	3277	C	C5'-C4'-O4'	6.17	116.50	109.10
1	Ad	630	U	O4'-C1'-N1	6.17	113.13	108.20
84	Aa	596	C	N3-C4-C5	-6.17	119.43	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	812	G	N1-C6-O6	6.17	123.60	119.90
84	Aa	840	A	O4'-C1'-N9	6.17	113.13	108.20
84	Aa	1326	C	N3-C4-C5	-6.17	119.43	121.90
84	Aa	2250	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	2482	A	C5-C6-N6	-6.17	118.77	123.70
84	Aa	2659	A	C4-C5-C6	6.17	120.08	117.00
84	Aa	3302	A	C5-C6-N1	-6.17	114.62	117.70
84	Aa	1201	C	N3-C4-N4	6.17	122.31	118.00
1	Ad	1547	G	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	454	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	1463	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	1794	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	1899	U	O4'-C1'-N1	6.16	113.13	108.20
84	Aa	2664	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	2673	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	2737	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2858	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	3074	A	C4-C5-C6	6.16	120.08	117.00
1	Ad	292	A	C3'-C2'-C1'	6.16	106.43	101.50
1	Ad	1135	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	519	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1001	A	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	1984	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1988	G	C5-C6-O6	-6.16	124.90	128.60
84	Aa	2092	C	C6-N1-C2	-6.16	117.83	120.30
84	Aa	2708	A	C5-C6-N1	-6.16	114.62	117.70
86	Ab	25	G	N1-C6-O6	6.16	123.60	119.90
1	Ad	1682	U	O4'-C1'-C2'	-6.16	99.64	105.80
1	Ad	1697	G	O4'-C1'-N9	6.16	113.13	108.20
1	Ad	1728	G	OP1-P-OP2	-6.16	110.36	119.60
84	Aa	470	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	632	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	879	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	1732	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	2917	U	O4'-C1'-N1	6.16	113.13	108.20
84	Aa	2930	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	3292	U	O4'-C1'-N1	6.16	113.13	108.20
86	Ab	5	G	N1-C2-N3	-6.16	120.20	123.90
1	Ad	847	U	C1'-O4'-C4'	-6.16	104.97	109.90
1	Ad	848	C	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	126	G	O4'-C1'-N9	6.16	113.13	108.20
84	Aa	1255	A	C4-C5-C6	6.16	120.08	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1398	A	C5-C6-N6	-6.16	118.77	123.70
84	Aa	1456	A	C5-C6-N1	-6.16	114.62	117.70
84	Aa	3269	C	N3-C4-N4	6.16	122.31	118.00
1	Ad	27	U	C3'-C2'-C1'	6.16	106.43	101.50
84	Aa	531	G	C5-C6-O6	-6.16	124.91	128.60
84	Aa	1012	U	O4'-C1'-N1	6.16	113.12	108.20
84	Aa	3003	C	N3-C4-C5	-6.16	119.44	121.90
85	Ac	73	U	O4'-C1'-N1	6.16	113.13	108.20
1	Ad	47	A	N9-C1'-C2'	6.16	122.00	114.00
1	Ad	79	A	C5'-C4'-O4'	6.16	116.49	109.10
84	Aa	1234	G	O4'-C1'-N9	6.16	113.12	108.20
84	Aa	1699	C	N3-C4-C5	-6.16	119.44	121.90
84	Aa	1805	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2037	C	N3-C4-N4	6.16	122.31	118.00
84	Aa	2458	A	C4-C5-C6	6.16	120.08	117.00
84	Aa	2852	G	N1-C6-O6	6.16	123.59	119.90
84	Aa	2987	C	N3-C4-C5	-6.16	119.44	121.90
1	Ad	228	G	O4'-C1'-C2'	-6.15	99.65	105.80
84	Aa	104	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	56	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	322	A	C5-C6-N6	-6.15	118.78	123.70
84	Aa	1336	A	C5-C6-N1	-6.15	114.62	117.70
84	Aa	1373	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	1690	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	2013	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	2993	A	C5-C6-N1	-6.15	114.62	117.70
1	Ad	17	C	C3'-C2'-C1'	6.15	106.42	101.50
1	Ad	1732	A	O4'-C1'-N9	6.15	113.12	108.20
47	CQ	53	PHE	CB-CG-CD2	-6.15	116.49	120.80
84	Aa	255	C	N3-C4-N4	6.15	122.31	118.00
84	Aa	365	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	382	A	C4-C5-C6	6.15	120.08	117.00
84	Aa	749	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	933	U	O4'-C1'-N1	6.15	113.12	108.20
84	Aa	1246	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	1666	C	N3-C4-C5	-6.15	119.44	121.90
84	Aa	2093	G	N3-C2-N2	6.15	124.20	119.90
84	Aa	660	A	C5-C6-N1	-6.15	114.62	117.70
84	Aa	2154	G	N3-C2-N2	6.15	124.20	119.90
1	Ad	1745	U	O4'-C1'-C2'	-6.15	99.65	105.80
84	Aa	225	G	C5-C6-O6	-6.15	124.91	128.60
84	Aa	981	A	C4-C5-C6	6.15	120.07	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2826	G	C5-C6-O6	-6.15	124.91	128.60
84	Aa	2069	G	O4'-C1'-N9	6.15	113.12	108.20
84	Aa	2331	A	C4-C5-C6	6.15	120.07	117.00
84	Aa	3072	A	C4-C5-C6	6.15	120.07	117.00
1	Ad	700	C	O4'-C1'-C2'	-6.14	99.66	105.80
84	Aa	970	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	1225	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1301	C	N3-C4-N4	6.14	122.30	118.00
84	Aa	1843	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	2066	G	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	2662	A	O4'-C1'-N9	6.14	113.12	108.20
84	Aa	2825	G	C5-C6-O6	-6.14	124.91	128.60
84	Aa	3205	C	N3-C4-N4	6.14	122.30	118.00
63	CU	107	ALA	N-CA-CB	6.14	118.70	110.10
84	Aa	162	G	C5-C6-O6	-6.14	124.91	128.60
84	Aa	370	A	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	371	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1149	C	N3-C4-N4	6.14	122.30	118.00
84	Aa	1812	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	2549	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	3051	U	O4'-C1'-N1	6.14	113.11	108.20
86	Ab	14	C	C6-N1-C2	-6.14	117.84	120.30
84	Aa	1240	G	C5-C6-O6	-6.14	124.92	128.60
1	Ad	1165	A	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	669	G	O4'-C1'-N9	6.14	113.11	108.20
84	Aa	790	G	C5-C6-O6	-6.14	124.92	128.60
84	Aa	1815	G	N1-C6-O6	6.14	123.58	119.90
84	Aa	2656	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	3073	A	C4-C5-C6	6.14	120.07	117.00
63	CU	57	GLY	C-N-CA	6.14	137.04	121.70
84	Aa	94	A	C5-C6-N1	-6.14	114.63	117.70
84	Aa	864	C	O4'-C1'-N1	6.14	113.11	108.20
84	Aa	2561	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	3005	C	C5'-C4'-C3'	-6.14	106.18	116.00
1	Ad	1162	A	O4'-C1'-C2'	-6.14	99.66	105.80
9	BX	60	GLN	CB-CA-C	6.14	122.67	110.40
84	Aa	1040	A	C5-C6-N6	-6.14	118.79	123.70
84	Aa	1293	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	1401	C	N3-C4-C5	-6.14	119.44	121.90
84	Aa	1456	A	C5-C6-N6	-6.14	118.79	123.70
84	Aa	1532	A	C4-C5-C6	6.14	120.07	117.00
84	Aa	1965	C	N3-C4-N4	6.14	122.30	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2098	A	O4'-C1'-N9	6.14	113.11	108.20
1	Ad	822	G	C5'-C4'-O4'	6.13	116.46	109.10
1	Ad	932	C	N1-C1'-C2'	6.13	121.98	114.00
1	Ad	1342	C	N1-C1'-C2'	6.13	121.98	114.00
84	Aa	65	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	481	G	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	657	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	1543	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	1807	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1828	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2366	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	2647	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2886	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	115	C	P-O3'-C3'	6.13	127.06	119.70
84	Aa	660	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	711	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	1328	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2357	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	2835	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	3047	A	C5-C6-N1	-6.13	114.63	117.70
84	Aa	3109	G	C5-C6-O6	-6.13	124.92	128.60
1	Ad	291	G	C3'-C2'-C1'	-6.13	96.59	101.50
84	Aa	376	A	C4-C5-C6	6.13	120.07	117.00
84	Aa	802	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1075	G	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	1831	A	P-O3'-C3'	6.13	127.06	119.70
84	Aa	2092	C	C2-N1-C1'	-6.13	112.05	118.80
84	Aa	2580	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	2739	A	O4'-C1'-N9	6.13	113.11	108.20
84	Aa	2904	A	O4'-C1'-N9	6.13	113.11	108.20
1	Ad	146	A	O4'-C1'-C2'	-6.13	99.67	105.80
84	Aa	158	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	170	C	O4'-C1'-N1	6.13	113.10	108.20
84	Aa	366	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	543	C	O5'-C5'-C4'	-6.13	100.05	111.70
84	Aa	1607	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1798	C	C1'-O4'-C4'	-6.13	105.00	109.90
84	Aa	3095	G	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	3154	G	C5-C6-O6	-6.13	124.92	128.60
1	Ad	185	G	O4'-C1'-N9	6.13	113.10	108.20
1	Ad	641	C	O4'-C1'-N1	6.13	113.10	108.20
84	Aa	305	G	O4'-C1'-N9	6.13	113.10	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1670	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1744	C	C5'-C4'-O4'	6.13	116.45	109.10
84	Aa	2167	G	P-O3'-C3'	6.13	127.05	119.70
84	Aa	2397	A	C5-C6-N1	-6.13	114.64	117.70
84	Aa	2413	G	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	3368	A	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	376	A	O4'-C1'-N9	6.13	113.10	108.20
84	Aa	383	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	717	G	C5-C6-O6	-6.13	124.92	128.60
84	Aa	1538	A	C4-C5-C6	6.13	120.06	117.00
84	Aa	2878	C	N3-C4-C5	-6.13	119.45	121.90
84	Aa	1026	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	2442	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	280	G	N1-C6-O6	6.12	123.57	119.90
84	Aa	932	A	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	1123	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1367	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1413	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2232	C	N3-C4-C5	-6.12	119.45	121.90
85	Ac	25	G	C5-C6-O6	-6.12	124.92	128.60
85	Ac	48	A	C5-C6-N1	-6.12	114.64	117.70
86	Ab	38	U	N3-C4-O4	6.12	123.69	119.40
1	Ad	152	G	C3'-C2'-C1'	-6.12	96.60	101.50
84	Aa	470	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	588	G	O4'-C1'-N9	6.12	113.10	108.20
84	Aa	842	C	N3-C4-N4	6.12	122.28	118.00
84	Aa	987	A	N1-C6-N6	6.12	122.27	118.60
84	Aa	1133	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1969	G	P-O3'-C3'	6.12	127.05	119.70
85	Ac	64	U	O4'-C1'-N1	6.12	113.10	108.20
1	Ad	96	G	O4'-C1'-C2'	6.12	113.11	107.60
84	Aa	252	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	920	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2089	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2948	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	3016	C	N3-C4-C5	-6.12	119.45	121.90
1	Ad	791	C	N1-C1'-C2'	6.12	121.95	114.00
1	Ad	1424	G	O4'-C1'-N9	6.12	113.10	108.20
56	Cd	33	PHE	CB-CG-CD1	6.12	125.08	120.80
84	Aa	711	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	1161	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1475	U	O4'-C1'-N1	6.12	113.09	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1980	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2744	C	N3-C4-N4	6.12	122.28	118.00
84	Aa	369	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	665	G	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1490	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2084	G	O3'-P-O5'	-6.12	92.38	104.00
84	Aa	2843	G	C5-C6-O6	-6.12	124.93	128.60
85	Ac	54	A	C5-C6-N6	-6.12	118.81	123.70
1	Ad	296	A	O4'-C1'-N9	-6.12	103.31	108.20
1	Ad	298	C	C1'-O4'-C4'	-6.12	105.01	109.90
1	Ad	1555	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1004	C	O4'-C1'-N1	6.12	113.09	108.20
84	Aa	1711	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	1738	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	1967	C	N3-C4-C5	-6.12	119.45	121.90
84	Aa	2367	A	C5-C6-N1	-6.12	114.64	117.70
84	Aa	2397	A	C4-C5-C6	6.12	120.06	117.00
84	Aa	2514	A	O4'-C1'-N9	6.12	113.09	108.20
84	Aa	2618	G	C5-C6-O6	-6.12	124.93	128.60
84	Aa	3277	C	N3-C4-C5	-6.12	119.45	121.90
86	Ab	105	C	C2-N3-C4	6.12	122.96	119.90
1	Ad	425	A	O4'-C1'-N9	6.11	113.09	108.20
1	Ad	967	C	C1'-O4'-C4'	-6.11	105.01	109.90
14	BQ	102	TYR	CB-CG-CD2	-6.11	117.33	121.00
25	Bd	47	ALA	N-CA-CB	6.11	118.66	110.10
84	Aa	1389	C	N3-C4-C5	-6.11	119.45	121.90
84	Aa	1793	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	1888	G	O4'-C1'-N9	6.11	113.09	108.20
84	Aa	2479	C	O5'-C5'-C4'	-6.11	100.08	111.70
84	Aa	2750	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2889	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	3236	A	C4-C5-C6	6.11	120.06	117.00
2	Ae	17	G	C3'-C2'-C1'	6.11	106.39	101.50
84	Aa	602	G	C5-C6-O6	-6.11	124.93	128.60
84	Aa	2910	C	N3-C4-C5	-6.11	119.45	121.90
1	Ad	1120	U	N1-C1'-C2'	6.11	121.94	114.00
1	Ad	1576	C	C5'-C4'-C3'	-6.11	106.22	116.00
84	Aa	642	C	O4'-C1'-N1	6.11	113.09	108.20
84	Aa	1061	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	2366	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2371	A	C4-C5-C6	6.11	120.06	117.00
84	Aa	2512	U	P-O5'-C5'	-6.11	111.12	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3150	G	O4'-C1'-N9	6.11	113.09	108.20
84	Aa	3213	A	C5-C6-N6	-6.11	118.81	123.70
84	Aa	3270	C	C2-N1-C1'	6.11	125.52	118.80
85	Ac	35	C	N3-C4-C5	-6.11	119.46	121.90
85	Ac	117	C	N3-C4-C5	-6.11	119.45	121.90
84	Aa	1333	C	N3-C4-N4	6.11	122.28	118.00
84	Aa	1746	G	P-O5'-C5'	-6.11	111.13	120.90
84	Aa	2271	G	C5-C6-O6	-6.11	124.94	128.60
84	Aa	3158	C	N3-C4-C5	-6.11	119.46	121.90
51	CX	140	TYR	CB-CG-CD1	-6.11	117.33	121.00
84	Aa	498	G	P-O3'-C3'	6.11	127.03	119.70
84	Aa	1305	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	1316	C	N3-C4-C5	-6.11	119.46	121.90
84	Aa	2432	U	O4'-C1'-N1	6.11	113.08	108.20
84	Aa	2482	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	3342	C	N3-C4-C5	-6.11	119.46	121.90
46	Ca	52	TYR	CB-CG-CD1	6.11	124.66	121.00
84	Aa	498	G	O4'-C1'-N9	6.11	113.08	108.20
84	Aa	573	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	2730	A	C5-C6-N1	-6.11	114.65	117.70
84	Aa	3071	A	C4-C5-C6	6.11	120.05	117.00
84	Aa	3231	G	C5-C6-O6	-6.11	124.94	128.60
84	Aa	3338	U	O4'-C1'-N1	6.11	113.08	108.20
84	Aa	1704	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	2755	U	O4'-C1'-N1	6.10	113.08	108.20
84	Aa	1438	A	C5-C6-N6	-6.10	118.82	123.70
86	Ab	29	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	1500	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	3349	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	722	C	O4'-C1'-N1	6.10	113.08	108.20
84	Aa	725	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	1194	C	N3-C4-N4	6.10	122.27	118.00
84	Aa	2238	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	2962	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	3156	G	O4'-C1'-N9	6.10	113.08	108.20
1	Ad	609	A	O4'-C1'-N9	6.10	113.08	108.20
19	BL	116	PHE	CB-CG-CD2	-6.10	116.53	120.80
84	Aa	293	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	332	A	C5-C6-N6	-6.10	118.82	123.70
84	Aa	443	G	O4'-C1'-N9	6.10	113.08	108.20
84	Aa	2010	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	2101	A	C4-C5-C6	6.10	120.05	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2400	A	C4-C5-C6	6.10	120.05	117.00
84	Aa	2484	G	O4'-C1'-N9	6.10	113.08	108.20
84	Aa	2803	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	2806	A	C5-C6-N1	-6.10	114.65	117.70
84	Aa	3280	U	O4'-C1'-N1	6.10	113.08	108.20
1	Ad	621	U	N1-C1'-C2'	6.10	121.92	114.00
1	Ad	1652	C	C1'-O4'-C4'	-6.10	105.02	109.90
84	Aa	20	G	C5-C6-O6	-6.10	124.94	128.60
84	Aa	2023	C	N3-C4-C5	-6.10	119.46	121.90
84	Aa	2786	G	C5-C6-O6	-6.10	124.94	128.60
1	Ad	838	U	O4'-C1'-N1	6.09	113.08	108.20
63	CU	106	ALA	N-CA-CB	6.09	118.63	110.10
84	Aa	628	C	N3-C4-N4	6.09	122.27	118.00
84	Aa	1435	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	1535	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	1663	G	O4'-C1'-N9	6.09	113.08	108.20
84	Aa	2879	G	O4'-C1'-N9	6.09	113.08	108.20
1	Ad	581	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	534	G	C5-C6-O6	-6.09	124.94	128.60
84	Aa	3088	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	3092	A	C5-C6-N1	-6.09	114.65	117.70
1	Ad	605	A	O4'-C1'-N9	6.09	113.07	108.20
1	Ad	1513	A	N9-C1'-C2'	-6.09	105.30	112.00
84	Aa	54	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	493	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	1846	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	2165	A	C5-C6-N6	-6.09	118.83	123.70
84	Aa	2172	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	2678	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	3041	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	3103	G	C5-C6-O6	-6.09	124.94	128.60
84	Aa	3146	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	3241	C	N3-C4-C5	-6.09	119.46	121.90
85	Ac	153	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	507	C	N3-C4-C5	-6.09	119.46	121.90
84	Aa	721	A	C4-C5-C6	6.09	120.05	117.00
84	Aa	1424	G	O4'-C1'-N9	6.09	113.07	108.20
84	Aa	1763	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	2081	C	N3-C4-N4	6.09	122.26	118.00
84	Aa	1153	A	C5-C6-N6	-6.09	118.83	123.70
84	Aa	1291	A	C4-C5-C6	6.09	120.04	117.00
85	Ac	54	A	C4-C5-C6	6.09	120.04	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	489	C	O4'-C1'-N1	6.09	113.07	108.20
1	Ad	607	U	O4'-C1'-N1	6.09	113.07	108.20
39	CZ	77	PHE	CB-CG-CD2	-6.09	116.54	120.80
84	Aa	991	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	1248	A	C5-C6-N1	-6.09	114.66	117.70
84	Aa	1769	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	1996	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	2082	A	C4-C5-C6	6.09	120.04	117.00
84	Aa	2622	G	C5-C6-O6	-6.09	124.95	128.60
84	Aa	3371	C	N3-C4-C5	-6.09	119.47	121.90
84	Aa	458	G	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	1295	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	2360	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	2430	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	2466	G	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	3166	C	N3-C4-C5	-6.08	119.47	121.90
1	Ad	537	U	N1-C1'-C2'	6.08	121.91	114.00
84	Aa	126	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1463	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	1464	A	O4'-C1'-N9	6.08	113.07	108.20
84	Aa	1939	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	2190	C	N3-C4-N4	6.08	122.26	118.00
84	Aa	3221	A	C5-C6-N6	-6.08	118.83	123.70
84	Aa	3386	A	C4-C5-C6	6.08	120.04	117.00
86	Ab	24	G	C6-C5-N7	-6.08	126.75	130.40
1	Ad	475	A	O4'-C1'-N9	6.08	113.07	108.20
1	Ad	528	U	O4'-C1'-N1	6.08	113.06	108.20
49	CR	55	GLN	N-CA-CB	6.08	121.55	110.60
84	Aa	88	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	279	G	N3-C2-N2	6.08	124.16	119.90
84	Aa	905	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2897	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2928	A	C5-C6-N1	-6.08	114.66	117.70
84	Aa	3049	A	C4-C5-C6	6.08	120.04	117.00
2	Ae	45	G	C3'-C2'-C1'	6.08	106.36	101.50
79	CE	39	ALA	N-CA-CB	6.08	118.61	110.10
84	Aa	439	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	541	C	N3-C4-N4	6.08	122.26	118.00
84	Aa	2377	C	C1'-O4'-C4'	6.08	114.76	109.90
84	Aa	2773	G	O4'-C1'-N9	6.08	113.06	108.20
1	Ad	1699	C	O4'-C1'-C2'	-6.08	99.72	105.80
1	Ad	1741	A	C5'-C4'-O4'	6.08	116.39	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	33	A	C4-C5-C6	6.08	120.04	117.00
84	Aa	642	C	C6-N1-C2	-6.08	117.87	120.30
84	Aa	725	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	904	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	1251	U	O4'-C1'-N1	6.08	113.06	108.20
84	Aa	1665	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1812	A	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	1975	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	2266	A	C5-C6-N1	-6.08	114.66	117.70
84	Aa	2276	A	C5-C6-N6	-6.08	118.84	123.70
84	Aa	2380	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	3329	G	O4'-C1'-N9	6.08	113.06	108.20
85	Ac	145	U	O4'-C1'-N1	6.08	113.06	108.20
85	Ac	155	U	O4'-C1'-N1	6.08	113.06	108.20
86	Ab	18	C	C2-N3-C4	6.08	122.94	119.90
1	Ad	815	A	C4'-C3'-C2'	-6.08	96.52	102.60
84	Aa	55	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	110	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	187	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	732	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	778	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1346	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	1826	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2093	G	C8-N9-C1'	6.08	134.90	127.00
1	Ad	760	G	O4'-C1'-C2'	6.08	113.07	107.60
1	Ad	825	U	P-O5'-C5'	6.08	130.62	120.90
84	Aa	194	G	C5-C6-O6	-6.08	124.95	128.60
84	Aa	1619	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2163	G	N3-C2-N2	6.08	124.15	119.90
84	Aa	2651	G	O4'-C1'-N9	6.08	113.06	108.20
84	Aa	2666	G	C5-C6-O6	-6.08	124.95	128.60
85	Ac	11	C	N3-C4-C5	-6.08	119.47	121.90
84	Aa	394	A	C4-C5-C6	6.07	120.04	117.00
84	Aa	671	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	827	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1658	G	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	2193	A	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	2908	C	N3-C4-C5	-6.07	119.47	121.90
1	Ad	1733	G	N9-C1'-C2'	6.07	121.89	114.00
84	Aa	2161	G	C5-C6-O6	-6.07	124.96	128.60
84	Aa	2920	G	C5'-C4'-C3'	-6.07	106.28	116.00
84	Aa	3123	A	C4-C5-C6	6.07	120.04	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1194	C	C1'-O4'-C4'	6.07	114.76	109.90
1	Ad	1726	G	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	427	U	O4'-C1'-N1	6.07	113.06	108.20
84	Aa	1115	A	O4'-C1'-N9	6.07	113.06	108.20
84	Aa	1175	G	N3-C2-N2	6.07	124.15	119.90
84	Aa	1953	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	248	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1050	A	N1-C6-N6	6.07	122.24	118.60
84	Aa	2521	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	2950	C	N3-C4-C5	-6.07	119.47	121.90
85	Ac	40	A	O4'-C1'-N9	6.07	113.06	108.20
86	Ab	111	U	O4'-C1'-N1	6.07	113.06	108.20
78	CL	25	PHE	CB-CG-CD1	6.07	125.05	120.80
84	Aa	103	G	C5-C6-O6	-6.07	124.96	128.60
84	Aa	686	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	1590	A	C5-C6-N6	-6.07	118.85	123.70
84	Aa	2778	C	N3-C4-C5	-6.07	119.47	121.90
85	Ac	110	A	O4'-C1'-N9	6.07	113.05	108.20
1	Ad	958	G	O4'-C1'-N9	6.07	113.05	108.20
1	Ad	1225	A	C3'-C2'-C1'	6.07	106.35	101.50
1	Ad	1597	C	C3'-C2'-C1'	6.07	106.35	101.50
84	Aa	205	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	616	A	C5-C6-N1	-6.07	114.67	117.70
84	Aa	710	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1186	C	N3-C4-C5	-6.07	119.47	121.90
84	Aa	1253	G	O4'-C1'-N9	6.07	113.05	108.20
84	Aa	1376	A	C5-C6-N1	-6.07	114.67	117.70
84	Aa	1795	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	3034	A	C4-C5-C6	6.07	120.03	117.00
84	Aa	3251	C	N3-C4-N4	6.07	122.25	118.00
84	Aa	1456	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1818	C	N3-C4-N4	6.06	122.25	118.00
1	Ad	637	U	O4'-C1'-C2'	-6.06	99.74	105.80
36	BH	17	SER	N-CA-CB	6.06	119.59	110.50
84	Aa	523	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	529	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	1376	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1388	C	N3-C4-C5	-6.06	119.47	121.90
84	Aa	2624	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2779	G	C5-C6-O6	-6.06	124.96	128.60
84	Aa	3240	C	N3-C4-C5	-6.06	119.47	121.90
84	Aa	3310	A	C4-C5-C6	6.06	120.03	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1728	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	1925	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2429	A	C5-C6-N1	-6.06	114.67	117.70
1	Ad	11	A	C3'-C2'-C1'	6.06	106.35	101.50
1	Ad	470	U	N1-C1'-C2'	6.06	121.88	114.00
1	Ad	914	U	P-O5'-C5'	6.06	130.59	120.90
84	Aa	12	G	C2-N3-C4	6.06	114.93	111.90
84	Aa	377	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	595	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	830	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	879	A	C5-C6-N1	-6.06	114.67	117.70
84	Aa	1040	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1253	G	C5-C6-O6	-6.06	124.96	128.60
84	Aa	2201	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	2578	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	2838	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2866	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	3033	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	3176	C	N3-C4-C5	-6.06	119.48	121.90
85	Ac	126	A	C5-C6-N6	-6.06	118.85	123.70
1	Ad	889	C	O4'-C1'-N1	6.06	113.05	108.20
2	Ae	60	C	N1-C1'-C2'	6.06	121.88	114.00
84	Aa	738	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1015	A	C5-C6-N1	-6.06	114.67	117.70
84	Aa	1359	A	C4-C5-C6	6.06	120.03	117.00
84	Aa	1364	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	1751	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	1752	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2364	C	N3-C4-N4	6.06	122.24	118.00
84	Aa	2954	G	C5-C6-O6	-6.06	124.97	128.60
84	Aa	3239	G	O4'-C1'-N9	6.06	113.05	108.20
84	Aa	688	G	N1-C6-O6	6.06	123.53	119.90
84	Aa	820	A	C5-C6-N6	-6.06	118.86	123.70
84	Aa	1337	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2097	C	N3-C4-C5	-6.06	119.48	121.90
84	Aa	2753	C	N3-C4-C5	-6.06	119.48	121.90
85	Ac	32	C	N3-C4-C5	-6.06	119.48	121.90
1	Ad	1059	U	N1-C1'-C2'	6.05	121.87	114.00
1	Ad	1700	G	N9-C1'-C2'	6.05	121.87	114.00
84	Aa	528	C	C4'-C3'-O3'	6.05	125.11	113.00
84	Aa	1041	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	2398	A	C5-C6-N1	-6.05	114.67	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2462	G	C5-C6-O6	-6.05	124.97	128.60
84	Aa	2557	C	C6-N1-C1'	-6.05	113.53	120.80
84	Aa	2751	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	2813	A	C4-C5-C6	6.05	120.03	117.00
85	Ac	30	C	N3-C4-C5	-6.05	119.48	121.90
2	Ae	17	G	N9-C1'-C2'	6.05	121.87	114.00
84	Aa	563	C	C2'-C3'-O3'	6.05	123.38	113.70
84	Aa	734	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	953	G	N3-C2-N2	6.05	124.14	119.90
84	Aa	2240	C	N3-C4-N4	6.05	122.24	118.00
84	Aa	3123	A	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	3306	A	C4-C5-C6	6.05	120.03	117.00
1	Ad	257	A	O4'-C1'-N9	-6.05	103.36	108.20
84	Aa	513	C	N3-C4-N4	6.05	122.23	118.00
84	Aa	1819	A	C4-C5-C6	6.05	120.03	117.00
84	Aa	1831	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	2509	A	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	2805	A	C5-C6-N1	-6.05	114.67	117.70
84	Aa	315	A	C4-C5-C6	6.05	120.02	117.00
84	Aa	1002	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	2328	C	N3-C4-C5	-6.05	119.48	121.90
85	Ac	12	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	142	G	C5-C6-O6	-6.05	124.97	128.60
84	Aa	1404	G	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	1484	A	C5-C6-N1	-6.05	114.68	117.70
84	Aa	1492	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	2038	G	O4'-C1'-N9	6.05	113.04	108.20
84	Aa	2503	A	C5-C6-N1	-6.05	114.68	117.70
84	Aa	2522	C	N3-C4-C5	-6.05	119.48	121.90
84	Aa	2640	A	C5-C6-N6	-6.05	118.86	123.70
84	Aa	3147	G	O4'-C1'-N9	6.05	113.04	108.20
86	Ab	99	G	C5-C6-N1	-6.05	108.48	111.50
84	Aa	1879	A	O4'-C1'-N9	6.04	113.04	108.20
84	Aa	2086	A	O5'-C5'-C4'	-6.04	100.21	111.70
84	Aa	2737	A	C5-C6-N1	-6.04	114.68	117.70
1	Ad	594	C	N1-C1'-C2'	6.04	121.86	114.00
1	Ad	1627	C	C3'-C2'-C1'	6.04	106.33	101.50
84	Aa	231	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	251	G	C5-C6-O6	-6.04	124.97	128.60
84	Aa	586	A	P-O3'-C3'	6.04	126.95	119.70
84	Aa	1028	G	C5-C6-O6	-6.04	124.97	128.60
84	Aa	1139	A	C5-C6-N1	-6.04	114.68	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1152	G	N1-C6-O6	6.04	123.53	119.90
84	Aa	1832	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	2180	G	N1-C6-O6	6.04	123.53	119.90
84	Aa	2697	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2840	A	O4'-C1'-N9	6.04	113.03	108.20
85	Ac	77	A	O4'-C1'-N9	6.04	113.03	108.20
85	Ac	118	C	N3-C4-C5	-6.04	119.48	121.90
1	Ad	357	A	O4'-C1'-C2'	-6.04	99.76	105.80
1	Ad	1502	C	C3'-C2'-C1'	6.04	106.33	101.50
47	CQ	123	PHE	CB-CG-CD1	6.04	125.03	120.80
84	Aa	849	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	854	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	955	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	1182	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	1362	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	1998	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2032	C	N3-C4-C5	-6.04	119.48	121.90
84	Aa	2781	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	3136	A	O4'-C1'-N9	6.04	113.03	108.20
1	Ad	1127	G	C1'-O4'-C4'	6.04	114.73	109.90
2	Ae	17	G	C5'-C4'-O4'	6.04	116.35	109.10
84	Aa	57	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	187	G	C5-C6-O6	-6.04	124.98	128.60
84	Aa	2389	A	C5-C6-N1	-6.04	114.68	117.70
84	Aa	2754	G	C5-C6-O6	-6.04	124.98	128.60
85	Ac	81	U	O4'-C1'-N1	6.04	113.03	108.20
1	Ad	1803	G	O4'-C1'-N9	-6.04	103.37	108.20
14	BQ	149	ARG	N-CA-CB	6.04	121.47	110.60
84	Aa	534	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2019	G	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2251	A	C4-C5-C6	6.04	120.02	117.00
1	Ad	1210	U	C1'-O4'-C4'	6.04	114.73	109.90
1	Ad	1736	C	C3'-C2'-C1'	6.04	106.33	101.50
41	CA	76	PHE	CB-CG-CD2	-6.04	116.57	120.80
84	Aa	990	U	O4'-C1'-N1	6.04	113.03	108.20
84	Aa	1468	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	2670	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	3310	A	O4'-C1'-N9	6.04	113.03	108.20
84	Aa	33	A	C5-C6-N6	-6.04	118.87	123.70
84	Aa	471	C	N3-C4-C5	-6.04	119.49	121.90
84	Aa	2396	A	C4-C5-C6	6.04	120.02	117.00
84	Aa	2424	G	O4'-C1'-N9	6.04	113.03	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2695	A	C5-C6-N6	-6.04	118.87	123.70
84	Aa	2952	G	C5-C6-O6	-6.04	124.98	128.60
84	Aa	3265	C	N3-C4-N4	6.04	122.22	118.00
84	Aa	454	A	C5-C6-N6	-6.03	118.87	123.70
84	Aa	1340	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	1422	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2562	A	C5-C6-N6	-6.03	118.87	123.70
1	Ad	1493	A	O4'-C1'-N9	6.03	113.03	108.20
84	Aa	544	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2393	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2806	A	C4-C5-C6	6.03	120.02	117.00
86	Ab	119	C	N3-C4-N4	6.03	122.22	118.00
1	Ad	455	G	O4'-C1'-N9	6.03	113.02	108.20
1	Ad	795	A	C3'-C2'-C1'	6.03	106.33	101.50
84	Aa	27	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	359	A	C4-C5-C6	6.03	120.02	117.00
84	Aa	672	A	C5-C6-N1	-6.03	114.69	117.70
84	Aa	1298	A	O4'-C1'-N9	6.03	113.03	108.20
84	Aa	1656	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2285	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	2342	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	3383	C	N3-C4-N4	6.03	122.22	118.00
85	Ac	114	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	343	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	831	G	C5-C6-O6	-6.03	124.98	128.60
1	Ad	378	U	O4'-C1'-N1	6.03	113.02	108.20
1	Ad	1312	G	C1'-O4'-C4'	-6.03	105.08	109.90
84	Aa	444	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	579	G	N3-C2-N2	6.03	124.12	119.90
84	Aa	586	A	C5-C6-N6	-6.03	118.88	123.70
84	Aa	1221	A	C4-C5-C6	6.03	120.01	117.00
84	Aa	2696	C	N3-C4-C5	-6.03	119.49	121.90
86	Ab	70	G	C8-N9-C4	-6.03	103.99	106.40
1	Ad	1124	G	O4'-C1'-N9	6.03	113.02	108.20
84	Aa	89	C	N3-C4-C5	-6.03	119.49	121.90
84	Aa	179	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	312	U	O4'-C1'-N1	6.03	113.02	108.20
84	Aa	798	G	O4'-C1'-N9	6.03	113.02	108.20
84	Aa	1767	G	C5-C6-O6	-6.03	124.98	128.60
84	Aa	2884	U	O4'-C1'-N1	6.03	113.02	108.20
84	Aa	3114	A	C4-C5-C6	6.03	120.01	117.00
85	Ac	14	C	O4'-C1'-N1	6.03	113.02	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	58	G	O4'-C1'-N9	6.03	113.02	108.20
1	Ad	771	G	O4'-C1'-N9	6.02	113.02	108.20
1	Ad	1077	C	C3'-C2'-C1'	6.02	106.32	101.50
84	Aa	1727	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	1873	C	N3-C4-C5	-6.02	119.49	121.90
86	Ab	120	C	N3-C4-N4	6.02	122.22	118.00
1	Ad	196	G	O4'-C1'-N9	6.02	113.02	108.20
1	Ad	792	U	C1'-O4'-C4'	6.02	114.72	109.90
9	BX	40	PHE	CB-CG-CD1	6.02	125.02	120.80
84	Aa	305	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	332	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	1946	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	2436	G	P-O3'-C3'	6.02	126.93	119.70
84	Aa	2905	A	C5-C6-N1	-6.02	114.69	117.70
85	Ac	50	C	N3-C4-C5	-6.02	119.49	121.90
85	Ac	131	G	O4'-C1'-N9	6.02	113.02	108.20
84	Aa	1777	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	2441	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	690	G	C5-C6-O6	-6.02	124.99	128.60
84	Aa	975	G	O4'-C1'-N9	6.02	113.02	108.20
84	Aa	1144	C	N3-C4-C5	-6.02	119.49	121.90
84	Aa	1507	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2514	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2902	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	3123	A	C5-C6-N1	-6.02	114.69	117.70
84	Aa	3224	C	N3-C4-C5	-6.02	119.49	121.90
1	Ad	853	U	O4'-C1'-N1	6.02	113.01	108.20
2	Ae	69	G	N9-C1'-C2'	6.02	121.82	114.00
17	BS	98	VAL	N-CA-C	-6.02	94.75	111.00
84	Aa	168	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	1635	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2100	A	C4-C5-C6	6.02	120.01	117.00
84	Aa	2788	A	C5-C6-N6	-6.02	118.89	123.70
85	Ac	87	G	O4'-C1'-N9	6.02	113.01	108.20
1	Ad	533	C	P-O5'-C5'	-6.02	111.28	120.90
84	Aa	515	C	N3-C4-C5	-6.02	119.49	121.90
1	Ad	619	A	N9-C1'-C2'	-6.01	105.38	112.00
1	Ad	1054	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	920	A	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	1155	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2275	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	2380	G	O4'-C1'-N9	6.01	113.01	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	393	G	N9-C1'-C2'	6.01	121.82	114.00
1	Ad	1520	G	C1'-O4'-C4'	-6.01	105.09	109.90
84	Aa	875	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	876	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1941	G	C5-C6-O6	-6.01	124.99	128.60
1	Ad	1181	G	O4'-C1'-N9	6.01	113.01	108.20
1	Ad	1778	G	O4'-C1'-N9	-6.01	103.39	108.20
84	Aa	697	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1221	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1470	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	1486	G	N3-C2-N2	6.01	124.11	119.90
84	Aa	1596	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	1954	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2118	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2175	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	2222	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	2276	A	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2351	A	C5-C6-N6	-6.01	118.89	123.70
84	Aa	2381	G	C5-C6-O6	-6.01	124.99	128.60
84	Aa	2805	A	C4-C5-C6	6.01	120.01	117.00
84	Aa	3275	G	C5-C6-O6	-6.01	124.99	128.60
85	Ac	91	C	N3-C4-C5	-6.01	119.50	121.90
1	Ad	1331	C	O4'-C1'-N1	6.01	113.01	108.20
1	Ad	1526	C	O4'-C1'-N1	6.01	113.01	108.20
3	Af	16	G	N9-C1'-C2'	-6.01	105.39	112.00
84	Aa	361	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	639	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	650	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	1552	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1723	C	N3-C4-C5	-6.01	119.50	121.90
84	Aa	1944	G	C5'-C4'-C3'	6.01	125.61	116.00
84	Aa	2010	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2638	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	2863	U	O4'-C1'-N1	6.01	113.01	108.20
84	Aa	3009	A	C5-C6-N1	-6.01	114.69	117.70
84	Aa	3077	C	N3-C4-C5	-6.01	119.50	121.90
85	Ac	115	C	N3-C4-C5	-6.01	119.50	121.90
1	Ad	451	U	O4'-C1'-N1	6.01	113.01	108.20
84	Aa	1274	A	C5-C6-N1	-6.01	114.70	117.70
84	Aa	1894	G	O4'-C1'-N9	6.01	113.01	108.20
84	Aa	2027	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	2142	A	C4-C5-C6	6.01	120.00	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2276	A	C4-C5-C6	6.01	120.00	117.00
84	Aa	374	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	482	C	N3-C4-N4	6.01	122.20	118.00
84	Aa	570	G	C5-C6-O6	-6.01	125.00	128.60
84	Aa	1629	A	C5-C6-N1	-6.01	114.70	117.70
84	Aa	2270	A	O4'-C1'-N9	6.01	113.00	108.20
1	Ad	164	C	C3'-C2'-C1'	6.00	106.30	101.50
84	Aa	961	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	1749	G	O3'-P-O5'	-6.00	92.59	104.00
84	Aa	2149	G	C4-N9-C1'	6.00	134.31	126.50
84	Aa	2587	G	N1-C2-N3	-6.00	120.30	123.90
84	Aa	3218	C	N3-C4-C5	-6.00	119.50	121.90
1	Ad	367	G	C3'-C2'-C1'	-6.00	96.70	101.50
84	Aa	432	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	903	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	1296	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	1609	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	1812	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2369	G	N1-C6-O6	6.00	123.50	119.90
84	Aa	2579	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2835	A	C4-C5-C6	6.00	120.00	117.00
85	Ac	51	G	O4'-C1'-N9	6.00	113.00	108.20
1	Ad	193	G	N9-C1'-C2'	6.00	121.80	114.00
84	Aa	93	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	670	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2412	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2429	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	474	G	O5'-C5'-C4'	6.00	123.10	111.70
17	BS	100	SER	N-CA-CB	6.00	119.50	110.50
84	Aa	675	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	872	G	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	2039	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2533	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2750	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2822	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	3186	G	C5-C6-O6	-6.00	125.00	128.60
1	Ad	86	A	N9-C1'-C2'	6.00	121.80	114.00
1	Ad	782	G	N9-C1'-C2'	6.00	121.80	114.00
1	Ad	1475	A	O4'-C1'-C2'	-6.00	99.80	105.80
84	Aa	1438	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2019	G	C5-C6-O6	-6.00	125.00	128.60
84	Aa	2100	A	C5-C6-N1	-6.00	114.70	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2139	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2706	A	C5-C6-N1	-6.00	114.70	117.70
84	Aa	2790	C	N3-C4-N4	6.00	122.20	118.00
84	Aa	3372	C	N3-C4-C5	-6.00	119.50	121.90
84	Aa	916	A	C4-C5-C6	6.00	120.00	117.00
84	Aa	2643	A	O4'-C1'-N9	6.00	113.00	108.20
84	Aa	3335	G	N3-C2-N2	6.00	124.10	119.90
1	Ad	318	C	C5'-C4'-O4'	5.99	116.29	109.10
84	Aa	156	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	411	C	O4'-C1'-N1	5.99	113.00	108.20
84	Aa	511	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	1317	G	O4'-C1'-N9	5.99	113.00	108.20
84	Aa	1749	G	C5-C6-O6	-5.99	125.00	128.60
84	Aa	1877	G	C5-C6-O6	-5.99	125.00	128.60
84	Aa	1960	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	2274	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	2632	U	O4'-C1'-N1	5.99	112.99	108.20
84	Aa	3131	A	C4-C5-C6	5.99	120.00	117.00
1	Ad	1016	C	C3'-C2'-C1'	5.99	106.29	101.50
84	Aa	206	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	810	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	1659	G	C5-C6-O6	-5.99	125.00	128.60
86	Ab	105	C	N3-C4-N4	5.99	122.19	118.00
1	Ad	569	C	O4'-C1'-C2'	-5.99	99.81	105.80
84	Aa	81	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	119	A	C4-C5-C6	5.99	120.00	117.00
84	Aa	1846	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	2079	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	2338	C	N3-C4-N4	5.99	122.19	118.00
84	Aa	3350	C	N3-C4-C5	-5.99	119.50	121.90
36	BH	117	ARG	N-CA-CB	5.99	121.38	110.60
63	CU	100	ASP	N-CA-CB	5.99	121.38	110.60
84	Aa	69	U	O4'-C1'-N1	5.99	112.99	108.20
84	Aa	420	A	O4'-C1'-N9	5.99	112.99	108.20
84	Aa	800	C	C2-N3-C4	5.99	122.89	119.90
84	Aa	900	C	N3-C4-C5	-5.99	119.50	121.90
84	Aa	1210	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	1825	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	2152	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	2455	A	C5-C6-N1	-5.99	114.71	117.70
84	Aa	2773	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	3157	C	N3-C4-C5	-5.99	119.50	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	113	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	696	A	C4-C5-C6	5.99	119.99	117.00
84	Aa	887	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	1213	G	C5-C6-O6	-5.99	125.01	128.60
84	Aa	1602	A	C5-C6-N6	-5.99	118.91	123.70
84	Aa	2502	U	O3'-P-O5'	-5.99	92.63	104.00
84	Aa	2801	A	C4-C5-C6	5.99	119.99	117.00
84	Aa	16	A	C5-C6-N1	-5.99	114.71	117.70
84	Aa	2745	C	N3-C4-C5	-5.99	119.51	121.90
1	Ad	762	A	C3'-C2'-C1'	5.98	106.29	101.50
84	Aa	917	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	1087	G	C5-C6-O6	-5.98	125.01	128.60
84	Aa	2029	G	O4'-C1'-N9	5.98	112.99	108.20
84	Aa	2047	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	3223	C	N3-C4-C5	-5.98	119.51	121.90
1	Ad	614	G	P-O5'-C5'	-5.98	111.33	120.90
1	Ad	1305	U	O4'-C1'-C2'	-5.98	99.82	105.80
13	BF	148	TYR	CB-CG-CD2	-5.98	117.41	121.00
84	Aa	705	A	C5-C6-N6	-5.98	118.91	123.70
84	Aa	890	G	O4'-C1'-N9	5.98	112.99	108.20
1	Ad	614	G	O4'-C1'-N9	5.98	112.98	108.20
23	Bc	8	ALA	N-CA-CB	5.98	118.47	110.10
84	Aa	218	G	C5-C6-O6	-5.98	125.01	128.60
84	Aa	1546	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2681	A	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	72	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	948	C	N3-C4-C5	-5.98	119.51	121.90
84	Aa	1307	A	C4-C5-C6	5.98	119.99	117.00
84	Aa	1444	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2031	G	C5-C6-O6	-5.98	125.01	128.60
2	Ae	72	G	P-O3'-C3'	-5.98	112.53	119.70
84	Aa	1923	G	O4'-C1'-N9	5.98	112.98	108.20
84	Aa	2145	C	N3-C4-C5	-5.98	119.51	121.90
84	Aa	2224	A	C5-C6-N1	-5.98	114.71	117.70
84	Aa	2439	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	3044	C	N3-C4-N4	5.98	122.18	118.00
84	Aa	3045	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	3114	A	C5-C6-N6	-5.98	118.92	123.70
85	Ac	45	C	N3-C4-C5	-5.98	119.51	121.90
1	Ad	755	U	O4'-C1'-N1	5.98	112.98	108.20
84	Aa	499	A	C5-C6-N6	-5.98	118.92	123.70
84	Aa	1747	A	C4-C5-C6	5.98	119.99	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2098	A	C4-C5-C6	5.98	119.99	117.00
85	Ac	41	A	O4'-C1'-N9	5.98	112.98	108.20
1	Ad	868	A	N9-C1'-C2'	-5.97	105.43	112.00
1	Ad	1090	G	O4'-C1'-N9	5.97	112.98	108.20
84	Aa	522	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	653	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	792	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	1306	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	1630	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	1650	G	N3-C2-N2	5.97	124.08	119.90
84	Aa	2505	C	N3-C4-N4	5.97	122.18	118.00
84	Aa	2152	A	C4-C5-C6	5.97	119.99	117.00
84	Aa	3327	A	C4-C5-C6	5.97	119.99	117.00
1	Ad	949	A	C3'-C2'-C1'	5.97	106.28	101.50
2	Ae	28	G	O4'-C1'-C2'	5.97	112.97	107.60
1	Ad	244	C	O4'-C1'-C2'	-5.97	99.83	105.80
84	Aa	387	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	697	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1199	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1373	A	O4'-C1'-N9	5.97	112.98	108.20
84	Aa	1484	A	P-O3'-C3'	5.97	126.86	119.70
84	Aa	1970	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	2107	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	2312	A	C4-C5-C6	5.97	119.98	117.00
1	Ad	741	C	O4'-C1'-N1	5.97	112.97	108.20
84	Aa	66	A	C5-C6-N1	-5.97	114.72	117.70
84	Aa	1968	C	N3-C4-C5	-5.97	119.51	121.90
84	Aa	2067	G	C5-C6-O6	-5.97	125.02	128.60
84	Aa	3328	A	C4-C5-C6	5.97	119.98	117.00
1	Ad	238	G	O4'-C1'-C2'	-5.97	99.83	105.80
51	CX	140	TYR	CB-CG-CD2	5.97	124.58	121.00
84	Aa	62	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	754	G	O4'-C1'-N9	5.97	112.97	108.20
84	Aa	1048	U	O4'-C1'-N1	5.97	112.97	108.20
84	Aa	2120	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	3013	A	C4-C5-C6	5.97	119.98	117.00
84	Aa	3101	C	N3-C4-N4	5.97	122.18	118.00
84	Aa	3249	G	O4'-C1'-N9	5.97	112.97	108.20
1	Ad	1574	U	C1'-O4'-C4'	5.96	114.67	109.90
84	Aa	50	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1393	G	N1-C6-O6	5.96	123.48	119.90
84	Aa	1698	C	N3-C4-C5	-5.96	119.52	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1706	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	1879	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	1972	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2059	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2165	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	2337	C	N3-C4-C5	-5.96	119.51	121.90
84	Aa	2943	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	3288	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	3310	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	3340	G	O4'-C1'-N9	5.96	112.97	108.20
1	Ad	61	A	O4'-C4'-C3'	-5.96	98.04	104.00
1	Ad	70	C	O4'-C1'-N1	5.96	112.97	108.20
2	Ae	43	C	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	743	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	1566	C	N3-C4-C5	-5.96	119.52	121.90
85	Ac	56	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	178	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	543	C	N3-C4-N4	5.96	122.17	118.00
84	Aa	655	G	C5-C6-O6	-5.96	125.02	128.60
84	Aa	813	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	987	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1450	G	C4'-C3'-C2'	-5.96	96.64	102.60
84	Aa	1499	C	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	2156	U	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	2351	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	564	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	656	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	1136	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	1365	C	O4'-C1'-N1	5.96	112.97	108.20
85	Ac	14	C	N3-C4-N4	5.96	122.17	118.00
1	Ad	788	G	P-O5'-C5'	-5.96	111.37	120.90
39	CZ	77	PHE	CB-CG-CD1	5.96	124.97	120.80
47	CQ	53	PHE	CB-CG-CD1	5.96	124.97	120.80
84	Aa	47	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	646	U	O4'-C1'-N1	5.96	112.97	108.20
84	Aa	1114	A	C5-C6-N6	-5.96	118.93	123.70
84	Aa	1378	G	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	2641	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3173	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3352	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	1587	G	C1'-O4'-C4'	-5.96	105.14	109.90
84	Aa	1073	G	O4'-C1'-N9	5.96	112.97	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1882	A	O4'-C1'-N9	5.96	112.97	108.20
84	Aa	2047	A	C5-C6-N1	-5.96	114.72	117.70
84	Aa	2227	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3028	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3381	C	N3-C4-N4	5.96	122.17	118.00
85	Ac	119	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	237	C	N1-C1'-C2'	5.96	121.74	114.00
84	Aa	541	C	N3-C4-C5	-5.96	119.52	121.90
84	Aa	944	G	O4'-C1'-N9	5.96	112.96	108.20
84	Aa	2296	U	O4'-C1'-N1	5.96	112.96	108.20
84	Aa	2662	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	2792	A	C4-C5-C6	5.96	119.98	117.00
84	Aa	3357	C	N3-C4-C5	-5.96	119.52	121.90
1	Ad	1035	A	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	1163	C	O4'-C1'-N1	-5.95	103.44	108.20
41	CA	69	TYR	CB-CG-CD1	5.95	124.57	121.00
84	Aa	1254	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	1315	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	1785	G	C5-C6-O6	-5.95	125.03	128.60
84	Aa	2428	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2665	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	2921	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	3104	A	C4-C5-C6	5.95	119.98	117.00
84	Aa	3331	G	O4'-C1'-N9	5.95	112.96	108.20
85	Ac	92	A	C5-C6-N1	-5.95	114.72	117.70
84	Aa	1684	U	P-O3'-C3'	-5.95	112.56	119.70
84	Aa	2002	G	C5-C6-O6	-5.95	125.03	128.60
84	Aa	2110	G	O4'-C1'-N9	5.95	112.96	108.20
85	Ac	88	A	O4'-C1'-N9	5.95	112.96	108.20
1	Ad	153	U	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	885	C	C3'-C2'-C1'	5.95	106.26	101.50
1	Ad	1179	C	C3'-C2'-C1'	5.95	106.26	101.50
84	Aa	704	G	N3-C2-N2	5.95	124.07	119.90
84	Aa	782	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	1288	C	N3-C4-N4	5.95	122.17	118.00
84	Aa	1459	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	1785	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2350	C	N3-C4-C5	-5.95	119.52	121.90
84	Aa	3297	A	C4-C5-C6	5.95	119.98	117.00
85	Ac	33	A	C5-C6-N6	-5.95	118.94	123.70
84	Aa	1183	C	N3-C4-C5	-5.95	119.52	121.90
84	Aa	2354	G	N3-C2-N2	5.95	124.06	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2998	A	C5-C6-N1	-5.95	114.73	117.70
84	Aa	1819	A	C5-C6-N6	-5.95	118.94	123.70
1	Ad	1231	A	C3'-C2'-C1'	5.95	106.26	101.50
2	Ae	2	C	O4'-C1'-N1	5.95	112.96	108.20
84	Aa	111	C	P-O3'-C3'	5.95	126.84	119.70
84	Aa	143	A	C5-C6-N1	-5.95	114.73	117.70
84	Aa	836	G	C8-N9-C4	-5.95	104.02	106.40
84	Aa	1944	G	O3'-P-O5'	-5.95	92.70	104.00
84	Aa	2193	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	2456	G	O4'-C1'-N9	5.95	112.96	108.20
84	Aa	2993	A	C4-C5-C6	5.95	119.97	117.00
84	Aa	3019	C	N3-C4-C5	-5.95	119.52	121.90
1	Ad	904	G	O4'-C1'-C2'	5.94	112.95	107.60
84	Aa	1731	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	416	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	547	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	660	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	936	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2674	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2697	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2788	A	C5-C6-N1	-5.94	114.73	117.70
85	Ac	12	A	C5-C6-N1	-5.94	114.73	117.70
2	Ae	2	C	N1-C1'-C2'	5.94	121.72	114.00
84	Aa	947	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	993	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	1010	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	1459	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	2161	G	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	2227	A	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	2682	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2812	C	N3-C4-C5	-5.94	119.52	121.90
84	Aa	2815	A	C5-C6-N1	-5.94	114.73	117.70
84	Aa	3336	A	C4-C5-C6	5.94	119.97	117.00
1	Ad	807	G	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	327	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	1576	C	N3-C4-N4	5.94	122.16	118.00
1	Ad	562	U	O4'-C1'-C2'	5.94	112.94	107.60
1	Ad	1524	A	C3'-C2'-C1'	-5.94	96.75	101.50
84	Aa	1499	C	N3-C4-C5	-5.94	119.53	121.90
84	Aa	1673	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	1864	G	C5-C6-O6	-5.94	125.04	128.60
84	Aa	2006	A	C4-C5-C6	5.94	119.97	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2352	G	C5-C6-O6	-5.94	125.04	128.60
1	Ad	633	U	P-O5'-C5'	-5.94	111.40	120.90
1	Ad	1545	A	O4'-C1'-N9	5.94	112.95	108.20
84	Aa	75	G	C5-C6-O6	-5.94	125.04	128.60
84	Aa	2208	A	C4-C5-C6	5.94	119.97	117.00
84	Aa	2772	A	C4-C5-C6	5.94	119.97	117.00
85	Ac	75	G	O4'-C1'-N9	5.94	112.95	108.20
1	Ad	971	A	C3'-C2'-C1'	5.93	106.25	101.50
1	Ad	1480	G	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	261	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	2087	A	O4'-C1'-C2'	5.93	112.94	107.60
84	Aa	3083	C	N3-C4-C5	-5.93	119.53	121.90
85	Ac	120	G	O4'-C1'-N9	5.93	112.95	108.20
1	Ad	139	U	P-O5'-C5'	5.93	130.39	120.90
1	Ad	184	C	N1-C1'-C2'	5.93	121.71	114.00
1	Ad	626	A	P-O3'-C3'	5.93	126.82	119.70
84	Aa	517	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	557	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	630	C	N3-C4-N4	5.93	122.15	118.00
84	Aa	1192	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1294	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	1395	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1896	A	N1-C6-N6	5.93	122.16	118.60
84	Aa	1999	G	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	2503	A	O4'-C1'-N9	5.93	112.95	108.20
84	Aa	2737	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2810	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	2841	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	2997	C	N3-C4-N4	5.93	122.15	118.00
56	Cd	33	PHE	CB-CG-CD2	-5.93	116.65	120.80
84	Aa	1058	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	1229	A	C4-C5-C6	5.93	119.97	117.00
84	Aa	2003	C	N3-C4-C5	-5.93	119.53	121.90
85	Ac	1	C	N3-C4-N4	5.93	122.15	118.00
1	Ad	493	C	C3'-C2'-C1'	5.93	106.24	101.50
1	Ad	1733	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	174	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	319	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1192	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	1534	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1750	A	C5-C6-N1	-5.93	114.73	117.70
84	Aa	2377	C	N3-C4-C5	-5.93	119.53	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2700	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	2855	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	3153	U	C6-N1-C1'	-5.93	112.90	121.20
79	CE	205	ARG	N-CA-CB	5.93	121.27	110.60
84	Aa	928	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2248	G	C5-C6-O6	-5.93	125.04	128.60
84	Aa	2357	A	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	3057	A	C4-C5-C6	5.93	119.96	117.00
85	Ac	76	C	N3-C4-C5	-5.93	119.53	121.90
1	Ad	215	A	C1'-O4'-C4'	5.93	114.64	109.90
84	Aa	1274	A	C5-C6-N6	-5.93	118.96	123.70
84	Aa	1339	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	1493	A	C5-C6-N1	-5.93	114.74	117.70
84	Aa	1977	C	N3-C4-C5	-5.93	119.53	121.90
84	Aa	2197	C	O4'-C1'-N1	5.93	112.94	108.20
84	Aa	2273	C	N3-C4-N4	5.93	122.15	118.00
84	Aa	2368	G	O4'-C1'-N9	5.93	112.94	108.20
84	Aa	2594	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	3115	A	C4-C5-C6	5.93	119.96	117.00
84	Aa	3148	A	C5-C6-N6	-5.93	118.96	123.70
2	Ae	75	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	224	C	N3-C4-N4	5.92	122.15	118.00
84	Aa	387	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2065	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	2385	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	2385	A	P-O5'-C5'	5.92	130.38	120.90
84	Aa	2958	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	3007	A	C4-C5-C6	5.92	119.96	117.00
85	Ac	62	C	N3-C4-C5	-5.92	119.53	121.90
85	Ac	106	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	103	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	407	A	P-O5'-C5'	5.92	130.38	120.90
84	Aa	3028	A	O4'-C1'-N9	5.92	112.94	108.20
1	Ad	541	G	P-O3'-C3'	5.92	126.81	119.70
84	Aa	26	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	939	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1455	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2449	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	2840	A	C5-C6-N6	-5.92	118.96	123.70
84	Aa	3012	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	3329	G	C5-C6-O6	-5.92	125.05	128.60
84	Aa	272	G	C5-C6-O6	-5.92	125.05	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	783	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1044	A	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	1484	A	C4-C5-C6	5.92	119.96	117.00
1	Ad	1629	U	N1-C1'-C2'	5.92	121.69	114.00
84	Aa	23	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	183	C	O4'-C1'-N1	5.92	112.93	108.20
84	Aa	314	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	412	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	494	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	558	G	O4'-C1'-N9	5.92	112.94	108.20
84	Aa	996	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	1009	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	1355	U	N1-C1'-C2'	5.92	121.69	114.00
84	Aa	1382	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	2751	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	3134	C	N3-C4-C5	-5.92	119.53	121.90
1	Ad	371	A	P-O5'-C5'	-5.92	111.43	120.90
84	Aa	175	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	1406	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	1410	A	C4-C5-C6	5.92	119.96	117.00
84	Aa	1951	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	2048	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	2294	A	C5-C6-N6	-5.92	118.97	123.70
84	Aa	2359	C	N3-C4-C5	-5.92	119.53	121.90
84	Aa	2601	G	O4'-C1'-N9	5.92	112.93	108.20
84	Aa	2829	U	O4'-C1'-N1	5.92	112.93	108.20
84	Aa	3063	C	N3-C4-C5	-5.92	119.53	121.90
85	Ac	160	C	N3-C4-N4	5.92	122.14	118.00
84	Aa	1452	A	C5-C6-N1	-5.92	114.74	117.70
84	Aa	2532	A	C5-C6-N1	-5.92	114.74	117.70
45	CN	30	TYR	CB-CG-CD2	-5.91	117.45	121.00
84	Aa	91	G	C5-C6-O6	-5.91	125.05	128.60
84	Aa	301	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	574	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	830	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	1114	A	C4-C5-C6	5.91	119.96	117.00
84	Aa	1512	A	C4-C5-C6	5.91	119.96	117.00
84	Aa	2016	A	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	2935	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	3086	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	3306	A	C5-C6-N1	-5.91	114.74	117.70
1	Ad	1284	C	O4'-C1'-N1	5.91	112.93	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	732	G	O4'-C1'-N9	5.91	112.93	108.20
84	Aa	921	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	1027	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	3069	U	O4'-C1'-N1	5.91	112.93	108.20
84	Aa	3228	C	N3-C4-C5	-5.91	119.53	121.90
84	Aa	3358	A	C5-C6-N6	-5.91	118.97	123.70
1	Ad	93	A	O4'-C1'-C2'	-5.91	99.89	105.80
84	Aa	886	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	1042	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	1180	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	1835	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	2026	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	3339	G	O4'-C1'-N9	5.91	112.93	108.20
1	Ad	1229	C	C3'-C2'-C1'	5.91	106.23	101.50
1	Ad	1732	A	C1'-O4'-C4'	5.91	114.63	109.90
84	Aa	217	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	323	A	C5-C6-N1	-5.91	114.75	117.70
84	Aa	346	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	480	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	748	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	1052	A	C5-C6-N6	-5.91	118.97	123.70
84	Aa	2694	A	C4-C5-C6	5.91	119.95	117.00
84	Aa	2944	C	N3-C4-N4	5.91	122.14	118.00
84	Aa	3050	A	O4'-C1'-N9	5.91	112.93	108.20
85	Ac	37	A	C4-C5-C6	5.91	119.95	117.00
48	CD	125	GLU	N-CA-CB	5.91	121.23	110.60
84	Aa	230	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	121	A	C5-C6-N1	-5.91	114.75	117.70
84	Aa	313	C	N3-C4-C5	-5.91	119.54	121.90
84	Aa	847	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	2370	G	O4'-C1'-N9	5.91	112.92	108.20
84	Aa	3287	A	C5-C6-N1	-5.91	114.75	117.70
1	Ad	892	A	C1'-O4'-C4'	5.90	114.62	109.90
84	Aa	1464	A	C4-C5-C6	5.90	119.95	117.00
1	Ad	487	A	O4'-C1'-C2'	5.90	112.91	107.60
1	Ad	749	G	C3'-C2'-C1'	-5.90	96.78	101.50
84	Aa	711	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	924	A	C5-C6-N6	-5.90	118.98	123.70
84	Aa	953	G	C5-C6-O6	-5.90	125.06	128.60
84	Aa	955	A	C5-C6-N6	-5.90	118.98	123.70
84	Aa	1770	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2364	C	N3-C4-C5	-5.90	119.54	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2423	A	C4-C5-C6	5.90	119.95	117.00
85	Ac	43	A	C4-C5-C6	5.90	119.95	117.00
1	Ad	136	U	N1-C1'-C2'	5.90	121.67	114.00
1	Ad	716	A	C2'-C3'-O3'	5.90	123.14	113.70
84	Aa	244	G	C5-C6-O6	-5.90	125.06	128.60
84	Aa	360	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1136	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1283	C	N3-C4-N4	5.90	122.13	118.00
84	Aa	2110	G	C5-C6-O6	-5.90	125.06	128.60
1	Ad	85	A	O4'-C1'-C2'	-5.90	99.90	105.80
84	Aa	2012	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2631	A	C5-C6-N1	-5.90	114.75	117.70
84	Aa	2643	A	C5-C6-N1	-5.90	114.75	117.70
1	Ad	1285	G	O4'-C1'-N9	5.90	112.92	108.20
1	Ad	1408	G	C2'-C3'-O3'	5.90	123.14	113.70
84	Aa	410	G	N3-C2-N2	5.90	124.03	119.90
84	Aa	758	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	1074	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	1098	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	1674	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	2011	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	2055	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	2655	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	2839	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	2998	A	C4-C5-C6	5.90	119.95	117.00
84	Aa	3030	A	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	3305	U	O4'-C1'-N1	5.90	112.92	108.20
84	Aa	161	C	N3-C4-N4	5.90	122.13	118.00
84	Aa	1987	C	N3-C4-C5	-5.90	119.54	121.90
84	Aa	2795	G	O4'-C1'-N9	5.90	112.92	108.20
84	Aa	3234	G	C5-C6-O6	-5.90	125.06	128.60
1	Ad	1368	C	C3'-C2'-C1'	-5.89	96.78	101.50
84	Aa	325	A	C4-C5-C6	5.89	119.95	117.00
84	Aa	529	C	O4'-C1'-N1	5.89	112.92	108.20
84	Aa	658	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	1649	G	N3-C2-N2	5.89	124.03	119.90
84	Aa	2590	C	N3-C4-N4	5.89	122.13	118.00
84	Aa	2665	A	C5-C6-N1	-5.89	114.75	117.70
84	Aa	3373	C	N3-C4-C5	-5.89	119.54	121.90
1	Ad	1345	G	O4'-C1'-C2'	5.89	112.90	107.60
9	BX	128	SER	N-CA-CB	5.89	119.34	110.50
71	CB	120	LYS	N-CA-C	-5.89	95.09	111.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	790	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1640	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	1882	A	C4-C5-C6	5.89	119.95	117.00
84	Aa	2014	A	C5-C6-N1	-5.89	114.75	117.70
84	Aa	2593	A	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	2667	C	C2-N3-C4	5.89	122.85	119.90
84	Aa	2934	C	N3-C4-N4	5.89	122.12	118.00
84	Aa	3211	C	N3-C4-N4	5.89	122.12	118.00
1	Ad	1342	C	O4'-C1'-N1	5.89	112.91	108.20
84	Aa	46	A	C4-C5-C6	5.89	119.94	117.00
84	Aa	2386	A	C5-C6-N1	-5.89	114.75	117.70
85	Ac	124	C	N3-C4-C5	-5.89	119.54	121.90
1	Ad	1047	G	O4'-C1'-C2'	5.89	112.90	107.60
84	Aa	140	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	631	C	N3-C4-N4	5.89	122.12	118.00
84	Aa	856	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1300	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	1905	A	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	2060	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	2123	C	N3-C4-C5	-5.89	119.54	121.90
84	Aa	2532	A	C4-C5-C6	5.89	119.94	117.00
84	Aa	373	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	672	A	C5-C6-N6	-5.89	118.99	123.70
84	Aa	2281	U	O4'-C1'-N1	5.89	112.91	108.20
84	Aa	2759	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	491	G	O4'-C1'-N9	5.89	112.91	108.20
84	Aa	1440	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	2349	C	N3-C4-C5	-5.89	119.55	121.90
84	Aa	2846	C	N3-C4-N4	5.89	122.12	118.00
85	Ac	87	G	C5-C6-O6	-5.89	125.07	128.60
86	Ab	30	G	N1-C6-O6	5.89	123.43	119.90
1	Ad	1012	C	C3'-C2'-C1'	5.88	106.21	101.50
1	Ad	1023	C	C3'-C2'-C1'	5.88	106.21	101.50
1	Ad	1042	C	O4'-C1'-C2'	-5.88	99.92	105.80
84	Aa	1580	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2090	G	O4'-C1'-N9	5.88	112.91	108.20
84	Aa	2794	A	C5-C6-N1	-5.88	114.76	117.70
1	Ad	1710	C	C3'-C2'-C1'	5.88	106.21	101.50
20	BT	51	TYR	CB-CG-CD1	-5.88	117.47	121.00
84	Aa	1263	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2351	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2718	A	C4-C5-C6	5.88	119.94	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	BK	64	TYR	CB-CG-CD2	-5.88	117.47	121.00
41	CA	68	ARG	N-CA-CB	5.88	121.19	110.60
84	Aa	1035	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	842	C	O4'-C1'-N1	5.88	112.90	108.20
84	Aa	869	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	2762	U	O4'-C1'-N1	5.88	112.90	108.20
84	Aa	2813	A	O4'-C1'-N9	5.88	112.90	108.20
1	Ad	535	C	P-O5'-C5'	5.88	130.31	120.90
1	Ad	1705	C	C1'-O4'-C4'	-5.88	105.20	109.90
84	Aa	9	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	846	A	C5-C6-N1	-5.88	114.76	117.70
84	Aa	2045	G	C5-C6-O6	-5.88	125.07	128.60
84	Aa	3321	C	N3-C4-N4	5.88	122.11	118.00
1	Ad	1670	G	C1'-O4'-C4'	-5.88	105.20	109.90
25	Bd	53	ILE	C-N-CA	5.88	136.39	121.70
84	Aa	6	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	1002	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	1866	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2102	C	N3-C4-N4	5.88	122.11	118.00
1	Ad	413	C	O4'-C1'-C2'	-5.88	99.92	105.80
84	Aa	46	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	99	A	C5-C6-N6	-5.88	119.00	123.70
84	Aa	1731	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2491	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	2581	C	N3-C4-C5	-5.88	119.55	121.90
84	Aa	2969	A	C4-C5-C6	5.88	119.94	117.00
84	Aa	3189	C	N3-C4-C5	-5.88	119.55	121.90
85	Ac	109	A	C4-C5-C6	5.88	119.94	117.00
1	Ad	152	G	C1'-O4'-C4'	-5.87	105.20	109.90
1	Ad	1299	G	C1'-O4'-C4'	5.87	114.60	109.90
1	Ad	1624	G	O4'-C1'-C2'	5.87	112.89	107.60
84	Aa	95	G	C5-C6-O6	-5.87	125.08	128.60
84	Aa	610	G	N1-C6-O6	5.87	123.42	119.90
84	Aa	730	A	C5-C6-N6	-5.87	119.00	123.70
84	Aa	1278	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	1582	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	1623	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	1802	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	2630	A	C5-C6-N6	-5.87	119.00	123.70
84	Aa	2851	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2942	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	3085	C	N3-C4-C5	-5.87	119.55	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	12	A	P-O5'-C5'	-5.87	111.50	120.90
1	Ad	1143	A	C3'-C2'-C1'	5.87	106.20	101.50
84	Aa	320	U	O4'-C1'-N1	5.87	112.90	108.20
84	Aa	566	G	C4'-C3'-C2'	-5.87	96.73	102.60
84	Aa	615	A	O4'-C1'-N9	5.87	112.90	108.20
84	Aa	1110	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	1568	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	1788	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2101	A	C5-C6-N1	-5.87	114.76	117.70
84	Aa	2724	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	2996	A	C5-C6-N1	-5.87	114.77	117.70
84	Aa	3221	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	3235	A	C4-C5-C6	5.87	119.94	117.00
85	Ac	79	A	C4-C5-C6	5.87	119.94	117.00
1	Ad	941	G	O4'-C1'-N9	5.87	112.90	108.20
1	Ad	1109	U	P-O5'-C5'	5.87	130.29	120.90
84	Aa	861	A	C4-C5-C6	5.87	119.94	117.00
84	Aa	3271	A	C4-C5-C6	5.87	119.94	117.00
86	Ab	30	G	C8-N9-C4	-5.87	104.05	106.40
1	Ad	326	G	P-O3'-C3'	5.87	126.74	119.70
84	Aa	434	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	474	G	O3'-P-O5'	-5.87	92.85	104.00
84	Aa	1097	A	C5-C6-N6	-5.87	119.01	123.70
84	Aa	1629	A	C4-C5-C6	5.87	119.93	117.00
84	Aa	2503	A	P-O5'-C5'	5.87	130.29	120.90
84	Aa	2692	G	C4-N9-C1'	5.87	134.13	126.50
84	Aa	2749	A	C4-C5-C6	5.87	119.93	117.00
84	Aa	3228	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	3291	C	N3-C4-N4	5.87	122.11	118.00
84	Aa	121	A	C5-C6-N6	-5.87	119.01	123.70
84	Aa	200	G	C5-C6-O6	-5.87	125.08	128.60
84	Aa	1007	A	C4-C5-C6	5.87	119.93	117.00
85	Ac	144	C	N3-C4-N4	5.87	122.11	118.00
1	Ad	203	A	C1'-O4'-C4'	-5.87	105.21	109.90
48	CD	245	ALA	N-CA-CB	5.87	118.31	110.10
84	Aa	212	G	N3-C2-N2	5.87	124.01	119.90
84	Aa	811	A	O4'-C1'-N9	5.87	112.89	108.20
84	Aa	2329	C	N3-C4-C5	-5.87	119.55	121.90
84	Aa	2671	A	C4-C5-C6	5.87	119.93	117.00
86	Ab	7	G	C6-C5-N7	-5.87	126.88	130.40
1	Ad	263	C	O4'-C1'-C2'	-5.86	99.94	105.80
84	Aa	956	G	O4'-C1'-N9	5.86	112.89	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1398	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	1600	A	C5-C6-N1	-5.86	114.77	117.70
84	Aa	2054	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2713	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	62	A	C5-C6-N6	-5.86	119.01	123.70
84	Aa	149	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	349	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	569	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	1590	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2374	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	2375	G	O4'-C1'-N9	5.86	112.89	108.20
85	Ac	19	A	O4'-C1'-N9	5.86	112.89	108.20
85	Ac	125	C	N3-C4-C5	-5.86	119.56	121.90
62	CS	6	PHE	N-CA-CB	5.86	121.15	110.60
84	Aa	367	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	897	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	2009	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	2803	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	3003	C	N3-C4-N4	5.86	122.10	118.00
85	Ac	9	G	C5-C6-O6	-5.86	125.08	128.60
84	Aa	1797	U	C5'-C4'-O4'	5.86	116.13	109.10
84	Aa	2586	C	N3-C4-C5	-5.86	119.56	121.90
1	Ad	827	C	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	134	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	1582	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	1951	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	2116	G	O4'-C1'-N9	5.86	112.89	108.20
84	Aa	2733	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2912	A	C5-C6-N6	-5.86	119.01	123.70
84	Aa	2974	G	O4'-C1'-N9	5.86	112.89	108.20
84	Aa	3116	C	O4'-C1'-N1	5.86	112.89	108.20
1	Ad	1237	G	C1'-O4'-C4'	-5.86	105.22	109.90
1	Ad	1794	C	N1-C1'-C2'	5.86	121.61	114.00
84	Aa	309	C	N3-C4-C5	-5.86	119.56	121.90
84	Aa	707	G	O4'-C1'-N9	5.86	112.88	108.20
84	Aa	1157	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	1392	U	O4'-C1'-N1	5.86	112.89	108.20
84	Aa	1487	A	O4'-C1'-N9	5.86	112.88	108.20
84	Aa	2223	A	C4-C5-C6	5.86	119.93	117.00
84	Aa	2356	A	C5-C6-N1	-5.86	114.77	117.70
84	Aa	3119	C	N3-C4-C5	-5.86	119.56	121.90
85	Ac	50	C	N3-C4-N4	5.86	122.10	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1412	A	C1'-O4'-C4'	-5.85	105.22	109.90
70	Cq	140	PHE	CB-CG-CD1	5.85	124.90	120.80
84	Aa	100	C	C6-N1-C1'	-5.85	113.78	120.80
84	Aa	221	C	N3-C4-C5	-5.85	119.56	121.90
85	Ac	38	U	O4'-C1'-N1	5.85	112.88	108.20
85	Ac	144	C	N3-C4-C5	-5.85	119.56	121.90
1	Ad	1182	C	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	741	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	1178	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	1516	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	2077	C	N3-C4-N4	5.85	122.10	118.00
84	Aa	2227	A	C5-C6-N6	-5.85	119.02	123.70
84	Aa	2443	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	2683	A	N1-C6-N6	5.85	122.11	118.60
84	Aa	2708	A	C4-C5-C6	5.85	119.93	117.00
1	Ad	1391	G	O4'-C1'-C2'	5.85	112.87	107.60
84	Aa	1128	U	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	1969	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	2053	A	C5-C6-N1	-5.85	114.77	117.70
84	Aa	2650	A	C5-C6-N1	-5.85	114.78	117.70
1	Ad	805	A	O4'-C1'-N9	5.85	112.88	108.20
82	Cb	39	PHE	N-CA-CB	5.85	121.13	110.60
84	Aa	438	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	854	C	O4'-C1'-N1	5.85	112.88	108.20
84	Aa	952	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	1109	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	1308	A	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	2124	G	C5-C6-O6	-5.85	125.09	128.60
84	Aa	2400	A	C5-C6-N6	-5.85	119.02	123.70
84	Aa	2739	A	C5-C6-N1	-5.85	114.78	117.70
84	Aa	2883	C	N3-C4-C5	-5.85	119.56	121.90
14	BQ	102	TYR	CB-CG-CD1	5.85	124.51	121.00
35	BG	28	PHE	CB-CG-CD1	5.85	124.89	120.80
84	Aa	355	C	C5'-C4'-C3'	-5.85	106.64	116.00
84	Aa	634	A	C5'-C4'-C3'	-5.85	106.64	116.00
84	Aa	1819	A	C5-C6-N1	-5.85	114.78	117.70
84	Aa	2099	G	C5-C6-O6	-5.85	125.09	128.60
85	Ac	121	A	C5-C6-N6	-5.85	119.02	123.70
1	Ad	530	A	C3'-C2'-C1'	5.85	106.18	101.50
84	Aa	249	A	C4-C5-C6	5.85	119.92	117.00
84	Aa	366	G	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	1324	C	N3-C4-C5	-5.85	119.56	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1494	A	C4-C5-C6	5.85	119.92	117.00
84	Aa	1660	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	2209	A	O4'-C1'-N9	5.85	112.88	108.20
84	Aa	3164	C	N3-C4-C5	-5.85	119.56	121.90
84	Aa	489	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	634	A	O4'-C1'-N9	5.84	112.88	108.20
84	Aa	984	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	1373	A	C5-C6-N6	-5.84	119.03	123.70
84	Aa	1961	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	2214	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	2631	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2971	A	O4'-C1'-N9	5.84	112.88	108.20
85	Ac	146	G	O4'-C1'-N9	5.84	112.88	108.20
86	Ab	17	G	O4'-C1'-N9	5.84	112.88	108.20
1	Ad	1075	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	148	U	O4'-C1'-N1	5.84	112.87	108.20
84	Aa	323	A	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	2150	C	C5'-C4'-O4'	5.84	116.11	109.10
84	Aa	3203	G	C5-C6-O6	-5.84	125.09	128.60
85	Ac	138	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	1492	G	C1'-O4'-C4'	5.84	114.57	109.90
84	Aa	257	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	662	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	1704	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	1781	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	2082	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	2411	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	432	A	C5'-C4'-O4'	5.84	116.11	109.10
1	Ad	1544	G	P-O3'-C3'	5.84	126.71	119.70
84	Aa	2627	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	3011	U	O4'-C1'-N1	5.84	112.87	108.20
84	Aa	832	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	1365	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	1629	A	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	2591	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	3210	G	P-O3'-C3'	5.84	126.70	119.70
84	Aa	3283	G	O4'-C1'-N9	5.84	112.87	108.20
1	Ad	202	C	O4'-C1'-N1	5.84	112.87	108.20
1	Ad	526	U	N1-C1'-C2'	5.84	121.59	114.00
1	Ad	861	A	O4'-C1'-N9	-5.84	103.53	108.20
1	Ad	969	U	C3'-C2'-C1'	5.84	106.17	101.50
1	Ad	1386	U	C1'-O4'-C4'	-5.84	105.23	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	129	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	212	G	O4'-C1'-N9	5.84	112.87	108.20
84	Aa	739	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	1904	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	1905	A	C5-C6-N1	-5.84	114.78	117.70
84	Aa	1927	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2183	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2203	A	C4-C5-C6	5.84	119.92	117.00
84	Aa	2567	C	N3-C4-N4	5.84	122.09	118.00
84	Aa	2826	G	O4'-C1'-N9	5.84	112.87	108.20
85	Ac	26	C	N3-C4-C5	-5.84	119.56	121.90
84	Aa	26	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	709	G	P-O3'-C3'	5.83	126.70	119.70
84	Aa	2016	A	C4-C5-C6	5.83	119.92	117.00
84	Aa	3220	A	C5-C6-N1	-5.83	114.78	117.70
1	Ad	288	G	O4'-C1'-N9	5.83	112.87	108.20
1	Ad	1342	C	C1'-O4'-C4'	-5.83	105.23	109.90
84	Aa	111	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	1573	G	C5-C6-O6	-5.83	125.10	128.60
84	Aa	2674	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	3201	A	C5-C6-N6	-5.83	119.03	123.70
1	Ad	135	C	N1-C1'-C2'	5.83	121.58	114.00
1	Ad	854	C	O4'-C1'-N1	5.83	112.86	108.20
1	Ad	993	C	C3'-C2'-C1'	5.83	106.16	101.50
3	Af	15	A	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	191	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	913	G	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	1911	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2139	A	C5-C6-N6	-5.83	119.03	123.70
84	Aa	2272	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2421	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2813	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2837	C	N3-C4-C5	-5.83	119.57	121.90
86	Ab	74	A	C5-C6-N1	-5.83	114.78	117.70
1	Ad	58	U	O4'-C1'-N1	5.83	112.86	108.20
84	Aa	2733	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	196	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	1570	C	N3-C4-N4	5.83	122.08	118.00
84	Aa	1599	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	2120	A	C5-C6-N1	-5.83	114.78	117.70
84	Aa	2311	A	C4-C5-C6	5.83	119.91	117.00
84	Aa	2892	A	C5-C6-N1	-5.83	114.78	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3071	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	3334	A	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	3374	C	C2-N1-C1'	5.83	125.21	118.80
86	Ab	108	G	N1-C2-N3	-5.83	120.40	123.90
1	Ad	1647	C	C1'-O4'-C4'	5.83	114.56	109.90
84	Aa	2140	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2322	G	C5-C6-O6	-5.83	125.10	128.60
84	Aa	2344	A	C4-C5-C6	5.83	119.91	117.00
85	Ac	147	C	N3-C4-C5	-5.83	119.57	121.90
1	Ad	214	A	O4'-C1'-N9	5.83	112.86	108.20
1	Ad	1159	G	C3'-C2'-C1'	-5.83	96.84	101.50
84	Aa	1610	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	1974	C	N3-C4-C5	-5.83	119.57	121.90
84	Aa	2312	A	C5-C6-N1	-5.83	114.79	117.70
84	Aa	2704	U	O4'-C1'-N1	5.83	112.86	108.20
84	Aa	2895	G	O4'-C1'-N9	5.83	112.86	108.20
84	Aa	3045	A	C4-C5-C6	5.83	119.91	117.00
84	Aa	3078	A	C5-C6-N6	-5.83	119.04	123.70
84	Aa	569	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	735	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1129	G	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	1483	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	2233	G	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	2265	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	2901	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	3174	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	3175	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	290	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	912	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1359	A	O4'-C1'-N9	5.82	112.86	108.20
84	Aa	2557	C	N3-C4-N4	5.82	122.08	118.00
84	Aa	2960	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	3252	G	C5-C6-O6	-5.82	125.11	128.60
1	Ad	1414	G	O4'-C1'-N9	5.82	112.86	108.20
1	Ad	1528	U	O4'-C1'-C2'	-5.82	99.98	105.80
84	Aa	1330	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	1574	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1753	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	2772	A	O4'-C1'-N9	5.82	112.86	108.20
85	Ac	71	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	6	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	447	C	N3-C4-C5	-5.82	119.57	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	628	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1494	A	C5-C6-N6	-5.82	119.05	123.70
84	Aa	2761	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	3159	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	144	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	642	C	P-O5'-C5'	5.82	130.21	120.90
84	Aa	1512	A	C5-C6-N6	-5.82	119.05	123.70
84	Aa	1651	A	C5-C6-N1	-5.82	114.79	117.70
84	Aa	2634	U	O4'-C1'-N1	5.82	112.85	108.20
85	Ac	44	A	C4-C5-C6	5.82	119.91	117.00
85	Ac	140	A	O4'-C1'-N9	5.82	112.85	108.20
86	Ab	11	A	C8-N9-C4	-5.82	103.47	105.80
1	Ad	507	G	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	55	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	448	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1323	G	C5-C6-O6	-5.82	125.11	128.60
84	Aa	1391	A	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	1708	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	1973	C	N3-C4-C5	-5.82	119.57	121.90
84	Aa	2304	A	C4-C5-C6	5.82	119.91	117.00
84	Aa	2367	A	O4'-C1'-N9	5.82	112.85	108.20
84	Aa	3249	G	C5-C6-O6	-5.82	125.11	128.60
1	Ad	247	A	C5'-C4'-O4'	5.81	116.08	109.10
84	Aa	550	C	O3'-P-O5'	-5.81	92.95	104.00
84	Aa	971	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	1396	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2016	A	C5-C6-N1	-5.81	114.79	117.70
84	Aa	2385	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	2554	U	O4'-C1'-N1	5.81	112.85	108.20
1	Ad	11	A	C1'-O4'-C4'	5.81	114.55	109.90
1	Ad	415	C	C5'-C4'-O4'	5.81	116.07	109.10
1	Ad	618	C	O4'-C1'-N1	5.81	112.85	108.20
1	Ad	1097	A	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1615	G	N9-C1'-C2'	5.81	121.56	114.00
24	BW	128	PHE	CB-CG-CD2	-5.81	116.73	120.80
84	Aa	672	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	730	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1115	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1295	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	1424	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	2113	A	C5-C6-N1	-5.81	114.79	117.70
86	Ab	64	G	C4-C5-C6	5.81	122.29	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	98	G	N3-C2-N2	5.81	123.97	119.90
1	Ad	1386	U	O4'-C1'-N1	5.81	112.85	108.20
48	CD	291	SER	N-CA-CB	5.81	119.22	110.50
84	Aa	851	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2178	G	P-O3'-C3'	5.81	126.67	119.70
84	Aa	2214	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2931	C	N3-C4-C5	-5.81	119.58	121.90
1	Ad	1497	U	C3'-C2'-C1'	-5.81	96.85	101.50
38	CT	19	PHE	CB-CG-CD2	-5.81	116.73	120.80
84	Aa	211	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	509	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	532	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	607	U	N1-C1'-C2'	5.81	121.55	114.00
84	Aa	756	C	N3-C4-C5	-5.81	119.58	121.90
84	Aa	1617	A	C4-C5-C6	5.81	119.91	117.00
84	Aa	2872	C	N3-C4-N4	5.81	122.07	118.00
85	Ac	122	G	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1034	G	O4'-C1'-N9	5.81	112.85	108.20
1	Ad	1258	U	O4'-C1'-N1	5.81	112.85	108.20
84	Aa	17	G	O4'-C1'-N9	5.81	112.84	108.20
84	Aa	135	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	272	G	O4'-C1'-N9	5.81	112.85	108.20
84	Aa	823	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	978	C	C2-N3-C4	5.81	122.80	119.90
84	Aa	1370	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	3060	G	C5-C6-O6	-5.81	125.11	128.60
84	Aa	3136	A	C5-C6-N6	-5.81	119.05	123.70
84	Aa	3210	G	C4-N9-C1'	5.81	134.05	126.50
48	CD	183	PHE	CB-CG-CD2	5.81	124.86	120.80
84	Aa	1256	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	2025	C	N3-C4-C5	-5.81	119.58	121.90
84	Aa	2483	A	C4-C5-C6	5.81	119.90	117.00
84	Aa	3213	A	C4-C5-C6	5.81	119.90	117.00
1	Ad	310	U	C5'-C4'-O4'	5.80	116.06	109.10
1	Ad	493	C	O4'-C1'-N1	5.80	112.84	108.20
1	Ad	627	A	P-O3'-C3'	5.80	126.67	119.70
1	Ad	1388	A	N9-C1'-C2'	-5.80	105.62	112.00
48	CD	7	PHE	CB-CG-CD1	5.80	124.86	120.80
84	Aa	539	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	610	G	P-O5'-C5'	5.80	130.19	120.90
84	Aa	715	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	1335	C	N3-C4-C5	-5.80	119.58	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1636	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	2574	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2734	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2835	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2892	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2946	U	O4'-C1'-N1	5.80	112.84	108.20
84	Aa	3308	A	C4-C5-C6	5.80	119.90	117.00
85	Ac	77	A	C4-C5-C6	5.80	119.90	117.00
86	Ab	61	C	N3-C4-C5	-5.80	119.58	121.90
1	Ad	197	G	P-O3'-C3'	5.80	126.66	119.70
84	Aa	70	A	P-O3'-C3'	5.80	126.66	119.70
84	Aa	1380	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	1520	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2657	C	C2-N3-C4	5.80	122.80	119.90
84	Aa	3142	C	N3-C4-N4	5.80	122.06	118.00
24	BW	15	TYR	CB-CG-CD2	-5.80	117.52	121.00
84	Aa	875	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2112	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2460	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2736	A	C4-C5-C6	5.80	119.90	117.00
85	Ac	66	G	C5-C6-O6	-5.80	125.12	128.60
1	Ad	36	C	C3'-C2'-C1'	5.80	106.14	101.50
1	Ad	1214	C	P-O3'-C3'	-5.80	112.74	119.70
84	Aa	61	A	C5-C6-N6	-5.80	119.06	123.70
84	Aa	158	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	1156	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2386	A	C4-C5-C6	5.80	119.90	117.00
84	Aa	2629	C	N3-C4-N4	5.80	122.06	118.00
84	Aa	2658	U	O4'-C1'-N1	5.80	112.84	108.20
84	Aa	2662	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	3022	A	C4-C5-C6	5.80	119.90	117.00
1	Ad	1052	G	O4'-C1'-N9	5.80	112.84	108.20
78	CL	64	LYS	N-CA-CB	5.80	121.04	110.60
84	Aa	1932	A	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	2273	C	N3-C4-C5	-5.80	119.58	121.90
85	Ac	106	C	N3-C4-N4	5.80	122.06	118.00
86	Ab	48	G	N3-C2-N2	5.80	123.96	119.90
1	Ad	966	U	C1'-O4'-C4'	-5.80	105.26	109.90
84	Aa	80	C	N3-C4-C5	-5.80	119.58	121.90
84	Aa	171	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	555	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	1643	A	C4-C5-C6	5.80	119.90	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2903	G	O4'-C1'-N9	5.80	112.84	108.20
84	Aa	2932	A	C5-C6-N1	-5.80	114.80	117.70
84	Aa	2934	C	P-O3'-C3'	5.80	126.66	119.70
84	Aa	3275	G	O4'-C1'-N9	5.80	112.84	108.20
1	Ad	83	U	N1-C1'-C2'	-5.79	105.62	112.00
1	Ad	547	C	P-O3'-C3'	5.79	126.65	119.70
84	Aa	793	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	1006	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	1026	A	C5-C6-N1	-5.79	114.80	117.70
1	Ad	539	A	C1'-O4'-C4'	-5.79	105.27	109.90
84	Aa	480	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	920	A	C5-C6-N1	-5.79	114.80	117.70
84	Aa	3257	G	C5-C6-O6	-5.79	125.12	128.60
85	Ac	109	A	O4'-C1'-N9	5.79	112.84	108.20
85	Ac	158	C	N3-C4-N4	5.79	122.06	118.00
1	Ad	1283	C	O4'-C1'-N1	5.79	112.83	108.20
84	Aa	372	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	493	G	C5-C6-O6	-5.79	125.12	128.60
84	Aa	708	C	N3-C4-N4	5.79	122.06	118.00
84	Aa	1061	A	C4-C5-C6	5.79	119.90	117.00
84	Aa	2671	A	C5-C6-N1	-5.79	114.80	117.70
84	Aa	2998	A	O4'-C1'-N9	5.79	112.83	108.20
1	Ad	104	A	P-O3'-C3'	5.79	126.65	119.70
1	Ad	496	A	P-O3'-C3'	-5.79	112.75	119.70
72	CC	336	TYR	CB-CG-CD2	5.79	124.47	121.00
84	Aa	1550	A	C4-C5-C6	5.79	119.89	117.00
86	Ab	82	G	C5-C6-N1	-5.79	108.61	111.50
1	Ad	1233	G	C3'-C2'-C1'	5.79	106.13	101.50
84	Aa	58	G	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	693	C	N3-C4-C5	-5.79	119.58	121.90
84	Aa	954	A	C4-C5-C6	5.79	119.89	117.00
84	Aa	995	C	N3-C4-N4	5.79	122.05	118.00
84	Aa	1875	A	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	2847	A	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	3095	G	N3-C2-N2	5.79	123.95	119.90
86	Ab	68	G	C4-C5-C6	5.79	122.27	118.80
1	Ad	714	C	C3'-C2'-C1'	5.79	106.13	101.50
84	Aa	265	G	N3-C2-N2	5.79	123.95	119.90
84	Aa	492	G	C4'-C3'-C2'	5.79	108.39	102.60
84	Aa	907	A	C4-C5-C6	5.79	119.89	117.00
1	Ad	574	A	C5'-C4'-O4'	5.79	116.04	109.10
1	Ad	1705	C	C3'-C2'-C1'	5.79	106.13	101.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	267	G	C5-C6-O6	-5.79	125.13	128.60
84	Aa	393	A	C5-C6-N6	-5.79	119.07	123.70
84	Aa	1468	A	C4-C5-C6	5.79	119.89	117.00
84	Aa	1753	A	C5-C6-N6	-5.79	119.07	123.70
84	Aa	2678	C	N3-C4-C5	-5.79	119.59	121.90
84	Aa	2836	G	N3-C2-N2	5.79	123.95	119.90
84	Aa	2850	G	O4'-C1'-N9	5.79	112.83	108.20
84	Aa	3250	C	N3-C4-C5	-5.79	119.59	121.90
84	Aa	3251	C	N3-C4-C5	-5.79	119.59	121.90
1	Ad	131	C	C4'-C3'-C2'	-5.78	96.82	102.60
1	Ad	1192	G	C1'-O4'-C4'	-5.78	105.27	109.90
1	Ad	1755	G	C1'-O4'-C4'	-5.78	105.27	109.90
84	Aa	181	G	O4'-C1'-N9	5.78	112.83	108.20
84	Aa	2487	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2672	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	3358	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	932	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2961	C	N3-C4-C5	-5.78	119.59	121.90
85	Ac	110	A	C5-C6-N6	-5.78	119.08	123.70
1	Ad	285	G	N9-C1'-C2'	5.78	121.51	114.00
1	Ad	1573	C	O4'-C1'-N1	5.78	112.82	108.20
61	CM	89	TRP	N-CA-CB	5.78	121.00	110.60
84	Aa	224	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1087	G	O4'-C1'-N9	5.78	112.82	108.20
84	Aa	1132	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1581	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1855	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2177	U	C2'-C3'-O3'	5.78	122.95	113.70
84	Aa	2509	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2822	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	3100	C	N3-C4-C5	-5.78	119.59	121.90
1	Ad	344	U	C1'-O4'-C4'	5.78	114.52	109.90
1	Ad	1597	C	O4'-C1'-N1	5.78	112.82	108.20
84	Aa	1890	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1943	G	P-O3'-C3'	-5.78	112.77	119.70
84	Aa	2237	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2321	C	N3-C4-C5	-5.78	119.59	121.90
86	Ab	75	G	C3'-C2'-C1'	-5.78	96.88	101.50
1	Ad	860	A	P-O5'-C5'	-5.78	111.66	120.90
1	Ad	949	A	O4'-C1'-C2'	-5.78	100.02	105.80
1	Ad	1254	U	C1'-O4'-C4'	5.78	114.52	109.90
41	CA	67	PHE	CB-CG-CD1	-5.78	116.76	120.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	120	G	O4'-C1'-N9	5.78	112.82	108.20
84	Aa	1418	C	N3-C4-N4	5.78	122.04	118.00
84	Aa	1599	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1875	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2119	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	2250	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	2456	G	C5-C6-O6	-5.78	125.13	128.60
84	Aa	2792	A	C5-C6-N1	-5.78	114.81	117.70
84	Aa	565	C	C2-N3-C4	5.78	122.79	119.90
84	Aa	805	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1203	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	1208	A	C4-C5-C6	5.78	119.89	117.00
84	Aa	1778	C	N3-C4-C5	-5.78	119.59	121.90
84	Aa	2757	G	N1-C6-O6	5.78	123.36	119.90
84	Aa	3017	A	C5-C6-N6	-5.78	119.08	123.70
84	Aa	3212	C	N3-C4-N4	5.78	122.04	118.00
84	Aa	3358	A	C5-C6-N1	-5.78	114.81	117.70
1	Ad	10	G	O4'-C1'-N9	5.77	112.82	108.20
1	Ad	312	C	C3'-C2'-C1'	5.77	106.12	101.50
84	Aa	2288	C	O4'-C1'-N1	5.77	112.82	108.20
84	Aa	2400	A	O4'-C1'-N9	5.77	112.82	108.20
85	Ac	135	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	26	A	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	232	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	354	C	N3-C4-N4	5.77	122.04	118.00
84	Aa	2210	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	2347	A	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	2847	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	2880	G	O4'-C1'-N9	5.77	112.82	108.20
86	Ab	65	G	N1-C2-N3	-5.77	120.44	123.90
84	Aa	160	G	O4'-C1'-N9	5.77	112.82	108.20
84	Aa	189	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1016	G	C5-C6-O6	-5.77	125.14	128.60
84	Aa	1291	A	C5-C6-N1	-5.77	114.81	117.70
84	Aa	1492	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	1635	A	C5-C6-N1	-5.77	114.81	117.70
84	Aa	2896	C	N3-C4-N4	5.77	122.04	118.00
84	Aa	3140	A	C5-C6-N1	-5.77	114.81	117.70
1	Ad	586	U	O4'-C1'-N1	5.77	112.81	108.20
2	Ae	68	C	N1-C1'-C2'	5.77	121.50	114.00
84	Aa	197	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	1490	A	C5-C6-N1	-5.77	114.81	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2973	A	C4-C5-C6	5.77	119.89	117.00
84	Aa	3206	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	3302	A	O4'-C1'-N9	5.77	112.82	108.20
86	Ab	34	C	C2-N3-C4	5.77	122.78	119.90
1	Ad	206	U	P-O3'-C3'	5.77	126.62	119.70
1	Ad	961	U	O4'-C1'-N1	5.77	112.81	108.20
34	BC	146	ASN	N-CA-CB	5.77	120.98	110.60
84	Aa	545	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	871	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1061	A	C5-C6-N1	-5.77	114.82	117.70
84	Aa	1361	G	O4'-C1'-N9	5.77	112.81	108.20
84	Aa	1472	C	N3-C4-C5	-5.77	119.59	121.90
84	Aa	1755	A	C5-C6-N6	-5.77	119.08	123.70
84	Aa	2623	G	O4'-C1'-N9	5.77	112.81	108.20
84	Aa	3272	A	C5-C6-N6	-5.77	119.09	123.70
84	Aa	3288	A	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	1132	G	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	1341	G	P-O3'-C3'	5.77	126.62	119.70
84	Aa	147	G	C5-C6-O6	-5.77	125.14	128.60
84	Aa	873	A	C4-C5-C6	5.77	119.88	117.00
84	Aa	1305	A	C5-C6-N6	-5.77	119.09	123.70
84	Aa	2092	C	C3'-C2'-C1'	-5.77	96.89	101.50
84	Aa	2244	G	O4'-C1'-N9	5.77	112.81	108.20
1	Ad	646	G	O4'-C1'-C2'	5.76	112.79	107.60
1	Ad	1352	A	O4'-C1'-N9	5.76	112.81	108.20
1	Ad	1369	C	N1-C1'-C2'	5.76	121.49	114.00
1	Ad	1502	C	O4'-C1'-C2'	-5.76	100.03	105.80
1	Ad	1507	G	C1'-O4'-C4'	-5.76	105.29	109.90
84	Aa	821	C	O4'-C1'-N1	5.76	112.81	108.20
84	Aa	2243	C	N3-C4-C5	-5.76	119.59	121.90
84	Aa	826	C	N3-C4-C5	-5.76	119.59	121.90
84	Aa	2238	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2442	A	C4-C5-C6	5.76	119.88	117.00
1	Ad	965	U	O4'-C1'-C2'	-5.76	100.04	105.80
1	Ad	1005	C	C5'-C4'-O4'	5.76	116.01	109.10
48	CD	122	GLY	N-CA-C	-5.76	98.70	113.10
84	Aa	3	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	1460	U	O4'-C1'-N1	5.76	112.81	108.20
84	Aa	1491	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	1577	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2439	A	P-O5'-C5'	-5.76	111.68	120.90
84	Aa	2928	A	C4-C5-C6	5.76	119.88	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2932	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	3199	C	N3-C4-C5	-5.76	119.60	121.90
1	Ad	1687	G	C3'-C2'-C1'	5.76	106.11	101.50
2	Ae	10	G	C1'-O4'-C4'	5.76	114.51	109.90
56	Cd	87	ARG	N-CA-CB	5.76	120.97	110.60
84	Aa	73	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	976	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1059	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1885	G	C5-C6-O6	-5.76	125.14	128.60
84	Aa	2571	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	3104	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	38	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	917	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	1477	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	1622	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	2699	A	C4-C5-C6	5.76	119.88	117.00
84	Aa	2834	C	N3-C4-C5	-5.76	119.60	121.90
1	Ad	1250	C	O4'-C1'-C2'	5.76	112.78	107.60
84	Aa	93	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	654	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	905	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1190	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	1412	C	N3-C4-C5	-5.76	119.60	121.90
84	Aa	1848	G	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1887	A	O4'-C1'-N9	5.76	112.81	108.20
84	Aa	1926	A	C5-C6-N6	-5.76	119.09	123.70
84	Aa	2137	A	C4-C5-C6	5.76	119.88	117.00
85	Ac	11	C	C4'-C3'-C2'	-5.76	96.84	102.60
85	Ac	104	A	C4-C5-C6	5.76	119.88	117.00
33	BJ	85	TYR	CB-CG-CD1	5.75	124.45	121.00
71	CB	351	SER	N-CA-CB	5.75	119.13	110.50
84	Aa	1062	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2041	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2081	C	O4'-C1'-N1	5.75	112.80	108.20
84	Aa	2125	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	3037	G	O4'-C1'-N9	5.75	112.80	108.20
86	Ab	90	A	O4'-C1'-N9	5.75	112.80	108.20
1	Ad	1091	A	N9-C1'-C2'	5.75	121.48	114.00
84	Aa	659	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	1838	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	1908	C	N3-C4-N4	5.75	122.03	118.00
84	Aa	2365	C	N3-C4-C5	-5.75	119.60	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2794	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	2799	U	O4'-C1'-N1	5.75	112.80	108.20
84	Aa	3165	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	3235	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	3360	U	O4'-C1'-N1	5.75	112.80	108.20
85	Ac	96	A	C4-C5-C6	5.75	119.88	117.00
34	BC	235	PHE	N-CA-CB	5.75	120.95	110.60
84	Aa	886	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1256	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1748	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1771	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	3368	A	C4-C5-C6	5.75	119.88	117.00
86	Ab	3	A	C5-C6-N6	-5.75	119.10	123.70
1	Ad	1155	G	N9-C1'-C2'	5.75	121.47	114.00
84	Aa	1114	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1450	G	C5'-C4'-O4'	5.75	116.00	109.10
84	Aa	2786	G	O4'-C1'-N9	5.75	112.80	108.20
1	Ad	419	C	O4'-C1'-N1	5.75	112.80	108.20
1	Ad	1802	G	O4'-C1'-C2'	5.75	112.77	107.60
11	BD	184	ILE	N-CA-CB	5.75	124.02	110.80
14	BQ	135	PHE	CB-CG-CD2	5.75	124.82	120.80
33	BJ	9	SER	N-CA-CB	5.75	119.12	110.50
84	Aa	338	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	383	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	760	C	N3-C4-C5	-5.75	119.60	121.90
84	Aa	873	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	1882	A	C5-C6-N6	-5.75	119.10	123.70
84	Aa	2215	A	C4-C5-C6	5.75	119.88	117.00
84	Aa	3193	C	N3-C4-N4	5.75	122.02	118.00
1	Ad	559	A	O4'-C1'-C2'	-5.75	100.05	105.80
84	Aa	818	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	1378	G	C5-C6-O6	-5.75	125.15	128.60
84	Aa	2124	G	O4'-C1'-N9	5.75	112.80	108.20
84	Aa	2223	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	2598	A	C4-C5-C6	5.75	119.87	117.00
84	Aa	19	C	O5'-P-OP2	-5.75	100.53	105.70
84	Aa	976	A	C5-C6-N1	-5.75	114.83	117.70
84	Aa	1872	C	N3-C4-N4	5.75	122.02	118.00
84	Aa	2280	C	N3-C4-N4	5.75	122.02	118.00
1	Ad	518	G	O4'-C1'-N9	5.74	112.80	108.20
1	Ad	936	C	O4'-C1'-C2'	-5.74	100.06	105.80
84	Aa	216	G	O4'-C1'-N9	5.74	112.80	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1259	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	1404	G	C5-C6-O6	-5.74	125.15	128.60
84	Aa	1628	G	C5-C6-O6	-5.74	125.15	128.60
84	Aa	2596	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	3101	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	970	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	1414	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	1694	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2140	C	N3-C4-N4	5.74	122.02	118.00
1	Ad	1074	C	O4'-C1'-C2'	-5.74	100.06	105.80
84	Aa	120	G	C5-C6-O6	-5.74	125.16	128.60
84	Aa	164	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	246	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	813	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	2000	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2018	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2033	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2049	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2288	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	2442	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	2593	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	2971	A	C4-C5-C6	5.74	119.87	117.00
1	Ad	217	A	P-O5'-C5'	5.74	130.08	120.90
84	Aa	233	C	N3-C4-C5	-5.74	119.60	121.90
84	Aa	715	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	1018	C	N3-C4-N4	5.74	122.02	118.00
84	Aa	1667	C	N3-C4-C5	-5.74	119.61	121.90
84	Aa	2107	A	C5-C6-N6	-5.74	119.11	123.70
84	Aa	2133	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2223	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	2676	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2920	G	C5-C6-O6	-5.74	125.16	128.60
84	Aa	3359	C	N3-C4-C5	-5.74	119.61	121.90
1	Ad	1083	C	C3'-C2'-C1'	5.74	106.09	101.50
1	Ad	1220	C	C3'-C2'-C1'	5.74	106.09	101.50
48	CD	238	SER	N-CA-CB	5.74	119.11	110.50
84	Aa	1994	C	N3-C4-C5	-5.74	119.61	121.90
84	Aa	2971	A	C5-C6-N1	-5.74	114.83	117.70
84	Aa	3375	G	O4'-C1'-N9	5.74	112.79	108.20
1	Ad	1159	G	P-O3'-C3'	-5.74	112.82	119.70
1	Ad	1699	C	C3'-C2'-C1'	5.74	106.09	101.50
84	Aa	2168	C	N3-C4-C5	-5.74	119.61	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2788	A	C4-C5-C6	5.74	119.87	117.00
84	Aa	2928	A	O4'-C1'-N9	5.74	112.79	108.20
84	Aa	363	A	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	505	G	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	1354	G	O4'-C1'-N9	5.73	112.79	108.20
86	Ab	34	C	N3-C4-C5	-5.73	119.61	121.90
1	Ad	554	A	O4'-C1'-N9	5.73	112.79	108.20
1	Ad	910	A	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	200	G	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	1066	G	O4'-C1'-N9	5.73	112.79	108.20
84	Aa	1206	A	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	2215	A	C5-C6-N1	-5.73	114.83	117.70
84	Aa	2224	A	C4-C5-C6	5.73	119.87	117.00
84	Aa	2619	C	N3-C4-N4	5.73	122.01	118.00
84	Aa	2757	G	O4'-C1'-N9	5.73	112.79	108.20
1	Ad	1193	A	C3'-C2'-C1'	5.73	106.08	101.50
1	Ad	1451	G	N9-C1'-C2'	5.73	121.45	114.00
84	Aa	293	A	C5-C6-N1	-5.73	114.83	117.70
84	Aa	1193	A	C5-C6-N6	-5.73	119.11	123.70
84	Aa	1835	A	C4-C5-C6	5.73	119.86	117.00
84	Aa	1857	G	C5-C6-O6	-5.73	125.16	128.60
84	Aa	2088	C	C5'-C4'-C3'	5.73	125.17	116.00
84	Aa	2218	A	C5-C6-N6	-5.73	119.12	123.70
84	Aa	3306	A	C5-C6-N6	-5.73	119.12	123.70
84	Aa	3389	C	N3-C4-C5	-5.73	119.61	121.90
1	Ad	281	U	C4'-C3'-C2'	-5.73	96.87	102.60
85	Ac	89	A	C4-C5-C6	5.73	119.86	117.00
1	Ad	827	C	O4'-C1'-C2'	-5.73	100.07	105.80
84	Aa	346	A	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	1508	C	N3-C4-C5	-5.73	119.61	121.90
84	Aa	1782	G	O4'-C1'-N9	5.73	112.78	108.20
84	Aa	2603	C	N3-C4-C5	-5.73	119.61	121.90
84	Aa	2673	G	C5-C6-O6	-5.73	125.16	128.60
84	Aa	3162	C	N3-C4-N4	5.73	122.01	118.00
1	Ad	64	U	C4'-C3'-C2'	-5.73	96.87	102.60
84	Aa	16	A	C4-C5-C6	5.73	119.86	117.00
84	Aa	1290	A	C5-C6-N1	-5.73	114.84	117.70
1	Ad	1125	U	O4'-C1'-C2'	-5.72	100.08	105.80
1	Ad	1591	A	O4'-C1'-C2'	-5.72	100.08	105.80
84	Aa	848	G	O4'-C1'-N9	5.72	112.78	108.20
86	Ab	2	G	N9-C4-C5	-5.72	103.11	105.40
1	Ad	174	C	C5'-C4'-O4'	5.72	115.97	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	760	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	813	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	1588	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	1969	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	2790	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	2881	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	3206	C	N3-C4-N4	5.72	122.01	118.00
84	Aa	3322	A	C4-C5-C6	5.72	119.86	117.00
85	Ac	129	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1444	G	C5-C6-O6	-5.72	125.17	128.60
84	Aa	2504	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2992	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	3087	A	C5-C6-N6	-5.72	119.12	123.70
1	Ad	232	C	C3'-C2'-C1'	5.72	106.08	101.50
1	Ad	491	G	N9-C1'-C2'	-5.72	105.71	112.00
84	Aa	1375	G	O4'-C1'-N9	5.72	112.78	108.20
84	Aa	2043	A	C4'-C3'-O3'	5.72	124.44	113.00
84	Aa	2694	A	C5-C6-N6	-5.72	119.12	123.70
84	Aa	3061	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	757	G	C5-C6-O6	-5.72	125.17	128.60
84	Aa	1342	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1584	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2133	A	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	3059	C	N3-C4-N4	5.72	122.00	118.00
84	Aa	3293	U	O4'-C1'-N1	5.72	112.78	108.20
1	Ad	488	C	O4'-C1'-C2'	-5.72	100.08	105.80
1	Ad	1488	C	C3'-C2'-C1'	5.72	106.07	101.50
84	Aa	159	G	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	1208	A	O4'-C1'-N9	5.72	112.77	108.20
84	Aa	1511	C	N3-C4-C5	-5.72	119.61	121.90
84	Aa	1571	A	C4-C5-C6	5.72	119.86	117.00
84	Aa	2941	G	C5-C6-O6	-5.72	125.17	128.60
85	Ac	44	A	C5-C6-N6	-5.72	119.13	123.70
1	Ad	490	G	N9-C1'-C2'	5.71	121.43	114.00
1	Ad	978	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	136	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	1236	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	2325	A	C4-C5-C6	5.71	119.86	117.00
84	Aa	2612	A	C5-C6-N1	-5.71	114.84	117.70
85	Ac	65	G	P-O5'-C5'	-5.71	111.76	120.90
1	Ad	250	A	O4'-C1'-C2'	-5.71	100.09	105.80
1	Ad	372	U	C1'-O4'-C4'	5.71	114.47	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	325	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	667	C	N3-C4-C5	-5.71	119.61	121.90
84	Aa	1693	A	C5-C6-N1	-5.71	114.84	117.70
86	Ab	3	A	C4-C5-C6	5.71	119.86	117.00
1	Ad	397	C	C3'-C2'-C1'	5.71	106.07	101.50
1	Ad	431	C	C3'-C2'-C1'	5.71	106.07	101.50
1	Ad	561	G	C3'-C2'-C1'	5.71	106.07	101.50
84	Aa	105	A	C5-C6-N1	-5.71	114.84	117.70
84	Aa	604	C	C6-N1-C2	-5.71	118.02	120.30
84	Aa	1374	G	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2742	A	C4-C5-C6	5.71	119.86	117.00
85	Ac	156	C	N3-C4-C5	-5.71	119.61	121.90
1	Ad	742	C	P-O3'-C3'	5.71	126.55	119.70
84	Aa	2963	G	O4'-C1'-N9	5.71	112.77	108.20
85	Ac	123	G	C5-C6-O6	-5.71	125.17	128.60
86	Ab	42	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	755	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	928	A	C4-C5-C6	5.71	119.86	117.00
84	Aa	977	G	C5-C6-O6	-5.71	125.17	128.60
84	Aa	1591	A	C4-C5-C6	5.71	119.85	117.00
84	Aa	1767	G	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2767	C	N3-C4-N4	5.71	122.00	118.00
84	Aa	2792	A	O4'-C1'-N9	5.71	112.77	108.20
84	Aa	2916	G	C5-C6-O6	-5.71	125.17	128.60
84	Aa	3362	A	O4'-C1'-N9	5.71	112.77	108.20
1	Ad	405	A	O4'-C1'-C2'	-5.71	100.09	105.80
1	Ad	1088	G	C4'-C3'-C2'	-5.71	96.89	102.60
84	Aa	546	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	939	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	1122	C	N3-C4-C5	-5.71	119.62	121.90
84	Aa	1862	C	N3-C4-N4	5.71	122.00	118.00
84	Aa	2401	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2449	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2488	A	C4-C5-C6	5.71	119.85	117.00
84	Aa	2929	C	N3-C4-N4	5.71	121.99	118.00
84	Aa	3114	A	C5'-C4'-O4'	5.71	115.95	109.10
84	Aa	16	A	O4'-C1'-N9	5.71	112.76	108.20
84	Aa	738	A	C5-C6-N6	-5.71	119.14	123.70
84	Aa	2301	C	C2-N1-C1'	5.71	125.08	118.80
84	Aa	2640	A	C5-C6-N1	-5.71	114.85	117.70
84	Aa	2753	C	C5'-C4'-C3'	5.71	125.13	116.00
1	Ad	637	U	C1'-O4'-C4'	5.70	114.46	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1116	G	C3'-C2'-C1'	-5.70	96.94	101.50
1	Ad	1221	A	P-O3'-C3'	5.70	126.54	119.70
1	Ad	1665	U	O4'-C1'-N1	5.70	112.76	108.20
50	CP	31	GLU	N-CA-CB	5.70	120.86	110.60
84	Aa	670	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1101	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1150	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	1905	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1962	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	2361	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	3154	G	C1'-O4'-C4'	-5.70	105.34	109.90
84	Aa	3290	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	1151	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	1477	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	2032	C	N3-C4-N4	5.70	121.99	118.00
84	Aa	2056	C	N3-C4-N4	5.70	121.99	118.00
1	Ad	1097	A	O4'-C1'-C2'	5.70	112.73	107.60
45	CN	30	TYR	CB-CG-CD1	5.70	124.42	121.00
84	Aa	201	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1123	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	1610	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1863	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	2080	G	P-O3'-C3'	5.70	126.54	119.70
84	Aa	2230	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	2356	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	2978	A	C5-C6-N6	-5.70	119.14	123.70
1	Ad	575	G	C1'-O4'-C4'	5.70	114.46	109.90
84	Aa	7	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	394	A	C5-C6-N6	-5.70	119.14	123.70
84	Aa	450	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	766	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	873	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1227	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	1409	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1906	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	3209	U	P-O3'-C3'	5.70	126.54	119.70
1	Ad	1600	G	C3'-C2'-C1'	5.70	106.06	101.50
84	Aa	1217	G	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1501	A	O4'-C1'-N9	5.70	112.76	108.20
84	Aa	1907	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	1930	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	3110	A	C5-C6-N1	-5.70	114.85	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3149	C	N3-C4-C5	-5.70	119.62	121.90
86	Ab	50	A	C5-N7-C8	5.70	106.75	103.90
1	Ad	1426	C	O4'-C1'-C2'	-5.70	100.10	105.80
17	BS	83	PHE	CB-CG-CD1	-5.70	116.81	120.80
42	CJ	1	MET	C-N-CA	5.70	135.94	121.70
78	CL	48	ARG	N-CA-CB	5.70	120.85	110.60
84	Aa	102	G	C5-C6-O6	-5.70	125.18	128.60
84	Aa	420	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	617	C	N3-C4-C5	-5.70	119.62	121.90
84	Aa	1392	U	P-O5'-C5'	-5.70	111.79	120.90
84	Aa	2079	A	C4-C5-C6	5.70	119.85	117.00
84	Aa	2594	A	C5-C6-N1	-5.70	114.85	117.70
84	Aa	292	A	C5-C6-N1	-5.69	114.85	117.70
84	Aa	1267	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	1395	A	C5-C6-N6	-5.69	119.14	123.70
84	Aa	1837	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	3027	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	3034	A	C5-C6-N6	-5.69	119.14	123.70
84	Aa	3288	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	257	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	377	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	389	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	679	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	709	G	C5-C6-O6	-5.69	125.18	128.60
84	Aa	1146	A	P-O5'-C5'	-5.69	111.79	120.90
84	Aa	1197	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	1485	A	C5-C6-N6	-5.69	119.15	123.70
84	Aa	1715	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1842	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	1904	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2639	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	2804	A	C5-C6-N6	-5.69	119.14	123.70
61	CM	17	TYR	N-CA-CB	5.69	120.84	110.60
84	Aa	331	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	615	A	C4-C5-C6	5.69	119.85	117.00
84	Aa	690	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	1038	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1434	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	2239	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	3054	G	C5-C6-O6	-5.69	125.19	128.60
85	Ac	121	A	C4-C5-C6	5.69	119.84	117.00
84	Aa	702	G	O4'-C1'-N9	5.69	112.75	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1593	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	2817	G	N1-C6-O6	5.69	123.31	119.90
1	Ad	71	C	O4'-C1'-C2'	-5.69	100.11	105.80
84	Aa	269	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	416	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	812	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	907	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	1799	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	1914	C	N3-C4-C5	-5.69	119.62	121.90
84	Aa	2743	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	2815	A	C4-C5-C6	5.69	119.84	117.00
84	Aa	2975	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	3187	C	N3-C4-C5	-5.69	119.62	121.90
85	Ac	49	G	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	337	C	N3-C4-N4	5.69	121.98	118.00
84	Aa	1136	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	2224	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2671	A	O4'-C1'-N9	5.69	112.75	108.20
84	Aa	2819	A	C5-C6-N1	-5.69	114.86	117.70
84	Aa	3385	G	C5-C6-O6	-5.69	125.19	128.60
84	Aa	1509	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2089	A	C5-C6-N6	-5.68	119.15	123.70
84	Aa	2190	C	N3-C4-C5	-5.68	119.63	121.90
1	Ad	912	A	O4'-C1'-N9	5.68	112.75	108.20
1	Ad	1374	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	228	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	294	A	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	3045	A	C5-C6-N1	-5.68	114.86	117.70
86	Ab	74	A	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	210	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	2564	G	O4'-C1'-N9	5.68	112.75	108.20
84	Aa	2575	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	3264	C	N3-C4-C5	-5.68	119.63	121.90
1	Ad	801	U	C3'-C2'-C1'	-5.68	96.96	101.50
84	Aa	889	C	N3-C4-C5	-5.68	119.63	121.90
84	Aa	1249	A	C5-C6-N1	-5.68	114.86	117.70
84	Aa	1953	C	N3-C4-N4	5.68	121.98	118.00
84	Aa	1990	A	C4-C5-C6	5.68	119.84	117.00
84	Aa	2592	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2703	G	C5-C6-O6	-5.68	125.19	128.60
84	Aa	2718	A	C5-C6-N6	-5.68	119.16	123.70
84	Aa	2868	C	N3-C4-N4	5.68	121.97	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3272	A	C4-C5-C6	5.68	119.84	117.00
50	CP	4	TYR	CB-CG-CD1	5.68	124.41	121.00
84	Aa	22	G	O4'-C1'-N9	5.68	112.74	108.20
84	Aa	1789	C	N3-C4-N4	5.68	121.97	118.00
84	Aa	3364	A	C5-C6-N1	-5.68	114.86	117.70
84	Aa	24	C	N3-C4-C5	-5.68	119.63	121.90
84	Aa	3067	G	O4'-C1'-N9	5.68	112.74	108.20
2	Ae	47	U	O4'-C1'-C2'	-5.67	100.13	105.80
71	CB	373	ARG	N-CA-CB	5.67	120.82	110.60
84	Aa	364	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	449	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	893	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	1118	G	C4-N9-C1'	5.67	133.88	126.50
84	Aa	1134	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	1793	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	1883	A	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	2217	A	C5-C6-N6	-5.67	119.16	123.70
85	Ac	140	A	C4-C5-C6	5.67	119.84	117.00
84	Aa	235	G	O4'-C1'-N9	5.67	112.74	108.20
84	Aa	361	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	363	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	2175	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	2489	A	C5-C6-N6	-5.67	119.16	123.70
84	Aa	2655	U	C5'-C4'-C3'	-5.67	106.92	116.00
84	Aa	3078	A	C4-C5-C6	5.67	119.84	117.00
1	Ad	1598	G	C5'-C4'-O4'	5.67	115.91	109.10
84	Aa	999	U	O4'-C1'-N1	5.67	112.74	108.20
84	Aa	1872	C	N3-C4-C5	-5.67	119.63	121.90
85	Ac	52	A	C4-C5-C6	5.67	119.84	117.00
86	Ab	15	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	1570	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	2650	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	2761	A	C5-C6-N6	-5.67	119.16	123.70
1	Ad	815	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	211	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	698	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	1156	A	C5-C6-N1	-5.67	114.86	117.70
84	Aa	1254	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	2320	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	3152	C	N3-C4-N4	5.67	121.97	118.00
1	Ad	847	U	C5'-C4'-O4'	5.67	115.90	109.10
84	Aa	578	C	O4'-C1'-N1	5.67	112.73	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	661	A	O4'-C1'-N9	5.67	112.73	108.20
84	Aa	975	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	1926	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	2214	A	C5-C6-N6	-5.67	119.17	123.70
84	Aa	2724	A	C5-C6-N1	-5.67	114.87	117.70
84	Aa	2807	G	C5-C6-O6	-5.67	125.20	128.60
84	Aa	2942	A	C5-C6-N1	-5.67	114.87	117.70
84	Aa	3122	U	P-O3'-C3'	5.67	126.50	119.70
1	Ad	1226	U	C1'-O4'-C4'	5.67	114.43	109.90
84	Aa	437	C	N3-C4-C5	-5.67	119.63	121.90
84	Aa	758	A	C4-C5-C6	5.67	119.83	117.00
84	Aa	883	G	O4'-C1'-N9	5.67	112.73	108.20
1	Ad	289	G	O4'-C1'-C2'	5.66	112.70	107.60
1	Ad	936	C	N1-C1'-C2'	5.66	121.36	114.00
1	Ad	1753	U	N1-C1'-C2'	-5.66	105.77	112.00
84	Aa	71	C	N3-C4-N4	5.66	121.96	118.00
84	Aa	393	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1332	C	N3-C4-C5	-5.66	119.64	121.90
84	Aa	1397	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1496	G	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1543	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1883	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	2247	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	2458	A	O4'-C1'-N9	5.66	112.73	108.20
85	Ac	21	C	N3-C4-C5	-5.66	119.63	121.90
84	Aa	1306	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1587	G	C5-C6-O6	-5.66	125.20	128.60
1	Ad	548	C	O4'-C1'-N1	5.66	112.73	108.20
84	Aa	563	C	N3-C4-N4	5.66	121.96	118.00
84	Aa	1501	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1906	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1918	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1971	A	O4'-C1'-N9	5.66	112.73	108.20
1	Ad	297	U	C1'-O4'-C4'	-5.66	105.37	109.90
84	Aa	1643	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1794	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	1800	G	C5-C6-O6	-5.66	125.20	128.60
84	Aa	2347	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	2518	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	2899	A	O4'-C1'-N9	5.66	112.73	108.20
84	Aa	2975	G	O4'-C1'-N9	5.66	112.73	108.20
85	Ac	61	A	C4-C5-C6	5.66	119.83	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1727	A	C5-C6-N6	-5.66	119.17	123.70
84	Aa	1971	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	2330	C	N3-C4-C5	-5.66	119.64	121.90
84	Aa	2367	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	3162	C	N3-C4-C5	-5.66	119.64	121.90
1	Ad	1768	U	C1'-O4'-C4'	-5.66	105.38	109.90
84	Aa	66	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	371	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	413	G	O4'-C1'-N9	5.66	112.72	108.20
84	Aa	907	A	O4'-C1'-N9	5.66	112.72	108.20
84	Aa	1001	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1026	A	C4-C5-C6	5.66	119.83	117.00
84	Aa	1255	A	C5-C6-N1	-5.66	114.87	117.70
84	Aa	1318	C	C5-C6-N1	5.66	123.83	121.00
1	Ad	1688	G	C1'-O4'-C4'	5.65	114.42	109.90
84	Aa	39	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	1576	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2427	C	N3-C4-N4	5.65	121.96	118.00
1	Ad	1258	U	C5'-C4'-O4'	5.65	115.88	109.10
79	CE	124	TYR	CB-CG-CD1	5.65	124.39	121.00
84	Aa	203	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	465	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2462	G	C5'-C4'-C3'	5.65	125.05	116.00
84	Aa	2574	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	2700	A	O4'-C1'-N9	5.65	112.72	108.20
84	Aa	3104	A	C5-C6-N1	-5.65	114.87	117.70
84	Aa	3196	C	N3-C4-C5	-5.65	119.64	121.90
1	Ad	108	C	C1'-O4'-C4'	-5.65	105.38	109.90
1	Ad	336	U	C1'-O4'-C4'	5.65	114.42	109.90
1	Ad	1614	C	C1'-O4'-C4'	-5.65	105.38	109.90
84	Aa	1562	A	O5'-C5'-C4'	-5.65	100.97	111.70
84	Aa	1879	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	1949	G	O4'-C1'-N9	5.65	112.72	108.20
84	Aa	2058	C	N3-C4-C5	-5.65	119.64	121.90
84	Aa	2217	A	C5-C6-N1	-5.65	114.88	117.70
84	Aa	2228	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	2819	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	3362	A	C5-C6-N1	-5.65	114.88	117.70
85	Ac	109	A	C5-C6-N6	-5.65	119.18	123.70
55	Cc	102	SER	N-CA-CB	5.65	118.97	110.50
84	Aa	1248	A	C4-C5-C6	5.65	119.83	117.00
84	Aa	2114	A	C5-C6-N6	-5.65	119.18	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2372	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	3020	C	N3-C4-C5	-5.65	119.64	121.90
1	Ad	595	A	C1'-O4'-C4'	5.65	114.42	109.90
1	Ad	624	A	O4'-C1'-N9	5.65	112.72	108.20
79	CE	50	PHE	CB-CG-CD2	-5.65	116.85	120.80
84	Aa	1321	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	1642	G	C5-C6-O6	-5.65	125.21	128.60
84	Aa	1680	A	C4-C5-C6	5.65	119.82	117.00
84	Aa	1775	C	N3-C4-N4	5.65	121.95	118.00
84	Aa	2272	C	N3-C4-N4	5.65	121.95	118.00
84	Aa	2805	A	C5-C6-N6	-5.65	119.18	123.70
84	Aa	3107	A	C5-C6-N6	-5.65	119.18	123.70
85	Ac	14	C	N3-C4-C5	-5.65	119.64	121.90
85	Ac	111	G	O4'-C1'-N9	5.65	112.72	108.20
1	Ad	158	C	C4'-C3'-C2'	-5.65	96.95	102.60
1	Ad	1294	U	O4'-C1'-C2'	-5.65	100.15	105.80
1	Ad	1768	U	O4'-C1'-N1	5.65	112.72	108.20
1	Ad	1801	A	O4'-C1'-C2'	-5.65	100.15	105.80
1	Ad	216	A	O4'-C1'-C2'	5.64	112.68	107.60
1	Ad	979	A	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	112	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	579	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	788	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	846	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	1100	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	1204	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	1304	G	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	1633	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	2014	A	C5-C6-N6	-5.64	119.18	123.70
84	Aa	2724	A	C5-C6-N6	-5.64	119.18	123.70
84	Aa	2814	C	N3-C4-C5	-5.64	119.64	121.90
84	Aa	3346	C	N3-C4-N4	5.64	121.95	118.00
1	Ad	923	U	C3'-C2'-C1'	5.64	106.01	101.50
84	Aa	219	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	863	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	1917	A	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	2909	A	O4'-C1'-N9	5.64	112.72	108.20
84	Aa	3269	C	N3-C4-C5	-5.64	119.64	121.90
86	Ab	94	C	C6-N1-C2	5.64	122.56	120.30
48	CD	199	ILE	N-CA-CB	5.64	123.78	110.80
84	Aa	558	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	886	A	O4'-C1'-N9	5.64	112.71	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1318	C	C6-N1-C2	-5.64	118.04	120.30
1	Ad	205	U	N1-C1'-C2'	-5.64	105.80	112.00
84	Aa	108	A	P-O3'-C3'	5.64	126.47	119.70
84	Aa	923	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	1015	A	C4-C5-C6	5.64	119.82	117.00
84	Aa	2371	A	C5-C6-N1	-5.64	114.88	117.70
84	Aa	2492	C	N3-C4-N4	5.64	121.95	118.00
86	Ab	36	C	N3-C4-N4	5.64	121.95	118.00
1	Ad	820	A	O4'-C1'-C2'	5.64	112.67	107.60
84	Aa	2304	A	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	2598	A	C5-C6-N1	-5.64	114.88	117.70
85	Ac	97	G	O4'-C1'-N9	5.64	112.71	108.20
1	Ad	203	A	O4'-C1'-N9	5.64	112.71	108.20
1	Ad	329	G	C4'-C3'-C2'	-5.64	96.96	102.60
84	Aa	560	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	631	C	N3-C4-C5	-5.64	119.64	121.90
84	Aa	1084	G	O4'-C1'-N9	5.64	112.71	108.20
84	Aa	1160	G	C5-C6-O6	-5.64	125.22	128.60
84	Aa	1551	C	N3-C4-N4	5.64	121.95	118.00
84	Aa	2088	C	O4'-C4'-C3'	-5.64	98.36	104.00
84	Aa	2853	A	C5-C6-N6	-5.64	119.19	123.70
84	Aa	3022	A	C5-C6-N6	-5.64	119.19	123.70
1	Ad	465	G	C3'-C2'-C1'	5.63	106.01	101.50
1	Ad	507	G	O4'-C1'-C2'	5.63	112.67	107.60
1	Ad	1675	G	N9-C1'-C2'	-5.63	105.80	112.00
84	Aa	446	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	502	G	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	563	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	1109	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1329	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1534	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1714	A	C5-C6-N1	-5.63	114.88	117.70
84	Aa	1934	U	O4'-C1'-N1	5.63	112.71	108.20
84	Aa	2756	G	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	1860	A	C4-C5-C6	5.63	119.82	117.00
84	Aa	1861	A	O4'-C1'-N9	5.63	112.71	108.20
84	Aa	3034	A	O4'-C1'-N9	5.63	112.71	108.20
1	Ad	732	G	N9-C1'-C2'	-5.63	105.81	112.00
1	Ad	1159	G	C5'-C4'-O4'	5.63	115.86	109.10
84	Aa	633	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1182	A	C4-C5-C6	5.63	119.82	117.00
84	Aa	1206	A	C5-C6-N1	-5.63	114.88	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1221	A	C5-C6-N1	-5.63	114.89	117.70
84	Aa	1784	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	3077	C	N3-C4-N4	5.63	121.94	118.00
86	Ab	78	C	C5-C6-N1	5.63	123.82	121.00
1	Ad	276	G	C4'-C3'-C2'	-5.63	96.97	102.60
84	Aa	10	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	60	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	291	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	880	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	1732	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	1900	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	2223	A	C5-C6-N6	-5.63	119.20	123.70
24	BW	15	TYR	CB-CG-CD1	5.63	124.38	121.00
84	Aa	222	C	O4'-C1'-N1	5.63	112.70	108.20
84	Aa	317	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	669	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	919	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	2040	G	C5-C6-O6	-5.63	125.22	128.60
84	Aa	2741	G	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	3327	A	O4'-C1'-N9	5.63	112.70	108.20
1	Ad	141	G	N9-C1'-C2'	5.63	121.32	114.00
22	BZ	34	LYS	N-CA-CB	5.63	120.73	110.60
84	Aa	1079	G	N3-C2-N2	5.63	123.84	119.90
84	Aa	1542	A	O4'-C1'-N9	5.63	112.70	108.20
84	Aa	2173	G	C4-N9-C1'	-5.63	119.19	126.50
84	Aa	2203	A	C5-C6-N6	-5.63	119.20	123.70
84	Aa	2629	C	N3-C4-C5	-5.63	119.65	121.90
84	Aa	2740	C	N3-C4-N4	5.63	121.94	118.00
84	Aa	3079	G	P-O3'-C3'	5.63	126.45	119.70
84	Aa	3128	A	C5-C6-N1	-5.63	114.89	117.70
80	Cf	1	MET	CG-SD-CE	-5.62	91.20	100.20
84	Aa	651	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	2058	C	N3-C4-N4	5.62	121.94	118.00
85	Ac	129	C	O4'-C1'-N1	5.62	112.70	108.20
41	CA	119	HIS	N-CA-CB	5.62	120.72	110.60
84	Aa	2743	A	O4'-C1'-N9	5.62	112.70	108.20
85	Ac	33	A	C5-C6-N1	-5.62	114.89	117.70
1	Ad	249	G	C1'-O4'-C4'	-5.62	105.40	109.90
1	Ad	448	C	C1'-O4'-C4'	5.62	114.40	109.90
1	Ad	1053	C	O4'-C1'-N1	5.62	112.70	108.20
1	Ad	1272	G	O4'-C1'-N9	5.62	112.70	108.20
1	Ad	1569	U	C1'-O4'-C4'	5.62	114.40	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1785	U	O4'-C1'-N1	5.62	112.70	108.20
84	Aa	230	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	232	C	N3-C4-N4	5.62	121.94	118.00
84	Aa	687	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	1051	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	1099	G	N1-C6-O6	5.62	123.27	119.90
84	Aa	1742	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	1846	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2306	G	O4'-C1'-N9	5.62	112.70	108.20
84	Aa	3141	G	O4'-C1'-N9	5.62	112.70	108.20
84	Aa	3339	G	C5-C6-O6	-5.62	125.23	128.60
86	Ab	1	G	C4-C5-C6	5.62	122.17	118.80
1	Ad	187	C	O4'-C1'-C2'	-5.62	100.18	105.80
60	Co	59	HIS	N-CA-CB	5.62	120.72	110.60
84	Aa	58	G	C5-C6-O6	-5.62	125.23	128.60
84	Aa	79	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	2414	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	3173	A	C5-C6-N6	-5.62	119.20	123.70
1	Ad	488	C	P-O3'-C3'	5.62	126.44	119.70
84	Aa	681	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2239	A	C5-C6-N6	-5.62	119.20	123.70
84	Aa	2633	C	N3-C4-C5	-5.62	119.65	121.90
84	Aa	3171	C	C2-N1-C1'	5.62	124.98	118.80
85	Ac	154	G	P-O5'-C5'	5.62	129.89	120.90
84	Aa	298	G	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	1182	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	1651	A	C5-C6-N6	-5.62	119.21	123.70
84	Aa	1932	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	2254	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2294	A	C5-C6-N1	-5.62	114.89	117.70
1	Ad	1780	U	C1'-O4'-C4'	5.62	114.39	109.90
70	Cq	140	PHE	CB-CG-CD2	-5.62	116.87	120.80
84	Aa	1065	A	C4-C5-C6	5.62	119.81	117.00
84	Aa	1274	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2750	A	O4'-C1'-N9	5.62	112.69	108.20
84	Aa	2945	G	O4'-C1'-N9	5.62	112.69	108.20
86	Ab	74	A	C5-C6-N6	-5.62	119.21	123.70
1	Ad	970	U	O4'-C1'-N1	5.61	112.69	108.20
1	Ad	1013	G	O4'-C1'-C2'	5.61	112.65	107.60
71	CB	353	LEU	N-CA-C	-5.61	95.84	111.00
84	Aa	198	A	C4-C5-C6	5.61	119.81	117.00
84	Aa	238	C	N3-C4-N4	5.61	121.93	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	854	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	913	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	1028	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1143	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1260	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1385	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2119	A	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	2297	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	3268	C	O4'-C1'-N1	5.61	112.69	108.20
85	Ac	90	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	696	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	1104	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	1343	C	O4'-C1'-N1	5.61	112.69	108.20
84	Aa	1511	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2436	G	O4'-C1'-N9	5.61	112.69	108.20
1	Ad	523	C	C3'-C2'-C1'	5.61	105.99	101.50
1	Ad	639	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	382	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	928	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	1174	G	N3-C2-N2	5.61	123.83	119.90
84	Aa	1436	A	C5-C6-N1	-5.61	114.89	117.70
84	Aa	1937	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	2219	A	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	2800	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	3018	A	C5-C6-N1	-5.61	114.89	117.70
84	Aa	3018	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	3169	C	N3-C4-N4	5.61	121.93	118.00
84	Aa	3276	G	C5-C6-O6	-5.61	125.23	128.60
1	Ad	1005	C	N1-C1'-C2'	-5.61	105.83	112.00
1	Ad	1385	C	O3'-P-O5'	-5.61	93.34	104.00
1	Ad	1516	C	N1-C1'-C2'	5.61	121.29	114.00
84	Aa	34	G	C5-C6-O6	-5.61	125.23	128.60
84	Aa	1462	C	N3-C4-C5	-5.61	119.66	121.90
85	Ac	158	C	N3-C4-C5	-5.61	119.66	121.90
84	Aa	714	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1146	A	C4-C5-C6	5.61	119.80	117.00
84	Aa	1443	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1772	G	O4'-C1'-N9	5.61	112.69	108.20
84	Aa	1809	A	C5-C6-N6	-5.61	119.21	123.70
84	Aa	3110	A	C5-C6-N6	-5.61	119.21	123.70
86	Ab	97	G	C8-N9-C4	-5.61	104.16	106.40
84	Aa	253	G	N1-C2-N3	-5.61	120.54	123.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1252	C	N3-C4-C5	-5.61	119.66	121.90
84	Aa	1353	A	C5-C6-N6	-5.61	119.22	123.70
84	Aa	2589	G	O4'-C1'-N9	5.61	112.68	108.20
84	Aa	3056	C	O4'-C1'-N1	5.61	112.69	108.20
84	Aa	3074	A	C5-C6-N6	-5.61	119.22	123.70
85	Ac	33	A	C4-C5-C6	5.61	119.80	117.00
1	Ad	923	U	P-O3'-C3'	5.60	126.42	119.70
22	BZ	18	SER	C-N-CA	5.60	134.07	122.30
84	Aa	741	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	862	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1820	C	N3-C4-N4	5.60	121.92	118.00
85	Ac	88	A	C5-C6-N1	-5.60	114.90	117.70
86	Ab	31	G	C5-C6-N1	-5.60	108.70	111.50
1	Ad	283	G	P-O3'-C3'	5.60	126.42	119.70
37	CG	233	VAL	N-CA-CB	5.60	123.83	111.50
84	Aa	411	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	457	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	608	G	P-O5'-C5'	5.60	129.86	120.90
84	Aa	633	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	899	A	C4-C5-C6	5.60	119.80	117.00
84	Aa	1813	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	2458	A	C5-C6-N6	-5.60	119.22	123.70
86	Ab	41	G	N3-C2-N2	5.60	123.82	119.90
1	Ad	333	G	O4'-C1'-C2'	5.60	112.64	107.60
23	Bc	2	ASP	N-CA-CB	5.60	120.68	110.60
84	Aa	23	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	99	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	229	G	N3-C2-N2	5.60	123.82	119.90
84	Aa	574	C	N3-C4-C5	-5.60	119.66	121.90
84	Aa	1353	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1527	A	C5-C6-N6	-5.60	119.22	123.70
56	Cd	102	THR	N-CA-CB	5.60	120.94	110.30
84	Aa	1200	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	1790	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	2141	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	2533	A	C5-C6-N6	-5.60	119.22	123.70
84	Aa	3232	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	3353	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	3382	A	O4'-C1'-N9	5.60	112.68	108.20
1	Ad	71	C	O4'-C1'-N1	5.60	112.68	108.20
24	BW	65	LEU	N-CA-CB	5.60	121.59	110.40
25	Bd	33	LYS	N-CA-CB	5.60	120.67	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	306	A	C5-C6-N1	-5.60	114.90	117.70
84	Aa	467	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	1112	C	C2-N3-C4	5.60	122.70	119.90
84	Aa	1788	C	O4'-C1'-N1	5.60	112.68	108.20
84	Aa	2390	G	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	2544	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	2938	A	C4-C5-C6	5.60	119.80	117.00
84	Aa	738	A	O4'-C1'-N9	5.60	112.68	108.20
84	Aa	1962	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	2230	C	N3-C4-N4	5.60	121.92	118.00
84	Aa	3034	A	C5-C6-N1	-5.60	114.90	117.70
1	Ad	462	G	O4'-C1'-C2'	5.59	112.64	107.60
1	Ad	1707	G	O4'-C1'-N9	5.59	112.68	108.20
71	CB	70	LYS	N-CA-CB	5.59	120.67	110.60
84	Aa	173	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	1485	A	P-O5'-C5'	-5.59	111.95	120.90
84	Aa	1988	G	O4'-C1'-N9	5.59	112.68	108.20
85	Ac	132	C	N3-C4-C5	-5.59	119.66	121.90
2	Ae	28	G	C4'-C3'-C2'	-5.59	97.01	102.60
84	Aa	1044	A	C4-C5-C6	5.59	119.80	117.00
84	Aa	2504	A	C5-C6-N1	-5.59	114.90	117.70
85	Ac	53	A	C4-C5-C6	5.59	119.80	117.00
86	Ab	77	A	O4'-C1'-N9	5.59	112.67	108.20
86	Ab	104	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	619	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	676	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	914	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	1321	A	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	1889	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	2005	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	2056	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	2298	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	3073	A	C5-C6-N6	-5.59	119.23	123.70
1	Ad	757	G	O4'-C1'-C2'	5.59	112.63	107.60
1	Ad	1772	A	O4'-C1'-C2'	-5.59	100.21	105.80
71	CB	61	GLU	N-CA-CB	5.59	120.66	110.60
84	Aa	245	C	N3-C4-C5	-5.59	119.66	121.90
84	Aa	304	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	384	A	C4-C5-C6	5.59	119.80	117.00
84	Aa	1270	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	1324	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	1880	A	C5-C6-N1	-5.59	114.91	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2151	G	P-O3'-C3'	5.59	126.41	119.70
84	Aa	2546	C	N3-C4-N4	5.59	121.91	118.00
84	Aa	2898	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	2993	A	C5-C6-N6	-5.59	119.23	123.70
1	Ad	1252	C	N1-C1'-C2'	5.59	121.27	114.00
1	Ad	1418	G	O4'-C1'-C2'	-5.59	100.21	105.80
75	CI	119	PHE	N-CA-CB	5.59	120.66	110.60
84	Aa	543	C	N3-C4-C5	-5.59	119.67	121.90
86	Ab	16	A	O4'-C1'-N9	5.59	112.67	108.20
1	Ad	42	G	O4'-C1'-N9	5.59	112.67	108.20
1	Ad	174	C	N1-C1'-C2'	-5.59	105.86	112.00
1	Ad	1345	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	186	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	405	A	C5-C6-N1	-5.59	114.91	117.70
84	Aa	490	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	520	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	562	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	695	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	703	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	860	G	C5-C6-O6	-5.59	125.25	128.60
84	Aa	1003	G	O4'-C1'-N9	5.59	112.67	108.20
84	Aa	2036	C	N3-C4-C5	-5.59	119.67	121.90
84	Aa	2193	A	C5-C6-N6	-5.59	119.23	123.70
84	Aa	2201	G	C5-C6-O6	-5.58	125.25	128.60
84	Aa	2545	C	O4'-C1'-N1	5.58	112.67	108.20
14	BQ	32	ARG	N-CA-CB	5.58	120.65	110.60
84	Aa	384	A	O4'-C1'-N9	5.58	112.67	108.20
84	Aa	688	G	N3-C2-N2	5.58	123.81	119.90
84	Aa	801	G	C5-C6-O6	-5.58	125.25	128.60
84	Aa	1072	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	1418	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	1906	A	C5-C6-N6	-5.58	119.23	123.70
84	Aa	2208	A	C5-C6-N1	-5.58	114.91	117.70
1	Ad	287	C	O4'-C1'-C2'	-5.58	100.22	105.80
1	Ad	455	G	C3'-C2'-C1'	-5.58	97.03	101.50
1	Ad	1311	U	N1-C1'-C2'	-5.58	105.86	112.00
1	Ad	1616	U	P-O3'-C3'	5.58	126.40	119.70
41	CA	67	PHE	CB-CG-CD2	5.58	124.71	120.80
84	Aa	568	C	N3-C4-N4	5.58	121.91	118.00
84	Aa	1254	A	C5-C6-N6	-5.58	119.23	123.70
84	Aa	1784	C	N3-C4-N4	5.58	121.91	118.00
84	Aa	2101	A	C5-C6-N6	-5.58	119.23	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2360	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	2904	A	C4-C5-C6	5.58	119.79	117.00
85	Ac	143	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	122	A	O4'-C1'-N9	5.58	112.66	108.20
84	Aa	2439	A	C5-C6-N1	-5.58	114.91	117.70
86	Ab	72	G	C4-N9-C1'	5.58	133.75	126.50
1	Ad	76	U	C2'-C3'-O3'	5.58	122.62	113.70
1	Ad	1301	G	C1'-O4'-C4'	5.58	114.36	109.90
84	Aa	303	U	O4'-C1'-N1	5.58	112.66	108.20
84	Aa	705	A	C4-C5-C6	5.58	119.79	117.00
84	Aa	1820	C	N3-C4-C5	-5.58	119.67	121.90
85	Ac	95	G	O4'-C1'-N9	5.58	112.66	108.20
1	Ad	926	G	C1'-O4'-C4'	-5.58	105.44	109.90
1	Ad	1132	G	P-O5'-C5'	5.58	129.82	120.90
84	Aa	19	C	N3-C4-C5	-5.58	119.67	121.90
84	Aa	61	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	108	A	C4-C5-C6	5.58	119.79	117.00
84	Aa	364	A	C5-C6-N1	-5.58	114.91	117.70
84	Aa	1410	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	2371	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	2571	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	2973	A	C5-C6-N6	-5.58	119.24	123.70
84	Aa	3207	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	3268	C	N3-C4-N4	5.58	121.90	118.00
84	Aa	3311	C	N3-C4-C5	-5.58	119.67	121.90
1	Ad	798	C	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	106	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	513	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	1107	G	P-O5'-C5'	5.57	129.82	120.90
84	Aa	1350	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	1606	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	1922	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	2515	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	2639	A	C5-C6-N1	-5.57	114.91	117.70
84	Aa	3207	C	N3-C4-C5	-5.57	119.67	121.90
1	Ad	242	A	P-O3'-C3'	5.57	126.39	119.70
1	Ad	393	G	O4'-C1'-C2'	5.57	112.61	107.60
84	Aa	453	U	C5'-C4'-C3'	5.57	124.92	116.00
84	Aa	881	G	O4'-C1'-N9	5.57	112.66	108.20
84	Aa	916	A	C5-C6-N1	-5.57	114.91	117.70
84	Aa	1090	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	1351	C	N3-C4-C5	-5.57	119.67	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1790	A	C5-C6-N6	-5.57	119.24	123.70
84	Aa	3240	C	N3-C4-N4	5.57	121.90	118.00
1	Ad	63	G	C5'-C4'-C3'	5.57	124.91	116.00
1	Ad	135	C	C3'-C2'-C1'	5.57	105.96	101.50
1	Ad	1181	G	C1'-O4'-C4'	-5.57	105.44	109.90
1	Ad	1731	A	C4'-C3'-C2'	-5.57	97.03	102.60
7	BM	96	SER	N-CA-CB	5.57	118.86	110.50
84	Aa	274	U	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	1410	A	C5-C6-N1	-5.57	114.92	117.70
84	Aa	2883	C	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	3155	C	N3-C4-C5	-5.57	119.67	121.90
85	Ac	40	A	C4-C5-C6	5.57	119.78	117.00
1	Ad	1527	U	O4'-C1'-N1	5.57	112.66	108.20
84	Aa	831	G	O4'-C1'-N9	5.57	112.66	108.20
84	Aa	846	A	C5-C6-N6	-5.57	119.25	123.70
84	Aa	2562	A	C5-C6-N1	-5.57	114.92	117.70
84	Aa	2810	A	C5-C6-N1	-5.57	114.92	117.70
1	Ad	1378	C	N1-C1'-C2'	5.57	121.24	114.00
9	BX	40	PHE	CB-CG-CD2	-5.57	116.90	120.80
84	Aa	79	C	N3-C4-N4	5.57	121.90	118.00
84	Aa	1782	G	C5-C6-O6	-5.57	125.26	128.60
84	Aa	2936	A	C5-C6-N6	-5.57	119.25	123.70
84	Aa	3127	C	N3-C4-C5	-5.57	119.67	121.90
84	Aa	3128	A	C4-C5-C6	5.57	119.78	117.00
84	Aa	3148	A	C4-C5-C6	5.57	119.78	117.00
1	Ad	30	G	C1'-O4'-C4'	-5.57	105.45	109.90
1	Ad	311	G	O4'-C1'-N9	5.57	112.65	108.20
1	Ad	646	G	C1'-O4'-C4'	-5.57	105.45	109.90
10	Bg	98	SER	N-CA-CB	5.57	118.85	110.50
78	CL	25	PHE	CB-CG-CD2	-5.57	116.90	120.80
84	Aa	567	G	N3-C2-N2	5.57	123.80	119.90
84	Aa	2068	G	O4'-C1'-N9	5.57	112.65	108.20
84	Aa	2354	G	C4-C5-C6	5.57	122.14	118.80
84	Aa	3257	G	O4'-C1'-N9	5.57	112.65	108.20
84	Aa	3367	C	N3-C4-N4	5.57	121.90	118.00
1	Ad	358	C	O4'-C1'-C2'	-5.56	100.24	105.80
84	Aa	292	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	1052	A	O4'-C1'-N9	5.56	112.65	108.20
1	Ad	886	A	O4'-C1'-N9	5.56	112.65	108.20
48	CD	236	MET	N-CA-CB	5.56	120.61	110.60
63	CU	111	ARG	N-CA-CB	5.56	120.61	110.60
84	Aa	183	C	N3-C4-C5	-5.56	119.67	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	186	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	548	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	612	U	C4'-C3'-C2'	5.56	108.16	102.60
84	Aa	894	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1875	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	2020	G	C5-C6-O6	-5.56	125.26	128.60
84	Aa	2547	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	2628	C	N3-C4-C5	-5.56	119.67	121.90
84	Aa	3163	G	C5-C6-O6	-5.56	125.26	128.60
85	Ac	84	C	N3-C4-N4	5.56	121.89	118.00
85	Ac	110	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	112	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	884	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	1715	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	2593	A	C4-C5-C6	5.56	119.78	117.00
1	Ad	78	A	C5'-C4'-O4'	5.56	115.77	109.10
84	Aa	149	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	860	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1431	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	1881	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	1994	C	N3-C4-N4	5.56	121.89	118.00
86	Ab	2	G	N7-C8-N9	5.56	115.88	113.10
86	Ab	85	G	C6-C5-N7	-5.56	127.06	130.40
1	Ad	591	C	N1-C1'-C2'	5.56	121.22	114.00
69	CF	151	TYR	CB-CG-CD1	-5.56	117.67	121.00
84	Aa	445	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	1614	G	C5-C6-O6	-5.56	125.27	128.60
84	Aa	1669	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	1705	A	C4-C5-C6	5.56	119.78	117.00
84	Aa	1747	A	C5'-C4'-O4'	5.56	115.77	109.10
84	Aa	1885	G	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	2604	A	O4'-C1'-N9	5.56	112.65	108.20
84	Aa	3159	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	3171	C	N3-C4-N4	5.56	121.89	118.00
84	Aa	3341	C	N3-C4-C5	-5.56	119.68	121.90
85	Ac	104	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	1640	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	1641	G	O4'-C1'-N9	5.56	112.64	108.20
84	Aa	1917	A	C5-C6-N1	-5.56	114.92	117.70
84	Aa	1970	A	C5-C6-N6	-5.56	119.25	123.70
84	Aa	2028	C	N3-C4-C5	-5.56	119.68	121.90
84	Aa	2098	A	C5-C6-N1	-5.56	114.92	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2837	C	N3-C4-N4	5.56	121.89	118.00
1	Ad	59	G	C1'-O4'-C4'	-5.55	105.46	109.90
1	Ad	453	C	C3'-C2'-C1'	5.55	105.94	101.50
84	Aa	4	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	256	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	614	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1030	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1302	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1307	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1482	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1692	U	O4'-C1'-N1	5.55	112.64	108.20
84	Aa	1702	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2252	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2630	A	C5-C6-N1	-5.55	114.92	117.70
84	Aa	3210	G	C5'-C4'-O4'	5.55	115.77	109.10
85	Ac	63	C	N3-C4-N4	5.55	121.89	118.00
1	Ad	403	A	O4'-C1'-N9	5.55	112.64	108.20
85	Ac	19	A	C4-C5-C6	5.55	119.78	117.00
86	Ab	48	G	C5-C6-O6	-5.55	125.27	128.60
1	Ad	193	G	O4'-C1'-N9	5.55	112.64	108.20
1	Ad	610	A	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	97	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	110	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	560	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	576	C	O4'-C1'-N1	5.55	112.64	108.20
84	Aa	722	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1343	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	2779	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	2944	C	N3-C4-C5	-5.55	119.68	121.90
1	Ad	1426	C	O4'-C1'-N1	5.55	112.64	108.20
6	BK	64	TYR	CB-CG-CD1	5.55	124.33	121.00
84	Aa	1025	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	1574	C	N3-C4-N4	5.55	121.89	118.00
84	Aa	3023	G	O4'-C1'-N9	5.55	112.64	108.20
86	Ab	71	A	C4-C5-N7	-5.55	107.92	110.70
1	Ad	1160	G	C5'-C4'-O4'	5.55	115.76	109.10
84	Aa	580	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	1031	A	C5-C6-N1	-5.55	114.93	117.70
84	Aa	1624	G	O4'-C1'-N9	5.55	112.64	108.20
84	Aa	1753	A	C4-C5-C6	5.55	119.77	117.00
85	Ac	17	A	C4-C5-C6	5.55	119.77	117.00
1	Ad	298	C	N1-C1'-C2'	5.55	121.21	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	507	G	C3'-C2'-C1'	-5.55	97.06	101.50
1	Ad	1793	C	O4'-C1'-C2'	-5.55	100.25	105.80
72	CC	336	TYR	CB-CG-CD1	-5.55	117.67	121.00
84	Aa	4	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	325	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1336	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1568	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1731	A	C5-C6-N6	-5.55	119.26	123.70
84	Aa	1787	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	1987	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	2018	C	N3-C4-N4	5.55	121.88	118.00
84	Aa	2303	C	N3-C4-C5	-5.55	119.68	121.90
84	Aa	3201	A	C5-C6-N1	-5.55	114.93	117.70
84	Aa	2219	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2249	U	O4'-C1'-N1	5.54	112.64	108.20
84	Aa	3107	A	C5-C6-N1	-5.54	114.93	117.70
86	Ab	89	G	N1-C6-O6	5.54	123.23	119.90
84	Aa	1156	A	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1738	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	2046	G	C5-C6-O6	-5.54	125.27	128.60
84	Aa	2408	G	C5-C6-O6	-5.54	125.27	128.60
84	Aa	2839	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	3056	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	3327	A	C5-C6-N6	-5.54	119.27	123.70
85	Ac	13	A	C4-C5-C6	5.54	119.77	117.00
86	Ab	35	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	1745	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	2447	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	2647	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	2901	C	C6-N1-C1'	-5.54	114.15	120.80
84	Aa	3169	C	N3-C4-C5	-5.54	119.68	121.90
86	Ab	22	A	C5-C6-N1	-5.54	114.93	117.70
1	Ad	1032	A	C1'-O4'-C4'	5.54	114.33	109.90
1	Ad	1792	A	P-O3'-C3'	5.54	126.35	119.70
84	Aa	348	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	976	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1307	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2262	C	N3-C4-C5	-5.54	119.68	121.90
84	Aa	2517	U	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	2565	C	N3-C4-N4	5.54	121.88	118.00
1	Ad	599	G	C5'-C4'-O4'	5.54	115.75	109.10
84	Aa	98	A	C5-C6-N6	-5.54	119.27	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	837	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	839	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	876	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	1094	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1138	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1279	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	1343	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	2947	G	C5-C6-O6	-5.54	125.28	128.60
1	Ad	1444	G	N9-C1'-C2'	5.54	121.20	114.00
73	CO	69	THR	N-CA-CB	5.54	120.82	110.30
84	Aa	698	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	868	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	1493	A	C4-C5-C6	5.54	119.77	117.00
84	Aa	1493	A	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	1775	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	1831	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	1958	G	C5'-C4'-O4'	5.54	115.74	109.10
84	Aa	2104	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	3155	C	O4'-C1'-N1	5.54	112.63	108.20
84	Aa	3245	G	O4'-C1'-N9	5.54	112.63	108.20
84	Aa	3272	A	O4'-C1'-N9	5.54	112.63	108.20
1	Ad	573	C	C3'-C2'-C1'	5.54	105.93	101.50
48	CD	219	PHE	CB-CG-CD1	5.54	124.67	120.80
62	CS	152	PRO	CA-N-CD	-5.54	103.75	111.50
84	Aa	21	G	P-O3'-C3'	-5.54	113.06	119.70
84	Aa	439	A	C5-C6-N6	-5.54	119.27	123.70
84	Aa	640	C	N3-C4-N4	5.54	121.88	118.00
84	Aa	781	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	872	G	C5-C6-O6	-5.54	125.28	128.60
84	Aa	1464	A	C5-C6-N1	-5.54	114.93	117.70
84	Aa	2547	C	N3-C4-C5	-5.54	119.69	121.90
84	Aa	2936	A	O4'-C1'-N9	5.54	112.63	108.20
86	Ab	92	C	C4-C5-C6	5.54	120.17	117.40
6	BK	54	TYR	CB-CG-CD1	-5.53	117.68	121.00
64	Ci	56	TYR	CB-CG-CD2	-5.53	117.68	121.00
84	Aa	289	C	C5-C6-N1	5.53	123.77	121.00
84	Aa	806	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	843	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1013	A	C4-C5-C6	5.53	119.77	117.00
84	Aa	1249	A	C5-C6-N6	-5.53	119.27	123.70
84	Aa	1264	A	C5-C6-N1	-5.53	114.93	117.70
84	Aa	1080	C	N3-C4-C5	-5.53	119.69	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1468	A	C5-C6-N6	-5.53	119.27	123.70
84	Aa	2064	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	2110	G	P-O5'-C5'	-5.53	112.05	120.90
84	Aa	2160	C	N3-C4-N4	5.53	121.87	118.00
85	Ac	159	G	O4'-C1'-N9	5.53	112.62	108.20
1	Ad	159	U	C1'-O4'-C4'	-5.53	105.47	109.90
1	Ad	799	A	O4'-C1'-N9	5.53	112.62	108.20
1	Ad	1745	U	C1'-O4'-C4'	5.53	114.33	109.90
84	Aa	393	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1494	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1517	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1922	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	2301	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	3092	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	3104	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	3178	C	P-O3'-C3'	5.53	126.34	119.70
1	Ad	462	G	C1'-O4'-C4'	-5.53	105.48	109.90
1	Ad	1431	A	O4'-C1'-N9	5.53	112.62	108.20
2	Ae	22	G	C1'-O4'-C4'	-5.53	105.48	109.90
84	Aa	1033	G	C5-C6-O6	-5.53	125.28	128.60
84	Aa	2804	A	C5-C6-N1	-5.53	114.94	117.70
1	Ad	147	C	C3'-C2'-C1'	5.53	105.92	101.50
1	Ad	369	G	N9-C1'-C2'	-5.53	105.92	112.00
1	Ad	1439	G	N9-C1'-C2'	5.53	121.19	114.00
84	Aa	611	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	759	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	783	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1276	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	1455	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1635	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	2391	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	2710	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	3233	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	111	C	N3-C4-N4	5.53	121.87	118.00
84	Aa	1148	G	C5-C6-O6	-5.53	125.28	128.60
84	Aa	1275	A	C5-C6-N6	-5.53	119.28	123.70
84	Aa	1415	G	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	1805	A	C5-C6-N1	-5.53	114.94	117.70
84	Aa	1990	A	O4'-C1'-N9	5.53	112.62	108.20
84	Aa	2728	C	N3-C4-C5	-5.53	119.69	121.90
84	Aa	3041	A	C5-C6-N6	-5.53	119.28	123.70
85	Ac	152	G	O4'-C1'-N9	5.53	112.62	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1564	A	O3'-P-O5'	-5.52	93.50	104.00
50	CP	140	TYR	CB-CG-CD1	5.52	124.31	121.00
84	Aa	2207	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2698	A	C4-C5-C6	5.52	119.76	117.00
84	Aa	327	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	376	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	656	G	N1-C6-O6	5.52	123.21	119.90
84	Aa	1053	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1308	A	C5-C6-N1	-5.52	114.94	117.70
84	Aa	1522	G	O4'-C1'-N9	5.52	112.62	108.20
84	Aa	1802	A	C5-C6-N1	-5.52	114.94	117.70
84	Aa	2935	A	C5-C6-N1	-5.52	114.94	117.70
86	Ab	31	G	C4-C5-N7	5.52	113.01	110.80
42	CJ	113	ASP	N-CA-CB	5.52	120.54	110.60
84	Aa	639	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	879	A	C5-C6-N6	-5.52	119.28	123.70
85	Ac	98	U	O4'-C1'-N1	5.52	112.62	108.20
85	Ac	134	G	O4'-C1'-N9	5.52	112.62	108.20
1	Ad	236	U	N1-C1'-C2'	5.52	121.18	114.00
84	Aa	250	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1276	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1657	C	N3-C4-N4	5.52	121.86	118.00
84	Aa	1721	A	C4'-C3'-C2'	-5.52	97.08	102.60
84	Aa	1738	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	2331	A	O4'-C1'-N9	5.52	112.62	108.20
84	Aa	2460	A	C4-C5-C6	5.52	119.76	117.00
84	Aa	2487	A	C5-C6-N6	-5.52	119.28	123.70
84	Aa	3382	A	C5-C6-N1	-5.52	114.94	117.70
1	Ad	200	C	C3'-C2'-C1'	5.52	105.91	101.50
84	Aa	2160	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2352	G	N3-C2-N2	5.52	123.76	119.90
84	Aa	2526	G	C5-C6-O6	-5.52	125.29	128.60
84	Aa	2774	A	C5-C6-N6	-5.52	119.29	123.70
84	Aa	1166	C	N3-C4-C5	-5.52	119.69	121.90
84	Aa	2114	A	C5-C6-N1	-5.52	114.94	117.70
1	Ad	1361	G	C4'-C3'-C2'	-5.51	97.08	102.60
42	CJ	58	SER	N-CA-CB	5.51	118.77	110.50
48	CD	187	GLU	N-CA-CB	5.51	120.53	110.60
84	Aa	385	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	416	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	1102	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	1335	C	N3-C4-N4	5.51	121.86	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1399	C	N3-C4-C5	-5.51	119.69	121.90
84	Aa	1417	G	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	2089	A	C5-C6-N1	-5.51	114.94	117.70
84	Aa	2832	G	C5-C6-O6	-5.51	125.29	128.60
85	Ac	83	C	N3-C4-N4	5.51	121.86	118.00
1	Ad	1713	C	O4'-C1'-N1	5.51	112.61	108.20
84	Aa	499	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	1542	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2174	C	N3-C4-N4	5.51	121.86	118.00
84	Aa	2940	G	C5-C6-O6	-5.51	125.29	128.60
63	CU	34	LYS	N-CA-CB	5.51	120.52	110.60
84	Aa	95	G	P-O5'-C5'	5.51	129.72	120.90
84	Aa	1911	A	C4-C5-C6	5.51	119.76	117.00
84	Aa	2226	C	N3-C4-C5	-5.51	119.69	121.90
84	Aa	2251	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2559	C	N3-C4-C5	-5.51	119.69	121.90
85	Ac	44	A	O4'-C1'-N9	5.51	112.61	108.20
85	Ac	126	A	C5-C6-N1	-5.51	114.94	117.70
1	Ad	165	U	O4'-C1'-N1	5.51	112.61	108.20
1	Ad	1409	G	C3'-C2'-C1'	-5.51	97.09	101.50
84	Aa	421	A	C4-C5-C6	5.51	119.75	117.00
84	Aa	564	A	C4-C5-C6	5.51	119.75	117.00
84	Aa	869	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	1520	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	2681	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	3028	A	C5-C6-N6	-5.51	119.29	123.70
84	Aa	3170	C	N3-C4-C5	-5.51	119.70	121.90
10	Bg	202	SER	N-CA-CB	5.51	118.76	110.50
84	Aa	2641	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	3073	A	C5-C6-N1	-5.51	114.95	117.70
1	Ad	360	G	C3'-C2'-C1'	-5.51	97.09	101.50
1	Ad	1388	A	O4'-C1'-C2'	-5.51	100.29	105.80
50	CP	140	TYR	CB-CG-CD2	-5.51	117.70	121.00
84	Aa	82	C	N3-C4-N4	5.51	121.86	118.00
84	Aa	643	G	C5-C6-O6	-5.51	125.30	128.60
84	Aa	839	A	C5-C6-N6	-5.51	119.30	123.70
84	Aa	1455	A	O4'-C1'-N9	5.51	112.61	108.20
84	Aa	2111	A	C5-C6-N1	-5.51	114.95	117.70
6	BK	82	LEU	CA-C-N	5.50	132.51	117.10
84	Aa	1059	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	2740	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2912	A	C5-C6-N1	-5.50	114.95	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	Ab	20	C	C6-N1-C2	5.50	122.50	120.30
1	Ad	315	U	O4'-C1'-C2'	-5.50	100.30	105.80
84	Aa	582	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	914	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	1181	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2158	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2254	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2545	C	N3-C4-C5	-5.50	119.70	121.90
85	Ac	105	A	C5-C6-N1	-5.50	114.95	117.70
1	Ad	600	C	O4'-C1'-N1	5.50	112.60	108.20
84	Aa	661	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	769	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	1721	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2082	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	2361	C	N3-C4-N4	5.50	121.85	118.00
84	Aa	2749	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	2949	G	N3-C2-N2	5.50	123.75	119.90
84	Aa	3088	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	3137	G	C5-C6-O6	-5.50	125.30	128.60
85	Ac	124	C	N3-C4-N4	5.50	121.85	118.00
86	Ab	66	G	O4'-C1'-N9	5.50	112.60	108.20
1	Ad	1442	A	C1'-O4'-C4'	-5.50	105.50	109.90
84	Aa	243	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2323	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	2359	C	N3-C4-N4	5.50	121.85	118.00
1	Ad	191	U	C4'-C3'-C2'	-5.50	97.10	102.60
1	Ad	462	G	O4'-C1'-N9	5.50	112.60	108.20
1	Ad	1044	A	P-O3'-C3'	5.50	126.30	119.70
1	Ad	1428	A	O4'-C1'-N9	5.50	112.60	108.20
30	BB	49	SER	N-CA-CB	5.50	118.75	110.50
84	Aa	108	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	1471	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	2025	C	N3-C4-N4	5.50	121.85	118.00
84	Aa	2650	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	2899	A	C4-C5-C6	5.50	119.75	117.00
84	Aa	3200	A	C4-C5-C6	5.50	119.75	117.00
1	Ad	536	U	C1'-O4'-C4'	-5.50	105.50	109.90
84	Aa	306	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	588	G	C5-C6-O6	-5.50	125.30	128.60
84	Aa	1512	A	C5-C6-N1	-5.50	114.95	117.70
84	Aa	1632	G	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	2075	C	N3-C4-C5	-5.50	119.70	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2374	G	C5-C6-N1	-5.50	108.75	111.50
84	Aa	2540	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2733	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	3161	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	2566	C	N3-C4-C5	-5.50	119.70	121.90
84	Aa	3115	A	C5-C6-N6	-5.50	119.30	123.70
84	Aa	3297	A	O4'-C1'-N9	5.50	112.60	108.20
84	Aa	833	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	954	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	1023	G	C5-C6-O6	-5.49	125.30	128.60
84	Aa	1554	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1963	G	C5-C6-O6	-5.49	125.30	128.60
84	Aa	158	A	C5-C6-N6	-5.49	119.31	123.70
84	Aa	217	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	365	A	C5-C6-N6	-5.49	119.31	123.70
1	Ad	546	U	C3'-C2'-C1'	-5.49	97.11	101.50
1	Ad	1111	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	136	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	952	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	1425	G	C5-C6-O6	-5.49	125.31	128.60
84	Aa	1429	U	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	2304	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	2458	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	3072	A	C5-C6-N6	-5.49	119.31	123.70
84	Aa	3075	G	O4'-C1'-N9	5.49	112.59	108.20
1	Ad	960	A	O4'-C1'-N9	5.49	112.59	108.20
1	Ad	1796	G	O4'-C1'-C2'	5.49	112.54	107.60
36	BH	135	GLU	N-CA-CB	5.49	120.48	110.60
37	CG	47	PHE	CB-CG-CD1	5.49	124.64	120.80
72	CC	345	THR	N-CA-CB	5.49	120.73	110.30
84	Aa	1520	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	1842	C	N3-C4-C5	-5.49	119.70	121.90
84	Aa	2265	A	C5-C6-N1	-5.49	114.95	117.70
84	Aa	2527	G	C4-C5-C6	5.49	122.09	118.80
1	Ad	13	C	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1199	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	1358	C	N3-C4-N4	5.49	121.84	118.00
84	Aa	1887	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	2772	A	C5-C6-N1	-5.49	114.96	117.70
85	Ac	53	A	C5-C6-N6	-5.49	119.31	123.70
85	Ac	135	A	C5-C6-N1	-5.49	114.96	117.70
84	Aa	264	C	N3-C4-N4	5.49	121.84	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	525	A	C4-C5-C6	5.49	119.74	117.00
84	Aa	742	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	870	G	O4'-C1'-N9	5.49	112.59	108.20
84	Aa	1382	C	N3-C4-C5	-5.49	119.71	121.90
84	Aa	1858	U	O4'-C1'-N1	5.49	112.59	108.20
84	Aa	1861	A	C5-C6-N1	-5.49	114.96	117.70
84	Aa	884	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	1586	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	2659	A	O4'-C1'-N9	5.48	112.59	108.20
84	Aa	2927	C	N3-C4-N4	5.48	121.84	118.00
84	Aa	173	C	N3-C4-N4	5.48	121.84	118.00
84	Aa	330	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	640	C	P-O5'-C5'	5.48	129.67	120.90
84	Aa	782	G	O3'-P-O5'	-5.48	93.58	104.00
84	Aa	1565	G	O5'-C5'-C4'	-5.48	101.28	111.70
84	Aa	1739	G	N1-C6-O6	5.48	123.19	119.90
84	Aa	2969	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	3198	C	N3-C4-C5	-5.48	119.71	121.90
85	Ac	116	G	O4'-C1'-N9	5.48	112.59	108.20
1	Ad	178	A	O4'-C1'-C2'	-5.48	100.32	105.80
1	Ad	869	U	O4'-C1'-C2'	-5.48	100.32	105.80
1	Ad	1506	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1467	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1637	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2319	A	C5-C6-N6	-5.48	119.31	123.70
84	Aa	2402	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2971	A	C5-C6-N6	-5.48	119.32	123.70
84	Aa	2979	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	3087	A	O4'-C1'-N9	5.48	112.58	108.20
85	Ac	23	C	N3-C4-C5	-5.48	119.71	121.90
1	Ad	1360	G	P-O3'-C3'	5.48	126.28	119.70
84	Aa	1073	G	C5-C6-O6	-5.48	125.31	128.60
84	Aa	1167	G	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	1874	A	O4'-C1'-N9	5.48	112.58	108.20
84	Aa	2210	A	C5-C6-N1	-5.48	114.96	117.70
84	Aa	2279	C	N3-C4-N4	5.48	121.83	118.00
84	Aa	2840	A	C4-C5-C6	5.48	119.74	117.00
86	Ab	102	G	N1-C6-O6	5.48	123.19	119.90
48	CD	7	PHE	CB-CG-CD2	-5.48	116.97	120.80
84	Aa	321	A	C4-C5-C6	5.48	119.74	117.00
84	Aa	722	C	N3-C4-N4	5.48	121.83	118.00
84	Aa	917	A	O4'-C1'-N9	5.48	112.58	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1287	C	N3-C4-C5	-5.48	119.71	121.90
84	Aa	1495	G	C5-C6-O6	-5.48	125.31	128.60
84	Aa	3351	A	C4-C5-C6	5.48	119.74	117.00
1	Ad	839	G	C1'-O4'-C4'	-5.47	105.52	109.90
84	Aa	1172	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	1499	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	1713	A	C5-C6-N6	-5.47	119.32	123.70
84	Aa	2117	G	C5-C6-O6	-5.47	125.31	128.60
84	Aa	2362	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	2384	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	2705	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	2768	C	N3-C4-C5	-5.47	119.71	121.90
85	Ac	54	A	O4'-C1'-N9	5.47	112.58	108.20
1	Ad	487	A	C3'-C2'-C1'	-5.47	97.12	101.50
29	BR	1	MET	C-N-CA	5.47	133.79	122.30
46	Ca	8	ASN	N-CA-C	-5.47	96.23	111.00
48	CD	119	GLU	N-CA-CB	5.47	120.45	110.60
84	Aa	59	A	C4-C5-C6	5.47	119.74	117.00
84	Aa	96	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	415	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	476	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	481	G	C5-C6-O6	-5.47	125.32	128.60
84	Aa	1039	G	C5-C6-O6	-5.47	125.32	128.60
84	Aa	1275	A	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	1854	A	C5-C6-N1	-5.47	114.96	117.70
84	Aa	1944	G	O4'-C4'-C3'	5.47	110.48	106.10
84	Aa	2391	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	2679	A	C5-C6-N1	-5.47	114.96	117.70
84	Aa	3389	C	N3-C4-N4	5.47	121.83	118.00
86	Ab	22	A	C5-C6-N6	-5.47	119.32	123.70
86	Ab	95	U	O4'-C1'-N1	5.47	112.58	108.20
84	Aa	258	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	454	A	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	723	G	C4'-C3'-C2'	-5.47	97.13	102.60
84	Aa	2433	U	O4'-C1'-N1	5.47	112.58	108.20
84	Aa	2823	C	N3-C4-N4	5.47	121.83	118.00
84	Aa	2853	A	C5-C6-N1	-5.47	114.97	117.70
86	Ab	91	C	N3-C4-C5	-5.47	119.71	121.90
1	Ad	1580	G	C3'-C2'-C1'	-5.47	97.12	101.50
84	Aa	499	A	C5-C6-N1	-5.47	114.97	117.70
84	Aa	1105	G	P-O3'-C3'	5.47	126.26	119.70
84	Aa	1476	G	N3-C2-N2	5.47	123.73	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1563	G	C5'-C4'-O4'	-5.47	102.54	109.10
84	Aa	1712	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	3076	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	3155	C	N3-C4-N4	5.47	121.83	118.00
86	Ab	37	G	O4'-C1'-N9	5.47	112.58	108.20
86	Ab	43	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	1185	G	O4'-C1'-N9	5.47	112.58	108.20
84	Aa	1795	A	C5-C6-N1	-5.47	114.97	117.70
84	Aa	2901	C	N3-C4-N4	5.47	121.83	118.00
1	Ad	717	G	C2'-C3'-O3'	5.47	122.45	113.70
1	Ad	826	C	O4'-C1'-N1	5.47	112.57	108.20
71	CB	121	ASN	N-CA-CB	5.47	120.44	110.60
84	Aa	101	C	N3-C4-C5	-5.47	119.71	121.90
84	Aa	810	A	O4'-C1'-N9	5.47	112.57	108.20
84	Aa	2138	A	C4-C5-C6	5.47	119.73	117.00
84	Aa	2654	G	C5-C6-O6	-5.47	125.32	128.60
85	Ac	119	C	N3-C4-N4	5.47	121.83	118.00
1	Ad	724	U	C1'-O4'-C4'	5.46	114.27	109.90
1	Ad	1232	G	C5'-C4'-O4'	5.46	115.66	109.10
84	Aa	12	G	C4'-C3'-C2'	-5.46	97.14	102.60
84	Aa	677	U	O4'-C1'-N1	5.46	112.57	108.20
84	Aa	1174	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	1225	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	1409	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	2389	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2493	C	N3-C4-N4	5.46	121.83	118.00
84	Aa	3036	C	N3-C4-C5	-5.46	119.71	121.90
85	Ac	49	G	C5-C6-O6	-5.46	125.32	128.60
84	Aa	353	A	P-O5'-C5'	-5.46	112.16	120.90
1	Ad	706	U	O4'-C1'-N1	5.46	112.57	108.20
1	Ad	1092	A	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	1709	U	O4'-C1'-N1	5.46	112.57	108.20
84	Aa	2662	A	C5-C6-N6	-5.46	119.33	123.70
85	Ac	105	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2105	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	2174	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	3182	A	C4'-C3'-C2'	-5.46	97.14	102.60
1	Ad	333	G	C3'-C2'-C1'	-5.46	97.13	101.50
84	Aa	1185	G	C5-C6-O6	-5.46	125.33	128.60
84	Aa	1195	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	1802	A	C5-C6-N6	-5.46	119.33	123.70
84	Aa	2298	A	C4-C5-C6	5.46	119.73	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2807	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	2972	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	3030	A	C4-C5-C6	5.46	119.73	117.00
85	Ac	80	A	C4-C5-C6	5.46	119.73	117.00
1	Ad	468	A	C5'-C4'-O4'	5.46	115.65	109.10
1	Ad	1316	A	C1'-O4'-C4'	-5.46	105.53	109.90
1	Ad	1515	G	O4'-C1'-N9	5.46	112.57	108.20
35	BG	28	PHE	CB-CG-CD2	-5.46	116.98	120.80
84	Aa	1	G	C4-N9-C1'	5.46	133.59	126.50
84	Aa	109	G	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	223	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	573	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	619	C	N3-C4-C5	-5.46	119.72	121.90
84	Aa	823	A	O4'-C1'-N9	5.46	112.57	108.20
84	Aa	972	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	1200	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	1235	A	C4-C5-C6	5.46	119.73	117.00
84	Aa	1854	A	C4-C5-C6	5.46	119.73	117.00
84	Aa	1915	G	O4'-C1'-N9	5.46	112.56	108.20
84	Aa	2228	A	C5-C6-N1	-5.46	114.97	117.70
84	Aa	2933	C	C5'-C4'-O4'	5.46	115.65	109.10
84	Aa	330	C	N3-C4-N4	5.46	121.82	118.00
84	Aa	943	G	N3-C2-N2	5.46	123.72	119.90
84	Aa	2999	G	N3-C2-N2	5.46	123.72	119.90
1	Ad	768	A	OP1-P-OP2	-5.45	111.42	119.60
84	Aa	249	A	C5-C6-N1	-5.45	114.97	117.70
84	Aa	620	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	1438	A	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1878	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	2026	C	N3-C4-N4	5.45	121.82	118.00
84	Aa	2149	G	C8-N9-C1'	-5.45	119.91	127.00
84	Aa	2450	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	2985	C	C5'-C4'-O4'	5.45	115.64	109.10
84	Aa	3087	A	C5-C6-N1	-5.45	114.97	117.70
85	Ac	23	C	N3-C4-N4	5.45	121.82	118.00
1	Ad	267	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	162	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1744	C	P-O3'-C3'	-5.45	113.16	119.70
84	Aa	2158	C	N3-C4-N4	5.45	121.82	118.00
84	Aa	2185	U	C5'-C4'-C3'	-5.45	107.28	116.00
1	Ad	934	A	C3'-C2'-C1'	5.45	105.86	101.50
84	Aa	199	G	O4'-C1'-N9	5.45	112.56	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	712	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	889	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	985	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	2503	A	C5-C6-N6	-5.45	119.34	123.70
84	Aa	2660	A	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	3082	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	3341	C	N3-C4-N4	5.45	121.81	118.00
1	Ad	922	U	O4'-C1'-N1	5.45	112.56	108.20
1	Ad	1226	U	O4'-C1'-C2'	-5.45	100.35	105.80
84	Aa	689	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	777	G	C5-C6-O6	-5.45	125.33	128.60
84	Aa	1789	C	N3-C4-C5	-5.45	119.72	121.90
84	Aa	2789	G	C2'-C3'-O3'	5.45	122.42	113.70
84	Aa	2885	U	C4'-C3'-C2'	-5.45	97.15	102.60
86	Ab	51	G	C6-C5-N7	-5.45	127.13	130.40
1	Ad	140	C	O4'-C1'-C2'	-5.45	100.35	105.80
1	Ad	1512	C	C3'-C2'-C1'	5.45	105.86	101.50
84	Aa	332	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	769	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	1157	A	C5-C6-N6	-5.45	119.34	123.70
84	Aa	2033	C	N3-C4-N4	5.45	121.81	118.00
1	Ad	1365	C	O4'-C1'-N1	5.45	112.56	108.20
28	BA	43	TYR	CB-CG-CD1	5.45	124.27	121.00
84	Aa	803	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1139	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	1160	G	O4'-C1'-N9	5.45	112.56	108.20
84	Aa	1752	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	2625	C	N3-C4-N4	5.45	121.81	118.00
84	Aa	3140	A	C4-C5-C6	5.45	119.72	117.00
84	Aa	3251	C	P-O3'-C3'	5.45	126.23	119.70
85	Ac	79	A	C5-C6-N6	-5.45	119.34	123.70
1	Ad	29	U	O4'-C1'-C2'	-5.44	100.36	105.80
1	Ad	179	A	C4'-C3'-C2'	5.44	108.04	102.60
84	Aa	1990	A	C5-C6-N6	-5.44	119.34	123.70
85	Ac	61	A	O4'-C1'-N9	5.44	112.56	108.20
1	Ad	100	C	C1'-O4'-C4'	5.44	114.25	109.90
1	Ad	1618	G	N9-C1'-C2'	5.44	121.07	114.00
1	Ad	1776	A	C3'-C2'-C1'	-5.44	97.14	101.50
73	CO	136	PRO	CA-N-CD	-5.44	103.88	111.50
84	Aa	24	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	640	C	O4'-C1'-N1	5.44	112.55	108.20
84	Aa	1162	A	C5-C6-N6	-5.44	119.35	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1520	A	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1862	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	2184	U	O4'-C1'-N1	5.44	112.55	108.20
48	CD	180	PHE	CB-CG-CD1	5.44	124.61	120.80
84	Aa	5	G	C4-N9-C1'	5.44	133.57	126.50
84	Aa	727	G	C5-C6-O6	-5.44	125.34	128.60
84	Aa	1291	A	C5-C6-N6	-5.44	119.35	123.70
84	Aa	1480	G	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1744	C	N3-C4-C5	-5.44	119.72	121.90
85	Ac	81	U	P-O3'-C3'	5.44	126.23	119.70
84	Aa	418	G	O4'-C1'-N9	5.44	112.55	108.20
84	Aa	1998	A	C4-C5-C6	5.44	119.72	117.00
1	Ad	450	A	C3'-C2'-C1'	5.44	105.85	101.50
22	BZ	89	ALA	N-CA-CB	5.44	117.71	110.10
70	Cq	52	SER	N-CA-CB	5.44	118.66	110.50
84	Aa	2	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	237	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	450	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	949	C	C5-C6-N1	5.44	123.72	121.00
84	Aa	2225	C	N3-C4-N4	5.44	121.81	118.00
84	Aa	2373	C	C5'-C4'-O4'	-5.44	102.58	109.10
84	Aa	3007	A	C5-C6-N6	-5.44	119.35	123.70
84	Aa	3192	G	C5-C6-O6	-5.44	125.34	128.60
84	Aa	3205	C	N3-C4-C5	-5.44	119.72	121.90
84	Aa	3287	A	C4-C5-C6	5.44	119.72	117.00
86	Ab	29	C	C5-C6-N1	5.44	123.72	121.00
1	Ad	1234	A	C1'-O4'-C4'	5.44	114.25	109.90
70	Cq	9	GLU	N-CA-C	-5.44	96.32	111.00
84	Aa	3350	C	N3-C4-N4	5.44	121.81	118.00
85	Ac	62	C	P-O5'-C5'	-5.44	112.20	120.90
1	Ad	879	C	N1-C1'-C2'	5.43	121.06	114.00
1	Ad	1507	G	C3'-C2'-C1'	-5.43	97.15	101.50
84	Aa	262	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	342	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	898	G	C4-N9-C1'	5.43	133.57	126.50
84	Aa	1229	A	C5-C6-N6	-5.43	119.35	123.70
84	Aa	2950	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3212	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	479	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	792	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	1907	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	2061	C	N3-C4-N4	5.43	121.80	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2397	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	3094	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3319	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	3366	C	N3-C4-C5	-5.43	119.73	121.90
69	CF	77	PHE	CB-CG-CD1	5.43	124.60	120.80
84	Aa	712	A	O4'-C1'-N9	5.43	112.55	108.20
84	Aa	883	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	1088	A	C5-C6-N1	-5.43	114.98	117.70
84	Aa	2481	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	2660	A	C5-C6-N1	-5.43	114.98	117.70
1	Ad	58	U	P-O5'-C5'	5.43	129.59	120.90
84	Aa	343	G	O4'-C1'-N9	5.43	112.54	108.20
84	Aa	1312	A	C4-C5-C6	5.43	119.72	117.00
84	Aa	1591	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	1761	C	N3-C4-C5	-5.43	119.73	121.90
1	Ad	1799	G	O4'-C1'-N9	5.43	112.54	108.20
84	Aa	1206	A	C5-C6-N6	-5.43	119.36	123.70
84	Aa	1850	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	2048	C	N3-C4-N4	5.43	121.80	118.00
84	Aa	3070	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	84	A	C4-C5-C6	5.43	119.71	117.00
84	Aa	1228	C	N3-C4-C5	-5.43	119.73	121.90
84	Aa	1369	G	C5-C6-O6	-5.43	125.34	128.60
84	Aa	1790	A	C5-C6-N1	-5.43	114.99	117.70
84	Aa	3017	A	C5-C6-N1	-5.43	114.99	117.70
84	Aa	3272	A	C5-C6-N1	-5.43	114.99	117.70
85	Ac	10	G	O4'-C1'-N9	5.43	112.54	108.20
1	Ad	969	U	P-O3'-C3'	5.42	126.21	119.70
1	Ad	1133	C	O4'-C1'-N1	5.42	112.54	108.20
1	Ad	1752	U	C3'-C2'-C1'	-5.42	97.16	101.50
84	Aa	130	G	C5-C6-O6	-5.42	125.34	128.60
84	Aa	373	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	603	G	P-O5'-C5'	5.42	129.58	120.90
84	Aa	1013	A	C5-C6-N6	-5.42	119.36	123.70
84	Aa	1278	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1513	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	2674	A	C5-C6-N6	-5.42	119.36	123.70
84	Aa	3263	C	O4'-C4'-C3'	5.42	110.44	106.10
1	Ad	281	U	O4'-C4'-C3'	-5.42	98.58	104.00
1	Ad	1010	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	586	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	850	A	C5-C6-N6	-5.42	119.36	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1353	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2400	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3088	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	3088	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3114	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	3148	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	477	C	N3-C4-N4	5.42	121.80	118.00
84	Aa	771	G	N1-C2-N3	-5.42	120.65	123.90
84	Aa	1911	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	2028	C	N3-C4-N4	5.42	121.80	118.00
84	Aa	2533	A	O4'-C1'-N9	5.42	112.54	108.20
84	Aa	3033	A	O4'-C1'-N9	5.42	112.54	108.20
85	Ac	34	U	O4'-C1'-N1	5.42	112.54	108.20
1	Ad	1177	G	C1'-O4'-C4'	-5.42	105.56	109.90
84	Aa	114	G	P-O3'-C3'	5.42	126.20	119.70
84	Aa	932	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	1370	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2457	G	O4'-C1'-N9	5.42	112.54	108.20
1	Ad	61	A	C4'-C3'-O3'	-5.42	98.02	109.40
1	Ad	238	G	O4'-C1'-N9	-5.42	103.86	108.20
1	Ad	262	U	O4'-C1'-C2'	-5.42	100.38	105.80
84	Aa	1277	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	1490	A	O4'-C1'-N9	5.42	112.53	108.20
84	Aa	1937	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	2603	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	2681	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	2961	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	3248	G	O4'-C1'-N9	5.42	112.53	108.20
1	Ad	144	U	P-O3'-C3'	-5.42	113.20	119.70
1	Ad	1355	U	N1-C1'-C2'	5.42	121.04	114.00
1	Ad	1790	G	C1'-O4'-C4'	-5.42	105.57	109.90
21	BP	70	ARG	N-CA-CB	5.42	120.35	110.60
84	Aa	710	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	857	G	O4'-C1'-N9	5.42	112.53	108.20
84	Aa	1231	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	1568	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1713	A	C5-C6-N1	-5.42	114.99	117.70
84	Aa	1917	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	1977	C	N3-C4-N4	5.42	121.79	118.00
84	Aa	2612	A	C4-C5-C6	5.42	119.71	117.00
84	Aa	227	C	N3-C4-C5	-5.42	119.73	121.90
84	Aa	1397	A	O4'-C1'-N9	5.42	112.53	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1507	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	1516	G	N3-C2-N2	5.42	123.69	119.90
84	Aa	2136	A	C5-C6-N6	-5.42	119.37	123.70
84	Aa	2635	G	O4'-C1'-N9	5.42	112.53	108.20
86	Ab	88	U	C5-C6-N1	5.42	125.41	122.70
1	Ad	902	C	P-O3'-C3'	5.41	126.20	119.70
1	Ad	968	A	C3'-C2'-C1'	-5.41	97.17	101.50
1	Ad	1620	C	C3'-C2'-C1'	5.41	105.83	101.50
84	Aa	2	C	N3-C4-N4	5.41	121.79	118.00
84	Aa	72	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	197	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	201	G	C5-C6-O6	-5.41	125.35	128.60
84	Aa	298	G	C5-C6-O6	-5.41	125.35	128.60
84	Aa	316	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	917	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	1272	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1471	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1594	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1743	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	1882	A	C5-C6-N1	-5.41	114.99	117.70
84	Aa	2575	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	2822	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3110	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3321	C	N3-C4-C5	-5.41	119.73	121.90
1	Ad	1465	C	C5'-C4'-O4'	5.41	115.59	109.10
84	Aa	1029	C	N3-C4-C5	-5.41	119.73	121.90
84	Aa	2558	U	C2-N1-C1'	5.41	124.19	117.70
84	Aa	3364	A	C4-C5-C6	5.41	119.71	117.00
84	Aa	3374	C	O4'-C1'-N1	5.41	112.53	108.20
1	Ad	1234	A	O4'-C1'-C2'	-5.41	100.39	105.80
84	Aa	420	A	C5-C6-N6	-5.41	119.37	123.70
84	Aa	1465	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	1837	A	C5-C6-N1	-5.41	115.00	117.70
84	Aa	2081	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	2924	G	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	3025	A	C4-C5-C6	5.41	119.71	117.00
1	Ad	315	U	C4'-C3'-C2'	-5.41	97.19	102.60
1	Ad	573	C	O4'-C1'-C2'	-5.41	100.39	105.80
1	Ad	1347	U	O4'-C1'-N1	5.41	112.53	108.20
84	Aa	708	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	1571	A	C5-C6-N6	-5.41	119.37	123.70
84	Aa	2202	A	C5-C6-N1	-5.41	115.00	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2279	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	3059	C	N3-C4-C5	-5.41	119.74	121.90
85	Ac	53	A	O4'-C1'-N9	5.41	112.53	108.20
85	Ac	146	G	N1-C2-N3	-5.41	120.66	123.90
86	Ab	95	U	N3-C4-O4	5.41	123.19	119.40
1	Ad	317	U	C3'-C2'-C1'	5.41	105.83	101.50
1	Ad	1641	A	O4'-C1'-N9	5.41	112.53	108.20
84	Aa	533	G	C5-C6-O6	-5.41	125.36	128.60
1	Ad	311	G	P-O5'-C5'	-5.41	112.25	120.90
84	Aa	383	A	C5-C6-N1	-5.41	115.00	117.70
84	Aa	1002	A	O4'-C1'-N9	5.41	112.52	108.20
84	Aa	1312	A	O4'-C1'-N9	5.41	112.52	108.20
84	Aa	2006	A	C5-C6-N6	-5.41	119.38	123.70
84	Aa	2052	G	C5-C6-O6	-5.41	125.36	128.60
84	Aa	2299	C	N3-C4-C5	-5.41	119.74	121.90
84	Aa	2730	A	C5-C6-N6	-5.41	119.38	123.70
84	Aa	2768	C	N3-C4-N4	5.41	121.78	118.00
1	Ad	1327	C	N1-C1'-C2'	5.40	121.03	114.00
84	Aa	222	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	414	G	C5-C6-O6	-5.40	125.36	128.60
84	Aa	664	A	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1005	C	N3-C4-N4	5.40	121.78	118.00
84	Aa	3039	U	O4'-C1'-N1	5.40	112.52	108.20
86	Ab	18	C	N3-C4-C5	-5.40	119.74	121.90
86	Ab	56	G	N1-C2-N3	-5.40	120.66	123.90
84	Aa	213	G	N3-C2-N2	5.40	123.68	119.90
84	Aa	720	G	C5'-C4'-O4'	5.40	115.58	109.10
84	Aa	820	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	2260	C	C2-N3-C4	5.40	122.60	119.90
84	Aa	2388	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2595	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	2596	A	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	3048	C	N3-C4-C5	-5.40	119.74	121.90
85	Ac	101	U	O4'-C1'-N1	5.40	112.52	108.20
1	Ad	289	G	C1'-O4'-C4'	-5.40	105.58	109.90
1	Ad	1543	U	N1-C1'-C2'	5.40	121.02	114.00
1	Ad	1553	A	N9-C1'-C2'	5.40	121.02	114.00
1	Ad	1751	U	N1-C1'-C2'	5.40	121.02	114.00
84	Aa	224	C	C4'-C3'-C2'	-5.40	97.20	102.60
84	Aa	1209	G	C5-C6-O6	-5.40	125.36	128.60
84	Aa	2365	C	N3-C4-N4	5.40	121.78	118.00
84	Aa	2729	C	N3-C4-C5	-5.40	119.74	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	39	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	523	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	1831	A	P-O5'-C5'	5.40	129.54	120.90
84	Aa	2086	A	O4'-C1'-C2'	5.40	112.46	107.60
1	Ad	792	U	O4'-C1'-C2'	-5.40	100.40	105.80
1	Ad	1758	G	N9-C1'-C2'	5.40	121.02	114.00
53	CY	8	THR	N-CA-CB	5.40	120.56	110.30
84	Aa	219	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	823	A	C5-C6-N1	-5.40	115.00	117.70
84	Aa	1174	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1864	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1932	A	C5-C6-N6	-5.40	119.38	123.70
84	Aa	2301	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2643	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	2767	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	2836	G	O4'-C1'-N9	5.40	112.52	108.20
1	Ad	1792	A	C3'-C2'-C1'	5.40	105.82	101.50
84	Aa	176	A	C4-C5-C6	5.40	119.70	117.00
84	Aa	539	C	N3-C4-C5	-5.40	119.74	121.90
84	Aa	731	G	O4'-C1'-N9	5.40	112.52	108.20
84	Aa	1543	A	C5-C6-N6	-5.40	119.38	123.70
84	Aa	1586	A	O4'-C1'-N9	5.40	112.52	108.20
64	Ci	38	LYS	N-CA-CB	5.39	120.31	110.60
84	Aa	578	C	P-O3'-C3'	5.39	126.17	119.70
84	Aa	651	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	2449	A	C5-C6-N6	-5.39	119.38	123.70
84	Aa	2464	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	2739	A	P-O5'-C5'	-5.39	112.27	120.90
85	Ac	104	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	19	C	N3-C4-N4	5.39	121.78	118.00
84	Aa	157	G	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	196	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	616	A	C4-C5-C6	5.39	119.70	117.00
84	Aa	981	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1063	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	1090	C	N3-C4-C5	-5.39	119.74	121.90
84	Aa	1344	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1837	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	2816	G	C5-C6-O6	-5.39	125.36	128.60
84	Aa	2874	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3299	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3328	A	O4'-C1'-N9	5.39	112.51	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	113	U	O4'-C1'-N1	5.39	112.51	108.20
85	Ac	129	C	N3-C4-N4	5.39	121.78	118.00
84	Aa	1970	A	O4'-C1'-N9	5.39	112.51	108.20
84	Aa	3142	C	N3-C4-C5	-5.39	119.74	121.90
86	Ab	1	G	C6-C5-N7	-5.39	127.17	130.40
1	Ad	365	C	N1-C1'-C2'	5.39	121.01	114.00
1	Ad	555	G	C1'-O4'-C4'	-5.39	105.59	109.90
1	Ad	1305	U	C1'-O4'-C4'	5.39	114.21	109.90
1	Ad	1632	C	P-O3'-C3'	5.39	126.17	119.70
84	Aa	426	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	1010	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1162	A	C5-C6-N1	-5.39	115.00	117.70
84	Aa	1602	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1761	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2882	U	P-O3'-C3'	5.39	126.17	119.70
1	Ad	1069	G	C1'-O4'-C4'	-5.39	105.59	109.90
84	Aa	70	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	2960	A	O4'-C1'-N9	5.39	112.51	108.20
1	Ad	1015	C	O4'-C1'-N1	5.39	112.51	108.20
1	Ad	1665	U	P-O3'-C3'	5.39	126.16	119.70
84	Aa	582	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	918	A	C5-C6-N1	-5.39	115.01	117.70
84	Aa	1337	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	1537	A	C4-C5-C6	5.39	119.69	117.00
84	Aa	1584	A	C5-C6-N1	-5.39	115.01	117.70
84	Aa	1797	U	C5'-C4'-C3'	-5.39	107.38	116.00
84	Aa	2070	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2430	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2596	A	C5-C6-N6	-5.39	119.39	123.70
84	Aa	2710	C	N3-C4-N4	5.39	121.77	118.00
84	Aa	2758	C	C2-N3-C4	5.39	122.59	119.90
84	Aa	3334	A	C5'-C4'-C3'	-5.39	107.38	116.00
1	Ad	346	C	C3'-C2'-C1'	5.38	105.81	101.50
1	Ad	1400	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	389	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	1029	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	1097	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	1780	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2041	G	C5-C6-O6	-5.38	125.37	128.60
84	Aa	2605	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	2952	G	O4'-C1'-N9	5.38	112.51	108.20
84	Aa	3004	G	C5-C6-O6	-5.38	125.37	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3376	C	N3-C4-N4	5.38	121.77	118.00
1	Ad	1063	U	P-O3'-C3'	5.38	126.16	119.70
1	Ad	1074	C	O4'-C1'-N1	5.38	112.50	108.20
84	Aa	825	G	C5-C6-O6	-5.38	125.37	128.60
84	Aa	887	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2021	G	P-O3'-C3'	5.38	126.16	119.70
84	Aa	2404	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2694	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2765	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	2909	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2986	C	N3-C4-C5	-5.38	119.75	121.90
85	Ac	99	C	N3-C4-N4	5.38	121.77	118.00
86	Ab	101	A	C5-C6-N1	-5.38	115.01	117.70
1	Ad	844	C	O4'-C1'-C2'	-5.38	100.42	105.80
84	Aa	2781	A	O4'-C1'-N9	5.38	112.50	108.20
84	Aa	3193	C	N3-C4-C5	-5.38	119.75	121.90
1	Ad	82	G	C1'-O4'-C4'	-5.38	105.60	109.90
1	Ad	980	C	O4'-C1'-N1	5.38	112.50	108.20
24	BW	128	PHE	CB-CG-CD1	5.38	124.56	120.80
84	Aa	98	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	323	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	1195	C	N3-C4-C5	-5.38	119.75	121.90
84	Aa	1759	C	N3-C4-C5	-5.38	119.75	121.90
84	Aa	2545	C	N3-C4-N4	5.38	121.77	118.00
84	Aa	2641	A	C5-C6-N6	-5.38	119.40	123.70
1	Ad	719	C	O4'-C1'-N1	5.38	112.50	108.20
1	Ad	1137	A	O4'-C1'-C2'	-5.38	100.42	105.80
1	Ad	1207	A	O4'-C1'-N9	-5.38	103.90	108.20
1	Ad	1655	U	C1'-O4'-C4'	5.38	114.20	109.90
84	Aa	474	G	C2'-C3'-O3'	-5.38	97.67	109.50
84	Aa	1331	C	N3-C4-N4	5.38	121.76	118.00
84	Aa	1717	G	O4'-C1'-N9	5.38	112.50	108.20
84	Aa	2308	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2372	A	C5-C6-N1	-5.38	115.01	117.70
84	Aa	3103	G	N3-C2-N2	5.38	123.66	119.90
84	Aa	3270	C	O4'-C1'-N1	5.38	112.50	108.20
86	Ab	118	C	C5-C4-N4	-5.38	116.44	120.20
84	Aa	447	C	N3-C4-N4	5.38	121.76	118.00
84	Aa	996	A	C4-C5-C6	5.38	119.69	117.00
84	Aa	2429	A	O4'-C1'-N9	5.38	112.50	108.20
1	Ad	253	C	N1-C1'-C2'	5.37	120.99	114.00
1	Ad	385	C	C1'-O4'-C4'	-5.37	105.60	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	319	C	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	1552	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	1841	G	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2000	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	2005	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	2318	U	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	3098	U	O4'-C1'-N1	5.37	112.50	108.20
84	Aa	3116	C	N3-C4-C5	-5.37	119.75	121.90
85	Ac	156	C	N3-C4-N4	5.37	121.76	118.00
86	Ab	43	A	N1-C2-N3	5.37	131.99	129.30
1	Ad	164	C	C4'-C3'-C2'	-5.37	97.23	102.60
1	Ad	227	G	P-O3'-C3'	5.37	126.15	119.70
1	Ad	323	U	C3'-C2'-C1'	5.37	105.80	101.50
84	Aa	113	A	C4-C5-C6	5.37	119.69	117.00
84	Aa	338	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	376	A	C5-C6-N1	-5.37	115.01	117.70
84	Aa	636	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	698	A	C5-C6-N6	-5.37	119.40	123.70
84	Aa	821	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	1518	A	C5-C6-N1	-5.37	115.01	117.70
84	Aa	1583	G	N3-C2-N2	5.37	123.66	119.90
84	Aa	1795	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2100	A	C5-C6-N6	-5.37	119.40	123.70
84	Aa	2436	G	C4'-C3'-O3'	5.37	123.74	113.00
84	Aa	2451	G	N1-C6-O6	5.37	123.12	119.90
84	Aa	2576	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	2815	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	2891	C	N3-C4-C5	-5.37	119.75	121.90
86	Ab	90	A	N7-C8-N9	5.37	116.49	113.80
1	Ad	1203	G	C5'-C4'-O4'	5.37	115.54	109.10
3	Af	21	C	C1'-O4'-C4'	5.37	114.20	109.90
84	Aa	1367	A	C5-C6-N1	-5.37	115.02	117.70
1	Ad	153	U	O4'-C1'-C2'	-5.37	100.43	105.80
84	Aa	347	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	518	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	926	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	1030	A	C5-C6-N1	-5.37	115.02	117.70
84	Aa	1723	C	C4'-C3'-C2'	-5.37	97.23	102.60
84	Aa	2729	C	N3-C4-N4	5.37	121.76	118.00
85	Ac	42	G	C5-C6-O6	-5.37	125.38	128.60
85	Ac	105	A	O4'-C1'-N9	5.37	112.50	108.20
84	Aa	618	G	O4'-C1'-N9	5.37	112.49	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1071	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	2515	C	N3-C4-N4	5.37	121.76	118.00
86	Ab	51	G	N1-C2-N3	-5.37	120.68	123.90
1	Ad	134	G	O4'-C1'-N9	-5.37	103.91	108.20
1	Ad	761	A	C1'-O4'-C4'	-5.37	105.61	109.90
78	CL	156	ILE	N-CA-CB	5.37	123.14	110.80
84	Aa	54	G	C5-C6-O6	-5.37	125.38	128.60
84	Aa	238	C	N3-C4-C5	-5.37	119.75	121.90
84	Aa	826	C	N3-C4-N4	5.37	121.75	118.00
84	Aa	993	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	1377	G	O4'-C1'-N9	5.37	112.49	108.20
84	Aa	1743	C	N3-C4-N4	5.37	121.76	118.00
84	Aa	2257	A	C4-C5-C6	5.37	119.68	117.00
84	Aa	2529	C	C5'-C4'-O4'	5.37	115.54	109.10
84	Aa	3346	C	N3-C4-C5	-5.37	119.75	121.90
85	Ac	84	C	N3-C4-C5	-5.37	119.75	121.90
1	Ad	542	A	N9-C1'-C2'	-5.36	106.10	112.00
2	Ae	44	A	C4'-C3'-C2'	-5.36	97.24	102.60
84	Aa	1254	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1394	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	1843	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2266	A	C5-C6-N6	-5.36	119.41	123.70
84	Aa	2388	C	C2-N3-C4	5.36	122.58	119.90
84	Aa	3229	C	N3-C4-C5	-5.36	119.75	121.90
86	Ab	95	U	C5-C4-O4	-5.36	122.68	125.90
1	Ad	466	G	O4'-C1'-N9	5.36	112.49	108.20
1	Ad	852	A	O4'-C1'-N9	5.36	112.49	108.20
13	BF	41	HIS	N-CA-CB	5.36	120.25	110.60
84	Aa	371	A	N1-C6-N6	5.36	121.82	118.60
84	Aa	2900	G	N3-C2-N2	5.36	123.65	119.90
84	Aa	3239	G	C5-C6-O6	-5.36	125.38	128.60
1	Ad	282	C	P-O5'-C5'	-5.36	112.32	120.90
1	Ad	965	U	O4'-C1'-N1	5.36	112.49	108.20
1	Ad	1742	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1579	C	C2-N3-C4	5.36	122.58	119.90
84	Aa	1610	A	C5-C6-N6	-5.36	119.41	123.70
84	Aa	1906	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2527	G	C6-C5-N7	-5.36	127.18	130.40
84	Aa	2578	G	N3-C2-N2	5.36	123.65	119.90
84	Aa	2774	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2810	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1391	A	C5-C6-N1	-5.36	115.02	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1616	G	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1813	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2007	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2765	A	C5-C6-N6	-5.36	119.41	123.70
1	Ad	361	G	O4'-C1'-N9	5.36	112.49	108.20
1	Ad	1769	C	O4'-C1'-C2'	-5.36	100.44	105.80
84	Aa	1040	A	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	1067	G	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	1080	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	1205	C	N3-C4-N4	5.36	121.75	118.00
84	Aa	2141	A	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	2698	A	O4'-C1'-N9	5.36	112.49	108.20
84	Aa	2938	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	3129	G	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	3211	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	3264	C	N3-C4-N4	5.36	121.75	118.00
1	Ad	403	A	C1'-O4'-C4'	5.36	114.18	109.90
1	Ad	457	C	C3'-C2'-C1'	-5.36	97.22	101.50
1	Ad	1355	U	O4'-C1'-N1	5.36	112.48	108.20
2	Ae	19	U	O4'-C1'-N1	-5.36	103.92	108.20
84	Aa	239	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	943	G	O4'-C1'-N9	5.36	112.48	108.20
84	Aa	1238	G	N1-C6-O6	5.36	123.11	119.90
84	Aa	1333	C	N3-C4-C5	-5.36	119.76	121.90
84	Aa	1334	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1891	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	1971	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	2006	A	C5-C6-N1	-5.36	115.02	117.70
84	Aa	2386	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	2474	A	C5-C6-N6	-5.36	119.42	123.70
84	Aa	3130	A	C4-C5-C6	5.36	119.68	117.00
1	Ad	72	A	C5'-C4'-O4'	5.35	115.53	109.10
1	Ad	596	A	C3'-C2'-C1'	5.35	105.78	101.50
2	Ae	66	C	O4'-C1'-N1	5.35	112.48	108.20
84	Aa	434	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	493	G	O3'-P-O5'	5.35	114.17	104.00
84	Aa	1311	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	1734	G	O4'-C1'-N9	5.35	112.48	108.20
84	Aa	2015	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	2543	G	O4'-C1'-N9	5.35	112.48	108.20
1	Ad	760	G	C1'-O4'-C4'	-5.35	105.62	109.90
84	Aa	167	C	C4'-C3'-C2'	5.35	107.95	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	198	A	C5-C6-N1	-5.35	115.02	117.70
84	Aa	296	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	1241	G	C5'-C4'-C3'	5.35	124.56	116.00
84	Aa	1734	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	1852	C	N3-C4-N4	5.35	121.75	118.00
84	Aa	2101	A	O4'-C1'-N9	5.35	112.48	108.20
1	Ad	1359	C	P-O3'-C3'	5.35	126.12	119.70
24	BW	97	ARG	N-CA-CB	5.35	120.23	110.60
84	Aa	1209	G	O4'-C1'-N9	5.35	112.48	108.20
84	Aa	2016	A	C5-C6-N6	-5.35	119.42	123.70
84	Aa	2745	C	N3-C4-N4	5.35	121.75	118.00
86	Ab	46	C	O4'-C1'-N1	5.35	112.48	108.20
1	Ad	1164	C	C3'-C2'-C1'	5.35	105.78	101.50
1	Ad	1239	C	C3'-C2'-C1'	5.35	105.78	101.50
1	Ad	1503	C	C3'-C2'-C1'	5.35	105.78	101.50
84	Aa	779	U	O4'-C1'-N1	5.35	112.48	108.20
84	Aa	3028	A	C5-C6-N1	-5.35	115.03	117.70
84	Aa	3173	A	C5-C6-N1	-5.35	115.03	117.70
84	Aa	3216	G	C5-C6-O6	-5.35	125.39	128.60
84	Aa	3256	C	N3-C4-C5	-5.35	119.76	121.90
86	Ab	59	U	O4'-C1'-N1	5.35	112.48	108.20
1	Ad	164	C	C1'-O4'-C4'	-5.35	105.62	109.90
1	Ad	1288	C	O4'-C1'-N1	5.35	112.48	108.20
41	CA	40	TYR	CB-CG-CD2	-5.35	117.79	121.00
48	CD	289	ASN	N-CA-CB	5.35	120.22	110.60
84	Aa	1314	G	N3-C2-N2	5.35	123.64	119.90
84	Aa	1363	C	C2-N3-C4	5.35	122.57	119.90
84	Aa	1500	C	N3-C4-N4	5.35	121.74	118.00
84	Aa	1509	G	N3-C2-N2	5.35	123.64	119.90
84	Aa	2604	A	C4-C5-C6	5.35	119.67	117.00
84	Aa	3296	C	N3-C4-N4	5.35	121.74	118.00
86	Ab	75	G	P-O3'-C3'	5.35	126.12	119.70
1	Ad	926	G	C3'-C2'-C1'	-5.35	97.22	101.50
1	Ad	1007	G	C1'-O4'-C4'	-5.35	105.62	109.90
84	Aa	143	A	C5-C6-N6	-5.35	119.42	123.70
84	Aa	482	C	N3-C4-C5	-5.35	119.76	121.90
84	Aa	1868	C	C2-N3-C4	5.35	122.57	119.90
84	Aa	1945	A	P-O5'-C5'	-5.35	112.35	120.90
84	Aa	3182	A	C5'-C4'-C3'	5.35	124.55	116.00
1	Ad	886	A	C5'-C4'-O4'	5.34	115.51	109.10
30	BB	134	MET	CG-SD-CE	-5.34	91.65	100.20
84	Aa	738	A	C5-C6-N1	-5.34	115.03	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1831	A	C4-C5-C6	5.34	119.67	117.00
84	Aa	2473	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	3322	A	O4'-C1'-N9	5.34	112.48	108.20
1	Ad	153	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	2178	G	C2'-C3'-O3'	-5.34	97.74	109.50
84	Aa	2749	A	C5-C6-N6	-5.34	119.43	123.70
1	Ad	844	C	C5'-C4'-O4'	5.34	115.51	109.10
49	CR	188	SER	N-CA-CB	5.34	118.51	110.50
84	Aa	392	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	885	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1018	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	1153	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1264	A	C5'-C4'-O4'	5.34	115.51	109.10
84	Aa	2083	U	C5'-C4'-C3'	5.34	124.55	116.00
84	Aa	2118	G	O4'-C1'-N9	5.34	112.47	108.20
84	Aa	2439	A	C4-C5-C6	5.34	119.67	117.00
84	Aa	2576	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	2620	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	3033	A	C5-C6-N6	-5.34	119.43	123.70
2	Ae	53	U	O4'-C1'-N1	5.34	112.47	108.20
84	Aa	6	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	439	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	785	U	P-O3'-C3'	5.34	126.11	119.70
84	Aa	981	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	1104	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	2054	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	2481	C	N3-C4-C5	-5.34	119.76	121.90
84	Aa	2611	G	C5-C6-O6	-5.34	125.40	128.60
84	Aa	3038	U	O4'-C1'-N1	5.34	112.47	108.20
1	Ad	255	U	O4'-C1'-C2'	-5.34	100.46	105.80
84	Aa	33	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	1255	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	1780	C	N3-C4-C5	-5.34	119.77	121.90
86	Ab	68	G	C6-N1-C2	5.34	128.30	125.10
1	Ad	831	C	C1'-O4'-C4'	5.34	114.17	109.90
1	Ad	973	U	N1-C1'-C2'	5.34	120.94	114.00
1	Ad	1115	G	C3'-C2'-C1'	5.34	105.77	101.50
1	Ad	1203	G	P-O3'-C3'	-5.34	113.30	119.70
84	Aa	150	G	P-O5'-C5'	-5.34	112.36	120.90
84	Aa	180	G	O4'-C1'-N9	5.34	112.47	108.20
84	Aa	679	C	N3-C4-N4	5.34	121.73	118.00
84	Aa	844	A	C4-C5-C6	5.34	119.67	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1364	C	N3-C4-N4	5.34	121.74	118.00
84	Aa	1607	C	C2-N3-C4	5.34	122.57	119.90
84	Aa	2699	A	C5-C6-N6	-5.34	119.43	123.70
84	Aa	3074	A	C5-C6-N1	-5.34	115.03	117.70
84	Aa	114	G	C4'-C3'-C2'	-5.33	97.27	102.60
84	Aa	642	C	O5'-C5'-C4'	5.33	121.84	111.70
84	Aa	727	G	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	850	A	C5-C6-N1	-5.33	115.03	117.70
84	Aa	467	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	558	G	P-O5'-C5'	-5.33	112.37	120.90
84	Aa	737	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	744	C	C2-N3-C4	5.33	122.57	119.90
84	Aa	1541	G	C5-C6-O6	-5.33	125.40	128.60
84	Aa	2197	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	2320	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	3236	A	C5-C6-N6	-5.33	119.43	123.70
84	Aa	3284	C	N3-C4-C5	-5.33	119.77	121.90
1	Ad	381	G	O4'-C1'-C2'	5.33	112.40	107.60
1	Ad	1133	C	N1-C1'-C2'	5.33	120.93	114.00
20	BT	56	TYR	CB-CG-CD2	-5.33	117.80	121.00
84	Aa	195	G	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	442	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	599	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	775	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	789	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	1027	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	1727	A	O4'-C1'-N9	5.33	112.47	108.20
84	Aa	1794	A	C4-C5-C6	5.33	119.67	117.00
84	Aa	2132	A	C4'-C3'-C2'	-5.33	97.27	102.60
84	Aa	2252	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	2705	A	C5-C6-N1	-5.33	115.03	117.70
84	Aa	2883	C	N3-C4-N4	5.33	121.73	118.00
85	Ac	103	G	O4'-C1'-N9	5.33	112.47	108.20
86	Ab	28	U	C5-C4-O4	-5.33	122.70	125.90
84	Aa	1303	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	2532	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	3012	A	C5-C6-N1	-5.33	115.03	117.70
1	Ad	180	A	O4'-C1'-C2'	-5.33	100.47	105.80
1	Ad	821	G	C1'-O4'-C4'	-5.33	105.64	109.90
1	Ad	1522	U	O4'-C1'-C2'	5.33	112.40	107.60
1	Ad	1606	U	O4'-C1'-N1	5.33	112.46	108.20
84	Aa	306	A	C4-C5-C6	5.33	119.66	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	783	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1255	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	1263	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1676	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	2789	G	C5'-C4'-C3'	-5.33	107.47	116.00
86	Ab	113	G	N1-C6-O6	5.33	123.10	119.90
1	Ad	1186	U	O4'-C1'-C2'	-5.33	100.47	105.80
1	Ad	1456	U	N1-C1'-C2'	5.33	120.92	114.00
84	Aa	1227	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	2102	C	N3-C4-C5	-5.33	119.77	121.90
84	Aa	3073	A	O4'-C1'-N9	5.33	112.46	108.20
84	Aa	3093	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	3168	C	C6-N1-C2	-5.33	118.17	120.30
84	Aa	3278	G	P-O3'-C3'	5.33	126.09	119.70
1	Ad	41	A	C3'-C2'-C1'	5.33	105.76	101.50
1	Ad	229	G	P-O3'-C3'	5.33	126.09	119.70
1	Ad	1161	C	C3'-C2'-C1'	5.33	105.76	101.50
84	Aa	699	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	1485	A	C5-C6-N1	-5.33	115.04	117.70
84	Aa	1580	C	N3-C4-N4	5.33	121.73	118.00
84	Aa	2706	A	C5-C6-N6	-5.33	119.44	123.70
84	Aa	2880	G	C5-C6-O6	-5.33	125.41	128.60
1	Ad	1650	G	O4'-C1'-C2'	5.32	112.39	107.60
84	Aa	326	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	680	G	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	681	A	C4-C5-C6	5.32	119.66	117.00
84	Aa	1486	G	C6-C5-N7	-5.32	127.20	130.40
84	Aa	1633	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2780	G	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	2978	A	C5-C6-N1	-5.32	115.04	117.70
1	Ad	1109	U	N1-C1'-C2'	5.32	120.92	114.00
86	Ab	25	G	C5-C6-O6	-5.32	125.41	128.60
1	Ad	94	A	C5'-C4'-C3'	-5.32	107.49	116.00
1	Ad	194	G	P-O3'-C3'	5.32	126.08	119.70
1	Ad	261	C	C1'-O4'-C4'	-5.32	105.64	109.90
84	Aa	1551	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	1565	G	C5'-C4'-C3'	5.32	124.51	116.00
84	Aa	2044	C	C5'-C4'-C3'	-5.32	107.49	116.00
84	Aa	2455	A	O4'-C1'-N9	5.32	112.46	108.20
84	Aa	3152	C	C3'-C2'-C1'	5.32	105.76	101.50
84	Aa	819	A	C4-C5-C6	5.32	119.66	117.00
84	Aa	869	A	C4-C5-C6	5.32	119.66	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1457	A	C5-C6-N6	-5.32	119.44	123.70
84	Aa	1860	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	2137	A	C5-C6-N1	-5.32	115.04	117.70
85	Ac	25	G	O4'-C1'-N9	5.32	112.45	108.20
86	Ab	19	A	C5-C6-N6	-5.32	119.44	123.70
1	Ad	1281	G	N9-C1'-C2'	5.32	120.91	114.00
84	Aa	880	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	1208	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1455	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1806	C	C5'-C4'-O4'	5.32	115.48	109.10
84	Aa	2054	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	2061	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2111	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	2150	C	N3-C4-N4	5.32	121.72	118.00
84	Aa	2874	A	C4-C5-C6	5.32	119.66	117.00
85	Ac	142	G	O4'-C1'-N9	5.32	112.45	108.20
1	Ad	1252	C	O4'-C1'-N1	5.32	112.45	108.20
1	Ad	1401	C	N1-C1'-C2'	5.32	120.91	114.00
47	CQ	161	SER	N-CA-C	-5.32	96.65	111.00
60	Co	48	SER	N-CA-CB	5.32	118.47	110.50
84	Aa	33	A	O4'-C1'-N9	5.32	112.45	108.20
84	Aa	316	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	763	G	O4'-C1'-N9	5.32	112.45	108.20
84	Aa	936	A	C5-C6-N1	-5.32	115.04	117.70
84	Aa	1763	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	2691	U	O4'-C1'-N1	5.32	112.45	108.20
84	Aa	3050	A	C5-C6-N6	-5.32	119.45	123.70
84	Aa	3121	C	N3-C4-C5	-5.32	119.77	121.90
84	Aa	3169	C	O4'-C1'-N1	5.32	112.45	108.20
84	Aa	202	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	347	A	C5-C6-N1	-5.31	115.04	117.70
84	Aa	500	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1970	A	C5-C6-N1	-5.31	115.04	117.70
84	Aa	2801	A	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	3134	C	N3-C4-N4	5.31	121.72	118.00
1	Ad	1091	A	C1'-O4'-C4'	-5.31	105.65	109.90
46	Ca	9	ARG	N-CA-CB	5.31	120.16	110.60
84	Aa	329	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1120	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1192	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1856	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	3311	C	N3-C4-N4	5.31	121.72	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ae	19	U	C3'-C2'-C1'	5.31	105.75	101.50
47	CQ	123	PHE	CB-CG-CD2	-5.31	117.08	120.80
84	Aa	1645	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1861	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	3253	C	N3-C4-N4	5.31	121.72	118.00
85	Ac	128	C	N3-C4-C5	-5.31	119.78	121.90
1	Ad	865	U	N1-C1'-C2'	5.31	120.90	114.00
1	Ad	1173	U	O4'-C1'-N1	5.31	112.45	108.20
84	Aa	286	C	C4'-C3'-C2'	-5.31	97.29	102.60
84	Aa	365	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	794	G	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	806	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1051	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1278	A	C5-C6-N6	-5.31	119.45	123.70
84	Aa	1396	A	O4'-C1'-N9	5.31	112.45	108.20
84	Aa	1590	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	3011	U	C5'-C4'-C3'	5.31	124.50	116.00
2	Ae	74	C	N1-C1'-C2'	-5.31	106.16	112.00
84	Aa	705	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	1896	A	O4'-C1'-N9	5.31	112.44	108.20
84	Aa	2092	C	C4'-C3'-C2'	5.31	107.91	102.60
84	Aa	3033	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	3165	C	N3-C4-N4	5.31	121.72	118.00
84	Aa	1306	A	C5-C6-N1	-5.31	115.05	117.70
84	Aa	1865	C	N3-C4-N4	5.31	121.71	118.00
84	Aa	2035	G	C5-C6-O6	-5.31	125.42	128.60
84	Aa	2037	C	N3-C4-C5	-5.31	119.78	121.90
1	Ad	167	A	N9-C1'-C2'	-5.30	106.17	112.00
1	Ad	941	G	P-O3'-C3'	5.30	126.07	119.70
1	Ad	995	C	O4'-C1'-N1	5.30	112.44	108.20
1	Ad	1511	A	O4'-C1'-C2'	5.30	112.37	107.60
1	Ad	1701	G	C3'-C2'-C1'	-5.30	97.26	101.50
53	CY	10	SER	N-CA-CB	5.30	118.45	110.50
84	Aa	11	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	249	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	363	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	1233	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1290	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1961	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2059	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2167	G	C6-C5-N7	-5.30	127.22	130.40
84	Aa	2533	A	C5-C6-N1	-5.30	115.05	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2839	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	3184	G	C5-C6-O6	-5.30	125.42	128.60
85	Ac	21	C	N3-C4-N4	5.30	121.71	118.00
85	Ac	48	A	C4-C5-C6	5.30	119.65	117.00
85	Ac	53	A	C5-C6-N1	-5.30	115.05	117.70
86	Ab	3	A	O4'-C1'-N9	5.30	112.44	108.20
86	Ab	7	G	N3-C2-N2	5.30	123.61	119.90
84	Aa	296	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	535	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2462	G	O4'-C4'-C3'	-5.30	98.70	104.00
84	Aa	2902	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	336	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	661	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	859	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1517	C	C6-N1-C1'	-5.30	114.44	120.80
84	Aa	1875	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	2146	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	2325	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2774	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2896	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	3022	A	C5-C6-N1	-5.30	115.05	117.70
8	Bf	56	PHE	CB-CG-CD2	5.30	124.51	120.80
84	Aa	416	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	632	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	924	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1207	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1550	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	2135	U	O4'-C1'-N1	5.30	112.44	108.20
84	Aa	2240	C	O4'-C1'-N1	5.30	112.44	108.20
84	Aa	2298	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	804	A	C4-C5-C6	5.30	119.65	117.00
84	Aa	1006	A	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2441	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	2474	A	C5-C6-N1	-5.30	115.05	117.70
1	Ad	721	U	P-O5'-C5'	-5.30	112.42	120.90
1	Ad	746	A	N9-C1'-C2'	-5.30	106.17	112.00
1	Ad	1270	U	C1'-O4'-C4'	-5.30	105.66	109.90
2	Ae	70	G	O4'-C1'-N9	5.30	112.44	108.20
11	BD	78	ASN	N-CA-CB	5.30	120.13	110.60
84	Aa	12	G	C5-C6-O6	-5.30	125.42	128.60
84	Aa	167	C	N3-C4-C5	-5.30	119.78	121.90
84	Aa	410	G	N1-C6-O6	5.30	123.08	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	720	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	819	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	928	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	949	C	C2-N3-C4	5.30	122.55	119.90
84	Aa	1036	C	C2-N3-C4	5.30	122.55	119.90
84	Aa	1267	A	C5-C6-N1	-5.30	115.05	117.70
84	Aa	1323	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	1608	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	2141	A	C5-C6-N6	-5.30	119.46	123.70
84	Aa	2399	G	O4'-C1'-N9	5.30	112.44	108.20
84	Aa	3162	C	P-O3'-C3'	5.30	126.06	119.70
84	Aa	3256	C	N3-C4-N4	5.30	121.71	118.00
84	Aa	3336	A	C1'-O4'-C4'	-5.30	105.66	109.90
84	Aa	597	C	N3-C4-N4	5.29	121.71	118.00
84	Aa	1430	C	N3-C4-C5	-5.29	119.78	121.90
84	Aa	1846	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	3072	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	2064	C	N3-C4-C5	-5.29	119.78	121.90
84	Aa	2137	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2185	U	O4'-C1'-N1	5.29	112.44	108.20
84	Aa	2561	A	C5-C6-N1	-5.29	115.05	117.70
84	Aa	3078	A	C5-C6-N1	-5.29	115.05	117.70
1	Ad	1079	G	N9-C1'-C2'	5.29	120.88	114.00
1	Ad	1299	G	O4'-C4'-C3'	-5.29	98.71	104.00
2	Ae	5	U	O4'-C1'-C2'	-5.29	100.51	105.80
84	Aa	143	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	825	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1172	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1800	G	P-O3'-C3'	5.29	126.05	119.70
84	Aa	1860	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2885	U	O4'-C1'-N1	5.29	112.43	108.20
84	Aa	3186	G	O4'-C1'-N9	5.29	112.43	108.20
85	Ac	94	C	N3-C4-N4	5.29	121.70	118.00
3	Af	20	U	N1-C1'-C2'	5.29	120.88	114.00
84	Aa	1177	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1577	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	3166	C	N3-C4-N4	5.29	121.70	118.00
84	Aa	3168	C	N3-C4-N4	5.29	121.70	118.00
85	Ac	22	U	O4'-C1'-N1	5.29	112.43	108.20
86	Ab	5	G	N3-C2-N2	5.29	123.60	119.90
1	Ad	281	U	C5'-C4'-O4'	-5.29	102.75	109.10
1	Ad	1185	U	N1-C1'-C2'	5.29	120.87	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ae	57	A	O4'-C1'-C2'	-5.29	100.51	105.80
84	Aa	1351	C	C2-N3-C4	5.29	122.54	119.90
84	Aa	1438	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	1512	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1928	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	2120	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	2815	A	C5'-C4'-C3'	5.29	124.46	116.00
84	Aa	3270	C	C6-N1-C1'	-5.29	114.45	120.80
84	Aa	3307	A	C5-C6-N1	-5.29	115.06	117.70
85	Ac	153	C	N3-C4-C5	-5.29	119.78	121.90
86	Ab	38	U	C5-C4-O4	-5.29	122.73	125.90
1	Ad	236	U	P-O3'-C3'	5.29	126.05	119.70
84	Aa	177	C	C2-N3-C4	5.29	122.54	119.90
84	Aa	381	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	759	C	N3-C4-N4	5.29	121.70	118.00
84	Aa	1119	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	2104	G	N1-C2-N3	-5.29	120.73	123.90
84	Aa	2316	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	52	G	C5'-C4'-C3'	-5.29	107.54	116.00
84	Aa	149	A	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	407	A	C2'-C3'-O3'	5.29	122.16	113.70
84	Aa	861	A	C5-C6-N1	-5.29	115.06	117.70
84	Aa	885	A	C5-C6-N6	-5.29	119.47	123.70
84	Aa	966	G	O4'-C1'-N9	5.29	112.43	108.20
84	Aa	1360	U	P-O3'-C3'	5.29	126.04	119.70
84	Aa	1726	G	C1'-O4'-C4'	-5.29	105.67	109.90
84	Aa	2449	A	O4'-C1'-N9	5.29	112.43	108.20
85	Ac	139	C	N3-C4-N4	5.29	121.70	118.00
86	Ab	11	A	N3-C4-C5	-5.29	123.10	126.80
1	Ad	1657	C	C5'-C4'-O4'	5.28	115.44	109.10
84	Aa	636	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	664	A	C4-C5-C6	5.28	119.64	117.00
84	Aa	1032	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	2275	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	2323	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	2763	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	3351	A	O4'-C1'-N9	5.28	112.43	108.20
85	Ac	12	A	C4-C5-C6	5.28	119.64	117.00
1	Ad	17	C	N1-C1'-C2'	5.28	120.87	114.00
84	Aa	322	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1341	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	2229	G	O4'-C1'-N9	5.28	112.42	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	3	C	C1'-O4'-C4'	5.28	114.12	109.90
1	Ad	1355	U	C3'-C2'-C1'	5.28	105.72	101.50
84	Aa	97	G	P-O5'-C5'	-5.28	112.45	120.90
84	Aa	737	C	N3-C4-N4	5.28	121.70	118.00
84	Aa	861	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	2214	A	O4'-C1'-N9	5.28	112.42	108.20
84	Aa	2772	A	C5-C6-N6	-5.28	119.47	123.70
84	Aa	3241	C	N3-C4-N4	5.28	121.70	118.00
1	Ad	1311	U	O4'-C1'-C2'	-5.28	100.52	105.80
1	Ad	1478	C	O4'-C1'-C2'	-5.28	100.52	105.80
54	Cr	93	ARG	N-CA-CB	5.28	120.10	110.60
84	Aa	74	G	N3-C2-N2	5.28	123.59	119.90
84	Aa	1173	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	1302	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	30	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	96	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	345	G	O4'-C1'-N9	5.28	112.42	108.20
84	Aa	443	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	1755	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1848	G	C5-C6-O6	-5.28	125.43	128.60
84	Aa	3152	C	N3-C4-C5	-5.28	119.79	121.90
86	Ab	27	A	N7-C8-N9	-5.28	111.16	113.80
1	Ad	843	G	P-O5'-C5'	5.28	129.34	120.90
2	Ae	27	G	C3'-C2'-C1'	-5.28	97.28	101.50
84	Aa	48	A	C5-C6-N6	-5.28	119.48	123.70
84	Aa	397	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1002	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1041	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	1135	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	1591	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	1736	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	2222	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	2560	C	N3-C4-C5	-5.28	119.79	121.90
84	Aa	2718	A	C5-C6-N1	-5.28	115.06	117.70
84	Aa	2778	C	N3-C4-N4	5.28	121.69	118.00
84	Aa	2911	C	N3-C4-N4	5.28	121.69	118.00
1	Ad	73	A	O4'-C1'-C2'	-5.27	100.53	105.80
1	Ad	153	U	N1-C1'-C2'	-5.27	106.20	112.00
1	Ad	238	G	C5'-C4'-O4'	5.27	115.43	109.10
84	Aa	8	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	1213	G	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	1595	G	N3-C2-N2	5.27	123.59	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2492	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2504	A	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	2891	C	C2-N3-C4	5.27	122.54	119.90
86	Ab	103	U	N3-C4-O4	5.27	123.09	119.40
1	Ad	322	U	C3'-C2'-C1'	5.27	105.72	101.50
1	Ad	1808	U	C3'-C2'-C1'	5.27	105.72	101.50
51	CX	50	LYS	N-CA-CB	5.27	120.09	110.60
84	Aa	684	C	C2-N3-C4	5.27	122.54	119.90
84	Aa	896	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	948	C	N3-C4-N4	5.27	121.69	118.00
84	Aa	1014	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	1097	A	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	1908	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2202	A	C5-C6-N6	-5.27	119.48	123.70
84	Aa	2434	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	3151	C	O4'-C1'-N1	5.27	112.42	108.20
84	Aa	3308	A	C5-C6-N1	-5.27	115.06	117.70
84	Aa	810	A	C5-C6-N1	-5.27	115.06	117.70
84	Aa	2324	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	2688	G	C5-C6-O6	-5.27	125.44	128.60
84	Aa	3362	A	C5-C6-N6	-5.27	119.48	123.70
1	Ad	18	C	O4'-C1'-N1	5.27	112.42	108.20
1	Ad	1038	C	C3'-C2'-C1'	5.27	105.72	101.50
1	Ad	1763	A	N9-C1'-C2'	-5.27	106.20	112.00
84	Aa	1518	A	C5-C6-N6	-5.27	119.48	123.70
84	Aa	2225	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	2966	G	O4'-C1'-N9	5.27	112.42	108.20
84	Aa	3115	A	C5-C6-N1	-5.27	115.06	117.70
86	Ab	99	G	N3-C2-N2	5.27	123.59	119.90
84	Aa	1358	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	1399	C	N3-C4-N4	5.27	121.69	118.00
85	Ac	128	C	N3-C4-N4	5.27	121.69	118.00
85	Ac	148	C	N3-C4-C5	-5.27	119.79	121.90
1	Ad	646	G	O4'-C1'-N9	5.27	112.41	108.20
84	Aa	220	G	O4'-C1'-N9	5.27	112.41	108.20
84	Aa	1675	G	C3'-C2'-C1'	-5.27	97.29	101.50
84	Aa	2660	A	C4-C5-C6	5.27	119.63	117.00
85	Ac	160	C	N3-C4-C5	-5.27	119.79	121.90
84	Aa	327	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1219	C	N3-C4-C5	-5.26	119.79	121.90
84	Aa	1373	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1468	A	C5-C6-N1	-5.26	115.07	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2765	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	3147	G	N3-C2-N2	5.26	123.58	119.90
86	Ab	29	C	N3-C4-N4	5.26	121.69	118.00
1	Ad	1086	A	C3'-C2'-C1'	5.26	105.71	101.50
28	BA	108	THR	N-CA-CB	5.26	120.30	110.30
84	Aa	1088	A	C4-C5-C6	5.26	119.63	117.00
86	Ab	39	C	N3-C4-N4	5.26	121.68	118.00
34	BC	39	THR	N-CA-CB	5.26	120.30	110.30
84	Aa	197	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	250	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	529	C	C6-N1-C2	-5.26	118.20	120.30
84	Aa	1507	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	2985	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	3316	C	N3-C4-C5	-5.26	119.80	121.90
85	Ac	94	C	N3-C4-C5	-5.26	119.80	121.90
1	Ad	388	G	N9-C1'-C2'	5.26	120.84	114.00
1	Ad	1065	A	C3'-C2'-C1'	-5.26	97.29	101.50
65	CK	95	LYS	C-N-CA	5.26	134.85	121.70
84	Aa	165	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	424	G	N3-C2-N2	5.26	123.58	119.90
84	Aa	764	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	1682	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	2075	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	2943	A	C5-C6-N1	-5.26	115.07	117.70
86	Ab	87	G	C6-C5-N7	-5.26	127.24	130.40
1	Ad	877	G	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	48	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	2275	A	C5-C6-N1	-5.26	115.07	117.70
1	Ad	230	C	O4'-C1'-C2'	-5.26	100.54	105.80
1	Ad	1314	U	O4'-C4'-C3'	-5.26	98.74	104.00
37	CG	47	PHE	CB-CG-CD2	-5.26	117.12	120.80
45	CN	4	TYR	CB-CG-CD2	5.26	124.15	121.00
84	Aa	392	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	594	C	C2-N3-C4	5.26	122.53	119.90
84	Aa	724	A	C5'-C4'-C3'	5.26	124.41	116.00
84	Aa	840	A	C4-C5-C6	5.26	119.63	117.00
84	Aa	1301	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	1707	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	1874	A	C5-C6-N1	-5.26	115.07	117.70
84	Aa	1900	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	2362	A	O4'-C1'-N9	5.26	112.41	108.20
84	Aa	2398	A	C4-C5-C6	5.26	119.63	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2868	C	P-O3'-C3'	5.26	126.01	119.70
84	Aa	3151	C	N3-C4-C5	-5.26	119.80	121.90
84	Aa	3170	C	N3-C4-N4	5.26	121.68	118.00
84	Aa	3312	G	O4'-C1'-N9	5.26	112.41	108.20
1	Ad	439	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	165	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	344	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	2173	G	C8-N9-C1'	5.25	133.83	127.00
84	Aa	3268	C	N3-C4-C5	-5.25	119.80	121.90
1	Ad	1693	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	318	G	N3-C2-N2	5.25	123.58	119.90
84	Aa	697	A	C4-C5-C6	5.25	119.63	117.00
84	Aa	2544	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	3067	G	C5'-C4'-O4'	5.25	115.40	109.10
84	Aa	3096	U	O4'-C1'-N1	5.25	112.40	108.20
1	Ad	831	C	O4'-C1'-C2'	-5.25	100.55	105.80
1	Ad	1448	U	C3'-C2'-C1'	5.25	105.70	101.50
1	Ad	1517	C	N1-C1'-C2'	5.25	120.83	114.00
84	Aa	113	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	585	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	686	A	C5-C6-N1	-5.25	115.07	117.70
84	Aa	774	A	C4-C5-C6	5.25	119.62	117.00
84	Aa	1655	G	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	2023	C	N3-C4-N4	5.25	121.68	118.00
84	Aa	2182	G	P-O3'-C3'	5.25	126.00	119.70
84	Aa	2197	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	3071	A	C5-C6-N6	-5.25	119.50	123.70
84	Aa	3171	C	C6-N1-C1'	-5.25	114.50	120.80
85	Ac	116	G	C5-C6-O6	-5.25	125.45	128.60
1	Ad	974	C	C3'-C2'-C1'	5.25	105.70	101.50
84	Aa	1499	C	C6-N1-C2	-5.25	118.20	120.30
84	Aa	3006	G	O4'-C1'-N9	5.25	112.40	108.20
72	CC	90	ARG	N-CA-CB	5.25	120.05	110.60
84	Aa	382	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	1291	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	1607	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2113	A	C5-C6-N6	-5.25	119.50	123.70
84	Aa	2414	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2642	G	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	3356	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	3374	C	N3-C4-N4	5.25	121.67	118.00
1	Ad	1188	A	C1'-O4'-C4'	5.25	114.10	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	124	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	340	A	C4-C5-C6	5.25	119.62	117.00
84	Aa	1316	C	C2-N1-C1'	5.25	124.57	118.80
84	Aa	1704	A	O4'-C1'-N9	5.25	112.40	108.20
84	Aa	1733	G	C5-C6-O6	-5.25	125.45	128.60
84	Aa	2248	G	O4'-C1'-N9	5.25	112.40	108.20
1	Ad	1806	C	C5'-C4'-O4'	5.25	115.39	109.10
2	Ae	58	U	P-O5'-C5'	5.25	129.29	120.90
53	CY	73	TYR	CB-CG-CD1	-5.25	117.85	121.00
84	Aa	82	C	N3-C4-C5	-5.25	119.80	121.90
84	Aa	119	A	C5-C6-N1	-5.25	115.08	117.70
84	Aa	620	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	964	C	N3-C4-N4	5.25	121.67	118.00
84	Aa	2574	A	C5-C6-N1	-5.25	115.08	117.70
86	Ab	104	C	C5-C4-N4	-5.25	116.53	120.20
1	Ad	25	C	C1'-O4'-C4'	-5.24	105.70	109.90
1	Ad	104	A	O4'-C1'-C2'	-5.24	100.56	105.80
2	Ae	44	A	C1'-O4'-C4'	5.24	114.09	109.90
84	Aa	1196	U	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	1391	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	1587	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	3109	G	N3-C2-N2	5.24	123.57	119.90
1	Ad	927	A	C4'-C3'-C2'	-5.24	97.36	102.60
1	Ad	1263	C	P-O3'-C3'	5.24	125.99	119.70
1	Ad	1410	C	C3'-C2'-C1'	5.24	105.69	101.50
1	Ad	1627	C	N1-C1'-C2'	5.24	120.81	114.00
84	Aa	72	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	458	G	C5-C6-O6	-5.24	125.45	128.60
84	Aa	497	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	962	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	968	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	1421	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	1550	A	C5-C6-N1	-5.24	115.08	117.70
15	BU	11	PRO	C-N-CA	5.24	134.80	121.70
84	Aa	585	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	678	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	1047	C	N3-C4-C5	-5.24	119.80	121.90
84	Aa	1052	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	3290	C	N3-C4-N4	5.24	121.67	118.00
1	Ad	269	A	C3'-C2'-C1'	-5.24	97.31	101.50
1	Ad	560	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	12	G	N1-C6-O6	5.24	123.04	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	353	A	C4-C5-C6	5.24	119.62	117.00
84	Aa	426	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	486	G	N3-C2-N2	5.24	123.57	119.90
84	Aa	2648	G	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	2931	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	3061	C	N3-C4-N4	5.24	121.67	118.00
72	CC	110	LYS	N-CA-CB	5.24	120.03	110.60
84	Aa	2277	U	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	2362	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	2531	G	C5-C6-O6	-5.24	125.46	128.60
84	Aa	2958	A	C4-C5-C6	5.24	119.62	117.00
1	Ad	138	C	O4'-C1'-N1	5.24	112.39	108.20
1	Ad	700	C	O4'-C1'-N1	5.24	112.39	108.20
84	Aa	464	G	P-O3'-C3'	5.24	125.98	119.70
84	Aa	693	C	N3-C4-N4	5.24	121.67	118.00
84	Aa	962	C	N3-C4-C5	-5.24	119.81	121.90
84	Aa	1568	A	O4'-C1'-N9	5.24	112.39	108.20
84	Aa	1697	G	N3-C2-N2	5.24	123.56	119.90
84	Aa	2133	A	C5-C6-N6	-5.24	119.51	123.70
84	Aa	2496	U	C2'-C3'-O3'	5.24	122.08	113.70
84	Aa	2874	A	C5-C6-N1	-5.24	115.08	117.70
84	Aa	3047	A	C4-C5-C6	5.24	119.62	117.00
85	Ac	36	G	O4'-C1'-N9	5.24	112.39	108.20
86	Ab	120	C	N1-C2-O2	5.24	122.04	118.90
1	Ad	401	A	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	2227	A	C5-C6-N1	-5.23	115.08	117.70
1	Ad	991	G	C4'-C3'-C2'	-5.23	97.37	102.60
1	Ad	1210	U	P-O3'-C3'	5.23	125.98	119.70
37	CG	222	PHE	CB-CG-CD2	5.23	124.46	120.80
69	CF	77	PHE	CB-CG-CD2	-5.23	117.14	120.80
84	Aa	142	G	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	527	G	O4'-C1'-N9	5.23	112.39	108.20
84	Aa	1874	A	C5-C6-N6	-5.23	119.51	123.70
84	Aa	1883	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	1958	G	N9-C1'-C2'	-5.23	106.25	112.00
84	Aa	2498	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	2597	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2695	A	C5-C6-N1	-5.23	115.08	117.70
1	Ad	776	A	C1'-O4'-C4'	5.23	114.08	109.90
1	Ad	1676	G	O4'-C1'-N9	5.23	112.39	108.20
7	BM	117	GLU	N-CA-CB	5.23	120.01	110.60
64	Ci	95	SER	N-CA-C	-5.23	96.88	111.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	965	A	C4-C5-C6	5.23	119.62	117.00
1	Ad	1494	G	P-O3'-C3'	5.23	125.97	119.70
84	Aa	38	A	C4-C5-C6	5.23	119.61	117.00
84	Aa	1905	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	2247	A	C5-C6-N1	-5.23	115.08	117.70
84	Aa	3190	U	C6-N1-C1'	-5.23	113.88	121.20
1	Ad	1256	C	O4'-C1'-N1	5.23	112.38	108.20
84	Aa	326	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	562	G	O4'-C1'-N9	5.23	112.38	108.20
84	Aa	1139	A	C5-C6-N6	-5.23	119.52	123.70
84	Aa	1423	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2007	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	2429	A	C5-C6-N6	-5.23	119.52	123.70
1	Ad	100	C	N1-C1'-C2'	-5.23	106.25	112.00
84	Aa	512	G	N1-C2-N3	-5.23	120.76	123.90
84	Aa	1179	C	N3-C4-C5	-5.23	119.81	121.90
84	Aa	1458	U	O4'-C1'-N1	5.23	112.38	108.20
84	Aa	1744	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	2262	C	N3-C4-N4	5.23	121.66	118.00
84	Aa	3374	C	N3-C4-C5	-5.23	119.81	121.90
86	Ab	74	A	P-O3'-C3'	5.23	125.97	119.70
84	Aa	967	G	C5'-C4'-C3'	-5.22	107.64	116.00
84	Aa	1007	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1440	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	1615	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	1795	A	C5-C6-N6	-5.22	119.52	123.70
84	Aa	2209	A	C4-C5-C6	5.22	119.61	117.00
84	Aa	2565	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	3307	A	C4-C5-C6	5.22	119.61	117.00
86	Ab	29	C	C2'-C3'-O3'	5.22	122.06	113.70
1	Ad	420	A	O4'-C1'-N9	5.22	112.38	108.20
1	Ad	545	A	P-O5'-C5'	-5.22	112.54	120.90
1	Ad	649	C	O4'-C1'-N1	5.22	112.38	108.20
1	Ad	1672	U	N1-C1'-C2'	5.22	120.79	114.00
84	Aa	510	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	750	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	979	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	1258	C	P-O5'-C5'	-5.22	112.55	120.90
84	Aa	1376	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1408	C	N3-C4-N4	5.22	121.66	118.00
84	Aa	2590	C	N3-C4-C5	-5.22	119.81	121.90
1	Ad	906	G	O4'-C1'-C2'	5.22	112.30	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1594	A	C5'-C4'-O4'	5.22	115.36	109.10
84	Aa	981	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1571	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	1880	A	C5-C6-N6	-5.22	119.52	123.70
84	Aa	1950	G	O3'-P-O5'	5.22	113.92	104.00
84	Aa	2473	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	3334	A	C4-C5-C6	5.22	119.61	117.00
1	Ad	162	A	O4'-C1'-C2'	5.22	112.30	107.60
1	Ad	521	U	C4'-C3'-C2'	-5.22	97.38	102.60
1	Ad	534	C	O4'-C1'-N1	5.22	112.38	108.20
3	Af	16	G	C4'-C3'-C2'	-5.22	97.38	102.60
69	CF	110	LEU	N-CA-C	-5.22	96.91	111.00
84	Aa	721	A	P-O5'-C5'	5.22	129.25	120.90
84	Aa	1010	A	O4'-C1'-N9	5.22	112.38	108.20
84	Aa	1737	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	2953	G	C5-C6-O6	-5.22	125.47	128.60
1	Ad	1184	C	P-O3'-C3'	5.22	125.96	119.70
84	Aa	791	C	N3-C4-N4	5.22	121.65	118.00
84	Aa	1578	U	O4'-C1'-N1	5.22	112.38	108.20
84	Aa	5	G	N3-C2-N2	5.22	123.55	119.90
84	Aa	565	C	C4'-C3'-C2'	-5.22	97.38	102.60
84	Aa	597	C	N3-C4-C5	-5.22	119.81	121.90
84	Aa	1395	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	1407	G	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	1759	C	N3-C4-N4	5.22	121.65	118.00
84	Aa	2216	G	C6-C5-N7	-5.22	127.27	130.40
84	Aa	2233	G	C5-C6-O6	-5.22	125.47	128.60
84	Aa	2291	A	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	2362	A	C5-C6-N1	-5.22	115.09	117.70
84	Aa	2865	G	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	2902	A	O4'-C1'-N9	5.22	112.37	108.20
84	Aa	424	G	C6-C5-N7	-5.21	127.27	130.40
84	Aa	454	A	P-O5'-C5'	5.21	129.24	120.90
84	Aa	1507	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	1566	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2178	G	N9-C1'-C2'	-5.21	106.26	112.00
84	Aa	2524	U	C4'-C3'-C2'	-5.21	97.39	102.60
84	Aa	2641	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	3195	C	N3-C4-C5	-5.21	119.81	121.90
84	Aa	1581	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2707	A	C5-C6-N6	-5.21	119.53	123.70
84	Aa	3124	A	C5-C6-N1	-5.21	115.09	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	716	A	O3'-P-O5'	5.21	113.90	104.00
1	Ad	1035	A	O4'-C1'-C2'	-5.21	100.59	105.80
1	Ad	1167	C	O4'-C1'-N1	5.21	112.37	108.20
18	BN	129	TYR	CB-CG-CD2	-5.21	117.87	121.00
30	BB	188	PHE	CB-CG-CD2	-5.21	117.15	120.80
84	Aa	237	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	964	C	N3-C4-C5	-5.21	119.82	121.90
84	Aa	1720	C	N3-C4-C5	-5.21	119.81	121.90
84	Aa	2086	A	O3'-P-O5'	5.21	113.90	104.00
84	Aa	2207	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	2546	C	N3-C4-C5	-5.21	119.82	121.90
2	Ae	37	G	O4'-C1'-C2'	5.21	112.29	107.60
40	Cz	167	ALA	N-CA-CB	5.21	117.39	110.10
84	Aa	851	A	C5-C6-N1	-5.21	115.09	117.70
84	Aa	2107	A	C5-C6-N1	-5.21	115.09	117.70
86	Ab	53	U	C5-C6-N1	5.21	125.31	122.70
1	Ad	269	A	P-O5'-C5'	5.21	129.23	120.90
1	Ad	839	G	N9-C1'-C2'	5.21	120.77	114.00
1	Ad	857	A	O4'-C1'-N9	5.21	112.37	108.20
1	Ad	1624	G	C1'-O4'-C4'	-5.21	105.73	109.90
84	Aa	128	C	C2-N3-C4	5.21	122.50	119.90
84	Aa	140	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	795	C	N3-C4-N4	5.21	121.65	118.00
84	Aa	1007	A	C5-C6-N6	-5.21	119.53	123.70
84	Aa	1305	A	C5-C6-N1	-5.21	115.10	117.70
84	Aa	1599	A	P-O5'-C5'	-5.21	112.57	120.90
84	Aa	2286	A	C5'-C4'-C3'	5.21	124.33	116.00
84	Aa	2373	C	N3-C4-C5	-5.21	119.82	121.90
84	Aa	3349	C	N3-C4-N4	5.21	121.65	118.00
85	Ac	80	A	C5-C6-N6	-5.21	119.53	123.70
1	Ad	983	A	O4'-C1'-N9	5.21	112.36	108.20
1	Ad	1442	A	C5'-C4'-O4'	5.21	115.35	109.10
1	Ad	1492	G	C3'-C2'-C1'	-5.21	97.33	101.50
49	CR	159	PHE	CB-CG-CD1	5.21	124.44	120.80
84	Aa	386	G	O4'-C1'-N9	5.21	112.36	108.20
84	Aa	1457	A	C4-C5-C6	5.21	119.60	117.00
84	Aa	1537	A	C5-C6-N6	-5.21	119.53	123.70
2	Ae	21	A	P-O5'-C5'	5.21	129.23	120.90
19	BL	54	TYR	CB-CG-CD2	-5.21	117.88	121.00
84	Aa	189	C	N3-C4-N4	5.21	121.64	118.00
84	Aa	1491	G	O4'-C1'-N9	5.21	112.36	108.20
84	Aa	3217	G	C5-C6-O6	-5.21	125.48	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	329	G	P-O3'-C3'	5.20	125.94	119.70
1	Ad	547	C	C4'-C3'-C2'	-5.20	97.40	102.60
1	Ad	933	G	O4'-C1'-N9	5.20	112.36	108.20
1	Ad	1609	G	O4'-C1'-C2'	5.20	112.28	107.60
84	Aa	1020	U	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	1359	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	1599	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	2344	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	3116	C	N3-C4-N4	5.20	121.64	118.00
84	Aa	3297	A	C5-C6-N6	-5.20	119.54	123.70
85	Ac	123	G	N3-C2-N2	5.20	123.54	119.90
64	Ci	42	PHE	N-CA-CB	5.20	119.96	110.60
84	Aa	2446	G	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2786	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	2916	G	O4'-C1'-N9	5.20	112.36	108.20
85	Ac	108	C	C2-N3-C4	5.20	122.50	119.90
1	Ad	823	A	N9-C1'-C2'	5.20	120.76	114.00
1	Ad	1071	C	C5'-C4'-O4'	5.20	115.34	109.10
84	Aa	383	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	739	C	N3-C4-C5	-5.20	119.82	121.90
84	Aa	1330	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	2047	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2646	A	C4-C5-C6	5.20	119.60	117.00
1	Ad	489	C	O4'-C1'-C2'	-5.20	100.60	105.80
1	Ad	578	G	C3'-C2'-C1'	-5.20	97.34	101.50
1	Ad	1110	C	C1'-O4'-C4'	-5.20	105.74	109.90
84	Aa	1179	C	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	1369	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	1859	G	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2635	G	N3-C2-N2	5.20	123.54	119.90
84	Aa	2665	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	2736	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2761	A	C5-C6-N1	-5.20	115.10	117.70
1	Ad	1698	A	N9-C1'-C2'	5.20	120.76	114.00
63	CU	87	TYR	CB-CG-CD1	5.20	124.12	121.00
84	Aa	1199	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	1736	C	N3-C4-N4	5.20	121.64	118.00
84	Aa	2093	G	N1-C2-N3	-5.20	120.78	123.90
84	Aa	2794	A	C5-C6-N6	-5.20	119.54	123.70
84	Aa	3125	G	O4'-C1'-N9	5.20	112.36	108.20
85	Ac	72	A	C5'-C4'-O4'	5.20	115.34	109.10
1	Ad	82	G	O4'-C1'-C2'	5.20	112.28	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	700	C	N1-C1'-C2'	5.20	120.75	114.00
1	Ad	1645	C	C5'-C4'-O4'	5.20	115.33	109.10
1	Ad	1771	U	C4'-C3'-C2'	5.20	107.80	102.60
84	Aa	609	C	C5'-C4'-O4'	5.20	115.34	109.10
84	Aa	1809	A	C5-C6-N1	-5.20	115.10	117.70
84	Aa	2131	U	O4'-C1'-N1	5.20	112.36	108.20
84	Aa	2251	A	O4'-C1'-N9	5.20	112.36	108.20
84	Aa	2715	U	C5'-C4'-C3'	-5.20	107.69	116.00
1	Ad	1147	A	O4'-C1'-N9	5.19	112.36	108.20
84	Aa	774	A	O4'-C1'-N9	5.19	112.36	108.20
84	Aa	811	A	C4-C5-C6	5.19	119.60	117.00
84	Aa	1261	C	P-O5'-C5'	5.19	129.21	120.90
84	Aa	3381	C	N3-C4-C5	-5.19	119.82	121.90
85	Ac	138	G	C5-C6-O6	-5.19	125.48	128.60
35	BG	159	VAL	C-N-CA	5.19	134.68	121.70
84	Aa	2179	U	C5'-C4'-O4'	5.19	115.33	109.10
84	Aa	2283	G	O4'-C1'-N9	5.19	112.35	108.20
86	Ab	69	A	C6-C5-N7	-5.19	128.66	132.30
1	Ad	581	G	C1'-O4'-C4'	-5.19	105.75	109.90
1	Ad	982	A	O4'-C1'-N9	5.19	112.35	108.20
2	Ae	60	C	O4'-C1'-N1	5.19	112.35	108.20
84	Aa	395	A	C4-C5-C6	5.19	119.60	117.00
84	Aa	653	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	878	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	929	A	C5-C6-N1	-5.19	115.11	117.70
84	Aa	1379	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	2142	A	C5-C6-N1	-5.19	115.10	117.70
84	Aa	2316	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	3148	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3354	A	C4-C5-C6	5.19	119.59	117.00
86	Ab	70	G	C4-C5-C6	5.19	121.92	118.80
86	Ab	89	G	C5-C6-O6	-5.19	125.49	128.60
84	Aa	567	G	C6-C5-N7	-5.19	127.29	130.40
84	Aa	1115	A	C5-C6-N6	-5.19	119.55	123.70
84	Aa	1327	G	C5-C6-O6	-5.19	125.49	128.60
84	Aa	1847	G	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3299	A	C5-C6-N6	-5.19	119.55	123.70
1	Ad	1001	C	O4'-C1'-C2'	-5.19	100.61	105.80
1	Ad	1097	A	N9-C1'-C2'	5.19	120.74	114.00
70	Cq	14	TYR	CB-CG-CD2	-5.19	117.89	121.00
82	Cb	25	LYS	N-CA-CB	5.19	119.94	110.60
84	Aa	94	A	C5-C6-N6	-5.19	119.55	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	827	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	1284	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	1594	G	N3-C2-N2	5.19	123.53	119.90
84	Aa	1793	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	2677	A	O4'-C1'-N9	5.19	112.35	108.20
85	Ac	13	A	C5-C6-N6	-5.19	119.55	123.70
85	Ac	61	A	C5-C6-N6	-5.19	119.55	123.70
86	Ab	44	C	P-O5'-C5'	-5.19	112.60	120.90
1	Ad	72	A	C3'-C2'-C1'	5.19	105.65	101.50
1	Ad	428	C	C1'-O4'-C4'	-5.19	105.75	109.90
84	Aa	435	G	N1-C6-O6	5.19	123.01	119.90
84	Aa	547	C	N3-C4-N4	5.19	121.63	118.00
84	Aa	2203	A	C5-C6-N1	-5.19	115.11	117.70
84	Aa	2210	A	O4'-C1'-N9	5.19	112.35	108.20
84	Aa	3327	A	C5-C6-N1	-5.19	115.11	117.70
85	Ac	3	A	C4-C5-C6	5.19	119.59	117.00
1	Ad	813	A	C1'-O4'-C4'	5.18	114.05	109.90
1	Ad	965	U	P-O5'-C5'	-5.18	112.60	120.90
1	Ad	1137	A	O4'-C1'-N9	5.18	112.35	108.20
84	Aa	1293	C	C2-N3-C4	5.18	122.49	119.90
84	Aa	2707	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	2744	C	N3-C4-C5	-5.18	119.83	121.90
86	Ab	75	G	C5'-C4'-O4'	5.18	115.32	109.10
1	Ad	874	A	O4'-C1'-C2'	-5.18	100.62	105.80
1	Ad	1556	U	C1'-O4'-C4'	5.18	114.05	109.90
30	BB	188	PHE	CB-CG-CD1	5.18	124.43	120.80
84	Aa	23	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	334	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	899	A	C5-C6-N6	-5.18	119.55	123.70
84	Aa	1244	A	O4'-C1'-N9	5.18	112.35	108.20
84	Aa	1397	A	C5-C6-N6	-5.18	119.55	123.70
84	Aa	1787	C	N3-C4-N4	5.18	121.63	118.00
84	Aa	1965	C	N3-C4-C5	-5.18	119.83	121.90
84	Aa	2529	C	C2-N3-C4	5.18	122.49	119.90
84	Aa	2625	C	N3-C4-C5	-5.18	119.83	121.90
84	Aa	2900	G	N1-C6-O6	5.18	123.01	119.90
84	Aa	3124	A	O4'-C1'-N9	5.18	112.35	108.20
85	Ac	92	A	C5-C6-N6	-5.18	119.55	123.70
85	Ac	137	G	C5-C6-O6	-5.18	125.49	128.60
84	Aa	1137	G	C5-C6-O6	-5.18	125.49	128.60
84	Aa	1584	A	C5-C6-N6	-5.18	119.56	123.70
1	Ad	517	U	C5'-C4'-O4'	5.18	115.32	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1538	C	C1'-O4'-C4'	5.18	114.04	109.90
1	Ad	1584	A	O4'-C1'-C2'	-5.18	100.62	105.80
84	Aa	789	A	C4-C5-C6	5.18	119.59	117.00
84	Aa	804	A	C5-C6-N6	-5.18	119.56	123.70
84	Aa	871	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	1282	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	1356	G	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1926	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	2193	A	C5-C6-N1	-5.18	115.11	117.70
85	Ac	80	A	O4'-C1'-N9	5.18	112.34	108.20
85	Ac	125	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	227	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	1030	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1850	C	C2-N3-C4	5.18	122.49	119.90
1	Ad	177	C	O4'-C1'-C2'	-5.18	100.62	105.80
1	Ad	260	A	N9-C1'-C2'	5.18	120.73	114.00
1	Ad	1538	C	P-O5'-C5'	5.18	129.18	120.90
1	Ad	1699	C	O4'-C1'-N1	5.18	112.34	108.20
2	Ae	56	A	C3'-C2'-C1'	5.18	105.64	101.50
78	CL	66	ASN	N-CA-CB	5.18	119.92	110.60
84	Aa	149	A	C5-C6-N1	-5.18	115.11	117.70
84	Aa	672	A	O4'-C1'-N9	5.18	112.34	108.20
84	Aa	1513	C	N3-C4-N4	5.18	121.62	118.00
84	Aa	2388	C	C5'-C4'-C3'	5.18	124.28	116.00
84	Aa	2649	C	N3-C4-C5	-5.18	119.83	121.90
1	Ad	511	U	C1'-O4'-C4'	5.17	114.04	109.90
84	Aa	382	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	1140	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	2179	U	C4'-C3'-O3'	-5.17	98.53	109.40
84	Aa	2280	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	2356	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3367	C	N3-C4-C5	-5.17	119.83	121.90
86	Ab	78	C	O4'-C1'-N1	5.17	112.34	108.20
1	Ad	409	C	O4'-C1'-N1	5.17	112.34	108.20
1	Ad	774	C	C3'-C2'-C1'	5.17	105.64	101.50
1	Ad	961	U	C3'-C2'-C1'	5.17	105.64	101.50
84	Aa	67	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	813	A	C5-C6-N6	-5.17	119.56	123.70
1	Ad	29	U	C1'-O4'-C4'	5.17	114.04	109.90
84	Aa	1654	C	O4'-C1'-N1	5.17	112.34	108.20
84	Aa	1898	G	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	2770	U	C5'-C4'-C3'	-5.17	107.73	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2869	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	3099	G	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3123	A	C5-C6-N6	-5.17	119.56	123.70
1	Ad	1808	U	O4'-C1'-C2'	-5.17	100.63	105.80
22	BZ	18	SER	N-CA-CB	5.17	118.25	110.50
84	Aa	1482	C	N3-C4-N4	5.17	121.62	118.00
84	Aa	2401	A	O4'-C1'-N9	5.17	112.34	108.20
84	Aa	3196	C	N3-C4-N4	5.17	121.62	118.00
1	Ad	222	G	OP1-P-OP2	-5.17	111.85	119.60
1	Ad	576	C	C3'-C2'-C1'	5.17	105.64	101.50
1	Ad	1497	U	C5'-C4'-O4'	5.17	115.30	109.10
1	Ad	1798	G	C5'-C4'-O4'	5.17	115.30	109.10
84	Aa	565	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	630	C	N3-C4-C5	-5.17	119.83	121.90
84	Aa	655	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	1230	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	2013	G	C5'-C4'-O4'	5.17	115.30	109.10
84	Aa	2541	A	C4-C5-C6	5.17	119.58	117.00
84	Aa	2674	A	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	2815	A	C5-C6-N6	-5.17	119.56	123.70
84	Aa	2869	C	C2-N3-C4	5.17	122.48	119.90
84	Aa	3048	C	N3-C4-N4	5.17	121.62	118.00
86	Ab	56	G	C6-C5-N7	-5.17	127.30	130.40
86	Ab	82	G	N1-C6-O6	5.17	123.00	119.90
1	Ad	1793	C	O4'-C1'-N1	5.17	112.33	108.20
11	BD	120	TYR	CB-CG-CD1	-5.17	117.90	121.00
84	Aa	1334	A	C4-C5-C6	5.17	119.58	117.00
84	Aa	2304	A	C5-C6-N6	-5.17	119.57	123.70
84	Aa	2699	A	C5-C6-N1	-5.17	115.12	117.70
84	Aa	2841	G	O4'-C1'-N9	5.17	112.33	108.20
84	Aa	3220	A	O4'-C1'-N9	5.17	112.33	108.20
85	Ac	135	A	C5-C6-N6	-5.17	119.57	123.70
1	Ad	231	U	N1-C1'-C2'	5.17	120.72	114.00
1	Ad	265	A	C4'-C3'-C2'	-5.17	97.44	102.60
1	Ad	473	C	C3'-C2'-C1'	5.17	105.63	101.50
84	Aa	105	A	C4-C5-C6	5.17	119.58	117.00
85	Ac	129	C	C6-N1-C2	-5.17	118.23	120.30
1	Ad	1191	U	N1-C1'-C2'	5.16	120.71	114.00
1	Ad	1280	U	O4'-C1'-C2'	-5.16	100.64	105.80
84	Aa	236	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	282	A	O5'-C5'-C4'	5.16	121.51	111.70
84	Aa	724	A	C4-C5-C6	5.16	119.58	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1506	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	3221	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	3333	C	N3-C4-N4	5.16	121.61	118.00
86	Ab	50	A	N1-C2-N3	5.16	131.88	129.30
84	Aa	101	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	263	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	638	G	P-O5'-C5'	5.16	129.16	120.90
84	Aa	299	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1469	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	2270	A	C5-C6-N6	-5.16	119.57	123.70
84	Aa	3094	C	N3-C4-C5	-5.16	119.84	121.90
1	Ad	451	U	N1-C1'-C2'	5.16	120.70	114.00
1	Ad	485	A	N9-C1'-C2'	5.16	120.71	114.00
1	Ad	1326	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	94	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	519	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	1395	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1424	G	N3-C2-N2	5.16	123.51	119.90
84	Aa	2288	C	N3-C4-N4	5.16	121.61	118.00
84	Aa	3321	C	P-O3'-C3'	5.16	125.89	119.70
84	Aa	2709	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	3332	G	P-O3'-C3'	5.16	125.89	119.70
1	Ad	758	A	C1'-O4'-C4'	-5.16	105.78	109.90
84	Aa	294	A	C5-C6-N1	-5.16	115.12	117.70
84	Aa	1092	G	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	1140	C	N3-C4-C5	-5.16	119.84	121.90
84	Aa	1585	A	C4-C5-C6	5.16	119.58	117.00
84	Aa	1638	U	O4'-C1'-N1	5.16	112.32	108.20
84	Aa	1907	A	O4'-C1'-N9	5.16	112.33	108.20
84	Aa	2754	G	O4'-C1'-N9	5.16	112.32	108.20
84	Aa	2868	C	N3-C4-C5	-5.16	119.84	121.90
86	Ab	48	G	C2-N3-C4	-5.16	109.32	111.90
84	Aa	832	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	1450	G	C4-C5-C6	5.15	121.89	118.80
84	Aa	350	A	C5-C6-N1	-5.15	115.12	117.70
84	Aa	771	G	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	1731	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	1913	C	N3-C4-N4	5.15	121.61	118.00
84	Aa	2282	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	3279	G	O4'-C1'-N9	5.15	112.32	108.20
85	Ac	6	C	N3-C4-C5	-5.15	119.84	121.90
85	Ac	41	A	C4-C5-C6	5.15	119.58	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	938	A	O4'-C1'-C2'	5.15	112.24	107.60
1	Ad	1626	C	O4'-C1'-C2'	-5.15	100.65	105.80
84	Aa	1256	A	C5-C6-N1	-5.15	115.12	117.70
84	Aa	2386	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	3127	C	N3-C4-N4	5.15	121.61	118.00
85	Ac	77	A	C5-C6-N6	-5.15	119.58	123.70
85	Ac	99	C	N3-C4-C5	-5.15	119.84	121.90
84	Aa	311	G	C5-C6-O6	-5.15	125.51	128.60
84	Aa	1560	A	C5'-C4'-O4'	5.15	115.28	109.10
84	Aa	1894	G	C5-C6-O6	-5.15	125.51	128.60
85	Ac	132	C	N3-C4-N4	5.15	121.61	118.00
1	Ad	506	G	C1'-O4'-C4'	-5.15	105.78	109.90
1	Ad	593	C	C3'-C2'-C1'	5.15	105.62	101.50
2	Ae	61	C	O4'-C1'-N1	5.15	112.32	108.20
84	Aa	11	A	C4-C5-C6	5.15	119.57	117.00
84	Aa	1224	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	1401	C	C2-N3-C4	5.15	122.47	119.90
84	Aa	1435	C	N3-C4-N4	5.15	121.60	118.00
84	Aa	1660	C	N3-C4-N4	5.15	121.60	118.00
84	Aa	1771	G	N3-C2-N2	5.15	123.50	119.90
84	Aa	1998	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	2125	A	C5-C6-N6	-5.15	119.58	123.70
84	Aa	2251	A	C5-C6-N1	-5.15	115.13	117.70
84	Aa	2374	G	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	2849	A	O4'-C1'-N9	5.15	112.32	108.20
42	CJ	63	ARG	N-CA-CB	5.15	119.86	110.60
84	Aa	1019	A	O4'-C1'-N9	5.15	112.32	108.20
84	Aa	2290	A	C5-C6-N6	-5.15	119.58	123.70
1	Ad	8	U	O4'-C1'-C2'	-5.14	100.66	105.80
1	Ad	1548	G	C3'-C2'-C1'	-5.14	97.38	101.50
1	Ad	1716	C	N1-C1'-C2'	5.14	120.69	114.00
84	Aa	660	A	C5-C6-N6	-5.14	119.58	123.70
84	Aa	873	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	2235	G	N3-C2-N2	5.14	123.50	119.90
84	Aa	3172	G	C4-N9-C1'	5.14	133.19	126.50
84	Aa	3209	U	O4'-C1'-N1	5.14	112.31	108.20
86	Ab	26	C	N3-C4-N4	5.14	121.60	118.00
2	Ae	58	U	N1-C1'-C2'	-5.14	106.34	112.00
71	CB	2	SER	N-CA-C	-5.14	97.11	111.00
84	Aa	396	G	O4'-C1'-N9	5.14	112.31	108.20
84	Aa	955	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	1083	C	N3-C4-C5	-5.14	119.84	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2434	G	P-O3'-C3'	-5.14	113.53	119.70
84	Aa	3317	G	N3-C2-N2	5.14	123.50	119.90
84	Aa	384	A	C5-C6-N1	-5.14	115.13	117.70
1	Ad	405	A	O4'-C1'-N9	5.14	112.31	108.20
63	CU	108	ASN	N-CA-CB	5.14	119.85	110.60
84	Aa	500	C	N3-C4-C5	-5.14	119.84	121.90
84	Aa	1193	A	C8-N9-C4	-5.14	103.75	105.80
84	Aa	1235	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	1400	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	1838	A	C5-C6-N1	-5.14	115.13	117.70
84	Aa	2569	G	C5-C6-O6	-5.14	125.52	128.60
84	Aa	2814	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	3313	C	N3-C4-C5	-5.14	119.84	121.90
1	Ad	66	U	C2'-C3'-O3'	5.14	121.92	113.70
84	Aa	1960	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	2358	C	N3-C4-N4	5.14	121.60	118.00
84	Aa	2834	C	N3-C4-N4	5.14	121.60	118.00
1	Ad	400	G	P-O3'-C3'	-5.14	113.53	119.70
1	Ad	1105	G	C1'-O4'-C4'	-5.14	105.79	109.90
16	BO	66	ASP	N-CA-CB	5.14	119.84	110.60
84	Aa	554	C	C5'-C4'-O4'	5.14	115.26	109.10
84	Aa	963	U	O4'-C1'-N1	5.14	112.31	108.20
84	Aa	1235	A	C5-C6-N6	-5.14	119.59	123.70
84	Aa	1560	A	O5'-P-OP1	-5.14	101.08	105.70
84	Aa	1927	A	C5-C6-N1	-5.14	115.13	117.70
85	Ac	83	C	N3-C4-C5	-5.14	119.84	121.90
86	Ab	47	C	C5-C4-N4	-5.14	116.61	120.20
1	Ad	802	A	O4'-C1'-N9	5.13	112.31	108.20
25	Bd	14	TYR	N-CA-CB	5.13	119.84	110.60
60	Co	102	THR	N-CA-CB	5.13	120.06	110.30
84	Aa	186	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	674	G	C5-C6-O6	-5.13	125.52	128.60
84	Aa	2073	U	C6-N1-C1'	-5.13	114.01	121.20
84	Aa	2276	A	C5-C6-N1	-5.13	115.13	117.70
84	Aa	2804	A	O4'-C1'-N9	5.13	112.31	108.20
1	Ad	45	U	N1-C1'-C2'	5.13	120.67	114.00
84	Aa	341	U	O4'-C1'-N1	5.13	112.31	108.20
84	Aa	1059	A	C4-C5-C6	5.13	119.57	117.00
84	Aa	1132	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1151	G	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1946	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	3177	A	C5-C6-N6	-5.13	119.59	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	131	G	N3-C2-N2	5.13	123.49	119.90
1	Ad	515	A	C3'-C2'-C1'	5.13	105.61	101.50
1	Ad	642	C	C3'-C2'-C1'	5.13	105.61	101.50
1	Ad	732	G	C3'-C2'-C1'	-5.13	97.39	101.50
2	Ae	53	U	O4'-C1'-C2'	-5.13	100.67	105.80
84	Aa	62	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	724	A	P-O5'-C5'	5.13	129.11	120.90
84	Aa	1275	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	1370	A	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	1462	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2009	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2152	A	C5-C6-N1	-5.13	115.13	117.70
84	Aa	2752	G	O4'-C1'-N9	5.13	112.31	108.20
84	Aa	3259	A	C4'-C3'-O3'	-5.13	98.63	109.40
84	Aa	1077	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	2929	C	N3-C4-C5	-5.13	119.85	121.90
85	Ac	109	A	C5-C6-N1	-5.13	115.14	117.70
1	Ad	34	G	N9-C1'-C2'	5.13	120.67	114.00
1	Ad	838	U	O4'-C4'-C3'	-5.13	98.87	104.00
14	BQ	135	PHE	CB-CG-CD1	-5.13	117.21	120.80
84	Aa	1239	U	O4'-C1'-N1	5.13	112.30	108.20
84	Aa	1298	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	1487	A	C5-C6-N1	-5.13	115.14	117.70
84	Aa	3188	G	O4'-C1'-N9	5.13	112.30	108.20
84	Aa	3376	C	N3-C4-C5	-5.13	119.85	121.90
84	Aa	283	A	C4-C5-C6	5.13	119.56	117.00
84	Aa	910	G	N1-C6-O6	5.13	122.98	119.90
84	Aa	916	A	O4'-C1'-N9	5.13	112.30	108.20
84	Aa	960	C	C2-N3-C4	5.13	122.46	119.90
84	Aa	2241	G	C5-C6-O6	-5.13	125.52	128.60
84	Aa	2282	C	N3-C4-N4	5.13	121.59	118.00
84	Aa	251	G	N3-C2-N2	5.12	123.49	119.90
84	Aa	584	G	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	1398	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	1651	A	C4-C5-C6	5.12	119.56	117.00
84	Aa	1742	G	O4'-C1'-N9	5.12	112.30	108.20
1	Ad	426	G	P-O3'-C3'	5.12	125.85	119.70
84	Aa	29	G	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	561	G	C5-C6-O6	-5.12	125.53	128.60
84	Aa	980	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	1651	A	O4'-C1'-N9	5.12	112.30	108.20
84	Aa	1723	C	C5'-C4'-O4'	5.12	115.25	109.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1984	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	2049	C	N3-C4-N4	5.12	121.59	118.00
84	Aa	2287	U	O4'-C1'-N1	5.12	112.30	108.20
84	Aa	2347	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	61	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	86	U	O4'-C1'-N1	5.12	112.30	108.20
1	Ad	288	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	Ad	946	A	O4'-C1'-N9	5.12	112.30	108.20
2	Ae	59	U	O4'-C1'-C2'	-5.12	100.68	105.80
15	BU	81	GLU	N-CA-CB	5.12	119.82	110.60
84	Aa	1057	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	2895	G	C5-C6-O6	-5.12	125.53	128.60
85	Ac	44	A	C5-C6-N1	-5.12	115.14	117.70
85	Ac	59	A	C5-N7-C8	5.12	106.46	103.90
1	Ad	1359	C	O4'-C1'-N1	5.12	112.30	108.20
84	Aa	340	A	C5-C6-N6	-5.12	119.61	123.70
84	Aa	918	A	C5-C6-N6	-5.12	119.60	123.70
84	Aa	1608	C	N3-C4-C5	-5.12	119.85	121.90
84	Aa	1892	A	C8-N9-C4	-5.12	103.75	105.80
84	Aa	3297	A	C5-C6-N1	-5.12	115.14	117.70
1	Ad	114	U	C1'-O4'-C4'	-5.12	105.81	109.90
1	Ad	1576	C	C3'-C2'-C1'	5.12	105.59	101.50
84	Aa	2070	C	P-O5'-C5'	5.12	129.09	120.90
84	Aa	2904	A	C5-C6-N1	-5.12	115.14	117.70
84	Aa	3315	A	C4-C5-C6	5.12	119.56	117.00
1	Ad	550	U	O4'-C1'-N1	5.12	112.29	108.20
1	Ad	631	C	N1-C1'-C2'	5.12	120.65	114.00
1	Ad	1151	G	O4'-C1'-C2'	5.12	112.20	107.60
3	Af	21	C	C3'-C2'-C1'	5.12	105.59	101.50
62	CS	72	THR	N-CA-CB	5.12	120.02	110.30
84	Aa	27	C	N3-C4-N4	5.12	121.58	118.00
84	Aa	437	C	N3-C4-N4	5.12	121.58	118.00
84	Aa	1391	A	C4-C5-C6	5.12	119.56	117.00
84	Aa	2559	C	N3-C4-N4	5.12	121.58	118.00
1	Ad	1274	G	C5'-C4'-O4'	5.11	115.23	109.10
64	Ci	95	SER	N-CA-CB	5.11	118.17	110.50
84	Aa	550	C	C2'-C3'-O3'	-5.11	98.25	109.50
84	Aa	595	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	1323	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	2226	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2270	A	C4-C5-C6	5.11	119.56	117.00
1	Ad	858	G	N9-C1'-C2'	5.11	120.64	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1310	G	C4-N9-C1'	5.11	133.15	126.50
84	Aa	1738	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	2451	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	2733	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	3004	G	O4'-C1'-N9	5.11	112.29	108.20
84	Aa	3171	C	N3-C4-C5	-5.11	119.86	121.90
1	Ad	458	A	P-O3'-C3'	5.11	125.83	119.70
1	Ad	837	G	O4'-C1'-N9	5.11	112.29	108.20
1	Ad	1066	U	C3'-C2'-C1'	-5.11	97.41	101.50
84	Aa	59	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	298	G	N3-C2-N2	5.11	123.48	119.90
84	Aa	325	A	C5-C6-N1	-5.11	115.14	117.70
84	Aa	1005	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	1464	A	C5-C6-N6	-5.11	119.61	123.70
84	Aa	1807	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2677	A	C4-C5-C6	5.11	119.56	117.00
1	Ad	1143	A	O4'-C1'-C2'	-5.11	100.69	105.80
1	Ad	1735	C	O4'-C1'-C2'	-5.11	100.69	105.80
84	Aa	493	G	P-O3'-C3'	-5.11	113.57	119.70
84	Aa	495	G	C5-C6-O6	-5.11	125.53	128.60
84	Aa	1032	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	2377	C	N3-C4-N4	5.11	121.58	118.00
84	Aa	2434	G	C4'-C3'-C2'	-5.11	97.49	102.60
1	Ad	93	A	C3'-C2'-C1'	5.11	105.59	101.50
1	Ad	1616	U	C1'-O4'-C4'	5.11	113.99	109.90
84	Aa	651	A	C5-C6-N6	-5.11	119.61	123.70
84	Aa	1077	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	1396	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	1804	G	O4'-C1'-N9	5.11	112.29	108.20
84	Aa	1866	C	C2-N3-C4	5.11	122.45	119.90
84	Aa	2082	A	O4'-C1'-N9	5.11	112.29	108.20
1	Ad	169	A	C3'-C2'-C1'	5.11	105.58	101.50
1	Ad	1134	U	C1'-O4'-C4'	5.11	113.98	109.90
84	Aa	247	C	N3-C4-N4	5.11	121.57	118.00
84	Aa	764	A	C4-C5-C6	5.11	119.55	117.00
84	Aa	1109	G	N1-C2-N3	-5.11	120.84	123.90
84	Aa	1760	G	P-O3'-C3'	-5.11	113.57	119.70
84	Aa	1779	C	C2-N3-C4	5.11	122.45	119.90
84	Aa	1966	C	N3-C4-C5	-5.11	119.86	121.90
84	Aa	2518	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	2645	A	C5-C6-N1	-5.11	115.15	117.70
84	Aa	2986	C	N3-C4-N4	5.11	121.57	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3066	G	N3-C2-N2	5.11	123.47	119.90
84	Aa	3310	A	C5-C6-N1	-5.11	115.15	117.70
85	Ac	3	A	C5-C6-N1	-5.11	115.15	117.70
85	Ac	4	C	N3-C4-C5	-5.11	119.86	121.90
2	Ae	67	G	C4'-C3'-C2'	-5.10	97.50	102.60
84	Aa	1356	G	C4-C5-C6	5.10	121.86	118.80
84	Aa	1427	C	C2-N3-C4	5.10	122.45	119.90
84	Aa	565	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	792	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	1248	A	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	1739	G	N3-C2-N2	5.10	123.47	119.90
84	Aa	1835	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	3085	C	N3-C4-N4	5.10	121.57	118.00
49	CR	159	PHE	CB-CG-CD2	-5.10	117.23	120.80
84	Aa	941	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	1805	A	C5-C6-N6	-5.10	119.62	123.70
86	Ab	44	C	C5'-C4'-O4'	5.10	115.22	109.10
1	Ad	747	U	N1-C1'-C2'	5.10	120.63	114.00
11	BD	107	TYR	CB-CG-CD1	-5.10	117.94	121.00
84	Aa	87	A	C8-N9-C4	-5.10	103.76	105.80
84	Aa	172	A	C4-C5-C6	5.10	119.55	117.00
84	Aa	175	G	C5-C6-O6	-5.10	125.54	128.60
84	Aa	452	G	C5'-C4'-O4'	5.10	115.22	109.10
84	Aa	513	C	O4'-C1'-N1	5.10	112.28	108.20
84	Aa	793	C	N3-C4-N4	5.10	121.57	118.00
84	Aa	1437	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	2008	G	C5-C6-O6	-5.10	125.54	128.60
84	Aa	2852	G	O4'-C1'-N9	5.10	112.28	108.20
1	Ad	340	G	O4'-C1'-N9	5.10	112.28	108.20
1	Ad	1408	G	O3'-P-O5'	5.10	113.68	104.00
28	BA	36	PHE	CB-CG-CD1	5.10	124.37	120.80
84	Aa	255	C	N3-C4-C5	-5.10	119.86	121.90
84	Aa	397	A	C4-C5-C6	5.10	119.55	117.00
84	Aa	399	U	O4'-C1'-N1	5.10	112.28	108.20
84	Aa	1197	A	C5-C6-N6	-5.10	119.62	123.70
84	Aa	2286	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	2816	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	2913	A	C5-C6-N1	-5.10	115.15	117.70
84	Aa	3160	G	O4'-C1'-N9	5.10	112.28	108.20
84	Aa	650	A	C3'-C2'-C1'	5.10	105.58	101.50
1	Ad	226	C	O4'-C1'-N1	5.09	112.28	108.20
84	Aa	796	C	N3-C4-N4	5.09	121.57	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1394	C	N3-C4-C5	-5.09	119.86	121.90
84	Aa	1727	A	C5-C6-N1	-5.09	115.15	117.70
84	Aa	2699	A	O4'-C1'-N9	5.09	112.28	108.20
1	Ad	700	C	C3'-C2'-C1'	5.09	105.58	101.50
48	CD	144	ALA	N-CA-CB	5.09	117.23	110.10
84	Aa	1538	A	C5-C6-N1	-5.09	115.15	117.70
84	Aa	1793	A	C5-C6-N1	-5.09	115.15	117.70
1	Ad	776	A	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	479	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	753	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	1637	G	N3-C2-N2	5.09	123.47	119.90
84	Aa	1871	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	2247	A	O4'-C1'-N9	5.09	112.27	108.20
85	Ac	17	A	C5-C6-N6	-5.09	119.63	123.70
86	Ab	32	A	C5-C6-N1	-5.09	115.15	117.70
1	Ad	100	C	O4'-C1'-C2'	-5.09	100.71	105.80
1	Ad	207	A	N9-C1'-C2'	-5.09	106.40	112.00
1	Ad	307	U	O4'-C1'-N1	5.09	112.27	108.20
1	Ad	954	C	C3'-C2'-C1'	5.09	105.57	101.50
6	BK	54	TYR	CB-CG-CD2	5.09	124.05	121.00
84	Aa	457	C	N3-C4-C5	-5.09	119.86	121.90
84	Aa	552	G	C2'-C3'-O3'	5.09	121.84	113.70
84	Aa	1355	U	C6-N1-C1'	-5.09	114.07	121.20
84	Aa	1383	G	N1-C2-N3	-5.09	120.85	123.90
84	Aa	1693	A	C5-N7-C8	5.09	106.44	103.90
84	Aa	2529	C	C5'-C4'-C3'	-5.09	107.86	116.00
1	Ad	1701	G	O4'-C1'-N9	5.09	112.27	108.20
1	Ad	851	G	O4'-C1'-C2'	5.09	112.18	107.60
1	Ad	1395	C	O4'-C1'-C2'	5.09	112.18	107.60
1	Ad	1701	G	O4'-C1'-C2'	5.09	112.18	107.60
84	Aa	203	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	512	G	C5'-C4'-C3'	5.09	124.14	116.00
84	Aa	564	A	C5-C6-N6	-5.09	119.63	123.70
84	Aa	984	A	C5-C6-N6	-5.09	119.63	123.70
84	Aa	1236	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	1966	C	N3-C4-N4	5.09	121.56	118.00
84	Aa	2782	G	O4'-C1'-N9	5.09	112.27	108.20
84	Aa	3031	G	O4'-C1'-N9	5.09	112.27	108.20
1	Ad	592	U	O4'-C1'-N1	5.08	112.27	108.20
22	BZ	26	LYS	N-CA-CB	5.08	119.75	110.60
84	Aa	421	A	C5-C6-N1	-5.08	115.16	117.70
1	Ad	176	A	P-O3'-C3'	5.08	125.80	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	621	U	C1'-O4'-C4'	-5.08	105.83	109.90
1	Ad	784	C	O4'-C1'-C2'	5.08	112.17	107.60
1	Ad	1155	G	O4'-C1'-C2'	5.08	112.18	107.60
84	Aa	46	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	282	A	C4-C5-C6	5.08	119.54	117.00
84	Aa	1000	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	1310	G	N3-C2-N2	5.08	123.46	119.90
84	Aa	1526	A	O4'-C1'-N9	5.08	112.27	108.20
84	Aa	1702	C	N3-C4-C5	-5.08	119.87	121.90
84	Aa	2241	G	C5'-C4'-C3'	-5.08	107.87	116.00
2	Ae	9	A	O4'-C1'-N9	-5.08	104.14	108.20
2	Ae	72	G	C3'-C2'-C1'	-5.08	97.44	101.50
84	Aa	1393	G	O4'-C1'-N9	5.08	112.27	108.20
84	Aa	1421	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	2512	U	O4'-C4'-C3'	5.08	110.17	106.10
84	Aa	2833	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	3265	C	N3-C4-C5	-5.08	119.87	121.90
1	Ad	93	A	N9-C1'-C2'	-5.08	106.41	112.00
1	Ad	542	A	O4'-C1'-N9	5.08	112.26	108.20
1	Ad	1752	U	C1'-O4'-C4'	-5.08	105.84	109.90
84	Aa	211	A	C4-C5-C6	5.08	119.54	117.00
1	Ad	718	C	C4'-C3'-O3'	5.08	123.16	113.00
1	Ad	1487	U	C1'-O4'-C4'	5.08	113.96	109.90
1	Ad	1633	C	O4'-C1'-N1	5.08	112.26	108.20
84	Aa	287	A	C4-C5-C6	5.08	119.54	117.00
84	Aa	1671	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	2647	C	N3-C4-N4	5.08	121.56	118.00
84	Aa	3049	A	C5-C6-N1	-5.08	115.16	117.70
1	Ad	1554	G	C3'-C2'-C1'	-5.08	97.44	101.50
84	Aa	764	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	1969	G	N3-C2-N2	5.08	123.45	119.90
84	Aa	3036	C	N3-C4-N4	5.08	121.55	118.00
1	Ad	948	C	N1-C1'-C2'	5.08	120.60	114.00
1	Ad	1549	G	O4'-C1'-N9	-5.08	104.14	108.20
84	Aa	3	G	O4'-C1'-N9	5.08	112.26	108.20
84	Aa	279	G	C5-C6-O6	-5.08	125.55	128.60
84	Aa	1546	G	C5'-C4'-O4'	5.08	115.19	109.10
84	Aa	1712	A	C5-C6-N6	-5.08	119.64	123.70
84	Aa	2092	C	C5'-C4'-O4'	-5.08	103.01	109.10
84	Aa	2527	G	N3-C2-N2	5.08	123.45	119.90
84	Aa	2638	A	C5-C6-N1	-5.08	115.16	117.70
84	Aa	3252	G	C5'-C4'-C3'	-5.08	107.88	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1664	U	C1'-O4'-C4'	5.07	113.96	109.90
13	BF	148	TYR	CB-CG-CD1	5.07	124.04	121.00
37	CG	222	PHE	CB-CG-CD1	-5.07	117.25	120.80
42	CJ	2	SER	N-CA-C	5.07	124.70	111.00
84	Aa	289	C	C6-N1-C2	-5.07	118.27	120.30
84	Aa	356	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	2330	C	N3-C4-N4	5.07	121.55	118.00
1	Ad	960	A	O4'-C1'-C2'	-5.07	100.73	105.80
1	Ad	1390	A	C3'-C2'-C1'	-5.07	97.44	101.50
84	Aa	84	A	C5-C6-N6	-5.07	119.64	123.70
84	Aa	264	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	315	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	705	A	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	1040	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	1808	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	1839	C	N3-C4-N4	5.07	121.55	118.00
84	Aa	2382	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	2675	G	O4'-C1'-N9	5.07	112.26	108.20
84	Aa	2745	C	C2-N3-C4	5.07	122.44	119.90
84	Aa	2992	G	N1-C2-N3	-5.07	120.86	123.90
84	Aa	3060	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	3118	C	N3-C4-N4	5.07	121.55	118.00
86	Ab	81	G	C5-N7-C8	5.07	106.83	104.30
79	CE	26	TRP	N-CA-CB	5.07	119.72	110.60
84	Aa	975	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	2274	A	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	3296	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	1434	G	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	2204	U	O4'-C1'-N1	5.07	112.25	108.20
84	Aa	3035	C	N3-C4-C5	-5.07	119.87	121.90
84	Aa	3166	C	C2-N3-C4	5.07	122.43	119.90
84	Aa	3273	C	N3-C4-C5	-5.07	119.87	121.90
85	Ac	6	C	N3-C4-N4	5.07	121.55	118.00
22	BZ	28	TRP	N-CA-CB	5.07	119.72	110.60
84	Aa	493	G	C1'-O4'-C4'	-5.07	105.85	109.90
84	Aa	932	A	C5-C6-N6	-5.07	119.65	123.70
84	Aa	1207	A	C4-C5-C6	5.07	119.53	117.00
84	Aa	2450	G	O4'-C1'-N9	5.07	112.25	108.20
84	Aa	3010	G	N3-C2-N2	5.07	123.45	119.90
84	Aa	3131	A	C5-C6-N6	-5.07	119.65	123.70
84	Aa	3236	A	C5-C6-N1	-5.07	115.17	117.70
84	Aa	405	A	C5-C6-N6	-5.06	119.65	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	463	G	C5-C6-O6	-5.06	125.56	128.60
84	Aa	1682	C	N3-C4-C5	-5.06	119.87	121.90
84	Aa	141	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	1079	G	C5'-C4'-O4'	5.06	115.17	109.10
84	Aa	1661	G	O4'-C1'-N9	5.06	112.25	108.20
84	Aa	1190	C	N3-C4-N4	5.06	121.54	118.00
86	Ab	79	A	C4-C5-N7	-5.06	108.17	110.70
84	Aa	15	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	97	G	C6-C5-N7	-5.06	127.36	130.40
84	Aa	115	C	C1'-O4'-C4'	-5.06	105.85	109.90
84	Aa	169	G	C5-C6-O6	-5.06	125.56	128.60
84	Aa	1443	G	N3-C2-N2	5.06	123.44	119.90
84	Aa	2446	G	C5-C6-O6	-5.06	125.56	128.60
1	Ad	176	A	C3'-C2'-C1'	5.06	105.55	101.50
17	BS	83	PHE	N-CA-CB	5.06	119.70	110.60
84	Aa	572	U	O4'-C1'-N1	5.06	112.25	108.20
84	Aa	594	C	N3-C4-N4	5.06	121.54	118.00
84	Aa	796	C	N3-C4-C5	-5.06	119.88	121.90
84	Aa	1588	G	C5'-C4'-C3'	5.06	124.09	116.00
84	Aa	2074	C	C5'-C4'-O4'	-5.06	103.03	109.10
84	Aa	2303	C	N3-C4-N4	5.06	121.54	118.00
1	Ad	1443	U	N1-C1'-C2'	5.06	120.57	114.00
1	Ad	1169	G	C5'-C4'-O4'	5.05	115.17	109.10
84	Aa	478	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	645	C	C2-N3-C4	5.05	122.43	119.90
84	Aa	1457	A	C5-C6-N1	-5.05	115.17	117.70
84	Aa	2295	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	2357	A	C5-C6-N1	-5.05	115.17	117.70
1	Ad	838	U	C3'-C2'-C1'	5.05	105.54	101.50
84	Aa	350	A	C5-C6-N6	-5.05	119.66	123.70
1	Ad	182	C	C3'-C2'-C1'	5.05	105.54	101.50
84	Aa	161	C	N3-C4-C5	-5.05	119.88	121.90
84	Aa	1318	C	P-O5'-C5'	5.05	128.98	120.90
84	Aa	2557	C	C6-N1-C2	-5.05	118.28	120.30
84	Aa	2617	G	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	3229	C	N3-C4-N4	5.05	121.54	118.00
85	Ac	85	G	C6-C5-N7	-5.05	127.37	130.40
86	Ab	3	A	C6-N1-C2	5.05	121.63	118.60
1	Ad	529	A	O4'-C1'-N9	5.05	112.24	108.20
1	Ad	1151	G	C5'-C4'-O4'	5.05	115.16	109.10
84	Aa	156	A	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	2482	A	C5-C6-N1	-5.05	115.18	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2586	C	N3-C4-N4	5.05	121.53	118.00
1	Ad	780	A	O4'-C1'-C2'	5.05	112.14	107.60
84	Aa	64	A	O4'-C1'-N9	5.05	112.24	108.20
84	Aa	858	U	O4'-C1'-N1	5.05	112.24	108.20
84	Aa	2835	A	C5-C6-N6	-5.05	119.66	123.70
86	Ab	54	A	C5-C6-N6	-5.05	119.66	123.70
1	Ad	299	A	C1'-O4'-C4'	-5.05	105.86	109.90
1	Ad	421	A	C3'-C2'-C1'	5.05	105.54	101.50
1	Ad	1071	C	C1'-O4'-C4'	-5.05	105.86	109.90
84	Aa	52	G	C5-C6-O6	-5.05	125.57	128.60
84	Aa	124	C	C2-N3-C4	5.05	122.42	119.90
84	Aa	715	A	C4-C5-C6	5.05	119.52	117.00
84	Aa	1365	C	C2-N3-C4	5.05	122.42	119.90
84	Aa	2124	G	N3-C2-N2	5.05	123.43	119.90
84	Aa	2198	U	C5'-C4'-C3'	-5.05	107.92	116.00
84	Aa	2948	A	C5-C6-N1	-5.05	115.18	117.70
1	Ad	1268	G	C3'-C2'-C1'	5.04	105.54	101.50
2	Ae	1	U	P-O3'-C3'	5.04	125.75	119.70
86	Ab	115	A	O4'-C1'-N9	5.04	112.24	108.20
1	Ad	334	G	C1'-O4'-C4'	-5.04	105.86	109.90
1	Ad	1368	C	P-O3'-C3'	5.04	125.75	119.70
84	Aa	182	C	N3-C4-C5	-5.04	119.88	121.90
84	Aa	394	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	417	G	N1-C6-O6	5.04	122.93	119.90
84	Aa	1051	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	2014	A	P-O3'-C3'	5.04	125.75	119.70
84	Aa	2086	A	C4'-C3'-C2'	5.04	107.64	102.60
84	Aa	3308	A	C5-C6-N6	-5.04	119.67	123.70
1	Ad	838	U	P-O3'-C3'	5.04	125.75	119.70
84	Aa	1478	A	C4-C5-C6	5.04	119.52	117.00
84	Aa	1753	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	3278	G	N3-C2-N2	5.04	123.43	119.90
1	Ad	735	G	N9-C1'-C2'	5.04	120.55	114.00
84	Aa	2152	A	C2'-C3'-O3'	5.04	121.76	113.70
1	Ad	239	C	O4'-C1'-N1	5.04	112.23	108.20
1	Ad	934	A	N9-C1'-C2'	5.04	120.55	114.00
84	Aa	61	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	1050	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	1239	U	P-O3'-C3'	5.04	125.75	119.70
84	Aa	1376	A	C5-C6-N6	-5.04	119.67	123.70
84	Aa	1929	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	1974	C	N3-C4-N4	5.04	121.53	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2646	A	C5-C6-N1	-5.04	115.18	117.70
84	Aa	2690	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	3374	C	C6-N1-C1'	-5.04	114.75	120.80
86	Ab	8	A	O4'-C1'-N9	5.04	112.23	108.20
1	Ad	774	C	N1-C1'-C2'	5.04	120.55	114.00
1	Ad	961	U	O4'-C1'-C2'	-5.04	100.76	105.80
1	Ad	1040	G	C1'-O4'-C4'	-5.04	105.87	109.90
48	CD	219	PHE	CB-CG-CD2	-5.04	117.27	120.80
84	Aa	135	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	164	C	N3-C4-C5	-5.04	119.89	121.90
84	Aa	3368	A	C5-C6-N6	-5.04	119.67	123.70
1	Ad	1024	A	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	319	C	C2-N3-C4	5.04	122.42	119.90
84	Aa	1369	G	O4'-C1'-N9	5.04	112.23	108.20
84	Aa	1631	G	N3-C2-N2	5.04	123.42	119.90
84	Aa	2164	G	C5-C6-O6	-5.04	125.58	128.60
84	Aa	2941	G	N3-C2-N2	5.04	123.42	119.90
85	Ac	9	G	N1-C2-N3	-5.04	120.88	123.90
1	Ad	219	G	O4'-C1'-C2'	-5.03	100.77	105.80
1	Ad	651	G	C1'-O4'-C4'	-5.03	105.87	109.90
1	Ad	1465	C	O4'-C1'-N1	5.03	112.23	108.20
48	CD	280	SER	N-CA-CB	5.03	118.05	110.50
84	Aa	309	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	441	G	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	526	A	C5-C6-N1	-5.03	115.18	117.70
84	Aa	573	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	860	G	C4-C5-C6	5.03	121.82	118.80
84	Aa	984	A	C5-C6-N1	-5.03	115.18	117.70
84	Aa	1157	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	2120	A	C5-C6-N6	-5.03	119.67	123.70
84	Aa	2266	A	O4'-C1'-N9	5.03	112.23	108.20
84	Aa	2540	C	N3-C4-N4	5.03	121.52	118.00
1	Ad	279	C	C1'-O4'-C4'	5.03	113.93	109.90
84	Aa	2853	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	3290	C	P-O3'-C3'	5.03	125.74	119.70
1	Ad	30	G	O4'-C1'-C2'	5.03	112.13	107.60
1	Ad	446	C	C3'-C2'-C1'	5.03	105.52	101.50
84	Aa	333	G	C8-N9-C1'	5.03	133.54	127.00
84	Aa	934	C	N3-C4-C5	-5.03	119.89	121.90
84	Aa	996	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2165	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2489	A	C4-C5-C6	5.03	119.52	117.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2518	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	2842	C	N3-C4-C5	-5.03	119.89	121.90
84	Aa	1042	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	3182	A	O4'-C4'-C3'	-5.03	98.97	104.00
84	Aa	232	C	C5'-C4'-O4'	5.03	115.13	109.10
84	Aa	389	A	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	721	A	C5-C6-N1	-5.03	115.19	117.70
84	Aa	1465	A	C4-C5-C6	5.03	119.51	117.00
84	Aa	1490	A	P-O3'-C3'	5.03	125.73	119.70
84	Aa	1509	G	O4'-C1'-N9	5.03	112.22	108.20
84	Aa	1968	C	N3-C4-N4	5.03	121.52	118.00
84	Aa	2622	G	N3-C2-N2	5.03	123.42	119.90
84	Aa	3139	U	P-O3'-C3'	5.03	125.73	119.70
1	Ad	78	A	O4'-C1'-N9	5.03	112.22	108.20
1	Ad	1466	A	P-O3'-C3'	5.03	125.73	119.70
84	Aa	300	C	C2-N3-C4	5.03	122.41	119.90
84	Aa	492	G	N3-C2-N2	5.03	123.42	119.90
84	Aa	3283	G	C5-C6-O6	-5.03	125.58	128.60
85	Ac	78	G	O4'-C1'-N9	5.03	112.22	108.20
85	Ac	90	C	N3-C4-C5	-5.03	119.89	121.90
86	Ab	83	A	C4-C5-C6	5.03	119.51	117.00
1	Ad	403	A	N9-C1'-C2'	-5.02	106.47	112.00
1	Ad	1343	C	C5'-C4'-C3'	-5.02	107.96	116.00
84	Aa	553	C	P-O3'-C3'	5.02	125.73	119.70
84	Aa	2205	G	N3-C2-N2	5.02	123.42	119.90
85	Ac	74	U	O4'-C1'-N1	5.02	112.22	108.20
1	Ad	619	A	C1'-O4'-C4'	5.02	113.92	109.90
1	Ad	1652	C	O4'-C1'-N1	5.02	112.22	108.20
84	Aa	1330	A	C4'-C3'-C2'	-5.02	97.58	102.60
84	Aa	1522	G	C5-C6-O6	-5.02	125.59	128.60
84	Aa	2858	G	O4'-C1'-N9	5.02	112.22	108.20
85	Ac	54	A	C5-C6-N1	-5.02	115.19	117.70
1	Ad	1280	U	C1'-O4'-C4'	5.02	113.92	109.90
2	Ae	4	G	C1'-O4'-C4'	-5.02	105.88	109.90
84	Aa	544	C	N3-C4-N4	5.02	121.52	118.00
84	Aa	1389	C	N3-C4-N4	5.02	121.52	118.00
84	Aa	2872	C	N3-C4-C5	-5.02	119.89	121.90
1	Ad	601	G	O4'-C1'-N9	5.02	112.22	108.20
21	BP	71	LYS	N-CA-CB	5.02	119.63	110.60
84	Aa	1006	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	1070	G	C5-C6-O6	-5.02	125.59	128.60
84	Aa	1967	C	N3-C4-N4	5.02	121.51	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2866	A	O4'-C1'-N9	5.02	112.22	108.20
85	Ac	15	G	N3-C2-N2	5.02	123.41	119.90
1	Ad	1488	C	O4'-C1'-C2'	-5.02	100.78	105.80
73	CO	134	LEU	C-N-CA	5.02	134.24	121.70
84	Aa	951	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	1452	A	O4'-C1'-N9	5.02	112.22	108.20
84	Aa	1479	G	N3-C2-N2	5.02	123.41	119.90
84	Aa	1643	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	1781	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	1806	C	N3-C4-N4	5.02	121.51	118.00
84	Aa	2216	G	N1-C2-N3	-5.02	120.89	123.90
84	Aa	2502	U	P-O5'-C5'	5.02	128.93	120.90
84	Aa	2889	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	3114	A	O4'-C1'-N9	5.02	112.21	108.20
84	Aa	3275	G	N3-C2-N2	5.02	123.41	119.90
1	Ad	1405	U	C5'-C4'-O4'	5.02	115.12	109.10
84	Aa	204	G	O4'-C1'-N9	5.02	112.21	108.20
84	Aa	924	A	C5-C6-N1	-5.02	115.19	117.70
84	Aa	2208	A	C5-C6-N6	-5.02	119.69	123.70
1	Ad	1715	C	N1-C1'-C2'	5.01	120.52	114.00
2	Ae	64	G	C1'-O4'-C4'	-5.01	105.89	109.90
53	CY	9	SER	N-CA-CB	5.01	118.02	110.50
84	Aa	621	C	N3-C4-C5	-5.01	119.89	121.90
84	Aa	2267	G	C5-C6-O6	-5.01	125.59	128.60
86	Ab	101	A	C6-C5-N7	-5.01	128.79	132.30
84	Aa	328	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	3056	C	N3-C4-N4	5.01	121.51	118.00
84	Aa	1017	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1454	C	C2-N3-C4	5.01	122.41	119.90
84	Aa	2285	C	N3-C4-N4	5.01	121.51	118.00
84	Aa	2387	U	O4'-C1'-N1	5.01	112.21	108.20
84	Aa	2919	G	N3-C2-N2	5.01	123.41	119.90
1	Ad	649	C	N1-C1'-C2'	5.01	120.51	114.00
84	Aa	397	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	801	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1018	C	P-O3'-C3'	5.01	125.71	119.70
84	Aa	1065	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1264	A	C5-C6-N6	-5.01	119.69	123.70
84	Aa	1311	G	C2'-C3'-O3'	5.01	121.72	113.70
84	Aa	1877	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	2088	C	C4'-C3'-C2'	-5.01	97.59	102.60
84	Aa	2505	C	N3-C4-C5	-5.01	119.90	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3030	A	C5-C6-N6	-5.01	119.69	123.70
1	Ad	559	A	C1'-O4'-C4'	5.01	113.91	109.90
45	CN	53	TYR	CB-CG-CD1	-5.01	118.00	121.00
84	Aa	204	G	C5-C6-O6	-5.01	125.60	128.60
84	Aa	820	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1024	G	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	1130	G	O4'-C1'-N9	5.01	112.20	108.20
84	Aa	2301	C	C6-N1-C1'	-5.01	114.79	120.80
84	Aa	2649	C	N3-C4-N4	5.01	121.50	118.00
84	Aa	3072	A	O4'-C1'-N9	5.01	112.21	108.20
84	Aa	3203	G	N3-C2-N2	5.01	123.40	119.90
84	Aa	3337	G	O4'-C1'-N9	5.01	112.20	108.20
84	Aa	789	A	C5-C6-N1	-5.00	115.20	117.70
84	Aa	1675	G	C8-N9-C1'	5.00	133.51	127.00
84	Aa	1774	G	N3-C2-N2	5.00	123.40	119.90
86	Ab	64	G	N1-C6-O6	5.00	122.90	119.90
1	Ad	19	A	O4'-C1'-C2'	-5.00	100.80	105.80
1	Ad	1349	A	N9-C1'-C2'	5.00	120.51	114.00
2	Ae	26	G	O4'-C1'-N9	5.00	112.20	108.20
84	Aa	348	C	O4'-C1'-N1	5.00	112.20	108.20
84	Aa	1722	G	C5-C6-O6	-5.00	125.60	128.60
1	Ad	56	U	P-O3'-C3'	5.00	125.70	119.70
1	Ad	341	G	O4'-C1'-N9	-5.00	104.20	108.20
1	Ad	550	U	C3'-C2'-C1'	5.00	105.50	101.50
1	Ad	783	C	O4'-C1'-N1	5.00	112.20	108.20
84	Aa	245	C	N3-C4-N4	5.00	121.50	118.00
84	Aa	617	C	C5-C6-N1	5.00	123.50	121.00
84	Aa	980	C	C2-N3-C4	5.00	122.40	119.90
84	Aa	2143	A	C4-C5-C6	5.00	119.50	117.00
84	Aa	2185	U	C5-C6-N1	5.00	125.20	122.70
84	Aa	2959	G	O4'-C1'-N9	5.00	112.20	108.20

There are no chirality outliers.

All (486) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
84	Aa	1004	C	Sidechain
84	Aa	1010	A	Sidechain
84	Aa	1019	A	Sidechain
84	Aa	1022	G	Sidechain
84	Aa	1028	G	Sidechain
84	Aa	1051	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	106	G	Sidechain
84	Aa	1073	G	Sidechain
84	Aa	108	A	Sidechain
84	Aa	1083	C	Sidechain
84	Aa	11	A	Sidechain
84	Aa	1102	A	Sidechain
84	Aa	1109	G	Sidechain
84	Aa	111	C	Sidechain
84	Aa	1116	G	Sidechain
84	Aa	1118	G	Sidechain
84	Aa	1119	G	Sidechain
84	Aa	114	G	Sidechain
84	Aa	1150	G	Sidechain
84	Aa	1156	A	Sidechain
84	Aa	1157	A	Sidechain
84	Aa	1163	A	Sidechain
84	Aa	1164	G	Sidechain
84	Aa	1167	G	Sidechain
84	Aa	1177	G	Sidechain
84	Aa	1184	U	Sidechain
84	Aa	1187	G	Sidechain
84	Aa	120	G	Sidechain
84	Aa	1216	G	Sidechain
84	Aa	1230	G	Sidechain
84	Aa	1237	G	Sidechain
84	Aa	1241	G	Sidechain
84	Aa	1247	G	Sidechain
84	Aa	126	G	Sidechain
84	Aa	1262	U	Sidechain
84	Aa	1267	A	Sidechain
84	Aa	1275	A	Sidechain
84	Aa	1297	U	Sidechain
84	Aa	1298	A	Sidechain
84	Aa	13	G	Sidechain
84	Aa	1308	A	Sidechain
84	Aa	1312	A	Sidechain
84	Aa	1313	U	Sidechain
84	Aa	1320	G	Sidechain
84	Aa	1322	A	Sidechain
84	Aa	1323	G	Sidechain
84	Aa	1335	C	Sidechain
84	Aa	1341	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	1354	G	Sidechain
84	Aa	1409	G	Sidechain
84	Aa	144	A	Sidechain
84	Aa	1449	A	Sidechain
84	Aa	1457	A	Sidechain
84	Aa	147	G	Sidechain
84	Aa	1476	G	Sidechain
84	Aa	1482	C	Sidechain
84	Aa	1486	G	Sidechain
84	Aa	1489	G	Sidechain
84	Aa	1528	G	Sidechain
84	Aa	1531	G	Sidechain
84	Aa	1538	A	Sidechain
84	Aa	1542	A	Sidechain
84	Aa	158	A	Sidechain
84	Aa	1586	A	Sidechain
84	Aa	159	G	Sidechain
84	Aa	1594	G	Sidechain
84	Aa	1598	U	Sidechain
84	Aa	1601	G	Sidechain
84	Aa	1609	G	Sidechain
84	Aa	1611	G	Sidechain
84	Aa	1618	U	Sidechain
84	Aa	1619	G	Sidechain
84	Aa	1634	G	Sidechain
84	Aa	1635	A	Sidechain
84	Aa	1638	U	Sidechain
84	Aa	1653	A	Sidechain
84	Aa	1671	G	Sidechain
84	Aa	1672	G	Sidechain
84	Aa	1678	U	Sidechain
84	Aa	1689	G	Sidechain
84	Aa	1711	G	Sidechain
84	Aa	1716	G	Sidechain
84	Aa	1721	A	Sidechain
84	Aa	1723	C	Sidechain
84	Aa	1725	G	Sidechain
84	Aa	1728	G	Sidechain
84	Aa	1746	G	Sidechain
84	Aa	1747	A	Sidechain
84	Aa	1749	G	Sidechain
84	Aa	1750	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	1756	C	Sidechain
84	Aa	176	A	Sidechain
84	Aa	1767	G	Sidechain
84	Aa	18	G	Sidechain
84	Aa	1804	G	Sidechain
84	Aa	1816	U	Sidechain
84	Aa	1821	G	Sidechain
84	Aa	1842	C	Sidechain
84	Aa	1853	C	Sidechain
84	Aa	1857	G	Sidechain
84	Aa	1859	G	Sidechain
84	Aa	186	A	Sidechain
84	Aa	188	U	Sidechain
84	Aa	1892	A	Sidechain
84	Aa	1903	C	Sidechain
84	Aa	1910	G	Sidechain
84	Aa	1912	U	Sidechain
84	Aa	1921	U	Sidechain
84	Aa	1923	G	Sidechain
84	Aa	1935	G	Sidechain
84	Aa	20	G	Sidechain
84	Aa	2075	C	Sidechain
84	Aa	2077	C	Sidechain
84	Aa	2088	C	Sidechain
84	Aa	2092	C	Sidechain
84	Aa	2093	G	Sidechain
84	Aa	2104	G	Sidechain
84	Aa	2113	A	Sidechain
84	Aa	2132	A	Sidechain
84	Aa	214	G	Sidechain
84	Aa	2149	G	Sidechain
84	Aa	2150	C	Sidechain
84	Aa	2167	G	Sidechain
84	Aa	2171	A	Sidechain
84	Aa	218	G	Sidechain
84	Aa	2189	G	Sidechain
84	Aa	2192	C	Sidechain
84	Aa	2218	A	Sidechain
84	Aa	2242	G	Sidechain
84	Aa	2269	U	Sidechain
84	Aa	2270	A	Sidechain
84	Aa	2290	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	2303	C	Sidechain
84	Aa	2348	U	Sidechain
84	Aa	235	G	Sidechain
84	Aa	2352	G	Sidechain
84	Aa	2354	G	Sidechain
84	Aa	2375	G	Sidechain
84	Aa	2376	G	Sidechain
84	Aa	2380	G	Sidechain
84	Aa	2381	G	Sidechain
84	Aa	2416	U	Sidechain
84	Aa	2424	G	Sidechain
84	Aa	244	G	Sidechain
84	Aa	2444	U	Sidechain
84	Aa	2451	G	Sidechain
84	Aa	2491	A	Sidechain
84	Aa	2502	U	Sidechain
84	Aa	2506	G	Sidechain
84	Aa	2508	U	Sidechain
84	Aa	2526	G	Sidechain
84	Aa	2528	U	Sidechain
84	Aa	2529	C	Sidechain
84	Aa	2537	G	Sidechain
84	Aa	2538	G	Sidechain
84	Aa	2539	G	Sidechain
84	Aa	2542	U	Sidechain
84	Aa	2543	G	Sidechain
84	Aa	2552	U	Sidechain
84	Aa	2557	C	Sidechain
84	Aa	2558	U	Sidechain
84	Aa	2583	A	Sidechain
84	Aa	2588	G	Sidechain
84	Aa	2591	G	Sidechain
84	Aa	2610	G	Sidechain
84	Aa	2623	G	Sidechain
84	Aa	2627	G	Sidechain
84	Aa	2639	A	Sidechain
84	Aa	2648	G	Sidechain
84	Aa	265	G	Sidechain
84	Aa	2666	G	Sidechain
84	Aa	2673	G	Sidechain
84	Aa	2677	A	Sidechain
84	Aa	2697	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	2709	G	Sidechain
84	Aa	2732	U	Sidechain
84	Aa	2733	A	Sidechain
84	Aa	2751	A	Sidechain
84	Aa	2789	G	Sidechain
84	Aa	279	G	Sidechain
84	Aa	2801	A	Sidechain
84	Aa	2807	G	Sidechain
84	Aa	2815	A	Sidechain
84	Aa	2820	U	Sidechain
84	Aa	2843	G	Sidechain
84	Aa	2877	U	Sidechain
84	Aa	2882	U	Sidechain
84	Aa	2888	U	Sidechain
84	Aa	2918	U	Sidechain
84	Aa	2932	A	Sidechain
84	Aa	2935	A	Sidechain
84	Aa	2936	A	Sidechain
84	Aa	2966	G	Sidechain
84	Aa	2967	U	Sidechain
84	Aa	2968	G	Sidechain
84	Aa	2992	G	Sidechain
84	Aa	3002	U	Sidechain
84	Aa	3006	G	Sidechain
84	Aa	3007	A	Sidechain
84	Aa	3012	A	Sidechain
84	Aa	302	G	Sidechain
84	Aa	3035	C	Sidechain
84	Aa	3057	A	Sidechain
84	Aa	3067	G	Sidechain
84	Aa	3097	G	Sidechain
84	Aa	3123	A	Sidechain
84	Aa	3125	G	Sidechain
84	Aa	3137	G	Sidechain
84	Aa	3143	A	Sidechain
84	Aa	3171	C	Sidechain
84	Aa	3179	G	Sidechain
84	Aa	318	G	Sidechain
84	Aa	3204	G	Sidechain
84	Aa	3208	G	Sidechain
84	Aa	321	A	Sidechain
84	Aa	3219	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	3220	A	Sidechain
84	Aa	3222	G	Sidechain
84	Aa	3242	G	Sidechain
84	Aa	3248	G	Sidechain
84	Aa	3252	G	Sidechain
84	Aa	3264	C	Sidechain
84	Aa	3267	U	Sidechain
84	Aa	3269	C	Sidechain
84	Aa	3271	A	Sidechain
84	Aa	3276	G	Sidechain
84	Aa	3286	G	Sidechain
84	Aa	3294	U	Sidechain
84	Aa	3295	G	Sidechain
84	Aa	3309	U	Sidechain
84	Aa	3312	G	Sidechain
84	Aa	3314	G	Sidechain
84	Aa	3315	A	Sidechain
84	Aa	3320	G	Sidechain
84	Aa	3334	A	Sidechain
84	Aa	3340	G	Sidechain
84	Aa	3345	G	Sidechain
84	Aa	3361	G	Sidechain
84	Aa	3377	G	Sidechain
84	Aa	3379	C	Sidechain
84	Aa	3380	G	Sidechain
84	Aa	339	G	Sidechain
84	Aa	342	A	Sidechain
84	Aa	352	U	Sidechain
84	Aa	370	A	Sidechain
84	Aa	372	A	Sidechain
84	Aa	373	A	Sidechain
84	Aa	404	G	Sidechain
84	Aa	413	G	Sidechain
84	Aa	424	G	Sidechain
84	Aa	425	G	Sidechain
84	Aa	431	G	Sidechain
84	Aa	436	G	Sidechain
84	Aa	492	G	Sidechain
84	Aa	493	G	Sidechain
84	Aa	497	G	Sidechain
84	Aa	522	C	Sidechain
84	Aa	526	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	527	G	Sidechain
84	Aa	53	C	Sidechain
84	Aa	566	G	Sidechain
84	Aa	602	G	Sidechain
84	Aa	603	G	Sidechain
84	Aa	604	C	Sidechain
84	Aa	62	A	Sidechain
84	Aa	647	U	Sidechain
84	Aa	666	U	Sidechain
84	Aa	669	G	Sidechain
84	Aa	67	C	Sidechain
84	Aa	676	G	Sidechain
84	Aa	688	G	Sidechain
84	Aa	693	C	Sidechain
84	Aa	713	G	Sidechain
84	Aa	723	G	Sidechain
84	Aa	732	G	Sidechain
84	Aa	736	U	Sidechain
84	Aa	746	C	Sidechain
84	Aa	75	G	Sidechain
84	Aa	757	G	Sidechain
84	Aa	763	G	Sidechain
84	Aa	765	U	Sidechain
84	Aa	768	U	Sidechain
84	Aa	771	G	Sidechain
84	Aa	772	U	Sidechain
84	Aa	773	G	Sidechain
84	Aa	775	A	Sidechain
84	Aa	779	U	Sidechain
84	Aa	783	A	Sidechain
84	Aa	787	G	Sidechain
84	Aa	801	G	Sidechain
84	Aa	808	G	Sidechain
84	Aa	818	G	Sidechain
84	Aa	825	G	Sidechain
84	Aa	835	G	Sidechain
84	Aa	838	G	Sidechain
84	Aa	844	A	Sidechain
84	Aa	849	A	Sidechain
84	Aa	85	G	Sidechain
84	Aa	858	U	Sidechain
84	Aa	861	A	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
84	Aa	877	U	Sidechain
84	Aa	886	A	Sidechain
84	Aa	911	G	Sidechain
84	Aa	93	G	Sidechain
84	Aa	936	A	Sidechain
84	Aa	966	G	Sidechain
84	Aa	97	G	Sidechain
84	Aa	977	G	Sidechain
84	Aa	997	G	Sidechain
86	Ab	104	C	Sidechain
86	Ab	117	U	Sidechain
86	Ab	17	G	Sidechain
86	Ab	30	G	Sidechain
86	Ab	33	U	Sidechain
86	Ab	37	G	Sidechain
86	Ab	40	A	Sidechain
86	Ab	42	A	Sidechain
86	Ab	46	C	Sidechain
86	Ab	56	G	Sidechain
86	Ab	61	C	Sidechain
86	Ab	62	U	Sidechain
86	Ab	79	A	Sidechain
86	Ab	83	A	Sidechain
86	Ab	88	U	Sidechain
86	Ab	9	U	Sidechain
86	Ab	90	A	Sidechain
86	Ab	96	U	Sidechain
86	Ab	97	G	Sidechain
85	Ac	100	U	Sidechain
85	Ac	105	A	Sidechain
85	Ac	146	G	Sidechain
85	Ac	147	C	Sidechain
85	Ac	149	U	Sidechain
85	Ac	16	G	Sidechain
85	Ac	22	U	Sidechain
85	Ac	34	U	Sidechain
85	Ac	49	G	Sidechain
85	Ac	51	G	Sidechain
85	Ac	53	A	Sidechain
85	Ac	60	U	Sidechain
85	Ac	64	U	Sidechain
85	Ac	69	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
85	Ac	70	G	Sidechain
85	Ac	74	U	Sidechain
85	Ac	87	G	Sidechain
85	Ac	9	G	Sidechain
30	BB	157	GLN	Peptide
11	BD	112	GLY	Peptide
11	BD	211	HIS	Peptide
11	BD	212	PRO	Peptide
12	BE	132	GLY	Peptide
12	BE	240	LYS	Peptide
13	BF	138	SER	Peptide
13	BF	44	TYR	Sidechain
35	BG	182	ARG	Peptide
36	BH	105	PRO	Peptide
36	BH	114	PRO	Peptide
36	BH	117	ARG	Sidechain
36	BH	184	PHE	Peptide
6	BK	22	TYR	Sidechain
6	BK	83	PRO	Peptide
6	BK	86	ILE	Peptide
6	BK	87	VAL	Peptide
19	BL	98	TYR	Sidechain
7	BM	92	CYS	Peptide
14	BQ	131	GLU	Peptide
29	BR	2	GLY	Peptide
17	BS	142	ARG	Sidechain
20	BT	37	VAL	Peptide
20	BT	46	LYS	Peptide
20	BT	91	ARG	Sidechain
20	BT	92	PRO	Peptide
15	BU	10	PRO	Peptide
15	BU	78	PRO	Peptide
24	BW	62	VAL	Peptide
4	BY	48	LYS	Peptide
32	Ba	87	ARG	Sidechain
26	Bb	29	SER	Peptide
26	Bb	3	LEU	Peptide
23	Bc	21	GLY	Peptide
25	Bd	13	ASN	Peptide
8	Bf	52	GLY	Peptide
10	Bg	301	VAL	Peptide
41	CA	122	ASP	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
41	CA	244	GLY	Peptide
41	CA	63	PHE	Peptide
41	CA	70	LYS	Peptide
71	CB	117	ARG	Peptide
71	CB	119	TYR	Sidechain
71	CB	259	HIS	Sidechain
71	CB	291	SER	Peptide
71	CB	303	ASP	Peptide
71	CB	349	GLN	Peptide
71	CB	357	GLU	Peptide
71	CB	365	THR	Peptide
71	CB	42	HIS	Peptide
72	CC	201	ARG	Sidechain
72	CC	215	TYR	Sidechain
72	CC	24	SER	Peptide
72	CC	95	ALA	Peptide
48	CD	114	ARG	Peptide
48	CD	121	GLU	Peptide
48	CD	139	ARG	Peptide
48	CD	187	GLU	Peptide
48	CD	201	GLY	Peptide
48	CD	21	GLN	Peptide
48	CD	217	GLU	Peptide
48	CD	218	LYS	Peptide
48	CD	235	GLY	Peptide
48	CD	238	SER	Peptide
48	CD	244	HIS	Peptide
48	CD	257	THR	Peptide
48	CD	261	PRO	Peptide
79	CE	20	TYR	Sidechain
79	CE	27	ALA	Peptide
79	CE	36	LEU	Peptide
79	CE	48	PRO	Peptide
79	CE	49	LYS	Peptide
79	CE	51	TYR	Peptide
79	CE	71	LEU	Peptide
69	CF	204	LEU	Peptide
69	CF	35	GLU	Peptide
69	CF	77	PHE	Peptide
37	CG	50	TRP	Peptide
37	CG	74	ASN	Peptide
43	CH	168	ASN	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
43	CH	169	LYS	Peptide
43	CH	183	LYS	Peptide
75	CI	110	ARG	Peptide
75	CI	172	GLY	Peptide
75	CI	29	PRO	Peptide
75	CI	88	ARG	Sidechain
42	CJ	2	SER	Peptide
42	CJ	9	ASN	Peptide
65	CK	75	VAL	Peptide
65	CK	76	PRO	Peptide
78	CL	12	HIS	Peptide
78	CL	13	PHE	Sidechain,Peptide
78	CL	20	TYR	Sidechain
78	CL	65	TYR	Sidechain
61	CM	17	TYR	Sidechain
61	CM	18	GLY	Peptide
61	CM	40	ALA	Peptide
61	CM	6	PHE	Peptide
45	CN	81	TYR	Sidechain
73	CO	115	PRO	Peptide
73	CO	125	ILE	Peptide
73	CO	152	TRP	Peptide
73	CO	70	LYS	Peptide
50	CP	3	LYS	Peptide
47	CQ	14	THR	Peptide
47	CQ	156	PRO	Peptide
47	CQ	157	GLY	Peptide
47	CQ	158	VAL	Peptide
47	CQ	16	ARG	Peptide
47	CQ	59	ARG	Sidechain
49	CR	73	GLY	Peptide
49	CR	84	THR	Peptide
49	CR	89	LEU	Peptide
62	CS	139	ASP	Peptide
62	CS	151	PHE	Peptide
62	CS	82	ARG	Sidechain
63	CU	100	ASP	Peptide
63	CU	55	LYS	Peptide
51	CX	133	TYR	Sidechain
46	Ca	103	TYR	Sidechain
46	Ca	116	ARG	Peptide
46	Ca	137	GLY	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
46	Ca	39	HIS	Peptide
46	Ca	5	PHE	Peptide
46	Ca	60	TYR	Peptide
46	Ca	8	ASN	Peptide
55	Cc	52	CYS	Peptide
57	Ce	13	LYS	Peptide
80	Cf	20	TYR	Sidechain
80	Cf	4	ARG	Sidechain
83	Cg	1	MET	Peptide
68	Ch	90	ARG	Peptide
58	Cj	88	LYS	Peptide
59	Cl	3	SER	Peptide
60	Co	32	LYS	Peptide
60	Co	87	ARG	Sidechain
74	Cp	35	SER	Peptide
70	Cq	7	LYS	Peptide
70	Cq	9	GLU	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	Ad	37584	0	18947	0	0
2	Ae	1595	0	808	0	0
3	Af	232	0	121	0	0
4	BY	1108	0	1200	1	0
5	BI	533	0	551	0	0
6	BK	818	0	831	1	0
7	BM	924	0	939	1	0
8	Bf	577	0	589	0	0
9	BX	1103	0	1170	1	0
10	Bg	2929	0	2843	0	0
11	BD	1629	0	1694	3	0
12	BE	1607	0	1678	0	0
13	BF	1489	0	1537	2	0
14	BQ	1017	0	1080	4	0
15	BU	982	0	1032	1	0
16	BO	899	0	936	3	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	BS	1240	0	1293	3	0
18	BN	977	0	1057	2	0
19	BL	688	0	704	1	0
20	BT	1155	0	1175	1	0
21	BP	711	0	759	4	0
22	BZ	779	0	833	2	0
23	Bc	454	0	489	0	0
24	BW	1042	0	1086	2	0
25	Bd	379	0	378	0	0
26	Bb	663	0	680	0	0
27	Be	469	0	506	0	0
28	BA	1537	0	1557	0	0
29	BR	945	0	1002	0	0
30	BB	1707	0	1783	1	0
31	BV	601	0	588	0	0
32	Ba	753	0	769	0	0
33	BJ	1525	0	1600	3	0
34	BC	1665	0	1751	0	0
35	BG	1867	0	1990	1	0
36	BH	1508	0	1572	2	0
37	CG	1906	0	2064	3	0
38	CT	1288	0	1341	3	0
39	CZ	1090	0	1183	2	0
40	Cz	1718	0	1841	0	0
41	CA	1946	0	1974	5	0
42	CJ	1380	0	1422	0	0
43	CH	1500	0	1564	0	0
44	CV	1048	0	1116	0	0
45	CN	1630	0	1704	1	0
46	Ca	1114	0	1166	0	0
47	CQ	1284	0	1376	1	0
48	CD	2444	0	2418	1	0
49	CR	1569	0	1695	3	0
50	CP	1372	0	1410	3	0
51	CX	987	0	1082	18	0
52	CW	635	0	677	2	0
53	CY	1048	0	1130	1	0
54	Cr	576	0	616	0	0
55	Cc	857	0	904	0	0
56	Cd	960	0	1025	0	0
57	Ce	1103	0	1177	0	0
58	Cj	755	0	782	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	Cl	460	0	490	0	0
60	Co	851	0	909	0	0
61	CM	1081	0	1171	1	0
62	CS	1419	0	1466	3	0
63	CU	864	0	910	22	0
64	Ci	613	0	684	0	0
65	CK	960	0	1042	0	0
66	Cu	432	0	463	0	0
66	Cv	432	0	463	0	0
67	Cs	441	0	453	0	0
67	Ct	441	0	453	0	0
68	Ch	1012	0	1112	0	0
69	CF	1984	0	2092	2	0
70	Cq	1993	0	2086	0	0
71	CB	3139	0	3258	4	0
72	CC	2898	0	3023	6	0
73	CO	1650	0	1770	3	0
74	Cp	715	0	758	0	0
75	CI	1490	0	1539	25	0
76	Cn	238	0	289	0	0
77	Cm	428	0	470	0	0
78	CL	1691	0	1788	2	0
79	CE	1731	0	1825	1	0
80	Cf	891	0	928	0	0
81	Ck	564	0	612	0	0
82	Cb	477	0	483	0	0
83	Cg	897	0	983	0	0
84	Aa	72601	0	36663	0	0
85	Ac	3408	0	1732	0	0
86	Ab	2561	0	1295	0	0
All	All	212263	0	158405	149	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 9.

All (149) 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)
75:CI:115:MET:HB2	75:CI:116:ARG:CA	1.60	1.29
63:CU:31:VAL:CG2	63:CU:101:TRP:CD1	2.22	1.22
63:CU:31:VAL:HG21	63:CU:101:TRP:CG	1.74	1.21

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CU:31:VAL:HG21	63:CU:101:TRP:CD1	1.76	1.19
75:CI:112:GLN:O	75:CI:113:THR:HG23	1.43	1.18
51:CX:45:PRO:O	51:CX:46:LYS:HB2	1.47	1.12
75:CI:110:ARG:CG	75:CI:116:ARG:HD2	1.83	1.08
75:CI:115:MET:CB	75:CI:116:ARG:CA	2.30	1.08
75:CI:115:MET:CB	75:CI:116:ARG:HA	1.81	1.06
51:CX:46:LYS:HE3	51:CX:46:LYS:C	1.75	1.05
75:CI:112:GLN:O	75:CI:113:THR:CG2	2.05	1.05
51:CX:44:ARG:HD3	51:CX:47:THR:OG1	1.55	1.04
63:CU:30:PRO:O	63:CU:31:VAL:HG22	1.60	1.01
63:CU:30:PRO:O	63:CU:31:VAL:HG13	1.60	1.01
75:CI:115:MET:HB2	75:CI:116:ARG:HA	0.97	0.97
51:CX:46:LYS:CE	51:CX:46:LYS:HA	1.93	0.95
51:CX:46:LYS:CE	51:CX:46:LYS:CA	2.45	0.92
75:CI:115:MET:CB	75:CI:116:ARG:C	2.37	0.92
75:CI:110:ARG:HG2	75:CI:116:ARG:HD2	1.49	0.92
51:CX:46:LYS:HE3	51:CX:46:LYS:CA	2.00	0.90
75:CI:115:MET:HB2	75:CI:116:ARG:C	1.95	0.87
63:CU:31:VAL:HG23	63:CU:101:TRP:CD1	2.10	0.86
51:CX:46:LYS:NZ	51:CX:46:LYS:HA	1.90	0.85
75:CI:110:ARG:HB3	75:CI:116:ARG:CG	2.07	0.84
63:CU:30:PRO:C	63:CU:31:VAL:HG22	1.95	0.84
63:CU:31:VAL:CG2	63:CU:101:TRP:CG	2.54	0.84
75:CI:115:MET:HB3	75:CI:116:ARG:C	1.98	0.83
75:CI:110:ARG:HB3	75:CI:116:ARG:HG3	1.58	0.83
75:CI:110:ARG:CD	75:CI:116:ARG:HD2	2.09	0.82
37:CG:49:LYS:HB2	51:CX:46:LYS:HD3	1.62	0.82
63:CU:30:PRO:O	63:CU:31:VAL:CG1	2.30	0.80
15:BU:29:ILE:HD12	15:BU:104:ALA:H	1.47	0.79
51:CX:44:ARG:CD	51:CX:47:THR:OG1	2.30	0.79
63:CU:30:PRO:O	63:CU:31:VAL:CG2	2.30	0.79
75:CI:115:MET:CB	75:CI:116:ARG:O	2.30	0.78
63:CU:31:VAL:HG21	63:CU:101:TRP:CB	2.15	0.77
51:CX:45:PRO:O	51:CX:46:LYS:CB	2.32	0.75
51:CX:46:LYS:CE	51:CX:46:LYS:C	2.55	0.75
75:CI:112:GLN:C	75:CI:113:THR:HG23	2.05	0.74
75:CI:110:ARG:HD3	75:CI:116:ARG:HD2	1.74	0.69
51:CX:46:LYS:HE3	51:CX:46:LYS:O	1.94	0.68
21:BP:139:ARG:H	21:BP:140:PRO:HD2	1.58	0.67
75:CI:115:MET:HB3	75:CI:116:ARG:O	1.95	0.65
71:CB:60:VAL:HG12	71:CB:61:GLU:H	1.62	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:CO:134:LEU:HD23	73:CO:134:LEU:H	1.63	0.64
75:CI:110:ARG:CB	75:CI:116:ARG:HD2	2.29	0.63
63:CU:30:PRO:O	63:CU:31:VAL:CB	2.46	0.62
51:CX:46:LYS:CE	51:CX:46:LYS:O	2.47	0.62
51:CX:46:LYS:NZ	51:CX:46:LYS:O	2.30	0.62
51:CX:46:LYS:HA	51:CX:46:LYS:HZ2	1.65	0.62
75:CI:115:MET:HB2	75:CI:116:ARG:O	1.98	0.61
63:CU:31:VAL:HB	63:CU:101:TRP:CE2	2.35	0.61
63:CU:31:VAL:CB	63:CU:101:TRP:CD1	2.83	0.60
52:CW:61:HIS:CG	52:CW:62:LYS:H	2.19	0.60
16:BO:93:HIS:CG	16:BO:94:ILE:H	2.19	0.59
41:CA:120:VAL:O	41:CA:120:VAL:HG13	4.32	0.56
75:CI:112:GLN:O	75:CI:113:THR:HG22	2.02	0.55
36:BH:102:VAL:HG22	36:BH:103:ARG:H	1.72	0.55
75:CI:110:ARG:HB3	75:CI:116:ARG:CD	2.37	0.54
39:CZ:88:ASP:H	39:CZ:121:ARG:HH22	1.57	0.53
63:CU:31:VAL:CB	63:CU:101:TRP:CG	2.92	0.53
4:BY:68:THR:HG22	4:BY:69:HIS:H	1.73	0.53
51:CX:44:ARG:CZ	51:CX:47:THR:HG21	2.40	0.52
75:CI:110:ARG:HG2	75:CI:116:ARG:CD	2.32	0.52
36:BH:38:LYS:HG2	36:BH:39:SER:H	1.74	0.52
63:CU:31:VAL:HB	63:CU:101:TRP:CD1	2.46	0.51
63:CU:31:VAL:HG21	63:CU:101:TRP:HB2	1.92	0.51
49:CR:58:HIS:CG	49:CR:59:SER:N	2.78	0.51
37:CG:177:LYS:H	37:CG:177:LYS:HD3	1.75	0.51
22:BZ:71:ARG:HB2	22:BZ:78:ARG:HH22	1.76	0.50
11:BD:208:VAL:HG12	11:BD:209:THR:H	1.75	0.50
71:CB:176:GLN:HG2	71:CB:178:LYS:H	1.76	0.50
72:CC:344:ALA:H	72:CC:351:ARG:HH11	1.60	0.49
48:CD:203:HIS:CG	48:CD:204:VAL:H	2.30	0.49
69:CF:155:TYR:H	69:CF:204:LEU:HD13	1.77	0.49
11:BD:66:ILE:H	11:BD:66:ILE:HD12	1.76	0.49
19:BL:105:HIS:CD2	19:BL:106:SER:H	2.30	0.49
39:CZ:36:ARG:HE	39:CZ:40:HIS:CG	2.30	0.49
11:BD:202:THR:HG23	11:BD:203:PRO:HD3	1.95	0.49
16:BO:43:VAL:H	16:BO:106:THR:CG2	2.26	0.48
41:CA:15:VAL:HG13	41:CA:19:HIS:CE1	14.56	0.48
71:CB:371:HIS:CG	71:CB:372:GLY:N	2.80	0.48
21:BP:66:ILE:HG13	21:BP:67:LYS:H	1.77	0.48
75:CI:110:ARG:HD3	75:CI:116:ARG:CD	2.41	0.48
14:BQ:35:ILE:HD12	14:BQ:35:ILE:H	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:CI:110:ARG:CB	75:CI:116:ARG:CD	2.91	0.48
35:BG:196:ILE:H	35:BG:196:ILE:HD12	1.79	0.48
63:CU:31:VAL:HB	63:CU:101:TRP:NE1	2.29	0.48
50:CP:2:VAL:HG22	50:CP:3:LYS:H	1.79	0.47
63:CU:32:GLU:HG3	63:CU:33:ASP:H	1.80	0.47
63:CU:41:LEU:HD23	63:CU:41:LEU:H	1.80	0.47
20:BT:44:ARG:HE	20:BT:95:PHE:HA	1.79	0.46
30:BB:122:GLU:H	30:BB:165:ARG:HE	1.63	0.46
13:BF:51:ARG:HE	13:BF:51:ARG:HA	1.80	0.46
16:BO:93:HIS:CD2	16:BO:94:ILE:H	2.33	0.46
33:BJ:4:ALA:HB1	33:BJ:5:PRO:HD2	1.98	0.46
41:CA:136:VAL:HG11	41:CA:139:HIS:CE1	2.50	0.46
50:CP:37:ARG:HG3	50:CP:38:LYS:H	1.81	0.46
14:BQ:63:ARG:HG3	14:BQ:65:ARG:H	1.81	0.46
49:CR:57:ILE:HG12	49:CR:58:HIS:H	1.79	0.46
63:CU:30:PRO:C	63:CU:31:VAL:CG2	2.68	0.46
33:BJ:18:ARG:HE	33:BJ:18:ARG:H	1.64	0.45
38:CT:27:LEU:HD13	38:CT:27:LEU:H	1.81	0.45
51:CX:46:LYS:NZ	51:CX:46:LYS:CA	2.68	0.45
61:CM:1:MET:H2	73:CO:134:LEU:HA	1.81	0.45
14:BQ:45:ILE:HG12	14:BQ:46:ARG:H	1.81	0.45
78:CL:77:LEU:HD22	78:CL:77:LEU:H	1.82	0.45
79:CE:45:ILE:HG13	79:CE:46:ALA:H	1.82	0.45
49:CR:6:LEU:H	49:CR:6:LEU:HD23	1.81	0.45
7:BM:77:VAL:HG12	7:BM:78:THR:H	1.82	0.44
52:CW:61:HIS:CG	52:CW:62:LYS:N	2.86	0.44
24:BW:106:THR:HG22	24:BW:107:SER:H	1.83	0.44
41:CA:42:LYS:H	41:CA:65:HIS:HE1	1.64	0.44
6:BK:82:LEU:HB3	6:BK:83:PRO:CD	2.47	0.44
22:BZ:73:ASN:HB2	22:BZ:78:ARG:HH21	1.81	0.44
38:CT:44:VAL:HG13	38:CT:58:HIS:CE1	2.53	0.43
72:CC:304:GLN:HG2	72:CC:305:SER:H	1.84	0.43
72:CC:83:VAL:HG13	72:CC:94:GLY:H	1.83	0.43
62:CS:13:GLY:HA2	62:CS:61:LEU:H	1.83	0.43
50:CP:117:HIS:CE1	50:CP:119:GLN:HG3	2.53	0.43
45:CN:69:GLY:H	45:CN:98:LYS:HZ1	1.66	0.43
78:CL:46:PHE:HB3	78:CL:47:PRO:CD	2.48	0.43
47:CQ:40:THR:HG23	47:CQ:42:SER:H	1.84	0.43
62:CS:131:VAL:HG22	62:CS:132:HIS:H	1.83	0.43
17:BS:16:LEU:HD23	17:BS:16:LEU:H	1.83	0.43
62:CS:22:GLU:O	62:CS:23:HIS:CG	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BF:64:LEU:H	13:BF:64:LEU:HD22	1.84	0.43
72:CC:226:PHE:O	72:CC:232:VAL:HG11	2.20	0.42
21:BP:142:ILE:HD12	21:BP:142:ILE:H	1.84	0.42
17:BS:55:ARG:HD2	17:BS:55:ARG:H	1.85	0.42
38:CT:141:VAL:HG12	38:CT:142:GLU:H	1.84	0.42
24:BW:88:SER:H	24:BW:91:ALA:HB3	1.84	0.42
71:CB:19:ARG:HB3	71:CB:276:HIS:CE1	2.55	0.41
14:BQ:95:LEU:HD12	14:BQ:95:LEU:H	1.84	0.41
41:CA:221:HIS:CG	41:CA:222:ALA:H	2.37	0.41
69:CF:183:ILE:HD12	69:CF:184:GLU:H	1.86	0.41
37:CG:225:VAL:HG23	37:CG:226:ARG:H	1.86	0.41
18:BN:101:HIS:CE1	18:BN:104:ARG:HH21	2.38	0.41
9:BX:60:GLN:HB3	9:BX:61:PRO:HD3	2.01	0.41
53:CY:50:ARG:HG3	53:CY:51:LYS:H	1.86	0.41
73:CO:142:LEU:H	73:CO:145:GLN:HE21	1.67	0.41
17:BS:75:ARG:HG3	17:BS:76:GLN:H	1.85	0.41
18:BN:58:HIS:CD2	18:BN:59:GLY:H	2.38	0.41
72:CC:144:ARG:HH11	72:CC:146:HIS:CE1	2.38	0.41
63:CU:31:VAL:HB	63:CU:101:TRP:CD2	2.56	0.41
51:CX:44:ARG:HA	51:CX:45:PRO:HD3	1.76	0.40
72:CC:64:HIS:HA	72:CC:104:ARG:HH11	1.86	0.40
21:BP:139:ARG:H	21:BP:140:PRO:CD	2.27	0.40
33:BJ:4:ALA:HB1	33:BJ:5:PRO:CD	2.50	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	
4	BY	136/138 (99%)	118 (87%)	8 (6%)	10 (7%)	1	20
5	BI	64/220 (29%)	61 (95%)	2 (3%)	1 (2%)	12	56

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	BK	94/183 (51%)	66 (70%)	17 (18%)	11 (12%)	0	9
7	BM	121/171 (71%)	84 (69%)	20 (16%)	17 (14%)	0	6
8	Bf	69/155 (44%)	46 (67%)	10 (14%)	13 (19%)	0	3
9	BX	140/142 (99%)	124 (89%)	11 (8%)	5 (4%)	4	38
10	Bg	378/380 (100%)	334 (88%)	26 (7%)	18 (5%)	3	31
11	BD	206/208 (99%)	125 (61%)	34 (16%)	47 (23%)	0	2
12	BE	198/265 (75%)	173 (87%)	16 (8%)	9 (4%)	3	33
13	BF	189/191 (99%)	162 (86%)	20 (11%)	7 (4%)	4	38
14	BQ	124/149 (83%)	93 (75%)	15 (12%)	16 (13%)	0	7
15	BU	126/128 (98%)	102 (81%)	14 (11%)	10 (8%)	1	19
16	BO	117/151 (78%)	91 (78%)	12 (10%)	14 (12%)	0	8
17	BS	150/152 (99%)	109 (73%)	16 (11%)	25 (17%)	0	5
18	BN	119/151 (79%)	92 (77%)	14 (12%)	13 (11%)	0	11
19	BL	83/160 (52%)	61 (74%)	16 (19%)	6 (7%)	1	21
20	BT	144/146 (99%)	123 (85%)	13 (9%)	8 (6%)	2	28
21	BP	89/154 (58%)	69 (78%)	12 (14%)	8 (9%)	1	17
22	BZ	98/108 (91%)	75 (76%)	10 (10%)	13 (13%)	0	7
23	Bc	56/65 (86%)	40 (71%)	5 (9%)	11 (20%)	0	3
24	BW	128/130 (98%)	101 (79%)	16 (12%)	11 (9%)	1	17
25	Bd	46/56 (82%)	29 (63%)	6 (13%)	11 (24%)	0	2
26	Bb	84/86 (98%)	75 (89%)	6 (7%)	3 (4%)	4	38
27	Be	58/62 (94%)	49 (84%)	5 (9%)	4 (7%)	1	22
28	BA	195/260 (75%)	176 (90%)	10 (5%)	9 (5%)	3	32
29	BR	114/141 (81%)	89 (78%)	15 (13%)	10 (9%)	1	17
30	BB	209/262 (80%)	153 (73%)	31 (15%)	25 (12%)	0	8
31	BV	74/82 (90%)	62 (84%)	9 (12%)	3 (4%)	3	34
32	Ba	91/133 (68%)	65 (71%)	13 (14%)	13 (14%)	0	6
33	BJ	185/195 (95%)	162 (88%)	16 (9%)	7 (4%)	4	37
34	BC	212/263 (81%)	189 (89%)	16 (8%)	7 (3%)	5	40
35	BG	227/245 (93%)	211 (93%)	10 (4%)	6 (3%)	7	45
36	BH	182/189 (96%)	154 (85%)	10 (6%)	18 (10%)	1	14

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	CG	235/257 (91%)	205 (87%)	24 (10%)	6 (3%)	7	45
38	CT	158/164 (96%)	137 (87%)	6 (4%)	15 (10%)	1	15
39	CZ	134/136 (98%)	123 (92%)	10 (8%)	1 (1%)	26	71
40	Cz	214/216 (99%)	197 (92%)	9 (4%)	8 (4%)	4	38
41	CA	253/261 (97%)	219 (87%)	19 (8%)	15 (6%)	2	26
42	CJ	168/180 (93%)	132 (79%)	14 (8%)	22 (13%)	0	7
43	CH	188/190 (99%)	167 (89%)	16 (8%)	5 (3%)	6	44
44	CV	138/140 (99%)	124 (90%)	7 (5%)	7 (5%)	2	29
45	CN	192/200 (96%)	168 (88%)	18 (9%)	6 (3%)	5	42
46	Ca	142/144 (99%)	101 (71%)	24 (17%)	17 (12%)	0	8
47	CQ	161/188 (86%)	127 (79%)	18 (11%)	16 (10%)	1	14
48	CD	302/304 (99%)	213 (70%)	35 (12%)	54 (18%)	0	4
49	CR	187/209 (90%)	163 (87%)	14 (8%)	10 (5%)	2	29
50	CP	169/171 (99%)	140 (83%)	12 (7%)	17 (10%)	1	13
51	CX	120/152 (79%)	100 (83%)	17 (14%)	3 (2%)	7	46
52	CW	73/162 (45%)	55 (75%)	12 (16%)	6 (8%)	1	18
53	CY	128/150 (85%)	114 (89%)	8 (6%)	6 (5%)	3	32
54	Cr	71/147 (48%)	49 (69%)	13 (18%)	9 (13%)	0	7
55	Cc	110/112 (98%)	96 (87%)	10 (9%)	4 (4%)	4	38
56	Cd	118/123 (96%)	98 (83%)	8 (7%)	12 (10%)	1	13
57	Ce	131/133 (98%)	113 (86%)	10 (8%)	8 (6%)	2	25
58	Cj	92/94 (98%)	58 (63%)	19 (21%)	15 (16%)	0	5
59	Cl	49/51 (96%)	36 (74%)	8 (16%)	5 (10%)	1	13
60	Co	103/105 (98%)	76 (74%)	13 (13%)	14 (14%)	0	6
61	CM	132/134 (98%)	101 (76%)	14 (11%)	17 (13%)	0	7
62	CS	165/178 (93%)	122 (74%)	20 (12%)	23 (14%)	0	6
63	CU	106/130 (82%)	76 (72%)	13 (12%)	17 (16%)	0	5
64	Ci	75/112 (67%)	59 (79%)	5 (7%)	11 (15%)	0	6
65	CK	126/166 (76%)	94 (75%)	17 (14%)	15 (12%)	0	8
66	Cu	56/110 (51%)	54 (96%)	1 (2%)	1 (2%)	11	53
66	Cv	56/110 (51%)	53 (95%)	2 (4%)	1 (2%)	11	53

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
67	Cs	57/113 (50%)	54 (95%)	3 (5%)	0	100	100
67	Ct	57/113 (50%)	54 (95%)	3 (5%)	0	100	100
68	Ch	122/124 (98%)	103 (84%)	11 (9%)	8 (7%)	1	24
69	CF	242/244 (99%)	217 (90%)	16 (7%)	9 (4%)	4	38
70	Cq	260/319 (82%)	233 (90%)	15 (6%)	12 (5%)	3	32
71	CB	387/389 (100%)	307 (79%)	43 (11%)	37 (10%)	1	14
72	CC	368/405 (91%)	311 (84%)	27 (7%)	30 (8%)	1	18
73	CO	204/206 (99%)	179 (88%)	14 (7%)	11 (5%)	2	29
74	Cp	90/92 (98%)	81 (90%)	7 (8%)	2 (2%)	8	49
75	CI	182/224 (81%)	147 (81%)	24 (13%)	11 (6%)	2	26
76	Cn	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	3	34
77	Cm	50/53 (94%)	46 (92%)	3 (6%)	1 (2%)	9	51
78	CL	206/208 (99%)	168 (82%)	13 (6%)	25 (12%)	0	8
79	CE	217/219 (99%)	177 (82%)	14 (6%)	26 (12%)	0	8
80	Cf	109/111 (98%)	103 (94%)	5 (5%)	1 (1%)	21	66
81	Ck	67/69 (97%)	63 (94%)	2 (3%)	2 (3%)	5	42
82	Cb	56/60 (93%)	48 (86%)	4 (7%)	4 (7%)	1	21
83	Cg	108/119 (91%)	96 (89%)	8 (7%)	4 (4%)	4	38
All	All	11663/13543 (86%)	9641 (83%)	1083 (9%)	939 (8%)	2	18

All (939) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	BY	2	ALA
4	BY	39	ASN
4	BY	41	SER
4	BY	46	LYS
4	BY	49	LEU
4	BY	68	THR
6	BK	82	LEU
6	BK	87	VAL
6	BK	88	PRO
6	BK	89	ALA
7	BM	79	VAL
7	BM	81	SER
7	BM	96	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	Bf	26	VAL
9	BX	60	GLN
9	BX	128	SER
10	Bg	2	ALA
10	Bg	149	VAL
10	Bg	216	LEU
10	Bg	342	SER
10	Bg	343	HIS
11	BD	32	ASP
11	BD	48	ILE
11	BD	90	LYS
11	BD	96	LEU
11	BD	99	ILE
11	BD	111	GLY
11	BD	125	PHE
11	BD	126	VAL
11	BD	131	ALA
11	BD	156	TYR
11	BD	162	GLN
11	BD	183	GLY
11	BD	184	ILE
11	BD	197	LYS
11	BD	200	PRO
11	BD	213	PRO
11	BD	215	GLU
11	BD	216	GLU
11	BD	217	ASN
11	BD	218	GLU
12	BE	58	TYR
12	BE	153	ILE
12	BE	154	ILE
13	BF	41	HIS
13	BF	57	PHE
13	BF	63	PRO
13	BF	77	ARG
14	BQ	45	ILE
14	BQ	76	ARG
14	BQ	90	ALA
14	BQ	91	ILE
14	BQ	142	ALA
15	BU	3	ALA
15	BU	7	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	BU	9	ALA
15	BU	12	MET
15	BU	81	GLU
16	BO	66	ASP
16	BO	72	ALA
16	BO	97	ARG
16	BO	134	VAL
16	BO	148	ARG
17	BS	5	ALA
17	BS	8	GLU
17	BS	9	PHE
17	BS	17	ASN
17	BS	74	PRO
17	BS	80	PRO
17	BS	87	LYS
17	BS	99	VAL
17	BS	100	SER
17	BS	149	SER
18	BN	42	LYS
18	BN	57	GLN
18	BN	69	SER
18	BN	81	ALA
18	BN	86	GLU
18	BN	109	LYS
18	BN	137	PRO
19	BL	55	ILE
19	BL	109	PRO
19	BL	110	ALA
19	BL	120	GLU
20	BT	34	PRO
20	BT	40	VAL
21	BP	66	ILE
21	BP	70	ARG
21	BP	71	LYS
21	BP	139	ARG
22	BZ	18	SER
22	BZ	19	GLY
22	BZ	24	LYS
22	BZ	26	LYS
22	BZ	28	TRP
22	BZ	33	GLN
23	Bc	2	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	Bc	16	ARG
23	Bc	17	THR
23	Bc	24	THR
24	BW	4	VAL
24	BW	52	PHE
24	BW	53	VAL
24	BW	65	LEU
24	BW	97	ARG
25	Bd	11	PRO
25	Bd	14	TYR
25	Bd	54	LYS
26	Bb	64	VAL
27	Be	57	PRO
28	BA	10	ARG
28	BA	100	ALA
29	BR	2	GLY
29	BR	88	LYS
29	BR	93	VAL
29	BR	101	GLU
29	BR	115	PRO
30	BB	49	SER
30	BB	113	LEU
30	BB	148	ASN
30	BB	179	CYS
30	BB	182	LYS
30	BB	206	PRO
31	BV	22	ARG
32	Ba	45	VAL
32	Ba	63	VAL
32	Ba	86	VAL
33	BJ	5	PRO
33	BJ	8	TYR
34	BC	146	ASN
35	BG	20	ASP
35	BG	87	TYR
35	BG	160	ASN
36	BH	17	SER
36	BH	34	ASN
36	BH	104	PRO
36	BH	105	PRO
36	BH	106	LYS
36	BH	118	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	CG	48	VAL
37	CG	225	VAL
37	CG	233	VAL
38	CT	8	ARG
38	CT	70	ARG
38	CT	141	VAL
38	CT	151	PRO
40	Cz	150	THR
40	Cz	167	ALA
40	Cz	197	TRP
40	Cz	198	GLN
41	CA	28	ARG
41	CA	67	PHE
41	CA	68	ARG
41	CA	119	HIS
42	CJ	2	SER
42	CJ	3	THR
42	CJ	7	GLN
42	CJ	58	SER
42	CJ	94	LEU
42	CJ	113	ASP
43	CH	140	LYS
43	CH	185	THR
43	CH	186	ILE
44	CV	13	LYS
44	CV	36	ASN
45	CN	122	ASN
45	CN	185	ARG
46	Ca	9	ARG
46	Ca	10	LYS
46	Ca	15	VAL
46	Ca	22	ILE
46	Ca	28	HIS
46	Ca	109	LYS
46	Ca	128	VAL
47	CQ	13	ARG
47	CQ	20	LYS
47	CQ	156	PRO
47	CQ	159	PRO
48	CD	2	SER
48	CD	16	TYR
48	CD	74	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	CD	116	LEU
48	CD	138	GLU
48	CD	188	LYS
48	CD	191	ASP
48	CD	199	ILE
48	CD	204	VAL
48	CD	218	LYS
48	CD	236	MET
48	CD	239	LEU
48	CD	260	GLU
48	CD	262	ALA
48	CD	284	ARG
48	CD	285	LEU
48	CD	289	ASN
48	CD	290	SER
48	CD	291	SER
49	CR	55	GLN
49	CR	56	LYS
49	CR	59	SER
49	CR	188	SER
50	CP	112	THR
50	CP	167	ALA
51	CX	34	LYS
51	CX	46	LYS
51	CX	50	LYS
52	CW	54	THR
52	CW	72	LYS
53	CY	8	THR
53	CY	9	SER
53	CY	10	SER
54	Cr	110	ASN
55	Cc	102	SER
56	Cd	8	ALA
56	Cd	27	ARG
56	Cd	87	ARG
56	Cd	101	VAL
56	Cd	102	THR
56	Cd	119	VAL
57	Ce	13	LYS
57	Ce	131	GLU
58	Cj	4	GLY
58	Cj	41	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
58	Cj	51	VAL
58	Cj	84	ALA
58	Cj	90	ALA
59	Cl	4	HIS
59	Cl	34	THR
59	Cl	38	ASN
60	Co	48	SER
60	Co	97	LYS
61	CM	6	PHE
61	CM	7	VAL
61	CM	17	TYR
61	CM	23	ARG
61	CM	66	PRO
61	CM	80	VAL
61	CM	89	TRP
61	CM	102	LEU
62	CS	4	PHE
62	CS	6	PHE
62	CS	17	PRO
62	CS	23	HIS
62	CS	35	ASN
62	CS	54	LYS
62	CS	70	ASN
62	CS	71	PRO
62	CS	73	THR
62	CS	87	THR
62	CS	117	ARG
62	CS	138	ARG
62	CS	151	PHE
62	CS	152	PRO
62	CS	161	PRO
63	CU	31	VAL
63	CU	32	GLU
63	CU	34	LYS
63	CU	58	ASN
63	CU	79	ALA
63	CU	100	ASP
63	CU	101	TRP
63	CU	104	VAL
63	CU	105	ILE
63	CU	106	ALA
63	CU	111	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
64	Ci	38	LYS
64	Ci	40	VAL
64	Ci	95	SER
65	CK	15	VAL
65	CK	32	ILE
65	CK	37	LEU
65	CK	76	PRO
65	CK	95	LYS
65	CK	96	VAL
65	CK	132	GLU
65	CK	133	ILE
66	Cu	62	VAL
66	Cv	62	VAL
68	Ch	117	GLN
68	Ch	119	LYS
69	CF	109	ARG
69	CF	159	ASN
69	CF	205	TRP
70	Cq	63	ARG
70	Cq	208	ASP
70	Cq	212	ASP
71	CB	4	ARG
71	CB	60	VAL
71	CB	61	GLU
71	CB	63	PRO
71	CB	123	CYS
71	CB	129	ALA
71	CB	292	GLY
71	CB	296	HIS
71	CB	335	PRO
71	CB	350	THR
71	CB	351	SER
71	CB	358	ILE
72	CC	3	THR
72	CC	17	ASP
72	CC	21	ASP
72	CC	24	SER
72	CC	62	ALA
72	CC	90	ARG
72	CC	107	ALA
72	CC	108	PRO
72	CC	110	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
72	CC	202	ASN
72	CC	305	SER
72	CC	348	GLU
72	CC	349	ALA
73	CO	11	ARG
73	CO	71	PRO
73	CO	126	PRO
73	CO	132	LEU
73	CO	135	GLN
73	CO	136	PRO
75	CI	18	PRO
75	CI	39	LYS
75	CI	113	THR
75	CI	115	MET
78	CL	13	PHE
78	CL	21	VAL
78	CL	46	PHE
78	CL	48	ARG
78	CL	62	THR
78	CL	64	LYS
78	CL	66	ASN
78	CL	127	PRO
78	CL	154	MET
78	CL	156	ILE
79	CE	26	TRP
79	CE	28	ILE
79	CE	37	PRO
79	CE	39	ALA
79	CE	40	GLU
79	CE	41	LYS
79	CE	44	ALA
79	CE	51	TYR
79	CE	52	PRO
79	CE	73	SER
79	CE	74	THR
79	CE	159	GLU
79	CE	166	ASP
80	Cf	7	GLN
82	Cb	21	ILE
82	Cb	39	PHE
83	Cg	11	HIS
83	Cg	65	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	BK	53	GLU
6	BK	61	TRP
7	BM	115	GLY
7	BM	117	GLU
8	Bf	13	LYS
8	Bf	16	LYS
8	Bf	19	HIS
9	BX	86	ASN
10	Bg	202	SER
10	Bg	203	GLY
10	Bg	271	GLY
11	BD	36	GLY
11	BD	63	GLY
11	BD	80	LEU
11	BD	81	GLU
11	BD	91	VAL
11	BD	98	ALA
11	BD	113	LEU
11	BD	140	GLY
11	BD	152	PHE
11	BD	195	LYS
12	BE	53	LYS
12	BE	163	ASP
12	BE	217	GLN
13	BF	178	LYS
14	BQ	26	SER
14	BQ	36	LYS
14	BQ	138	ARG
15	BU	13	LYS
15	BU	30	ARG
15	BU	58	LYS
16	BO	75	LEU
16	BO	94	ILE
16	BO	138	SER
17	BS	15	VAL
17	BS	75	ARG
17	BS	91	LYS
17	BS	95	PHE
17	BS	151	LYS
18	BN	149	LEU
19	BL	121	GLY
20	BT	45	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	BP	116	ILE
22	BZ	11	PRO
22	BZ	34	LYS
22	BZ	89	ALA
23	Bc	19	SER
23	Bc	25	GLN
24	BW	23	ARG
24	BW	50	PHE
24	BW	92	ARG
24	BW	96	SER
25	Bd	19	ARG
25	Bd	20	VAL
25	Bd	33	LYS
25	Bd	53	ILE
28	BA	32	LYS
28	BA	71	ALA
29	BR	86	PRO
29	BR	95	GLU
29	BR	112	ALA
30	BB	93	GLY
30	BB	177	SER
30	BB	221	PRO
31	BV	7	GLN
32	Ba	10	ARG
32	Ba	19	LYS
32	Ba	62	TYR
33	BJ	123	SER
33	BJ	136	ILE
33	BJ	152	VAL
34	BC	148	ILE
36	BH	67	TYR
36	BH	77	HIS
36	BH	111	VAL
36	BH	135	GLU
37	CG	121	GLU
38	CT	5	HIS
38	CT	10	ARG
38	CT	159	ASP
40	Cz	73	VAL
40	Cz	98	LEU
40	Cz	134	PRO
41	CA	34	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	CJ	33	THR
42	CJ	63	ARG
42	CJ	88	VAL
42	CJ	108	ILE
42	CJ	124	ILE
42	CJ	127	MET
44	CV	5	GLY
44	CV	9	SER
44	CV	12	ASN
45	CN	2	GLY
45	CN	56	LYS
46	Ca	7	LYS
46	Ca	8	ASN
46	Ca	11	LYS
46	Ca	124	LEU
47	CQ	94	GLU
47	CQ	98	MET
47	CQ	160	HIS
48	CD	3	LEU
48	CD	14	HIS
48	CD	59	LYS
48	CD	73	ASP
48	CD	89	LEU
48	CD	117	ASP
48	CD	119	GLU
48	CD	125	GLU
48	CD	144	ALA
48	CD	183	PHE
48	CD	187	GLU
48	CD	200	TYR
48	CD	203	HIS
48	CD	238	SER
48	CD	248	ARG
48	CD	249	ALA
49	CR	54	PRO
50	CP	2	VAL
50	CP	9	ASN
50	CP	31	GLU
50	CP	38	LYS
50	CP	68	GLY
50	CP	70	THR
50	CP	74	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	CP	128	ARG
50	CP	166	ILE
50	CP	169	ARG
52	CW	63	LYS
54	Cr	90	SER
54	Cr	91	VAL
56	Cd	2	SER
57	Ce	120	VAL
58	Cj	76	SER
58	Cj	79	ARG
58	Cj	87	ARG
59	Cl	39	ALA
60	Co	34	SER
60	Co	37	ALA
61	CM	3	PHE
61	CM	32	ASP
62	CS	52	LYS
63	CU	37	GLU
64	Ci	42	PHE
64	Ci	66	VAL
64	Ci	94	SER
65	CK	94	LYS
65	CK	137	CYS
69	CF	36	LYS
70	Cq	52	SER
71	CB	2	SER
71	CB	124	LYS
71	CB	126	LYS
71	CB	131	THR
71	CB	215	ASP
71	CB	301	GLU
71	CB	303	ASP
71	CB	359	LYS
71	CB	373	ARG
71	CB	374	PHE
72	CC	19	ALA
72	CC	91	ALA
72	CC	151	VAL
72	CC	208	ARG
72	CC	345	THR
74	Cp	6	LYS
74	Cp	18	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
75	CI	99	ILE
75	CI	110	ARG
75	CI	118	ALA
78	CL	12	HIS
78	CL	49	PRO
78	CL	67	MET
78	CL	70	ARG
78	CL	130	ALA
79	CE	12	LYS
79	CE	54	ASP
79	CE	75	ILE
79	CE	172	ASN
79	CE	205	ARG
79	CE	209	ARG
81	Ck	20	ALA
82	Cb	25	LYS
83	Cg	10	ARG
4	BY	16	LYS
5	BI	161	GLN
6	BK	34	GLN
7	BM	10	GLU
7	BM	44	LYS
7	BM	72	HIS
7	BM	89	ALA
8	Bf	12	PRO
8	Bf	30	TYR
10	Bg	98	SER
10	Bg	150	SER
10	Bg	151	ARG
10	Bg	180	GLN
10	Bg	301	VAL
10	Bg	366	LYS
11	BD	62	LYS
11	BD	78	ASN
11	BD	93	ASN
11	BD	173	ARG
11	BD	211	HIS
12	BE	94	LYS
12	BE	213	ALA
14	BQ	32	ARG
14	BQ	81	THR
14	BQ	92	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	BQ	118	TYR
14	BQ	146	LYS
16	BO	93	HIS
16	BO	109	PRO
16	BO	149	ARG
17	BS	49	ASP
17	BS	140	GLY
18	BN	78	HIS
18	BN	87	ASP
20	BT	11	ASP
22	BZ	101	ILE
23	Bc	8	ALA
24	BW	95	PRO
25	Bd	15	GLY
25	Bd	47	ALA
26	Bb	19	LEU
26	Bb	65	LEU
28	BA	44	LYS
30	BB	55	LYS
32	Ba	46	GLU
32	Ba	82	HIS
36	BH	57	ASN
36	BH	89	SER
36	BH	132	TYR
37	CG	153	VAL
37	CG	232	GLY
38	CT	80	VAL
39	CZ	103	THR
41	CA	11	GLY
41	CA	71	HIS
41	CA	245	ARG
42	CJ	65	GLU
42	CJ	89	LYS
42	CJ	145	ARG
46	Ca	66	ASN
46	Ca	114	PRO
47	CQ	11	ASN
47	CQ	119	GLU
47	CQ	142	PRO
48	CD	23	LYS
48	CD	52	LYS
48	CD	55	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	CD	132	TYR
48	CD	141	PRO
48	CD	197	LYS
48	CD	212	ALA
48	CD	261	PRO
48	CD	287	ALA
48	CD	288	LEU
48	CD	292	ALA
48	CD	293	GLY
50	CP	8	ALA
50	CP	63	TYR
50	CP	79	ASN
50	CP	168	ALA
54	Cr	87	TYR
54	Cr	93	ARG
56	Cd	4	LYS
56	Cd	11	ARG
56	Cd	26	LYS
58	Cj	26	SER
58	Cj	77	ASN
59	Cl	47	THR
60	Co	14	ASN
60	Co	56	PRO
60	Co	76	SER
60	Co	91	PHE
60	Co	94	GLY
60	Co	98	LYS
60	Co	102	THR
61	CM	31	VAL
61	CM	88	SER
61	CM	105	PHE
62	CS	139	ASP
62	CS	162	THR
63	CU	29	LYS
63	CU	97	ASN
63	CU	107	ALA
63	CU	108	ASN
64	Ci	39	ARG
64	Ci	80	LEU
65	CK	134	LEU
68	Ch	99	ASP
68	Ch	113	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
69	CF	35	GLU
69	CF	62	LYS
69	CF	167	ASN
70	Cq	73	THR
70	Cq	209	LEU
70	Cq	210	THR
70	Cq	211	GLU
71	CB	40	PRO
71	CB	103	ASN
71	CB	137	TYR
71	CB	158	THR
71	CB	262	ARG
71	CB	375	GLN
71	CB	386	ARG
72	CC	4	GLN
72	CC	330	VAL
73	CO	42	ARG
73	CO	69	THR
76	Cn	24	SER
78	CL	22	LYS
78	CL	128	ARG
78	CL	134	LYS
78	CL	142	GLU
78	CL	148	GLN
78	CL	152	ASP
79	CE	157	LYS
4	BY	11	THR
4	BY	48	LYS
6	BK	30	ALA
6	BK	60	SER
6	BK	64	TYR
7	BM	30	GLY
7	BM	94	ILE
7	BM	106	CYS
7	BM	107	SER
8	Bf	14	LYS
8	Bf	21	LYS
8	Bf	34	ASP
8	Bf	72	THR
9	BX	64	ALA
11	BD	30	ALA
11	BD	61	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	BD	64	ARG
11	BD	71	SER
11	BD	172	VAL
12	BE	149	TYR
13	BF	56	ARG
15	BU	25	VAL
16	BO	53	VAL
16	BO	73	ALA
16	BO	142	LYS
17	BS	6	GLY
17	BS	7	GLU
17	BS	79	VAL
17	BS	83	PHE
17	BS	94	ARG
17	BS	139	THR
18	BN	41	ALA
18	BN	58	HIS
19	BL	61	PHE
20	BT	48	LEU
22	BZ	13	SER
22	BZ	96	HIS
23	Bc	3	THR
23	Bc	4	GLN
25	Bd	16	ALA
28	BA	108	THR
29	BR	100	LYS
30	BB	35	PRO
30	BB	79	GLN
30	BB	82	ARG
30	BB	176	ALA
31	BV	59	ARG
32	Ba	36	ILE
32	Ba	64	LEU
32	Ba	65	PRO
34	BC	35	TRP
34	BC	36	VAL
34	BC	106	ASP
34	BC	150	GLN
34	BC	235	PHE
35	BG	69	THR
36	BH	102	VAL
36	BH	141	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	BH	157	PRO
38	CT	124	GLU
38	CT	125	VAL
41	CA	38	ASN
41	CA	115	ASN
41	CA	127	ALA
42	CJ	6	LYS
42	CJ	10	PRO
42	CJ	32	LEU
42	CJ	74	ARG
43	CH	49	GLU
43	CH	126	ASP
44	CV	6	ARG
45	CN	78	GLY
45	CN	148	ILE
46	Ca	4	ARG
46	Ca	108	GLY
46	Ca	117	PRO
46	Ca	134	LYS
47	CQ	78	ASN
47	CQ	139	LEU
47	CQ	148	ALA
47	CQ	157	GLY
47	CQ	158	VAL
48	CD	17	PHE
48	CD	90	GLU
48	CD	118	GLN
48	CD	245	ALA
48	CD	259	LYS
52	CW	66	HIS
53	CY	4	ASN
53	CY	21	ALA
55	Cc	31	TYR
55	Cc	89	TYR
57	Ce	46	LYS
57	Ce	90	ASN
57	Ce	132	ASP
58	Cj	10	LYS
58	Cj	37	CYS
58	Cj	39	TYR
58	Cj	61	THR
60	Co	35	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
61	CM	65	VAL
61	CM	67	LYS
62	CS	15	GLY
62	CS	16	LEU
62	CS	19	PRO
62	CS	86	ARG
64	Ci	41	HIS
68	Ch	80	ALA
69	CF	206	PRO
70	Cq	12	VAL
70	Cq	74	GLY
71	CB	204	LYS
71	CB	205	GLU
71	CB	270	ALA
72	CC	22	ASN
72	CC	87	GLY
72	CC	154	LEU
72	CC	331	LEU
72	CC	346	LEU
72	CC	389	SER
75	CI	84	ALA
75	CI	85	PHE
75	CI	93	PRO
78	CL	65	TYR
81	Ck	26	LYS
82	Cb	23	LYS
4	BY	45	LEU
7	BM	91	LEU
7	BM	113	ASP
8	Bf	43	ARG
9	BX	9	ALA
10	Bg	111	VAL
17	BS	137	LYS
17	BS	150	LYS
20	BT	53	PRO
21	BP	117	LYS
21	BP	118	PRO
23	Bc	57	SER
24	BW	79	PHE
27	Be	4	VAL
27	Be	48	VAL
28	BA	163	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	BR	92	GLU
30	BB	38	PHE
30	BB	54	THR
30	BB	58	SER
30	BB	62	LYS
30	BB	63	HIS
30	BB	64	ARG
30	BB	210	VAL
30	BB	213	ARG
33	BJ	142	ILE
35	BG	154	ASP
36	BH	113	ARG
41	CA	66	PRO
41	CA	69	TYR
41	CA	140	ASN
42	CJ	9	ASN
47	CQ	149	VAL
48	CD	140	ARG
48	CD	294	ALA
49	CR	185	PRO
50	CP	162	PRO
52	CW	45	ARG
53	CY	49	ILE
54	Cr	72	LEU
54	Cr	108	SER
56	Cd	90	GLU
57	Ce	66	HIS
60	Co	59	HIS
60	Co	80	TYR
61	CM	78	ALA
61	CM	79	ASP
63	CU	55	LYS
65	CK	75	VAL
65	CK	78	ALA
65	CK	91	ARG
68	Ch	45	LEU
68	Ch	90	ARG
69	CF	160	LYS
70	Cq	145	ASN
71	CB	70	LYS
71	CB	111	SER
72	CC	18	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
72	CC	109	THR
72	CC	343	MET
73	CO	131	VAL
73	CO	152	TRP
73	CO	193	LYS
77	Cm	2	ILE
78	CL	60	CYS
79	CE	29	LYS
79	CE	69	THR
7	BM	95	ASP
8	Bf	11	LYS
10	Bg	237	ILE
10	Bg	340	GLN
11	BD	31	GLU
11	BD	84	VAL
11	BD	194	PRO
11	BD	206	ASP
11	BD	212	PRO
14	BQ	47	PRO
20	BT	90	SER
21	BP	63	MET
22	BZ	44	ASP
23	Bc	34	GLN
25	Bd	38	CYS
28	BA	193	ILE
30	BB	37	VAL
30	BB	207	LEU
33	BJ	4	ALA
35	BG	159	VAL
38	CT	43	LYS
41	CA	73	LYS
42	CJ	25	VAL
44	CV	49	LEU
49	CR	91	THR
49	CR	137	VAL
52	CW	71	LYS
54	Cr	67	ASP
57	Ce	121	THR
62	CS	166	LYS
64	Ci	81	GLY
65	CK	87	LYS
70	Cq	136	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
71	CB	69	LYS
71	CB	242	PRO
71	CB	297	GLU
78	CL	126	PHE
79	CE	11	ILE
14	BQ	31	GLY
27	Be	56	GLY
32	Ba	84	VAL
38	CT	123	GLY
49	CR	57	ILE
79	CE	45	ILE
79	CE	117	ILE
83	Cg	2	VAL
13	BF	137	ILE
14	BQ	46	ARG
18	BN	66	VAL
38	CT	84	ILE
38	CT	146	ILE
49	CR	73	GLY
54	Cr	61	GLN
7	BM	103	VAL
10	Bg	127	GLY
11	BD	95	GLY
20	BT	33	LEU
28	BA	122	GLU
32	Ba	75	VAL
40	Cz	55	PRO
42	CJ	60	GLY
64	Ci	43	VAL
68	Ch	97	SER
78	CL	2	VAL
6	BK	83	PRO
15	BU	66	PRO
30	BB	215	VAL
36	BH	156	ASP
38	CT	126	ILE
56	Cd	16	VAL
75	CI	42	GLY
8	Bf	15	ILE
11	BD	202	THR
55	Cc	79	VAL
58	Cj	38	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
72	CC	386	ILE
79	CE	36	LEU

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	
4	BY	116/116 (100%)	110 (95%)	6 (5%)	29	65
5	BI	56/179 (31%)	53 (95%)	3 (5%)	27	64
6	BK	90/146 (62%)	88 (98%)	2 (2%)	60	83
7	BM	101/142 (71%)	101 (100%)	0	100	100
8	Bf	62/135 (46%)	60 (97%)	2 (3%)	46	77
9	BX	113/113 (100%)	111 (98%)	2 (2%)	66	87
10	Bg	323/323 (100%)	310 (96%)	13 (4%)	38	71
11	BD	175/175 (100%)	170 (97%)	5 (3%)	50	78
12	BE	176/225 (78%)	172 (98%)	4 (2%)	58	83
13	BF	159/159 (100%)	153 (96%)	6 (4%)	40	73
14	BQ	103/120 (86%)	97 (94%)	6 (6%)	25	62
15	BU	113/113 (100%)	107 (95%)	6 (5%)	28	65
16	BO	94/120 (78%)	90 (96%)	4 (4%)	35	70
17	BS	133/133 (100%)	125 (94%)	8 (6%)	24	61
18	BN	106/130 (82%)	101 (95%)	5 (5%)	32	68
19	BL	74/135 (55%)	70 (95%)	4 (5%)	27	64
20	BT	121/121 (100%)	115 (95%)	6 (5%)	30	66
21	BP	77/130 (59%)	71 (92%)	6 (8%)	16	52
22	BZ	87/93 (94%)	84 (97%)	3 (3%)	44	76
23	Bc	52/58 (90%)	48 (92%)	4 (8%)	16	53
24	BW	113/113 (100%)	109 (96%)	4 (4%)	43	75
25	Bd	40/47 (85%)	39 (98%)	1 (2%)	55	81

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	Bb	78/78 (100%)	78 (100%)	0	100	100
27	Be	47/49 (96%)	46 (98%)	1 (2%)	61	85
28	BA	161/204 (79%)	153 (95%)	8 (5%)	30	66
29	BR	105/127 (83%)	103 (98%)	2 (2%)	65	86
30	BB	188/226 (83%)	186 (99%)	2 (1%)	80	91
31	BV	63/68 (93%)	59 (94%)	4 (6%)	22	59
32	Ba	80/107 (75%)	78 (98%)	2 (2%)	55	81
33	BJ	160/167 (96%)	157 (98%)	3 (2%)	65	86
34	BC	182/211 (86%)	177 (97%)	5 (3%)	52	79
35	BG	201/210 (96%)	192 (96%)	9 (4%)	34	69
36	BH	164/168 (98%)	157 (96%)	7 (4%)	35	70
37	CG	205/220 (93%)	194 (95%)	11 (5%)	27	64
38	CT	139/141 (99%)	135 (97%)	4 (3%)	50	78
39	CZ	113/113 (100%)	109 (96%)	4 (4%)	43	75
40	Cz	192/192 (100%)	182 (95%)	10 (5%)	29	65
41	CA	195/199 (98%)	184 (94%)	11 (6%)	26	63
42	CJ	149/157 (95%)	139 (93%)	10 (7%)	20	57
43	CH	164/164 (100%)	158 (96%)	6 (4%)	41	74
44	CV	109/109 (100%)	106 (97%)	3 (3%)	51	79
45	CN	167/173 (96%)	161 (96%)	6 (4%)	42	74
46	Ca	110/110 (100%)	101 (92%)	9 (8%)	14	49
47	CQ	138/160 (86%)	132 (96%)	6 (4%)	35	70
48	CD	251/251 (100%)	234 (93%)	17 (7%)	20	57
49	CR	166/183 (91%)	154 (93%)	12 (7%)	18	55
50	CP	144/144 (100%)	139 (96%)	5 (4%)	43	75
51	CX	109/130 (84%)	102 (94%)	7 (6%)	22	59
52	CW	66/133 (50%)	65 (98%)	1 (2%)	72	89
53	CY	115/128 (90%)	110 (96%)	5 (4%)	35	70
54	Cr	64/131 (49%)	61 (95%)	3 (5%)	32	68
55	Cc	98/98 (100%)	94 (96%)	4 (4%)	37	71
56	Cd	103/106 (97%)	98 (95%)	5 (5%)	31	67

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
57	Ce	122/122 (100%)	116 (95%)	6 (5%)	31	67
58	Cj	77/77 (100%)	74 (96%)	3 (4%)	39	72
59	Cl	48/48 (100%)	47 (98%)	1 (2%)	61	85
60	Co	94/94 (100%)	87 (93%)	7 (7%)	17	54
61	CM	116/116 (100%)	110 (95%)	6 (5%)	29	65
62	CS	153/163 (94%)	145 (95%)	8 (5%)	29	65
63	CU	94/106 (89%)	86 (92%)	8 (8%)	13	48
64	Ci	62/92 (67%)	59 (95%)	3 (5%)	31	67
65	CK	105/139 (76%)	98 (93%)	7 (7%)	20	57
66	Cu	46/77 (60%)	45 (98%)	1 (2%)	60	83
66	Cv	46/77 (60%)	46 (100%)	0	100	100
67	Cs	48/82 (58%)	47 (98%)	1 (2%)	61	85
67	Ct	48/82 (58%)	46 (96%)	2 (4%)	36	70
68	Ch	109/109 (100%)	103 (94%)	6 (6%)	27	64
69	CF	206/206 (100%)	199 (97%)	7 (3%)	44	76
70	Cq	222/265 (84%)	216 (97%)	6 (3%)	52	79
71	CB	335/335 (100%)	315 (94%)	20 (6%)	24	61
72	CC	302/329 (92%)	286 (95%)	16 (5%)	28	65
73	CO	173/173 (100%)	160 (92%)	13 (8%)	17	54
74	Cp	73/73 (100%)	72 (99%)	1 (1%)	74	89
75	CI	156/183 (85%)	152 (97%)	4 (3%)	54	80
76	Cn	24/24 (100%)	23 (96%)	1 (4%)	36	70
77	Cm	47/48 (98%)	46 (98%)	1 (2%)	61	85
78	CL	175/175 (100%)	166 (95%)	9 (5%)	29	66
79	CE	185/185 (100%)	169 (91%)	16 (9%)	13	47
80	Cf	96/96 (100%)	93 (97%)	3 (3%)	47	77
81	Ck	63/63 (100%)	58 (92%)	5 (8%)	15	51
82	Cb	51/53 (96%)	51 (100%)	0	100	100
83	Cg	98/107 (92%)	91 (93%)	7 (7%)	18	56
All	All	10084/11382 (89%)	9634 (96%)	450 (4%)	38	69

All (450) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	BY	21	ARG
4	BY	37	ARG
4	BY	47	GLU
4	BY	95	TYR
4	BY	123	ILE
4	BY	127	LYS
5	BI	151	ASN
5	BI	201	LYS
5	BI	209	LYS
6	BK	54	TYR
6	BK	92	LYS
8	Bf	59	ASN
8	Bf	65	TYR
9	BX	60	GLN
9	BX	141	ARG
10	Bg	15	THR
10	Bg	52	ASN
10	Bg	62	LEU
10	Bg	78	LYS
10	Bg	107	HIS
10	Bg	112	MET
10	Bg	128	LEU
10	Bg	143	ARG
10	Bg	166	VAL
10	Bg	230	VAL
10	Bg	246	HIS
10	Bg	255	VAL
10	Bg	263	ARG
11	BD	40	ARG
11	BD	91	VAL
11	BD	99	ILE
11	BD	124	ARG
11	BD	207	LEU
12	BE	80	LYS
12	BE	149	TYR
12	BE	168	LYS
12	BE	208	ILE
13	BF	10	GLN
13	BF	51	ARG
13	BF	58	ARG
13	BF	113	ILE
13	BF	132	ARG
13	BF	178	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	BQ	53	LYS
14	BQ	66	PHE
14	BQ	129	ARG
14	BQ	135	PHE
14	BQ	143	ARG
14	BQ	149	ARG
15	BU	12	MET
15	BU	30	ARG
15	BU	75	ARG
15	BU	86	TRP
15	BU	87	ASP
15	BU	92	ARG
16	BO	49	ARG
16	BO	65	ARG
16	BO	67	GLU
16	BO	87	LEU
17	BS	25	LYS
17	BS	36	VAL
17	BS	55	ARG
17	BS	78	LYS
17	BS	79	VAL
17	BS	108	ARG
17	BS	135	HIS
17	BS	136	THR
18	BN	70	LYS
18	BN	83	GLU
18	BN	108	ASP
18	BN	117	LEU
18	BN	124	ARG
19	BL	86	ILE
19	BL	96	LYS
19	BL	100	ARG
19	BL	116	PHE
20	BT	34	PRO
20	BT	46	LYS
20	BT	51	TYR
20	BT	91	ARG
20	BT	93	PRO
20	BT	106	ILE
21	BP	59	LYS
21	BP	60	ARG
21	BP	99	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	BP	116	ILE
21	BP	124	TYR
21	BP	139	ARG
22	BZ	39	ASN
22	BZ	68	GLU
22	BZ	104	ARG
23	Bc	1	MET
23	Bc	16	ARG
23	Bc	41	ASN
23	Bc	47	ARG
24	BW	22	LYS
24	BW	51	GLU
24	BW	69	LEU
24	BW	113	HIS
25	Bd	55	TYR
27	Be	26	LYS
28	BA	37	GLN
28	BA	40	ARG
28	BA	52	ILE
28	BA	68	VAL
28	BA	76	GLN
28	BA	108	THR
28	BA	126	LEU
28	BA	159	ARG
29	BR	85	VAL
29	BR	105	MET
30	BB	105	PHE
30	BB	231	VAL
31	BV	20	THR
31	BV	41	GLU
31	BV	63	ASP
31	BV	72	TRP
32	Ba	45	VAL
32	Ba	70	LYS
33	BJ	18	ARG
33	BJ	23	LYS
33	BJ	70	ARG
34	BC	90	THR
34	BC	113	LEU
34	BC	148	ILE
34	BC	196	VAL
34	BC	216	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BG	4	ASN
35	BG	7	ASN
35	BG	32	ILE
35	BG	44	GLU
35	BG	74	ARG
35	BG	87	TYR
35	BG	130	GLU
35	BG	144	ARG
35	BG	228	ARG
36	BH	32	ASN
36	BH	36	GLU
36	BH	117	ARG
36	BH	130	VAL
36	BH	158	LYS
36	BH	167	LEU
36	BH	182	VAL
37	CG	61	ARG
37	CG	68	LYS
37	CG	82	LYS
37	CG	126	ILE
37	CG	132	LEU
37	CG	177	LYS
37	CG	189	LYS
37	CG	193	VAL
37	CG	214	ILE
37	CG	217	ASN
37	CG	221	LYS
38	CT	27	LEU
38	CT	30	TYR
38	CT	60	ARG
38	CT	63	ARG
39	CZ	29	PHE
39	CZ	34	ARG
39	CZ	84	ARG
39	CZ	136	PHE
40	Cz	9	VAL
40	Cz	33	LEU
40	Cz	46	LYS
40	Cz	61	LYS
40	Cz	102	LEU
40	Cz	129	LYS
40	Cz	140	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	Cz	182	ILE
40	Cz	206	LYS
40	Cz	211	LYS
41	CA	1	MET
41	CA	5	ILE
41	CA	30	ARG
41	CA	37	ARG
41	CA	69	TYR
41	CA	74	GLU
41	CA	158	VAL
41	CA	177	LYS
41	CA	193	ARG
41	CA	227	ARG
41	CA	247	ARG
42	CJ	2	SER
42	CJ	31	ARG
42	CJ	34	ARG
42	CJ	51	LYS
42	CJ	70	TYR
42	CJ	82	LEU
42	CJ	89	LYS
42	CJ	93	LEU
42	CJ	94	LEU
42	CJ	142	ARG
43	CH	39	LYS
43	CH	41	LEU
43	CH	70	ARG
43	CH	141	ASP
43	CH	143	LEU
43	CH	185	THR
44	CV	39	ILE
44	CV	62	MET
44	CV	92	ASP
45	CN	97	ASN
45	CN	116	LEU
45	CN	123	GLU
45	CN	160	GLU
45	CN	175	ARG
45	CN	180	THR
46	Ca	21	ARG
46	Ca	26	ARG
46	Ca	41	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	Ca	47	LYS
46	Ca	62	HIS
46	Ca	111	MET
46	Ca	121	LYS
46	Ca	123	LYS
46	Ca	142	LEU
47	CQ	4	ASP
47	CQ	56	LYS
47	CQ	77	LYS
47	CQ	91	ARG
47	CQ	139	LEU
47	CQ	156	PRO
48	CD	19	ARG
48	CD	23	LYS
48	CD	52	LYS
48	CD	61	ILE
48	CD	142	PHE
48	CD	158	ARG
48	CD	190	LEU
48	CD	200	TYR
48	CD	203	HIS
48	CD	208	MET
48	CD	219	PHE
48	CD	236	MET
48	CD	241	LYS
48	CD	242	LYS
48	CD	261	PRO
48	CD	281	LEU
48	CD	285	LEU
49	CR	1	MET
49	CR	6	LEU
49	CR	9	ARG
49	CR	56	LYS
49	CR	58	HIS
49	CR	84	THR
49	CR	86	GLU
49	CR	91	THR
49	CR	131	MET
49	CR	135	LYS
49	CR	151	ARG
49	CR	153	LYS
50	CP	4	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	CP	16	LYS
50	CP	22	LEU
50	CP	61	ARG
50	CP	81	GLN
51	CX	46	LYS
51	CX	47	THR
51	CX	48	LEU
51	CX	66	LYS
51	CX	80	GLU
51	CX	98	LEU
51	CX	149	ILE
52	CW	45	ARG
53	CY	1	MET
53	CY	27	ARG
53	CY	86	ARG
53	CY	114	ARG
53	CY	129	LYS
54	Cr	87	TYR
54	Cr	92	MET
54	Cr	115	ASP
55	Cc	14	ILE
55	Cc	57	LYS
55	Cc	91	VAL
55	Cc	104	ILE
56	Cd	45	ARG
56	Cd	63	LEU
56	Cd	85	ARG
56	Cd	102	THR
56	Cd	105	GLU
57	Ce	24	ASP
57	Ce	44	ARG
57	Ce	91	ARG
57	Ce	120	VAL
57	Ce	121	THR
57	Ce	126	ARG
58	Cj	1	MET
58	Cj	14	LYS
58	Cj	30	GLN
59	Cl	23	ILE
60	Co	2	VAL
60	Co	16	GLU
60	Co	53	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
60	Co	61	LYS
60	Co	78	LYS
60	Co	83	HIS
60	Co	102	THR
61	CM	5	ARG
61	CM	6	PHE
61	CM	8	GLU
61	CM	42	ASP
61	CM	63	LYS
61	CM	102	LEU
62	CS	38	ARG
62	CS	55	LYS
62	CS	69	LYS
62	CS	71	PRO
62	CS	75	LYS
62	CS	115	ARG
62	CS	119	ARG
62	CS	161	PRO
63	CU	41	LEU
63	CU	48	ARG
63	CU	55	LYS
63	CU	85	LEU
63	CU	95	LYS
63	CU	101	TRP
63	CU	102	LEU
63	CU	114	TYR
64	Ci	88	LYS
64	Ci	96	VAL
64	Ci	99	LYS
65	CK	16	ARG
65	CK	32	ILE
65	CK	41	LYS
65	CK	42	ILE
65	CK	55	LYS
65	CK	58	ARG
65	CK	76	PRO
66	Cu	10	LEU
67	Cs	8	LEU
67	Ct	1	MET
67	Ct	8	LEU
68	Ch	7	LYS
68	Ch	16	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
68	Ch	35	ILE
68	Ch	37	LYS
68	Ch	75	LYS
68	Ch	90	ARG
69	CF	68	LYS
69	CF	69	ARG
69	CF	72	ARG
69	CF	115	ASN
69	CF	143	LEU
69	CF	144	LYS
69	CF	190	ILE
70	Cq	59	ASN
70	Cq	92	ILE
70	Cq	98	LEU
70	Cq	155	VAL
70	Cq	209	LEU
70	Cq	210	THR
71	CB	4	ARG
71	CB	20	LYS
71	CB	30	LYS
71	CB	39	LYS
71	CB	55	HIS
71	CB	60	VAL
71	CB	94	LYS
71	CB	101	THR
71	CB	118	PHE
71	CB	123	CYS
71	CB	162	VAL
71	CB	169	ARG
71	CB	182	MET
71	CB	201	PHE
71	CB	244	LYS
71	CB	259	HIS
71	CB	306	GLU
71	CB	327	MET
71	CB	347	LEU
71	CB	348	LYS
72	CC	8	LEU
72	CC	20	THR
72	CC	53	ARG
72	CC	60	ARG
72	CC	108	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
72	CC	109	THR
72	CC	154	LEU
72	CC	200	MET
72	CC	215	TYR
72	CC	233	ASP
72	CC	313	GLU
72	CC	319	LYS
72	CC	345	THR
72	CC	346	LEU
72	CC	352	ILE
72	CC	357	GLU
73	CO	11	ARG
73	CO	37	ARG
73	CO	44	GLU
73	CO	54	ARG
73	CO	57	MET
73	CO	66	ARG
73	CO	76	ILE
73	CO	126	PRO
73	CO	134	LEU
73	CO	152	TRP
73	CO	181	LYS
73	CO	185	LYS
73	CO	193	LYS
74	Cp	73	THR
75	CI	57	LYS
75	CI	65	LEU
75	CI	141	LYS
75	CI	179	GLU
76	Cn	25	LYS
77	Cm	23	CYS
78	CL	10	ASN
78	CL	12	HIS
78	CL	54	LEU
78	CL	63	LEU
78	CL	102	LYS
78	CL	120	LYS
78	CL	148	GLN
78	CL	183	ARG
78	CL	204	LYS
79	CE	22	ARG
79	CE	36	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
79	CE	38	LYS
79	CE	50	PHE
79	CE	51	TYR
79	CE	52	PRO
79	CE	75	ILE
79	CE	92	ARG
79	CE	118	ARG
79	CE	149	ARG
79	CE	152	LYS
79	CE	161	GLU
79	CE	180	ASP
79	CE	184	ILE
79	CE	209	ARG
79	CE	217	MET
80	Cf	4	ARG
80	Cf	5	GLN
80	Cf	9	VAL
81	Ck	1	MET
81	Ck	19	ASP
81	Ck	33	LYS
81	Ck	56	LEU
81	Ck	58	GLN
83	Cg	9	LYS
83	Cg	32	TYR
83	Cg	50	LYS
83	Cg	51	ILE
83	Cg	63	LYS
83	Cg	66	ARG
83	Cg	72	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (129) such sidechains are listed below:

Mol	Chain	Res	Type
4	BY	39	ASN
5	BI	151	ASN
5	BI	152	HIS
5	BI	189	GLN
6	BK	32	HIS
9	BX	20	GLN
9	BX	60	GLN
9	BX	109	HIS
10	Bg	63	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	Bg	217	ASN
10	Bg	219	ASN
10	Bg	282	HIS
10	Bg	343	HIS
10	Bg	367	ASN
11	BD	162	GLN
13	BF	91	HIS
15	BU	84	ASN
17	BS	42	ASN
17	BS	72	HIS
17	BS	120	HIS
17	BS	125	HIS
18	BN	58	HIS
18	BN	101	HIS
19	BL	77	HIS
19	BL	105	HIS
19	BL	123	HIS
20	BT	15	HIS
21	BP	112	ASN
22	BZ	99	GLN
24	BW	42	GLN
24	BW	44	HIS
24	BW	113	HIS
25	Bd	28	HIS
26	Bb	51	HIS
29	BR	56	HIS
30	BB	99	ASN
30	BB	232	HIS
31	BV	38	HIS
31	BV	73	GLN
32	Ba	7	ASN
32	Ba	11	ASN
32	Ba	73	HIS
32	Ba	80	HIS
32	Ba	82	HIS
33	BJ	125	HIS
33	BJ	178	ASN
35	BG	34	GLN
35	BG	59	GLN
35	BG	160	ASN
37	CG	57	GLN
37	CG	134	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	CT	54	HIS
38	CT	58	HIS
38	CT	90	HIS
40	Cz	75	GLN
41	CA	65	HIS
41	CA	139	HIS
41	CA	187	HIS
41	CA	209	HIS
41	CA	211	HIS
41	CA	216	HIS
41	CA	218	HIS
41	CA	221	HIS
41	CA	233	GLN
42	CJ	17	GLN
42	CJ	153	HIS
43	CH	40	HIS
45	CN	87	GLN
45	CN	95	GLN
45	CN	97	ASN
45	CN	182	HIS
46	Ca	19	HIS
46	Ca	69	HIS
48	CD	14	HIS
48	CD	43	GLN
48	CD	157	ASN
49	CR	58	HIS
49	CR	121	HIS
49	CR	143	HIS
50	CP	9	ASN
50	CP	25	HIS
50	CP	54	HIS
50	CP	56	GLN
50	CP	117	HIS
50	CP	121	ASN
50	CP	146	HIS
51	CX	43	HIS
51	CX	69	GLN
51	CX	89	ASN
51	CX	121	ASN
52	CW	61	HIS
53	CY	99	HIS
57	Ce	22	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
58	Cj	28	HIS
58	Cj	94	ASN
59	Cl	20	ASN
62	CS	132	HIS
64	Ci	83	HIS
68	Ch	46	ASN
68	Ch	66	GLN
68	Ch	117	GLN
70	Cq	40	GLN
70	Cq	59	ASN
71	CB	121	ASN
71	CB	165	HIS
71	CB	259	HIS
71	CB	276	HIS
71	CB	282	ASN
72	CC	64	HIS
72	CC	120	ASN
72	CC	146	HIS
72	CC	250	HIS
73	CO	18	HIS
73	CO	138	HIS
73	CO	145	GLN
75	CI	14	ASN
78	CL	99	HIS
79	CE	18	HIS
79	CE	21	HIS
79	CE	67	HIS
79	CE	100	GLN
80	Cf	26	ASN
80	Cf	27	GLN
82	Cb	6	ASN
82	Cb	10	HIS
82	Cb	17	HIS
82	Cb	42	ASN
82	Cb	49	HIS
83	Cg	11	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	Ad	1760/1810 (97%)	458 (26%)	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	Ae	74/75 (98%)	19 (25%)	0
3	Af	10/11 (90%)	2 (20%)	0
84	Aa	3389/3391 (99%)	748 (22%)	0
85	Ac	159/160 (99%)	35 (22%)	0
86	Ab	119/120 (99%)	23 (19%)	0
All	All	5511/5567 (98%)	1285 (23%)	0

All (1285) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	Ad	4	C
1	Ad	8	U
1	Ad	16	G
1	Ad	25	C
1	Ad	26	A
1	Ad	27	U
1	Ad	34	G
1	Ad	46	A
1	Ad	47	A
1	Ad	50	C
1	Ad	55	A
1	Ad	56	U
1	Ad	57	G
1	Ad	58	U
1	Ad	59	G
1	Ad	60	C
1	Ad	65	A
1	Ad	68	A
1	Ad	72	A
1	Ad	73	A
1	Ad	75	U
1	Ad	76	U
1	Ad	77	G
1	Ad	78	A
1	Ad	79	A
1	Ad	80	C
1	Ad	81	U
1	Ad	103	U
1	Ad	105	A
1	Ad	112	U
1	Ad	115	A
1	Ad	127	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	128	G
1	Ad	132	G
1	Ad	133	U
1	Ad	134	G
1	Ad	135	C
1	Ad	136	U
1	Ad	137	A
1	Ad	138	C
1	Ad	139	U
1	Ad	140	C
1	Ad	142	G
1	Ad	143	A
1	Ad	144	U
1	Ad	151	A
1	Ad	157	U
1	Ad	158	C
1	Ad	164	C
1	Ad	175	A
1	Ad	176	A
1	Ad	177	C
1	Ad	179	A
1	Ad	183	C
1	Ad	184	C
1	Ad	185	G
1	Ad	186	A
1	Ad	187	C
1	Ad	189	U
1	Ad	190	C
1	Ad	191	U
1	Ad	192	G
1	Ad	193	G
1	Ad	194	G
1	Ad	195	A
1	Ad	198	G
1	Ad	203	A
1	Ad	209	U
1	Ad	212	A
1	Ad	215	A
1	Ad	216	A
1	Ad	220	C
1	Ad	222	G
1	Ad	223	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	224	C
1	Ad	225	G
1	Ad	226	C
1	Ad	229	G
1	Ad	230	C
1	Ad	231	U
1	Ad	235	C
1	Ad	236	U
1	Ad	237	C
1	Ad	238	G
1	Ad	239	C
1	Ad	240	U
1	Ad	241	G
1	Ad	242	A
1	Ad	243	U
1	Ad	244	C
1	Ad	245	C
1	Ad	251	U
1	Ad	252	U
1	Ad	253	C
1	Ad	263	C
1	Ad	264	G
1	Ad	265	A
1	Ad	268	G
1	Ad	269	A
1	Ad	270	U
1	Ad	271	C
1	Ad	272	G
1	Ad	277	G
1	Ad	278	C
1	Ad	279	C
1	Ad	282	C
1	Ad	283	G
1	Ad	284	U
1	Ad	285	G
1	Ad	292	A
1	Ad	303	A
1	Ad	318	C
1	Ad	320	A
1	Ad	324	U
1	Ad	337	A
1	Ad	341	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	342	C
1	Ad	345	A
1	Ad	352	U
1	Ad	356	G
1	Ad	364	A
1	Ad	365	C
1	Ad	373	U
1	Ad	384	U
1	Ad	403	A
1	Ad	405	A
1	Ad	406	C
1	Ad	408	G
1	Ad	415	C
1	Ad	420	A
1	Ad	421	A
1	Ad	422	G
1	Ad	428	C
1	Ad	429	A
1	Ad	430	G
1	Ad	432	A
1	Ad	438	G
1	Ad	443	U
1	Ad	448	C
1	Ad	450	A
1	Ad	452	C
1	Ad	458	A
1	Ad	474	A
1	Ad	479	A
1	Ad	481	A
1	Ad	488	C
1	Ad	489	C
1	Ad	490	G
1	Ad	491	G
1	Ad	492	G
1	Ad	498	U
1	Ad	500	G
1	Ad	501	U
1	Ad	502	G
1	Ad	503	U
1	Ad	506	G
1	Ad	507	G
1	Ad	508	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	509	A
1	Ad	510	A
1	Ad	512	U
1	Ad	514	G
1	Ad	515	A
1	Ad	517	U
1	Ad	519	A
1	Ad	520	G
1	Ad	523	C
1	Ad	529	A
1	Ad	531	A
1	Ad	535	C
1	Ad	536	U
1	Ad	545	A
1	Ad	547	C
1	Ad	548	C
1	Ad	549	A
1	Ad	552	G
1	Ad	560	A
1	Ad	561	G
1	Ad	562	U
1	Ad	569	C
1	Ad	572	G
1	Ad	574	A
1	Ad	579	C
1	Ad	584	A
1	Ad	589	A
1	Ad	598	A
1	Ad	599	G
1	Ad	601	G
1	Ad	610	A
1	Ad	611	G
1	Ad	613	U
1	Ad	615	U
1	Ad	623	A
1	Ad	626	A
1	Ad	628	G
1	Ad	634	A
1	Ad	642	C
1	Ad	643	U
1	Ad	644	U
1	Ad	705	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	708	G
1	Ad	722	A
1	Ad	723	A
1	Ad	732	G
1	Ad	733	U
1	Ad	744	G
1	Ad	745	C
1	Ad	749	G
1	Ad	760	G
1	Ad	761	A
1	Ad	762	A
1	Ad	771	G
1	Ad	772	C
1	Ad	780	A
1	Ad	781	A
1	Ad	784	C
1	Ad	789	C
1	Ad	790	U
1	Ad	791	C
1	Ad	793	G
1	Ad	795	A
1	Ad	800	U
1	Ad	801	U
1	Ad	812	A
1	Ad	816	U
1	Ad	817	C
1	Ad	818	A
1	Ad	821	G
1	Ad	822	G
1	Ad	824	U
1	Ad	825	U
1	Ad	826	C
1	Ad	828	G
1	Ad	829	G
1	Ad	834	A
1	Ad	835	U
1	Ad	836	U
1	Ad	838	U
1	Ad	839	G
1	Ad	842	G
1	Ad	843	G
1	Ad	845	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	851	G
1	Ad	854	C
1	Ad	857	A
1	Ad	859	U
1	Ad	867	A
1	Ad	868	A
1	Ad	878	U
1	Ad	881	G
1	Ad	903	A
1	Ad	917	U
1	Ad	918	G
1	Ad	919	G
1	Ad	926	G
1	Ad	933	G
1	Ad	934	A
1	Ad	935	A
1	Ad	937	A
1	Ad	938	A
1	Ad	940	U
1	Ad	947	G
1	Ad	949	A
1	Ad	956	A
1	Ad	964	U
1	Ad	965	U
1	Ad	966	U
1	Ad	971	A
1	Ad	973	U
1	Ad	987	U
1	Ad	997	A
1	Ad	998	A
1	Ad	1000	A
1	Ad	1002	G
1	Ad	1009	U
1	Ad	1010	A
1	Ad	1025	A
1	Ad	1026	C
1	Ad	1031	A
1	Ad	1033	C
1	Ad	1044	A
1	Ad	1045	G
1	Ad	1057	U
1	Ad	1058	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1064	U
1	Ad	1077	C
1	Ad	1079	G
1	Ad	1084	U
1	Ad	1087	U
1	Ad	1089	A
1	Ad	1091	A
1	Ad	1096	A
1	Ad	1097	A
1	Ad	1101	C
1	Ad	1103	U
1	Ad	1105	G
1	Ad	1109	U
1	Ad	1114	G
1	Ad	1116	G
1	Ad	1128	C
1	Ad	1143	A
1	Ad	1144	A
1	Ad	1151	G
1	Ad	1154	G
1	Ad	1156	A
1	Ad	1157	A
1	Ad	1160	G
1	Ad	1162	A
1	Ad	1163	C
1	Ad	1165	A
1	Ad	1169	G
1	Ad	1172	G
1	Ad	1184	C
1	Ad	1189	U
1	Ad	1192	G
1	Ad	1195	U
1	Ad	1197	A
1	Ad	1198	A
1	Ad	1200	A
1	Ad	1201	C
1	Ad	1203	G
1	Ad	1204	G
1	Ad	1205	G
1	Ad	1206	A
1	Ad	1211	U
1	Ad	1221	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1222	G
1	Ad	1232	G
1	Ad	1233	G
1	Ad	1247	G
1	Ad	1248	A
1	Ad	1249	G
1	Ad	1254	U
1	Ad	1255	U
1	Ad	1258	U
1	Ad	1260	A
1	Ad	1261	U
1	Ad	1262	U
1	Ad	1264	U
1	Ad	1273	U
1	Ad	1292	G
1	Ad	1305	U
1	Ad	1318	U
1	Ad	1319	U
1	Ad	1325	A
1	Ad	1326	A
1	Ad	1344	U
1	Ad	1345	G
1	Ad	1348	A
1	Ad	1349	A
1	Ad	1354	C
1	Ad	1358	G
1	Ad	1359	C
1	Ad	1366	A
1	Ad	1369	C
1	Ad	1373	C
1	Ad	1376	A
1	Ad	1377	G
1	Ad	1381	G
1	Ad	1382	C
1	Ad	1388	A
1	Ad	1394	A
1	Ad	1395	C
1	Ad	1396	U
1	Ad	1404	U
1	Ad	1405	U
1	Ad	1408	G
1	Ad	1409	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1418	G
1	Ad	1419	U
1	Ad	1421	U
1	Ad	1433	A
1	Ad	1434	G
1	Ad	1437	C
1	Ad	1452	A
1	Ad	1454	G
1	Ad	1463	C
1	Ad	1464	G
1	Ad	1465	C
1	Ad	1466	A
1	Ad	1468	G
1	Ad	1477	A
1	Ad	1479	U
1	Ad	1480	G
1	Ad	1481	A
1	Ad	1484	U
1	Ad	1488	C
1	Ad	1494	G
1	Ad	1496	A
1	Ad	1497	U
1	Ad	1499	U
1	Ad	1500	A
1	Ad	1501	G
1	Ad	1502	C
1	Ad	1507	G
1	Ad	1508	C
1	Ad	1514	G
1	Ad	1522	U
1	Ad	1524	A
1	Ad	1526	C
1	Ad	1529	G
1	Ad	1531	G
1	Ad	1542	G
1	Ad	1543	U
1	Ad	1544	G
1	Ad	1545	A
1	Ad	1546	U
1	Ad	1547	G
1	Ad	1548	G
1	Ad	1565	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1567	G
1	Ad	1577	A
1	Ad	1581	A
1	Ad	1582	G
1	Ad	1591	A
1	Ad	1592	G
1	Ad	1598	G
1	Ad	1609	G
1	Ad	1624	G
1	Ad	1627	C
1	Ad	1632	C
1	Ad	1639	A
1	Ad	1642	C
1	Ad	1643	A
1	Ad	1652	C
1	Ad	1664	U
1	Ad	1665	U
1	Ad	1666	G
1	Ad	1691	C
1	Ad	1692	G
1	Ad	1694	G
1	Ad	1698	A
1	Ad	1699	C
1	Ad	1708	U
1	Ad	1725	C
1	Ad	1726	G
1	Ad	1728	G
1	Ad	1737	A
1	Ad	1739	U
1	Ad	1764	G
1	Ad	1765	A
1	Ad	1766	A
1	Ad	1767	G
1	Ad	1769	C
1	Ad	1770	G
1	Ad	1771	U
1	Ad	1772	A
1	Ad	1776	A
1	Ad	1779	U
1	Ad	1780	U
1	Ad	1783	C
1	Ad	1793	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Ad	1799	G
1	Ad	1802	G
1	Ad	1804	A
1	Ad	1806	C
1	Ad	1807	A
1	Ad	1809	U
2	Ae	8	U
2	Ae	17	G
2	Ae	19	U
2	Ae	20	C
2	Ae	21	A
2	Ae	22	G
2	Ae	33	U
2	Ae	37	G
2	Ae	38	C
2	Ae	41	G
2	Ae	42	C
2	Ae	45	G
2	Ae	47	U
2	Ae	51	G
2	Ae	60	C
2	Ae	68	C
2	Ae	72	G
2	Ae	74	C
2	Ae	75	A
3	Af	13	A
3	Af	14	A
84	Aa	2	C
84	Aa	3	G
84	Aa	6	A
84	Aa	12	G
84	Aa	13	G
84	Aa	15	C
84	Aa	25	U
84	Aa	39	A
84	Aa	41	C
84	Aa	48	A
84	Aa	58	G
84	Aa	59	A
84	Aa	64	A
84	Aa	65	A
84	Aa	73	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	74	G
84	Aa	75	G
84	Aa	84	A
84	Aa	85	G
84	Aa	91	G
84	Aa	92	C
84	Aa	98	A
84	Aa	108	A
84	Aa	109	G
84	Aa	112	C
84	Aa	115	C
84	Aa	116	U
84	Aa	121	A
84	Aa	134	U
84	Aa	135	G
84	Aa	153	U
84	Aa	155	G
84	Aa	156	A
84	Aa	159	G
84	Aa	164	C
84	Aa	167	C
84	Aa	168	A
84	Aa	171	G
84	Aa	180	G
84	Aa	188	U
84	Aa	189	C
84	Aa	190	C
84	Aa	198	A
84	Aa	208	G
84	Aa	212	G
84	Aa	216	G
84	Aa	217	A
84	Aa	232	C
84	Aa	233	C
84	Aa	236	A
84	Aa	238	C
84	Aa	239	C
84	Aa	241	G
84	Aa	242	U
84	Aa	243	C
84	Aa	247	C
84	Aa	248	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	249	A
84	Aa	250	C
84	Aa	251	G
84	Aa	263	A
84	Aa	267	G
84	Aa	281	G
84	Aa	284	U
84	Aa	293	A
84	Aa	296	C
84	Aa	305	G
84	Aa	321	A
84	Aa	327	A
84	Aa	336	A
84	Aa	337	C
84	Aa	347	A
84	Aa	348	C
84	Aa	349	A
84	Aa	368	U
84	Aa	370	A
84	Aa	371	A
84	Aa	374	G
84	Aa	393	A
84	Aa	395	A
84	Aa	396	G
84	Aa	397	A
84	Aa	399	U
84	Aa	400	G
84	Aa	401	C
84	Aa	404	G
84	Aa	419	G
84	Aa	421	A
84	Aa	422	G
84	Aa	424	G
84	Aa	432	G
84	Aa	435	G
84	Aa	438	G
84	Aa	440	U
84	Aa	441	G
84	Aa	464	G
84	Aa	465	C
84	Aa	466	U
84	Aa	467	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	469	U
84	Aa	479	C
84	Aa	482	C
84	Aa	488	U
84	Aa	489	C
84	Aa	492	G
84	Aa	493	G
84	Aa	499	A
84	Aa	500	C
84	Aa	507	C
84	Aa	521	G
84	Aa	522	C
84	Aa	523	C
84	Aa	524	A
84	Aa	543	C
84	Aa	544	C
84	Aa	549	G
84	Aa	550	C
84	Aa	555	G
84	Aa	564	A
84	Aa	571	G
84	Aa	572	U
84	Aa	573	A
84	Aa	574	C
84	Aa	575	C
84	Aa	581	G
84	Aa	585	A
84	Aa	588	G
84	Aa	598	U
84	Aa	601	G
84	Aa	612	U
84	Aa	613	G
84	Aa	621	C
84	Aa	623	G
84	Aa	639	A
84	Aa	640	C
84	Aa	642	C
84	Aa	651	A
84	Aa	652	C
84	Aa	653	A
84	Aa	660	A
84	Aa	664	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	681	A
84	Aa	685	G
84	Aa	697	A
84	Aa	703	G
84	Aa	709	G
84	Aa	712	A
84	Aa	716	A
84	Aa	718	C
84	Aa	719	U
84	Aa	720	G
84	Aa	722	C
84	Aa	723	G
84	Aa	724	A
84	Aa	729	G
84	Aa	736	U
84	Aa	746	C
84	Aa	747	A
84	Aa	761	C
84	Aa	767	U
84	Aa	768	U
84	Aa	769	C
84	Aa	770	U
84	Aa	779	U
84	Aa	784	G
84	Aa	787	G
84	Aa	788	G
84	Aa	804	A
84	Aa	809	A
84	Aa	810	A
84	Aa	820	A
84	Aa	840	A
84	Aa	852	C
84	Aa	864	C
84	Aa	877	U
84	Aa	882	U
84	Aa	886	A
84	Aa	899	A
84	Aa	900	C
84	Aa	910	G
84	Aa	911	G
84	Aa	917	A
84	Aa	919	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	920	A
84	Aa	923	A
84	Aa	924	A
84	Aa	926	C
84	Aa	928	A
84	Aa	937	G
84	Aa	940	G
84	Aa	947	C
84	Aa	950	U
84	Aa	962	C
84	Aa	963	U
84	Aa	965	A
84	Aa	977	G
84	Aa	982	U
84	Aa	983	U
84	Aa	984	A
84	Aa	985	C
84	Aa	986	G
84	Aa	997	G
84	Aa	998	G
84	Aa	1005	C
84	Aa	1006	A
84	Aa	1007	A
84	Aa	1010	A
84	Aa	1014	G
84	Aa	1018	C
84	Aa	1019	A
84	Aa	1020	U
84	Aa	1022	G
84	Aa	1024	G
84	Aa	1025	G
84	Aa	1028	G
84	Aa	1033	G
84	Aa	1036	C
84	Aa	1040	A
84	Aa	1041	C
84	Aa	1051	A
84	Aa	1053	C
84	Aa	1056	U
84	Aa	1061	A
84	Aa	1068	A
84	Aa	1069	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1075	G
84	Aa	1076	G
84	Aa	1085	G
84	Aa	1086	U
84	Aa	1087	G
84	Aa	1097	A
84	Aa	1098	U
84	Aa	1099	G
84	Aa	1101	A
84	Aa	1107	G
84	Aa	1120	G
84	Aa	1134	G
84	Aa	1146	A
84	Aa	1147	U
84	Aa	1156	A
84	Aa	1162	A
84	Aa	1183	C
84	Aa	1184	U
84	Aa	1185	G
84	Aa	1188	C
84	Aa	1194	C
84	Aa	1196	U
84	Aa	1205	C
84	Aa	1206	A
84	Aa	1213	G
84	Aa	1217	G
84	Aa	1220	G
84	Aa	1222	U
84	Aa	1226	G
84	Aa	1229	A
84	Aa	1231	C
84	Aa	1236	C
84	Aa	1237	G
84	Aa	1240	G
84	Aa	1241	G
84	Aa	1242	U
84	Aa	1243	C
84	Aa	1245	U
84	Aa	1246	G
84	Aa	1247	G
84	Aa	1248	A
84	Aa	1249	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1250	G
84	Aa	1252	C
84	Aa	1253	G
84	Aa	1255	A
84	Aa	1257	U
84	Aa	1262	U
84	Aa	1264	A
84	Aa	1266	G
84	Aa	1267	A
84	Aa	1268	G
84	Aa	1269	U
84	Aa	1270	G
84	Aa	1271	U
84	Aa	1273	U
84	Aa	1274	A
84	Aa	1275	A
84	Aa	1276	C
84	Aa	1281	C
84	Aa	1282	A
84	Aa	1283	C
84	Aa	1285	U
84	Aa	1289	G
84	Aa	1291	A
84	Aa	1296	C
84	Aa	1309	U
84	Aa	1311	G
84	Aa	1312	A
84	Aa	1313	U
84	Aa	1317	G
84	Aa	1329	G
84	Aa	1334	A
84	Aa	1349	G
84	Aa	1352	G
84	Aa	1355	U
84	Aa	1356	G
84	Aa	1357	C
84	Aa	1360	U
84	Aa	1361	G
84	Aa	1365	C
84	Aa	1402	G
84	Aa	1403	G
84	Aa	1404	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1417	G
84	Aa	1421	A
84	Aa	1422	G
84	Aa	1431	G
84	Aa	1436	A
84	Aa	1437	G
84	Aa	1440	C
84	Aa	1446	G
84	Aa	1449	A
84	Aa	1452	A
84	Aa	1453	G
84	Aa	1455	A
84	Aa	1481	C
84	Aa	1484	A
84	Aa	1488	G
84	Aa	1491	G
84	Aa	1511	C
84	Aa	1526	A
84	Aa	1529	C
84	Aa	1530	C
84	Aa	1531	G
84	Aa	1542	A
84	Aa	1545	G
84	Aa	1546	G
84	Aa	1550	A
84	Aa	1554	C
84	Aa	1556	G
84	Aa	1566	C
84	Aa	1567	G
84	Aa	1568	A
84	Aa	1570	C
84	Aa	1572	C
84	Aa	1577	A
84	Aa	1578	U
84	Aa	1584	A
84	Aa	1586	A
84	Aa	1602	A
84	Aa	1605	U
84	Aa	1618	U
84	Aa	1625	G
84	Aa	1640	A
84	Aa	1642	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1652	G
84	Aa	1654	C
84	Aa	1680	A
84	Aa	1703	C
84	Aa	1714	A
84	Aa	1715	C
84	Aa	1720	C
84	Aa	1721	A
84	Aa	1722	G
84	Aa	1723	C
84	Aa	1724	C
84	Aa	1726	G
84	Aa	1727	A
84	Aa	1728	G
84	Aa	1729	G
84	Aa	1734	G
84	Aa	1740	U
84	Aa	1748	A
84	Aa	1749	G
84	Aa	1758	U
84	Aa	1760	G
84	Aa	1761	C
84	Aa	1762	G
84	Aa	1766	U
84	Aa	1775	C
84	Aa	1776	G
84	Aa	1777	C
84	Aa	1793	A
84	Aa	1806	C
84	Aa	1808	G
84	Aa	1809	A
84	Aa	1810	G
84	Aa	1812	A
84	Aa	1813	C
84	Aa	1815	G
84	Aa	1816	U
84	Aa	1817	U
84	Aa	1830	U
84	Aa	1831	A
84	Aa	1835	A
84	Aa	1836	U
84	Aa	1837	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	1838	A
84	Aa	1842	C
84	Aa	1845	C
84	Aa	1846	A
84	Aa	1851	U
84	Aa	1862	C
84	Aa	1872	C
84	Aa	1874	A
84	Aa	1875	A
84	Aa	1876	U
84	Aa	1882	A
84	Aa	1897	A
84	Aa	1901	G
84	Aa	1902	G
84	Aa	1926	A
84	Aa	1938	U
84	Aa	1951	C
84	Aa	1970	A
84	Aa	1991	U
84	Aa	1996	C
84	Aa	1997	G
84	Aa	1999	G
84	Aa	2003	C
84	Aa	2004	U
84	Aa	2006	A
84	Aa	2007	C
84	Aa	2008	G
84	Aa	2012	C
84	Aa	2013	G
84	Aa	2015	G
84	Aa	2021	G
84	Aa	2042	G
84	Aa	2054	A
84	Aa	2056	C
84	Aa	2057	G
84	Aa	2058	C
84	Aa	2071	U
84	Aa	2073	U
84	Aa	2075	C
84	Aa	2077	C
84	Aa	2081	C
84	Aa	2082	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2084	G
84	Aa	2088	C
84	Aa	2101	A
84	Aa	2107	A
84	Aa	2108	C
84	Aa	2115	G
84	Aa	2116	G
84	Aa	2125	A
84	Aa	2134	U
84	Aa	2150	C
84	Aa	2151	G
84	Aa	2152	A
84	Aa	2153	U
84	Aa	2154	G
84	Aa	2160	C
84	Aa	2161	G
84	Aa	2162	C
84	Aa	2163	G
84	Aa	2167	G
84	Aa	2168	C
84	Aa	2170	G
84	Aa	2183	A
84	Aa	2188	U
84	Aa	2196	G
84	Aa	2200	U
84	Aa	2203	A
84	Aa	2205	G
84	Aa	2223	A
84	Aa	2239	A
84	Aa	2244	G
84	Aa	2245	G
84	Aa	2247	A
84	Aa	2248	G
84	Aa	2250	A
84	Aa	2251	A
84	Aa	2267	G
84	Aa	2268	G
84	Aa	2276	A
84	Aa	2277	U
84	Aa	2278	G
84	Aa	2279	C
84	Aa	2283	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2287	U
84	Aa	2302	G
84	Aa	2303	C
84	Aa	2304	A
84	Aa	2305	U
84	Aa	2308	A
84	Aa	2309	U
84	Aa	2310	G
84	Aa	2314	G
84	Aa	2315	G
84	Aa	2317	U
84	Aa	2319	A
84	Aa	2335	U
84	Aa	2372	A
84	Aa	2373	C
84	Aa	2374	G
84	Aa	2384	G
84	Aa	2385	A
84	Aa	2387	U
84	Aa	2392	G
84	Aa	2396	A
84	Aa	2401	A
84	Aa	2402	G
84	Aa	2403	A
84	Aa	2405	C
84	Aa	2410	U
84	Aa	2443	C
84	Aa	2445	U
84	Aa	2450	G
84	Aa	2451	G
84	Aa	2452	U
84	Aa	2453	G
84	Aa	2454	U
84	Aa	2458	A
84	Aa	2460	A
84	Aa	2461	A
84	Aa	2462	G
84	Aa	2465	G
84	Aa	2467	A
84	Aa	2473	C
84	Aa	2474	A
84	Aa	2481	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2483	A
84	Aa	2485	U
84	Aa	2490	U
84	Aa	2491	A
84	Aa	2492	C
84	Aa	2493	C
84	Aa	2494	A
84	Aa	2498	C
84	Aa	2499	U
84	Aa	2501	U
84	Aa	2502	U
84	Aa	2503	A
84	Aa	2504	A
84	Aa	2505	C
84	Aa	2506	G
84	Aa	2510	U
84	Aa	2511	U
84	Aa	2515	C
84	Aa	2516	U
84	Aa	2517	U
84	Aa	2518	A
84	Aa	2524	U
84	Aa	2526	G
84	Aa	2528	U
84	Aa	2529	C
84	Aa	2532	A
84	Aa	2534	G
84	Aa	2535	C
84	Aa	2536	G
84	Aa	2537	G
84	Aa	2539	G
84	Aa	2542	U
84	Aa	2543	G
84	Aa	2546	C
84	Aa	2547	C
84	Aa	2548	U
84	Aa	2549	C
84	Aa	2550	C
84	Aa	2552	U
84	Aa	2553	U
84	Aa	2559	C
84	Aa	2565	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2566	C
84	Aa	2573	U
84	Aa	2574	A
84	Aa	2579	G
84	Aa	2584	U
84	Aa	2585	C
84	Aa	2588	G
84	Aa	2590	C
84	Aa	2596	A
84	Aa	2597	C
84	Aa	2609	G
84	Aa	2610	G
84	Aa	2617	G
84	Aa	2629	C
84	Aa	2655	U
84	Aa	2659	A
84	Aa	2675	G
84	Aa	2677	A
84	Aa	2680	G
84	Aa	2681	A
84	Aa	2684	U
84	Aa	2692	G
84	Aa	2693	G
84	Aa	2694	A
84	Aa	2696	C
84	Aa	2697	A
84	Aa	2699	A
84	Aa	2702	G
84	Aa	2708	A
84	Aa	2717	G
84	Aa	2731	G
84	Aa	2732	U
84	Aa	2755	U
84	Aa	2756	G
84	Aa	2765	A
84	Aa	2774	A
84	Aa	2779	G
84	Aa	2780	G
84	Aa	2781	A
84	Aa	2798	G
84	Aa	2801	A
84	Aa	2802	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	2803	A
84	Aa	2804	A
84	Aa	2812	C
84	Aa	2818	G
84	Aa	2819	A
84	Aa	2820	U
84	Aa	2831	U
84	Aa	2844	U
84	Aa	2847	A
84	Aa	2851	C
84	Aa	2869	C
84	Aa	2873	G
84	Aa	2874	A
84	Aa	2875	U
84	Aa	2877	U
84	Aa	2880	G
84	Aa	2881	C
84	Aa	2889	A
84	Aa	2891	C
84	Aa	2898	A
84	Aa	2899	A
84	Aa	2900	G
84	Aa	2901	C
84	Aa	2916	G
84	Aa	2925	U
84	Aa	2929	C
84	Aa	2937	U
84	Aa	2938	A
84	Aa	2939	G
84	Aa	2944	C
84	Aa	2949	G
84	Aa	2953	G
84	Aa	2957	U
84	Aa	2959	G
84	Aa	2973	A
84	Aa	2985	C
84	Aa	2992	G
84	Aa	2994	U
84	Aa	2997	C
84	Aa	2998	A
84	Aa	3013	A
84	Aa	3050	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3058	U
84	Aa	3059	C
84	Aa	3060	G
84	Aa	3079	G
84	Aa	3080	U
84	Aa	3081	G
84	Aa	3087	A
84	Aa	3093	C
84	Aa	3114	A
84	Aa	3120	U
84	Aa	3123	A
84	Aa	3129	G
84	Aa	3131	A
84	Aa	3132	U
84	Aa	3140	A
84	Aa	3143	A
84	Aa	3144	U
84	Aa	3152	C
84	Aa	3153	U
84	Aa	3154	G
84	Aa	3155	C
84	Aa	3162	C
84	Aa	3163	G
84	Aa	3166	C
84	Aa	3167	G
84	Aa	3168	C
84	Aa	3169	C
84	Aa	3170	C
84	Aa	3171	C
84	Aa	3172	G
84	Aa	3174	C
84	Aa	3176	C
84	Aa	3177	A
84	Aa	3178	C
84	Aa	3182	A
84	Aa	3190	U
84	Aa	3191	U
84	Aa	3192	G
84	Aa	3193	C
84	Aa	3201	A
84	Aa	3202	G
84	Aa	3208	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3209	U
84	Aa	3210	G
84	Aa	3211	C
84	Aa	3212	C
84	Aa	3213	A
84	Aa	3222	G
84	Aa	3227	U
84	Aa	3230	G
84	Aa	3231	G
84	Aa	3234	G
84	Aa	3235	A
84	Aa	3236	A
84	Aa	3237	G
84	Aa	3239	G
84	Aa	3245	G
84	Aa	3251	C
84	Aa	3252	G
84	Aa	3264	C
84	Aa	3265	C
84	Aa	3266	U
84	Aa	3268	C
84	Aa	3271	A
84	Aa	3273	C
84	Aa	3274	G
84	Aa	3278	G
84	Aa	3279	G
84	Aa	3281	G
84	Aa	3286	G
84	Aa	3287	A
84	Aa	3295	G
84	Aa	3296	C
84	Aa	3305	U
84	Aa	3308	A
84	Aa	3309	U
84	Aa	3310	A
84	Aa	3320	G
84	Aa	3322	A
84	Aa	3324	U
84	Aa	3328	A
84	Aa	3333	C
84	Aa	3334	A
84	Aa	3337	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
84	Aa	3339	G
84	Aa	3340	G
84	Aa	3341	C
84	Aa	3342	C
84	Aa	3343	U
84	Aa	3344	U
84	Aa	3345	G
84	Aa	3346	C
84	Aa	3347	U
84	Aa	3348	G
84	Aa	3361	G
84	Aa	3367	C
84	Aa	3370	U
84	Aa	3374	C
84	Aa	3381	C
84	Aa	3382	A
84	Aa	3383	C
84	Aa	3385	G
84	Aa	3391	U
85	Ac	23	C
85	Ac	34	U
85	Ac	47	U
85	Ac	48	A
85	Ac	49	G
85	Ac	52	A
85	Ac	59	A
85	Ac	62	C
85	Ac	63	C
85	Ac	73	U
85	Ac	80	A
85	Ac	81	U
85	Ac	82	C
85	Ac	83	C
85	Ac	85	G
85	Ac	86	U
85	Ac	87	G
85	Ac	90	C
85	Ac	92	A
85	Ac	93	U
85	Ac	95	G
85	Ac	104	A
85	Ac	105	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
85	Ac	106	C
85	Ac	111	G
85	Ac	113	U
85	Ac	125	C
85	Ac	128	C
85	Ac	129	C
85	Ac	130	G
85	Ac	140	A
85	Ac	150	G
85	Ac	155	U
85	Ac	159	G
85	Ac	160	C
86	Ab	11	A
86	Ab	13	A
86	Ab	14	C
86	Ab	22	A
86	Ab	26	C
86	Ab	41	G
86	Ab	42	A
86	Ab	48	G
86	Ab	49	A
86	Ab	50	A
86	Ab	52	U
86	Ab	53	U
86	Ab	63	U
86	Ab	64	G
86	Ab	73	U
86	Ab	75	G
86	Ab	93	U
86	Ab	100	A
86	Ab	101	A
86	Ab	108	G
86	Ab	110	G
86	Ab	113	G
86	Ab	119	C

There are no RNA pucker outliers to report.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

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.